



Full wwPDB X-ray Structure Validation Report

Jun 16, 2014 – 07:13 PM BST

PDB ID : 4V7L
Title : The structures of viomycin bound to the 70S ribosome.
Authors : Stanley, R.E.; Blaha, G.
Deposited on : 2009-11-12
Resolution : 3.00 Å(reported)

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

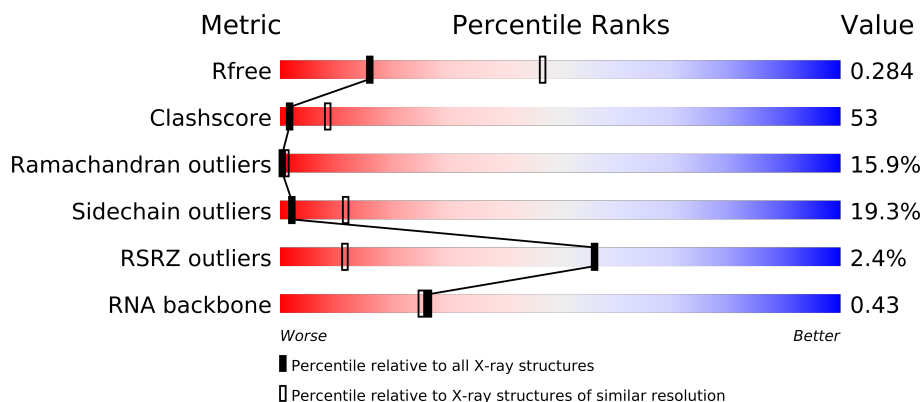
The following versions of software and data (see [references](#)) were used in the production of this report:

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

1 Overall quality at a glance

The reported resolution of this entry is 3.00 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	66092	1216 (3.00-3.00)
Clashscore	79885	1594 (3.00-3.00)
Ramachandran outliers	78287	1537 (3.00-3.00)
Sidechain outliers	78261	1540 (3.00-3.00)
RSRZ outliers	66119	1217 (3.00-3.00)
RNA backbone	1838	1070 (3.50-2.50)

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

Mol	Chain	Length	Quality of chain
1	AA	1509	
1	CA	1509	
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	
24	CX	77	
25	AY	75	
25	CY	75	
26	AZ	6	
26	CZ	6	
27	BA	2915	
27	DA	2915	

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Mol	Chain	Length	Quality of chain
28	BB	122	
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	

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Mol	Chain	Length	Quality of chain
49	B0	85	
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	

2 Entry composition

There are 60 unique types of molecules in this entry. The entry contains 294559 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
			32141	14306	5964	10377	1494			
1	CA	1495	Total	C	N	O	P	0	0	0
			32141	14306	5964	10377	1494			

- Molecule 2 is a protein called 30S ribosomal protein S2.

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

- Molecule 3 is a protein called 30S ribosomal protein S3.

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

- Molecule 4 is a protein called 30S ribosomal protein S4.

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

- Molecule 5 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	AE	151	Total	C	N	O	S	0	0	1
			1147	724	218	201	4			
5	CE	151	Total	C	N	O	S	0	0	1
			1147	724	218	201	4			

- Molecule 6 is a protein called 30S ribosomal protein S6.

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

- Molecule 7 is a protein called 30S ribosomal protein S7.

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

- Molecule 8 is a protein called 30S ribosomal protein S8.

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

- Molecule 9 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	AI	127	Total	C	N	O		0	0	0
			1005	636	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	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			
11	CK	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			

- Molecule 12 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	AL	125	Total	C	N	O	S	0	0	1
			971	611	196	163	1			
12	CL	125	Total	C	N	O	S	0	0	1
			971	611	196	163	1			

- Molecule 13 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	AM	120	Total	C	N	O	S	0	0	0
			947	585	195	165	2			
13	CM	119	Total	C	N	O	S	0	0	0
			910	564	180	164	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
			213	97	42	65	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	75	Total	C	N	O	P	0	0	0
			1593	711	281	526	75			
23	CW	75	Total	C	N	O	P	0	0	0
			1593	711	281	526	75			

- 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
			1640	732	297	535	76			
24	CX	77	Total	C	N	O	P	0	0	0
			1640	732	297	535	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 CP001637.1
AY	44	U	A	CONFLICT	GB CP001637.1

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Chain	Residue	Modelled	Actual	Comment	Reference
CY	33	G	C	CONFLICT	GB CP001637.1
CY	44	U	A	CONFLICT	GB CP001637.1

- Molecule 26 is a protein called Viomycin.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
26	AZ	6	Total	C	N	O	0	0	0
			48	25	13	10			
26	CZ	6	Total	C	N	O	0	0	0
			48	25	13	10			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	BA	2800	Total	C	N	O	P	0	0	0
			60311	26841	11284	19387	2799			
27	DA	2800	Total	C	N	O	P	0	0	0
			60313	26842	11286	19386	2799			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	BB	118	Total	C	N	O	P	0	0	0
			2528	1126	466	819	117			
28	DB	118	Total	C	N	O	P	0	0	0
			2528	1126	466	819	117			

- 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	208	Total	C	N	O	S	0	0	1
			1624	1035	304	282	3			
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	164	Total	C	N	O	S	0	0	1
			1252	794	233	224	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
			1042	668	175	198	1			
35	DI	146	Total	C	N	O	S	0	0	1
			1046	670	175	200	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			
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	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			
39	DQ	139	Total	C	N	O	S	0	0	0
			1107	707	209	184	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				

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
41	DS	101	Total	C	N	O	0	0	1
			777	489	156	132			

- 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	101	Total	C	N	O	S	0	0	1
			776	500	149	123	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
			715	448	141	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			
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	31	Total	C	N	O	S	0	0	1
			226	142	37	43	4			
53	D4	31	Total	C	N	O	S	0	0	1
			226	142	37	43	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	51	Total	C	N	O	S	0	0	1
			411	253	84	70	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			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
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 MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	BA	400	Total	Mg	0	0
			400	400		
59	AK	2	Total	Mg	0	0
			2	2		
59	DF	1	Total	Mg	0	0
			1	1		
59	CV	2	Total	Mg	0	0
			2	2		
59	BE	1	Total	Mg	0	0
			1	1		
59	AW	7	Total	Mg	0	0
			7	7		
59	BP	1	Total	Mg	0	0
			1	1		
59	AX	7	Total	Mg	0	0
			7	7		
59	DR	1	Total	Mg	0	0
			1	1		
59	CA	92	Total	Mg	0	0
			92	92		
59	B5	1	Total	Mg	0	0
			1	1		
59	BB	1	Total	Mg	0	0
			1	1		
59	D6	1	Total	Mg	0	0
			1	1		
59	AE	1	Total	Mg	0	0
			1	1		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	BF	2	Total 2	Mg 2	0	0
59	BX	1	Total 1	Mg 1	0	0
59	AA	133	Total 133	Mg 133	0	0
59	BQ	1	Total 1	Mg 1	0	0
59	CQ	1	Total 1	Mg 1	0	0
59	CX	3	Total 3	Mg 3	0	0
59	BU	1	Total 1	Mg 1	0	0
59	AD	1	Total 1	Mg 1	0	0
59	BN	1	Total 1	Mg 1	0	0
59	BY	1	Total 1	Mg 1	0	0
59	BR	1	Total 1	Mg 1	0	0
59	DA	275	Total 275	Mg 275	0	0
59	CE	2	Total 2	Mg 2	0	0
59	DD	3	Total 3	Mg 3	0	0
59	AL	1	Total 1	Mg 1	0	0
59	DE	3	Total 3	Mg 3	0	0
59	AH	1	Total 1	Mg 1	0	0
59	BZ	1	Total 1	Mg 1	0	0
59	DZ	1	Total 1	Mg 1	0	0
59	AC	1	Total 1	Mg 1	0	0
59	DB	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	D5	2	Total 2	Mg 2	0	0
59	BD	1	Total 1	Mg 1	0	0
59	AT	2	Total 2	Mg 2	0	0
59	B0	2	Total 2	Mg 2	0	0
59	AO	1	Total 1	Mg 1	0	0
59	AY	2	Total 2	Mg 2	0	0
59	AF	1	Total 1	Mg 1	0	0
59	BH	1	Total 1	Mg 1	0	0

- Molecule 60 is ZINC ION (three-letter code: ZN) (formula: Zn).

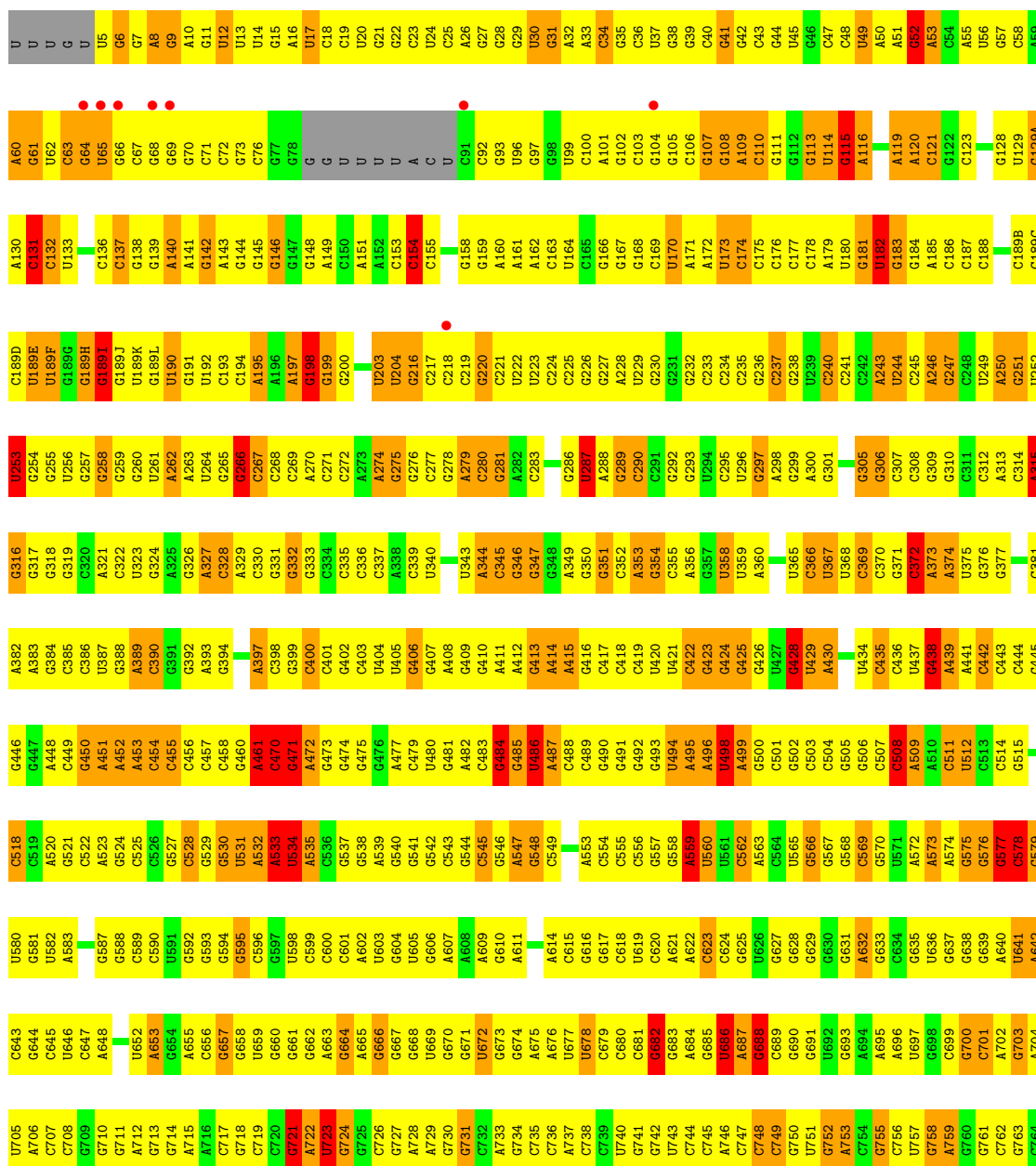
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
60	B5	1	Total 1	Zn 1	0	0
60	B4	1	Total 1	Zn 1	0	0
60	AD	1	Total 1	Zn 1	0	0
60	B9	1	Total 1	Zn 1	0	0
60	D9	1	Total 1	Zn 1	0	0
60	D5	1	Total 1	Zn 1	0	0
60	D4	1	Total 1	Zn 1	0	0
60	CD	1	Total 1	Zn 1	0	0

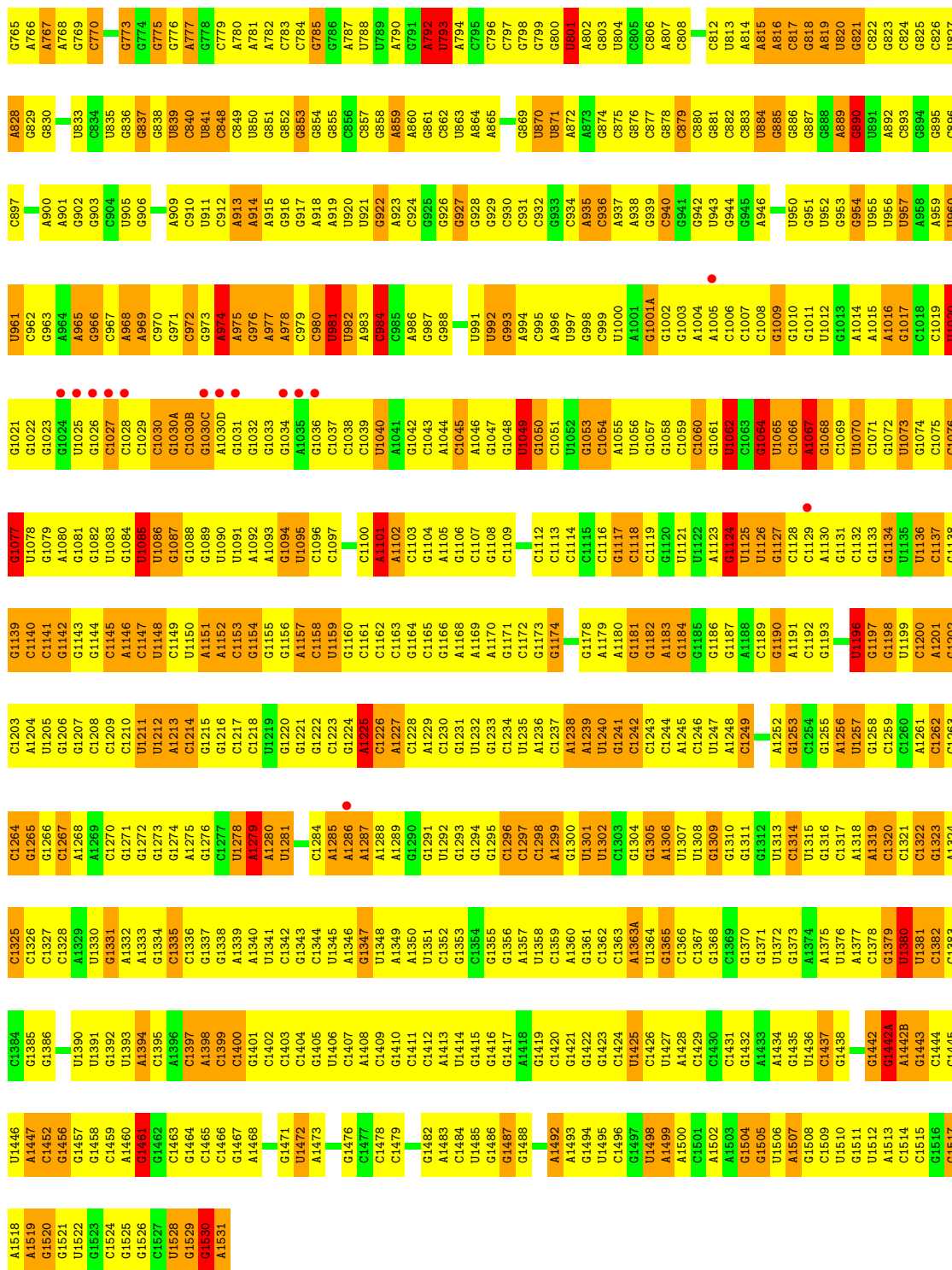
3 Residue-property plots

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

- Molecule 1: 16S ribosomal RNA

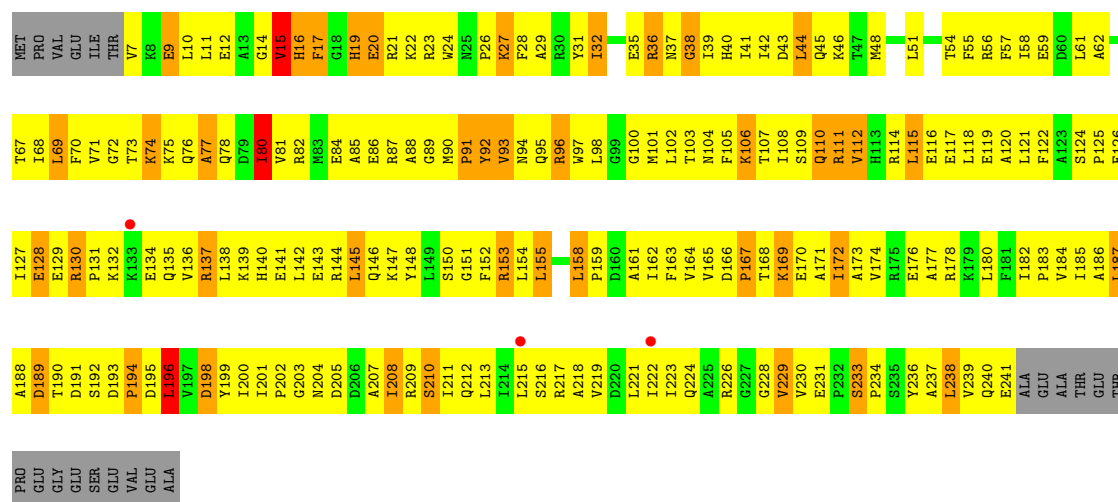
Chain AA: 





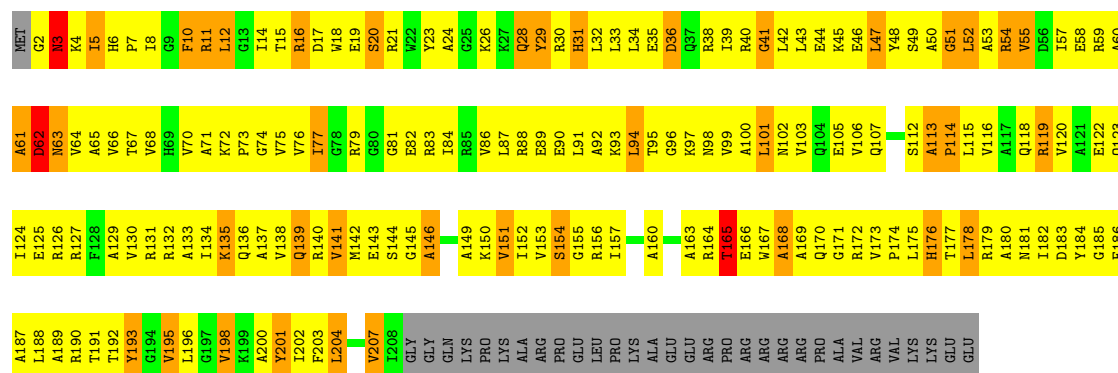
G998	G999	A938	C875	G809	C748	G688	G627	A563	C503	A430	C370	G309	G247	C188	G127	A80
G999	G999	G939	G876	C810	C749	C689	G628	C564	C504	A431	G371	G310	G248	C189	G128	G61
U1000	U1000	C940	C877	C811	G750	G690	G629	C565	G505	A432	C372	C311	U259	C189A	G129	G62
G1001A	A1001	G941	G878	C812	G751	G691	G630	G566	G506	C433	A373	C312	A260	C189B	G129A	C63
G1002	G1002	G942	C879	U813	G752	G692	G631	G567	C507	U434	A374	A313	G250	C189C	G130	G64
G1003	G1003	U943	C880	U814	A753	G693	A632	G568	C508	C435	U375	G316	U252	C189D	A131	U65
A1004	A1004	G944	C881	A815	G754	A694	C633	C569	A509	C436	G376	G317	U253	U189E	C132	G66
C1006	A1005	G945	C882	A816	G755	A695	C634	G570	A510	U437	G377	G318	G254	U189F	U133	C67
G1009	A1006	U946	C883	C817	C756	A696	G635	U571	C511	A438	G378	G319	G255	G189G	A134	C68
G1010	G1007	G947	U884	U818	G757	G697	U636	A572	C513	A441	C379	G320	U256	G189H	C135	G69
G1011	G1008	C948	C885	A819	G758	G698	G637	A573	C514	A442	G380	C320	G257	G189I	C136	G70
G1012	G1009	A949	C886	U820	G759	G699	G638	A574	C515	C443	C381	A321	G258	U189J	C137	C71
U1020	G1010	U950	A889	U821	G760	G700	C639	G575	C516	C444	A382	C322	G259	U189K	G138	C72
G1021	G1011	G951	G890	C822	G761	C701	A640	G576	U516	C445	A383	U223	G260	G189L	G139	C73
U1022	U1012	U952	U891	G823	C762	A702	U641	G577	C517	G446	A384	G324	U261	U190	A140	C76
A1015	G1013	G953	C892	C824	G763	A703	A642	C578	G518	G447	C385	A325	A262	G191	A141	G77
A1016	A1014	G954	A892	G825	G764	U705	C643	G579	C519	G447	C386	G326	A263	U192	G142	G78
G1017	A1015	U955	C893	C826	G765	A706	G644	U580	A520	G447	U387	A327	U264	C193	A143	G
U1024	A1016	U956	C894	U827	A766	C707	C645	G581	C521	G450	G388	C328	G265	C194	G144	U
U1025	G1017	U957	C895	A828	A767	C707	U646	U582	C522	A451	A389	A329	C286	A195	G145	U
U1026	A958	U957	C896	G829	A768	C708	G647	U583	A523	A452	C390	C330	C287	A196	G146	U
G1027	A959	U958	C897	U830	G769	G709	A648	G584	C524	A453	G391	G331	C288	A197	G147	U
C1028	U960	U959	C898	U831	C770	G710	G649	G585	C525	C454	G392	G332	C289	G198	G148	U
C1029	U961	U960	C899	C832	G771	G711	C650	C586	C526	C455	A393	G333	A270	G199	G	A
G1030A	U962	U961	C900	U833	U772	A712	C651	C587	C527	C456	G394	C334	C271	G200	C	C
G1030B	C962	G962	A901	C834	G773	G713	U652	C590	C528	C457	C395	C335	C272	C201	A152	U
G1030C	G963	G963	G902	U835	G774	G714	A653	C591	C529	C458	G396	C336	A273	U202	A153	C91
G1031	A964	A964	G903	G836	G775	A715	G654	C592	C530	G460	A397	C337	A274	U203	C154	C92
U1032	U965	U965	C904	G837	G776	C716	G655	G593	U531	A461	C398	A338	G275	U204	C155	G93
G1033	G966	G966	C905	G838	A777	A717	G657	G594	A532	C470	C399	C339	G276	G216	G156	U96
G1034	U967	U967	U905	U839	G778	G718	G658	G595	C533	G471	C400	U340	G277	C217	G157	G97
G1035	A968	A968	C906	U840	C779	C719	U659	G596	A534	A472	C401	C341	C278	C218	G158	G98
G1036	A969	A969	A908	C840	C779	C719	U660	C596	U535	A473	G402	C342	A279	C219	G159	U99
C1037	C970	C970	A909	U841	A780	G720	G660	C597	C536	G474	C403	U343	C280	G220	C100	C100
G1038	G971	G971	C910	C848	A781	G721	G661	U598	C537	G475	U404	A344	G281	C221	A161	A101
U1039	G972	G972	G913	U850	G782	A722	G662	C599	C538	G476	U405	C345	A282	U222	A162	G102
G1040	G973	G973	A913	G851	C783	G723	A663	C600	C539	A477	G406	G346	C283	U223	C163	C103
A1041	A914	A914	A915	G852	G784	G724	A665	C601	A540	C479	G407	G347	G284	C224	U164	G104
G1042	A916	A916	G916	G853	A787	G725	G666	C602	G541	U480	A408	G348	G285	C225	G105	G105
A1043	G917	G917	G917	G854	G788	G726	G667	U603	C542	G481	G409	A349	G286	G226	C106	C106
G1044	A918	A918	A918	G855	U789	A728	G668	G604	C543	A482	G410	G350	U287	G227	G107	G107
C1045	A919	A919	A919	C856	A790	A729	U669	U605	C544	C483	A411	G351	A288	G227	C108	C108
A1046	U920	U920	U920	C857	G791	G730	G670	G606	C545	G484	A412	C352	G289	U229	A109	A109
G1047	U921	U921	U921	G858	A792	G731	G671	A607	C546	G485	G413	A353	C290	G230	C110	C110
U1048	G922	G922	G922	A859	U793	C732	U672	A608	A547	U486	A414	G354	C291	G231	A172	G111
G1048	A923	A923	A923	A860	A794	A733	G673	A609	C548	A487	A415	C355	G292	G232	U173	G112
U1049	C924	C924	C924	G861	G795	G734	G674	G610	C549	C488	G416	A356	G293	C233	C174	G113
G1050	G925	G925	G925	C862	C796	C735	A675	A611	C550	C489	C417	G357	U296	C234	C175	U114
C1051	U926	U926	U926	U863	G797	C736	A676	C612	U551	G490	C418	U358	G297	C235	C176	G115
U1052	G927	G927	G927	A864	G798	A737	U677	C613	U552	G491	C419	U359	A298	C236	C177	A116
G1053	G928	G928	G928	A865	G799	C738	U678	A614	A553	G492	U420	A360	A298	C237	C178	G117
A1055	G929	G929	G929	C866	G800	C739	C679	G619	C554	G493	U421	G361	A299	G238	A179	U118
U1056	C930	C930	C930	G867	U801	U740	C680	U619	C555	G494	C422	C362	A300	U239	U180	A119
G1057	U991	U991	U991	C968	A802	G741	C681	U620	C556	A495	G423	A363	A301	U240	G181	A120
C1058	G992	G992	G992	G869	G803	G742	G682	A621	C557	A496	G424	U365	G302	C241	U182	G121
U1059	C993	C993	C993	U870	U804	U743	G683	A622	C558	U497	G425	U366	A303	C242	C183	C122
G1060	G994	G994	G994	U871	C805	C744	A684	C623	A559	A499	G426	C366	U304	A243	G184	C123
U1061	A995	A995	A995	A872	C806	C745	G685	C624	U560	G501	U427	U367	G305	U244	A186	G124
G1062	C996	C996	C996	G874	A807	A746	U686	G625	U561	C502	G428	U368	G306	C245	C185	U125
A1063	U997	U997	U997	G874	C808	C747	A687	U626	C562	G502	U429	C369	G	A246	C187	G126





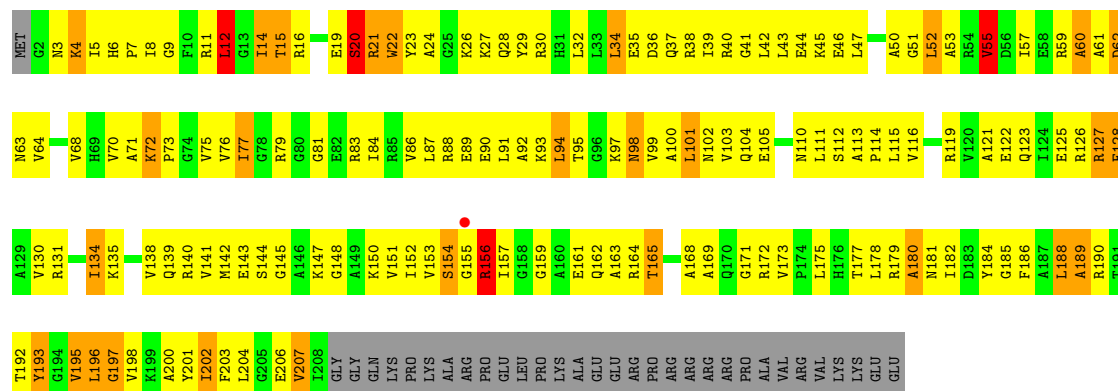
• Molecule 3: 30S ribosomal protein S3

Chain AC:



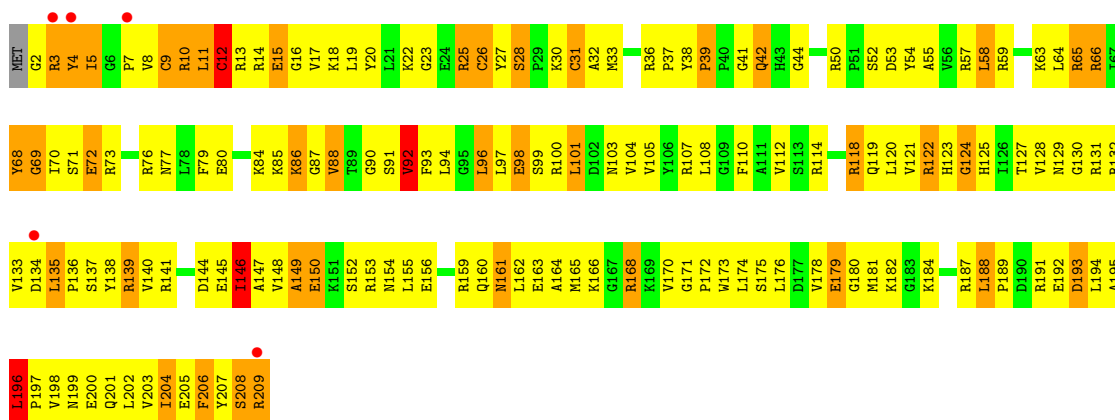
• Molecule 3: 30S ribosomal protein S3

Chain CC:



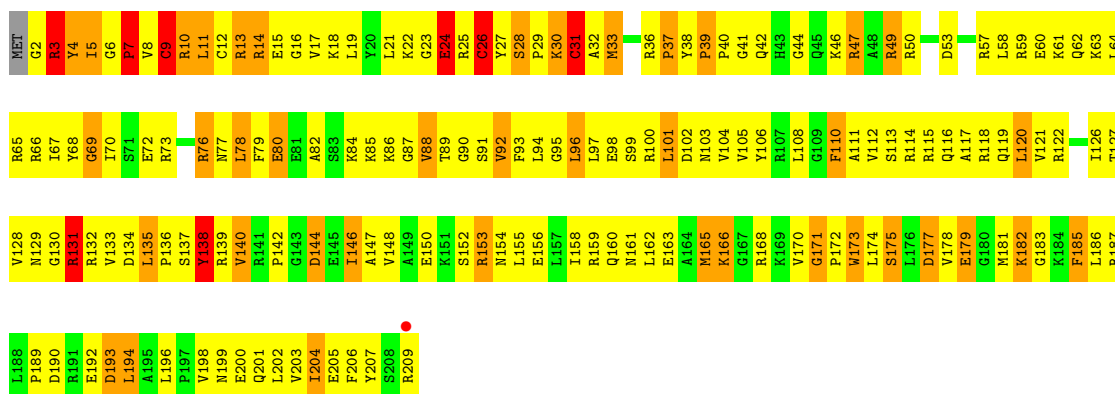
• Molecule 4: 30S ribosomal protein S4

Chain AD:



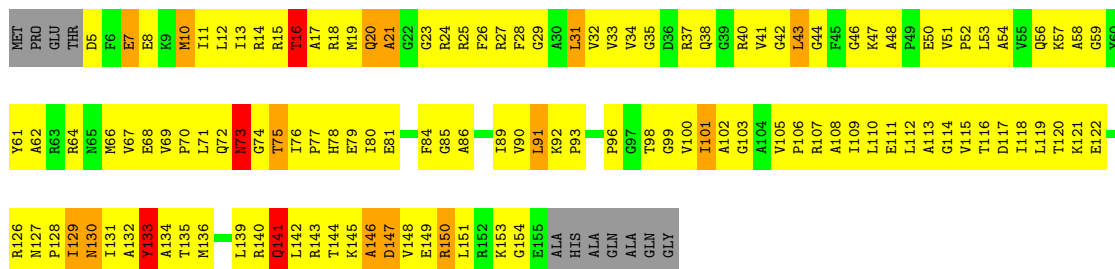
• Molecule 4: 30S ribosomal protein S4

Chain CD:



• Molecule 5: 30S ribosomal protein S5

Chain AE:



• Molecule 5: 30S ribosomal protein S5

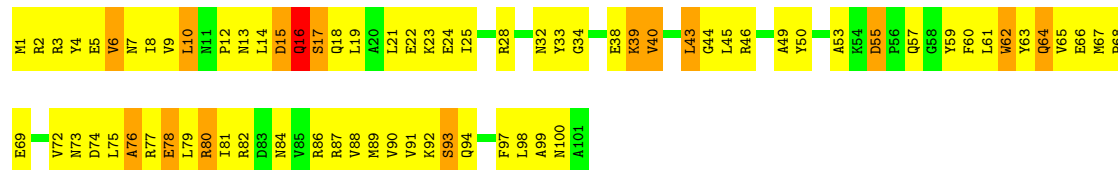
Chain CE:





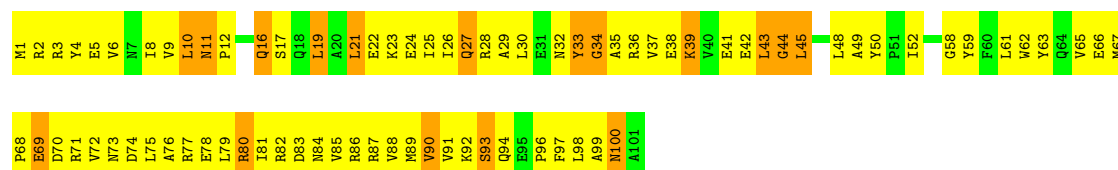
• Molecule 6: 30S ribosomal protein S6

Chain AF:



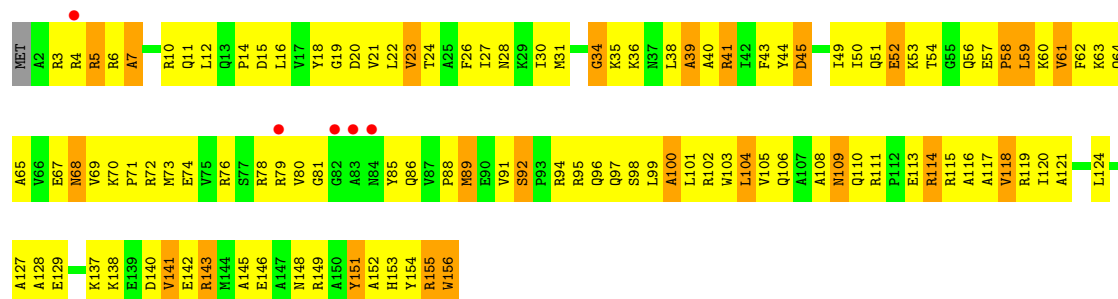
• Molecule 6: 30S ribosomal protein S6

Chain CF:



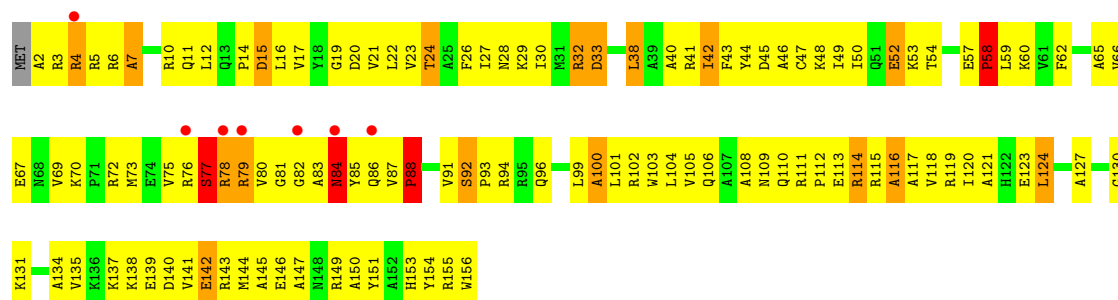
• Molecule 7: 30S ribosomal protein S7

Chain AG:



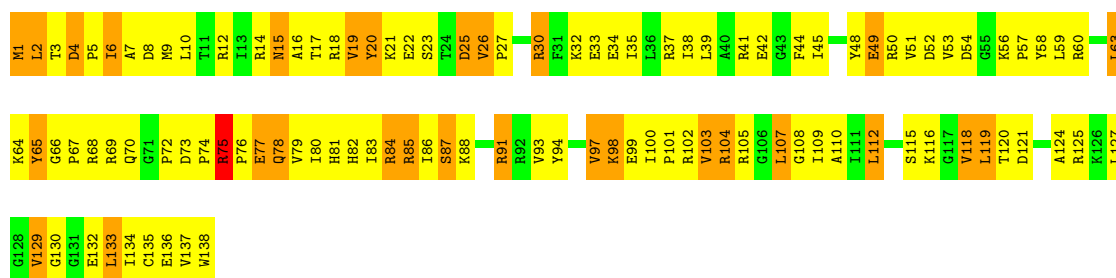
• Molecule 7: 30S ribosomal protein S7

Chain CG:



• Molecule 8: 30S ribosomal protein S8

Chain AH:



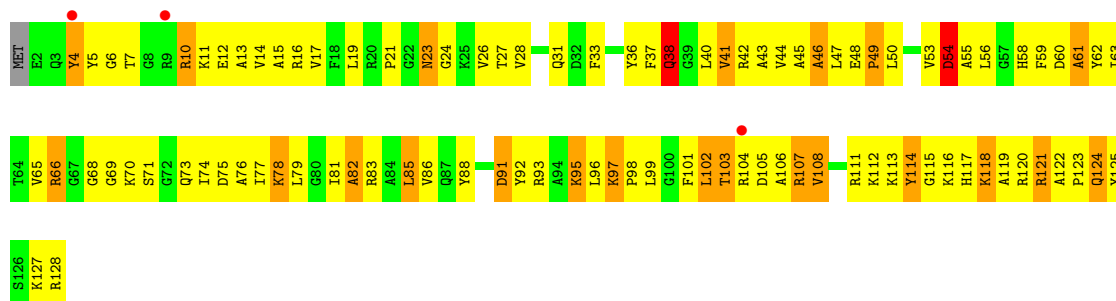
- Molecule 8: 30S ribosomal protein S8

Chain CH:



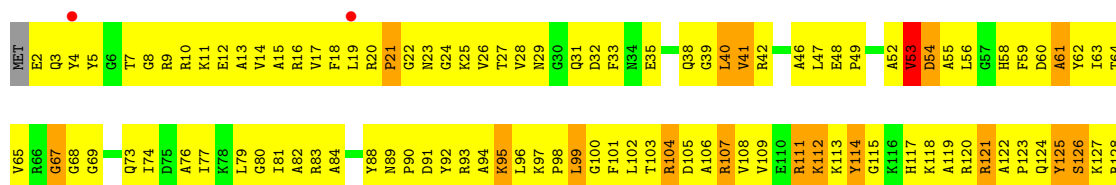
- Molecule 9: 30S ribosomal protein S9

Chain AI:



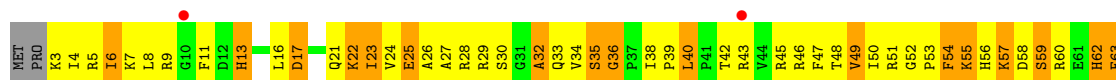
- Molecule 9: 30S ribosomal protein S9

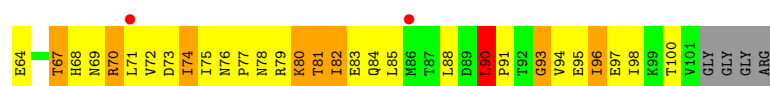
Chain CI:



- Molecule 10: 30S ribosomal protein S10

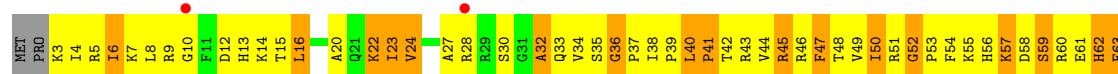
Chain AJ:





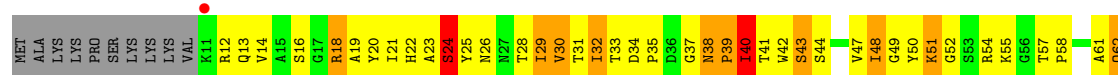
- Molecule 10: 30S ribosomal protein S10

Chain CJ:



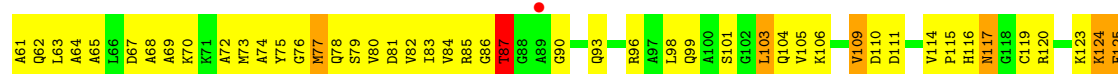
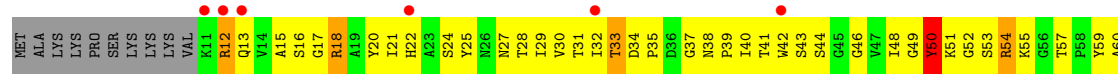
- Molecule 11: 30S ribosomal protein S11

Chain AK:



- Molecule 11: 30S ribosomal protein S11

Chain CK:



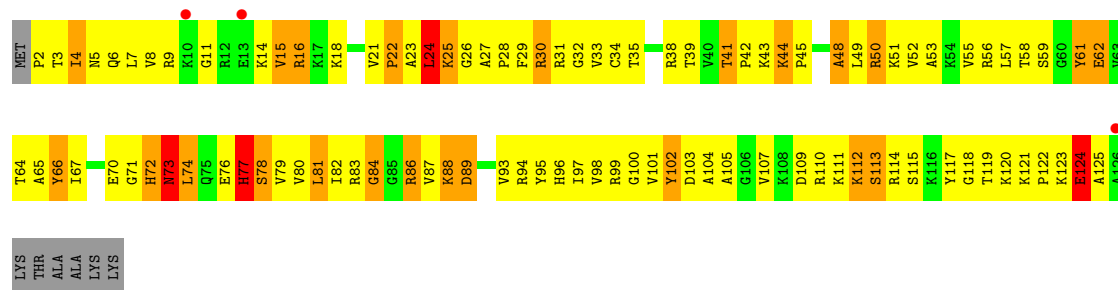
- Molecule 12: 30S ribosomal protein S12

Chain AL:



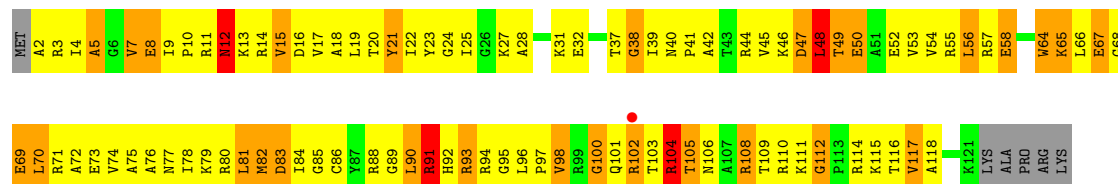
- Molecule 12: 30S ribosomal protein S12

Chain CL:



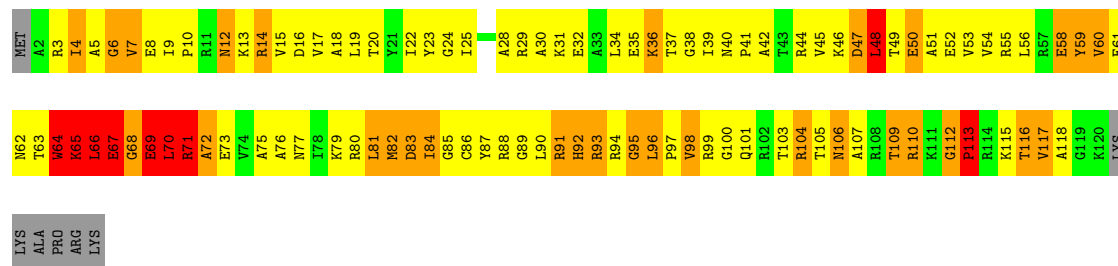
- Molecule 13: 30S ribosomal protein S13

Chain AM:



- Molecule 13: 30S ribosomal protein S13

Chain CM:



- Molecule 14: 30S ribosomal protein S14

Chain AN:



- Molecule 14: 30S ribosomal protein S14

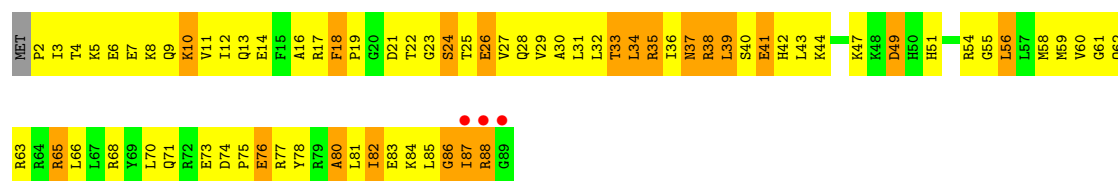
Chain CN:



- Molecule 15: 30S ribosomal protein S15

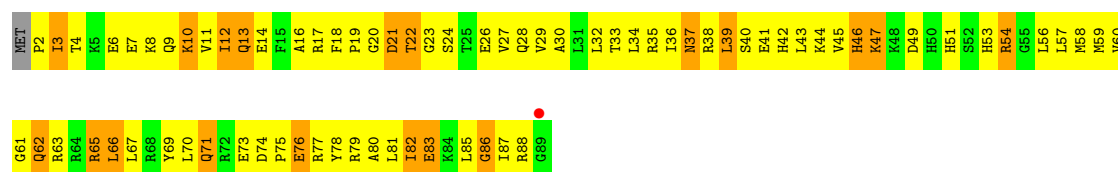
Chain AO:





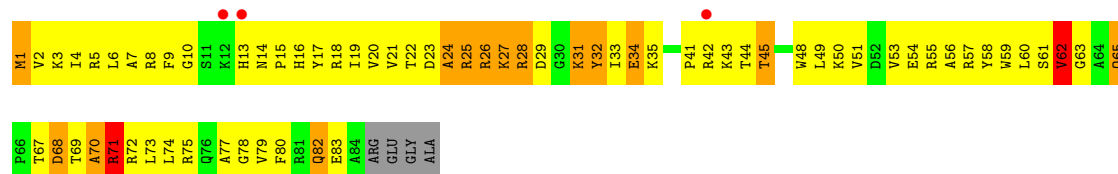
- Molecule 15: 30S ribosomal protein S15

Chain CO:



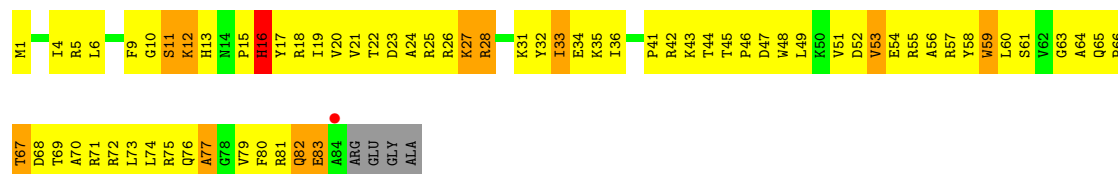
- Molecule 16: 30S ribosomal protein S16

Chain AP:



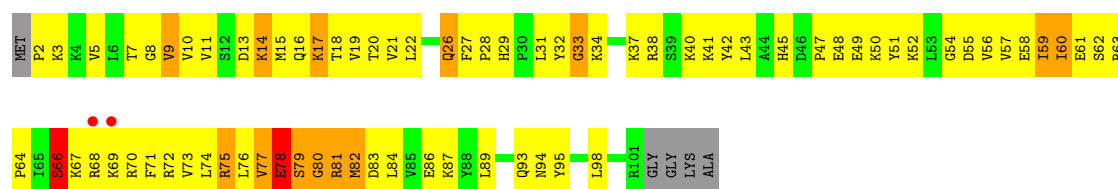
- Molecule 16: 30S ribosomal protein S16

Chain CP:



- Molecule 17: 30S ribosomal protein S17

Chain AQ:



- Molecule 17: 30S ribosomal protein S17

Chain CQ:





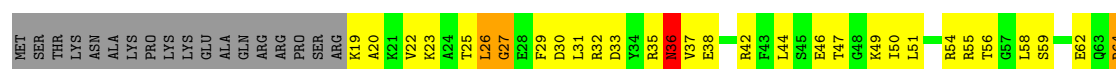
- Molecule 18: 30S ribosomal protein S18

Chain AR:



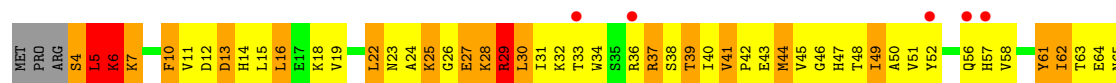
- Molecule 18: 30S ribosomal protein S18

Chain CR:



- Molecule 19: 30S ribosomal protein S19

Chain AS:



- Molecule 19: 30S ribosomal protein S19

Chain CS:



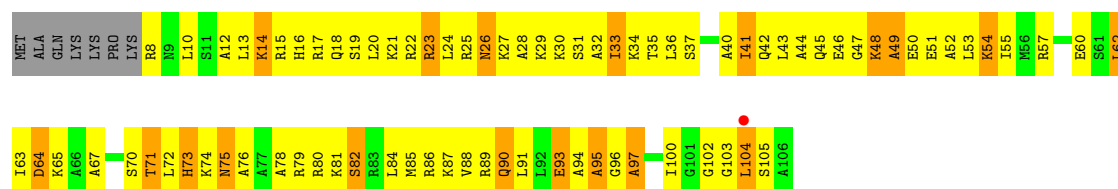
- Molecule 20: 30S ribosomal protein S20

Chain AT:



- Molecule 20: 30S ribosomal protein S20

Chain CT:



- Molecule 21: 30S ribosomal protein Thx

Chain AU: 



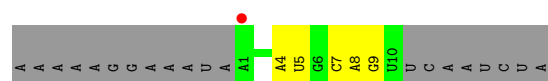
- Molecule 21: 30S ribosomal protein Thx

Chain CU:



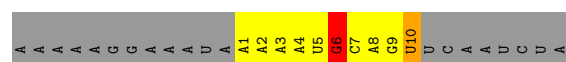
- Molecule 22: RNA (5'-R(*AP*AP*AP*AP*AP*GP*GP*AP*AP*AP*UP*A*AP*AP*AP*AP*UP*GP*CP*AP*GP*UP*UP*CP*AP*AP*UP*CP*UP*A)-3')

Chain AV:



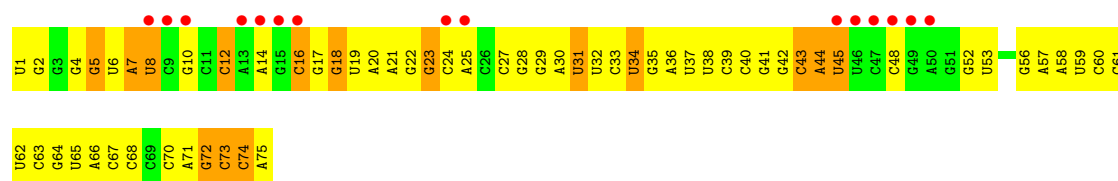
- Molecule 22: RNA (5'-R(*AP*AP*AP*AP*AP*GP*GP*AP*AP*AP*UP*A*AP*AP*AP*AP*UP*GP*CP*AP*GP*UP*UP*CP*AP*AP*UP*CP*UP*A)-3')

Chain CV:



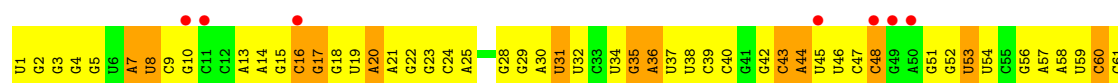
- Molecule 23: tRNA-Gln

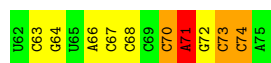
Chain AW: 



- Molecule 23: tRNA-Gln

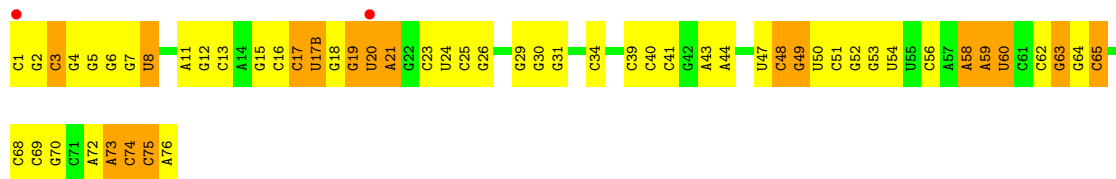
Chain CW:





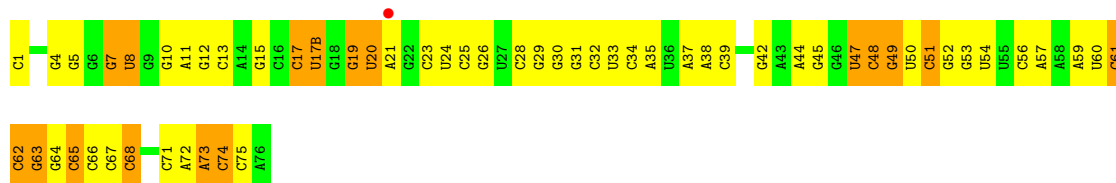
- Molecule 24: tRNA-Met

Chain AX:



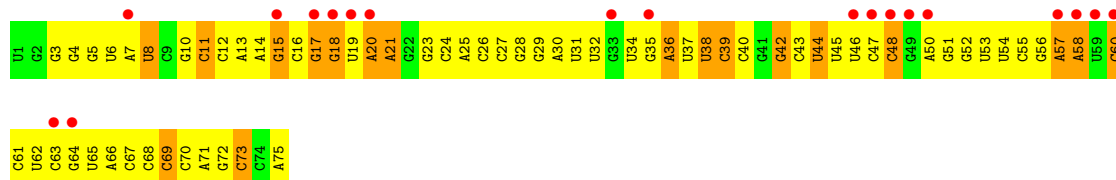
- Molecule 24: tRNA-Met

Chain CX:



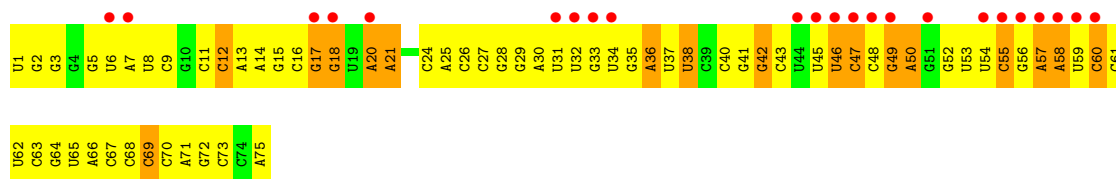
- Molecule 25: tRNA-Gln

Chain AY:



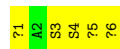
- Molecule 25: tRNA-Gln

Chain CY:



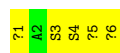
- Molecule 26: Viomycin

Chain AZ:



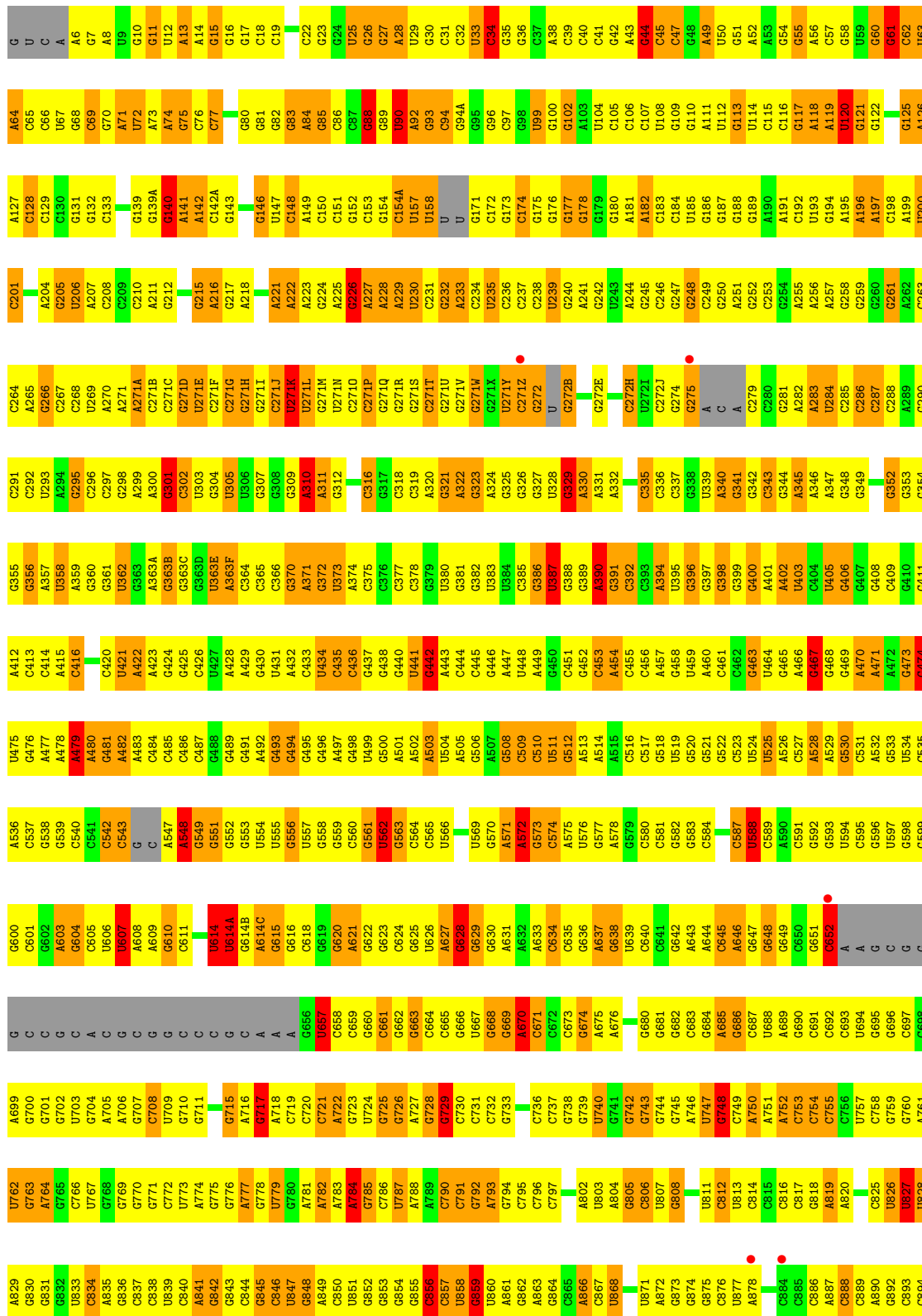
- Molecule 26: Viomycin

Chain CZ:



- Molecule 27: 23S ribosomal RNA

Chain BA:



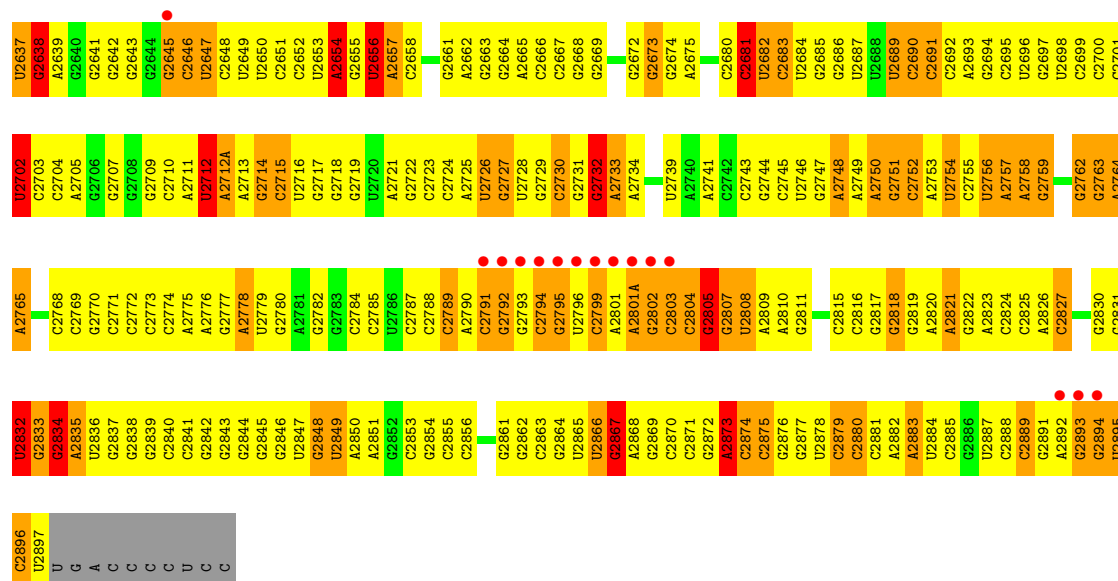
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C1711	C1711	G1650	C1588	U1523	C1458	C1399	A1336	U1273	U1211	C1147	A	A1021	A959	C897
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G1718	G1718	A1655	G1594	A1528	C1463	A1404	U1341	A1278	G1216	C1153	A	U1026	C964	C904
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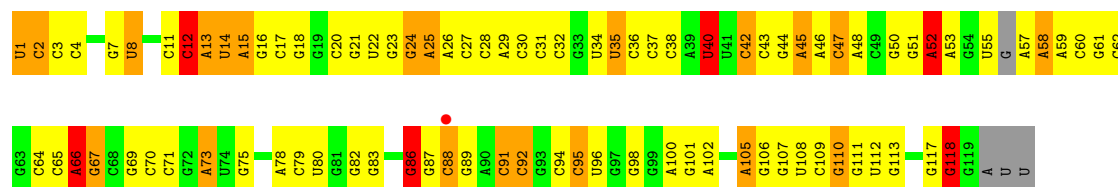


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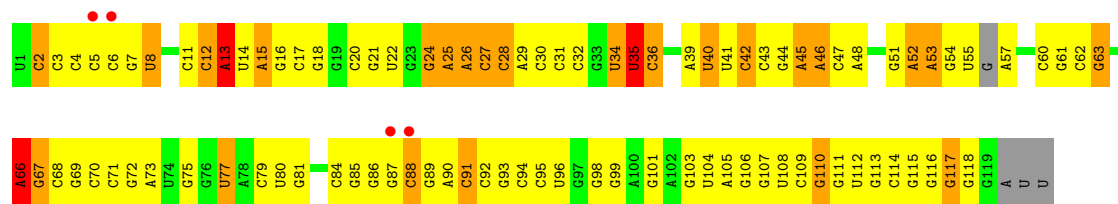
• Molecule 28: 5S ribosomal RNA

Chain BB:



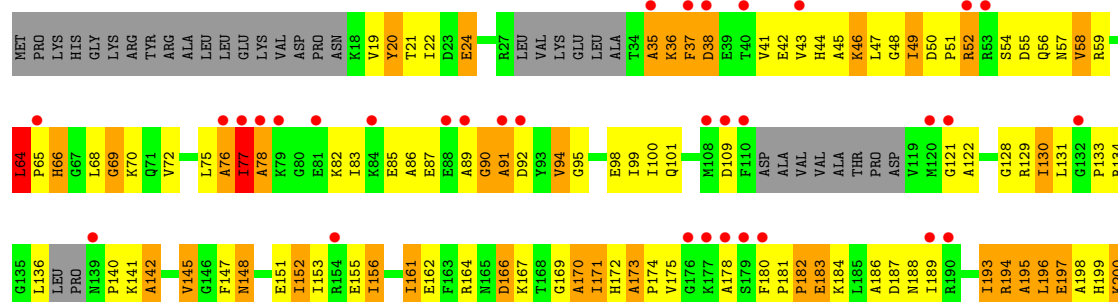
• Molecule 28: 5S ribosomal RNA

Chain DB:



• Molecule 29: 50S ribosomal protein L1

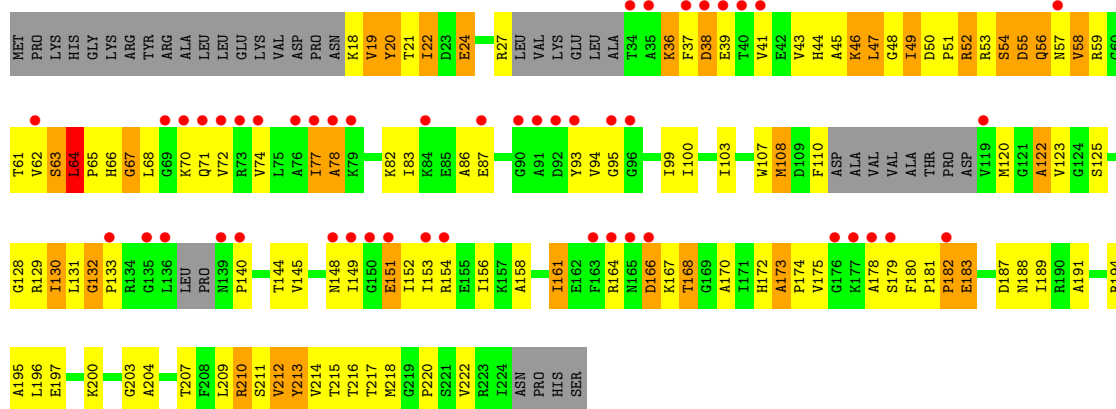
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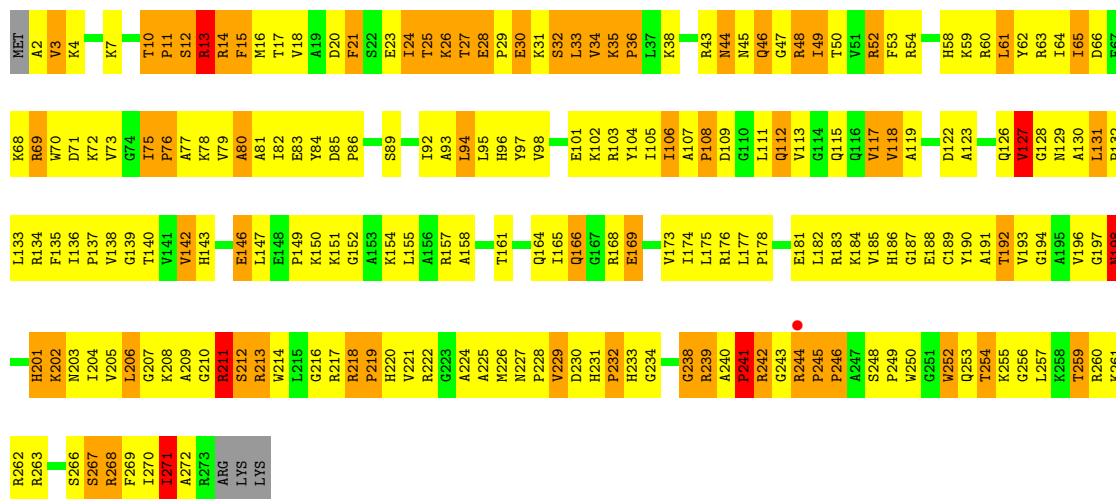
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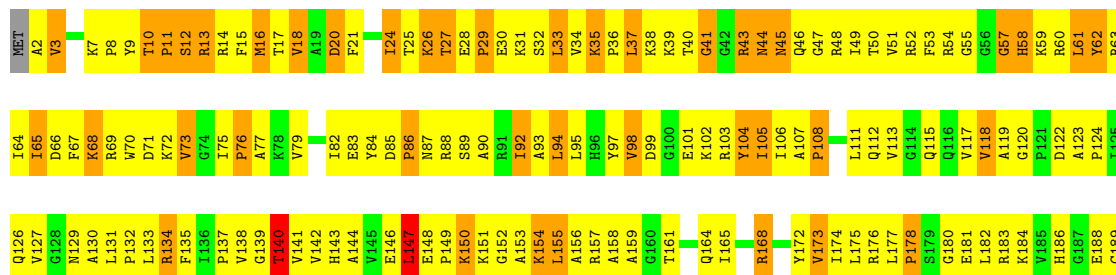
• Molecule 30: 50S ribosomal protein L2

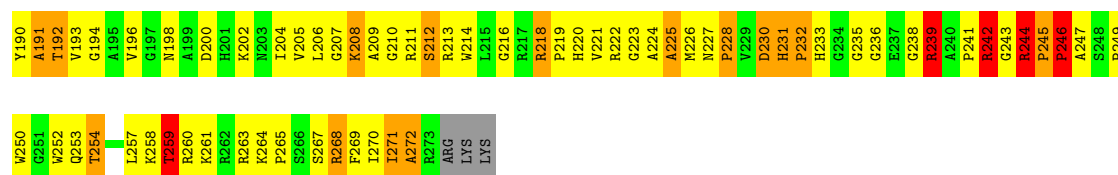
Chain BD:



• Molecule 30: 50S ribosomal protein L2

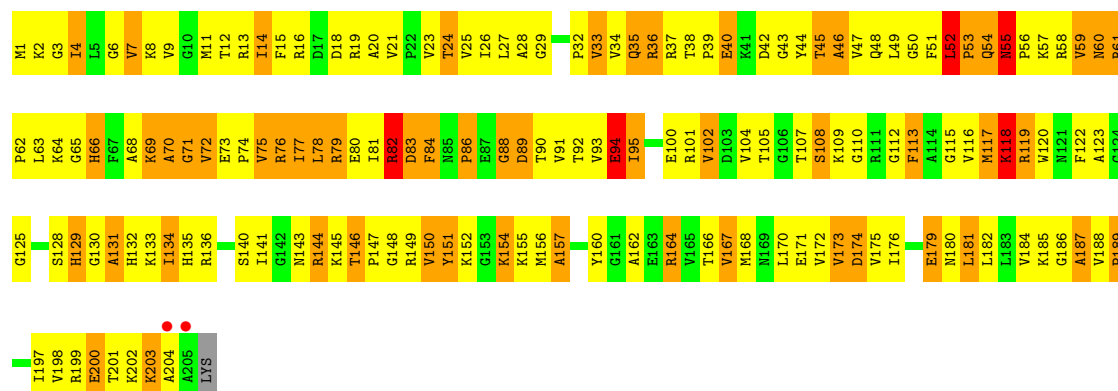
Chain DD:





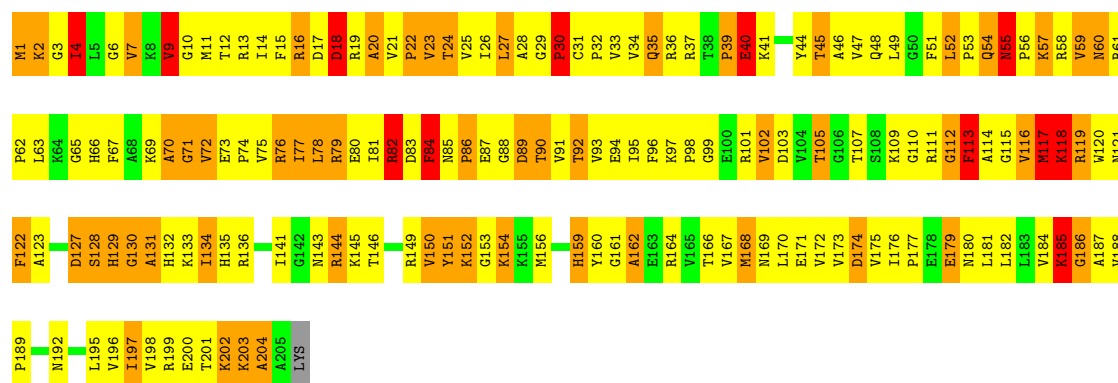
• Molecule 31: 50S ribosomal protein L3

Chain BE:



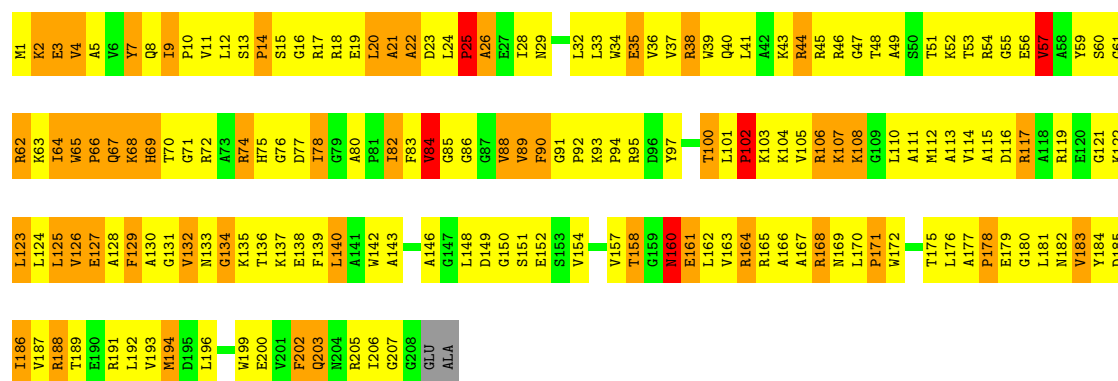
• Molecule 31: 50S ribosomal protein L3

Chain DE:



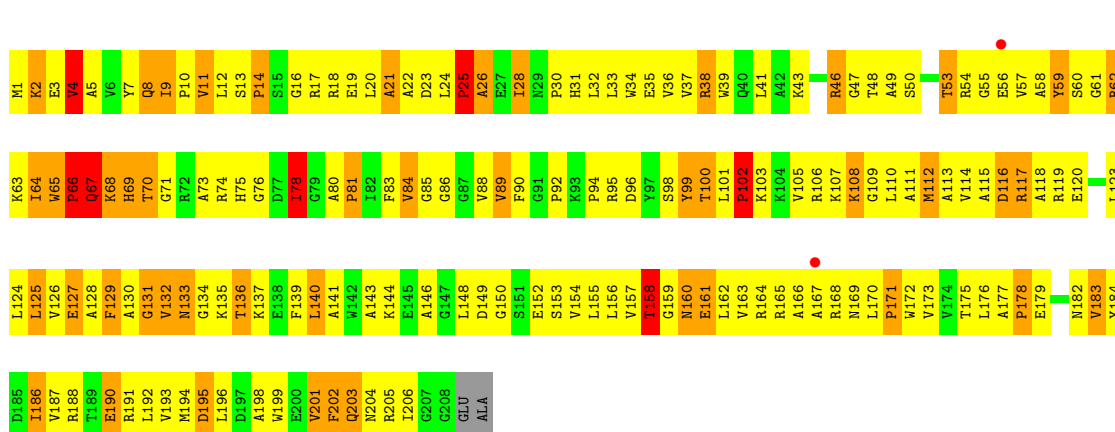
• Molecule 32: 50S ribosomal protein L4

Chain BF:



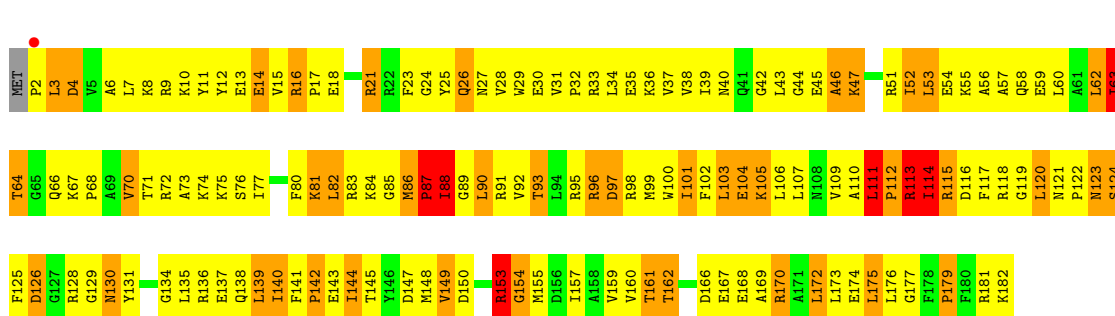
- Molecule 32: 50S ribosomal protein L4

Chain DF:



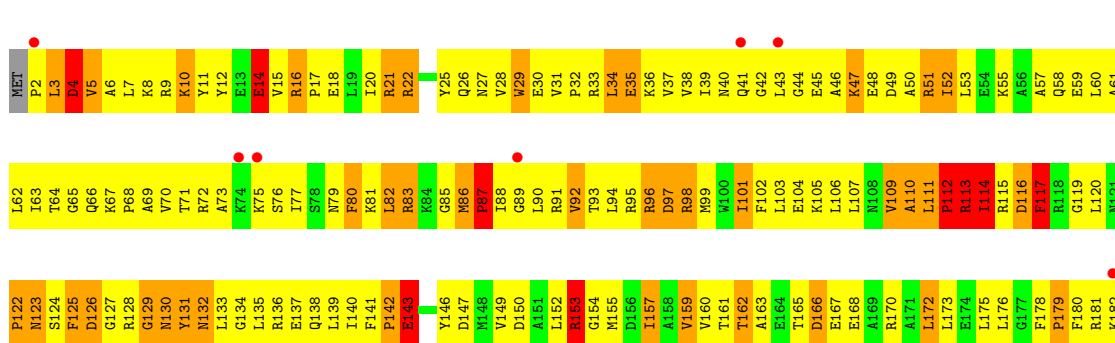
- Molecule 33: 50S ribosomal protein L5

Chain BG:



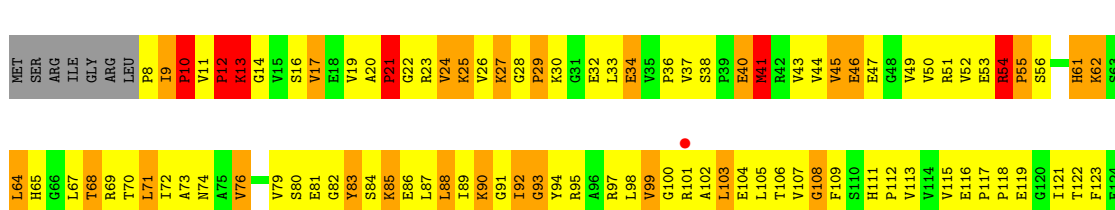
- Molecule 33: 50S ribosomal protein L5

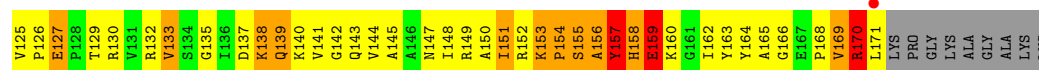
Chain DG:



- Molecule 34: 50S ribosomal protein L6

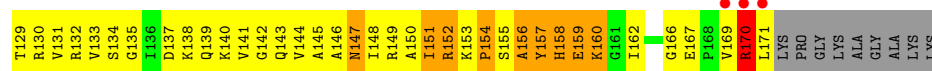
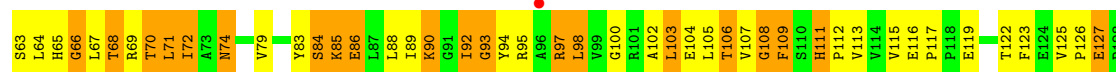
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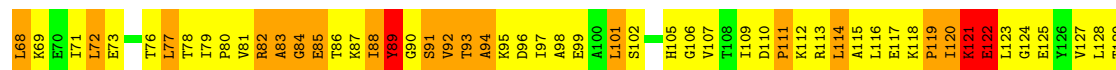
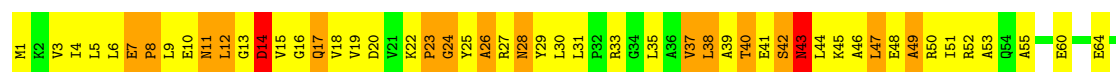
• Molecule 34: 50S ribosomal protein L6

Chain DH:



• Molecule 35: 50S ribosomal protein L9

Chain BI:



• Molecule 35: 50S ribosomal protein L9

Chain DI:



• Molecule 36: 50S ribosomal protein L13

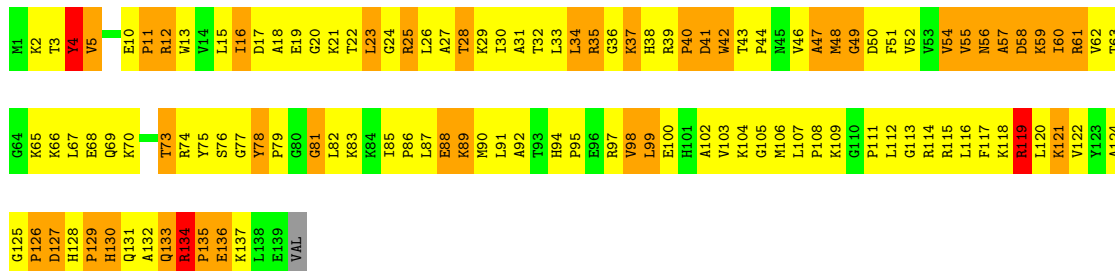
Chain BN:





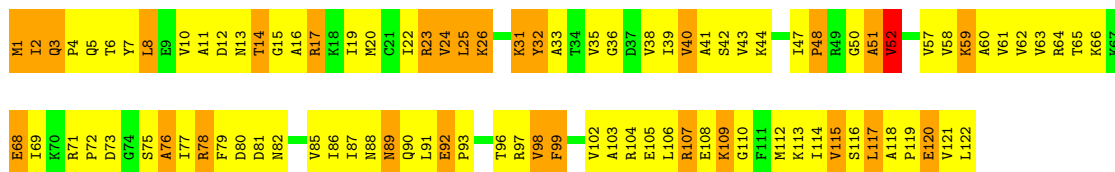
• Molecule 36: 50S ribosomal protein L13

Chain DN:



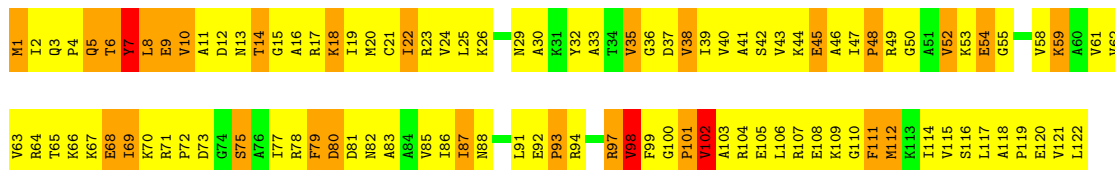
• Molecule 37: 50S ribosomal protein L14

Chain BO:



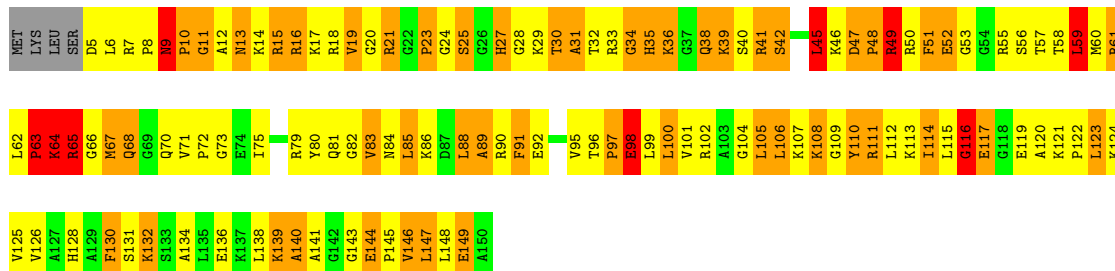
• Molecule 37: 50S ribosomal protein L14

Chain DO:



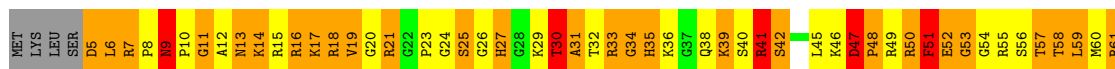
• Molecule 38: 50S ribosomal protein L15

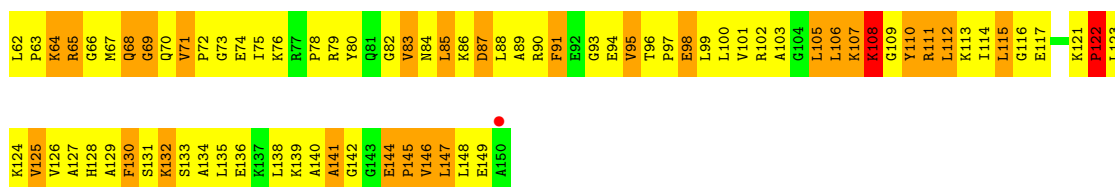
Chain BP:



• Molecule 38: 50S ribosomal protein L15

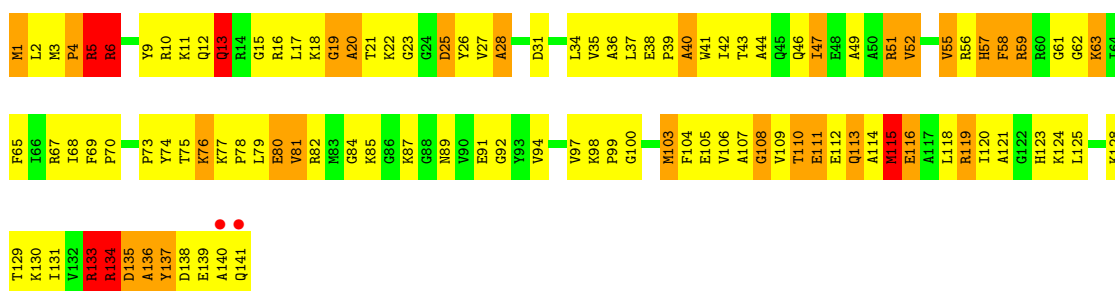
Chain DP:





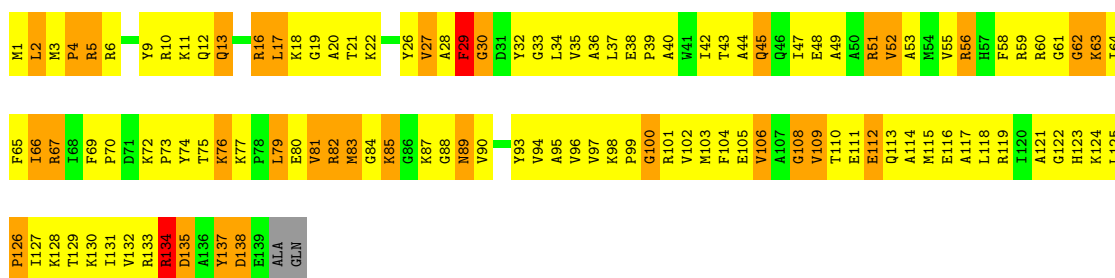
- Molecule 39: 50S ribosomal protein L16

Chain BQ:



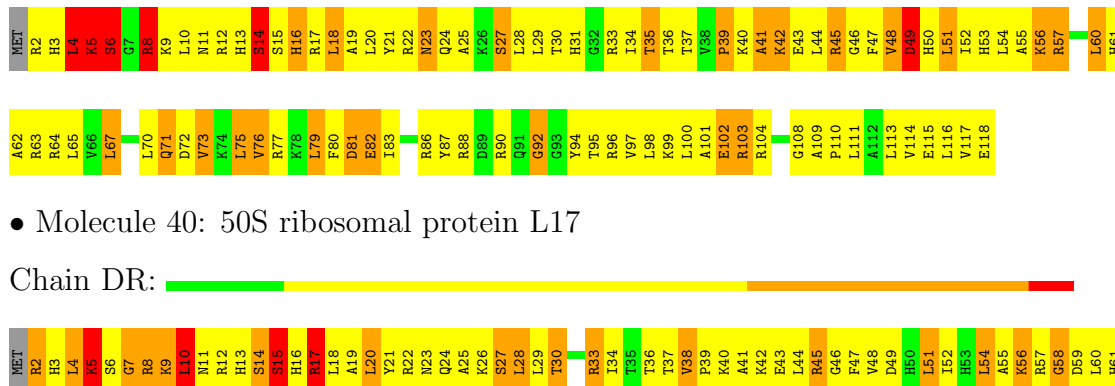
- Molecule 39: 50S ribosomal protein L16

Chain DQ:



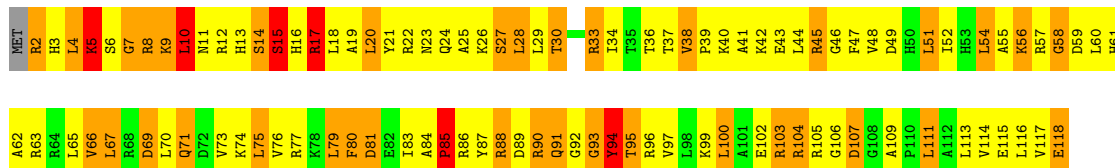
- Molecule 40: 50S ribosomal protein L17

Chain BR:



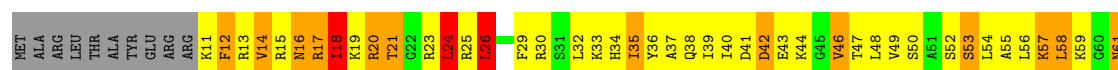
- Molecule 40: 50S ribosomal protein L17

Chain DR:



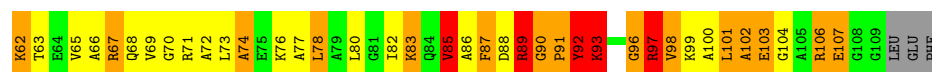
- Molecule 41: 50S ribosomal protein L18

Chain BS: 



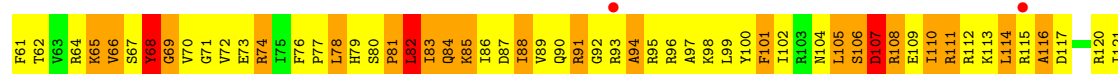
- Molecule 41: 50S ribosomal protein L18

Chain DS: 



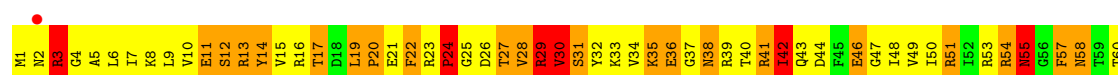
- Molecule 42: 50S ribosomal protein L19

Chain BT: 



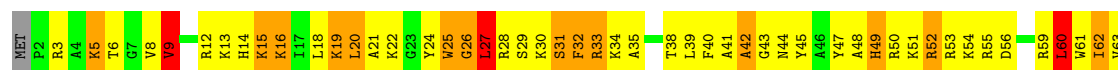
- Molecule 42: 50S ribosomal protein L19

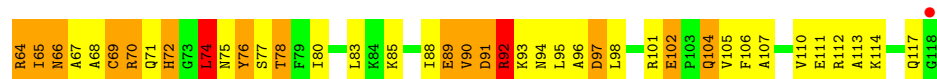
Chain DT: 



- Molecule 43: 50S ribosomal protein L20

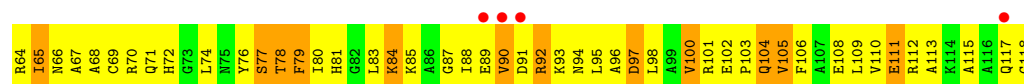
Chain BU: 





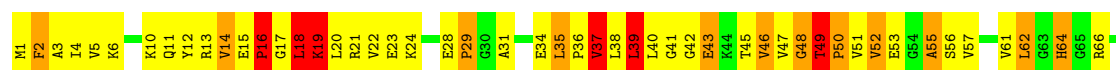
- Molecule 43: 50S ribosomal protein L20

Chain DU:



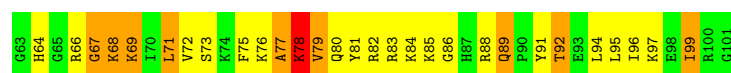
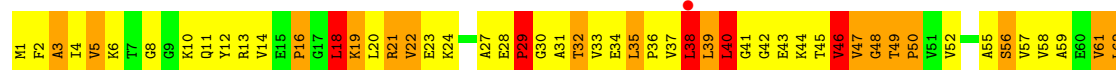
- Molecule 44: 50S ribosomal protein L21

Chain BV:



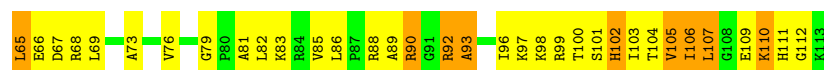
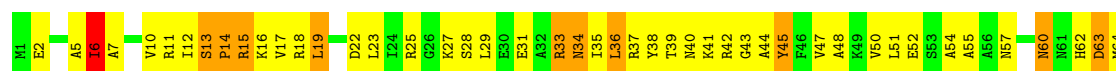
- Molecule 44: 50S ribosomal protein L21

Chain DV:



- Molecule 45: 50S ribosomal protein L22

Chain BW:



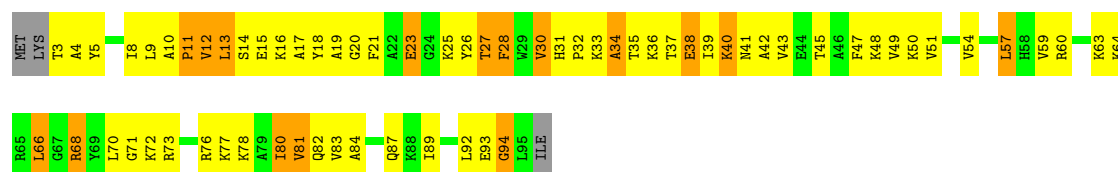
- Molecule 45: 50S ribosomal protein L22

Chain DW:



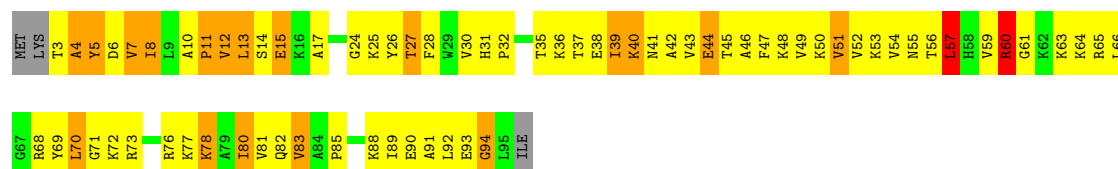
- Molecule 46: 50S ribosomal protein L23

Chain BX:



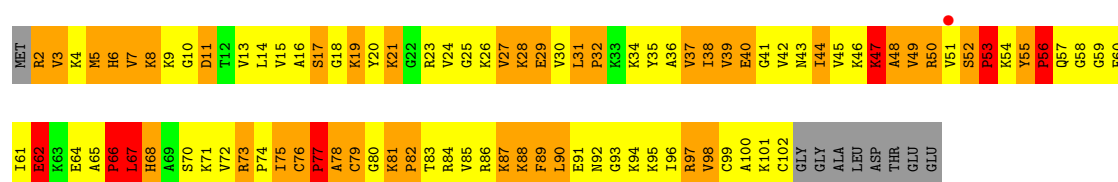
- Molecule 46: 50S ribosomal protein L23

Chain DX:



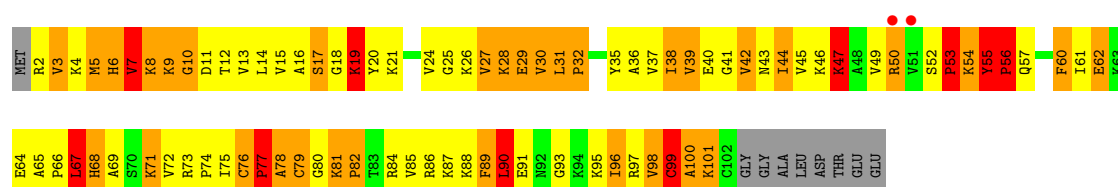
- Molecule 47: 50S ribosomal protein L24

Chain BY:



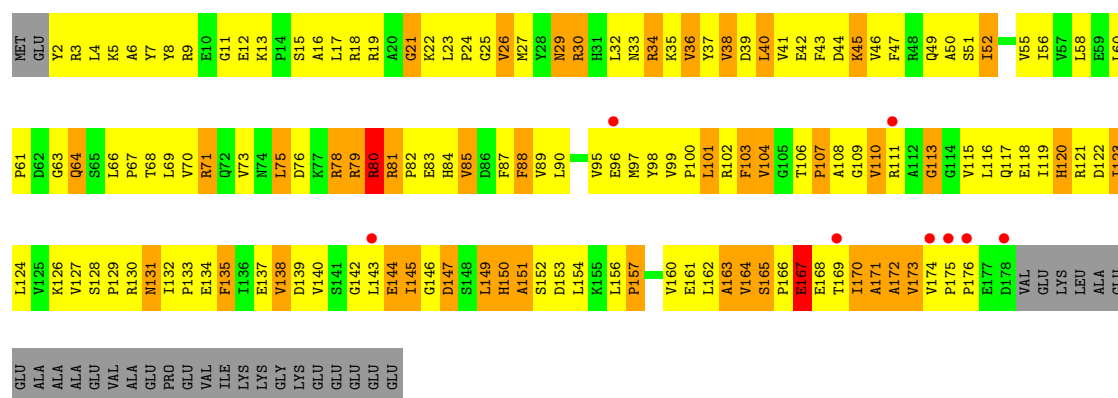
- Molecule 47: 50S ribosomal protein L24

Chain DY:



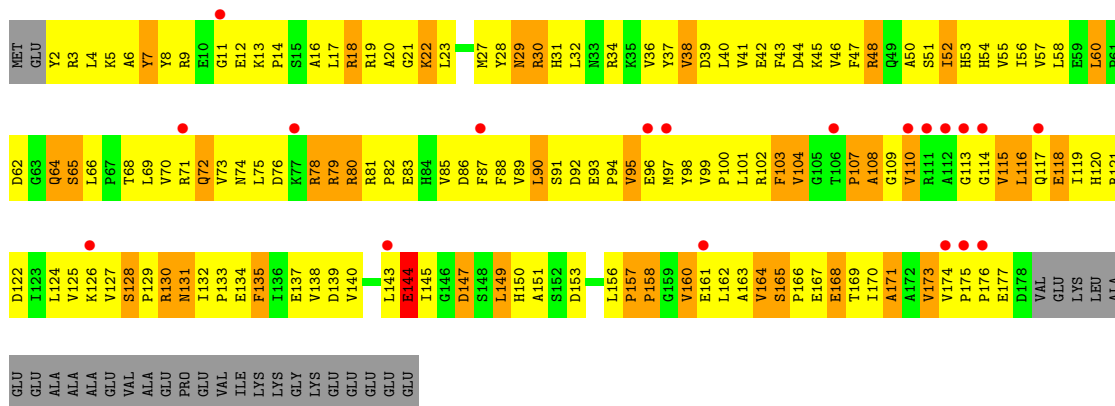
- Molecule 48: 50S ribosomal protein L25

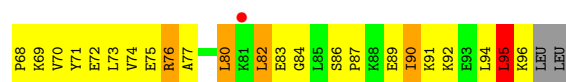
Chain BZ:



- Molecule 48: 50S ribosomal protein L25

Chain DZ:





- Molecule 51: 50S ribosomal protein L29

Chain B2:



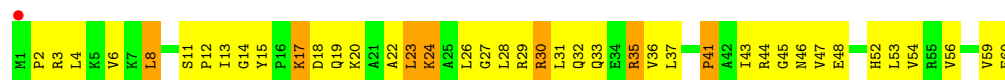
- Molecule 51: 50S ribosomal protein L29

Chain D2:



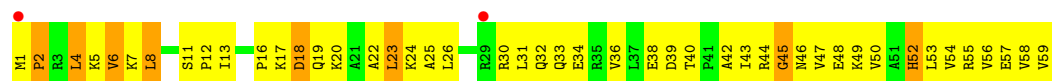
- Molecule 52: 50S ribosomal protein L30

Chain B3:



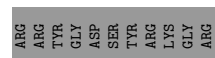
- Molecule 52: 50S ribosomal protein L30

Chain D3:



- Molecule 53: 50S ribosomal protein L31

Chain B4:

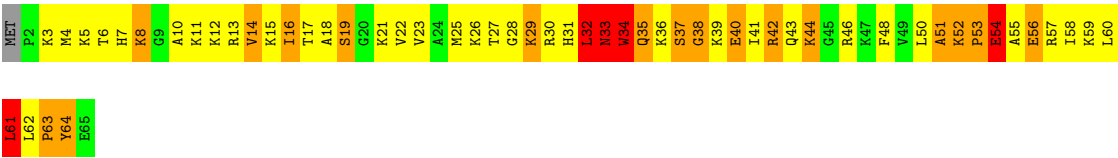


- Molecule 53: 50S ribosomal protein L31

Chain D4:



Chain D8:



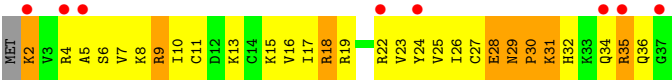
- Molecule 58: 50S ribosomal protein L36

Chain B9:



- Molecule 58: 50S ribosomal protein L36

Chain D9:



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	210.23Å 448.51Å 633.62Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	50.00 – 3.00 49.93 – 3.00	Depositor EDS
% Data completeness (in resolution range)	(Not available) (50.00-3.00) 94.1 (49.93-3.00)	Depositor EDS
R_{merge}	0.31	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.01 (at 3.01Å)	Xtriage
Refinement program	CNS	Depositor
R, R_{free}	0.248 , 0.272 0.253 , 0.284	Depositor DCC
R_{free} test set	55515 reflections (5.27%)	DCC
Wilson B-factor (Å ²)	88.5	Xtriage
Anisotropy	0.155	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.26 , 54.3	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning	$\langle L \rangle = 0.36$, $\langle L^2 \rangle = 0.18$	Xtriage
Outliers	0 of 1109073 reflections	Xtriage
F_o, F_c correlation	0.90	EDS
Total number of atoms	294559	wwPDB-VP
Average B, all atoms (Å ²)	86.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.68% 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, 5OH

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	0.52	0/35980	0.82	47/56157 (0.1%)
1	CA	0.50	0/35980	0.82	32/56157 (0.1%)
2	AB	0.38	0/1936	0.73	0/2611
2	CB	0.37	0/1936	0.71	0/2611
3	AC	0.37	0/1637	0.74	1/2207 (0.0%)
3	CC	0.37	0/1637	0.73	0/2207
4	AD	0.45	0/1733	0.76	1/2318 (0.0%)
4	CD	0.44	0/1733	0.80	2/2318 (0.1%)
5	AE	0.43	0/1163	0.77	0/1566
5	CE	0.43	0/1163	0.77	0/1566
6	AF	0.41	0/856	0.71	0/1154
6	CF	0.41	0/856	0.72	0/1154
7	AG	0.39	0/1276	0.75	1/1709 (0.1%)
7	CG	0.40	0/1276	0.69	0/1709
8	AH	0.42	0/1136	0.76	0/1527
8	CH	0.40	0/1136	0.73	0/1527
9	AI	0.36	0/1023	0.71	0/1371
9	CI	0.37	0/1024	0.68	0/1372
10	AJ	0.37	0/808	0.68	0/1087
10	CJ	0.39	0/808	0.72	0/1087
11	AK	0.40	0/900	0.77	1/1213 (0.1%)
11	CK	0.41	0/900	0.77	1/1213 (0.1%)
12	AL	0.47	0/987	0.89	0/1322
12	CL	0.43	0/987	0.79	0/1322
13	AM	0.44	0/957	0.80	0/1284
13	CM	0.89	5/920 (0.5%)	1.22	13/1241 (1.0%)
14	AN	0.43	0/501	0.73	0/664
14	CN	0.42	0/501	0.72	1/664 (0.2%)
15	AO	0.43	0/745	0.71	0/992
15	CO	0.41	0/745	0.67	0/992
16	AP	0.43	0/717	0.78	1/965 (0.1%)
16	CP	0.40	0/717	0.70	0/965

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	AQ	0.44	0/837	0.77	0/1119
17	CQ	0.40	0/837	0.74	0/1119
18	AR	0.45	0/579	0.82	0/768
18	CR	0.44	0/579	0.82	0/768
19	AS	0.41	0/643	0.71	0/867
19	CS	0.39	0/643	0.69	0/867
20	AT	0.38	0/765	0.80	0/1007
20	CT	0.39	0/765	0.77	0/1007
21	AU	0.46	0/213	0.77	0/279
21	CU	0.36	0/213	0.66	0/279
22	AV	0.56	0/239	0.66	0/371
22	CV	0.49	0/239	0.81	1/371 (0.3%)
23	AW	0.50	0/1778	0.76	0/2768
23	CW	0.43	0/1778	0.74	0/2768
24	AX	0.50	0/1832	0.74	0/2855
24	CX	0.49	0/1832	0.73	1/2855 (0.0%)
25	AY	0.36	0/1776	0.71	0/2766
25	CY	0.39	0/1776	0.73	0/2766
26	AZ	0.95	0/11	0.62	0/13
26	CZ	1.05	0/11	0.87	0/13
27	BA	0.64	0/67544	0.87	94/105433 (0.1%)
27	DA	0.55	0/67547	0.85	93/105438 (0.1%)
28	BB	0.58	0/2826	0.85	4/4406 (0.1%)
28	DB	0.50	0/2826	0.85	4/4406 (0.1%)
29	BC	0.29	0/1145	0.64	0/1556
29	DC	0.30	0/1145	0.67	0/1556
30	BD	0.60	2/2155 (0.1%)	0.94	3/2907 (0.1%)
30	DD	0.52	0/2155	0.90	5/2907 (0.2%)
31	BE	0.55	0/1597	0.92	0/2155
31	DE	0.46	0/1597	0.89	3/2155 (0.1%)
32	BF	0.50	0/1659	0.83	0/2246
32	DF	0.44	0/1659	0.81	1/2246 (0.0%)
33	BG	0.52	1/1499 (0.1%)	0.91	5/2016 (0.2%)
33	DG	0.50	1/1499 (0.1%)	0.89	5/2016 (0.2%)
34	BH	0.54	1/1277 (0.1%)	0.89	3/1729 (0.2%)
34	DH	0.35	0/1246	0.76	0/1684
35	BI	0.37	0/1057	0.81	0/1453
35	DI	0.38	0/1061	0.81	0/1458
36	BN	0.54	0/1132	0.89	2/1527 (0.1%)
36	DN	0.41	0/1132	0.79	0/1527
37	BO	0.50	0/943	0.90	4/1269 (0.3%)
37	DO	0.48	0/943	0.79	0/1269
38	BP	0.60	0/1131	1.14	9/1504 (0.6%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	DP	0.49	0/1131	0.97	5/1504 (0.3%)
39	BQ	0.52	0/1143	0.79	0/1527
39	DQ	0.41	0/1128	0.73	0/1508
40	BR	0.53	0/974	0.94	6/1302 (0.5%)
40	DR	0.45	0/974	0.87	2/1302 (0.2%)
41	BS	0.50	0/779	1.01	4/1038 (0.4%)
41	DS	0.42	0/785	0.92	3/1048 (0.3%)
42	BT	0.54	0/1156	0.99	5/1544 (0.3%)
42	DT	0.48	0/1156	0.89	2/1544 (0.1%)
43	BU	0.57	0/975	0.86	2/1297 (0.2%)
43	DU	0.42	0/975	0.84	3/1297 (0.2%)
44	BV	0.51	0/790	0.95	3/1057 (0.3%)
44	DV	0.42	0/790	0.82	0/1057
45	BW	0.52	0/907	0.88	2/1216 (0.2%)
45	DW	0.50	0/907	0.85	0/1216
46	BX	0.53	0/740	0.89	0/995
46	DX	0.48	0/740	0.81	1/995 (0.1%)
47	BY	0.56	0/789	1.06	3/1053 (0.3%)
47	DY	0.48	0/789	0.93	3/1053 (0.3%)
48	BZ	0.42	0/1436	0.74	0/1951
48	DZ	0.36	0/1436	0.70	0/1951
49	B0	0.53	0/671	0.81	1/892 (0.1%)
49	D0	0.45	0/671	0.73	0/892
50	B1	0.49	0/722	0.82	0/964
50	D1	0.47	0/739	0.79	0/983
51	B2	0.55	0/600	0.86	1/793 (0.1%)
51	D2	0.42	0/600	0.74	0/793
52	B3	0.52	0/473	0.84	0/636
52	D3	0.41	0/473	0.81	0/636
53	B4	0.42	0/229	0.86	0/311
53	D4	0.50	0/229	1.01	2/311 (0.6%)
54	B5	0.53	0/473	0.95	2/639 (0.3%)
54	D5	0.46	0/473	0.79	0/639
55	B6	0.75	0/418	1.17	3/562 (0.5%)
55	D6	0.80	1/397 (0.3%)	1.20	4/531 (0.8%)
56	B7	0.59	0/427	0.92	1/563 (0.2%)
56	D7	0.50	0/427	0.85	0/563
57	B8	0.59	0/516	1.01	1/681 (0.1%)
57	D8	0.50	0/516	0.95	3/681 (0.4%)
58	B9	0.54	0/302	0.88	0/397
58	D9	0.33	0/302	0.74	0/397
All	All	0.54	11/318953 (0.0%)	0.84	400/477060 (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	90
1	CA	1	81
13	CM	0	1
22	CV	0	2
23	AW	0	1
23	CW	0	2
27	BA	0	223
27	DA	0	164
28	BB	0	6
28	DB	0	6
30	DD	0	1
36	DN	0	1
47	BY	0	1
54	D5	0	1
55	B6	0	1
55	D6	0	1
All	All	1	582

All (11) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
13	CM	113	PRO	N-CD	-7.63	1.37	1.47
55	D6	46	HIS	C-N	-6.65	1.18	1.34
34	BH	11	VAL	C-N	6.53	1.46	1.34
13	CM	65	LYS	C-N	6.24	1.48	1.34
33	BG	111	LEU	C-N	5.78	1.45	1.34
30	BD	246	PRO	N-CD	5.75	1.55	1.47
13	CM	112	GLY	C-O	-5.56	1.14	1.23
13	CM	65	LYS	CA-C	5.43	1.67	1.52
13	CM	72	ALA	CA-CB	5.31	1.63	1.52
30	BD	245	PRO	C-N	-5.22	1.24	1.34
33	DG	111	LEU	C-N	5.21	1.44	1.34

All (400) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	CM	70	LEU	N-CA-C	-12.04	78.50	111.00
27	BA	2424	C	N1-C1'-C2'	-11.64	98.86	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	B6	46	HIS	N-CA-C	11.54	142.16	111.00
38	BP	52	GLU	N-CA-C	11.01	140.73	111.00
27	DA	1782	C	N1-C1'-C2'	-10.49	100.36	114.00
55	D6	46	HIS	N-CA-C	10.23	138.63	111.00
1	AA	52	G	N9-C1'-C2'	-10.22	100.71	114.00
27	DA	1992	G	N9-C1'-C2'	10.09	127.12	114.00
38	BP	116	GLY	N-CA-C	9.33	136.42	113.10
1	CA	517	G	C2'-C3'-O3'	9.26	129.88	109.50
38	DP	52	GLU	N-CA-C	9.24	135.96	111.00
1	CA	874	G	N9-C1'-C2'	-8.89	102.22	112.00
27	DA	226	G	C2'-C3'-O3'	8.89	129.06	109.50
1	AA	508	C	C2'-C3'-O3'	8.64	128.51	109.50
13	CM	70	LEU	CB-CG-CD1	-8.56	96.44	111.00
13	CM	70	LEU	CB-CG-CD2	-8.41	96.71	111.00
1	AA	131	C	N1-C1'-C2'	-8.40	102.76	112.00
13	CM	69	GLU	O-C-N	8.30	135.98	122.70
1	CA	199	G	N9-C1'-C2'	-8.20	102.98	112.00
1	CA	533	A	C2'-C3'-O3'	8.13	127.38	109.50
27	BA	1992	G	C2'-C3'-O3'	8.11	127.34	109.50
47	DY	54	LYS	N-CA-C	-7.86	89.79	111.00
1	AA	266	G	C2'-C3'-O3'	7.78	126.61	109.50
27	BA	467	G	N9-C1'-C2'	-7.76	103.46	112.00
27	DA	421	U	C2'-C3'-O3'	7.74	126.52	109.50
27	DA	2873	A	C5'-C4'-O4'	7.72	118.37	109.10
1	AA	498	U	N1-C1'-C2'	-7.63	103.61	112.00
1	AA	1265	G	N9-C1'-C2'	-7.55	103.69	112.00
27	BA	329	G	C2'-C3'-O3'	7.54	126.08	109.50
38	BP	53	GLY	N-CA-C	-7.54	94.26	113.10
27	DA	1289	C	N1-C1'-C2'	-7.44	103.81	112.00
30	BD	245	PRO	N-CA-C	-7.44	92.76	112.10
13	CM	65	LYS	CA-CB-CG	-7.40	97.11	113.40
27	BA	2776	A	C2'-C3'-O3'	7.37	125.72	109.50
27	DA	1386	C	N1-C1'-C2'	-7.36	103.91	112.00
27	BA	996	A	N9-C1'-C2'	-7.34	103.92	112.00
1	AA	1077	G	N9-C1'-C2'	-7.31	103.96	112.00
27	DA	2525	G	N9-C1'-C2'	-7.30	103.97	112.00
27	BA	1126	A	C2'-C3'-O3'	7.29	125.54	109.50
33	DG	114	ILE	N-CA-C	-7.26	91.41	111.00
38	DP	53	GLY	N-CA-C	-7.23	95.02	113.10
27	DA	2127	G	N9-C1'-C2'	-7.20	104.08	112.00
43	DU	78	THR	N-CA-C	-7.15	91.69	111.00
1	AA	140	A	N9-C1'-C2'	-7.12	104.17	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	DE	186	GLY	N-CA-C	7.11	130.88	113.10
41	DS	16	ASN	N-CA-C	-7.09	91.86	111.00
31	DE	87	GLU	N-CA-C	-7.07	91.90	111.00
1	AA	578	C	N1-C1'-C2'	-7.06	104.24	112.00
27	DA	1781	C	O4'-C1'-N1	7.05	113.84	108.20
1	AA	1067	A	C2'-C3'-O3'	7.04	124.98	109.50
36	BN	18	ALA	N-CA-C	-7.03	92.02	111.00
1	AA	494	U	N1-C1'-C2'	-7.02	104.28	112.00
33	DG	112	PRO	N-CA-CB	-7.01	94.89	102.60
1	AA	1196	U	N1-C1'-C2'	7.01	123.11	114.00
27	DA	831	G	C5'-C4'-C3'	-6.95	104.88	116.00
55	D6	48	VAL	N-CA-C	6.92	129.70	111.00
27	DA	2134	A	N9-C1'-C2'	-6.92	104.39	112.00
1	CA	266	G	C2'-C3'-O3'	6.87	124.69	113.70
27	BA	2346	A	N9-C1'-C2'	6.86	122.92	114.00
1	CA	1154	G	N9-C1'-C2'	-6.84	104.48	112.00
27	DA	1700	A	N9-C1'-C2'	-6.82	104.50	112.00
27	BA	2832	U	C2'-C3'-O3'	6.80	124.58	113.70
54	B5	52	TYR	N-CA-C	-6.78	92.70	111.00
13	CM	64	TRP	C-N-CA	-6.77	104.77	121.70
27	DA	467	G	N9-C1'-C2'	-6.76	104.57	112.00
38	BP	51	PHE	N-CA-C	6.75	129.23	111.00
27	BA	2491	U	O4'-C1'-N1	6.74	113.59	108.20
1	AA	1021	G	N9-C1'-C2'	-6.74	104.59	112.00
30	DD	244	ARG	C-N-CD	-6.73	105.79	120.60
47	DY	7	VAL	N-CA-C	6.71	129.13	111.00
1	AA	1461	G	N9-C1'-C2'	-6.71	104.62	112.00
28	DB	117	G	N9-C1'-C2'	-6.70	104.63	112.00
27	BA	1616	A	N9-C1'-C2'	6.68	122.69	114.00
40	BR	8	ARG	N-CA-C	6.68	129.04	111.00
27	BA	301	G	C2'-C3'-O3'	6.68	124.38	113.70
27	BA	2068	U	N1-C1'-C2'	-6.65	104.68	112.00
27	BA	2477	C	N1-C1'-C2'	6.63	122.62	114.00
27	DA	548	A	O4'-C1'-N9	6.59	113.47	108.20
27	DA	1786	A	N9-C1'-C2'	6.59	122.57	114.00
33	BG	114	ILE	N-CA-C	-6.56	93.30	111.00
27	DA	1945	G	N9-C1'-C2'	-6.56	104.79	112.00
27	BA	2820	A	C2'-C3'-O3'	6.55	124.19	113.70
30	BD	246	PRO	CA-N-CD	-6.55	102.33	111.50
27	BA	2318	G	C2'-C3'-O3'	6.55	124.17	113.70
27	DA	1992	G	C2'-C3'-O3'	6.53	124.15	113.70
27	BA	2830	G	C5'-C4'-C3'	-6.53	105.56	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	BA	1996	C	N1-C1'-C2'	6.53	122.48	114.00
40	DR	10	LEU	CA-CB-CG	6.49	130.24	115.30
53	D4	62	CYS	CA-CB-SG	-6.49	102.32	114.00
34	BH	157	TYR	N-CA-C	-6.49	93.49	111.00
13	CM	66	LEU	CB-CG-CD2	-6.49	99.97	111.00
27	BA	1947	C	C5'-C4'-C3'	-6.47	105.65	116.00
27	BA	2036	C	N1-C1'-C2'	-6.46	104.90	112.00
27	BA	588	U	O5'-P-OP2	-6.41	99.93	105.70
27	DA	33	U	C5'-C4'-O4'	6.39	116.76	109.10
57	B8	45	GLY	N-CA-C	-6.38	97.15	113.10
30	DD	41	GLY	N-CA-C	-6.36	97.19	113.10
27	BA	1698	A	N9-C1'-C2'	6.36	122.27	114.00
27	DA	334	C	N1-C1'-C2'	-6.35	105.01	112.00
38	BP	45	LEU	N-CA-C	-6.35	93.86	111.00
27	DA	424	G	N9-C1'-C2'	-6.35	105.02	112.00
41	DS	18	ILE	N-CA-C	-6.33	93.90	111.00
1	AA	792	A	C2'-C3'-O3'	6.33	123.83	113.70
27	DA	1653	G	C2'-C3'-O3'	6.33	123.83	113.70
49	B0	36	ILE	N-CA-C	-6.28	94.06	111.00
1	AA	682	G	N9-C1'-C2'	-6.27	105.10	112.00
1	AA	6	G	N9-C1'-C2'	6.27	122.15	114.00
27	BA	729	G	N9-C1'-C2'	6.22	122.09	114.00
1	CA	288	A	N9-C1'-C2'	-6.21	105.17	112.00
27	BA	2669	G	N9-C1'-C2'	-6.21	105.17	112.00
27	BA	2468	G	N9-C1'-C2'	6.18	122.03	114.00
27	DA	2497	A	C2'-C3'-O3'	6.17	123.57	113.70
28	BB	118	G	N9-C1'-C2'	-6.15	105.23	112.00
1	AA	785	G	C5'-C4'-C3'	-6.15	106.16	116.00
1	CA	966	G	N9-C1'-C2'	-6.14	105.25	112.00
27	BA	61	G	N9-C1'-C2'	-6.13	105.26	112.00
27	BA	1266	G	N9-C1'-C2'	6.12	121.96	114.00
38	DP	51	PHE	N-CA-C	6.12	127.52	111.00
1	AA	189(E)	U	N1-C1'-C2'	6.11	121.94	114.00
27	BA	1427	A	C2'-C3'-O3'	6.10	123.46	113.70
24	CX	7	G	N9-C1'-C2'	6.10	121.93	114.00
27	DA	1283	G	N9-C1'-C2'	-6.08	105.31	112.00
33	DG	129	GLY	N-CA-C	-6.07	97.93	113.10
42	BT	29	ARG	N-CA-C	6.07	127.38	111.00
27	BA	1616	A	O4'-C1'-N9	6.06	113.05	108.20
27	DA	1781	C	N1-C1'-C2'	6.06	121.88	114.00
27	BA	856	C	C2'-C3'-O3'	6.05	123.38	113.70
1	AA	700	G	N9-C1'-C2'	-6.05	105.35	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
53	D4	43	GLY	N-CA-C	-6.05	97.98	113.10
41	BS	17	ARG	N-CA-C	-6.04	94.70	111.00
27	BA	2473	U	N1-C1'-C2'	6.02	121.83	114.00
27	DA	352	G	N9-C1'-C2'	6.00	121.80	114.00
27	DA	1159	U	C5'-C4'-C3'	-6.00	106.40	116.00
27	BA	44	G	N9-C1'-C2'	-5.98	105.43	112.00
27	DA	945	A	C5'-C4'-O4'	5.96	116.25	109.10
27	BA	945	A	C5'-C4'-O4'	5.95	116.24	109.10
1	AA	331	G	N9-C1'-C2'	-5.95	105.46	112.00
1	CA	1177	G	N9-C1'-C2'	-5.94	105.46	112.00
1	CA	511	C	C2'-C3'-O3'	5.94	123.21	113.70
1	CA	27	G	N9-C1'-C2'	-5.94	105.47	112.00
42	BT	105	LEU	CA-CB-CG	5.94	128.95	115.30
27	BA	146	G	C5'-C4'-C3'	-5.92	106.52	116.00
27	DA	412	A	C5'-C4'-O4'	-5.92	101.99	109.10
27	DA	2498	C	N1-C1'-C2'	-5.92	105.48	112.00
38	DP	54	GLY	N-CA-C	-5.92	98.30	113.10
1	AA	686	U	C2'-C3'-O3'	5.92	123.16	113.70
27	BA	474	G	N9-C1'-C2'	5.91	121.68	114.00
55	B6	19	ARG	N-CA-C	5.91	126.96	111.00
27	DA	313	C	N1-C1'-C2'	-5.91	105.50	112.00
27	DA	740	U	C5'-C4'-O4'	-5.90	102.03	109.10
51	B2	47	ASN	N-CA-C	5.89	126.91	111.00
27	DA	61	G	N9-C1'-C2'	-5.88	105.53	112.00
57	D8	32	LEU	N-CA-C	-5.88	95.13	111.00
27	BA	945	A	C1'-O4'-C4'	-5.88	105.20	109.90
27	BA	2585	U	O4'-C1'-N1	5.87	112.90	108.20
27	DA	1623	G	N9-C1'-C2'	-5.87	105.54	112.00
27	BA	2304	G	C5'-C4'-C3'	-5.87	106.61	116.00
43	BU	27	LEU	N-CA-C	-5.85	95.20	111.00
41	BS	12	PHE	N-CA-C	-5.85	95.21	111.00
1	AA	723	U	N1-C1'-C2'	-5.84	105.57	112.00
27	DA	1653	G	N9-C1'-C2'	5.83	121.58	114.00
27	BA	1744	C	C5'-C4'-C3'	-5.83	106.68	116.00
30	DD	212	SER	N-CA-C	-5.80	95.33	111.00
27	BA	1784	A	C2'-C3'-O3'	-5.79	96.75	109.50
27	DA	1929	G	C1'-O4'-C4'	-5.79	105.27	109.90
27	DA	1236	G	C2'-C3'-O3'	5.79	122.96	113.70
3	AC	139	GLN	N-CA-C	-5.78	95.39	111.00
27	BA	906	G	C5'-C4'-C3'	-5.78	106.75	116.00
27	BA	784	A	N9-C1'-C2'	5.78	121.51	114.00
27	BA	1698	A	O4'-C1'-N9	5.77	112.82	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	DA	1698	A	N9-C1'-C2'	5.77	121.50	114.00
13	CM	66	LEU	O-C-N	5.77	131.93	122.70
38	DP	41	ARG	N-CA-C	-5.77	95.43	111.00
28	BB	40	U	N1-C1'-C2'	5.76	121.49	114.00
1	CA	362	G	N9-C1'-C2'	-5.76	105.66	112.00
27	DA	2222	G	N9-C1'-C2'	-5.76	105.66	112.00
27	BA	442	G	N9-C1'-C2'	5.76	121.49	114.00
16	AP	27	LYS	N-CA-C	-5.76	95.46	111.00
27	BA	669	G	N9-C1'-C2'	5.76	121.48	114.00
34	BH	166	GLY	N-CA-C	-5.75	98.72	113.10
27	BA	2746	U	N1-C1'-C2'	-5.75	105.67	112.00
42	BT	4	GLY	N-CA-C	-5.75	98.74	113.10
38	BP	52	GLU	CA-C-N	-5.74	104.72	116.20
1	AA	957	U	N1-C1'-C2'	-5.74	105.69	112.00
31	DE	117	MET	N-CA-C	-5.72	95.55	111.00
27	BA	2200	C	C5'-C4'-C3'	-5.72	106.85	116.00
33	DG	113	ARG	CA-CB-CG	-5.71	100.84	113.40
27	DA	2681	C	N1-C1'-C2'	5.71	121.42	114.00
27	BA	951	C	N1-C1'-C2'	-5.70	105.73	112.00
42	BT	31	SER	N-CA-C	5.70	126.39	111.00
27	BA	548	A	O4'-C1'-N9	5.70	112.76	108.20
1	CA	960	U	C5'-C4'-O4'	5.70	115.94	109.10
43	BU	64	ARG	NE-CZ-NH2	-5.69	117.45	120.30
27	DA	2130	U	N1-C1'-C2'	-5.69	105.74	112.00
57	D8	32	LEU	CA-CB-CG	5.68	128.37	115.30
27	DA	736	C	N1-C1'-C2'	-5.68	105.75	112.00
27	DA	1930	G	N9-C1'-C2'	5.68	121.38	114.00
1	AA	1049	U	N1-C1'-C2'	5.68	121.38	114.00
1	CA	952	U	N1-C1'-C2'	-5.68	105.75	112.00
27	DA	1838	C	C2'-C3'-O3'	5.67	122.78	113.70
28	BB	52	A	N9-C1'-C2'	5.67	121.37	114.00
1	AA	428	G	C2'-C3'-O3'	5.67	122.76	113.70
27	BA	1517	G	C5'-C4'-C3'	-5.67	106.94	116.00
13	CM	70	LEU	N-CA-CB	5.67	121.73	110.40
1	AA	1105	A	N9-C1'-C2'	-5.66	105.77	112.00
27	BA	453	C	C5'-C4'-C3'	-5.66	106.94	116.00
41	BS	26	LEU	N-CA-C	-5.65	95.73	111.00
27	BA	2546	U	O4'-C1'-N1	5.65	112.72	108.20
33	BG	129	GLY	N-CA-C	-5.65	98.98	113.10
28	DB	75	G	C5'-C4'-C3'	-5.64	106.97	116.00
1	AA	559	A	N9-C1'-C2'	5.63	121.32	114.00
27	DA	1190	G	N9-C1'-C2'	-5.61	105.83	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	1363(A)	A	N9-C1'-C2'	5.59	121.27	114.00
1	AA	400	C	N1-C1'-C2'	-5.59	105.86	112.00
1	CA	323	U	N1-C1'-C2'	-5.58	105.86	112.00
42	DT	3	ARG	N-CA-C	-5.57	95.96	111.00
1	AA	1274	G	N9-C1'-C2'	-5.57	105.88	112.00
27	DA	119	A	N9-C1'-C2'	5.57	121.23	114.00
27	BA	1838	C	C5'-C4'-O4'	5.56	115.77	109.10
11	CK	81	ASP	N-CA-C	-5.56	96.00	111.00
27	DA	2092	U	N1-C1'-C2'	5.55	121.22	114.00
27	BA	1204	A	C5'-C4'-C3'	5.54	124.87	116.00
40	BR	57	ARG	N-CA-C	-5.54	96.04	111.00
41	BS	16	ASN	N-CA-C	-5.54	96.05	111.00
27	DA	1016	G	N9-C1'-C2'	-5.54	105.91	112.00
27	DA	2092	U	C2'-C3'-O3'	5.53	122.55	113.70
28	BB	86	G	N9-C1'-C2'	-5.52	105.93	112.00
27	BA	934	G	C5'-C4'-C3'	-5.51	107.18	116.00
45	BW	98	LYS	N-CA-C	-5.51	96.12	111.00
27	BA	1048	A	N9-C1'-C2'	5.51	121.16	114.00
27	DA	2867	G	N9-C1'-C2'	5.51	121.16	114.00
27	BA	2110	G	N9-C1'-C2'	5.51	121.16	114.00
4	CD	31	CYS	N-CA-C	-5.51	96.13	111.00
27	DA	1379	A	C2'-C3'-O3'	5.50	122.50	113.70
38	BP	28	GLY	N-CA-C	-5.49	99.37	113.10
1	CA	1053	G	C1'-O4'-C4'	-5.49	105.51	109.90
38	BP	59	LEU	CA-CB-CG	5.49	127.92	115.30
27	DA	2638	G	C2'-C3'-O3'	5.48	122.47	113.70
4	CD	87	GLY	N-CA-C	-5.48	99.40	113.10
34	BH	64	LEU	CA-CB-CG	-5.47	102.71	115.30
27	BA	1786	A	N9-C1'-C2'	5.47	121.11	114.00
7	AG	81	GLY	N-CA-C	-5.47	99.43	113.10
13	CM	68	GLY	N-CA-C	-5.47	99.43	113.10
27	DA	2304	G	C5'-C4'-O4'	5.46	115.65	109.10
27	DA	1799	G	N9-C1'-C2'	5.46	121.10	114.00
40	BR	60	LEU	CA-CB-CG	5.45	127.84	115.30
40	BR	4	LEU	N-CA-C	5.45	125.72	111.00
27	BA	670	A	C2'-C3'-O3'	5.45	122.42	113.70
1	AA	1134	G	N9-C1'-C2'	-5.45	106.01	112.00
1	CA	517	G	C4'-C3'-O3'	5.45	123.90	113.00
1	AA	108	G	O4'-C1'-N9	5.45	112.56	108.20
27	BA	1815	A	N9-C1'-C2'	5.45	121.08	114.00
41	DS	17	ARG	N-CA-C	-5.45	96.30	111.00
1	CA	1201	A	C2'-C3'-O3'	5.44	122.41	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	DG	113	ARG	CA-C-N	-5.44	105.23	117.20
1	CA	994	A	N9-C1'-C2'	-5.44	106.02	112.00
42	BT	35	LYS	N-CA-C	-5.43	96.32	111.00
13	CM	66	LEU	CA-CB-CG	5.42	127.77	115.30
27	DA	157	U	N1-C1'-C2'	5.41	121.04	114.00
27	DA	2419	U	N1-C1'-C2'	-5.41	106.05	112.00
27	DA	2585	U	N1-C1'-C2'	5.41	121.04	114.00
1	CA	699	C	N1-C1'-C2'	-5.41	106.05	112.00
27	DA	125	G	N9-C1'-C2'	5.40	121.02	114.00
1	AA	1442(A)	G	O4'-C1'-N9	5.39	112.51	108.20
27	DA	40	C	N1-C1'-C2'	-5.39	106.07	112.00
27	DA	1963	U	N1-C1'-C2'	5.39	121.01	114.00
27	BA	572	A	O5'-P-OP2	-5.39	100.85	105.70
27	DA	2832	U	C2'-C3'-O3'	5.39	122.32	113.70
27	BA	717	G	N9-C1'-C2'	-5.39	106.08	112.00
27	BA	1033	U	OP1-P-O3'	5.38	117.03	105.20
27	BA	2873	A	O4'-C1'-N9	5.37	112.50	108.20
55	D6	19	ARG	N-CA-C	5.37	125.49	111.00
1	AA	1442(A)	G	C2'-C3'-O3'	-5.37	97.70	109.50
27	BA	2042	A	N9-C1'-C2'	-5.35	106.11	112.00
33	BG	87	PRO	N-CA-C	5.35	126.02	112.10
28	DB	35	U	N1-C1'-C2'	-5.35	106.11	112.00
1	AA	154	C	N1-C1'-C2'	-5.35	106.11	112.00
27	BA	1559	G	O4'-C1'-N9	5.35	112.48	108.20
27	BA	1175	U	N1-C1'-C2'	5.35	120.95	114.00
47	BY	54	LYS	N-CA-C	-5.34	96.58	111.00
27	BA	1772	G	N9-C1'-C2'	-5.34	106.13	112.00
27	DA	2021	C	OP1-P-O3'	5.34	116.95	105.20
27	DA	2440	C	O4'-C1'-N1	5.34	112.47	108.20
27	DA	1460	A	C2'-C3'-O3'	5.34	122.24	113.70
1	AA	189(I)	G	N9-C1'-C2'	-5.34	106.13	112.00
43	DU	9	VAL	N-CA-C	5.33	125.39	111.00
1	AA	1380	U	N1-C1'-C2'	5.33	120.92	114.00
27	DA	2276	G	N9-C1'-C2'	-5.32	106.15	112.00
27	BA	1139	G	N9-C1'-C2'	-5.32	106.15	112.00
27	DA	271(D)	G	N9-C1'-C2'	-5.32	106.15	112.00
27	BA	629	G	C5'-C4'-C3'	-5.31	107.50	116.00
27	DA	2702	U	N1-C1'-C2'	5.31	120.90	114.00
44	BV	39	LEU	CA-CB-CG	5.30	127.49	115.30
27	BA	2672	G	C5'-C4'-C3'	-5.30	107.52	116.00
27	BA	945	A	O4'-C1'-N9	5.30	112.44	108.20
54	B5	3	LYS	N-CA-C	5.30	125.30	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	DU	97	ASP	N-CA-C	-5.30	96.70	111.00
1	CA	890	G	N9-C1'-C2'	5.29	120.88	114.00
27	BA	454	A	OP1-P-O3'	5.29	116.83	105.20
44	BV	37	VAL	N-CA-C	-5.28	96.74	111.00
1	CA	429	U	O4'-C1'-N1	5.27	112.42	108.20
27	DA	2060	A	C2'-C3'-O3'	5.27	122.13	113.70
27	DA	2140	C	N1-C1'-C2'	-5.27	106.20	112.00
1	AA	1064	G	C2'-C3'-O3'	5.27	122.13	113.70
27	BA	11	G	N9-C1'-C2'	-5.26	106.21	112.00
40	BR	6	SER	N-CA-C	5.26	125.21	111.00
1	CA	328	C	N1-C1'-C2'	5.26	120.84	114.00
27	DA	469	G	N9-C1'-C2'	-5.26	106.21	112.00
27	DA	742	G	N9-C1'-C2'	-5.25	106.22	112.00
1	AA	1174	G	N9-C1'-C2'	-5.25	106.23	112.00
36	BN	124	ALA	N-CA-C	-5.25	96.84	111.00
1	CA	723	U	N1-C1'-C2'	-5.24	106.23	112.00
27	DA	33	U	C1'-O4'-C4'	-5.24	105.70	109.90
27	DA	1165	U	N1-C1'-C2'	-5.24	106.23	112.00
27	BA	1308	A	N9-C1'-C2'	-5.24	106.24	112.00
27	DA	1914	C	O4'-C1'-N1	5.24	112.39	108.20
1	AA	533	A	C2'-C3'-O3'	5.24	122.08	113.70
1	CA	1141	C	N1-C1'-C2'	5.24	120.81	114.00
47	BY	47	LYS	N-CA-C	5.23	125.13	111.00
37	BO	59	LYS	N-CA-C	-5.22	96.90	111.00
1	CA	454	C	O4'-C1'-N1	5.22	112.38	108.20
4	AD	12	CYS	N-CA-C	-5.22	96.91	111.00
27	BA	2231	C	N1-C1'-C2'	-5.21	106.27	112.00
57	D8	38	GLY	N-CA-C	-5.21	100.07	113.10
13	CM	70	LEU	CA-CB-CG	-5.21	103.32	115.30
27	BA	2699	C	N1-C1'-C2'	-5.21	106.27	112.00
27	DA	790	C	N1-C1'-C2'	5.20	120.77	114.00
27	DA	284	U	N1-C1'-C2'	-5.20	106.28	112.00
27	DA	779	U	N1-C1'-C2'	-5.20	106.28	112.00
37	BO	40	VAL	N-CA-C	-5.20	96.96	111.00
27	DA	1936	A	C1'-O4'-C4'	-5.20	105.74	109.90
27	BA	2712	U	C5'-C4'-O4'	5.20	115.33	109.10
22	CV	6	G	N9-C1'-C2'	5.19	120.75	114.00
1	AA	1020	U	N1-C1'-C2'	-5.19	106.29	112.00
1	AA	181	G	C5'-C4'-O4'	5.19	115.32	109.10
27	DA	1321	A	C5'-C4'-C3'	-5.18	107.71	116.00
1	AA	351	G	N9-C1'-C2'	5.17	120.73	114.00
27	DA	676	A	C1'-O4'-C4'	-5.17	105.76	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	770	C	N1-C1'-C2'	-5.17	106.31	112.00
27	DA	474	G	N9-C1'-C2'	5.17	120.72	114.00
1	AA	1530	G	N9-C1'-C2'	-5.16	106.32	112.00
1	CA	401	C	N1-C1'-C2'	-5.16	106.32	112.00
27	BA	1126	A	C4'-C3'-C2'	5.16	107.76	102.60
27	BA	2712	U	O4'-C1'-N1	5.16	112.33	108.20
38	BP	27	HIS	N-CA-C	5.16	124.93	111.00
1	AA	1124	G	N9-C1'-C2'	5.16	120.70	114.00
27	BA	2682	U	C5'-C4'-O4'	-5.15	102.92	109.10
27	DA	2712	U	O4'-C1'-N1	5.15	112.32	108.20
27	BA	349	G	C5'-C4'-C3'	-5.15	107.77	116.00
56	B7	42	LEU	CA-CB-CG	5.14	127.13	115.30
27	BA	2447	G	C5'-C4'-O4'	-5.14	102.93	109.10
27	DA	2286	A	N9-C1'-C2'	5.14	120.68	114.00
27	BA	272(B)	G	C5'-C4'-C3'	5.13	124.20	116.00
27	BA	2092	U	N1-C1'-C2'	5.12	120.66	114.00
1	AA	872	A	N9-C1'-C2'	5.12	120.65	114.00
27	BA	310	A	C1'-O4'-C4'	-5.12	105.81	109.90
32	DF	85	GLY	N-CA-C	-5.12	100.31	113.10
27	BA	493	G	C5'-C4'-C3'	-5.11	107.82	116.00
27	DA	671	C	N1-C1'-C2'	-5.11	106.38	112.00
27	BA	748	G	N9-C1'-C2'	5.11	120.64	114.00
27	BA	142	A	N9-C1'-C2'	5.10	120.64	114.00
27	BA	343	C	C5'-C4'-C3'	-5.09	107.85	116.00
30	DD	259	THR	N-CA-C	5.09	124.75	111.00
47	DY	99	CYS	CA-CB-SG	5.09	123.17	114.00
30	BD	241	PRO	N-CA-C	5.09	125.34	112.10
47	BY	59	GLY	N-CA-C	5.09	125.82	113.10
1	CA	356	A	N9-C1'-C2'	-5.09	106.40	112.00
40	BR	70	LEU	N-CA-C	-5.09	97.26	111.00
40	DR	5	LYS	N-CA-C	-5.09	97.26	111.00
45	BW	102	HIS	N-CA-C	-5.08	97.28	111.00
1	CA	781	A	N9-C1'-C2'	-5.08	106.41	112.00
27	DA	242	G	N9-C1'-C2'	5.07	120.59	114.00
27	DA	1360	A	C5'-C4'-C3'	-5.07	107.89	116.00
27	BA	1272	A	C5'-C4'-O4'	5.07	115.18	109.10
27	DA	1775	U	N1-C1'-C2'	-5.06	106.43	112.00
42	DT	30	VAL	N-CA-C	5.06	124.67	111.00
27	DA	1034	G	N9-C1'-C2'	-5.06	106.43	112.00
13	CM	113	PRO	CA-N-CD	-5.06	104.42	111.50
27	DA	1015	G	C5'-C4'-C3'	-5.06	107.91	116.00
33	BG	88	ILE	N-CA-C	5.06	124.66	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
46	DX	57	LEU	CA-CB-CG	5.06	126.93	115.30
27	BA	1051	G	N9-C1'-C2'	-5.05	106.45	112.00
37	BO	50	GLY	N-CA-C	5.05	125.72	113.10
11	AK	86	GLY	N-CA-C	5.04	125.71	113.10
55	D6	46	HIS	O-C-N	5.04	130.77	122.70
27	BA	2879	C	OP1-P-O3'	5.04	116.29	105.20
33	BG	113	ARG	CA-C-N	-5.04	106.11	117.20
27	DA	119	A	C2'-C3'-O3'	5.04	121.76	113.70
37	BO	51	ALA	N-CA-C	-5.03	97.41	111.00
30	DD	68	LYS	N-CA-C	-5.03	97.41	111.00
1	CA	1380	U	C2'-C3'-O3'	5.03	121.74	113.70
55	B6	48	VAL	N-CA-C	5.03	124.57	111.00
27	DA	2021	C	N1-C1'-C2'	5.02	120.52	114.00
14	CN	40	CYS	N-CA-C	-5.01	97.46	111.00
1	CA	974	A	N9-C1'-C2'	5.01	120.52	114.00
28	DB	84	C	N1-C1'-C2'	-5.01	106.49	112.00
44	BV	49	THR	N-CA-C	-5.01	97.48	111.00
27	DA	656	G	O4'-C1'-N9	5.01	112.21	108.20
27	BA	1862	G	N9-C1'-C2'	-5.00	106.50	112.00
27	DA	797	C	N1-C1'-C2'	-5.00	106.50	112.00

All (1) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	CA	517	G	C3'

All (582) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	AA	1000	U	Sidechain
1	AA	1020	U	Sidechain
1	AA	1040	U	Sidechain
1	AA	1060	C	Sidechain
1	AA	1062	U	Sidechain
1	AA	1073	U	Sidechain
1	AA	1076	C	Sidechain
1	AA	1077	G	Sidechain
1	AA	1085	U	Sidechain
1	AA	1101	A	Sidechain
1	AA	1124	G	Sidechain
1	AA	115	G	Sidechain
1	AA	1152	A	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1198	G	Sidechain
1	AA	12	U	Sidechain
1	AA	1225	A	Sidechain
1	AA	1264	C	Sidechain
1	AA	1279	A	Sidechain
1	AA	1309	G	Sidechain
1	AA	131	C	Sidechain
1	AA	1314	C	Sidechain
1	AA	142	G	Sidechain
1	AA	1437	C	Sidechain
1	AA	1461	G	Sidechain
1	AA	1472	U	Sidechain
1	AA	1505	G	Sidechain
1	AA	151	A	Sidechain
1	AA	1519	A	Sidechain
1	AA	1530	G	Sidechain
1	AA	154	C	Sidechain
1	AA	17	U	Sidechain
1	AA	182	U	Sidechain
1	AA	190	U	Sidechain
1	AA	198	G	Sidechain
1	AA	240	C	Sidechain
1	AA	253	U	Sidechain
1	AA	287	U	Sidechain
1	AA	290	C	Sidechain
1	AA	297	G	Sidechain
1	AA	315	A	Sidechain
1	AA	34	C	Sidechain
1	AA	343	U	Sidechain
1	AA	365	U	Sidechain
1	AA	372	C	Sidechain
1	AA	425	G	Sidechain
1	AA	438	G	Sidechain
1	AA	450	G	Sidechain
1	AA	461	A	Sidechain
1	AA	470	C	Sidechain
1	AA	471	G	Sidechain
1	AA	484	G	Sidechain
1	AA	486	U	Sidechain
1	AA	49	U	Sidechain
1	AA	498	U	Sidechain
1	AA	508	C	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	512	U	Sidechain
1	AA	518	C	Sidechain
1	AA	52	G	Sidechain
1	AA	528	C	Sidechain
1	AA	534	U	Sidechain
1	AA	545	C	Sidechain
1	AA	577	G	Sidechain
1	AA	578	C	Sidechain
1	AA	603	U	Sidechain
1	AA	657	G	Sidechain
1	AA	664	G	Sidechain
1	AA	669	U	Sidechain
1	AA	672	U	Sidechain
1	AA	678	U	Sidechain
1	AA	682	G	Sidechain
1	AA	688	G	Sidechain
1	AA	697	U	Sidechain
1	AA	700	G	Sidechain
1	AA	721	G	Sidechain
1	AA	723	U	Sidechain
1	AA	729	A	Sidechain
1	AA	752	G	Sidechain
1	AA	775	G	Sidechain
1	AA	793	U	Sidechain
1	AA	801	U	Sidechain
1	AA	837	G	Sidechain
1	AA	879	C	Sidechain
1	AA	882	C	Sidechain
1	AA	890	G	Sidechain
1	AA	897	C	Sidechain
1	AA	936	C	Sidechain
1	AA	940	C	Sidechain
1	AA	974	A	Sidechain
1	AA	981	U	Sidechain
1	AA	984	C	Sidechain
23	AW	34	U	Sidechain
55	B6	46	HIS	Sidechain
27	BA	1007	C	Sidechain
27	BA	1017	G	Sidechain
27	BA	1021	A	Sidechain
27	BA	1025	G	Sidechain
27	BA	1048	A	Sidechain

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Mol	Chain	Res	Type	Group
27	BA	1051	G	Sidechain
27	BA	1121	C	Sidechain
27	BA	1130	U	Sidechain
27	BA	1133	U	Sidechain
27	BA	1139	G	Sidechain
27	BA	1140	C	Sidechain
27	BA	1143	A	Sidechain
27	BA	1192	G	Sidechain
27	BA	120	U	Sidechain
27	BA	1205	U	Sidechain
27	BA	1215	G	Sidechain
27	BA	1225	G	Sidechain
27	BA	1231	G	Sidechain
27	BA	1253	A	Sidechain
27	BA	1265	A	Sidechain
27	BA	1271	G	Sidechain
27	BA	1283	G	Sidechain
27	BA	1288	U	Sidechain
27	BA	1300	U	Sidechain
27	BA	1308	A	Sidechain
27	BA	1309	G	Sidechain
27	BA	1310	G	Sidechain
27	BA	1323	U	Sidechain
27	BA	1349	A	Sidechain
27	BA	1364	G	Sidechain
27	BA	1379	A	Sidechain
27	BA	1391	U	Sidechain
27	BA	1396	U	Sidechain
27	BA	140	G	Sidechain
27	BA	1405	U	Sidechain
27	BA	1410	G	Sidechain
27	BA	1425	G	Sidechain
27	BA	1428	C	Sidechain
27	BA	1433	U	Sidechain
27	BA	1437	C	Sidechain
27	BA	1451	C	Sidechain
27	BA	1497	U	Sidechain
27	BA	15	G	Sidechain
27	BA	1603	A	Sidechain
27	BA	1620	G	Sidechain
27	BA	1630	G	Sidechain
27	BA	1659	U	Sidechain

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Mol	Chain	Res	Type	Group
27	BA	1680	U	Sidechain
27	BA	1704	G	Sidechain
27	BA	1709	U	Sidechain
27	BA	1742	G	Sidechain
27	BA	1745(A)	C	Sidechain
27	BA	1772	G	Sidechain
27	BA	1775	U	Sidechain
27	BA	1779	U	Sidechain
27	BA	1780	A	Sidechain
27	BA	1783	A	Sidechain
27	BA	1784	A	Sidechain
27	BA	1796	U	Sidechain
27	BA	1861	G	Sidechain
27	BA	1884	A	Sidechain
27	BA	1903	G	Sidechain
27	BA	1915	U	Sidechain
27	BA	1935	G	Sidechain
27	BA	1938	A	Sidechain
27	BA	1952	A	Sidechain
27	BA	1976	U	Sidechain
27	BA	1978	A	Sidechain
27	BA	1983	C	Sidechain
27	BA	1984	G	Sidechain
27	BA	1996	C	Sidechain
27	BA	1998	G	Sidechain
27	BA	1999	C	Sidechain
27	BA	2000	G	Sidechain
27	BA	2010	G	Sidechain
27	BA	2022	U	Sidechain
27	BA	2032	G	Sidechain
27	BA	2036	C	Sidechain
27	BA	2041	U	Sidechain
27	BA	2053	G	Sidechain
27	BA	2068	U	Sidechain
27	BA	2074	U	Sidechain
27	BA	2086	U	Sidechain
27	BA	2110	G	Sidechain
27	BA	2126	A	Sidechain
27	BA	2127	G	Sidechain
27	BA	22	C	Sidechain
27	BA	223	A	Sidechain
27	BA	2232	U	Sidechain

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Mol	Chain	Res	Type	Group
27	BA	2233	U	Sidechain
27	BA	2243	U	Sidechain
27	BA	2249	U	Sidechain
27	BA	226	G	Sidechain
27	BA	2308	G	Sidechain
27	BA	2319	G	Sidechain
27	BA	2335	A	Sidechain
27	BA	2344	U	Sidechain
27	BA	235	U	Sidechain
27	BA	2370	G	Sidechain
27	BA	2375	G	Sidechain
27	BA	2390	U	Sidechain
27	BA	2401	U	Sidechain
27	BA	2406	U	Sidechain
27	BA	2424	C	Sidechain
27	BA	2437	U	Sidechain
27	BA	2461	C	Sidechain
27	BA	2475	C	Sidechain
27	BA	2477	C	Sidechain
27	BA	2481	G	Sidechain
27	BA	2484	G	Sidechain
27	BA	2486	G	Sidechain
27	BA	249	C	Sidechain
27	BA	2491	U	Sidechain
27	BA	2504	U	Sidechain
27	BA	2511	U	Sidechain
27	BA	2519	U	Sidechain
27	BA	2522	U	Sidechain
27	BA	2523	G	Sidechain
27	BA	2524	G	Sidechain
27	BA	2525	G	Sidechain
27	BA	2529	G	Sidechain
27	BA	2542	A	Sidechain
27	BA	2554	U	Sidechain
27	BA	2555	U	Sidechain
27	BA	2558	C	Sidechain
27	BA	256	A	Sidechain
27	BA	2574	G	Sidechain
27	BA	2589	A	Sidechain
27	BA	2595	G	Sidechain
27	BA	2597	G	Sidechain
27	BA	2606	C	Sidechain

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Mol	Chain	Res	Type	Group
27	BA	2607	G	Sidechain
27	BA	2608	G	Sidechain
27	BA	2609	U	Sidechain
27	BA	2636	U	Sidechain
27	BA	2640	G	Sidechain
27	BA	2689	U	Sidechain
27	BA	2692	C	Sidechain
27	BA	271(D)	G	Sidechain
27	BA	271(E)	U	Sidechain
27	BA	271(K)	U	Sidechain
27	BA	2712	U	Sidechain
27	BA	2720	U	Sidechain
27	BA	2724	C	Sidechain
27	BA	2739	U	Sidechain
27	BA	2778	A	Sidechain
27	BA	2779	U	Sidechain
27	BA	2832	U	Sidechain
27	BA	2836	U	Sidechain
27	BA	2846	G	Sidechain
27	BA	2857	G	Sidechain
27	BA	2866	U	Sidechain
27	BA	2872	G	Sidechain
27	BA	2873	A	Sidechain
27	BA	2875	C	Sidechain
27	BA	2884	U	Sidechain
27	BA	2885	C	Sidechain
27	BA	2887	U	Sidechain
27	BA	301	G	Sidechain
27	BA	326	G	Sidechain
27	BA	34	C	Sidechain
27	BA	340	A	Sidechain
27	BA	363(E)	U	Sidechain
27	BA	373	U	Sidechain
27	BA	387	U	Sidechain
27	BA	390	A	Sidechain
27	BA	396	G	Sidechain
27	BA	403	U	Sidechain
27	BA	434	U	Sidechain
27	BA	436	C	Sidechain
27	BA	44	G	Sidechain
27	BA	463	G	Sidechain
27	BA	467	G	Sidechain

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Mol	Chain	Res	Type	Group
27	BA	47	C	Sidechain
27	BA	479	A	Sidechain
27	BA	511	U	Sidechain
27	BA	562	U	Sidechain
27	BA	607	U	Sidechain
27	BA	61	G	Sidechain
27	BA	614	U	Sidechain
27	BA	614(A)	U	Sidechain
27	BA	628	G	Sidechain
27	BA	630	G	Sidechain
27	BA	648	G	Sidechain
27	BA	652	C	Sidechain
27	BA	657	U	Sidechain
27	BA	661	C	Sidechain
27	BA	663	G	Sidechain
27	BA	668	G	Sidechain
27	BA	674	G	Sidechain
27	BA	695	G	Sidechain
27	BA	715	G	Sidechain
27	BA	725	G	Sidechain
27	BA	742	G	Sidechain
27	BA	743	G	Sidechain
27	BA	750	A	Sidechain
27	BA	77	C	Sidechain
27	BA	777	A	Sidechain
27	BA	787	U	Sidechain
27	BA	808	G	Sidechain
27	BA	827	U	Sidechain
27	BA	834	C	Sidechain
27	BA	842	G	Sidechain
27	BA	847	U	Sidechain
27	BA	859	G	Sidechain
27	BA	868	U	Sidechain
27	BA	871	U	Sidechain
27	BA	88	G	Sidechain
27	BA	90	U	Sidechain
27	BA	916	G	Sidechain
27	BA	928	G	Sidechain
27	BA	937	U	Sidechain
27	BA	943	U	Sidechain
27	BA	947	G	Sidechain
27	BA	950	G	Sidechain

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Mol	Chain	Res	Type	Group
27	BA	951	C	Sidechain
27	BA	956	G	Sidechain
27	BA	958	U	Sidechain
27	BA	959	A	Sidechain
27	BA	964	C	Sidechain
27	BA	985	C	Sidechain
27	BA	996	A	Sidechain
27	BA	999	U	Sidechain
28	BB	1	U	Sidechain
28	BB	105	A	Sidechain
28	BB	118	G	Sidechain
28	BB	12	C	Sidechain
28	BB	40	U	Sidechain
28	BB	66	A	Sidechain
47	BY	55	TYR	Sidechain
1	CA	1052	U	Sidechain
1	CA	1055	A	Sidechain
1	CA	106	C	Sidechain
1	CA	1077	G	Sidechain
1	CA	1122	U	Sidechain
1	CA	1140	C	Sidechain
1	CA	1160	G	Sidechain
1	CA	1177	G	Sidechain
1	CA	1217	C	Sidechain
1	CA	1225	A	Sidechain
1	CA	1226	C	Sidechain
1	CA	1240	U	Sidechain
1	CA	1282	C	Sidechain
1	CA	1289	A	Sidechain
1	CA	1293	G	Sidechain
1	CA	13	U	Sidechain
1	CA	1302	U	Sidechain
1	CA	131	C	Sidechain
1	CA	1316	G	Sidechain
1	CA	133	U	Sidechain
1	CA	1331	G	Sidechain
1	CA	1351	U	Sidechain
1	CA	1363(A)	A	Sidechain
1	CA	1405	G	Sidechain
1	CA	1498	U	Sidechain
1	CA	1504	G	Sidechain
1	CA	1506	U	Sidechain

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Mol	Chain	Res	Type	Group
1	CA	182	U	Sidechain
1	CA	189(G)	G	Sidechain
1	CA	195	A	Sidechain
1	CA	199	G	Sidechain
1	CA	21	G	Sidechain
1	CA	245	C	Sidechain
1	CA	246	A	Sidechain
1	CA	250	A	Sidechain
1	CA	253	U	Sidechain
1	CA	266	G	Sidechain
1	CA	277	C	Sidechain
1	CA	279	A	Sidechain
1	CA	298	A	Sidechain
1	CA	305	G	Sidechain
1	CA	323	U	Sidechain
1	CA	324	G	Sidechain
1	CA	352	C	Sidechain
1	CA	356	A	Sidechain
1	CA	380	G	Sidechain
1	CA	401	C	Sidechain
1	CA	432	A	Sidechain
1	CA	437	U	Sidechain
1	CA	45	U	Sidechain
1	CA	454	C	Sidechain
1	CA	47	C	Sidechain
1	CA	498	U	Sidechain
1	CA	5	U	Sidechain
1	CA	526	C	Sidechain
1	CA	530	G	Sidechain
1	CA	551	U	Sidechain
1	CA	560	U	Sidechain
1	CA	576	G	Sidechain
1	CA	62	U	Sidechain
1	CA	657	G	Sidechain
1	CA	690	G	Sidechain
1	CA	691	G	Sidechain
1	CA	723	U	Sidechain
1	CA	730	G	Sidechain
1	CA	754	C	Sidechain
1	CA	789	U	Sidechain
1	CA	835	U	Sidechain
1	CA	838	G	Sidechain

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Mol	Chain	Res	Type	Group
1	CA	870	U	Sidechain
1	CA	879	C	Sidechain
1	CA	898	G	Sidechain
1	CA	901	A	Sidechain
1	CA	920	U	Sidechain
1	CA	922	G	Sidechain
1	CA	935	A	Sidechain
1	CA	952	U	Sidechain
1	CA	966	G	Sidechain
1	CA	974	A	Sidechain
1	CA	994	A	Sidechain
1	CA	995	C	Sidechain
13	CM	70	LEU	Mainchain
22	CV	10	U	Sidechain
22	CV	6	G	Sidechain
23	CW	35	G	Sidechain
23	CW	71	A	Sidechain
54	D5	52	TYR	Sidechain
55	D6	46	HIS	Sidechain
27	DA	1034	G	Sidechain
27	DA	1142(A)	A	Sidechain
27	DA	1165	U	Sidechain
27	DA	1171	G	Sidechain
27	DA	1188	U	Sidechain
27	DA	1190	G	Sidechain
27	DA	120	U	Sidechain
27	DA	1248	G	Sidechain
27	DA	125	G	Sidechain
27	DA	1282	U	Sidechain
27	DA	1289	C	Sidechain
27	DA	1298	C	Sidechain
27	DA	1300	U	Sidechain
27	DA	1309	G	Sidechain
27	DA	1311	G	Sidechain
27	DA	1332	G	Sidechain
27	DA	135	G	Sidechain
27	DA	1373	A	Sidechain
27	DA	1379	A	Sidechain
27	DA	1396	U	Sidechain
27	DA	145	G	Sidechain
27	DA	1461	G	Sidechain
27	DA	1494	A	Sidechain

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Mol	Chain	Res	Type	Group
27	DA	15	G	Sidechain
27	DA	151	C	Sidechain
27	DA	154(A)	C	Sidechain
27	DA	1558	A	Sidechain
27	DA	1567	A	Sidechain
27	DA	157	U	Sidechain
27	DA	1633	G	Sidechain
27	DA	1648	C	Sidechain
27	DA	1664	A	Sidechain
27	DA	1702	G	Sidechain
27	DA	1769	G	Sidechain
27	DA	1772	G	Sidechain
27	DA	1780	A	Sidechain
27	DA	1781	C	Sidechain
27	DA	1782	C	Sidechain
27	DA	1783	A	Sidechain
27	DA	1801	G	Sidechain
27	DA	1815	A	Sidechain
27	DA	1816	G	Sidechain
27	DA	1841	U	Sidechain
27	DA	1849	G	Sidechain
27	DA	185	U	Sidechain
27	DA	1854	A	Sidechain
27	DA	1926	U	Sidechain
27	DA	1963	U	Sidechain
27	DA	197	A	Sidechain
27	DA	1980	G	Sidechain
27	DA	1990	C	Sidechain
27	DA	1992	G	Sidechain
27	DA	1993	U	Sidechain
27	DA	200	U	Sidechain
27	DA	2009	G	Sidechain
27	DA	2019	A	Sidechain
27	DA	2023	G	Sidechain
27	DA	2034	U	Sidechain
27	DA	2036	C	Sidechain
27	DA	2052	G	Sidechain
27	DA	2068	U	Sidechain
27	DA	2096	U	Sidechain
27	DA	2113	U	Sidechain
27	DA	2127	G	Sidechain
27	DA	2134	A	Sidechain

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Mol	Chain	Res	Type	Group
27	DA	2222	G	Sidechain
27	DA	223	A	Sidechain
27	DA	2244	U	Sidechain
27	DA	2248	C	Sidechain
27	DA	2251	G	Sidechain
27	DA	227	A	Sidechain
27	DA	2278	A	Sidechain
27	DA	229	A	Sidechain
27	DA	2305	A	Sidechain
27	DA	2335	A	Sidechain
27	DA	2347	C	Sidechain
27	DA	2348	U	Sidechain
27	DA	2381	C	Sidechain
27	DA	2387	U	Sidechain
27	DA	2401	U	Sidechain
27	DA	2419	U	Sidechain
27	DA	2424	C	Sidechain
27	DA	2428	G	Sidechain
27	DA	2431	U	Sidechain
27	DA	2466	C	Sidechain
27	DA	248	G	Sidechain
27	DA	249	C	Sidechain
27	DA	2498	C	Sidechain
27	DA	2500	U	Sidechain
27	DA	2504	U	Sidechain
27	DA	2524	G	Sidechain
27	DA	2525	G	Sidechain
27	DA	2569	G	Sidechain
27	DA	2572	A	Sidechain
27	DA	2578	G	Sidechain
27	DA	2593	U	Sidechain
27	DA	2596	U	Sidechain
27	DA	2597	G	Sidechain
27	DA	2599	G	Sidechain
27	DA	2611	U	Sidechain
27	DA	2612	C	Sidechain
27	DA	2613	U	Sidechain
27	DA	2622	C	Sidechain
27	DA	2637	U	Sidechain
27	DA	2647	U	Sidechain
27	DA	2654	A	Sidechain
27	DA	2656	U	Sidechain

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Mol	Chain	Res	Type	Group
27	DA	2681	C	Sidechain
27	DA	2702	U	Sidechain
27	DA	272	G	Sidechain
27	DA	272(B)	G	Sidechain
27	DA	2732	G	Sidechain
27	DA	2805	G	Sidechain
27	DA	2834	G	Sidechain
27	DA	284	U	Sidechain
27	DA	295	G	Sidechain
27	DA	303	U	Sidechain
27	DA	308	G	Sidechain
27	DA	313	C	Sidechain
27	DA	329	G	Sidechain
27	DA	334	C	Sidechain
27	DA	346	A	Sidechain
27	DA	372	G	Sidechain
27	DA	384	U	Sidechain
27	DA	400	G	Sidechain
27	DA	403	U	Sidechain
27	DA	405	U	Sidechain
27	DA	411	G	Sidechain
27	DA	451	C	Sidechain
27	DA	458	G	Sidechain
27	DA	467	G	Sidechain
27	DA	474	G	Sidechain
27	DA	476	G	Sidechain
27	DA	489	G	Sidechain
27	DA	497	A	Sidechain
27	DA	504	U	Sidechain
27	DA	524	U	Sidechain
27	DA	530	G	Sidechain
27	DA	567	A	Sidechain
27	DA	588	U	Sidechain
27	DA	593	G	Sidechain
27	DA	594	U	Sidechain
27	DA	597	U	Sidechain
27	DA	61	G	Sidechain
27	DA	634	C	Sidechain
27	DA	671	C	Sidechain
27	DA	673	C	Sidechain
27	DA	675	A	Sidechain
27	DA	695	G	Sidechain

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Mol	Chain	Res	Type	Group
27	DA	73	A	Sidechain
27	DA	734	A	Sidechain
27	DA	742	G	Sidechain
27	DA	784	A	Sidechain
27	DA	79	G	Sidechain
27	DA	793	A	Sidechain
27	DA	859	G	Sidechain
27	DA	860	U	Sidechain
27	DA	89	G	Sidechain
27	DA	919	G	Sidechain
27	DA	950	G	Sidechain
27	DA	976	C	Sidechain
27	DA	979	G	Sidechain
27	DA	986	C	Sidechain
27	DA	989	G	Sidechain
28	DB	116	G	Sidechain
28	DB	117	G	Sidechain
28	DB	13	A	Sidechain
28	DB	34	U	Sidechain
28	DB	35	U	Sidechain
28	DB	66	A	Sidechain
30	DD	62	TYR	Sidechain
36	DN	4	TYR	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	32141	0	16225	1913	0
1	CA	32141	0	16225	2200	0
2	AB	1901	0	1951	267	0
2	CB	1901	0	1951	267	0
3	AC	1613	0	1677	233	0
3	CC	1613	0	1677	215	0
4	AD	1703	0	1764	222	0
4	CD	1703	0	1764	256	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	AE	1147	0	1207	175	0
5	CE	1147	0	1207	184	0
6	AF	843	0	857	110	0
6	CF	843	0	857	121	0
7	AG	1257	0	1296	180	0
7	CG	1257	0	1296	149	0
8	AH	1116	0	1177	206	0
8	CH	1116	0	1177	178	0
9	AI	1005	0	1032	145	0
9	CI	1006	0	1034	145	0
10	AJ	795	0	840	164	0
10	CJ	795	0	840	157	0
11	AK	885	0	904	123	0
11	CK	885	0	904	113	0
12	AL	971	0	1057	167	0
12	CL	971	0	1057	185	0
13	AM	947	0	999	196	0
13	CM	910	0	931	185	0
14	AN	492	0	533	99	0
14	CN	492	0	533	106	0
15	AO	734	0	771	116	0
15	CO	734	0	771	104	0
16	AP	701	0	720	113	0
16	CP	701	0	720	96	0
17	AQ	824	0	891	109	0
17	CQ	824	0	891	121	0
18	AR	574	0	644	90	0
18	CR	574	0	644	73	0
19	AS	630	0	652	109	0
19	CS	630	0	652	106	0
20	AT	763	0	861	118	0
20	CT	763	0	861	132	0
21	AU	209	0	221	24	0
21	CU	209	0	221	33	0
22	AV	213	0	110	6	0
22	CV	213	0	110	12	0
23	AW	1593	0	810	80	0
23	CW	1593	0	810	75	0
24	AX	1640	0	837	69	0
24	CX	1640	0	837	73	0
25	AY	1591	0	810	83	0
25	CY	1591	0	810	87	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
26	AZ	48	0	40	12	0
26	CZ	48	0	40	19	0
27	BA	60311	0	30410	3523	0
27	DA	60313	0	30409	3995	0
28	BB	2528	0	1285	121	0
28	DB	2528	0	1285	141	0
29	BC	1142	0	865	101	0
29	DC	1142	0	865	133	0
30	BD	2105	0	2182	414	0
30	DD	2105	0	2182	386	0
31	BE	1564	0	1629	294	0
31	DE	1564	0	1629	325	0
32	BF	1624	0	1677	321	0
32	DF	1624	0	1677	262	0
33	BG	1474	0	1535	226	0
33	DG	1474	0	1535	259	0
34	BH	1252	0	1316	235	0
34	DH	1223	0	1282	194	0
35	BI	1042	0	1031	193	0
35	DI	1046	0	1035	152	0
36	BN	1105	0	1180	171	0
36	DN	1105	0	1180	214	0
37	BO	933	0	996	170	0
37	DO	933	0	996	165	0
38	BP	1114	0	1187	295	0
38	DP	1114	0	1187	327	0
39	BQ	1122	0	1179	176	0
39	DQ	1107	0	1166	203	0
40	BR	960	0	1021	164	0
40	DR	960	0	1021	179	0
41	BS	771	0	832	160	0
41	DS	777	0	825	148	0
42	BT	1142	0	1202	279	0
42	DT	1142	0	1202	273	0
43	BU	958	0	1015	185	0
43	DU	958	0	1015	196	0
44	BV	779	0	852	166	0
44	DV	779	0	852	168	0
45	BW	896	0	953	103	0
45	DW	896	0	953	157	0
46	BX	726	0	778	103	0
46	DX	726	0	778	127	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
47	BY	776	0	870	215	0
47	DY	776	0	870	191	0
48	BZ	1404	0	1432	184	0
48	DZ	1404	0	1432	221	0
49	B0	662	0	688	89	0
49	D0	662	0	688	103	0
50	B1	715	0	766	118	0
50	D1	732	0	808	98	0
51	B2	598	0	653	112	0
51	D2	598	0	653	84	0
52	B3	468	0	523	56	0
52	D3	468	0	523	84	0
53	B4	226	0	226	40	0
53	D4	226	0	227	33	0
54	B5	459	0	476	76	0
54	D5	459	0	476	70	0
55	B6	411	0	403	122	0
55	D6	390	0	403	103	0
56	B7	419	0	467	49	0
56	D7	419	0	467	80	0
57	B8	508	0	576	122	0
57	D8	508	0	576	135	0
58	B9	299	0	323	50	0
58	D9	299	0	323	49	0
59	AA	133	0	0	0	0
59	AC	1	0	0	0	0
59	AD	1	0	0	0	0
59	AE	1	0	0	0	0
59	AF	1	0	0	0	0
59	AH	1	0	0	0	0
59	AK	2	0	0	0	0
59	AL	1	0	0	0	0
59	AO	1	0	0	0	0
59	AT	2	0	0	0	0
59	AW	7	0	0	0	0
59	AX	7	0	0	0	0
59	AY	2	0	0	0	0
59	B0	2	0	0	0	0
59	B5	1	0	0	0	0
59	BA	400	0	0	0	0
59	BB	1	0	0	0	0
59	BD	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	BE	1	0	0	0	0
59	BF	2	0	0	0	0
59	BH	1	0	0	0	0
59	BN	1	0	0	0	0
59	BP	1	0	0	0	0
59	BQ	1	0	0	0	0
59	BR	1	0	0	0	0
59	BU	1	0	0	0	0
59	BX	1	0	0	0	0
59	BY	1	0	0	1	0
59	BZ	1	0	0	0	0
59	CA	92	0	0	0	0
59	CE	2	0	0	0	0
59	CQ	1	0	0	0	0
59	CV	2	0	0	0	0
59	CX	3	0	0	0	0
59	D5	2	0	0	0	0
59	D6	1	0	0	0	0
59	DA	275	0	0	0	0
59	DB	1	0	0	0	0
59	DD	3	0	0	0	0
59	DE	3	0	0	0	0
59	DF	1	0	0	0	0
59	DR	1	0	0	0	0
59	DZ	1	0	0	0	0
60	AD	1	0	0	1	0
60	B4	1	0	0	0	0
60	B5	1	0	0	0	0
60	B9	1	0	0	0	0
60	CD	1	0	0	1	0
60	D4	1	0	0	0	0
60	D5	1	0	0	0	0
60	D9	1	0	0	0	0
All	All	294559	0	198754	25938	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 53.

All (25938) close contacts within the same asymmetric unit are listed below.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BP:59:LEU:HA	38:BP:61:ARG:CZ	1.58	1.32
30:DD:231:HIS:ND1	30:DD:232:PRO:HD2	1.55	1.20

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1363(A):A:H1'	1:CA:1365:G:N7	1.57	1.19
40:BR:100:LEU:HD21	40:BR:113:LEU:HD13	1.24	1.19
27:BA:2787:C:H1'	31:BE:61:ARG:HG3	1.25	1.18
2:CB:91:PRO:HG3	2:CB:154:LEU:HB2	1.24	1.17
41:BS:97:ARG:NH2	41:BS:98:VAL:HA	1.60	1.16
32:BF:3:GLU:HB2	32:BF:19:GLU:HB2	1.23	1.16
27:BA:2680:C:H5'	31:BE:189:PRO:HA	1.28	1.16
47:BY:96:ILE:HB	47:BY:99:CYS:HB2	1.21	1.15
12:AL:29:PHE:HB3	12:AL:81:LEU:HD11	1.19	1.15
34:BH:85:LYS:HD3	34:BH:133:VAL:HB	1.24	1.15
37:BO:14:THR:HG21	37:BO:86:ILE:HD12	1.21	1.15
12:AL:44:LYS:HB3	12:AL:45:PRO:HD3	1.15	1.15
36:DN:70:LYS:HG2	36:DN:87:LEU:HD12	1.25	1.15
46:BX:30:VAL:HG21	46:BX:39:ILE:HD11	1.26	1.15
27:DA:242:G:H5''	57:D8:62:LEU:HD13	1.29	1.14
12:CL:44:LYS:HB3	12:CL:45:PRO:HD2	1.23	1.14
38:BP:65:ARG:NH2	57:B8:15:LYS:HB2	1.60	1.14
38:DP:45:LEU:HD23	38:DP:46:LYS:H	0.97	1.14
39:DQ:12:GLN:HE21	39:DQ:72:LYS:HG3	1.11	1.13
27:DA:271(S):G:H2'	27:DA:271(T):C:H5''	1.26	1.13
1:CA:1101:A:H4'	1:CA:1102:A:O5'	1.46	1.13
30:BD:165:ILE:HD13	30:BD:175:LEU:HD21	1.24	1.13
5:AE:50:GLU:HG3	5:AE:52:PRO:HD2	1.14	1.13
30:DD:239:ARG:HG2	30:DD:239:ARG:HH21	1.11	1.13
27:BA:27:G:N2	27:BA:512:G:H2'	1.63	1.13
48:DZ:149:LEU:HD23	48:DZ:170:ILE:HG13	1.30	1.13
11:AK:127:LYS:HE2	11:AK:127:LYS:HA	1.24	1.12
48:DZ:157:PRO:HG2	48:DZ:160:VAL:HG21	1.30	1.12
4:CD:9:CYS:SG	4:CD:22:LYS:HD2	1.88	1.12
33:BG:106:LEU:O	33:BG:111:LEU:HB2	1.48	1.12
27:BA:661:C:H4'	38:BP:16:ARG:HH12	1.02	1.12
12:CL:43:LYS:HG2	12:CL:44:LYS:H	1.12	1.12
13:CM:25:ILE:HD11	13:CM:66:LEU:HD23	1.28	1.12
27:BA:480:A:H1'	47:BY:44:ILE:HG21	1.31	1.11
42:DT:65:LYS:HZ2	42:DT:66:VAL:N	1.47	1.11
32:BF:2:LYS:H	32:BF:2:LYS:HD3	1.08	1.11
27:BA:2729:G:H1'	31:BE:187:ALA:HB2	1.31	1.11
31:BE:59:VAL:HG22	31:BE:60:ASN:H	1.11	1.11
54:B5:4:HIS:HB3	54:B5:5:PRO:HD3	1.23	1.11
2:CB:172:ILE:H	2:CB:172:ILE:HD12	1.06	1.11
1:CA:1347:G:N2	1:CA:1373:G:H2'	1.66	1.11
2:CB:204:ASN:HD21	2:CB:207:ALA:HB3	1.15	1.10

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BF:67:GLN:HG3	32:BF:67:GLN:O	1.48	1.10
5:AE:129:ILE:HG22	5:AE:130:ASN:H	1.16	1.10
16:CP:82:GLN:HE21	16:CP:82:GLN:N	1.49	1.10
44:BV:18:LEU:HD13	44:BV:19:LYS:H	1.14	1.10
42:DT:65:LYS:NZ	42:DT:66:VAL:H	1.50	1.10
1:CA:721:G:H4'	1:CA:722:A:O5'	1.52	1.10
38:DP:71:VAL:HG13	38:DP:72:PRO:HD3	1.17	1.10
27:DA:1891:G:H2'	27:DA:1892:C:H6	1.11	1.10
42:BT:79:HIS:O	42:BT:81:PRO:HD3	1.50	1.10
5:AE:33:VAL:HG23	5:AE:43:LEU:HD13	1.35	1.09
27:DA:1891:G:H2'	27:DA:1892:C:C6	1.87	1.09
17:AQ:17:LYS:HG2	17:AQ:47:PRO:HA	1.13	1.09
27:BA:2327:A:H2'	27:BA:2328:A:C8	1.87	1.09
31:DE:144:ARG:HH11	31:DE:144:ARG:HG3	1.11	1.09
32:DF:7:TYR:HB3	32:DF:16:GLY:H	1.15	1.09
29:BC:83:ILE:HG23	29:BC:94:VAL:HG23	1.34	1.09
44:BV:19:LYS:HG2	44:BV:94:LEU:HB2	1.26	1.09
8:AH:63:LEU:HB3	8:AH:65:TYR:HE1	1.13	1.09
34:BH:85:LYS:HZ2	34:BH:133:VAL:HG11	1.16	1.09
12:CL:44:LYS:HB3	12:CL:45:PRO:CD	1.83	1.09
27:DA:1796:U:H2'	27:DA:1797:C:H6	1.14	1.09
27:BA:285:C:H2'	27:BA:286:C:H5''	1.21	1.09
19:CS:19:VAL:HG11	19:CS:44:MET:HG3	1.27	1.09
27:DA:2230:G:H1'	50:D1:45:ASN:HB2	1.23	1.09
42:BT:27:THR:O	42:BT:28:VAL:HG23	1.50	1.09
1:AA:1080:A:H5'	5:AE:14:ARG:HH21	1.03	1.09
43:DU:55:ARG:HA	43:DU:58:ARG:HB2	1.31	1.09
27:BA:2476:A:H2'	27:BA:2477:C:H5''	1.34	1.09
14:CN:37:PHE:HB3	14:CN:39:LEU:HG	1.32	1.08
47:BY:46:LYS:HB2	47:BY:62:GLU:HG2	1.28	1.08
42:BT:91:ARG:HB3	42:BT:116:ALA:HA	1.32	1.08
27:BA:2701:C:H3'	27:BA:2702:U:H5''	1.16	1.08
47:DY:75:ILE:HG13	47:DY:79:CYS:HA	1.29	1.08
27:DA:492:A:H2'	27:DA:493:G:O4'	1.51	1.08
27:DA:35:G:H1'	27:DA:454:A:H1'	1.30	1.08
29:BC:41:VAL:HA	29:BC:213:TYR:HA	1.26	1.08
1:CA:1250:A:H4'	9:CI:68:GLY:H	1.16	1.08
41:BS:34:HIS:NE2	41:BS:54:LEU:HB2	1.69	1.08
30:DD:118:VAL:HG22	30:DD:119:ALA:H	1.06	1.08
27:DA:1568:G:H5''	30:DD:61:LEU:HD23	1.31	1.08
30:BD:24:ILE:HG13	30:BD:25:THR:N	1.66	1.08
27:DA:1826:G:H4'	30:DD:242:ARG:HH21	1.09	1.08

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:82:ALA:HB1	4:CD:89:THR:HG23	1.34	1.08
12:CL:52:VAL:HG22	12:CL:66:TYR:HA	1.34	1.08
37:BO:104:ARG:HH12	42:BT:35:LYS:HE2	1.16	1.08
52:B3:23:LEU:H	52:B3:23:LEU:HD12	1.17	1.08
27:DA:94(A):G:H2'	27:DA:95:G:H5''	1.27	1.08
44:BV:19:LYS:HE2	44:BV:20:LEU:H	1.14	1.08
31:BE:77:ILE:HG22	31:BE:78:LEU:H	1.15	1.07
1:CA:1347:G:H22	1:CA:1373:G:H2'	1.03	1.07
30:DD:24:ILE:HG13	30:DD:25:THR:H	1.18	1.07
27:DA:1884:A:H2'	27:DA:1885:A:H5''	1.32	1.07
27:DA:2833:G:H3'	27:DA:2834:G:H5''	1.11	1.07
54:B5:16:ARG:HG2	54:B5:16:ARG:HH11	1.12	1.07
27:BA:1899:G:N2	27:BA:1902:C:H41	1.53	1.07
27:BA:2801(A):A:H4'	27:BA:2802:G:H5'	1.31	1.07
27:BA:1378:A:O2'	27:BA:1379:A:H5'	1.52	1.07
42:DT:42:ILE:H	42:DT:42:ILE:HD12	1.14	1.07
1:AA:473:G:H2'	1:AA:474:G:H8	1.19	1.07
45:DW:7:ALA:HB3	45:DW:103:ILE:HB	1.30	1.07
47:DY:76:CYS:SG	47:DY:77:PRO:HD2	1.94	1.07
1:CA:1363(A):A:H4'	1:CA:1364:U:H5''	1.36	1.07
1:CA:979:C:H3'	1:CA:980:C:H5''	1.36	1.07
43:BU:92:ARG:HH11	43:BU:92:ARG:HB2	0.97	1.07
41:DS:85:VAL:H	41:DS:106:ARG:HB2	1.14	1.07
33:BG:39:ILE:HD11	33:BG:155:MET:HB2	1.32	1.07
38:DP:45:LEU:HD23	38:DP:46:LYS:N	1.69	1.07
27:DA:906:G:H2'	27:DA:907:U:H5''	1.32	1.07
11:AK:32:ILE:HD12	11:AK:72:ALA:HB2	1.31	1.07
27:BA:1884:A:H2'	27:BA:1885:A:H5''	1.37	1.07
27:BA:1747(A):G:H2'	27:BA:1748:G:H5''	1.23	1.07
31:DE:77:ILE:HG22	31:DE:78:LEU:H	0.94	1.07
27:DA:2701:C:H3'	27:DA:2702:U:C5'	1.84	1.07
17:AQ:18:THR:HG23	17:AQ:69:LYS:HE3	1.37	1.06
7:CG:113:GLU:HB2	7:CG:119:ARG:HG2	1.31	1.06
55:D6:33:LYS:HA	55:D6:33:LYS:HE2	1.32	1.06
11:CK:32:ILE:HD11	11:CK:41:THR:HG22	1.20	1.06
33:DG:22:ARG:HH11	33:DG:22:ARG:HB3	1.18	1.06
4:AD:196:LEU:HD12	4:AD:196:LEU:H	1.14	1.06
1:AA:1080:A:H5'	5:AE:14:ARG:NH2	1.69	1.06
47:DY:27:VAL:HA	47:DY:28:LYS:HZ1	1.20	1.06
38:DP:63:PRO:HB3	57:D8:13:ARG:HB3	1.20	1.06
56:D7:41:ARG:NH1	56:D7:41:ARG:HB2	1.71	1.06
47:BY:15:VAL:HG22	47:BY:72:VAL:HG12	1.37	1.06

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DN:34:LEU:HD11	36:DN:120:LEU:HD23	1.37	1.06
27:BA:2317:C:C2'	27:BA:2318:G:H5'	1.85	1.06
14:CN:41:ARG:HG3	14:CN:42:ILE:H	1.19	1.06
27:DA:586:A:H5'	32:DF:89:VAL:HG21	1.38	1.06
20:AT:71:THR:HG22	20:AT:72:LEU:H	1.16	1.06
27:BA:1020:A:H4'	27:BA:1021:A:O5'	1.56	1.06
27:BA:2701:C:H3'	27:BA:2702:U:C5'	1.85	1.06
27:DA:2787:C:H1'	31:DE:61:ARG:HG3	1.37	1.06
27:DA:704:G:H2'	27:DA:726:G:H22	1.17	1.06
23:AW:30:A:H2'	23:AW:31:U:H5''	1.38	1.06
30:BD:26:LYS:NZ	30:BD:82:ILE:H	1.54	1.05
31:DE:36:ARG:NH2	31:DE:88:GLY:HA3	1.71	1.05
44:BV:41:GLY:HA3	44:BV:45:THR:OG1	1.56	1.05
27:BA:286:C:C2'	27:BA:287:C:H5'	1.84	1.05
27:DA:2701:C:H3'	27:DA:2702:U:H5''	1.06	1.05
1:CA:1137:C:H4'	1:CA:1138:G:C2	1.91	1.05
2:CB:69:LEU:HD22	2:CB:91:PRO:HB2	1.30	1.05
43:BU:90:VAL:HG12	43:BU:91:ASP:H	1.21	1.05
39:BQ:110:THR:HG23	39:BQ:113:GLN:HB2	1.37	1.05
50:B1:37:ILE:HG22	50:B1:38:SER:H	1.14	1.05
55:B6:40:CYS:HA	55:B6:46:HIS:HB3	1.33	1.05
38:DP:48:PRO:HG2	38:DP:49:ARG:H	1.20	1.05
47:DY:81:LYS:HD3	47:DY:97:ARG:HB3	1.36	1.05
45:BW:6:ILE:HG12	45:BW:104:THR:HG23	1.37	1.05
47:BY:76:CYS:SG	47:BY:77:PRO:HD2	1.97	1.05
55:D6:40:CYS:HA	55:D6:46:HIS:HB3	1.39	1.04
1:CA:1106:G:H5''	3:CC:172:ARG:HG2	1.39	1.04
6:AF:43:LEU:H	6:AF:43:LEU:HD12	1.21	1.04
31:DE:36:ARG:HH22	31:DE:88:GLY:HA3	1.19	1.04
27:DA:228:A:O2'	27:DA:229:A:H5'	1.55	1.04
27:BA:2483:C:H3'	27:BA:2484:G:H5''	1.37	1.04
18:CR:82:THR:HG22	18:CR:83:GLU:H	1.19	1.04
46:DX:35:THR:O	46:DX:39:ILE:HG12	1.55	1.04
48:DZ:32:LEU:HD23	48:DZ:89:VAL:HG21	1.39	1.04
31:DE:179:GLU:HB3	31:DE:181:LEU:HD13	1.40	1.04
4:AD:7:PRO:HB2	4:AD:10:ARG:HD2	1.32	1.04
47:DY:42:VAL:HB	47:DY:65:ALA:HB3	1.36	1.04
27:BA:1685:C:H2'	27:BA:1686:C:H5''	1.39	1.04
27:BA:286:C:H2'	27:BA:287:C:H5'	1.36	1.04
42:BT:89:VAL:HB	42:BT:91:ARG:HE	1.21	1.04
44:DV:18:LEU:HD22	44:DV:19:LYS:H	1.21	1.04
27:DA:2579:C:O3'	31:DE:131:ALA:HB2	1.57	1.04

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CM:13:LYS:HA	13:CM:44:ARG:HH11	1.18	1.04
34:BH:44:VAL:HG12	34:BH:45:VAL:H	1.15	1.04
30:BD:118:VAL:HG22	30:BD:119:ALA:H	1.20	1.04
41:DS:52:SER:HB2	41:DS:55:ALA:HB3	1.36	1.04
4:CD:173:TRP:NE1	4:CD:189:PRO:HG3	1.72	1.04
1:CA:198:G:H2'	1:CA:199:G:C8	1.93	1.04
47:DY:28:LYS:HB3	47:DY:39:VAL:H	1.21	1.03
38:DP:59:LEU:HA	38:DP:61:ARG:CZ	1.87	1.03
35:DI:133:HIS:HB2	35:DI:134:PRO:HD3	1.39	1.03
9:AI:53:VAL:HG23	9:AI:54:ASP:H	1.21	1.03
47:BY:26:LYS:HG2	47:BY:27:VAL:H	1.23	1.03
55:B6:40:CYS:HA	55:B6:46:HIS:CB	1.87	1.03
30:BD:60:ARG:HD3	30:BD:86:PRO:HG2	1.39	1.03
51:D2:4:SER:HA	51:D2:7:ARG:HH11	1.20	1.03
48:BZ:81:ARG:HH21	48:BZ:83:GLU:HA	1.19	1.03
8:AH:34:GLU:HB3	8:AH:118:VAL:HG21	1.39	1.03
27:BA:2701:C:C3'	27:BA:2702:U:H5''	1.89	1.03
12:CL:29:PHE:HB3	12:CL:81:LEU:HD11	1.37	1.03
2:AB:69:LEU:HB3	2:AB:162:ILE:HG22	1.37	1.03
27:DA:1798:U:H5'	30:DD:259:THR:HG22	1.40	1.03
40:DR:61:HIS:O	40:DR:65:LEU:HD13	1.57	1.03
27:DA:869:G:H2'	27:DA:870:A:H8	1.19	1.03
1:AA:676:A:H1'	11:AK:115:PRO:HB3	1.38	1.03
30:BD:186:HIS:CD2	30:BD:188:GLU:H	1.75	1.03
42:DT:28:VAL:HG22	42:DT:47:GLY:H	1.15	1.03
1:AA:533:A:O2'	1:AA:534:U:H5''	1.58	1.03
46:BX:64:LYS:NZ	46:BX:73:ARG:HE	1.56	1.03
41:DS:24:LEU:HB3	41:DS:85:VAL:HG12	1.33	1.03
1:AA:299:G:H2'	1:AA:300:A:C8	1.93	1.03
1:CA:377:G:H1	1:CA:386:C:H42	1.07	1.03
2:AB:51:LEU:HD23	2:AB:201:ILE:HD12	1.35	1.02
19:AS:32:LYS:HA	19:AS:50:ALA:HB3	1.39	1.02
33:DG:22:ARG:NH1	33:DG:22:ARG:HB3	1.74	1.02
39:DQ:16:ARG:HG2	39:DQ:17:LEU:H	1.20	1.02
42:DT:88:ILE:HG22	42:DT:89:VAL:H	1.21	1.02
27:DA:90:U:O2'	27:DA:92:A:H5''	1.58	1.02
27:BA:954:G:H5''	39:BQ:13:GLN:HG2	1.40	1.02
30:DD:133:LEU:HD11	30:DD:175:LEU:HD11	1.41	1.02
58:D9:15:LYS:HE2	58:D9:17:ILE:HD11	1.40	1.02
27:BA:857:C:H5'	49:B0:77:ARG:HH22	1.19	1.02
46:BX:63:LYS:HE3	46:BX:72:LYS:HE3	1.38	1.02
16:AP:18:ARG:HH11	16:AP:35:LYS:HD2	1.24	1.02

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BU:104:GLN:HE22	43:BU:105:VAL:HG23	1.20	1.02
41:DS:30:ARG:HH22	41:DS:62:LYS:HD2	1.17	1.02
42:BT:28:VAL:HG22	42:BT:46:GLU:HA	1.41	1.02
42:BT:89:VAL:HG12	42:BT:91:ARG:HG2	1.39	1.02
3:CC:53:ALA:HB2	3:CC:115:LEU:HD21	1.41	1.02
12:CL:15:VAL:HG23	12:CL:16:ARG:H	1.22	1.02
27:BA:1249:U:H5'	27:BA:1249:U:H6	1.21	1.02
49:D0:41:ARG:HD2	49:D0:41:ARG:H	1.21	1.02
31:DE:77:ILE:HG22	31:DE:78:LEU:N	1.72	1.02
9:AI:53:VAL:HG23	9:AI:55:ALA:H	1.23	1.02
1:AA:1305:G:H22	1:AA:1331:G:H2'	1.24	1.02
1:CA:957:U:H2'	1:CA:959:A:OP2	1.60	1.01
43:DU:92:ARG:HG2	43:DU:92:ARG:HH11	1.22	1.01
11:CK:32:ILE:HD12	11:CK:72:ALA:HB2	1.35	1.01
1:CA:234:C:H2'	1:CA:235:C:H6	1.24	1.01
27:DA:2498:C:O2'	27:DA:2499:C:H5''	1.60	1.01
26:CZ:4:SER:O	26:CZ:5:UAL:N1	1.93	1.01
27:BA:795:C:H2'	27:BA:796:C:H6	1.25	1.01
23:CW:73:C:H2'	23:CW:74:C:H5'	1.38	1.01
3:AC:155:GLY:HA3	3:AC:163:ALA:HB1	1.42	1.01
1:AA:376:G:H5''	16:AP:5:ARG:HB2	1.39	1.01
17:AQ:7:THR:HG22	17:AQ:58:GLU:HG2	1.43	1.01
39:DQ:36:ALA:HB2	39:DQ:103:MET:SD	2.00	1.01
1:CA:562:C:H4'	1:CA:563:A:H5'	1.43	1.01
27:BA:1747(A):G:C2'	27:BA:1748:G:H5''	1.89	1.01
19:AS:10:PHE:HZ	19:AS:70:LYS:HZ3	1.04	1.01
1:AA:100:C:H2'	1:AA:101:A:C8	1.95	1.01
1:CA:161:A:H2'	1:CA:162:A:C8	1.94	1.01
50:D1:52:ARG:HG3	50:D1:53:VAL:H	1.21	1.01
27:BA:1784:A:H4'	27:BA:1785:A:O5'	1.57	1.01
27:DA:2833:G:H3'	27:DA:2834:G:C5'	1.90	1.00
56:D7:41:ARG:HH11	56:D7:41:ARG:HB2	0.87	1.00
31:BE:36:ARG:NH2	31:BE:88:GLY:HA3	1.75	1.00
32:BF:83:PHE:O	32:BF:84:VAL:HB	1.61	1.00
11:CK:22:HIS:HB3	11:CK:29:ILE:HG23	1.41	1.00
27:DA:2572:A:H5''	27:DA:2574:G:H4'	1.39	1.00
34:BH:8:PRO:HD2	34:BH:69:ARG:HD2	1.42	1.00
57:D8:6:THR:HG22	57:D8:63:PRO:HD3	1.37	1.00
55:D6:13:CYS:O	55:D6:21:TYR:HA	1.62	1.00
2:AB:18:GLY:H	2:AB:42:ILE:HG22	1.23	1.00
38:DP:9:ASN:ND2	38:DP:10:PRO:HD3	1.76	1.00
1:CA:1363(A):A:H4'	1:CA:1364:U:C5'	1.91	1.00

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:519:U:H2'	27:DA:520:G:C8	1.95	1.00
2:CB:32:ILE:HD11	2:CB:40:HIS:HB3	1.41	1.00
27:BA:1879:C:H2'	27:BA:1880:C:H5''	1.43	1.00
1:CA:309:G:H1'	1:CA:608:A:H2	1.27	1.00
41:BS:97:ARG:HH21	41:BS:98:VAL:CA	1.74	1.00
30:BD:49:ILE:HD11	30:BD:52:ARG:HA	1.40	1.00
48:BZ:68:THR:HG22	48:BZ:89:VAL:HA	1.40	1.00
41:BS:24:LEU:HB3	41:BS:85:VAL:HG12	1.42	1.00
27:BA:969:U:OP1	52:B3:17:LYS:HD3	1.61	1.00
32:BF:123:LEU:HD12	32:BF:124:LEU:H	1.24	1.00
27:DA:2838:G:H1'	40:DR:45:ARG:NH1	1.77	1.00
27:BA:2331:G:H4'	49:B0:43:THR:H	1.27	1.00
27:BA:2317:C:H2'	27:BA:2318:G:H5'	1.40	0.99
27:BA:2068:U:H3	27:BA:2430:A:H2	1.01	0.99
27:BA:1273:U:H5''	27:BA:1273:U:H6	1.27	0.99
33:DG:105:LYS:HE2	53:D4:52:SER:HB3	1.44	0.99
27:BA:2755:C:H3'	58:B9:19:ARG:NH2	1.77	0.99
45:BW:90:ARG:HB2	45:BW:90:ARG:HH11	1.27	0.99
27:BA:360:G:H2'	27:BA:361:G:H8	1.27	0.99
3:AC:16:ARG:NH1	3:AC:16:ARG:HB2	1.77	0.99
30:BD:43:ARG:HD2	30:BD:44:ASN:OD1	1.61	0.99
27:BA:1173:G:H3'	27:BA:1174:A:H5'	1.44	0.99
15:CO:35:ARG:HH21	15:CO:59:MET:HE2	1.23	0.99
1:AA:1101:A:H4'	1:AA:1102:A:O5'	1.62	0.99
16:CP:43:LYS:HA	16:CP:48:TRP:HB3	1.43	0.99
27:DA:1747(A):G:H2'	27:DA:1748:G:H5''	1.40	0.99
7:AG:54:THR:OG1	7:AG:56:GLN:HG2	1.60	0.99
2:AB:172:ILE:HD12	2:AB:172:ILE:H	1.26	0.99
46:DX:12:VAL:HG23	46:DX:13:LEU:H	1.23	0.99
27:DA:633:A:H2'	27:DA:634:C:H5'	1.41	0.99
2:CB:96:ARG:H	2:CB:96:ARG:HD2	1.24	0.99
8:CH:60:ARG:HH11	8:CH:60:ARG:HG3	1.26	0.99
36:DN:133:GLN:HG2	36:DN:135:PRO:HD3	1.44	0.99
27:BA:1865:G:H5'	27:BA:1866:C:OP2	1.61	0.99
1:AA:580:U:H3	1:AA:761:G:H1	1.10	0.99
27:DA:200:U:H5'	27:DA:200:U:H6	1.27	0.98
52:B3:29:ARG:HB2	52:B3:33:GLN:HE22	1.26	0.98
32:DF:111:ALA:HB2	32:DF:206:ILE:HG21	1.43	0.98
1:CA:992:U:H4'	1:CA:993:G:O5'	1.62	0.98
11:AK:124:LYS:HE3	11:AK:125:PHE:HE1	1.25	0.98
27:BA:1603:A:C8	27:BA:1603:A:H5'	1.98	0.98
30:BD:33:LEU:O	30:BD:34:VAL:HG12	1.63	0.98

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2732:G:H3'	27:DA:2733:A:H5'	1.40	0.98
1:AA:452:A:HO2'	1:AA:453:A:H8	1.02	0.98
27:BA:1184:G:OP1	52:B3:29:ARG:HD3	1.63	0.98
1:CA:198:G:H2'	1:CA:199:G:H8	1.23	0.98
1:CA:1321:C:H5''	1:CA:1322:C:H5''	1.45	0.98
30:DD:242:ARG:H	30:DD:242:ARG:HD2	1.25	0.98
36:BN:63:THR:HG22	36:BN:64:GLY:H	1.28	0.98
1:CA:1003:G:H2'	1:CA:1004:A:H4'	1.41	0.98
20:CT:50:GLU:HA	20:CT:100:ILE:HG12	1.46	0.98
12:CL:52:VAL:HG13	12:CL:65:ALA:O	1.63	0.98
45:BW:88:ARG:HB2	45:BW:92:ARG:HB2	1.45	0.98
4:AD:25:ARG:HH12	4:AD:30:LYS:HG3	1.25	0.98
32:BF:66:PRO:HD2	32:BF:70:THR:HG21	1.44	0.98
47:DY:28:LYS:HB2	47:DY:38:ILE:H	1.24	0.98
1:AA:751:U:H4'	15:AO:24:SER:HA	1.44	0.98
16:AP:82:GLN:HE21	16:AP:83:GLU:H	1.04	0.98
27:DA:514:A:O2'	27:DA:515:A:H5'	1.63	0.98
27:BA:1336:A:H2'	27:BA:1337:G:H8	1.28	0.98
41:BS:68:GLN:HA	41:BS:71:ARG:HD2	1.42	0.97
20:CT:26:ASN:HB2	20:CT:71:THR:HG23	1.42	0.97
23:CW:42:G:H3'	23:CW:43:C:H5''	1.46	0.97
55:D6:32:ASN:HD22	55:D6:33:LYS:N	1.63	0.97
55:D6:39:TYR:O	55:D6:46:HIS:HB2	1.64	0.97
30:BD:60:ARG:HD3	30:BD:86:PRO:CG	1.95	0.97
42:DT:51:ARG:HD2	42:DT:62:THR:HG23	1.46	0.97
41:DS:19:LYS:O	41:DS:20:ARG:HD3	1.62	0.97
48:DZ:150:HIS:HB3	48:DZ:169:THR:HG22	1.41	0.97
31:DE:26:ILE:HG22	31:DE:27:LEU:H	1.24	0.97
6:AF:62:TRP:CH2	6:AF:64:GLN:HB2	1.99	0.97
12:CL:76:GLU:O	12:CL:77:HIS:HB2	1.62	0.97
27:BA:2467:C:H4'	39:BQ:123:HIS:CD2	1.98	0.97
27:DA:2172:U:H1'	27:DA:2173:A:OP1	1.63	0.97
41:BS:46:VAL:HG12	41:BS:47:THR:H	1.25	0.97
27:DA:1775:U:H2'	27:DA:1776:G:H5'	1.45	0.97
1:AA:721:G:H4'	1:AA:722:A:O5'	1.63	0.97
1:AA:1321:C:H5'	1:AA:1322:C:H5''	1.47	0.97
34:BH:156:ALA:C	34:BH:158:HIS:H	1.52	0.97
27:BA:285:C:C2'	27:BA:286:C:H5''	1.93	0.97
35:DI:93:THR:HG22	35:DI:119:PRO:HB3	1.47	0.97
30:DD:24:ILE:HG13	30:DD:25:THR:N	1.79	0.97
56:D7:41:ARG:HH11	56:D7:41:ARG:CB	1.76	0.97
27:DA:1410:G:H2'	27:DA:1411:C:C6	1.99	0.97

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:740:U:H6	27:BA:740:U:H5'	1.26	0.97
1:CA:1066:C:H5''	1:CA:1066:C:C6	1.99	0.97
38:BP:23:PRO:O	38:BP:33:ARG:HD2	1.62	0.97
43:DU:90:VAL:HG12	43:DU:91:ASP:H	1.29	0.97
44:DV:2:PHE:HB2	44:DV:42:GLY:HA2	1.47	0.97
47:BY:27:VAL:HA	47:BY:28:LYS:NZ	1.80	0.97
10:AJ:49:VAL:HG23	14:AN:41:ARG:HD2	1.43	0.97
37:BO:22:ILE:HG12	37:BO:41:ALA:HA	1.47	0.97
8:AH:60:ARG:HG3	8:AH:60:ARG:HH11	1.27	0.97
30:BD:31:LYS:HE3	30:BD:33:LEU:HD22	1.47	0.97
1:CA:189(L):G:H2'	1:CA:190:U:C6	1.99	0.97
32:BF:89:VAL:HG12	32:BF:90:PHE:H	1.27	0.96
11:AK:124:LYS:HE3	11:AK:125:PHE:CE1	1.99	0.96
13:AM:37:THR:HG21	13:AM:56:LEU:HA	1.46	0.96
9:CI:82:ALA:HB1	9:CI:96:LEU:HD11	1.46	0.96
47:BY:7:VAL:HB	47:BY:8:LYS:HZ2	1.30	0.96
55:B6:15:GLU:OE2	55:B6:18:ARG:NE	1.97	0.96
27:BA:2784:C:H1'	31:BE:42:ASP:OD1	1.64	0.96
1:CA:179:A:H2'	1:CA:180:U:H6	1.26	0.96
27:DA:71:A:H5''	27:DA:73:A:C8	2.00	0.96
12:AL:44:LYS:HB3	12:AL:45:PRO:CD	1.95	0.96
27:BA:2792:G:O2'	27:BA:2793:G:H8	1.48	0.96
31:BE:59:VAL:HG22	31:BE:60:ASN:N	1.80	0.96
43:DU:92:ARG:HD2	44:DV:11:GLN:NE2	1.80	0.96
20:AT:26:ASN:HD22	20:AT:26:ASN:H	0.99	0.96
20:AT:26:ASN:O	20:AT:30:LYS:HB2	1.66	0.96
40:BR:79:LEU:HA	40:BR:83:ILE:HG13	1.45	0.96
27:DA:571:A:H4'	27:DA:572:A:OP1	1.63	0.96
47:BY:96:ILE:CB	47:BY:99:CYS:HB2	1.94	0.96
27:BA:661:C:H4'	38:BP:16:ARG:NH1	1.79	0.96
44:BV:19:LYS:CE	44:BV:20:LEU:H	1.78	0.96
27:DA:35:G:C1'	27:DA:454:A:H1'	1.95	0.96
27:BA:1899:G:H22	27:BA:1902:C:N4	1.64	0.96
55:D6:40:CYS:CA	55:D6:46:HIS:HB3	1.95	0.96
30:DD:44:ASN:HB2	30:DD:49:ILE:HA	1.47	0.96
46:BX:9:LEU:HA	51:B2:36:ARG:HH21	1.29	0.96
44:BV:5:VAL:HG11	44:BV:57:VAL:HG11	1.47	0.96
9:CI:9:ARG:HG3	9:CI:14:VAL:HG22	1.48	0.96
27:DA:2712:U:HO2'	27:DA:2712(A):A:H8	0.98	0.96
1:CA:1163:C:H2'	1:CA:1164:G:C8	2.01	0.96
27:BA:2200:C:H5''	27:BA:2200:C:H6	1.29	0.96
17:AQ:43:LEU:HD12	17:AQ:68:ARG:HG2	1.48	0.96

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:17:VAL:HG11	4:AD:197:PRO:HG3	1.45	0.96
27:BA:1562:A:H2'	27:BA:1563:G:C8	2.00	0.96
38:DP:13:ASN:C	38:DP:13:ASN:HD22	1.69	0.96
27:DA:2555:U:H2'	27:DA:2556:C:H5'	1.46	0.96
1:CA:373:A:H2'	1:CA:374:A:H8	1.30	0.96
1:CA:309:G:H1'	1:CA:608:A:C2	2.00	0.96
4:CD:153:ARG:HB3	4:CD:153:ARG:HH11	1.30	0.96
44:BV:46:VAL:HG22	44:BV:47:VAL:H	1.30	0.95
27:DA:2758:A:H2'	27:DA:2759:G:H5''	1.48	0.95
3:CC:47:LEU:HD11	3:CC:76:VAL:HG12	1.44	0.95
50:D1:51:VAL:HG21	50:D1:74:VAL:HG21	1.46	0.95
9:CI:125:TYR:HE2	9:CI:127:LYS:HB2	1.31	0.95
27:BA:2206:G:H21	27:BA:2207:G:H5'	1.30	0.95
50:B1:25:LYS:HA	50:B1:29:GLY:HA2	1.48	0.95
43:BU:92:ARG:HE	44:BV:11:GLN:HB2	1.31	0.95
27:DA:2749:A:H4'	34:DH:62:LYS:HB3	1.47	0.95
27:DA:2475:C:H42	27:DA:2529:G:H22	0.99	0.95
27:BA:1434:A:H61	27:BA:1558:A:N6	1.63	0.95
27:DA:373:U:H2'	27:DA:374:A:H8	1.29	0.95
32:DF:155:LEU:HD23	32:DF:192:LEU:HD21	1.49	0.95
37:BO:93:PRO:HG3	37:BO:114:ILE:CD1	1.96	0.95
27:DA:49:A:H61	27:DA:177:G:H2'	1.32	0.95
1:AA:911:U:H2'	1:AA:912:C:C6	2.01	0.95
27:DA:271(S):G:C2'	27:DA:271(T):C:H5''	1.96	0.95
12:AL:73:ASN:HD22	12:AL:74:LEU:H	0.96	0.95
51:D2:13:ALA:HA	51:D2:16:LEU:HD12	1.48	0.95
27:DA:13:A:H1'	27:DA:15:G:N7	1.82	0.95
28:BB:40:U:H3	28:BB:43:C:H5''	1.31	0.95
47:BY:31:LEU:HB2	47:BY:32:PRO:HA	1.45	0.95
37:DO:71:ARG:HB3	37:DO:72:PRO:HD2	1.48	0.95
1:CA:386:C:H2'	1:CA:387:U:H5'	1.49	0.95
1:AA:553:A:H2'	1:AA:554:C:C6	2.02	0.95
1:AA:1422:G:H1	1:AA:1478:C:H42	1.15	0.95
27:BA:2832:U:H4'	27:BA:2833:G:H5''	1.46	0.95
11:AK:32:ILE:HD11	11:AK:41:THR:HB	1.49	0.95
20:CT:72:LEU:HD23	20:CT:73:HIS:H	1.29	0.95
27:DA:2107:C:H42	27:DA:2182:G:H1	1.13	0.95
38:DP:39:LYS:HA	38:DP:39:LYS:HE2	1.48	0.95
6:CF:38:GLU:O	6:CF:39:LYS:HB2	1.67	0.95
27:BA:1798:U:H5'	30:BD:259:THR:HG22	1.49	0.95
47:BY:10:GLY:HA2	47:BY:27:VAL:HG13	1.48	0.95
47:BY:27:VAL:HA	47:BY:28:LYS:HZ2	1.31	0.95

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:52:A:O2'	27:DA:53:A:H8	1.49	0.95
18:AR:53:ARG:NH2	18:AR:60:ALA:H	1.63	0.95
27:DA:543:C:H42	27:DA:551:G:H1	1.07	0.95
1:CA:676:A:H1'	11:CK:115:PRO:HB3	1.49	0.95
6:AF:9:VAL:HB	6:AF:87:ARG:HB2	1.46	0.94
5:CE:50:GLU:HB3	5:CE:53:LEU:HD13	1.49	0.94
8:AH:97:VAL:HG13	8:AH:98:LYS:H	1.30	0.94
10:AJ:4:ILE:HB	10:AJ:74:ILE:HD11	1.49	0.94
36:DN:73:THR:HG22	36:DN:82:LEU:HD11	1.49	0.94
42:BT:50:ILE:HG13	42:BT:102:ILE:HD11	1.47	0.94
27:DA:1020:A:H4'	27:DA:1021:A:O5'	1.63	0.94
15:CO:87:ILE:HG22	15:CO:88:ARG:H	1.30	0.94
27:BA:2271:G:H4'	49:B0:20:ARG:NH1	1.82	0.94
38:BP:16:ARG:CZ	38:BP:18:ARG:HG2	1.97	0.94
36:DN:4:TYR:HB2	43:DU:64:ARG:HH12	1.30	0.94
34:DH:12:PRO:HG2	34:DH:49:VAL:HA	1.46	0.94
1:AA:707:C:O2'	1:AA:708:C:H5'	1.67	0.94
1:CA:1352:C:H2'	1:CA:1353:G:C8	2.02	0.94
27:DA:94(A):G:C2'	27:DA:95:G:H5''	1.97	0.94
38:BP:23:PRO:HD2	38:BP:33:ARG:NE	1.81	0.94
27:BA:2263:C:H2'	27:BA:2264:C:H6	1.32	0.94
32:BF:135:LYS:HB3	32:BF:138:GLU:HG3	1.46	0.94
6:CF:33:TYR:HD2	6:CF:71:ARG:HD2	1.33	0.94
12:AL:38:ARG:HG2	12:AL:39:THR:H	1.32	0.94
54:B5:16:ARG:HH11	54:B5:16:ARG:CG	1.80	0.94
55:B6:20:ASN:HD22	55:B6:21:TYR:H	1.14	0.94
27:DA:1798:U:C5'	30:DD:259:THR:HG22	1.98	0.94
1:CA:1181:G:H2'	1:CA:1182:G:C4	2.01	0.94
27:BA:2580:U:H5'	31:BE:131:ALA:CB	1.98	0.94
27:BA:554:U:O2'	27:BA:555:U:H5'	1.66	0.94
32:BF:11:VAL:HG12	32:BF:12:LEU:H	1.32	0.94
27:BA:1685:C:C2'	27:BA:1686:C:H5''	1.97	0.94
1:AA:1348:U:H2'	1:AA:1349:A:C8	2.03	0.94
1:AA:1348:U:H2'	1:AA:1349:A:H8	1.33	0.94
1:CA:1208:C:H2'	1:CA:1209:C:H6	1.32	0.94
27:DA:154(A):C:H41	27:DA:172:C:H42	0.97	0.94
1:CA:192:U:C4'	20:CT:103:GLY:HA2	1.98	0.94
27:BA:1484:G:H3'	27:BA:1485:G:H5''	1.47	0.94
14:CN:12:ARG:C	14:CN:14:PRO:HD2	1.87	0.94
2:CB:55:PHE:HA	2:CB:58:ILE:HG12	1.47	0.94
4:AD:80:GLU:O	4:AD:84:LYS:HG2	1.67	0.94
47:BY:46:LYS:HB2	47:BY:62:GLU:CG	1.97	0.94

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BU:90:VAL:HG21	44:BV:47:VAL:HG21	1.49	0.94
27:DA:2875:C:H4'	42:DT:5:ALA:HB2	1.49	0.94
27:DA:2870:C:H2'	27:DA:2871:C:H5'	1.48	0.94
52:B3:11:SER:OG	52:B3:13:ILE:HD12	1.66	0.94
41:BS:82:ILE:HD13	41:BS:82:ILE:H	1.30	0.94
41:BS:85:VAL:H	41:BS:106:ARG:HB2	1.31	0.94
27:DA:740:U:H6	27:DA:740:U:H5'	1.28	0.94
27:BA:2836:U:H2'	27:BA:2837:G:C8	2.02	0.93
30:DD:43:ARG:HH11	30:DD:44:ASN:ND2	1.66	0.93
48:DZ:127:VAL:HG22	48:DZ:128:SER:H	1.32	0.93
30:BD:108:PRO:HG3	30:BD:143:HIS:NE2	1.83	0.93
39:DQ:45:GLN:H	39:DQ:45:GLN:HE21	1.05	0.93
1:CA:693:G:O2'	7:CG:82:GLY:HA3	1.67	0.93
13:CM:4:ILE:HG22	13:CM:5:ALA:H	1.32	0.93
47:DY:10:GLY:HA2	47:DY:27:VAL:HG13	1.50	0.93
46:BX:64:LYS:HZ3	46:BX:73:ARG:HE	1.02	0.93
1:AA:166:G:H2'	1:AA:167:G:C8	2.02	0.93
27:BA:2841:C:H2'	27:BA:2842:G:H8	1.31	0.93
8:CH:10:LEU:HD23	8:CH:83:ILE:HG12	1.51	0.93
8:AH:63:LEU:HB3	8:AH:65:TYR:CE1	2.03	0.93
1:AA:553:A:H2'	1:AA:554:C:H6	1.33	0.93
46:DX:65:ARG:HD3	46:DX:70:LEU:HD12	1.48	0.93
41:BS:102:ALA:HB3	41:BS:103:GLU:OE1	1.67	0.93
16:CP:82:GLN:HE21	16:CP:82:GLN:H	1.12	0.93
43:BU:92:ARG:NH1	43:BU:92:ARG:HB2	1.83	0.93
42:BT:88:ILE:HG22	42:BT:89:VAL:H	1.31	0.93
27:DA:34:C:O2'	27:DA:35:G:H5'	1.69	0.93
28:DB:87:G:H3'	28:DB:88:C:H5''	1.50	0.93
37:DO:105:GLU:HA	37:DO:108:GLU:HG3	1.51	0.93
27:DA:133:C:N4	27:DA:146:G:H1	1.65	0.93
4:CD:173:TRP:HE3	4:CD:173:TRP:H	1.16	0.93
1:AA:1057:G:H4'	3:AC:196:LEU:O	1.68	0.93
2:AB:112:VAL:HG23	2:AB:149:LEU:HD13	1.46	0.93
20:CT:50:GLU:CA	20:CT:100:ILE:HG12	1.98	0.93
34:BH:158:HIS:O	34:BH:159:GLU:HB2	1.69	0.93
30:DD:44:ASN:CB	30:DD:49:ILE:HA	1.99	0.93
27:BA:2875:C:H4'	42:BT:5:ALA:HB2	1.51	0.93
40:DR:38:VAL:HB	40:DR:39:PRO:HD3	1.49	0.93
32:BF:176:LEU:HD11	32:BF:180:GLY:HA3	1.50	0.93
5:AE:43:LEU:HD22	5:AE:109:ILE:HD11	1.48	0.93
32:DF:16:GLY:O	32:DF:17:ARG:HG3	1.66	0.93
43:DU:49:HIS:HA	43:DU:52:ARG:HB2	1.51	0.93

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1565:C:O2'	27:DA:1566:A:H2'	1.67	0.93
56:B7:8:ASN:HD22	56:B7:8:ASN:C	1.69	0.93
32:DF:34:TRP:CZ2	38:DP:12:ALA:HB2	2.02	0.93
48:DZ:4:LEU:HD21	48:DZ:42:GLU:HB3	1.49	0.93
47:BY:90:LEU:HD12	47:BY:91:GLU:H	1.31	0.93
35:DI:37:VAL:HG12	35:DI:38:LEU:HD12	1.48	0.93
38:BP:106:LEU:HD13	38:BP:112:LEU:HD23	1.51	0.93
25:AY:68:C:H2'	25:AY:69:C:H5''	1.51	0.93
1:CA:1320:C:O2	19:CS:72:GLY:HA3	1.68	0.93
27:BA:1292:U:H2'	27:BA:1293:C:C6	2.04	0.93
1:CA:652:U:O2'	1:CA:653:A:H5''	1.68	0.93
27:BA:2172:U:H1'	27:BA:2173:A:OP1	1.69	0.93
49:D0:53:MET:HB3	49:D0:59:LEU:HD23	1.51	0.93
1:AA:911:U:H2'	1:AA:912:C:H6	1.33	0.93
27:DA:1494:A:O2'	27:DA:1495:A:H5''	1.67	0.93
30:BD:43:ARG:NH1	30:BD:44:ASN:HD21	1.65	0.93
1:CA:165:C:H2'	1:CA:166:G:C8	2.04	0.93
24:CX:17:C:H2'	24:CX:17(B):U:H6	1.32	0.93
27:DA:881:G:H1	27:DA:895:U:H3	1.16	0.93
27:DA:2126:A:H5''	29:DC:36:LYS:HE2	1.50	0.93
36:DN:128:HIS:HB2	36:DN:130:HIS:CE1	2.03	0.93
27:DA:2810:A:O2'	31:DE:61:ARG:HB2	1.69	0.93
30:BD:95:LEU:O	30:BD:95:LEU:HD12	1.69	0.93
32:BF:89:VAL:O	32:BF:91:GLY:N	2.02	0.93
34:BH:156:ALA:C	34:BH:158:HIS:N	2.22	0.93
36:DN:15:LEU:HD12	36:DN:136:GLU:HG2	1.51	0.93
35:DI:107:VAL:HG12	35:DI:108:THR:H	1.33	0.93
1:AA:438:G:H4'	1:AA:439:A:OP1	1.69	0.93
4:CD:200:GLU:HG2	4:CD:201:GLN:N	1.83	0.93
41:BS:52:SER:OG	41:BS:55:ALA:HB3	1.69	0.93
38:BP:146:VAL:HG22	38:BP:147:LEU:H	1.32	0.93
58:B9:29:ASN:HD22	58:B9:29:ASN:H	0.98	0.93
27:BA:7:G:H2'	27:BA:8:A:C8	2.04	0.93
1:CA:1502:A:H2	1:CA:1505:G:H1	0.94	0.93
27:BA:242:G:H5''	57:B8:62:LEU:HD13	1.49	0.92
27:DA:906:G:C2'	27:DA:907:U:H5''	1.97	0.92
31:DE:36:ARG:HH22	31:DE:88:GLY:CA	1.83	0.92
1:AA:975:A:H4'	1:AA:976:G:H5''	1.51	0.92
27:DA:288:C:H42	27:DA:353:G:H1	1.07	0.92
27:DA:1199:U:H2'	27:DA:1200:C:H6	1.32	0.92
2:CB:158:LEU:HD12	2:CB:158:LEU:H	1.34	0.92
27:BA:152:G:H1	27:BA:174:C:H42	0.92	0.92

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2701:C:C3'	27:DA:2702:U:H5''	1.98	0.92
27:DA:2476:A:N3	27:DA:2477:C:H5''	1.85	0.92
32:DF:125:LEU:HB3	32:DF:196:LEU:HD21	1.48	0.92
39:DQ:85:LYS:HG3	49:D0:7:LEU:HD13	1.49	0.92
1:CA:67:C:H2'	1:CA:68:G:C8	2.05	0.92
2:CB:185:ILE:HG23	2:CB:199:TYR:HB2	1.48	0.92
1:CA:1003:G:H2'	1:CA:1004:A:C4'	1.99	0.92
49:B0:23:VAL:HA	49:B0:38:VAL:HG22	1.51	0.92
1:AA:15:G:H4'	5:AE:24:ARG:HH12	1.33	0.92
23:AW:6:U:H3'	23:AW:7:A:H5''	1.50	0.92
27:BA:27:G:H22	27:BA:512:G:H2'	1.22	0.92
12:AL:73:ASN:HD22	12:AL:74:LEU:N	1.67	0.92
47:BY:87:LYS:O	47:BY:88:LYS:HB2	1.67	0.92
27:DA:271(N):U:H4'	27:DA:271(O):C:OP2	1.69	0.92
27:BA:1431:U:H2'	27:BA:1432:C:H6	1.34	0.92
27:DA:2223:G:H2'	27:DA:2224:G:H5'	1.49	0.92
27:DA:1614:A:H62	45:DW:93:ALA:HB2	1.35	0.92
29:DC:41:VAL:HG23	29:DC:178:ALA:HB3	1.50	0.92
56:D7:8:ASN:ND2	56:D7:11:LYS:H	1.66	0.92
36:DN:60:ILE:HD13	36:DN:99:LEU:HD23	1.51	0.92
35:BI:111:PRO:HA	35:BI:114:LEU:HD21	1.50	0.92
48:BZ:157:PRO:HG2	48:BZ:160:VAL:HG21	1.52	0.92
27:BA:2563:U:O2	27:BA:2565:A:H8	1.49	0.92
33:BG:51:ARG:CZ	33:BG:53:LEU:HD21	1.99	0.92
37:BO:104:ARG:NH1	42:BT:35:LYS:HE2	1.82	0.92
27:BA:2012:G:O3'	45:BW:96:ILE:HD11	1.68	0.92
27:BA:1899:G:H22	27:BA:1902:C:H41	0.95	0.92
55:B6:36:LEU:O	55:B6:37:ARG:HD2	1.68	0.92
27:DA:1034:G:H5'	58:D9:18:ARG:HD2	1.51	0.92
17:CQ:57:VAL:HG12	17:CQ:76:LEU:HA	1.48	0.92
32:DF:32:LEU:HD13	32:DF:112:MET:HE1	1.51	0.92
38:BP:112:LEU:H	38:BP:128:HIS:HD2	1.16	0.92
27:BA:571:A:H4'	27:BA:572:A:OP1	1.66	0.92
1:AA:490:G:H2'	1:AA:491:G:H8	1.32	0.92
32:BF:2:LYS:HE2	32:BF:25:PRO:HB3	1.50	0.92
43:DU:83:LEU:HG	43:DU:88:ILE:HD11	1.49	0.92
41:BS:36:TYR:HD2	41:BS:52:SER:HB2	1.34	0.92
57:D8:14:VAL:HG21	57:D8:22:VAL:HG13	1.50	0.92
41:DS:89:ARG:HB3	41:DS:92:TYR:CB	1.98	0.92
57:B8:33:ASN:ND2	57:B8:33:ASN:H	1.68	0.92
48:BZ:149:LEU:HD23	48:BZ:170:ILE:HG13	1.49	0.92
27:BA:33:U:H4'	27:BA:34:C:OP1	1.70	0.92

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BU:92:ARG:HH11	43:BU:92:ARG:CB	1.82	0.92
33:BG:60:LEU:HD22	33:BG:63:ILE:HD11	1.49	0.92
2:AB:42:ILE:HD11	2:AB:202:PRO:HB2	1.50	0.92
47:BY:88:LYS:HZ3	47:BY:93:GLY:HA3	1.31	0.92
45:DW:73:ALA:O	45:DW:106:ILE:HG12	1.69	0.92
27:DA:1267:U:O2'	27:DA:1268:A:H8	1.52	0.92
27:BA:1210:A:H5'	27:BA:1212:G:H5'	1.51	0.92
40:DR:4:LEU:HD21	40:DR:8:ARG:HH21	1.34	0.92
52:B3:44:ARG:O	52:B3:48:GLU:HG2	1.69	0.92
32:BF:2:LYS:N	32:BF:2:LYS:HD3	1.85	0.92
8:AH:17:THR:HB	8:AH:78:GLN:OE1	1.69	0.92
42:BT:89:VAL:HG21	42:BT:91:ARG:HH21	1.34	0.92
41:BS:58:LEU:HD23	41:BS:65:VAL:HG13	1.52	0.92
30:BD:89:SER:HB2	30:BD:201:HIS:CD2	2.05	0.92
1:CA:1502:A:H2	1:CA:1505:G:N1	1.66	0.92
27:DA:2336:A:H61	49:D0:43:THR:HG21	1.32	0.92
41:DS:74:ALA:HB1	41:DS:103:GLU:HB2	1.48	0.92
55:B6:41:PRO:HD3	55:B6:46:HIS:CB	1.99	0.91
14:AN:26:ARG:HG3	14:AN:27:CYS:H	1.36	0.91
30:BD:241:PRO:O	30:BD:242:ARG:HB2	1.70	0.91
27:BA:142:A:C8	27:BA:1408:C:H1'	2.04	0.91
35:BI:5:LEU:HD22	35:BI:13:GLY:HA2	1.48	0.91
1:AA:1157:A:H4'	1:AA:1158:C:O5'	1.69	0.91
13:AM:10:PRO:HB2	13:AM:18:ALA:HB1	1.49	0.91
32:BF:132:VAL:HG13	32:BF:133:ASN:H	1.33	0.91
30:DD:8:PRO:HB3	30:DD:14:ARG:HB2	1.51	0.91
54:B5:16:ARG:HG3	54:B5:17:ASP:N	1.85	0.91
14:AN:27:CYS:O	14:AN:29:ARG:N	2.04	0.91
1:CA:386:C:C2'	1:CA:387:U:H5'	1.99	0.91
35:BI:115:ALA:HB3	35:BI:129:THR:H	1.34	0.91
27:BA:2321:G:H2'	27:BA:2321:G:N3	1.84	0.91
27:DA:956:G:H5''	39:DQ:77:LYS:HD2	1.52	0.91
27:BA:807:U:O2'	27:BA:808:G:H5'	1.71	0.91
27:DA:647:G:H21	27:DA:2350:C:H4'	1.32	0.91
1:AA:1305:G:N2	1:AA:1331:G:H2'	1.84	0.91
27:BA:2508:G:H1	27:BA:2580:U:H3	1.18	0.91
19:CS:41:VAL:HB	19:CS:44:MET:HG2	1.52	0.91
30:DD:60:ARG:HG3	30:DD:86:PRO:HB3	1.51	0.91
27:DA:2070:G:H2'	27:DA:2071:A:H8	1.34	0.91
27:BA:2092:U:H4'	27:BA:2093:G:O5'	1.70	0.91
5:AE:141:GLN:HA	5:AE:143:ARG:NH2	1.86	0.91
55:B6:29:ASN:CG	55:B6:30:THR:H	1.73	0.91

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CG:115:ARG:O	7:CG:118:VAL:HG22	1.70	0.91
27:BA:1022:G:H4'	27:BA:1023:U:O5'	1.71	0.91
30:BD:108:PRO:HG3	30:BD:143:HIS:HE2	1.35	0.91
7:AG:74:GLU:HG2	7:AG:91:VAL:HG22	1.52	0.91
42:BT:92:GLY:C	42:BT:94:ALA:H	1.72	0.91
1:CA:797:C:OP1	11:CK:124:LYS:HE2	1.69	0.91
27:BA:2790:A:H2	27:BA:2791:C:H3'	1.36	0.91
5:AE:129:ILE:HG22	5:AE:130:ASN:N	1.80	0.91
30:BD:26:LYS:HZ3	30:BD:82:ILE:H	1.09	0.91
27:DA:97:C:H4'	51:D2:2:LYS:HB3	1.53	0.91
38:DP:9:ASN:HD22	38:DP:10:PRO:HD3	1.35	0.91
1:AA:501:C:H2'	1:AA:502:G:C8	2.04	0.91
37:BO:16:ALA:HB2	37:BO:52:VAL:HG11	1.52	0.91
27:DA:1762:A:H8	27:DA:1762:A:O5'	1.54	0.91
27:BA:2883:A:H5'	27:BA:2884:U:H5'	1.52	0.91
27:DA:1826:G:H4'	30:DD:242:ARG:NH2	1.85	0.91
27:DA:438:G:H2'	27:DA:440:G:H8	1.34	0.91
31:DE:69:LYS:HD3	31:DE:89:ASP:HA	1.50	0.91
27:DA:333:G:H2'	27:DA:334:C:H6	1.35	0.91
2:AB:63:MET:HB3	2:AB:225:ALA:HB1	1.53	0.91
27:DA:579:G:H2'	27:DA:580:C:C6	2.06	0.91
3:CC:134:ILE:HG21	3:CC:168:ALA:HB3	1.53	0.91
33:DG:43:LEU:HB2	33:DG:88:ILE:HD11	1.51	0.91
1:AA:36:C:H5''	12:AL:119:THR:O	1.71	0.91
3:AC:112:SER:HB3	3:AC:115:LEU:HD12	1.53	0.91
38:DP:63:PRO:CB	57:D8:13:ARG:HB3	2.01	0.90
32:BF:29:ASN:HB3	32:BF:112:MET:HE1	1.53	0.90
27:BA:574:C:H42	31:BE:145:LYS:HE2	1.30	0.90
10:CJ:32:ALA:HB2	10:CJ:76:ASN:HB2	1.52	0.90
48:DZ:60:LEU:HB2	48:DZ:64:GLN:HB2	1.53	0.90
38:BP:30:THR:HG22	38:BP:31:ALA:H	1.36	0.90
1:CA:155:C:H2'	1:CA:156:G:H8	1.35	0.90
27:BA:481:G:H1'	27:BA:506:G:H21	1.36	0.90
27:DA:1747:G:H2'	27:DA:1747(A):G:H8	1.36	0.90
27:BA:2879:C:H4'	27:BA:2880:C:OP1	1.68	0.90
47:DY:75:ILE:CG1	47:DY:79:CYS:HA	2.02	0.90
27:DA:2784:C:H1'	31:DE:37:ARG:HH12	1.34	0.90
30:BD:186:HIS:HD2	30:BD:188:GLU:N	1.68	0.90
33:DG:5:VAL:HG23	33:DG:8:LYS:HG3	1.52	0.90
31:BE:134:ILE:O	31:BE:134:ILE:HG12	1.71	0.90
54:B5:4:HIS:HB3	54:B5:5:PRO:CD	2.01	0.90
48:DZ:18:ARG:HB3	48:DZ:81:ARG:HH22	1.36	0.90

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1636:C:H2'	27:BA:1637:A:C8	2.06	0.90
27:BA:1359:A:H2'	27:BA:1360:A:H5'	1.52	0.90
7:CG:85:TYR:CD1	7:CG:154:TYR:HE1	1.90	0.90
15:AO:37:ASN:HD22	15:AO:37:ASN:N	1.68	0.90
30:BD:68:LYS:HZ1	30:BD:70:TRP:HE1	1.20	0.90
36:BN:115:ARG:HA	36:BN:118:LYS:HD2	1.52	0.90
2:CB:14:GLY:O	2:CB:15:VAL:HG13	1.69	0.90
7:CG:78:ARG:HG3	7:CG:79:ARG:H	1.35	0.90
50:B1:46:LEU:HA	50:B1:63:ALA:HA	1.52	0.90
1:AA:1162:C:H2'	1:AA:1163:C:H6	1.34	0.90
8:AH:84:ARG:HG2	8:AH:84:ARG:HH11	1.37	0.90
54:B5:56:LYS:H	54:B5:56:LYS:HD2	1.35	0.90
32:BF:8:GLN:HB3	32:BF:125:LEU:O	1.71	0.90
1:AA:473:G:H2'	1:AA:474:G:C8	2.05	0.90
49:D0:26:TYR:H	49:D0:29:GLN:HE21	0.93	0.90
32:DF:67:GLN:O	32:DF:67:GLN:HG3	1.72	0.90
14:CN:29:ARG:HG2	14:CN:40:CYS:HB2	1.53	0.90
30:DD:18:VAL:HG13	30:DD:211:ARG:HH22	1.36	0.90
27:BA:360:G:H2'	27:BA:361:G:C8	2.06	0.90
7:AG:113:GLU:CG	7:AG:119:ARG:HG2	2.01	0.90
37:DO:17:ARG:HD3	37:DO:47:ILE:HD13	1.52	0.90
33:BG:42:GLY:O	33:BG:88:ILE:HD11	1.69	0.90
27:DA:662:G:OP1	38:DP:18:ARG:HD2	1.71	0.90
47:BY:95:LYS:NZ	47:BY:100:ALA:HB2	1.85	0.90
38:DP:64:LYS:O	38:DP:66:GLY:N	2.05	0.90
1:AA:62:U:H3	1:AA:105:G:H1	1.19	0.90
46:BX:12:VAL:HG23	46:BX:13:LEU:H	1.36	0.90
1:CA:179:A:H2'	1:CA:180:U:C6	2.07	0.90
9:CI:26:VAL:HG22	9:CI:61:ALA:HB3	1.52	0.90
51:B2:53:LEU:O	51:B2:57:ILE:HG12	1.72	0.90
28:BB:40:U:N3	28:BB:43:C:H5''	1.87	0.90
57:D8:52:LYS:N	57:D8:53:PRO:HD2	1.85	0.90
1:CA:161:A:H2'	1:CA:162:A:H8	1.34	0.90
27:DA:50:U:H4'	27:DA:51:G:OP2	1.71	0.90
3:AC:113:ALA:HB3	3:AC:114:PRO:HD3	1.52	0.90
27:DA:1681:G:OP2	27:DA:1681:G:H8	1.55	0.90
36:DN:76:SER:O	36:DN:78:TYR:N	2.05	0.90
1:AA:262:A:H5'	20:AT:74:LYS:HG3	1.52	0.90
27:DA:1461:G:H2'	27:DA:1462:C:H6	1.36	0.90
1:AA:358:U:H2'	1:AA:359:U:H6	1.37	0.90
17:AQ:57:VAL:HG12	17:AQ:76:LEU:HA	1.53	0.90
41:BS:97:ARG:HH21	41:BS:98:VAL:HA	0.79	0.90

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1796:U:H2'	27:DA:1797:C:C6	2.05	0.90
27:BA:1213:A:H8	27:BA:1213:A:H5'	1.33	0.90
4:CD:9:CYS:HA	4:CD:12:CYS:HB2	1.54	0.90
1:AA:271:C:H2'	1:AA:272:C:C6	2.06	0.90
3:CC:153:VAL:HG12	3:CC:196:LEU:HD11	1.51	0.90
1:CA:916:G:H2'	1:CA:917:G:H8	1.37	0.90
27:BA:1414:G:H1	27:BA:1588:C:H42	1.13	0.90
47:BY:95:LYS:HZ3	47:BY:100:ALA:HB2	1.34	0.89
34:BH:85:LYS:HD2	34:BH:141:VAL:CG1	2.03	0.89
12:CL:43:LYS:CG	12:CL:44:LYS:H	1.85	0.89
2:CB:204:ASN:ND2	2:CB:207:ALA:HB3	1.88	0.89
42:BT:41:ARG:O	42:BT:41:ARG:HD2	1.72	0.89
9:AI:53:VAL:HG23	9:AI:54:ASP:N	1.87	0.89
1:AA:1321:C:C5'	1:AA:1322:C:H5''	2.02	0.89
27:BA:2876:G:H4'	42:BT:3:ARG:CD	2.02	0.89
47:BY:88:LYS:NZ	47:BY:93:GLY:HA3	1.86	0.89
9:CI:4:TYR:HB2	9:CI:19:LEU:HB2	1.53	0.89
19:CS:49:ILE:HD12	19:CS:49:ILE:H	1.35	0.89
29:DC:83:ILE:HG23	29:DC:94:VAL:HG23	1.52	0.89
41:BS:48:LEU:O	41:BS:49:VAL:HG23	1.71	0.89
1:AA:64:G:H4'	1:AA:65:U:O5'	1.71	0.89
20:AT:82:SER:O	20:AT:86:ARG:HB3	1.72	0.89
17:AQ:87:LYS:HA	17:AQ:87:LYS:HE2	1.54	0.89
30:DD:31:LYS:O	30:DD:35:LYS:HB2	1.71	0.89
40:BR:98:LEU:HD12	40:BR:113:LEU:HD23	1.51	0.89
30:DD:10:THR:HG23	30:DD:13:ARG:HB3	1.54	0.89
32:DF:7:TYR:HB2	32:DF:17:ARG:N	1.87	0.89
42:BT:28:VAL:CG2	42:BT:47:GLY:H	1.85	0.89
27:DA:2611:U:H1'	54:D5:3:LYS:HE3	1.54	0.89
27:BA:1249:U:H5'	27:BA:1249:U:C6	2.07	0.89
28:BB:3:C:H42	28:BB:118:G:H1	1.04	0.89
34:DH:107:VAL:HG21	34:DH:152:ARG:HG2	1.54	0.89
31:BE:8:LYS:HE3	31:BE:188:VAL:HG13	1.53	0.89
34:BH:85:LYS:HZ2	34:BH:133:VAL:CG1	1.85	0.89
30:DD:61:LEU:HB3	30:DD:63:ARG:NH1	1.87	0.89
27:BA:1023:U:H2'	27:BA:1024:G:H5'	1.54	0.89
20:CT:14:LYS:HB2	20:CT:17:ARG:HH21	1.33	0.89
1:CA:1398:A:H5''	1:CA:1398:A:H8	1.36	0.89
27:DA:736:C:H42	27:DA:760:G:H1	1.20	0.89
27:BA:1596:A:C2'	27:BA:1597:A:H5'	2.02	0.89
27:DA:1689:A:H62	27:DA:1698:A:H2	0.94	0.89
32:BF:2:LYS:H	32:BF:2:LYS:CD	1.85	0.89

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1213:A:C8	27:BA:1213:A:H5'	2.07	0.89
45:BW:90:ARG:CB	45:BW:90:ARG:HH11	1.84	0.89
27:DA:2161:C:H2'	27:DA:2162:G:C8	2.06	0.89
42:BT:125:ARG:O	42:BT:128:GLU:HG3	1.72	0.89
11:AK:48:ILE:HD11	11:AK:64:ALA:HA	1.53	0.89
1:AA:486:U:HO2'	1:AA:487:A:H8	0.92	0.89
28:DB:40:U:HO2'	28:DB:43:C:H5	0.92	0.89
1:CA:99:U:H2'	1:CA:100:C:H6	1.36	0.89
3:CC:43:LEU:HD13	3:CC:55:VAL:HG11	1.53	0.89
27:BA:64:A:O3'	46:BX:71:GLY:HA3	1.71	0.89
31:DE:59:VAL:HG22	31:DE:60:ASN:H	1.35	0.89
34:BH:43:VAL:HG11	34:BH:52:VAL:HG13	1.53	0.89
27:DA:2645:G:H4'	27:DA:2732:G:O2'	1.73	0.89
39:BQ:134:ARG:HH21	48:BZ:121:ARG:CZ	1.83	0.89
52:D3:23:LEU:HA	52:D3:26:LEU:HD12	1.54	0.89
35:DI:144:VAL:HG23	35:DI:145:VAL:HG23	1.53	0.89
42:BT:89:VAL:CB	42:BT:91:ARG:HE	1.86	0.89
30:DD:118:VAL:HG22	30:DD:119:ALA:N	1.86	0.89
12:CL:81:LEU:HD13	12:CL:82:ILE:H	1.35	0.89
1:AA:736:C:H2'	1:AA:737:A:C8	2.07	0.89
27:DA:143(A):C:H4'	46:DX:38:GLU:OE1	1.73	0.89
57:B8:50:LEU:HD12	57:B8:51:ALA:H	1.36	0.89
10:CJ:48:THR:HG23	10:CJ:62:HIS:HB3	1.54	0.89
38:BP:59:LEU:HA	38:BP:61:ARG:NH1	1.86	0.89
35:DI:75:LEU:HD21	35:DI:105:HIS:CE1	2.08	0.89
43:BU:90:VAL:O	43:BU:92:ARG:N	2.05	0.89
27:DA:2787:C:H1'	31:DE:61:ARG:CG	2.02	0.89
27:DA:2052:G:H21	31:DE:149:ARG:HA	1.36	0.89
27:DA:125:G:H21	56:D7:48:LYS:HE3	1.36	0.89
1:AA:501:C:H2'	1:AA:502:G:H8	1.35	0.89
6:CF:8:ILE:HG22	6:CF:10:LEU:HD11	1.53	0.89
30:BD:13:ARG:NH1	30:BD:16:MET:SD	2.46	0.89
13:AM:68:GLY:HA2	13:AM:71:ARG:HH21	1.37	0.89
1:CA:1028:C:N4	1:CA:1034:G:H21	1.71	0.89
23:CW:35:G:HO2'	23:CW:36:A:H8	1.21	0.89
38:DP:45:LEU:CD2	38:DP:46:LYS:H	1.84	0.89
27:BA:1884:A:C2'	27:BA:1885:A:H5''	2.02	0.89
38:DP:105:LEU:O	38:DP:106:LEU:HB2	1.70	0.89
42:DT:88:ILE:HG22	42:DT:89:VAL:N	1.83	0.89
28:DB:7:G:H2'	28:DB:8:U:H5''	1.53	0.89
1:CA:750:G:N3	15:CO:23:GLY:HA3	1.88	0.89
1:CA:922:G:H2'	1:CA:923:A:C8	2.08	0.89

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1416:G:HO2'	27:DA:1417:C:H6	0.92	0.89
27:BA:1246:A:OP2	38:BP:18:ARG:HG3	1.73	0.89
31:BE:78:LEU:HD23	31:BE:78:LEU:N	1.88	0.89
1:AA:70:G:H1	1:AA:99:U:H3	1.21	0.89
48:DZ:52:ILE:HG21	48:DZ:70:VAL:O	1.71	0.89
27:DA:1504:C:C2'	27:DA:1505:C:H5''	2.03	0.89
11:AK:50:TYR:HB3	11:AK:54:ARG:O	1.73	0.89
42:BT:68:TYR:O	42:BT:70:VAL:N	2.04	0.89
27:DA:2150:U:H2'	27:DA:2151:G:H8	1.38	0.89
38:BP:23:PRO:HB3	38:BP:29:LYS:HB2	1.55	0.88
39:DQ:81:VAL:HG21	49:D0:7:LEU:HD21	1.54	0.88
38:DP:41:ARG:HE	38:DP:41:ARG:HA	1.38	0.88
49:D0:41:ARG:CD	49:D0:41:ARG:H	1.86	0.88
34:BH:113:VAL:HG21	34:BH:151:ILE:HG21	1.55	0.88
12:AL:73:ASN:ND2	12:AL:74:LEU:H	1.68	0.88
11:AK:127:LYS:CE	11:AK:127:LYS:HA	2.03	0.88
12:AL:38:ARG:HH12	12:AL:54:LYS:NZ	1.71	0.88
38:BP:107:LYS:O	38:BP:109:GLY:N	2.06	0.88
27:BA:2516:G:C2'	27:BA:2517:C:H5'	2.03	0.88
27:BA:1291:C:H2'	27:BA:1292:U:H6	1.37	0.88
34:BH:85:LYS:HD2	34:BH:141:VAL:HG12	1.53	0.88
37:BO:10:VAL:HG21	37:BO:16:ALA:O	1.74	0.88
30:BD:165:ILE:HD13	30:BD:175:LEU:CD2	2.03	0.88
27:DA:1826:G:C4'	30:DD:242:ARG:HH21	1.86	0.88
1:CA:250:A:H4'	1:CA:251:G:O5'	1.71	0.88
3:AC:16:ARG:HH11	3:AC:16:ARG:HB2	1.34	0.88
35:BI:38:LEU:HD12	35:BI:38:LEU:H	1.36	0.88
27:DA:1146:C:O2'	27:DA:1147:C:H5'	1.74	0.88
57:D8:10:ALA:HB3	57:D8:60:LEU:HD21	1.55	0.88
27:DA:2887:U:H2'	27:DA:2888:C:H6	1.37	0.88
10:CJ:8:LEU:HD21	10:CJ:96:ILE:HG22	1.55	0.88
27:BA:1292:U:H2'	27:BA:1293:C:H6	1.38	0.88
51:B2:41:ILE:HG13	51:B2:42:GLY:O	1.72	0.88
47:DY:96:ILE:HD12	47:DY:99:CYS:SG	2.13	0.88
5:AE:76:ILE:HG13	5:AE:77:PRO:HD2	1.53	0.88
5:CE:11:ILE:HG22	5:CE:12:LEU:H	1.39	0.88
23:AW:66:A:H2'	23:AW:67:C:C6	2.09	0.88
2:CB:98:LEU:O	2:CB:101:MET:HG3	1.72	0.88
42:BT:65:LYS:NZ	42:BT:66:VAL:HG23	1.88	0.88
27:DA:908:C:H3'	39:DQ:22:LYS:NZ	1.89	0.88
55:D6:32:ASN:ND2	55:D6:33:LYS:H	1.72	0.88
27:DA:2550:G:H22	27:DA:2559:C:H1'	1.39	0.88

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DP:38:GLN:HG3	38:DP:39:LYS:H	1.37	0.88
27:BA:1296:G:O2'	27:BA:1297:C:H5'	1.73	0.88
12:AL:33:VAL:O	12:AL:55:VAL:HG13	1.74	0.88
33:DG:39:ILE:HG23	33:DG:92:VAL:HG13	1.55	0.88
1:AA:736:C:H5''	18:AR:72:ARG:HH21	1.36	0.88
27:DA:1504:C:H2'	27:DA:1505:C:H5''	1.53	0.88
1:CA:351:G:H4'	1:CA:352:C:OP1	1.74	0.88
27:BA:845:G:H4'	27:BA:846:C:OP1	1.73	0.88
27:DA:2683:C:P	42:DT:53:ARG:HH22	1.96	0.88
49:D0:26:TYR:N	49:D0:29:GLN:HE21	1.71	0.88
12:CL:81:LEU:HD13	12:CL:82:ILE:N	1.87	0.88
32:DF:36:VAL:HG11	32:DF:183:VAL:HG21	1.53	0.88
42:DT:118:ARG:HA	42:DT:121:ILE:HB	1.55	0.88
27:BA:2694:G:H5'	27:BA:2694:G:H8	1.39	0.88
27:BA:197:A:H5'	27:BA:197:A:H8	1.35	0.88
43:BU:91:ASP:OD2	43:BU:96:ALA:HB2	1.72	0.88
27:DA:904:C:H2'	27:DA:905:U:H5'	1.52	0.88
34:BH:20:ALA:HB1	34:BH:21:PRO:HD2	1.54	0.88
14:AN:6:LEU:HD13	14:AN:23:ARG:HH22	1.34	0.88
31:BE:132:HIS:O	31:BE:133:LYS:HG3	1.73	0.88
42:DT:99:LEU:HB2	42:DT:101:PHE:HE1	1.38	0.88
38:BP:85:LEU:HD21	38:BP:116:GLY:O	1.73	0.88
1:AA:1137:C:H4'	1:AA:1138:G:C2	2.08	0.88
16:AP:22:THR:OG1	16:AP:26:ARG:HG3	1.72	0.88
27:BA:805:G:H4'	27:BA:806:C:OP2	1.71	0.88
25:CY:68:C:H2'	25:CY:69:C:H5''	1.55	0.88
2:CB:178:ARG:NH2	8:CH:68:ARG:HH22	1.71	0.88
34:BH:10:PRO:HG3	34:BH:50:VAL:O	1.73	0.88
1:CA:838:G:H2'	1:CA:839:U:H5''	1.55	0.88
27:DA:1658:C:OP1	31:DE:132:HIS:ND1	2.07	0.88
27:BA:2657:A:O2'	34:BH:160:LYS:HE3	1.73	0.88
27:DA:630:G:H1	27:DA:634:C:N4	1.71	0.88
4:AD:196:LEU:N	4:AD:196:LEU:HD12	1.89	0.88
27:DA:676:A:H2	27:DA:802:A:H61	1.22	0.88
1:CA:1502:A:H4'	1:CA:1503:A:OP2	1.72	0.88
57:B8:43:GLN:C	57:B8:44:LYS:HD2	1.94	0.88
25:CY:2:G:H1	25:CY:70:C:H42	1.17	0.88
54:B5:16:ARG:HG2	54:B5:16:ARG:NH1	1.81	0.88
38:DP:101:VAL:HG12	38:DP:106:LEU:HD23	1.56	0.88
46:DX:12:VAL:HG13	46:DX:27:THR:O	1.73	0.88
27:DA:690:G:H2'	27:DA:691:C:C6	2.09	0.88
3:CC:95:THR:HG22	3:CC:97:LYS:HB2	1.53	0.88

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2283:C:H2'	27:BA:2284:C:H5'	1.56	0.88
27:DA:2296:U:H4'	27:DA:2297:C:OP1	1.74	0.88
36:BN:30:ILE:HG23	36:BN:52:VAL:HG11	1.56	0.88
27:DA:271(H):G:H2'	27:DA:271(I):G:H8	1.38	0.88
39:DQ:42:ILE:HD13	39:DQ:97:VAL:HG21	1.56	0.88
1:CA:1226:C:C5	13:CM:104:ARG:HA	2.09	0.87
42:BT:28:VAL:HG22	42:BT:47:GLY:H	1.38	0.87
27:DA:142:A:C8	27:DA:1408:C:H1'	2.09	0.87
27:BA:1372:U:H2'	27:BA:1373:A:C8	2.08	0.87
37:BO:119:PRO:O	37:BO:120:GLU:HB3	1.71	0.87
34:DH:44:VAL:HG12	34:DH:45:VAL:H	1.39	0.87
39:DQ:55:VAL:HG13	39:DQ:56:ARG:H	1.39	0.87
4:AD:127:THR:HB	4:AD:130:GLY:O	1.74	0.87
19:CS:48:THR:HG22	19:CS:61:TYR:HA	1.55	0.87
27:BA:2524:G:H5'	27:BA:2525:G:OP2	1.73	0.87
1:CA:1315:U:H2'	1:CA:1316:G:O4'	1.74	0.87
37:BO:104:ARG:HH12	42:BT:35:LYS:CE	1.87	0.87
27:DA:806:C:OP2	38:DP:39:LYS:HD3	1.75	0.87
1:CA:1157:A:H4'	1:CA:1158:C:O5'	1.74	0.87
27:BA:2189:U:H3'	27:BA:2190:G:H5''	1.56	0.87
31:BE:59:VAL:CG2	31:BE:60:ASN:H	1.87	0.87
44:BV:15:GLU:HB3	44:BV:16:PRO:HD2	1.57	0.87
27:DA:574:C:H1'	27:DA:2055:C:C6	2.09	0.87
41:DS:34:HIS:CE1	41:DS:54:LEU:HB2	2.08	0.87
27:DA:1410:G:H2'	27:DA:1411:C:H6	1.34	0.87
34:DH:126:PRO:O	34:DH:127:GLU:HB2	1.75	0.87
1:AA:1285:A:H4'	1:AA:1286:A:O5'	1.74	0.87
42:BT:13:ARG:HA	42:BT:13:ARG:CZ	2.04	0.87
30:BD:246:PRO:HG2	30:BD:255:LYS:HG3	1.56	0.87
27:DA:1449:A:C2	27:DA:1450:G:H1'	2.08	0.87
34:BH:86:GLU:HB2	34:BH:132:ARG:HH12	1.38	0.87
38:BP:23:PRO:HB2	38:BP:33:ARG:HG3	1.56	0.87
32:DF:25:PRO:HG3	32:DF:119:ARG:HB2	1.56	0.87
55:D6:32:ASN:HD22	55:D6:33:LYS:H	0.87	0.87
27:DA:748:G:H5'	45:DW:89:ALA:HB2	1.54	0.87
45:BW:76:VAL:HB	45:BW:103:ILE:HG23	1.57	0.87
44:DV:66:ARG:HH21	44:DV:88:ARG:HD3	1.39	0.87
38:BP:23:PRO:HD2	38:BP:33:ARG:CZ	2.04	0.87
42:BT:91:ARG:HA	42:BT:117:ASP:H	1.39	0.87
47:DY:28:LYS:CB	47:DY:39:VAL:H	1.87	0.87
27:DA:2475:C:H42	27:DA:2529:G:N2	1.72	0.87
1:AA:1004:A:H5''	1:AA:1025:U:H3	1.38	0.87

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1002:G:H21	1:AA:1003:G:H1'	1.40	0.87
19:CS:32:LYS:HE3	19:CS:32:LYS:H	1.39	0.87
4:CD:9:CYS:SG	4:CD:31:CYS:O	2.33	0.87
12:CL:80:VAL:HG12	12:CL:81:LEU:H	1.39	0.87
27:BA:2439:A:H5'	27:BA:2439:A:C8	2.09	0.87
1:CA:452:A:O2'	1:CA:453:A:H5''	1.74	0.87
27:BA:1378:A:H4'	27:BA:1379:A:OP1	1.73	0.87
27:DA:519:U:H2'	27:DA:520:G:H8	1.32	0.87
14:CN:23:ARG:HD2	14:CN:28:GLY:O	1.72	0.87
4:AD:149:ALA:HB3	4:AD:152:SER:HB2	1.54	0.87
27:DA:2883:A:H3'	27:DA:2884:U:H5'	1.54	0.87
13:AM:86:CYS:HB2	19:AS:73:GLU:HB3	1.54	0.87
27:BA:480:A:C1'	47:BY:44:ILE:HG21	2.04	0.87
1:AA:1399:C:H4'	1:AA:1400:C:O5'	1.74	0.87
37:BO:78:ARG:HH11	37:BO:78:ARG:HB2	1.37	0.87
31:DE:4:ILE:HG12	31:DE:28:ALA:HB1	1.57	0.87
33:DG:111:LEU:HD11	33:DG:120:LEU:HD21	1.57	0.87
27:DA:1403:C:H5''	27:DA:1471:A:H1'	1.57	0.87
17:AQ:26:GLN:HB3	17:AQ:37:LYS:HG2	1.57	0.87
30:DD:270:ILE:O	30:DD:271:ILE:HG23	1.74	0.87
42:DT:105:LEU:HD13	42:DT:109:GLU:OE2	1.75	0.87
41:BS:89:ARG:O	41:BS:92:TYR:HB3	1.72	0.87
13:CM:68:GLY:O	13:CM:71:ARG:HB3	1.73	0.87
47:DY:27:VAL:HG12	47:DY:28:LYS:H	1.38	0.87
19:AS:49:ILE:HD12	19:AS:49:ILE:H	1.40	0.87
27:BA:2128:C:OP1	29:BC:35:ALA:HB1	1.75	0.87
27:DA:2150:U:H2'	27:DA:2151:G:C8	2.10	0.87
27:BA:2516:G:O2'	27:BA:2517:C:H5'	1.75	0.87
42:DT:96:ARG:HG2	42:DT:96:ARG:HH11	1.40	0.87
48:BZ:119:ILE:O	48:BZ:120:HIS:HB2	1.75	0.87
2:AB:219:VAL:HA	2:AB:222:ILE:HD12	1.55	0.87
1:AA:577:G:HO2'	1:AA:578:C:H6	0.91	0.87
27:DA:2526:G:H21	58:D9:2:LYS:HG3	1.38	0.87
27:BA:626:U:H5'	27:BA:627:A:H5'	1.55	0.87
36:BN:1:MET:HG2	36:BN:2:LYS:N	1.86	0.86
27:DA:863:A:H2'	27:DA:864:G:C8	2.09	0.86
31:DE:77:ILE:CG2	31:DE:78:LEU:H	1.78	0.86
27:BA:754:C:H2'	27:BA:755:C:H6	1.38	0.86
37:BO:65:THR:HA	37:BO:82:ASN:HD22	1.40	0.86
27:BA:2271:G:H4'	49:B0:20:ARG:HH12	1.40	0.86
37:DO:80:ASP:OD2	42:DT:71:GLY:HA3	1.75	0.86
1:AA:815:A:H5''	1:AA:817:C:N4	1.90	0.86

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CY:17:G:H22	25:CY:54:U:H1'	1.39	0.86
33:BG:82:LEU:HD22	33:BG:87:PRO:HG3	1.53	0.86
27:DA:272(C):G:H1	27:DA:365:C:H42	1.22	0.86
1:CA:601:C:H2'	1:CA:602:A:H8	1.37	0.86
27:DA:2619:C:H5''	31:DE:152:LYS:HA	1.55	0.86
1:CA:718:G:H21	18:CR:49:LYS:NZ	1.73	0.86
27:BA:2723:C:H5'	40:BR:5:LYS:HZ2	1.37	0.86
3:AC:59:ARG:HG2	3:AC:63:ASN:O	1.74	0.86
27:BA:271(Q):G:H2'	27:BA:271(R):G:C8	2.10	0.86
9:CI:97:LYS:HB3	9:CI:98:PRO:HD3	1.57	0.86
1:AA:1278:U:H5''	1:AA:1279:A:H5'	1.56	0.86
1:CA:1154:G:HO2'	1:CA:1155:G:H8	0.88	0.86
27:DA:1019:U:H3	27:DA:1142(A):A:N6	1.73	0.86
27:DA:200:U:H5'	27:DA:200:U:C6	2.10	0.86
39:DQ:12:GLN:NE2	39:DQ:72:LYS:HG3	1.89	0.86
30:DD:242:ARG:N	30:DD:242:ARG:HD2	1.88	0.86
27:DA:2612:C:O2'	27:DA:2613:U:H5'	1.76	0.86
4:AD:9:CYS:H	4:AD:22:LYS:HZ3	1.24	0.86
27:DA:2645:G:H4'	27:DA:2732:G:HO2'	1.40	0.86
1:CA:1065:U:H5''	1:CA:1190:G:H21	1.39	0.86
38:BP:71:VAL:HG12	38:BP:72:PRO:HD3	1.56	0.86
5:CE:91:LEU:HG	5:CE:120:THR:HG22	1.54	0.86
42:BT:104:ASN:O	42:BT:105:LEU:HD23	1.75	0.86
42:DT:14:TYR:H	42:DT:14:TYR:HD1	1.23	0.86
12:AL:29:PHE:HB3	12:AL:81:LEU:CD1	2.05	0.86
39:BQ:111:GLU:O	39:BQ:115:MET:HB2	1.76	0.86
41:DS:89:ARG:HB3	41:DS:92:TYR:HB3	1.57	0.86
3:CC:156:ARG:HH21	3:CC:161:GLU:HG3	1.40	0.86
1:CA:838:G:C2'	1:CA:839:U:H5''	2.06	0.86
7:CG:150:ALA:HB2	11:CK:50:TYR:OH	1.75	0.86
27:BA:1474:C:H2'	27:BA:1475:G:H8	1.37	0.86
30:BD:267:SER:O	30:BD:269:PHE:N	2.09	0.86
11:CK:111:ASP:HA	18:CR:84:LYS:HG3	1.57	0.86
32:BF:181:LEU:HB3	32:BF:205:ARG:NH1	1.90	0.86
1:CA:471:G:O2'	1:CA:472:A:H8	1.58	0.86
36:BN:4:TYR:CD1	36:BN:4:TYR:N	2.39	0.86
43:BU:88:ILE:HG22	44:BV:47:VAL:HG23	1.57	0.86
9:AI:82:ALA:HA	9:AI:85:LEU:HD11	1.56	0.86
27:BA:1173:G:H3'	27:BA:1174:A:C5'	2.02	0.86
27:BA:2138:C:H2'	27:BA:2139:C:H6	1.39	0.86
34:BH:97:ARG:HG2	34:BH:98:LEU:H	1.40	0.86
38:DP:78:PRO:HB2	38:DP:111:ARG:HD2	1.57	0.86

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2880:C:O2'	40:DR:90:ARG:HD3	1.75	0.86
23:CW:20:A:N6	23:CW:46:U:H1'	1.89	0.86
13:CM:23:TYR:HB3	13:CM:67:GLU:HB2	1.57	0.86
11:CK:32:ILE:CD1	11:CK:72:ALA:HB2	2.04	0.86
27:DA:830:G:H4'	27:DA:831:G:OP2	1.74	0.86
27:DA:969:U:OP1	52:D3:17:LYS:HG2	1.75	0.86
23:AW:30:A:C2'	23:AW:31:U:H5''	2.04	0.86
41:DS:17:ARG:O	41:DS:18:ILE:HB	1.72	0.86
32:DF:109:GLY:HA2	32:DF:112:MET:HB3	1.57	0.86
37:BO:20:MET:O	37:BO:41:ALA:HB1	1.75	0.86
3:AC:83:ARG:O	3:AC:86:VAL:HG22	1.76	0.86
48:BZ:52:ILE:CG2	48:BZ:70:VAL:HB	2.06	0.86
27:BA:1577:C:H2'	27:BA:1578:U:C6	2.09	0.86
27:BA:2505:G:O2'	27:BA:2506:U:H5'	1.76	0.86
44:BV:19:LYS:HE2	44:BV:20:LEU:N	1.91	0.86
55:B6:40:CYS:CA	55:B6:46:HIS:HB3	2.06	0.86
2:AB:18:GLY:N	2:AB:42:ILE:HG22	1.89	0.86
46:BX:12:VAL:HG13	46:BX:27:THR:O	1.74	0.86
27:BA:2876:G:H4'	42:BT:3:ARG:HD3	1.58	0.86
58:B9:29:ASN:N	58:B9:29:ASN:HD22	1.71	0.86
36:DN:57:ALA:HB3	36:DN:124:ALA:HA	1.58	0.86
40:DR:10:LEU:HB3	40:DR:17:ARG:NE	1.91	0.86
12:CL:3:THR:O	12:CL:7:LEU:HD12	1.74	0.86
6:AF:67:MET:HB2	6:AF:68:PRO:HD2	1.56	0.86
27:BA:1336:A:H2'	27:BA:1337:G:C8	2.09	0.86
27:BA:2200:C:H2'	27:BA:2201:C:H6	1.41	0.86
27:BA:2723:C:H5'	40:BR:5:LYS:NZ	1.91	0.86
13:AM:7:VAL:HG12	13:AM:9:ILE:HD11	1.58	0.86
27:BA:271(F):C:H42	27:BA:271(R):G:H1	1.22	0.86
2:AB:178:ARG:HH22	2:AB:196:LEU:HA	1.40	0.86
27:DA:8:A:H2'	27:DA:9:U:C6	2.11	0.86
27:BA:109:G:O2'	27:BA:110:G:H5'	1.75	0.86
50:D1:11:ARG:HB2	50:D1:12:PRO:HD2	1.55	0.86
3:AC:129:ALA:HB3	3:AC:132:ARG:HB3	1.58	0.86
1:AA:631:G:H5''	1:AA:632:A:OP1	1.75	0.86
47:BY:96:ILE:HG22	47:BY:97:ARG:N	1.89	0.86
27:BA:795:C:H2'	27:BA:796:C:C6	2.11	0.86
27:BA:2199:A:C8	27:BA:2199:A:H5'	2.10	0.86
35:DI:37:VAL:HG12	35:DI:38:LEU:H	1.40	0.86
33:DG:39:ILE:CG2	33:DG:92:VAL:HG13	2.06	0.86
13:CM:3:ARG:HG2	13:CM:9:ILE:CG1	2.05	0.86
27:DA:2467:C:H4'	39:DQ:123:HIS:CD2	2.11	0.86

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2090:G:N2	50:B1:45:ASN:HD21	1.74	0.86
34:DH:53:GLU:O	34:DH:54:ARG:HB3	1.73	0.86
40:BR:24:GLN:HE21	40:BR:36:THR:HG21	1.40	0.86
42:BT:65:LYS:CE	42:BT:66:VAL:H	1.88	0.86
27:DA:560:C:H4'	43:DU:52:ARG:NH2	1.90	0.86
9:AI:53:VAL:CG2	9:AI:54:ASP:H	1.88	0.86
9:AI:50:LEU:HB3	9:AI:55:ALA:O	1.76	0.86
27:DA:2756:U:H1'	27:DA:2757:A:H5''	1.57	0.86
1:CA:234:C:H2'	1:CA:235:C:C6	2.09	0.86
27:DA:1718:G:H1	27:DA:1744:C:H42	1.24	0.86
10:CJ:34:VAL:HG22	10:CJ:74:ILE:HG22	1.55	0.86
11:CK:127:LYS:HA	11:CK:127:LYS:HE2	1.58	0.86
27:DA:1273:U:H5''	27:DA:1273:U:H6	1.39	0.86
27:DA:869:G:H2'	27:DA:870:A:C8	2.09	0.85
30:BD:71:ASP:HB2	30:BD:103:ARG:HH22	1.38	0.85
1:CA:566:G:H4'	1:CA:567:G:OP1	1.76	0.85
34:DH:13:LYS:HA	34:DH:13:LYS:HE2	1.58	0.85
1:CA:1270:C:O2'	1:CA:1271:G:H5'	1.76	0.85
14:CN:13:THR:N	14:CN:14:PRO:HD2	1.89	0.85
27:BA:2863:C:H2'	27:BA:2864:G:H5''	1.55	0.85
1:AA:1162:C:H2'	1:AA:1163:C:C6	2.11	0.85
27:BA:2571:C:H5'	27:BA:2572:A:H5''	1.58	0.85
1:CA:1173:G:H2'	1:CA:1174:G:H8	1.41	0.85
8:CH:42:GLU:HG3	8:CH:109:ILE:HD12	1.56	0.85
27:BA:200:U:H5'	27:BA:200:U:H6	1.40	0.85
1:AA:1270:C:O2'	1:AA:1271:G:H5'	1.74	0.85
57:B8:6:THR:HA	57:B8:61:LEU:HD11	1.58	0.85
55:B6:19:ARG:H	55:B6:19:ARG:HD2	1.39	0.85
30:BD:35:LYS:HZ3	30:BD:103:ARG:HA	1.40	0.85
16:CP:5:ARG:HH12	16:CP:24:ALA:HA	1.40	0.85
27:DA:2752:C:H2'	27:DA:2753:A:C8	2.11	0.85
28:DB:7:G:H5'	41:DS:29:PHE:CE1	2.11	0.85
27:BA:2071:A:H2	27:BA:2441:C:N3	1.72	0.85
34:BH:92:ILE:HG22	34:BH:93:GLY:N	1.89	0.85
27:BA:1562:A:H2'	27:BA:1563:G:H8	1.38	0.85
1:CA:1208:C:H2'	1:CA:1209:C:C6	2.10	0.85
15:CO:16:ALA:HB1	15:CO:21:ASP:HB3	1.57	0.85
23:CW:20:A:H62	23:CW:44:A:H2'	1.41	0.85
8:CH:109:ILE:HG12	8:CH:110:ALA:H	1.41	0.85
27:DA:2100:G:H2'	27:DA:2101:G:C8	2.10	0.85
10:AJ:46:ARG:HG2	10:AJ:64:GLU:OE1	1.74	0.85
46:DX:24:GLY:O	46:DX:82:GLN:HA	1.76	0.85

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
57:D8:6:THR:HG22	57:D8:63:PRO:CD	2.07	0.85
30:DD:239:ARG:HH21	30:DD:239:ARG:CG	1.88	0.85
32:DF:186:ILE:HG23	32:DF:192:LEU:HD11	1.58	0.85
56:D7:9:ARG:HB3	56:D7:48:LYS:NZ	1.91	0.85
27:DA:184:C:H2'	27:DA:185:U:H6	1.41	0.85
8:CH:95:VAL:HA	8:CH:99:GLU:OE2	1.77	0.85
46:BX:39:ILE:O	46:BX:43:VAL:HG23	1.76	0.85
36:BN:1:MET:HG2	36:BN:2:LYS:H	1.38	0.85
31:DE:144:ARG:NH1	31:DE:144:ARG:HG3	1.91	0.85
41:DS:85:VAL:C	41:DS:106:ARG:HG3	1.97	0.85
49:B0:10:THR:HG23	49:B0:12:ASN:OD1	1.77	0.85
1:CA:1356:G:H1	1:CA:1366:C:H42	1.24	0.85
8:AH:6:ILE:H	8:AH:6:ILE:HD12	1.39	0.85
27:BA:491:G:H2'	27:BA:492:A:H8	1.40	0.85
19:AS:63:THR:HG22	19:AS:66:MET:CE	2.07	0.85
27:DA:232:G:H4'	27:DA:233:A:OP1	1.76	0.85
27:BA:608:A:OP1	32:BF:100:THR:HG21	1.75	0.85
42:BT:65:LYS:HZ2	42:BT:66:VAL:HG23	1.41	0.85
1:CA:33:A:OP2	1:CA:398:C:H5'	1.76	0.85
39:DQ:45:GLN:H	39:DQ:45:GLN:NE2	1.74	0.85
33:DG:37:VAL:O	33:DG:94:LEU:HB2	1.75	0.85
27:BA:1412:A:H2'	27:BA:1413:G:C8	2.11	0.85
41:DS:97:ARG:NH2	41:DS:98:VAL:HA	1.92	0.85
48:DZ:27:MET:CE	48:DZ:34:ARG:HB2	2.06	0.85
15:CO:77:ARG:HA	15:CO:80:ALA:HB3	1.59	0.85
1:CA:192:U:O4'	20:CT:103:GLY:HA2	1.77	0.85
30:DD:181:GLU:HA	30:DD:272:ALA:HB3	1.59	0.85
27:DA:2807:G:H22	27:DA:2892:A:H62	1.24	0.85
27:BA:814:C:H41	38:BP:27:HIS:HD2	1.23	0.85
1:AA:854:G:H3'	1:AA:871:U:O4	1.77	0.85
40:DR:26:LYS:CE	40:DR:71:GLN:H	1.90	0.85
27:BA:80:G:O2'	27:BA:81:G:H5'	1.76	0.85
27:BA:232:G:H4'	27:BA:233:A:OP1	1.73	0.85
27:BA:1111:A:O2'	27:BA:1112:G:H4'	1.75	0.85
26:AZ:4:SER:O	26:AZ:5:UAL:N1	2.08	0.85
27:DA:783:A:H2'	27:DA:784:A:H4'	1.59	0.85
27:DA:330:A:HO2'	27:DA:331:A:H8	1.21	0.85
48:BZ:81:ARG:NH2	48:BZ:83:GLU:HA	1.90	0.85
46:BX:80:ILE:O	46:BX:80:ILE:HD13	1.76	0.85
38:BP:95:VAL:HG22	38:BP:125:VAL:HG12	1.57	0.85
24:CX:17:C:H2'	24:CX:17(B):U:C6	2.12	0.85
36:BN:133:GLN:O	36:BN:134:ARG:HG3	1.76	0.85

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:64:GLU:HG2	14:AN:59:ALA:HB2	1.57	0.85
27:DA:796:C:H2'	27:DA:797:C:C6	2.12	0.85
27:BA:2503:A:H4'	27:BA:2504:U:OP1	1.75	0.85
27:BA:1591:G:H2'	27:BA:1592:C:C6	2.12	0.85
12:AL:48:ALA:O	12:AL:49:LEU:HD13	1.77	0.85
45:DW:84:ARG:HB2	45:DW:96:ILE:HG23	1.57	0.85
36:BN:4:TYR:CB	43:BU:64:ARG:HH22	1.88	0.85
9:CI:125:TYR:CE2	9:CI:127:LYS:HB2	2.11	0.85
27:BA:1434:A:H61	27:BA:1558:A:H62	1.18	0.85
27:DA:999:U:C2'	27:DA:1000:A:H5''	2.07	0.85
27:DA:999:U:H2'	27:DA:1000:A:H5''	1.57	0.85
43:DU:87:GLY:O	44:DV:50:PRO:HD3	1.77	0.85
47:DY:27:VAL:HA	47:DY:28:LYS:NZ	1.90	0.85
27:BA:1006:C:H1'	36:BN:106:MET:HG2	1.56	0.85
20:CT:14:LYS:HB2	20:CT:17:ARG:NH2	1.90	0.85
27:BA:1431:U:H2'	27:BA:1432:C:C6	2.12	0.85
57:B8:50:LEU:HD12	57:B8:51:ALA:N	1.91	0.85
27:BA:363(B):G:N3	27:BA:363(B):G:H2'	1.92	0.85
33:BG:2:PRO:HG2	53:B4:51:TYR:CD2	2.12	0.85
27:BA:2809:A:N1	27:BA:2892:A:H1'	1.92	0.85
34:BH:85:LYS:CD	34:BH:133:VAL:HB	2.06	0.85
16:CP:82:GLN:H	16:CP:82:GLN:NE2	1.74	0.85
27:DA:908:C:OP1	39:DQ:22:LYS:HB3	1.77	0.85
27:DA:2383:G:H2'	27:DA:2384:G:C8	2.12	0.85
47:BY:39:VAL:O	47:BY:40:GLU:HG2	1.77	0.85
3:CC:83:ARG:O	3:CC:87:LEU:HG	1.76	0.85
27:BA:2870:C:H2'	27:BA:2871:C:H5'	1.57	0.85
27:DA:1199:U:H2'	27:DA:1200:C:C6	2.11	0.85
27:DA:1484:G:H3'	27:DA:1485:G:H5''	1.58	0.85
18:AR:37:VAL:HG23	18:AR:38:GLU:H	1.39	0.85
27:DA:1917:U:H2'	27:DA:1918:A:C8	2.12	0.85
31:BE:33:VAL:HG13	31:BE:69:LYS:HE3	1.58	0.85
27:BA:1771:C:HO2'	27:BA:1786:A:H8	0.86	0.85
27:BA:1291:C:H2'	27:BA:1292:U:C6	2.12	0.84
33:BG:112:PRO:O	33:BG:113:ARG:NH1	2.10	0.84
55:B6:16:CYS:O	55:B6:17:LYS:HB2	1.75	0.84
55:B6:19:ARG:HG2	55:B6:20:ASN:H	1.39	0.84
6:AF:2:ARG:HD2	6:AF:69:GLU:HB3	1.58	0.84
27:DA:476:G:O2'	27:DA:477:A:H3'	1.75	0.84
24:AX:72:A:H3'	24:AX:73:A:H8	1.41	0.84
40:BR:98:LEU:HB2	40:BR:113:LEU:HB2	1.58	0.84
27:DA:389:G:N1	38:DP:71:VAL:HG12	1.92	0.84

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:D5:4:HIS:HB2	54:D5:5:PRO:HD3	1.59	0.84
1:CA:1137:C:H4'	1:CA:1138:G:N2	1.92	0.84
34:BH:43:VAL:HG21	34:BH:52:VAL:HG22	1.59	0.84
30:DD:218:ARG:HB3	30:DD:219:PRO:HD2	1.57	0.84
27:BA:1636:C:H2'	27:BA:1637:A:H8	1.40	0.84
1:AA:877:C:OP1	8:AH:88:LYS:HE2	1.76	0.84
13:AM:76:ALA:HA	13:AM:79:LYS:CG	2.07	0.84
42:DT:23:ARG:O	42:DT:25:GLY:N	2.10	0.84
27:BA:2020:A:OP1	43:BU:26:GLY:HA3	1.77	0.84
27:BA:1887:C:H2'	27:BA:1888:G:H5''	1.59	0.84
33:BG:118:ARG:H	33:BG:181:ARG:HH21	1.20	0.84
1:CA:1346:A:H61	1:CA:1374:A:H3'	1.42	0.84
1:AA:1079:G:H2'	1:AA:1080:A:C8	2.12	0.84
31:BE:37:ARG:O	31:BE:45:THR:HA	1.77	0.84
31:BE:132:HIS:CD2	31:BE:135:HIS:NE2	2.44	0.84
20:CT:26:ASN:O	20:CT:30:LYS:HB2	1.77	0.84
1:CA:539:A:H2'	1:CA:540:G:C8	2.12	0.84
13:AM:76:ALA:HA	13:AM:79:LYS:HG3	1.59	0.84
13:CM:3:ARG:HH21	13:CM:7:VAL:HG13	1.42	0.84
31:BE:141:ILE:O	31:BE:150:VAL:HG13	1.76	0.84
39:DQ:101:ARG:HD2	39:DQ:102:VAL:H	1.42	0.84
27:BA:1278:A:OP1	40:BR:36:THR:HG22	1.76	0.84
36:DN:65:LYS:O	36:DN:69:GLN:HB2	1.77	0.84
38:DP:144:GLU:H	38:DP:145:PRO:HD3	1.42	0.84
27:DA:2572:A:C5'	27:DA:2574:G:H4'	2.07	0.84
20:AT:26:ASN:ND2	20:AT:26:ASN:H	1.76	0.84
13:CM:13:LYS:HA	13:CM:44:ARG:NH1	1.93	0.84
42:DT:28:VAL:HG21	42:DT:46:GLU:HG3	1.59	0.84
20:CT:76:ALA:HA	20:CT:79:ARG:NH1	1.93	0.84
48:DZ:75:LEU:HD12	48:DZ:80:ARG:O	1.75	0.84
27:BA:71:A:H8	27:BA:71:A:H5'	1.43	0.84
42:DT:99:LEU:HB2	42:DT:101:PHE:CE1	2.11	0.84
27:DA:2808:U:O2'	27:DA:2809:A:H5'	1.76	0.84
27:BA:1179:C:C2'	27:BA:1180:C:H5''	2.08	0.84
1:CA:1125:U:O4	10:CJ:5:ARG:HD3	1.77	0.84
27:BA:1114:G:C3'	27:BA:1115:G:H5''	2.07	0.84
1:AA:189(K):U:H2'	1:AA:189(L):G:C8	2.13	0.84
27:BA:28:A:H61	27:BA:512:G:H1'	1.43	0.84
4:CD:8:VAL:HG12	4:CD:21:LEU:HD13	1.57	0.84
30:DD:77:ALA:HB3	30:DD:117:VAL:HG22	1.57	0.84
55:D6:18:ARG:HD2	55:D6:43:CYS:SG	2.17	0.84
27:DA:2247:A:H2'	27:DA:2248:C:H6	1.42	0.84

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:DT:28:VAL:HG22	42:DT:47:GLY:N	1.93	0.84
34:BH:92:ILE:HG22	34:BH:93:GLY:H	1.42	0.84
1:CA:539:A:H2'	1:CA:540:G:H8	1.42	0.84
39:DQ:27:VAL:H	39:DQ:137:TYR:HD1	1.25	0.84
27:BA:271(F):C:H2'	27:BA:271(G):C:O4'	1.78	0.84
27:DA:2734:A:H62	27:DA:2770:G:H21	1.25	0.84
1:CA:735:C:H2'	1:CA:736:C:H6	1.39	0.84
1:CA:935:A:H2	1:CA:1383:C:H42	1.24	0.84
7:AG:24:THR:HA	7:AG:27:ILE:HD12	1.57	0.84
42:DT:28:VAL:O	42:DT:29:ARG:HB2	1.75	0.84
1:CA:603:U:H2'	1:CA:604:G:H8	1.42	0.84
1:CA:707:C:H2'	1:CA:708:C:H6	1.42	0.84
41:BS:30:ARG:HH22	41:BS:62:LYS:HD2	1.40	0.84
48:BZ:138:VAL:HG12	48:BZ:139:ASP:H	1.43	0.84
27:BA:2443:C:H2'	27:BA:2444:G:H8	1.41	0.84
32:BF:123:LEU:HD12	32:BF:124:LEU:N	1.93	0.84
33:BG:102:PHE:HA	33:BG:105:LYS:NZ	1.93	0.84
1:CA:1342:C:H2'	1:CA:1343:G:C8	2.12	0.84
44:DV:2:PHE:CB	44:DV:42:GLY:HA2	2.06	0.84
16:AP:21:VAL:HG13	16:AP:33:ILE:HB	1.56	0.84
1:AA:373:A:C8	1:AA:373:A:H5'	2.13	0.84
27:DA:154(A):C:N4	27:DA:172:C:H42	1.75	0.84
1:CA:975:A:H61	10:CJ:48:THR:HB	1.41	0.84
5:AE:76:ILE:HD11	5:AE:142:LEU:CD2	2.07	0.84
32:DF:57:VAL:CG1	32:DF:59:TYR:HD1	1.89	0.84
55:D6:30:THR:HB	55:D6:31:PRO:HD2	1.59	0.84
5:AE:20:GLN:HE22	5:AE:25:ARG:CZ	1.90	0.84
38:BP:47:ASP:HB3	38:BP:48:PRO:HA	1.58	0.84
44:BV:62:LEU:H	44:BV:62:LEU:HD22	1.43	0.84
8:AH:20:TYR:HA	8:AH:65:TYR:HE2	1.43	0.84
27:DA:1188:U:H4'	44:DV:79:VAL:HG22	1.60	0.84
27:DA:2018:G:H21	43:DU:34:LYS:NZ	1.75	0.84
27:DA:704:G:H2'	27:DA:726:G:N2	1.92	0.84
1:CA:199:G:HO2'	1:CA:200:G:H8	1.25	0.84
15:AO:74:ASP:OD2	15:AO:77:ARG:HG2	1.76	0.84
27:DA:740:U:H5'	27:DA:740:U:C6	2.10	0.84
8:CH:68:ARG:HG2	8:CH:68:ARG:HH11	1.41	0.84
32:BF:160:ASN:OD1	32:BF:163:VAL:HG23	1.78	0.84
12:CL:43:LYS:HG2	12:CL:44:LYS:N	1.93	0.84
44:BV:35:LEU:HB2	44:BV:57:VAL:HG12	1.57	0.84
30:BD:146:GLU:HG2	30:BD:152:GLY:O	1.77	0.84
2:CB:178:ARG:HH22	8:CH:68:ARG:HH22	1.21	0.84

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1114:G:H3'	27:BA:1115:G:H5''	1.57	0.84
27:BA:648:G:H2'	27:BA:649:G:H8	1.43	0.84
15:AO:6:GLU:O	15:AO:10:LYS:HB3	1.77	0.84
1:CA:976:G:H5'	1:CA:1358:U:O2'	1.78	0.84
43:BU:92:ARG:O	43:BU:94:ASN:N	2.10	0.84
27:DA:919:G:H5'	28:DB:81:G:H1'	1.60	0.84
35:BI:82:ARG:HB2	35:BI:82:ARG:HH11	1.40	0.84
1:CA:507:C:H2'	1:CA:508:C:H5	1.41	0.83
27:DA:35:G:H1'	27:DA:454:A:C1'	2.08	0.83
27:DA:1244:G:H4'	38:DP:11:GLY:HA2	1.60	0.83
1:CA:1003:G:C2'	1:CA:1004:A:H4'	2.07	0.83
1:CA:916:G:H2'	1:CA:917:G:C8	2.13	0.83
27:DA:2482:G:H2'	27:DA:2483:C:C6	2.13	0.83
1:CA:685:G:C2	1:CA:686:U:H5	1.96	0.83
27:BA:2312:U:OP2	33:BG:74:LYS:HE2	1.76	0.83
27:DA:484:C:H2'	27:DA:485:C:H6	1.42	0.83
27:BA:34:C:O2'	27:BA:35:G:H5'	1.78	0.83
38:BP:16:ARG:NH1	38:BP:18:ARG:HG2	1.91	0.83
27:DA:434:U:H4'	27:DA:435:C:OP1	1.77	0.83
27:DA:1188:U:H4'	44:DV:79:VAL:CG2	2.08	0.83
20:CT:72:LEU:HD23	20:CT:73:HIS:N	1.92	0.83
27:BA:2571:C:C5'	27:BA:2572:A:H5''	2.07	0.83
6:CF:37:VAL:HA	6:CF:65:VAL:HG12	1.59	0.83
35:DI:5:LEU:HD12	35:DI:5:LEU:H	1.43	0.83
27:DA:1707:G:H2'	27:DA:1708:C:H6	1.44	0.83
20:AT:50:GLU:HG3	20:AT:51:GLU:N	1.91	0.83
29:BC:49:ILE:HD12	29:BC:49:ILE:H	1.43	0.83
1:CA:1305:G:H22	1:CA:1331:G:H2'	1.42	0.83
27:DA:865:C:H4'	27:DA:866:A:OP1	1.78	0.83
55:D6:15:GLU:OE2	55:D6:43:CYS:SG	2.36	0.83
30:BD:182:LEU:O	30:BD:271:ILE:HG12	1.78	0.83
27:BA:2126:A:H4'	27:BA:2127:G:O5'	1.78	0.83
48:BZ:162:LEU:HD21	48:BZ:166:PRO:HG3	1.60	0.83
55:B6:10:LEU:HD12	57:B8:34:TRP:CD1	2.13	0.83
5:CE:10:MET:HA	5:CE:32:VAL:HG13	1.58	0.83
27:BA:272(B):G:H1	27:BA:366:C:H42	1.23	0.83
33:BG:128:ARG:C	33:BG:130:ASN:H	1.77	0.83
27:BA:1332:G:N2	27:BA:1609:A:O2'	2.11	0.83
38:BP:50:ARG:HB3	57:B8:59:LYS:HD3	1.59	0.83
31:DE:76:ARG:HG2	31:DE:195:LEU:HD13	1.60	0.83
55:B6:20:ASN:ND2	55:B6:21:TYR:H	1.76	0.83
34:BH:23:ARG:HB3	34:BH:34:GLU:OE1	1.78	0.83

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:155:GLY:O	3:CC:156:ARG:HB2	1.78	0.83
27:BA:2123:G:H2'	27:BA:2124:G:C8	2.12	0.83
8:AH:84:ARG:HH11	8:AH:84:ARG:CG	1.91	0.83
38:DP:16:ARG:HD3	38:DP:18:ARG:H	1.41	0.83
27:DA:2199:A:H3'	27:DA:2200:C:H6	1.42	0.83
1:AA:203:U:H1'	1:AA:216:G:C6	2.13	0.83
3:CC:14:ILE:HG12	3:CC:15:THR:H	1.43	0.83
11:CK:79:SER:HB2	11:CK:106:LYS:HD2	1.58	0.83
16:AP:56:ALA:O	16:AP:60:LEU:HG	1.77	0.83
25:CY:35:G:H2'	25:CY:36:A:C8	2.13	0.83
27:BA:2472:G:H5'	27:BA:2473:U:H5''	1.61	0.83
38:BP:48:PRO:HG2	38:BP:49:ARG:H	1.42	0.83
43:DU:97:ASP:O	43:DU:100:VAL:HB	1.77	0.83
30:DD:27:THR:HG21	30:DD:83:GLU:HG2	1.60	0.83
1:AA:1321:C:H5'	1:AA:1322:C:C5'	2.09	0.83
27:BA:2841:C:H2'	27:BA:2842:G:C8	2.14	0.83
33:DG:114:ILE:HG22	33:DG:116:ASP:H	1.42	0.83
12:AL:15:VAL:HG23	12:AL:16:ARG:N	1.93	0.83
11:CK:18:ARG:HB3	11:CK:33:THR:OG1	1.79	0.83
1:CA:1385:G:O2'	1:CA:1386:G:H5'	1.78	0.83
1:CA:868:C:H2'	1:CA:869:G:O4'	1.77	0.83
15:AO:3:ILE:HG22	15:AO:38:ARG:NH1	1.92	0.83
57:D8:4:MET:O	57:D8:62:LEU:HD11	1.77	0.83
44:DV:31:ALA:H	44:DV:61:VAL:HG13	1.44	0.83
47:DY:28:LYS:HB3	47:DY:39:VAL:N	1.94	0.83
38:DP:7:ARG:O	38:DP:10:PRO:HD2	1.78	0.83
29:DC:36:LYS:HD3	29:DC:37:PHE:H	1.42	0.83
1:AA:495:A:H1'	1:AA:496:A:H5'	1.60	0.83
48:DZ:134:GLU:O	48:DZ:135:PHE:HB3	1.78	0.83
27:DA:1793:C:H2'	27:DA:1794:U:H6	1.44	0.83
42:BT:91:ARG:CB	42:BT:116:ALA:HA	2.08	0.83
27:DA:858:U:O2	27:DA:2268:A:H2'	1.79	0.83
30:BD:101:GLU:OE1	30:BD:103:ARG:HD3	1.79	0.83
30:BD:43:ARG:NH1	30:BD:44:ASN:ND2	2.27	0.83
1:CA:754:C:O2	1:CA:754:C:H2'	1.77	0.83
27:BA:2090:G:H21	50:B1:45:ASN:HD21	1.21	0.83
27:DA:322:A:OP2	32:DF:169:ASN:HB2	1.79	0.83
2:AB:114:ARG:NH1	2:AB:118:LEU:HD21	1.94	0.83
27:BA:56:A:O2'	27:BA:57:C:H5'	1.78	0.83
2:CB:172:ILE:HD12	2:CB:172:ILE:N	1.92	0.83
27:DA:389:G:H1	38:DP:71:VAL:HG12	1.42	0.83
32:DF:2:LYS:O	32:DF:25:PRO:HD2	1.79	0.83

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DP:99:LEU:HA	38:DP:102:ARG:HH12	1.44	0.83
7:AG:113:GLU:HG2	7:AG:119:ARG:HG2	1.58	0.83
34:BH:13:LYS:HD3	34:BH:14:GLY:N	1.92	0.83
40:DR:66:VAL:HG12	40:DR:70:LEU:HD12	1.61	0.83
19:AS:13:ASP:HA	19:AS:16:LEU:HD22	1.60	0.83
54:B5:41:PRO:HG2	54:B5:44:THR:HG21	1.59	0.83
27:DA:1713:U:O2'	27:DA:1714:G:H5'	1.78	0.83
1:AA:509:A:H5'	4:AD:54:TYR:HD2	1.41	0.83
27:DA:1973:G:H2'	27:DA:1974:C:C6	2.13	0.83
2:CB:172:ILE:CD1	2:CB:172:ILE:H	1.83	0.83
27:DA:1158:C:O2'	27:DA:1159:U:H5''	1.77	0.83
27:DA:2350:C:H2'	27:DA:2351:G:O4'	1.79	0.83
27:DA:2351:G:H2'	27:DA:2365:G:H22	1.44	0.83
27:DA:1673:U:H2'	27:DA:1674:G:H5'	1.61	0.83
18:CR:82:THR:HG22	18:CR:83:GLU:N	1.93	0.83
27:DA:2732:G:H3'	27:DA:2733:A:C5'	2.08	0.83
35:BI:77:LEU:HB3	35:BI:140:LEU:HD13	1.60	0.83
7:CG:49:ILE:HG23	7:CG:53:LYS:HD2	1.60	0.83
12:AL:25:LYS:HB2	12:AL:30:ARG:HH12	1.44	0.83
27:DA:17:G:H4'	43:DU:25:TRP:CH2	2.14	0.83
50:B1:19:GLN:HB3	50:B1:35:THR:HG23	1.61	0.83
1:AA:681:C:H2'	1:AA:682:G:C8	2.13	0.83
36:BN:2:LYS:HZ1	43:BU:95:LEU:HG	1.42	0.83
27:DA:93:G:H2'	27:DA:94:C:O4'	1.76	0.83
38:DP:59:LEU:HA	38:DP:61:ARG:NH1	1.92	0.83
10:AJ:49:VAL:CG2	14:AN:41:ARG:HB2	2.09	0.83
42:DT:83:ILE:HG13	42:DT:84:GLN:H	1.42	0.83
36:BN:15:LEU:HD12	36:BN:136:GLU:HG2	1.59	0.83
1:CA:99:U:H2'	1:CA:100:C:C6	2.13	0.83
27:BA:1411:C:H2'	27:BA:1412:A:H8	1.41	0.83
27:BA:2315:G:H21	33:BG:128:ARG:NH1	1.76	0.83
37:BO:13:ASN:HD21	37:BO:97:ARG:N	1.77	0.83
27:BA:380:U:H3	27:BA:394:A:H61	1.27	0.83
27:BA:1365:A:H5''	50:B1:41:ARG:HH22	1.43	0.83
50:D1:67:ILE:N	50:D1:68:PRO:HD2	1.93	0.83
29:DC:50:ASP:HB2	29:DC:54:SER:O	1.78	0.83
32:DF:167:ALA:HB1	32:DF:173:VAL:HG11	1.59	0.83
27:BA:28:A:N6	27:BA:512:G:H1'	1.94	0.82
27:DA:1862:G:H1	27:DA:1880:C:H42	1.26	0.82
33:DG:28:VAL:C	33:DG:30:GLU:H	1.81	0.82
46:DX:57:LEU:HD21	46:DX:78:LYS:HD3	1.61	0.82
1:CA:142:G:H2'	1:CA:143:A:C8	2.13	0.82

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:51:ARG:HG2	14:AN:45:ARG:HH12	1.42	0.82
27:BA:828:U:H4'	27:BA:831:G:N1	1.94	0.82
1:CA:1504:G:H4'	1:CA:1505:G:H5'	1.60	0.82
27:DA:333:G:H2'	27:DA:334:C:C6	2.14	0.82
32:DF:132:VAL:HG22	32:DF:133:ASN:H	1.43	0.82
1:AA:1182:G:H4'	1:AA:1183:A:O5'	1.79	0.82
38:BP:23:PRO:HB2	38:BP:33:ARG:CD	2.08	0.82
43:DU:92:ARG:HD2	44:DV:11:GLN:CD	1.99	0.82
44:DV:61:VAL:HA	44:DV:94:LEU:HD23	1.61	0.82
47:DY:28:LYS:HB2	47:DY:38:ILE:N	1.93	0.82
49:D0:23:VAL:HG13	49:D0:38:VAL:HG22	1.59	0.82
27:DA:2784:C:H1'	31:DE:37:ARG:NH1	1.94	0.82
2:CB:163:PHE:HA	2:CB:185:ILE:O	1.79	0.82
58:B9:13:LYS:HD3	58:B9:28:GLU:HG2	1.61	0.82
27:DA:1461:G:H2'	27:DA:1462:C:C6	2.13	0.82
3:AC:52:LEU:HD23	3:AC:52:LEU:N	1.94	0.82
1:CA:817:C:H1'	1:CA:819:A:H5'	1.59	0.82
1:CA:979:C:C3'	1:CA:980:C:H5''	2.09	0.82
1:CA:458:C:H2'	1:CA:460:G:H8	1.41	0.82
42:BT:28:VAL:HG22	42:BT:46:GLU:CA	2.09	0.82
30:BD:243:GLY:O	30:BD:244:ARG:HB3	1.77	0.82
27:DA:865:C:H2'	27:DA:865:C:O2	1.79	0.82
31:DE:73:GLU:HG3	31:DE:74:PRO:HD2	1.60	0.82
43:DU:31:SER:HB3	43:DU:34:LYS:HB2	1.59	0.82
41:BS:85:VAL:N	41:BS:106:ARG:HB2	1.93	0.82
16:AP:82:GLN:HE21	16:AP:83:GLU:N	1.76	0.82
1:CA:132:C:O2	1:CA:230:G:N2	2.13	0.82
39:DQ:44:ALA:HB3	39:DQ:45:GLN:NE2	1.94	0.82
27:BA:2283:C:C2'	27:BA:2284:C:H5'	2.07	0.82
27:DA:956:G:N2	27:DA:959:A:H3'	1.94	0.82
27:DA:1503:U:H2'	27:DA:1504:C:H6	1.44	0.82
1:CA:578:C:H42	1:CA:763:G:H1	1.25	0.82
28:BB:7:G:H3'	28:BB:8:U:H5''	1.61	0.82
27:BA:1860:G:H1	27:BA:1882:C:H42	1.26	0.82
27:DA:2801(A):A:H4'	27:DA:2802:G:H5'	1.61	0.82
1:AA:1085:U:H4'	1:AA:1086:U:OP2	1.79	0.82
27:BA:639:U:H2'	27:BA:640:C:C6	2.15	0.82
1:AA:130:A:C8	17:AQ:63:ARG:HG3	2.14	0.82
9:AI:46:ALA:O	9:AI:47:LEU:HD12	1.79	0.82
56:B7:8:ASN:ND2	56:B7:11:LYS:H	1.77	0.82
34:BH:148:ILE:O	34:BH:151:ILE:HG12	1.78	0.82
11:CK:84:VAL:HG23	11:CK:110:ASP:OD1	1.78	0.82

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:482:A:N6	27:DA:506:G:H2'	1.95	0.82
15:CO:12:ILE:O	15:CO:14:GLU:N	2.12	0.82
27:DA:271(S):G:H2'	27:DA:271(T):C:C5'	2.08	0.82
1:CA:1250:A:H4'	9:CI:68:GLY:N	1.94	0.82
41:DS:97:ARG:HH12	41:DS:99:LYS:HG2	1.45	0.82
11:AK:32:ILE:CD1	11:AK:72:ALA:HB2	2.10	0.82
27:DA:310:A:OP1	47:DY:17:SER:O	1.97	0.82
2:AB:167:PRO:HG2	2:AB:192:SER:OG	1.79	0.82
1:CA:280:C:O2	17:CQ:38:ARG:HG3	1.80	0.82
33:DG:101:ILE:HD13	33:DG:102:PHE:N	1.94	0.82
37:BO:93:PRO:HG3	37:BO:114:ILE:HD11	1.61	0.82
27:BA:572:A:C8	27:BA:572:A:H5'	2.15	0.82
40:DR:4:LEU:HD21	40:DR:8:ARG:NH2	1.94	0.82
27:BA:897:C:O2	27:BA:897:C:H2'	1.79	0.82
27:BA:637:A:H4'	27:BA:638:G:O5'	1.78	0.82
55:B6:41:PRO:HD3	55:B6:46:HIS:CA	2.10	0.82
1:CA:1163:C:H2'	1:CA:1164:G:H8	1.45	0.82
27:BA:2197:U:O2'	27:BA:2198:A:H2'	1.80	0.82
1:AA:443:C:H2'	1:AA:444:C:C6	2.14	0.82
8:CH:104:ARG:HB3	8:CH:108:GLY:H	1.45	0.82
27:BA:906:G:H5'	39:BQ:26:TYR:OH	1.80	0.82
52:D3:59:VAL:HG12	52:D3:60:GLU:N	1.94	0.82
32:BF:41:LEU:HD11	32:BF:184:TYR:HE1	1.43	0.82
6:CF:89:MET:SD	18:CR:76:LEU:HD21	2.19	0.82
38:BP:23:PRO:HD2	38:BP:33:ARG:HE	1.42	0.82
27:BA:2728:U:O2'	27:BA:2729:G:H5'	1.79	0.82
30:BD:89:SER:HB2	30:BD:201:HIS:HD2	1.41	0.82
1:AA:580:U:H2'	1:AA:581:G:O4'	1.78	0.82
16:AP:82:GLN:NE2	16:AP:83:GLU:H	1.76	0.82
27:DA:2475:C:N4	27:DA:2529:G:H22	1.74	0.82
1:CA:1258:G:H2'	1:CA:1259:C:H6	1.45	0.82
27:DA:2126:A:C6	27:DA:2163:C:H4'	2.14	0.82
38:DP:18:ARG:HB3	38:DP:18:ARG:NH1	1.95	0.82
27:DA:2815:C:H2'	27:DA:2816:C:C6	2.14	0.82
8:CH:111:ILE:HG22	8:CH:112:LEU:H	1.44	0.82
27:BA:594:U:H2'	27:BA:595:C:C6	2.15	0.82
27:BA:1598:C:H5'	46:BX:36:LYS:HB2	1.61	0.82
27:BA:1607:C:H4'	27:BA:1608:A:O5'	1.80	0.82
27:DA:628:G:H2'	27:DA:629:G:C8	2.14	0.82
27:DA:857:C:H5'	49:D0:77:ARG:HH12	1.45	0.82
55:B6:9:LEU:O	55:B6:9:LEU:HD23	1.79	0.82
1:AA:495:A:H4'	1:AA:496:A:H5''	1.62	0.82

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:154(A):C:H41	27:BA:172:C:H42	1.25	0.82
1:CA:458:C:H2'	1:CA:460:G:C8	2.14	0.82
30:DD:118:VAL:CG2	30:DD:119:ALA:H	1.91	0.82
30:BD:25:THR:O	30:BD:27:THR:HG22	1.79	0.82
11:CK:32:ILE:CD1	11:CK:41:THR:HG22	2.07	0.82
2:AB:151:GLY:O	2:AB:152:PHE:HB2	1.78	0.82
10:AJ:4:ILE:HG12	10:AJ:100:THR:CG2	2.10	0.82
27:BA:2391:G:OP1	57:B8:32:LEU:HD12	1.79	0.82
5:CE:91:LEU:HG	5:CE:120:THR:CG2	2.09	0.82
27:DA:512:G:OP1	27:DA:1235:G:H5'	1.80	0.82
27:BA:402:A:O2'	27:BA:403:U:H5'	1.78	0.82
27:DA:762:U:H4'	27:DA:763:G:O5'	1.78	0.82
1:AA:979:C:H3'	1:AA:980:C:H5''	1.61	0.82
27:DA:1791:A:N6	27:DA:1828:G:O2'	2.12	0.82
33:BG:101:ILE:HG12	33:BG:105:LYS:HE3	1.59	0.82
13:CM:69:GLU:OE1	13:CM:69:GLU:HA	1.80	0.82
29:BC:42:GLU:H	29:BC:213:TYR:H	1.27	0.82
27:DA:1493:C:H4'	27:DA:1494:A:OP1	1.78	0.82
30:DD:24:ILE:CG1	30:DD:25:THR:H	1.84	0.82
27:DA:2052:G:H4'	31:DE:143:ASN:O	1.80	0.82
38:DP:23:PRO:HB2	38:DP:33:ARG:HD2	1.61	0.82
41:BS:86:ALA:N	41:BS:106:ARG:HG3	1.94	0.82
14:CN:24:CYS:SG	14:CN:40:CYS:HB3	2.20	0.82
30:BD:68:LYS:NZ	30:BD:70:TRP:HE1	1.78	0.82
9:CI:24:GLY:HA2	9:CI:59:PHE:O	1.80	0.82
27:BA:96:G:H4'	51:B2:48:HIS:CD2	2.15	0.82
13:AM:90:LEU:O	13:AM:92:HIS:N	2.12	0.82
47:BY:66:PRO:O	47:BY:67:LEU:HB3	1.80	0.82
27:BA:992:C:O2'	27:BA:993:G:H5'	1.78	0.82
1:AA:250:A:H4'	1:AA:251:G:O5'	1.80	0.82
55:D6:32:ASN:O	55:D6:33:LYS:HB2	1.79	0.81
27:DA:628:G:H2'	27:DA:629:G:H8	1.43	0.81
27:DA:1668:A:H5'	27:DA:1669:A:N7	1.94	0.81
1:CA:664:G:H22	1:CA:741:G:H1	1.24	0.81
44:DV:66:ARG:NH2	44:DV:88:ARG:HD3	1.94	0.81
8:AH:132:GLU:HG2	8:AH:134:ILE:HD13	1.60	0.81
1:CA:918:A:H2'	1:CA:919:A:H8	1.44	0.81
27:BA:1509(A):A:H2'	27:BA:1509(B):A:H8	1.42	0.81
36:DN:28:THR:HG23	36:DN:29:LYS:H	1.44	0.81
27:DA:1019:U:H3	27:DA:1142(A):A:H62	1.24	0.81
30:BD:24:ILE:HG13	30:BD:25:THR:H	1.43	0.81
27:DA:1885:A:H2'	27:DA:1886:C:O4'	1.78	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:B1:37:ILE:HG22	50:B1:38:SER:N	1.94	0.81
32:DF:32:LEU:HD23	32:DF:32:LEU:O	1.80	0.81
35:BI:123:LEU:HD23	35:BI:142:VAL:HG12	1.62	0.81
55:B6:11:LEU:HD11	55:B6:51:GLU:HG2	1.61	0.81
1:AA:681:C:H2'	1:AA:682:G:H8	1.43	0.81
52:D3:7:LYS:O	52:D3:54:VAL:HG13	1.78	0.81
42:BT:54:ARG:HA	42:BT:59:THR:HB	1.60	0.81
17:CQ:26:GLN:HB3	17:CQ:37:LYS:HG2	1.62	0.81
1:CA:1305:G:H22	1:CA:1331:G:C2'	1.92	0.81
43:BU:92:ARG:NE	44:BV:11:GLN:HB2	1.94	0.81
27:DA:438:G:H2'	27:DA:440:G:C8	2.14	0.81
27:DA:1884:A:C2'	27:DA:1885:A:H5''	2.11	0.81
38:DP:123:LEU:HD12	38:DP:125:VAL:HG12	1.63	0.81
36:BN:67:LEU:O	36:BN:68:GLU:HG2	1.79	0.81
27:BA:1603:A:H5'	27:BA:1603:A:H8	1.46	0.81
41:BS:46:VAL:HG12	41:BS:47:THR:N	1.95	0.81
3:CC:47:LEU:HD21	3:CC:68:VAL:HG11	1.61	0.81
27:DA:525:U:O2'	27:DA:526:A:H5'	1.78	0.81
39:DQ:32:TYR:HE2	39:DQ:133:ARG:HG2	1.45	0.81
1:CA:165:C:H2'	1:CA:166:G:H8	1.43	0.81
56:D7:8:ASN:HD21	56:D7:11:LYS:H	1.28	0.81
31:DE:111:ARG:HD2	31:DE:160:TYR:CE1	2.14	0.81
1:AA:1380:U:H4'	1:AA:1381:U:O5'	1.81	0.81
27:DA:2562:U:O2	27:DA:2562:U:H2'	1.78	0.81
15:AO:62:GLN:HA	15:AO:65:ARG:HH11	1.45	0.81
29:DC:212:VAL:O	29:DC:218:MET:HA	1.78	0.81
30:DD:112:GLN:H	30:DD:115:GLN:NE2	1.78	0.81
1:CA:148:G:H1	1:CA:174:C:H42	1.28	0.81
1:CA:284:G:H2'	1:CA:285:G:H8	1.44	0.81
1:AA:598:U:H2'	1:AA:599:C:H6	1.43	0.81
1:AA:627:G:H2'	1:AA:628:G:H8	1.43	0.81
24:AX:4:G:H2'	24:AX:5:G:C8	2.15	0.81
2:AB:14:GLY:O	2:AB:15:VAL:HG13	1.80	0.81
34:DH:159:GLU:HG3	34:DH:160:LYS:HG3	1.59	0.81
33:BG:11:TYR:HA	33:BG:15:VAL:HB	1.60	0.81
27:DA:1983:C:H4'	27:DA:2606:C:H4'	1.63	0.81
43:BU:27:LEU:N	43:BU:27:LEU:HD23	1.96	0.81
27:DA:644:A:H4'	27:DA:645:C:C5	2.15	0.81
27:DA:1794:U:H2'	27:DA:1795:C:C6	2.15	0.81
29:BC:41:VAL:O	29:BC:178:ALA:HB3	1.80	0.81
27:DA:941:A:H4'	38:DP:35:HIS:CE1	2.14	0.81
2:CB:187:LEU:HD13	2:CB:187:LEU:O	1.81	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:AO:82:ILE:HD11	15:AO:87:ILE:H	1.44	0.81
27:BA:1484:G:C3'	27:BA:1485:G:H5''	2.09	0.81
23:AW:6:U:C3'	23:AW:7:A:H5''	2.09	0.81
27:BA:389:G:H1	38:BP:71:VAL:HG12	1.45	0.81
5:CE:76:ILE:HD11	5:CE:142:LEU:HD11	1.60	0.81
36:DN:55:VAL:HG22	36:DN:126:PRO:HA	1.62	0.81
5:AE:101:ILE:N	5:AE:101:ILE:HD13	1.95	0.81
39:DQ:66:ILE:O	39:DQ:66:ILE:HG13	1.80	0.81
39:DQ:20:ALA:O	39:DQ:98:LYS:HB3	1.80	0.81
27:DA:1968:G:O2'	27:DA:1969:A:H5''	1.81	0.81
4:AD:8:VAL:O	4:AD:10:ARG:N	2.13	0.81
1:CA:17:U:H2'	1:CA:18:C:C6	2.16	0.81
27:DA:184:C:H2'	27:DA:185:U:C6	2.14	0.81
24:CX:51:C:H2'	24:CX:52:G:H8	1.44	0.81
27:DA:873:G:N2	27:DA:905:U:H1'	1.96	0.81
27:DA:917:A:H2'	27:DA:918:A:H8	1.46	0.81
28:DB:87:G:C3'	28:DB:88:C:H5''	2.11	0.81
36:BN:62:VAL:CG2	36:BN:66:LYS:HB2	2.11	0.81
30:BD:65:ILE:HG12	30:BD:104:TYR:O	1.80	0.81
27:DA:1485:G:H2'	27:DA:1486:A:C8	2.16	0.81
39:DQ:56:ARG:HA	39:DQ:56:ARG:CZ	2.11	0.81
27:DA:1278:A:H5''	40:DR:36:THR:HG22	1.62	0.81
10:CJ:6:ILE:HG13	10:CJ:72:VAL:O	1.80	0.81
39:BQ:63:LYS:HZ3	48:BZ:174:VAL:HG11	1.44	0.81
27:DA:1512:U:H2'	27:DA:1513:C:H6	1.44	0.81
36:DN:67:LEU:O	36:DN:68:GLU:HB2	1.77	0.81
35:BI:3:VAL:HA	35:BI:39:ALA:HB2	1.61	0.81
27:BA:1564:C:O2'	27:BA:1565:C:H5'	1.81	0.81
48:DZ:6:ALA:HB3	48:DZ:58:LEU:HB3	1.63	0.81
39:DQ:34:LEU:HD13	39:DQ:118:LEU:HD22	1.62	0.81
1:CA:980:C:H1'	14:CN:19:ARG:HG2	1.63	0.81
27:BA:2476:A:C2'	27:BA:2477:C:H5''	2.11	0.81
27:BA:754:C:H2'	27:BA:755:C:C6	2.15	0.81
38:BP:125:VAL:O	38:BP:145:PRO:HD2	1.80	0.81
57:B8:33:ASN:ND2	57:B8:33:ASN:N	2.29	0.81
40:DR:18:LEU:HD11	40:DR:22:ARG:CZ	2.11	0.81
57:B8:49:VAL:HG23	57:B8:53:PRO:HB3	1.63	0.81
27:DA:1485:G:H2'	27:DA:1486:A:H8	1.45	0.81
1:CA:52:G:H2'	1:CA:53:A:H8	1.46	0.81
27:BA:2138:C:H2'	27:BA:2139:C:C6	2.15	0.81
27:DA:221:A:H4'	27:DA:222:A:O5'	1.81	0.81
43:BU:26:GLY:C	43:BU:28:ARG:H	1.83	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2199:A:H5''	27:DA:2200:C:H5	1.46	0.81
2:CB:11:LEU:HB3	2:CB:213:LEU:HD11	1.59	0.81
27:DA:227:A:H61	27:DA:410:G:H21	1.29	0.81
27:DA:2443:C:H2'	27:DA:2444:G:H8	1.43	0.81
27:DA:587:C:H3'	38:DP:33:ARG:NH2	1.95	0.81
47:BY:31:LEU:CB	47:BY:32:PRO:HA	2.09	0.81
12:CL:22:PRO:O	12:CL:24:LEU:HD13	1.80	0.81
12:AL:38:ARG:HH12	12:AL:54:LYS:HZ2	1.28	0.81
33:DG:112:PRO:O	33:DG:113:ARG:NH1	2.13	0.81
6:CF:69:GLU:O	6:CF:72:VAL:HG12	1.81	0.81
39:BQ:26:TYR:CD1	39:BQ:28:ALA:HB2	2.16	0.81
27:BA:2462:U:H3	27:BA:2488:A:H61	1.24	0.81
27:DA:1221(A):C:H42	27:DA:1228:G:H1	1.29	0.81
27:DA:1747(A):G:C2'	27:DA:1748:G:H5''	2.11	0.81
1:CA:1398:A:H5''	1:CA:1398:A:C8	2.15	0.81
27:BA:2290:G:H5'	27:BA:2290:G:H8	1.43	0.81
1:AA:487:A:H2'	1:AA:488:C:O4'	1.81	0.81
1:CA:939:G:H5''	7:CG:102:ARG:HH22	1.45	0.81
12:AL:20:LYS:O	12:AL:21:VAL:HG23	1.81	0.81
1:CA:1513:A:H2'	1:CA:1514:C:C6	2.15	0.81
32:DF:141:ALA:O	32:DF:144:LYS:HB3	1.81	0.81
3:AC:173:VAL:O	3:AC:175:LEU:HD12	1.78	0.81
27:DA:1826:G:H2'	27:DA:1827:C:H6	1.42	0.81
42:BT:28:VAL:HG22	42:BT:47:GLY:N	1.96	0.81
30:DD:133:LEU:CD1	30:DD:175:LEU:HD11	2.10	0.81
56:B7:8:ASN:HD21	56:B7:11:LYS:H	1.29	0.81
27:BA:1782:C:H1'	27:BA:2609:U:H5''	1.61	0.81
50:D1:52:ARG:HG3	50:D1:53:VAL:N	1.96	0.81
33:DG:105:LYS:CE	53:D4:52:SER:HB3	2.09	0.81
1:CA:924:C:H2'	1:CA:925:G:C8	2.16	0.81
6:CF:91:VAL:HG11	18:CR:72:ARG:HH12	1.44	0.81
33:BG:6:ALA:HB3	33:BG:104:GLU:OE1	1.80	0.81
1:AA:1116:C:H2'	1:AA:1117:G:H5'	1.63	0.81
1:AA:1513:A:H2'	1:AA:1514:C:C6	2.15	0.81
51:D2:2:LYS:O	51:D2:6:VAL:HG23	1.80	0.80
38:DP:112:LEU:H	38:DP:128:HIS:CD2	1.99	0.80
27:DA:754:C:H2'	27:DA:755:C:C6	2.15	0.80
1:CA:373:A:H2'	1:CA:374:A:C8	2.16	0.80
19:AS:31:ILE:HG23	19:AS:49:ILE:HG23	1.62	0.80
27:BA:90:U:H2'	27:BA:90:U:O2	1.79	0.80
27:DA:2152:G:H2'	27:DA:2153:G:H8	1.43	0.80
27:DA:1473:G:C2'	27:DA:1474:C:H5'	2.11	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:B3:59:VAL:HG12	52:B3:60:GLU:N	1.96	0.80
42:DT:57:PHE:CD2	42:DT:58:ASN:N	2.47	0.80
1:AA:1123:A:H4'	10:AJ:36:GLY:HA3	1.63	0.80
32:DF:2:LYS:HD3	32:DF:2:LYS:N	1.96	0.80
1:AA:322:C:H2'	1:AA:323:U:H6	1.44	0.80
30:BD:33:LEU:HD12	30:BD:33:LEU:H	1.45	0.80
2:AB:44:LEU:HD12	2:AB:44:LEU:H	1.45	0.80
27:DA:2752:C:H2'	27:DA:2753:A:H8	1.45	0.80
1:CA:742:G:C5'	15:CO:58:MET:HE1	2.11	0.80
36:DN:16:ILE:O	36:DN:54:VAL:HA	1.80	0.80
1:AA:37:U:O2'	1:AA:500:G:H4'	1.81	0.80
27:BA:1359:A:H62	27:BA:1372:U:H3	1.28	0.80
27:DA:660:G:H2'	27:DA:661:C:O4'	1.80	0.80
30:DD:65:ILE:H	30:DD:65:ILE:HD13	1.46	0.80
57:B8:52:LYS:N	57:B8:53:PRO:HD2	1.96	0.80
2:AB:178:ARG:HH12	2:AB:196:LEU:CB	1.94	0.80
12:AL:15:VAL:HG23	12:AL:16:ARG:H	1.46	0.80
2:AB:49:GLU:O	2:AB:52:GLU:HB3	1.81	0.80
40:BR:41:ALA:O	40:BR:44:LEU:N	2.15	0.80
27:BA:2056:G:N2	54:B5:4:HIS:O	2.13	0.80
31:DE:51:PHE:O	31:DE:74:PRO:HB2	1.80	0.80
27:DA:581:C:H2'	27:DA:582:G:H8	1.46	0.80
27:BA:1019:U:HO2'	27:BA:1021:A:H2	0.83	0.80
46:DX:25:LYS:NZ	46:DX:80:ILE:HD11	1.97	0.80
31:DE:93:VAL:C	31:DE:95:ILE:H	1.85	0.80
35:DI:133:HIS:CB	35:DI:134:PRO:HD3	2.11	0.80
1:CA:677:U:H3	1:CA:714:G:H22	1.29	0.80
1:CA:680:C:H2'	1:CA:681:C:C6	2.15	0.80
1:CA:194:C:H2'	1:CA:195:A:H5''	1.61	0.80
39:DQ:45:GLN:HE21	39:DQ:45:GLN:N	1.78	0.80
29:DC:83:ILE:HA	29:DC:94:VAL:HG21	1.61	0.80
15:AO:36:ILE:HG23	15:AO:56:LEU:HD11	1.64	0.80
30:DD:168:ARG:H	30:DD:168:ARG:HD3	1.44	0.80
37:BO:63:VAL:HG12	37:BO:106:LEU:HD11	1.61	0.80
27:DA:665:C:H2'	27:DA:666:G:H8	1.44	0.80
29:DC:51:PRO:HG3	29:DC:204:ALA:HB2	1.62	0.80
32:BF:202:PHE:O	32:BF:205:ARG:HB3	1.82	0.80
30:BD:165:ILE:HA	30:BD:175:LEU:HD23	1.62	0.80
27:DA:84:A:H5''	47:DY:9:LYS:HZ1	1.47	0.80
27:DA:627:A:H62	38:DP:84:ASN:ND2	1.79	0.80
20:AT:71:THR:HG22	20:AT:72:LEU:N	1.95	0.80
27:BA:1021:A:C8	27:BA:1021:A:H3'	2.17	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DG:63:ILE:HA	33:DG:143:GLU:HG3	1.63	0.80
46:DX:12:VAL:CG1	46:DX:27:THR:HG23	2.10	0.80
20:CT:26:ASN:HA	20:CT:29:LYS:HG2	1.62	0.80
30:BD:270:ILE:O	30:BD:271:ILE:HG23	1.81	0.80
1:AA:815:A:H5''	1:AA:817:C:H41	1.47	0.80
16:AP:13:HIS:C	16:AP:15:PRO:HD3	2.02	0.80
27:BA:1919:A:H5''	27:BA:1920:C:H5	1.47	0.80
36:DN:89:LYS:HB3	36:DN:89:LYS:HZ2	1.44	0.80
2:CB:80:ILE:HD11	2:CB:212:GLN:HA	1.64	0.80
1:CA:414:A:H2'	1:CA:415:A:O4'	1.80	0.80
50:D1:69:LYS:HE2	50:D1:72:GLU:OE2	1.81	0.80
25:CY:37:U:H3'	25:CY:38:U:H5''	1.63	0.80
32:BF:20:LEU:HD13	32:BF:203:GLN:HE22	1.45	0.80
27:DA:943:U:OP1	38:DP:38:GLN:HB3	1.82	0.80
4:CD:150:GLU:H	4:CD:150:GLU:CD	1.83	0.80
1:AA:405:U:O2	1:AA:498:U:H2'	1.81	0.80
5:AE:20:GLN:OE1	5:AE:25:ARG:HD2	1.82	0.80
2:CB:233:SER:OG	2:CB:234:PRO:HD2	1.82	0.80
1:CA:477:A:O2'	1:CA:479:C:H5'	1.80	0.80
28:BB:40:U:H3	28:BB:43:C:C5'	1.95	0.80
33:BG:177:GLY:O	33:BG:179:PRO:HD3	1.81	0.80
27:BA:335:C:H5''	47:BY:73:ARG:NH2	1.97	0.80
10:AJ:49:VAL:HG21	14:AN:41:ARG:HB2	1.63	0.80
30:BD:43:ARG:HH11	30:BD:44:ASN:CG	1.85	0.80
41:BS:85:VAL:HG23	41:BS:106:ARG:CB	2.11	0.80
45:BW:90:ARG:CG	45:BW:90:ARG:HH11	1.93	0.80
31:DE:188:VAL:HG22	31:DE:189:PRO:HD2	1.63	0.80
16:CP:71:ARG:HA	16:CP:74:LEU:HD12	1.64	0.80
27:DA:1784:A:H4'	27:DA:1785:A:O5'	1.80	0.80
14:CN:41:ARG:HG3	14:CN:42:ILE:N	1.97	0.80
3:CC:53:ALA:HB2	3:CC:115:LEU:CD2	2.11	0.80
32:DF:157:VAL:HB	32:DF:194:MET:HB3	1.63	0.80
27:BA:142:A:H8	27:BA:1408:C:H1'	1.43	0.80
13:AM:65:LYS:HG3	13:AM:69:GLU:O	1.81	0.80
1:CA:1109:C:H2'	1:CA:1110:A:O4'	1.82	0.80
1:AA:233:C:H2'	1:AA:233:C:O2	1.79	0.80
10:CJ:51:ARG:HE	10:CJ:61:GLU:HB2	1.47	0.80
41:BS:97:ARG:HE	41:BS:98:VAL:N	1.80	0.80
49:D0:20:ARG:CG	49:D0:20:ARG:HH11	1.95	0.80
39:DQ:30:GLY:HA3	39:DQ:106:VAL:O	1.81	0.80
35:BI:115:ALA:HB2	35:BI:129:THR:OG1	1.80	0.80
9:AI:4:TYR:HA	9:AI:88:TYR:CE1	2.15	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:628:G:H2'	1:CA:629:G:H8	1.45	0.80
34:BH:126:PRO:O	34:BH:127:GLU:HB2	1.80	0.80
40:BR:33:ARG:HG3	40:BR:115:GLU:HB3	1.62	0.80
43:BU:69:CYS:HB2	43:BU:74:LEU:HD13	1.64	0.80
27:DA:412:A:H8	27:DA:412:A:H5'	1.47	0.80
12:CL:67:ILE:CD1	12:CL:74:LEU:HD12	2.12	0.80
38:DP:65:ARG:HH11	57:D8:46:ARG:HH22	1.29	0.80
1:AA:1220:G:H2'	1:AA:1221:G:H8	1.45	0.80
31:DE:203:LYS:HE3	31:DE:203:LYS:C	2.01	0.80
27:DA:2692:C:O2'	27:DA:2693:A:H5'	1.82	0.80
27:BA:2206:G:N2	27:BA:2207:G:H5'	1.96	0.80
32:BF:135:LYS:HB3	32:BF:138:GLU:CG	2.12	0.80
1:AA:1002:G:N2	1:AA:1003:G:H1'	1.96	0.80
1:CA:769:G:O2'	1:CA:770:C:H5'	1.82	0.80
2:CB:218:ALA:O	2:CB:222:ILE:HG13	1.82	0.80
36:DN:25:ARG:HG3	36:DN:25:ARG:HH11	1.47	0.80
14:AN:12:ARG:C	14:AN:14:PRO:HD2	2.01	0.80
27:DA:2037:G:H2'	27:DA:2038:G:C8	2.17	0.80
3:CC:52:LEU:HD23	3:CC:52:LEU:H	1.47	0.80
39:DQ:10:ARG:HG3	39:DQ:10:ARG:HH11	1.44	0.80
8:CH:24:THR:HG22	8:CH:25:ASP:H	1.47	0.80
1:CA:1250:A:H5'	9:CI:67:GLY:HA2	1.62	0.80
30:DD:61:LEU:HB3	30:DD:63:ARG:HH12	1.42	0.80
41:DS:97:ARG:HH21	41:DS:98:VAL:HA	1.44	0.80
8:AH:103:VAL:HG21	8:AH:110:ALA:HB2	1.64	0.80
42:DT:35:LYS:HE2	42:DT:41:ARG:HG3	1.64	0.80
41:DS:90:GLY:C	41:DS:92:TYR:H	1.84	0.80
48:DZ:72:GLN:HG2	48:DZ:86:ASP:OD1	1.81	0.80
36:DN:78:TYR:HB3	36:DN:79:PRO:CD	2.09	0.80
27:BA:1353:A:H4'	30:BD:38:LYS:HE3	1.63	0.80
27:BA:2047:U:H2'	27:BA:2048:G:H5'	1.64	0.80
9:CI:48:GLU:N	9:CI:49:PRO:HD2	1.97	0.80
1:CA:885:G:H2'	1:CA:886:G:H8	1.47	0.80
4:AD:105:VAL:HG13	4:AD:110:PHE:HD2	1.48	0.80
41:DS:77:ALA:HB1	41:DS:82:ILE:HB	1.64	0.80
27:DA:1826:G:H2'	27:DA:1827:C:C6	2.15	0.79
36:DN:120:LEU:CD1	36:DN:122:VAL:HG23	2.12	0.79
4:AD:26:CYS:HA	4:AD:31:CYS:HB2	1.64	0.79
28:DB:7:G:C2'	28:DB:8:U:H5"	2.12	0.79
27:BA:2200:C:C6	27:BA:2200:C:H5"	2.15	0.79
1:CA:1057:G:H5"	3:CC:154:SER:OG	1.82	0.79
27:BA:152:G:H1	27:BA:174:C:N4	1.77	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:855:G:H2'	27:DA:856:C:C6	2.17	0.79
1:AA:178:C:H2'	1:AA:179:A:H8	1.44	0.79
17:AQ:17:LYS:CG	17:AQ:47:PRO:HA	2.05	0.79
27:DA:1494:A:N3	27:DA:1494:A:H5'	1.97	0.79
47:DY:39:VAL:HG12	47:DY:40:GLU:N	1.96	0.79
27:DA:2784:C:O2'	27:DA:2785:C:H5'	1.83	0.79
1:AA:1199:U:H4'	10:AJ:54:PHE:CZ	2.17	0.79
12:CL:21:VAL:O	12:CL:21:VAL:HG13	1.80	0.79
1:AA:69:G:H2'	1:AA:70:G:C8	2.17	0.79
1:CA:158:G:O2'	1:CA:159:G:H5'	1.83	0.79
20:CT:54:LYS:HA	20:CT:57:ARG:NH2	1.97	0.79
1:CA:1094:G:H3'	1:CA:1108:G:H22	1.47	0.79
1:AA:1424:C:H42	1:AA:1476:G:H1	1.30	0.79
1:CA:1060:C:H5'	14:CN:45:ARG:NH2	1.98	0.79
27:BA:2173:A:O2'	27:BA:2174:C:H5'	1.81	0.79
27:BA:2355:C:H1'	49:B0:39:ARG:HH21	1.46	0.79
13:AM:17:VAL:O	13:AM:20:THR:HB	1.82	0.79
1:AA:833:U:H3	1:AA:853:G:H1	1.30	0.79
46:BX:57:LEU:HD21	46:BX:78:LYS:HE2	1.64	0.79
27:DA:428:A:H5'	27:DA:429:A:OP2	1.82	0.79
27:DA:1163:G:O2'	27:DA:1164:G:H5'	1.82	0.79
27:BA:1931:U:H5'	27:BA:1931:U:C6	2.17	0.79
38:BP:23:PRO:HB2	38:BP:33:ARG:CG	2.12	0.79
38:BP:59:LEU:HA	38:BP:61:ARG:NH2	1.97	0.79
34:BH:85:LYS:NZ	34:BH:133:VAL:HG11	1.96	0.79
44:BV:18:LEU:CD1	44:BV:19:LYS:H	1.93	0.79
44:BV:57:VAL:HG23	44:BV:99:ILE:HG22	1.64	0.79
31:DE:15:PHE:CE2	42:DT:80:SER:HB2	2.16	0.79
1:AA:60:A:H4'	1:AA:61:G:O5'	1.80	0.79
48:DZ:4:LEU:HD12	48:DZ:5:LYS:H	1.45	0.79
27:DA:768:G:H2'	27:DA:769:G:H8	1.47	0.79
57:B8:28:GLY:O	57:B8:32:LEU:HD23	1.81	0.79
33:BG:43:LEU:HB2	33:BG:88:ILE:CD1	2.13	0.79
13:AM:76:ALA:N	13:AM:79:LYS:HZ2	1.81	0.79
52:D3:7:LYS:HG3	52:D3:34:GLU:HG2	1.62	0.79
1:AA:1118:C:H2'	1:AA:1119:C:H6	1.47	0.79
42:BT:122:ASP:C	42:BT:124:ASP:H	1.85	0.79
4:AD:33:MET:CE	4:AD:37:PRO:HA	2.13	0.79
40:BR:28:LEU:HD12	40:BR:48:VAL:HG11	1.62	0.79
27:DA:246:C:O2'	27:DA:247:G:H5'	1.83	0.79
27:BA:536:A:H2'	27:BA:537:C:C6	2.18	0.79
42:BT:18:ASP:C	42:BT:19:LEU:HD12	2.02	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:DV:95:LEU:HD13	44:DV:97:LYS:HZ1	1.47	0.79
30:BD:76:PRO:O	30:BD:98:VAL:HG23	1.83	0.79
38:BP:97:PRO:O	38:BP:99:LEU:N	2.13	0.79
1:CA:652:U:H1'	1:CA:653:A:H2	1.48	0.79
35:BI:12:LEU:HD12	35:BI:19:VAL:HG11	1.64	0.79
27:DA:956:G:H22	27:DA:959:A:H3'	1.46	0.79
13:AM:22:ILE:HB	13:AM:25:ILE:HB	1.64	0.79
13:AM:69:GLU:HA	13:AM:69:GLU:OE1	1.82	0.79
27:BA:1550:C:H2'	27:BA:1551:C:H6	1.45	0.79
5:CE:42:GLY:HA3	5:CE:65:ASN:O	1.83	0.79
27:DA:2123:G:H2'	27:DA:2124:G:C8	2.17	0.79
27:BA:1401:G:H2'	27:BA:1402:C:H6	1.48	0.79
5:AE:50:GLU:HG3	5:AE:52:PRO:CD	2.05	0.79
1:AA:346:G:N3	1:AA:346:G:H2'	1.98	0.79
27:BA:753:C:H2'	27:BA:754:C:H5'	1.63	0.79
27:DA:311:A:H1'	27:DA:332:A:C8	2.16	0.79
28:DB:42:C:O2	33:DG:92:VAL:HA	1.81	0.79
1:AA:735:C:O2'	1:AA:736:C:H5'	1.81	0.79
38:BP:71:VAL:CG1	38:BP:72:PRO:HD3	2.12	0.79
1:CA:1173:G:H2'	1:CA:1174:G:C8	2.18	0.79
31:BE:33:VAL:O	31:BE:69:LYS:HD2	1.82	0.79
32:DF:102:PRO:HB2	32:DF:105:VAL:HG23	1.65	0.79
27:BA:2777:G:H5''	27:BA:2778:A:H5''	1.63	0.79
27:BA:1029:A:H2'	27:BA:1030:G:H5'	1.65	0.79
38:BP:115:LEU:HA	38:BP:134:ALA:HB2	1.65	0.79
38:BP:47:ASP:HB3	38:BP:48:PRO:CA	2.11	0.79
27:DA:1187:G:H8	27:DA:1187:G:O5'	1.65	0.79
46:DX:26:TYR:HD2	46:DX:92:LEU:HD12	1.48	0.79
13:CM:14:ARG:CZ	13:CM:42:ALA:HA	2.13	0.79
8:AH:118:VAL:O	8:AH:119:LEU:HD23	1.82	0.79
27:DA:690:G:H2'	27:DA:691:C:H6	1.47	0.79
27:DA:686:G:N2	27:DA:788:A:H61	1.79	0.79
42:BT:13:ARG:HA	42:BT:13:ARG:NH1	1.98	0.79
27:BA:1771:C:O2'	27:BA:1786:A:H8	1.66	0.79
1:AA:857:C:H2'	1:AA:858:G:O4'	1.83	0.79
27:DA:2681:C:H5	27:DA:2725:A:H62	1.28	0.79
27:BA:271(B):C:O2'	27:BA:271(C):C:H5'	1.82	0.79
27:DA:345:A:H4'	27:DA:346:A:OP1	1.82	0.79
1:AA:1245:A:H2'	1:AA:1246:C:H6	1.46	0.79
13:AM:104:ARG:HG2	13:AM:105:THR:HG23	1.63	0.79
4:CD:67:ILE:HD13	4:CD:196:LEU:HD23	1.63	0.79
1:AA:141:A:H1'	1:AA:182:U:O2	1.82	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2432:A:H2'	27:BA:2433:A:C8	2.18	0.79
1:CA:1321:C:C5'	1:CA:1322:C:H5''	2.12	0.79
34:BH:85:LYS:NZ	34:BH:133:VAL:HG21	1.97	0.79
27:DA:1497:U:H5'	27:DA:1498:C:H5	1.48	0.79
27:DA:574:C:H1'	27:DA:2055:C:H6	1.46	0.79
27:DA:2555:U:C2'	27:DA:2556:C:H5'	2.11	0.79
31:DE:46:ALA:HA	31:DE:82:ARG:O	1.81	0.79
53:D4:53:THR:O	53:D4:54:LYS:HG2	1.82	0.79
27:DA:1655:A:H4'	31:DE:114:ALA:HA	1.63	0.79
39:BQ:135:ASP:C	39:BQ:137:TYR:H	1.84	0.79
7:AG:60:LYS:HA	7:AG:60:LYS:NZ	1.96	0.79
1:CA:1187:G:H4'	9:CI:111:ARG:NH1	1.98	0.79
23:CW:35:G:O2'	23:CW:36:A:H8	1.66	0.79
30:BD:25:THR:HG22	30:BD:26:LYS:H	1.47	0.79
41:DS:97:ARG:HH22	41:DS:99:LYS:H	1.28	0.79
27:BA:335:C:O2'	27:BA:336:C:H5'	1.83	0.79
4:AD:9:CYS:H	4:AD:22:LYS:NZ	1.80	0.79
27:BA:742:G:O2'	27:BA:743:G:H5'	1.83	0.79
1:CA:678:U:H2'	1:CA:679:C:C6	2.18	0.79
38:BP:24:GLY:O	38:BP:25:SER:HB3	1.83	0.79
1:CA:155:C:H2'	1:CA:156:G:C8	2.18	0.79
27:DA:2290:G:H8	27:DA:2290:G:H5'	1.46	0.79
27:BA:2103:C:H3'	27:BA:2104:G:H5''	1.62	0.79
18:CR:86:VAL:O	18:CR:87:ARG:HD3	1.82	0.79
47:BY:96:ILE:HB	47:BY:99:CYS:CB	2.09	0.79
55:D6:37:ARG:O	55:D6:48:VAL:O	2.01	0.79
11:CK:32:ILE:HD11	11:CK:41:THR:CG2	2.10	0.79
23:CW:73:C:H2'	23:CW:74:C:C5'	2.12	0.79
27:DA:948:G:H1	27:DA:969:U:H3	1.30	0.79
1:AA:153:C:H2'	1:AA:154:C:H6	1.48	0.79
27:BA:1019:U:O2'	27:BA:1021:A:H2	1.64	0.79
41:DS:30:ARG:NH2	41:DS:62:LYS:HD2	1.98	0.79
1:AA:1137:C:H4'	1:AA:1138:G:N2	1.98	0.79
1:CA:686:U:O2	1:CA:686:U:H2'	1.83	0.79
32:DF:132:VAL:HG22	32:DF:133:ASN:OD1	1.82	0.79
28:BB:11:C:OP1	49:B0:72:ARG:HD2	1.82	0.79
3:AC:92:ALA:HB2	3:AC:99:VAL:HG11	1.65	0.79
27:DA:287:C:H5'	27:DA:287:C:H6	1.48	0.79
38:BP:16:ARG:HD3	38:BP:18:ARG:H	1.46	0.79
27:DA:307:G:N2	27:DA:309:G:H3'	1.98	0.79
27:DA:2756:U:H3	27:DA:2758:A:H62	1.29	0.79
27:BA:751:A:O4'	45:BW:90:ARG:HG2	1.82	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:25:ARG:NH1	4:AD:30:LYS:HG3	1.95	0.79
6:AF:7:ASN:O	6:AF:88:VAL:HA	1.82	0.79
35:BI:114:LEU:HA	35:BI:130:TYR:CD1	2.18	0.79
27:DA:744:G:O2'	27:DA:745:G:H5'	1.83	0.79
2:CB:11:LEU:HD12	2:CB:217:ARG:NH2	1.98	0.79
6:AF:16:GLN:NE2	6:AF:16:GLN:H	1.81	0.79
27:BA:1482:G:H22	27:BA:1507:A:H1'	1.46	0.79
48:BZ:140:VAL:HG23	48:BZ:143:LEU:HD23	1.64	0.79
27:DA:1767:C:O2'	27:DA:1768:U:H5'	1.82	0.79
30:DD:231:HIS:ND1	30:DD:232:PRO:CD	2.44	0.78
12:CL:66:TYR:HD2	12:CL:67:ILE:N	1.81	0.78
27:BA:1819:A:H2'	30:BD:178:PRO:HB2	1.65	0.78
42:BT:106:SER:HB3	42:BT:110:ILE:CD1	2.13	0.78
6:CF:75:LEU:O	6:CF:79:LEU:HG	1.83	0.78
50:B1:19:GLN:NE2	50:B1:19:GLN:HA	1.97	0.78
3:AC:50:ALA:HB1	3:AC:72:LYS:HB3	1.63	0.78
27:DA:1921:G:O2'	27:DA:1922:G:H5'	1.82	0.78
34:DH:103:LEU:HD22	34:DH:123:PHE:HD2	1.48	0.78
4:CD:42:GLN:HG2	4:CD:42:GLN:O	1.80	0.78
38:BP:84:ASN:ND2	38:BP:115:LEU:HG	1.97	0.78
4:CD:33:MET:HA	4:CD:33:MET:CE	2.13	0.78
47:DY:39:VAL:HG12	47:DY:40:GLU:H	1.46	0.78
33:DG:28:VAL:O	33:DG:31:VAL:HG12	1.82	0.78
39:BQ:1:MET:SD	39:BQ:2:LEU:HB2	2.24	0.78
31:DE:26:ILE:HB	31:DE:182:LEU:HB3	1.65	0.78
30:BD:155:LEU:HD23	30:BD:177:LEU:HD22	1.63	0.78
27:BA:2870:C:C2'	27:BA:2871:C:H5'	2.12	0.78
45:DW:72:LYS:HB3	45:DW:106:ILE:O	1.84	0.78
5:CE:76:ILE:HG12	5:CE:77:PRO:HD2	1.65	0.78
43:BU:27:LEU:HB2	43:BU:31:SER:HB3	1.64	0.78
27:BA:2048:G:H5'	27:BA:2048:G:H8	1.48	0.78
27:BA:2016:U:H2'	27:BA:2017:U:C6	2.18	0.78
25:AY:71:A:H2'	25:AY:72:G:C8	2.18	0.78
12:AL:76:GLU:O	12:AL:77:HIS:HB2	1.82	0.78
20:AT:75:ASN:ND2	20:AT:75:ASN:H	1.80	0.78
11:CK:74:ALA:C	11:CK:76:GLY:H	1.86	0.78
27:BA:30:G:H2'	27:BA:31:C:C6	2.19	0.78
31:BE:50:GLY:HA2	31:BE:78:LEU:HB3	1.65	0.78
1:CA:1343:G:H4'	9:CI:122:ALA:HB3	1.64	0.78
1:CA:471:G:HO2'	1:CA:472:A:H8	0.79	0.78
1:CA:1251:A:H2'	1:CA:1252:A:C8	2.18	0.78
12:CL:66:TYR:HD1	12:CL:87:VAL:HG21	1.48	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2070:G:H2'	27:DA:2071:A:C8	2.17	0.78
27:DA:2061:G:OP2	27:DA:2502:G:H5'	1.83	0.78
19:AS:42:PRO:O	19:AS:44:MET:SD	2.42	0.78
27:DA:154(A):C:H41	27:DA:172:C:N4	1.79	0.78
58:B9:29:ASN:H	58:B9:29:ASN:ND2	1.77	0.78
15:AO:37:ASN:HD22	15:AO:37:ASN:H	1.27	0.78
27:BA:71:A:H2	46:BX:31:HIS:CE1	2.01	0.78
28:BB:4:C:H42	28:BB:117:G:H1	1.27	0.78
27:DA:1984:G:O2'	27:DA:1985:G:H5'	1.84	0.78
13:CM:95:GLY:O	13:CM:96:LEU:HB2	1.81	0.78
32:DF:78:ILE:HA	32:DF:83:PHE:CD1	2.18	0.78
27:DA:1782:C:H42	27:DA:2586:C:H42	1.31	0.78
50:B1:52:ARG:HG3	50:B1:53:VAL:H	1.48	0.78
7:AG:31:MET:HG2	7:AG:34:GLY:HA2	1.64	0.78
48:BZ:13:LYS:HB3	48:BZ:16:ALA:HB3	1.65	0.78
32:BF:32:LEU:HD21	32:BF:105:VAL:HG13	1.63	0.78
27:DA:704:G:C2'	27:DA:726:G:H22	1.93	0.78
48:DZ:27:MET:HE3	48:DZ:34:ARG:HB2	1.66	0.78
17:CQ:81:ARG:HH11	17:CQ:84:LEU:HD11	1.48	0.78
31:BE:116:VAL:O	31:BE:117:MET:HB3	1.82	0.78
38:BP:144:GLU:H	38:BP:145:PRO:HD3	1.48	0.78
27:BA:271(S):G:H2'	27:BA:271(T):C:H5'	1.64	0.78
24:CX:10:G:N2	24:CX:26:G:H1'	1.98	0.78
58:B9:14:CYS:O	58:B9:15:LYS:HB2	1.81	0.78
27:DA:980:A:O2'	27:DA:981:A:H5'	1.82	0.78
27:DA:2197:U:O2'	27:DA:2198:A:H2'	1.82	0.78
50:B1:86:SER:HB2	50:B1:89:GLU:HB2	1.65	0.78
28:DB:16:G:H1	28:DB:68:C:H42	1.31	0.78
38:DP:146:VAL:HG22	38:DP:147:LEU:H	1.47	0.78
38:DP:146:VAL:O	38:DP:148:LEU:HG	1.83	0.78
42:DT:28:VAL:CG2	42:DT:46:GLU:HG3	2.13	0.78
48:DZ:52:ILE:HD12	48:DZ:52:ILE:H	1.47	0.78
46:DX:60:ARG:NH2	56:D7:47:ARG:CZ	2.47	0.78
1:AA:1136:U:H5''	1:AA:1137:C:C5	2.19	0.78
27:BA:1411:C:H2'	27:BA:1412:A:C8	2.19	0.78
1:AA:643:C:O2'	1:AA:644:G:H5'	1.84	0.78
29:BC:196:LEU:C	29:BC:198:ALA:H	1.87	0.78
12:AL:72:HIS:HB3	12:AL:99:ARG:HH12	1.49	0.78
27:BA:2065:C:H2'	27:BA:2066:C:H6	1.47	0.78
57:D8:21:LYS:HD3	57:D8:48:PHE:CZ	2.18	0.78
1:CA:1132:C:O2'	1:CA:1133:G:H5'	1.84	0.78
10:CJ:9:ARG:HH21	10:CJ:95:GLU:HG2	1.49	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:BV:13:ARG:HH11	44:BV:13:ARG:HG2	1.49	0.78
44:BV:38:LEU:C	44:BV:38:LEU:HD23	2.04	0.78
8:AH:69:ARG:NH1	8:AH:76:PRO:HA	1.99	0.78
42:BT:65:LYS:HE3	42:BT:66:VAL:H	1.45	0.78
27:BA:2702:U:H4'	27:BA:2703:C:OP1	1.83	0.78
27:DA:2034:U:O2'	27:DA:2035:G:H5'	1.83	0.78
27:DA:581:C:H2'	27:DA:582:G:C8	2.18	0.78
31:DE:179:GLU:HB3	31:DE:181:LEU:CD1	2.13	0.78
31:DE:2:LYS:HE2	31:DE:95:ILE:CG2	2.14	0.78
4:AD:25:ARG:HH12	4:AD:30:LYS:CG	1.95	0.78
32:BF:132:VAL:HG13	32:BF:133:ASN:N	1.97	0.78
3:AC:87:LEU:C	3:AC:89:GLU:H	1.84	0.78
27:DA:2481:G:H4'	27:DA:2482:G:H5'	1.66	0.78
10:AJ:63:PHE:HA	14:AN:59:ALA:HB3	1.66	0.78
27:DA:2473:U:O2	27:DA:2473:U:H2'	1.81	0.78
1:CA:1338:G:H2'	1:CA:1339:A:C8	2.19	0.78
1:CA:1321:C:H4'	13:CM:87:TYR:CE2	2.18	0.78
1:AA:472:A:H4'	16:AP:80:PHE:O	1.83	0.78
27:DA:627:A:H62	38:DP:84:ASN:HD21	1.31	0.78
27:DA:2554:U:C6	27:DA:2555:U:H5	2.02	0.78
39:BQ:118:LEU:HD13	39:BQ:131:ILE:HG23	1.64	0.78
2:AB:69:LEU:HD23	2:AB:159:PRO:HG2	1.66	0.78
42:DT:35:LYS:HZ3	42:DT:41:ARG:HE	1.31	0.78
27:DA:2527:C:H5'	58:D9:30:PRO:HB2	1.65	0.78
31:DE:111:ARG:HA	40:DR:2:ARG:HG3	1.63	0.78
37:DO:35:VAL:HG22	37:DO:65:THR:HG21	1.65	0.78
32:BF:165:ARG:HA	32:BF:168:ARG:HD2	1.66	0.78
2:CB:44:LEU:H	2:CB:44:LEU:HD12	1.48	0.78
27:DA:2543:G:H2'	27:DA:2544:G:C8	2.19	0.78
27:BA:258:G:O2'	27:BA:259:G:H5'	1.83	0.78
31:BE:184:VAL:HG12	31:BE:185:LYS:N	1.98	0.78
57:D8:4:MET:SD	57:D8:61:LEU:HD21	2.24	0.78
27:BA:484:C:H2'	27:BA:485:C:C6	2.19	0.78
27:DA:459:U:H2'	27:DA:460:A:H8	1.49	0.78
27:BA:1020:A:N1	27:BA:1141:U:O2'	2.16	0.78
36:BN:87:LEU:HD21	36:BN:98:VAL:HG11	1.65	0.78
27:BA:1490:A:H2'	27:BA:1490:A:N3	1.99	0.78
47:BY:38:ILE:HG22	47:BY:39:VAL:N	1.97	0.78
1:CA:562:C:H4'	1:CA:563:A:C5'	2.13	0.78
46:DX:12:VAL:HG23	46:DX:13:LEU:N	1.97	0.78
1:CA:1002:G:N2	1:CA:1003:G:H1'	1.99	0.78
18:AR:53:ARG:HH21	18:AR:60:ALA:H	1.31	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:652:U:H1'	1:CA:653:A:C2	2.17	0.78
36:DN:128:HIS:O	36:DN:130:HIS:N	2.15	0.78
55:B6:10:LEU:HD12	57:B8:34:TRP:HD1	1.49	0.78
33:DG:60:LEU:HD12	33:DG:68:PRO:HG3	1.65	0.78
1:CA:1360:A:H2'	1:CA:1361:G:O4'	1.84	0.78
4:AD:155:LEU:O	4:AD:159:ARG:HG2	1.84	0.78
27:DA:2483:C:H5'	27:DA:2484:G:OP2	1.82	0.78
2:AB:181:PHE:CE1	8:AH:70:GLN:HB2	2.19	0.78
1:AA:601:C:O2'	1:AA:602:A:H5'	1.84	0.78
16:CP:4:ILE:HG12	16:CP:21:VAL:HG23	1.65	0.78
27:DA:2593:U:H2'	27:DA:2594:C:C6	2.19	0.78
31:BE:203:LYS:O	31:BE:203:LYS:HD2	1.84	0.78
27:BA:344:G:N2	27:BA:345:A:H62	1.81	0.78
38:DP:47:ASP:HB3	38:DP:48:PRO:CA	2.12	0.78
42:BT:89:VAL:CG1	42:BT:91:ARG:HG2	2.13	0.78
42:BT:26:ASP:HB3	42:BT:89:VAL:O	1.84	0.78
55:D6:11:LEU:HD13	55:D6:12:GLU:H	1.49	0.78
20:AT:26:ASN:HD22	20:AT:26:ASN:N	1.75	0.78
1:CA:896:C:O2'	1:CA:897:C:H5'	1.83	0.78
1:AA:166:G:H2'	1:AA:167:G:H8	1.45	0.78
39:DQ:39:PRO:HD3	39:DQ:99:PRO:HG3	1.64	0.78
3:AC:150:LYS:HG3	3:AC:169:ALA:HB2	1.65	0.78
9:AI:113:LYS:HD3	9:AI:119:ALA:O	1.83	0.78
1:CA:689:C:H2'	1:CA:690:G:O4'	1.82	0.78
7:CG:46:ALA:O	7:CG:50:ILE:HG12	1.83	0.78
4:CD:198:VAL:HG12	4:CD:199:ASN:N	1.96	0.78
44:BV:18:LEU:HD13	44:BV:19:LYS:N	1.98	0.78
19:CS:20:LEU:HA	19:CS:23:ASN:HD22	1.49	0.78
38:DP:34:GLY:O	38:DP:35:HIS:HB2	1.84	0.78
27:DA:330:A:O2'	27:DA:331:A:H8	1.67	0.78
9:AI:99:LEU:HB3	9:AI:101:PHE:CE1	2.18	0.78
14:AN:29:ARG:HH12	14:AN:31:ARG:HB2	1.47	0.78
27:BA:2439:A:H5'	27:BA:2439:A:H8	1.48	0.78
27:BA:779:U:OP1	30:BD:49:ILE:HG22	1.83	0.78
11:AK:125:PHE:H	11:AK:125:PHE:HD1	1.30	0.78
27:BA:740:U:H5'	27:BA:740:U:C6	2.17	0.78
11:AK:28:THR:HG21	11:AK:61:ALA:HB1	1.66	0.78
27:DA:2848:G:H4'	27:DA:2849:U:OP1	1.84	0.78
27:DA:226:G:HO2'	27:DA:227:A:H8	1.29	0.78
3:CC:22:TRP:HZ3	3:CC:32:LEU:HB3	1.48	0.78
27:BA:1401:G:H2'	27:BA:1402:C:C6	2.18	0.78
46:BX:49:VAL:HG23	46:BX:50:LYS:N	1.99	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:507:C:H3'	1:CA:508:C:C6	2.19	0.77
33:BG:36:LYS:HD3	33:BG:95:ARG:HH12	1.49	0.77
32:DF:9:ILE:HA	32:DF:13:SER:O	1.83	0.77
8:AH:69:ARG:HH12	8:AH:76:PRO:HA	1.49	0.77
55:D6:19:ARG:HG2	55:D6:20:ASN:H	1.48	0.77
27:DA:953:A:O2'	27:DA:954:G:H5'	1.83	0.77
38:DP:144:GLU:N	38:DP:145:PRO:CD	2.47	0.77
13:CM:13:LYS:CA	13:CM:44:ARG:HH11	1.96	0.77
30:BD:72:LYS:HD3	30:BD:75:ILE:HD12	1.65	0.77
27:BA:587:C:H6	27:BA:587:C:O5'	1.66	0.77
1:CA:1058:G:H2'	1:CA:1059:C:C6	2.18	0.77
7:CG:78:ARG:HG3	7:CG:79:ARG:N	1.98	0.77
13:AM:79:LYS:O	13:AM:82:MET:HB3	1.84	0.77
27:DA:1512:U:H2'	27:DA:1513:C:C6	2.19	0.77
27:DA:2532:G:H22	27:DA:2663:G:H1'	1.48	0.77
13:AM:50:GLU:O	13:AM:54:VAL:HG23	1.83	0.77
35:DI:60:GLU:O	35:DI:64:GLU:HG2	1.84	0.77
10:AJ:96:ILE:N	10:AJ:96:ILE:HD13	1.99	0.77
48:DZ:149:LEU:CD2	48:DZ:170:ILE:HG13	2.13	0.77
13:CM:25:ILE:CD1	13:CM:66:LEU:HD23	2.10	0.77
37:DO:71:ARG:HH12	42:DT:74:ARG:HH22	1.32	0.77
15:CO:69:TYR:CE2	15:CO:73:GLU:HG3	2.19	0.77
27:DA:1481:U:H5'	27:DA:1482:G:OP2	1.84	0.77
34:BH:98:LEU:O	34:BH:99:VAL:HG23	1.84	0.77
48:DZ:54:HIS:NE2	48:DZ:134:GLU:HA	2.00	0.77
42:DT:57:PHE:CG	42:DT:58:ASN:N	2.50	0.77
3:CC:24:ALA:HB1	3:CC:32:LEU:HD12	1.66	0.77
40:BR:104:ARG:O	40:BR:108:GLY:HA2	1.84	0.77
28:DB:28:C:H2'	28:DB:29:A:H8	1.48	0.77
1:CA:1187:G:H4'	9:CI:111:ARG:HH11	1.50	0.77
1:CA:982:U:H5''	14:CN:6:LEU:HD11	1.65	0.77
44:BV:49:THR:HG22	44:BV:50:PRO:HD3	1.66	0.77
32:DF:10:PRO:HD2	32:DF:13:SER:O	1.84	0.77
30:DD:30:GLU:HG3	30:DD:63:ARG:CZ	2.15	0.77
7:AG:50:ILE:HG22	7:AG:56:GLN:O	1.84	0.77
24:AX:2:G:H2'	24:AX:3:C:H6	1.50	0.77
27:DA:2037:G:H2'	27:DA:2038:G:H8	1.50	0.77
27:BA:2836:U:H2'	27:BA:2837:G:H8	1.43	0.77
37:BO:87:ILE:HG22	37:BO:88:ASN:O	1.84	0.77
38:DP:50:ARG:HB3	57:D8:59:LYS:CD	2.14	0.77
27:DA:2370:G:H21	55:D6:45:LYS:HZ1	1.28	0.77
27:BA:1490:A:H5'	27:BA:1491:G:OP2	1.84	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:74:LYS:H	2:CB:74:LYS:HD2	1.50	0.77
37:BO:8:LEU:CD1	37:BO:82:ASN:HB3	2.14	0.77
2:CB:158:LEU:HD12	2:CB:158:LEU:N	1.99	0.77
1:AA:823:G:H21	8:AH:1:MET:HE1	1.48	0.77
7:AG:116:ALA:HA	7:AG:119:ARG:HE	1.49	0.77
1:CA:763:G:H2'	1:CA:764:C:C6	2.17	0.77
24:AX:4:G:H2'	24:AX:5:G:H8	1.45	0.77
1:AA:221:C:O2'	1:AA:222:U:H5'	1.85	0.77
23:CW:2:G:H2'	23:CW:3:G:O4'	1.85	0.77
31:DE:134:ILE:H	31:DE:134:ILE:HD13	1.49	0.77
30:BD:35:LYS:H	30:BD:36:PRO:CD	1.97	0.77
41:DS:89:ARG:HD2	41:DS:92:TYR:HA	1.66	0.77
27:BA:2590:A:OP2	30:BD:238:GLY:HA2	1.84	0.77
46:DX:12:VAL:HG11	46:DX:17:ALA:HB1	1.67	0.77
33:BG:46:ALA:C	33:BG:51:ARG:HG3	2.04	0.77
40:DR:10:LEU:HD22	40:DR:17:ARG:HD2	1.65	0.77
1:AA:939:G:H5''	7:AG:102:ARG:NH1	2.00	0.77
7:AG:151:TYR:HA	7:AG:153:HIS:CE1	2.19	0.77
27:BA:111:A:H4'	51:B2:69:ARG:NH2	1.99	0.77
27:BA:491:G:H2'	27:BA:492:A:C8	2.20	0.77
45:DW:50:VAL:HG13	45:DW:51:LEU:H	1.49	0.77
1:CA:627:G:H2'	1:CA:628:G:H8	1.48	0.77
37:DO:37:ASP:O	37:DO:61:VAL:HA	1.83	0.77
1:CA:29:G:H1	1:CA:554:C:H42	1.29	0.77
27:DA:67:U:H2'	27:DA:68:G:H8	1.49	0.77
33:BG:112:PRO:C	33:BG:113:ARG:HH11	1.86	0.77
1:AA:16:A:O2'	1:AA:17:U:H5'	1.85	0.77
44:DV:40:LEU:HD13	44:DV:46:VAL:HA	1.66	0.77
51:D2:47:ASN:O	51:D2:49:LYS:N	2.16	0.77
55:D6:40:CYS:HA	55:D6:46:HIS:CB	2.13	0.77
27:DA:704:G:C2'	27:DA:726:G:N2	2.48	0.77
1:CA:222:U:H2'	1:CA:223:U:C6	2.19	0.77
40:DR:76:VAL:O	40:DR:79:LEU:HB3	1.84	0.77
32:BF:61:GLY:O	32:BF:77:ASP:HB3	1.82	0.77
32:DF:33:LEU:HD11	32:DF:109:GLY:HA2	1.66	0.77
1:CA:192:U:H4'	20:CT:103:GLY:HA2	1.66	0.77
27:DA:2870:C:C2'	27:DA:2871:C:H5'	2.14	0.77
39:DQ:27:VAL:HG12	39:DQ:29:PHE:H	1.50	0.77
27:BA:2123:G:H2'	27:BA:2124:G:H8	1.50	0.77
27:DA:1689:A:N6	27:DA:1698:A:H2	1.79	0.77
27:BA:626:U:H5'	27:BA:627:A:C5'	2.15	0.77
5:CE:78:HIS:O	5:CE:93:PRO:HD3	1.84	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CH:108:GLY:HA3	8:CH:138:TRP:HB3	1.65	0.77
48:BZ:52:ILE:HG23	48:BZ:70:VAL:HB	1.62	0.77
47:BY:2:ARG:HD3	47:BY:3:VAL:HG23	1.65	0.77
27:BA:2020:A:O2'	27:BA:2021:C:H3'	1.84	0.77
27:BA:1175:U:O5'	27:BA:1176:G:H5'	1.83	0.77
7:AG:26:PHE:HD1	7:AG:101:LEU:HD22	1.50	0.77
15:AO:10:LYS:HG3	15:AO:11:VAL:N	2.00	0.77
36:BN:76:SER:O	36:BN:78:TYR:N	2.17	0.77
53:B4:46:ASN:HD22	53:B4:47:VAL:H	1.31	0.77
53:B4:46:ASN:HD22	53:B4:47:VAL:N	1.81	0.77
27:BA:693:C:O2'	27:BA:694:U:H5'	1.85	0.77
38:BP:63:PRO:HB3	57:B8:13:ARG:HB3	1.67	0.77
27:BA:1278:A:O2'	27:BA:1279:G:H5'	1.85	0.77
32:BF:67:GLN:O	32:BF:68:LYS:HB2	1.83	0.77
36:DN:4:TYR:HB2	43:DU:64:ARG:NH1	1.99	0.77
27:DA:328:U:H4'	47:DY:68:HIS:ND1	1.99	0.77
1:AA:1076:C:H42	1:AA:1081:G:H1	1.33	0.77
1:AA:1158:C:H2'	1:AA:1158:C:O2	1.82	0.77
33:DG:152:LEU:O	33:DG:153:ARG:HD3	1.83	0.77
33:DG:111:LEU:CD1	33:DG:120:LEU:HD21	2.14	0.77
27:DA:414:C:H2'	27:DA:415:A:H8	1.47	0.77
36:DN:86:PRO:HG2	36:DN:89:LYS:HG2	1.66	0.77
13:CM:82:MET:HG2	13:CM:82:MET:O	1.83	0.77
50:D1:80:LEU:HD13	50:D1:82:LEU:HD21	1.63	0.77
37:BO:19:ILE:HG22	37:BO:43:VAL:HG13	1.65	0.77
32:BF:10:PRO:HG2	32:BF:11:VAL:HG23	1.65	0.77
1:CA:1347:G:H22	1:CA:1373:G:C2'	1.93	0.77
5:AE:129:ILE:O	5:AE:131:ILE:N	2.18	0.77
52:B3:29:ARG:CB	52:B3:33:GLN:HE22	1.98	0.77
8:AH:63:LEU:CB	8:AH:65:TYR:HE1	1.97	0.77
1:AA:1366:C:H2'	1:AA:1367:C:H6	1.49	0.77
46:DX:12:VAL:HG12	46:DX:27:THR:OG1	1.83	0.77
10:AJ:6:ILE:HG13	10:AJ:72:VAL:O	1.84	0.77
48:BZ:162:LEU:CD2	48:BZ:166:PRO:HG3	2.15	0.77
45:DW:17:VAL:O	45:DW:20:VAL:N	2.16	0.77
45:DW:68:ARG:HH12	45:DW:113:LYS:H	1.31	0.77
27:DA:1473:G:H2'	27:DA:1474:C:H5'	1.66	0.77
42:DT:16:ARG:O	42:DT:17:THR:HB	1.85	0.77
32:BF:53:THR:HB	32:BF:56:GLU:HG3	1.67	0.77
11:AK:20:TYR:C	11:AK:21:ILE:HD12	2.04	0.77
4:CD:201:GLN:HA	4:CD:201:GLN:OE1	1.84	0.77
53:B4:62:CYS:SG	53:B4:64:LYS:HG3	2.25	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1153:C:H2'	27:DA:1154:G:O4'	1.85	0.77
55:B6:20:ASN:OD1	55:B6:41:PRO:HA	1.85	0.77
32:DF:182:ASN:O	32:DF:186:ILE:HG12	1.85	0.77
15:AO:78:TYR:OH	15:AO:88:ARG:HD2	1.83	0.77
31:DE:7:VAL:HG23	31:DE:27:LEU:HB3	1.67	0.77
54:D5:32:PRO:O	54:D5:33:CYS:HB3	1.83	0.77
27:BA:143:G:H1'	46:BX:37:THR:HG21	1.65	0.77
1:CA:1151:A:H1'	10:CJ:39:PRO:HG2	1.64	0.77
1:CA:1332:A:H2'	1:CA:1333:A:C8	2.20	0.77
1:AA:308:C:H2'	1:AA:309:G:H8	1.49	0.77
1:AA:1510:U:H2'	1:AA:1511:G:C8	2.20	0.77
1:CA:1267:C:O2	1:CA:1267:C:H2'	1.84	0.77
43:DU:88:ILE:O	43:DU:88:ILE:HG13	1.82	0.77
55:D6:11:LEU:HD11	55:D6:52:VAL:O	1.83	0.77
38:DP:115:LEU:HD23	38:DP:115:LEU:N	2.00	0.77
38:DP:23:PRO:HB2	38:DP:33:ARG:CD	2.14	0.77
30:BD:43:ARG:HH11	30:BD:44:ASN:ND2	1.82	0.77
20:CT:76:ALA:HA	20:CT:79:ARG:HH11	1.49	0.77
27:DA:2716:U:O2'	27:DA:2717:G:H5'	1.85	0.77
25:CY:37:U:C3'	25:CY:38:U:H5''	2.15	0.77
38:DP:91:PHE:N	38:DP:91:PHE:CD1	2.51	0.77
27:DA:473:G:H5''	27:DA:508:G:N2	1.99	0.77
27:BA:518:G:H2'	27:BA:519:U:C6	2.20	0.77
41:BS:13:ARG:O	41:BS:15:ARG:HG2	1.84	0.76
43:DU:89:GLU:CG	44:DV:50:PRO:HG3	2.14	0.76
44:DV:19:LYS:HB2	44:DV:96:ILE:HG12	1.67	0.76
1:AA:1207:G:H2'	1:AA:1208:C:C6	2.20	0.76
27:BA:1656:C:O2'	27:BA:1657:C:H5'	1.84	0.76
1:CA:1037:C:H2'	1:CA:1038:C:C6	2.19	0.76
1:CA:226:G:O2'	1:CA:227:G:H5'	1.85	0.76
27:DA:774:A:H2	27:DA:787:U:HO2'	1.33	0.76
6:AF:55:ASP:HB3	6:AF:86:ARG:HH12	1.50	0.76
33:DG:43:LEU:CB	33:DG:88:ILE:HD11	2.15	0.76
27:BA:90:U:H1'	27:BA:92:A:C8	2.20	0.76
19:CS:40:ILE:HG21	19:CS:62:ILE:HD11	1.66	0.76
27:DA:2629:A:N3	27:DA:2629:A:H5'	1.99	0.76
27:DA:1284:A:H2'	27:DA:1285:G:O4'	1.85	0.76
4:AD:119:GLN:HE21	4:AD:123:HIS:CD2	2.03	0.76
9:CI:13:ALA:HB2	9:CI:68:GLY:HA3	1.68	0.76
39:DQ:63:LYS:HE2	39:DQ:65:PHE:CE1	2.19	0.76
17:CQ:59:ILE:HG22	17:CQ:71:PHE:HD1	1.50	0.76
33:DG:101:ILE:HD11	33:DG:105:LYS:HZ1	1.50	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:CO:54:ARG:NE	15:CO:58:MET:SD	2.58	0.76
16:CP:43:LYS:HA	16:CP:48:TRP:CB	2.15	0.76
1:CA:1149:C:H2'	1:CA:1150:U:C6	2.20	0.76
39:DQ:32:TYR:CE2	39:DQ:133:ARG:HG2	2.19	0.76
38:BP:146:VAL:HG22	38:BP:147:LEU:N	2.01	0.76
25:CY:65:U:H2'	25:CY:66:A:C8	2.21	0.76
37:BO:13:ASN:HD21	37:BO:96:THR:C	1.87	0.76
27:BA:594:U:H2'	27:BA:595:C:H6	1.50	0.76
31:BE:203:LYS:HE3	31:BE:204:ALA:HB2	1.66	0.76
1:AA:1377:A:H2'	7:AG:7:ALA:HB3	1.67	0.76
29:DC:77:ILE:HB	29:DC:122:ALA:HA	1.65	0.76
4:AD:170:VAL:HG12	4:AD:171:GLY:N	2.00	0.76
25:CY:63:C:H2'	25:CY:64:G:H8	1.50	0.76
31:DE:105:THR:HG21	31:DE:164:ARG:CZ	2.15	0.76
42:BT:99:LEU:O	42:BT:99:LEU:HD12	1.84	0.76
1:AA:1528:U:HO2'	1:AA:1529:G:H3'	1.50	0.76
32:BF:46:ARG:HB3	32:BF:48:THR:HG23	1.67	0.76
27:DA:1384:A:N3	27:DA:1405:U:H1'	2.00	0.76
32:BF:4:VAL:HG12	32:BF:19:GLU:OE1	1.86	0.76
36:BN:2:LYS:NZ	43:BU:95:LEU:HG	1.99	0.76
43:BU:92:ARG:HG2	44:BV:11:GLN:CD	2.06	0.76
31:DE:33:VAL:CG2	31:DE:69:LYS:HE3	2.15	0.76
27:DA:2399:G:H21	55:D6:21:TYR:HE1	1.30	0.76
27:DA:459:U:H4'	56:D7:40:TRP:CZ3	2.19	0.76
27:DA:2571:C:C5'	27:DA:2572:A:H5'	2.14	0.76
4:AD:4:TYR:O	4:AD:5:ILE:HB	1.85	0.76
12:CL:25:LYS:HE3	12:CL:30:ARG:HH12	1.50	0.76
27:DA:1378:A:H4'	27:DA:1379:A:OP1	1.83	0.76
35:BI:133:HIS:HB2	35:BI:134:PRO:CD	2.15	0.76
37:DO:66:LYS:HD3	37:DO:79:PHE:O	1.84	0.76
27:BA:627:A:H4'	27:BA:628:G:OP1	1.84	0.76
6:AF:21:LEU:O	6:AF:24:GLU:HG2	1.86	0.76
27:DA:528:A:C2	27:DA:2043:C:H4'	2.20	0.76
11:CK:101:SER:C	11:CK:103:LEU:H	1.87	0.76
11:AK:12:ARG:HE	11:AK:14:VAL:HG12	1.49	0.76
23:CW:14:A:H2'	23:CW:15:G:O4'	1.85	0.76
1:CA:784:C:H4'	27:DA:1837:C:OP1	1.85	0.76
27:DA:1213:A:H2'	27:DA:1214:A:H8	1.48	0.76
1:CA:321:A:O2'	1:CA:322:C:H5'	1.84	0.76
27:BA:2611:U:H5'	27:BA:2611:U:H6	1.50	0.76
1:CA:1427:U:H2'	1:CA:1428:A:C8	2.21	0.76
30:BD:134:ARG:HD3	30:BD:135:PHE:CZ	2.21	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:CP:82:GLN:NE2	16:CP:82:GLN:N	2.31	0.76
1:CA:197:A:N6	1:CA:221:C:H5'	2.01	0.76
41:DS:92:TYR:O	41:DS:93:LYS:HB3	1.86	0.76
1:CA:678:U:H2'	1:CA:679:C:H6	1.49	0.76
1:CA:1057:G:H4'	3:CC:196:LEU:O	1.85	0.76
1:CA:1060:C:H5'	14:CN:45:ARG:HH22	1.50	0.76
36:DN:128:HIS:HB2	36:DN:130:HIS:HE1	1.46	0.76
1:CA:924:C:H2'	1:CA:925:G:H8	1.49	0.76
27:BA:2863:C:C2'	27:BA:2864:G:H5''	2.15	0.76
27:DA:662:G:H5''	38:DP:18:ARG:O	1.85	0.76
1:AA:577:G:O2'	1:AA:578:C:H6	1.69	0.76
8:CH:39:LEU:HD22	8:CH:39:LEU:H	1.51	0.76
19:AS:4:SER:O	19:AS:5:LEU:HB2	1.83	0.76
27:BA:675:A:C8	27:BA:804:A:C6	2.73	0.76
3:AC:43:LEU:O	3:AC:47:LEU:HB3	1.84	0.76
27:DA:2532:G:N2	27:DA:2663:G:H1'	2.00	0.76
8:CH:86:ILE:HG22	8:CH:87:SER:H	1.51	0.76
1:AA:1256:A:H5'	1:AA:1257:U:OP1	1.84	0.76
27:DA:2842:G:O2'	27:DA:2843:G:H5'	1.85	0.76
1:CA:1321:C:H3'	1:CA:1322:C:H5''	1.67	0.76
1:AA:258:G:H1	1:AA:268:C:H42	1.33	0.76
30:DD:26:LYS:O	30:DD:27:THR:HB	1.85	0.76
9:AI:115:GLY:O	9:AI:116:LYS:HG2	1.85	0.76
1:CA:310:G:H2'	1:CA:311:C:H6	1.51	0.76
1:CA:1175:G:H2'	1:CA:1176:A:H8	1.50	0.76
27:DA:2825:C:H2'	27:DA:2826:A:O4'	1.85	0.76
5:AE:141:GLN:HG2	5:AE:143:ARG:NH2	2.00	0.76
27:DA:1484:G:C3'	27:DA:1485:G:H5''	2.15	0.76
8:AH:112:LEU:HA	8:AH:134:ILE:HG12	1.66	0.76
1:CA:269:C:H2'	1:CA:270:A:C8	2.19	0.76
27:DA:363(E):U:O2	27:DA:363(E):U:H2'	1.86	0.76
27:DA:558:G:OP1	36:DN:111:PRO:HD2	1.85	0.76
27:DA:927:G:H2'	27:DA:928:G:O4'	1.85	0.76
27:BA:2654:A:H4'	27:BA:2655:G:OP1	1.85	0.76
1:CA:1246:C:H2'	1:CA:1247:U:H6	1.51	0.76
1:CA:1346:A:N1	1:CA:1374:A:H5''	2.01	0.76
5:AE:41:VAL:HG11	5:AE:113:ALA:HA	1.66	0.76
44:DV:18:LEU:CD2	44:DV:19:LYS:H	1.99	0.76
1:CA:551:U:O2'	1:CA:552:U:H5'	1.84	0.76
31:DE:134:ILE:HD13	31:DE:134:ILE:N	1.99	0.76
16:AP:5:ARG:NH2	16:AP:26:ARG:HB2	1.99	0.76
27:BA:125:G:H5''	27:BA:126:A:OP2	1.85	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BE:36:ARG:HH21	31:BE:88:GLY:HA3	1.48	0.76
1:CA:1066:C:H6	1:CA:1066:C:H5''	1.47	0.76
27:DA:2712:U:O2'	27:DA:2712(A):A:H8	1.69	0.76
27:BA:2847:U:OP1	42:BT:98:LYS:HD3	1.86	0.76
27:DA:2308:G:H2'	27:DA:2309:A:C8	2.21	0.76
33:DG:76:SER:HA	33:DG:83:ARG:HB2	1.68	0.76
27:BA:1372:U:H2'	27:BA:1373:A:H8	1.49	0.76
27:DA:1448:G:H2'	27:DA:1449:A:C8	2.21	0.76
27:BA:2061:G:H5''	27:BA:2503:A:C2	2.20	0.76
29:DC:49:ILE:HD12	29:DC:49:ILE:H	1.49	0.76
1:CA:1332:A:H2'	1:CA:1333:A:H8	1.51	0.76
2:AB:21:ARG:HB3	2:AB:39:ILE:HA	1.67	0.76
27:BA:1911:U:H2'	27:BA:1918:A:N1	2.01	0.76
1:AA:8:A:N7	4:AD:208:SER:HB2	2.01	0.76
27:BA:1995:U:O2'	37:BO:31:LYS:HE3	1.86	0.76
38:BP:122:PRO:HB3	38:BP:141:ALA:HB3	1.67	0.76
45:DW:95:ILE:O	45:DW:95:ILE:HG13	1.84	0.76
8:CH:17:THR:HB	8:CH:78:GLN:OE1	1.85	0.76
43:BU:90:VAL:HG22	44:BV:39:LEU:HG	1.66	0.76
36:DN:2:LYS:NZ	44:DV:13:ARG:H	1.83	0.76
27:DA:36:G:O2'	27:DA:37:C:H5'	1.85	0.76
41:BS:54:LEU:HD12	41:BS:57:LYS:O	1.85	0.76
41:DS:85:VAL:N	41:DS:106:ARG:HB2	1.97	0.76
1:CA:123:C:OP1	1:CA:312:C:H5'	1.86	0.76
37:BO:65:THR:HA	37:BO:82:ASN:ND2	1.99	0.76
27:BA:2580:U:C5'	31:BE:131:ALA:HB2	2.16	0.76
27:BA:1430:C:H2'	27:BA:1431:U:C6	2.20	0.76
10:CJ:32:ALA:CB	10:CJ:76:ASN:HB2	2.14	0.76
1:AA:358:U:H2'	1:AA:359:U:C6	2.21	0.76
27:DA:2836:U:H2'	27:DA:2837:G:H8	1.51	0.76
12:AL:82:ILE:HG23	12:AL:95:TYR:HB3	1.68	0.76
7:AG:60:LYS:HA	7:AG:60:LYS:HZ3	1.51	0.76
27:DA:2094:G:P	35:DI:22:LYS:HD2	2.26	0.76
27:DA:2225:A:O2'	27:DA:2226:C:OP2	2.02	0.76
27:BA:2037:G:H2'	27:BA:2038:G:C8	2.21	0.76
4:CD:30:LYS:C	4:CD:32:ALA:H	1.89	0.76
41:BS:17:ARG:HA	41:BS:20:ARG:HG2	1.66	0.76
32:BF:3:GLU:CA	32:BF:24:LEU:HG	2.14	0.76
1:CA:472:A:H2'	1:CA:473:G:O4'	1.86	0.76
43:DU:110:VAL:O	43:DU:113:ALA:HB3	1.85	0.76
55:D6:15:GLU:OE1	55:D6:43:CYS:HB3	1.86	0.76
27:BA:2483:C:C3'	27:BA:2484:G:H5''	2.14	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DE:47:VAL:HG21	31:DE:86:PRO:HD2	1.68	0.76
30:BD:31:LYS:HG3	30:BD:33:LEU:HD13	1.68	0.76
27:DA:19:C:OP1	43:DU:22:LYS:HD2	1.85	0.76
1:CA:1308:U:O2'	1:CA:1309:G:H5'	1.85	0.76
29:DC:36:LYS:HB2	29:DC:36:LYS:HZ3	1.49	0.76
27:DA:2586:C:C2'	27:DA:2587:A:H5'	2.16	0.76
1:AA:1377:A:H2'	7:AG:7:ALA:CB	2.16	0.76
27:BA:747:U:H5	54:B5:3:LYS:HB2	1.51	0.76
27:BA:2654:A:H1'	27:BA:2656:U:C6	2.20	0.76
27:DA:1638:C:H1'	27:DA:2698:U:O2'	1.84	0.76
2:AB:68:ILE:CD1	2:AB:161:ALA:HB3	2.16	0.76
27:BA:2873:A:C2	40:BR:6:SER:HB2	2.21	0.76
34:BH:89:ILE:O	34:BH:89:ILE:HD12	1.84	0.76
14:CN:41:ARG:HG3	14:CN:42:ILE:HG12	1.67	0.76
32:BF:38:ARG:HH11	32:BF:38:ARG:HG3	1.50	0.76
27:BA:481:G:H1'	27:BA:506:G:N2	2.00	0.76
54:B5:16:ARG:CG	54:B5:17:ASP:N	2.48	0.76
31:DE:59:VAL:HG22	31:DE:60:ASN:N	2.01	0.76
31:DE:116:VAL:O	31:DE:117:MET:HB3	1.83	0.76
27:BA:1499:C:H2'	27:BA:1500:G:H5'	1.68	0.76
30:BD:43:ARG:HH12	30:BD:44:ASN:HD21	1.33	0.76
15:AO:17:ARG:HH11	15:AO:17:ARG:HG3	1.51	0.76
1:CA:1207:G:O2'	1:CA:1208:C:H5'	1.85	0.76
55:B6:32:ASN:ND2	55:B6:33:LYS:H	1.84	0.76
33:DG:51:ARG:NE	33:DG:51:ARG:HA	2.00	0.76
10:CJ:97:GLU:O	10:CJ:98:ILE:HD12	1.85	0.76
1:CA:348:G:H2'	1:CA:349:A:H8	1.49	0.76
27:DA:1448:G:H2'	27:DA:1449:A:H8	1.49	0.76
28:BB:75:G:H5''	48:BZ:35:LYS:HE2	1.68	0.76
54:B5:41:PRO:CG	54:B5:44:THR:HG21	2.14	0.76
27:BA:1365:A:H5''	50:B1:41:ARG:NH2	2.01	0.76
3:AC:187:ALA:O	3:AC:198:VAL:HG23	1.84	0.76
1:CA:674:G:H2'	1:CA:675:A:H8	1.48	0.76
1:CA:980:C:H5'	1:CA:981:U:C5	2.21	0.76
31:DE:77:ILE:CG2	31:DE:78:LEU:N	2.44	0.76
27:DA:586:A:C5'	32:DF:89:VAL:HG21	2.15	0.76
30:BD:35:LYS:NZ	30:BD:103:ARG:HA	2.01	0.76
1:CA:159:G:H2'	1:CA:161:A:OP2	1.86	0.76
31:BE:46:ALA:HB2	31:BE:82:ARG:HA	1.68	0.76
31:BE:1:MET:HB2	31:BE:84:PHE:HB2	1.68	0.76
1:CA:1064:G:H1'	1:CA:1066:C:C5	2.21	0.76
27:BA:1798:U:C5'	30:BD:259:THR:HG22	2.14	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:134:ILE:CG2	3:CC:168:ALA:HB3	2.15	0.76
1:CA:193:C:O2'	1:CA:194:C:H5'	1.85	0.76
7:CG:85:TYR:HD1	7:CG:154:TYR:HE1	1.33	0.76
8:AH:83:ILE:HG13	8:AH:137:VAL:HG22	1.68	0.76
27:BA:1913:A:H4'	27:BA:1914:C:H5''	1.67	0.76
2:CB:107:THR:HA	2:CB:110:GLN:HG2	1.65	0.76
7:AG:80:VAL:HG21	7:AG:85:TYR:CD1	2.21	0.76
7:AG:95:ARG:O	7:AG:99:LEU:HG	1.85	0.76
27:BA:1641:A:H2'	27:BA:1642:G:O4'	1.86	0.76
10:CJ:82:ILE:HG22	10:CJ:82:ILE:O	1.86	0.76
27:DA:2113:U:O2'	27:DA:2114:A:H8	1.69	0.76
36:BN:57:ALA:O	36:BN:58:ASP:O	2.04	0.76
40:BR:97:VAL:HA	40:BR:113:LEU:O	1.85	0.75
32:BF:3:GLU:HB2	32:BF:19:GLU:CB	2.09	0.75
1:CA:507:C:H3'	1:CA:508:C:H6	1.50	0.75
43:BU:112:ARG:HH21	44:BV:46:VAL:HG11	1.50	0.75
36:BN:62:VAL:HG11	36:BN:67:LEU:HD21	1.68	0.75
57:B8:33:ASN:N	57:B8:33:ASN:HD22	1.82	0.75
45:DW:26:GLY:H	45:DW:71:VAL:HB	1.51	0.75
3:CC:22:TRP:CZ3	3:CC:32:LEU:HB3	2.21	0.75
16:CP:31:LYS:HG2	16:CP:32:TYR:H	1.49	0.75
7:CG:16:LEU:HD11	9:CI:42:ARG:HA	1.68	0.75
3:CC:150:LYS:HD3	3:CC:201:TYR:HD1	1.51	0.75
5:AE:91:LEU:HD12	5:AE:120:THR:HG22	1.67	0.75
34:BH:85:LYS:HE2	34:BH:145:ALA:HB2	1.67	0.75
44:BV:19:LYS:HG3	44:BV:20:LEU:O	1.85	0.75
27:DA:560:C:H4'	43:DU:52:ARG:HH22	1.49	0.75
43:DU:89:GLU:HG2	44:DV:50:PRO:HG3	1.69	0.75
27:DA:2615:U:C2	54:D5:7:PRO:HA	2.21	0.75
18:CR:82:THR:CG2	18:CR:83:GLU:H	1.98	0.75
31:DE:1:MET:N	31:DE:84:PHE:HB2	2.01	0.75
1:AA:751:U:C4'	15:AO:24:SER:HA	2.16	0.75
30:DD:43:ARG:NH1	30:DD:44:ASN:ND2	2.34	0.75
50:B1:29:GLY:O	50:B1:30:VAL:HG22	1.85	0.75
5:CE:53:LEU:HD12	5:CE:53:LEU:H	1.51	0.75
1:CA:1355:G:H2'	1:CA:1356:G:H8	1.50	0.75
27:BA:2845:G:O2'	27:BA:2846:G:H5'	1.85	0.75
33:DG:45:GLU:H	33:DG:88:ILE:HD13	1.51	0.75
27:DA:760:G:O2'	27:DA:761:A:H5'	1.85	0.75
27:DA:852:G:N2	27:DA:926:A:H1'	2.02	0.75
12:AL:48:ALA:C	12:AL:49:LEU:HD22	2.06	0.75
27:DA:1215:G:H2'	27:DA:1216:G:O4'	1.86	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1400:G:H2'	27:BA:1401:G:H8	1.50	0.75
42:DT:16:ARG:HB3	42:DT:19:LEU:HD11	1.67	0.75
4:AD:170:VAL:HG11	4:AD:174:LEU:HB2	1.68	0.75
18:CR:62:GLU:HA	18:CR:65:ILE:HD12	1.66	0.75
1:AA:837:G:O2'	1:AA:838:G:H5'	1.86	0.75
1:CA:9:G:H5'	5:CE:122:GLU:OE1	1.86	0.75
4:AD:58:LEU:O	4:AD:58:LEU:HD22	1.87	0.75
27:BA:1890:A:H2'	27:BA:1891:G:O4'	1.86	0.75
38:BP:49:ARG:HD2	57:B8:59:LYS:HG2	1.69	0.75
27:BA:2810:A:H2'	31:BE:61:ARG:HH21	1.51	0.75
27:DA:1822:G:O2'	27:DA:1823:G:H5'	1.86	0.75
47:DY:96:ILE:HD12	47:DY:99:CYS:CB	2.17	0.75
1:CA:1254:C:OP1	10:CJ:45:ARG:HA	1.86	0.75
47:DY:27:VAL:HG12	47:DY:28:LYS:N	2.01	0.75
47:DY:29:GLU:N	47:DY:29:GLU:OE1	2.20	0.75
55:B6:19:ARG:HG2	55:B6:20:ASN:N	2.00	0.75
1:CA:184:G:H2'	1:CA:185:A:H8	1.50	0.75
42:DT:62:THR:HA	42:DT:74:ARG:O	1.86	0.75
35:BI:123:LEU:HD21	35:BI:143:SER:O	1.87	0.75
33:BG:170:ARG:HD2	33:BG:174:GLU:HB2	1.68	0.75
16:AP:14:ASN:N	16:AP:15:PRO:HD3	2.01	0.75
13:AM:96:LEU:CD2	13:AM:97:PRO:HD2	2.16	0.75
17:CQ:4:LYS:HE3	17:CQ:6:LEU:HD11	1.67	0.75
27:BA:339:U:O2'	27:BA:340:A:H5'	1.84	0.75
23:CW:17:G:H1	23:CW:54:U:H1'	1.51	0.75
31:BE:167:VAL:HG23	31:BE:170:LEU:HD11	1.68	0.75
47:BY:7:VAL:C	47:BY:8:LYS:HD2	2.06	0.75
27:BA:558:G:P	36:BN:111:PRO:HD2	2.26	0.75
27:DA:633:A:H2'	27:DA:634:C:C5'	2.14	0.75
27:BA:125:G:H21	56:B7:48:LYS:NZ	1.84	0.75
27:DA:2564:A:C2	27:DA:2647:U:H4'	2.21	0.75
15:AO:26:GLU:OE2	15:AO:77:ARG:HD2	1.86	0.75
27:BA:2870:C:H2'	27:BA:2871:C:C5'	2.15	0.75
25:AY:68:C:C2'	25:AY:69:C:H5''	2.16	0.75
27:DA:1697:G:H3'	27:DA:1698:A:H5''	1.69	0.75
27:DA:136:G:H1	27:DA:143(A):C:H42	1.33	0.75
35:DI:83:ALA:HA	35:DI:89:TYR:CE1	2.22	0.75
37:DO:6:THR:HG22	37:DO:7:TYR:H	1.51	0.75
27:BA:2571:C:H5'	27:BA:2572:A:C5'	2.16	0.75
27:BA:1179:C:H2'	27:BA:1180:C:H5''	1.67	0.75
8:AH:101:PRO:HG2	8:AH:133:LEU:HD11	1.67	0.75
10:CJ:40:LEU:HG	10:CJ:69:ASN:HB3	1.68	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1508:G:H2'	1:AA:1509:C:H6	1.51	0.75
27:BA:1843:C:H5'	30:BD:253:GLN:NE2	2.02	0.75
12:CL:73:ASN:ND2	12:CL:105:ALA:HB2	2.02	0.75
19:AS:24:ALA:O	19:AS:25:LYS:HB2	1.85	0.75
37:BO:16:ALA:HB2	37:BO:52:VAL:CG1	2.15	0.75
21:CU:2:GLY:C	21:CU:4:GLY:H	1.90	0.75
32:BF:63:LYS:HA	32:BF:76:GLY:O	1.87	0.75
32:DF:22:ALA:C	32:DF:24:LEU:H	1.87	0.75
27:DA:1560:G:N2	27:DA:1561:G:H1'	2.02	0.75
27:DA:2547:U:H2'	27:DA:2548:G:C8	2.21	0.75
1:AA:170:U:O2'	1:AA:171:A:H5'	1.86	0.75
27:BA:2466:C:H5''	58:B9:6:SER:HB2	1.67	0.75
30:BD:34:VAL:O	30:BD:34:VAL:HG13	1.87	0.75
43:BU:104:GLN:NE2	43:BU:105:VAL:HG23	1.98	0.75
32:DF:187:VAL:CG1	38:DP:7:ARG:HH21	1.99	0.75
3:CC:92:ALA:HB2	3:CC:99:VAL:CG2	2.16	0.75
38:BP:146:VAL:O	38:BP:148:LEU:HG	1.87	0.75
1:AA:441:A:H3'	1:AA:442:C:H6	1.49	0.75
1:AA:1068:G:OP2	1:AA:1094:G:H5''	1.86	0.75
1:CA:821:G:H2'	1:CA:822:C:H6	1.51	0.75
37:DO:87:ILE:HD11	37:DO:114:ILE:HD11	1.67	0.75
27:DA:1946:U:H2'	27:DA:1947:C:H6	1.52	0.75
40:BR:10:LEU:HA	40:BR:17:ARG:HD2	1.67	0.75
32:BF:20:LEU:HD22	32:BF:203:GLN:NE2	2.01	0.75
57:D8:11:LYS:HE2	57:D8:64:TYR:HE1	1.51	0.75
27:DA:979:G:N2	27:DA:985:C:H42	1.85	0.75
41:BS:36:TYR:CD2	41:BS:52:SER:HB2	2.20	0.75
27:DA:908:C:H3'	39:DQ:22:LYS:HZ1	1.51	0.75
34:DH:144:VAL:O	34:DH:148:ILE:HG12	1.86	0.75
27:DA:520:G:H2'	27:DA:521:G:C8	2.22	0.75
51:D2:12:GLU:O	51:D2:16:LEU:HG	1.86	0.75
1:CA:1313:U:OP1	19:CS:6:LYS:HG3	1.87	0.75
30:BD:143:HIS:ND1	30:BD:194:GLY:O	2.19	0.75
33:DG:77:ILE:H	33:DG:83:ARG:HB3	1.51	0.75
3:CC:39:ILE:HG22	3:CC:43:LEU:HD12	1.68	0.75
27:DA:851:U:H3	27:DA:926:A:H61	1.33	0.75
27:DA:2887:U:H2'	27:DA:2888:C:C6	2.20	0.75
1:CA:840:C:H5''	1:CA:841:U:OP1	1.87	0.75
1:AA:1285:A:H5'	1:AA:1286:A:C8	2.21	0.75
50:B1:19:GLN:HB2	50:B1:36:GLY:H	1.52	0.75
10:CJ:40:LEU:HB2	10:CJ:41:PRO:HD2	1.69	0.75
27:DA:1947:C:H42	27:DA:1959:G:H1	1.35	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:999:C:O2'	1:CA:1000:U:H5'	1.87	0.75
27:BA:549:G:H2'	27:BA:551:G:H5''	1.66	0.75
27:BA:2114:A:H2'	27:BA:2115:G:O4'	1.87	0.75
27:BA:1289:C:H5'	27:BA:1289:C:H6	1.51	0.75
11:CK:17:GLY:HA3	11:CK:77:MET:SD	2.26	0.75
1:AA:687:A:N3	1:AA:688:G:H1'	2.00	0.75
2:CB:27:LYS:HB2	2:CB:193:ASP:HB2	1.68	0.75
27:DA:649:G:H2'	27:DA:650:C:C6	2.22	0.75
4:AD:146:ILE:HD12	4:AD:146:ILE:H	1.50	0.75
25:AY:30:A:H2'	25:AY:31:U:H6	1.50	0.75
27:DA:1590:U:H2'	27:DA:1591:G:H5''	1.68	0.75
39:DQ:85:LYS:CG	49:D0:7:LEU:HD13	2.16	0.75
27:DA:800:A:H1'	27:DA:802:A:OP2	1.86	0.75
36:BN:93:THR:HG23	36:BN:93:THR:O	1.86	0.75
17:AQ:74:LEU:HD13	17:AQ:74:LEU:O	1.86	0.75
27:DA:271(M):G:H2'	27:DA:271(N):U:H5''	1.69	0.75
40:DR:11:ASN:HB3	40:DR:12:ARG:NH1	2.01	0.75
7:CG:78:ARG:CG	7:CG:79:ARG:H	1.99	0.75
27:DA:1416:G:O2'	27:DA:1417:C:H6	1.68	0.75
5:CE:15:ARG:HG3	5:CE:28:PHE:CE2	2.21	0.75
3:CC:40:ARG:HB3	3:CC:44:GLU:OE2	1.87	0.75
29:DC:77:ILE:HG21	29:DC:123:VAL:H	1.52	0.75
37:DO:87:ILE:HG21	37:DO:91:LEU:HA	1.69	0.75
18:AR:43:PHE:O	18:AR:51:LEU:HD12	1.87	0.75
10:CJ:12:ASP:OD1	10:CJ:15:THR:HG23	1.86	0.75
8:CH:72:PRO:O	8:CH:73:ASP:HB3	1.85	0.75
27:BA:176:G:O2'	27:BA:177:G:H5'	1.85	0.75
27:BA:514:A:H1'	27:BA:581:C:O2'	1.87	0.75
4:AD:98:GLU:HG3	4:AD:103:ASN:ND2	2.01	0.75
4:CD:146:ILE:HD12	4:CD:146:ILE:N	2.02	0.75
38:BP:23:PRO:HD2	38:BP:33:ARG:NH2	2.01	0.75
38:DP:48:PRO:CG	38:DP:49:ARG:H	1.99	0.75
27:BA:559:G:H22	43:BU:49:HIS:CD2	2.05	0.75
55:D6:33:LYS:HA	55:D6:33:LYS:CE	2.05	0.75
34:BH:44:VAL:HG12	34:BH:45:VAL:N	1.97	0.75
30:BD:118:VAL:HG22	30:BD:119:ALA:N	1.97	0.75
42:DT:28:VAL:HB	42:DT:88:ILE:HG12	1.68	0.75
27:DA:2756:U:H4'	27:DA:2757:A:O5'	1.85	0.75
27:BA:2875:C:O2'	42:BT:5:ALA:CB	2.35	0.75
36:DN:58:ASP:O	36:DN:60:ILE:N	2.18	0.75
35:BI:115:ALA:CB	35:BI:129:THR:H	1.98	0.75
1:AA:1239:A:H62	1:AA:1299:A:H62	1.33	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:71:A:H3'	27:BA:71:A:OP2	1.86	0.75
27:BA:271(U):G:O2'	27:BA:271(V):G:H5'	1.87	0.75
58:D9:4:ARG:O	58:D9:36:GLN:HA	1.87	0.75
27:DA:2283:C:H2'	27:DA:2284:C:H5'	1.68	0.75
43:BU:8:VAL:HG11	43:BU:12:ARG:NE	2.01	0.75
33:DG:161:THR:HG22	33:DG:163:ALA:H	1.50	0.75
27:BA:703:U:C2'	27:BA:704:G:H5'	2.16	0.75
6:AF:75:LEU:HD23	6:AF:79:LEU:HG	1.68	0.75
36:DN:70:LYS:HB3	36:DN:87:LEU:HB2	1.69	0.75
27:DA:1968:G:C2'	27:DA:1969:A:H5''	2.15	0.75
19:CS:19:VAL:CG1	19:CS:44:MET:HG3	2.14	0.75
27:DA:140:G:HO2'	27:DA:141:A:H2	1.35	0.75
27:BA:1273:U:H6	27:BA:1273:U:C5'	2.00	0.75
1:CA:1285:A:O2'	1:CA:1286:A:OP2	2.04	0.75
35:DI:37:VAL:CG1	35:DI:38:LEU:HD12	2.16	0.75
48:BZ:152:SER:H	48:BZ:166:PRO:HB3	1.51	0.75
34:DH:147:ASN:N	34:DH:147:ASN:HD22	1.85	0.75
11:AK:61:ALA:O	11:AK:64:ALA:HB3	1.85	0.75
35:DI:81:VAL:HG12	35:DI:82:ARG:H	1.51	0.75
5:AE:76:ILE:HD11	5:AE:142:LEU:HD21	1.68	0.75
37:DO:35:VAL:HG21	37:DO:69:ILE:CD1	2.17	0.75
25:CY:57:A:H2'	25:CY:60:C:H41	1.52	0.75
21:CU:24:ARG:O	21:CU:25:LYS:HB2	1.85	0.75
1:AA:992:U:H3	1:AA:1044:A:H62	1.33	0.75
40:BR:24:GLN:NE2	40:BR:36:THR:HG21	2.02	0.74
30:DD:239:ARG:NH2	30:DD:239:ARG:HG2	1.88	0.74
32:DF:126:VAL:O	32:DF:196:LEU:HG	1.87	0.74
1:AA:1406:U:H2'	1:AA:1407:C:H5'	1.69	0.74
27:DA:2509:G:H2'	27:DA:2510:C:H6	1.52	0.74
27:DA:2550:G:C2'	27:DA:2551:C:H5'	2.17	0.74
27:DA:820:A:H2'	27:DA:821:A:O4'	1.86	0.74
38:DP:33:ARG:O	38:DP:34:GLY:C	2.25	0.74
20:AT:63:ILE:HD13	20:AT:80:ARG:HB2	1.69	0.74
35:DI:133:HIS:HB2	35:DI:134:PRO:CD	2.16	0.74
1:CA:386:C:H2'	1:CA:387:U:C5'	2.17	0.74
34:DH:85:LYS:HB3	34:DH:133:VAL:O	1.87	0.74
41:DS:89:ARG:HB3	41:DS:92:TYR:HB2	1.69	0.74
27:BA:748:G:C8	45:BW:89:ALA:HB1	2.21	0.74
20:CT:48:LYS:O	20:CT:49:ALA:HB2	1.87	0.74
39:BQ:106:VAL:HG21	39:BQ:114:ALA:HB1	1.67	0.74
27:DA:2560:C:N4	27:DA:2561:A:H62	1.84	0.74
37:DO:1:MET:HG3	37:DO:32:TYR:CD1	2.22	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CY:68:C:C2'	25:CY:69:C:H5''	2.17	0.74
34:DH:17:VAL:HB	34:DH:45:VAL:HG13	1.69	0.74
23:CW:53:U:H4'	39:DQ:52:VAL:HG22	1.69	0.74
33:DG:114:ILE:HG12	33:DG:140:ILE:HD13	1.68	0.74
42:DT:105:LEU:HB3	42:DT:109:GLU:OE1	1.86	0.74
52:D3:7:LYS:HG2	52:D3:8:LEU:H	1.50	0.74
37:DO:87:ILE:HG22	37:DO:88:ASN:O	1.87	0.74
1:AA:9:G:OP1	5:AE:122:GLU:HG3	1.86	0.74
43:BU:29:SER:O	43:BU:30:LYS:HD3	1.87	0.74
30:BD:137:PRO:O	30:BD:140:THR:HG23	1.85	0.74
27:BA:1033:U:H5''	27:BA:1034:G:OP1	1.87	0.74
51:B2:4:SER:O	51:B2:7:ARG:HG2	1.86	0.74
27:DA:55:G:H2'	27:DA:56:A:H8	1.50	0.74
13:CM:30:ALA:O	13:CM:34:LEU:HG	1.86	0.74
43:BU:83:LEU:HG	43:BU:88:ILE:HG13	1.70	0.74
55:D6:15:GLU:HG2	55:D6:18:ARG:HE	1.51	0.74
27:DA:2384:G:H5''	27:DA:2386:C:OP1	1.87	0.74
1:AA:943:U:H1'	9:AI:124:GLN:HE22	1.52	0.74
42:DT:35:LYS:NZ	42:DT:41:ARG:HE	1.86	0.74
16:AP:21:VAL:CG1	16:AP:33:ILE:HB	2.17	0.74
1:CA:1073:U:H2'	1:CA:1074:G:H8	1.52	0.74
39:DQ:44:ALA:HB3	39:DQ:45:GLN:HE21	1.50	0.74
33:BG:51:ARG:NE	33:BG:51:ARG:HA	2.00	0.74
27:BA:71:A:C8	27:BA:71:A:H5'	2.21	0.74
27:DA:265:A:H1'	27:DA:266:G:O4'	1.86	0.74
1:CA:939:G:H5''	7:CG:102:ARG:HH12	1.52	0.74
46:DX:64:LYS:HZ2	46:DX:73:ARG:HH12	1.34	0.74
48:BZ:102:ARG:HD3	48:BZ:135:PHE:CE1	2.22	0.74
27:DA:1468:C:H2'	27:DA:1469:A:H8	1.52	0.74
40:BR:100:LEU:HD21	40:BR:113:LEU:CD1	2.13	0.74
27:BA:485:C:H2'	27:BA:486:C:C6	2.22	0.74
27:DA:1157:G:H2'	27:DA:1158:C:C6	2.22	0.74
27:DA:533:G:O2'	43:DU:42:ALA:HB2	1.88	0.74
27:DA:993:G:O2'	27:DA:994:C:H5'	1.87	0.74
43:DU:74:LEU:HD12	43:DU:74:LEU:O	1.88	0.74
30:DD:72:LYS:HE2	30:DD:101:GLU:OE2	1.87	0.74
30:DD:30:GLU:HA	30:DD:83:GLU:OE1	1.87	0.74
47:DY:28:LYS:N	47:DY:28:LYS:HZ2	1.84	0.74
1:AA:323:U:O3'	20:AT:22:ARG:HD3	1.86	0.74
4:AD:8:VAL:HB	4:AD:22:LYS:NZ	2.03	0.74
34:BH:45:VAL:O	34:BH:45:VAL:HG12	1.87	0.74
47:BY:29:GLU:N	47:BY:29:GLU:OE1	2.20	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1643:G:N2	27:BA:1644:C:H1'	2.01	0.74
1:CA:1191:A:H5''	3:CC:4:LYS:NZ	2.02	0.74
12:AL:80:VAL:HA	12:AL:102:TYR:HD1	1.51	0.74
38:BP:126:VAL:HA	38:BP:145:PRO:HB2	1.66	0.74
27:DA:962:G:O2'	27:DA:963:U:H5'	1.85	0.74
33:DG:111:LEU:HD22	33:DG:117:PHE:CZ	2.22	0.74
15:AO:33:THR:HG23	15:AO:63:ARG:HH11	1.52	0.74
1:CA:1154:G:O2'	1:CA:1155:G:H8	1.68	0.74
27:BA:676:A:H2	27:BA:802:A:H61	1.33	0.74
27:BA:648:G:H2'	27:BA:649:G:C8	2.21	0.74
4:AD:105:VAL:HG13	4:AD:110:PHE:CD2	2.21	0.74
27:BA:1441:G:H2'	27:BA:1442:G:H8	1.51	0.74
6:AF:16:GLN:NE2	6:AF:16:GLN:N	2.34	0.74
2:AB:61:LEU:CD2	2:AB:68:ILE:HD11	2.17	0.74
37:DO:18:LYS:HB2	37:DO:45:GLU:HG2	1.69	0.74
27:BA:2052:G:H4'	31:BE:143:ASN:O	1.87	0.74
5:AE:11:ILE:HG21	5:AE:105:VAL:HG22	1.67	0.74
23:AW:10:G:N2	23:AW:25:A:H1'	2.02	0.74
28:DB:20:C:C2'	28:DB:21:G:H5'	2.17	0.74
1:AA:1408:A:O2'	1:AA:1409:C:H5'	1.87	0.74
28:BB:91:C:H2'	28:BB:92:C:C6	2.23	0.74
27:BA:2834:G:H5'	27:BA:2835:A:OP2	1.87	0.74
1:CA:425:G:O2'	1:CA:426:G:H5'	1.86	0.74
2:AB:69:LEU:CD2	2:AB:159:PRO:HG2	2.18	0.74
1:CA:259:G:O2'	1:CA:260:G:H5'	1.87	0.74
27:BA:2580:U:H5'	31:BE:131:ALA:HB2	1.68	0.74
27:BA:151:C:O2'	27:BA:152:G:H5'	1.87	0.74
27:DA:2815:C:H2'	27:DA:2816:C:H6	1.51	0.74
5:CE:105:VAL:O	5:CE:108:ALA:HB3	1.87	0.74
11:CK:21:ILE:HD11	11:CK:82:VAL:HG13	1.68	0.74
10:CJ:22:LYS:NZ	10:CJ:23:ILE:HG12	2.03	0.74
2:AB:68:ILE:HD12	2:AB:161:ALA:HB3	1.69	0.74
28:DB:22:U:H3	28:DB:61:G:H1	1.35	0.74
1:AA:1464:G:O2'	1:AA:1465:C:H5'	1.87	0.74
1:CA:20:U:H2'	1:CA:21:G:O4'	1.87	0.74
27:BA:406:G:H8	27:BA:406:G:O5'	1.70	0.74
4:CD:33:MET:CE	4:CD:37:PRO:HA	2.17	0.74
27:DA:1495:A:H2'	27:DA:1496:A:C2	2.23	0.74
38:DP:106:LEU:HD11	38:DP:112:LEU:HB2	1.69	0.74
30:BD:64:ILE:HG23	30:BD:64:ILE:O	1.87	0.74
12:CL:25:LYS:NZ	12:CL:30:ARG:HH22	1.85	0.74
27:DA:133:C:H42	27:DA:146:G:H1	0.83	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1397:C:H3'	1:AA:1398:A:H5'	1.66	0.74
29:DC:78:ALA:HB2	29:DC:82:LYS:HD2	1.69	0.74
27:BA:2516:G:H2'	27:BA:2517:C:H5'	1.70	0.74
37:DO:35:VAL:HG22	37:DO:65:THR:CG2	2.17	0.74
37:BO:110:GLY:HA2	37:BO:112:MET:HE3	1.68	0.74
27:BA:1929:G:H4'	27:BA:1930:G:OP1	1.86	0.74
6:AF:18:GLN:HA	6:AF:21:LEU:HB2	1.69	0.74
7:AG:28:ASN:HA	7:AG:31:MET:HE2	1.68	0.74
27:BA:1848:A:HO2'	27:BA:1849:G:H8	1.31	0.74
27:BA:2412:A:H2'	27:BA:2413:G:O4'	1.87	0.74
36:BN:32:THR:HG22	36:BN:37:LYS:HB3	1.67	0.74
31:BE:9:VAL:HG12	31:BE:25:VAL:O	1.88	0.74
27:BA:634:C:H2'	27:BA:635:C:C6	2.22	0.74
31:DE:116:VAL:O	31:DE:117:MET:CB	2.33	0.74
30:BD:31:LYS:HB3	30:BD:35:LYS:HG3	1.68	0.74
30:BD:60:ARG:HD3	30:BD:86:PRO:CB	2.16	0.74
27:BA:71:A:H5''	27:BA:73:A:C8	2.23	0.74
27:BA:64:A:C4	46:BX:66:LEU:HD12	2.22	0.74
35:DI:83:ALA:CB	35:DI:88:ILE:HA	2.17	0.74
27:BA:847:U:H2'	27:BA:848:G:H5''	1.69	0.74
14:AN:13:THR:N	14:AN:14:PRO:HD2	2.02	0.74
27:DA:66:C:H2'	27:DA:67:U:C6	2.22	0.74
2:AB:21:ARG:HB2	2:AB:38:GLY:O	1.86	0.74
5:AE:72:GLN:HE21	5:AE:144:THR:HG22	1.52	0.74
27:BA:591:C:O2	57:B8:2:PRO:HA	1.87	0.74
44:BV:34:GLU:HG2	44:BV:36:PRO:HD3	1.69	0.74
31:BE:40:GLU:N	31:BE:40:GLU:OE1	2.21	0.74
27:BA:2415:G:H4'	38:BP:66:GLY:HA3	1.67	0.74
1:CA:971:G:H5''	1:CA:972:C:H5''	1.69	0.74
34:BH:138:LYS:H	34:BH:141:VAL:HG23	1.51	0.74
13:CM:66:LEU:O	13:CM:67:GLU:O	2.06	0.74
27:DA:411:G:N2	38:DP:71:VAL:HG21	2.02	0.74
27:DA:1014:U:H2'	27:DA:1015:G:C8	2.22	0.74
27:DA:1567:A:H5''	30:DD:58:HIS:CD2	2.23	0.74
12:CL:67:ILE:HD13	12:CL:74:LEU:HD12	1.68	0.74
31:DE:117:MET:O	31:DE:118:LYS:HB2	1.86	0.74
55:B6:41:PRO:HD3	55:B6:46:HIS:HB3	1.68	0.74
45:BW:15:ARG:HA	45:BW:18:ARG:HD2	1.69	0.74
1:CA:237:C:H5''	17:CQ:25:ARG:NH1	2.02	0.74
6:AF:10:LEU:HD12	6:AF:10:LEU:N	2.02	0.74
27:DA:2181:G:O2'	27:DA:2182:G:H5'	1.88	0.74
51:B2:33:MET:C	51:B2:35:LEU:H	1.91	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2312:U:H2'	27:DA:2313:C:H5''	1.70	0.74
13:AM:57:ARG:CZ	53:B4:60:GLU:HG3	2.18	0.74
39:DQ:42:ILE:HD12	39:DQ:42:ILE:H	1.52	0.74
27:DA:2836:U:H2'	27:DA:2837:G:C8	2.22	0.74
8:CH:104:ARG:CB	8:CH:108:GLY:H	2.01	0.74
10:AJ:63:PHE:HB3	14:AN:58:LYS:HA	1.69	0.74
32:DF:57:VAL:CG1	32:DF:59:TYR:CD1	2.71	0.74
2:AB:114:ARG:HA	2:AB:117:GLU:HB2	1.69	0.74
28:DB:28:C:O2'	28:DB:29:A:H5'	1.87	0.74
1:CA:256:U:H2'	1:CA:257:G:H8	1.50	0.74
45:BW:81:ALA:O	45:BW:82:LEU:HD23	1.88	0.74
27:BA:2533:A:H2'	27:BA:2534:A:H5''	1.70	0.74
2:CB:36:ARG:NE	2:CB:36:ARG:HA	2.02	0.74
27:BA:1322:A:H2'	27:BA:1323:U:H6	1.51	0.74
36:DN:18:ALA:HB1	36:DN:21:LYS:HB2	1.68	0.74
13:CM:51:ALA:O	13:CM:55:ARG:HB3	1.87	0.74
1:CA:985:C:HO2'	1:CA:986:A:H8	1.36	0.74
44:BV:47:VAL:HB	44:BV:49:THR:O	1.88	0.74
9:AI:95:LYS:O	9:AI:99:LEU:HB2	1.87	0.74
8:AH:35:ILE:O	8:AH:39:LEU:HD23	1.88	0.74
42:DT:88:ILE:HG22	42:DT:89:VAL:HG23	1.68	0.74
1:AA:531:U:H5''	1:AA:532:A:OP1	1.87	0.74
48:DZ:150:HIS:CB	48:DZ:169:THR:HG22	2.18	0.74
27:DA:15:G:OP1	54:D5:24:ALA:HB2	1.87	0.74
35:BI:133:HIS:HB2	35:BI:134:PRO:HD2	1.70	0.74
51:B2:53:LEU:HD22	51:B2:57:ILE:HD11	1.69	0.74
27:DA:2339:G:O2'	27:DA:2340:G:H5'	1.88	0.74
1:AA:979:C:C3'	1:AA:980:C:H5''	2.17	0.74
32:BF:164:ARG:HH11	32:BF:164:ARG:HG2	1.52	0.74
27:DA:1225:G:OP1	44:DV:86:GLY:HA3	1.88	0.74
11:AK:79:SER:HB2	11:AK:106:LYS:HE2	1.69	0.74
28:BB:88:C:H2'	28:BB:89:G:C8	2.23	0.74
53:B4:53:THR:O	53:B4:54:LYS:HG2	1.85	0.74
1:AA:21:G:H2'	1:AA:22:G:C8	2.23	0.74
1:CA:1141:C:H2'	1:CA:1142:G:C8	2.23	0.74
27:DA:1400:G:H2'	27:DA:1401:G:H8	1.52	0.74
5:AE:129:ILE:CG2	5:AE:130:ASN:H	1.95	0.74
27:BA:1902:C:O2'	30:BD:244:ARG:HB2	1.88	0.74
31:DE:51:PHE:CE1	31:DE:52:LEU:HD13	2.22	0.74
27:DA:2426:A:H3'	27:DA:2427:C:C5'	2.18	0.74
38:DP:102:ARG:HG2	38:DP:102:ARG:O	1.87	0.74
34:BH:20:ALA:HB3	34:BH:23:ARG:HB2	1.70	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BD:35:LYS:HZ3	30:BD:103:ARG:CA	1.99	0.74
8:AH:103:VAL:CG2	8:AH:110:ALA:HB2	2.17	0.74
8:AH:110:ALA:HB3	8:AH:121:ASP:HB3	1.70	0.74
42:DT:28:VAL:HG13	42:DT:46:GLU:HA	1.69	0.74
35:BI:129:THR:HG22	35:BI:137:PRO:HG3	1.69	0.74
35:BI:77:LEU:HD23	35:BI:78:THR:H	1.51	0.74
37:DO:101:PRO:HG3	42:DT:67:SER:OG	1.88	0.74
27:BA:986:C:O2'	27:BA:987:G:H5'	1.88	0.74
1:CA:1471:G:O2'	1:CA:1472:U:H5'	1.87	0.74
27:BA:1447:G:H2'	27:BA:1448:G:H8	1.53	0.74
57:B8:23:VAL:HG12	57:B8:46:ARG:HB3	1.70	0.74
27:BA:356:G:H5'	27:BA:357:A:OP2	1.88	0.74
27:BA:2298:A:C2	27:BA:2299:G:H1'	2.23	0.74
13:CM:14:ARG:H	13:CM:44:ARG:NH1	1.84	0.74
30:BD:36:PRO:HB2	30:BD:61:LEU:HD11	1.70	0.74
19:AS:44:MET:O	19:AS:47:HIS:HB2	1.88	0.74
2:CB:96:ARG:H	2:CB:96:ARG:CD	2.01	0.74
27:DA:514:A:C2'	27:DA:515:A:H5'	2.18	0.74
46:BX:12:VAL:HB	46:BX:17:ALA:CB	2.17	0.74
27:BA:1557:C:OP2	27:BA:1558:A:H2'	1.87	0.74
55:B6:33:LYS:HA	55:B6:33:LYS:HE2	1.69	0.74
3:AC:53:ALA:HB2	3:AC:115:LEU:HG	1.69	0.74
25:CY:40:C:H2'	25:CY:41:G:H8	1.51	0.74
40:DR:26:LYS:HE2	40:DR:71:GLN:H	1.52	0.74
15:CO:7:GLU:O	15:CO:11:VAL:HG23	1.88	0.74
1:AA:954:G:H21	1:AA:1227:A:H62	1.36	0.74
13:AM:104:ARG:CG	13:AM:105:THR:H	2.01	0.74
13:CM:88:ARG:HA	13:CM:98:VAL:CG1	2.17	0.74
46:DX:61:GLY:HA3	46:DX:73:ARG:O	1.88	0.74
23:AW:22:G:H2'	23:AW:23:G:H5'	1.68	0.74
5:CE:101:ILE:N	5:CE:101:ILE:HD13	2.03	0.74
1:CA:1479:C:O2'	1:CA:1480:G:H5'	1.88	0.74
1:CA:93:G:C2'	1:CA:96:U:H5'	2.16	0.74
19:CS:32:LYS:HE3	19:CS:32:LYS:N	2.03	0.73
32:BF:20:LEU:HB3	32:BF:23:ASP:OD1	1.88	0.73
27:DA:1022:G:O6	36:DN:66:LYS:HE2	1.87	0.73
4:CD:82:ALA:CB	4:CD:89:THR:HG23	2.16	0.73
27:BA:673:C:H2'	27:BA:674:G:H5'	1.70	0.73
27:DA:36:G:H4'	27:DA:451:C:C2	2.23	0.73
31:DE:34:VAL:O	31:DE:35:GLN:HB2	1.87	0.73
27:DA:1991:U:O2'	27:DA:1992:G:H5''	1.87	0.73
4:AD:9:CYS:SG	60:AD:302:ZN:ZN	1.77	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BD:35:LYS:H	30:BD:36:PRO:HD2	1.53	0.73
1:AA:1360:A:O2'	1:AA:1361:G:H5'	1.88	0.73
1:AA:942:G:H21	9:AI:124:GLN:NE2	1.85	0.73
1:CA:386:C:O2'	1:CA:387:U:H5'	1.88	0.73
36:DN:13:TRP:O	36:DN:135:PRO:HD2	1.88	0.73
15:CO:82:ILE:HG12	15:CO:87:ILE:HB	1.68	0.73
5:AE:141:GLN:HG2	5:AE:143:ARG:HH22	1.53	0.73
33:DG:131:TYR:HE2	33:DG:133:LEU:HD23	1.53	0.73
27:DA:271(H):G:H2'	27:DA:271(I):G:C8	2.22	0.73
27:DA:340:A:H2'	27:DA:341:G:O4'	1.87	0.73
36:DN:67:LEU:HB3	36:DN:88:GLU:HG2	1.70	0.73
1:AA:179:A:H2'	1:AA:180:U:C6	2.23	0.73
27:BA:344:G:H22	27:BA:345:A:H62	1.32	0.73
27:BA:1192:G:C2'	27:BA:1193:G:H5''	2.18	0.73
3:AC:141:VAL:HG11	3:AC:149:ALA:HB2	1.70	0.73
27:BA:633:A:H2'	27:BA:634:C:H5'	1.70	0.73
40:BR:23:ASN:H	40:BR:23:ASN:HD22	1.36	0.73
2:CB:69:LEU:HB3	2:CB:162:ILE:HG22	1.70	0.73
27:BA:2728:U:C2'	27:BA:2729:G:H5'	2.18	0.73
44:BV:21:ARG:HB3	44:BV:91:TYR:HB2	1.70	0.73
30:BD:26:LYS:HZ3	30:BD:82:ILE:N	1.86	0.73
39:DQ:81:VAL:CG2	49:D0:7:LEU:HD21	2.17	0.73
38:DP:23:PRO:HD2	38:DP:33:ARG:NH2	2.02	0.73
39:BQ:118:LEU:CD1	39:BQ:131:ILE:HG23	2.17	0.73
27:BA:1686:C:H6	27:BA:1686:C:C5'	2.01	0.73
27:DA:2758:A:H2'	27:DA:2759:G:C5'	2.17	0.73
6:CF:3:ARG:HH11	6:CF:3:ARG:HG3	1.53	0.73
13:AM:15:VAL:HG12	13:AM:45:VAL:HG22	1.70	0.73
1:CA:350:G:H2'	1:CA:351:G:C8	2.23	0.73
39:DQ:55:VAL:HG13	39:DQ:56:ARG:N	2.03	0.73
27:BA:747:U:C5	54:B5:3:LYS:HB2	2.22	0.73
2:CB:194:PRO:O	2:CB:196:LEU:HD12	1.87	0.73
1:AA:57:G:H2'	1:AA:58:C:C6	2.23	0.73
39:DQ:79:LEU:HD22	39:DQ:80:GLU:HG3	1.68	0.73
27:DA:2327:A:H2'	27:DA:2328:A:C8	2.24	0.73
51:D2:43:GLN:O	51:D2:44:LEU:HB2	1.87	0.73
1:CA:1075:C:OP1	2:CB:103:THR:HG21	1.87	0.73
33:BG:103:LEU:HA	33:BG:106:LEU:HB3	1.70	0.73
31:BE:77:ILE:HG22	31:BE:78:LEU:N	1.98	0.73
1:CA:472:A:H4'	16:CP:82:GLN:HE22	1.52	0.73
27:DA:1130:U:OP2	27:DA:2570:G:N2	2.18	0.73
27:DA:2572:A:H5''	27:DA:2574:G:C4'	2.17	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:199:G:O2'	1:CA:200:G:H8	1.71	0.73
8:AH:27:PRO:O	8:AH:32:LYS:NZ	2.19	0.73
30:BD:44:ASN:HB3	30:BD:48:ARG:O	1.87	0.73
3:CC:134:ILE:HD11	3:CC:153:VAL:HG23	1.70	0.73
6:CF:33:TYR:HB2	6:CF:75:LEU:HD12	1.71	0.73
30:DD:35:LYS:O	30:DD:64:ILE:HG22	1.88	0.73
27:DA:1211:U:H4'	27:DA:1212:G:OP2	1.87	0.73
27:DA:484:C:H2'	27:DA:485:C:C6	2.22	0.73
27:BA:1550:C:H2'	27:BA:1551:C:C6	2.23	0.73
31:DE:103:ASP:OD2	31:DE:201:THR:HA	1.87	0.73
7:CG:120:ILE:HG22	7:CG:124:LEU:HD12	1.70	0.73
7:CG:59:LEU:O	7:CG:59:LEU:HD23	1.87	0.73
20:AT:89:ARG:HD2	20:AT:104:LEU:HD11	1.69	0.73
19:CS:50:ALA:HB1	19:CS:57:HIS:HB3	1.70	0.73
51:B2:41:ILE:HD11	51:B2:44:LEU:HB2	1.70	0.73
57:D8:53:PRO:O	57:D8:56:GLU:N	2.19	0.73
27:BA:483:A:HO2'	47:BY:60:PHE:HZ	1.34	0.73
34:BH:44:VAL:CG1	34:BH:45:VAL:H	1.99	0.73
1:CA:1175:G:H2'	1:CA:1176:A:C8	2.24	0.73
27:DA:1459:G:H2'	27:DA:1461:G:OP2	1.89	0.73
19:CS:60:VAL:HG21	19:CS:74:PHE:HB3	1.68	0.73
13:AM:57:ARG:NH1	53:B4:60:GLU:HA	2.03	0.73
37:DO:101:PRO:HD2	42:DT:70:VAL:CG2	2.18	0.73
12:AL:10:LYS:HD2	12:AL:10:LYS:N	2.03	0.73
2:CB:147:LYS:HE2	2:CB:148:TYR:CE1	2.22	0.73
47:DY:43:ASN:HD21	47:DY:64:GLU:HG3	1.53	0.73
1:CA:116:A:H2'	1:CA:117:G:C8	2.21	0.73
27:DA:398:G:H2'	27:DA:399:G:H8	1.54	0.73
27:DA:1496:A:H2'	27:DA:1498:C:C4	2.23	0.73
52:B3:8:LEU:HB2	52:B3:28:LEU:HD13	1.69	0.73
1:CA:1296:C:H5'	13:CM:44:ARG:HH22	1.52	0.73
10:AJ:51:ARG:HG2	14:AN:45:ARG:NH1	2.03	0.73
16:AP:2:VAL:HG23	16:AP:22:THR:O	1.89	0.73
38:DP:7:ARG:O	38:DP:10:PRO:CD	2.36	0.73
1:CA:965:A:H4'	1:CA:966:G:OP1	1.88	0.73
51:D2:16:LEU:H	51:D2:67:LYS:NZ	1.87	0.73
48:DZ:39:ASP:HB3	48:DZ:42:GLU:HB2	1.70	0.73
25:AY:65:U:H2'	25:AY:66:A:C8	2.23	0.73
4:AD:149:ALA:HB3	4:AD:152:SER:CB	2.18	0.73
1:CA:1524:C:H2'	1:CA:1525:G:C8	2.24	0.73
27:DA:620:G:H4'	27:DA:621:A:H5''	1.71	0.73
30:DD:153:ALA:C	30:DD:154:LYS:HG2	2.09	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:CK:123:LYS:HA	11:CK:126:ARG:HG3	1.70	0.73
27:BA:940:G:H2'	27:BA:941:A:O4'	1.87	0.73
41:BS:16:ASN:ND2	41:BS:92:TYR:CE1	2.56	0.73
27:BA:29:U:H2'	27:BA:30:G:H8	1.54	0.73
1:AA:918:A:H2'	1:AA:919:A:C8	2.24	0.73
1:CA:1250:A:C5'	9:CI:67:GLY:HA2	2.17	0.73
28:BB:83:G:H1	28:BB:94:C:H42	1.34	0.73
27:DA:2258:C:H4'	27:DA:2259:G:OP2	1.88	0.73
27:DA:2394:C:C2'	27:DA:2395:C:H5'	2.18	0.73
27:DA:2493:U:C5	27:DA:2494:G:C8	2.76	0.73
31:DE:154:LYS:O	31:DE:156:MET:HG3	1.88	0.73
1:CA:1494:G:H8	26:CZ:3:SER:HB3	1.54	0.73
32:DF:184:TYR:CE2	32:DF:188:ARG:HD2	2.24	0.73
27:DA:1305:C:O2'	27:DA:1306:C:H5'	1.88	0.73
35:BI:77:LEU:CD2	35:BI:78:THR:H	2.01	0.73
36:BN:15:LEU:CD1	36:BN:136:GLU:HG2	2.19	0.73
27:BA:1417:C:H42	27:BA:1581:G:H1	1.35	0.73
27:DA:2560:C:N4	27:DA:2561:A:N6	2.37	0.73
37:DO:97:ARG:O	37:DO:98:VAL:HG12	1.89	0.73
33:BG:47:LYS:HE2	33:BG:81:LYS:HE3	1.70	0.73
1:AA:1492:A:H2'	1:AA:1493:A:C8	2.24	0.73
31:BE:68:ALA:C	31:BE:70:ALA:H	1.91	0.73
33:BG:34:LEU:HA	33:BG:161:THR:HG23	1.71	0.73
34:DH:103:LEU:HD22	34:DH:123:PHE:CD2	2.23	0.73
40:BR:10:LEU:HB3	40:BR:17:ARG:NE	2.03	0.73
4:AD:98:GLU:HG3	4:AD:103:ASN:HD21	1.52	0.73
27:DA:1427:A:H4'	27:DA:1428:C:O5'	1.88	0.73
27:DA:898:C:H2'	27:DA:899:A:H5'	1.71	0.73
1:CA:1086:U:H2'	1:CA:1087:G:O4'	1.88	0.73
1:CA:1457:G:O2'	1:CA:1458:G:H5'	1.89	0.73
12:CL:38:ARG:NH1	12:CL:38:ARG:HB3	2.03	0.73
27:BA:2773:C:H2'	27:BA:2774:C:H6	1.54	0.73
38:BP:50:ARG:HG2	38:BP:50:ARG:HH21	1.53	0.73
4:CD:200:GLU:HG2	4:CD:201:GLN:H	1.51	0.73
30:DD:77:ALA:HB2	30:DD:97:TYR:CE2	2.24	0.73
27:DA:2383:G:H2'	27:DA:2384:G:H8	1.52	0.73
31:DE:91:VAL:O	31:DE:92:THR:HG23	1.88	0.73
47:BY:10:GLY:C	47:BY:27:VAL:HG22	2.09	0.73
8:AH:54:ASP:HB2	8:AH:56:LYS:HE2	1.70	0.73
41:BS:46:VAL:CG1	41:BS:47:THR:H	1.99	0.73
1:AA:1424:C:H2'	1:AA:1425:U:O4'	1.89	0.73
35:DI:5:LEU:HD13	35:DI:17:GLN:HB3	1.70	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:AT:50:GLU:HG3	20:AT:51:GLU:H	1.54	0.73
27:BA:1509(A):A:H2'	27:BA:1509(B):A:C8	2.23	0.73
1:AA:1187:G:OP1	9:AI:113:LYS:HE2	1.89	0.73
36:BN:17:ASP:HB2	36:BN:55:VAL:CG1	2.19	0.73
11:CK:59:TYR:O	11:CK:62:GLN:HB3	1.88	0.73
51:B2:43:GLN:O	51:B2:44:LEU:HD22	1.89	0.73
4:CD:80:GLU:O	4:CD:84:LYS:HE2	1.89	0.73
1:CA:1342:C:H2'	1:CA:1343:G:H8	1.52	0.73
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.23	0.73
46:DX:57:LEU:HD11	46:DX:78:LYS:HG2	1.71	0.73
30:BD:31:LYS:HD2	30:BD:33:LEU:HD13	1.70	0.73
1:CA:397:A:H5''	1:CA:397:A:N3	2.03	0.73
2:AB:163:PHE:HA	2:AB:185:ILE:O	1.89	0.73
16:AP:26:ARG:HD2	16:AP:31:LYS:O	1.88	0.73
17:AQ:51:TYR:CE1	17:AQ:73:VAL:HG11	2.24	0.73
3:CC:83:ARG:O	3:CC:86:VAL:HG22	1.88	0.73
13:AM:24:GLY:C	13:AM:25:ILE:HD12	2.09	0.73
1:AA:1139:G:H4'	1:AA:1140:C:O5'	1.89	0.73
27:BA:271(S):G:C2'	27:BA:271(T):C:H5'	2.18	0.73
33:BG:2:PRO:C	33:BG:4:ASP:H	1.92	0.73
32:DF:170:LEU:HD23	32:DF:173:VAL:HG23	1.71	0.73
13:CM:93:ARG:C	13:CM:94:ARG:HD2	2.09	0.73
27:DA:64:A:C5	46:DX:66:LEU:HD13	2.24	0.73
1:CA:254:G:O2'	1:CA:255:G:H5'	1.87	0.73
27:DA:2113:U:HO2'	27:DA:2114:A:H8	1.33	0.73
37:DO:8:LEU:HD22	37:DO:8:LEU:H	1.52	0.73
17:AQ:29:HIS:HE1	17:AQ:31:LEU:HB3	1.54	0.73
9:AI:26:VAL:HG13	9:AI:61:ALA:HB3	1.70	0.73
24:CX:29:G:O2'	24:CX:30:G:H5'	1.89	0.73
27:BA:476:G:H4'	27:BA:502:A:N1	2.04	0.73
31:BE:59:VAL:HG21	31:BE:63:LEU:HG	1.69	0.73
43:BU:42:ALA:O	43:BU:44:ASN:N	2.22	0.73
34:BH:43:VAL:HG12	34:BH:53:GLU:H	1.53	0.73
34:DH:85:LYS:HZ2	34:DH:133:VAL:HG11	1.53	0.73
27:BA:857:C:C5'	49:B0:77:ARG:HH22	1.99	0.73
14:CN:27:CYS:C	14:CN:29:ARG:H	1.91	0.73
27:DA:1639:U:C2'	27:DA:1640:C:H5''	2.19	0.73
35:BI:132:PRO:HD2	35:BI:133:HIS:CD2	2.23	0.73
31:DE:188:VAL:CG2	31:DE:189:PRO:HD2	2.18	0.73
1:CA:940:C:H2'	1:CA:941:G:H8	1.54	0.73
3:CC:9:GLY:HA2	3:CC:12:LEU:HD23	1.70	0.73
1:CA:918:A:H2'	1:CA:919:A:C8	2.23	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:967:C:H2'	1:AA:968:A:C8	2.24	0.73
10:CJ:40:LEU:CD2	10:CJ:69:ASN:HB3	2.18	0.73
27:DA:2192:G:H2'	27:DA:2193:G:H5''	1.71	0.73
1:CA:832:C:O2'	1:CA:833:U:H5'	1.88	0.73
27:BA:638:G:H2'	27:BA:639:U:O4'	1.89	0.73
42:BT:28:VAL:CG2	42:BT:46:GLU:HA	2.17	0.73
27:DA:917:A:H2'	27:DA:918:A:C8	2.23	0.73
27:DA:2067:G:O2'	27:DA:2068:U:OP1	2.05	0.73
1:AA:153:C:H2'	1:AA:154:C:C6	2.24	0.73
30:BD:117:VAL:HG22	30:BD:129:ASN:OD1	1.88	0.73
30:DD:174:ILE:O	30:DD:175:LEU:HD23	1.89	0.73
12:AL:31:ARG:HG2	12:AL:32:GLY:H	1.52	0.73
30:BD:182:LEU:H	30:BD:272:ALA:HB3	1.54	0.73
1:CA:1355:G:H2'	1:CA:1356:G:C8	2.24	0.73
35:BI:102:SER:HA	35:BI:107:VAL:H	1.52	0.73
27:BA:574:C:N4	31:BE:145:LYS:HE2	2.04	0.73
27:BA:2306:C:C5	27:BA:2307:G:H1'	2.24	0.73
27:BA:1596:A:H2'	27:BA:1597:A:H5'	1.70	0.73
15:AO:55:GLY:HA2	15:AO:58:MET:CE	2.19	0.73
27:DA:2199:A:H5''	27:DA:2200:C:C5	2.22	0.73
1:CA:16:A:N1	1:CA:919:A:H2	1.86	0.73
4:CD:146:ILE:HD12	4:CD:146:ILE:H	1.54	0.73
31:BE:9:VAL:HG11	31:BE:25:VAL:HG12	1.69	0.73
20:AT:87:LYS:HG3	20:AT:91:LEU:HD11	1.71	0.73
27:BA:576:U:H2'	27:BA:577:G:C8	2.24	0.73
23:CW:30:A:H2'	23:CW:31:U:H5''	1.69	0.73
32:BF:16:GLY:O	32:BF:17:ARG:HG3	1.89	0.72
47:BY:81:LYS:HD3	47:BY:97:ARG:HB3	1.71	0.72
47:BY:81:LYS:NZ	47:BY:97:ARG:HG2	2.04	0.72
13:CM:69:GLU:OE1	13:CM:72:ALA:HB3	1.88	0.72
1:AA:14:U:H2'	1:AA:16:A:OP2	1.88	0.72
49:D0:26:TYR:H	49:D0:29:GLN:NE2	1.77	0.72
27:DA:143:G:H4'	46:DX:35:THR:HG21	1.70	0.72
9:AI:50:LEU:HA	9:AI:53:VAL:HG22	1.71	0.72
8:AH:116:LYS:HD3	8:AH:127:LEU:HD11	1.71	0.72
27:DA:1798:U:H5'	30:DD:259:THR:CG2	2.18	0.72
30:BD:186:HIS:HD2	30:BD:188:GLU:H	0.85	0.72
27:DA:2758:A:C2'	27:DA:2759:G:H5''	2.19	0.72
23:CW:42:G:C3'	23:CW:43:C:H5''	2.19	0.72
37:BO:71:ARG:NH1	42:BT:74:ARG:HH22	1.87	0.72
27:DA:543:C:N4	27:DA:551:G:H1	1.85	0.72
1:CA:922:G:H2'	1:CA:923:A:H8	1.54	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DI:72:LEU:HD13	35:DI:75:LEU:HB3	1.71	0.72
35:DI:83:ALA:HB2	35:DI:88:ILE:HA	1.71	0.72
35:DI:83:ALA:HA	35:DI:89:TYR:CD1	2.23	0.72
1:AA:1287:A:H2'	1:AA:1288:A:C8	2.23	0.72
27:BA:200:U:H2'	27:BA:201:C:H5'	1.68	0.72
27:DA:476:G:N2	27:DA:478:A:H3'	2.04	0.72
24:AX:2:G:H2'	24:AX:3:C:C6	2.23	0.72
27:DA:1707:G:H2'	27:DA:1708:C:C6	2.24	0.72
36:DN:125:GLY:HA3	36:DN:126:PRO:O	1.89	0.72
2:CB:84:GLU:HB3	2:CB:219:VAL:HG21	1.71	0.72
13:AM:96:LEU:HD22	13:AM:97:PRO:HD2	1.70	0.72
27:BA:1286:A:H2'	27:BA:1288:U:OP2	1.89	0.72
18:AR:40:LEU:O	18:AR:43:PHE:N	2.23	0.72
27:DA:1468:C:H2'	27:DA:1469:A:C8	2.23	0.72
13:CM:37:THR:HG21	13:CM:56:LEU:HA	1.70	0.72
16:AP:67:THR:O	16:AP:70:ALA:HB3	1.89	0.72
27:BA:1750:G:O2'	27:BA:1751:C:H5'	1.89	0.72
33:BG:38:VAL:HG13	33:BG:92:VAL:O	1.88	0.72
13:AM:40:ASN:HD21	13:AM:42:ALA:HB3	1.53	0.72
1:CA:57:G:H2'	1:CA:58:C:C6	2.24	0.72
38:BP:84:ASN:HA	38:BP:115:LEU:O	1.89	0.72
38:BP:61:ARG:N	38:BP:61:ARG:HD2	2.03	0.72
1:CA:530:G:O6	22:CV:9:G:H1'	1.89	0.72
27:DA:911:A:H2'	39:DQ:9:TYR:OH	1.90	0.72
38:BP:18:ARG:O	38:BP:18:ARG:NH1	2.22	0.72
44:DV:12:TYR:CZ	44:DV:22:VAL:HG12	2.24	0.72
52:B3:8:LEU:HD13	52:B3:31:LEU:HD23	1.71	0.72
47:DY:27:VAL:CA	47:DY:28:LYS:HZ1	2.00	0.72
55:B6:39:TYR:O	55:B6:46:HIS:HB2	1.88	0.72
9:AI:53:VAL:HG23	9:AI:55:ALA:N	2.03	0.72
2:AB:164:VAL:O	2:AB:186:ALA:HB1	1.90	0.72
42:DT:27:THR:O	42:DT:28:VAL:HG23	1.89	0.72
17:CQ:44:ALA:HA	17:CQ:71:PHE:O	1.89	0.72
27:BA:2848:G:O2'	27:BA:2867:G:N2	2.22	0.72
1:AA:547:A:H4'	1:AA:548:G:O5'	1.89	0.72
27:DA:1665:A:H4'	37:DO:67:LYS:HB2	1.71	0.72
27:DA:1385:G:H4'	27:DA:1386:C:OP1	1.88	0.72
15:AO:61:GLY:O	15:AO:65:ARG:HD3	1.89	0.72
8:CH:109:ILE:CG2	8:CH:137:VAL:HB	2.19	0.72
27:BA:1108:U:H2'	27:BA:1109:C:H5'	1.69	0.72
39:DQ:38:GLU:HG3	39:DQ:127:ILE:CG2	2.19	0.72
18:AR:32:ARG:O	18:AR:69:THR:HG21	1.88	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
56:D7:24:THR:HG23	56:D7:27:GLY:H	1.54	0.72
1:CA:365:U:H5'	1:CA:366:C:OP1	1.89	0.72
27:BA:610:G:H2'	27:BA:611:C:H6	1.54	0.72
27:DA:1925:C:C2'	27:DA:1926:U:H5'	2.19	0.72
32:DF:124:LEU:HB3	32:DF:193:VAL:HG22	1.70	0.72
30:DD:85:ASP:HB2	30:DD:92:ILE:HD12	1.70	0.72
30:BD:25:THR:C	30:BD:26:LYS:HD3	2.09	0.72
51:D2:50:ILE:C	51:D2:52:ASP:H	1.93	0.72
46:DX:92:LEU:O	46:DX:94:GLY:N	2.18	0.72
27:BA:1494:A:N3	27:BA:1494:A:H2'	2.04	0.72
30:BD:35:LYS:NZ	30:BD:103:ARG:CA	2.52	0.72
20:CT:89:ARG:NH2	20:CT:104:LEU:HD21	2.04	0.72
28:DB:7:G:C3'	28:DB:8:U:H5''	2.18	0.72
30:BD:226:MET:O	30:BD:234:GLY:HA2	1.90	0.72
1:CA:279:A:H5''	1:CA:281:G:O4'	1.89	0.72
1:CA:743:U:H2'	1:CA:744:C:H6	1.54	0.72
42:DT:3:ARG:C	42:DT:5:ALA:H	1.91	0.72
37:BO:78:ARG:HG3	37:BO:79:PHE:N	2.03	0.72
27:BA:2261:C:OP1	49:B0:17:GLN:NE2	2.20	0.72
34:DH:13:LYS:CE	34:DH:13:LYS:HA	2.20	0.72
27:DA:352:G:O2'	27:DA:353:G:H3'	1.88	0.72
13:AM:74:VAL:HA	13:AM:77:ASN:HB3	1.69	0.72
34:BH:10:PRO:CG	34:BH:50:VAL:H	2.01	0.72
25:CY:18:G:N2	25:CY:55:C:H42	1.87	0.72
27:BA:1860:G:H1	27:BA:1882:C:N4	1.87	0.72
1:AA:598:U:H2'	1:AA:599:C:C6	2.24	0.72
12:AL:66:TYR:O	12:AL:68:PRO:HD3	1.89	0.72
1:CA:1237:C:OP1	1:CA:1238:A:H1'	1.89	0.72
4:AD:2:GLY:O	4:AD:3:ARG:HD3	1.89	0.72
27:BA:469:G:O6	56:B7:39:ARG:CZ	2.37	0.72
1:CA:1129:C:H41	1:CA:1135:U:H3	1.35	0.72
31:BE:100:GLU:O	31:BE:172:VAL:HG23	1.90	0.72
27:BA:1150:C:O2'	27:BA:1151:G:H5'	1.90	0.72
1:AA:1095:U:H5''	1:AA:1109:C:O2	1.89	0.72
46:BX:9:LEU:HA	51:B2:36:ARG:NH2	2.05	0.72
16:AP:18:ARG:NH1	16:AP:35:LYS:HD2	2.02	0.72
8:CH:48:TYR:HD1	8:CH:49:GLU:N	1.87	0.72
34:BH:159:GLU:OE1	34:BH:159:GLU:HA	1.89	0.72
1:CA:718:G:H21	18:CR:49:LYS:HZ3	1.36	0.72
31:BE:128:SER:O	31:BE:130:GLY:N	2.22	0.72
27:BA:2162:G:H4'	27:BA:2172:U:O2'	1.88	0.72
27:DA:2331:G:O2'	49:D0:43:THR:HG22	1.89	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DH:92:ILE:HG22	34:DH:93:GLY:H	1.53	0.72
1:AA:1330:U:H4'	13:AM:23:TYR:CE2	2.23	0.72
5:CE:129:ILE:HD12	5:CE:129:ILE:H	1.52	0.72
8:CH:109:ILE:HG22	8:CH:137:VAL:HB	1.72	0.72
10:AJ:63:PHE:HA	14:AN:59:ALA:CB	2.20	0.72
27:BA:17:G:H4'	43:BU:25:TRP:CH2	2.24	0.72
52:D3:7:LYS:HG2	52:D3:8:LEU:N	2.04	0.72
27:BA:1482:G:N2	27:BA:1507:A:H1'	2.03	0.72
10:AJ:95:GLU:CD	10:AJ:96:ILE:H	1.93	0.72
27:DA:66:C:H2'	27:DA:67:U:H6	1.55	0.72
1:AA:1528:U:O2'	1:AA:1529:G:H3'	1.89	0.72
27:DA:2282:G:O2'	27:DA:2283:C:OP2	2.07	0.72
36:BN:55:VAL:HG22	36:BN:126:PRO:HA	1.70	0.72
27:BA:271(I):G:H3'	27:BA:271(J):C:H6	1.54	0.72
46:DX:63:LYS:HB3	46:DX:72:LYS:HG3	1.70	0.72
27:DA:396:G:O4'	50:D1:13:ILE:HD11	1.89	0.72
27:BA:2543:G:H8	27:BA:2543:G:H5'	1.52	0.72
32:BF:199:TRP:O	32:BF:203:GLN:HG3	1.89	0.72
46:DX:48:LYS:HD2	46:DX:48:LYS:N	2.03	0.72
1:CA:1494:G:H4'	27:DA:1913:A:N7	2.05	0.72
31:DE:26:ILE:HG22	31:DE:27:LEU:N	2.02	0.72
6:AF:61:LEU:O	6:AF:62:TRP:HB2	1.89	0.72
6:CF:79:LEU:HD12	6:CF:88:VAL:HG11	1.71	0.72
35:BI:81:VAL:HG21	35:BI:142:VAL:HG13	1.71	0.72
31:BE:145:LYS:O	31:BE:148:GLY:HA3	1.89	0.72
8:CH:109:ILE:HD11	8:CH:120:THR:CG2	2.18	0.72
40:DR:97:VAL:HG22	40:DR:114:VAL:HG22	1.70	0.72
27:DA:1322:A:H2'	27:DA:1323:U:H6	1.54	0.72
1:CA:119:A:H4'	1:CA:120:A:O5'	1.87	0.72
27:BA:1400:G:O2'	27:BA:1401:G:H5'	1.89	0.72
18:CR:32:ARG:HA	18:CR:69:THR:HG21	1.71	0.72
1:CA:1278:U:H5''	1:CA:1279:A:O4'	1.89	0.72
27:DA:2531:A:H61	27:DA:2662:A:N6	1.88	0.72
27:DA:1041:C:H2'	27:DA:1042:G:H8	1.54	0.72
27:BA:2791:C:H4'	27:BA:2792:G:O5'	1.89	0.72
27:DA:244:A:O2'	38:DP:73:GLY:HA3	1.88	0.72
1:CA:508:C:H4'	1:CA:509:A:OP1	1.88	0.72
47:BY:50:ARG:HG3	47:BY:58:GLY:HA3	1.71	0.72
44:BV:35:LEU:HB3	44:BV:37:VAL:HG23	1.72	0.72
44:BV:39:LEU:O	44:BV:40:LEU:HB2	1.90	0.72
43:DU:66:ASN:O	43:DU:70:ARG:HG3	1.89	0.72
43:DU:92:ARG:NH1	43:DU:92:ARG:HG2	1.97	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:BB:94:C:O2'	28:BB:95:C:H5'	1.90	0.72
47:DY:28:LYS:CB	47:DY:38:ILE:H	2.01	0.72
27:DA:2276:G:OP1	39:DQ:84:GLY:HA2	1.90	0.72
27:DA:2757:A:C2	34:DH:67:LEU:HD22	2.23	0.72
17:CQ:59:ILE:HG22	17:CQ:71:PHE:CD1	2.24	0.72
50:B1:7:ILE:N	50:B1:7:ILE:HD12	2.04	0.72
27:BA:2122:U:H2'	27:BA:2123:G:H8	1.55	0.72
27:DA:1311:G:H21	27:DA:1603:A:H62	1.38	0.72
1:AA:490:G:H2'	1:AA:491:G:C8	2.20	0.72
27:DA:662:G:H5'	38:DP:18:ARG:HA	1.72	0.72
27:BA:64:A:H1'	46:BX:66:LEU:HB2	1.69	0.72
1:CA:637:G:H2'	1:CA:638:G:C8	2.25	0.72
27:BA:2443:C:O2'	27:BA:2444:G:H5'	1.90	0.72
27:BA:1924:C:O2'	27:BA:1925:C:H5'	1.89	0.72
28:DB:15:A:H5'	28:DB:16:G:H8	1.54	0.72
4:AD:173:TRP:CD2	4:AD:189:PRO:HB3	2.25	0.72
4:AD:188:LEU:HD22	4:AD:189:PRO:HD2	1.71	0.72
7:CG:20:ASP:HB3	7:CG:23:VAL:HG23	1.70	0.72
27:BA:239:U:O2'	27:BA:240:G:H5'	1.88	0.72
32:BF:3:GLU:HA	32:BF:24:LEU:HG	1.71	0.72
1:CA:546:G:P	4:CD:72:GLU:HB3	2.30	0.72
44:DV:59:ALA:HB2	44:DV:96:ILE:HA	1.71	0.72
27:DA:1490:A:H5'	27:DA:1491:G:OP2	1.88	0.72
27:DA:631:A:P	57:D8:46:ARG:HH21	2.13	0.72
33:DG:28:VAL:O	33:DG:31:VAL:N	2.23	0.72
27:BA:1686:C:H5'	27:BA:1686:C:H6	1.52	0.72
56:B7:8:ASN:ND2	56:B7:8:ASN:C	2.43	0.72
16:AP:6:LEU:HB3	16:AP:17:TYR:HB3	1.70	0.72
42:BT:33:LYS:HE3	42:BT:74:ARG:HH21	1.54	0.72
39:DQ:1:MET:O	39:DQ:2:LEU:HB2	1.90	0.72
27:BA:572:A:H2'	27:BA:573:G:O4'	1.90	0.72
42:BT:92:GLY:C	42:BT:94:ALA:N	2.41	0.72
33:DG:125:PHE:HB2	33:DG:166:ASP:OD2	1.90	0.72
12:AL:86:ARG:HA	12:AL:94:ARG:HA	1.72	0.72
1:CA:578:C:N4	1:CA:763:G:H1	1.87	0.72
6:AF:33:TYR:HB2	6:AF:75:LEU:HD12	1.70	0.72
56:B7:37:LYS:HD3	56:B7:39:ARG:NE	2.05	0.72
27:DA:1042:G:H1'	27:DA:1114:G:N2	2.03	0.72
4:AD:59:ARG:NH2	4:AD:66:ARG:HH22	1.88	0.72
45:DW:21:VAL:O	45:DW:21:VAL:HG12	1.90	0.72
38:BP:58:THR:O	38:BP:61:ARG:NE	2.22	0.72
31:BE:54:GLN:O	31:BE:75:VAL:HG22	1.90	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1343:G:H2'	1:CA:1344:C:C6	2.25	0.72
27:DA:94(A):G:H2'	27:DA:95:G:C5'	2.16	0.72
33:DG:28:VAL:C	33:DG:30:GLU:N	2.43	0.72
27:DA:1262:A:N3	54:D5:10:LYS:HE3	2.05	0.72
55:B6:20:ASN:HD22	55:B6:21:TYR:N	1.86	0.72
3:AC:186:PHE:HE2	3:AC:188:LEU:HD22	1.53	0.72
41:BS:24:LEU:HB3	41:BS:85:VAL:CG1	2.18	0.72
27:BA:2755:C:H3'	58:B9:19:ARG:HH21	1.53	0.72
27:BA:744:G:OP1	31:BE:132:HIS:HB3	1.89	0.72
27:BA:2396:G:OP1	50:B1:25:LYS:NZ	2.23	0.72
1:CA:750:G:C2	15:CO:23:GLY:HA3	2.25	0.72
3:AC:114:PRO:HG3	3:AC:185:GLY:HA3	1.71	0.72
30:DD:65:ILE:N	30:DD:65:ILE:HD13	2.04	0.72
7:AG:143:ARG:HD2	25:AY:40:C:O2'	1.90	0.72
5:AE:78:HIS:CE1	5:AE:142:LEU:HD23	2.25	0.72
1:CA:348:G:H2'	1:CA:349:A:C8	2.25	0.72
27:BA:848:G:C4	27:BA:933:A:H8	2.08	0.72
45:DW:23:LEU:O	45:DW:27:LYS:HD2	1.89	0.72
33:BG:124:SER:HB2	33:BG:131:TYR:CE1	2.24	0.72
16:CP:21:VAL:HG12	16:CP:34:GLU:O	1.90	0.72
37:DO:87:ILE:HG23	37:DO:92:GLU:O	1.90	0.72
27:BA:191:A:H2'	27:BA:192:C:H6	1.53	0.72
35:BI:68:LEU:HA	35:BI:71:ILE:CG1	2.19	0.72
27:DA:1722:A:N1	27:DA:1740:G:H8	1.86	0.72
13:CM:15:VAL:O	13:CM:19:LEU:HD22	1.90	0.72
25:CY:32:U:H2'	25:CY:34:U:OP2	1.89	0.72
27:BA:593:G:H1'	57:B8:4:MET:HE1	1.71	0.72
1:CA:983:A:H2'	1:CA:983:A:N3	2.03	0.72
27:BA:2632:A:N3	31:BE:61:ARG:NH1	2.37	0.72
27:BA:27:G:N2	27:BA:512:G:C2'	2.50	0.72
54:D5:4:HIS:CB	54:D5:5:PRO:HD3	2.19	0.72
38:DP:21:ARG:HD3	38:DP:29:LYS:HE3	1.71	0.72
27:DA:549:G:H2'	27:DA:551:G:H5''	1.72	0.72
1:AA:823:G:O2'	1:AA:824:C:H5'	1.90	0.72
3:CC:39:ILE:HG22	3:CC:43:LEU:CD1	2.20	0.72
1:CA:880:C:H2'	1:CA:881:G:H8	1.51	0.72
42:BT:10:VAL:O	42:BT:10:VAL:HG12	1.88	0.72
27:BA:959:A:H5''	27:BA:959:A:H8	1.54	0.72
1:AA:583:A:N6	1:AA:758:G:H1'	2.04	0.72
1:CA:1030:C:C2'	1:CA:1030(A):G:H5'	2.19	0.72
27:DA:2355:C:H4'	49:D0:24:LYS:HG3	1.72	0.72
23:AW:16:C:H4'	23:AW:59:U:O2'	1.89	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2515:C:H2'	27:DA:2516:G:H8	1.55	0.72
1:CA:335:C:H2'	1:CA:336:C:C6	2.25	0.72
38:BP:48:PRO:HG2	38:BP:49:ARG:N	2.05	0.72
40:BR:45:ARG:O	40:BR:48:VAL:HG23	1.89	0.72
27:DA:1925:C:O2'	27:DA:1926:U:H5'	1.90	0.72
52:B3:11:SER:HG	52:B3:13:ILE:HD12	1.55	0.72
27:DA:587:C:C4	38:DP:33:ARG:HD3	2.25	0.72
58:D9:11:CYS:SG	58:D9:32:HIS:CE1	2.83	0.72
17:CQ:57:VAL:HG12	17:CQ:76:LEU:CA	2.18	0.72
31:BE:81:ILE:O	31:BE:81:ILE:HG22	1.90	0.72
46:BX:12:VAL:HG12	46:BX:27:THR:OG1	1.89	0.72
37:BO:2:ILE:N	37:BO:2:ILE:HD13	2.04	0.72
37:BO:77:ILE:HD11	42:BT:72:VAL:CG1	2.20	0.72
1:CA:1060:C:O2'	1:CA:1061:G:H5'	1.89	0.72
1:CA:994:A:N7	1:CA:1216:G:H4'	2.05	0.72
35:DI:107:VAL:HG12	35:DI:108:THR:N	2.04	0.72
57:B8:37:SER:O	57:B8:40:GLU:HB2	1.90	0.72
27:DA:930:U:H4'	27:DA:931:G:C4	2.25	0.72
57:B8:51:ALA:C	57:B8:53:PRO:HD2	2.10	0.72
1:CA:1116:C:H2'	1:CA:1117:G:H5''	1.70	0.72
27:DA:1449:A:H5'	27:DA:1450:G:OP2	1.89	0.72
45:DW:83:LYS:HA	45:DW:97:LYS:HG2	1.71	0.72
40:BR:101:ALA:O	40:BR:102:GLU:HB2	1.89	0.72
27:DA:363(E):U:H5'	27:DA:363(F):A:C8	2.25	0.72
40:BR:4:LEU:O	40:BR:4:LEU:HD13	1.88	0.72
1:CA:93:G:H2'	1:CA:96:U:H5'	1.71	0.72
7:AG:15:ASP:O	7:AG:19:GLY:HA2	1.90	0.72
34:DH:23:ARG:O	34:DH:24:VAL:HG13	1.89	0.72
1:CA:36:C:H4'	12:CL:119:THR:O	1.90	0.72
27:BA:2320:A:H2'	27:BA:2320:A:N3	2.05	0.72
38:DP:17:LYS:O	38:DP:17:LYS:HG2	1.88	0.72
27:DA:2080:G:OP1	50:D1:35:THR:HG21	1.89	0.72
38:BP:84:ASN:HD22	38:BP:115:LEU:HG	1.53	0.71
47:BY:96:ILE:CG2	47:BY:97:ARG:N	2.52	0.71
57:D8:50:LEU:HD12	57:D8:51:ALA:N	2.04	0.71
31:BE:57:LYS:C	31:BE:59:VAL:H	1.93	0.71
38:DP:146:VAL:HG22	38:DP:147:LEU:N	2.05	0.71
1:CA:377:G:H1	1:CA:386:C:N4	1.86	0.71
8:AH:48:TYR:HA	8:AH:60:ARG:O	1.89	0.71
38:BP:112:LEU:H	38:BP:128:HIS:CD2	2.04	0.71
27:DA:768:G:H2'	27:DA:769:G:C8	2.25	0.71
35:BI:8:PRO:HB3	35:BI:14:ASP:HA	1.70	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:148:G:H1	1:CA:174:C:N4	1.88	0.71
27:BA:977:G:O2'	27:BA:978:G:H5'	1.90	0.71
27:DA:2080:G:P	50:D1:35:THR:HG21	2.30	0.71
11:AK:86:GLY:N	11:AK:112:THR:OG1	2.22	0.71
27:BA:2637:U:H2'	27:BA:2638:G:H5'	1.71	0.71
12:CL:123:LYS:C	12:CL:125:ALA:H	1.93	0.71
45:BW:10:VAL:HG23	45:BW:101:SER:O	1.90	0.71
31:DE:2:LYS:HE2	31:DE:95:ILE:HG23	1.72	0.71
27:DA:2757:A:N1	34:DH:67:LEU:HD13	2.05	0.71
27:DA:1242:A:N1	38:DP:8:PRO:HG3	2.04	0.71
4:AD:25:ARG:HG2	4:AD:25:ARG:HH11	1.55	0.71
15:AO:28:GLN:O	15:AO:32:LEU:HG	1.88	0.71
48:DZ:150:HIS:HB3	48:DZ:169:THR:CG2	2.16	0.71
1:CA:1068:G:N7	1:CA:1094:G:C8	2.58	0.71
1:CA:1215:G:H2'	1:CA:1216:G:H8	1.55	0.71
12:CL:107:VAL:CG2	12:CL:117:TYR:HB3	2.20	0.71
39:DQ:43:THR:HG22	39:DQ:94:VAL:HG12	1.72	0.71
24:CX:17:C:H3'	24:CX:17(B):U:C5'	2.20	0.71
27:BA:2428:G:H5''	27:BA:2429:G:O5'	1.89	0.71
27:DA:1654:A:P	40:DR:3:HIS:HB2	2.30	0.71
39:BQ:135:ASP:O	39:BQ:137:TYR:N	2.21	0.71
1:CA:839:U:H2'	1:CA:839:U:O2	1.89	0.71
1:AA:1036:G:H5'	1:AA:1037:C:OP2	1.89	0.71
25:AY:71:A:H2'	25:AY:72:G:H8	1.52	0.71
11:CK:96:ARG:HA	11:CK:99:GLN:HG2	1.71	0.71
1:CA:991:U:O2	1:CA:991:U:H2'	1.89	0.71
1:CA:59:A:H5'	1:CA:60:A:H5'	1.71	0.71
49:B0:65:GLY:HA3	49:B0:83:PRO:HA	1.71	0.71
19:AS:64:GLU:O	19:AS:67:VAL:HG22	1.90	0.71
30:BD:168:ARG:O	30:BD:169:GLU:HB2	1.90	0.71
27:BA:1948:G:O2'	27:BA:1949:G:H5'	1.90	0.71
27:DA:1197:G:O2'	27:DA:1198:U:H5'	1.91	0.71
32:BF:28:ILE:O	32:BF:28:ILE:HD12	1.90	0.71
1:AA:246:A:H4'	1:AA:247:G:OP1	1.89	0.71
1:CA:500:G:H2'	1:CA:501:C:C6	2.25	0.71
30:BD:26:LYS:NZ	30:BD:82:ILE:N	2.37	0.71
28:DB:88:C:H2'	28:DB:89:G:C8	2.24	0.71
8:AH:127:LEU:HD12	8:AH:129:VAL:HG13	1.73	0.71
15:CO:56:LEU:O	15:CO:60:VAL:HG23	1.90	0.71
16:AP:6:LEU:HD12	16:AP:6:LEU:N	2.04	0.71
27:DA:172:C:HO2'	27:DA:173:G:H8	1.38	0.71
27:DA:740:U:H2'	27:DA:741:G:C8	2.25	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:150:C:H2'	27:DA:151:C:C6	2.24	0.71
25:AY:63:C:H2'	25:AY:64:G:C8	2.25	0.71
1:AA:542:G:H5'	4:AD:41:GLY:HA3	1.73	0.71
3:CC:39:ILE:C	3:CC:41:GLY:H	1.94	0.71
3:AC:87:LEU:C	3:AC:89:GLU:N	2.43	0.71
10:AJ:48:THR:HA	10:AJ:62:HIS:HB3	1.71	0.71
33:BG:128:ARG:HB2	33:BG:130:ASN:O	1.91	0.71
7:CG:49:ILE:CG2	7:CG:53:LYS:HD2	2.19	0.71
32:DF:132:VAL:HG13	32:DF:133:ASN:N	2.05	0.71
27:BA:2619:C:O2'	27:BA:2620:C:H5'	1.89	0.71
27:BA:469:G:O2'	27:BA:470:A:H5''	1.90	0.71
1:CA:624:C:O2'	1:CA:625:G:H5'	1.90	0.71
27:BA:2023:G:H5'	27:BA:2617:C:H4'	1.72	0.71
48:DZ:107:PRO:C	48:DZ:109:GLY:H	1.92	0.71
48:DZ:117:GLN:HG2	48:DZ:118:GLU:N	2.05	0.71
13:CM:116:THR:O	13:CM:117:VAL:HB	1.90	0.71
1:CA:792:A:H4'	1:CA:793:U:O5'	1.90	0.71
27:BA:2685:G:H5'	37:BO:68:GLU:OE2	1.90	0.71
27:BA:2808:U:H5'	27:BA:2891:G:O6	1.88	0.71
34:BH:121:ILE:HD11	34:BH:140:LYS:O	1.91	0.71
27:BA:29:U:H2'	27:BA:30:G:C8	2.25	0.71
4:CD:9:CYS:HB2	4:CD:22:LYS:NZ	2.06	0.71
32:DF:125:LEU:HB3	32:DF:196:LEU:CD2	2.21	0.71
1:AA:1080:A:C5'	5:AE:14:ARG:HH21	1.92	0.71
27:DA:94:C:H5'	27:DA:94(A):G:OP2	1.91	0.71
27:DA:2350:C:H41	27:DA:2382:G:N2	1.88	0.71
46:DX:57:LEU:CD1	46:DX:78:LYS:HG2	2.19	0.71
34:BH:46:GLU:HG3	34:BH:51:ARG:HB2	1.73	0.71
2:AB:197:VAL:HB	2:AB:200:ILE:HG12	1.71	0.71
1:AA:532:A:H3'	1:AA:533:A:C5'	2.20	0.71
19:AS:15:LEU:O	19:AS:19:VAL:HG23	1.90	0.71
1:CA:235:C:H1'	17:CQ:61:GLU:OE1	1.90	0.71
14:CN:22:THR:OG1	14:CN:33:VAL:HG21	1.90	0.71
42:BT:102:ILE:HB	42:BT:110:ILE:HD11	1.72	0.71
48:DZ:128:SER:OG	48:DZ:130:ARG:HD3	1.89	0.71
27:DA:2303:G:H1'	33:DG:132:ASN:ND2	2.05	0.71
35:DI:88:ILE:HD11	35:DI:123:LEU:HG	1.72	0.71
27:BA:271(Q):G:H2'	27:BA:271(R):G:H8	1.55	0.71
5:CE:80:ILE:HD13	5:CE:138:ALA:HB1	1.71	0.71
12:CL:3:THR:HG22	12:CL:6:GLN:NE2	2.05	0.71
27:DA:2791:C:H4'	27:DA:2792:G:O5'	1.90	0.71
47:DY:45:VAL:HG13	47:DY:62:GLU:OE2	1.91	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:96:ILE:HD13	10:AJ:96:ILE:H	1.55	0.71
27:BA:747:U:C2	54:B5:2:ALA:N	2.58	0.71
23:CW:30:A:H2'	23:CW:31:U:C5'	2.21	0.71
27:BA:40:C:H2'	27:BA:41:C:H6	1.54	0.71
29:BC:75:LEU:HD21	29:BC:99:ILE:HD12	1.71	0.71
1:CA:1412:C:H2'	1:CA:1413:A:C8	2.25	0.71
27:DA:224:G:H2'	27:DA:225:A:O4'	1.90	0.71
43:BU:95:LEU:HD22	44:BV:4:ILE:CD1	2.21	0.71
27:DA:297:C:H2'	27:DA:298:G:O4'	1.90	0.71
38:DP:112:LEU:HD22	38:DP:113:LYS:N	2.04	0.71
27:DA:2550:G:H2'	27:DA:2551:C:H5'	1.72	0.71
1:CA:1036:G:H5'	1:CA:1037:C:OP2	1.90	0.71
1:CA:1258:G:H2'	1:CA:1259:C:C6	2.26	0.71
27:DA:288:C:N4	27:DA:353:G:H1	1.87	0.71
1:AA:736:C:H2'	1:AA:737:A:H8	1.55	0.71
35:DI:71:ILE:HG13	35:DI:72:LEU:N	2.04	0.71
1:AA:1286:A:H2'	1:AA:1287:A:H4'	1.72	0.71
45:DW:44:ALA:O	45:DW:47:VAL:N	2.22	0.71
27:DA:27:G:N2	27:DA:512:G:H2'	2.05	0.71
3:CC:11:ARG:HH11	3:CC:11:ARG:HG2	1.55	0.71
1:CA:921:U:O2	5:CE:19:MET:HB2	1.89	0.71
5:AE:100:VAL:HG23	5:AE:116:THR:O	1.91	0.71
5:AE:99:GLY:O	5:AE:117:ASP:HA	1.90	0.71
32:DF:143:ALA:O	32:DF:148:LEU:HB2	1.90	0.71
32:BF:175:THR:HG23	32:BF:175:THR:O	1.90	0.71
27:BA:347:A:H2'	27:BA:348:G:H8	1.54	0.71
13:CM:36:LYS:HZ3	13:CM:59:TYR:HE1	1.37	0.71
27:BA:1192:G:O2'	27:BA:1193:G:H5''	1.89	0.71
35:BI:68:LEU:HD23	35:BI:68:LEU:O	1.90	0.71
27:DA:975(A):G:H21	27:DA:976:C:H1'	1.54	0.71
45:BW:85:VAL:HG12	45:BW:86:LEU:N	2.06	0.71
27:BA:183:C:H1'	27:BA:433:C:H1'	1.71	0.71
27:DA:1515:G:C2'	27:DA:1516:C:H5'	2.21	0.71
35:DI:31:LEU:HB2	35:DI:32:PRO:HD3	1.73	0.71
40:BR:67:LEU:HD22	40:BR:76:VAL:HG21	1.71	0.71
27:BA:1963:U:H2'	27:BA:1963:U:O2	1.90	0.71
31:DE:29:GLY:HA2	31:DE:180:ASN:HB3	1.72	0.71
45:BW:64:MET:O	45:BW:65:LEU:HB2	1.90	0.71
3:CC:116:VAL:O	3:CC:119:ARG:HB3	1.90	0.71
27:BA:2832:U:H4'	27:BA:2833:G:C5'	2.19	0.71
27:BA:2787:C:H1'	31:BE:61:ARG:CG	2.13	0.71
27:BA:2808:U:O2'	27:BA:2809:A:H5'	1.89	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:CK:32:ILE:HD12	11:CK:72:ALA:CB	2.18	0.71
27:DA:2512:C:H4'	31:DE:122:PHE:CE2	2.25	0.71
10:AJ:49:VAL:CG2	14:AN:41:ARG:HD2	2.21	0.71
1:CA:372:C:H5'	1:CA:373:A:OP1	1.91	0.71
27:BA:1813:G:H4'	30:BD:44:ASN:O	1.90	0.71
33:DG:101:ILE:HD11	33:DG:105:LYS:NZ	2.05	0.71
27:BA:2756:U:OP2	58:B9:19:ARG:NH2	2.21	0.71
45:BW:90:ARG:HB2	45:BW:90:ARG:NH1	2.04	0.71
1:CA:128:G:O2'	1:CA:129:U:H5'	1.89	0.71
27:BA:2263:C:H2'	27:BA:2264:C:C6	2.20	0.71
27:DA:1639:U:O2'	27:DA:1640:C:H5''	1.89	0.71
31:DE:110:GLY:HA2	31:DE:162:ALA:H	1.54	0.71
33:DG:128:ARG:C	33:DG:130:ASN:H	1.94	0.71
33:DG:41:GLN:HE22	33:DG:153:ARG:HG2	1.55	0.71
52:D3:23:LEU:N	52:D3:23:LEU:HD12	2.04	0.71
34:BH:86:GLU:CB	34:BH:132:ARG:HH12	2.03	0.71
27:DA:2884:U:H2'	27:DA:2885:C:H5'	1.71	0.71
27:DA:2468:G:H22	27:DA:2481:G:H2'	1.56	0.71
27:BA:1051:G:O2'	27:BA:1052:C:H6	1.73	0.71
27:DA:482:A:H62	27:DA:506:G:H2'	1.56	0.71
27:BA:1722:A:N1	27:BA:1740:G:H8	1.88	0.71
29:DC:122:ALA:HB1	29:DC:129:ARG:CB	2.21	0.71
1:AA:1064:G:N2	1:AA:1190:G:H2'	2.06	0.71
49:D0:49:LYS:HB2	49:D0:80:HIS:HB3	1.71	0.71
6:CF:50:TYR:CE1	18:CR:77:GLY:HA2	2.24	0.71
51:D2:63:VAL:O	51:D2:66:GLU:HG2	1.91	0.71
1:CA:407:G:H2'	1:CA:408:A:H8	1.55	0.71
30:BD:158:ALA:HB3	30:BD:161:THR:CG2	2.21	0.71
27:BA:1570:A:H2'	27:BA:1571:A:C8	2.25	0.71
27:BA:1956:U:H2'	27:BA:1957:C:H5'	1.71	0.71
27:BA:858:U:H4'	27:BA:859:G:OP1	1.90	0.71
27:BA:863:A:H2'	27:BA:864:G:C8	2.25	0.71
27:DA:1292:U:H2'	27:DA:1293:C:O4'	1.90	0.71
27:BA:592:G:H1	27:BA:665:C:H42	1.36	0.71
31:BE:104:VAL:HG11	31:BE:188:VAL:HG23	1.71	0.71
27:DA:536:A:H2'	27:DA:537:C:C6	2.24	0.71
47:DY:75:ILE:HB	47:DY:80:GLY:H	1.54	0.71
55:D6:40:CYS:CB	55:D6:46:HIS:HB3	2.20	0.71
27:DA:2351:G:H2'	27:DA:2365:G:N2	2.05	0.71
27:DA:1260:G:H2'	27:DA:1261:C:C6	2.26	0.71
30:BD:60:ARG:NE	30:BD:86:PRO:HB2	2.05	0.71
30:BD:60:ARG:CD	30:BD:86:PRO:HB2	2.20	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:173:TRP:HA	4:CD:187:ARG:NH1	2.05	0.71
9:AI:122:ALA:HB1	9:AI:123:PRO:HD2	1.72	0.71
8:AH:32:LYS:O	8:AH:35:ILE:HB	1.90	0.71
19:AS:32:LYS:CA	19:AS:50:ALA:HB3	2.20	0.71
27:DA:2756:U:O2'	27:DA:2757:A:H5'	1.90	0.71
27:BA:686:G:N3	56:B7:11:LYS:HE3	2.05	0.71
27:BA:2073:C:O2'	27:BA:2074:U:H5'	1.89	0.71
38:DP:9:ASN:H	38:DP:10:PRO:CD	2.02	0.71
27:BA:2667:C:H1'	34:BH:109:PHE:CD2	2.25	0.71
42:BT:23:ARG:HG2	42:BT:120:ARG:HH12	1.56	0.71
57:B8:32:LEU:N	57:B8:33:ASN:HD22	1.89	0.71
27:BA:2346:A:C8	27:BA:2383:G:C5	2.79	0.71
27:DA:2308:G:O6	27:DA:2310:A:H5'	1.89	0.71
1:AA:262:A:H5'	20:AT:74:LYS:CG	2.20	0.71
48:BZ:101:LEU:HD11	48:BZ:123:ILE:HG22	1.72	0.71
37:DO:24:VAL:HA	37:DO:39:ILE:HG22	1.72	0.71
1:AA:664:G:H22	1:AA:741:G:H1	1.39	0.71
27:DA:1205:U:H4'	27:DA:1206:G:OP2	1.91	0.71
1:CA:707:C:H2'	1:CA:708:C:C6	2.25	0.71
1:CA:627:G:H2'	1:CA:628:G:C8	2.25	0.71
28:DB:111:G:H2'	28:DB:112:U:O4'	1.89	0.71
27:BA:225:A:H2'	27:BA:226:G:H5'	1.71	0.71
4:AD:100:ARG:NH1	4:AD:137:SER:HB3	2.06	0.71
6:AF:75:LEU:HD23	6:AF:75:LEU:C	2.10	0.71
46:DX:64:LYS:HZ3	46:DX:73:ARG:NH2	1.87	0.71
37:DO:2:ILE:HG21	37:DO:8:LEU:HD11	1.71	0.71
7:CG:72:ARG:O	7:CG:73:MET:HG3	1.90	0.71
47:DY:88:LYS:HD3	47:DY:93:GLY:H	1.56	0.71
19:CS:9:VAL:O	19:CS:11:VAL:N	2.24	0.71
1:AA:1132:C:O2'	1:AA:1133:G:H5'	1.90	0.71
1:CA:860:A:H2'	1:CA:861:G:O4'	1.90	0.71
27:DA:1848:A:C2	27:DA:1849:G:H1'	2.26	0.71
27:BA:662:G:OP1	38:BP:18:ARG:HD2	1.89	0.71
44:DV:47:VAL:HG12	44:DV:52:VAL:HB	1.71	0.71
47:DY:86:ARG:NH1	47:DY:95:LYS:HE3	2.05	0.71
31:DE:70:ALA:O	31:DE:72:VAL:N	2.24	0.71
39:DQ:16:ARG:O	39:DQ:17:LEU:HD23	1.89	0.71
55:B6:40:CYS:HA	55:B6:46:HIS:HB2	1.70	0.71
45:BW:5:ALA:C	45:BW:6:ILE:HG13	2.11	0.71
34:BH:43:VAL:CG1	34:BH:52:VAL:HA	2.21	0.71
14:AN:23:ARG:HD2	14:AN:28:GLY:O	1.90	0.71
42:DT:30:VAL:HA	42:DT:44:ASP:HA	1.70	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:743:U:H2'	1:CA:744:C:C6	2.24	0.71
20:CT:100:ILE:N	20:CT:100:ILE:HD12	2.06	0.71
1:CA:1206:G:H4'	3:CC:192:THR:O	1.90	0.71
55:B6:26:ASN:ND2	55:B6:51:GLU:OE1	2.24	0.71
37:DO:16:ALA:HB2	37:DO:52:VAL:CG1	2.20	0.71
27:DA:662:G:H2'	27:DA:663:G:H8	1.56	0.71
2:AB:178:ARG:NH2	8:AH:68:ARG:NH2	2.38	0.71
27:DA:1922:G:H2'	27:DA:1923:U:C6	2.26	0.71
1:CA:254:G:OP1	17:CQ:67:LYS:O	2.08	0.71
13:CM:50:GLU:O	13:CM:54:VAL:HG23	1.90	0.71
1:CA:59:A:C5'	1:CA:60:A:H5'	2.21	0.71
50:D1:86:SER:O	50:D1:90:ILE:HG13	1.91	0.71
39:BQ:108:GLY:HA3	48:BZ:115:VAL:HG11	1.71	0.71
27:BA:2178:C:H4'	29:BC:46:LYS:HD3	1.72	0.71
27:DA:2491:U:O2'	27:DA:2492:U:H5'	1.90	0.71
27:DA:1772:G:N2	27:DA:1774:C:H5''	2.05	0.71
38:BP:65:ARG:HH22	57:B8:15:LYS:HB2	1.53	0.71
40:BR:100:LEU:CD2	40:BR:113:LEU:HD13	2.13	0.71
2:CB:91:PRO:HG3	2:CB:154:LEU:CB	2.14	0.71
27:DA:1793:C:H2'	27:DA:1794:U:C6	2.25	0.71
31:BE:51:PHE:O	31:BE:74:PRO:HB2	1.89	0.71
32:DF:2:LYS:HG2	32:DF:25:PRO:HB2	1.73	0.71
27:DA:2576:G:H8	27:DA:2581:G:O6	1.74	0.71
27:DA:674:G:P	32:DF:54:ARG:HH22	2.13	0.71
31:DE:2:LYS:O	31:DE:199:ARG:HA	1.91	0.71
4:AD:12:CYS:SG	4:AD:19:LEU:O	2.49	0.71
2:AB:57:PHE:CD2	2:AB:185:ILE:HD11	2.26	0.71
27:DA:2745:C:H2'	27:DA:2746:U:C6	2.26	0.71
27:DA:1910:G:O2'	27:DA:1911:U:H5'	1.89	0.71
37:BO:71:ARG:HH12	42:BT:74:ARG:HH22	1.36	0.71
46:DX:65:ARG:HD3	46:DX:70:LEU:CD1	2.19	0.71
36:DN:15:LEU:HD22	36:DN:16:ILE:H	1.55	0.71
33:BG:45:GLU:OE1	33:BG:45:GLU:HA	1.89	0.71
1:CA:1028:C:H42	1:CA:1034:G:H21	1.36	0.71
34:BH:10:PRO:HG2	34:BH:49:VAL:HB	1.72	0.71
27:DA:2291:U:H2'	27:DA:2292:C:C6	2.26	0.71
34:DH:43:VAL:HG12	34:DH:53:GLU:HG2	1.70	0.71
27:DA:2807:G:H3'	27:DA:2808:U:H5''	1.72	0.71
1:CA:701:C:H1'	1:CA:703:G:C2	2.26	0.71
27:DA:107:C:H2'	27:DA:108:U:C6	2.24	0.71
1:AA:1043:C:H2'	1:AA:1044:A:C8	2.26	0.71
37:DO:2:ILE:CG2	37:DO:8:LEU:HD11	2.21	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2362:G:C2'	27:DA:2363:C:H5'	2.21	0.71
42:DT:92:GLY:O	42:DT:93:ARG:HB3	1.89	0.71
27:BA:2712:U:O2'	27:BA:2713:A:H5'	1.90	0.71
39:BQ:141:GLN:OXT	48:BZ:98:TYR:HB2	1.91	0.71
27:BA:1862:G:O2'	27:BA:1863:G:H5'	1.90	0.71
27:BA:2553:G:H3'	27:BA:2554:U:H5''	1.71	0.71
27:BA:2006:C:H5'	27:BA:2006:C:H6	1.56	0.71
48:DZ:149:LEU:HD23	48:DZ:170:ILE:CG1	2.16	0.71
47:BY:46:LYS:CB	47:BY:62:GLU:HG2	2.13	0.71
36:BN:4:TYR:HB2	43:BU:64:ARG:NH1	2.06	0.71
27:DA:422:A:H2'	27:DA:423:A:C8	2.26	0.71
39:DQ:16:ARG:HG2	39:DQ:17:LEU:N	2.02	0.71
27:DA:2579:C:O2'	31:DE:131:ALA:HB3	1.90	0.71
46:DX:56:THR:O	46:DX:57:LEU:HB3	1.90	0.71
38:DP:6:LEU:HG	38:DP:9:ASN:CG	2.10	0.71
27:BA:2305:A:H5''	33:BG:134:GLY:HA3	1.72	0.71
27:DA:2561:A:H4'	37:DO:40:VAL:HG11	1.73	0.71
1:CA:601:C:H2'	1:CA:602:A:C8	2.23	0.71
27:DA:479:A:H4'	27:DA:480:A:C5'	2.21	0.71
39:DQ:101:ARG:HD2	39:DQ:102:VAL:N	2.06	0.71
27:BA:380:U:H2'	27:BA:381:G:C8	2.26	0.71
27:BA:380:U:H2'	27:BA:381:G:H8	1.55	0.71
27:BA:2689:U:H5''	27:BA:2690:C:H5'	1.72	0.71
11:AK:31:THR:HA	11:AK:42:TRP:HA	1.72	0.71
27:DA:612:C:O2'	27:DA:613:G:H5'	1.91	0.71
1:CA:475:G:H2'	1:CA:476:G:H8	1.56	0.71
27:BA:319:C:O2'	27:BA:320:A:H5'	1.91	0.71
1:CA:422:C:H4'	1:CA:423:G:H5''	1.71	0.71
27:BA:2884:U:H3	54:B5:51:TYR:HE1	1.37	0.70
31:BE:8:LYS:HE3	31:BE:188:VAL:CG1	2.20	0.70
46:BX:30:VAL:CG2	46:BX:39:ILE:HD11	2.14	0.70
27:DA:271(D):G:H1	27:DA:271(T):C:H42	1.39	0.70
4:CD:33:MET:HE2	4:CD:37:PRO:HA	1.73	0.70
43:BU:90:VAL:HG12	43:BU:91:ASP:N	2.02	0.70
55:B6:18:ARG:HB2	55:B6:19:ARG:HD2	1.73	0.70
39:BQ:16:ARG:HG2	39:BQ:17:LEU:N	2.04	0.70
42:BT:23:ARG:O	42:BT:25:GLY:N	2.22	0.70
1:CA:1327:C:O2'	1:CA:1328:C:H5'	1.90	0.70
1:CA:1356:G:H1	1:CA:1366:C:N4	1.88	0.70
48:DZ:96:GLU:HB3	48:DZ:124:LEU:HD11	1.71	0.70
56:D7:5:TRP:CZ2	56:D7:7:PRO:HB3	2.26	0.70
5:AE:141:GLN:HA	5:AE:143:ARG:HH21	1.54	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AL:119:THR:HG22	12:AL:120:LYS:N	2.05	0.70
10:CJ:48:THR:HA	10:CJ:62:HIS:CB	2.21	0.70
27:DA:2683:C:H2'	27:DA:2684:U:H6	1.56	0.70
37:DO:63:VAL:HG23	37:DO:64:ARG:HG3	1.71	0.70
45:DW:83:LYS:HG2	45:DW:97:LYS:HD3	1.72	0.70
1:AA:628:G:O2'	1:AA:629:G:H5'	1.91	0.70
1:CA:320:C:H1'	1:CA:1434:A:H2	1.55	0.70
53:D4:46:ASN:ND2	53:D4:47:VAL:H	1.89	0.70
11:AK:109:VAL:HG12	11:AK:110:ASP:H	1.56	0.70
27:DA:1548:C:H2'	27:DA:1549:C:H6	1.55	0.70
9:CI:65:VAL:HG21	9:CI:73:GLN:HB3	1.73	0.70
27:BA:246:C:H41	57:B8:8:LYS:HG2	1.54	0.70
1:CA:961:U:HO2'	1:CA:962:C:H6	1.39	0.70
4:CD:9:CYS:SG	60:CD:301:ZN:ZN	1.79	0.70
5:AE:41:VAL:CG1	5:AE:113:ALA:HA	2.21	0.70
27:DA:616:G:H4'	32:DF:205:ARG:HD2	1.71	0.70
32:DF:1:MET:SD	32:DF:26:ALA:HA	2.31	0.70
27:DA:39:C:O2'	27:DA:40:C:H5'	1.90	0.70
42:DT:42:ILE:H	42:DT:42:ILE:CD1	1.92	0.70
49:D0:29:GLN:O	49:D0:67:VAL:HG23	1.90	0.70
38:DP:84:ASN:HA	38:DP:115:LEU:O	1.90	0.70
14:AN:26:ARG:CZ	14:AN:47:LEU:HD21	2.21	0.70
58:D9:17:ILE:HG22	58:D9:19:ARG:HG2	1.72	0.70
17:CQ:52:LYS:HG2	17:CQ:55:ASP:OD2	1.91	0.70
34:DH:12:PRO:O	34:DH:13:LYS:HB2	1.90	0.70
38:BP:144:GLU:N	38:BP:145:PRO:HD3	2.06	0.70
45:DW:4:LYS:HG2	45:DW:106:ILE:CG2	2.21	0.70
36:BN:13:TRP:O	36:BN:135:PRO:HD2	1.90	0.70
27:DA:851:U:H4'	52:D3:45:GLY:O	1.91	0.70
1:CA:54:C:N4	1:CA:352:C:H2'	2.06	0.70
27:DA:2562:U:H1'	37:DO:23:ARG:NH1	2.05	0.70
1:CA:637:G:H2'	1:CA:638:G:H8	1.54	0.70
5:CE:80:ILE:HD11	5:CE:91:LEU:HB2	1.73	0.70
27:DA:1287:A:N6	27:DA:1649:G:H1'	2.05	0.70
32:BF:160:ASN:HD21	32:BF:162:LEU:HB2	1.55	0.70
27:DA:226:G:O2'	27:DA:227:A:H8	1.74	0.70
20:AT:87:LYS:O	20:AT:91:LEU:HG	1.90	0.70
27:BA:911:A:H2'	39:BQ:9:TYR:OH	1.90	0.70
4:AD:70:ILE:HG23	4:AD:71:SER:O	1.90	0.70
2:CB:174:VAL:HG13	2:CB:184:VAL:HG21	1.73	0.70
27:BA:2239:G:H2'	27:BA:2240:C:C6	2.26	0.70
1:CA:1324:A:H4'	1:CA:1362:C:H4'	1.73	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BU:90:VAL:HG11	44:BV:40:LEU:HD23	1.71	0.70
1:AA:254:G:H1	1:AA:272:C:H42	1.37	0.70
27:DA:2086:U:H2'	27:DA:2087:G:H8	1.56	0.70
49:D0:17:GLN:O	49:D0:19:LYS:HD3	1.91	0.70
27:DA:1992:G:O2'	27:DA:1993:U:OP2	2.06	0.70
27:DA:90:U:H1'	27:DA:92:A:C8	2.26	0.70
41:DS:92:TYR:CG	41:DS:93:LYS:N	2.54	0.70
1:CA:718:G:H5'	11:CK:117:ASN:OD1	1.91	0.70
30:BD:108:PRO:HG3	30:BD:143:HIS:CE1	2.25	0.70
27:DA:2134:A:N6	27:DA:2157:G:H1'	2.06	0.70
29:DC:68:LEU:HB3	29:DC:70:LYS:HE2	1.74	0.70
58:B9:26:ILE:HD12	58:B9:26:ILE:N	2.06	0.70
8:AH:83:ILE:HB	8:AH:137:VAL:HG13	1.72	0.70
27:BA:2305:A:H61	33:BG:43:LEU:H	1.40	0.70
33:DG:36:LYS:HG2	33:DG:160:VAL:HG21	1.73	0.70
39:BQ:133:ARG:O	39:BQ:134:ARG:HB2	1.91	0.70
37:DO:86:ILE:H	37:DO:86:ILE:HD12	1.56	0.70
33:DG:115:ARG:HH12	33:DG:136:ARG:HH11	1.39	0.70
1:AA:820:U:H4'	1:AA:821:G:OP2	1.90	0.70
11:CK:21:ILE:HB	11:CK:84:VAL:HG12	1.71	0.70
27:BA:1722:A:O2'	27:BA:1739:U:H5''	1.90	0.70
1:CA:9:G:O2'	1:CA:10:A:H8	1.74	0.70
27:BA:1208:C:H5'	27:BA:1209:G:OP2	1.91	0.70
45:BW:38:TYR:OH	54:B5:47:PRO:HG3	1.91	0.70
1:AA:1248:A:H2'	1:AA:1249:C:H5'	1.73	0.70
47:BY:7:VAL:HB	47:BY:8:LYS:NZ	2.04	0.70
4:CD:9:CYS:HB2	4:CD:22:LYS:HZ3	1.55	0.70
27:DA:903:C:H2'	27:DA:904:C:C6	2.26	0.70
27:BA:1885:A:H2'	27:BA:1886:C:O4'	1.91	0.70
57:D8:14:VAL:HG21	57:D8:22:VAL:CG1	2.22	0.70
1:CA:186:C:O3'	20:CT:82:SER:HB2	1.91	0.70
47:BY:28:LYS:HB2	47:BY:37:VAL:HB	1.73	0.70
1:CA:276:G:O2'	1:CA:277:C:H5'	1.91	0.70
50:D1:52:ARG:CG	50:D1:53:VAL:H	2.02	0.70
1:CA:966:G:O2'	1:CA:967:C:C6	2.44	0.70
27:DA:373:U:H2'	27:DA:374:A:C8	2.19	0.70
10:AJ:5:ARG:HG3	10:AJ:73:ASP:OD1	1.91	0.70
10:AJ:4:ILE:O	10:AJ:74:ILE:HG12	1.90	0.70
42:BT:51:ARG:CG	42:BT:98:LYS:HG3	2.22	0.70
29:DC:188:ASN:O	29:DC:191:ALA:HB3	1.90	0.70
35:BI:91:SER:O	35:BI:92:VAL:HB	1.91	0.70
27:BA:2562:U:C2'	27:BA:2563:U:H5'	2.22	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AE:78:HIS:HE1	5:AE:142:LEU:HA	1.55	0.70
31:DE:13:ARG:HB2	31:DE:21:VAL:O	1.91	0.70
7:CG:145:ALA:O	7:CG:146:GLU:HB2	1.91	0.70
27:BA:143:G:H5'	27:BA:1598:C:O2'	1.91	0.70
2:CB:11:LEU:CD1	2:CB:217:ARG:HH21	2.04	0.70
27:BA:225:A:C2'	27:BA:226:G:H5'	2.21	0.70
38:DP:90:ARG:HB3	38:DP:91:PHE:CD1	2.26	0.70
4:AD:172:PRO:HG2	4:AD:193:ASP:OD1	1.90	0.70
11:CK:103:LEU:HD13	11:CK:104:GLN:H	1.56	0.70
38:BP:92:GLU:HA	38:BP:123:LEU:HD23	1.71	0.70
27:DA:1356:G:H2'	27:DA:1357:U:H6	1.56	0.70
27:DA:811:U:OP2	38:DP:24:GLY:HA2	1.92	0.70
5:AE:40:ARG:HB3	5:AE:66:MET:CE	2.21	0.70
1:CA:1010:G:H2'	1:CA:1011:G:C8	2.26	0.70
44:BV:1:MET:HE3	44:BV:43:GLU:HG2	1.73	0.70
27:DA:2146:C:H5'	27:DA:2147:G:C4	2.27	0.70
1:CA:977:A:N3	1:CA:977:A:H2'	2.05	0.70
5:AE:33:VAL:HG12	5:AE:112:LEU:HD12	1.74	0.70
44:BV:22:VAL:HG21	44:BV:94:LEU:HD11	1.73	0.70
44:DV:38:LEU:HD12	44:DV:56:SER:N	2.06	0.70
30:DD:69:ARG:NH1	30:DD:130:ALA:HB2	2.07	0.70
11:CK:29:ILE:HD12	11:CK:43:SER:O	1.92	0.70
27:DA:2569:G:O2'	27:DA:2570:G:H5'	1.92	0.70
39:BQ:115:MET:HE2	39:BQ:131:ILE:HG21	1.74	0.70
12:CL:15:VAL:HG23	12:CL:16:ARG:N	2.03	0.70
1:CA:232:G:H2'	1:CA:233:C:H6	1.57	0.70
27:DA:2875:C:H4'	42:DT:5:ALA:CB	2.21	0.70
12:AL:80:VAL:HG11	12:AL:104:ALA:HB3	1.74	0.70
31:DE:111:ARG:HD2	31:DE:160:TYR:CD1	2.26	0.70
3:AC:87:LEU:O	3:AC:91:LEU:HG	1.91	0.70
4:AD:54:TYR:CE1	4:AD:209:ARG:HD2	2.26	0.70
38:BP:122:PRO:HB3	38:BP:141:ALA:CB	2.20	0.70
1:AA:52:G:HO2'	1:AA:53:A:H8	1.35	0.70
27:BA:2629:A:N3	27:BA:2629:A:H2'	2.05	0.70
31:BE:105:THR:HG21	31:BE:164:ARG:NH1	2.04	0.70
34:BH:29:PRO:O	34:BH:30:LYS:HE3	1.90	0.70
34:BH:22:GLY:O	34:BH:36:PRO:HA	1.91	0.70
3:CC:123:GLN:O	3:CC:128:PHE:HB2	1.91	0.70
1:AA:257:G:H2'	1:AA:258:G:C8	2.26	0.70
32:DF:25:PRO:CG	32:DF:119:ARG:HB2	2.21	0.70
51:D2:18:PRO:HG2	51:D2:19:VAL:H	1.55	0.70
27:DA:630:G:H1	27:DA:634:C:H42	1.38	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2299:G:N1	27:BA:2318:G:C8	2.60	0.70
27:BA:2466:C:O2'	27:BA:2467:C:H5'	1.90	0.70
17:CQ:78:GLU:OE1	17:CQ:81:ARG:HD2	1.92	0.70
2:CB:187:LEU:HB2	2:CB:201:ILE:HB	1.74	0.70
27:BA:1879:C:C2'	27:BA:1880:C:H5''	2.21	0.70
27:BA:965:C:H2'	27:BA:966:G:H8	1.57	0.70
36:DN:46:VAL:O	36:DN:47:ALA:HB3	1.91	0.70
42:DT:13:ARG:CZ	42:DT:13:ARG:HA	2.21	0.70
12:CL:107:VAL:CG1	12:CL:110:ARG:HB2	2.22	0.70
38:BP:105:LEU:N	38:BP:105:LEU:HD23	2.07	0.70
35:BI:83:ALA:HB2	35:BI:88:ILE:HG23	1.73	0.70
7:CG:87:VAL:HG11	7:CG:154:TYR:O	1.91	0.70
1:AA:486:U:H6	1:AA:486:U:H5'	1.56	0.70
13:CM:3:ARG:HG2	13:CM:9:ILE:HG12	1.70	0.70
31:DE:16:ARG:O	31:DE:17:ASP:HB2	1.91	0.70
27:DA:2100:G:H1	27:DA:2189:U:H3	1.38	0.70
27:BA:105:C:O2	27:BA:105:C:H2'	1.90	0.70
27:BA:81:G:H1	27:BA:105:C:H42	1.37	0.70
27:DA:1233:C:H2'	27:DA:1234:U:H6	1.56	0.70
37:BO:11:ALA:O	37:BO:98:VAL:HA	1.91	0.70
27:BA:45:C:OP2	27:BA:215:G:H5''	1.91	0.70
1:AA:1118:C:H2'	1:AA:1119:C:C6	2.26	0.70
27:DA:1162:G:O2'	27:DA:1163:G:H5'	1.92	0.70
27:DA:1799:G:H5'	27:DA:1819:A:N6	2.06	0.70
27:BA:466:A:N3	27:BA:683:C:H1'	2.06	0.70
17:AQ:8:GLY:HA3	17:AQ:22:LEU:O	1.92	0.70
48:DZ:9:ARG:H	48:DZ:36:VAL:HA	1.56	0.70
38:DP:136:GLU:O	38:DP:139:LYS:N	2.25	0.70
27:BA:2732:G:H3'	27:BA:2733:A:C5'	2.21	0.70
44:BV:87:HIS:NE2	44:BV:89:GLN:HG2	2.05	0.70
27:DA:2590:A:O2'	27:DA:2591:C:H5'	1.92	0.70
44:BV:99:ILE:O	44:BV:99:ILE:HG12	1.90	0.70
32:DF:7:TYR:O	32:DF:8:GLN:HB2	1.90	0.70
30:DD:26:LYS:HZ1	30:DD:82:ILE:H	1.39	0.70
15:AO:78:TYR:O	15:AO:82:ILE:HG22	1.92	0.70
31:DE:9:VAL:HG13	31:DE:25:VAL:HB	1.74	0.70
27:BA:1481:U:O2	27:BA:1481:U:H2'	1.91	0.70
6:AF:9:VAL:HG12	6:AF:86:ARG:HB2	1.72	0.70
1:CA:532:A:H62	3:CC:156:ARG:HH12	1.38	0.70
27:DA:2158:A:H4'	27:DA:2159:G:O5'	1.90	0.70
57:B8:29:LYS:HD3	57:B8:44:LYS:HG2	1.71	0.70
36:BN:115:ARG:O	36:BN:118:LYS:HB2	1.91	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DO:53:LYS:N	37:DO:53:LYS:HD2	2.06	0.70
27:DA:1681:G:C8	27:DA:1681:G:OP2	2.42	0.70
27:DA:2304:G:H5''	27:DA:2305:A:OP2	1.92	0.70
1:AA:579:G:H5'	1:AA:728:A:H1'	1.71	0.70
27:DA:2466:C:C2'	27:DA:2467:C:H5'	2.21	0.70
28:BB:7:G:H21	41:BS:38:GLN:HE22	1.40	0.70
38:BP:6:LEU:H	38:BP:6:LEU:HD23	1.56	0.70
37:BO:110:GLY:HA2	37:BO:112:MET:CE	2.20	0.70
1:AA:592:G:C2	1:AA:648:A:C2	2.79	0.70
28:BB:87:G:C3'	28:BB:88:C:H5''	2.22	0.70
27:DA:706:A:OP1	30:DD:7:LYS:HE3	1.91	0.70
1:AA:807:A:O2'	1:AA:808:C:H5'	1.91	0.70
27:DA:2523:G:H5'	27:DA:2523:G:H8	1.57	0.70
41:BS:17:ARG:HA	41:BS:20:ARG:HH11	1.55	0.70
27:DA:1952:A:C2	37:DO:22:ILE:HG23	2.27	0.70
27:DA:2019:A:H61	27:DA:2035:G:H1	1.40	0.70
27:DA:2052:G:N2	27:DA:2618:G:H1'	2.07	0.70
32:DF:89:VAL:HG12	32:DF:90:PHE:H	1.57	0.70
1:AA:1206:G:H2'	1:AA:1207:G:H5'	1.73	0.70
1:CA:1494:G:O6	26:CZ:1:KBE:HAA	1.91	0.70
27:BA:2071:A:C2	27:BA:2441:C:N3	2.57	0.70
31:BE:36:ARG:HH22	31:BE:88:GLY:HA3	1.55	0.70
33:DG:2:PRO:HD2	53:D4:51:TYR:CE2	2.26	0.70
14:CN:26:ARG:NH2	14:CN:47:LEU:HD21	2.07	0.70
10:AJ:6:ILE:HA	10:AJ:97:GLU:O	1.91	0.70
58:B9:29:ASN:HD21	58:B9:32:HIS:CE1	2.09	0.70
34:DH:147:ASN:O	34:DH:150:ALA:HB3	1.92	0.70
27:BA:1591:G:H2'	27:BA:1592:C:H6	1.57	0.70
37:BO:103:ALA:C	37:BO:105:GLU:H	1.94	0.70
27:BA:1400:G:H2'	27:BA:1401:G:C8	2.25	0.70
1:CA:256:U:H2'	1:CA:257:G:C8	2.26	0.70
40:BR:37:THR:OG1	40:BR:39:PRO:HD2	1.92	0.70
42:BT:127:ALA:C	42:BT:129:ARG:H	1.95	0.70
27:BA:1669:A:H2'	27:BA:1670:C:H5'	1.72	0.70
27:BA:327:G:H2'	27:BA:328:U:C6	2.27	0.70
27:BA:838:C:H2'	27:BA:839:U:H6	1.56	0.70
32:BF:65:TRP:CH2	32:BF:75:HIS:HD2	2.08	0.70
1:CA:457:C:H2'	1:CA:458:C:H6	1.57	0.70
42:BT:31:SER:OG	42:BT:32:TYR:N	2.25	0.70
27:DA:2832:U:H4'	27:DA:2833:G:H5''	1.71	0.70
27:BA:335:C:H2'	27:BA:336:C:H6	1.56	0.70
27:DA:754:C:H2'	27:DA:755:C:H6	1.52	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:973:G:H3'	1:AA:974:A:H5''	1.73	0.70
17:CQ:21:VAL:O	17:CQ:41:LYS:HA	1.92	0.70
2:CB:200:ILE:HG22	2:CB:202:PRO:HD3	1.74	0.70
3:CC:153:VAL:HG12	3:CC:196:LEU:CD1	2.21	0.70
27:BA:2875:C:C4'	42:BT:5:ALA:HB2	2.21	0.70
40:DR:10:LEU:CD2	40:DR:17:ARG:HD2	2.21	0.70
1:CA:686:U:H3	1:CA:703:G:H21	1.39	0.70
1:AA:509:A:H5'	4:AD:54:TYR:CD2	2.27	0.70
27:BA:158:U:H2'	27:BA:158:U:O2	1.92	0.70
1:CA:913:A:H4'	1:CA:914:A:O5'	1.90	0.70
46:DX:66:LEU:O	46:DX:66:LEU:HD23	1.91	0.70
37:DO:119:PRO:HB2	42:DT:68:TYR:CE1	2.26	0.70
1:AA:6:G:H4'	1:AA:298:A:H4'	1.74	0.70
27:BA:2029:G:H2'	27:BA:2031:A:OP1	1.92	0.70
27:BA:598:G:H5'	38:BP:15:ARG:HG3	1.73	0.70
30:BD:112:GLN:HB2	30:BD:115:GLN:HE21	1.57	0.70
7:CG:40:ALA:HB1	9:CI:41:VAL:HG11	1.74	0.70
27:BA:1718:G:H8	27:BA:1718:G:H5'	1.56	0.70
31:BE:119:ARG:HD2	31:BE:120:TRP:NE1	2.07	0.70
38:DP:59:LEU:CA	38:DP:61:ARG:CZ	2.68	0.70
1:CA:1106:G:H2'	1:CA:1107:C:H6	1.57	0.70
30:BD:35:LYS:HA	30:BD:64:ILE:HG22	1.74	0.70
1:CA:1406:U:H2'	1:CA:1407:C:H6	1.56	0.70
27:BA:2580:U:H5'	31:BE:131:ALA:HB3	1.74	0.70
48:DZ:128:SER:HB3	48:DZ:131:ASN:ND2	2.07	0.70
27:DA:2223:G:C2'	27:DA:2224:G:H5'	2.22	0.70
27:DA:1602:U:H3'	27:DA:1603:A:C5'	2.21	0.70
48:BZ:150:HIS:HB3	48:BZ:169:THR:HA	1.72	0.70
41:DS:78:LEU:HD11	41:DS:103:GLU:HB3	1.72	0.70
42:BT:92:GLY:HA2	42:BT:114:LEU:HD22	1.74	0.70
27:DA:597:U:H2'	27:DA:598:G:C8	2.27	0.70
27:BA:1414:G:H1	27:BA:1588:C:N4	1.87	0.70
43:BU:25:TRP:CD1	43:BU:26:GLY:N	2.60	0.70
1:AA:960:U:O2'	1:AA:1223:C:H5'	1.91	0.70
27:DA:286:C:H2'	27:DA:286:C:O2	1.91	0.70
13:CM:90:LEU:HA	13:CM:93:ARG:HB2	1.74	0.70
1:AA:1096:C:H2'	1:AA:1097:C:H6	1.55	0.70
39:BQ:38:GLU:OE2	39:BQ:128:LYS:HG2	1.91	0.70
27:BA:2758:A:H2'	27:BA:2759:G:H5'	1.74	0.70
15:AO:9:GLN:HA	15:AO:12:ILE:HD12	1.73	0.70
3:AC:14:ILE:CD1	3:AC:178:LEU:HB3	2.22	0.70
31:BE:108:SER:O	31:BE:162:ALA:HA	1.92	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:978:A:O2'	1:CA:1322:C:N3	2.24	0.69
1:AA:472:A:C2	1:AA:473:G:H1'	2.26	0.69
27:DA:2453:A:H4'	27:DA:2572:A:O2'	1.91	0.69
27:DA:1187:G:H5''	44:DV:81:TYR:CE2	2.27	0.69
27:BA:1141:U:OP1	36:BN:25:ARG:NH1	2.25	0.69
1:CA:1104:G:O2'	1:CA:1105:A:H5'	1.92	0.69
1:AA:453:A:H2'	1:AA:454:C:C6	2.27	0.69
39:DQ:27:VAL:CG1	39:DQ:29:PHE:H	2.04	0.69
27:DA:1625:C:H2'	27:DA:1626:G:H5'	1.72	0.69
27:DA:1639:U:H2'	27:DA:1640:C:H5''	1.73	0.69
27:DA:2821:A:H2'	27:DA:2822:G:C8	2.27	0.69
1:AA:35:G:O2'	1:AA:36:C:H5'	1.91	0.69
27:BA:1579:A:H2'	27:BA:1580:A:C8	2.27	0.69
19:AS:63:THR:HG22	19:AS:66:MET:HE3	1.73	0.69
28:BB:7:G:C3'	28:BB:8:U:H5''	2.22	0.69
27:DA:414:C:H1'	27:DA:1864:U:O2'	1.92	0.69
10:CJ:40:LEU:HD23	10:CJ:40:LEU:H	1.57	0.69
1:AA:197:A:H4'	1:AA:198:G:OP1	1.92	0.69
4:AD:114:ARG:O	4:AD:118:ARG:HB2	1.92	0.69
27:BA:703:U:O2'	27:BA:704:G:H5'	1.91	0.69
27:BA:1193:G:H8	27:BA:1193:G:H5'	1.57	0.69
27:BA:469:G:C2'	27:BA:470:A:H5''	2.21	0.69
27:BA:436:C:H2'	27:BA:437:G:H8	1.57	0.69
1:CA:71:C:O2'	1:CA:72:C:H5'	1.92	0.69
27:DA:1887:C:C3'	27:DA:1888:G:H5''	2.22	0.69
1:AA:1236:A:H2'	1:AA:1237:C:C6	2.27	0.69
39:DQ:51:ARG:HB3	39:DQ:51:ARG:HH11	1.55	0.69
24:CX:32:C:H2'	24:CX:33:U:O4'	1.91	0.69
27:DA:1127:A:H2'	27:DA:1128:A:H5''	1.73	0.69
1:CA:979:C:H3'	1:CA:980:C:C5'	2.19	0.69
1:CA:973:G:H1'	10:CJ:55:LYS:HE2	1.72	0.69
27:DA:271(R):G:H2'	27:DA:271(S):G:C8	2.26	0.69
27:DA:1825:A:H2'	27:DA:1826:G:H8	1.57	0.69
44:DV:49:THR:HG22	44:DV:50:PRO:HD2	1.74	0.69
41:DS:85:VAL:H	41:DS:106:ARG:CB	1.99	0.69
46:DX:57:LEU:HD11	46:DX:78:LYS:HD3	1.74	0.69
34:BH:19:VAL:HB	34:BH:44:VAL:HG13	1.73	0.69
27:BA:1495:A:H2'	27:BA:1496:A:C2	2.26	0.69
47:BY:28:LYS:O	47:BY:38:ILE:HB	1.91	0.69
46:BX:64:LYS:HZ2	46:BX:73:ARG:HH21	1.37	0.69
5:AE:57:LYS:HG2	5:AE:61:TYR:HE2	1.57	0.69
32:DF:34:TRP:CE2	38:DP:12:ALA:HB2	2.26	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DN:57:ALA:CB	36:DN:124:ALA:HA	2.21	0.69
1:AA:1163:C:H2'	1:AA:1164:G:C8	2.26	0.69
33:DG:133:LEU:HD11	33:DG:157:ILE:HD11	1.74	0.69
53:B4:60:GLU:O	53:B4:61:VAL:HB	1.92	0.69
1:CA:880:C:O2'	1:CA:881:G:H5'	1.92	0.69
27:DA:2482:G:H2'	27:DA:2483:C:H6	1.55	0.69
27:BA:17:G:H4'	43:BU:25:TRP:CZ2	2.26	0.69
32:BF:160:ASN:ND2	32:BF:162:LEU:H	1.90	0.69
34:DH:117:PRO:HB3	34:DH:123:PHE:CE1	2.27	0.69
10:CJ:40:LEU:CG	10:CJ:69:ASN:HB3	2.21	0.69
32:BF:164:ARG:CZ	32:BF:164:ARG:HB2	2.19	0.69
54:B5:2:ALA:O	54:B5:3:LYS:HD2	1.91	0.69
36:BN:58:ASP:O	36:BN:59:LYS:HB2	1.92	0.69
30:DD:267:SER:O	30:DD:268:ARG:HB2	1.91	0.69
4:CD:131:ARG:H	4:CD:131:ARG:HD3	1.57	0.69
1:CA:731:G:O2'	1:CA:732:C:H5'	1.91	0.69
35:BI:4:ILE:HD13	35:BI:47:LEU:HD13	1.74	0.69
11:CK:22:HIS:HB3	11:CK:29:ILE:CG2	2.20	0.69
55:B6:36:LEU:HB3	55:B6:50:ARG:NH1	2.06	0.69
14:AN:6:LEU:HD13	14:AN:23:ARG:NH2	2.07	0.69
16:CP:42:ARG:HB2	16:CP:44:THR:HG23	1.72	0.69
36:DN:133:GLN:CG	36:DN:135:PRO:HD3	2.21	0.69
32:BF:176:LEU:HD12	32:BF:177:ALA:H	1.58	0.69
4:AD:128:VAL:C	4:AD:130:GLY:H	1.96	0.69
27:DA:479:A:H4'	27:DA:480:A:H5'	1.73	0.69
33:BG:15:VAL:HG21	33:BG:176:LEU:HG	1.74	0.69
33:BG:28:VAL:O	33:BG:31:VAL:HG12	1.92	0.69
43:BU:34:LYS:HA	43:BU:34:LYS:HE2	1.73	0.69
36:DN:86:PRO:HG2	36:DN:89:LYS:CG	2.22	0.69
27:BA:2016:U:H2'	27:BA:2017:U:H6	1.56	0.69
27:BA:517:C:O2'	27:BA:518:G:H5'	1.92	0.69
23:AW:23:G:H8	23:AW:23:G:H5'	1.57	0.69
20:AT:89:ARG:NH2	20:AT:104:LEU:HD11	2.07	0.69
1:CA:1275:A:H2'	1:CA:1276:G:C8	2.27	0.69
27:BA:1754:C:H6	42:BT:96:ARG:NH1	1.89	0.69
1:CA:642:A:C5	8:CH:115:SER:HA	2.27	0.69
33:DG:146:TYR:O	33:DG:149:VAL:HG22	1.92	0.69
1:CA:470:C:H5''	1:CA:471:G:OP2	1.92	0.69
1:AA:264:U:H4'	17:AQ:63:ARG:HD3	1.75	0.69
17:AQ:10:VAL:HA	17:AQ:20:THR:O	1.93	0.69
32:DF:3:GLU:HB2	32:DF:19:GLU:HB2	1.74	0.69
44:DV:41:GLY:H	44:DV:45:THR:HB	1.56	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DS:87:PHE:HB2	41:DS:106:ARG:NH1	2.07	0.69
9:AI:48:GLU:C	9:AI:50:LEU:H	1.96	0.69
9:AI:83:ARG:O	9:AI:86:VAL:HG12	1.92	0.69
3:CC:182:ILE:HG12	3:CC:203:PHE:HA	1.72	0.69
58:B9:2:LYS:O	58:B9:2:LYS:HD3	1.91	0.69
1:AA:657:G:O2'	1:AA:658:G:H5'	1.92	0.69
38:BP:107:LYS:C	38:BP:109:GLY:H	1.96	0.69
35:BI:111:PRO:CA	35:BI:114:LEU:HD21	2.22	0.69
42:DT:49:VAL:C	42:DT:50:ILE:HD12	2.13	0.69
1:CA:603:U:H2'	1:CA:604:G:C8	2.25	0.69
30:BD:267:SER:C	30:BD:269:PHE:H	1.92	0.69
2:CB:213:LEU:O	2:CB:217:ARG:HG2	1.93	0.69
30:BD:112:GLN:H	30:BD:115:GLN:NE2	1.91	0.69
2:AB:32:ILE:HG12	2:AB:33:TYR:H	1.58	0.69
48:BZ:60:LEU:HB2	48:BZ:64:GLN:HB2	1.74	0.69
18:AR:73:ALA:HB3	18:AR:79:LEU:HD12	1.75	0.69
3:AC:193:TYR:CD2	3:AC:193:TYR:N	2.59	0.69
35:DI:40:THR:O	35:DI:44:LEU:HB2	1.92	0.69
32:BF:39:TRP:O	32:BF:43:LYS:HG2	1.92	0.69
38:BP:57:THR:OG1	38:BP:59:LEU:HB3	1.93	0.69
10:CJ:50:ILE:HD13	10:CJ:50:ILE:H	1.57	0.69
27:DA:2351:G:O6	57:D8:39:LYS:HG3	1.92	0.69
30:BD:61:LEU:HB3	30:BD:63:ARG:NH1	2.07	0.69
41:DS:28:VAL:O	41:DS:89:ARG:HG2	1.91	0.69
1:AA:104:G:O2'	1:AA:105:G:H5'	1.93	0.69
27:BA:1273:U:H5''	27:BA:1273:U:C6	2.19	0.69
27:DA:2173:A:H2'	27:DA:2174:C:C6	2.27	0.69
27:DA:852:G:H2'	27:DA:853:G:H8	1.56	0.69
27:DA:2683:C:H2'	27:DA:2684:U:C6	2.28	0.69
27:BA:271(P):C:H2'	27:BA:271(Q):G:O4'	1.91	0.69
27:DA:495:G:H1'	45:DW:57:ASN:HD21	1.58	0.69
33:BG:172:LEU:O	33:BG:176:LEU:HD12	1.92	0.69
2:CB:16:HIS:HB3	2:CB:210:SER:CB	2.21	0.69
1:AA:1112:C:H42	3:AC:177:THR:HA	1.56	0.69
27:BA:527:C:C5	27:BA:2779:U:H2'	2.28	0.69
13:CM:91:ARG:HB2	13:CM:98:VAL:HG13	1.74	0.69
40:BR:10:LEU:HB3	40:BR:17:ARG:CZ	2.23	0.69
27:BA:2118:U:O2'	27:BA:2119:A:H5''	1.93	0.69
13:CM:31:LYS:HA	13:CM:34:LEU:HG	1.74	0.69
13:CM:47:ASP:O	13:CM:48:LEU:HB3	1.91	0.69
27:BA:1710:C:H4'	27:BA:2858:C:O2	1.93	0.69
27:BA:1956:U:C2'	27:BA:1957:C:H5'	2.21	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:25:C:O2'	1:CA:26:A:H5'	1.92	0.69
1:CA:31:G:H5'	1:CA:306:G:N2	2.07	0.69
1:CA:929:G:H1	1:CA:1388:C:H42	1.36	0.69
29:BC:100:ILE:HG22	29:BC:101:GLN:HG3	1.72	0.69
50:D1:30:VAL:O	50:D1:31:GLY:O	2.10	0.69
17:AQ:27:PHE:HD1	17:AQ:28:PRO:O	1.76	0.69
27:BA:2817:G:H5''	27:BA:2818:G:OP2	1.93	0.69
5:AE:33:VAL:HG21	5:AE:109:ILE:HG12	1.74	0.69
36:BN:4:TYR:CB	43:BU:64:ARG:NH2	2.54	0.69
44:BV:47:VAL:HB	44:BV:50:PRO:O	1.91	0.69
5:AE:12:LEU:HD11	5:AE:14:ARG:HB3	1.74	0.69
32:DF:65:TRP:HE3	32:DF:65:TRP:O	1.75	0.69
1:AA:193:C:O2'	1:AA:194:C:H5'	1.92	0.69
20:AT:80:ARG:O	20:AT:84:LEU:HB2	1.93	0.69
13:CM:14:ARG:O	13:CM:17:VAL:HG23	1.93	0.69
7:AG:49:ILE:HA	7:AG:52:GLU:HB2	1.75	0.69
8:CH:60:ARG:HG3	8:CH:60:ARG:NH1	1.99	0.69
16:AP:82:GLN:H	16:AP:82:GLN:CD	1.96	0.69
49:D0:40:GLN:NE2	49:D0:43:THR:HA	2.07	0.69
27:BA:1406:U:H2'	27:BA:1407:C:C6	2.27	0.69
3:AC:53:ALA:O	3:AC:54:ARG:HB2	1.91	0.69
27:DA:1695:G:H2'	27:DA:1695:G:N3	2.07	0.69
30:BD:11:PRO:O	30:BD:13:ARG:N	2.25	0.69
42:DT:108:ARG:HA	42:DT:111:ARG:NH1	2.07	0.69
27:DA:2009:G:H1'	40:DR:107:ASP:O	1.93	0.69
47:BY:68:HIS:HB3	47:BY:71:LYS:HG3	1.73	0.69
3:AC:180:ALA:HB1	3:AC:203:PHE:HE1	1.57	0.69
1:AA:595:G:N1	1:AA:641:U:H2'	2.08	0.69
1:AA:992:U:H1'	1:AA:993:G:C2	2.28	0.69
1:AA:57:G:H2'	1:AA:58:C:H6	1.56	0.69
1:CA:1120:G:H2'	1:CA:1121:U:C6	2.28	0.69
6:AF:19:LEU:HD23	6:AF:19:LEU:O	1.93	0.69
50:B1:67:ILE:N	50:B1:68:PRO:HD2	2.07	0.69
41:BS:14:VAL:HG12	41:BS:15:ARG:N	2.06	0.69
27:DA:244:A:H2'	27:DA:245:G:O4'	1.92	0.69
13:CM:25:ILE:HD11	13:CM:66:LEU:CD2	2.15	0.69
27:BA:484:C:H2'	27:BA:485:C:H6	1.57	0.69
31:BE:60:ASN:CG	31:BE:62:PRO:HD2	2.13	0.69
27:DA:1431:U:O2'	27:DA:1432:C:H5'	1.91	0.69
55:D6:19:ARG:HG2	55:D6:20:ASN:N	2.07	0.69
36:DN:112:LEU:HD12	36:DN:115:ARG:HB3	1.75	0.69
27:BA:2318:G:O2'	27:BA:2319:G:OP1	2.06	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DF:64:ILE:HG23	32:DF:65:TRP:H	1.57	0.69
39:BQ:109:VAL:CG1	39:BQ:113:GLN:HB3	2.23	0.69
27:BA:2609:U:OP1	27:BA:2609:U:H4'	1.92	0.69
1:AA:748:C:H4'	1:AA:749:C:O5'	1.92	0.69
37:BO:22:ILE:HG12	37:BO:41:ALA:CA	2.21	0.69
37:BO:78:ARG:HB2	37:BO:78:ARG:NH1	2.06	0.69
27:BA:1438:U:O2'	27:BA:1439:A:H5'	1.93	0.69
21:CU:21:TYR:O	21:CU:22:ARG:HB2	1.92	0.69
27:DA:2137:C:H2'	27:DA:2138:C:C6	2.27	0.69
41:DS:74:ALA:HB1	41:DS:103:GLU:CB	2.20	0.69
15:AO:37:ASN:N	15:AO:37:ASN:ND2	2.40	0.69
36:BN:15:LEU:HD12	36:BN:136:GLU:CG	2.22	0.69
8:AH:2:LEU:HD13	8:AH:4:ASP:H	1.57	0.69
34:DH:107:VAL:CG2	34:DH:152:ARG:HG2	2.22	0.69
6:CF:10:LEU:HD12	6:CF:10:LEU:N	2.08	0.69
27:DA:2884:U:OP2	54:D5:43:HIS:HE1	1.75	0.69
3:AC:91:LEU:HD11	3:AC:101:LEU:HD12	1.74	0.69
27:DA:267:C:H2'	27:DA:268:C:H6	1.56	0.69
27:DA:2807:G:C3'	27:DA:2808:U:H5''	2.21	0.69
27:DA:481:G:H1'	27:DA:506:G:H21	1.58	0.69
37:BO:13:ASN:ND2	37:BO:96:THR:H	1.91	0.69
3:AC:150:LYS:HE2	3:AC:152:ILE:HD11	1.75	0.69
4:CD:28:SER:O	4:CD:30:LYS:N	2.26	0.69
27:BA:862:G:H2'	27:BA:863:A:O4'	1.93	0.69
30:DD:261:LYS:NZ	30:DD:263:ARG:NH1	2.41	0.69
13:CM:76:ALA:HA	13:CM:79:LYS:HG3	1.75	0.69
1:CA:134:A:H61	16:CP:25:ARG:HH12	1.40	0.69
27:BA:330:A:HO2'	27:BA:331:A:H8	1.38	0.69
29:DC:58:VAL:HG21	29:DC:166:ASP:H	1.58	0.69
27:DA:126:A:OP2	56:D7:19:ARG:HB2	1.93	0.69
27:BA:699:A:H2'	27:BA:700:G:O4'	1.92	0.69
27:BA:1256:G:O2'	32:BF:82:ILE:HD11	1.91	0.69
32:BF:126:VAL:HG21	32:BF:129:PHE:CZ	2.28	0.69
32:BF:3:GLU:HA	32:BF:24:LEU:CG	2.22	0.69
37:BO:14:THR:CG2	37:BO:86:ILE:HD12	2.13	0.69
13:CM:70:LEU:HD23	13:CM:71:ARG:N	2.06	0.69
32:BF:63:LYS:NZ	32:BF:67:GLN:HB2	2.07	0.69
42:BT:91:ARG:HB3	42:BT:116:ALA:CA	2.16	0.69
43:DU:92:ARG:O	43:DU:93:LYS:HB2	1.93	0.69
27:DA:995:C:H5'	43:DU:54:LYS:HD3	1.75	0.69
30:DD:69:ARG:HH11	30:DD:130:ALA:HB2	1.57	0.69
27:DA:83:G:N1	27:DA:102:G:O2'	2.25	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1452:A:N6	27:DA:2702:U:H1'	2.07	0.69
38:DP:58:THR:O	38:DP:61:ARG:NE	2.26	0.69
36:DN:120:LEU:HD11	36:DN:122:VAL:HG23	1.74	0.69
27:DA:1952:A:OP1	37:DO:44:LYS:HE2	1.93	0.69
38:DP:23:PRO:HB2	38:DP:33:ARG:NE	2.08	0.69
1:AA:194:C:H2'	1:AA:195:A:H5''	1.74	0.69
45:BW:6:ILE:HA	45:BW:103:ILE:O	1.93	0.69
31:DE:1:MET:HB2	31:DE:83:ASP:O	1.91	0.69
1:CA:379:C:O2'	1:CA:380:G:H5'	1.92	0.69
1:CA:101:A:O2'	1:CA:102:G:H5'	1.92	0.69
1:CA:197:A:H4'	1:CA:198:G:O5'	1.93	0.69
1:AA:1061:G:C5	1:AA:1062:U:C5	2.81	0.69
48:BZ:76:ASP:HB2	48:BZ:83:GLU:HG3	1.75	0.69
1:CA:397:A:H2'	1:CA:399:G:OP2	1.93	0.69
2:CB:29:ALA:O	2:CB:32:ILE:HG22	1.93	0.69
33:DG:135:LEU:HD12	33:DG:135:LEU:H	1.58	0.69
36:DN:11:PRO:HB3	36:DN:51:PHE:CD1	2.28	0.69
27:DA:2647:U:O2'	27:DA:2648:C:H5'	1.93	0.69
27:BA:2199:A:C8	27:BA:2199:A:C5'	2.75	0.69
1:CA:1215:G:H2'	1:CA:1216:G:C8	2.28	0.69
15:CO:82:ILE:C	15:CO:82:ILE:HD13	2.12	0.69
27:BA:2512:C:H2'	27:BA:2513:G:O4'	1.92	0.69
1:CA:643:C:H5'	8:CH:31:PHE:CD1	2.27	0.69
56:D7:9:ARG:HB3	56:D7:48:LYS:HZ2	1.57	0.69
30:DD:35:LYS:HZ1	30:DD:104:TYR:H	1.40	0.69
33:DG:61:ALA:HB2	33:DG:68:PRO:HD3	1.75	0.69
27:BA:764:A:N7	30:BD:209:ALA:HB3	2.07	0.69
27:BA:2189:U:C3'	27:BA:2190:G:H5''	2.22	0.69
31:DE:4:ILE:CG1	31:DE:28:ALA:HB1	2.23	0.69
12:CL:5:ASN:O	12:CL:8:VAL:HB	1.93	0.69
27:DA:2794:C:O2'	27:DA:2795:G:H5''	1.92	0.69
52:D3:7:LYS:CG	52:D3:34:GLU:HG2	2.22	0.69
1:AA:627:G:O2'	1:AA:628:G:H5'	1.92	0.69
27:BA:1028:A:N6	27:BA:1125:G:H2'	2.08	0.69
1:CA:1238:A:N3	1:CA:1238:A:H2'	2.08	0.69
27:DA:557:U:H2'	27:DA:558:G:H8	1.57	0.69
2:CB:107:THR:O	2:CB:110:GLN:HG3	1.93	0.69
27:DA:649:G:H2'	27:DA:650:C:H6	1.56	0.69
10:CJ:12:ASP:OD1	10:CJ:14:LYS:HB2	1.93	0.69
28:DB:20:C:O2'	28:DB:21:G:H5'	1.92	0.69
27:BA:1192:G:H2'	27:BA:1193:G:H5'	1.75	0.69
11:AK:84:VAL:O	11:AK:85:ARG:HG2	1.92	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:135:C:H2'	1:CA:136:C:H5'	1.74	0.69
27:BA:330:A:O2'	27:BA:331:A:H8	1.76	0.69
42:DT:129:ARG:NE	42:DT:131:ALA:HB3	2.07	0.69
54:B5:11:THR:HG22	54:B5:12:SER:O	1.92	0.69
3:CC:127:ARG:HG2	3:CC:127:ARG:HH11	1.56	0.69
4:AD:150:GLU:N	4:AD:150:GLU:OE1	2.26	0.69
13:AM:52:GLU:HG2	13:AM:55:ARG:HH21	1.58	0.69
2:AB:132:LYS:O	2:AB:135:GLN:HB2	1.93	0.69
33:DG:72:ARG:HH11	33:DG:86:MET:HG2	1.58	0.69
12:AL:124:GLU:O	12:AL:126:ALA:N	2.26	0.69
27:BA:1221:C:H5'	27:BA:1221:C:H6	1.57	0.69
27:BA:245:G:O2'	27:BA:246:C:H5'	1.93	0.69
27:DA:1899:G:N2	27:DA:1902:C:H41	1.91	0.69
33:BG:56:ALA:CB	33:BG:153:ARG:HH21	2.06	0.69
55:D6:33:LYS:CA	55:D6:33:LYS:HE2	2.16	0.69
27:DA:2258:C:H6	27:DA:2426:A:H5'	1.58	0.69
27:DA:1260:G:H2'	27:DA:1261:C:H6	1.57	0.69
41:DS:66:ALA:O	41:DS:69:VAL:HG12	1.93	0.69
31:BE:36:ARG:NH2	31:BE:88:GLY:CA	2.54	0.69
32:BF:84:VAL:HG12	32:BF:85:GLY:N	2.07	0.69
46:DX:12:VAL:CG1	46:DX:17:ALA:HB1	2.23	0.69
20:CT:33:ILE:HD13	20:CT:62:LEU:HB3	1.75	0.69
10:AJ:39:PRO:HB3	10:AJ:70:ARG:CZ	2.22	0.69
47:BY:87:LYS:CG	47:BY:88:LYS:H	2.05	0.69
38:BP:83:VAL:HG21	38:BP:105:LEU:HD12	1.73	0.69
1:CA:646:U:O2'	1:CA:647:C:H5'	1.92	0.69
35:BI:133:HIS:CD2	35:BI:133:HIS:H	2.10	0.69
45:DW:4:LYS:HA	45:DW:106:ILE:HG22	1.75	0.69
5:AE:80:ILE:HG22	8:AH:104:ARG:HH12	1.57	0.69
27:DA:271(A):A:H5'	27:DA:271(B):C:OP2	1.93	0.69
27:BA:15:G:H2'	27:BA:16:G:H8	1.58	0.69
27:BA:272(B):G:H1	27:BA:366:C:N4	1.90	0.69
34:DH:106:THR:CG2	34:DH:112:PRO:HB3	2.23	0.69
5:CE:101:ILE:H	5:CE:101:ILE:HD13	1.58	0.69
20:AT:89:ARG:CZ	20:AT:104:LEU:HD21	2.22	0.69
1:AA:1131:G:H2'	1:AA:1132:C:C6	2.28	0.69
11:AK:43:SER:HA	11:AK:47:VAL:HG21	1.74	0.69
27:DA:2110:G:H5''	27:DA:2111:C:OP2	1.93	0.69
27:DA:707:G:H1	27:DA:724:U:H3	1.40	0.69
27:BA:2202:C:H2'	27:BA:2203:U:O4'	1.91	0.69
27:DA:1814:G:H2'	27:DA:1815:A:N7	2.08	0.69
42:BT:42:ILE:O	42:BT:42:ILE:HD12	1.93	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BE:16:ARG:HH11	31:BE:16:ARG:HG3	1.57	0.69
44:DV:99:ILE:HD13	44:DV:99:ILE:N	2.08	0.69
38:BP:65:ARG:HH21	57:B8:15:LYS:HB2	1.54	0.69
37:BO:14:THR:HG21	37:BO:86:ILE:CD1	2.13	0.69
57:D8:61:LEU:HD13	57:D8:62:LEU:HG	1.75	0.69
27:DA:271(E):U:H2'	27:DA:271(F):C:C6	2.28	0.69
32:DF:7:TYR:HB3	32:DF:16:GLY:N	1.99	0.69
27:DA:1493:C:O2	27:DA:1493:C:H2'	1.92	0.69
27:DA:862:G:H2'	27:DA:863:A:O4'	1.92	0.69
27:DA:2547:U:H2'	27:DA:2548:G:H8	1.57	0.69
8:AH:60:ARG:NH1	8:AH:60:ARG:HG3	2.01	0.69
8:CH:4:ASP:OD1	8:CH:7:ALA:N	2.26	0.69
48:DZ:38:VAL:HG21	48:DZ:43:PHE:HB2	1.74	0.69
27:BA:2161:C:H2'	27:BA:2162:G:H8	1.57	0.69
48:BZ:149:LEU:CD2	48:BZ:170:ILE:HG13	2.22	0.69
35:BI:13:GLY:O	35:BI:14:ASP:HB2	1.92	0.69
1:AA:935:A:N6	7:AG:3:ARG:HB2	2.08	0.69
25:CY:68:C:C3'	25:CY:69:C:H5''	2.23	0.69
1:CA:602:A:O2'	1:CA:603:U:H5'	1.92	0.69
27:BA:1887:C:C2'	27:BA:1888:G:H5''	2.22	0.69
37:BO:13:ASN:ND2	37:BO:97:ARG:N	2.41	0.69
1:CA:628:G:H2'	1:CA:629:G:C8	2.28	0.69
34:DH:103:LEU:HD23	34:DH:115:VAL:HB	1.74	0.69
27:DA:65:C:O2'	27:DA:66:C:H5'	1.93	0.69
1:CA:1515:C:O2'	1:CA:1516:G:H5'	1.92	0.69
27:BA:922:U:H2'	27:BA:923:C:C6	2.27	0.69
27:DA:1440:G:H2'	27:DA:1441:G:C8	2.28	0.69
46:DX:51:VAL:HG11	46:DX:81:VAL:HB	1.74	0.69
40:DR:30:THR:O	40:DR:30:THR:HG23	1.92	0.69
43:BU:91:ASP:O	43:BU:92:ARG:HD3	1.93	0.68
46:DX:55:ASN:HB2	46:DX:80:ILE:HD13	1.75	0.68
3:AC:189:ALA:HB3	3:AC:196:LEU:HB2	1.75	0.68
42:DT:32:TYR:O	42:DT:41:ARG:O	2.11	0.68
48:DZ:150:HIS:HB2	48:DZ:167:GLU:O	1.93	0.68
1:CA:1093:A:O2'	1:CA:1094:G:H5'	1.93	0.68
3:AC:118:GLN:O	3:AC:122:GLU:HG3	1.93	0.68
27:DA:847:U:H2'	27:DA:848:G:H5''	1.73	0.68
27:DA:2142:C:H2'	27:DA:2143:C:C6	2.29	0.68
37:DO:12:ASP:HA	37:DO:98:VAL:HA	1.75	0.68
27:BA:70:G:HO2'	27:BA:114:U:H5	1.40	0.68
1:AA:1016:A:H2'	1:AA:1017:G:O4'	1.93	0.68
39:DQ:34:LEU:N	39:DQ:104:PHE:O	2.24	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:33:MET:HE2	4:AD:37:PRO:HA	1.75	0.68
28:DB:15:A:H3'	28:DB:16:G:H5'	1.74	0.68
1:CA:115:G:H4'	1:CA:116:A:O5'	1.92	0.68
27:BA:191:A:H2'	27:BA:192:C:C6	2.28	0.68
27:DA:2514:U:O2'	27:DA:2515:C:H5'	1.93	0.68
27:BA:2712:U:H1'	27:BA:2712(A):A:C8	2.29	0.68
12:AL:3:THR:N	12:AL:6:GLN:NE2	2.41	0.68
10:AJ:80:LYS:HE3	10:AJ:80:LYS:O	1.92	0.68
28:DB:26:A:H8	28:DB:26:A:H5''	1.58	0.68
27:DA:2672:G:H3'	27:DA:2673:G:H5''	1.74	0.68
32:BF:134:GLY:HA2	32:BF:166:ALA:HB2	1.75	0.68
27:DA:291:C:H2'	27:DA:292:C:H6	1.56	0.68
1:CA:767:A:H2'	1:CA:768:A:C8	2.27	0.68
27:DA:2322:A:H2'	27:DA:2323:G:O4'	1.92	0.68
28:BB:40:U:C2	28:BB:43:C:H5''	2.28	0.68
32:BF:18:ARG:HG2	32:BF:199:TRP:CZ3	2.28	0.68
42:BT:31:SER:C	42:BT:32:TYR:HD2	1.96	0.68
27:DA:2702:U:H2'	27:DA:2702:U:O2	1.92	0.68
57:D8:32:LEU:O	57:D8:33:ASN:O	2.11	0.68
33:DG:15:VAL:C	33:DG:17:PRO:HD2	2.14	0.68
41:DS:92:TYR:CD1	41:DS:93:LYS:N	2.60	0.68
27:BA:786:C:H4'	27:BA:1780:A:N7	2.09	0.68
30:BD:227:ASN:C	30:BD:234:GLY:HA3	2.13	0.68
2:AB:167:PRO:O	2:AB:171:ALA:N	2.27	0.68
1:CA:970:C:H41	9:CI:126:SER:HB3	1.56	0.68
1:CA:1307:U:H2'	1:CA:1308:U:H6	1.58	0.68
38:BP:112:LEU:N	38:BP:128:HIS:HD2	1.87	0.68
49:B0:25:ARG:HH11	49:B0:25:ARG:HG2	1.57	0.68
35:BI:82:ARG:HB2	35:BI:82:ARG:NH1	2.08	0.68
35:BI:5:LEU:HD12	35:BI:5:LEU:N	2.08	0.68
35:DI:81:VAL:HG21	35:DI:142:VAL:HG13	1.75	0.68
19:CS:62:ILE:O	19:CS:62:ILE:HG23	1.93	0.68
27:DA:1403:C:H5''	27:DA:1471:A:C1'	2.22	0.68
1:CA:1178:G:OP2	9:CI:97:LYS:HE3	1.94	0.68
27:DA:2012:G:H4'	45:DW:96:ILE:HD11	1.74	0.68
32:BF:160:ASN:HD21	32:BF:162:LEU:CB	2.06	0.68
1:AA:308:C:H2'	1:AA:309:G:C8	2.28	0.68
2:CB:102:LEU:O	2:CB:105:PHE:HB2	1.93	0.68
1:AA:1437:C:H42	1:AA:1464:G:H1	1.38	0.68
27:DA:1356:G:H2'	27:DA:1357:U:C6	2.27	0.68
36:DN:42:TRP:CD1	43:DU:63:VAL:HG11	2.28	0.68
27:DA:2238:G:H4'	27:DA:2239:G:N7	2.08	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:CW:21:A:H2'	23:CW:22:G:O4'	1.93	0.68
13:CM:118:ALA:HB2	24:CX:28:C:H4'	1.75	0.68
27:BA:2402:C:H2'	27:BA:2403:C:H5'	1.75	0.68
10:CJ:61:GLU:CD	14:CN:58:LYS:HE2	2.14	0.68
37:BO:14:THR:HG22	37:BO:16:ALA:H	1.56	0.68
27:BA:352:G:N3	27:BA:352:G:H2'	2.09	0.68
41:BS:77:ALA:O	41:BS:79:ALA:N	2.27	0.68
27:DA:633:A:C2'	27:DA:634:C:H5'	2.21	0.68
38:DP:96:THR:O	38:DP:100:LEU:HD23	1.94	0.68
38:DP:41:ARG:NE	38:DP:41:ARG:HA	2.08	0.68
42:DT:28:VAL:CG2	42:DT:47:GLY:H	1.98	0.68
30:BD:44:ASN:HB3	30:BD:49:ILE:HA	1.73	0.68
16:AP:19:ILE:HD11	16:AP:73:LEU:HD12	1.73	0.68
1:CA:1460:A:H2'	1:CA:1461:G:O4'	1.93	0.68
1:CA:261:U:O2	1:CA:263:A:C8	2.46	0.68
1:AA:723:U:O2'	1:AA:724:G:H5'	1.92	0.68
51:D2:16:LEU:O	51:D2:20:GLU:HB3	1.94	0.68
30:BD:181:GLU:HA	30:BD:272:ALA:HB3	1.75	0.68
24:CX:17:C:H3'	24:CX:17(B):U:H5'	1.75	0.68
27:DA:857:C:P	49:D0:77:ARG:HH22	2.17	0.68
11:CK:85:ARG:HG2	11:CK:111:ASP:O	1.92	0.68
3:AC:100:ALA:O	3:AC:101:LEU:HB2	1.93	0.68
10:CJ:35:SER:OG	10:CJ:73:ASP:HB2	1.94	0.68
1:CA:939:G:H5''	7:CG:102:ARG:NH2	2.07	0.68
1:CA:685:G:C2	1:CA:686:U:C5	2.81	0.68
35:DI:10:GLU:O	35:DI:12:LEU:HD23	1.93	0.68
47:BY:67:LEU:CD1	47:BY:71:LYS:HE3	2.24	0.68
27:BA:1835:G:N3	27:BA:1835:G:H2'	2.07	0.68
1:AA:1225:A:OP2	1:AA:1226:C:H5	1.76	0.68
27:DA:1332:G:H5'	27:DA:1333:C:OP2	1.92	0.68
27:BA:985:C:H2'	27:BA:986:C:C6	2.28	0.68
42:DT:129:ARG:CD	42:DT:131:ALA:HB3	2.24	0.68
1:AA:567:G:C2	1:AA:568:G:H1'	2.27	0.68
27:BA:275:G:O3'	27:BA:279:C:P	2.52	0.68
27:BA:2853:C:H2'	27:BA:2854:G:C8	2.28	0.68
36:BN:46:VAL:O	36:BN:47:ALA:CB	2.40	0.68
25:AY:18:G:H4'	25:AY:56:G:H22	1.58	0.68
1:AA:792:A:H4'	1:AA:793:U:O5'	1.93	0.68
5:CE:64:ARG:HE	5:CE:64:ARG:HA	1.58	0.68
10:CJ:63:PHE:HB3	14:CN:57:ARG:O	1.92	0.68
32:BF:65:TRP:HB3	32:BF:66:PRO:HD3	1.75	0.68
52:B3:23:LEU:N	52:B3:23:LEU:HD12	2.01	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BD:243:GLY:O	30:BD:244:ARG:CB	2.42	0.68
41:DS:52:SER:CB	41:DS:55:ALA:HB3	2.17	0.68
34:DH:137:ASP:OD1	34:DH:138:LYS:N	2.25	0.68
17:CQ:81:ARG:NH1	17:CQ:84:LEU:HD11	2.08	0.68
1:CA:1494:G:C8	26:CZ:3:SER:HB3	2.28	0.68
27:BA:1784:A:H4'	27:BA:1785:A:C5'	2.22	0.68
2:CB:32:ILE:CD1	2:CB:40:HIS:HB3	2.20	0.68
1:AA:460:G:C6	1:AA:470:C:H5''	2.29	0.68
27:BA:382:G:C2'	27:BA:383:U:H5'	2.24	0.68
6:AF:55:ASP:HB2	6:AF:86:ARG:HH22	1.57	0.68
38:BP:97:PRO:O	38:BP:98:GLU:HG3	1.93	0.68
36:DN:17:ASP:OD2	36:DN:56:ASN:HB3	1.92	0.68
1:CA:52:G:H2'	1:CA:53:A:C8	2.26	0.68
12:AL:92:GLY:O	12:AL:94:ARG:HG3	1.94	0.68
5:CE:19:MET:SD	5:CE:24:ARG:HB3	2.33	0.68
27:DA:2000:G:O2'	27:DA:2001:A:H5'	1.93	0.68
29:DC:100:ILE:HD13	29:DC:132:GLY:HA3	1.75	0.68
30:BD:134:ARG:HD3	30:BD:135:PHE:CE1	2.28	0.68
8:CH:86:ILE:HG22	8:CH:87:SER:N	2.08	0.68
56:D7:22:MET:SD	56:D7:31:LEU:HD11	2.34	0.68
47:DY:88:LYS:HE2	47:DY:93:GLY:HA3	1.76	0.68
8:CH:20:TYR:HA	8:CH:65:TYR:HE2	1.58	0.68
1:AA:568:G:O6	12:AL:2:PRO:HD3	1.93	0.68
27:BA:2296:U:H4'	27:BA:2297:C:OP1	1.93	0.68
44:DV:75:PHE:HE2	44:DV:82:ARG:NE	1.92	0.68
28:BB:105:A:H2'	28:BB:106:G:O4'	1.94	0.68
48:BZ:111:ARG:HH11	48:BZ:111:ARG:HG2	1.58	0.68
27:BA:782:A:H5'	27:BA:783:A:C2	2.29	0.68
30:DD:2:ALA:O	30:DD:3:VAL:HB	1.92	0.68
27:DA:1024:G:H3'	27:DA:1025:G:H5''	1.74	0.68
27:DA:271(R):G:H2'	27:DA:271(S):G:H8	1.58	0.68
13:CM:22:ILE:HG22	13:CM:25:ILE:HD13	1.76	0.68
42:DT:65:LYS:HZ2	42:DT:66:VAL:H	0.73	0.68
27:BA:534:U:H2'	27:BA:535:C:C6	2.29	0.68
19:CS:15:LEU:O	19:CS:19:VAL:HG23	1.94	0.68
30:DD:72:LYS:HD2	30:DD:97:TYR:CD1	2.27	0.68
47:DY:27:VAL:HG12	47:DY:29:GLU:H	1.58	0.68
4:AD:22:LYS:HB2	4:AD:26:CYS:HB2	1.74	0.68
47:DY:15:VAL:HG12	47:DY:17:SER:H	1.58	0.68
34:BH:54:ARG:HG2	34:BH:65:HIS:HD2	1.58	0.68
42:DT:80:SER:CB	42:DT:81:PRO:HD2	2.23	0.68
1:AA:1082:G:O2'	1:AA:1083:U:H5'	1.94	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BS:105:ALA:C	41:BS:107:GLU:H	1.96	0.68
27:BA:2331:G:H4'	49:B0:43:THR:N	2.05	0.68
27:BA:1667:G:N3	27:BA:1991:U:C5	2.62	0.68
1:AA:658:G:OP1	15:AO:31:LEU:HD21	1.94	0.68
15:AO:82:ILE:O	15:AO:82:ILE:HD13	1.93	0.68
27:DA:779:U:OP1	30:DD:49:ILE:HG22	1.94	0.68
35:DI:37:VAL:HG12	35:DI:38:LEU:N	2.07	0.68
27:DA:2821:A:H2'	27:DA:2822:G:H8	1.58	0.68
8:AH:86:ILE:HD11	8:AH:136:GLU:HB3	1.75	0.68
7:AG:24:THR:HA	7:AG:27:ILE:CD1	2.24	0.68
27:DA:321:G:OP2	32:DF:135:LYS:HD2	1.93	0.68
50:D1:7:ILE:HB	50:D1:62:VAL:HG23	1.75	0.68
1:AA:979:C:H3'	1:AA:980:C:C5'	2.24	0.68
13:CM:81:LEU:HD22	13:CM:86:CYS:SG	2.34	0.68
31:BE:26:ILE:O	31:BE:181:LEU:HD12	1.94	0.68
35:BI:68:LEU:HA	35:BI:71:ILE:HG13	1.75	0.68
1:CA:1030:C:H2'	1:CA:1030(A):G:H5'	1.76	0.68
40:BR:76:VAL:CG1	40:BR:77:ARG:N	2.56	0.68
28:BB:21:G:H2'	28:BB:22:U:H6	1.58	0.68
24:CX:64:G:H2'	24:CX:65:C:C6	2.27	0.68
20:CT:16:HIS:HA	20:CT:19:SER:HB3	1.75	0.68
1:AA:1028:C:H42	1:AA:1034:G:N2	1.92	0.68
39:DQ:26:TYR:O	39:DQ:67:ARG:NH1	2.26	0.68
1:CA:445:G:H1	1:CA:489:C:H42	1.42	0.68
1:AA:1456:G:O3'	20:AT:39:LYS:NZ	2.24	0.68
1:CA:1419:G:H2'	1:CA:1420:C:H6	1.59	0.68
32:BF:1:MET:HG2	32:BF:26:ALA:HA	1.73	0.68
27:DA:1142(A):A:O2'	27:DA:1143:A:H2'	1.93	0.68
27:DA:2256:G:N2	27:DA:2275:C:C4	2.62	0.68
55:B6:19:ARG:O	55:B6:20:ASN:O	2.10	0.68
1:CA:403:C:OP1	4:CD:136:PRO:HD2	1.93	0.68
30:DD:218:ARG:CB	30:DD:219:PRO:HD2	2.22	0.68
36:DN:60:ILE:CD1	36:DN:99:LEU:HD23	2.23	0.68
24:CX:19:G:H5'	24:CX:20:U:C5	2.28	0.68
8:AH:86:ILE:HG12	8:AH:135:CYS:HA	1.74	0.68
28:BB:3:C:N4	28:BB:118:G:H1	1.86	0.68
10:AJ:46:ARG:HA	10:AJ:64:GLU:HB3	1.76	0.68
45:DW:10:VAL:HG23	45:DW:101:SER:O	1.92	0.68
2:CB:107:THR:HG23	2:CB:110:GLN:NE2	2.09	0.68
51:B2:7:ARG:HH11	51:B2:7:ARG:HG2	1.57	0.68
27:BA:2670:A:OP2	27:BA:2670:A:H8	1.76	0.68
1:AA:114:U:H2'	1:AA:115:G:C8	2.29	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:363:G:H2'	27:DA:363(A):A:H8	1.59	0.68
1:CA:1367:C:OP1	9:CI:114:TYR:HA	1.94	0.68
27:DA:839:U:H2'	27:DA:840:C:C6	2.29	0.68
27:BA:85:G:OP1	47:BY:9:LYS:HA	1.94	0.68
32:BF:18:ARG:HG2	32:BF:199:TRP:HZ3	1.59	0.68
34:BH:85:LYS:HZ3	34:BH:133:VAL:HG21	1.55	0.68
57:D8:61:LEU:CD1	57:D8:62:LEU:H	2.05	0.68
38:DP:46:LYS:NZ	38:DP:51:PHE:CE2	2.62	0.68
30:DD:11:PRO:O	30:DD:13:ARG:N	2.27	0.68
42:BT:81:PRO:O	42:BT:82:LEU:HG	1.94	0.68
8:AH:77:GLU:HG2	8:AH:78:GLN:H	1.59	0.68
38:DP:113:LYS:HA	38:DP:129:ALA:O	1.93	0.68
32:DF:89:VAL:HG12	32:DF:90:PHE:N	2.08	0.68
27:DA:307:G:H21	27:DA:330:A:H62	1.40	0.68
27:BA:857:C:H5'	49:B0:77:ARG:NH2	2.03	0.68
32:DF:41:LEU:HD11	32:DF:184:TYR:CE1	2.29	0.68
31:BE:117:MET:O	31:BE:118:LYS:HB2	1.92	0.68
25:AY:3:G:H1	25:AY:69:C:H42	1.42	0.68
45:DW:4:LYS:HG2	45:DW:106:ILE:HG22	1.75	0.68
1:AA:1442(A):G:H4'	1:AA:1442(B):A:OP2	1.92	0.68
33:DG:76:SER:CA	33:DG:83:ARG:HB2	2.24	0.68
33:DG:44:GLY:N	33:DG:88:ILE:HG12	2.07	0.68
1:CA:841:U:O2'	1:CA:848:C:H5'	1.94	0.68
16:CP:56:ALA:O	16:CP:60:LEU:HG	1.92	0.68
12:CL:5:ASN:HD22	17:CQ:34:LYS:NZ	1.91	0.68
27:DA:324:A:C2	27:DA:325:G:H1'	2.28	0.68
52:D3:7:LYS:CB	52:D3:34:GLU:HG2	2.24	0.68
2:CB:219:VAL:HA	2:CB:222:ILE:HD12	1.74	0.68
40:BR:10:LEU:HD22	40:BR:17:ARG:NH1	2.08	0.68
43:BU:8:VAL:HG11	43:BU:12:ARG:HE	1.58	0.68
27:BA:436:C:H2'	27:BA:437:G:C8	2.29	0.68
27:BA:320:A:OP2	32:BF:137:LYS:HD2	1.94	0.68
27:BA:2758:A:C2'	27:BA:2759:G:H5'	2.24	0.68
10:AJ:84:GLN:O	10:AJ:85:LEU:HD23	1.94	0.68
53:D4:62:CYS:SG	53:D4:64:LYS:HB2	2.33	0.68
49:B0:68:GLU:HG2	49:B0:80:HIS:HB2	1.74	0.68
27:BA:1935:G:H1'	27:BA:1964:G:N2	2.08	0.68
24:AX:64:G:H2'	24:AX:65:C:C6	2.28	0.68
27:BA:1615:C:H2'	27:BA:1617:C:C5	2.28	0.68
41:BS:25:ARG:O	41:BS:39:ILE:HA	1.92	0.68
13:CM:22:ILE:HB	13:CM:25:ILE:HB	1.76	0.68
1:CA:1251:A:H2'	1:CA:1252:A:H8	1.56	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BQ:109:VAL:HG13	39:BQ:113:GLN:OE1	1.94	0.68
1:AA:1202:G:C2	14:AN:42:ILE:HG21	2.29	0.68
42:DT:31:SER:HB2	42:DT:32:TYR:CE2	2.29	0.68
16:AP:23:ASP:O	16:AP:25:ARG:N	2.27	0.68
27:DA:71:A:H5''	27:DA:73:A:N7	2.09	0.68
1:CA:164:U:H2'	1:CA:165:C:C6	2.29	0.68
35:BI:131:LYS:HG3	35:BI:132:PRO:HD2	1.74	0.68
48:BZ:156:LEU:HB3	48:BZ:160:VAL:HG12	1.75	0.68
27:BA:2562:U:H2'	27:BA:2563:U:H5'	1.74	0.68
27:BA:90:U:H1'	27:BA:92:A:H8	1.57	0.68
13:AM:5:ALA:HB2	13:AM:66:LEU:HD22	1.76	0.68
7:CG:75:VAL:HG12	7:CG:88:PRO:HB3	1.74	0.68
11:CK:67:ASP:O	11:CK:70:LYS:HB3	1.94	0.68
11:CK:21:ILE:CD1	11:CK:82:VAL:HG13	2.24	0.68
2:CB:80:ILE:CD1	2:CB:212:GLN:HA	2.23	0.68
1:AA:1066:C:H2'	1:AA:1067:A:C8	2.29	0.68
51:B2:4:SER:HA	51:B2:7:ARG:NH1	2.09	0.68
1:AA:1128:C:H5'	9:AI:16:ARG:HH12	1.58	0.68
18:AR:31:LEU:HD11	18:AR:62:GLU:HG2	1.75	0.68
28:BB:35:U:H2'	28:BB:36:C:C6	2.28	0.68
27:BA:719:C:O2'	27:BA:720:C:H5'	1.94	0.68
57:B8:11:LYS:HG3	57:B8:64:TYR:OH	1.94	0.68
47:BY:84:ARG:HB2	47:BY:95:LYS:O	1.92	0.68
27:DA:197:A:H5'	27:DA:197:A:C8	2.28	0.68
47:BY:49:VAL:O	47:BY:53:PRO:HG3	1.93	0.68
44:DV:62:LEU:N	44:DV:62:LEU:HD22	2.08	0.68
55:D6:16:CYS:SG	55:D6:48:VAL:HG22	2.34	0.68
57:D8:38:GLY:O	57:D8:42:ARG:HB2	1.93	0.68
32:BF:89:VAL:HG12	32:BF:90:PHE:N	2.05	0.68
2:CB:161:ALA:HB1	2:CB:185:ILE:HD12	1.75	0.68
20:CT:30:LYS:NZ	20:CT:80:ARG:NH2	2.42	0.68
42:DT:13:ARG:NE	42:DT:13:ARG:HA	2.08	0.68
38:DP:13:ASN:C	38:DP:13:ASN:ND2	2.43	0.68
27:DA:541:C:H2'	27:DA:542:C:C5	2.28	0.68
27:DA:548:A:O2'	27:DA:549:G:OP1	2.10	0.68
27:BA:623:G:H2'	27:BA:624:C:C6	2.28	0.68
1:AA:1171:G:H2'	1:AA:1172:C:H6	1.59	0.68
42:DT:109:GLU:HA	42:DT:112:ARG:HD3	1.76	0.68
7:CG:137:LYS:O	7:CG:141:VAL:HG23	1.93	0.68
3:AC:150:LYS:HE3	3:AC:167:TRP:HE1	1.58	0.68
9:AI:4:TYR:HD1	9:AI:4:TYR:N	1.92	0.68
28:DB:15:A:H5'	28:DB:16:G:C8	2.29	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2111:C:H4'	27:BA:2112:G:OP1	1.94	0.68
1:AA:523:A:C2	12:AL:88:LYS:HB3	2.29	0.68
7:AG:105:VAL:O	7:AG:108:ALA:HB3	1.94	0.68
36:BN:51:PHE:CE1	36:BN:119:ARG:HD3	2.29	0.68
27:BA:2790:A:H2'	27:BA:2790:A:N3	2.08	0.68
31:BE:186:GLY:O	31:BE:188:VAL:N	2.27	0.68
38:DP:48:PRO:HG2	38:DP:49:ARG:N	1.99	0.68
32:DF:18:ARG:HH21	32:DF:20:LEU:HD13	1.59	0.68
27:DA:2086:U:H2'	27:DA:2087:G:C8	2.29	0.68
27:DA:1009:A:H5'	27:DA:1009:A:H8	1.58	0.68
27:DA:437:G:O2'	27:DA:438:G:H5'	1.94	0.68
55:D6:40:CYS:HB2	55:D6:46:HIS:HB3	1.76	0.68
38:DP:115:LEU:HA	38:DP:134:ALA:CB	2.24	0.68
27:BA:2299:G:N1	27:BA:2318:G:H8	1.90	0.68
1:CA:200:G:H2'	1:CA:201:C:C6	2.29	0.68
30:BD:231:HIS:CD2	30:BD:249:PRO:HG3	2.28	0.68
17:AQ:58:GLU:C	17:AQ:59:ILE:HD13	2.14	0.68
27:BA:1274:A:H1'	27:BA:1297:C:H4'	1.74	0.68
8:CH:48:TYR:CD1	8:CH:49:GLU:N	2.61	0.68
31:DE:25:VAL:O	31:DE:26:ILE:HD13	1.93	0.68
27:DA:1352:U:H3	27:DA:1378:A:H62	1.41	0.68
27:BA:2563:U:O2	27:BA:2565:A:C8	2.40	0.68
7:CG:84:ASN:HD22	7:CG:84:ASN:H	1.38	0.68
1:AA:736:C:H5''	18:AR:72:ARG:NH2	2.09	0.68
38:BP:85:LEU:HD23	38:BP:85:LEU:H	1.59	0.68
27:BA:1577:C:H2'	27:BA:1578:U:H6	1.58	0.68
27:DA:2466:C:H2'	27:DA:2467:C:H5'	1.76	0.68
27:BA:185:U:H2'	27:BA:186:G:H8	1.57	0.68
4:AD:170:VAL:CG1	4:AD:171:GLY:N	2.57	0.68
1:CA:93:G:O2'	1:CA:96:U:H5'	1.94	0.68
27:BA:1615:C:H2'	27:BA:1617:C:H5	1.59	0.68
27:DA:2653:U:H2'	27:DA:2654:A:N7	2.09	0.68
32:DF:99:TYR:CD2	32:DF:99:TYR:O	2.47	0.68
4:AD:57:ARG:HD3	4:AD:205:GLU:HB2	1.76	0.68
27:DA:364:C:O2	27:DA:364:C:H2'	1.93	0.68
8:CH:28:ALA:HA	8:CH:59:LEU:HD11	1.76	0.68
13:CM:23:TYR:CE1	13:CM:71:ARG:HB2	2.28	0.67
13:CM:67:GLU:O	13:CM:69:GLU:N	2.27	0.67
27:BA:673:C:H6	27:BA:673:C:H5''	1.59	0.67
44:BV:47:VAL:HG12	44:BV:52:VAL:HG12	1.75	0.67
28:BB:83:G:H4'	52:B3:52:HIS:CD2	2.28	0.67
47:DY:26:LYS:HG2	47:DY:27:VAL:H	1.59	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:908:C:O2'	27:DA:909:A:H5'	1.94	0.67
1:CA:376:G:O2'	1:CA:377:G:H5'	1.94	0.67
1:CA:389:A:H2'	1:CA:390:C:O4'	1.94	0.67
27:DA:1033:U:H5''	27:DA:1034:G:OP2	1.95	0.67
49:B0:43:THR:HG23	49:B0:43:THR:O	1.94	0.67
27:DA:1775:U:H2'	27:DA:1776:G:C5'	2.21	0.67
27:BA:1952:A:H5'	37:BO:42:SER:OG	1.94	0.67
38:DP:13:ASN:HD22	38:DP:14:LYS:N	1.91	0.67
1:CA:1307:U:H2'	1:CA:1308:U:C6	2.29	0.67
6:CF:33:TYR:CD2	6:CF:71:ARG:HD2	2.25	0.67
49:B0:38:VAL:HG12	49:B0:40:GLN:HG2	1.74	0.67
27:BA:2282:G:H5''	27:BA:2283:C:O4'	1.93	0.67
33:DG:68:PRO:HB2	33:DG:90:LEU:HD22	1.76	0.67
1:AA:939:G:H5''	7:AG:102:ARG:HH12	1.59	0.67
37:DO:23:ARG:HD2	37:DO:24:VAL:H	1.59	0.67
42:DT:14:TYR:CD1	42:DT:14:TYR:N	2.62	0.67
31:BE:69:LYS:NZ	31:BE:89:ASP:HA	2.08	0.67
27:BA:1771:C:H5''	27:BA:1772:G:OP2	1.93	0.67
37:BO:103:ALA:HB1	37:BO:105:GLU:OE1	1.93	0.67
10:CJ:94:VAL:HG12	10:CJ:95:GLU:N	2.09	0.67
7:CG:14:PRO:HB3	7:CG:19:GLY:C	2.15	0.67
12:CL:73:ASN:HD21	12:CL:105:ALA:HB2	1.59	0.67
27:DA:1401:G:H2'	27:DA:1402:C:C6	2.29	0.67
39:DQ:79:LEU:HD22	39:DQ:80:GLU:N	2.09	0.67
27:BA:610:G:H2'	27:BA:611:C:C6	2.29	0.67
4:AD:59:ARG:HH21	4:AD:66:ARG:HH22	1.41	0.67
9:AI:69:GLY:O	9:AI:73:GLN:HG3	1.93	0.67
1:AA:640:A:C2	8:AH:115:SER:HB3	2.29	0.67
4:CD:165:MET:O	4:CD:166:LYS:C	2.32	0.67
25:AY:12:C:H2'	25:AY:13:A:O4'	1.94	0.67
35:BI:64:GLU:OE1	35:BI:64:GLU:HA	1.94	0.67
23:CW:37:U:H2'	23:CW:38:U:O4'	1.94	0.67
1:CA:1041:A:H2'	1:CA:1042:G:C8	2.28	0.67
47:BY:42:VAL:HB	47:BY:65:ALA:HB3	1.75	0.67
27:BA:1190:G:H5'	38:BP:35:HIS:H	1.58	0.67
38:BP:61:ARG:H	38:BP:61:ARG:HD2	1.60	0.67
1:CA:1363(A):A:C1'	1:CA:1365:G:N7	2.47	0.67
41:BS:19:LYS:O	41:BS:20:ARG:HD3	1.94	0.67
27:DA:1142(A):A:H8	27:DA:1142(A):A:H5'	1.58	0.67
48:DZ:157:PRO:HG2	48:DZ:160:VAL:CG2	2.16	0.67
27:BA:558:G:O2'	27:BA:559:G:H5'	1.94	0.67
27:DA:83:G:O2'	27:DA:84:A:H8	1.77	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:DT:42:ILE:N	42:DT:42:ILE:HD12	2.00	0.67
57:D8:43:GLN:O	57:D8:44:LYS:HD2	1.94	0.67
1:CA:142:G:H1	1:CA:221:C:H42	1.38	0.67
1:CA:382:A:H2'	1:CA:383:A:C8	2.29	0.67
8:AH:39:LEU:HB2	8:AH:45:ILE:HD11	1.76	0.67
1:CA:1406:U:H2'	1:CA:1407:C:C6	2.29	0.67
1:CA:1148:U:H2'	1:CA:1149:C:O4'	1.94	0.67
30:DD:53:PHE:C	30:DD:218:ARG:HG3	2.15	0.67
27:DA:1625:C:C2'	27:DA:1626:G:H5'	2.25	0.67
55:B6:11:LEU:O	55:B6:24:GLU:N	2.27	0.67
27:DA:1457:A:HO2'	27:DA:1459:G:H8	1.40	0.67
27:BA:2693:A:H2'	27:BA:2694:G:H5'	1.76	0.67
27:DA:1446:C:H42	27:DA:1465:G:H1	1.42	0.67
10:CJ:35:SER:O	10:CJ:36:GLY:O	2.12	0.67
12:AL:68:PRO:HG3	12:AL:96:HIS:HD2	1.59	0.67
12:AL:68:PRO:O	12:AL:99:ARG:HD2	1.95	0.67
32:BF:164:ARG:HG3	32:BF:175:THR:OG1	1.94	0.67
1:AA:434:U:H2'	1:AA:435:C:O4'	1.94	0.67
27:BA:1677:A:H2'	27:BA:1678:G:C8	2.28	0.67
10:AJ:30:SER:OG	10:AJ:81:THR:HG23	1.95	0.67
4:CD:162:LEU:O	4:CD:165:MET:HB2	1.94	0.67
1:AA:859:A:O2'	1:AA:860:A:H5'	1.94	0.67
49:B0:56:ASP:O	49:B0:57:PHE:HB2	1.94	0.67
38:DP:94:GLU:HG3	38:DP:124:LYS:O	1.95	0.67
24:CX:34:C:O2	24:CX:34:C:H2'	1.94	0.67
1:CA:978:A:H5''	1:CA:978:A:C8	2.29	0.67
2:CB:69:LEU:HD22	2:CB:91:PRO:CB	2.17	0.67
41:BS:17:ARG:HA	41:BS:20:ARG:NH1	2.10	0.67
5:AE:128:PRO:O	5:AE:129:ILE:O	2.13	0.67
55:D6:10:LEU:H	55:D6:10:LEU:CD2	2.07	0.67
57:D8:14:VAL:HG23	57:D8:23:VAL:O	1.94	0.67
27:DA:2262:U:H2'	27:DA:2263:C:H6	1.59	0.67
38:DP:102:ARG:HB3	38:DP:102:ARG:CZ	2.23	0.67
55:B6:13:CYS:O	55:B6:21:TYR:HA	1.93	0.67
27:BA:1797:C:H4'	30:BD:257:LEU:O	1.94	0.67
27:BA:753:C:C2'	27:BA:754:C:H5'	2.24	0.67
38:DP:7:ARG:H	38:DP:8:PRO:HD2	1.60	0.67
3:CC:3:ASN:O	3:CC:4:LYS:HB2	1.93	0.67
33:DG:38:VAL:HG22	33:DG:93:THR:HG23	1.76	0.67
5:CE:40:ARG:HB3	5:CE:66:MET:CE	2.24	0.67
34:DH:17:VAL:O	34:DH:45:VAL:HG22	1.93	0.67
33:DG:106:LEU:HD12	33:DG:110:ALA:HB3	1.74	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:271(A):A:H8	27:DA:271(B):C:C6	2.12	0.67
40:DR:48:VAL:O	40:DR:51:LEU:HD12	1.95	0.67
1:CA:935:A:C2	1:CA:1383:C:N4	2.62	0.67
10:CJ:39:PRO:HB3	10:CJ:70:ARG:NE	2.09	0.67
27:BA:1450:G:O2'	27:BA:1450(A):C:H5'	1.93	0.67
9:AI:106:ALA:O	9:AI:108:VAL:HG22	1.94	0.67
1:CA:556:C:H2'	1:CA:557:G:H8	1.58	0.67
23:AW:4:G:H2'	23:AW:5:G:C4'	2.25	0.67
2:CB:121:LEU:O	2:CB:121:LEU:HD23	1.95	0.67
27:BA:2523:G:H5'	27:BA:2523:G:H8	1.59	0.67
31:BE:170:LEU:HD23	31:BE:184:VAL:HG11	1.74	0.67
27:DA:1962:C:H4'	27:DA:1963:U:OP1	1.93	0.67
44:BV:41:GLY:HA3	44:BV:45:THR:HG1	1.59	0.67
32:DF:110:LEU:O	32:DF:114:VAL:HG23	1.94	0.67
47:BY:28:LYS:CB	47:BY:37:VAL:HB	2.24	0.67
9:AI:116:LYS:HD3	9:AI:122:ALA:HB2	1.75	0.67
2:CB:17:PHE:HB2	2:CB:42:ILE:CG2	2.25	0.67
2:CB:92:TYR:O	2:CB:93:VAL:HG13	1.94	0.67
27:BA:1667:G:N3	27:BA:1991:U:H5	1.92	0.67
27:DA:2626:C:H2'	27:DA:2627:G:C8	2.29	0.67
46:DX:60:ARG:HH22	56:D7:47:ARG:CZ	2.07	0.67
27:DA:1309:G:O2'	27:DA:1310:G:H5'	1.94	0.67
27:BA:1210:A:H5'	27:BA:1212:G:C5'	2.22	0.67
31:DE:119:ARG:HD2	31:DE:120:TRP:CD1	2.29	0.67
40:DR:14:SER:C	40:DR:16:HIS:H	1.96	0.67
37:DO:52:VAL:C	37:DO:53:LYS:HD2	2.14	0.67
35:DI:75:LEU:HD21	35:DI:105:HIS:HE1	1.57	0.67
30:BD:210:GLY:O	30:BD:211:ARG:CB	2.42	0.67
5:CE:12:LEU:HD22	5:CE:13:ILE:H	1.60	0.67
37:DO:7:TYR:CE1	37:DO:20:MET:HE3	2.30	0.67
8:CH:104:ARG:O	8:CH:105:ARG:C	2.33	0.67
27:BA:1786:A:C2	27:BA:2606:C:H1'	2.29	0.67
2:AB:77:ALA:O	2:AB:81:VAL:HG23	1.95	0.67
9:CI:38:GLN:O	9:CI:40:LEU:HD23	1.95	0.67
27:DA:2113:U:O2'	27:DA:2114:A:C8	2.43	0.67
1:CA:1411:C:O2'	1:CA:1412:C:H5'	1.94	0.67
1:CA:422:C:H1'	1:CA:423:G:N2	2.09	0.67
27:DA:1440:G:H2'	27:DA:1441:G:H8	1.58	0.67
27:BA:2146:C:H4'	27:BA:2147:G:C8	2.30	0.67
35:BI:40:THR:O	35:BI:44:LEU:HB2	1.94	0.67
46:DX:4:ALA:O	46:DX:7:VAL:HG23	1.94	0.67
51:B2:13:ALA:HA	51:B2:16:LEU:HD21	1.76	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:AP:48:TRP:CE3	16:AP:49:LEU:HB2	2.30	0.67
40:DR:87:TYR:OH	40:DR:116:LEU:HB3	1.94	0.67
1:CA:959:A:N1	1:CA:1222:G:H5'	2.10	0.67
40:BR:18:LEU:HD11	40:BR:22:ARG:CZ	2.24	0.67
43:BU:88:ILE:CG2	44:BV:47:VAL:HG23	2.24	0.67
1:AA:267:C:OP2	17:AQ:67:LYS:HD2	1.95	0.67
42:BT:65:LYS:HZ2	42:BT:66:VAL:N	1.92	0.67
27:DA:560:C:C5'	43:DU:52:ARG:HH22	2.08	0.67
36:DN:2:LYS:HZ3	44:DV:13:ARG:H	1.41	0.67
47:DY:76:CYS:HG	47:DY:77:PRO:HD2	1.60	0.67
33:DG:26:GLN:HB2	33:DG:30:GLU:OE1	1.94	0.67
27:DA:2021:C:O2'	27:DA:2022:U:OP1	2.13	0.67
38:DP:21:ARG:CD	38:DP:29:LYS:HE3	2.24	0.67
30:DD:133:LEU:HD13	30:DD:175:LEU:HD21	1.75	0.67
43:BU:104:GLN:HE21	43:BU:105:VAL:N	1.93	0.67
38:DP:9:ASN:HD22	38:DP:9:ASN:N	1.93	0.67
42:BT:24:PRO:HA	42:BT:49:VAL:HG13	1.75	0.67
42:BT:53:ARG:HD3	42:BT:60:THR:OG1	1.95	0.67
3:CC:77:ILE:O	3:CC:83:ARG:HB3	1.94	0.67
1:AA:1478:C:O2'	1:AA:1479:C:H5'	1.95	0.67
48:DZ:73:VAL:HG13	48:DZ:85:VAL:HG12	1.75	0.67
27:BA:2175:C:H1'	29:BC:215:THR:H	1.58	0.67
1:CA:1504:G:H4'	1:CA:1505:G:C5'	2.24	0.67
35:BI:109:ILE:HG22	35:BI:111:PRO:HD3	1.77	0.67
27:BA:645:C:H2'	27:BA:645:C:O2	1.93	0.67
27:DA:736:C:O2'	27:DA:737:C:H5'	1.95	0.67
35:DI:88:ILE:CD1	35:DI:123:LEU:HG	2.24	0.67
5:AE:75:THR:OG1	5:AE:76:ILE:N	2.20	0.67
2:AB:178:ARG:HH12	2:AB:196:LEU:HB2	1.59	0.67
35:DI:11:ASN:O	35:DI:12:LEU:HB3	1.93	0.67
2:AB:114:ARG:HH12	2:AB:118:LEU:HD21	1.59	0.67
12:AL:63:VAL:HG21	12:AL:95:TYR:CE1	2.30	0.67
1:CA:571:U:H5''	1:CA:819:A:C2	2.30	0.67
27:BA:1244:G:H4'	38:BP:11:GLY:HA2	1.77	0.67
27:BA:1835:G:H5'	27:BA:1836:C:OP2	1.95	0.67
27:BA:1722:A:C6	27:BA:1740:G:C8	2.83	0.67
27:BA:2103:C:C3'	27:BA:2104:G:H5''	2.25	0.67
48:BZ:142:GLY:C	48:BZ:143:LEU:HD22	2.14	0.67
4:AD:3:ARG:HB3	4:AD:118:ARG:HH11	1.60	0.67
27:BA:529:A:H5''	27:BA:530:G:OP1	1.95	0.67
47:DY:35:TYR:CE2	47:DY:69:ALA:HB3	2.29	0.67
3:AC:35:GLU:O	3:AC:39:ILE:HG13	1.94	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1468:A:H2'	1:CA:1469:G:O4'	1.95	0.67
1:AA:714:G:H21	1:AA:777:A:H1'	1.60	0.67
27:BA:670:A:H4'	27:BA:671:C:O5'	1.93	0.67
27:BA:2415:G:H4'	38:BP:66:GLY:CA	2.24	0.67
1:CA:1014:A:H4'	19:CS:14:HIS:CD2	2.29	0.67
1:CA:542:G:H2'	1:CA:543:C:H6	1.60	0.67
4:CD:13:ARG:O	4:CD:15:GLU:N	2.26	0.67
4:CD:198:VAL:CG1	4:CD:199:ASN:N	2.57	0.67
4:CD:31:CYS:C	4:CD:33:MET:H	1.95	0.67
33:BG:36:LYS:HD3	33:BG:95:ARG:NH1	2.09	0.67
41:BS:59:LYS:NZ	41:BS:68:GLN:HE22	1.93	0.67
38:DP:146:VAL:HG13	38:DP:147:LEU:N	2.10	0.67
14:AN:23:ARG:NH1	14:AN:30:ALA:HB2	2.08	0.67
1:CA:397:A:H5'	1:CA:398:C:OP1	1.93	0.67
42:DT:80:SER:HB3	42:DT:81:PRO:HD2	1.76	0.67
27:DA:90:U:H1'	27:DA:92:A:H8	1.59	0.67
27:BA:686:G:H2'	27:BA:788:A:C2	2.29	0.67
27:DA:71:A:OP2	27:DA:71:A:H3'	1.94	0.67
27:BA:2510:C:H2'	27:BA:2511:U:H6	1.60	0.67
27:BA:2122:U:H2'	27:BA:2123:G:C8	2.29	0.67
29:DC:82:LYS:HG2	29:DC:151:GLU:O	1.94	0.67
33:DG:69:ALA:N	33:DG:91:ARG:O	2.25	0.67
27:BA:2357:U:C2'	27:BA:2358:G:H5''	2.25	0.67
27:DA:1506:C:H2'	27:DA:1506:C:O2	1.93	0.67
5:CE:10:MET:HB2	5:CE:32:VAL:HG22	1.76	0.67
37:DO:66:LYS:HD3	37:DO:80:ASP:HA	1.75	0.67
38:BP:85:LEU:CD2	38:BP:85:LEU:H	2.07	0.67
31:DE:4:ILE:HG23	31:DE:4:ILE:O	1.94	0.67
40:DR:51:LEU:HA	40:DR:54:LEU:HB2	1.75	0.67
31:BE:33:VAL:HG13	31:BE:69:LYS:CE	2.24	0.67
31:BE:68:ALA:O	31:BE:70:ALA:N	2.28	0.67
1:CA:1511:G:H2'	1:CA:1512:U:O4'	1.95	0.67
27:BA:1204:A:H61	27:BA:1240:U:H2'	1.59	0.67
27:DA:415:A:H2'	27:DA:416:C:C6	2.29	0.67
11:CK:73:MET:HG2	11:CK:103:LEU:HD23	1.75	0.67
34:BH:89:ILE:O	34:BH:90:LYS:O	2.13	0.67
1:CA:674:G:H2'	1:CA:675:A:C8	2.28	0.67
27:BA:1640:C:O2	27:BA:1640:C:H2'	1.94	0.67
43:BU:8:VAL:CG1	43:BU:12:ARG:HE	2.07	0.67
1:CA:60:A:H5''	1:CA:331:G:H22	1.60	0.67
1:CA:1410:G:H2'	1:CA:1411:C:C6	2.30	0.67
48:BZ:8:TYR:CE2	48:BZ:34:ARG:HD2	2.29	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1457:G:O2'	1:AA:1458:G:H5'	1.94	0.67
15:CO:2:PRO:HG2	15:CO:3:ILE:H	1.59	0.67
37:DO:5:GLN:OE1	37:DO:5:GLN:HA	1.93	0.67
31:BE:14:ILE:HG13	31:BE:15:PHE:N	2.08	0.67
1:CA:596:C:O2'	1:CA:597:G:H5'	1.95	0.67
9:CI:89:ASN:HB3	9:CI:92:TYR:CD1	2.30	0.67
1:AA:637:G:O2'	1:AA:638:G:H5'	1.94	0.67
27:BA:244:A:O2'	38:BP:73:GLY:HA3	1.95	0.67
30:BD:166:GLN:HB3	30:BD:174:ILE:HG22	1.76	0.67
31:BE:74:PRO:O	31:BE:75:VAL:O	2.12	0.67
44:BV:18:LEU:HD22	44:BV:19:LYS:N	2.10	0.67
27:BA:1885:A:H5'	27:BA:1885:A:H8	1.59	0.67
33:DG:15:VAL:HG22	33:DG:175:LEU:HB3	1.77	0.67
27:BA:1266:G:OP2	54:B5:19:ARG:NH1	2.28	0.67
31:DE:39:PRO:HG3	31:DE:45:THR:OG1	1.95	0.67
47:BY:27:VAL:HG12	47:BY:29:GLU:H	1.59	0.67
2:AB:69:LEU:HD12	2:AB:70:PHE:N	2.10	0.67
31:BE:2:LYS:HA	31:BE:84:PHE:CE2	2.30	0.67
2:AB:110:GLN:NE2	2:AB:110:GLN:O	2.27	0.67
32:DF:187:VAL:HG12	38:DP:7:ARG:HH21	1.60	0.67
15:CO:54:ARG:O	15:CO:58:MET:HG3	1.94	0.67
20:CT:72:LEU:O	20:CT:73:HIS:HB2	1.93	0.67
34:BH:107:VAL:O	34:BH:109:PHE:N	2.28	0.67
1:CA:967:C:H2'	1:CA:968:A:C8	2.30	0.67
3:CC:73:PRO:C	3:CC:75:VAL:H	1.97	0.67
3:CC:90:GLU:OE1	3:CC:93:LYS:HD3	1.95	0.67
27:DA:15:G:H2'	27:DA:16:G:H8	1.58	0.67
38:BP:146:VAL:HG13	38:BP:147:LEU:N	2.08	0.67
27:BA:1210:A:C5'	27:BA:1212:G:H5'	2.24	0.67
8:AH:10:LEU:HD22	8:AH:83:ILE:HD11	1.76	0.67
37:DO:16:ALA:HA	37:DO:46:ALA:HB1	1.77	0.67
30:DD:35:LYS:HZ1	30:DD:104:TYR:HB2	1.59	0.67
30:DD:35:LYS:HB2	30:DD:36:PRO:HD3	1.76	0.67
34:DH:93:GLY:O	34:DH:94:TYR:HD1	1.78	0.67
39:BQ:51:ARG:O	39:BQ:51:ARG:HG2	1.94	0.67
5:CE:12:LEU:HD22	5:CE:13:ILE:N	2.10	0.67
27:BA:2090:G:H21	50:B1:45:ASN:ND2	1.92	0.67
3:AC:182:ILE:HD11	3:AC:203:PHE:CD1	2.29	0.67
27:DA:1922:G:H2'	27:DA:1923:U:H6	1.60	0.67
10:CJ:94:VAL:HG12	10:CJ:95:GLU:H	1.60	0.67
4:AD:108:LEU:HD11	4:AD:174:LEU:HB3	1.76	0.67
27:BA:2637:U:C2'	27:BA:2638:G:H5'	2.25	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2109:U:H2'	27:DA:2110:G:C8	2.29	0.67
29:DC:58:VAL:CG2	29:DC:166:ASP:H	2.08	0.67
49:D0:82:ARG:O	49:D0:82:ARG:HG3	1.93	0.67
18:AR:74:ARG:HD3	18:AR:81:PHE:CE1	2.30	0.67
1:AA:1517:G:H2'	1:AA:1518:A:C8	2.30	0.67
1:AA:425:G:O2'	1:AA:426:G:H5'	1.95	0.67
2:AB:24:TRP:CZ3	2:AB:26:PRO:HA	2.28	0.67
32:BF:25:PRO:HG3	32:BF:119:ARG:CB	2.25	0.67
47:BY:7:VAL:CG2	47:BY:8:LYS:HZ3	2.07	0.67
13:CM:72:ALA:O	13:CM:75:ALA:HB3	1.94	0.67
42:BT:30:VAL:HG11	42:BT:84:GLN:NE2	2.09	0.67
8:AH:20:TYR:HA	8:AH:65:TYR:CE2	2.27	0.67
44:DV:19:LYS:NZ	44:DV:20:LEU:H	1.92	0.67
44:DV:38:LEU:C	44:DV:39:LEU:HD13	2.15	0.67
27:DA:2453:A:H2'	27:DA:2454:G:C8	2.30	0.67
27:DA:753:C:O2	27:DA:753:C:H2'	1.95	0.67
27:BA:1021:A:H2'	27:BA:1023:U:H5'	1.77	0.67
24:AX:40:C:H2'	24:AX:41:C:C6	2.30	0.67
8:AH:32:LYS:HA	8:AH:35:ILE:HD12	1.75	0.67
23:AW:36:A:H2'	23:AW:37:U:O4'	1.95	0.67
27:BA:1274:A:N3	27:BA:1297:C:H1'	2.10	0.67
16:AP:82:GLN:O	16:AP:83:GLU:HB2	1.95	0.67
35:BI:114:LEU:HD23	35:BI:130:TYR:CE1	2.29	0.67
35:BI:90:GLY:N	35:BI:121:LYS:HZ2	1.93	0.67
35:BI:131:LYS:HG3	35:BI:132:PRO:CD	2.24	0.67
37:BO:119:PRO:HB2	42:BT:68:TYR:HE1	1.60	0.67
42:DT:98:LYS:HB3	42:DT:100:TYR:CE1	2.30	0.67
42:DT:109:GLU:HA	42:DT:112:ARG:HH11	1.59	0.67
45:DW:68:ARG:HA	45:DW:110:LYS:HD3	1.75	0.67
27:DA:565:C:H5	44:DV:78:LYS:HZ1	1.43	0.67
27:BA:1673:U:H2'	27:BA:1674:G:H5''	1.75	0.67
27:DA:1897:G:O2'	27:DA:1898:U:H5'	1.93	0.67
27:DA:1374:G:H2'	27:DA:1375:C:C6	2.29	0.67
39:DQ:112:GLU:HA	39:DQ:115:MET:HG3	1.76	0.67
2:CB:35:GLU:O	2:CB:35:GLU:HG2	1.94	0.67
29:BC:68:LEU:HB3	29:BC:70:LYS:HE2	1.74	0.67
1:CA:1014:A:H2'	1:CA:1015:A:C8	2.30	0.67
42:BT:89:VAL:HG21	42:BT:91:ARG:NH2	2.08	0.67
43:DU:72:HIS:ND1	43:DU:110:VAL:HG21	2.10	0.67
36:DN:34:LEU:CD1	36:DN:120:LEU:HD23	2.20	0.67
9:AI:102:LEU:O	9:AI:103:THR:OG1	2.11	0.67
43:BU:104:GLN:O	43:BU:107:ALA:HB3	1.94	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:AO:24:SER:O	15:AO:28:GLN:HG3	1.94	0.67
20:CT:75:ASN:O	20:CT:78:ALA:N	2.28	0.67
30:DD:44:ASN:HB3	30:DD:49:ILE:HA	1.77	0.67
27:BA:1798:U:H5'	30:BD:259:THR:CG2	2.24	0.67
1:AA:503:C:H2'	1:AA:504:C:H6	1.59	0.67
12:AL:116:LYS:O	12:AL:117:TYR:HB2	1.95	0.67
7:CG:84:ASN:H	7:CG:84:ASN:ND2	1.93	0.67
37:DO:14:THR:O	37:DO:52:VAL:HG12	1.94	0.67
1:AA:737:A:H2'	1:AA:738:C:C6	2.29	0.67
5:AE:76:ILE:CG1	5:AE:77:PRO:HD2	2.24	0.67
27:BA:814:C:H41	38:BP:27:HIS:CD2	2.12	0.67
15:CO:45:VAL:O	15:CO:47:LYS:HG2	1.95	0.67
27:BA:2302:G:H21	33:BG:128:ARG:HG3	1.59	0.67
27:DA:2199:A:C2	27:DA:2200:C:H1'	2.30	0.67
27:BA:327:G:H2'	27:BA:328:U:H6	1.58	0.67
13:CM:76:ALA:HA	13:CM:79:LYS:CG	2.24	0.67
12:AL:3:THR:O	12:AL:6:GLN:HB2	1.95	0.67
27:BA:2147:G:H2'	27:BA:2148:G:O4'	1.95	0.67
34:BH:101:ARG:HB3	34:BH:117:PRO:HG3	1.77	0.67
2:CB:23:ARG:HG2	2:CB:23:ARG:O	1.95	0.67
43:BU:75:ASN:O	43:BU:77:SER:N	2.28	0.67
16:CP:18:ARG:HD3	16:CP:35:LYS:HD2	1.75	0.67
27:BA:1605:C:H2'	27:BA:1606:G:O4'	1.95	0.67
27:DA:552:G:H1'	27:DA:1220:A:C2	2.30	0.67
40:BR:20:LEU:HD12	40:BR:24:GLN:HG3	1.75	0.67
27:BA:2790:A:N3	27:BA:2791:C:H5''	2.10	0.67
32:BF:2:LYS:O	32:BF:24:LEU:HB3	1.95	0.67
4:CD:200:GLU:O	4:CD:203:VAL:HB	1.94	0.67
27:BA:539:G:H2'	27:BA:540:C:C6	2.30	0.67
42:BT:31:SER:HB2	42:BT:32:TYR:CE2	2.30	0.67
32:DF:24:LEU:HB3	32:DF:25:PRO:HD2	1.76	0.67
8:AH:64:LYS:C	8:AH:65:TYR:HD1	1.98	0.67
27:DA:398:G:H2'	27:DA:399:G:C8	2.29	0.67
27:DA:97:C:H2'	27:DA:98:G:H8	1.58	0.67
27:DA:864:G:C5	27:DA:865:C:H5	2.13	0.67
55:D6:51:GLU:O	55:D6:52:VAL:HB	1.95	0.67
38:DP:99:LEU:HA	38:DP:102:ARG:NH1	2.10	0.67
27:DA:2580:U:H4'	31:DE:130:GLY:HA3	1.76	0.67
37:DO:71:ARG:HB3	37:DO:72:PRO:CD	2.25	0.67
1:CA:560:U:H5'	1:CA:566:G:N2	2.10	0.67
7:AG:41:ARG:HH11	7:AG:41:ARG:HG2	1.60	0.67
46:DX:12:VAL:HG12	46:DX:27:THR:HG23	1.77	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1665:A:O2'	27:BA:1666:G:H5'	1.95	0.67
27:DA:173:G:H2'	27:DA:174:C:H6	1.60	0.67
27:DA:2136:C:H2'	27:DA:2137:C:H6	1.60	0.67
7:AG:154:TYR:O	7:AG:156:TRP:N	2.27	0.67
27:DA:1754:C:OP1	42:DT:96:ARG:NH1	2.27	0.67
1:AA:1327:C:O2'	1:AA:1328:C:H5'	1.94	0.67
45:DW:27:LYS:O	45:DW:71:VAL:HG23	1.95	0.67
47:DY:61:ILE:O	47:DY:62:GLU:HB2	1.94	0.67
1:AA:609:A:C2'	1:AA:610:G:H5'	2.24	0.67
34:DH:158:HIS:O	34:DH:159:GLU:HB2	1.95	0.67
27:DA:1164:G:H1	27:DA:1185:C:H42	1.41	0.67
13:AM:110:ARG:HH11	13:AM:110:ARG:HG2	1.60	0.67
13:CM:89:GLY:O	13:CM:93:ARG:HD2	1.95	0.67
2:CB:36:ARG:H	2:CB:41:ILE:HD13	1.58	0.67
17:AQ:9:VAL:HG11	17:AQ:84:LEU:HD12	1.77	0.67
4:AD:178:VAL:C	4:AD:180:GLY:H	1.99	0.67
21:CU:6:ARG:HD3	21:CU:15:ARG:HH12	1.59	0.67
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.30	0.67
27:BA:2416:C:H6	27:BA:2416:C:O5'	1.78	0.66
33:BG:102:PHE:HA	33:BG:105:LYS:HZ2	1.59	0.66
44:BV:22:VAL:O	44:BV:23:GLU:HB2	1.95	0.66
44:BV:35:LEU:HB2	44:BV:57:VAL:CG1	2.25	0.66
44:BV:40:LEU:H	44:BV:47:VAL:HG13	1.58	0.66
19:CS:16:LEU:O	19:CS:20:LEU:HG	1.96	0.66
27:DA:987:G:O2'	27:DA:1000:A:N3	2.20	0.66
43:DU:47:TYR:HD1	43:DU:50:ARG:HH22	1.44	0.66
41:DS:90:GLY:O	41:DS:92:TYR:N	2.28	0.66
27:BA:2587:A:H2'	27:BA:2588:G:H5'	1.76	0.66
15:CO:74:ASP:OD2	15:CO:76:GLU:HB3	1.95	0.66
27:DA:1339:G:H21	27:DA:1603:A:H1'	1.59	0.66
35:BI:120:ILE:HG22	35:BI:121:LYS:N	2.09	0.66
13:AM:86:CYS:HA	19:AS:73:GLU:O	1.94	0.66
48:BZ:27:MET:HA	48:BZ:87:PHE:O	1.95	0.66
10:AJ:48:THR:HA	10:AJ:62:HIS:CB	2.26	0.66
32:DF:102:PRO:HB2	32:DF:105:VAL:CG2	2.26	0.66
1:CA:321:A:H4'	1:CA:1436:U:H4'	1.77	0.66
4:AD:146:ILE:H	4:AD:146:ILE:CD1	2.07	0.66
27:BA:1192:G:H2'	27:BA:1193:G:C5'	2.24	0.66
56:D7:25:PRO:HG3	56:D7:28:ARG:HH22	1.60	0.66
27:BA:2542:A:H5'	27:BA:2543:G:OP1	1.94	0.66
45:BW:62:HIS:O	45:BW:64:MET:HG3	1.95	0.66
13:CM:76:ALA:HA	13:CM:79:LYS:HB2	1.76	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:718:A:H3'	27:BA:719:C:C6	2.29	0.66
23:AW:4:G:H2'	23:AW:5:G:O4'	1.95	0.66
27:BA:2386:C:H2'	27:BA:2387:U:C6	2.30	0.66
35:DI:129:THR:O	35:DI:130:TYR:HB2	1.95	0.66
27:BA:1916:A:H3'	27:BA:1917:U:H6	1.60	0.66
1:CA:1266:G:H2'	1:CA:1268:A:OP2	1.95	0.66
40:DR:117:VAL:O	40:DR:118:GLU:HB2	1.93	0.66
3:CC:71:ALA:HA	3:CC:105:GLU:HG3	1.77	0.66
44:DV:5:VAL:HG23	44:DV:37:VAL:CG2	2.26	0.66
27:DA:2704:C:H2'	27:DA:2705:A:C8	2.30	0.66
47:BY:97:ARG:C	47:BY:98:VAL:HG23	2.14	0.66
37:BO:12:ASP:OD2	37:BO:14:THR:HB	1.95	0.66
27:DA:412:A:C8	27:DA:412:A:H5'	2.29	0.66
42:BT:27:THR:O	42:BT:28:VAL:CG2	2.35	0.66
27:DA:867:C:H2'	27:DA:868:U:C6	2.30	0.66
27:DA:529:A:H5''	27:DA:530:G:OP1	1.96	0.66
30:BD:72:LYS:CD	30:BD:75:ILE:HD12	2.24	0.66
9:AI:96:LEU:HD11	9:AI:102:LEU:HD23	1.75	0.66
8:AH:25:ASP:OD1	8:AH:25:ASP:N	2.28	0.66
27:DA:2755:C:H3'	58:D9:19:ARG:HH21	1.60	0.66
3:CC:73:PRO:HA	3:CC:76:VAL:HG22	1.76	0.66
27:DA:1275:A:C8	40:DR:16:HIS:HD2	2.13	0.66
40:DR:8:ARG:HE	40:DR:8:ARG:HA	1.60	0.66
55:B6:32:ASN:CG	55:B6:33:LYS:H	1.98	0.66
48:DZ:60:LEU:CB	48:DZ:64:GLN:HB2	2.25	0.66
2:CB:178:ARG:HH22	8:CH:68:ARG:NH2	1.93	0.66
11:CK:21:ILE:HD12	11:CK:21:ILE:N	2.09	0.66
45:DW:24:ILE:O	45:DW:71:VAL:HG21	1.95	0.66
2:AB:56:ARG:O	2:AB:60:ASP:HB2	1.95	0.66
37:BO:108:GLU:C	37:BO:110:GLY:H	1.99	0.66
16:AP:15:PRO:O	16:AP:16:HIS:ND1	2.28	0.66
36:DN:25:ARG:CG	36:DN:25:ARG:HH11	2.08	0.66
27:BA:2052:G:N3	31:BE:149:ARG:HA	2.10	0.66
1:AA:1146:A:C2'	1:AA:1147:C:H5''	2.25	0.66
49:D0:48:GLY:HA3	49:D0:80:HIS:ND1	2.10	0.66
1:AA:1113:C:H2'	1:AA:1114:C:H6	1.60	0.66
27:DA:714:U:H2'	27:DA:715:G:H5''	1.76	0.66
27:DA:2862:G:O2'	27:DA:2863:C:H5'	1.95	0.66
40:BR:53:HIS:HD2	40:BR:94:TYR:OH	1.78	0.66
27:BA:2183:C:H2'	27:BA:2184:G:H8	1.59	0.66
32:BF:192:LEU:HD23	32:BF:193:VAL:N	2.11	0.66
38:DP:71:VAL:CG1	38:DP:72:PRO:HD3	2.09	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DG:15:VAL:HG13	33:DG:175:LEU:HD22	1.76	0.66
23:AW:30:A:C3'	23:AW:31:U:H5''	2.24	0.66
4:AD:8:VAL:HB	4:AD:22:LYS:HZ1	1.60	0.66
30:BD:60:ARG:HE	30:BD:86:PRO:HB2	1.59	0.66
3:CC:113:ALA:HB2	3:CC:202:ILE:HG13	1.78	0.66
2:AB:141:GLU:O	2:AB:145:LEU:HD23	1.95	0.66
32:DF:108:LYS:O	32:DF:112:MET:N	2.25	0.66
32:DF:157:VAL:HB	32:DF:194:MET:CB	2.24	0.66
27:BA:1171:G:H3'	27:BA:1173:G:H4'	1.76	0.66
48:BZ:149:LEU:O	48:BZ:170:ILE:HD11	1.96	0.66
1:AA:619:U:H6	1:AA:619:U:O5'	1.78	0.66
11:AK:48:ILE:CD1	11:AK:64:ALA:HA	2.25	0.66
1:AA:737:A:H2'	1:AA:738:C:H6	1.58	0.66
27:BA:626:U:C5'	27:BA:627:A:H5'	2.25	0.66
45:DW:29:LEU:HD12	45:DW:29:LEU:O	1.95	0.66
33:BG:35:GLU:HB2	33:BG:160:VAL:O	1.94	0.66
27:BA:2037:G:H2'	27:BA:2038:G:H8	1.58	0.66
11:CK:123:LYS:O	11:CK:126:ARG:HB2	1.95	0.66
1:CA:997:U:H2'	1:CA:998:G:C8	2.30	0.66
53:D4:48:ILE:HD12	53:D4:48:ILE:H	1.59	0.66
27:BA:2057:A:H2'	27:BA:2058:A:O4'	1.96	0.66
27:BA:2340:G:O2'	27:BA:2341:G:H5'	1.94	0.66
50:D1:3:LYS:HG3	50:D1:4:VAL:H	1.58	0.66
33:BG:109:VAL:C	33:BG:112:PRO:HD2	2.16	0.66
31:BE:75:VAL:HG12	31:BE:76:ARG:H	1.60	0.66
31:DE:32:PRO:HA	31:DE:90:THR:HA	1.76	0.66
38:DP:144:GLU:H	38:DP:145:PRO:CD	2.07	0.66
38:DP:38:GLN:HG3	38:DP:39:LYS:N	2.10	0.66
58:D9:15:LYS:HE2	58:D9:17:ILE:CD1	2.21	0.66
1:CA:227:G:H2'	1:CA:228:A:H8	1.60	0.66
23:CW:42:G:H3'	23:CW:43:C:C5'	2.24	0.66
10:AJ:5:ARG:HA	10:AJ:73:ASP:OD1	1.95	0.66
1:CA:193:C:C2'	1:CA:194:C:H5'	2.25	0.66
46:BX:31:HIS:CD2	46:BX:33:LYS:H	2.14	0.66
5:CE:12:LEU:HD13	5:CE:12:LEU:C	2.16	0.66
27:DA:1658:C:OP1	31:DE:132:HIS:O	2.13	0.66
8:CH:109:ILE:HD11	8:CH:120:THR:HG21	1.77	0.66
39:BQ:26:TYR:HD1	39:BQ:28:ALA:HB2	1.58	0.66
30:DD:111:LEU:HD13	30:DD:112:GLN:N	2.09	0.66
39:DQ:98:LYS:HB3	39:DQ:99:PRO:CD	2.25	0.66
27:BA:1936:A:H3'	27:BA:1937:A:H5''	1.78	0.66
56:D7:29:LYS:HG2	56:D7:33:ARG:HH21	1.60	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BH:32:GLU:O	34:BH:33:LEU:HD23	1.96	0.66
46:BX:92:LEU:O	46:BX:94:GLY:N	2.25	0.66
27:DA:271(U):G:O2'	27:DA:271(V):G:H5'	1.96	0.66
38:BP:17:LYS:CG	38:BP:19:VAL:HG23	2.25	0.66
30:DD:58:HIS:CD2	30:DD:59:LYS:O	2.47	0.66
27:DA:908:C:OP2	39:DQ:22:LYS:HD2	1.95	0.66
27:DA:2392:A:OP2	57:D8:31:HIS:HE1	1.78	0.66
27:DA:2575:C:H2'	27:DA:2578:G:O6	1.95	0.66
27:DA:2511:U:O3'	31:DE:123:ALA:HB3	1.96	0.66
1:AA:174:C:H2'	1:AA:175:C:C6	2.30	0.66
36:BN:85:ILE:HG21	36:BN:90:MET:CE	2.25	0.66
1:CA:221:C:O2'	1:CA:222:U:H5'	1.96	0.66
32:DF:187:VAL:C	38:DP:7:ARG:HH22	1.98	0.66
42:DT:118:ARG:HB3	42:DT:122:ASP:OD1	1.95	0.66
34:BH:10:PRO:HG2	34:BH:50:VAL:H	1.58	0.66
25:CY:2:G:H1	25:CY:70:C:N4	1.92	0.66
27:BA:271(P):C:H5'	27:BA:271(P):C:H6	1.61	0.66
39:BQ:65:PHE:HB2	39:BQ:105:GLU:HG2	1.77	0.66
27:DA:1221(A):C:N4	27:DA:1228:G:H1	1.92	0.66
39:DQ:10:ARG:HG3	39:DQ:10:ARG:NH1	2.10	0.66
1:AA:967:C:OP2	1:AA:969:A:H5'	1.95	0.66
24:CX:23:C:H2'	24:CX:24:U:H6	1.60	0.66
47:DY:88:LYS:CE	47:DY:93:GLY:HA3	2.25	0.66
27:BA:922:U:H2'	27:BA:923:C:H6	1.58	0.66
28:BB:105:A:H2'	28:BB:106:G:C5'	2.25	0.66
27:BA:1195:G:O2'	27:BA:1196:C:H5'	1.95	0.66
35:BI:84:GLY:O	35:BI:85:GLU:HB2	1.96	0.66
11:AK:126:ARG:HB3	11:AK:126:ARG:NH1	2.09	0.66
6:AF:49:ALA:HB1	18:AR:80:PRO:HB3	1.76	0.66
9:CI:77:ILE:O	9:CI:81:ILE:HG12	1.95	0.66
10:CJ:53:PRO:HA	14:CN:42:ILE:HD13	1.77	0.66
32:BF:181:LEU:HB3	32:BF:205:ARG:HH12	1.58	0.66
31:BE:21:VAL:O	31:BE:23:VAL:HG13	1.95	0.66
31:DE:51:PHE:CD1	31:DE:52:LEU:N	2.64	0.66
27:DA:2787:C:C1'	31:DE:61:ARG:HG3	2.21	0.66
55:D6:10:LEU:H	55:D6:10:LEU:HD23	1.59	0.66
27:DA:1264:G:H5'	54:D5:11:THR:OG1	1.95	0.66
34:BH:19:VAL:HG21	34:BH:44:VAL:HA	1.76	0.66
47:BY:11:ASP:N	47:BY:27:VAL:HG22	2.11	0.66
12:CL:22:PRO:C	12:CL:24:LEU:H	1.96	0.66
34:DH:58:GLU:O	34:DH:62:LYS:HG3	1.94	0.66
2:AB:42:ILE:CD1	2:AB:202:PRO:HB2	2.24	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DF:109:GLY:O	32:DF:113:ALA:N	2.22	0.66
15:AO:81:LEU:HG	15:AO:82:ILE:N	2.10	0.66
1:CA:1065:U:H5''	1:CA:1190:G:N2	2.10	0.66
3:CC:64:VAL:HG22	3:CC:99:VAL:HA	1.77	0.66
27:BA:2419:U:H5'	55:B6:23:THR:HG21	1.77	0.66
37:DO:16:ALA:HB2	37:DO:52:VAL:HG11	1.78	0.66
27:DA:931:G:O2'	52:D3:24:LYS:HD2	1.95	0.66
1:CA:762:C:O2'	1:CA:763:G:H5'	1.96	0.66
11:CK:78:GLN:O	11:CK:103:LEU:HD13	1.95	0.66
1:CA:853:G:O2'	1:CA:854:G:H5'	1.95	0.66
9:AI:70:LYS:O	9:AI:74:ILE:HG13	1.95	0.66
30:BD:158:ALA:HB3	30:BD:161:THR:HG21	1.76	0.66
38:BP:89:ALA:HA	38:BP:121:LYS:CD	2.25	0.66
1:AA:565:U:H3'	1:AA:566:G:H2'	1.78	0.66
27:DA:1895:C:O2'	27:DA:1896:G:H5'	1.96	0.66
27:BA:54:G:O2'	56:B7:35:ARG:HD3	1.95	0.66
27:BA:1346:G:H2'	27:BA:1347:G:H8	1.60	0.66
27:BA:2787:C:O2	27:BA:2787:C:H2'	1.95	0.66
32:DF:24:LEU:O	32:DF:26:ALA:N	2.28	0.66
43:DU:65:ILE:HD11	43:DU:96:ALA:HB3	1.77	0.66
44:DV:2:PHE:O	44:DV:14:VAL:O	2.13	0.66
27:DA:993:G:H1'	44:DV:89:GLN:HG3	1.78	0.66
30:BD:76:PRO:HG2	30:BD:98:VAL:HG21	1.76	0.66
1:CA:187:C:H5'	20:CT:82:SER:HA	1.78	0.66
27:BA:1991:U:H5''	27:BA:1991:U:H6	1.60	0.66
27:BA:1316:U:H2'	27:BA:1317:A:H8	1.59	0.66
48:BZ:149:LEU:HD23	48:BZ:170:ILE:CG1	2.22	0.66
40:DR:14:SER:O	40:DR:16:HIS:N	2.28	0.66
39:BQ:57:HIS:CE1	39:BQ:116:GLU:HG2	2.31	0.66
5:CE:13:ILE:HA	5:CE:29:GLY:O	1.95	0.66
19:CS:61:TYR:O	19:CS:62:ILE:HB	1.95	0.66
33:DG:107:LEU:HD11	33:DG:178:PHE:CE1	2.30	0.66
27:DA:227:A:H61	27:DA:410:G:N2	1.92	0.66
1:AA:1108:G:OP2	3:AC:174:PRO:HA	1.96	0.66
1:AA:1116:C:C2'	1:AA:1117:G:H5'	2.24	0.66
27:BA:2117:A:O2'	27:BA:2118:U:H3'	1.95	0.66
4:AD:146:ILE:HD12	4:AD:146:ILE:N	2.11	0.66
1:CA:831:U:C2'	1:CA:832:C:H5'	2.25	0.66
27:BA:194:G:H2'	27:BA:195:A:O4'	1.95	0.66
1:AA:559:A:H4'	1:AA:560:U:O5'	1.96	0.66
27:DA:896:A:H2	48:DZ:113:GLY:HA3	1.61	0.66
1:AA:1022:G:H2'	1:AA:1023:G:H8	1.60	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:BY:85:VAL:HG13	47:BY:92:ASN:OD1	1.95	0.66
15:AO:18:PHE:CD1	15:AO:18:PHE:O	2.48	0.66
45:BW:28:SER:OG	45:BW:31:GLU:HB2	1.96	0.66
50:B1:93:GLU:C	50:B1:95:LEU:H	1.99	0.66
27:BA:635:C:H2'	27:BA:636:G:C8	2.29	0.66
27:BA:2415:G:H4'	38:BP:67:MET:H	1.61	0.66
19:CS:33:THR:OG1	19:CS:34:TRP:N	2.27	0.66
32:BF:20:LEU:CD1	32:BF:203:GLN:HE22	2.08	0.66
32:BF:3:GLU:CB	32:BF:24:LEU:HG	2.26	0.66
27:BA:2682:U:H6	27:BA:2682:U:H5'	1.60	0.66
27:DA:1138:G:H2'	27:DA:1139:G:O4'	1.95	0.66
48:DZ:156:LEU:HB3	48:DZ:160:VAL:HG12	1.78	0.66
27:BA:673:C:C2'	27:BA:674:G:H5'	2.25	0.66
38:DP:71:VAL:HG13	38:DP:72:PRO:CD	2.11	0.66
1:AA:189(E):U:O2'	1:AA:189(F):U:H5''	1.96	0.66
17:AQ:43:LEU:CD1	17:AQ:68:ARG:HG2	2.24	0.66
27:DA:1496:A:H2'	27:DA:1498:C:N4	2.11	0.66
38:DP:123:LEU:CD1	38:DP:125:VAL:HG12	2.25	0.66
58:D9:18:ARG:O	58:D9:18:ARG:HG3	1.94	0.66
1:AA:109:A:H2'	1:AA:326:G:H21	1.59	0.66
31:BE:46:ALA:CB	31:BE:82:ARG:HA	2.24	0.66
1:AA:1100:C:O2	1:AA:1102:A:H5'	1.96	0.66
31:DE:9:VAL:HG22	31:DE:10:GLY:N	2.10	0.66
15:CO:87:ILE:HG22	15:CO:88:ARG:N	2.07	0.66
47:BY:87:LYS:HG3	47:BY:88:LYS:H	1.58	0.66
29:DC:36:LYS:HD3	29:DC:37:PHE:N	2.10	0.66
56:D7:1:MET:N	56:D7:1:MET:SD	2.64	0.66
27:DA:1314:C:N3	27:DA:1339:G:C2	2.64	0.66
27:DA:1351:C:H2'	27:DA:1352:U:C6	2.31	0.66
27:DA:2822:G:OP2	40:DR:2:ARG:NH1	2.29	0.66
3:AC:114:PRO:HD3	3:AC:184:TYR:O	1.96	0.66
8:AH:6:ILE:HD13	8:AH:85:ARG:HH22	1.59	0.66
27:BA:1588:C:O2	27:BA:1588:C:H2'	1.96	0.66
39:BQ:57:HIS:HE1	39:BQ:116:GLU:HG2	1.61	0.66
27:BA:762:U:H4'	27:BA:763:G:O5'	1.95	0.66
10:CJ:8:LEU:CD2	10:CJ:96:ILE:HG22	2.25	0.66
23:AW:63:C:H2'	23:AW:64:G:H8	1.59	0.66
3:AC:58:GLU:H	3:AC:65:ALA:HB3	1.61	0.66
46:DX:64:LYS:HZ2	46:DX:73:ARG:NH1	1.92	0.66
33:BG:91:ARG:C	33:BG:91:ARG:HD2	2.16	0.66
28:BB:105:A:C2'	28:BB:106:G:H5'	2.26	0.66
27:BA:718:A:H3'	27:BA:719:C:H6	1.60	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CF:78:GLU:O	6:CF:81:ILE:HG13	1.96	0.66
1:CA:830:G:H1	1:CA:856:C:H42	1.44	0.66
9:AI:97:LYS:HB3	9:AI:98:PRO:HD3	1.77	0.66
34:DH:68:THR:CG2	34:DH:72:ILE:HD11	2.26	0.66
1:AA:76:C:H42	1:AA:93:G:H1	1.41	0.66
1:AA:332:G:O2'	1:AA:333:G:H5'	1.96	0.66
27:DA:1398:C:H5'	27:DA:1398:C:C6	2.30	0.66
32:BF:20:LEU:HD22	32:BF:203:GLN:HE22	1.61	0.66
31:BE:184:VAL:CG1	31:BE:185:LYS:N	2.59	0.66
43:BU:92:ARG:HG2	44:BV:11:GLN:NE2	2.10	0.66
30:DD:25:THR:HG22	30:DD:26:LYS:H	1.61	0.66
33:DG:142:PRO:HG2	33:DG:143:GLU:H	1.61	0.66
14:CN:13:THR:N	14:CN:14:PRO:CD	2.59	0.66
48:DZ:124:LEU:HD12	48:DZ:125:VAL:H	1.61	0.66
38:BP:144:GLU:HG2	38:BP:144:GLU:O	1.96	0.66
40:DR:13:HIS:ND1	40:DR:13:HIS:O	2.29	0.66
39:BQ:58:PHE:O	39:BQ:58:PHE:HD1	1.78	0.66
57:B8:51:ALA:N	57:B8:53:PRO:HD2	2.09	0.66
35:DI:81:VAL:HG21	35:DI:142:VAL:CG1	2.26	0.66
54:D5:41:PRO:HG2	54:D5:44:THR:OG1	1.95	0.66
1:AA:578:C:O2'	1:AA:579:G:H8	1.79	0.66
15:AO:7:GLU:O	15:AO:11:VAL:HG23	1.96	0.66
37:BO:13:ASN:N	37:BO:13:ASN:OD1	2.27	0.66
32:BF:165:ARG:HA	32:BF:168:ARG:CD	2.24	0.66
11:AK:13:GLN:OE1	11:AK:75:TYR:HA	1.95	0.66
27:BA:1286:A:C2'	27:BA:1288:U:OP2	2.44	0.66
1:CA:1134:G:N2	1:CA:1141:C:C2	2.64	0.66
37:DO:101:PRO:HG2	42:DT:67:SER:HB3	1.77	0.66
5:CE:94:ALA:HB3	5:CE:118:ILE:N	2.10	0.66
1:CA:611:A:O2'	1:CA:612:C:H5'	1.96	0.66
48:DZ:13:LYS:N	48:DZ:14:PRO:HD3	2.11	0.66
33:DG:119:GLY:O	33:DG:181:ARG:NE	2.29	0.66
29:BC:19:VAL:HG12	29:BC:20:TYR:HD1	1.61	0.66
30:DD:62:TYR:HA	30:DD:87:ASN:HD21	1.60	0.66
27:BA:1476:C:H2'	27:BA:1477:A:H8	1.59	0.66
1:CA:584:G:H2'	1:CA:585:G:C8	2.31	0.66
30:BD:93:ALA:HB2	30:BD:107:ALA:HB2	1.77	0.66
27:BA:1018:C:H2'	27:BA:1018:C:O2	1.96	0.66
29:BC:193:ILE:O	29:BC:195:ALA:N	2.28	0.66
37:BO:121:VAL:HG12	37:BO:121:VAL:O	1.96	0.66
38:BP:48:PRO:CG	38:BP:49:ARG:H	2.09	0.66
41:BS:88:ASP:OD2	41:BS:89:ARG:N	2.29	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:BY:99:CYS:SG	59:BY:201:MG:MG	1.79	0.66
27:DA:251:A:H2'	27:DA:252:G:O4'	1.95	0.66
27:DA:1827:C:OP2	30:DD:222:ARG:NH1	2.28	0.66
48:DZ:149:LEU:HD22	48:DZ:149:LEU:H	1.59	0.66
36:BN:4:TYR:HB2	43:BU:64:ARG:HH12	1.60	0.66
27:DA:2247:A:H2'	27:DA:2248:C:C6	2.30	0.66
27:DA:582:G:H2'	27:DA:583:G:C8	2.31	0.66
1:CA:197:A:O2'	1:CA:198:G:C8	2.49	0.66
47:BY:31:LEU:HD23	47:BY:36:ALA:O	1.95	0.66
1:AA:1221:G:O2'	1:AA:1222:G:H5'	1.96	0.66
27:BA:1310:G:N2	27:BA:1313:U:C4	2.64	0.66
1:AA:452:A:O2'	1:AA:453:A:H5''	1.95	0.66
27:BA:2200:C:H2'	27:BA:2201:C:C6	2.28	0.66
27:BA:2267:A:N3	27:BA:2267:A:H2'	2.09	0.66
12:AL:38:ARG:NH1	12:AL:54:LYS:NZ	2.44	0.66
39:DQ:1:MET:HE1	39:DQ:44:ALA:HB1	1.77	0.66
48:BZ:150:HIS:CB	48:BZ:169:THR:HA	2.24	0.66
27:DA:598:G:H5'	38:DP:15:ARG:HD2	1.76	0.66
41:BS:48:LEU:N	41:BS:48:LEU:HD12	2.10	0.66
27:DA:1503:U:H2'	27:DA:1504:C:C6	2.28	0.66
42:BT:13:ARG:C	42:BT:15:VAL:H	1.98	0.66
1:CA:862:C:O4'	1:CA:874:G:H4'	1.96	0.66
1:AA:1067:A:H1'	1:AA:1068:G:O4'	1.95	0.66
39:DQ:38:GLU:HG3	39:DQ:127:ILE:HB	1.78	0.66
5:AE:40:ARG:HB3	5:AE:66:MET:HE3	1.76	0.66
27:BA:2732:G:C3'	27:BA:2733:A:H5'	2.25	0.66
27:DA:1050:A:HO2'	27:DA:1051:G:H8	1.44	0.66
4:AD:156:GLU:O	4:AD:160:GLN:HG3	1.97	0.66
27:DA:1174:A:H5''	27:DA:1175:U:H5'	1.77	0.66
24:AX:29:G:O2'	24:AX:30:G:H5'	1.96	0.66
54:B5:57:VAL:O	54:B5:58:LEU:HD23	1.96	0.66
47:BY:96:ILE:HD12	47:BY:99:CYS:CB	2.25	0.65
47:BY:60:PHE:HA	47:BY:62:GLU:OE2	1.96	0.65
31:BE:50:GLY:HA2	31:BE:78:LEU:CB	2.26	0.65
27:DA:38:A:O2'	27:DA:39:C:H5'	1.96	0.65
11:AK:32:ILE:HG12	11:AK:41:THR:O	1.97	0.65
39:BQ:110:THR:HG23	39:BQ:113:GLN:CB	2.18	0.65
27:DA:143:G:O4'	46:DX:37:THR:HG21	1.96	0.65
46:DX:26:TYR:CD2	46:DX:92:LEU:HD12	2.31	0.65
34:DH:85:LYS:HD2	34:DH:141:VAL:HG13	1.77	0.65
2:AB:172:ILE:H	2:AB:172:ILE:CD1	2.05	0.65
16:AP:6:LEU:HB3	16:AP:17:TYR:CB	2.26	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DE:9:VAL:CG1	31:DE:25:VAL:HB	2.26	0.65
42:BT:106:SER:HB3	42:BT:110:ILE:HD11	1.76	0.65
10:CJ:48:THR:HA	10:CJ:62:HIS:HB2	1.78	0.65
35:DI:77:LEU:HD23	35:DI:78:THR:N	2.11	0.65
13:AM:15:VAL:HG12	13:AM:45:VAL:CG2	2.26	0.65
12:CL:5:ASN:HA	12:CL:8:VAL:CG2	2.26	0.65
8:CH:112:LEU:HA	8:CH:134:ILE:HG12	1.76	0.65
27:DA:783:A:H2'	27:DA:784:A:O5'	1.95	0.65
3:AC:70:VAL:HG12	3:AC:72:LYS:H	1.61	0.65
27:DA:763:G:N3	27:DA:765:G:H1'	2.10	0.65
39:DQ:18:LYS:H	39:DQ:98:LYS:HE2	1.60	0.65
6:AF:24:GLU:HG3	6:AF:25:ILE:N	2.11	0.65
4:AD:189:PRO:HB2	4:AD:194:LEU:HD21	1.76	0.65
28:BB:91:C:H2'	28:BB:92:C:H6	1.61	0.65
8:AH:107:LEU:HD23	8:AH:107:LEU:H	1.61	0.65
39:DQ:38:GLU:OE2	39:DQ:127:ILE:HG22	1.96	0.65
24:CX:73:A:H5'	24:CX:74:C:H5'	1.78	0.65
47:DY:52:SER:O	47:DY:54:LYS:N	2.28	0.65
1:AA:1030(B):C:H2'	1:AA:1030(C):G:H5'	1.78	0.65
27:DA:380:U:H2'	27:DA:381:G:C8	2.31	0.65
1:CA:932:C:O2	1:CA:932:C:H2'	1.95	0.65
27:BA:816:C:H2'	27:BA:817:C:H6	1.61	0.65
1:CA:1220:G:O2'	1:CA:1221:G:H5'	1.96	0.65
32:BF:20:LEU:HB3	32:BF:23:ASP:CG	2.16	0.65
31:BE:57:LYS:CA	31:BE:59:VAL:HG12	2.26	0.65
52:B3:29:ARG:HB2	52:B3:33:GLN:NE2	2.07	0.65
42:BT:66:VAL:HA	42:BT:71:GLY:HA2	1.79	0.65
27:BA:1748:G:H8	27:BA:1748:G:H5'	1.61	0.65
4:CD:134:ASP:OD2	4:CD:135:LEU:HD13	1.96	0.65
47:BY:26:LYS:HG2	47:BY:27:VAL:N	2.06	0.65
42:DT:88:ILE:CG2	42:DT:89:VAL:N	2.56	0.65
32:BF:88:VAL:HG13	32:BF:89:VAL:O	1.95	0.65
31:BE:86:PRO:C	31:BE:88:GLY:H	1.98	0.65
2:CB:51:LEU:HD23	2:CB:201:ILE:HD12	1.78	0.65
46:BX:12:VAL:CG1	46:BX:17:ALA:HB1	2.25	0.65
3:CC:99:VAL:HG23	3:CC:99:VAL:O	1.96	0.65
1:CA:677:U:H2'	1:CA:678:U:C6	2.32	0.65
27:DA:1620:G:O4'	56:D7:1:MET:HA	1.96	0.65
27:DA:1612:C:O3'	56:D7:5:TRP:HD1	1.79	0.65
5:CE:29:GLY:HA2	5:CE:45:PHE:HE1	1.61	0.65
31:DE:171:GLU:OE2	31:DE:173:VAL:HG23	1.96	0.65
3:AC:70:VAL:CG1	3:AC:72:LYS:H	2.09	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BF:41:LEU:HD11	32:BF:184:TYR:CE1	2.30	0.65
38:BP:6:LEU:HD12	38:BP:8:PRO:HG2	1.78	0.65
24:CX:53:G:O2'	24:CX:54:U:H5'	1.95	0.65
5:CE:100:VAL:HG22	5:CE:118:ILE:HG22	1.79	0.65
32:BF:45:ARG:NH1	32:BF:97:TYR:CE1	2.64	0.65
44:DV:75:PHE:HD2	44:DV:82:ARG:HG3	1.61	0.65
53:D4:44:CYS:SG	53:D4:64:LYS:HB2	2.37	0.65
57:B8:30:ARG:HE	57:B8:30:ARG:HA	1.61	0.65
27:BA:1404:C:O2	27:BA:1404:C:H2'	1.96	0.65
27:DA:203:C:H3'	27:DA:204:A:H5''	1.78	0.65
32:BF:21:ALA:O	32:BF:23:ASP:N	2.29	0.65
31:BE:200:GLU:HG2	31:BE:201:THR:N	2.12	0.65
42:BT:32:TYR:CG	42:BT:81:PRO:HB2	2.30	0.65
27:DA:2230:G:C1'	50:D1:45:ASN:HB2	2.12	0.65
47:DY:96:ILE:CG1	47:DY:99:CYS:HB2	2.26	0.65
27:BA:2801(A):A:H4'	27:BA:2802:G:C5'	2.20	0.65
41:DS:99:LYS:O	41:DS:101:LEU:N	2.29	0.65
33:BG:56:ALA:HA	33:BG:59:GLU:OE1	1.97	0.65
55:D6:16:CYS:O	55:D6:17:LYS:HB2	1.95	0.65
48:DZ:27:MET:HE2	48:DZ:34:ARG:HB2	1.77	0.65
1:CA:42:G:H2'	1:CA:43:C:C6	2.30	0.65
1:CA:173:U:H1'	1:CA:197:A:C5	2.31	0.65
1:CA:63:C:H5'	1:CA:64:G:OP2	1.96	0.65
1:CA:376:G:H5''	16:CP:5:ARG:HG3	1.77	0.65
31:BE:3:GLY:O	31:BE:4:ILE:HB	1.95	0.65
27:BA:1315:C:O2'	27:BA:1316:U:H5'	1.96	0.65
1:CA:179:A:C4	1:CA:180:U:C5	2.84	0.65
48:DZ:127:VAL:HG21	48:DZ:131:ASN:O	1.97	0.65
49:B0:36:ILE:HD12	49:B0:37:LEU:N	2.11	0.65
35:BI:91:SER:CB	35:BI:119:PRO:HB2	2.26	0.65
27:BA:644:A:H4'	27:BA:645:C:C5	2.30	0.65
1:AA:618:C:H3'	1:AA:619:U:H5''	1.78	0.65
51:B2:48:HIS:ND1	51:B2:49:LYS:N	2.45	0.65
39:BQ:106:VAL:HG21	39:BQ:114:ALA:CB	2.26	0.65
5:AE:78:HIS:HD2	8:AH:104:ARG:CZ	2.09	0.65
1:CA:1442(A):G:H22	42:DT:119:LYS:HB2	1.61	0.65
5:CE:78:HIS:ND1	8:CH:107:LEU:CD1	2.60	0.65
45:DW:23:LEU:CD2	45:DW:39:THR:HG21	2.26	0.65
50:B1:19:GLN:HB2	50:B1:36:GLY:N	2.11	0.65
1:CA:568:G:N2	1:CA:883:C:C2	2.64	0.65
7:AG:137:LYS:O	7:AG:141:VAL:HG23	1.96	0.65
18:CR:64:ARG:O	18:CR:65:ILE:C	2.33	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1946:U:C2	27:DA:1947:C:C5	2.85	0.65
31:DE:103:ASP:CG	31:DE:201:THR:HA	2.17	0.65
27:DA:1042:G:H5''	27:DA:1043:C:C6	2.31	0.65
1:AA:544:G:OP1	4:AD:66:ARG:NH2	2.30	0.65
1:AA:324:G:C8	1:AA:324:G:H3'	2.31	0.65
1:AA:927:G:O2'	1:AA:928:G:H5'	1.96	0.65
24:AX:53:G:H2'	24:AX:54:U:H6	1.62	0.65
22:CV:1:A:H2'	22:CV:2:A:H5'	1.78	0.65
27:BA:1695:G:N2	27:BA:1696:G:C8	2.65	0.65
19:CS:36:ARG:HA	19:CS:71:LEU:HB2	1.77	0.65
27:DA:1024:G:C3'	27:DA:1025:G:H5''	2.27	0.65
47:BY:46:LYS:HG2	47:BY:47:LYS:HE3	1.78	0.65
27:DA:2261:C:O2'	27:DA:2262:U:H5'	1.96	0.65
39:DQ:81:VAL:CG2	39:DQ:82:ARG:N	2.60	0.65
4:CD:173:TRP:O	4:CD:174:LEU:HD23	1.95	0.65
27:DA:1803:A:O2'	30:DD:259:THR:HG21	1.96	0.65
46:BX:64:LYS:NZ	46:BX:73:ARG:NE	2.37	0.65
32:DF:184:TYR:O	32:DF:188:ARG:HB2	1.96	0.65
2:CB:71:VAL:HB	2:CB:164:VAL:HG22	1.77	0.65
1:CA:242:C:H2'	1:CA:243:A:H5'	1.79	0.65
1:CA:133:U:H1'	1:CA:230:G:N2	2.12	0.65
1:CA:964:A:H5''	1:CA:965:A:OP2	1.97	0.65
27:BA:385:C:O2	27:BA:390:A:C2	2.49	0.65
1:CA:1203:C:H2'	1:CA:1204:A:O4'	1.97	0.65
29:DC:66:HIS:ND1	29:DC:68:LEU:HG	2.12	0.65
49:B0:36:ILE:HD12	49:B0:36:ILE:C	2.17	0.65
27:DA:319:C:O2'	27:DA:320:A:H5'	1.96	0.65
39:DQ:42:ILE:HD13	39:DQ:97:VAL:CG2	2.26	0.65
4:AD:149:ALA:O	4:AD:153:ARG:HG3	1.96	0.65
54:D5:42:PRO:O	54:D5:43:HIS:HB2	1.97	0.65
12:CL:4:ILE:HG22	12:CL:5:ASN:N	2.11	0.65
27:DA:222:A:N6	27:DA:232:G:H1'	2.11	0.65
33:BG:2:PRO:O	33:BG:4:ASP:N	2.30	0.65
12:AL:82:ILE:CG2	12:AL:95:TYR:HB3	2.26	0.65
36:DN:28:THR:HG23	36:DN:29:LYS:N	2.11	0.65
27:BA:271(A):A:H5''	27:BA:271(B):C:OP2	1.96	0.65
37:DO:101:PRO:HD2	42:DT:70:VAL:HG23	1.78	0.65
4:AD:57:ARG:HD3	4:AD:205:GLU:CB	2.27	0.65
1:AA:1019:C:O2'	1:AA:1020:U:H5'	1.97	0.65
40:DR:46:GLY:HA2	40:DR:49:ASP:HB2	1.78	0.65
1:AA:415:A:H2'	1:AA:416:G:C8	2.32	0.65
27:DA:2236:C:C2'	27:DA:2237:G:H5'	2.27	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DH:149:ARG:HH21	34:DH:154:PRO:HG2	1.60	0.65
4:AD:94:LEU:O	4:AD:97:LEU:HB2	1.97	0.65
47:BY:97:ARG:O	47:BY:97:ARG:HG3	1.97	0.65
38:DP:50:ARG:HB3	57:D8:59:LYS:HD2	1.78	0.65
38:DP:50:ARG:HB3	57:D8:59:LYS:HD3	1.77	0.65
1:CA:413:G:N2	1:CA:428:G:O2'	2.27	0.65
2:CB:207:ALA:O	2:CB:209:ARG:N	2.25	0.65
42:BT:83:ILE:HG13	42:BT:84:GLN:H	1.60	0.65
42:BT:27:THR:OG1	42:BT:28:VAL:N	2.30	0.65
28:BB:94:C:C2'	28:BB:95:C:H5'	2.27	0.65
38:DP:144:GLU:N	38:DP:145:PRO:HD3	2.08	0.65
12:CL:23:ALA:C	12:CL:24:LEU:HD22	2.16	0.65
42:DT:51:ARG:O	42:DT:61:PHE:HA	1.96	0.65
3:CC:112:SER:HB3	3:CC:115:LEU:HD12	1.79	0.65
27:BA:1643:G:H21	27:BA:1644:C:H1'	1.61	0.65
27:BA:1655:A:H4'	31:BE:115:GLY:H	1.62	0.65
34:BH:147:ASN:O	34:BH:150:ALA:HB3	1.96	0.65
37:BO:35:VAL:HG23	37:BO:65:THR:HG23	1.78	0.65
14:CN:26:ARG:CD	14:CN:43:CYS:SG	2.85	0.65
27:DA:740:U:H2'	27:DA:741:G:H8	1.62	0.65
48:DZ:93:GLU:O	48:DZ:129:PRO:HD3	1.96	0.65
27:DA:1299:G:H2'	27:DA:1639:U:O4	1.96	0.65
27:DA:1340:U:O2'	27:DA:1341:U:OP1	2.13	0.65
30:DD:33:LEU:O	30:DD:34:VAL:HG12	1.95	0.65
35:DI:77:LEU:HD22	35:DI:140:LEU:HD11	1.78	0.65
30:BD:210:GLY:O	30:BD:211:ARG:HB2	1.96	0.65
7:AG:140:ASP:HA	7:AG:143:ARG:NH1	2.11	0.65
1:CA:339:C:H2'	1:CA:340:U:C6	2.32	0.65
30:DD:181:GLU:HA	30:DD:272:ALA:CB	2.26	0.65
45:BW:45:TYR:O	45:BW:48:ALA:HB3	1.97	0.65
15:AO:3:ILE:HG22	15:AO:38:ARG:CZ	2.26	0.65
28:BB:8:U:H5'	28:BB:8:U:H6	1.60	0.65
1:CA:1246:C:H2'	1:CA:1247:U:C6	2.31	0.65
28:DB:24:G:H4'	28:DB:25:A:H5'	1.79	0.65
15:CO:37:ASN:HD22	15:CO:37:ASN:N	1.95	0.65
19:CS:18:LYS:HG2	19:CS:31:ILE:HD12	1.78	0.65
27:BA:1504:C:H2'	27:BA:1505:C:H5''	1.79	0.65
2:AB:238:LEU:O	2:AB:238:LEU:HG	1.97	0.65
27:BA:2455:G:H2'	27:BA:2456:C:C6	2.31	0.65
1:CA:955:U:O2'	1:CA:956:U:H5'	1.96	0.65
27:BA:2810:A:H2'	31:BE:61:ARG:NH2	2.12	0.65
38:DP:49:ARG:HD2	57:D8:58:ILE:CG2	2.26	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:910:A:H62	39:DQ:12:GLN:HA	1.60	0.65
38:BP:17:LYS:HG2	38:BP:19:VAL:HG23	1.79	0.65
31:BE:77:ILE:CG2	31:BE:78:LEU:H	1.96	0.65
27:DA:2206:G:C2	27:DA:2207:G:H5'	2.32	0.65
47:DY:27:VAL:CG1	47:DY:28:LYS:H	2.10	0.65
33:BG:60:LEU:O	33:BG:64:THR:HG22	1.95	0.65
44:DV:76:LYS:HB2	44:DV:81:TYR:HB3	1.78	0.65
30:BD:77:ALA:HB2	30:BD:97:TYR:HA	1.79	0.65
1:AA:101:A:O2'	1:AA:102:G:H5'	1.96	0.65
1:AA:109:A:H4'	1:AA:110:C:OP2	1.93	0.65
1:AA:451:A:H4'	1:AA:452:A:O5'	1.95	0.65
30:DD:43:ARG:NH1	30:DD:44:ASN:HD21	1.90	0.65
1:CA:1053:G:C6	1:CA:1199:U:H2'	2.30	0.65
35:BI:127:VAL:O	35:BI:128:LEU:HD23	1.96	0.65
27:BA:572:A:C2	27:BA:573:G:H1'	2.30	0.65
13:AM:5:ALA:CB	13:AM:66:LEU:HD22	2.27	0.65
7:AG:146:GLU:HA	7:AG:149:ARG:HB2	1.78	0.65
45:DW:68:ARG:C	45:DW:110:LYS:HD3	2.16	0.65
33:BG:35:GLU:OE1	33:BG:160:VAL:HG12	1.97	0.65
1:AA:1014:A:H4'	19:AS:14:HIS:CD2	2.32	0.65
15:CO:10:LYS:HD2	15:CO:11:VAL:N	2.11	0.65
27:DA:1164:G:H2'	27:DA:1165:U:C6	2.32	0.65
1:CA:1123:A:N3	10:CJ:38:ILE:HG22	2.12	0.65
27:DA:2593:U:H2'	27:DA:2594:C:C5	2.31	0.65
1:CA:1371:G:O3'	9:CI:69:GLY:HA3	1.97	0.65
38:BP:89:ALA:HA	38:BP:121:LYS:HD3	1.77	0.65
27:BA:1754:C:P	42:BT:96:ARG:NH1	2.69	0.65
3:AC:31:HIS:CD2	3:AC:31:HIS:H	2.13	0.65
5:CE:126:ARG:HH11	5:CE:126:ARG:HG3	1.62	0.65
27:DA:1017:G:C2'	27:DA:1018:C:H5'	2.26	0.65
50:B1:58:ILE:HG12	50:B1:58:ILE:O	1.97	0.65
43:BU:59:ARG:O	43:BU:60:LEU:C	2.35	0.65
1:AA:253:U:H6	1:AA:253:U:H5'	1.61	0.65
27:DA:1582:C:O2'	27:DA:1586:A:C8	2.47	0.65
32:BF:52:LYS:HD3	32:BF:57:VAL:HA	1.76	0.65
27:BA:248:G:N7	27:BA:250:G:N3	2.44	0.65
36:DN:36:GLY:O	36:DN:38:HIS:N	2.30	0.65
43:DU:50:ARG:NH2	44:DV:72:VAL:HG12	2.11	0.65
1:AA:346:G:H5''	42:BT:41:ARG:NE	2.11	0.65
1:AA:471:G:H2'	1:AA:472:A:C8	2.32	0.65
41:DS:97:ARG:NH2	41:DS:98:VAL:CA	2.59	0.65
27:DA:918:A:H3'	27:DA:919:G:H8	1.62	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:D6:8:LYS:O	55:D6:9:LEU:HB2	1.97	0.65
57:D8:34:TRP:O	57:D8:35:GLN:HB2	1.95	0.65
38:DP:101:VAL:CG1	38:DP:106:LEU:HD23	2.26	0.65
27:DA:459:U:H2'	27:DA:460:A:C8	2.31	0.65
27:DA:1991:U:H2'	27:DA:1992:G:H5'	1.78	0.65
27:DA:2024:G:H2'	27:DA:2025:C:O4'	1.96	0.65
1:CA:1407:C:O2	27:DA:1912:A:H2	1.80	0.65
58:B9:19:ARG:HG3	58:B9:24:TYR:CE1	2.32	0.65
3:CC:47:LEU:CD2	3:CC:68:VAL:HG11	2.27	0.65
6:CF:3:ARG:HB3	6:CF:93:SER:HB2	1.79	0.65
14:CN:23:ARG:CZ	14:CN:30:ALA:HB2	2.27	0.65
35:BI:114:LEU:HA	35:BI:130:TYR:HD1	1.60	0.65
35:BI:92:VAL:HG11	35:BI:120:ILE:HD12	1.79	0.65
27:BA:2290:G:C8	27:BA:2290:G:H5'	2.30	0.65
12:AL:114:ARG:HH22	12:AL:121:LYS:HD3	1.62	0.65
30:BD:68:LYS:NZ	30:BD:70:TRP:NE1	2.41	0.65
27:BA:89:G:H3'	27:BA:90:U:H5''	1.79	0.65
30:DD:35:LYS:HZ1	30:DD:104:TYR:N	1.94	0.65
27:BA:66:C:O2'	27:BA:67:U:H5'	1.95	0.65
42:DT:23:ARG:HH21	42:DT:120:ARG:HD3	1.62	0.65
17:CQ:33:GLY:O	17:CQ:34:LYS:O	2.15	0.65
45:DW:40:ASN:O	45:DW:41:LYS:HG2	1.97	0.65
45:DW:84:ARG:HG3	45:DW:98:LYS:HZ3	1.61	0.65
1:CA:574:A:H5''	1:CA:575:G:OP2	1.97	0.65
2:AB:16:HIS:HB3	2:AB:210:SER:OG	1.96	0.65
46:BX:57:LEU:HD22	46:BX:57:LEU:O	1.97	0.65
4:CD:67:ILE:CD1	4:CD:196:LEU:HD23	2.26	0.65
27:DA:363(E):U:H3'	27:DA:363(F):A:O4'	1.95	0.65
9:AI:16:ARG:O	9:AI:63:ILE:HG23	1.97	0.65
56:D7:24:THR:HG23	56:D7:27:GLY:HA3	1.78	0.65
56:D7:27:GLY:O	56:D7:30:VAL:HG23	1.97	0.65
17:AQ:22:LEU:HD13	17:AQ:41:LYS:HG2	1.79	0.65
34:BH:28:GLY:HA3	34:BH:79:VAL:HB	1.78	0.65
27:BA:1345:C:H2'	27:BA:1346:G:H8	1.61	0.65
1:AA:892:A:H2'	1:AA:893:C:C6	2.31	0.65
29:BC:184:LYS:C	29:BC:186:ALA:H	1.99	0.65
35:BI:72:LEU:O	35:BI:138:ILE:HD13	1.97	0.65
1:CA:1380:U:C5	7:CG:3:ARG:HG3	2.30	0.65
1:CA:1390:U:H2'	1:CA:1391:U:H6	1.59	0.65
10:CJ:47:PHE:HB2	14:CN:34:TYR:HE2	1.62	0.65
41:BS:87:PHE:O	41:BS:88:ASP:HB2	1.96	0.65
4:CD:76:ARG:O	4:CD:79:PHE:HB3	1.97	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BU:69:CYS:O	43:BU:74:LEU:HD12	1.96	0.65
44:BV:99:ILE:N	44:BV:99:ILE:HD13	2.12	0.65
27:DA:407:G:H2'	27:DA:408:G:C8	2.32	0.65
27:DA:2394:C:H2'	27:DA:2395:C:H5'	1.78	0.65
27:DA:2401:U:H2'	27:DA:2402:C:H5''	1.78	0.65
1:CA:41:G:H1	1:CA:401:C:H42	1.44	0.65
1:AA:1060:C:C5	3:AC:2:GLY:HA2	2.32	0.65
19:AS:15:LEU:HD12	19:AS:31:ILE:HD11	1.79	0.65
27:BA:382:G:H2'	27:BA:383:U:H5'	1.78	0.65
55:B6:29:ASN:CG	55:B6:30:THR:N	2.48	0.65
51:B2:48:HIS:HA	51:B2:51:ARG:HG2	1.77	0.65
13:AM:22:ILE:CG2	13:AM:25:ILE:HD13	2.27	0.65
54:D5:25:LEU:HD22	54:D5:26:THR:N	2.11	0.65
27:DA:507:A:H4'	27:DA:509:C:C6	2.31	0.65
27:BA:2443:C:H2'	27:BA:2444:G:C8	2.30	0.65
28:DB:28:C:H2'	28:DB:29:A:C8	2.32	0.65
18:AR:57:GLY:C	18:AR:58:LEU:HD12	2.17	0.65
27:DA:1819:A:H5''	30:DD:158:ALA:CB	2.27	0.65
1:AA:279:A:H3'	17:AQ:95:TYR:OH	1.96	0.65
27:DA:1388:G:O2'	27:DA:1389:G:H5'	1.97	0.65
47:DY:49:VAL:O	47:DY:50:ARG:HB2	1.97	0.65
2:CB:236:TYR:HA	2:CB:239:VAL:HG23	1.77	0.65
28:DB:92:C:H2'	28:DB:93:G:H8	1.61	0.65
53:D4:61:VAL:HG13	53:D4:65:CYS:HB2	1.79	0.65
9:CI:53:VAL:HG23	9:CI:54:ASP:H	1.60	0.65
1:CA:963:G:H21	10:CJ:55:LYS:HZ2	1.44	0.65
32:BF:67:GLN:CG	32:BF:67:GLN:O	2.33	0.65
1:AA:864:A:H2'	1:AA:865:A:C8	2.32	0.65
43:DU:65:ILE:HD11	43:DU:96:ALA:CB	2.27	0.65
43:DU:84:LYS:HD2	43:DU:89:GLU:HB3	1.78	0.65
44:DV:38:LEU:HD13	44:DV:55:ALA:HB1	1.78	0.65
27:DA:1422:G:H1'	27:DA:1496:A:H62	1.62	0.65
27:DA:1568:G:OP1	30:DD:61:LEU:HB2	1.96	0.65
34:BH:20:ALA:HB1	34:BH:21:PRO:CD	2.27	0.65
2:CB:164:VAL:O	2:CB:186:ALA:HB1	1.97	0.65
41:BS:82:ILE:HD13	41:BS:82:ILE:N	2.09	0.65
27:DA:2564:A:OP1	27:DA:2648:C:H4'	1.96	0.65
37:BO:66:LYS:H	37:BO:82:ASN:HD21	1.45	0.65
30:DD:43:ARG:HD2	30:DD:44:ASN:OD1	1.96	0.65
10:AJ:34:VAL:HG13	10:AJ:73:ASP:O	1.97	0.65
1:CA:1520:G:O2'	1:CA:1521:G:H5'	1.97	0.65
1:AA:1397:C:H3'	1:AA:1398:A:C5'	2.24	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2564:A:C2	27:BA:2647:U:H4'	2.32	0.65
1:AA:1238:A:C2	1:AA:1241:G:H1'	2.32	0.65
51:B2:53:LEU:HD13	51:B2:57:ILE:HD11	1.78	0.65
13:AM:8:GLU:OE2	13:AM:22:ILE:HA	1.96	0.65
27:DA:1665:A:H2'	27:DA:1666:G:O4'	1.97	0.65
54:D5:31:VAL:HB	54:D5:32:PRO:CD	2.27	0.65
27:BA:2230:G:O3'	50:B1:43:TYR:HB2	1.97	0.65
27:BA:1931:U:H5'	27:BA:1931:U:H6	1.62	0.65
7:AG:60:LYS:NZ	7:AG:63:LYS:HB3	2.12	0.65
27:BA:1262:A:N3	54:B5:10:LYS:NZ	2.45	0.65
27:BA:2065:C:H2'	27:BA:2066:C:C6	2.30	0.65
2:CB:194:PRO:O	2:CB:196:LEU:N	2.29	0.65
19:CS:9:VAL:HB	19:CS:11:VAL:HG12	1.79	0.65
27:BA:2239:G:H2'	27:BA:2240:C:H6	1.62	0.65
32:DF:38:ARG:HH21	32:DF:99:TYR:HE1	1.45	0.65
35:BI:73:GLU:HB2	35:BI:136:VAL:HG23	1.78	0.65
35:BI:27:ARG:HD2	50:B1:71:TYR:CD1	2.32	0.65
31:DE:11:MET:HB2	31:DE:23:VAL:O	1.97	0.65
32:BF:25:PRO:HG3	32:BF:119:ARG:HB2	1.77	0.65
33:BG:113:ARG:O	33:BG:140:ILE:HG23	1.97	0.65
36:BN:1:MET:O	36:BN:2:LYS:HG3	1.97	0.65
44:BV:2:PHE:HD2	44:BV:42:GLY:HA2	1.62	0.65
27:DA:2406:U:N3	38:DP:72:PRO:HB2	2.12	0.65
29:BC:83:ILE:HA	29:BC:94:VAL:HG21	1.79	0.65
43:DU:42:ALA:O	43:DU:44:ASN:N	2.30	0.65
44:DV:38:LEU:HD12	44:DV:56:SER:CA	2.26	0.65
44:DV:95:LEU:HD13	44:DV:97:LYS:NZ	2.12	0.65
30:BD:31:LYS:CG	30:BD:33:LEU:HD13	2.25	0.65
51:D2:3:LEU:HD22	51:D2:7:ARG:HH12	1.60	0.65
1:AA:676:A:C1'	11:AK:115:PRO:HB3	2.22	0.65
27:DA:2648:C:H2'	27:DA:2649:U:C6	2.32	0.65
1:AA:454:C:H2'	1:AA:455:C:C6	2.32	0.65
46:BX:12:VAL:HG11	46:BX:17:ALA:HB1	1.79	0.65
37:BO:77:ILE:HD11	42:BT:72:VAL:HG11	1.79	0.65
15:CO:75:PRO:O	15:CO:78:TYR:HB3	1.97	0.65
35:BI:115:ALA:HB3	35:BI:129:THR:N	2.11	0.65
27:DA:1655:A:H3'	27:DA:1656:C:C6	2.31	0.65
13:AM:68:GLY:CA	13:AM:71:ARG:HH21	2.09	0.65
10:CJ:8:LEU:HD12	10:CJ:20:ALA:HB2	1.78	0.65
38:BP:88:LEU:O	38:BP:90:ARG:N	2.30	0.65
27:DA:2808:U:C2'	27:DA:2809:A:H5'	2.26	0.65
33:BG:2:PRO:HG2	53:B4:51:TYR:CE2	2.32	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1175:U:H2'	27:BA:1175:U:O2	1.97	0.65
40:BR:101:ALA:O	40:BR:102:GLU:CB	2.44	0.65
3:CC:52:LEU:CD2	3:CC:52:LEU:H	2.10	0.65
4:AD:101:LEU:O	4:AD:104:VAL:HG12	1.97	0.65
27:DA:107:C:H2'	27:DA:108:U:H6	1.62	0.65
27:DA:1887:C:H3'	27:DA:1888:G:H5''	1.77	0.65
1:AA:123:C:OP1	1:AA:312:C:H5'	1.97	0.65
27:BA:425:G:H2'	27:BA:426:C:H6	1.62	0.65
1:AA:72:C:H2'	1:AA:73:G:C8	2.31	0.65
27:BA:1013:C:O2'	27:BA:1014:U:H5'	1.96	0.65
18:AR:55:ARG:HG3	18:AR:55:ARG:HH11	1.62	0.65
49:D0:5:LYS:HB3	49:D0:5:LYS:NZ	2.11	0.65
23:CW:63:C:H2'	23:CW:64:G:H8	1.61	0.65
44:DV:18:LEU:HD22	44:DV:19:LYS:N	2.05	0.64
54:B5:16:ARG:NH1	54:B5:17:ASP:CG	2.51	0.64
27:DA:920:G:O2'	27:DA:921:G:H5'	1.96	0.64
31:DE:131:ALA:HB3	31:DE:134:ILE:HD11	1.79	0.64
1:AA:942:G:N2	1:AA:943:U:C2	2.64	0.64
27:BA:754:C:H6	27:BA:754:C:H5'	1.62	0.64
27:BA:2331:G:O2'	49:B0:43:THR:HG22	1.96	0.64
27:DA:1747:G:H2'	27:DA:1747(A):G:C8	2.26	0.64
1:CA:261:U:O2	1:CA:263:A:H8	1.81	0.64
48:DZ:150:HIS:HB3	48:DZ:169:THR:HA	1.79	0.64
42:DT:8:LYS:O	42:DT:11:GLU:OE1	2.15	0.64
1:CA:1160:G:O2'	1:CA:1161:C:H5'	1.97	0.64
27:BA:372:G:H3'	50:B1:66:HIS:CE1	2.33	0.64
36:DN:82:LEU:C	36:DN:82:LEU:HD12	2.18	0.64
27:BA:2580:U:H4'	31:BE:131:ALA:H	1.62	0.64
56:D7:9:ARG:HB3	56:D7:48:LYS:HZ3	1.60	0.64
27:BA:2357:U:H2'	27:BA:2358:G:H5''	1.79	0.64
8:AH:108:GLY:HA3	8:AH:138:TRP:HB3	1.79	0.64
38:BP:88:LEU:C	38:BP:90:ARG:H	1.98	0.64
27:DA:2373:G:O2'	27:DA:2374:C:H5'	1.97	0.64
54:B5:41:PRO:HG2	54:B5:44:THR:CG2	2.27	0.64
27:DA:2605:U:H2'	27:DA:2606:C:C6	2.32	0.64
30:DD:168:ARG:N	30:DD:168:ARG:HD3	2.11	0.64
1:CA:1152:A:H5''	10:CJ:13:HIS:HB2	1.79	0.64
42:DT:19:LEU:H	42:DT:19:LEU:HD12	1.62	0.64
36:BN:119:ARG:O	36:BN:120:LEU:HB2	1.97	0.64
1:AA:419:C:H2'	1:AA:420:U:H5'	1.79	0.64
2:CB:189:ASP:HB3	2:CB:203:GLY:O	1.97	0.64
1:AA:1209:C:O2'	1:AA:1210:C:H5'	1.97	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:377:C:H2'	27:DA:378:C:H6	1.60	0.64
9:AI:21:PRO:HA	9:AI:58:HIS:O	1.96	0.64
30:DD:186:HIS:HD2	30:DD:188:GLU:HB2	1.62	0.64
27:DA:679:C:O2'	27:DA:680:G:H5'	1.96	0.64
27:BA:1517:G:H2'	27:BA:1518:U:O4'	1.97	0.64
48:BZ:29:ASN:O	48:BZ:30:ARG:HB3	1.96	0.64
57:B8:4:MET:HB3	57:B8:61:LEU:HD22	1.79	0.64
19:CS:35:SER:O	19:CS:71:LEU:HD12	1.97	0.64
34:BH:85:LYS:HZ2	34:BH:133:VAL:CB	2.09	0.64
12:AL:43:LYS:HG2	12:AL:44:LYS:N	2.12	0.64
33:BG:101:ILE:HD13	33:BG:102:PHE:N	2.12	0.64
44:BV:46:VAL:HG22	44:BV:47:VAL:N	2.08	0.64
56:D7:40:TRP:HB2	56:D7:41:ARG:NH2	2.12	0.64
45:DW:88:ARG:HB2	45:DW:92:ARG:HB3	1.79	0.64
43:BU:104:GLN:NE2	43:BU:105:VAL:N	2.46	0.64
32:BF:51:THR:HG21	32:BF:92:PRO:HD2	1.80	0.64
31:BE:39:PRO:O	31:BE:43:GLY:HA2	1.98	0.64
27:BA:1337:G:H2'	27:BA:1338:G:H8	1.59	0.64
1:CA:1200:C:O2'	1:CA:1201:A:OP2	2.06	0.64
27:BA:2869:G:H2'	27:BA:2870:C:H6	1.62	0.64
25:AY:65:U:H2'	25:AY:66:A:H8	1.62	0.64
27:DA:1304:C:H42	27:DA:1624:G:H1	1.43	0.64
36:DN:22:THR:HA	36:DN:60:ILE:HG22	1.79	0.64
33:DG:46:ALA:C	33:DG:51:ARG:HG3	2.17	0.64
13:CM:84:ILE:H	19:CS:66:MET:HE1	1.62	0.64
13:AM:75:ALA:O	13:AM:79:LYS:HG3	1.96	0.64
5:CE:48:ALA:HB1	5:CE:49:PRO:CD	2.27	0.64
15:AO:30:ALA:HB2	15:AO:85:LEU:HD11	1.79	0.64
33:BG:47:LYS:HD3	33:BG:82:LEU:HD12	1.79	0.64
7:AG:23:VAL:HG12	7:AG:27:ILE:HD11	1.79	0.64
11:CK:79:SER:HB2	11:CK:106:LYS:CD	2.27	0.64
50:B1:18:ILE:C	50:B1:19:GLN:HE21	2.00	0.64
1:CA:815:A:O2'	1:CA:1527:C:H1'	1.97	0.64
1:CA:14:U:H5'	1:CA:14:U:H6	1.62	0.64
52:D3:6:VAL:HG12	52:D3:56:VAL:HA	1.78	0.64
1:CA:628:G:O2'	1:CA:629:G:H5'	1.97	0.64
13:CM:95:GLY:O	13:CM:96:LEU:CB	2.45	0.64
27:DA:1213:A:H2'	27:DA:1214:A:C8	2.32	0.64
2:CB:41:ILE:HG22	2:CB:41:ILE:O	1.97	0.64
36:BN:17:ASP:HB2	36:BN:55:VAL:HG13	1.78	0.64
17:CQ:29:HIS:CD2	17:CQ:30:PRO:HD2	2.33	0.64
27:BA:1275:A:H4'	27:BA:1276:A:OP1	1.96	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:335:C:H5''	47:DY:73:ARG:NH2	2.12	0.64
41:DS:21:THR:C	41:DS:23:ARG:H	2.01	0.64
29:DC:168:THR:HA	29:DC:173:ALA:CB	2.28	0.64
23:AW:70:C:O2'	23:AW:71:A:H5'	1.96	0.64
52:B3:8:LEU:HD13	52:B3:31:LEU:HA	1.79	0.64
27:DA:1188:U:O2'	27:DA:1189:A:H5'	1.97	0.64
27:DA:2512:C:H42	27:DA:2574:G:H1	1.44	0.64
27:DA:142:A:H8	27:DA:1595:G:H21	1.38	0.64
27:BA:1490:A:H2	30:BD:75:ILE:HG23	1.62	0.64
50:D1:57:GLU:O	50:D1:58:ILE:HG12	1.96	0.64
31:BE:49:LEU:HD12	31:BE:49:LEU:N	2.13	0.64
31:BE:93:VAL:C	31:BE:95:ILE:H	2.01	0.64
34:BH:94:TYR:C	34:BH:95:ARG:HG2	2.17	0.64
39:DQ:69:PHE:CD1	39:DQ:70:PRO:HD2	2.33	0.64
39:DQ:43:THR:HG22	39:DQ:94:VAL:CG1	2.27	0.64
27:DA:1301:A:H4'	27:DA:1302:A:OP1	1.96	0.64
27:BA:2862:G:H2'	27:BA:2863:C:H6	1.62	0.64
1:AA:403:C:O2'	1:AA:404:U:H5'	1.95	0.64
33:DG:60:LEU:HD12	33:DG:68:PRO:CG	2.27	0.64
48:BZ:123:ILE:HG12	48:BZ:124:LEU:N	2.10	0.64
27:DA:925:C:H2'	27:DA:926:A:H5''	1.79	0.64
33:BG:72:ARG:HD3	33:BG:86:MET:HA	1.80	0.64
5:CE:76:ILE:CG1	5:CE:77:PRO:HD2	2.28	0.64
34:DH:43:VAL:HG11	34:DH:52:VAL:HA	1.77	0.64
27:BA:363(A):A:H5'	27:BA:363(B):G:OP2	1.97	0.64
27:BA:1888:G:H5'	27:BA:1888:G:N3	2.12	0.64
33:BG:125:PHE:CD2	33:BG:131:TYR:HB2	2.32	0.64
48:DZ:102:ARG:HD3	48:DZ:135:PHE:CE1	2.33	0.64
50:B1:19:GLN:CB	50:B1:35:THR:HG23	2.27	0.64
37:BO:122:LEU:HA	42:BT:43:GLN:HE22	1.62	0.64
32:BF:32:LEU:O	32:BF:32:LEU:HD23	1.98	0.64
27:DA:527:C:H5''	27:DA:528:A:OP1	1.97	0.64
27:DA:1948:G:C4	27:DA:1959:G:N2	2.65	0.64
27:BA:542:C:H2'	27:BA:543:C:OP1	1.97	0.64
27:DA:1770:G:H2'	27:DA:1771:C:H6	1.63	0.64
51:B2:13:ALA:O	51:B2:16:LEU:HG	1.97	0.64
27:BA:1363:C:O2'	27:BA:1364:G:H5'	1.97	0.64
5:AE:150:ARG:HA	5:AE:153:LYS:HE2	1.79	0.64
34:DH:38:SER:C	34:DH:40:GLU:H	2.00	0.64
32:BF:143:ALA:HB1	32:BF:148:LEU:HB2	1.79	0.64
42:DT:6:LEU:HD23	42:DT:6:LEU:O	1.97	0.64
27:DA:1682:G:H2'	27:DA:1683:C:C6	2.33	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:812:C:OP1	1:AA:903:G:H1'	1.97	0.64
2:CB:131:PRO:HG2	2:CB:134:GLU:HB2	1.78	0.64
4:CD:202:LEU:HD23	4:CD:205:GLU:OE2	1.97	0.64
17:AQ:54:GLY:HA3	17:AQ:82:MET:SD	2.37	0.64
1:CA:501:C:H2'	1:CA:502:G:C8	2.32	0.64
8:AH:64:LYS:HG2	8:AH:79:VAL:HG21	1.79	0.64
27:DA:1568:G:H5''	30:DD:61:LEU:CD2	2.20	0.64
47:DY:27:VAL:HG12	47:DY:29:GLU:OE1	1.96	0.64
31:DE:59:VAL:HG13	31:DE:60:ASN:N	2.12	0.64
39:DQ:85:LYS:HG3	49:D0:7:LEU:CD1	2.25	0.64
36:BN:95:PRO:O	36:BN:98:VAL:HG23	1.97	0.64
27:BA:2481:G:O2'	27:BA:2482:G:P	2.55	0.64
30:BD:60:ARG:HD3	30:BD:86:PRO:HB2	1.79	0.64
27:BA:686:G:N2	27:BA:788:A:H61	1.96	0.64
46:DX:12:VAL:HG12	46:DX:27:THR:CG2	2.27	0.64
1:AA:390:C:H4'	16:AP:28:ARG:HH21	1.61	0.64
34:BH:92:ILE:O	34:BH:94:TYR:N	2.24	0.64
27:BA:624:C:H41	38:BP:107:LYS:NZ	1.96	0.64
1:AA:445:G:O2'	1:AA:446:G:H5'	1.97	0.64
27:DA:1131:G:HO2'	27:DA:1132:A:H8	1.45	0.64
33:DG:41:GLN:HG2	33:DG:155:MET:HB3	1.79	0.64
39:BQ:51:ARG:O	39:BQ:55:VAL:HG12	1.97	0.64
52:D3:23:LEU:H	52:D3:23:LEU:HD12	1.63	0.64
13:AM:78:ILE:HA	13:AM:81:LEU:HD13	1.78	0.64
39:BQ:140:ALA:O	48:BZ:52:ILE:HD13	1.96	0.64
23:AW:74:C:H2'	23:AW:75:A:C8	2.32	0.64
27:DA:1743:C:H2'	27:DA:1744:C:O4'	1.97	0.64
19:AS:6:LYS:CD	19:AS:7:LYS:HE3	2.27	0.64
19:AS:6:LYS:HG2	19:AS:7:LYS:CE	2.26	0.64
27:BA:491:G:O2'	27:BA:492:A:H5'	1.97	0.64
45:DW:68:ARG:HB3	45:DW:110:LYS:HB2	1.78	0.64
41:BS:30:ARG:NH2	41:BS:62:LYS:HD2	2.10	0.64
16:AP:57:ARG:HA	16:AP:60:LEU:HD12	1.79	0.64
27:BA:380:U:H3	27:BA:394:A:N6	1.94	0.64
1:AA:1064:G:H21	1:AA:1190:G:H2'	1.61	0.64
27:DA:2330:G:H21	49:D0:42:GLY:HA2	1.61	0.64
27:DA:1515:G:H2'	27:DA:1516:C:C6	2.32	0.64
53:B4:36:VAL:HB	53:B4:37:PRO:HD2	1.80	0.64
54:D5:37:LYS:HG3	54:D5:38:ALA:H	1.62	0.64
27:DA:2689:U:H5''	27:DA:2690:C:H5'	1.79	0.64
35:BI:117:GLU:HG3	35:BI:118:LYS:H	1.62	0.64
31:DE:127:ASP:HA	31:DE:135:HIS:CE1	2.32	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:CQ:82:MET:HA	17:CQ:85:VAL:HG23	1.79	0.64
32:DF:159:GLY:O	32:DF:161:GLU:HG3	1.98	0.64
27:DA:2897:U:O2	27:DA:2897:U:H2'	1.95	0.64
27:DA:212:G:O2'	27:DA:213:A:H5'	1.97	0.64
49:D0:75:LEU:HD22	49:D0:78:TYR:OH	1.97	0.64
34:BH:70:THR:OG1	34:BH:71:LEU:N	2.28	0.64
38:BP:48:PRO:O	38:BP:50:ARG:N	2.31	0.64
31:BE:199:ARG:O	31:BE:200:GLU:O	2.15	0.64
53:B4:41:ILE:HG12	53:B4:57:ILE:O	1.97	0.64
42:BT:28:VAL:HG21	42:BT:46:GLU:HG3	1.78	0.64
27:DA:2267:A:H3'	27:DA:2268:A:H5''	1.80	0.64
27:DA:1673:U:C2'	27:DA:1674:G:H5'	2.26	0.64
27:DA:704:G:H1'	27:DA:727:A:N6	2.12	0.64
4:AD:9:CYS:SG	4:AD:22:LYS:HD2	2.37	0.64
34:BH:43:VAL:O	34:BH:43:VAL:HG23	1.98	0.64
37:DO:107:ARG:NH1	42:DT:35:LYS:HB2	2.12	0.64
41:DS:19:LYS:O	41:DS:20:ARG:NH1	2.28	0.64
12:CL:14:LYS:HD3	12:CL:15:VAL:HG22	1.79	0.64
34:BH:113:VAL:HG21	34:BH:151:ILE:CG2	2.25	0.64
27:DA:548:A:O2'	27:DA:549:G:H5'	1.98	0.64
1:CA:1499:A:H1'	1:CA:1520:G:H5'	1.78	0.64
55:B6:11:LEU:CD1	55:B6:51:GLU:HG2	2.28	0.64
17:AQ:56:VAL:HG21	17:AQ:78:GLU:HG2	1.78	0.64
27:DA:2667:C:H1'	34:DH:109:PHE:CD2	2.31	0.64
39:BQ:56:ARG:HG2	39:BQ:56:ARG:HH11	1.62	0.64
6:AF:91:VAL:HG13	18:AR:72:ARG:NH2	2.13	0.64
13:AM:89:GLY:O	13:AM:93:ARG:HD2	1.98	0.64
5:AE:139:LEU:HA	5:AE:142:LEU:HD12	1.80	0.64
5:CE:75:THR:OG1	5:CE:76:ILE:N	2.29	0.64
27:DA:1237:A:H2	27:DA:1238:G:N3	1.95	0.64
32:DF:128:ALA:O	32:DF:130:ALA:N	2.31	0.64
39:DQ:130:LYS:HG3	39:DQ:131:ILE:H	1.62	0.64
16:AP:16:HIS:HE1	16:AP:42:ARG:HH21	1.43	0.64
9:AI:4:TYR:H	9:AI:4:TYR:HD1	1.43	0.64
10:CJ:40:LEU:HD21	10:CJ:69:ASN:HB3	1.79	0.64
27:DA:1799:G:H4'	27:DA:1800:C:O5'	1.95	0.64
27:DA:1041:C:H2'	27:DA:1042:G:C8	2.32	0.64
44:DV:5:VAL:HG23	44:DV:37:VAL:HG23	1.79	0.64
11:AK:51:LYS:HB3	11:AK:51:LYS:NZ	2.13	0.64
27:BA:2447:G:H4'	27:BA:2448:A:O5'	1.97	0.64
27:BA:1683:C:H2'	27:BA:1684:C:C6	2.33	0.64
5:AE:8:GLU:HA	5:AE:34:VAL:HA	1.79	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BX:54:VAL:HG13	46:BX:81:VAL:HG13	1.80	0.64
27:BA:2681:C:C5	27:BA:2725:A:N6	2.64	0.64
12:AL:43:LYS:CG	12:AL:44:LYS:H	2.10	0.64
4:CD:82:ALA:HB1	4:CD:89:THR:CG2	2.21	0.64
38:BP:16:ARG:O	38:BP:16:ARG:NH1	2.30	0.64
27:DA:2578:G:N2	27:DA:2579:C:C2	2.66	0.64
32:DF:63:LYS:O	32:DF:64:ILE:C	2.35	0.64
32:DF:74:ARG:O	32:DF:75:HIS:CG	2.50	0.64
2:AB:194:PRO:HA	2:AB:200:ILE:HD13	1.79	0.64
40:DR:67:LEU:CD1	40:DR:76:VAL:HG21	2.27	0.64
33:DG:102:PHE:HE2	33:DG:141:PHE:HE1	1.45	0.64
1:CA:740:U:O2'	1:CA:741:G:H5'	1.97	0.64
36:DN:46:VAL:HG13	36:DN:48:MET:HG3	1.80	0.64
27:BA:2223:G:H2'	27:BA:2224:G:H5'	1.80	0.64
3:CC:100:ALA:O	3:CC:101:LEU:HB2	1.96	0.64
1:AA:554:C:O2'	1:AA:555:C:H5'	1.97	0.64
1:CA:538:G:H5''	12:CL:111:LYS:HD3	1.78	0.64
1:CA:194:C:C2'	1:CA:195:A:H5''	2.27	0.64
47:BY:90:LEU:CD1	47:BY:91:GLU:H	2.06	0.64
27:DA:1309:G:C2'	27:DA:1310:G:H5'	2.27	0.64
27:BA:1826:G:H4'	30:BD:242:ARG:NH2	2.12	0.64
37:DO:77:ILE:HD12	42:DT:73:GLU:O	1.97	0.64
4:AD:128:VAL:C	4:AD:130:GLY:N	2.49	0.64
27:BA:271(G):C:H2'	27:BA:271(H):G:H8	1.63	0.64
41:BS:61:ASN:O	41:BS:62:LYS:HG2	1.98	0.64
12:AL:21:VAL:CG1	12:AL:23:ALA:HB2	2.28	0.64
27:DA:665:C:H2'	27:DA:666:G:C8	2.30	0.64
27:DA:1999:C:H4'	27:DA:2723:C:O2	1.98	0.64
24:CX:25:C:H2'	24:CX:26:G:O4'	1.97	0.64
28:DB:69:G:H2'	28:DB:70:C:H6	1.62	0.64
1:CA:1301:U:H2'	1:CA:1303:C:C5	2.32	0.64
27:BA:2113:U:H2'	27:BA:2114:A:C8	2.33	0.64
27:BA:582:G:H2'	27:BA:583:G:H8	1.62	0.64
15:AO:5:LYS:HA	15:AO:8:LYS:HB3	1.79	0.64
12:AL:75:GLN:O	12:AL:78:SER:HB2	1.98	0.64
48:BZ:107:PRO:HD3	48:BZ:116:LEU:HB2	1.79	0.64
18:AR:44:LEU:HD22	18:AR:48:GLY:O	1.98	0.64
27:BA:607:U:OP1	32:BF:102:PRO:HA	1.98	0.64
44:BV:19:LYS:HB3	44:BV:94:LEU:O	1.97	0.64
42:BT:89:VAL:CG2	42:BT:91:ARG:HH21	2.08	0.64
28:BB:94:C:H2'	28:BB:95:C:H6	1.61	0.64
27:DA:2555:U:H2'	27:DA:2556:C:C5'	2.25	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:948:G:H2'	27:DA:949:C:C6	2.33	0.64
45:BW:104:THR:O	45:BW:105:VAL:HG23	1.98	0.64
4:CD:103:ASN:O	4:CD:106:TYR:HB3	1.96	0.64
8:AH:127:LEU:O	8:AH:127:LEU:HD13	1.96	0.64
8:AH:53:VAL:O	8:AH:56:LYS:HG3	1.98	0.64
2:AB:71:VAL:O	2:AB:165:VAL:HG13	1.98	0.64
3:CC:147:LYS:O	3:CC:203:PHE:HD2	1.81	0.64
27:BA:1309:G:OP1	56:B7:9:ARG:HG3	1.97	0.64
33:DG:141:PHE:HB3	33:DG:142:PRO:HD2	1.80	0.64
31:DE:26:ILE:HG13	31:DE:182:LEU:HD23	1.79	0.64
1:CA:177:C:H2'	1:CA:178:C:C6	2.33	0.64
27:DA:48:G:O2'	27:DA:49:A:H5''	1.98	0.64
31:BE:116:VAL:HG21	31:BE:122:PHE:CD2	2.32	0.64
48:DZ:43:PHE:CE2	48:DZ:85:VAL:HG21	2.33	0.64
27:DA:1620:G:C4'	56:D7:1:MET:HA	2.28	0.64
35:BI:115:ALA:CB	35:BI:129:THR:N	2.61	0.64
27:BA:572:A:N3	27:BA:573:G:H1'	2.12	0.64
31:DE:119:ARG:HG2	31:DE:160:TYR:CD2	2.33	0.64
38:DP:18:ARG:HB3	38:DP:18:ARG:CZ	2.28	0.64
5:CE:68:GLU:O	5:CE:70:PRO:HD3	1.97	0.64
39:BQ:85:LYS:HG3	49:B0:7:LEU:HB3	1.79	0.64
1:CA:577:G:C2	1:CA:578:C:C5	2.86	0.64
48:BZ:174:VAL:HB	48:BZ:175:PRO:CD	2.28	0.64
43:BU:27:LEU:H	43:BU:27:LEU:HD23	1.61	0.64
3:AC:172:ARG:HE	3:AC:203:PHE:HE2	1.46	0.64
1:AA:1257:U:H3'	1:AA:1257:U:H6	1.63	0.64
27:BA:176:G:C2'	27:BA:177:G:H5'	2.28	0.64
7:CG:62:PHE:HA	7:CG:124:LEU:HD22	1.77	0.64
1:AA:1127:G:H5''	9:AI:66:ARG:NH2	2.13	0.64
42:BT:10:VAL:O	42:BT:10:VAL:CG1	2.46	0.64
6:CF:48:LEU:HD13	6:CF:52:ILE:HG12	1.80	0.64
53:D4:42:CYS:HA	53:D4:59:VAL:HB	1.79	0.64
27:BA:99:U:H1'	27:BA:102:G:C4	2.31	0.64
40:DR:84:ALA:HB3	40:DR:85:PRO:HD3	1.80	0.64
49:D0:64:ASP:O	49:D0:84:LEU:HD11	1.98	0.64
50:D1:40:ARG:HD3	50:D1:40:ARG:C	2.18	0.64
24:AX:6:G:O2'	24:AX:7:G:H5'	1.98	0.64
17:CQ:95:TYR:HA	17:CQ:98:LEU:HD13	1.78	0.64
14:CN:35:ARG:HG3	14:CN:36:PHE:N	2.13	0.64
17:AQ:45:HIS:HA	17:AQ:69:LYS:HZ1	1.61	0.64
42:BT:34:VAL:O	42:BT:35:LYS:HB3	1.98	0.64
52:B3:23:LEU:O	52:B3:28:LEU:N	2.29	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:D6:36:LEU:O	55:D6:37:ARG:HD2	1.97	0.64
55:B6:13:CYS:HA	55:B6:50:ARG:O	1.96	0.64
30:BD:80:ALA:HB3	30:BD:94:LEU:O	1.96	0.64
4:CD:172:PRO:HD2	4:CD:173:TRP:HZ3	1.63	0.64
4:CD:173:TRP:HE1	4:CD:189:PRO:HG3	1.57	0.64
27:BA:685:A:H1'	27:BA:688:U:O4	1.98	0.64
1:CA:279:A:O2'	1:CA:280:C:P	2.56	0.64
33:DG:105:LYS:HE2	53:D4:52:SER:CB	2.24	0.64
27:BA:2225:A:H4'	27:BA:2226:C:H6	1.62	0.64
27:BA:2165:G:H2'	27:BA:2166:G:O4'	1.97	0.64
33:DG:125:PHE:O	33:DG:128:ARG:HG2	1.97	0.64
33:DG:130:ASN:OD1	33:DG:160:VAL:HG13	1.97	0.64
27:DA:136:G:H1	27:DA:143(A):C:N4	1.96	0.64
13:AM:23:TYR:CE1	13:AM:71:ARG:HB2	2.33	0.64
1:CA:1026:G:N3	1:CA:1026:G:H2'	2.13	0.64
27:BA:847:U:H2'	27:BA:848:G:C5'	2.28	0.64
27:DA:2850:A:OP2	27:DA:2866:U:H5	1.80	0.64
37:DO:1:MET:H1	37:DO:1:MET:HE2	1.63	0.64
37:DO:40:VAL:HG12	37:DO:41:ALA:H	1.63	0.64
1:CA:451:A:H1'	1:CA:452:A:C8	2.32	0.64
1:AA:817:C:C2	1:AA:819:A:O4'	2.51	0.64
45:DW:12:ILE:O	45:DW:100:THR:HA	1.97	0.64
45:DW:96:ILE:HG13	45:DW:97:LYS:N	2.12	0.64
1:CA:939:G:H5''	7:CG:102:ARG:NH1	2.12	0.64
52:B3:59:VAL:CG1	52:B3:60:GLU:N	2.60	0.64
13:AM:108:ARG:HH11	13:AM:108:ARG:HA	1.62	0.64
8:CH:87:SER:HB3	8:CH:133:LEU:O	1.98	0.64
27:BA:1847:A:H4'	27:BA:1848:A:OP2	1.98	0.64
1:CA:1480:G:H2'	1:CA:1481:U:H6	1.63	0.64
12:AL:3:THR:H	12:AL:6:GLN:NE2	1.96	0.64
43:DU:60:LEU:HD13	43:DU:60:LEU:O	1.97	0.64
29:BC:68:LEU:HD11	29:BC:180:PHE:N	2.13	0.64
27:BA:2167:U:H2'	27:BA:2168:G:C8	2.32	0.64
18:CR:36:ASN:H	18:CR:36:ASN:ND2	1.96	0.64
27:DA:1804:C:H4'	30:DD:252:TRP:CZ2	2.33	0.64
27:BA:2832:U:C4'	27:BA:2833:G:H5''	2.25	0.64
1:CA:1329:A:OP1	13:CM:28:ALA:HB3	1.98	0.64
27:BA:284:U:H2'	27:BA:285:C:H6	1.63	0.64
27:DA:436:C:H2'	27:DA:437:G:C8	2.33	0.64
33:BG:54:GLU:C	33:BG:56:ALA:H	2.01	0.64
27:DA:860:U:H2'	27:DA:861:A:H8	1.62	0.64
27:DA:921:G:H4'	27:DA:2269:A:C5	2.31	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2454:G:O2'	27:DA:2455:G:H5'	1.98	0.64
34:BH:8:PRO:O	34:BH:9:ILE:HB	1.97	0.64
1:AA:1060:C:H2'	1:AA:1061:G:H8	1.63	0.64
2:AB:187:LEU:HD11	2:AB:204:ASN:O	1.98	0.64
1:CA:742:G:H5''	15:CO:58:MET:HE1	1.79	0.64
10:AJ:5:ARG:O	10:AJ:6:ILE:HG23	1.98	0.64
14:CN:13:THR:O	14:CN:15:LYS:N	2.31	0.64
32:BF:176:LEU:HD11	32:BF:180:GLY:CA	2.26	0.64
27:DA:1665:A:O2'	27:DA:1666:G:H5'	1.96	0.64
42:DT:118:ARG:O	42:DT:122:ASP:N	2.29	0.64
15:AO:55:GLY:HA2	15:AO:58:MET:HE3	1.80	0.64
19:AS:63:THR:HG22	19:AS:66:MET:HE2	1.79	0.64
44:BV:82:ARG:O	44:BV:83:ARG:HG2	1.98	0.64
27:DA:2009:G:OP1	45:DW:41:LYS:HE2	1.98	0.64
1:AA:182:U:H6	1:AA:182:U:H5'	1.62	0.64
27:BA:2065:C:O2'	27:BA:2066:C:H5'	1.98	0.64
6:CF:97:PHE:CD2	18:CR:31:LEU:HD21	2.33	0.64
27:BA:1321:A:H2'	27:BA:1322:A:C8	2.33	0.64
28:BB:87:G:H3'	28:BB:88:C:H5''	1.79	0.64
27:BA:2773:C:O2'	27:BA:2774:C:H5'	1.98	0.64
1:AA:316:G:N7	1:AA:351:G:C6	2.66	0.64
27:BA:596:G:O2'	27:BA:597:U:H5'	1.98	0.64
27:DA:1838:C:O2'	27:DA:1839:G:OP2	2.15	0.64
50:D1:50:ARG:HG2	50:D1:50:ARG:NH1	2.12	0.64
20:AT:14:LYS:HB2	20:AT:17:ARG:NH2	2.13	0.64
27:BA:1162:G:H4'	44:BV:24:LYS:HB2	1.78	0.64
1:CA:980:C:H5'	1:CA:981:U:H5	1.61	0.64
37:BO:61:VAL:HG12	37:BO:87:ILE:HD11	1.80	0.64
27:DA:1137:G:H22	36:DN:106:MET:HG2	1.63	0.64
27:DA:245:G:O5'	38:DP:73:GLY:HA2	1.98	0.64
27:DA:1791:A:O2'	30:DD:207:GLY:HA2	1.97	0.64
32:DF:25:PRO:HB3	32:DF:119:ARG:HD3	1.79	0.64
42:BT:46:GLU:O	42:BT:65:LYS:HB2	1.97	0.64
42:BT:88:ILE:HG22	42:BT:89:VAL:N	2.09	0.64
47:DY:75:ILE:CD1	47:DY:79:CYS:HA	2.28	0.64
30:DD:30:GLU:OE1	30:DD:63:ARG:NE	2.27	0.64
32:DF:66:PRO:O	32:DF:68:LYS:N	2.31	0.64
1:AA:1320:C:H42	19:AS:36:ARG:HG3	1.63	0.64
2:CB:185:ILE:HG23	2:CB:199:TYR:CB	2.26	0.64
12:CL:109:ASP:O	12:CL:111:LYS:HG3	1.98	0.64
10:AJ:16:LEU:HD11	10:AJ:70:ARG:HB2	1.78	0.64
15:CO:17:ARG:CZ	15:CO:77:ARG:HH12	2.10	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
57:B8:43:GLN:O	57:B8:44:LYS:HD2	1.98	0.64
9:CI:58:HIS:HB2	9:CI:59:PHE:CE1	2.33	0.64
5:CE:45:PHE:HD1	5:CE:46:GLY:N	1.96	0.64
37:DO:6:THR:HG22	37:DO:7:TYR:N	2.13	0.64
48:BZ:70:VAL:HG22	48:BZ:87:PHE:CE2	2.33	0.64
1:CA:810:C:C2'	1:CA:811:C:H5'	2.28	0.64
1:AA:1229:A:O2'	1:AA:1230:C:H5'	1.98	0.64
1:AA:965:A:H4'	1:AA:966:G:OP1	1.96	0.64
42:DT:16:ARG:NH1	42:DT:19:LEU:HD21	2.13	0.64
25:CY:63:C:H2'	25:CY:64:G:C8	2.32	0.64
27:BA:1842:G:H2'	27:BA:1843:C:C6	2.33	0.64
1:AA:1372:U:OP1	9:AI:71:SER:HB3	1.98	0.64
1:CA:901:A:C5	1:CA:902:G:H1'	2.33	0.64
28:BB:24:G:H4'	28:BB:25:A:O5'	1.98	0.64
7:AG:70:LYS:HB3	7:AG:96:GLN:HG2	1.80	0.64
27:DA:637:A:H4'	27:DA:638:G:O5'	1.97	0.64
5:CE:150:ARG:HA	5:CE:153:LYS:HE2	1.80	0.64
27:BA:309:G:H4'	47:BY:18:GLY:HA3	1.78	0.64
29:DC:18:LYS:HD3	29:DC:19:VAL:H	1.63	0.64
27:BA:1973:G:H2'	27:BA:1974:C:H6	1.63	0.64
30:BD:79:VAL:O	30:BD:79:VAL:HG12	1.97	0.64
6:CF:43:LEU:H	6:CF:43:LEU:HD12	1.62	0.64
38:BP:40:SER:O	38:BP:41:ARG:HD2	1.98	0.63
1:CA:1225:A:H2'	1:CA:1225:A:N3	2.13	0.63
27:BA:2635:C:OP1	31:BE:77:ILE:HG21	1.97	0.63
42:BT:19:LEU:HD12	42:BT:19:LEU:N	2.13	0.63
1:CA:1251:A:H5''	9:CI:12:GLU:CD	2.18	0.63
30:DD:61:LEU:CB	30:DD:63:ARG:HH12	2.10	0.63
47:BY:16:ALA:HA	47:BY:21:LYS:HD3	1.79	0.63
46:DX:36:LYS:HE3	46:DX:56:THR:HG23	1.80	0.63
46:DX:57:LEU:HD11	46:DX:78:LYS:CG	2.28	0.63
47:BY:28:LYS:HA	47:BY:39:VAL:H	1.63	0.63
31:BE:49:LEU:HD13	31:BE:81:ILE:HG12	1.78	0.63
27:DA:520:G:H2'	27:DA:521:G:H8	1.60	0.63
41:BS:85:VAL:HG23	41:BS:106:ARG:HB2	1.78	0.63
33:DG:135:LEU:HD22	33:DG:141:PHE:CE2	2.33	0.63
31:DE:203:LYS:HE3	31:DE:203:LYS:O	1.98	0.63
3:CC:92:ALA:HB2	3:CC:99:VAL:HG22	1.79	0.63
30:BD:182:LEU:O	30:BD:271:ILE:CG1	2.46	0.63
3:CC:192:THR:O	3:CC:192:THR:HG22	1.98	0.63
27:BA:2261:C:OP2	49:B0:17:GLN:OE1	2.16	0.63
27:BA:554:U:C2'	27:BA:555:U:H5'	2.28	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:DQ:45:GLN:O	39:DQ:49:ALA:HB2	1.99	0.63
8:CH:29:SER:HB3	8:CH:32:LYS:HG3	1.80	0.63
55:B6:29:ASN:ND2	55:B6:30:THR:HG23	2.12	0.63
1:AA:499:A:H4'	1:AA:500:G:OP1	1.98	0.63
33:DG:133:LEU:HD12	33:DG:134:GLY:N	2.13	0.63
35:BI:38:LEU:H	35:BI:38:LEU:CD1	2.08	0.63
42:DT:117:ASP:O	42:DT:120:ARG:HB2	1.97	0.63
21:AU:9:ARG:HH11	21:AU:22:ARG:HG3	1.63	0.63
45:DW:68:ARG:CA	45:DW:110:LYS:HD3	2.28	0.63
35:DI:5:LEU:HD12	35:DI:17:GLN:O	1.97	0.63
27:BA:2488:A:H2'	27:BA:2489:G:C8	2.33	0.63
37:BO:108:GLU:O	37:BO:110:GLY:N	2.31	0.63
8:CH:87:SER:HB2	8:CH:93:VAL:HB	1.79	0.63
1:CA:266:G:H5'	1:CA:268:C:H41	1.63	0.63
27:DA:557:U:H2'	27:DA:558:G:C8	2.33	0.63
27:BA:582:G:H2'	27:BA:583:G:C8	2.33	0.63
27:BA:710:G:O2'	27:BA:711:G:H5'	1.98	0.63
39:DQ:38:GLU:HG3	39:DQ:127:ILE:HG22	1.79	0.63
1:CA:1288:A:N1	1:CA:1371:G:H1'	2.13	0.63
40:BR:18:LEU:HD11	40:BR:22:ARG:NE	2.14	0.63
27:DA:271(T):C:H6	27:DA:271(T):C:H5'	1.62	0.63
1:CA:473:G:H5''	16:CP:81:ARG:HH21	1.63	0.63
1:AA:236:G:H5''	17:AQ:42:TYR:OH	1.97	0.63
31:DE:144:ARG:HH11	31:DE:144:ARG:CG	1.99	0.63
27:BA:2700:C:O2'	27:BA:2701:C:H5'	1.97	0.63
30:DD:69:ARG:HD2	30:DD:130:ALA:HB2	1.79	0.63
30:DD:25:THR:C	30:DD:26:LYS:HD3	2.19	0.63
27:BA:1899:G:N2	27:BA:1902:C:N4	2.30	0.63
1:AA:471:G:H2'	1:AA:472:A:H8	1.62	0.63
39:DQ:4:PRO:O	39:DQ:6:ARG:N	2.31	0.63
27:BA:307:G:N2	27:BA:310:A:OP2	2.32	0.63
30:BD:31:LYS:CD	30:BD:33:LEU:HD13	2.28	0.63
4:CD:102:ASP:OD1	4:CD:103:ASN:N	2.31	0.63
9:AI:48:GLU:N	9:AI:49:PRO:HD2	2.13	0.63
14:AN:26:ARG:HG3	14:AN:27:CYS:N	2.13	0.63
42:DT:80:SER:O	42:DT:81:PRO:C	2.36	0.63
39:BQ:12:GLN:CG	39:BQ:73:PRO:HD2	2.28	0.63
17:AQ:59:ILE:N	17:AQ:59:ILE:HD13	2.14	0.63
2:AB:112:VAL:CG2	2:AB:149:LEU:HD13	2.23	0.63
27:BA:1603:A:C8	27:BA:1603:A:C5'	2.79	0.63
15:AO:70:LEU:HD11	15:AO:77:ARG:HG3	1.80	0.63
50:B1:8:SER:HB3	50:B1:66:HIS:CG	2.33	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AH:97:VAL:HG13	8:AH:98:LYS:N	2.09	0.63
12:AL:38:ARG:HH22	12:AL:54:LYS:NZ	1.95	0.63
38:BP:97:PRO:C	38:BP:98:GLU:HG3	2.19	0.63
27:DA:2155:G:H2'	27:DA:2156:G:O4'	1.96	0.63
50:B1:46:LEU:N	50:B1:46:LEU:HD22	2.13	0.63
30:DD:32:SER:HA	30:DD:36:PRO:HD2	1.80	0.63
27:DA:2562:U:H1'	37:DO:23:ARG:HH12	1.63	0.63
1:AA:1037:C:H2'	1:AA:1038:C:C6	2.34	0.63
27:BA:2571:C:H5''	27:BA:2572:A:H5''	1.80	0.63
24:AX:72:A:H3'	24:AX:73:A:C8	2.29	0.63
1:CA:737:A:O2'	6:CF:72:VAL:HG13	1.98	0.63
27:BA:1331:A:H2'	27:BA:1333:C:C5	2.33	0.63
27:BA:1607:C:N4	27:BA:1622:G:OP2	2.28	0.63
52:D3:54:VAL:HG12	52:D3:55:ARG:N	2.14	0.63
10:AJ:8:LEU:HD11	10:AJ:23:ILE:HD12	1.80	0.63
1:CA:831:U:H2'	1:CA:832:C:H5'	1.79	0.63
32:DF:99:TYR:HD2	32:DF:99:TYR:O	1.82	0.63
34:DH:61:HIS:HA	34:DH:64:LEU:HD12	1.80	0.63
1:CA:898:G:N2	1:CA:900:A:H3'	2.13	0.63
30:DD:71:ASP:CG	30:DD:103:ARG:HH22	2.01	0.63
1:CA:613:C:H2'	1:CA:614:A:H8	1.63	0.63
1:CA:1431:C:H2'	1:CA:1432:G:O4'	1.99	0.63
36:DN:3:THR:O	36:DN:5:VAL:HG12	1.98	0.63
1:CA:878:G:H5'	8:CH:89:PRO:HG2	1.80	0.63
4:CD:156:GLU:O	4:CD:160:GLN:HG3	1.99	0.63
42:BT:134:GLU:O	42:BT:135:ALA:HB3	1.98	0.63
48:BZ:113:GLY:HA3	48:BZ:176:PRO:HD3	1.80	0.63
25:AY:57:A:H4'	25:AY:58:A:OP1	1.95	0.63
27:BA:2639:A:H2'	27:BA:2640:G:O4'	1.98	0.63
42:DT:115:ARG:HA	42:DT:115:ARG:HE	1.63	0.63
17:CQ:8:GLY:HA3	17:CQ:22:LEU:O	1.98	0.63
57:B8:23:VAL:CG1	57:B8:46:ARG:HB3	2.27	0.63
27:BA:2880:C:O2'	40:BR:90:ARG:NH1	2.32	0.63
32:BF:113:ALA:HB1	32:BF:186:ILE:HG21	1.81	0.63
27:DA:1899:G:N2	27:DA:1902:C:N4	2.46	0.63
4:CD:201:GLN:OE1	4:CD:204:ILE:HG13	1.97	0.63
17:AQ:68:ARG:H	17:AQ:70:ARG:NH1	1.96	0.63
32:DF:9:ILE:HG12	32:DF:14:PRO:HA	1.81	0.63
19:CS:19:VAL:O	19:CS:23:ASN:HB3	1.97	0.63
41:BS:59:LYS:HZ1	41:BS:68:GLN:HE22	1.46	0.63
27:DA:97:C:H4'	51:D2:2:LYS:CB	2.25	0.63
27:DA:95:G:HO2'	51:D2:48:HIS:HD1	1.46	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:DQ:63:LYS:HG2	39:DQ:64:ILE:N	2.13	0.63
38:DP:123:LEU:HD12	38:DP:125:VAL:CG1	2.27	0.63
33:DG:32:PRO:HB2	33:DG:172:LEU:HD13	1.79	0.63
27:DA:571:A:H1'	27:DA:573:G:C8	2.34	0.63
14:AN:29:ARG:NH1	14:AN:31:ARG:HB2	2.12	0.63
31:DE:15:PHE:CZ	42:DT:80:SER:HB2	2.34	0.63
27:DA:2746:U:H1'	34:DH:139:GLN:HB3	1.80	0.63
17:CQ:17:LYS:HG2	17:CQ:47:PRO:HA	1.80	0.63
27:BA:1820:U:H4'	27:BA:1821:A:OP2	1.98	0.63
17:AQ:5:VAL:HA	17:AQ:59:ILE:O	1.97	0.63
41:BS:82:ILE:CD1	41:BS:82:ILE:H	1.97	0.63
34:BH:154:PRO:HG3	34:BH:162:ILE:O	1.99	0.63
37:BO:2:ILE:HG21	37:BO:8:LEU:HD21	1.80	0.63
27:DA:2476:A:H2'	27:DA:2477:C:H5''	1.79	0.63
1:CA:1053:G:O6	1:CA:1199:U:H2'	1.99	0.63
14:CN:7:ILE:O	14:CN:10:ALA:HB3	1.98	0.63
12:AL:34:CYS:HA	12:AL:55:VAL:HG22	1.80	0.63
33:DG:47:LYS:N	33:DG:51:ARG:HG3	2.14	0.63
9:CI:3:GLN:HG2	9:CI:20:ARG:HH12	1.64	0.63
19:CS:63:THR:HG22	19:CS:66:MET:HG2	1.80	0.63
13:AM:76:ALA:CA	13:AM:79:LYS:HZ2	2.10	0.63
25:CY:65:U:H2'	25:CY:66:A:H8	1.63	0.63
42:BT:13:ARG:O	42:BT:15:VAL:N	2.27	0.63
50:D1:7:ILE:HD13	50:D1:62:VAL:HB	1.79	0.63
50:D1:67:ILE:N	50:D1:68:PRO:CD	2.62	0.63
1:AA:611:A:H61	1:AA:629:G:H1	1.44	0.63
1:AA:178:C:H2'	1:AA:179:A:C8	2.30	0.63
27:DA:428:A:H3'	27:DA:429:A:C8	2.34	0.63
27:BA:527:C:C4	27:BA:2779:U:H2'	2.33	0.63
1:CA:946:A:C6	1:CA:1236:A:N1	2.67	0.63
17:CQ:67:LYS:O	17:CQ:68:ARG:HB3	1.98	0.63
37:DO:101:PRO:HD3	42:DT:67:SER:O	1.98	0.63
30:DD:67:PHE:CZ	30:DD:157:ARG:NE	2.64	0.63
1:CA:110:C:H2'	1:CA:111:G:O4'	1.99	0.63
27:DA:614(C):A:H4'	27:DA:615:G:OP1	1.97	0.63
27:DA:1388:G:C2'	27:DA:1389:G:H5'	2.27	0.63
2:CB:19:HIS:HD1	2:CB:20:GLU:HG2	1.63	0.63
1:AA:1047:G:HO2'	1:AA:1215:G:HO2'	1.47	0.63
17:CQ:31:LEU:HD23	17:CQ:32:TYR:CZ	2.33	0.63
15:CO:61:GLY:O	15:CO:65:ARG:HD3	1.98	0.63
1:AA:972:C:H4'	10:AJ:57:LYS:HG3	1.80	0.63
32:DF:53:THR:HG23	32:DF:55:GLY:H	1.62	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DU:14:HIS:C	43:DU:16:LYS:H	2.02	0.63
2:AB:224:GLN:HE21	2:AB:229:VAL:HG21	1.62	0.63
1:AA:1344:C:O2'	1:AA:1345:U:H5'	1.97	0.63
40:BR:22:ARG:O	40:BR:25:ALA:N	2.32	0.63
2:CB:91:PRO:CG	2:CB:154:LEU:HB2	2.16	0.63
12:AL:89:ASP:O	12:AL:91:PRO:HD3	1.98	0.63
51:B2:42:GLY:O	51:B2:44:LEU:N	2.31	0.63
1:AA:189(E):U:O2	1:AA:189(E):U:H2'	1.98	0.63
27:DA:2262:U:P	49:D0:19:LYS:HZ2	2.22	0.63
28:DB:87:G:H3'	28:DB:88:C:C5'	2.28	0.63
47:BY:26:LYS:HG2	47:BY:27:VAL:HG23	1.80	0.63
27:BA:1658:C:H2'	27:BA:1659:U:H6	1.64	0.63
3:AC:16:ARG:CB	3:AC:16:ARG:HH11	2.07	0.63
1:CA:1038:C:H2'	1:CA:1039:C:C4	2.32	0.63
42:BT:33:LYS:HE3	42:BT:74:ARG:NH2	2.14	0.63
27:BA:1439:A:C2	27:BA:1553:A:C4	2.87	0.63
36:DN:82:LEU:HD12	36:DN:83:LYS:N	2.14	0.63
27:BA:2270:G:H2'	27:BA:2271:G:O4'	1.97	0.63
8:CH:10:LEU:CD2	8:CH:83:ILE:HG12	2.26	0.63
27:BA:2321:G:O2'	27:BA:2322:A:H5'	1.98	0.63
1:AA:1171:G:H2'	1:AA:1172:C:C6	2.33	0.63
30:DD:35:LYS:CB	30:DD:36:PRO:HD3	2.29	0.63
1:CA:1032:G:H2'	1:CA:1033:G:C8	2.34	0.63
27:BA:197:A:C8	27:BA:197:A:H5'	2.26	0.63
27:BA:1412:A:H2'	27:BA:1413:G:H8	1.60	0.63
33:BG:128:ARG:C	33:BG:130:ASN:N	2.48	0.63
27:BA:1241:A:O2'	27:BA:1242:A:H5'	1.98	0.63
32:BF:40:GLN:NE2	32:BF:184:TYR:HB3	2.14	0.63
25:CY:38:U:O2	25:CY:38:U:H3'	1.97	0.63
27:DA:2039:C:OP2	36:DN:109:LYS:HD3	1.97	0.63
42:BT:122:ASP:O	42:BT:124:ASP:N	2.31	0.63
1:AA:595:G:H1	1:AA:641:U:H2'	1.64	0.63
50:D1:80:LEU:HB3	50:D1:82:LEU:HD21	1.78	0.63
27:BA:49:A:H5''	27:BA:51:G:O4'	1.99	0.63
27:DA:55:G:H2'	27:DA:56:A:C8	2.31	0.63
27:BA:2684:U:O2'	37:BO:68:GLU:HG3	1.98	0.63
40:DR:83:ILE:O	40:DR:86:ARG:HG3	1.98	0.63
27:DA:2064:C:H1'	27:DA:2450:A:C6	2.34	0.63
1:CA:297:G:N2	1:CA:300:A:OP2	2.32	0.63
39:BQ:79:LEU:HD12	39:BQ:79:LEU:N	2.12	0.63
27:BA:2228:G:P	30:BD:263:ARG:HH12	2.21	0.63
24:CX:37:A:H3'	24:CX:38:A:H8	1.63	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2078:C:O2'	27:DA:2079:U:H5'	1.99	0.63
57:D8:16:ILE:CG2	57:D8:64:TYR:HB3	2.28	0.63
32:BF:70:THR:C	32:BF:72:ARG:H	2.01	0.63
32:DF:21:ALA:O	32:DF:24:LEU:HB2	1.99	0.63
43:DU:83:LEU:HG	43:DU:88:ILE:CD1	2.27	0.63
44:DV:19:LYS:HZ3	44:DV:20:LEU:H	1.45	0.63
27:DA:1497:U:H5'	27:DA:1498:C:C5	2.31	0.63
27:DA:2833:G:C3'	27:DA:2834:G:H5''	2.07	0.63
27:DA:2429:G:OP2	27:DA:2430:A:OP2	2.17	0.63
27:DA:2503:A:H4'	27:DA:2504:U:OP1	1.99	0.63
20:AT:29:LYS:O	20:AT:32:ALA:HB3	1.98	0.63
34:BH:8:PRO:HD2	34:BH:69:ARG:CD	2.24	0.63
47:BY:31:LEU:HD22	47:BY:31:LEU:N	2.14	0.63
42:DT:62:THR:HG22	42:DT:75:ILE:CG1	2.28	0.63
27:DA:1032:A:O3'	58:D9:16:VAL:HG11	1.99	0.63
27:BA:125:G:H21	56:B7:48:LYS:HZ2	1.45	0.63
36:DN:43:THR:HB	36:DN:46:VAL:HG12	1.80	0.63
30:DD:43:ARG:HD2	30:DD:44:ASN:CG	2.18	0.63
37:BO:114:ILE:N	37:BO:114:ILE:HD13	2.13	0.63
3:CC:156:ARG:NH2	3:CC:161:GLU:HG3	2.12	0.63
48:DZ:47:PHE:O	48:DZ:51:SER:N	2.31	0.63
40:DR:4:LEU:O	40:DR:4:LEU:HD13	1.99	0.63
27:BA:1375:C:H2'	27:BA:1376:C:H6	1.64	0.63
6:AF:69:GLU:O	6:AF:72:VAL:HG12	1.98	0.63
1:CA:1442(A):G:H5'	1:CA:1442(B):A:OP2	1.99	0.63
34:BH:86:GLU:HG2	34:BH:86:GLU:O	1.98	0.63
7:CG:150:ALA:HB2	11:CK:50:TYR:CZ	2.34	0.63
27:DA:1718:G:H1	27:DA:1744:C:N4	1.92	0.63
27:DA:1273:U:C6	27:DA:1273:U:H5''	2.27	0.63
27:BA:492:A:H2'	27:BA:493:G:O4'	1.98	0.63
32:BF:160:ASN:HD22	32:BF:160:ASN:C	2.02	0.63
3:AC:43:LEU:HB3	3:AC:47:LEU:HD23	1.81	0.63
27:DA:1012:U:O4	36:DN:25:ARG:HA	1.99	0.63
14:AN:15:LYS:O	14:AN:16:PHE:O	2.16	0.63
1:AA:1228:C:H4'	13:AM:116:THR:CA	2.29	0.63
5:AE:81:GLU:HG2	5:AE:90:VAL:HG12	1.80	0.63
27:BA:723:G:O2'	27:BA:724:U:H5'	1.98	0.63
13:AM:14:ARG:HD2	13:AM:42:ALA:O	1.97	0.63
56:D7:24:THR:HG23	56:D7:27:GLY:N	2.13	0.63
11:AK:122:LYS:O	11:AK:126:ARG:HG3	1.99	0.63
4:CD:121:VAL:HG22	4:CD:126:ILE:HG13	1.79	0.63
27:BA:1654:A:OP2	40:BR:3:HIS:HB2	1.98	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1945:G:H2'	27:BA:1946:U:C6	2.33	0.63
8:CH:123:GLU:O	8:CH:127:LEU:HB2	1.97	0.63
27:BA:508:G:N3	27:BA:508:G:H2'	2.12	0.63
27:BA:1155:A:OP1	43:BU:55:ARG:HD2	1.98	0.63
20:CT:86:ARG:HH11	20:CT:86:ARG:HG3	1.63	0.63
1:AA:528:C:H41	12:AL:46:ASN:CG	2.02	0.63
30:BD:165:ILE:CD1	30:BD:175:LEU:HD21	2.16	0.63
1:CA:1348:U:H2'	1:CA:1349:A:H8	1.63	0.63
44:BV:99:ILE:H	44:BV:99:ILE:HD13	1.63	0.63
31:DE:33:VAL:HG22	31:DE:69:LYS:HE3	1.80	0.63
27:DA:953:A:OP2	39:DQ:16:ARG:NH2	2.31	0.63
33:DG:11:TYR:HE1	33:DG:172:LEU:HD11	1.63	0.63
33:DG:27:ASN:O	33:DG:28:VAL:HB	1.99	0.63
50:B1:37:ILE:CG2	50:B1:38:SER:H	1.94	0.63
20:CT:104:LEU:HD23	20:CT:105:SER:N	2.13	0.63
48:BZ:18:ARG:NH1	48:BZ:83:GLU:O	2.31	0.63
1:CA:32:A:C2	1:CA:33:A:C4	2.87	0.63
42:DT:33:LYS:HB2	42:DT:41:ARG:HB3	1.80	0.63
27:DA:90:U:H2'	27:DA:90:U:O2	1.96	0.63
27:BA:1777:U:H2'	27:BA:1778:U:H6	1.63	0.63
6:AF:38:GLU:O	6:AF:39:LYS:HB2	1.99	0.63
27:DA:118:A:H5'	27:DA:119:A:C8	2.33	0.63
27:DA:2180:U:H2'	27:DA:2181:G:C8	2.34	0.63
3:CC:156:ARG:HE	3:CC:161:GLU:HA	1.62	0.63
57:B8:32:LEU:HB3	57:B8:36:LYS:CE	2.28	0.63
30:BD:241:PRO:O	30:BD:242:ARG:CB	2.44	0.63
42:DT:102:ILE:HB	42:DT:110:ILE:HD11	1.81	0.63
42:DT:23:ARG:HE	42:DT:120:ARG:HH11	1.45	0.63
27:BA:2096:U:H2'	27:BA:2097:C:H6	1.62	0.63
27:BA:1175:U:H6	27:BA:1178:C:H42	1.47	0.63
10:CJ:5:ARG:HG3	10:CJ:71:LEU:HD11	1.79	0.63
35:DI:9:LEU:O	35:DI:13:GLY:CA	2.47	0.63
27:BA:218:A:C2	27:BA:235:U:H4'	2.33	0.63
9:AI:4:TYR:CD1	9:AI:4:TYR:N	2.60	0.63
27:BA:1924:C:C2'	27:BA:1925:C:H5'	2.29	0.63
47:DY:4:LYS:HG3	47:DY:5:MET:H	1.63	0.63
1:AA:1308:U:H5'	13:AM:110:ARG:HD2	1.80	0.63
28:DB:30:C:H2'	28:DB:31:C:O4'	1.98	0.63
1:AA:1064:G:O2'	1:AA:1190:G:N2	2.32	0.63
27:BA:1750:G:O2'	27:BA:2860:A:N1	2.32	0.63
27:BA:192:C:H2'	27:BA:193:U:H5'	1.80	0.63
27:DA:975(A):G:O2'	27:DA:976:C:H5'	1.98	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BE:119:ARG:HD2	31:BE:120:TRP:CE2	2.34	0.63
27:DA:1838:C:N3	27:DA:1901:A:N6	2.46	0.63
20:AT:98:PRO:C	20:AT:100:ILE:H	2.01	0.63
6:CF:100:ASN:HB3	18:CR:27:GLY:O	1.98	0.63
31:DE:102:VAL:HG13	31:DE:172:VAL:CG2	2.29	0.63
40:BR:111:LEU:N	40:BR:111:LEU:HD22	2.13	0.63
27:BA:304:G:H2'	27:BA:305:U:C6	2.34	0.63
43:DU:5:LYS:HG2	43:DU:7:GLY:H	1.62	0.63
38:BP:29:LYS:HB3	38:BP:34:GLY:H	1.63	0.63
31:BE:184:VAL:CG1	31:BE:185:LYS:H	2.12	0.63
27:DA:1151:G:H5''	43:DU:81:HIS:CE1	2.33	0.63
36:DN:4:TYR:CB	43:DU:64:ARG:HH22	2.12	0.63
43:DU:90:VAL:HG12	43:DU:91:ASP:N	2.08	0.63
47:DY:28:LYS:H	47:DY:28:LYS:HZ2	1.46	0.63
27:DA:2275:C:O2'	39:DQ:85:LYS:N	2.32	0.63
1:AA:190:U:O2'	1:AA:191:G:H5'	1.98	0.63
37:DO:103:ALA:HB1	37:DO:105:GLU:OE1	1.99	0.63
32:DF:117:ARG:HH21	32:DF:187:VAL:HA	1.64	0.63
11:AK:124:LYS:HB2	11:AK:125:PHE:CD1	2.34	0.63
27:BA:1316:U:O2'	27:BA:1317:A:H5'	1.98	0.63
46:BX:12:VAL:CG1	46:BX:27:THR:HG23	2.29	0.63
46:BX:12:VAL:HG23	46:BX:13:LEU:N	2.13	0.63
34:BH:152:ARG:HB2	34:BH:162:ILE:HG13	1.80	0.63
40:BR:79:LEU:HA	40:BR:83:ILE:CG1	2.22	0.63
3:CC:77:ILE:HG22	3:CC:81:GLY:HA2	1.80	0.63
1:CA:1308:U:OP1	13:CM:97:PRO:HA	1.98	0.63
27:DA:2165:G:H2'	27:DA:2166:G:C8	2.33	0.63
35:BI:113:ARG:O	35:BI:130:TYR:HD1	1.82	0.63
27:BA:96:G:H4'	51:B2:48:HIS:HD2	1.63	0.63
1:CA:1027:C:H2'	1:CA:1028:C:C5	2.33	0.63
13:CM:3:ARG:HG2	13:CM:9:ILE:HG13	1.81	0.63
2:AB:218:ALA:O	2:AB:222:ILE:HG13	1.99	0.63
40:DR:100:LEU:HD21	40:DR:113:LEU:HB2	1.80	0.63
45:DW:83:LYS:HG2	45:DW:97:LYS:CD	2.29	0.63
28:DB:17:C:H2'	28:DB:18:G:H8	1.63	0.63
1:CA:1280:A:H5''	10:CJ:40:LEU:HD12	1.80	0.63
10:AJ:9:ARG:O	10:AJ:94:VAL:HG13	1.99	0.63
27:DA:1819:A:H5''	30:DD:158:ALA:HB2	1.80	0.63
36:BN:56:ASN:HA	36:BN:125:GLY:H	1.63	0.63
9:AI:28:VAL:HA	9:AI:63:ILE:O	1.99	0.63
2:CB:22:LYS:O	2:CB:24:TRP:HD1	1.82	0.63
27:DA:811:U:O2	27:DA:1250:G:H3'	1.98	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1030(A):G:H1'	1:AA:1031:G:H22	1.63	0.63
29:DC:47:LEU:H	29:DC:47:LEU:HD23	1.62	0.63
5:CE:88:LYS:HD3	5:CE:123:LEU:HD12	1.79	0.63
1:CA:291:C:O2'	1:CA:292:G:H5'	1.99	0.63
1:CA:980:C:H3'	1:CA:981:U:C6	2.34	0.63
19:CS:33:THR:O	19:CS:57:HIS:HE1	1.81	0.63
27:BA:1290:C:H2'	27:BA:1291:C:C6	2.33	0.63
47:BY:81:LYS:HZ3	47:BY:97:ARG:HG2	1.61	0.63
27:BA:557:U:O2'	27:BA:558:G:H5'	1.98	0.63
44:BV:15:GLU:CB	44:BV:16:PRO:HD2	2.28	0.63
41:BS:68:GLN:HG2	41:BS:71:ARG:NH1	2.14	0.63
30:BD:25:THR:O	30:BD:26:LYS:HD3	1.98	0.63
57:D8:14:VAL:CG2	57:D8:22:VAL:HG13	2.24	0.63
27:DA:2382:G:O2'	27:DA:2383:G:OP2	2.14	0.63
39:BQ:115:MET:CE	39:BQ:131:ILE:HG21	2.28	0.63
1:CA:186:C:H2'	1:CA:187:C:C6	2.33	0.63
1:AA:1203:C:H2'	1:AA:1204:A:H8	1.64	0.63
14:AN:45:ARG:O	14:AN:45:ARG:HG2	1.99	0.63
1:CA:377:G:H2'	1:CA:378:G:C8	2.34	0.63
1:CA:1492:A:H5'	26:CZ:6:5OH:HP	1.80	0.63
32:DF:155:LEU:HD11	32:DF:176:LEU:HD23	1.80	0.63
48:BZ:68:THR:HA	48:BZ:90:LEU:HD12	1.80	0.63
3:CC:89:GLU:OE2	3:CC:93:LYS:HD2	1.99	0.63
38:BP:144:GLU:N	38:BP:145:PRO:CD	2.62	0.63
48:BZ:157:PRO:O	48:BZ:160:VAL:HB	1.99	0.63
36:BN:133:GLN:C	36:BN:134:ARG:HG3	2.17	0.63
38:DP:16:ARG:NH2	38:DP:18:ARG:HG3	2.13	0.63
39:BQ:58:PHE:CD1	39:BQ:58:PHE:O	2.51	0.63
13:AM:17:VAL:HA	13:AM:20:THR:OG1	1.99	0.63
13:AM:81:LEU:HB3	13:AM:89:GLY:HA2	1.81	0.63
16:CP:74:LEU:O	16:CP:79:VAL:HG23	1.99	0.63
33:DG:112:PRO:C	33:DG:113:ARG:HH11	2.00	0.63
1:AA:762:C:H2'	1:AA:763:G:H8	1.63	0.63
1:AA:853:G:O2'	1:AA:854:G:H5'	1.99	0.63
45:DW:23:LEU:HD21	54:D5:25:LEU:HD13	1.81	0.63
12:AL:25:LYS:O	12:AL:26:GLY:C	2.37	0.63
39:DQ:66:ILE:O	39:DQ:66:ILE:CG1	2.46	0.63
41:DS:82:ILE:HG22	41:DS:83:LYS:N	2.14	0.63
7:CG:50:ILE:HD11	7:CG:121:ALA:HA	1.80	0.63
1:AA:52:G:O2'	1:AA:53:A:H8	1.81	0.63
24:AX:29:G:H2'	24:AX:30:G:H8	1.64	0.63
49:D0:72:ARG:HE	49:D0:75:LEU:HD12	1.63	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:233:SER:OG	2:AB:234:PRO:HD2	1.98	0.63
27:BA:1252:G:H4'	27:BA:1253:A:OP1	1.99	0.63
1:CA:298:A:H2'	1:CA:299:G:O4'	1.98	0.63
4:CD:49:ARG:HD3	4:CD:50:ARG:N	2.14	0.63
3:AC:143:GLU:C	3:AC:145:GLY:H	2.00	0.63
27:BA:2886:G:O2'	54:B5:32:PRO:HD2	1.99	0.63
27:BA:1804:C:O2'	27:BA:1805:U:H5'	1.98	0.63
32:BF:7:TYR:O	32:BF:15:SER:HB2	1.99	0.63
47:BY:8:LYS:HD2	47:BY:8:LYS:N	2.14	0.63
4:CD:26:CYS:HA	4:CD:31:CYS:HA	1.81	0.63
13:CM:23:TYR:CD1	13:CM:71:ARG:HB2	2.34	0.63
47:BY:50:ARG:HD2	47:BY:56:PRO:O	1.99	0.63
1:CA:472:A:C4'	16:CP:82:GLN:HE22	2.12	0.63
44:BV:62:LEU:N	44:BV:62:LEU:HD22	2.13	0.63
27:DA:272:G:O6	27:DA:421:U:H2'	1.99	0.63
1:AA:1404:C:H2'	1:AA:1405:G:C8	2.34	0.63
47:DY:81:LYS:HD3	47:DY:97:ARG:CB	2.22	0.63
30:DD:26:LYS:HZ1	30:DD:82:ILE:N	1.97	0.63
31:DE:33:VAL:HG23	31:DE:69:LYS:HE3	1.81	0.63
27:DA:940:G:H2'	27:DA:941:A:H5''	1.81	0.63
27:DA:967:C:O2'	27:DA:968:G:H5'	1.99	0.63
20:AT:79:ARG:HH21	20:AT:80:ARG:NH2	1.97	0.63
55:B6:14:THR:O	55:B6:49:HIS:HA	1.98	0.63
27:BA:1686:C:H2'	27:BA:1687:G:O4'	1.99	0.63
1:AA:1073:U:H3	1:AA:1102:A:H61	1.46	0.63
41:BS:105:ALA:C	41:BS:107:GLU:N	2.52	0.63
1:CA:992:U:H3	1:CA:1044:A:H62	1.45	0.63
1:CA:189(K):U:H2'	1:CA:189(L):G:C8	2.34	0.63
42:BT:108:ARG:HA	42:BT:111:ARG:HG3	1.81	0.63
12:AL:35:THR:OG1	12:AL:36:VAL:HG23	1.99	0.63
39:DQ:33:GLY:HA2	39:DQ:105:GLU:HA	1.80	0.63
27:BA:2158:A:O2'	27:BA:2159:G:H8	1.82	0.63
35:BI:144:VAL:HG23	35:BI:145:VAL:HG23	1.80	0.63
1:AA:503:C:O2'	1:AA:504:C:H5'	1.99	0.63
1:AA:545:C:H5''	4:AD:72:GLU:HG2	1.81	0.63
4:AD:65:ARG:HD2	4:AD:72:GLU:HA	1.81	0.63
38:DP:16:ARG:CZ	38:DP:18:ARG:HG3	2.28	0.63
39:BQ:51:ARG:NH1	39:BQ:52:VAL:HG23	2.14	0.63
37:DO:68:GLU:HA	37:DO:77:ILE:O	1.99	0.63
27:DA:1917:U:H2'	27:DA:1918:A:H8	1.62	0.63
2:CB:76:GLN:O	2:CB:208:ILE:HG12	1.99	0.63
34:BH:88:LEU:CD1	34:BH:130:ARG:HG3	2.29	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1909:C:H42	27:DA:1921:G:H1	1.47	0.63
38:DP:90:ARG:HB3	38:DP:91:PHE:HD1	1.63	0.63
27:BA:702:G:O2'	27:BA:703:U:H5'	1.99	0.63
28:DB:26:A:H3'	28:DB:27:C:H5''	1.81	0.63
24:AX:53:G:H2'	24:AX:54:U:C6	2.33	0.63
49:D0:5:LYS:HB3	49:D0:5:LYS:HZ2	1.64	0.63
27:BA:221:A:H4'	27:BA:222:A:O5'	1.98	0.63
1:CA:1423:G:H2'	1:CA:1424:C:H6	1.64	0.63
38:BP:49:ARG:HD2	57:B8:59:LYS:CG	2.28	0.62
31:BE:167:VAL:HG23	31:BE:170:LEU:CD1	2.28	0.62
31:BE:21:VAL:HG23	31:BE:21:VAL:O	1.98	0.62
38:DP:47:ASP:HB3	38:DP:48:PRO:HA	1.79	0.62
27:DA:1973:G:H2'	27:DA:1974:C:H6	1.59	0.62
53:B4:40:ILE:C	53:B4:41:ILE:HD13	2.19	0.62
44:BV:6:LYS:HG2	44:BV:10:LYS:O	1.99	0.62
29:BC:83:ILE:HD11	29:BC:95:GLY:O	1.98	0.62
27:BA:286:C:O2'	27:BA:287:C:H5'	1.99	0.62
27:DA:2232:U:O2'	27:DA:2233:U:H5'	1.99	0.62
27:DA:999:U:H2'	27:DA:1000:A:C5'	2.27	0.62
36:DN:4:TYR:CD1	36:DN:4:TYR:N	2.67	0.62
43:DU:42:ALA:C	43:DU:44:ASN:H	2.01	0.62
30:DD:208:LYS:HG2	30:DD:210:GLY:O	1.99	0.62
27:DA:61:G:HO2'	27:DA:62:C:H6	1.47	0.62
38:DP:66:GLY:O	38:DP:67:MET:HB3	1.97	0.62
33:DG:25:TYR:CE2	33:DG:31:VAL:HG23	2.34	0.62
27:BA:1023:U:H2'	27:BA:1024:G:C5'	2.28	0.62
1:AA:1375:A:H2'	1:AA:1376:U:O4'	2.00	0.62
34:DH:84:SER:O	34:DH:85:LYS:HB3	1.98	0.62
27:BA:1815:A:OP2	30:BD:54:ARG:NH1	2.31	0.62
1:CA:237:C:H5''	17:CQ:25:ARG:HH11	1.61	0.62
42:DT:3:ARG:O	42:DT:5:ALA:N	2.32	0.62
27:BA:955:C:OP1	39:BQ:87:LYS:HE2	1.98	0.62
48:DZ:93:GLU:HB2	48:DZ:95:VAL:HG23	1.79	0.62
27:BA:2875:C:O2'	42:BT:5:ALA:HB3	1.99	0.62
27:BA:2863:C:C3'	27:BA:2864:G:H5''	2.29	0.62
33:DG:81:LYS:O	33:DG:82:LEU:O	2.16	0.62
1:AA:1239:A:H62	1:AA:1299:A:N6	1.95	0.62
27:BA:71:A:H5''	27:BA:73:A:N7	2.14	0.62
33:DG:39:ILE:HD13	33:DG:157:ILE:CG2	2.29	0.62
1:AA:1136:U:H5''	1:AA:1137:C:C6	2.34	0.62
34:BH:10:PRO:HG3	34:BH:50:VAL:C	2.18	0.62
35:BI:3:VAL:CA	35:BI:39:ALA:HB2	2.28	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:415:A:H2'	27:DA:416:C:H6	1.63	0.62
11:CK:104:GLN:HG2	11:CK:105:VAL:N	2.14	0.62
27:DA:1336:A:H2'	27:DA:1337:G:C8	2.34	0.62
1:AA:1371:G:H2'	1:AA:1372:U:C6	2.34	0.62
42:DT:93:ARG:HG3	42:DT:93:ARG:HH11	1.63	0.62
42:DT:92:GLY:C	42:DT:94:ALA:H	2.02	0.62
27:BA:2732:G:H3'	27:BA:2733:A:H5'	1.81	0.62
2:AB:32:ILE:HG12	2:AB:33:TYR:N	2.13	0.62
4:CD:158:ILE:HG22	4:CD:162:LEU:HD12	1.81	0.62
27:BA:2181:G:O2'	27:BA:2182:G:H5'	1.99	0.62
1:CA:1445:C:C2'	1:CA:1446:U:H5'	2.29	0.62
27:BA:919:G:O2'	27:BA:920:G:H5'	1.99	0.62
27:BA:2628:C:O2'	27:BA:2781:A:H2'	1.98	0.62
27:BA:1154:G:O5'	27:BA:1154:G:H8	1.82	0.62
30:DD:68:LYS:O	30:DD:68:LYS:HG3	1.99	0.62
1:AA:781:A:H4'	1:AA:1522:U:O2'	1.99	0.62
27:BA:1690:A:H2'	27:BA:1691:C:O4'	1.99	0.62
1:CA:1187:G:H2'	1:CA:1188:A:C8	2.33	0.62
1:CA:956:U:O2'	1:CA:957:U:H5'	1.99	0.62
48:DZ:119:ILE:HB	48:DZ:170:ILE:C	2.20	0.62
1:CA:472:A:H5''	16:CP:80:PHE:HB3	1.81	0.62
27:BA:556:G:H2'	27:BA:557:U:C6	2.34	0.62
36:BN:5:VAL:HG13	36:BN:5:VAL:O	1.98	0.62
1:AA:271:C:H2'	1:AA:272:C:H6	1.60	0.62
29:BC:86:ALA:HB2	29:BC:152:ILE:CB	2.29	0.62
27:BA:2698:U:H2'	27:BA:2699:C:C6	2.34	0.62
27:DA:702:G:H1	27:DA:730:C:H42	1.48	0.62
55:D6:17:LYS:HB3	55:D6:18:ARG:NH1	2.14	0.62
27:DA:2068:U:H3	27:DA:2430:A:H2	1.47	0.62
30:BD:31:LYS:HE3	30:BD:33:LEU:CD2	2.25	0.62
1:CA:402:G:O2'	1:CA:403:C:H5'	1.99	0.62
19:AS:29:ARG:O	19:AS:31:ILE:HG22	1.99	0.62
43:BU:104:GLN:C	43:BU:104:GLN:HE21	2.02	0.62
41:DS:13:ARG:O	41:DS:14:VAL:HB	1.98	0.62
1:CA:1492:A:H3'	26:CZ:6:5OH:HNP	1.64	0.62
27:BA:826:U:H5''	27:BA:826:U:H6	1.62	0.62
58:B9:24:TYR:CE2	58:B9:35:ARG:HD2	2.34	0.62
27:DA:2174:C:O2'	27:DA:2175:C:O4'	2.16	0.62
27:BA:2171:A:H4'	27:BA:2172:U:H5'	1.78	0.62
29:DC:41:VAL:HG12	29:DC:213:TYR:HA	1.81	0.62
35:BI:7:GLU:HG3	35:BI:7:GLU:O	1.99	0.62
27:DA:2560:C:H42	27:DA:2561:A:N6	1.95	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BE:69:LYS:C	31:BE:71:GLY:N	2.52	0.62
1:CA:817:C:C1'	1:CA:819:A:H5'	2.28	0.62
27:DA:1629:U:H1'	27:DA:2698:U:H5''	1.79	0.62
37:DO:87:ILE:HG12	37:DO:93:PRO:HA	1.81	0.62
27:BA:1850:G:H2'	27:BA:1851:U:C6	2.34	0.62
1:CA:96:U:H2'	1:CA:97:G:C8	2.33	0.62
7:CG:65:ALA:CB	7:CG:124:LEU:HD23	2.29	0.62
27:BA:2144:U:H4'	27:BA:2145:C:H5	1.64	0.62
27:DA:1329:U:H5'	27:DA:1330:C:H5	1.62	0.62
27:DA:1877:A:H5'	27:DA:1878:G:OP2	1.99	0.62
27:BA:485:C:H2'	27:BA:486:C:H6	1.62	0.62
42:BT:32:TYR:CD2	42:BT:32:TYR:N	2.67	0.62
27:DA:999:U:H5''	27:DA:1154:G:O6	1.99	0.62
27:DA:868:U:H3	27:DA:912:C:H1'	1.63	0.62
27:DA:908:C:H3'	39:DQ:22:LYS:HZ2	1.60	0.62
27:DA:2416:C:H2'	27:DA:2417:C:H6	1.63	0.62
38:DP:115:LEU:CD2	38:DP:115:LEU:N	2.62	0.62
27:DA:2052:G:H22	27:DA:2618:G:H1'	1.64	0.62
27:DA:579:G:H2'	27:DA:580:C:H6	1.58	0.62
27:DA:941:A:H2'	27:DA:942:G:C8	2.34	0.62
27:BA:1494:A:O2'	27:BA:1495:A:H5''	1.98	0.62
9:AI:115:GLY:C	9:AI:116:LYS:HG2	2.19	0.62
8:AH:25:ASP:HA	8:AH:59:LEU:O	1.99	0.62
12:CL:24:LEU:HG	12:CL:59:SER:OG	2.00	0.62
2:AB:197:VAL:HB	2:AB:200:ILE:CG1	2.29	0.62
1:CA:250:A:H2	1:CA:274:A:H61	1.44	0.62
12:AL:31:ARG:HH21	12:AL:58:THR:HG21	1.64	0.62
27:BA:2271:G:H5'	49:B0:20:ARG:HG2	1.81	0.62
27:DA:2869:G:H2'	27:DA:2870:C:C6	2.34	0.62
33:BG:43:LEU:HB2	33:BG:88:ILE:HD11	1.81	0.62
27:DA:597:U:H2'	27:DA:598:G:H8	1.62	0.62
46:BX:5:TYR:CZ	51:B2:30:ARG:HB2	2.34	0.62
27:BA:1596:A:O2'	27:BA:1597:A:H5'	2.00	0.62
27:DA:848:G:H8	27:DA:848:G:H5'	1.64	0.62
5:AE:80:ILE:CG2	8:AH:104:ARG:HH12	2.11	0.62
27:BA:271(F):C:N4	27:BA:271(R):G:H1	1.93	0.62
18:AR:37:VAL:HG23	18:AR:38:GLU:N	2.14	0.62
1:CA:935:A:H2	1:CA:1383:C:N4	1.95	0.62
1:CA:939:G:C5'	7:CG:102:ARG:HH12	2.12	0.62
1:CA:939:G:C5'	7:CG:102:ARG:HH22	2.11	0.62
32:DF:57:VAL:HG12	32:DF:59:TYR:HD1	1.63	0.62
27:BA:142(A):C:O2'	27:BA:143:G:H5'	1.98	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:627:G:H2'	1:AA:628:G:C8	2.31	0.62
2:CB:11:LEU:CD1	2:CB:217:ARG:NH2	2.61	0.62
27:BA:1722:A:C6	27:BA:1740:G:H8	2.16	0.62
5:CE:62:ALA:O	5:CE:65:ASN:N	2.30	0.62
27:DA:107:C:O2'	27:DA:108:U:H5'	2.00	0.62
40:BR:9:LYS:C	40:BR:10:LEU:HG	2.18	0.62
27:BA:1848:A:O2'	27:BA:1849:G:H8	1.82	0.62
27:BA:1850:G:H2'	27:BA:1851:U:H6	1.64	0.62
27:BA:1192:G:C2'	27:BA:1193:G:C5'	2.78	0.62
1:CA:1457:G:H2'	1:CA:1458:G:H8	1.65	0.62
31:BE:179:GLU:HB3	31:BE:181:LEU:HD22	1.80	0.62
39:DQ:108:GLY:HA3	48:DZ:115:VAL:HG11	1.80	0.62
28:DB:27:C:H6	28:DB:27:C:H5''	1.64	0.62
27:BA:1346:G:C4	27:BA:1347:G:C8	2.88	0.62
32:DF:158:THR:HB	32:DF:195:ASP:OD2	1.98	0.62
1:AA:1472:U:O2'	1:AA:1473:A:H5'	1.99	0.62
5:AE:26:PHE:CD1	5:AE:26:PHE:N	2.66	0.62
6:AF:5:GLU:HG3	6:AF:93:SER:OG	1.99	0.62
35:BI:28:ASN:N	35:BI:28:ASN:HD22	1.97	0.62
13:CM:112:GLY:O	13:CM:113:PRO:O	2.17	0.62
27:BA:635:C:O2'	27:BA:636:G:H5'	2.00	0.62
33:BG:102:PHE:HA	33:BG:105:LYS:HZ1	1.63	0.62
41:DS:97:ARG:HH12	41:DS:99:LYS:CG	2.11	0.62
31:DE:79:ARG:NH1	31:DE:195:LEU:HD23	2.14	0.62
27:DA:1600:C:O2'	27:DA:1601:G:H5'	1.99	0.62
47:BY:31:LEU:CB	47:BY:32:PRO:CA	2.78	0.62
30:BD:52:ARG:HH12	30:BD:249:PRO:HG2	1.65	0.62
45:BW:90:ARG:NH1	45:BW:90:ARG:CG	2.58	0.62
1:CA:749:C:O2'	1:CA:750:G:H5'	1.99	0.62
55:B6:51:GLU:O	55:B6:52:VAL:HB	2.00	0.62
9:CI:19:LEU:C	9:CI:20:ARG:HD2	2.20	0.62
37:DO:12:ASP:HB3	37:DO:85:VAL:HG22	1.81	0.62
27:BA:1051:G:HO2'	27:BA:1052:C:H6	1.47	0.62
45:DW:18:ARG:HG2	45:DW:18:ARG:HH11	1.63	0.62
27:DA:486:C:H4'	45:DW:60:ASN:OD1	1.99	0.62
31:BE:70:ALA:O	31:BE:71:GLY:C	2.36	0.62
3:CC:12:LEU:O	3:CC:16:ARG:O	2.18	0.62
27:BA:58:G:N2	27:BA:70:G:C4	2.67	0.62
27:BA:216:A:H2'	27:BA:217:G:C8	2.34	0.62
1:CA:814:A:O2'	1:CA:815:A:H5''	1.99	0.62
28:DB:15:A:H1'	28:DB:110:G:C5	2.35	0.62
16:CP:21:VAL:O	16:CP:21:VAL:HG13	1.99	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AF:77:ARG:O	6:AF:79:LEU:N	2.33	0.62
27:DA:1688:U:H1'	27:DA:1701:A:N6	2.15	0.62
27:BA:1547:C:H2'	27:BA:1548:C:C6	2.34	0.62
11:AK:96:ARG:O	11:AK:99:GLN:HB2	2.00	0.62
27:DA:1849:G:C2	27:DA:1850:G:C8	2.88	0.62
27:DA:813:U:H3	27:DA:1194:A:H61	1.46	0.62
48:BZ:8:TYR:HE2	48:BZ:34:ARG:HD2	1.62	0.62
27:BA:670:A:C8	27:BA:670:A:O5'	2.52	0.62
27:BA:1605:C:O2'	27:BA:1606:G:H5'	2.00	0.62
45:DW:15:ARG:CZ	54:D5:20:ARG:NH2	2.62	0.62
40:BR:56:LYS:C	40:BR:57:ARG:O	2.32	0.62
27:BA:297:C:H2'	27:BA:298:G:O4'	2.00	0.62
30:BD:28:GLU:HB2	30:BD:29:PRO:HD3	1.80	0.62
51:D2:10:LEU:HD21	51:D2:59:ARG:HD2	1.81	0.62
6:AF:81:ILE:HG22	6:AF:81:ILE:O	1.99	0.62
27:BA:1947:C:H6	27:BA:1947:C:H5''	1.64	0.62
43:DU:9:VAL:O	43:DU:12:ARG:HB2	1.99	0.62
41:BS:87:PHE:HD2	41:BS:88:ASP:H	1.46	0.62
38:DP:50:ARG:HH21	38:DP:50:ARG:HG2	1.62	0.62
32:DF:116:ASP:O	32:DF:119:ARG:N	2.32	0.62
44:DV:19:LYS:CE	44:DV:20:LEU:H	2.12	0.62
52:B3:8:LEU:CD1	52:B3:31:LEU:HD23	2.28	0.62
27:DA:1452:A:C6	27:DA:2702:U:H1'	2.34	0.62
27:DA:1669:A:H5''	27:DA:2550:G:OP1	1.98	0.62
36:BN:63:THR:HG22	36:BN:64:GLY:N	2.08	0.62
36:BN:68:GLU:OE1	36:BN:68:GLU:HA	1.98	0.62
34:BH:43:VAL:HG11	34:BH:52:VAL:HA	1.80	0.62
27:DA:90:U:O2'	27:DA:92:A:C5'	2.40	0.62
27:DA:601:C:OP1	32:DF:108:LYS:NZ	2.24	0.62
27:DA:51:G:N3	27:DA:119:A:C2	2.68	0.62
1:AA:1423:G:O2'	1:AA:1424:C:H5'	1.99	0.62
48:DZ:91:SER:HB3	48:DZ:93:GLU:HG2	1.79	0.62
35:BI:10:GLU:O	35:BI:11:ASN:CB	2.47	0.62
51:B2:53:LEU:HD22	51:B2:57:ILE:CD1	2.30	0.62
34:DH:92:ILE:O	34:DH:94:TYR:N	2.32	0.62
33:DG:124:SER:HB2	33:DG:131:TYR:CE1	2.35	0.62
1:CA:341:C:H2'	1:CA:342:C:C6	2.34	0.62
30:DD:176:ARG:HG2	30:DD:176:ARG:HH11	1.63	0.62
27:DA:1322:A:O2'	27:DA:1323:U:H5'	2.00	0.62
45:DW:65:LEU:HD22	45:DW:68:ARG:H	1.64	0.62
43:DU:25:TRP:CG	43:DU:26:GLY:N	2.67	0.62
1:AA:179:A:H2'	1:AA:180:U:H6	1.64	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:959:A:H2'	1:AA:960:U:H4'	1.82	0.62
27:BA:2014:A:H2'	27:BA:2015:A:C8	2.34	0.62
27:BA:339:U:H6	27:BA:339:U:O5'	1.82	0.62
39:BQ:39:PRO:HG3	39:BQ:99:PRO:HD3	1.81	0.62
48:BZ:71:ARG:HG2	48:BZ:88:PHE:HB2	1.81	0.62
27:DA:1854:A:H62	27:DA:1888:G:H8	1.47	0.62
33:DG:85:GLY:C	33:DG:87:PRO:HD2	2.19	0.62
28:BB:35:U:H2'	28:BB:36:C:H6	1.64	0.62
9:CI:28:VAL:HA	9:CI:63:ILE:O	1.99	0.62
1:AA:327:A:HO2'	1:AA:329:A:H8	1.45	0.62
32:BF:206:ILE:HG13	32:BF:206:ILE:O	1.98	0.62
21:CU:10:ARG:HA	21:CU:13:ILE:HD12	1.82	0.62
27:BA:2039:C:OP2	36:BN:109:LYS:HD3	2.00	0.62
14:AN:51:GLY:O	14:AN:53:LEU:N	2.33	0.62
23:AW:52:G:O2'	23:AW:53:U:H5'	1.99	0.62
2:CB:56:ARG:HH11	2:CB:56:ARG:HG2	1.64	0.62
27:BA:942:G:OP1	38:BP:41:ARG:NH2	2.33	0.62
1:CA:973:G:C1'	10:CJ:55:LYS:HE2	2.28	0.62
27:BA:2680:C:O2'	27:BA:2681:C:H5'	1.99	0.62
32:DF:23:ASP:O	32:DF:24:LEU:HD22	1.99	0.62
30:DD:211:ARG:HA	30:DD:214:TRP:CD2	2.35	0.62
27:DA:2371:G:O2'	55:D6:46:HIS:CE1	2.52	0.62
11:CK:29:ILE:HD13	11:CK:44:SER:HB3	1.81	0.62
27:DA:2509:G:H2'	27:DA:2510:C:C6	2.34	0.62
48:DZ:27:MET:CE	48:DZ:32:LEU:HD11	2.30	0.62
1:CA:102:G:H2'	1:CA:103:C:H6	1.64	0.62
1:AA:1207:G:H2'	1:AA:1208:C:H6	1.62	0.62
40:DR:73:VAL:O	40:DR:76:VAL:HB	2.00	0.62
34:DH:137:ASP:HB3	34:DH:140:LYS:HB3	1.81	0.62
27:BA:1310:G:N2	27:BA:1313:U:C5	2.67	0.62
1:AA:1321:C:C3'	1:AA:1322:C:H5''	2.29	0.62
18:AR:53:ARG:HH11	18:AR:53:ARG:HG2	1.65	0.62
1:CA:652:U:O2'	1:CA:653:A:C5'	2.45	0.62
36:DN:16:ILE:HG23	36:DN:54:VAL:CG2	2.29	0.62
33:DG:131:TYR:CE2	33:DG:133:LEU:HD23	2.34	0.62
13:AM:4:ILE:HG12	13:AM:57:ARG:HG3	1.80	0.62
5:CE:86:ALA:HB3	5:CE:130:ASN:HD22	1.65	0.62
8:CH:68:ARG:HG2	8:CH:68:ARG:NH1	2.14	0.62
36:BN:30:ILE:O	36:BN:34:LEU:HD22	2.00	0.62
31:DE:13:ARG:HB3	31:DE:22:PRO:HA	1.82	0.62
25:CY:27:C:N4	25:CY:41:G:H1	1.97	0.62
27:DA:1277:G:O2'	40:DR:24:GLN:HG2	1.99	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:AR:36:ASN:ND2	18:AR:39:VAL:HG21	2.15	0.62
1:CA:1510:U:H2'	1:CA:1511:G:C8	2.34	0.62
15:AO:39:LEU:HD12	15:AO:56:LEU:HB2	1.82	0.62
37:BO:63:VAL:HB	37:BO:102:VAL:HG12	1.82	0.62
2:CB:76:GLN:O	2:CB:77:ALA:HB2	1.99	0.62
1:CA:1458:G:OP1	20:CT:35:THR:HG21	2.00	0.62
33:DG:72:ARG:NH1	33:DG:86:MET:HG2	2.15	0.62
2:CB:19:HIS:ND1	2:CB:189:ASP:OD2	2.31	0.62
17:CQ:31:LEU:HD23	17:CQ:32:TYR:OH	2.00	0.62
37:DO:13:ASN:C	37:DO:15:GLY:H	2.02	0.62
27:DA:2762:G:H5'	27:DA:2763:G:OP2	1.99	0.62
11:AK:78:GLN:O	11:AK:103:LEU:HD13	1.99	0.62
46:BX:59:VAL:O	46:BX:59:VAL:HG12	1.98	0.62
9:CI:56:LEU:HD23	9:CI:56:LEU:O	1.99	0.62
27:BA:147:U:H2'	27:BA:148:C:C6	2.35	0.62
32:BF:20:LEU:HB3	32:BF:23:ASP:OD2	1.99	0.62
47:BY:96:ILE:CG2	47:BY:97:ARG:H	2.12	0.62
27:DA:1693:U:H4'	27:DA:1694:C:OP2	1.98	0.62
4:CD:36:ARG:O	4:CD:38:TYR:N	2.31	0.62
32:BF:68:LYS:C	32:BF:70:THR:H	2.02	0.62
27:BA:2317:C:O2'	27:BA:2318:G:H5'	1.99	0.62
27:DA:748:G:C5'	45:DW:89:ALA:HB2	2.27	0.62
46:DX:57:LEU:HD11	46:DX:78:LYS:CD	2.29	0.62
27:BA:1686:C:H5'	27:BA:1686:C:C6	2.33	0.62
9:AI:53:VAL:HG11	9:AI:85:LEU:HD22	1.82	0.62
1:AA:942:G:H2'	1:AA:942:G:N3	2.13	0.62
12:CL:86:ARG:HA	12:CL:94:ARG:HA	1.81	0.62
33:DG:63:ILE:HA	33:DG:143:GLU:CG	2.30	0.62
15:CO:35:ARG:NH2	15:CO:59:MET:HE2	2.06	0.62
20:CT:48:LYS:O	20:CT:49:ALA:CB	2.47	0.62
1:AA:1321:C:H5''	1:AA:1322:C:H2'	1.81	0.62
1:CA:527:G:C2'	1:CA:528:C:H5'	2.29	0.62
13:CM:4:ILE:HG22	13:CM:5:ALA:N	2.10	0.62
27:DA:2126:A:H4'	27:DA:2127:G:O5'	1.99	0.62
29:DC:39:GLU:OE2	29:DC:68:LEU:HD22	2.00	0.62
27:DA:125:G:H21	56:D7:48:LYS:CE	2.11	0.62
27:DA:960:A:N7	27:DA:962:G:C4	2.68	0.62
32:BF:108:LYS:O	32:BF:112:MET:HB2	1.99	0.62
7:CG:85:TYR:CD1	7:CG:154:TYR:CE1	2.80	0.62
27:DA:594:U:H3	27:DA:663:G:H1	1.47	0.62
33:DG:125:PHE:HA	33:DG:131:TYR:HA	1.82	0.62
34:BH:10:PRO:HG2	34:BH:10:PRO:O	2.00	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BH:99:VAL:O	34:BH:99:VAL:HG12	1.99	0.62
13:AM:84:ILE:HB	19:AS:66:MET:HE1	1.82	0.62
7:CG:102:ARG:O	7:CG:106:GLN:HG2	1.98	0.62
7:AG:27:ILE:HG23	7:AG:39:ALA:O	2.00	0.62
27:BA:2472:G:C5'	27:BA:2473:U:H5''	2.29	0.62
1:AA:232:G:O2'	1:AA:233:C:H5'	2.00	0.62
43:BU:24:TYR:CE1	43:BU:38:THR:HG21	2.34	0.62
27:BA:2533:A:C2'	27:BA:2534:A:H5''	2.30	0.62
13:AM:40:ASN:ND2	13:AM:42:ALA:HB3	2.14	0.62
1:CA:1275:A:H2'	1:CA:1276:G:H8	1.64	0.62
11:AK:51:LYS:HA	11:AK:55:LYS:HD3	1.81	0.62
30:BD:261:LYS:HE2	30:BD:263:ARG:NH2	2.15	0.62
1:CA:5:U:H2'	4:CD:86:LYS:HE2	1.80	0.62
23:AW:42:G:C3'	23:AW:43:C:H5''	2.30	0.62
3:AC:103:VAL:HG12	3:AC:103:VAL:O	1.99	0.62
38:BP:13:ASN:HD22	38:BP:13:ASN:C	2.03	0.62
32:DF:11:VAL:HG12	32:DF:12:LEU:HG	1.79	0.62
1:CA:419:C:C2'	1:CA:420:U:H5'	2.30	0.62
1:CA:1320:C:C2	19:CS:72:GLY:HA3	2.34	0.62
28:BB:42:C:H5'	33:BG:68:PRO:O	2.00	0.62
41:BS:17:ARG:CZ	41:BS:25:ARG:HH21	2.12	0.62
37:BO:17:ARG:HE	37:BO:47:ILE:HD13	1.65	0.62
1:AA:909:A:C2'	1:AA:910:C:H5'	2.29	0.62
27:DA:246:C:C2'	27:DA:247:G:H5'	2.29	0.62
27:DA:911:A:H2'	39:DQ:9:TYR:CZ	2.34	0.62
27:DA:1825:A:H2'	27:DA:1826:G:C8	2.35	0.62
1:CA:542:G:H2'	1:CA:543:C:C6	2.34	0.62
5:AE:43:LEU:CD2	5:AE:132:ALA:HB1	2.30	0.62
44:DV:2:PHE:CE1	44:DV:13:ARG:NH1	2.68	0.62
1:CA:552:U:H4'	12:CL:83:ARG:HG2	1.80	0.62
42:BT:38:ASN:O	42:BT:38:ASN:ND2	2.33	0.62
36:BN:62:VAL:HG11	36:BN:67:LEU:CD2	2.30	0.62
55:B6:15:GLU:O	55:B6:15:GLU:HG2	2.00	0.62
46:DX:36:LYS:HE2	46:DX:55:ASN:HA	1.80	0.62
2:AB:57:PHE:HD2	2:AB:185:ILE:HD11	1.64	0.62
37:DO:104:ARG:NH2	42:DT:33:LYS:HE2	2.15	0.62
45:BW:90:ARG:HG3	45:BW:90:ARG:NH1	2.14	0.62
11:AK:125:PHE:N	11:AK:125:PHE:CD1	2.62	0.62
9:CI:79:LEU:HD21	9:CI:102:LEU:HA	1.81	0.62
9:CI:83:ARG:HH21	9:CI:102:LEU:HD11	1.64	0.62
6:AF:89:MET:SD	18:AR:76:LEU:HD21	2.39	0.62
27:BA:2511:U:O2'	27:BA:2512:C:H5'	2.00	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:36:C:C5'	12:AL:119:THR:O	2.48	0.62
27:DA:930:U:OP1	27:DA:930:U:H3'	1.98	0.62
6:CF:9:VAL:HB	6:CF:87:ARG:HB2	1.81	0.62
37:DO:97:ARG:HE	37:DO:99:PHE:HE1	1.45	0.62
1:CA:1158:C:H2'	1:CA:1158:C:O2	1.99	0.62
1:AA:664:G:P	18:AR:64:ARG:HH21	2.22	0.62
8:CH:111:ILE:HG22	8:CH:112:LEU:N	2.14	0.62
27:DA:1236:G:O2'	27:DA:1237:A:OP2	2.15	0.62
24:AX:73:A:H5'	24:AX:74:C:H5'	1.82	0.62
1:CA:940:C:H2'	1:CA:941:G:C8	2.35	0.62
27:BA:1332:G:H22	27:BA:1609:A:C2'	2.12	0.62
27:DA:2123:G:H2'	27:DA:2124:G:H8	1.64	0.62
13:CM:94:ARG:O	13:CM:95:GLY:O	2.17	0.62
27:DA:1782:C:O2'	27:DA:1783:A:H5'	1.99	0.62
1:CA:554:C:H2'	1:CA:555:C:H6	1.64	0.62
27:BA:542:C:N4	27:BA:543:C:H41	1.98	0.62
27:BA:722:A:H5'	27:BA:723:G:OP2	2.00	0.62
30:DD:147:LEU:H	30:DD:154:LYS:HG3	1.65	0.62
1:CA:870:U:H4'	1:CA:871:U:O5'	1.99	0.62
27:BA:529:A:H62	27:BA:2041:U:H3	1.45	0.62
53:D4:46:ASN:ND2	53:D4:47:VAL:N	2.48	0.62
3:AC:14:ILE:HD13	3:AC:178:LEU:HB3	1.80	0.62
27:BA:1754:C:O5'	42:BT:96:ARG:NH1	2.32	0.62
4:AD:199:ASN:HB3	4:AD:202:LEU:HD12	1.81	0.62
27:DA:577:G:H2'	27:DA:578:A:O4'	2.00	0.62
27:DA:157:U:OP1	27:DA:157:U:H6	1.83	0.62
38:BP:23:PRO:CD	38:BP:33:ARG:NE	2.58	0.62
32:BF:21:ALA:C	32:BF:23:ASP:H	2.01	0.62
27:DA:911:A:H2'	39:DQ:9:TYR:CE1	2.34	0.62
1:CA:507:C:H2'	1:CA:508:C:C5	2.30	0.62
1:CA:1350:A:H2'	1:CA:1351:U:O4'	1.99	0.62
27:BA:1462:C:H4'	27:BA:2703:C:H5'	1.80	0.62
42:BT:41:ARG:C	42:BT:41:ARG:HD2	2.19	0.62
49:D0:20:ARG:NH1	49:D0:20:ARG:HG3	2.14	0.62
27:DA:2262:U:P	49:D0:19:LYS:NZ	2.73	0.62
38:DP:82:GLY:HA2	38:DP:113:LYS:O	2.00	0.62
27:DA:2552:U:C2	27:DA:2554:U:H5''	2.34	0.62
30:BD:33:LEU:CD1	30:BD:33:LEU:H	2.13	0.62
47:BY:38:ILE:O	47:BY:39:VAL:HB	2.00	0.62
3:AC:6:HIS:CG	14:AN:49:HIS:HB3	2.34	0.62
27:BA:1777:U:H2'	27:BA:1778:U:C6	2.35	0.62
27:BA:2756:U:H1'	27:BA:2757:A:H5''	1.81	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:82:ALA:C	9:CI:84:ALA:H	2.02	0.62
35:BI:140:LEU:HD12	35:BI:141:LYS:N	2.15	0.62
27:DA:1484:G:H3'	27:DA:1485:G:C5'	2.29	0.62
11:AK:57:THR:CG2	11:AK:58:PRO:HD2	2.30	0.62
1:AA:632:A:H2'	1:AA:633:G:O4'	2.00	0.62
10:CJ:34:VAL:CG2	10:CJ:74:ILE:HG22	2.28	0.62
27:BA:1054:A:N3	27:BA:1055:G:N7	2.48	0.62
27:BA:44:G:H5''	27:BA:45:C:OP1	1.98	0.62
27:BA:1621:U:H5''	27:BA:1622:G:OP1	2.00	0.62
27:DA:1005:C:H1'	27:DA:1012:U:N3	2.14	0.62
27:DA:1183:G:O2'	27:DA:1184:G:H5'	2.00	0.62
34:DH:102:ALA:HA	34:DH:117:PRO:HD3	1.80	0.62
27:DA:2586:C:H2'	27:DA:2587:A:H5'	1.81	0.62
27:BA:225:A:O2'	27:BA:257:A:H4'	2.00	0.62
50:D1:80:LEU:O	50:D1:82:LEU:HD22	2.00	0.62
25:AY:30:A:H2'	25:AY:31:U:C6	2.33	0.62
27:DA:113:G:H5''	27:DA:114:U:OP1	2.00	0.62
27:DA:1358:G:O2'	27:DA:1359:A:H5''	1.99	0.62
44:DV:1:MET:HB2	44:DV:99:ILE:HG13	1.80	0.62
27:BA:1934:C:O2'	27:BA:1935:G:H5'	1.99	0.62
27:BA:2387:U:H6	27:BA:2387:U:OP2	1.82	0.62
29:DC:20:TYR:HE1	29:DC:22:ILE:HD13	1.65	0.62
58:B9:18:ARG:HH12	58:B9:21:GLY:HA2	1.63	0.62
20:AT:41:ILE:O	20:AT:44:ALA:HB3	2.00	0.62
27:BA:1844:C:O2'	27:BA:1845:G:H5'	2.00	0.62
30:BD:197:GLY:O	30:BD:198:ASN:HB3	2.00	0.62
1:AA:1252:A:H2'	1:AA:1253:G:O4'	2.00	0.62
27:BA:2353:G:H1'	49:B0:34:GLY:HA3	1.79	0.62
27:BA:250:G:H2'	27:BA:251:A:C8	2.33	0.62
27:DA:195:A:N7	27:DA:197:A:OP1	2.33	0.62
13:CM:66:LEU:HD12	13:CM:66:LEU:N	2.15	0.62
31:BE:57:LYS:HA	31:BE:59:VAL:HG12	1.81	0.62
32:BF:63:LYS:HD3	32:BF:67:GLN:HB3	1.82	0.62
43:BU:92:ARG:NH2	44:BV:11:GLN:H	1.97	0.62
32:DF:110:LEU:HD13	32:DF:110:LEU:O	1.99	0.62
43:DU:91:ASP:O	43:DU:92:ARG:HD3	2.00	0.62
1:AA:346:G:N3	1:AA:346:G:C2'	2.62	0.62
39:DQ:16:ARG:CG	39:DQ:17:LEU:H	2.00	0.62
36:BN:85:ILE:HG21	36:BN:90:MET:HE2	1.82	0.62
31:DE:1:MET:H2	31:DE:84:PHE:HB2	1.65	0.62
4:AD:9:CYS:HB2	4:AD:22:LYS:HZ3	1.65	0.62
1:CA:1298:C:H2'	7:CG:114:ARG:HH12	1.64	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
58:D9:24:TYR:O	58:D9:25:VAL:HG23	2.00	0.62
1:CA:273:A:O2'	1:CA:274:A:H5'	2.00	0.62
16:AP:82:GLN:NE2	16:AP:82:GLN:H	1.98	0.62
34:BH:154:PRO:O	34:BH:155:SER:O	2.18	0.62
27:BA:1557:C:H5''	27:BA:1558:A:OP2	2.00	0.62
27:BA:1799:G:H2'	30:BD:181:GLU:OE2	2.00	0.62
38:BP:97:PRO:HD3	38:BP:126:VAL:O	1.99	0.62
58:B9:11:CYS:SG	58:B9:32:HIS:CE1	2.93	0.62
56:D7:8:ASN:C	56:D7:8:ASN:HD22	2.02	0.62
35:BI:91:SER:O	35:BI:92:VAL:CB	2.47	0.62
27:DA:1655:A:H2	27:DA:2049:G:O3'	1.82	0.62
33:BG:75:LYS:HE3	33:BG:76:SER:H	1.63	0.62
27:BA:92:A:H1'	27:BA:93:G:H8	1.65	0.62
13:AM:3:ARG:NH2	13:AM:7:VAL:HG13	2.15	0.62
9:CI:97:LYS:NZ	9:CI:97:LYS:HB2	2.13	0.62
47:DY:46:LYS:H	47:DY:62:GLU:CD	2.03	0.62
27:BA:1887:C:C3'	27:BA:1888:G:H5''	2.30	0.62
1:CA:763:G:H2'	1:CA:764:C:H6	1.61	0.62
15:CO:7:GLU:O	15:CO:10:LYS:HG3	2.00	0.62
33:BG:6:ALA:O	33:BG:9:ARG:HB2	2.00	0.62
3:CC:24:ALA:CB	3:CC:32:LEU:HD12	2.30	0.62
3:CC:22:TRP:CD1	3:CC:57:ILE:O	2.53	0.62
27:BA:1739:U:O2'	27:BA:1740:G:H5''	1.99	0.62
27:DA:2176:A:H2'	27:DA:2177:C:C6	2.35	0.62
34:DH:98:LEU:HD12	34:DH:102:ALA:O	2.00	0.62
32:BF:164:ARG:CG	32:BF:164:ARG:HH11	2.13	0.62
1:AA:1508:G:O2'	1:AA:1509:C:H5'	2.00	0.62
27:DA:2225:A:H4'	27:DA:2226:C:H6	1.65	0.62
1:AA:1190:G:OP1	3:AC:4:LYS:HA	2.00	0.62
11:AK:22:HIS:HB3	11:AK:29:ILE:HG23	1.82	0.62
11:CK:126:ARG:C	11:CK:128:ALA:H	2.03	0.62
27:DA:1816:G:O6	30:DD:37:LEU:HD11	2.00	0.62
1:CA:557:G:C6	1:CA:558:G:C6	2.88	0.62
5:AE:126:ARG:HG3	5:AE:126:ARG:HH11	1.64	0.62
36:DN:3:THR:O	36:DN:5:VAL:N	2.32	0.62
30:BD:261:LYS:HE2	30:BD:263:ARG:HH22	1.65	0.62
27:DA:577:G:O5'	27:DA:577:G:H8	1.83	0.62
7:CG:108:ALA:O	7:CG:111:ARG:HG3	2.00	0.62
49:B0:53:MET:HB2	49:B0:59:LEU:HD23	1.80	0.62
48:DZ:110:VAL:O	48:DZ:110:VAL:HG13	1.99	0.62
4:CD:26:CYS:O	4:CD:31:CYS:HB2	2.00	0.61
13:CM:25:ILE:N	13:CM:25:ILE:HD12	2.15	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BT:16:ARG:H	42:BT:79:HIS:HD2	1.46	0.61
19:CS:20:LEU:CA	19:CS:23:ASN:HD22	2.12	0.61
27:DA:2252:G:O2'	27:DA:2253:G:H5'	2.00	0.61
27:DA:631:A:C2'	27:DA:632:A:O5'	2.48	0.61
27:DA:2505:G:O6	27:DA:2576:G:H2'	2.00	0.61
27:DA:314:A:O2'	27:DA:315:G:H5'	1.99	0.61
34:BH:43:VAL:HB	34:BH:52:VAL:HA	1.81	0.61
4:CD:101:LEU:HD23	4:CD:135:LEU:O	2.00	0.61
47:BY:28:LYS:O	47:BY:29:GLU:C	2.39	0.61
12:CL:82:ILE:HG23	12:CL:95:TYR:HB3	1.81	0.61
42:DT:74:ARG:HD3	42:DT:76:PHE:CE2	2.34	0.61
27:BA:2591:C:OP1	30:BD:239:ARG:HG2	1.99	0.61
42:DT:7:ILE:O	42:DT:11:GLU:OE2	2.18	0.61
34:BH:149:ARG:HA	34:BH:162:ILE:HD12	1.82	0.61
30:DD:43:ARG:HH11	30:DD:44:ASN:HD21	1.40	0.61
27:DA:2536:G:H2'	27:DA:2537:U:O4'	1.99	0.61
14:CN:26:ARG:HD3	14:CN:43:CYS:SG	2.40	0.61
27:BA:2392:A:OP2	57:B8:31:HIS:HE1	1.82	0.61
27:DA:1458:C:H4'	27:DA:1459:G:O5'	2.00	0.61
33:DG:39:ILE:HD11	33:DG:155:MET:SD	2.40	0.61
52:D3:23:LEU:H	52:D3:23:LEU:CD1	2.12	0.61
7:AG:145:ALA:O	7:AG:146:GLU:HB2	2.00	0.61
1:CA:1315:U:O2'	1:CA:1316:G:H5'	2.00	0.61
15:AO:35:ARG:CZ	15:AO:35:ARG:HB3	2.30	0.61
25:CY:52:G:H2'	25:CY:53:U:H6	1.65	0.61
5:CE:103:GLY:O	5:CE:105:VAL:N	2.32	0.61
40:DR:54:LEU:HD23	40:DR:66:VAL:HG22	1.81	0.61
8:AH:132:GLU:HG2	8:AH:134:ILE:CD1	2.29	0.61
27:DA:2121:G:H2'	27:DA:2122:U:C6	2.35	0.61
27:DA:108:U:H2'	27:DA:109:G:H8	1.65	0.61
8:CH:84:ARG:HG2	8:CH:86:ILE:HD11	1.82	0.61
18:CR:62:GLU:HA	18:CR:65:ILE:CD1	2.30	0.61
23:CW:56:G:H2'	23:CW:57:A:C5'	2.30	0.61
37:DO:101:PRO:C	37:DO:102:VAL:HG12	2.19	0.61
33:BG:91:ARG:HD2	33:BG:92:VAL:N	2.14	0.61
7:CG:86:GLN:HE22	25:CY:30:A:H2	1.47	0.61
19:AS:40:ILE:HB	19:AS:67:VAL:O	2.00	0.61
33:DG:72:ARG:HD3	33:DG:86:MET:HA	1.82	0.61
44:DV:1:MET:HA	44:DV:1:MET:CE	2.29	0.61
27:DA:292:C:H2'	27:DA:292:C:O2	2.00	0.61
1:AA:711:G:H2'	1:AA:712:A:C8	2.35	0.61
34:DH:68:THR:HG22	34:DH:72:ILE:HD11	1.82	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:B5:34:PRO:O	54:B5:36:CYS:N	2.32	0.61
28:DB:98:G:H2'	28:DB:99:G:C8	2.35	0.61
27:BA:924:C:H2'	27:BA:925:C:C6	2.35	0.61
27:BA:749:C:H4'	27:BA:1271:G:N3	2.15	0.61
43:BU:50:ARG:O	43:BU:54:LYS:NZ	2.29	0.61
27:BA:1433:U:H6	27:BA:1433:U:H5''	1.64	0.61
25:CY:14:A:H3'	25:CY:15:G:C8	2.35	0.61
40:DR:94:TYR:H	40:DR:94:TYR:HD1	1.47	0.61
38:BP:64:LYS:O	38:BP:66:GLY:N	2.34	0.61
1:CA:954:G:H2'	1:CA:955:U:C6	2.35	0.61
27:BA:27:G:O2'	27:BA:28:A:C8	2.53	0.61
33:BG:103:LEU:H	33:BG:103:LEU:HD12	1.66	0.61
33:BG:141:PHE:HB3	33:BG:142:PRO:HD2	1.82	0.61
17:AQ:68:ARG:N	17:AQ:70:ARG:NH1	2.48	0.61
27:DA:999:U:O2	27:DA:999:U:H2'	2.00	0.61
30:DD:69:ARG:NH2	30:DD:192:THR:HG21	2.14	0.61
27:DA:1566:A:O2'	27:DA:1567:A:H5'	2.00	0.61
1:AA:160:A:H1'	1:AA:344:A:C4	2.35	0.61
31:DE:79:ARG:HH12	31:DE:195:LEU:HD23	1.64	0.61
33:DG:29:TRP:HA	33:DG:29:TRP:CE3	2.35	0.61
27:DA:315:G:H2'	27:DA:316:C:C6	2.34	0.61
1:AA:1206:G:C2'	1:AA:1207:G:H5'	2.31	0.61
42:DT:83:ILE:HG13	42:DT:84:GLN:N	2.15	0.61
27:BA:854:G:H2'	27:BA:855:G:H8	1.65	0.61
41:DS:14:VAL:HG22	41:DS:91:PRO:HD3	1.82	0.61
30:BD:46:GLN:OE1	30:BD:46:GLN:N	2.33	0.61
15:CO:39:LEU:CD1	15:CO:56:LEU:HB2	2.29	0.61
1:CA:1283:G:O2'	1:CA:1284:C:H5'	2.00	0.61
48:DZ:18:ARG:HB3	48:DZ:81:ARG:NH2	2.13	0.61
29:DC:68:LEU:HD11	29:DC:179:SER:HA	1.81	0.61
58:B9:11:CYS:SG	58:B9:32:HIS:ND1	2.73	0.61
35:BI:101:LEU:HG	35:BI:107:VAL:HB	1.82	0.61
1:AA:1298:C:C4	7:AG:114:ARG:HD2	2.36	0.61
27:BA:2308:G:H2'	27:BA:2309:A:O5'	2.00	0.61
34:DH:107:VAL:HG21	34:DH:152:ARG:CG	2.29	0.61
5:AE:76:ILE:HD11	5:AE:142:LEU:HD22	1.82	0.61
1:CA:638:G:H2'	1:CA:639:G:H8	1.64	0.61
40:DR:24:GLN:NE2	40:DR:36:THR:HG21	2.14	0.61
32:BF:160:ASN:C	32:BF:162:LEU:H	2.02	0.61
32:DF:170:LEU:HB3	32:DF:173:VAL:HB	1.82	0.61
1:CA:119:A:H5''	1:CA:120:A:H5'	1.82	0.61
27:DA:1473:G:O2'	27:DA:1474:C:H5'	2.00	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DH:103:LEU:CD2	34:DH:115:VAL:HB	2.30	0.61
27:DA:64:A:O2'	27:DA:65:C:H5'	2.00	0.61
40:BR:4:LEU:C	40:BR:6:SER:H	2.03	0.61
27:BA:709:U:C4	27:BA:710:G:N7	2.68	0.61
1:CA:1279:A:O2'	1:CA:1282:C:N4	2.32	0.61
27:DA:1292:U:H2'	27:DA:1293:C:C6	2.35	0.61
21:CU:6:ARG:HD3	21:CU:15:ARG:NH1	2.14	0.61
27:BA:2855:C:O2'	27:BA:2856:C:H5'	2.00	0.61
27:DA:2027:G:H2'	27:DA:2028:U:O4'	2.00	0.61
34:BH:119:GLU:HG2	34:BH:119:GLU:O	2.00	0.61
38:BP:23:PRO:CD	38:BP:33:ARG:CZ	2.78	0.61
32:BF:200:GLU:HA	32:BF:203:GLN:HB2	1.82	0.61
57:D8:52:LYS:N	57:D8:53:PRO:CD	2.59	0.61
42:BT:28:VAL:HG13	42:BT:46:GLU:HA	1.83	0.61
1:CA:1251:A:H5''	9:CI:12:GLU:OE1	2.01	0.61
30:DD:69:ARG:HH22	30:DD:192:THR:HG21	1.65	0.61
30:DD:26:LYS:HG2	30:DD:26:LYS:O	2.00	0.61
38:DP:146:VAL:HG13	38:DP:147:LEU:H	1.65	0.61
27:DA:1191:G:O2'	27:DA:1192:G:H5'	1.99	0.61
27:DA:2550:G:N2	27:DA:2559:C:H1'	2.12	0.61
27:BA:1021:A:H8	27:BA:1021:A:H3'	1.64	0.61
1:CA:1106:G:H5''	3:CC:172:ARG:CG	2.23	0.61
30:BD:31:LYS:HG3	30:BD:33:LEU:HB2	1.82	0.61
1:CA:34:C:O2'	1:CA:35:G:H5'	2.00	0.61
19:AS:62:ILE:HG23	19:AS:62:ILE:O	1.99	0.61
27:BA:1309:G:O2'	27:BA:1310:G:H5'	1.99	0.61
27:BA:787:U:H5''	27:BA:788:A:H5'	1.81	0.61
1:CA:243:A:O2'	1:CA:244:U:OP2	2.17	0.61
27:BA:1336:A:O2'	27:BA:1337:G:H5'	2.00	0.61
40:DR:38:VAL:CB	40:DR:39:PRO:HD3	2.23	0.61
38:BP:97:PRO:C	38:BP:98:GLU:CG	2.68	0.61
27:BA:2131:G:H5'	27:BA:2133:G:O5'	2.00	0.61
27:DA:2161:C:H2'	27:DA:2162:G:H8	1.59	0.61
30:DD:65:ILE:HG22	30:DD:104:TYR:HB3	1.82	0.61
30:DD:32:SER:O	30:DD:34:VAL:N	2.33	0.61
13:CM:7:VAL:HG21	33:DG:115:ARG:HG2	1.82	0.61
5:CE:76:ILE:HD11	5:CE:142:LEU:CD1	2.30	0.61
19:AS:6:LYS:HG2	19:AS:7:LYS:HE2	1.81	0.61
14:AN:57:ARG:O	14:AN:59:ALA:N	2.33	0.61
2:CB:16:HIS:HB3	2:CB:210:SER:HB3	1.82	0.61
50:B1:84:GLY:O	50:B1:86:SER:N	2.33	0.61
10:AJ:22:LYS:O	10:AJ:22:LYS:HD2	1.99	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:B4:46:ASN:ND2	53:B4:47:VAL:N	2.48	0.61
1:CA:946:A:O2'	1:CA:1333:A:N3	2.30	0.61
27:BA:1709:U:H1'	27:BA:2860:A:H1'	1.82	0.61
1:CA:407:G:O2'	1:CA:408:A:H5'	2.00	0.61
27:BA:1677:A:H2'	27:BA:1678:G:H8	1.64	0.61
1:CA:134:A:N6	16:CP:25:ARG:HH12	1.98	0.61
1:CA:27:G:H4'	4:CD:209:ARG:OXT	2.00	0.61
1:AA:243:A:H4'	1:AA:244:U:O5'	2.00	0.61
48:BZ:116:LEU:HD21	48:BZ:171:ALA:HB1	1.83	0.61
39:BQ:78:PRO:HD2	39:BQ:81:VAL:HG11	1.82	0.61
1:AA:318:G:O2'	1:AA:319:G:H5'	2.00	0.61
27:BA:732:C:H2'	27:BA:733:G:O4'	1.99	0.61
27:BA:42:G:H2'	27:BA:43:A:O4'	2.00	0.61
44:DV:71:LEU:CD1	44:DV:84:LYS:HE2	2.31	0.61
27:DA:2360:A:H8	27:DA:2360:A:O5'	1.83	0.61
44:BV:28:GLU:HB3	44:BV:29:PRO:HD2	1.82	0.61
3:CC:181:ASN:OD1	3:CC:204:LEU:HD12	2.00	0.61
31:BE:173:VAL:O	31:BE:174:ASP:O	2.18	0.61
27:BA:2338:G:O2'	27:BA:2339:G:H5'	2.01	0.61
23:CW:10:G:N1	23:CW:25:A:H1'	2.16	0.61
27:DA:1685:C:H2'	27:DA:1686:C:H5''	1.82	0.61
14:CN:37:PHE:CB	14:CN:39:LEU:HG	2.21	0.61
14:CN:57:ARG:HG2	14:CN:58:LYS:N	2.15	0.61
12:AL:43:LYS:HG2	12:AL:44:LYS:H	1.64	0.61
1:AA:189(F):U:O2'	17:AQ:63:ARG:NH2	2.34	0.61
27:DA:1011:G:OP1	43:DU:77:SER:N	2.26	0.61
30:BD:26:LYS:HZ3	30:BD:81:ALA:HB1	1.64	0.61
27:DA:915:C:N4	27:DA:916:G:C6	2.68	0.61
57:D8:37:SER:O	57:D8:40:GLU:HB2	2.01	0.61
27:DA:2067:G:H1	27:DA:2443:C:H42	1.48	0.61
38:DP:115:LEU:HG	38:DP:116:GLY:N	2.15	0.61
38:DP:126:VAL:HA	38:DP:145:PRO:HB2	1.81	0.61
27:DA:2454:G:H2'	27:DA:2455:G:O4'	2.00	0.61
27:DA:139(A):G:N2	46:DX:44:GLU:OE1	2.32	0.61
34:BH:43:VAL:HG11	34:BH:52:VAL:CG1	2.29	0.61
4:CD:173:TRP:HA	4:CD:187:ARG:HH12	1.64	0.61
49:B0:71:ASP:O	49:B0:73:GLY:N	2.34	0.61
27:BA:854:G:H2'	27:BA:855:G:C8	2.34	0.61
17:CQ:77:VAL:O	17:CQ:78:GLU:HB3	2.00	0.61
17:AQ:59:ILE:CG2	17:AQ:71:PHE:HB3	2.30	0.61
32:DF:32:LEU:O	32:DF:36:VAL:HG23	1.99	0.61
15:CO:35:ARG:O	15:CO:39:LEU:HB2	2.00	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2733:A:H2	31:DE:203:LYS:HA	1.64	0.61
12:CL:76:GLU:O	12:CL:77:HIS:CB	2.46	0.61
34:BH:154:PRO:HB3	34:BH:163:TYR:CZ	2.35	0.61
1:CA:777:A:O2'	1:CA:778:G:H5'	2.00	0.61
1:CA:750:G:N2	15:CO:23:GLY:HA3	2.15	0.61
57:B8:28:GLY:C	57:B8:32:LEU:HD23	2.20	0.61
27:DA:319:C:H2'	27:DA:320:A:H8	1.64	0.61
37:DO:16:ALA:HA	37:DO:46:ALA:CB	2.31	0.61
17:AQ:56:VAL:CG2	17:AQ:78:GLU:HG2	2.31	0.61
6:AF:69:GLU:CD	6:AF:69:GLU:H	2.03	0.61
57:B8:50:LEU:HA	57:B8:53:PRO:HG3	1.81	0.61
4:AD:153:ARG:NH2	4:AD:181:MET:HB2	2.15	0.61
17:AQ:26:GLN:HE21	17:AQ:37:LYS:HG2	1.65	0.61
1:AA:818:G:O2'	1:AA:819:A:H5''	1.98	0.61
1:AA:1313:U:P	19:AS:6:LYS:HG3	2.40	0.61
54:D5:25:LEU:CD2	54:D5:26:THR:H	2.14	0.61
47:DY:46:LYS:HD3	47:DY:47:LYS:NZ	2.15	0.61
1:CA:578:C:H2'	1:CA:578:C:O2	2.00	0.61
8:CH:12:ARG:HA	8:CH:15:ASN:HD22	1.65	0.61
3:AC:5:ILE:HD12	3:AC:5:ILE:O	2.00	0.61
27:BA:1286:A:O2'	27:BA:1288:U:OP2	2.17	0.61
1:CA:1478:C:H2'	1:CA:1479:C:H6	1.65	0.61
27:BA:181:A:C2	27:BA:182:A:C4	2.89	0.61
44:DV:3:ALA:HB2	44:DV:99:ILE:HG21	1.83	0.61
15:CO:36:ILE:HG22	15:CO:37:ASN:N	2.14	0.61
27:BA:1503:U:H2'	27:BA:1504:C:C6	2.34	0.61
1:CA:564:C:C5	17:CQ:31:LEU:HD11	2.36	0.61
5:CE:88:LYS:HB3	5:CE:123:LEU:HB2	1.81	0.61
23:CW:67:C:H2'	23:CW:68:C:C6	2.35	0.61
27:BA:2479:G:OP1	27:BA:2537:U:H1'	2.00	0.61
40:DR:6:SER:O	40:DR:7:GLY:O	2.18	0.61
4:AD:86:LYS:HD3	4:AD:87:GLY:H	1.65	0.61
1:CA:1402:C:H2'	1:CA:1403:C:O4'	2.00	0.61
2:AB:98:LEU:O	2:AB:101:MET:HG3	2.01	0.61
41:BS:17:ARG:O	41:BS:18:ILE:CB	2.48	0.61
23:CW:34:U:O2'	23:CW:35:G:H5'	2.00	0.61
27:DA:2405:G:HO2'	27:DA:2406:U:P	2.24	0.61
52:B3:23:LEU:HB3	52:B3:28:LEU:HB2	1.82	0.61
18:CR:82:THR:C	18:CR:83:GLU:HG2	2.20	0.61
46:DX:57:LEU:HD22	46:DX:57:LEU:C	2.21	0.61
31:DE:93:VAL:O	31:DE:95:ILE:N	2.33	0.61
9:AI:91:ASP:C	9:AI:93:ARG:H	2.04	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1319:A:H4'	1:AA:1320:C:OP1	2.01	0.61
1:AA:531:U:H4'	1:AA:532:A:O5'	2.01	0.61
27:DA:1033:U:O4	58:D9:15:LYS:HE3	1.99	0.61
41:DS:62:LYS:H	41:DS:65:VAL:HG23	1.65	0.61
2:CB:92:TYR:C	2:CB:92:TYR:HD1	2.03	0.61
2:CB:92:TYR:C	2:CB:92:TYR:CD1	2.73	0.61
31:BE:132:HIS:CD2	31:BE:135:HIS:CE1	2.88	0.61
45:BW:90:ARG:HG3	45:BW:90:ARG:HH11	1.65	0.61
37:BO:2:ILE:O	37:BO:32:TYR:HB3	1.99	0.61
9:CI:9:ARG:HG3	9:CI:14:VAL:CG2	2.29	0.61
27:BA:2197:U:H1'	27:BA:2198:A:C8	2.36	0.61
27:DA:50:U:C4'	27:DA:51:G:OP2	2.47	0.61
47:BY:87:LYS:HG3	47:BY:88:LYS:N	2.15	0.61
27:DA:125:G:H1'	56:D7:13:ALA:HB1	1.82	0.61
42:BT:92:GLY:O	42:BT:94:ALA:N	2.34	0.61
27:BA:97:C:H5''	51:B2:2:LYS:HB2	1.83	0.61
34:DH:89:ILE:HG12	34:DH:129:THR:HA	1.82	0.61
27:DA:272(C):G:H1	27:DA:365:C:N4	1.95	0.61
12:CL:3:THR:HG23	12:CL:6:GLN:HB2	1.82	0.61
5:AE:92:LYS:O	5:AE:118:ILE:HD12	1.99	0.61
23:CW:57:A:H3'	23:CW:57:A:OP1	2.00	0.61
27:BA:576:U:O2'	27:BA:577:G:H5'	2.01	0.61
23:CW:28:G:H3'	23:CW:29:G:H8	1.64	0.61
27:DA:2531:A:H61	27:DA:2662:A:H61	1.48	0.61
1:CA:59:A:H1'	1:CA:354:G:N2	2.15	0.61
48:DZ:107:PRO:HG3	48:DZ:116:LEU:HB2	1.82	0.61
38:DP:135:LEU:HD13	38:DP:135:LEU:O	1.99	0.61
27:BA:1755:A:H2'	27:BA:1756:G:H5'	1.83	0.61
1:AA:116:A:H61	1:AA:313:A:H1'	1.66	0.61
27:BA:1345:C:H2'	27:BA:1346:G:C8	2.34	0.61
1:CA:726:C:O2'	1:CA:727:G:H5'	2.00	0.61
48:DZ:7:TYR:CD1	48:DZ:7:TYR:N	2.68	0.61
36:DN:19:GLU:HG3	36:DN:20:GLY:N	2.15	0.61
27:BA:942:G:O2'	27:BA:943:U:H5'	2.00	0.61
27:BA:2415:G:O3'	38:BP:66:GLY:HA3	1.99	0.61
28:BB:42:C:H4'	33:BG:67:LYS:O	2.01	0.61
32:BF:186:ILE:HD13	32:BF:192:LEU:CD1	2.31	0.61
12:CL:45:PRO:CB	22:CV:9:G:H4'	2.29	0.61
27:DA:1933:G:H2'	27:DA:1934:C:C6	2.35	0.61
1:CA:503:C:O2'	1:CA:504:C:H5'	2.01	0.61
13:CM:68:GLY:C	13:CM:71:ARG:HB3	2.20	0.61
1:AA:920:U:O4'	1:AA:1080:A:C2	2.54	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DU:92:ARG:NH1	44:DV:11:GLN:HG3	2.16	0.61
44:DV:47:VAL:O	44:DV:48:GLY:C	2.38	0.61
6:AF:43:LEU:CD1	6:AF:43:LEU:H	2.01	0.61
27:BA:910:A:H62	39:BQ:12:GLN:HA	1.64	0.61
58:D9:18:ARG:O	58:D9:18:ARG:CG	2.47	0.61
16:AP:20:VAL:HG21	16:AP:32:TYR:CD1	2.36	0.61
14:CN:24:CYS:CB	14:CN:40:CYS:HB3	2.31	0.61
27:DA:2160:G:H2'	27:DA:2161:C:C6	2.36	0.61
33:DG:36:LYS:HG2	33:DG:160:VAL:CG2	2.29	0.61
27:DA:849:A:N1	52:D3:25:ALA:HB2	2.14	0.61
27:DA:1657:C:H2'	27:DA:1658:C:C6	2.36	0.61
39:DQ:42:ILE:N	39:DQ:42:ILE:HD12	2.14	0.61
27:DA:27:G:H2'	27:DA:512:G:H22	1.63	0.61
1:CA:15:G:H1	1:CA:920:U:H3	1.47	0.61
48:BZ:140:VAL:O	48:BZ:140:VAL:HG22	2.01	0.61
50:B1:75:GLU:O	50:B1:77:ALA:N	2.32	0.61
10:CJ:78:ASN:HD22	10:CJ:80:LYS:H	1.49	0.61
36:BN:57:ALA:H	36:BN:124:ALA:HA	1.65	0.61
27:DA:2192:G:C2'	27:DA:2193:G:H5''	2.30	0.61
27:BA:466:A:H2'	27:BA:467:G:H5'	1.83	0.61
1:CA:60:A:C5'	1:CA:331:G:H22	2.13	0.61
27:DA:1176:G:O2'	27:DA:1177:A:H5'	2.00	0.61
27:DA:376:C:H2'	27:DA:377:C:C6	2.35	0.61
27:DA:2691:C:H42	27:DA:2718:G:H1	1.49	0.61
37:BO:75:SER:O	37:BO:76:ALA:HB2	2.01	0.61
27:DA:1424:G:H2'	27:DA:1425:G:O4'	1.99	0.61
18:CR:35:ARG:O	18:CR:37:VAL:HG13	2.00	0.61
36:BN:29:LYS:O	36:BN:33:LEU:HD12	2.00	0.61
10:AJ:90:LEU:N	10:AJ:91:PRO:CD	2.64	0.61
1:AA:1233:G:H2'	1:AA:1234:C:C6	2.34	0.61
1:AA:889:A:H4'	1:AA:890:G:OP1	2.01	0.61
38:DP:108:LYS:HD2	38:DP:108:LYS:H	1.64	0.61
42:DT:34:VAL:HG12	42:DT:34:VAL:O	1.99	0.61
25:AY:35:G:H2'	25:AY:36:A:C8	2.36	0.61
17:AQ:3:LYS:HD2	17:AQ:60:ILE:HD11	1.82	0.61
27:BA:663:G:H2'	27:BA:664:C:H6	1.65	0.61
40:BR:98:LEU:CD1	40:BR:113:LEU:HD23	2.28	0.61
31:BE:101:ARG:HH21	31:BE:171:GLU:HB2	1.66	0.61
27:DA:243:U:OP1	57:D8:6:THR:HG21	2.00	0.61
27:DA:244:A:C2	27:DA:255:A:C4	2.88	0.61
27:BA:661:C:O2'	38:BP:16:ARG:O	2.12	0.61
43:DU:42:ALA:C	43:DU:44:ASN:N	2.51	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BG:52:ILE:HG22	33:BG:54:GLU:HG2	1.81	0.61
55:D6:13:CYS:HB3	55:D6:50:ARG:O	2.00	0.61
1:CA:225:C:H2'	1:CA:225:C:O2	2.01	0.61
1:AA:1179:A:H5'	9:AI:102:LEU:HD12	1.83	0.61
10:AJ:53:PRO:HA	14:AN:41:ARG:NH2	2.16	0.61
30:BD:49:ILE:HD11	30:BD:52:ARG:CA	2.24	0.61
2:CB:82:ARG:HG3	2:CB:92:TYR:CE2	2.36	0.61
27:BA:825:C:H2'	27:BA:826:U:O4'	1.99	0.61
27:DA:777:A:O2'	27:DA:778:G:H5'	2.01	0.61
27:DA:2712:U:C2'	27:DA:2712(A):A:O5'	2.48	0.61
27:BA:1502:C:H2'	27:BA:1502:C:O2	2.00	0.61
58:B9:7:VAL:HG13	58:B9:34:GLN:NE2	2.14	0.61
56:D7:8:ASN:ND2	56:D7:11:LYS:N	2.44	0.61
27:DA:2668:G:O2'	27:DA:2669:G:H5'	2.00	0.61
11:AK:50:TYR:CB	11:AK:54:ARG:O	2.48	0.61
45:DW:46:PHE:O	45:DW:50:VAL:HG12	2.01	0.61
31:BE:68:ALA:C	31:BE:70:ALA:N	2.53	0.61
32:BF:160:ASN:O	32:BF:162:LEU:N	2.34	0.61
32:BF:40:GLN:HE22	32:BF:184:TYR:HB3	1.66	0.61
33:BG:170:ARG:HH22	33:BG:182:LYS:HG3	1.64	0.61
27:DA:2178:C:H5''	29:DC:46:LYS:HG2	1.81	0.61
27:BA:2619:C:H4'	31:BE:151:TYR:O	2.01	0.61
23:CW:56:G:H2'	23:CW:57:A:H5'	1.81	0.61
27:DA:2279:G:N2	27:DA:2280:G:H1'	2.15	0.61
43:BU:12:ARG:O	43:BU:15:LYS:HD3	2.01	0.61
27:DA:1702:G:H2'	27:DA:1703:G:O5'	2.00	0.61
39:DQ:38:GLU:HG3	39:DQ:127:ILE:CB	2.31	0.61
56:B7:37:LYS:HD3	56:B7:39:ARG:HE	1.63	0.61
29:BC:45:ALA:O	29:BC:46:LYS:HB2	2.00	0.61
9:CI:15:ALA:HB2	9:CI:65:VAL:HG23	1.83	0.61
27:BA:1670:C:H42	27:BA:1674:G:H5'	1.65	0.61
28:DB:26:A:C3'	28:DB:27:C:H5''	2.31	0.61
36:BN:119:ARG:O	36:BN:120:LEU:CB	2.49	0.61
48:DZ:13:LYS:O	48:DZ:17:LEU:N	2.33	0.61
33:DG:180:PHE:C	33:DG:182:LYS:H	2.04	0.61
18:CR:35:ARG:O	18:CR:37:VAL:N	2.34	0.61
1:AA:1154:G:H2'	1:AA:1155:G:H8	1.64	0.61
27:DA:1518:U:H2'	27:DA:1519:G:O4'	2.01	0.61
6:CF:96:PRO:HB3	18:CR:30:ASP:OD2	1.99	0.61
3:AC:19:GLU:O	3:AC:40:ARG:NH2	2.34	0.61
33:DG:71:THR:OG1	33:DG:89:GLY:HA3	2.01	0.61
25:AY:42:G:N2	25:AY:43:C:H1'	2.15	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CF:25:ILE:HD13	6:CF:28:ARG:HD2	1.82	0.61
7:AG:115:ARG:HB2	7:AG:118:VAL:HG13	1.82	0.61
27:BA:1790:C:H5''	27:BA:1791:A:OP1	2.01	0.61
27:BA:2432:A:H2'	27:BA:2433:A:H8	1.62	0.61
27:BA:244:A:O2'	38:BP:73:GLY:CA	2.49	0.61
27:BA:996:A:N6	27:BA:1160:G:C6	2.68	0.61
30:DD:27:THR:CG2	30:DD:83:GLU:HG2	2.29	0.61
38:DP:121:LYS:O	38:DP:123:LEU:HG	2.00	0.61
27:DA:1952:A:C6	37:DO:22:ILE:HD12	2.35	0.61
27:DA:746:A:H1'	27:DA:748:G:N2	2.14	0.61
46:DX:44:GLU:O	46:DX:46:ALA:N	2.33	0.61
1:AA:376:G:H4'	16:AP:5:ARG:HD2	1.83	0.61
1:CA:250:A:H1'	1:CA:252:U:C5	2.35	0.61
26:CZ:4:SER:C	26:CZ:5:UAL:H6	2.01	0.61
27:BA:1311:G:C6	56:B7:47:ARG:NH1	2.69	0.61
27:BA:125:G:N2	56:B7:48:LYS:NZ	2.49	0.61
27:BA:1782:C:H1'	27:BA:2609:U:C5'	2.28	0.61
36:DN:10:GLU:OE2	36:DN:11:PRO:HD2	2.00	0.61
27:BA:1603:A:C5'	27:BA:1603:A:H8	2.14	0.61
16:AP:6:LEU:H	16:AP:6:LEU:HD12	1.65	0.61
20:CT:22:ARG:O	20:CT:26:ASN:ND2	2.33	0.61
31:BE:130:GLY:O	31:BE:131:ALA:O	2.19	0.61
32:BF:176:LEU:HD21	32:BF:180:GLY:O	2.01	0.61
27:DA:1299:G:H5''	27:DA:1300:U:OP1	2.01	0.61
35:BI:114:LEU:O	35:BI:115:ALA:HB3	2.01	0.61
1:AA:444:C:H42	1:AA:490:G:H1	1.48	0.61
27:DA:663:G:H2'	27:DA:664:C:C6	2.36	0.61
34:DH:92:ILE:HG22	34:DH:93:GLY:N	2.14	0.61
13:AM:23:TYR:HE1	13:AM:71:ARG:HB2	1.66	0.61
13:AM:70:LEU:O	13:AM:74:VAL:HG23	1.99	0.61
1:CA:339:C:H2'	1:CA:340:U:H6	1.65	0.61
37:DO:11:ALA:O	37:DO:98:VAL:HA	2.01	0.61
1:AA:1139:G:H5'	1:AA:1140:C:OP1	2.01	0.61
8:CH:109:ILE:HG22	8:CH:137:VAL:O	2.00	0.61
27:BA:1050:A:HO2'	27:BA:1051:G:H8	1.43	0.61
47:DY:45:VAL:HA	47:DY:62:GLU:HG2	1.82	0.61
1:CA:284:G:H2'	1:CA:285:G:C8	2.30	0.61
1:AA:952:U:O2'	1:AA:953:G:H5'	2.01	0.61
27:DA:2197:U:HO2'	27:DA:2198:A:H2'	1.64	0.61
29:BC:196:LEU:C	29:BC:198:ALA:N	2.49	0.61
27:BA:548:A:O2'	27:BA:549:G:OP1	2.18	0.61
53:D4:42:CYS:SG	53:D4:46:ASN:HB3	2.40	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:928:G:H1	1:CA:1389:C:H42	1.49	0.61
50:B1:64:ALA:HA	50:B1:67:ILE:HG13	1.81	0.61
27:BA:2203:U:H4'	30:BD:151:LYS:HG2	1.82	0.61
1:AA:677:U:H3	1:AA:714:G:H22	1.48	0.61
27:BA:1503:U:H2'	27:BA:1504:C:H6	1.66	0.61
2:CB:134:GLU:HA	2:CB:137:ARG:HB3	1.83	0.61
27:DA:1247:A:O2'	27:DA:1248:G:H5''	2.01	0.61
11:CK:13:GLN:NE2	11:CK:75:TYR:HA	2.15	0.61
27:BA:2815:C:H5'	54:B5:29:THR:HG21	1.82	0.61
1:AA:511:C:HO2'	1:AA:512:U:H6	1.48	0.61
16:AP:50:LYS:HD3	16:AP:50:LYS:C	2.20	0.61
27:BA:2828:C:O2'	27:BA:2829:C:H5'	2.01	0.61
27:DA:875:G:H2'	27:DA:876:C:C6	2.36	0.61
17:CQ:27:PHE:CD2	17:CQ:27:PHE:N	2.68	0.61
40:BR:18:LEU:O	40:BR:18:LEU:HD13	2.01	0.61
40:BR:96:ARG:HG2	40:BR:97:VAL:N	2.16	0.61
31:BE:167:VAL:HG13	31:BE:189:PRO:HD3	1.83	0.61
46:BX:26:TYR:CD2	46:BX:92:LEU:HD12	2.35	0.61
30:DD:10:THR:HG23	30:DD:13:ARG:CB	2.29	0.61
4:CD:76:ARG:O	4:CD:79:PHE:N	2.34	0.61
27:BA:480:A:H2	27:BA:499:U:O2	1.83	0.61
44:DV:62:LEU:HD21	44:DV:95:LEU:N	2.15	0.61
30:DD:69:ARG:HH12	30:DD:192:THR:HB	1.65	0.61
47:DY:9:LYS:O	47:DY:11:ASP:N	2.34	0.61
27:DA:859:G:H21	27:DA:916:G:H2'	1.66	0.61
27:DA:2261:C:H5'	27:DA:2388:A:H4'	1.83	0.61
33:DG:16:ARG:N	33:DG:17:PRO:HD2	2.16	0.61
27:DA:671:C:O2'	27:DA:672:C:O5'	2.19	0.61
39:BQ:43:THR:HG22	39:BQ:94:VAL:HG12	1.83	0.61
31:DE:91:VAL:HG12	31:DE:92:THR:H	1.64	0.61
42:DT:62:THR:HG22	42:DT:75:ILE:HG12	1.82	0.61
19:AS:44:MET:O	19:AS:62:ILE:HG12	2.00	0.61
16:AP:20:VAL:CG2	16:AP:21:VAL:N	2.63	0.61
27:BA:686:G:H4'	27:BA:687:C:OP2	1.98	0.61
27:DA:2838:G:H1'	40:DR:45:ARG:HH11	1.64	0.61
27:BA:2277:G:OP2	49:B0:12:ASN:OD1	2.18	0.61
30:BD:142:VAL:HG23	30:BD:192:THR:O	2.00	0.61
39:DQ:137:TYR:OH	48:DZ:80:ARG:NH2	2.32	0.61
48:DZ:41:VAL:O	48:DZ:45:LYS:HG3	2.00	0.61
23:AW:6:U:C2'	23:AW:7:A:H5''	2.30	0.61
27:DA:1655:A:H4'	31:DE:114:ALA:CA	2.31	0.61
27:DA:957:A:N6	27:DA:959:A:C2	2.69	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DG:51:ARG:CZ	33:DG:51:ARG:HA	2.30	0.61
30:BD:68:LYS:HG3	30:BD:68:LYS:O	2.01	0.61
27:BA:2306:C:H5'	27:BA:2307:G:O4'	2.01	0.61
27:BA:60:G:C5	27:BA:63:U:C4	2.89	0.61
49:B0:21:LEU:HD22	49:B0:39:ARG:HB3	1.83	0.61
5:CE:13:ILE:HG23	5:CE:29:GLY:O	2.01	0.61
27:DA:1649:G:N1	27:DA:2009:G:C6	2.69	0.61
38:BP:10:PRO:O	38:BP:11:GLY:O	2.19	0.61
34:DH:156:ALA:C	34:DH:158:HIS:N	2.52	0.61
16:AP:14:ASN:HA	16:AP:42:ARG:NH2	2.16	0.61
34:DH:104:GLU:HA	34:DH:113:VAL:O	2.01	0.61
27:BA:703:U:H2'	27:BA:704:G:H5'	1.82	0.61
18:AR:66:LEU:HD11	18:AR:70:ILE:HD11	1.82	0.61
39:BQ:39:PRO:HD3	39:BQ:99:PRO:CG	2.30	0.61
1:AA:575:G:H4'	1:AA:576:G:O5'	2.00	0.61
32:BF:136:THR:O	32:BF:140:LEU:HB2	2.00	0.61
24:AX:50:U:H3	24:AX:64:G:H1	1.49	0.61
2:CB:236:TYR:HD2	2:CB:239:VAL:HB	1.65	0.61
27:BA:1445(A):C:H2'	27:BA:1446:C:H6	1.65	0.61
27:BA:892:G:N3	27:BA:892:G:H2'	2.16	0.61
50:D1:46:LEU:C	50:D1:47:GLN:HE21	2.04	0.61
1:AA:1070:U:H2'	1:AA:1071:C:C6	2.36	0.61
27:BA:1344:G:H5'	27:BA:1384:A:N6	2.16	0.61
27:BA:386:G:O2'	27:BA:387:U:OP1	2.16	0.61
1:CA:961:U:O2'	1:CA:962:C:H6	1.83	0.61
27:BA:2809:A:O2'	27:BA:2810:A:H5'	1.99	0.61
27:BA:500:G:N2	27:BA:503:A:C8	2.69	0.61
36:BN:40:PRO:O	43:BU:64:ARG:HD3	2.01	0.61
27:DA:1252:G:C8	27:DA:1252:G:OP1	2.54	0.61
30:DD:69:ARG:NH1	30:DD:192:THR:HB	2.15	0.61
30:BD:27:THR:HG23	30:BD:27:THR:O	1.99	0.61
41:DS:101:LEU:CD1	41:DS:101:LEU:H	2.14	0.61
27:DA:627:A:H4'	27:DA:628:G:OP1	2.00	0.61
14:AN:27:CYS:O	14:AN:27:CYS:SG	2.59	0.61
2:AB:17:PHE:CD2	2:AB:17:PHE:N	2.68	0.61
1:CA:344:A:O2'	1:CA:345:C:OP1	2.17	0.61
34:DH:135:GLY:HA3	34:DH:141:VAL:HG22	1.83	0.61
27:BA:587:C:O2'	27:BA:588:U:OP2	2.17	0.61
1:CA:276:G:C2'	1:CA:277:C:H5'	2.31	0.61
17:CQ:50:LYS:HE2	17:CQ:51:TYR:CE1	2.36	0.61
27:BA:1996:C:H4'	27:BA:1997:G:O5'	2.00	0.61
46:BX:14:SER:O	46:BX:17:ALA:N	2.33	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BT:23:ARG:HA	42:BT:52:ILE:HD12	1.83	0.61
12:AL:38:ARG:HH22	12:AL:54:LYS:HZ3	1.48	0.61
57:B8:32:LEU:HB3	57:B8:36:LYS:HD2	1.83	0.61
31:DE:111:ARG:CA	40:DR:2:ARG:HG3	2.29	0.61
40:DR:11:ASN:HB3	40:DR:12:ARG:HH11	1.64	0.61
27:DA:2306:C:H5'	27:DA:2307:G:O5'	2.01	0.61
1:AA:822:C:O2'	1:AA:823:G:H5'	2.01	0.61
27:BA:97:C:H5''	51:B2:2:LYS:CB	2.30	0.61
39:BQ:134:ARG:NH2	48:BZ:121:ARG:CZ	2.61	0.61
38:BP:85:LEU:HD23	38:BP:85:LEU:N	2.16	0.61
27:DA:744:G:OP1	31:DE:132:HIS:HB3	2.01	0.61
27:DA:2103:C:H3'	27:DA:2104:G:H5''	1.82	0.61
7:AG:26:PHE:CD1	7:AG:101:LEU:HD22	2.35	0.61
48:DZ:54:HIS:NE2	48:DZ:134:GLU:HG3	2.15	0.61
3:AC:150:LYS:HE3	3:AC:167:TRP:NE1	2.14	0.61
3:AC:152:ILE:O	3:AC:198:VAL:HG12	2.00	0.61
1:AA:666:G:O2'	1:AA:667:G:H5'	2.01	0.61
2:CB:80:ILE:HD13	2:CB:211:ILE:HG22	1.83	0.61
16:CP:31:LYS:HG2	16:CP:32:TYR:N	2.16	0.61
36:DN:114:ARG:O	36:DN:117:PHE:HB3	2.01	0.61
27:BA:2533:A:C3'	27:BA:2534:A:H5''	2.31	0.61
27:BA:470:A:H2'	27:BA:471:A:C8	2.36	0.61
27:DA:2362:G:O2'	27:DA:2363:C:H5'	2.01	0.61
28:DB:24:G:N3	28:DB:27:C:N4	2.48	0.61
34:BH:70:THR:O	34:BH:72:ILE:N	2.34	0.61
24:CX:37:A:H3'	24:CX:38:A:C8	2.35	0.61
27:BA:1839:G:H2'	27:BA:1840:G:H8	1.66	0.61
27:DA:733:G:H8	27:DA:733:G:O5'	1.84	0.61
29:BC:77:ILE:O	29:BC:77:ILE:HG23	2.00	0.61
3:CC:27:LYS:HB3	3:CC:27:LYS:NZ	2.16	0.61
6:CF:21:LEU:O	6:CF:24:GLU:HG2	2.00	0.61
1:AA:1428:A:H2'	1:AA:1429:C:C6	2.36	0.61
27:BA:715:G:H2'	27:BA:716:A:C8	2.36	0.61
27:BA:250:G:OP2	57:B8:13:ARG:NH2	2.33	0.60
27:BA:635:C:H2'	27:BA:636:G:H8	1.66	0.60
27:DA:1962:C:O2'	27:DA:1964:G:OP2	2.17	0.60
44:BV:39:LEU:HA	44:BV:47:VAL:HG11	1.83	0.60
43:DU:112:ARG:O	43:DU:115:ALA:HB3	2.00	0.60
43:DU:68:ALA:O	43:DU:71:GLN:HG3	2.01	0.60
44:DV:58:VAL:HG12	44:DV:59:ALA:N	2.16	0.60
10:CJ:45:ARG:HB3	10:CJ:65:LEU:HB3	1.82	0.60
27:DA:953:A:H2'	27:DA:954:G:H8	1.65	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:DQ:81:VAL:HG22	39:DQ:82:ARG:N	2.16	0.60
27:DA:2569:G:C2'	27:DA:2570:G:H5'	2.32	0.60
8:AH:42:GLU:OE2	8:AH:120:THR:HG21	2.00	0.60
2:AB:155:LEU:HD12	2:AB:159:PRO:HD3	1.83	0.60
1:AA:533:A:HO2'	1:AA:534:U:H5''	1.65	0.60
27:DA:2758:A:C5	34:DH:67:LEU:HD21	2.35	0.60
1:AA:376:G:H5''	16:AP:5:ARG:CB	2.25	0.60
27:DA:2838:G:C1'	40:DR:45:ARG:NH1	2.59	0.60
1:CA:1459:C:O2'	1:CA:1460:A:H5'	2.00	0.60
27:BA:1799:G:H4'	27:BA:1800:C:O5'	2.01	0.60
1:CA:1286:A:C8	1:CA:1287:A:H4'	2.36	0.60
27:DA:2223:G:H2'	27:DA:2224:G:C5'	2.27	0.60
57:B8:44:LYS:N	57:B8:44:LYS:HD2	2.15	0.60
1:AA:403:C:H5''	4:AD:136:PRO:HD2	1.83	0.60
9:CI:55:ALA:CB	9:CI:59:PHE:HE1	2.14	0.60
42:BT:68:TYR:HD2	42:BT:68:TYR:N	1.99	0.60
5:AE:78:HIS:CE1	5:AE:142:LEU:HA	2.36	0.60
5:CE:33:VAL:HG22	5:CE:43:LEU:CD1	2.31	0.60
23:AW:63:C:H2'	23:AW:64:G:C8	2.35	0.60
4:AD:159:ARG:HH11	4:AD:159:ARG:HG3	1.65	0.60
27:BA:1598:C:O2	27:BA:1598:C:H2'	2.01	0.60
27:BA:1922:G:H2'	27:BA:1923:U:C6	2.36	0.60
27:BA:345:A:N3	27:BA:347:A:N6	2.49	0.60
27:BA:2036:C:H5'	27:BA:2036:C:H6	1.66	0.60
10:CJ:81:THR:O	10:CJ:83:GLU:N	2.32	0.60
27:BA:581:C:O2'	27:BA:582:G:H5'	2.01	0.60
5:CE:101:ILE:HG13	5:CE:119:LEU:HD23	1.81	0.60
48:DZ:140:VAL:HG23	48:DZ:143:LEU:HD23	1.83	0.60
42:BT:129:ARG:O	42:BT:129:ARG:HG3	2.01	0.60
23:CW:63:C:H2'	23:CW:64:G:C8	2.36	0.60
48:BZ:107:PRO:CD	48:BZ:116:LEU:HB2	2.31	0.60
6:CF:43:LEU:O	6:CF:44:GLY:O	2.19	0.60
27:DA:720:C:H2'	27:DA:721:C:H6	1.65	0.60
38:BP:70:GLN:HA	38:BP:70:GLN:OE1	2.02	0.60
13:AM:102:ARG:HG3	13:AM:102:ARG:NH1	2.15	0.60
1:CA:787:A:H2	1:CA:795:C:H41	1.47	0.60
27:BA:2790:A:C2	27:BA:2791:C:H3'	2.27	0.60
41:BS:15:ARG:C	41:BS:17:ARG:O	2.38	0.60
27:DA:1904:G:O2'	27:DA:1905:C:H5'	2.01	0.60
48:DZ:119:ILE:O	48:DZ:170:ILE:HA	2.02	0.60
44:BV:91:TYR:O	44:BV:92:THR:HG22	2.00	0.60
27:DA:1430:C:H2'	27:DA:1431:U:H6	1.66	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:632:A:H2'	27:DA:633:A:C8	2.37	0.60
46:DX:26:TYR:CD1	46:DX:89:ILE:HD12	2.35	0.60
1:AA:1054:C:C5	1:AA:1196:U:H2'	2.36	0.60
2:AB:70:PHE:O	2:AB:93:VAL:HG22	2.01	0.60
1:AA:1081:G:O2'	1:AA:1082:G:H5'	2.01	0.60
30:DD:43:ARG:HB2	30:DD:54:ARG:CB	2.32	0.60
27:DA:2715:C:H2'	27:DA:2716:U:C6	2.36	0.60
1:CA:538:G:O2'	1:CA:539:A:H5'	2.01	0.60
48:DZ:75:LEU:HA	48:DZ:82:PRO:HA	1.82	0.60
36:DN:15:LEU:HD12	36:DN:136:GLU:CG	2.29	0.60
1:AA:489:C:H2'	1:AA:490:G:C8	2.36	0.60
27:BA:1971:A:C4	30:BD:241:PRO:HG3	2.36	0.60
55:B6:51:GLU:O	55:B6:52:VAL:CB	2.48	0.60
2:CB:178:ARG:HH22	8:CH:74:PRO:HG3	1.67	0.60
27:DA:324:A:H2'	27:DA:325:G:O4'	2.02	0.60
27:DA:17:G:H1	27:DA:523:C:H42	1.49	0.60
27:BA:1204:A:N6	27:BA:1240:U:H2'	2.16	0.60
1:CA:286:G:O2'	1:CA:287:U:H5'	1.99	0.60
27:DA:1785:A:OP2	27:DA:1982:C:H5'	2.01	0.60
27:BA:2462:U:H3	27:BA:2488:A:N6	1.97	0.60
1:AA:594:G:H2'	1:AA:595:G:H5'	1.81	0.60
30:DD:267:SER:O	30:DD:268:ARG:CB	2.50	0.60
11:AK:126:ARG:C	11:AK:128:ALA:H	2.01	0.60
48:BZ:107:PRO:C	48:BZ:109:GLY:H	2.03	0.60
31:DE:102:VAL:HG22	31:DE:170:LEU:O	2.00	0.60
10:AJ:90:LEU:H	10:AJ:91:PRO:CD	2.14	0.60
27:DA:887:A:C2'	27:DA:888:C:H5''	2.31	0.60
1:CA:181:G:H21	1:CA:183:G:N2	1.98	0.60
19:CS:38:SER:O	19:CS:70:LYS:HB3	2.00	0.60
3:CC:190:ARG:HG2	3:CC:190:ARG:HH11	1.66	0.60
40:BR:12:ARG:HD3	40:BR:16:HIS:CG	2.36	0.60
36:BN:113:GLY:O	36:BN:116:LEU:HB2	2.02	0.60
45:BW:73:ALA:HB3	45:BW:106:ILE:HG12	1.81	0.60
27:BA:252:G:H2'	27:BA:253:C:H6	1.66	0.60
47:BY:97:ARG:O	47:BY:98:VAL:HG23	2.01	0.60
34:BH:85:LYS:HD2	34:BH:141:VAL:HG13	1.81	0.60
27:DA:1022:G:O2'	27:DA:1024:G:N7	2.30	0.60
27:DA:1788:C:O2'	27:DA:1789:A:H5'	2.01	0.60
1:CA:500:G:H2'	1:CA:501:C:H6	1.65	0.60
4:CD:33:MET:HE3	4:CD:33:MET:HA	1.83	0.60
4:CD:9:CYS:SG	4:CD:22:LYS:CD	2.78	0.60
1:AA:865:A:H2	1:AA:918:A:H4'	1.66	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:391:G:O5'	27:DA:391:G:H8	1.83	0.60
27:DA:2087:G:C6	27:DA:2233:U:N3	2.68	0.60
27:DA:372:G:N2	27:DA:400:G:H2'	2.16	0.60
31:DE:128:SER:O	31:DE:129:HIS:HB2	2.00	0.60
3:AC:156:ARG:H	3:AC:163:ALA:HA	1.66	0.60
12:CL:24:LEU:HG	12:CL:59:SER:CB	2.32	0.60
37:DO:103:ALA:HA	37:DO:122:LEU:O	2.02	0.60
19:AS:41:VAL:O	19:AS:44:MET:HB2	2.01	0.60
27:DA:2752:C:C2'	27:DA:2753:A:H8	2.13	0.60
16:AP:23:ASP:O	16:AP:24:ALA:C	2.40	0.60
1:AA:1306:A:N6	1:AA:1331:G:H1'	2.16	0.60
31:BE:35:GLN:HE21	31:BE:37:ARG:HD3	1.66	0.60
1:AA:390:C:O3'	16:AP:28:ARG:NH2	2.34	0.60
20:CT:84:LEU:O	20:CT:88:VAL:HG23	2.01	0.60
1:CA:1053:G:N7	1:CA:1199:U:H3'	2.16	0.60
3:CC:135:LYS:NZ	5:CE:53:LEU:HD21	2.15	0.60
27:BA:2876:G:H4'	42:BT:3:ARG:HD2	1.81	0.60
41:BS:101:LEU:HD13	41:BS:101:LEU:O	2.01	0.60
27:DA:1569:A:H1'	30:DD:38:LYS:NZ	2.16	0.60
35:BI:82:ARG:CB	35:BI:82:ARG:HH11	2.12	0.60
27:BA:2346:A:H8	27:BA:2383:G:C5	2.17	0.60
1:AA:1001(A):G:C8	1:AA:1002:G:H8	2.20	0.60
27:DA:324:A:O2'	27:DA:325:G:H5'	2.02	0.60
1:CA:862:C:C1'	1:CA:874:G:H4'	2.31	0.60
1:CA:580:U:H2'	1:CA:581:G:C8	2.36	0.60
38:BP:7:ARG:O	38:BP:10:PRO:CD	2.49	0.60
28:BB:57:A:C4	33:BG:29:TRP:HB2	2.37	0.60
1:AA:1292:U:H2'	1:AA:1293:G:C8	2.37	0.60
27:DA:2586:C:O2'	27:DA:2587:A:H5'	2.02	0.60
28:DB:31:C:H2'	28:DB:53:A:H61	1.67	0.60
1:CA:327:A:O2'	1:CA:329:A:H5'	2.02	0.60
6:CF:97:PHE:CD2	18:CR:65:ILE:HD13	2.36	0.60
43:BU:8:VAL:HG12	43:BU:9:VAL:N	2.16	0.60
27:BA:707:G:H5'	27:BA:708:C:OP2	2.00	0.60
27:DA:1688:U:H1'	27:DA:1701:A:C6	2.36	0.60
30:DD:147:LEU:O	30:DD:189:CYS:SG	2.53	0.60
1:AA:1452:C:H4'	1:AA:1456:G:C2	2.36	0.60
46:DX:5:TYR:N	46:DX:5:TYR:CD1	2.69	0.60
27:DA:1017:G:O2'	27:DA:1018:C:H5'	2.00	0.60
1:CA:1046:A:H3'	1:CA:1047:G:H8	1.66	0.60
4:AD:141:ARG:N	4:AD:144:ASP:OD2	2.33	0.60
1:CA:406:G:C5'	4:CD:5:ILE:HG21	2.32	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:963:G:H21	10:CJ:55:LYS:NZ	1.98	0.60
19:CS:32:LYS:HB3	19:CS:57:HIS:CD2	2.36	0.60
27:DA:195:A:OP1	38:DP:46:LYS:HE2	2.01	0.60
33:BG:111:LEU:HD23	33:BG:114:ILE:HD12	1.84	0.60
13:CM:22:ILE:CG2	13:CM:25:ILE:HD13	2.31	0.60
43:BU:83:LEU:HD13	43:BU:113:ALA:HB2	1.82	0.60
47:DY:96:ILE:HG13	47:DY:99:CYS:HB2	1.83	0.60
27:DA:1884:A:H2'	27:DA:1885:A:C5'	2.22	0.60
48:DZ:27:MET:HE3	48:DZ:32:LEU:HD11	1.83	0.60
27:DA:316:C:O5'	27:DA:316:C:H6	1.85	0.60
34:BH:43:VAL:CB	34:BH:52:VAL:HA	2.32	0.60
16:AP:18:ARG:O	16:AP:20:VAL:HG12	2.01	0.60
1:CA:560:U:H4'	1:CA:561:U:OP2	2.01	0.60
27:BA:361:G:H2'	27:BA:362:U:H5''	1.82	0.60
50:B1:5:CYS:HG	50:B1:8:SER:HG	1.49	0.60
3:CC:89:GLU:O	3:CC:93:LYS:HB2	2.02	0.60
27:DA:2525:G:N2	27:DA:2539:C:C2	2.69	0.60
48:DZ:127:VAL:HG22	48:DZ:128:SER:N	2.09	0.60
40:DR:2:ARG:NH2	40:DR:5:LYS:NZ	2.50	0.60
1:AA:823:G:H21	8:AH:1:MET:CE	2.15	0.60
27:DA:662:G:P	38:DP:18:ARG:HD2	2.41	0.60
27:DA:2848:G:H1'	27:DA:2867:G:N2	2.16	0.60
36:BN:16:ILE:O	36:BN:54:VAL:HA	2.02	0.60
36:BN:34:LEU:O	36:BN:49:GLY:HA3	2.00	0.60
5:CE:105:VAL:HB	5:CE:106:PRO:CD	2.31	0.60
34:BH:97:ARG:HG2	34:BH:98:LEU:N	2.15	0.60
37:BO:97:ARG:HB3	37:BO:99:PHE:CE1	2.36	0.60
1:CA:1396:A:H4'	1:CA:1397:C:H5'	1.82	0.60
27:DA:1231:G:O2'	27:DA:1232:G:H5'	2.01	0.60
8:CH:11:THR:HG22	8:CH:15:ASN:HD21	1.65	0.60
1:CA:885:G:N3	1:CA:914:A:C2	2.69	0.60
3:CC:150:LYS:HB3	3:CC:201:TYR:HB2	1.83	0.60
31:BE:143:ASN:OD1	31:BE:147:PRO:HD2	2.02	0.60
36:DN:18:ALA:HB1	36:DN:21:LYS:CB	2.31	0.60
35:DI:44:LEU:O	35:DI:47:LEU:HB3	2.01	0.60
25:AY:17:G:H22	25:AY:54:U:H1'	1.66	0.60
28:BB:105:A:H2'	28:BB:106:G:H5'	1.83	0.60
1:AA:640:A:H2	8:AH:115:SER:HB3	1.65	0.60
51:B2:15:LYS:O	51:B2:16:LEU:HD23	2.01	0.60
15:CO:37:ASN:ND2	15:CO:37:ASN:H	1.98	0.60
23:CW:18:G:H1'	23:CW:19:U:N3	2.16	0.60
27:BA:2839:G:H2'	27:BA:2840:C:H6	1.66	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BI:45:LYS:O	35:BI:48:GLU:HB2	2.01	0.60
19:AS:51:VAL:O	19:AS:58:VAL:HG22	2.02	0.60
30:DD:227:ASN:HB3	30:DD:228:PRO:HD2	1.82	0.60
27:BA:121:G:C8	27:BA:121:G:H5'	2.36	0.60
27:DA:517:C:OP1	54:D5:16:ARG:NH2	2.34	0.60
1:CA:973:G:O4'	10:CJ:55:LYS:HB3	2.00	0.60
13:CM:8:GLU:OE2	13:CM:22:ILE:HA	2.01	0.60
42:BT:28:VAL:O	42:BT:29:ARG:CB	2.48	0.60
1:AA:1406:U:C2'	1:AA:1407:C:H5'	2.32	0.60
27:DA:1858:G:HO2'	27:DA:1859:A:H8	1.49	0.60
33:BG:56:ALA:HB2	33:BG:153:ARG:HH21	1.66	0.60
27:DA:675:A:C2'	27:DA:676:A:H5'	2.32	0.60
6:AF:43:LEU:N	6:AF:43:LEU:HD12	2.05	0.60
23:AW:62:U:O2'	27:BA:2482:G:H4'	2.00	0.60
1:CA:223:U:O2'	1:CA:224:C:H5'	2.01	0.60
42:DT:35:LYS:O	42:DT:37:GLY:N	2.33	0.60
19:AS:61:TYR:O	19:AS:62:ILE:HB	2.01	0.60
27:BA:1815:A:P	30:BD:54:ARG:HH12	2.24	0.60
1:AA:1074:G:H2'	1:AA:1075:C:C6	2.37	0.60
37:BO:71:ARG:HB3	37:BO:72:PRO:HD2	1.83	0.60
42:BT:60:THR:HG22	42:BT:77:PRO:HA	1.82	0.60
27:DA:787:U:OP1	27:DA:1780:A:N6	2.34	0.60
1:CA:1056:U:O2'	1:CA:1057:G:H5'	2.02	0.60
12:AL:50:ARG:HG2	12:AL:50:ARG:HH11	1.67	0.60
1:CA:192:U:C1'	20:CT:103:GLY:HA2	2.31	0.60
7:AG:113:GLU:HG3	7:AG:119:ARG:HG2	1.84	0.60
6:CF:12:PRO:HD2	6:CF:86:ARG:NH1	2.16	0.60
13:AM:8:GLU:OE1	13:AM:22:ILE:HG12	2.01	0.60
8:CH:38:ILE:HD13	8:CH:120:THR:HG22	1.84	0.60
45:DW:12:ILE:HG13	45:DW:42:ARG:NH1	2.17	0.60
43:BU:31:SER:C	43:BU:33:ARG:H	2.05	0.60
3:AC:182:ILE:HG12	3:AC:203:PHE:HA	1.82	0.60
1:AA:232:G:H2'	1:AA:233:C:H6	1.67	0.60
1:CA:882:C:O2'	1:CA:883:C:H5'	2.01	0.60
42:BT:122:ASP:C	42:BT:124:ASP:N	2.54	0.60
9:AI:26:VAL:HB	9:AI:33:PHE:HB2	1.84	0.60
29:DC:58:VAL:HG21	29:DC:166:ASP:N	2.16	0.60
4:CD:158:ILE:O	4:CD:162:LEU:HB2	2.02	0.60
49:B0:41:ARG:O	49:B0:57:PHE:CD2	2.54	0.60
27:DA:639:U:H2'	27:DA:640:C:C6	2.36	0.60
27:DA:2873:A:C2	40:DR:6:SER:HB3	2.36	0.60
13:AM:102:ARG:HG3	13:AM:102:ARG:HH11	1.67	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:932:G:H4'	27:DA:933:A:O5'	2.01	0.60
6:CF:6:VAL:HG22	6:CF:90:VAL:HG13	1.82	0.60
27:BA:1036:G:O2'	27:BA:1037:G:H5'	2.02	0.60
1:AA:1499:A:H1'	1:AA:1520:G:H5'	1.83	0.60
35:DI:84:GLY:O	35:DI:85:GLU:HB2	2.00	0.60
40:BR:33:ARG:NE	40:BR:115:GLU:HB2	2.16	0.60
32:BF:126:VAL:O	32:BF:127:GLU:HB2	2.01	0.60
27:BA:31:C:H42	27:BA:474:G:H1	1.49	0.60
13:CM:23:TYR:CE1	13:CM:70:LEU:HD23	2.36	0.60
5:AE:33:VAL:HG21	5:AE:109:ILE:CG1	2.31	0.60
19:CS:13:ASP:O	19:CS:15:LEU:N	2.35	0.60
42:BT:115:ARG:O	42:BT:116:ALA:HB2	2.01	0.60
27:DA:560:C:C4'	43:DU:52:ARG:HH22	2.13	0.60
27:BA:2699:C:O2'	27:BA:2700:C:H5'	2.01	0.60
27:DA:2357:U:OP1	49:D0:20:ARG:NH1	2.34	0.60
27:DA:1343:G:O2'	27:DA:1344:G:H5'	2.02	0.60
46:DX:57:LEU:HD13	46:DX:78:LYS:O	2.02	0.60
37:DO:105:GLU:CA	37:DO:108:GLU:HG3	2.29	0.60
27:DA:2750:A:H4'	27:DA:2751:G:OP1	2.01	0.60
27:BA:686:G:H2'	27:BA:788:A:N1	2.17	0.60
38:DP:6:LEU:HG	38:DP:9:ASN:ND2	2.16	0.60
39:BQ:16:ARG:HG2	39:BQ:17:LEU:H	1.64	0.60
3:CC:64:VAL:CG2	3:CC:99:VAL:HA	2.31	0.60
27:DA:48:G:H5'	27:DA:52:A:H4'	1.83	0.60
12:AL:74:LEU:HD21	12:AL:104:ALA:CB	2.32	0.60
1:CA:1258:G:O2'	1:CA:1259:C:H5'	2.01	0.60
27:DA:151:C:C2'	27:DA:152:G:H5'	2.32	0.60
27:BA:623:G:H2'	27:BA:624:C:H6	1.65	0.60
27:BA:2133:G:H1'	27:BA:2158:A:H61	1.66	0.60
57:B8:52:LYS:N	57:B8:53:PRO:CD	2.65	0.60
1:AA:939:G:H5''	7:AG:102:ARG:CZ	2.31	0.60
27:BA:2695:C:H2'	27:BA:2696:U:C6	2.36	0.60
45:DW:47:VAL:O	45:DW:47:VAL:HG12	2.00	0.60
27:DA:29:U:C4'	43:DU:11:ARG:HH22	2.14	0.60
55:D6:30:THR:HB	55:D6:31:PRO:CD	2.30	0.60
32:DF:167:ALA:CB	32:DF:173:VAL:HG11	2.28	0.60
27:BA:1927:A:O2'	27:BA:1928:A:H5'	2.01	0.60
3:AC:64:VAL:O	3:AC:64:VAL:HG23	2.01	0.60
1:AA:1096:C:H2'	1:AA:1097:C:C6	2.36	0.60
10:AJ:80:LYS:HE3	10:AJ:80:LYS:C	2.22	0.60
54:B5:32:PRO:O	54:B5:33:CYS:HB3	2.01	0.60
1:CA:1445:C:H2'	1:CA:1446:U:H5'	1.84	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:AT:41:ILE:HG13	20:AT:42:GLN:N	2.13	0.60
40:BR:13:HIS:O	40:BR:14:SER:C	2.39	0.60
27:DA:935:C:H2'	27:DA:936:C:C6	2.36	0.60
1:AA:1484:C:O2'	1:AA:1485:U:H5'	2.02	0.60
6:CF:82:ARG:HB2	6:CF:85:VAL:HG23	1.82	0.60
38:DP:140:ALA:O	38:DP:141:ALA:HB3	2.01	0.60
27:BA:2731:G:O5'	27:BA:2731:G:H8	1.84	0.60
1:AA:1261:A:H2'	1:AA:1262:C:O4'	2.02	0.60
38:BP:84:ASN:HD22	38:BP:115:LEU:CG	2.13	0.60
36:DN:95:PRO:O	36:DN:98:VAL:HG23	2.01	0.60
5:AE:51:VAL:HB	5:AE:52:PRO:HD3	1.83	0.60
27:DA:1795:C:O2'	27:DA:1796:U:H5'	2.01	0.60
21:CU:2:GLY:C	21:CU:4:GLY:N	2.55	0.60
31:BE:75:VAL:HG12	31:BE:76:ARG:N	2.17	0.60
27:DA:1430:C:H2'	27:DA:1431:U:C6	2.37	0.60
27:DA:2393:A:H5'	38:DP:62:LEU:HD12	1.83	0.60
38:DP:115:LEU:HD23	38:DP:115:LEU:H	1.65	0.60
38:DP:34:GLY:O	38:DP:35:HIS:CB	2.49	0.60
31:DE:93:VAL:C	31:DE:95:ILE:N	2.52	0.60
12:CL:15:VAL:O	12:CL:16:ARG:HB3	2.01	0.60
1:CA:1492:A:H3'	26:CZ:6:5OH:NP	2.16	0.60
27:DA:1775:U:C2'	27:DA:1776:G:H5'	2.25	0.60
27:BA:2667:C:H1'	34:BH:109:PHE:CE2	2.37	0.60
27:DA:58:G:N2	27:DA:70:G:C4	2.70	0.60
1:CA:714:G:O2'	1:CA:715:A:H5'	2.02	0.60
42:BT:98:LYS:HB3	42:BT:100:TYR:CE1	2.37	0.60
38:BP:98:GLU:O	38:BP:101:VAL:HG22	2.01	0.60
1:CA:652:U:C1'	1:CA:653:A:H2	2.14	0.60
1:CA:748:C:H4'	1:CA:749:C:O5'	2.01	0.60
8:AH:2:LEU:CD1	8:AH:4:ASP:H	2.14	0.60
33:BG:44:GLY:H	33:BG:88:ILE:HD13	1.67	0.60
46:BX:31:HIS:CD2	46:BX:32:PRO:HD2	2.37	0.60
17:AQ:56:VAL:O	17:AQ:76:LEU:HD12	2.01	0.60
27:DA:2667:C:H2'	27:DA:2668:G:H5'	1.83	0.60
28:DB:42:C:O2	33:DG:93:THR:N	2.31	0.60
27:BA:389:G:N1	38:BP:71:VAL:HG12	2.16	0.60
11:CK:50:TYR:CE2	11:CK:54:ARG:HD2	2.36	0.60
27:BA:2607:G:H2'	27:BA:2608:G:O4'	2.02	0.60
1:CA:699:C:H2'	1:CA:700:G:H5'	1.84	0.60
8:CH:9:MET:HB2	8:CH:26:VAL:HG21	1.84	0.60
47:DY:2:ARG:N	47:DY:4:LYS:HG2	2.16	0.60
1:AA:198:G:H2'	1:AA:199:G:H8	1.66	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AH:107:LEU:HD23	8:AH:107:LEU:N	2.17	0.60
27:BA:985:C:H2'	27:BA:986:C:H6	1.66	0.60
27:BA:1150:C:C2'	27:BA:1151:G:H5'	2.32	0.60
39:DQ:58:PHE:HB3	39:DQ:113:GLN:HE21	1.66	0.60
27:DA:2362:G:H2'	27:DA:2363:C:H5'	1.82	0.60
35:DI:4:ILE:HD11	35:DI:44:LEU:CD1	2.31	0.60
1:CA:47:C:O2'	1:CA:48:C:OP2	2.17	0.60
27:BA:671:C:C5'	27:BA:671:C:H6	2.14	0.60
15:CO:3:ILE:O	15:CO:3:ILE:HG12	2.02	0.60
27:DA:1018:C:O2	27:DA:1018:C:H2'	2.00	0.60
54:D5:16:ARG:NH1	54:D5:17:ASP:OD1	2.35	0.60
32:DF:164:ARG:NH2	32:DF:177:ALA:HB2	2.17	0.60
1:CA:803:G:O2'	1:CA:804:U:H5'	2.02	0.60
25:CY:71:A:H4'	27:DA:1852:C:H5''	1.83	0.60
1:AA:861:G:O2'	1:AA:862:C:H5'	2.01	0.60
3:CC:60:ALA:HB3	3:CC:63:ASN:OD1	2.02	0.60
27:BA:867:C:H2'	27:BA:868:U:C6	2.37	0.60
35:DI:98:ALA:HB1	35:DI:109:ILE:HD13	1.84	0.60
25:AY:52:G:O2'	25:AY:53:U:H5'	2.02	0.60
1:CA:1321:C:H3'	1:CA:1322:C:C5'	2.27	0.60
47:BY:96:ILE:HG22	47:BY:97:ARG:H	1.64	0.60
27:DA:195:A:H4'	27:DA:251:A:O2'	2.02	0.60
27:DA:271(Q):G:O2'	27:DA:271(R):G:H5'	2.02	0.60
30:DD:61:LEU:O	30:DD:63:ARG:NH1	2.34	0.60
30:DD:83:GLU:HB2	30:DD:92:ILE:HD11	1.84	0.60
31:DE:52:LEU:CD2	31:DE:76:ARG:HB2	2.31	0.60
27:DA:2632:A:C2	31:DE:61:ARG:HD3	2.37	0.60
39:DQ:81:VAL:HG23	49:D0:7:LEU:HD11	1.83	0.60
27:DA:802:A:C5	27:DA:803:U:C4	2.89	0.60
38:DP:23:PRO:HG2	38:DP:33:ARG:HE	1.67	0.60
1:CA:1104:G:O5'	2:CB:111:ARG:HD2	2.01	0.60
1:CA:1298:C:H2'	7:CG:114:ARG:NH1	2.16	0.60
46:DX:12:VAL:HG11	46:DX:27:THR:HG23	1.83	0.60
8:CH:48:TYR:O	8:CH:49:GLU:HB3	2.01	0.60
27:DA:2475:C:H5'	27:DA:2476:A:OP2	2.02	0.60
1:CA:1072:G:H2'	1:CA:1073:U:C6	2.35	0.60
14:CN:24:CYS:SG	14:CN:26:ARG:HG3	2.42	0.60
1:AA:1152:A:C4	1:AA:1153:C:C5	2.90	0.60
1:CA:1255:G:H5''	3:CC:26:LYS:NZ	2.16	0.60
6:CF:32:ASN:C	6:CF:34:GLY:H	2.04	0.60
27:BA:524:U:H2'	27:BA:525:U:C6	2.37	0.60
23:AW:6:U:H2'	23:AW:7:A:H5''	1.84	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
57:B8:32:LEU:N	57:B8:33:ASN:ND2	2.49	0.60
27:BA:647:G:N2	27:BA:2350:C:O3'	2.35	0.60
40:DR:16:HIS:O	40:DR:18:LEU:N	2.35	0.60
13:AM:2:ALA:O	13:AM:10:PRO:HD2	2.02	0.60
24:CX:19:G:H5'	24:CX:20:U:H5	1.64	0.60
33:DG:45:GLU:O	33:DG:51:ARG:HD3	2.02	0.60
3:AC:113:ALA:HB3	3:AC:114:PRO:CD	2.27	0.60
19:CS:49:ILE:N	19:CS:49:ILE:HD12	2.14	0.60
13:AM:80:ARG:C	13:AM:82:MET:H	2.05	0.60
5:CE:129:ILE:O	5:CE:132:ALA:N	2.34	0.60
27:DA:2685:G:H5'	37:DO:68:GLU:OE1	2.02	0.60
27:DA:2299:G:N1	27:DA:2318:G:C8	2.70	0.60
39:DQ:56:ARG:HA	39:DQ:56:ARG:NH1	2.16	0.60
27:BA:2189:U:H5'	27:BA:2190:G:OP2	2.02	0.60
25:CY:54:U:H2'	25:CY:56:G:OP2	2.01	0.60
40:DR:66:VAL:CG1	40:DR:70:LEU:HD12	2.31	0.60
6:CF:91:VAL:HG11	18:CR:72:ARG:NH1	2.16	0.60
12:AL:15:VAL:CG2	12:AL:16:ARG:N	2.64	0.60
27:BA:45:C:H2'	27:BA:47:C:C6	2.37	0.60
5:AE:101:ILE:H	5:AE:101:ILE:HD13	1.63	0.60
13:AM:108:ARG:N	13:AM:108:ARG:HD2	2.17	0.60
34:DH:106:THR:HG22	34:DH:112:PRO:HB3	1.84	0.60
1:AA:600:C:H2'	1:AA:601:C:C6	2.37	0.60
27:DA:566:U:O4	44:DV:78:LYS:HE2	2.02	0.60
45:BW:64:MET:O	45:BW:65:LEU:CB	2.50	0.60
8:CH:63:LEU:HB2	8:CH:65:TYR:CE1	2.36	0.60
1:AA:1234:C:O2'	1:AA:1235:U:H5'	2.02	0.60
5:CE:69:VAL:O	5:CE:71:LEU:HG	2.02	0.60
27:BA:1181:C:O2'	27:BA:1182:A:H5'	2.01	0.60
34:DH:26:VAL:O	34:DH:26:VAL:HG12	1.99	0.60
29:BC:72:VAL:HG21	29:BC:161:ILE:HA	1.84	0.60
7:CG:11:GLN:HE22	7:CG:21:VAL:HG11	1.66	0.60
1:CA:428:G:O2'	1:CA:429:U:OP2	2.15	0.60
4:CD:92:VAL:O	4:CD:95:GLY:N	2.34	0.60
1:CA:1330:U:H4'	13:CM:23:TYR:CE2	2.36	0.60
13:CM:69:GLU:OE1	13:CM:69:GLU:CA	2.50	0.60
30:DD:18:VAL:CG1	30:DD:211:ARG:HH22	2.12	0.60
55:D6:19:ARG:O	55:D6:20:ASN:O	2.20	0.60
55:D6:39:TYR:O	55:D6:46:HIS:CB	2.45	0.60
27:DA:2571:C:H3'	27:DA:2572:A:C5'	2.32	0.60
36:BN:63:THR:H	36:BN:66:LYS:HD2	1.66	0.60
27:BA:2466:C:H5''	58:B9:6:SER:CB	2.32	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DX:35:THR:HG22	46:DX:37:THR:N	2.17	0.60
48:DZ:56:ILE:HG22	48:DZ:57:VAL:H	1.67	0.60
34:BH:8:PRO:HD3	34:BH:65:HIS:CE1	2.37	0.60
4:CD:104:VAL:HG21	4:CD:140:VAL:HG21	1.84	0.60
4:CD:172:PRO:HD2	4:CD:173:TRP:CZ3	2.36	0.60
20:CT:87:LYS:O	20:CT:91:LEU:HG	2.02	0.60
10:AJ:51:ARG:HD2	10:AJ:59:SER:O	2.01	0.60
16:AP:20:VAL:HG23	16:AP:34:GLU:O	2.01	0.60
16:AP:5:ARG:HH22	16:AP:26:ARG:HB2	1.65	0.60
31:BE:81:ILE:O	31:BE:82:ARG:O	2.19	0.60
42:DT:8:LYS:HA	42:DT:11:GLU:OE2	2.00	0.60
1:AA:1321:C:H3'	1:AA:1322:C:H6	1.66	0.60
34:BH:156:ALA:HB3	34:BH:159:GLU:CB	2.32	0.60
42:BT:3:ARG:O	42:BT:4:GLY:C	2.40	0.60
1:AA:1397:C:OP2	5:AE:24:ARG:NH2	2.35	0.60
1:AA:15:G:H4'	5:AE:24:ARG:NH1	2.13	0.60
36:DN:58:ASP:O	36:DN:60:ILE:HG13	2.02	0.60
27:DA:2308:G:C6	27:DA:2310:A:H5'	2.36	0.60
27:DA:851:U:H3	27:DA:926:A:N6	1.98	0.60
4:AD:154:ASN:C	4:AD:155:LEU:HD23	2.22	0.60
27:BA:271(W):G:H8	27:BA:271(W):G:OP2	1.85	0.60
27:DA:2485:G:O2'	27:DA:2486:G:H5'	2.01	0.60
27:BA:105:C:O2'	47:BY:2:ARG:HB2	2.01	0.60
30:DD:112:GLN:N	30:DD:115:GLN:NE2	2.49	0.60
27:BA:1565:C:OP1	30:BD:4:LYS:NZ	2.34	0.60
27:BA:1722:A:N6	27:BA:1741:A:C2	2.70	0.60
13:AM:97:PRO:HA	13:AM:110:ARG:HD3	1.83	0.60
38:DP:130:PHE:N	38:DP:130:PHE:CD2	2.69	0.60
2:CB:102:LEU:HD12	2:CB:102:LEU:N	2.17	0.60
31:BE:40:GLU:CD	31:BE:40:GLU:H	2.03	0.60
7:CG:65:ALA:O	7:CG:69:VAL:HG23	2.01	0.60
39:DQ:134:ARG:HH21	48:DZ:121:ARG:NH1	2.00	0.60
1:CA:1120:G:H2'	1:CA:1121:U:H6	1.65	0.60
9:CI:52:ALA:CB	9:CI:95:LYS:HE2	2.31	0.60
27:BA:1445:A:H5'	27:BA:1445(A):C:OP2	2.01	0.60
1:AA:369:C:OP2	1:AA:388:G:N2	2.34	0.60
7:CG:76:ARG:HE	7:CG:156:TRP:HZ2	1.48	0.60
25:AY:14:A:N3	25:AY:14:A:H2'	2.17	0.60
15:AO:49:ASP:OD1	15:AO:49:ASP:C	2.40	0.60
34:DH:86:GLU:HA	34:DH:132:ARG:HA	1.84	0.60
27:DA:1031:G:H4'	58:D9:6:SER:OG	2.02	0.60
38:BP:47:ASP:OD1	38:BP:49:ARG:HB2	2.01	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BF:126:VAL:HG23	32:BF:127:GLU:N	2.16	0.60
32:BF:9:ILE:HG12	32:BF:14:PRO:HA	1.83	0.60
1:AA:911:U:H2'	1:AA:912:C:C5	2.36	0.60
48:DZ:157:PRO:HB2	48:DZ:158:PRO:HD2	1.83	0.60
2:CB:204:ASN:HD21	2:CB:207:ALA:CB	2.03	0.60
27:BA:557:U:H2'	27:BA:558:G:H8	1.67	0.60
42:BT:16:ARG:HH12	42:BT:19:LEU:HD21	1.67	0.60
44:DV:38:LEU:O	44:DV:52:VAL:HG12	2.01	0.60
38:DP:23:PRO:HD2	38:DP:33:ARG:HH21	1.67	0.60
3:AC:186:PHE:CE2	3:AC:188:LEU:HD22	2.36	0.60
12:CL:82:ILE:CG2	12:CL:95:TYR:HD2	2.15	0.60
19:AS:29:ARG:HD2	19:AS:30:LEU:N	2.17	0.60
32:DF:123:LEU:HA	32:DF:192:LEU:O	2.02	0.60
15:CO:35:ARG:HH21	15:CO:59:MET:CE	2.06	0.60
15:AO:82:ILE:HD13	15:AO:82:ILE:C	2.23	0.60
46:BX:12:VAL:CG2	46:BX:13:LEU:H	2.01	0.60
42:DT:11:GLU:O	42:DT:13:ARG:N	2.25	0.60
34:BH:109:PHE:CE1	34:BH:152:ARG:CZ	2.85	0.60
1:CA:1326:C:OP1	21:CU:12:LYS:HD2	2.02	0.60
48:DZ:97:MET:O	48:DZ:124:LEU:HA	2.02	0.60
1:CA:653:A:C1'	8:CH:56:LYS:HZ3	2.15	0.60
27:DA:1569:A:H1'	30:DD:38:LYS:HZ3	1.65	0.60
36:DN:103:VAL:O	36:DN:107:LEU:HG	2.02	0.60
27:BA:2350:C:H5''	57:B8:42:ARG:HD3	1.84	0.60
40:DR:12:ARG:HD3	40:DR:16:HIS:ND1	2.17	0.60
30:BD:70:TRP:CZ3	30:BD:146:GLU:CD	2.75	0.60
36:BN:132:ALA:O	36:BN:133:GLN:HB3	2.02	0.60
8:AH:2:LEU:HD13	8:AH:2:LEU:C	2.23	0.60
54:B5:56:LYS:HG3	54:B5:59:GLU:CG	2.32	0.60
27:DA:2684:U:H2'	27:DA:2685:G:O4'	2.01	0.60
2:AB:215:LEU:O	2:AB:219:VAL:HG23	2.02	0.60
25:CY:52:G:H2'	25:CY:53:U:C6	2.37	0.60
23:CW:20:A:H62	23:CW:44:A:C2'	2.12	0.60
50:B1:19:GLN:O	50:B1:35:THR:N	2.34	0.60
1:CA:1079:G:H2'	1:CA:1080:A:C8	2.36	0.60
5:AE:100:VAL:HG22	5:AE:118:ILE:HG22	1.83	0.60
27:DA:2593:U:H2'	27:DA:2594:C:H6	1.65	0.60
1:AA:407:G:N2	1:AA:436:C:C2	2.70	0.60
18:CR:50:ILE:HD11	18:CR:70:ILE:HG21	1.84	0.60
27:BA:1891:G:H2'	27:BA:1892:C:C6	2.37	0.60
4:AD:98:GLU:O	4:AD:100:ARG:N	2.35	0.60
16:AP:67:THR:HB	16:AP:70:ALA:HB2	1.84	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:AG:15:ASP:OD2	7:AG:44:TYR:OH	2.20	0.60
1:AA:324:G:H8	1:AA:324:G:H3'	1.67	0.60
27:DA:2236:C:H2'	27:DA:2237:G:O4'	2.02	0.60
32:DF:195:ASP:OD2	32:DF:195:ASP:N	2.34	0.60
20:AT:97:ALA:O	20:AT:99:LEU:N	2.34	0.60
9:CI:106:ALA:O	9:CI:108:VAL:HG13	2.02	0.60
27:BA:2231:C:OP1	50:B1:42:GLN:HA	2.01	0.60
45:DW:13:SER:O	45:DW:16:LYS:HB2	2.01	0.60
27:BA:2084:C:H2'	27:BA:2085:C:H6	1.67	0.60
34:BH:125:VAL:HG12	34:BH:125:VAL:O	2.01	0.60
2:CB:198:ASP:OD2	2:CB:198:ASP:N	2.34	0.60
27:BA:875:G:H2'	27:BA:876:C:O4'	2.01	0.60
27:DA:1122:G:O2'	27:DA:1123:C:H5'	2.02	0.60
37:BO:10:VAL:HG21	37:BO:17:ARG:HA	1.84	0.59
33:BG:107:LEU:HD22	33:BG:177:GLY:O	2.01	0.59
1:CA:1346:A:N7	7:CG:10:ARG:NH2	2.50	0.59
43:BU:42:ALA:O	43:BU:45:TYR:N	2.35	0.59
42:BT:16:ARG:NH1	42:BT:19:LEU:HD21	2.17	0.59
27:DA:1490:A:H5'	27:DA:1494:A:N6	2.17	0.59
27:DA:94(A):G:C3'	27:DA:95:G:H5''	2.32	0.59
49:D0:20:ARG:HG2	49:D0:20:ARG:HH11	1.66	0.59
27:DA:2498:C:HO2'	27:DA:2499:C:H5''	1.66	0.59
31:DE:37:ARG:HB2	31:DE:46:ALA:H	1.66	0.59
1:CA:620:C:H2'	1:CA:621:A:O4'	2.02	0.59
1:AA:1366:C:H2'	1:AA:1367:C:C6	2.33	0.59
42:DT:26:ASP:HB3	42:DT:89:VAL:O	2.02	0.59
27:DA:2748:A:N7	27:DA:2754:U:O4	2.35	0.59
27:BA:2068:U:N3	27:BA:2430:A:H2	1.86	0.59
7:AG:41:ARG:O	7:AG:45:ASP:HB2	2.02	0.59
4:AD:17:VAL:HG11	4:AD:197:PRO:CG	2.27	0.59
27:DA:2527:C:H5'	58:D9:30:PRO:CB	2.31	0.59
32:BF:135:LYS:HB3	32:BF:138:GLU:CD	2.22	0.59
27:DA:172:C:O2'	27:DA:173:G:H8	1.84	0.59
27:DA:962:G:H2'	27:DA:963:U:O4'	2.02	0.59
34:DH:89:ILE:HG22	34:DH:162:ILE:HG23	1.84	0.59
33:DG:41:GLN:HE22	33:DG:153:ARG:CG	2.15	0.59
3:CC:35:GLU:HA	3:CC:38:ARG:HD2	1.84	0.59
13:AM:69:GLU:OE1	13:AM:72:ALA:HB3	2.01	0.59
27:DA:2298:A:H2'	27:DA:2299:G:H8	1.65	0.59
31:DE:14:ILE:HB	42:DT:14:TYR:CE2	2.37	0.59
8:AH:87:SER:HB2	8:AH:93:VAL:HB	1.84	0.59
43:BU:34:LYS:CE	43:BU:34:LYS:HA	2.30	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:81:VAL:HB	2:CB:94:ASN:OD1	2.02	0.59
25:CY:37:U:C2'	25:CY:38:U:H5''	2.32	0.59
24:AX:24:U:O2'	27:BA:1923:U:OP1	2.19	0.59
32:DF:83:PHE:O	32:DF:84:VAL:HB	2.02	0.59
6:AF:75:LEU:CD2	6:AF:79:LEU:HG	2.32	0.59
7:CG:65:ALA:HB3	7:CG:124:LEU:HD23	1.82	0.59
1:AA:1146:A:H2'	1:AA:1147:C:H5''	1.83	0.59
27:DA:2531:A:N6	27:DA:2662:A:H61	2.00	0.59
46:DX:81:VAL:O	46:DX:81:VAL:HG23	2.02	0.59
8:CH:28:ALA:HA	8:CH:59:LEU:CD1	2.32	0.59
19:CS:24:ALA:O	19:CS:25:LYS:HB2	2.02	0.59
24:AX:6:G:H2'	24:AX:7:G:O4'	2.02	0.59
1:CA:1168:A:H3'	1:CA:1169:A:H8	1.65	0.59
1:AA:399:G:H2'	1:AA:400:C:C6	2.37	0.59
27:DA:1829:A:N3	30:DD:15:PHE:HZ	2.00	0.59
11:CK:93:GLN:OE1	11:CK:93:GLN:HA	2.01	0.59
40:DR:44:LEU:HD13	40:DR:44:LEU:O	2.02	0.59
54:B5:6:VAL:HG22	54:B5:7:PRO:HD2	1.84	0.59
38:BP:84:ASN:ND2	38:BP:115:LEU:CG	2.65	0.59
28:BB:42:C:O2	33:BG:93:THR:N	2.34	0.59
30:DD:27:THR:HG23	30:DD:27:THR:O	2.01	0.59
27:DA:2611:U:H1'	54:D5:3:LYS:CE	2.30	0.59
27:DA:2576:G:H5''	27:DA:2577:A:OP1	2.02	0.59
20:AT:33:ILE:CD1	20:AT:63:ILE:HA	2.32	0.59
27:BA:2466:C:C2'	27:BA:2467:C:H5'	2.32	0.59
27:DA:328:U:H4'	47:DY:68:HIS:CE1	2.36	0.59
30:BD:30:GLU:CD	30:BD:63:ARG:NH2	2.55	0.59
1:AA:1349:A:OP1	9:AI:121:ARG:N	2.31	0.59
37:DO:36:GLY:O	37:DO:109:LYS:HG3	2.01	0.59
42:DT:61:PHE:CE2	42:DT:76:PHE:HB2	2.37	0.59
27:BA:2589:A:O2'	27:BA:2590:A:H5'	2.02	0.59
27:BA:779:U:P	30:BD:49:ILE:HG22	2.43	0.59
1:AA:389:A:H2'	1:AA:390:C:C5'	2.32	0.59
1:CA:1177:G:N1	1:CA:1181:G:C6	2.70	0.59
18:AR:53:ARG:CZ	18:AR:60:ALA:H	2.15	0.59
1:CA:752:G:H1'	1:CA:754:C:N4	2.18	0.59
24:CX:17:C:C3'	24:CX:17(B):U:H5'	2.31	0.59
48:BZ:152:SER:H	48:BZ:166:PRO:CB	2.14	0.59
57:B8:29:LYS:HG3	57:B8:29:LYS:O	2.02	0.59
1:AA:621:A:H2'	1:AA:622:A:C8	2.37	0.59
1:AA:1238:A:H2	1:AA:1241:G:H1'	1.66	0.59
53:B4:60:GLU:O	53:B4:61:VAL:CB	2.50	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1482:G:N2	27:DA:1507:A:H1'	2.16	0.59
7:AG:148:ASN:HD21	25:AY:39:C:H4'	1.66	0.59
42:DT:48:ILE:HG22	42:DT:50:ILE:HD12	1.84	0.59
1:AA:1288:A:O2'	1:AA:1289:A:H5'	2.02	0.59
1:AA:577:G:H4'	1:AA:816:A:O2'	2.02	0.59
15:AO:33:THR:O	15:AO:33:THR:HG22	2.02	0.59
27:DA:2012:G:O3'	45:DW:96:ILE:HD11	2.02	0.59
28:BB:8:U:C5'	28:BB:8:U:H6	2.14	0.59
1:AA:782:A:C2	1:AA:801:U:C2	2.90	0.59
9:CI:40:LEU:C	9:CI:42:ARG:H	2.05	0.59
1:CA:320:C:H1'	1:CA:1434:A:C2	2.35	0.59
56:D7:24:THR:HG23	56:D7:27:GLY:CA	2.32	0.59
27:BA:2636:U:O2'	31:BE:44:TYR:CE1	2.55	0.59
1:AA:1028:C:H2'	1:AA:1029:C:H5'	1.83	0.59
27:BA:2670:A:C2'	27:BA:2671:A:H5'	2.32	0.59
34:DH:70:THR:O	34:DH:72:ILE:N	2.35	0.59
35:BI:136:VAL:O	35:BI:136:VAL:HG13	2.02	0.59
30:DD:93:ALA:HB2	30:DD:107:ALA:HB2	1.83	0.59
30:DD:66:ASP:HB3	30:DD:105:ILE:HD13	1.84	0.59
1:AA:986:A:O2'	1:AA:987:G:H5'	2.01	0.59
27:BA:2400:G:H5'	27:BA:2401:U:OP2	2.02	0.59
27:BA:971:C:C2'	27:BA:972:G:H5'	2.32	0.59
1:CA:1368:G:N2	1:CA:1369:C:H1'	2.17	0.59
27:DA:1830:C:H42	27:DA:1975:G:H1	1.50	0.59
1:CA:943:U:H6	1:CA:943:U:O5'	1.84	0.59
43:DU:20:LEU:O	43:DU:20:LEU:HD13	2.02	0.59
6:AF:100:ASN:HD21	18:AR:23:LYS:HG2	1.66	0.59
35:DI:94:ALA:HB1	35:DI:114:LEU:HD11	1.84	0.59
27:BA:2547:U:H2'	27:BA:2548:G:C8	2.37	0.59
27:BA:592:G:N2	27:BA:666:G:C4	2.70	0.59
1:CA:1186:G:N2	1:CA:1187:G:H1'	2.17	0.59
14:CN:39:LEU:CD1	14:CN:44:LEU:HA	2.31	0.59
31:BE:184:VAL:HG12	31:BE:185:LYS:H	1.66	0.59
51:B2:41:ILE:HD11	51:B2:44:LEU:CB	2.31	0.59
31:BE:55:ASN:O	31:BE:57:LYS:N	2.33	0.59
17:AQ:45:HIS:HA	17:AQ:69:LYS:NZ	2.17	0.59
30:DD:83:GLU:O	30:DD:92:ILE:HD13	2.03	0.59
27:DA:2069:G:C2	27:DA:2070:G:C8	2.89	0.59
27:DA:2015:A:H1'	54:D5:2:ALA:HA	1.84	0.59
27:DA:2053:G:O2'	27:DA:2054:A:H5'	2.01	0.59
27:DA:2579:C:H2'	27:DA:2580:U:H6	1.67	0.59
27:DA:827:U:H4'	27:DA:828:U:O2	2.02	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:384:G:H2'	1:CA:385:C:C6	2.37	0.59
9:AI:48:GLU:O	9:AI:50:LEU:N	2.36	0.59
8:AH:80:ILE:HG22	8:AH:80:ILE:O	2.02	0.59
12:CL:21:VAL:CG1	12:CL:21:VAL:O	2.49	0.59
34:DH:85:LYS:HD3	34:DH:133:VAL:HB	1.85	0.59
56:B7:5:TRP:HH2	56:B7:12:ARG:HH12	1.50	0.59
1:CA:1073:U:H2'	1:CA:1074:G:C8	2.35	0.59
27:DA:1341:U:H2'	27:DA:1397:U:O2'	2.02	0.59
27:DA:857:C:OP2	49:D0:77:ARG:NH2	2.35	0.59
27:DA:1678:G:N2	27:DA:1989:G:H1	2.01	0.59
42:BT:68:TYR:O	42:BT:69:GLY:C	2.40	0.59
52:B3:43:ILE:O	52:B3:47:VAL:HG23	2.01	0.59
1:AA:578:C:HO2'	1:AA:579:G:H8	1.50	0.59
3:AC:90:GLU:OE1	3:AC:93:LYS:HD2	2.03	0.59
27:DA:221:A:OP2	27:DA:221:A:H8	1.85	0.59
48:DZ:58:LEU:O	48:DZ:65:SER:HA	2.01	0.59
16:CP:20:VAL:HG22	16:CP:21:VAL:N	2.18	0.59
27:DA:2663:G:O2'	27:DA:2664:G:H5'	2.02	0.59
13:CM:31:LYS:HA	13:CM:34:LEU:CG	2.32	0.59
46:DX:64:LYS:NZ	46:DX:73:ARG:NH2	2.50	0.59
4:AD:59:ARG:HH21	4:AD:66:ARG:NH2	2.00	0.59
7:AG:15:ASP:H	7:AG:20:ASP:N	2.00	0.59
39:DQ:110:THR:HG23	39:DQ:113:GLN:HB2	1.84	0.59
27:DA:1771:C:H1'	27:DA:1786:A:C8	2.37	0.59
36:BN:46:VAL:HG13	36:BN:47:ALA:N	2.18	0.59
44:DV:75:PHE:CD2	44:DV:82:ARG:HG3	2.37	0.59
27:BA:782:A:O5'	27:BA:783:A:N1	2.35	0.59
9:CI:17:VAL:HG21	9:CI:80:GLY:HA3	1.83	0.59
50:D1:44:PRO:HB2	50:D1:46:LEU:HD13	1.83	0.59
27:DA:2073:C:O3'	30:DD:228:PRO:HB3	2.02	0.59
1:CA:1170:A:H2'	1:CA:1171:G:H5'	1.84	0.59
17:CQ:62:SER:CB	17:CQ:72:ARG:HG3	2.32	0.59
20:CT:41:ILE:HG13	20:CT:41:ILE:O	2.01	0.59
6:AF:6:VAL:HG13	6:AF:90:VAL:HG22	1.84	0.59
12:CL:100:GLY:HA2	12:CL:104:ALA:O	2.02	0.59
27:BA:841:A:H2'	27:BA:842:G:H8	1.67	0.59
40:BR:20:LEU:CD1	40:BR:24:GLN:HG3	2.32	0.59
41:BS:17:ARG:O	41:BS:18:ILE:HB	2.02	0.59
41:BS:93:LYS:O	41:BS:94:TYR:C	2.40	0.59
32:BF:25:PRO:HG3	32:BF:119:ARG:HA	1.85	0.59
47:BY:46:LYS:C	47:BY:47:LYS:HG3	2.21	0.59
1:AA:920:U:H5'	1:AA:921:U:OP2	2.02	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1014:U:H2'	27:DA:1015:G:H8	1.66	0.59
30:DD:60:ARG:CG	30:DD:86:PRO:HB3	2.30	0.59
47:DY:28:LYS:HB2	47:DY:37:VAL:HB	1.84	0.59
27:DA:630:G:N1	27:DA:634:C:N4	2.47	0.59
33:DG:31:VAL:HG22	33:DG:32:PRO:HD2	1.85	0.59
27:DA:2498:C:O2'	27:DA:2499:C:C5'	2.45	0.59
27:DA:947:G:N2	27:DA:971:C:C2	2.70	0.59
1:CA:1137:C:C4'	1:CA:1138:G:C2	2.79	0.59
47:DY:42:VAL:CB	47:DY:65:ALA:HB3	2.23	0.59
1:CA:392:G:H2'	1:CA:393:A:C8	2.37	0.59
27:DA:2749:A:H1'	34:DH:63:SER:OG	2.02	0.59
41:DS:17:ARG:HA	41:DS:20:ARG:NE	2.17	0.59
2:CB:200:ILE:CG2	2:CB:201:ILE:N	2.65	0.59
4:AD:30:LYS:C	4:AD:32:ALA:H	2.02	0.59
27:DA:173:G:H2'	27:DA:174:C:C6	2.37	0.59
36:DN:57:ALA:O	36:DN:58:ASP:C	2.40	0.59
36:DN:99:LEU:O	36:DN:103:VAL:HG23	2.03	0.59
35:BI:145:VAL:HG12	35:BI:146:ALA:N	2.18	0.59
1:AA:1442(A):G:N1	27:BA:2864:G:OP1	2.33	0.59
3:AC:113:ALA:CB	3:AC:114:PRO:HD3	2.30	0.59
27:DA:660:G:C2	27:DA:661:C:H1'	2.38	0.59
27:BA:1417:C:N4	27:BA:1581:G:H1	2.00	0.59
5:CE:141:GLN:HA	5:CE:143:ARG:NH2	2.18	0.59
1:AA:606:G:H2'	1:AA:631:G:N1	2.16	0.59
27:BA:1175:U:H4'	27:BA:1176:G:H3'	1.83	0.59
1:AA:189(K):U:H2'	1:AA:189(L):G:H8	1.64	0.59
1:AA:495:A:C1'	1:AA:496:A:H5'	2.32	0.59
27:BA:70:G:O2'	27:BA:114:U:H5	1.85	0.59
1:CA:14:U:H5'	1:CA:14:U:C6	2.37	0.59
5:CE:7:GLU:O	5:CE:8:GLU:HB3	2.03	0.59
27:BA:258:G:H2'	27:BA:259:G:H8	1.66	0.59
27:BA:347:A:H2'	27:BA:348:G:C8	2.37	0.59
18:CR:64:ARG:O	18:CR:67:ALA:N	2.35	0.59
1:CA:821:G:H2'	1:CA:822:C:C6	2.34	0.59
27:BA:1710:C:H3'	27:BA:1710:C:H6	1.66	0.59
36:DN:41:ASP:O	36:DN:42:TRP:O	2.21	0.59
27:DA:363:G:H2'	27:DA:363(A):A:C8	2.38	0.59
9:CI:52:ALA:HB3	9:CI:95:LYS:HE2	1.83	0.59
33:DG:119:GLY:O	33:DG:181:ARG:HB2	2.02	0.59
34:DH:38:SER:O	34:DH:40:GLU:N	2.34	0.59
27:BA:875:G:O2'	27:BA:876:C:H5'	2.02	0.59
1:AA:163:C:H2'	1:AA:164:U:H6	1.67	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DP:107:LYS:O	38:DP:109:GLY:N	2.36	0.59
27:BA:1762:A:O5'	27:BA:1762:A:H8	1.84	0.59
29:DC:24:GLU:HB3	29:DC:27:ARG:NH2	2.18	0.59
27:DA:651:G:H2'	27:DA:651:G:N3	2.17	0.59
19:CS:58:VAL:HG23	19:CS:58:VAL:O	2.01	0.59
35:BI:23:PRO:O	35:BI:26:ALA:HB3	2.02	0.59
27:BA:592:G:H1	27:BA:665:C:N4	1.99	0.59
38:BP:41:ARG:HG2	38:BP:41:ARG:HH21	1.65	0.59
32:BF:9:ILE:HG23	32:BF:13:SER:O	2.01	0.59
27:DA:200:U:H6	27:DA:200:U:C5'	2.08	0.59
1:CA:503:C:OP2	12:CL:113:SER:OG	2.16	0.59
53:B4:39:ARG:C	53:B4:40:ILE:HD12	2.23	0.59
27:BA:479:A:H4'	27:BA:480:A:OP1	2.02	0.59
43:BU:95:LEU:HD21	44:BV:13:ARG:HB2	1.83	0.59
32:DF:3:GLU:HB3	32:DF:20:LEU:O	2.01	0.59
30:DD:142:VAL:HG23	30:DD:192:THR:O	2.01	0.59
55:D6:19:ARG:CG	55:D6:20:ASN:H	2.15	0.59
27:DA:2443:C:H2'	27:DA:2444:G:C8	2.32	0.59
4:AD:196:LEU:CD1	4:AD:196:LEU:N	2.61	0.59
27:DA:1349:A:N6	27:DA:1598:C:N4	2.51	0.59
34:DH:85:LYS:HG2	34:DH:133:VAL:HB	1.84	0.59
27:BA:2585:U:H4'	27:BA:2586:C:O5'	2.01	0.59
27:BA:1997:G:O2'	27:BA:1998:G:H5'	2.02	0.59
1:CA:965:A:C4'	1:CA:966:G:OP1	2.50	0.59
1:CA:965:A:C2	1:CA:969:A:C2	2.91	0.59
1:AA:1152:A:OP1	10:AJ:68:HIS:CD2	2.56	0.59
27:DA:357:A:H2'	27:DA:358:U:C6	2.38	0.59
27:DA:2826:A:N3	27:DA:2826:A:H2'	2.16	0.59
27:DA:1655:A:C4'	31:DE:114:ALA:HA	2.31	0.59
55:B6:27:LYS:HB3	55:B6:29:ASN:OD1	2.02	0.59
33:DG:46:ALA:C	33:DG:82:LEU:HD11	2.23	0.59
27:DA:662:G:H2'	27:DA:663:G:C8	2.36	0.59
33:DG:60:LEU:HD13	33:DG:60:LEU:C	2.23	0.59
35:DI:79:ILE:HG22	35:DI:81:VAL:HG22	1.83	0.59
1:AA:936:C:H2'	1:AA:937:A:O4'	2.01	0.59
27:DA:2884:U:OP2	54:D5:43:HIS:CE1	2.55	0.59
1:AA:818:G:C2'	1:AA:819:A:H5''	2.32	0.59
27:DA:2469:A:N6	27:DA:2481:G:H1'	2.18	0.59
37:BO:117:LEU:HD23	37:BO:117:LEU:O	2.02	0.59
16:CP:20:VAL:HG21	16:CP:32:TYR:CG	2.37	0.59
1:CA:107:G:O2'	1:CA:108:G:H5'	2.02	0.59
27:DA:558:G:P	36:DN:111:PRO:HD2	2.42	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1702:G:C2'	27:DA:1703:G:O5'	2.51	0.59
1:CA:489:C:O2'	1:CA:490:G:H5'	2.02	0.59
51:B2:13:ALA:HA	51:B2:16:LEU:HD11	1.83	0.59
27:DA:896:A:C2	48:DZ:113:GLY:HA3	2.38	0.59
29:DC:20:TYR:CE1	29:DC:22:ILE:HD13	2.37	0.59
46:DX:31:HIS:ND1	46:DX:32:PRO:HD2	2.18	0.59
37:BO:59:LYS:CD	37:BO:89:ASN:OD1	2.50	0.59
1:AA:1417:G:H22	1:AA:1482:G:H2'	1.67	0.59
48:BZ:130:ARG:HH11	48:BZ:130:ARG:HG2	1.68	0.59
17:CQ:64:PRO:HA	17:CQ:70:ARG:HG2	1.83	0.59
1:AA:1323:G:H2'	1:AA:1324:A:C8	2.38	0.59
3:AC:73:PRO:C	3:AC:75:VAL:H	2.06	0.59
44:DV:32:THR:HG22	44:DV:32:THR:O	2.03	0.59
47:BY:7:VAL:CG2	47:BY:8:LYS:NZ	2.66	0.59
1:AA:910:C:O2'	1:AA:911:U:H5'	2.03	0.59
4:CD:11:LEU:C	4:CD:13:ARG:N	2.55	0.59
43:BU:112:ARG:NH2	44:BV:46:VAL:HG11	2.17	0.59
27:DA:2233:U:H2'	27:DA:2234:G:H8	1.68	0.59
42:BT:47:GLY:HA3	42:BT:64:ARG:O	2.01	0.59
42:BT:91:ARG:HA	42:BT:117:ASP:N	2.16	0.59
27:DA:869:G:O2'	27:DA:870:A:H5'	2.03	0.59
27:DA:872:A:H61	27:DA:905:U:H3	1.51	0.59
31:DE:59:VAL:O	31:DE:60:ASN:HB3	2.02	0.59
55:D6:8:LYS:HE3	55:D6:8:LYS:O	2.03	0.59
27:DA:196:A:H61	27:DA:831:G:H21	1.51	0.59
27:DA:2571:C:H5''	27:DA:2572:A:H5'	1.84	0.59
30:BD:35:LYS:HZ3	30:BD:102:LYS:C	2.05	0.59
47:BY:39:VAL:O	47:BY:40:GLU:CG	2.48	0.59
8:AH:100:ILE:HB	8:AH:125:ARG:HH12	1.67	0.59
37:DO:25:LEU:HB2	37:DO:38:VAL:O	2.03	0.59
1:AA:299:G:H2'	1:AA:300:A:H8	1.64	0.59
17:CQ:16:GLN:O	17:CQ:17:LYS:HB2	2.01	0.59
32:DF:157:VAL:HA	32:DF:176:LEU:O	2.03	0.59
2:CB:54:THR:HG23	2:CB:199:TYR:HB3	1.84	0.59
27:BA:2068:U:H5''	27:BA:2068:U:H6	1.67	0.59
1:AA:479:C:H2'	1:AA:480:U:C6	2.38	0.59
1:CA:1066:C:H2'	1:CA:1067:A:C8	2.36	0.59
12:AL:31:ARG:HG2	12:AL:32:GLY:N	2.17	0.59
10:AJ:4:ILE:HG12	10:AJ:100:THR:HG21	1.84	0.59
27:DA:768:G:O2'	27:DA:1379:A:N6	2.36	0.59
27:BA:2350:C:C5'	57:B8:42:ARG:HD3	2.32	0.59
36:BN:121:LYS:HB3	36:BN:123:TYR:HE1	1.67	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:939:G:C5'	7:AG:102:ARG:HH12	2.16	0.59
42:BT:68:TYR:N	42:BT:68:TYR:CD2	2.69	0.59
5:AE:139:LEU:HA	5:AE:142:LEU:CD1	2.32	0.59
10:CJ:4:ILE:HD12	10:CJ:74:ILE:CD1	2.33	0.59
47:BY:2:ARG:C	47:BY:4:LYS:H	2.05	0.59
27:DA:479:A:N1	27:DA:506:G:N2	2.51	0.59
32:BF:40:GLN:O	32:BF:44:ARG:HG2	2.02	0.59
9:CI:47:LEU:C	9:CI:49:PRO:HD2	2.21	0.59
1:AA:1228:C:O3'	13:AM:116:THR:HA	2.03	0.59
27:DA:2543:G:H2'	27:DA:2544:G:H8	1.68	0.59
11:CK:103:LEU:HD13	11:CK:104:GLN:N	2.17	0.59
27:DA:2842:G:C2'	27:DA:2843:G:H5'	2.32	0.59
36:BN:58:ASP:C	36:BN:60:ILE:H	2.03	0.59
17:CQ:5:VAL:C	17:CQ:6:LEU:HD12	2.22	0.59
27:DA:2283:C:C2'	27:DA:2284:C:H5'	2.32	0.59
6:AF:80:ARG:C	6:AF:82:ARG:H	2.05	0.59
36:DN:21:LYS:HD3	36:DN:26:LEU:HD13	1.85	0.59
7:CG:59:LEU:C	7:CG:59:LEU:HD23	2.23	0.59
1:AA:583:A:H61	1:AA:758:G:H1'	1.67	0.59
27:BA:1754:C:C6	42:BT:96:ARG:NH1	2.70	0.59
48:BZ:8:TYR:CE1	48:BZ:60:LEU:HD12	2.38	0.59
1:AA:115:G:O2'	1:AA:116:A:OP2	2.19	0.59
27:BA:2384:G:H2'	27:BA:2386:C:OP1	2.03	0.59
35:DI:113:ARG:O	35:DI:130:TYR:HD1	1.86	0.59
1:CA:855:G:O2'	1:CA:856:C:H5'	2.03	0.59
27:DA:1387:C:H2'	27:DA:1388:G:H8	1.68	0.59
1:AA:929:G:O2'	1:AA:930:C:H5'	2.03	0.59
27:DA:2772:C:H2'	27:DA:2773:C:H6	1.67	0.59
27:BA:1387:C:O5'	27:BA:1387:C:H6	1.85	0.59
27:BA:1594:G:H3'	27:BA:1595:G:H8	1.68	0.59
35:DI:18:VAL:HG12	35:DI:18:VAL:O	2.01	0.59
1:CA:1318:A:O2'	19:CS:37:ARG:HB2	2.03	0.59
1:CA:971:G:H5''	1:CA:972:C:C5'	2.31	0.59
40:BR:21:TYR:HB3	40:BR:47:PHE:CD1	2.37	0.59
27:BA:2680:C:H42	27:BA:2727:G:H1	1.51	0.59
36:DN:87:LEU:O	36:DN:87:LEU:HD23	2.03	0.59
5:AE:43:LEU:HD21	5:AE:132:ALA:HB1	1.83	0.59
43:DU:21:ALA:O	43:DU:24:TYR:CD1	2.56	0.59
43:DU:39:LEU:O	43:DU:40:PHE:C	2.41	0.59
27:DA:993:G:OP1	43:DU:50:ARG:NH2	2.35	0.59
55:D6:15:GLU:CD	55:D6:43:CYS:SG	2.81	0.59
38:DP:99:LEU:HG	38:DP:102:ARG:NH1	2.17	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:461:C:O2'	27:DA:462:C:H5'	2.03	0.59
27:DA:1668:A:H5'	27:DA:1669:A:C5	2.37	0.59
27:DA:803:U:H6	27:DA:803:U:O5'	1.84	0.59
48:BZ:18:ARG:HH11	48:BZ:81:ARG:NH2	2.01	0.59
27:BA:125:G:N2	56:B7:48:LYS:HZ2	1.99	0.59
31:BE:35:GLN:HG3	31:BE:36:ARG:O	2.02	0.59
32:DF:187:VAL:CB	38:DP:7:ARG:HH21	2.15	0.59
41:BS:85:VAL:H	41:BS:106:ARG:CB	2.10	0.59
15:AO:17:ARG:NH1	15:AO:77:ARG:HH12	2.00	0.59
27:DA:2172:U:C1'	27:DA:2173:A:OP1	2.47	0.59
12:AL:74:LEU:HD21	12:AL:104:ALA:HB2	1.85	0.59
12:AL:35:THR:HG21	12:AL:62:GLU:OE2	2.03	0.59
38:BP:149:GLU:HA	38:BP:149:GLU:OE2	2.03	0.59
1:CA:1498:U:H2'	22:CV:5:U:OP1	2.03	0.59
2:AB:63:MET:CB	2:AB:225:ALA:HB1	2.29	0.59
1:AA:826:C:H2'	1:AA:827:U:H6	1.67	0.59
51:B2:32:LEU:HB2	51:B2:53:LEU:HD12	1.85	0.59
37:DO:86:ILE:N	37:DO:86:ILE:HD12	2.18	0.59
37:DO:78:ARG:HH21	42:DT:103:ARG:NH2	2.00	0.59
25:CY:66:A:H2'	25:CY:67:C:C6	2.38	0.59
39:DQ:55:VAL:CG1	39:DQ:56:ARG:H	2.13	0.59
2:AB:178:ARG:HH21	8:AH:68:ARG:NH2	2.01	0.59
27:DA:2010:G:H5''	45:DW:42:ARG:HB2	1.83	0.59
27:DA:1203:G:H3'	27:DA:1204:A:H5''	1.85	0.59
47:BY:68:HIS:HB2	47:BY:71:LYS:HE2	1.85	0.59
52:D3:4:LEU:HD23	52:D3:57:GLU:O	2.03	0.59
34:DH:156:ALA:C	34:DH:158:HIS:H	2.05	0.59
27:BA:542:C:C2'	27:BA:543:C:OP1	2.51	0.59
27:DA:1700:A:O2'	27:DA:1701:A:O5'	2.19	0.59
9:AI:13:ALA:HB2	9:AI:68:GLY:HA3	1.84	0.59
11:AK:84:VAL:C	11:AK:85:ARG:HG2	2.23	0.59
44:BV:1:MET:CE	44:BV:43:GLU:HG2	2.32	0.59
28:BB:105:A:O2'	28:BB:106:G:H5'	2.02	0.59
1:AA:288:A:H2'	1:AA:289:G:H4'	1.84	0.59
1:AA:312:C:H2'	1:AA:313:A:H8	1.67	0.59
1:AA:313:A:H2'	1:AA:314:C:C6	2.37	0.59
44:DV:6:LYS:O	44:DV:37:VAL:HG21	2.02	0.59
27:DA:678:C:O2'	27:DA:679:C:H5'	2.02	0.59
27:BA:304:G:H2'	27:BA:305:U:H6	1.65	0.59
8:AH:74:PRO:HG2	8:AH:75:ARG:H	1.67	0.59
1:CA:908:A:O2'	1:CA:909:A:H5'	2.02	0.59
27:DA:1467:C:H5	27:DA:1546:C:H2'	1.68	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:AN:25:VAL:HB	14:AN:38:GLY:O	2.03	0.59
7:AG:11:GLN:HG3	7:AG:12:LEU:H	1.67	0.59
11:AK:91:ARG:HD2	11:AK:92:GLU:N	2.17	0.59
2:CB:130:ARG:HE	2:CB:130:ARG:HA	1.67	0.59
3:AC:164:ARG:O	3:AC:165:THR:HB	2.03	0.59
27:BA:592:G:N3	57:B8:4:MET:HE2	2.18	0.59
38:BP:48:PRO:CG	38:BP:49:ARG:N	2.65	0.59
40:BR:49:ASP:OD1	40:BR:95:THR:HG22	2.03	0.59
37:BO:16:ALA:CB	37:BO:52:VAL:HG11	2.31	0.59
46:BX:40:LYS:O	46:BX:43:VAL:HB	2.03	0.59
53:B4:48:ILE:HG22	53:B4:50:THR:HG23	1.83	0.59
1:CA:1348:U:OP1	9:CI:109:VAL:HA	2.02	0.59
32:BF:63:LYS:HG2	32:BF:65:TRP:O	2.03	0.59
52:B3:30:ARG:HD3	52:B3:33:GLN:NE2	2.18	0.59
27:DA:2494:G:H2'	27:DA:2495:G:O5'	2.03	0.59
36:DN:118:LYS:C	36:DN:120:LEU:H	2.05	0.59
27:DA:530:G:N7	27:DA:2022:U:H5''	2.18	0.59
27:DA:969:U:H2'	27:DA:970:C:C6	2.38	0.59
27:DA:675:A:H4'	32:DF:67:GLN:OE1	2.02	0.59
27:DA:2018:G:H21	43:DU:34:LYS:HZ2	1.51	0.59
34:BH:43:VAL:HB	34:BH:51:ARG:O	2.03	0.59
12:CL:98:VAL:HG12	12:CL:101:VAL:HG21	1.83	0.59
42:DT:83:ILE:CG1	42:DT:84:GLN:H	2.12	0.59
34:DH:85:LYS:CD	34:DH:133:VAL:HB	2.32	0.59
32:DF:187:VAL:HG12	38:DP:7:ARG:NH2	2.17	0.59
1:AA:722:A:O2'	1:AA:723:U:H2'	2.03	0.59
37:BO:35:VAL:HA	37:BO:62:VAL:HG12	1.84	0.59
37:BO:7:TYR:CE2	37:BO:44:LYS:HG3	2.37	0.59
1:CA:1060:C:C5'	14:CN:45:ARG:HH22	2.14	0.59
49:B0:17:GLN:OE1	49:B0:17:GLN:N	2.36	0.59
1:CA:1260:C:C6	1:CA:1260:C:H3'	2.38	0.59
38:BP:111:ARG:HA	38:BP:128:HIS:CD2	2.38	0.59
1:CA:923:A:OP1	5:CE:21:ALA:HB2	2.02	0.59
57:B8:32:LEU:HB3	57:B8:36:LYS:NZ	2.16	0.59
27:DA:848:G:O2'	27:DA:849:A:H5'	2.03	0.59
1:AA:932:C:C5	7:AG:3:ARG:HD3	2.37	0.59
27:DA:271(H):G:H1	27:DA:271(P):C:N4	2.00	0.59
31:DE:4:ILE:HG12	31:DE:28:ALA:CB	2.33	0.59
42:DT:104:ASN:O	42:DT:105:LEU:HD23	2.03	0.59
42:DT:109:GLU:HG2	42:DT:112:ARG:NH1	2.17	0.59
15:AO:54:ARG:NH1	15:AO:58:MET:CE	2.65	0.59
27:BA:271(T):C:O2'	27:BA:271(U):G:H5'	2.03	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DR:100:LEU:HD21	40:DR:113:LEU:HD22	1.85	0.59
31:BE:72:VAL:O	31:BE:73:GLU:C	2.41	0.59
24:AX:73:A:H5'	24:AX:74:C:OP1	2.01	0.59
4:AD:54:TYR:HE1	4:AD:209:ARG:HD2	1.66	0.59
27:BA:2047:U:O2'	27:BA:2048:G:H5''	2.03	0.59
27:BA:519:U:H2'	27:BA:520:G:H8	1.67	0.59
1:AA:434:U:H2'	1:AA:435:C:C6	2.38	0.59
27:BA:2118:U:O2'	27:BA:2119:A:C5'	2.51	0.59
27:BA:706:A:C2	27:BA:707:G:H1'	2.38	0.59
1:CA:1477:C:O2'	1:CA:1478:C:H5'	2.03	0.59
27:BA:2770:G:H5'	27:BA:2771:C:OP2	2.03	0.59
12:CL:123:LYS:O	12:CL:125:ALA:N	2.35	0.59
36:DN:42:TRP:HA	36:DN:42:TRP:CE3	2.37	0.59
1:AA:93:G:N3	1:AA:93:G:H2'	2.17	0.59
34:BH:71:LEU:N	34:BH:74:ASN:HD22	2.01	0.59
40:DR:75:LEU:O	40:DR:75:LEU:HD22	2.03	0.59
41:DS:67:ARG:HG2	41:DS:67:ARG:HH11	1.68	0.59
19:CS:52:TYR:HB2	19:CS:57:HIS:CE1	2.38	0.59
4:CD:61:LYS:NZ	4:CD:62:GLN:NE2	2.51	0.59
43:BU:92:ARG:CG	44:BV:11:GLN:NE2	2.65	0.59
17:AQ:63:ARG:HG2	17:AQ:64:PRO:HD2	1.85	0.59
27:DA:447:A:N7	27:DA:454:A:N6	2.50	0.59
20:AT:26:ASN:ND2	20:AT:26:ASN:N	2.41	0.59
27:BA:1022:G:O2'	27:BA:1024:G:N7	2.35	0.59
9:AI:96:LEU:HD11	9:AI:102:LEU:HB2	1.84	0.59
9:AI:7:THR:H	9:AI:83:ARG:HD2	1.68	0.59
1:AA:1057:G:H5''	3:AC:154:SER:HB2	1.85	0.59
1:AA:1363(A):A:H1'	1:AA:1365:G:N7	2.17	0.59
10:AJ:54:PHE:CD1	10:AJ:55:LYS:HE3	2.38	0.59
16:AP:26:ARG:NH1	16:AP:31:LYS:HB3	2.18	0.59
2:AB:140:HIS:HA	2:AB:143:GLU:HG3	1.84	0.59
2:AB:115:LEU:HD13	2:AB:145:LEU:HB3	1.84	0.59
27:BA:1644:C:O2'	27:BA:1645:G:H5'	2.02	0.59
1:AA:410:G:OP2	4:AD:25:ARG:HG3	2.03	0.59
6:AF:86:ARG:O	6:AF:87:ARG:HG2	2.03	0.59
1:CA:1071:C:H2'	1:CA:1072:G:C8	2.38	0.59
27:BA:2262:U:OP2	49:B0:16:SER:HB2	2.03	0.59
27:BA:2577:A:H5''	27:BA:2578:G:H5'	1.84	0.59
27:DA:2870:C:H2'	27:DA:2871:C:C5'	2.27	0.59
27:DA:151:C:O2'	27:DA:152:G:H5'	2.02	0.59
12:AL:114:ARG:HD2	12:AL:119:THR:HG21	1.84	0.59
34:DH:150:ALA:C	34:DH:152:ARG:H	2.06	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2515:C:O2'	27:BA:2516:G:H5'	2.03	0.59
37:DO:65:THR:HA	37:DO:82:ASN:HD22	1.67	0.59
34:BH:86:GLU:CB	34:BH:132:ARG:NH1	2.65	0.59
25:CY:18:G:H22	25:CY:55:C:H42	1.49	0.59
25:CY:27:C:H2'	25:CY:28:G:H8	1.68	0.59
10:AJ:48:THR:HG23	10:AJ:62:HIS:HB3	1.84	0.59
27:DA:495:G:H21	45:DW:61:ASN:ND2	2.01	0.59
29:BC:49:ILE:CD1	29:BC:49:ILE:H	2.13	0.59
19:AS:12:ASP:O	19:AS:16:LEU:HD13	2.03	0.59
37:BO:13:ASN:HD21	37:BO:96:THR:CA	2.16	0.59
47:BY:67:LEU:HD12	47:BY:71:LYS:HE3	1.85	0.59
27:DA:414:C:O2'	27:DA:415:A:H5'	2.02	0.59
25:CY:37:U:H2'	25:CY:38:U:H5''	1.85	0.59
30:BD:131:LEU:N	30:BD:131:LEU:HD12	2.17	0.59
27:BA:1848:A:H2'	27:BA:1849:G:C8	2.38	0.59
27:DA:1042:G:H1'	27:DA:1114:G:H22	1.67	0.59
31:BE:16:ARG:NH1	31:BE:16:ARG:HG3	2.18	0.59
25:AY:18:G:H5'	25:AY:19:U:C5	2.38	0.59
48:BZ:109:GLY:HA3	48:BZ:144:GLU:OE1	2.03	0.59
8:CH:89:PRO:HA	8:CH:92:ARG:HH11	1.67	0.59
6:CF:96:PRO:HB3	18:CR:30:ASP:CG	2.23	0.59
27:DA:2533:A:O5'	27:DA:2533:A:H8	1.86	0.59
25:CY:42:G:H2'	25:CY:43:C:H5'	1.83	0.59
1:AA:655:A:O2'	1:AA:656:C:H5'	2.03	0.59
1:CA:1441:G:H4'	1:CA:1442:G:C8	2.38	0.59
2:CB:168:THR:HG23	2:CB:192:SER:OG	2.02	0.59
30:DD:223:GLY:O	30:DD:225:ALA:N	2.36	0.59
27:BA:2626:C:O2'	27:BA:2627:G:H5'	2.02	0.59
31:BE:112:GLY:O	31:BE:160:TYR:N	2.36	0.59
48:DZ:120:HIS:C	48:DZ:122:ASP:N	2.55	0.59
3:CC:186:PHE:CZ	3:CC:188:LEU:HD22	2.38	0.59
1:CA:484:G:H4'	1:CA:485:G:O5'	2.02	0.59
6:CF:98:LEU:HD12	6:CF:98:LEU:N	2.16	0.59
31:BE:56:PRO:HD2	31:BE:58:ARG:HG3	1.83	0.59
27:DA:199:A:N1	27:DA:2433:A:H2'	2.17	0.59
38:BP:33:ARG:O	38:BP:34:GLY:C	2.41	0.59
27:BA:1191:G:OP1	38:BP:35:HIS:CE1	2.56	0.59
1:CA:1321:C:C5	1:CA:1322:C:H2'	2.37	0.59
38:BP:16:ARG:HD3	38:BP:18:ARG:N	2.16	0.59
27:BA:2327:A:H2'	27:BA:2328:A:H8	1.60	0.59
27:DA:985:C:O2'	27:DA:986:C:H5'	2.03	0.59
43:DU:55:ARG:CA	43:DU:58:ARG:HB2	2.20	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DU:89:GLU:HG3	44:DV:50:PRO:HG3	1.83	0.59
41:BS:77:ALA:O	41:BS:80:LEU:N	2.35	0.59
30:DD:92:ILE:H	30:DD:92:ILE:HD13	1.68	0.59
11:AK:41:THR:HG21	11:AK:71:LYS:HB2	1.84	0.59
27:BA:2317:C:H2'	27:BA:2318:G:C5'	2.24	0.59
27:DA:2551:C:H2'	27:DA:2552:U:C6	2.38	0.59
27:DA:2612:C:C4	27:DA:2613:U:H5	2.20	0.59
31:DE:81:ILE:O	31:DE:82:ARG:HB2	2.03	0.59
40:DR:67:LEU:HD11	40:DR:76:VAL:HG21	1.84	0.59
56:B7:8:ASN:HD21	56:B7:10:ARG:HB3	1.68	0.59
30:BD:231:HIS:HD2	30:BD:249:PRO:HG3	1.67	0.59
46:BX:60:ARG:NH1	56:B7:47:ARG:NH2	2.50	0.59
1:AA:389:A:H2'	1:AA:390:C:H5'	1.84	0.59
1:CA:1002:G:N3	1:CA:1002:G:H2'	2.18	0.59
1:AA:751:U:H4'	15:AO:24:SER:CA	2.27	0.59
14:CN:7:ILE:HG22	14:CN:28:GLY:HA3	1.83	0.59
14:CN:3:ARG:O	14:CN:7:ILE:HG23	2.03	0.59
1:CA:1309:G:O6	1:CA:1328:C:N3	2.36	0.59
27:BA:553:G:O2'	27:BA:554:U:H5'	2.03	0.59
27:BA:1484:G:H3'	27:BA:1485:G:C5'	2.27	0.59
39:DQ:1:MET:CE	39:DQ:44:ALA:HB1	2.33	0.59
29:DC:37:PHE:O	29:DC:39:GLU:N	2.35	0.59
45:DW:73:ALA:HB3	45:DW:106:ILE:HD11	1.85	0.59
1:AA:38:G:C2	1:AA:397:A:C2	2.90	0.59
27:BA:88:G:N3	27:BA:88:G:H2'	2.17	0.59
13:AM:3:ARG:O	13:AM:4:ILE:HG13	2.03	0.59
13:AM:65:LYS:HB3	13:AM:70:LEU:HB2	1.85	0.59
27:DA:1504:C:H2'	27:DA:1505:C:C5'	2.28	0.59
7:AG:140:ASP:HA	7:AG:143:ARG:HH12	1.66	0.59
37:DO:35:VAL:HG21	37:DO:69:ILE:HD13	1.83	0.59
25:CY:24:C:H2'	25:CY:25:A:H8	1.68	0.59
45:DW:51:LEU:O	45:DW:54:ALA:N	2.36	0.59
1:CA:874:G:O2'	1:CA:875:C:H6	1.85	0.59
27:BA:1931:U:H2'	27:BA:1932:A:C8	2.38	0.59
24:CX:12:G:H1'	27:DA:1923:U:O2'	2.03	0.59
27:BA:2017:U:O2	54:B5:10:LYS:HB2	2.02	0.59
27:DA:2697:G:H1	27:DA:2710:C:H42	1.49	0.59
1:AA:113:G:H1'	1:AA:354:G:H5'	1.84	0.59
9:CI:114:TYR:CD2	9:CI:114:TYR:N	2.65	0.59
46:DX:5:TYR:N	46:DX:5:TYR:HD1	2.01	0.59
1:AA:1022:G:H2'	1:AA:1023:G:C8	2.38	0.59
1:AA:1030(D):A:H2'	1:AA:1031:G:H5'	1.85	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:B1:70:VAL:HG12	50:B1:71:TYR:N	2.18	0.59
3:CC:186:PHE:HD1	3:CC:198:VAL:O	1.84	0.59
54:D5:56:LYS:HG3	54:D5:59:GLU:OE1	2.03	0.59
43:BU:85:LYS:HD3	43:BU:117:GLN:HE22	1.67	0.59
27:DA:262:A:H2'	27:DA:263:C:H6	1.67	0.59
43:BU:35:ALA:O	43:BU:39:LEU:HG	2.03	0.59
1:CA:362:G:O5'	1:CA:362:G:H8	1.85	0.59
27:DA:249:C:H2'	27:DA:249:C:O2	2.01	0.59
25:CY:12:C:H2'	25:CY:13:A:O4'	2.03	0.59
1:CA:1221:G:H4'	19:CS:53:ASN:O	2.03	0.58
33:BG:112:PRO:C	33:BG:113:ARG:NH1	2.50	0.58
1:AA:257:G:H2'	1:AA:258:G:H8	1.68	0.58
27:DA:1013:C:O2'	27:DA:1014:U:H5'	2.01	0.58
27:DA:42:G:H1	27:DA:436:C:N4	2.01	0.58
1:CA:525:C:H5''	12:CL:88:LYS:NZ	2.18	0.58
51:D2:21:LEU:HD13	51:D2:64:LEU:HA	1.85	0.58
27:DA:863:A:H2'	27:DA:864:G:H8	1.64	0.58
27:DA:902:C:H2'	27:DA:903:C:H6	1.68	0.58
11:AK:38:ASN:HD22	11:AK:38:ASN:N	2.01	0.58
7:CG:109:ASN:HA	7:CG:119:ARG:NH1	2.18	0.58
38:DP:87:ASP:C	38:DP:89:ALA:H	2.07	0.58
27:DA:2015:A:C2	54:D5:6:VAL:HG22	2.37	0.58
1:CA:1302:U:H5	13:CM:17:VAL:HG22	1.67	0.58
30:BD:75:ILE:O	30:BD:118:VAL:HG23	2.03	0.58
1:AA:976:G:P	14:AN:32:SER:H	2.26	0.58
2:AB:17:PHE:CD1	2:AB:44:LEU:HD21	2.37	0.58
40:DR:77:ARG:C	40:DR:79:LEU:N	2.57	0.58
42:DT:30:VAL:HG21	42:DT:83:ILE:HG13	1.84	0.58
19:AS:61:TYR:O	19:AS:62:ILE:CB	2.51	0.58
27:BA:1811:G:O2'	27:BA:1812:A:H5'	2.02	0.58
15:AO:25:THR:HG21	15:AO:70:LEU:HB2	1.84	0.58
27:BA:1479:G:C4	27:BA:1480:G:C8	2.91	0.58
14:CN:24:CYS:H	14:CN:33:VAL:HG11	1.68	0.58
10:AJ:4:ILE:HG12	10:AJ:100:THR:HG22	1.84	0.58
1:CA:1310:G:H5'	13:CM:77:ASN:ND2	2.17	0.58
48:DZ:75:LEU:HD13	48:DZ:82:PRO:HA	1.85	0.58
29:BC:214:VAL:O	29:BC:215:THR:C	2.40	0.58
35:BI:101:LEU:HD12	35:BI:105:HIS:HB2	1.85	0.58
27:BA:1826:G:H4'	30:BD:242:ARG:CZ	2.33	0.58
33:DG:76:SER:CB	33:DG:83:ARG:HB2	2.33	0.58
32:BF:112:MET:O	32:BF:115:ALA:HB3	2.03	0.58
31:BE:134:ILE:O	31:BE:134:ILE:CG1	2.46	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:826:C:C2	1:AA:827:U:C5	2.91	0.58
27:DA:2667:C:H1'	34:DH:109:PHE:HD2	1.68	0.58
39:BQ:52:VAL:HA	39:BQ:55:VAL:HG13	1.84	0.58
27:DA:1484:G:H5'	27:DA:1485:G:OP2	2.03	0.58
27:DA:2141:G:O2'	27:DA:2142:C:H5'	2.03	0.58
21:AU:9:ARG:NH1	21:AU:22:ARG:HG3	2.18	0.58
3:AC:84:ILE:HD13	3:AC:88:ARG:NH2	2.17	0.58
27:BA:200:U:H5'	27:BA:200:U:C6	2.30	0.58
45:DW:23:LEU:HD21	45:DW:39:THR:HG21	1.84	0.58
7:AG:26:PHE:HB2	7:AG:62:PHE:HZ	1.67	0.58
1:CA:147:G:H1	1:CA:175:C:H42	1.49	0.58
27:BA:2778:A:H4'	27:BA:2779:U:OP2	2.03	0.58
27:DA:2092:U:C4	27:DA:2226:C:OP2	2.56	0.58
1:AA:848:C:H2'	1:AA:849:C:H6	1.66	0.58
2:CB:144:ARG:HA	2:CB:147:LYS:HB3	1.83	0.58
1:CA:334:C:O2'	1:CA:335:C:H5'	2.03	0.58
27:BA:2022:U:O2'	27:BA:2617:C:H5'	2.03	0.58
1:CA:793:U:O2	1:CA:1516:G:H4'	2.03	0.58
27:DA:1438:U:H5'	27:DA:1516:C:O2'	2.03	0.58
8:CH:20:TYR:HA	8:CH:65:TYR:CE2	2.37	0.58
27:DA:1050:A:O2'	27:DA:1051:G:H8	1.85	0.58
54:B5:31:VAL:HB	54:B5:32:PRO:HD2	1.85	0.58
25:AY:51:G:H2'	25:AY:52:G:H8	1.68	0.58
43:BU:20:LEU:HB3	43:BU:39:LEU:HD11	1.84	0.58
27:BA:659:C:O2'	32:BF:101:LEU:HD12	2.03	0.58
1:CA:37:U:H2'	1:CA:38:G:H8	1.68	0.58
27:DA:1810:A:H2'	27:DA:1811:G:O4'	2.03	0.58
2:AB:217:ARG:O	2:AB:221:LEU:HD23	2.03	0.58
27:BA:246:C:N4	57:B8:8:LYS:HG2	2.17	0.58
27:BA:673:C:C6	27:BA:673:C:H5''	2.37	0.58
44:BV:2:PHE:O	44:BV:14:VAL:O	2.22	0.58
42:BT:79:HIS:O	42:BT:81:PRO:CD	2.40	0.58
27:DA:918:A:C2	27:DA:919:G:H1'	2.38	0.58
31:DE:55:ASN:O	31:DE:57:LYS:N	2.35	0.58
27:DA:2403:C:N3	27:DA:2415:G:C2	2.71	0.58
36:BN:62:VAL:HG11	36:BN:67:LEU:CG	2.33	0.58
45:BW:13:SER:O	45:BW:16:LYS:HB2	2.02	0.58
9:AI:96:LEU:CD1	9:AI:102:LEU:HB2	2.33	0.58
1:AA:1060:C:H5'	14:AN:45:ARG:NH2	2.18	0.58
42:DT:60:THR:O	42:DT:61:PHE:HB3	2.01	0.58
19:AS:32:LYS:HB3	19:AS:57:HIS:CE1	2.38	0.58
16:AP:20:VAL:HG22	16:AP:21:VAL:N	2.17	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DS:17:ARG:HA	41:DS:20:ARG:CZ	2.33	0.58
27:BA:2377:A:H4'	41:BS:107:GLU:HB3	1.84	0.58
15:CO:82:ILE:O	15:CO:82:ILE:HD13	2.03	0.58
47:BY:88:LYS:O	47:BY:90:LEU:HG	2.03	0.58
27:DA:1655:A:H3'	27:DA:1656:C:H6	1.68	0.58
12:AL:119:THR:CG2	12:AL:120:LYS:N	2.65	0.58
3:CC:34:LEU:HD23	3:CC:35:GLU:N	2.18	0.58
1:CA:353:A:H5'	1:CA:353:A:H8	1.68	0.58
54:D5:45:VAL:O	54:D5:46:CYS:C	2.41	0.58
27:DA:2830:G:O2'	27:DA:2831:G:H5'	2.03	0.58
1:AA:851:G:H2'	1:AA:852:G:H8	1.68	0.58
32:DF:167:ALA:HB1	32:DF:173:VAL:CG1	2.33	0.58
34:DH:157:TYR:O	34:DH:158:HIS:HB2	2.03	0.58
27:DA:1472:A:H2'	27:DA:1473:G:O4'	2.03	0.58
13:CM:88:ARG:HA	13:CM:98:VAL:HG12	1.84	0.58
12:AL:68:PRO:HG3	12:AL:96:HIS:CD2	2.38	0.58
27:BA:519:U:H2'	27:BA:520:G:C8	2.38	0.58
32:BF:46:ARG:HB3	32:BF:48:THR:CG2	2.34	0.58
27:BA:406:G:H1	27:BA:421:U:H3	1.51	0.58
36:DN:30:ILE:HG23	36:DN:52:VAL:HG11	1.85	0.58
50:B1:64:ALA:HA	50:B1:67:ILE:CD1	2.33	0.58
1:AA:563:A:H2'	1:AA:563:A:N3	2.19	0.58
1:AA:1028:C:H42	1:AA:1034:G:H21	1.50	0.58
53:D4:44:CYS:SG	53:D4:44:CYS:O	2.61	0.58
1:CA:1469:G:H2'	1:CA:1470:G:C8	2.38	0.58
27:DA:1631(A):A:O2'	27:DA:1632:A:H5'	2.03	0.58
1:AA:574:A:N3	1:AA:883:C:H1'	2.18	0.58
24:AX:58:A:H4'	24:AX:59:A:OP1	2.03	0.58
11:CK:125:PHE:H	11:CK:125:PHE:HD1	1.51	0.58
1:AA:1255:G:O3'	1:AA:1258:G:H1'	2.03	0.58
1:AA:1426:C:H2'	1:AA:1427:U:C6	2.37	0.58
45:BW:68:ARG:HH12	45:BW:111:HIS:CD2	2.21	0.58
27:BA:607:U:P	32:BF:103:LYS:HG3	2.42	0.58
38:BP:59:LEU:CA	38:BP:61:ARG:CZ	2.55	0.58
32:BF:20:LEU:HD13	32:BF:203:GLN:NE2	2.16	0.58
47:BY:77:PRO:O	47:BY:78:ALA:HB2	2.02	0.58
30:DD:241:PRO:O	30:DD:242:ARG:C	2.40	0.58
53:B4:40:ILE:HG23	53:B4:59:VAL:HG21	1.85	0.58
47:BY:46:LYS:HE2	47:BY:47:LYS:HE3	1.84	0.58
17:AQ:69:LYS:C	17:AQ:70:ARG:HD2	2.24	0.58
27:DA:399:G:O2'	27:DA:400:G:H5'	2.04	0.58
42:BT:65:LYS:HG3	42:BT:66:VAL:N	2.19	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DU:76:TYR:C	43:DU:78:THR:H	2.07	0.58
43:DU:95:LEU:HD13	44:DV:4:ILE:HG23	1.86	0.58
51:D2:49:LYS:O	51:D2:52:ASP:HB2	2.03	0.58
27:DA:862:G:H21	28:DB:101:G:H1'	1.67	0.58
27:DA:627:A:N6	38:DP:84:ASN:HD21	2.00	0.58
27:DA:531:C:C5	27:DA:2035:G:C2	2.92	0.58
1:AA:530:G:O2'	1:AA:531:U:OP2	2.19	0.58
27:DA:2334:G:O2'	41:DS:18:ILE:HG21	2.03	0.58
1:CA:189(D):C:H2'	1:CA:189(E):U:O4'	2.02	0.58
27:BA:786:C:C4	27:BA:787:U:C5	2.90	0.58
27:BA:2756:U:H5''	58:B9:19:ARG:HB3	1.86	0.58
46:DX:12:VAL:CG2	46:DX:13:LEU:H	1.89	0.58
1:AA:460:G:O6	1:AA:470:C:H5''	2.02	0.58
27:BA:1315:C:C2'	27:BA:1316:U:H5'	2.33	0.58
1:CA:232:G:H2'	1:CA:233:C:C6	2.39	0.58
20:CT:79:ARG:O	20:CT:80:ARG:C	2.42	0.58
1:AA:1424:C:N4	1:AA:1476:G:H1	1.98	0.58
27:BA:2171:A:O2'	27:BA:2172:U:O5'	2.19	0.58
36:DN:16:ILE:HG23	36:DN:54:VAL:HG23	1.86	0.58
56:D7:12:ARG:HD3	56:D7:46:VAL:HG21	1.84	0.58
1:AA:489:C:H2'	1:AA:490:G:H8	1.68	0.58
57:B8:37:SER:OG	57:B8:39:LYS:HB3	2.04	0.58
33:DG:126:ASP:C	33:DG:128:ARG:H	2.06	0.58
1:AA:1330:U:OP1	13:AM:22:ILE:O	2.21	0.58
16:CP:58:TYR:O	16:CP:60:LEU:N	2.37	0.58
3:AC:84:ILE:HA	3:AC:87:LEU:HD12	1.84	0.58
27:DA:220:G:H22	27:DA:427:U:H2'	1.68	0.58
45:DW:43:GLY:O	45:DW:47:VAL:HG23	2.03	0.58
48:DZ:6:ALA:CB	48:DZ:58:LEU:HB3	2.32	0.58
27:DA:1947:C:N4	27:DA:1959:G:H1	1.99	0.58
4:AD:98:GLU:C	4:AD:100:ARG:H	2.05	0.58
27:BA:709:U:N3	27:BA:710:G:N7	2.50	0.58
27:DA:1336:A:H2'	27:DA:1337:G:H8	1.68	0.58
28:BB:91:C:C2'	28:BB:92:C:O5'	2.50	0.58
13:CM:58:GLU:O	13:CM:62:ASN:OD1	2.22	0.58
1:AA:1168:A:H2'	1:AA:1169:A:C8	2.38	0.58
1:CA:1256:A:N6	1:CA:1278:U:O2	2.35	0.58
1:CA:60:A:H5''	1:CA:331:G:N2	2.18	0.58
1:CA:59:A:H4'	1:CA:388:G:OP1	2.04	0.58
48:DZ:117:GLN:HG2	48:DZ:118:GLU:H	1.68	0.58
27:DA:1515:G:H2'	27:DA:1516:C:H5'	1.86	0.58
30:DD:261:LYS:HZ1	30:DD:263:ARG:HH12	1.50	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AL:3:THR:N	12:AL:6:GLN:HE21	2.00	0.58
12:AL:3:THR:HG23	12:AL:6:GLN:NE2	2.18	0.58
27:BA:1698:A:O4'	27:BA:1700:A:H4'	2.03	0.58
30:DD:228:PRO:HD3	30:DD:235:GLY:N	2.19	0.58
17:CQ:62:SER:HB2	17:CQ:72:ARG:HG3	1.85	0.58
1:AA:1325:C:H4'	21:AU:17:THR:HG21	1.86	0.58
32:BF:154:VAL:HG22	32:BF:191:ARG:HB2	1.85	0.58
23:AW:18:G:H1'	23:AW:19:U:O2	2.03	0.58
2:CB:67:THR:O	2:CB:68:ILE:HD13	2.03	0.58
50:D1:24:ALA:HB3	50:D1:27:GLU:OE2	2.03	0.58
39:BQ:19:GLY:O	39:BQ:20:ALA:HB3	2.04	0.58
1:CA:979:C:C5	1:CA:980:C:H6	2.20	0.58
47:BY:6:HIS:N	47:BY:6:HIS:ND1	2.51	0.58
27:DA:1934:C:H2'	27:DA:1935:G:H8	1.67	0.58
53:B4:42:CYS:SG	53:B4:62:CYS:HB3	2.43	0.58
53:B4:62:CYS:SG	53:B4:64:LYS:HB2	2.43	0.58
41:DS:97:ARG:NH2	41:DS:99:LYS:H	2.00	0.58
27:DA:1614:A:H2'	27:DA:1615:C:H5'	1.85	0.58
38:DP:39:LYS:CA	38:DP:39:LYS:HE2	2.29	0.58
46:DX:25:LYS:HZ1	46:DX:80:ILE:HD11	1.66	0.58
31:DE:37:ARG:HB2	31:DE:46:ALA:N	2.18	0.58
4:CD:68:TYR:O	4:CD:70:ILE:N	2.37	0.58
42:DT:88:ILE:CG2	42:DT:89:VAL:H	1.98	0.58
32:DF:187:VAL:HB	38:DP:7:ARG:HH21	1.68	0.58
32:DF:36:VAL:O	32:DF:39:TRP:HB3	2.04	0.58
6:AF:62:TRP:HH2	6:AF:64:GLN:HB2	1.60	0.58
42:BT:23:ARG:HA	42:BT:52:ILE:CD1	2.33	0.58
9:CI:79:LEU:CD2	9:CI:102:LEU:HA	2.33	0.58
51:D2:16:LEU:H	51:D2:67:LYS:HZ1	1.51	0.58
18:AR:53:ARG:NH1	18:AR:53:ARG:HG2	2.17	0.58
35:DI:107:VAL:CG1	35:DI:108:THR:H	2.12	0.58
35:BI:113:ARG:O	35:BI:130:TYR:HA	2.04	0.58
54:B5:50:GLY:HA3	54:B5:56:LYS:HB3	1.85	0.58
39:BQ:135:ASP:C	39:BQ:137:TYR:N	2.54	0.58
8:CH:37:ARG:O	8:CH:40:ALA:HB3	2.04	0.58
47:BY:2:ARG:CD	47:BY:3:VAL:HG23	2.32	0.58
1:CA:735:C:H2'	1:CA:736:C:C6	2.30	0.58
50:D1:7:ILE:HB	50:D1:62:VAL:CG2	2.34	0.58
52:D3:7:LYS:CG	52:D3:8:LEU:H	2.13	0.58
13:AM:91:ARG:HH22	13:AM:103:THR:CG2	2.16	0.58
11:CK:69:ALA:HB1	11:CK:73:MET:HE2	1.85	0.58
27:DA:2114:A:H2	27:DA:2168:G:O4'	1.86	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2111:C:H42	27:DA:2147:G:N2	2.00	0.58
1:AA:806:C:H2'	1:AA:807:A:H8	1.67	0.58
1:AA:312:C:H2'	1:AA:313:A:C8	2.39	0.58
46:DX:10:ALA:O	46:DX:28:PHE:HB3	2.02	0.58
24:CX:56:C:H2'	24:CX:57:A:C8	2.38	0.58
27:BA:1907:G:O2'	27:BA:1908:C:H5'	2.03	0.58
30:DD:89:SER:HB2	30:DD:159:ALA:HB2	1.85	0.58
27:DA:1805:U:H5''	30:DD:250:TRP:CD2	2.37	0.58
5:CE:148:VAL:HG12	5:CE:152:ARG:HE	1.67	0.58
1:AA:144:G:H2'	1:AA:145:G:H8	1.69	0.58
27:BA:812:C:OP1	27:BA:1251:C:H5'	2.03	0.58
27:BA:2431:U:O2	27:BA:2433:A:C8	2.56	0.58
27:BA:608:A:P	32:BF:100:THR:HG21	2.43	0.58
32:BF:123:LEU:HD13	32:BF:192:LEU:HD22	1.84	0.58
31:BE:101:ARG:NH2	31:BE:171:GLU:HB2	2.17	0.58
1:AA:909:A:H2'	1:AA:910:C:H5'	1.84	0.58
52:B3:30:ARG:HD3	52:B3:30:ARG:H	1.68	0.58
43:BU:101:ARG:C	43:BU:102:GLU:HG2	2.23	0.58
1:CA:722:A:N3	1:CA:722:A:H2'	2.17	0.58
27:DA:1252:G:H8	27:DA:1252:G:OP1	1.85	0.58
27:DA:2262:U:H2'	27:DA:2263:C:C6	2.38	0.58
27:DA:635:C:H2'	27:DA:636:G:C8	2.38	0.58
38:DP:83:VAL:HG23	38:DP:87:ASP:OD2	2.02	0.58
31:DE:116:VAL:HG21	31:DE:122:PHE:CD2	2.38	0.58
27:DA:704:G:H1'	27:DA:727:A:H62	1.68	0.58
1:CA:219:C:H2'	1:CA:220:G:O4'	2.04	0.58
1:AA:963:G:H21	10:AJ:55:LYS:NZ	2.01	0.58
27:DA:1244:G:H4'	38:DP:11:GLY:CA	2.30	0.58
41:BS:106:ARG:CZ	41:BS:107:GLU:O	2.52	0.58
1:AA:723:U:O2'	1:AA:724:G:C5'	2.51	0.58
6:AF:53:ALA:HB3	6:AF:86:ARG:CZ	2.33	0.58
1:CA:1198:G:H2'	1:CA:1199:U:C6	2.38	0.58
8:CH:7:ALA:HB2	8:CH:85:ARG:HG3	1.86	0.58
27:DA:2126:A:H5''	29:DC:36:LYS:CE	2.30	0.58
36:DN:22:THR:HA	36:DN:60:ILE:CG2	2.33	0.58
27:BA:2012:G:O3'	45:BW:96:ILE:CD1	2.48	0.58
31:DE:110:GLY:O	40:DR:2:ARG:CZ	2.51	0.58
1:AA:501:C:O2'	1:AA:502:G:H5'	2.03	0.58
37:DO:53:LYS:O	37:DO:55:GLY:N	2.36	0.58
33:DG:57:ALA:HB2	33:DG:90:LEU:HD11	1.84	0.58
27:DA:850:C:H2'	27:DA:851:U:C6	2.38	0.58
27:BA:848:G:H8	27:BA:848:G:H5'	1.69	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1116:C:C2'	1:CA:1117:G:H5''	2.33	0.58
5:CE:102:ALA:HB1	5:CE:106:PRO:HG2	1.85	0.58
34:DH:54:ARG:O	34:DH:54:ARG:HG3	2.03	0.58
27:BA:1179:C:H2'	27:BA:1180:C:H6	1.69	0.58
1:CA:686:U:H3	1:CA:703:G:N2	2.00	0.58
50:D1:6:GLU:O	50:D1:7:ILE:HD12	2.04	0.58
2:CB:215:LEU:O	2:CB:219:VAL:HG23	2.03	0.58
42:DT:16:ARG:O	42:DT:17:THR:CB	2.50	0.58
1:CA:1246:C:O2'	1:CA:1247:U:H5'	2.03	0.58
51:B2:7:ARG:O	51:B2:11:GLU:HG3	2.04	0.58
5:AE:72:GLN:NE2	5:AE:144:THR:HG22	2.19	0.58
27:BA:1678:G:N2	27:BA:1989:G:H22	2.02	0.58
3:AC:7:PRO:O	3:AC:11:ARG:CG	2.51	0.58
48:BZ:107:PRO:HG3	48:BZ:116:LEU:HB2	1.86	0.58
17:CQ:94:ASN:O	17:CQ:98:LEU:HD12	2.03	0.58
27:BA:146:G:C2'	27:BA:147:U:H5'	2.33	0.58
3:AC:140:ARG:HH11	3:AC:140:ARG:HG3	1.69	0.58
19:CS:32:LYS:CE	19:CS:32:LYS:N	2.65	0.58
34:BH:121:ILE:HD12	34:BH:144:VAL:HG21	1.86	0.58
27:DA:1790:C:H5''	27:DA:1791:A:OP1	2.03	0.58
4:CD:203:VAL:O	4:CD:206:PHE:HB3	2.04	0.58
27:DA:389:G:H8	27:DA:389:G:O5'	1.87	0.58
44:DV:95:LEU:HD22	44:DV:97:LYS:HZ3	1.66	0.58
27:DA:2371:G:H4'	55:D6:45:LYS:CB	2.34	0.58
27:DA:750:A:H2'	27:DA:750:A:N3	2.18	0.58
27:BA:1021:A:C3'	27:BA:1021:A:C8	2.80	0.58
42:DT:31:SER:HB2	42:DT:32:TYR:CD2	2.38	0.58
46:BX:63:LYS:HE3	46:BX:72:LYS:CE	2.24	0.58
20:CT:54:LYS:HA	20:CT:57:ARG:HH22	1.69	0.58
27:DA:2125:G:N2	27:DA:2174:C:N4	2.52	0.58
4:CD:150:GLU:O	4:CD:153:ARG:HG3	2.04	0.58
1:CA:1071:C:H2'	1:CA:1072:G:H8	1.68	0.58
10:AJ:3:LYS:O	10:AJ:100:THR:HG22	2.03	0.58
27:DA:1602:U:H3'	27:DA:1603:A:H5''	1.83	0.58
27:DA:1655:A:H2'	27:DA:1656:C:O4'	2.04	0.58
27:DA:2311:A:H5''	27:DA:2312:U:OP2	2.03	0.58
35:DI:77:LEU:O	35:DI:140:LEU:HD12	2.02	0.58
1:AA:875:C:O2	8:AH:15:ASN:ND2	2.32	0.58
27:BA:1114:G:C2'	27:BA:1115:G:H5''	2.34	0.58
1:CA:739:C:O2	15:CO:42:HIS:HE1	1.87	0.58
6:CF:72:VAL:HG22	6:CF:72:VAL:O	2.02	0.58
1:AA:203:U:H6	1:AA:203:U:OP2	1.87	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:B1:19:GLN:NE2	50:B1:19:GLN:CA	2.65	0.58
3:AC:47:LEU:O	3:AC:47:LEU:HD12	2.02	0.58
1:CA:771:G:O2'	1:CA:772:U:H5'	2.03	0.58
28:BB:7:G:N2	41:BS:38:GLN:HE22	2.01	0.58
27:BA:1607:C:C4'	27:BA:1608:A:O5'	2.51	0.58
27:DA:1164:G:H2'	27:DA:1165:U:H6	1.67	0.58
13:AM:100:GLY:C	13:AM:101:GLN:HG3	2.24	0.58
1:AA:642:A:H2'	1:AA:643:C:C6	2.38	0.58
27:BA:518:G:H2'	27:BA:519:U:C5	2.38	0.58
43:BU:13:LYS:O	43:BU:16:LYS:HB3	2.04	0.58
36:BN:125:GLY:HA3	36:BN:126:PRO:O	2.04	0.58
49:B0:31:VAL:HB	49:B0:35:ASN:ND2	2.18	0.58
1:CA:31:G:H22	1:CA:47:C:H4'	1.68	0.58
1:CA:1119:C:O5'	1:CA:1119:C:H6	1.87	0.58
27:DA:350:U:H2'	27:DA:351:G:O4'	2.03	0.58
36:DN:35:ARG:O	36:DN:49:GLY:HA2	2.03	0.58
1:AA:711:G:H2'	1:AA:712:A:H8	1.69	0.58
35:DI:129:THR:O	35:DI:130:TYR:CB	2.52	0.58
27:DA:817:C:H2'	27:DA:818:G:O4'	2.03	0.58
34:DH:27:LYS:HG2	34:DH:32:GLU:HB2	1.84	0.58
27:DA:275:G:O3'	27:DA:279:C:P	2.61	0.58
3:AC:38:ARG:HD3	3:AC:94:LEU:HD22	1.85	0.58
27:DA:1037:G:H1	27:DA:1118:C:H42	1.51	0.58
28:DB:103:G:O2'	28:DB:104:U:H5'	2.03	0.58
27:DA:1317:A:H2'	27:DA:1318:C:C6	2.39	0.58
27:BA:1293:C:H2'	27:BA:1294:U:H6	1.68	0.58
27:BA:2809:A:C2	27:BA:2892:A:N3	2.72	0.58
47:BY:95:LYS:HG2	47:BY:100:ALA:HA	1.85	0.58
4:CD:15:GLU:OE2	4:CD:66:ARG:NH1	2.37	0.58
4:CD:61:LYS:HZ3	4:CD:62:GLN:NE2	2.02	0.58
13:CM:66:LEU:HA	13:CM:70:LEU:HB2	1.85	0.58
31:BE:52:LEU:HG	42:BT:1:MET:HE1	1.84	0.58
19:CS:44:MET:N	19:CS:44:MET:SD	2.77	0.58
1:AA:921:U:O2	5:AE:19:MET:HB2	2.04	0.58
27:DA:996:A:O2'	43:DU:92:ARG:HB3	2.03	0.58
41:DS:87:PHE:HB2	41:DS:106:ARG:HH12	1.67	0.58
55:D6:51:GLU:O	55:D6:52:VAL:CB	2.51	0.58
33:DG:32:PRO:HB3	33:DG:172:LEU:HD22	1.84	0.58
27:DA:531:C:OP1	27:DA:561:G:N1	2.36	0.58
45:DW:92:ARG:O	45:DW:93:ALA:HB3	2.04	0.58
36:BN:93:THR:O	36:BN:94:HIS:HB2	2.04	0.58
1:AA:971:G:N2	1:AA:1363(A):A:OP2	2.34	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:300:A:H2'	1:AA:301:G:O4'	2.01	0.58
32:DF:32:LEU:CD1	32:DF:112:MET:HE1	2.30	0.58
14:CN:21:TYR:HD2	14:CN:22:THR:O	1.87	0.58
14:CN:47:LEU:HB2	14:CN:53:LEU:HD11	1.86	0.58
8:CH:10:LEU:HD23	8:CH:83:ILE:CG1	2.31	0.58
5:CE:20:GLN:O	5:CE:21:ALA:O	2.21	0.58
1:AA:37:U:H3	1:AA:397:A:H61	1.52	0.58
19:CS:63:THR:HG22	19:CS:66:MET:CE	2.34	0.58
27:DA:848:G:C8	27:DA:848:G:H5'	2.39	0.58
30:BD:209:ALA:O	30:BD:213:ARG:HG2	2.03	0.58
2:CB:97:TRP:HH2	2:CB:176:GLU:CD	2.06	0.58
1:AA:663:A:O2'	1:AA:664:G:H5'	2.03	0.58
27:DA:2835:A:N6	27:DA:2878:U:H3'	2.18	0.58
27:DA:783:A:H2'	27:DA:784:A:C4'	2.32	0.58
31:BE:71:GLY:O	31:BE:72:VAL:C	2.41	0.58
10:CJ:5:ARG:HD2	10:CJ:7:LYS:HE2	1.84	0.58
15:CO:12:ILE:C	15:CO:14:GLU:H	2.05	0.58
27:BA:154(A):C:N4	27:BA:172:C:H42	1.96	0.58
27:BA:2048:G:H2'	27:BA:2049:G:O4'	2.04	0.58
1:AA:954:G:H21	1:AA:1227:A:N6	2.00	0.58
13:CM:96:LEU:C	13:CM:110:ARG:HD3	2.23	0.58
1:AA:198:G:H2'	1:AA:199:G:C8	2.39	0.58
5:AE:11:ILE:HG21	5:AE:105:VAL:CG2	2.33	0.58
27:BA:2690:C:N4	27:BA:2713:A:O2'	2.36	0.58
11:AK:42:TRP:O	11:AK:43:SER:HB2	2.02	0.58
1:CA:475:G:H2'	1:CA:476:G:C8	2.35	0.58
27:DA:1887:C:H2'	27:DA:1888:G:H5''	1.85	0.58
17:AQ:27:PHE:CD1	17:AQ:28:PRO:O	2.56	0.58
6:AF:50:TYR:OH	18:AR:74:ARG:O	2.14	0.58
1:AA:321:A:C2	1:AA:333:G:C2	2.92	0.58
25:AY:51:G:H2'	25:AY:52:G:C8	2.38	0.58
16:CP:52:ASP:OD1	16:CP:55:ARG:HG2	2.04	0.58
1:CA:904:C:H2'	1:CA:905:U:C6	2.38	0.58
12:AL:40:VAL:HG23	12:AL:41:THR:N	2.17	0.58
13:AM:27:LYS:HE3	13:AM:31:LYS:HE3	1.84	0.58
27:BA:2088:G:C6	27:BA:2089:U:C4	2.92	0.58
29:DC:194:ARG:C	29:DC:196:LEU:H	2.07	0.58
27:DA:696:G:C2	27:DA:767:U:O2	2.56	0.58
57:B8:10:ALA:O	57:B8:12:LYS:N	2.37	0.58
1:CA:542:G:OP1	4:CD:10:ARG:NH2	2.37	0.58
1:AA:19:C:H1'	1:AA:864:A:H1'	1.85	0.58
27:DA:1155:A:C5	27:DA:1157:G:N7	2.72	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DE:59:VAL:HG21	31:DE:63:LEU:HG	1.85	0.58
49:D0:20:ARG:NH1	49:D0:20:ARG:CG	2.58	0.58
47:BY:14:LEU:HD12	47:BY:15:VAL:H	1.69	0.58
27:DA:803:U:O2'	27:DA:804:A:H5'	2.04	0.58
55:B6:41:PRO:CD	55:B6:46:HIS:CA	2.82	0.58
55:B6:48:VAL:O	55:B6:49:HIS:HB2	2.03	0.58
27:BA:1499:C:O2	27:BA:1499:C:H2'	2.03	0.58
30:BD:36:PRO:HB2	30:BD:61:LEU:CD1	2.34	0.58
1:AA:1220:G:H2'	1:AA:1221:G:C8	2.34	0.58
14:AN:26:ARG:NH2	14:AN:47:LEU:HD21	2.18	0.58
1:AA:1059:C:O3'	14:AN:45:ARG:NH2	2.36	0.58
12:CL:32:GLY:HA3	12:CL:57:LEU:HD13	1.85	0.58
16:AP:21:VAL:HG21	16:AP:59:TRP:CD2	2.39	0.58
41:DS:90:GLY:C	41:DS:92:TYR:N	2.57	0.58
31:BE:4:ILE:HG22	31:BE:198:VAL:O	2.04	0.58
2:AB:18:GLY:H	2:AB:42:ILE:CG2	2.07	0.58
33:DG:62:LEU:O	33:DG:143:GLU:HG3	2.04	0.58
36:DN:51:PHE:CZ	36:DN:119:ARG:HD2	2.38	0.58
1:AA:457:C:H2'	1:AA:458:C:H6	1.69	0.58
46:BX:27:THR:HB	46:BX:80:ILE:HB	1.85	0.58
1:CA:677:U:H3	1:CA:714:G:N2	1.99	0.58
1:CA:994:A:H2	14:CN:4:LYS:HG3	1.68	0.58
27:BA:2869:G:H2'	27:BA:2870:C:C6	2.39	0.58
8:CH:10:LEU:HD13	8:CH:85:ARG:HG2	1.85	0.58
48:DZ:75:LEU:HD13	48:DZ:82:PRO:CA	2.33	0.58
1:CA:1500:A:OP2	1:CA:1505:G:OP1	2.22	0.58
31:DE:110:GLY:HA2	31:DE:162:ALA:N	2.19	0.58
54:B5:56:LYS:H	54:B5:56:LYS:CD	2.12	0.58
27:DA:662:G:C5'	38:DP:18:ARG:HA	2.32	0.58
27:BA:74:A:H4'	27:BA:75:G:O5'	2.03	0.58
13:AM:83:ASP:C	13:AM:85:GLY:N	2.55	0.58
37:BO:64:ARG:NH1	37:BO:81:ASP:OD2	2.36	0.58
35:BI:31:LEU:HD12	35:BI:31:LEU:N	2.19	0.58
27:BA:2695:C:H2'	27:BA:2696:U:H6	1.68	0.58
33:DG:109:VAL:O	33:DG:112:PRO:HB2	2.02	0.58
3:AC:83:ARG:O	3:AC:87:LEU:HG	2.04	0.58
27:DA:2466:C:OP1	58:D9:4:ARG:HB2	2.03	0.58
6:CF:4:TYR:N	6:CF:65:VAL:O	2.36	0.58
1:AA:1015:A:H2'	1:AA:1016:A:C8	2.39	0.58
19:AS:11:VAL:HG22	19:AS:16:LEU:HD11	1.86	0.58
1:AA:275:G:O2'	1:AA:276:G:H5'	2.03	0.58
43:BU:31:SER:HG	43:BU:34:LYS:H	1.51	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DF:143:ALA:O	32:DF:146:ALA:HB3	2.03	0.58
36:DN:89:LYS:HB3	36:DN:89:LYS:NZ	2.17	0.58
27:DA:2725:A:O2'	27:DA:2726:U:O5'	2.22	0.58
4:AD:170:VAL:CG1	4:AD:171:GLY:H	2.16	0.58
1:CA:107:G:C2'	1:CA:108:G:H5'	2.33	0.58
27:BA:1227:G:OP1	43:BU:13:LYS:HE3	2.03	0.58
42:DT:67:SER:O	42:DT:68:TYR:HB2	2.02	0.58
40:BR:76:VAL:HG12	40:BR:77:ARG:H	1.68	0.58
35:BI:16:GLY:HA2	35:BI:47:LEU:HD11	1.86	0.58
1:CA:442:C:C5	1:CA:443:C:H5	2.22	0.58
1:AA:636:U:O2'	1:AA:637:G:H5'	2.03	0.58
27:DA:1876:A:H2'	27:DA:1877:A:C8	2.39	0.58
1:CA:419:C:H42	1:CA:424:G:H1	1.48	0.58
27:BA:2829:C:H2'	27:BA:2830:G:H8	1.69	0.58
1:CA:1046:A:H3'	1:CA:1047:G:C8	2.39	0.58
27:DA:731:C:O2	27:DA:731:C:H2'	2.03	0.58
24:AX:59:A:O2'	24:AX:60:U:O5'	2.21	0.58
30:DD:75:ILE:O	30:DD:76:PRO:O	2.21	0.58
58:B9:20:HIS:N	58:B9:20:HIS:ND1	2.51	0.58
40:BR:8:ARG:NE	40:BR:8:ARG:HA	2.18	0.58
27:DA:693:C:O2'	27:DA:694:U:H5'	2.03	0.58
27:DA:789:A:O3'	27:DA:1781:C:N4	2.37	0.58
38:BP:29:LYS:HD2	38:BP:29:LYS:N	2.19	0.58
27:DA:240:G:H3'	27:DA:241:A:H8	1.69	0.58
4:CD:199:ASN:O	4:CD:200:GLU:C	2.41	0.58
31:BE:78:LEU:CD2	31:BE:78:LEU:N	2.61	0.58
32:BF:68:LYS:O	32:BF:70:THR:N	2.35	0.58
43:BU:69:CYS:O	43:BU:74:LEU:CD1	2.52	0.58
44:BV:19:LYS:HE2	44:BV:19:LYS:HA	1.86	0.58
1:CA:1254:C:H41	10:CJ:43:ARG:NH1	2.01	0.58
41:BS:56:LEU:HD22	41:BS:58:LEU:CD1	2.34	0.58
27:DA:1493:C:O2	27:DA:1493:C:C2'	2.51	0.58
30:DD:69:ARG:HD2	30:DD:130:ALA:CB	2.34	0.58
27:DA:729:G:C8	30:DD:208:LYS:HE2	2.39	0.58
31:DE:89:ASP:O	31:DE:90:THR:HB	2.03	0.58
27:DA:2416:C:H2'	27:DA:2417:C:C6	2.38	0.58
27:DA:1669:A:C2	27:DA:1994:C:H1'	2.39	0.58
10:AJ:50:ILE:HD13	10:AJ:60:ARG:HD3	1.84	0.58
8:AH:58:TYR:O	8:AH:59:LEU:HD23	2.04	0.58
27:BA:2591:C:H2'	27:BA:2592:G:C8	2.39	0.58
27:DA:19:C:N4	27:DA:521:G:H1	2.01	0.58
2:CB:96:ARG:N	2:CB:96:ARG:HD2	2.06	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DN:132:ALA:O	36:DN:133:GLN:HB3	2.04	0.58
34:BH:109:PHE:HE1	34:BH:152:ARG:CZ	2.16	0.58
3:CC:84:ILE:HD11	3:CC:101:LEU:HD22	1.84	0.58
27:DA:2478:A:H5'	58:D9:31:LYS:NZ	2.18	0.58
1:CA:538:G:H4'	12:CL:111:LYS:HD3	1.86	0.58
49:B0:37:LEU:O	49:B0:38:VAL:HG23	2.03	0.58
30:BD:149:PRO:O	30:BD:150:LYS:HB2	2.02	0.58
9:CI:26:VAL:HG13	9:CI:61:ALA:O	2.03	0.58
27:BA:2357:U:O2'	27:BA:2358:G:H5''	2.04	0.58
30:BD:10:THR:HG23	30:BD:13:ARG:HB3	1.84	0.58
27:BA:850:C:O2'	52:B3:46:ASN:ND2	2.37	0.58
1:AA:1004:A:H5''	1:AA:1025:U:N3	2.15	0.58
4:AD:153:ARG:CZ	4:AD:181:MET:HG3	2.34	0.58
50:B1:19:GLN:HA	50:B1:19:GLN:HE21	1.69	0.58
1:CA:873:A:H4'	1:CA:874:G:OP2	2.03	0.58
1:AA:1085:U:C4'	1:AA:1086:U:OP2	2.52	0.58
38:BP:7:ARG:O	38:BP:10:PRO:HD2	2.04	0.58
37:BO:105:GLU:HA	37:BO:108:GLU:OE2	2.03	0.58
27:DA:2001:A:H2'	27:DA:2002:G:C8	2.38	0.58
1:AA:1225:A:H5''	13:AM:103:THR:CG2	2.34	0.58
42:DT:16:ARG:CB	42:DT:19:LEU:HD11	2.34	0.58
36:BN:58:ASP:O	36:BN:59:LYS:CB	2.50	0.58
27:DA:1589:C:O2'	27:DA:1590:U:H5'	2.03	0.58
43:BU:8:VAL:CG1	43:BU:12:ARG:NE	2.65	0.58
11:AK:44:SER:OG	11:AK:47:VAL:HG23	2.04	0.58
27:DA:706:A:H2'	27:DA:707:G:O5'	2.04	0.58
46:DX:5:TYR:CD2	51:D2:30:ARG:HA	2.39	0.58
27:DA:2236:C:O2'	27:DA:2237:G:H5'	2.04	0.58
10:AJ:90:LEU:H	10:AJ:91:PRO:HD3	1.68	0.58
30:DD:70:TRP:O	30:DD:73:VAL:HG22	2.03	0.58
29:BC:169:GLY:O	29:BC:171:ILE:N	2.37	0.58
30:DD:226:MET:HB3	30:DD:230:ASP:HB2	1.84	0.58
13:CM:10:PRO:CG	13:CM:18:ALA:HB1	2.34	0.58
40:DR:23:ASN:HD22	40:DR:23:ASN:N	2.02	0.58
2:AB:83:MET:HA	2:AB:83:MET:CE	2.33	0.58
27:DA:1965:C:H2'	27:DA:1966:A:C8	2.39	0.58
40:BR:99:LYS:HZ1	54:B5:43:HIS:HB3	1.69	0.58
39:DQ:121:ALA:O	39:DQ:125:LEU:HG	2.03	0.58
27:BA:620:G:H4'	27:BA:621:A:OP1	2.04	0.58
38:BP:23:PRO:CB	38:BP:33:ARG:HG3	2.30	0.58
38:BP:62:LEU:HD23	38:BP:62:LEU:H	1.68	0.58
10:CJ:61:GLU:HG2	14:CN:58:LYS:HZ3	1.69	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BF:110:LEU:O	32:BF:110:LEU:HD13	2.03	0.58
27:DA:245:G:C5'	38:DP:69:GLY:HA3	2.34	0.58
13:CM:70:LEU:O	13:CM:73:GLU:HB3	2.03	0.58
27:DA:397:G:O2'	27:DA:398:G:H5'	2.04	0.58
5:AE:12:LEU:HD13	5:AE:12:LEU:C	2.24	0.58
27:DA:2415:G:H2'	27:DA:2416:C:C6	2.38	0.58
47:BY:14:LEU:HD23	47:BY:73:ARG:HD3	1.86	0.58
20:AT:71:THR:CG2	20:AT:72:LEU:H	1.97	0.58
47:DY:14:LEU:HD12	47:DY:15:VAL:H	1.69	0.58
30:BD:118:VAL:CG2	30:BD:119:ALA:H	2.04	0.58
1:CA:104:G:O2'	1:CA:105:G:H5'	2.04	0.58
9:AI:114:TYR:H	9:AI:114:TYR:HD2	1.52	0.58
2:AB:187:LEU:HD13	2:AB:187:LEU:O	2.04	0.58
27:DA:2746:U:H1'	34:DH:139:GLN:CB	2.33	0.58
41:DS:42:ASP:O	41:DS:43:GLU:C	2.41	0.58
27:BA:413:C:O5'	27:BA:413:C:H6	1.87	0.58
27:BA:1296:G:C2'	27:BA:1297:C:H5'	2.34	0.58
33:DG:98:ARG:HA	33:DG:101:ILE:HG23	1.85	0.58
42:DT:1:MET:C	42:DT:3:ARG:H	2.05	0.58
27:DA:2171:A:H4'	27:DA:2172:U:OP1	2.03	0.58
1:CA:1058:G:H2'	1:CA:1059:C:H6	1.66	0.58
5:CE:51:VAL:O	5:CE:55:VAL:HG23	2.03	0.58
38:BP:148:LEU:O	38:BP:149:GLU:HB2	2.03	0.58
27:DA:1391:U:H2'	27:DA:1393:A:OP2	2.04	0.58
54:B5:56:LYS:HG3	54:B5:59:GLU:HG3	1.86	0.58
27:DA:1462:C:H2'	27:DA:1463:C:H6	1.69	0.58
38:BP:71:VAL:CG1	38:BP:72:PRO:CD	2.81	0.58
3:AC:129:ALA:HB3	3:AC:132:ARG:CB	2.32	0.58
27:BA:1771:C:O2'	27:BA:1786:A:C8	2.49	0.58
40:BR:101:ALA:HB2	54:B5:44:THR:HB	1.86	0.58
12:AL:25:LYS:CB	12:AL:30:ARG:HH12	2.17	0.58
37:BO:13:ASN:HD21	37:BO:96:THR:N	2.01	0.58
32:BF:40:GLN:OE1	32:BF:182:ASN:HB2	2.04	0.58
27:BA:1891:G:H2'	27:BA:1892:C:H6	1.69	0.58
27:DA:1336:A:OP1	46:DX:64:LYS:HE3	2.04	0.58
27:BA:1321:A:H2'	27:BA:1322:A:H8	1.67	0.58
13:CM:54:VAL:O	13:CM:58:GLU:HG2	2.03	0.58
17:AQ:29:HIS:CE1	17:AQ:32:TYR:H	2.20	0.58
1:AA:1128:C:C5'	9:AI:16:ARG:HH12	2.15	0.58
27:BA:459:U:H2'	27:BA:460:A:H8	1.69	0.58
7:AG:16:LEU:HD13	9:AI:44:VAL:HG23	1.84	0.58
28:BB:73:A:C4	28:BB:105:A:C2	2.92	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:424:G:H2'	1:AA:425:G:H8	1.69	0.58
33:DG:6:ALA:HB3	33:DG:104:GLU:CD	2.24	0.58
27:DA:2235:G:H2'	27:DA:2236:C:C6	2.39	0.58
29:DC:168:THR:HA	29:DC:173:ALA:HB2	1.86	0.58
36:BN:113:GLY:HA2	36:BN:116:LEU:HD12	1.86	0.58
27:BA:2081:C:O2'	27:BA:2082:A:H5'	2.03	0.58
27:BA:1762:A:C8	27:BA:1762:A:O5'	2.57	0.58
1:AA:1255:G:H5''	3:AC:26:LYS:NZ	2.18	0.58
1:CA:808:C:O2'	1:CA:809:G:H5'	2.04	0.58
2:AB:9:GLU:HA	2:AB:12:GLU:OE1	2.04	0.58
27:DA:1002:G:H8	27:DA:1002:G:O5'	1.87	0.58
35:BI:24:GLY:O	35:BI:25:TYR:C	2.41	0.58
27:BA:2394:C:OP1	38:BP:63:PRO:HD2	2.04	0.57
38:BP:23:PRO:HB2	38:BP:33:ARG:HD2	1.84	0.57
38:BP:62:LEU:HB2	38:BP:63:PRO:HD2	1.86	0.57
1:CA:980:C:O2	1:CA:980:C:H2'	2.02	0.57
41:BS:90:GLY:C	41:BS:92:TYR:H	2.07	0.57
27:BA:2681:C:H5	27:BA:2725:A:N6	2.00	0.57
31:BE:167:VAL:CG2	31:BE:170:LEU:HD11	2.33	0.57
1:CA:509:A:H4'	1:CA:510:A:OP1	2.03	0.57
1:CA:546:G:OP1	4:CD:72:GLU:HB3	2.04	0.57
42:BT:31:SER:C	42:BT:32:TYR:CD2	2.77	0.57
27:DA:1889:A:H1'	27:DA:2087:G:H5'	1.85	0.57
43:DU:102:GLU:OE1	44:DV:2:PHE:HE1	1.87	0.57
44:DV:61:VAL:C	44:DV:62:LEU:HD13	2.23	0.57
12:CL:72:HIS:CD2	12:CL:74:LEU:HB2	2.39	0.57
55:D6:52:VAL:HG12	55:D6:52:VAL:O	2.02	0.57
33:DG:21:ARG:HD3	33:DG:22:ARG:N	2.19	0.57
55:B6:19:ARG:HB2	55:B6:21:TYR:OH	2.04	0.57
1:AA:413:G:N2	1:AA:428:G:H1'	2.19	0.57
16:AP:21:VAL:HG13	16:AP:33:ILE:CB	2.30	0.57
27:BA:1779:U:C5	27:BA:1784:A:N7	2.72	0.57
32:DF:186:ILE:HG23	32:DF:192:LEU:CD1	2.32	0.57
1:CA:279:A:O2'	1:CA:280:C:OP2	2.17	0.57
36:DN:133:GLN:HG2	36:DN:134:ARG:N	2.17	0.57
1:AA:657:G:C2	1:AA:658:G:C8	2.92	0.57
1:CA:177:C:H2'	1:CA:178:C:H6	1.69	0.57
1:CA:1286:A:C2	21:CU:22:ARG:NH2	2.71	0.57
12:AL:38:ARG:CG	12:AL:39:THR:H	2.09	0.57
27:DA:146:G:C6	27:DA:147:U:C4	2.91	0.57
25:AY:64:G:O2'	25:AY:65:U:H5'	2.04	0.57
48:BZ:157:PRO:HG2	48:BZ:160:VAL:CG2	2.31	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2850:A:OP2	27:DA:2866:U:C5	2.57	0.57
42:DT:102:ILE:HD12	42:DT:110:ILE:HD11	1.84	0.57
1:AA:728:A:C6	15:AO:54:ARG:HD2	2.38	0.57
27:DA:2103:C:C3'	27:DA:2104:G:H5''	2.33	0.57
27:BA:1051:G:O2'	27:BA:1052:C:C6	2.56	0.57
1:CA:825:G:H22	8:CH:11:THR:HG21	1.69	0.57
27:BA:1926:U:H2'	27:BA:1928:A:OP2	2.03	0.57
29:DC:44:HIS:O	29:DC:210:ARG:HA	2.04	0.57
24:CX:23:C:H2'	24:CX:24:U:C6	2.38	0.57
34:DH:105:LEU:HD23	34:DH:115:VAL:HG21	1.86	0.57
27:DA:2195:C:C2'	27:DA:2196:C:H5'	2.33	0.57
7:AG:86:GLN:HE22	25:AY:30:A:H2	1.49	0.57
27:BA:1848:A:C2'	27:BA:1849:G:H8	2.16	0.57
1:AA:544:G:OP1	4:AD:59:ARG:NH2	2.36	0.57
27:BA:182:A:C2	27:BA:183:C:C2	2.92	0.57
47:DY:88:LYS:NZ	47:DY:93:GLY:HA3	2.19	0.57
39:BQ:141:GLN:HG3	48:BZ:71:ARG:NH1	2.19	0.57
27:DA:612:C:N4	27:DA:615:G:H1	2.02	0.57
36:DN:108:PRO:O	36:DN:113:GLY:HA3	2.04	0.57
47:DY:31:LEU:HB2	47:DY:32:PRO:HA	1.85	0.57
17:CQ:29:HIS:CG	17:CQ:30:PRO:HD2	2.39	0.57
2:CB:132:LYS:HA	2:CB:135:GLN:HB2	1.84	0.57
23:CW:51:G:H1	23:CW:61:C:H42	1.51	0.57
16:CP:45:THR:C	16:CP:47:ASP:H	2.07	0.57
27:BA:1652:A:O2'	27:BA:1653:G:H5'	2.04	0.57
24:AX:17:C:O2	24:AX:17(B):U:H5	1.87	0.57
35:DI:51:ILE:HG22	35:DI:52:ARG:N	2.18	0.57
1:AA:96:U:H2'	1:AA:97:G:H8	1.68	0.57
36:BN:112:LEU:HD12	36:BN:112:LEU:O	2.04	0.57
13:AM:94:ARG:NH1	27:BA:887:A:H5''	2.18	0.57
1:CA:1496:C:H2'	1:CA:1497:G:O4'	2.04	0.57
27:DA:1943:U:H4'	27:DA:1944:U:O5'	2.03	0.57
27:BA:2648:C:H2'	27:BA:2649:U:C6	2.39	0.57
27:BA:1711:C:H2'	27:BA:1712:C:C6	2.39	0.57
27:BA:2787:C:O2'	31:BE:61:ARG:HB2	2.04	0.57
41:BS:15:ARG:O	41:BS:18:ILE:HG22	2.04	0.57
46:BX:26:TYR:HB3	46:BX:92:LEU:HD12	1.85	0.57
57:D8:55:ALA:O	57:D8:58:ILE:HB	2.04	0.57
38:BP:17:LYS:HG2	38:BP:17:LYS:O	2.03	0.57
21:CU:2:GLY:O	21:CU:4:GLY:N	2.37	0.57
44:BV:35:LEU:C	44:BV:37:VAL:N	2.55	0.57
44:BV:64:HIS:HA	44:BV:92:THR:HA	1.86	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DF:20:LEU:HB3	32:DF:23:ASP:OD1	2.05	0.57
27:DA:1010:A:O2'	27:DA:1011:G:H5'	2.04	0.57
51:D2:50:ILE:O	51:D2:52:ASP:N	2.38	0.57
27:DA:862:G:C2	27:DA:863:A:H1'	2.38	0.57
27:DA:865:C:C2'	27:DA:865:C:O2	2.51	0.57
38:DP:64:LYS:HB3	57:D8:25:MET:HG3	1.85	0.57
27:BA:335:C:H2'	27:BA:336:C:C6	2.37	0.57
27:DA:587:C:H3'	38:DP:33:ARG:HH22	1.68	0.57
27:DA:589:C:H2'	27:DA:590:A:C8	2.39	0.57
1:CA:41:G:O2'	1:CA:42:G:H5'	2.04	0.57
47:BY:32:PRO:C	47:BY:34:LYS:H	2.08	0.57
1:AA:1202:G:H2'	1:AA:1203:C:O4'	2.04	0.57
14:AN:24:CYS:HB3	14:AN:27:CYS:O	2.05	0.57
27:DA:2745:C:H5'	34:DH:146:ALA:HB2	1.85	0.57
2:CB:32:ILE:HA	2:CB:42:ILE:HA	1.86	0.57
27:BA:827:U:H2'	27:BA:2068:U:N3	2.18	0.57
20:CT:73:HIS:O	20:CT:76:ALA:HB3	2.03	0.57
3:CC:73:PRO:C	3:CC:75:VAL:N	2.57	0.57
27:DA:2536:G:O2'	27:DA:2537:U:H5'	2.04	0.57
27:BA:1556:C:H2'	27:BA:1557:C:H6	1.69	0.57
30:BD:154:LYS:C	30:BD:155:LEU:HD12	2.23	0.57
27:DA:740:U:H6	27:DA:740:U:C5'	2.09	0.57
48:DZ:94:PRO:HB2	48:DZ:126:LYS:HZ2	1.67	0.57
27:DA:1639:U:H2'	27:DA:1640:C:C5'	2.33	0.57
35:BI:77:LEU:HB3	35:BI:140:LEU:CD1	2.32	0.57
27:DA:1275:A:C8	40:DR:16:HIS:CD2	2.92	0.57
35:BI:8:PRO:O	35:BI:9:LEU:HD23	2.04	0.57
1:AA:876:G:H2'	1:AA:877:C:H6	1.68	0.57
28:DB:43:C:H5'	28:DB:44:G:OP2	2.04	0.57
6:CF:86:ARG:O	6:CF:87:ARG:HG2	2.03	0.57
42:DT:23:ARG:NH2	42:DT:120:ARG:HD3	2.19	0.57
16:CP:74:LEU:O	16:CP:77:ALA:HB3	2.05	0.57
5:CE:147:ASP:N	5:CE:147:ASP:OD2	2.35	0.57
3:AC:90:GLU:HA	3:AC:93:LYS:HB2	1.86	0.57
3:AC:90:GLU:O	3:AC:93:LYS:HB2	2.04	0.57
27:DA:7:G:H1	27:DA:2896:C:N4	2.01	0.57
27:DA:2468:G:OP1	39:DQ:119:ARG:NH2	2.36	0.57
1:AA:1263:C:C2'	1:AA:1264:C:H5'	2.34	0.57
45:DW:11:ARG:HE	45:DW:11:ARG:C	2.07	0.57
27:DA:482:A:H62	27:DA:506:G:C2'	2.17	0.57
47:DY:47:LYS:HD2	47:DY:47:LYS:N	2.19	0.57
27:DA:2734:A:H62	27:DA:2770:G:N2	2.00	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:68:VAL:HG12	3:AC:70:VAL:HG23	1.85	0.57
1:AA:1087:G:H2'	1:AA:1088:G:C8	2.39	0.57
3:CC:36:ASP:O	3:CC:40:ARG:NH1	2.37	0.57
27:BA:1029:A:C2'	27:BA:1030:G:H5'	2.33	0.57
27:DA:2520:C:H2'	27:DA:2521:C:C6	2.40	0.57
27:DA:2545:G:N2	27:DA:2546:U:H1'	2.18	0.57
27:DA:2593:U:C2	27:DA:2594:C:C5	2.92	0.57
9:CI:46:ALA:HB2	9:CI:74:ILE:HG23	1.86	0.57
1:CA:1237:C:O2	1:CA:1334:G:O2'	2.14	0.57
27:DA:2840:C:H2'	27:DA:2841:C:C6	2.39	0.57
1:AA:705:U:C5	1:AA:706:A:C5	2.92	0.57
27:BA:1956:U:H2'	27:BA:1957:C:C5'	2.32	0.57
1:CA:47:C:O2'	1:CA:48:C:H5'	2.04	0.57
27:DA:2239:G:H2'	27:DA:2240:C:O4'	2.05	0.57
27:BA:84:A:H5'	47:BY:9:LYS:HB3	1.86	0.57
23:AW:4:G:H2'	23:AW:5:G:H5''	1.85	0.57
29:BC:20:TYR:CG	29:BC:21:THR:N	2.71	0.57
47:DY:49:VAL:O	47:DY:53:PRO:HG3	2.04	0.57
18:AR:44:LEU:HD13	18:AR:48:GLY:O	2.04	0.57
1:AA:528:C:H5'	1:AA:535:A:N1	2.19	0.57
38:DP:108:LYS:HD2	38:DP:108:LYS:N	2.18	0.57
27:DA:2876:G:N2	27:DA:2877:G:H1'	2.19	0.57
27:DA:463:G:N2	27:DA:466:A:OP2	2.34	0.57
35:DI:7:GLU:CG	35:DI:8:PRO:HD2	2.34	0.57
47:DY:19:LYS:HG2	47:DY:19:LYS:O	2.05	0.57
24:AX:39:C:H6	24:AX:39:C:O5'	1.87	0.57
27:BA:2555:U:H2'	27:BA:2556:C:O4'	2.03	0.57
27:BA:2373:G:H2'	27:BA:2374:C:C6	2.39	0.57
57:B8:7:HIS:HB2	57:B8:59:LYS:HB3	1.87	0.57
1:CA:1321:C:C3'	1:CA:1322:C:H5''	2.35	0.57
27:DA:1796:U:O2	27:DA:1824:G:C2	2.57	0.57
27:BA:498:G:O2'	27:BA:499:U:H5'	2.04	0.57
27:BA:674:G:OP1	32:BF:76:GLY:HA3	2.05	0.57
42:BT:30:VAL:HG21	42:BT:83:ILE:HG13	1.85	0.57
42:BT:91:ARG:CA	42:BT:116:ALA:HA	2.34	0.57
27:DA:992:C:O2'	27:DA:993:G:H5'	2.05	0.57
36:DN:33:LEU:HG	36:DN:38:HIS:CE1	2.39	0.57
43:DU:69:CYS:O	43:DU:72:HIS:HB2	2.04	0.57
27:DA:296:C:O2'	27:DA:297:C:H5'	2.03	0.57
1:AA:346:G:H5''	42:BT:41:ARG:HE	1.68	0.57
27:DA:2787:C:O2'	31:DE:61:ARG:HG3	2.05	0.57
27:DA:628:G:C6	27:DA:636:G:C2	2.92	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BD:33:LEU:O	30:BD:34:VAL:CG1	2.47	0.57
30:BD:34:VAL:O	30:BD:35:LYS:HD3	2.05	0.57
30:BD:65:ILE:HA	30:BD:104:TYR:HB2	1.85	0.57
23:AW:32:U:H2'	23:AW:34:U:H5	1.68	0.57
2:AB:103:THR:OG1	2:AB:176:GLU:HG3	2.04	0.57
27:BA:1991:U:H2'	27:BA:1992:G:H5''	1.85	0.57
1:AA:373:A:O2'	1:AA:451:A:N7	2.37	0.57
20:CT:63:ILE:HD13	20:CT:80:ARG:CB	2.34	0.57
6:AF:97:PHE:CZ	18:AR:61:LYS:HE2	2.40	0.57
1:CA:1209:C:O2'	1:CA:1210:C:H5'	2.03	0.57
14:CN:23:ARG:NH1	14:CN:30:ALA:HB2	2.18	0.57
8:CH:82:HIS:HE2	8:CH:136:GLU:CD	2.07	0.57
1:CA:648:A:H2'	1:CA:649:G:C8	2.39	0.57
33:BG:53:LEU:N	33:BG:53:LEU:HD22	2.18	0.57
49:D0:40:GLN:OE1	49:D0:45:PHE:HB2	2.04	0.57
17:AQ:57:VAL:HA	17:AQ:77:VAL:HG23	1.86	0.57
13:AM:22:ILE:HG21	13:AM:25:ILE:HD13	1.85	0.57
42:DT:126:ALA:C	42:DT:128:GLU:H	2.07	0.57
27:BA:2099:U:OP2	27:BA:2099:U:H6	1.86	0.57
27:DA:414:C:H2'	27:DA:415:A:C8	2.36	0.57
32:DF:103:LYS:HA	32:DF:106:ARG:HG3	1.85	0.57
1:AA:1293:G:H2'	1:AA:1294:G:H8	1.68	0.57
1:AA:644:G:C2'	1:AA:645:C:H5'	2.33	0.57
9:AI:112:LYS:HA	9:AI:119:ALA:H	1.69	0.57
27:BA:1627:G:C2	27:BA:1628:G:C8	2.91	0.57
27:BA:1640:C:H2'	27:BA:1641:A:H5'	1.86	0.57
3:CC:150:LYS:HG3	3:CC:169:ALA:HB2	1.86	0.57
27:DA:1688:U:H3	27:DA:1700:A:C5'	2.17	0.57
56:D7:25:PRO:HG3	56:D7:28:ARG:NH2	2.19	0.57
1:CA:990:C:H2'	1:CA:991:U:C6	2.38	0.57
1:CA:1409:C:H2'	1:CA:1410:G:C8	2.40	0.57
53:D4:46:ASN:HD22	53:D4:47:VAL:H	1.53	0.57
30:DD:102:LYS:O	30:DD:103:ARG:HG2	2.04	0.57
3:AC:145:GLY:O	3:AC:146:ALA:HB2	2.04	0.57
23:AW:42:G:H2'	23:AW:43:C:H5''	1.85	0.57
27:BA:924:C:O2'	27:BA:925:C:H5'	2.04	0.57
27:DA:701:G:H1	27:DA:731:C:H42	1.53	0.57
27:BA:1459:G:N3	27:BA:1459:G:H2'	2.18	0.57
27:BA:2528:U:H2'	27:BA:2530:A:O5'	2.03	0.57
27:DA:1116:C:H2'	27:DA:1117:G:H8	1.69	0.57
1:AA:537:G:H2'	1:AA:538:G:H8	1.68	0.57
32:DF:28:ILE:O	32:DF:30:PRO:HD3	2.04	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CG:32:ARG:O	7:CG:33:ASP:HB2	2.03	0.57
45:BW:79:GLY:C	45:BW:100:THR:HG22	2.24	0.57
1:CA:978:A:H5''	1:CA:978:A:H8	1.68	0.57
14:CN:39:LEU:HD12	14:CN:44:LEU:HA	1.85	0.57
54:B5:52:TYR:O	54:B5:53:ALA:C	2.41	0.57
40:BR:18:LEU:CD1	40:BR:22:ARG:NE	2.67	0.57
27:DA:1929:G:H4'	27:DA:1930:G:OP1	2.04	0.57
33:BG:111:LEU:HD22	33:BG:117:PHE:CE2	2.40	0.57
5:AE:129:ILE:CG2	5:AE:130:ASN:N	2.54	0.57
44:BV:6:LYS:HG3	44:BV:11:GLN:HG2	1.85	0.57
27:DA:1893:C:C2'	27:DA:1894:C:O5'	2.53	0.57
42:BT:28:VAL:O	42:BT:29:ARG:CG	2.53	0.57
27:DA:985:C:H2'	27:DA:986:C:C6	2.39	0.57
27:DA:1490:A:H5'	27:DA:1494:A:H62	1.69	0.57
30:DD:26:LYS:O	30:DD:27:THR:CB	2.51	0.57
11:AK:39:PRO:C	11:AK:40:ILE:HD13	2.25	0.57
38:DP:87:ASP:C	38:DP:89:ALA:N	2.56	0.57
27:DA:141:A:C8	27:DA:1408:C:O2'	2.55	0.57
1:AA:430:A:P	4:AD:8:VAL:H	2.27	0.57
30:BD:72:LYS:HZ3	30:BD:103:ARG:HH12	1.52	0.57
4:CD:102:ASP:HB3	4:CD:136:PRO:HA	1.86	0.57
1:CA:67:C:H2'	1:CA:68:G:H8	1.67	0.57
2:AB:151:GLY:O	2:AB:152:PHE:CB	2.52	0.57
42:DT:29:ARG:HG3	42:DT:30:VAL:HG13	1.85	0.57
26:CZ:3:SER:O	26:CZ:5:UAL:N	2.37	0.57
30:BD:49:ILE:CD1	30:BD:52:ARG:HA	2.26	0.57
2:CB:32:ILE:HD11	2:CB:40:HIS:CB	2.25	0.57
2:CB:82:ARG:HA	2:CB:92:TYR:CE2	2.39	0.57
20:CT:88:VAL:O	20:CT:88:VAL:HG12	2.04	0.57
15:CO:85:LEU:HB3	15:CO:87:ILE:HD11	1.86	0.57
30:BD:66:ASP:OD2	30:BD:69:ARG:HG2	2.04	0.57
8:CH:6:ILE:HG22	8:CH:7:ALA:N	2.18	0.57
1:AA:443:C:H2'	1:AA:444:C:H6	1.68	0.57
7:AG:148:ASN:ND2	25:AY:39:C:H4'	2.20	0.57
42:DT:123:GLN:O	42:DT:126:ALA:HB3	2.03	0.57
16:CP:71:ARG:O	16:CP:74:LEU:HB2	2.04	0.57
54:D5:31:VAL:O	54:D5:39:MET:HB3	2.04	0.57
27:BA:628:G:O2'	27:BA:629:G:O4'	2.19	0.57
27:BA:110:G:H2'	27:BA:111:A:H8	1.70	0.57
3:AC:134:ILE:HG23	3:AC:151:VAL:HG12	1.86	0.57
14:AN:60:SER:O	14:AN:61:TRP:HB3	2.04	0.57
44:BV:82:ARG:C	44:BV:83:ARG:HG2	2.25	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DR:37:THR:OG1	40:DR:40:LYS:HB2	2.04	0.57
33:BG:118:ARG:H	33:BG:181:ARG:NH2	1.97	0.57
27:BA:2311:A:H4'	27:BA:2312:U:OP1	2.04	0.57
12:AL:15:VAL:CG2	12:AL:16:ARG:H	2.16	0.57
50:B1:18:ILE:O	50:B1:19:GLN:NE2	2.35	0.57
27:BA:1204:A:O2'	27:BA:1205:U:OP2	2.17	0.57
1:AA:979:C:H42	14:AN:18:VAL:HG12	1.70	0.57
27:DA:1229:G:O2'	27:DA:1230:C:H5'	2.03	0.57
47:DY:4:LYS:HG3	47:DY:5:MET:N	2.20	0.57
27:BA:2103:C:H42	27:BA:2186:G:H1	1.53	0.57
11:CK:69:ALA:O	11:CK:73:MET:HG3	2.04	0.57
11:CK:65:ALA:HB1	11:CK:98:LEU:CD2	2.34	0.57
7:AG:71:PRO:HA	7:AG:138:LYS:HG3	1.87	0.57
10:CJ:30:SER:OG	10:CJ:81:THR:HG22	2.04	0.57
5:CE:96:PRO:HA	5:CE:117:ASP:OD2	2.05	0.57
47:DY:43:ASN:ND2	47:DY:64:GLU:HG3	2.19	0.57
27:BA:528:A:O5'	27:BA:528:A:C8	2.57	0.57
9:CI:41:VAL:O	9:CI:41:VAL:HG12	2.04	0.57
15:CO:37:ASN:ND2	15:CO:37:ASN:N	2.53	0.57
27:DA:380:U:H2'	27:DA:381:G:H8	1.69	0.57
2:CB:134:GLU:HA	2:CB:137:ARG:CB	2.34	0.57
27:BA:2227:A:H5'	30:BD:263:ARG:HH11	1.69	0.57
27:DA:2682:U:H5'	27:DA:2682:U:C6	2.40	0.57
1:CA:181:G:H21	1:CA:183:G:H22	1.51	0.57
35:BI:30:LEU:HA	35:BI:35:LEU:HB2	1.87	0.57
27:BA:363(F):A:O2'	27:BA:364:C:C5	2.56	0.57
27:BA:736:C:O2'	27:BA:737:C:H5'	2.04	0.57
11:AK:111:ASP:HA	18:AR:84:LYS:HG3	1.87	0.57
52:B3:26:LEU:O	52:B3:35:ARG:NE	2.34	0.57
30:BD:183:ARG:HG2	30:BD:183:ARG:HH11	1.69	0.57
1:AA:11:G:C5	1:AA:12:U:C5	2.92	0.57
11:CK:86:GLY:O	11:CK:87:THR:O	2.22	0.57
25:AY:37:U:H2'	25:AY:38:U:C4'	2.34	0.57
41:BS:39:ILE:HG22	41:BS:39:ILE:O	2.05	0.57
32:BF:22:ALA:HA	32:BF:26:ALA:HB2	1.85	0.57
57:D8:6:THR:HG22	57:D8:63:PRO:CG	2.33	0.57
12:CL:43:LYS:CG	12:CL:44:LYS:N	2.61	0.57
1:CA:723:U:O2'	1:CA:724:G:H5'	2.05	0.57
32:DF:125:LEU:HD11	32:DF:199:TRP:CD1	2.39	0.57
29:BC:41:VAL:CA	29:BC:213:TYR:HA	2.16	0.57
41:BS:66:ALA:O	41:BS:69:VAL:CG1	2.53	0.57
30:DD:26:LYS:NZ	30:DD:82:ILE:HB	2.20	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:861:A:H2'	27:DA:862:G:O4'	2.03	0.57
27:DA:873:G:C2	27:DA:905:U:H1'	2.39	0.57
27:DA:1993:U:H4'	31:DE:128:SER:HB3	1.85	0.57
39:BQ:2:LEU:HG	39:BQ:70:PRO:CG	2.34	0.57
39:BQ:46:GLN:O	39:BQ:47:ILE:C	2.43	0.57
1:CA:197:A:O2'	1:CA:198:G:H8	1.87	0.57
47:BY:13:VAL:HG22	47:BY:28:LYS:HE2	1.85	0.57
30:BD:186:HIS:CD2	30:BD:188:GLU:HG2	2.39	0.57
1:CA:527:G:H2'	1:CA:528:C:H5'	1.85	0.57
38:BP:107:LYS:HG3	38:BP:107:LYS:O	2.04	0.57
27:DA:2159:G:C2'	27:DA:2160:G:H5''	2.34	0.57
27:DA:2126:A:C5'	29:DC:36:LYS:HG2	2.34	0.57
35:BI:133:HIS:O	35:BI:134:PRO:C	2.43	0.57
40:DR:14:SER:HA	40:DR:17:ARG:HH12	1.69	0.57
27:DA:856:C:H4'	27:DA:857:C:OP1	2.03	0.57
27:BA:2307:G:H3'	27:BA:2307:G:N3	2.20	0.57
1:CA:19:C:O2	1:CA:917:G:C2	2.57	0.57
28:DB:44:G:C2	28:DB:48:A:C2	2.92	0.57
57:B8:14:VAL:HG21	57:B8:22:VAL:HG12	1.86	0.57
6:CF:8:ILE:HG22	6:CF:10:LEU:CD1	2.30	0.57
13:AM:15:VAL:HG23	13:AM:16:ASP:N	2.18	0.57
1:AA:743:U:O2'	1:AA:744:C:H5'	2.04	0.57
27:DA:265:A:O2'	27:DA:266:G:O4'	2.23	0.57
40:DR:26:LYS:NZ	40:DR:71:GLN:HB3	2.19	0.57
1:AA:189(I):G:H2'	1:AA:189(J):G:C8	2.40	0.57
5:AE:20:GLN:HE22	5:AE:25:ARG:NH2	2.02	0.57
27:BA:185:U:H2'	27:BA:186:G:C8	2.38	0.57
14:AN:9:LYS:HG3	14:AN:12:ARG:NH1	2.19	0.57
23:CW:70:C:O2'	23:CW:71:A:C8	2.58	0.57
1:CA:115:G:O2'	1:CA:116:A:OP2	2.22	0.57
45:BW:85:VAL:HG12	45:BW:86:LEU:H	1.69	0.57
32:BF:45:ARG:NH1	32:BF:97:TYR:CD1	2.72	0.57
3:CC:127:ARG:NH1	3:CC:127:ARG:HG2	2.20	0.57
27:DA:292:C:C2	27:DA:349:G:N2	2.72	0.57
27:BA:99:U:O4'	27:BA:99:U:O2	2.22	0.57
53:D4:62:CYS:C	53:D4:64:LYS:H	2.06	0.57
1:AA:1414:U:H3	1:AA:1486:G:H1	1.50	0.57
47:DY:54:LYS:O	47:DY:55:TYR:CG	2.57	0.57
27:BA:425:G:O2'	27:BA:426:C:H5'	2.05	0.57
3:AC:40:ARG:HB3	3:AC:44:GLU:OE2	2.04	0.57
1:CA:49:U:O2	1:CA:362:G:H1'	2.05	0.57
27:BA:606:U:H4'	27:BA:658:C:H4'	1.86	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:730:G:C5	1:AA:731:G:H1'	2.39	0.57
27:BA:2492:U:H2'	27:BA:2493:U:H6	1.70	0.57
41:BS:42:ASP:O	41:BS:43:GLU:HB2	2.04	0.57
31:BE:13:ARG:HD2	31:BE:20:ALA:HB1	1.85	0.57
3:CC:61:ALA:O	3:CC:62:ASP:HB2	2.05	0.57
31:BE:113:PHE:HE2	31:BE:157:ALA:HB1	1.68	0.57
1:CA:986:A:H2'	1:CA:987:G:O4'	2.04	0.57
27:BA:2810:A:C2'	31:BE:61:ARG:NH2	2.68	0.57
34:BH:138:LYS:O	34:BH:141:VAL:HB	2.04	0.57
30:DD:243:GLY:O	30:DD:244:ARG:HB3	2.04	0.57
52:B3:30:ARG:H	52:B3:33:GLN:NE2	2.03	0.57
17:AQ:43:LEU:HD12	17:AQ:68:ARG:CG	2.30	0.57
17:AQ:63:ARG:NH1	17:AQ:63:ARG:HB3	2.18	0.57
29:BC:76:ALA:C	29:BC:78:ALA:H	2.08	0.57
43:DU:97:ASP:HA	43:DU:100:VAL:CG2	2.35	0.57
42:BT:40:THR:O	42:BT:41:ARG:HB2	2.04	0.57
20:CT:91:LEU:C	20:CT:93:GLU:H	2.07	0.57
2:AB:17:PHE:HD2	2:AB:17:PHE:N	2.02	0.57
41:DS:61:ASN:O	41:DS:62:LYS:HG2	2.05	0.57
1:CA:968:A:N6	1:CA:1063:C:H5'	2.19	0.57
42:BT:74:ARG:HD2	42:BT:76:PHE:CZ	2.40	0.57
1:CA:1060:C:H2'	1:CA:1061:G:H8	1.69	0.57
32:BF:132:VAL:CG1	32:BF:133:ASN:H	2.05	0.57
1:AA:1243:C:H2'	1:AA:1244:C:H6	1.69	0.57
1:AA:64:G:C4'	1:AA:65:U:O5'	2.49	0.57
11:AK:28:THR:HG21	11:AK:61:ALA:CB	2.33	0.57
13:AM:82:MET:HG2	13:AM:82:MET:O	2.04	0.57
5:AE:76:ILE:O	5:AE:93:PRO:HB3	2.05	0.57
1:CA:53:A:N1	1:CA:54:C:C2	2.73	0.57
27:BA:2407:G:H2'	27:BA:2408:U:C6	2.39	0.57
27:DA:2896:C:H2'	27:DA:2896:C:O2	2.04	0.57
27:DA:7:G:H5''	36:DN:121:LYS:NZ	2.20	0.57
27:DA:220:G:H2'	27:DA:221:A:N7	2.19	0.57
10:CJ:22:LYS:C	10:CJ:22:LYS:HD2	2.25	0.57
37:BO:103:ALA:C	37:BO:105:GLU:N	2.58	0.57
3:AC:64:VAL:HG22	3:AC:98:ASN:O	2.04	0.57
27:BA:1261:C:C2'	27:BA:1262:A:O5'	2.53	0.57
13:CM:80:ARG:O	13:CM:82:MET:N	2.38	0.57
27:BA:2051:A:H4'	27:BA:2052:G:OP1	2.04	0.57
1:AA:188:C:O4'	20:AT:89:ARG:NH2	2.38	0.57
2:CB:141:GLU:O	2:CB:145:LEU:HB2	2.05	0.57
39:BQ:39:PRO:O	39:BQ:40:ALA:HB2	2.04	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:49:U:O2'	1:AA:50:A:H2'	2.03	0.57
13:AM:52:GLU:HG2	13:AM:55:ARG:NH2	2.20	0.57
25:AY:54:U:H2'	25:AY:56:G:OP2	2.04	0.57
1:AA:1113:C:H2'	1:AA:1114:C:C6	2.40	0.57
29:DC:18:LYS:O	29:DC:19:VAL:C	2.43	0.57
1:AA:1471:G:H2'	1:AA:1472:U:C6	2.40	0.57
27:DA:1248:G:H3'	27:DA:1249:U:H5'	1.86	0.57
27:DA:720:C:H2'	27:DA:721:C:C6	2.40	0.57
17:CQ:66:SER:OG	17:CQ:69:LYS:HB3	2.05	0.57
27:BA:1859:A:N6	27:BA:1883:G:O2'	2.38	0.57
8:AH:37:ARG:O	8:AH:37:ARG:HG2	2.04	0.57
48:BZ:39:ASP:OD1	48:BZ:41:VAL:HG12	2.04	0.57
40:BR:34:ILE:HG22	40:BR:35:THR:N	2.20	0.57
32:BF:21:ALA:N	32:BF:23:ASP:OD1	2.38	0.57
27:DA:1971:A:C4	30:DD:241:PRO:HG3	2.40	0.57
1:CA:428:G:O4'	1:CA:430:A:C8	2.58	0.57
27:BA:483:A:O2'	47:BY:60:PHE:HZ	1.87	0.57
31:BE:77:ILE:C	31:BE:78:LEU:HD23	2.25	0.57
5:AE:43:LEU:HD12	5:AE:44:GLY:N	2.19	0.57
27:DA:2087:G:O2'	27:DA:2088:G:H5'	2.05	0.57
27:BA:2697:G:H2'	27:BA:2698:U:O4'	2.04	0.57
30:DD:77:ALA:HB3	30:DD:117:VAL:CG2	2.32	0.57
11:AK:18:ARG:NH2	11:AK:35:PRO:O	2.33	0.57
27:DA:2553:G:H2'	27:DA:2554:U:O4'	2.03	0.57
1:CA:619:U:C2	4:CD:135:LEU:HD21	2.39	0.57
4:CD:173:TRP:CD1	4:CD:189:PRO:HG3	2.37	0.57
8:AH:12:ARG:HD2	8:AH:26:VAL:HB	1.87	0.57
8:AH:44:PHE:HE2	8:AH:109:ILE:CG2	2.17	0.57
27:BA:792:G:H4'	27:BA:793:A:O5'	2.05	0.57
17:AQ:62:SER:OG	17:AQ:72:ARG:HG3	2.05	0.57
2:AB:171:ALA:HA	2:AB:174:VAL:CG2	2.34	0.57
1:CA:895:G:H2'	1:CA:896:C:H6	1.70	0.57
27:BA:1999:C:N3	27:BA:2000:G:C8	2.73	0.57
34:BH:158:HIS:CD2	34:BH:170:ARG:O	2.57	0.57
40:BR:55:ALA:HA	40:BR:80:PHE:CE1	2.40	0.57
27:DA:2183:C:O2'	27:DA:2184:G:H5'	2.05	0.57
39:DQ:69:PHE:O	39:DQ:95:ALA:HB2	2.04	0.57
38:BP:99:LEU:HG	38:BP:102:ARG:HH11	1.69	0.57
29:DC:66:HIS:O	29:DC:68:LEU:N	2.36	0.57
27:BA:6:A:C2	27:BA:7:G:C4	2.92	0.57
40:DR:10:LEU:HB3	40:DR:17:ARG:CZ	2.35	0.57
27:BA:62:C:H2'	27:BA:63:U:H5'	1.85	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2303:G:H2'	27:DA:2304:G:H8	1.69	0.57
33:DG:68:PRO:HA	33:DG:92:VAL:HB	1.85	0.57
39:BQ:134:ARG:HH21	48:BZ:121:ARG:NH2	2.03	0.57
30:BD:213:ARG:O	30:BD:216:GLY:N	2.36	0.57
27:DA:1665:A:C4'	37:DO:67:LYS:HB2	2.34	0.57
1:CA:880:C:H2'	1:CA:881:G:C8	2.36	0.57
8:CH:39:LEU:HD12	8:CH:44:PHE:CD2	2.39	0.57
40:DR:48:VAL:O	40:DR:52:ILE:HG12	2.04	0.57
31:BE:69:LYS:C	31:BE:71:GLY:H	2.08	0.57
27:DA:1233:C:H2'	27:DA:1234:U:C6	2.39	0.57
1:CA:738:C:H5'	6:CF:72:VAL:HG11	1.87	0.57
28:BB:7:G:H21	41:BS:38:GLN:NE2	2.01	0.57
2:AB:80:ILE:CD1	2:AB:211:ILE:HG22	2.35	0.57
2:CB:80:ILE:HG12	2:CB:215:LEU:HD12	1.87	0.57
1:AA:1525:G:OP1	11:AK:120:ARG:NH2	2.38	0.57
1:CA:269:C:H2'	1:CA:270:A:H8	1.68	0.57
27:BA:706:A:H2'	27:BA:707:G:O4'	2.04	0.57
27:DA:620:G:H4'	27:DA:621:A:OP1	2.04	0.57
27:BA:181:A:C2	27:BA:435:C:H5	2.23	0.57
40:BR:76:VAL:HG12	40:BR:77:ARG:N	2.20	0.57
1:CA:860:A:H4'	8:CH:75:ARG:NH2	2.19	0.57
1:CA:859:A:C2'	1:CA:860:A:H5'	2.35	0.57
27:DA:1357:U:O2'	27:DA:1358:G:H5'	2.04	0.57
38:DP:25:SER:O	38:DP:27:HIS:N	2.37	0.57
27:DA:2108:C:H2'	27:DA:2109:U:H5'	1.86	0.57
25:AY:18:G:H5'	25:AY:19:U:H5	1.70	0.57
27:DA:378:C:O2'	27:DA:379:G:H5'	2.05	0.57
1:CA:419:C:H2'	1:CA:420:U:H5'	1.85	0.57
1:CA:424:G:H8	1:CA:424:G:O5'	1.88	0.57
1:CA:406:G:H5''	4:CD:5:ILE:CG2	2.35	0.57
27:DA:230:U:H2'	27:DA:231:C:H6	1.69	0.57
1:AA:1378:C:C5'	7:AG:94:ARG:HH12	2.17	0.57
27:DA:2003:G:H2'	27:DA:2004:G:O5'	2.04	0.57
37:DO:73:ASP:OD1	37:DO:75:SER:HB3	2.05	0.57
27:DA:1550:C:H2'	27:DA:1551:C:H6	1.67	0.57
32:BF:78:ILE:HD13	32:BF:78:ILE:H	1.70	0.57
57:B8:21:LYS:HD3	57:B8:48:PHE:CZ	2.39	0.57
10:CJ:50:ILE:HG23	10:CJ:60:ARG:NH1	2.20	0.57
32:BF:3:GLU:CB	32:BF:19:GLU:HB2	2.16	0.57
32:BF:2:LYS:HG2	32:BF:25:PRO:CB	2.35	0.57
5:AE:41:VAL:HG11	5:AE:113:ALA:CA	2.34	0.57
29:BC:76:ALA:H	29:BC:94:VAL:HG12	1.69	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:999:U:O2'	27:DA:1000:A:H5''	2.04	0.57
44:DV:19:LYS:HE2	44:DV:20:LEU:H	1.69	0.57
51:D2:50:ILE:C	51:D2:52:ASP:N	2.56	0.57
47:DY:26:LYS:NZ	47:DY:27:VAL:HG23	2.20	0.57
49:D0:25:ARG:HA	49:D0:29:GLN:NE2	2.20	0.57
27:DA:867:C:C4	27:DA:868:U:O4	2.58	0.57
31:DE:60:ASN:CG	31:DE:62:PRO:HD2	2.25	0.57
27:DA:2061:G:H5''	27:DA:2503:A:C2	2.39	0.57
20:AT:22:ARG:O	20:AT:26:ASN:ND2	2.38	0.57
55:B6:19:ARG:N	55:B6:19:ARG:HD2	2.16	0.57
30:BD:71:ASP:HB2	30:BD:103:ARG:NH2	2.17	0.57
30:BD:80:ALA:H	30:BD:95:LEU:HA	1.69	0.57
9:AI:46:ALA:C	9:AI:47:LEU:HD12	2.25	0.57
2:AB:53:ARG:NH2	2:AB:199:TYR:HE2	2.02	0.57
27:DA:88:G:H2'	27:DA:88:G:N3	2.19	0.57
2:CB:82:ARG:HG3	2:CB:92:TYR:HE2	1.70	0.57
41:BS:85:VAL:HG23	41:BS:106:ARG:HB3	1.85	0.57
27:BA:1658:C:H2'	27:BA:1659:U:C6	2.39	0.57
27:BA:1661:G:H2'	27:BA:1662:C:H6	1.69	0.57
15:AO:82:ILE:CD1	15:AO:87:ILE:H	2.15	0.57
6:AF:3:ARG:NH1	6:AF:38:GLU:OE1	2.38	0.57
42:BT:61:PHE:CE2	42:BT:76:PHE:HB2	2.39	0.57
25:AY:7:A:N1	25:AY:48:C:C4	2.73	0.57
57:B8:35:GLN:CG	57:B8:35:GLN:O	2.53	0.57
1:AA:546:G:OP2	4:AD:72:GLU:HB3	2.05	0.57
1:AA:131:C:OP1	1:AA:263:A:H4'	2.05	0.57
52:D3:22:ALA:C	52:D3:24:LYS:H	2.08	0.57
27:BA:2692:C:H42	27:BA:2717:G:H1	1.52	0.57
1:AA:1001(A):G:C8	1:AA:1002:G:C8	2.92	0.57
8:CH:39:LEU:HD22	8:CH:39:LEU:N	2.18	0.57
43:BU:26:GLY:C	43:BU:28:ARG:N	2.49	0.57
47:BY:67:LEU:HD12	47:BY:68:HIS:N	2.20	0.57
1:AA:1294:G:O2'	1:AA:1295:G:H5'	2.04	0.57
13:AM:104:ARG:HG2	13:AM:105:THR:H	1.68	0.57
3:AC:92:ALA:HB2	3:AC:99:VAL:CG1	2.34	0.57
50:B1:73:LEU:O	50:B1:75:GLU:N	2.37	0.57
7:AG:31:MET:HG3	7:AG:35:LYS:H	1.69	0.57
28:DB:15:A:H1'	28:DB:110:G:N7	2.20	0.57
32:BF:53:THR:HB	32:BF:56:GLU:CG	2.34	0.57
1:CA:320:C:C1'	1:CA:1434:A:H2	2.17	0.57
10:CJ:12:ASP:HB3	10:CJ:15:THR:OG1	2.04	0.57
1:CA:115:G:H1'	1:CA:116:A:N7	2.20	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:831:U:O2'	1:CA:832:C:H5'	2.04	0.57
27:BA:271(I):G:H3'	27:BA:271(J):C:C6	2.36	0.57
1:AA:582:U:H2'	1:AA:583:A:H8	1.70	0.57
27:BA:1957:C:O2'	27:BA:1985:G:H1'	2.04	0.57
1:CA:859:A:O2'	1:CA:860:A:H5'	2.05	0.57
27:DA:2243:U:H2'	27:DA:2243:U:O2	2.05	0.57
27:BA:83:G:HO2'	27:BA:84:A:H8	1.51	0.57
49:B0:41:ARG:H	49:B0:41:ARG:HD2	1.69	0.57
1:AA:423:G:C2'	1:AA:424:G:H5'	2.35	0.57
4:AD:178:VAL:O	4:AD:180:GLY:N	2.37	0.57
28:DB:93:G:H2'	28:DB:94:C:H6	1.70	0.57
43:BU:47:TYR:HA	43:BU:50:ARG:NH2	2.19	0.57
23:CW:7:A:H5'	23:CW:8:U:OP2	2.04	0.57
27:BA:1386:C:H2'	27:BA:1387:C:C6	2.40	0.57
7:CG:92:SER:O	7:CG:96:GLN:HB2	2.04	0.57
27:DA:1404:C:O2	27:DA:1404:C:H2'	2.04	0.57
36:DN:32:THR:HG23	36:DN:37:LYS:HG2	1.87	0.57
32:BF:103:LYS:HA	32:BF:106:ARG:HG3	1.87	0.57
27:BA:557:U:H2'	27:BA:558:G:C8	2.39	0.57
27:DA:2406:U:H5''	27:DA:2408:U:OP2	2.05	0.57
42:BT:32:TYR:CD2	42:BT:81:PRO:O	2.58	0.57
44:DV:61:VAL:O	44:DV:62:LEU:HD13	2.04	0.57
47:DY:75:ILE:HG13	47:DY:79:CYS:CA	2.20	0.57
12:CL:87:VAL:HG22	12:CL:96:HIS:CE1	2.38	0.57
27:DA:954:G:O2'	27:DA:2274:A:N1	2.33	0.57
27:DA:2401:U:H2'	27:DA:2401:U:O2	2.04	0.57
33:DG:29:TRP:HA	33:DG:29:TRP:HE3	1.69	0.57
27:DA:2056:G:H22	54:D5:4:HIS:HA	1.69	0.57
27:DA:2571:C:H5'	27:DA:2572:A:H5'	1.87	0.57
46:DX:26:TYR:CZ	46:DX:89:ILE:HB	2.39	0.57
22:AV:8:A:C6	22:AV:9:G:C6	2.93	0.57
27:DA:90:U:HO2'	27:DA:92:A:H5''	1.65	0.57
41:DS:58:LEU:HB3	41:DS:65:VAL:HG13	1.86	0.57
41:DS:89:ARG:CB	41:DS:92:TYR:HB3	2.32	0.57
1:AA:103:C:H2'	1:AA:104:G:O4'	2.04	0.57
1:AA:217:C:O2'	1:AA:470:C:N4	2.38	0.57
20:CT:28:ALA:C	20:CT:30:LYS:H	2.08	0.57
20:CT:31:SER:O	20:CT:32:ALA:C	2.42	0.57
3:CC:79:ARG:C	3:CC:81:GLY:H	2.07	0.57
27:BA:390:A:H4'	27:BA:391:G:O5'	2.05	0.57
1:CA:527:G:O2'	1:CA:528:C:H5'	2.04	0.57
48:DZ:38:VAL:HG23	48:DZ:39:ASP:N	2.20	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:DC:68:LEU:HD11	29:DC:179:SER:C	2.24	0.57
31:DE:111:ARG:C	40:DR:2:ARG:HG3	2.24	0.57
40:DR:14:SER:HA	40:DR:17:ARG:NH1	2.20	0.57
33:DG:138:GLN:HB3	33:DG:153:ARG:O	2.05	0.57
27:DA:2795:G:N2	27:DA:2799:C:H5'	2.19	0.57
26:AZ:6:5OH:HS	26:AZ:6:5OH:N	2.19	0.57
27:DA:784:A:O2'	27:DA:785:G:H5''	2.05	0.57
24:AX:75:C:H2'	24:AX:76:A:O4'	2.04	0.57
37:BO:11:ALA:HB3	37:BO:85:VAL:HG22	1.86	0.57
36:DN:28:THR:O	36:DN:31:ALA:HB3	2.05	0.57
27:DA:416:C:C4	27:DA:417:C:C4	2.92	0.57
27:DA:1257:C:H4'	32:DF:83:PHE:CD2	2.39	0.57
1:AA:1065:U:C5	1:AA:1190:G:H1'	2.40	0.57
1:CA:114:U:H2'	1:CA:115:G:C8	2.38	0.57
17:AQ:32:TYR:O	17:AQ:34:LYS:N	2.37	0.57
35:DI:4:ILE:HD11	35:DI:44:LEU:HD13	1.86	0.57
10:AJ:80:LYS:O	10:AJ:84:GLN:NE2	2.37	0.57
25:AY:56:G:N3	25:AY:56:G:H2'	2.19	0.57
2:CB:131:PRO:O	2:CB:135:GLN:N	2.34	0.57
48:BZ:172:ALA:O	48:BZ:173:VAL:HG23	2.05	0.57
27:DA:2728:U:O2'	27:DA:2729:G:H5'	2.04	0.57
27:BA:2815:C:C5'	54:B5:29:THR:HG21	2.35	0.57
1:CA:1165:C:O2'	1:CA:1166:G:H5'	2.05	0.57
2:CB:142:LEU:O	2:CB:146:GLN:HB3	2.05	0.57
27:DA:2445:G:H2'	27:DA:2446:G:H8	1.69	0.57
27:DA:2460:U:H2'	27:DA:2461:C:H5'	1.87	0.57
27:BA:1766:U:O2'	27:BA:1767:C:H5'	2.04	0.57
1:CA:985:C:O2'	1:CA:986:A:H8	1.87	0.57
57:D8:54:GLU:HA	57:D8:57:ARG:HE	1.70	0.57
1:CA:1305:G:OP1	21:CU:2:GLY:HA3	2.05	0.57
44:BV:62:LEU:HD23	44:BV:93:GLU:HB3	1.87	0.57
1:AA:129(A):G:N2	1:AA:189(E):U:O2'	2.38	0.57
27:DA:815:C:H2'	27:DA:816:C:H6	1.70	0.57
38:DP:57:THR:OG1	38:DP:59:LEU:HB2	2.05	0.57
1:CA:1106:G:H2'	1:CA:1107:C:C6	2.40	0.57
42:DT:31:SER:OG	42:DT:32:TYR:N	2.36	0.57
16:AP:4:ILE:HA	16:AP:20:VAL:O	2.05	0.57
26:CZ:6:5OH:HS	26:CZ:6:5OH:N	2.19	0.57
30:BD:226:MET:HB3	30:BD:230:ASP:CB	2.33	0.57
1:AA:70:G:N2	1:AA:100:C:C2	2.73	0.57
27:BA:1273:U:O2'	27:BA:1274:A:H5''	2.05	0.57
1:CA:178:C:H2'	1:CA:179:A:H8	1.68	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AL:80:VAL:HG11	12:AL:104:ALA:CB	2.34	0.57
1:CA:693:G:HO2'	7:CG:82:GLY:HA3	1.67	0.57
42:BT:51:ARG:HG3	42:BT:98:LYS:HG3	1.85	0.57
8:CH:80:ILE:CG2	8:CH:82:HIS:O	2.53	0.57
27:DA:2136:C:H41	27:DA:2156:G:H21	1.53	0.57
27:BA:173:G:H2'	27:BA:173:G:N3	2.20	0.57
40:DR:2:ARG:HH21	40:DR:5:LYS:NZ	2.03	0.57
41:DS:71:ARG:O	41:DS:74:ALA:HB3	2.03	0.57
24:CX:19:G:H1	33:DG:83:ARG:NH2	2.02	0.57
1:AA:826:C:H2'	1:AA:827:U:C6	2.39	0.57
8:AH:84:ARG:HH11	8:AH:84:ARG:CB	2.16	0.57
6:AF:72:VAL:HG13	6:AF:73:ASN:H	1.69	0.57
1:CA:349:A:O2'	1:CA:350:G:H5'	2.03	0.57
7:CG:143:ARG:O	7:CG:145:ALA:O	2.23	0.57
40:DR:51:LEU:HB3	40:DR:66:VAL:HG13	1.87	0.57
1:CA:874:G:HO2'	1:CA:875:C:H6	1.51	0.57
1:CA:770:C:H2'	1:CA:771:G:H8	1.68	0.57
33:BG:161:THR:HG21	33:BG:172:LEU:CD2	2.35	0.57
27:BA:2047:U:H2'	27:BA:2048:G:C5'	2.34	0.57
7:AG:60:LYS:HZ1	7:AG:63:LYS:HB3	1.70	0.57
50:B1:51:VAL:O	50:B1:51:VAL:HG13	2.04	0.57
1:CA:1336:C:O4'	1:CA:1337:G:C2	2.58	0.57
18:AR:40:LEU:O	18:AR:42:ARG:N	2.38	0.57
1:CA:1410:G:H2'	1:CA:1411:C:H6	1.70	0.57
27:BA:2732:G:C2'	27:BA:2733:A:H5'	2.34	0.57
10:AJ:82:ILE:O	10:AJ:82:ILE:HG22	2.03	0.57
36:BN:46:VAL:O	36:BN:47:ALA:HB2	2.04	0.57
34:BH:103:LEU:HD21	34:BH:105:LEU:CD2	2.35	0.57
37:BO:59:LYS:HD3	37:BO:89:ASN:OD1	2.04	0.57
10:AJ:40:LEU:N	10:AJ:40:LEU:HD23	2.19	0.57
55:D6:22:ALA:O	55:D6:23:THR:OG1	2.21	0.57
28:BB:31:C:N4	41:BS:32:LEU:HD13	2.20	0.57
1:AA:756:C:H2'	1:AA:757:U:O4'	2.04	0.57
28:BB:47:C:C2'	28:BB:48:A:H5'	2.35	0.56
57:D8:11:LYS:HE2	57:D8:64:TYR:CE1	2.38	0.56
32:DF:7:TYR:CB	32:DF:16:GLY:H	2.05	0.56
32:DF:199:TRP:O	32:DF:202:PHE:HB3	2.05	0.56
32:DF:2:LYS:HG2	32:DF:25:PRO:CB	2.34	0.56
42:BT:45:PHE:CZ	42:BT:65:LYS:HB3	2.40	0.56
27:DA:1496:A:H8	27:DA:1577:C:HO2'	1.53	0.56
27:DA:860:U:H2'	27:DA:861:A:C8	2.39	0.56
57:D8:14:VAL:HG22	57:D8:15:LYS:N	2.20	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2258:C:C6	27:DA:2426:A:H5'	2.39	0.56
27:DA:2499:C:N4	27:DA:2500:U:N3	2.53	0.56
31:DE:134:ILE:CD1	31:DE:134:ILE:N	2.68	0.56
55:B6:36:LEU:CB	55:B6:50:ARG:NH1	2.68	0.56
45:BW:19:LEU:HB3	54:B5:25:LEU:HD11	1.86	0.56
31:BE:37:ARG:HD2	31:BE:42:ASP:CG	2.25	0.56
1:AA:1082:G:C2'	1:AA:1083:U:H5'	2.35	0.56
2:CB:164:VAL:H	2:CB:186:ALA:HB2	1.70	0.56
2:CB:187:LEU:HD23	2:CB:201:ILE:O	2.06	0.56
27:BA:1339:G:H5''	46:BX:16:LYS:HD3	1.87	0.56
27:DA:777:A:O2'	30:DD:48:ARG:NH2	2.38	0.56
14:CN:26:ARG:HD2	14:CN:43:CYS:SG	2.45	0.56
27:DA:2159:G:H2'	27:DA:2160:G:H5''	1.87	0.56
36:DN:22:THR:HG23	36:DN:61:ARG:O	2.05	0.56
1:AA:1172:C:H2'	1:AA:1173:G:C8	2.40	0.56
8:AH:6:ILE:N	8:AH:6:ILE:HD12	2.15	0.56
57:B8:50:LEU:O	57:B8:51:ALA:HB3	2.05	0.56
10:CJ:48:THR:HA	10:CJ:62:HIS:HB3	1.86	0.56
1:AA:1380:U:C5	7:AG:3:ARG:HG3	2.40	0.56
27:DA:1385:G:HO2'	27:DA:1396:U:H6	1.50	0.56
15:AO:54:ARG:NH1	15:AO:58:MET:HE1	2.20	0.56
1:AA:1265:G:H3'	1:AA:1265:G:C8	2.40	0.56
27:DA:30:G:C6	27:DA:31:C:N3	2.73	0.56
1:CA:976:G:N7	1:CA:1359:C:H1'	2.20	0.56
32:DF:132:VAL:HG22	32:DF:133:ASN:N	2.17	0.56
33:BG:170:ARG:NH2	33:BG:182:LYS:NZ	2.52	0.56
27:DA:2139:C:H2'	27:DA:2140:C:C6	2.40	0.56
8:CH:9:MET:O	8:CH:13:ILE:HD13	2.04	0.56
27:DA:1167:U:H1'	27:DA:1183:G:H22	1.70	0.56
28:DB:15:A:H3'	28:DB:16:G:C5'	2.35	0.56
27:DA:528:A:H2	27:DA:2043:C:H4'	1.66	0.56
1:CA:409:G:OP1	4:CD:24:GLU:HG3	2.05	0.56
48:DZ:114:GLY:HA2	48:DZ:173:VAL:HG12	1.87	0.56
30:BD:112:GLN:N	30:BD:115:GLN:NE2	2.53	0.56
50:D1:50:ARG:HG2	50:D1:50:ARG:HH11	1.69	0.56
54:B5:32:PRO:O	54:B5:33:CYS:CB	2.52	0.56
14:AN:51:GLY:C	14:AN:53:LEU:H	2.09	0.56
27:BA:971:C:H2'	27:BA:972:G:H5'	1.86	0.56
6:AF:100:ASN:HB2	18:AR:28:GLU:HA	1.84	0.56
44:DV:68:LYS:HD3	44:DV:69:LYS:H	1.70	0.56
24:CX:8:U:H2'	24:CX:8:U:O2	2.04	0.56
1:CA:355:C:C4	1:CA:356:A:N7	2.73	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:DC:52:ARG:NH2	29:DC:53:ARG:HH21	2.03	0.56
27:BA:942:G:C2'	27:BA:943:U:H5'	2.35	0.56
1:CA:984:C:N3	1:CA:1222:G:C2	2.73	0.56
47:BY:81:LYS:NZ	47:BY:97:ARG:CG	2.68	0.56
27:DA:1823:G:C4	27:DA:1824:G:C8	2.93	0.56
44:BV:17:GLY:O	44:BV:18:LEU:HB3	2.04	0.56
9:AI:95:LYS:HG3	9:AI:96:LEU:H	1.71	0.56
27:BA:588:U:H2'	27:BA:589:C:C6	2.40	0.56
1:AA:70:G:N2	1:AA:99:U:O2	2.35	0.56
31:BE:2:LYS:HG2	31:BE:95:ILE:HG23	1.87	0.56
1:CA:310:G:H2'	1:CA:311:C:C6	2.38	0.56
1:AA:750:G:H1'	15:AO:22:THR:OG1	2.04	0.56
27:DA:52:A:HO2'	27:DA:53:A:H8	0.68	0.56
12:AL:80:VAL:HA	12:AL:102:TYR:CD1	2.38	0.56
31:BE:117:MET:O	31:BE:117:MET:HG2	2.05	0.56
23:AW:6:U:H3'	23:AW:7:A:C5'	2.31	0.56
27:BA:600:G:O3'	32:BF:108:LYS:NZ	2.37	0.56
1:AA:876:G:H2'	1:AA:877:C:C6	2.41	0.56
33:DG:126:ASP:HA	33:DG:166:ASP:OD1	2.04	0.56
39:BQ:52:VAL:HA	39:BQ:55:VAL:CG1	2.34	0.56
1:AA:579:G:C5'	1:AA:728:A:H1'	2.35	0.56
3:AC:58:GLU:H	3:AC:65:ALA:CB	2.17	0.56
48:DZ:135:PHE:HE1	48:DZ:137:GLU:HB3	1.69	0.56
32:BF:34:TRP:CZ2	38:BP:12:ALA:HB2	2.40	0.56
36:DN:68:GLU:HG2	36:DN:88:GLU:OE2	2.05	0.56
1:AA:784:C:H2'	1:AA:785:G:O4'	2.05	0.56
27:DA:2094:G:OP1	35:DI:22:LYS:HD2	2.05	0.56
37:DO:2:ILE:O	37:DO:33:ALA:N	2.31	0.56
25:CY:30:A:H2'	25:CY:31:U:H5'	1.86	0.56
34:BH:28:GLY:HA3	34:BH:79:VAL:CB	2.34	0.56
42:BT:127:ALA:O	42:BT:129:ARG:N	2.38	0.56
27:BA:2759:G:N2	27:BA:2760:C:C2	2.73	0.56
48:BZ:144:GLU:CD	48:BZ:145:ILE:H	2.08	0.56
27:DA:2063:C:H2'	27:DA:2064:C:O4'	2.05	0.56
1:CA:1463:C:O2'	1:CA:1464:G:H5'	2.05	0.56
1:CA:1466:C:O2'	1:CA:1467:G:H5'	2.04	0.56
13:CM:63:THR:HG22	13:CM:63:THR:O	2.05	0.56
27:DA:1027:A:N6	27:DA:1126:A:H1'	2.20	0.56
27:DA:214:G:H1'	27:DA:216:A:O2'	2.06	0.56
27:BA:2402:C:C2'	27:BA:2403:C:H5'	2.34	0.56
27:BA:2415:G:H4'	38:BP:67:MET:N	2.21	0.56
19:CS:53:ASN:O	19:CS:77:THR:HG22	2.04	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:BY:76:CYS:CB	47:BY:96:ILE:HD11	2.36	0.56
27:DA:1025:G:O2'	27:DA:1026:U:P	2.64	0.56
46:BX:28:PHE:O	46:BX:30:VAL:HG12	2.06	0.56
57:D8:8:LYS:O	57:D8:12:LYS:HG3	2.05	0.56
4:CD:18:LYS:HG3	4:CD:31:CYS:SG	2.45	0.56
43:BU:88:ILE:C	43:BU:90:VAL:H	2.06	0.56
44:BV:57:VAL:O	44:BV:57:VAL:HG13	2.06	0.56
32:DF:24:LEU:HB3	32:DF:25:PRO:CD	2.35	0.56
43:DU:85:LYS:C	43:DU:87:GLY:H	2.09	0.56
30:DD:117:VAL:O	30:DD:118:VAL:HB	2.05	0.56
57:D8:43:GLN:O	57:D8:44:LYS:CD	2.54	0.56
27:DA:2428:G:OP1	27:DA:2428:G:H3'	2.06	0.56
27:DA:2494:G:C2'	27:DA:2495:G:O5'	2.53	0.56
57:D8:31:HIS:O	57:D8:32:LEU:O	2.23	0.56
27:DA:582:G:C2	27:DA:1259:G:C2	2.94	0.56
27:DA:142:A:C8	27:DA:1595:G:N2	2.66	0.56
34:BH:43:VAL:O	34:BH:43:VAL:CG2	2.54	0.56
1:CA:66:G:H2'	1:CA:66:G:N3	2.21	0.56
47:BY:32:PRO:C	47:BY:34:LYS:N	2.59	0.56
1:AA:1221:G:H4'	19:AS:77:THR:HG21	1.87	0.56
1:AA:971:G:H22	1:AA:1363(A):A:P	2.28	0.56
42:DT:35:LYS:HZ1	42:DT:41:ARG:HH21	1.52	0.56
1:AA:530:G:O2'	23:AW:34:U:H4'	2.05	0.56
27:BA:855:G:H2'	27:BA:856:C:C6	2.40	0.56
27:DA:2756:U:H5''	58:D9:19:ARG:HA	1.86	0.56
1:AA:376:G:H2'	1:AA:377:G:H8	1.70	0.56
41:DS:19:LYS:C	41:DS:20:ARG:HD3	2.24	0.56
41:DS:89:ARG:O	41:DS:92:TYR:HB3	2.05	0.56
31:BE:34:VAL:HG23	31:BE:34:VAL:O	2.05	0.56
31:BE:81:ILE:O	31:BE:81:ILE:CG2	2.53	0.56
1:AA:1074:G:O3'	2:AB:103:THR:HG21	2.05	0.56
1:CA:279:A:HO2'	1:CA:280:C:P	2.28	0.56
27:BA:748:G:C2'	27:BA:750:A:N7	2.68	0.56
7:AG:45:ASP:O	7:AG:49:ILE:HG12	2.06	0.56
1:CA:1038:C:H2'	1:CA:1039:C:C2	2.39	0.56
1:CA:966:G:O2'	1:CA:967:C:O5'	2.23	0.56
50:B1:7:ILE:CD1	50:B1:7:ILE:N	2.67	0.56
5:CE:57:LYS:HG2	5:CE:61:TYR:CE2	2.40	0.56
5:CE:57:LYS:HG2	5:CE:61:TYR:HE2	1.68	0.56
1:CA:522:C:H41	12:CL:50:ARG:NH2	2.02	0.56
1:CA:1260:C:C3'	1:CA:1260:C:C6	2.89	0.56
27:BA:2577:A:H2'	27:BA:2614:A:N6	2.20	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:DZ:97:MET:HE2	48:DZ:98:TYR:O	2.05	0.56
8:CH:29:SER:O	8:CH:32:LYS:HB2	2.05	0.56
27:DA:6:A:O2'	36:DN:130:HIS:HB3	2.06	0.56
27:DA:1310:G:OP2	56:D7:9:ARG:CZ	2.54	0.56
35:BI:114:LEU:HD23	35:BI:130:TYR:HE1	1.68	0.56
35:BI:12:LEU:HD23	35:BI:12:LEU:N	2.21	0.56
7:AG:76:ARG:HB2	7:AG:89:MET:SD	2.45	0.56
1:AA:397:A:H5'	1:AA:398:C:OP1	2.05	0.56
1:AA:498:U:HO2'	1:AA:499:A:P	2.28	0.56
28:DB:47:C:H2'	28:DB:48:A:H5'	1.87	0.56
27:BA:64:A:C5	46:BX:66:LEU:HD12	2.40	0.56
39:BQ:137:TYR:CD2	39:BQ:137:TYR:N	2.73	0.56
30:BD:205:VAL:O	30:BD:206:LEU:C	2.44	0.56
37:BO:81:ASP:C	37:BO:81:ASP:OD2	2.42	0.56
37:DO:65:THR:O	37:DO:79:PHE:HD1	1.88	0.56
27:BA:2694:G:H5'	27:BA:2694:G:C8	2.29	0.56
27:DA:2297:C:N3	27:DA:2320:A:C8	2.74	0.56
27:BA:2096:U:H2'	27:BA:2097:C:C6	2.40	0.56
1:AA:1003:G:N2	1:AA:1039:C:H42	2.03	0.56
1:AA:728:A:C5	15:AO:54:ARG:HD2	2.40	0.56
33:BG:86:MET:CB	33:BG:87:PRO:HD3	2.35	0.56
5:CE:90:VAL:C	5:CE:91:LEU:HD12	2.26	0.56
3:AC:134:ILE:C	3:AC:136:GLN:H	2.07	0.56
27:DA:1028:A:H2	27:DA:2486:G:N3	2.03	0.56
27:BA:1914:C:H2'	27:BA:1915:U:O4'	2.05	0.56
27:DA:506:G:H5''	27:DA:507:A:OP1	2.05	0.56
1:CA:940:C:O2'	1:CA:941:G:H5'	2.06	0.56
27:BA:2303:G:H5''	33:BG:126:ASP:HB2	1.87	0.56
33:BG:123:ASN:HB3	33:BG:126:ASP:OD2	2.05	0.56
12:AL:86:ARG:HH11	12:AL:86:ARG:HB2	1.70	0.56
1:CA:769:G:H4'	1:CA:1513:A:H4'	1.88	0.56
43:BU:31:SER:O	43:BU:33:ARG:N	2.37	0.56
3:AC:153:VAL:HG22	3:AC:198:VAL:HG13	1.86	0.56
9:CI:48:GLU:N	9:CI:49:PRO:CD	2.69	0.56
1:AA:956:U:H2'	1:AA:957:U:O4'	2.05	0.56
38:DP:127:ALA:HB3	38:DP:130:PHE:CE2	2.40	0.56
29:DC:77:ILE:O	29:DC:77:ILE:HG23	2.03	0.56
1:CA:332:G:H2'	1:CA:333:G:H8	1.70	0.56
8:CH:86:ILE:HB	8:CH:133:LEU:HD22	1.87	0.56
10:CJ:81:THR:C	10:CJ:83:GLU:H	2.09	0.56
27:DA:1400:G:H2'	27:DA:1401:G:C8	2.38	0.56
27:DA:2329:G:H2'	27:DA:2330:G:C8	2.40	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AI:33:PHE:O	9:AI:36:TYR:HB3	2.04	0.56
1:AA:1095:U:H2'	1:AA:1096:C:C6	2.40	0.56
27:BA:470:A:H2'	27:BA:471:A:H8	1.70	0.56
27:BA:2685:G:H5'	37:BO:68:GLU:CD	2.26	0.56
1:AA:1143:G:H2'	1:AA:1144:G:C8	2.40	0.56
27:DA:1445:A:H5'	27:DA:1445(A):C:OP2	2.05	0.56
27:BA:1754:C:H2'	27:BA:1755:A:C8	2.39	0.56
27:DA:350:U:O2'	27:DA:351:G:H5'	2.05	0.56
27:BA:1936:A:C3'	27:BA:1937:A:C5'	2.83	0.56
1:CA:296:U:H4'	1:CA:556:C:O2	2.05	0.56
51:D2:31:GLU:O	51:D2:34:GLU:HB3	2.04	0.56
27:DA:1398:C:C5'	27:DA:1398:C:C6	2.89	0.56
27:DA:2235:G:C2	27:DA:2236:C:C2	2.93	0.56
19:CS:29:ARG:HD2	19:CS:30:LEU:N	2.21	0.56
27:DA:2091:U:H1'	50:D1:47:GLN:OE1	2.05	0.56
27:BA:1445:A:N3	27:BA:1445:A:H2'	2.19	0.56
19:CS:10:PHE:CE2	19:CS:38:SER:HA	2.40	0.56
25:AY:53:U:H3	25:AY:60:C:H42	1.51	0.56
1:AA:731:G:OP1	1:AA:766:A:H1'	2.06	0.56
1:AA:11:G:H2'	1:AA:12:U:O4'	2.05	0.56
51:D2:65:ASN:O	51:D2:68:ARG:HB2	2.05	0.56
30:DD:79:VAL:HG12	30:DD:113:VAL:HA	1.86	0.56
12:CL:51:LYS:HD2	12:CL:51:LYS:N	2.19	0.56
4:AD:88:VAL:O	4:AD:92:VAL:HG23	2.04	0.56
27:BA:1765:C:H42	27:BA:1987:G:H1	1.54	0.56
27:BA:894:C:H2'	27:BA:895:U:H6	1.69	0.56
27:BA:353:G:O2'	27:BA:354:G:H5'	2.05	0.56
27:BA:811:U:H3	27:BA:1250:G:P	2.28	0.56
8:CH:5:PRO:O	8:CH:8:ASP:HB3	2.04	0.56
1:AA:1200:C:O2'	1:AA:1201:A:OP2	2.23	0.56
1:CA:1194:U:H4'	5:CE:22:GLY:O	2.06	0.56
1:AA:769:G:O2'	1:AA:770:C:H5'	2.05	0.56
4:CD:46:LYS:O	4:CD:47:ARG:C	2.43	0.56
48:BZ:7:TYR:HB2	48:BZ:37:TYR:CE2	2.41	0.56
27:BA:639:U:H2'	27:BA:640:C:C5	2.40	0.56
38:BP:51:PHE:HB3	38:BP:52:GLU:HG2	1.87	0.56
43:BU:101:ARG:O	43:BU:102:GLU:HG2	2.06	0.56
44:BV:37:VAL:O	44:BV:38:LEU:HB2	2.05	0.56
47:DY:27:VAL:CA	47:DY:28:LYS:NZ	2.64	0.56
27:DA:870:A:C2	27:DA:908:C:N3	2.73	0.56
55:D6:36:LEU:C	55:D6:37:ARG:HD2	2.26	0.56
27:DA:2276:G:O2'	27:DA:2277:G:C8	2.58	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DP:144:GLU:HG2	38:DP:144:GLU:O	2.06	0.56
54:D5:4:HIS:CB	54:D5:5:PRO:CD	2.84	0.56
1:AA:192:U:O3'	20:AT:57:ARG:HD2	2.05	0.56
55:B6:36:LEU:C	55:B6:37:ARG:HD2	2.25	0.56
4:AD:8:VAL:C	4:AD:10:ARG:N	2.59	0.56
19:AS:37:ARG:HD3	19:AS:37:ARG:O	2.06	0.56
30:BD:227:ASN:O	30:BD:230:ASP:HB2	2.03	0.56
2:AB:188:ALA:HB1	2:AB:192:SER:HB2	1.87	0.56
32:DF:183:VAL:HA	32:DF:186:ILE:HG13	1.88	0.56
58:B9:24:TYR:CE2	58:B9:35:ARG:CD	2.89	0.56
16:AP:74:LEU:HB3	16:AP:79:VAL:HG21	1.87	0.56
20:CT:75:ASN:N	20:CT:75:ASN:OD1	2.37	0.56
6:AF:10:LEU:CD1	6:AF:10:LEU:N	2.66	0.56
9:CI:8:GLY:O	9:CI:14:VAL:HG13	2.05	0.56
12:AL:80:VAL:CG1	12:AL:104:ALA:HB3	2.34	0.56
1:CA:192:U:H2'	1:CA:193:C:C6	2.41	0.56
27:DA:1313:U:H2'	27:DA:1610:A:C2	2.41	0.56
27:DA:686:G:C2	56:D7:11:LYS:HE3	2.41	0.56
31:DE:110:GLY:CA	31:DE:162:ALA:H	2.17	0.56
27:BA:75:G:H4'	51:B2:55:ARG:NH1	2.21	0.56
51:B2:9:GLN:HE22	51:B2:56:GLN:CG	2.19	0.56
27:BA:764:A:C5	30:BD:209:ALA:CB	2.88	0.56
5:CE:103:GLY:C	5:CE:105:VAL:H	2.09	0.56
27:BA:104:U:H2'	27:BA:105:C:O4'	2.05	0.56
43:DU:26:GLY:O	43:DU:30:LYS:HG2	2.05	0.56
27:BA:897:C:O2	27:BA:897:C:C2'	2.52	0.56
1:AA:979:C:H2'	1:AA:980:C:H5''	1.88	0.56
30:DD:112:GLN:HB2	30:DD:115:GLN:HE21	1.69	0.56
34:DH:105:LEU:HD23	34:DH:115:VAL:CG2	2.35	0.56
36:BN:57:ALA:O	36:BN:58:ASP:OD1	2.24	0.56
37:DO:87:ILE:CG2	37:DO:91:LEU:HA	2.34	0.56
1:AA:279:A:H5''	1:AA:281:G:H5'	1.86	0.56
1:AA:1131:G:H2'	1:AA:1132:C:C5	2.41	0.56
13:AM:49:THR:OG1	13:AM:52:GLU:HG3	2.05	0.56
23:CW:38:U:H2'	23:CW:39:C:H6	1.70	0.56
1:CA:1380:U:C4	7:CG:3:ARG:HG3	2.41	0.56
43:BU:52:ARG:HD2	43:BU:55:ARG:HH21	1.70	0.56
27:BA:2082:A:H2'	27:BA:2083:G:O4'	2.05	0.56
1:AA:655:A:H2'	1:AA:656:C:H6	1.71	0.56
3:AC:42:LEU:O	3:AC:45:LYS:HB2	2.04	0.56
1:CA:1377:A:H2'	7:CG:7:ALA:HB2	1.88	0.56
3:AC:67:THR:HG23	3:AC:102:ASN:HB2	1.86	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:AY:24:C:O2'	25:AY:25:A:H5'	2.05	0.56
40:BR:41:ALA:O	40:BR:42:LYS:C	2.44	0.56
32:BF:24:LEU:O	32:BF:26:ALA:N	2.39	0.56
27:DA:1140:C:H5''	36:DN:66:LYS:NZ	2.19	0.56
27:DA:1006:C:H1'	36:DN:106:MET:SD	2.46	0.56
27:BA:511:U:C5	27:BA:512:G:C5	2.94	0.56
1:CA:429:U:H1'	1:CA:430:A:H5''	1.87	0.56
5:AE:129:ILE:O	5:AE:130:ASN:C	2.44	0.56
27:BA:535:C:O2'	27:BA:536:A:H5'	2.05	0.56
27:DA:1011:G:C2	27:DA:1151:G:C2	2.94	0.56
27:DA:995:C:O2	36:DN:4:TYR:OH	2.23	0.56
43:DU:103:PRO:O	43:DU:106:PHE:N	2.39	0.56
43:DU:108:GLU:O	43:DU:111:GLU:HB2	2.04	0.56
44:DV:19:LYS:HZ2	44:DV:20:LEU:C	2.09	0.56
1:AA:344:A:H4'	1:AA:345:C:OP2	2.04	0.56
47:DY:8:LYS:H	47:DY:8:LYS:HD2	1.69	0.56
27:DA:904:C:C2'	27:DA:905:U:H5'	2.30	0.56
38:DP:85:LEU:HD23	38:DP:85:LEU:H	1.69	0.56
39:DQ:17:LEU:HD22	39:DQ:96:VAL:HG13	1.88	0.56
27:DA:2571:C:C3'	27:DA:2572:A:H5'	2.36	0.56
45:DW:87:PRO:O	45:DW:88:ARG:HD2	2.05	0.56
46:DX:44:GLU:HG2	46:DX:49:VAL:O	2.05	0.56
46:DX:89:ILE:HG22	46:DX:89:ILE:O	2.03	0.56
2:AB:204:ASN:ND2	2:AB:205:ASP:N	2.53	0.56
27:DA:1798:U:H5''	30:DD:259:THR:HG22	1.83	0.56
40:DR:77:ARG:C	40:DR:79:LEU:H	2.09	0.56
16:AP:22:THR:OG1	16:AP:23:ASP:N	2.38	0.56
16:AP:58:TYR:O	16:AP:62:VAL:HG22	2.05	0.56
31:BE:93:VAL:O	31:BE:95:ILE:N	2.38	0.56
27:DA:1242:A:C6	38:DP:8:PRO:HB3	2.40	0.56
1:CA:606:G:H3'	1:CA:607:A:H5'	1.86	0.56
27:DA:2645:G:C4'	27:DA:2732:G:O2'	2.50	0.56
16:AP:28:ARG:HG2	16:AP:29:ASP:OD2	2.06	0.56
34:BH:156:ALA:HB3	34:BH:159:GLU:HB3	1.88	0.56
27:DA:58:G:N2	27:DA:70:G:C5	2.73	0.56
27:DA:541:C:H2'	27:DA:542:C:C6	2.40	0.56
27:DA:547:A:N3	27:DA:547:A:H2'	2.21	0.56
42:BT:106:SER:HA	42:BT:110:ILE:HG13	1.88	0.56
27:BA:1485:G:H2'	27:BA:1486:A:C8	2.41	0.56
30:BD:142:VAL:CG2	30:BD:143:HIS:N	2.67	0.56
27:BA:2160:G:H2'	27:BA:2161:C:C5	2.41	0.56
35:BI:127:VAL:HA	35:BI:139:GLN:HA	1.86	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1650:G:N2	27:DA:1651:G:H1'	2.21	0.56
27:DA:1762:A:C8	27:DA:1762:A:O5'	2.47	0.56
3:AC:200:ALA:C	3:AC:201:TYR:CD1	2.79	0.56
51:B2:54:LYS:O	51:B2:57:ILE:HB	2.05	0.56
1:AA:262:A:C5'	20:AT:74:LYS:HG3	2.32	0.56
10:CJ:96:ILE:H	10:CJ:96:ILE:HD13	1.70	0.56
1:CA:338:A:H2'	1:CA:339:C:O4'	2.05	0.56
42:DT:117:ASP:OD2	42:DT:120:ARG:HG3	2.05	0.56
31:DE:3:GLY:O	31:DE:4:ILE:HB	2.05	0.56
30:DD:271:ILE:O	30:DD:272:ALA:HB2	2.05	0.56
1:AA:663:A:H2'	1:AA:664:G:O4'	2.04	0.56
33:BG:86:MET:CB	33:BG:87:PRO:CD	2.84	0.56
27:DA:29:U:O2'	27:DA:30:G:H5'	2.06	0.56
27:BA:394:A:H2'	27:BA:395:U:O4'	2.05	0.56
1:CA:1095:U:H5'	1:CA:1109:C:O2	2.06	0.56
27:BA:1925:C:O2'	27:BA:1926:U:H5'	2.05	0.56
6:AF:15:ASP:O	6:AF:17:SER:N	2.39	0.56
1:AA:1510:U:H3	1:AA:1525:G:H1	1.54	0.56
4:AD:170:VAL:CG1	4:AD:174:LEU:HB2	2.35	0.56
27:BA:549:G:C2'	27:BA:551:G:H5''	2.35	0.56
27:DA:1819:A:C5'	30:DD:158:ALA:HB2	2.35	0.56
3:AC:7:PRO:O	3:AC:11:ARG:HG2	2.06	0.56
1:CA:70:G:O2'	1:CA:71:C:H5'	2.06	0.56
32:BF:47:GLY:HA3	32:BF:95:ARG:O	2.05	0.56
27:BA:330:A:O2'	27:BA:331:A:C8	2.58	0.56
40:DR:118:GLU:OE1	40:DR:118:GLU:HA	2.05	0.56
27:BA:2184:G:C6	27:BA:2185:C:N4	2.73	0.56
27:BA:1788:C:O2'	27:BA:1789:A:H5'	2.05	0.56
34:DH:130:ARG:HD3	34:DH:132:ARG:NH2	2.19	0.56
1:CA:909:A:H2'	1:CA:910:C:O4'	2.06	0.56
25:CY:61:C:H2'	25:CY:62:U:C6	2.41	0.56
39:DQ:74:TYR:H	39:DQ:90:VAL:HG13	1.70	0.56
1:AA:803:G:H2'	1:AA:804:U:C6	2.41	0.56
27:BA:247:G:O6	57:B8:8:LYS:HB3	2.06	0.56
27:BA:1281:G:C2	27:BA:1290:C:N3	2.74	0.56
27:BA:2835:A:H4'	27:BA:2836:U:OP1	2.05	0.56
2:CB:91:PRO:HA	2:CB:151:GLY:O	2.05	0.56
1:AA:913:A:H4'	1:AA:914:A:O5'	2.06	0.56
36:DN:62:VAL:HG22	36:DN:66:LYS:HD2	1.86	0.56
57:D8:61:LEU:HD13	57:D8:62:LEU:H	1.70	0.56
57:D8:50:LEU:O	57:D8:51:ALA:HB3	2.06	0.56
27:DA:1693:U:O2'	30:DD:14:ARG:NH2	2.39	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1199:U:H2'	27:BA:1200:C:C6	2.41	0.56
32:BF:65:TRP:CZ3	32:BF:72:ARG:HB3	2.40	0.56
44:BV:52:VAL:HG22	44:BV:52:VAL:O	2.04	0.56
27:DA:1419:A:H2'	27:DA:1421:G:N7	2.20	0.56
12:CL:67:ILE:HD11	12:CL:74:LEU:HD12	1.86	0.56
55:D6:14:THR:O	55:D6:49:HIS:HA	2.05	0.56
38:DP:95:VAL:HG23	38:DP:100:LEU:HD21	1.87	0.56
27:BA:1019:U:H3	27:BA:1142(A):A:H62	1.52	0.56
45:BW:19:LEU:HB3	54:B5:25:LEU:CD1	2.35	0.56
42:DT:27:THR:O	42:DT:28:VAL:CG2	2.53	0.56
27:DA:2747:G:N2	27:DA:2748:A:N6	2.54	0.56
41:BS:85:VAL:C	41:BS:106:ARG:HG3	2.26	0.56
27:BA:828:U:C5	27:BA:829:A:N6	2.74	0.56
27:BA:1316:U:H2'	27:BA:1317:A:C8	2.39	0.56
1:CA:189(L):G:H2'	1:CA:190:U:C5	2.37	0.56
1:CA:1053:G:C5	1:CA:1199:U:H2'	2.41	0.56
27:BA:2868:A:H2'	27:BA:2869:G:C8	2.41	0.56
39:DQ:27:VAL:N	39:DQ:137:TYR:HD1	2.00	0.56
27:DA:1639:U:H4'	27:DA:2699:C:H4'	1.87	0.56
48:BZ:156:LEU:HD12	48:BZ:156:LEU:N	2.20	0.56
1:AA:1164:G:H2'	1:AA:1165:C:C6	2.40	0.56
1:AA:1241:G:O2'	1:AA:1242:C:C6	2.50	0.56
27:DA:2665:A:O2'	27:DA:2666:C:H5'	2.06	0.56
27:DA:2303:G:H1	27:DA:2313:C:N4	2.04	0.56
1:AA:874:G:H2'	1:AA:875:C:H6	1.69	0.56
5:CE:33:VAL:HG22	5:CE:43:LEU:HD13	1.87	0.56
27:DA:2848:G:N2	27:DA:2867:G:H1'	2.19	0.56
37:DO:1:MET:HG3	37:DO:32:TYR:CG	2.40	0.56
1:AA:1039:C:O2'	1:AA:1040:U:H5'	2.04	0.56
54:D5:40:LYS:HD2	54:D5:40:LYS:C	2.25	0.56
54:D5:51:TYR:HD1	54:D5:52:TYR:CE2	2.23	0.56
27:DA:522:G:O2'	27:DA:523:C:H5'	2.06	0.56
15:CO:4:THR:HG23	15:CO:7:GLU:OE2	2.06	0.56
33:BG:15:VAL:HG22	33:BG:175:LEU:HB3	1.86	0.56
29:BC:196:LEU:O	29:BC:198:ALA:N	2.39	0.56
11:CK:101:SER:C	11:CK:103:LEU:N	2.56	0.56
1:CA:328:C:H2'	1:CA:328:C:O2	2.05	0.56
28:DB:62:C:H2'	28:DB:63:G:O4'	2.05	0.56
13:CM:56:LEU:C	13:CM:56:LEU:HD13	2.26	0.56
12:CL:112:LYS:O	12:CL:114:ARG:N	2.38	0.56
1:CA:1009:G:N2	1:CA:1021:G:H1'	2.20	0.56
27:BA:1612:C:H42	27:BA:1619:G:H1	1.54	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:419:C:C2'	1:AA:420:U:H5'	2.34	0.56
1:AA:426:G:P	4:AD:36:ARG:HH21	2.28	0.56
34:BH:117:PRO:HB3	34:BH:123:PHE:CE1	2.41	0.56
1:CA:898:G:H22	1:CA:900:A:H3'	1.71	0.56
1:CA:1423:G:H2'	1:CA:1424:C:C6	2.41	0.56
7:AG:127:ALA:O	7:AG:129:GLU:N	2.39	0.56
27:DA:99:U:O2'	27:DA:100:G:P	2.63	0.56
41:BS:29:PHE:O	41:BS:35:ILE:HA	2.05	0.56
11:AK:88:GLY:C	11:AK:90:GLY:H	2.08	0.56
33:BG:144:ILE:O	33:BG:144:ILE:HG23	2.04	0.56
27:BA:873:G:C2	27:BA:905:U:O2	2.59	0.56
27:BA:11:G:O2'	27:BA:12:U:H5'	2.05	0.56
27:DA:2131:G:H5'	27:DA:2133:G:O5'	2.06	0.56
38:BP:115:LEU:HA	38:BP:134:ALA:CB	2.35	0.56
40:BR:21:TYR:HB3	40:BR:47:PHE:CE1	2.41	0.56
27:BA:2804:C:H2'	27:BA:2805:G:C8	2.41	0.56
27:BA:2682:U:H5''	31:BE:11:MET:O	2.05	0.56
38:DP:47:ASP:HB3	38:DP:48:PRO:O	2.05	0.56
38:DP:50:ARG:HD3	57:D8:7:HIS:NE2	2.21	0.56
4:CD:60:GLU:OE1	4:CD:199:ASN:N	2.39	0.56
9:CI:118:LYS:O	9:CI:120:ARG:N	2.38	0.56
43:BU:41:ALA:O	43:BU:42:ALA:O	2.24	0.56
32:DF:20:LEU:HD22	32:DF:203:GLN:OE1	2.06	0.56
8:AH:69:ARG:CZ	8:AH:69:ARG:HB2	2.36	0.56
44:DV:4:ILE:O	44:DV:39:LEU:HD22	2.05	0.56
27:BA:1462:C:H2'	27:BA:1463:C:O4'	2.05	0.56
27:DA:1578:U:O2	27:DA:1578:U:H2'	2.05	0.56
37:BO:107:ARG:NH1	42:BT:36:GLU:H	2.04	0.56
49:D0:26:TYR:O	49:D0:29:GLN:HG3	2.06	0.56
27:DA:873:G:H4'	39:DQ:63:LYS:HE2	1.88	0.56
39:DQ:64:ILE:N	48:DZ:177:GLU:OE2	2.37	0.56
55:D6:15:GLU:CG	55:D6:18:ARG:HE	2.17	0.56
27:DA:2050:C:C4	27:DA:2051:A:C2	2.93	0.56
46:DX:57:LEU:CD2	46:DX:78:LYS:HD3	2.35	0.56
34:BH:53:GLU:O	34:BH:54:ARG:HB3	2.06	0.56
27:BA:1491:G:P	27:BA:1494:A:N6	2.79	0.56
27:BA:1499:C:C2'	27:BA:1500:G:H5'	2.34	0.56
27:DA:1032:A:OP1	58:D9:8:LYS:HG2	2.05	0.56
1:AA:1321:C:H3'	1:AA:1322:C:C6	2.41	0.56
27:DA:542:C:N3	27:DA:543:C:N4	2.53	0.56
27:DA:1622:G:O2'	27:DA:1623:G:H5'	2.06	0.56
57:B8:34:TRP:CE2	57:B8:35:GLN:HB3	2.41	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BI:10:GLU:O	35:BI:11:ASN:HB2	2.05	0.56
2:AB:63:MET:HB3	2:AB:225:ALA:CB	2.33	0.56
30:BD:146:GLU:OE2	30:BD:152:GLY:N	2.37	0.56
51:B2:9:GLN:HE22	51:B2:56:GLN:CD	2.09	0.56
29:DC:82:LYS:O	29:DC:83:ILE:HD13	2.06	0.56
39:BQ:27:VAL:HG11	39:BQ:134:ARG:HG2	1.87	0.56
1:CA:52:G:C6	1:CA:360:A:C2	2.94	0.56
23:CW:53:U:H4'	39:DQ:52:VAL:CG2	2.35	0.56
27:DA:267:C:H2'	27:DA:268:C:C6	2.39	0.56
15:CO:11:VAL:O	15:CO:14:GLU:HB3	2.06	0.56
29:DC:45:ALA:O	29:DC:46:LYS:HB2	2.06	0.56
1:AA:956:U:O2	1:AA:1225:A:C2	2.59	0.56
11:CK:74:ALA:C	11:CK:76:GLY:N	2.57	0.56
13:CM:90:LEU:O	13:CM:91:ARG:CB	2.53	0.56
28:DB:109:C:H5'	28:DB:110:G:O5'	2.05	0.56
1:CA:944:G:H21	1:CA:1339:A:H62	1.53	0.56
27:DA:1799:G:H5'	27:DA:1819:A:H61	1.69	0.56
2:CB:21:ARG:HB2	2:CB:38:GLY:O	2.06	0.56
40:BR:77:ARG:O	40:BR:81:ASP:OD2	2.23	0.56
1:CA:1288:A:O2'	1:CA:1289:A:H5'	2.06	0.56
1:CA:929:G:H2'	1:CA:930:C:H6	1.71	0.56
28:DB:26:A:H2'	28:DB:27:C:C6	2.40	0.56
20:CT:10:LEU:O	20:CT:13:LEU:HD23	2.06	0.56
9:AI:105:ASP:OD2	9:AI:107:ARG:HD3	2.06	0.56
43:DU:8:VAL:HG12	43:DU:12:ARG:HE	1.69	0.56
43:DU:9:VAL:CG1	43:DU:13:LYS:HE3	2.35	0.56
27:BA:2082:A:C8	27:BA:2083:G:C8	2.94	0.56
24:CX:67:C:H2'	24:CX:67:C:O2	2.06	0.56
27:BA:834:C:O2'	27:BA:835:A:H5'	2.06	0.56
9:AI:125:TYR:CZ	9:AI:127:LYS:HB2	2.41	0.56
1:CA:1290:G:H3'	1:CA:1291:G:C8	2.41	0.56
7:AG:43:PHE:C	7:AG:43:PHE:CD1	2.78	0.56
27:DA:1611:C:H5'	27:DA:1611:C:H6	1.70	0.56
1:AA:978:A:C8	1:AA:978:A:H5''	2.41	0.56
32:BF:2:LYS:HE2	32:BF:25:PRO:CB	2.31	0.56
57:D8:61:LEU:O	57:D8:63:PRO:O	2.23	0.56
27:BA:30:G:H2'	27:BA:31:C:H6	1.68	0.56
33:BG:114:ILE:O	33:BG:115:ARG:C	2.45	0.56
13:CM:23:TYR:HB3	13:CM:67:GLU:CB	2.34	0.56
27:BA:479:A:O2'	27:BA:481:G:H5'	2.06	0.56
1:CA:1347:G:C2	1:CA:1373:G:H2'	2.39	0.56
27:DA:534:U:O2'	43:DU:49:HIS:HD2	1.89	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BT:35:LYS:C	42:BT:37:GLY:H	2.09	0.56
31:DE:67:PHE:HD2	31:DE:69:LYS:CE	2.19	0.56
27:DA:2276:G:O2'	27:DA:2277:G:H8	1.88	0.56
27:DA:2258:C:O2'	27:DA:2426:A:H4'	2.06	0.56
27:DA:631:A:H2'	27:DA:632:A:O5'	2.06	0.56
27:DA:570:G:O6	27:DA:2499:C:OP1	2.24	0.56
27:DA:941:A:O5'	38:DP:35:HIS:HE1	1.89	0.56
20:AT:63:ILE:CD1	20:AT:80:ARG:HB2	2.35	0.56
45:BW:18:ARG:NH1	45:BW:76:VAL:O	2.38	0.56
27:DA:1348:G:H2'	27:DA:1349:A:H5''	1.87	0.56
27:DA:143:G:C1'	46:DX:37:THR:HG21	2.36	0.56
31:DE:91:VAL:HG12	31:DE:92:THR:N	2.21	0.56
8:AH:100:ILE:HB	8:AH:125:ARG:NH1	2.20	0.56
41:DS:66:ALA:O	41:DS:69:VAL:CG1	2.53	0.56
27:BA:126:A:C6	27:BA:127:A:N1	2.74	0.56
31:BE:47:VAL:HG21	31:BE:86:PRO:HD3	1.87	0.56
46:DX:12:VAL:HG12	46:DX:27:THR:CB	2.36	0.56
16:AP:74:LEU:O	16:AP:79:VAL:HG23	2.06	0.56
45:BW:92:ARG:O	45:BW:93:ALA:HB3	2.05	0.56
27:DA:49:A:H1'	27:DA:51:G:C4	2.41	0.56
27:BA:2274:A:N1	27:BA:2276:G:H1'	2.20	0.56
31:BE:117:MET:HB2	31:BE:122:PHE:O	2.06	0.56
25:AY:67:C:H2'	25:AY:68:C:H6	1.69	0.56
1:CA:1498:U:H1'	1:CA:1499:A:N7	2.19	0.56
1:CA:922:G:C6	1:CA:923:A:C6	2.93	0.56
35:BI:139:GLN:O	35:BI:140:LEU:HB2	2.04	0.56
1:AA:1442:G:C8	1:AA:1442(B):A:C2	2.94	0.56
8:AH:84:ARG:NH1	8:AH:84:ARG:CG	2.61	0.56
42:BT:67:SER:O	42:BT:68:TYR:O	2.22	0.56
27:BA:844:C:H3'	27:BA:845:G:C8	2.40	0.56
1:CA:1315:U:O2'	1:CA:1360:A:H1'	2.06	0.56
40:DR:99:LYS:HZ3	54:D5:43:HIS:HB3	1.71	0.56
27:DA:479:A:O2'	27:DA:481:G:H5'	2.06	0.56
27:BA:2618:G:H21	31:BE:150:VAL:HG21	1.71	0.56
1:AA:26:A:O2'	4:AD:209:ARG:NH2	2.39	0.56
47:BY:67:LEU:C	47:BY:67:LEU:HD12	2.25	0.56
39:DQ:19:GLY:O	39:DQ:98:LYS:HD3	2.05	0.56
37:BO:102:VAL:O	37:BO:122:LEU:O	2.23	0.56
16:AP:14:ASN:OD1	16:AP:42:ARG:NH2	2.35	0.56
27:DA:428:A:H3'	27:DA:429:A:H8	1.70	0.56
34:DH:104:GLU:CD	34:DH:112:PRO:HB2	2.26	0.56
27:DA:2607:G:H2'	27:DA:2608:G:O4'	2.06	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:226:G:H5''	27:BA:257:A:O2'	2.05	0.56
27:DA:2593:U:C2	27:DA:2594:C:H5	2.23	0.56
1:AA:841:U:H3'	1:AA:848:C:O4'	2.05	0.56
51:B2:7:ARG:HG3	51:B2:8:LYS:N	2.21	0.56
11:AK:104:GLN:HE22	11:AK:106:LYS:HD2	1.70	0.56
2:CB:24:TRP:CZ3	2:CB:26:PRO:HA	2.40	0.56
27:BA:460:A:H3'	27:BA:461:C:H6	1.71	0.56
27:DA:1721:G:H5''	27:DA:1721:G:N3	2.21	0.56
1:CA:929:G:H1	1:CA:1388:C:N4	2.03	0.56
34:BH:103:LEU:HD21	34:BH:105:LEU:HD22	1.88	0.56
27:BA:2455:G:H2'	27:BA:2456:C:H6	1.70	0.56
30:DD:186:HIS:CD2	30:DD:188:GLU:HB2	2.39	0.56
1:AA:1415:G:O2'	1:AA:1416:G:H5'	2.06	0.56
27:BA:2083:G:H2'	27:BA:2084:C:C6	2.41	0.56
27:BA:353:G:H2'	27:BA:354:G:H8	1.71	0.56
3:AC:42:LEU:HA	3:AC:45:LYS:HD2	1.86	0.56
42:DT:132:LYS:C	42:DT:134:GLU:H	2.08	0.56
2:AB:236:TYR:HA	2:AB:239:VAL:HG23	1.87	0.56
51:B2:63:VAL:O	51:B2:66:GLU:HG2	2.06	0.56
35:DI:92:VAL:CG1	35:DI:120:ILE:HB	2.35	0.56
27:DA:1763:G:OP1	27:DA:1763:G:H4'	2.06	0.56
3:CC:121:ALA:O	3:CC:125:GLU:HG3	2.06	0.56
27:BA:839:U:O2'	27:BA:840:C:H5'	2.06	0.56
27:BA:1279:G:OP1	40:BR:35:THR:OG1	2.23	0.56
44:BV:19:LYS:HZ1	44:BV:20:LEU:HB2	1.70	0.56
1:AA:129(A):G:N2	1:AA:189(E):U:H1'	2.21	0.56
44:DV:58:VAL:HG12	44:DV:59:ALA:H	1.71	0.56
47:DY:95:LYS:HE2	47:DY:100:ALA:HB2	1.88	0.56
47:DY:95:LYS:HE2	47:DY:100:ALA:CB	2.35	0.56
47:DY:26:LYS:HG2	47:DY:27:VAL:N	2.21	0.56
1:AA:472:A:H2'	1:AA:473:G:O4'	2.05	0.56
57:D8:39:LYS:O	57:D8:42:ARG:HB3	2.06	0.56
27:DA:631:A:OP2	57:D8:46:ARG:NH2	2.37	0.56
27:DA:2443:C:O2'	27:DA:2444:G:H5'	2.06	0.56
27:DA:2612:C:O2'	27:DA:2613:U:C5'	2.52	0.56
32:DF:65:TRP:CZ3	32:DF:73:ALA:O	2.58	0.56
45:BW:10:VAL:O	45:BW:10:VAL:HG12	2.06	0.56
39:BQ:2:LEU:HG	39:BQ:70:PRO:HG3	1.88	0.56
35:DI:133:HIS:CB	35:DI:134:PRO:CD	2.80	0.56
14:AN:22:THR:O	14:AN:23:ARG:HB2	2.05	0.56
1:AA:1060:C:C5'	14:AN:45:ARG:HH22	2.18	0.56
8:AH:9:MET:SD	8:AH:32:LYS:HD3	2.46	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DF:187:VAL:HB	38:DP:7:ARG:NH2	2.21	0.56
1:CA:265:G:H4'	17:CQ:65:ILE:C	2.26	0.56
37:BO:78:ARG:CB	37:BO:78:ARG:NH1	2.69	0.56
27:DA:48:G:H5'	27:DA:52:A:C4'	2.35	0.56
48:DZ:127:VAL:HG13	48:DZ:128:SER:N	2.21	0.56
27:BA:2161:C:H2'	27:BA:2162:G:C8	2.40	0.56
2:CB:158:LEU:CD1	2:CB:158:LEU:H	2.03	0.56
46:DX:60:ARG:NH2	56:D7:47:ARG:NH2	2.53	0.56
27:BA:2425:A:H5''	27:BA:2427:C:O4'	2.05	0.56
29:DC:78:ALA:CB	29:DC:82:LYS:HB2	2.35	0.56
29:DC:87:GLU:HG2	29:DC:94:VAL:HG22	1.87	0.56
27:DA:1146:C:HO2'	27:DA:1147:C:H5'	1.67	0.56
5:CE:29:GLY:HA2	5:CE:45:PHE:CE1	2.39	0.56
27:DA:1754:C:H5'	42:DT:101:PHE:CE2	2.41	0.56
27:BA:814:C:OP1	44:BV:83:ARG:HA	2.06	0.56
13:AM:91:ARG:CB	13:AM:98:VAL:HG13	2.35	0.56
1:CA:321:A:N6	1:CA:328:C:O2'	2.35	0.56
27:BA:1848:A:H2'	27:BA:1849:G:H8	1.71	0.56
5:AE:149:GLU:O	5:AE:151:LEU:N	2.39	0.56
27:BA:271(K):U:O2'	35:BI:50:ARG:HD3	2.05	0.56
27:BA:863:A:H2	27:BA:914:C:H41	1.54	0.56
27:DA:1771:C:HO2'	27:DA:1786:A:H8	1.52	0.56
42:DT:92:GLY:C	42:DT:94:ALA:N	2.58	0.56
1:AA:563:A:H5'	1:AA:566:G:N2	2.21	0.56
28:DB:26:A:C8	28:DB:26:A:H5''	2.41	0.56
30:DD:2:ALA:O	30:DD:3:VAL:CB	2.53	0.56
27:BA:83:G:N1	27:BA:102:G:O2'	2.37	0.56
9:CI:18:PHE:HD1	9:CI:62:TYR:HD2	1.54	0.56
27:DA:1388:G:H2'	27:DA:1389:G:H5'	1.87	0.56
32:DF:53:THR:HG22	32:DF:56:GLU:HG3	1.87	0.56
31:DE:102:VAL:HG13	31:DE:172:VAL:HG23	1.88	0.56
1:CA:1445:C:O2'	1:CA:1446:U:H5'	2.06	0.56
1:CA:1169:A:H2'	1:CA:1170:A:C8	2.41	0.56
1:AA:538:G:H5''	12:AL:111:LYS:HB2	1.87	0.56
18:AR:86:VAL:HG12	18:AR:87:ARG:CD	2.36	0.56
40:DR:58:GLY:HA2	40:DR:80:PHE:HE1	1.71	0.56
38:BP:84:ASN:HD22	38:BP:115:LEU:CD2	2.18	0.56
19:CS:52:TYR:CE1	19:CS:56:GLN:HA	2.41	0.56
32:BF:25:PRO:HG3	32:BF:119:ARG:CA	2.36	0.56
47:BY:80:GLY:O	47:BY:81:LYS:HB2	2.05	0.56
30:DD:9:TYR:CD2	30:DD:10:THR:HG22	2.41	0.56
4:CD:33:MET:HE2	4:CD:33:MET:HA	1.87	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1306:A:N6	1:CA:1331:G:O2'	2.38	0.56
42:BT:30:VAL:HG11	42:BT:84:GLN:HE22	1.71	0.56
42:BT:65:LYS:NZ	42:BT:66:VAL:H	2.04	0.56
1:AA:1402:C:C2'	1:AA:1403:C:H5'	2.35	0.56
31:DE:57:LYS:C	31:DE:59:VAL:H	2.10	0.56
27:DA:2344:U:H4'	27:DA:2345:G:OP1	2.05	0.56
27:DA:2416:C:OP1	38:DP:64:LYS:O	2.24	0.56
27:DA:820:A:C2	27:DA:943:U:H4'	2.41	0.56
27:DA:587:C:C5	38:DP:33:ARG:NH1	2.74	0.56
27:DA:139(A):G:H22	46:DX:44:GLU:CD	2.09	0.56
27:DA:2745:C:H4'	34:DH:142:GLY:C	2.25	0.56
1:AA:1073:U:H2'	1:AA:1074:G:H8	1.70	0.56
6:AF:40:VAL:HG23	6:AF:63:TYR:CE1	2.41	0.56
27:DA:2525:G:H1	27:DA:2538:C:H42	1.54	0.56
48:DZ:128:SER:C	48:DZ:130:ARG:H	2.09	0.56
1:CA:782:A:H2'	1:CA:783:C:O4'	2.06	0.56
1:AA:875:C:H1'	8:AH:15:ASN:HD21	1.71	0.56
5:CE:48:ALA:HB1	5:CE:49:PRO:HD2	1.86	0.56
42:DT:100:TYR:O	42:DT:103:ARG:HG3	2.06	0.56
8:CH:104:ARG:HB3	8:CH:107:LEU:HB2	1.87	0.56
7:CG:138:LYS:O	7:CG:141:VAL:HB	2.05	0.56
45:DW:24:ILE:HG21	45:DW:36:LEU:HD11	1.87	0.56
8:AH:93:VAL:O	8:AH:132:GLU:HA	2.06	0.56
36:DN:126:PRO:O	36:DN:127:ASP:HB2	2.06	0.56
10:CJ:30:SER:HA	10:CJ:80:LYS:HD3	1.88	0.56
1:CA:76:C:H42	1:CA:93:G:H1	1.54	0.56
27:DA:898:C:C2'	27:DA:899:A:H5'	2.35	0.56
27:BA:271(J):C:H2'	27:BA:271(J):C:O2	2.06	0.56
1:AA:879:C:O2'	1:AA:880:C:H5'	2.06	0.56
27:DA:612:C:H42	27:DA:615:G:H1	1.51	0.56
2:AB:24:TRP:N	2:AB:24:TRP:CD1	2.74	0.56
1:AA:72:C:H2'	1:AA:73:G:H8	1.68	0.56
27:DA:2728:U:H5'	37:DO:70:LYS:NZ	2.21	0.56
1:CA:181:G:N2	1:CA:183:G:H22	2.04	0.56
1:CA:486:U:HO2'	1:CA:487:A:H8	1.51	0.56
27:DA:1632:A:H8	27:DA:1632:A:O5'	1.89	0.56
40:BR:8:ARG:CZ	40:BR:8:ARG:HA	2.36	0.56
10:AJ:40:LEU:HG	10:AJ:69:ASN:HB3	1.88	0.56
27:DA:1434:A:H2'	27:DA:1435:G:C8	2.41	0.56
1:CA:1452:C:O2'	1:CA:1456:G:N2	2.39	0.56
42:DT:22:PHE:N	42:DT:22:PHE:CD2	2.74	0.56
1:CA:773:G:H2'	1:CA:774:G:O4'	2.06	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:138:VAL:O	3:AC:138:VAL:HG12	2.06	0.56
27:BA:1894:C:O5'	27:BA:1894:C:H6	1.89	0.56
30:DD:45:ASN:OD1	30:DD:46:GLN:N	2.39	0.56
38:BP:50:ARG:NH2	38:BP:50:ARG:HG2	2.21	0.55
1:CA:977:A:O2'	1:CA:978:A:H5'	2.06	0.55
10:CJ:63:PHE:HA	14:CN:59:ALA:CB	2.35	0.55
27:BA:2883:A:C5'	27:BA:2884:U:H5'	2.32	0.55
27:DA:1907:G:C2	27:DA:1924:C:O2	2.58	0.55
30:DD:13:ARG:HA	30:DD:16:MET:HB3	1.89	0.55
1:CA:428:G:HO2'	1:CA:429:U:P	2.27	0.55
31:BE:57:LYS:C	31:BE:59:VAL:N	2.57	0.55
44:DV:46:VAL:HG13	44:DV:47:VAL:N	2.21	0.55
44:DV:46:VAL:HG22	44:DV:47:VAL:H	1.71	0.55
27:DA:436:C:H2'	27:DA:437:G:H8	1.71	0.55
55:D6:14:THR:HA	55:D6:20:ASN:O	2.06	0.55
27:DA:2066:C:C2'	27:DA:2067:G:O5'	2.54	0.55
27:DA:2069:G:C6	27:DA:2443:C:N4	2.74	0.55
55:B6:37:ARG:O	55:B6:48:VAL:O	2.22	0.55
31:DE:37:ARG:N	31:DE:46:ALA:O	2.35	0.55
30:BD:77:ALA:CB	30:BD:97:TYR:HA	2.36	0.55
1:AA:974:A:OP2	14:AN:29:ARG:NH2	2.39	0.55
8:AH:124:ALA:HA	8:AH:129:VAL:HG22	1.87	0.55
12:CL:101:VAL:O	12:CL:102:TYR:HB2	2.04	0.55
12:CL:30:ARG:O	12:CL:81:LEU:HD22	2.05	0.55
49:B0:73:GLY:O	49:B0:75:LEU:N	2.33	0.55
27:BA:752:A:O2'	27:BA:753:C:OP2	2.22	0.55
1:CA:893:C:H2'	1:CA:894:G:H8	1.70	0.55
40:DR:41:ALA:C	40:DR:43:GLU:H	2.08	0.55
1:AA:373:A:H5'	1:AA:373:A:H8	1.67	0.55
27:DA:2712:U:C2'	27:DA:2712(A):A:H8	2.19	0.55
14:CN:26:ARG:HD2	14:CN:43:CYS:HB3	1.88	0.55
29:DC:36:LYS:O	29:DC:37:PHE:C	2.44	0.55
33:BG:46:ALA:HA	33:BG:51:ARG:HB3	1.88	0.55
33:DG:76:SER:HA	33:DG:83:ARG:CB	2.35	0.55
13:CM:83:ASP:HB2	19:CS:66:MET:HE1	1.87	0.55
27:DA:2561:A:O2'	37:DO:40:VAL:HG21	2.05	0.55
42:DT:106:SER:HA	42:DT:110:ILE:HG13	1.88	0.55
5:CE:80:ILE:O	5:CE:90:VAL:HA	2.06	0.55
1:CA:577:G:C4	1:CA:578:C:H5	2.24	0.55
33:BG:170:ARG:HE	33:BG:174:GLU:CD	2.09	0.55
3:AC:150:LYS:HB2	3:AC:173:VAL:HG21	1.89	0.55
1:AA:1513:A:H2'	1:AA:1514:C:H6	1.68	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:208:ILE:O	2:CB:208:ILE:HG22	2.06	0.55
27:DA:2038:G:H2'	27:DA:2039:C:O4'	2.06	0.55
13:CM:94:ARG:N	13:CM:94:ARG:HD2	2.21	0.55
27:DA:65:C:H2'	27:DA:66:C:H6	1.71	0.55
31:BE:152:LYS:HB3	36:BN:78:TYR:CD2	2.41	0.55
1:AA:407:G:H1	1:AA:435:C:N4	2.04	0.55
46:DX:64:LYS:NZ	46:DX:73:ARG:NH1	2.53	0.55
1:AA:24:U:O2'	1:AA:25:C:H5'	2.05	0.55
47:DY:88:LYS:HD3	47:DY:93:GLY:N	2.21	0.55
1:AA:287:U:O2'	1:AA:288:A:H5'	2.06	0.55
19:CS:24:ALA:O	19:CS:25:LYS:CB	2.53	0.55
18:CR:36:ASN:ND2	18:CR:36:ASN:N	2.53	0.55
27:DA:732:C:N4	27:DA:733:G:C6	2.74	0.55
27:BA:867:C:H2'	27:BA:868:U:H6	1.70	0.55
34:DH:31:GLY:O	34:DH:79:VAL:HG12	2.07	0.55
7:CG:155:ARG:O	7:CG:156:TRP:O	2.24	0.55
27:BA:1593:G:H2'	27:BA:1594:G:C8	2.41	0.55
27:DA:217:G:O6	27:DA:431:U:O2	2.24	0.55
9:AI:23:ASN:HB2	9:AI:60:ASP:OD2	2.05	0.55
27:BA:1759:A:H5''	27:BA:2715:C:H1'	1.87	0.55
32:DF:118:ALA:C	32:DF:120:GLU:H	2.09	0.55
45:BW:23:LEU:O	45:BW:27:LYS:HD2	2.06	0.55
1:AA:1121:U:H6	1:AA:1121:U:O5'	1.89	0.55
27:BA:1876:A:H2'	27:BA:1877:A:C8	2.40	0.55
8:AH:5:PRO:O	8:AH:8:ASP:HB3	2.06	0.55
27:BA:696:G:O2'	27:BA:697:C:H5'	2.06	0.55
27:BA:2369:A:O2'	27:BA:2370:G:H5'	2.06	0.55
14:CN:2:ALA:O	14:CN:6:LEU:HD12	2.05	0.55
31:BE:104:VAL:O	31:BE:166:THR:HA	2.06	0.55
5:AE:84:PHE:HB2	5:AE:134:ALA:HB2	1.88	0.55
27:BA:2328:A:H2'	27:BA:2329:G:C8	2.41	0.55
32:DF:22:ALA:C	32:DF:24:LEU:N	2.58	0.55
19:CS:20:LEU:HA	19:CS:23:ASN:HB3	1.87	0.55
42:BT:115:ARG:O	42:BT:116:ALA:CB	2.55	0.55
36:DN:2:LYS:HB3	36:DN:4:TYR:CE2	2.42	0.55
1:CA:1240:U:OP2	7:CG:116:ALA:HB2	2.06	0.55
27:DA:752:A:O2'	27:DA:753:C:OP2	2.23	0.55
27:DA:820:A:N3	27:DA:943:U:H4'	2.20	0.55
1:CA:1104:G:H4'	2:CB:111:ARG:HH11	1.71	0.55
31:DE:1:MET:HG3	31:DE:200:GLU:OE1	2.06	0.55
47:BY:37:VAL:HG23	47:BY:38:ILE:N	2.21	0.55
1:AA:981:U:H2'	1:AA:982:U:C5	2.40	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:AN:42:ILE:HG22	14:AN:43:CYS:N	2.21	0.55
12:CL:21:VAL:O	12:CL:23:ALA:N	2.37	0.55
12:CL:21:VAL:HG22	12:CL:95:TYR:CZ	2.41	0.55
2:AB:91:PRO:CG	2:AB:155:LEU:HB2	2.36	0.55
34:DH:137:ASP:CB	34:DH:140:LYS:HB3	2.36	0.55
41:DS:25:ARG:HH12	41:DS:40:ILE:HD12	1.71	0.55
27:BA:743:G:N2	27:BA:755:C:C2	2.75	0.55
39:BQ:17:LEU:HD11	39:BQ:41:TRP:CD1	2.41	0.55
1:CA:1001(A):G:C8	1:CA:1002:G:H8	2.24	0.55
48:DZ:150:HIS:HB3	48:DZ:169:THR:CA	2.37	0.55
34:BH:87:LEU:HD13	34:BH:162:ILE:HG21	1.88	0.55
27:BA:2091:U:O2'	50:B1:47:GLN:HG3	2.06	0.55
27:DA:2538:C:H2'	27:DA:2539:C:H6	1.72	0.55
27:DA:118:A:H5'	27:DA:119:A:H8	1.69	0.55
1:CA:1074:G:H1'	2:CB:104:ASN:HD22	1.71	0.55
31:DE:110:GLY:O	40:DR:2:ARG:NE	2.39	0.55
27:DA:2308:G:O6	27:DA:2310:A:N3	2.39	0.55
1:AA:359:U:H2'	1:AA:360:A:C8	2.41	0.55
1:CA:1027:C:H2'	1:CA:1028:C:C4	2.41	0.55
5:CE:129:ILE:HG22	5:CE:130:ASN:N	2.21	0.55
42:BT:13:ARG:HA	42:BT:13:ARG:NE	2.17	0.55
27:BA:1474:C:H2'	27:BA:1475:G:C8	2.29	0.55
1:CA:13:U:O2'	1:CA:14:U:H5''	2.06	0.55
33:BG:33:ARG:O	33:BG:162:THR:HG22	2.05	0.55
13:CM:93:ARG:HB3	13:CM:94:ARG:HH11	1.72	0.55
50:B1:52:ARG:HG3	50:B1:53:VAL:N	2.19	0.55
27:DA:2594:C:O2'	27:DA:2595:G:H5'	2.07	0.55
1:AA:434:U:H2'	1:AA:435:C:C1'	2.36	0.55
27:BA:2015:A:H1'	54:B5:2:ALA:HA	1.89	0.55
1:AA:849:C:O2'	1:AA:850:U:H5'	2.05	0.55
40:BR:11:ASN:H	40:BR:17:ARG:HD3	1.71	0.55
27:BA:2110:G:OP2	27:BA:2110:G:C8	2.60	0.55
2:CB:114:ARG:HA	2:CB:117:GLU:OE1	2.04	0.55
9:AI:65:VAL:HG21	9:AI:73:GLN:HB3	1.88	0.55
19:CS:9:VAL:C	19:CS:11:VAL:H	2.10	0.55
42:BT:127:ALA:C	42:BT:129:ARG:N	2.60	0.55
7:CG:27:ILE:HD13	7:CG:40:ALA:HA	1.87	0.55
1:CA:72:C:O2'	1:CA:73:G:H5'	2.05	0.55
13:CM:76:ALA:HA	13:CM:79:LYS:CB	2.35	0.55
25:AY:18:G:C4'	25:AY:56:G:H22	2.20	0.55
29:DC:20:TYR:HD1	29:DC:20:TYR:H	1.54	0.55
21:CU:8:THR:OG1	21:CU:11:GLY:HA3	2.05	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DI:7:GLU:HG3	35:DI:8:PRO:HD2	1.87	0.55
27:BA:2555:U:C2'	27:BA:2556:C:H5'	2.36	0.55
27:DA:1116:C:H2'	27:DA:1117:G:C8	2.41	0.55
40:DR:55:ALA:HA	40:DR:80:PHE:CZ	2.41	0.55
27:BA:444:C:O2'	27:BA:445:C:H5'	2.05	0.55
27:DA:1806:C:H2'	27:DA:1807:G:C8	2.42	0.55
27:DA:1806:C:H2'	27:DA:1807:G:H8	1.71	0.55
48:BZ:110:VAL:HG13	48:BZ:110:VAL:O	2.06	0.55
50:D1:59:THR:O	50:D1:91:LYS:NZ	2.34	0.55
27:DA:1961:C:O2'	27:DA:1962:C:H5'	2.07	0.55
47:BY:62:GLU:OE1	47:BY:62:GLU:HA	2.06	0.55
32:BF:65:TRP:CB	32:BF:66:PRO:CD	2.85	0.55
44:BV:46:VAL:HG13	44:BV:47:VAL:N	2.21	0.55
8:AH:67:PRO:C	8:AH:76:PRO:HB3	2.26	0.55
1:AA:1402:C:H2'	1:AA:1403:C:O4'	2.06	0.55
27:DA:1158:C:HO2'	27:DA:1159:U:H6	1.50	0.55
27:DA:435:C:O2'	27:DA:436:C:H5'	2.06	0.55
27:DA:97:C:C2	27:DA:98:G:C8	2.94	0.55
27:DA:914:C:N4	27:DA:915:C:C2	2.74	0.55
27:DA:626:U:H3	38:DP:105:LEU:CB	2.19	0.55
27:DA:2581:G:H8	27:DA:2582:G:O6	1.89	0.55
27:DA:2616:C:H2'	27:DA:2617:C:C6	2.41	0.55
27:DA:673:C:O2'	27:DA:674:G:H5'	2.06	0.55
27:BA:1490:A:C2	30:BD:75:ILE:HG23	2.41	0.55
1:AA:1349:A:OP2	9:AI:118:LYS:NZ	2.38	0.55
42:DT:89:VAL:O	42:DT:91:ARG:HG3	2.06	0.55
16:CP:5:ARG:NH1	16:CP:24:ALA:HA	2.17	0.55
27:BA:686:G:C2	56:B7:11:LYS:HE3	2.40	0.55
1:AA:452:A:O2'	1:AA:453:A:H8	1.79	0.55
37:BO:66:LYS:HA	37:BO:79:PHE:O	2.07	0.55
40:BR:79:LEU:O	40:BR:83:ILE:HB	2.06	0.55
27:DA:2539:C:N3	27:DA:2540:C:C5	2.75	0.55
11:CK:115:PRO:C	11:CK:117:ASN:H	2.10	0.55
1:CA:1311:G:C6	1:CA:1312:G:N7	2.75	0.55
27:BA:2127:G:O2'	27:BA:2128:C:C6	2.53	0.55
27:BA:2126:A:N6	27:BA:2163:C:H5'	2.21	0.55
27:DA:319:C:C2	27:DA:320:A:C8	2.94	0.55
38:DP:16:ARG:NH1	38:DP:16:ARG:HB2	2.20	0.55
27:BA:90:U:C2'	27:BA:90:U:O2	2.51	0.55
52:D3:26:LEU:HD21	52:D3:46:ASN:HB2	1.89	0.55
27:DA:2831:G:P	31:DE:58:ARG:HH22	2.29	0.55
27:BA:2230:G:H4'	50:B1:43:TYR:HB2	1.88	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DR:28:LEU:HD12	40:DR:48:VAL:HG21	1.88	0.55
45:DW:65:LEU:HD23	45:DW:67:ASP:H	1.71	0.55
27:DA:17:G:H4'	43:DU:25:TRP:CZ3	2.41	0.55
50:B1:20:ARG:HA	50:B1:33:LYS:O	2.05	0.55
1:CA:578:C:O2	1:CA:579:G:C8	2.59	0.55
47:BY:67:LEU:O	47:BY:68:HIS:O	2.24	0.55
34:DH:104:GLU:OE2	34:DH:112:PRO:HB2	2.06	0.55
32:DF:78:ILE:HA	32:DF:83:PHE:CE1	2.41	0.55
46:BX:84:ALA:O	46:BX:87:GLN:HG3	2.06	0.55
1:AA:1510:U:H2'	1:AA:1511:G:H8	1.67	0.55
18:CR:70:ILE:HG22	18:CR:74:ARG:HD2	1.87	0.55
40:BR:11:ASN:OD1	40:BR:11:ASN:O	2.23	0.55
21:CU:24:ARG:O	21:CU:25:LYS:CB	2.53	0.55
27:DA:1702:G:H2'	27:DA:1703:G:O4'	2.06	0.55
27:DA:975(A):G:N2	27:DA:976:C:H1'	2.20	0.55
35:DI:29:TYR:HD2	35:DI:30:LEU:HG	1.71	0.55
1:CA:929:G:H2'	1:CA:930:C:C6	2.41	0.55
42:DT:129:ARG:CZ	42:DT:131:ALA:HB3	2.36	0.55
27:DA:1441:G:H2'	27:DA:1442:G:H8	1.70	0.55
1:AA:113:G:H21	1:AA:353:A:H1'	1.71	0.55
46:DX:5:TYR:HE2	51:D2:30:ARG:HE	1.54	0.55
45:BW:31:GLU:O	45:BW:35:ILE:HG13	2.06	0.55
1:AA:324:G:C8	1:AA:324:G:C3'	2.90	0.55
3:CC:181:ASN:O	3:CC:204:LEU:HB2	2.06	0.55
23:CW:18:G:H4'	23:CW:19:U:O4'	2.07	0.55
8:AH:74:PRO:HG2	8:AH:75:ARG:N	2.22	0.55
11:CK:125:PHE:CD1	11:CK:125:PHE:N	2.74	0.55
27:DA:2377:A:H2'	27:DA:2378:A:C8	2.41	0.55
1:CA:455:C:O2'	1:CA:456:C:H5'	2.06	0.55
1:AA:614:A:C2	1:AA:615:C:C2	2.94	0.55
40:BR:118:GLU:OE1	40:BR:118:GLU:HA	2.05	0.55
22:CV:7:C:H2'	22:CV:8:A:H8	1.71	0.55
37:BO:40:VAL:HG13	37:BO:57:VAL:HG12	1.87	0.55
27:BA:2416:C:C6	27:BA:2416:C:O5'	2.58	0.55
38:BP:50:ARG:HG3	38:BP:51:PHE:N	2.20	0.55
1:CA:1321:C:C6	1:CA:1322:C:H2'	2.41	0.55
40:BR:18:LEU:CD1	40:BR:22:ARG:CZ	2.84	0.55
40:BR:33:ARG:HE	40:BR:115:GLU:HB2	1.72	0.55
1:CA:472:A:H4'	16:CP:82:GLN:NE2	2.20	0.55
27:DA:2405:G:O2'	27:DA:2411:A:N6	2.40	0.55
51:D2:21:LEU:O	51:D2:25:VAL:HG23	2.06	0.55
1:AA:471:G:C2'	1:AA:472:A:H8	2.19	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BG:56:ALA:HB2	33:BG:153:ARG:NH2	2.22	0.55
31:DE:69:LYS:O	31:DE:71:GLY:N	2.39	0.55
27:DA:946:G:C2	27:DA:947:G:C4	2.95	0.55
34:BH:19:VAL:CB	34:BH:44:VAL:HG13	2.36	0.55
4:CD:187:ARG:HH11	4:CD:187:ARG:HG2	1.71	0.55
1:CA:252:U:C2	1:CA:253:U:C5	2.95	0.55
17:CQ:7:THR:C	17:CQ:23:VAL:HG13	2.27	0.55
1:AA:68:G:C2	1:AA:69:G:H1'	2.42	0.55
32:DF:33:LEU:HD11	32:DF:109:GLY:CA	2.36	0.55
27:BA:2330:G:H21	49:B0:42:GLY:HA2	1.71	0.55
33:DG:98:ARG:HA	33:DG:101:ILE:CG2	2.36	0.55
58:B9:24:TYR:CD2	58:B9:35:ARG:HG3	2.41	0.55
27:BA:1999:C:C2	27:BA:2000:G:C8	2.94	0.55
27:DA:2646:C:H2'	27:DA:2647:U:O4'	2.07	0.55
1:AA:372:C:H4'	1:AA:373:A:OP1	2.06	0.55
1:CA:263:A:OP1	20:CT:79:ARG:HD2	2.05	0.55
20:CT:26:ASN:HD22	20:CT:27:LYS:N	2.04	0.55
27:DA:71:A:H5'	27:DA:71:A:H8	1.72	0.55
30:DD:43:ARG:HB2	30:DD:54:ARG:HB3	1.87	0.55
30:DD:44:ASN:HB2	30:DD:48:ARG:O	2.07	0.55
38:BP:95:VAL:CG2	38:BP:125:VAL:HG12	2.32	0.55
1:CA:750:G:H1'	15:CO:22:THR:OG1	2.05	0.55
27:DA:357:A:H2'	27:DA:358:U:O4'	2.07	0.55
27:DA:1569:A:C2'	30:DD:38:LYS:HZ3	2.18	0.55
27:DA:686:G:H5''	56:D7:11:LYS:HE2	1.87	0.55
35:BI:11:ASN:O	35:BI:12:LEU:HB3	2.05	0.55
27:DA:661:C:H2'	27:DA:662:G:H8	1.70	0.55
41:BS:48:LEU:O	41:BS:49:VAL:CG2	2.52	0.55
13:AM:67:GLU:OE2	13:AM:71:ARG:NH2	2.39	0.55
37:BO:64:ARG:HD2	42:BT:70:VAL:HG11	1.87	0.55
8:AH:81:HIS:HB2	8:AH:138:TRP:CZ3	2.41	0.55
27:DA:2292:C:O2'	27:DA:2293:C:H5'	2.06	0.55
11:CK:48:ILE:HD11	11:CK:64:ALA:HA	1.86	0.55
27:DA:2880:C:HO2'	40:DR:90:ARG:HD3	1.71	0.55
12:CL:3:THR:C	12:CL:7:LEU:HD12	2.27	0.55
27:DA:265:A:N7	27:DA:283:A:N6	2.53	0.55
1:CA:737:A:H2'	1:CA:738:C:C6	2.41	0.55
1:AA:1086:U:H6	1:AA:1086:U:H5'	1.72	0.55
8:AH:87:SER:HB3	8:AH:133:LEU:O	2.06	0.55
27:DA:1162:G:C2'	27:DA:1163:G:H5'	2.36	0.55
1:AA:953:G:H2'	1:AA:954:G:O4'	2.07	0.55
48:BZ:143:LEU:HB3	48:BZ:147:ASP:O	2.06	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1338:G:H2'	1:CA:1339:A:H8	1.68	0.55
1:AA:1525:G:P	11:AK:120:ARG:HH22	2.29	0.55
10:CJ:81:THR:O	10:CJ:85:LEU:HG	2.05	0.55
1:AA:1064:G:O2'	1:AA:1065:U:O5'	2.21	0.55
7:CG:86:GLN:NE2	25:CY:30:A:C2	2.73	0.55
4:CD:130:GLY:O	4:CD:131:ARG:C	2.44	0.55
32:BF:82:ILE:CG1	32:BF:82:ILE:O	2.54	0.55
44:DV:1:MET:HA	44:DV:1:MET:HE2	1.88	0.55
27:BA:782:A:C5'	27:BA:783:A:C2	2.90	0.55
29:BC:68:LEU:O	29:BC:69:GLY:C	2.45	0.55
34:BH:103:LEU:HB3	34:BH:123:PHE:CD2	2.42	0.55
27:BA:1346:G:C5	27:BA:1347:G:N7	2.75	0.55
1:AA:324:G:OP1	20:AT:70:SER:HB2	2.06	0.55
27:DA:2251:G:C8	27:DA:2450:A:H4'	2.41	0.55
1:AA:1155:G:O2'	1:AA:1156:G:H5'	2.06	0.55
35:DI:7:GLU:CD	35:DI:8:PRO:HD2	2.27	0.55
27:BA:1368:G:C2	27:BA:1369:G:C8	2.95	0.55
1:CA:583:A:H1'	1:CA:759:A:N6	2.22	0.55
27:DA:1996:C:H4'	27:DA:1997:G:OP1	2.07	0.55
2:CB:180:LEU:O	2:CB:182:ILE:HG13	2.06	0.55
1:CA:667:G:O2'	15:CO:49:ASP:OD1	2.14	0.55
39:DQ:135:ASP:OD1	39:DQ:135:ASP:N	2.38	0.55
20:CT:8:ARG:HH11	20:CT:8:ARG:HG3	1.71	0.55
1:CA:697:U:H3'	1:CA:698:G:H8	1.71	0.55
27:BA:2393:A:H5'	38:BP:62:LEU:HB3	1.89	0.55
28:BB:45:A:C2	28:BB:46:A:H1'	2.42	0.55
36:BN:4:TYR:HB2	43:BU:64:ARG:CZ	2.37	0.55
43:DU:92:ARG:NH1	43:DU:92:ARG:CG	2.66	0.55
27:DA:1577:C:H2'	27:DA:1578:U:C6	2.42	0.55
30:DD:30:GLU:OE1	30:DD:84:TYR:O	2.24	0.55
47:DY:9:LYS:C	47:DY:11:ASP:H	2.10	0.55
27:DA:2285:C:OP2	55:D6:27:LYS:HD2	2.07	0.55
27:DA:2619:C:H4'	31:DE:150:VAL:HG12	1.87	0.55
27:DA:941:A:P	38:DP:35:HIS:HE1	2.29	0.55
44:DV:77:ALA:O	44:DV:79:VAL:HG12	2.05	0.55
27:BA:1020:A:C4'	27:BA:1021:A:O5'	2.45	0.55
48:DZ:55:VAL:HG12	48:DZ:56:ILE:N	2.20	0.55
2:AB:53:ARG:CZ	2:AB:199:TYR:HE2	2.18	0.55
41:DS:89:ARG:C	41:DS:92:TYR:HB3	2.27	0.55
1:AA:1075:C:H4'	1:AA:1101:A:N6	2.22	0.55
2:CB:70:PHE:CD2	2:CB:163:PHE:HB3	2.42	0.55
1:CA:177:C:O2'	1:CA:178:C:H5'	2.07	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2107:C:N4	27:DA:2182:G:H1	1.94	0.55
27:BA:2162:G:H4'	27:BA:2172:U:HO2'	1.69	0.55
27:BA:1431:U:O2'	27:BA:1432:C:H5'	2.06	0.55
35:BI:121:LYS:O	35:BI:122:GLU:HB2	2.05	0.55
55:B6:33:LYS:CA	55:B6:33:LYS:HE2	2.34	0.55
48:DZ:60:LEU:CG	48:DZ:64:GLN:HB2	2.37	0.55
51:B2:47:ASN:O	51:B2:50:ILE:HG13	2.06	0.55
1:AA:259:G:H2'	1:AA:260:G:H8	1.70	0.55
27:DA:2302:G:H21	33:DG:128:ARG:HD2	1.72	0.55
52:D3:13:ILE:H	52:D3:13:ILE:HD12	1.71	0.55
35:DI:101:LEU:HD12	35:DI:105:HIS:HB2	1.88	0.55
7:AG:152:ALA:O	7:AG:155:ARG:NH1	2.39	0.55
3:AC:132:ARG:O	3:AC:136:GLN:HB2	2.07	0.55
8:CH:109:ILE:HG12	8:CH:110:ALA:N	2.15	0.55
27:DA:283:A:N1	27:DA:427:U:H1'	2.20	0.55
27:BA:81:G:N2	27:BA:106:C:C2	2.73	0.55
45:DW:20:VAL:C	45:DW:22:ASP:H	2.10	0.55
45:DW:62:HIS:O	45:DW:64:MET:HG3	2.06	0.55
27:DA:1164:G:C6	27:DA:1165:U:C4	2.95	0.55
27:BA:1721:G:C2	27:BA:1739:U:OP2	2.59	0.55
27:DA:2122:U:H2'	27:DA:2123:G:C8	2.41	0.55
43:BU:21:ALA:HB1	43:BU:24:TYR:CD1	2.42	0.55
27:DA:1042:G:H3'	27:DA:1043:C:O4'	2.06	0.55
17:AQ:9:VAL:O	17:AQ:22:LEU:N	2.37	0.55
32:BF:36:VAL:O	32:BF:39:TRP:HB3	2.07	0.55
42:DT:129:ARG:HD2	42:DT:131:ALA:HB3	1.87	0.55
27:BA:2183:C:H2'	27:BA:2184:G:C8	2.38	0.55
57:B8:30:ARG:NE	57:B8:30:ARG:HA	2.21	0.55
34:DH:149:ARG:HH21	34:DH:154:PRO:CG	2.18	0.55
30:DD:71:ASP:CB	30:DD:103:ARG:HH22	2.20	0.55
35:BI:29:TYR:CD1	35:BI:33:ARG:NE	2.75	0.55
27:BA:2292:C:O2'	27:BA:2293:C:H5'	2.06	0.55
27:DA:2084:C:O2'	27:DA:2085:C:H5'	2.06	0.55
48:DZ:19:ARG:C	48:DZ:21:GLY:H	2.08	0.55
10:CJ:28:ARG:NH1	10:CJ:33:GLN:HA	2.22	0.55
1:AA:587:G:O2'	1:AA:588:G:H5'	2.07	0.55
4:CD:185:PHE:HD2	4:CD:185:PHE:O	1.90	0.55
5:AE:28:PHE:O	5:AE:47:LYS:HA	2.07	0.55
44:DV:64:HIS:ND1	44:DV:92:THR:CG2	2.69	0.55
27:BA:956:G:H5''	39:BQ:77:LYS:HD2	1.87	0.55
27:DA:1362:C:O2'	27:DA:1363:C:H5'	2.07	0.55
24:AX:25:C:H2'	24:AX:26:G:H8	1.71	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2031:A:O2'	27:DA:2032:G:P	2.63	0.55
27:BA:237:C:H2'	27:BA:238:C:H6	1.71	0.55
27:BA:1280:G:C2	27:BA:1281:G:H1'	2.41	0.55
47:BY:95:LYS:NZ	47:BY:99:CYS:O	2.31	0.55
38:DP:47:ASP:OD1	38:DP:49:ARG:HG3	2.06	0.55
38:DP:48:PRO:CG	38:DP:49:ARG:N	2.62	0.55
43:BU:92:ARG:HG2	44:BV:11:GLN:OE1	2.07	0.55
27:DA:392:C:H5''	27:DA:409:C:H5''	1.89	0.55
41:BS:34:HIS:CD2	41:BS:53:SER:HB3	2.42	0.55
27:DA:1497:U:O4'	27:DA:1497:U:OP1	2.25	0.55
12:CL:66:TYR:HD2	12:CL:67:ILE:H	1.54	0.55
51:D2:18:PRO:HG2	51:D2:19:VAL:HG23	1.87	0.55
33:DG:20:ILE:HA	33:DG:25:TYR:HD2	1.70	0.55
31:DE:151:TYR:O	31:DE:153:GLY:N	2.40	0.55
20:AT:28:ALA:O	20:AT:30:LYS:N	2.39	0.55
55:B6:16:CYS:SG	55:B6:48:VAL:CG2	2.95	0.55
31:DE:2:LYS:CE	31:DE:95:ILE:HG23	2.35	0.55
30:BD:129:ASN:O	30:BD:193:VAL:HG12	2.06	0.55
10:AJ:49:VAL:HG23	14:AN:41:ARG:HB2	1.88	0.55
2:AB:105:PHE:HZ	2:AB:155:LEU:O	1.90	0.55
27:BA:748:G:H2'	27:BA:750:A:N7	2.22	0.55
15:AO:31:LEU:HG	15:AO:31:LEU:O	2.07	0.55
46:BX:12:VAL:CB	46:BX:17:ALA:HB1	2.37	0.55
12:AL:79:VAL:C	12:AL:80:VAL:HG22	2.27	0.55
56:D7:8:ASN:ND2	56:D7:8:ASN:C	2.59	0.55
27:BA:2307:G:N2	27:BA:2308:G:H5''	2.22	0.55
23:AW:68:C:H2'	23:AW:68:C:O2	2.05	0.55
2:CB:178:ARG:NH2	8:CH:74:PRO:HG3	2.21	0.55
2:AB:178:ARG:NH1	2:AB:178:ARG:HG2	2.21	0.55
1:CA:686:U:O2	1:CA:687:A:N7	2.40	0.55
35:DI:5:LEU:N	35:DI:5:LEU:HD12	2.19	0.55
12:AL:22:PRO:HD2	12:AL:94:ARG:NH2	2.21	0.55
1:CA:818:G:O2'	1:CA:819:A:H5''	2.07	0.55
27:BA:1598:C:H5'	46:BX:36:LYS:CB	2.36	0.55
29:DC:51:PRO:CG	29:DC:204:ALA:HB2	2.35	0.55
27:BA:2048:G:C2'	27:BA:2049:G:O5'	2.54	0.55
27:DA:1659:U:O2'	27:DA:1660:C:H5'	2.07	0.55
11:AK:21:ILE:N	11:AK:21:ILE:HD12	2.21	0.55
6:CF:97:PHE:O	18:CR:31:LEU:HD23	2.06	0.55
18:AR:26:LEU:HG	18:AR:42:ARG:NH1	2.21	0.55
27:BA:1848:A:O2'	27:BA:1849:G:O5'	2.24	0.55
1:CA:1142:G:H2'	1:CA:1143:G:C8	2.41	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:977:G:C2'	27:BA:978:G:H5'	2.37	0.55
33:BG:91:ARG:C	33:BG:91:ARG:CD	2.75	0.55
7:AG:15:ASP:CB	7:AG:20:ASP:H	2.19	0.55
25:AY:18:G:H22	25:AY:55:C:N4	2.05	0.55
20:CT:16:HIS:HA	20:CT:19:SER:CB	2.37	0.55
35:BI:42:SER:C	35:BI:44:LEU:H	2.10	0.55
51:B2:21:LEU:HD13	51:B2:64:LEU:HA	1.87	0.55
20:AT:12:ALA:C	20:AT:14:LYS:N	2.56	0.55
2:AB:87:ARG:NH1	2:AB:220:ASP:OD1	2.37	0.55
40:BR:109:ALA:O	40:BR:111:LEU:HD22	2.06	0.55
27:BA:363(F):A:O2'	27:BA:364:C:H5	1.90	0.55
27:BA:224:G:O6	27:BA:420:C:H5'	2.07	0.55
4:CD:193:ASP:OD1	4:CD:193:ASP:N	2.38	0.55
1:CA:1294:G:H2'	1:CA:1295:G:C8	2.42	0.55
27:BA:414:C:H3'	27:BA:415:A:H8	1.71	0.55
1:CA:1486:G:H2'	1:CA:1487:G:C8	2.42	0.55
28:DB:35:U:O2'	28:DB:36:C:O4'	2.25	0.55
42:DT:86:ILE:O	42:DT:86:ILE:HG23	2.06	0.55
41:DS:12:PHE:O	41:DS:12:PHE:HD1	1.89	0.55
16:CP:76:GLN:O	16:CP:76:GLN:HG2	2.05	0.55
11:AK:114:VAL:HG13	11:AK:114:VAL:O	2.07	0.55
27:DA:74:A:H4'	27:DA:75:G:O5'	2.07	0.55
47:BY:97:ARG:HG3	47:BY:98:VAL:HG23	1.89	0.55
27:DA:1023:U:H2'	27:DA:1024:G:O4'	2.06	0.55
27:DA:239:U:H2'	27:DA:240:G:O4'	2.07	0.55
27:DA:1907:G:O2'	27:DA:1908:C:H5'	2.07	0.55
27:DA:1972:A:C4	27:DA:1973:G:N7	2.75	0.55
48:DZ:170:ILE:O	48:DZ:171:ALA:HB2	2.05	0.55
4:CD:14:ARG:HB2	4:CD:40:PRO:HD3	1.88	0.55
33:BG:137:GLU:HB2	33:BG:140:ILE:HD11	1.88	0.55
44:BV:2:PHE:CZ	44:BV:4:ILE:HG13	2.42	0.55
27:DA:390:A:H1'	27:DA:391:G:N7	2.22	0.55
17:AQ:68:ARG:O	17:AQ:68:ARG:HG3	2.06	0.55
42:BT:28:VAL:O	42:BT:29:ARG:HG2	2.06	0.55
1:AA:1404:C:H2'	1:AA:1405:G:H8	1.72	0.55
28:BB:29:A:H2'	28:BB:30:C:C6	2.42	0.55
28:BB:52:A:N7	41:BS:33:LYS:HE3	2.22	0.55
30:DD:18:VAL:HG13	30:DD:211:ARG:NH2	2.13	0.55
27:BA:494:G:O2'	45:BW:5:ALA:O	2.24	0.55
31:DE:39:PRO:CG	31:DE:45:THR:OG1	2.55	0.55
4:AD:31:CYS:O	4:AD:31:CYS:SG	2.64	0.55
9:AI:45:ALA:O	9:AI:47:LEU:N	2.35	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:962:C:H2'	1:AA:963:G:O4'	2.07	0.55
1:AA:675:A:O2'	1:AA:676:A:H5'	2.07	0.55
27:BA:690:G:H2'	27:BA:691:C:C6	2.42	0.55
1:AA:1072:G:O2'	1:AA:1073:U:H5'	2.06	0.55
33:DG:58:GLN:O	33:DG:62:LEU:HD13	2.07	0.55
42:BT:23:ARG:HG2	42:BT:120:ARG:NH1	2.22	0.55
3:CC:92:ALA:HB2	3:CC:99:VAL:HG21	1.87	0.55
3:CC:156:ARG:HH21	3:CC:161:GLU:CG	2.16	0.55
14:CN:27:CYS:O	14:CN:29:ARG:N	2.39	0.55
14:CN:8:GLU:OE2	14:CN:8:GLU:HA	2.07	0.55
10:AJ:34:VAL:CG2	10:AJ:74:ILE:HG22	2.36	0.55
27:BA:2266:A:N3	27:BA:2272:U:C4	2.75	0.55
1:CA:649:G:H8	1:CA:649:G:O5'	1.90	0.55
29:DC:41:VAL:CB	29:DC:213:TYR:HA	2.36	0.55
7:AG:74:GLU:OE1	7:AG:91:VAL:HG13	2.06	0.55
51:B2:9:GLN:HE22	51:B2:56:GLN:HG2	1.71	0.55
6:AF:2:ARG:CD	6:AF:69:GLU:HB3	2.34	0.55
13:AM:72:ALA:O	13:AM:75:ALA:HB3	2.06	0.55
1:CA:451:A:H1'	1:CA:452:A:N7	2.22	0.55
1:AA:662:G:O2'	1:AA:663:A:H5'	2.06	0.55
25:CY:58:A:H2'	25:CY:59:U:H5'	1.89	0.55
43:BU:25:TRP:O	43:BU:26:GLY:O	2.25	0.55
37:BO:97:ARG:HA	37:BO:117:LEU:CD2	2.36	0.55
32:DF:131:GLY:O	32:DF:132:VAL:O	2.25	0.55
27:DA:1005:C:H1'	27:DA:1012:U:H3	1.69	0.55
27:BA:2047:U:C2'	27:BA:2048:G:C5'	2.85	0.55
27:DA:1999:C:H2'	27:DA:2000:G:C8	2.42	0.55
4:AD:58:LEU:HD13	4:AD:58:LEU:C	2.27	0.55
11:CK:80:VAL:HG23	11:CK:80:VAL:O	2.07	0.55
4:AD:98:GLU:C	4:AD:100:ARG:N	2.57	0.55
27:BA:725:G:H2'	27:BA:726:G:O4'	2.06	0.55
27:BA:958:U:O4	39:BQ:40:ALA:HA	2.06	0.55
1:AA:278:G:OP2	17:AQ:41:LYS:HE2	2.07	0.55
35:DI:28:ASN:C	35:DI:32:PRO:HG2	2.27	0.55
1:AA:1142:G:C8	1:AA:1143:G:C8	2.94	0.55
1:AA:1459:C:H2'	1:AA:1460:A:O4'	2.07	0.55
1:CA:584:G:H2'	1:CA:585:G:H8	1.72	0.55
50:D1:18:ILE:HG21	50:D1:20:ARG:CZ	2.36	0.55
34:DH:40:GLU:O	34:DH:42:ARG:N	2.39	0.55
1:AA:315:A:O2'	1:AA:316:G:OP2	2.21	0.55
27:BA:1943:U:O4'	27:BA:1945:G:H5'	2.07	0.55
1:AA:1483:A:H2'	1:AA:1484:C:O4'	2.07	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2082:A:O2'	27:BA:2083:G:H5'	2.07	0.55
1:AA:538:G:O2'	1:AA:539:A:H5'	2.07	0.55
1:AA:10:A:O2'	1:AA:11:G:H5'	2.07	0.55
4:CD:132:ARG:HH11	4:CD:132:ARG:HG2	1.71	0.55
45:DW:74:ALA:O	45:DW:75:TYR:HB3	2.05	0.55
49:D0:50:ASN:C	49:D0:62:LEU:HD12	2.27	0.55
27:BA:664:C:O2'	27:BA:665:C:H5'	2.07	0.55
38:BP:65:ARG:O	38:BP:68:GLN:OE1	2.24	0.55
27:DA:1022:G:O2'	27:DA:1023:U:P	2.64	0.55
38:DP:45:LEU:CD2	38:DP:46:LYS:N	2.55	0.55
13:CM:8:GLU:OE1	13:CM:22:ILE:HG12	2.06	0.55
27:DA:391:G:O2'	27:DA:392:C:H5'	2.07	0.55
32:DF:4:VAL:HG12	32:DF:17:ARG:HD3	1.88	0.55
31:DE:69:LYS:C	31:DE:71:GLY:H	2.09	0.55
55:D6:11:LEU:CD1	55:D6:12:GLU:H	2.17	0.55
57:D8:28:GLY:O	57:D8:32:LEU:HG	2.07	0.55
36:BN:62:VAL:HG21	36:BN:67:LEU:HG	1.89	0.55
27:BA:2482:G:H2'	27:BA:2483:C:H6	1.70	0.55
19:AS:48:THR:HA	19:AS:61:TYR:O	2.06	0.55
2:AB:31:TYR:O	2:AB:42:ILE:HG13	2.07	0.55
41:BS:24:LEU:CB	41:BS:85:VAL:HG12	2.28	0.55
20:CT:50:GLU:CB	20:CT:100:ILE:HG12	2.37	0.55
34:BH:92:ILE:CG2	34:BH:93:GLY:H	2.11	0.55
1:CA:532:A:N6	3:CC:156:ARG:HH12	2.04	0.55
6:CF:75:LEU:CD2	6:CF:79:LEU:HD11	2.37	0.55
48:DZ:94:PRO:HA	48:DZ:127:VAL:O	2.07	0.55
27:BA:2427:C:H5''	27:BA:2429:G:H5'	1.88	0.55
27:DA:2680:C:H4'	31:DE:188:VAL:O	2.07	0.55
27:BA:2344:U:H6	27:BA:2344:U:O5'	1.88	0.55
37:DO:16:ALA:HB2	37:DO:52:VAL:HG13	1.88	0.55
27:BA:92:A:C1'	27:BA:93:G:H8	2.19	0.55
1:AA:359:U:H2'	1:AA:360:A:H8	1.72	0.55
34:DH:147:ASN:N	34:DH:147:ASN:ND2	2.52	0.55
27:DA:2302:G:N2	33:DG:128:ARG:HD2	2.21	0.55
27:BA:846:C:C2	27:BA:930:U:C5	2.95	0.55
24:AX:1:C:N4	24:AX:73:A:C2	2.75	0.55
27:BA:1887:C:H2'	27:BA:1888:G:C5'	2.35	0.55
39:BQ:26:TYR:CE1	39:BQ:28:ALA:HB2	2.42	0.55
27:BA:1565:C:P	30:BD:4:LYS:NZ	2.80	0.55
27:DA:2697:G:H2'	27:DA:2698:U:O4'	2.07	0.55
31:BE:9:VAL:HG13	31:BE:25:VAL:HB	1.87	0.55
12:CL:38:ARG:CZ	12:CL:38:ARG:HB3	2.36	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:853:G:H2'	1:CA:854:G:H8	1.72	0.55
2:CB:22:LYS:O	2:CB:24:TRP:CD1	2.60	0.55
39:DQ:109:VAL:HG22	39:DQ:113:GLN:OE1	2.07	0.55
42:DT:92:GLY:N	42:DT:116:ALA:HA	2.22	0.55
27:DA:2146:C:H5'	27:DA:2147:G:N3	2.21	0.55
27:BA:2671:A:C2	27:BA:2672:G:C4	2.95	0.55
15:CO:37:ASN:O	15:CO:38:ARG:C	2.44	0.55
9:CI:63:ILE:CG2	9:CI:64:THR:N	2.69	0.55
30:BD:28:GLU:CD	30:BD:28:GLU:N	2.60	0.55
27:DA:2360:A:H2'	27:DA:2361:A:O4'	2.07	0.55
27:BA:2537:U:H2'	27:BA:2538:C:C6	2.42	0.55
1:CA:406:G:H5''	4:CD:5:ILE:HG21	1.89	0.55
40:DR:23:ASN:ND2	40:DR:23:ASN:N	2.55	0.55
45:BW:79:GLY:O	45:BW:100:THR:HG22	2.06	0.55
48:DZ:164:VAL:HG12	48:DZ:165:SER:N	2.21	0.55
27:DA:1426:G:O5'	27:DA:1426:G:H8	1.90	0.55
52:B3:4:LEU:O	52:B3:36:VAL:HA	2.07	0.55
27:BA:2415:G:C4'	38:BP:66:GLY:HA3	2.37	0.55
41:BS:88:ASP:O	41:BS:92:TYR:HB3	2.06	0.55
32:BF:18:ARG:HG3	32:BF:19:GLU:N	2.22	0.55
44:DV:61:VAL:CA	44:DV:94:LEU:HD23	2.36	0.55
1:CA:1254:C:H41	10:CJ:43:ARG:HH12	1.55	0.55
55:D6:17:LYS:O	55:D6:18:ARG:HD3	2.07	0.55
55:D6:11:LEU:HD11	55:D6:52:VAL:C	2.27	0.55
27:DA:2069:G:N2	27:DA:2070:G:C4	2.74	0.55
27:DA:2275:C:O2'	27:DA:2276:G:P	2.64	0.55
38:DP:38:GLN:CG	38:DP:39:LYS:H	2.09	0.55
27:BA:1022:G:N2	27:BA:1142(A):A:C2	2.75	0.55
1:AA:1361:G:H2'	1:AA:1362:C:O4'	2.06	0.55
1:AA:1305:G:O2'	1:AA:1306:A:P	2.65	0.55
27:BA:1821:A:H2'	27:BA:1822:G:H8	1.72	0.55
1:AA:62:U:O2'	1:AA:63:C:H5'	2.07	0.55
31:BE:36:ARG:HG2	31:BE:36:ARG:HH11	1.72	0.55
1:CA:652:U:O2'	1:CA:653:A:N3	2.32	0.55
40:DR:8:ARG:O	40:DR:9:LYS:O	2.25	0.55
27:DA:962:G:C2'	27:DA:963:U:H5'	2.37	0.55
55:B6:51:GLU:O	55:B6:52:VAL:HG23	2.07	0.55
38:BP:25:SER:O	38:BP:30:THR:HG23	2.06	0.55
27:BA:2307:G:OP1	27:BA:2307:G:H4'	2.07	0.55
9:CI:21:PRO:HA	9:CI:58:HIS:O	2.06	0.55
34:DH:150:ALA:O	34:DH:152:ARG:N	2.40	0.55
27:DA:923:C:H2'	27:DA:924:C:C6	2.42	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2097:C:H2'	27:BA:2098:U:H6	1.72	0.55
54:D5:31:VAL:HG23	54:D5:40:LYS:HE2	1.89	0.55
11:CK:46:GLY:HA2	11:CK:50:TYR:O	2.07	0.55
27:DA:499:U:H2'	27:DA:500:G:H5'	1.89	0.55
27:BA:1175:U:H6	27:BA:1178:C:N4	2.05	0.55
5:AE:20:GLN:OE1	5:AE:25:ARG:NH1	2.40	0.55
32:DF:170:LEU:HD23	32:DF:173:VAL:CG2	2.35	0.55
1:AA:979:C:C2'	1:AA:980:C:H5''	2.36	0.55
42:BT:55:ASN:O	42:BT:57:PHE:O	2.24	0.55
1:CA:174:C:H2'	1:CA:175:C:C6	2.42	0.55
27:DA:644:A:H2'	27:DA:646:A:C2	2.42	0.55
15:AO:39:LEU:O	15:AO:41:GLU:N	2.40	0.55
12:AL:99:ARG:O	12:AL:101:VAL:HG23	2.06	0.55
27:DA:1722:A:N1	27:DA:1740:G:C8	2.73	0.55
3:AC:34:LEU:HD23	3:AC:35:GLU:N	2.22	0.55
29:BC:38:ASP:O	29:BC:180:PHE:HA	2.07	0.55
1:AA:417:C:H2'	1:AA:418:C:H6	1.72	0.55
1:AA:539:A:H2'	1:AA:540:G:C8	2.42	0.55
25:AY:37:U:H3'	25:AY:38:U:H5''	1.89	0.55
27:BA:271(Y):U:O2'	27:BA:271(Z):C:O5'	2.25	0.55
27:BA:962:G:O2'	27:BA:963:U:H5'	2.07	0.55
27:DA:1563:G:O2'	27:DA:1564:C:H5'	2.07	0.55
33:BG:13:GLU:O	33:BG:14:GLU:HB2	2.06	0.55
13:CM:65:LYS:NZ	13:CM:65:LYS:CB	2.70	0.55
44:BV:31:ALA:O	44:BV:61:VAL:HG12	2.06	0.55
43:BU:92:ARG:NH2	44:BV:11:GLN:N	2.55	0.55
44:BV:15:GLU:HB3	44:BV:16:PRO:CD	2.35	0.55
1:AA:128:G:C5'	17:AQ:2:PRO:HA	2.37	0.55
17:AQ:20:THR:HA	17:AQ:42:TYR:O	2.07	0.55
44:DV:40:LEU:N	44:DV:40:LEU:CD2	2.70	0.55
27:DA:1565:C:O2'	27:DA:1566:A:O5'	2.23	0.55
27:DA:2700:C:O2'	27:DA:2701:C:H5'	2.07	0.55
27:DA:2385:C:O2'	27:DA:2386:C:H5'	2.06	0.55
36:DN:112:LEU:HD11	36:DN:116:LEU:HG	1.89	0.55
48:DZ:68:THR:HA	48:DZ:88:PHE:O	2.07	0.55
30:BD:77:ALA:HB1	30:BD:96:HIS:O	2.07	0.55
4:CD:101:LEU:CD2	4:CD:138:TYR:HB3	2.37	0.55
1:AA:1189:C:OP1	10:AJ:51:ARG:NH2	2.34	0.55
41:DS:18:ILE:HG22	41:DS:18:ILE:O	2.07	0.55
27:BA:1783:A:C2	27:BA:2588:G:O4'	2.60	0.55
17:AQ:59:ILE:HG22	17:AQ:71:PHE:HB3	1.89	0.55
1:CA:565:U:H2'	1:CA:566:G:C8	2.42	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:D4:36:VAL:HG13	53:D4:52:SER:O	2.07	0.55
15:AO:74:ASP:O	15:AO:76:GLU:N	2.40	0.55
1:CA:1160:G:O2'	1:CA:1161:C:C5'	2.55	0.55
3:CC:72:LYS:O	3:CC:75:VAL:HG23	2.07	0.55
15:CO:83:GLU:O	15:CO:86:GLY:N	2.38	0.55
27:DA:2827:C:O2	27:DA:2827:C:H2'	2.06	0.55
9:CI:55:ALA:HB1	9:CI:59:PHE:CE1	2.42	0.55
19:CS:66:MET:SD	19:CS:74:PHE:HE1	2.30	0.55
34:DH:89:ILE:HD12	34:DH:90:LYS:O	2.07	0.55
52:D3:23:LEU:N	52:D3:23:LEU:CD1	2.68	0.55
27:DA:852:G:H2'	27:DA:853:G:C8	2.40	0.55
10:CJ:96:ILE:O	10:CJ:97:GLU:HG2	2.06	0.55
5:AE:78:HIS:CD2	8:AH:104:ARG:CZ	2.89	0.55
5:CE:45:PHE:CE1	5:CE:47:LYS:HG3	2.42	0.55
1:AA:1002:G:N3	1:AA:1002:G:H2'	2.21	0.55
1:AA:745:C:H2'	1:AA:746:A:C8	2.42	0.55
5:CE:107:ARG:HG2	5:CE:108:ALA:N	2.21	0.55
31:DE:173:VAL:HG12	31:DE:173:VAL:O	2.06	0.55
38:DP:110:TYR:O	38:DP:111:ARG:C	2.46	0.55
3:AC:130:VAL:HG21	3:AC:157:ILE:HG23	1.89	0.55
11:CK:127:LYS:CE	11:CK:127:LYS:HA	2.33	0.55
47:DY:45:VAL:HA	47:DY:62:GLU:CG	2.37	0.55
27:BA:2313:C:N4	27:BA:2314:C:N4	2.55	0.55
32:DF:128:ALA:O	32:DF:129:PHE:C	2.45	0.55
13:AM:110:ARG:NH1	13:AM:110:ARG:HG2	2.18	0.55
27:BA:2873:A:H4'	27:BA:2874:C:OP1	2.07	0.55
18:CR:44:LEU:HD23	18:CR:50:ILE:HA	1.88	0.55
27:DA:1700:A:H2'	27:DA:1701:A:C8	2.41	0.55
7:AG:15:ASP:H	7:AG:20:ASP:H	1.54	0.55
7:AG:16:LEU:CD1	9:AI:42:ARG:HA	2.37	0.55
12:CL:121:LYS:HG3	12:CL:122:PRO:HD2	1.88	0.55
1:CA:990:C:H2'	1:CA:991:U:H6	1.72	0.55
27:BA:2552:U:H2'	27:BA:2554:U:H5''	1.89	0.55
27:BA:2220:G:H2'	27:BA:2221:G:H8	1.71	0.55
23:CW:59:U:H5'	23:CW:60:C:OP2	2.06	0.55
27:BA:1389:G:H2'	27:BA:1390:U:C6	2.42	0.55
27:BA:2650:U:O2'	27:BA:2651:C:H5'	2.07	0.55
24:CX:59:A:C2'	24:CX:60:U:H5'	2.37	0.55
41:DS:12:PHE:O	41:DS:12:PHE:CD1	2.60	0.55
2:CB:112:VAL:HA	2:CB:115:LEU:HB3	1.89	0.55
20:AT:46:GLU:OE1	20:AT:48:LYS:HE2	2.07	0.55
46:DX:3:THR:HA	46:DX:6:ASP:OD2	2.07	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1026:G:H3'	1:AA:1027:C:H5'	1.89	0.55
27:DA:2301:C:H6	27:DA:2301:C:H3'	1.70	0.55
29:BC:121:GLY:HA2	29:BC:145:VAL:HA	1.89	0.55
19:CS:33:THR:O	19:CS:57:HIS:CE1	2.59	0.54
32:BF:11:VAL:HG12	32:BF:12:LEU:N	2.12	0.54
27:BA:2682:U:O4'	31:BE:12:THR:HA	2.07	0.54
34:BH:118:PRO:HG2	34:BH:121:ILE:HB	1.88	0.54
12:AL:42:PRO:CB	12:AL:89:ASP:HB3	2.37	0.54
5:AE:132:ALA:O	5:AE:134:ALA:N	2.40	0.54
30:DD:210:GLY:O	30:DD:211:ARG:HB3	2.07	0.54
27:DA:2267:A:H3'	27:DA:2268:A:C5'	2.36	0.54
27:DA:301:G:H1'	27:DA:302:C:C6	2.42	0.54
47:DY:15:VAL:HG12	47:DY:16:ALA:N	2.22	0.54
1:CA:222:U:H2'	1:CA:223:U:H6	1.71	0.54
1:AA:1204:A:P	14:AN:3:ARG:HH12	2.30	0.54
1:AA:975:A:C4'	1:AA:976:G:H5''	2.31	0.54
14:AN:40:CYS:SG	14:AN:43:CYS:SG	3.02	0.54
12:CL:34:CYS:SG	12:CL:78:SER:HB2	2.48	0.54
2:AB:197:VAL:O	2:AB:200:ILE:HG13	2.07	0.54
2:AB:51:LEU:O	2:AB:55:PHE:HD2	1.90	0.54
37:DO:115:VAL:O	37:DO:118:ALA:HB3	2.06	0.54
28:DB:52:A:N7	41:DS:33:LYS:HE3	2.22	0.54
1:AA:386:C:O2'	1:AA:387:U:H5'	2.06	0.54
1:CA:189(L):G:H2'	1:CA:190:U:H6	1.64	0.54
1:CA:176:C:H2'	1:CA:177:C:H6	1.72	0.54
12:CL:107:VAL:HG12	12:CL:110:ARG:HB2	1.89	0.54
27:BA:2163:C:H2'	27:BA:2164:C:H5'	1.88	0.54
58:B9:26:ILE:N	58:B9:26:ILE:CD1	2.70	0.54
7:AG:73:MET:HG2	7:AG:89:MET:O	2.07	0.54
1:AA:397:A:N7	1:AA:547:A:O2'	2.40	0.54
8:AH:84:ARG:HG2	8:AH:84:ARG:NH1	2.13	0.54
51:B2:53:LEU:C	51:B2:57:ILE:HG12	2.27	0.54
17:AQ:76:LEU:HD12	17:AQ:77:VAL:H	1.72	0.54
11:AK:48:ILE:HG22	11:AK:49:GLY:N	2.21	0.54
39:BQ:137:TYR:N	39:BQ:137:TYR:HD2	2.05	0.54
39:BQ:134:ARG:NH2	48:BZ:118:GLU:OE1	2.36	0.54
11:CK:111:ASP:CA	18:CR:84:LYS:HG3	2.35	0.54
40:DR:89:ASP:O	40:DR:90:ARG:HB2	2.07	0.54
10:CJ:74:ILE:O	10:CJ:74:ILE:HG13	2.07	0.54
27:BA:80:G:C6	27:BA:81:G:C5	2.96	0.54
27:BA:1048:A:C2	27:BA:1048:A:OP2	2.60	0.54
27:BA:1109:C:H5''	27:BA:1110:G:OP2	2.07	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:325:G:H2'	27:DA:326:G:C8	2.42	0.54
47:DY:45:VAL:HA	47:DY:62:GLU:OE2	2.07	0.54
27:DA:346:A:O2'	27:DA:347:A:H5'	2.07	0.54
34:DH:113:VAL:HG12	34:DH:115:VAL:HG22	1.89	0.54
25:AY:72:G:H2'	25:AY:73:C:C6	2.42	0.54
1:AA:641:U:H5''	1:AA:642:A:OP1	2.06	0.54
1:CA:1151:A:H5''	10:CJ:42:THR:H	1.72	0.54
23:CW:70:C:O2'	23:CW:71:A:O5'	2.25	0.54
11:AK:21:ILE:HG13	11:AK:30:VAL:HB	1.88	0.54
40:BR:17:ARG:HH11	40:BR:17:ARG:HG2	1.72	0.54
27:BA:722:A:N3	27:BA:722:A:H2'	2.22	0.54
11:AK:99:GLN:NE2	11:AK:105:VAL:HG21	2.22	0.54
27:BA:860:U:H2'	27:BA:861:A:H8	1.72	0.54
1:CA:31:G:N7	1:CA:306:G:H1'	2.22	0.54
27:BA:2145:C:H3'	27:BA:2145:C:H6	1.71	0.54
35:BI:73:GLU:HA	35:BI:138:ILE:HG23	1.88	0.54
48:BZ:144:GLU:O	48:BZ:146:GLY:N	2.39	0.54
27:DA:2729:G:H1'	31:DE:187:ALA:HB3	1.89	0.54
29:DC:47:LEU:HB3	29:DC:207:THR:HA	1.89	0.54
30:BD:28:GLU:H	30:BD:29:PRO:HD2	1.72	0.54
45:BW:68:ARG:NH1	45:BW:111:HIS:CD2	2.75	0.54
27:BA:11:G:C2'	27:BA:12:U:H5'	2.37	0.54
27:BA:908:C:O2'	27:BA:909:A:H5'	2.07	0.54
27:BA:1361:G:O2'	27:BA:1362:C:H5'	2.07	0.54
32:DF:61:GLY:O	32:DF:62:ARG:O	2.26	0.54
27:BA:937:U:H2'	27:BA:938:G:H8	1.71	0.54
27:DA:272(G):C:H42	27:DA:363(C):G:H1	1.54	0.54
7:CG:123:GLU:OE2	7:CG:123:GLU:HA	2.07	0.54
1:AA:1134:G:N2	1:AA:1141:C:C2	2.74	0.54
46:DX:50:LYS:O	46:DX:83:VAL:HG12	2.08	0.54
27:DA:2856:C:O2	27:DA:2856:C:H2'	2.05	0.54
5:AE:71:LEU:HD13	5:AE:114:GLY:O	2.07	0.54
27:DA:2316:C:H2'	27:DA:2316:C:O2	2.06	0.54
37:BO:36:GLY:HA3	37:BO:109:LYS:HG3	1.90	0.54
27:BA:633:A:H2'	27:BA:634:C:C5'	2.37	0.54
10:CJ:49:VAL:CG2	14:CN:41:ARG:HB2	2.37	0.54
41:BS:14:VAL:HG12	41:BS:15:ARG:H	1.72	0.54
27:BA:2680:C:H5'	31:BE:189:PRO:CA	2.19	0.54
47:BY:95:LYS:HZ2	47:BY:99:CYS:C	2.09	0.54
34:BH:85:LYS:HE2	34:BH:145:ALA:CB	2.35	0.54
37:BO:10:VAL:HG11	37:BO:16:ALA:O	2.07	0.54
30:DD:238:GLY:O	30:DD:239:ARG:O	2.25	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1305:G:C2	1:CA:1331:G:N3	2.75	0.54
27:DA:977:G:O2'	27:DA:978:G:H5'	2.07	0.54
27:DA:2833:G:C3'	27:DA:2834:G:C5'	2.76	0.54
38:DP:93:GLY:O	38:DP:123:LEU:HB2	2.07	0.54
27:DA:2014:A:H2'	27:DA:2015:A:C8	2.43	0.54
48:DZ:55:VAL:HA	48:DZ:69:LEU:CD2	2.37	0.54
31:DE:95:ILE:HG22	31:DE:96:PHE:CD1	2.42	0.54
27:BA:1494:A:N3	27:BA:1494:A:C2'	2.70	0.54
1:CA:142:G:H2'	1:CA:143:A:H8	1.67	0.54
8:AH:53:VAL:O	8:AH:56:LYS:N	2.25	0.54
26:CZ:3:SER:O	26:CZ:4:SER:HB3	2.07	0.54
27:BA:686:G:H1'	56:B7:6:GLN:O	2.07	0.54
27:BA:684:G:C2	27:BA:794:G:C2	2.95	0.54
38:DP:7:ARG:HA	38:DP:7:ARG:NE	2.21	0.54
1:CA:309:G:C1'	1:CA:608:A:H2	2.11	0.54
33:DG:3:LEU:O	33:DG:4:ASP:HB3	2.07	0.54
46:BX:12:VAL:HB	46:BX:17:ALA:HB1	1.87	0.54
1:CA:1191:A:H5''	3:CC:4:LYS:HZ1	1.70	0.54
27:BA:1556:C:H2'	27:BA:1557:C:C6	2.42	0.54
27:BA:2580:U:H5''	31:BE:131:ALA:HB2	1.89	0.54
35:BI:123:LEU:HD11	35:BI:144:VAL:HG12	1.90	0.54
39:DQ:75:THR:HG21	39:DQ:87:LYS:HG3	1.88	0.54
48:DZ:60:LEU:HG	48:DZ:64:GLN:HB2	1.89	0.54
51:B2:32:LEU:CB	51:B2:53:LEU:HD12	2.37	0.54
27:DA:1680:U:H3'	27:DA:1681:G:C8	2.42	0.54
52:D3:47:VAL:HA	52:D3:50:VAL:HG22	1.90	0.54
13:AM:75:ALA:C	13:AM:79:LYS:HZ2	2.09	0.54
7:AG:153:HIS:CB	11:AK:58:PRO:HG3	2.37	0.54
11:AK:57:THR:HG22	11:AK:58:PRO:HD2	1.89	0.54
15:AO:33:THR:HG23	15:AO:63:ARG:NH1	2.20	0.54
27:DA:221:A:C4'	27:DA:222:A:O5'	2.53	0.54
45:DW:18:ARG:HG2	45:DW:18:ARG:NH1	2.22	0.54
45:DW:26:GLY:HA2	45:DW:71:VAL:O	2.08	0.54
10:CJ:24:VAL:HG21	10:CJ:37:PRO:HG3	1.89	0.54
5:AE:20:GLN:NE2	5:AE:25:ARG:CZ	2.66	0.54
1:CA:770:C:H2'	1:CA:771:G:C8	2.42	0.54
16:AP:15:PRO:C	16:AP:16:HIS:ND1	2.60	0.54
6:AF:12:PRO:O	6:AF:14:LEU:N	2.33	0.54
13:CM:90:LEU:O	13:CM:91:ARG:HB2	2.07	0.54
23:CW:70:C:O2'	23:CW:71:A:H8	1.91	0.54
27:DA:67:U:H2'	27:DA:68:G:C8	2.37	0.54
32:BF:53:THR:H	32:BF:56:GLU:HB2	1.72	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2110:G:OP2	27:BA:2110:G:H8	1.91	0.54
27:BA:1289:C:H5'	27:BA:1289:C:C6	2.36	0.54
27:BA:406:G:C8	27:BA:406:G:O5'	2.57	0.54
27:DA:813:U:H2'	27:DA:814:C:C6	2.42	0.54
27:DA:2147:G:H2'	27:DA:2148:G:C8	2.42	0.54
27:BA:1676:A:O5'	27:BA:1676:A:H8	1.90	0.54
12:AL:123:LYS:HD2	12:AL:124:GLU:H	1.71	0.54
27:DA:289:A:N3	27:DA:289:A:H2'	2.20	0.54
20:AT:12:ALA:C	20:AT:14:LYS:H	2.09	0.54
2:AB:87:ARG:HD2	2:AB:87:ARG:O	2.07	0.54
6:CF:21:LEU:HD13	6:CF:24:GLU:OE1	2.07	0.54
48:DZ:99:VAL:O	48:DZ:122:ASP:HA	2.07	0.54
28:DB:106:G:H2'	28:DB:107:G:H8	1.70	0.54
27:DA:2460:U:C2'	27:DA:2461:C:H5'	2.37	0.54
20:AT:43:LEU:HB3	20:AT:48:LYS:HG3	1.90	0.54
32:DF:153:SER:OG	32:DF:190:GLU:HG3	2.07	0.54
1:AA:383:A:H2'	1:AA:384:G:H5'	1.89	0.54
1:AA:999:C:H42	1:AA:1042:G:H22	1.55	0.54
1:CA:1417:G:H2'	1:CA:1482:G:N2	2.22	0.54
17:CQ:97:SER:O	17:CQ:99:SER:N	2.38	0.54
27:BA:841:A:H2'	27:BA:842:G:C8	2.42	0.54
32:BF:202:PHE:O	32:BF:205:ARG:CB	2.54	0.54
57:D8:53:PRO:O	57:D8:54:GLU:C	2.45	0.54
30:BD:166:GLN:CB	30:BD:174:ILE:HG22	2.37	0.54
27:DA:1693:U:H2'	30:DD:14:ARG:NH2	2.22	0.54
1:CA:411:A:C6	1:CA:429:U:C5	2.95	0.54
27:DA:391:G:O5'	27:DA:391:G:C8	2.60	0.54
32:DF:127:GLU:HB2	32:DF:196:LEU:HD12	1.89	0.54
32:DF:2:LYS:H	32:DF:2:LYS:HD3	1.70	0.54
30:DD:30:GLU:OE2	30:DD:83:GLU:HB3	2.07	0.54
30:BD:24:ILE:O	30:BD:26:LYS:HE3	2.07	0.54
27:BA:1902:C:H4'	30:BD:244:ARG:HA	1.89	0.54
27:DA:872:A:N1	27:DA:905:U:O2	2.40	0.54
55:B6:20:ASN:ND2	55:B6:21:TYR:N	2.51	0.54
1:AA:1366:C:O2'	1:AA:1367:C:H5'	2.06	0.54
1:AA:1220:G:O3'	19:AS:36:ARG:HD3	2.08	0.54
1:AA:1306:A:H61	1:AA:1331:G:H1'	1.72	0.54
17:CQ:15:MET:HE1	17:CQ:43:LEU:HD13	1.89	0.54
32:DF:188:ARG:N	38:DP:7:ARG:HH22	2.05	0.54
1:CA:606:G:H2'	1:CA:631:G:N2	2.23	0.54
1:CA:129:U:N3	1:CA:131:C:N4	2.53	0.54
1:CA:1064:G:H21	1:CA:1190:G:H2'	1.73	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1197:G:O2'	1:CA:1198:G:H5'	2.07	0.54
1:CA:1287:A:H2	1:CA:1353:G:H1'	1.71	0.54
27:BA:2164:C:H3'	27:BA:2165:G:C8	2.42	0.54
29:DC:68:LEU:CB	29:DC:70:LYS:HE2	2.37	0.54
56:D7:10:ARG:O	56:D7:13:ALA:HB3	2.08	0.54
35:BI:140:LEU:HD12	35:BI:141:LYS:H	1.72	0.54
27:BA:2522:U:O2'	27:BA:2647:U:OP1	2.23	0.54
41:DS:59:LYS:HE3	41:DS:68:GLN:HE22	1.72	0.54
27:BA:2287:A:N1	27:BA:2346:A:C2	2.75	0.54
1:AA:620:C:N1	4:AD:135:LEU:HD23	2.22	0.54
27:DA:2312:U:C2'	27:DA:2313:C:H5''	2.36	0.54
5:CE:84:PHE:O	5:CE:86:ALA:N	2.40	0.54
1:AA:1137:C:C4'	1:AA:1138:G:C2	2.87	0.54
27:DA:2884:U:C2'	27:DA:2885:C:H5'	2.37	0.54
42:DT:105:LEU:HD22	42:DT:109:GLU:OE1	2.07	0.54
1:CA:638:G:H2'	1:CA:639:G:C8	2.42	0.54
12:CL:5:ASN:HA	12:CL:8:VAL:HG21	1.90	0.54
8:CH:39:LEU:HD21	8:CH:111:ILE:HD11	1.88	0.54
7:AG:69:VAL:HG12	7:AG:100:ALA:HA	1.89	0.54
27:BA:1331:A:H3'	27:BA:1333:C:H41	1.71	0.54
27:BA:1205:U:H4'	27:BA:1206:G:OP2	2.07	0.54
36:DN:67:LEU:HB3	36:DN:88:GLU:CG	2.37	0.54
27:BA:2048:G:C6	27:BA:2621:A:N1	2.76	0.54
9:CI:99:LEU:HD12	9:CI:101:PHE:CE1	2.42	0.54
29:DC:77:ILE:HD11	29:DC:100:ILE:HG13	1.89	0.54
27:BA:2036:C:O2'	27:BA:2037:G:H8	1.90	0.54
36:BN:17:ASP:C	36:BN:17:ASP:OD2	2.46	0.54
17:AQ:29:HIS:CE1	17:AQ:31:LEU:HB3	2.38	0.54
27:BA:576:U:H4'	27:BA:2502:G:C8	2.42	0.54
27:DA:1722:A:C6	27:DA:1740:G:C8	2.95	0.54
27:BA:530:G:O6	27:BA:2023:G:OP1	2.26	0.54
27:DA:1195:G:O2'	27:DA:1196:C:H5'	2.08	0.54
27:DA:1897:G:C2	27:DA:1898:U:C2	2.95	0.54
5:CE:125:SER:OG	5:CE:126:ARG:N	2.39	0.54
27:DA:2064:C:H1'	27:DA:2450:A:N1	2.23	0.54
27:DA:1328:G:O2'	27:DA:1329:U:H5''	2.07	0.54
50:D1:46:LEU:O	50:D1:46:LEU:HD23	2.06	0.54
1:CA:1165:C:C2'	1:CA:1166:G:H5'	2.37	0.54
29:DC:24:GLU:HB3	29:DC:27:ARG:HH21	1.71	0.54
27:DA:2445:G:H2'	27:DA:2446:G:C8	2.42	0.54
50:B1:23:LYS:HD3	50:B1:28:GLY:HA3	1.89	0.54
23:AW:27:C:C4	23:AW:28:G:N7	2.75	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1170:G:H22	27:DA:1179:C:H42	1.55	0.54
1:CA:755:G:O2'	1:CA:756:C:H5'	2.08	0.54
52:D3:36:VAL:HG23	52:D3:36:VAL:O	2.07	0.54
42:DT:54:ARG:O	42:DT:55:ASN:CB	2.54	0.54
57:B8:61:LEU:HD12	57:B8:61:LEU:N	2.23	0.54
27:BA:247:G:H4'	27:BA:386:G:C5	2.42	0.54
27:BA:940:G:H2'	27:BA:941:A:C4'	2.37	0.54
38:BP:23:PRO:HD2	38:BP:33:ARG:HH21	1.72	0.54
1:CA:981:U:O5'	1:CA:981:U:H6	1.89	0.54
32:BF:110:LEU:C	32:BF:110:LEU:HD13	2.28	0.54
32:BF:20:LEU:CD2	32:BF:203:GLN:HE22	2.20	0.54
32:BF:2:LYS:HG2	32:BF:25:PRO:HG2	1.89	0.54
5:AE:43:LEU:CD2	5:AE:109:ILE:HD11	2.30	0.54
42:BT:65:LYS:HA	42:BT:65:LYS:NZ	2.23	0.54
30:DD:211:ARG:HG3	30:DD:211:ARG:O	2.07	0.54
54:B5:16:ARG:CG	54:B5:17:ASP:H	2.19	0.54
27:DA:627:A:N3	27:DA:636:G:N2	2.53	0.54
27:DA:2394:C:OP1	38:DP:63:PRO:HG2	2.07	0.54
27:DA:2019:A:N6	27:DA:2035:G:H1	2.06	0.54
55:B6:34:LEU:O	55:B6:36:LEU:HD23	2.08	0.54
18:CR:47:THR:HA	18:CR:83:GLU:O	2.08	0.54
1:AA:944:G:N2	1:AA:1338:G:C8	2.76	0.54
17:CQ:12:SER:HA	17:CQ:14:LYS:NZ	2.22	0.54
1:AA:484:G:H4'	1:AA:485:G:O5'	2.07	0.54
46:BX:13:LEU:HD11	51:B2:40:SER:O	2.08	0.54
42:DT:3:ARG:C	42:DT:5:ALA:N	2.59	0.54
9:CI:83:ARG:NH2	9:CI:102:LEU:HD11	2.22	0.54
30:DD:52:ARG:NH1	30:DD:249:PRO:HG2	2.23	0.54
27:BA:2134:A:C2	27:BA:2159:G:H1'	2.42	0.54
49:D0:53:MET:HB3	49:D0:59:LEU:CD2	2.31	0.54
27:BA:1407:C:H5'	27:BA:1408:C:OP2	2.08	0.54
1:AA:402:G:O2'	1:AA:403:C:H5'	2.08	0.54
1:AA:1161:C:H2'	1:AA:1162:C:C6	2.43	0.54
27:DA:852:G:C5	27:DA:853:G:N7	2.75	0.54
6:CF:8:ILE:HD13	6:CF:26:ILE:HD13	1.89	0.54
43:BU:25:TRP:HD1	43:BU:26:GLY:H	1.55	0.54
27:BA:234:C:O2'	27:BA:235:U:H5'	2.07	0.54
27:BA:2047:U:C2'	27:BA:2048:G:H5'	2.37	0.54
1:AA:961:U:OP2	1:AA:1223:C:H1'	2.07	0.54
13:CM:95:GLY:O	13:CM:96:LEU:HD12	2.06	0.54
27:DA:2543:G:O2'	27:DA:2544:G:H5'	2.08	0.54
10:AJ:94:VAL:HG12	10:AJ:95:GLU:N	2.21	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CM:82:MET:O	13:CM:82:MET:CG	2.54	0.54
18:AR:51:LEU:HD23	18:AR:52:PRO:HD2	1.89	0.54
27:BA:49:A:C8	27:BA:51:G:C2	2.95	0.54
2:CB:36:ARG:HA	2:CB:36:ARG:CZ	2.37	0.54
39:DQ:134:ARG:HH21	48:DZ:121:ARG:CZ	2.21	0.54
27:BA:1674:G:N2	27:BA:1677:A:N1	2.54	0.54
27:BA:2028:U:H2'	27:BA:2029:G:O4'	2.07	0.54
36:DN:41:ASP:O	36:DN:42:TRP:C	2.46	0.54
27:BA:2111:C:C5	27:BA:2145:C:C4	2.95	0.54
20:CT:16:HIS:C	20:CT:19:SER:HB3	2.28	0.54
50:D1:20:ARG:O	50:D1:21:ARG:HG2	2.08	0.54
19:CS:29:ARG:O	19:CS:31:ILE:HG22	2.07	0.54
31:DE:11:MET:HE3	31:DE:186:GLY:HA2	1.89	0.54
27:BA:1790:C:H2'	27:BA:1791:A:C4	2.43	0.54
1:CA:38:G:H4'	1:CA:547:A:N6	2.21	0.54
27:BA:836:G:H2'	27:BA:837:C:C6	2.42	0.54
49:D0:34:GLY:O	49:D0:35:ASN:C	2.45	0.54
28:BB:79:C:H42	28:BB:98:G:H1	1.54	0.54
46:DX:41:ASN:N	46:DX:41:ASN:HD22	2.04	0.54
48:DZ:104:VAL:O	48:DZ:104:VAL:HG13	2.08	0.54
27:BA:1961:C:C2'	27:BA:1962:C:H5'	2.37	0.54
44:DV:43:GLU:O	44:DV:44:LYS:HB2	2.08	0.54
27:BA:2378:A:N7	27:BA:2379:G:H1'	2.22	0.54
1:CA:1226:C:OP1	19:CS:81:ARG:NH1	2.41	0.54
27:BA:1200:C:H2'	27:BA:1201:C:H6	1.73	0.54
33:BG:39:ILE:O	33:BG:39:ILE:HG23	2.07	0.54
55:D6:19:ARG:H	55:D6:19:ARG:HD2	1.73	0.54
27:DA:2430:A:H2'	27:DA:2431:U:H5'	1.90	0.54
27:DA:2067:G:H1	27:DA:2443:C:N4	2.05	0.54
27:DA:2579:C:O3'	31:DE:131:ALA:CB	2.45	0.54
27:DA:950:G:O6	27:DA:967:C:N4	2.40	0.54
39:BQ:107:ALA:O	39:BQ:109:VAL:HG23	2.08	0.54
55:B6:39:TYR:HD2	55:B6:49:HIS:CD2	2.26	0.54
1:CA:202:U:H5''	1:CA:203:U:OP2	2.07	0.54
1:CA:384:G:H2'	1:CA:385:C:H6	1.70	0.54
42:DT:82:LEU:O	42:DT:83:ILE:C	2.45	0.54
30:DD:173:VAL:CG2	30:DD:174:ILE:N	2.70	0.54
27:DA:2755:C:H3'	58:D9:19:ARG:NH2	2.23	0.54
16:AP:22:THR:HG1	16:AP:26:ARG:HG3	1.70	0.54
27:BA:1812:A:C2	27:BA:1813:G:C5	2.95	0.54
7:AG:54:THR:OG1	7:AG:56:GLN:CG	2.47	0.54
20:CT:67:ALA:O	20:CT:73:HIS:CD2	2.61	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:DT:13:ARG:CA	42:DT:13:ARG:NE	2.70	0.54
38:DP:13:ASN:ND2	38:DP:14:LYS:N	2.55	0.54
3:CC:84:ILE:HA	3:CC:87:LEU:HD12	1.90	0.54
12:AL:73:ASN:H	12:AL:73:ASN:ND2	2.04	0.54
27:DA:526:A:N6	27:DA:2626:C:H4'	2.23	0.54
42:BT:108:ARG:CA	42:BT:111:ARG:HG3	2.37	0.54
47:BY:88:LYS:HB3	47:BY:90:LEU:HD12	1.89	0.54
57:B8:32:LEU:CB	57:B8:36:LYS:HD2	2.38	0.54
40:DR:20:LEU:HG	40:DR:21:TYR:CD2	2.42	0.54
35:BI:13:GLY:O	35:BI:17:GLN:OE1	2.25	0.54
28:DB:45:A:H1'	33:DG:95:ARG:NH1	2.22	0.54
39:BQ:57:HIS:C	39:BQ:57:HIS:CD2	2.81	0.54
27:DA:2867:G:C5	42:DT:23:ARG:NH1	2.75	0.54
42:DT:96:ARG:CG	42:DT:96:ARG:HH11	2.09	0.54
4:AD:152:SER:C	4:AD:154:ASN:H	2.10	0.54
4:AD:152:SER:O	4:AD:155:LEU:HG	2.08	0.54
27:BA:271(U):G:C2'	27:BA:271(V):G:H5'	2.37	0.54
45:DW:11:ARG:N	45:DW:100:THR:OG1	2.39	0.54
45:DW:29:LEU:HD11	45:DW:51:LEU:HD11	1.89	0.54
27:BA:216:A:C8	27:BA:432:A:C6	2.96	0.54
11:CK:52:GLY:O	11:CK:55:LYS:HG3	2.07	0.54
1:CA:61:G:C6	1:CA:107:G:N1	2.75	0.54
27:DA:2092:U:H4'	27:DA:2093:G:O5'	2.07	0.54
1:AA:841:U:O2'	1:AA:848:C:H5'	2.07	0.54
27:BA:542:C:N4	27:BA:543:C:N4	2.55	0.54
27:BA:1527:G:H5''	27:BA:1528:A:OP1	2.07	0.54
27:DA:1887:C:C2'	27:DA:1888:G:H5''	2.37	0.54
51:B2:13:ALA:O	51:B2:15:LYS:N	2.39	0.54
56:B7:31:LEU:O	56:B7:35:ARG:HB2	2.08	0.54
31:DE:11:MET:CB	31:DE:24:THR:HA	2.38	0.54
27:BA:1804:C:H4'	30:BD:252:TRP:CZ2	2.43	0.54
27:BA:2080:G:H2'	27:BA:2081:C:H6	1.72	0.54
1:AA:537:G:H2'	1:AA:538:G:C8	2.42	0.54
56:B7:45:ALA:O	56:B7:46:VAL:CG2	2.56	0.54
33:DG:33:ARG:O	33:DG:35:GLU:N	2.40	0.54
27:BA:2851:A:O3'	40:BR:64:ARG:NH2	2.41	0.54
39:DQ:3:MET:O	39:DQ:5:ARG:N	2.41	0.54
1:CA:599:C:H5''	8:CH:96:GLY:HA2	1.89	0.54
1:AA:590:C:OP1	8:AH:30:ARG:HB3	2.08	0.54
1:AA:719:C:C2	18:AR:50:ILE:HG12	2.42	0.54
49:D0:27:GLU:N	49:D0:69:PHE:HE1	2.06	0.54
1:AA:1149:C:H2'	1:AA:1150:U:C6	2.42	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:636:G:H4'	27:BA:638:G:H4'	1.90	0.54
40:BR:28:LEU:CD1	40:BR:48:VAL:HG11	2.37	0.54
47:BY:95:LYS:HZ2	47:BY:100:ALA:HB2	1.72	0.54
38:DP:47:ASP:HB3	38:DP:48:PRO:C	2.28	0.54
33:BG:142:PRO:HG2	33:BG:143:GLU:OE1	2.07	0.54
42:BT:31:SER:CB	42:BT:32:TYR:CD2	2.90	0.54
27:DA:1152:C:H2'	27:DA:1153:C:H6	1.73	0.54
27:DA:491:G:C2'	27:DA:492:A:O5'	2.56	0.54
27:DA:1491:G:OP2	27:DA:1494:A:N6	2.40	0.54
30:DD:143:HIS:HA	30:DD:156:ALA:CB	2.37	0.54
27:DA:729:G:N7	30:DD:209:ALA:HB3	2.22	0.54
30:DD:30:GLU:HG3	30:DD:63:ARG:NH2	2.22	0.54
41:DS:98:VAL:O	41:DS:98:VAL:HG13	2.08	0.54
38:DP:112:LEU:O	38:DP:112:LEU:HD13	2.08	0.54
33:DG:16:ARG:O	33:DG:20:ILE:HG13	2.08	0.54
44:DV:81:TYR:CE2	44:DV:83:ARG:CZ	2.91	0.54
1:AA:153:C:O2'	1:AA:154:C:H5'	2.08	0.54
27:BA:2483:C:H3'	27:BA:2484:G:C5'	2.26	0.54
1:AA:1315:U:H2'	1:AA:1316:G:O4'	2.08	0.54
41:DS:30:ARG:HB3	41:DS:89:ARG:NH2	2.23	0.54
27:BA:965:C:H2'	27:BA:966:G:C8	2.40	0.54
8:CH:60:ARG:CG	8:CH:60:ARG:NH1	2.70	0.54
1:AA:748:C:O2'	1:AA:749:C:OP2	2.23	0.54
27:DA:2712:U:H2'	27:DA:2712(A):A:O5'	2.07	0.54
3:CC:94:LEU:HD12	3:CC:95:THR:N	2.23	0.54
27:DA:2537:U:H2'	27:DA:2538:C:C6	2.42	0.54
14:CN:7:ILE:CG2	14:CN:28:GLY:HA3	2.38	0.54
27:BA:2875:C:O2'	42:BT:5:ALA:HB2	2.08	0.54
48:DZ:4:LEU:CD1	48:DZ:5:LYS:H	2.17	0.54
27:DA:1379:A:H1'	27:DA:1380:G:OP1	2.07	0.54
55:B6:30:THR:HB	55:B6:31:PRO:HD2	1.88	0.54
27:DA:2310:A:N6	33:DG:75:LYS:HE2	2.23	0.54
2:CB:101:MET:HA	2:CB:108:ILE:HG13	1.90	0.54
25:CY:58:A:C2'	25:CY:59:U:H5'	2.38	0.54
5:CE:110:LEU:O	5:CE:115:VAL:HG23	2.07	0.54
5:CE:80:ILE:CD1	5:CE:138:ALA:HB1	2.37	0.54
12:CL:4:ILE:O	12:CL:8:VAL:HG23	2.08	0.54
27:BA:200:U:C5'	27:BA:200:U:H6	2.18	0.54
33:BG:120:LEU:O	33:BG:181:ARG:HB3	2.08	0.54
1:AA:189(B):C:O2'	1:AA:189(C):C:H5'	2.08	0.54
19:AS:11:VAL:CG2	19:AS:16:LEU:HD11	2.38	0.54
32:BF:41:LEU:HD21	32:BF:184:TYR:CE1	2.43	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1293:G:O2'	1:AA:1294:G:H5'	2.07	0.54
27:DA:2519:U:C4	27:DA:2542:A:C2	2.95	0.54
27:BA:38:A:H1'	32:BF:48:THR:O	2.07	0.54
7:AG:103:TRP:HA	7:AG:106:GLN:HB2	1.89	0.54
1:CA:9:G:OP1	5:CE:122:GLU:HB2	2.08	0.54
1:AA:992:U:HO2'	1:AA:993:G:C5'	2.19	0.54
1:CA:93:G:H2'	1:CA:96:U:C5'	2.35	0.54
27:BA:959:A:H5''	27:BA:959:A:C8	2.39	0.54
27:BA:2023:G:N2	27:BA:2024:G:C4	2.76	0.54
45:BW:85:VAL:CG1	45:BW:86:LEU:N	2.71	0.54
27:DA:706:A:C2'	27:DA:707:G:O5'	2.55	0.54
13:AM:48:LEU:O	13:AM:49:THR:C	2.46	0.54
43:DU:62:ILE:HG22	43:DU:63:VAL:N	2.22	0.54
1:AA:113:G:C2'	1:AA:114:U:O5'	2.56	0.54
34:DH:35:VAL:HG11	34:DH:71:LEU:HG	1.90	0.54
1:AA:1030(B):C:H2'	1:AA:1030(C):G:C5'	2.38	0.54
49:B0:53:MET:HA	49:B0:58:THR:O	2.07	0.54
27:BA:444:C:O4'	32:BF:49:ALA:HB2	2.08	0.54
50:D1:75:GLU:C	50:D1:77:ALA:H	2.11	0.54
1:AA:1393:U:O2'	1:AA:1394:A:H3'	2.08	0.54
23:AW:29:G:C2	23:AW:40:C:N3	2.76	0.54
35:DI:45:LYS:O	35:DI:48:GLU:N	2.39	0.54
2:CB:45:GLN:O	2:CB:48:MET:HB3	2.08	0.54
2:AB:122:PHE:HD1	2:AB:139:LYS:HZ2	1.54	0.54
42:DT:38:ASN:ND2	42:DT:38:ASN:O	2.41	0.54
27:DA:76:C:O2'	27:DA:77:C:H5'	2.08	0.54
27:BA:1340:U:H4'	27:BA:1341:U:OP2	2.08	0.54
39:BQ:35:VAL:HG23	39:BQ:100:GLY:O	2.06	0.54
47:BY:95:LYS:HG2	47:BY:99:CYS:O	2.07	0.54
47:BY:96:ILE:HD12	47:BY:99:CYS:HB2	1.90	0.54
1:CA:498:U:O2'	1:CA:499:A:O5'	2.25	0.54
33:BG:101:ILE:HG12	33:BG:105:LYS:CE	2.32	0.54
33:BG:114:ILE:HG12	33:BG:140:ILE:HD13	1.90	0.54
27:BA:995:C:O2	36:BN:4:TYR:OH	2.26	0.54
43:BU:92:ARG:HH21	44:BV:11:GLN:H	1.55	0.54
27:DA:407:G:N2	27:DA:421:U:C2	2.76	0.54
27:DA:1009:A:H5'	27:DA:1009:A:C8	2.42	0.54
1:AA:344:A:H2'	1:AA:346:G:O6	2.07	0.54
27:DA:902:C:H2'	27:DA:903:C:C6	2.42	0.54
57:D8:38:GLY:O	57:D8:42:ARG:CB	2.55	0.54
27:DA:2386:C:H4'	49:D0:55:ARG:O	2.07	0.54
1:AA:175:C:H2'	1:AA:176:C:C6	2.43	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:BW:12:ILE:O	45:BW:101:SER:OG	2.23	0.54
46:DX:35:THR:HG22	46:DX:37:THR:H	1.73	0.54
4:CD:171:GLY:HA3	4:CD:173:TRP:CZ3	2.43	0.54
9:AI:5:TYR:HA	9:AI:17:VAL:O	2.07	0.54
10:AJ:53:PRO:HA	14:AN:41:ARG:HH21	1.72	0.54
8:AH:34:GLU:O	8:AH:38:ILE:HG13	2.07	0.54
12:CL:25:LYS:C	12:CL:27:ALA:N	2.61	0.54
12:CL:57:LEU:C	12:CL:59:SER:H	2.10	0.54
30:BD:186:HIS:NE2	30:BD:188:GLU:HG2	2.23	0.54
19:AS:18:LYS:HD2	19:AS:22:LEU:CD2	2.37	0.54
27:DA:2747:G:N2	27:DA:2748:A:H62	2.05	0.54
30:BD:227:ASN:O	30:BD:234:GLY:HA3	2.08	0.54
27:DA:599:G:O2'	27:DA:600:G:H5'	2.06	0.54
4:AD:25:ARG:HG2	4:AD:25:ARG:NH1	2.21	0.54
1:CA:1191:A:H5''	3:CC:4:LYS:HZ3	1.70	0.54
14:CN:9:LYS:HA	14:CN:12:ARG:CZ	2.38	0.54
47:BY:88:LYS:NZ	47:BY:93:GLY:CA	2.67	0.54
27:BA:1032:A:OP1	58:B9:8:LYS:HE3	2.08	0.54
27:DA:1301:A:C4'	27:DA:1302:A:OP1	2.55	0.54
48:BZ:164:VAL:HG11	48:BZ:168:GLU:HB2	1.89	0.54
12:AL:114:ARG:HD2	12:AL:119:THR:CG2	2.38	0.54
36:BN:123:TYR:OH	36:BN:130:HIS:CE1	2.61	0.54
30:DD:94:LEU:CD2	30:DD:95:LEU:N	2.71	0.54
48:BZ:99:VAL:O	48:BZ:122:ASP:HA	2.08	0.54
13:CM:6:GLY:O	13:CM:7:VAL:CG2	2.56	0.54
17:AQ:26:GLN:NE2	17:AQ:37:LYS:HG2	2.23	0.54
54:D5:25:LEU:CD2	54:D5:26:THR:N	2.70	0.54
1:CA:686:U:C2'	1:CA:686:U:O2	2.55	0.54
12:AL:25:LYS:HE3	12:AL:30:ARG:HH22	1.72	0.54
1:AA:609:A:H2'	1:AA:610:G:H5'	1.87	0.54
16:AP:8:ARG:O	16:AP:9:PHE:CG	2.60	0.54
1:AA:782:A:H2'	1:AA:783:C:H5'	1.90	0.54
27:DA:65:C:H2'	27:DA:66:C:C6	2.43	0.54
11:AK:12:ARG:HG3	11:AK:13:GLN:N	2.23	0.54
34:BH:89:ILE:O	34:BH:90:LYS:C	2.46	0.54
1:AA:1465:C:H2'	1:AA:1466:C:O4'	2.07	0.54
13:CM:48:LEU:HB2	13:CM:52:GLU:HB3	1.89	0.54
27:DA:1042:G:H5''	27:DA:1043:C:C5	2.43	0.54
13:CM:116:THR:O	13:CM:117:VAL:CB	2.56	0.54
27:BA:1963:U:C2'	27:BA:1963:U:O2	2.55	0.54
1:AA:321:A:N1	1:AA:333:G:C2	2.76	0.54
20:AT:13:LEU:C	20:AT:13:LEU:HD12	2.27	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:CW:10:G:C2	23:CW:25:A:H1'	2.42	0.54
2:AB:100:GLY:O	2:AB:101:MET:C	2.45	0.54
25:AY:14:A:H5''	25:AY:15:G:N7	2.22	0.54
1:AA:163:C:H2'	1:AA:164:U:C6	2.42	0.54
43:BU:114:LYS:O	43:BU:117:GLN:HB2	2.07	0.54
27:BA:2710:C:O2'	27:BA:2711:A:H5'	2.07	0.54
7:CG:127:ALA:O	7:CG:130:GLY:N	2.40	0.54
38:DP:30:THR:HG22	38:DP:31:ALA:H	1.71	0.54
2:AB:75:LYS:HD3	2:AB:78:GLN:HB2	1.90	0.54
2:CB:106:LYS:HG2	2:CB:106:LYS:O	2.08	0.54
1:AA:701:C:H1'	1:AA:703:G:C2	2.43	0.54
1:CA:417:C:O2'	1:CA:418:C:H5'	2.07	0.54
46:BX:8:ILE:O	51:B2:36:ARG:NH2	2.40	0.54
57:D8:6:THR:CG2	57:D8:63:PRO:HG3	2.37	0.54
55:D6:10:LEU:N	55:D6:10:LEU:CD2	2.69	0.54
55:D6:40:CYS:SG	55:D6:45:LYS:NZ	2.70	0.54
27:DA:2023:G:O2'	27:DA:2024:G:C8	2.60	0.54
27:DA:2061:G:C8	27:DA:2501:C:H1'	2.43	0.54
27:DA:2453:A:H2'	27:DA:2454:G:H8	1.71	0.54
27:BA:1138:G:N3	36:BN:106:MET:CE	2.71	0.54
1:CA:1139:G:H4'	1:CA:1140:C:O5'	2.06	0.54
4:CD:100:ARG:O	4:CD:102:ASP:N	2.40	0.54
35:DI:133:HIS:ND1	35:DI:134:PRO:CD	2.70	0.54
12:CL:33:VAL:O	12:CL:55:VAL:HG13	2.08	0.54
19:AS:50:ALA:HB1	19:AS:57:HIS:HB3	1.90	0.54
39:BQ:12:GLN:HE21	39:BQ:73:PRO:CD	2.21	0.54
27:BA:853:G:O2'	27:BA:854:G:H5'	2.08	0.54
16:AP:3:LYS:HG2	16:AP:65:GLN:O	2.08	0.54
17:CQ:60:ILE:O	17:CQ:71:PHE:CD1	2.60	0.54
27:DA:1911:U:O2'	27:DA:1912:A:H5''	2.08	0.54
27:BA:797:C:OP2	32:BF:62:ARG:HG3	2.08	0.54
31:BE:34:VAL:HG22	31:BE:48:GLN:HE21	1.72	0.54
2:CB:200:ILE:O	2:CB:201:ILE:HD13	2.07	0.54
1:CA:243:A:N6	1:CA:281:G:H1'	2.23	0.54
20:CT:49:ALA:HB1	20:CT:100:ILE:HD13	1.89	0.54
1:CA:1176:A:H2'	1:CA:1177:G:O4'	2.07	0.54
1:CA:1049:U:O2'	1:CA:1050:G:OP2	2.25	0.54
10:AJ:17:ASP:OD1	10:AJ:70:ARG:NH1	2.41	0.54
1:CA:590:C:O2'	1:CA:591:U:H5'	2.08	0.54
27:BA:2562:U:O2'	27:BA:2563:U:H5'	2.08	0.54
27:BA:2423:U:H4'	27:BA:2425:A:C8	2.43	0.54
27:BA:397:G:OP1	50:B1:44:PRO:HA	2.08	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2310:A:N7	33:BG:75:LYS:HE2	2.23	0.54
27:DA:1679:U:H2'	27:DA:1680:U:C6	2.42	0.54
13:CM:84:ILE:N	19:CS:66:MET:HE1	2.22	0.54
27:BA:729:G:O2'	27:BA:763:G:H4'	2.08	0.54
2:CB:97:TRP:HH2	2:CB:176:GLU:OE1	1.90	0.54
42:DT:101:PHE:O	42:DT:103:ARG:N	2.41	0.54
27:BA:2694:G:H2'	27:BA:2695:C:O5'	2.08	0.54
1:CA:1319:A:OP2	19:CS:5:LEU:HD23	2.07	0.54
1:AA:1285:A:O2'	1:AA:1286:A:OP2	2.24	0.54
21:AU:8:THR:O	21:AU:12:LYS:HB2	2.07	0.54
25:CY:17:G:N2	25:CY:54:U:H1'	2.19	0.54
8:CH:42:GLU:HG3	8:CH:109:ILE:CD1	2.33	0.54
45:DW:84:ARG:HG3	45:DW:98:LYS:NZ	2.23	0.54
27:BA:363(B):G:C2'	27:BA:363(B):G:N3	2.68	0.54
27:BA:1114:G:H2'	27:BA:1115:G:H5''	1.89	0.54
27:BA:216:A:H2'	27:BA:217:G:H8	1.72	0.54
15:CO:10:LYS:HE3	15:CO:11:VAL:HG23	1.90	0.54
30:DD:138:VAL:HG12	30:DD:168:ARG:HE	1.73	0.54
14:AN:13:THR:N	14:AN:14:PRO:CD	2.69	0.54
27:BA:1931:U:H2'	27:BA:1932:A:H8	1.73	0.54
6:AF:18:GLN:O	6:AF:22:GLU:HG2	2.08	0.54
48:BZ:143:LEU:HD12	48:BZ:147:ASP:HB3	1.89	0.54
34:DH:125:VAL:HG13	34:DH:131:VAL:HG22	1.90	0.54
50:B1:73:LEU:C	50:B1:75:GLU:N	2.61	0.54
1:AA:184:G:O2'	1:AA:185:A:H5'	2.06	0.54
27:BA:2636:U:O2'	31:BE:44:TYR:HE1	1.91	0.54
27:DA:1515:G:O2'	27:DA:1516:C:H5'	2.07	0.54
27:DA:813:U:C2	27:DA:1195:G:N2	2.76	0.54
24:CX:28:C:H42	24:CX:42:G:H1	1.55	0.54
1:AA:1458:G:O2'	1:AA:1459:C:H5'	2.08	0.54
51:B2:16:LEU:O	51:B2:17:SER:HB3	2.06	0.54
27:BA:425:G:H2'	27:BA:426:C:C6	2.41	0.54
27:BA:971:C:H2'	27:BA:972:G:C5'	2.38	0.54
1:AA:1149:C:H2'	1:AA:1150:U:H6	1.73	0.54
52:D3:1:MET:O	52:D3:2:PRO:O	2.26	0.54
39:BQ:4:PRO:C	39:BQ:5:ARG:HG3	2.28	0.54
27:DA:1711:C:O2'	27:DA:1712:C:H5'	2.08	0.54
44:DV:21:ARG:HB3	44:DV:91:TYR:HB2	1.90	0.54
52:B3:12:PRO:O	52:B3:15:TYR:HB2	2.08	0.54
8:CH:90:GLY:O	8:CH:91:ARG:CB	2.55	0.54
28:BB:111:G:O2'	28:BB:112:U:H5'	2.07	0.54
15:CO:29:VAL:HG12	15:CO:30:ALA:N	2.22	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:991:C:O2	27:BA:1164:G:C2	2.60	0.54
38:BP:64:LYS:HD2	57:B8:25:MET:SD	2.48	0.54
10:CJ:61:GLU:OE1	14:CN:58:LYS:HE2	2.08	0.54
41:BS:88:ASP:CG	41:BS:89:ARG:N	2.61	0.54
27:BA:27:G:O2'	27:BA:28:A:H8	1.91	0.54
4:CD:79:PHE:HA	4:CD:93:PHE:CE2	2.43	0.54
42:BT:27:THR:HA	42:BT:87:ASP:HB2	1.88	0.54
43:DU:91:ASP:C	43:DU:92:ARG:HD3	2.27	0.54
44:DV:52:VAL:O	44:DV:52:VAL:HG13	2.07	0.54
27:DA:36:G:N3	27:DA:450:G:O2'	2.41	0.54
29:BC:42:GLU:H	29:BC:213:TYR:N	2.02	0.54
30:DD:144:ALA:HB3	30:DD:192:THR:HG23	1.90	0.54
12:CL:83:ARG:N	12:CL:96:HIS:O	2.35	0.54
52:B3:24:LYS:O	52:B3:27:GLY:N	2.40	0.54
27:DA:84:A:C5'	47:DY:9:LYS:HZ1	2.17	0.54
41:DS:96:GLY:O	41:DS:98:VAL:HG12	2.08	0.54
33:BG:66:GLN:HE21	33:BG:98:ARG:HG3	1.72	0.54
27:DA:582:G:H2'	27:DA:583:G:H8	1.71	0.54
27:DA:828:U:H4'	27:DA:831:G:N1	2.23	0.54
27:DA:587:C:C6	38:DP:33:ARG:NH1	2.76	0.54
55:B6:40:CYS:CB	55:B6:46:HIS:HB3	2.38	0.54
31:DE:179:GLU:CB	31:DE:181:LEU:HD13	2.28	0.54
1:CA:62:U:H3	1:CA:105:G:H1	1.55	0.54
12:CL:80:VAL:HG12	12:CL:81:LEU:N	2.18	0.54
2:AB:91:PRO:HA	2:AB:154:LEU:HD12	1.90	0.54
17:CQ:50:LYS:O	17:CQ:52:LYS:HD2	2.08	0.54
27:BA:125:G:C6	56:B7:10:ARG:NE	2.74	0.54
27:BA:752:A:C5	27:BA:1781:C:O4'	2.61	0.54
50:D1:51:VAL:O	50:D1:57:GLU:O	2.25	0.54
2:AB:167:PRO:HG2	2:AB:192:SER:CB	2.37	0.54
1:CA:242:C:C2'	1:CA:243:A:H5'	2.38	0.54
1:AA:372:C:H42	1:AA:389:A:H62	1.54	0.54
34:DH:12:PRO:CG	34:DH:49:VAL:HA	2.28	0.54
47:BY:90:LEU:HD12	47:BY:91:GLU:N	2.13	0.54
1:CA:750:G:H21	15:CO:23:GLY:HA3	1.72	0.54
29:BC:36:LYS:HD3	29:BC:37:PHE:N	2.23	0.54
1:AA:1161:C:H2'	1:AA:1162:C:H6	1.72	0.54
7:AG:153:HIS:CG	11:AK:58:PRO:HG3	2.42	0.54
27:DA:1665:A:C2'	27:DA:1666:G:H5'	2.38	0.54
19:CS:45:VAL:HA	19:CS:62:ILE:HG23	1.88	0.54
27:DA:1446:C:O2'	27:DA:1447:G:H5'	2.08	0.54
1:AA:577:G:O2'	1:AA:578:C:H5'	2.06	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BG:86:MET:HB2	33:BG:87:PRO:HD3	1.89	0.54
27:BA:271(G):C:H2'	27:BA:271(H):G:C8	2.41	0.54
3:AC:84:ILE:O	3:AC:88:ARG:HG3	2.08	0.54
58:D9:5:ALA:O	58:D9:36:GLN:HG3	2.08	0.54
27:BA:803:U:O2'	27:BA:804:A:H5'	2.08	0.54
1:CA:919:A:O2'	1:CA:1080:A:N1	2.38	0.54
39:DQ:130:LYS:HG3	39:DQ:131:ILE:N	2.22	0.54
2:CB:16:HIS:HB3	2:CB:210:SER:OG	2.08	0.54
1:CA:1109:C:O2'	1:CA:1110:A:H5'	2.08	0.54
27:DA:1164:G:C2	27:DA:1165:U:C2	2.96	0.54
27:BA:1931:U:C6	27:BA:1931:U:C5'	2.90	0.54
28:DB:110:G:C2'	28:DB:111:G:H5'	2.38	0.54
1:AA:197:A:N6	1:AA:221:C:H5'	2.23	0.54
2:AB:61:LEU:HD23	2:AB:68:ILE:HD11	1.88	0.54
2:CB:105:PHE:C	2:CB:107:THR:H	2.10	0.54
10:CJ:82:ILE:CG2	10:CJ:82:ILE:O	2.56	0.54
13:CM:48:LEU:HG	13:CM:53:VAL:HG23	1.90	0.54
5:CE:94:ALA:HB1	5:CE:98:THR:HB	1.90	0.54
30:DD:158:ALA:O	30:DD:196:VAL:HG11	2.08	0.54
27:BA:577:G:O2'	27:BA:1254:A:OP1	2.26	0.54
27:BA:1983:C:O2'	27:BA:1984:G:H5'	2.08	0.54
27:BA:2006:C:H2'	27:BA:2007:C:H6	1.73	0.54
51:B2:13:ALA:C	51:B2:15:LYS:H	2.10	0.54
1:AA:1047:G:H1	1:AA:1210:C:H42	1.54	0.54
43:DU:5:LYS:CG	43:DU:7:GLY:H	2.21	0.54
44:BV:28:GLU:HB3	44:BV:29:PRO:CD	2.38	0.54
35:DI:109:ILE:HD12	35:DI:109:ILE:N	2.23	0.54
54:D5:59:GLU:O	54:D5:60:VAL:HG23	2.07	0.54
27:BA:2648:C:H2'	27:BA:2649:U:H6	1.72	0.54
27:DA:2461:C:C5	27:DA:2462:U:C5	2.95	0.54
27:DA:2131:G:OP1	27:DA:2132:U:H3'	2.08	0.54
20:CT:8:ARG:HG3	20:CT:8:ARG:NH1	2.22	0.54
49:D0:32:ARG:H	49:D0:35:ASN:ND2	2.05	0.54
40:DR:33:ARG:HG3	40:DR:115:GLU:HB3	1.90	0.54
27:DA:483:A:N7	27:DA:497:A:H2	2.06	0.54
1:CA:1005:A:H2'	1:CA:1006:C:H5'	1.90	0.54
1:AA:132:C:O2'	1:AA:133:U:H5'	2.08	0.54
1:CA:958:A:C8	19:CS:55:LYS:HD2	2.42	0.54
45:BW:33:ARG:HG3	45:BW:33:ARG:NH1	2.23	0.54
1:AA:524:G:H8	1:AA:524:G:OP1	1.91	0.54
29:BC:87:GLU:HG2	29:BC:92:ASP:O	2.08	0.54
27:BA:608:A:OP1	32:BF:100:THR:CG2	2.51	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CJ:63:PHE:HA	14:CN:59:ALA:HB2	1.89	0.54
40:BR:29:LEU:HD11	40:BR:48:VAL:HG12	1.89	0.54
36:DN:27:ALA:HB3	36:DN:106:MET:HE1	1.89	0.54
27:DA:243:U:OP1	57:D8:6:THR:CG2	2.55	0.54
1:CA:544:G:H2'	1:CA:545:C:C6	2.43	0.54
4:CD:76:ARG:O	4:CD:77:ASN:C	2.46	0.54
43:BU:65:ILE:O	43:BU:69:CYS:SG	2.64	0.54
41:DS:101:LEU:HD13	41:DS:101:LEU:H	1.71	0.54
27:DA:861:A:C2	27:DA:862:G:H1'	2.42	0.54
27:DA:919:G:C5'	28:DB:81:G:H1'	2.35	0.54
27:DA:2356:C:H5''	49:D0:20:ARG:HG2	1.89	0.54
33:DG:11:TYR:CE2	33:DG:16:ARG:HG2	2.43	0.54
27:DA:469:G:O2'	27:DA:470:A:H5''	2.08	0.54
36:DN:118:LYS:O	36:DN:120:LEU:N	2.41	0.54
27:DA:965:C:C2'	27:DA:966:G:H5'	2.38	0.54
34:BH:43:VAL:CG1	34:BH:53:GLU:H	2.19	0.54
34:BH:8:PRO:O	34:BH:9:ILE:CB	2.56	0.54
1:CA:106:C:O2	1:CA:379:C:H4'	2.08	0.54
8:AH:34:GLU:CB	8:AH:118:VAL:HG21	2.25	0.54
1:CA:563:A:N3	1:CA:563:A:H2'	2.22	0.54
31:BE:45:THR:O	31:BE:46:ALA:HB2	2.08	0.54
27:DA:19:C:H42	27:DA:521:G:H1	1.54	0.54
1:CA:741:G:H2'	1:CA:742:G:C8	2.43	0.54
36:DN:11:PRO:HB3	36:DN:51:PHE:CE1	2.42	0.54
36:DN:11:PRO:HB3	36:DN:51:PHE:HD1	1.71	0.54
20:CT:49:ALA:HB1	20:CT:100:ILE:CD1	2.38	0.54
34:BH:92:ILE:CG2	34:BH:93:GLY:N	2.60	0.54
37:BO:6:THR:O	37:BO:20:MET:HA	2.09	0.54
27:DA:542:C:C2'	27:DA:543:C:OP1	2.55	0.54
27:DA:542:C:H2'	27:DA:543:C:OP1	2.08	0.54
39:DQ:27:VAL:HG23	39:DQ:137:TYR:CE1	2.43	0.54
48:DZ:39:ASP:OD2	48:DZ:42:GLU:HG3	2.07	0.54
29:DC:62:VAL:O	29:DC:64:LEU:N	2.41	0.54
27:DA:1310:G:OP2	56:D7:9:ARG:NE	2.41	0.54
35:BI:120:ILE:O	35:BI:121:LYS:HB3	2.08	0.54
27:BA:2420:C:O5'	27:BA:2420:C:H6	1.91	0.54
27:DA:1655:A:H4'	31:DE:115:GLY:N	2.23	0.54
55:B6:32:ASN:CG	55:B6:33:LYS:N	2.61	0.54
27:BA:1358:G:H8	27:BA:1358:G:O5'	1.90	0.54
36:BN:15:LEU:HB3	36:BN:136:GLU:HG2	1.89	0.54
7:CG:78:ARG:CG	7:CG:79:ARG:N	2.65	0.54
1:AA:1299:A:N3	1:AA:1299:A:H5''	2.23	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:26:VAL:CG2	9:CI:61:ALA:HB3	2.32	0.54
4:AD:128:VAL:O	4:AD:130:GLY:N	2.41	0.54
27:BA:2187:G:H5'	27:BA:2188:C:OP2	2.08	0.54
54:D5:31:VAL:HB	54:D5:32:PRO:HD3	1.90	0.54
1:AA:818:G:H3'	1:AA:819:A:C5'	2.38	0.54
5:CE:78:HIS:ND1	8:CH:107:LEU:HD13	2.22	0.54
27:DA:495:G:H21	45:DW:61:ASN:CG	2.11	0.54
48:DZ:54:HIS:CE1	48:DZ:134:GLU:HG3	2.43	0.54
15:AO:39:LEU:C	15:AO:41:GLU:N	2.60	0.54
3:CC:28:GLN:O	3:CC:32:LEU:HG	2.07	0.54
13:AM:97:PRO:HB2	13:AM:101:GLN:NE2	2.23	0.54
6:AF:14:LEU:HD22	6:AF:18:GLN:HE21	1.73	0.54
10:AJ:22:LYS:C	10:AJ:22:LYS:HD2	2.28	0.54
27:BA:1627:G:C2	27:BA:1628:G:N7	2.76	0.54
27:BA:1641:A:N6	27:BA:1642:G:C2	2.76	0.54
1:AA:1064:G:H1'	1:AA:1066:C:C5	2.43	0.54
37:DO:88:ASN:HD21	37:DO:92:GLU:HB2	1.72	0.54
1:AA:1043:C:H2'	1:AA:1044:A:H8	1.69	0.54
1:AA:1463:C:O2'	1:AA:1464:G:H5'	2.08	0.54
1:CA:1143:G:H2'	1:CA:1144:G:C8	2.43	0.54
27:DA:1042:G:N3	27:DA:1042:G:H2'	2.23	0.54
1:CA:60:A:OP1	1:CA:111:G:N2	2.38	0.54
1:AA:806:C:O2'	1:AA:807:A:H5'	2.07	0.54
1:CA:1118:C:O2'	1:CA:1119:C:H5'	2.08	0.54
27:DA:291:C:H2'	27:DA:292:C:C6	2.40	0.54
49:B0:41:ARG:H	49:B0:41:ARG:CD	2.21	0.54
46:DX:4:ALA:HB3	46:DX:5:TYR:HD1	1.72	0.54
27:BA:1916:A:H3'	27:BA:1917:U:C6	2.41	0.54
40:BR:53:HIS:CD2	40:BR:94:TYR:OH	2.60	0.54
31:DE:11:MET:HB2	31:DE:24:THR:HA	1.89	0.54
24:CX:1:C:H1'	49:D0:5:LYS:HE2	1.90	0.54
27:DA:2682:U:O4'	31:DE:12:THR:HA	2.08	0.54
27:DA:817:C:H4'	27:DA:932:G:C6	2.43	0.54
1:AA:163:C:O2'	1:AA:164:U:H5'	2.07	0.54
1:AA:803:G:H2'	1:AA:804:U:H6	1.73	0.54
44:DV:64:HIS:ND1	44:DV:92:THR:HG22	2.23	0.54
27:BA:416:C:O2	27:BA:416:C:H2'	2.07	0.54
27:BA:2850:A:C2	27:BA:2851:A:C4	2.96	0.54
23:AW:38:U:H2'	23:AW:39:C:C6	2.43	0.54
1:AA:292:G:N7	1:AA:293:G:H1'	2.22	0.54
4:AD:52:SER:O	4:AD:55:ALA:N	2.41	0.54
27:DA:749:C:O2	27:DA:1618:A:H2'	2.08	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BP:130:PHE:CD2	38:BP:130:PHE:N	2.76	0.54
38:BP:61:ARG:HH11	57:B8:13:ARG:HD2	1.74	0.53
19:CS:32:LYS:HG3	19:CS:50:ALA:HB3	1.88	0.53
27:BA:2792:G:HO2'	27:BA:2793:G:H8	0.68	0.53
27:BA:2809:A:C6	27:BA:2892:A:H1'	2.43	0.53
41:BS:95:HIS:CG	41:BS:96:GLY:N	2.75	0.53
12:CL:43:LYS:NZ	12:CL:44:LYS:HE2	2.23	0.53
47:BY:45:VAL:HG12	47:BY:46:LYS:H	1.73	0.53
44:BV:40:LEU:H	44:BV:47:VAL:CG1	2.20	0.53
42:BT:79:HIS:C	42:BT:81:PRO:HD3	2.27	0.53
27:DA:2231:C:O2'	27:DA:2232:U:H5'	2.09	0.53
27:DA:298:G:OP1	47:DY:85:VAL:HG23	2.08	0.53
52:B3:52:HIS:ND1	52:B3:53:LEU:HG	2.24	0.53
31:DE:51:PHE:HE1	31:DE:52:LEU:HD13	1.70	0.53
27:DA:2550:G:O2'	27:DA:2551:C:H5'	2.08	0.53
27:DA:2513:G:N2	31:DE:143:ASN:HD21	2.06	0.53
27:BA:2483:C:H2'	39:BQ:49:ALA:HB1	1.90	0.53
27:BA:1491:G:OP2	27:BA:1494:A:N6	2.38	0.53
8:AH:53:VAL:O	8:AH:54:ASP:C	2.47	0.53
1:AA:107:G:H5''	1:AA:108:G:OP2	2.08	0.53
2:AB:149:LEU:O	2:AB:150:SER:C	2.46	0.53
1:CA:742:G:H5'	15:CO:58:MET:HE1	1.87	0.53
9:CI:79:LEU:HD13	9:CI:79:LEU:O	2.08	0.53
27:DA:49:A:N6	27:DA:177:G:H2'	2.12	0.53
51:D2:13:ALA:O	51:D2:15:LYS:N	2.40	0.53
14:CN:24:CYS:HB2	14:CN:40:CYS:HB3	1.88	0.53
1:CA:1269:A:H5'	21:CU:18:TYR:O	2.07	0.53
27:BA:2510:C:O2'	27:BA:2511:U:H5'	2.08	0.53
58:B9:32:HIS:O	58:B9:34:GLN:HG3	2.09	0.53
40:DR:16:HIS:C	40:DR:18:LEU:N	2.59	0.53
27:BA:1359:A:N6	27:BA:1372:U:H3	2.02	0.53
34:DH:94:TYR:CG	34:DH:107:VAL:HG12	2.42	0.53
1:CA:1032:G:H2'	1:CA:1033:G:H8	1.71	0.53
5:CE:28:PHE:O	5:CE:47:LYS:HA	2.08	0.53
1:AA:1137:C:C4'	1:AA:1138:G:N2	2.68	0.53
27:DA:2290:G:C8	27:DA:2290:G:H5'	2.35	0.53
27:DA:2340:G:H2'	27:DA:2341:G:C8	2.42	0.53
27:BA:1055:G:H2'	27:BA:1108:U:O4'	2.08	0.53
27:BA:16:G:O2'	27:BA:17:G:H5'	2.07	0.53
37:BO:13:ASN:CG	37:BO:97:ARG:HB2	2.29	0.53
29:DC:49:ILE:N	29:DC:49:ILE:HD12	2.20	0.53
1:CA:818:G:C2'	1:CA:819:A:H5''	2.38	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BF:40:GLN:NE2	32:BF:184:TYR:CB	2.71	0.53
1:CA:287:U:O2'	1:CA:288:A:H5'	2.07	0.53
33:BG:170:ARG:HH21	33:BG:182:LYS:NZ	2.06	0.53
37:BO:102:VAL:HB	37:BO:106:LEU:HD12	1.90	0.53
47:DY:2:ARG:O	47:DY:3:VAL:CB	2.56	0.53
28:DB:71:C:H2'	28:DB:72:G:H5'	1.90	0.53
27:BA:2655:G:O2'	27:BA:2656:U:P	2.66	0.53
4:CD:30:LYS:C	4:CD:32:ALA:N	2.54	0.53
10:CJ:30:SER:HB3	10:CJ:80:LYS:CE	2.39	0.53
1:CA:116:A:H2'	1:CA:117:G:H8	1.71	0.53
30:DD:67:PHE:HB3	30:DD:153:ALA:HB3	1.89	0.53
1:CA:1085:U:O2'	1:CA:1086:U:OP1	2.23	0.53
9:AI:26:VAL:HG13	9:AI:61:ALA:CB	2.37	0.53
1:CA:1228:C:H4'	13:CM:116:THR:HA	1.90	0.53
27:BA:863:A:O2'	27:BA:864:G:H5'	2.08	0.53
32:BF:95:ARG:NH2	32:BF:97:TYR:OH	2.41	0.53
23:AW:4:G:H2'	23:AW:5:G:C5'	2.39	0.53
44:DV:5:VAL:HG21	44:DV:35:LEU:HG	1.90	0.53
3:CC:190:ARG:HG2	3:CC:190:ARG:NH1	2.24	0.53
1:CA:666:G:H2'	1:CA:667:G:H8	1.72	0.53
39:BQ:77:LYS:NZ	39:BQ:84:GLY:O	2.25	0.53
27:BA:1165:U:O2'	27:BA:1166:C:H5'	2.08	0.53
4:AD:52:SER:O	4:AD:55:ALA:HB3	2.08	0.53
1:CA:23:C:O2'	1:CA:24:U:H5'	2.08	0.53
27:BA:2445:G:O2'	27:BA:2446:G:H5'	2.09	0.53
27:DA:1377:G:H8	27:DA:1377:G:O5'	1.91	0.53
3:AC:95:THR:O	3:AC:97:LYS:N	2.42	0.53
32:DF:139:PHE:HB2	32:DF:166:ALA:HB1	1.90	0.53
27:BA:638:G:C5	27:BA:639:U:C4	2.97	0.53
38:BP:34:GLY:O	38:BP:35:HIS:HB2	2.08	0.53
47:BY:76:CYS:O	47:BY:77:PRO:C	2.47	0.53
51:B2:42:GLY:C	51:B2:44:LEU:N	2.62	0.53
13:CM:23:TYR:HD1	13:CM:67:GLU:HA	1.73	0.53
43:BU:95:LEU:HD22	44:BV:4:ILE:HD13	1.88	0.53
38:DP:65:ARG:NH2	57:D8:15:LYS:HB2	2.23	0.53
27:DA:966:G:H2'	27:DA:967:C:C6	2.43	0.53
14:AN:24:CYS:HB2	14:AN:40:CYS:HB3	1.90	0.53
19:AS:48:THR:HG22	19:AS:61:TYR:HA	1.89	0.53
16:AP:58:TYR:O	16:AP:61:SER:OG	2.22	0.53
27:BA:685:A:OP1	56:B7:11:LYS:NZ	2.41	0.53
1:CA:122:G:O2'	1:CA:123:C:H5'	2.09	0.53
16:AP:74:LEU:HB3	16:AP:79:VAL:CG2	2.38	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2683:C:OP1	42:BT:53:ARG:NH2	2.41	0.53
37:BO:66:LYS:O	37:BO:78:ARG:HD3	2.08	0.53
27:DA:176:G:H2'	27:DA:177:G:O4'	2.08	0.53
19:CS:6:LYS:H	19:CS:6:LYS:CE	2.21	0.53
6:CF:33:TYR:CE2	6:CF:74:ASP:HB3	2.43	0.53
48:DZ:97:MET:H	48:DZ:124:LEU:HD12	1.72	0.53
38:BP:106:LEU:O	38:BP:107:LYS:HG2	2.08	0.53
1:AA:492:G:C4	1:AA:493:G:C8	2.97	0.53
15:AO:37:ASN:H	15:AO:37:ASN:ND2	2.00	0.53
51:B2:31:GLU:O	51:B2:35:LEU:HB2	2.08	0.53
30:DD:31:LYS:O	30:DD:32:SER:C	2.46	0.53
33:DG:91:ARG:C	33:DG:91:ARG:HD2	2.28	0.53
39:BQ:58:PHE:O	39:BQ:59:ARG:C	2.47	0.53
27:DA:1146:C:C2'	27:DA:1147:C:H5'	2.38	0.53
4:AD:154:ASN:O	4:AD:155:LEU:HD23	2.08	0.53
31:DE:14:ILE:O	31:DE:21:VAL:HG22	2.08	0.53
48:BZ:52:ILE:H	48:BZ:52:ILE:HD12	1.72	0.53
27:BA:231:C:H2'	27:BA:232:G:O4'	2.07	0.53
27:DA:474:G:O2'	27:DA:475:U:OP1	2.24	0.53
27:BA:802:A:C5	27:BA:803:U:C4	2.96	0.53
1:CA:818:G:C3'	1:CA:819:A:H5''	2.38	0.53
1:CA:815:A:H2'	1:CA:1526:G:H21	1.72	0.53
27:DA:2139:C:H2'	27:DA:2140:C:H6	1.73	0.53
24:CX:10:G:H22	24:CX:26:G:H1'	1.70	0.53
1:CA:1301:U:H2'	1:CA:1303:C:H5	1.72	0.53
11:CK:15:ALA:HB1	11:CK:78:GLN:CG	2.38	0.53
38:BP:120:ALA:HB1	38:BP:138:LEU:HD13	1.89	0.53
17:CQ:4:LYS:HG3	17:CQ:6:LEU:CD1	2.39	0.53
1:AA:706:A:H1'	11:AK:29:ILE:HD11	1.89	0.53
23:AW:22:G:C2'	23:AW:23:G:H5'	2.36	0.53
23:AW:23:G:H2'	23:AW:24:C:C6	2.44	0.53
5:CE:97:GLY:N	5:CE:117:ASP:OD1	2.41	0.53
29:BC:99:ILE:O	29:BC:99:ILE:HG22	2.08	0.53
27:BA:1957:C:H2'	27:BA:1958:C:C6	2.44	0.53
42:DT:93:ARG:HG3	42:DT:93:ARG:NH1	2.21	0.53
32:BF:47:GLY:O	32:BF:94:PRO:HA	2.08	0.53
1:CA:1119:C:H2'	1:CA:1120:G:C8	2.42	0.53
1:AA:567:G:N2	1:AA:568:G:H1'	2.23	0.53
10:AJ:29:ARG:HH22	10:AJ:84:GLN:HG2	1.73	0.53
1:AA:1445:C:O2'	1:AA:1446:U:H5'	2.09	0.53
24:AX:64:G:H2'	24:AX:65:C:H6	1.74	0.53
27:DA:204:A:O2'	27:DA:205:G:H4'	2.07	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1683:C:H2'	27:BA:1684:C:H6	1.73	0.53
27:DA:638:G:H2'	27:DA:639:U:C6	2.43	0.53
30:BD:79:VAL:CG1	30:BD:79:VAL:O	2.57	0.53
27:BA:2555:U:H2'	27:BA:2556:C:C5'	2.38	0.53
27:BA:2555:U:H2'	27:BA:2556:C:H5'	1.90	0.53
48:BZ:38:VAL:CG2	48:BZ:43:PHE:HB2	2.37	0.53
1:AA:670:G:O2'	1:AA:671:G:H5'	2.09	0.53
1:CA:370:C:O2'	1:CA:371:G:H5'	2.08	0.53
28:DB:12:C:O2'	28:DB:13:A:P	2.66	0.53
11:CK:34:ASP:HB2	11:CK:35:PRO:CD	2.38	0.53
49:B0:51:VAL:HG23	49:B0:81:VAL:HG23	1.90	0.53
2:CB:223:ILE:HA	2:CB:226:ARG:HB3	1.90	0.53
13:CM:29:ARG:HB3	13:CM:64:TRP:CZ2	2.43	0.53
57:B8:47:LYS:HD2	57:B8:48:PHE:O	2.09	0.53
30:DD:231:HIS:CG	30:DD:232:PRO:HD2	2.40	0.53
27:BA:2880:C:H1'	40:BR:92:GLY:O	2.07	0.53
27:DA:245:G:H5'	38:DP:69:GLY:HA3	1.90	0.53
27:BA:559:G:N2	43:BU:49:HIS:CD2	2.76	0.53
43:BU:61:TRP:CE2	43:BU:94:ASN:HA	2.43	0.53
44:DV:19:LYS:HG3	44:DV:20:LEU:O	2.08	0.53
28:BB:94:C:H2'	28:BB:95:C:C6	2.44	0.53
47:DY:7:VAL:HG21	47:DY:8:LYS:NZ	2.22	0.53
45:DW:7:ALA:O	45:DW:103:ILE:N	2.31	0.53
11:AK:38:ASN:ND2	11:AK:38:ASN:N	2.54	0.53
31:DE:36:ARG:HH22	31:DE:88:GLY:N	2.05	0.53
55:D6:12:GLU:HB2	55:D6:21:TYR:HB3	1.91	0.53
27:DA:587:C:O2'	27:DA:588:U:OP2	2.21	0.53
55:B6:13:CYS:HB2	55:B6:22:ALA:HB3	1.90	0.53
1:CA:1106:G:H4'	3:CC:171:GLY:O	2.08	0.53
27:BA:2484:G:O2'	27:BA:2485:G:H5'	2.09	0.53
30:BD:35:LYS:HZ3	30:BD:103:ARG:N	2.06	0.53
30:BD:30:GLU:CD	30:BD:63:ARG:HH21	2.12	0.53
1:CA:68:G:C6	1:CA:102:G:N1	2.76	0.53
35:DI:133:HIS:CG	35:DI:134:PRO:HD3	2.44	0.53
9:AI:92:TYR:O	9:AI:95:LYS:HG3	2.09	0.53
1:AA:1318:A:O3'	19:AS:10:PHE:CD2	2.61	0.53
27:BA:686:G:O6	56:B7:12:ARG:HG3	2.07	0.53
27:BA:953:A:OP2	39:BQ:16:ARG:NH2	2.41	0.53
27:BA:2001:A:H2'	27:BA:2002:G:C8	2.43	0.53
46:BX:18:TYR:C	46:BX:20:GLY:H	2.11	0.53
48:DZ:150:HIS:CB	48:DZ:169:THR:HA	2.38	0.53
27:DA:2694:G:O2'	27:DA:2695:C:H5'	2.08	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2712:U:H1'	27:DA:2712(A):A:C8	2.44	0.53
27:BA:2225:A:H4'	27:BA:2226:C:C6	2.43	0.53
3:CC:83:ARG:HG2	3:CC:83:ARG:HH11	1.73	0.53
27:DA:2476:A:H2'	27:DA:2477:C:C5'	2.37	0.53
18:AR:59:SER:O	18:AR:60:ALA:C	2.45	0.53
3:CC:135:LYS:HZ1	5:CE:53:LEU:HD21	1.74	0.53
42:BT:102:ILE:HG22	42:BT:110:ILE:HG12	1.89	0.53
6:CF:30:LEU:HA	6:CF:75:LEU:HD11	1.90	0.53
8:CH:6:ILE:CG2	8:CH:10:LEU:HD12	2.38	0.53
8:CH:80:ILE:HG22	8:CH:82:HIS:O	2.09	0.53
1:CA:658:G:C2	1:CA:659:U:C2	2.96	0.53
29:DC:59:ARG:N	29:DC:59:ARG:HD3	2.23	0.53
27:BA:1268:A:H2'	27:BA:1269:A:C5'	2.38	0.53
41:DS:59:LYS:HE3	41:DS:68:GLN:NE2	2.23	0.53
39:DQ:76:LYS:HA	39:DQ:76:LYS:HE2	1.90	0.53
6:AF:69:GLU:OE1	6:AF:69:GLU:N	2.37	0.53
1:AA:936:C:O2'	1:AA:937:A:H5'	2.09	0.53
42:DT:48:ILE:HG22	42:DT:50:ILE:CD1	2.39	0.53
1:CA:1117:G:O2'	9:CI:104:ARG:HG3	2.08	0.53
1:AA:1285:A:O4'	1:AA:1286:A:H8	1.92	0.53
27:BA:1223:G:N2	27:BA:1226:A:OP2	2.38	0.53
27:BA:363(A):A:C4	27:BA:363(B):G:C8	2.96	0.53
27:DA:477:A:C2	27:DA:478:A:C4	2.97	0.53
27:BA:1179:C:O2'	27:BA:1180:C:H5''	2.07	0.53
1:CA:939:G:C6	1:CA:940:C:N4	2.76	0.53
50:D1:7:ILE:HG22	50:D1:8:SER:N	2.22	0.53
27:DA:1164:G:H1	27:DA:1185:C:N4	2.04	0.53
27:BA:1722:A:N6	27:BA:1741:A:N1	2.56	0.53
6:AF:16:GLN:CD	6:AF:16:GLN:N	2.61	0.53
1:AA:1525:G:H2'	1:AA:1526:G:H8	1.72	0.53
4:AD:188:LEU:CD2	4:AD:189:PRO:HD2	2.37	0.53
3:CC:184:TYR:HA	3:CC:200:ALA:O	2.08	0.53
27:BA:543:C:O3'	27:BA:547:A:P	2.66	0.53
28:DB:20:C:H2'	28:DB:21:G:H5'	1.87	0.53
2:CB:147:LYS:HE2	2:CB:148:TYR:HE1	1.71	0.53
27:BA:577:G:H8	27:BA:577:G:O5'	1.91	0.53
56:D7:19:ARG:HH11	56:D7:19:ARG:HG3	1.73	0.53
1:AA:1029:C:H4'	1:AA:1033:G:H1	1.73	0.53
1:CA:444:C:H2'	1:CA:445:G:H8	1.72	0.53
27:BA:1011:G:OP1	43:BU:77:SER:HB3	2.08	0.53
27:BA:2227:A:H5'	30:BD:263:ARG:NH1	2.23	0.53
20:AT:98:PRO:O	20:AT:100:ILE:N	2.42	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2772:C:H2'	27:DA:2773:C:C6	2.43	0.53
3:AC:20:SER:HB2	3:AC:40:ARG:HH22	1.73	0.53
1:AA:159:G:N2	1:AA:162:A:OP2	2.41	0.53
25:CY:42:G:C2'	25:CY:43:C:H5'	2.38	0.53
3:AC:42:LEU:HD23	3:AC:46:GLU:OE2	2.08	0.53
1:CA:1290:G:N3	1:CA:1290:G:H2'	2.22	0.53
1:AA:1026:G:H3'	1:AA:1027:C:C5'	2.39	0.53
27:DA:2855:C:H2'	27:DA:2856:C:H6	1.73	0.53
49:B0:46:LYS:HB3	49:B0:47:PRO:HD2	1.90	0.53
27:DA:2391:G:N1	27:DA:2424:C:H2'	2.23	0.53
34:BH:169:VAL:O	34:BH:171:LEU:N	2.41	0.53
27:BA:210:C:O2'	27:BA:211:A:H5'	2.09	0.53
50:B1:50:ARG:HH11	50:B1:50:ARG:HG2	1.73	0.53
2:CB:124:SER:O	2:CB:126:GLU:N	2.41	0.53
41:BS:12:PHE:CD1	41:BS:12:PHE:O	2.61	0.53
32:BF:2:LYS:O	32:BF:25:PRO:HD2	2.08	0.53
34:BH:85:LYS:HZ2	34:BH:133:VAL:HG21	1.71	0.53
4:CD:36:ARG:C	4:CD:38:TYR:H	2.11	0.53
38:BP:16:ARG:CD	38:BP:18:ARG:H	2.18	0.53
27:BA:556:G:H2'	27:BA:557:U:H6	1.72	0.53
42:BT:89:VAL:CG1	42:BT:91:ARG:HE	2.20	0.53
27:DA:534:U:H5'	43:DU:42:ALA:HB1	1.89	0.53
43:DU:78:THR:O	43:DU:79:PHE:C	2.46	0.53
47:DY:100:ALA:O	47:DY:101:LYS:O	2.26	0.53
27:DA:454:A:O2'	27:DA:455:C:OP1	2.24	0.53
31:DE:34:VAL:O	31:DE:35:GLN:CB	2.55	0.53
38:DP:97:PRO:C	38:DP:99:LEU:H	2.11	0.53
38:DP:97:PRO:HD3	38:DP:126:VAL:HB	1.90	0.53
38:DP:97:PRO:O	38:DP:98:GLU:HB3	2.08	0.53
27:DA:2056:G:N7	27:DA:2577:A:N7	2.55	0.53
27:DA:750:A:OP1	27:DA:1615:C:N4	2.41	0.53
27:DA:802:A:H2'	27:DA:803:U:C6	2.44	0.53
27:DA:950:G:C6	27:DA:968:G:C6	2.96	0.53
2:AB:155:LEU:HG	2:AB:159:PRO:HG3	1.89	0.53
42:DT:80:SER:CB	42:DT:81:PRO:CD	2.86	0.53
41:DS:89:ARG:HD2	41:DS:92:TYR:CA	2.37	0.53
27:BA:790:C:O2'	27:BA:791:C:H5'	2.08	0.53
1:AA:103:C:C4	1:AA:104:G:N7	2.76	0.53
31:BE:28:ALA:HB3	31:BE:93:VAL:HG22	1.89	0.53
27:DA:779:U:P	30:DD:49:ILE:HG22	2.49	0.53
3:CC:101:LEU:HD23	3:CC:102:ASN:N	2.22	0.53
27:BA:385:C:O2	27:BA:390:A:H2	1.91	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:DC:59:ARG:NH2	29:DC:197:GLU:O	2.37	0.53
8:AH:4:ASP:CG	8:AH:85:ARG:HH12	2.12	0.53
37:DO:10:VAL:HG13	37:DO:17:ARG:O	2.08	0.53
35:DI:75:LEU:HD12	35:DI:76:THR:H	1.73	0.53
13:AM:76:ALA:HB2	13:AM:79:LYS:HZ3	1.72	0.53
37:DO:66:LYS:CD	37:DO:79:PHE:O	2.54	0.53
37:DO:86:ILE:HG21	37:DO:94:ARG:HD2	1.90	0.53
1:AA:1311:G:H1	1:AA:1326:C:H42	1.56	0.53
1:AA:660:G:H2'	1:AA:661:G:H8	1.72	0.53
27:BA:626:U:C5'	27:BA:627:A:C5'	2.85	0.53
27:DA:2011:U:C2'	27:DA:2012:G:H5'	2.39	0.53
27:BA:1786:A:N1	27:BA:2606:C:O4'	2.41	0.53
7:AG:30:ILE:HB	7:AG:39:ALA:HB1	1.89	0.53
27:BA:184:C:H2'	27:BA:185:U:C6	2.42	0.53
36:DN:67:LEU:HB3	36:DN:88:GLU:OE2	2.09	0.53
27:BA:1925:C:C2'	27:BA:1926:U:O5'	2.56	0.53
1:AA:953:G:C5'	1:AA:965:A:H61	2.21	0.53
13:CM:89:GLY:C	13:CM:93:ARG:HD2	2.28	0.53
27:BA:257:A:C5	27:BA:258:G:C8	2.97	0.53
39:DQ:38:GLU:O	39:DQ:127:ILE:HG21	2.07	0.53
27:BA:207:A:H2'	27:BA:208:C:O4'	2.07	0.53
28:DB:24:G:H1'	28:DB:27:C:H41	1.72	0.53
23:AW:4:G:C3'	23:AW:5:G:H5''	2.38	0.53
1:AA:1517:G:H2'	1:AA:1518:A:H8	1.70	0.53
30:DD:62:TYR:HA	30:DD:87:ASN:ND2	2.23	0.53
4:AD:94:LEU:HD23	4:AD:97:LEU:HD12	1.90	0.53
47:BY:20:TYR:HD2	47:BY:23:ARG:HD3	1.72	0.53
54:B5:33:CYS:O	54:B5:36:CYS:O	2.24	0.53
27:BA:221:A:O2'	27:BA:222:A:OP2	2.20	0.53
11:AK:80:VAL:HG13	11:AK:103:LEU:HD11	1.90	0.53
1:AA:1498:U:C4	22:AV:5:U:H4'	2.44	0.53
3:CC:63:ASN:HA	3:CC:98:ASN:HB3	1.90	0.53
4:CD:190:ASP:N	4:CD:193:ASP:OD2	2.41	0.53
48:DZ:165:SER:H	48:DZ:166:PRO:HA	1.73	0.53
39:DQ:73:PRO:HG3	39:DQ:93:TYR:HE2	1.74	0.53
49:D0:10:THR:HG22	49:D0:12:ASN:H	1.74	0.53
1:AA:1211:U:H4'	1:AA:1212:U:OP1	2.08	0.53
27:DA:2489:G:N7	27:DA:2490:G:C6	2.77	0.53
27:DA:555:U:H2'	27:DA:556:G:C8	2.43	0.53
20:AT:93:GLU:O	20:AT:93:GLU:HG2	2.08	0.53
40:DR:81:ASP:N	40:DR:81:ASP:OD2	2.41	0.53
49:B0:69:PHE:CD1	49:B0:69:PHE:N	2.76	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:505:G:C6	1:CA:535:A:C2	2.97	0.53
1:CA:971:G:O2'	1:CA:1365:G:O2'	2.24	0.53
46:BX:26:TYR:HB3	46:BX:92:LEU:CD1	2.39	0.53
27:DA:271(T):C:O2'	27:DA:271(U):G:H5'	2.07	0.53
33:BG:96:ARG:O	33:BG:99:MET:N	2.29	0.53
44:BV:35:LEU:CA	44:BV:37:VAL:HG23	2.38	0.53
42:BT:30:VAL:HG21	42:BT:83:ILE:CG1	2.38	0.53
27:DA:398:G:O2'	27:DA:399:G:H5'	2.09	0.53
30:DD:120:GLY:HA2	30:DD:190:TYR:OH	2.08	0.53
55:D6:9:LEU:HD21	55:D6:11:LEU:HD23	1.90	0.53
27:DA:2420:C:P	57:D8:33:ASN:O	2.66	0.53
55:B6:16:CYS:SG	55:B6:48:VAL:HG23	2.49	0.53
48:DZ:66:LEU:HD23	48:DZ:89:VAL:HG11	1.90	0.53
27:BA:1491:G:P	27:BA:1494:A:H62	2.30	0.53
30:BD:65:ILE:HB	30:BD:104:TYR:HB3	1.90	0.53
1:AA:1060:C:H2'	1:AA:1061:G:C8	2.42	0.53
8:AH:109:ILE:HD11	8:AH:120:THR:HG22	1.91	0.53
12:CL:22:PRO:C	12:CL:24:LEU:N	2.62	0.53
27:DA:2746:U:H2'	27:DA:2747:G:H5'	1.90	0.53
27:BA:855:G:H2'	27:BA:856:C:H6	1.74	0.53
41:DS:53:SER:O	41:DS:58:LEU:HD22	2.07	0.53
1:CA:274:A:O2'	1:CA:275:G:O5'	2.26	0.53
32:DF:33:LEU:O	32:DF:37:VAL:HG23	2.09	0.53
27:BA:1655:A:H3'	27:BA:1656:C:C6	2.44	0.53
1:CA:1459:C:H5'	20:CT:28:ALA:HB2	1.91	0.53
1:CA:178:C:H2'	1:CA:179:A:C8	2.43	0.53
27:DA:2714:G:H2'	27:DA:2715:C:H6	1.72	0.53
3:CC:97:LYS:O	3:CC:99:VAL:N	2.37	0.53
1:CA:1055:A:N6	1:CA:1206:G:C6	2.77	0.53
10:AJ:34:VAL:HG13	10:AJ:73:ASP:C	2.29	0.53
38:BP:124:LYS:HE3	38:BP:145:PRO:HG2	1.89	0.53
24:CX:17:C:C2	24:CX:17(B):U:H5	2.27	0.53
58:B9:12:ASP:OD1	58:B9:13:LYS:N	2.41	0.53
27:DA:1304:C:N4	27:DA:1624:G:H1	2.05	0.53
48:BZ:149:LEU:HD13	48:BZ:149:LEU:N	2.23	0.53
31:DE:119:ARG:CD	31:DE:120:TRP:CD1	2.92	0.53
1:AA:502:G:O2'	1:AA:503:C:H5'	2.09	0.53
32:BF:29:ASN:HB3	32:BF:112:MET:CE	2.34	0.53
8:AH:4:ASP:OD2	8:AH:6:ILE:HD13	2.08	0.53
51:B2:6:VAL:HG13	51:B2:59:ARG:NH1	2.24	0.53
33:DG:130:ASN:OD1	33:DG:160:VAL:CG1	2.56	0.53
27:DA:2293:C:H2'	27:DA:2294:C:H6	1.72	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1278:A:H5'	40:DR:24:GLN:HE21	1.73	0.53
48:DZ:102:ARG:HB2	48:DZ:135:PHE:CE1	2.44	0.53
27:BA:114:U:N3	27:BA:115:C:C4	2.76	0.53
32:BF:37:VAL:HG13	32:BF:184:TYR:HD1	1.74	0.53
2:CB:219:VAL:HA	2:CB:222:ILE:CD1	2.38	0.53
1:CA:885:G:C2	1:CA:913:A:C2	2.97	0.53
1:AA:858:G:O6	1:AA:869:G:C8	2.62	0.53
13:AM:111:LYS:O	13:AM:112:GLY:O	2.25	0.53
10:CJ:16:LEU:HD11	10:CJ:70:ARG:HB2	1.91	0.53
1:AA:185:A:H2'	1:AA:186:C:C6	2.43	0.53
38:DP:127:ALA:HB3	38:DP:130:PHE:CZ	2.43	0.53
11:CK:98:LEU:HA	11:CK:101:SER:HB3	1.89	0.53
27:BA:1466:G:H5'	27:BA:1467:C:OP1	2.08	0.53
20:AT:89:ARG:HH21	20:AT:104:LEU:HD11	1.73	0.53
27:DA:898:C:H2'	27:DA:899:A:C5'	2.37	0.53
50:D1:29:GLY:O	50:D1:30:VAL:HG23	2.08	0.53
20:CT:16:HIS:CA	20:CT:19:SER:HB3	2.37	0.53
29:BC:38:ASP:HB2	29:BC:181:PRO:CB	2.38	0.53
27:BA:2183:C:O2'	27:BA:2184:G:H5'	2.08	0.53
27:DA:1173:G:H3'	27:DA:1174:A:C5'	2.39	0.53
50:B1:70:VAL:C	50:B1:72:GLU:H	2.12	0.53
30:DD:71:ASP:HB2	30:DD:103:ARG:HH22	1.72	0.53
27:BA:1790:C:H2'	27:BA:1791:A:C5	2.43	0.53
8:AH:74:PRO:O	8:AH:75:ARG:C	2.46	0.53
27:DA:696:G:C2	27:DA:697:C:C2	2.96	0.53
16:CP:45:THR:O	16:CP:47:ASP:N	2.41	0.53
39:BQ:34:LEU:HD12	39:BQ:130:LYS:O	2.07	0.53
13:CM:29:ARG:HD3	13:CM:64:TRP:CH2	2.44	0.53
24:CX:47:U:H3'	24:CX:48:C:H5'	1.91	0.53
36:BN:22:THR:HA	36:BN:61:ARG:HB2	1.89	0.53
52:D3:44:ARG:O	52:D3:48:GLU:HG2	2.08	0.53
20:CT:96:GLY:O	20:CT:97:ALA:O	2.27	0.53
1:CA:1233:G:N2	1:CA:1234:C:C2	2.76	0.53
41:BS:17:ARG:O	41:BS:18:ILE:HG22	2.09	0.53
32:BF:9:ILE:HB	32:BF:128:ALA:HB2	1.91	0.53
27:BA:2056:G:H2'	27:BA:2056:G:N3	2.24	0.53
27:BA:284:U:H2'	27:BA:285:C:C6	2.43	0.53
42:BT:26:ASP:OD2	42:BT:26:ASP:O	2.27	0.53
42:BT:46:GLU:OE2	42:BT:88:ILE:HD13	2.08	0.53
27:DA:1152:C:H1'	43:DU:77:SER:HB2	1.91	0.53
44:DV:40:LEU:N	44:DV:40:LEU:HD22	2.24	0.53
47:DY:8:LYS:C	47:DY:9:LYS:HG2	2.28	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:D6:15:GLU:O	55:D6:15:GLU:HG2	2.09	0.53
55:D6:15:GLU:OE1	55:D6:43:CYS:CB	2.56	0.53
36:BN:96:GLU:N	36:BN:96:GLU:OE2	2.40	0.53
45:BW:13:SER:HB3	45:BW:16:LYS:CG	2.39	0.53
45:BW:13:SER:HB3	45:BW:16:LYS:HG3	1.90	0.53
27:DA:143:G:H5''	27:DA:1598:C:O2'	2.09	0.53
46:DX:57:LEU:HD22	46:DX:57:LEU:O	2.08	0.53
8:AH:33:GLU:C	8:AH:35:ILE:H	2.12	0.53
2:AB:69:LEU:O	2:AB:162:ILE:HA	2.09	0.53
42:DT:32:TYR:HD1	42:DT:33:LYS:H	1.57	0.53
1:CA:372:C:C5'	1:CA:373:A:OP1	2.57	0.53
1:CA:376:G:OP2	16:CP:67:THR:HG21	2.08	0.53
27:DA:1034:G:O2'	27:DA:1035:U:O5'	2.27	0.53
16:AP:1:MET:SD	16:AP:1:MET:N	2.80	0.53
32:DF:32:LEU:HD22	32:DF:112:MET:CE	2.38	0.53
27:BA:826:U:H5'	27:BA:827:U:OP2	2.07	0.53
27:BA:1274:A:H1'	27:BA:1297:C:C4'	2.39	0.53
1:CA:778:G:O2'	1:CA:779:C:H5'	2.07	0.53
27:BA:2272:U:H5''	27:BA:2273:A:OP1	2.09	0.53
1:CA:1313:U:H2'	1:CA:1314:C:H6	1.73	0.53
21:CU:21:TYR:O	21:CU:22:ARG:CB	2.57	0.53
27:BA:2723:C:OP1	40:BR:5:LYS:NZ	2.40	0.53
15:CO:23:GLY:O	15:CO:24:SER:HB3	2.08	0.53
27:BA:2125:G:N2	27:BA:2174:C:H42	2.07	0.53
27:DA:356:G:H5'	27:DA:357:A:OP2	2.08	0.53
27:DA:1340:U:O2	27:DA:1603:A:H8	1.92	0.53
27:DA:1621:U:H5''	27:DA:1622:G:OP1	2.09	0.53
35:BI:81:VAL:HB	35:BI:143:SER:O	2.08	0.53
45:BW:96:ILE:O	45:BW:96:ILE:HG23	2.09	0.53
31:DE:113:PHE:CD2	31:DE:113:PHE:C	2.80	0.53
40:DR:13:HIS:O	40:DR:15:SER:N	2.42	0.53
8:AH:4:ASP:OD1	8:AH:7:ALA:HB3	2.08	0.53
7:AG:113:GLU:HG3	7:AG:119:ARG:HA	1.90	0.53
27:DA:598:G:O2'	32:DF:31:HIS:CE1	2.61	0.53
35:DI:88:ILE:HG22	35:DI:90:GLY:O	2.08	0.53
27:DA:2143:C:H2'	27:DA:2144:U:O4'	2.09	0.53
1:CA:360:A:O2'	1:CA:361:G:H5'	2.09	0.53
27:BA:849:A:C8	27:BA:850:C:C5	2.97	0.53
48:BZ:26:VAL:HG22	48:BZ:27:MET:N	2.23	0.53
1:AA:1265:G:H2'	1:AA:1266:G:O4'	2.09	0.53
27:DA:266:G:H2'	27:DA:267:C:O5'	2.09	0.53
27:DA:2199:A:H5'	27:DA:2200:C:OP2	2.09	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:AO:3:ILE:HG22	15:AO:38:ARG:HH12	1.71	0.53
32:BF:184:TYR:O	32:BF:188:ARG:HB3	2.09	0.53
1:CA:283:C:C2	1:CA:284:G:C8	2.97	0.53
39:DQ:20:ALA:O	39:DQ:99:PRO:HD2	2.08	0.53
37:BO:106:LEU:C	37:BO:108:GLU:H	2.12	0.53
29:DC:45:ALA:HA	29:DC:210:ARG:CB	2.38	0.53
50:B1:77:ALA:O	50:B1:80:LEU:HB2	2.09	0.53
10:AJ:8:LEU:CD2	10:AJ:96:ILE:HG22	2.39	0.53
17:CQ:67:LYS:O	17:CQ:68:ARG:CB	2.56	0.53
37:DO:87:ILE:HD13	37:DO:92:GLU:C	2.29	0.53
27:BA:581:C:O5'	27:BA:581:C:H6	1.91	0.53
13:CM:35:GLU:HG3	13:CM:36:LYS:N	2.24	0.53
12:CL:114:ARG:HG3	12:CL:114:ARG:HH11	1.72	0.53
45:BW:62:HIS:O	45:BW:63:ASP:C	2.46	0.53
1:AA:353:A:H5'	1:AA:353:A:H8	1.74	0.53
47:DY:32:PRO:C	47:DY:35:TYR:H	2.10	0.53
27:BA:2105:C:O2'	27:BA:2106:G:H5'	2.08	0.53
27:DA:2063:C:C5	27:DA:2064:C:C5	2.96	0.53
3:AC:142:MET:HE2	3:AC:170:GLN:C	2.28	0.53
31:BE:173:VAL:O	31:BE:174:ASP:C	2.47	0.53
17:AQ:60:ILE:HG12	17:AQ:61:GLU:N	2.22	0.53
27:DA:875:G:H2'	27:DA:876:C:H6	1.74	0.53
41:DS:67:ARG:CG	41:DS:67:ARG:HH11	2.20	0.53
35:DI:92:VAL:HG13	35:DI:120:ILE:HB	1.90	0.53
27:BA:2349:G:C4	27:BA:2369:A:C2	2.97	0.53
27:DA:1363:C:O2'	27:DA:1809:A:N3	2.27	0.53
2:AB:73:THR:O	2:AB:78:GLN:HG3	2.09	0.53
1:AA:616:G:H2'	1:AA:616:G:N3	2.24	0.53
27:BA:593:G:H1'	57:B8:4:MET:CE	2.39	0.53
1:CA:954:G:H2'	1:CA:955:U:H6	1.73	0.53
19:CS:53:ASN:HD22	19:CS:77:THR:HA	1.73	0.53
4:CD:8:VAL:O	4:CD:11:LEU:HG	2.08	0.53
53:B4:41:ILE:H	53:B4:57:ILE:HG22	1.72	0.53
1:CA:1329:A:P	13:CM:28:ALA:HB3	2.49	0.53
1:CA:1344:C:H5'	9:CI:120:ARG:O	2.09	0.53
32:BF:63:LYS:HZ2	32:BF:67:GLN:HB2	1.72	0.53
1:CA:720:C:H2'	1:CA:721:G:N7	2.23	0.53
1:AA:256:U:O2'	1:AA:257:G:H5'	2.08	0.53
32:DF:202:PHE:O	32:DF:203:GLN:C	2.47	0.53
44:DV:19:LYS:NZ	44:DV:20:LEU:N	2.56	0.53
30:DD:132:PRO:HG3	30:DD:190:TYR:CE1	2.44	0.53
27:DA:2392:A:O2'	57:D8:27:THR:HB	2.09	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DG:18:GLU:HG3	33:DG:22:ARG:HG3	1.90	0.53
27:BA:2299:G:C2	27:BA:2318:G:H8	2.26	0.53
27:DA:2023:G:H5'	27:DA:2617:C:H4'	1.91	0.53
39:BQ:110:THR:O	39:BQ:113:GLN:N	2.42	0.53
27:DA:307:G:H21	27:DA:330:A:N6	2.07	0.53
1:CA:390:C:H2'	1:CA:391:G:C8	2.44	0.53
41:DS:53:SER:OG	41:DS:54:LEU:HD22	2.08	0.53
1:CA:276:G:O5'	1:CA:276:G:H8	1.92	0.53
30:BD:227:ASN:HB3	30:BD:228:PRO:HD2	1.90	0.53
1:CA:1162:C:N3	1:CA:1175:G:C2	2.77	0.53
12:CL:107:VAL:HG21	12:CL:117:TYR:HB3	1.90	0.53
27:DA:741:G:O2'	27:DA:742:G:H5'	2.08	0.53
27:BA:2134:A:H2	27:BA:2159:G:H1'	1.74	0.53
27:DA:1651:G:N2	27:DA:1652:A:H1'	2.24	0.53
27:DA:311:A:O2'	27:DA:332:A:H5'	2.07	0.53
7:CG:80:VAL:HG21	7:CG:154:TYR:CE1	2.43	0.53
33:BG:71:THR:N	33:BG:89:GLY:O	2.42	0.53
1:AA:262:A:H5'	20:AT:74:LYS:CB	2.39	0.53
1:AA:937:A:H1'	1:AA:1379:G:N2	2.23	0.53
5:AE:78:HIS:HD2	8:AH:104:ARG:NH1	2.07	0.53
5:CE:41:VAL:O	5:CE:66:MET:HA	2.09	0.53
1:CA:1315:U:C2'	1:CA:1316:G:H5'	2.39	0.53
33:DG:111:LEU:CD2	33:DG:120:LEU:HD21	2.39	0.53
27:DA:1718:G:N2	27:DA:1745:C:C2	2.76	0.53
27:BA:1223:G:H5'	27:BA:1224:C:OP2	2.09	0.53
27:BA:1042:G:N3	27:BA:1042:G:H2'	2.23	0.53
27:DA:1321:A:H2'	27:DA:1322:A:C8	2.43	0.53
45:DW:107:LEU:N	45:DW:107:LEU:CD1	2.72	0.53
37:BO:97:ARG:HB3	37:BO:99:PHE:HE1	1.72	0.53
1:AA:1182:G:O2'	1:AA:1183:A:OP2	2.24	0.53
1:CA:15:G:H8	1:CA:1396:A:HO2'	1.55	0.53
27:BA:1931:U:C5'	27:BA:1931:U:H6	2.20	0.53
27:DA:1998:G:H2'	27:DA:1999:C:C6	2.44	0.53
32:BF:164:ARG:CG	32:BF:164:ARG:NH1	2.70	0.53
27:DA:2225:A:H4'	27:DA:2226:C:C6	2.43	0.53
27:DA:1296:G:O2'	27:DA:1297:C:H5'	2.08	0.53
2:CB:36:ARG:N	2:CB:41:ILE:HD13	2.23	0.53
1:CA:1030(A):G:H3'	1:CA:1030(B):C:H5''	1.90	0.53
27:DA:2108:C:C2'	27:DA:2109:U:H5'	2.38	0.53
15:CO:36:ILE:HG22	15:CO:37:ASN:HD22	1.74	0.53
11:AK:126:ARG:C	11:AK:128:ALA:N	2.61	0.53
19:CS:22:LEU:HD13	19:CS:27:GLU:CB	2.38	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:D4:60:GLU:O	53:D4:61:VAL:HB	2.09	0.53
5:CE:148:VAL:HG12	5:CE:152:ARG:NE	2.23	0.53
1:AA:144:G:H2'	1:AA:145:G:C8	2.44	0.53
1:AA:726:C:O2'	1:AA:727:G:H5'	2.08	0.53
27:DA:1940:U:OP1	27:DA:1966:A:C2	2.61	0.53
27:BA:2342:C:O2'	27:BA:2374:C:H5''	2.09	0.53
28:DB:13:A:OP2	49:D0:74:ARG:HG2	2.08	0.53
50:D1:89:GLU:O	50:D1:92:LYS:HB3	2.08	0.53
27:DA:25:U:C5	27:DA:26:G:C5	2.96	0.53
34:BH:80:SER:O	34:BH:81:GLU:HB2	2.07	0.53
1:AA:543:C:O2	1:AA:543:C:H2'	2.09	0.53
51:B2:14:ARG:HH11	51:B2:14:ARG:HG3	1.74	0.53
5:CE:16:THR:O	5:CE:26:PHE:HD2	1.91	0.53
23:CW:4:G:H2'	23:CW:5:G:C8	2.44	0.53
27:BA:592:G:N3	57:B8:4:MET:CE	2.71	0.53
32:BF:202:PHE:HA	32:BF:205:ARG:CB	2.38	0.53
57:D8:16:ILE:HG21	57:D8:64:TYR:HB3	1.90	0.53
30:BD:164:GLN:OE1	30:BD:166:GLN:NE2	2.42	0.53
27:DA:1971:A:H2	30:DD:239:ARG:O	1.92	0.53
31:BE:6:GLY:HA2	31:BE:51:PHE:CZ	2.43	0.53
8:AH:17:THR:C	8:AH:19:VAL:H	2.11	0.53
19:CS:17:GLU:O	19:CS:20:LEU:HB2	2.08	0.53
27:DA:2233:U:H2'	27:DA:2234:G:C8	2.43	0.53
47:DY:81:LYS:O	47:DY:82:PRO:O	2.26	0.53
27:DA:61:G:H5'	51:D2:50:ILE:HD12	1.91	0.53
51:D2:54:LYS:O	51:D2:57:ILE:HB	2.09	0.53
41:DS:101:LEU:CD2	41:DS:104:GLY:H	2.21	0.53
41:DS:97:ARG:O	41:DS:98:VAL:C	2.47	0.53
27:BA:1885:A:C8	27:BA:1885:A:H5'	2.42	0.53
27:DA:2810:A:H2'	31:DE:61:ARG:NH2	2.23	0.53
31:DE:48:GLN:CD	31:DE:78:LEU:HD12	2.29	0.53
57:D8:33:ASN:H	57:D8:33:ASN:ND2	2.05	0.53
56:D7:41:ARG:CB	56:D7:41:ARG:NH1	2.52	0.53
27:DA:2020:A:O2'	27:DA:2021:C:H5'	2.09	0.53
27:DA:2050:C:H2'	27:DA:2051:A:O4'	2.08	0.53
27:BA:1490:A:C5'	27:BA:1491:G:OP2	2.55	0.53
1:CA:218:C:HO2'	1:CA:219:C:H6	1.55	0.53
19:AS:22:LEU:HD13	19:AS:27:GLU:CB	2.39	0.53
17:CQ:45:HIS:O	17:CQ:73:VAL:HG23	2.09	0.53
30:BD:43:ARG:NH1	30:BD:44:ASN:OD1	2.39	0.53
33:DG:105:LYS:HD2	33:DG:143:GLU:OE1	2.08	0.53
31:DE:26:ILE:CG2	31:DE:27:LEU:H	2.07	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:79:LEU:HD21	9:CI:102:LEU:HD22	1.89	0.53
50:B1:29:GLY:C	50:B1:30:VAL:HG13	2.29	0.53
27:BA:1556:C:O2'	27:BA:1557:C:H5'	2.08	0.53
12:AL:34:CYS:CA	12:AL:55:VAL:HG22	2.39	0.53
1:CA:658:G:C6	1:CA:659:U:C4	2.96	0.53
29:DC:41:VAL:HA	29:DC:213:TYR:HA	1.90	0.53
27:BA:2863:C:OP1	42:BT:93:ARG:NH1	2.41	0.53
1:AA:1240:U:OP2	7:AG:116:ALA:HB2	2.09	0.53
36:DN:76:SER:O	36:DN:78:TYR:HD1	1.92	0.53
17:AQ:87:LYS:CA	17:AQ:87:LYS:HE2	2.35	0.53
30:DD:32:SER:HA	30:DD:36:PRO:CD	2.38	0.53
57:B8:49:VAL:CG2	57:B8:53:PRO:HB3	2.34	0.53
13:AM:3:ARG:HG2	13:AM:9:ILE:CG1	2.39	0.53
1:CA:1028:C:H2'	1:CA:1029:C:H5'	1.90	0.53
1:CA:838:G:H2'	1:CA:839:U:C5'	2.35	0.53
27:BA:2098:U:H2'	27:BA:2099:U:C6	2.44	0.53
21:AU:6:ARG:HG2	21:AU:15:ARG:CZ	2.39	0.53
11:CK:127:LYS:CA	11:CK:127:LYS:HE2	2.36	0.53
45:DW:18:ARG:HG2	45:DW:76:VAL:CG1	2.38	0.53
27:BA:1786:A:H2	27:BA:2606:C:H1'	1.73	0.53
27:BA:186:G:H2'	27:BA:187:G:H8	1.73	0.53
1:CA:1512:U:H2'	1:CA:1513:A:C8	2.44	0.53
3:AC:150:LYS:HA	3:AC:169:ALA:HA	1.91	0.53
3:AC:175:LEU:O	3:AC:177:THR:N	2.41	0.53
1:CA:826:C:H5'	8:CH:12:ARG:NH2	2.24	0.53
1:CA:913:A:H1'	1:CA:914:A:O4'	2.09	0.53
1:AA:593:G:H2'	1:AA:594:G:O4'	2.09	0.53
11:AK:12:ARG:CG	11:AK:13:GLN:N	2.71	0.53
1:CA:254:G:C2'	1:CA:255:G:H5'	2.39	0.53
1:CA:409:G:C2	1:CA:410:G:H1'	2.43	0.53
18:CR:58:LEU:HD23	18:CR:62:GLU:HB3	1.91	0.53
13:CM:58:GLU:HA	13:CM:58:GLU:OE1	2.09	0.53
23:CW:31:U:H6	23:CW:31:U:H5'	1.74	0.53
1:CA:336:C:C2'	1:CA:337:C:H5'	2.38	0.53
39:DQ:58:PHE:CD1	39:DQ:61:GLY:HA3	2.44	0.53
27:BA:205:G:O2'	27:BA:206:U:P	2.66	0.53
27:BA:1119:C:O2'	27:BA:1120:G:H5'	2.08	0.53
27:DA:2772:C:OP1	31:DE:202:LYS:HE2	2.08	0.53
37:DO:15:GLY:HA3	37:DO:50:GLY:HA3	1.89	0.53
27:BA:749:C:H2'	27:BA:749:C:O2	2.08	0.53
36:DN:19:GLU:HB2	36:DN:59:LYS:CB	2.39	0.53
27:BA:874:G:O2'	27:BA:875:G:H5'	2.08	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2626:C:H2'	27:BA:2627:G:O4'	2.09	0.53
18:AR:86:VAL:C	18:AR:87:ARG:HD3	2.28	0.53
30:DD:90:ALA:HB1	30:DD:106:ILE:HG13	1.90	0.53
41:BS:41:ASP:OD2	41:BS:44:LYS:HB3	2.09	0.53
48:DZ:29:ASN:O	48:DZ:30:ARG:CB	2.57	0.53
32:BF:150:GLY:HA2	32:BF:172:TRP:CD2	2.44	0.53
27:DA:182:A:O2'	27:DA:183:C:H5'	2.08	0.53
42:BT:9:LEU:C	42:BT:11:GLU:H	2.10	0.53
1:AA:249:U:O5'	1:AA:249:U:H6	1.92	0.53
39:BQ:10:ARG:HH11	39:BQ:10:ARG:HG3	1.72	0.53
52:D3:58:VAL:O	52:D3:58:VAL:HG12	2.08	0.53
28:BB:55:U:H6	28:BB:55:U:O5'	1.92	0.53
1:AA:349:A:O2'	1:AA:350:G:H5'	2.09	0.53
1:CA:438:G:N2	1:CA:494:U:H3'	2.23	0.53
27:BA:2820:A:C8	31:BE:109:LYS:HE2	2.43	0.53
38:BP:23:PRO:CD	38:BP:33:ARG:NH2	2.72	0.53
38:BP:61:ARG:H	38:BP:61:ARG:CD	2.20	0.53
32:BF:4:VAL:HB	32:BF:17:ARG:HE	1.73	0.53
47:BY:84:ARG:O	47:BY:95:LYS:N	2.29	0.53
53:B4:40:ILE:O	53:B4:41:ILE:HD13	2.08	0.53
27:BA:558:G:OP2	36:BN:111:PRO:HD2	2.09	0.53
8:AH:77:GLU:HG2	8:AH:78:GLN:N	2.22	0.53
27:DA:2231:C:OP1	50:D1:42:GLN:HA	2.07	0.53
27:DA:996:A:H4'	43:DU:92:ARG:NH2	2.24	0.53
44:DV:19:LYS:HB3	44:DV:94:LEU:O	2.09	0.53
12:CL:66:TYR:CD2	12:CL:67:ILE:N	2.70	0.53
33:BG:52:ILE:HG22	33:BG:54:GLU:CG	2.38	0.53
39:DQ:85:LYS:HG3	49:D0:7:LEU:HD22	1.90	0.53
55:D6:15:GLU:OE1	55:D6:43:CYS:SG	2.67	0.53
38:DP:105:LEU:HD23	38:DP:105:LEU:N	2.24	0.53
33:DG:16:ARG:N	33:DG:17:PRO:CD	2.72	0.53
27:DA:1669:A:H2	27:DA:1994:C:H1'	1.72	0.53
27:DA:940:G:C3'	27:DA:941:A:H5''	2.38	0.53
27:DA:727:A:H2'	27:DA:728:G:C8	2.44	0.53
27:DA:1344:G:OP1	27:DA:1345:C:H5	1.91	0.53
3:AC:6:HIS:HD2	3:AC:8:ILE:H	1.57	0.53
19:AS:43:GLU:C	19:AS:45:VAL:H	2.12	0.53
27:BA:2074:U:H2'	27:BA:2075:U:C6	2.43	0.53
2:AB:168:THR:CG2	2:AB:192:SER:HA	2.38	0.53
27:BA:748:G:C8	45:BW:89:ALA:CB	2.92	0.53
1:AA:747:C:OP2	1:AA:748:C:N4	2.42	0.53
20:CT:23:ARG:O	20:CT:26:ASN:ND2	2.42	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:127:LYS:O	9:CI:127:LYS:HG2	2.09	0.53
27:BA:1817:G:H2'	27:BA:1818:U:H5'	1.91	0.53
30:BD:270:ILE:HD12	30:BD:271:ILE:N	2.24	0.53
1:CA:1206:G:H4'	3:CC:192:THR:C	2.29	0.53
27:BA:2271:G:C4'	49:B0:20:ARG:NH1	2.67	0.53
6:CF:75:LEU:HD23	6:CF:79:LEU:HD11	1.91	0.53
6:CF:74:ASP:O	6:CF:77:ARG:HB3	2.09	0.53
48:DZ:95:VAL:HG12	48:DZ:96:GLU:N	2.24	0.53
8:CH:7:ALA:CA	8:CH:85:ARG:HG3	2.38	0.53
38:BP:101:VAL:HG13	38:BP:106:LEU:HD23	1.90	0.53
27:BA:152:G:H2'	27:BA:153:C:O4'	2.08	0.53
1:AA:1442(A):G:C4'	1:AA:1442(B):A:OP2	2.55	0.53
27:BA:1358:G:O2'	27:BA:1359:A:H5''	2.09	0.53
1:AA:1239:A:N6	1:AA:1299:A:H62	2.03	0.53
7:AG:113:GLU:O	7:AG:119:ARG:HD3	2.09	0.53
17:AQ:76:LEU:HD12	17:AQ:77:VAL:N	2.23	0.53
1:AA:874:G:H2'	1:AA:875:C:C6	2.44	0.53
5:CE:32:VAL:O	5:CE:43:LEU:HD12	2.08	0.53
42:DT:50:ILE:HG21	42:DT:100:TYR:HA	1.91	0.53
27:BA:2095:C:H2'	27:BA:2096:U:C6	2.44	0.53
1:AA:1263:C:H2'	1:AA:1264:C:H5'	1.91	0.53
32:DF:57:VAL:HG11	32:DF:59:TYR:CD1	2.43	0.53
27:BA:2078:C:O2'	27:BA:2079:U:H5'	2.08	0.53
37:BO:116:SER:OG	37:BO:117:LEU:N	2.42	0.53
50:D1:66:HIS:C	50:D1:68:PRO:HD2	2.30	0.53
24:CX:51:C:H2'	24:CX:52:G:C8	2.34	0.53
24:CX:52:G:O2'	24:CX:53:G:H5'	2.08	0.53
32:DF:141:ALA:O	32:DF:144:LYS:N	2.42	0.53
9:AI:4:TYR:HA	9:AI:88:TYR:CD1	2.44	0.53
11:CK:78:GLN:O	11:CK:103:LEU:CD1	2.56	0.53
1:AA:1257:U:H3'	1:AA:1257:U:C6	2.42	0.53
5:CE:101:ILE:CG1	5:CE:119:LEU:HD23	2.38	0.53
27:BA:466:A:O4'	27:BA:683:C:H4'	2.09	0.53
1:AA:1371:G:H2'	1:AA:1372:U:H6	1.72	0.53
1:AA:280:C:O2	17:AQ:38:ARG:HG3	2.08	0.53
38:BP:92:GLU:HB2	38:BP:121:LYS:NZ	2.24	0.53
27:BA:2758:A:C4	34:BH:67:LEU:HD21	2.44	0.53
2:AB:29:ALA:O	2:AB:32:ILE:HG22	2.08	0.53
6:AF:19:LEU:HD11	6:AF:59:TYR:CE1	2.43	0.53
10:AJ:84:GLN:H	10:AJ:84:GLN:CD	2.13	0.53
27:DA:2075:U:C5	27:DA:2238:G:C5	2.96	0.53
28:BB:21:G:H2'	28:BB:22:U:C6	2.43	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BQ:79:LEU:O	39:BQ:81:VAL:HG12	2.07	0.53
27:BA:1654:A:P	40:BR:3:HIS:HB2	2.49	0.53
27:DA:2361:A:OP1	57:D8:26:LYS:HD3	2.09	0.53
4:AD:141:ARG:O	4:AD:144:ASP:OD2	2.27	0.53
6:CF:82:ARG:HB2	6:CF:85:VAL:CG2	2.38	0.53
11:AK:88:GLY:O	11:AK:90:GLY:N	2.40	0.53
40:DR:55:ALA:HA	40:DR:80:PHE:CE1	2.43	0.53
29:DC:72:VAL:HG21	29:DC:161:ILE:HA	1.91	0.53
27:DA:2846:G:H2'	27:DA:2847:U:H6	1.74	0.53
49:B0:33:ALA:HB2	49:B0:63:VAL:HA	1.91	0.53
28:BB:109:C:H5'	28:BB:110:G:O5'	2.09	0.53
46:DX:69:TYR:CD1	46:DX:69:TYR:N	2.77	0.53
34:BH:37:VAL:O	34:BH:38:SER:C	2.47	0.53
1:CA:956:U:H2'	1:CA:957:U:O4'	2.09	0.53
40:BR:23:ASN:N	40:BR:23:ASN:HD22	2.06	0.53
27:BA:2882:A:H5'	40:BR:96:ARG:HG3	1.90	0.53
32:BF:110:LEU:HD21	32:BF:181:LEU:HG	1.91	0.53
34:BH:139:GLN:HG3	34:BH:140:LYS:N	2.24	0.53
57:D8:63:PRO:HB2	57:D8:64:TYR:HD1	1.74	0.53
27:DA:194:G:N2	27:DA:251:A:H2	2.07	0.53
1:CA:471:G:O2'	1:CA:472:A:O5'	2.27	0.53
44:BV:64:HIS:HB3	44:BV:91:TYR:O	2.09	0.53
27:DA:298:G:P	47:DY:85:VAL:HG23	2.49	0.53
47:DY:75:ILE:CB	47:DY:80:GLY:H	2.21	0.53
30:DD:77:ALA:HB2	30:DD:97:TYR:CD2	2.44	0.53
11:AK:16:SER:O	11:AK:35:PRO:HD3	2.08	0.53
38:DP:33:ARG:O	38:DP:35:HIS:N	2.42	0.53
20:AT:67:ALA:HA	20:AT:72:LEU:O	2.09	0.53
46:DX:26:TYR:OH	46:DX:89:ILE:N	2.37	0.53
47:DY:17:SER:OG	47:DY:18:GLY:N	2.42	0.53
1:CA:376:G:H1	1:CA:387:U:H3	1.57	0.53
19:AS:45:VAL:C	19:AS:47:HIS:H	2.12	0.53
1:AA:1305:G:H5'	21:AU:4:GLY:HA3	1.91	0.53
12:CL:41:THR:HG21	26:CZ:6:5OH:HR	1.91	0.53
26:CZ:5:UAL:C	26:CZ:6:5OH:HS	2.39	0.53
56:B7:9:ARG:O	56:B7:10:ARG:C	2.46	0.53
1:AA:1072:G:C2'	1:AA:1073:U:H5'	2.39	0.53
38:DP:9:ASN:H	38:DP:10:PRO:HD2	1.74	0.53
46:BX:25:LYS:HG2	46:BX:80:ILE:HD11	1.91	0.53
37:BO:66:LYS:H	37:BO:82:ASN:ND2	2.06	0.53
27:BA:1819:A:C2'	30:BD:178:PRO:HB2	2.38	0.53
10:CJ:58:ASP:O	10:CJ:59:SER:C	2.47	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:CN:47:LEU:O	14:CN:50:LYS:N	2.42	0.53
1:AA:1432:G:OP1	42:BT:107:ASP:HB2	2.09	0.53
27:BA:2580:U:C5'	31:BE:131:ALA:H	2.22	0.53
27:BA:1486:A:H2'	27:BA:1487:G:H8	1.74	0.53
47:BY:87:LYS:CG	47:BY:88:LYS:N	2.72	0.53
38:BP:144:GLU:H	38:BP:145:PRO:CD	2.17	0.53
27:BA:2392:A:C2	27:BA:2429:G:C2	2.97	0.53
27:BA:2346:A:C8	27:BA:2383:G:C4	2.97	0.53
33:DG:51:ARG:CA	33:DG:51:ARG:NE	2.70	0.53
1:AA:486:U:O2'	1:AA:487:A:H8	1.74	0.53
39:BQ:57:HIS:CE1	39:BQ:116:GLU:CG	2.92	0.53
30:BD:211:ARG:HD3	30:BD:214:TRP:CZ3	2.44	0.53
34:DH:44:VAL:HG12	34:DH:45:VAL:N	2.16	0.53
27:BA:2097:C:H2'	27:BA:2098:U:C6	2.43	0.53
31:DE:16:ARG:NH1	31:DE:171:GLU:OE2	2.41	0.53
38:DP:80:TYR:HA	38:DP:111:ARG:O	2.09	0.53
3:AC:77:ILE:C	3:AC:83:ARG:HB3	2.30	0.53
12:CL:5:ASN:ND2	17:CQ:34:LYS:NZ	2.56	0.53
27:DA:10:G:N1	27:DA:2629:A:H1'	2.24	0.53
1:AA:1270:C:H2'	1:AA:1271:G:O4'	2.08	0.53
1:AA:1314:C:H5	19:AS:6:LYS:HZ3	1.57	0.53
27:BA:492:A:C2	27:BA:493:G:H1'	2.44	0.53
27:DA:477:A:O2'	27:DA:478:A:C8	2.59	0.53
1:CA:735:C:H6	1:CA:735:C:O5'	1.91	0.53
1:CA:707:C:C2	1:CA:708:C:C5	2.97	0.53
48:DZ:102:ARG:HD3	48:DZ:135:PHE:CZ	2.44	0.53
32:BF:184:TYR:O	32:BF:188:ARG:CB	2.57	0.53
32:BF:184:TYR:CE2	32:BF:188:ARG:HD2	2.43	0.53
1:AA:644:G:H2'	1:AA:645:C:H5'	1.89	0.53
27:BA:747:U:N1	54:B5:2:ALA:N	2.57	0.53
5:AE:90:VAL:O	5:AE:91:LEU:HD13	2.09	0.53
7:AG:86:GLN:NE2	25:AY:30:A:H2	2.06	0.53
25:AY:28:G:O2'	25:AY:29:G:H5'	2.09	0.53
43:BU:24:TYR:HB2	43:BU:29:SER:HB3	1.91	0.53
18:AR:63:GLN:OE1	18:AR:63:GLN:HA	2.09	0.53
1:CA:59:A:H2'	1:CA:59:A:N3	2.22	0.53
27:BA:1207:C:H2'	27:BA:1208:C:H6	1.74	0.53
42:DT:129:ARG:HG3	42:DT:129:ARG:O	2.08	0.53
27:BA:83:G:C2'	27:BA:84:A:OP2	2.57	0.53
1:AA:245:C:O2	1:AA:283:C:N3	2.42	0.53
27:BA:1688:U:O2	27:BA:1700:A:H5'	2.09	0.53
27:BA:1388:G:O2'	27:BA:1389:G:H5'	2.08	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:42:LEU:N	3:AC:45:LYS:HZ3	2.07	0.53
27:DA:2083:G:H2'	27:DA:2084:C:C6	2.44	0.53
24:CX:47:U:H3'	24:CX:48:C:C5'	2.38	0.53
27:DA:2222:G:H5'	30:DD:149:PRO:HG3	1.90	0.53
27:BA:681:G:H2'	27:BA:682:G:H8	1.73	0.53
27:DA:606:U:H4'	27:DA:658:C:H4'	1.90	0.53
2:AB:64:ARG:O	2:AB:64:ARG:HG3	2.08	0.53
27:BA:2360:A:H2'	27:BA:2361:A:O4'	2.09	0.53
27:DA:2601:C:H6	27:DA:2601:C:O5'	1.92	0.53
30:BD:58:HIS:HD2	30:BD:59:LYS:O	1.92	0.53
1:CA:170:U:O2'	1:CA:171:A:H5'	2.09	0.53
57:B8:6:THR:CA	57:B8:61:LEU:HD11	2.35	0.52
1:CA:949:A:H2'	1:CA:950:U:O4'	2.08	0.52
41:BS:95:HIS:CG	41:BS:96:GLY:H	2.26	0.52
32:BF:3:GLU:HA	32:BF:24:LEU:HB3	1.90	0.52
37:BO:10:VAL:CG2	37:BO:17:ARG:HA	2.39	0.52
27:DA:197:A:H8	27:DA:197:A:H5'	1.71	0.52
48:DZ:156:LEU:N	48:DZ:156:LEU:HD12	2.24	0.52
1:CA:429:U:OP2	4:CD:36:ARG:NH1	2.42	0.52
5:AE:33:VAL:HA	5:AE:42:GLY:O	2.08	0.52
43:DU:70:ARG:C	43:DU:72:HIS:H	2.12	0.52
27:DA:1567:A:C2	30:DD:84:TYR:HB3	2.44	0.52
27:DA:859:G:N2	27:DA:916:G:H2'	2.25	0.52
57:D8:28:GLY:O	57:D8:29:LYS:HB3	2.08	0.52
27:DA:635:C:H2'	27:DA:636:G:H8	1.74	0.52
1:CA:186:C:H2'	1:CA:187:C:H6	1.74	0.52
1:AA:1053:G:N7	1:AA:1199:U:H3'	2.24	0.52
14:AN:24:CYS:HB2	14:AN:29:ARG:HB3	1.92	0.52
48:BZ:79:ARG:O	48:BZ:81:ARG:N	2.41	0.52
2:AB:185:ILE:HG12	2:AB:199:TYR:HB2	1.91	0.52
42:DT:81:PRO:O	42:DT:82:LEU:HD12	2.09	0.52
30:BD:52:ARG:NH1	30:BD:249:PRO:HG2	2.23	0.52
1:AA:1072:G:H2'	1:AA:1073:U:O4'	2.08	0.52
39:BQ:17:LEU:HD21	39:BQ:41:TRP:HE1	1.73	0.52
1:CA:742:G:H5'	15:CO:58:MET:CE	2.39	0.52
12:AL:31:ARG:HG3	12:AL:102:TYR:CE1	2.44	0.52
6:AF:7:ASN:C	6:AF:8:ILE:HG13	2.29	0.52
8:CH:7:ALA:HA	8:CH:85:ARG:HG3	1.90	0.52
41:BS:103:GLU:O	41:BS:104:GLY:C	2.47	0.52
58:B9:11:CYS:SG	58:B9:32:HIS:CG	3.02	0.52
31:DE:119:ARG:HG3	31:DE:160:TYR:HB2	1.92	0.52
27:BA:2289:G:C2'	27:BA:2290:G:H5''	2.38	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1359:A:N7	27:BA:1372:U:O4	2.42	0.52
29:DC:83:ILE:HA	29:DC:94:VAL:CG2	2.36	0.52
6:CF:10:LEU:O	6:CF:11:ASN:C	2.46	0.52
30:BD:10:THR:HG23	30:BD:13:ARG:CB	2.38	0.52
13:AM:76:ALA:HA	13:AM:79:LYS:CD	2.38	0.52
27:DA:2836:U:C4	27:DA:2883:A:N6	2.78	0.52
33:DG:111:LEU:HD22	33:DG:117:PHE:CE1	2.44	0.52
8:CH:36:LEU:O	8:CH:37:ARG:C	2.46	0.52
27:DA:1281:G:C2	27:DA:1290:C:N3	2.76	0.52
27:DA:325:G:H2'	27:DA:326:G:H8	1.74	0.52
27:DA:2199:A:H3'	27:DA:2200:C:C6	2.33	0.52
37:BO:13:ASN:HD21	37:BO:96:THR:H	1.53	0.52
27:BA:394:A:C6	27:BA:395:U:N3	2.77	0.52
52:D3:6:VAL:HB	52:D3:54:VAL:HG11	1.91	0.52
33:BG:11:TYR:O	33:BG:16:ARG:N	2.36	0.52
33:BG:170:ARG:HH21	33:BG:182:LYS:HZ3	1.55	0.52
1:AA:1228:C:H4'	13:AM:116:THR:HA	1.92	0.52
6:AF:24:GLU:CG	6:AF:25:ILE:N	2.71	0.52
10:CJ:40:LEU:HG	10:CJ:69:ASN:CB	2.37	0.52
11:CK:99:GLN:OE1	11:CK:105:VAL:HG21	2.09	0.52
1:CA:9:G:H5'	5:CE:122:GLU:CD	2.28	0.52
27:BA:721:C:H2'	27:BA:722:A:H8	1.73	0.52
27:BA:1444:G:C6	27:BA:1466:G:N1	2.77	0.52
30:DD:158:ALA:HB3	30:DD:161:THR:HG21	1.91	0.52
12:CL:123:LYS:HD2	12:CL:124:GLU:H	1.74	0.52
27:BA:863:A:H2'	27:BA:864:G:H8	1.69	0.52
1:AA:1248:A:H2'	1:AA:1249:C:C5'	2.39	0.52
1:AA:558:G:H2'	1:AA:559:A:H2	1.73	0.52
1:AA:243:A:H4'	1:AA:244:U:C5'	2.39	0.52
27:BA:945:A:C4	27:BA:2448:A:C2	2.96	0.52
8:CH:88:LYS:HB3	8:CH:89:PRO:HD2	1.90	0.52
1:AA:1472:U:C2'	1:AA:1473:A:H5'	2.39	0.52
27:BA:2548:G:H1	27:BA:2560:C:H42	1.55	0.52
27:DA:1941:C:C5	27:DA:1942:C:C5	2.98	0.52
9:AI:127:LYS:O	9:AI:128:ARG:HB3	2.08	0.52
27:BA:2371:G:H4'	55:B6:45:LYS:CB	2.39	0.52
44:DV:21:ARG:HG2	44:DV:91:TYR:CD1	2.43	0.52
49:B0:50:ASN:HA	49:B0:62:LEU:HD12	1.92	0.52
41:BS:40:ILE:CG2	41:BS:41:ASP:N	2.71	0.52
4:AD:13:ARG:O	4:AD:14:ARG:HB3	2.08	0.52
56:D7:42:LEU:HD23	56:D7:42:LEU:N	2.23	0.52
27:DA:2621:A:O2'	31:DE:159:HIS:HB2	2.10	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1508:A:H2'	27:BA:1508:A:N3	2.23	0.52
1:AA:1333:A:H2'	1:AA:1334:G:O4'	2.08	0.52
27:BA:1280:G:N2	27:BA:1281:G:H1'	2.24	0.52
48:DZ:149:LEU:HD21	48:DZ:171:ALA:HB3	1.91	0.52
1:CA:1347:G:N2	1:CA:1373:G:C2'	2.58	0.52
1:CA:1349:A:H2'	1:CA:1350:A:C8	2.45	0.52
32:DF:119:ARG:HG2	32:DF:119:ARG:O	2.10	0.52
41:BS:33:LYS:O	41:BS:34:HIS:CG	2.63	0.52
30:DD:211:ARG:HA	30:DD:214:TRP:CG	2.45	0.52
47:DY:27:VAL:HA	47:DY:28:LYS:CE	2.39	0.52
33:BG:138:GLN:HB3	33:BG:153:ARG:O	2.08	0.52
55:D6:15:GLU:HB3	55:D6:18:ARG:HG2	1.91	0.52
27:DA:805:G:O2'	27:DA:806:C:OP1	2.22	0.52
50:B1:37:ILE:O	50:B1:38:SER:CB	2.57	0.52
18:CR:82:THR:O	18:CR:83:GLU:HG2	2.09	0.52
1:AA:1347:G:O2'	1:AA:1348:U:P	2.67	0.52
1:CA:375:U:H2'	1:CA:376:G:C8	2.44	0.52
34:DH:85:LYS:HG3	34:DH:145:ALA:HB2	1.90	0.52
27:BA:857:C:O2	27:BA:857:C:H2'	2.08	0.52
1:CA:250:A:C2	1:CA:274:A:N6	2.77	0.52
30:BD:45:ASN:CG	30:BD:46:GLN:H	2.13	0.52
1:CA:158:G:C2'	1:CA:159:G:H5'	2.39	0.52
3:CC:76:VAL:HG23	3:CC:77:ILE:H	1.75	0.52
1:CA:1209:C:H2'	1:CA:1209:C:O2	2.07	0.52
27:BA:2271:G:OP1	49:B0:18:ALA:HB1	2.09	0.52
27:BA:525:U:H6	27:BA:525:U:OP2	1.91	0.52
35:BI:77:LEU:CD2	35:BI:78:THR:N	2.71	0.52
27:BA:2545:G:H2'	27:BA:2546:U:O4'	2.09	0.52
27:BA:646:A:H2'	27:BA:647:G:O4'	2.10	0.52
27:DA:2313:C:H3'	27:DA:2313:C:H6	1.74	0.52
7:AG:152:ALA:C	7:AG:154:TYR:H	2.11	0.52
42:DT:24:PRO:HA	42:DT:49:VAL:HG13	1.91	0.52
27:BA:196:A:O4'	38:BP:46:LYS:HE3	2.09	0.52
1:CA:1117:G:N2	1:CA:1180:A:H1'	2.25	0.52
1:AA:1327:C:OP1	21:AU:20:LYS:HB3	2.09	0.52
16:CP:57:ARG:NH2	16:CP:79:VAL:O	2.40	0.52
27:DA:2884:U:C2	54:D5:51:TYR:HE1	2.26	0.52
23:CW:20:A:H61	23:CW:46:U:H1'	1.70	0.52
27:DA:2466:C:O2'	27:DA:2467:C:H5'	2.09	0.52
27:DA:496:G:H1'	45:DW:61:ASN:ND2	2.24	0.52
27:BA:2607:G:O2'	27:BA:2608:G:H5'	2.10	0.52
27:DA:31:C:H5''	27:DA:1239:G:OP1	2.09	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:701:C:O2'	1:CA:703:G:C6	2.60	0.52
3:AC:52:LEU:CD2	3:AC:52:LEU:N	2.66	0.52
2:CB:16:HIS:CE1	2:CB:213:LEU:HD13	2.43	0.52
5:CE:7:GLU:O	5:CE:8:GLU:CB	2.57	0.52
1:AA:1247:U:O2	1:AA:1291:G:C2	2.62	0.52
32:DF:83:PHE:O	32:DF:84:VAL:CB	2.57	0.52
27:DA:2520:C:H2'	27:DA:2521:C:H6	1.73	0.52
35:DI:58:LEU:C	35:DI:60:GLU:H	2.12	0.52
31:BE:143:ASN:HB2	31:BE:147:PRO:HD2	1.91	0.52
2:CB:36:ARG:CA	2:CB:36:ARG:NE	2.72	0.52
27:BA:1003:G:N2	27:BA:1153:C:C2	2.78	0.52
9:AI:11:LYS:O	9:AI:13:ALA:N	2.42	0.52
35:BI:40:THR:OG1	35:BI:43:ASN:ND2	2.42	0.52
27:BA:671:C:H5'	27:BA:671:C:H6	1.75	0.52
9:CI:62:TYR:O	9:CI:63:ILE:HG13	2.09	0.52
34:DH:64:LEU:O	34:DH:68:THR:HB	2.09	0.52
1:AA:329:A:C5	1:AA:332:G:C6	2.98	0.52
1:AA:252:U:H2'	1:AA:253:U:H5'	1.91	0.52
39:BQ:79:LEU:N	39:BQ:79:LEU:CD1	2.71	0.52
6:CF:99:ALA:O	6:CF:100:ASN:C	2.48	0.52
27:BA:1830:C:O2'	27:BA:1831:G:H5'	2.08	0.52
1:CA:181:G:N2	1:CA:183:G:H1	2.07	0.52
27:DA:45:C:OP2	27:DA:215:G:H2'	2.09	0.52
27:BA:937:U:C4	27:BA:938:G:N7	2.78	0.52
45:BW:29:LEU:HD21	45:BW:33:ARG:NH2	2.24	0.52
1:CA:505:G:H2'	1:CA:506:G:C8	2.45	0.52
6:CF:2:ARG:O	6:CF:66:GLU:HA	2.09	0.52
28:DB:95:C:H2'	28:DB:96:U:C6	2.44	0.52
5:CE:135:THR:O	5:CE:136:MET:C	2.48	0.52
1:AA:1104:G:H4'	2:AB:111:ARG:NH1	2.23	0.52
27:BA:584:C:OP2	43:BU:6:THR:HB	2.10	0.52
27:DA:2115:G:C4	27:DA:2117:A:N7	2.77	0.52
44:DV:8:GLY:O	44:DV:10:LYS:HE2	2.10	0.52
1:CA:955:U:H1'	1:CA:1227:A:N6	2.23	0.52
14:CN:44:LEU:O	14:CN:44:LEU:HD12	2.09	0.52
40:BR:28:LEU:HD21	40:BR:114:VAL:HG12	1.91	0.52
38:BP:17:LYS:HG3	38:BP:19:VAL:HG23	1.91	0.52
1:CA:1343:G:H1'	9:CI:121:ARG:NH1	2.23	0.52
32:BF:70:THR:O	32:BF:72:ARG:N	2.42	0.52
1:AA:130:A:H5'	17:AQ:63:ARG:HE	1.75	0.52
27:DA:998:C:H42	27:DA:1158:C:H42	1.57	0.52
27:DA:1578:U:H2'	27:DA:1579:A:H5''	1.92	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:D2:46:GLN:HA	51:D2:46:GLN:OE1	2.06	0.52
41:DS:97:ARG:HH22	41:DS:99:LYS:N	2.04	0.52
55:D6:8:LYS:HG3	55:D6:8:LYS:O	2.09	0.52
27:DA:468:G:C6	27:DA:469:G:C4	2.97	0.52
27:DA:2550:G:H2'	27:DA:2551:C:C5'	2.38	0.52
27:DA:819:A:H2'	27:DA:819:A:N3	2.24	0.52
44:DV:77:ALA:O	44:DV:79:VAL:N	2.42	0.52
1:AA:176:C:O2'	1:AA:177:C:H5'	2.10	0.52
31:DE:37:ARG:O	31:DE:45:THR:HA	2.10	0.52
27:DA:301:G:C4	27:DA:302:C:C5	2.98	0.52
1:AA:1058:G:H2'	1:AA:1059:C:C6	2.45	0.52
10:AJ:52:GLY:O	14:AN:41:ARG:NH2	2.42	0.52
2:AB:162:ILE:HD11	2:AB:184:VAL:HG22	1.90	0.52
2:AB:54:THR:CB	2:AB:201:ILE:HD11	2.39	0.52
42:DT:27:THR:O	42:DT:28:VAL:CB	2.57	0.52
27:DA:2757:A:N1	34:DH:67:LEU:HD22	2.25	0.52
41:DS:15:ARG:C	41:DS:17:ARG:O	2.48	0.52
17:CQ:17:LYS:HA	17:CQ:46:ASP:O	2.10	0.52
1:CA:607:A:C2'	1:CA:608:A:H5'	2.39	0.52
27:BA:2336:A:H61	49:B0:43:THR:CG2	2.21	0.52
42:DT:3:ARG:O	42:DT:7:ILE:HG12	2.10	0.52
6:AF:10:LEU:HD13	6:AF:61:LEU:HD13	1.91	0.52
8:AH:48:TYR:O	8:AH:49:GLU:CB	2.57	0.52
14:CN:27:CYS:C	14:CN:29:ARG:N	2.61	0.52
15:CO:70:LEU:HD23	15:CO:78:TYR:HA	1.92	0.52
27:BA:2576:G:H3'	27:BA:2576:G:N3	2.24	0.52
25:AY:6:U:H2'	25:AY:7:A:C8	2.44	0.52
49:B0:24:LYS:HB2	49:B0:36:ILE:HD11	1.90	0.52
35:BI:92:VAL:O	35:BI:92:VAL:HG22	2.09	0.52
27:BA:644:A:C2'	27:BA:645:C:H5''	2.39	0.52
35:BI:11:ASN:HB3	35:BI:12:LEU:HD22	1.91	0.52
27:BA:574:C:N3	31:BE:145:LYS:NZ	2.53	0.52
51:B2:55:ARG:O	51:B2:58:ALA:N	2.41	0.52
27:DA:1458:C:H5'	27:DA:1459:G:C8	2.44	0.52
3:CC:39:ILE:C	3:CC:41:GLY:N	2.63	0.52
27:DA:923:C:H2'	27:DA:924:C:H6	1.74	0.52
42:DT:25:GLY:O	42:DT:48:ILE:HG23	2.08	0.52
42:DT:50:ILE:HG23	42:DT:99:LEU:HD12	1.92	0.52
1:CA:1158:C:O2	1:CA:1158:C:C2'	2.57	0.52
31:DE:3:GLY:O	31:DE:4:ILE:CB	2.57	0.52
12:CL:5:ASN:HB2	17:CQ:34:LYS:HZ3	1.73	0.52
2:AB:178:ARG:HH11	2:AB:178:ARG:HG2	1.74	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:738:C:H5''	6:CF:69:GLU:HB2	1.91	0.52
27:BA:1332:G:N2	27:BA:1609:A:HO2'	2.06	0.52
47:BY:67:LEU:HD13	47:BY:71:LYS:HE3	1.89	0.52
36:DN:25:ARG:NH1	36:DN:25:ARG:CG	2.71	0.52
7:CG:15:ASP:O	7:CG:19:GLY:HA2	2.09	0.52
33:DG:129:GLY:O	33:DG:161:THR:HB	2.08	0.52
45:DW:21:VAL:CG1	45:DW:21:VAL:O	2.58	0.52
12:CL:123:LYS:C	12:CL:125:ALA:N	2.61	0.52
6:CF:48:LEU:HD13	6:CF:52:ILE:CG1	2.39	0.52
27:DA:1445:A:H2'	27:DA:1445:A:N3	2.24	0.52
1:CA:1419:G:H2'	1:CA:1420:C:C6	2.41	0.52
4:AD:205:GLU:O	4:AD:207:TYR:N	2.43	0.52
1:CA:1423:G:O2'	1:CA:1424:C:H5'	2.09	0.52
37:DO:13:ASN:C	37:DO:15:GLY:N	2.63	0.52
1:AA:336:C:O2'	1:AA:337:C:H5'	2.09	0.52
9:CI:106:ALA:O	9:CI:108:VAL:N	2.42	0.52
20:CT:41:ILE:HA	20:CT:44:ALA:HB3	1.91	0.52
2:CB:168:THR:HG23	2:CB:192:SER:CB	2.39	0.52
27:BA:738:G:C6	27:BA:739:G:C2	2.98	0.52
3:CC:162:GLN:O	3:CC:164:ARG:HG3	2.09	0.52
1:AA:1494:G:N2	1:AA:1495:U:C2	2.78	0.52
27:BA:2235:G:H2'	27:BA:2236:C:C6	2.45	0.52
27:DA:186:G:O2'	27:DA:187:G:H5'	2.10	0.52
27:BA:1305:C:O2'	27:BA:1306:C:H5'	2.08	0.52
45:DW:34:ASN:O	45:DW:37:ARG:HB3	2.10	0.52
27:BA:651:G:OP1	57:B8:19:SER:HB2	2.09	0.52
40:BR:28:LEU:HA	40:BR:34:ILE:CG1	2.39	0.52
27:DA:1899:G:N2	27:DA:1903:G:C2	2.77	0.52
47:BY:50:ARG:CG	47:BY:58:GLY:HA3	2.38	0.52
31:BE:63:LEU:O	31:BE:63:LEU:HD23	2.09	0.52
1:CA:1347:G:C8	9:CI:107:ARG:HB3	2.45	0.52
1:AA:129(A):G:O2'	1:AA:189(F):U:H2'	2.09	0.52
27:BA:352:G:C8	27:BA:355:G:O6	2.62	0.52
42:BT:28:VAL:HG21	42:BT:46:GLU:CG	2.40	0.52
27:DA:999:U:O2	27:DA:1000:A:H8	1.92	0.52
27:DA:1884:A:N1	27:DA:1885:A:C5	2.78	0.52
47:DY:76:CYS:O	47:DY:78:ALA:N	2.42	0.52
11:AK:33:THR:HB	11:AK:37:GLY:O	2.10	0.52
55:D6:8:LYS:O	55:D6:9:LEU:CB	2.57	0.52
27:DA:2356:C:H4'	49:D0:20:ARG:HD3	1.90	0.52
27:DA:2580:U:H4'	31:DE:130:GLY:CA	2.40	0.52
27:DA:574:C:N3	31:DE:145:LYS:HE2	2.24	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:AT:25:ARG:O	20:AT:28:ALA:HB3	2.10	0.52
47:DY:15:VAL:HG12	47:DY:16:ALA:H	1.73	0.52
12:CL:25:LYS:HZ1	12:CL:30:ARG:HH22	1.55	0.52
2:AB:67:THR:OG1	2:AB:155:LEU:HD21	2.08	0.52
46:BX:64:LYS:HE2	46:BX:73:ARG:HG3	1.92	0.52
27:DA:2749:A:H4'	34:DH:62:LYS:CB	2.29	0.52
32:BF:51:THR:HG23	32:BF:92:PRO:HG2	1.90	0.52
17:CQ:45:HIS:CD2	17:CQ:47:PRO:HD3	2.45	0.52
27:BA:1820:U:O2	30:BD:201:HIS:HB3	2.10	0.52
27:BA:795:C:C6	27:BA:796:C:H5	2.27	0.52
27:DA:18:C:C4	27:DA:19:C:C5	2.98	0.52
15:AO:74:ASP:C	15:AO:76:GLU:N	2.62	0.52
34:BH:87:LEU:HD22	34:BH:163:TYR:O	2.09	0.52
13:AM:37:THR:OG1	13:AM:39:ILE:HD12	2.09	0.52
3:CC:76:VAL:HG23	3:CC:77:ILE:N	2.25	0.52
12:AL:36:VAL:HG12	12:AL:38:ARG:H	1.74	0.52
27:BA:562:U:OP1	27:BA:562:U:H6	1.92	0.52
49:D0:40:GLN:HE22	49:D0:45:PHE:H	1.56	0.52
27:BA:2419:U:C5'	55:B6:23:THR:HG21	2.40	0.52
1:AA:621:A:H2'	1:AA:622:A:H8	1.75	0.52
27:DA:660:G:O2'	27:DA:661:C:H5'	2.10	0.52
52:D3:12:PRO:O	52:D3:20:LYS:NZ	2.42	0.52
57:B8:50:LEU:C	57:B8:53:PRO:HD2	2.28	0.52
6:CF:12:PRO:HB3	6:CF:58:GLY:HA2	1.91	0.52
33:DG:110:ALA:O	33:DG:111:LEU:C	2.47	0.52
27:DA:272(D):G:C2	27:DA:365:C:C4	2.98	0.52
7:CG:143:ARG:CB	7:CG:143:ARG:HH11	2.22	0.52
27:BA:1578:U:H2'	27:BA:1579:A:C5'	2.38	0.52
27:BA:1578:U:H2'	27:BA:1578:U:O2	2.09	0.52
26:AZ:3:SER:O	26:AZ:5:UAL:N	2.38	0.52
27:DA:2010:G:C6	27:DA:2011:U:C4	2.97	0.52
1:CA:937:A:N6	1:CA:938:A:C6	2.77	0.52
1:AA:1084:G:OP1	1:AA:1086:U:C4	2.63	0.52
1:CA:119:A:O2'	1:CA:120:A:OP2	2.27	0.52
47:DY:4:LYS:HG3	47:DY:5:MET:HE3	1.91	0.52
13:AM:116:THR:O	13:AM:117:VAL:HB	2.09	0.52
27:BA:1640:C:N4	27:BA:1641:A:C5	2.78	0.52
20:AT:89:ARG:NH1	20:AT:104:LEU:HD21	2.23	0.52
1:AA:1145:C:O2'	1:AA:1146:A:H5'	2.10	0.52
1:CA:623:C:O2	1:CA:623:C:H2'	2.09	0.52
27:BA:2241:A:C2	27:BA:2242:G:C5	2.98	0.52
27:BA:1345:C:O2'	27:BA:1346:G:H5'	2.10	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BH:68:THR:C	34:BH:70:THR:N	2.61	0.52
27:BA:1945:G:C8	27:BA:1945:G:O5'	2.62	0.52
27:BA:988:A:H4'	27:BA:1155:A:C2	2.45	0.52
1:CA:298:A:H8	1:CA:298:A:O5'	1.92	0.52
27:DA:1248:G:OP1	32:DF:92:PRO:HB3	2.08	0.52
1:AA:1416:G:N2	1:AA:1485:U:H1'	2.24	0.52
54:D5:49:CYS:O	54:D5:56:LYS:HB2	2.09	0.52
42:DT:21:GLU:HG3	42:DT:22:PHE:N	2.25	0.52
4:CD:132:ARG:HG2	4:CD:132:ARG:NH1	2.24	0.52
44:DV:21:ARG:HG2	44:DV:91:TYR:CE1	2.44	0.52
27:DA:2489:G:H2'	27:DA:2490:G:O4'	2.10	0.52
27:DA:1455:G:O2'	27:DA:1456:G:H5'	2.09	0.52
1:AA:506:G:C4	1:AA:507:C:C5	2.96	0.52
28:DB:4:C:H2'	28:DB:5:C:C6	2.45	0.52
1:CA:963:G:H21	10:CJ:55:LYS:CD	2.21	0.52
32:BF:127:GLU:OE1	32:BF:196:LEU:HG	2.10	0.52
33:BG:109:VAL:HG13	53:B4:59:VAL:HG11	1.90	0.52
1:CA:1305:G:O2'	1:CA:1306:A:P	2.68	0.52
27:BA:481:G:OP2	47:BY:47:LYS:HG3	2.09	0.52
47:BY:47:LYS:O	47:BY:48:ALA:O	2.26	0.52
44:BV:15:GLU:O	44:BV:16:PRO:C	2.48	0.52
27:DA:2405:G:O2'	27:DA:2406:U:P	2.67	0.52
42:BT:109:GLU:HA	42:BT:112:ARG:HD3	1.91	0.52
43:DU:81:HIS:O	43:DU:85:LYS:HB2	2.09	0.52
27:DA:492:A:C8	27:DA:493:G:C8	2.98	0.52
27:DA:2351:G:H5''	27:DA:2352:A:OP1	2.08	0.52
27:BA:307:G:H8	27:BA:307:G:O5'	1.92	0.52
27:DA:747:U:N3	54:D5:2:ALA:N	2.58	0.52
27:DA:1188:U:C2'	27:DA:1189:A:H5'	2.40	0.52
31:DE:1:MET:H3	31:DE:84:PHE:HB2	1.75	0.52
47:DY:18:GLY:C	47:DY:20:TYR:H	2.13	0.52
27:BA:1686:C:C6	27:BA:1686:C:C5'	2.89	0.52
1:CA:186:C:H2'	1:CA:187:C:C5	2.45	0.52
1:AA:1179:A:C5'	9:AI:102:LEU:HD12	2.39	0.52
1:AA:1338:G:H2'	1:AA:1339:A:O4'	2.10	0.52
42:DT:32:TYR:CD2	42:DT:32:TYR:N	2.76	0.52
19:AS:61:TYR:O	19:AS:62:ILE:HG22	2.10	0.52
58:D9:10:ILE:HD12	58:D9:32:HIS:CD2	2.44	0.52
1:CA:252:U:H2'	1:CA:253:U:C6	2.45	0.52
40:DR:41:ALA:C	40:DR:43:GLU:N	2.62	0.52
37:BO:1:MET:C	37:BO:2:ILE:HD13	2.29	0.52
40:BR:52:ILE:O	40:BR:55:ALA:N	2.43	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:774:A:H2	27:DA:787:U:O2'	1.90	0.52
27:DA:2529:G:OP2	27:DA:2530:A:H5''	2.09	0.52
27:BA:1799:G:H5''	27:BA:1802:A:O2'	2.09	0.52
1:CA:678:U:O2	1:CA:777:A:H4'	2.09	0.52
27:DA:154(A):C:O2	27:DA:154(A):C:O4'	2.26	0.52
39:DQ:45:GLN:NE2	39:DQ:45:GLN:N	2.49	0.52
39:DQ:132:VAL:HB	39:DQ:137:TYR:OH	2.09	0.52
29:DC:68:LEU:CD1	29:DC:179:SER:HA	2.40	0.52
27:DA:2680:C:OP2	31:DE:111:ARG:NH2	2.43	0.52
40:DR:14:SER:OG	40:DR:15:SER:N	2.40	0.52
27:BA:2285:C:H41	55:B6:25:LYS:HE3	1.75	0.52
32:DF:31:HIS:CD2	32:DF:35:GLU:HG3	2.45	0.52
20:AT:73:HIS:O	20:AT:76:ALA:HB3	2.09	0.52
1:AA:939:G:H2'	1:AA:940:C:C6	2.45	0.52
27:BA:2693:A:C2'	27:BA:2694:G:H5'	2.38	0.52
27:BA:1578:U:H2'	27:BA:1579:A:H5'	1.90	0.52
1:AA:1271:G:H5'	1:AA:1314:C:H5'	1.92	0.52
27:DA:2889:C:H3'	27:DA:2891:G:C8	2.44	0.52
47:BY:3:VAL:C	47:BY:5:MET:N	2.60	0.52
27:DA:29:U:H4'	43:DU:11:ARG:HH22	1.72	0.52
39:DQ:35:VAL:HA	39:DQ:102:VAL:HA	1.90	0.52
32:BF:160:ASN:ND2	32:BF:160:ASN:C	2.62	0.52
19:AS:12:ASP:HB3	19:AS:14:HIS:CE1	2.45	0.52
50:B1:18:ILE:HG21	50:B1:20:ARG:CZ	2.39	0.52
50:B1:20:ARG:O	50:B1:21:ARG:HG2	2.09	0.52
33:BG:170:ARG:NH2	33:BG:182:LYS:HG3	2.25	0.52
3:AC:150:LYS:CG	3:AC:169:ALA:HB2	2.38	0.52
27:DA:1473:G:H2'	27:DA:1474:C:C5'	2.37	0.52
15:AO:56:LEU:O	15:AO:60:VAL:HG23	2.10	0.52
39:DQ:10:ARG:HG3	39:DQ:10:ARG:O	2.09	0.52
27:BA:1261:C:H2'	27:BA:1262:A:O5'	2.09	0.52
27:BA:344:G:N2	27:BA:345:A:N6	2.54	0.52
1:CA:255:G:H2'	1:CA:256:U:C6	2.45	0.52
7:AG:103:TRP:CE3	7:AG:137:LYS:HB3	2.45	0.52
7:AG:15:ASP:OD2	7:AG:16:LEU:N	2.42	0.52
1:AA:1236:A:H4'	1:AA:1304:G:H4'	1.92	0.52
4:CD:179:GLU:O	4:CD:181:MET:HG3	2.09	0.52
51:B2:17:SER:H	51:B2:67:LYS:HZ1	1.57	0.52
27:DA:2729:G:O3'	31:DE:185:LYS:NZ	2.43	0.52
17:CQ:27:PHE:HB2	17:CQ:28:PRO:CD	2.40	0.52
1:AA:1426:C:H2'	1:AA:1427:U:H6	1.75	0.52
27:BA:444:C:C4'	32:BF:49:ALA:HB2	2.39	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:DT:55:ASN:O	42:DT:55:ASN:ND2	2.32	0.52
39:BQ:36:ALA:O	39:BQ:37:LEU:HD22	2.09	0.52
27:DA:25:U:H2'	27:DA:26:G:O4'	2.09	0.52
2:CB:43:ASP:OD2	2:CB:46:LYS:HB2	2.10	0.52
20:CT:45:GLN:C	20:CT:47:GLY:H	2.12	0.52
27:BA:1291:C:C2	27:BA:1292:U:C5	2.98	0.52
41:BS:92:TYR:CG	41:BS:93:LYS:N	2.78	0.52
37:BO:60:ALA:HB2	37:BO:86:ILE:HA	1.92	0.52
37:BO:90:GLN:O	37:BO:91:LEU:HB2	2.09	0.52
1:AA:909:A:O2'	1:AA:910:C:H5'	2.08	0.52
27:BA:1199:U:H2'	27:BA:1200:C:H6	1.74	0.52
42:BT:16:ARG:HH11	42:BT:19:LEU:HD11	1.74	0.52
32:DF:202:PHE:O	32:DF:204:ASN:N	2.43	0.52
32:DF:2:LYS:O	32:DF:25:PRO:CD	2.55	0.52
27:DA:1013:C:N4	27:DA:1149:G:H1	2.07	0.52
27:DA:1252:G:N2	43:DU:33:ARG:HD2	2.24	0.52
43:DU:57:PHE:O	43:DU:58:ARG:C	2.47	0.52
51:D2:52:ASP:O	51:D2:55:ARG:N	2.43	0.52
27:BA:2801(A):A:C4'	27:BA:2802:G:H5'	2.21	0.52
4:AD:64:LEU:HB2	4:AD:198:VAL:CG1	2.40	0.52
27:DA:587:C:C6	38:DP:33:ARG:CZ	2.92	0.52
45:BW:15:ARG:O	45:BW:18:ARG:HB2	2.09	0.52
46:DX:26:TYR:CE2	46:DX:89:ILE:HB	2.43	0.52
31:DE:93:VAL:HG11	31:DE:181:LEU:O	2.09	0.52
34:BH:44:VAL:O	34:BH:46:GLU:CD	2.48	0.52
1:AA:1054:C:C6	1:AA:1196:U:H2'	2.45	0.52
1:AA:1346:A:C5'	9:AI:120:ARG:HH12	2.23	0.52
9:AI:114:TYR:HE1	10:AJ:60:ARG:N	2.08	0.52
58:D9:7:VAL:HG13	58:D9:34:GLN:OE1	2.10	0.52
27:BA:1778:U:H2'	27:BA:1784:A:N6	2.24	0.52
6:AF:10:LEU:CD1	6:AF:61:LEU:HD13	2.39	0.52
27:DA:58:G:O2'	27:DA:73:A:N1	2.35	0.52
27:BA:372:G:O2'	27:BA:373:U:P	2.67	0.52
14:CN:26:ARG:HH22	14:CN:47:LEU:HD21	1.74	0.52
1:CA:1285:A:H4'	1:CA:1286:A:O5'	2.09	0.52
27:BA:2578:G:H2'	27:BA:2579:C:C6	2.44	0.52
27:DA:171:G:H2'	27:DA:172:C:C6	2.44	0.52
8:CH:7:ALA:CB	8:CH:85:ARG:HG3	2.39	0.52
38:BP:144:GLU:O	38:BP:145:PRO:C	2.48	0.52
38:BP:91:PHE:HZ	38:BP:100:LEU:CD1	2.23	0.52
25:AY:62:U:H2'	25:AY:63:C:O4'	2.10	0.52
1:CA:748:C:O2'	1:CA:749:C:OP2	2.25	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2126:A:H5''	29:DC:36:LYS:HG2	1.90	0.52
27:DA:2824:C:N4	27:DA:2825:C:N3	2.57	0.52
55:B6:29:ASN:ND2	55:B6:30:THR:H	2.07	0.52
27:BA:2290:G:C2	27:BA:2343:C:O2	2.63	0.52
27:BA:2308:G:C2'	27:BA:2309:A:O5'	2.58	0.52
34:DH:143:GLN:NE2	34:DH:147:ASN:OD1	2.43	0.52
33:DG:128:ARG:C	33:DG:130:ASN:N	2.63	0.52
30:BD:12:SER:C	30:BD:14:ARG:H	2.13	0.52
57:D8:10:ALA:CB	57:D8:60:LEU:HD21	2.34	0.52
5:CE:102:ALA:HB2	5:CE:120:THR:OG1	2.09	0.52
7:CG:135:VAL:O	7:CG:138:LYS:HB3	2.09	0.52
27:DA:2188:C:H2'	27:DA:2189:U:O4'	2.08	0.52
27:DA:2809:A:OP2	27:DA:2891:G:N2	2.40	0.52
40:DR:26:LYS:HZ3	40:DR:71:GLN:HB3	1.74	0.52
27:DA:1280:G:N2	27:DA:1281:G:H1'	2.24	0.52
27:DA:495:G:H21	45:DW:61:ASN:HD21	1.57	0.52
27:BA:2606:C:O2'	27:BA:2607:G:H5'	2.10	0.52
27:BA:1176:G:O2'	27:BA:1177:A:H5'	2.10	0.52
35:DI:12:LEU:HB2	35:DI:19:VAL:HG21	1.92	0.52
2:AB:15:VAL:C	2:AB:16:HIS:CG	2.83	0.52
33:BG:31:VAL:HG22	33:BG:32:PRO:HD2	1.91	0.52
5:AE:99:GLY:O	5:AE:116:THR:O	2.27	0.52
1:CA:882:C:N4	12:CL:2:PRO:HG3	2.24	0.52
28:DB:53:A:H2'	28:DB:53:A:N3	2.24	0.52
27:DA:67:U:C2	27:DA:68:G:C8	2.97	0.52
27:BA:1627:G:N3	27:BA:1628:G:C8	2.78	0.52
27:BA:1710:C:C6	27:BA:1710:C:H3'	2.45	0.52
1:AA:1372:U:OP2	9:AI:11:LYS:HE3	2.09	0.52
9:AI:15:ALA:HB2	9:AI:65:VAL:HG23	1.91	0.52
38:DP:138:LEU:HG	38:DP:142:GLY:HA3	1.92	0.52
19:CS:22:LEU:CD2	19:CS:22:LEU:N	2.72	0.52
27:DA:1683:C:H42	27:DA:1705:G:H1	1.58	0.52
27:DA:211:A:O2'	27:DA:212:G:H5'	2.10	0.52
1:CA:5:U:C2'	4:CD:86:LYS:HE2	2.39	0.52
29:BC:72:VAL:HG21	29:BC:161:ILE:CA	2.40	0.52
27:DA:1810:A:C8	27:DA:1811:G:C8	2.98	0.52
1:CA:1466:C:H2'	1:CA:1467:G:O4'	2.10	0.52
30:DD:46:GLN:N	30:DD:46:GLN:OE1	2.43	0.52
1:AA:604:G:C6	1:AA:635:G:C6	2.98	0.52
30:BD:254:THR:O	30:BD:254:THR:OG1	2.23	0.52
27:BA:1015:G:H8	27:BA:1015:G:H5''	1.73	0.52
49:D0:30:VAL:HG12	49:D0:66:VAL:HG22	1.92	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:25:GLU:C	10:AJ:27:ALA:H	2.11	0.52
1:CA:1321:C:C4'	13:CM:87:TYR:CE2	2.92	0.52
27:BA:1292:U:C2	27:BA:1293:C:C5	2.98	0.52
40:BR:33:ARG:HA	40:BR:114:VAL:O	2.10	0.52
32:BF:186:ILE:HD13	32:BF:192:LEU:HD12	1.92	0.52
32:BF:3:GLU:HB3	32:BF:20:LEU:O	2.10	0.52
1:AA:885:G:O2'	1:AA:886:G:H5'	2.09	0.52
27:DA:271(S):G:C2'	27:DA:271(T):C:C5'	2.80	0.52
4:CD:60:GLU:O	4:CD:63:LYS:HB2	2.10	0.52
4:CD:93:PHE:CE1	4:CD:97:LEU:HD11	2.44	0.52
38:BP:17:LYS:C	38:BP:19:VAL:H	2.11	0.52
1:CA:461:A:N7	1:CA:471:G:N7	2.58	0.52
44:BV:35:LEU:HD23	44:BV:35:LEU:N	2.24	0.52
17:AQ:45:HIS:N	17:AQ:69:LYS:HE2	2.25	0.52
27:BA:352:G:H8	27:BA:355:G:O6	1.93	0.52
27:DA:1011:G:C2	27:DA:1013:C:C2	2.97	0.52
44:DV:47:VAL:HG12	44:DV:52:VAL:CB	2.38	0.52
30:DD:26:LYS:NZ	30:DD:82:ILE:H	2.07	0.52
27:DA:2271:G:H2'	27:DA:2272:U:H6	1.75	0.52
27:BA:1884:A:H2'	27:BA:1885:A:C5'	2.25	0.52
27:DA:2066:C:OP1	27:DA:2252:G:H4'	2.09	0.52
27:DA:673:C:OP1	32:DF:54:ARG:NH1	2.43	0.52
32:DF:54:ARG:NH2	32:DF:80:ALA:HB2	2.24	0.52
27:DA:943:U:OP2	38:DP:38:GLN:CD	2.48	0.52
39:BQ:46:GLN:O	39:BQ:49:ALA:N	2.43	0.52
27:DA:142:A:H8	27:DA:1408:C:H1'	1.69	0.52
46:DX:36:LYS:CE	46:DX:56:THR:H	2.23	0.52
2:AB:155:LEU:HD13	2:AB:157:ARG:H	1.74	0.52
27:DA:2756:U:O2'	27:DA:2757:A:C5'	2.56	0.52
17:CQ:57:VAL:CG1	17:CQ:76:LEU:HA	2.32	0.52
27:BA:1776:G:C6	27:BA:1777:U:C4	2.98	0.52
2:CB:70:PHE:O	2:CB:92:TYR:HA	2.10	0.52
39:BQ:17:LEU:HD23	39:BQ:17:LEU:N	2.25	0.52
27:BA:1337:G:H2'	27:BA:1338:G:C8	2.43	0.52
1:CA:1064:G:HO2'	1:CA:1065:U:C5'	2.22	0.52
37:BO:35:VAL:HG23	37:BO:65:THR:CG2	2.40	0.52
1:CA:1196:U:OP1	1:CA:1197:G:H5'	2.10	0.52
1:AA:1158:C:C2'	1:AA:1158:C:O2	2.54	0.52
1:AA:1298:C:C5	7:AG:114:ARG:HD2	2.45	0.52
36:DN:75:TYR:HA	36:DN:81:GLY:O	2.10	0.52
33:DG:66:GLN:HB3	33:DG:92:VAL:HG21	1.91	0.52
13:AM:65:LYS:CG	13:AM:70:LEU:HB2	2.40	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:341:C:O2'	1:CA:342:C:H5'	2.09	0.52
27:DA:743:G:O2'	27:DA:744:G:H5'	2.10	0.52
27:DA:2317:C:O2'	27:DA:2318:G:H5'	2.10	0.52
40:DR:99:LYS:HB2	40:DR:99:LYS:NZ	2.25	0.52
40:DR:37:THR:OG1	40:DR:40:LYS:HE3	2.09	0.52
31:BE:69:LYS:HZ1	31:BE:89:ASP:HA	1.74	0.52
3:AC:50:ALA:O	3:AC:51:GLY:O	2.27	0.52
39:BQ:63:LYS:HD3	39:BQ:65:PHE:CZ	2.45	0.52
39:BQ:26:TYR:O	39:BQ:67:ARG:NH1	2.43	0.52
3:CC:22:TRP:HH2	3:CC:32:LEU:O	1.93	0.52
27:BA:1835:G:C5'	27:BA:1836:C:OP2	2.56	0.52
47:DY:2:ARG:O	47:DY:3:VAL:HG23	2.10	0.52
25:AY:71:A:H2'	25:AY:72:G:O4'	2.10	0.52
48:BZ:13:LYS:O	48:BZ:17:LEU:HD13	2.10	0.52
1:AA:1186:G:N2	1:AA:1187:G:H1'	2.23	0.52
1:CA:691:G:O6	11:CK:55:LYS:HE2	2.10	0.52
10:AJ:96:ILE:N	10:AJ:96:ILE:CD1	2.68	0.52
1:CA:1437:C:H2'	1:CA:1438:G:H8	1.74	0.52
1:CA:255:G:H2'	1:CA:256:U:H6	1.74	0.52
43:BU:24:TYR:CE1	43:BU:38:THR:CG2	2.93	0.52
31:DE:30:PRO:HD3	31:DE:180:ASN:OD1	2.09	0.52
27:DA:1291:C:O2'	27:DA:1292:U:H5'	2.09	0.52
46:DX:54:VAL:HG22	46:DX:81:VAL:HG12	1.90	0.52
20:CT:13:LEU:O	20:CT:16:HIS:HB3	2.09	0.52
27:BA:1451:C:HO2'	27:BA:1457:A:N6	2.08	0.52
27:DA:1173:G:H3'	27:DA:1174:A:H5'	1.92	0.52
27:DA:1174:A:H5''	27:DA:1175:U:C5'	2.40	0.52
27:BA:1504:C:C2'	27:BA:1505:C:H5''	2.40	0.52
1:AA:986:A:H2'	1:AA:987:G:C8	2.45	0.52
1:CA:487:A:H2'	1:CA:488:C:O4'	2.09	0.52
12:CL:48:ALA:C	12:CL:49:LEU:HD22	2.30	0.52
40:DR:33:ARG:HG3	40:DR:115:GLU:CB	2.40	0.52
27:DA:1271:G:C2	27:DA:1617:C:H4'	2.45	0.52
1:CA:505:G:H2'	1:CA:506:G:H8	1.73	0.52
27:DA:419:C:O2'	27:DA:420:C:H5'	2.10	0.52
9:CI:22:GLY:HA3	9:CI:60:ASP:OD2	2.09	0.52
27:DA:602:G:O2'	27:DA:604:G:H4'	2.09	0.52
27:BA:2767:C:H2'	27:BA:2768:C:C6	2.44	0.52
27:BA:2594:C:H2'	27:BA:2595:G:C8	2.45	0.52
27:DA:845:G:C5'	27:DA:845:G:H8	2.23	0.52
50:D1:23:LYS:HE2	50:D1:28:GLY:HA3	1.91	0.52
1:AA:1214:C:C6	1:AA:1214:C:OP1	2.63	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:AG:58:PRO:O	7:AG:61:VAL:HB	2.08	0.52
27:BA:816:C:H2'	27:BA:817:C:C6	2.44	0.52
27:BA:941:A:O2'	38:BP:35:HIS:CE1	2.63	0.52
14:CN:35:ARG:HH11	14:CN:35:ARG:HG2	1.74	0.52
41:BS:92:TYR:N	41:BS:92:TYR:CD1	2.78	0.52
41:BS:87:PHE:HZ	41:BS:97:ARG:HH22	1.57	0.52
27:DA:247:G:O6	57:D8:12:LYS:HE3	2.10	0.52
27:DA:1963:U:O2	27:DA:1963:U:H2'	2.09	0.52
47:BY:53:PRO:HB3	47:BY:56:PRO:HA	1.91	0.52
5:AE:129:ILE:O	5:AE:132:ALA:N	2.24	0.52
44:BV:95:LEU:HD22	44:BV:96:ILE:N	2.25	0.52
27:DA:1493:C:C5	27:DA:2206:G:O2'	2.63	0.52
30:BD:27:THR:CG2	30:BD:83:GLU:HA	2.40	0.52
27:BA:1899:G:H21	27:BA:1902:C:H5	1.58	0.52
27:DA:1991:U:H2'	27:DA:1992:G:C5'	2.38	0.52
1:AA:194:C:O2'	20:AT:68:LYS:HD3	2.08	0.52
1:AA:194:C:C2'	1:AA:195:A:H5''	2.39	0.52
27:BA:1140:C:O3'	36:BN:25:ARG:NH1	2.43	0.52
4:CD:133:VAL:HG11	4:CD:138:TYR:CD1	2.44	0.52
1:AA:1320:C:N4	19:AS:36:ARG:HG3	2.24	0.52
1:CA:392:G:H2'	1:CA:393:A:H8	1.75	0.52
34:DH:140:LYS:O	34:DH:144:VAL:HG23	2.10	0.52
34:DH:85:LYS:CG	34:DH:133:VAL:HB	2.40	0.52
27:BA:775:G:C2	27:BA:777:A:N6	2.78	0.52
38:DP:9:ASN:ND2	38:DP:10:PRO:CD	2.61	0.52
27:DA:19:C:OP1	43:DU:22:LYS:CD	2.55	0.52
7:AG:41:ARG:HG2	7:AG:41:ARG:NH1	2.25	0.52
1:AA:581:G:O5'	1:AA:581:G:H8	1.93	0.52
20:CT:50:GLU:HA	20:CT:100:ILE:HG21	1.92	0.52
1:CA:1054:C:C5	1:CA:1196:U:C6	2.98	0.52
27:DA:171:G:O2'	27:DA:172:C:H5'	2.10	0.52
48:DZ:23:LEU:HD21	48:DZ:85:VAL:HG13	1.91	0.52
8:CH:29:SER:O	8:CH:32:LYS:N	2.41	0.52
35:BI:89:TYR:C	35:BI:121:LYS:NZ	2.63	0.52
33:BG:53:LEU:N	33:BG:53:LEU:CD2	2.73	0.52
1:AA:503:C:OP1	12:AL:116:LYS:HE3	2.10	0.52
27:DA:319:C:C2	27:DA:333:G:N2	2.78	0.52
1:AA:1298:C:N4	7:AG:114:ARG:HD2	2.25	0.52
51:B2:24:LEU:HD11	51:B2:28:LYS:HE2	1.92	0.52
13:AM:65:LYS:HB3	13:AM:70:LEU:HD12	1.91	0.52
1:AA:1002:G:N2	1:AA:1039:C:O2	2.43	0.52
54:D5:42:PRO:O	54:D5:43:HIS:CB	2.58	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1108:U:C2'	27:BA:1109:C:H5'	2.40	0.52
1:CA:12:U:O2'	1:CA:13:U:H5''	2.09	0.52
52:D3:8:LEU:HB3	52:D3:31:LEU:HD23	1.91	0.52
27:DA:1779:U:O4	27:DA:1785:A:C6	2.62	0.52
42:DT:57:PHE:O	42:DT:58:ASN:C	2.47	0.52
27:DA:2001:A:H2'	27:DA:2002:G:O4'	2.10	0.52
46:DX:64:LYS:NZ	46:DX:73:ARG:CZ	2.72	0.52
27:BA:1545:A:H3'	27:BA:1546:C:H6	1.75	0.52
31:BE:26:ILE:HG22	31:BE:27:LEU:N	2.25	0.52
27:DA:1114:G:H3'	27:DA:1115:G:H5''	1.92	0.52
1:CA:624:C:H4'	16:CP:10:GLY:C	2.29	0.52
48:DZ:107:PRO:C	48:DZ:109:GLY:N	2.62	0.52
48:DZ:108:ALA:O	48:DZ:144:GLU:HG2	2.10	0.52
2:CB:174:VAL:HG13	2:CB:184:VAL:CG2	2.38	0.52
50:B1:57:GLU:O	50:B1:58:ILE:HG23	2.09	0.52
53:D4:61:VAL:HG13	53:D4:65:CYS:CB	2.39	0.52
27:BA:2839:G:H2'	27:BA:2840:C:C6	2.43	0.52
38:DP:122:PRO:HA	38:DP:141:ALA:O	2.09	0.52
34:DH:32:GLU:O	34:DH:33:LEU:HD23	2.09	0.52
27:BA:1711:C:H2'	27:BA:1712:C:H6	1.75	0.52
18:AR:86:VAL:HG12	18:AR:87:ARG:HD3	1.91	0.52
27:BA:445:C:N4	27:BA:446:G:C6	2.78	0.52
52:D3:39:ASP:OD2	52:D3:44:ARG:NH2	2.42	0.52
27:DA:2719:G:H5'	27:DA:2847:U:OP1	2.10	0.52
17:AQ:79:SER:OG	17:AQ:80:GLY:N	2.41	0.52
7:CG:66:VAL:HG12	7:CG:67:GLU:N	2.24	0.52
10:AJ:32:ALA:H	10:AJ:76:ASN:HB3	1.74	0.52
1:AA:120:A:HO2'	1:AA:121:C:P	2.32	0.52
38:BP:38:GLN:HG3	38:BP:39:LYS:H	1.75	0.52
41:DS:56:LEU:O	41:DS:57:LYS:HB2	2.09	0.52
27:BA:251:A:H5''	38:BP:51:PHE:HZ	1.75	0.52
47:BY:84:ARG:O	47:BY:94:LYS:HA	2.09	0.52
37:BO:17:ARG:HE	37:BO:47:ILE:CD1	2.23	0.52
43:BU:61:TRP:O	43:BU:62:ILE:C	2.48	0.52
44:BV:35:LEU:C	44:BV:37:VAL:H	2.13	0.52
1:AA:265:G:H21	1:AA:267:C:H5'	1.75	0.52
41:BS:54:LEU:C	41:BS:56:LEU:H	2.13	0.52
51:D2:5:GLU:O	51:D2:8:LYS:HB2	2.10	0.52
47:DY:39:VAL:CG1	47:DY:40:GLU:H	2.07	0.52
28:DB:79:C:H2'	28:DB:80:U:O4'	2.10	0.52
31:DE:35:GLN:HA	31:DE:67:PHE:CZ	2.45	0.52
27:DA:2350:C:H41	27:DA:2382:G:H22	1.58	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2057:A:H2'	27:DA:2058:A:O4'	2.09	0.52
1:AA:1199:U:H4'	10:AJ:54:PHE:CE2	2.45	0.52
8:AH:39:LEU:HB3	8:AH:45:ILE:HG12	1.92	0.52
1:CA:376:G:OP1	16:CP:5:ARG:HB2	2.08	0.52
1:CA:386:C:C2'	1:CA:387:U:C5'	2.81	0.52
19:AS:44:MET:SD	19:AS:44:MET:N	2.83	0.52
27:DA:2756:U:C1'	27:DA:2757:A:H5''	2.35	0.52
3:CC:182:ILE:HG23	3:CC:202:ILE:O	2.09	0.52
27:BA:1310:G:N2	27:BA:1313:U:O4	2.43	0.52
27:BA:1311:G:C4	56:B7:47:ARG:NH2	2.78	0.52
1:AA:108:G:C6	20:AT:15:ARG:HD2	2.45	0.52
33:DG:105:LYS:HE3	53:D4:51:TYR:O	2.10	0.52
6:AF:61:LEU:O	6:AF:62:TRP:CB	2.57	0.52
29:DC:214:VAL:C	29:DC:216:THR:N	2.61	0.52
8:AH:60:ARG:CG	8:AH:60:ARG:NH1	2.68	0.52
30:DD:55:GLY:HA3	30:DD:218:ARG:HD3	1.91	0.52
27:BA:2273:A:H2'	27:BA:2274:A:C8	2.45	0.52
1:CA:1310:G:C5'	13:CM:77:ASN:ND2	2.72	0.52
27:BA:2580:U:H4'	31:BE:130:GLY:HA2	1.92	0.52
48:DZ:126:LYS:HD3	48:DZ:161:GLU:OE1	2.10	0.52
32:BF:176:LEU:HD12	32:BF:177:ALA:N	2.23	0.52
1:CA:1404:C:O4'	1:CA:1499:A:C2	2.63	0.52
35:BI:91:SER:HB2	35:BI:119:PRO:HB2	1.90	0.52
35:BI:76:THR:O	35:BI:140:LEU:HA	2.10	0.52
27:DA:1651:G:C2	27:DA:2007:C:N3	2.78	0.52
31:DE:113:PHE:HD2	31:DE:113:PHE:C	2.13	0.52
27:BA:397:G:O2'	27:BA:398:G:H5'	2.09	0.52
1:AA:1243:C:O2'	1:AA:1244:C:H5'	2.09	0.52
30:DD:94:LEU:HD22	30:DD:95:LEU:N	2.25	0.52
1:AA:935:A:H61	7:AG:3:ARG:HB2	1.74	0.52
12:CL:5:ASN:HD22	17:CQ:34:LYS:HZ3	1.58	0.52
27:BA:2302:G:H2'	27:BA:2303:G:H5'	1.92	0.52
12:AL:23:ALA:C	12:AL:24:LEU:HD22	2.30	0.52
50:B1:20:ARG:HA	50:B1:34:THR:HA	1.92	0.52
32:BF:188:ARG:HB2	38:BP:7:ARG:HH22	1.74	0.52
15:AO:39:LEU:C	15:AO:41:GLU:H	2.13	0.52
13:CM:91:ARG:CB	13:CM:98:VAL:HG13	2.40	0.52
1:AA:186:C:H2'	1:AA:187:C:C6	2.45	0.52
1:AA:848:C:H2'	1:AA:849:C:C6	2.44	0.52
1:AA:686:U:HO2'	1:AA:687:A:H8	1.51	0.52
27:BA:26:G:C2'	27:BA:514:A:H61	2.22	0.52
4:AD:68:TYR:HA	4:AD:114:ARG:CD	2.40	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DN:26:LEU:HG	36:DN:30:ILE:HD11	1.91	0.52
1:CA:1086:U:H3'	1:CA:1087:G:H8	1.75	0.52
24:CX:29:G:C2'	24:CX:30:G:H5'	2.40	0.52
7:AG:15:ASP:HB3	7:AG:20:ASP:H	1.75	0.52
1:CA:59:A:H5''	1:CA:60:A:C5'	2.40	0.52
53:D4:42:CYS:SG	53:D4:46:ASN:O	2.68	0.52
53:D4:41:ILE:HD13	53:D4:47:VAL:HG13	1.91	0.52
27:BA:1209:G:O2'	27:BA:1237:A:N1	2.31	0.52
31:BE:119:ARG:HD2	31:BE:120:TRP:CD1	2.45	0.52
30:DD:261:LYS:NZ	30:DD:263:ARG:HH12	2.04	0.52
50:B1:64:ALA:HA	50:B1:67:ILE:CG1	2.39	0.52
51:D2:33:MET:O	51:D2:34:GLU:C	2.48	0.52
27:BA:1682:G:C6	27:BA:1683:C:N3	2.78	0.52
20:AT:98:PRO:C	20:AT:100:ILE:N	2.62	0.52
16:AP:50:LYS:HD3	16:AP:51:VAL:N	2.24	0.52
30:DD:15:PHE:O	30:DD:17:THR:HG23	2.10	0.52
27:DA:262:A:H2'	27:DA:263:C:C6	2.45	0.52
46:DX:30:VAL:HG23	46:DX:77:LYS:HB3	1.90	0.52
34:DH:27:LYS:HG2	34:DH:32:GLU:CG	2.39	0.52
24:CX:15:G:H2'	24:CX:59:A:N1	2.24	0.52
27:BA:937:U:H2'	27:BA:938:G:C8	2.44	0.52
27:DA:1368:G:O2'	27:DA:1369:G:H5'	2.10	0.52
28:BB:61:G:C2	28:BB:62:C:C2	2.98	0.52
37:BO:25:LEU:O	37:BO:26:LYS:HG3	2.09	0.52
5:AE:53:LEU:N	5:AE:53:LEU:HD12	2.25	0.52
10:CJ:90:LEU:N	10:CJ:91:PRO:CD	2.73	0.52
27:BA:816:C:O2'	27:BA:817:C:H5'	2.09	0.52
1:CA:963:G:N2	10:CJ:55:LYS:HZ2	2.08	0.52
32:BF:126:VAL:HG21	32:BF:129:PHE:CE1	2.45	0.52
47:BY:95:LYS:HA	47:BY:100:ALA:HA	1.92	0.52
37:BO:14:THR:HG22	37:BO:16:ALA:N	2.25	0.52
57:D8:50:LEU:HD12	57:D8:51:ALA:H	1.72	0.52
27:DA:832:G:O2'	38:DP:52:GLU:HB3	2.10	0.52
27:DA:1792:G:H2'	27:DA:1793:C:C6	2.45	0.52
27:DA:1972:A:H2'	27:DA:1973:G:H8	1.75	0.52
4:CD:10:ARG:HG3	4:CD:40:PRO:HB3	1.92	0.52
5:AE:33:VAL:HG11	5:AE:109:ILE:HG12	1.92	0.52
44:BV:39:LEU:HB3	44:BV:47:VAL:HG11	1.91	0.52
42:BT:82:LEU:O	42:BT:83:ILE:C	2.48	0.52
19:CS:17:GLU:O	19:CS:21:GLU:HG3	2.10	0.52
33:BG:60:LEU:O	33:BG:60:LEU:HD13	2.10	0.52
27:DA:2496:C:OP2	39:DQ:82:ARG:NE	2.42	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:626:U:H3	38:DP:105:LEU:HB3	1.75	0.52
28:DB:55:U:O3'	33:DG:27:ASN:OD1	2.24	0.52
27:BA:335:C:OP1	27:BA:335:C:H6	1.93	0.52
20:AT:80:ARG:O	20:AT:84:LEU:N	2.41	0.52
27:DA:2636:U:HO2'	31:DE:44:TYR:HH	1.52	0.52
30:BD:94:LEU:HB2	30:BD:104:TYR:HE2	1.75	0.52
1:CA:66:G:N7	1:CA:104:G:N2	2.58	0.52
35:DI:133:HIS:ND1	35:DI:134:PRO:HD3	2.25	0.52
1:AA:1340:A:O2'	1:AA:1341:U:H5'	2.10	0.52
2:AB:69:LEU:HD12	2:AB:69:LEU:C	2.30	0.52
1:AA:532:A:H3'	1:AA:533:A:H5''	1.89	0.52
34:DH:138:LYS:O	34:DH:141:VAL:HB	2.10	0.52
16:AP:58:TYR:CD1	16:AP:58:TYR:C	2.83	0.52
1:CA:189(F):U:H5	17:CQ:3:LYS:HZ3	1.58	0.52
30:BD:44:ASN:ND2	30:BD:47:GLY:O	2.41	0.52
27:BA:2784:C:C1'	31:BE:42:ASP:OD1	2.48	0.52
32:DF:39:TRP:O	32:DF:43:LYS:HG2	2.10	0.52
2:CB:165:VAL:HG23	2:CB:166:ASP:N	2.25	0.52
1:CA:742:G:OP1	15:CO:35:ARG:NH2	2.42	0.52
2:CB:95:GLN:O	2:CB:96:ARG:C	2.48	0.52
1:AA:375:U:H4'	16:AP:17:TYR:CE2	2.45	0.52
27:BA:1614:A:H62	45:BW:93:ALA:HB2	1.75	0.52
27:BA:382:G:H1	27:BA:392:C:H42	1.58	0.52
14:CN:7:ILE:HG13	14:CN:8:GLU:N	2.23	0.52
39:DQ:27:VAL:HG12	39:DQ:28:ALA:N	2.24	0.52
1:CA:645:C:H2'	1:CA:646:U:H6	1.74	0.52
29:BC:36:LYS:O	29:BC:37:PHE:C	2.48	0.52
1:CA:1504:G:H1'	1:CA:1505:G:OP2	2.09	0.52
27:DA:1378:A:C4'	27:DA:1379:A:OP1	2.55	0.52
57:B8:32:LEU:HB3	57:B8:36:LYS:CD	2.40	0.52
27:BA:2420:C:P	57:B8:33:ASN:O	2.68	0.52
1:AA:503:C:H2'	1:AA:504:C:C6	2.42	0.52
27:DA:333:G:C4	27:DA:334:C:C5	2.98	0.52
9:CI:4:TYR:HA	9:CI:88:TYR:CE1	2.45	0.52
51:B2:32:LEU:O	51:B2:35:LEU:HB2	2.10	0.52
57:B8:14:VAL:HG21	57:B8:22:VAL:CG1	2.40	0.52
10:CJ:48:THR:CG2	10:CJ:62:HIS:HB3	2.35	0.52
27:DA:1505:C:C5	27:DA:1506:C:H1'	2.45	0.52
27:DA:2848:G:H3'	42:DT:95:ARG:O	2.10	0.52
1:CA:838:G:N2	1:CA:840:C:H5'	2.24	0.52
19:CS:40:ILE:HB	19:CS:67:VAL:O	2.09	0.52
11:CK:110:ASP:O	18:CR:84:LYS:HG3	2.10	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:76:C:C2	27:BA:111:A:C2	2.98	0.52
19:AS:6:LYS:HG2	19:AS:7:LYS:HE3	1.92	0.52
27:DA:2882:A:OP1	40:DR:96:ARG:HD3	2.10	0.52
1:AA:189(I):G:H2'	1:AA:189(J):G:H8	1.74	0.52
7:AG:27:ILE:O	7:AG:30:ILE:HG12	2.10	0.52
33:BG:123:ASN:O	33:BG:125:PHE:N	2.42	0.52
3:AC:47:LEU:HD21	3:AC:68:VAL:HG11	1.91	0.52
41:BS:38:GLN:HA	41:BS:50:SER:HA	1.92	0.52
1:AA:1088:G:O2'	1:AA:1089:G:H5'	2.10	0.52
34:BH:126:PRO:O	34:BH:127:GLU:CB	2.54	0.52
27:BA:323:G:H5'	32:BF:169:ASN:HD21	1.75	0.52
32:BF:53:THR:HG22	32:BF:55:GLY:H	1.75	0.52
10:CJ:82:ILE:HD13	10:CJ:85:LEU:HD12	1.90	0.52
1:CA:1474:G:H4'	27:DA:1701:A:N3	2.25	0.52
27:DA:1771:C:C2	27:DA:1772:G:C8	2.97	0.52
1:AA:1028:C:C2'	1:AA:1029:C:H5'	2.40	0.52
27:BA:671:C:C6	27:BA:671:C:H5'	2.44	0.52
27:DA:1374:G:H2'	27:DA:1375:C:H6	1.74	0.52
53:D4:48:ILE:HD12	53:D4:48:ILE:N	2.24	0.52
1:AA:324:G:H21	1:AA:327:A:H8	1.56	0.52
19:CS:18:LYS:O	19:CS:22:LEU:HD23	2.10	0.52
35:BI:69:LYS:O	35:BI:73:GLU:HB3	2.10	0.52
34:BH:73:ALA:O	34:BH:76:VAL:HG23	2.09	0.52
31:DE:167:VAL:CG2	31:DE:170:LEU:HD11	2.40	0.52
58:B9:18:ARG:NH1	58:B9:21:GLY:HA2	2.24	0.52
27:BA:1828:G:H4'	27:BA:1829:A:OP1	2.10	0.52
11:CK:12:ARG:O	11:CK:13:GLN:HG3	2.10	0.52
45:BW:33:ARG:HG3	45:BW:33:ARG:HH11	1.74	0.52
34:BH:40:GLU:O	34:BH:41:MET:HB2	2.10	0.52
1:AA:41:G:O2'	1:AA:42:G:H5'	2.10	0.52
36:BN:18:ALA:HB1	36:BN:21:LYS:HB3	1.92	0.52
2:CB:224:GLN:HG2	2:CB:229:VAL:HG22	1.92	0.52
1:AA:33:A:H2'	1:AA:34:C:C6	2.45	0.52
48:DZ:74:ASN:O	48:DZ:83:GLU:HB2	2.10	0.52
38:BP:63:PRO:O	38:BP:64:LYS:C	2.48	0.51
1:CA:1226:C:C5	13:CM:104:ARG:CA	2.90	0.51
27:BA:1279:G:N2	27:BA:1292:U:C2	2.78	0.51
32:BF:123:LEU:CD1	32:BF:124:LEU:N	2.71	0.51
1:AA:909:A:H2'	1:AA:910:C:C5'	2.40	0.51
1:CA:428:G:O2'	1:CA:429:U:P	2.68	0.51
47:BY:47:LYS:N	47:BY:47:LYS:HD2	2.25	0.51
31:BE:57:LYS:HB3	31:BE:57:LYS:NZ	2.23	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:CP:81:ARG:HG2	16:CP:83:GLU:OE2	2.10	0.51
27:BA:534:U:H2'	27:BA:535:C:H6	1.75	0.51
44:BV:57:VAL:O	44:BV:57:VAL:CG1	2.59	0.51
1:CA:552:U:H4'	12:CL:83:ARG:CG	2.40	0.51
41:DS:26:LEU:HD12	41:DS:85:VAL:HG21	1.92	0.51
27:DA:870:A:P	39:DQ:6:ARG:HH21	2.32	0.51
7:CG:113:GLU:HB2	7:CG:119:ARG:CG	2.21	0.51
38:DP:144:GLU:O	38:DP:146:VAL:N	2.44	0.51
38:DP:96:THR:O	38:DP:99:LEU:HB3	2.10	0.51
27:DA:1993:U:C5'	31:DE:128:SER:HB3	2.40	0.51
27:DA:2061:G:H5''	27:DA:2503:A:N1	2.26	0.51
27:DA:2582:G:O2'	27:DA:2583:G:H5'	2.08	0.51
27:DA:747:U:H6	27:DA:747:U:O5'	1.92	0.51
27:BA:1140:C:P	36:BN:66:LYS:HZ1	2.32	0.51
30:BD:35:LYS:NZ	30:BD:103:ARG:N	2.58	0.51
20:CT:104:LEU:HD23	20:CT:105:SER:H	1.75	0.51
1:AA:1363:C:H5'	1:AA:1363(A):A:O5'	2.10	0.51
12:CL:82:ILE:HG21	12:CL:95:TYR:HD2	1.75	0.51
42:DT:28:VAL:CG1	42:DT:46:GLU:HG3	2.39	0.51
30:BD:44:ASN:N	30:BD:44:ASN:OD1	2.43	0.51
31:BE:4:ILE:HG12	31:BE:28:ALA:HB1	1.93	0.51
12:CL:107:VAL:HG11	12:CL:110:ARG:HB2	1.91	0.51
1:CA:1310:G:H5''	13:CM:77:ASN:HD21	1.75	0.51
12:AL:56:ARG:HA	12:AL:62:GLU:HG3	1.93	0.51
27:BA:2576:G:H5'	27:BA:2579:C:H41	1.75	0.51
39:DQ:133:ARG:HH11	39:DQ:133:ARG:HG3	1.75	0.51
27:DA:1267:U:HO2'	27:DA:1268:A:H8	0.69	0.51
13:AM:66:LEU:O	13:AM:69:GLU:O	2.28	0.51
27:DA:2887:U:O2'	27:DA:2888:C:H5'	2.09	0.51
5:CE:10:MET:HB2	5:CE:32:VAL:CG2	2.40	0.51
40:DR:96:ARG:O	40:DR:114:VAL:HA	2.10	0.51
26:AZ:4:SER:H	27:BA:1913:A:HO2'	1.58	0.51
54:D5:25:LEU:HD22	54:D5:26:THR:H	1.70	0.51
45:DW:69:LEU:O	45:DW:110:LYS:NZ	2.42	0.51
1:AA:495:A:C4'	1:AA:496:A:H5''	2.35	0.51
50:D1:82:LEU:C	50:D1:83:GLU:CD	2.68	0.51
1:AA:1066:C:O2'	1:AA:1067:A:H5'	2.11	0.51
27:DA:2328:A:H2'	27:DA:2329:G:O4'	2.10	0.51
1:CA:57:G:H2'	1:CA:58:C:H6	1.69	0.51
42:BT:6:LEU:O	42:BT:10:VAL:HG23	2.10	0.51
48:DZ:143:LEU:O	48:DZ:173:VAL:HG21	2.10	0.51
54:B5:47:PRO:O	54:B5:48:GLU:HG3	2.10	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:929:G:N2	1:CA:1389:C:C2	2.78	0.51
27:DA:290:G:O2'	27:DA:291:C:H5'	2.10	0.51
23:CW:23:G:H2'	23:CW:24:C:C6	2.45	0.51
24:CX:28:C:N4	24:CX:42:G:H1	2.08	0.51
27:BA:1615:C:C6	27:BA:1617:C:C5	2.99	0.51
9:CI:93:ARG:C	9:CI:95:LYS:H	2.13	0.51
33:DG:6:ALA:HB3	33:DG:104:GLU:OE1	2.10	0.51
9:AI:21:PRO:HA	9:AI:59:PHE:HA	1.92	0.51
3:CC:188:LEU:O	3:CC:189:ALA:CB	2.57	0.51
2:CB:109:SER:HA	2:CB:112:VAL:HG23	1.92	0.51
39:BQ:5:ARG:O	39:BQ:6:ARG:HB2	2.08	0.51
48:BZ:73:VAL:HG22	48:BZ:85:VAL:HG12	1.92	0.51
48:DZ:76:ASP:HB2	48:DZ:83:GLU:HG2	1.92	0.51
27:DA:614(A):U:H4'	27:DA:614(B):G:O5'	2.10	0.51
27:BA:431:U:O5'	27:BA:431:U:H6	1.92	0.51
46:BX:41:ASN:O	46:BX:45:THR:HG23	2.11	0.51
4:CD:6:GLY:O	4:CD:7:PRO:C	2.48	0.51
13:CM:105:THR:O	13:CM:106:ASN:HB2	2.10	0.51
27:BA:665:C:O2'	27:BA:666:G:H5'	2.09	0.51
31:BE:7:VAL:HG23	31:BE:8:LYS:O	2.09	0.51
30:DD:233:HIS:CE1	30:DD:246:PRO:HA	2.44	0.51
4:CD:11:LEU:HD23	4:CD:11:LEU:N	2.24	0.51
4:CD:198:VAL:CG1	4:CD:199:ASN:H	2.21	0.51
4:CD:94:LEU:HA	4:CD:97:LEU:HD12	1.92	0.51
1:CA:1346:A:N6	1:CA:1374:A:H3'	2.17	0.51
44:BV:17:GLY:HA2	44:BV:96:ILE:HB	1.93	0.51
1:AA:267:C:P	17:AQ:67:LYS:HB2	2.50	0.51
27:BA:284:U:O2'	27:BA:285:C:H5'	2.10	0.51
41:BS:66:ALA:O	41:BS:69:VAL:HG12	2.11	0.51
30:BD:24:ILE:O	30:BD:26:LYS:CE	2.58	0.51
27:DA:84:A:OP2	47:DY:9:LYS:NZ	2.44	0.51
27:DA:919:G:H4'	28:DB:81:G:H4'	1.92	0.51
27:DA:2632:A:H2	31:DE:61:ARG:HD3	1.74	0.51
27:DA:2553:G:C6	27:DA:2554:U:O2	2.64	0.51
20:AT:63:ILE:HG22	20:AT:77:ALA:HB1	1.92	0.51
36:BN:62:VAL:HG22	36:BN:63:THR:N	2.25	0.51
1:CA:197:A:H1'	1:CA:198:G:O4'	2.10	0.51
1:AA:1053:G:HO2'	1:AA:1199:U:H5	1.58	0.51
1:AA:1319:A:OP1	19:AS:10:PHE:CZ	2.64	0.51
10:AJ:50:ILE:CD1	10:AJ:60:ARG:HD3	2.40	0.51
37:DO:107:ARG:HG3	37:DO:112:MET:SD	2.50	0.51
12:CL:15:VAL:CG2	12:CL:16:ARG:H	2.05	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:684:G:C2	27:BA:774:A:C2	2.97	0.51
32:DF:37:VAL:HG12	32:DF:41:LEU:HD12	1.91	0.51
27:BA:1339:G:OP1	46:BX:14:SER:CB	2.57	0.51
37:BO:8:LEU:HD12	37:BO:82:ASN:HB3	1.90	0.51
3:CC:87:LEU:C	3:CC:89:GLU:N	2.62	0.51
1:CA:532:A:O2'	1:CA:533:A:C5'	2.59	0.51
42:BT:108:ARG:HA	42:BT:111:ARG:HD3	1.92	0.51
1:CA:1307:U:C2'	1:CA:1308:U:H6	2.23	0.51
46:DX:65:ARG:HB2	46:DX:70:LEU:HG	1.91	0.51
29:DC:68:LEU:HD11	29:DC:179:SER:CA	2.39	0.51
27:DA:1314:C:H2'	27:DA:1315:C:H6	1.76	0.51
27:DA:1625:C:H2'	27:DA:1626:G:C5'	2.39	0.51
35:BI:132:PRO:HD2	35:BI:133:HIS:HD2	1.72	0.51
1:AA:441:A:H3'	1:AA:442:C:C6	2.38	0.51
27:DA:857:C:H5'	49:D0:77:ARG:NH1	2.21	0.51
3:AC:201:TYR:O	3:AC:202:ILE:HD13	2.10	0.51
27:DA:593:G:O2'	27:DA:594:U:H5'	2.10	0.51
33:DG:150:ASP:OD1	33:DG:153:ARG:NH2	2.42	0.51
5:CE:106:PRO:O	5:CE:110:LEU:HG	2.10	0.51
5:CE:78:HIS:C	5:CE:93:PRO:HD3	2.29	0.51
40:DR:100:LEU:CD2	40:DR:113:LEU:HB2	2.39	0.51
27:BA:1202:C:C2	27:BA:1244:G:N2	2.78	0.51
1:CA:477:A:C2'	1:CA:479:C:H5'	2.41	0.51
27:BA:1442:G:C2	27:BA:1550:C:O2	2.63	0.51
27:BA:271(B):C:C2'	27:BA:271(C):C:H5'	2.40	0.51
1:AA:1291:G:H4'	9:AI:38:GLN:O	2.10	0.51
1:CA:1280:A:C5'	10:CJ:40:LEU:HD12	2.38	0.51
32:BF:168:ARG:HG2	32:BF:175:THR:HG21	1.90	0.51
27:DA:557:U:O2'	27:DA:558:G:H5'	2.09	0.51
5:AE:79:GLU:HA	5:AE:91:LEU:O	2.10	0.51
13:CM:36:LYS:NZ	13:CM:59:TYR:HE1	2.05	0.51
47:DY:43:ASN:O	47:DY:44:ILE:O	2.28	0.51
3:CC:119:ARG:HH11	3:CC:119:ARG:HG3	1.75	0.51
27:BA:2243:U:O2'	27:BA:2244:U:H5'	2.11	0.51
27:DA:2145:C:H4'	27:DA:2146:C:OP2	2.10	0.51
9:AI:106:ALA:O	9:AI:107:ARG:C	2.48	0.51
35:BI:136:VAL:O	35:BI:138:ILE:HG12	2.10	0.51
39:BQ:81:VAL:HG23	39:BQ:82:ARG:N	2.24	0.51
4:CD:49:ARG:HD3	4:CD:50:ARG:H	1.74	0.51
3:AC:142:MET:HE1	3:AC:171:GLY:HA3	1.91	0.51
27:DA:2033:A:C5	27:DA:2036:C:C4	2.97	0.51
1:AA:1154:G:O2'	1:AA:1155:G:O4'	2.27	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:161:A:H2'	1:AA:162:A:O4'	2.10	0.51
27:BA:1385:G:O2'	27:BA:1386:C:H6	1.92	0.51
13:AM:28:ALA:O	13:AM:32:GLU:N	2.43	0.51
27:BA:887:A:O2'	27:BA:888:C:H5''	2.10	0.51
7:CG:123:GLU:O	7:CG:127:ALA:HB2	2.11	0.51
52:D3:39:ASP:CG	52:D3:44:ARG:HE	2.13	0.51
51:B2:14:ARG:NH1	51:B2:14:ARG:HG3	2.25	0.51
21:AU:5:ASP:O	21:AU:11:GLY:HA3	2.10	0.51
27:BA:2569:G:O2'	27:BA:2570:G:H5'	2.10	0.51
1:AA:1007:C:H2'	1:AA:1008:C:C6	2.45	0.51
27:DA:360:G:O2'	27:DA:361:G:H5'	2.09	0.51
27:BA:1328:G:H2'	27:BA:1330:C:C4	2.45	0.51
27:DA:567:A:H2'	27:DA:568:U:O5'	2.10	0.51
27:DA:668:G:C4	27:DA:670:A:C5	2.99	0.51
27:BA:2192:G:H2'	27:BA:2193:G:H5'	1.91	0.51
27:BA:244:A:C2	27:BA:255:A:C4	2.99	0.51
47:BY:7:VAL:HG21	47:BY:8:LYS:HZ3	1.74	0.51
34:BH:85:LYS:HE2	34:BH:145:ALA:CA	2.40	0.51
34:BH:142:GLY:O	34:BH:145:ALA:HB3	2.09	0.51
27:BA:662:G:H5'	38:BP:17:LYS:O	2.11	0.51
31:BE:75:VAL:CG1	31:BE:76:ARG:H	2.21	0.51
1:CA:473:G:H5''	16:CP:81:ARG:NH2	2.25	0.51
44:DV:49:THR:HG22	44:DV:50:PRO:CD	2.38	0.51
30:DD:131:LEU:HA	30:DD:190:TYR:CE2	2.46	0.51
30:DD:210:GLY:C	30:DD:212:SER:H	2.13	0.51
30:BD:27:THR:HG21	30:BD:83:GLU:HA	1.92	0.51
33:BG:57:ALA:HA	33:BG:90:LEU:HD11	1.93	0.51
27:DA:2367:G:H2'	27:DA:2368:C:H6	1.74	0.51
27:DA:2023:G:O2'	27:DA:2024:G:H8	1.92	0.51
27:DA:2507:C:C2	27:DA:2508:G:C8	2.99	0.51
27:DA:940:G:C2'	27:DA:941:A:H5''	2.40	0.51
31:DE:116:VAL:O	31:DE:116:VAL:HG22	2.09	0.51
32:DF:65:TRP:CH2	32:DF:75:HIS:CD2	2.98	0.51
1:CA:1297:C:H1'	1:CA:1298:C:H5	1.74	0.51
34:BH:44:VAL:O	34:BH:46:GLU:N	2.42	0.51
12:CL:25:LYS:O	12:CL:27:ALA:N	2.43	0.51
37:DO:104:ARG:HH22	42:DT:43:GLN:HE22	1.58	0.51
37:DO:105:GLU:N	37:DO:105:GLU:OE1	2.43	0.51
1:AA:228:A:H2'	1:AA:229:U:O4'	2.11	0.51
12:CL:15:VAL:O	12:CL:16:ARG:CB	2.58	0.51
17:CQ:7:THR:CG2	17:CQ:58:GLU:HG2	2.40	0.51
1:CA:565:U:H2'	1:CA:566:G:H8	1.74	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:42:ILE:HD11	2:CB:202:PRO:HB2	1.92	0.51
2:CB:17:PHE:HB2	2:CB:42:ILE:HG22	1.92	0.51
23:CW:42:G:O5'	23:CW:42:G:H8	1.92	0.51
27:BA:422:A:H2'	27:BA:423:A:C8	2.45	0.51
1:CA:538:G:C5'	12:CL:111:LYS:HD3	2.40	0.51
27:BA:2507:C:O2'	27:BA:2508:G:H5'	2.09	0.51
51:B2:33:MET:O	51:B2:35:LEU:N	2.43	0.51
48:BZ:101:LEU:HB2	48:BZ:121:ARG:O	2.10	0.51
35:DI:81:VAL:HG12	35:DI:82:ARG:N	2.24	0.51
5:CE:45:PHE:CG	5:CE:47:LYS:HE3	2.45	0.51
2:CB:97:TRP:CZ3	2:CB:98:LEU:O	2.63	0.51
27:BA:927:G:H5'	27:BA:928:G:OP2	2.09	0.51
37:DO:66:LYS:HD2	37:DO:78:ARG:HG3	1.91	0.51
25:CY:48:C:O2'	25:CY:49:G:H8	1.93	0.51
27:BA:2099:U:H3	27:BA:2190:G:H1	1.58	0.51
1:AA:817:C:H4'	1:AA:818:G:OP1	2.06	0.51
25:CY:59:U:O2'	25:CY:60:C:H5''	2.09	0.51
1:AA:1314:C:H5	19:AS:6:LYS:NZ	2.08	0.51
24:AX:74:C:C2'	24:AX:75:C:H5'	2.39	0.51
48:BZ:138:VAL:HG12	48:BZ:139:ASP:N	2.20	0.51
52:D3:8:LEU:HD12	52:D3:30:ARG:O	2.10	0.51
33:BG:166:ASP:O	33:BG:169:ALA:N	2.44	0.51
1:CA:885:G:H2'	1:CA:886:G:C8	2.37	0.51
27:BA:721:C:H2'	27:BA:722:A:C8	2.46	0.51
13:CM:53:VAL:HG12	13:CM:54:VAL:N	2.24	0.51
27:BA:2242:G:H2'	27:BA:2243:U:O4'	2.10	0.51
27:DA:292:C:H2'	27:DA:293:U:H5'	1.92	0.51
1:AA:1033:G:C2'	1:AA:1034:G:H5'	2.40	0.51
27:BA:1449:A:H5'	27:BA:1450:G:OP2	2.09	0.51
1:CA:556:C:H2'	1:CA:557:G:C8	2.42	0.51
48:DZ:12:GLU:O	48:DZ:17:LEU:HD13	2.10	0.51
43:BU:52:ARG:HB3	43:BU:52:ARG:CZ	2.39	0.51
54:B5:34:PRO:C	54:B5:36:CYS:H	2.13	0.51
27:BA:1829:A:H2'	27:BA:1830:C:H5'	1.92	0.51
27:DA:1936:A:C8	27:DA:1940:U:O2	2.64	0.51
42:DT:134:GLU:O	42:DT:135:ALA:HB3	2.10	0.51
27:DA:483:A:H1'	47:DY:60:PHE:HZ	1.75	0.51
27:DA:845:G:C8	27:DA:845:G:H5''	2.46	0.51
1:AA:646:U:O2'	1:AA:647:C:H5'	2.11	0.51
35:BI:46:ALA:O	35:BI:49:ALA:HB3	2.10	0.51
35:DI:15:VAL:HG23	35:DI:16:GLY:N	2.24	0.51
27:BA:851:U:O2'	52:B3:45:GLY:HA3	2.10	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DB:2:C:H2'	28:DB:3:C:C6	2.45	0.51
27:BA:408:G:O2'	27:BA:409:C:H5'	2.10	0.51
31:DE:175:VAL:HG23	31:DE:177:PRO:HD3	1.91	0.51
27:BA:2362:G:H2'	27:BA:2363:C:H5'	1.92	0.51
27:BA:2008:C:O2'	27:BA:2009:G:H5'	2.10	0.51
57:B8:7:HIS:CE1	57:B8:9:GLY:HA3	2.45	0.51
14:CN:41:ARG:O	14:CN:44:LEU:HB3	2.10	0.51
19:CS:32:LYS:CE	19:CS:32:LYS:H	2.17	0.51
40:BR:41:ALA:O	40:BR:43:GLU:N	2.43	0.51
27:DA:1833:U:H2'	27:DA:1834:U:C6	2.45	0.51
43:BU:61:TRP:O	43:BU:64:ARG:N	2.43	0.51
44:DV:19:LYS:HZ1	44:DV:22:VAL:HG13	1.75	0.51
30:BD:24:ILE:O	30:BD:25:THR:O	2.28	0.51
27:DA:2811:G:C1'	31:DE:61:ARG:HH21	2.23	0.51
55:D6:15:GLU:HB3	55:D6:18:ARG:CG	2.40	0.51
38:DP:84:ASN:C	38:DP:86:LYS:H	2.12	0.51
45:DW:88:ARG:HB2	45:DW:92:ARG:CB	2.39	0.51
55:B6:48:VAL:O	55:B6:49:HIS:CB	2.58	0.51
46:DX:59:VAL:HG21	46:DX:78:LYS:HD2	1.92	0.51
47:BY:27:VAL:HA	47:BY:28:LYS:HZ1	1.67	0.51
1:AA:981:U:O4	1:AA:1222:G:O6	2.28	0.51
3:AC:155:GLY:O	3:AC:156:ARG:HB2	2.10	0.51
12:CL:56:ARG:HG3	12:CL:61:TYR:O	2.10	0.51
27:BA:1811:G:H2'	27:BA:1812:A:H8	1.76	0.51
27:BA:2586:C:H5'	27:BA:2586:C:H6	1.75	0.51
1:AA:102:G:O2'	1:AA:103:C:H5'	2.10	0.51
2:CB:200:ILE:HG22	2:CB:201:ILE:N	2.26	0.51
27:BA:1996:C:H1'	27:BA:1997:G:O4'	2.10	0.51
34:BH:157:TYR:O	34:BH:158:HIS:CD2	2.62	0.51
39:DQ:2:LEU:O	39:DQ:70:PRO:HG2	2.10	0.51
27:DA:1340:U:O2'	27:DA:1602:U:H2'	2.11	0.51
1:AA:36:C:H4'	12:AL:119:THR:O	2.10	0.51
3:AC:201:TYR:CD1	3:AC:201:TYR:N	2.79	0.51
38:BP:24:GLY:O	38:BP:25:SER:CB	2.55	0.51
1:AA:1173:G:H2'	1:AA:1174:G:H8	1.76	0.51
51:B2:6:VAL:HG13	51:B2:59:ARG:HH11	1.74	0.51
27:BA:764:A:C6	30:BD:209:ALA:HB1	2.45	0.51
5:CE:15:ARG:HG3	5:CE:28:PHE:HE2	1.69	0.51
27:BA:271(T):C:C2	27:BA:271(U):G:C8	2.98	0.51
1:AA:631:G:C5'	1:AA:632:A:OP1	2.54	0.51
27:DA:1320:C:H5''	27:DA:1321:A:OP1	2.11	0.51
24:AX:3:C:O2	24:AX:3:C:H2'	2.09	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:321:G:C2	32:DF:165:ARG:CZ	2.93	0.51
27:BA:380:U:O2	27:BA:381:G:C8	2.63	0.51
1:CA:815:A:O2'	1:CA:1527:C:C1'	2.59	0.51
1:AA:275:G:C2'	1:AA:276:G:H5'	2.41	0.51
33:BG:28:VAL:O	33:BG:31:VAL:CG1	2.58	0.51
27:BA:2048:G:H5'	27:BA:2048:G:C8	2.37	0.51
1:AA:182:U:C6	1:AA:182:U:H5'	2.44	0.51
28:DB:16:G:H1	28:DB:68:C:N4	2.05	0.51
16:CP:22:THR:HB	16:CP:32:TYR:HA	1.93	0.51
9:AI:112:LYS:HA	9:AI:119:ALA:N	2.25	0.51
27:BA:516:C:O2'	27:BA:517:C:H5'	2.11	0.51
4:AD:123:HIS:O	4:AD:125:HIS:CG	2.63	0.51
27:DA:2283:C:H2'	27:DA:2284:C:C5'	2.39	0.51
5:CE:94:ALA:HB1	5:CE:98:THR:CB	2.41	0.51
46:DX:63:LYS:HE3	46:DX:72:LYS:HG3	1.91	0.51
1:CA:1030:C:C3'	1:CA:1030(A):G:H5'	2.40	0.51
27:DA:708:C:H42	27:DA:723:G:H1	1.58	0.51
24:AX:63:G:H2'	24:AX:63:G:N3	2.25	0.51
9:CI:89:ASN:HB3	9:CI:92:TYR:HD1	1.71	0.51
1:AA:994:A:N7	1:AA:1216:G:H4'	2.25	0.51
3:AC:164:ARG:O	3:AC:165:THR:CB	2.59	0.51
3:CC:188:LEU:O	3:CC:189:ALA:HB3	2.11	0.51
30:DD:45:ASN:HB2	30:DD:46:GLN:OE1	2.11	0.51
27:BA:414:C:H5'	27:BA:415:A:OP2	2.11	0.51
1:AA:505:G:H2'	1:AA:506:G:C8	2.45	0.51
48:BZ:6:ALA:O	48:BZ:61:PRO:HD3	2.10	0.51
29:BC:22:ILE:O	29:BC:22:ILE:HG22	2.10	0.51
1:AA:950:U:H2'	1:AA:951:G:C8	2.44	0.51
1:CA:44:G:H2'	1:CA:45:U:O4'	2.11	0.51
28:BB:101:G:H2'	28:BB:102:A:O4'	2.10	0.51
48:BZ:95:VAL:HG12	48:BZ:96:GLU:N	2.26	0.51
27:DA:284:U:O2'	27:DA:285:C:H6	1.92	0.51
13:AM:64:TRP:CD1	13:AM:64:TRP:N	2.77	0.51
27:BA:2817:G:H21	27:BA:2836:U:C1'	2.24	0.51
28:BB:43:C:H3'	28:BB:44:G:H5'	1.92	0.51
28:BB:47:C:O2'	41:BS:93:LYS:HG2	2.11	0.51
34:BH:85:LYS:HZ2	34:BH:133:VAL:CG2	2.23	0.51
27:DA:252:G:H2'	27:DA:253:C:H6	1.75	0.51
44:BV:19:LYS:HB2	44:BV:96:ILE:HG12	1.91	0.51
47:DY:95:LYS:HG2	47:DY:100:ALA:HA	1.93	0.51
30:DD:25:THR:O	30:DD:26:LYS:C	2.49	0.51
51:D2:2:LYS:N	51:D2:5:GLU:OE1	2.43	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2402:C:H2'	27:DA:2403:C:O5'	2.11	0.51
38:DP:101:VAL:C	38:DP:103:ALA:H	2.13	0.51
27:DA:2500:U:C2'	27:DA:2504:U:H5	2.24	0.51
20:AT:78:ALA:HA	20:AT:81:LYS:HD3	1.92	0.51
47:DY:20:TYR:CZ	47:DY:42:VAL:HA	2.46	0.51
1:CA:224:C:O2'	1:CA:225:C:H5'	2.11	0.51
12:CL:24:LEU:HD13	12:CL:24:LEU:N	2.25	0.51
58:D9:17:ILE:CG2	58:D9:19:ARG:HG2	2.39	0.51
27:DA:2751:G:H3'	27:DA:2752:C:H5	1.74	0.51
30:BD:238:GLY:O	30:BD:239:ARG:HB3	2.10	0.51
31:BE:36:ARG:HH22	31:BE:88:GLY:CA	2.19	0.51
31:BE:86:PRO:C	31:BE:88:GLY:N	2.64	0.51
1:CA:992:U:H4'	1:CA:993:G:C5'	2.39	0.51
1:AA:477:A:O2'	1:AA:479:C:H5'	2.10	0.51
40:BR:79:LEU:HA	40:BR:83:ILE:HB	1.92	0.51
3:CC:72:LYS:N	3:CC:73:PRO:CD	2.73	0.51
15:CO:79:ARG:HA	15:CO:82:ILE:CG2	2.41	0.51
27:BA:2271:G:C5	27:BA:2272:U:C5	2.97	0.51
19:CS:6:LYS:HE3	19:CS:6:LYS:N	2.25	0.51
27:BA:2159:G:O2'	27:BA:2160:G:O5'	2.28	0.51
29:BC:36:LYS:HB2	29:BC:36:LYS:NZ	2.24	0.51
24:CX:17:C:H5''	24:CX:17(B):U:H2'	1.92	0.51
1:CA:1398:A:C5'	1:CA:1398:A:C8	2.92	0.51
27:BA:2013:A:H4'	45:BW:96:ILE:HD12	1.91	0.51
1:AA:494:U:O5'	1:AA:494:U:H6	1.94	0.51
2:CB:14:GLY:C	2:CB:15:VAL:HG22	2.31	0.51
27:BA:68:G:N2	27:BA:74:A:O4'	2.43	0.51
20:AT:73:HIS:CG	20:AT:74:LYS:H	2.29	0.51
29:DC:78:ALA:CB	29:DC:82:LYS:HD2	2.40	0.51
34:DH:93:GLY:C	34:DH:94:TYR:HD1	2.14	0.51
1:CA:1026:G:H5'	1:CA:1027:C:OP2	2.11	0.51
37:DO:40:VAL:HG12	37:DO:41:ALA:N	2.26	0.51
1:CA:841:U:H3'	1:CA:848:C:O4'	2.10	0.51
16:CP:58:TYR:C	16:CP:60:LEU:H	2.13	0.51
15:AO:62:GLN:HE21	15:AO:66:LEU:HD13	1.76	0.51
27:BA:628:G:H2'	27:BA:629:G:C8	2.46	0.51
48:BZ:9:ARG:NH2	48:BZ:25:GLY:O	2.44	0.51
38:BP:8:PRO:O	38:BP:9:ASN:HB3	2.10	0.51
27:BA:142(A):C:C2'	27:BA:143:G:H5'	2.40	0.51
3:AC:152:ILE:HG22	3:AC:153:VAL:N	2.25	0.51
1:CA:1095:U:N3	1:CA:1096:C:C4	2.78	0.51
3:CC:23:TYR:CG	3:CC:24:ALA:N	2.78	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AM:104:ARG:CG	13:AM:105:THR:N	2.71	0.51
27:DA:2197:U:O2'	27:DA:2198:A:P	2.68	0.51
34:BH:89:ILE:HG12	34:BH:129:THR:HA	1.91	0.51
10:CJ:82:ILE:HA	10:CJ:85:LEU:HD12	1.92	0.51
31:BE:9:VAL:CG1	31:BE:25:VAL:HG12	2.38	0.51
20:AT:90:GLN:O	20:AT:91:LEU:HD23	2.11	0.51
36:BN:17:ASP:HB2	36:BN:55:VAL:HG12	1.89	0.51
36:BN:55:VAL:HG22	36:BN:56:ASN:N	2.26	0.51
39:DQ:110:THR:CG2	39:DQ:113:GLN:HB2	2.40	0.51
42:BT:129:ARG:NH1	42:BT:131:ALA:N	2.58	0.51
27:BA:188:G:C2'	27:BA:189:G:H5'	2.40	0.51
27:DA:1814:G:H2'	27:DA:1815:A:C8	2.45	0.51
43:BU:66:ASN:CB	43:BU:76:TYR:HB2	2.40	0.51
4:AD:178:VAL:C	4:AD:180:GLY:N	2.63	0.51
41:DS:22:GLY:O	41:DS:23:ARG:O	2.27	0.51
1:CA:1445:C:H2'	1:CA:1446:U:C5'	2.40	0.51
30:BD:197:GLY:O	30:BD:198:ASN:CB	2.58	0.51
27:DA:2721:A:H2'	27:DA:2722:G:O4'	2.10	0.51
6:CF:6:VAL:HG22	6:CF:90:VAL:CG1	2.40	0.51
1:CA:1368:G:H5''	9:CI:112:LYS:HG2	1.92	0.51
1:CA:1441:G:H5''	1:CA:1442:G:O4'	2.11	0.51
27:DA:1435:G:H2'	27:DA:1436:G:O4'	2.09	0.51
3:CC:142:MET:C	3:CC:144:SER:H	2.14	0.51
27:BA:377:C:H2'	27:BA:378:C:C6	2.45	0.51
27:BA:2208:A:H1'	27:BA:2219:G:C4	2.46	0.51
3:CC:6:HIS:O	3:CC:8:ILE:N	2.43	0.51
35:DI:73:GLU:OE2	35:DI:137:PRO:HD2	2.11	0.51
41:DS:36:TYR:N	41:DS:36:TYR:CD1	2.78	0.51
54:B5:37:LYS:HG3	54:B5:38:ALA:N	2.26	0.51
7:CG:24:THR:C	7:CG:28:ASN:HD22	2.14	0.51
38:BP:63:PRO:O	38:BP:65:ARG:N	2.44	0.51
1:CA:1014:A:H2'	1:CA:1015:A:N9	2.25	0.51
1:CA:985:C:O2'	1:CA:986:A:C8	2.59	0.51
41:BS:96:GLY:O	41:BS:98:VAL:HG12	2.10	0.51
47:BY:7:VAL:CB	47:BY:8:LYS:NZ	2.72	0.51
1:CA:1101:A:C4'	1:CA:1102:A:O5'	2.35	0.51
27:DA:1932:A:C2'	27:DA:1933:G:H5'	2.41	0.51
27:DA:1935:G:C6	27:DA:1962:C:C6	2.99	0.51
1:CA:502:G:OP1	12:CL:115:SER:N	2.44	0.51
53:B4:40:ILE:N	53:B4:40:ILE:HD12	2.26	0.51
27:BA:481:G:C1'	27:BA:506:G:N2	2.72	0.51
1:AA:865:A:H5'	1:AA:1078:U:C4	2.45	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AE:127:ASN:O	5:AE:131:ILE:HG12	2.11	0.51
27:BA:536:A:H2'	27:BA:537:C:H6	1.73	0.51
27:DA:536:A:OP1	43:DU:53:ARG:NH1	2.44	0.51
43:DU:49:HIS:CA	43:DU:52:ARG:HB2	2.33	0.51
31:DE:52:LEU:HD23	31:DE:76:ARG:HB2	1.92	0.51
27:DA:2258:C:C4'	27:DA:2259:G:OP2	2.57	0.51
27:DA:2580:U:H5'	27:DA:2581:G:OP2	2.10	0.51
1:AA:1203:C:H2'	1:AA:1204:A:C8	2.43	0.51
9:AI:120:ARG:O	9:AI:121:ARG:C	2.48	0.51
49:B0:45:PHE:CZ	49:B0:77:ARG:NH2	2.79	0.51
1:AA:1305:G:N2	1:AA:1331:G:C2'	2.68	0.51
1:CA:1492:A:H5'	26:CZ:6:5OH:CB	2.40	0.51
31:BE:81:ILE:HG21	31:BE:84:PHE:CD1	2.45	0.51
2:AB:110:GLN:HA	2:AB:113:HIS:HB2	1.92	0.51
1:CA:237:C:O2'	1:CA:238:G:H5'	2.10	0.51
1:CA:607:A:H2'	1:CA:608:A:H5'	1.93	0.51
39:BQ:41:TRP:C	39:BQ:42:ILE:HD12	2.31	0.51
27:BA:1659:U:O2'	27:BA:1660:C:H5'	2.11	0.51
27:BA:744:G:C6	27:BA:745:G:C4	2.98	0.51
1:CA:741:G:H2'	1:CA:742:G:H8	1.75	0.51
1:CA:1161:C:H42	1:CA:1176:A:H61	1.59	0.51
30:BD:270:ILE:C	30:BD:271:ILE:HG12	2.30	0.51
6:AF:8:ILE:HG12	6:AF:88:VAL:HG22	1.93	0.51
34:DH:12:PRO:HG2	34:DH:49:VAL:CA	2.30	0.51
27:BA:2121:G:H21	29:BC:172:HIS:CB	2.23	0.51
27:BA:2164:C:H2'	27:BA:2165:G:O4'	2.10	0.51
1:CA:1505:G:H4'	1:CA:1506:U:H5'	1.93	0.51
27:DA:1339:G:N2	27:DA:1603:A:H1'	2.25	0.51
48:BZ:152:SER:CB	48:BZ:166:PRO:HB3	2.40	0.51
27:DA:1654:A:OP1	40:DR:3:HIS:HB2	2.09	0.51
1:AA:547:A:H5'	1:AA:548:G:OP1	2.11	0.51
27:BA:2305:A:N6	33:BG:43:LEU:H	2.06	0.51
51:B2:33:MET:C	51:B2:35:LEU:N	2.60	0.51
52:D3:49:LYS:HG2	52:D3:49:LYS:O	2.11	0.51
13:AM:83:ASP:C	13:AM:85:GLY:H	2.13	0.51
5:CE:47:LYS:O	5:CE:48:ALA:HB2	2.10	0.51
36:BN:53:VAL:O	36:BN:54:VAL:C	2.49	0.51
30:DD:176:ARG:HG2	30:DD:177:LEU:N	2.26	0.51
5:CE:79:GLU:HA	5:CE:91:LEU:O	2.10	0.51
3:AC:86:VAL:O	3:AC:90:GLU:HG2	2.11	0.51
47:BY:2:ARG:O	47:BY:4:LYS:N	2.44	0.51
2:AB:16:HIS:CD2	2:AB:210:SER:HA	2.46	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2656:U:HO2'	27:DA:2657:A:H8	1.59	0.51
33:BG:33:ARG:O	33:BG:161:THR:HG22	2.10	0.51
27:DA:1980:G:O2'	27:DA:1982:C:OP2	2.27	0.51
1:AA:1245:A:H61	1:AA:1292:U:H3	1.57	0.51
13:AM:91:ARG:HD3	19:AS:81:ARG:HH21	1.76	0.51
27:BA:438:G:H2'	27:BA:440:G:H8	1.76	0.51
4:CD:25:ARG:NH1	4:CD:30:LYS:O	2.44	0.51
10:CJ:87:THR:OG1	10:CJ:88:LEU:N	2.42	0.51
13:CM:12:ASN:OD1	13:CM:46:LYS:HE2	2.10	0.51
12:AL:10:LYS:HD2	12:AL:10:LYS:H	1.71	0.51
27:DA:1817:G:H2'	27:DA:1818:U:H5'	1.93	0.51
56:B7:37:LYS:HD3	56:B7:39:ARG:CD	2.40	0.51
1:AA:1371:G:O2'	1:AA:1372:U:H5'	2.11	0.51
35:DI:26:ALA:HB1	35:DI:31:LEU:CD1	2.41	0.51
1:CA:859:A:H2'	1:CA:860:A:C5'	2.40	0.51
1:CA:859:A:H2'	1:CA:860:A:H5'	1.91	0.51
27:DA:2672:G:C3'	27:DA:2673:G:H5''	2.41	0.51
7:CG:111:ARG:HB3	7:CG:111:ARG:NH1	2.25	0.51
36:BN:28:THR:HG23	36:BN:29:LYS:N	2.25	0.51
1:AA:1049:U:H4'	1:AA:1050:G:OP2	2.10	0.51
10:CJ:33:GLN:OE1	10:CJ:75:ILE:HD11	2.10	0.51
27:DA:272(G):C:N4	27:DA:363(C):G:H1	2.08	0.51
27:DA:76:C:H6	27:DA:76:C:O5'	1.93	0.51
48:BZ:44:ASP:O	48:BZ:45:LYS:C	2.49	0.51
13:CM:106:ASN:O	13:CM:107:ALA:HB3	2.10	0.51
1:CA:1440:C:O2	1:CA:1440:C:H2'	2.10	0.51
29:BC:56:GLN:NE2	29:BC:173:ALA:HB1	2.26	0.51
54:D5:57:VAL:HG23	54:D5:58:LEU:N	2.26	0.51
54:D5:8:LYS:O	54:D5:9:LYS:HG2	2.11	0.51
27:DA:363(D):G:H2'	27:DA:363(D):G:N3	2.26	0.51
34:DH:74:ASN:N	34:DH:74:ASN:HD22	2.09	0.51
27:DA:773:U:H4'	30:DD:47:GLY:HA3	1.93	0.51
40:DR:93:GLY:C	40:DR:95:THR:H	2.14	0.51
41:BS:96:GLY:O	41:BS:98:VAL:N	2.44	0.51
30:DD:11:PRO:O	30:DD:12:SER:C	2.49	0.51
4:CD:33:MET:HE1	4:CD:37:PRO:HA	1.93	0.51
4:CD:61:LYS:HZ2	4:CD:62:GLN:HE21	1.59	0.51
4:CD:80:GLU:HA	4:CD:80:GLU:OE2	2.10	0.51
43:BU:92:ARG:HH21	44:BV:11:GLN:N	2.07	0.51
43:DU:113:ALA:C	43:DU:115:ALA:H	2.13	0.51
43:DU:65:ILE:CD1	43:DU:96:ALA:CB	2.89	0.51
43:DU:69:CYS:HG	43:DU:79:PHE:HD1	1.58	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1433:U:O2	27:DA:1433:U:H2'	2.09	0.51
41:DS:85:VAL:O	41:DS:106:ARG:HG3	2.10	0.51
11:AK:34:ASP:HB2	11:AK:35:PRO:HD2	1.91	0.51
27:DA:630:G:N2	27:DA:633:A:OP2	2.44	0.51
27:DA:2061:G:N7	27:DA:2501:C:H1'	2.26	0.51
27:DA:966:G:H2'	27:DA:967:C:H6	1.75	0.51
27:DA:671:C:C5	38:DP:36:LYS:HE2	2.45	0.51
27:DA:2019:A:O3'	43:DU:27:LEU:HD12	2.11	0.51
36:BN:93:THR:CG2	36:BN:93:THR:O	2.56	0.51
27:BA:2481:G:O2'	27:BA:2482:G:OP2	2.28	0.51
27:DA:139:G:H2'	27:DA:139(A):G:H5''	1.92	0.51
46:DX:36:LYS:HG2	46:DX:56:THR:HG23	1.91	0.51
1:CA:63:C:O2'	1:CA:380:G:H4'	2.10	0.51
47:BY:37:VAL:O	47:BY:38:ILE:HG12	2.11	0.51
1:AA:1350:A:OP2	9:AI:118:LYS:HE3	2.11	0.51
8:AH:109:ILE:HD11	8:AH:120:THR:CG2	2.41	0.51
19:AS:19:VAL:HG11	19:AS:44:MET:HG3	1.93	0.51
27:BA:2070:G:N2	27:BA:2071:A:N3	2.59	0.51
27:BA:796:C:H2'	27:BA:797:C:C6	2.45	0.51
2:CB:74:LYS:HD3	2:CB:165:VAL:HG21	1.93	0.51
1:CA:896:C:C2'	1:CA:897:C:H5'	2.40	0.51
46:DX:12:VAL:O	46:DX:13:LEU:HB2	2.10	0.51
1:CA:992:U:C4'	1:CA:993:G:O5'	2.48	0.51
1:CA:229:U:O2'	1:CA:230:G:H5'	2.10	0.51
1:CA:969:A:H2'	1:CA:970:C:O4'	2.11	0.51
1:CA:1074:G:C1'	2:CB:104:ASN:HD22	2.24	0.51
14:CN:22:THR:OG1	14:CN:33:VAL:CG2	2.58	0.51
25:AY:62:U:H2'	25:AY:63:C:C6	2.46	0.51
27:BA:2172:U:C1'	27:BA:2173:A:OP1	2.52	0.51
27:BA:6:A:H2	27:BA:7:G:C4	2.28	0.51
27:BA:150:C:O2'	27:BA:151:C:H5'	2.11	0.51
49:B0:25:ARG:NH1	49:B0:25:ARG:HG2	2.25	0.51
27:DA:857:C:P	49:D0:77:ARG:NH2	2.83	0.51
27:DA:2306:C:H5	27:DA:2307:G:HO2'	1.56	0.51
33:DG:46:ALA:O	33:DG:82:LEU:HD11	2.09	0.51
13:AM:3:ARG:CZ	13:AM:7:VAL:HG13	2.40	0.51
27:DA:2318:G:O2'	27:DA:2319:G:OP1	2.26	0.51
34:DH:45:VAL:HG12	34:DH:45:VAL:O	2.11	0.51
1:AA:815:A:O2'	1:AA:816:A:P	2.69	0.51
7:CG:146:GLU:O	7:CG:149:ARG:HB2	2.10	0.51
12:CL:5:ASN:HA	12:CL:8:VAL:HG23	1.93	0.51
27:BA:2571:C:C5'	27:BA:2572:A:C5'	2.79	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:813:U:H2'	27:BA:814:C:C6	2.46	0.51
31:BE:69:LYS:O	31:BE:71:GLY:N	2.43	0.51
27:BA:15:G:H2'	27:BA:16:G:C8	2.44	0.51
12:AL:25:LYS:HB2	12:AL:30:ARG:NH1	2.20	0.51
1:CA:571:U:H3'	1:CA:572:A:C5'	2.40	0.51
52:D3:54:VAL:CG1	52:D3:55:ARG:N	2.73	0.51
48:BZ:71:ARG:HE	48:BZ:88:PHE:HD1	1.59	0.51
27:BA:598:G:H2'	27:BA:599:G:O4'	2.10	0.51
48:DZ:13:LYS:N	48:DZ:14:PRO:CD	2.74	0.51
43:BU:47:TYR:CE2	44:BV:74:LYS:NZ	2.79	0.51
27:BA:876:C:H2'	27:BA:877:U:H6	1.76	0.51
2:CB:142:LEU:CD1	2:CB:146:GLN:HB2	2.41	0.51
29:DC:52:ARG:NH2	29:DC:53:ARG:NH2	2.58	0.51
1:CA:1452:C:H1'	1:CA:1456:G:N2	2.25	0.51
27:DA:2314:C:H2'	27:DA:2315:G:C8	2.46	0.51
39:BQ:37:LEU:HD21	39:BQ:130:LYS:HB2	1.92	0.51
7:CG:48:LYS:O	7:CG:52:GLU:HB2	2.10	0.51
27:BA:229:A:C8	27:BA:229:A:OP1	2.64	0.51
28:BB:43:C:H3'	28:BB:44:G:C5'	2.40	0.51
32:BF:10:PRO:HA	32:BF:127:GLU:HB3	1.93	0.51
32:BF:186:ILE:HD13	32:BF:192:LEU:HD11	1.93	0.51
31:BE:167:VAL:CG1	31:BE:189:PRO:HD3	2.41	0.51
27:DA:194:G:N2	27:DA:251:A:C2	2.79	0.51
27:DA:1903:G:N2	27:DA:1904:G:C4	2.78	0.51
1:CA:1349:A:OP2	9:CI:118:LYS:NZ	2.43	0.51
1:AA:266:G:C8	1:AA:266:G:H5'	2.46	0.51
42:BT:112:ARG:O	42:BT:115:ARG:HG2	2.11	0.51
36:DN:2:LYS:NZ	44:DV:13:ARG:N	2.55	0.51
51:D2:5:GLU:O	51:D2:8:LYS:N	2.37	0.51
38:DP:112:LEU:C	38:DP:112:LEU:HD13	2.31	0.51
4:AD:64:LEU:HB2	4:AD:198:VAL:HG11	1.93	0.51
36:BN:63:THR:O	36:BN:64:GLY:C	2.49	0.51
10:AJ:49:VAL:CG2	10:AJ:50:ILE:N	2.73	0.51
14:AN:24:CYS:N	14:AN:33:VAL:HG11	2.26	0.51
1:AA:376:G:C5'	16:AP:5:ARG:HB2	2.27	0.51
1:AA:1306:A:H2'	1:AA:1307:U:H6	1.75	0.51
1:CA:277:C:P	17:CQ:41:LYS:HZ2	2.34	0.51
27:BA:2590:A:O2'	27:BA:2591:C:H5'	2.11	0.51
32:DF:41:LEU:HD11	32:DF:184:TYR:HE1	1.74	0.51
1:CA:893:C:H2'	1:CA:894:G:C8	2.44	0.51
27:BA:826:U:C4	27:BA:828:U:H1'	2.46	0.51
15:CO:54:ARG:O	15:CO:54:ARG:HD2	2.10	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2650:U:H2'	27:DA:2651:C:H6	1.76	0.51
15:AO:81:LEU:O	15:AO:84:LYS:HD3	2.11	0.51
27:BA:382:G:O2'	27:BA:383:U:H5'	2.10	0.51
27:BA:1439:A:C2	27:BA:1553:A:C5	2.98	0.51
10:AJ:16:LEU:HD11	10:AJ:70:ARG:NE	2.26	0.51
27:BA:2580:U:H5'	31:BE:131:ALA:H	1.74	0.51
55:B6:9:LEU:HD13	55:B6:28:ARG:HG3	1.93	0.51
27:BA:2862:G:O2'	27:BA:2863:C:H5'	2.11	0.51
8:AH:86:ILE:CG1	8:AH:135:CYS:HA	2.40	0.51
8:AH:2:LEU:HD22	8:AH:3:THR:H	1.76	0.51
34:DH:108:GLY:O	34:DH:109:PHE:O	2.29	0.51
11:AK:48:ILE:CG1	11:AK:64:ALA:HA	2.41	0.51
33:DG:137:GLU:HA	33:DG:152:LEU:HD11	1.92	0.51
13:AM:3:ARG:HG2	13:AM:9:ILE:HG13	1.92	0.51
34:BH:12:PRO:O	34:BH:13:LYS:HB2	2.09	0.51
38:BP:71:VAL:HG13	38:BP:72:PRO:CD	2.41	0.51
11:CK:110:ASP:O	18:CR:84:LYS:CG	2.59	0.51
27:DA:2470:G:H2'	27:DA:2471:C:H6	1.75	0.51
1:AA:1264:C:C6	1:AA:1264:C:H3'	2.44	0.51
27:BA:104:U:C6	27:BA:105:C:C6	2.99	0.51
47:DY:45:VAL:HG12	47:DY:46:LYS:N	2.24	0.51
1:AA:495:A:HO2'	1:AA:496:A:P	2.33	0.51
1:CA:576:G:H3'	1:CA:577:G:H5''	1.93	0.51
8:AH:94:TYR:HE1	8:AH:132:GLU:HB2	1.76	0.51
1:AA:610:G:O2'	1:AA:611:A:H5'	2.09	0.51
27:DA:226:G:O2'	27:DA:227:A:C8	2.53	0.51
7:AG:63:LYS:NZ	7:AG:67:GLU:HB2	2.24	0.51
27:DA:2841:C:H2'	27:DA:2842:G:C8	2.46	0.51
1:CA:257:G:C2	1:CA:270:A:N1	2.79	0.51
27:BA:2873:A:C2	40:BR:6:SER:CB	2.93	0.51
18:CR:59:SER:H	18:CR:62:GLU:HB2	1.76	0.51
27:BA:1843:C:O2'	30:BD:256:GLY:HA3	2.11	0.51
8:CH:72:PRO:O	8:CH:73:ASP:CB	2.58	0.51
27:BA:703:U:H2'	27:BA:704:G:C5'	2.40	0.51
40:BR:73:VAL:O	40:BR:76:VAL:HG12	2.11	0.51
31:BE:105:THR:HG21	31:BE:164:ARG:HH11	1.76	0.51
31:BE:119:ARG:CD	31:BE:120:TRP:CE2	2.93	0.51
27:DA:126:A:OP2	56:D7:19:ARG:CB	2.58	0.51
27:BA:2853:C:H2'	27:BA:2854:G:H8	1.72	0.51
29:BC:68:LEU:HD11	29:BC:180:PHE:CB	2.40	0.51
50:B1:93:GLU:C	50:B1:95:LEU:N	2.62	0.51
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.45	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:CS:22:LEU:HD13	19:CS:27:GLU:HB3	1.92	0.51
48:BZ:107:PRO:CG	48:BZ:116:LEU:HB2	2.40	0.51
29:DC:47:LEU:CB	29:DC:207:THR:HA	2.40	0.51
27:DA:1877:A:H3'	27:DA:1878:G:O4'	2.10	0.51
4:CD:3:ARG:HG2	4:CD:118:ARG:CD	2.41	0.51
39:BQ:37:LEU:HD23	39:BQ:129:THR:HA	1.93	0.51
27:BA:1164:G:H2'	27:BA:1165:U:C6	2.46	0.51
48:DZ:29:ASN:O	48:DZ:30:ARG:HB2	2.11	0.51
27:BA:2765:A:H5'	27:BA:2766:G:OP2	2.10	0.51
36:BN:18:ALA:HB1	36:BN:21:LYS:CB	2.40	0.51
27:BA:2362:G:C2'	27:BA:2363:C:H5'	2.40	0.51
27:BA:1625:C:H2'	27:BA:1626:G:H5'	1.92	0.51
1:CA:876:G:O5'	8:CH:14:ARG:NH1	2.43	0.51
27:BA:521:G:H2'	27:BA:522:G:C8	2.45	0.51
12:CL:79:VAL:HB	12:CL:103:ASP:OD1	2.11	0.51
27:BA:663:G:H2'	27:BA:664:C:C6	2.45	0.51
37:BO:87:ILE:HG22	37:BO:88:ASN:N	2.26	0.51
1:CA:544:G:H2'	1:CA:545:C:H6	1.76	0.51
53:B4:62:CYS:SG	53:B4:64:LYS:CG	2.99	0.51
13:CM:68:GLY:O	13:CM:71:ARG:CB	2.53	0.51
27:BA:486:C:H4'	45:BW:60:ASN:OD1	2.11	0.51
16:CP:82:GLN:O	16:CP:83:GLU:CB	2.58	0.51
43:BU:91:ASP:OD2	43:BU:96:ALA:CB	2.54	0.51
44:BV:99:ILE:CD1	44:BV:99:ILE:N	2.74	0.51
32:DF:16:GLY:O	32:DF:17:ARG:CG	2.50	0.51
32:DF:7:TYR:O	32:DF:8:GLN:CB	2.58	0.51
8:AH:20:TYR:CA	8:AH:65:TYR:HE2	2.17	0.51
43:DU:83:LEU:CG	43:DU:88:ILE:HD11	2.33	0.51
4:CD:138:TYR:CD2	4:CD:138:TYR:C	2.85	0.51
4:CD:108:LEU:HD11	4:CD:174:LEU:HB3	1.93	0.51
14:AN:45:ARG:HA	14:AN:48:ALA:HB3	1.93	0.51
1:AA:1221:G:P	19:AS:36:ARG:HD3	2.51	0.51
24:AX:31:G:C2	24:AX:40:C:C2	2.99	0.51
37:DO:104:ARG:NH1	37:DO:104:ARG:HB3	2.26	0.51
37:DO:112:MET:O	37:DO:115:VAL:HB	2.10	0.51
58:D9:11:CYS:SG	58:D9:32:HIS:ND1	2.84	0.51
17:CQ:83:ASP:OD1	17:CQ:84:LEU:HG	2.11	0.51
50:D1:51:VAL:HG22	50:D1:52:ARG:H	1.76	0.51
31:BE:4:ILE:HD13	31:BE:91:VAL:HG12	1.92	0.51
2:CB:82:ARG:HG2	2:CB:86:GLU:CD	2.31	0.51
1:CA:895:G:H2'	1:CA:896:C:C6	2.46	0.51
27:BA:950:G:C6	27:BA:951:C:N3	2.79	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:CP:42:ARG:C	16:CP:43:LYS:HD2	2.31	0.51
31:DE:182:LEU:HG	31:DE:184:VAL:HG23	1.93	0.51
50:B1:5:CYS:SG	50:B1:8:SER:N	2.81	0.51
3:CC:103:VAL:O	3:CC:103:VAL:HG12	2.11	0.51
3:CC:92:ALA:HA	3:CC:95:THR:O	2.10	0.51
1:CA:1074:G:O4'	2:CB:104:ASN:ND2	2.44	0.51
1:CA:539:A:OP1	12:CL:111:LYS:HE2	2.11	0.51
10:AJ:3:LYS:HB2	10:AJ:77:PRO:HG3	1.92	0.51
12:AL:54:LYS:HA	12:AL:64:THR:HA	1.93	0.51
27:BA:2870:C:O2'	27:BA:2871:C:H5'	2.10	0.51
27:DA:2134:A:H62	27:DA:2157:G:H1'	1.75	0.51
58:B9:32:HIS:O	58:B9:34:GLN:CG	2.59	0.51
57:B8:31:HIS:C	57:B8:33:ASN:HD22	2.13	0.51
57:B8:34:TRP:CZ2	57:B8:35:GLN:HB3	2.45	0.51
27:BA:1210:A:H5''	27:BA:1211:U:H2'	1.92	0.51
27:DA:2821:A:H2'	27:DA:2822:G:O4'	2.11	0.51
27:BA:142:A:H1'	27:BA:1408:C:C1'	2.41	0.51
32:BF:132:VAL:HG22	32:BF:133:ASN:N	2.26	0.51
51:B2:31:GLU:O	51:B2:35:LEU:HD12	2.11	0.51
27:DA:1131:G:N7	36:DN:75:TYR:CD2	2.79	0.51
33:DG:125:PHE:CD2	33:DG:131:TYR:HB2	2.46	0.51
35:BI:31:LEU:HD21	35:BI:38:LEU:HG	1.93	0.51
21:AU:6:ARG:O	21:AU:12:LYS:HE2	2.11	0.51
27:DA:1385:G:O6	27:DA:1403:C:N4	2.43	0.51
5:CE:110:LEU:HA	5:CE:113:ALA:HB3	1.93	0.51
2:AB:178:ARG:NH2	8:AH:68:ARG:HH22	2.09	0.51
19:AS:6:LYS:O	19:AS:7:LYS:HD3	2.11	0.51
27:DA:2790:A:H2'	27:DA:2791:C:H5''	1.93	0.51
40:DR:26:LYS:NZ	40:DR:71:GLN:CB	2.74	0.51
47:BY:2:ARG:HA	47:BY:2:ARG:HH11	1.76	0.51
27:DA:783:A:C2'	27:DA:784:A:O5'	2.58	0.51
1:CA:939:G:H5''	7:CG:102:ARG:CZ	2.40	0.51
54:B5:40:LYS:HD3	54:B5:41:PRO:O	2.11	0.51
50:B1:19:GLN:CA	50:B1:19:GLN:HE21	2.23	0.51
1:AA:1090:U:O2'	1:AA:1091:U:H5'	2.10	0.51
27:DA:227:A:N6	27:DA:410:G:H21	2.01	0.51
34:BH:88:LEU:HD12	34:BH:130:ARG:HG3	1.93	0.51
3:AC:99:VAL:HG23	3:AC:99:VAL:O	2.11	0.51
10:CJ:30:SER:HB3	10:CJ:80:LYS:HE2	1.93	0.51
27:BA:2109:U:H6	27:BA:2109:U:O5'	1.94	0.51
1:AA:686:U:O2'	1:AA:687:A:H8	1.94	0.51
3:AC:11:ARG:HA	3:AC:14:ILE:CG2	2.41	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:205:GLU:C	4:AD:207:TYR:N	2.65	0.51
27:BA:1195:G:C2'	27:BA:1196:C:H5'	2.40	0.51
4:AD:94:LEU:O	4:AD:97:LEU:N	2.44	0.51
1:CA:406:G:H5'	4:CD:5:ILE:HG21	1.93	0.51
4:CD:4:TYR:HD2	4:CD:5:ILE:N	2.08	0.51
27:DA:1550:C:H2'	27:DA:1551:C:C6	2.45	0.51
18:AR:87:ARG:HG2	18:AR:87:ARG:HH11	1.76	0.51
45:BW:99:ARG:HH11	45:BW:99:ARG:HG2	1.76	0.51
30:DD:139:GLY:O	30:DD:140:THR:C	2.49	0.51
27:DA:1558:A:O2'	27:DA:1559:G:P	2.68	0.51
8:CH:97:VAL:HG13	8:CH:98:LYS:N	2.25	0.51
4:AD:145:GLU:O	4:AD:147:ALA:N	2.43	0.51
1:CA:1226:C:C6	13:CM:103:THR:O	2.64	0.51
40:BR:96:ARG:O	40:BR:114:VAL:HA	2.11	0.51
53:B4:44:CYS:SG	53:B4:64:LYS:HB2	2.51	0.51
33:BG:37:VAL:HB	33:BG:99:MET:HG3	1.93	0.51
13:CM:24:GLY:C	13:CM:25:ILE:HD12	2.30	0.51
43:BU:96:ALA:C	43:BU:98:LEU:N	2.64	0.51
27:DA:992:C:OP1	43:DU:47:TYR:OH	2.24	0.51
27:DA:1419:A:H62	27:DA:1578:U:H3	1.59	0.51
27:DA:1567:A:H2'	30:DD:86:PRO:HG3	1.93	0.51
12:CL:52:VAL:HG22	12:CL:66:TYR:CA	2.25	0.51
51:D2:9:GLN:OE1	51:D2:56:GLN:HG2	2.11	0.51
47:DY:28:LYS:NZ	47:DY:28:LYS:N	2.57	0.51
47:DY:28:LYS:O	47:DY:38:ILE:HB	2.11	0.51
31:DE:51:PHE:CG	31:DE:52:LEU:N	2.79	0.51
27:DA:2248:C:H2'	27:DA:2248:C:O2	2.10	0.51
39:BQ:43:THR:O	39:BQ:47:ILE:HG13	2.11	0.51
47:BY:27:VAL:CA	47:BY:28:LYS:NZ	2.67	0.51
8:AH:53:VAL:HB	8:AH:56:LYS:HB2	1.93	0.51
38:DP:9:ASN:O	38:DP:10:PRO:C	2.48	0.51
27:BA:968:G:H2'	27:BA:969:U:C6	2.46	0.51
27:BA:1657:C:O2'	27:BA:1658:C:H5'	2.11	0.51
1:AA:750:G:N3	15:AO:23:GLY:HA3	2.25	0.51
20:CT:26:ASN:HD22	20:CT:27:LYS:H	1.59	0.51
37:BO:24:VAL:HB	37:BO:33:ALA:HB2	1.93	0.51
4:CD:150:GLU:N	4:CD:150:GLU:CD	2.60	0.51
27:BA:1799:G:N1	30:BD:178:PRO:HD2	2.26	0.51
27:DA:543:C:O3'	27:DA:547:A:P	2.70	0.51
27:BA:1487:G:H1	27:BA:1502:C:N4	2.09	0.51
14:CN:16:PHE:O	14:CN:18:VAL:N	2.44	0.51
38:BP:105:LEU:O	38:BP:106:LEU:HB3	2.11	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:624:C:H41	38:BP:107:LYS:HZ2	1.59	0.51
25:AY:68:C:C3'	25:AY:69:C:H5''	2.40	0.51
1:CA:652:U:C2'	1:CA:653:A:H5''	2.41	0.51
29:DC:41:VAL:HG23	29:DC:178:ALA:CB	2.35	0.51
1:CA:155:C:O5'	1:CA:155:C:H6	1.93	0.51
1:AA:1298:C:H4'	1:AA:1299:A:C4	2.46	0.51
3:CC:41:GLY:O	3:CC:45:LYS:HG3	2.11	0.51
27:DA:849:A:H2'	27:DA:850:C:O4'	2.11	0.51
27:DA:2866:U:H5''	27:DA:2867:G:OP1	2.11	0.51
42:DT:96:ARG:HG2	42:DT:96:ARG:NH1	2.18	0.51
27:DA:2831:G:OP2	31:DE:58:ARG:NH2	2.43	0.51
31:DE:13:ARG:CB	31:DE:22:PRO:HA	2.41	0.51
25:CY:40:C:H2'	25:CY:41:G:C8	2.40	0.51
27:DA:784:A:OP1	27:DA:2588:G:OP1	2.29	0.51
3:CC:14:ILE:HG23	3:CC:15:THR:N	2.26	0.51
32:DF:167:ALA:HB1	32:DF:173:VAL:HG21	1.94	0.51
3:AC:52:LEU:HD23	3:AC:52:LEU:H	1.76	0.51
1:CA:579:G:C6	1:CA:580:U:C4	2.99	0.51
34:DH:170:ARG:HG2	34:DH:171:LEU:N	2.26	0.51
32:DF:144:LYS:C	32:DF:146:ALA:H	2.14	0.51
1:AA:1514:C:H2'	1:AA:1515:C:H6	1.76	0.51
2:AB:48:MET:O	2:AB:50:GLU:N	2.44	0.51
15:AO:39:LEU:O	15:AO:43:LEU:HG	2.11	0.51
27:BA:2048:G:C2	27:BA:2621:A:C2	2.99	0.51
1:AA:784:C:N3	1:AA:799:G:C2	2.79	0.51
27:BA:1549:C:O2'	27:BA:1550:C:H5'	2.10	0.51
1:AA:186:C:H2'	1:AA:187:C:H6	1.75	0.51
4:AD:173:TRP:O	4:AD:174:LEU:HD23	2.11	0.51
27:DA:2043:C:H2'	27:DA:2043:C:O2	2.10	0.51
2:AB:41:ILE:HD12	2:AB:41:ILE:N	2.26	0.51
5:CE:121:LYS:HG3	5:CE:122:GLU:N	2.26	0.51
27:DA:1947:C:O2	27:DA:1947:C:H2'	2.10	0.51
1:AA:687:A:H1'	1:AA:688:G:OP2	2.11	0.51
1:AA:1437:C:N4	1:AA:1464:G:H1	2.07	0.51
2:CB:41:ILE:HD12	2:CB:41:ILE:N	2.26	0.51
27:DA:1799:G:O2'	27:DA:1800:C:OP2	2.28	0.51
1:AA:279:A:C5'	1:AA:281:G:H5'	2.40	0.51
9:CI:15:ALA:HB2	9:CI:65:VAL:CG2	2.41	0.51
27:DA:814:C:H41	38:DP:27:HIS:CD2	2.29	0.51
1:AA:324:G:N2	1:AA:327:A:H8	2.09	0.51
35:BI:73:GLU:CB	35:BI:136:VAL:HG23	2.40	0.51
36:DN:3:THR:HG22	36:DN:5:VAL:HG12	1.93	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CY:20:A:O2'	25:CY:21:A:P	2.69	0.51
1:AA:418:C:H1'	1:AA:540:G:O2'	2.10	0.51
27:BA:238:C:H1'	27:BA:609:A:H1'	1.93	0.51
27:DA:77:C:H2'	27:DA:78:A:H8	1.75	0.51
32:DF:163:VAL:O	32:DF:166:ALA:HB3	2.11	0.51
1:AA:616:G:H1'	1:AA:625:G:N2	2.26	0.51
48:BZ:96:GLU:O	48:BZ:97:MET:HB3	2.10	0.51
2:CB:136:VAL:O	2:CB:140:HIS:HB2	2.11	0.51
20:CT:12:ALA:O	20:CT:15:ARG:HB2	2.11	0.51
27:DA:272(E):G:H2'	27:DA:272(F):C:C6	2.46	0.51
44:DV:34:GLU:O	44:DV:36:PRO:HD3	2.10	0.51
27:BA:2550:G:C2'	27:BA:2551:C:H5'	2.41	0.51
57:B8:61:LEU:CD1	57:B8:61:LEU:N	2.72	0.50
57:B8:63:PRO:HG2	57:B8:64:TYR:HD1	1.76	0.50
1:CA:984:C:N4	1:CA:1221:G:O6	2.44	0.50
10:CJ:47:PHE:CD1	10:CJ:47:PHE:N	2.79	0.50
1:CA:1188:A:H4'	14:CN:58:LYS:HZ2	1.76	0.50
28:BB:44:G:H1'	28:BB:47:C:N4	2.26	0.50
27:BA:2680:C:H4'	31:BE:8:LYS:HZ2	1.76	0.50
27:DA:194:G:C2	27:DA:202:U:H1'	2.45	0.50
1:CA:426:G:H2'	1:CA:427:U:C6	2.46	0.50
27:BA:2328:A:O2'	27:BA:2329:G:H5'	2.11	0.50
43:DU:33:ARG:C	43:DU:35:ALA:N	2.65	0.50
30:DD:142:VAL:HG22	30:DD:143:HIS:N	2.26	0.50
1:AA:471:G:O2'	1:AA:472:A:H8	1.94	0.50
41:DS:96:GLY:C	41:DS:98:VAL:H	2.15	0.50
27:DA:909:A:H2'	27:DA:912:C:H5	1.76	0.50
27:DA:919:G:H4'	28:DB:81:G:C4'	2.42	0.50
11:AK:18:ARG:O	11:AK:33:THR:N	2.39	0.50
27:DA:2428:G:N2	38:DP:60:MET:CE	2.74	0.50
38:DP:102:ARG:HB3	38:DP:102:ARG:NH2	2.26	0.50
1:AA:169:C:C6	1:AA:170:U:H5	2.28	0.50
36:BN:67:LEU:HA	36:BN:87:LEU:HB3	1.93	0.50
8:AH:44:PHE:HE2	8:AH:109:ILE:HG22	1.76	0.50
12:CL:81:LEU:HB3	12:CL:98:VAL:HB	1.92	0.50
49:B0:70:GLN:HG2	49:B0:71:ASP:H	1.76	0.50
28:DB:7:G:O2'	41:DS:38:GLN:NE2	2.44	0.50
1:CA:741:G:C2	1:CA:742:G:C4	2.99	0.50
8:CH:48:TYR:HA	8:CH:60:ARG:O	2.11	0.50
1:CA:1038:C:H2'	1:CA:1039:C:N3	2.27	0.50
20:CT:51:GLU:O	20:CT:55:ILE:HG12	2.11	0.50
15:AO:81:LEU:C	15:AO:81:LEU:HD12	2.32	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:691:C:H42	27:DA:771:G:H1	1.60	0.50
1:CA:538:G:O3'	12:CL:111:LYS:NZ	2.41	0.50
42:BT:48:ILE:O	42:BT:50:ILE:HD13	2.11	0.50
15:CO:70:LEU:CD2	15:CO:78:TYR:HA	2.41	0.50
27:BA:2264:C:C4	27:BA:2265:U:C4	2.98	0.50
27:DA:2158:A:HO2'	27:DA:2159:G:H8	1.57	0.50
27:DA:686:G:H21	27:DA:788:A:H61	1.55	0.50
48:BZ:156:LEU:HD21	48:BZ:162:LEU:HD12	1.92	0.50
27:BA:571:A:C8	27:BA:2030:A:N6	2.79	0.50
1:AA:1163:C:H2'	1:AA:1164:G:H8	1.76	0.50
27:BA:2308:G:O6	27:BA:2310:A:H3'	2.11	0.50
13:AM:92:HIS:O	13:AM:93:ARG:C	2.50	0.50
27:BA:2516:G:H2'	27:BA:2517:C:C5'	2.40	0.50
8:AH:108:GLY:CA	8:AH:138:TRP:HB3	2.40	0.50
27:DA:2298:A:H2'	27:DA:2299:G:C8	2.44	0.50
10:CJ:37:PRO:HA	10:CJ:72:VAL:HG22	1.93	0.50
35:DI:10:GLU:OE1	35:DI:11:ASN:HB2	2.11	0.50
1:CA:577:G:N3	1:CA:578:C:C5	2.79	0.50
28:BB:57:A:C8	28:BB:57:A:H5'	2.46	0.50
5:AE:110:LEU:HD13	5:AE:118:ILE:HG21	1.93	0.50
1:AA:667:G:H4'	15:AO:51:HIS:CE1	2.46	0.50
1:AA:392:G:H4'	16:AP:13:HIS:CE1	2.47	0.50
34:DH:105:LEU:HD22	34:DH:105:LEU:N	2.26	0.50
20:AT:75:ASN:HD22	20:AT:75:ASN:H	1.53	0.50
27:DA:2195:C:O2'	27:DA:2196:C:H5'	2.11	0.50
27:BA:1303:G:N3	27:BA:1304:C:C6	2.79	0.50
3:CC:150:LYS:CD	3:CC:201:TYR:HD1	2.24	0.50
27:BA:1464:C:HO2'	27:BA:1528:A:H8	1.56	0.50
30:DD:158:ALA:O	30:DD:161:THR:OG1	2.26	0.50
18:AR:62:GLU:O	18:AR:63:GLN:C	2.50	0.50
27:BA:528:A:N7	36:BN:114:ARG:NH1	2.58	0.50
51:B2:64:LEU:O	51:B2:67:LYS:HB2	2.11	0.50
34:BH:103:LEU:HD22	34:BH:123:PHE:HE2	1.75	0.50
35:DI:115:ALA:HB3	35:DI:129:THR:OG1	2.11	0.50
1:AA:332:G:OP2	20:AT:10:LEU:HD13	2.12	0.50
1:AA:1213:A:H2'	1:AA:1215:G:N7	2.26	0.50
2:CB:131:PRO:HG2	2:CB:134:GLU:CG	2.42	0.50
27:BA:2639:A:N6	27:BA:2640:G:C2	2.79	0.50
5:AE:15:ARG:CZ	5:AE:26:PHE:CE2	2.95	0.50
27:BA:924:C:H2'	27:BA:925:C:H6	1.76	0.50
1:AA:1428:A:H2'	1:AA:1429:C:H6	1.76	0.50
27:BA:715:G:H2'	27:BA:716:A:H8	1.76	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:486:U:O2'	1:CA:487:A:H8	1.93	0.50
28:DB:77:U:H4'	48:DZ:83:GLU:OE1	2.11	0.50
1:CA:757:U:H2'	1:CA:758:G:O4'	2.11	0.50
27:DA:1412:A:H8	27:DA:1412:A:O5'	1.94	0.50
14:AN:36:PHE:C	14:AN:36:PHE:CD1	2.84	0.50
11:AK:97:ALA:O	11:AK:100:ALA:O	2.30	0.50
27:BA:251:A:H5''	38:BP:51:PHE:CZ	2.46	0.50
27:BA:1281:G:H2'	27:BA:1281:G:N3	2.27	0.50
27:DA:1823:G:O2'	27:DA:1824:G:H5'	2.11	0.50
27:DA:1794:U:O4'	27:DA:1900:A:C2	2.64	0.50
42:BT:78:LEU:C	42:BT:79:HIS:ND1	2.65	0.50
1:AA:129(A):G:N2	1:AA:189(E):U:HO2'	2.09	0.50
1:AA:128:G:H5'	17:AQ:2:PRO:HA	1.93	0.50
42:BT:28:VAL:HG11	42:BT:46:GLU:HB2	1.94	0.50
42:BT:65:LYS:HZ1	42:BT:66:VAL:HG23	1.74	0.50
1:AA:1403:C:O2'	1:AA:1404:C:H5'	2.11	0.50
47:DY:96:ILE:HG22	47:DY:97:ARG:H	1.76	0.50
38:DP:83:VAL:O	38:DP:115:LEU:HD23	2.12	0.50
36:DN:112:LEU:O	36:DN:115:ARG:HB3	2.11	0.50
27:DA:1348:G:C2'	27:DA:1349:A:H5''	2.41	0.50
31:DE:92:THR:O	31:DE:95:ILE:HB	2.11	0.50
13:CM:14:ARG:N	13:CM:44:ARG:NH1	2.56	0.50
1:AA:963:G:H21	10:AJ:55:LYS:CE	2.24	0.50
27:BA:1810:A:H2'	27:BA:1811:G:H5'	1.93	0.50
17:AQ:74:LEU:O	17:AQ:75:ARG:HB3	2.12	0.50
33:DG:105:LYS:HE2	33:DG:143:GLU:OE2	2.11	0.50
16:AP:74:LEU:HA	16:AP:77:ALA:HB3	1.93	0.50
20:CT:48:LYS:HB3	20:CT:51:GLU:CG	2.42	0.50
1:CA:263:A:H2'	1:CA:264:U:C6	2.46	0.50
1:AA:1151:A:O2'	1:AA:1152:A:C8	2.56	0.50
10:AJ:6:ILE:CG1	10:AJ:72:VAL:O	2.57	0.50
8:CH:82:HIS:O	8:CH:83:ILE:HB	2.11	0.50
27:BA:624:C:O2'	27:BA:625:G:H5'	2.11	0.50
27:DA:356:G:H2'	27:DA:356:G:N3	2.26	0.50
35:BI:129:THR:HA	35:BI:137:PRO:HA	1.92	0.50
28:DB:45:A:C1'	33:DG:95:ARG:NH1	2.74	0.50
1:AA:736:C:H5''	18:AR:72:ARG:HE	1.76	0.50
1:AA:1326:C:OP1	21:AU:12:LYS:HD2	2.11	0.50
15:AO:66:LEU:C	15:AO:68:ARG:H	2.14	0.50
1:AA:1278:U:C6	1:AA:1278:U:H3'	2.45	0.50
40:DR:56:LYS:HD2	40:DR:88:ARG:HA	1.93	0.50
34:DH:65:HIS:ND1	34:DH:65:HIS:O	2.44	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:836:G:C6	1:AA:851:G:C6	3.00	0.50
27:DA:507:A:H4'	27:DA:509:C:C5	2.46	0.50
27:BA:1175:U:H5''	27:BA:1176:G:H8	1.75	0.50
1:CA:708:C:O2'	1:CA:709:G:H5'	2.11	0.50
27:BA:2302:G:C2'	27:BA:2303:G:H5'	2.41	0.50
27:BA:2313:C:C5	27:BA:2314:C:H5	2.29	0.50
42:BT:57:PHE:CG	42:BT:58:ASN:N	2.80	0.50
1:AA:610:G:H2'	1:AA:611:A:H8	1.75	0.50
27:DA:2140:C:H1'	27:DA:2152:G:N2	2.26	0.50
1:CA:885:G:H1'	1:CA:914:A:N1	2.26	0.50
1:CA:913:A:O2'	1:CA:914:A:OP2	2.30	0.50
34:DH:98:LEU:HG	34:DH:98:LEU:O	2.12	0.50
1:CA:1301:U:OP2	1:CA:1303:C:N4	2.44	0.50
51:B2:4:SER:HA	51:B2:7:ARG:HH11	1.77	0.50
27:DA:1700:A:H2'	27:DA:1701:A:O4'	2.11	0.50
7:CG:26:PHE:CG	7:CG:62:PHE:HE1	2.30	0.50
1:AA:575:G:H4'	1:AA:576:G:C5'	2.41	0.50
7:AG:15:ASP:HB3	7:AG:19:GLY:N	2.26	0.50
27:BA:39:C:H2'	27:BA:40:C:C6	2.46	0.50
1:CA:1408:A:O2'	1:CA:1409:C:H5'	2.10	0.50
31:DE:29:GLY:CA	31:DE:180:ASN:HB3	2.41	0.50
7:CG:72:ARG:C	7:CG:73:MET:HG3	2.31	0.50
38:DP:135:LEU:HD13	38:DP:135:LEU:C	2.32	0.50
18:AR:71:LYS:O	18:AR:73:ALA:N	2.45	0.50
42:DT:129:ARG:NH1	42:DT:131:ALA:O	2.44	0.50
10:AJ:30:SER:OG	10:AJ:81:THR:CG2	2.58	0.50
1:AA:424:G:H2'	1:AA:425:G:C8	2.46	0.50
24:AX:6:G:N2	24:AX:68:C:C2	2.79	0.50
29:DC:20:TYR:CG	29:DC:21:THR:N	2.78	0.50
27:BA:303:U:O2'	27:BA:304:G:H5'	2.11	0.50
1:AA:336:C:H1'	1:AA:1468:A:H2	1.77	0.50
3:AC:73:PRO:HG3	3:AC:105:GLU:HG3	1.92	0.50
27:BA:1593:G:H3'	27:BA:1594:G:H8	1.76	0.50
3:CC:189:ALA:O	3:CC:195:VAL:HG12	2.11	0.50
1:CA:37:U:H2'	1:CA:38:G:O4'	2.10	0.50
46:DX:28:PHE:O	46:DX:30:VAL:HG13	2.11	0.50
27:DA:45:C:H2'	27:DA:47:C:H6	1.76	0.50
28:DB:35:U:O2'	28:DB:36:C:O5'	2.17	0.50
34:BH:38:SER:OG	34:BH:40:GLU:HG3	2.11	0.50
27:DA:1455:G:H2'	27:DA:1456:G:H8	1.76	0.50
2:CB:224:GLN:CG	2:CB:229:VAL:HG22	2.41	0.50
28:BB:17:C:H2'	28:BB:18:G:O4'	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1055:G:H2'	27:DA:1108:U:C6	2.46	0.50
1:AA:562:C:H41	1:AA:884:U:H2'	1.76	0.50
46:BX:82:GLN:HG3	46:BX:83:VAL:N	2.26	0.50
1:AA:1011:G:O2'	1:AA:1012:U:H5'	2.11	0.50
18:AR:19:LYS:O	18:AR:20:ALA:HB2	2.11	0.50
34:BH:83:TYR:HA	34:BH:135:GLY:H	1.76	0.50
1:CA:293:G:H1	1:CA:304:U:H3	1.59	0.50
1:CA:973:G:C5	1:CA:974:A:N7	2.79	0.50
27:BA:1293:C:H2'	27:BA:1294:U:C6	2.46	0.50
32:BF:21:ALA:C	32:BF:23:ASP:N	2.64	0.50
37:BO:51:ALA:O	37:BO:52:VAL:HB	2.11	0.50
30:DD:253:GLN:HB2	30:DD:257:LEU:HD12	1.93	0.50
4:CD:8:VAL:CG1	4:CD:21:LEU:HD13	2.36	0.50
44:BV:45:THR:O	44:BV:46:VAL:HG12	2.12	0.50
27:DA:1150:C:O2'	27:DA:1151:G:H5'	2.11	0.50
43:DU:65:ILE:HG12	43:DU:96:ALA:HB1	1.93	0.50
47:DY:95:LYS:HD3	47:DY:99:CYS:O	2.11	0.50
1:AA:472:A:H5''	16:AP:80:PHE:HB3	1.93	0.50
27:DA:2261:C:OP1	49:D0:17:GLN:CD	2.50	0.50
27:DA:2425:A:H5''	27:DA:2427:C:H5'	1.91	0.50
47:BY:17:SER:O	47:BY:21:LYS:HB2	2.12	0.50
27:DA:2500:U:H2'	27:DA:2504:U:H5	1.76	0.50
27:DA:944:G:H5''	27:DA:945:A:H5'	1.93	0.50
20:AT:63:ILE:O	20:AT:65:LYS:N	2.44	0.50
27:BA:1006:C:H1'	36:BN:106:MET:CG	2.37	0.50
1:CA:1139:G:H5'	1:CA:1140:C:OP1	2.12	0.50
27:DA:329:G:O2'	27:DA:330:A:OP1	2.25	0.50
1:CA:383:A:H2'	1:CA:384:G:H5'	1.94	0.50
1:AA:1357:A:N7	1:AA:1358:U:C4	2.79	0.50
3:AC:125:GLU:HG2	3:AC:190:ARG:O	2.10	0.50
12:CL:23:ALA:HA	12:CL:95:TYR:HE2	1.76	0.50
2:AB:28:PHE:CD2	2:AB:194:PRO:HD3	2.46	0.50
16:AP:1:MET:HG2	16:AP:2:VAL:N	2.26	0.50
1:CA:274:A:HO2'	1:CA:275:G:C5'	2.23	0.50
27:BA:689:A:O2'	27:BA:690:G:H5'	2.10	0.50
30:BD:230:ASP:O	30:BD:231:HIS:HB2	2.11	0.50
15:CO:53:HIS:O	15:CO:56:LEU:N	2.44	0.50
36:DN:47:ALA:O	36:DN:119:ARG:NH2	2.44	0.50
1:CA:1001(A):G:C8	1:CA:1002:G:C8	2.99	0.50
1:CA:1036:G:H5''	1:CA:1037:C:C5	2.46	0.50
30:DD:43:ARG:HH11	30:DD:44:ASN:CG	2.14	0.50
1:CA:1181:G:H2'	1:CA:1182:G:C5	2.43	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1480:G:C5	27:BA:1481:U:C5	3.00	0.50
27:BA:1803:A:O2'	30:BD:259:THR:HG21	2.10	0.50
48:DZ:44:ASP:O	48:DZ:45:LYS:C	2.49	0.50
1:CA:653:A:H1'	8:CH:56:LYS:NZ	2.26	0.50
27:BA:2175:C:H1'	29:BC:215:THR:N	2.26	0.50
29:DC:187:ASP:C	29:DC:189:ILE:H	2.15	0.50
29:DC:36:LYS:HZ2	29:DC:36:LYS:HA	1.77	0.50
29:DC:66:HIS:HB2	29:DC:189:ILE:CB	2.42	0.50
31:DE:111:ARG:HD2	31:DE:160:TYR:HE1	1.71	0.50
31:DE:119:ARG:CG	31:DE:160:TYR:HB2	2.40	0.50
40:DR:14:SER:C	40:DR:16:HIS:N	2.64	0.50
41:DS:59:LYS:NZ	41:DS:68:GLN:NE2	2.58	0.50
27:BA:2287:A:C5	27:BA:2289:G:C5	3.00	0.50
34:DH:147:ASN:ND2	34:DH:147:ASN:H	2.08	0.50
1:AA:486:U:H5'	1:AA:486:U:C6	2.42	0.50
35:DI:72:LEU:CD2	35:DI:75:LEU:HD23	2.41	0.50
1:CA:848:C:O2'	1:CA:849:C:H5'	2.10	0.50
27:DA:2295:C:C2	27:DA:2296:U:H5	2.29	0.50
1:AA:577:G:N3	1:AA:578:C:C5	2.79	0.50
12:CL:5:ASN:HB2	17:CQ:34:LYS:NZ	2.26	0.50
1:AA:605:U:O2'	1:AA:606:G:H5'	2.11	0.50
27:BA:1331:A:HO2'	27:BA:1332:G:H8	1.58	0.50
1:CA:1385:G:C2'	1:CA:1386:G:H5'	2.41	0.50
27:BA:70:G:O2'	27:BA:114:U:C5	2.60	0.50
32:DF:170:LEU:HD21	32:DF:172:TRP:CZ2	2.47	0.50
1:CA:762:C:H2'	1:CA:763:G:H8	1.75	0.50
38:BP:7:ARG:O	38:BP:10:PRO:HD3	2.11	0.50
1:AA:274:A:O2'	1:AA:275:G:H8	1.94	0.50
2:AB:14:GLY:C	2:AB:15:VAL:HG22	2.31	0.50
33:BG:172:LEU:O	33:BG:175:LEU:N	2.43	0.50
41:DS:82:ILE:CG2	41:DS:83:LYS:N	2.74	0.50
1:AA:784:C:H4'	27:BA:1837:C:OP1	2.11	0.50
27:BA:25:U:C2'	27:BA:26:G:O5'	2.59	0.50
31:BE:9:VAL:HG11	31:BE:25:VAL:CG1	2.40	0.50
5:CE:101:ILE:HG12	5:CE:119:LEU:HA	1.92	0.50
27:DA:1818:U:C6	30:DD:157:ARG:NH1	2.79	0.50
27:DA:1818:U:H2'	30:DD:157:ARG:HG3	1.92	0.50
27:BA:271(M):G:O2'	27:BA:271(N):U:H3'	2.11	0.50
4:AD:59:ARG:NH2	4:AD:66:ARG:NH2	2.59	0.50
3:CC:140:ARG:O	3:CC:143:GLU:N	2.45	0.50
30:BD:158:ALA:HB3	30:BD:161:THR:HG23	1.92	0.50
27:BA:1957:C:H2'	27:BA:1958:C:H6	1.76	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CH:21:LYS:O	8:CH:65:TYR:OH	2.28	0.50
45:BW:35:ILE:HG23	54:B5:28:PRO:HD2	1.93	0.50
24:AX:51:C:H2'	24:AX:52:G:C8	2.46	0.50
5:CE:126:ARG:NH1	5:CE:126:ARG:HG3	2.25	0.50
27:BA:2228:G:OP1	30:BD:261:LYS:CE	2.60	0.50
23:AW:42:G:H3'	23:AW:43:C:H5''	1.92	0.50
43:BU:48:ALA:O	43:BU:51:LYS:HB2	2.12	0.50
4:CD:3:ARG:HG2	4:CD:118:ARG:NE	2.27	0.50
1:AA:862:C:O2'	1:AA:863:U:H5'	2.10	0.50
3:AC:73:PRO:C	3:AC:75:VAL:N	2.65	0.50
35:BI:29:TYR:O	35:BI:33:ARG:HB2	2.11	0.50
27:BA:2492:U:H2'	27:BA:2493:U:C6	2.46	0.50
27:DA:111:A:H4'	51:D2:69:ARG:HH21	1.76	0.50
11:AK:23:ALA:HB1	11:AK:88:GLY:HA3	1.92	0.50
40:DR:63:ARG:NH1	40:DR:80:PHE:CG	2.79	0.50
27:DA:2315:G:H2'	27:DA:2316:C:C6	2.46	0.50
3:CC:162:GLN:HA	3:CC:162:GLN:OE1	2.10	0.50
30:DD:124:PRO:HG2	30:DD:129:ASN:ND2	2.26	0.50
47:BY:24:VAL:HG12	47:BY:25:GLY:N	2.25	0.50
12:CL:31:ARG:O	12:CL:58:THR:HG23	2.12	0.50
1:AA:139:G:H2'	1:AA:140:A:H8	1.77	0.50
27:BA:399:G:C2	27:BA:400:G:H1'	2.46	0.50
1:CA:1212:U:OP1	1:CA:1212:U:H4'	2.11	0.50
1:AA:450:G:H4'	16:AP:41:PRO:O	2.10	0.50
38:BP:35:HIS:O	38:BP:36:LYS:CB	2.59	0.50
1:CA:986:A:N1	1:CA:1220:G:C2	2.80	0.50
41:BS:16:ASN:O	41:BS:19:LYS:HB3	2.10	0.50
41:BS:95:HIS:O	41:BS:97:ARG:HG3	2.12	0.50
31:BE:11:MET:HB2	31:BE:23:VAL:O	2.12	0.50
57:D8:63:PRO:O	57:D8:64:TYR:O	2.29	0.50
27:DA:1824:G:O2'	27:DA:1825:A:H5'	2.12	0.50
13:CM:20:THR:O	13:CM:22:ILE:N	2.42	0.50
27:BA:482:A:H1'	27:BA:498:G:N2	2.26	0.50
1:CA:1346:A:C5	7:CG:10:ARG:CZ	2.94	0.50
32:BF:70:THR:C	32:BF:72:ARG:N	2.64	0.50
27:BA:523:C:H4'	27:BA:540:C:O2	2.12	0.50
36:BN:4:TYR:HB2	43:BU:64:ARG:NH2	2.26	0.50
44:BV:19:LYS:HG3	44:BV:20:LEU:N	2.27	0.50
1:AA:234:C:O2'	1:AA:235:C:H5'	2.11	0.50
42:BT:91:ARG:HA	42:BT:116:ALA:HA	1.92	0.50
27:DA:870:A:OP1	39:DQ:6:ARG:NE	2.44	0.50
38:DP:58:THR:C	38:DP:60:MET:N	2.64	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DP:95:VAL:CG2	38:DP:100:LEU:HD21	2.42	0.50
27:DA:747:U:O2	27:DA:2014:A:H1'	2.12	0.50
20:AT:77:ALA:O	20:AT:81:LYS:HG3	2.11	0.50
36:BN:94:HIS:N	36:BN:95:PRO:CD	2.75	0.50
34:BH:53:GLU:O	34:BH:54:ARG:CB	2.60	0.50
1:CA:101:A:C2'	1:CA:102:G:H5'	2.42	0.50
1:AA:1350:A:H8	1:AA:1350:A:O5'	1.94	0.50
3:AC:155:GLY:CA	3:AC:163:ALA:HB1	2.28	0.50
1:AA:1358:U:OP1	14:AN:35:ARG:HG3	2.12	0.50
37:DO:106:LEU:HB3	37:DO:111:PHE:HB2	1.93	0.50
19:AS:19:VAL:HG13	19:AS:47:HIS:NE2	2.26	0.50
1:CA:273:A:H1'	17:CQ:16:GLN:OE1	2.11	0.50
27:BA:686:G:H21	27:BA:788:A:H61	1.58	0.50
27:DA:2645:G:H3'	27:DA:2646:C:H5'	1.92	0.50
12:AL:31:ARG:HG3	12:AL:102:TYR:HE1	1.75	0.50
6:AF:88:VAL:HG12	6:AF:89:MET:N	2.26	0.50
1:CA:1202:G:O2'	1:CA:1203:C:H5'	2.11	0.50
13:CM:4:ILE:CG2	13:CM:5:ALA:H	2.10	0.50
27:BA:2160:G:H2'	27:BA:2161:C:C6	2.47	0.50
49:D0:53:MET:HE3	49:D0:57:PHE:HD1	1.76	0.50
1:CA:1521:G:C5	1:CA:1522:U:C5	2.99	0.50
46:DX:60:ARG:NH2	56:D7:47:ARG:NE	2.59	0.50
3:AC:184:TYR:CG	3:AC:185:GLY:N	2.79	0.50
27:BA:397:G:H2'	27:BA:398:G:H8	1.76	0.50
29:DC:83:ILE:HD11	29:DC:95:GLY:O	2.12	0.50
39:BQ:137:TYR:O	39:BQ:138:ASP:C	2.48	0.50
27:DA:925:C:H2'	27:DA:926:A:O4'	2.12	0.50
5:CE:11:ILE:HG22	5:CE:12:LEU:N	2.19	0.50
27:DA:2683:C:P	42:DT:53:ARG:NH2	2.77	0.50
27:DA:743:G:C2'	27:DA:744:G:H5'	2.42	0.50
32:BF:160:ASN:C	32:BF:162:LEU:N	2.65	0.50
32:BF:160:ASN:HD22	32:BF:162:LEU:H	1.60	0.50
27:BA:1333:C:H2'	27:BA:1334:G:H8	1.76	0.50
7:CG:49:ILE:O	7:CG:53:LYS:HB2	2.12	0.50
1:CA:769:G:HO2'	1:CA:770:C:H5'	1.76	0.50
15:CO:12:ILE:C	15:CO:14:GLU:N	2.62	0.50
39:DQ:18:LYS:HB2	39:DQ:98:LYS:NZ	2.27	0.50
27:DA:416:C:H2'	27:DA:416:C:O2	2.11	0.50
36:DN:89:LYS:NZ	36:DN:89:LYS:CB	2.74	0.50
1:CA:1096:C:H2'	1:CA:1097:C:C6	2.46	0.50
8:CH:11:THR:O	8:CH:15:ASN:ND2	2.45	0.50
13:AM:96:LEU:HD23	13:AM:97:PRO:HD2	1.92	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:181:PHE:HE1	8:AH:70:GLN:HB2	1.76	0.50
1:AA:221:C:C2'	1:AA:222:U:H5'	2.41	0.50
38:BP:140:ALA:O	38:BP:141:ALA:HB3	2.11	0.50
43:BU:24:TYR:CD1	43:BU:38:THR:HG21	2.46	0.50
27:BA:1849:G:H2'	27:BA:1850:G:H8	1.75	0.50
11:AK:79:SER:HB2	11:AK:106:LYS:CE	2.40	0.50
11:CK:59:TYR:OH	11:CK:63:LEU:HD21	2.12	0.50
27:BA:459:U:OP2	56:B7:39:ARG:NH1	2.44	0.50
9:AI:71:SER:O	9:AI:74:ILE:HB	2.10	0.50
27:DA:614(C):A:O2'	27:DA:615:G:C8	2.64	0.50
27:BA:1651:G:OP2	40:BR:40:LYS:HE2	2.11	0.50
34:BH:32:GLU:HG2	34:BH:33:LEU:N	2.27	0.50
27:DA:204:A:H1'	27:DA:206:U:C6	2.46	0.50
3:AC:28:GLN:HA	3:AC:31:HIS:NE2	2.26	0.50
18:AR:55:ARG:HG3	18:AR:55:ARG:NH1	2.24	0.50
5:AE:7:GLU:O	5:AE:8:GLU:HB3	2.11	0.50
51:D2:14:ARG:HG3	51:D2:14:ARG:HH11	1.77	0.50
32:DF:177:ALA:HB1	32:DF:178:PRO:CD	2.40	0.50
34:DH:86:GLU:HB3	34:DH:132:ARG:HD3	1.93	0.50
44:DV:68:LYS:HA	44:DV:68:LYS:HZ2	1.77	0.50
27:DA:2853:C:H2'	27:DA:2854:G:C8	2.46	0.50
1:AA:1008:C:H2'	1:AA:1009:G:O4'	2.10	0.50
47:BY:51:VAL:O	47:BY:52:SER:CB	2.60	0.50
7:CG:100:ALA:O	7:CG:101:LEU:C	2.50	0.50
41:DS:49:VAL:HG12	41:DS:50:SER:N	2.26	0.50
1:AA:797:C:O2'	1:AA:798:G:H5'	2.11	0.50
25:AY:10:G:H8	25:AY:10:G:OP1	1.94	0.50
1:AA:339:C:H2'	1:AA:340:U:H6	1.76	0.50
27:BA:1045:A:H4'	27:BA:1047:G:O4'	2.11	0.50
44:BV:22:VAL:O	44:BV:23:GLU:CB	2.57	0.50
44:DV:19:LYS:HZ3	44:DV:20:LEU:N	2.09	0.50
10:CJ:44:VAL:CG1	10:CJ:46:ARG:HG3	2.42	0.50
1:AA:346:G:O2'	1:AA:347:G:O4'	2.30	0.50
52:B3:8:LEU:HA	52:B3:54:VAL:HG22	1.94	0.50
55:D6:43:CYS:O	55:D6:43:CYS:SG	2.70	0.50
27:DA:1952:A:N6	27:DA:1953:A:N6	2.59	0.50
27:DA:2447:G:C4	27:DA:2501:C:C5	3.00	0.50
27:DA:2636:U:OP1	31:DE:80:GLU:HB2	2.10	0.50
31:DE:84:PHE:HE2	31:DE:86:PRO:HB3	1.76	0.50
30:BD:97:TYR:HB2	30:BD:101:GLU:O	2.11	0.50
20:CT:85:MET:C	20:CT:87:LYS:N	2.64	0.50
20:CT:90:GLN:O	20:CT:91:LEU:HD23	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1316:G:H1'	1:AA:1360:A:C2	2.47	0.50
2:AB:91:PRO:HG2	2:AB:155:LEU:HB2	1.92	0.50
19:AS:29:ARG:HD2	19:AS:29:ARG:C	2.32	0.50
27:DA:1914:C:H2'	27:DA:1915:U:C6	2.46	0.50
27:BA:2586:C:H5'	27:BA:2586:C:C6	2.47	0.50
27:BA:778:G:C6	27:BA:779:U:N3	2.78	0.50
2:AB:95:GLN:HG3	2:AB:148:TYR:HD1	1.77	0.50
33:DG:141:PHE:CB	33:DG:142:PRO:HD2	2.42	0.50
1:CA:1004:A:C5'	1:CA:1025:U:H3	2.24	0.50
27:BA:1339:G:OP1	46:BX:14:SER:HB2	2.10	0.50
3:CC:3:ASN:N	3:CC:3:ASN:OD1	2.44	0.50
13:AM:38:GLY:C	13:AM:39:ILE:HG13	2.32	0.50
50:B1:5:CYS:HA	50:B1:61:ARG:O	2.10	0.50
27:BA:423:A:H8	27:BA:423:A:O5'	1.95	0.50
19:CS:6:LYS:HD3	19:CS:7:LYS:HE2	1.93	0.50
1:CA:192:U:H1'	20:CT:103:GLY:O	2.12	0.50
38:BP:104:GLY:N	38:BP:105:LEU:HD23	2.27	0.50
29:DC:36:LYS:CB	29:DC:36:LYS:HZ3	2.20	0.50
1:CA:1505:G:H4'	1:CA:1506:U:C5'	2.41	0.50
27:DA:1603:A:C2	27:DA:1604:C:C2	3.00	0.50
35:BI:5:LEU:CD2	35:BI:13:GLY:HA2	2.33	0.50
27:BA:2287:A:O2'	27:BA:2288:A:H5''	2.11	0.50
27:BA:61:G:H1	27:BA:94:C:H42	1.58	0.50
1:AA:875:C:H1'	8:AH:15:ASN:OD1	2.12	0.50
8:CH:95:VAL:HG23	8:CH:95:VAL:O	2.12	0.50
12:AL:49:LEU:N	12:AL:49:LEU:HD22	2.27	0.50
33:BG:4:ASP:O	33:BG:4:ASP:OD1	2.29	0.50
27:DA:475:U:O2'	27:DA:476:G:C8	2.53	0.50
1:CA:1125:U:H2'	1:CA:1126:U:OP2	2.12	0.50
32:DF:170:LEU:HD21	32:DF:172:TRP:CE2	2.47	0.50
3:AC:70:VAL:CG1	3:AC:71:ALA:N	2.74	0.50
33:BG:24:GLY:O	33:BG:26:GLN:NE2	2.45	0.50
47:DY:2:ARG:O	47:DY:3:VAL:HB	2.11	0.50
27:DA:2196:C:H2'	27:DA:2197:U:H6	1.76	0.50
28:DB:29:A:OP2	41:DS:32:LEU:HG	2.11	0.50
38:BP:138:LEU:O	38:BP:140:ALA:N	2.43	0.50
4:CD:25:ARG:C	4:CD:27:TYR:N	2.65	0.50
6:AF:99:ALA:HB2	18:AR:31:LEU:HD13	1.93	0.50
34:DH:20:ALA:HB3	34:DH:23:ARG:HB2	1.93	0.50
27:BA:1718:G:C8	27:BA:1718:G:H5'	2.42	0.50
3:AC:11:ARG:O	3:AC:15:THR:N	2.44	0.50
1:CA:930:C:O2'	1:CA:931:C:H5'	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:92:TYR:O	9:CI:95:LYS:HG3	2.12	0.50
27:DA:714:U:O2	27:DA:717:G:H8	1.94	0.50
9:CI:27:THR:HG22	9:CI:31:GLN:H	1.75	0.50
34:DH:68:THR:HG23	34:DH:72:ILE:HD11	1.94	0.50
29:BC:19:VAL:HG12	29:BC:20:TYR:CD1	2.45	0.50
40:DR:94:TYR:CD1	40:DR:94:TYR:N	2.79	0.50
27:DA:935:C:H2'	27:DA:936:C:H6	1.76	0.50
35:DI:110:ASP:O	35:DI:112:LYS:N	2.35	0.50
1:CA:37:U:H2'	1:CA:38:G:C8	2.47	0.50
39:BQ:19:GLY:O	39:BQ:20:ALA:CB	2.59	0.50
27:DA:696:G:N2	27:DA:697:C:H1'	2.26	0.50
27:BA:2555:U:O2'	27:BA:2556:C:H5'	2.11	0.50
4:AD:92:VAL:O	4:AD:93:PHE:C	2.50	0.50
27:BA:1986:A:C2'	27:BA:1987:G:H5'	2.42	0.50
40:DR:63:ARG:HG3	40:DR:63:ARG:HH11	1.76	0.50
1:CA:599:C:H5''	8:CH:96:GLY:CA	2.41	0.50
57:B8:17:THR:O	57:B8:19:SER:N	2.41	0.50
16:CP:49:LEU:HD11	16:CP:51:VAL:CG2	2.42	0.50
1:CA:357:G:O2'	1:CA:358:U:H5'	2.11	0.50
1:CA:1098:C:H2'	1:CA:1099:G:O4'	2.12	0.50
27:BA:1681:G:H1'	27:BA:1763:G:H5'	1.94	0.50
30:BD:204:ILE:HG13	30:BD:204:ILE:O	2.12	0.50
8:CH:102:ARG:N	8:CH:102:ARG:HE	2.09	0.50
1:CA:1244:C:H2'	1:CA:1245:A:C8	2.46	0.50
57:B8:21:LYS:CD	57:B8:48:PHE:CZ	2.94	0.50
1:CA:1362:C:O2	1:CA:1363:C:C5	2.65	0.50
14:CN:34:TYR:CD1	14:CN:34:TYR:N	2.80	0.50
27:BA:1279:G:C2	27:BA:1292:U:C2	2.99	0.50
32:BF:179:GLU:OE2	32:BF:179:GLU:N	2.38	0.50
31:BE:102:VAL:HG12	31:BE:199:ARG:O	2.10	0.50
57:D8:61:LEU:C	57:D8:63:PRO:HD2	2.32	0.50
22:CV:9:G:N7	22:CV:10:U:C5	2.80	0.50
27:DA:1931:U:O2'	27:DA:1932:A:H5'	2.11	0.50
27:DA:1902:C:O2'	30:DD:244:ARG:HB2	2.11	0.50
32:BF:65:TRP:HB3	32:BF:66:PRO:CD	2.40	0.50
44:BV:15:GLU:O	44:BV:17:GLY:N	2.45	0.50
43:BU:95:LEU:HD22	44:BV:4:ILE:HD11	1.93	0.50
44:BV:5:VAL:HG23	44:BV:6:LYS:N	2.26	0.50
1:AA:235:C:H5'	17:AQ:70:ARG:HG2	1.94	0.50
27:DA:1889:A:H2'	27:DA:1890:A:O4'	2.10	0.50
27:DA:1889:A:C6	27:DA:1890:A:C5	3.00	0.50
41:DS:24:LEU:HB3	41:DS:85:VAL:CG1	2.24	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BG:135:LEU:HD13	33:BG:155:MET:HG3	1.94	0.50
11:CK:32:ILE:HG12	11:CK:41:THR:O	2.12	0.50
27:DA:2016:U:O2	54:D5:7:PRO:HG2	2.11	0.50
27:DA:1669:A:O2'	27:DA:2549:G:OP1	2.29	0.50
27:DA:2551:C:H2'	27:DA:2552:U:C5	2.46	0.50
31:DE:117:MET:SD	31:DE:136:ARG:HA	2.51	0.50
30:BD:35:LYS:N	30:BD:36:PRO:CD	2.68	0.50
30:BD:31:LYS:HE2	30:BD:94:LEU:HD11	1.93	0.50
4:CD:70:ILE:HD12	4:CD:100:ARG:CD	2.42	0.50
1:CA:216:G:C5	1:CA:217:C:N4	2.80	0.50
1:AA:1205:U:H4'	3:AC:195:VAL:HG22	1.94	0.50
42:DT:28:VAL:HG11	42:DT:46:GLU:HG3	1.93	0.50
41:DS:31:SER:O	41:DS:33:LYS:N	2.44	0.50
27:BA:2439:A:H1'	27:BA:2587:A:OP1	2.12	0.50
2:CB:164:VAL:HG12	2:CB:166:ASP:H	1.76	0.50
27:BA:1991:U:C5'	27:BA:1991:U:H6	2.24	0.50
16:AP:75:ARG:C	16:AP:77:ALA:H	2.14	0.50
27:BA:1338:G:H2'	27:BA:1339:G:C8	2.46	0.50
37:BO:4:PRO:O	37:BO:5:GLN:CB	2.59	0.50
50:B1:5:CYS:SG	50:B1:8:SER:OG	2.58	0.50
27:BA:2093:G:C6	27:BA:2225:A:C8	3.00	0.50
27:BA:373:U:O2	27:BA:423:A:C2	2.64	0.50
27:BA:1799:G:C2	27:BA:1819:A:N7	2.79	0.50
3:CC:196:LEU:HD12	3:CC:197:GLY:H	1.77	0.50
5:CE:50:GLU:HG3	5:CE:51:VAL:H	1.76	0.50
12:CL:107:VAL:HG23	12:CL:117:TYR:HB3	1.92	0.50
27:BA:524:U:H4'	27:BA:555:U:H4'	1.93	0.50
39:DQ:29:PHE:HB2	39:DQ:105:GLU:OE2	2.11	0.50
38:BP:96:THR:HB	38:BP:97:PRO:CD	2.42	0.50
36:DN:16:ILE:HG23	36:DN:54:VAL:HA	1.94	0.50
27:DA:1275:A:H4'	27:DA:1276:A:OP1	2.12	0.50
27:DA:2824:C:C5	27:DA:2825:C:C4	3.00	0.50
27:BA:142:A:H1'	27:BA:1408:C:O4'	2.12	0.50
7:CG:77:SER:O	7:CG:78:ARG:HB2	2.11	0.50
27:DA:662:G:H5'	38:DP:18:ARG:CA	2.41	0.50
1:AA:259:G:H2'	1:AA:260:G:C8	2.45	0.50
1:AA:939:G:H5''	7:AG:102:ARG:NH2	2.26	0.50
5:CE:33:VAL:HG12	5:CE:34:VAL:H	1.75	0.50
31:DE:4:ILE:HD11	31:DE:31:CYS:SG	2.52	0.50
30:DD:182:LEU:CB	30:DD:271:ILE:HG13	2.42	0.50
25:CY:18:G:C1'	25:CY:56:G:H22	2.23	0.50
27:BA:271(U):G:C2	27:BA:271(V):G:C8	3.00	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1278:U:H5''	1:AA:1279:A:O4'	2.11	0.50
25:CY:27:C:H2'	25:CY:28:G:C8	2.47	0.50
45:DW:18:ARG:C	45:DW:20:VAL:N	2.65	0.50
27:DA:1204:A:N1	27:DA:1241:A:H2	2.08	0.50
27:DA:503:A:C6	27:DA:506:G:C6	2.99	0.50
35:DI:9:LEU:O	35:DI:13:GLY:HA3	2.11	0.50
1:CA:14:U:C6	1:CA:16:A:OP2	2.65	0.50
27:DA:1980:G:H4'	27:DA:1981:A:OP2	2.11	0.50
27:BA:1721:G:C6	27:BA:1739:U:H5'	2.45	0.50
28:DB:29:A:H2'	28:DB:30:C:C6	2.47	0.50
11:AK:21:ILE:HG13	11:AK:30:VAL:CG1	2.42	0.50
18:CR:66:LEU:HD11	18:CR:70:ILE:HD11	1.94	0.50
5:AE:145:LYS:O	5:AE:148:VAL:HB	2.11	0.50
27:BA:1447:G:H2'	27:BA:1448:G:C8	2.41	0.50
27:BA:1466:G:H2'	27:BA:1547:C:N4	2.27	0.50
5:CE:94:ALA:HB3	5:CE:117:ASP:C	2.32	0.50
6:AF:44:GLY:HA2	6:AF:59:TYR:CD2	2.47	0.50
10:AJ:83:GLU:C	10:AJ:85:LEU:H	2.15	0.50
23:CW:38:U:H2'	23:CW:39:C:C6	2.47	0.50
39:DQ:114:ALA:O	39:DQ:115:MET:C	2.50	0.50
30:DD:87:ASN:O	30:DD:88:ARG:HB3	2.11	0.50
23:AW:42:G:C2'	23:AW:43:C:H5''	2.41	0.50
4:CD:4:TYR:O	4:CD:5:ILE:HB	2.10	0.50
1:AA:986:A:H2'	1:AA:987:G:H8	1.77	0.50
35:DI:7:GLU:OE1	35:DI:8:PRO:HD2	2.11	0.50
27:DA:99:U:O2	27:DA:99:U:H3'	2.12	0.50
2:AB:239:VAL:HG12	2:AB:239:VAL:O	2.11	0.50
5:CE:26:PHE:N	5:CE:26:PHE:CD1	2.80	0.50
18:CR:26:LEU:HD21	18:CR:42:ARG:HD2	1.93	0.50
1:CA:801:U:O2'	1:CA:802:A:H5'	2.11	0.50
27:DA:336:C:O2'	27:DA:337:C:H5'	2.12	0.50
20:CT:20:LEU:O	20:CT:21:LYS:C	2.50	0.50
5:AE:48:ALA:HB3	5:AE:54:ALA:HB2	1.94	0.50
2:CB:231:GLU:O	2:CB:231:GLU:HG3	2.11	0.50
27:DA:304:G:O2'	27:DA:305:U:H5'	2.12	0.50
27:BA:942:G:H2'	27:BA:943:U:H5'	1.92	0.50
1:CA:518:C:OP2	1:CA:530:G:H4'	2.11	0.50
27:BA:660:G:O2'	27:BA:661:C:H5'	2.12	0.50
27:DA:2406:U:C4	38:DP:72:PRO:HD2	2.47	0.50
27:DA:560:C:H4'	43:DU:52:ARG:CZ	2.42	0.50
44:DV:59:ALA:HA	44:DV:97:LYS:HG2	1.92	0.50
47:DY:96:ILE:CD1	47:DY:99:CYS:CB	2.89	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DD:132:PRO:HD3	30:DD:190:TYR:CZ	2.46	0.50
55:D6:20:ASN:CG	55:D6:21:TYR:N	2.65	0.50
27:DA:2392:A:OP1	57:D8:32:LEU:HD22	2.11	0.50
27:DA:2382:G:H3'	27:DA:2382:G:OP1	2.12	0.50
38:DP:131:SER:O	38:DP:133:SER:N	2.45	0.50
27:DA:2495:G:OP2	39:DQ:82:ARG:NH2	2.45	0.50
33:DG:27:ASN:O	33:DG:29:TRP:N	2.43	0.50
27:BA:1144:G:H2'	27:BA:1145:C:C6	2.46	0.50
36:BN:95:PRO:HG2	36:BN:96:GLU:OE2	2.11	0.50
55:B6:15:GLU:HG2	55:B6:18:ARG:CZ	2.42	0.50
1:AA:1367:C:N3	1:AA:1368:G:C8	2.80	0.50
1:AA:943:U:C4	1:AA:944:G:N7	2.80	0.50
8:AH:26:VAL:HG23	8:AH:27:PRO:HD2	1.94	0.50
1:CA:346:G:H5''	42:DT:41:ARG:HH22	1.77	0.50
1:AA:100:C:H2'	1:AA:101:A:H8	1.67	0.50
1:AA:60:A:C4'	1:AA:61:G:O5'	2.57	0.50
27:BA:1658:C:H42	27:BA:2002:G:H1	1.60	0.50
31:DE:203:LYS:HE3	31:DE:204:ALA:N	2.27	0.50
15:AO:76:GLU:OE2	15:AO:76:GLU:HA	2.12	0.50
30:DD:53:PHE:CE2	30:DD:220:HIS:CD2	3.00	0.50
1:CA:1073:U:OP2	5:CE:57:LYS:HE3	2.11	0.50
48:DZ:50:ALA:O	48:DZ:51:SER:HB3	2.12	0.50
27:BA:2158:A:H4'	27:BA:2159:G:O5'	2.12	0.50
1:CA:163:C:H2'	1:CA:164:U:H6	1.75	0.50
55:B6:8:LYS:O	55:B6:9:LEU:HB3	2.11	0.50
38:DP:16:ARG:HD3	38:DP:16:ARG:C	2.32	0.50
34:DH:143:GLN:NE2	34:DH:147:ASN:HD21	2.10	0.50
33:DG:39:ILE:HD13	33:DG:157:ILE:HG22	1.93	0.50
27:DA:849:A:H8	27:DA:849:A:O5'	1.95	0.50
37:DO:86:ILE:CG2	37:DO:94:ARG:HD2	2.42	0.50
21:AU:7:ARG:O	21:AU:8:THR:HG22	2.12	0.50
1:CA:452:A:N3	16:CP:72:ARG:NH1	2.59	0.50
1:AA:660:G:H2'	1:AA:661:G:C8	2.47	0.50
11:CK:21:ILE:HG23	11:CK:30:VAL:HG12	1.94	0.50
27:BA:2230:G:H1'	50:B1:45:ASN:ND2	2.27	0.50
10:CJ:4:ILE:HB	10:CJ:74:ILE:CG1	2.41	0.50
47:BY:2:ARG:HD3	47:BY:2:ARG:C	2.32	0.50
33:BG:118:ARG:N	33:BG:181:ARG:HH21	2.00	0.50
5:AE:18:ARG:HG3	5:AE:25:ARG:O	2.12	0.50
52:D3:8:LEU:HD22	52:D3:31:LEU:CD2	2.41	0.50
42:BT:54:ARG:O	42:BT:55:ASN:HB2	2.11	0.50
33:BG:166:ASP:O	33:BG:167:GLU:C	2.50	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BG:166:ASP:O	33:BG:169:ALA:HB3	2.12	0.50
27:BA:1565:C:H1'	27:BA:1566:A:H2'	1.93	0.50
27:DA:2140:C:H1'	27:DA:2152:G:H22	1.77	0.50
1:AA:232:G:C4	1:AA:233:C:C6	2.99	0.50
27:BA:1353:A:H4'	30:BD:38:LYS:CE	2.36	0.50
27:DA:81:G:H21	47:DY:2:ARG:CZ	2.24	0.50
32:BF:175:THR:CG2	32:BF:175:THR:O	2.59	0.50
4:AD:119:GLN:NE2	4:AD:123:HIS:NE2	2.58	0.50
32:BF:46:ARG:O	32:BF:48:THR:N	2.45	0.50
2:AB:182:ILE:O	2:AB:183:PRO:C	2.50	0.50
27:BA:1627:G:H2'	27:BA:1628:G:H8	1.77	0.50
36:BN:57:ALA:C	36:BN:58:ASP:O	2.50	0.50
5:AE:91:LEU:CD1	5:AE:120:THR:HG22	2.40	0.50
27:BA:2114:A:O5'	27:BA:2114:A:H8	1.94	0.50
13:CM:49:THR:HG22	13:CM:50:GLU:N	2.27	0.50
27:BA:1526:G:C6	27:BA:1527:G:C2	2.99	0.50
27:BA:460:A:C2	27:BA:461:C:H1'	2.47	0.50
42:DT:92:GLY:H	42:DT:116:ALA:HA	1.76	0.50
35:BI:4:ILE:HG12	35:BI:18:VAL:HG22	1.93	0.50
28:DB:25:A:H2'	28:DB:26:A:C8	2.47	0.50
27:BA:1936:A:H3'	27:BA:1937:A:C5'	2.42	0.50
4:CD:154:ASN:C	4:CD:155:LEU:HD23	2.31	0.50
51:B2:15:LYS:C	51:B2:16:LEU:HD23	2.32	0.50
47:DY:31:LEU:HD23	47:DY:36:ALA:HB3	1.94	0.50
1:AA:712:A:H2'	1:AA:713:G:C8	2.47	0.50
27:DA:1842:G:H2'	27:DA:1843:C:C6	2.47	0.50
27:DA:1582:C:O2'	27:DA:1586:A:H8	1.94	0.50
30:BD:78:LYS:HG2	30:BD:79:VAL:H	1.77	0.50
27:DA:2063:C:C6	27:DA:2064:C:C5	2.99	0.50
27:DA:890:A:OP1	27:DA:890:A:H4'	2.12	0.50
4:CD:3:ARG:NH2	4:CD:5:ILE:HD11	2.27	0.50
7:CG:76:ARG:HH11	7:CG:76:ARG:HG2	1.76	0.50
1:CA:486:U:H2'	1:CA:487:A:H8	1.77	0.50
1:AA:1255:G:OP1	10:AJ:45:ARG:NH2	2.45	0.50
39:BQ:18:LYS:O	39:BQ:19:GLY:O	2.30	0.50
27:BA:2291:U:H2'	27:BA:2292:C:C6	2.46	0.50
2:AB:73:THR:HG23	2:AB:170:GLU:HG2	1.94	0.50
27:BA:1166:C:H2'	27:BA:1167:U:C6	2.47	0.50
27:DA:603:A:H4'	27:DA:604:G:O5'	2.11	0.50
10:AJ:33:GLN:O	10:AJ:75:ILE:HG23	2.12	0.50
27:BA:1381:G:O2'	27:BA:1382:G:H5'	2.12	0.50
3:CC:173:VAL:HG12	3:CC:175:LEU:HD12	1.93	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:132:G:H2'	27:BA:133:C:H6	1.77	0.50
34:BH:153:LYS:HD2	34:BH:153:LYS:H	1.77	0.50
31:DE:40:GLU:OE2	31:DE:41:LYS:HG3	2.12	0.50
27:BA:1293:C:C2	27:BA:1294:U:C5	3.00	0.50
40:BR:21:TYR:OH	40:BR:43:GLU:HG2	2.12	0.50
27:BA:2728:U:H2'	27:BA:2729:G:H5'	1.93	0.50
27:DA:910:A:H3'	27:DA:911:A:C8	2.45	0.50
33:BG:99:MET:O	33:BG:103:LEU:HD12	2.12	0.50
36:BN:4:TYR:CG	43:BU:64:ARG:NH2	2.66	0.50
43:BU:91:ASP:CG	43:BU:96:ALA:HB2	2.31	0.50
27:DA:421:U:O2'	27:DA:422:A:OP2	2.27	0.50
1:AA:235:C:H2'	1:AA:236:G:H8	1.77	0.50
1:AA:1402:C:O2'	1:AA:1403:C:H5'	2.12	0.50
27:DA:1566:A:N7	30:DD:214:TRP:CZ3	2.80	0.50
47:DY:8:LYS:HD2	47:DY:8:LYS:N	2.26	0.50
27:DA:861:A:O2'	27:DA:862:G:H5'	2.12	0.50
27:DA:2612:C:HO2'	27:DA:2613:U:H5'	1.76	0.50
27:DA:972:G:H2'	27:DA:973:A:C8	2.47	0.50
27:BA:1141:U:O4	36:BN:64:GLY:HA3	2.12	0.50
1:CA:1104:G:H4'	2:CB:111:ARG:NH1	2.26	0.50
30:BD:30:GLU:OE2	30:BD:63:ARG:NH2	2.44	0.50
14:AN:27:CYS:HG	14:AN:43:CYS:HG	1.35	0.50
8:AH:33:GLU:C	8:AH:35:ILE:N	2.65	0.50
27:BA:1248:G:H3'	27:BA:1249:U:H5''	1.93	0.50
27:BA:1812:A:C1'	30:BD:46:GLN:HE22	2.25	0.50
1:AA:1076:C:N4	1:AA:1081:G:H1	2.06	0.50
2:AB:107:THR:O	2:AB:110:GLN:HG3	2.12	0.50
2:AB:140:HIS:O	2:AB:144:ARG:HG2	2.12	0.50
32:DF:187:VAL:C	38:DP:7:ARG:NH2	2.63	0.50
1:CA:889:A:H1'	1:CA:891:U:C5	2.47	0.50
36:DN:134:ARG:N	36:DN:135:PRO:HD3	2.26	0.50
1:AA:451:A:H61	1:AA:481:G:C5'	2.25	0.50
27:DA:515:A:O2'	27:DA:516:C:H5'	2.12	0.50
20:CT:28:ALA:C	20:CT:30:LYS:N	2.65	0.50
58:D9:13:LYS:HD3	58:D9:28:GLU:HB2	1.94	0.50
18:AR:53:ARG:HH21	18:AR:59:SER:HA	1.76	0.50
1:CA:717:C:C4	1:CA:734:G:N7	2.80	0.50
27:BA:2278:A:H5''	49:B0:12:ASN:HD22	1.77	0.50
27:DA:1311:G:O2'	27:DA:1312:U:H5	1.95	0.50
27:DA:684:G:O2'	27:DA:788:A:N7	2.45	0.50
27:DA:768:G:C6	27:DA:769:G:C6	2.99	0.50
35:BI:93:THR:O	35:BI:94:ALA:C	2.49	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2819:G:OP2	40:DR:8:ARG:NH1	2.45	0.50
27:DA:300:A:N3	27:DA:319:C:H1'	2.26	0.50
27:BA:1374:G:H2'	27:BA:1375:C:C6	2.47	0.50
1:AA:737:A:O2'	6:AF:72:VAL:HG11	2.11	0.50
1:CA:1027:C:C2	1:CA:1028:C:N4	2.80	0.50
1:AA:1380:U:H4'	1:AA:1381:U:C5'	2.41	0.50
42:DT:109:GLU:O	42:DT:112:ARG:HB2	2.12	0.50
1:AA:762:C:H2'	1:AA:763:G:C8	2.44	0.50
45:DW:84:ARG:CG	45:DW:98:LYS:HZ3	2.25	0.50
27:DA:1236:G:OP2	27:DA:1236:G:C8	2.65	0.50
27:BA:676:A:N1	27:BA:802:A:N1	2.59	0.50
27:BA:1332:G:H5'	27:BA:1333:C:H5	1.76	0.50
27:BA:114:U:H2'	27:BA:114:U:O2	2.12	0.50
1:CA:810:C:O2'	1:CA:811:C:H5'	2.12	0.50
1:AA:1088:G:C4	1:AA:1089:G:C8	3.00	0.50
27:BA:872:A:N6	27:BA:906:G:C6	2.79	0.50
27:BA:1240:U:O2'	27:BA:1241:A:H5'	2.12	0.50
27:BA:171:G:O2'	27:BA:172:C:C6	2.56	0.50
27:BA:2462:U:H6	27:BA:2462:U:O5'	1.95	0.50
3:CC:21:ARG:C	3:CC:22:TRP:CD1	2.85	0.50
27:BA:1837:C:O2'	27:BA:1927:A:N3	2.36	0.50
27:BA:1260:G:H2'	27:BA:1261:C:C6	2.47	0.50
58:B9:14:CYS:O	58:B9:15:LYS:CB	2.51	0.50
27:DA:980:A:H2'	27:DA:981:A:O4'	2.11	0.50
50:D1:80:LEU:HB3	50:D1:82:LEU:CD2	2.42	0.50
1:AA:1525:G:H2'	1:AA:1526:G:C8	2.46	0.50
27:BA:2036:C:O2'	27:BA:2037:G:C8	2.65	0.50
10:CJ:83:GLU:C	10:CJ:85:LEU:H	2.13	0.50
18:CR:79:LEU:HB3	18:CR:80:PRO:HD2	1.93	0.50
2:CB:193:ASP:O	2:CB:194:PRO:O	2.29	0.50
5:AE:11:ILE:HD13	5:AE:105:VAL:HA	1.94	0.50
30:DD:155:LEU:CD1	30:DD:155:LEU:N	2.74	0.50
23:CW:29:G:H2'	23:CW:30:A:H8	1.76	0.50
50:D1:84:GLY:O	50:D1:86:SER:N	2.45	0.50
42:BT:130:ALA:O	42:BT:131:ALA:C	2.51	0.50
9:CI:16:ARG:HE	9:CI:64:THR:CG2	2.24	0.50
27:DA:1171:G:H3'	27:DA:1173:G:H4'	1.93	0.50
25:AY:47:C:N3	25:AY:58:A:H1'	2.27	0.50
32:DF:164:ARG:HG2	32:DF:164:ARG:HH11	1.76	0.50
27:BA:2088:G:H2'	27:BA:2089:U:C6	2.47	0.50
27:BA:888:C:H3'	27:BA:889:C:C5'	2.41	0.50
2:CB:142:LEU:O	2:CB:146:GLN:N	2.38	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:598:U:H2'	1:CA:599:C:C6	2.46	0.50
48:DZ:28:TYR:O	48:DZ:29:ASN:HB3	2.12	0.50
27:DA:284:U:O2'	27:DA:285:C:C6	2.64	0.50
1:CA:757:U:O2'	1:CA:758:G:H5'	2.11	0.50
27:BA:1630:G:H2'	27:BA:1631:C:C6	2.47	0.50
25:CY:5:G:O2'	25:CY:6:U:H5'	2.12	0.50
27:DA:23:G:C2	27:DA:24:G:C8	3.00	0.50
1:AA:779:C:N4	1:AA:780:A:C6	2.80	0.50
39:DQ:89:ASN:OD1	39:DQ:89:ASN:N	2.44	0.50
15:CO:34:LEU:O	15:CO:34:LEU:HD12	2.11	0.50
4:AD:138:TYR:HE2	4:AD:140:VAL:HA	1.77	0.50
1:CA:1394:A:O2'	1:CA:1501:C:H1'	2.11	0.50
27:BA:633:A:N3	27:BA:2403:C:H4'	2.27	0.50
1:CA:1363:C:H5'	1:CA:1363(A):A:P	2.52	0.50
27:DA:1140:C:H5''	36:DN:66:LYS:HZ3	1.76	0.50
4:CD:13:ARG:HA	4:CD:33:MET:SD	2.52	0.50
9:CI:105:ASP:OD1	9:CI:107:ARG:HD3	2.12	0.50
5:AE:132:ALA:C	5:AE:134:ALA:N	2.66	0.50
44:BV:20:LEU:N	44:BV:20:LEU:HD12	2.27	0.50
44:BV:95:LEU:HD22	44:BV:95:LEU:C	2.33	0.50
1:CA:720:C:O5'	1:CA:720:C:H6	1.94	0.50
17:AQ:40:LYS:HE2	17:AQ:42:TYR:CZ	2.47	0.50
27:DA:61:G:O2'	27:DA:62:C:H6	1.94	0.50
38:DP:101:VAL:CG2	38:DP:102:ARG:N	2.74	0.50
44:DV:79:VAL:O	44:DV:80:GLN:HB2	2.12	0.50
27:BA:1686:C:C2'	27:BA:1687:G:H5'	2.42	0.50
1:AA:230:G:H4'	16:AP:23:ASP:OD2	2.11	0.50
27:BA:2590:A:C2	27:BA:2605:U:O2	2.64	0.50
1:CA:1003:G:H2'	1:CA:1004:A:O4'	2.10	0.50
42:DT:13:ARG:HH12	42:DT:15:VAL:HG11	1.77	0.50
30:DD:218:ARG:CB	30:DD:219:PRO:CD	2.90	0.50
30:BD:270:ILE:C	30:BD:270:ILE:HD12	2.33	0.50
2:CB:58:ILE:N	2:CB:58:ILE:HD13	2.27	0.50
48:BZ:165:SER:HB2	48:BZ:166:PRO:C	2.32	0.50
40:DR:11:ASN:O	40:DR:12:ARG:HB2	2.12	0.50
32:BF:33:LEU:HD13	32:BF:112:MET:HE2	1.93	0.50
37:DO:14:THR:O	37:DO:14:THR:HG22	2.12	0.50
51:B2:53:LEU:O	51:B2:54:LYS:C	2.51	0.50
57:B8:50:LEU:O	57:B8:51:ALA:CB	2.59	0.50
30:BD:17:THR:HG1	30:BD:205:VAL:H	1.59	0.50
5:AE:80:ILE:HD11	5:AE:142:LEU:HD21	1.94	0.50
42:DT:49:VAL:O	42:DT:50:ILE:HD12	2.12	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:196:A:C4	27:BA:805:G:O6	2.64	0.50
21:AU:9:ARG:O	21:AU:10:ARG:C	2.49	0.50
1:AA:818:G:C3'	1:AA:819:A:C5'	2.90	0.50
1:CA:604:G:C6	1:CA:635:G:C6	3.00	0.50
1:AA:1313:U:OP1	19:AS:6:LYS:HG3	2.12	0.50
27:BA:814:C:N4	38:BP:27:HIS:HD2	1.99	0.50
44:BV:82:ARG:NH1	44:BV:82:ARG:HG2	2.27	0.50
27:BA:1048:A:N6	27:BA:1054:A:C5	2.79	0.50
45:DW:6:ILE:HG21	45:DW:8:ARG:HG3	1.93	0.50
7:AG:23:VAL:HG12	7:AG:24:THR:N	2.27	0.50
27:BA:187:G:N3	27:BA:1365:A:H2	2.10	0.50
15:CO:8:LYS:O	15:CO:11:VAL:HB	2.11	0.50
1:CA:885:G:N3	1:CA:914:A:H2	2.08	0.50
1:AA:800:G:HO2'	1:AA:801:U:H6	1.56	0.50
1:AA:839:U:H5'	1:AA:840:C:C5	2.46	0.50
18:AR:58:LEU:HD12	18:AR:58:LEU:N	2.27	0.50
4:AD:3:ARG:HB3	4:AD:118:ARG:HE	1.77	0.50
30:BD:131:LEU:O	30:BD:190:TYR:HA	2.12	0.50
27:BA:1193:G:C8	27:BA:1193:G:H5'	2.44	0.50
7:CG:117:ALA:O	7:CG:120:ILE:N	2.44	0.50
27:BA:463:G:N2	27:BA:467:G:C5	2.80	0.50
27:BA:458:G:N2	27:BA:469:G:H2'	2.26	0.50
27:DA:2354:G:N2	27:DA:2355:C:C2	2.80	0.50
48:DZ:140:VAL:HG13	48:DZ:140:VAL:O	2.11	0.50
47:DY:90:LEU:HD12	47:DY:91:GLU:N	2.27	0.50
27:DA:1548:C:H2'	27:DA:1549:C:C6	2.42	0.50
27:DA:2146:C:H4'	27:DA:2147:G:O5'	2.12	0.50
48:DZ:36:VAL:O	48:DZ:37:TYR:HB3	2.11	0.50
38:DP:132:LYS:O	38:DP:136:GLU:HG2	2.12	0.50
48:BZ:32:LEU:HG	48:BZ:33:ASN:N	2.27	0.50
27:BA:2111:C:N3	27:BA:2147:G:N2	2.59	0.50
27:BA:83:G:C2	27:BA:102:G:O2'	2.63	0.50
27:BA:1450:G:H2'	27:BA:1450(A):C:C5'	2.42	0.50
27:DA:553:G:O2'	27:DA:554:U:H5'	2.11	0.50
1:AA:1413:A:C6	1:AA:1414:U:C4	3.00	0.50
27:BA:1695:G:N2	27:BA:1696:G:C5	2.80	0.50
2:AB:220:ASP:O	2:AB:224:GLN:HB2	2.12	0.50
6:CF:5:GLU:OE1	6:CF:62:TRP:HZ2	1.95	0.50
27:BA:1385:G:O3'	27:BA:1396:U:H5	1.94	0.50
2:CB:170:GLU:O	2:CB:173:ALA:HB3	2.12	0.50
3:CC:189:ALA:O	3:CC:195:VAL:CG1	2.60	0.50
1:CA:487:A:O2'	1:CA:488:C:H5'	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1805:U:H5''	30:DD:250:TRP:CG	2.47	0.50
44:DV:21:ARG:N	44:DV:21:ARG:HD3	2.26	0.50
48:BZ:44:ASP:O	48:BZ:46:VAL:N	2.45	0.50
1:AA:1494:G:O6	26:AZ:1:KBE:HAA	2.11	0.50
45:DW:35:ILE:HG23	54:D5:28:PRO:HD2	1.94	0.50
16:CP:6:LEU:HD23	16:CP:17:TYR:CD2	2.47	0.50
27:BA:370:G:H4'	27:BA:371:A:OP2	2.11	0.50
27:DA:1527:G:H5''	27:DA:1528:A:OP1	2.12	0.50
38:BP:86:LYS:HB2	38:BP:117:GLU:O	2.11	0.50
4:AD:90:GLY:HA3	4:AD:201:GLN:NE2	2.26	0.50
4:AD:203:VAL:O	4:AD:204:ILE:C	2.50	0.50
45:DW:25:ARG:HH11	45:DW:25:ARG:CB	2.25	0.50
45:DW:25:ARG:HB2	45:DW:25:ARG:NH1	2.27	0.50
3:CC:178:LEU:H	3:CC:178:LEU:HD22	1.76	0.50
30:DD:184:LYS:HG3	30:DD:269:PHE:HA	1.92	0.50
4:CD:59:ARG:NE	4:CD:59:ARG:HA	2.26	0.50
38:BP:34:GLY:O	38:BP:35:HIS:CB	2.60	0.49
32:BF:3:GLU:HA	32:BF:24:LEU:CB	2.42	0.49
34:BH:138:LYS:N	34:BH:141:VAL:HG23	2.21	0.49
27:DA:242:G:N7	57:D8:5:LYS:HG2	2.27	0.49
27:DA:1823:G:H2'	27:DA:1824:G:H8	1.77	0.49
27:DA:1932:A:O2'	27:DA:1933:G:H5'	2.11	0.49
32:BF:38:ARG:NH1	32:BF:38:ARG:HG3	2.24	0.49
47:BY:49:VAL:O	47:BY:50:ARG:HB2	2.13	0.49
27:BA:997:G:OP1	43:BU:92:ARG:C	2.50	0.49
44:BV:2:PHE:CE1	44:BV:13:ARG:HG3	2.46	0.49
44:BV:38:LEU:HD23	44:BV:39:LEU:N	2.27	0.49
44:DV:47:VAL:O	44:DV:47:VAL:HG23	2.12	0.49
27:DA:869:G:C4	27:DA:870:A:C8	3.01	0.49
11:AK:32:ILE:HD11	11:AK:41:THR:CB	2.33	0.49
31:DE:52:LEU:HD22	31:DE:76:ARG:HB2	1.94	0.49
57:D8:33:ASN:HA	57:D8:36:LYS:HD2	1.94	0.49
27:DA:2259:G:H1'	27:DA:2427:C:C2	2.47	0.49
27:DA:1615:C:C2	45:DW:87:PRO:HG3	2.46	0.49
27:DA:1952:A:C6	27:DA:1953:A:C6	3.00	0.49
31:DE:96:PHE:HE2	31:DE:198:VAL:HG12	1.77	0.49
1:CA:1296:C:H3'	1:CA:1297:C:C6	2.46	0.49
30:BD:105:ILE:O	30:BD:106:ILE:C	2.50	0.49
30:BD:126:GLN:O	30:BD:127:VAL:C	2.50	0.49
1:CA:40:C:O2'	1:CA:41:G:H5'	2.12	0.49
1:CA:103:C:OP1	20:CT:17:ARG:NH1	2.45	0.49
8:AH:119:LEU:HD12	8:AH:124:ALA:HA	1.94	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:530:G:HO2'	1:AA:531:U:P	2.34	0.49
27:DA:2755:C:H2'	27:DA:2755:C:O2	2.12	0.49
27:BA:2070:G:C2	27:BA:2071:A:C4	2.99	0.49
27:BA:787:U:H5''	27:BA:788:A:C5'	2.42	0.49
33:DG:135:LEU:HD12	33:DG:135:LEU:N	2.25	0.49
15:CO:56:LEU:O	15:CO:57:LEU:C	2.50	0.49
58:D9:27:CYS:SG	58:D9:29:ASN:ND2	2.85	0.49
1:CA:748:C:HO2'	1:CA:749:C:P	2.35	0.49
27:BA:2289:G:H2'	27:BA:2290:G:H5''	1.93	0.49
1:CA:18:C:H2'	1:CA:19:C:O4'	2.12	0.49
27:BA:65:C:O2'	27:BA:66:C:H5'	2.12	0.49
13:AM:57:ARG:NH1	53:B4:60:GLU:HG3	2.27	0.49
1:AA:938:A:O2'	1:AA:939:G:H5'	2.11	0.49
1:AA:1278:U:H5'	1:AA:1279:A:N9	2.26	0.49
27:BA:77:C:C2	27:BA:110:G:N2	2.80	0.49
27:BA:1055:G:C2'	27:BA:1108:U:H5'	2.42	0.49
27:DA:481:G:O2'	27:DA:482:A:P	2.70	0.49
1:CA:1382:C:O2'	1:CA:1383:C:H5'	2.12	0.49
1:CA:936:C:H2'	1:CA:937:A:O4'	2.12	0.49
50:B1:18:ILE:CG2	50:B1:20:ARG:HG3	2.42	0.49
1:AA:1089:G:O2'	1:AA:1090:U:H5'	2.12	0.49
43:BU:31:SER:OG	43:BU:34:LYS:N	2.35	0.49
1:AA:232:G:C5	1:AA:233:C:C5	3.00	0.49
1:AA:799:G:C2'	1:AA:800:G:H5'	2.41	0.49
1:AA:799:G:H2'	1:AA:800:G:H5'	1.93	0.49
6:AF:15:ASP:O	6:AF:16:GLN:C	2.50	0.49
12:AL:66:TYR:HB2	12:AL:93:VAL:HG11	1.93	0.49
27:DA:2543:G:C2	27:DA:2544:G:C4	2.99	0.49
1:AA:1377:A:H2'	7:AG:7:ALA:HB2	1.94	0.49
1:AA:848:C:O2'	1:AA:849:C:H5'	2.12	0.49
37:DO:88:ASN:ND2	37:DO:92:GLU:HB2	2.27	0.49
18:AR:56:THR:O	18:AR:58:LEU:HD12	2.12	0.49
4:CD:146:ILE:CD1	4:CD:146:ILE:N	2.71	0.49
31:BE:40:GLU:N	31:BE:40:GLU:CD	2.65	0.49
27:DA:1400:G:O2'	27:DA:1401:G:H5'	2.12	0.49
36:BN:55:VAL:HG22	36:BN:56:ASN:H	1.77	0.49
56:D7:22:MET:SD	56:D7:31:LEU:CD1	3.00	0.49
27:BA:465:G:C6	27:BA:466:A:N6	2.80	0.49
46:DX:71:GLY:C	46:DX:72:LYS:HD2	2.32	0.49
1:AA:758:G:H5''	1:AA:880:C:H1'	1.93	0.49
1:CA:1030:C:C5	1:CA:1031:G:N2	2.79	0.49
1:CA:59:A:H5''	1:CA:60:A:H5'	1.93	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:277:C:P	17:AQ:41:LYS:HZ1	2.35	0.49
27:DA:1770:G:H2'	27:DA:1771:C:C6	2.46	0.49
27:DA:811:U:H2'	38:DP:24:GLY:O	2.12	0.49
5:AE:40:ARG:HB3	5:AE:66:MET:HE1	1.94	0.49
27:BA:2220:G:H2'	27:BA:2221:G:C8	2.47	0.49
28:DB:25:A:H3'	28:DB:26:A:H5''	1.93	0.49
24:CX:34:C:O2	24:CX:35:A:C8	2.64	0.49
27:BA:1450:G:C2'	27:BA:1450(A):C:H5'	2.41	0.49
9:CI:17:VAL:HG12	9:CI:17:VAL:O	2.11	0.49
48:BZ:106:THR:HB	48:BZ:107:PRO:HD2	1.93	0.49
50:D1:50:ARG:HH11	50:D1:50:ARG:CG	2.23	0.49
27:BA:1973:G:H2'	27:BA:1974:C:C6	2.44	0.49
30:BD:261:LYS:NZ	30:BD:263:ARG:NH2	2.60	0.49
43:BU:52:ARG:O	43:BU:56:ASP:N	2.42	0.49
1:AA:1234:C:H2'	1:AA:1235:U:H6	1.77	0.49
1:AA:1154:G:H2'	1:AA:1155:G:C8	2.46	0.49
27:BA:1789:A:OP1	30:BD:222:ARG:HG3	2.11	0.49
12:CL:49:LEU:O	12:CL:51:LYS:HD2	2.12	0.49
27:BA:1759:A:H1'	27:BA:2711:A:C2	2.47	0.49
1:AA:1149:C:O2'	1:AA:1150:U:H5'	2.12	0.49
2:AB:108:ILE:O	2:AB:111:ARG:HB2	2.12	0.49
30:DD:126:GLN:HG2	30:DD:129:ASN:ND2	2.27	0.49
18:CR:46:GLU:HB3	18:CR:85:LEU:HD13	1.93	0.49
16:CP:59:TRP:O	16:CP:64:ALA:HB3	2.12	0.49
28:BB:37:C:H2'	28:BB:38:C:O4'	2.11	0.49
33:BG:77:ILE:HG22	33:BG:80:PHE:H	1.77	0.49
11:CK:24:SER:OG	11:CK:25:TYR:N	2.42	0.49
27:BA:1582:C:O2'	27:BA:1586:A:C8	2.65	0.49
20:CT:40:ALA:C	20:CT:42:GLN:H	2.15	0.49
1:CA:1016:A:H2'	1:CA:1017:G:O4'	2.12	0.49
27:BA:1773:A:C2'	27:BA:1774:C:H5'	2.42	0.49
1:CA:77:G:H2'	1:CA:77:G:N3	2.27	0.49
10:CJ:84:GLN:CD	10:CJ:84:GLN:H	2.14	0.49
4:AD:168:ARG:HH11	4:AD:168:ARG:CG	2.25	0.49
27:BA:601:C:O2'	27:BA:605:C:OP1	2.23	0.49
27:BA:1009:A:H5''	43:BU:63:VAL:CG2	2.43	0.49
8:AH:102:ARG:HD2	8:AH:105:ARG:HH12	1.77	0.49
27:BA:2817:G:H21	27:BA:2836:U:H1'	1.78	0.49
47:BY:96:ILE:CG1	47:BY:99:CYS:HB2	2.43	0.49
34:BH:85:LYS:HB3	34:BH:133:VAL:HG23	1.92	0.49
27:BA:511:U:C5	27:BA:512:G:C4	3.00	0.49
27:BA:486:C:H2'	27:BA:487:C:C6	2.47	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BE:75:VAL:O	31:BE:77:ILE:N	2.45	0.49
27:BA:533:G:O2'	43:BU:42:ALA:HA	2.12	0.49
36:BN:1:MET:O	36:BN:2:LYS:CG	2.61	0.49
43:DU:100:VAL:HG12	43:DU:101:ARG:HG3	1.95	0.49
27:DA:434:U:C4'	27:DA:435:C:OP1	2.55	0.49
33:BG:54:GLU:C	33:BG:56:ALA:N	2.64	0.49
27:DA:860:U:O4'	27:DA:2268:A:H5'	2.13	0.49
27:DA:953:A:N3	27:DA:954:G:C8	2.79	0.49
27:DA:1952:A:H62	27:DA:1953:A:N6	2.08	0.49
27:DA:746:A:C1'	27:DA:748:G:N2	2.76	0.49
27:DA:330:A:O2'	27:DA:331:A:H2'	2.12	0.49
4:CD:100:ARG:O	4:CD:101:LEU:C	2.50	0.49
1:AA:1179:A:H2'	1:AA:1180:A:O4'	2.12	0.49
51:D2:4:SER:CA	51:D2:7:ARG:HH11	2.07	0.49
1:AA:1342:C:O2'	1:AA:1343:G:H5'	2.12	0.49
14:AN:26:ARG:HD2	14:AN:43:CYS:SG	2.52	0.49
8:AH:127:LEU:HD12	8:AH:129:VAL:CG1	2.38	0.49
12:CL:84:GLY:HA2	12:CL:95:TYR:HA	1.92	0.49
1:AA:297:G:N2	1:AA:300:A:OP2	2.39	0.49
27:DA:2747:G:O6	27:DA:2755:C:H5''	2.12	0.49
17:CQ:3:LYS:HD3	17:CQ:61:GLU:O	2.13	0.49
17:CQ:76:LEU:HD12	17:CQ:76:LEU:C	2.32	0.49
27:BA:125:G:H21	56:B7:48:LYS:HZ3	1.57	0.49
27:DA:18:C:N4	27:DA:19:C:N4	2.60	0.49
27:BA:1602:U:H4'	27:BA:1603:A:OP2	2.13	0.49
27:BA:1338:G:H2'	27:BA:1339:G:H8	1.77	0.49
37:BO:22:ILE:HG12	37:BO:42:SER:N	2.27	0.49
27:DA:2712:U:H5''	27:DA:2714:G:H4'	1.93	0.49
27:DA:2479:G:H5''	27:DA:2537:U:H4'	1.94	0.49
1:CA:718:G:N2	18:CR:49:LYS:HD3	2.27	0.49
5:CE:50:GLU:HB3	5:CE:53:LEU:CD1	2.33	0.49
1:CA:1260:C:H6	1:CA:1260:C:H3'	1.78	0.49
6:CF:34:GLY:HA3	6:CF:71:ARG:HH21	1.77	0.49
38:BP:83:VAL:HG22	38:BP:83:VAL:O	2.12	0.49
38:BP:96:THR:O	38:BP:100:LEU:HD22	2.13	0.49
25:AY:67:C:H2'	25:AY:68:C:C6	2.45	0.49
36:DN:16:ILE:CG2	36:DN:54:VAL:HG23	2.42	0.49
1:CA:925:G:C2	1:CA:927:G:C8	3.00	0.49
27:BA:153:C:OP1	50:B1:92:LYS:HE2	2.11	0.49
27:BA:2287:A:C4	27:BA:2289:G:N7	2.80	0.49
33:DG:48:GLU:O	33:DG:51:ARG:NE	2.45	0.49
33:DG:77:ILE:O	33:DG:81:LYS:O	2.30	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:200:ALA:C	3:AC:201:TYR:HD1	2.15	0.49
51:B2:32:LEU:HB2	51:B2:53:LEU:CD1	2.42	0.49
36:DN:78:TYR:HB3	36:DN:79:PRO:HD3	1.92	0.49
30:DD:35:LYS:NZ	30:DD:104:TYR:H	2.08	0.49
28:DB:39:A:O2'	28:DB:46:A:N1	2.41	0.49
39:BQ:27:VAL:H	39:BQ:137:TYR:HD1	1.60	0.49
13:AM:22:ILE:HG22	13:AM:25:ILE:HD13	1.92	0.49
1:AA:937:A:N6	1:AA:938:A:C6	2.80	0.49
1:AA:875:C:H1'	8:AH:15:ASN:ND2	2.27	0.49
38:BP:85:LEU:HA	38:BP:88:LEU:HB2	1.94	0.49
21:AU:12:LYS:HB3	21:AU:22:ARG:HD3	1.94	0.49
30:DD:176:ARG:HA	30:DD:181:GLU:O	2.11	0.49
12:CL:5:ASN:CA	12:CL:8:VAL:HG23	2.42	0.49
26:AZ:3:SER:O	26:AZ:4:SER:HB3	2.12	0.49
27:DA:30:G:C5	27:DA:31:C:C4	3.00	0.49
1:CA:937:A:O5'	1:CA:937:A:H8	1.95	0.49
1:CA:709:G:H2'	1:CA:710:G:H8	1.76	0.49
15:AO:38:ARG:HH11	15:AO:38:ARG:CG	2.25	0.49
37:BO:97:ARG:HA	37:BO:117:LEU:HD22	1.94	0.49
27:BA:218:A:H2	27:BA:235:U:H4'	1.75	0.49
2:AB:80:ILE:HD13	2:AB:211:ILE:HG22	1.92	0.49
16:CP:20:VAL:HG22	16:CP:21:VAL:H	1.76	0.49
49:D0:14:ARG:O	49:D0:15:ASP:HB2	2.11	0.49
27:BA:711:G:N2	27:BA:721:C:C2	2.79	0.49
1:AA:1147:C:O2'	9:AI:16:ARG:HD3	2.12	0.49
27:BA:461:C:O2	27:BA:461:C:H2'	2.12	0.49
27:BA:271(K):U:H3'	27:BA:271(L):U:C5'	2.42	0.49
1:CA:336:C:H2'	1:CA:337:C:H5'	1.94	0.49
9:AI:43:ALA:HA	9:AI:74:ILE:HD13	1.94	0.49
1:AA:1248:A:C2'	1:AA:1249:C:H5'	2.42	0.49
48:DZ:9:ARG:HD3	48:DZ:11:GLY:HA2	1.93	0.49
1:AA:806:C:H2'	1:AA:807:A:C8	2.47	0.49
51:D2:30:ARG:O	51:D2:31:GLU:C	2.51	0.49
27:DA:205:G:O2'	27:DA:206:U:OP2	2.29	0.49
20:AT:13:LEU:O	20:AT:16:HIS:HB3	2.12	0.49
27:BA:1788:C:H5''	30:BD:225:ALA:HB1	1.92	0.49
27:DA:1545:A:H3'	27:DA:1546:C:C6	2.47	0.49
27:BA:886:C:H2'	27:BA:889:C:H42	1.76	0.49
29:DC:52:ARG:HH21	29:DC:53:ARG:HH21	1.59	0.49
27:BA:903:C:H2'	27:BA:904:C:C6	2.46	0.49
27:DA:2376:A:H2'	27:DA:2377:A:O4'	2.11	0.49
32:BF:150:GLY:HA2	32:BF:172:TRP:CE3	2.46	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CF:76:ALA:O	6:CF:80:ARG:HG2	2.12	0.49
27:BA:2887:U:O2'	27:BA:2888:C:H5'	2.12	0.49
27:BA:2450:A:C2	27:BA:2451:A:C4	3.00	0.49
11:CK:83:ILE:HG12	11:CK:109:VAL:HB	1.94	0.49
27:BA:638:G:C6	27:BA:639:U:C4	3.00	0.49
1:CA:1223:C:H5''	1:CA:1224:G:H5''	1.94	0.49
1:CA:949:A:C1'	1:CA:1364:U:H3	2.25	0.49
40:BR:30:THR:HG22	40:BR:31:HIS:N	2.27	0.49
57:D8:16:ILE:HG22	57:D8:64:TYR:HB3	1.94	0.49
57:D8:62:LEU:N	57:D8:63:PRO:HD2	2.28	0.49
38:DP:50:ARG:NH2	38:DP:50:ARG:HG2	2.27	0.49
27:BA:32:C:O2'	27:BA:33:U:H5'	2.11	0.49
43:BU:69:CYS:HB2	43:BU:74:LEU:CD1	2.39	0.49
1:AA:128:G:O2'	1:AA:129:U:H5'	2.12	0.49
43:DU:97:ASP:HA	43:DU:100:VAL:HG23	1.94	0.49
27:DA:534:U:H1'	43:DU:49:HIS:CD2	2.46	0.49
27:DA:907:U:O2'	27:DA:908:C:H5'	2.12	0.49
55:D6:11:LEU:CD1	55:D6:52:VAL:O	2.56	0.49
38:DP:113:LYS:O	38:DP:115:LEU:HD22	2.11	0.49
38:DP:65:ARG:HH11	57:D8:46:ARG:NH2	2.05	0.49
31:DE:131:ALA:CB	31:DE:134:ILE:HD11	2.42	0.49
43:DU:34:LYS:HE2	43:DU:34:LYS:HA	1.95	0.49
20:AT:20:LEU:O	20:AT:23:ARG:HB3	2.12	0.49
47:DY:67:LEU:O	47:DY:68:HIS:O	2.30	0.49
34:BH:44:VAL:C	34:BH:46:GLU:H	2.15	0.49
30:BD:64:ILE:O	30:BD:64:ILE:CG2	2.58	0.49
9:AI:48:GLU:C	9:AI:50:LEU:N	2.63	0.49
14:AN:27:CYS:HG	14:AN:40:CYS:HG	1.53	0.49
2:AB:67:THR:HG21	2:AB:155:LEU:CD2	2.42	0.49
19:AS:19:VAL:O	19:AS:23:ASN:HB2	2.12	0.49
34:DH:84:SER:O	34:DH:85:LYS:CB	2.60	0.49
28:DB:7:G:H3'	28:DB:8:U:H5''	1.94	0.49
17:CQ:59:ILE:CG2	17:CQ:71:PHE:HB3	2.43	0.49
1:AA:109:A:C4	1:AA:326:G:C2	3.00	0.49
1:CA:123:C:H2'	1:CA:124:G:O4'	2.11	0.49
1:CA:891:U:O2'	1:CA:892:A:H5'	2.12	0.49
7:AG:52:GLU:C	7:AG:54:THR:H	2.16	0.49
1:AA:455:C:C2'	1:AA:456:C:H5'	2.42	0.49
27:BA:2093:G:C6	27:BA:2225:A:N7	2.81	0.49
3:CC:64:VAL:O	3:CC:100:ALA:HB3	2.13	0.49
6:CF:3:ARG:NH1	6:CF:3:ARG:HG3	2.22	0.49
6:CF:93:SER:C	6:CF:94:GLN:HG3	2.33	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1269:A:H5''	1:CA:1270:C:OP2	2.12	0.49
1:CA:1328:C:P	21:CU:21:TYR:OH	2.70	0.49
58:B9:27:CYS:CB	58:B9:32:HIS:HB2	2.42	0.49
35:BI:6:LEU:O	35:BI:7:GLU:C	2.51	0.49
27:DA:2308:G:N7	27:DA:2310:A:H5'	2.26	0.49
1:AA:619:U:H3	4:AD:135:LEU:HD13	1.76	0.49
30:BD:70:TRP:HZ3	30:BD:146:GLU:CD	2.15	0.49
33:DG:125:PHE:HD1	33:DG:125:PHE:H	1.59	0.49
13:AM:23:TYR:HB3	13:AM:67:GLU:HB2	1.94	0.49
37:DO:59:LYS:O	37:DO:86:ILE:HA	2.13	0.49
42:DT:50:ILE:HA	42:DT:99:LEU:HD11	1.93	0.49
27:BA:2657:A:C2'	27:BA:2658:C:H5'	2.42	0.49
27:DA:271(A):A:C5'	27:DA:271(B):C:OP2	2.60	0.49
1:CA:601:C:O5'	1:CA:601:C:H6	1.96	0.49
12:CL:7:LEU:O	12:CL:11:GLY:N	2.45	0.49
27:DA:1289:C:O2'	27:DA:1290:C:C6	2.62	0.49
1:CA:872:A:C8	1:CA:874:G:C8	3.00	0.49
1:CA:814:A:H2'	1:CA:816:A:H5''	1.95	0.49
1:AA:965:A:H4'	1:AA:966:G:H5''	1.94	0.49
13:AM:116:THR:HG22	13:AM:117:VAL:N	2.27	0.49
27:DA:1767:C:C2'	27:DA:1768:U:H5'	2.41	0.49
7:CG:14:PRO:HB3	7:CG:19:GLY:O	2.12	0.49
38:DP:91:PHE:N	38:DP:91:PHE:HD1	2.07	0.49
1:AA:436:C:H2'	1:AA:437:U:C6	2.47	0.49
27:BA:440:G:N2	32:BF:46:ARG:HH22	2.10	0.49
27:DA:363(E):U:O2	27:DA:363(E):U:C2'	2.59	0.49
7:AG:103:TRP:HZ3	7:AG:138:LYS:HA	1.77	0.49
27:BA:2534:A:H2'	27:BA:2535:G:O5'	2.11	0.49
2:CB:114:ARG:HD3	2:CB:117:GLU:OE1	2.12	0.49
27:BA:1710:C:C6	27:BA:1710:C:C3'	2.95	0.49
39:BQ:38:GLU:HA	39:BQ:99:PRO:HG3	1.93	0.49
9:AI:73:GLN:O	9:AI:76:ALA:HB3	2.12	0.49
48:DZ:107:PRO:O	48:DZ:109:GLY:N	2.45	0.49
27:DA:1291:C:H2'	27:DA:1292:U:C6	2.47	0.49
1:CA:422:C:H4'	1:CA:423:G:OP1	2.11	0.49
38:DP:135:LEU:HD12	38:DP:136:GLU:OE1	2.13	0.49
27:BA:188:G:H2'	27:BA:189:G:H5'	1.93	0.49
36:DN:42:TRP:CD1	43:DU:63:VAL:CG1	2.95	0.49
43:DU:59:ARG:O	43:DU:62:ILE:HB	2.12	0.49
1:CA:296:U:H1'	1:CA:556:C:O2'	2.12	0.49
27:BA:671:C:H5	38:BP:42:SER:HA	1.76	0.49
27:DA:1171:G:H5''	27:DA:1173:G:H5''	1.95	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1380:U:H4'	1:CA:1381:U:O5'	2.12	0.49
29:DC:19:VAL:HG12	29:DC:20:TYR:HD1	1.78	0.49
27:BA:2251:G:OP2	39:BQ:82:ARG:NH1	2.46	0.49
27:BA:2039:C:O2'	27:BA:2040:C:H5'	2.12	0.49
1:CA:1112:C:O2	3:CC:179:ARG:HD3	2.12	0.49
27:DA:1684:C:H2'	27:DA:1685:C:C6	2.47	0.49
27:BA:876:C:H2'	27:BA:877:U:C6	2.47	0.49
35:DI:110:ASP:O	35:DI:114:LEU:HD21	2.13	0.49
3:AC:73:PRO:O	3:AC:75:VAL:N	2.44	0.49
48:BZ:37:TYR:CG	48:BZ:37:TYR:O	2.64	0.49
2:AB:235:SER:HG	2:AB:236:TYR:HD1	1.60	0.49
27:BA:451:C:C4	27:BA:453:C:C5	3.01	0.49
27:DA:555:U:O2'	27:DA:556:G:H8	1.95	0.49
27:DA:1557:C:H5''	27:DA:1558:A:OP2	2.12	0.49
34:DH:167:GLU:N	34:DH:167:GLU:OE1	2.45	0.49
27:DA:1324:G:C2	27:DA:1331:A:C2	2.99	0.49
27:DA:20:C:O2'	27:DA:21:A:H5'	2.12	0.49
1:AA:220:G:N3	1:AA:220:G:H2'	2.28	0.49
8:CH:113:SER:O	8:CH:131:GLY:HA3	2.12	0.49
27:BA:1026:U:O2'	27:BA:1027:A:H5'	2.11	0.49
17:AQ:13:ASP:C	17:AQ:15:MET:H	2.15	0.49
2:AB:137:ARG:HD3	2:AB:137:ARG:C	2.33	0.49
1:CA:1320:C:O2	19:CS:36:ARG:NH2	2.46	0.49
1:CA:982:U:C6	1:CA:983:A:N6	2.81	0.49
40:BR:34:ILE:CG2	40:BR:35:THR:N	2.76	0.49
41:BS:88:ASP:O	41:BS:89:ARG:O	2.31	0.49
27:DA:1022:G:OP2	36:DN:69:GLN:OE1	2.30	0.49
46:BX:8:ILE:HD11	46:BX:43:VAL:HA	1.95	0.49
27:BA:662:G:O3'	38:BP:20:GLY:HA2	2.13	0.49
47:BY:50:ARG:HG3	47:BY:58:GLY:CA	2.39	0.49
1:AA:865:A:C2	1:AA:918:A:H4'	2.47	0.49
27:BA:1159:U:OP1	52:B3:30:ARG:NH2	2.46	0.49
42:BT:28:VAL:CG2	42:BT:46:GLU:CA	2.86	0.49
27:DA:1419:A:C8	27:DA:1421:G:C6	3.01	0.49
30:DD:24:ILE:O	30:DD:26:LYS:CE	2.60	0.49
30:DD:30:GLU:OE2	30:DD:83:GLU:OE1	2.29	0.49
51:D2:56:GLN:O	51:D2:58:ALA:N	2.45	0.49
1:AA:471:G:HO2'	1:AA:472:A:H8	1.60	0.49
27:DA:2266:A:H1'	27:DA:2272:U:O4	2.12	0.49
27:DA:2266:A:H1'	27:DA:2272:U:C4	2.48	0.49
31:DE:59:VAL:CG2	31:DE:60:ASN:N	2.69	0.49
31:DE:6:GLY:HA2	31:DE:51:PHE:CE2	2.47	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DP:146:VAL:CG2	38:DP:147:LEU:H	2.14	0.49
38:DP:84:ASN:ND2	38:DP:116:GLY:HA3	2.26	0.49
27:DA:947:G:O6	27:DA:970:C:N4	2.40	0.49
1:AA:175:C:H2'	1:AA:176:C:H6	1.77	0.49
27:DA:2779:U:OP1	27:DA:2779:U:H3'	2.12	0.49
1:CA:218:C:O2'	1:CA:219:C:C6	2.64	0.49
1:AA:1221:G:OP1	19:AS:36:ARG:HD3	2.13	0.49
46:BX:64:LYS:HZ2	46:BX:73:ARG:NH2	2.08	0.49
19:AS:19:VAL:HG13	19:AS:47:HIS:CD2	2.47	0.49
17:CQ:10:VAL:HA	17:CQ:20:THR:O	2.12	0.49
27:BA:1777:U:H6	27:BA:1777:U:O5'	1.95	0.49
31:BE:1:MET:CB	31:BE:84:PHE:HB2	2.39	0.49
27:BA:1257:C:O2'	32:BF:83:PHE:O	2.29	0.49
31:DE:9:VAL:CG2	42:DT:8:LYS:HD2	2.42	0.49
27:DA:1776:G:O2'	27:DA:1777:U:H5'	2.13	0.49
1:CA:964:A:H2	1:CA:969:A:O2'	1.95	0.49
1:CA:1057:G:H5''	3:CC:154:SER:CB	2.41	0.49
1:CA:538:G:O3'	12:CL:111:LYS:CE	2.61	0.49
10:AJ:7:LYS:HD3	10:AJ:71:LEU:HD13	1.94	0.49
21:CU:12:LYS:HD2	21:CU:17:THR:OG1	2.12	0.49
1:CA:1327:C:OP1	21:CU:20:LYS:N	2.44	0.49
48:DZ:52:ILE:CD1	48:DZ:52:ILE:H	2.14	0.49
48:DZ:18:ARG:CB	48:DZ:81:ARG:HH22	2.17	0.49
47:BY:87:LYS:NZ	47:BY:89:PHE:HE1	2.11	0.49
36:DN:56:ASN:O	36:DN:57:ALA:O	2.30	0.49
57:B8:39:LYS:O	57:B8:43:GLN:HG3	2.13	0.49
55:B6:26:ASN:HB3	55:B6:32:ASN:OD1	2.13	0.49
27:DA:663:G:H2'	27:DA:664:C:H6	1.76	0.49
5:CE:28:PHE:HE1	5:CE:49:PRO:O	1.95	0.49
5:CE:10:MET:CA	5:CE:32:VAL:HG13	2.36	0.49
5:CE:34:VAL:O	5:CE:41:VAL:HA	2.12	0.49
37:DO:7:TYR:CD1	37:DO:20:MET:HE3	2.47	0.49
42:DT:23:ARG:HE	42:DT:120:ARG:NH1	2.08	0.49
27:DA:2291:U:H2'	27:DA:2292:C:C5	2.46	0.49
27:DA:2296:U:O2	27:DA:2333:A:N3	2.45	0.49
9:CI:97:LYS:HB3	9:CI:98:PRO:CD	2.38	0.49
27:DA:2881:C:O2'	27:DA:2882:A:H5'	2.12	0.49
27:DA:2008:C:O2'	27:DA:2009:G:H5'	2.12	0.49
33:BG:128:ARG:N	33:BG:128:ARG:NE	2.61	0.49
2:CB:80:ILE:HG12	2:CB:80:ILE:O	2.11	0.49
27:DA:2726:U:O4'	27:DA:2726:U:O2	2.31	0.49
38:DP:130:PHE:N	38:DP:130:PHE:HD2	2.09	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1257:U:C6	1:AA:1257:U:C3'	2.95	0.49
27:DA:1630:G:O2'	27:DA:1631:C:H5'	2.12	0.49
1:AA:1190:G:OP1	3:AC:5:ILE:HG13	2.12	0.49
27:DA:1946:U:H2'	27:DA:1947:C:C6	2.40	0.49
40:BR:81:ASP:N	40:BR:81:ASP:OD2	2.45	0.49
53:D4:40:ILE:HG22	53:D4:41:ILE:N	2.27	0.49
12:AL:3:THR:O	12:AL:6:GLN:N	2.43	0.49
32:BF:136:THR:HG22	32:BF:166:ALA:O	2.13	0.49
36:DN:35:ARG:HB3	36:DN:42:TRP:CH2	2.46	0.49
27:BA:2297:C:O5'	27:BA:2297:C:H6	1.96	0.49
1:AA:353:A:C2'	1:AA:354:G:OP2	2.59	0.49
27:DA:552:G:C1'	27:DA:1220:A:C2	2.95	0.49
29:BC:193:ILE:C	29:BC:195:ALA:N	2.66	0.49
1:AA:994:A:N1	1:AA:1047:G:H4'	2.27	0.49
39:BQ:81:VAL:CG2	39:BQ:82:ARG:N	2.76	0.49
11:AK:80:VAL:O	11:AK:80:VAL:HG23	2.12	0.49
50:D1:46:LEU:HD22	50:D1:46:LEU:H	1.77	0.49
1:AA:1417:G:N2	1:AA:1482:G:H2'	2.26	0.49
1:CA:438:G:H22	1:CA:494:U:H3'	1.77	0.49
7:CG:47:CYS:SG	7:CG:58:PRO:HB3	2.52	0.49
29:BC:64:LEU:O	29:BC:66:HIS:N	2.39	0.49
27:BA:296:C:N3	27:BA:343:C:O2	2.45	0.49
27:DA:2397:G:H2'	27:DA:2398:U:H6	1.78	0.49
28:BB:78:A:C2	28:BB:100:A:C4	3.00	0.49
6:CF:16:GLN:H	6:CF:16:GLN:CD	2.13	0.49
15:CO:28:GLN:O	15:CO:32:LEU:HG	2.13	0.49
27:BA:2623:G:H4'	27:BA:2825:C:O2	2.12	0.49
1:CA:979:C:C5	1:CA:980:C:C6	3.01	0.49
31:BE:170:LEU:HB3	31:BE:184:VAL:CG1	2.42	0.49
27:DA:1137:G:N2	36:DN:106:MET:HG2	2.26	0.49
36:DN:66:LYS:O	36:DN:70:LYS:HB2	2.13	0.49
27:DA:240:G:C6	27:DA:241:A:N6	2.80	0.49
27:DA:1794:U:H1'	27:DA:1900:A:N3	2.27	0.49
48:DZ:158:PRO:C	48:DZ:160:VAL:H	2.16	0.49
1:CA:509:A:C2	1:CA:510:A:C2	3.00	0.49
13:CM:25:ILE:N	13:CM:25:ILE:CD1	2.75	0.49
27:DA:372:G:H22	27:DA:400:G:H2'	1.76	0.49
27:DA:297:C:O2'	27:DA:298:G:H5'	2.12	0.49
30:DD:118:VAL:CG2	30:DD:119:ALA:N	2.60	0.49
52:B3:31:LEU:O	52:B3:32:GLN:HB2	2.12	0.49
47:DY:9:LYS:O	47:DY:28:LYS:NZ	2.41	0.49
41:DS:96:GLY:O	41:DS:98:VAL:N	2.46	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:647:G:N2	27:DA:2350:C:H4'	2.14	0.49
27:DA:2425:A:H4'	27:DA:2426:A:O5'	2.13	0.49
38:DP:29:LYS:N	38:DP:29:LYS:HD2	2.28	0.49
39:BQ:2:LEU:HB3	39:BQ:44:ALA:HB1	1.94	0.49
27:DA:1348:G:C3'	27:DA:1349:A:H5''	2.41	0.49
46:DX:36:LYS:HE2	46:DX:56:THR:H	1.78	0.49
30:BD:65:ILE:CG1	30:BD:105:ILE:HA	2.42	0.49
1:CA:217:C:HO2'	1:CA:218:C:H6	1.53	0.49
9:AI:118:LYS:HD3	9:AI:121:ARG:CB	2.43	0.49
19:AS:10:PHE:HZ	19:AS:70:LYS:NZ	1.92	0.49
8:AH:100:ILE:HG22	8:AH:125:ARG:HH22	1.77	0.49
1:CA:398:C:H2'	1:CA:399:G:C8	2.47	0.49
12:CL:98:VAL:CG1	12:CL:101:VAL:HG21	2.42	0.49
1:AA:136:C:H1'	16:AP:1:MET:HG3	1.95	0.49
1:CA:273:A:C2'	1:CA:274:A:H5'	2.43	0.49
50:D1:51:VAL:HG22	50:D1:52:ARG:N	2.27	0.49
31:BE:82:ARG:O	31:BE:83:ASP:C	2.50	0.49
2:AB:95:GLN:NE2	2:AB:147:LYS:HE2	2.26	0.49
1:CA:244:U:C6	1:CA:894:G:N2	2.80	0.49
27:BA:1296:G:HO2'	27:BA:1297:C:H5'	1.75	0.49
36:DN:48:MET:H	36:DN:48:MET:HE2	1.76	0.49
27:DA:2731:G:C6	27:DA:2732:G:O6	2.65	0.49
3:CC:3:ASN:O	3:CC:4:LYS:CB	2.57	0.49
37:BO:69:ILE:HG13	37:BO:77:ILE:HG22	1.93	0.49
8:AH:49:GLU:O	8:AH:51:VAL:HG13	2.12	0.49
27:BA:1818:U:HO2'	30:BD:155:LEU:HA	1.77	0.49
14:CN:24:CYS:HB3	14:CN:29:ARG:HB3	1.94	0.49
15:CO:70:LEU:HD11	15:CO:77:ARG:HE	1.77	0.49
15:CO:78:TYR:O	15:CO:82:ILE:HG22	2.12	0.49
27:BA:2724:C:OP1	31:BE:118:LYS:HE3	2.12	0.49
38:BP:111:ARG:NH1	38:BP:149:GLU:HG3	2.27	0.49
1:CA:591:U:C2	1:CA:649:G:N2	2.80	0.49
27:DA:1306:C:O2	27:DA:1623:G:C6	2.65	0.49
27:DA:1569:A:O2'	27:DA:1570:A:H5'	2.12	0.49
35:BI:82:ARG:O	35:BI:88:ILE:HG23	2.13	0.49
27:BA:2565:A:H2'	27:BA:2566:A:O4'	2.12	0.49
1:AA:1158:C:O2'	1:AA:1159:U:H4'	2.12	0.49
55:B6:11:LEU:CG	55:B6:51:GLU:HG2	2.43	0.49
48:DZ:60:LEU:CD2	48:DZ:60:LEU:N	2.76	0.49
30:BD:146:GLU:HG2	30:BD:152:GLY:C	2.32	0.49
33:BG:43:LEU:HB2	33:BG:88:ILE:HD13	1.94	0.49
13:CM:83:ASP:HB2	19:CS:66:MET:CE	2.42	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DD:34:VAL:O	30:DD:34:VAL:HG13	2.11	0.49
34:DH:150:ALA:C	34:DH:152:ARG:N	2.66	0.49
27:DA:1697:G:H3'	27:DA:1698:A:C5'	2.42	0.49
1:AA:1330:U:O3'	13:AM:23:TYR:HE2	1.94	0.49
42:BT:67:SER:O	42:BT:68:TYR:HB2	2.10	0.49
27:DA:1754:C:N4	27:DA:1755:A:N6	2.60	0.49
1:AA:1278:U:H5'	1:AA:1279:A:C8	2.47	0.49
25:CY:25:A:C2'	25:CY:26:C:H5'	2.42	0.49
48:BZ:25:GLY:HA2	48:BZ:84:HIS:CD2	2.47	0.49
27:DA:2804:C:O2'	27:DA:2805:G:H5'	2.13	0.49
40:DR:34:ILE:O	40:DR:113:LEU:HD12	2.12	0.49
40:DR:62:ALA:O	40:DR:66:VAL:HG23	2.12	0.49
45:DW:50:VAL:HG21	45:DW:105:VAL:HG23	1.93	0.49
12:AL:25:LYS:C	12:AL:27:ALA:N	2.61	0.49
1:CA:762:C:H6	1:CA:762:C:O5'	1.94	0.49
38:BP:10:PRO:O	38:BP:11:GLY:C	2.48	0.49
5:CE:59:GLY:O	5:CE:62:ALA:HB3	2.12	0.49
1:AA:960:U:O2'	1:AA:1223:C:C5'	2.58	0.49
1:AA:309:G:H2'	1:AA:310:G:H8	1.78	0.49
1:AA:1524:C:H2'	1:AA:1525:G:O4'	2.13	0.49
10:CJ:85:LEU:C	10:CJ:87:THR:N	2.65	0.49
3:AC:191:THR:HB	3:AC:193:TYR:CE2	2.48	0.49
27:DA:124:G:C5	56:D7:19:ARG:NH2	2.80	0.49
1:CA:443:C:H2'	1:CA:444:C:C6	2.47	0.49
27:BA:2670:A:O2'	27:BA:2671:A:H5'	2.12	0.49
33:DG:104:GLU:HG2	53:D4:50:THR:HG21	1.93	0.49
47:DY:54:LYS:O	47:DY:55:TYR:CD1	2.66	0.49
23:AW:72:G:H4'	23:AW:72:G:OP1	2.12	0.49
27:DA:1865:G:N2	27:DA:1878:G:C5	2.80	0.49
27:DA:1248:G:H3'	27:DA:1249:U:C5'	2.40	0.49
24:AX:48:C:N4	24:AX:59:A:C8	2.80	0.49
27:BA:2378:A:C5	27:BA:2379:G:H1'	2.47	0.49
33:DG:33:ARG:CZ	33:DG:162:THR:HG21	2.43	0.49
27:BA:1165:U:H2'	27:BA:1166:C:C6	2.47	0.49
47:BY:51:VAL:O	47:BY:51:VAL:HG12	2.11	0.49
27:BA:265:A:H1'	27:BA:266:G:O4'	2.12	0.49
27:DA:448:U:H3'	27:DA:449:A:H5'	1.95	0.49
30:DD:28:GLU:H	30:DD:29:PRO:HD2	1.77	0.49
18:CR:51:LEU:HB2	18:CR:56:THR:HG22	1.94	0.49
27:BA:2150:U:H2'	27:BA:2151:G:C8	2.47	0.49
1:CA:491:G:C6	1:CA:492:G:C5	3.00	0.49
25:AY:26:C:O2'	25:AY:27:C:H5'	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:405:U:H5''	1:CA:495:A:H2	1.76	0.49
27:DA:1133:U:O2'	27:DA:1135:C:H5''	2.12	0.49
1:CA:1321:C:H4'	13:CM:87:TYR:CZ	2.46	0.49
14:CN:34:TYR:N	14:CN:34:TYR:HD1	2.10	0.49
54:B5:52:TYR:CD1	54:B5:52:TYR:O	2.65	0.49
32:BF:19:GLU:N	32:BF:19:GLU:OE2	2.46	0.49
36:DN:87:LEU:HD21	36:DN:98:VAL:HG11	1.94	0.49
4:CD:79:PHE:HA	4:CD:93:PHE:CD2	2.47	0.49
27:BA:538:G:C2	27:BA:556:G:C6	3.01	0.49
42:BT:78:LEU:HB3	42:BT:79:HIS:CE1	2.47	0.49
41:BS:59:LYS:HE3	41:BS:68:GLN:OE1	2.13	0.49
27:DA:1494:A:H2'	27:DA:1494:A:N3	2.27	0.49
27:DA:1578:U:H2'	27:DA:1579:A:C5'	2.43	0.49
30:DD:108:PRO:HG3	30:DD:143:HIS:NE2	2.27	0.49
47:DY:10:GLY:O	47:DY:27:VAL:HG22	2.13	0.49
41:DS:97:ARG:HH12	41:DS:99:LYS:CD	2.25	0.49
27:DA:2067:G:N2	27:DA:2444:G:C4	2.81	0.49
27:DA:2422:A:H4'	27:DA:2423:U:OP1	2.12	0.49
27:DA:627:A:N7	38:DP:84:ASN:ND2	2.60	0.49
27:DA:629:G:C6	27:DA:630:G:C6	3.00	0.49
28:DB:88:C:H2'	28:DB:89:G:H8	1.76	0.49
27:DA:579:G:C2	27:DA:1262:A:C5	3.01	0.49
27:DA:1991:U:C2'	27:DA:1992:G:C5'	2.90	0.49
27:DA:588:U:O2'	27:DA:589:C:C5'	2.60	0.49
30:BD:31:LYS:CE	30:BD:94:LEU:HD11	2.43	0.49
1:CA:619:U:N3	4:CD:135:LEU:HD21	2.27	0.49
1:CA:199:G:O2'	1:CA:200:G:O5'	2.30	0.49
2:AB:70:PHE:CE2	2:AB:163:PHE:HD1	2.31	0.49
41:DS:58:LEU:HD21	41:DS:69:VAL:HB	1.94	0.49
2:AB:166:ASP:OD1	2:AB:169:LYS:HB2	2.11	0.49
27:BA:2331:G:O4'	49:B0:42:GLY:HA3	2.13	0.49
27:BA:2336:A:H61	49:B0:43:THR:HG21	1.77	0.49
20:CT:50:GLU:HG3	20:CT:51:GLU:N	2.28	0.49
1:CA:1325:C:H4'	21:CU:17:THR:HG21	1.95	0.49
31:BE:116:VAL:HG21	31:BE:122:PHE:CE2	2.47	0.49
27:DA:174:C:O2	27:DA:174:C:H2'	2.11	0.49
27:BA:2849:U:H1'	27:BA:2866:U:H6	1.77	0.49
27:BA:2875:C:C4	27:BA:2876:G:N7	2.80	0.49
1:CA:653:A:H1'	8:CH:56:LYS:HZ3	1.78	0.49
27:BA:2173:A:H2'	27:BA:2174:C:C6	2.48	0.49
27:DA:2126:A:N1	27:DA:2163:C:H4'	2.27	0.49
27:DA:695:G:C2	27:DA:768:G:C5	3.01	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1569:A:C1'	30:DD:38:LYS:HZ3	2.25	0.49
36:DN:22:THR:HG22	36:DN:23:LEU:HD23	1.94	0.49
57:B8:42:ARG:C	57:B8:44:LYS:H	2.15	0.49
41:DS:78:LEU:HD21	41:DS:103:GLU:HB3	1.95	0.49
32:BF:132:VAL:CG1	32:BF:133:ASN:N	2.67	0.49
12:AL:119:THR:CG2	12:AL:120:LYS:H	2.26	0.49
36:BN:133:GLN:C	36:BN:134:ARG:CG	2.81	0.49
8:AH:4:ASP:OD2	8:AH:85:ARG:NH1	2.39	0.49
28:DB:45:A:H2'	28:DB:46:A:H5'	1.93	0.49
13:AM:8:GLU:OE1	13:AM:22:ILE:HG23	2.12	0.49
1:AA:939:G:C6	1:AA:940:C:N4	2.80	0.49
37:DO:7:TYR:HE1	37:DO:20:MET:HE3	1.75	0.49
27:DA:2830:G:O2'	27:DA:2883:A:N1	2.39	0.49
34:DH:41:MET:HG2	34:DH:52:VAL:HG13	1.94	0.49
1:AA:1265:G:C3'	1:AA:1265:G:C8	2.96	0.49
1:AA:1271:G:H2'	1:AA:1272:G:H8	1.76	0.49
27:BA:1049:C:O2'	27:BA:1050:A:C8	2.61	0.49
27:DA:495:G:H1'	45:DW:57:ASN:ND2	2.26	0.49
40:DR:104:ARG:HG3	40:DR:111:LEU:HD21	1.94	0.49
45:DW:62:HIS:O	45:DW:63:ASP:C	2.49	0.49
45:DW:86:LEU:HD23	45:DW:96:ILE:HB	1.95	0.49
18:AR:37:VAL:CG1	18:AR:78:LEU:HB3	2.43	0.49
43:BU:25:TRP:HD1	43:BU:26:GLY:N	2.07	0.49
33:BG:181:ARG:HG2	33:BG:181:ARG:O	2.13	0.49
2:AB:114:ARG:CA	2:AB:117:GLU:HB2	2.41	0.49
12:AL:24:LEU:O	12:AL:26:GLY:N	2.46	0.49
27:DA:2656:U:H2'	27:DA:2657:A:H8	1.77	0.49
36:DN:125:GLY:CA	36:DN:126:PRO:O	2.58	0.49
5:AE:107:ARG:HG3	5:AE:111:GLU:HG3	1.93	0.49
27:DA:1659:U:C4	27:DA:1660:C:C5	3.01	0.49
13:AM:105:THR:O	13:AM:106:ASN:HB2	2.12	0.49
27:DA:2542:A:O2'	27:DA:2543:G:C8	2.61	0.49
42:DT:16:ARG:HH12	42:DT:19:LEU:HD21	1.77	0.49
11:CK:96:ARG:HA	11:CK:99:GLN:CG	2.41	0.49
5:AE:81:GLU:HA	5:AE:89:ILE:O	2.12	0.49
51:B2:7:ARG:CG	51:B2:7:ARG:HH11	2.26	0.49
27:BA:195:A:H61	27:BA:198:C:H3'	1.77	0.49
7:CG:86:GLN:NE2	25:CY:30:A:H2	2.09	0.49
27:DA:2355:C:H1'	49:D0:36:ILE:HD11	1.93	0.49
1:CA:25:C:H5'	1:CA:524:G:O2'	2.13	0.49
27:DA:2396:G:H4'	50:D1:30:VAL:H	1.78	0.49
1:CA:28:G:C2	1:CA:556:C:N3	2.81	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
56:B7:31:LEU:HD22	56:B7:42:LEU:HD13	1.94	0.49
30:BD:28:GLU:HB2	30:BD:29:PRO:CD	2.42	0.49
11:AK:80:VAL:HG22	11:AK:103:LEU:HD12	1.94	0.49
1:CA:182:U:OP2	1:CA:183:G:N7	2.46	0.49
38:DP:107:LYS:HG3	38:DP:107:LYS:O	2.12	0.49
34:DH:18:GLU:HB2	34:DH:25:LYS:HG2	1.93	0.49
1:AA:802:A:H2'	1:AA:803:G:O4'	2.13	0.49
30:DD:90:ALA:CB	30:DD:106:ILE:HG13	2.42	0.49
56:D7:34:ARG:HH11	56:D7:42:LEU:HA	1.75	0.49
17:AQ:79:SER:O	17:AQ:80:GLY:C	2.50	0.49
30:DD:124:PRO:HG2	30:DD:129:ASN:HD21	1.76	0.49
30:DD:183:ARG:HH11	30:DD:183:ARG:HG2	1.78	0.49
27:BA:2323:G:H2'	27:BA:2324:C:O4'	2.12	0.49
27:BA:1409:C:H2'	27:BA:1410:G:C8	2.48	0.49
27:BA:1128:A:H3'	27:BA:1128:A:OP2	2.12	0.49
29:DC:107:TRP:O	29:DC:108:MET:CB	2.61	0.49
57:B8:10:ALA:O	57:B8:13:ARG:N	2.36	0.49
27:BA:817:C:O2'	27:BA:839:U:OP1	2.30	0.49
38:BP:64:LYS:O	38:BP:65:ARG:C	2.48	0.49
1:CA:1220:G:O3'	19:CS:36:ARG:HD3	2.12	0.49
32:BF:127:GLU:HG2	32:BF:196:LEU:CD1	2.42	0.49
47:BY:77:PRO:O	47:BY:99:CYS:SG	2.71	0.49
27:DA:271(C):C:H2'	27:DA:271(D):G:C8	2.48	0.49
27:DA:1934:C:H2'	27:DA:1935:G:C8	2.47	0.49
53:B4:42:CYS:HA	53:B4:59:VAL:HB	1.95	0.49
27:BA:2056:G:H1	54:B5:4:HIS:HD2	1.61	0.49
1:CA:1343:G:C5	1:CA:1344:C:C4	3.01	0.49
1:AA:865:A:H5'	1:AA:1078:U:O4	2.13	0.49
42:BT:31:SER:HB2	42:BT:32:TYR:CD2	2.48	0.49
32:DF:3:GLU:CD	32:DF:3:GLU:H	2.14	0.49
27:DA:1152:C:H2'	27:DA:1153:C:C6	2.47	0.49
1:CA:1254:C:N4	10:CJ:43:ARG:HH12	2.11	0.49
27:DA:1885:A:C8	27:DA:1886:C:C6	3.00	0.49
27:DA:951:C:O2'	27:DA:952:G:H5'	2.12	0.49
31:DE:143:ASN:HB2	31:DE:146:THR:O	2.12	0.49
1:CA:1138:G:N2	1:CA:1140:C:C4	2.81	0.49
47:DY:13:VAL:HG23	47:DY:14:LEU:N	2.28	0.49
51:D2:4:SER:HA	51:D2:7:ARG:HG2	1.94	0.49
1:AA:1373:G:H5''	7:AG:36:LYS:HB2	1.94	0.49
1:CA:346:G:H5'	42:DT:41:ARG:CZ	2.41	0.49
32:DF:32:LEU:C	32:DF:32:LEU:HD23	2.33	0.49
33:DG:4:ASP:HA	33:DG:8:LYS:HD2	1.95	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:DZ:150:HIS:HA	48:DZ:169:THR:HA	1.94	0.49
34:BH:156:ALA:H	34:BH:158:HIS:H	1.60	0.49
37:BO:6:THR:HG22	37:BO:7:TYR:N	2.28	0.49
1:CA:1060:C:C5'	14:CN:45:ARG:NH2	2.72	0.49
38:BP:107:LYS:C	38:BP:109:GLY:N	2.58	0.49
27:BA:2163:C:OP2	27:BA:2164:C:H5	1.95	0.49
48:BZ:156:LEU:HB3	48:BZ:160:VAL:CG1	2.41	0.49
1:AA:444:C:N4	1:AA:490:G:H1	2.11	0.49
27:BA:2321:G:C2'	27:BA:2321:G:N3	2.65	0.49
1:AA:1164:G:H2'	1:AA:1165:C:H6	1.76	0.49
27:BA:92:A:H1'	27:BA:93:G:C8	2.45	0.49
27:BA:64:A:C1'	46:BX:66:LEU:HB2	2.38	0.49
35:DI:75:LEU:HD21	35:DI:105:HIS:ND1	2.27	0.49
37:DO:35:VAL:HG22	37:DO:65:THR:HG23	1.95	0.49
42:DT:106:SER:HB2	42:DT:110:ILE:HD12	1.95	0.49
34:BH:47:GLU:C	34:BH:49:VAL:H	2.15	0.49
27:DA:2292:C:H42	27:DA:2340:G:H1	1.60	0.49
9:CI:97:LYS:HZ3	9:CI:97:LYS:HB2	1.78	0.49
34:BH:99:VAL:O	34:BH:102:ALA:HB3	2.12	0.49
27:DA:7:G:H2'	27:DA:8:A:C8	2.48	0.49
27:BA:1050:A:O2'	27:BA:1051:G:H8	1.93	0.49
3:CC:11:ARG:O	3:CC:12:LEU:C	2.50	0.49
32:DF:132:VAL:HG13	32:DF:133:ASN:H	1.77	0.49
15:CO:6:GLU:O	15:CO:9:GLN:N	2.46	0.49
27:DA:1982:C:O2'	27:DA:1983:C:H5'	2.12	0.49
3:AC:150:LYS:HE3	3:AC:167:TRP:CD1	2.47	0.49
1:AA:1229:A:H2'	1:AA:1230:C:H6	1.78	0.49
27:DA:1987:G:H5'	27:DA:1988:C:OP2	2.12	0.49
13:CM:88:ARG:HA	13:CM:98:VAL:HG11	1.91	0.49
27:DA:1629:U:O5'	27:DA:1629:U:H6	1.96	0.49
27:BA:707:G:H5'	27:BA:708:C:P	2.53	0.49
1:CA:827:U:H2'	1:CA:870:U:O4	2.13	0.49
34:DH:20:ALA:HB1	34:DH:21:PRO:CD	2.42	0.49
1:CA:30:U:H4'	1:CA:31:G:OP1	2.10	0.49
8:CH:28:ALA:HA	8:CH:59:LEU:CG	2.42	0.49
27:DA:1174:A:OP1	27:DA:1175:U:H5''	2.12	0.49
27:BA:875:G:C2'	27:BA:876:C:H5'	2.43	0.49
27:BA:1458:C:H5'	27:BA:1459:G:C8	2.48	0.49
1:AA:514:C:O2'	1:AA:515:G:H5'	2.12	0.49
1:AA:514:C:O2	1:AA:538:G:N2	2.46	0.49
27:BA:894:C:H2'	27:BA:895:U:C6	2.46	0.49
1:CA:668:G:H2'	1:CA:669:U:C6	2.47	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1170:G:H8	27:DA:1170:G:OP2	1.96	0.49
2:AB:75:LYS:HA	2:AB:78:GLN:HB2	1.94	0.49
48:BZ:43:PHE:CE2	48:BZ:85:VAL:HG11	2.48	0.49
24:CX:47:U:C2	24:CX:50:U:OP1	2.66	0.49
10:AJ:32:ALA:H	10:AJ:76:ASN:CB	2.25	0.49
45:DW:25:ARG:NH1	45:DW:25:ARG:CB	2.76	0.49
27:BA:2889:C:O2	27:BA:2889:C:H2'	2.12	0.49
12:AL:87:VAL:HG12	12:AL:90:LEU:H	1.77	0.49
4:AD:76:ARG:O	4:AD:77:ASN:C	2.51	0.49
33:DG:50:ALA:O	33:DG:52:ILE:N	2.45	0.49
51:B2:25:VAL:O	51:B2:26:ARG:C	2.50	0.49
33:BG:55:LYS:NZ	33:BG:148:MET:HE3	2.28	0.49
27:BA:510:C:O5'	27:BA:510:C:H6	1.94	0.49
50:D1:71:TYR:HD1	50:D1:71:TYR:H	1.60	0.49
30:DD:40:THR:HG22	30:DD:41:GLY:O	2.13	0.49
46:BX:3:THR:O	46:BX:4:ALA:HB3	2.12	0.49
27:BA:2416:C:H2'	27:BA:2417:C:H6	1.77	0.49
1:CA:1015:A:O2'	1:CA:1219:U:H5'	2.13	0.49
34:BH:85:LYS:HE2	34:BH:141:VAL:O	2.12	0.49
37:BO:90:GLN:HB2	37:BO:92:GLU:OE2	2.12	0.49
27:DA:247:G:O6	57:D8:8:LYS:HB3	2.13	0.49
30:DD:242:ARG:HG2	30:DD:246:PRO:HD3	1.94	0.49
47:BY:48:ALA:HB1	47:BY:50:ARG:H	1.77	0.49
44:BV:2:PHE:CD2	44:BV:42:GLY:HA2	2.45	0.49
27:DA:391:G:C2'	27:DA:392:C:H5'	2.43	0.49
32:DF:119:ARG:HH11	32:DF:119:ARG:HG2	1.77	0.49
42:BT:26:ASP:O	42:BT:27:THR:O	2.30	0.49
27:DA:491:G:H2'	27:DA:492:A:O5'	2.13	0.49
11:AK:32:ILE:CD1	11:AK:41:THR:HB	2.33	0.49
57:D8:38:GLY:O	57:D8:42:ARG:N	2.43	0.49
27:DA:2420:C:OP1	57:D8:33:ASN:O	2.30	0.49
38:DP:100:LEU:HB2	38:DP:106:LEU:HD22	1.95	0.49
38:DP:64:LYS:C	38:DP:66:GLY:N	2.64	0.49
27:DA:459:U:H5''	56:D7:40:TRP:CE3	2.48	0.49
27:DA:588:U:O2'	27:DA:589:C:O5'	2.31	0.49
27:BA:1138:G:N3	36:BN:106:MET:HE2	2.28	0.49
27:BA:2468:G:N2	27:BA:2481:G:O2'	2.45	0.49
27:DA:142:A:H8	27:DA:1595:G:N2	2.09	0.49
48:DZ:3:ARG:HB2	48:DZ:57:VAL:HB	1.94	0.49
34:BH:20:ALA:O	34:BH:21:PRO:C	2.50	0.49
27:BA:1492:G:N2	27:BA:1499:C:C2	2.81	0.49
1:CA:67:C:OP1	1:CA:199:G:H5''	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:954:G:C5'	39:BQ:13:GLN:HG2	2.27	0.49
43:BU:106:PHE:O	43:BU:110:VAL:HG23	2.13	0.49
1:CA:189(E):U:OP2	1:CA:189(E):U:H6	1.96	0.49
56:B7:8:ASN:ND2	56:B7:11:LYS:N	2.53	0.49
2:AB:140:HIS:O	2:AB:143:GLU:HB2	2.12	0.49
36:DN:46:VAL:CG1	36:DN:48:MET:HG3	2.42	0.49
27:DA:2645:G:OP2	27:DA:2645:G:H8	1.96	0.49
1:CA:259:G:H2'	1:CA:260:G:O4'	2.13	0.49
20:CT:75:ASN:O	20:CT:78:ALA:HB3	2.12	0.49
27:BA:1556:C:O2'	27:BA:1557:C:C5'	2.61	0.49
27:BA:2723:C:H2'	27:BA:2724:C:H5'	1.94	0.49
48:DZ:41:VAL:HG13	48:DZ:42:GLU:N	2.28	0.49
38:BP:80:TYR:CZ	38:BP:111:ARG:HD3	2.47	0.49
49:D0:56:ASP:CG	49:D0:58:THR:HG1	2.15	0.49
24:CX:17:C:C2	24:CX:17(B):U:C5	3.01	0.49
29:DC:41:VAL:CG1	29:DC:213:TYR:HA	2.43	0.49
1:AA:492:G:C5	1:AA:493:G:N7	2.81	0.49
35:BI:12:LEU:CD1	35:BI:19:VAL:HG11	2.40	0.49
55:B6:32:ASN:C	55:B6:33:LYS:HG2	2.32	0.49
27:BA:1360:A:C6	27:BA:1372:U:C5	3.01	0.49
33:DG:125:PHE:HB3	33:DG:130:ASN:O	2.13	0.49
6:AF:72:VAL:HG13	6:AF:73:ASN:N	2.28	0.49
27:DA:745:G:OP2	31:DE:133:LYS:HE3	2.12	0.49
1:AA:1038:C:H2'	1:AA:1039:C:C5	2.47	0.49
3:AC:36:ASP:OD2	3:AC:57:ILE:HG21	2.13	0.49
34:BH:97:ARG:CG	34:BH:98:LEU:H	2.11	0.49
48:BZ:26:VAL:HG22	48:BZ:27:MET:H	1.78	0.49
27:BA:200:U:C5	27:BA:201:C:C6	3.01	0.49
1:AA:852:G:O2'	1:AA:853:G:H5'	2.13	0.49
27:BA:1591:G:C6	27:BA:1592:C:N4	2.81	0.49
27:DA:324:A:C2	27:DA:325:G:C1'	2.96	0.49
27:BA:2313:C:N4	27:BA:2314:C:H41	2.11	0.49
33:BG:122:PRO:HG2	33:BG:123:ASN:OD1	2.13	0.49
1:AA:1515:C:H2'	1:AA:1515:C:O2	2.13	0.49
27:BA:1569:A:O2'	30:BD:38:LYS:HE2	2.13	0.49
27:BA:2777:G:C5'	27:BA:2778:A:H5''	2.37	0.49
27:DA:80:G:H1'	27:DA:346:A:C6	2.47	0.49
1:AA:1293:G:H2'	1:AA:1294:G:C8	2.47	0.49
11:CK:65:ALA:HB1	11:CK:98:LEU:HD21	1.93	0.49
6:CF:97:PHE:HD2	18:CR:65:ILE:HD13	1.76	0.49
28:DB:61:G:O2'	28:DB:62:C:H5'	2.12	0.49
13:AM:14:ARG:HE	13:AM:42:ALA:HA	1.78	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1142:G:H3'	1:AA:1143:G:H8	1.78	0.49
6:AF:44:GLY:C	6:AF:59:TYR:HA	2.33	0.49
36:BN:46:VAL:HG13	36:BN:47:ALA:H	1.77	0.49
1:AA:1452:C:H4'	1:AA:1456:G:N3	2.28	0.49
1:AA:314:C:O5'	1:AA:314:C:H6	1.94	0.49
27:DA:204:A:O2'	27:DA:205:G:C4'	2.61	0.49
5:AE:8:GLU:HB2	5:AE:34:VAL:HG22	1.95	0.49
3:AC:143:GLU:C	3:AC:145:GLY:N	2.66	0.49
34:DH:86:GLU:CB	34:DH:132:ARG:HH11	2.26	0.49
1:CA:1166:G:N2	1:CA:1170:A:OP2	2.46	0.49
24:CX:8:U:C5	24:CX:15:G:O6	2.65	0.49
27:BA:936:C:O2'	27:BA:937:U:H5'	2.13	0.49
23:AW:39:C:C2	23:AW:40:C:C5	3.01	0.49
27:DA:2845:G:O2'	27:DA:2846:G:H5'	2.12	0.49
19:AS:52:TYR:CE1	19:AS:56:GLN:HA	2.48	0.49
27:BA:2582:G:N2	27:BA:2583:G:H1'	2.28	0.49
1:AA:569:C:H5''	1:AA:570:G:OP1	2.13	0.49
27:BA:760:G:C2	27:BA:761:A:H1'	2.48	0.49
1:CA:7:G:O6	5:CE:92:LYS:HD2	2.13	0.49
27:BA:274:G:N2	27:BA:274:G:OP2	2.40	0.49
27:BA:878:A:H61	27:BA:899:A:H1'	1.78	0.49
27:DA:122:G:O2'	27:DA:123:G:H5'	2.11	0.49
27:BA:2461:C:O2	27:BA:2461:C:H2'	2.12	0.49
36:BN:73:THR:HG22	36:BN:74:ARG:N	2.28	0.49
40:BR:22:ARG:O	40:BR:24:GLN:N	2.46	0.49
4:CD:61:LYS:HE3	4:CD:206:PHE:CE2	2.48	0.49
43:BU:91:ASP:O	43:BU:92:ARG:C	2.51	0.49
42:BT:28:VAL:CG1	42:BT:46:GLU:HB2	2.42	0.49
27:DA:1252:G:C2	43:DU:33:ARG:HD2	2.47	0.49
52:B3:24:LYS:HE3	52:B3:24:LYS:HA	1.95	0.49
51:D2:22:GLU:HG3	51:D2:64:LEU:HD11	1.95	0.49
1:AA:472:A:C4'	16:AP:80:PHE:O	2.58	0.49
49:D0:23:VAL:HB	49:D0:26:TYR:HE2	1.77	0.49
39:DQ:21:THR:HG22	39:DQ:22:LYS:H	1.77	0.49
27:DA:2066:C:H2'	27:DA:2067:G:O5'	2.13	0.49
27:DA:2249:U:N3	27:DA:2253:G:OP2	2.45	0.49
27:DA:635:C:O2'	27:DA:636:G:H5'	2.12	0.49
27:DA:2508:G:H2'	27:DA:2509:G:H8	1.77	0.49
36:BN:85:ILE:HG21	36:BN:90:MET:HE3	1.94	0.49
36:BN:90:MET:HB3	36:BN:98:VAL:HG22	1.94	0.49
39:BQ:118:LEU:O	39:BQ:121:ALA:N	2.46	0.49
27:DA:139:G:H1	27:DA:142(A):C:H42	1.58	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1349:A:H62	1:AA:1373:G:H21	1.60	0.49
3:AC:8:ILE:O	3:AC:12:LEU:N	2.45	0.49
1:AA:942:G:H21	9:AI:124:GLN:HE22	1.56	0.49
2:AB:104:ASN:O	2:AB:105:PHE:C	2.51	0.49
30:BD:186:HIS:CD2	30:BD:187:GLY:N	2.81	0.49
1:CA:390:C:O2'	16:CP:28:ARG:NH2	2.46	0.49
19:AS:49:ILE:HD12	19:AS:49:ILE:N	2.21	0.49
1:AA:376:G:O3'	16:AP:5:ARG:HD2	2.12	0.49
49:D0:41:ARG:HD2	49:D0:41:ARG:N	2.06	0.49
17:CQ:51:TYR:HE2	17:CQ:76:LEU:H	1.60	0.49
1:CA:1407:C:O2	1:CA:1495:U:O2	2.30	0.49
27:BA:794:G:C6	27:BA:795:C:C4	3.01	0.49
5:AE:59:GLY:O	5:AE:62:ALA:HB3	2.11	0.49
33:DG:5:VAL:H	33:DG:8:LYS:HB2	1.78	0.49
20:CT:57:ARG:NH1	20:CT:57:ARG:HB2	2.28	0.49
15:AO:82:ILE:O	15:AO:86:GLY:N	2.44	0.49
6:AF:62:TRP:CD1	18:AR:35:ARG:NH1	2.81	0.49
34:BH:156:ALA:O	34:BH:157:TYR:HB3	2.13	0.49
3:CC:95:THR:O	3:CC:97:LYS:N	2.46	0.49
1:CA:532:A:H2	1:CA:1207:G:O4'	1.96	0.49
1:CA:532:A:O2'	1:CA:533:A:H5''	2.13	0.49
10:AJ:4:ILE:HA	10:AJ:100:THR:HG22	1.94	0.49
21:CU:20:LYS:HG2	21:CU:20:LYS:O	2.12	0.49
25:AY:5:G:H2'	25:AY:6:U:O4'	2.12	0.49
25:AY:4:G:C2	25:AY:69:C:C2	3.00	0.49
27:DA:1352:U:O2	27:DA:1570:A:H2	1.96	0.49
35:BI:133:HIS:CD2	35:BI:133:HIS:N	2.78	0.49
40:DR:12:ARG:HD3	40:DR:16:HIS:CE1	2.47	0.49
41:DS:78:LEU:C	41:DS:80:LEU:H	2.14	0.49
7:AG:153:HIS:O	7:AG:154:TYR:HD2	1.95	0.49
37:BO:119:PRO:HB2	42:BT:68:TYR:CE1	2.44	0.49
1:CA:450:G:H5''	16:CP:41:PRO:O	2.13	0.49
4:AD:162:LEU:O	4:AD:165:MET:HB2	2.12	0.49
33:DG:111:LEU:O	33:DG:112:PRO:C	2.49	0.49
33:DG:120:LEU:HD11	33:DG:179:PRO:HD2	1.95	0.49
5:CE:109:ILE:O	5:CE:113:ALA:HB2	2.13	0.49
30:BD:267:SER:C	30:BD:269:PHE:N	2.59	0.49
28:BB:75:G:C5'	48:BZ:35:LYS:HE2	2.41	0.49
27:DA:2100:G:H2'	27:DA:2101:G:H8	1.68	0.49
10:AJ:46:ARG:HD3	14:AN:61:TRP:CH2	2.48	0.49
27:DA:1322:A:OP1	45:DW:11:ARG:HG3	2.13	0.49
32:DF:57:VAL:CG1	32:DF:58:ALA:N	2.76	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BF:160:ASN:ND2	32:BF:162:LEU:CB	2.74	0.49
27:BA:402:A:C2'	27:BA:403:U:H5'	2.43	0.49
1:CA:921:U:O2'	5:CE:19:MET:O	2.20	0.49
52:D3:4:LEU:HD21	52:D3:56:VAL:CG1	2.43	0.49
24:AX:4:G:H1'	24:AX:70:G:N2	2.28	0.49
34:DH:100:GLY:C	34:DH:102:ALA:H	2.15	0.49
27:DA:1782:C:N4	27:DA:2586:C:H42	2.07	0.49
27:DA:2595:G:C2	27:DA:2599:G:C6	3.00	0.49
1:CA:945:G:C2	1:CA:946:A:C8	3.00	0.49
27:BA:440:G:H22	32:BF:46:ARG:HH22	1.60	0.49
6:AF:77:ARG:O	6:AF:78:GLU:C	2.51	0.49
27:BA:2534:A:C5'	27:BA:2534:A:H8	2.25	0.49
48:DZ:109:GLY:O	48:DZ:114:GLY:O	2.31	0.49
49:D0:70:GLN:HG3	49:D0:80:HIS:CD2	2.48	0.49
27:DA:1849:G:C2	27:DA:1850:G:N7	2.80	0.49
27:DA:1771:C:C1'	27:DA:1786:A:C8	2.95	0.49
56:D7:19:ARG:HG3	56:D7:19:ARG:NH1	2.27	0.49
10:AJ:81:THR:O	10:AJ:83:GLU:N	2.46	0.49
1:CA:1041:A:H2'	1:CA:1042:G:H8	1.75	0.49
31:BE:14:ILE:HD12	42:BT:14:TYR:OH	2.13	0.49
1:AA:1434:A:C2'	1:AA:1435:G:H5'	2.43	0.49
23:AW:71:A:H2'	23:AW:72:G:O4'	2.13	0.49
5:AE:34:VAL:HG12	5:AE:35:GLY:N	2.27	0.49
27:BA:658:C:H2'	27:BA:659:C:C6	2.48	0.49
27:BA:1711:C:O2'	27:BA:1712:C:H5'	2.12	0.49
27:BA:833:U:H2'	27:BA:834:C:H6	1.77	0.49
27:DA:77:C:H2'	27:DA:78:A:C8	2.47	0.49
1:AA:506:G:O6	1:AA:525:C:N4	2.45	0.49
5:AE:10:MET:HB2	5:AE:31:LEU:O	2.12	0.49
37:BO:38:VAL:HG12	37:BO:39:ILE:H	1.78	0.49
33:BG:23:PHE:HB2	33:BG:25:TYR:CE2	2.47	0.49
27:DA:1366:A:H2'	27:DA:1367:A:O4'	2.13	0.49
31:DE:97:LYS:O	31:DE:99:GLY:N	2.46	0.49
2:AB:123:ALA:O	2:AB:124:SER:HB2	2.13	0.49
1:CA:1113:C:H2'	1:CA:1114:C:H6	1.77	0.49
27:BA:245:G:O5'	38:BP:73:GLY:HA2	2.13	0.49
1:CA:1363:C:H5'	1:CA:1363(A):A:O5'	2.13	0.49
27:BA:2816:C:O2	27:BA:2831:G:C2	2.66	0.49
40:BR:50:HIS:HD2	40:BR:51:LEU:HD12	1.78	0.49
1:AA:887:G:C2	1:AA:911:U:O2	2.66	0.49
27:BA:511:U:H5	27:BA:512:G:C5	2.31	0.49
4:CD:79:PHE:HD2	4:CD:80:GLU:N	2.10	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:674:G:P	32:BF:54:ARG:HH22	2.36	0.49
17:AQ:10:VAL:CG2	17:AQ:21:VAL:HG22	2.43	0.49
36:DN:2:LYS:O	36:DN:4:TYR:CZ	2.65	0.49
41:DS:87:PHE:HZ	41:DS:99:LYS:CG	2.26	0.49
27:DA:904:C:H2'	27:DA:905:U:C5'	2.34	0.49
31:DE:69:LYS:C	31:DE:71:GLY:N	2.66	0.49
31:DE:71:GLY:O	31:DE:72:VAL:HB	2.13	0.49
27:DA:965:C:H2'	27:DA:966:G:H5'	1.94	0.49
32:DF:67:GLN:O	32:DF:68:LYS:HB2	2.13	0.49
2:AB:28:PHE:CZ	2:AB:189:ASP:HA	2.47	0.49
40:DR:77:ARG:O	40:DR:79:LEU:N	2.46	0.49
41:DS:25:ARG:HH12	41:DS:40:ILE:CD1	2.26	0.49
2:CB:37:ASN:O	2:CB:39:ILE:HG13	2.12	0.49
39:BQ:16:ARG:CG	39:BQ:17:LEU:N	2.76	0.49
27:BA:825:C:O2'	38:BP:55:ARG:HD3	2.12	0.49
27:BA:1273:U:C6	27:BA:1273:U:C5'	2.89	0.49
31:BE:132:HIS:HD2	31:BE:135:HIS:CE1	2.30	0.49
1:AA:408:A:H4'	4:AD:112:VAL:HG21	1.94	0.49
27:BA:1558:A:HO2'	27:BA:1559:G:P	2.34	0.49
14:CN:24:CYS:O	14:CN:25:VAL:C	2.52	0.49
33:BG:51:ARG:NH1	33:BG:53:LEU:HD21	2.27	0.49
27:DA:1654:A:OP2	40:DR:3:HIS:CD2	2.66	0.49
41:DS:68:GLN:O	41:DS:71:ARG:HB2	2.13	0.49
33:DG:77:ILE:CG2	33:DG:79:ASN:HB2	2.43	0.49
33:DG:91:ARG:HD2	33:DG:92:VAL:N	2.28	0.49
3:CC:35:GLU:O	3:CC:39:ILE:HG13	2.12	0.49
13:AM:7:VAL:O	13:AM:8:GLU:C	2.51	0.49
34:BH:10:PRO:CG	34:BH:50:VAL:N	2.75	0.49
48:BZ:70:VAL:HG22	48:BZ:87:PHE:HE2	1.75	0.49
27:DA:1287:A:C5	27:DA:1288:U:C4	3.01	0.49
1:AA:189(J):G:H2'	1:AA:189(K):U:C6	2.48	0.49
35:DI:13:GLY:O	35:DI:17:GLN:OE1	2.31	0.49
37:BO:106:LEU:C	37:BO:108:GLU:N	2.66	0.49
1:AA:782:A:C2'	1:AA:783:C:H5'	2.42	0.49
13:AM:11:ARG:HB3	13:AM:12:ASN:OD1	2.13	0.49
16:CP:22:THR:OG1	16:CP:23:ASP:N	2.46	0.49
30:BD:131:LEU:HD13	30:BD:136:ILE:HD11	1.95	0.49
46:DX:64:LYS:NZ	46:DX:73:ARG:HH22	2.11	0.49
11:CK:123:LYS:CA	11:CK:126:ARG:HG3	2.42	0.49
1:CA:36:C:OP1	12:CL:120:LYS:NZ	2.36	0.49
3:CC:110:ASN:O	3:CC:111:LEU:HD23	2.13	0.49
27:BA:914:C:H2'	27:BA:915:C:O5'	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2713:A:OP2	27:BA:2713:A:H4'	2.11	0.49
45:BW:38:TYR:HH	54:B5:47:PRO:HG3	1.75	0.49
39:DQ:51:ARG:CB	39:DQ:51:ARG:HH11	2.24	0.49
48:BZ:58:LEU:O	48:BZ:60:LEU:HD23	2.12	0.49
36:DN:42:TRP:HA	36:DN:42:TRP:HE3	1.77	0.49
27:BA:2111:C:C5	27:BA:2145:C:N3	2.81	0.49
46:DX:4:ALA:HB3	46:DX:5:TYR:CD1	2.47	0.49
27:BA:1011:G:OP2	43:BU:66:ASN:OD1	2.31	0.49
27:DA:1175:U:O3'	27:DA:1176:G:H3'	2.13	0.49
2:CB:132:LYS:HA	2:CB:135:GLN:CG	2.42	0.49
27:BA:564:C:O2'	27:BA:565:C:H5'	2.13	0.49
27:DA:2524:G:H2'	27:DA:2741:A:C2	2.48	0.49
5:AE:71:LEU:HD21	5:AE:115:VAL:HG22	1.95	0.49
27:BA:2850:A:N1	27:BA:2851:A:C5	2.81	0.49
49:D0:27:GLU:HB2	49:D0:69:PHE:HD1	1.77	0.49
27:DA:1479:G:H5'	27:DA:1558:A:H2	1.78	0.49
27:BA:374:A:C8	27:BA:375:C:C5	3.01	0.49
43:BU:14:HIS:CD2	43:BU:32:PHE:CB	2.95	0.49
27:BA:757:U:O2'	27:BA:758:C:H5'	2.13	0.49
1:CA:791:G:H8	1:CA:791:G:O5'	1.96	0.49
2:CB:120:ALA:C	2:CB:122:PHE:H	2.15	0.49
3:CC:165:THR:HG22	3:CC:165:THR:O	2.13	0.49
58:D9:26:ILE:N	58:D9:26:ILE:HD12	2.27	0.49
16:AP:44:THR:O	16:AP:45:THR:HB	2.13	0.49
23:AW:1:U:H2'	23:AW:1:U:O2	2.13	0.49
1:CA:1226:C:OP1	19:CS:81:ARG:NH2	2.44	0.48
1:CA:1363(A):A:N3	1:CA:1363(A):A:H2'	2.27	0.48
54:B5:52:TYR:HD1	54:B5:52:TYR:O	1.96	0.48
27:BA:2837:G:C6	27:BA:2838:G:N7	2.80	0.48
4:CD:10:ARG:O	4:CD:13:ARG:HB2	2.13	0.48
16:CP:82:GLN:O	16:CP:83:GLU:HG2	2.12	0.48
43:BU:96:ALA:C	43:BU:98:LEU:H	2.16	0.48
44:BV:35:LEU:CB	44:BV:37:VAL:HG23	2.40	0.48
1:AA:235:C:C5'	17:AQ:70:ARG:HG2	2.44	0.48
42:BT:89:VAL:HB	42:BT:91:ARG:NE	2.06	0.48
1:AA:922:G:H2'	1:AA:923:A:C8	2.48	0.48
43:DU:55:ARG:HA	43:DU:58:ARG:CB	2.23	0.48
44:DV:19:LYS:HB2	44:DV:96:ILE:CG1	2.39	0.48
27:DA:37:C:C2	27:DA:38:A:C8	3.00	0.48
41:BS:54:LEU:C	41:BS:56:LEU:N	2.67	0.48
27:DA:2579:C:O2'	31:DE:131:ALA:CB	2.61	0.48
32:DF:66:PRO:O	32:DF:67:GLN:C	2.52	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:AT:79:ARG:NH2	20:AT:80:ARG:NH2	2.60	0.48
31:DE:1:MET:O	31:DE:2:LYS:C	2.52	0.48
9:AI:93:ARG:C	9:AI:95:LYS:H	2.16	0.48
14:AN:43:CYS:O	14:AN:47:LEU:HG	2.12	0.48
1:AA:533:A:OP1	1:AA:533:A:H3'	2.13	0.48
16:CP:67:THR:HB	16:CP:70:ALA:H	1.77	0.48
1:AA:376:G:O2'	1:AA:377:G:H5'	2.12	0.48
41:DS:16:ASN:C	41:DS:20:ARG:NH2	2.65	0.48
31:BE:1:MET:HB2	31:BE:83:ASP:O	2.13	0.48
2:AB:144:ARG:HG3	2:AB:145:LEU:H	1.78	0.48
1:CA:742:G:C5'	15:CO:58:MET:CE	2.86	0.48
1:CA:1002:G:H21	1:CA:1003:G:H1'	1.74	0.48
15:AO:17:ARG:NH1	15:AO:17:ARG:HG3	2.24	0.48
1:CA:263:A:H2'	1:CA:264:U:H6	1.77	0.48
3:CC:90:GLU:HA	3:CC:93:LYS:HB2	1.93	0.48
27:BA:2270:G:H2'	27:BA:2271:G:C8	2.47	0.48
27:BA:2125:G:N2	27:BA:2174:C:N4	2.61	0.48
49:D0:56:ASP:O	49:D0:57:PHE:HB2	2.13	0.48
58:B9:29:ASN:N	58:B9:29:ASN:ND2	2.44	0.48
27:DA:271(M):G:C2'	27:DA:271(N):U:H5''	2.39	0.48
35:BI:115:ALA:CB	35:BI:129:THR:OG1	2.58	0.48
35:BI:90:GLY:O	35:BI:91:SER:C	2.52	0.48
45:DW:4:LYS:HG2	45:DW:106:ILE:HG21	1.94	0.48
40:DR:4:LEU:C	40:DR:5:LYS:HD2	2.33	0.48
27:DA:2307:G:H3'	27:DA:2308:G:C5'	2.43	0.48
33:BG:71:THR:O	33:BG:89:GLY:HA3	2.12	0.48
27:BA:66:C:C2'	27:BA:67:U:H5'	2.42	0.48
27:BA:764:A:C5	30:BD:209:ALA:HB1	2.47	0.48
37:DO:1:MET:N	37:DO:1:MET:HE2	2.28	0.48
1:CA:1157:A:C6	1:CA:1180:A:C5	3.01	0.48
1:AA:1004:A:C5'	1:AA:1025:U:H3	2.16	0.48
30:DD:176:ARG:O	30:DD:177:LEU:HD23	2.13	0.48
1:AA:818:G:C3'	1:AA:819:A:H5''	2.43	0.48
11:CK:110:ASP:O	18:CR:84:LYS:HB3	2.12	0.48
48:BZ:51:SER:OG	48:BZ:52:ILE:N	2.46	0.48
27:DA:2469:A:N6	27:DA:2470:G:C2	2.81	0.48
27:BA:1225:G:O2'	27:BA:1226:A:H5'	2.12	0.48
27:BA:1043:C:O2'	27:BA:1044:G:C8	2.57	0.48
27:BA:1887:C:H3'	27:BA:1888:G:H5''	1.95	0.48
27:DA:321:G:O2'	27:DA:322:A:OP1	2.23	0.48
27:BA:56:A:C2	27:BA:57:C:C2	3.01	0.48
27:BA:2078:C:H2'	27:BA:2079:U:C6	2.48	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:DQ:118:LEU:HD13	39:DQ:131:ILE:HG12	1.94	0.48
16:AP:8:ARG:O	16:AP:9:PHE:CD1	2.66	0.48
27:BA:2776:A:H4'	27:BA:2777:G:O5'	2.13	0.48
27:DA:346:A:C2'	27:DA:347:A:H5'	2.43	0.48
32:BF:53:THR:O	32:BF:56:GLU:N	2.44	0.48
1:CA:270:A:C6	1:CA:271:C:N3	2.80	0.48
27:BA:25:U:H2'	27:BA:26:G:O5'	2.12	0.48
27:BA:709:U:C2	27:BA:710:G:C8	3.00	0.48
36:BN:35:ARG:C	36:BN:37:LYS:H	2.16	0.48
30:DD:67:PHE:CE1	30:DD:157:ARG:NH2	2.81	0.48
1:AA:1145:C:H4'	1:AA:1146:A:C5'	2.43	0.48
1:AA:1146:A:O2'	1:AA:1147:C:H5''	2.13	0.48
27:DA:1721:G:O6	27:DA:1739:U:H5'	2.13	0.48
1:CA:36:C:H5''	12:CL:120:LYS:HD3	1.93	0.48
27:BA:1948:G:C2'	27:BA:1949:G:H5'	2.43	0.48
53:D4:40:ILE:N	53:D4:40:ILE:HD12	2.27	0.48
30:DD:265:PRO:C	30:DD:267:SER:N	2.65	0.48
1:AA:115:G:C2	1:AA:289:G:N7	2.81	0.48
27:BA:1451:C:O2'	27:BA:1457:A:N6	2.45	0.48
37:DO:4:PRO:O	37:DO:5:GLN:CB	2.61	0.48
27:DA:1844:C:H2'	27:DA:1845:G:O4'	2.13	0.48
1:CA:830:G:H1	1:CA:856:C:N4	2.10	0.48
29:BC:195:ALA:O	29:BC:197:GLU:N	2.46	0.48
17:CQ:82:MET:O	17:CQ:86:GLU:HG2	2.13	0.48
34:BH:68:THR:O	34:BH:70:THR:O	2.31	0.48
6:CF:43:LEU:H	6:CF:43:LEU:CD1	2.24	0.48
36:DN:3:THR:O	36:DN:3:THR:HG22	2.13	0.48
1:AA:655:A:H2'	1:AA:656:C:C6	2.47	0.48
1:CA:1292:U:H2'	1:CA:1293:G:H8	1.78	0.48
1:CA:958:A:N7	19:CS:55:LYS:HD2	2.28	0.48
24:CX:4:G:O2'	24:CX:5:G:H5'	2.13	0.48
27:DA:237:C:H6	27:DA:237:C:O5'	1.96	0.48
52:D3:16:PRO:HB2	52:D3:19:GLN:HG3	1.93	0.48
43:BU:89:GLU:H	43:BU:89:GLU:HG2	1.39	0.48
27:DA:1861:G:H1	27:DA:1881:C:H42	1.61	0.48
27:BA:1469:A:C2	27:BA:1524:G:C2	3.01	0.48
57:B8:6:THR:HG22	57:B8:63:PRO:CD	2.43	0.48
27:BA:239:U:O4'	27:BA:621:A:H2	1.95	0.48
27:BA:663:G:C5	27:BA:664:C:C5	3.01	0.48
27:BA:2832:U:O4	27:BA:2884:U:H5''	2.13	0.48
27:DA:1006:C:O2'	27:DA:1007:C:H5'	2.13	0.48
46:BX:28:PHE:CE2	46:BX:92:LEU:HD11	2.48	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BE:51:PHE:CE1	31:BE:52:LEU:HD13	2.48	0.48
27:DA:407:G:H2'	27:DA:408:G:H8	1.74	0.48
27:DA:1011:G:C6	27:DA:1013:C:C4	3.01	0.48
44:DV:19:LYS:HE2	44:DV:19:LYS:HA	1.95	0.48
27:BA:2476:A:C2	27:BA:2477:C:C6	3.00	0.48
27:BA:2701:C:C2'	27:BA:2702:U:H5''	2.40	0.48
1:CA:1252:A:C2	1:CA:1253:G:C4	3.01	0.48
10:CJ:46:ARG:HG2	10:CJ:64:GLU:HB3	1.94	0.48
27:DA:1491:G:O2'	30:DD:101:GLU:HB2	2.13	0.48
27:DA:1429:G:C8	27:DA:1568:G:C5	3.01	0.48
12:CL:52:VAL:CG1	12:CL:53:ALA:N	2.76	0.48
12:CL:83:ARG:HH21	12:CL:96:HIS:CG	2.31	0.48
47:DY:26:LYS:HG2	47:DY:27:VAL:HG23	1.95	0.48
47:DY:28:LYS:C	47:DY:38:ILE:HB	2.34	0.48
47:DY:39:VAL:O	47:DY:40:GLU:CD	2.52	0.48
27:DA:2065:C:N4	27:DA:2066:C:N4	2.61	0.48
33:DG:175:LEU:HD12	33:DG:175:LEU:H	1.78	0.48
27:DA:819:A:N1	27:DA:820:A:C4	2.81	0.48
27:DA:2580:U:P	31:DE:131:ALA:HB2	2.54	0.48
32:DF:54:ARG:CZ	32:DF:80:ALA:HB2	2.43	0.48
44:DV:80:GLN:HA	44:DV:80:GLN:HE21	1.78	0.48
20:AT:57:ARG:HB2	20:AT:57:ARG:NH1	2.27	0.48
4:CD:70:ILE:HD12	4:CD:100:ARG:HD2	1.94	0.48
4:CD:173:TRP:HB2	4:CD:187:ARG:O	2.13	0.48
9:AI:53:VAL:HG12	9:AI:92:TYR:HD2	1.77	0.48
42:DT:35:LYS:NZ	42:DT:41:ARG:HH21	2.11	0.48
19:AS:29:ARG:O	19:AS:31:ILE:N	2.46	0.48
16:AP:21:VAL:O	16:AP:32:TYR:HB2	2.13	0.48
1:AA:1305:G:O2'	1:AA:1306:A:O5'	2.30	0.48
27:BA:793:A:OP2	27:BA:2072:G:H5'	2.13	0.48
27:BA:2238:G:N3	27:BA:2238:G:H2'	2.28	0.48
1:CA:159:G:H21	1:CA:161:A:H3'	1.77	0.48
20:CT:54:LYS:HA	20:CT:57:ARG:CZ	2.41	0.48
34:BH:94:TYR:CE1	34:BH:108:GLY:N	2.80	0.48
1:CA:189(K):U:O5'	1:CA:189(K):U:H6	1.97	0.48
1:CA:515:G:N2	1:CA:537:G:C4	2.81	0.48
1:CA:532:A:C2'	1:CA:533:A:H5'	2.42	0.48
21:CU:22:ARG:H	21:CU:23:PRO:HD3	1.78	0.48
2:CB:55:PHE:HA	2:CB:58:ILE:CG1	2.31	0.48
27:DA:149:A:H2'	27:DA:150:C:O5'	2.12	0.48
40:DR:38:VAL:CB	40:DR:39:PRO:CD	2.91	0.48
27:DA:1309:G:H5''	56:D7:9:ARG:HG3	1.95	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1341:U:C5	27:DA:1395:A:H2	2.31	0.48
33:BG:53:LEU:H	33:BG:53:LEU:HD22	1.77	0.48
35:BI:12:LEU:HD12	35:BI:19:VAL:CG1	2.38	0.48
27:DA:1462:C:H2'	27:DA:1463:C:C6	2.47	0.48
27:BA:65:C:H2'	27:BA:66:C:H6	1.79	0.48
13:AM:16:ASP:OD2	13:AM:17:VAL:HG23	2.13	0.48
27:DA:1505:C:O4'	27:DA:1505:C:O2	2.28	0.48
1:AA:939:G:OP1	7:AG:102:ARG:NH2	2.46	0.48
7:AG:154:TYR:C	7:AG:156:TRP:H	2.15	0.48
1:AA:875:C:O2'	8:AH:14:ARG:HD2	2.13	0.48
42:DT:101:PHE:O	42:DT:102:ILE:C	2.51	0.48
34:BH:10:PRO:CG	34:BH:50:VAL:O	2.54	0.48
40:DR:99:LYS:NZ	54:D5:43:HIS:HB3	2.27	0.48
27:BA:271(G):C:C2	27:BA:271(H):G:N7	2.81	0.48
23:AW:74:C:H4'	27:BA:2573:C:N4	2.29	0.48
40:DR:28:LEU:HA	40:DR:34:ILE:CG1	2.43	0.48
27:DA:2012:G:O3'	45:DW:96:ILE:CD1	2.61	0.48
27:DA:1212:G:N3	27:DA:1236:G:C2	2.82	0.48
1:AA:189(I):G:HO2'	1:AA:189(J):G:H8	1.59	0.48
27:BA:154(A):C:O4'	27:BA:154(A):C:O2	2.31	0.48
1:AA:740:U:H4'	15:AO:39:LEU:CD2	2.43	0.48
1:AA:960:U:O2'	1:AA:1223:C:C4'	2.61	0.48
1:AA:1225:A:H5''	13:AM:103:THR:HG21	1.96	0.48
28:BB:11:C:H3'	28:BB:12:C:H6	1.77	0.48
27:DA:1257:C:O2'	32:DF:83:PHE:O	2.31	0.48
50:B1:86:SER:O	50:B1:90:ILE:HG12	2.12	0.48
10:AJ:22:LYS:HZ2	10:AJ:23:ILE:HA	1.79	0.48
1:CA:1267:C:O2	1:CA:1267:C:C2'	2.57	0.48
27:DA:2840:C:H2'	27:DA:2841:C:H6	1.77	0.48
4:CD:25:ARG:O	4:CD:27:TYR:N	2.46	0.48
2:CB:118:LEU:HD11	2:CB:141:GLU:CD	2.33	0.48
30:BD:158:ALA:O	30:BD:196:VAL:HG11	2.13	0.48
8:CH:61:VAL:O	8:CH:63:LEU:HD13	2.12	0.48
27:DA:2111:C:H42	27:DA:2147:G:H22	1.60	0.48
35:BI:4:ILE:HG12	35:BI:18:VAL:CG2	2.43	0.48
12:AL:123:LYS:CD	12:AL:124:GLU:H	2.25	0.48
28:BB:105:A:N7	28:BB:106:G:C8	2.81	0.48
1:AA:115:G:H1'	1:AA:116:A:N7	2.27	0.48
27:DA:1844:C:C2	27:DA:1845:G:C8	3.01	0.48
29:BC:20:TYR:CD2	29:BC:21:THR:N	2.78	0.48
9:AI:24:GLY:HA2	9:AI:59:PHE:O	2.13	0.48
3:AC:139:GLN:O	3:AC:143:GLU:CB	2.61	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:DV:71:LEU:HD11	44:DV:84:LYS:HE2	1.94	0.48
1:AA:511:C:O2'	1:AA:512:U:H6	1.95	0.48
4:CD:2:GLY:C	4:CD:4:TYR:H	2.16	0.48
27:DA:2432:A:N6	27:DA:2433:A:C6	2.81	0.48
27:DA:2461:C:C5	27:DA:2462:U:H5	2.32	0.48
27:DA:2081:C:O2'	27:DA:2082:A:H5'	2.12	0.48
27:BA:680:G:O2'	27:BA:681:G:H5'	2.12	0.48
1:CA:153:C:H2'	1:CA:154:C:C6	2.48	0.48
1:AA:829:G:O2'	1:AA:830:G:H5'	2.14	0.48
40:DR:25:ALA:C	40:DR:27:SER:N	2.65	0.48
44:DV:28:GLU:O	44:DV:29:PRO:O	2.31	0.48
37:DO:9:GLU:O	37:DO:83:ALA:HA	2.13	0.48
27:DA:822:U:O2'	27:DA:823:G:H5'	2.13	0.48
1:CA:933:G:OP1	7:CG:4:ARG:HD2	2.13	0.48
45:DW:31:GLU:HA	45:DW:31:GLU:OE2	2.13	0.48
38:BP:50:ARG:HD3	57:B8:7:HIS:CD2	2.48	0.48
27:BA:251:A:H2'	27:BA:252:G:O4'	2.12	0.48
41:BS:92:TYR:C	41:BS:94:TYR:N	2.66	0.48
34:BH:118:PRO:HG3	34:BH:144:VAL:HG21	1.94	0.48
57:D8:62:LEU:HB2	57:D8:63:PRO:HD3	1.94	0.48
57:D8:53:PRO:O	57:D8:56:GLU:HB2	2.12	0.48
27:DA:194:G:H2'	27:DA:195:A:O4'	2.12	0.48
1:CA:1101:A:H1'	1:CA:1102:A:O4'	2.13	0.48
33:BG:114:ILE:O	33:BG:115:ARG:O	2.31	0.48
1:CA:1305:G:N2	1:CA:1331:G:C2'	2.72	0.48
27:BA:486:C:H2'	27:BA:487:C:H6	1.77	0.48
17:AQ:68:ARG:N	17:AQ:70:ARG:HH12	2.11	0.48
27:BA:356:G:H2'	27:BA:356:G:N3	2.28	0.48
27:DA:1157:G:O2'	27:DA:1158:C:H5'	2.14	0.48
43:DU:101:ARG:C	43:DU:102:GLU:HG2	2.33	0.48
43:DU:90:VAL:O	43:DU:92:ARG:N	2.38	0.48
43:DU:95:LEU:HD12	44:DV:11:GLN:HE21	1.77	0.48
27:DA:1495:A:H2'	27:DA:1496:A:H2	1.76	0.48
52:B3:8:LEU:HD13	52:B3:31:LEU:CD2	2.43	0.48
57:D8:32:LEU:HB3	57:D8:36:LYS:HZ3	1.78	0.48
23:CW:73:C:C2'	23:CW:74:C:H5'	2.25	0.48
27:DA:587:C:C3'	38:DP:33:ARG:NH2	2.74	0.48
36:BN:94:HIS:H	36:BN:95:PRO:HD2	1.78	0.48
1:AA:428:G:O4'	1:AA:430:A:C8	2.66	0.48
8:AH:50:ARG:HA	8:AH:59:LEU:HD23	1.94	0.48
2:AB:204:ASN:ND2	2:AB:206:ASP:H	2.10	0.48
30:DD:259:THR:O	30:DD:259:THR:HG23	2.13	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BQ:12:GLN:HG3	39:BQ:73:PRO:HD2	1.95	0.48
41:DS:43:GLU:O	41:DS:44:LYS:HB2	2.12	0.48
17:CQ:21:VAL:HG12	17:CQ:23:VAL:HG22	1.95	0.48
27:BA:1814:G:C6	27:BA:1815:A:C6	3.02	0.48
27:BA:2075:U:H2'	27:BA:2238:G:N2	2.28	0.48
27:BA:788:A:OP1	27:BA:791:C:N4	2.45	0.48
1:CA:162:A:H8	1:CA:162:A:O5'	1.97	0.48
1:AA:1102:A:H2'	1:AA:1103:C:H6	1.77	0.48
27:BA:2330:G:N2	49:B0:42:GLY:HA2	2.29	0.48
27:BA:2686:G:H2'	27:BA:2687:U:O4'	2.13	0.48
1:AA:451:A:H61	1:AA:481:G:H5'	1.77	0.48
15:AO:26:GLU:CD	15:AO:77:ARG:HD2	2.33	0.48
1:CA:131:C:O2	1:CA:262:A:H2	1.96	0.48
20:CT:25:ARG:HG3	20:CT:25:ARG:HH11	1.78	0.48
14:CN:24:CYS:O	14:CN:27:CYS:O	2.31	0.48
35:DI:38:LEU:HD12	35:DI:38:LEU:N	2.28	0.48
27:DA:464:U:H4'	56:D7:5:TRP:CZ3	2.47	0.48
40:DR:17:ARG:O	40:DR:20:LEU:HB3	2.13	0.48
35:BI:1:MET:C	35:BI:20:ASP:HB2	2.33	0.48
27:DA:957:A:C6	27:DA:2459:A:C8	3.02	0.48
55:B6:28:ARG:NH1	55:B6:28:ARG:HG2	2.28	0.48
1:CA:797:C:O2'	1:CA:798:G:H5'	2.13	0.48
48:BZ:100:PRO:O	48:BZ:101:LEU:HD12	2.13	0.48
27:BA:729:G:C6	30:BD:208:LYS:HB2	2.48	0.48
13:AM:20:THR:O	13:AM:22:ILE:N	2.39	0.48
1:AA:1381:U:H5''	1:AA:1381:U:C6	2.49	0.48
18:AR:64:ARG:HG3	18:AR:64:ARG:HH11	1.78	0.48
7:CG:143:ARG:NH2	25:CY:41:G:H5'	2.28	0.48
34:DH:52:VAL:HG12	34:DH:53:GLU:O	2.14	0.48
10:AJ:63:PHE:N	10:AJ:63:PHE:CD2	2.82	0.48
40:DR:28:LEU:HA	40:DR:34:ILE:HG13	1.95	0.48
10:CJ:22:LYS:HZ2	10:CJ:23:ILE:HG12	1.77	0.48
1:CA:702:A:H4'	1:CA:703:G:OP2	2.12	0.48
39:BQ:62:GLY:O	39:BQ:63:LYS:O	2.30	0.48
52:D3:7:LYS:NZ	52:D3:32:GLN:HE22	2.11	0.48
27:DA:106:C:O2'	27:DA:107:C:H5'	2.12	0.48
3:AC:5:ILE:O	3:AC:5:ILE:CD1	2.60	0.48
6:AF:75:LEU:O	6:AF:77:ARG:N	2.46	0.48
1:CA:1478:C:C2	1:CA:1479:C:C5	3.01	0.48
1:CA:834:C:H2'	1:CA:835:U:O5'	2.12	0.48
1:CA:444:C:H2'	1:CA:445:G:C8	2.48	0.48
27:BA:670:A:H8	27:BA:670:A:O5'	1.93	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:671:C:C6	27:BA:671:C:C5'	2.96	0.48
27:DA:1897:G:N2	27:DA:1898:U:H1'	2.28	0.48
43:BU:66:ASN:O	43:BU:70:ARG:HB2	2.13	0.48
27:BA:1605:C:C5	27:BA:1606:G:C5	3.01	0.48
50:D1:18:ILE:HG21	50:D1:20:ARG:NH2	2.28	0.48
18:CR:36:ASN:HD22	18:CR:36:ASN:N	2.09	0.48
1:AA:1344:C:C2'	1:AA:1345:U:H5'	2.43	0.48
28:DB:98:G:H2'	28:DB:99:G:H8	1.76	0.48
27:DA:1247:A:OP1	32:DF:95:ARG:NH2	2.46	0.48
50:D1:44:PRO:O	50:D1:46:LEU:HD22	2.13	0.48
39:BQ:20:ALA:O	39:BQ:98:LYS:HB2	2.13	0.48
27:DA:1805:U:C5'	30:DD:250:TRP:CD2	2.96	0.48
27:DA:1764:G:N2	27:DA:1765:C:H1'	2.29	0.48
27:BA:2348:U:H2'	27:BA:2349:G:H5''	1.95	0.48
28:DB:12:C:O2'	28:DB:13:A:OP2	2.31	0.48
49:B0:50:ASN:O	49:B0:81:VAL:HG21	2.13	0.48
27:DA:336:C:H2'	27:DA:337:C:C6	2.48	0.48
33:BG:23:PHE:CD1	33:BG:23:PHE:N	2.81	0.48
27:DA:1366:A:O2'	27:DA:1367:A:H5'	2.13	0.48
50:B1:11:ARG:HB2	50:B1:12:PRO:HD2	1.95	0.48
30:DD:134:ARG:HG3	30:DD:135:PHE:CE2	2.48	0.48
45:BW:22:ASP:HA	45:BW:25:ARG:HH12	1.78	0.48
45:BW:57:ASN:HD22	45:BW:57:ASN:N	2.10	0.48
27:DA:430:G:H8	27:DA:430:G:O5'	1.95	0.48
27:BA:907:U:H5'	39:BQ:23:GLY:HA3	1.95	0.48
2:AB:19:HIS:CG	2:AB:20:GLU:N	2.81	0.48
27:BA:263:C:O2'	27:BA:429:A:N3	2.43	0.48
1:CA:1013:G:H2'	1:CA:1015:A:OP2	2.13	0.48
27:BA:2834:G:H8	27:BA:2834:G:H5''	1.79	0.48
27:BA:2879:C:C4'	27:BA:2880:C:OP1	2.53	0.48
2:CB:69:LEU:O	2:CB:162:ILE:HA	2.13	0.48
32:BF:125:LEU:HD21	32:BF:199:TRP:CD2	2.48	0.48
37:BO:60:ALA:HA	37:BO:87:ILE:HG12	1.96	0.48
57:D8:6:THR:HG22	57:D8:63:PRO:HG3	1.95	0.48
27:DA:833:U:H5''	38:DP:48:PRO:HB3	1.94	0.48
27:DA:271(D):G:H2'	27:DA:271(E):U:C6	2.48	0.48
1:CA:1329:A:H4'	13:CM:24:GLY:O	2.13	0.48
47:BY:43:ASN:C	47:BY:44:ILE:HG13	2.34	0.48
1:AA:18:C:H4'	1:AA:1078:U:O2	2.13	0.48
1:AA:916:G:H2'	1:AA:917:G:H8	1.78	0.48
5:AE:43:LEU:HD12	5:AE:44:GLY:H	1.78	0.48
42:BT:28:VAL:O	42:BT:29:ARG:HB2	2.12	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DU:47:TYR:HA	43:DU:50:ARG:CZ	2.43	0.48
51:D2:52:ASP:O	51:D2:53:LEU:C	2.52	0.48
31:DE:52:LEU:HA	31:DE:52:LEU:HD12	1.73	0.48
27:DA:2371:G:O2'	55:D6:46:HIS:ND1	2.46	0.48
39:DQ:81:VAL:CG2	39:DQ:82:ARG:H	2.27	0.48
27:BA:336:C:H2'	27:BA:337:C:C6	2.48	0.48
27:DA:831:G:H5''	27:DA:831:G:C8	2.49	0.48
27:DA:704:G:HO2'	27:DA:705:A:P	2.36	0.48
27:DA:704:G:C1'	27:DA:727:A:N6	2.76	0.48
14:AN:23:ARG:HH11	14:AN:30:ALA:HB2	1.79	0.48
48:BZ:76:ASP:OD2	48:BZ:78:ARG:O	2.31	0.48
42:DT:80:SER:OG	42:DT:81:PRO:HD2	2.13	0.48
19:AS:32:LYS:HB3	19:AS:57:HIS:ND1	2.28	0.48
1:CA:559:A:H1'	1:CA:561:U:H2'	1.95	0.48
27:BA:2783:G:C6	27:BA:2784:C:C4	3.02	0.48
31:BE:86:PRO:O	31:BE:88:GLY:N	2.33	0.48
5:AE:56:GLN:O	5:AE:59:GLY:N	2.46	0.48
27:BA:951:C:C4	27:BA:952:G:N7	2.81	0.48
33:DG:96:ARG:O	33:DG:99:MET:HB3	2.13	0.48
36:DN:46:VAL:O	36:DN:47:ALA:CB	2.55	0.48
1:CA:130:A:H1'	1:CA:263:A:O2'	2.13	0.48
42:BT:72:VAL:HG12	42:BT:73:GLU:N	2.27	0.48
3:CC:51:GLY:O	3:CC:70:VAL:HG13	2.13	0.48
12:AL:50:ARG:HG2	12:AL:50:ARG:NH1	2.27	0.48
39:DQ:1:MET:HE3	39:DQ:1:MET:O	2.13	0.48
41:BS:101:LEU:C	41:BS:101:LEU:HD22	2.34	0.48
27:BA:141:A:C8	27:BA:1408:C:O2'	2.59	0.48
36:BN:131:GLN:HE22	36:BN:134:ARG:HD2	1.78	0.48
1:AA:1309:G:O2'	13:AM:77:ASN:ND2	2.46	0.48
1:CA:338:A:N6	1:CA:351:G:H1	2.12	0.48
4:AD:162:LEU:CD1	4:AD:181:MET:SD	3.02	0.48
1:AA:817:C:H6	1:AA:817:C:O5'	1.96	0.48
27:BA:271(T):C:H2'	27:BA:271(U):G:H8	1.78	0.48
23:AW:74:C:H4'	27:BA:2573:C:H42	1.77	0.48
8:CH:39:LEU:CD2	8:CH:39:LEU:H	2.22	0.48
27:DA:267:C:C2	27:DA:268:C:C5	3.01	0.48
27:DA:2012:G:C4'	45:DW:96:ILE:HD11	2.43	0.48
24:AX:2:G:H4'	49:B0:7:LEU:O	2.13	0.48
7:AG:69:VAL:HG11	7:AG:104:LEU:HD22	1.95	0.48
33:BG:18:GLU:HB3	33:BG:175:LEU:HD21	1.94	0.48
16:AP:7:ALA:O	16:AP:9:PHE:CD2	2.66	0.48
1:AA:1246:C:O2'	1:AA:1247:U:H5'	2.13	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:DT:19:LEU:HA	42:DT:20:PRO:HD3	1.69	0.48
1:CA:409:G:OP1	4:CD:23:GLY:O	2.31	0.48
3:CC:184:TYR:HD1	3:CC:201:TYR:CE2	2.31	0.48
17:CQ:4:LYS:HE3	17:CQ:6:LEU:CD1	2.39	0.48
1:AA:1190:G:H5'	3:AC:176:HIS:HE2	1.78	0.48
27:BA:1846:G:N2	27:BA:1895:C:C2	2.81	0.48
1:AA:1145:C:H5'	1:AA:1146:A:OP1	2.12	0.48
27:DA:2192:G:C3'	27:DA:2193:G:H5''	2.42	0.48
45:BW:85:VAL:CG1	45:BW:86:LEU:H	2.25	0.48
1:CA:407:G:H2'	1:CA:408:A:C8	2.41	0.48
4:AD:57:ARG:O	4:AD:206:PHE:HB2	2.13	0.48
1:AA:423:G:H2'	1:AA:424:G:H5'	1.95	0.48
27:BA:1476:C:H2'	27:BA:1477:A:C8	2.45	0.48
27:BA:1017:G:H2'	27:BA:1018:C:H6	1.77	0.48
1:AA:1019:C:H2'	1:AA:1020:U:O4'	2.14	0.48
1:AA:243:A:C2	1:AA:245:C:C2	3.01	0.48
17:CQ:82:MET:HA	17:CQ:85:VAL:CG2	2.42	0.48
48:BZ:116:LEU:HG	48:BZ:172:ALA:O	2.12	0.48
35:BI:28:ASN:N	35:BI:28:ASN:ND2	2.61	0.48
27:DA:876:C:C2'	27:DA:877:U:H5'	2.43	0.48
1:AA:1069:C:H2'	1:AA:1070:U:O5'	2.14	0.48
27:BA:1344:G:H5'	27:BA:1384:A:C6	2.48	0.48
54:D5:16:ARG:HG2	54:D5:16:ARG:HH11	1.78	0.48
7:AG:11:GLN:HG3	7:AG:12:LEU:N	2.29	0.48
11:CK:125:PHE:N	11:CK:125:PHE:HD1	2.11	0.48
35:BI:29:TYR:HD1	35:BI:33:ARG:HE	1.61	0.48
1:CA:1293:G:O2'	1:CA:1294:G:H5'	2.14	0.48
27:DA:1170:G:H1	27:DA:1179:C:H42	1.61	0.48
27:BA:681:G:C4	27:BA:682:G:C8	3.02	0.48
27:BA:2594:C:H2'	27:BA:2595:G:H8	1.76	0.48
18:CR:25:THR:C	18:CR:26:LEU:HD23	2.34	0.48
27:BA:759:G:C2	27:BA:760:G:C8	3.02	0.48
47:BY:101:LYS:HG2	47:BY:102:CYS:N	2.29	0.48
29:BC:58:VAL:HG21	29:BC:166:ASP:N	2.28	0.48
50:B1:3:LYS:HD2	50:B1:4:VAL:HG12	1.96	0.48
34:BH:16:SER:HB2	34:BH:27:LYS:HB2	1.94	0.48
1:AA:1530:G:O2'	1:AA:1531:A:O5'	2.27	0.48
38:BP:50:ARG:HB3	57:B8:59:LYS:CD	2.37	0.48
1:CA:985:C:N3	1:CA:1221:G:C2	2.82	0.48
28:BB:42:C:H2'	28:BB:43:C:H6	1.78	0.48
28:BB:45:A:C2'	28:BB:46:A:H5'	2.43	0.48
34:BH:137:ASP:O	34:BH:138:LYS:CB	2.61	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:27:G:O2'	27:BA:28:A:P	2.72	0.48
4:CD:92:VAL:O	4:CD:93:PHE:C	2.52	0.48
38:BP:16:ARG:HG3	38:BP:17:LYS:N	2.28	0.48
27:BA:535:C:C2'	27:BA:536:A:H5'	2.43	0.48
27:BA:558:G:OP1	36:BN:111:PRO:HD2	2.13	0.48
44:BV:13:ARG:NH1	44:BV:13:ARG:HG2	2.23	0.48
44:BV:49:THR:HG22	44:BV:50:PRO:CD	2.39	0.48
27:DA:1893:C:H2'	27:DA:1894:C:O5'	2.13	0.48
32:DF:18:ARG:HG3	32:DF:19:GLU:N	2.29	0.48
27:DA:536:A:H2'	27:DA:537:C:H6	1.75	0.48
27:DA:2206:G:N3	27:DA:2206:G:H5''	2.29	0.48
30:DD:58:HIS:C	30:DD:58:HIS:CD2	2.86	0.48
33:BG:56:ALA:O	33:BG:60:LEU:HB2	2.13	0.48
11:AK:33:THR:HA	11:AK:39:PRO:HA	1.95	0.48
55:D6:11:LEU:O	55:D6:24:GLU:N	2.47	0.48
38:DP:100:LEU:O	38:DP:103:ALA:HB3	2.14	0.48
47:BY:14:LEU:HD12	47:BY:15:VAL:N	2.28	0.48
27:DA:2020:A:OP1	43:DU:27:LEU:HG	2.12	0.48
27:DA:805:G:H22	27:DA:828:U:H5''	1.78	0.48
20:AT:60:GLU:HG3	20:AT:81:LYS:HE3	1.95	0.48
36:BN:70:LYS:HB3	36:BN:87:LEU:HD12	1.95	0.48
23:AW:30:A:H2'	23:AW:31:U:C5'	2.26	0.48
39:BQ:118:LEU:O	39:BQ:119:ARG:C	2.52	0.48
34:BH:61:HIS:O	34:BH:62:LYS:C	2.52	0.48
30:BD:72:LYS:HG3	30:BD:97:TYR:CE2	2.48	0.48
9:AI:53:VAL:CG2	9:AI:54:ASP:N	2.54	0.48
12:CL:98:VAL:HG12	12:CL:101:VAL:CG2	2.43	0.48
2:AB:197:VAL:CB	2:AB:200:ILE:HG12	2.42	0.48
1:CA:344:A:H3'	1:CA:346:G:O6	2.13	0.48
27:BA:464:U:H4'	56:B7:5:TRP:CH2	2.48	0.48
30:BD:238:GLY:O	30:BD:239:ARG:O	2.31	0.48
2:AB:171:ALA:O	2:AB:172:ILE:C	2.51	0.48
1:AA:372:C:N4	1:AA:389:A:H62	2.11	0.48
15:AO:77:ARG:O	15:AO:81:LEU:HB3	2.13	0.48
20:CT:67:ALA:HA	20:CT:73:HIS:HA	1.95	0.48
1:CA:1053:G:N7	1:CA:1199:U:H2'	2.28	0.48
1:CA:1326:C:H2'	1:CA:1327:C:C6	2.49	0.48
39:DQ:2:LEU:HG	39:DQ:70:PRO:HG3	1.96	0.48
48:BZ:152:SER:N	48:BZ:166:PRO:HB3	2.24	0.48
31:DE:111:ARG:CD	31:DE:160:TYR:CE1	2.91	0.48
40:DR:9:LYS:O	40:DR:10:LEU:HG	2.14	0.48
27:BA:2346:A:C8	27:BA:2383:G:C6	3.01	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:DZ:8:TYR:HE1	48:DZ:62:ASP:OD2	1.95	0.48
1:AA:1173:G:C4	1:AA:1174:G:C8	3.01	0.48
27:BA:68:G:N2	27:BA:74:A:C4	2.81	0.48
29:DC:82:LYS:C	29:DC:83:ILE:HD13	2.34	0.48
1:AA:486:U:O2'	1:AA:487:A:O5'	2.31	0.48
39:BQ:57:HIS:HE1	39:BQ:116:GLU:CG	2.25	0.48
35:DI:81:VAL:HG11	35:DI:88:ILE:HG21	1.96	0.48
27:BA:764:A:C5	30:BD:209:ALA:HB3	2.49	0.48
1:AA:1381:U:C5	7:AG:156:TRP:HZ3	2.31	0.48
27:DA:2562:U:O2	27:DA:2562:U:C2'	2.52	0.48
37:DO:23:ARG:HD2	37:DO:24:VAL:N	2.27	0.48
42:DT:73:GLU:OE1	42:DT:103:ARG:NE	2.47	0.48
27:DA:2318:G:C2'	27:DA:2319:G:OP1	2.60	0.48
1:CA:1157:A:C4'	1:CA:1158:C:O5'	2.54	0.48
4:AD:152:SER:C	4:AD:154:ASN:N	2.66	0.48
27:DA:271(A):A:N1	27:DA:272(D):G:O2'	2.46	0.48
1:AA:1313:U:O4	19:AS:4:SER:N	2.47	0.48
45:DW:55:ALA:O	45:DW:57:ASN:N	2.37	0.48
27:DA:1916:A:H2'	27:DA:1917:U:O4'	2.14	0.48
27:DA:481:G:H1'	27:DA:506:G:N2	2.25	0.48
11:CK:33:THR:HB	11:CK:37:GLY:O	2.12	0.48
39:DQ:98:LYS:HB3	39:DQ:99:PRO:HD2	1.94	0.48
27:DA:2122:U:H2'	27:DA:2123:G:H8	1.77	0.48
30:BD:130:ALA:C	30:BD:131:LEU:HD12	2.33	0.48
27:BA:1001:A:H2'	27:BA:1002:G:O4'	2.13	0.48
9:AI:11:LYS:C	9:AI:13:ALA:H	2.16	0.48
34:BH:29:PRO:O	34:BH:30:LYS:CE	2.60	0.48
27:BA:2031:A:C6	27:BA:2498:C:H1'	2.48	0.48
6:CF:42:GLU:O	6:CF:44:GLY:N	2.46	0.48
1:CA:613:C:H2'	1:CA:614:A:C8	2.45	0.48
27:BA:2536:G:C6	27:BA:2537:U:C4	3.02	0.48
13:AM:102:ARG:CG	13:AM:102:ARG:HH11	2.27	0.48
27:BA:875:G:C6	27:BA:876:C:C2	3.02	0.48
27:DA:1764:G:N2	27:DA:1765:C:C2	2.81	0.48
18:AR:87:ARG:HG2	18:AR:87:ARG:NH1	2.28	0.48
27:BA:696:G:H2'	27:BA:697:C:H6	1.79	0.48
41:DS:36:TYR:HD1	41:DS:36:TYR:N	2.11	0.48
27:DA:448:U:H3'	27:DA:449:A:C5'	2.42	0.48
1:CA:1113:C:H6	1:CA:1113:C:O5'	1.96	0.48
27:DA:2440:C:H2'	27:DA:2441:C:O5'	2.13	0.48
15:CO:62:GLN:O	15:CO:66:LEU:HD22	2.14	0.48
11:AK:66:LEU:O	11:AK:69:ALA:N	2.45	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:785:G:N3	27:BA:785:G:H2'	2.27	0.48
1:AA:142:G:N3	1:AA:142:G:H2'	2.29	0.48
3:CC:206:GLU:O	3:CC:207:VAL:C	2.51	0.48
1:CA:977:A:C8	1:CA:982:U:O4	2.67	0.48
27:BA:2631:G:H1	27:BA:2787:C:H42	1.62	0.48
57:D8:55:ALA:O	57:D8:59:LYS:HG3	2.13	0.48
27:DA:1693:U:O2'	27:DA:1694:C:OP1	2.31	0.48
27:BA:286:C:O2'	27:BA:287:C:C5'	2.61	0.48
27:BA:355:G:C4	27:BA:356:G:C8	3.02	0.48
1:AA:924:C:O2'	1:AA:1502:A:N6	2.47	0.48
27:DA:992:C:H3'	27:DA:992:C:C6	2.48	0.48
27:DA:533:G:H5'	43:DU:24:TYR:CD2	2.49	0.48
30:DD:119:ALA:HB2	30:DD:130:ALA:HB3	1.96	0.48
30:DD:142:VAL:CG2	30:DD:143:HIS:N	2.76	0.48
27:DA:869:G:N3	27:DA:870:A:C8	2.82	0.48
27:DA:458:G:C8	56:D7:37:LYS:NZ	2.81	0.48
27:DA:969:U:P	52:D3:17:LYS:HG2	2.54	0.48
1:AA:191:G:O2'	1:AA:192:U:H5'	2.14	0.48
27:DA:143:G:H1'	46:DX:37:THR:CG2	2.43	0.48
34:BH:43:VAL:HG11	34:BH:52:VAL:CA	2.44	0.48
34:BH:54:ARG:HG2	34:BH:65:HIS:CD2	2.45	0.48
30:BD:118:VAL:N	30:BD:129:ASN:OD1	2.46	0.48
4:CD:98:GLU:OE2	4:CD:103:ASN:ND2	2.44	0.48
1:CA:218:C:O2'	1:CA:219:C:H6	1.97	0.48
48:BZ:75:LEU:HD22	48:BZ:82:PRO:HA	1.95	0.48
8:AH:109:ILE:HG12	8:AH:110:ALA:N	2.28	0.48
8:AH:42:GLU:HG3	8:AH:109:ILE:HD12	1.96	0.48
41:DS:40:ILE:HG22	41:DS:40:ILE:O	2.14	0.48
1:CA:189(D):C:N3	1:CA:189(E):U:C2	2.81	0.48
27:BA:686:G:O6	56:B7:12:ARG:HA	2.14	0.48
27:BA:794:G:C2	27:BA:795:C:C2	3.01	0.48
36:DN:10:GLU:HA	36:DN:11:PRO:HD3	1.75	0.48
1:AA:372:C:H42	1:AA:389:A:N6	2.12	0.48
1:CA:260:G:H2'	1:CA:261:U:H6	1.79	0.48
30:DD:51:VAL:HG11	30:DD:54:ARG:HE	1.78	0.48
27:BA:388:G:H5'	50:B1:25:LYS:HG2	1.95	0.48
12:CL:99:ARG:NH2	12:CL:107:VAL:HG22	2.29	0.48
1:CA:1354:C:H2'	1:CA:1355:G:C8	2.49	0.48
1:CA:923:A:C6	1:CA:924:C:N3	2.81	0.48
35:BI:107:VAL:O	35:BI:109:ILE:HD13	2.13	0.48
40:DR:2:ARG:NH2	40:DR:5:LYS:CE	2.77	0.48
27:BA:1971:A:C5	30:BD:241:PRO:HG3	2.48	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:AG:73:MET:HA	7:AG:91:VAL:HG23	1.96	0.48
12:AL:112:LYS:C	12:AL:114:ARG:H	2.17	0.48
37:DO:10:VAL:O	37:DO:10:VAL:HG22	2.14	0.48
46:BX:5:TYR:CE1	51:B2:30:ARG:HB2	2.48	0.48
51:B2:47:ASN:O	51:B2:50:ILE:N	2.41	0.48
27:BA:2355:C:H1'	49:B0:39:ARG:NH2	2.21	0.48
2:CB:178:ARG:NH2	8:CH:68:ARG:NH2	2.51	0.48
1:AA:1278:U:C6	1:AA:1278:U:C3'	2.95	0.48
8:CH:104:ARG:O	8:CH:106:GLY:N	2.46	0.48
50:D1:12:PRO:HB2	50:D1:41:ARG:HD3	1.96	0.48
3:AC:175:LEU:H	3:AC:175:LEU:HD12	1.77	0.48
27:DA:345:A:C4'	27:DA:346:A:OP1	2.60	0.48
13:AM:13:LYS:C	13:AM:44:ARG:HD2	2.34	0.48
12:AL:76:GLU:O	12:AL:77:HIS:CB	2.55	0.48
10:CJ:94:VAL:CG1	10:CJ:95:GLU:H	2.25	0.48
1:AA:437:U:O2'	4:AD:123:HIS:HD2	1.96	0.48
29:DC:77:ILE:HG21	29:DC:123:VAL:N	2.25	0.48
2:AB:39:ILE:O	2:AB:41:ILE:HD12	2.14	0.48
10:CJ:85:LEU:O	10:CJ:87:THR:N	2.46	0.48
1:AA:706:A:H5''	11:AK:22:HIS:CD2	2.49	0.48
25:CY:31:U:O2'	25:CY:32:U:H5'	2.14	0.48
27:BA:435:C:O2'	27:BA:436:C:H5'	2.13	0.48
44:BV:43:GLU:HA	44:BV:43:GLU:OE1	2.11	0.48
50:D1:29:GLY:O	50:D1:30:VAL:CG2	2.62	0.48
1:AA:115:G:H4'	1:AA:116:A:O5'	2.13	0.48
7:AG:108:ALA:O	7:AG:111:ARG:HB2	2.13	0.48
1:AA:422:C:O2'	1:AA:423:G:OP2	2.29	0.48
11:AK:126:ARG:HH11	11:AK:126:ARG:HB3	1.78	0.48
41:DS:21:THR:O	41:DS:23:ARG:N	2.46	0.48
34:DH:38:SER:C	34:DH:40:GLU:N	2.67	0.48
27:BA:1943:U:C1'	27:BA:1945:G:H5'	2.43	0.48
20:AT:100:ILE:O	20:AT:102:GLY:N	2.47	0.48
1:CA:725:G:H2'	1:CA:726:C:H6	1.79	0.48
6:CF:82:ARG:CB	6:CF:85:VAL:HG23	2.44	0.48
35:BI:33:ARG:O	35:BI:35:LEU:HD23	2.14	0.48
1:CA:876:G:P	8:CH:14:ARG:NH1	2.87	0.48
27:DA:1558:A:HO2'	27:DA:1559:G:P	2.37	0.48
6:CF:61:LEU:HD23	6:CF:63:TYR:OH	2.13	0.48
9:CI:32:ASP:OD1	9:CI:33:PHE:N	2.47	0.48
27:BA:358:U:O2	27:BA:358:U:H2'	2.12	0.48
27:DA:841:A:H2'	27:DA:842:G:C8	2.49	0.48
1:AA:148:G:H2'	1:AA:149:A:C8	2.48	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:161:ASN:N	4:AD:161:ASN:OD1	2.46	0.48
2:AB:102:LEU:H	2:AB:102:LEU:HD12	1.78	0.48
11:AK:116:HIS:ND1	11:AK:116:HIS:N	2.61	0.48
27:DA:2765:A:N3	27:DA:2765:A:H3'	2.28	0.48
38:BP:65:ARG:NH2	57:B8:15:LYS:HD2	2.29	0.48
1:CA:960:U:O2'	1:CA:1223:C:H5'	2.13	0.48
1:CA:982:U:H6	1:CA:982:U:OP1	1.97	0.48
27:BA:2832:U:O2	27:BA:2834:G:N1	2.46	0.48
40:BR:24:GLN:O	40:BR:25:ALA:C	2.51	0.48
27:DA:1019:U:O2'	27:DA:1021:A:C2	2.55	0.48
4:CD:15:GLU:OE1	4:CD:15:GLU:N	2.46	0.48
4:CD:9:CYS:SG	4:CD:12:CYS:SG	3.11	0.48
1:CA:473:G:H5''	16:CP:81:ARG:HE	1.77	0.48
43:BU:92:ARG:HE	43:BU:95:LEU:HD12	1.78	0.48
42:BT:28:VAL:HG22	42:BT:46:GLU:C	2.34	0.48
42:BT:65:LYS:NZ	42:BT:66:VAL:N	2.62	0.48
44:DV:40:LEU:CD1	44:DV:46:VAL:HA	2.42	0.48
41:BS:67:ARG:NH2	41:BS:100:ALA:HB3	2.28	0.48
27:DA:870:A:H5''	39:DQ:6:ARG:O	2.14	0.48
27:DA:858:U:C2	27:DA:920:G:N2	2.82	0.48
27:DA:2247:A:C5	27:DA:2248:C:C5	3.02	0.48
27:DA:2347:C:H2'	27:DA:2348:U:C6	2.48	0.48
27:DA:2367:G:H2'	27:DA:2368:C:C6	2.47	0.48
27:DA:1953:A:H2	27:DA:2549:G:N3	2.12	0.48
27:DA:2571:C:H5''	27:DA:2572:A:C5'	2.44	0.48
27:DA:669:G:C2	27:DA:801:G:C6	3.02	0.48
27:DA:952:G:N1	27:DA:966:G:C6	2.82	0.48
27:DA:674:G:C1'	32:DF:74:ARG:HD3	2.44	0.48
38:DP:39:LYS:O	38:DP:41:ARG:HG2	2.13	0.48
27:DA:704:G:O2'	27:DA:705:A:P	2.71	0.48
31:DE:200:GLU:N	31:DE:200:GLU:OE2	2.46	0.48
1:CA:173:U:H1'	1:CA:197:A:C6	2.49	0.48
1:AA:1221:G:H4'	19:AS:77:THR:CG2	2.44	0.48
1:CA:375:U:H2'	1:CA:376:G:H8	1.79	0.48
1:CA:189(E):U:O2'	1:CA:189(F):U:H5''	2.13	0.48
2:AB:95:GLN:HA	2:AB:95:GLN:OE1	2.14	0.48
27:BA:826:U:H5''	27:BA:826:U:C6	2.47	0.48
33:DG:2:PRO:O	33:DG:3:LEU:CB	2.62	0.48
1:AA:1321:C:OP2	1:AA:1322:C:H2'	2.14	0.48
27:DA:2539:C:C2	27:DA:2540:C:C5	3.02	0.48
1:CA:540:G:H2'	1:CA:541:G:H8	1.79	0.48
27:BA:1675:C:O2	31:BE:129:HIS:N	2.46	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:647:C:C4	1:CA:648:A:N7	2.81	0.48
1:CA:651:C:N4	1:CA:753:A:OP2	2.40	0.48
35:BI:79:ILE:HG23	35:BI:80:PRO:HD2	1.95	0.48
1:AA:442:C:H42	1:AA:492:G:H1	1.62	0.48
30:BD:70:TRP:CH2	30:BD:150:LYS:HA	2.48	0.48
9:CI:19:LEU:HD23	9:CI:61:ALA:HB2	1.95	0.48
39:BQ:27:VAL:HG23	39:BQ:137:TYR:HE1	1.78	0.48
27:DA:851:U:O2'	52:D3:45:GLY:HA3	2.14	0.48
35:DI:78:THR:CG2	35:DI:143:SER:HB2	2.42	0.48
25:CY:68:C:H2'	25:CY:69:C:C5'	2.36	0.48
36:BN:31:ALA:O	36:BN:34:LEU:HB2	2.13	0.48
30:DD:176:ARG:HD2	30:DD:180:GLY:HA2	1.94	0.48
3:AC:89:GLU:HG3	3:AC:90:GLU:N	2.28	0.48
27:BA:232:G:C4'	27:BA:233:A:OP1	2.53	0.48
27:DA:682:G:O2'	27:DA:683:C:H5'	2.13	0.48
45:DW:12:ILE:HD13	45:DW:17:VAL:CG1	2.43	0.48
27:DA:475:U:C5	27:DA:481:G:O6	2.66	0.48
29:BC:49:ILE:HD12	29:BC:49:ILE:N	2.21	0.48
40:BR:101:ALA:HB2	54:B5:44:THR:CB	2.43	0.48
27:BA:185:U:H4'	27:BA:218:A:H4'	1.96	0.48
52:D3:59:VAL:CG1	52:D3:60:GLU:N	2.66	0.48
1:AA:275:G:H4'	17:AQ:14:LYS:O	2.13	0.48
1:CA:1096:C:C2	1:CA:1097:C:C5	3.02	0.48
50:B1:75:GLU:C	50:B1:77:ALA:H	2.16	0.48
32:BF:167:ALA:O	32:BF:169:ASN:N	2.47	0.48
16:CP:31:LYS:CG	16:CP:32:TYR:H	2.24	0.48
27:BA:1303:G:H1'	27:BA:1641:A:N1	2.29	0.48
8:CH:73:ASP:OD2	8:CH:73:ASP:C	2.52	0.48
4:AD:3:ARG:CB	4:AD:118:ARG:HH11	2.25	0.48
27:BA:1846:G:C5'	27:BA:1847:A:OP2	2.62	0.48
44:BV:36:PRO:HA	44:BV:56:SER:HA	1.95	0.48
27:BA:2534:A:H5'	27:BA:2534:A:H8	1.79	0.48
13:CM:37:THR:OG1	13:CM:39:ILE:HG13	2.14	0.48
20:AT:87:LYS:HG3	20:AT:91:LEU:CD1	2.43	0.48
13:AM:88:ARG:HH21	19:AS:69:HIS:HE1	1.62	0.48
1:CA:434:U:H2'	1:CA:435:C:C6	2.48	0.48
27:BA:2553:G:H2'	27:BA:2554:U:O4'	2.13	0.48
11:AK:44:SER:H	11:AK:47:VAL:CG2	2.26	0.48
2:CB:174:VAL:O	2:CB:174:VAL:HG12	2.14	0.48
38:DP:138:LEU:O	38:DP:139:LYS:C	2.51	0.48
1:AA:1033:G:H2'	1:AA:1034:G:H5'	1.96	0.48
9:CI:27:THR:HG23	9:CI:31:GLN:O	2.14	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:189:ASP:OD2	2:CB:191:ASP:HB2	2.14	0.48
2:CB:131:PRO:HG2	2:CB:134:GLU:CB	2.44	0.48
30:DD:102:LYS:C	30:DD:103:ARG:HG2	2.34	0.48
1:CA:790:A:OP1	24:CX:38:A:O2'	2.31	0.48
27:BA:2615:U:C2	54:B5:7:PRO:HA	2.49	0.48
27:BA:2706:G:H8	27:BA:2706:G:O5'	1.96	0.48
13:CM:29:ARG:HD3	13:CM:64:TRP:CZ3	2.47	0.48
1:AA:505:G:H2'	1:AA:506:G:H8	1.78	0.48
27:BA:2594:C:O2'	27:BA:2595:G:H5'	2.14	0.48
5:AE:29:GLY:HA2	5:AE:46:GLY:O	2.14	0.48
27:DA:304:G:H2'	27:DA:305:U:C6	2.49	0.48
27:BA:1980:G:H4'	27:BA:1981:A:OP2	2.13	0.48
27:BA:2010:G:H5'	45:BW:42:ARG:HB2	1.95	0.48
27:BA:271(D):G:O2'	27:BA:271(E):U:H5'	2.14	0.48
27:DA:425:G:O2'	27:DA:426:C:H5'	2.13	0.48
48:DZ:174:VAL:HB	48:DZ:175:PRO:HD2	1.95	0.48
27:DA:1644:C:O2	27:DA:1644:C:H2'	2.11	0.48
24:AX:20:U:H3'	24:AX:21:A:H5''	1.96	0.48
27:BA:2600:A:H2'	27:BA:2601:C:C6	2.49	0.48
1:CA:317:G:H2'	1:CA:318:G:C8	2.49	0.48
10:AJ:24:VAL:O	10:AJ:28:ARG:HB2	2.14	0.48
48:DZ:151:ALA:HB3	48:DZ:153:ASP:OD2	2.14	0.48
27:BA:242:G:O5'	57:B8:62:LEU:HD22	2.14	0.48
27:BA:2838:G:H1'	40:BR:45:ARG:NH1	2.28	0.48
41:BS:92:TYR:HD1	41:BS:92:TYR:N	2.10	0.48
32:BF:202:PHE:HA	32:BF:205:ARG:HB2	1.95	0.48
1:CA:1306:A:N6	1:CA:1331:G:H1'	2.29	0.48
36:BN:3:THR:HG22	36:BN:5:VAL:H	1.78	0.48
44:BV:18:LEU:O	44:BV:19:LYS:O	2.31	0.48
8:AH:17:THR:HG22	8:AH:65:TYR:CZ	2.49	0.48
1:AA:922:G:H1'	5:AE:19:MET:HB3	1.95	0.48
27:DA:997:G:C2	27:DA:1159:U:N3	2.82	0.48
36:DN:38:HIS:HA	43:DU:67:ALA:HB1	1.96	0.48
27:DA:997:G:OP1	43:DU:93:LYS:HD3	2.13	0.48
36:DN:2:LYS:HE2	43:DU:95:LEU:HD21	1.95	0.48
27:DA:921:G:H4'	27:DA:2269:A:C6	2.49	0.48
27:BA:1747(A):G:H2'	27:BA:1748:G:C5'	2.17	0.48
31:DE:59:VAL:CG2	31:DE:60:ASN:H	2.06	0.48
55:D6:34:LEU:N	55:D6:51:GLU:OE1	2.47	0.48
20:AT:54:LYS:HA	20:AT:57:ARG:NH1	2.28	0.48
20:AT:26:ASN:CB	20:AT:71:THR:HG23	2.44	0.48
1:CA:1104:G:C2'	1:CA:1105:A:H5'	2.43	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:12:CYS:HA	4:AD:19:LEU:HB2	1.96	0.48
4:AD:9:CYS:HA	4:AD:12:CYS:HB2	1.96	0.48
4:AD:4:TYR:CG	4:AD:5:ILE:N	2.80	0.48
27:BA:1500:G:C2'	27:BA:1501:C:O5'	2.62	0.48
30:BD:72:LYS:NZ	30:BD:103:ARG:HH12	2.11	0.48
30:BD:35:LYS:O	30:BD:64:ILE:N	2.43	0.48
4:CD:99:SER:O	4:CD:140:VAL:HG23	2.14	0.48
1:AA:963:G:H21	10:AJ:55:LYS:HZ3	1.60	0.48
39:BQ:12:GLN:NE2	39:BQ:73:PRO:HD3	2.29	0.48
2:AB:112:VAL:O	2:AB:115:LEU:HB3	2.13	0.48
42:DT:13:ARG:C	42:DT:15:VAL:H	2.17	0.48
34:BH:159:GLU:OE1	34:BH:159:GLU:CA	2.57	0.48
37:BO:35:VAL:CG2	37:BO:65:THR:HG23	2.44	0.48
27:DA:71:A:C4'	27:DA:72:U:OP2	2.62	0.48
50:B1:47:GLN:N	50:B1:62:VAL:O	2.42	0.48
27:DA:2527:C:C4	27:DA:2528:U:C5	3.01	0.48
3:CC:156:ARG:HH11	3:CC:193:TYR:HB2	1.77	0.48
5:CE:53:LEU:CD1	5:CE:53:LEU:H	2.24	0.48
1:CA:1325:C:O3'	21:CU:17:THR:HG21	2.14	0.48
38:BP:79:ARG:O	38:BP:111:ARG:HB2	2.12	0.48
35:BI:111:PRO:HA	35:BI:114:LEU:CD2	2.34	0.48
35:BI:128:LEU:O	35:BI:137:PRO:HA	2.13	0.48
27:BA:807:U:H2'	27:BA:808:G:O4'	2.13	0.48
1:AA:35:G:C2'	1:AA:36:C:H5'	2.43	0.48
3:AC:202:ILE:O	3:AC:204:LEU:HG	2.13	0.48
27:DA:736:C:C2'	27:DA:737:C:H5'	2.44	0.48
28:DB:46:A:C5	28:DB:47:C:C4	3.01	0.48
33:DG:125:PHE:CD1	33:DG:125:PHE:N	2.82	0.48
27:DA:849:A:OP2	27:DA:850:C:C5	2.67	0.48
1:AA:736:C:N4	1:AA:737:A:H62	2.12	0.48
13:AM:9:ILE:HD12	13:AM:9:ILE:N	2.29	0.48
27:DA:2566:A:O2'	27:DA:2567:G:P	2.72	0.48
27:DA:2849:U:O2'	27:DA:2866:U:C6	2.67	0.48
42:DT:96:ARG:CG	42:DT:96:ARG:NH1	2.70	0.48
4:AD:154:ASN:HA	4:AD:159:ARG:NH2	2.28	0.48
27:DA:1385:G:C4	27:DA:1386:C:C5	3.02	0.48
2:AB:214:ILE:HG22	2:AB:215:LEU:N	2.28	0.48
5:CE:67:VAL:CG2	5:CE:68:GLU:N	2.75	0.48
27:DA:2011:U:H2'	27:DA:2012:G:O4'	2.14	0.48
45:DW:105:VAL:HG12	45:DW:107:LEU:HD12	1.95	0.48
45:DW:50:VAL:HG13	45:DW:51:LEU:N	2.23	0.48
27:DA:324:A:N6	27:DA:338:G:O2'	2.37	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:571:U:H3'	1:CA:572:A:H5''	1.96	0.48
1:CA:571:U:H5''	1:CA:819:A:N3	2.29	0.48
52:D3:31:LEU:C	52:D3:33:GLN:H	2.17	0.48
42:BT:55:ASN:C	42:BT:59:THR:HG22	2.34	0.48
2:AB:15:VAL:N	2:AB:16:HIS:CE1	2.82	0.48
39:DQ:34:LEU:HB2	39:DQ:118:LEU:HD22	1.96	0.48
27:BA:1721:G:O6	27:BA:1739:U:H5'	2.14	0.48
1:AA:960:U:C4	1:AA:1225:A:C4	3.00	0.48
27:DA:2544:G:C4	27:DA:2545:G:C8	3.02	0.48
23:CW:70:C:O2'	23:CW:71:A:C5'	2.62	0.48
1:AA:1508:G:C5	1:AA:1509:C:C5	3.01	0.48
4:AD:123:HIS:O	4:AD:124:GLY:C	2.52	0.48
27:BA:38:A:C2	27:BA:442:G:C2	3.02	0.48
27:BA:709:U:O2'	27:BA:710:G:H5'	2.13	0.48
27:DA:1332:G:N2	27:DA:1609:A:HO2'	2.12	0.48
48:BZ:134:GLU:O	48:BZ:135:PHE:HB3	2.12	0.48
28:DB:21:G:H1	28:DB:62:C:H42	1.61	0.48
36:BN:35:ARG:HB3	36:BN:42:TRP:CH2	2.49	0.48
36:BN:48:MET:H	36:BN:48:MET:HE2	1.77	0.48
44:BV:34:GLU:OE2	44:BV:56:SER:HB2	2.13	0.48
27:DA:2203:U:H1'	30:DD:151:LYS:HE3	1.96	0.48
27:DA:1354:A:H2'	27:DA:1355:G:O4'	2.14	0.48
27:BA:1668:A:N7	27:BA:1674:G:C6	2.81	0.48
27:DA:2653:U:H3'	27:DA:2654:A:H8	1.79	0.48
27:BA:1450:G:H2'	27:BA:1450(A):C:O5'	2.14	0.48
27:BA:54:G:OP2	27:BA:54:G:H8	1.97	0.48
30:BD:109:ASP:HB2	30:BD:197:GLY:CA	2.43	0.48
27:BA:1761:C:H3'	27:BA:1762:A:C8	2.49	0.48
48:DZ:120:HIS:C	48:DZ:122:ASP:H	2.17	0.48
27:DA:199:A:C5	27:DA:2434:A:N6	2.81	0.48
27:DA:2003:G:C2'	27:DA:2004:G:O5'	2.62	0.48
27:BA:1987:G:C2	27:BA:1988:C:C4	3.01	0.48
27:BA:269:U:C5	27:BA:271(Y):U:C4	3.02	0.48
49:B0:50:ASN:C	49:B0:62:LEU:HD12	2.34	0.48
27:DA:1479:G:H2'	27:DA:1480:G:H8	1.78	0.48
45:DW:35:ILE:HG23	54:D5:28:PRO:CD	2.43	0.48
12:AL:83:ARG:HB2	12:AL:98:VAL:HG22	1.95	0.48
27:DA:2817:G:C2	27:DA:2818:G:H1'	2.49	0.48
29:BC:187:ASP:O	29:BC:189:ILE:N	2.47	0.48
1:AA:878:G:H8	1:AA:878:G:O5'	1.96	0.48
4:CD:177:ASP:O	4:CD:177:ASP:OD1	2.31	0.48
1:CA:1489:G:O2'	1:CA:1490:C:H5'	2.14	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2746:U:H2'	27:BA:2747:G:H5'	1.95	0.48
57:B8:10:ALA:O	57:B8:11:LYS:C	2.52	0.48
27:BA:840:C:H2'	27:BA:841:A:C8	2.49	0.48
40:BR:18:LEU:HD13	40:BR:18:LEU:C	2.33	0.48
40:BR:33:ARG:HD2	40:BR:33:ARG:N	2.29	0.48
37:BO:10:VAL:HG23	37:BO:10:VAL:O	2.14	0.48
37:BO:10:VAL:HG22	37:BO:17:ARG:O	2.13	0.48
27:DA:1022:G:O2'	27:DA:1023:U:OP2	2.32	0.48
4:CD:11:LEU:O	4:CD:12:CYS:C	2.52	0.48
53:B4:62:CYS:SG	53:B4:63:SER:N	2.87	0.48
33:BG:142:PRO:HG2	33:BG:143:GLU:H	1.78	0.48
31:BE:78:LEU:C	31:BE:79:ARG:HD2	2.34	0.48
27:BA:560:C:C2'	27:BA:561:G:O5'	2.62	0.48
42:BT:31:SER:O	42:BT:82:LEU:HA	2.13	0.48
27:DA:397:G:H5''	50:D1:45:ASN:HB3	1.94	0.48
27:DA:2206:G:N2	27:DA:2207:G:H4'	2.28	0.48
30:DD:123:ALA:HB3	30:DD:131:LEU:HG	1.95	0.48
27:DA:1567:A:H4'	30:DD:58:HIS:NE2	2.29	0.48
27:DA:671:C:H5	38:DP:36:LYS:HE2	1.79	0.48
27:DA:807:U:OP2	38:DP:39:LYS:HD2	2.13	0.48
43:DU:34:LYS:HA	43:DU:34:LYS:CE	2.44	0.48
20:AT:58:LYS:O	20:AT:61:SER:HB3	2.13	0.48
39:BQ:43:THR:OG1	39:BQ:46:GLN:NE2	2.47	0.48
34:BH:24:VAL:HG23	34:BH:24:VAL:O	2.14	0.48
4:CD:114:ARG:O	4:CD:117:ALA:HB3	2.14	0.48
10:AJ:54:PHE:CG	10:AJ:55:LYS:HE3	2.49	0.48
8:AH:118:VAL:C	8:AH:119:LEU:HD23	2.33	0.48
1:CA:369:C:N3	1:CA:393:A:C2	2.81	0.48
17:CQ:12:SER:HA	17:CQ:14:LYS:HZ1	1.77	0.48
30:BD:44:ASN:CB	30:BD:48:ARG:O	2.59	0.48
32:DF:36:VAL:CG1	32:DF:183:VAL:HG21	2.36	0.48
38:DP:9:ASN:N	38:DP:10:PRO:CD	2.72	0.48
16:AP:72:ARG:O	16:AP:75:ARG:HB3	2.14	0.48
3:CC:83:ARG:NH1	3:CC:83:ARG:HG2	2.28	0.48
1:CA:540:G:C4	1:CA:541:G:C8	3.01	0.48
10:AJ:5:ARG:HG2	10:AJ:6:ILE:N	2.28	0.48
27:BA:2266:A:H4'	27:BA:2267:A:H5'	1.96	0.48
27:BA:552:G:C6	27:BA:553:G:C5	3.02	0.48
27:DA:131:G:C2	27:DA:132:G:C5	3.02	0.48
15:CO:21:ASP:OD2	15:CO:24:SER:HB2	2.12	0.48
56:D7:12:ARG:HD3	56:D7:46:VAL:CG2	2.43	0.48
27:BA:2012:G:C3'	45:BW:96:ILE:HD11	2.43	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:856:C:H5''	27:DA:856:C:C6	2.49	0.48
33:DG:53:LEU:N	33:DG:53:LEU:HD22	2.28	0.48
7:CG:83:ALA:O	7:CG:85:TYR:N	2.47	0.48
8:AH:85:ARG:HG3	8:AH:85:ARG:HH11	1.78	0.48
33:BG:81:LYS:O	33:BG:82:LEU:O	2.32	0.48
1:CA:600:C:H2'	1:CA:601:C:C6	2.49	0.48
27:DA:2189:U:H5'	27:DA:2190:G:OP2	2.14	0.48
27:DA:783:A:C2	27:DA:785:G:H1'	2.48	0.48
27:DA:1322:A:C5	27:DA:1323:U:C5	3.02	0.48
27:DA:1237:A:H2	27:DA:1238:G:C2	2.31	0.48
27:DA:1230:C:O2'	27:DA:1231:G:H5'	2.13	0.48
14:AN:13:THR:O	14:AN:14:PRO:C	2.51	0.48
3:CC:44:GLU:HG3	3:CC:52:LEU:HD11	1.96	0.48
27:BA:1441:G:H2'	27:BA:1442:G:C8	2.40	0.48
29:DC:129:ARG:C	29:DC:131:LEU:H	2.17	0.48
8:CH:84:ARG:O	8:CH:135:CYS:HB2	2.13	0.48
27:BA:2109:U:N3	27:BA:2110:G:O6	2.46	0.48
6:AF:75:LEU:C	6:AF:77:ARG:N	2.67	0.48
3:AC:133:ALA:O	3:AC:137:ALA:N	2.45	0.48
30:DD:67:PHE:CG	30:DD:153:ALA:HB3	2.49	0.48
1:CA:834:C:C2'	1:CA:835:U:O5'	2.62	0.48
18:AR:63:GLN:OE1	18:AR:66:LEU:HD23	2.14	0.48
12:CL:120:LYS:O	12:CL:121:LYS:C	2.51	0.48
17:AQ:22:LEU:HA	17:AQ:22:LEU:HD12	1.65	0.48
35:DI:29:TYR:CE2	35:DI:35:LEU:HD12	2.49	0.48
18:CR:75:ILE:C	18:CR:77:GLY:H	2.14	0.48
27:DA:1444:G:N1	27:DA:1548:C:N4	2.62	0.48
15:CO:2:PRO:CG	15:CO:3:ILE:H	2.25	0.48
1:AA:559:A:OP1	5:AE:126:ARG:NH2	2.46	0.48
47:DY:53:PRO:HB3	47:DY:56:PRO:O	2.13	0.48
29:BC:184:LYS:C	29:BC:186:ALA:N	2.67	0.48
28:BB:24:G:H4'	28:BB:25:A:C5'	2.44	0.48
24:CX:39:C:O2'	25:CY:33:G:N2	2.46	0.48
43:DU:15:LYS:HG2	43:DU:15:LYS:O	2.13	0.48
27:DA:157:U:O4'	27:DA:157:U:P	2.72	0.48
30:BD:222:ARG:HH21	30:BD:225:ALA:HB2	1.78	0.48
27:DA:887:A:H1'	27:DA:889:C:C4	2.49	0.48
1:AA:145:G:H5'	1:AA:146:G:OP2	2.13	0.48
24:AX:17:C:H2'	24:AX:17(B):U:C6	2.48	0.48
1:CA:1290:G:H3'	1:CA:1291:G:H8	1.78	0.48
9:AI:23:ASN:HB2	9:AI:60:ASP:CG	2.33	0.48
27:BA:415:A:H2'	27:BA:416:C:C6	2.49	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1961:C:H2'	27:BA:1962:C:H5'	1.96	0.48
1:AA:1009:G:H2'	1:AA:1009:G:N3	2.28	0.48
39:BQ:89:ASN:HB2	39:BQ:91:GLU:OE2	2.14	0.48
49:B0:66:VAL:N	49:B0:82:ARG:O	2.46	0.48
58:D9:22:ARG:HD3	58:D9:35:ARG:HD2	1.95	0.48
2:CB:9:GLU:O	2:CB:12:GLU:OE1	2.32	0.48
27:BA:2736:G:O2'	27:BA:2737:G:H5'	2.14	0.48
6:CF:19:LEU:HD11	6:CF:59:TYR:CE2	2.48	0.48
31:BE:11:MET:HB3	31:BE:24:THR:HA	1.95	0.48
37:BO:87:ILE:HG21	37:BO:91:LEU:HA	1.95	0.48
4:CD:78:LEU:O	4:CD:79:PHE:C	2.52	0.48
31:BE:60:ASN:OD1	31:BE:62:PRO:HD2	2.14	0.48
1:CA:1346:A:C5	7:CG:10:ARG:NH2	2.82	0.48
1:AA:917:G:C6	1:AA:918:A:C6	3.02	0.48
43:BU:40:PHE:O	43:BU:41:ALA:C	2.52	0.48
27:DA:1152:C:H1'	43:DU:77:SER:CB	2.44	0.48
47:DY:95:LYS:CG	47:DY:100:ALA:HA	2.44	0.48
1:CA:1253:G:H2'	1:CA:1254:C:C6	2.49	0.48
41:DS:87:PHE:CD1	41:DS:106:ARG:NH2	2.81	0.48
27:DA:2271:G:C5	27:DA:2272:U:C5	3.02	0.48
27:DA:859:G:H22	27:DA:916:G:H3'	1.79	0.48
27:DA:920:G:H8	27:DA:920:G:O5'	1.97	0.48
27:DA:2787:C:O2	31:DE:61:ARG:NH1	2.46	0.48
57:D8:23:VAL:CG1	57:D8:46:ARG:HB3	2.43	0.48
27:DA:2428:G:H21	38:DP:60:MET:CE	2.27	0.48
27:DA:953:A:C2	27:DA:954:G:C8	3.02	0.48
38:DP:144:GLU:O	38:DP:145:PRO:C	2.53	0.48
27:DA:2556:C:H2'	27:DA:2557:G:O4'	2.14	0.48
27:DA:2508:G:C2	27:DA:2582:G:C6	3.02	0.48
32:DF:89:VAL:CG1	32:DF:90:PHE:H	2.20	0.48
20:AT:77:ALA:C	20:AT:79:ARG:H	2.16	0.48
27:DA:140:G:N2	27:DA:142:A:C2	2.75	0.48
4:CD:98:GLU:OE1	4:CD:194:LEU:HD11	2.14	0.48
20:CT:81:LYS:O	20:CT:85:MET:HG2	2.14	0.48
1:AA:1205:U:H4'	3:AC:195:VAL:CG2	2.44	0.48
2:AB:200:ILE:O	2:AB:201:ILE:HD13	2.14	0.48
2:AB:97:TRP:HH2	2:AB:176:GLU:CD	2.17	0.48
1:CA:1036:G:H3'	1:CA:1037:C:C6	2.49	0.48
1:CA:132:C:H5'	1:CA:262:A:H1'	1.95	0.48
48:DZ:150:HIS:CD2	48:DZ:169:THR:HG22	2.48	0.48
27:DA:2175:C:H1'	29:DC:215:THR:HA	1.95	0.48
34:BH:147:ASN:O	34:BH:150:ALA:CB	2.61	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BH:156:ALA:N	34:BH:158:HIS:H	2.10	0.48
50:B1:7:ILE:HD13	50:B1:62:VAL:HG23	1.96	0.48
27:BA:1556:C:C2'	27:BA:1557:C:H6	2.27	0.48
14:CN:24:CYS:HB3	14:CN:27:CYS:O	2.12	0.48
1:CA:1286:A:H2	21:CU:22:ARG:NH2	2.10	0.48
1:CA:590:C:C4	1:CA:650:G:N1	2.82	0.48
27:DA:2156:G:C5	27:DA:2157:G:N2	2.82	0.48
48:BZ:150:HIS:HA	48:BZ:169:THR:HA	1.96	0.48
1:AA:405:U:O2	1:AA:498:U:C6	2.67	0.48
46:BX:31:HIS:HD2	46:BX:32:PRO:CD	2.27	0.48
1:CA:349:A:C2'	1:CA:350:G:H5'	2.44	0.48
37:DO:35:VAL:HG13	37:DO:62:VAL:HG12	1.96	0.48
27:BA:2716:U:H2'	27:BA:2717:G:C8	2.49	0.48
27:DA:2299:G:C2	27:DA:2318:G:H8	2.32	0.48
16:CP:53:VAL:HG12	16:CP:79:VAL:HG22	1.95	0.48
3:AC:58:GLU:N	3:AC:65:ALA:HB3	2.29	0.48
3:AC:134:ILE:O	3:AC:136:GLN:N	2.47	0.48
40:DR:26:LYS:HE2	40:DR:71:GLN:N	2.27	0.48
27:DA:796:C:H2'	27:DA:797:C:H6	1.71	0.48
45:DW:54:ALA:O	45:DW:57:ASN:HB2	2.14	0.48
53:B4:51:TYR:N	53:B4:51:TYR:CD1	2.82	0.48
1:CA:935:A:O2'	1:CA:936:C:P	2.72	0.48
3:CC:14:ILE:CG1	3:CC:15:THR:H	2.18	0.48
1:CA:815:A:H5'	1:CA:816:A:C5'	2.44	0.48
2:CB:77:ALA:O	2:CB:81:VAL:HG23	2.14	0.48
27:DA:2177:C:O2'	27:DA:2178:C:H5'	2.14	0.48
13:AM:11:ARG:O	13:AM:13:LYS:N	2.47	0.48
1:AA:1229:A:N6	13:AM:105:THR:HG22	2.28	0.48
8:CH:86:ILE:HB	8:CH:133:LEU:CD2	2.43	0.48
1:AA:839:U:O2	1:AA:839:U:C2'	2.62	0.48
1:CA:10:A:H2'	1:CA:11:G:H8	1.79	0.48
27:DA:1700:A:O2'	27:DA:1701:A:O4'	2.32	0.48
27:BA:192:C:C2'	27:BA:193:U:H5'	2.42	0.48
1:CA:335:C:H2'	1:CA:336:C:H6	1.75	0.48
49:B0:31:VAL:HB	49:B0:35:ASN:HD22	1.78	0.48
19:CS:9:VAL:C	19:CS:11:VAL:N	2.68	0.48
44:DV:75:PHE:CE2	44:DV:82:ARG:NE	2.78	0.48
1:AA:1457:G:P	20:AT:39:LYS:HZ2	2.36	0.48
1:AA:713:G:O2'	1:AA:714:G:H5'	2.14	0.48
1:AA:1030(A):G:H2'	1:AA:1030(B):C:H5''	1.95	0.48
27:BA:424:G:O2'	27:BA:425:G:H5'	2.13	0.48
27:BA:2628:C:H4'	27:BA:2781:A:C6	2.49	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:42:G:C2	27:BA:43:A:H1'	2.49	0.48
1:CA:794:A:O2'	1:CA:795:C:H5'	2.14	0.48
4:CD:5:ILE:H	4:CD:115:ARG:HH12	1.62	0.48
27:BA:947:G:H2'	27:BA:948:G:H8	1.77	0.48
27:DA:1830:C:N4	27:DA:1975:G:H1	2.11	0.48
39:BQ:76:LYS:HG3	39:BQ:77:LYS:O	2.14	0.48
42:DT:55:ASN:C	42:DT:55:ASN:HD22	2.17	0.48
23:AW:40:C:O2'	23:AW:41:G:H5'	2.14	0.48
11:CK:16:SER:O	11:CK:35:PRO:HG3	2.14	0.48
10:AJ:32:ALA:HB3	10:AJ:75:ILE:CG1	2.44	0.48
47:BY:51:VAL:O	47:BY:52:SER:HB3	2.14	0.48
6:CF:23:LYS:HG2	6:CF:61:LEU:HD21	1.96	0.48
41:DS:10:ARG:O	41:DS:11:LYS:O	2.31	0.48
17:AQ:89:LEU:O	17:AQ:93:GLN:HG3	2.13	0.48
31:DE:176:ILE:HG22	31:DE:176:ILE:O	2.13	0.48
4:CD:110:PHE:HD1	4:CD:110:PHE:H	1.60	0.48
3:CC:122:GLU:O	3:CC:126:ARG:HG3	2.14	0.48
27:BA:242:G:C5'	57:B8:62:LEU:HD22	2.44	0.47
1:CA:1186:G:H21	14:CN:61:TRP:C	2.17	0.47
1:CA:949:A:C2	1:CA:1233:G:N3	2.82	0.47
1:CA:984:C:O2'	1:CA:985:C:C6	2.65	0.47
27:BA:2884:U:O2	54:B5:51:TYR:CE1	2.66	0.47
27:DA:1025:G:HO2'	27:DA:1026:U:P	2.36	0.47
53:B4:62:CYS:SG	53:B4:64:LYS:CB	3.02	0.47
31:BE:63:LEU:O	31:BE:64:LYS:C	2.52	0.47
1:AA:865:A:H5'	1:AA:1078:U:C5	2.49	0.47
5:AE:109:ILE:O	5:AE:113:ALA:N	2.47	0.47
1:CA:471:G:C2'	1:CA:472:A:H8	2.26	0.47
27:DA:34:C:O2'	27:DA:35:G:C5'	2.52	0.47
30:DD:72:LYS:CE	30:DD:101:GLU:OE2	2.58	0.47
33:BG:60:LEU:C	33:BG:62:LEU:H	2.17	0.47
27:DA:869:G:H5'	39:DQ:6:ARG:NH2	2.28	0.47
31:DE:34:VAL:HG23	31:DE:48:GLN:HG2	1.96	0.47
25:CY:75:A:C2	27:DA:2422:A:C6	3.02	0.47
38:DP:58:THR:O	38:DP:61:ARG:HG3	2.14	0.47
45:BW:14:PRO:O	45:BW:15:ARG:C	2.52	0.47
1:CA:1106:G:OP1	3:CC:172:ARG:HD3	2.14	0.47
48:DZ:2:TYR:O	48:DZ:56:ILE:HA	2.14	0.47
31:DE:84:PHE:C	31:DE:84:PHE:CD2	2.87	0.47
4:CD:101:LEU:HD23	4:CD:138:TYR:HB3	1.96	0.47
4:CD:68:TYR:O	4:CD:69:GLY:C	2.52	0.47
1:CA:197:A:O2'	1:CA:198:G:O4'	2.31	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:974:A:P	14:AN:29:ARG:HH22	2.37	0.47
1:AA:1054:C:N3	23:AW:33:C:H1'	2.29	0.47
17:CQ:20:THR:HA	17:CQ:43:LEU:CD2	2.44	0.47
56:B7:11:LYS:O	56:B7:12:ARG:C	2.52	0.47
27:BA:1310:G:H2'	27:BA:1311:G:H5'	1.96	0.47
27:BA:1797:C:O2	27:BA:1823:G:C2	2.67	0.47
30:BD:227:ASN:HB3	30:BD:228:PRO:CD	2.44	0.47
17:AQ:58:GLU:O	17:AQ:73:VAL:HA	2.14	0.47
17:AQ:59:ILE:HA	17:AQ:72:ARG:O	2.14	0.47
2:AB:144:ARG:O	2:AB:145:LEU:C	2.52	0.47
32:DF:108:LYS:HB3	32:DF:112:MET:HE2	1.96	0.47
41:BS:85:VAL:O	41:BS:86:ALA:HB2	2.14	0.47
27:BA:1315:C:O2	27:BA:1392:A:H2	1.97	0.47
20:CT:63:ILE:HD13	20:CT:80:ARG:HB3	1.96	0.47
1:CA:1068:G:C8	1:CA:1094:G:C8	3.02	0.47
13:AM:19:LEU:HD11	13:AM:56:LEU:HD11	1.96	0.47
27:BA:2091:U:O4	27:BA:2092:U:C4	2.67	0.47
1:CA:1057:G:H2'	1:CA:1058:G:O5'	2.14	0.47
1:CA:1199:U:H5''	1:CA:1200:C:OP2	2.13	0.47
1:CA:520:A:N1	1:CA:536:C:O2	2.47	0.47
2:CB:100:GLY:O	2:CB:104:ASN:N	2.46	0.47
14:CN:23:ARG:O	14:CN:24:CYS:C	2.51	0.47
1:AA:1281:U:O4	10:AJ:7:LYS:NZ	2.37	0.47
1:AA:1431:C:H2'	1:AA:1432:G:O4'	2.14	0.47
48:BZ:150:HIS:CA	48:BZ:169:THR:HA	2.44	0.47
1:AA:1442:G:H1	1:AA:1461:G:H21	1.62	0.47
42:BT:92:GLY:O	42:BT:93:ARG:HB3	2.13	0.47
27:DA:2308:G:C5	27:DA:2310:A:H5'	2.49	0.47
27:BA:2305:A:C2	27:BA:2306:C:H1'	2.49	0.47
51:B2:28:LYS:HB2	51:B2:57:ILE:HD12	1.96	0.47
46:BX:31:HIS:HD2	46:BX:33:LYS:H	1.57	0.47
20:AT:73:HIS:O	20:AT:74:LYS:O	2.31	0.47
33:DG:152:LEU:HG	33:DG:153:ARG:N	2.29	0.47
27:BA:2354:G:H2'	27:BA:2355:C:C6	2.48	0.47
35:DI:68:LEU:C	35:DI:68:LEU:HD23	2.34	0.47
1:CA:1028:C:C2'	1:CA:1029:C:H5'	2.44	0.47
1:CA:338:A:H61	1:CA:351:G:H1	1.62	0.47
27:BA:196:A:C5	27:BA:805:G:C6	3.02	0.47
25:CY:52:G:N2	25:CY:60:C:O2	2.47	0.47
44:BV:81:TYR:CE2	44:BV:83:ARG:HG3	2.49	0.47
27:DA:518:G:H4'	45:DW:18:ARG:NH2	2.29	0.47
33:BG:2:PRO:C	33:BG:4:ASP:N	2.60	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:27:G:HO2'	27:DA:28:A:H8	1.62	0.47
27:DA:475:U:H2'	27:DA:476:G:C8	2.49	0.47
1:CA:1383:C:O2'	1:CA:1384:C:H5'	2.13	0.47
12:AL:25:LYS:CE	12:AL:30:ARG:HH22	2.27	0.47
12:AL:86:ARG:CA	12:AL:94:ARG:HA	2.44	0.47
35:DI:54:GLN:O	35:DI:58:LEU:HB2	2.14	0.47
1:AA:434:U:C2'	1:AA:435:C:O4'	2.61	0.47
11:CK:15:ALA:HB1	11:CK:78:GLN:HB2	1.95	0.47
27:BA:1303:G:C2	27:BA:1304:C:C6	3.02	0.47
27:BA:340:A:H2'	27:BA:341:G:O4'	2.14	0.47
37:DO:101:PRO:O	37:DO:102:VAL:HG12	2.14	0.47
46:DX:63:LYS:HA	46:DX:72:LYS:HA	1.96	0.47
27:BA:1963:U:OP1	27:BA:1963:U:H3'	2.13	0.47
27:BA:1984:G:O2'	27:BA:1985:G:H5'	2.14	0.47
27:DA:2363:C:H2'	27:DA:2364:C:H6	1.79	0.47
35:DI:43:ASN:O	35:DI:44:LEU:C	2.52	0.47
27:BA:922:U:C2	27:BA:923:C:C5	3.01	0.47
28:BB:105:A:C2'	28:BB:106:G:C5'	2.90	0.47
27:DA:2653:U:H2'	27:DA:2654:A:C8	2.49	0.47
8:CH:28:ALA:HA	8:CH:59:LEU:HG	1.96	0.47
23:AW:4:G:H3'	23:AW:5:G:H5''	1.96	0.47
51:D2:31:GLU:O	51:D2:34:GLU:N	2.47	0.47
56:B7:35:ARG:HG3	56:B7:42:LEU:HD21	1.96	0.47
15:CO:65:ARG:NH1	15:CO:65:ARG:HG2	2.28	0.47
1:AA:1275:A:H2'	1:AA:1276:G:H8	1.79	0.47
27:DA:1037:G:H1	27:DA:1118:C:N4	2.11	0.47
24:AX:25:C:H2'	24:AX:26:G:C8	2.48	0.47
4:AD:200:GLU:HG2	4:AD:201:GLN:N	2.28	0.47
29:BC:47:LEU:CB	29:BC:207:THR:HA	2.44	0.47
32:DF:152:GLU:HB3	32:DF:191:ARG:HD2	1.96	0.47
30:DD:20:ASP:C	30:DD:20:ASP:OD1	2.52	0.47
27:DA:2439:A:H5'	27:DA:2439:A:C8	2.49	0.47
48:BZ:103:PHE:N	48:BZ:103:PHE:CD1	2.82	0.47
55:B6:42:TRP:CE3	55:B6:42:TRP:HA	2.49	0.47
57:B8:4:MET:O	57:B8:62:LEU:CD1	2.62	0.47
32:BF:22:ALA:CA	32:BF:26:ALA:HB2	2.44	0.47
27:BA:2729:G:H4'	31:BE:185:LYS:O	2.13	0.47
34:BH:85:LYS:NZ	34:BH:133:VAL:CG2	2.73	0.47
38:DP:48:PRO:O	38:DP:50:ARG:N	2.46	0.47
27:DA:1924:C:N4	27:DA:1925:C:N4	2.62	0.47
27:DA:1824:G:N3	30:DD:254:THR:OG1	2.47	0.47
1:CA:545:C:C4	1:CA:546:G:N7	2.82	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BG:110:ALA:HB2	33:BG:141:PHE:HA	1.96	0.47
1:CA:942:G:C6	1:CA:1342:C:N3	2.81	0.47
1:CA:472:A:O2'	1:CA:473:G:H5'	2.14	0.47
1:AA:255:G:O6	1:AA:266:G:O6	2.33	0.47
43:DU:111:GLU:O	43:DU:112:ARG:C	2.51	0.47
43:DU:79:PHE:HD2	43:DU:83:LEU:HD13	1.80	0.47
30:DD:206:LEU:HD22	30:DD:211:ARG:HG2	1.96	0.47
41:DS:106:ARG:O	41:DS:107:GLU:CB	2.62	0.47
41:DS:85:VAL:HB	41:DS:86:ALA:H	1.49	0.47
57:D8:40:GLU:C	57:D8:42:ARG:N	2.67	0.47
27:DA:2249:U:H1'	27:DA:2275:C:N4	2.28	0.47
27:DA:2423:U:O3'	27:DA:2425:A:H2'	2.14	0.47
27:BA:2317:C:C3'	27:BA:2318:G:H5'	2.41	0.47
27:DA:529:A:C5'	27:DA:530:G:OP1	2.61	0.47
27:DA:970:C:O2	27:DA:984:A:O2'	2.29	0.47
38:DP:32:THR:O	38:DP:33:ARG:CB	2.62	0.47
46:DX:36:LYS:O	46:DX:39:ILE:HB	2.14	0.47
47:DY:14:LEU:HD12	47:DY:15:VAL:N	2.28	0.47
4:CD:137:SER:O	4:CD:138:TYR:C	2.52	0.47
4:CD:101:LEU:HA	4:CD:140:VAL:CG2	2.44	0.47
3:AC:188:LEU:HD12	3:AC:195:VAL:HG11	1.96	0.47
24:AX:40:C:H2'	24:AX:41:C:H6	1.77	0.47
2:AB:55:PHE:C	2:AB:57:PHE:N	2.67	0.47
42:DT:28:VAL:HG11	42:DT:46:GLU:CD	2.34	0.47
41:DS:69:VAL:O	41:DS:70:GLY:C	2.52	0.47
27:BA:588:U:H1'	32:BF:90:PHE:CG	2.50	0.47
17:CQ:84:LEU:HA	17:CQ:87:LYS:HG2	1.96	0.47
56:B7:8:ASN:CG	56:B7:11:LYS:HB3	2.35	0.47
50:D1:58:ILE:HD12	50:D1:60:PHE:HE2	1.79	0.47
31:BE:49:LEU:CD1	31:BE:49:LEU:N	2.77	0.47
15:AO:23:GLY:O	15:AO:27:VAL:HB	2.14	0.47
34:BH:155:SER:OG	34:BH:156:ALA:N	2.47	0.47
58:D9:29:ASN:H	58:D9:29:ASN:HD22	1.61	0.47
48:DZ:51:SER:OG	48:DZ:52:ILE:N	2.47	0.47
27:DA:768:G:H5'	27:DA:1622:G:H4'	1.97	0.47
27:BA:2427:C:C5'	27:BA:2429:G:H5'	2.44	0.47
55:B6:27:LYS:CB	55:B6:29:ASN:OD1	2.61	0.47
2:CB:10:LEU:O	2:CB:14:GLY:N	2.47	0.47
1:AA:823:G:H2'	1:AA:824:C:O4'	2.14	0.47
1:AA:260:G:H2'	1:AA:261:U:C6	2.48	0.47
27:DA:1416:G:O2'	27:DA:1417:C:C6	2.54	0.47
34:BH:13:LYS:HD3	34:BH:14:GLY:H	1.76	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:8:A:H2'	27:DA:9:U:C5	2.46	0.47
27:BA:1048:A:O2'	27:BA:1049:C:P	2.71	0.47
45:DW:51:LEU:C	45:DW:51:LEU:HD13	2.34	0.47
45:DW:59:VAL:HG12	45:DW:60:ASN:HD22	1.79	0.47
45:DW:85:VAL:HG13	45:DW:86:LEU:N	2.28	0.47
27:BA:1170:G:N2	27:BA:1180:C:C2	2.82	0.47
28:BB:51:G:OP2	41:BS:61:ASN:O	2.32	0.47
27:BA:2302:G:H21	33:BG:128:ARG:CG	2.26	0.47
12:AL:24:LEU:C	12:AL:26:GLY:N	2.67	0.47
27:BA:381:G:OP1	50:B1:16:ASN:ND2	2.47	0.47
50:D1:8:SER:HB3	50:D1:66:HIS:CD2	2.49	0.47
1:CA:862:C:H1'	1:CA:874:G:H4'	1.95	0.47
1:CA:867:G:H21	1:CA:873:A:H2	1.62	0.47
38:BP:9:ASN:H	38:BP:10:PRO:CD	2.27	0.47
33:BG:9:ARG:O	33:BG:11:TYR:N	2.47	0.47
5:AE:101:ILE:N	5:AE:101:ILE:CD1	2.67	0.47
27:DA:106:C:O4'	47:DY:2:ARG:HG3	2.15	0.47
1:AA:953:G:H5''	1:AA:965:A:H61	1.78	0.47
3:AC:92:ALA:CB	3:AC:99:VAL:HG11	2.40	0.47
10:CJ:94:VAL:CG1	10:CJ:95:GLU:N	2.77	0.47
27:DA:2473:U:C2'	27:DA:2473:U:O2	2.54	0.47
1:CA:321:A:H8	1:CA:321:A:O5'	1.96	0.47
36:DN:111:PRO:HA	36:DN:114:ARG:NH2	2.28	0.47
43:BU:21:ALA:HB1	43:BU:24:TYR:CE1	2.49	0.47
27:BA:1847:A:C4'	27:BA:1848:A:OP2	2.62	0.47
28:BB:87:G:H3'	28:BB:88:C:C5'	2.44	0.47
1:CA:76:C:N4	1:CA:93:G:H1	2.12	0.47
39:DQ:79:LEU:CD2	39:DQ:80:GLU:N	2.77	0.47
9:AI:28:VAL:HG11	9:AI:36:TYR:CE2	2.50	0.47
1:CA:834:C:H42	1:CA:852:G:H1	1.62	0.47
18:AR:32:ARG:NH1	18:AR:65:ILE:HD13	2.29	0.47
35:DI:25:TYR:HE2	35:DI:29:TYR:CD2	2.32	0.47
1:CA:1020:U:H2'	1:CA:1021:G:H8	1.80	0.47
27:DA:723:G:C2	27:DA:724:U:C2	3.03	0.47
30:BD:112:GLN:HB2	30:BD:115:GLN:NE2	2.24	0.47
27:DA:1127:A:C2'	27:DA:1128:A:H5''	2.43	0.47
42:DT:129:ARG:CZ	42:DT:131:ALA:O	2.62	0.47
1:CA:1367:C:OP1	9:CI:115:GLY:N	2.44	0.47
1:AA:859:A:C2'	1:AA:860:A:H5'	2.44	0.47
46:DX:5:TYR:CE2	51:D2:30:ARG:HB2	2.49	0.47
27:DA:553:G:C2'	27:DA:554:U:H5'	2.44	0.47
1:AA:415:A:H2'	1:AA:416:G:H8	1.77	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1390:U:H2'	1:CA:1391:U:C6	2.44	0.47
29:DC:168:THR:HA	29:DC:173:ALA:HB1	1.96	0.47
27:BA:925:C:C2'	27:BA:926:A:O5'	2.62	0.47
20:AT:96:GLY:O	20:AT:97:ALA:O	2.33	0.47
48:BZ:129:PRO:HA	48:BZ:132:ILE:HD11	1.96	0.47
28:DB:104:U:O2'	28:DB:105:A:H5'	2.14	0.47
27:BA:2710:C:OP1	40:BR:15:SER:HB2	2.14	0.47
27:BA:2366:A:H2'	27:BA:2367:G:O4'	2.13	0.47
27:BA:2370:G:H2'	27:BA:2371:G:C8	2.48	0.47
37:BO:38:VAL:O	37:BO:39:ILE:CG2	2.62	0.47
27:BA:1980:G:O2'	27:BA:1982:C:OP2	2.30	0.47
43:BU:18:LEU:O	43:BU:19:LYS:C	2.52	0.47
33:BG:83:ARG:HH11	33:BG:84:LYS:HD2	1.79	0.47
18:AR:46:GLU:HB2	18:AR:85:LEU:HD21	1.96	0.47
1:CA:191:G:O2'	20:CT:102:GLY:O	2.30	0.47
28:BB:1:U:C5	28:BB:2:C:C4	3.01	0.47
27:DA:295:G:H2'	27:DA:295:G:N3	2.29	0.47
27:BA:2458:G:H2'	27:BA:2490:G:H1	1.80	0.47
4:CD:112:VAL:HG12	4:CD:161:ASN:ND2	2.29	0.47
38:BP:61:ARG:HD3	57:B8:13:ARG:HD2	1.95	0.47
14:CN:59:ALA:O	14:CN:60:SER:HB2	2.14	0.47
31:BE:187:ALA:O	31:BE:188:VAL:C	2.50	0.47
47:BY:81:LYS:HZ2	47:BY:97:ARG:CG	2.26	0.47
46:BX:28:PHE:N	46:BX:28:PHE:CD1	2.82	0.47
46:BX:26:TYR:HD2	46:BX:92:LEU:HD12	1.79	0.47
57:D8:52:LYS:O	57:D8:55:ALA:HB3	2.13	0.47
27:DA:1925:C:H2'	27:DA:1926:U:H5'	1.95	0.47
1:CA:499:A:H4'	1:CA:500:G:OP1	2.14	0.47
44:BV:41:GLY:CA	44:BV:45:THR:OG1	2.46	0.47
27:BA:355:G:H2'	27:BA:356:G:C1'	2.44	0.47
43:DU:100:VAL:HG12	43:DU:101:ARG:N	2.28	0.47
36:DN:2:LYS:HZ1	44:DV:13:ARG:H	1.62	0.47
27:DA:35:G:O2'	27:DA:454:A:O4'	2.31	0.47
27:DA:873:G:H4'	39:DQ:63:LYS:CE	2.44	0.47
36:DN:112:LEU:HA	36:DN:115:ARG:HB3	1.95	0.47
27:DA:2018:G:H2'	27:DA:2019:A:O4'	2.14	0.47
27:DA:2509:G:C4	27:DA:2510:C:C5	3.02	0.47
9:AI:45:ALA:O	9:AI:48:GLU:HB2	2.14	0.47
9:AI:95:LYS:CG	9:AI:96:LEU:N	2.77	0.47
47:BY:28:LYS:N	47:BY:28:LYS:HE3	2.29	0.47
1:AA:1340:A:C2'	1:AA:1341:U:H5'	2.44	0.47
14:AN:23:ARG:O	14:AN:24:CYS:C	2.52	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AH:9:MET:HE3	8:AH:35:ILE:HG21	1.95	0.47
17:AQ:58:GLU:OE1	17:AQ:75:ARG:NE	2.48	0.47
27:BA:1996:C:C4'	27:BA:1997:G:O5'	2.62	0.47
27:BA:750:A:H2'	27:BA:751:A:H5''	1.96	0.47
9:CI:7:THR:O	9:CI:79:LEU:HD12	2.12	0.47
9:CI:82:ALA:CB	9:CI:96:LEU:HD11	2.33	0.47
27:BA:2092:U:O2	27:BA:2092:U:O4'	2.31	0.47
1:CA:1050:G:H2'	1:CA:1051:C:H6	1.78	0.47
10:CJ:56:HIS:O	10:CJ:58:ASP:N	2.47	0.47
1:CA:538:G:C4'	12:CL:111:LYS:HD3	2.45	0.47
27:BA:2266:A:H5''	27:BA:2267:A:H5''	1.96	0.47
12:AL:55:VAL:O	12:AL:62:GLU:HA	2.14	0.47
38:BP:81:GLN:OE1	38:BP:106:LEU:HA	2.14	0.47
25:AY:69:C:H5'	25:AY:69:C:H6	1.79	0.47
40:DR:2:ARG:HH21	40:DR:5:LYS:HZ1	1.60	0.47
27:BA:2286:A:H5''	27:BA:2287:A:O5'	2.14	0.47
27:BA:2285:C:O2'	27:BA:2288:A:H2'	2.14	0.47
33:DG:77:ILE:N	33:DG:83:ARG:HB3	2.25	0.47
9:CI:55:ALA:HB2	9:CI:59:PHE:HE1	1.79	0.47
51:B2:28:LYS:O	51:B2:53:LEU:HD11	2.14	0.47
27:BA:69:C:H4'	27:BA:75:G:C5	2.48	0.47
27:DA:2303:G:H2'	27:DA:2304:G:C8	2.48	0.47
27:BA:764:A:C6	30:BD:209:ALA:CB	2.97	0.47
13:AM:76:ALA:O	13:AM:79:LYS:N	2.46	0.47
8:AH:104:ARG:HD3	8:AH:138:TRP:CG	2.48	0.47
27:DA:1754:C:H5''	42:DT:113:LYS:HZ2	1.79	0.47
27:DA:2373:G:C2'	27:DA:2374:C:H5'	2.44	0.47
15:AO:35:ARG:NH1	15:AO:59:MET:SD	2.87	0.47
7:CG:145:ALA:O	7:CG:146:GLU:CB	2.59	0.47
27:DA:266:G:C2'	27:DA:267:C:O5'	2.63	0.47
27:DA:1236:G:OP2	27:DA:1236:G:H8	1.97	0.47
33:BG:130:ASN:HB3	33:BG:160:VAL:HA	1.96	0.47
12:AL:21:VAL:O	12:AL:21:VAL:HG12	2.14	0.47
34:BH:88:LEU:HD13	34:BH:130:ARG:HG3	1.94	0.47
27:BA:1925:C:H2'	27:BA:1926:U:O5'	2.14	0.47
1:AA:1225:A:OP2	1:AA:1226:C:C5	2.63	0.47
34:DH:105:LEU:CD2	34:DH:105:LEU:N	2.77	0.47
50:B1:53:VAL:HG21	50:B1:74:VAL:HG22	1.95	0.47
28:DB:110:G:O2'	28:DB:111:G:H5'	2.13	0.47
27:DA:2520:C:H2'	27:DA:2521:C:O4'	2.15	0.47
13:CM:80:ARG:C	13:CM:82:MET:H	2.17	0.47
10:CJ:80:LYS:HE3	10:CJ:80:LYS:O	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:CR:66:LEU:HD12	18:CR:70:ILE:HG12	1.95	0.47
6:CF:49:ALA:HB3	18:CR:79:LEU:O	2.14	0.47
37:DO:100:GLY:O	37:DO:101:PRO:O	2.31	0.47
27:BA:985:C:C2	27:BA:986:C:C5	3.02	0.47
1:CA:831:U:OP1	2:CB:22:LYS:HD2	2.14	0.47
27:DA:2515:C:H2'	27:DA:2516:G:C8	2.44	0.47
12:CL:114:ARG:HB2	12:CL:114:ARG:CZ	2.45	0.47
27:BA:181:A:C4	27:BA:435:C:C6	3.02	0.47
27:DA:2396:G:H1'	50:D1:30:VAL:HG13	1.96	0.47
25:AY:19:U:H2'	25:AY:20:A:H4'	1.94	0.47
27:BA:2670:A:H2'	27:BA:2671:A:H5'	1.96	0.47
27:BA:1935:G:O2'	27:BA:1936:A:H5'	2.13	0.47
1:CA:557:G:H3'	1:CA:558:G:C8	2.49	0.47
27:BA:1505:C:H3'	27:BA:1506:C:C6	2.49	0.47
2:CB:239:VAL:O	2:CB:241:GLU:N	2.47	0.47
27:DA:639:U:C4	27:DA:640:C:N4	2.82	0.47
27:BA:2352:A:H2'	27:BA:2353:G:H5'	1.94	0.47
10:AJ:88:LEU:HG	10:AJ:88:LEU:O	2.14	0.47
27:DA:1831:G:C6	27:DA:1832:C:C4	3.03	0.47
45:BW:111:HIS:CD2	45:BW:112:GLY:N	2.83	0.47
50:D1:24:ALA:HB3	50:D1:27:GLU:CD	2.34	0.47
30:DD:70:TRP:CZ2	30:DD:150:LYS:HA	2.49	0.47
27:DA:1170:G:H22	27:DA:1179:C:N4	2.11	0.47
44:DV:34:GLU:O	44:DV:36:PRO:CD	2.62	0.47
3:CC:173:VAL:HG12	3:CC:175:LEU:CD1	2.44	0.47
16:CP:17:TYR:N	16:CP:17:TYR:CD1	2.81	0.47
1:CA:495:A:C2	1:CA:496:A:C2	3.03	0.47
2:CB:120:ALA:C	2:CB:122:PHE:N	2.66	0.47
33:BG:73:ALA:O	33:BG:85:GLY:HA2	2.14	0.47
19:AS:79:THR:O	19:AS:80:TYR:HB2	2.15	0.47
27:BA:1909:C:H2'	27:BA:1909:C:O2	2.13	0.47
27:BA:652:C:C6	27:BA:652:C:H5''	2.49	0.47
2:AB:121:LEU:O	2:AB:121:LEU:HD23	2.14	0.47
27:DA:317:G:H2'	27:DA:318:C:O4'	2.13	0.47
27:BA:2416:C:OP1	38:BP:64:LYS:O	2.32	0.47
27:BA:666:G:O2'	27:BA:667:U:H5'	2.15	0.47
27:BA:664:C:H1'	27:BA:940:G:OP1	2.14	0.47
27:BA:943:U:H2'	27:BA:944:G:O4'	2.14	0.47
32:BF:192:LEU:HD23	32:BF:192:LEU:C	2.33	0.47
31:BE:171:GLU:HB3	31:BE:185:LYS:HG2	1.96	0.47
27:DA:1138:G:N2	36:DN:106:MET:SD	2.80	0.47
30:DD:16:MET:HA	30:DD:205:VAL:O	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:BV:47:VAL:O	44:BV:49:THR:O	2.32	0.47
32:DF:110:LEU:HD13	32:DF:110:LEU:C	2.34	0.47
27:DA:1159:U:H5''	27:DA:1159:U:H6	1.79	0.47
36:DN:2:LYS:HZ1	44:DV:13:ARG:N	2.12	0.47
27:DA:997:G:OP1	43:DU:93:LYS:HB2	2.14	0.47
27:DA:181:A:H1'	27:DA:435:C:H5''	1.96	0.47
30:DD:61:LEU:CB	30:DD:63:ARG:NH1	2.70	0.47
27:DA:2400:G:O2'	55:D6:19:ARG:HG3	2.14	0.47
27:DA:531:C:OP1	27:DA:561:G:N2	2.47	0.47
31:DE:197:ILE:HG13	31:DE:198:VAL:N	2.26	0.47
27:DA:307:G:N1	27:DA:310:A:OP2	2.45	0.47
1:CA:223:U:H2'	1:CA:224:C:C6	2.49	0.47
9:AI:77:ILE:HG22	9:AI:81:ILE:HG12	1.97	0.47
19:AS:28:LYS:HB3	19:AS:29:ARG:H	1.42	0.47
17:CQ:76:LEU:O	17:CQ:76:LEU:HG	2.14	0.47
27:BA:795:C:C2	27:BA:796:C:C5	3.02	0.47
45:BW:88:ARG:HB2	45:BW:92:ARG:CB	2.30	0.47
48:DZ:167:GLU:O	48:DZ:168:GLU:C	2.52	0.47
34:BH:157:TYR:O	34:BH:158:HIS:HD2	1.97	0.47
27:DA:779:U:O4	27:DA:780:G:C6	2.67	0.47
27:DA:2184:G:H2'	27:DA:2185:C:C6	2.49	0.47
35:BI:82:ARG:O	35:BI:88:ILE:CG2	2.62	0.47
45:DW:73:ALA:O	45:DW:106:ILE:CG1	2.53	0.47
27:DA:955:C:H5''	39:DQ:87:LYS:HE2	1.96	0.47
30:DD:94:LEU:HB2	30:DD:104:TYR:CE2	2.49	0.47
42:BT:125:ARG:O	42:BT:128:GLU:CG	2.54	0.47
28:DB:47:C:C2'	28:DB:48:A:H5'	2.44	0.47
33:DG:39:ILE:HG22	33:DG:92:VAL:O	2.14	0.47
39:BQ:135:ASP:HB2	39:BQ:136:ALA:H	1.52	0.47
13:AM:20:THR:C	13:AM:22:ILE:H	2.15	0.47
13:AM:76:ALA:HB2	13:AM:79:LYS:NZ	2.28	0.47
1:CA:1117:G:H21	1:CA:1180:A:H1'	1.79	0.47
15:AO:62:GLN:HA	15:AO:65:ARG:NH1	2.23	0.47
3:AC:24:ALA:HB1	3:AC:29:TYR:HA	1.97	0.47
5:CE:103:GLY:C	5:CE:105:VAL:N	2.68	0.47
11:CK:48:ILE:O	11:CK:50:TYR:N	2.48	0.47
6:AF:1:MET:HE2	6:AF:68:PRO:HA	1.96	0.47
45:DW:59:VAL:HG12	45:DW:60:ASN:N	2.29	0.47
35:DI:1:MET:O	35:DI:20:ASP:HA	2.14	0.47
27:BA:180:G:N2	27:BA:215:G:O6	2.47	0.47
27:BA:215:G:H4'	27:BA:216:A:O5'	2.14	0.47
29:DC:49:ILE:HG22	29:DC:50:ASP:OD1	2.14	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1400:G:C6	27:BA:1401:G:C6	3.03	0.47
28:BB:12:C:H6	28:BB:12:C:OP2	1.97	0.47
1:AA:642:A:H2'	1:AA:643:C:H6	1.79	0.47
1:AA:643:C:C2'	1:AA:644:G:H5'	2.43	0.47
27:DA:2542:A:C8	27:DA:2544:G:O6	2.67	0.47
16:CP:4:ILE:HG12	16:CP:21:VAL:CG2	2.40	0.47
1:CA:1336:C:H4'	1:CA:1337:G:N3	2.30	0.47
27:DA:527:C:O4'	27:DA:527:C:O2	2.31	0.47
30:BD:134:ARG:HG2	30:BD:135:PHE:CD1	2.50	0.47
10:CJ:78:ASN:ND2	10:CJ:80:LYS:CB	2.77	0.47
27:BA:2115:G:O5'	27:BA:2115:G:H8	1.97	0.47
27:BA:2050:C:H2'	27:BA:2051:A:C8	2.50	0.47
27:BA:2772:C:N3	27:BA:2773:C:C4	2.83	0.47
23:CW:30:A:H2'	23:CW:31:U:H5'	1.95	0.47
56:D7:28:ARG:O	56:D7:31:LEU:N	2.47	0.47
23:AW:59:U:H5'	23:AW:60:C:OP2	2.14	0.47
27:BA:83:G:O2'	27:BA:84:A:OP2	2.32	0.47
1:AA:328:C:O2	1:AA:328:C:C2'	2.62	0.47
1:CA:584:G:O2'	1:CA:585:G:H5'	2.15	0.47
27:DA:1051:G:H21	27:DA:1052:C:H6	1.60	0.47
48:BZ:30:ARG:HG2	48:BZ:30:ARG:O	2.13	0.47
25:CY:21:A:H8	25:CY:21:A:OP2	1.98	0.47
27:BA:971:C:O2'	27:BA:972:G:H5'	2.15	0.47
30:DD:70:TRP:O	30:DD:73:VAL:CG2	2.63	0.47
30:DD:221:VAL:HG23	30:DD:226:MET:CE	2.44	0.47
2:CB:142:LEU:HD11	2:CB:146:GLN:HB2	1.97	0.47
3:AC:42:LEU:HA	3:AC:45:LYS:CD	2.45	0.47
49:D0:51:VAL:HG23	49:D0:81:VAL:HG23	1.95	0.47
38:DP:30:THR:CG2	38:DP:31:ALA:H	2.27	0.47
1:CA:1488:G:O2'	1:CA:1489:G:H5'	2.13	0.47
36:BN:86:PRO:O	36:BN:89:LYS:HB2	2.14	0.47
4:AD:20:TYR:CD2	4:AD:27:TYR:CE2	3.02	0.47
27:DA:1053:C:O2	27:DA:1053:C:C2'	2.62	0.47
27:BA:1714:G:H2'	27:BA:1717:G:O4'	2.13	0.47
27:BA:636:G:OP2	38:BP:131:SER:HA	2.14	0.47
1:CA:1188:A:H4'	14:CN:58:LYS:NZ	2.30	0.47
40:BR:87:TYR:HE1	40:BR:117:VAL:O	1.97	0.47
27:BA:2787:C:O2	27:BA:2787:C:C2'	2.62	0.47
32:BF:1:MET:CG	32:BF:26:ALA:HA	2.44	0.47
27:DA:1140:C:H1'	27:DA:1143:A:N3	2.29	0.47
27:DA:592:G:N3	57:D8:4:MET:HE2	2.30	0.47
13:CM:23:TYR:CE1	13:CM:70:LEU:CD2	2.97	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:B3:30:ARG:HD3	52:B3:33:GLN:HE21	1.79	0.47
27:BA:286:C:C2	27:BA:356:G:C2	3.03	0.47
27:DA:559:G:O2'	27:DA:560:C:H5'	2.14	0.47
27:DA:998:C:N4	27:DA:1158:C:H42	2.13	0.47
43:DU:79:PHE:CD2	43:DU:83:LEU:HD13	2.50	0.47
43:DU:95:LEU:HD13	44:DV:4:ILE:CG2	2.45	0.47
44:DV:38:LEU:HD12	44:DV:56:SER:C	2.35	0.47
55:D6:33:LYS:O	55:D6:34:LEU:HB2	2.13	0.47
55:D6:40:CYS:HB2	55:D6:46:HIS:CG	2.49	0.47
33:DG:28:VAL:O	33:DG:31:VAL:CG1	2.60	0.47
27:DA:829:A:H5'	27:DA:831:G:N7	2.29	0.47
46:DX:78:LYS:HG2	46:DX:78:LYS:O	2.15	0.47
27:DA:301:G:H1	27:DA:316:C:H42	1.63	0.47
9:AI:118:LYS:O	9:AI:120:ARG:N	2.40	0.47
8:AH:124:ALA:HB1	8:AH:129:VAL:HG23	1.97	0.47
12:CL:35:THR:CG2	12:CL:56:ARG:HH12	2.27	0.47
1:CA:372:C:H2'	1:CA:387:U:O4	2.14	0.47
27:DA:2751:G:N3	27:DA:2751:G:C2'	2.78	0.47
17:CQ:60:ILE:C	17:CQ:71:PHE:CD1	2.87	0.47
27:BA:2437:U:C2	27:BA:2438:U:C5	3.02	0.47
27:BA:1822:G:O3'	30:BD:54:ARG:NH2	2.47	0.47
1:AA:60:A:OP2	1:AA:387:U:H4'	2.15	0.47
27:BA:449:A:OP1	32:BF:84:VAL:O	2.32	0.47
27:BA:951:C:H6	27:BA:951:C:O5'	1.97	0.47
16:AP:71:ARG:O	16:AP:75:ARG:N	2.45	0.47
27:BA:1314:C:H2'	27:BA:1315:C:H6	1.79	0.47
34:BH:115:VAL:HG21	34:BH:148:ILE:HD11	1.97	0.47
9:CI:82:ALA:C	9:CI:84:ALA:N	2.67	0.47
3:CC:76:VAL:HG23	3:CC:77:ILE:HG13	1.97	0.47
27:BA:1434:A:H2'	27:BA:1435:G:C8	2.49	0.47
27:DA:49:A:N6	27:DA:177:G:C4	2.82	0.47
1:CA:516:U:O4	1:CA:533:A:OP2	2.32	0.47
5:CE:50:GLU:CB	5:CE:53:LEU:HD13	2.33	0.47
1:CA:1204:A:OP2	14:CN:3:ARG:NH1	2.47	0.47
15:CO:82:ILE:O	15:CO:86:GLY:N	2.47	0.47
30:BD:142:VAL:HG21	30:BD:191:ALA:HB1	1.96	0.47
27:DA:146:G:C2	27:DA:147:U:C2	3.02	0.47
27:BA:7:G:H2'	27:BA:8:A:H8	1.73	0.47
35:BI:89:TYR:C	35:BI:121:LYS:HZ2	2.17	0.47
35:BI:77:LEU:HD13	35:BI:79:ILE:HD11	1.97	0.47
27:DA:319:C:H2'	27:DA:320:A:C8	2.46	0.47
8:AH:84:ARG:NH1	8:AH:84:ARG:CB	2.78	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:596:G:C6	27:DA:597:U:C4	3.02	0.47
51:B2:9:GLN:NE2	51:B2:56:GLN:HG2	2.29	0.47
28:DB:41:U:C5	33:DG:69:ALA:HB1	2.50	0.47
1:CA:100:C:H2'	1:CA:100:C:O2	2.14	0.47
30:BD:214:TRP:C	30:BD:216:GLY:H	2.16	0.47
13:AM:3:ARG:HB2	53:B4:60:GLU:HG2	1.95	0.47
27:DA:2141:G:C6	27:DA:2151:G:C2	3.02	0.47
27:DA:2848:G:C4'	27:DA:2849:U:OP1	2.61	0.47
25:CY:18:G:H1'	25:CY:56:G:H22	1.79	0.47
23:AW:75:A:H4'	27:BA:2506:U:O2'	2.15	0.47
27:BA:1222:C:C2	27:BA:1223:G:C8	3.02	0.47
27:BA:80:G:C2'	27:BA:81:G:H5'	2.44	0.47
31:BE:32:PRO:HB3	31:BE:69:LYS:HG2	1.96	0.47
41:BS:30:ARG:HH22	41:BS:62:LYS:CD	2.19	0.47
3:CC:11:ARG:NH1	3:CC:11:ARG:HG2	2.22	0.47
32:BF:182:ASN:ND2	32:BF:185:ASP:OD2	2.44	0.47
27:BA:1835:G:N3	27:BA:1835:G:C2'	2.76	0.47
50:B1:53:VAL:HG22	50:B1:74:VAL:HG13	1.95	0.47
31:BE:203:LYS:CD	31:BE:203:LYS:O	2.58	0.47
7:CG:44:TYR:C	7:CG:46:ALA:N	2.67	0.47
1:AA:198:G:O2'	1:AA:199:G:O4'	2.29	0.47
27:DA:1213:A:C4	27:DA:1214:A:C8	3.03	0.47
38:BP:132:LYS:HG2	38:BP:132:LYS:H	1.48	0.47
7:AG:95:ARG:NH1	7:AG:99:LEU:HD21	2.29	0.47
4:AD:68:TYR:HA	4:AD:114:ARG:HD3	1.96	0.47
39:DQ:58:PHE:HD1	39:DQ:58:PHE:O	1.96	0.47
3:CC:119:ARG:NH1	3:CC:119:ARG:HG3	2.29	0.47
8:CH:65:TYR:CD1	8:CH:65:TYR:N	2.82	0.47
27:DA:2118:U:OP1	27:DA:2148:G:H4'	2.14	0.47
27:BA:717:G:C6	27:BA:718:A:C4	3.02	0.47
9:CI:91:ASP:C	9:CI:93:ARG:H	2.18	0.47
33:DG:181:ARG:O	33:DG:182:LYS:OXT	2.32	0.47
27:BA:1515:G:O2'	27:BA:1516:C:H5'	2.14	0.47
27:DA:380:U:H5'	50:D1:18:ILE:HD12	1.96	0.47
50:B1:70:VAL:C	50:B1:72:GLU:N	2.68	0.47
31:DE:24:THR:HG22	31:DE:24:THR:O	2.15	0.47
27:DA:1683:C:N4	27:DA:1705:G:H1	2.13	0.47
6:CF:44:GLY:O	6:CF:45:LEU:C	2.53	0.47
5:CE:148:VAL:O	5:CE:152:ARG:HG3	2.14	0.47
7:CG:92:SER:OG	7:CG:93:PRO:HD2	2.14	0.47
2:AB:236:TYR:CD1	2:AB:236:TYR:N	2.82	0.47
2:AB:122:PHE:HD1	2:AB:139:LYS:NZ	2.12	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1394:A:H2'	1:CA:1501:C:O2'	2.14	0.47
27:DA:237:C:O2'	27:DA:238:C:H5'	2.15	0.47
5:AE:37:ARG:O	5:AE:38:GLN:HG2	2.15	0.47
11:AK:76:GLY:O	11:AK:77:MET:O	2.32	0.47
15:CO:18:PHE:O	15:CO:20:GLY:N	2.48	0.47
31:BE:65:GLY:O	31:BE:66:HIS:C	2.53	0.47
10:CJ:50:ILE:HG21	10:CJ:57:LYS:HA	1.97	0.47
27:BA:2832:U:O4	27:BA:2884:U:C5'	2.63	0.47
47:BY:81:LYS:HA	47:BY:82:PRO:HD3	1.78	0.47
34:BH:85:LYS:HE2	34:BH:145:ALA:N	2.29	0.47
38:DP:46:LYS:HG2	38:DP:52:GLU:CD	2.34	0.47
27:DA:1792:G:H2'	27:DA:1793:C:H6	1.79	0.47
27:DA:1930:G:N2	27:DA:1968:G:H2'	2.30	0.47
27:BA:1213:A:C8	27:BA:1213:A:C5'	2.92	0.47
4:CD:38:TYR:HB2	4:CD:39:PRO:HD2	1.97	0.47
32:BF:35:GLU:O	32:BF:38:ARG:HB3	2.14	0.47
1:AA:864:A:N1	1:AA:917:G:O2'	2.37	0.47
5:AE:130:ASN:C	5:AE:132:ALA:N	2.65	0.47
44:BV:5:VAL:HG11	44:BV:57:VAL:CG1	2.31	0.47
8:AH:67:PRO:O	8:AH:76:PRO:HB3	2.13	0.47
27:BA:352:G:C2'	27:BA:352:G:N3	2.77	0.47
36:DN:40:PRO:O	43:DU:64:ARG:HG2	2.15	0.47
44:DV:12:TYR:CE2	44:DV:22:VAL:HG12	2.48	0.47
43:DU:50:ARG:CZ	44:DV:72:VAL:HG12	2.44	0.47
30:DD:130:ALA:O	30:DD:131:LEU:HD12	2.15	0.47
27:DA:1560:G:H5'	27:DA:1560:G:C8	2.49	0.47
42:BT:34:VAL:HG22	42:BT:39:ARG:HG2	1.96	0.47
33:BG:57:ALA:O	33:BG:60:LEU:HB3	2.14	0.47
27:DA:919:G:C2	27:DA:920:G:C4	3.02	0.47
55:D6:42:TRP:O	55:D6:44:ARG:N	2.46	0.47
47:BY:16:ALA:HA	47:BY:21:LYS:CD	2.45	0.47
27:DA:2016:U:H1'	54:D5:6:VAL:CG1	2.45	0.47
27:DA:2499:C:C4	27:DA:2500:U:N3	2.82	0.47
27:DA:2499:C:N4	27:DA:2500:U:H3	2.13	0.47
27:DA:969:U:P	52:D3:17:LYS:HZ3	2.38	0.47
27:DA:971:C:C2'	27:DA:972:G:H5'	2.44	0.47
27:BA:1141:U:P	36:BN:25:ARG:HH12	2.38	0.47
45:BW:13:SER:O	45:BW:14:PRO:C	2.52	0.47
4:AD:19:LEU:O	4:AD:26:CYS:SG	2.72	0.47
9:AI:114:TYR:N	9:AI:114:TYR:HD2	2.13	0.47
30:BD:147:LEU:O	30:BD:185:VAL:HG13	2.14	0.47
19:AS:27:GLU:O	19:AS:28:LYS:O	2.33	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2334:G:H21	41:DS:18:ILE:HD11	1.80	0.47
41:DS:69:VAL:O	41:DS:72:ALA:HB3	2.14	0.47
17:CQ:7:THR:HG23	17:CQ:58:GLU:HG2	1.96	0.47
17:CQ:9:VAL:HG12	17:CQ:55:ASP:O	2.14	0.47
32:DF:109:GLY:CA	32:DF:112:MET:HB3	2.35	0.47
1:AA:458:C:H2'	1:AA:460:G:H8	1.80	0.47
20:CT:30:LYS:HZ1	20:CT:80:ARG:NH2	2.12	0.47
18:AR:53:ARG:HH21	18:AR:60:ALA:N	2.07	0.47
14:CN:46:GLU:O	14:CN:49:HIS:HB2	2.14	0.47
1:AA:1152:A:H3'	10:AJ:13:HIS:NE2	2.30	0.47
27:BA:2261:C:C2	27:BA:2280:G:C2	3.03	0.47
1:CA:1310:G:C5'	13:CM:77:ASN:HD21	2.28	0.47
27:DA:148:C:H2'	27:DA:149:A:H5'	1.95	0.47
27:BA:6:A:N3	27:BA:6:A:H2'	2.29	0.47
27:DA:1300:U:O2	27:DA:1300:U:O4'	2.32	0.47
27:DA:768:G:C6	27:DA:769:G:C5	3.03	0.47
33:BG:51:ARG:CA	33:BG:51:ARG:NE	2.72	0.47
27:BA:572:A:H8	27:BA:572:A:H5'	1.74	0.47
27:DA:854:G:O2'	27:DA:855:G:H5'	2.15	0.47
35:BI:12:LEU:CD2	35:BI:12:LEU:N	2.78	0.47
35:BI:5:LEU:O	35:BI:6:LEU:HD23	2.14	0.47
36:BN:123:TYR:CD1	36:BN:123:TYR:N	2.82	0.47
33:DG:39:ILE:HD13	33:DG:157:ILE:HG23	1.97	0.47
1:CA:55:A:OP2	1:CA:352:C:N4	2.45	0.47
27:DA:1666:G:O3'	37:DO:6:THR:HG23	2.14	0.47
27:DA:2338:G:O2'	27:DA:2339:G:H5'	2.15	0.47
1:AA:663:A:C2'	1:AA:664:G:H5'	2.44	0.47
5:CE:90:VAL:O	5:CE:91:LEU:HD12	2.14	0.47
1:AA:835:U:O2'	1:AA:836:G:H5'	2.14	0.47
27:BA:1050:A:C4	27:BA:1051:G:N7	2.83	0.47
27:DA:1279:G:H2'	27:DA:1280:G:H8	1.78	0.47
10:CJ:22:LYS:C	10:CJ:24:VAL:H	2.18	0.47
7:AG:23:VAL:O	7:AG:24:THR:C	2.53	0.47
14:AN:14:PRO:O	14:AN:15:LYS:O	2.32	0.47
3:AC:61:ALA:O	3:AC:62:ASP:HB2	2.13	0.47
1:CA:690:G:H2'	1:CA:691:G:C8	2.50	0.47
10:AJ:95:GLU:OE2	10:AJ:95:GLU:HA	2.14	0.47
1:CA:9:G:O2'	1:CA:10:A:O5'	2.33	0.47
11:CK:60:ALA:O	11:CK:61:ALA:C	2.52	0.47
1:CA:853:G:C4	1:CA:854:G:C8	3.03	0.47
27:BA:466:A:C2'	27:BA:467:G:H5'	2.45	0.47
31:BE:179:GLU:O	31:BE:180:ASN:HB2	2.13	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:271(J):C:H5'	27:BA:271(K):U:OP2	2.15	0.47
9:AI:14:VAL:O	9:AI:65:VAL:HG23	2.14	0.47
27:BA:1949:G:H2'	27:BA:1950:G:C8	2.50	0.47
1:AA:246:A:C4'	1:AA:247:G:OP1	2.62	0.47
27:BA:1380:G:N2	27:BA:1570:A:C2	2.81	0.47
27:BA:859:G:N2	27:BA:917:A:OP2	2.48	0.47
27:DA:1849:G:H2'	27:DA:1849:G:N3	2.29	0.47
27:BA:1632:A:C5	27:BA:1633:G:C6	3.02	0.47
10:AJ:83:GLU:HB3	10:AJ:84:GLN:NE2	2.29	0.47
1:CA:855:G:C2'	1:CA:856:C:H5'	2.44	0.47
1:AA:928:G:H2'	1:AA:929:G:C8	2.50	0.47
31:DE:23:VAL:HA	31:DE:186:GLY:H	1.79	0.47
29:DC:56:GLN:C	29:DC:56:GLN:OE1	2.53	0.47
34:BH:68:THR:C	34:BH:70:THR:H	2.18	0.47
36:DN:3:THR:HG22	36:DN:5:VAL:CG1	2.44	0.47
27:BA:1945:G:H8	27:BA:1945:G:O5'	1.98	0.47
23:CW:18:G:H5'	23:CW:59:U:O4	2.14	0.47
3:AC:105:GLU:HG2	3:AC:106:VAL:H	1.80	0.47
24:AX:12:G:H4'	27:BA:1908:C:O2	2.14	0.47
13:CM:105:THR:O	13:CM:106:ASN:CB	2.61	0.47
32:DF:152:GLU:CB	32:DF:191:ARG:HD2	2.45	0.47
27:BA:282:A:C4	27:BA:359:A:C2	3.02	0.47
7:CG:104:LEU:H	7:CG:104:LEU:HD22	1.79	0.47
27:DA:2077:A:C4	27:DA:2435:A:C5	3.03	0.47
25:AY:75:A:O2'	27:BA:2394:C:N3	2.40	0.47
27:BA:250:G:H2'	27:BA:251:A:H8	1.78	0.47
27:BA:638:G:O2'	27:BA:639:U:H5'	2.14	0.47
27:BA:2416:C:O2'	27:BA:2417:C:H5'	2.14	0.47
41:BS:93:LYS:O	41:BS:95:HIS:N	2.48	0.47
27:BA:2680:C:H4'	31:BE:188:VAL:O	2.15	0.47
31:BE:102:VAL:N	31:BE:170:LEU:O	2.48	0.47
27:BA:30:G:O2'	27:BA:1214:A:N3	2.44	0.47
31:BE:52:LEU:CD1	42:BT:1:MET:CE	2.93	0.47
27:BA:1159:U:O2'	27:BA:1160:G:H5'	2.15	0.47
43:BU:83:LEU:HD12	43:BU:88:ILE:HD11	1.96	0.47
32:DF:202:PHE:CG	32:DF:203:GLN:N	2.82	0.47
32:DF:18:ARG:NH2	32:DF:20:LEU:HD13	2.26	0.47
27:BA:355:G:H2'	27:BA:356:G:O4'	2.14	0.47
1:AA:1399:C:C2	1:AA:1502:A:N6	2.83	0.47
43:DU:33:ARG:C	43:DU:35:ALA:H	2.18	0.47
30:DD:208:LYS:HG3	30:DD:210:GLY:N	2.29	0.47
30:DD:26:LYS:HZ2	30:DD:82:ILE:HB	1.79	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BD:26:LYS:HG2	30:BD:26:LYS:O	2.15	0.47
12:CL:72:HIS:HD2	12:CL:74:LEU:HB2	1.79	0.47
47:DY:26:LYS:NZ	47:DY:27:VAL:CG2	2.77	0.47
47:DY:28:LYS:CB	47:DY:37:VAL:HB	2.43	0.47
33:BG:135:LEU:HD12	33:BG:135:LEU:N	2.30	0.47
31:DE:61:ARG:HD2	31:DE:62:PRO:HD3	1.97	0.47
27:DA:2249:U:H4'	27:DA:2250:G:OP2	2.13	0.47
27:DA:2253:G:H2'	27:DA:2254:C:H6	1.80	0.47
38:DP:101:VAL:HG23	38:DP:102:ARG:N	2.30	0.47
39:DQ:16:ARG:CG	39:DQ:17:LEU:N	2.71	0.47
47:BY:14:LEU:O	47:BY:72:VAL:HA	2.15	0.47
27:DA:1952:A:N6	27:DA:1953:A:C6	2.83	0.47
27:DA:588:U:O2'	27:DA:589:C:O4'	2.32	0.47
27:DA:973:A:O4'	27:DA:1188:U:C6	2.67	0.47
31:DE:151:TYR:O	31:DE:154:LYS:N	2.45	0.47
48:DZ:27:MET:HG2	48:DZ:34:ARG:O	2.15	0.47
31:DE:84:PHE:O	31:DE:84:PHE:CG	2.67	0.47
31:DE:179:GLU:CA	31:DE:179:GLU:OE1	2.62	0.47
4:CD:187:ARG:NH1	4:CD:187:ARG:HG2	2.29	0.47
47:BY:26:LYS:HE3	47:BY:27:VAL:HG23	1.97	0.47
9:AI:114:TYR:N	9:AI:114:TYR:CD2	2.83	0.47
48:BZ:18:ARG:NH1	48:BZ:81:ARG:NH2	2.61	0.47
1:AA:1342:C:H1'	9:AI:124:GLN:HG2	1.96	0.47
8:AH:12:ARG:HD3	8:AH:25:ASP:O	2.13	0.47
8:AH:50:ARG:HG2	8:AH:59:LEU:CD2	2.45	0.47
8:AH:53:VAL:HG12	8:AH:56:LYS:HE2	1.96	0.47
1:CA:397:A:C6	1:CA:548:G:N7	2.83	0.47
2:AB:187:LEU:CD2	2:AB:201:ILE:O	2.63	0.47
46:BX:64:LYS:HE3	46:BX:64:LYS:HB2	1.61	0.47
42:DT:35:LYS:HG3	42:DT:36:GLU:N	2.30	0.47
42:DT:51:ARG:CD	42:DT:62:THR:HG23	2.32	0.47
1:CA:391:G:C6	1:CA:392:G:N7	2.83	0.47
19:AS:31:ILE:HG23	19:AS:49:ILE:HA	1.96	0.47
41:DS:14:VAL:O	41:DS:16:ASN:N	2.47	0.47
27:BA:1249:U:C5'	27:BA:1249:U:H6	2.10	0.47
1:CA:252:U:H2'	1:CA:253:U:H6	1.80	0.47
17:CQ:12:SER:HB3	17:CQ:20:THR:HB	1.96	0.47
27:BA:686:G:C6	56:B7:12:ARG:HA	2.50	0.47
27:BA:684:G:O2'	27:BA:788:A:N7	2.47	0.47
50:D1:57:GLU:O	50:D1:58:ILE:O	2.33	0.47
27:BA:2782:G:N2	27:BA:2783:G:H1'	2.29	0.47
2:CB:71:VAL:HG22	2:CB:93:VAL:HG22	1.96	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:85:ALA:HB3	2:CB:92:TYR:HD2	1.78	0.47
48:BZ:68:THR:HG22	48:BZ:89:VAL:CA	2.29	0.47
16:AP:6:LEU:HG	16:AP:19:ILE:HD13	1.97	0.47
20:CT:53:LEU:HD12	20:CT:100:ILE:HB	1.96	0.47
15:AO:76:GLU:C	15:AO:78:TYR:H	2.17	0.47
27:DA:71:A:C8	27:DA:71:A:H5'	2.50	0.47
3:CC:84:ILE:O	3:CC:88:ARG:HG3	2.14	0.47
15:CO:81:LEU:HD11	15:CO:85:LEU:HD12	1.95	0.47
42:BT:3:ARG:C	42:BT:5:ALA:N	2.63	0.47
38:BP:146:VAL:HG13	38:BP:147:LEU:H	1.76	0.47
1:CA:659:U:C4	1:CA:660:G:N7	2.83	0.47
1:CA:1404:C:O2	1:CA:1519:A:O2'	2.32	0.47
36:DN:61:ARG:HG2	36:DN:61:ARG:H	1.54	0.47
35:BI:120:ILE:O	35:BI:121:LYS:CB	2.63	0.47
27:DA:2823:A:OP1	31:DE:113:PHE:HB3	2.15	0.47
27:DA:2822:G:OP2	40:DR:2:ARG:HD3	2.15	0.47
27:BA:1826:G:O2'	30:BD:242:ARG:NH2	2.46	0.47
1:AA:622:A:C8	1:AA:623:C:C5	3.02	0.47
12:AL:114:ARG:HH22	12:AL:121:LYS:CD	2.26	0.47
36:BN:133:GLN:O	36:BN:134:ARG:CG	2.58	0.47
54:B5:49:CYS:O	54:B5:50:GLY:O	2.32	0.47
9:CI:19:LEU:CD2	9:CI:61:ALA:HB2	2.44	0.47
51:B2:49:LYS:O	51:B2:52:ASP:HB2	2.15	0.47
27:BA:2470:G:P	39:BQ:56:ARG:HH21	2.38	0.47
30:BD:10:THR:O	30:BD:11:PRO:O	2.32	0.47
7:AG:146:GLU:C	7:AG:148:ASN:N	2.68	0.47
42:DT:53:ARG:HG2	42:DT:53:ARG:HH11	1.80	0.47
27:BA:847:U:OP2	27:BA:928:G:O6	2.32	0.47
27:DA:2684:U:C4	27:DA:2685:G:N7	2.83	0.47
42:DT:64:ARG:HA	42:DT:72:VAL:O	2.15	0.47
39:DQ:42:ILE:CD1	39:DQ:42:ILE:H	2.23	0.47
19:CS:39:THR:HG22	19:CS:40:ILE:N	2.29	0.47
1:CA:1315:U:H2'	1:CA:1316:G:C5'	2.45	0.47
1:AA:1286:A:C2	21:AU:22:ARG:NH2	2.83	0.47
1:AA:1038:C:O5'	1:AA:1038:C:H6	1.98	0.47
1:AA:816:A:O2'	1:AA:817:C:P	2.73	0.47
5:CE:79:GLU:O	5:CE:80:ILE:HG23	2.15	0.47
31:DE:14:ILE:HG13	31:DE:14:ILE:O	2.15	0.47
7:CG:140:ASP:HA	7:CG:143:ARG:NH2	2.30	0.47
25:CY:29:G:C2	25:CY:40:C:O2	2.67	0.47
10:AJ:63:PHE:HB3	14:AN:58:LYS:CA	2.43	0.47
27:BA:1411:C:N4	27:BA:1412:A:N6	2.62	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2803:C:OP1	27:DA:2803:C:H4'	2.13	0.47
27:DA:2891:G:O5'	27:DA:2891:G:H8	1.96	0.47
27:BA:81:G:H1	27:BA:105:C:N4	2.08	0.47
27:DA:682:G:H1	27:DA:795:C:H42	1.63	0.47
27:DA:682:G:O6	27:DA:795:C:N4	2.46	0.47
18:AR:37:VAL:O	18:AR:38:GLU:C	2.53	0.47
27:DA:324:A:OP2	27:DA:1205:U:O4	2.33	0.47
24:AX:2:G:N2	24:AX:72:A:H1'	2.30	0.47
27:DA:1209:G:HO2'	27:DA:1237:A:H61	1.61	0.47
27:DA:501:A:H2'	27:DA:502:A:C8	2.49	0.47
27:DA:501:A:H2'	27:DA:502:A:H8	1.79	0.47
29:BC:49:ILE:O	29:BC:51:PRO:CD	2.63	0.47
27:BA:113:G:H8	27:BA:113:G:OP2	1.97	0.47
2:AB:114:ARG:O	2:AB:118:LEU:HG	2.15	0.47
50:D1:6:GLU:OE1	50:D1:61:ARG:N	2.43	0.47
1:CA:814:A:N7	1:CA:816:A:C4	2.83	0.47
1:AA:1091:U:H2'	1:AA:1093:A:OP2	2.15	0.47
8:AH:101:PRO:HG2	8:AH:133:LEU:CD1	2.39	0.47
33:BG:18:GLU:O	33:BG:21:ARG:HB3	2.15	0.47
30:BD:4:LYS:HE3	30:BD:21:PHE:HE1	1.80	0.47
3:AC:167:TRP:O	3:AC:168:ALA:HB2	2.13	0.47
37:BO:106:LEU:O	37:BO:108:GLU:N	2.47	0.47
14:AN:9:LYS:HG3	14:AN:12:ARG:CZ	2.45	0.47
27:BA:1904:G:H2'	27:BA:1905:C:O4'	2.15	0.47
27:BA:1722:A:N6	27:BA:1740:G:C8	2.83	0.47
1:AA:1302:U:OP1	13:AM:13:LYS:NZ	2.41	0.47
1:AA:1228:C:H4'	13:AM:116:THR:O	2.15	0.47
32:DF:84:VAL:C	32:DF:86:GLY:N	2.62	0.47
10:AJ:95:GLU:CG	10:AJ:96:ILE:N	2.77	0.47
1:CA:322:C:O2	1:CA:332:G:N2	2.46	0.47
1:CA:321:A:H4'	1:CA:1436:U:C4'	2.44	0.47
27:DA:2839:G:C6	27:DA:2840:C:N3	2.83	0.47
10:CJ:78:ASN:ND2	10:CJ:80:LYS:H	2.13	0.47
6:CF:97:PHE:HD2	18:CR:31:LEU:HD21	1.75	0.47
27:BA:2115:G:N2	27:BA:2119:A:N7	2.63	0.47
4:AD:98:GLU:HA	4:AD:103:ASN:ND2	2.30	0.47
27:BA:1033:U:C5'	27:BA:1034:G:OP1	2.61	0.47
27:BA:405:U:O2'	27:BA:406:G:H5'	2.15	0.47
27:BA:1848:A:C4	27:BA:1849:G:C8	3.03	0.47
1:CA:96:U:H2'	1:CA:97:G:H8	1.77	0.47
27:BA:2771:C:H2'	27:BA:2772:C:H6	1.78	0.47
18:AR:34:TYR:HB3	18:AR:69:THR:HG22	1.96	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2661:G:O2'	27:DA:2662:A:H5'	2.15	0.47
19:AS:40:ILE:HG13	19:AS:69:HIS:O	2.15	0.47
39:BQ:108:GLY:CA	48:BZ:115:VAL:HG11	2.43	0.47
27:BA:2554:U:H5'	27:BA:2554:U:H6	1.79	0.47
54:B5:45:VAL:O	54:B5:47:PRO:HD3	2.14	0.47
27:DA:388:G:OP2	50:D1:25:LYS:HB2	2.14	0.47
27:DA:2396:G:N1	27:DA:2421:G:C6	2.82	0.47
27:BA:1613:G:O2'	56:B7:3:ARG:NE	2.47	0.47
27:DA:1844:C:C4	27:DA:1845:G:N7	2.82	0.47
43:BU:76:TYR:CE1	43:BU:80:ILE:HD11	2.50	0.47
1:AA:1412:C:H2'	1:AA:1413:A:H8	1.78	0.47
56:D7:29:LYS:HG2	56:D7:33:ARG:NH2	2.29	0.47
34:BH:25:LYS:HA	34:BH:33:LEU:O	2.14	0.47
29:BC:197:GLU:O	29:BC:199:HIS:N	2.44	0.47
22:CV:2:A:H2'	22:CV:3:A:H8	1.80	0.47
19:CS:22:LEU:O	19:CS:26:GLY:HA2	2.15	0.47
35:BI:117:GLU:HG3	35:BI:118:LYS:N	2.28	0.47
27:DA:211:A:H2'	27:DA:212:G:H8	1.80	0.47
48:BZ:108:ALA:C	48:BZ:144:GLU:HG2	2.35	0.47
29:DC:19:VAL:HB	29:DC:22:ILE:HG12	1.95	0.47
2:CB:56:ARG:NH1	2:CB:56:ARG:HG2	2.29	0.47
1:CA:665:A:C8	1:CA:725:G:C2	3.03	0.47
7:AG:115:ARG:HB2	7:AG:118:VAL:CG1	2.45	0.47
17:CQ:64:PRO:HB3	17:CQ:70:ARG:HE	1.78	0.47
24:CX:59:A:O2'	24:CX:60:U:H5'	2.15	0.47
3:AC:41:GLY:O	3:AC:45:LYS:HG3	2.15	0.47
42:DT:132:LYS:C	42:DT:134:GLU:N	2.68	0.47
27:DA:1995:U:H2'	27:DA:1996:C:C5	2.49	0.47
27:DA:2083:G:H2'	27:DA:2084:C:H6	1.80	0.47
27:BA:237:C:H2'	27:BA:238:C:C6	2.50	0.47
50:D1:75:GLU:OE2	50:D1:75:GLU:HA	2.15	0.47
39:BQ:3:MET:HB2	39:BQ:4:PRO:HD2	1.96	0.47
27:DA:1368:G:C2	27:DA:1369:G:C8	3.03	0.47
5:AE:53:LEU:H	5:AE:53:LEU:CD1	2.28	0.47
28:BB:15:A:H4'	28:BB:16:G:OP2	2.15	0.47
4:AD:175:SER:OG	4:AD:184:LYS:HB2	2.14	0.47
27:DA:209:C:H2'	27:DA:210:C:O4'	2.14	0.47
27:BA:1599:C:H5''	46:BX:35:THR:HG22	1.96	0.47
46:BX:21:PHE:O	46:BX:23:GLU:O	2.32	0.47
57:B8:25:MET:O	57:B8:47:LYS:NZ	2.45	0.47
27:BA:2790:A:H2'	27:BA:2791:C:H5''	1.96	0.47
1:CA:530:G:O2'	23:CW:34:U:H4'	2.14	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1833:U:O2'	27:DA:1969:A:N1	2.44	0.47
53:B4:41:ILE:O	53:B4:59:VAL:N	2.46	0.47
13:CM:69:GLU:OE1	13:CM:72:ALA:CB	2.60	0.47
43:BU:101:ARG:O	43:BU:102:GLU:CB	2.62	0.47
17:AQ:63:ARG:HG2	17:AQ:64:PRO:CD	2.43	0.47
32:DF:3:GLU:O	32:DF:4:VAL:C	2.53	0.47
27:DA:1011:G:OP1	43:DU:77:SER:CB	2.62	0.47
43:DU:90:VAL:C	43:DU:92:ARG:H	2.18	0.47
28:BB:82:G:H2'	28:BB:83:G:O4'	2.15	0.47
1:CA:1239:A:H4'	1:CA:1240:U:O5'	2.15	0.47
7:CG:116:ALA:O	7:CG:119:ARG:HB2	2.15	0.47
11:CK:29:ILE:CD1	11:CK:44:SER:HB3	2.43	0.47
27:DA:2019:A:C6	27:DA:2020:A:C5	3.03	0.47
27:DA:2055:C:H2'	27:DA:2055:C:O2	2.13	0.47
31:DE:129:HIS:O	31:DE:130:GLY:O	2.32	0.47
46:DX:26:TYR:CE1	46:DX:89:ILE:HD12	2.50	0.47
31:DE:199:ARG:HB3	31:DE:200:GLU:H	1.39	0.47
27:DA:301:G:N2	27:DA:316:C:N3	2.47	0.47
27:BA:1491:G:OP1	27:BA:1494:A:N6	2.48	0.47
30:BD:75:ILE:HG22	30:BD:76:PRO:HD2	1.97	0.47
1:CA:142:G:H1	1:CA:221:C:N4	2.08	0.47
20:CT:87:LYS:C	20:CT:89:ARG:H	2.17	0.47
47:BY:28:LYS:HG3	47:BY:30:VAL:HG23	1.97	0.47
14:AN:27:CYS:C	14:AN:29:ARG:H	2.12	0.47
8:AH:56:LYS:O	8:AH:58:TYR:HD1	1.97	0.47
8:AH:57:PRO:O	8:AH:58:TYR:CD1	2.67	0.47
1:CA:393:A:OP2	16:CP:12:LYS:HE2	2.15	0.47
27:DA:90:U:O2	27:DA:90:U:C2'	2.63	0.47
27:DA:2758:A:C3'	27:DA:2759:G:H5''	2.45	0.47
27:BA:854:G:C2	27:BA:855:G:C5	3.03	0.47
27:BA:2586:C:O2'	27:BA:2587:A:H5'	2.15	0.47
2:AB:96:ARG:O	2:AB:97:TRP:C	2.53	0.47
27:BA:413:C:H4'	27:BA:1880:C:O2'	2.14	0.47
27:BA:969:U:O3'	52:B3:14:GLY:HA2	2.15	0.47
58:B9:2:LYS:O	58:B9:35:ARG:N	2.48	0.47
46:DX:12:VAL:HB	46:DX:17:ALA:CB	2.45	0.47
4:AD:28:SER:HB2	4:AD:30:LYS:HG2	1.97	0.47
1:CA:1063:C:H3'	1:CA:1063:C:H6	1.79	0.47
37:BO:113:LYS:O	37:BO:114:ILE:C	2.50	0.47
27:DA:52:A:N3	27:DA:53:A:C8	2.83	0.47
5:CE:55:VAL:O	5:CE:58:ALA:HB3	2.14	0.47
10:AJ:34:VAL:HG22	10:AJ:74:ILE:HA	1.97	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DI:37:VAL:CG1	35:DI:38:LEU:N	2.75	0.47
8:CH:29:SER:O	8:CH:30:ARG:C	2.52	0.47
27:DA:1395:A:OP1	27:DA:1603:A:OP1	2.32	0.47
27:BA:2259:G:O4'	27:BA:2427:C:H2'	2.15	0.47
1:AA:1157:A:C4'	1:AA:1158:C:O5'	2.54	0.47
37:DO:16:ALA:CB	37:DO:52:VAL:HG11	2.43	0.47
33:BG:88:ILE:HG13	33:BG:89:GLY:N	2.27	0.47
34:DH:127:GLU:C	34:DH:129:THR:H	2.18	0.47
57:B8:14:VAL:CG2	57:B8:22:VAL:HG12	2.45	0.47
1:CA:975:A:N6	10:CJ:48:THR:HB	2.20	0.47
1:AA:1381:U:H2'	1:AA:1381:U:O2	2.13	0.47
27:DA:1665:A:H1'	37:DO:1:MET:CE	2.45	0.47
37:DO:20:MET:CG	37:DO:21:CYS:N	2.78	0.47
27:BA:2716:U:H2'	27:BA:2717:G:H8	1.79	0.47
25:CY:68:C:H3'	25:CY:69:C:H5''	1.97	0.47
27:DA:2291:U:H5''	27:DA:2380:C:O2'	2.15	0.47
16:CP:72:ARG:HH21	16:CP:73:LEU:HD21	1.80	0.47
27:DA:1385:G:O2'	27:DA:1396:U:H6	1.98	0.47
10:CJ:34:VAL:HG13	10:CJ:73:ASP:O	2.14	0.47
45:DW:105:VAL:HG12	45:DW:107:LEU:CD1	2.45	0.47
45:DW:60:ASN:HD22	45:DW:60:ASN:N	2.12	0.47
7:AG:23:VAL:O	7:AG:27:ILE:HG13	2.15	0.47
27:DA:763:G:C2	27:DA:765:G:H1'	2.50	0.47
42:BT:57:PHE:O	42:BT:58:ASN:C	2.52	0.47
50:D1:69:LYS:HA	50:D1:72:GLU:HB3	1.95	0.47
3:CC:19:GLU:O	3:CC:20:SER:HB2	2.15	0.47
27:DA:2121:G:C2	27:DA:2122:U:C2	3.03	0.47
13:AM:116:THR:O	13:AM:117:VAL:CB	2.63	0.47
27:DA:558:G:H4'	36:DN:44:PRO:O	2.14	0.47
4:CD:23:GLY:O	4:CD:25:ARG:N	2.48	0.47
40:BR:10:LEU:HA	40:BR:17:ARG:CD	2.40	0.47
18:AR:40:LEU:C	18:AR:42:ARG:N	2.67	0.47
1:CA:1480:G:C5	1:CA:1481:U:C5	3.03	0.47
11:AK:95:ILE:O	11:AK:98:LEU:N	2.48	0.47
47:DY:90:LEU:HD12	47:DY:91:GLU:H	1.80	0.47
8:CH:63:LEU:H	8:CH:63:LEU:HD22	1.79	0.47
1:CA:731:G:N2	1:CA:732:C:O2	2.48	0.47
6:AF:44:GLY:O	6:AF:59:TYR:HA	2.15	0.47
27:DA:2674:G:H2'	27:DA:2675:A:C8	2.50	0.47
9:CI:52:ALA:HB3	9:CI:95:LYS:CE	2.44	0.47
9:CI:27:THR:HG23	9:CI:31:GLN:C	2.35	0.47
24:AX:51:C:H2'	24:AX:52:G:H8	1.79	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:B1:57:GLU:C	50:B1:58:ILE:HG23	2.36	0.47
23:AW:72:G:H5'	23:AW:73:C:OP1	2.13	0.47
31:DE:127:ASP:HA	31:DE:135:HIS:ND1	2.29	0.47
27:DA:1927:A:H8	27:DA:1927:A:OP1	1.98	0.47
27:BA:2228:G:OP1	30:BD:261:LYS:HE3	2.14	0.47
27:DA:2078:C:H2'	27:DA:2079:U:C6	2.50	0.47
35:DI:94:ALA:CB	35:DI:114:LEU:HD11	2.45	0.47
55:D6:22:ALA:C	55:D6:23:THR:HG23	2.35	0.47
48:BZ:36:VAL:HG23	48:BZ:37:TYR:N	2.28	0.47
3:AC:41:GLY:C	3:AC:45:LYS:NZ	2.68	0.47
25:AY:23:G:H2'	25:AY:24:C:C6	2.50	0.47
49:D0:51:VAL:N	49:D0:62:LEU:HD12	2.30	0.47
27:BA:1167:U:C2	27:BA:1183:G:N2	2.83	0.47
24:AX:15:G:N2	24:AX:21:A:N3	2.62	0.47
1:AA:306:G:H2'	1:AA:307:C:C6	2.50	0.47
15:AO:16:ALA:HB1	15:AO:21:ASP:HB3	1.97	0.47
27:DA:271(W):G:H5'	27:DA:271(X):G:OP2	2.15	0.47
1:CA:1272:G:H8	1:CA:1272:G:H5''	1.80	0.47
1:AA:1420:C:H2'	1:AA:1421:G:H8	1.80	0.47
6:AF:65:VAL:HG23	6:AF:66:GLU:N	2.29	0.47
1:AA:30:U:H4'	1:AA:31:G:OP1	2.10	0.47
19:CS:12:ASP:HB3	19:CS:14:HIS:CE1	2.50	0.47
40:BR:20:LEU:C	40:BR:22:ARG:N	2.68	0.47
27:DA:1024:G:OP2	27:DA:1025:G:H3'	2.15	0.47
57:D8:7:HIS:HD1	57:D8:7:HIS:C	2.18	0.47
27:BA:27:G:H1'	27:BA:513:A:H62	1.80	0.47
1:CA:426:G:OP1	4:CD:36:ARG:NE	2.47	0.47
4:CD:91:SER:O	4:CD:94:LEU:N	2.48	0.47
27:BA:660:G:O3'	32:BF:38:ARG:NH2	2.47	0.47
44:BV:47:VAL:HG23	44:BV:47:VAL:O	2.15	0.47
17:AQ:67:LYS:HA	17:AQ:70:ARG:HH12	1.79	0.47
41:BS:66:ALA:O	41:BS:69:VAL:HG13	2.14	0.47
57:D8:37:SER:OG	57:D8:40:GLU:N	2.47	0.47
27:DA:459:U:OP1	56:D7:39:ARG:HA	2.13	0.47
36:DN:118:LYS:C	36:DN:120:LEU:N	2.66	0.47
27:DA:587:C:H2'	38:DP:33:ARG:NH2	2.30	0.47
55:B6:15:GLU:OE1	55:B6:41:PRO:HB3	2.15	0.47
9:AI:96:LEU:HG	9:AI:102:LEU:HB2	1.96	0.47
1:AA:1206:G:H2'	1:AA:1207:G:C5'	2.42	0.47
1:AA:976:G:N7	1:AA:1358:U:C2	2.82	0.47
1:AA:1060:C:P	14:AN:45:ARG:NH2	2.88	0.47
12:CL:34:CYS:HA	12:CL:55:VAL:HG22	1.95	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:71:VAL:HB	2:AB:164:VAL:HG22	1.96	0.47
43:BU:106:PHE:O	43:BU:107:ALA:C	2.52	0.47
27:BA:127:A:H5''	27:BA:128:C:C6	2.50	0.47
27:BA:689:A:N3	27:BA:779:U:O2'	2.42	0.47
1:AA:60:A:OP1	1:AA:111:G:N2	2.47	0.47
7:AG:45:ASP:HB3	7:AG:117:ALA:HB1	1.97	0.47
42:DT:11:GLU:H	42:DT:11:GLU:CD	2.16	0.47
5:CE:52:PRO:HD2	5:CE:53:LEU:HD12	1.96	0.47
12:AL:38:ARG:NH2	12:AL:54:LYS:NZ	2.62	0.47
27:BA:2842:G:C2	27:BA:2876:G:C2	3.02	0.47
41:BS:101:LEU:HD22	41:BS:102:ALA:O	2.15	0.47
1:CA:754:C:C2'	1:CA:754:C:O2	2.54	0.47
40:DR:2:ARG:HB2	40:DR:3:HIS:H	1.48	0.47
55:B6:51:GLU:O	55:B6:52:VAL:CG2	2.62	0.47
9:CI:24:GLY:O	9:CI:26:VAL:HG23	2.15	0.47
52:D3:11:SER:HA	52:D3:12:PRO:HD3	1.61	0.47
10:CJ:97:GLU:C	10:CJ:98:ILE:HD12	2.34	0.47
25:CY:67:C:H2'	25:CY:68:C:C6	2.49	0.47
27:DA:1658:C:O5'	27:DA:1658:C:H6	1.96	0.47
54:D5:45:VAL:HG22	54:D5:51:TYR:HD2	1.79	0.47
7:CG:139:GLU:C	7:CG:141:VAL:N	2.64	0.47
27:DA:7:G:H1	27:DA:2896:C:H42	1.62	0.47
27:DA:2468:G:H22	27:DA:2481:G:C2'	2.27	0.47
27:DA:2788:C:O2'	27:DA:2809:A:N3	2.43	0.47
27:DA:682:G:H1	27:DA:795:C:N4	2.12	0.47
27:DA:30:G:O2'	27:DA:31:C:H5'	2.14	0.47
47:DY:46:LYS:HB3	47:DY:47:LYS:H	1.54	0.47
39:DQ:35:VAL:HG23	39:DQ:101:ARG:O	2.15	0.47
27:BA:675:A:C6	27:BA:676:A:C6	3.03	0.47
27:DA:484:C:O5'	27:DA:484:C:H6	1.97	0.47
3:CC:11:ARG:HB3	3:CC:15:THR:HB	1.97	0.47
27:BA:56:A:O2'	27:BA:57:C:C5'	2.59	0.47
1:CA:285:G:N1	1:CA:286:G:C5	2.82	0.47
27:DA:81:G:H21	47:DY:2:ARG:NH2	2.13	0.47
1:AA:1246:C:H2'	1:AA:1246:C:O2	2.14	0.47
13:AM:91:ARG:HB3	13:AM:98:VAL:HG13	1.97	0.47
27:DA:286:C:H2'	27:DA:287:C:C5'	2.45	0.47
46:DX:66:LEU:HD23	46:DX:66:LEU:C	2.35	0.47
1:AA:1500:A:H5''	1:AA:1508:G:H5''	1.96	0.47
27:BA:119:A:O2'	27:BA:120:U:O5'	2.28	0.47
1:CA:1472:U:H2'	1:CA:1473:A:C8	2.49	0.47
27:DA:1427:A:O2'	27:DA:1428:C:OP2	2.29	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:577:G:H5'	27:BA:2502:G:C2	2.50	0.47
27:BA:2637:U:H5'	31:BE:44:TYR:CD1	2.49	0.47
17:AQ:22:LEU:CD1	17:AQ:41:LYS:HG2	2.43	0.47
1:CA:624:C:O2'	16:CP:10:GLY:HA2	2.14	0.47
27:DA:1291:C:O2'	27:DA:1292:U:C5'	2.63	0.47
43:DU:59:ARG:O	43:DU:62:ILE:N	2.42	0.47
27:BA:1612:C:N3	27:BA:1620:G:C2	2.82	0.47
4:CD:148:VAL:HG21	4:CD:181:MET:HE2	1.96	0.47
15:CO:2:PRO:O	15:CO:38:ARG:NE	2.44	0.47
27:DA:1842:G:C6	27:DA:1843:C:N3	2.83	0.47
27:DA:203:C:O5'	27:DA:204:A:H5''	2.15	0.47
43:BU:47:TYR:O	43:BU:51:LYS:HG2	2.15	0.47
23:CW:10:G:N2	23:CW:25:A:H1'	2.30	0.47
23:CW:10:G:H1	23:CW:25:A:H1'	1.80	0.47
33:DG:70:VAL:HA	33:DG:89:GLY:O	2.15	0.47
3:CC:59:ARG:HA	3:CC:63:ASN:O	2.15	0.47
27:BA:2087:G:O2'	27:BA:2088:G:H5'	2.15	0.47
30:DD:221:VAL:HG23	30:DD:226:MET:HE2	1.96	0.47
27:BA:1987:G:H2'	27:BA:1988:C:C6	2.49	0.47
3:AC:42:LEU:HA	3:AC:45:LYS:CG	2.45	0.47
27:BA:904:C:H2'	27:BA:905:U:H5'	1.96	0.47
27:DA:1764:G:H21	27:DA:1765:C:H1'	1.80	0.47
27:DA:1170:G:N2	27:DA:1179:C:H42	2.12	0.47
49:B0:51:VAL:HG21	49:B0:79:VAL:O	2.15	0.47
1:CA:153:C:H2'	1:CA:154:C:H6	1.80	0.47
24:CX:5:G:H1	24:CX:68:C:H42	1.63	0.47
27:DA:208:C:O2'	27:DA:209:C:H5'	2.15	0.47
1:AA:370:C:H2'	1:AA:371:G:H8	1.79	0.47
32:DF:50:SER:HB2	32:DF:94:PRO:HG3	1.96	0.47
1:AA:652:U:O2'	1:AA:653:A:O5'	2.33	0.47
31:BE:154:LYS:O	31:BE:156:MET:HG3	2.15	0.47
18:AR:82:THR:HG22	18:AR:83:GLU:N	2.30	0.47
10:CJ:3:LYS:O	10:CJ:100:THR:HA	2.14	0.47
27:DA:1662:C:O2'	27:DA:2687:U:OP1	2.30	0.47
5:AE:133:TYR:CD1	5:AE:133:TYR:N	2.81	0.47
30:DD:193:VAL:HG22	30:DD:194:GLY:N	2.30	0.47
27:BA:2644:G:H2'	27:BA:2645:G:C8	2.50	0.47
38:BP:63:PRO:C	38:BP:65:ARG:N	2.69	0.47
1:CA:962:C:H2'	1:CA:963:G:H8	1.79	0.47
1:CA:978:A:C5'	1:CA:978:A:C8	2.98	0.47
1:CA:973:G:OP1	10:CJ:57:LYS:HD3	2.15	0.47
14:CN:36:PHE:HE1	14:CN:37:PHE:CZ	2.33	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2834:G:C4	27:BA:2879:C:N4	2.83	0.47
27:BA:614(C):A:H4'	27:BA:615:G:OP1	2.15	0.47
47:BY:79:CYS:O	47:BY:80:GLY:C	2.53	0.47
27:DA:200:U:C5'	27:DA:200:U:C6	2.91	0.47
27:DA:1791:A:O2'	30:DD:207:GLY:CA	2.63	0.47
27:BA:1213:A:C2	27:BA:1214:A:C4	3.02	0.47
4:CD:13:ARG:O	4:CD:16:GLY:N	2.44	0.47
4:CD:64:LEU:O	4:CD:65:ARG:C	2.54	0.47
42:DT:65:LYS:HA	42:DT:65:LYS:NZ	2.30	0.47
5:AE:33:VAL:HG22	5:AE:42:GLY:O	2.15	0.47
27:DA:1155:A:H4'	43:DU:55:ARG:NH1	2.30	0.47
30:BD:24:ILE:O	30:BD:26:LYS:HD3	2.14	0.47
31:DE:88:GLY:O	31:DE:89:ASP:HB2	2.14	0.47
55:D6:10:LEU:HA	55:D6:25:LYS:HA	1.97	0.47
55:D6:40:CYS:HB2	55:D6:46:HIS:CB	2.44	0.47
57:D8:14:VAL:CG2	57:D8:15:LYS:N	2.77	0.47
38:DP:95:VAL:HG22	38:DP:125:VAL:HB	1.96	0.47
33:DG:20:ILE:HA	33:DG:25:TYR:CD2	2.48	0.47
27:DA:1991:U:O2'	27:DA:1992:G:C5'	2.62	0.47
27:DA:2572:A:OP1	31:DE:143:ASN:HB3	2.14	0.47
27:DA:2610:C:H4'	27:DA:2611:U:OP2	2.14	0.47
27:DA:968:G:C2	27:DA:969:U:C2	3.03	0.47
1:AA:169:C:C2'	1:AA:170:U:H5'	2.45	0.47
9:AI:45:ALA:C	9:AI:47:LEU:H	2.16	0.47
1:AA:1202:G:C4	14:AN:42:ILE:HD13	2.50	0.47
12:CL:33:VAL:C	12:CL:55:VAL:HG13	2.35	0.47
41:DS:29:PHE:CD2	41:DS:30:ARG:N	2.83	0.47
1:AA:1305:G:P	21:AU:2:GLY:N	2.87	0.47
1:CA:274:A:O2'	1:CA:275:G:H8	1.96	0.47
27:BA:1310:G:O2'	27:BA:1311:G:H5'	2.15	0.47
1:AA:105:G:C6	1:AA:106:C:N3	2.83	0.47
31:BE:3:GLY:HA3	31:BE:81:ILE:CG2	2.45	0.47
40:DR:43:GLU:C	40:DR:45:ARG:N	2.67	0.47
20:CT:46:GLU:HG2	20:CT:48:LYS:HE2	1.96	0.47
1:AA:749:C:H2'	1:AA:750:G:H8	1.79	0.47
18:AR:33:ASP:OD2	18:AR:35:ARG:N	2.46	0.47
30:DD:43:ARG:CB	30:DD:54:ARG:HB3	2.45	0.47
27:DA:2716:U:C2'	27:DA:2717:G:H5'	2.44	0.47
1:CA:1058:G:H2'	1:CA:1059:C:O4'	2.15	0.47
14:CN:24:CYS:CB	14:CN:29:ARG:HB3	2.45	0.47
6:CF:30:LEU:C	6:CF:35:ALA:HB3	2.35	0.47
27:DA:2136:C:H2'	27:DA:2137:C:C6	2.47	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2563:U:H2'	27:BA:2564:A:H3'	1.96	0.47
27:BA:140:G:N3	27:BA:142:A:N1	2.63	0.47
1:CA:50:A:H1'	1:CA:52:G:C8	2.49	0.47
27:BA:2692:C:H2'	27:BA:2693:A:C8	2.50	0.47
36:BN:30:ILE:CG2	36:BN:52:VAL:HG11	2.35	0.47
1:AA:1286:A:H2	21:AU:22:ARG:NH2	2.13	0.47
16:CP:74:LEU:O	16:CP:75:ARG:C	2.54	0.47
15:AO:62:GLN:O	15:AO:65:ARG:HB2	2.15	0.47
27:DA:271(A):A:C8	27:DA:271(B):C:C6	2.99	0.47
7:CG:143:ARG:HB2	7:CG:143:ARG:NH1	2.30	0.47
12:CL:5:ASN:CB	17:CQ:34:LYS:HZ3	2.27	0.47
27:DA:2481:G:O2'	27:DA:2482:G:P	2.73	0.47
27:DA:2807:G:C2'	27:DA:2808:U:H5''	2.44	0.47
40:DR:28:LEU:HD23	40:DR:34:ILE:HG12	1.97	0.47
27:DA:792:G:H3'	27:DA:792:G:OP1	2.14	0.47
1:CA:699:C:C2'	1:CA:700:G:H5'	2.44	0.47
27:BA:1332:G:H22	27:BA:1609:A:H2'	1.79	0.47
12:AL:63:VAL:HG21	12:AL:95:TYR:CD1	2.50	0.47
37:BO:97:ARG:C	37:BO:98:VAL:HG12	2.35	0.47
15:CO:9:GLN:O	15:CO:12:ILE:HB	2.15	0.47
27:DA:1982:C:H2'	27:DA:1983:C:C6	2.49	0.47
1:AA:1118:C:O2'	1:AA:1119:C:H5'	2.15	0.47
2:AB:48:MET:O	2:AB:49:GLU:C	2.52	0.47
2:CB:87:ARG:NE	2:CB:233:SER:HB2	2.30	0.47
48:BZ:16:ALA:O	48:BZ:19:ARG:N	2.48	0.47
27:DA:2543:G:H2'	27:DA:2544:G:O4'	2.15	0.47
4:AD:119:GLN:NE2	4:AD:123:HIS:CD2	2.79	0.47
4:AD:187:ARG:HH11	4:AD:187:ARG:HG2	1.80	0.47
27:BA:1912:A:H5'	27:BA:1918:A:N1	2.28	0.47
27:BA:339:U:C2'	27:BA:340:A:H5'	2.45	0.47
21:CU:24:ARG:HG2	21:CU:24:ARG:HH11	1.79	0.47
27:BA:2533:A:H3'	27:BA:2534:A:H5''	1.96	0.47
27:BA:978:G:O4'	27:BA:1001:A:C2	2.68	0.47
27:BA:1465:G:C4	27:BA:1466:G:C8	3.03	0.47
7:CG:26:PHE:CD2	7:CG:62:PHE:HE1	2.33	0.47
27:BA:2642:G:C6	27:BA:2643:G:C5	3.03	0.47
27:BA:2773:C:H2'	27:BA:2774:C:C6	2.43	0.47
31:BE:26:ILE:HB	31:BE:182:LEU:HB3	1.96	0.47
27:DA:1722:A:C2	27:DA:1740:G:H8	2.33	0.47
39:BQ:39:PRO:HD3	39:BQ:99:PRO:HG3	1.96	0.47
39:DQ:109:VAL:CG1	39:DQ:113:GLN:HB3	2.44	0.47
48:DZ:109:GLY:HA3	48:DZ:144:GLU:OE1	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1459:C:O2'	1:AA:1460:A:H5'	2.15	0.47
47:BY:42:VAL:O	47:BY:65:ALA:HB3	2.15	0.47
1:AA:659:U:P	15:AO:8:LYS:HE2	2.54	0.47
7:AG:70:LYS:HB3	7:AG:96:GLN:CG	2.44	0.47
6:CF:99:ALA:HB3	18:CR:29:PHE:CZ	2.50	0.47
25:AY:32:U:O2'	25:AY:35:G:N7	2.39	0.47
1:CA:182:U:H2'	1:CA:182:U:O2	2.14	0.47
9:CI:112:LYS:NZ	9:CI:113:LYS:O	2.48	0.47
8:AH:74:PRO:CG	8:AH:75:ARG:H	2.28	0.47
27:BA:272(E):G:C6	27:BA:364:C:N4	2.83	0.47
1:AA:1026:G:H2'	1:AA:1026:G:N3	2.28	0.47
27:DA:845:G:H5''	27:DA:845:G:H8	1.79	0.47
34:BH:82:GLY:O	34:BH:83:TYR:O	2.32	0.47
27:BA:295:G:N1	27:BA:296:C:C4	2.83	0.47
27:DA:191:A:C2	27:DA:192:C:C2	3.02	0.47
11:AK:93:GLN:HA	11:AK:93:GLN:OE1	2.15	0.47
35:DI:125:GLU:OE1	35:DI:125:GLU:HA	2.14	0.47
27:DA:614:U:O2	27:DA:614:U:O4'	2.31	0.47
7:AG:64:GLN:O	7:AG:68:ASN:HB2	2.15	0.47
37:DO:29:ASN:O	37:DO:30:ALA:C	2.53	0.47
27:BA:2808:U:C5'	27:BA:2891:G:O6	2.61	0.46
32:BF:2:LYS:HG2	32:BF:25:PRO:HB2	1.97	0.46
1:AA:886:G:H2'	1:AA:887:G:O4'	2.15	0.46
48:DZ:157:PRO:HB2	48:DZ:158:PRO:CD	2.46	0.46
4:CD:204:ILE:HG12	4:CD:204:ILE:H	1.47	0.46
53:B4:40:ILE:HG23	53:B4:59:VAL:CG2	2.45	0.46
53:B4:62:CYS:C	53:B4:64:LYS:H	2.18	0.46
38:BP:17:LYS:C	38:BP:19:VAL:N	2.68	0.46
47:BY:46:LYS:C	47:BY:47:LYS:CG	2.83	0.46
47:BY:62:GLU:OE1	47:BY:62:GLU:CA	2.63	0.46
27:BA:559:G:C2'	27:BA:560:C:H5'	2.45	0.46
36:BN:41:ASP:O	43:BU:64:ARG:NE	2.44	0.46
43:BU:65:ILE:O	43:BU:68:ALA:N	2.44	0.46
27:BA:283:A:H4'	27:BA:284:U:OP2	2.14	0.46
27:DA:999:U:O2	27:DA:1000:A:C8	2.67	0.46
36:DN:38:HIS:HA	43:DU:67:ALA:CB	2.45	0.46
27:DA:1151:G:O2'	43:DU:77:SER:O	2.32	0.46
47:DY:97:ARG:O	47:DY:98:VAL:HB	2.16	0.46
42:BT:36:GLU:HB3	42:BT:38:ASN:OD1	2.16	0.46
47:DY:28:LYS:HG3	47:DY:37:VAL:HB	1.96	0.46
41:DS:99:LYS:O	41:DS:101:LEU:HD12	2.15	0.46
27:DA:2418:A:C2	27:DA:2419:U:C2	3.03	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DN:112:LEU:O	36:DN:112:LEU:HD12	2.14	0.46
27:DA:2016:U:H5''	27:DA:2058:A:OP1	2.15	0.46
27:DA:2559:C:O2	27:DA:2559:C:H2'	2.14	0.46
27:DA:2581:G:C8	27:DA:2582:G:O6	2.68	0.46
27:DA:753:C:O2	27:DA:753:C:C2'	2.63	0.46
27:DA:819:A:C4	27:DA:1189:A:C2	3.02	0.46
44:DV:76:LYS:O	44:DV:77:ALA:O	2.33	0.46
20:AT:26:ASN:HB3	20:AT:71:THR:HG23	1.96	0.46
27:BA:1006:C:C2	27:BA:1138:G:N2	2.83	0.46
55:B6:16:CYS:SG	55:B6:16:CYS:O	2.74	0.46
4:AD:9:CYS:HB2	4:AD:22:LYS:NZ	2.29	0.46
1:CA:42:G:H2'	1:CA:43:C:O4'	2.15	0.46
1:CA:68:G:N1	1:CA:102:G:N1	2.63	0.46
1:CA:66:G:O2'	1:CA:173:U:C5	2.53	0.46
1:CA:218:C:O2'	1:CA:219:C:O5'	2.33	0.46
8:AH:38:ILE:HD11	8:AH:118:VAL:HB	1.97	0.46
8:AH:38:ILE:O	8:AH:42:GLU:HG2	2.15	0.46
2:AB:189:ASP:OD1	2:AB:205:ASP:OD1	2.32	0.46
2:AB:28:PHE:HD2	2:AB:194:PRO:HD3	1.78	0.46
1:AA:673:G:C6	1:AA:734:G:C6	3.03	0.46
27:DA:2755:C:C4	58:D9:19:ARG:NH1	2.83	0.46
1:AA:377:G:OP1	16:AP:3:LYS:HD3	2.15	0.46
27:DA:2334:G:O4'	41:DS:15:ARG:HG3	2.15	0.46
1:AA:1331:G:H4'	1:AA:1331:G:OP1	2.15	0.46
17:CQ:76:LEU:CG	17:CQ:76:LEU:O	2.63	0.46
27:BA:1310:G:C2'	27:BA:1311:G:H5'	2.45	0.46
27:BA:1657:C:H2'	27:BA:1658:C:C6	2.51	0.46
1:CA:836:G:H2'	1:CA:837:G:H8	1.80	0.46
36:DN:133:GLN:HG2	36:DN:135:PRO:CD	2.31	0.46
15:AO:81:LEU:CG	15:AO:82:ILE:N	2.78	0.46
1:CA:258:G:H2'	1:CA:259:G:H8	1.79	0.46
20:CT:84:LEU:HD13	20:CT:88:VAL:HG23	1.96	0.46
34:BH:109:PHE:H	34:BH:109:PHE:HD1	1.62	0.46
9:CI:126:SER:O	9:CI:127:LYS:HB3	2.15	0.46
3:CC:50:ALA:HB1	3:CC:70:VAL:HG11	1.98	0.46
27:BA:1479:G:C5	27:BA:1480:G:C8	3.03	0.46
34:DH:12:PRO:HG3	34:DH:50:VAL:HG23	1.96	0.46
48:DZ:94:PRO:HB2	48:DZ:126:LYS:NZ	2.30	0.46
39:DQ:49:ALA:O	39:DQ:53:ALA:HB2	2.14	0.46
38:BP:124:LYS:HG3	38:BP:143:GLY:HA3	1.97	0.46
27:BA:2162:G:O2'	27:BA:2163:C:H5'	2.15	0.46
27:DA:2160:G:H2'	27:DA:2161:C:C5	2.50	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1312:U:C4	27:DA:1603:A:N6	2.83	0.46
35:BI:109:ILE:HG22	35:BI:111:PRO:CD	2.44	0.46
49:D0:40:GLN:HE21	49:D0:43:THR:HA	1.77	0.46
55:B6:32:ASN:O	55:B6:33:LYS:CB	2.63	0.46
1:AA:620:C:H2'	1:AA:621:A:O4'	2.14	0.46
51:B2:55:ARG:O	51:B2:56:GLN:C	2.53	0.46
27:DA:1677:A:H8	27:DA:1677:A:O5'	1.99	0.46
34:DH:89:ILE:HD11	34:DH:129:THR:HG22	1.97	0.46
39:BQ:56:ARG:O	39:BQ:57:HIS:O	2.33	0.46
27:DA:847:U:H2'	27:DA:848:G:C5'	2.42	0.46
30:BD:13:ARG:NH1	30:BD:13:ARG:HG3	2.30	0.46
13:AM:68:GLY:HA2	13:AM:71:ARG:NH2	2.19	0.46
7:AG:153:HIS:HB3	11:AK:58:PRO:HG3	1.98	0.46
5:AE:73:ASN:O	5:AE:75:THR:N	2.42	0.46
27:BA:930:U:H4'	27:BA:931:G:O5'	2.16	0.46
42:DT:110:ILE:HG22	42:DT:111:ARG:N	2.30	0.46
42:DT:125:ARG:O	42:DT:128:GLU:HG2	2.14	0.46
1:CA:838:G:H22	1:CA:840:C:H5'	1.80	0.46
1:AA:1326:C:O2'	1:AA:1327:C:H5'	2.15	0.46
5:CE:91:LEU:HG	5:CE:120:THR:HG21	1.96	0.46
7:CG:139:GLU:O	7:CG:140:ASP:C	2.52	0.46
50:D1:11:ARG:CB	50:D1:12:PRO:HD2	2.28	0.46
34:DH:53:GLU:O	34:DH:65:HIS:HD2	1.98	0.46
19:AS:5:LEU:C	19:AS:6:LYS:HE3	2.36	0.46
27:BA:1049:C:C4	27:BA:1111:A:C2	3.03	0.46
7:AG:69:VAL:HG12	7:AG:69:VAL:O	2.15	0.46
32:DF:132:VAL:CG2	32:DF:133:ASN:H	2.12	0.46
1:CA:570:G:C6	1:CA:873:A:C6	3.02	0.46
48:BZ:174:VAL:HB	48:BZ:175:PRO:HD2	1.97	0.46
6:CF:89:MET:SD	18:CR:76:LEU:CD2	2.96	0.46
2:AB:52:GLU:O	2:AB:56:ARG:HG2	2.15	0.46
2:CB:75:LYS:C	2:CB:77:ALA:H	2.16	0.46
27:DA:1162:G:HO2'	27:DA:1163:G:H5'	1.79	0.46
1:AA:1225:A:H3'	13:AM:103:THR:OG1	2.15	0.46
13:AM:91:ARG:HH22	13:AM:103:THR:HG22	1.80	0.46
28:DB:17:C:H2'	28:DB:18:G:C8	2.48	0.46
27:DA:2543:G:C2	27:DA:2544:G:N3	2.83	0.46
13:AM:54:VAL:O	13:AM:58:GLU:N	2.30	0.46
1:AA:183:G:H2'	1:AA:184:G:H8	1.80	0.46
1:AA:222:U:H2'	1:AA:223:U:C6	2.50	0.46
27:BA:2656:U:O2	27:BA:2656:U:H2'	2.14	0.46
49:D0:11:ARG:O	49:D0:14:ARG:NH2	2.48	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1335:U:O2'	27:DA:1336:A:H5'	2.16	0.46
5:AE:144:THR:C	5:AE:146:ALA:N	2.66	0.46
5:AE:144:THR:O	5:AE:145:LYS:C	2.53	0.46
1:CA:1523:G:H2'	1:CA:1524:C:C6	2.50	0.46
1:CA:1256:A:O3'	1:CA:1257:U:H4'	2.15	0.46
48:DZ:144:GLU:OE1	48:DZ:145:ILE:HG23	2.15	0.46
27:DA:811:U:OP2	38:DP:25:SER:N	2.47	0.46
1:CA:47:C:H4'	1:CA:48:C:O5'	2.15	0.46
27:BA:1632:A:H2'	27:BA:1633:G:C8	2.50	0.46
27:BA:1613:G:N1	27:BA:1617:C:C2	2.83	0.46
27:BA:945:A:H5'	27:BA:946:G:OP2	2.15	0.46
27:DA:887:A:H2'	27:DA:888:C:H5''	1.97	0.46
27:DA:1830:C:O2'	27:DA:1831:G:H5'	2.16	0.46
2:CB:168:THR:HA	2:CB:171:ALA:HB2	1.97	0.46
27:DA:249:C:C2'	27:DA:249:C:O2	2.63	0.46
1:AA:1255:G:H5''	3:AC:26:LYS:HZ2	1.79	0.46
16:CP:45:THR:C	16:CP:47:ASP:N	2.68	0.46
35:DI:120:ILE:HG22	35:DI:122:GLU:H	1.80	0.46
27:DA:749:C:H4'	27:DA:1271:G:N3	2.30	0.46
1:CA:189(A):C:H2'	1:CA:189(B):C:H6	1.81	0.46
27:DA:1812:A:H2'	27:DA:1813:G:C8	2.51	0.46
36:DN:90:MET:O	36:DN:92:ALA:N	2.48	0.46
27:BA:839:U:H1'	27:BA:1191:G:H1'	1.96	0.46
1:CA:974:A:OP2	14:CN:41:ARG:NH1	2.48	0.46
1:CA:1115:C:H1'	14:CN:61:TRP:O	2.15	0.46
41:BS:96:GLY:C	41:BS:98:VAL:N	2.68	0.46
27:BA:616:G:C6	27:BA:618:C:C4	3.04	0.46
1:CA:1075:C:P	2:CB:103:THR:HG21	2.55	0.46
48:DZ:157:PRO:CB	48:DZ:158:PRO:CD	2.93	0.46
33:BG:97:ASP:O	33:BG:101:ILE:HG23	2.15	0.46
27:BA:478:A:C6	27:BA:480:A:C6	3.04	0.46
16:CP:82:GLN:O	16:CP:83:GLU:HB2	2.16	0.46
27:DA:2406:U:C2	38:DP:72:PRO:HB2	2.49	0.46
1:AA:265:G:C2	1:AA:267:C:O4'	2.68	0.46
27:DA:2230:G:C6	27:DA:2231:C:C4	3.03	0.46
1:AA:920:U:C1'	1:AA:1080:A:C2	2.99	0.46
27:DA:532:A:H4'	27:DA:533:G:C8	2.51	0.46
29:BC:212:VAL:O	29:BC:213:TYR:CB	2.63	0.46
30:BD:26:LYS:O	30:BD:27:THR:HB	2.15	0.46
31:DE:89:ASP:O	31:DE:90:THR:CB	2.63	0.46
27:DA:2276:G:N2	27:DA:2277:G:C5	2.83	0.46
27:DA:2428:G:N2	38:DP:60:MET:HE1	2.30	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1669:A:H2'	27:DA:1670:C:H5'	1.96	0.46
27:DA:1952:A:C6	27:DA:1953:A:N1	2.83	0.46
27:DA:2571:C:C3'	27:DA:2572:A:C5'	2.93	0.46
27:DA:971:C:OP1	27:DA:974:G:C8	2.69	0.46
55:B6:18:ARG:HB2	55:B6:19:ARG:H	1.39	0.46
55:B6:35:GLU:OE1	55:B6:36:LEU:N	2.48	0.46
27:DA:307:G:H22	27:DA:309:G:H3'	1.77	0.46
27:DA:314:A:H2'	27:DA:315:G:C8	2.51	0.46
47:BY:27:VAL:HG12	47:BY:29:GLU:OE1	2.15	0.46
1:AA:1206:G:O6	1:AA:1207:G:C6	2.68	0.46
2:AB:164:VAL:HB	2:AB:186:ALA:HB2	1.97	0.46
42:DT:27:THR:HG23	42:DT:28:VAL:N	2.30	0.46
1:AA:295:C:H2'	1:AA:296:U:O4'	2.15	0.46
46:BX:63:LYS:HG3	46:BX:63:LYS:O	2.15	0.46
41:DS:38:GLN:HB3	41:DS:47:THR:HG23	1.96	0.46
3:CC:148:GLY:HA3	3:CC:203:PHE:HB3	1.97	0.46
1:CA:1405:G:O2'	1:CA:1406:U:H5'	2.15	0.46
27:BA:2001:A:C2	27:BA:2002:G:C4	3.03	0.46
36:DN:134:ARG:H	36:DN:135:PRO:HD3	1.80	0.46
16:AP:6:LEU:CD1	16:AP:6:LEU:N	2.77	0.46
15:AO:77:ARG:HA	15:AO:80:ALA:HB3	1.97	0.46
46:BX:17:ALA:O	46:BX:20:GLY:N	2.47	0.46
9:CI:125:TYR:HD2	9:CI:126:SER:N	2.12	0.46
50:B1:8:SER:HB3	50:B1:66:HIS:CD2	2.50	0.46
27:BA:1479:G:H5'	27:BA:1558:A:H2	1.80	0.46
1:CA:1207:G:H2'	1:CA:1208:C:H6	1.81	0.46
48:DZ:73:VAL:HG12	48:DZ:75:LEU:HD22	1.98	0.46
38:BP:91:PHE:CD2	38:BP:95:VAL:HG12	2.50	0.46
1:CA:163:C:H2'	1:CA:164:U:C6	2.50	0.46
22:CV:4:A:C2	22:CV:5:U:O2	2.68	0.46
31:BE:134:ILE:H	31:BE:134:ILE:HD13	1.80	0.46
27:DA:2303:G:H1'	33:DG:132:ASN:HD22	1.78	0.46
30:BD:13:ARG:HH11	30:BD:13:ARG:HG3	1.80	0.46
1:AA:940:C:OP1	7:AG:102:ARG:HD3	2.16	0.46
8:AH:14:ARG:C	8:AH:16:ALA:H	2.18	0.46
2:CB:97:TRP:HE3	2:CB:97:TRP:O	1.98	0.46
27:DA:2295:C:O2	27:DA:2338:G:C2	2.68	0.46
54:D5:40:LYS:HB2	54:D5:41:PRO:HD2	1.96	0.46
27:DA:1385:G:O2'	27:DA:1396:U:C6	2.67	0.46
30:DD:270:ILE:C	30:DD:271:ILE:HG12	2.35	0.46
4:CD:57:ARG:NH2	5:CE:107:ARG:CZ	2.78	0.46
27:DA:9:U:H6	27:DA:9:U:O5'	1.98	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1411:C:N4	27:BA:1412:A:H62	2.13	0.46
40:DR:51:LEU:CA	40:DR:54:LEU:HB2	2.43	0.46
27:BA:1055:G:H2'	27:BA:1108:U:H5'	1.97	0.46
31:BE:89:ASP:O	31:BE:90:THR:HB	2.16	0.46
27:DA:1210:A:H5'	27:DA:1211:U:H3'	1.96	0.46
27:DA:475:U:C2'	27:DA:476:G:C8	2.98	0.46
39:DQ:35:VAL:HB	39:DQ:102:VAL:HG22	1.97	0.46
1:AA:1192:C:N4	1:AA:1193:G:C4	2.83	0.46
35:DI:19:VAL:HG22	35:DI:20:ASP:N	2.30	0.46
54:B5:40:LYS:HB2	54:B5:41:PRO:HD2	1.97	0.46
1:CA:810:C:H2'	1:CA:811:C:H5'	1.96	0.46
1:AA:250:A:H2	1:AA:274:A:N6	2.12	0.46
1:CA:16:A:N1	1:CA:919:A:C2	2.75	0.46
2:AB:80:ILE:HG21	2:AB:208:ILE:HG23	1.97	0.46
37:BO:108:GLU:C	37:BO:110:GLY:N	2.64	0.46
2:CB:208:ILE:HA	2:CB:211:ILE:HB	1.97	0.46
27:DA:1998:G:H4'	27:DA:2724:C:O2'	2.15	0.46
35:DI:64:GLU:HA	35:DI:64:GLU:OE1	2.14	0.46
27:DA:2093:G:C6	27:DA:2225:A:C8	3.03	0.46
27:BA:2118:U:H5	27:BA:2149:G:H5'	1.79	0.46
20:AT:53:LEU:HA	20:AT:56:MET:HB3	1.97	0.46
27:DA:1722:A:C6	27:DA:1741:A:C6	3.03	0.46
11:AK:105:VAL:HG23	11:AK:105:VAL:O	2.15	0.46
1:CA:624:C:O2'	1:CA:625:G:C5'	2.62	0.46
27:BA:2024:G:O2'	27:BA:2025:C:H5'	2.14	0.46
27:DA:975(A):G:H2'	27:DA:976:C:H6	1.81	0.46
8:CH:69:ARG:HH11	8:CH:77:GLU:N	2.13	0.46
27:BA:319:C:H2'	27:BA:320:A:O4'	2.15	0.46
27:BA:83:G:N2	27:BA:102:G:O2'	2.47	0.46
27:DA:714:U:C2'	27:DA:715:G:H5''	2.43	0.46
48:DZ:13:LYS:HB3	48:DZ:16:ALA:HB3	1.96	0.46
2:CB:19:HIS:ND1	2:CB:20:GLU:HG2	2.28	0.46
2:AB:229:VAL:CG1	2:AB:230:VAL:N	2.78	0.46
13:CM:112:GLY:HA2	13:CM:113:PRO:HD2	1.73	0.46
27:DA:888:C:H3'	27:DA:889:C:H5'	1.96	0.46
18:AR:22:VAL:O	18:AR:24:ALA:N	2.48	0.46
27:BA:2548:G:O5'	27:BA:2548:G:H8	1.99	0.46
32:BF:154:VAL:HG22	32:BF:191:ARG:CB	2.45	0.46
1:CA:152:A:N6	1:CA:170:U:C2	2.84	0.46
2:AB:109:SER:C	2:AB:111:ARG:H	2.18	0.46
27:DA:418:G:H2'	27:DA:419:C:H6	1.81	0.46
53:D4:37:PRO:O	53:D4:55:PRO:HG3	2.15	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:823:G:O2'	1:CA:824:C:H5'	2.15	0.46
27:BA:107:C:C4	27:BA:108:U:C5	3.03	0.46
27:DA:2458:G:H8	27:DA:2458:G:O5'	1.98	0.46
1:CA:1401:G:O5'	1:CA:1401:G:H8	1.97	0.46
29:BC:141:LYS:O	29:BC:142:ALA:HB2	2.14	0.46
29:DC:182:PRO:O	29:DC:183:GLU:CB	2.61	0.46
27:BA:592:G:H2'	57:B8:4:MET:HE3	1.97	0.46
27:BA:250:G:C6	27:BA:251:A:C6	3.04	0.46
38:BP:114:ILE:HD12	38:BP:115:LEU:H	1.81	0.46
1:CA:977:A:H8	1:CA:982:U:O4	1.99	0.46
27:DA:245:G:O6	57:D8:8:LYS:NZ	2.40	0.46
27:DA:1790:C:H2'	27:DA:1791:A:C5	2.50	0.46
27:BA:512:G:HO2'	27:BA:513:A:H8	1.63	0.46
8:AH:65:TYR:CD1	8:AH:65:TYR:N	2.84	0.46
8:AH:17:THR:CB	8:AH:78:GLN:OE1	2.54	0.46
42:BT:28:VAL:HG13	42:BT:45:PHE:O	2.14	0.46
27:DA:977:G:H1'	27:DA:1000:A:H61	1.81	0.46
27:DA:998:C:H42	27:DA:1158:C:N4	2.14	0.46
44:DV:38:LEU:HD13	44:DV:55:ALA:CB	2.43	0.46
44:DV:72:VAL:HG23	44:DV:85:LYS:HB3	1.97	0.46
27:DA:96:G:N2	27:DA:97:C:C2	2.83	0.46
27:DA:1855:G:C2	27:DA:1856:G:C8	3.02	0.46
47:DY:76:CYS:CB	47:DY:77:PRO:HD2	2.45	0.46
38:DP:86:LYS:N	38:DP:117:GLU:O	2.48	0.46
36:DN:120:LEU:HD13	36:DN:122:VAL:HG23	1.96	0.46
27:DA:2553:G:C6	27:DA:2583:G:O2'	2.69	0.46
27:DA:2618:G:O2'	27:DA:2619:C:H5'	2.16	0.46
27:DA:562:U:O2'	27:DA:572:A:O4'	2.33	0.46
27:BA:1138:G:H2'	27:BA:1139:G:O4'	2.15	0.46
27:BA:1138:G:N3	36:BN:106:MET:HE1	2.31	0.46
27:BA:1022:G:O6	36:BN:66:LYS:HE3	2.16	0.46
45:BW:14:PRO:O	45:BW:16:LYS:N	2.48	0.46
1:CA:1104:G:H2'	1:CA:1105:A:O4'	2.15	0.46
14:AN:40:CYS:HG	14:AN:43:CYS:HG	1.58	0.46
12:CL:94:ARG:C	12:CL:95:TYR:CD1	2.89	0.46
2:AB:194:PRO:HA	2:AB:200:ILE:CD1	2.44	0.46
1:CA:391:G:C6	1:CA:392:G:C5	3.04	0.46
27:DA:2751:G:H2'	27:DA:2751:G:N3	2.30	0.46
27:DA:1242:A:C2	38:DP:8:PRO:HG3	2.50	0.46
41:BS:85:VAL:HB	41:BS:86:ALA:H	1.44	0.46
7:AG:38:LEU:O	7:AG:40:ALA:N	2.48	0.46
20:CT:33:ILE:CD1	20:CT:62:LEU:HB3	2.43	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1438:U:C4	27:BA:1552:G:N2	2.83	0.46
27:DA:374:A:H3'	27:DA:375:C:C6	2.51	0.46
1:AA:29:G:H1	1:AA:554:C:H42	1.63	0.46
1:CA:1216:G:H5'	14:CN:5:ALA:HB2	1.98	0.46
1:CA:522:C:O4'	1:CA:536:C:H4'	2.15	0.46
1:AA:1152:A:H5''	10:AJ:13:HIS:CD2	2.50	0.46
39:BQ:75:THR:CB	39:BQ:87:LYS:HZ2	2.27	0.46
21:CU:12:LYS:HD2	21:CU:17:THR:HG1	1.81	0.46
48:DZ:96:GLU:CB	48:DZ:124:LEU:HD11	2.42	0.46
25:AY:69:C:H2'	25:AY:70:C:O4'	2.16	0.46
27:DA:1311:G:O2'	27:DA:1312:U:C5	2.68	0.46
27:DA:319:C:C4	27:DA:320:A:N7	2.84	0.46
31:BE:125:GLY:HA3	31:BE:134:ILE:O	2.15	0.46
8:AH:84:ARG:O	8:AH:135:CYS:HB2	2.16	0.46
37:DO:17:ARG:H	37:DO:46:ALA:HA	1.80	0.46
36:DN:79:PRO:C	36:DN:81:GLY:H	2.17	0.46
33:DG:123:ASN:O	33:DG:126:ASP:CG	2.54	0.46
33:DG:126:ASP:O	33:DG:128:ARG:N	2.41	0.46
39:BQ:58:PHE:O	39:BQ:59:ARG:O	2.34	0.46
52:D3:11:SER:OG	52:D3:12:PRO:HD2	2.15	0.46
30:BD:16:MET:HG3	30:BD:206:LEU:O	2.16	0.46
27:BA:845:G:H8	27:BA:845:G:OP2	1.97	0.46
15:AO:85:LEU:HD23	15:AO:85:LEU:N	2.31	0.46
27:DA:1030:G:H21	58:D9:5:ALA:HB1	1.80	0.46
10:CJ:4:ILE:HD11	10:CJ:77:PRO:HA	1.96	0.46
40:DR:28:LEU:HD23	40:DR:34:ILE:CG1	2.46	0.46
40:DR:51:LEU:HA	40:DR:54:LEU:HD22	1.98	0.46
47:BY:2:ARG:C	47:BY:4:LYS:N	2.68	0.46
27:BA:2019:A:H2'	27:BA:2020:A:O5'	2.15	0.46
1:CA:738:C:H2'	1:CA:739:C:C6	2.50	0.46
12:AL:30:ARG:HA	12:AL:30:ARG:HE	1.80	0.46
3:AC:48:TYR:O	3:AC:50:ALA:N	2.48	0.46
32:BF:34:TRP:HB2	38:BP:10:PRO:HB3	1.98	0.46
52:D3:5:LYS:HE2	52:D3:57:GLU:HB3	1.96	0.46
33:BG:9:ARG:C	33:BG:11:TYR:N	2.67	0.46
43:BU:27:LEU:N	43:BU:27:LEU:CD2	2.69	0.46
50:D1:69:LYS:O	50:D1:72:GLU:HB3	2.15	0.46
14:AN:13:THR:HG23	14:AN:20:ALA:HB2	1.97	0.46
8:CH:24:THR:HG22	8:CH:25:ASP:N	2.22	0.46
27:DA:80:G:O2'	27:DA:81:G:H5'	2.15	0.46
13:AM:116:THR:HG22	13:AM:117:VAL:H	1.79	0.46
27:BA:2033:A:C5	27:BA:2036:C:C4	3.03	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1628:G:O2'	27:DA:1629:U:H5'	2.15	0.46
18:CR:74:ARG:HG3	18:CR:79:LEU:HD12	1.95	0.46
19:AS:24:ALA:O	19:AS:25:LYS:CB	2.60	0.46
23:AW:23:G:C8	23:AW:23:G:H5'	2.45	0.46
27:BA:2533:A:H2'	27:BA:2534:A:C5'	2.43	0.46
2:CB:21:ARG:O	2:CB:22:LYS:HB2	2.15	0.46
27:BA:2858:C:H2'	27:BA:2859:G:O4'	2.16	0.46
27:BA:468:G:N7	56:B7:39:ARG:NH2	2.64	0.46
1:CA:71:C:H2'	1:CA:72:C:H6	1.80	0.46
49:B0:41:ARG:N	49:B0:41:ARG:HD2	2.29	0.46
41:DS:21:THR:C	41:DS:23:ARG:N	2.68	0.46
48:BZ:107:PRO:C	48:BZ:109:GLY:N	2.67	0.46
25:AY:42:G:OP2	25:AY:42:G:H8	1.98	0.46
34:DH:132:ARG:HG2	34:DH:132:ARG:HH11	1.81	0.46
7:CG:2:ALA:HB1	7:CG:5:ARG:O	2.14	0.46
5:AE:28:PHE:N	5:AE:28:PHE:CD1	2.83	0.46
32:DF:61:GLY:O	32:DF:62:ARG:C	2.53	0.46
28:DB:11:C:H3'	28:DB:12:C:H6	1.80	0.46
35:BI:49:ALA:O	35:BI:53:ALA:N	2.46	0.46
5:AE:46:GLY:O	5:AE:54:ALA:HB1	2.16	0.46
27:BA:1523:U:O2'	27:BA:1524:G:H5'	2.15	0.46
27:BA:643:A:N7	55:B6:42:TRP:HH2	2.14	0.46
28:BB:1:U:H5	28:BB:2:C:C4	2.34	0.46
3:AC:23:TYR:HA	10:AJ:11:PHE:CE1	2.51	0.46
27:DA:1048:A:C2	27:DA:1109:C:N4	2.81	0.46
39:DQ:11:LYS:NZ	39:DQ:88:GLY:O	2.46	0.46
2:AB:223:ILE:HA	2:AB:226:ARG:HB3	1.97	0.46
27:BA:1705:G:H2'	27:BA:1706:U:O4'	2.15	0.46
27:BA:614:U:H5''	27:BA:614(A):U:OP2	2.16	0.46
1:CA:986:A:O2'	1:CA:987:G:H5'	2.15	0.46
27:DA:1021:A:C2	27:DA:1023:U:C2	3.02	0.46
27:DA:1140:C:P	36:DN:66:LYS:HZ3	2.38	0.46
27:DA:1142(A):A:C8	27:DA:1142(A):A:H5'	2.43	0.46
32:BF:38:ARG:CG	32:BF:38:ARG:HH11	2.25	0.46
1:AA:268:C:C5	1:AA:269:C:C5	3.04	0.46
32:DF:124:LEU:HG	32:DF:126:VAL:CG1	2.45	0.46
42:BT:28:VAL:CG1	42:BT:46:GLU:HA	2.45	0.46
42:BT:29:ARG:HA	42:BT:29:ARG:HD3	1.49	0.46
27:DA:1009:A:O2'	27:DA:1010:A:H5'	2.15	0.46
27:DA:992:C:C3'	27:DA:992:C:C6	2.98	0.46
27:DA:1568:G:P	30:DD:61:LEU:HB2	2.55	0.46
30:DD:63:ARG:CD	30:DD:63:ARG:N	2.79	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:93:G:C2'	27:DA:94:C:O4'	2.58	0.46
47:DY:28:LYS:CA	47:DY:39:VAL:H	2.29	0.46
54:B5:17:ASP:O	54:B5:20:ARG:HB2	2.16	0.46
1:AA:473:G:C4	1:AA:474:G:N7	2.84	0.46
41:DS:97:ARG:NH2	41:DS:99:LYS:N	2.62	0.46
11:AK:38:ASN:ND2	11:AK:38:ASN:H	2.12	0.46
27:DA:2371:G:H4'	55:D6:45:LYS:HB2	1.95	0.46
33:DG:15:VAL:HG13	33:DG:175:LEU:CD2	2.44	0.46
27:DA:302:C:H2'	27:DA:303:U:C6	2.50	0.46
1:CA:402:G:H4'	1:CA:620:C:O2	2.15	0.46
47:BY:10:GLY:HA2	47:BY:27:VAL:CG1	2.34	0.46
2:AB:69:LEU:HD22	2:AB:159:PRO:HG2	1.96	0.46
58:D9:32:HIS:O	58:D9:34:GLN:HG3	2.15	0.46
1:AA:99:U:H2'	1:AA:100:C:C6	2.49	0.46
2:AB:106:LYS:HG2	2:AB:107:THR:N	2.31	0.46
27:DA:600:G:O3'	32:DF:108:LYS:HE3	2.15	0.46
32:DF:109:GLY:HA2	32:DF:112:MET:HE3	1.98	0.46
7:AG:38:LEU:C	7:AG:40:ALA:H	2.18	0.46
1:AA:481:G:H1'	1:AA:483:C:N4	2.29	0.46
34:BH:151:ILE:O	34:BH:152:ARG:HG2	2.15	0.46
27:DA:58:G:O2'	27:DA:59:U:H5'	2.14	0.46
27:DA:691:C:H2'	27:DA:692:C:H6	1.79	0.46
1:CA:1261:A:H5'	1:CA:1283:G:O3'	2.16	0.46
27:BA:2508:G:O2'	27:BA:2509:G:H5'	2.14	0.46
48:DZ:79:ARG:O	48:DZ:81:ARG:N	2.49	0.46
35:DI:37:VAL:HG12	35:DI:38:LEU:CD1	2.34	0.46
38:BP:146:VAL:CG2	38:BP:147:LEU:H	2.02	0.46
56:D7:13:ALA:O	56:D7:14:LYS:C	2.53	0.46
35:BI:92:VAL:HG12	35:BI:120:ILE:HB	1.97	0.46
27:BA:574:C:H1'	27:BA:2055:C:C6	2.51	0.46
51:B2:3:LEU:HA	51:B2:6:VAL:HG23	1.97	0.46
5:CE:129:ILE:HD12	5:CE:129:ILE:N	2.27	0.46
25:CY:67:C:H2'	25:CY:68:C:H6	1.81	0.46
31:DE:4:ILE:CD1	31:DE:31:CYS:SG	3.04	0.46
38:DP:80:TYR:CD1	38:DP:111:ARG:HB3	2.50	0.46
27:BA:1178:C:C6	27:BA:1179:C:C5	3.04	0.46
2:AB:114:ARG:HD3	2:AB:117:GLU:OE1	2.16	0.46
1:AA:1087:G:H2'	1:AA:1088:G:H8	1.79	0.46
27:BA:906:G:H5'	39:BQ:26:TYR:HH	1.76	0.46
27:BA:906:G:O3'	39:BQ:67:ARG:NH2	2.49	0.46
3:AC:179:ARG:HD2	3:AC:207:VAL:HA	1.97	0.46
1:AA:828:A:H62	1:AA:858:G:H21	1.64	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:967:C:H2'	1:AA:968:A:N7	2.30	0.46
10:CJ:39:PRO:HB3	10:CJ:70:ARG:HE	1.79	0.46
38:DP:114:ILE:HG23	38:DP:114:ILE:O	2.15	0.46
27:BA:1303:G:H2'	27:BA:1304:C:H6	1.81	0.46
10:CJ:80:LYS:HE3	10:CJ:80:LYS:C	2.36	0.46
6:AF:33:TYR:CB	6:AF:75:LEU:HD12	2.41	0.46
28:BB:91:C:H2'	28:BB:92:C:O5'	2.15	0.46
5:AE:72:GLN:NE2	5:AE:144:THR:CG2	2.78	0.46
27:DA:1701:A:C3'	27:DA:1702:G:H5'	2.46	0.46
27:DA:1772:G:N2	27:DA:1774:C:C5'	2.76	0.46
27:DA:2673:G:O2'	27:DA:2674:G:H5'	2.16	0.46
27:BA:2144:U:H4'	27:BA:2145:C:C5	2.49	0.46
1:AA:1446:U:O2'	1:AA:1447:A:C8	2.66	0.46
1:AA:289:G:N2	1:AA:290:C:C2	2.83	0.46
53:D4:48:ILE:HG22	53:D4:50:THR:HG23	1.96	0.46
4:CD:202:LEU:HA	4:CD:205:GLU:OE2	2.16	0.46
27:BA:2628:C:H4'	27:BA:2781:A:C5	2.51	0.46
43:DU:12:ARG:HA	43:DU:15:LYS:NZ	2.31	0.46
27:DA:2027:G:C5	27:DA:2028:U:C5	3.04	0.46
40:DR:6:SER:C	40:DR:7:GLY:O	2.54	0.46
27:BA:2366:A:H3'	27:BA:2367:G:H8	1.81	0.46
27:DA:363(B):G:H2'	27:DA:363(C):G:C8	2.50	0.46
27:BA:836:G:C5	27:BA:837:C:C4	3.04	0.46
28:BB:79:C:O2'	28:BB:80:U:H5'	2.15	0.46
2:AB:75:LYS:HD3	2:AB:78:GLN:CB	2.46	0.46
1:CA:23:C:C2'	1:CA:24:U:H5'	2.45	0.46
50:B1:4:VAL:HG22	50:B1:4:VAL:O	2.15	0.46
58:D9:22:ARG:CD	58:D9:35:ARG:HD2	2.46	0.46
1:AA:44:G:H2'	1:AA:45:U:O4'	2.15	0.46
4:AD:38:TYR:HB2	4:AD:44:GLY:O	2.16	0.46
1:CA:1128:C:H1'	1:CA:1146:A:H61	1.81	0.46
27:DA:1956:U:C2'	27:DA:1957:C:H5'	2.45	0.46
27:DA:1224:C:H6	27:DA:1224:C:OP1	1.97	0.46
27:BA:245:G:C2'	27:BA:246:C:H5'	2.45	0.46
1:CA:1225:A:C5'	13:CM:103:THR:OG1	2.63	0.46
2:CB:152:PHE:O	2:CB:154:LEU:N	2.48	0.46
41:BS:20:ARG:HG2	41:BS:20:ARG:HH11	1.81	0.46
32:BF:119:ARG:C	32:BF:121:GLY:N	2.67	0.46
27:BA:2729:G:C1'	31:BE:187:ALA:HB2	2.23	0.46
27:DA:245:G:C6	27:DA:254:G:N2	2.83	0.46
43:BU:62:ILE:O	43:BU:65:ILE:N	2.48	0.46
17:AQ:66:SER:O	17:AQ:67:LYS:C	2.52	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AH:20:TYR:HD1	8:AH:65:TYR:HD2	1.63	0.46
27:DA:986:C:O2	27:DA:986:C:H2'	2.15	0.46
29:BC:41:VAL:HG23	29:BC:178:ALA:CB	2.45	0.46
27:DA:84:A:P	47:DY:9:LYS:NZ	2.89	0.46
33:BG:58:GLN:HG3	33:BG:59:GLU:N	2.30	0.46
31:DE:55:ASN:HA	31:DE:55:ASN:HD22	1.50	0.46
31:DE:59:VAL:HG21	31:DE:63:LEU:CG	2.44	0.46
31:DE:59:VAL:HG13	31:DE:60:ASN:H	1.78	0.46
31:DE:61:ARG:HB3	31:DE:62:PRO:CD	2.45	0.46
27:DA:2247:A:C4	27:DA:2248:C:C5	3.04	0.46
27:DA:675:A:OP1	32:DF:63:LYS:NZ	2.40	0.46
27:DA:984:A:O5'	27:DA:984:A:H8	1.99	0.46
31:DE:117:MET:O	31:DE:118:LYS:CB	2.59	0.46
36:BN:91:LEU:HD23	36:BN:98:VAL:HG21	1.97	0.46
27:DA:704:G:O2'	27:DA:705:A:O5'	2.30	0.46
27:DA:727:A:O2'	27:DA:728:G:O4'	2.34	0.46
27:DA:1349:A:N6	27:DA:1598:C:H42	2.12	0.46
46:DX:36:LYS:HG2	46:DX:56:THR:CG2	2.45	0.46
9:AI:53:VAL:CG2	9:AI:55:ALA:H	2.12	0.46
47:BY:27:VAL:O	47:BY:29:GLU:OE1	2.33	0.46
3:AC:154:SER:OG	3:AC:155:GLY:N	2.48	0.46
37:DO:104:ARG:CZ	37:DO:104:ARG:HB3	2.45	0.46
42:DT:62:THR:CA	42:DT:74:ARG:O	2.62	0.46
30:BD:226:MET:HB3	30:BD:230:ASP:HB3	1.97	0.46
27:BA:826:U:H5'	27:BA:827:U:P	2.55	0.46
33:DG:101:ILE:C	33:DG:101:ILE:HD13	2.36	0.46
1:AA:658:G:C6	1:AA:749:C:N4	2.84	0.46
1:CA:260:G:H2'	1:CA:261:U:C6	2.50	0.46
40:BR:79:LEU:HD23	40:BR:83:ILE:HB	1.95	0.46
27:DA:2712:U:H6	27:DA:2712(A):A:C8	2.34	0.46
27:BA:1802:A:C6	27:BA:1803:A:C6	3.03	0.46
1:CA:1049:U:H2'	1:CA:1049:U:O2	2.15	0.46
3:CC:134:ILE:HG22	3:CC:135:LYS:N	2.30	0.46
27:DA:149:A:C2'	27:DA:150:C:O5'	2.63	0.46
29:DC:37:PHE:CD1	29:DC:39:GLU:HG3	2.51	0.46
27:DA:1300:U:O2'	27:DA:1301:A:C5'	2.64	0.46
35:BI:131:LYS:CG	35:BI:132:PRO:CD	2.92	0.46
27:BA:571:A:O2'	27:BA:573:G:O5'	2.23	0.46
27:BA:2350:C:H5'	57:B8:42:ARG:HD3	1.98	0.46
40:DR:11:ASN:O	40:DR:12:ARG:CB	2.63	0.46
31:BE:145:LYS:O	31:BE:148:GLY:CA	2.62	0.46
27:DA:1246:A:P	38:DP:16:ARG:NH2	2.89	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
51:B2:5:GLU:O	51:B2:9:GLN:HB2	2.15	0.46
35:DI:66:GLU:C	35:DI:68:LEU:H	2.18	0.46
13:AM:24:GLY:O	13:AM:25:ILE:HD12	2.15	0.46
42:DT:124:ASP:C	42:DT:126:ALA:H	2.19	0.46
27:BA:196:A:OP2	38:BP:46:LYS:NZ	2.44	0.46
27:DA:2290:G:H2'	27:DA:2291:U:O4'	2.15	0.46
5:CE:70:PRO:HB3	5:CE:144:THR:HG23	1.97	0.46
27:BA:489:G:C4	27:BA:1284:A:C6	3.04	0.46
27:BA:1224:C:H6	27:BA:1224:C:OP1	1.98	0.46
27:BA:1042:G:H1	27:BA:1112:G:H22	1.63	0.46
1:CA:935:A:HO2'	1:CA:936:C:P	2.39	0.46
12:AL:22:PRO:O	12:AL:24:LEU:HD22	2.15	0.46
27:DA:2657:A:C2'	27:DA:2658:C:H5'	2.46	0.46
3:AC:175:LEU:C	3:AC:177:THR:H	2.19	0.46
2:CB:84:GLU:OE2	2:CB:216:SER:HA	2.15	0.46
2:CB:76:GLN:O	2:CB:77:ALA:CB	2.64	0.46
1:AA:953:G:O6	1:AA:1228:C:N4	2.42	0.46
27:DA:1920:C:O2'	27:DA:1921:G:H5'	2.15	0.46
50:B1:52:ARG:O	50:B1:56:GLN:O	2.33	0.46
37:DO:87:ILE:HG23	37:DO:92:GLU:N	2.30	0.46
27:DA:1590:U:C2'	27:DA:1591:G:H5''	2.40	0.46
30:DD:154:LYS:HB2	30:DD:155:LEU:HD13	1.97	0.46
1:CA:25:C:C2'	1:CA:26:A:H5'	2.45	0.46
12:AL:2:PRO:HA	12:AL:6:GLN:NE2	2.31	0.46
28:DB:24:G:H4'	28:DB:25:A:C5'	2.44	0.46
36:BN:43:THR:HG22	36:BN:45:ASN:H	1.79	0.46
49:D0:84:LEU:H	49:D0:84:LEU:HD12	1.81	0.46
27:BA:566:U:O4	44:BV:78:LYS:HE3	2.15	0.46
1:CA:725:G:H2'	1:CA:726:C:C6	2.50	0.46
1:CA:1046:A:H2'	1:CA:1047:G:O4'	2.16	0.46
18:AR:22:VAL:O	18:AR:23:LYS:C	2.54	0.46
29:DC:194:ARG:O	29:DC:196:LEU:N	2.48	0.46
2:AB:75:LYS:HE3	2:AB:78:GLN:NE2	2.31	0.46
1:AA:292:G:C5	1:AA:293:G:H1'	2.51	0.46
27:DA:845:G:O2'	27:DA:846:C:C5	2.67	0.46
2:CB:228:GLY:O	2:CB:229:VAL:C	2.53	0.46
27:BA:374:A:C2	27:BA:401:A:C4	3.04	0.46
27:BA:1468:C:C4	27:BA:1525:G:C2	3.04	0.46
41:DS:10:ARG:O	41:DS:11:LYS:C	2.54	0.46
39:DQ:37:LEU:HB2	39:DQ:128:LYS:O	2.16	0.46
1:CA:995:C:O2'	1:CA:996:A:OP2	2.27	0.46
27:DA:608:A:OP1	32:DF:100:THR:HG21	2.15	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BQ:103:MET:HB2	39:BQ:104:PHE:CD1	2.50	0.46
47:BY:74:PRO:O	47:BY:75:ILE:HB	2.15	0.46
1:CA:1273:G:H2'	1:CA:1274:G:C8	2.49	0.46
40:DR:69:ASP:OD2	40:DR:69:ASP:N	2.49	0.46
27:DA:1218:C:O2	27:DA:1218:C:H2'	2.15	0.46
10:AJ:21:GLN:O	10:AJ:21:GLN:HG2	2.15	0.46
33:BG:149:VAL:O	33:BG:149:VAL:CG2	2.64	0.46
57:B8:23:VAL:HG13	57:B8:47:LYS:O	2.16	0.46
27:BA:819:A:H2'	27:BA:820:A:O5'	2.16	0.46
1:CA:949:A:H1'	1:CA:1364:U:H3	1.80	0.46
40:BR:30:THR:OG1	40:BR:75:LEU:HD21	2.14	0.46
27:BA:2726:U:O2	27:BA:2726:U:O4'	2.30	0.46
37:BO:17:ARG:NE	37:BO:47:ILE:HD13	2.28	0.46
12:AL:42:PRO:HB3	12:AL:89:ASP:HB3	1.98	0.46
48:DZ:156:LEU:H	48:DZ:156:LEU:HD12	1.80	0.46
1:CA:542:G:H5'	4:CD:41:GLY:HA3	1.98	0.46
43:BU:96:ALA:O	43:BU:98:LEU:N	2.49	0.46
8:AH:65:TYR:HD1	8:AH:65:TYR:N	2.13	0.46
1:AA:1392:G:N2	1:AA:1502:A:C8	2.83	0.46
27:DA:560:C:H5''	43:DU:52:ARG:HH22	1.79	0.46
47:DY:95:LYS:CD	47:DY:100:ALA:HA	2.45	0.46
27:DA:96:G:N1	27:DA:97:C:C4	2.84	0.46
27:DA:906:G:C3'	27:DA:907:U:H5''	2.45	0.46
57:D8:36:LYS:O	57:D8:37:SER:C	2.54	0.46
27:DA:631:A:O2'	27:DA:632:A:H5'	2.15	0.46
27:DA:460:A:H3'	27:DA:461:C:H6	1.81	0.46
27:DA:1263:U:C4	27:DA:1264:G:C6	3.04	0.46
27:DA:2572:A:O3'	27:DA:2574:G:H5''	2.16	0.46
27:DA:675:A:C8	27:DA:804:A:C6	3.03	0.46
27:DA:942:G:H1'	27:DA:1189:A:C2	2.51	0.46
27:DA:1349:A:N3	27:DA:1349:A:H5'	2.30	0.46
27:DA:1599:C:H2'	27:DA:1600:C:C6	2.50	0.46
30:BD:31:LYS:O	30:BD:35:LYS:HB2	2.15	0.46
14:AN:32:SER:OG	14:AN:41:ARG:HG2	2.15	0.46
1:CA:399:G:C6	1:CA:400:C:C4	3.03	0.46
37:DO:71:ARG:HH12	42:DT:74:ARG:NH2	2.07	0.46
42:DT:28:VAL:HG11	42:DT:46:GLU:CG	2.46	0.46
41:DS:19:LYS:O	41:DS:19:LYS:HG2	2.15	0.46
41:DS:61:ASN:O	41:DS:62:LYS:CG	2.63	0.46
1:CA:250:A:H2	1:CA:274:A:N6	2.10	0.46
1:CA:251:G:H4'	1:CA:252:U:O5'	2.16	0.46
1:CA:274:A:O2'	1:CA:275:G:P	2.74	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:753:C:C2'	27:BA:754:C:C5'	2.93	0.46
27:BA:784:A:C5	30:BD:229:VAL:HG21	2.50	0.46
30:BD:45:ASN:CG	30:BD:46:GLN:N	2.68	0.46
31:BE:45:THR:O	31:BE:46:ALA:CB	2.64	0.46
31:BE:47:VAL:O	31:BE:80:GLU:HA	2.16	0.46
33:DG:97:ASP:O	33:DG:101:ILE:HG22	2.15	0.46
27:BA:2741:A:H2'	27:BA:2742:C:O4'	2.15	0.46
27:DA:2645:G:OP2	27:DA:2645:G:C8	2.69	0.46
1:AA:457:C:N3	1:AA:475:G:C2	2.83	0.46
20:CT:50:GLU:HA	20:CT:100:ILE:CG1	2.30	0.46
1:CA:264:U:C4	1:CA:265:G:C5	3.04	0.46
20:CT:75:ASN:O	20:CT:76:ALA:C	2.54	0.46
31:DE:9:VAL:HG13	31:DE:10:GLY:H	1.80	0.46
1:CA:715:A:H2'	1:CA:716:A:C8	2.51	0.46
1:CA:1057:G:C5	1:CA:1204:A:C2	3.03	0.46
47:BY:87:LYS:NZ	47:BY:89:PHE:CE1	2.83	0.46
47:BY:88:LYS:HB3	47:BY:90:LEU:CD1	2.46	0.46
1:CA:658:G:O2'	1:CA:659:U:H5'	2.15	0.46
27:BA:2171:A:HO2'	27:BA:2172:U:P	2.38	0.46
27:DA:957:A:H2	27:DA:2459:A:OP1	1.98	0.46
55:B6:26:ASN:CB	55:B6:32:ASN:OD1	2.63	0.46
7:AG:116:ALA:O	7:AG:120:ILE:HG12	2.15	0.46
38:DP:16:ARG:O	38:DP:18:ARG:N	2.48	0.46
27:BA:92:A:O2'	27:BA:93:G:P	2.73	0.46
52:D3:23:LEU:CA	52:D3:26:LEU:HD12	2.37	0.46
7:AG:143:ARG:O	7:AG:145:ALA:O	2.33	0.46
5:AE:80:ILE:CD1	5:AE:142:LEU:HD21	2.46	0.46
27:BA:844:C:H2'	27:BA:845:G:C8	2.50	0.46
8:CH:68:ARG:NH1	8:CH:68:ARG:CG	2.78	0.46
27:BA:628:G:H2'	27:BA:629:G:H8	1.80	0.46
3:AC:59:ARG:O	10:AJ:93:GLY:HA2	2.16	0.46
8:CH:109:ILE:CG1	8:CH:120:THR:HB	2.46	0.46
9:AI:111:ARG:HD2	14:AN:61:TRP:NE1	2.30	0.46
27:BA:489:G:C6	27:BA:491:G:C6	3.04	0.46
13:AM:84:ILE:HG22	19:AS:74:PHE:HD1	1.81	0.46
45:DW:11:ARG:NE	45:DW:11:ARG:C	2.69	0.46
45:DW:6:ILE:CG2	45:DW:8:ARG:HG3	2.45	0.46
27:BA:363(A):A:H5'	27:BA:363(B):G:P	2.56	0.46
27:DA:1205:U:H3'	27:DA:1206:G:H5'	1.98	0.46
27:DA:509:C:O2'	27:DA:510:C:C5'	2.64	0.46
12:AL:84:GLY:HA2	12:AL:95:TYR:HA	1.97	0.46
52:D3:7:LYS:HB2	52:D3:34:GLU:HG2	1.98	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:D3:8:LEU:HD22	52:D3:31:LEU:HD21	1.97	0.46
1:CA:147:G:H1	1:CA:175:C:N4	2.12	0.46
30:BD:4:LYS:HD2	30:BD:18:VAL:CG2	2.46	0.46
1:AA:1514:C:C4	1:AA:1515:C:C5	3.03	0.46
10:AJ:95:GLU:CD	10:AJ:96:ILE:N	2.67	0.46
27:BA:517:C:C2'	27:BA:518:G:H5'	2.45	0.46
4:AD:173:TRP:CE2	4:AD:189:PRO:HB3	2.50	0.46
27:DA:1628:G:H2'	27:DA:1629:U:C6	2.50	0.46
27:DA:2282:G:H5''	27:DA:2283:C:O4'	2.16	0.46
27:DA:565:C:H2'	27:DA:566:U:O4'	2.15	0.46
1:CA:46:G:H2'	1:CA:366:C:C5	2.51	0.46
27:DA:2515:C:O2'	27:DA:2516:G:H5'	2.16	0.46
27:BA:2005:A:H2'	27:BA:2006:C:H5'	1.98	0.46
48:BZ:111:ARG:NH1	48:BZ:111:ARG:HG2	2.25	0.46
29:DC:56:GLN:HE22	29:DC:173:ALA:HB1	1.81	0.46
6:CF:42:GLU:C	6:CF:44:GLY:N	2.68	0.46
25:AY:47:C:C2	25:AY:58:A:H1'	2.51	0.46
2:AB:229:VAL:HG12	2:AB:230:VAL:N	2.31	0.46
27:DA:887:A:O2'	27:DA:888:C:H5''	2.16	0.46
46:DX:31:HIS:CE1	46:DX:32:PRO:HG2	2.51	0.46
34:DH:16:SER:HB3	34:DH:18:GLU:HG3	1.98	0.46
1:CA:668:G:H2'	1:CA:669:U:H6	1.81	0.46
24:AX:25:C:C2	24:AX:26:G:C8	3.03	0.46
27:DA:284:U:O2'	27:DA:285:C:O4'	2.33	0.46
1:CA:876:G:P	8:CH:14:ARG:HH11	2.38	0.46
27:BA:1230:C:H2'	27:BA:1231:G:C8	2.51	0.46
49:B0:14:ARG:O	49:B0:15:ASP:HB2	2.14	0.46
50:D1:56:GLN:OE1	50:D1:87:PRO:HD3	2.16	0.46
1:AA:66:G:H5'	1:AA:173:U:O4	2.16	0.46
27:DA:271(Y):U:O2'	27:DA:271(Z):C:OP2	2.34	0.46
1:CA:775:G:O2'	1:CA:776:G:H5'	2.15	0.46
32:DF:179:GLU:H	32:DF:179:GLU:CD	2.19	0.46
3:CC:114:PRO:HA	3:CC:185:GLY:HA3	1.98	0.46
27:BA:1280:G:N3	27:BA:1280:G:H2'	2.30	0.46
27:BA:2882:A:OP1	40:BR:96:ARG:NE	2.48	0.46
31:BE:199:ARG:C	31:BE:200:GLU:O	2.52	0.46
47:BY:86:ARG:NH1	47:BY:95:LYS:HE2	2.31	0.46
47:BY:96:ILE:CD1	47:BY:99:CYS:HB2	2.46	0.46
38:DP:49:ARG:HD2	57:D8:58:ILE:HG21	1.96	0.46
48:DZ:156:LEU:HB3	48:DZ:160:VAL:O	2.16	0.46
4:CD:206:PHE:CE2	4:CD:207:TYR:CE2	3.03	0.46
38:BP:16:ARG:HD3	38:BP:16:ARG:C	2.36	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1330:U:O3'	13:CM:23:TYR:HE2	1.99	0.46
5:AE:132:ALA:O	5:AE:135:THR:N	2.49	0.46
27:DA:2411:A:H2'	27:DA:2412:A:H8	1.79	0.46
1:AA:255:G:O3'	17:AQ:17:LYS:NZ	2.49	0.46
42:BT:87:ASP:OD1	42:BT:87:ASP:N	2.49	0.46
27:DA:534:U:H5'	43:DU:42:ALA:CB	2.45	0.46
44:DV:2:PHE:HB3	44:DV:42:GLY:HA2	1.90	0.46
27:DA:84:A:N1	27:DA:98:G:H2'	2.30	0.46
33:BG:59:GLU:OE1	33:BG:153:ARG:NH2	2.49	0.46
33:BG:64:THR:HG23	33:BG:66:GLN:H	1.80	0.46
31:DE:32:PRO:HA	31:DE:90:THR:CA	2.46	0.46
27:DA:2393:A:H2'	27:DA:2394:C:O4'	2.15	0.46
27:DA:1260:G:O2'	27:DA:1261:C:H5'	2.16	0.46
27:DA:2552:U:N3	27:DA:2554:U:C5'	2.78	0.46
27:DA:2611:U:H3'	27:DA:2611:U:OP1	2.16	0.46
27:DA:675:A:C8	27:DA:804:A:N6	2.84	0.46
27:BA:1141:U:P	36:BN:25:ARG:NH1	2.88	0.46
36:BN:67:LEU:O	36:BN:68:GLU:CG	2.57	0.46
31:DE:92:THR:O	31:DE:95:ILE:HD13	2.15	0.46
31:DE:96:PHE:CE2	31:DE:198:VAL:HG12	2.51	0.46
30:BD:35:LYS:NZ	30:BD:102:LYS:C	2.68	0.46
30:BD:72:LYS:HD3	30:BD:75:ILE:CD1	2.41	0.46
42:DT:28:VAL:HG22	42:DT:46:GLU:HA	1.98	0.46
46:BX:64:LYS:HD3	46:BX:73:ARG:NH2	2.30	0.46
28:DB:7:G:H4'	41:DS:29:PHE:CD1	2.51	0.46
17:CQ:51:TYR:CD2	17:CQ:73:VAL:HG11	2.51	0.46
27:BA:1879:C:H2'	27:BA:1880:C:C5'	2.30	0.46
27:BA:950:G:N2	27:BA:968:G:H1'	2.31	0.46
42:DT:12:SER:O	42:DT:13:ARG:NH2	2.49	0.46
6:AF:61:LEU:HB3	6:AF:62:TRP:H	1.53	0.46
9:CI:96:LEU:HG	9:CI:102:LEU:HB2	1.98	0.46
27:BA:1799:G:H1	30:BD:178:PRO:HD2	1.79	0.46
6:AF:9:VAL:O	6:AF:86:ARG:N	2.49	0.46
14:CN:29:ARG:CG	14:CN:40:CYS:HB2	2.37	0.46
27:BA:2277:G:H5''	39:BQ:87:LYS:HB2	1.98	0.46
49:D0:56:ASP:OD2	49:D0:58:THR:OG1	2.33	0.46
58:B9:13:LYS:HD3	58:B9:28:GLU:CG	2.40	0.46
56:D7:46:VAL:CG1	56:D7:48:LYS:HZ1	2.28	0.46
48:BZ:166:PRO:O	48:BZ:167:GLU:HB2	2.15	0.46
31:DE:188:VAL:HG22	31:DE:189:PRO:CD	2.41	0.46
49:D0:45:PHE:HZ	49:D0:77:ARG:NH1	2.14	0.46
27:DA:2308:G:H2'	27:DA:2309:A:H8	1.76	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DG:83:ARG:N	33:DG:83:ARG:HD2	2.31	0.46
48:DZ:60:LEU:HD23	48:DZ:60:LEU:H	1.81	0.46
27:BA:96:G:O2'	27:BA:97:C:H5'	2.15	0.46
27:DA:848:G:H2'	27:DA:849:A:C8	2.51	0.46
13:AM:67:GLU:OE2	13:AM:68:GLY:N	2.49	0.46
1:CA:1442(B):A:H2'	1:CA:1442(B):A:N3	2.31	0.46
42:DT:50:ILE:CG2	42:DT:50:ILE:O	2.63	0.46
38:BP:85:LEU:CD2	38:BP:85:LEU:N	2.74	0.46
33:DG:115:ARG:NH1	33:DG:136:ARG:HD3	2.31	0.46
2:AB:178:ARG:HH12	2:AB:196:LEU:HB3	1.77	0.46
27:DA:2789:C:N3	27:DA:2894:G:O6	2.49	0.46
27:DA:2893:G:H5'	27:DA:2894:G:OP1	2.16	0.46
33:BG:2:PRO:HG2	53:B4:51:TYR:CG	2.49	0.46
27:DA:476:G:HO2'	27:DA:477:A:P	2.38	0.46
1:AA:203:U:H1'	1:AA:216:G:N1	2.30	0.46
27:BA:1365:A:N6	27:BA:1366:A:C6	2.84	0.46
32:DF:130:ALA:O	32:DF:132:VAL:N	2.48	0.46
27:BA:158:U:O3'	27:BA:171:G:C8	2.62	0.46
39:DQ:20:ALA:O	39:DQ:98:LYS:CB	2.59	0.46
36:DN:68:GLU:OE1	36:DN:68:GLU:HA	2.15	0.46
1:AA:1301:U:H3'	1:AA:1302:U:H5''	1.98	0.46
13:AM:13:LYS:O	13:AM:44:ARG:HA	2.15	0.46
3:AC:64:VAL:O	3:AC:66:VAL:HG23	2.16	0.46
16:CP:4:ILE:HB	16:CP:66:PRO:HG3	1.97	0.46
27:BA:293:U:O2	27:BA:348:G:C2	2.69	0.46
1:AA:184:G:O4'	1:AA:224:C:H4'	2.16	0.46
42:DT:16:ARG:NH1	42:DT:16:ARG:HG3	2.30	0.46
1:CA:945:G:N1	1:CA:1337:G:C2	2.84	0.46
30:BD:134:ARG:HG2	30:BD:135:PHE:N	2.31	0.46
4:CD:23:GLY:C	4:CD:24:GLU:HG2	2.36	0.46
1:AA:9:G:OP2	5:AE:121:LYS:NZ	2.48	0.46
1:CA:117:G:O2'	1:CA:118:U:H5'	2.16	0.46
27:BA:2642:G:C2	27:BA:2773:C:C2	3.04	0.46
27:BA:1710:C:O2	27:BA:1749:A:C2	2.69	0.46
25:CY:30:A:C2'	25:CY:31:U:H5'	2.46	0.46
39:BQ:39:PRO:HD3	39:BQ:99:PRO:HG2	1.98	0.46
39:DQ:110:THR:O	39:DQ:113:GLN:HB2	2.16	0.46
8:CH:21:LYS:O	8:CH:22:GLU:C	2.53	0.46
50:D1:90:ILE:H	50:D1:90:ILE:HG13	1.46	0.46
27:BA:911:A:N6	39:BQ:9:TYR:HB3	2.30	0.46
34:BH:28:GLY:O	34:BH:30:LYS:N	2.37	0.46
28:BB:35:U:O4	28:BB:50:G:H1'	2.16	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BH:103:LEU:HG	34:BH:104:GLU:N	2.31	0.46
9:CI:27:THR:HA	9:CI:31:GLN:O	2.15	0.46
24:CX:71:C:H2'	24:CX:72:A:O4'	2.16	0.46
27:DA:377:C:H2'	27:DA:378:C:C6	2.46	0.46
48:BZ:172:ALA:O	48:BZ:173:VAL:CG2	2.63	0.46
27:BA:565:C:O2'	27:BA:566:U:H5'	2.16	0.46
27:BA:2839:G:C4	27:BA:2840:C:C5	3.03	0.46
27:BA:1385:G:O2'	27:BA:1386:C:C6	2.68	0.46
55:D6:22:ALA:O	55:D6:23:THR:HG23	2.16	0.46
1:AA:756:C:H2'	1:AA:757:U:C6	2.51	0.46
40:DR:58:GLY:HA2	40:DR:80:PHE:CE1	2.51	0.46
27:BA:2371:G:H4'	55:B6:45:LYS:HB2	1.98	0.46
49:D0:32:ARG:H	49:D0:35:ASN:CG	2.19	0.46
27:BA:2375:G:N2	27:BA:2378:A:OP2	2.46	0.46
1:CA:22:G:O2'	1:CA:23:C:H5'	2.16	0.46
1:AA:671:G:O2'	1:AA:672:U:H5'	2.15	0.46
27:BA:2767:C:H2'	27:BA:2768:C:H6	1.80	0.46
27:BA:1300:U:O2'	27:BA:1301:A:H5'	2.16	0.46
27:DA:2818:G:OP2	40:DR:42:LYS:NZ	2.37	0.46
27:DA:610:G:N2	27:DA:619:G:H1'	2.31	0.46
5:CE:6:PHE:H	5:CE:6:PHE:HD1	1.61	0.46
49:D0:37:LEU:HG	49:D0:60:PHE:HA	1.98	0.46
1:CA:139:G:O2'	1:CA:140:A:H5'	2.16	0.46
57:B8:6:THR:CG2	57:B8:63:PRO:HD3	2.46	0.46
27:BA:819:A:C4	27:BA:1189:A:C2	3.04	0.46
1:CA:1321:C:H5''	1:CA:1322:C:C5'	2.31	0.46
27:BA:1281:G:C6	27:BA:1282:U:C4	3.03	0.46
27:BA:2817:G:O2'	27:BA:2836:U:O2	2.22	0.46
40:BR:48:VAL:O	40:BR:49:ASP:C	2.55	0.46
40:BR:98:LEU:HD12	40:BR:113:LEU:CD2	2.33	0.46
28:BB:40:U:N3	28:BB:43:C:C5'	2.63	0.46
12:AL:44:LYS:CB	12:AL:45:PRO:CD	2.81	0.46
57:D8:61:LEU:O	57:D8:62:LEU:C	2.54	0.46
1:AA:129:U:H4'	1:AA:130:A:OP1	2.16	0.46
1:AA:265:G:N2	1:AA:267:C:H5'	2.31	0.46
42:BT:89:VAL:CG1	42:BT:91:ARG:NE	2.79	0.46
44:DV:61:VAL:HA	44:DV:94:LEU:CD2	2.38	0.46
30:DD:63:ARG:N	30:DD:63:ARG:HD3	2.30	0.46
30:BD:26:LYS:HZ1	30:BD:82:ILE:H	1.52	0.46
27:DA:85:G:H1	27:DA:97:C:H42	1.63	0.46
27:DA:865:C:C4'	27:DA:866:A:OP1	2.57	0.46
7:CG:41:ARG:O	7:CG:42:ILE:C	2.54	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:D0:20:ARG:HH11	49:D0:20:ARG:HG3	1.69	0.46
38:DP:85:LEU:HD23	38:DP:115:LEU:O	2.15	0.46
27:DA:459:U:H4'	56:D7:40:TRP:CH2	2.50	0.46
27:DA:574:C:O3'	27:DA:2055:C:H5	1.99	0.46
27:DA:2507:C:H4'	27:DA:2573:C:N4	2.30	0.46
27:DA:588:U:H2'	27:DA:589:C:C6	2.51	0.46
31:DE:2:LYS:O	31:DE:199:ARG:CA	2.63	0.46
31:DE:37:ARG:HB2	31:DE:46:ALA:HB3	1.97	0.46
27:DA:330:A:O2'	27:DA:331:A:C8	2.57	0.46
9:AI:96:LEU:CG	9:AI:102:LEU:HB2	2.46	0.46
47:BY:28:LYS:C	47:BY:38:ILE:HB	2.34	0.46
1:AA:1360:A:C2'	1:AA:1361:G:H5'	2.45	0.46
48:BZ:79:ARG:O	48:BZ:80:ARG:C	2.53	0.46
16:AP:24:ALA:O	16:AP:26:ARG:N	2.48	0.46
17:CQ:10:VAL:HG11	17:CQ:19:VAL:HB	1.98	0.46
27:BA:2587:A:C2'	27:BA:2588:G:H5'	2.43	0.46
1:AA:1073:U:H3	1:AA:1102:A:N6	2.13	0.46
7:AG:50:ILE:O	7:AG:54:THR:O	2.33	0.46
1:AA:747:C:H2'	1:AA:748:C:O5'	2.15	0.46
27:BA:1314:C:H42	27:BA:1338:G:H1	1.63	0.46
1:CA:230:G:H2'	1:CA:231:G:O4'	2.16	0.46
42:DT:8:LYS:CA	42:DT:11:GLU:OE2	2.64	0.46
30:DD:44:ASN:OD1	30:DD:44:ASN:N	2.49	0.46
4:CD:150:GLU:HA	4:CD:153:ARG:HD2	1.97	0.46
27:DA:118:A:H1'	27:DA:178:G:O4'	2.16	0.46
30:BD:182:LEU:H	30:BD:272:ALA:CB	2.25	0.46
30:BD:182:LEU:HB3	30:BD:271:ILE:HG13	1.97	0.46
1:CA:522:C:H41	12:CL:50:ARG:HH22	1.62	0.46
38:BP:79:ARG:NH2	38:BP:109:GLY:HA3	2.31	0.46
35:BI:114:LEU:O	35:BI:115:ALA:CB	2.63	0.46
27:DA:1650:G:C4	27:DA:1651:G:C8	3.04	0.46
35:BI:5:LEU:HD22	35:BI:13:GLY:CA	2.33	0.46
1:AA:1157:A:O4'	1:AA:1158:C:O2	2.34	0.46
27:BA:2862:G:C5	27:BA:2863:C:C5	3.04	0.46
27:DA:311:A:O2'	27:DA:332:A:C5'	2.63	0.46
1:AA:498:U:O2'	1:AA:499:A:O5'	2.30	0.46
38:DP:18:ARG:HH11	38:DP:18:ARG:HB3	1.77	0.46
27:DA:1697:G:H4'	27:DA:1978:A:H5''	1.98	0.46
52:D3:11:SER:OG	52:D3:13:ILE:HD12	2.16	0.46
27:DA:136:G:H2'	27:DA:137:C:H6	1.80	0.46
30:BD:10:THR:C	30:BD:11:PRO:O	2.54	0.46
34:BH:10:PRO:O	34:BH:10:PRO:CG	2.63	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:741:G:OP1	15:AO:35:ARG:NH2	2.49	0.46
27:DA:2807:G:H2'	27:DA:2808:U:H5''	1.96	0.46
27:DA:1648:C:N3	27:DA:2010:G:C2	2.84	0.46
45:DW:19:LEU:O	45:DW:23:LEU:HD13	2.16	0.46
45:DW:57:ASN:HD22	45:DW:57:ASN:HA	1.50	0.46
24:AX:74:C:O2'	24:AX:75:C:H5'	2.16	0.46
1:CA:738:C:H2'	1:CA:739:C:H6	1.80	0.46
32:DF:132:VAL:CG1	32:DF:133:ASN:N	2.72	0.46
1:CA:812:C:OP1	1:CA:903:G:H1'	2.15	0.46
3:CC:23:TYR:HB2	10:CJ:10:GLY:HA2	1.98	0.46
39:DQ:10:ARG:CG	39:DQ:10:ARG:NH1	2.75	0.46
27:BA:1741:A:O2'	27:BA:1742:G:P	2.73	0.46
6:AF:16:GLN:HE21	6:AF:16:GLN:H	1.59	0.46
13:CM:90:LEU:O	13:CM:91:ARG:HG2	2.16	0.46
50:B1:53:VAL:HG12	50:B1:54:ALA:N	2.31	0.46
1:AA:595:G:C6	1:AA:641:U:H2'	2.50	0.46
4:AD:123:HIS:O	4:AD:125:HIS:N	2.49	0.46
1:CA:107:G:OP1	1:CA:325:A:N6	2.49	0.46
27:DA:1297:C:OP1	27:DA:2710:C:H4'	2.15	0.46
27:BA:706:A:C8	27:BA:707:G:C8	3.04	0.46
13:CM:47:ASP:O	13:CM:48:LEU:CB	2.61	0.46
27:BA:271(K):U:H3'	27:BA:271(L):U:H5'	1.97	0.46
27:BA:2023:G:C5'	27:BA:2617:C:H4'	2.42	0.46
27:DA:2523:G:H1'	27:DA:2764:A:O2'	2.15	0.46
27:BA:2203:U:O2'	27:BA:2205:C:H5'	2.15	0.46
27:DA:2241:A:H2'	27:DA:2242:G:C8	2.51	0.46
1:CA:1419:G:N3	1:CA:1420:C:C6	2.84	0.46
40:DR:86:ARG:HB3	40:DR:118:GLU:OE2	2.15	0.46
42:DT:114:LEU:O	42:DT:115:ARG:O	2.34	0.46
30:BD:261:LYS:CE	30:BD:263:ARG:NH2	2.78	0.46
14:AN:37:PHE:CE1	14:AN:53:LEU:HD13	2.51	0.46
27:DA:1247:A:O2'	27:DA:1248:G:C5'	2.64	0.46
27:DA:719:C:O2'	27:DA:720:C:H5'	2.16	0.46
27:BA:1594:G:H5'	27:BA:1595:G:OP2	2.16	0.46
1:CA:447:G:H2'	1:CA:485:G:N2	2.31	0.46
27:DA:701:G:H4'	27:DA:1631(A):A:H2	1.81	0.46
34:DH:27:LYS:HG2	34:DH:32:GLU:CB	2.46	0.46
30:DD:45:ASN:ND2	30:DD:50:THR:CG2	2.78	0.46
2:AB:78:GLN:HG2	2:AB:94:ASN:HB3	1.98	0.46
1:AA:293:G:C5	1:AA:305:G:N2	2.84	0.46
48:BZ:43:PHE:O	48:BZ:46:VAL:HB	2.16	0.46
27:BA:211:A:H2'	27:BA:212:G:H8	1.80	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:D3:43:ILE:O	52:D3:44:ARG:C	2.54	0.46
1:AA:1104:G:H4'	2:AB:111:ARG:HD2	1.97	0.46
27:DA:186:G:H2'	27:DA:187:G:H8	1.80	0.46
27:DA:567:A:C2'	27:DA:568:U:O5'	2.64	0.46
1:AA:950:U:H2'	1:AA:951:G:H8	1.81	0.46
27:DA:284:U:O2'	27:DA:285:C:C5'	2.63	0.46
34:DH:74:ASN:HD22	34:DH:74:ASN:H	1.62	0.46
52:D3:19:GLN:NE2	52:D3:52:HIS:HE1	2.13	0.46
44:DV:27:ALA:O	44:DV:28:GLU:C	2.54	0.46
27:DA:2439:A:H8	27:DA:2439:A:C5'	2.29	0.46
39:DQ:60:ARG:HG2	48:DZ:176:PRO:HB2	1.98	0.46
27:BA:766:C:C4	27:BA:767:U:C4	3.04	0.46
28:BB:107:G:O2'	28:BB:108:U:H5'	2.15	0.46
27:DA:2208:A:H1'	27:DA:2219:G:C5	2.50	0.46
1:AA:689:C:H2'	1:AA:690:G:C8	2.51	0.46
27:DA:2260:C:H6	27:DA:2260:C:O5'	1.98	0.46
1:CA:800:G:O5'	1:CA:800:G:H8	1.98	0.46
40:DR:47:PHE:O	40:DR:47:PHE:CD2	2.68	0.46
16:AP:53:VAL:O	16:AP:54:GLU:C	2.53	0.46
30:BD:173:VAL:O	30:BD:184:LYS:HA	2.16	0.46
27:BA:252:G:OP2	38:BP:50:ARG:NH1	2.48	0.46
1:CA:972:C:H4'	10:CJ:57:LYS:HG3	1.96	0.46
41:BS:97:ARG:NE	41:BS:98:VAL:N	2.58	0.46
47:BY:6:HIS:HB2	47:BY:7:VAL:H	1.54	0.46
57:D8:61:LEU:HD12	57:D8:62:LEU:H	1.79	0.46
57:D8:51:ALA:HA	57:D8:54:GLU:OE2	2.15	0.46
27:BA:34:C:HO2'	27:BA:35:G:H5'	1.78	0.46
53:B4:44:CYS:HB2	53:B4:64:LYS:HD2	1.97	0.46
27:BA:674:G:H1'	32:BF:74:ARG:HD3	1.98	0.46
1:AA:916:G:C2	1:AA:917:G:C8	3.04	0.46
44:BV:19:LYS:NZ	44:BV:20:LEU:HB2	2.31	0.46
27:DA:1893:C:H2'	27:DA:1894:C:H6	1.81	0.46
44:DV:38:LEU:CD1	44:DV:55:ALA:HB1	2.46	0.46
28:BB:28:C:H2'	28:BB:29:A:O4'	2.16	0.46
27:DA:1419:A:H2'	27:DA:1421:G:C5	2.51	0.46
42:BT:35:LYS:C	42:BT:37:GLY:N	2.69	0.46
28:DB:87:G:H1	28:DB:91:C:N4	2.13	0.46
27:BA:310:A:C4	27:BA:312:G:C8	3.04	0.46
27:DA:1674:G:H5'	27:DA:1675:C:OP1	2.16	0.46
27:DA:2582:G:H2'	27:DA:2583:G:O4'	2.15	0.46
34:BH:8:PRO:HD3	34:BH:65:HIS:HE1	1.81	0.46
1:CA:197:A:N6	1:CA:221:C:C5'	2.75	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:CT:14:LYS:CB	20:CT:17:ARG:HH21	2.16	0.46
9:AI:48:GLU:HB2	9:AI:78:LYS:HZ1	1.80	0.46
2:AB:53:ARG:NH2	2:AB:199:TYR:CE2	2.84	0.46
37:DO:36:GLY:HA2	37:DO:106:LEU:CD2	2.46	0.46
58:D9:17:ILE:HG22	58:D9:19:ARG:H	1.80	0.46
34:DH:135:GLY:HA3	34:DH:141:VAL:CG2	2.46	0.46
1:AA:230:G:H5'	16:AP:23:ASP:OD2	2.16	0.46
41:DS:27:SER:HA	41:DS:88:ASP:HB3	1.98	0.46
41:DS:69:VAL:O	41:DS:72:ALA:N	2.49	0.46
27:BA:1806:C:O2'	27:BA:1807:G:H5'	2.15	0.46
1:CA:563:A:HO2'	1:CA:567:G:H8	1.61	0.46
2:AB:141:GLU:O	2:AB:145:LEU:HB2	2.16	0.46
32:DF:187:VAL:CB	38:DP:7:ARG:NH2	2.77	0.46
33:DG:59:GLU:O	33:DG:62:LEU:HB2	2.16	0.46
33:DG:5:VAL:CG2	33:DG:8:LYS:HG3	2.35	0.46
1:CA:836:G:H2'	1:CA:837:G:C8	2.51	0.46
27:BA:1603:A:H3'	27:BA:1604:C:H6	1.80	0.46
42:DT:2:ASN:O	42:DT:3:ARG:CD	2.63	0.46
6:AF:62:TRP:CD1	18:AR:35:ARG:CZ	2.99	0.46
6:CF:38:GLU:O	6:CF:39:LYS:CB	2.49	0.46
30:BD:271:ILE:O	30:BD:272:ALA:HB2	2.16	0.46
30:BD:182:LEU:N	30:BD:272:ALA:HB3	2.27	0.46
1:CA:718:G:H21	18:CR:49:LYS:HZ2	1.60	0.46
1:CA:1059:C:O2'	1:CA:1060:C:H5'	2.16	0.46
34:DH:13:LYS:CA	34:DH:13:LYS:HE2	2.39	0.46
1:CA:694:A:H2'	1:CA:695:A:O4'	2.15	0.46
39:DQ:29:PHE:O	39:DQ:30:GLY:O	2.34	0.46
38:BP:105:LEU:O	38:BP:106:LEU:CB	2.62	0.46
27:BA:2129:C:N3	27:BA:2160:G:C6	2.84	0.46
48:BZ:150:HIS:O	48:BZ:151:ALA:O	2.34	0.46
40:DR:18:LEU:HD11	40:DR:22:ARG:NH1	2.30	0.46
27:BA:139:G:C4	27:BA:140:G:N7	2.84	0.46
27:BA:807:U:O2'	27:BA:808:G:C5'	2.52	0.46
27:BA:2863:C:O2	27:BA:2863:C:H2'	2.15	0.46
27:BA:2310:A:H62	33:BG:75:LYS:NZ	2.14	0.46
27:BA:93:G:H2'	27:BA:94:C:C6	2.51	0.46
34:DH:126:PRO:O	34:DH:127:GLU:CB	2.54	0.46
27:BA:2358:G:H21	57:B8:52:LYS:HE2	1.80	0.46
13:AM:83:ASP:O	13:AM:85:GLY:N	2.48	0.46
27:BA:845:G:O2'	27:BA:846:C:C6	2.66	0.46
27:DA:2884:U:H2'	27:DA:2885:C:C5'	2.42	0.46
1:AA:578:C:O2'	1:AA:579:G:P	2.74	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2791:C:H1'	27:DA:2792:G:C8	2.51	0.46
33:BG:21:ARG:CD	33:BG:21:ARG:C	2.84	0.46
1:AA:1118:C:H5'	1:AA:1118:C:H6	1.81	0.46
13:CM:88:ARG:HG3	13:CM:98:VAL:CG1	2.46	0.46
1:CA:1336:C:H4'	1:CA:1337:G:C4	2.51	0.46
3:CC:150:LYS:HD3	3:CC:201:TYR:CD1	2.40	0.46
43:BU:12:ARG:O	43:BU:13:LYS:C	2.54	0.46
36:BN:32:THR:O	36:BN:35:ARG:O	2.34	0.46
11:CK:60:ALA:O	11:CK:63:LEU:N	2.49	0.46
27:BA:271(I):G:H2'	27:BA:271(J):C:C1'	2.46	0.46
50:B1:64:ALA:HA	50:B1:67:ILE:HD12	1.97	0.46
42:DT:129:ARG:HD2	42:DT:131:ALA:CB	2.46	0.46
28:DB:25:A:H5'	28:DB:25:A:C8	2.51	0.46
28:DB:25:A:C3'	28:DB:26:A:H5''	2.46	0.46
4:CD:155:LEU:HB2	4:CD:158:ILE:HG12	1.98	0.46
49:B0:56:ASP:O	49:B0:57:PHE:CB	2.62	0.46
27:DA:2235:G:N2	27:DA:2236:C:C2	2.84	0.46
8:CH:89:PRO:HA	8:CH:92:ARG:NH1	2.31	0.46
27:BA:1827:C:N4	27:BA:1828:G:C6	2.84	0.46
24:CX:59:A:H2'	24:CX:60:U:H5'	1.98	0.46
51:D2:65:ASN:HB3	51:D2:69:ARG:HH22	1.81	0.46
1:AA:1200:C:O2'	1:AA:1201:A:P	2.74	0.46
2:AB:236:TYR:HD1	2:AB:236:TYR:N	2.13	0.46
13:CM:29:ARG:HB3	13:CM:64:TRP:CH2	2.51	0.46
34:BH:38:SER:C	34:BH:40:GLU:N	2.69	0.46
1:AA:1494:G:H2'	1:AA:1494:G:N3	2.31	0.46
27:DA:1558:A:H4'	27:DA:1559:G:O5'	2.15	0.46
45:BW:57:ASN:ND2	45:BW:57:ASN:N	2.63	0.46
27:BA:2010:G:C5'	45:BW:42:ARG:HB2	2.46	0.46
28:BB:70:C:H2'	28:BB:71:C:H6	1.81	0.46
30:BD:248:SER:O	30:BD:250:TRP:N	2.49	0.46
1:CA:760:G:H3'	1:CA:761:G:H8	1.81	0.46
7:CG:153:HIS:N	7:CG:153:HIS:ND1	2.64	0.46
34:BH:26:VAL:O	34:BH:26:VAL:HG12	2.16	0.46
27:DA:1882:C:H2'	27:DA:1882:C:O2	2.15	0.46
23:CW:16:C:O5'	23:CW:16:C:H6	1.98	0.46
27:BA:2453:A:H2'	27:BA:2454:G:C8	2.51	0.46
38:BP:114:ILE:O	38:BP:115:LEU:HB3	2.16	0.46
38:BP:59:LEU:CA	38:BP:61:ARG:NH1	2.70	0.46
1:CA:1232:U:C4	1:CA:1233:G:N7	2.84	0.46
12:CL:43:LYS:HD3	12:CL:44:LYS:HG2	1.98	0.46
48:DZ:149:LEU:N	48:DZ:149:LEU:HD13	2.31	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:996:A:O2'	27:BA:997:G:O5'	2.32	0.46
44:BV:39:LEU:CA	44:BV:47:VAL:HG11	2.45	0.46
32:DF:20:LEU:HB3	32:DF:23:ASP:OD2	2.16	0.46
32:DF:8:GLN:NE2	32:DF:9:ILE:HG13	2.31	0.46
8:AH:65:TYR:HA	8:AH:79:VAL:HG23	1.97	0.46
47:DY:96:ILE:CD1	47:DY:99:CYS:HB2	2.46	0.46
27:DA:84:A:N1	27:DA:98:G:O2'	2.41	0.46
47:DY:7:VAL:HG21	47:DY:8:LYS:HZ3	1.81	0.46
27:DA:2248:C:H5''	27:DA:2249:U:OP2	2.15	0.46
27:DA:631:A:H2	27:DA:2403:C:O2	1.99	0.46
27:DA:969:U:P	52:D3:17:LYS:NZ	2.89	0.46
27:DA:674:G:H1'	32:DF:74:ARG:HD3	1.97	0.46
55:B6:41:PRO:HD2	55:B6:46:HIS:N	2.30	0.46
30:BD:31:LYS:NZ	30:BD:102:LYS:HZ3	2.14	0.46
51:D2:4:SER:O	51:D2:7:ARG:HG3	2.16	0.46
30:BD:186:HIS:CD2	30:BD:188:GLU:CG	2.99	0.46
19:AS:47:HIS:O	19:AS:62:ILE:HG21	2.15	0.46
41:DS:30:ARG:NH1	41:DS:34:HIS:O	2.49	0.46
17:CQ:12:SER:HB3	17:CQ:20:THR:CB	2.46	0.46
56:B7:8:ASN:HD22	56:B7:9:ARG:N	2.10	0.46
30:BD:218:ARG:HB3	30:BD:219:PRO:HD2	1.98	0.46
2:CB:187:LEU:C	2:CB:187:LEU:HD22	2.36	0.46
27:BA:828:U:H4'	27:BA:831:G:H1	1.79	0.46
27:BA:745:G:O2'	27:BA:750:A:N6	2.49	0.46
15:AO:74:ASP:OD2	15:AO:77:ARG:N	2.32	0.46
37:BO:4:PRO:O	37:BO:5:GLN:HB2	2.16	0.46
9:CI:8:GLY:O	9:CI:14:VAL:HA	2.16	0.46
27:DA:52:A:C5	27:DA:118:A:C2	3.04	0.46
12:AL:73:ASN:O	12:AL:74:LEU:C	2.54	0.46
1:CA:1049:U:O2'	1:CA:1050:G:P	2.74	0.46
1:CA:1054:C:C5	1:CA:1196:U:H2'	2.50	0.46
27:BA:2844:G:C2'	27:BA:2845:G:H5'	2.46	0.46
27:BA:2848:G:H1'	27:BA:2868:A:N6	2.30	0.46
1:CA:781:A:H4'	1:CA:1522:U:O2'	2.16	0.46
27:BA:2646:C:H2'	27:BA:2647:U:H6	1.80	0.46
1:AA:494:U:C6	1:AA:494:U:O5'	2.69	0.46
36:BN:134:ARG:O	36:BN:135:PRO:C	2.53	0.46
27:BA:1416:G:HO2'	27:BA:1417:C:H6	1.60	0.46
27:DA:1482:G:H22	27:DA:1507:A:H1'	1.80	0.46
35:BI:38:LEU:N	35:BI:38:LEU:HD12	2.17	0.46
27:BA:2692:C:H2'	27:BA:2693:A:H8	1.81	0.46
1:AA:741:G:O2'	1:AA:742:G:H5'	2.16	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:601:C:C2	1:CA:602:A:C8	3.04	0.46
27:BA:271(O):C:HO2'	27:BA:271(P):C:H5	1.61	0.46
38:DP:110:TYR:HE2	38:DP:111:ARG:HH21	1.64	0.46
48:BZ:47:PHE:CD1	48:BZ:51:SER:HA	2.51	0.46
12:CL:4:ILE:O	12:CL:7:LEU:N	2.49	0.46
27:DA:1718:G:O2'	27:DA:1719:G:H5'	2.15	0.46
27:DA:2189:U:H2'	27:DA:2189:U:O2	2.16	0.46
45:DW:10:VAL:O	45:DW:11:ARG:CB	2.63	0.46
45:DW:65:LEU:HD13	45:DW:68:ARG:CG	2.46	0.46
27:DA:30:G:H4'	27:DA:1215:G:H5'	1.98	0.46
1:CA:1126:U:C2'	1:CA:1127:G:O5'	2.64	0.46
27:BA:70:G:H2'	27:BA:113:G:O2'	2.15	0.46
1:AA:1183:A:H3'	1:AA:1184:G:H5''	1.98	0.46
1:CA:578:C:O2'	1:CA:579:G:H5'	2.16	0.46
25:CY:38:U:O2	25:CY:38:U:C3'	2.64	0.46
13:AM:96:LEU:HD21	13:AM:111:LYS:HD2	1.98	0.46
35:DI:58:LEU:C	35:DI:60:GLU:N	2.70	0.46
27:BA:340:A:H2'	27:BA:341:G:O5'	2.16	0.46
11:CK:17:GLY:O	11:CK:80:VAL:HA	2.16	0.46
30:BD:132:PRO:HD3	30:BD:190:TYR:CE2	2.51	0.46
27:BA:1322:A:C5	27:BA:1323:U:C5	3.04	0.46
27:DA:620:G:C4'	27:DA:621:A:OP1	2.63	0.46
27:DA:878:A:N6	27:DA:899:A:O2'	2.48	0.46
1:CA:1030(A):G:H3'	1:CA:1030(B):C:C5'	2.46	0.46
7:AG:18:TYR:O	7:AG:19:GLY:C	2.54	0.46
39:DQ:61:GLY:O	39:DQ:62:GLY:O	2.34	0.46
39:DQ:61:GLY:O	39:DQ:62:GLY:C	2.54	0.46
31:BE:120:TRP:CD1	31:BE:155:LYS:HB3	2.51	0.46
30:DD:264:LYS:HA	30:DD:265:PRO:HD3	1.79	0.46
1:CA:134:A:C6	1:CA:135:C:N3	2.84	0.46
27:BA:1632:A:C6	27:BA:1633:G:C6	3.04	0.46
43:DU:60:LEU:HA	43:DU:63:VAL:HG23	1.98	0.46
36:BN:43:THR:HB	36:BN:46:VAL:HG12	1.97	0.46
27:BA:782:A:H4'	27:BA:783:A:O5'	2.17	0.46
20:CT:16:HIS:O	20:CT:19:SER:HB3	2.15	0.46
32:DF:99:TYR:CD2	32:DF:99:TYR:C	2.90	0.46
44:DV:35:LEU:HB2	44:DV:57:VAL:HG13	1.98	0.46
27:BA:2448:A:OP1	27:BA:2499:C:OP1	2.34	0.46
24:CX:38:A:H2'	24:CX:39:C:H6	1.80	0.46
27:BA:1698:A:O4'	27:BA:1700:A:C4'	2.64	0.46
6:CF:17:SER:O	6:CF:21:LEU:HD23	2.16	0.46
38:DP:140:ALA:O	38:DP:141:ALA:CB	2.64	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:AG:11:GLN:O	7:AG:12:LEU:HG	2.15	0.46
1:CA:1466:C:C2'	1:CA:1467:G:H5'	2.45	0.46
27:BA:893:C:H2'	27:BA:894:C:O4'	2.15	0.46
30:DD:45:ASN:CG	30:DD:46:GLN:H	2.19	0.46
27:BA:2367:G:H2'	27:BA:2368:C:H6	1.81	0.46
27:DA:1170:G:N2	27:DA:1180:C:C4	2.83	0.46
27:DA:483:A:H1'	47:DY:60:PHE:CZ	2.51	0.46
49:B0:50:ASN:HB2	49:B0:81:VAL:HB	1.98	0.46
4:AD:166:LYS:HD3	4:AD:179:GLU:OE2	2.16	0.46
27:BA:299:A:C5	27:BA:322:A:C2	3.04	0.46
1:CA:947:G:H4'	13:CM:109:THR:OG1	2.16	0.46
27:BA:2176:A:H2'	27:BA:2177:C:C6	2.51	0.46
27:BA:636:G:P	38:BP:131:SER:HB2	2.55	0.45
27:BA:940:G:N2	27:BA:941:A:C4	2.84	0.45
1:CA:971:G:N2	1:CA:1363(A):A:OP2	2.38	0.45
40:BR:19:ALA:O	40:BR:23:ASN:ND2	2.49	0.45
41:BS:97:ARG:CZ	41:BS:98:VAL:HA	2.38	0.45
32:BF:192:LEU:HD21	32:BF:194:MET:HG2	1.99	0.45
1:CA:460:G:C8	1:CA:460:G:O5'	2.69	0.45
42:BT:82:LEU:N	42:BT:82:LEU:HD12	2.31	0.45
1:AA:920:U:H1'	1:AA:1080:A:N3	2.31	0.45
44:DV:16:PRO:O	44:DV:96:ILE:HB	2.17	0.45
28:BB:29:A:H2'	28:BB:30:C:H6	1.80	0.45
41:BS:74:ALA:O	41:BS:77:ALA:HB3	2.16	0.45
30:DD:190:TYR:O	30:DD:191:ALA:HB2	2.16	0.45
30:DD:69:ARG:HG2	30:DD:69:ARG:O	2.16	0.45
27:DA:2266:A:H5''	27:DA:2267:A:O5'	2.16	0.45
27:DA:2056:G:H1	54:D5:4:HIS:HD2	1.64	0.45
31:DE:116:VAL:CG2	31:DE:122:PHE:CG	2.98	0.45
45:DW:92:ARG:NH1	45:DW:94:ASP:OD2	2.49	0.45
1:AA:172:A:N7	1:AA:174:C:C4	2.84	0.45
27:BA:2484:G:O2'	39:BQ:124:LYS:O	2.34	0.45
2:AB:57:PHE:CE2	2:AB:185:ILE:HD11	2.50	0.45
37:DO:116:SER:C	37:DO:118:ALA:H	2.17	0.45
34:DH:119:GLU:O	34:DH:140:LYS:NZ	2.47	0.45
41:DS:14:VAL:HG12	41:DS:15:ARG:N	2.31	0.45
41:DS:34:HIS:ND1	41:DS:54:LEU:HB2	2.29	0.45
27:BA:1310:G:C2	27:BA:1313:U:O4	2.69	0.45
27:BA:1782:C:C4	27:BA:2587:A:C2	3.04	0.45
27:BA:1783:A:N1	27:BA:2587:A:C4	2.84	0.45
27:BA:2439:A:C5'	27:BA:2439:A:H8	2.24	0.45
27:BA:792:G:O2'	27:BA:2440:C:N3	2.42	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BD:201:HIS:C	30:BD:201:HIS:ND1	2.68	0.45
27:DA:18:C:O2'	43:DU:23:GLY:HA2	2.16	0.45
39:BQ:16:ARG:C	39:BQ:17:LEU:HD23	2.36	0.45
33:DG:99:MET:O	33:DG:103:LEU:HD12	2.16	0.45
20:CT:80:ARG:O	20:CT:84:LEU:N	2.49	0.45
31:DE:9:VAL:HG22	42:DT:8:LYS:HD2	1.98	0.45
27:DA:1410:G:H2'	27:DA:1411:C:C5	2.47	0.45
1:CA:965:A:H5''	1:CA:966:G:OP1	2.15	0.45
1:CA:144:G:N2	1:CA:178:C:O2	2.49	0.45
1:CA:1162:C:H2'	1:CA:1163:C:C6	2.51	0.45
4:AD:17:VAL:CG1	4:AD:197:PRO:HG3	2.31	0.45
27:DA:52:A:N6	27:DA:118:A:C4	2.84	0.45
1:CA:1057:G:C2'	1:CA:1058:G:O5'	2.64	0.45
1:CA:1209:C:C2'	1:CA:1210:C:H5'	2.45	0.45
10:AJ:3:LYS:HB2	10:AJ:77:PRO:CG	2.46	0.45
31:BE:130:GLY:C	31:BE:131:ALA:O	2.55	0.45
1:AA:155:C:O2	1:AA:167:G:C2	2.69	0.45
58:B9:27:CYS:SG	58:B9:32:HIS:CB	3.05	0.45
23:AW:44:A:O2'	23:AW:45:U:OP1	2.29	0.45
37:DO:10:VAL:HG13	37:DO:17:ARG:C	2.36	0.45
19:CS:63:THR:HG22	19:CS:66:MET:HE2	1.98	0.45
35:DI:88:ILE:O	35:DI:89:TYR:C	2.52	0.45
13:AM:66:LEU:O	13:AM:67:GLU:C	2.53	0.45
33:DG:114:ILE:CG2	33:DG:115:ARG:N	2.80	0.45
1:AA:577:G:C2	1:AA:578:C:C5	3.03	0.45
1:AA:814:A:N7	1:AA:816:A:C5	2.84	0.45
5:CE:80:ILE:CD1	5:CE:91:LEU:HB2	2.45	0.45
27:DA:283:A:C2	27:DA:427:U:H1'	2.50	0.45
27:DA:27:G:O2'	27:DA:28:A:H8	1.99	0.45
1:CA:736:C:H2'	1:CA:737:A:C8	2.51	0.45
27:BA:1333:C:H2'	27:BA:1334:G:C8	2.51	0.45
50:B1:19:GLN:N	50:B1:36:GLY:O	2.48	0.45
29:DC:48:GLY:O	29:DC:49:ILE:O	2.34	0.45
1:CA:862:C:H1'	1:CA:874:G:C5'	2.46	0.45
27:DA:763:G:C8	27:DA:763:G:H3'	2.50	0.45
2:AB:81:VAL:O	2:AB:85:ALA:HB2	2.16	0.45
33:BG:167:GLU:O	33:BG:168:GLU:C	2.55	0.45
39:DQ:98:LYS:CB	39:DQ:99:PRO:CD	2.92	0.45
3:AC:182:ILE:CG1	3:AC:203:PHE:HD1	2.29	0.45
16:AP:14:ASN:N	16:AP:15:PRO:CD	2.68	0.45
27:DA:991:C:C2	27:DA:1164:G:C2	3.05	0.45
27:BA:1923:U:H2'	27:BA:1924:C:H6	1.82	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:960:U:O2'	1:AA:1223:C:H4'	2.16	0.45
27:DA:2197:U:HO2'	27:DA:2198:A:P	2.39	0.45
36:BN:76:SER:O	36:BN:78:TYR:HD1	1.99	0.45
27:BA:2720:U:O4	27:BA:2873:A:N7	2.49	0.45
36:BN:58:ASP:C	36:BN:60:ILE:N	2.70	0.45
1:AA:839:U:O2	1:AA:839:U:H2'	2.16	0.45
8:CH:71:GLY:O	8:CH:73:ASP:N	2.49	0.45
27:BA:705:A:C2	27:BA:727:A:H1'	2.51	0.45
1:AA:1145:C:H4'	1:AA:1146:A:OP1	2.15	0.45
1:AA:247:G:O6	1:AA:278:G:C6	2.69	0.45
38:DP:24:GLY:O	38:DP:25:SER:HB3	2.17	0.45
44:BV:87:HIS:C	44:BV:87:HIS:CD2	2.89	0.45
27:BA:1668:A:C8	27:BA:1674:G:C5	3.04	0.45
28:DB:24:G:H1'	28:DB:27:C:N4	2.31	0.45
27:BA:2111:C:OP2	27:BA:2111:C:C6	2.69	0.45
23:AW:4:G:C2'	23:AW:5:G:H5''	2.45	0.45
27:BA:2384:G:OP1	49:B0:55:ARG:NH1	2.49	0.45
9:AI:19:LEU:HB3	9:AI:59:PHE:CD2	2.51	0.45
27:BA:563:G:N1	27:BA:564:C:C4	2.84	0.45
1:CA:1168:A:OP1	1:CA:1168:A:H8	1.99	0.45
25:AY:24:C:H2'	25:AY:25:A:H8	1.80	0.45
27:BA:36:G:N1	27:BA:445:C:C4	2.84	0.45
27:DA:153:C:OP1	50:D1:92:LYS:NZ	2.44	0.45
27:DA:845:G:C8	27:DA:845:G:C5'	2.99	0.45
44:DV:34:GLU:O	44:DV:36:PRO:N	2.49	0.45
1:CA:1016:A:H8	1:CA:1016:A:O5'	2.00	0.45
27:BA:2459:A:H5'	27:BA:2460:U:OP2	2.16	0.45
27:BA:1188:U:H4'	44:BV:79:VAL:HG22	1.97	0.45
27:DA:258:G:H2'	27:DA:259:G:H8	1.81	0.45
17:CQ:53:LEU:HD12	17:CQ:54:GLY:N	2.31	0.45
1:CA:1484:C:H4'	27:DA:1960:A:O2'	2.16	0.45
52:D3:18:ASP:N	52:D3:18:ASP:OD1	2.48	0.45
23:CW:1:U:P	23:CW:1:U:H6	2.39	0.45
50:D1:95:LEU:HD12	50:D1:95:LEU:HA	1.80	0.45
27:BA:1010:A:H8	27:BA:1010:A:O5'	1.98	0.45
1:AA:1355:G:H2'	1:AA:1356:G:C8	2.51	0.45
1:AA:1355:G:O2'	1:AA:1356:G:H5'	2.16	0.45
1:CA:978:A:C5'	1:CA:978:A:H8	2.28	0.45
10:CJ:54:PHE:CD1	10:CJ:55:LYS:HE3	2.52	0.45
1:CA:963:G:N2	10:CJ:55:LYS:NZ	2.64	0.45
41:BS:17:ARG:O	41:BS:18:ILE:CG2	2.64	0.45
32:BF:8:GLN:HB3	32:BF:126:VAL:HA	1.98	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:476:G:N2	27:BA:478:A:H3'	2.32	0.45
27:BA:482:A:H8	27:BA:482:A:O5'	1.98	0.45
42:BT:20:PRO:O	42:BT:21:GLU:C	2.55	0.45
1:AA:129(A):G:O6	1:AA:189(D):C:O2'	2.34	0.45
32:DF:23:ASP:C	32:DF:24:LEU:HD22	2.35	0.45
27:DA:867:C:H2'	27:DA:868:U:C5	2.50	0.45
27:BA:335:C:C2	27:BA:336:C:C5	3.04	0.45
27:DA:1951:U:O2	27:DA:1953:A:H3'	2.15	0.45
23:CW:74:C:H1'	27:DA:2507:C:O2'	2.16	0.45
38:DP:21:ARG:O	38:DP:23:PRO:HD3	2.15	0.45
46:DX:39:ILE:O	46:DX:40:LYS:C	2.54	0.45
27:DA:2638:G:P	31:DE:82:ARG:NH2	2.89	0.45
4:AD:7:PRO:CB	4:AD:10:ARG:HD2	2.23	0.45
47:BY:26:LYS:CG	47:BY:27:VAL:H	2.04	0.45
1:AA:1363(A):A:C4	1:AA:1365:G:C6	3.04	0.45
1:AA:1376:U:O4	7:AG:10:ARG:NH2	2.46	0.45
1:AA:942:G:C2	1:AA:943:U:C2	3.04	0.45
37:DO:111:PHE:O	37:DO:112:MET:C	2.55	0.45
28:DB:8:U:O2'	41:DS:40:ILE:HD13	2.16	0.45
17:CQ:76:LEU:HD12	17:CQ:76:LEU:O	2.16	0.45
17:CQ:80:GLY:O	17:CQ:81:ARG:HG2	2.15	0.45
27:BA:778:G:C2	27:BA:787:U:C2	3.04	0.45
31:BE:39:PRO:HD3	31:BE:45:THR:OG1	2.17	0.45
32:BF:83:PHE:O	32:BF:84:VAL:CB	2.44	0.45
2:AB:144:ARG:O	2:AB:147:LYS:N	2.49	0.45
2:AB:171:ALA:HA	2:AB:174:VAL:HG23	1.98	0.45
33:DG:4:ASP:O	33:DG:4:ASP:OD1	2.34	0.45
27:BA:748:G:OP1	27:BA:2612:C:N4	2.45	0.45
1:AA:355:C:H5'	1:AA:389:A:OP2	2.16	0.45
1:AA:455:C:H2'	1:AA:456:C:H5'	1.97	0.45
34:BH:149:ARG:HD3	34:BH:164:TYR:CE1	2.51	0.45
27:DA:1409:C:H2'	27:DA:1410:G:C8	2.50	0.45
27:DA:1411:C:O5'	27:DA:1411:C:C6	2.69	0.45
1:CA:176:C:H2'	1:CA:177:C:C6	2.49	0.45
5:CE:58:ALA:O	5:CE:61:TYR:HB2	2.15	0.45
14:CN:4:LYS:O	14:CN:8:GLU:HB2	2.15	0.45
1:CA:1270:C:O3'	1:CA:1314:C:H4'	2.15	0.45
12:AL:34:CYS:HA	12:AL:55:VAL:HA	1.99	0.45
27:BA:2512:C:H4'	31:BE:122:PHE:CE2	2.51	0.45
35:BI:111:PRO:C	35:BI:114:LEU:HD11	2.37	0.45
48:BZ:152:SER:OG	48:BZ:162:LEU:HD11	2.16	0.45
27:BA:2283:C:H2'	27:BA:2284:C:C5'	2.35	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:140:G:H1'	27:BA:141:A:H2	1.79	0.45
35:BI:5:LEU:N	35:BI:5:LEU:CD1	2.77	0.45
1:AA:404:U:O2'	1:AA:405:U:H5'	2.16	0.45
48:DZ:60:LEU:CD2	48:DZ:60:LEU:H	2.29	0.45
1:AA:262:A:H2'	1:AA:263:A:C8	2.51	0.45
13:AM:76:ALA:N	13:AM:79:LYS:NZ	2.60	0.45
13:AM:93:ARG:HE	13:AM:93:ARG:CA	2.30	0.45
37:BO:64:ARG:CZ	42:BT:70:VAL:HG21	2.46	0.45
1:CA:51:A:C6	1:CA:353:A:C2	3.04	0.45
37:DO:66:LYS:H	37:DO:82:ASN:HD21	1.63	0.45
19:CS:39:THR:HG22	19:CS:40:ILE:O	2.16	0.45
33:DG:111:LEU:HD21	33:DG:120:LEU:HD21	1.97	0.45
31:DE:16:ARG:HH11	31:DE:173:VAL:CG2	2.28	0.45
7:CG:143:ARG:HB3	7:CG:143:ARG:HH11	1.81	0.45
48:BZ:25:GLY:O	48:BZ:26:VAL:HB	2.16	0.45
34:DH:43:VAL:CG1	34:DH:53:GLU:H	2.30	0.45
27:DA:481:G:O5'	47:DY:47:LYS:HE2	2.16	0.45
1:CA:711:G:N2	1:CA:712:A:N3	2.64	0.45
27:BA:675:A:H2	27:BA:2443:C:O2	1.99	0.45
48:DZ:54:HIS:CE1	48:DZ:134:GLU:HA	2.50	0.45
34:DH:157:TYR:O	34:DH:158:HIS:CB	2.64	0.45
33:BG:11:TYR:CZ	33:BG:16:ARG:HG2	2.51	0.45
33:BG:169:ALA:O	33:BG:172:LEU:HB3	2.15	0.45
2:CB:75:LYS:HD3	2:CB:78:GLN:HB2	1.97	0.45
27:BA:1835:G:C5	27:BA:1931:U:C4	3.04	0.45
1:AA:1226:C:N4	13:AM:104:ARG:HD3	2.32	0.45
27:DA:1920:C:H2'	27:DA:1920:C:O2	2.16	0.45
28:DB:68:C:O2'	28:DB:69:G:H5'	2.16	0.45
1:AA:641:U:C4'	1:AA:642:A:OP1	2.64	0.45
7:CG:14:PRO:O	7:CG:15:ASP:O	2.34	0.45
4:AD:170:VAL:CG1	4:AD:174:LEU:HD12	2.46	0.45
1:CA:109:A:C8	1:CA:327:A:O4'	2.69	0.45
27:BA:547:A:H8	27:BA:549:G:O6	1.99	0.45
27:DA:1701:A:H2'	27:DA:1702:G:H5'	1.97	0.45
5:CE:101:ILE:N	5:CE:101:ILE:CD1	2.71	0.45
27:BA:2642:G:C2	27:BA:2643:G:C4	3.04	0.45
1:CA:833:U:H3	1:CA:853:G:H1	1.64	0.45
1:AA:1097:C:H1'	1:AA:1170:A:H1'	1.97	0.45
1:AA:1166:G:H2'	1:AA:1169:A:OP2	2.16	0.45
23:AW:16:C:O2	23:AW:16:C:H3'	2.16	0.45
34:DH:19:VAL:HG13	34:DH:24:VAL:CG1	2.45	0.45
1:AA:279:A:O2'	1:AA:280:C:OP2	2.29	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DI:4:ILE:O	35:DI:36:ALA:HB1	2.15	0.45
27:DA:2240:C:O2'	27:DA:2241:A:H5'	2.16	0.45
51:B2:13:ALA:HA	51:B2:16:LEU:CD2	2.46	0.45
29:BC:181:PRO:O	29:BC:182:PRO:CB	2.64	0.45
34:BH:101:ARG:CB	34:BH:117:PRO:HG3	2.44	0.45
27:DA:2705:A:O5'	27:DA:2705:A:H8	1.99	0.45
27:BA:1346:G:C4	27:BA:1347:G:N7	2.84	0.45
1:AA:1030(C):G:O2'	1:AA:1030(D):A:H5'	2.16	0.45
1:CA:877:C:H1'	8:CH:3:THR:OG1	2.16	0.45
27:BA:563:G:H1	27:BA:578:A:H61	1.64	0.45
27:BA:715:G:C2	27:BA:716:A:C4	3.04	0.45
3:CC:186:PHE:CD1	3:CC:198:VAL:O	2.68	0.45
54:D5:56:LYS:H	54:D5:56:LYS:HD2	1.81	0.45
27:DA:1763:G:H2'	27:DA:1764:G:H5'	1.98	0.45
27:BA:1759:A:C5'	27:BA:2715:C:H1'	2.47	0.45
45:BW:97:LYS:NZ	45:BW:99:ARG:HH12	2.15	0.45
27:DA:1558:A:O2'	27:DA:1559:G:OP2	2.30	0.45
4:CD:58:LEU:HD12	4:CD:59:ARG:NH1	2.31	0.45
1:CA:523:A:H61	12:CL:89:ASP:HB2	1.81	0.45
20:AT:31:SER:O	20:AT:34:LYS:HB2	2.16	0.45
8:CH:128:GLY:O	8:CH:129:VAL:HG13	2.17	0.45
25:CY:3:G:H8	25:CY:3:G:O5'	1.99	0.45
40:BR:116:LEU:HA	40:BR:116:LEU:HD23	1.77	0.45
57:B8:11:LYS:HE2	57:B8:64:TYR:HE1	1.81	0.45
32:BF:4:VAL:HA	32:BF:19:GLU:HB3	1.99	0.45
37:BO:91:LEU:N	37:BO:91:LEU:HD22	2.31	0.45
57:D8:4:MET:O	57:D8:62:LEU:CD1	2.57	0.45
27:DA:1693:U:C2'	30:DD:14:ARG:NH2	2.79	0.45
1:CA:500:G:C2	1:CA:501:C:C2	3.04	0.45
4:CD:61:LYS:NZ	4:CD:62:GLN:HE21	2.12	0.45
32:DF:2:LYS:CD	32:DF:2:LYS:H	2.30	0.45
29:BC:83:ILE:HD12	29:BC:94:VAL:HB	1.97	0.45
8:AH:76:PRO:O	8:AH:77:GLU:O	2.34	0.45
44:DV:38:LEU:O	44:DV:39:LEU:HD13	2.15	0.45
27:DA:1497:U:C5'	27:DA:1498:C:C5	2.99	0.45
30:DD:27:THR:CG2	30:DD:27:THR:O	2.63	0.45
28:BB:95:C:O2'	28:BB:96:U:H5'	2.16	0.45
27:DA:2256:G:O2'	49:D0:9:SER:HB2	2.16	0.45
27:DA:2016:U:C4	27:DA:2017:U:C4	3.04	0.45
27:DA:580:C:O3'	43:DU:31:SER:OG	2.32	0.45
27:DA:942:G:C6	27:DA:943:U:N3	2.84	0.45
20:AT:26:ASN:HB3	20:AT:71:THR:CG2	2.46	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:DZ:55:VAL:HA	48:DZ:69:LEU:HD21	1.99	0.45
31:DE:47:VAL:HG21	31:DE:85:ASN:HA	1.98	0.45
1:CA:1298:C:H4'	1:CA:1299:A:C4	2.52	0.45
1:AA:1342:C:H2'	1:AA:1343:G:C8	2.51	0.45
48:BZ:15:SER:HA	48:BZ:18:ARG:HD2	1.98	0.45
8:AH:53:VAL:O	8:AH:56:LYS:CG	2.63	0.45
2:AB:69:LEU:HB2	2:AB:159:PRO:HB3	1.98	0.45
34:DH:139:GLN:HG3	34:DH:140:LYS:N	2.32	0.45
27:DA:2749:A:O2'	34:DH:59:ARG:HG3	2.15	0.45
16:AP:1:MET:SD	16:AP:3:LYS:HG3	2.57	0.45
3:CC:147:LYS:CB	3:CC:203:PHE:CD2	3.00	0.45
32:BF:89:VAL:CG1	32:BF:90:PHE:H	2.11	0.45
1:AA:1073:U:H2'	1:AA:1074:G:C8	2.49	0.45
1:CA:662:G:O2'	1:CA:836:G:H5''	2.16	0.45
1:CA:1067:A:H4'	1:CA:1068:G:O5'	2.16	0.45
37:BO:77:ILE:HD11	42:BT:72:VAL:HG12	1.96	0.45
27:BA:1480:G:H2'	27:BA:1480:G:N3	2.32	0.45
1:CA:192:U:H4'	20:CT:103:GLY:CA	2.40	0.45
27:DA:740:U:C4	27:DA:758:C:O2	2.70	0.45
8:CH:6:ILE:N	8:CH:6:ILE:CD1	2.80	0.45
48:DZ:51:SER:OG	48:DZ:52:ILE:HD12	2.16	0.45
1:CA:751:U:H1'	15:CO:24:SER:HA	1.98	0.45
27:DA:2126:A:H5'	29:DC:36:LYS:HG2	1.99	0.45
27:BA:174:C:O2	27:BA:174:C:H2'	2.15	0.45
49:B0:23:VAL:O	49:B0:24:LYS:HD3	2.16	0.45
27:DA:1341:U:C4	27:DA:1395:A:H2	2.34	0.45
27:DA:955:C:O2'	27:DA:956:G:H5'	2.16	0.45
55:B6:25:LYS:HD2	55:B6:27:LYS:NZ	2.31	0.45
55:B6:27:LYS:O	55:B6:28:ARG:C	2.54	0.45
12:AL:114:ARG:NH2	12:AL:121:LYS:CD	2.80	0.45
48:BZ:124:LEU:HD23	48:BZ:163:ALA:O	2.16	0.45
35:DI:76:THR:O	35:DI:77:LEU:O	2.33	0.45
27:BA:849:A:N6	27:BA:928:G:O2'	2.47	0.45
27:DA:271(J):C:OP2	27:DA:271(J):C:H6	1.98	0.45
1:CA:1319:A:H2'	1:CA:1323:G:N7	2.31	0.45
30:DD:177:LEU:HB3	30:DD:178:PRO:HD2	1.98	0.45
15:AO:58:MET:O	15:AO:59:MET:C	2.54	0.45
27:DA:783:A:H2'	27:DA:784:A:C5'	2.46	0.45
45:DW:24:ILE:HA	45:DW:27:LYS:HD2	1.97	0.45
24:AX:1:C:O2	49:B0:5:LYS:HB3	2.15	0.45
27:BA:56:A:C2	27:BA:115:C:O2	2.69	0.45
50:D1:6:GLU:C	50:D1:7:ILE:HD12	2.36	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DN:28:THR:HG23	36:DN:29:LYS:HG3	1.97	0.45
24:AX:69:C:H2'	24:AX:70:G:O4'	2.16	0.45
33:BG:170:ARG:NH2	33:BG:182:LYS:HZ2	2.13	0.45
33:BG:33:ARG:H	33:BG:162:THR:CG2	2.30	0.45
1:CA:1096:C:O2'	1:CA:1097:C:H5'	2.16	0.45
27:DA:1012:U:C4	36:DN:25:ARG:HD3	2.51	0.45
39:DQ:10:ARG:O	39:DQ:10:ARG:CG	2.64	0.45
1:AA:966:G:O2'	1:AA:967:C:C5'	2.64	0.45
13:CM:81:LEU:HB3	13:CM:89:GLY:HA2	1.97	0.45
24:CX:10:G:H2'	24:CX:11:A:H8	1.80	0.45
24:CX:25:C:O2'	24:CX:26:G:H5'	2.16	0.45
8:CH:84:ARG:HH11	8:CH:84:ARG:HG2	1.82	0.45
27:DA:557:U:H6	27:DA:557:U:O5'	1.98	0.45
27:DA:2093:G:H2'	27:DA:2094:G:H8	1.81	0.45
2:CB:107:THR:O	2:CB:110:GLN:CG	2.64	0.45
27:BA:1640:C:C2'	27:BA:1640:C:O2	2.60	0.45
27:BA:25:U:O5'	27:BA:25:U:H6	1.98	0.45
28:BB:87:G:C2'	28:BB:88:C:H5''	2.46	0.45
1:AA:1128:C:H1'	1:AA:1146:A:H61	1.81	0.45
27:DA:566:U:H4'	27:DA:809:G:OP2	2.16	0.45
56:D7:24:THR:CG2	56:D7:27:GLY:H	2.26	0.45
48:DZ:143:LEU:N	48:DZ:143:LEU:HD22	2.31	0.45
48:DZ:101:LEU:HB3	48:DZ:103:PHE:CE1	2.51	0.45
27:BA:1453:U:OP1	40:BR:77:ARG:NH1	2.45	0.45
27:DA:1770:G:C5	27:DA:1771:C:C5	3.05	0.45
27:DA:1773:A:C2'	27:DA:1774:C:H5'	2.46	0.45
27:DA:612:C:C2'	27:DA:613:G:H5'	2.47	0.45
31:BE:119:ARG:CD	31:BE:120:TRP:NE1	2.77	0.45
32:BF:43:LYS:C	32:BF:45:ARG:H	2.19	0.45
27:DA:1374:G:C2	27:DA:1375:C:C2	3.04	0.45
25:AY:57:A:C4'	25:AY:58:A:OP1	2.63	0.45
4:CD:49:ARG:O	4:CD:50:ARG:C	2.54	0.45
2:AB:108:ILE:HD13	2:AB:108:ILE:HA	1.78	0.45
27:BA:2323:G:O2'	27:BA:2324:C:H5'	2.16	0.45
27:BA:766:C:C2	27:BA:767:U:C6	3.04	0.45
27:DA:776:G:C4	27:DA:793:A:C2	3.04	0.45
1:AA:1382:C:H2'	1:AA:1383:C:H6	1.81	0.45
27:DA:272(J):C:H3'	27:DA:274:G:H21	1.81	0.45
27:DA:69:C:O2	27:DA:69:C:H2'	2.16	0.45
56:B7:17:GLY:O	56:B7:21:ARG:HG2	2.16	0.45
27:DA:405:U:O2'	27:DA:406:G:OP1	2.34	0.45
27:BA:1290:C:H2'	27:BA:1291:C:H6	1.82	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:BB:45:A:C2	28:BB:46:A:C1'	2.99	0.45
27:DA:832:G:N3	38:DP:53:GLY:HA2	2.32	0.45
1:CA:508:C:C4'	1:CA:509:A:OP1	2.60	0.45
27:BA:481:G:O2'	27:BA:482:A:OP2	2.22	0.45
27:BA:533:G:C6	27:BA:561:G:N2	2.85	0.45
27:DA:1862:G:H1	27:DA:1880:C:N4	2.04	0.45
29:BC:78:ALA:HB2	29:BC:82:LYS:HD2	1.98	0.45
27:DA:815:C:H2'	27:DA:816:C:C6	2.52	0.45
43:DU:76:TYR:OH	43:DU:93:LYS:HE3	2.17	0.45
12:CL:66:TYR:HB2	12:CL:93:VAL:HG11	1.98	0.45
52:B3:31:LEU:O	52:B3:32:GLN:CB	2.65	0.45
51:D2:56:GLN:O	51:D2:57:ILE:C	2.55	0.45
27:BA:1899:G:N2	27:BA:1902:C:C5	2.85	0.45
27:DA:2702:U:O2	27:DA:2702:U:C2'	2.63	0.45
55:D6:32:ASN:ND2	55:D6:33:LYS:N	2.44	0.45
55:D6:34:LEU:O	55:D6:36:LEU:HG	2.16	0.45
27:DA:2420:C:OP1	57:D8:34:TRP:HA	2.16	0.45
38:DP:125:VAL:O	38:DP:125:VAL:CG2	2.64	0.45
27:DA:573:G:O6	27:DA:2029:G:H2'	2.17	0.45
27:DA:1599:C:OP1	46:DX:35:THR:HA	2.16	0.45
48:DZ:69:LEU:HA	48:DZ:69:LEU:HD23	1.79	0.45
30:BD:34:VAL:O	30:BD:34:VAL:CG1	2.57	0.45
30:BD:65:ILE:HG12	30:BD:104:TYR:C	2.36	0.45
4:CD:138:TYR:C	4:CD:138:TYR:HD2	2.20	0.45
39:BQ:25:ASP:O	48:BZ:80:ARG:NH2	2.48	0.45
27:DA:2746:U:O5'	27:DA:2746:U:H6	2.00	0.45
1:CA:1494:G:N2	1:CA:1495:U:C2	2.85	0.45
30:BD:53:PHE:O	30:BD:218:ARG:HG3	2.15	0.45
30:BD:48:ARG:HG2	30:BD:48:ARG:H	1.33	0.45
1:CA:123:C:H5''	1:CA:311:C:O2'	2.17	0.45
1:CA:237:C:C5'	17:CQ:25:ARG:NH1	2.77	0.45
41:BS:85:VAL:CG2	41:BS:106:ARG:HB2	2.45	0.45
33:DG:7:LEU:HA	33:DG:7:LEU:HD23	1.67	0.45
1:AA:409:G:OP1	4:AD:25:ARG:N	2.43	0.45
34:BH:158:HIS:ND1	34:BH:168:PRO:HB2	2.30	0.45
37:BO:35:VAL:HG21	37:BO:69:ILE:HD13	1.99	0.45
27:DA:691:C:O2'	27:DA:692:C:H5'	2.15	0.45
27:DA:2715:C:H2'	27:DA:2716:U:H6	1.81	0.45
3:CC:196:LEU:HD12	3:CC:197:GLY:N	2.32	0.45
8:AH:97:VAL:HG13	8:AH:98:LYS:HG3	1.98	0.45
1:CA:1286:A:H2'	1:CA:1287:A:H4'	1.98	0.45
6:CF:32:ASN:C	6:CF:34:GLY:N	2.69	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:DZ:126:LYS:O	48:DZ:126:LYS:HG2	2.17	0.45
27:BA:625:G:O6	38:BP:107:LYS:HD2	2.16	0.45
38:BP:97:PRO:C	38:BP:99:LEU:N	2.70	0.45
29:DC:41:VAL:CA	29:DC:213:TYR:HA	2.46	0.45
36:DN:57:ALA:O	36:DN:58:ASP:O	2.34	0.45
33:BG:51:ARG:HA	33:BG:51:ARG:HE	1.78	0.45
27:DA:1275:A:H2	27:DA:1295:C:O2	1.99	0.45
27:DA:2308:G:N2	27:DA:2309:A:N1	2.65	0.45
7:CG:79:ARG:HA	7:CG:84:ASN:HA	1.98	0.45
27:BA:97:C:H5'	51:B2:2:LYS:HB3	1.99	0.45
27:BA:1587:A:H3'	27:BA:1588:C:H6	1.81	0.45
27:DA:736:C:HO2'	27:DA:737:C:H5'	1.81	0.45
5:CE:40:ARG:HB3	5:CE:66:MET:HE1	1.95	0.45
23:AW:66:A:C5	23:AW:67:C:C4	3.05	0.45
1:CA:638:G:O2'	1:CA:639:G:H5'	2.17	0.45
27:BA:389:G:H1	38:BP:71:VAL:CG1	2.21	0.45
19:AS:6:LYS:CG	19:AS:7:LYS:HE3	2.46	0.45
27:BA:1050:A:O2'	27:BA:1051:G:P	2.75	0.45
45:DW:54:ALA:HB1	45:DW:107:LEU:HD13	1.99	0.45
27:BA:1204:A:HO2'	27:BA:1205:U:P	2.36	0.45
3:CC:36:ASP:OD2	3:CC:57:ILE:HG21	2.16	0.45
1:CA:913:A:C1'	1:CA:914:A:O4'	2.65	0.45
27:BA:2063:C:C5	27:BA:2064:C:C4	3.05	0.45
1:AA:601:C:C2'	1:AA:602:A:H5'	2.45	0.45
1:CA:266:G:H1	1:CA:271:C:H42	1.64	0.45
18:CR:50:ILE:CD1	18:CR:70:ILE:HG21	2.45	0.45
4:AD:100:ARG:CZ	4:AD:137:SER:HB3	2.46	0.45
27:BA:958:U:O2'	27:BA:959:A:OP1	2.26	0.45
1:CA:59:A:C5'	1:CA:60:A:C5'	2.94	0.45
1:CA:789:U:O2	1:CA:792:A:C8	2.69	0.45
35:DI:30:LEU:O	35:DI:31:LEU:C	2.55	0.45
27:DA:1292:U:H2'	27:DA:1293:C:H6	1.79	0.45
20:CT:18:GLN:O	20:CT:19:SER:C	2.54	0.45
1:AA:1444:C:O2'	1:AA:1445:C:H5'	2.17	0.45
27:DA:839:U:H2'	27:DA:840:C:C5	2.52	0.45
4:AD:57:ARG:HD3	4:AD:205:GLU:HB3	1.97	0.45
27:DA:1845:G:C4	27:DA:1896:G:C2	3.04	0.45
43:BU:66:ASN:HB2	43:BU:76:TYR:HB2	1.99	0.45
9:CI:18:PHE:CD1	9:CI:62:TYR:HD2	2.35	0.45
9:CI:17:VAL:HG11	9:CI:81:ILE:HD13	1.98	0.45
1:AA:559:A:O2'	1:AA:560:U:OP2	2.28	0.45
34:BH:71:LEU:H	34:BH:74:ASN:HD22	1.64	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:DC:18:LYS:CD	29:DC:19:VAL:H	2.27	0.45
42:BT:134:GLU:O	42:BT:135:ALA:CB	2.62	0.45
1:AA:781:A:O2'	1:AA:1522:U:O2	2.34	0.45
37:DO:13:ASN:O	37:DO:15:GLY:N	2.49	0.45
44:DV:71:LEU:HD13	44:DV:84:LYS:HE2	1.97	0.45
1:AA:5:U:N3	4:AD:86:LYS:HE2	2.32	0.45
2:AB:83:MET:HA	2:AB:83:MET:HE2	1.97	0.45
25:AY:37:U:H2'	25:AY:38:U:O4'	2.17	0.45
27:BA:873:G:N1	27:BA:905:U:C2	2.85	0.45
1:CA:583:A:H8	1:CA:583:A:O5'	1.99	0.45
20:AT:48:LYS:O	20:AT:49:ALA:HB2	2.16	0.45
49:B0:69:PHE:HD1	49:B0:69:PHE:N	2.14	0.45
32:BF:172:TRP:N	32:BF:172:TRP:CD1	2.85	0.45
30:BD:58:HIS:CD2	30:BD:59:LYS:N	2.84	0.45
2:CB:43:ASP:OD2	2:CB:46:LYS:N	2.49	0.45
29:BC:22:ILE:CG2	29:BC:24:GLU:HB2	2.46	0.45
27:DA:1478:G:N2	27:DA:1558:A:OP1	2.50	0.45
6:CF:23:LYS:HB3	6:CF:23:LYS:HE2	1.78	0.45
27:BA:2735:G:H2'	27:BA:2736:G:H8	1.81	0.45
27:DA:2642:G:H2'	27:DA:2643:G:O4'	2.15	0.45
27:BA:230:U:O5'	27:BA:230:U:H6	1.98	0.45
40:BR:71:GLN:HE21	40:BR:71:GLN:HB2	1.57	0.45
1:AA:997:U:H2'	1:AA:998:G:C8	2.51	0.45
13:CM:99:ARG:HB2	13:CM:101:GLN:NE2	2.31	0.45
27:BA:1692:U:O2'	27:BA:1693:U:H2'	2.16	0.45
57:B8:11:LYS:H	57:B8:60:LEU:HD21	1.82	0.45
27:BA:607:U:OP1	32:BF:103:LYS:HG3	2.17	0.45
1:CA:1232:U:C2'	1:CA:1233:G:O5'	2.64	0.45
1:CA:978:A:H1'	1:CA:1322:C:O2	2.16	0.45
2:CB:91:PRO:HG2	2:CB:155:LEU:HD23	1.98	0.45
41:BS:17:ARG:CA	41:BS:20:ARG:NH1	2.79	0.45
32:BF:3:GLU:C	32:BF:19:GLU:HB3	2.37	0.45
37:BO:87:ILE:HG23	37:BO:92:GLU:O	2.16	0.45
57:D8:63:PRO:HB2	57:D8:64:TYR:CD1	2.51	0.45
27:DA:271(Q):G:OP1	35:DI:42:SER:HB2	2.17	0.45
30:BD:138:VAL:HG23	30:BD:165:ILE:HG22	1.98	0.45
32:BF:67:GLN:O	32:BF:68:LYS:CB	2.54	0.45
42:BT:19:LEU:HA	42:BT:20:PRO:HD3	1.78	0.45
44:DV:18:LEU:CD1	44:DV:18:LEU:N	2.79	0.45
41:BS:66:ALA:O	41:BS:67:ARG:C	2.55	0.45
30:DD:117:VAL:HG23	30:DD:118:VAL:N	2.31	0.45
1:CA:1239:A:H5'	1:CA:1240:U:OP1	2.17	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2392:A:H2'	27:DA:2393:A:O4'	2.16	0.45
33:DG:22:ARG:HH11	33:DG:22:ARG:CB	2.08	0.45
27:DA:1187:G:C8	27:DA:1187:G:O5'	2.56	0.45
38:DP:21:ARG:HG2	38:DP:29:LYS:HE3	1.99	0.45
27:BA:2482:G:H2'	27:BA:2483:C:C6	2.49	0.45
46:DX:57:LEU:CD1	46:DX:78:LYS:HD3	2.43	0.45
1:CA:39:G:O2'	1:CA:40:C:H5'	2.16	0.45
9:AI:50:LEU:O	9:AI:54:ASP:N	2.50	0.45
1:AA:1339:A:N6	1:AA:1340:A:N3	2.64	0.45
19:AS:31:ILE:HG23	19:AS:31:ILE:O	2.16	0.45
1:AA:1306:A:H2'	1:AA:1307:U:C6	2.51	0.45
30:BD:232:PRO:HD2	30:BD:249:PRO:HA	1.97	0.45
1:AA:109:A:C8	1:AA:326:G:H2'	2.51	0.45
31:BE:36:ARG:HG2	31:BE:36:ARG:NH1	2.32	0.45
27:BA:1992:G:C6	27:BA:1997:G:N1	2.84	0.45
27:DA:2649:U:O2'	27:DA:2650:U:H5'	2.17	0.45
6:AF:61:LEU:HD23	6:AF:63:TYR:HE2	1.81	0.45
27:BA:391:G:C6	27:BA:392:C:C4	3.04	0.45
12:AL:73:ASN:O	12:AL:74:LEU:O	2.34	0.45
1:CA:1198:G:C2	1:CA:1199:U:C2	3.05	0.45
1:CA:514:C:O2'	1:CA:515:G:H5'	2.16	0.45
10:AJ:7:LYS:HB2	10:AJ:97:GLU:HB2	1.99	0.45
1:CA:1255:G:O2'	1:CA:1258:G:H1'	2.15	0.45
1:CA:1311:G:N2	1:CA:1327:C:C2	2.84	0.45
39:DQ:32:TYR:O	39:DQ:106:VAL:HG22	2.17	0.45
48:DZ:43:PHE:HE2	48:DZ:87:PHE:CZ	2.34	0.45
29:DC:59:ARG:CD	29:DC:59:ARG:N	2.78	0.45
58:B9:27:CYS:HB2	58:B9:32:HIS:HB2	1.97	0.45
58:B9:27:CYS:SG	58:B9:32:HIS:HB2	2.57	0.45
1:CA:1499:A:C2	1:CA:1500:A:C8	3.05	0.45
27:BA:642:G:N1	27:BA:645:C:OP2	2.50	0.45
27:BA:142:A:H1'	27:BA:1408:C:H1'	1.98	0.45
1:AA:504:C:C2	1:AA:542:G:N2	2.85	0.45
27:BA:92:A:O2'	27:BA:93:G:OP2	2.26	0.45
1:AA:939:G:P	7:AG:102:ARG:HH12	2.40	0.45
8:AH:104:ARG:NH2	8:AH:138:TRP:CH2	2.84	0.45
5:CE:31:LEU:HD11	5:CE:43:LEU:HD21	1.97	0.45
23:AW:64:G:H5'	23:AW:65:U:OP2	2.17	0.45
42:DT:96:ARG:HG3	42:DT:99:LEU:HB3	1.99	0.45
17:AQ:26:GLN:HB3	17:AQ:37:LYS:CG	2.39	0.45
27:DA:8:A:H2'	27:DA:9:U:H6	1.73	0.45
1:AA:1264:C:H6	1:AA:1264:C:H3'	1.79	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1270:C:C2'	1:AA:1271:G:H5'	2.46	0.45
47:BY:5:MET:HA	47:BY:5:MET:CE	2.47	0.45
27:DA:1321:A:H2'	27:DA:1322:A:H8	1.80	0.45
27:DA:1216:G:N3	27:DA:1216:G:H2'	2.32	0.45
1:CA:735:C:O2'	1:CA:736:C:H5'	2.16	0.45
1:CA:707:C:O2	11:CK:39:PRO:HD3	2.16	0.45
27:BA:1331:A:H2'	27:BA:1333:C:H5	1.82	0.45
1:CA:818:G:N3	1:CA:820:U:C6	2.84	0.45
32:BF:34:TRP:CE2	38:BP:12:ALA:HB2	2.51	0.45
2:AB:76:GLN:O	2:AB:208:ILE:HG12	2.17	0.45
2:AB:77:ALA:HB2	2:AB:211:ILE:CD1	2.47	0.45
2:CB:213:LEU:O	2:CB:213:LEU:HD23	2.16	0.45
16:AP:8:ARG:NH2	16:AP:15:PRO:HG3	2.32	0.45
13:CM:91:ARG:O	13:CM:96:LEU:O	2.34	0.45
1:AA:1511:G:H2'	1:AA:1512:U:O4'	2.17	0.45
27:BA:23:G:H1	27:BA:517:C:H42	1.63	0.45
1:CA:266:G:H5''	1:CA:267:C:C5	2.51	0.45
40:BR:4:LEU:O	40:BR:6:SER:N	2.49	0.45
10:CJ:87:THR:O	10:CJ:88:LEU:C	2.54	0.45
27:BA:1838:C:O2'	27:BA:1898:U:C5	2.69	0.45
27:BA:711:G:C2	27:BA:721:C:C2	3.04	0.45
6:AF:74:ASP:O	6:AF:77:ARG:HB3	2.17	0.45
37:DO:101:PRO:HD2	42:DT:70:VAL:HG21	1.95	0.45
4:CD:88:VAL:HG13	5:CE:97:GLY:HA3	1.98	0.45
27:BA:576:U:H2'	27:BA:577:G:H8	1.75	0.45
18:AR:63:GLN:O	18:AR:66:LEU:HB3	2.16	0.45
1:CA:336:C:O2'	1:CA:337:C:H5'	2.16	0.45
27:BA:182:A:H2'	27:BA:183:C:C6	2.52	0.45
27:DA:2363:C:O2'	27:DA:2364:C:H5'	2.16	0.45
27:DA:614(C):A:C4'	27:DA:615:G:OP1	2.64	0.45
27:BA:2745:C:H42	27:BA:2759:G:H1	1.63	0.45
48:BZ:33:ASN:O	48:BZ:33:ASN:OD1	2.34	0.45
17:AQ:27:PHE:HB2	17:AQ:28:PRO:CD	2.46	0.45
27:DA:2242:G:H2'	27:DA:2243:U:O4'	2.17	0.45
27:BA:1450:G:H2'	27:BA:1450(A):C:H5'	1.99	0.45
27:DA:205:G:O2'	27:DA:206:U:P	2.74	0.45
30:DD:172:TYR:HD1	30:DD:186:HIS:N	2.15	0.45
1:AA:318:G:H1	1:AA:335:C:H42	1.64	0.45
1:AA:1156:G:O5'	1:AA:1156:G:H8	1.99	0.45
27:BA:2082:A:H2'	27:BA:2083:G:H8	1.80	0.45
41:DS:67:ARG:CG	41:DS:67:ARG:NH1	2.77	0.45
27:DA:700:G:H2'	27:DA:701:G:C8	2.51	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DI:51:ILE:CG2	35:DI:52:ARG:N	2.79	0.45
7:CG:32:ARG:O	7:CG:33:ASP:CB	2.65	0.45
27:BA:2291:U:OP1	27:BA:2381:C:H5'	2.17	0.45
18:AR:45:SER:OG	18:AR:49:LYS:N	2.49	0.45
27:DA:555:U:C2'	27:DA:556:G:C8	3.00	0.45
1:AA:946:A:O2'	1:AA:1333:A:N3	2.28	0.45
10:AJ:32:ALA:CB	10:AJ:76:ASN:HB2	2.46	0.45
2:CB:140:HIS:O	2:CB:143:GLU:HB2	2.16	0.45
27:BA:2737:G:H2'	27:BA:2738:A:C8	2.52	0.45
46:BX:35:THR:OG1	46:BX:38:GLU:HB2	2.16	0.45
27:DA:271(W):G:C5'	27:DA:271(X):G:OP2	2.64	0.45
5:CE:87:SER:CB	5:CE:131:ILE:HD13	2.47	0.45
1:AA:401:C:OP2	4:AD:73:ARG:NH2	2.50	0.45
4:CD:182:LYS:HB2	4:CD:183:GLY:H	1.41	0.45
1:AA:775:G:O2'	1:AA:776:G:H5'	2.17	0.45
46:DX:88:LYS:HE3	46:DX:90:GLU:OE2	2.16	0.45
38:BP:75:ILE:N	38:BP:75:ILE:HD12	2.32	0.45
48:BZ:131:ASN:ND2	48:BZ:131:ASN:N	2.64	0.45
12:AL:110:ARG:HG2	12:AL:110:ARG:HH11	1.81	0.45
27:DA:1746:G:N3	27:DA:1746:G:H2'	2.31	0.45
27:BA:975(A):G:O2'	27:BA:976:C:H5'	2.16	0.45
7:AG:4:ARG:HD3	7:AG:5:ARG:NH1	2.31	0.45
57:B8:7:HIS:CB	57:B8:59:LYS:HB3	2.46	0.45
27:BA:247:G:H4'	27:BA:386:G:C6	2.50	0.45
14:CN:44:LEU:C	14:CN:44:LEU:HD12	2.36	0.45
2:CB:91:PRO:HG2	2:CB:155:LEU:HG	1.99	0.45
31:BE:170:LEU:HB3	31:BE:184:VAL:HG13	1.99	0.45
34:BH:138:LYS:O	34:BH:142:GLY:N	2.47	0.45
27:DA:200:U:H2'	27:DA:201:C:H5'	1.98	0.45
38:DP:46:LYS:HG2	38:DP:52:GLU:OE2	2.16	0.45
1:CA:498:U:O2'	1:CA:499:A:P	2.75	0.45
1:CA:542:G:O2'	1:CA:543:C:H5'	2.15	0.45
33:BG:97:ASP:O	33:BG:100:TRP:N	2.49	0.45
44:BV:99:ILE:O	44:BV:99:ILE:CG1	2.58	0.45
17:AQ:67:LYS:CA	17:AQ:70:ARG:HH12	2.30	0.45
44:DV:39:LEU:HB3	44:DV:47:VAL:HG11	1.99	0.45
27:DA:1560:G:C2	27:DA:1561:G:H1'	2.52	0.45
51:D2:38:GLN:O	51:D2:45:SER:HB2	2.17	0.45
1:CA:1240:U:O3'	7:CG:38:LEU:HD21	2.16	0.45
27:DA:2392:A:P	57:D8:31:HIS:HE1	2.39	0.45
27:DA:2060:A:OP1	32:DF:68:LYS:O	2.34	0.45
36:BN:62:VAL:HG22	36:BN:66:LYS:HB2	1.92	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BN:94:HIS:N	36:BN:95:PRO:HD2	2.32	0.45
55:B6:41:PRO:CD	55:B6:46:HIS:N	2.80	0.45
48:DZ:55:VAL:HG13	48:DZ:68:THR:O	2.16	0.45
1:AA:413:G:H1'	1:AA:428:G:N2	2.31	0.45
1:AA:428:G:HO2'	1:AA:429:U:P	2.39	0.45
34:BH:64:LEU:O	34:BH:65:HIS:C	2.53	0.45
1:CA:66:G:N2	1:CA:67:C:C1'	2.80	0.45
47:BY:32:PRO:HB2	47:BY:35:TYR:HA	1.99	0.45
51:D2:4:SER:OG	51:D2:7:ARG:HD2	2.16	0.45
16:CP:12:LYS:HD3	16:CP:13:HIS:CD2	2.52	0.45
28:DB:6:C:H2'	28:DB:7:G:O4'	2.16	0.45
41:DS:62:LYS:O	41:DS:65:VAL:N	2.50	0.45
17:CQ:76:LEU:HD12	17:CQ:78:GLU:H	1.81	0.45
1:AA:106:C:H2'	1:AA:107:G:H8	1.82	0.45
38:DP:7:ARG:O	38:DP:10:PRO:HD3	2.16	0.45
1:CA:606:G:H2'	1:CA:631:G:H22	1.81	0.45
27:BA:2742:C:P	58:B9:35:ARG:HH11	2.40	0.45
46:BX:14:SER:C	46:BX:16:LYS:N	2.67	0.45
46:BX:12:VAL:HG12	46:BX:27:THR:HG23	1.98	0.45
20:CT:62:LEU:O	20:CT:65:LYS:HB2	2.16	0.45
42:DT:2:ASN:C	42:DT:3:ARG:HG2	2.37	0.45
4:CD:153:ARG:CB	4:CD:153:ARG:HH11	2.14	0.45
1:CA:538:G:OP1	12:CL:110:ARG:HD2	2.17	0.45
27:BA:2267:A:C2'	27:BA:2267:A:N3	2.77	0.45
27:BA:2722:G:H2'	27:BA:2723:C:C6	2.51	0.45
30:BD:69:ARG:NH2	30:BD:192:THR:HB	2.32	0.45
27:BA:2846:G:H2'	27:BA:2847:U:C6	2.52	0.45
8:CH:6:ILE:O	8:CH:7:ALA:C	2.54	0.45
39:DQ:137:TYR:H	39:DQ:137:TYR:HD2	1.63	0.45
29:DC:67:GLY:O	29:DC:68:LEU:HB2	2.15	0.45
27:BA:2392:A:H1'	38:BP:60:MET:HB3	1.99	0.45
1:AA:823:G:C2'	1:AA:824:C:H5'	2.46	0.45
1:AA:262:A:H5'	20:AT:74:LYS:HB2	1.97	0.45
30:BD:12:SER:O	30:BD:14:ARG:N	2.50	0.45
1:CA:1028:C:H2'	1:CA:1033:G:H22	1.81	0.45
27:DA:1418:G:H8	27:DA:1418:G:O5'	2.00	0.45
27:DA:1754:C:H5''	42:DT:113:LYS:NZ	2.31	0.45
4:AD:127:THR:HA	4:AD:132:ARG:HA	1.98	0.45
16:CP:57:ARG:NH1	16:CP:79:VAL:O	2.49	0.45
1:CA:634:C:H2'	1:CA:635:G:H8	1.82	0.45
3:AC:58:GLU:O	3:AC:59:ARG:HG2	2.17	0.45
23:CW:20:A:N6	23:CW:44:A:C2'	2.79	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1286:A:O2'	27:DA:1288:U:OP2	2.19	0.45
45:DW:65:LEU:CD2	45:DW:67:ASP:H	2.29	0.45
10:CJ:22:LYS:CE	10:CJ:23:ILE:HG12	2.46	0.45
6:CF:69:GLU:H	6:CF:69:GLU:CD	2.20	0.45
6:CF:72:VAL:O	6:CF:72:VAL:CG2	2.65	0.45
1:AA:203:U:H4'	1:AA:204:U:OP1	2.17	0.45
32:DF:170:LEU:HD12	32:DF:171:PRO:HD3	1.99	0.45
1:CA:865:A:C6	1:CA:866:C:N3	2.85	0.45
52:D3:8:LEU:HD13	52:D3:31:LEU:HD23	1.98	0.45
1:AA:1112:C:O2	3:AC:179:ARG:HG2	2.16	0.45
1:CA:1110:A:H8	1:CA:1110:A:O5'	1.99	0.45
4:AD:33:MET:HE1	4:AD:37:PRO:HA	1.93	0.45
27:BA:1722:A:O2'	27:BA:1739:U:C5'	2.60	0.45
34:DH:116:GLU:HG2	34:DH:117:PRO:N	2.31	0.45
50:B1:86:SER:O	50:B1:87:PRO:C	2.52	0.45
1:AA:225:C:H2'	1:AA:226:G:C8	2.51	0.45
29:DC:77:ILE:CG2	29:DC:123:VAL:H	2.26	0.45
27:DA:2697:G:H1	27:DA:2710:C:N4	2.14	0.45
27:BA:705:A:C6	27:BA:706:A:C5	3.04	0.45
27:BA:2643:G:H1	27:BA:2771:C:H42	1.65	0.45
27:BA:528:A:C2	27:BA:2042:A:H2'	2.52	0.45
1:CA:1228:C:H2'	1:CA:1229:A:H8	1.82	0.45
27:BA:858:U:O2'	27:BA:2268:A:H1'	2.16	0.45
1:AA:1131:G:C2	1:AA:1132:C:N4	2.85	0.45
27:BA:2552:U:C2	27:BA:2554:U:H5'	2.50	0.45
1:CA:1010:G:N2	1:CA:1020:U:H1'	2.32	0.45
1:CA:1120:G:O2'	1:CA:1121:U:H5'	2.17	0.45
16:AP:48:TRP:O	16:AP:48:TRP:HE3	1.99	0.45
1:AA:636:U:H2'	1:AA:637:G:H8	1.82	0.45
33:DG:6:ALA:HB3	33:DG:104:GLU:OE2	2.17	0.45
9:CI:64:THR:O	9:CI:64:THR:HG23	2.16	0.45
33:DG:181:ARG:O	33:DG:182:LYS:C	2.55	0.45
35:BI:27:ARG:HD2	50:B1:71:TYR:CE1	2.52	0.45
6:CF:43:LEU:HD12	6:CF:43:LEU:N	2.29	0.45
27:DA:2027:G:O6	27:DA:2033:A:C8	2.70	0.45
1:AA:336:C:H1'	1:AA:1468:A:C2	2.52	0.45
1:CA:725:G:O2'	1:CA:726:C:H5'	2.17	0.45
35:BI:52:ARG:HA	35:BI:55:ALA:HB3	1.99	0.45
1:CA:486:U:C2'	1:CA:487:A:H8	2.29	0.45
43:BU:114:LYS:O	43:BU:117:GLN:O	2.35	0.45
12:CL:48:ALA:O	12:CL:49:LEU:HD22	2.17	0.45
22:CV:7:C:H2'	22:CV:8:A:C8	2.49	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2706:G:H2'	27:BA:2707:G:O4'	2.17	0.45
27:BA:2852:G:P	40:BR:64:ARG:HH22	2.40	0.45
27:BA:1167:U:H2'	27:BA:1168:G:C8	2.51	0.45
4:AD:13:ARG:C	4:AD:15:GLU:H	2.19	0.45
6:CF:67:MET:HB2	6:CF:68:PRO:HD2	1.99	0.45
7:CG:67:GLU:O	7:CG:70:LYS:HB2	2.16	0.45
1:AA:797:C:H2'	1:AA:798:G:H8	1.81	0.45
27:BA:2888:C:H2'	27:BA:2889:C:O4'	2.17	0.45
2:AB:137:ARG:CD	2:AB:137:ARG:C	2.84	0.45
50:B1:3:LYS:C	50:B1:4:VAL:HG12	2.37	0.45
27:DA:2077:A:C5	27:DA:2435:A:C6	3.04	0.45
27:DA:272(I):U:H2'	27:DA:272(J):C:C6	2.52	0.45
50:D1:70:VAL:O	50:D1:73:LEU:N	2.49	0.45
46:DX:8:ILE:HD11	46:DX:42:ALA:CB	2.47	0.45
27:DA:442:G:O2'	27:DA:443:A:OP1	2.32	0.45
27:BA:2059:A:O2'	32:BF:69:HIS:HD2	1.99	0.45
1:CA:683:G:C6	1:CA:684:A:C6	3.05	0.45
42:BT:123:GLN:HG3	42:BT:123:GLN:O	2.15	0.45
27:BA:2402:C:H41	27:BA:2415:G:N2	2.15	0.45
19:CS:51:VAL:HG22	19:CS:71:LEU:HD13	1.99	0.45
40:BR:18:LEU:HA	40:BR:18:LEU:HD22	1.71	0.45
32:BF:3:GLU:O	32:BF:19:GLU:HB3	2.16	0.45
34:BH:121:ILE:CG2	34:BH:122:THR:N	2.80	0.45
27:DA:910:A:C4	39:DQ:13:GLN:NE2	2.85	0.45
1:CA:502:G:C2	1:CA:544:G:C2	3.05	0.45
1:CA:1344:C:O5'	1:CA:1344:C:H6	1.99	0.45
32:BF:64:ILE:HG23	32:BF:65:TRP:N	2.31	0.45
43:BU:65:ILE:O	43:BU:67:ALA:N	2.50	0.45
43:BU:92:ARG:CD	44:BV:11:GLN:NE2	2.80	0.45
1:CA:720:C:N3	1:CA:721:G:C6	2.85	0.45
42:BT:28:VAL:HG13	42:BT:46:GLU:CA	2.45	0.45
1:AA:1406:U:C5	1:AA:1407:C:C5	3.05	0.45
27:DA:1158:C:O2'	27:DA:1159:U:H6	2.00	0.45
27:DA:995:C:C2	43:DU:57:PHE:CD1	3.04	0.45
43:DU:76:TYR:O	43:DU:78:THR:N	2.49	0.45
30:DD:119:ALA:CB	30:DD:130:ALA:HB3	2.47	0.45
52:B3:19:GLN:O	52:B3:23:LEU:CD1	2.64	0.45
51:D2:53:LEU:HA	51:D2:53:LEU:HD23	1.75	0.45
11:AK:34:ASP:HB2	11:AK:35:PRO:CD	2.47	0.45
31:DE:65:GLY:O	31:DE:67:PHE:N	2.49	0.45
57:D8:32:LEU:O	57:D8:33:ASN:C	2.54	0.45
27:DA:2496:C:OP2	39:DQ:82:ARG:NH2	2.49	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:DQ:81:VAL:HG23	39:DQ:82:ARG:H	1.81	0.45
11:CK:31:THR:OG1	11:CK:42:TRP:HB3	2.16	0.45
27:DA:461:C:C2'	27:DA:462:C:H5'	2.46	0.45
27:DA:2508:G:H2'	27:DA:2509:G:C8	2.51	0.45
55:B6:16:CYS:SG	55:B6:48:VAL:HG21	2.57	0.45
47:DY:16:ALA:HA	47:DY:21:LYS:CD	2.47	0.45
13:CM:40:ASN:HA	13:CM:41:PRO:HD3	1.76	0.45
1:CA:184:G:H2'	1:CA:185:A:C8	2.40	0.45
9:AI:53:VAL:O	9:AI:54:ASP:CB	2.65	0.45
12:CL:25:LYS:O	12:CL:26:GLY:C	2.55	0.45
42:DT:27:THR:O	42:DT:28:VAL:HB	2.16	0.45
42:DT:33:LYS:HE3	42:DT:74:ARG:NH2	2.31	0.45
42:DT:80:SER:OG	42:DT:81:PRO:CD	2.64	0.45
1:AA:296:U:O2'	1:AA:297:G:H5'	2.15	0.45
19:AS:61:TYR:O	19:AS:62:ILE:CG2	2.65	0.45
27:BA:856:C:H2'	27:BA:857:C:H6	1.81	0.45
1:AA:228:A:H2'	1:AA:229:U:C6	2.52	0.45
3:CC:182:ILE:HG23	3:CC:202:ILE:C	2.37	0.45
17:CQ:51:TYR:HE2	17:CQ:76:LEU:N	2.15	0.45
27:BA:125:G:C5'	27:BA:126:A:OP2	2.60	0.45
27:BA:1779:U:H5	27:BA:1784:A:N7	2.12	0.45
1:CA:280:C:H4'	1:CA:281:G:OP2	2.17	0.45
53:D4:53:THR:O	53:D4:54:LYS:CG	2.59	0.45
27:BA:1171:G:H5''	27:BA:1173:G:OP2	2.16	0.45
1:AA:389:A:C2'	1:AA:390:C:H5'	2.46	0.45
48:DZ:150:HIS:CG	48:DZ:169:THR:HG22	2.52	0.45
6:AF:39:LYS:HG2	6:AF:40:VAL:N	2.32	0.45
9:CI:8:GLY:HA2	9:CI:79:LEU:HB3	1.98	0.45
27:DA:778:G:H2'	27:DA:779:U:O4'	2.16	0.45
27:DA:2714:G:H2'	27:DA:2715:C:C6	2.50	0.45
3:CC:84:ILE:HA	3:CC:87:LEU:CG	2.46	0.45
27:DA:543:C:N4	27:DA:551:G:N1	2.50	0.45
1:CA:681:C:H2'	1:CA:682:G:H8	1.81	0.45
1:CA:513:C:N3	1:CA:539:A:C2	2.83	0.45
1:CA:1283:G:H2'	1:CA:1284:C:C6	2.52	0.45
48:DZ:129:PRO:C	48:DZ:130:ARG:HG3	2.36	0.45
48:DZ:38:VAL:CG2	48:DZ:43:PHE:HB2	2.43	0.45
40:DR:16:HIS:O	40:DR:19:ALA:N	2.49	0.45
27:BA:1826:G:OP1	30:BD:224:ALA:HB2	2.16	0.45
1:AA:618:C:H3'	1:AA:619:U:C5'	2.44	0.45
3:AC:115:LEU:O	3:AC:118:GLN:HB2	2.17	0.45
8:AH:7:ALA:HA	8:AH:10:LEU:HD12	1.98	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2667:C:H1'	34:DH:109:PHE:CE2	2.51	0.45
57:B8:22:VAL:HB	57:B8:49:VAL:CG2	2.47	0.45
35:DI:126:TYR:O	35:DI:139:GLN:HG3	2.16	0.45
5:AE:76:ILE:HG23	5:AE:93:PRO:HB3	1.99	0.45
8:AH:82:HIS:N	8:AH:138:TRP:O	2.44	0.45
37:DO:6:THR:CG2	37:DO:7:TYR:N	2.78	0.45
34:DH:17:VAL:O	34:DH:17:VAL:HG12	2.17	0.45
2:AB:84:GLU:O	2:AB:219:VAL:HG21	2.16	0.45
40:DR:36:THR:O	40:DR:37:THR:C	2.55	0.45
1:CA:711:G:C2	1:CA:712:A:C4	3.05	0.45
37:BO:98:VAL:HG12	37:BO:117:LEU:HD22	1.97	0.45
33:BG:28:VAL:C	33:BG:30:GLU:H	2.20	0.45
27:BA:1565:C:P	30:BD:4:LYS:HZ2	2.40	0.45
1:AA:1228:C:H4'	13:AM:116:THR:N	2.32	0.45
7:CG:44:TYR:C	7:CG:46:ALA:H	2.19	0.45
27:BA:2036:C:O2'	27:BA:2037:G:O5'	2.35	0.45
27:BA:1627:G:N1	27:BA:1640:C:C5	2.85	0.45
27:BA:1843:C:H5'	30:BD:253:GLN:HE22	1.76	0.45
27:DA:1701:A:C2'	27:DA:1702:G:H5'	2.47	0.45
20:AT:89:ARG:C	20:AT:91:LEU:H	2.18	0.45
27:DA:1817:G:C2'	27:DA:1818:U:H5'	2.46	0.45
30:DD:146:GLU:HB2	30:DD:152:GLY:O	2.17	0.45
4:AD:11:LEU:HD13	4:AD:66:ARG:HD3	1.97	0.45
27:BA:2320:A:C2	27:BA:2333:A:C8	3.04	0.45
1:AA:279:A:H5''	1:AA:281:G:O4'	2.16	0.45
48:DZ:143:LEU:HD12	48:DZ:147:ASP:O	2.17	0.45
3:CC:110:ASN:HA	3:CC:116:VAL:HG22	1.97	0.45
27:BA:1674:G:H1'	27:BA:1676:A:N6	2.32	0.45
27:BA:2745:C:N4	27:BA:2759:G:H1	2.15	0.45
6:AF:19:LEU:HD11	6:AF:59:TYR:CD1	2.51	0.45
33:DG:86:MET:N	33:DG:87:PRO:HD2	2.32	0.45
1:AA:563:A:C2	1:AA:567:G:C5	3.04	0.45
10:AJ:29:ARG:NH2	10:AJ:84:GLN:HG2	2.31	0.45
1:AA:113:G:H2'	1:AA:114:U:O5'	2.16	0.45
24:AX:62:C:H2'	24:AX:63:G:C8	2.51	0.45
49:B0:41:ARG:N	49:B0:41:ARG:CD	2.80	0.45
49:B0:41:ARG:O	49:B0:57:PHE:HD2	1.99	0.45
49:D0:68:GLU:OE2	49:D0:82:ARG:HB3	2.16	0.45
40:DR:84:ALA:N	40:DR:85:PRO:CD	2.79	0.45
29:DC:19:VAL:HG21	29:DC:22:ILE:HD11	1.99	0.45
27:DA:2727:G:C2	27:DA:2728:U:C4	3.04	0.45
27:DA:2524:G:H2'	27:DA:2741:A:H2	1.80	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:4:TYR:CD2	4:CD:5:ILE:N	2.85	0.45
32:DF:198:ALA:O	32:DF:201:VAL:HG12	2.17	0.45
34:DH:86:GLU:HB2	34:DH:132:ARG:NH1	2.32	0.45
18:AR:86:VAL:HG12	18:AR:87:ARG:HD2	1.98	0.45
27:BA:843:G:C2	27:BA:936:C:C2	3.04	0.45
27:BA:843:G:N2	27:BA:936:C:C2	2.85	0.45
1:AA:1393:U:H6	1:AA:1393:U:H3'	1.82	0.45
39:BQ:35:VAL:CG1	39:BQ:130:LYS:HB3	2.47	0.45
48:BZ:4:LEU:HD22	48:BZ:43:PHE:HA	1.97	0.45
7:CG:99:LEU:O	7:CG:100:ALA:C	2.55	0.45
2:AB:35:GLU:C	2:AB:36:ARG:HE	2.20	0.45
27:DA:2584:U:O2	27:DA:2585:U:C5	2.69	0.45
27:BA:657:U:OP2	27:BA:657:U:H6	1.99	0.45
29:BC:59:ARG:N	29:BC:59:ARG:HD3	2.32	0.45
27:DA:2437:U:H2'	27:DA:2438:U:H6	1.82	0.45
27:BA:819:A:O2'	27:BA:820:A:H5'	2.17	0.45
27:BA:838:C:C4	27:BA:839:U:C5	3.05	0.45
27:BA:2805:G:H2'	27:BA:2807:G:H5''	1.99	0.45
32:BF:3:GLU:HB3	32:BF:24:LEU:HG	1.98	0.45
27:BA:533:G:C5	27:BA:561:G:N2	2.85	0.45
43:BU:98:LEU:HA	43:BU:101:ARG:O	2.16	0.45
44:BV:5:VAL:HG13	44:BV:14:VAL:CG2	2.47	0.45
42:BT:85:LYS:C	42:BT:85:LYS:HZ1	2.19	0.45
42:BT:28:VAL:HB	42:BT:88:ILE:HD12	1.97	0.45
44:DV:19:LYS:HZ3	44:DV:20:LEU:HB2	1.82	0.45
44:DV:45:THR:O	44:DV:46:VAL:HG12	2.16	0.45
47:DY:95:LYS:CE	47:DY:100:ALA:HB2	2.47	0.45
27:DA:1579:A:H2'	27:DA:1580:A:C8	2.52	0.45
47:DY:25:GLY:HA3	47:DY:40:GLU:HG2	1.99	0.45
27:DA:918:A:H1'	28:DB:80:U:O2'	2.17	0.45
31:DE:76:ARG:CG	31:DE:195:LEU:HD13	2.40	0.45
7:CG:42:ILE:HD13	7:CG:116:ALA:HB1	1.98	0.45
27:DA:2261:C:P	49:D0:17:GLN:OE1	2.75	0.45
27:BA:310:A:OP1	47:BY:17:SER:O	2.35	0.45
39:BQ:118:LEU:HD23	39:BQ:118:LEU:HA	1.74	0.45
18:CR:82:THR:CG2	18:CR:83:GLU:N	2.64	0.45
34:BH:44:VAL:O	34:BH:46:GLU:OE2	2.35	0.45
34:BH:8:PRO:CD	34:BH:65:HIS:HE1	2.29	0.45
9:AI:53:VAL:O	9:AI:54:ASP:HB2	2.17	0.45
9:AI:95:LYS:HG3	9:AI:96:LEU:N	2.32	0.45
47:BY:31:LEU:CD2	47:BY:31:LEU:N	2.78	0.45
1:AA:1058:G:H5'	3:AC:186:PHE:CE1	2.51	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1034:G:O2'	27:DA:1035:U:O4'	2.34	0.45
27:BA:1812:A:O2'	30:BD:45:ASN:HB2	2.17	0.45
1:AA:60:A:O2'	1:AA:61:G:OP2	2.29	0.45
33:DG:5:VAL:HG23	33:DG:8:LYS:CG	2.35	0.45
1:CA:663:A:H5'	1:CA:836:G:OP1	2.17	0.45
15:AO:25:THR:O	15:AO:26:GLU:C	2.55	0.45
27:BA:1317:A:C6	27:BA:1336:A:N1	2.85	0.45
20:CT:26:ASN:CB	20:CT:71:THR:HG23	2.28	0.45
27:BA:1665:A:C2'	27:BA:1666:G:H5'	2.45	0.45
40:BR:79:LEU:HA	40:BR:83:ILE:CB	2.47	0.45
27:DA:779:U:C4	27:DA:780:G:C5	3.05	0.45
30:DD:213:ARG:HD3	30:DD:218:ARG:HA	1.98	0.45
30:DD:43:ARG:HB2	30:DD:54:ARG:HB2	1.98	0.45
27:BA:1434:A:N6	27:BA:1558:A:N6	2.47	0.45
27:BA:1818:U:O2'	30:BD:155:LEU:HA	2.17	0.45
1:CA:1061:G:H1'	10:CJ:56:HIS:CE1	2.51	0.45
1:CA:537:G:H8	1:CA:537:G:O5'	1.99	0.45
15:CO:76:GLU:HA	15:CO:76:GLU:OE1	2.16	0.45
25:AY:66:A:C2	25:AY:67:C:C2	3.05	0.45
1:CA:1502:A:C2	1:CA:1505:G:N1	2.57	0.45
27:BA:2420:C:OP1	57:B8:33:ASN:O	2.35	0.45
51:B2:32:LEU:CA	51:B2:53:LEU:HD12	2.47	0.45
28:BB:3:C:C4	28:BB:4:C:C5	3.04	0.45
28:DB:43:C:C4	28:DB:45:A:C6	3.04	0.45
33:DG:131:TYR:O	33:DG:159:VAL:CG1	2.65	0.45
52:D3:23:LEU:HD11	52:D3:50:VAL:HG11	1.99	0.45
35:DI:79:ILE:O	35:DI:143:SER:N	2.39	0.45
42:DT:64:ARG:HG3	42:DT:72:VAL:O	2.17	0.45
54:D5:52:TYR:O	54:D5:53:ALA:C	2.55	0.45
42:DT:109:GLU:HG2	42:DT:112:ARG:HH12	1.80	0.45
10:AJ:62:HIS:CE1	14:AN:61:TRP:CH2	3.05	0.45
13:AM:84:ILE:CG2	19:AS:74:PHE:HD1	2.29	0.45
27:DA:794:G:C6	27:DA:795:C:C4	3.04	0.45
27:DA:1288:U:H4'	27:DA:1289:C:OP2	2.16	0.45
27:DA:1287:A:O4'	40:DR:104:ARG:NH2	2.49	0.45
45:DW:3:ALA:HB2	45:DW:62:HIS:ND1	2.32	0.45
45:DW:44:ALA:O	45:DW:45:TYR:C	2.54	0.45
27:DA:1917:U:H2'	27:DA:1918:A:O4'	2.17	0.45
27:DA:1208:C:C2'	27:DA:1209:G:H5'	2.47	0.45
27:BA:1114:G:H3'	27:BA:1115:G:C5'	2.40	0.45
7:AG:27:ILE:O	7:AG:30:ILE:N	2.33	0.45
7:AG:65:ALA:O	7:AG:69:VAL:HG23	2.17	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:CK:38:ASN:HA	11:CK:39:PRO:HD3	1.87	0.45
1:AA:1014:A:H3'	1:AA:1015:A:H8	1.82	0.45
12:AL:25:LYS:O	12:AL:27:ALA:N	2.50	0.45
33:BG:176:LEU:HD12	33:BG:176:LEU:N	2.32	0.45
36:DN:67:LEU:H	36:DN:67:LEU:HD12	1.82	0.45
27:DA:2152:G:H2'	27:DA:2153:G:C8	2.34	0.45
27:DA:1141:U:OP1	36:DN:25:ARG:NH1	2.50	0.45
27:BA:1739:U:O4'	27:BA:1739:U:O2	2.35	0.45
5:CE:42:GLY:CA	5:CE:65:ASN:O	2.60	0.45
27:BA:1030:G:C2'	27:BA:1031:G:O5'	2.64	0.45
27:DA:1661:G:C4	27:DA:2000:G:N2	2.85	0.45
1:AA:1308:U:OP1	13:AM:97:PRO:HA	2.17	0.45
3:AC:62:ASP:O	3:AC:98:ASN:HB3	2.17	0.45
4:CD:24:GLU:O	4:CD:27:TYR:HB2	2.16	0.45
7:AG:95:ARG:HG2	7:AG:99:LEU:HD11	1.97	0.45
27:BA:1892:C:H2'	27:BA:1893:C:H5'	1.99	0.45
1:AA:1466:C:O2'	1:AA:1467:G:H5'	2.16	0.45
1:AA:23:C:O2'	1:AA:24:U:H5'	2.17	0.45
7:CG:22:LEU:HD23	7:CG:62:PHE:HE2	1.82	0.45
1:CA:117:G:O5'	1:CA:117:G:H8	1.99	0.45
1:AA:1146:A:O2'	1:AA:1147:C:C5'	2.65	0.45
1:CA:832:C:C2'	1:CA:833:U:H5'	2.47	0.45
23:CW:28:G:O6	23:CW:40:C:N3	2.50	0.45
27:BA:467:G:O2'	27:BA:468:G:H5'	2.17	0.45
27:BA:271(J):C:N3	27:BA:271(M):G:O6	2.50	0.45
1:CA:1229:A:H2'	1:CA:1230:C:C6	2.52	0.45
27:BA:860:U:H2'	27:BA:861:A:C8	2.52	0.45
9:CI:65:VAL:HG13	9:CI:73:GLN:NE2	2.32	0.45
27:BA:1754:C:P	42:BT:96:ARG:HH12	2.38	0.45
42:BT:96:ARG:HB3	42:BT:96:ARG:HE	1.55	0.45
1:CA:31:G:N2	1:CA:47:C:H4'	2.32	0.45
10:AJ:81:THR:HA	10:AJ:84:GLN:OE1	2.17	0.45
23:CW:22:G:H2'	23:CW:23:G:H8	1.81	0.45
47:BY:42:VAL:C	47:BY:65:ALA:HB3	2.37	0.45
35:BI:42:SER:O	35:BI:44:LEU:N	2.50	0.45
43:BU:66:ASN:HA	43:BU:76:TYR:HB2	1.99	0.45
43:BU:77:SER:OG	43:BU:78:THR:N	2.49	0.45
16:CP:19:ILE:HG22	16:CP:36:ILE:HD11	1.98	0.45
19:CS:25:LYS:HB3	19:CS:27:GLU:OE1	2.16	0.45
27:BA:309:G:N3	27:BA:329:G:O2'	2.47	0.45
27:DA:1876:A:H3'	27:DA:1877:A:H8	1.82	0.45
27:BA:2337:G:C2	27:BA:2338:G:N7	2.85	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:CW:7:A:C2	23:CW:66:A:C2	3.04	0.45
50:D1:43:TYR:HA	50:D1:44:PRO:HD3	1.78	0.45
27:DA:718:A:H2'	27:DA:719:C:H5'	1.99	0.45
4:CD:3:ARG:HH21	4:CD:5:ILE:HD11	1.82	0.45
1:CA:1165:C:H42	1:CA:1172:C:H42	1.63	0.45
30:DD:105:ILE:HD12	30:DD:105:ILE:HA	1.64	0.45
27:DA:1037:G:N2	27:DA:1119:C:C2	2.85	0.45
2:CB:115:LEU:O	2:CB:115:LEU:HD12	2.16	0.45
49:D0:32:ARG:HB2	49:D0:35:ASN:OD1	2.16	0.45
49:B0:46:LYS:HE3	49:B0:76:GLY:HA3	1.98	0.45
52:D3:39:ASP:OD1	52:D3:44:ARG:NE	2.49	0.45
1:AA:119:A:O2'	1:AA:120:A:OP2	2.25	0.45
21:AU:3:LYS:O	21:AU:11:GLY:HA2	2.17	0.45
33:BG:147:ASP:OD1	33:BG:148:MET:N	2.50	0.45
1:AA:1420:C:O2'	1:AA:1421:G:H5'	2.17	0.45
27:DA:2743:C:H2'	27:DA:2744:G:O5'	2.16	0.45
49:B0:19:LYS:HA	49:B0:19:LYS:HD2	1.88	0.45
1:CA:56:U:H2'	1:CA:56:U:O2	2.16	0.45
43:BU:71:GLN:C	43:BU:72:HIS:CD2	2.90	0.45
27:BA:251:A:C5	27:BA:252:G:H1'	2.52	0.45
27:BA:838:C:H2'	27:BA:839:U:C6	2.45	0.45
27:BA:838:C:C2	27:BA:839:U:C5	3.05	0.45
1:CA:983:A:C2'	1:CA:984:C:H5'	2.47	0.45
37:BO:14:THR:CG2	37:BO:16:ALA:H	2.28	0.45
4:CD:79:PHE:CD2	4:CD:80:GLU:N	2.84	0.45
1:CA:1341:U:O2'	1:CA:1342:C:H5'	2.17	0.45
44:BV:21:ARG:NH1	44:BV:91:TYR:CE2	2.85	0.45
1:AA:264:U:O2'	17:AQ:64:PRO:O	2.34	0.45
27:DA:995:C:C2	36:DN:4:TYR:OH	2.68	0.45
43:DU:85:LYS:C	43:DU:87:GLY:N	2.69	0.45
44:DV:19:LYS:NZ	44:DV:20:LEU:C	2.70	0.45
27:DA:36:G:N2	27:DA:37:C:H1'	2.32	0.45
41:BS:54:LEU:HD11	41:BS:59:LYS:O	2.17	0.45
30:DD:208:LYS:HE3	30:DD:208:LYS:HB2	1.84	0.45
27:DA:84:A:C2	27:DA:98:G:N3	2.85	0.45
27:DA:864:G:C6	27:DA:865:C:H5	2.34	0.45
27:DA:862:G:N2	28:DB:101:G:H1'	2.32	0.45
38:DP:115:LEU:HB2	38:DP:131:SER:OG	2.17	0.45
27:DA:1130:U:C2	27:DA:2025:C:H5''	2.52	0.45
27:DA:1668:A:C8	27:DA:1674:G:C6	3.05	0.45
27:DA:2447:G:C2	27:DA:2501:C:N4	2.85	0.45
27:DA:675:A:H5'	32:DF:63:LYS:CE	2.47	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:DV:73:SER:HB2	44:DV:83:ARG:O	2.17	0.45
27:DA:1187:G:H5"	44:DV:81:TYR:CZ	2.52	0.45
20:AT:24:LEU:O	20:AT:27:LYS:N	2.47	0.45
27:DA:1345:C:H2'	27:DA:1346:G:H8	1.81	0.45
46:DX:44:GLU:C	46:DX:46:ALA:H	2.18	0.45
48:DZ:3:ARG:CG	48:DZ:57:VAL:HB	2.47	0.45
4:CD:173:TRP:CA	4:CD:187:ARG:NH1	2.79	0.45
1:CA:198:G:C2	1:CA:199:G:C4	3.05	0.45
1:AA:1205:U:OP1	3:AC:190:ARG:NH2	2.49	0.45
1:CA:35:G:C2	1:CA:550:G:N3	2.85	0.45
42:DT:89:VAL:HB	42:DT:91:ARG:NE	2.32	0.45
46:BX:64:LYS:HZ3	46:BX:73:ARG:NE	1.87	0.45
41:DS:88:ASP:OD2	41:DS:89:ARG:N	2.50	0.45
3:CC:180:ALA:HB1	3:CC:182:ILE:CD1	2.46	0.45
17:CQ:10:VAL:CG1	17:CQ:19:VAL:HB	2.47	0.45
2:AB:97:TRP:CH2	2:AB:173:ALA:HA	2.52	0.45
1:CA:236:G:O2'	1:CA:237:C:H5'	2.17	0.45
49:B0:43:THR:CG2	49:B0:43:THR:O	2.64	0.45
27:BA:1997:G:OP1	31:BE:123:ALA:HA	2.17	0.45
1:AA:657:G:C2	1:AA:750:G:C5	3.05	0.45
15:AO:74:ASP:O	15:AO:75:PRO:C	2.55	0.45
1:AA:1321:C:H3'	1:AA:1322:C:H5"	1.99	0.45
1:CA:511:C:H2'	1:CA:534:U:O2	2.17	0.45
21:CU:18:TYR:HD2	21:CU:22:ARG:HD3	1.81	0.45
27:BA:2580:U:C4'	31:BE:131:ALA:H	2.28	0.45
39:DQ:111:GLU:CD	39:DQ:133:ARG:HH21	2.17	0.45
27:DA:354:G:H2'	27:DA:355:G:H8	1.82	0.45
56:D7:8:ASN:ND2	56:D7:10:ARG:N	2.65	0.45
27:DA:1639:U:C2'	27:DA:1640:C:C5'	2.93	0.45
55:B6:52:VAL:HG12	55:B6:52:VAL:O	2.17	0.45
1:AA:502:G:OP1	12:AL:115:SER:N	2.25	0.45
33:DG:55:LYS:O	33:DG:55:LYS:HD3	2.16	0.45
31:BE:144:ARG:HB3	31:BE:145:LYS:H	1.45	0.45
30:BD:146:GLU:CB	30:BD:189:CYS:HB3	2.47	0.45
38:DP:18:ARG:O	38:DP:20:GLY:N	2.50	0.45
17:AQ:81:ARG:O	17:AQ:83:ASP:N	2.50	0.45
30:DD:65:ILE:CD1	30:DD:65:ILE:N	2.74	0.45
33:DG:39:ILE:HD12	33:DG:40:ASN:H	1.82	0.45
8:AH:18:ARG:NH2	8:AH:81:HIS:O	2.49	0.45
27:DA:2343:C:O2'	27:DA:2373:G:H4'	2.17	0.45
27:DA:271(H):G:H1	27:DA:271(P):C:H42	1.63	0.45
31:DE:4:ILE:CG2	31:DE:4:ILE:O	2.63	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:602:A:N6	1:CA:637:G:C6	2.85	0.45
3:AC:87:LEU:O	3:AC:89:GLU:N	2.50	0.45
3:AC:90:GLU:O	3:AC:93:LYS:CB	2.65	0.45
48:BZ:52:ILE:HG22	48:BZ:70:VAL:O	2.17	0.45
27:DA:2629:A:N3	27:DA:2629:A:C5'	2.76	0.45
27:DA:2483:C:N3	39:DQ:124:LYS:NZ	2.56	0.45
34:DH:65:HIS:O	34:DH:69:ARG:HB2	2.17	0.45
1:AA:1264:C:C6	1:AA:1264:C:C3'	2.99	0.45
27:DA:495:G:N2	45:DW:61:ASN:HD21	2.14	0.45
27:DA:1204:A:C8	27:DA:1206:G:C6	3.05	0.45
27:DA:308:G:C8	27:DA:501:A:H1'	2.52	0.45
27:BA:1179:C:H2'	27:BA:1180:C:C6	2.50	0.45
1:CA:937:A:H62	1:CA:938:A:N6	2.14	0.45
33:BG:123:ASN:O	33:BG:126:ASP:CG	2.55	0.45
15:AO:3:ILE:O	15:AO:3:ILE:HG13	2.16	0.45
1:CA:862:C:N3	1:CA:863:U:C5	2.85	0.45
1:CA:815:A:N6	1:CA:1509:C:H1'	2.32	0.45
27:BA:2488:A:H2'	27:BA:2489:G:H8	1.79	0.45
2:AB:45:GLN:O	2:AB:48:MET:HB3	2.17	0.45
1:AA:667:G:O2'	1:AA:668:G:H5'	2.17	0.45
4:AD:104:VAL:HA	4:AD:107:ARG:HB2	1.99	0.45
4:AD:105:VAL:O	4:AD:105:VAL:HG12	2.17	0.45
1:AA:1225:A:H5''	13:AM:103:THR:OG1	2.17	0.45
13:AM:91:ARG:NH1	13:AM:96:LEU:HD13	2.32	0.45
13:AM:91:ARG:NH1	19:AS:81:ARG:HH22	2.14	0.45
10:CJ:30:SER:CB	10:CJ:80:LYS:HD3	2.47	0.45
10:CJ:85:LEU:C	10:CJ:87:THR:H	2.19	0.45
1:AA:9:G:H5''	5:AE:122:GLU:OE1	2.17	0.45
1:AA:57:G:C8	1:AA:58:C:C5	3.05	0.45
27:DA:2327:A:H2'	27:DA:2328:A:H8	1.76	0.45
51:D2:43:GLN:HG3	51:D2:43:GLN:O	2.16	0.45
12:AL:5:ASN:ND2	17:AQ:34:LYS:HE2	2.31	0.45
27:BA:2857:G:H5''	27:BA:2858:C:OP2	2.16	0.45
27:BA:2543:G:H5'	27:BA:2543:G:C8	2.42	0.45
27:BA:530:G:C5	27:BA:2022:U:H5''	2.52	0.45
27:BA:2041:U:H2'	27:BA:2042:A:O4'	2.16	0.45
48:DZ:114:GLY:HA2	48:DZ:173:VAL:CG1	2.47	0.45
27:BA:863:A:H3'	39:BQ:22:LYS:HD2	1.99	0.45
27:BA:1718:G:C2	27:BA:1745:C:C2	3.04	0.45
37:DO:3:GLN:HB2	37:DO:4:PRO:HD2	1.99	0.45
2:CB:134:GLU:O	2:CB:138:LEU:HG	2.17	0.45
15:AO:5:LYS:HB3	15:AO:5:LYS:HE2	1.84	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CF:44:GLY:O	6:CF:45:LEU:O	2.35	0.45
27:BA:146:G:H2'	27:BA:147:U:H5'	1.99	0.45
27:BA:1384:A:H1'	27:BA:1405:U:O4'	2.17	0.45
27:DA:932:G:O2'	27:DA:933:A:OP2	2.29	0.45
1:AA:1275:A:O2'	1:AA:1276:G:H5'	2.17	0.45
27:BA:867:C:O2	27:BA:913:U:H5'	2.16	0.45
6:AF:6:VAL:CG1	6:AF:90:VAL:HG22	2.47	0.45
27:DA:431:U:O2'	27:DA:432:A:H5'	2.16	0.45
7:AG:127:ALA:C	7:AG:129:GLU:N	2.68	0.45
2:AB:236:TYR:CG	2:AB:239:VAL:HG21	2.51	0.45
35:DI:92:VAL:HG23	35:DI:96:ASP:HB2	1.98	0.45
39:BQ:5:ARG:O	39:BQ:6:ARG:CB	2.65	0.45
34:BH:82:GLY:O	34:BH:83:TYR:C	2.55	0.45
3:CC:126:ARG:HG2	3:CC:126:ARG:HH11	1.81	0.45
27:BA:107:C:O5'	27:BA:107:C:H6	2.00	0.45
27:BA:1354:A:H2'	27:BA:1355:G:O4'	2.17	0.45
1:CA:806:C:H2'	1:CA:807:A:C8	2.51	0.45
1:CA:1262:C:H2'	1:CA:1263:C:C6	2.52	0.45
27:BA:1298:C:N4	27:BA:1299:G:C6	2.84	0.45
1:CA:301:G:H2'	1:CA:302:G:H8	1.82	0.45
1:CA:593:G:C2	1:CA:594:G:C4	3.05	0.45
27:DA:1256:G:N3	27:DA:1256:G:H2'	2.31	0.45
10:AJ:98:ILE:O	10:AJ:98:ILE:HG22	2.17	0.45
46:BX:47:PHE:CD2	46:BX:89:ILE:HD13	2.52	0.45
27:BA:1427:A:H4'	27:BA:1428:C:O5'	2.16	0.45
17:CQ:11:VAL:HG11	17:CQ:88:TYR:HD2	1.81	0.45
56:B7:23:ARG:O	56:B7:28:ARG:CZ	2.65	0.45
27:BA:248:G:C2	27:BA:2431:U:H4'	2.52	0.45
27:BA:638:G:C6	27:BA:639:U:N3	2.85	0.45
1:CA:1223:C:H5	1:CA:1224:G:N7	2.15	0.45
27:BA:2803:C:H2'	27:BA:2804:C:C5	2.52	0.45
41:BS:96:GLY:C	41:BS:98:VAL:H	2.20	0.45
32:BF:3:GLU:C	32:BF:19:GLU:CB	2.85	0.45
27:DA:254:G:H22	57:D8:8:LYS:NZ	2.15	0.45
4:CD:22:LYS:HG3	4:CD:26:CYS:SG	2.56	0.45
4:CD:79:PHE:O	4:CD:82:ALA:N	2.40	0.45
31:BE:51:PHE:O	31:BE:52:LEU:HB2	2.17	0.45
31:BE:52:LEU:HD12	31:BE:52:LEU:HA	1.74	0.45
32:BF:64:ILE:HG23	32:BF:65:TRP:CD1	2.52	0.45
43:BU:42:ALA:C	43:BU:44:ASN:N	2.70	0.45
27:DA:1892:C:O2'	27:DA:1893:C:H5'	2.17	0.45
27:DA:815:C:OP1	44:DV:85:LYS:NZ	2.47	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1491:G:O4'	30:DD:99:ASP:OD2	2.34	0.45
30:DD:208:LYS:HG2	30:DD:211:ARG:HB3	1.98	0.45
1:CA:525:C:H5''	12:CL:88:LYS:HZ3	1.81	0.45
51:D2:64:LEU:O	51:D2:64:LEU:HD23	2.17	0.45
49:D0:7:LEU:HA	49:D0:7:LEU:HD23	1.70	0.45
27:DA:2261:C:O4'	27:DA:2388:A:H1'	2.17	0.45
27:DA:2069:G:N2	27:DA:2442:C:C2	2.81	0.45
27:DA:468:G:N7	56:D7:39:ARG:NH2	2.58	0.45
27:BA:332:A:C2	27:BA:335:C:C5	3.04	0.45
27:DA:675:A:H2'	27:DA:676:A:H5'	1.99	0.45
32:DF:65:TRP:CH2	32:DF:75:HIS:HD2	2.34	0.45
55:B6:20:ASN:C	55:B6:21:TYR:CG	2.89	0.45
31:DE:199:ARG:HB3	31:DE:200:GLU:OE2	2.16	0.45
34:BH:45:VAL:O	34:BH:45:VAL:CG1	2.59	0.45
27:BA:1490:A:C2'	27:BA:1490:A:N3	2.77	0.45
1:AA:1057:G:N2	1:AA:1204:A:H1'	2.32	0.45
3:AC:155:GLY:O	3:AC:196:LEU:HD13	2.16	0.45
2:AB:155:LEU:HD13	2:AB:156:LYS:N	2.31	0.45
37:DO:116:SER:C	37:DO:118:ALA:N	2.70	0.45
42:DT:28:VAL:O	42:DT:29:ARG:CB	2.54	0.45
42:DT:30:VAL:HG23	42:DT:31:SER:N	2.31	0.45
17:CQ:12:SER:HB3	17:CQ:20:THR:OG1	2.17	0.45
27:BA:1824:G:O3'	30:BD:249:PRO:HD3	2.17	0.45
27:BA:1813:G:O4'	30:BD:45:ASN:HB3	2.16	0.45
31:BE:47:VAL:HG12	31:BE:48:GLN:N	2.32	0.45
32:DF:32:LEU:HD22	32:DF:112:MET:HE1	1.99	0.45
38:DP:6:LEU:HD12	38:DP:8:PRO:HG2	1.99	0.45
40:DR:43:GLU:C	40:DR:45:ARG:H	2.20	0.45
9:CI:79:LEU:HD13	9:CI:79:LEU:C	2.36	0.45
40:BR:63:ARG:HA	40:BR:80:PHE:CZ	2.51	0.45
27:BA:2199:A:H3'	27:BA:2200:C:H5''	1.98	0.45
58:D9:27:CYS:SG	58:D9:28:GLU:N	2.89	0.45
1:CA:511:C:HO2'	1:CA:512:U:H6	1.62	0.45
48:DZ:97:MET:H	48:DZ:124:LEU:CD1	2.30	0.45
39:DQ:132:VAL:HB	48:DZ:80:ARG:HH22	1.81	0.45
38:BP:96:THR:HG22	38:BP:126:VAL:HB	1.99	0.45
27:DA:1380:G:O2'	27:DA:1569:A:N6	2.50	0.45
35:BI:83:ALA:CB	35:BI:88:ILE:HA	2.47	0.45
35:BI:92:VAL:O	35:BI:93:THR:C	2.55	0.45
27:BA:1406:U:H2'	27:BA:1407:C:H6	1.79	0.45
27:BA:1375:C:H2'	27:BA:1376:C:C6	2.48	0.45
28:DB:43:C:C5	28:DB:45:A:N6	2.85	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AM:7:VAL:HG12	13:AM:9:ILE:CD1	2.38	0.45
27:DA:1417:C:H2'	27:DA:1418:G:O4'	2.16	0.45
37:DO:97:ARG:O	37:DO:98:VAL:CG1	2.61	0.45
1:AA:1136:U:H6	1:AA:1136:U:O5'	1.99	0.45
19:CS:62:ILE:CG2	19:CS:62:ILE:O	2.63	0.45
27:BA:2525:G:N3	27:BA:2525:G:H2'	2.32	0.45
42:BT:12:SER:O	42:BT:13:ARG:NH1	2.49	0.45
1:AA:664:G:OP1	18:AR:64:ARG:NH2	2.46	0.45
6:AF:67:MET:CB	6:AF:68:PRO:HD2	2.34	0.45
1:AA:606:G:H2'	1:AA:631:G:H1	1.80	0.45
10:AJ:46:ARG:CG	10:AJ:64:GLU:OE1	2.55	0.45
27:BA:81:G:H2'	27:BA:82:G:O4'	2.17	0.45
27:DA:1323:U:OP1	45:DW:84:ARG:NE	2.50	0.45
45:DW:14:PRO:HG3	45:DW:101:SER:OG	2.16	0.45
27:BA:2302:G:C6	27:BA:2315:G:C6	3.06	0.45
27:BA:2313:C:C4	27:BA:2314:C:C5	3.05	0.45
16:AP:55:ARG:O	16:AP:56:ALA:C	2.55	0.45
6:CF:89:MET:SD	18:CR:76:LEU:HD11	2.57	0.45
5:AE:118:ILE:HG13	5:AE:119:LEU:N	2.31	0.45
3:CC:23:TYR:CD2	3:CC:24:ALA:N	2.85	0.45
1:CA:883:C:N3	1:CA:884:U:C4	2.85	0.45
34:DH:102:ALA:HB1	34:DH:116:GLU:HA	1.99	0.45
1:AA:183:G:H2'	1:AA:184:G:C8	2.52	0.45
1:AA:226:G:N3	1:AA:226:G:H2'	2.30	0.45
27:DA:1296:G:H2'	27:DA:1297:C:C6	2.52	0.45
4:AD:100:ARG:NH2	4:AD:118:ARG:NH2	2.65	0.45
27:BA:722:A:N6	27:BA:723:G:C6	2.85	0.45
46:DX:64:LYS:HZ3	46:DX:73:ARG:CZ	2.28	0.45
27:DA:1700:A:C2'	27:DA:1701:A:O4'	2.64	0.45
1:AA:55:A:O2'	1:AA:56:U:H5'	2.17	0.45
20:AT:88:VAL:O	20:AT:91:LEU:HB2	2.17	0.45
27:DA:1799:G:C5'	27:DA:1819:A:N6	2.77	0.45
23:CW:28:G:C2	23:CW:29:G:H1'	2.52	0.45
1:CA:1281:U:H5''	1:CA:1282:C:H5	1.82	0.45
23:AW:59:U:H5''	23:AW:60:C:H5	1.82	0.45
39:DQ:134:ARG:HH12	48:DZ:118:GLU:CD	2.20	0.45
1:CA:436:C:H2'	1:CA:437:U:C6	2.52	0.45
47:DY:87:LYS:HG3	47:DY:88:LYS:H	1.81	0.45
27:DA:1549:C:O2	27:DA:1549:C:H2'	2.17	0.45
27:DA:292:C:C2'	27:DA:293:U:H5'	2.47	0.45
1:AA:714:G:O2'	1:AA:715:A:H5'	2.17	0.45
15:CO:2:PRO:HB2	15:CO:3:ILE:HD13	1.98	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DR:83:ILE:O	40:DR:84:ALA:C	2.55	0.45
9:CI:18:PHE:HD1	9:CI:62:TYR:CD2	2.34	0.45
50:D1:16:ASN:HA	50:D1:38:SER:O	2.16	0.45
27:DA:377:C:C4	27:DA:378:C:C5	3.05	0.45
34:DH:26:VAL:O	34:DH:79:VAL:HG11	2.17	0.45
27:BA:1386:C:H2'	27:BA:1387:C:C5	2.52	0.45
27:BA:446:G:OP1	43:BU:3:ARG:NH1	2.48	0.45
49:D0:50:ASN:O	49:D0:51:VAL:HG23	2.16	0.45
20:AT:43:LEU:HB3	20:AT:48:LYS:CG	2.46	0.45
27:BA:2445:G:C2'	27:BA:2446:G:H5'	2.47	0.45
27:DA:2391:G:H1	27:DA:2424:C:H2'	1.82	0.45
27:DA:2201:C:H42	27:DA:2222:G:H1	1.64	0.45
1:CA:152:A:H2'	1:CA:153:C:H5'	1.99	0.45
1:AA:1495:U:H6	1:AA:1495:U:O5'	1.99	0.45
1:AA:506:G:C5	1:AA:507:C:C5	3.05	0.45
27:DA:667:U:H3'	27:DA:668:G:H5''	1.99	0.45
36:BN:73:THR:CG2	36:BN:74:ARG:N	2.80	0.45
24:AX:19:G:H5'	24:AX:20:U:C6	2.51	0.45
27:BA:291:C:H2'	27:BA:292:C:H6	1.82	0.45
3:AC:131:ARG:HH12	3:AC:135:LYS:HE3	1.82	0.45
27:DA:836:G:C5	27:DA:837:C:C4	3.05	0.45
1:AA:1267:C:O2	1:AA:1267:C:H2'	2.17	0.45
31:DE:196:VAL:O	31:DE:196:VAL:CG2	2.64	0.45
31:DE:49:LEU:N	31:DE:49:LEU:HD12	2.32	0.45
27:BA:1702:G:H2'	27:BA:1703:G:O4'	2.16	0.45
1:CA:1014:A:C2	1:CA:1219:U:H1'	2.52	0.44
19:CS:32:LYS:HB3	19:CS:57:HIS:NE2	2.32	0.44
40:BR:87:TYR:CE1	40:BR:117:VAL:O	2.70	0.44
2:CB:91:PRO:HG2	2:CB:155:LEU:CD2	2.47	0.44
2:CB:89:GLY:O	2:CB:154:LEU:HD13	2.17	0.44
41:BS:12:PHE:O	41:BS:14:VAL:HG23	2.18	0.44
32:BF:113:ALA:HB1	32:BF:186:ILE:CG2	2.45	0.44
47:BY:83:THR:O	47:BY:84:ARG:HG3	2.17	0.44
27:DA:1021:A:C6	27:DA:1023:U:C4	3.05	0.44
36:DN:66:LYS:O	36:DN:70:LYS:CB	2.64	0.44
27:DA:271(C):C:H2'	27:DA:271(D):G:H8	1.81	0.44
27:BA:480:A:OP2	47:BY:46:LYS:NZ	2.48	0.44
36:BN:3:THR:HG22	36:BN:4:TYR:H	1.82	0.44
27:DA:2406:U:O4	38:DP:70:GLN:HB3	2.17	0.44
1:AA:270:A:O2'	1:AA:271:C:H5'	2.16	0.44
30:DD:58:HIS:NE2	30:DD:59:LYS:O	2.50	0.44
27:DA:864:G:C6	27:DA:865:C:C5	3.06	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2404:C:N4	27:DA:2414:G:O6	2.50	0.44
27:DA:2250:G:C8	27:DA:2496:C:H5''	2.52	0.44
27:DA:630:G:N2	27:DA:634:C:C4	2.85	0.44
33:DG:20:ILE:HG23	33:DG:25:TYR:HB2	1.99	0.44
27:DA:574:C:C1'	27:DA:2055:C:H6	2.25	0.44
27:DA:2552:U:H3	27:DA:2554:U:H5'	1.81	0.44
27:DA:571:A:H1'	27:DA:573:G:H8	1.77	0.44
27:DA:753:C:O2	27:DA:754:C:C6	2.70	0.44
27:DA:671:C:H41	38:DP:42:SER:HA	1.82	0.44
27:BA:1022:G:C6	27:BA:1141:U:C5	3.05	0.44
27:BA:1141:U:H4'	27:BA:1142(A):A:O4'	2.17	0.44
34:BH:44:VAL:HG12	34:BH:45:VAL:HG23	1.98	0.44
27:BA:1495:A:H2'	27:BA:1496:A:N3	2.33	0.44
27:BA:1499:C:C3'	27:BA:1500:G:H5'	2.47	0.44
1:AA:1055:A:H1'	3:AC:156:ARG:NH1	2.31	0.44
12:CL:29:PHE:O	12:CL:30:ARG:HB2	2.17	0.44
39:BQ:12:GLN:NE2	39:BQ:73:PRO:CD	2.80	0.44
16:AP:65:GLN:N	16:AP:65:GLN:OE1	2.50	0.44
41:DS:16:ASN:ND2	41:DS:92:TYR:CE1	2.85	0.44
17:CQ:77:VAL:O	17:CQ:78:GLU:CB	2.62	0.44
27:BA:1787:A:O2'	27:BA:2589:A:H4'	2.17	0.44
1:AA:63:C:N4	1:AA:105:G:C6	2.85	0.44
41:BS:24:LEU:HD12	41:BS:82:ILE:CG2	2.47	0.44
33:DG:98:ARG:H	33:DG:98:ARG:CD	2.30	0.44
33:DG:98:ARG:HD3	33:DG:98:ARG:H	1.82	0.44
27:BA:745:G:H2'	27:BA:746:A:H5'	1.99	0.44
3:AC:16:ARG:CZ	3:AC:16:ARG:HB2	2.45	0.44
20:CT:51:GLU:O	20:CT:52:ALA:C	2.54	0.44
15:AO:24:SER:O	15:AO:28:GLN:NE2	2.34	0.44
46:BX:12:VAL:CG2	46:BX:13:LEU:N	2.75	0.44
1:CA:1459:C:C2	1:CA:1460:A:C8	3.05	0.44
27:BA:1555:G:H2'	27:BA:1556:C:C6	2.51	0.44
27:DA:15:G:C4	27:DA:16:G:C8	3.05	0.44
30:BD:270:ILE:O	30:BD:271:ILE:CG2	2.60	0.44
8:AH:97:VAL:O	8:AH:99:GLU:N	2.49	0.44
39:DQ:43:THR:CG2	39:DQ:94:VAL:HG12	2.44	0.44
41:DS:59:LYS:CE	41:DS:68:GLN:NE2	2.80	0.44
27:DA:956:G:N2	27:DA:959:A:C3'	2.75	0.44
55:B6:11:LEU:O	55:B6:23:THR:HA	2.17	0.44
27:DA:320:A:H2'	32:DF:136:THR:HG21	1.99	0.44
27:BA:1359:A:H8	27:BA:1359:A:H5'	1.81	0.44
34:DH:89:ILE:O	34:DH:90:LYS:C	2.55	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:939:G:C2	1:AA:940:C:N3	2.85	0.44
5:AE:78:HIS:N	5:AE:78:HIS:ND1	2.65	0.44
19:CS:45:VAL:C	19:CS:47:HIS:H	2.21	0.44
15:AO:63:ARG:O	15:AO:66:LEU:HB2	2.16	0.44
1:CA:637:G:C2	1:CA:638:G:C5	3.06	0.44
8:CH:104:ARG:NH2	8:CH:138:TRP:CH2	2.86	0.44
31:DE:19:ARG:O	31:DE:20:ALA:C	2.55	0.44
1:AA:1264:C:O2'	1:AA:1265:G:H5'	2.18	0.44
27:BA:363(A):A:H3'	27:BA:363(B):G:H8	1.82	0.44
27:DA:27:G:H22	27:DA:512:G:H2'	1.77	0.44
27:BA:992:C:C2'	27:BA:993:G:H5'	2.46	0.44
39:DQ:34:LEU:CD1	39:DQ:118:LEU:HD22	2.41	0.44
29:DC:45:ALA:O	29:DC:46:LYS:CB	2.65	0.44
1:AA:952:U:C5	13:AM:104:ARG:NH2	2.83	0.44
1:AA:592:G:C6	1:AA:648:A:N1	2.86	0.44
1:AA:641:U:H4'	1:AA:642:A:OP1	2.17	0.44
28:DB:30:C:N3	28:DB:31:C:H1'	2.32	0.44
1:CA:945:G:C2	1:CA:1337:G:C2	3.05	0.44
6:AF:75:LEU:C	6:AF:75:LEU:CD2	2.82	0.44
27:BA:1007:C:OP1	36:BN:37:LYS:NZ	2.46	0.44
2:CB:114:ARG:HH12	2:CB:118:LEU:HD21	1.82	0.44
27:DA:1042:G:C1'	27:DA:1114:G:N2	2.78	0.44
27:BA:1380:G:N2	27:BA:1570:A:H2	2.15	0.44
8:CH:20:TYR:CE2	8:CH:75:ARG:HB3	2.53	0.44
29:BC:100:ILE:HG23	29:BC:131:LEU:O	2.17	0.44
27:BA:699:A:C8	27:BA:700:G:C8	3.05	0.44
2:AB:132:LYS:HA	2:AB:135:GLN:HB2	1.98	0.44
23:CW:37:U:O2'	23:CW:38:U:H5'	2.17	0.44
46:DX:5:TYR:HE2	51:D2:30:ARG:NE	2.14	0.44
27:DA:2236:C:H2'	27:DA:2237:G:H5'	1.98	0.44
25:AY:57:A:H3'	25:AY:57:A:P	2.57	0.44
23:CW:52:G:H1	23:CW:60:C:H42	1.65	0.44
6:CF:6:VAL:HA	6:CF:90:VAL:HG13	1.99	0.44
2:CB:168:THR:O	2:CB:169:LYS:C	2.55	0.44
27:DA:45:C:H2'	27:DA:47:C:C6	2.52	0.44
50:D1:49:VAL:O	50:D1:59:THR:HA	2.17	0.44
37:BO:57:VAL:O	37:BO:57:VAL:HG12	2.17	0.44
1:CA:667:G:O2'	1:CA:668:G:H5'	2.16	0.44
48:BZ:38:VAL:HG21	48:BZ:43:PHE:HB2	1.98	0.44
27:BA:1230:C:H2'	27:BA:1231:G:H8	1.82	0.44
48:BZ:55:VAL:HG12	48:BZ:56:ILE:N	2.31	0.44
1:AA:393:A:O2'	1:AA:394:G:H5'	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1853:A:N3	27:BA:2233:U:O2'	2.48	0.44
2:CB:139:LYS:HA	2:CB:139:LYS:HD3	1.77	0.44
39:BQ:69:PHE:C	39:BQ:69:PHE:CD2	2.90	0.44
27:BA:1419:A:H2'	27:BA:1421:G:N7	2.32	0.44
1:AA:624:C:H4'	16:AP:10:GLY:HA2	1.99	0.44
27:DA:1045:A:H4'	27:DA:1047:G:O4'	2.16	0.44
1:CA:1225:A:H5'	13:CM:103:THR:OG1	2.16	0.44
1:CA:982:U:C5'	14:CN:6:LEU:HD11	2.43	0.44
32:BF:19:GLU:O	32:BF:20:LEU:HD12	2.17	0.44
47:BY:76:CYS:HB2	47:BY:96:ILE:HD11	1.99	0.44
37:BO:60:ALA:CB	37:BO:86:ILE:HA	2.47	0.44
27:DA:1827:C:H2'	27:DA:1828:G:O4'	2.17	0.44
27:DA:1963:U:C2'	27:DA:1963:U:O2	2.65	0.44
27:BA:480:A:OP2	47:BY:46:LYS:HE3	2.17	0.44
42:BT:19:LEU:CD1	42:BT:19:LEU:N	2.80	0.44
1:AA:264:U:O2'	1:AA:265:G:H5'	2.18	0.44
32:DF:20:LEU:HB3	32:DF:23:ASP:CG	2.37	0.44
27:DA:1157:G:H2'	27:DA:1158:C:H6	1.74	0.44
43:DU:49:HIS:O	43:DU:53:ARG:N	2.47	0.44
43:DU:52:ARG:HD3	43:DU:55:ARG:HE	1.82	0.44
43:DU:88:ILE:HG22	44:DV:47:VAL:O	2.17	0.44
44:DV:97:LYS:HD3	44:DV:97:LYS:HA	1.85	0.44
27:BA:2701:C:C3'	27:BA:2702:U:C5'	2.67	0.44
29:BC:41:VAL:HG23	29:BC:178:ALA:HB3	1.98	0.44
30:DD:77:ALA:HB2	30:DD:97:TYR:HE2	1.76	0.44
27:DA:1429:G:C2	27:DA:1430:C:C2	3.05	0.44
27:DA:1566:A:C8	30:DD:214:TRP:CZ3	3.06	0.44
42:BT:34:VAL:HA	42:BT:39:ARG:O	2.17	0.44
27:DA:83:G:O2'	27:DA:84:A:C8	2.66	0.44
31:DE:59:VAL:O	31:DE:60:ASN:CB	2.65	0.44
55:D6:14:THR:C	55:D6:16:CYS:H	2.21	0.44
57:D8:41:ILE:HG13	57:D8:41:ILE:H	1.58	0.44
27:DA:2019:A:H5''	43:DU:27:LEU:HD12	1.98	0.44
38:DP:21:ARG:CG	38:DP:29:LYS:HE3	2.47	0.44
1:CA:1138:G:C2	1:CA:1140:C:C4	3.05	0.44
20:CT:91:LEU:C	20:CT:93:GLU:N	2.70	0.44
3:AC:186:PHE:CD2	3:AC:186:PHE:C	2.90	0.44
12:CL:57:LEU:C	12:CL:59:SER:N	2.70	0.44
2:AB:17:PHE:CD2	2:AB:17:PHE:O	2.70	0.44
2:AB:92:TYR:O	2:AB:151:GLY:O	2.35	0.44
1:AA:28:G:O2'	1:AA:296:U:H5''	2.17	0.44
19:AS:46:GLY:H	19:AS:62:ILE:HG23	1.81	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:AS:61:TYR:C	19:AS:62:ILE:HG22	2.38	0.44
34:DH:85:LYS:O	34:DH:133:VAL:N	2.47	0.44
1:AA:230:G:C4'	16:AP:23:ASP:OD2	2.65	0.44
41:DS:19:LYS:HB3	41:DS:20:ARG:NH1	2.33	0.44
27:BA:1248:G:C3'	27:BA:1249:U:H5''	2.47	0.44
1:CA:129(A):G:N2	1:CA:189(E):U:O2'	2.51	0.44
1:CA:275:G:H5'	17:CQ:14:LYS:HB3	1.99	0.44
32:BF:60:SER:OG	32:BF:61:GLY:N	2.50	0.44
1:AA:1102:A:C5	1:AA:1103:C:C5	3.06	0.44
1:AA:374:A:C4	1:AA:375:U:C5	3.04	0.44
1:AA:409:G:H2'	1:AA:410:G:H5'	1.98	0.44
37:BO:35:VAL:HA	37:BO:62:VAL:CG1	2.47	0.44
27:BA:2266:A:H5'	27:BA:2267:A:N7	2.32	0.44
21:CU:18:TYR:CD2	21:CU:22:ARG:HD3	2.52	0.44
48:DZ:96:GLU:OE2	48:DZ:124:LEU:HD21	2.17	0.44
40:DR:38:VAL:HB	40:DR:39:PRO:CD	2.35	0.44
48:DZ:43:PHE:CD1	48:DZ:43:PHE:C	2.91	0.44
1:CA:658:G:H2'	1:CA:659:U:H6	1.81	0.44
27:BA:2173:A:O2'	27:BA:2174:C:C5'	2.59	0.44
35:BI:83:ALA:HB2	35:BI:88:ILE:HA	1.98	0.44
27:BA:571:A:OP2	27:BA:2030:A:N6	2.50	0.44
33:DG:53:LEU:C	33:DG:55:LYS:N	2.68	0.44
1:AA:500:G:C6	1:AA:546:G:C2	3.05	0.44
3:AC:112:SER:HB3	3:AC:115:LEU:CD1	2.36	0.44
27:BA:2355:C:H2'	27:BA:2356:C:O4'	2.18	0.44
35:DI:82:ARG:HG3	35:DI:82:ARG:NH1	2.31	0.44
13:AM:80:ARG:C	13:AM:82:MET:N	2.71	0.44
33:BG:139:LEU:H	33:BG:139:LEU:HD23	1.82	0.44
42:BT:67:SER:C	42:BT:68:TYR:O	2.55	0.44
27:BA:2516:G:C2'	27:BA:2517:C:C5'	2.85	0.44
35:BI:37:VAL:HG12	35:BI:38:LEU:HD12	2.00	0.44
27:DA:2290:G:C6	27:DA:2291:U:C4	3.05	0.44
44:DV:66:ARG:O	44:DV:67:GLY:O	2.35	0.44
54:D5:31:VAL:CG1	54:D5:42:PRO:HB3	2.48	0.44
54:D5:41:PRO:HA	54:D5:42:PRO:HD2	1.88	0.44
15:AO:58:MET:O	15:AO:61:GLY:N	2.51	0.44
27:BA:1579:A:H2'	27:BA:1580:A:H8	1.79	0.44
39:DQ:116:GLU:O	39:DQ:119:ARG:N	2.50	0.44
45:DW:29:LEU:O	45:DW:33:ARG:HG3	2.18	0.44
15:CO:43:LEU:C	15:CO:45:VAL:N	2.69	0.44
5:AE:20:GLN:O	5:AE:23:GLY:O	2.36	0.44
1:CA:1386:G:C2	1:CA:1387:G:C8	3.04	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1513:A:C6	1:CA:1514:C:N4	2.85	0.44
3:AC:182:ILE:HD11	3:AC:203:PHE:HD1	1.77	0.44
5:CE:63:ARG:C	5:CE:65:ASN:H	2.21	0.44
27:DA:1986:A:H2'	27:DA:1986:A:N3	2.32	0.44
27:DA:2587:A:N6	27:DA:2608:G:O2'	2.46	0.44
50:B1:53:VAL:CG1	50:B1:54:ALA:N	2.80	0.44
1:CA:946:A:C2	1:CA:1236:A:C2	3.04	0.44
1:AA:407:G:H1	1:AA:435:C:H42	1.65	0.44
27:BA:119:A:O2'	27:BA:120:U:P	2.75	0.44
27:DA:2283:C:C2	27:DA:2389:G:C2	3.05	0.44
27:BA:1007:C:C5	27:BA:1008:C:H2'	2.53	0.44
30:DD:148:GLU:HB2	30:DD:151:LYS:HD2	1.98	0.44
9:AI:42:ARG:O	9:AI:43:ALA:C	2.55	0.44
39:DQ:58:PHE:CD1	39:DQ:58:PHE:O	2.71	0.44
1:AA:1142:G:C8	1:AA:1143:G:N7	2.86	0.44
27:DA:2145:C:HO2'	27:DA:2146:C:P	2.40	0.44
34:BH:29:PRO:O	34:BH:30:LYS:CD	2.65	0.44
13:AM:48:LEU:O	13:AM:49:THR:O	2.36	0.44
1:AA:568:G:N3	1:AA:568:G:H2'	2.32	0.44
4:CD:209:ARG:HG2	4:CD:209:ARG:OXT	2.17	0.44
1:AA:423:G:O2'	1:AA:424:G:H5'	2.17	0.44
2:CB:132:LYS:HG2	2:CB:132:LYS:O	2.17	0.44
27:DA:1839:G:C8	27:DA:1927:A:H1'	2.51	0.44
43:DU:14:HIS:C	43:DU:16:LYS:N	2.70	0.44
23:CW:8:U:O4	23:CW:13:A:H2'	2.17	0.44
10:AJ:88:LEU:HD11	10:AJ:90:LEU:CD1	2.48	0.44
27:DA:751:A:O4'	45:DW:90:ARG:HD3	2.17	0.44
27:DA:1765:C:O5'	27:DA:1765:C:H6	2.00	0.44
45:BW:97:LYS:HE3	45:BW:99:ARG:CZ	2.47	0.44
41:DS:49:VAL:HG21	41:DS:76:LYS:O	2.17	0.44
27:DA:823:G:H2'	27:DA:824:A:C8	2.52	0.44
29:BC:58:VAL:CG2	29:BC:166:ASP:H	2.30	0.44
1:AA:1092:A:H5''	7:AG:4:ARG:NH2	2.31	0.44
1:AA:895:G:H2'	1:AA:896:C:C6	2.52	0.44
36:BN:23:LEU:CD1	36:BN:99:LEU:HA	2.47	0.44
8:AH:21:LYS:O	8:AH:22:GLU:C	2.55	0.44
33:BG:7:LEU:HA	33:BG:10:LYS:HB2	2.00	0.44
57:B8:63:PRO:HB2	57:B8:64:TYR:CD1	2.52	0.44
1:CA:1324:A:C4'	1:CA:1362:C:H4'	2.46	0.44
40:BR:27:SER:C	40:BR:34:ILE:HD11	2.37	0.44
34:BH:85:LYS:CE	34:BH:141:VAL:O	2.65	0.44
48:DZ:162:LEU:H	48:DZ:162:LEU:HD12	1.83	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:507:C:C2'	1:CA:508:C:H5	2.22	0.44
27:BA:481:G:O2'	27:BA:482:A:P	2.76	0.44
1:CA:1349:A:C2	1:CA:1350:A:C4	3.06	0.44
1:CA:721:G:C4'	1:CA:722:A:O5'	2.42	0.44
17:AQ:63:ARG:HH11	17:AQ:63:ARG:HB3	1.80	0.44
1:AA:1080:A:H5''	5:AE:16:THR:HG21	1.99	0.44
1:CA:1250:A:O2'	1:CA:1251:A:H5'	2.17	0.44
27:DA:1432:C:C4	27:DA:1433:U:C5	3.05	0.44
27:BA:335:C:H5''	47:BY:73:ARG:CZ	2.48	0.44
32:DF:65:TRP:O	32:DF:67:GLN:N	2.51	0.44
27:DA:587:C:C5	38:DP:33:ARG:HD3	2.51	0.44
55:B6:19:ARG:H	55:B6:19:ARG:CD	2.21	0.44
1:CA:1105:A:C2	1:CA:1106:G:C5	3.05	0.44
27:BA:2481:G:HO2'	27:BA:2482:G:P	2.38	0.44
27:DA:310:A:C6	27:DA:330:A:C6	3.05	0.44
30:BD:60:ARG:HG2	30:BD:61:LEU:H	1.83	0.44
9:AI:48:GLU:N	9:AI:49:PRO:CD	2.81	0.44
51:D2:7:ARG:O	51:D2:11:GLU:HG3	2.17	0.44
1:AA:1054:C:P	1:AA:1197:G:OP2	2.75	0.44
1:AA:1346:A:H5'	9:AI:120:ARG:HH12	1.82	0.44
10:AJ:49:VAL:O	10:AJ:60:ARG:HB3	2.17	0.44
2:AB:204:ASN:ND2	2:AB:206:ASP:N	2.65	0.44
37:DO:71:ARG:NE	37:DO:105:GLU:OE2	2.39	0.44
42:DT:74:ARG:HD3	42:DT:76:PHE:CZ	2.51	0.44
58:D9:25:VAL:HG21	58:D9:34:GLN:OE1	2.17	0.44
34:DH:139:GLN:HG3	34:DH:140:LYS:H	1.83	0.44
32:BF:51:THR:CG2	32:BF:92:PRO:HD2	2.46	0.44
8:CH:48:TYR:CD1	8:CH:48:TYR:C	2.90	0.44
36:DN:11:PRO:O	36:DN:13:TRP:N	2.50	0.44
36:DN:131:GLN:HE22	36:DN:134:ARG:HD2	1.82	0.44
1:CA:227:G:H2'	1:CA:228:A:C8	2.45	0.44
31:DE:26:ILE:CB	31:DE:182:LEU:HB3	2.42	0.44
9:CI:8:GLY:HA3	9:CI:76:ALA:O	2.18	0.44
27:DA:777:A:C2'	27:DA:778:G:H5'	2.48	0.44
1:CA:1177:G:H22	1:CA:1181:G:H1	1.64	0.44
12:AL:37:VAL:HG11	12:AL:74:LEU:O	2.17	0.44
27:BA:1799:G:N1	27:BA:1819:A:N7	2.65	0.44
1:CA:1054:C:H5	1:CA:1196:U:C6	2.34	0.44
10:AJ:38:ILE:HD11	10:AJ:71:LEU:HD23	2.00	0.44
49:B0:17:GLN:O	49:B0:18:ALA:O	2.35	0.44
27:DA:154:G:C5	27:DA:154(A):C:N3	2.86	0.44
39:DQ:70:PRO:HA	39:DQ:94:VAL:O	2.18	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:DC:189:ILE:C	29:DC:191:ALA:N	2.71	0.44
29:DC:39:GLU:HG2	29:DC:180:PHE:CB	2.48	0.44
5:CE:20:GLN:O	5:CE:21:ALA:C	2.55	0.44
27:DA:125:G:N2	56:D7:48:LYS:HE3	2.18	0.44
31:DE:110:GLY:HA2	31:DE:161:GLY:HA3	1.98	0.44
2:CB:14:GLY:O	2:CB:15:VAL:CG1	2.54	0.44
50:B1:44:PRO:O	50:B1:46:LEU:HD13	2.17	0.44
39:BQ:114:ALA:O	39:BQ:116:GLU:N	2.50	0.44
39:BQ:56:ARG:CG	39:BQ:56:ARG:HH11	2.26	0.44
52:D3:47:VAL:HA	52:D3:50:VAL:CG2	2.47	0.44
27:DA:1485:G:H8	27:DA:1485:G:H5'	1.83	0.44
27:DA:2297:C:H2'	27:DA:2298:A:C8	2.52	0.44
27:DA:271(J):C:C3'	27:DA:271(K):U:H5''	2.47	0.44
27:DA:2815:C:O2'	54:D5:43:HIS:CD2	2.71	0.44
33:BG:72:ARG:HG2	33:BG:86:MET:O	2.17	0.44
31:DE:13:ARG:HD2	31:DE:20:ALA:HB1	1.99	0.44
12:CL:5:ASN:O	12:CL:8:VAL:CB	2.65	0.44
34:DH:54:ARG:NH2	34:DH:57:ASP:OD1	2.50	0.44
27:DA:2187:G:C5	27:DA:2188:C:C4	3.06	0.44
27:DA:1322:A:C8	27:DA:1323:U:H5	2.35	0.44
27:BA:2302:G:C6	27:BA:2303:G:C5	3.05	0.44
38:BP:9:ASN:O	38:BP:10:PRO:C	2.55	0.44
8:CH:9:MET:HB2	8:CH:26:VAL:CG2	2.48	0.44
27:BA:1924:C:H2'	27:BA:1925:C:H5'	1.99	0.44
27:BA:1440:G:H2'	27:BA:1441:G:O4'	2.18	0.44
1:AA:959:A:C2'	1:AA:960:U:H4'	2.46	0.44
7:CG:15:ASP:CG	7:CG:16:LEU:H	2.21	0.44
28:DB:30:C:C2	28:DB:31:C:H1'	2.53	0.44
27:BA:519:U:H6	27:BA:519:U:O5'	1.99	0.44
27:BA:2611:U:H5'	27:BA:2611:U:C6	2.41	0.44
27:BA:2654:A:C4'	27:BA:2655:G:OP1	2.62	0.44
27:BA:26:G:H1'	27:BA:514:A:N6	2.32	0.44
30:DD:157:ARG:HG3	30:DD:157:ARG:HH11	1.82	0.44
30:DD:158:ALA:HB3	30:DD:161:THR:CG2	2.48	0.44
39:DQ:40:ALA:HB3	39:DQ:127:ILE:HD13	1.99	0.44
27:BA:271(L):U:H4'	27:BA:271(M):G:C5	2.53	0.44
46:DX:72:LYS:CD	46:DX:72:LYS:N	2.81	0.44
1:CA:1278:U:H5''	1:CA:1279:A:H5'	2.00	0.44
27:DA:1114:G:C3'	27:DA:1115:G:H5''	2.47	0.44
50:D1:19:GLN:O	50:D1:35:THR:N	2.47	0.44
11:AK:98:LEU:HA	11:AK:101:SER:HB3	1.98	0.44
27:BA:528:A:H2	27:BA:2043:C:H5'	1.81	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:BZ:8:TYR:OH	48:BZ:34:ARG:HG3	2.17	0.44
35:DI:39:ALA:O	35:DI:40:THR:O	2.36	0.44
40:DR:30:THR:O	40:DR:30:THR:CG2	2.63	0.44
27:BA:102:G:OP1	27:BA:102:G:H4'	2.16	0.44
27:DA:1896:G:C6	27:DA:1897:G:N7	2.86	0.44
15:AO:18:PHE:O	15:AO:19:PRO:C	2.55	0.44
24:AX:29:G:H2'	24:AX:30:G:C8	2.47	0.44
27:BA:1013:C:C2'	27:BA:1014:U:H5'	2.48	0.44
27:DA:376:C:H2'	27:DA:377:C:H6	1.81	0.44
27:DA:677:A:H2'	27:DA:678:C:C6	2.52	0.44
27:DA:1705:G:H2'	27:DA:1706:U:O4'	2.18	0.44
27:DA:1852:C:H6	27:DA:1852:C:H3'	1.83	0.44
38:DP:79:ARG:NH2	38:DP:109:GLY:CA	2.80	0.44
48:BZ:128:SER:C	48:BZ:130:ARG:H	2.19	0.44
27:DA:2534:A:N6	27:DA:2535:G:C5	2.85	0.44
27:BA:887:A:C2'	27:BA:888:C:H5''	2.48	0.44
27:DA:2462:U:H2'	27:DA:2463:C:O4'	2.17	0.44
1:AA:978:A:H8	1:AA:978:A:H5''	1.82	0.44
27:BA:36:G:H4'	27:BA:451:C:C2	2.51	0.44
1:AA:588:G:C6	1:AA:753:A:C8	3.05	0.44
4:CD:185:PHE:CD2	4:CD:185:PHE:O	2.70	0.44
27:BA:237:C:O2'	27:BA:238:C:H5'	2.17	0.44
1:CA:416:G:H2'	1:CA:417:C:C6	2.53	0.44
48:BZ:4:LEU:HD11	48:BZ:42:GLU:HB3	2.00	0.44
2:CB:124:SER:C	2:CB:126:GLU:H	2.21	0.44
4:AD:13:ARG:O	4:AD:15:GLU:N	2.47	0.44
6:CF:1:MET:HE1	6:CF:68:PRO:HD3	1.99	0.44
4:AD:38:TYR:O	4:AD:39:PRO:O	2.35	0.44
27:DA:2437:U:H2'	27:DA:2438:U:C6	2.52	0.44
27:DA:1450(A):C:H6	27:DA:1450(A):C:O5'	2.00	0.44
49:B0:29:GLN:O	49:B0:67:VAL:HG23	2.18	0.44
23:AW:56:G:H2'	23:AW:57:A:H5'	1.99	0.44
27:DA:386:G:O2'	27:DA:387:U:OP1	2.31	0.44
36:BN:82:LEU:HD12	36:BN:82:LEU:HA	1.73	0.44
27:DA:2089:U:H6	27:DA:2089:U:H5''	1.83	0.44
9:CI:25:LYS:HG3	9:CI:25:LYS:O	2.16	0.44
2:AB:127:ILE:O	2:AB:127:ILE:HG22	2.17	0.44
2:CB:127:ILE:O	2:CB:128:GLU:C	2.54	0.44
29:BC:90:GLY:O	29:BC:91:ALA:HB2	2.17	0.44
20:CT:94:ALA:O	20:CT:95:ALA:HB3	2.17	0.44
1:CA:979:C:C3'	1:CA:980:C:C5'	2.87	0.44
41:BS:88:ASP:CG	41:BS:89:ARG:H	2.18	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:615:G:H2'	27:BA:616:G:O4'	2.17	0.44
32:BF:2:LYS:HG2	32:BF:25:PRO:CG	2.47	0.44
34:BH:121:ILE:HG23	34:BH:133:VAL:HG12	1.99	0.44
36:DN:97:ARG:O	36:DN:100:GLU:N	2.50	0.44
46:BX:11:PRO:HA	46:BX:28:PHE:HA	1.99	0.44
27:DA:245:G:H2'	27:DA:246:C:H6	1.82	0.44
27:DA:1907:G:C2'	27:DA:1908:C:H5'	2.48	0.44
27:DA:1932:A:H2'	27:DA:1933:G:C5'	2.47	0.44
27:DA:1970:A:H4'	27:DA:1971:A:OP1	2.16	0.44
27:BA:662:G:OP1	38:BP:18:ARG:NH1	2.50	0.44
32:DF:8:GLN:O	32:DF:9:ILE:C	2.56	0.44
1:AA:1400:C:C4	24:AX:34:C:C2	3.06	0.44
43:DU:66:ASN:ND2	43:DU:70:ARG:HE	2.16	0.44
41:BS:54:LEU:HD13	41:BS:58:LEU:HB2	1.98	0.44
27:DA:1429:G:N2	27:DA:1430:C:C2	2.85	0.44
27:DA:907:U:H6	27:DA:907:U:H5'	1.82	0.44
57:D8:29:LYS:HE2	57:D8:44:LYS:HB3	1.99	0.44
27:DA:2423:U:C2	27:DA:2425:A:C2	3.05	0.44
27:DA:2426:A:H3'	27:DA:2427:C:H5'	1.97	0.44
28:DB:54:G:H21	33:DG:29:TRP:HE1	1.65	0.44
20:AT:28:ALA:C	20:AT:30:LYS:N	2.71	0.44
20:AT:30:LYS:HD3	20:AT:30:LYS:C	2.38	0.44
27:BA:1140:C:P	36:BN:66:LYS:NZ	2.90	0.44
55:B6:15:GLU:OE1	55:B6:41:PRO:CB	2.66	0.44
46:DX:47:PHE:O	46:DX:49:VAL:HG13	2.17	0.44
27:DA:313:C:O2'	27:DA:314:A:O4'	2.36	0.44
47:DY:68:HIS:HB3	47:DY:71:LYS:CG	2.47	0.44
4:CD:122:ARG:HA	4:CD:134:ASP:O	2.18	0.44
42:DT:27:THR:OG1	42:DT:28:VAL:N	2.44	0.44
12:CL:41:THR:HG21	26:CZ:6:5OH:OS	2.18	0.44
1:CA:122:G:H2'	1:CA:123:C:O4'	2.18	0.44
27:BA:1991:U:C2'	27:BA:1992:G:H5''	2.47	0.44
1:CA:742:G:P	15:CO:35:ARG:NH2	2.90	0.44
36:DN:12:ARG:O	36:DN:13:TRP:C	2.54	0.44
1:CA:1004:A:H5'	1:CA:1025:U:H3	1.82	0.44
18:AR:33:ASP:C	18:AR:33:ASP:OD2	2.55	0.44
27:BA:391:G:C8	27:BA:391:G:H5''	2.53	0.44
42:BT:48:ILE:O	42:BT:50:ILE:CD1	2.66	0.44
38:BP:99:LEU:HA	38:BP:102:ARG:NH1	2.32	0.44
38:BP:106:LEU:O	38:BP:107:LYS:CG	2.65	0.44
27:BA:2121:G:H2'	27:BA:2122:U:O4'	2.17	0.44
27:BA:2174:C:O2'	27:BA:2175:C:C6	2.71	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2162:G:C2	27:DA:2163:C:C2	3.05	0.44
36:DN:128:HIS:N	36:DN:128:HIS:ND1	2.65	0.44
27:BA:149:A:C2	27:BA:150:C:C2	3.05	0.44
49:B0:24:LYS:O	49:B0:25:ARG:HD3	2.18	0.44
27:DA:1624:G:H2'	27:DA:1625:C:H6	1.83	0.44
35:BI:133:HIS:O	35:BI:135:GLU:N	2.51	0.44
48:BZ:150:HIS:HB2	48:BZ:167:GLU:O	2.17	0.44
27:BA:1408:C:O2	27:BA:1408:C:H2'	2.16	0.44
27:DA:962:G:H2'	27:DA:963:U:H6	1.82	0.44
36:BN:121:LYS:HB3	36:BN:123:TYR:CE1	2.48	0.44
50:B1:46:LEU:H	50:B1:46:LEU:HD22	1.79	0.44
27:DA:660:G:C2'	27:DA:661:C:H5'	2.48	0.44
27:DA:1679:U:H2'	27:DA:1680:U:O4'	2.17	0.44
35:DI:77:LEU:HD12	35:DI:101:LEU:HD22	1.98	0.44
13:AM:3:ARG:HH21	33:BG:139:LEU:HD11	1.83	0.44
13:AM:4:ILE:CG2	13:AM:5:ALA:N	2.79	0.44
27:DA:1505:C:H2'	27:DA:1506:C:O5'	2.18	0.44
25:CY:7:A:N6	25:CY:48:C:C5	2.85	0.44
3:AC:57:ILE:HA	3:AC:65:ALA:HB3	1.98	0.44
5:CE:147:ASP:O	5:CE:151:LEU:HG	2.18	0.44
3:AC:82:GLU:O	3:AC:86:VAL:HG13	2.16	0.44
2:AB:196:LEU:HG	2:AB:196:LEU:H	1.41	0.44
8:CH:44:PHE:HD1	8:CH:79:VAL:HG12	1.83	0.44
31:BE:33:VAL:HG22	31:BE:33:VAL:O	2.17	0.44
27:DA:477:A:O2'	27:DA:478:A:O4'	2.34	0.44
33:BG:119:GLY:HA3	33:BG:181:ARG:HB2	1.99	0.44
32:BF:41:LEU:CD1	32:BF:184:TYR:HE1	2.22	0.44
1:AA:667:G:N2	1:AA:740:U:H1'	2.32	0.44
1:AA:232:G:H2'	1:AA:233:C:C6	2.49	0.44
14:AN:9:LYS:HA	14:AN:12:ARG:NH1	2.32	0.44
27:BA:1739:U:O2'	27:BA:1740:G:C5'	2.63	0.44
1:AA:956:U:O2'	1:AA:957:U:H5'	2.18	0.44
1:AA:1226:C:O2'	13:AM:103:THR:O	2.24	0.44
48:BZ:142:GLY:O	48:BZ:143:LEU:HD22	2.17	0.44
34:DH:111:HIS:HA	34:DH:112:PRO:HD2	1.78	0.44
34:DH:97:ARG:HB3	34:DH:98:LEU:H	1.54	0.44
50:B1:53:VAL:O	50:B1:54:ALA:C	2.55	0.44
27:BA:258:G:C4	27:BA:259:G:C8	3.06	0.44
1:AA:225:C:H2'	1:AA:226:G:H8	1.83	0.44
1:CA:999:C:C2'	1:CA:1000:U:H5'	2.47	0.44
27:BA:1286:A:C2	27:BA:1289:C:C6	3.05	0.44
23:AW:23:G:H2'	23:AW:24:C:H6	1.81	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2534:A:C2	27:BA:2535:G:H1'	2.53	0.44
27:DA:621:A:H3'	27:DA:622:G:H8	1.82	0.44
27:DA:2355:C:C1'	49:D0:36:ILE:HD11	2.48	0.44
49:B0:35:ASN:O	49:B0:60:PHE:HB2	2.16	0.44
39:DQ:58:PHE:HB3	39:DQ:113:GLN:NE2	2.31	0.44
27:DA:1771:C:O2'	27:DA:1786:A:H8	2.01	0.44
1:AA:52:G:O2'	1:AA:53:A:O5'	2.36	0.44
27:BA:2760:C:H6	27:BA:2760:C:O5'	2.01	0.44
27:BA:2203:U:O2	27:BA:2221:G:C2	2.70	0.44
28:DB:27:C:H6	28:DB:27:C:C5'	2.30	0.44
28:BB:20:C:C2'	28:BB:21:G:H5'	2.47	0.44
1:AA:640:A:N3	8:AH:115:SER:HB2	2.32	0.44
4:CD:166:LYS:HG3	4:CD:178:VAL:HG11	1.99	0.44
27:BA:1695:G:N2	27:BA:1696:G:N7	2.65	0.44
9:AI:19:LEU:HB3	9:AI:59:PHE:HD2	1.82	0.44
50:D1:40:ARG:HD3	50:D1:40:ARG:O	2.17	0.44
2:AB:224:GLN:HE21	2:AB:229:VAL:CG2	2.30	0.44
1:AA:528:C:H41	12:AL:46:ASN:ND2	2.14	0.44
31:DE:170:LEU:HD23	31:DE:185:LYS:O	2.18	0.44
27:BA:1689:A:O2'	27:BA:1690:A:H5'	2.17	0.44
25:CY:45:U:H5''	25:CY:46:U:OP1	2.18	0.44
11:CK:12:ARG:HG2	11:CK:13:GLN:N	2.32	0.44
50:D1:46:LEU:HA	50:D1:63:ALA:HA	1.98	0.44
25:CY:71:A:O2'	25:CY:72:G:H5'	2.17	0.44
8:AH:74:PRO:CG	8:AH:75:ARG:N	2.80	0.44
2:CB:168:THR:O	2:CB:170:GLU:N	2.50	0.44
49:D0:47:PRO:HA	49:D0:51:VAL:HG12	1.98	0.44
27:DA:2315:G:H2'	27:DA:2316:C:H6	1.82	0.44
1:AA:384:G:H2'	1:AA:385:C:C6	2.53	0.44
27:DA:2846:G:H2'	27:DA:2847:U:C6	2.52	0.44
27:BA:374:A:H61	27:BA:400:G:C2'	2.31	0.44
33:BG:77:ILE:O	33:BG:77:ILE:HG22	2.17	0.44
1:AA:200:G:N2	1:AA:218:C:N3	2.65	0.44
36:BN:73:THR:HA	36:BN:83:LYS:O	2.18	0.44
27:BA:758:C:O2	27:BA:1981:A:H2	2.00	0.44
1:CA:806:C:H2'	1:CA:807:A:H8	1.82	0.44
27:BA:1391:U:O2	27:BA:1393:A:H8	1.99	0.44
27:BA:692:C:N3	27:BA:771:G:C2	2.86	0.44
4:CD:175:SER:HB3	4:CD:186:LEU:HD11	1.99	0.44
27:BA:2895:U:H5	27:BA:2896:C:N3	2.16	0.44
42:BT:22:PHE:CD2	42:BT:22:PHE:N	2.86	0.44
57:B8:41:ILE:HG13	57:B8:41:ILE:H	1.34	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BT:133:GLU:OE2	42:BT:137:LYS:HB2	2.17	0.44
27:BA:2256:G:N2	27:BA:2275:C:C4	2.85	0.44
15:CO:33:THR:HG23	15:CO:63:ARG:NH1	2.32	0.44
27:DA:2220:G:N2	27:DA:2221:G:H1'	2.33	0.44
27:BA:608:A:C2	27:BA:621:A:C4	3.05	0.44
1:CA:962:C:H2'	1:CA:963:G:C8	2.52	0.44
1:CA:980:C:C2'	1:CA:980:C:O2	2.64	0.44
14:CN:39:LEU:HD13	14:CN:44:LEU:HA	1.99	0.44
41:BS:89:ARG:HB3	41:BS:92:TYR:HB3	2.00	0.44
32:BF:18:ARG:CG	32:BF:199:TRP:HZ3	2.29	0.44
31:BE:188:VAL:O	31:BE:188:VAL:HG13	2.16	0.44
36:DN:100:GLU:O	36:DN:104:LYS:HB2	2.17	0.44
46:BX:9:LEU:CA	51:B2:36:ARG:HH21	2.16	0.44
1:CA:1305:G:O2'	1:CA:1306:A:OP2	2.29	0.44
5:AE:33:VAL:HG21	5:AE:109:ILE:CD1	2.47	0.44
32:DF:20:LEU:HD22	32:DF:203:GLN:HE22	1.83	0.44
27:DA:1000:A:H3'	27:DA:1001:A:C8	2.53	0.44
47:DY:85:VAL:HG12	47:DY:86:ARG:H	1.82	0.44
27:DA:864:G:H2'	27:DA:865:C:H6	1.82	0.44
57:D8:40:GLU:O	57:D8:42:ARG:N	2.50	0.44
27:DA:2054:A:C2	27:DA:2616:C:C2	3.06	0.44
1:AA:322:C:H2'	1:AA:323:U:C6	2.36	0.44
1:CA:1138:G:N2	1:CA:1140:C:N4	2.65	0.44
55:B6:48:VAL:C	55:B6:49:HIS:ND1	2.71	0.44
47:BY:38:ILE:O	47:BY:39:VAL:CB	2.65	0.44
1:AA:1316:G:H1'	1:AA:1360:A:H2	1.82	0.44
19:AS:39:THR:HG23	19:AS:70:LYS:HE2	1.98	0.44
8:AH:54:ASP:HB2	8:AH:56:LYS:CE	2.45	0.44
19:AS:18:LYS:HD2	19:AS:22:LEU:HD21	1.99	0.44
27:BA:754:C:C2	27:BA:755:C:C5	3.05	0.44
2:CB:39:ILE:HG22	2:CB:40:HIS:N	2.32	0.44
27:BA:828:U:H4'	27:BA:831:G:C6	2.52	0.44
58:B9:19:ARG:HG3	58:B9:24:TYR:HE1	1.81	0.44
1:AA:580:U:C2'	1:AA:581:G:O4'	2.60	0.44
1:CA:1001(A):G:O2'	1:CA:1002:G:H5'	2.18	0.44
20:CT:33:ILE:HD12	20:CT:63:ILE:HG12	1.99	0.44
1:CA:1190:G:OP1	3:CC:5:ILE:HG13	2.17	0.44
1:CA:1149:C:OP1	9:CI:14:VAL:HG21	2.16	0.44
3:CC:76:VAL:HG21	3:CC:103:VAL:HG11	1.98	0.44
10:AJ:34:VAL:HG22	10:AJ:74:ILE:HG22	1.99	0.44
39:DQ:137:TYR:O	39:DQ:138:ASP:C	2.55	0.44
1:CA:648:A:C6	1:CA:649:G:C6	3.06	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2130:U:C2	27:DA:2159:G:O6	2.71	0.44
1:CA:926:G:H8	1:CA:926:G:O5'	2.01	0.44
40:DR:16:HIS:C	40:DR:18:LEU:H	2.20	0.44
3:AC:114:PRO:HG3	3:AC:185:GLY:CA	2.45	0.44
27:BA:1357:U:H2'	27:BA:1358:G:C8	2.52	0.44
24:AX:56:C:H1'	33:BG:76:SER:HB3	2.00	0.44
36:DN:78:TYR:HB3	36:DN:79:PRO:HD2	1.98	0.44
1:AA:1380:U:O2'	1:AA:1381:U:OP2	2.33	0.44
27:BA:845:G:C8	27:BA:845:G:OP2	2.71	0.44
25:CY:7:A:C2	25:CY:66:A:C2	3.06	0.44
1:CA:450:G:H2'	1:CA:451:A:OP1	2.17	0.44
27:DA:2836:U:O5'	27:DA:2836:U:H6	2.01	0.44
1:AA:742:G:O2'	1:AA:743:U:H5'	2.17	0.44
3:AC:63:ASN:OD1	3:AC:63:ASN:N	2.50	0.44
5:CE:67:VAL:HG22	5:CE:68:GLU:N	2.31	0.44
23:CW:44:A:H2'	23:CW:46:U:H6	1.82	0.44
48:BZ:24:PRO:O	48:BZ:84:HIS:HA	2.17	0.44
27:BA:491:G:C2'	27:BA:492:A:O5'	2.65	0.44
27:DA:2881:C:C2'	27:DA:2882:A:H5'	2.48	0.44
27:DA:1287:A:C2'	27:DA:1288:U:O5'	2.65	0.44
35:DI:5:LEU:CD1	35:DI:17:GLN:HB3	2.42	0.44
35:DI:12:LEU:CB	35:DI:19:VAL:HG21	2.47	0.44
1:AA:1014:A:H2'	1:AA:1015:A:C8	2.53	0.44
27:BA:2078:C:H2'	27:BA:2079:U:H6	1.83	0.44
1:AA:599:C:H4'	8:AH:130:GLY:C	2.37	0.44
2:CB:217:ARG:O	2:CB:221:LEU:HD23	2.18	0.44
27:DA:227:A:C2	27:DA:2407:G:H1'	2.52	0.44
1:AA:392:G:H5'	16:AP:13:HIS:CE1	2.52	0.44
27:BA:2778:A:C4'	27:BA:2779:U:OP2	2.64	0.44
13:AM:11:ARG:HB3	13:AM:12:ASN:CG	2.37	0.44
27:DA:286:C:H2'	27:DA:287:C:H5'	1.98	0.44
13:CM:81:LEU:HB3	13:CM:89:GLY:CA	2.47	0.44
10:CJ:9:ARG:O	10:CJ:94:VAL:HG13	2.17	0.44
1:CA:1304:G:N2	1:CA:1332:A:N7	2.65	0.44
4:AD:193:ASP:C	4:AD:194:LEU:HD22	2.38	0.44
1:CA:324:G:N2	1:CA:327:A:C8	2.86	0.44
38:BP:136:GLU:O	38:BP:139:LYS:HB3	2.17	0.44
27:BA:2119:A:O2'	27:BA:2120:G:H5''	2.17	0.44
27:DA:1592:C:H2'	27:DA:1593:G:O4'	2.18	0.44
27:BA:176:G:H2'	27:BA:177:G:O4'	2.17	0.44
1:AA:992:U:H3	1:AA:1044:A:N6	2.08	0.44
36:BN:35:ARG:O	36:BN:37:LYS:N	2.50	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1464:C:O2'	27:BA:1528:A:C8	2.70	0.44
1:AA:277:C:OP1	17:AQ:41:LYS:HE3	2.18	0.44
27:BA:528:A:C2	27:BA:2043:C:H5'	2.53	0.44
27:BA:2553:G:H3'	27:BA:2554:U:C5'	2.44	0.44
1:CA:135:C:H2'	1:CA:136:C:C5'	2.45	0.44
9:CI:93:ARG:HD2	9:CI:93:ARG:HA	1.85	0.44
9:CI:27:THR:HG22	9:CI:28:VAL:N	2.33	0.44
27:BA:2748:A:OP1	34:BH:70:THR:HG21	2.17	0.44
18:CR:33:ASP:HB3	18:CR:36:ASN:HD21	1.81	0.44
1:AA:316:G:H2'	1:AA:317:G:H8	1.83	0.44
25:CY:20:A:C8	25:CY:47:C:N4	2.85	0.44
35:DI:110:ASP:HA	35:DI:111:PRO:HD2	1.82	0.44
28:DB:11:C:H3'	28:DB:12:C:C6	2.53	0.44
7:CG:24:THR:O	7:CG:28:ASN:ND2	2.46	0.44
27:BA:1300:U:C2'	27:BA:1301:A:OP2	2.66	0.44
27:BA:2151:G:O2'	27:BA:2152:G:H5'	2.18	0.44
1:AA:43:C:H2'	1:AA:44:G:O5'	2.18	0.44
27:BA:270:A:O2'	27:BA:271:A:H5'	2.18	0.44
27:DA:1663:C:O2'	27:DA:1664:A:H5'	2.18	0.44
48:BZ:126:LYS:HD3	48:BZ:161:GLU:OE1	2.18	0.44
30:BD:268:ARG:HB3	30:BD:268:ARG:NH1	2.33	0.44
27:BA:840:C:N3	27:BA:939:G:C6	2.85	0.44
27:BA:2415:G:C3'	38:BP:66:GLY:HA3	2.47	0.44
41:BS:12:PHE:HD1	41:BS:14:VAL:HG23	1.81	0.44
41:BS:89:ARG:HB3	41:BS:92:TYR:CB	2.47	0.44
27:DA:246:C:N3	27:DA:247:G:C8	2.86	0.44
57:D8:54:GLU:HA	57:D8:57:ARG:NE	2.32	0.44
47:BY:45:VAL:HG12	47:BY:46:LYS:N	2.32	0.44
27:DA:422:A:C6	27:DA:423:A:C6	3.06	0.44
42:BT:81:PRO:HD2	42:BT:82:LEU:HD11	1.98	0.44
43:DU:38:THR:O	43:DU:41:ALA:HB3	2.17	0.44
27:DA:1491:G:N1	27:DA:1492:G:C5	2.86	0.44
33:BG:138:GLN:HB2	33:BG:155:MET:CE	2.48	0.44
57:D8:32:LEU:HB3	57:D8:36:LYS:NZ	2.33	0.44
27:DA:2066:C:O2'	27:DA:2067:G:H5'	2.17	0.44
27:DA:2253:G:H2'	27:DA:2254:C:C6	2.52	0.44
27:DA:2344:U:C4'	27:DA:2345:G:OP1	2.65	0.44
27:DA:627:A:N6	38:DP:116:GLY:HA2	2.33	0.44
11:CK:41:THR:HG23	11:CK:42:TRP:N	2.32	0.44
27:DA:459:U:H5''	56:D7:40:TRP:CD2	2.52	0.44
27:DA:470:A:O2'	27:DA:471:A:H5'	2.17	0.44
27:DA:1614:A:H62	45:DW:93:ALA:CB	2.16	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2581:G:N3	27:DA:2581:G:H2'	2.33	0.44
27:DA:531:C:OP1	27:DA:561:G:C2	2.70	0.44
27:DA:750:A:C2	27:DA:753:C:C6	3.05	0.44
27:BA:1024:G:HO2'	27:BA:1144:G:HO2'	1.62	0.44
55:B6:48:VAL:HG22	55:B6:48:VAL:H	1.40	0.44
27:BA:1265:A:H4'	27:BA:1266:G:OP1	2.18	0.44
47:DY:13:VAL:O	47:DY:24:VAL:HG13	2.18	0.44
1:CA:363:A:H8	12:CL:30:ARG:HH21	1.64	0.44
23:AW:34:U:H2'	23:AW:35:G:O5'	2.17	0.44
16:CP:12:LYS:O	16:CP:13:HIS:HB2	2.17	0.44
3:CC:147:LYS:HB3	3:CC:203:PHE:CD2	2.52	0.44
27:BA:1311:G:C5	56:B7:47:ARG:NH2	2.86	0.44
27:BA:2074:U:O2'	27:BA:2075:U:H5'	2.17	0.44
30:BD:201:HIS:C	30:BD:201:HIS:HD1	2.21	0.44
38:DP:10:PRO:O	38:DP:11:GLY:C	2.56	0.44
1:CA:243:A:C2	1:CA:245:C:C2	3.06	0.44
1:CA:894:G:C6	1:CA:895:G:C5	3.05	0.44
15:AO:74:ASP:C	15:AO:76:GLU:H	2.20	0.44
1:CA:133:U:C1'	1:CA:230:G:N2	2.79	0.44
6:CF:93:SER:O	6:CF:94:GLN:HG3	2.18	0.44
1:CA:1049:U:C5	1:CA:1201:A:O4'	2.70	0.44
27:BA:2127:G:C2	27:BA:2128:C:C2	3.06	0.44
27:DA:1300:U:O2'	27:DA:1301:A:P	2.75	0.44
55:B6:32:ASN:O	55:B6:33:LYS:HB2	2.17	0.44
27:BA:2286:A:H4'	27:BA:2287:A:OP2	2.17	0.44
3:AC:114:PRO:O	3:AC:118:GLN:HG3	2.17	0.44
36:BN:134:ARG:O	36:BN:136:GLU:N	2.51	0.44
38:DP:16:ARG:CZ	38:DP:18:ARG:CG	2.94	0.44
28:DB:40:U:H1'	28:DB:45:A:H61	1.82	0.44
28:DB:43:C:H1'	33:DG:93:THR:HB	1.99	0.44
30:BD:205:VAL:O	30:BD:207:GLY:N	2.50	0.44
13:AM:76:ALA:C	13:AM:78:ILE:N	2.71	0.44
13:AM:76:ALA:HA	13:AM:79:LYS:CB	2.47	0.44
13:AM:82:MET:CG	13:AM:82:MET:O	2.66	0.44
1:AA:935:A:C2	1:AA:936:C:C2	3.05	0.44
27:DA:2141:G:H2'	27:DA:2142:C:C6	2.52	0.44
27:DA:2848:G:H21	27:DA:2867:G:H1'	1.83	0.44
19:CS:61:TYR:CG	19:CS:62:ILE:N	2.86	0.44
27:BA:2525:G:C2	27:BA:2526:G:C8	3.06	0.44
21:AU:13:ILE:HG12	21:AU:22:ARG:HE	1.83	0.44
13:CM:6:GLY:O	13:CM:7:VAL:HG23	2.17	0.44
6:AF:28:ARG:O	6:AF:32:ASN:CG	2.56	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1284:A:H2	45:BW:45:TYR:OH	2.00	0.44
40:DR:48:VAL:HA	40:DR:51:LEU:CD1	2.47	0.44
45:DW:20:VAL:HG11	45:DW:47:VAL:HG21	1.98	0.44
47:DY:45:VAL:CA	47:DY:62:GLU:HG2	2.47	0.44
1:AA:189(C):C:H6	1:AA:189(C):C:O5'	2.00	0.44
35:DI:10:GLU:HG2	35:DI:11:ASN:H	1.82	0.44
27:DA:321:G:O2'	27:DA:340:A:O2'	2.28	0.44
27:DA:2801:A:H1'	27:DA:2801(A):A:N7	2.33	0.44
34:DH:158:HIS:NE2	34:DH:170:ARG:O	2.50	0.44
30:BD:2:ALA:O	30:BD:3:VAL:O	2.35	0.44
27:BA:1565:C:P	30:BD:4:LYS:HZ1	2.41	0.44
9:CI:48:GLU:HG3	9:CI:101:PHE:CZ	2.52	0.44
27:BA:1442:G:H2'	27:BA:1443:G:C8	2.52	0.44
27:BA:1443:G:O5'	27:BA:1443:G:H8	2.00	0.44
27:BA:2017:U:H4'	54:B5:9:LYS:HE2	1.98	0.44
27:DA:1985:G:N2	27:DA:1986:A:H1'	2.32	0.44
32:BF:32:LEU:CD2	32:BF:105:VAL:HG13	2.40	0.44
28:DB:71:C:H2'	28:DB:72:G:C5'	2.47	0.44
42:DT:16:ARG:HB3	42:DT:19:LEU:CD1	2.42	0.44
4:AD:194:LEU:N	4:AD:194:LEU:HD22	2.33	0.44
11:AK:12:ARG:HG3	11:AK:13:GLN:H	1.81	0.44
1:CA:1436:U:H2'	1:CA:1437:C:O4'	2.18	0.44
7:AG:98:SER:O	7:AG:99:LEU:C	2.55	0.44
10:CJ:78:ASN:HD21	10:CJ:80:LYS:HB3	1.82	0.44
27:BA:272:G:O6	27:BA:421:U:H2'	2.18	0.44
1:AA:1147:C:H2'	1:AA:1148:U:O4'	2.17	0.44
1:AA:246:A:C2	1:AA:279:A:N1	2.85	0.44
1:CA:793:U:O4	1:CA:1517:G:H5''	2.18	0.44
27:BA:41:C:O2	27:BA:41:C:H2'	2.17	0.44
27:BA:1453:U:H4'	27:BA:1455:G:OP1	2.18	0.44
3:CC:139:GLN:O	3:CC:143:GLU:HB2	2.18	0.44
27:DA:1847:A:H5'	27:DA:1848:A:OP2	2.18	0.44
27:BA:911:A:C6	39:BQ:9:TYR:CG	3.06	0.44
27:DA:2146:C:O4'	27:DA:2147:G:C5	2.71	0.44
27:BA:2027:G:C6	27:BA:2028:U:C4	3.06	0.44
50:B1:67:ILE:N	50:B1:68:PRO:CD	2.75	0.44
36:BN:43:THR:HB	36:BN:46:VAL:CG1	2.48	0.44
44:DV:82:ARG:HD2	44:DV:82:ARG:N	2.33	0.44
27:DA:1896:G:O2'	27:DA:1897:G:H5'	2.18	0.44
43:BU:66:ASN:CA	43:BU:76:TYR:HB2	2.48	0.44
29:BC:195:ALA:C	29:BC:197:GLU:H	2.21	0.44
47:DY:54:LYS:CE	47:DY:55:TYR:HE2	2.31	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:928:G:C2	1:AA:1390:U:O2	2.71	0.44
2:CB:236:TYR:HD2	2:CB:239:VAL:CB	2.28	0.44
54:B5:31:VAL:HG11	54:B5:42:PRO:HB3	2.00	0.44
4:CD:3:ARG:O	4:CD:4:TYR:CB	2.65	0.44
3:AC:165:THR:CG2	3:AC:166:GLU:N	2.81	0.44
27:DA:463:G:N2	27:DA:467:G:C5	2.86	0.44
35:DI:6:LEU:O	35:DI:7:GLU:C	2.55	0.44
27:DA:214:G:H2'	27:DA:215:G:OP2	2.18	0.44
25:AY:23:G:H2'	25:AY:24:C:H6	1.83	0.44
28:BB:16:G:H2'	28:BB:17:C:H6	1.83	0.44
1:CA:1099:G:H5'	1:CA:1100:C:OP2	2.18	0.44
27:BA:1773:A:H2'	27:BA:1774:C:O4'	2.18	0.44
1:CA:1399:C:N3	1:CA:1401:G:C2	2.85	0.44
1:AA:43:C:C2'	1:AA:44:G:O5'	2.65	0.44
43:BU:71:GLN:HB2	43:BU:72:HIS:CD2	2.52	0.44
28:DB:85:G:H2'	28:DB:86:G:C8	2.53	0.44
2:AB:126:GLU:C	2:AB:128:GLU:H	2.17	0.44
27:BA:2486:G:H8	27:BA:2486:G:O5'	2.00	0.44
27:BA:941:A:C6	27:BA:942:G:C6	3.05	0.44
1:CA:1231:G:O2'	1:CA:1232:U:H5'	2.18	0.44
40:BR:22:ARG:O	40:BR:23:ASN:C	2.55	0.44
40:BR:27:SER:HA	40:BR:30:THR:HB	2.00	0.44
38:DP:48:PRO:O	38:DP:49:ARG:C	2.54	0.44
30:BD:138:VAL:HG22	30:BD:139:GLY:N	2.32	0.44
27:DA:1826:G:C4	27:DA:1827:C:C5	3.05	0.44
27:DA:1932:A:H2'	27:DA:1933:G:H5'	2.00	0.44
27:BA:1200:C:C2	27:BA:1201:C:C5	3.05	0.44
13:CM:8:GLU:CD	13:CM:22:ILE:HG12	2.38	0.44
36:BN:2:LYS:NZ	43:BU:95:LEU:CG	2.76	0.44
1:CA:723:U:OP1	1:CA:723:U:C6	2.71	0.44
27:DA:997:G:C2	27:DA:998:C:C4	3.06	0.44
43:DU:81:HIS:O	43:DU:85:LYS:CB	2.65	0.44
1:CA:1252:A:H2'	1:CA:1253:G:O4'	2.17	0.44
27:DA:84:A:N1	27:DA:98:G:C2'	2.80	0.44
27:DA:634:C:O2'	27:DA:635:C:O5'	2.36	0.44
27:DA:2511:U:O4	27:DA:2575:C:N3	2.51	0.44
36:BN:87:LEU:HD21	36:BN:98:VAL:CG1	2.42	0.44
27:BA:1266:G:O4'	45:BW:15:ARG:NH2	2.51	0.44
27:DA:139:G:H2'	27:DA:140:G:N7	2.33	0.44
34:BH:54:ARG:HG3	34:BH:54:ARG:O	2.18	0.44
30:BD:76:PRO:HG2	30:BD:98:VAL:CG2	2.46	0.44
8:AH:39:LEU:CB	8:AH:45:ILE:HD11	2.45	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CL:82:ILE:HG21	12:CL:95:TYR:CD2	2.52	0.44
2:AB:53:ARG:CZ	2:AB:199:TYR:CE2	3.00	0.44
40:DR:65:LEU:O	40:DR:67:LEU:N	2.51	0.44
37:DO:110:GLY:C	37:DO:112:MET:H	2.21	0.44
27:BA:1663:C:O2'	27:BA:2686:G:H4'	2.17	0.44
7:AG:38:LEU:C	7:AG:40:ALA:N	2.72	0.44
27:BA:1337:G:C4	27:BA:1338:G:C8	3.06	0.44
34:BH:94:TYR:CD2	34:BH:107:VAL:HG12	2.52	0.44
3:CC:86:VAL:O	3:CC:90:GLU:HG2	2.18	0.44
1:CA:1053:G:C6	1:CA:1199:U:C2	3.06	0.44
27:BA:2279:G:N2	27:BA:2280:G:H1'	2.32	0.44
1:CA:1284:C:H3'	1:CA:1285:A:H8	1.83	0.44
21:CU:18:TYR:CE2	21:CU:22:ARG:NH1	2.86	0.44
6:CF:29:ALA:O	6:CF:32:ASN:HB2	2.17	0.44
8:CH:83:ILE:O	8:CH:83:ILE:HG23	2.18	0.44
1:CA:658:G:C2	1:CA:749:C:N3	2.86	0.44
35:BI:91:SER:O	35:BI:92:VAL:HG12	2.18	0.44
27:BA:2388:A:H2'	27:BA:2389:G:H5'	2.00	0.44
27:BA:2286:A:N6	55:B6:24:GLU:OE2	2.51	0.44
52:D3:46:ASN:O	52:D3:49:LYS:N	2.51	0.44
6:CF:9:VAL:C	6:CF:10:LEU:HD12	2.38	0.44
5:CE:43:LEU:HD21	5:CE:132:ALA:HB1	2.00	0.44
27:BA:1473:G:O2'	27:BA:1474:C:H5'	2.18	0.44
27:DA:10:G:C6	27:DA:2629:A:C8	3.06	0.44
27:DA:2466:C:N4	27:DA:2485:G:C6	2.86	0.44
27:DA:2808:U:H3'	27:DA:2891:G:H1	1.83	0.44
27:DA:1278:A:O2'	27:DA:1279:G:H5'	2.17	0.44
45:DW:47:VAL:HA	45:DW:50:VAL:CG1	2.48	0.44
43:BU:25:TRP:C	43:BU:28:ARG:HB2	2.38	0.44
35:DI:11:ASN:O	35:DI:12:LEU:CB	2.62	0.44
1:AA:1014:A:H3'	1:AA:1015:A:C8	2.53	0.44
12:AL:21:VAL:HG13	12:AL:95:TYR:HE2	1.82	0.44
39:BQ:63:LYS:HD2	48:BZ:174:VAL:HG21	1.99	0.44
1:AA:979:C:C3'	1:AA:980:C:C5'	2.88	0.44
36:DN:28:THR:CG2	36:DN:29:LYS:H	2.21	0.44
27:DA:644:A:H4'	27:DA:645:C:H5	1.76	0.44
36:DN:55:VAL:HG13	36:DN:126:PRO:HB3	1.99	0.44
5:AE:101:ILE:CG1	5:AE:119:LEU:HD23	2.48	0.44
4:AD:101:LEU:HD12	4:AD:105:VAL:HG23	2.00	0.44
27:DA:1660:C:O2'	27:DA:1661:G:H5'	2.17	0.44
13:AM:91:ARG:HB2	13:AM:98:VAL:CG1	2.48	0.44
50:B1:86:SER:CB	50:B1:89:GLU:HB2	2.43	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CJ:9:ARG:O	10:CJ:16:LEU:HG	2.18	0.44
18:AR:40:LEU:O	18:AR:41:LYS:C	2.56	0.44
27:BA:702:G:N2	27:BA:703:U:C2	2.86	0.44
1:AA:992:U:O2	1:AA:992:U:H2'	2.18	0.44
36:BN:56:ASN:HD22	36:BN:56:ASN:HA	1.62	0.44
27:DA:1721:G:N1	27:DA:1739:U:OP2	2.51	0.44
1:CA:407:G:H1	1:CA:435:C:H42	1.64	0.44
1:AA:1133:G:H22	1:AA:1143:G:H1'	1.81	0.44
27:BA:318:C:O2'	27:BA:319:C:H5'	2.17	0.44
27:DA:811:U:C2	27:DA:1251:C:C5	3.06	0.44
6:AF:19:LEU:O	6:AF:23:LYS:HG3	2.18	0.44
6:AF:23:LYS:HB3	6:AF:23:LYS:HE2	1.76	0.44
10:AJ:81:THR:C	10:AJ:83:GLU:H	2.21	0.44
51:B2:15:LYS:O	51:B2:15:LYS:HG3	2.17	0.44
16:AP:43:LYS:HA	16:AP:48:TRP:CD1	2.52	0.44
1:AA:713:G:N2	1:AA:714:G:C2	2.86	0.44
27:BA:2753:A:O2'	27:BA:2754:U:H5'	2.17	0.44
30:BD:28:GLU:OE1	30:BD:29:PRO:HD2	2.17	0.44
27:DA:888:C:C3'	27:DA:889:C:H5'	2.47	0.44
1:AA:1261:A:C8	1:AA:1275:A:C6	3.06	0.44
1:CA:1170:A:H2'	1:CA:1171:G:C5'	2.48	0.44
27:DA:651:G:OP1	57:D8:19:SER:OG	2.34	0.44
32:BF:122:LYS:O	32:BF:191:ARG:NH1	2.50	0.44
13:AM:94:ARG:NH2	27:BA:887:A:O5'	2.50	0.44
2:CB:142:LEU:HD11	2:CB:146:GLN:HE21	1.82	0.44
4:CD:142:PRO:HA	4:CD:185:PHE:O	2.17	0.44
27:DA:2853:C:O2'	27:DA:2854:G:H5'	2.18	0.44
4:AD:52:SER:O	4:AD:53:ASP:C	2.55	0.44
10:AJ:75:ILE:HG13	10:AJ:76:ASN:N	2.32	0.44
30:DD:137:PRO:HB2	30:DD:140:THR:CG2	2.48	0.44
4:AD:96:LEU:HG	4:AD:139:ARG:NH1	2.33	0.44
27:DA:2397:G:N2	27:DA:2398:U:H1'	2.31	0.44
45:DW:48:ALA:O	45:DW:49:LYS:C	2.56	0.44
27:BA:852:G:O2'	52:B3:41:PRO:HB3	2.18	0.44
27:BA:772:C:H2'	27:BA:773:U:H6	1.83	0.44
27:BA:324:A:H2'	27:BA:325:G:O4'	2.17	0.44
6:AF:45:LEU:HD11	6:AF:57:GLN:OE1	2.17	0.44
27:BA:1975:G:C2'	27:BA:1976:U:H5'	2.48	0.44
30:DD:122:ASP:OD1	30:DD:122:ASP:C	2.56	0.44
1:CA:978:A:H3'	1:CA:979:C:C5	2.52	0.44
1:AA:912:C:O3'	12:AL:43:LYS:NZ	2.51	0.44
51:B2:38:GLN:HB3	51:B2:44:LEU:O	2.18	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:245:G:C4	27:DA:246:C:C5	3.05	0.44
27:DA:1906:G:C2	27:DA:1925:C:O2	2.71	0.44
38:BP:16:ARG:CG	38:BP:17:LYS:N	2.80	0.44
31:BE:59:VAL:O	31:BE:60:ASN:HB3	2.17	0.44
43:BU:83:LEU:CD1	43:BU:113:ALA:HB2	2.47	0.44
44:BV:46:VAL:CG2	44:BV:47:VAL:H	2.12	0.44
32:DF:18:ARG:O	32:DF:19:GLU:HB3	2.18	0.44
32:DF:3:GLU:CB	32:DF:24:LEU:HG	2.48	0.44
1:AA:920:U:O2	1:AA:920:U:H2'	2.16	0.44
43:DU:24:TYR:HD1	43:DU:28:ARG:O	2.01	0.44
43:DU:87:GLY:O	44:DV:50:PRO:CD	2.56	0.44
43:DU:83:LEU:O	43:DU:88:ILE:N	2.51	0.44
41:BS:77:ALA:O	41:BS:78:LEU:C	2.55	0.44
30:DD:206:LEU:HD22	30:DD:211:ARG:CG	2.48	0.44
51:D2:21:LEU:O	51:D2:22:GLU:C	2.56	0.44
27:DA:1858:G:O2'	27:DA:1859:A:H8	2.01	0.44
31:DE:77:ILE:C	31:DE:78:LEU:HD23	2.38	0.44
57:D8:13:ARG:O	57:D8:14:VAL:HB	2.18	0.44
27:BA:310:A:H1'	27:BA:311:A:H2'	2.00	0.44
27:DA:941:A:O2'	27:DA:1190:G:H4'	2.18	0.44
32:DF:68:LYS:HG3	32:DF:69:HIS:CE1	2.53	0.44
55:B6:13:CYS:HB2	55:B6:22:ALA:CB	2.47	0.44
27:DA:2637:U:H1'	27:DA:2782:G:N2	2.33	0.44
27:DA:312:G:C4	27:DA:313:C:C5	3.06	0.44
30:BD:32:SER:HA	30:BD:36:PRO:HG3	2.00	0.44
1:CA:380:G:N2	1:CA:384:G:C5	2.86	0.44
2:AB:155:LEU:HA	2:AB:155:LEU:HD22	1.63	0.44
37:DO:38:VAL:HG22	37:DO:111:PHE:HZ	1.83	0.44
1:CA:390:C:O3'	16:CP:28:ARG:NH2	2.50	0.44
1:AA:230:G:C5'	16:AP:23:ASP:OD2	2.66	0.44
3:CC:182:ILE:HD11	3:CC:203:PHE:CD1	2.51	0.44
27:BA:1248:G:OP1	32:BF:92:PRO:HB3	2.18	0.44
1:CA:1493:A:OP2	26:CZ:6:5OH:NP	2.50	0.44
27:BA:1780:A:H3'	27:BA:1781:C:H2'	2.00	0.44
27:BA:781:A:H2	27:BA:1776:G:N3	2.16	0.44
2:AB:168:THR:HG23	2:AB:192:SER:HA	2.00	0.44
33:DG:101:ILE:CD1	33:DG:105:LYS:NZ	2.79	0.44
27:BA:1999:C:H1'	27:BA:2687:U:O2'	2.18	0.44
27:BA:1658:C:OP1	31:BE:132:HIS:CE1	2.71	0.44
1:CA:133:U:OP1	20:CT:74:LYS:HE2	2.17	0.44
31:DE:25:VAL:C	31:DE:26:ILE:HD13	2.38	0.44
42:DT:11:GLU:C	42:DT:13:ARG:H	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:740:U:H6	27:BA:740:U:C5'	2.12	0.44
37:BO:3:GLN:HE21	37:BO:32:TYR:HD1	1.66	0.44
27:DA:2714:G:C5	27:DA:2715:C:C5	3.06	0.44
27:DA:2528:U:C5'	58:D9:31:LYS:HE2	2.48	0.44
6:CF:93:SER:O	6:CF:94:GLN:CG	2.66	0.44
1:CA:529:G:H4'	1:CA:533:A:C2	2.53	0.44
10:AJ:3:LYS:N	10:AJ:77:PRO:HG3	2.33	0.44
1:CA:1255:G:N2	1:CA:1259:C:O2	2.50	0.44
27:DA:154:G:C6	27:DA:173:G:C6	3.06	0.44
27:BA:1486:A:H2'	27:BA:1487:G:C8	2.52	0.44
27:BA:2875:C:N3	27:BA:2876:G:N7	2.65	0.44
27:DA:150:C:H2'	27:DA:151:C:H6	1.81	0.44
38:BP:81:GLN:CG	38:BP:82:GLY:N	2.80	0.44
38:BP:99:LEU:O	38:BP:99:LEU:HD23	2.18	0.44
1:CA:748:C:O2'	1:CA:749:C:P	2.76	0.44
27:DA:1303:G:N2	27:DA:1304:C:C2	2.86	0.44
27:DA:1624:G:H2'	27:DA:1625:C:C6	2.52	0.44
27:DA:1625:C:O2'	27:DA:1626:G:H5'	2.18	0.44
1:AA:442:C:O2	1:AA:442:C:H2'	2.17	0.44
27:BA:2388:A:C2'	27:BA:2389:G:H5'	2.48	0.44
27:BA:644:A:O2'	27:BA:645:C:H5''	2.18	0.44
1:AA:402:G:H4'	1:AA:620:C:O2	2.18	0.44
27:BA:72:U:H3	51:B2:62:THR:HG1	1.66	0.44
27:DA:1460:A:O2'	27:DA:1461:G:OP1	2.32	0.44
34:DH:143:GLN:NE2	34:DH:147:ASN:ND2	2.65	0.44
7:AG:88:PRO:HG3	7:AG:149:ARG:HA	1.99	0.44
23:AW:67:C:O2'	23:AW:68:C:H5'	2.18	0.44
27:DA:1658:C:OP1	31:DE:132:HIS:CE1	2.71	0.44
15:AO:66:LEU:C	15:AO:68:ARG:N	2.70	0.44
5:CE:140:ARG:O	5:CE:143:ARG:NH2	2.51	0.44
7:CG:151:TYR:OH	11:CK:54:ARG:HD3	2.18	0.44
27:BA:2505:G:C2'	27:BA:2506:U:H5'	2.47	0.44
34:DH:54:ARG:O	34:DH:54:ARG:CG	2.65	0.44
27:BA:1048:A:OP2	27:BA:1110:G:N2	2.38	0.44
7:AG:62:PHE:O	7:AG:65:ALA:HB3	2.18	0.44
33:BG:35:GLU:CB	33:BG:160:VAL:O	2.63	0.44
50:D1:5:CYS:SG	50:D1:62:VAL:HG23	2.58	0.44
27:BA:157:U:H2'	27:BA:158:U:OP2	2.17	0.44
27:DA:2657:A:H2'	27:DA:2658:C:O4'	2.17	0.44
33:BG:32:PRO:O	33:BG:33:ARG:HG3	2.17	0.44
27:DA:2605:U:H2'	27:DA:2606:C:C5	2.51	0.44
36:DN:125:GLY:HA3	36:DN:126:PRO:C	2.38	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:173:VAL:HG12	3:AC:175:LEU:CD1	2.48	0.44
9:AI:4:TYR:CA	9:AI:88:TYR:CE1	2.95	0.44
24:CX:10:G:H2'	24:CX:11:A:C8	2.52	0.44
7:CG:43:PHE:O	7:CG:46:ALA:HB3	2.18	0.44
1:AA:224:C:H2'	1:AA:225:C:C6	2.52	0.44
29:DC:77:ILE:CG2	29:DC:123:VAL:N	2.81	0.44
27:BA:441:U:O2	32:BF:46:ARG:NH2	2.50	0.44
8:CH:133:LEU:HD23	8:CH:133:LEU:C	2.37	0.44
4:AD:3:ARG:HG2	4:AD:3:ARG:HH21	1.82	0.44
33:DG:129:GLY:O	33:DG:161:THR:N	2.51	0.44
27:DA:1332:G:C4'	27:DA:1333:C:OP2	2.66	0.44
20:AT:89:ARG:CD	20:AT:104:LEU:HD11	2.44	0.44
30:DD:146:GLU:CB	30:DD:152:GLY:O	2.65	0.44
31:BE:100:GLU:O	31:BE:172:VAL:CG2	2.64	0.44
27:BA:861:A:C2	27:BA:917:A:C4	3.06	0.44
2:AB:32:ILE:CG1	2:AB:33:TYR:H	2.29	0.44
42:BT:42:ILE:CD1	42:BT:42:ILE:O	2.65	0.44
28:BB:105:A:H2'	28:BB:106:G:C4'	2.48	0.44
1:AA:1443:G:C6	1:AA:1460:A:C2	3.06	0.44
51:B2:12:GLU:O	51:B2:16:LEU:HD21	2.17	0.44
34:BH:103:LEU:HD22	34:BH:123:PHE:CE2	2.52	0.44
34:DH:64:LEU:C	34:DH:66:GLY:H	2.20	0.44
17:CQ:64:PRO:HA	17:CQ:70:ARG:CG	2.47	0.44
27:DA:766:C:O2'	27:DA:767:U:H5'	2.17	0.44
44:DV:68:LYS:NZ	44:DV:68:LYS:HA	2.32	0.44
27:BA:353:G:N3	27:BA:354:G:C8	2.86	0.44
39:DQ:73:PRO:HA	39:DQ:93:TYR:CD2	2.53	0.44
8:CH:90:GLY:O	8:CH:91:ARG:HB2	2.17	0.44
51:B2:23:LYS:O	51:B2:26:ARG:HB2	2.18	0.44
2:CB:9:GLU:HA	2:CB:12:GLU:OE1	2.17	0.44
1:CA:582:U:C2	1:CA:760:G:C6	3.06	0.44
8:CH:129:VAL:HB	8:CH:130:GLY:H	1.72	0.44
5:CE:127:ASN:O	5:CE:131:ILE:HG12	2.17	0.44
43:BU:72:HIS:N	43:BU:72:HIS:CD2	2.85	0.44
28:DB:14:U:O3'	28:DB:108:U:O2'	2.32	0.44
27:DA:2768:C:N4	27:DA:2769:C:N4	2.66	0.44
38:BP:49:ARG:O	57:B8:55:ALA:HB1	2.18	0.44
14:CN:41:ARG:HG2	14:CN:41:ARG:HH11	1.82	0.44
27:BA:1278:A:N1	27:BA:1279:G:C5	2.86	0.44
27:BA:2804:C:C2'	27:BA:2805:G:C8	3.01	0.44
27:BA:2727:G:C2	27:BA:2728:U:C4	3.06	0.44
47:BY:77:PRO:O	47:BY:78:ALA:CB	2.64	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CM:66:LEU:CD1	13:CM:66:LEU:N	2.81	0.44
31:BE:76:ARG:O	31:BE:77:ILE:O	2.36	0.44
31:BE:52:LEU:CD1	42:BT:1:MET:HE1	2.48	0.44
5:AE:109:ILE:HD13	5:AE:136:MET:SD	2.57	0.44
44:BV:17:GLY:HA2	44:BV:96:ILE:O	2.18	0.44
27:DA:370:G:HO2'	27:DA:371:A:P	2.41	0.44
42:BT:28:VAL:CG2	42:BT:47:GLY:N	2.62	0.44
5:AE:12:LEU:HD22	5:AE:13:ILE:N	2.33	0.44
27:DA:1010:A:O2'	27:DA:1011:G:C5'	2.66	0.44
27:BA:2476:A:C3'	27:BA:2477:C:H5''	2.48	0.44
27:BA:2702:U:H1'	27:BA:2703:C:C5	2.53	0.44
30:DD:143:HIS:HA	30:DD:156:ALA:HB1	2.00	0.44
51:D2:64:LEU:C	51:D2:64:LEU:HD23	2.38	0.44
27:DA:2832:U:O2'	27:DA:2833:G:OP2	2.33	0.44
55:D6:35:GLU:HB3	55:D6:51:GLU:HG2	1.99	0.44
27:DA:2263:C:N4	27:DA:2278:A:N6	2.66	0.44
27:DA:2365:G:HO2'	27:DA:2366:A:H8	1.62	0.44
27:DA:2428:G:H4'	27:DA:2429:G:C5	2.53	0.44
38:DP:85:LEU:N	38:DP:115:LEU:O	2.51	0.44
27:DA:675:A:H4'	32:DF:67:GLN:CD	2.38	0.44
34:BH:20:ALA:O	34:BH:21:PRO:O	2.35	0.44
1:AA:984:C:N3	1:AA:1222:G:C2	2.86	0.44
1:AA:1305:G:O2'	1:AA:1306:A:C8	2.70	0.44
1:CA:1492:A:H5'	26:CZ:6:5OH:NP	2.32	0.44
32:DF:117:ARG:CZ	38:DP:5:ASP:N	2.81	0.44
32:DF:187:VAL:CG1	38:DP:7:ARG:NH2	2.74	0.44
27:BA:953:A:C2	27:BA:965:C:O2	2.71	0.44
33:DG:96:ARG:O	33:DG:97:ASP:C	2.55	0.44
27:DA:781:A:H2	27:DA:1776:G:N3	2.16	0.44
1:CA:1092:A:H2'	1:CA:1093:A:C8	2.53	0.44
54:D5:23:HIS:O	54:D5:24:ALA:C	2.55	0.44
14:CN:47:LEU:O	14:CN:48:ALA:C	2.56	0.44
1:CA:192:U:C1'	20:CT:103:GLY:CA	2.95	0.44
48:DZ:124:LEU:HD12	48:DZ:125:VAL:N	2.30	0.44
47:BY:88:LYS:HZ3	47:BY:93:GLY:CA	2.17	0.44
29:DC:36:LYS:CB	29:DC:36:LYS:NZ	2.79	0.44
27:DA:1394:U:C4	27:DA:1395:A:C6	3.06	0.44
27:DA:1620:G:C6	27:DA:1621:U:C4	3.05	0.44
35:BI:77:LEU:HD22	35:BI:78:THR:N	2.33	0.44
35:BI:94:ALA:O	35:BI:97:ILE:N	2.51	0.44
48:BZ:152:SER:HB2	48:BZ:166:PRO:HB3	1.98	0.44
55:B6:9:LEU:C	55:B6:9:LEU:HD23	2.37	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:AQ:56:VAL:O	17:AQ:77:VAL:HG23	2.18	0.44
34:DH:127:GLU:O	34:DH:129:THR:N	2.51	0.44
33:DG:167:GLU:HA	33:DG:170:ARG:HB3	1.99	0.44
33:DG:41:GLN:HG2	33:DG:155:MET:CB	2.48	0.44
1:CA:1033:G:H2'	1:CA:1034:G:O4'	2.18	0.44
5:CE:12:LEU:HD13	5:CE:13:ILE:N	2.33	0.44
27:DA:2340:G:O2'	27:DA:2341:G:H5'	2.18	0.44
33:DG:111:LEU:HD21	33:DG:120:LEU:CD2	2.48	0.44
7:CG:146:GLU:HA	7:CG:149:ARG:HB2	1.99	0.44
27:BA:1472:A:O2'	27:BA:1473:G:H5'	2.18	0.44
27:DA:7:G:H5''	36:DN:121:LYS:HZ3	1.82	0.44
45:DW:83:LYS:CA	45:DW:97:LYS:HG2	2.43	0.44
27:DA:481:G:N2	27:DA:507:A:C8	2.86	0.44
1:AA:203:U:C6	1:AA:203:U:OP2	2.69	0.44
12:AL:22:PRO:C	12:AL:24:LEU:H	2.16	0.44
1:CA:815:A:H5'	1:CA:816:A:O5'	2.18	0.44
1:AA:609:A:O2'	1:AA:610:G:H5'	2.16	0.44
2:AB:16:HIS:HD2	2:AB:210:SER:HA	1.81	0.44
30:BD:3:VAL:HG13	30:BD:4:LYS:O	2.17	0.44
37:BO:105:GLU:O	37:BO:108:GLU:HB2	2.18	0.44
1:CA:568:G:N2	1:CA:883:C:N1	2.66	0.44
27:BA:1399:C:O2'	27:BA:1400:G:H5'	2.18	0.44
27:DA:1998:G:O2'	27:DA:1999:C:H5'	2.18	0.44
1:AA:1291:G:O2'	9:AI:38:GLN:HB3	2.18	0.44
27:DA:2043:C:N3	27:DA:2044:C:C5	2.86	0.44
8:CH:86:ILE:O	8:CH:87:SER:C	2.54	0.44
6:CF:97:PHE:O	18:CR:31:LEU:CD2	2.66	0.44
27:BA:1892:C:C2'	27:BA:1893:C:H5'	2.47	0.44
17:CQ:6:LEU:HD12	17:CQ:6:LEU:N	2.33	0.44
25:AY:29:G:H2'	25:AY:30:A:H8	1.83	0.44
27:BA:1448:G:H1'	27:BA:1528:A:H62	1.82	0.44
27:BA:1465:G:N2	27:BA:1466:G:H1'	2.32	0.44
5:CE:95:ALA:O	5:CE:96:PRO:C	2.56	0.44
20:AT:53:LEU:HD22	20:AT:56:MET:CE	2.48	0.44
23:CW:31:U:H2'	23:CW:32:U:H6	1.83	0.44
1:AA:758:G:H4'	1:AA:880:C:H4'	2.00	0.44
48:DZ:101:LEU:N	48:DZ:121:ARG:O	2.51	0.44
35:DI:30:LEU:HD23	35:DI:35:LEU:HD12	1.99	0.44
19:CS:11:VAL:HG13	19:CS:11:VAL:O	2.18	0.44
27:DA:1547:C:O2'	27:DA:1548:C:H5'	2.17	0.44
1:AA:640:A:N3	8:AH:115:SER:CB	2.81	0.44
6:AF:50:TYR:CZ	18:AR:77:GLY:HA2	2.53	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1018:C:C2'	27:BA:1018:C:O2	2.63	0.44
27:BA:1018:C:O3'	27:BA:1120:G:N2	2.51	0.44
2:CB:132:LYS:HA	2:CB:135:GLN:CB	2.48	0.44
34:BH:72:ILE:O	34:BH:76:VAL:HG23	2.18	0.44
27:BA:2639:A:C2'	27:BA:2640:G:H5'	2.48	0.44
27:BA:919:G:C2'	27:BA:920:G:H5'	2.48	0.44
27:BA:1433:U:C6	27:BA:1433:U:H5''	2.50	0.44
1:AA:1520:G:H2'	1:AA:1521:G:H8	1.82	0.44
27:BA:2615:U:N1	54:B5:7:PRO:HA	2.33	0.44
38:DP:107:LYS:C	38:DP:109:GLY:H	2.21	0.44
40:BR:99:LYS:NZ	54:B5:43:HIS:HB3	2.32	0.44
27:BA:887:A:N3	27:BA:887:A:H2'	2.32	0.44
51:D2:65:ASN:O	51:D2:68:ARG:N	2.49	0.44
2:AB:236:TYR:O	2:AB:237:ALA:C	2.56	0.44
4:AD:138:TYR:CE2	4:AD:139:ARG:O	2.71	0.44
27:BA:643:A:N7	55:B6:42:TRP:CH2	2.86	0.44
1:CA:1273:G:H3'	1:CA:1274:G:C8	2.53	0.44
28:BB:14:U:OP2	28:BB:70:C:O2'	2.23	0.44
27:DA:258:G:O2'	27:DA:259:G:H5'	2.18	0.44
40:BR:103:ARG:HH11	45:BW:40:ASN:ND2	2.15	0.44
27:DA:188:G:H2'	27:DA:189:G:O4'	2.18	0.44
1:AA:1231:G:H2'	1:AA:1232:U:O4'	2.18	0.44
3:AC:120:VAL:HA	3:AC:123:GLN:HG3	2.00	0.44
1:CA:319:G:H2'	1:CA:319:G:N3	2.33	0.44
27:BA:2539:C:C4	27:BA:2540:C:C5	3.06	0.44
9:AI:27:THR:HG23	9:AI:31:GLN:O	2.17	0.44
36:BN:75:TYR:HA	36:BN:81:GLY:O	2.18	0.44
38:BP:115:LEU:HD23	38:BP:115:LEU:N	2.33	0.43
40:BR:87:TYR:HB3	40:BR:90:ARG:HB3	2.01	0.43
27:DA:910:A:H2'	27:DA:911:A:C8	2.53	0.43
1:CA:426:G:H2'	1:CA:427:U:H6	1.80	0.43
33:BG:111:LEU:N	33:BG:112:PRO:CD	2.80	0.43
38:BP:16:ARG:CZ	38:BP:18:ARG:CG	2.84	0.43
47:BY:46:LYS:HB3	47:BY:47:LYS:H	1.69	0.43
1:CA:472:A:H4'	16:CP:80:PHE:O	2.18	0.43
44:BV:38:LEU:C	44:BV:38:LEU:CD2	2.77	0.43
44:BV:39:LEU:HD13	44:BV:39:LEU:N	2.33	0.43
17:AQ:18:THR:CG2	17:AQ:69:LYS:HE3	2.26	0.43
29:BC:85:GLU:O	29:BC:152:ILE:O	2.36	0.43
27:DA:985:C:C2'	27:DA:986:C:H5'	2.48	0.43
27:DA:986:C:C2	27:DA:987:G:C8	3.06	0.43
27:DA:35:G:O4'	27:DA:454:A:H1'	2.17	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BS:71:ARG:O	41:BS:74:ALA:HB3	2.18	0.43
51:D2:53:LEU:O	51:D2:54:LYS:C	2.55	0.43
27:DA:866:A:C6	27:DA:914:C:C6	3.06	0.43
27:DA:867:C:O5'	27:DA:867:C:H6	2.00	0.43
27:DA:869:G:N1	27:DA:909:A:C6	2.86	0.43
55:D6:9:LEU:HD23	55:D6:10:LEU:N	2.33	0.43
27:DA:2274:A:C5	27:DA:2276:G:C8	3.06	0.43
27:DA:800:A:H4'	27:DA:801:G:O5'	2.17	0.43
55:B6:40:CYS:HA	55:B6:41:PRO:HD3	1.74	0.43
46:DX:25:LYS:HZ2	46:DX:80:ILE:HD11	1.76	0.43
48:DZ:68:THR:HG22	48:DZ:89:VAL:HA	1.99	0.43
4:AD:10:ARG:HH11	4:AD:10:ARG:CG	2.30	0.43
27:DA:303:U:H6	27:DA:303:U:O5'	2.00	0.43
4:CD:135:LEU:HA	4:CD:136:PRO:HD3	1.87	0.43
1:AA:1349:A:O2'	1:AA:1350:A:H5'	2.18	0.43
2:AB:187:LEU:HD23	2:AB:201:ILE:O	2.18	0.43
2:AB:204:ASN:HD21	2:AB:206:ASP:N	2.16	0.43
27:DA:1033:U:OP1	58:D9:16:VAL:HG21	2.18	0.43
16:AP:26:ARG:HH12	16:AP:31:LYS:HD3	1.83	0.43
27:BA:1310:G:H2'	27:BA:1311:G:C5'	2.48	0.43
27:BA:2436:G:H2'	27:BA:2437:U:C6	2.53	0.43
1:AA:1073:U:OP2	5:AE:57:LYS:NZ	2.50	0.43
2:CB:31:TYR:O	2:CB:32:ILE:HB	2.18	0.43
1:CA:631:G:H5''	1:CA:632:A:OP1	2.16	0.43
27:BA:2000:G:O2'	27:BA:2001:A:H5'	2.18	0.43
1:CA:1002:G:H5''	1:CA:1003:G:OP2	2.18	0.43
20:CT:100:ILE:H	20:CT:100:ILE:HD12	1.79	0.43
1:AA:408:A:C2	1:AA:409:G:C4	3.05	0.43
46:BX:12:VAL:CG1	46:BX:27:THR:OG1	2.62	0.43
1:CA:232:G:C4	1:CA:233:C:C5	3.06	0.43
29:DC:214:VAL:O	29:DC:215:THR:C	2.56	0.43
1:CA:1068:G:C8	1:CA:1094:G:H8	2.35	0.43
42:BT:52:ILE:HA	42:BT:61:PHE:HA	2.00	0.43
27:DA:71:A:C5'	27:DA:71:A:H8	2.31	0.43
3:CC:92:ALA:CA	3:CC:99:VAL:HG11	2.48	0.43
18:AR:59:SER:O	18:AR:61:LYS:N	2.50	0.43
1:AA:1151:A:O2'	1:AA:1152:A:O5'	2.36	0.43
27:BA:2511:U:C2'	27:BA:2512:C:H5'	2.47	0.43
48:DZ:47:PHE:O	48:DZ:48:ARG:C	2.56	0.43
27:DA:271(M):G:H2'	27:DA:271(N):U:C5'	2.43	0.43
27:DA:1392:A:C6	27:DA:1393:A:N1	2.86	0.43
27:DA:464:U:C4	27:DA:465:G:C6	3.05	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BI:92:VAL:O	35:BI:92:VAL:HG13	2.16	0.43
27:BA:2282:G:H4'	27:BA:2283:C:O5'	2.18	0.43
31:DE:111:ARG:CD	31:DE:160:TYR:HE1	2.31	0.43
48:DZ:8:TYR:CZ	48:DZ:60:LEU:HD12	2.53	0.43
8:AH:2:LEU:HD22	8:AH:3:THR:N	2.32	0.43
7:AG:116:ALA:HA	7:AG:119:ARG:NE	2.25	0.43
7:AG:116:ALA:HB2	7:AG:119:ARG:HH21	1.83	0.43
27:BA:2306:C:C6	27:BA:2307:G:H1'	2.53	0.43
51:B2:55:ARG:C	51:B2:57:ILE:N	2.68	0.43
30:DD:35:LYS:NZ	30:DD:104:TYR:HB2	2.31	0.43
27:DA:2666:C:H42	34:DH:109:PHE:HA	1.82	0.43
33:DG:38:VAL:HG13	33:DG:93:THR:HA	1.99	0.43
57:B8:51:ALA:C	57:B8:53:PRO:CD	2.83	0.43
27:DA:1504:C:C3'	27:DA:1505:C:H5''	2.44	0.43
27:DA:1485:G:N2	27:DA:1505:C:N3	2.57	0.43
35:BI:31:LEU:N	35:BI:31:LEU:CD1	2.81	0.43
5:CE:28:PHE:CE1	5:CE:49:PRO:O	2.71	0.43
27:DA:2321:G:C2'	27:DA:2321:G:N3	2.80	0.43
1:CA:1316:G:H2'	1:CA:1317:C:H5''	2.00	0.43
11:CK:48:ILE:HD11	11:CK:67:ASP:HB2	2.00	0.43
1:AA:606:G:O2'	1:AA:631:G:N2	2.51	0.43
45:DW:11:ARG:HE	45:DW:11:ARG:CA	2.31	0.43
27:DA:1210:A:P	27:DA:1212:G:H5'	2.58	0.43
27:DA:481:G:HO2'	27:DA:482:A:P	2.39	0.43
47:DY:46:LYS:HD3	47:DY:47:LYS:HZ1	1.81	0.43
39:DQ:35:VAL:HG23	39:DQ:100:GLY:O	2.18	0.43
27:DA:522:G:C5	27:DA:523:C:C5	3.06	0.43
52:D3:7:LYS:CG	52:D3:8:LEU:N	2.70	0.43
52:D3:8:LEU:HB3	52:D3:31:LEU:HA	2.00	0.43
1:CA:147:G:H2'	1:CA:148:G:C8	2.52	0.43
27:DA:1165:U:H3	27:DA:1184:G:H1	1.65	0.43
27:DA:1184:G:C6	27:DA:1185:C:N4	2.86	0.43
27:BA:1549:C:H4'	27:BA:1742:G:H21	1.82	0.43
47:DY:3:VAL:O	47:DY:4:LYS:C	2.55	0.43
1:AA:1245:A:O2'	1:AA:1246:C:H5'	2.17	0.43
9:CI:40:LEU:O	9:CI:42:ARG:N	2.49	0.43
11:AK:120:ARG:HA	11:AK:121:PRO:HD3	1.84	0.43
27:DA:473:G:H5''	27:DA:508:G:H22	1.81	0.43
27:DA:2114:A:C2	27:DA:2168:G:O4'	2.68	0.43
18:CR:67:ALA:C	18:CR:69:THR:H	2.20	0.43
1:AA:992:U:HO2'	1:AA:993:G:H5''	1.82	0.43
23:AW:10:G:H22	23:AW:25:A:H1'	1.81	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1408:A:C2'	1:AA:1409:C:H5'	2.47	0.43
53:B4:54:LYS:C	53:B4:56:GLU:H	2.22	0.43
27:DA:1401:G:H2'	27:DA:1402:C:H6	1.81	0.43
30:DD:146:GLU:HB3	30:DD:153:ALA:HA	2.00	0.43
1:CA:1086:U:O2'	1:CA:1087:G:H5'	2.18	0.43
27:BA:458:G:H1'	27:BA:459:U:H5	1.82	0.43
42:BT:7:ILE:O	42:BT:10:VAL:N	2.51	0.43
34:DH:19:VAL:HA	34:DH:24:VAL:HG12	2.00	0.43
29:BC:45:ALA:O	29:BC:46:LYS:CB	2.65	0.43
38:DP:136:GLU:O	38:DP:139:LYS:HB2	2.18	0.43
15:AO:12:ILE:C	15:AO:14:GLU:H	2.20	0.43
44:DV:99:ILE:CD1	44:DV:99:ILE:N	2.77	0.43
28:BB:105:A:C8	28:BB:106:G:C8	3.06	0.43
47:DY:30:VAL:HG12	47:DY:31:LEU:N	2.32	0.43
27:BA:2105:C:C2'	27:BA:2106:G:H5'	2.47	0.43
22:CV:1:A:C2'	22:CV:2:A:H5'	2.47	0.43
27:BA:1506:C:O2	27:BA:1506:C:H2'	2.16	0.43
27:BA:2748:A:H8	27:BA:2754:U:O4	2.01	0.43
23:CW:8:U:H3'	23:CW:13:A:N6	2.33	0.43
22:AV:4:A:H2'	22:AV:5:U:O4'	2.17	0.43
27:BA:1387:C:H2'	27:BA:1388:G:H8	1.83	0.43
1:AA:573:A:C2	1:AA:574:A:C2	3.06	0.43
1:AA:573:A:N3	1:AA:883:C:O2'	2.43	0.43
27:DA:751:A:H2'	27:DA:789:A:C2	2.52	0.43
51:D2:65:ASN:HB3	51:D2:69:ARG:HH12	1.83	0.43
3:AC:42:LEU:O	3:AC:45:LYS:N	2.50	0.43
2:AB:235:SER:OG	2:AB:236:TYR:HD1	2.01	0.43
27:DA:1562:A:H2'	27:DA:1563:G:C8	2.53	0.43
27:BA:1328:G:O2'	27:BA:1329:U:H2'	2.18	0.43
27:DA:1324:G:C2	27:DA:1331:A:N1	2.86	0.43
7:AG:4:ARG:HH11	7:AG:5:ARG:HH12	1.64	0.43
1:CA:301:G:H2'	1:CA:302:G:C8	2.53	0.43
5:CE:9:LYS:HB3	5:CE:112:LEU:HD11	2.00	0.43
35:DI:102:SER:C	35:DI:103:ARG:HG3	2.39	0.43
27:DA:2325:G:H8	27:DA:2325:G:P	2.41	0.43
27:DA:504:U:O5'	27:DA:504:U:C6	2.71	0.43
1:AA:589:C:H6	1:AA:589:C:O5'	2.00	0.43
27:DA:1044:G:H1'	27:DA:1111:A:N1	2.31	0.43
57:B8:61:LEU:O	57:B8:63:PRO:O	2.36	0.43
27:BA:817:C:O2'	27:BA:839:U:H5''	2.18	0.43
27:BA:941:A:HO2'	38:BP:35:HIS:CE1	2.36	0.43
41:BS:17:ARG:C	41:BS:19:LYS:H	2.20	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BF:157:VAL:HG13	32:BF:178:PRO:HA	1.99	0.43
32:BF:192:LEU:HD21	32:BF:194:MET:CE	2.48	0.43
32:BF:202:PHE:O	32:BF:205:ARG:N	2.51	0.43
47:BY:7:VAL:HG12	47:BY:83:THR:HG21	2.00	0.43
47:BY:84:ARG:HH11	47:BY:97:ARG:HA	1.83	0.43
46:BX:40:LYS:HG3	46:BX:51:VAL:HB	1.99	0.43
1:CA:545:C:OP1	4:CD:61:LYS:NZ	2.51	0.43
44:BV:4:ILE:HB	44:BV:39:LEU:O	2.17	0.43
50:D1:45:ASN:CG	50:D1:45:ASN:O	2.56	0.43
27:DA:1000:A:C5	27:DA:1155:A:C5	3.06	0.43
27:DA:977:G:C2	27:DA:978:G:C8	3.06	0.43
27:DA:534:U:O2'	43:DU:46:ALA:HA	2.18	0.43
27:BA:2476:A:C2	27:BA:2477:C:H6	2.36	0.43
27:DA:35:G:C6	27:DA:36:G:N7	2.85	0.43
41:BS:67:ARG:HG2	41:BS:67:ARG:HH11	1.82	0.43
27:DA:1423:G:N2	27:DA:1576:U:O2	2.50	0.43
30:DD:123:ALA:CB	30:DD:131:LEU:HD11	2.48	0.43
30:DD:141:VAL:HG23	30:DD:142:VAL:N	2.32	0.43
30:DD:25:THR:O	30:DD:27:THR:HG22	2.18	0.43
27:DA:1567:A:C5'	30:DD:58:HIS:CD2	2.98	0.43
27:BA:1158:C:H4'	52:B3:31:LEU:O	2.18	0.43
55:D6:8:LYS:CG	55:D6:8:LYS:O	2.66	0.43
27:DA:630:G:N2	27:DA:634:C:N3	2.66	0.43
38:DP:58:THR:C	38:DP:60:MET:H	2.22	0.43
33:DG:9:ARG:O	33:DG:11:TYR:N	2.51	0.43
27:DA:826:U:C5	27:DA:828:U:H1'	2.53	0.43
27:DA:968:G:C6	27:DA:969:U:C4	3.05	0.43
1:AA:411:A:N6	1:AA:429:U:C5	2.86	0.43
4:AD:22:LYS:HB2	4:AD:26:CYS:CB	2.45	0.43
47:DY:16:ALA:HA	47:DY:21:LYS:HD3	1.99	0.43
1:CA:101:A:H2'	1:CA:102:G:C5'	2.48	0.43
12:CL:23:ALA:O	12:CL:24:LEU:HD22	2.18	0.43
39:BQ:12:GLN:HE21	39:BQ:73:PRO:HD2	1.82	0.43
27:DA:1911:U:C2'	27:DA:1912:A:H5''	2.48	0.43
27:BA:685:A:C8	27:BA:774:A:C6	3.05	0.43
1:CA:560:U:C5'	1:CA:566:G:N2	2.81	0.43
1:AA:103:C:C5	1:AA:104:G:N7	2.86	0.43
1:CA:1459:C:H4'	20:CT:24:LEU:HD21	2.00	0.43
1:CA:1064:G:O2'	1:CA:1065:U:O5'	2.25	0.43
27:DA:51:G:N3	27:DA:119:A:H2	2.15	0.43
1:CA:1057:G:O2'	1:CA:1058:G:H5'	2.18	0.43
42:BT:108:ARG:C	42:BT:111:ARG:HG3	2.38	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2262:U:N3	27:BA:2279:G:C2	2.86	0.43
12:AL:38:ARG:HG2	12:AL:39:THR:N	2.15	0.43
27:DA:147:U:O2'	27:DA:148:C:H5'	2.17	0.43
27:DA:1311:G:C4	56:D7:47:ARG:NH2	2.86	0.43
57:B8:36:LYS:HE3	57:B8:40:GLU:OE2	2.18	0.43
48:BZ:149:LEU:O	48:BZ:170:ILE:CD1	2.65	0.43
12:AL:112:LYS:O	12:AL:114:ARG:N	2.48	0.43
27:BA:1373:A:C2'	27:BA:1374:G:H5'	2.48	0.43
27:DA:1679:U:H1'	27:DA:1989:G:N2	2.33	0.43
29:DC:86:ALA:HB3	29:DC:94:VAL:HG11	2.00	0.43
34:DH:107:VAL:O	34:DH:109:PHE:N	2.44	0.43
39:BQ:116:GLU:O	39:BQ:120:ILE:HG12	2.18	0.43
27:DA:850:C:O2'	52:D3:46:ASN:ND2	2.51	0.43
35:DI:76:THR:HG22	35:DI:139:GLN:HB3	2.00	0.43
1:CA:338:A:H2'	1:CA:339:C:C6	2.52	0.43
27:BA:933:A:C2	27:BA:934:G:N7	2.86	0.43
27:DA:2848:G:N3	27:DA:2867:G:C2	2.86	0.43
37:DO:64:ARG:O	37:DO:82:ASN:HA	2.18	0.43
1:CA:1117:G:H4'	9:CI:104:ARG:NH1	2.33	0.43
1:CA:1116:C:C3'	1:CA:1117:G:H5''	2.48	0.43
54:D5:45:VAL:HG22	54:D5:51:TYR:CD2	2.53	0.43
13:CM:7:VAL:HG12	13:CM:7:VAL:O	2.17	0.43
30:DD:182:LEU:HB2	30:DD:271:ILE:HG13	1.99	0.43
1:AA:741:G:O2'	15:AO:55:GLY:HA3	2.18	0.43
25:CY:54:U:C6	25:CY:57:A:N7	2.86	0.43
27:BA:2138:C:O2'	27:BA:2139:C:H5'	2.17	0.43
48:BZ:26:VAL:HG23	48:BZ:35:LYS:HA	1.99	0.43
27:DA:2470:G:C4	27:DA:2471:C:C5	3.06	0.43
8:CH:109:ILE:CG1	8:CH:110:ALA:H	2.22	0.43
27:BA:1412:A:H2'	27:BA:1413:G:O4'	2.17	0.43
27:DA:2803:C:H2'	27:DA:2804:C:C6	2.53	0.43
27:DA:1204:A:C5	27:DA:1206:G:N1	2.86	0.43
6:CF:91:VAL:O	6:CF:92:LYS:C	2.56	0.43
27:BA:55:G:C2	27:BA:56:A:N7	2.85	0.43
1:AA:1016:A:H2'	1:AA:1017:G:C5'	2.48	0.43
42:BT:56:GLY:O	42:BT:59:THR:CG2	2.66	0.43
39:DQ:18:LYS:HB2	39:DQ:98:LYS:HZ1	1.83	0.43
3:AC:173:VAL:HG12	3:AC:173:VAL:O	2.17	0.43
2:CB:77:ALA:CB	2:CB:211:ILE:HG21	2.48	0.43
1:CA:628:G:C2'	1:CA:629:G:H5'	2.48	0.43
27:BA:1441:G:N2	27:BA:1551:C:C2	2.86	0.43
27:BA:527:C:C5	27:BA:2779:U:C2'	3.01	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:108:U:C2	27:DA:109:G:C8	3.06	0.43
6:AF:18:GLN:CA	6:AF:21:LEU:HB2	2.43	0.43
48:BZ:140:VAL:CG2	48:BZ:143:LEU:HD23	2.41	0.43
27:DA:1257:C:H4'	32:DF:83:PHE:CE2	2.53	0.43
16:CP:21:VAL:O	16:CP:21:VAL:CG1	2.65	0.43
1:AA:1508:G:C4	1:AA:1509:C:C6	3.05	0.43
27:DA:1741:A:O2'	27:DA:1742:G:O4'	2.36	0.43
32:BF:28:ILE:O	32:BF:28:ILE:CD1	2.64	0.43
8:CH:20:TYR:HD1	8:CH:65:TYR:CD2	2.36	0.43
39:BQ:141:GLN:OE1	48:BZ:71:ARG:O	2.36	0.43
27:DA:2522:U:H2'	27:DA:2523:G:H5'	2.00	0.43
27:BA:2221:G:H2'	27:BA:2221:G:N3	2.33	0.43
10:AJ:26:ALA:HA	10:AJ:29:ARG:HH21	1.83	0.43
10:AJ:81:THR:O	10:AJ:85:LEU:HG	2.18	0.43
27:DA:2653:U:H3'	27:DA:2654:A:C8	2.53	0.43
4:AD:205:GLU:O	4:AD:206:PHE:C	2.57	0.43
27:BA:329:G:H1	47:BY:19:LYS:HZ1	1.64	0.43
27:BA:1654:A:OP2	40:BR:3:HIS:CD2	2.72	0.43
6:CF:22:GLU:OE1	6:CF:82:ARG:NH2	2.51	0.43
27:DA:1829:A:N3	30:DD:15:PHE:CZ	2.85	0.43
2:CB:171:ALA:C	2:CB:173:ALA:N	2.70	0.43
27:DA:693:C:H2'	27:DA:694:U:O4'	2.18	0.43
1:CA:1466:C:C5	1:CA:1467:G:N7	2.87	0.43
1:CA:1193:G:C5	1:CA:1194:U:C5	3.06	0.43
44:DV:64:HIS:ND1	44:DV:92:THR:HG23	2.33	0.43
27:BA:415:A:H3'	27:BA:416:C:H6	1.81	0.43
1:CA:948:C:C5	13:CM:106:ASN:ND2	2.87	0.43
29:BC:24:GLU:CD	29:BC:24:GLU:H	2.22	0.43
27:BA:1216:G:O2'	27:BA:1217:C:H5'	2.18	0.43
2:AB:22:LYS:HG2	2:AB:35:GLU:OE1	2.17	0.43
39:BQ:74:TYR:HB3	39:BQ:92:GLY:O	2.18	0.43
32:DF:96:ASP:OD2	32:DF:98:SER:OG	2.30	0.43
41:BS:99:LYS:H	41:BS:99:LYS:HG2	1.61	0.43
7:CG:57:GLU:O	7:CG:57:GLU:HG3	2.17	0.43
37:BO:23:ARG:HA	37:BO:23:ARG:HD3	1.81	0.43
29:BC:200:LYS:O	29:BC:202:GLU:N	2.51	0.43
1:CA:1185:G:C4	1:CA:1186:G:C8	3.07	0.43
10:CJ:54:PHE:CE1	10:CJ:55:LYS:HE3	2.53	0.43
27:BA:2805:G:C2	27:BA:2807:G:C5	3.06	0.43
32:BF:110:LEU:CD1	32:BF:110:LEU:C	2.87	0.43
51:B2:36:ARG:C	51:B2:38:GLN:H	2.21	0.43
57:D8:50:LEU:O	57:D8:51:ALA:CB	2.66	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:271(F):C:O5'	27:DA:271(F):C:H6	2.01	0.43
27:DA:1924:C:O2'	27:DA:1925:C:H5'	2.17	0.43
1:CA:501:C:H2'	1:CA:502:G:H8	1.80	0.43
4:CD:73:ARG:HG3	4:CD:77:ASN:OD1	2.18	0.43
42:DT:65:LYS:NZ	42:DT:66:VAL:N	2.31	0.43
44:BV:19:LYS:NZ	44:BV:20:LEU:H	2.16	0.43
44:BV:47:VAL:CB	44:BV:49:THR:O	2.63	0.43
1:AA:254:G:OP1	17:AQ:67:LYS:O	2.36	0.43
19:CS:20:LEU:CA	19:CS:23:ASN:HB3	2.49	0.43
1:AA:1403:C:H2'	1:AA:1404:C:C6	2.53	0.43
44:DV:49:THR:O	44:DV:50:PRO:C	2.56	0.43
27:DA:1857:G:O2'	27:DA:1885:A:N6	2.51	0.43
54:B5:16:ARG:NH1	54:B5:17:ASP:OD1	2.51	0.43
57:D8:23:VAL:HG12	57:D8:46:ARG:HB3	2.00	0.43
38:DP:23:PRO:CB	38:DP:33:ARG:NE	2.80	0.43
45:BW:15:ARG:O	45:BW:19:LEU:HD22	2.19	0.43
46:DX:57:LEU:HD13	46:DX:78:LYS:HG2	1.96	0.43
27:DA:2776:A:C5'	27:DA:2778:A:OP1	2.67	0.43
34:BH:23:ARG:N	34:BH:23:ARG:HD3	2.33	0.43
1:AA:944:G:H1'	1:AA:1340:A:H2	1.82	0.43
10:AJ:51:ARG:HG3	10:AJ:60:ARG:C	2.38	0.43
48:BZ:15:SER:O	48:BZ:18:ARG:HB2	2.18	0.43
8:AH:124:ALA:CA	8:AH:129:VAL:HG22	2.48	0.43
12:CL:81:LEU:O	12:CL:97:ILE:HA	2.17	0.43
2:AB:152:PHE:C	2:AB:154:LEU:N	2.69	0.43
1:CA:346:G:C5'	42:DT:41:ARG:NH2	2.82	0.43
22:AV:9:G:N2	23:AW:34:U:N3	2.66	0.43
49:B0:71:ASP:HA	49:B0:77:ARG:HA	2.00	0.43
27:BA:2439:A:C5'	27:BA:2439:A:C8	2.94	0.43
31:BE:39:PRO:HG3	31:BE:45:THR:OG1	2.18	0.43
7:AG:52:GLU:O	7:AG:54:THR:N	2.51	0.43
1:AA:374:A:H2'	1:AA:375:U:C6	2.54	0.43
20:CT:50:GLU:O	20:CT:54:LYS:CB	2.66	0.43
37:BO:7:TYR:O	37:BO:8:LEU:HD13	2.18	0.43
27:DA:2472:G:H1	27:DA:2477:C:P	2.40	0.43
27:DA:2528:U:H2'	27:DA:2530:A:O5'	2.18	0.43
27:BA:1556:C:HO2'	27:BA:1557:C:H6	1.66	0.43
1:CA:519:C:H2'	1:CA:520:A:O4'	2.18	0.43
10:AJ:13:HIS:O	10:AJ:17:ASP:HB2	2.18	0.43
27:BA:2580:U:C5	27:BA:2581:G:C6	3.06	0.43
27:DA:133:C:N3	27:DA:146:G:N2	2.49	0.43
27:BA:2171:A:O2'	27:BA:2172:U:H6	2.01	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:358:U:H6	27:DA:358:U:OP2	2.00	0.43
27:DA:1301:A:C4	27:DA:1303:G:N7	2.87	0.43
40:DR:20:LEU:HG	40:DR:21:TYR:N	2.32	0.43
33:DG:75:LYS:HB3	33:DG:76:SER:H	1.57	0.43
1:AA:877:C:H5''	8:AH:88:LYS:HD3	2.00	0.43
46:BX:32:PRO:HA	46:BX:77:LYS:CB	2.48	0.43
29:DC:82:LYS:O	29:DC:86:ALA:HB3	2.18	0.43
1:AA:448:A:C2	1:AA:449:C:C4	3.07	0.43
27:BA:728:G:H4'	30:BD:13:ARG:CD	2.48	0.43
13:AM:81:LEU:H	13:AM:81:LEU:HD12	1.84	0.43
13:AM:81:LEU:HD12	13:AM:81:LEU:N	2.33	0.43
1:AA:937:A:C2	1:AA:1379:G:C6	3.06	0.43
5:CE:33:VAL:HA	5:CE:43:LEU:HD12	1.98	0.43
37:DO:66:LYS:HD3	37:DO:79:PHE:C	2.38	0.43
37:DO:77:ILE:HD11	42:DT:72:VAL:HG13	1.99	0.43
27:BA:2692:C:O2'	27:BA:2693:A:H5'	2.19	0.43
27:BA:2716:U:O2'	27:BA:2717:G:H5'	2.18	0.43
1:CA:841:U:H3'	1:CA:848:C:C6	2.53	0.43
27:DA:2294:C:O2	27:DA:2294:C:H2'	2.18	0.43
27:DA:2374:C:H2'	27:DA:2375:G:O4'	2.18	0.43
27:DA:271(I):G:H2'	27:DA:271(J):C:H1'	2.00	0.43
19:CS:61:TYR:O	19:CS:62:ILE:CB	2.65	0.43
21:AU:13:ILE:CG1	21:AU:22:ARG:HE	2.30	0.43
5:CE:105:VAL:CB	5:CE:106:PRO:CD	2.96	0.43
25:CY:27:C:H42	25:CY:41:G:H1	1.64	0.43
19:AS:4:SER:O	19:AS:5:LEU:CB	2.60	0.43
27:BA:1050:A:O2'	27:BA:1051:G:C8	2.61	0.43
27:BA:1178:C:C6	27:BA:1179:C:H5	2.34	0.43
12:AL:15:VAL:O	12:AL:16:ARG:HB3	2.18	0.43
1:CA:577:G:C4	1:CA:578:C:C5	3.06	0.43
15:CO:7:GLU:O	15:CO:10:LYS:HE3	2.19	0.43
52:D3:7:LYS:HG3	52:D3:34:GLU:CG	2.41	0.43
35:BI:3:VAL:HA	35:BI:39:ALA:CB	2.42	0.43
1:AA:392:G:H5'	16:AP:13:HIS:NE2	2.32	0.43
27:BA:2047:U:C2'	27:BA:2048:G:H5''	2.48	0.43
27:DA:2681:C:C5	27:DA:2724:C:N4	2.87	0.43
13:AM:12:ASN:HB3	13:AM:46:LYS:HE2	1.99	0.43
1:CA:1238:A:N7	1:CA:1303:C:O4'	2.52	0.43
1:AA:1509:C:O2'	1:AA:1510:U:H5'	2.18	0.43
1:CA:61:G:C6	1:CA:107:G:C2	3.07	0.43
1:CA:1246:C:H6	1:CA:1246:C:O5'	2.01	0.43
4:CD:25:ARG:C	4:CD:27:TYR:H	2.21	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CJ:85:LEU:O	10:CJ:87:THR:O	2.36	0.43
1:CA:1418:A:H1'	27:DA:1959:G:H4'	2.00	0.43
27:BA:118:A:N3	27:BA:178:G:H1'	2.33	0.43
27:BA:1007:C:OP1	36:BN:35:ARG:NH1	2.50	0.43
28:BB:87:G:H2'	28:BB:88:C:H5''	2.00	0.43
27:BA:463:G:N2	27:BA:467:G:C4	2.86	0.43
1:AA:576:G:C2	1:AA:881:G:H4'	2.53	0.43
23:AW:16:C:H5'	23:AW:58:A:N1	2.32	0.43
9:AI:76:ALA:O	9:AI:79:LEU:HB3	2.19	0.43
1:CA:623:C:N3	1:CA:624:C:C5	2.86	0.43
6:CF:50:TYR:CE2	6:CF:52:ILE:HD11	2.53	0.43
1:CA:1288:A:H2'	1:CA:1289:A:O4'	2.17	0.43
27:BA:2759:G:C2	27:BA:2760:C:C2	3.05	0.43
12:AL:2:PRO:HA	12:AL:6:GLN:HE21	1.83	0.43
43:DU:62:ILE:O	43:DU:63:VAL:C	2.55	0.43
27:BA:2145:C:H4'	27:BA:2146:C:OP2	2.18	0.43
27:DA:552:G:H2'	27:DA:553:G:H5'	1.98	0.43
1:AA:1010:G:N2	1:AA:1020:U:H1'	2.33	0.43
1:AA:1047:G:O2'	1:AA:1048:G:H5'	2.18	0.43
8:CH:127:LEU:HD22	8:CH:127:LEU:HA	1.79	0.43
3:CC:179:ARG:O	3:CC:181:ASN:N	2.52	0.43
8:AH:75:ARG:HE	8:AH:75:ARG:HB2	1.50	0.43
10:AJ:45:ARG:HH11	10:AJ:45:ARG:HG3	1.83	0.43
2:AB:9:GLU:O	2:AB:11:LEU:N	2.51	0.43
1:AA:417:C:O2'	1:AA:418:C:H5'	2.18	0.43
7:AG:92:SER:HB2	7:AG:94:ARG:HH21	1.83	0.43
52:B3:4:LEU:HA	52:B3:4:LEU:HD23	1.86	0.43
46:DX:41:ASN:N	46:DX:41:ASN:ND2	2.67	0.43
38:DP:30:THR:HG22	38:DP:31:ALA:N	2.33	0.43
2:AB:73:THR:O	2:AB:74:LYS:C	2.56	0.43
27:BA:1167:U:H2'	27:BA:1168:G:H8	1.83	0.43
50:D1:23:LYS:HE2	50:D1:28:GLY:CA	2.49	0.43
28:BB:23:G:N2	28:BB:61:G:C4	2.86	0.43
27:BA:2192:G:C2	27:BA:2193:G:C8	3.06	0.43
4:AD:138:TYR:CD2	4:AD:138:TYR:C	2.91	0.43
8:AH:102:ARG:HD2	8:AH:105:ARG:NH1	2.33	0.43
30:DD:28:GLU:HB2	30:DD:29:PRO:HD3	2.00	0.43
27:BA:1468:C:O2	27:BA:1468:C:H2'	2.17	0.43
27:BA:1523:U:H2'	27:BA:1524:G:O4'	2.19	0.43
27:DA:1274:A:H2	27:DA:1644:C:O2	2.00	0.43
1:CA:775:G:H2'	1:CA:776:G:O4'	2.18	0.43
27:BA:1391:U:O2	27:BA:1393:A:C8	2.71	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BO:23:ARG:CG	37:BO:23:ARG:HH11	2.31	0.43
37:BO:23:ARG:HG2	37:BO:23:ARG:NH1	2.33	0.43
27:BA:2761:G:N2	27:BA:2762:G:H1'	2.34	0.43
11:AK:62:GLN:O	11:AK:63:LEU:C	2.57	0.43
1:AA:695:A:H2'	1:AA:696:A:C8	2.53	0.43
51:B2:10:LEU:HA	51:B2:10:LEU:HD23	1.88	0.43
27:BA:1955:U:H2'	27:BA:1955:U:O2	2.19	0.43
27:BA:2788:C:H4'	27:BA:2810:A:O4'	2.18	0.43
27:DA:1006:C:O2	36:DN:106:MET:HG2	2.17	0.43
27:DA:1019:U:N3	27:DA:1142(A):A:N6	2.55	0.43
57:D8:64:TYR:N	57:D8:64:TYR:CD1	2.86	0.43
27:DA:1826:G:C6	27:DA:1827:C:C4	3.06	0.43
4:CD:8:VAL:C	4:CD:10:ARG:H	2.18	0.43
13:CM:69:GLU:HA	13:CM:72:ALA:H	1.80	0.43
27:BA:481:G:HO2'	27:BA:482:A:P	2.38	0.43
27:BA:2056:G:H1	54:B5:4:HIS:CD2	2.36	0.43
1:AA:18:C:H2'	1:AA:19:C:O4'	2.18	0.43
36:BN:40:PRO:HB3	43:BU:68:ALA:HB2	1.99	0.43
1:AA:1405:G:C2'	1:AA:1406:U:O5'	2.67	0.43
47:DY:80:GLY:O	47:DY:81:LYS:O	2.37	0.43
27:DA:1429:G:H1'	27:DA:1568:G:N3	2.33	0.43
30:DD:39:LYS:HD2	30:DD:60:ARG:HD2	1.99	0.43
51:D2:18:PRO:CG	51:D2:19:VAL:H	2.28	0.43
31:DE:61:ARG:CB	31:DE:62:PRO:CD	2.97	0.43
27:DA:2263:C:O2'	27:DA:2264:C:H5'	2.18	0.43
27:DA:2393:A:O3'	38:DP:63:PRO:HD2	2.18	0.43
28:DB:87:G:N1	28:DB:91:C:N4	2.65	0.43
11:CK:32:ILE:HG13	11:CK:40:ILE:HB	2.00	0.43
33:DG:9:ARG:O	33:DG:10:LYS:C	2.56	0.43
27:DA:469:G:C6	56:D7:39:ARG:NH1	2.87	0.43
27:DA:2056:G:C2'	27:DA:2057:A:H5'	2.49	0.43
27:DA:674:G:H5''	32:DF:76:GLY:N	2.33	0.43
1:AA:176:C:C2	1:AA:177:C:C5	3.05	0.43
27:DA:142(A):C:O2'	27:DA:143:G:H5'	2.19	0.43
27:BA:1686:C:H2'	27:BA:1687:G:H5'	2.00	0.43
30:BD:60:ARG:CD	30:BD:86:PRO:CG	2.84	0.43
4:CD:113:SER:O	4:CD:114:ARG:C	2.57	0.43
1:CA:103:C:P	20:CT:17:ARG:HH12	2.41	0.43
1:CA:185:A:C6	1:CA:186:C:C4	3.07	0.43
1:AA:1060:C:C5'	14:AN:45:ARG:NH2	2.78	0.43
12:CL:32:GLY:HA3	12:CL:57:LEU:CD1	2.47	0.43
42:DT:27:THR:HA	42:DT:87:ASP:HB2	2.00	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1494:G:OP2	1:CA:1494:G:C8	2.72	0.43
27:DA:1914:C:H2'	27:DA:1915:U:H6	1.83	0.43
27:BA:2072:G:C5	27:BA:2073:C:C5	3.07	0.43
27:BA:2591:C:H2'	27:BA:2592:G:H8	1.83	0.43
31:BE:35:GLN:NE2	31:BE:37:ARG:NH1	2.66	0.43
2:AB:166:ASP:O	2:AB:167:PRO:C	2.56	0.43
2:CB:185:ILE:HA	2:CB:199:TYR:O	2.18	0.43
8:CH:49:GLU:OE1	8:CH:62:TYR:OH	2.35	0.43
1:AA:355:C:H2'	1:AA:356:A:O5'	2.18	0.43
1:CA:1038:C:H2'	1:CA:1039:C:C5	2.53	0.43
1:CA:130:A:C8	17:CQ:63:ARG:HG3	2.52	0.43
20:CT:65:LYS:C	20:CT:67:ALA:H	2.22	0.43
31:DE:25:VAL:HG12	31:DE:26:ILE:N	2.33	0.43
40:BR:62:ALA:O	40:BR:63:ARG:C	2.56	0.43
50:B1:6:GLU:C	50:B1:7:ILE:HD12	2.38	0.43
3:CC:79:ARG:C	3:CC:81:GLY:N	2.71	0.43
3:CC:84:ILE:HA	3:CC:87:LEU:CD1	2.48	0.43
42:BT:106:SER:C	42:BT:107:ASP:CG	2.76	0.43
27:BA:2264:C:N4	27:BA:2265:U:O4	2.51	0.43
1:CA:1356:G:H2'	1:CA:1357:A:C8	2.53	0.43
27:BA:2842:G:C4	27:BA:2876:G:N2	2.86	0.43
8:CH:30:ARG:O	8:CH:33:GLU:N	2.52	0.43
27:BA:2163:C:C2'	27:BA:2164:C:H5'	2.48	0.43
23:AW:8:U:HO2'	23:AW:44:A:H2	1.65	0.43
27:DA:1300:U:C6	27:DA:1626:G:C6	3.06	0.43
36:DN:17:ASP:O	36:DN:17:ASP:CG	2.55	0.43
48:BZ:165:SER:CB	48:BZ:166:PRO:C	2.87	0.43
27:DA:2308:G:C2'	27:DA:2309:A:C8	2.97	0.43
7:AG:120:ILE:O	7:AG:124:LEU:HG	2.18	0.43
13:AM:93:ARG:HA	13:AM:93:ARG:HE	1.83	0.43
1:AA:1380:U:O4	7:AG:3:ARG:HA	2.18	0.43
35:BI:37:VAL:HG12	35:BI:38:LEU:CD1	2.48	0.43
23:AW:65:U:O2'	23:AW:66:A:H5'	2.18	0.43
1:CA:353:A:H5'	1:CA:353:A:C8	2.52	0.43
27:BA:846:C:C2	27:BA:930:U:C4	3.06	0.43
37:DO:85:VAL:HG21	37:DO:98:VAL:HG23	2.00	0.43
27:DA:1754:C:OP1	42:DT:95:ARG:HB2	2.19	0.43
42:DT:96:ARG:HB3	42:DT:96:ARG:CZ	2.48	0.43
38:BP:85:LEU:HA	38:BP:88:LEU:HD22	2.01	0.43
27:DA:2297:C:C2	27:DA:2321:G:N2	2.81	0.43
27:DA:2320:A:N3	27:DA:2320:A:H2'	2.32	0.43
42:BT:13:ARG:O	42:BT:15:VAL:HG12	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:CP:58:TYR:C	16:CP:60:LEU:N	2.72	0.43
3:AC:29:TYR:HE2	3:AC:33:LEU:HD13	1.83	0.43
11:CK:67:ASP:O	11:CK:68:ALA:C	2.57	0.43
1:CA:880:C:C6	12:CL:6:GLN:OE1	2.71	0.43
8:CH:44:PHE:HA	8:CH:79:VAL:HG11	2.00	0.43
45:DW:41:LYS:O	45:DW:42:ARG:C	2.56	0.43
27:DA:1208:C:N3	27:DA:1239:G:C2	2.86	0.43
1:CA:1126:U:O2'	1:CA:1127:G:H5'	2.18	0.43
10:CJ:71:LEU:O	10:CJ:72:VAL:HG23	2.18	0.43
32:DF:135:LYS:HE3	32:DF:137:LYS:HG3	2.00	0.43
27:BA:1598:C:H5'	46:BX:36:LYS:HG3	1.99	0.43
5:AE:96:PRO:HA	5:AE:117:ASP:OD2	2.18	0.43
3:AC:172:ARG:HB3	3:AC:174:PRO:HD3	1.99	0.43
25:CY:37:U:H2'	25:CY:38:U:C4'	2.48	0.43
3:AC:60:ALA:O	3:AC:61:ALA:HB2	2.18	0.43
1:AA:600:C:N3	1:AA:639:G:C2	2.86	0.43
50:D1:82:LEU:HD22	50:D1:82:LEU:N	2.34	0.43
1:CA:320:C:O2'	1:CA:1435:G:H1'	2.18	0.43
1:CA:327:A:O3'	1:CA:328:C:C4'	2.66	0.43
2:AB:21:ARG:C	2:AB:23:ARG:H	2.21	0.43
1:AA:1066:C:H5''	1:AA:1066:C:C6	2.53	0.43
7:AG:86:GLN:NE2	25:AY:30:A:C2	2.85	0.43
6:AF:80:ARG:C	6:AF:82:ARG:N	2.71	0.43
13:CM:16:ASP:CB	13:CM:31:LYS:HE2	2.48	0.43
27:DA:1469:A:H2'	27:DA:1470:G:C8	2.54	0.43
27:BA:2772:C:H5'	31:BE:168:MET:HE2	1.99	0.43
23:CW:30:A:C2'	23:CW:31:U:C5'	2.95	0.43
27:DA:2523:G:H5'	27:DA:2523:G:C8	2.46	0.43
13:AM:48:LEU:N	13:AM:48:LEU:HD23	2.33	0.43
1:CA:1419:G:C4	1:CA:1420:C:C5	3.07	0.43
1:AA:859:A:H2'	1:AA:860:A:H8	1.84	0.43
40:DR:83:ILE:C	40:DR:85:PRO:HD2	2.38	0.43
1:AA:1047:G:H1	1:AA:1210:C:N4	2.16	0.43
27:DA:2063:C:O2'	27:DA:2064:C:H5'	2.18	0.43
27:BA:2353:G:C5	27:BA:2365:G:N2	2.85	0.43
40:DR:92:GLY:N	40:DR:94:TYR:CE1	2.86	0.43
1:AA:335:C:O2'	1:AA:336:C:H5'	2.18	0.43
27:DA:1247:A:C5	27:DA:1249:U:C5	3.06	0.43
6:CF:22:GLU:HA	6:CF:22:GLU:OE2	2.18	0.43
25:AY:14:A:H1'	25:AY:21:A:N1	2.33	0.43
17:CQ:64:PRO:CA	17:CQ:70:ARG:HG2	2.48	0.43
3:AC:166:GLU:OE2	3:AC:166:GLU:HA	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:D5:55:ARG:HD2	54:D5:56:LYS:H	1.84	0.43
27:BA:2088:G:H2'	27:BA:2089:U:H6	1.81	0.43
48:BZ:23:LEU:O	48:BZ:37:TYR:HA	2.17	0.43
27:DA:1169:G:O5'	27:DA:1169:G:H8	2.02	0.43
1:AA:1495:U:H2'	1:AA:1496:C:H6	1.84	0.43
27:BA:2766:G:C2	27:BA:2767:C:C6	3.06	0.43
27:DA:1525:G:H2'	27:DA:1526:G:H8	1.83	0.43
27:BA:2460:U:C4	27:BA:2461:C:C5	3.06	0.43
27:DA:1053:C:O2	27:DA:1053:C:H2'	2.19	0.43
1:CA:995:C:O2'	1:CA:996:A:P	2.77	0.43
27:BA:1703:G:N2	27:BA:1704:G:C4	2.87	0.43
27:BA:2673:G:O2'	27:BA:2674:G:H5'	2.18	0.43
1:CA:1375:A:H4'	7:CG:29:LYS:NZ	2.34	0.43
27:DA:2597:G:C6	27:DA:2598:A:N6	2.86	0.43
4:CD:144:ASP:OD1	4:CD:144:ASP:N	2.51	0.43
28:DB:66:A:O2'	28:DB:67:G:OP2	2.33	0.43
27:DA:127:A:H5''	27:DA:128:C:C6	2.53	0.43
57:B8:10:ALA:C	57:B8:12:LYS:N	2.71	0.43
1:CA:961:U:O2'	1:CA:962:C:O5'	2.37	0.43
27:BA:1281:G:H5'	27:BA:1282:U:OP2	2.19	0.43
57:D8:52:LYS:H	57:D8:53:PRO:HD2	1.78	0.43
27:DA:195:A:H61	27:DA:198:C:H3'	1.84	0.43
27:DA:1833:U:C4	27:DA:1834:U:C4	3.07	0.43
4:CD:11:LEU:O	4:CD:13:ARG:N	2.51	0.43
33:BG:102:PHE:O	33:BG:105:LYS:HG3	2.19	0.43
27:BA:2811:G:OP1	31:BE:60:ASN:HB2	2.18	0.43
31:BE:51:PHE:C	31:BE:74:PRO:HB2	2.39	0.43
5:AE:33:VAL:HG23	5:AE:43:LEU:CD1	2.26	0.43
1:AA:268:C:C5	1:AA:269:C:H5	2.37	0.43
17:AQ:19:VAL:O	17:AQ:43:LEU:HA	2.18	0.43
8:AH:23:SER:HA	8:AH:63:LEU:HD22	2.00	0.43
42:BT:109:GLU:O	42:BT:112:ARG:N	2.51	0.43
1:AA:16:A:N1	1:AA:920:U:C2	2.86	0.43
27:DA:1157:G:O2'	27:DA:1158:C:C5'	2.67	0.43
27:DA:534:U:O2'	27:DA:535:C:H5'	2.18	0.43
27:DA:815:C:C2	27:DA:816:C:C5	3.07	0.43
52:B3:24:LYS:O	52:B3:27:GLY:HA2	2.18	0.43
27:DA:95:G:H4'	51:D2:46:GLN:OE1	2.18	0.43
27:DA:2070:G:C4	27:DA:2071:A:C8	3.06	0.43
27:DA:2287:A:O2'	27:DA:2288:A:O5'	2.36	0.43
27:DA:2382:G:O2'	27:DA:2383:G:P	2.77	0.43
33:DG:18:GLU:HB3	33:DG:175:LEU:CD2	2.48	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1191:G:C2	27:DA:1192:G:C8	3.06	0.43
27:DA:1192:G:O2'	27:DA:1193:G:H5'	2.19	0.43
27:DA:2016:U:O2'	27:DA:2017:U:H5'	2.18	0.43
27:DA:971:C:H2'	27:DA:972:G:O4'	2.19	0.43
36:BN:95:PRO:O	36:BN:96:GLU:C	2.57	0.43
1:CA:200:G:H2'	1:CA:201:C:H6	1.81	0.43
9:AI:95:LYS:HD3	9:AI:96:LEU:N	2.33	0.43
1:AA:1053:G:O2'	1:AA:1054:C:P	2.77	0.43
8:AH:100:ILE:CD1	8:AH:124:ALA:HB3	2.48	0.43
42:DT:35:LYS:C	42:DT:37:GLY:H	2.22	0.43
27:DA:2756:U:H1'	27:DA:2757:A:C5'	2.40	0.43
27:BA:1813:G:H2'	27:BA:1814:G:H5'	1.99	0.43
27:BA:2439:A:H4'	27:BA:2440:C:H3'	2.00	0.43
27:BA:775:G:O2'	27:BA:794:G:N7	2.43	0.43
1:AA:106:C:H2'	1:AA:107:G:C8	2.53	0.43
1:AA:61:G:H2'	1:AA:62:U:C6	2.53	0.43
1:AA:1102:A:H2'	1:AA:1103:C:C6	2.54	0.43
32:DF:32:LEU:HD22	32:DF:112:MET:HE3	1.99	0.43
48:BZ:68:THR:CA	48:BZ:90:LEU:HD12	2.46	0.43
1:AA:457:C:H2'	1:AA:458:C:C6	2.52	0.43
4:AD:28:SER:HB2	4:AD:30:LYS:CG	2.48	0.43
1:CA:260:G:C4	1:CA:261:U:C5	3.07	0.43
20:CT:74:LYS:HB3	20:CT:75:ASN:H	1.50	0.43
27:DA:2125:G:H21	27:DA:2174:C:N4	2.14	0.43
1:CA:179:A:C4	1:CA:180:U:H5	2.35	0.43
40:BR:55:ALA:CB	40:BR:79:LEU:HD22	2.48	0.43
1:CA:1175:G:C2	1:CA:1176:A:C5	3.06	0.43
27:BA:2199:A:N1	27:BA:2226:C:N4	2.55	0.43
27:BA:2093:G:O6	27:BA:2225:A:C8	2.72	0.43
27:DA:524:U:C2	27:DA:525:U:C5	3.06	0.43
6:CF:3:ARG:HG2	6:CF:93:SER:OG	2.18	0.43
1:CA:1050:G:N2	1:CA:1209:C:H1'	2.33	0.43
3:CC:192:THR:O	3:CC:192:THR:CG2	2.65	0.43
27:DA:2134:A:C8	27:DA:2158:A:C2	3.06	0.43
27:DA:2159:G:C3'	27:DA:2160:G:H5''	2.48	0.43
58:B9:26:ILE:HG22	58:B9:27:CYS:N	2.33	0.43
27:DA:353:G:N2	27:DA:354:G:C4	2.86	0.43
27:DA:1304:C:C4	27:DA:1305:C:C5	3.07	0.43
35:BI:123:LEU:HD11	35:BI:144:VAL:CG1	2.48	0.43
27:BA:2283:C:C2	27:BA:2389:G:C2	3.07	0.43
55:B6:28:ARG:HG2	55:B6:28:ARG:HH11	1.83	0.43
3:AC:183:ASP:O	3:AC:201:TYR:HA	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:55:VAL:HG12	3:AC:55:VAL:O	2.18	0.43
17:AQ:81:ARG:C	17:AQ:83:ASP:H	2.21	0.43
1:CA:17:U:H2'	1:CA:18:C:H6	1.75	0.43
20:AT:86:ARG:HH11	20:AT:86:ARG:HG3	1.83	0.43
35:DI:82:ARG:HH11	35:DI:82:ARG:HG3	1.84	0.43
35:DI:88:ILE:CG2	35:DI:90:GLY:O	2.66	0.43
27:DA:2141:G:H2'	27:DA:2142:C:O4'	2.18	0.43
1:CA:838:G:O2'	1:CA:839:U:H5''	2.19	0.43
16:CP:75:ARG:O	16:CP:77:ALA:N	2.51	0.43
4:AD:153:ARG:HH21	4:AD:181:MET:HB2	1.83	0.43
54:D5:31:VAL:CG2	54:D5:40:LYS:HE2	2.48	0.43
13:CM:6:GLY:C	13:CM:7:VAL:HG23	2.39	0.43
27:DA:1385:G:C4'	27:DA:1386:C:OP1	2.63	0.43
3:AC:24:ALA:HB3	3:AC:29:TYR:CD1	2.53	0.43
7:CG:149:ARG:O	7:CG:150:ALA:C	2.57	0.43
25:CY:25:A:H2'	25:CY:26:C:H5'	2.00	0.43
40:DR:88:ARG:HD2	40:DR:89:ASP:CG	2.39	0.43
54:D5:25:LEU:HD23	54:D5:26:THR:H	1.83	0.43
39:BQ:80:GLU:HB2	49:B0:5:LYS:HE3	2.00	0.43
33:BG:125:PHE:O	33:BG:126:ASP:O	2.35	0.43
27:BA:1204:A:C2	27:BA:1241:A:N1	2.87	0.43
33:BG:166:ASP:O	33:BG:170:ARG:N	2.43	0.43
2:CB:7:VAL:O	2:CB:11:LEU:HG	2.19	0.43
1:AA:1296:C:H4'	1:AA:1302:U:C5	2.54	0.43
1:AA:1296:C:H5''	1:AA:1297:C:OP2	2.19	0.43
50:B1:51:VAL:O	50:B1:52:ARG:C	2.57	0.43
28:DB:16:G:C6	28:DB:17:C:C4	3.07	0.43
38:DP:114:ILE:O	38:DP:130:PHE:HA	2.17	0.43
38:BP:139:LYS:O	38:BP:141:ALA:N	2.42	0.43
2:CB:105:PHE:C	2:CB:107:THR:N	2.71	0.43
27:BA:2115:G:C2	27:BA:2117:A:N7	2.86	0.43
27:BA:580:C:H2'	27:BA:581:C:C6	2.54	0.43
6:AF:77:ARG:O	6:AF:80:ARG:N	2.51	0.43
23:AW:24:C:H2'	23:AW:25:A:H5'	2.01	0.43
5:AE:148:VAL:CG2	8:AH:107:LEU:HD13	2.48	0.43
1:AA:20:U:H2'	1:AA:21:G:H5'	2.00	0.43
7:CG:120:ILE:HG22	7:CG:124:LEU:CD1	2.46	0.43
27:DA:565:C:O2'	27:DA:566:U:H5'	2.18	0.43
39:DQ:126:PRO:O	39:DQ:127:ILE:HG23	2.17	0.43
35:DI:25:TYR:CE2	35:DI:29:TYR:CD2	3.06	0.43
40:BR:67:LEU:HD22	40:BR:76:VAL:CG2	2.46	0.43
40:BR:73:VAL:O	40:BR:76:VAL:HB	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1956:U:O2'	27:BA:1957:C:H5'	2.17	0.43
27:BA:2732:G:C3'	27:BA:2733:A:C5'	2.88	0.43
48:BZ:8:TYR:HE2	48:BZ:34:ARG:CD	2.30	0.43
35:DI:39:ALA:O	35:DI:44:LEU:HD22	2.19	0.43
27:BA:1936:A:H4'	27:BA:1937:A:H5'	2.01	0.43
31:BE:14:ILE:HD12	42:BT:14:TYR:CZ	2.53	0.43
16:CP:9:PHE:HE2	16:CP:18:ARG:HB3	1.83	0.43
27:BA:2182:G:H2'	27:BA:2183:C:C6	2.53	0.43
29:DC:56:GLN:NE2	29:DC:173:ALA:CB	2.82	0.43
6:CF:100:ASN:HD22	18:CR:23:LYS:HE3	1.82	0.43
27:DA:2721:A:C2	27:DA:2873:A:C4	3.06	0.43
3:CC:27:LYS:HZ3	3:CC:27:LYS:HB3	1.83	0.43
24:AX:8:U:H5'	24:AX:48:C:O2'	2.18	0.43
1:CA:355:C:C4	1:CA:356:A:C5	3.07	0.43
1:AA:1049:U:O2'	1:AA:1050:G:P	2.76	0.43
1:AA:1494:G:N7	26:AZ:1:KBE:HAA	2.33	0.43
38:BP:38:GLN:CG	38:BP:39:LYS:H	2.29	0.43
3:CC:6:HIS:HD2	3:CC:8:ILE:H	1.65	0.43
35:DI:128:LEU:O	35:DI:137:PRO:HA	2.19	0.43
30:DD:139:GLY:O	30:DD:164:GLN:HG3	2.19	0.43
27:DA:1479:G:H5'	27:DA:1558:A:C2	2.52	0.43
4:AD:204:ILE:H	4:AD:204:ILE:HG12	1.71	0.43
2:AB:19:HIS:CG	2:AB:20:GLU:H	2.37	0.43
28:BB:69:G:O2'	28:BB:70:C:H5'	2.18	0.43
27:BA:321:G:O2'	27:BA:322:A:OP1	2.26	0.43
1:CA:947:G:H4'	13:CM:109:THR:HG1	1.83	0.43
50:D1:70:VAL:O	50:D1:73:LEU:HB2	2.19	0.43
27:BA:770:G:C6	27:BA:771:G:N7	2.87	0.43
32:DF:46:ARG:HB3	32:DF:48:THR:HG23	1.99	0.43
1:CA:367:U:OP1	1:CA:395:C:H1'	2.18	0.43
27:BA:447:A:C8	27:BA:473:G:C6	3.07	0.43
20:CT:34:LYS:O	20:CT:37:SER:HB2	2.19	0.43
27:BA:1855:G:O2'	27:BA:1856:G:H5'	2.19	0.43
28:BB:66:A:O2'	28:BB:67:G:OP2	2.31	0.43
1:CA:857:C:H2'	1:CA:858:G:O4'	2.19	0.43
16:CP:15:PRO:O	16:CP:16:HIS:ND1	2.52	0.43
38:BP:58:THR:O	38:BP:61:ARG:CZ	2.66	0.43
40:BR:48:VAL:O	40:BR:50:HIS:N	2.51	0.43
41:BS:93:LYS:O	41:BS:93:LYS:HG3	2.18	0.43
32:BF:11:VAL:CG1	32:BF:12:LEU:N	2.79	0.43
51:B2:42:GLY:C	51:B2:44:LEU:H	2.20	0.43
27:DA:1906:G:N2	27:DA:1925:C:O2	2.51	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:207:TYR:HD2	4:CD:207:TYR:HA	1.61	0.43
27:BA:287:C:C2	27:BA:288:C:C6	3.07	0.43
27:BA:287:C:H2'	27:BA:288:C:H6	1.83	0.43
42:BT:65:LYS:HA	42:BT:65:LYS:HZ3	1.83	0.43
41:BS:33:LYS:O	41:BS:34:HIS:CD2	2.72	0.43
30:DD:143:HIS:HA	30:DD:156:ALA:HB3	2.00	0.43
30:BD:24:ILE:CG1	30:BD:25:THR:H	2.24	0.43
1:AA:345:C:H5'	42:BT:36:GLU:HG3	2.00	0.43
42:BT:35:LYS:O	42:BT:37:GLY:N	2.52	0.43
27:DA:97:C:C5'	51:D2:2:LYS:HB2	2.48	0.43
27:DA:1883:G:O2'	27:DA:1884:A:H8	2.01	0.43
27:DA:921:G:N2	49:D0:26:TYR:CD1	2.86	0.43
27:DA:2261:C:OP2	49:D0:17:GLN:HG2	2.19	0.43
38:DP:146:VAL:CG1	38:DP:147:LEU:H	2.26	0.43
27:DA:1190:G:H2'	27:DA:1191:G:H8	1.84	0.43
27:DA:966:G:C6	27:DA:967:C:N4	2.86	0.43
27:DA:972:G:N1	27:DA:973:A:N6	2.67	0.43
48:DZ:27:MET:HE1	48:DZ:32:LEU:HD11	1.99	0.43
30:BD:117:VAL:HG13	30:BD:118:VAL:N	2.33	0.43
4:CD:98:GLU:HG2	4:CD:189:PRO:HG2	2.00	0.43
9:AI:5:TYR:CG	9:AI:6:GLY:N	2.86	0.43
1:AA:1343:G:H1'	9:AI:121:ARG:NH1	2.33	0.43
3:AC:12:LEU:HD12	3:AC:18:TRP:CZ2	2.53	0.43
1:AA:973:G:H4'	10:AJ:54:PHE:O	2.19	0.43
2:AB:71:VAL:HA	2:AB:93:VAL:HG23	2.00	0.43
1:AA:674:G:C6	1:AA:675:A:N6	2.87	0.43
1:CA:390:C:H4'	16:CP:28:ARG:NH2	2.33	0.43
1:AA:1305:G:OP2	21:AU:2:GLY:N	2.51	0.43
38:DP:11:GLY:O	38:DP:12:ALA:C	2.55	0.43
38:DP:6:LEU:H	38:DP:6:LEU:HD23	1.83	0.43
17:CQ:25:ARG:HB3	17:CQ:38:ARG:O	2.19	0.43
27:BA:1999:C:O2'	27:BA:2000:G:H5'	2.18	0.43
27:BA:1658:C:O2	27:BA:2003:G:C2	2.72	0.43
8:CH:48:TYR:O	8:CH:49:GLU:CB	2.67	0.43
20:CT:57:ARG:HH11	20:CT:57:ARG:HB2	1.83	0.43
1:CA:228:A:H2'	1:CA:229:U:C6	2.52	0.43
42:DT:1:MET:C	42:DT:3:ARG:N	2.71	0.43
58:D9:29:ASN:HB2	58:D9:30:PRO:HD2	2.00	0.43
27:DA:374:A:H3'	27:DA:375:C:H6	1.82	0.43
18:AR:53:ARG:CZ	18:AR:60:ALA:N	2.80	0.43
11:CK:116:HIS:O	11:CK:117:ASN:HB2	2.19	0.43
27:DA:154:G:H2'	27:DA:154(A):C:O2	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:693:G:O2'	1:CA:694:A:H5'	2.18	0.43
8:CH:6:ILE:HD11	8:CH:31:PHE:CD2	2.53	0.43
25:AY:48:C:N4	25:AY:64:G:H1	2.17	0.43
35:BI:130:TYR:O	35:BI:131:LYS:O	2.35	0.43
48:BZ:150:HIS:HB2	48:BZ:168:GLU:C	2.39	0.43
27:DA:2007:C:H5'	27:DA:2824:C:O4'	2.18	0.43
49:D0:43:THR:O	49:D0:43:THR:HG23	2.19	0.43
27:DA:332:A:H4'	27:DA:333:G:OP1	2.17	0.43
48:DZ:62:ASP:C	48:DZ:64:GLN:H	2.22	0.43
36:BN:118:LYS:O	36:BN:121:LYS:HE3	2.18	0.43
51:B2:3:LEU:O	51:B2:6:VAL:HG23	2.19	0.43
46:BX:31:HIS:CD2	46:BX:32:PRO:CD	3.01	0.43
27:BA:71:A:C2	46:BX:31:HIS:CE1	2.94	0.43
29:DC:99:ILE:HA	29:DC:103:ILE:CB	2.49	0.43
27:DA:1695:G:O2'	27:DA:1696:G:P	2.77	0.43
33:DG:125:PHE:CZ	33:DG:170:ARG:HA	2.53	0.43
33:DG:36:LYS:O	33:DG:160:VAL:HG23	2.19	0.43
39:BQ:55:VAL:O	39:BQ:59:ARG:HA	2.18	0.43
52:D3:50:VAL:HB	52:D3:53:LEU:HD12	2.00	0.43
6:AF:91:VAL:HG13	18:AR:72:ARG:CZ	2.48	0.43
30:BD:14:ARG:HG3	30:BD:15:PHE:CE1	2.54	0.43
13:AM:80:ARG:O	13:AM:83:ASP:N	2.48	0.43
1:CA:338:A:O2'	1:CA:339:C:H5'	2.19	0.43
27:BA:2525:G:N1	27:BA:2526:G:C5	2.86	0.43
15:AO:30:ALA:HA	15:AO:33:THR:HB	2.00	0.43
27:BA:271(R):G:H2'	27:BA:271(S):G:H8	1.83	0.43
5:CE:105:VAL:O	5:CE:108:ALA:CB	2.62	0.43
5:CE:139:LEU:HD22	5:CE:142:LEU:HD11	2.00	0.43
7:CG:143:ARG:CB	7:CG:143:ARG:NH1	2.81	0.43
25:CY:25:A:O2'	25:CY:26:C:H5'	2.18	0.43
3:AC:89:GLU:HG3	3:AC:90:GLU:OE1	2.19	0.43
27:DA:1028:A:H2'	27:DA:1029:A:C8	2.54	0.43
27:DA:2466:C:H2'	27:DA:2467:C:C5'	2.47	0.43
8:CH:38:ILE:O	8:CH:41:ARG:HG2	2.18	0.43
44:BV:82:ARG:CG	44:BV:82:ARG:HH11	2.31	0.43
40:DR:48:VAL:HA	40:DR:51:LEU:HD11	2.00	0.43
27:BA:105:C:O2'	47:BY:2:ARG:CB	2.65	0.43
27:DA:1286:A:P	40:DR:105:ARG:HH11	2.42	0.43
1:CA:737:A:O2'	6:CF:72:VAL:CG1	2.64	0.43
7:AG:23:VAL:O	7:AG:26:PHE:N	2.51	0.43
1:CA:16:A:C2	1:CA:920:U:C2	3.06	0.43
5:AE:101:ILE:HG12	5:AE:119:LEU:HD23	2.00	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2048:G:C6	27:BA:2621:A:C2	3.06	0.43
27:BA:1741:A:O2'	27:BA:1742:G:O4'	2.37	0.43
34:DH:102:ALA:CB	34:DH:116:GLU:HA	2.49	0.43
13:CM:86:CYS:HA	19:CS:73:GLU:O	2.18	0.43
27:BA:2619:C:OP1	31:BE:152:LYS:HE3	2.18	0.43
27:DA:1405:U:H2'	27:DA:1406:U:C6	2.53	0.43
1:CA:784:C:C4	1:CA:799:G:N1	2.87	0.43
1:CA:1428:A:C6	1:CA:1429:C:N4	2.87	0.43
1:CA:256:U:C2	1:CA:257:G:C8	3.06	0.43
18:CR:66:LEU:O	18:CR:70:ILE:N	2.51	0.43
27:DA:1332:G:C5'	27:DA:1333:C:OP2	2.63	0.43
13:CM:45:VAL:C	13:CM:47:ASP:H	2.21	0.43
27:DA:622:G:O2'	27:DA:623:G:H5'	2.19	0.43
1:AA:1096:C:O2'	1:AA:1097:C:H5'	2.18	0.43
17:AQ:9:VAL:HA	17:AQ:55:ASP:O	2.18	0.43
42:DT:92:GLY:O	42:DT:94:ALA:N	2.43	0.43
1:CA:422:C:H5'	1:CA:423:G:OP1	2.18	0.43
27:DA:2228:G:P	30:DD:263:ARG:HH12	2.41	0.43
1:CA:1400:C:O4'	22:CV:6:G:C6	2.72	0.43
27:DA:1895:C:H2'	27:DA:1896:G:O4'	2.18	0.43
1:AA:1434:A:H2'	1:AA:1435:G:H5'	2.00	0.43
27:BA:1477:A:C4	27:BA:1515:G:N2	2.87	0.43
2:CB:19:HIS:CE1	2:CB:205:ASP:OD1	2.71	0.43
29:DC:56:GLN:NE2	29:DC:173:ALA:HB1	2.34	0.43
27:BA:2748:A:C8	27:BA:2754:U:O4	2.72	0.43
34:BH:71:LEU:H	34:BH:74:ASN:ND2	2.15	0.43
27:BA:563:G:C2	27:BA:564:C:C4	3.07	0.43
27:DA:2027:G:C4	27:DA:2028:U:C6	3.07	0.43
27:DA:2036:C:C6	27:DA:2036:C:H5'	2.54	0.43
1:CA:787:A:O2'	1:CA:788:U:H5'	2.19	0.43
40:BR:13:HIS:O	40:BR:16:HIS:N	2.43	0.43
27:BA:2731:G:O5'	27:BA:2731:G:C8	2.69	0.43
25:AY:14:A:C8	25:AY:21:A:N6	2.87	0.43
43:BU:85:LYS:HD3	43:BU:117:GLN:NE2	2.32	0.43
28:DB:103:G:C2'	28:DB:104:U:H5'	2.49	0.43
1:CA:1465:C:O2'	1:CA:1466:C:H5'	2.19	0.43
27:BA:1300:U:H1'	27:BA:1626:G:C2	2.54	0.43
27:DA:1525:G:O2'	27:DA:1526:G:H5'	2.18	0.43
20:CT:42:GLN:HG3	20:CT:43:LEU:HD23	2.01	0.43
50:B1:3:LYS:HG3	50:B1:4:VAL:HG12	2.00	0.43
27:DA:776:G:H1'	27:DA:793:A:C2	2.54	0.43
27:DA:1450(A):C:H2'	27:DA:1451:C:C6	2.54	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:769:G:O2'	27:BA:770:G:H5'	2.18	0.43
1:AA:1106:G:H2'	1:AA:1107:C:H6	1.83	0.43
9:AI:10:ARG:HD3	9:AI:75:ASP:HB3	2.00	0.43
27:BA:2405:G:O2'	27:BA:2411:A:N6	2.51	0.43
1:CA:125:U:H2'	1:CA:126:G:C8	2.52	0.43
27:DA:1835:G:C5'	27:DA:1836:C:OP2	2.66	0.43
13:AM:114:ARG:HG2	13:AM:114:ARG:HH11	1.83	0.43
17:AQ:86:GLU:OE1	17:AQ:86:GLU:HA	2.19	0.43
1:AA:1051:C:H6	1:AA:1051:C:O5'	2.01	0.43
15:AO:44:LYS:HB2	15:AO:44:LYS:HE3	1.79	0.43
45:BW:2:GLU:HA	45:BW:107:LEU:O	2.19	0.43
27:BA:2393:A:C2'	27:BA:2394:C:H5'	2.48	0.43
27:BA:252:G:H2'	27:BA:253:C:C6	2.52	0.43
27:BA:819:A:H2	27:BA:943:U:O4'	2.02	0.43
38:BP:47:ASP:CB	38:BP:48:PRO:CA	2.88	0.43
40:BR:44:LEU:HD13	40:BR:44:LEU:C	2.38	0.43
28:BB:43:C:C4	28:BB:45:A:N6	2.86	0.43
27:BA:2294:C:OP1	41:BS:92:TYR:HE1	2.02	0.43
32:BF:7:TYR:HB3	32:BF:16:GLY:H	1.84	0.43
37:BO:88:ASN:ND2	37:BO:90:GLN:OE1	2.51	0.43
36:DN:97:ARG:HA	36:DN:100:GLU:HG3	2.01	0.43
27:DA:195:A:C8	27:DA:197:A:OP1	2.71	0.43
13:CM:23:TYR:HE1	13:CM:71:ARG:CA	2.31	0.43
31:BE:57:LYS:C	31:BE:59:VAL:HG12	2.39	0.43
31:BE:59:VAL:CG2	31:BE:60:ASN:N	2.52	0.43
27:BA:538:G:H5'	36:BN:5:VAL:HG21	2.00	0.43
27:DA:413:C:O2'	27:DA:1880:C:H1'	2.18	0.43
17:AQ:67:LYS:O	17:AQ:68:ARG:HB3	2.19	0.43
8:AH:17:THR:C	8:AH:20:TYR:H	2.20	0.43
27:DA:985:C:C6	27:DA:986:C:H5	2.36	0.43
47:DY:28:LYS:CA	47:DY:38:ILE:HB	2.48	0.43
27:DA:2428:G:H4'	27:DA:2429:G:C8	2.53	0.43
27:DA:626:U:H5'	27:DA:627:A:C5'	2.49	0.43
27:BA:2467:C:H2'	27:BA:2468:G:O4'	2.18	0.43
46:DX:47:PHE:C	46:DX:48:LYS:HD2	2.38	0.43
13:CM:14:ARG:HB2	13:CM:41:PRO:O	2.19	0.43
30:BD:101:GLU:OE1	30:BD:103:ARG:CD	2.57	0.43
47:BY:11:ASP:O	47:BY:27:VAL:N	2.51	0.43
47:BY:30:VAL:HG22	47:BY:37:VAL:HG12	2.00	0.43
1:AA:976:G:OP1	14:AN:32:SER:N	2.51	0.43
48:BZ:75:LEU:HA	48:BZ:75:LEU:HD22	1.79	0.43
1:CA:397:A:C2'	1:CA:399:G:OP2	2.64	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:297:G:C5	1:AA:299:G:OP2	2.72	0.43
27:BA:910:A:C6	39:BQ:13:GLN:NE2	2.86	0.43
41:DS:40:ILE:O	41:DS:42:ASP:OD1	2.36	0.43
27:BA:587:C:C6	27:BA:587:C:O5'	2.57	0.43
2:AB:97:TRP:CZ2	2:AB:173:ALA:HA	2.54	0.43
1:AA:1073:U:OP2	5:AE:57:LYS:HE3	2.18	0.43
27:BA:951:C:N4	27:BA:952:G:O6	2.52	0.43
46:BX:18:TYR:C	46:BX:20:GLY:N	2.72	0.43
31:DE:9:VAL:CG2	31:DE:10:GLY:N	2.81	0.43
1:CA:965:A:C5'	1:CA:966:G:OP1	2.66	0.43
27:DA:2693:A:H2'	27:DA:2694:G:H8	1.84	0.43
27:BA:2197:U:C4	27:BA:2224:G:C2	3.06	0.43
27:BA:1801:G:OP2	30:BD:154:LYS:HE2	2.18	0.43
27:DA:543:C:N3	27:DA:551:G:C2	2.86	0.43
1:CA:533:A:C6	1:CA:536:C:C4	3.07	0.43
1:CA:1354:C:H2'	1:CA:1355:G:H8	1.83	0.43
48:DZ:94:PRO:CB	48:DZ:126:LYS:NZ	2.82	0.43
39:DQ:29:PHE:HB3	39:DQ:30:GLY:H	1.43	0.43
48:DZ:78:ARG:H	48:DZ:78:ARG:HD2	1.82	0.43
38:BP:91:PHE:N	38:BP:91:PHE:CD1	2.86	0.43
38:BP:97:PRO:C	38:BP:99:LEU:H	2.12	0.43
27:DA:1623:G:O2'	27:DA:1624:G:H5'	2.19	0.43
1:AA:1158:C:O3'	2:AB:133:LYS:NZ	2.52	0.43
32:BF:130:ALA:O	32:BF:132:VAL:N	2.52	0.43
36:BN:130:HIS:O	36:BN:132:ALA:N	2.51	0.43
51:B2:9:GLN:OE1	51:B2:56:GLN:HG2	2.19	0.43
51:B2:28:LYS:CB	51:B2:57:ILE:HD12	2.48	0.43
27:BA:92:A:O2'	27:BA:93:G:H8	2.01	0.43
13:CM:83:ASP:OD2	13:CM:83:ASP:N	2.50	0.43
39:BQ:31:ASP:N	39:BQ:106:VAL:O	2.49	0.43
48:BZ:99:VAL:O	48:BZ:101:LEU:HD13	2.19	0.43
35:DI:100:ALA:O	35:DI:101:LEU:HB2	2.18	0.43
2:CB:97:TRP:CE3	2:CB:97:TRP:O	2.71	0.43
27:BA:2694:G:C2'	27:BA:2695:C:O5'	2.66	0.43
36:BN:30:ILE:HD13	36:BN:54:VAL:CG2	2.49	0.43
19:CS:4:SER:O	19:CS:5:LEU:HB3	2.17	0.43
1:AA:1285:A:C5'	1:AA:1286:A:C8	2.99	0.43
1:AA:1286:A:H2	21:AU:22:ARG:HH21	1.65	0.43
1:CA:453:A:C6	1:CA:454:C:C4	3.07	0.43
15:AO:62:GLN:NE2	15:AO:66:LEU:CD1	2.82	0.43
31:DE:173:VAL:O	31:DE:174:ASP:O	2.37	0.43
23:CW:20:A:C2	23:CW:47:C:C2	3.06	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2469:A:N6	27:DA:2481:G:C1'	2.82	0.43
27:BA:1109:C:H5	27:BA:1110:G:C5	2.36	0.43
26:AZ:5:UAL:C	26:AZ:6:5OH:HS	2.49	0.43
27:DA:1648:C:C2	27:DA:2010:G:N2	2.86	0.43
27:DA:1237:A:C2	27:DA:1238:G:N3	2.82	0.43
47:DY:46:LYS:N	47:DY:62:GLU:CD	2.72	0.43
1:AA:189(B):C:N4	1:AA:189(I):G:H1	2.17	0.43
33:BG:26:GLN:O	33:BG:28:VAL:N	2.49	0.43
32:DF:141:ALA:O	32:DF:144:LYS:CB	2.61	0.43
1:CA:1097:C:H2'	1:CA:1097:C:O2	2.18	0.43
1:CA:629:G:N2	1:CA:630:G:N3	2.67	0.43
27:BA:1722:A:N1	27:BA:1740:G:C8	2.77	0.43
50:B1:52:ARG:CG	50:B1:53:VAL:N	2.81	0.43
1:CA:328:C:C2'	1:CA:328:C:O2	2.66	0.43
2:AB:161:ALA:HA	2:AB:182:ILE:HG22	2.01	0.43
27:BA:341:G:N1	27:BA:342:G:C5	2.87	0.43
1:AA:705:U:H5	1:AA:706:A:C5	2.36	0.43
27:BA:1750:G:N2	27:BA:1751:C:C2	2.87	0.43
18:AR:32:ARG:HH11	18:AR:65:ILE:HD13	1.84	0.43
1:AA:1097:C:O2	1:AA:1169:A:H2	2.01	0.43
13:CM:115:LYS:O	13:CM:117:VAL:HG23	2.18	0.43
40:BR:76:VAL:HG13	40:BR:77:ARG:N	2.34	0.43
1:CA:1288:A:C6	1:CA:1289:A:C5	3.07	0.43
1:AA:1248:A:C2'	1:AA:1249:C:C5'	2.97	0.43
10:AJ:78:ASN:O	10:AJ:82:ILE:HG12	2.18	0.43
1:CA:445:G:H1	1:CA:489:C:N4	2.13	0.43
46:DX:5:TYR:HD1	46:DX:5:TYR:H	1.66	0.43
47:DY:6:HIS:CD2	47:DY:35:TYR:CE1	3.07	0.43
1:AA:321:A:N7	1:AA:328:C:O2'	2.48	0.43
1:CA:878:G:H1'	8:CH:3:THR:HG21	2.01	0.43
27:BA:302:C:H2'	27:BA:303:U:H6	1.82	0.43
27:BA:563:G:C6	27:BA:564:C:N4	2.87	0.43
27:BA:564:C:O2	27:BA:1253:A:H2	2.01	0.43
54:B5:33:CYS:O	54:B5:34:PRO:C	2.57	0.43
36:DN:19:GLU:HB2	36:DN:59:LYS:HB3	2.00	0.43
35:BI:45:LYS:HA	35:BI:48:GLU:HG3	2.01	0.43
6:CF:5:GLU:O	6:CF:90:VAL:HA	2.19	0.43
25:CY:71:A:H2'	25:CY:72:G:O4'	2.19	0.43
29:BC:72:VAL:HG11	29:BC:161:ILE:HA	2.00	0.43
34:DH:86:GLU:HB2	34:DH:132:ARG:HH11	1.84	0.43
1:AA:159:G:H21	1:AA:161:A:H3'	1.84	0.43
48:BZ:127:VAL:HG22	48:BZ:128:SER:N	2.34	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2432:A:C5	27:DA:2433:A:C5	3.07	0.43
27:BA:224:G:N7	27:BA:420:C:H4'	2.34	0.43
49:D0:65:GLY:HA3	49:D0:81:VAL:HG12	2.01	0.43
28:DB:12:C:H6	28:DB:12:C:OP2	2.01	0.43
27:BA:1015:G:H5''	27:BA:1015:G:C8	2.51	0.43
27:DA:280:C:N4	27:DA:361:G:C6	2.85	0.43
27:BA:1231:G:H2'	27:BA:1232:G:C8	2.54	0.43
6:CF:80:ARG:H	6:CF:80:ARG:HG2	1.63	0.43
33:BG:145:THR:OG1	33:BG:147:ASP:CG	2.57	0.43
27:BA:2460:U:C2'	27:BA:2461:C:H5'	2.49	0.43
27:DA:1223:G:H5'	27:DA:1224:C:OP2	2.18	0.43
27:DA:882:G:H2'	27:DA:883:G:C8	2.54	0.43
5:CE:72:GLN:O	5:CE:73:ASN:HB3	2.18	0.43
17:CQ:40:LYS:HD3	17:CQ:42:TYR:CE2	2.54	0.43
27:DA:190:A:C4	27:DA:207:A:C2	3.07	0.43
24:AX:43:A:C2	24:AX:44:A:C2	3.06	0.43
57:B8:8:LYS:HG3	57:B8:12:LYS:HE3	2.01	0.43
27:BA:2833:G:HO2'	27:BA:2834:G:P	2.42	0.43
40:BR:87:TYR:O	40:BR:88:ARG:C	2.56	0.43
32:BF:113:ALA:O	32:BF:116:ASP:HB3	2.18	0.43
32:BF:124:LEU:O	32:BF:193:VAL:HA	2.19	0.43
27:BA:615:G:O2'	32:BF:205:ARG:NH2	2.51	0.43
47:BY:95:LYS:HG2	47:BY:100:ALA:CA	2.47	0.43
37:BO:14:THR:HG22	37:BO:15:GLY:N	2.33	0.43
1:CA:502:G:N1	1:CA:544:G:C2	2.87	0.43
4:CD:60:GLU:O	4:CD:63:LYS:N	2.52	0.43
13:CM:25:ILE:HD11	13:CM:66:LEU:HB3	1.99	0.43
43:BU:90:VAL:HG11	44:BV:40:LEU:CD2	2.43	0.43
44:BV:18:LEU:CD1	44:BV:18:LEU:N	2.82	0.43
44:BV:52:VAL:HG22	44:BV:55:ALA:CB	2.49	0.43
42:BT:16:ARG:H	42:BT:79:HIS:CD2	2.31	0.43
42:BT:109:GLU:O	42:BT:112:ARG:HB2	2.19	0.43
43:DU:95:LEU:HA	43:DU:95:LEU:HD23	1.80	0.43
43:DU:98:LEU:HD21	44:DV:2:PHE:CZ	2.54	0.43
51:D2:45:SER:O	51:D2:46:GLN:NE2	2.52	0.43
27:DA:1858:G:C2	27:DA:1883:G:C2	3.07	0.43
38:DP:64:LYS:HB3	57:D8:25:MET:CG	2.48	0.43
27:DA:2287:A:O2'	27:DA:2288:A:P	2.77	0.43
33:DG:18:GLU:O	33:DG:22:ARG:HG3	2.18	0.43
27:BA:2298:A:N3	27:BA:2299:G:H1'	2.33	0.43
27:DA:2056:G:C5	27:DA:2577:A:C8	3.06	0.43
27:DA:2022:U:O2'	27:DA:2617:C:H5'	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1673:U:O4	31:DE:129:HIS:HD2	2.02	0.43
31:DE:150:VAL:O	31:DE:152:LYS:N	2.52	0.43
1:AA:154:C:C2	1:AA:168:G:N2	2.87	0.43
20:AT:32:ALA:O	20:AT:33:ILE:C	2.57	0.43
39:BQ:109:VAL:HG12	39:BQ:110:THR:N	2.33	0.43
34:BH:54:ARG:HD2	34:BH:56:SER:O	2.18	0.43
1:CA:198:G:O2'	1:CA:199:G:H5'	2.19	0.43
1:AA:1358:U:C5	1:AA:1359:C:C4	3.06	0.43
14:AN:40:CYS:O	14:AN:42:ILE:N	2.52	0.43
19:AS:32:LYS:HB2	19:AS:32:LYS:HE3	1.88	0.43
19:AS:49:ILE:HG22	19:AS:50:ALA:N	2.34	0.43
1:CA:250:A:C1'	1:CA:252:U:C6	3.02	0.43
1:CA:276:G:H2'	1:CA:277:C:H5'	2.01	0.43
17:CQ:56:VAL:HB	17:CQ:78:GLU:HG3	2.00	0.43
30:BD:44:ASN:HB2	30:BD:45:ASN:H	1.68	0.43
2:AB:113:HIS:C	2:AB:115:LEU:H	2.22	0.43
1:CA:741:G:H2'	1:CA:742:G:O4'	2.18	0.43
2:CB:96:ARG:N	2:CB:96:ARG:CD	2.74	0.43
34:BH:156:ALA:CB	34:BH:159:GLU:HB3	2.48	0.43
27:BA:372:G:H5'	50:B1:66:HIS:NE2	2.34	0.43
1:CA:718:G:N2	18:CR:49:LYS:NZ	2.54	0.43
1:CA:1057:G:C6	1:CA:1204:A:C2	3.06	0.43
5:CE:53:LEU:HD12	5:CE:53:LEU:N	2.26	0.43
15:CO:79:ARG:C	15:CO:81:LEU:N	2.72	0.43
8:CH:6:ILE:HG23	8:CH:10:LEU:HD12	2.00	0.43
25:AY:63:C:H2'	25:AY:64:G:H8	1.78	0.43
1:CA:648:A:N1	1:CA:649:G:C6	2.86	0.43
27:BA:2544:G:C4	27:BA:2545:G:C8	3.07	0.43
27:BA:2646:C:C4	27:BA:2647:U:C5	3.07	0.43
31:DE:111:ARG:O	31:DE:112:GLY:O	2.36	0.43
40:DR:11:ASN:OD1	40:DR:12:ARG:N	2.52	0.43
27:DA:856:C:H6	27:DA:856:C:H5''	1.84	0.43
55:B6:9:LEU:HD21	55:B6:11:LEU:HD23	2.00	0.43
12:AL:116:LYS:O	12:AL:117:TYR:CB	2.63	0.43
33:DG:46:ALA:CA	33:DG:51:ARG:HG3	2.49	0.43
1:AA:619:U:O2	4:AD:133:VAL:HA	2.18	0.43
31:BE:144:ARG:O	31:BE:148:GLY:HA2	2.19	0.43
30:BD:146:GLU:HA	30:BD:152:GLY:O	2.18	0.43
7:CG:77:SER:O	7:CG:78:ARG:CB	2.66	0.43
1:AA:824:C:O2'	1:AA:825:G:H5'	2.19	0.43
37:DO:53:LYS:O	37:DO:54:GLU:C	2.57	0.43
51:B2:28:LYS:O	51:B2:29:LYS:C	2.57	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:760:G:C2'	27:DA:761:A:H5'	2.48	0.43
27:BA:1596:A:C3'	27:BA:1597:A:H5'	2.48	0.43
27:DA:2302:G:C6	27:DA:2303:G:C5	3.07	0.43
28:DB:45:A:H2'	28:DB:46:A:C5'	2.49	0.43
33:DG:126:ASP:C	33:DG:128:ARG:N	2.71	0.43
39:BQ:27:VAL:HG23	39:BQ:137:TYR:CE1	2.53	0.43
27:BA:2355:C:O5'	27:BA:2355:C:H6	2.01	0.43
27:BA:729:G:H8	27:BA:764:A:OP1	2.02	0.43
1:CA:340:U:H2'	1:CA:341:C:C6	2.54	0.43
37:DO:11:ALA:CB	37:DO:64:ARG:HH21	2.30	0.43
27:BA:2717:G:H2'	27:BA:2718:G:O4'	2.18	0.43
27:BA:2657:A:C4	27:BA:2665:A:C6	3.07	0.43
27:BA:1222:C:H2'	27:BA:1223:G:C8	2.54	0.43
40:DR:71:GLN:HE21	40:DR:71:GLN:HB2	1.63	0.43
45:DW:26:GLY:N	45:DW:71:VAL:HB	2.25	0.43
27:DA:1216:G:N1	27:DA:1234:U:C2	2.87	0.43
24:AX:2:G:C4	24:AX:3:C:C5	3.07	0.43
1:CA:737:A:OP1	6:CF:91:VAL:HG13	2.19	0.43
7:AG:26:PHE:O	7:AG:30:ILE:HG12	2.18	0.43
32:BF:160:ASN:ND2	32:BF:162:LEU:HB2	2.29	0.43
27:BA:116:C:C2'	27:BA:117:G:O5'	2.67	0.43
32:DF:132:VAL:O	32:DF:133:ASN:O	2.37	0.43
1:CA:862:C:O2'	1:CA:874:G:H5"	2.18	0.43
34:DH:158:HIS:HE2	34:DH:170:ARG:C	2.22	0.43
36:DN:85:ILE:HG12	36:DN:89:LYS:HB3	2.00	0.43
13:CM:88:ARG:O	13:CM:98:VAL:HG11	2.19	0.43
27:DA:2542:A:H8	27:DA:2544:G:O6	2.02	0.43
10:AJ:8:LEU:HD21	10:AJ:96:ILE:HG22	1.99	0.43
1:AA:768:A:N3	1:AA:1512:U:O2'	2.49	0.43
4:AD:173:TRP:HB3	4:AD:187:ARG:NH1	2.33	0.43
38:BP:138:LEU:O	38:BP:139:LYS:C	2.57	0.43
1:CA:409:G:H2'	1:CA:410:G:O4'	2.19	0.43
27:BA:2720:U:H5'	27:BA:2721:A:OP2	2.18	0.43
36:BN:36:GLY:N	36:BN:42:TRP:HZ3	2.17	0.43
13:CM:36:LYS:C	13:CM:38:GLY:N	2.70	0.43
7:CG:26:PHE:CD2	7:CG:62:PHE:CE1	3.07	0.43
12:CL:114:ARG:HH21	12:CL:121:LYS:N	2.17	0.43
27:BA:319:C:H2'	27:BA:320:A:C8	2.54	0.43
38:BP:123:LEU:O	38:BP:123:LEU:HD12	2.18	0.43
30:DD:265:PRO:C	30:DD:267:SER:H	2.22	0.43
27:DA:1815:A:HO2'	27:DA:1816:G:C5'	2.32	0.43
20:CT:16:HIS:CG	20:CT:16:HIS:O	2.71	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1450(A):C:H2'	27:BA:1451:C:H6	1.83	0.43
1:CA:1147:C:HO2'	9:CI:5:TYR:HH	1.67	0.43
9:CI:17:VAL:CG1	9:CI:81:ILE:HD13	2.49	0.43
27:DA:1049:C:O2'	27:DA:1050:A:C8	2.65	0.43
29:DC:56:GLN:OE1	29:DC:56:GLN:O	2.37	0.43
43:DU:5:LYS:HG2	43:DU:7:GLY:N	2.31	0.43
37:BO:75:SER:O	37:BO:76:ALA:CB	2.67	0.43
27:BA:121:G:C8	27:BA:121:G:C5'	3.01	0.43
37:BO:59:LYS:NZ	37:BO:89:ASN:HD21	2.17	0.43
56:B7:45:ALA:C	56:B7:46:VAL:HG23	2.39	0.43
39:BQ:36:ALA:C	39:BQ:37:LEU:HD22	2.38	0.43
27:DA:272(E):G:C2	27:DA:272(F):C:C2	3.07	0.43
1:AA:219:C:H2'	1:AA:220:G:O4'	2.19	0.43
2:CB:119:GLU:O	2:CB:122:PHE:HB3	2.18	0.43
1:AA:148:G:H2'	1:AA:149:A:H8	1.83	0.43
1:CA:431:A:H3'	1:CA:432:A:H8	1.83	0.43
39:DQ:47:ILE:HG22	39:DQ:48:GLU:N	2.34	0.43
51:B2:45:SER:O	51:B2:46:GLN:NE2	2.51	0.43
5:AE:69:VAL:HA	5:AE:70:PRO:HD3	1.80	0.43
17:CQ:92:ARG:O	17:CQ:93:GLN:C	2.56	0.43
27:BA:2823:A:O2'	27:BA:2824:C:H5'	2.19	0.43
1:AA:905:U:C5	1:AA:906:G:C5	3.07	0.43
27:BA:2294:C:OP1	41:BS:92:TYR:CE1	2.71	0.43
1:CA:1075:C:H4'	1:CA:1101:A:N6	2.34	0.43
27:DA:1967:C:H2'	27:DA:1968:G:H5'	2.00	0.43
31:BE:75:VAL:O	31:BE:76:ARG:C	2.57	0.43
43:BU:91:ASP:C	43:BU:91:ASP:OD2	2.57	0.43
43:BU:90:VAL:CG1	43:BU:91:ASP:N	2.73	0.43
27:DA:400:G:O5'	27:DA:400:G:H8	2.01	0.43
43:DU:52:ARG:HD3	43:DU:55:ARG:NE	2.33	0.43
43:DU:94:ASN:C	43:DU:94:ASN:OD1	2.57	0.43
44:DV:19:LYS:HG2	44:DV:94:LEU:O	2.19	0.43
1:CA:525:C:H5''	12:CL:88:LYS:HZ1	1.83	0.43
11:AK:32:ILE:O	11:AK:40:ILE:HG12	2.18	0.43
27:DA:2787:C:H2'	27:DA:2787:C:O2	2.18	0.43
27:DA:2253:G:O2'	27:DA:2254:C:H5'	2.18	0.43
27:DA:2346:A:C5	27:DA:2383:G:C6	3.07	0.43
27:DA:2611:U:O2	54:D5:3:LYS:HE3	2.18	0.43
27:DA:1191:G:N3	27:DA:1192:G:C8	2.87	0.43
27:DA:529:A:C5	27:DA:2042:A:C2	3.07	0.43
27:DA:2548:G:C2'	27:DA:2549:G:O5'	2.67	0.43
27:DA:2582:G:H2'	27:DA:2583:G:H8	1.83	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:746:A:C8	27:DA:2612:C:OP1	2.72	0.43
27:DA:2616:C:H2'	27:DA:2617:C:H6	1.84	0.43
31:DE:116:VAL:CG2	31:DE:122:PHE:HB2	2.48	0.43
31:DE:116:VAL:HG23	31:DE:122:PHE:CG	2.53	0.43
36:BN:91:LEU:CD2	36:BN:98:VAL:HG21	2.49	0.43
45:BW:7:ALA:O	45:BW:102:HIS:HA	2.19	0.43
27:DA:2778:A:H4'	27:DA:2779:U:OP2	2.19	0.43
47:DY:18:GLY:O	47:DY:20:TYR:N	2.51	0.43
4:CD:133:VAL:HG21	4:CD:138:TYR:CE1	2.54	0.43
20:CT:87:LYS:C	20:CT:89:ARG:N	2.72	0.43
9:AI:49:PRO:HG2	9:AI:81:ILE:HG21	2.00	0.43
51:D2:4:SER:HA	51:D2:7:ARG:NH1	2.05	0.43
51:D2:4:SER:O	51:D2:7:ARG:CG	2.67	0.43
1:AA:1055:A:C5	1:AA:1206:G:C2	3.07	0.43
1:AA:975:A:H5''	1:AA:1365:G:H22	1.82	0.43
1:AA:1375:A:C5	1:AA:1376:U:C4	3.07	0.43
14:AN:44:LEU:HG	14:AN:45:ARG:N	2.34	0.43
8:AH:127:LEU:HD13	8:AH:127:LEU:C	2.39	0.43
1:CA:549:C:H2'	1:CA:550:G:O4'	2.19	0.43
19:AS:28:LYS:HD3	19:AS:28:LYS:HA	1.66	0.43
27:DA:2759:G:N2	34:DH:139:GLN:OE1	2.51	0.43
1:AA:1306:A:N6	1:AA:1331:G:O2'	2.51	0.43
27:BA:1785:A:N7	27:BA:1787:A:C5	2.87	0.43
27:BA:775:G:C4	27:BA:794:G:C8	3.06	0.43
2:CB:54:THR:HG21	2:CB:201:ILE:HD11	2.01	0.43
27:BA:745:G:C2'	27:BA:746:A:H5'	2.49	0.43
1:AA:452:A:H4'	16:AP:72:ARG:NH2	2.34	0.43
46:BX:18:TYR:O	46:BX:20:GLY:N	2.52	0.43
20:CT:67:ALA:O	20:CT:73:HIS:CG	2.72	0.43
1:CA:1063:C:C5	1:CA:1064:G:C4	3.06	0.43
1:CA:716:A:H1'	11:CK:117:ASN:O	2.19	0.43
1:CA:1055:A:N1	1:CA:1056:U:C2	2.87	0.43
1:AA:1432:G:OP2	42:BT:108:ARG:NH1	2.52	0.43
15:CO:74:ASP:O	15:CO:75:PRO:C	2.57	0.43
56:D7:47:ARG:O	56:D7:48:LYS:HD3	2.18	0.43
27:DA:1619:G:H2'	27:DA:1620:G:H8	1.84	0.43
33:BG:45:GLU:HB3	33:BG:53:LEU:HG	1.99	0.43
27:BA:1268:A:H2'	27:BA:1269:A:O4'	2.19	0.43
27:DA:1650:G:C2	27:DA:1651:G:N9	2.87	0.43
27:DA:1651:G:H21	27:DA:1652:A:H1'	1.84	0.43
27:DA:1651:G:H1	27:DA:2006:C:H42	1.67	0.43
30:BD:241:PRO:O	30:BD:242:ARG:HD3	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:CX:19:G:C5'	24:CX:20:U:C5	3.00	0.43
1:AA:824:C:H2'	1:AA:825:G:C8	2.53	0.43
54:B5:49:CYS:C	54:B5:50:GLY:O	2.57	0.43
27:DA:1246:A:OP1	38:DP:18:ARG:HD3	2.19	0.43
34:DH:94:TYR:CD2	34:DH:107:VAL:HG12	2.53	0.43
30:BD:213:ARG:O	30:BD:214:TRP:C	2.56	0.43
7:AG:155:ARG:O	7:AG:156:TRP:CD1	2.72	0.43
11:AK:54:ARG:NH1	25:AY:39:C:OP1	2.52	0.43
8:AH:14:ARG:HG3	8:AH:18:ARG:HH11	1.84	0.43
27:DA:743:G:H2'	27:DA:744:G:H5'	1.99	0.43
27:BA:2657:A:C6	27:BA:2665:A:C8	3.07	0.43
1:CA:1315:U:HO2'	1:CA:1360:A:H1'	1.82	0.43
27:DA:2816:C:O2	27:DA:2883:A:O2'	2.36	0.43
1:AA:660:G:C2	1:AA:746:A:C2	3.06	0.43
15:AO:62:GLN:HE21	15:AO:66:LEU:CD1	2.31	0.43
27:BA:2406:U:C4	38:BP:72:PRO:HD2	2.54	0.43
1:AA:1264:C:O2	1:AA:1271:G:N2	2.49	0.43
27:DA:784:A:C8	27:DA:792:G:C5	3.07	0.43
27:DA:1649:G:N2	27:DA:2009:G:C4	2.87	0.43
18:AR:36:ASN:HB2	18:AR:39:VAL:HG23	2.01	0.43
27:DA:28:A:H2'	27:DA:29:U:H5'	2.01	0.43
1:CA:671:G:N2	1:CA:736:C:C2	2.87	0.43
1:AA:681:C:N3	1:AA:710:G:C6	2.87	0.43
1:CA:811:C:H5	1:CA:812:C:C4	2.37	0.43
27:DA:2657:A:O2'	34:DH:160:LYS:HE3	2.19	0.43
27:DA:345:A:O2'	27:DA:347:A:N7	2.51	0.43
13:AM:96:LEU:HD21	13:AM:111:LYS:CD	2.49	0.43
27:BA:2449:U:O5'	27:BA:2449:U:H6	2.02	0.43
1:CA:1151:A:H5'	10:CJ:41:PRO:HA	2.01	0.43
32:BF:167:ALA:O	32:BF:168:ARG:C	2.57	0.43
10:AJ:94:VAL:CG1	10:AJ:95:GLU:N	2.81	0.43
28:DB:28:C:N4	28:DB:29:A:N6	2.67	0.43
1:AA:197:A:N6	1:AA:221:C:C5'	2.81	0.43
1:CA:945:G:H2'	1:CA:945:G:N3	2.33	0.43
38:DP:88:LEU:HD13	38:DP:114:ILE:HD11	2.00	0.43
8:CH:86:ILE:CG2	8:CH:87:SER:N	2.79	0.43
38:BP:122:PRO:HA	38:BP:141:ALA:O	2.19	0.43
5:AE:91:LEU:HA	5:AE:91:LEU:HD12	1.80	0.43
1:CA:9:G:O2'	1:CA:10:A:O4'	2.37	0.43
27:BA:340:A:C2'	27:BA:341:G:O5'	2.66	0.43
4:AD:68:TYR:O	4:AD:69:GLY:C	2.57	0.43
27:BA:1848:A:C2'	27:BA:1849:G:C8	2.98	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1321:A:C8	27:BA:1321:A:H5''	2.54	0.43
13:CM:48:LEU:HB2	13:CM:52:GLU:CB	2.48	0.43
12:AL:7:LEU:HB3	17:AQ:32:TYR:CE1	2.54	0.43
1:CA:1409:C:H2'	1:CA:1410:G:H8	1.84	0.43
27:BA:1453:U:P	40:BR:77:ARG:HH11	2.42	0.43
27:BA:864:G:H1'	27:BA:914:C:N4	2.33	0.43
27:DA:1816:G:C6	30:DD:37:LEU:HD11	2.53	0.43
32:BF:170:LEU:HA	32:BF:171:PRO:HD3	1.69	0.43
27:DA:289:A:H5''	27:DA:290:G:OP2	2.19	0.43
1:AA:792:A:H1'	1:AA:794:A:N7	2.34	0.43
51:B2:17:SER:H	51:B2:67:LYS:NZ	2.17	0.43
33:DG:104:GLU:HG2	53:D4:50:THR:CG2	2.49	0.43
1:AA:321:A:C6	1:AA:333:G:N1	2.86	0.43
19:CS:27:GLU:HB3	19:CS:28:LYS:H	1.45	0.43
2:CB:131:PRO:C	2:CB:135:GLN:HG3	2.39	0.43
27:DA:211:A:H2'	27:DA:212:G:C8	2.54	0.43
27:BA:147:U:H2'	27:BA:148:C:H6	1.82	0.43
7:CG:156:TRP:CG	7:CG:156:TRP:OXT	2.69	0.43
1:CA:1171:G:O2'	1:CA:1172:C:H5'	2.19	0.43
1:CA:362:G:C8	1:CA:362:G:H3'	2.54	0.43
7:AG:22:LEU:HD13	7:AG:97:GLN:HE21	1.82	0.43
27:DA:1362:C:C2'	27:DA:1363:C:H5'	2.49	0.43
2:CB:112:VAL:CG1	2:CB:153:ARG:HG2	2.48	0.43
1:AA:719:C:O2'	18:AR:49:LYS:HB3	2.18	0.43
27:BA:2192:G:C6	27:BA:2193:G:N7	2.87	0.43
27:BA:299:A:C4	27:BA:322:A:C2	3.07	0.43
50:D1:94:LEU:HA	50:D1:94:LEU:HD23	1.68	0.43
1:AA:678:U:H2'	1:AA:679:C:C6	2.53	0.43
27:DA:2774:C:H2'	27:DA:2775:A:O4'	2.19	0.43
34:DH:169:VAL:O	34:DH:169:VAL:HG13	2.18	0.43
9:CI:23:ASN:N	9:CI:23:ASN:HD22	2.16	0.43
48:DZ:138:VAL:HG12	48:DZ:139:ASP:N	2.34	0.43
32:DF:160:ASN:C	32:DF:162:LEU:H	2.22	0.43
27:BA:2822:G:OP2	31:BE:110:GLY:HA3	2.18	0.43
10:CJ:53:PRO:HG2	10:CJ:54:PHE:H	1.84	0.43
14:CN:57:ARG:HG2	14:CN:58:LYS:H	1.81	0.43
27:BA:2838:G:C1'	40:BR:45:ARG:NH1	2.82	0.43
40:BR:21:TYR:CZ	40:BR:43:GLU:HG2	2.54	0.43
40:BR:87:TYR:O	40:BR:90:ARG:N	2.52	0.43
32:BF:8:GLN:HB2	32:BF:124:LEU:HD11	2.00	0.43
32:BF:21:ALA:O	32:BF:24:LEU:N	2.49	0.43
31:BE:24:THR:HG21	31:BE:188:VAL:HB	2.01	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1022:G:O2'	27:DA:1023:U:O5'	2.36	0.43
36:DN:98:VAL:O	36:DN:102:ALA:HB2	2.18	0.43
27:DA:1827:C:H5'	27:DA:1972:A:OP2	2.19	0.43
27:DA:1926:U:O2'	27:DA:1928:A:N7	2.37	0.43
27:DA:1968:G:H2'	27:DA:1969:A:H5''	1.98	0.43
13:CM:60:VAL:HG12	13:CM:66:LEU:HD21	2.01	0.43
27:BA:477:A:H2'	27:BA:478:A:O4'	2.19	0.43
1:CA:1348:U:H2'	1:CA:1349:A:C8	2.47	0.43
1:CA:1349:A:H2'	1:CA:1350:A:H8	1.84	0.43
1:CA:473:G:C5'	16:CP:81:ARG:HE	2.32	0.43
43:BU:88:ILE:C	43:BU:90:VAL:N	2.73	0.43
1:AA:236:G:O2'	1:AA:237:C:H5'	2.19	0.43
5:AE:16:THR:OG1	5:AE:17:ALA:N	2.51	0.43
43:DU:65:ILE:O	43:DU:68:ALA:HB3	2.19	0.43
27:BA:2704:C:H2'	27:BA:2705:A:O4'	2.19	0.43
30:DD:130:ALA:C	30:DD:131:LEU:HD12	2.39	0.43
52:B3:53:LEU:O	52:B3:54:VAL:HG23	2.19	0.43
51:D2:23:LYS:O	51:D2:25:VAL:N	2.52	0.43
33:BG:138:GLN:HB2	33:BG:155:MET:HE2	2.01	0.43
27:DA:860:U:C2	27:DA:2268:A:C8	3.07	0.43
31:DE:65:GLY:O	31:DE:67:PHE:O	2.37	0.43
27:DA:2417:C:H2'	27:DA:2418:A:H8	1.84	0.43
38:DP:105:LEU:O	38:DP:106:LEU:CB	2.54	0.43
33:DG:27:ASN:C	33:DG:29:TRP:H	2.21	0.43
27:DA:1668:A:H2	27:DA:1670:C:N3	2.17	0.43
27:DA:948:G:H2'	27:DA:949:C:H6	1.81	0.43
30:BD:31:LYS:O	30:BD:32:SER:C	2.57	0.43
4:CD:111:ALA:HA	4:CD:116:GLN:OE1	2.19	0.43
4:CD:170:VAL:CG1	4:CD:174:LEU:HB2	2.49	0.43
9:AI:81:ILE:C	9:AI:83:ARG:H	2.22	0.43
9:AI:6:GLY:HA2	9:AI:83:ARG:HG2	2.01	0.43
1:AA:1054:C:OP1	1:AA:1198:G:OP2	2.36	0.43
8:AH:44:PHE:HB3	8:AH:80:ILE:HG12	1.99	0.43
1:CA:363:A:O2'	1:CA:364:A:H5'	2.19	0.43
1:CA:33:A:N3	12:CL:29:PHE:HE2	2.17	0.43
2:AB:47:THR:O	2:AB:51:LEU:HG	2.18	0.43
32:BF:89:VAL:CG1	32:BF:90:PHE:N	2.77	0.43
1:CA:563:A:C2'	1:CA:567:G:C8	3.02	0.43
27:BA:1645:G:H4'	27:BA:1646:C:C6	2.53	0.43
27:BA:2742:C:P	58:B9:35:ARG:NH1	2.92	0.43
27:BA:751:A:C4'	45:BW:90:ARG:HG2	2.48	0.43
1:AA:483:C:OP2	1:AA:484:G:H3'	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:751:U:C4'	15:AO:24:SER:CA	2.92	0.43
1:CA:232:G:HO2'	1:CA:263:A:H2	1.67	0.43
20:CT:63:ILE:HD13	20:CT:80:ARG:HB2	2.01	0.43
42:BT:23:ARG:NH2	42:BT:120:ARG:HD3	2.33	0.43
40:BR:79:LEU:CA	40:BR:83:ILE:HG13	2.32	0.43
30:DD:52:ARG:HB2	30:DD:53:PHE:CE2	2.54	0.43
11:CK:120:ARG:HE	11:CK:120:ARG:HB2	1.66	0.43
1:CA:1053:G:C2	1:CA:1199:U:C4	3.07	0.43
48:DZ:95:VAL:CG1	48:DZ:96:GLU:N	2.82	0.43
27:BA:624:C:H41	38:BP:107:LYS:HZ3	1.66	0.43
38:BP:126:VAL:HG12	38:BP:148:LEU:HD11	2.00	0.43
1:CA:747:C:C5	1:CA:748:C:N3	2.87	0.43
8:CH:29:SER:HB3	8:CH:32:LYS:CG	2.46	0.43
1:CA:754:C:O4'	15:CO:69:TYR:CD1	2.72	0.43
56:D7:46:VAL:CG1	56:D7:48:LYS:NZ	2.82	0.43
1:AA:443:C:C2	1:AA:492:G:C2	3.07	0.43
1:AA:1157:A:O4'	1:AA:1158:C:C2	2.72	0.43
1:AA:876:G:C4	1:AA:877:C:C5	3.07	0.43
27:DA:663:G:C6	27:DA:664:C:C4	3.07	0.43
33:DG:166:ASP:O	33:DG:170:ARG:N	2.50	0.43
27:DA:1484:G:N2	27:DA:1505:C:N4	2.67	0.43
7:AG:152:ALA:HB1	7:AG:155:ARG:HH12	1.84	0.43
5:CE:45:PHE:C	5:CE:45:PHE:CD1	2.92	0.43
42:DT:125:ARG:O	42:DT:128:GLU:CG	2.67	0.43
27:DA:2340:G:H2'	27:DA:2341:G:H8	1.82	0.43
1:AA:816:A:HO2'	1:AA:817:C:P	2.41	0.43
1:AA:818:G:H3'	1:AA:819:A:H5'	1.99	0.43
31:DE:16:ARG:O	31:DE:18:ASP:N	2.43	0.43
12:CL:3:THR:O	12:CL:4:ILE:C	2.57	0.43
27:DA:1210:A:OP1	27:DA:1212:G:H5'	2.18	0.43
30:BD:4:LYS:HE3	30:BD:21:PHE:CE1	2.54	0.43
27:BA:2462:U:H2'	27:BA:2463:C:C6	2.54	0.43
15:AO:34:LEU:C	15:AO:36:ILE:N	2.72	0.43
25:CY:37:U:H2'	25:CY:38:U:C5'	2.48	0.43
1:AA:828:A:H61	1:AA:858:G:H2'	1.84	0.43
27:DA:1984:G:O2'	27:DA:1985:G:C5'	2.62	0.43
28:DB:70:C:O2'	28:DB:71:C:H5'	2.18	0.43
27:DA:456:C:O2'	27:DA:457:A:OP2	2.32	0.43
23:CW:17:G:H1'	23:CW:56:G:N2	2.34	0.43
23:CW:56:G:C2'	23:CW:57:A:C5'	2.96	0.43
1:AA:1067:A:O3'	1:AA:1094:G:OP1	2.37	0.43
27:BA:52:A:C5	27:BA:118:A:C2	3.07	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:98:GLU:HA	4:AD:103:ASN:HD22	1.84	0.43
43:BU:12:ARG:HB3	43:BU:15:LYS:NZ	2.33	0.43
27:DA:55:G:N3	27:DA:56:A:C8	2.87	0.43
27:DA:1333:C:O2'	27:DA:1334:G:H5'	2.19	0.43
31:BE:146:THR:HA	31:BE:147:PRO:C	2.39	0.43
28:DB:20:C:H2'	28:DB:21:G:C5'	2.49	0.43
5:AE:151:LEU:HD21	8:AH:66:GLY:HA2	2.00	0.43
27:BA:1467:C:C4	27:BA:1546:C:O2	2.72	0.43
12:CL:38:ARG:CZ	12:CL:38:ARG:CB	2.96	0.43
1:CA:989:C:H2'	1:CA:990:C:H6	1.83	0.43
27:BA:528:A:O5'	27:BA:528:A:H8	2.01	0.43
27:DA:2363:C:C2	27:DA:2364:C:C5	3.07	0.43
27:BA:1207:C:H2'	27:BA:1208:C:C6	2.53	0.43
27:BA:10:G:O6	27:BA:2629:A:H8	2.02	0.43
32:BF:82:ILE:O	32:BF:82:ILE:HG12	2.18	0.43
1:CA:442:C:H3'	1:CA:442:C:H6	1.84	0.43
1:CA:27:G:C4'	4:CD:209:ARG:OXT	2.67	0.43
44:DV:5:VAL:HG23	44:DV:37:VAL:HG21	1.97	0.43
34:DH:64:LEU:O	34:DH:68:THR:CB	2.67	0.43
2:CB:189:ASP:N	2:CB:189:ASP:OD1	2.51	0.43
54:D5:37:LYS:HG3	54:D5:38:ALA:N	2.33	0.43
20:AT:14:LYS:HA	20:AT:17:ARG:NE	2.33	0.43
1:CA:878:G:C6	1:CA:879:C:C4	3.07	0.43
17:CQ:22:LEU:HD11	17:CQ:39:SER:OG	2.19	0.43
27:BA:1654:A:OP2	40:BR:3:HIS:CB	2.65	0.43
25:CY:14:A:H1'	25:CY:21:A:N1	2.33	0.43
6:CF:41:GLU:HB2	6:CF:62:TRP:CE3	2.54	0.43
6:CF:22:GLU:OE1	6:CF:84:ASN:HB2	2.19	0.43
27:BA:947:G:N2	27:BA:971:C:C2	2.87	0.43
25:CY:42:G:H8	25:CY:42:G:OP2	2.01	0.43
27:BA:833:U:H2'	27:BA:834:C:C6	2.52	0.43
27:DA:1611:C:H5'	27:DA:1611:C:C6	2.52	0.43
27:DA:2301:C:C6	27:DA:2301:C:H3'	2.52	0.43
10:AJ:32:ALA:CB	10:AJ:75:ILE:HD11	2.49	0.43
10:CJ:89:ASP:C	10:CJ:90:LEU:HD12	2.40	0.43
1:CA:876:G:OP1	8:CH:14:ARG:NH1	2.52	0.43
45:DW:35:ILE:O	54:D5:28:PRO:HG3	2.18	0.43
20:CT:40:ALA:C	20:CT:42:GLN:N	2.72	0.43
33:BG:55:LYS:HZ3	33:BG:148:MET:C	2.23	0.43
2:CB:116:GLU:HA	2:CB:119:GLU:HB2	2.00	0.43
19:AS:79:THR:O	19:AS:80:TYR:CB	2.67	0.43
27:BA:2245:U:H5'	27:BA:2246:G:H5'	2.00	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1221(A):C:C2	27:BA:1229:G:N2	2.87	0.43
58:D9:9:ARG:HG3	58:D9:9:ARG:H	1.44	0.43
45:DW:70:TYR:C	45:DW:70:TYR:CD2	2.92	0.43
51:D2:39:ALA:O	51:D2:42:GLY:N	2.45	0.43
9:AI:37:PHE:HB3	9:AI:40:LEU:HB2	2.01	0.43
14:CN:42:ILE:H	14:CN:42:ILE:HG12	1.54	0.42
27:BA:2831:G:H1'	27:BA:2883:A:H2'	2.00	0.42
57:D8:7:HIS:ND1	57:D8:7:HIS:C	2.72	0.42
48:DZ:156:LEU:HD22	48:DZ:162:LEU:HD12	2.01	0.42
43:BU:92:ARG:CZ	44:BV:11:GLN:HB2	2.48	0.42
27:DA:223:A:H2	27:DA:407:G:N3	2.17	0.42
42:BT:16:ARG:HH22	42:BT:82:LEU:CD1	2.32	0.42
1:AA:266:G:O2'	1:AA:267:C:OP2	2.31	0.42
27:DA:992:C:H6	27:DA:992:C:H3'	1.84	0.42
47:DY:76:CYS:C	47:DY:78:ALA:N	2.72	0.42
57:D8:37:SER:OG	57:D8:39:LYS:HB3	2.19	0.42
39:DQ:85:LYS:HG3	49:D0:7:LEU:CG	2.49	0.42
33:DG:172:LEU:O	33:DG:176:LEU:HG	2.19	0.42
27:DA:2454:G:C2'	27:DA:2455:G:H5'	2.49	0.42
27:DA:2570:G:H2'	27:DA:2571:C:O4'	2.18	0.42
31:DE:179:GLU:OE1	31:DE:179:GLU:HA	2.19	0.42
27:DA:2637:U:H4'	31:DE:44:TYR:CD1	2.54	0.42
30:BD:31:LYS:HB3	30:BD:35:LYS:CG	2.45	0.42
1:AA:1346:A:C5	7:AG:10:ARG:CZ	3.02	0.42
12:CL:25:LYS:C	12:CL:27:ALA:H	2.23	0.42
27:DA:2746:U:O4'	34:DH:139:GLN:HA	2.19	0.42
28:DB:51:G:H5'	28:DB:52:A:OP2	2.19	0.42
27:BA:1249:U:C5'	27:BA:1249:U:C6	2.90	0.42
1:CA:252:U:C4	1:CA:253:U:O4	2.72	0.42
17:CQ:83:ASP:O	17:CQ:87:LYS:HG2	2.19	0.42
27:BA:1822:G:N1	27:BA:1823:G:C5	2.87	0.42
27:BA:2590:A:H2'	27:BA:2591:C:C6	2.54	0.42
27:BA:687:C:C2	27:BA:788:A:H5'	2.54	0.42
1:CA:161:A:O2'	1:CA:162:A:H5'	2.19	0.42
2:CB:57:PHE:O	2:CB:61:LEU:N	2.42	0.42
1:CA:122:G:O3'	1:CA:312:C:H4'	2.19	0.42
1:AA:390:C:O5'	1:AA:390:C:H6	2.01	0.42
1:CA:1038:C:H6	1:CA:1038:C:O5'	2.02	0.42
46:BX:12:VAL:HG11	46:BX:27:THR:HG23	2.01	0.42
27:DA:2536:G:H2'	27:DA:2537:U:C6	2.53	0.42
27:BA:1555:G:C2	27:BA:1556:C:C4	3.07	0.42
27:DA:13:A:C4	27:DA:15:G:O6	2.72	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:14:A:C6	27:DA:526:A:C2	3.06	0.42
14:CN:26:ARG:HG3	14:CN:27:CYS:H	1.84	0.42
14:CN:26:ARG:CZ	14:CN:47:LEU:HD21	2.49	0.42
8:AH:97:VAL:C	8:AH:99:GLU:H	2.23	0.42
10:AJ:34:VAL:CG1	10:AJ:73:ASP:O	2.66	0.42
15:CO:87:ILE:CG2	15:CO:88:ARG:H	2.12	0.42
8:CH:83:ILE:O	8:CH:83:ILE:HG12	2.18	0.42
27:DA:151:C:H2'	27:DA:152:G:H5'	1.98	0.42
38:BP:82:GLY:HA2	38:BP:113:LYS:O	2.19	0.42
29:DC:36:LYS:NZ	29:DC:36:LYS:HA	2.34	0.42
49:B0:37:LEU:HD11	49:B0:61:ALA:N	2.34	0.42
33:BG:51:ARG:HA	33:BG:53:LEU:HD23	2.01	0.42
27:BA:2283:C:C3'	27:BA:2284:C:H5'	2.47	0.42
1:AA:402:G:C2'	1:AA:403:C:H5'	2.48	0.42
10:CJ:32:ALA:CB	10:CJ:76:ASN:CB	2.92	0.42
30:BD:68:LYS:CE	30:BD:70:TRP:NE1	2.82	0.42
1:AA:1240:U:H3'	1:AA:1241:G:C5'	2.48	0.42
1:AA:1239:A:H1'	1:AA:1241:G:C5	2.53	0.42
27:DA:593:G:C6	27:DA:594:U:C4	3.07	0.42
27:BA:73:A:O2'	27:BA:74:A:P	2.77	0.42
17:AQ:56:VAL:CG2	17:AQ:81:ARG:HG3	2.49	0.42
52:D3:47:VAL:O	52:D3:50:VAL:HG22	2.18	0.42
13:AM:15:VAL:C	13:AM:17:VAL:H	2.22	0.42
27:DA:2850:A:C4	27:DA:2851:A:C8	3.07	0.42
37:DO:12:ASP:OD1	37:DO:86:ILE:CD1	2.67	0.42
25:CY:7:A:N6	25:CY:48:C:C4	2.82	0.42
27:BA:2657:A:H2'	27:BA:2658:C:H5'	2.01	0.42
1:CA:453:A:C5	1:CA:454:C:C5	3.07	0.42
34:BH:100:GLY:C	34:BH:102:ALA:H	2.21	0.42
27:DA:2879:C:H4'	27:DA:2880:C:C5	2.54	0.42
12:CL:3:THR:CG2	12:CL:6:GLN:HB2	2.47	0.42
45:DW:17:VAL:O	45:DW:18:ARG:C	2.56	0.42
45:DW:17:VAL:O	45:DW:20:VAL:HB	2.18	0.42
45:DW:84:ARG:N	45:DW:96:ILE:O	2.39	0.42
18:AR:37:VAL:HG12	18:AR:78:LEU:HB3	2.01	0.42
6:CF:36:ARG:O	6:CF:65:VAL:HB	2.19	0.42
7:AG:24:THR:O	7:AG:27:ILE:N	2.51	0.42
41:BS:61:ASN:OD1	41:BS:64:GLU:CB	2.67	0.42
1:CA:686:U:N3	1:CA:703:G:N2	2.64	0.42
27:DA:484:C:O2'	27:DA:485:C:H5'	2.19	0.42
27:DA:2199:A:C6	27:DA:2200:C:C2	3.06	0.42
1:AA:495:A:O2'	1:AA:496:A:O5'	2.35	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1015:A:N3	1:AA:1218:C:O2'	2.50	0.42
1:AA:1084:G:OP1	1:AA:1086:U:N3	2.52	0.42
1:AA:1087:G:C2	1:AA:1088:G:C5	3.07	0.42
32:BF:37:VAL:HG12	32:BF:41:LEU:HD12	2.01	0.42
27:BA:143:G:H1'	46:BX:37:THR:CG2	2.43	0.42
10:CJ:16:LEU:HD13	10:CJ:70:ARG:NE	2.33	0.42
27:BA:693:C:C2'	27:BA:694:U:H5'	2.49	0.42
1:CA:1238:A:C8	1:CA:1303:C:H1'	2.54	0.42
1:CA:1429:C:O2'	1:CA:1430:C:H5'	2.19	0.42
8:CH:86:ILE:CG2	8:CH:87:SER:H	2.26	0.42
27:DA:2839:G:C5	27:DA:2840:C:C4	3.07	0.42
18:CR:32:ARG:CA	18:CR:69:THR:HG21	2.45	0.42
27:BA:19:C:O5'	27:BA:19:C:H6	2.01	0.42
37:DO:101:PRO:CG	42:DT:67:SER:HB3	2.48	0.42
1:AA:758:G:C5'	1:AA:880:C:H1'	2.49	0.42
9:AI:70:LYS:HA	9:AI:73:GLN:HE21	1.83	0.42
1:CA:407:G:C4	1:CA:408:A:C8	3.06	0.42
12:AL:2:PRO:C	12:AL:6:GLN:HE21	2.21	0.42
36:DN:35:ARG:NH2	36:DN:108:PRO:HG2	2.34	0.42
43:DU:60:LEU:HD13	43:DU:60:LEU:C	2.39	0.42
1:AA:420:U:C2	1:AA:422:C:N3	2.87	0.42
27:DA:1897:G:N1	27:DA:1898:U:C2	2.87	0.42
16:CP:18:ARG:HG3	16:CP:35:LYS:HE3	2.01	0.42
16:CP:18:ARG:O	16:CP:19:ILE:C	2.57	0.42
1:AA:1413:A:C2	1:AA:1488:G:C2	3.07	0.42
5:AE:126:ARG:CG	5:AE:126:ARG:HH11	2.29	0.42
29:BC:193:ILE:O	29:BC:194:ARG:C	2.57	0.42
27:DA:203:C:C3'	27:DA:204:A:H5''	2.45	0.42
2:CB:236:TYR:CD2	2:CB:239:VAL:HG21	2.54	0.42
27:DA:678:C:H2'	27:DA:679:C:C6	2.54	0.42
36:DN:3:THR:C	36:DN:5:VAL:N	2.72	0.42
20:AT:100:ILE:HD12	20:AT:100:ILE:N	2.34	0.42
27:BA:1689:A:H62	27:BA:1698:A:H2	1.66	0.42
27:DA:732:C:C4	27:DA:733:G:C6	3.07	0.42
32:DF:178:PRO:HB3	32:DF:201:VAL:HG11	2.01	0.42
27:BA:2371:G:C4'	55:B6:45:LYS:HB3	2.49	0.42
27:BA:271(Y):U:O2'	27:BA:271(Z):C:P	2.77	0.42
28:DB:4:C:C2	28:DB:118:G:C2	3.07	0.42
10:AJ:25:GLU:H	10:AJ:25:GLU:HG2	1.67	0.42
27:BA:266:G:C2'	27:BA:267:C:O5'	2.67	0.42
27:DA:2439:A:C8	27:DA:2439:A:C5'	3.02	0.42
17:CQ:11:VAL:HG11	17:CQ:88:TYR:CD2	2.54	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:BB:66:A:C2'	28:BB:67:G:OP2	2.67	0.42
27:DA:1499:C:C2'	27:DA:1500:G:H5'	2.48	0.42
1:AA:1385:G:O2'	1:AA:1386:G:H5'	2.19	0.42
2:AB:130:ARG:HA	2:AB:131:PRO:HD2	1.86	0.42
27:BA:1113:U:H2'	27:BA:1113:U:O2	2.18	0.42
1:CA:972:C:O2'	1:CA:973:G:H5'	2.19	0.42
40:BR:28:LEU:CD2	40:BR:114:VAL:HG12	2.48	0.42
30:DD:245:PRO:O	30:DD:246:PRO:C	2.56	0.42
27:BA:31:C:C2'	27:BA:32:C:H5'	2.49	0.42
4:CD:79:PHE:CD2	4:CD:79:PHE:C	2.92	0.42
1:CA:1305:G:HO2'	1:CA:1306:A:P	2.41	0.42
1:CA:1331:G:OP2	13:CM:23:TYR:CD2	2.72	0.42
32:BF:63:LYS:HG3	32:BF:75:HIS:O	2.19	0.42
1:AA:917:G:C2	1:AA:918:A:C4	3.07	0.42
27:DA:411:G:H4'	27:DA:412:A:O5'	2.19	0.42
32:DF:202:PHE:O	32:DF:205:ARG:N	2.37	0.42
27:DA:2231:C:H2'	27:DA:2232:U:C6	2.54	0.42
27:DA:533:G:H5'	43:DU:24:TYR:HD2	1.84	0.42
43:DU:65:ILE:HG23	43:DU:106:PHE:HZ	1.85	0.42
43:DU:98:LEU:O	43:DU:101:ARG:O	2.37	0.42
41:BS:54:LEU:HD13	41:BS:58:LEU:CB	2.49	0.42
30:DD:144:ALA:HB3	30:DD:192:THR:CG2	2.48	0.42
27:DA:1429:G:C4	27:DA:1568:G:C2	3.06	0.42
12:CL:87:VAL:O	12:CL:88:LYS:C	2.56	0.42
27:BA:1158:C:H1'	52:B3:32:GLN:HG3	2.01	0.42
27:DA:909:A:N1	27:DA:912:C:H1'	2.34	0.42
55:D6:17:LYS:HD3	55:D6:17:LYS:HA	1.66	0.42
27:DA:2351:G:O2'	27:DA:2366:A:N6	2.52	0.42
27:DA:2016:U:H1'	54:D5:6:VAL:HG13	2.00	0.42
27:DA:530:G:C5	27:DA:2022:U:H5''	2.54	0.42
27:DA:2060:A:O2'	27:DA:2061:G:P	2.77	0.42
44:DV:79:VAL:HG22	44:DV:79:VAL:O	2.19	0.42
1:CA:1137:C:C4'	1:CA:1138:G:N2	2.73	0.42
45:BW:12:ILE:CD1	45:BW:17:VAL:HG12	2.48	0.42
4:AD:9:CYS:N	4:AD:22:LYS:NZ	2.57	0.42
30:BD:31:LYS:O	30:BD:33:LEU:N	2.53	0.42
1:CA:102:G:C4	1:CA:103:C:C5	3.07	0.42
1:CA:184:G:C4'	1:CA:224:C:H4'	2.49	0.42
1:AA:1343:G:H1'	9:AI:121:ARG:HH12	1.84	0.42
14:AN:24:CYS:N	14:AN:33:VAL:CG1	2.82	0.42
16:AP:31:LYS:HG2	16:AP:32:TYR:N	2.34	0.42
41:DS:61:ASN:O	41:DS:62:LYS:CB	2.68	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:157:G:H2'	1:CA:158:G:H8	1.84	0.42
27:BA:1645:G:O3'	27:BA:1646:C:H6	2.01	0.42
27:DA:2647:U:H2'	27:DA:2648:C:H6	1.84	0.42
9:CI:125:TYR:C	9:CI:125:TYR:CD2	2.93	0.42
1:CA:144:G:H2'	1:CA:145:G:O4'	2.20	0.42
3:CC:73:PRO:O	3:CC:75:VAL:N	2.51	0.42
27:BA:1558:A:O2'	27:BA:1559:G:OP2	2.30	0.42
6:CF:3:ARG:NH1	6:CF:38:GLU:OE1	2.52	0.42
27:DA:541:C:C4	27:DA:542:C:N4	2.87	0.42
1:CA:1310:G:C2	1:CA:1328:C:N3	2.86	0.42
1:CA:1311:G:N1	1:CA:1312:G:C5	2.87	0.42
27:BA:2842:G:H2'	27:BA:2843:G:O4'	2.20	0.42
39:DQ:111:GLU:OE2	39:DQ:133:ARG:NH2	2.52	0.42
38:BP:105:LEU:N	38:BP:105:LEU:CD2	2.77	0.42
1:CA:922:G:N3	1:CA:1398:A:H2	2.17	0.42
27:DA:355:G:H2'	27:DA:356:G:O4'	2.19	0.42
27:DA:1394:U:C4	27:DA:1395:A:C5	3.07	0.42
27:BA:1268:A:C2	27:BA:2013:A:C4	3.07	0.42
27:BA:642:G:H21	27:BA:646:A:H2	1.66	0.42
31:DE:119:ARG:HG2	31:DE:160:TYR:CG	2.54	0.42
1:AA:1157:A:H1'	1:AA:1181:G:H21	1.84	0.42
11:CK:124:LYS:HE3	11:CK:124:LYS:HB2	1.54	0.42
3:AC:113:ALA:O	3:AC:116:VAL:N	2.52	0.42
10:CJ:32:ALA:H	10:CJ:76:ASN:HD22	1.67	0.42
19:CS:49:ILE:O	19:CS:60:VAL:HG12	2.19	0.42
34:DH:107:VAL:HG23	34:DH:107:VAL:O	2.19	0.42
33:DG:122:PRO:HG2	33:DG:123:ASN:OD1	2.19	0.42
52:D3:46:ASN:O	52:D3:47:VAL:C	2.58	0.42
35:DI:123:LEU:HD23	35:DI:142:VAL:HG12	2.01	0.42
13:AM:17:VAL:O	13:AM:21:TYR:HD1	2.01	0.42
1:AA:939:G:C5'	7:AG:102:ARG:NH1	2.77	0.42
1:CA:54:C:N4	1:CA:353:A:OP2	2.52	0.42
1:AA:1310:G:O2'	1:AA:1311:G:H5'	2.18	0.42
16:CP:68:ASP:HA	16:CP:71:ARG:CD	2.49	0.42
30:DD:176:ARG:CG	30:DD:177:LEU:N	2.82	0.42
8:CH:114:THR:N	8:CH:117:GLY:O	2.51	0.42
10:AJ:63:PHE:HA	14:AN:59:ALA:H	1.82	0.42
27:BA:1049:C:N4	27:BA:1111:A:C2	2.87	0.42
27:DA:494:G:H4'	45:DW:6:ILE:HG22	2.00	0.42
27:DA:1206:G:O2'	27:DA:1207:C:C5'	2.67	0.42
27:BA:2018:G:H2'	27:BA:2019:A:C8	2.54	0.42
27:BA:235:U:H2'	27:BA:236:C:C6	2.54	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1242:A:N1	38:BP:8:PRO:HG3	2.35	0.42
52:D3:7:LYS:CE	52:D3:32:GLN:NE2	2.82	0.42
33:BG:172:LEU:O	33:BG:173:LEU:C	2.56	0.42
33:BG:16:ARG:CB	33:BG:17:PRO:CD	2.97	0.42
36:DN:86:PRO:HG2	36:DN:89:LYS:HB2	2.01	0.42
50:B1:90:ILE:HD13	50:B1:90:ILE:HA	1.82	0.42
27:DA:2520:C:N3	27:DA:2521:C:C4	2.87	0.42
9:AI:113:LYS:H	9:AI:119:ALA:HA	1.84	0.42
27:DA:2696:U:H2'	27:DA:2697:G:C8	2.54	0.42
27:DA:2113:U:O2'	27:DA:2114:A:P	2.77	0.42
3:CC:184:TYR:HD1	3:CC:201:TYR:HE2	1.67	0.42
27:BA:723:G:C6	27:BA:724:U:C4	3.06	0.42
6:AF:82:ARG:HD2	6:AF:82:ARG:HA	1.91	0.42
28:BB:88:C:C4	28:BB:89:G:C6	3.08	0.42
1:AA:20:U:C2'	1:AA:21:G:H5'	2.49	0.42
1:AA:1125:U:C2'	1:AA:1126:U:OP2	2.67	0.42
3:CC:140:ARG:HG3	3:CC:140:ARG:HH11	1.83	0.42
11:AK:44:SER:H	11:AK:47:VAL:HB	1.84	0.42
40:BR:37:THR:HA	40:BR:110:PRO:O	2.19	0.42
35:DI:4:ILE:HD11	35:DI:44:LEU:HD12	2.00	0.42
27:DA:1441:G:O2'	27:DA:1442:G:H5'	2.18	0.42
12:AL:2:PRO:O	12:AL:3:THR:C	2.58	0.42
24:CX:63:G:O2'	24:CX:64:G:H5'	2.19	0.42
27:BA:1612:C:H2'	27:BA:1613:G:O5'	2.19	0.42
27:BA:1404:C:O2	27:BA:1404:C:C2'	2.62	0.42
19:CS:22:LEU:O	19:CS:26:GLY:CA	2.67	0.42
35:BI:69:LYS:O	35:BI:73:GLU:CB	2.67	0.42
27:DA:2772:C:C2	27:DA:2773:C:C5	3.07	0.42
27:DA:1327:C:H2'	27:DA:1328:G:C8	2.55	0.42
27:DA:2432:A:H2'	27:DA:2433:A:C8	2.54	0.42
34:DH:16:SER:HB2	34:DH:27:LYS:HB2	2.01	0.42
27:DA:697:C:N4	27:DA:698:C:N4	2.67	0.42
2:AB:8:LYS:O	2:AB:11:LEU:HB2	2.19	0.42
1:CA:1462:G:O2'	1:CA:1463:C:H5'	2.19	0.42
27:BA:445:C:C4	27:BA:446:G:C6	3.07	0.42
27:BA:415:A:H2'	27:BA:415:A:N3	2.35	0.42
27:BA:962:G:H2'	27:BA:963:U:H6	1.84	0.42
27:DA:614(A):U:H5''	27:DA:614(B):G:OP1	2.19	0.42
27:DA:280:C:C5	27:DA:281:G:N7	2.86	0.42
10:CJ:84:GLN:CD	10:CJ:84:GLN:N	2.73	0.42
32:DF:47:GLY:O	32:DF:94:PRO:HA	2.19	0.42
32:DF:46:ARG:O	32:DF:48:THR:N	2.46	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:CX:62:C:H2'	24:CX:62:C:O2	2.17	0.42
32:BF:187:VAL:O	32:BF:189:THR:N	2.52	0.42
19:CS:79:THR:O	19:CS:80:TYR:CB	2.67	0.42
27:DA:1381:G:C2'	27:DA:1382:G:H5'	2.49	0.42
27:BA:2785:C:H2'	27:BA:2786:U:O4'	2.19	0.42
58:B9:3:VAL:O	58:B9:4:ARG:HB3	2.19	0.42
27:DA:1787:A:N3	27:DA:1787:A:H2'	2.34	0.42
15:CO:67:LEU:HA	15:CO:67:LEU:HD23	1.81	0.42
15:AO:42:HIS:O	15:AO:42:HIS:CG	2.72	0.42
56:B7:29:LYS:O	56:B7:33:ARG:N	2.46	0.42
30:BD:85:ASP:CB	30:BD:92:ILE:HG23	2.49	0.42
27:DA:134:C:H2'	27:DA:135:G:O4'	2.18	0.42
57:B8:11:LYS:N	57:B8:60:LEU:HD21	2.34	0.42
27:BA:817:C:HO2'	27:BA:818:G:H5'	1.83	0.42
38:BP:59:LEU:CA	38:BP:61:ARG:NH2	2.77	0.42
1:CA:983:A:C2'	1:CA:983:A:N3	2.79	0.42
10:CJ:51:ARG:NE	10:CJ:60:ARG:O	2.52	0.42
40:BR:33:ARG:HE	40:BR:115:GLU:CB	2.32	0.42
27:BA:2631:G:C6	27:BA:2632:A:N7	2.88	0.42
32:BF:128:ALA:O	32:BF:129:PHE:C	2.58	0.42
32:BF:178:PRO:HG2	32:BF:179:GLU:CD	2.39	0.42
31:BE:23:VAL:HA	31:BE:184:VAL:O	2.19	0.42
27:DA:1138:G:O2'	36:DN:102:ALA:O	2.38	0.42
38:DP:50:ARG:HD3	57:D8:7:HIS:CD2	2.54	0.42
27:DA:1932:A:H2'	27:DA:1933:G:O4'	2.18	0.42
1:CA:428:G:H4'	1:CA:429:U:O5'	2.18	0.42
4:CD:17:VAL:HG13	4:CD:18:LYS:N	2.34	0.42
4:CD:31:CYS:SG	4:CD:31:CYS:O	2.78	0.42
4:CD:39:PRO:HB2	4:CD:44:GLY:HA2	2.01	0.42
4:CD:72:GLU:O	4:CD:73:ARG:C	2.57	0.42
53:B4:40:ILE:HA	53:B4:57:ILE:HG21	1.99	0.42
38:BP:16:ARG:HG3	38:BP:17:LYS:H	1.84	0.42
31:BE:55:ASN:HA	31:BE:55:ASN:HD22	1.54	0.42
27:BA:996:A:HO2'	27:BA:997:G:P	2.42	0.42
44:BV:62:LEU:HD11	44:BV:95:LEU:HB2	2.02	0.42
8:AH:69:ARG:HH12	8:AH:76:PRO:CA	2.24	0.42
42:BT:65:LYS:CG	42:BT:66:VAL:N	2.80	0.42
44:DV:18:LEU:O	44:DV:19:LYS:HB3	2.18	0.42
44:DV:58:VAL:O	44:DV:59:ALA:HB2	2.20	0.42
44:DV:62:LEU:CD2	44:DV:94:LEU:HA	2.49	0.42
27:DA:1491:G:H5'	30:DD:99:ASP:OD1	2.19	0.42
33:BG:135:LEU:HB2	33:BG:155:MET:HG3	2.01	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BG:58:GLN:O	33:BG:62:LEU:HD12	2.19	0.42
31:DE:54:GLN:HA	31:DE:72:VAL:CG1	2.48	0.42
55:D6:34:LEU:HD23	55:D6:34:LEU:HA	1.84	0.42
27:DA:2255:G:O2'	27:DA:2256:G:H5'	2.18	0.42
27:DA:2399:G:C2	27:DA:2418:A:C2	3.06	0.42
27:DA:2420:C:OP2	57:D8:33:ASN:O	2.36	0.42
38:DP:125:VAL:O	38:DP:125:VAL:HG23	2.20	0.42
36:DN:34:LEU:HD11	36:DN:120:LEU:CD2	2.27	0.42
27:DA:1669:A:C2'	27:DA:1670:C:H5'	2.49	0.42
27:DA:1953:A:C2	27:DA:2549:G:N3	2.87	0.42
27:DA:574:C:HO2'	27:DA:2055:C:H5	1.65	0.42
27:DA:746:A:C1'	27:DA:748:G:H21	2.32	0.42
36:BN:93:THR:O	36:BN:94:HIS:CB	2.68	0.42
27:BA:2345:G:OP2	55:B6:39:TYR:HD1	2.02	0.42
45:BW:15:ARG:HA	45:BW:18:ARG:HB2	2.01	0.42
31:DE:44:TYR:O	31:DE:45:THR:C	2.57	0.42
1:AA:406:G:H5'	4:AD:5:ILE:HD13	2.01	0.42
47:DY:67:LEU:HG	47:DY:67:LEU:O	2.19	0.42
27:BA:1491:G:C5	27:BA:1500:G:N2	2.88	0.42
30:BD:72:LYS:CB	30:BD:97:TYR:CE2	3.02	0.42
1:AA:1320:C:H41	19:AS:37:ARG:HB3	1.84	0.42
1:AA:1359:C:O2'	1:AA:1361:G:N7	2.52	0.42
8:AH:26:VAL:CG2	8:AH:27:PRO:N	2.82	0.42
8:AH:56:LYS:HB3	8:AH:58:TYR:HE1	1.84	0.42
23:AW:35:G:C6	23:AW:36:A:C5	3.08	0.42
27:DA:2748:A:H62	27:DA:2754:U:H3	1.65	0.42
27:DA:2749:A:C1'	34:DH:63:SER:OG	2.68	0.42
16:AP:58:TYR:CD1	16:AP:59:TRP:N	2.87	0.42
17:CQ:60:ILE:HG23	17:CQ:61:GLU:O	2.19	0.42
27:BA:2248:C:H3'	27:BA:2249:U:H6	1.85	0.42
45:BW:90:ARG:CB	45:BW:90:ARG:NH1	2.68	0.42
27:BA:1171:G:C5'	27:BA:1173:G:OP2	2.67	0.42
27:DA:2650:U:H2'	27:DA:2651:C:C6	2.53	0.42
45:BW:92:ARG:O	45:BW:93:ALA:CB	2.67	0.42
31:DE:7:VAL:O	31:DE:26:ILE:HA	2.18	0.42
37:BO:3:GLN:HB2	37:BO:4:PRO:HD2	2.02	0.42
42:BT:23:ARG:HB2	42:BT:24:PRO:HD2	1.99	0.42
1:CA:1182:G:H5'	1:CA:1184:G:H5''	2.01	0.42
27:BA:2092:U:HO2'	27:BA:2093:G:P	2.41	0.42
27:BA:1558:A:N3	27:BA:1558:A:O4'	2.53	0.42
12:AL:74:LEU:CD2	12:AL:104:ALA:HB2	2.49	0.42
27:DA:542:C:H2'	27:DA:542:C:O2	2.18	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1198:G:H2'	1:CA:1199:U:O4'	2.19	0.42
1:CA:1216:G:N2	1:CA:1217:C:N3	2.67	0.42
15:CO:78:TYR:O	15:CO:81:LEU:HB3	2.20	0.42
15:CO:83:GLU:C	15:CO:86:GLY:H	2.20	0.42
1:CA:643:C:H2'	1:CA:644:G:H8	1.85	0.42
8:CH:10:LEU:HD13	8:CH:85:ARG:CG	2.48	0.42
29:DC:68:LEU:HD21	29:DC:180:PHE:CB	2.49	0.42
23:AW:6:U:C3'	23:AW:7:A:C5'	2.91	0.42
35:BI:129:THR:O	35:BI:130:TYR:HB2	2.18	0.42
35:BI:98:ALA:O	35:BI:102:SER:N	2.45	0.42
1:AA:443:C:N3	1:AA:491:G:O6	2.52	0.42
27:DA:957:A:N1	27:DA:2459:A:C8	2.87	0.42
27:DA:962:G:H21	39:DQ:83:MET:HE1	1.85	0.42
3:AC:119:ARG:O	3:AC:119:ARG:HG2	2.18	0.42
33:BG:71:THR:O	33:BG:88:ILE:O	2.37	0.42
27:DA:596:G:C2	27:DA:597:U:C2	3.07	0.42
51:B2:2:LYS:O	51:B2:6:VAL:HG23	2.19	0.42
27:BA:1418:G:OP1	27:BA:1588:C:O2'	2.37	0.42
30:BD:13:ARG:HA	30:BD:16:MET:HE3	2.01	0.42
35:BI:37:VAL:HG12	35:BI:38:LEU:H	1.85	0.42
5:CE:40:ARG:NH1	5:CE:40:ARG:HG2	2.34	0.42
23:AW:67:C:H2'	23:AW:68:C:H6	1.83	0.42
1:CA:342:C:H2'	1:CA:343:U:C6	2.54	0.42
1:AA:1036:G:H3'	1:AA:1037:C:C6	2.54	0.42
1:AA:1279:A:H4'	1:AA:1280:A:OP1	2.19	0.42
12:CL:8:VAL:HG11	17:CQ:36:ILE:HG21	2.01	0.42
27:DA:2468:G:N2	27:DA:2481:G:C2'	2.83	0.42
27:DA:2793:G:O2'	27:DA:2794:C:P	2.78	0.42
27:DA:1286:A:C2'	27:DA:1288:U:OP2	2.68	0.42
27:DA:486:C:O2	27:DA:495:G:C2	2.73	0.42
27:DA:1215:G:H1	27:DA:1235:G:H1'	1.84	0.42
27:DA:475:U:O4'	27:DA:509:C:C2	2.73	0.42
47:DY:47:LYS:CD	47:DY:47:LYS:N	2.80	0.42
27:BA:1179:C:O2'	27:BA:1180:C:C5'	2.66	0.42
27:BA:675:A:C6	27:BA:676:A:N6	2.87	0.42
1:CA:577:G:C4	1:CA:816:A:C2	3.06	0.42
27:BA:1204:A:N1	27:BA:1241:A:C2	2.86	0.42
27:BA:1509(B):A:H2'	27:BA:1510:G:O4'	2.18	0.42
24:AX:23:C:O2'	24:AX:24:U:H5'	2.19	0.42
27:BA:527:C:O2	27:BA:527:C:O4'	2.36	0.42
27:BA:1028:A:H2'	27:BA:1029:A:C8	2.53	0.42
1:AA:1245:A:C6	1:AA:1293:G:N1	2.87	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:965:A:O2'	1:AA:966:G:O5'	2.34	0.42
27:DA:2195:C:O2	27:DA:2195:C:H2'	2.19	0.42
28:DB:71:C:C2'	28:DB:72:G:H5'	2.49	0.42
18:CR:65:ILE:O	18:CR:66:LEU:C	2.58	0.42
1:AA:992:U:H1'	1:AA:993:G:N3	2.33	0.42
27:DA:1688:U:O2	27:DA:1700:A:H5'	2.19	0.42
4:CD:88:VAL:HG12	4:CD:90:GLY:H	1.83	0.42
27:BA:2642:G:C2	27:BA:2773:C:N3	2.87	0.42
1:AA:279:A:O2'	1:AA:280:C:P	2.77	0.42
39:DQ:109:VAL:HG13	39:DQ:113:GLN:CB	2.49	0.42
49:D0:49:LYS:CB	49:D0:80:HIS:HB3	2.46	0.42
27:DA:1773:A:O2'	27:DA:1774:C:H5'	2.20	0.42
3:AC:11:ARG:HA	3:AC:14:ILE:HG23	2.01	0.42
28:BB:50:G:OP1	41:BS:63:THR:HG23	2.19	0.42
49:B0:55:ARG:HG3	49:B0:55:ARG:H	1.57	0.42
1:AA:1030(A):G:H1'	1:AA:1031:G:N2	2.33	0.42
27:BA:1654:A:OP2	40:BR:3:HIS:CG	2.72	0.42
6:AF:92:LYS:O	6:AF:93:SER:C	2.58	0.42
27:DA:1685:C:C2'	27:DA:1686:C:H5''	2.47	0.42
1:CA:1402:C:O5'	1:CA:1402:C:H6	2.03	0.42
27:BA:1829:A:H2'	27:BA:1830:C:C5'	2.49	0.42
27:BA:1385:G:O3'	27:BA:1396:U:C5	2.72	0.42
24:CX:66:C:H2'	24:CX:67:C:O4'	2.19	0.42
35:DI:121:LYS:HG3	35:DI:121:LYS:O	2.19	0.42
27:BA:1367:A:C5	27:BA:1368:G:H1'	2.54	0.42
48:DZ:19:ARG:C	48:DZ:21:GLY:N	2.72	0.42
1:AA:293:G:N3	1:AA:293:G:H2'	2.35	0.42
1:CA:22:G:H2'	1:CA:23:C:C6	2.55	0.42
1:CA:153:C:N3	1:CA:169:C:N4	2.67	0.42
1:AA:506:G:H2'	1:AA:507:C:H6	1.84	0.42
10:CJ:90:LEU:N	10:CJ:91:PRO:HD3	2.34	0.42
1:AA:34:C:H6	1:AA:34:C:O5'	2.02	0.42
27:BA:1328:G:H2'	27:BA:1330:C:N4	2.34	0.42
33:BG:145:THR:HG1	33:BG:147:ASP:CG	2.21	0.42
58:D9:22:ARG:HB3	58:D9:23:VAL:H	1.61	0.42
1:CA:189(C):C:N3	1:CA:189(I):G:C2	2.88	0.42
43:DU:117:GLN:O	43:DU:118:GLY:C	2.57	0.42
27:BA:1554:A:C2	27:BA:1634:A:N6	2.87	0.42
7:AG:109:ASN:HD22	7:AG:109:ASN:N	2.17	0.42
30:DD:198:ASN:CG	30:DD:198:ASN:O	2.58	0.42
55:B6:44:ARG:HA	55:B6:44:ARG:HD3	1.75	0.42
4:CD:120:LEU:HA	4:CD:120:LEU:HD23	1.83	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:2:GLU:O	9:CI:2:GLU:CD	2.58	0.42
4:AD:121:VAL:HG12	4:AD:134:ASP:HA	2.01	0.42
30:BD:174:ILE:O	30:BD:174:ILE:HG22	2.17	0.42
1:CA:426:G:H4'	4:CD:41:GLY:O	2.19	0.42
42:DT:65:LYS:HZ2	42:DT:65:LYS:HA	1.83	0.42
31:BE:52:LEU:HA	31:BE:53:PRO:HD3	1.85	0.42
31:BE:52:LEU:HD11	42:BT:1:MET:CE	2.48	0.42
1:CA:1372:U:O2'	1:CA:1373:G:H5'	2.19	0.42
1:AA:18:C:H2'	1:AA:19:C:C6	2.54	0.42
43:BU:112:ARG:HG2	43:BU:112:ARG:HH11	1.85	0.42
44:DV:19:LYS:HG3	44:DV:20:LEU:N	2.34	0.42
47:DY:74:PRO:O	47:DY:80:GLY:HA2	2.19	0.42
51:D2:47:ASN:O	51:D2:48:HIS:C	2.56	0.42
51:D2:57:ILE:HD13	51:D2:57:ILE:HA	1.74	0.42
27:DA:873:G:N2	27:DA:905:U:C1'	2.77	0.42
31:DE:72:VAL:O	31:DE:73:GLU:C	2.57	0.42
55:D6:19:ARG:HH11	55:D6:43:CYS:HB2	1.85	0.42
27:DA:2403:C:H2'	27:DA:2404:C:H6	1.83	0.42
27:DA:754:C:H2'	27:DA:755:C:C5	2.54	0.42
27:DA:753:C:O2'	27:DA:754:C:H5'	2.19	0.42
31:DE:82:ARG:HB3	31:DE:83:ASP:H	1.55	0.42
1:CA:102:G:O2'	1:CA:103:C:H5'	2.19	0.42
35:DI:133:HIS:ND1	35:DI:134:PRO:HD2	2.34	0.42
1:AA:1320:C:O2	19:AS:72:GLY:HA3	2.20	0.42
1:AA:1338:G:C6	1:AA:1339:A:C6	3.07	0.42
8:AH:44:PHE:CE2	8:AH:109:ILE:HG22	2.52	0.42
1:AA:27:G:H2'	1:AA:28:G:H8	1.85	0.42
1:AA:227:G:O2'	1:AA:228:A:H5'	2.19	0.42
27:BA:2073:C:H42	27:BA:2436:G:H1	1.68	0.42
1:CA:662:G:C2	1:CA:744:C:C2	3.07	0.42
20:CT:50:GLU:O	20:CT:54:LYS:HB2	2.19	0.42
37:BO:78:ARG:CB	37:BO:78:ARG:HH11	2.16	0.42
40:BR:61:HIS:O	40:BR:65:LEU:HD13	2.19	0.42
1:CA:1059:C:O2'	14:CN:45:ARG:NH2	2.52	0.42
1:CA:1055:A:O2'	3:CC:161:GLU:HG3	2.19	0.42
1:CA:1056:U:H4'	3:CC:163:ALA:HB2	2.01	0.42
42:BT:108:ARG:O	42:BT:108:ARG:HG3	2.19	0.42
1:CA:695:A:H2'	1:CA:696:A:C8	2.54	0.42
27:BA:2870:C:C2'	27:BA:2871:C:C5'	2.85	0.42
27:DA:130:C:C2'	27:DA:131:G:O5'	2.67	0.42
48:DZ:47:PHE:O	48:DZ:48:ARG:O	2.37	0.42
27:BA:2158:A:O2'	27:BA:2159:G:C8	2.68	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2126:A:N1	27:DA:2163:C:C4'	2.82	0.42
27:DA:1391:U:O2	27:DA:1394:U:C4	2.71	0.42
27:DA:1612:C:O3'	56:D7:5:TRP:CD1	2.66	0.42
1:AA:445:G:N1	1:AA:446:G:C5	2.87	0.42
27:DA:2335:A:O3'	27:DA:2336:A:H8	2.01	0.42
27:DA:957:A:OP1	39:DQ:76:LYS:NZ	2.43	0.42
1:AA:403:C:HO2'	1:AA:404:U:H5'	1.83	0.42
32:BF:114:VAL:O	32:BF:115:ALA:C	2.58	0.42
8:AH:4:ASP:OD1	8:AH:7:ALA:CB	2.67	0.42
37:DO:52:VAL:O	37:DO:52:VAL:HG13	2.19	0.42
27:BA:89:G:H3'	27:BA:90:U:C5'	2.46	0.42
30:DD:94:LEU:HD23	30:DD:95:LEU:H	1.83	0.42
3:CC:34:LEU:HD23	3:CC:34:LEU:C	2.40	0.42
27:BA:65:C:P	46:BX:71:GLY:HA3	2.59	0.42
6:AF:2:ARG:HB2	6:AF:4:TYR:CE2	2.54	0.42
30:BD:16:MET:O	30:BD:17:THR:HG23	2.19	0.42
27:DA:1666:G:H2'	27:DA:1667:G:O4'	2.19	0.42
42:DT:126:ALA:C	42:DT:128:GLU:N	2.72	0.42
1:CA:1315:U:H2'	1:CA:1316:G:C4'	2.50	0.42
1:AA:1288:A:H1'	1:AA:1352:C:O2'	2.19	0.42
27:DA:1449:A:C6	27:DA:1450:G:C4	3.07	0.42
1:CA:452:A:H1'	16:CP:72:ARG:NH1	2.34	0.42
27:BA:271(V):G:C2	27:BA:271(W):G:H1'	2.54	0.42
27:BA:389:G:O6	38:BP:71:VAL:HB	2.19	0.42
5:CE:105:VAL:HB	5:CE:106:PRO:HD3	1.98	0.42
6:AF:32:ASN:C	6:AF:34:GLY:H	2.23	0.42
27:BA:1044:G:O2'	27:BA:1111:A:N6	2.52	0.42
27:BA:1109:C:C5'	27:BA:1110:G:OP2	2.67	0.42
27:DA:797:C:O5'	27:DA:797:C:H6	2.02	0.42
27:DA:494:G:H4'	45:DW:6:ILE:CG2	2.49	0.42
31:BE:69:LYS:HZ2	31:BE:89:ASP:HA	1.83	0.42
33:BG:119:GLY:C	33:BG:181:ARG:HB2	2.39	0.42
1:CA:671:G:O2'	1:CA:672:U:H5'	2.18	0.42
1:CA:737:A:C2	1:CA:738:C:C2	3.08	0.42
1:CA:874:G:O2'	1:CA:875:C:O5'	2.38	0.42
1:AA:1086:U:C2'	1:AA:1087:G:H5'	2.49	0.42
2:CB:76:GLN:O	2:CB:208:ILE:CG1	2.67	0.42
27:BA:2048:G:H2'	27:BA:2049:G:O5'	2.19	0.42
27:DA:2122:U:H2'	27:DA:2123:G:O4'	2.19	0.42
27:DA:80:G:C2'	27:DA:81:G:H5'	2.49	0.42
1:AA:1226:C:OP1	19:AS:81:ARG:NH1	2.53	0.42
1:AA:592:G:C2	1:AA:593:G:C8	3.07	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2873:A:N3	40:BR:6:SER:HB2	2.34	0.42
27:BA:704:G:O2'	27:BA:726:G:N2	2.32	0.42
27:BA:1447:G:C2	27:BA:1465:G:C4	3.07	0.42
27:BA:1465:G:H5'	27:BA:1528:A:H1'	2.01	0.42
27:BA:1466:G:H2'	27:BA:1547:C:C4	2.54	0.42
27:BA:1466:G:N2	27:BA:1547:C:N3	2.67	0.42
12:AL:9:ARG:HB2	12:AL:10:LYS:H	1.57	0.42
30:DD:148:GLU:C	30:DD:189:CYS:SG	2.98	0.42
1:CA:852:G:O2'	1:CA:853:G:H5'	2.20	0.42
2:CB:26:PRO:O	2:CB:28:PHE:N	2.52	0.42
9:AI:69:GLY:C	9:AI:73:GLN:HG3	2.40	0.42
27:BA:495:G:C6	27:BA:496:G:C5	3.08	0.42
29:BC:45:ALA:HA	29:BC:210:ARG:HA	2.01	0.42
10:AJ:26:ALA:CA	10:AJ:29:ARG:HH21	2.32	0.42
25:AY:18:G:C6	27:BA:2112:G:N7	2.87	0.42
27:BA:2145:C:H3'	27:BA:2145:C:C6	2.54	0.42
43:BU:76:TYR:O	43:BU:80:ILE:HG12	2.18	0.42
9:CI:5:TYR:HA	9:CI:17:VAL:O	2.20	0.42
27:BA:268:C:H42	27:BA:424:G:H1	1.66	0.42
31:DE:167:VAL:O	31:DE:168:MET:HG2	2.19	0.42
25:CY:14:A:H2'	25:CY:15:G:O4'	2.19	0.42
27:DA:2873:A:N3	40:DR:6:SER:HB3	2.34	0.42
25:AY:42:G:C2	25:AY:43:C:H1'	2.54	0.42
25:AY:43:C:OP2	25:AY:44:U:O4	2.37	0.42
23:CW:18:G:H1'	23:CW:19:U:C4	2.54	0.42
38:DP:107:LYS:C	38:DP:109:GLY:N	2.72	0.42
39:DQ:122:GLY:HA2	39:DQ:125:LEU:HD12	2.01	0.42
27:DA:2864:G:O2'	27:DA:2865:U:H5'	2.19	0.42
1:CA:1417:G:H2'	1:CA:1482:G:H22	1.84	0.42
28:BB:60:C:H2'	28:BB:61:G:H8	1.84	0.42
27:BA:2008:C:H2'	27:BA:2009:G:H8	1.84	0.42
28:BB:15:A:H5'	28:BB:16:G:C8	2.55	0.42
41:DS:49:VAL:CG1	41:DS:50:SER:N	2.83	0.42
27:BA:1469:A:N6	27:BA:1470:G:C6	2.88	0.42
2:AB:102:LEU:N	2:AB:102:LEU:HD12	2.34	0.42
6:CF:19:LEU:HG	6:CF:19:LEU:O	2.19	0.42
17:AQ:93:GLN:HB3	17:AQ:93:GLN:HE21	1.63	0.42
1:CA:1399:C:O2	1:CA:1401:G:C6	2.71	0.42
32:BF:117:ARG:NH1	32:BF:189:THR:O	2.51	0.42
27:DA:2358:G:O2'	27:DA:2359:C:H5'	2.20	0.42
46:BX:10:ALA:HA	51:B2:37:PHE:CE1	2.54	0.42
36:BN:38:HIS:ND1	36:BN:39:ARG:HG3	2.34	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:BZ:104:VAL:O	48:BZ:104:VAL:HG22	2.19	0.42
11:AK:117:ASN:HD22	11:AK:117:ASN:HA	1.68	0.42
43:BU:5:LYS:HB2	43:BU:5:LYS:HE3	1.84	0.42
29:BC:128:GLY:O	29:BC:130:ILE:N	2.43	0.42
27:BA:593:G:O4'	57:B8:4:MET:HE3	2.19	0.42
27:BA:817:C:HO2'	27:BA:839:U:H5''	1.85	0.42
27:BA:838:C:N3	27:BA:839:U:C5	2.87	0.42
10:CJ:47:PHE:CZ	14:CN:37:PHE:HE2	2.37	0.42
32:BF:4:VAL:HG23	32:BF:4:VAL:O	2.20	0.42
30:BD:165:ILE:HG22	30:BD:166:GLN:N	2.35	0.42
27:DA:1792:G:H5''	30:DD:205:VAL:HG13	2.00	0.42
27:DA:1973:G:H2'	27:DA:1974:C:C5	2.53	0.42
1:CA:507:C:O5'	1:CA:508:C:H3'	2.19	0.42
43:BU:111:GLU:OE2	43:BU:111:GLU:HA	2.18	0.42
43:BU:92:ARG:NH2	44:BV:11:GLN:HG3	2.35	0.42
27:DA:408:G:O2'	27:DA:409:C:H5'	2.20	0.42
37:BO:80:ASP:OD2	42:BT:64:ARG:NH2	2.52	0.42
43:DU:105:VAL:O	43:DU:108:GLU:HB2	2.19	0.42
43:DU:33:ARG:O	43:DU:35:ALA:N	2.52	0.42
43:DU:92:ARG:O	43:DU:94:ASN:N	2.50	0.42
44:DV:59:ALA:CB	44:DV:96:ILE:HA	2.44	0.42
12:CL:71:GLY:O	12:CL:72:HIS:HB3	2.19	0.42
47:DY:27:VAL:CG1	47:DY:29:GLU:OE1	2.67	0.42
27:BA:1899:G:C2	27:BA:1903:G:C6	3.07	0.42
11:AK:19:ALA:HA	11:AK:32:ILE:HA	2.01	0.42
11:AK:38:ASN:HA	11:AK:39:PRO:HD3	1.86	0.42
27:BA:1885:A:H3'	27:BA:1886:C:C6	2.54	0.42
55:D6:48:VAL:CG2	55:D6:49:HIS:N	2.82	0.42
27:DA:2366:A:C6	27:DA:2367:G:C4	3.07	0.42
27:DA:632:A:O2'	27:DA:633:A:H5'	2.20	0.42
27:DA:2510:C:O2	27:DA:2510:C:H2'	2.18	0.42
27:DA:2052:G:N2	31:DE:149:ARG:HA	2.17	0.42
36:BN:62:VAL:HG22	36:BN:63:THR:H	1.84	0.42
27:DA:229:A:H3'	27:DA:229:A:C8	2.55	0.42
39:BQ:1:MET:SD	39:BQ:2:LEU:N	2.92	0.42
48:DZ:88:PHE:O	48:DZ:90:LEU:CD1	2.68	0.42
30:BD:105:ILE:HD12	30:BD:106:ILE:HG23	2.02	0.42
30:BD:105:ILE:HD12	30:BD:106:ILE:N	2.35	0.42
9:AI:5:TYR:CD2	9:AI:6:GLY:N	2.87	0.42
47:BY:39:VAL:O	47:BY:40:GLU:CB	2.68	0.42
9:AI:115:GLY:HA2	10:AJ:58:ASP:OD1	2.19	0.42
24:AX:31:G:C2	24:AX:40:C:N3	2.87	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:563:A:O2'	1:CA:567:G:C8	2.71	0.42
7:AG:41:ARG:O	7:AG:45:ASP:N	2.40	0.42
36:DN:132:ALA:O	36:DN:133:GLN:CB	2.66	0.42
27:DA:2733:A:C2	31:DE:203:LYS:HA	2.51	0.42
16:AP:82:GLN:N	16:AP:82:GLN:CD	2.67	0.42
42:BT:76:PHE:HA	42:BT:77:PRO:HD3	1.76	0.42
9:CI:79:LEU:CD2	9:CI:102:LEU:HD22	2.49	0.42
38:DP:13:ASN:ND2	38:DP:14:LYS:HG3	2.34	0.42
12:AL:31:ARG:HE	12:AL:31:ARG:HB3	1.56	0.42
1:AA:555:C:H2'	1:AA:556:C:C6	2.54	0.42
1:CA:1287:A:C2	1:CA:1353:G:H1'	2.53	0.42
31:BE:116:VAL:CG2	31:BE:122:PHE:CD2	3.01	0.42
8:CH:6:ILE:HG22	8:CH:10:LEU:HD12	2.00	0.42
35:BI:102:SER:O	35:BI:106:GLY:HA2	2.19	0.42
35:BI:131:LYS:HD2	35:BI:132:PRO:HD3	2.02	0.42
27:BA:562:U:C2	27:BA:572:A:N7	2.88	0.42
1:AA:498:U:O2'	1:AA:499:A:H8	2.02	0.42
50:B1:63:ALA:C	50:B1:65:SER:N	2.72	0.42
7:AG:120:ILE:HG22	7:AG:124:LEU:CD1	2.48	0.42
37:DO:53:LYS:N	37:DO:53:LYS:CD	2.80	0.42
27:DA:849:A:OP2	27:DA:850:C:H5	2.01	0.42
1:AA:736:C:C5'	18:AR:72:ARG:HE	2.32	0.42
30:BD:210:GLY:HA2	30:BD:213:ARG:CG	2.49	0.42
1:CA:1028:C:H42	1:CA:1034:G:N2	2.09	0.42
1:AA:1138:G:C2	1:AA:1140:C:C4	3.07	0.42
39:DQ:52:VAL:O	39:DQ:55:VAL:HG12	2.20	0.42
4:AD:149:ALA:HB3	4:AD:152:SER:OG	2.18	0.42
27:BA:76:C:H42	27:BA:110:G:H1	1.67	0.42
3:AC:132:ARG:O	3:AC:136:GLN:CB	2.67	0.42
27:BA:491:G:O2'	27:BA:492:A:C5'	2.67	0.42
27:DA:2792:G:O2'	27:DA:2793:G:C8	2.69	0.42
27:DA:2805:G:C2	27:DA:2807:G:C4	3.08	0.42
27:BA:1223:G:C5'	27:BA:1224:C:OP2	2.67	0.42
40:DR:51:LEU:O	40:DR:54:LEU:HB2	2.20	0.42
1:CA:1126:U:H6	1:CA:1126:U:OP1	2.02	0.42
48:BZ:139:ASP:OD2	48:BZ:139:ASP:N	2.52	0.42
29:BC:51:PRO:O	29:BC:52:ARG:C	2.57	0.42
1:CA:811:C:C5	1:CA:812:C:C4	3.08	0.42
5:AE:110:LEU:O	5:AE:111:GLU:C	2.58	0.42
37:BO:103:ALA:O	37:BO:105:GLU:N	2.52	0.42
29:DC:51:PRO:HG3	29:DC:204:ALA:CB	2.42	0.42
50:D1:72:GLU:OE1	50:D1:76:ARG:HD3	2.20	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:AN:14:PRO:O	14:AN:15:LYS:C	2.56	0.42
4:AD:110:PHE:CE2	4:AD:148:VAL:HG23	2.53	0.42
27:DA:1167:U:H2'	27:DA:1168:G:C8	2.55	0.42
57:D8:21:LYS:HD3	57:D8:48:PHE:CE1	2.54	0.42
27:DA:2544:G:N3	27:DA:2545:G:C8	2.88	0.42
11:CK:53:SER:O	11:CK:55:LYS:N	2.52	0.42
32:BF:56:GLU:OE2	32:BF:93:LYS:NZ	2.42	0.42
38:DP:88:LEU:C	38:DP:90:ARG:H	2.21	0.42
11:CK:15:ALA:HB1	11:CK:78:GLN:HG3	2.01	0.42
1:CA:324:G:OP1	20:CT:70:SER:HB2	2.19	0.42
37:BO:31:LYS:HD3	37:BO:31:LYS:HA	1.91	0.42
27:DA:1629:U:H2'	27:DA:1630:G:C8	2.54	0.42
6:AF:75:LEU:HD23	6:AF:76:ALA:N	2.34	0.42
28:BB:86:G:O2'	28:BB:87:G:H5'	2.19	0.42
3:AC:137:ALA:O	3:AC:141:VAL:HG23	2.20	0.42
11:CK:123:LYS:HA	11:CK:126:ARG:CG	2.47	0.42
11:AK:95:ILE:O	11:AK:96:ARG:C	2.57	0.42
27:BA:1130:U:O2	27:BA:2025:C:H5''	2.20	0.42
48:DZ:107:PRO:CG	48:DZ:116:LEU:HB2	2.50	0.42
27:BA:181:A:C2	27:BA:182:A:N3	2.87	0.42
27:BA:181:A:C2	27:BA:435:C:C5	3.05	0.42
9:CI:69:GLY:O	9:CI:73:GLN:HG3	2.19	0.42
1:AA:50:A:H1'	1:AA:52:G:C8	2.54	0.42
27:BA:2144:U:HO2'	27:BA:2145:C:H6	1.65	0.42
1:AA:353:A:H2'	1:AA:354:G:OP2	2.18	0.42
24:AX:63:G:C2	24:AX:64:G:C8	3.08	0.42
51:D2:30:ARG:O	51:D2:33:MET:N	2.53	0.42
47:DY:31:LEU:CB	47:DY:32:PRO:HA	2.49	0.42
9:CI:27:THR:O	9:CI:63:ILE:HB	2.20	0.42
27:BA:1347:G:N3	27:BA:1347:G:H2'	2.34	0.42
24:AX:52:G:O2'	24:AX:53:G:H5'	2.20	0.42
48:BZ:116:LEU:HA	48:BZ:172:ALA:O	2.20	0.42
2:AB:230:VAL:HB	2:AB:231:GLU:H	1.66	0.42
30:BD:263:ARG:CZ	30:BD:263:ARG:HB2	2.49	0.42
27:BA:146:G:C5	27:BA:147:U:C5	3.08	0.42
25:AY:43:C:H2'	25:AY:43:C:O2	2.20	0.42
1:CA:1168:A:H2'	1:CA:1169:A:C8	2.54	0.42
48:BZ:130:ARG:NH1	48:BZ:130:ARG:HG2	2.35	0.42
35:DI:120:ILE:O	35:DI:121:LYS:HB3	2.20	0.42
11:AK:107:SER:OG	18:AR:86:VAL:CG1	2.67	0.42
28:DB:11:C:P	28:DB:12:C:H5	2.43	0.42
1:AA:1007:C:H2'	1:AA:1008:C:H6	1.84	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DR:93:GLY:C	40:DR:95:THR:N	2.73	0.42
27:BA:521:G:H2'	27:BA:522:G:H8	1.82	0.42
27:DA:1478:G:OP1	27:DA:1478:G:H4'	2.18	0.42
27:BA:370:G:O2'	27:BA:371:A:OP1	2.28	0.42
32:DF:152:GLU:O	32:DF:154:VAL:HG23	2.18	0.42
18:AR:47:THR:HA	18:AR:83:GLU:O	2.19	0.42
27:BA:2644:G:H2'	27:BA:2645:G:O4'	2.19	0.42
27:BA:290:G:O2'	27:BA:291:C:H5'	2.19	0.42
27:BA:2232:U:O2'	27:BA:2233:U:H5'	2.20	0.42
6:AF:45:LEU:O	6:AF:46:ARG:HG2	2.18	0.42
45:BW:69:LEU:HD22	45:BW:107:LEU:HB3	2.01	0.42
3:CC:151:VAL:HG12	3:CC:152:ILE:N	2.34	0.42
1:AA:1030:C:C5	1:AA:1032:G:N2	2.88	0.42
5:AE:67:VAL:HG22	5:AE:68:GLU:N	2.34	0.42
38:DP:75:ILE:CG2	38:DP:76:LYS:N	2.81	0.42
1:CA:248:C:O2	1:CA:248:C:H2'	2.20	0.42
27:BA:251:A:H2'	27:BA:252:G:C4'	2.49	0.42
10:CJ:51:ARG:HG3	10:CJ:60:ARG:HA	2.01	0.42
10:CJ:63:PHE:CD2	10:CJ:63:PHE:N	2.88	0.42
41:BS:14:VAL:CG1	41:BS:15:ARG:H	2.25	0.42
30:BD:166:GLN:HB3	30:BD:174:ILE:CG2	2.48	0.42
27:DA:1796:U:O2'	27:DA:1797:C:H5'	2.20	0.42
1:CA:507:C:C2'	1:CA:508:C:C5	3.00	0.42
4:CD:77:ASN:O	4:CD:78:LEU:C	2.56	0.42
33:BG:95:ARG:O	33:BG:96:ARG:O	2.37	0.42
38:BP:18:ARG:HB3	38:BP:18:ARG:NH1	2.34	0.42
27:BA:479:A:H4'	27:BA:480:A:H5'	2.01	0.42
27:BA:500:G:N2	27:BA:502:A:H3'	2.34	0.42
47:BY:60:PHE:CA	47:BY:62:GLU:OE2	2.67	0.42
32:BF:66:PRO:HD2	32:BF:70:THR:CG2	2.32	0.42
5:AE:132:ALA:C	5:AE:134:ALA:H	2.23	0.42
27:BA:355:G:C5	27:BA:356:G:N7	2.88	0.42
42:BT:89:VAL:HG11	42:BT:91:ARG:NE	2.35	0.42
44:DV:12:TYR:O	44:DV:14:VAL:HG13	2.19	0.42
52:B3:11:SER:HA	52:B3:31:LEU:HD21	2.01	0.42
27:DA:94:C:O2	27:DA:94:C:H2'	2.18	0.42
27:DA:868:U:H2'	27:DA:869:G:O4'	2.20	0.42
27:DA:907:U:H6	27:DA:907:U:C5'	2.33	0.42
31:DE:54:GLN:HB2	31:DE:55:ASN:H	1.48	0.42
55:D6:27:LYS:HB3	55:D6:29:ASN:OD1	2.20	0.42
27:DA:2069:G:C2'	27:DA:2070:G:H5'	2.49	0.42
39:DQ:85:LYS:HG3	49:D0:7:LEU:HB3	2.01	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:669:G:H2'	27:DA:669:G:N3	2.35	0.42
27:DA:942:G:H5''	38:DP:36:LYS:O	2.19	0.42
55:B6:15:GLU:CD	55:B6:18:ARG:HG3	2.40	0.42
1:CA:1069:C:H42	1:CA:1106:G:H1	1.67	0.42
30:BD:31:LYS:CE	30:BD:33:LEU:HD22	2.33	0.42
1:CA:383:A:H2'	1:CA:384:G:C5'	2.49	0.42
42:DT:35:LYS:CE	42:DT:41:ARG:HE	2.32	0.42
1:CA:373:A:N3	1:CA:374:A:C8	2.88	0.42
1:CA:252:U:C2	1:CA:253:U:H5	2.37	0.42
27:BA:2070:G:C2	27:BA:2071:A:N3	2.87	0.42
30:BD:43:ARG:HB2	30:BD:54:ARG:HB2	2.02	0.42
1:AA:110:C:H2'	1:AA:111:G:H5'	2.02	0.42
38:DP:9:ASN:H	38:DP:10:PRO:HD3	1.84	0.42
27:BA:1603:A:H3'	27:BA:1604:C:C6	2.54	0.42
20:CT:30:LYS:O	20:CT:31:SER:C	2.57	0.42
27:DA:1777:U:C2'	27:DA:1778:U:O5'	2.67	0.42
27:DA:691:C:H1'	30:DD:43:ARG:CZ	2.50	0.42
37:BO:114:ILE:O	37:BO:115:VAL:C	2.57	0.42
12:AL:31:ARG:O	12:AL:57:LEU:HD12	2.19	0.42
1:CA:1206:G:C4'	3:CC:192:THR:O	2.64	0.42
39:DQ:132:VAL:CG1	48:DZ:80:ARG:NH2	2.83	0.42
29:DC:64:LEU:C	29:DC:66:HIS:H	2.23	0.42
1:CA:922:G:C5	1:CA:923:A:C5	3.07	0.42
23:AW:7:A:O2'	23:AW:8:U:P	2.77	0.42
36:DN:57:ALA:C	36:DN:58:ASP:OD1	2.57	0.42
27:BA:2562:U:H2'	27:BA:2563:U:C5'	2.47	0.42
27:BA:2420:C:OP1	57:B8:34:TRP:HB2	2.20	0.42
27:DA:2824:C:C4	27:DA:2825:C:C2	3.08	0.42
1:AA:38:G:H4'	1:AA:547:A:C6	2.55	0.42
7:CG:80:VAL:HG11	7:CG:154:TYR:CZ	2.54	0.42
50:B1:46:LEU:N	50:B1:46:LEU:CD2	2.82	0.42
37:DO:43:VAL:O	37:DO:54:GLU:HA	2.20	0.42
27:DA:1695:G:C2'	27:DA:1695:G:N3	2.80	0.42
27:DA:2683:C:O2'	27:DA:2684:U:H5'	2.20	0.42
37:DO:67:LYS:O	37:DO:68:GLU:C	2.57	0.42
1:AA:818:G:HO2'	1:AA:820:U:H6	1.64	0.42
27:DA:272(B):G:O2'	27:DA:272(C):G:P	2.78	0.42
7:CG:103:TRP:HB3	7:CG:134:ALA:HB1	2.01	0.42
7:CG:75:VAL:HA	7:CG:88:PRO:HA	2.01	0.42
10:CJ:4:ILE:CG1	10:CJ:77:PRO:HG3	2.50	0.42
27:DA:220:G:N2	27:DA:427:U:H2'	2.34	0.42
27:DA:2808:U:HO2'	27:DA:2809:A:H5'	1.78	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DR:28:LEU:HD21	40:DR:114:VAL:HG12	2.01	0.42
27:BA:106:C:O5'	27:BA:106:C:H6	2.02	0.42
27:DA:682:G:N2	27:DA:796:C:C2	2.88	0.42
45:DW:29:LEU:HD23	45:DW:69:LEU:HD12	2.01	0.42
27:DA:1210:A:C6	27:DA:1237:A:N7	2.88	0.42
29:BC:49:ILE:O	29:BC:51:PRO:N	2.52	0.42
39:BQ:63:LYS:NZ	48:BZ:174:VAL:HG21	2.34	0.42
8:AH:87:SER:HA	8:AH:93:VAL:HG23	2.01	0.42
1:AA:740:U:H4'	15:AO:39:LEU:HD23	2.02	0.42
29:DC:51:PRO:HB3	29:DC:203:GLY:C	2.39	0.42
5:CE:8:GLU:OE2	5:CE:63:ARG:NH2	2.53	0.42
32:DF:101:LEU:O	32:DF:106:ARG:NH1	2.50	0.42
27:DA:2681:C:H5	27:DA:2725:A:N6	2.06	0.42
27:DA:81:G:C2	27:DA:106:C:N3	2.88	0.42
7:CG:15:ASP:CG	7:CG:44:TYR:HH	2.22	0.42
1:CA:1303:C:H2'	1:CA:1304:G:O4'	2.19	0.42
1:AA:840:C:C4'	1:AA:841:U:OP1	2.68	0.42
27:BA:49:A:N6	27:BA:118:A:C8	2.87	0.42
27:BA:18:C:H2'	27:BA:19:C:C6	2.54	0.42
1:AA:56:U:O2'	1:AA:57:G:H5'	2.20	0.42
16:AP:68:ASP:C	16:AP:70:ALA:N	2.73	0.42
39:DQ:38:GLU:CG	39:DQ:127:ILE:HG22	2.46	0.42
27:BA:463:G:C2	27:BA:467:G:C6	3.08	0.42
31:BE:175:VAL:HG12	31:BE:182:LEU:HD12	2.01	0.42
35:BI:68:LEU:HA	35:BI:71:ILE:CD1	2.50	0.42
1:AA:758:G:H2'	1:AA:759:A:OP2	2.20	0.42
34:DH:20:ALA:HB1	34:DH:21:PRO:HD2	2.02	0.42
27:BA:1673:U:C2'	27:BA:1674:G:H5''	2.47	0.42
3:AC:14:ILE:HG12	3:AC:15:THR:N	2.35	0.42
2:AB:32:ILE:CG1	2:AB:33:TYR:N	2.81	0.42
1:CA:135:C:C2'	1:CA:136:C:H5'	2.46	0.42
10:AJ:30:SER:CB	10:AJ:81:THR:HG23	2.49	0.42
51:D2:31:GLU:O	51:D2:32:LEU:C	2.58	0.42
51:B2:21:LEU:CD1	51:B2:64:LEU:HA	2.48	0.42
47:DY:32:PRO:O	47:DY:35:TYR:N	2.53	0.42
1:CA:898:G:N2	1:CA:901:A:C8	2.87	0.42
27:DA:638:G:H2'	27:DA:639:U:O4'	2.20	0.42
5:AE:26:PHE:HD1	5:AE:26:PHE:H	1.67	0.42
7:CG:108:ALA:C	7:CG:110:GLN:H	2.22	0.42
1:CA:1111:A:N1	3:CC:177:THR:HG23	2.35	0.42
25:AY:34:U:O2'	25:AY:35:G:H5'	2.20	0.42
17:CQ:27:PHE:N	17:CQ:27:PHE:HD2	2.17	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1498:U:H5''	1:AA:1499:A:OP1	2.19	0.42
27:BA:866:A:C8	27:BA:866:A:O5'	2.73	0.42
1:AA:158:G:C6	1:AA:159:G:N7	2.88	0.42
1:CA:486:U:H2'	1:CA:487:A:C8	2.54	0.42
27:DA:2463:C:O2	27:DA:2488:A:C2	2.73	0.42
55:D6:22:ALA:O	55:D6:23:THR:CB	2.67	0.42
39:DQ:3:MET:HB2	39:DQ:93:TYR:CE1	2.54	0.42
27:DA:182:A:N3	27:DA:433:C:O2'	2.43	0.42
1:AA:1333:A:C2'	1:AA:1334:G:O5'	2.67	0.42
27:DA:845:G:C8	27:DA:845:G:OP2	2.72	0.42
5:AE:53:LEU:CD1	5:AE:53:LEU:N	2.83	0.42
2:CB:228:GLY:O	2:CB:230:VAL:HG13	2.19	0.42
30:DD:134:ARG:HG3	30:DD:135:PHE:CD2	2.55	0.42
1:AA:690:G:C6	1:AA:691:G:C6	3.07	0.42
27:BA:1421:G:C2	27:BA:1422:G:C8	3.08	0.42
29:DC:128:GLY:C	29:DC:130:ILE:H	2.22	0.42
35:DI:97:ILE:O	35:DI:97:ILE:HG22	2.19	0.42
27:BA:1238:G:H2'	27:BA:1239:G:O4'	2.20	0.42
23:AW:12:C:H6	23:AW:12:C:OP2	2.03	0.42
1:AA:1124:G:H5'	10:AJ:35:SER:HB2	2.01	0.42
1:CA:1218:C:H2'	1:CA:1219:U:C6	2.54	0.42
1:CA:979:C:C2'	1:CA:980:C:H5''	2.49	0.42
54:B5:51:TYR:HB3	54:B5:52:TYR:H	1.44	0.42
28:BB:43:C:H5'	28:BB:44:G:OP2	2.19	0.42
32:BF:124:LEU:O	32:BF:125:LEU:HD12	2.19	0.42
1:AA:913:A:O2'	1:AA:914:A:OP2	2.24	0.42
51:B2:41:ILE:O	51:B2:42:GLY:C	2.58	0.42
27:DA:592:G:H21	57:D8:4:MET:HE1	1.84	0.42
30:DD:254:THR:OG1	30:DD:254:THR:O	2.37	0.42
33:BG:96:ARG:O	33:BG:97:ASP:C	2.57	0.42
44:BV:10:LYS:HD2	44:BV:12:TYR:OH	2.19	0.42
42:BT:29:ARG:HH21	42:BT:88:ILE:HD11	1.85	0.42
1:AA:1401:G:H2'	1:AA:1402:C:O4'	2.20	0.42
27:DA:995:C:H5''	43:DU:54:LYS:HE3	2.02	0.42
43:DU:102:GLU:HA	43:DU:103:PRO:HD2	1.88	0.42
41:BS:67:ARG:HG2	41:BS:67:ARG:NH1	2.35	0.42
27:DA:864:G:O5'	27:DA:864:G:H8	2.03	0.42
27:DA:872:A:C2	27:DA:906:G:C4	3.08	0.42
27:DA:858:U:N3	27:DA:920:G:N2	2.67	0.42
57:D8:33:ASN:HA	57:D8:36:LYS:CD	2.50	0.42
27:DA:2347:C:H6	27:DA:2347:C:H5''	1.85	0.42
27:DA:469:G:O6	56:D7:37:LYS:NZ	2.40	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:AT:57:ARG:HH11	20:AT:57:ARG:HB2	1.84	0.42
45:BW:18:ARG:HG2	45:BW:18:ARG:HH11	1.85	0.42
27:BA:2483:C:C2'	39:BQ:49:ALA:HB1	2.49	0.42
1:AA:1340:A:C2	1:AA:1341:U:O2	2.73	0.42
14:AN:19:ARG:O	14:AN:21:TYR:CD1	2.72	0.42
37:DO:104:ARG:NH1	37:DO:121:VAL:HG12	2.34	0.42
1:CA:189(F):U:H5	17:CQ:3:LYS:NZ	2.17	0.42
27:BA:2436:G:C6	27:BA:2437:U:C4	3.07	0.42
1:AA:108:G:O6	20:AT:15:ARG:HD2	2.20	0.42
27:BA:950:G:C2	27:BA:968:G:N3	2.88	0.42
39:BQ:42:ILE:N	39:BQ:42:ILE:HD12	2.34	0.42
33:DG:5:VAL:C	33:DG:7:LEU:H	2.23	0.42
7:AG:51:GLN:O	7:AG:54:THR:O	2.36	0.42
27:DA:2645:G:H4'	27:DA:2646:C:OP2	2.19	0.42
1:CA:227:G:C4	1:CA:228:A:C8	3.08	0.42
34:BH:150:ALA:C	34:BH:152:ARG:H	2.23	0.42
40:BR:62:ALA:O	40:BR:65:LEU:HB2	2.20	0.42
27:DA:2693:A:H2'	27:DA:2694:G:C8	2.55	0.42
1:CA:1060:C:H4'	10:CJ:52:GLY:N	2.35	0.42
10:AJ:42:THR:HG23	10:AJ:68:HIS:HA	2.00	0.42
27:DA:154:G:C6	27:DA:154(A):C:C4	3.08	0.42
27:DA:171:G:C5	27:DA:172:C:N4	2.88	0.42
1:CA:650:G:O2'	1:CA:651:C:H5'	2.20	0.42
1:CA:652:U:C5	1:CA:752:G:C5	3.08	0.42
1:CA:749:C:O2'	1:CA:750:G:C5'	2.66	0.42
35:BI:79:ILE:HG12	35:BI:140:LEU:HD11	2.01	0.42
27:BA:2424:C:O2'	27:BA:2425:A:OP1	2.37	0.42
33:DG:81:LYS:O	33:DG:82:LEU:C	2.57	0.42
33:DG:42:GLY:O	33:DG:88:ILE:HG13	2.20	0.42
27:DA:660:G:N1	27:DA:661:C:C2	2.87	0.42
51:B2:53:LEU:HA	51:B2:53:LEU:HD23	1.83	0.42
27:BA:94:C:H5'	27:BA:94(A):G:OP2	2.20	0.42
30:DD:33:LEU:CD1	30:DD:33:LEU:H	2.32	0.42
33:DG:128:ARG:HB2	33:DG:130:ASN:O	2.20	0.42
48:BZ:124:LEU:HG	48:BZ:163:ALA:CB	2.50	0.42
35:DI:83:ALA:HA	35:DI:89:TYR:HD1	1.82	0.42
27:DA:1484:G:N1	27:DA:1506:C:C2	2.88	0.42
7:AG:151:TYR:CD1	7:AG:151:TYR:N	2.87	0.42
5:AE:76:ILE:CG1	5:AE:77:PRO:CD	2.95	0.42
1:CA:53:A:C6	1:CA:54:C:C2	3.08	0.42
27:DA:2291:U:O2'	27:DA:2374:C:H1'	2.20	0.42
1:AA:1278:U:H5'	1:AA:1279:A:C4	2.55	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:CE:107:ARG:CG	5:CE:108:ALA:N	2.82	0.42
7:CG:137:LYS:O	7:CG:138:LYS:C	2.58	0.42
3:AC:130:VAL:O	3:AC:134:ILE:HG12	2.20	0.42
3:AC:134:ILE:HD12	3:AC:151:VAL:CG1	2.49	0.42
27:DA:185:U:H4'	27:DA:218:A:H4'	2.01	0.42
1:AA:520:A:OP2	12:AL:48:ALA:HB1	2.19	0.42
27:DA:1649:G:C6	27:DA:2009:G:C6	3.08	0.42
45:DW:100:THR:OG1	45:DW:101:SER:N	2.52	0.42
12:AL:25:LYS:HG3	12:AL:30:ARG:HH12	1.85	0.42
1:AA:1084:G:C5	1:AA:1085:U:C4	3.07	0.42
15:CO:9:GLN:HB3	15:CO:13:GLN:NE2	2.34	0.42
1:CA:119:A:H5''	1:CA:120:A:C5'	2.47	0.42
33:BG:29:TRP:HA	33:BG:33:ARG:NH1	2.34	0.42
1:AA:1123:A:O3'	10:AJ:36:GLY:HA3	2.19	0.42
15:AO:41:GLU:C	15:AO:43:LEU:N	2.72	0.42
3:CC:20:SER:OG	3:CC:57:ILE:HB	2.20	0.42
27:BA:1922:G:H2'	27:BA:1923:U:H6	1.84	0.42
47:DY:2:ARG:O	47:DY:3:VAL:CG2	2.68	0.42
6:AF:17:SER:O	6:AF:21:LEU:HD23	2.19	0.42
27:DA:2520:C:C2	27:DA:2521:C:C6	3.08	0.42
10:AJ:22:LYS:HZ2	10:AJ:23:ILE:HG12	1.85	0.42
1:CA:1427:U:H2'	1:CA:1428:A:H8	1.79	0.42
27:BA:2654:A:OP1	27:BA:2654:A:H8	2.02	0.42
7:AG:95:ARG:HG3	7:AG:95:ARG:HH11	1.85	0.42
27:BA:1303:G:C2	27:BA:1304:C:C5	3.07	0.42
1:AA:687:A:O2'	1:AA:688:G:OP2	2.31	0.42
30:BD:123:ALA:HB3	30:BD:131:LEU:HG	2.02	0.42
31:BE:143:ASN:OD1	31:BE:147:PRO:CD	2.67	0.42
5:AE:149:GLU:C	5:AE:151:LEU:N	2.73	0.42
57:B8:2:PRO:O	57:B8:3:LYS:C	2.58	0.42
56:D7:27:GLY:O	56:D7:28:ARG:C	2.58	0.42
27:BA:959:A:C6	27:BA:960:A:C6	3.08	0.42
27:BA:40:C:H2'	27:BA:41:C:C6	2.43	0.42
45:BW:64:MET:HB3	45:BW:109:GLU:CD	2.39	0.42
8:CH:75:ARG:HA	8:CH:76:PRO:HD2	1.80	0.42
27:DA:2110:G:C6	27:DA:2120:G:N7	2.87	0.42
29:BC:98:GLU:C	29:BC:100:ILE:H	2.21	0.42
27:BA:699:A:C2'	27:BA:700:G:H5'	2.50	0.42
1:CA:768:A:H8	1:CA:768:A:O5'	2.02	0.42
1:AA:113:G:O2'	1:AA:114:U:P	2.78	0.42
4:CD:178:VAL:O	4:CD:179:GLU:C	2.57	0.42
1:AA:859:A:H2'	1:AA:860:A:O4'	2.18	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:CX:34:C:O2	24:CX:34:C:C2'	2.62	0.42
27:BA:2386:C:H2'	27:BA:2387:U:H6	1.82	0.42
11:AK:126:ARG:HB3	11:AK:126:ARG:CZ	2.50	0.42
9:CI:27:THR:CG2	9:CI:31:GLN:N	2.82	0.42
27:DA:2450:A:H2'	27:DA:2451:A:H8	1.84	0.42
27:BA:2080:G:C4	27:BA:2081:C:C5	3.07	0.42
27:BA:2082:A:H2'	27:BA:2083:G:C8	2.54	0.42
27:DA:1831:G:C5	27:DA:1975:G:C2	3.08	0.42
45:DW:90:ARG:NH1	45:DW:90:ARG:HG3	2.35	0.42
27:BA:451:C:C4	27:BA:453:C:C6	3.08	0.42
29:BC:121:GLY:CA	29:BC:145:VAL:HA	2.48	0.42
27:BA:843:G:C2	27:BA:936:C:N3	2.87	0.42
52:D3:39:ASP:OD2	52:D3:44:ARG:NE	2.53	0.42
27:BA:2568:C:H2'	27:BA:2569:G:O4'	2.19	0.42
29:BC:47:LEU:HB3	29:BC:207:THR:HA	2.02	0.42
1:CA:431:A:H2'	1:CA:432:A:C8	2.55	0.42
27:DA:2448:A:O2'	27:DA:2449:U:H5	2.02	0.42
29:BC:155:GLU:O	29:BC:156:ILE:CB	2.67	0.42
20:AT:35:THR:O	20:AT:38:LYS:HB2	2.20	0.42
27:BA:1649:G:O2'	27:BA:1650:G:H5'	2.20	0.42
27:BA:1745(A):C:H5"	27:BA:1746:G:OP2	2.19	0.42
1:AA:684:A:C6	1:AA:685:G:C6	3.07	0.42
1:AA:1504:G:OP1	1:AA:1507:A:H4'	2.20	0.42
1:CA:1045:C:H2'	1:CA:1045:C:O2	2.19	0.42
27:DA:234:C:H6	27:DA:234:C:O5'	2.02	0.42
7:CG:6:ARG:HG2	7:CG:6:ARG:O	2.18	0.42
27:BA:1146:C:C4	27:BA:1147:C:C5	3.08	0.42
27:BA:2518:A:H8	27:BA:2518:A:H5'	1.85	0.42
27:BA:227:A:H5'	27:BA:228:A:C2	2.55	0.42
48:DZ:132:ILE:HA	48:DZ:133:PRO:HD2	1.75	0.42
1:CA:960:U:C2	1:CA:1225:A:N7	2.88	0.42
32:BF:113:ALA:CB	32:BF:186:ILE:HG21	2.48	0.42
27:DA:243:U:C2'	27:DA:244:A:H5'	2.50	0.42
27:DA:1906:G:N2	27:DA:1907:G:C4	2.88	0.42
27:BA:483:A:H2'	27:BA:484:C:C5'	2.50	0.42
27:BA:485:C:O2'	27:BA:486:C:H5'	2.19	0.42
31:BE:63:LEU:C	31:BE:63:LEU:HD23	2.40	0.42
5:AE:136:MET:O	5:AE:140:ARG:HB2	2.19	0.42
1:AA:129(A):G:C2	1:AA:189(H):G:N7	2.88	0.42
1:AA:254:G:H1	1:AA:272:C:N4	2.11	0.42
32:DF:115:ALA:O	32:DF:116:ASP:C	2.58	0.42
19:CS:42:PRO:O	19:CS:44:MET:SD	2.77	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:923:A:C2	1:AA:924:C:C2	3.08	0.42
27:DA:1159:U:H2'	27:DA:1160:G:O4'	2.20	0.42
27:DA:40:C:H42	27:DA:438:G:H1	1.67	0.42
51:D2:8:LYS:O	51:D2:9:GLN:C	2.58	0.42
27:DA:1858:G:H2'	27:DA:1883:G:H22	1.83	0.42
27:DA:2287:A:H62	27:DA:2344:U:H3	1.68	0.42
36:DN:34:LEU:O	36:DN:116:LEU:HD22	2.19	0.42
27:DA:1669:A:H2'	27:DA:1669:A:N3	2.35	0.42
27:DA:2053:G:C2'	27:DA:2054:A:H5'	2.50	0.42
27:DA:2499:C:C4	27:DA:2500:U:C2	3.08	0.42
27:DA:2611:U:HO2'	27:DA:2612:C:P	2.42	0.42
27:DA:2579:C:H4'	31:DE:134:ILE:HD12	2.01	0.42
45:BW:7:ALA:O	45:BW:10:VAL:CG2	2.67	0.42
39:BQ:118:LEU:HD12	39:BQ:131:ILE:CG2	2.50	0.42
27:DA:310:A:C4	27:DA:312:G:N7	2.88	0.42
30:BD:31:LYS:HD2	30:BD:33:LEU:CD1	2.46	0.42
30:BD:32:SER:O	30:BD:34:VAL:N	2.40	0.42
4:CD:70:ILE:HD12	4:CD:100:ARG:NE	2.35	0.42
1:CA:62:U:H2'	1:CA:63:C:H6	1.85	0.42
47:BY:30:VAL:HG13	47:BY:31:LEU:N	2.35	0.42
10:AJ:54:PHE:CE1	10:AJ:55:LYS:HE3	2.55	0.42
2:AB:185:ILE:HG23	2:AB:199:TYR:O	2.20	0.42
30:BD:147:LEU:HD12	30:BD:147:LEU:HA	1.74	0.42
1:AA:530:G:O2'	1:AA:531:U:P	2.76	0.42
22:AV:9:G:N2	23:AW:34:U:C2	2.88	0.42
16:AP:26:ARG:HH11	16:AP:31:LYS:HB3	1.81	0.42
41:DS:31:SER:O	41:DS:34:HIS:N	2.36	0.42
27:BA:1776:G:N3	27:BA:1776:G:H2'	2.35	0.42
27:BA:2438:U:O2	27:BA:2441:C:C4	2.72	0.42
1:CA:243:A:C5	1:CA:281:G:N2	2.87	0.42
16:CP:27:LYS:H	16:CP:27:LYS:HG2	1.42	0.42
27:BA:1662:C:H2'	27:BA:1663:C:C6	2.55	0.42
1:AA:454:C:N4	1:AA:479:C:N3	2.67	0.42
1:CA:128:G:H5'	17:CQ:2:PRO:O	2.20	0.42
34:BH:156:ALA:HB3	34:BH:159:GLU:HB2	2.02	0.42
34:BH:158:HIS:CE1	34:BH:168:PRO:C	2.93	0.42
37:BO:24:VAL:HG22	37:BO:24:VAL:O	2.20	0.42
27:DA:775:G:P	27:DA:777:A:H1'	2.60	0.42
27:BA:1553:A:C8	27:BA:1555:G:C6	3.08	0.42
27:BA:1437:C:H42	27:BA:1555:G:H1	1.68	0.42
27:DA:13:A:C2	27:DA:526:A:C5	3.08	0.42
1:CA:1210:C:H4'	1:CA:1214:C:C5	2.54	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AH:97:VAL:C	8:AH:99:GLU:N	2.72	0.42
1:AA:1152:A:O2'	1:AA:1153:C:OP2	2.36	0.42
10:AJ:38:ILE:HA	10:AJ:39:PRO:HD3	1.67	0.42
42:BT:101:PHE:O	42:BT:102:ILE:C	2.58	0.42
1:CA:1258:G:O2'	1:CA:1259:C:C5'	2.68	0.42
1:CA:1270:C:C2'	1:CA:1271:G:H5'	2.50	0.42
1:CA:1286:A:H2'	1:CA:1287:A:O3'	2.19	0.42
12:AL:39:THR:HA	12:AL:50:ARG:O	2.20	0.42
12:AL:56:ARG:HD3	12:AL:62:GLU:OE1	2.19	0.42
36:DN:128:HIS:HA	36:DN:129:PRO:HD2	1.88	0.42
1:CA:1521:G:H2'	1:CA:1522:U:H6	1.83	0.42
27:DA:1309:G:C5'	56:D7:9:ARG:HG3	2.49	0.42
57:B8:40:GLU:O	57:B8:43:GLN:N	2.47	0.42
27:DA:2048:G:H4'	27:DA:2823:A:C2	2.55	0.42
41:DS:78:LEU:CD1	41:DS:103:GLU:HB3	2.44	0.42
55:B6:11:LEU:CD1	55:B6:12:GLU:H	2.33	0.42
1:AA:546:G:H5'	1:AA:549:C:OP1	2.20	0.42
1:AA:825:G:H2'	1:AA:826:C:H6	1.84	0.42
1:AA:1242:C:O2'	1:AA:1243:C:H5'	2.19	0.42
27:BA:61:G:O2'	27:BA:62:C:O5'	2.36	0.42
36:DN:79:PRO:C	36:DN:81:GLY:N	2.73	0.42
27:DA:1695:G:O2'	27:DA:1696:G:O5'	2.37	0.42
6:CF:87:ARG:HG2	6:CF:87:ARG:HH11	1.85	0.42
7:AG:151:TYR:OH	11:AK:54:ARG:HD3	2.19	0.42
5:CE:31:LEU:HD21	5:CE:43:LEU:HG	2.00	0.42
52:B3:46:ASN:O	52:B3:47:VAL:C	2.58	0.42
1:AA:1138:G:H2'	1:AA:1140:C:C6	2.55	0.42
25:CY:49:G:HO2'	25:CY:50:A:P	2.43	0.42
34:BH:10:PRO:HG3	34:BH:50:VAL:N	2.34	0.42
1:AA:1285:A:O4'	1:AA:1286:A:C8	2.71	0.42
27:DA:1449:A:N3	27:DA:1449:A:H2'	2.35	0.42
27:BA:111:A:C5	27:BA:112:U:C5	3.07	0.42
8:CH:109:ILE:HG13	8:CH:122:ARG:HH12	1.85	0.42
10:AJ:46:ARG:NH1	14:AN:61:TRP:CZ2	2.88	0.42
27:DA:784:A:C6	27:DA:792:G:O4'	2.73	0.42
27:DA:510:C:OP1	27:DA:511:U:OP2	2.38	0.42
6:CF:91:VAL:HG12	6:CF:92:LYS:O	2.19	0.42
33:BG:123:ASN:OD1	33:BG:123:ASN:N	2.53	0.42
11:CK:33:THR:HB	11:CK:37:GLY:C	2.40	0.42
1:AA:988:G:H21	1:AA:1015:A:H2	1.68	0.42
12:AL:27:ALA:HA	12:AL:28:PRO:HD3	1.75	0.42
1:AA:1183:A:H3'	1:AA:1184:G:C5'	2.49	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:818:G:H3'	1:CA:819:A:C5'	2.49	0.42
32:BF:37:VAL:HG13	32:BF:184:TYR:CD1	2.54	0.42
30:DD:111:LEU:C	30:DD:111:LEU:HD13	2.40	0.42
1:CA:147:G:H2'	1:CA:148:G:H8	1.83	0.42
1:CA:282:A:H2'	1:CA:283:C:H6	1.85	0.42
30:BD:21:PHE:CD1	30:BD:21:PHE:N	2.86	0.42
1:CA:914:A:H2'	1:CA:915:A:H8	1.85	0.42
27:DA:2723:C:OP2	31:DE:109:LYS:NZ	2.49	0.42
1:AA:961:U:OP2	1:AA:1223:C:C1'	2.68	0.42
34:DH:102:ALA:CA	34:DH:117:PRO:HD3	2.47	0.42
27:BA:258:G:N3	27:BA:259:G:C8	2.88	0.42
11:CK:52:GLY:O	11:CK:55:LYS:HB2	2.20	0.42
7:CG:50:ILE:O	7:CG:54:THR:HG23	2.20	0.42
27:BA:747:U:OP2	54:B5:3:LYS:HD3	2.19	0.42
1:AA:840:C:H4'	1:AA:841:U:OP1	2.18	0.42
1:CA:10:A:O2'	1:CA:11:G:H5'	2.20	0.42
1:AA:1065:U:C4	1:AA:1190:G:H1'	2.55	0.42
30:BD:136:ILE:O	30:BD:137:PRO:C	2.57	0.42
27:BA:1322:A:C4	27:BA:1323:U:C5	3.08	0.42
17:AQ:29:HIS:ND1	17:AQ:29:HIS:C	2.73	0.42
1:CA:831:U:H2'	1:CA:832:C:C5'	2.48	0.42
7:CG:20:ASP:HB3	7:CG:23:VAL:CG2	2.44	0.42
1:CA:1229:A:C2	1:CA:1230:C:C2	3.08	0.42
1:CA:435:C:C2	1:CA:436:C:C5	3.08	0.42
7:CG:73:MET:HA	7:CG:91:VAL:HG23	2.02	0.42
47:DY:87:LYS:NZ	47:DY:89:PHE:CE1	2.88	0.42
1:CA:422:C:C4'	1:CA:423:G:OP1	2.68	0.42
27:BA:1668:A:C8	27:BA:1674:G:C6	3.07	0.42
15:AO:14:GLU:HA	15:AO:14:GLU:OE1	2.19	0.42
27:BA:782:A:OP1	27:BA:783:A:N1	2.53	0.42
15:CO:2:PRO:HG2	15:CO:3:ILE:HD13	2.00	0.42
24:CX:72:A:H5'	24:CX:73:A:OP2	2.19	0.42
1:AA:253:U:H5'	1:AA:253:U:C6	2.50	0.42
28:BB:24:G:H1'	28:BB:27:C:N4	2.35	0.42
47:BY:18:GLY:O	47:BY:20:TYR:N	2.52	0.42
31:DE:167:VAL:HG21	31:DE:170:LEU:HD11	2.02	0.42
27:DA:817:C:O2'	27:DA:818:G:H5'	2.20	0.42
50:B1:13:ILE:CG1	50:B1:42:GLN:HB2	2.50	0.42
24:AX:16:C:O2'	24:AX:60:U:H4'	2.20	0.42
24:AX:11:A:C6	24:AX:12:G:C6	3.07	0.42
45:DW:90:ARG:HH11	45:DW:90:ARG:HG3	1.85	0.42
27:DA:214:G:H21	27:DA:216:A:H1'	1.85	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:701:C:O2'	1:AA:703:G:C5	2.64	0.42
36:BN:18:ALA:HB3	36:BN:26:LEU:HD22	2.00	0.42
27:BA:761:A:H8	27:BA:761:A:O5'	2.03	0.42
11:AK:65:ALA:O	11:AK:68:ALA:HB3	2.20	0.42
4:AD:20:TYR:CE2	4:AD:27:TYR:HE2	2.37	0.42
39:BQ:97:VAL:HG11	39:BQ:103:MET:HE3	2.02	0.42
27:BA:769:G:H2'	27:BA:770:G:O5'	2.20	0.42
27:BA:770:G:H8	27:BA:770:G:O5'	2.03	0.42
28:DB:85:G:H2'	28:DB:86:G:H8	1.85	0.42
3:CC:138:VAL:CG2	3:CC:151:VAL:HG23	2.49	0.42
35:DI:116:LEU:O	35:DI:117:GLU:O	2.36	0.42
45:BW:36:LEU:HD11	45:BW:47:VAL:HG12	2.02	0.42
32:BF:139:PHE:O	32:BF:142:TRP:HB3	2.18	0.42
32:DF:70:THR:OG1	32:DF:71:GLY:N	2.52	0.42
43:DU:109:LEU:HA	43:DU:109:LEU:HD23	1.84	0.42
9:AI:56:LEU:HD23	9:AI:56:LEU:O	2.19	0.42
27:BA:1664:A:H2'	27:BA:1664:A:N3	2.34	0.42
1:CA:1421:G:C6	1:CA:1422:G:C5	3.08	0.42
19:CS:52:TYR:HE1	19:CS:56:GLN:HA	1.83	0.42
28:BB:47:C:O2'	28:BB:48:A:H5'	2.20	0.42
41:BS:90:GLY:O	41:BS:92:TYR:HD1	2.03	0.42
32:BF:157:VAL:HB	32:BF:194:MET:HB3	2.01	0.42
32:BF:116:ASP:OD2	38:BP:5:ASP:HB2	2.20	0.42
27:BA:2725:A:O2'	27:BA:2726:U:O5'	2.36	0.42
36:DN:87:LEU:HD23	36:DN:87:LEU:C	2.40	0.42
57:D8:63:PRO:O	57:D8:64:TYR:C	2.58	0.42
53:B4:40:ILE:HA	53:B4:57:ILE:CG2	2.49	0.42
13:CM:70:LEU:HD23	13:CM:71:ARG:H	1.80	0.42
5:AE:33:VAL:HG21	5:AE:109:ILE:HD11	2.01	0.42
44:BV:91:TYR:O	44:BV:92:THR:CG2	2.66	0.42
32:DF:22:ALA:O	32:DF:24:LEU:O	2.37	0.42
1:AA:14:U:O2	1:AA:16:A:H3'	2.20	0.42
27:DA:534:U:O2'	43:DU:49:HIS:CD2	2.71	0.42
44:DV:12:TYR:CE2	44:DV:22:VAL:CG1	3.03	0.42
52:B3:23:LEU:O	52:B3:27:GLY:N	2.52	0.42
47:DY:27:VAL:C	47:DY:28:LYS:HD3	2.40	0.42
47:DY:28:LYS:HA	47:DY:38:ILE:HB	2.02	0.42
27:BA:1899:G:N2	27:BA:1903:G:C5	2.87	0.42
27:BA:1884:A:C3'	27:BA:1885:A:H5''	2.48	0.42
27:DA:2399:G:C6	27:DA:2418:A:C6	3.08	0.42
27:DA:636:G:OP2	38:DP:113:LYS:NZ	2.34	0.42
4:AD:195:ALA:O	4:AD:196:LEU:C	2.58	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1261:C:C2'	27:DA:1262:A:O5'	2.68	0.42
27:DA:574:C:O3'	27:DA:2055:C:C5	2.73	0.42
20:AT:61:SER:O	20:AT:65:LYS:HB2	2.20	0.42
13:CM:14:ARG:NH2	13:CM:42:ALA:HA	2.35	0.42
1:AA:673:G:N2	1:AA:674:G:C2	2.88	0.42
30:DD:173:VAL:HG23	30:DD:174:ILE:N	2.35	0.42
27:BA:1783:A:C2	27:BA:2587:A:C5	3.08	0.42
31:BE:3:GLY:O	31:BE:4:ILE:CB	2.64	0.42
1:AA:1081:G:C2	1:AA:1082:G:C8	3.08	0.42
2:AB:188:ALA:O	2:AB:203:GLY:N	2.44	0.42
1:CA:309:G:O2'	1:CA:310:G:H5'	2.20	0.42
1:CA:891:U:H2'	1:CA:892:A:H8	1.85	0.42
41:BS:106:ARG:NE	41:BS:107:GLU:O	2.53	0.42
27:BA:1296:G:N2	27:BA:1645:G:C4	2.88	0.42
7:AG:49:ILE:HG22	7:AG:49:ILE:O	2.19	0.42
1:AA:389:A:H2'	1:AA:390:C:O4'	2.20	0.42
1:AA:456:C:H2'	1:AA:457:C:C6	2.55	0.42
42:DT:11:GLU:C	42:DT:13:ARG:N	2.73	0.42
41:BS:46:VAL:HG12	41:BS:47:THR:O	2.19	0.42
27:DA:2711:A:N6	27:DA:2714:G:C5	2.88	0.42
27:DA:175:G:C5	27:DA:176:G:N7	2.88	0.42
1:CA:679:C:O2'	1:CA:680:C:H5'	2.20	0.42
14:CN:26:ARG:HD2	14:CN:43:CYS:CB	2.49	0.42
1:CA:1260:C:OP1	1:CA:1284:C:H4'	2.19	0.42
1:CA:1283:G:H2'	1:CA:1284:C:H6	1.85	0.42
1:CA:1308:U:O3'	13:CM:92:HIS:HE1	2.03	0.42
2:CB:59:GLU:O	2:CB:62:ALA:HB3	2.19	0.42
40:DR:38:VAL:HG12	40:DR:39:PRO:N	2.34	0.42
1:CA:750:G:H21	15:CO:23:GLY:CA	2.33	0.42
29:BC:214:VAL:O	29:BC:216:THR:N	2.53	0.42
27:DA:1200:C:H2'	27:DA:1201:C:C6	2.55	0.42
27:BA:644:A:H4'	27:BA:645:C:H5	1.81	0.42
27:DA:1652:A:C2	27:DA:2006:C:N3	2.88	0.42
27:DA:857:C:C5'	49:D0:77:ARG:HH22	2.32	0.42
27:DA:300:A:N6	27:DA:334:C:H5'	2.35	0.42
33:DG:45:GLU:C	33:DG:47:LYS:H	2.22	0.42
1:AA:825:G:N1	1:AA:876:G:C6	2.88	0.42
51:B2:50:ILE:C	51:B2:52:ASP:N	2.73	0.42
29:DC:99:ILE:HG23	29:DC:110:PHE:CB	2.50	0.42
27:DA:847:U:N3	27:DA:934:G:N2	2.68	0.42
35:DI:138:ILE:HG13	35:DI:139:GLN:N	2.24	0.42
6:CF:12:PRO:HB3	6:CF:58:GLY:CA	2.50	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AM:15:VAL:CG2	13:AM:16:ASP:N	2.83	0.42
8:AH:14:ARG:C	8:AH:16:ALA:N	2.73	0.42
27:DA:2850:A:H2'	27:DA:2851:A:H8	1.84	0.42
27:DA:2850:A:H2'	27:DA:2851:A:C8	2.55	0.42
37:DO:78:ARG:NE	42:DT:73:GLU:OE2	2.53	0.42
1:AA:1268:A:H4'	21:AU:20:LYS:N	2.35	0.42
27:BA:2406:U:H4'	27:BA:2407:G:O5'	2.20	0.42
11:CK:20:TYR:C	11:CK:21:ILE:HD12	2.40	0.42
8:CH:111:ILE:CG2	8:CH:112:LEU:H	2.24	0.42
27:DA:2189:U:H3'	27:DA:2190:G:H5''	2.02	0.42
10:AJ:63:PHE:HB3	14:AN:59:ALA:H	1.85	0.42
27:DA:1210:A:H1'	27:DA:1212:G:C4	2.54	0.42
27:BA:1175:U:P	27:BA:1176:G:H5'	2.59	0.42
1:CA:1508:G:H2'	1:CA:1509:C:C6	2.55	0.42
15:CO:8:LYS:O	15:CO:12:ILE:HG13	2.20	0.42
18:CR:76:LEU:N	18:CR:76:LEU:HD22	2.35	0.42
52:D3:33:GLN:C	52:D3:34:GLU:HG3	2.40	0.42
5:AE:102:ALA:O	5:AE:107:ARG:NH1	2.53	0.42
8:CH:9:MET:O	8:CH:12:ARG:HB3	2.20	0.42
1:CA:884:U:H4'	1:CA:885:G:H5''	2.01	0.42
1:CA:1152:A:H5'	10:CJ:70:ARG:HH22	1.84	0.42
1:CA:705:U:C5	1:CA:706:A:C5	3.08	0.42
11:CK:52:GLY:N	11:CK:55:LYS:HG3	2.35	0.42
23:CW:2:G:C2	23:CW:71:A:C2	3.08	0.42
27:DA:2709:G:H2'	27:DA:2710:C:O4'	2.20	0.42
27:BA:706:A:C5	27:BA:707:G:C8	3.08	0.42
1:CA:1478:C:H2'	1:CA:1479:C:C6	2.50	0.42
30:DD:147:LEU:CD2	30:DD:155:LEU:HD11	2.50	0.42
27:BA:1750:G:C2	27:BA:1751:C:C2	3.08	0.42
27:BA:193:U:O2'	27:BA:194:G:H5'	2.20	0.42
23:AW:60:C:H2'	23:AW:61:C:C6	2.55	0.42
9:AI:14:VAL:HG12	9:AI:15:ALA:N	2.35	0.42
1:CA:860:A:C8	1:CA:861:G:C8	3.07	0.42
27:DA:1847:A:P	27:DA:1847:A:O4'	2.78	0.42
27:DA:811:U:OP2	38:DP:24:GLY:CA	2.67	0.42
39:DQ:51:ARG:CG	39:DQ:51:ARG:HH11	2.33	0.42
27:DA:1815:A:O2'	27:DA:1816:G:O5'	2.35	0.42
10:AJ:79:ARG:O	10:AJ:80:LYS:C	2.57	0.42
27:BA:1451:C:H2'	27:BA:1451:C:O2	2.19	0.42
1:AA:321:A:H4'	1:AA:1435:G:O2'	2.20	0.42
47:DY:54:LYS:HZ3	47:DY:55:TYR:HE2	1.65	0.42
27:BA:1505:C:HO2'	27:BA:1506:C:P	2.43	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:131:PRO:O	2:CB:135:GLN:HG3	2.20	0.42
27:BA:2447:G:O2'	27:BA:2500:U:OP2	2.24	0.42
15:CO:65:ARG:HH11	15:CO:65:ARG:HG2	1.85	0.42
27:BA:2337:G:C2	27:BA:2338:G:C5	3.08	0.42
50:B1:13:ILE:HD11	50:B1:42:GLN:OE1	2.20	0.42
37:BO:59:LYS:HZ3	37:BO:89:ASN:HD21	1.68	0.42
17:CQ:64:PRO:HG3	17:CQ:70:ARG:HG2	2.02	0.42
1:AA:730:G:C6	1:AA:731:G:H1'	2.55	0.42
35:BI:25:TYR:CD1	35:BI:30:LEU:HD11	2.55	0.42
27:BA:2371:G:H4'	55:B6:45:LYS:HB3	2.02	0.42
42:BT:9:LEU:C	42:BT:11:GLU:N	2.74	0.42
1:CA:151:A:H2'	1:CA:152:A:O4'	2.20	0.42
50:D1:23:LYS:HE2	50:D1:28:GLY:N	2.35	0.42
45:BW:97:LYS:HE3	45:BW:99:ARG:NH1	2.34	0.42
1:CA:1098:C:C4	1:CA:1099:G:C8	3.08	0.42
34:DH:166:GLY:C	34:DH:167:GLU:OE1	2.58	0.42
27:BA:1524:G:N2	27:BA:1525:G:H1'	2.35	0.42
33:BG:84:LYS:HB3	33:BG:85:GLY:H	1.62	0.42
27:DA:1109:C:H5''	27:DA:1110:G:OP2	2.20	0.42
1:CA:1273:G:C5	1:CA:1274:G:C5	3.08	0.42
50:D1:56:GLN:NE2	50:D1:56:GLN:HA	2.34	0.42
27:BA:321:G:O3'	27:BA:322:A:H8	2.03	0.42
1:CA:126:G:H5'	1:CA:633:G:N2	2.35	0.42
27:BA:2246:G:H1'	27:BA:2426:A:C2	2.55	0.42
45:BW:41:LYS:C	45:BW:43:GLY:N	2.72	0.42
27:BA:1900:A:H1'	27:BA:1970:A:H2'	2.01	0.42
1:AA:995:C:H6	1:AA:995:C:O5'	2.03	0.42
27:BA:2471:C:H2'	27:BA:2471:C:O2	2.19	0.42
27:BA:13:A:C2	27:BA:526:A:N7	2.88	0.42
19:AS:33:THR:OG1	19:AS:34:TRP:N	2.53	0.42
1:CA:974:A:C8	1:CA:974:A:OP1	2.73	0.42
1:CA:961:U:C4	1:CA:983:A:N6	2.87	0.42
19:CS:33:THR:HG23	19:CS:51:VAL:HA	2.02	0.42
40:BR:44:LEU:HD13	40:BR:48:VAL:CG2	2.50	0.42
27:BA:2807:G:H1	27:BA:2892:A:H62	1.68	0.42
32:BF:183:VAL:HA	32:BF:186:ILE:HB	2.02	0.42
1:AA:911:U:C2	1:AA:912:C:C5	3.08	0.42
27:DA:1140:C:H1'	27:DA:1143:A:C2	2.55	0.42
27:DA:254:G:H22	57:D8:8:LYS:HZ1	1.67	0.42
27:DA:271(D):G:C6	27:DA:271(E):U:C4	3.08	0.42
27:DA:1793:C:C2	27:DA:1794:U:C5	3.08	0.42
30:DD:247:ALA:HA	30:DD:254:THR:HG22	2.01	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:31:C:O2'	27:BA:32:C:H5'	2.19	0.42
48:DZ:119:ILE:O	48:DZ:170:ILE:CA	2.65	0.42
4:CD:14:ARG:C	4:CD:16:GLY:H	2.23	0.42
32:BF:64:ILE:HG23	32:BF:65:TRP:CG	2.54	0.42
1:CA:472:A:H1'	16:CP:82:GLN:OE1	2.20	0.42
44:BV:92:THR:OG1	44:BV:92:THR:O	2.38	0.42
27:DA:412:A:N6	27:DA:2412:A:O4'	2.53	0.42
32:DF:203:GLN:O	32:DF:206:ILE:HG13	2.20	0.42
1:AA:1401:G:C2	1:AA:1402:C:H1'	2.55	0.42
27:DA:999:U:O2	27:DA:999:U:C2'	2.67	0.42
43:DU:80:ILE:HG22	43:DU:81:HIS:N	2.34	0.42
41:BS:53:SER:O	41:BS:55:ALA:N	2.53	0.42
41:BS:65:VAL:HG12	41:BS:66:ALA:N	2.34	0.42
27:DA:1495:A:C8	27:DA:1495:A:OP1	2.73	0.42
30:DD:72:LYS:HE2	30:DD:101:GLU:CD	2.40	0.42
27:DA:1568:G:C5'	30:DD:61:LEU:HB2	2.50	0.42
47:DY:11:ASP:HB2	47:DY:12:THR:H	1.64	0.42
27:DA:2349:G:OP2	57:D8:42:ARG:NH2	2.49	0.42
27:DA:2413:G:H2'	27:DA:2414:G:H8	1.85	0.42
38:DP:99:LEU:HG	38:DP:102:ARG:HH11	1.84	0.42
27:DA:2554:U:C6	27:DA:2555:U:C5	2.94	0.42
27:DA:2615:U:H6	27:DA:2615:U:O5'	2.03	0.42
27:DA:590:A:H2'	27:DA:591:C:C6	2.54	0.42
31:DE:151:TYR:O	31:DE:152:LYS:C	2.58	0.42
20:AT:54:LYS:HA	20:AT:57:ARG:CZ	2.50	0.42
30:BD:126:GLN:HG2	30:BD:129:ASN:ND2	2.34	0.42
1:AA:1360:A:H2'	1:AA:1361:G:O4'	2.20	0.42
1:CA:548:G:O2'	1:CA:549:C:H5'	2.20	0.42
42:DT:27:THR:C	42:DT:28:VAL:HG23	2.40	0.42
58:D9:24:TYR:HB3	58:D9:25:VAL:H	1.66	0.42
1:AA:451:A:O4'	1:AA:452:A:N7	2.52	0.42
46:BX:12:VAL:HG12	46:BX:27:THR:CG2	2.50	0.42
20:CT:25:ARG:HG2	20:CT:29:LYS:HE3	2.01	0.42
48:DZ:150:HIS:HB3	48:DZ:169:THR:CB	2.50	0.42
1:CA:1066:C:H2'	1:CA:1067:A:H8	1.83	0.42
42:BT:53:ARG:HG2	42:BT:53:ARG:HH11	1.85	0.42
40:BR:83:ILE:O	40:BR:86:ARG:HG3	2.19	0.42
1:CA:1159:U:C4	1:CA:1182:G:C5	3.08	0.42
27:BA:2206:G:N3	27:BA:2206:G:H3'	2.35	0.42
1:CA:1072:G:C5	1:CA:1073:U:C4	3.08	0.42
5:CE:50:GLU:O	5:CE:54:ALA:HB2	2.20	0.42
31:BE:116:VAL:O	31:BE:117:MET:CB	2.56	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:DZ:96:GLU:O	48:DZ:97:MET:HB3	2.20	0.42
27:DA:1338:G:C6	27:DA:1339:G:N7	2.88	0.42
27:DA:695:G:C4	27:DA:768:G:C6	3.08	0.42
27:DA:1268:A:C2'	27:DA:1269:A:H5'	2.50	0.42
27:BA:1212:G:C2	27:BA:1236:G:C5	3.08	0.42
1:AA:1240:U:H3'	1:AA:1241:G:H5'	2.01	0.42
27:BA:92:A:O2'	27:BA:93:G:C8	2.73	0.42
36:DN:75:TYR:CD1	36:DN:81:GLY:O	2.73	0.42
1:AA:261:U:H2'	1:AA:263:A:C8	2.55	0.42
30:DD:35:LYS:HA	30:DD:35:LYS:HD3	1.75	0.42
27:DA:2652:C:H42	27:DA:2668:G:H1	1.67	0.42
34:DH:127:GLU:C	34:DH:129:THR:N	2.72	0.42
6:AF:2:ARG:HD3	6:AF:4:TYR:OH	2.20	0.42
6:CF:8:ILE:CG2	6:CF:10:LEU:HD11	2.39	0.42
10:CJ:8:LEU:HD23	10:CJ:8:LEU:HA	1.74	0.42
37:DO:20:MET:O	37:DO:41:ALA:HA	2.20	0.42
42:DT:23:ARG:HB2	42:DT:120:ARG:NH1	2.35	0.42
34:BH:12:PRO:HD2	34:BH:49:VAL:HG12	2.02	0.42
27:DA:2297:C:H2'	27:DA:2298:A:H8	1.83	0.42
1:AA:1284:C:H3'	1:AA:1285:A:H8	1.83	0.42
33:DG:178:PHE:HA	33:DG:179:PRO:HD3	1.68	0.42
1:AA:578:C:O2'	1:AA:579:G:O5'	2.37	0.42
1:AA:728:A:C8	15:AO:54:ARG:NE	2.87	0.42
31:DE:14:ILE:HD11	31:DE:173:VAL:HG11	2.00	0.42
31:DE:16:ARG:C	31:DE:18:ASP:N	2.72	0.42
25:CY:24:C:H2'	25:CY:25:A:C8	2.53	0.42
34:DH:43:VAL:HG23	34:DH:43:VAL:O	2.20	0.42
27:BA:1042:G:H3'	27:BA:1043:C:O4'	2.20	0.42
45:DW:1:MET:HB3	45:DW:64:MET:HE3	2.01	0.42
45:DW:50:VAL:HG22	45:DW:51:LEU:N	2.35	0.42
7:AG:27:ILE:HG22	7:AG:39:ALA:CB	2.49	0.42
27:BA:675:A:C5	27:BA:676:A:C6	3.08	0.42
15:AO:4:THR:O	15:AO:7:GLU:HB2	2.20	0.42
15:AO:38:ARG:NH1	15:AO:38:ARG:CG	2.81	0.42
27:DA:17:G:H1	27:DA:523:C:N4	2.15	0.42
27:DA:522:G:C4	27:DA:523:C:C6	3.08	0.42
37:BO:97:ARG:HA	37:BO:117:LEU:HD21	2.01	0.42
3:AC:51:GLY:C	3:AC:52:LEU:HD23	2.40	0.42
1:CA:862:C:C2	1:CA:863:U:C5	3.07	0.42
30:BD:4:LYS:HD2	30:BD:18:VAL:HG23	2.02	0.42
1:CA:913:A:H1'	1:CA:914:A:C1'	2.50	0.42
27:BA:1398:C:C2'	27:BA:1399:C:H5'	2.50	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DH:97:ARG:O	34:DH:125:VAL:HG21	2.20	0.42
50:B1:51:VAL:O	50:B1:51:VAL:CG1	2.68	0.42
1:AA:643:C:C2	1:AA:644:G:C8	3.08	0.42
32:BF:161:GLU:O	32:BF:165:ARG:HG3	2.20	0.42
9:CI:40:LEU:C	9:CI:42:ARG:N	2.71	0.42
1:AA:137:C:C2'	1:AA:138:G:H5'	2.50	0.42
40:BR:4:LEU:C	40:BR:6:SER:N	2.71	0.42
17:CQ:5:VAL:HG12	17:CQ:5:VAL:O	2.19	0.42
27:DA:1334:G:C6	27:DA:1335:U:C4	3.08	0.42
5:AE:148:VAL:HG12	5:AE:149:GLU:N	2.34	0.42
13:CM:37:THR:O	13:CM:55:ARG:NH2	2.52	0.42
1:AA:1147:C:O2'	1:AA:1148:U:H5'	2.19	0.42
24:CX:30:G:C6	24:CX:31:G:N7	2.88	0.42
27:DA:1042:G:H5''	27:DA:1043:C:H6	1.81	0.42
27:BA:2320:A:C2'	27:BA:2320:A:N3	2.81	0.42
1:CA:1009:G:H22	1:CA:1021:G:H1'	1.85	0.42
40:BR:39:PRO:O	40:BR:40:LYS:C	2.58	0.42
1:CA:1118:C:H1'	1:CA:1179:A:C5	2.54	0.42
13:AM:49:THR:HG1	13:AM:52:GLU:HG3	1.84	0.42
13:AM:52:GLU:HA	13:AM:55:ARG:HH21	1.83	0.42
33:DG:73:ALA:HB3	33:DG:85:GLY:O	2.20	0.42
1:AA:113:G:C1'	1:AA:354:G:H5'	2.49	0.42
27:DA:552:G:C2'	27:DA:553:G:H5'	2.50	0.42
1:AA:92:C:H2'	1:AA:93:G:H8	1.84	0.42
33:DG:180:PHE:C	33:DG:182:LYS:N	2.72	0.42
4:CD:105:VAL:HG21	4:CD:126:ILE:HG13	2.01	0.42
3:AC:142:MET:HG3	3:AC:170:GLN:NE2	2.34	0.42
21:CU:9:ARG:O	21:CU:13:ILE:HG13	2.20	0.42
27:DA:2741:A:N6	27:DA:2763:G:O2'	2.47	0.42
27:BA:1761:C:H3'	27:BA:1762:A:H8	1.83	0.42
48:DZ:120:HIS:O	48:DZ:122:ASP:N	2.53	0.42
18:AR:87:ARG:O	18:AR:87:ARG:HG2	2.20	0.42
1:AA:383:A:H2'	1:AA:384:G:C5'	2.50	0.42
27:DA:1180:C:H2'	27:DA:1181:C:H5'	2.02	0.42
44:DV:21:ARG:H	44:DV:21:ARG:HD3	1.83	0.42
52:D3:39:ASP:CG	52:D3:44:ARG:NE	2.73	0.42
27:BA:431:U:O5'	27:BA:431:U:C6	2.72	0.42
30:DD:183:ARG:HG2	30:DD:184:LYS:O	2.20	0.42
28:BB:13:A:N1	28:BB:69:G:O2'	2.44	0.42
27:BA:2453:A:H2'	27:BA:2454:G:H8	1.85	0.42
27:BA:2245:U:C5'	27:BA:2246:G:H5'	2.50	0.42
35:DI:117:GLU:O	35:DI:118:LYS:C	2.59	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2662:A:H2'	27:BA:2663:G:O4'	2.20	0.42
27:BA:2676:C:H2'	27:BA:2677:G:H8	1.85	0.42
27:DA:1750:G:O2'	27:DA:1751:C:H5'	2.20	0.42
29:DC:38:ASP:HB2	29:DC:181:PRO:CB	2.50	0.42
34:BH:111:HIS:HA	34:BH:112:PRO:HD2	1.68	0.42
27:DA:1709:U:H2'	27:DA:1710:C:C6	2.55	0.42
41:BS:37:ALA:O	41:BS:73:LEU:HD11	2.20	0.42
1:CA:323:U:C6	1:CA:323:U:H3'	2.55	0.42
14:AN:17:LYS:HG3	14:AN:17:LYS:O	2.20	0.42
24:CX:44:A:O2'	24:CX:45:G:H5'	2.19	0.42
38:BP:35:HIS:O	38:BP:36:LYS:HB2	2.20	0.41
27:BA:2404:C:O2	38:BP:67:MET:HE1	2.19	0.41
1:CA:1219:U:H2'	1:CA:1220:G:C8	2.55	0.41
27:BA:1278:A:C2	27:BA:1279:G:C4	3.08	0.41
41:BS:89:ARG:O	41:BS:90:GLY:O	2.38	0.41
32:BF:158:THR:C	32:BF:178:PRO:HD3	2.40	0.41
27:DA:241:A:O4'	27:DA:243:U:C6	2.73	0.41
12:CL:45:PRO:HB3	22:CV:9:G:H4'	2.00	0.41
27:DA:2591:C:P	30:DD:239:ARG:HB3	2.60	0.41
30:DD:8:PRO:O	30:DD:10:THR:N	2.53	0.41
4:CD:14:ARG:C	4:CD:16:GLY:N	2.73	0.41
13:CM:69:GLU:OE1	13:CM:72:ALA:N	2.53	0.41
27:BA:497:A:N6	27:BA:498:G:C6	2.88	0.41
31:BE:59:VAL:HG21	31:BE:63:LEU:CG	2.44	0.41
31:BE:52:LEU:CG	42:BT:1:MET:HE1	2.49	0.41
1:CA:1349:A:OP1	9:CI:118:LYS:O	2.38	0.41
36:BN:3:THR:HA	36:BN:4:TYR:CE1	2.54	0.41
43:BU:95:LEU:HD13	44:BV:4:ILE:HG23	2.01	0.41
32:DF:114:VAL:HG21	32:DF:202:PHE:CZ	2.55	0.41
43:DU:74:LEU:HD21	43:DU:110:VAL:HG13	2.02	0.41
47:DY:95:LYS:HD3	47:DY:100:ALA:HA	2.02	0.41
47:DY:96:ILE:CG2	47:DY:97:ARG:H	2.30	0.41
41:BS:75:GLU:C	41:BS:77:ALA:N	2.73	0.41
42:BT:38:ASN:O	42:BT:39:ARG:C	2.59	0.41
27:DA:2428:G:H4'	27:DA:2429:G:N7	2.35	0.41
33:DG:14:GLU:O	33:DG:17:PRO:HG2	2.20	0.41
47:BY:14:LEU:N	47:BY:73:ARG:O	2.53	0.41
27:BA:2299:G:C6	27:BA:2318:G:C8	3.07	0.41
27:DA:974:G:OP1	44:DV:76:LYS:HE3	2.19	0.41
27:DA:141:A:H8	27:DA:1408:C:HO2'	1.51	0.41
27:DA:2784:C:O2	31:DE:37:ARG:NH2	2.52	0.41
4:CD:106:TYR:CG	4:CD:114:ARG:HG2	2.54	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AI:91:ASP:C	9:AI:93:ARG:N	2.69	0.41
1:AA:1221:G:H2'	1:AA:1222:G:H8	1.85	0.41
12:CL:61:TYR:HB3	12:CL:62:GLU:H	1.50	0.41
30:BD:186:HIS:CD2	30:BD:188:GLU:N	2.59	0.41
12:CL:14:LYS:O	12:CL:15:VAL:C	2.58	0.41
27:BA:794:G:C5	27:BA:795:C:C4	3.07	0.41
1:AA:62:U:H2'	1:AA:63:C:C6	2.54	0.41
1:AA:67:C:H2'	1:AA:68:G:C8	2.54	0.41
31:BE:46:ALA:HB1	31:BE:82:ARG:N	2.34	0.41
27:BA:1655:A:H3'	27:BA:1656:C:H6	1.85	0.41
16:CP:48:TRP:N	16:CP:48:TRP:CD1	2.85	0.41
46:DX:13:LEU:HA	46:DX:13:LEU:HD23	1.88	0.41
27:DA:2648:C:H2'	27:DA:2649:U:H6	1.81	0.41
27:DA:2171:A:C4'	27:DA:2172:U:OP1	2.68	0.41
30:BD:176:ARG:HA	30:BD:182:LEU:HD23	2.02	0.41
1:CA:512:U:H2'	1:CA:513:C:C6	2.55	0.41
1:CA:515:G:H2'	1:CA:516:U:O4'	2.19	0.41
42:BT:111:ARG:HE	42:BT:111:ARG:HB3	1.69	0.41
1:CA:1286:A:C2	21:CU:18:TYR:OH	2.71	0.41
2:CB:55:PHE:O	2:CB:59:GLU:HB3	2.20	0.41
1:AA:155:C:O2	1:AA:167:G:N2	2.53	0.41
27:BA:2848:G:H3'	42:BT:95:ARG:O	2.20	0.41
48:DZ:18:ARG:HA	48:DZ:22:LYS:O	2.20	0.41
1:CA:645:C:H2'	1:CA:646:U:C6	2.53	0.41
27:BA:2126:A:OP2	27:BA:2126:A:H8	2.03	0.41
36:DN:136:GLU:OE1	36:DN:137:LYS:N	2.50	0.41
36:DN:54:VAL:O	36:DN:54:VAL:HG12	2.19	0.41
58:B9:28:GLU:HB3	58:B9:29:ASN:H	1.70	0.41
1:CA:925:G:H1'	1:CA:1502:A:N9	2.35	0.41
35:BI:77:LEU:HD22	35:BI:78:THR:H	1.81	0.41
35:BI:9:LEU:HB2	35:BI:12:LEU:O	2.20	0.41
27:DA:957:A:N1	27:DA:2459:A:H8	2.18	0.41
27:BA:2864:G:H5'	27:BA:2864:G:H8	1.84	0.41
33:DG:77:ILE:HG22	33:DG:80:PHE:H	1.85	0.41
12:AL:114:ARG:NH2	12:AL:121:LYS:HD3	2.32	0.41
27:DA:1677:A:H2'	27:DA:1678:G:C8	2.54	0.41
27:DA:1131:G:O2'	27:DA:1132:A:H8	2.00	0.41
33:DG:131:TYR:O	33:DG:159:VAL:HG13	2.20	0.41
33:DG:170:ARG:HD2	33:DG:170:ARG:O	2.19	0.41
33:DG:64:THR:HG23	33:DG:66:GLN:N	2.34	0.41
27:DA:143(A):C:O2'	27:DA:144:C:H5'	2.20	0.41
35:DI:68:LEU:HA	35:DI:71:ILE:HG12	2.02	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:CE:11:ILE:HD11	5:CE:33:VAL:CG2	2.50	0.41
27:BA:932:G:H4'	27:BA:933:A:O5'	2.20	0.41
27:BA:2524:G:C5'	27:BA:2525:G:OP2	2.57	0.41
3:AC:134:ILE:C	3:AC:136:GLN:N	2.72	0.41
27:DA:2465:C:O2'	27:DA:2466:C:H5'	2.20	0.41
8:CH:38:ILE:HD12	8:CH:111:ILE:HG23	2.02	0.41
27:DA:221:A:N7	27:DA:266:G:O6	2.53	0.41
27:DA:2790:A:O2'	27:DA:2893:G:N3	2.46	0.41
27:BA:1222:C:H2'	27:BA:1223:G:H8	1.84	0.41
27:DA:782:A:H5'	27:DA:783:A:C2	2.55	0.41
27:DA:1278:A:C5'	40:DR:36:THR:HG22	2.44	0.41
45:DW:12:ILE:HG13	45:DW:42:ARG:HH12	1.84	0.41
24:AX:72:A:C6	24:AX:73:A:C6	3.08	0.41
27:DA:321:G:C2	27:DA:341:G:H4'	2.55	0.41
1:CA:818:G:C3'	1:CA:819:A:C5'	2.98	0.41
1:CA:864:A:H2'	1:CA:865:A:O4'	2.20	0.41
38:BP:7:ARG:O	38:BP:7:ARG:HD3	2.20	0.41
38:BP:9:ASN:H	38:BP:10:PRO:HD2	1.85	0.41
1:CA:284:G:C4	1:CA:285:G:C8	3.07	0.41
2:AB:80:ILE:O	2:AB:81:VAL:C	2.58	0.41
8:CH:13:ILE:HD12	8:CH:13:ILE:N	2.35	0.41
7:AG:59:LEU:HD23	7:AG:60:LYS:N	2.35	0.41
24:CX:10:G:C2	24:CX:26:G:H1'	2.54	0.41
9:CI:40:LEU:HD23	9:CI:40:LEU:N	2.35	0.41
1:CA:1435:G:H2'	1:CA:1436:U:H6	1.85	0.41
1:CA:322:C:H6	1:CA:322:C:O5'	2.03	0.41
1:AA:8:A:N7	4:AD:208:SER:CB	2.79	0.41
1:AA:687:A:C2	1:AA:704:A:C6	3.08	0.41
43:BU:8:VAL:HG11	43:BU:12:ARG:CZ	2.49	0.41
27:DA:1336:A:O2'	27:DA:1337:G:H5'	2.19	0.41
20:AT:89:ARG:CZ	20:AT:104:LEU:HD11	2.50	0.41
1:AA:1126:U:O2'	1:AA:1127:G:C5'	2.67	0.41
1:AA:1145:C:C4'	1:AA:1146:A:OP1	2.68	0.41
31:BE:181:LEU:HD21	42:BT:7:ILE:HD12	2.02	0.41
27:BA:271(M):G:O2'	27:BA:271(N):U:H5''	2.19	0.41
27:DA:2355:C:H4'	49:D0:24:LYS:CG	2.47	0.41
1:AA:278:G:OP2	17:AQ:41:LYS:NZ	2.53	0.41
42:BT:129:ARG:CG	42:BT:129:ARG:O	2.64	0.41
1:CA:732:C:H3'	1:CA:732:C:C6	2.55	0.41
27:DA:363(A):A:H2'	27:DA:363(A):A:N3	2.34	0.41
9:AI:106:ALA:O	9:AI:108:VAL:N	2.52	0.41
27:DA:1387:C:H2'	27:DA:1388:G:C8	2.51	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:DY:54:LYS:NZ	47:DY:55:TYR:HE2	2.18	0.41
27:DA:1016:G:N1	27:DA:1017:G:C5	2.88	0.41
28:DB:92:C:O2'	28:DB:93:G:H5'	2.20	0.41
20:AT:13:LEU:CD1	20:AT:17:ARG:HH21	2.33	0.41
47:BY:19:LYS:NZ	47:BY:19:LYS:HB2	2.35	0.41
27:DA:2772:C:H6	27:DA:2772:C:O5'	2.03	0.41
3:AC:139:GLN:O	3:AC:143:GLU:HB3	2.20	0.41
1:CA:419:C:C3'	1:CA:420:U:H5'	2.50	0.41
25:CY:46:U:O2'	25:CY:47:C:OP1	2.33	0.41
27:DA:888:C:H3'	27:DA:889:C:C5'	2.50	0.41
27:DA:888:C:H2'	27:DA:889:C:H5'	2.02	0.41
35:BI:51:ILE:O	35:BI:55:ALA:HB2	2.20	0.41
2:AB:12:GLU:HG3	2:AB:12:GLU:H	1.63	0.41
30:BD:183:ARG:CG	30:BD:183:ARG:HH11	2.33	0.41
11:AK:107:SER:OG	18:AR:86:VAL:HG13	2.19	0.41
27:DA:359:A:H2'	27:DA:360:G:O4'	2.20	0.41
1:CA:495:A:H4'	1:CA:496:A:O5'	2.20	0.41
27:BA:429:A:C6	27:BA:430:G:N1	2.88	0.41
24:AX:19:G:H5'	24:AX:20:U:C5	2.56	0.41
27:BA:1714:G:H8	27:BA:1714:G:O5'	2.02	0.41
40:DR:47:PHE:C	40:DR:47:PHE:CD2	2.94	0.41
56:B7:20:ALA:O	56:B7:21:ARG:C	2.58	0.41
27:BA:1419:A:HO2'	27:BA:1420:U:H6	1.68	0.41
29:BC:128:GLY:C	29:BC:130:ILE:H	2.22	0.41
48:BZ:21:GLY:O	48:BZ:40:LEU:HB2	2.20	0.41
32:BF:80:ALA:O	32:BF:86:GLY:HA3	2.20	0.41
1:AA:1410:G:H2'	1:AA:1411:C:C6	2.54	0.41
42:BT:113:LYS:HA	42:BT:113:LYS:HD2	1.78	0.41
27:BA:631:A:OP1	38:BP:64:LYS:HE3	2.20	0.41
1:CA:1014:A:C5	1:CA:1015:A:C6	3.08	0.41
1:CA:1186:G:N2	14:CN:61:TRP:C	2.73	0.41
1:CA:1222:G:H2'	1:CA:1223:C:O4'	2.19	0.41
27:BA:2809:A:N3	27:BA:2892:A:N3	2.68	0.41
34:BH:137:ASP:HB3	34:BH:138:LYS:H	1.63	0.41
1:AA:914:A:H2'	1:AA:915:A:H8	1.85	0.41
51:B2:42:GLY:O	51:B2:43:GLN:C	2.58	0.41
27:DA:241:A:H2	27:DA:242:G:N2	2.18	0.41
1:CA:1102:A:C6	1:CA:1103:C:N4	2.87	0.41
27:DA:1933:G:H2'	27:DA:1934:C:H6	1.82	0.41
33:BG:99:MET:O	33:BG:102:PHE:HB3	2.19	0.41
27:BA:1246:A:P	38:BP:18:ARG:HG3	2.59	0.41
44:BV:62:LEU:HD23	44:BV:93:GLU:CB	2.48	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:BV:91:TYR:C	44:BV:92:THR:CG2	2.89	0.41
42:BT:20:PRO:HG2	42:BT:85:LYS:O	2.20	0.41
42:BT:30:VAL:HG12	42:BT:44:ASP:OD2	2.20	0.41
29:BC:76:ALA:O	29:BC:78:ALA:N	2.53	0.41
27:DA:371:A:O3'	27:DA:372:G:H4'	2.20	0.41
27:DA:397:G:C6	27:DA:398:G:N7	2.88	0.41
27:DA:1151:G:C6	27:DA:1152:C:C4	3.07	0.41
27:DA:1859:A:N6	27:DA:1860:G:C2	2.88	0.41
27:DA:918:A:H3'	27:DA:919:G:C8	2.49	0.41
27:DA:2635:C:H4'	31:DE:78:LEU:O	2.20	0.41
57:D8:40:GLU:O	57:D8:41:ILE:C	2.58	0.41
27:DA:634:C:O2'	27:DA:635:C:C6	2.70	0.41
38:DP:87:ASP:N	38:DP:87:ASP:OD1	2.53	0.41
56:D7:41:ARG:N	56:D7:41:ARG:NH1	2.68	0.41
27:DA:2581:G:H22	27:DA:2610:C:H2'	1.85	0.41
27:DA:2611:U:C6	54:D5:4:HIS:HE1	2.38	0.41
27:DA:573:G:O2'	27:DA:574:C:H3'	2.20	0.41
27:DA:588:U:C2	32:DF:90:PHE:CD1	3.08	0.41
39:BQ:43:THR:OG1	39:BQ:46:GLN:HG3	2.20	0.41
4:CD:113:SER:O	4:CD:116:GLN:N	2.53	0.41
1:CA:221:C:HO2'	1:CA:222:U:H5'	1.84	0.41
37:DO:107:ARG:NH1	42:DT:36:GLU:H	2.18	0.41
19:AS:15:LEU:HA	19:AS:15:LEU:HD13	1.87	0.41
39:BQ:12:GLN:HE21	39:BQ:73:PRO:HD3	1.85	0.41
58:D9:17:ILE:O	58:D9:24:TYR:N	2.40	0.41
46:BX:63:LYS:HA	46:BX:72:LYS:HA	2.02	0.41
41:DS:17:ARG:O	41:DS:18:ILE:CB	2.48	0.41
49:D0:41:ARG:CD	49:D0:41:ARG:N	2.66	0.41
27:BA:1307:A:C2	27:BA:1308:A:C4	3.08	0.41
27:BA:1308:A:H2'	27:BA:1309:G:O4'	2.20	0.41
30:BD:228:PRO:O	30:BD:229:VAL:C	2.58	0.41
32:BF:77:ASP:N	32:BF:77:ASP:OD1	2.52	0.41
2:AB:95:GLN:O	2:AB:97:TRP:N	2.53	0.41
1:CA:312:C:H2'	1:CA:313:A:C8	2.55	0.41
27:BA:1656:C:H5''	31:BE:136:ARG:HB2	2.02	0.41
1:CA:1043:C:H2'	1:CA:1044:A:C8	2.54	0.41
27:DA:2645:G:H3'	27:DA:2646:C:C5'	2.50	0.41
20:CT:54:LYS:HB2	20:CT:54:LYS:HE3	1.79	0.41
45:BW:92:ARG:HH11	45:BW:92:ARG:HB3	1.84	0.41
1:CA:968:A:H4'	1:CA:969:A:OP2	2.20	0.41
50:B1:6:GLU:HG3	50:B1:61:ARG:O	2.19	0.41
10:AJ:7:LYS:CD	10:AJ:71:LEU:HD13	2.50	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:653:A:C4'	8:CH:56:LYS:HZ3	2.32	0.41
36:DN:15:LEU:HD22	36:DN:16:ILE:N	2.28	0.41
58:B9:29:ASN:ND2	58:B9:32:HIS:ND1	2.64	0.41
1:CA:923:A:C6	1:CA:924:C:C4	3.09	0.41
1:CA:926:G:C6	1:CA:1505:G:C6	3.08	0.41
35:BI:81:VAL:HG12	35:BI:82:ARG:H	1.85	0.41
49:D0:45:PHE:CZ	49:D0:77:ARG:NH1	2.88	0.41
27:DA:959:A:O2'	27:DA:960:A:H5'	2.20	0.41
1:AA:1442:G:H2'	1:AA:1442(A):G:H5''	2.01	0.41
27:DA:2306:C:H5	27:DA:2307:G:O2'	2.02	0.41
33:DG:51:ARG:NH1	33:DG:53:LEU:HD21	2.35	0.41
1:AA:36:C:C4'	12:AL:119:THR:O	2.68	0.41
1:AA:1172:C:H2'	1:AA:1173:G:H8	1.82	0.41
51:B2:9:GLN:NE2	51:B2:56:GLN:CD	2.73	0.41
51:B2:59:ARG:O	51:B2:62:THR:HB	2.20	0.41
27:DA:1680:U:H2'	27:DA:1681:G:O4'	2.20	0.41
27:BA:1417:C:H2'	27:BA:1418:G:O4'	2.19	0.41
33:DG:64:THR:CG2	33:DG:65:GLY:N	2.83	0.41
39:BQ:56:ARG:CG	39:BQ:56:ARG:NH1	2.82	0.41
5:CE:45:PHE:C	5:CE:45:PHE:HD1	2.22	0.41
27:BA:846:C:C1'	27:BA:847:U:C5	3.03	0.41
27:DA:2848:G:C2	27:DA:2867:G:C4	3.08	0.41
27:BA:2694:G:C6	27:BA:2695:C:C4	3.09	0.41
4:AD:163:GLU:C	4:AD:165:MET:H	2.23	0.41
1:AA:728:A:C5	15:AO:54:ARG:CD	3.04	0.41
1:AA:661:G:H1	1:AA:744:C:H42	1.66	0.41
3:AC:33:LEU:O	3:AC:36:ASP:HB2	2.20	0.41
1:AA:1314:C:OP2	19:AS:6:LYS:HD3	2.20	0.41
14:AN:58:LYS:O	14:AN:59:ALA:O	2.38	0.41
40:DR:111:LEU:HA	40:DR:111:LEU:HD13	1.84	0.41
27:DA:1208:C:H2'	27:DA:1209:G:H5'	2.01	0.41
27:DA:479:A:H4'	27:DA:480:A:O5'	2.20	0.41
10:CJ:6:ILE:O	10:CJ:71:LEU:HD12	2.19	0.41
1:CA:938:A:N6	1:CA:939:G:C6	2.89	0.41
1:CA:701:C:O2'	1:CA:703:G:C5	2.71	0.41
12:AL:24:LEU:C	12:AL:26:GLY:H	2.23	0.41
28:BB:7:G:H3'	28:BB:8:U:C5'	2.41	0.41
32:BF:184:TYR:HE2	32:BF:188:ARG:HD2	1.82	0.41
32:BF:188:ARG:HB2	38:BP:7:ARG:NH2	2.34	0.41
27:BA:1509(B):A:C4	27:BA:1510:G:C8	3.08	0.41
52:D3:56:VAL:HG12	52:D3:57:GLU:N	2.35	0.41
1:CA:172:A:N7	1:CA:174:C:C4	2.88	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:207:ALA:O	2:AB:209:ARG:N	2.54	0.41
24:CX:52:G:H2'	24:CX:53:G:H8	1.85	0.41
1:AA:740:U:OP2	15:AO:2:PRO:HG3	2.20	0.41
27:BA:1836:C:H2'	27:BA:1837:C:H5'	2.01	0.41
4:AD:33:MET:HE3	4:AD:33:MET:HA	2.02	0.41
27:BA:1722:A:C6	27:BA:1741:A:N1	2.89	0.41
13:CM:90:LEU:O	13:CM:91:ARG:CG	2.68	0.41
10:CJ:38:ILE:HA	10:CJ:39:PRO:HD3	1.82	0.41
10:CJ:30:SER:CA	10:CJ:80:LYS:HD3	2.50	0.41
23:AW:10:G:C2	23:AW:25:A:H1'	2.54	0.41
5:CE:101:ILE:HD11	5:CE:118:ILE:O	2.21	0.41
18:AR:62:GLU:O	18:AR:65:ILE:N	2.53	0.41
12:CL:112:LYS:O	12:CL:114:ARG:HG3	2.20	0.41
27:BA:528:A:C2	27:BA:2043:C:H4'	2.55	0.41
47:DY:88:LYS:HB3	47:DY:90:LEU:HD12	2.02	0.41
27:BA:2240:C:C2	27:BA:2241:A:C8	3.08	0.41
27:BA:1668:A:N7	27:BA:1674:G:C5	2.88	0.41
10:AJ:84:GLN:C	10:AJ:85:LEU:HD23	2.41	0.41
32:BF:140:LEU:HD21	32:BF:170:LEU:HD11	2.02	0.41
43:DU:60:LEU:HA	43:DU:60:LEU:HD22	1.64	0.41
25:AY:11:C:H2'	25:AY:12:C:C6	2.55	0.41
1:AA:637:G:C2'	1:AA:638:G:H5'	2.50	0.41
33:DG:119:GLY:O	33:DG:181:ARG:CZ	2.69	0.41
4:AD:94:LEU:HA	4:AD:97:LEU:HD12	2.01	0.41
49:D0:72:ARG:HB3	49:D0:75:LEU:HB3	2.02	0.41
1:AA:528:C:H5'	1:AA:535:A:C6	2.54	0.41
40:BR:109:ALA:O	40:BR:111:LEU:CD2	2.69	0.41
27:DA:1866:C:H2'	27:DA:1876:A:O4'	2.19	0.41
51:D2:10:LEU:O	51:D2:14:ARG:CG	2.68	0.41
1:AA:1233:G:H2'	1:AA:1234:C:H6	1.80	0.41
32:BF:152:GLU:O	32:BF:154:VAL:HG23	2.20	0.41
30:DD:76:PRO:HG2	30:DD:98:VAL:HG21	2.02	0.41
37:DO:73:ASP:C	37:DO:73:ASP:OD1	2.58	0.41
27:DA:1764:G:N2	27:DA:1765:C:C1'	2.83	0.41
2:CB:153:ARG:HG3	2:CB:153:ARG:H	1.49	0.41
27:BA:2446:G:C2	27:BA:2501:C:C5	3.09	0.41
27:BA:211:A:H2'	27:BA:212:G:C8	2.54	0.41
6:CF:1:MET:HB3	6:CF:66:GLU:OE2	2.19	0.41
52:D3:19:GLN:NE2	52:D3:52:HIS:CE1	2.88	0.41
46:BX:34:ALA:O	46:BX:35:THR:HG23	2.19	0.41
30:BD:133:LEU:HD13	30:BD:173:VAL:HG11	2.01	0.41
27:BA:299:A:H62	27:BA:300:A:N6	2.18	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:AU:24:ARG:O	21:AU:25:LYS:CB	2.68	0.41
48:BZ:2:TYR:O	48:BZ:3:ARG:HB2	2.19	0.41
1:AA:381:C:H2'	1:AA:382:A:O4'	2.20	0.41
4:CD:96:LEU:HG	4:CD:139:ARG:NH1	2.35	0.41
4:AD:122:ARG:HD3	4:AD:122:ARG:O	2.20	0.41
34:BH:106:THR:O	34:BH:106:THR:OG1	2.34	0.41
27:BA:620:G:C4'	27:BA:621:A:OP1	2.68	0.41
27:BA:840:C:C2	27:BA:939:G:N1	2.88	0.41
27:BA:2791:C:H5'	27:BA:2792:G:OP1	2.20	0.41
47:BY:7:VAL:CA	47:BY:8:LYS:HD2	2.50	0.41
27:DA:1797:C:O2	27:DA:1797:C:H2'	2.19	0.41
27:DA:1905:C:N4	27:DA:1930:G:N1	2.68	0.41
27:BA:482:A:H5''	47:BY:47:LYS:HG2	2.03	0.41
27:BA:533:G:H2'	27:BA:534:U:O4'	2.21	0.41
27:DA:391:G:H1'	27:DA:411:G:O4'	2.20	0.41
32:DF:3:GLU:HG2	32:DF:4:VAL:H	1.84	0.41
44:DV:62:LEU:N	44:DV:62:LEU:CD2	2.81	0.41
30:DD:123:ALA:HB3	30:DD:131:LEU:HD11	2.03	0.41
30:BD:24:ILE:HD12	30:BD:27:THR:HG23	2.02	0.41
51:D2:47:ASN:C	51:D2:49:LYS:N	2.74	0.41
45:DW:7:ALA:CB	45:DW:103:ILE:HB	2.23	0.41
27:DA:913:U:O5'	27:DA:913:U:H6	2.04	0.41
27:DA:2550:G:N7	27:DA:2551:C:C5	2.88	0.41
27:DA:2620:C:OP1	31:DE:152:LYS:O	2.38	0.41
32:DF:63:LYS:HZ2	32:DF:67:GLN:HB3	1.85	0.41
27:DA:1188:U:C4'	44:DV:79:VAL:CG2	2.92	0.41
20:AT:24:LEU:O	20:AT:25:ARG:C	2.58	0.41
27:BA:1139:G:C2'	27:BA:1140:C:O5'	2.68	0.41
23:AW:30:A:H3'	23:AW:31:U:H5''	2.01	0.41
45:BW:6:ILE:HA	45:BW:104:THR:HA	2.02	0.41
27:DA:143:G:H1'	46:DX:37:THR:HG21	1.99	0.41
46:DX:92:LEU:C	46:DX:94:GLY:H	2.15	0.41
34:BH:55:PRO:HG2	34:BH:61:HIS:CE1	2.54	0.41
4:CD:102:ASP:O	4:CD:117:ALA:HB1	2.19	0.41
47:BY:38:ILE:HA	47:BY:38:ILE:HD13	1.79	0.41
10:AJ:58:ASP:O	10:AJ:59:SER:C	2.58	0.41
8:AH:100:ILE:CB	8:AH:125:ARG:HH12	2.32	0.41
12:CL:35:THR:HG22	12:CL:56:ARG:HH12	1.85	0.41
12:CL:35:THR:CG2	12:CL:56:ARG:NH1	2.83	0.41
42:DT:30:VAL:HG21	42:DT:83:ILE:CG1	2.50	0.41
42:DT:61:PHE:O	42:DT:61:PHE:CG	2.73	0.41
34:DH:58:GLU:C	34:DH:60:ARG:N	2.73	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1815:A:H4'	27:BA:1816:G:OP1	2.18	0.41
1:AA:61:G:C6	1:AA:62:U:O4	2.73	0.41
1:AA:1074:G:H1	1:AA:1083:U:H3	1.68	0.41
5:AE:56:GLN:O	5:AE:57:LYS:C	2.58	0.41
38:DP:9:ASN:ND2	38:DP:9:ASN:N	2.65	0.41
53:D4:36:VAL:HG21	53:D4:53:THR:HA	2.02	0.41
58:B9:2:LYS:C	58:B9:2:LYS:HD3	2.40	0.41
7:AG:50:ILE:O	7:AG:54:THR:CG2	2.68	0.41
42:DT:13:ARG:NH1	42:DT:15:VAL:HG11	2.35	0.41
34:BH:148:ILE:HA	34:BH:148:ILE:HD13	1.90	0.41
9:CI:125:TYR:C	9:CI:125:TYR:HD2	2.23	0.41
30:DD:52:ARG:C	30:DD:53:PHE:CG	2.92	0.41
30:DD:49:ILE:HD11	30:DD:52:ARG:HA	2.02	0.41
27:BA:2223:G:C2'	27:BA:2224:G:H5'	2.49	0.41
3:CC:84:ILE:HA	3:CC:87:LEU:HG	2.02	0.41
3:CC:99:VAL:CG2	3:CC:99:VAL:O	2.68	0.41
42:BT:106:SER:O	42:BT:107:ASP:OD1	2.39	0.41
48:DZ:127:VAL:CG2	48:DZ:131:ASN:HB2	2.50	0.41
30:BD:69:ARG:NH2	30:BD:128:GLY:O	2.53	0.41
27:BA:2844:G:H2'	27:BA:2845:G:H5'	2.02	0.41
27:BA:2846:G:H2'	27:BA:2847:U:O4'	2.20	0.41
27:BA:2848:G:HO2'	27:BA:2867:G:H22	1.68	0.41
41:BS:102:ALA:O	41:BS:103:GLU:C	2.59	0.41
48:DZ:86:ASP:O	48:DZ:87:PHE:CD2	2.73	0.41
1:AA:492:G:C5	1:AA:493:G:C8	3.09	0.41
40:DR:4:LEU:C	40:DR:4:LEU:HD22	2.39	0.41
35:BI:11:ASN:HB3	35:BI:12:LEU:CD2	2.51	0.41
1:AA:825:G:C6	1:AA:876:G:C6	3.09	0.41
8:AH:1:MET:SD	8:AH:2:LEU:N	2.92	0.41
7:AG:120:ILE:HG22	7:AG:124:LEU:HD11	2.02	0.41
1:AA:261:U:H3'	1:AA:263:A:OP2	2.20	0.41
6:CF:10:LEU:N	6:CF:10:LEU:CD1	2.79	0.41
13:AM:5:ALA:HB1	13:AM:66:LEU:HD22	2.01	0.41
13:AM:65:LYS:CB	13:AM:70:LEU:HB2	2.49	0.41
52:B3:22:ALA:HA	52:B3:46:ASN:HD22	1.85	0.41
16:CP:57:ARG:O	16:CP:58:TYR:C	2.58	0.41
4:AD:162:LEU:HD12	4:AD:181:MET:SD	2.61	0.41
1:AA:1278:U:H3'	1:AA:1278:U:H6	1.84	0.41
8:CH:104:ARG:HD2	8:CH:104:ARG:HA	1.74	0.41
27:DA:1719:G:O2'	27:DA:1720:U:H5'	2.19	0.41
27:BA:81:G:C2	27:BA:106:C:C2	3.08	0.41
27:DA:2008:C:H2'	27:DA:2009:G:H8	1.86	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:DW:107:LEU:N	45:DW:107:LEU:HD12	2.35	0.41
47:DY:46:LYS:HD3	47:DY:47:LYS:HZ2	1.84	0.41
39:BQ:67:ARG:HD2	39:BQ:105:GLU:OE1	2.19	0.41
2:AB:15:VAL:H	2:AB:16:HIS:CE1	2.39	0.41
33:BG:11:TYR:O	33:BG:16:ARG:HB2	2.20	0.41
43:BU:31:SER:C	43:BU:33:ARG:N	2.72	0.41
32:DF:140:LEU:O	32:DF:143:ALA:HB3	2.21	0.41
1:AA:782:A:N1	1:AA:801:U:C2	2.88	0.41
27:BA:1926:U:O2	27:BA:1928:A:C8	2.73	0.41
32:DF:101:LEU:O	32:DF:102:PRO:C	2.58	0.41
27:DA:108:U:H2'	27:DA:109:G:C8	2.51	0.41
47:DY:2:ARG:C	47:DY:3:VAL:HG23	2.41	0.41
1:CA:1335:C:H5'	1:CA:1336:C:O5'	2.21	0.41
1:CA:1435:G:H2'	1:CA:1436:U:C6	2.55	0.41
7:AG:71:PRO:HG3	7:AG:99:LEU:HD12	2.02	0.41
27:BA:1627:G:O2'	27:BA:1628:G:H5'	2.21	0.41
18:CR:70:ILE:HG22	18:CR:71:LYS:N	2.34	0.41
27:DA:1945:G:O2'	27:DA:1946:U:O5'	2.38	0.41
27:BA:51:G:H4'	27:BA:52:A:H5'	2.02	0.41
27:BA:459:U:C2	27:BA:460:A:C8	3.08	0.41
1:CA:59:A:H1'	1:CA:354:G:C2	2.55	0.41
1:AA:279:A:O5'	1:AA:281:G:H5'	2.20	0.41
1:CA:622:A:C8	1:CA:623:C:C6	3.07	0.41
1:CA:1229:A:O2'	1:CA:1230:C:O4'	2.34	0.41
27:BA:1452:A:O2'	27:BA:1453:U:H6	2.03	0.41
27:BA:495:G:O2'	45:BW:62:HIS:HE1	2.03	0.41
27:BA:861:A:C6	27:BA:917:A:C8	3.08	0.41
8:CH:69:ARG:HD3	8:CH:76:PRO:HA	2.02	0.41
27:BA:2027:G:C2'	27:BA:2028:U:H5'	2.50	0.41
50:D1:25:LYS:HD3	50:D1:31:GLY:H	1.84	0.41
7:AG:108:ALA:C	7:AG:110:GLN:N	2.74	0.41
4:CD:154:ASN:O	4:CD:155:LEU:HD23	2.20	0.41
1:AA:1486:G:H2'	1:AA:1487:G:C1'	2.50	0.41
17:CQ:85:VAL:O	17:CQ:89:LEU:HB2	2.21	0.41
20:AT:13:LEU:HD12	20:AT:14:LYS:N	2.35	0.41
4:CD:121:VAL:HG22	4:CD:126:ILE:CG1	2.50	0.41
36:BN:27:ALA:O	36:BN:28:THR:C	2.58	0.41
1:CA:943:U:H1'	9:CI:124:GLN:HE22	1.85	0.41
27:BA:1762:A:H8	27:BA:1762:A:P	2.43	0.41
1:AA:573:A:C6	1:AA:574:A:N1	2.88	0.41
45:BW:68:ARG:HD3	45:BW:110:LYS:HB3	2.02	0.41
35:DI:8:PRO:HA	35:DI:14:ASP:H	1.84	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:40:LEU:HD23	10:AJ:40:LEU:H	1.83	0.41
27:BA:452:G:C6	27:BA:453:C:C5	3.08	0.41
2:CB:177:ALA:HB1	2:CB:182:ILE:HB	2.02	0.41
1:AA:1026:G:C3'	1:AA:1027:C:H5'	2.48	0.41
27:DA:2854:G:H2'	27:DA:2855:C:C6	2.55	0.41
56:B7:45:ALA:O	56:B7:46:VAL:HG23	2.18	0.41
34:BH:169:VAL:O	34:BH:169:VAL:HG13	2.20	0.41
10:AJ:32:ALA:HB3	10:AJ:75:ILE:HD11	2.02	0.41
27:BA:1624:G:N2	27:BA:1625:C:H1'	2.35	0.41
27:DA:272(E):G:C6	27:DA:272(F):C:N3	2.88	0.41
16:CP:49:LEU:HG	16:CP:49:LEU:O	2.20	0.41
16:CP:33:ILE:HG21	16:CP:59:TRP:CH2	2.55	0.41
8:AH:105:ARG:HD3	8:AH:105:ARG:HA	1.70	0.41
1:AA:690:G:H2'	1:AA:691:G:O4'	2.20	0.41
27:DA:2074:U:H4'	27:DA:2598:A:O4'	2.20	0.41
45:BW:54:ALA:HB1	45:BW:107:LEU:HD22	2.01	0.41
27:DA:1381:G:H1'	27:DA:1571:A:N1	2.34	0.41
1:CA:481:G:O2'	1:CA:483:C:N4	2.53	0.41
7:AG:72:ARG:HA	7:AG:72:ARG:HD2	1.93	0.41
27:BA:272(H):C:O2	27:BA:272(H):C:H2'	2.20	0.41
1:AA:900:A:H2'	1:AA:901:A:O4'	2.20	0.41
27:BA:636:G:H2'	38:BP:115:LEU:HD12	2.02	0.41
1:CA:949:A:C6	1:CA:950:U:N3	2.89	0.41
10:CJ:61:GLU:HG2	14:CN:58:LYS:NZ	2.35	0.41
10:CJ:49:VAL:HG21	14:CN:41:ARG:HB2	2.01	0.41
40:BR:44:LEU:O	40:BR:47:PHE:HB3	2.21	0.41
41:BS:92:TYR:CD1	41:BS:93:LYS:N	2.82	0.41
1:AA:912:C:O2'	1:AA:913:A:H5'	2.20	0.41
57:D8:6:THR:CG2	57:D8:63:PRO:CG	2.97	0.41
27:DA:240:G:O2'	27:DA:257:A:N6	2.46	0.41
27:BA:29:U:C2	27:BA:30:G:C8	3.08	0.41
53:B4:40:ILE:HD13	53:B4:48:ILE:O	2.20	0.41
33:BG:110:ALA:N	33:BG:112:PRO:HD2	2.35	0.41
1:CA:1346:A:C4	1:CA:1348:U:C4	3.08	0.41
5:AE:84:PHE:O	5:AE:86:ALA:N	2.53	0.41
1:CA:460:G:H1	1:CA:470:C:H5''	1.85	0.41
27:BA:995:C:OP1	43:BU:53:ARG:CZ	2.68	0.41
44:BV:47:VAL:O	44:BV:48:GLY:C	2.57	0.41
42:BT:78:LEU:HB3	42:BT:79:HIS:ND1	2.34	0.41
47:DY:97:ARG:HA	47:DY:97:ARG:HD2	1.87	0.41
27:DA:1433:U:H1'	27:DA:1561:G:N2	2.36	0.41
1:AA:472:A:C6	1:AA:473:G:N3	2.88	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:632:A:C6	27:DA:633:A:N6	2.89	0.41
38:DP:58:THR:C	38:DP:61:ARG:NE	2.73	0.41
27:DA:458:G:O2'	27:DA:459:U:P	2.79	0.41
27:DA:587:C:N3	38:DP:33:ARG:HG2	2.35	0.41
27:DA:748:G:C6	27:DA:750:A:C2	3.08	0.41
32:DF:65:TRP:CE3	32:DF:65:TRP:O	2.65	0.41
1:AA:171:A:N6	1:AA:172:A:C6	2.89	0.41
27:BA:2468:G:O2'	27:BA:2469:A:P	2.78	0.41
34:BH:19:VAL:HG22	34:BH:24:VAL:HG12	2.01	0.41
1:CA:35:G:N2	1:CA:550:G:N3	2.69	0.41
42:DT:29:ARG:HD3	42:DT:29:ARG:HA	1.75	0.41
27:DA:88:G:OP1	27:DA:90:U:C4	2.74	0.41
1:AA:376:G:C4'	16:AP:5:ARG:HD2	2.49	0.41
41:DS:16:ASN:O	41:DS:20:ARG:NH2	2.53	0.41
1:CA:276:G:O5'	1:CA:276:G:C8	2.71	0.41
17:CQ:55:ASP:OD1	17:CQ:79:SER:HA	2.20	0.41
17:CQ:21:VAL:HG21	17:CQ:59:ILE:HD11	2.01	0.41
27:BA:2074:U:H2'	27:BA:2075:U:H6	1.82	0.41
2:AB:173:ALA:O	2:AB:174:VAL:C	2.58	0.41
1:CA:663:A:O2'	1:CA:664:G:H5'	2.20	0.41
20:CT:51:GLU:H	20:CT:51:GLU:HG2	1.59	0.41
15:AO:24:SER:OG	15:AO:25:THR:N	2.54	0.41
15:AO:76:GLU:C	15:AO:78:TYR:N	2.72	0.41
34:BH:158:HIS:HE1	34:BH:168:PRO:C	2.24	0.41
1:CA:970:C:H41	9:CI:126:SER:CB	2.30	0.41
37:BO:7:TYR:HE2	37:BO:44:LYS:HG3	1.84	0.41
1:CA:178:C:O2'	1:CA:179:A:H5'	2.20	0.41
27:DA:2694:G:C5	27:DA:2695:C:C5	3.09	0.41
27:DA:2478:A:N6	27:DA:2479:G:C2	2.88	0.41
27:BA:1439:A:H61	27:BA:1552:G:H1'	1.86	0.41
27:DA:524:U:H2'	27:DA:525:U:C6	2.55	0.41
1:CA:678:U:H1'	1:CA:777:A:O3'	2.21	0.41
1:CA:779:C:H4'	11:CK:120:ARG:O	2.20	0.41
1:CA:1207:G:H2'	1:CA:1208:C:C6	2.55	0.41
1:CA:515:G:O2'	1:CA:516:U:H5'	2.20	0.41
1:CA:533:A:O2'	1:CA:534:U:H3'	2.20	0.41
48:DZ:22:LYS:HG3	48:DZ:38:VAL:O	2.20	0.41
1:CA:751:U:C1'	15:CO:24:SER:HA	2.51	0.41
27:DA:464:U:H2'	27:DA:465:G:O4'	2.20	0.41
35:BI:112:LYS:N	35:BI:114:LEU:HD11	2.35	0.41
35:BI:122:GLU:OE2	35:BI:123:LEU:N	2.53	0.41
3:AC:201:TYR:N	3:AC:201:TYR:HD1	2.16	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1373:A:H2'	27:BA:1374:G:H5'	2.02	0.41
50:B1:63:ALA:O	50:B1:65:SER:N	2.52	0.41
11:AK:48:ILE:HG22	11:AK:49:GLY:H	1.84	0.41
28:DB:43:C:H3'	28:DB:44:G:H5'	2.01	0.41
39:BQ:133:ARG:O	39:BQ:134:ARG:CB	2.66	0.41
27:BA:2356:C:N4	27:BA:2357:U:H3	2.18	0.41
13:AM:71:ARG:HE	13:AM:71:ARG:HB3	1.65	0.41
27:DA:2866:U:C6	27:DA:2868:A:H1'	2.55	0.41
37:DO:40:VAL:O	37:DO:41:ALA:HB2	2.20	0.41
42:DT:120:ARG:O	42:DT:123:GLN:HG2	2.20	0.41
38:BP:85:LEU:O	38:BP:88:LEU:N	2.54	0.41
34:BH:10:PRO:HG3	34:BH:50:VAL:H	1.84	0.41
27:DA:2293:C:C2	27:DA:2340:G:N2	2.88	0.41
1:CA:1316:G:N1	1:CA:1319:A:OP2	2.53	0.41
30:BD:246:PRO:CG	30:BD:255:LYS:HG3	2.40	0.41
2:AB:213:LEU:O	2:AB:214:ILE:C	2.59	0.41
1:CA:602:A:HO2'	1:CA:603:U:H5'	1.85	0.41
25:CY:26:C:N3	25:CY:27:C:N4	2.68	0.41
38:DP:111:ARG:NH1	38:DP:149:GLU:HG3	2.36	0.41
1:AA:632:A:C8	1:AA:633:G:C8	3.08	0.41
27:BA:2230:G:C4'	50:B1:43:TYR:HB2	2.50	0.41
27:BA:813:U:O2'	27:BA:1225:G:H1'	2.19	0.41
45:DW:64:MET:O	45:DW:65:LEU:CB	2.68	0.41
1:AA:1192:C:O2	5:AE:25:ARG:NH2	2.47	0.41
5:AE:106:PRO:HG2	5:AE:107:ARG:H	1.86	0.41
13:AM:91:ARG:HB2	13:AM:98:VAL:HG13	2.01	0.41
48:BZ:143:LEU:CD1	48:BZ:147:ASP:HB3	2.50	0.41
13:CM:81:LEU:HB3	13:CM:86:CYS:SG	2.61	0.41
50:B1:73:LEU:C	50:B1:75:GLU:H	2.22	0.41
50:B1:73:LEU:O	50:B1:74:VAL:C	2.58	0.41
32:BF:164:ARG:CG	32:BF:175:THR:OG1	2.66	0.41
42:DT:16:ARG:H	42:DT:79:HIS:HD2	1.67	0.41
38:BP:132:LYS:O	38:BP:136:GLU:HG2	2.21	0.41
7:AG:80:VAL:HG21	7:AG:85:TYR:CE1	2.56	0.41
36:BN:60:ILE:H	36:BN:60:ILE:HG13	1.52	0.41
1:AA:1066:C:O2'	1:AA:1067:A:C5'	2.68	0.41
13:CM:16:ASP:HB2	13:CM:31:LYS:CE	2.51	0.41
13:CM:38:GLY:O	13:CM:55:ARG:NH2	2.54	0.41
11:AK:104:GLN:NE2	11:AK:106:LYS:HD2	2.35	0.41
27:BA:1464:C:C4	27:BA:1465:G:N7	2.88	0.41
27:BA:1545:A:H3'	27:BA:1546:C:C6	2.54	0.41
17:AQ:29:HIS:O	17:AQ:33:GLY:HA2	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:463:G:N2	27:BA:466:A:OP2	2.51	0.41
31:BE:172:VAL:HG13	31:BE:182:LEU:HD11	2.01	0.41
11:AK:84:VAL:HG12	11:AK:95:ILE:HD11	2.02	0.41
27:DA:1355:G:C6	27:DA:1356:G:N7	2.89	0.41
1:AA:773:G:H1	1:AA:806:C:H42	1.68	0.41
1:CA:72:C:C2'	1:CA:73:G:H5'	2.51	0.41
24:CX:32:C:C2'	24:CX:33:U:H5'	2.50	0.41
51:B2:13:ALA:CA	51:B2:16:LEU:HD21	2.46	0.41
1:AA:680:C:C2	1:AA:711:G:N2	2.88	0.41
4:AD:176:LEU:HG	4:AD:178:VAL:CG2	2.51	0.41
27:DA:1016:G:C6	27:DA:1017:G:N7	2.89	0.41
50:B1:57:GLU:C	50:B1:58:ILE:CG2	2.89	0.41
2:CB:236:TYR:HA	2:CB:239:VAL:CG2	2.47	0.41
28:DB:93:G:H2'	28:DB:94:C:C6	2.54	0.41
30:DD:186:HIS:HD2	30:DD:188:GLU:H	1.68	0.41
31:DE:167:VAL:HG22	31:DE:170:LEU:HD11	2.03	0.41
3:AC:143:GLU:O	3:AC:145:GLY:N	2.53	0.41
27:DA:1227:G:OP1	43:DU:13:LYS:HE2	2.20	0.41
27:BA:1789:A:H2'	27:BA:1790:C:O4'	2.20	0.41
1:CA:795:C:H5	1:CA:796:C:C4	2.37	0.41
25:CY:1:U:O4	25:CY:71:A:N1	2.53	0.41
9:CI:106:ALA:O	9:CI:108:VAL:HG22	2.19	0.41
1:CA:1165:C:H2'	1:CA:1166:G:H5'	2.01	0.41
13:AM:31:LYS:O	13:AM:32:GLU:C	2.58	0.41
30:DD:75:ILE:HA	30:DD:76:PRO:HD2	1.76	0.41
27:DA:2082:A:H2'	27:DA:2083:G:O4'	2.19	0.41
33:DG:34:LEU:O	33:DG:35:GLU:C	2.58	0.41
27:BA:2850:A:C6	27:BA:2851:A:C5	3.09	0.41
1:CA:505:G:H8	1:CA:505:G:O5'	2.04	0.41
1:AA:616:G:C2	1:AA:617:G:C8	3.08	0.41
27:DA:2201:C:O2'	27:DA:2202:C:H5'	2.21	0.41
31:DE:175:VAL:O	31:DE:177:PRO:HD3	2.20	0.41
27:BA:2208:A:N3	27:BA:2219:G:C2	2.89	0.41
27:BA:1625:C:C2'	27:BA:1626:G:H5'	2.50	0.41
4:CD:58:LEU:CD1	4:CD:59:ARG:NH1	2.84	0.41
1:CA:404:U:O2'	1:CA:405:U:H5'	2.19	0.41
27:DA:1109:C:C5	27:DA:1110:G:C4	3.08	0.41
1:CA:1375:A:H2'	1:CA:1376:U:C6	2.55	0.41
1:CA:745:C:H5'	1:CA:851:G:H21	1.84	0.41
31:BE:94:GLU:H	31:BE:94:GLU:HG2	1.59	0.41
4:AD:192:GLU:OE2	4:AD:192:GLU:HA	2.19	0.41
27:DA:1596:A:C2	27:DA:1597:A:C4	3.08	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BP:65:ARG:HH21	57:B8:15:LYS:HD2	1.84	0.41
28:BB:42:C:C5	28:BB:43:C:C5	3.08	0.41
34:BH:142:GLY:O	34:BH:143:GLN:C	2.57	0.41
36:DN:104:LYS:C	36:DN:106:MET:H	2.23	0.41
38:DP:49:ARG:HD2	57:D8:58:ILE:HG22	2.00	0.41
27:DA:2591:C:OP1	30:DD:239:ARG:NH2	2.54	0.41
27:BA:27:G:H1'	27:BA:513:A:N6	2.34	0.41
4:CD:8:VAL:HG11	4:CD:21:LEU:CB	2.51	0.41
52:B3:29:ARG:HB2	52:B3:30:ARG:CD	2.50	0.41
27:BA:538:G:C6	27:BA:539:G:N7	2.88	0.41
43:BU:111:GLU:O	43:BU:112:ARG:C	2.58	0.41
44:BV:47:VAL:O	44:BV:49:THR:N	2.53	0.41
44:BV:64:HIS:ND1	44:BV:92:THR:HB	2.36	0.41
32:DF:3:GLU:HB3	32:DF:24:LEU:HG	2.03	0.41
43:DU:35:ALA:O	43:DU:38:THR:HB	2.20	0.41
36:DN:2:LYS:CE	44:DV:13:ARG:HB3	2.49	0.41
43:DU:90:VAL:HG21	44:DV:47:VAL:HG21	2.03	0.41
27:DA:1578:U:C2'	27:DA:1579:A:H5''	2.49	0.41
12:CL:53:ALA:O	12:CL:65:ALA:N	2.34	0.41
52:B3:54:VAL:HG12	52:B3:56:VAL:HG22	2.03	0.41
47:DY:26:LYS:HZ2	47:DY:27:VAL:HG23	1.86	0.41
41:DS:102:ALA:O	41:DS:104:GLY:N	2.54	0.41
27:DA:870:A:C2	27:DA:871:U:C2	3.08	0.41
11:AK:18:ARG:O	11:AK:32:ILE:HA	2.21	0.41
27:DA:2811:G:OP2	27:DA:2811:G:H8	2.04	0.41
27:DA:2255:G:C6	27:DA:2256:G:C5	3.08	0.41
28:DB:91:C:OP1	39:DQ:16:ARG:HG3	2.20	0.41
27:DA:2509:G:N2	27:DA:2580:U:C2	2.89	0.41
1:AA:169:C:C5	1:AA:170:U:H5	2.39	0.41
46:DX:35:THR:CG2	46:DX:37:THR:HB	2.50	0.41
14:AN:21:TYR:HD2	14:AN:22:THR:O	2.03	0.41
42:DT:74:ARG:HD3	42:DT:76:PHE:HE2	1.82	0.41
42:DT:83:ILE:CG1	42:DT:84:GLN:N	2.80	0.41
27:DA:2748:A:O2'	34:DH:63:SER:HA	2.20	0.41
1:CA:129(A):G:C2	1:CA:189(H):G:C8	3.08	0.41
27:BA:1797:C:C5'	30:BD:257:LEU:O	2.68	0.41
30:BD:226:MET:SD	30:BD:230:ASP:HB3	2.59	0.41
1:AA:69:G:N2	1:AA:101:A:C2	2.89	0.41
31:BE:3:GLY:HA3	31:BE:81:ILE:HG21	2.01	0.41
27:BA:1866:C:H6	27:BA:1866:C:O5'	2.04	0.41
15:AO:23:GLY:C	15:AO:24:SER:O	2.58	0.41
20:CT:25:ARG:CZ	20:CT:25:ARG:HB2	2.51	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1191:A:C5'	3:CC:4:LYS:HZ1	2.32	0.41
37:BO:77:ILE:CD1	42:BT:74:ARG:HG2	2.51	0.41
37:BO:77:ILE:HG13	37:BO:78:ARG:N	2.36	0.41
1:CA:1058:G:O2'	1:CA:1059:C:H5'	2.21	0.41
14:CN:45:ARG:O	14:CN:46:GLU:C	2.59	0.41
27:BA:2261:C:C2	27:BA:2280:G:N2	2.89	0.41
1:CA:643:C:H5'	8:CH:31:PHE:CG	2.55	0.41
1:CA:590:C:OP1	8:CH:30:ARG:N	2.49	0.41
29:BC:36:LYS:HZ3	29:BC:36:LYS:HB2	1.86	0.41
29:DC:59:ARG:HB2	29:DC:62:VAL:HG22	2.03	0.41
1:CA:1518:A:H2'	1:CA:1519:A:O4'	2.20	0.41
1:AA:443:C:C2	1:AA:444:C:C5	3.08	0.41
57:B8:28:GLY:O	57:B8:32:LEU:CD2	2.61	0.41
27:DA:662:G:H5''	38:DP:18:ARG:C	2.39	0.41
51:B2:24:LEU:CD1	51:B2:28:LYS:HE2	2.50	0.41
20:AT:74:LYS:C	20:AT:76:ALA:H	2.22	0.41
34:DH:152:ARG:HB2	34:DH:162:ILE:HD11	2.03	0.41
52:D3:47:VAL:CA	52:D3:50:VAL:HG22	2.51	0.41
6:CF:10:LEU:HD21	6:CF:26:ILE:HD11	2.02	0.41
27:DA:1482:G:H2'	27:DA:1484:G:O4'	2.20	0.41
27:BA:847:U:O4	27:BA:933:A:N6	2.54	0.41
1:CA:1316:G:N2	1:CA:1319:A:OP2	2.53	0.41
5:CE:143:ARG:O	5:CE:144:THR:O	2.38	0.41
5:CE:78:HIS:HB2	5:CE:79:GLU:H	1.69	0.41
6:AF:34:GLY:O	6:AF:67:MET:HB2	2.20	0.41
50:B1:45:ASN:HD22	50:B1:45:ASN:HA	1.64	0.41
27:BA:489:G:C2	27:BA:491:G:C4	3.09	0.41
27:DA:494:G:H2'	27:DA:495:G:C8	2.56	0.41
45:DW:51:LEU:O	45:DW:54:ALA:HB3	2.20	0.41
27:DA:480:A:P	47:DY:46:LYS:HE2	2.60	0.41
1:CA:736:C:H4'	6:CF:91:VAL:HG22	2.01	0.41
5:AE:18:ARG:CG	5:AE:25:ARG:O	2.68	0.41
27:BA:2079:U:O3'	50:B1:35:THR:OG1	2.26	0.41
39:BQ:65:PHE:HB2	39:BQ:105:GLU:CG	2.46	0.41
52:D3:6:VAL:O	52:D3:34:GLU:HB3	2.20	0.41
1:AA:1118:C:OP1	9:AI:104:ARG:NH1	2.53	0.41
27:DA:1999:C:H2'	27:DA:2000:G:H8	1.85	0.41
50:B1:83:GLU:O	50:B1:84:GLY:O	2.39	0.41
1:CA:1132:C:HO2'	1:CA:1133:G:H5'	1.81	0.41
28:DB:31:C:C5'	28:DB:32:C:OP2	2.69	0.41
1:CA:9:G:OP1	5:CE:122:GLU:CB	2.68	0.41
1:AA:1064:G:O2'	1:AA:1065:U:P	2.79	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:BR:10:LEU:CA	40:BR:17:ARG:HD2	2.44	0.41
36:BN:36:GLY:H	36:BN:48:MET:HE3	1.85	0.41
13:CM:58:GLU:O	13:CM:59:TYR:C	2.59	0.41
20:AT:87:LYS:O	20:AT:91:LEU:CG	2.66	0.41
20:AT:56:MET:SD	20:AT:88:VAL:HG21	2.60	0.41
56:D7:30:VAL:O	56:D7:31:LEU:C	2.58	0.41
1:AA:758:G:C2'	1:AA:759:A:OP2	2.68	0.41
27:BA:2025:C:H2'	27:BA:2026:C:C6	2.55	0.41
1:CA:860:A:H4'	8:CH:75:ARG:HH22	1.86	0.41
1:AA:1178:G:N7	9:AI:97:LYS:HE3	2.36	0.41
29:BC:19:VAL:CG1	29:BC:20:TYR:HD1	2.30	0.41
47:DY:54:LYS:C	47:DY:55:TYR:CG	2.94	0.41
27:DA:381:G:OP1	50:D1:16:ASN:HB2	2.20	0.41
19:CS:22:LEU:HD13	19:CS:27:GLU:HB2	2.01	0.41
27:DA:1838:C:H6	27:DA:1838:C:H2'	1.64	0.41
29:DC:20:TYR:N	29:DC:20:TYR:CD1	2.88	0.41
24:CX:37:A:H2'	24:CX:38:A:O4'	2.20	0.41
27:DA:1424:G:C6	27:DA:1425:G:C4	3.08	0.41
7:AG:118:VAL:O	7:AG:121:ALA:HB3	2.21	0.41
1:AA:1258:G:H2'	1:AA:1259:C:H6	1.85	0.41
27:BA:2649:U:O2'	27:BA:2650:U:H5'	2.19	0.41
27:DA:2301:C:C3'	27:DA:2301:C:C6	3.04	0.41
27:DA:555:U:C2'	27:DA:556:G:H8	2.33	0.41
1:AA:40:C:H2'	1:AA:41:G:O4'	2.20	0.41
31:DE:175:VAL:O	31:DE:175:VAL:CG2	2.68	0.41
27:BA:1218:C:H42	27:BA:1231:G:H1	1.68	0.41
1:AA:66:G:O4'	1:AA:173:U:C4	2.73	0.41
1:AA:624:C:O3'	16:AP:10:GLY:HA2	2.21	0.41
27:DA:1111:A:O2'	27:DA:1112:G:H4'	2.21	0.41
10:AJ:43:ARG:HB2	10:AJ:67:THR:HG23	2.02	0.41
45:BW:52:GLU:O	45:BW:55:ALA:HB3	2.20	0.41
27:BA:2416:C:H2'	27:BA:2417:C:C6	2.55	0.41
38:BP:41:ARG:HE	38:BP:45:LEU:HD12	1.86	0.41
1:CA:961:U:C4	1:CA:983:A:C6	3.09	0.41
27:BA:1278:A:HO2'	27:BA:1279:G:H5'	1.85	0.41
41:BS:15:ARG:O	41:BS:17:ARG:O	2.38	0.41
41:BS:87:PHE:CD2	41:BS:88:ASP:N	2.65	0.41
32:BF:202:PHE:HA	32:BF:205:ARG:HB3	2.01	0.41
57:D8:62:LEU:N	57:D8:63:PRO:CD	2.82	0.41
27:DA:1797:C:H4'	30:DD:257:LEU:O	2.20	0.41
27:DA:1971:A:C2	30:DD:239:ARG:O	2.73	0.41
4:CD:19:LEU:O	4:CD:26:CYS:SG	2.78	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:BY:46:LYS:CG	47:BY:47:LYS:HE3	2.49	0.41
31:BE:64:LYS:HG2	31:BE:64:LYS:O	2.20	0.41
44:BV:91:TYR:C	44:BV:91:TYR:CD1	2.94	0.41
27:DA:1862:G:C2	27:DA:1863:G:C5	3.09	0.41
27:DA:995:C:O2'	27:DA:996:A:OP2	2.38	0.41
43:DU:103:PRO:O	43:DU:104:GLN:C	2.57	0.41
43:DU:21:ALA:HA	43:DU:24:TYR:CE1	2.55	0.41
43:DU:35:ALA:O	43:DU:39:LEU:HG	2.21	0.41
27:BA:2476:A:N1	27:BA:2477:C:C6	2.88	0.41
27:DA:1495:A:H8	27:DA:1495:A:OP1	2.03	0.41
27:DA:1578:U:O2	27:DA:1578:U:C2'	2.69	0.41
30:DD:208:LYS:HG2	30:DD:210:GLY:C	2.40	0.41
1:AA:344:A:C2'	1:AA:346:G:O6	2.67	0.41
42:BT:35:LYS:HG3	42:BT:36:GLU:HB2	2.03	0.41
27:DA:2832:U:C4'	27:DA:2833:G:H5''	2.45	0.41
1:AA:461:A:C5	1:AA:471:G:C5	3.09	0.41
27:DA:873:G:O2'	27:DA:874:G:H5'	2.20	0.41
1:AA:683:G:H21	11:AK:38:ASN:HA	1.86	0.41
7:CG:115:ARG:O	7:CG:116:ALA:C	2.58	0.41
27:DA:2344:U:OP1	55:D6:38:LYS:HD2	2.20	0.41
27:DA:958:U:H3	39:DQ:17:LEU:HD11	1.85	0.41
27:DA:747:U:C4	54:D5:2:ALA:N	2.88	0.41
27:DA:2507:C:C4	27:DA:2583:G:N1	2.89	0.41
31:DE:150:VAL:O	31:DE:151:TYR:C	2.58	0.41
27:DA:2050:C:H1'	31:DE:156:MET:CE	2.51	0.41
44:DV:81:TYR:HE2	44:DV:83:ARG:CZ	2.32	0.41
36:BN:94:HIS:O	36:BN:95:PRO:C	2.57	0.41
55:B6:19:ARG:CG	55:B6:20:ASN:N	2.76	0.41
27:DA:1348:G:C5	27:DA:1349:A:C2	3.08	0.41
27:DA:1408:C:C2	27:DA:1595:G:N2	2.88	0.41
47:BY:28:LYS:CB	47:BY:38:ILE:H	2.33	0.41
12:CL:59:SER:C	12:CL:61:TYR:H	2.23	0.41
12:CL:61:TYR:O	12:CL:62:GLU:HB2	2.20	0.41
40:DR:74:LYS:O	40:DR:76:VAL:N	2.53	0.41
42:DT:32:TYR:O	42:DT:33:LYS:HB2	2.21	0.41
22:AV:7:C:N3	23:AW:36:A:C2	2.88	0.41
1:AA:299:G:C5	1:AA:300:A:C6	3.08	0.41
1:AA:136:C:H42	1:AA:227:G:H1	1.68	0.41
1:CA:189(D):C:H2'	1:CA:189(E):U:C1'	2.51	0.41
17:CQ:78:GLU:CD	17:CQ:81:ARG:HD2	2.39	0.41
27:BA:1816:G:H2'	30:BD:62:TYR:CE2	2.55	0.41
30:BD:257:LEU:HA	30:BD:257:LEU:HD23	1.82	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:85:ALA:CB	2:CB:92:TYR:HD2	2.33	0.41
27:BA:952:G:C6	27:BA:966:G:C6	3.08	0.41
40:DR:41:ALA:O	40:DR:43:GLU:N	2.53	0.41
27:BA:829:A:N7	27:BA:2248:C:H5'	2.35	0.41
1:AA:355:C:C2'	1:AA:356:A:O5'	2.69	0.41
4:AD:28:SER:C	4:AD:30:LYS:H	2.23	0.41
1:AA:1321:C:H5'	1:AA:1322:C:H5'	1.99	0.41
34:BH:115:VAL:HG21	34:BH:148:ILE:CD1	2.50	0.41
27:DA:771:G:H2'	27:DA:772:C:H6	1.86	0.41
27:BA:2224:G:O2'	27:BA:2225:A:O4'	2.39	0.41
4:AD:16:GLY:O	4:AD:17:VAL:C	2.59	0.41
27:BA:382:G:H2'	27:BA:383:U:C5'	2.48	0.41
27:BA:385:C:O2'	27:BA:388:G:N2	2.54	0.41
27:DA:175:G:O2'	27:DA:176:G:H5'	2.21	0.41
27:DA:52:A:C2	27:DA:53:A:C5	3.09	0.41
1:CA:678:U:N3	1:CA:713:G:N2	2.69	0.41
6:AF:9:VAL:CG2	6:AF:60:PHE:CE2	3.04	0.41
6:AF:89:MET:SD	18:AR:76:LEU:CD2	3.06	0.41
42:BT:106:SER:HB3	42:BT:110:ILE:HD12	1.98	0.41
15:CO:83:GLU:C	15:CO:85:LEU:N	2.73	0.41
1:CA:1255:G:C5	1:CA:1283:G:N2	2.89	0.41
27:DA:2156:G:C6	27:DA:2157:G:N2	2.89	0.41
35:BI:101:LEU:HD23	35:BI:109:ILE:HD11	2.03	0.41
27:DA:1267:U:O2'	27:DA:1268:A:O5'	2.38	0.41
27:DA:963:U:H2'	27:DA:964:C:C6	2.55	0.41
1:AA:619:U:C4	4:AD:135:LEU:HD11	2.55	0.41
38:BP:30:THR:CG2	38:BP:31:ALA:H	2.14	0.41
24:AX:56:C:H1'	33:BG:76:SER:CB	2.51	0.41
27:DA:661:C:H2'	27:DA:662:G:C8	2.54	0.41
39:BQ:56:ARG:O	39:BQ:57:HIS:C	2.56	0.41
30:BD:12:SER:OG	30:BD:13:ARG:N	2.53	0.41
13:AM:70:LEU:O	13:AM:73:GLU:HB3	2.20	0.41
8:AH:14:ARG:O	8:AH:16:ALA:N	2.54	0.41
37:DO:35:VAL:HA	37:DO:62:VAL:CG1	2.50	0.41
27:DA:745:G:OP1	31:DE:133:LYS:NZ	2.44	0.41
33:DG:111:LEU:HD23	33:DG:114:ILE:HD11	2.03	0.41
48:BZ:117:GLN:HG2	48:BZ:119:ILE:HG13	2.02	0.41
1:AA:577:G:O2'	1:AA:578:C:C5'	2.68	0.41
27:DA:2526:G:N3	58:D9:2:LYS:HE2	2.35	0.41
5:CE:110:LEU:HD21	5:CE:139:LEU:HD11	2.02	0.41
7:CG:146:GLU:CA	7:CG:149:ARG:HB2	2.51	0.41
10:CJ:35:SER:O	10:CJ:36:GLY:C	2.59	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CH:109:ILE:HG23	8:CH:110:ALA:N	2.35	0.41
8:CH:38:ILE:C	8:CH:40:ALA:N	2.74	0.41
1:AA:1271:G:H2'	1:AA:1272:G:C8	2.54	0.41
19:AS:6:LYS:HD2	19:AS:7:LYS:HE3	2.02	0.41
27:DA:2102:U:H5'	27:DA:2103:C:P	2.61	0.41
27:DA:2790:A:C2	27:DA:2791:C:H3'	2.55	0.41
27:BA:1111:A:C2'	27:BA:1112:G:H4'	2.49	0.41
1:AA:1492:A:H3'	26:AZ:6:5OH:HNP	1.86	0.41
27:DA:797:C:OP1	32:DF:60:SER:OG	2.31	0.41
18:AR:37:VAL:O	18:AR:39:VAL:N	2.54	0.41
27:DA:499:U:H3'	27:DA:499:U:H6	1.86	0.41
27:BA:1175:U:C2'	27:BA:1175:U:O2	2.67	0.41
1:CA:1509:C:O2'	1:CA:1510:U:H5'	2.21	0.41
5:CE:7:GLU:HB2	5:CE:35:GLY:O	2.21	0.41
3:AC:64:VAL:CG2	3:AC:99:VAL:HA	2.51	0.41
27:BA:257:A:H2'	27:BA:258:G:C5'	2.50	0.41
46:BX:50:LYS:HE3	46:BX:84:ALA:HB2	2.02	0.41
37:BO:19:ILE:CG2	37:BO:43:VAL:HG13	2.41	0.41
27:DA:2840:C:O2'	40:DR:91:GLN:HG2	2.20	0.41
27:BA:2653:U:OP2	27:BA:2654:A:H3'	2.20	0.41
1:AA:704:A:C2	1:AA:705:U:C2	3.08	0.41
27:DA:1591:G:O2'	27:DA:1592:C:H5'	2.21	0.41
27:DA:1334:G:O2'	27:DA:1335:U:H5'	2.20	0.41
31:BE:38:THR:HB	31:BE:40:GLU:CD	2.41	0.41
27:BA:978:G:O4'	27:BA:1001:A:H2	2.03	0.41
27:BA:1464:C:O2'	27:BA:1465:G:H5'	2.21	0.41
1:CA:1281:U:H5'	1:CA:1282:C:OP2	2.21	0.41
49:B0:31:VAL:HG22	49:B0:65:GLY:O	2.20	0.41
39:DQ:108:GLY:O	39:DQ:109:VAL:HB	2.21	0.41
48:DZ:115:VAL:O	48:DZ:116:LEU:C	2.59	0.41
1:CA:1275:A:H2'	1:CA:1276:G:O4'	2.20	0.41
35:DI:43:ASN:O	35:DI:46:ALA:HB3	2.21	0.41
1:CA:31:G:N2	1:CA:47:C:O5'	2.53	0.41
1:CA:47:C:O2'	1:CA:48:C:P	2.78	0.41
10:AJ:78:ASN:ND2	10:AJ:81:THR:H	2.18	0.41
29:BC:182:PRO:O	29:BC:183:GLU:CB	2.69	0.41
11:AK:123:LYS:O	11:AK:126:ARG:HB2	2.21	0.41
27:DA:1586:A:C2	27:DA:1587:A:C5	3.09	0.41
1:AA:244:U:O4	1:AA:893:C:N3	2.52	0.41
27:BA:1518:U:O4	27:BA:1519:G:C6	2.73	0.41
27:BA:2752:C:H5'	27:BA:2753:A:OP2	2.21	0.41
15:CO:61:GLY:O	15:CO:65:ARG:CD	2.67	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:508:G:C5'	27:BA:509:C:OP1	2.69	0.41
20:CT:86:ARG:NH1	20:CT:86:ARG:HG3	2.31	0.41
21:CU:9:ARG:C	21:CU:11:GLY:H	2.23	0.41
3:CC:177:THR:HG22	3:CC:179:ARG:HG2	2.01	0.41
27:DA:1684:C:N3	27:DA:1704:G:O6	2.54	0.41
6:CF:25:ILE:HD13	6:CF:25:ILE:HA	1.91	0.41
32:DF:164:ARG:HG2	32:DF:164:ARG:NH1	2.36	0.41
35:BI:22:LYS:O	35:BI:23:PRO:C	2.59	0.41
1:AA:1258:G:C5	1:AA:1259:C:H5	2.38	0.41
27:DA:1941:C:C4	27:DA:1965:C:C6	3.09	0.41
2:AB:8:LYS:N	2:AB:8:LYS:HD3	2.36	0.41
27:DA:216:A:C2	27:DA:217:G:C4	3.09	0.41
1:CA:1194:U:N3	1:CA:1195:C:C4	2.89	0.41
27:BA:1877:A:H5''	27:BA:1878:G:OP2	2.21	0.41
27:DA:74:A:H2'	27:DA:74:A:N3	2.36	0.41
27:DA:1562:A:C2	27:DA:1563:G:C4	3.09	0.41
37:BO:36:GLY:CA	37:BO:109:LYS:HG3	2.50	0.41
42:DT:54:ARG:O	42:DT:55:ASN:HB2	2.20	0.41
27:DA:773:U:C4'	30:DD:47:GLY:HA3	2.50	0.41
1:CA:758:G:H8	1:CA:758:G:O5'	2.03	0.41
27:DA:21:A:C2	27:DA:22:C:O2	2.74	0.41
1:AA:652:U:O2'	1:AA:653:A:C5'	2.69	0.41
1:CA:1483:A:H3'	1:CA:1484:C:H6	1.86	0.41
45:BW:47:VAL:O	45:BW:50:VAL:CG1	2.69	0.41
15:CO:71:GLN:HE21	15:CO:71:GLN:HB3	1.70	0.41
30:BD:202:LYS:HG3	30:BD:203:ASN:OD1	2.20	0.41
29:DC:61:THR:HA	29:DC:164:ARG:HA	2.01	0.41
27:BA:2725:A:O2'	27:BA:2726:U:C2	2.73	0.41
47:BY:97:ARG:O	47:BY:98:VAL:CB	2.68	0.41
36:DN:27:ALA:CB	36:DN:106:MET:HE1	2.49	0.41
27:DA:592:G:H21	57:D8:4:MET:CE	2.33	0.41
4:CD:64:LEU:CD2	4:CD:93:PHE:HE1	2.34	0.41
43:BU:65:ILE:C	43:BU:67:ALA:N	2.73	0.41
44:BV:2:PHE:HE1	44:BV:13:ARG:HG3	1.85	0.41
44:BV:21:ARG:HD3	44:BV:21:ARG:H	1.86	0.41
44:BV:62:LEU:H	44:BV:62:LEU:CD2	2.21	0.41
1:AA:255:G:N2	1:AA:272:C:C2	2.88	0.41
1:AA:128:G:H5''	17:AQ:2:PRO:HA	2.03	0.41
29:BC:78:ALA:CB	29:BC:82:LYS:HB2	2.51	0.41
29:BC:82:LYS:O	29:BC:86:ALA:HB3	2.20	0.41
27:BA:286:C:C3'	27:BA:287:C:H5'	2.48	0.41
1:AA:1404:C:O2'	1:AA:1405:G:H5'	2.21	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:DV:19:LYS:HG2	44:DV:94:LEU:HB2	2.03	0.41
27:DA:1567:A:H5''	30:DD:58:HIS:NE2	2.36	0.41
51:D2:25:VAL:O	51:D2:29:LYS:HG2	2.20	0.41
27:DA:2810:A:C8	27:DA:2811:G:C8	3.08	0.41
27:DA:2277:G:C2'	27:DA:2278:A:H5'	2.51	0.41
38:DP:67:MET:HG3	38:DP:67:MET:O	2.21	0.41
27:DA:458:G:H3'	56:D7:38:GLY:O	2.21	0.41
47:BY:15:VAL:HG12	47:BY:17:SER:H	1.86	0.41
27:DA:574:C:H1'	27:DA:2055:C:C5	2.53	0.41
27:DA:971:C:H2'	27:DA:972:G:H5'	2.02	0.41
1:AA:322:C:O2'	1:AA:323:U:H5'	2.20	0.41
20:AT:29:LYS:HA	20:AT:32:ALA:HB3	2.03	0.41
20:AT:57:ARG:O	20:AT:58:LYS:C	2.59	0.41
20:AT:63:ILE:C	20:AT:65:LYS:N	2.74	0.41
27:BA:2468:G:OP1	39:BQ:119:ARG:NH1	2.45	0.41
46:DX:47:PHE:HD2	46:DX:89:ILE:HG12	1.85	0.41
4:AD:4:TYR:HE2	4:AD:7:PRO:O	2.03	0.41
27:DA:312:G:C5	27:DA:313:C:C5	3.09	0.41
30:BD:65:ILE:HG13	30:BD:105:ILE:HA	2.02	0.41
4:CD:101:LEU:HD22	4:CD:138:TYR:HB3	2.02	0.41
9:AI:53:VAL:HG12	9:AI:92:TYR:CD2	2.55	0.41
1:AA:1055:A:C6	1:AA:1206:G:C5	3.08	0.41
1:AA:1053:G:O2'	1:AA:1199:U:H5	2.03	0.41
14:AN:45:ARG:O	14:AN:49:HIS:HD2	2.03	0.41
12:CL:56:ARG:HA	12:CL:62:GLU:HA	2.03	0.41
1:AA:301:G:H5''	1:AA:301:G:H8	1.86	0.41
27:BA:1796:U:H2'	27:BA:1797:C:C6	2.55	0.41
27:BA:2437:U:H2'	27:BA:2438:U:C6	2.56	0.41
27:BA:754:C:H6	27:BA:754:C:C5'	2.33	0.41
30:BD:54:ARG:O	30:BD:218:ARG:HG3	2.21	0.41
27:BA:781:A:OP1	30:BD:218:ARG:NH2	2.54	0.41
1:AA:70:G:C6	1:AA:71:C:C4	3.09	0.41
31:BE:1:MET:CB	31:BE:83:ASP:O	2.68	0.41
31:BE:93:VAL:C	31:BE:95:ILE:N	2.68	0.41
27:BA:2248:C:H2'	27:BA:2249:U:O4'	2.21	0.41
27:BA:1315:C:H2'	27:BA:1316:U:H5'	2.01	0.41
42:DT:11:GLU:CD	42:DT:11:GLU:N	2.74	0.41
34:BH:157:TYR:O	34:BH:158:HIS:HB2	2.20	0.41
27:BA:1666:G:O3'	37:BO:6:THR:HG23	2.20	0.41
27:BA:382:G:H1	27:BA:392:C:N4	2.18	0.41
27:BA:383:U:H5	27:BA:385:C:H3'	1.86	0.41
1:AA:1422:G:H2'	1:AA:1423:G:C8	2.55	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:1800:C:P	30:BD:266:SER:HG	2.44	0.41
1:CA:532:A:O2'	1:CA:533:A:H5'	2.21	0.41
10:AJ:5:ARG:HG3	10:AJ:71:LEU:HD11	2.03	0.41
27:BA:2276:G:O2'	27:BA:2277:G:H5'	2.21	0.41
12:AL:38:ARG:NH2	12:AL:54:LYS:HZ3	2.17	0.41
30:BD:143:HIS:N	30:BD:143:HIS:ND1	2.68	0.41
39:DQ:94:VAL:HG23	39:DQ:95:ALA:N	2.35	0.41
27:BA:2842:G:C6	27:BA:2876:G:C6	3.09	0.41
58:B9:8:LYS:O	58:B9:34:GLN:OE1	2.38	0.41
1:CA:922:G:H4'	5:CE:20:GLN:HA	2.03	0.41
27:DA:2048:G:C2'	27:DA:2049:G:O5'	2.69	0.41
27:BA:2287:A:C4	27:BA:2289:G:C8	3.08	0.41
42:BT:93:ARG:O	42:BT:94:ALA:C	2.57	0.41
1:AA:522:C:H5''	12:AL:117:TYR:OH	2.21	0.41
32:BF:33:LEU:HD13	32:BF:112:MET:CE	2.49	0.41
19:CS:66:MET:O	19:CS:66:MET:HG3	2.20	0.41
29:DC:95:GLY:HA3	29:DC:99:ILE:HD12	2.02	0.41
34:DH:92:ILE:CG2	34:DH:93:GLY:H	2.22	0.41
39:BQ:58:PHE:CE1	39:BQ:61:GLY:HA3	2.56	0.41
27:BA:2358:G:C5	27:BA:2359:C:C5	3.09	0.41
35:DI:126:TYR:O	35:DI:139:GLN:HA	2.20	0.41
5:CE:33:VAL:HG12	5:CE:34:VAL:N	2.35	0.41
37:DO:97:ARG:NE	37:DO:99:PHE:HE1	2.16	0.41
2:CB:178:ARG:HH21	8:CH:68:ARG:HH12	1.69	0.41
27:DA:2293:C:N3	27:DA:2340:G:C2	2.89	0.41
33:DG:173:LEU:HD22	33:DG:178:PHE:CE1	2.55	0.41
27:DA:2467:C:C4	27:DA:2468:G:C2	3.09	0.41
27:BA:1048:A:O2'	27:BA:1049:C:O5'	2.36	0.41
26:AZ:4:SER:O	27:BA:1914:C:OP2	2.39	0.41
45:DW:29:LEU:CD1	45:DW:51:LEU:HD11	2.50	0.41
27:DA:308:G:N2	27:DA:477:A:C8	2.89	0.41
27:BA:2019:A:C2'	27:BA:2020:A:O5'	2.69	0.41
1:CA:1125:U:H2'	1:CA:1125:U:O2	2.19	0.41
15:CO:45:VAL:HG12	15:CO:46:HIS:N	2.36	0.41
7:AG:23:VAL:CG1	7:AG:27:ILE:HD11	2.48	0.41
33:BG:125:PHE:CG	33:BG:131:TYR:HD1	2.38	0.41
12:AL:21:VAL:HG11	12:AL:23:ALA:HB2	2.00	0.41
1:CA:575:G:H4'	1:CA:576:G:O5'	2.20	0.41
1:CA:15:G:N7	1:CA:1396:A:C4	2.88	0.41
27:DA:416:C:C2	27:DA:417:C:C6	3.09	0.41
1:CA:414:A:C2	1:CA:415:A:H1'	2.56	0.41
1:CA:1096:C:H2'	1:CA:1097:C:H6	1.83	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:81:G:H21	47:DY:2:ARG:NH1	2.18	0.41
1:AA:955:U:O2'	1:AA:956:U:H5'	2.21	0.41
6:AF:21:LEU:HA	6:AF:21:LEU:HD13	1.90	0.41
42:DT:16:ARG:HH11	42:DT:16:ARG:HG3	1.84	0.41
8:CH:78:GLN:O	8:CH:81:HIS:CE1	2.74	0.41
27:DA:2092:U:O2'	27:DA:2093:G:OP2	2.30	0.41
27:BA:1891:G:C4	27:BA:1892:C:C5	3.08	0.41
17:CQ:4:LYS:HG3	17:CQ:6:LEU:HD11	2.01	0.41
27:DA:1336:A:C2	27:DA:1337:G:C5	3.08	0.41
31:BE:9:VAL:CG1	31:BE:25:VAL:O	2.65	0.41
2:CB:114:ARG:NH1	2:CB:118:LEU:HD21	2.35	0.41
27:DA:1427:A:HO2'	27:DA:1428:C:P	2.42	0.41
2:CB:26:PRO:C	2:CB:28:PHE:H	2.23	0.41
1:AA:759:A:H4'	1:AA:881:G:OP1	2.21	0.41
12:CL:114:ARG:NH2	12:CL:121:LYS:HB2	2.34	0.41
31:BE:105:THR:HG21	31:BE:164:ARG:HH12	1.82	0.41
42:BT:129:ARG:HH11	42:BT:131:ALA:N	2.19	0.41
48:BZ:63:GLY:O	48:BZ:64:GLN:O	2.38	0.41
2:AB:132:LYS:HA	2:AB:135:GLN:CG	2.50	0.41
10:AJ:78:ASN:HD22	10:AJ:80:LYS:CB	2.34	0.41
47:DY:31:LEU:HA	47:DY:31:LEU:HD13	1.69	0.41
15:CO:36:ILE:O	15:CO:40:SER:N	2.43	0.41
27:DA:1844:C:H2'	27:DA:1845:G:H8	1.84	0.41
3:AC:28:GLN:HE21	3:AC:28:GLN:HB3	1.56	0.41
50:B1:58:ILE:HD11	50:B1:60:PHE:CZ	2.55	0.41
28:DB:94:C:O2	28:DB:94:C:H2'	2.20	0.41
29:DC:56:GLN:OE1	29:DC:168:THR:CB	2.69	0.41
11:AK:52:GLY:H	11:AK:55:LYS:HG3	1.86	0.41
27:BA:2228:G:H2'	27:BA:2229:C:C6	2.56	0.41
30:BD:261:LYS:CE	30:BD:263:ARG:HH22	2.32	0.41
43:BU:52:ARG:HH11	43:BU:52:ARG:CG	2.33	0.41
27:DA:2729:G:H2'	27:DA:2730:C:H6	1.85	0.41
48:BZ:127:VAL:HG11	48:BZ:132:ILE:HG12	2.02	0.41
43:BU:85:LYS:CD	43:BU:117:GLN:HE22	2.33	0.41
27:DA:230:U:H2'	27:DA:231:C:C6	2.53	0.41
27:DA:2314:C:H2'	27:DA:2315:G:H8	1.84	0.41
49:D0:30:VAL:CG1	49:D0:66:VAL:HG22	2.50	0.41
4:AD:201:GLN:OE1	4:AD:204:ILE:HG13	2.21	0.41
27:BA:1773:A:H2'	27:BA:1774:C:H5'	2.03	0.41
4:CD:147:ALA:HB2	4:CD:182:LYS:HB3	2.02	0.41
36:BN:99:LEU:O	36:BN:102:ALA:HB3	2.21	0.41
56:B7:29:LYS:NZ	56:B7:32:LYS:NZ	2.68	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:128:VAL:CG1	4:CD:129:ASN:ND2	2.84	0.41
4:CD:128:VAL:HG13	4:CD:129:ASN:ND2	2.36	0.41
27:DA:1502:C:H2'	27:DA:1502:C:O2	2.19	0.41
43:BU:22:LYS:HD3	43:BU:22:LYS:HA	1.92	0.41
1:AA:767:A:H8	1:AA:767:A:O5'	2.04	0.41
31:BE:176:ILE:N	31:BE:176:ILE:HD12	2.36	0.41
3:CC:37:GLN:OE1	3:CC:37:GLN:HA	2.19	0.41
30:BD:212:SER:O	30:BD:217:ARG:HB2	2.21	0.41
27:BA:2788:C:H4'	27:BA:2810:A:C4'	2.51	0.41
32:BF:157:VAL:HG21	32:BF:181:LEU:HD13	2.02	0.41
31:BE:102:VAL:HG12	31:BE:200:GLU:HA	2.03	0.41
30:BD:165:ILE:O	30:BD:166:GLN:NE2	2.54	0.41
27:DA:1788:C:C2'	27:DA:1789:A:H5'	2.50	0.41
27:DA:1792:G:H8	27:DA:1792:G:O5'	2.03	0.41
27:DA:1899:G:H21	27:DA:1902:C:N4	2.18	0.41
27:DA:1906:G:C2	27:DA:1907:G:C5	3.09	0.41
27:DA:1902:C:OP1	30:DD:242:ARG:HD3	2.21	0.41
4:CD:11:LEU:HD23	4:CD:11:LEU:H	1.85	0.41
4:CD:8:VAL:O	4:CD:10:ARG:N	2.43	0.41
4:CD:91:SER:O	4:CD:92:VAL:C	2.59	0.41
1:CA:1350:A:H2'	1:CA:1351:U:C6	2.55	0.41
36:BN:4:TYR:HE2	43:BU:61:TRP:HE1	1.65	0.41
44:BV:35:LEU:N	44:BV:35:LEU:CD2	2.83	0.41
17:AQ:68:ARG:H	17:AQ:70:ARG:HH12	1.67	0.41
32:DF:156:LEU:HD12	32:DF:156:LEU:HA	1.79	0.41
32:DF:2:LYS:CD	32:DF:2:LYS:N	2.69	0.41
27:DA:370:G:O2'	27:DA:371:A:OP1	2.31	0.41
42:BT:28:VAL:HG12	42:BT:29:ARG:NE	2.36	0.41
27:DA:1152:C:C1'	43:DU:77:SER:HB2	2.50	0.41
27:DA:1157:G:H2'	27:DA:1158:C:C5	2.53	0.41
27:BA:2703:C:H2'	27:BA:2704:C:H6	1.85	0.41
41:BS:68:GLN:O	41:BS:71:ARG:HB2	2.21	0.41
27:DA:1494:A:HO2'	27:DA:1495:A:H5''	1.77	0.41
51:D2:29:LYS:CD	51:D2:57:ILE:HD12	2.51	0.41
27:DA:61:G:O5'	27:DA:61:G:H8	2.02	0.41
31:DE:57:LYS:C	31:DE:59:VAL:N	2.73	0.41
31:DE:52:LEU:CD2	31:DE:76:ARG:HD3	2.50	0.41
55:D6:18:ARG:HB2	55:D6:19:ARG:H	1.78	0.41
55:D6:42:TRP:HA	55:D6:42:TRP:CE3	2.55	0.41
27:DA:1615:C:O2'	27:DA:1616:A:P	2.79	0.41
27:DA:2569:G:H2'	27:DA:2570:G:H5'	2.02	0.41
27:DA:583:G:C5	27:DA:584:C:C5	3.09	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:DY:18:GLY:C	47:DY:20:TYR:N	2.74	0.41
34:BH:23:ARG:O	34:BH:24:VAL:HG13	2.21	0.41
30:BD:106:ILE:CD1	30:BD:157:ARG:HA	2.51	0.41
4:CD:114:ARG:O	4:CD:117:ALA:N	2.53	0.41
1:CA:217:C:O2'	1:CA:218:C:P	2.79	0.41
1:AA:1339:A:H1'	24:AX:41:C:H1'	2.03	0.41
14:AN:40:CYS:C	14:AN:42:ILE:H	2.24	0.41
12:CL:30:ARG:HE	12:CL:30:ARG:HA	1.84	0.41
41:DS:25:ARG:NH1	41:DS:40:ILE:HB	2.35	0.41
1:CA:1407:C:O2	27:DA:1912:A:C2	2.68	0.41
1:CA:1494:G:H8	1:CA:1494:G:OP2	2.02	0.41
26:CZ:6:5OH:CS	26:CZ:6:5OH:N	2.83	0.41
2:CB:57:PHE:CE2	2:CB:185:ILE:HD11	2.56	0.41
1:CA:894:G:C6	1:CA:895:G:C6	3.09	0.41
48:BZ:67:PRO:O	48:BZ:68:THR:HG23	2.21	0.41
1:AA:373:A:C2	1:AA:374:A:C8	3.09	0.41
16:AP:19:ILE:CD1	16:AP:73:LEU:HD12	2.48	0.41
46:BX:14:SER:O	46:BX:15:GLU:C	2.59	0.41
1:CA:133:U:H1'	1:CA:230:G:H21	1.84	0.41
20:CT:30:LYS:HZ2	20:CT:80:ARG:NH2	2.16	0.41
42:DT:13:ARG:NH1	42:DT:13:ARG:HA	2.36	0.41
3:CC:68:VAL:HG12	3:CC:70:VAL:CG2	2.51	0.41
3:CC:90:GLU:O	3:CC:93:LYS:HB3	2.21	0.41
3:CC:91:LEU:O	3:CC:94:LEU:HD12	2.21	0.41
1:CA:1058:G:C5	1:CA:1059:C:C4	3.09	0.41
14:CN:40:CYS:SG	14:CN:43:CYS:SG	3.09	0.41
27:BA:2843:G:C5	27:BA:2844:G:C8	3.09	0.41
48:DZ:51:SER:HB3	48:DZ:53:HIS:HD2	1.86	0.41
38:BP:101:VAL:CG1	38:BP:106:LEU:HD23	2.51	0.41
1:CA:658:G:H2'	1:CA:659:U:C6	2.55	0.41
27:BA:2171:A:H4'	27:BA:2172:U:C5'	2.47	0.41
27:DA:1294:U:H5''	27:DA:1295:C:OP2	2.21	0.41
27:DA:2826:A:H3'	27:DA:2827:C:H6	1.85	0.41
40:DR:12:ARG:O	40:DR:17:ARG:NH2	2.54	0.41
27:DA:2335:A:O2'	27:DA:2336:A:H5''	2.20	0.41
27:BA:1826:G:OP1	30:BD:224:ALA:N	2.47	0.41
55:B6:9:LEU:HD21	55:B6:26:ASN:HD22	1.85	0.41
27:DA:319:C:H2'	27:DA:320:A:O4'	2.20	0.41
3:AC:184:TYR:HA	3:AC:200:ALA:O	2.20	0.41
33:BG:71:THR:OG1	33:BG:89:GLY:HA3	2.20	0.41
33:DG:130:ASN:HB3	33:DG:160:VAL:HA	2.02	0.41
33:DG:39:ILE:HG23	33:DG:92:VAL:CG1	2.40	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BQ:31:ASP:O	39:BQ:133:ARG:O	2.38	0.41
27:DA:930:U:H4'	27:DA:931:G:N3	2.35	0.41
27:BA:729:G:C4	27:BA:1775:U:O2	2.74	0.41
13:AM:45:VAL:C	13:AM:47:ASP:H	2.23	0.41
37:DO:86:ILE:H	37:DO:86:ILE:CD1	2.28	0.41
42:DT:50:ILE:CG2	42:DT:100:TYR:HA	2.49	0.41
27:DA:2321:G:N3	27:DA:2321:G:H2'	2.34	0.41
1:CA:1316:G:O6	19:CS:5:LEU:HD22	2.20	0.41
1:AA:1327:C:H2'	1:AA:1328:C:C6	2.55	0.41
5:CE:146:ALA:O	5:CE:147:ASP:C	2.58	0.41
7:CG:134:ALA:O	7:CG:137:LYS:N	2.54	0.41
27:DA:2835:A:C6	27:DA:2879:C:C6	3.09	0.41
27:DA:2468:G:HO2'	27:DA:2469:A:P	2.44	0.41
27:BA:105:C:C2'	27:BA:105:C:O2	2.60	0.41
27:DA:1285:G:O3'	40:DR:105:ARG:NH1	2.54	0.41
45:DW:12:ILE:CG1	45:DW:42:ARG:NH1	2.84	0.41
18:AR:37:VAL:CG2	18:AR:38:GLU:H	2.22	0.41
27:DA:1236:G:O2'	27:DA:1237:A:P	2.78	0.41
1:AA:189(I):G:C2'	1:AA:189(J):G:H8	2.34	0.41
7:AG:26:PHE:CE2	7:AG:30:ILE:HD11	2.55	0.41
7:AG:27:ILE:HG22	7:AG:39:ALA:HB1	2.02	0.41
35:DI:9:LEU:O	35:DI:12:LEU:O	2.39	0.41
33:BG:121:ASN:HA	33:BG:122:PRO:HD2	1.79	0.41
12:AL:25:LYS:HE2	12:AL:30:ARG:NH2	2.36	0.41
1:CA:865:A:C2	1:CA:866:C:O2	2.74	0.41
1:AA:1088:G:C5	1:AA:1089:G:N7	2.89	0.41
2:AB:210:SER:O	2:AB:211:ILE:C	2.59	0.41
37:BO:122:LEU:HD23	42:BT:43:GLN:NE2	2.36	0.41
29:DC:51:PRO:HB3	29:DC:203:GLY:O	2.20	0.41
36:DN:89:LYS:HA	36:DN:89:LYS:HD2	1.77	0.41
2:CB:87:ARG:HE	2:CB:233:SER:HB2	1.86	0.41
27:BA:1905:C:H1'	27:BA:1928:A:H2	1.85	0.41
27:BA:1028:A:H61	27:BA:1125:G:H2'	1.81	0.41
7:AG:63:LYS:HZ1	7:AG:67:GLU:HB2	1.86	0.41
6:AF:24:GLU:CG	6:AF:25:ILE:H	2.33	0.41
27:BA:2065:C:H1'	27:BA:2449:U:O2	2.20	0.41
27:BA:258:G:H2'	27:BA:259:G:C8	2.52	0.41
7:CG:15:ASP:OD2	7:CG:16:LEU:N	2.47	0.41
1:AA:223:U:H2'	1:AA:224:C:O4'	2.20	0.41
1:AA:1508:G:C4	1:AA:1509:C:C5	3.08	0.41
27:DA:2840:C:O2'	27:DA:2841:C:H5'	2.21	0.41
1:AA:1064:G:H1'	1:AA:1066:C:C6	2.56	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1946:U:C2'	27:DA:1947:C:H6	2.27	0.41
33:DG:129:GLY:O	33:DG:161:THR:CB	2.68	0.41
27:BA:18:C:H5''	43:BU:24:TYR:O	2.20	0.41
27:BA:1846:G:H5''	27:BA:1847:A:OP2	2.20	0.41
37:DO:101:PRO:CG	42:DT:67:SER:OG	2.65	0.41
1:CA:854:G:H3'	1:CA:871:U:O4	2.21	0.41
13:AM:40:ASN:C	13:AM:42:ALA:H	2.24	0.41
11:AK:85:ARG:O	11:AK:86:GLY:O	2.39	0.41
1:CA:1412:C:H2'	1:CA:1413:A:H8	1.79	0.41
1:CA:407:G:N2	1:CA:436:C:C2	2.89	0.41
27:BA:914:C:C2'	27:BA:915:C:O5'	2.68	0.41
29:BC:100:ILE:HG22	29:BC:101:GLN:CG	2.46	0.41
1:AA:123:C:N3	1:AA:238:G:N2	2.62	0.41
27:BA:1936:A:C3'	27:BA:1937:A:H5''	2.43	0.41
12:AL:88:LYS:HB2	12:AL:88:LYS:HE2	1.79	0.41
27:DA:1843:C:H6	27:DA:1843:C:O5'	2.04	0.41
1:CA:932:C:C2'	1:CA:932:C:O2	2.66	0.41
1:AA:927:G:C2'	1:AA:928:G:H5'	2.50	0.41
27:DA:2691:C:C6	27:DA:2691:C:H5'	2.56	0.41
7:AG:115:ARG:O	7:AG:118:VAL:HG22	2.21	0.41
27:DA:1031:G:C4'	58:D9:6:SER:OG	2.66	0.41
27:BA:970:C:H2'	27:BA:971:C:C6	2.56	0.41
28:DB:105:A:H2'	28:DB:106:G:O4'	2.20	0.41
7:AG:94:ARG:O	7:AG:97:GLN:N	2.53	0.41
27:BA:237:C:N3	27:BA:261:G:C2	2.89	0.41
35:DI:45:LYS:O	35:DI:48:GLU:CB	2.69	0.41
48:BZ:46:VAL:HG12	48:BZ:50:ALA:HB3	2.03	0.41
35:DI:69:LYS:O	35:DI:73:GLU:CB	2.69	0.41
27:BA:2010:G:H5''	45:BW:42:ARG:HB3	2.02	0.41
5:CE:6:PHE:N	5:CE:6:PHE:CD1	2.88	0.41
1:CA:594:G:C2'	1:CA:595:G:H5'	2.51	0.41
1:CA:1076:C:H2'	1:CA:1077:G:H8	1.86	0.41
28:BB:58:A:C5	28:BB:59:A:C8	3.09	0.41
27:DA:2244:U:O5'	27:DA:2244:U:H6	2.04	0.41
48:DZ:71:ARG:HD3	48:DZ:71:ARG:HA	1.62	0.41
33:DG:165:THR:OG1	33:DG:168:GLU:HB2	2.20	0.41
25:AY:75:A:H1'	27:BA:2421:G:N2	2.36	0.41
27:BA:607:U:C5	27:BA:620:G:C5	3.09	0.41
14:CN:57:ARG:CG	14:CN:58:LYS:N	2.82	0.41
40:BR:22:ARG:C	40:BR:24:GLN:N	2.74	0.41
40:BR:45:ARG:O	40:BR:47:PHE:N	2.54	0.41
28:BB:40:U:O2	28:BB:43:C:H5''	2.21	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:BB:40:U:H1'	28:BB:45:A:H61	1.85	0.41
31:BE:200:GLU:HG2	31:BE:201:THR:H	1.85	0.41
47:BY:84:ARG:NH1	47:BY:97:ARG:HA	2.35	0.41
47:BY:98:VAL:O	47:BY:98:VAL:HG12	2.20	0.41
34:BH:137:ASP:O	34:BH:138:LYS:HB2	2.20	0.41
36:DN:70:LYS:HG2	36:DN:87:LEU:CD1	2.19	0.41
12:AL:43:LYS:N	12:AL:89:ASP:O	2.53	0.41
57:D8:53:PRO:O	57:D8:55:ALA:N	2.53	0.41
27:DA:250:G:H2'	27:DA:251:A:C8	2.56	0.41
38:DP:46:LYS:O	38:DP:47:ASP:HB2	2.20	0.41
27:DA:271(T):C:H2'	27:DA:271(U):G:O4'	2.20	0.41
1:CA:504:C:N3	1:CA:542:G:C2	2.89	0.41
4:CD:80:GLU:C	4:CD:84:LYS:HE2	2.40	0.41
33:BG:105:LYS:C	33:BG:107:LEU:N	2.74	0.41
27:BA:501:A:H2'	27:BA:502:A:C8	2.55	0.41
31:BE:54:GLN:HB2	31:BE:55:ASN:H	1.53	0.41
1:AA:19:C:H5''	5:AE:86:ALA:HB3	2.03	0.41
1:AA:864:A:H3'	1:AA:865:A:C8	2.56	0.41
27:BA:523:C:H6	27:BA:523:C:O5'	2.03	0.41
44:BV:38:LEU:C	44:BV:39:LEU:HD13	2.41	0.41
27:BA:557:U:O2'	27:BA:558:G:C5'	2.68	0.41
44:BV:18:LEU:CG	44:BV:19:LYS:H	2.33	0.41
43:BU:95:LEU:HD13	44:BV:4:ILE:CG2	2.51	0.41
27:DA:412:A:OP1	27:DA:413:C:H5	2.04	0.41
1:AA:255:G:C4	1:AA:256:U:C5	3.09	0.41
17:AQ:16:GLN:O	17:AQ:18:THR:N	2.54	0.41
32:DF:110:LEU:C	32:DF:110:LEU:CD1	2.90	0.41
32:DF:156:LEU:HD12	32:DF:193:VAL:O	2.20	0.41
19:CS:41:VAL:HA	19:CS:42:PRO:HD3	1.77	0.41
42:BT:28:VAL:O	42:BT:86:ILE:O	2.39	0.41
1:AA:1077:G:C8	1:AA:1077:G:H3'	2.56	0.41
1:AA:1399:C:C2	1:AA:1401:G:C6	3.09	0.41
27:BA:2476:A:N1	27:BA:2477:C:C5	2.89	0.41
30:DD:57:GLY:HA2	30:DD:214:TRP:O	2.20	0.41
30:BD:27:THR:HG21	30:BD:83:GLU:CA	2.51	0.41
51:D2:19:VAL:C	51:D2:21:LEU:N	2.74	0.41
47:DY:26:LYS:CG	47:DY:27:VAL:N	2.83	0.41
47:DY:39:VAL:CG1	47:DY:40:GLU:N	2.63	0.41
27:DA:859:G:H21	27:DA:916:G:C2'	2.33	0.41
27:DA:921:G:C6	27:DA:922:U:C4	3.09	0.41
31:DE:54:GLN:HA	31:DE:72:VAL:HG12	2.02	0.41
55:D6:16:CYS:O	55:D6:18:ARG:NH2	2.54	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2415:G:H2'	27:DA:2416:C:H6	1.81	0.41
38:DP:58:THR:O	38:DP:61:ARG:CD	2.69	0.41
31:DE:154:LYS:HA	31:DE:154:LYS:HE3	2.01	0.41
27:BA:1139:G:N3	27:BA:1143:A:H2	2.19	0.41
38:DP:23:PRO:CG	38:DP:33:ARG:NE	2.84	0.41
55:B6:19:ARG:CG	55:B6:20:ASN:H	2.22	0.41
55:B6:41:PRO:CD	55:B6:46:HIS:HB3	2.46	0.41
55:B6:47:THR:HB	55:B6:48:VAL:H	1.59	0.41
27:BA:2468:G:H22	27:BA:2481:G:C2'	2.34	0.41
39:BQ:70:PRO:HA	39:BQ:94:VAL:C	2.41	0.41
31:DE:37:ARG:HB2	31:DE:46:ALA:CA	2.50	0.41
27:BA:1685:C:C3'	27:BA:1686:C:H5''	2.51	0.41
13:CM:14:ARG:N	13:CM:44:ARG:HH11	2.18	0.41
34:BH:19:VAL:CG2	34:BH:44:VAL:HG13	2.51	0.41
34:BH:54:ARG:CG	34:BH:54:ARG:O	2.69	0.41
30:BD:33:LEU:HD12	30:BD:33:LEU:N	2.25	0.41
1:CA:188:C:O4'	20:CT:89:ARG:NH2	2.53	0.41
1:AA:1365:G:O2'	1:AA:1366:C:C5'	2.69	0.41
14:AN:40:CYS:C	14:AN:42:ILE:N	2.74	0.41
19:AS:38:SER:O	19:AS:70:LYS:HD2	2.21	0.41
14:AN:26:ARG:CG	14:AN:27:CYS:H	2.17	0.41
1:CA:548:G:H5''	1:CA:548:G:H8	1.86	0.41
1:AA:295:C:C4	1:AA:296:U:C5	3.08	0.41
27:DA:1034:G:C5'	58:D9:18:ARG:HD2	2.36	0.41
16:AP:3:LYS:O	16:AP:21:VAL:HA	2.21	0.41
41:DS:35:ILE:O	41:DS:53:SER:HB2	2.20	0.41
3:CC:113:ALA:O	3:CC:115:LEU:N	2.53	0.41
27:BA:1806:C:C2'	27:BA:1807:G:H5'	2.50	0.41
27:BA:778:G:C5	27:BA:779:U:C4	3.09	0.41
1:CA:563:A:C8	1:CA:567:G:O4'	2.74	0.41
31:BE:34:VAL:CG2	31:BE:34:VAL:O	2.69	0.41
1:CA:608:A:H2'	1:CA:609:A:O4'	2.20	0.41
1:CA:607:A:O2'	1:CA:608:A:H5'	2.21	0.41
39:BQ:16:ARG:CG	39:BQ:17:LEU:H	2.32	0.41
33:DG:105:LYS:HD2	33:DG:142:PRO:HG3	2.03	0.41
27:BA:1992:G:C4	27:BA:1997:G:C6	3.09	0.41
27:BA:1658:C:N4	27:BA:2002:G:H1	2.19	0.41
15:CO:58:MET:HB3	15:CO:58:MET:HE3	1.90	0.41
7:AG:40:ALA:O	7:AG:41:ARG:C	2.59	0.41
46:DX:11:PRO:O	46:DX:12:VAL:C	2.59	0.41
1:AA:460:G:N1	1:AA:470:C:H5''	2.34	0.41
1:AA:453:A:C6	1:AA:454:C:N4	2.88	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:CT:50:GLU:N	20:CT:100:ILE:HG12	2.34	0.41
1:AA:747:C:C2'	1:AA:748:C:O5'	2.68	0.41
31:DE:9:VAL:O	31:DE:192:ASN:ND2	2.54	0.41
1:AA:721:G:H4'	1:AA:722:A:C5'	2.48	0.41
1:CA:1065:U:C5	1:CA:1190:G:H1'	2.55	0.41
1:CA:1190:G:OP1	3:CC:4:LYS:HA	2.21	0.41
37:BO:3:GLN:O	37:BO:4:PRO:C	2.58	0.41
27:BA:1665:A:N6	27:BA:1666:G:C6	2.88	0.41
3:CC:50:ALA:HB2	3:CC:75:VAL:HG11	2.03	0.41
27:DA:2478:A:C5'	58:D9:31:LYS:NZ	2.82	0.41
27:DA:2476:A:N1	27:DA:2477:C:C5	2.89	0.41
27:DA:118:A:O2'	27:DA:178:G:H5'	2.20	0.41
51:D2:16:LEU:O	51:D2:17:SER:O	2.39	0.41
27:DA:524:U:O2'	27:DA:525:U:H5'	2.21	0.41
8:AH:97:VAL:HG22	8:AH:98:LYS:N	2.36	0.41
1:AA:1152:A:H3'	10:AJ:13:HIS:CD2	2.56	0.41
1:CA:1061:G:C6	1:CA:1197:G:C6	3.09	0.41
12:CL:99:ARG:HE	12:CL:99:ARG:HB3	1.54	0.41
1:AA:1152:A:O2'	1:AA:1153:C:P	2.79	0.41
1:CA:1353:G:O2'	1:CA:1354:C:H5'	2.20	0.41
31:BE:128:SER:OG	31:BE:129:HIS:ND1	2.45	0.41
27:BA:2848:G:O2'	27:BA:2849:U:H5'	2.21	0.41
32:BF:177:ALA:O	32:BF:180:GLY:N	2.43	0.41
38:BP:83:VAL:CG1	38:BP:112:LEU:HD21	2.51	0.41
39:DQ:27:VAL:HB	39:DQ:137:TYR:CD1	2.56	0.41
48:DZ:44:ASP:CG	48:DZ:48:ARG:HG2	2.42	0.41
25:AY:8:U:H5'	25:AY:48:C:OP2	2.21	0.41
1:CA:1498:U:H5''	1:CA:1499:A:OP1	2.20	0.41
1:CA:926:G:C6	1:CA:1505:G:C5	3.08	0.41
27:DA:1313:U:H3'	27:DA:1314:C:H5'	2.03	0.41
27:DA:1341:U:H3'	27:DA:1397:U:O2	2.20	0.41
27:DA:1300:U:C4	27:DA:1626:G:N7	2.88	0.41
27:DA:1301:A:H62	27:DA:1641:A:N6	2.18	0.41
35:BI:88:ILE:O	35:BI:89:TYR:CD2	2.74	0.41
33:BG:51:ARG:CA	33:BG:51:ARG:HE	2.34	0.41
27:BA:2425:A:O4'	27:BA:2427:C:C2	2.74	0.41
40:DR:10:LEU:HD23	40:DR:17:ARG:HD2	2.02	0.41
40:DR:20:LEU:HD12	40:DR:20:LEU:C	2.41	0.41
30:BD:240:ALA:HA	30:BD:241:PRO:HD3	1.48	0.41
35:BI:19:VAL:HG22	35:BI:20:ASP:N	2.36	0.41
27:BA:1407:C:O2	27:BA:1407:C:H2'	2.20	0.41
55:B6:25:LYS:HD2	55:B6:27:LYS:HZ3	1.84	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:B6:9:LEU:HD13	55:B6:28:ARG:CG	2.51	0.41
55:B6:11:LEU:HD12	55:B6:12:GLU:N	2.35	0.41
27:DA:323:G:C6	27:DA:333:G:C5	3.09	0.41
3:AC:54:ARG:O	3:AC:55:VAL:HG23	2.21	0.41
27:BA:397:G:H2'	27:BA:398:G:C8	2.56	0.41
8:AH:2:LEU:HD13	8:AH:3:THR:N	2.36	0.41
8:AH:84:ARG:HG3	8:AH:85:ARG:N	2.35	0.41
1:AA:1239:A:N3	1:AA:1241:G:N1	2.69	0.41
27:DA:1457:A:O2'	27:DA:1459:G:H8	2.02	0.41
30:DD:33:LEU:O	30:DD:34:VAL:CG1	2.66	0.41
27:DA:2668:G:C2'	27:DA:2669:G:H5'	2.51	0.41
27:DA:1696:G:H2'	27:DA:1697:G:O4'	2.21	0.41
33:DG:154:GLY:O	33:DG:155:MET:HB3	2.21	0.41
28:DB:42:C:H4'	33:DG:67:LYS:O	2.20	0.41
13:AM:3:ARG:HA	13:AM:8:GLU:O	2.20	0.41
10:CJ:8:LEU:HD23	10:CJ:96:ILE:HA	2.02	0.41
5:CE:40:ARG:HH11	5:CE:40:ARG:HG2	1.85	0.41
5:CE:129:ILE:O	5:CE:132:ALA:HB3	2.21	0.41
42:DT:118:ARG:O	42:DT:119:LYS:C	2.59	0.41
1:CA:342:C:H2'	1:CA:343:U:O4'	2.21	0.41
27:BA:2694:G:C5'	27:BA:2694:G:H8	2.23	0.41
21:AU:9:ARG:HD3	21:AU:22:ARG:HD2	2.02	0.41
1:CA:452:A:C6	1:CA:453:A:C5	3.09	0.41
1:AA:579:G:N1	1:AA:763:G:C6	2.89	0.41
27:BA:627:A:H8	27:BA:627:A:OP1	2.04	0.41
3:AC:33:LEU:O	3:AC:36:ASP:CB	2.68	0.41
7:CG:75:VAL:HG11	7:CG:144:MET:HB3	2.02	0.41
2:AB:178:ARG:C	2:AB:180:LEU:N	2.73	0.41
34:DH:54:ARG:HA	34:DH:55:PRO:HD2	1.86	0.41
8:CH:44:PHE:HD1	8:CH:79:VAL:CG1	2.34	0.41
1:AA:852:G:C2'	1:AA:853:G:O5'	2.69	0.41
1:CA:707:C:O2'	1:CA:708:C:H5'	2.21	0.41
1:CA:710:G:N1	1:CA:711:G:C5	2.89	0.41
32:DF:58:ALA:O	32:DF:59:TYR:O	2.39	0.41
1:CA:687:A:N1	1:CA:700:G:O2'	2.49	0.41
27:BA:115:C:C4	27:BA:116:C:H5	2.39	0.41
1:AA:1217:C:O2'	1:AA:1218:C:H5'	2.21	0.41
12:AL:24:LEU:HD22	12:AL:24:LEU:N	2.35	0.41
37:BO:98:VAL:HG13	37:BO:118:ALA:HA	2.03	0.41
37:BO:97:ARG:CA	37:BO:117:LEU:HD22	2.51	0.41
50:D1:7:ILE:HD13	50:D1:62:VAL:CB	2.49	0.41
27:BA:1204:A:H2	27:BA:1241:A:N1	2.18	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:D3:31:LEU:HA	52:D3:31:LEU:HD23	1.84	0.41
24:AX:4:G:C5	24:AX:70:G:C6	3.09	0.41
33:BG:11:TYR:HE2	33:BG:12:TYR:CE2	2.39	0.41
1:CA:119:A:N7	1:CA:288:A:C2	2.89	0.41
1:CA:288:A:H2'	1:CA:289:G:H4'	2.03	0.41
27:DA:1779:U:H5	27:DA:1784:A:C8	2.39	0.41
27:BA:2487:G:O2'	27:BA:2488:A:H5'	2.21	0.41
27:DA:1231:G:N1	27:DA:1232:G:C6	2.89	0.41
34:BH:127:GLU:OE2	34:BH:130:ARG:NH2	2.54	0.41
41:DS:82:ILE:CG2	41:DS:83:LYS:H	2.33	0.41
1:CA:913:A:O2'	1:CA:914:A:P	2.79	0.41
1:AA:782:A:N1	1:AA:801:U:N1	2.68	0.41
27:BA:1905:C:N4	27:BA:1930:G:C2	2.88	0.41
1:AA:969:A:C2	1:AA:970:C:C2	3.08	0.41
13:AM:108:ARG:NH1	13:AM:111:LYS:O	2.54	0.41
13:AM:117:VAL:HG12	13:AM:118:ALA:O	2.21	0.41
28:BB:11:C:P	49:B0:72:ARG:HD2	2.61	0.41
3:AC:62:ASP:O	3:AC:98:ASN:CB	2.68	0.41
34:DH:113:VAL:HG12	34:DH:115:VAL:CG2	2.51	0.41
27:DA:2545:G:N3	27:DA:2545:G:H2'	2.35	0.41
1:CA:689:C:H4'	1:CA:705:U:H1'	2.02	0.41
11:CK:52:GLY:H	11:CK:55:LYS:NZ	2.19	0.41
27:DA:64:A:C6	46:DX:66:LEU:HD13	2.56	0.41
37:DO:37:ASP:O	37:DO:61:VAL:HG23	2.21	0.41
50:D1:80:LEU:HD22	50:D1:82:LEU:CD1	2.50	0.41
42:DT:19:LEU:N	42:DT:19:LEU:HD12	2.33	0.41
32:BF:53:THR:HG22	32:BF:55:GLY:N	2.34	0.41
29:DC:100:ILE:CD1	29:DC:132:GLY:HA3	2.45	0.41
1:AA:1256:A:C5'	1:AA:1257:U:OP1	2.62	0.41
27:BA:2720:U:C4	27:BA:2873:A:N7	2.89	0.41
1:AA:837:G:C2	1:AA:850:U:O2	2.74	0.41
37:DO:91:LEU:HD13	37:DO:91:LEU:HA	1.88	0.41
27:BA:2109:U:C4	27:BA:2110:G:O6	2.74	0.41
27:BA:1283:G:N2	27:BA:1286:A:C8	2.88	0.41
4:AD:3:ARG:HB3	4:AD:118:ARG:NH1	2.33	0.41
27:DA:2280:G:N7	49:D0:14:ARG:NH1	2.69	0.41
27:BA:722:A:N1	27:BA:723:G:C4	2.88	0.41
27:BA:723:G:C6	27:BA:724:U:N3	2.89	0.41
27:BA:726:G:O2'	27:BA:727:A:P	2.78	0.41
27:DA:2281:C:O2'	27:DA:2282:G:H5'	2.21	0.41
1:AA:1045:C:C6	1:AA:1045:C:C3'	3.04	0.41
13:CM:31:LYS:HA	13:CM:34:LEU:HB2	2.03	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:22:G:O2'	1:AA:23:C:H5'	2.21	0.41
1:CA:1473:A:H2'	1:CA:1474:G:C8	2.55	0.41
27:BA:1465:G:C5'	27:BA:1528:A:H1'	2.51	0.41
27:BA:1465:G:H4'	27:BA:1528:A:H1'	2.02	0.41
1:CA:1480:G:C4	1:CA:1481:U:C6	3.09	0.41
2:CB:144:ARG:HG3	2:CB:145:LEU:N	2.36	0.41
27:BA:2641:G:N1	27:BA:2774:C:C4	2.89	0.41
11:CK:57:THR:HG22	11:CK:60:ALA:H	1.85	0.41
1:CA:834:C:N4	1:CA:853:G:C6	2.89	0.41
27:DA:1721:G:H2'	27:DA:1741:A:H62	1.86	0.41
27:BA:193:U:C2'	27:BA:194:G:H5'	2.51	0.41
35:BI:68:LEU:HA	35:BI:71:ILE:HD11	2.03	0.41
12:CL:114:ARG:CG	12:CL:114:ARG:HH11	2.33	0.41
27:DA:1197:G:O2'	27:DA:1198:U:C5'	2.64	0.41
27:BA:2007:C:H2'	27:BA:2007:C:O2	2.21	0.41
53:D4:40:ILE:O	53:D4:41:ILE:HD13	2.20	0.41
27:BA:2029:G:O6	27:BA:2032:G:H3'	2.20	0.41
1:CA:71:C:C2'	1:CA:72:C:H5'	2.51	0.41
27:DA:2228:G:C6	27:DA:2229:C:C4	3.09	0.41
27:BA:700:G:C2	27:BA:701:G:C4	3.08	0.41
10:AJ:78:ASN:ND2	10:AJ:81:THR:OG1	2.54	0.41
28:DB:24:G:O2'	28:DB:25:A:P	2.78	0.41
27:DA:2241:A:O2'	27:DA:2242:G:H5'	2.20	0.41
24:CX:7:G:C6	24:CX:49:G:N7	2.89	0.41
1:AA:289:G:C2	1:AA:312:C:O2	2.73	0.41
27:BA:1613:G:C6	27:BA:1619:G:C6	3.09	0.41
4:CD:162:LEU:HA	4:CD:162:LEU:HD23	1.88	0.41
27:BA:1450:G:C2'	27:BA:1450(A):C:C5'	2.98	0.41
1:CA:27:G:C6	1:CA:28:G:C5	3.09	0.41
27:BA:1450:G:C2'	27:BA:1450(A):C:O5'	2.68	0.41
27:DA:1897:G:H2'	27:DA:1898:U:O4'	2.21	0.41
43:BU:76:TYR:O	43:BU:77:SER:C	2.58	0.41
1:AA:92:C:H2'	1:AA:93:G:C8	2.56	0.41
54:B5:57:VAL:C	54:B5:58:LEU:HD23	2.41	0.41
27:DA:1017:G:H2'	27:DA:1018:C:H5'	2.00	0.41
23:CW:48:C:H42	23:CW:64:G:H1	1.68	0.41
54:D5:37:LYS:O	54:D5:38:ALA:O	2.38	0.41
11:AK:51:LYS:HB3	11:AK:51:LYS:HZ3	1.86	0.41
5:AE:34:VAL:CG1	5:AE:35:GLY:N	2.83	0.41
27:BA:2228:G:P	30:BD:261:LYS:HZ1	2.43	0.41
27:BA:301:G:O2'	27:BA:302:C:P	2.78	0.41
54:B5:33:CYS:SG	54:B5:33:CYS:O	2.78	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BF:111:ALA:HB2	32:BF:206:ILE:HG21	2.02	0.41
20:AT:92:LEU:HD23	20:AT:92:LEU:HA	1.67	0.41
1:AA:336:C:C1'	1:AA:1468:A:H2	2.34	0.41
27:BA:732:C:O2'	27:BA:733:G:H5'	2.20	0.41
27:BA:2536:G:C5	27:BA:2537:U:C5	3.08	0.41
23:CW:66:A:C6	23:CW:67:C:N4	2.88	0.41
1:AA:1070:U:H2'	1:AA:1071:C:H6	1.80	0.41
19:CS:38:SER:O	19:CS:70:LYS:HA	2.20	0.41
1:AA:1499:A:C1'	1:AA:1520:G:H5'	2.49	0.41
1:AA:162:A:OP2	1:AA:163:C:C4	2.74	0.41
27:BA:1593:G:C3'	27:BA:1594:G:H8	2.33	0.41
48:DZ:99:VAL:HA	48:DZ:100:PRO:HD3	1.90	0.41
1:CA:485:G:O2'	1:CA:486:U:P	2.79	0.41
27:DA:700:G:H2'	27:DA:701:G:O4'	2.21	0.41
10:AJ:45:ARG:HB3	10:AJ:47:PHE:CZ	2.56	0.41
27:DA:698:C:OP1	27:DA:1634:A:N6	2.40	0.41
29:BC:169:GLY:O	29:BC:170:ALA:C	2.59	0.41
35:BI:29:TYR:O	35:BI:33:ARG:HD2	2.21	0.41
27:BA:888:C:C3'	27:BA:889:C:C5'	2.99	0.41
11:CK:86:GLY:C	11:CK:87:THR:O	2.57	0.41
28:BB:31:C:H41	41:BS:32:LEU:HD13	1.84	0.41
1:AA:755:G:C6	1:AA:756:C:C4	3.09	0.41
27:BA:1765:C:N4	27:BA:1987:G:H1	2.19	0.41
27:BA:873:G:H1	27:BA:904:C:H42	1.69	0.41
48:DZ:19:ARG:O	48:DZ:21:GLY:N	2.54	0.41
27:DA:2031:A:O2'	27:DA:2032:G:OP2	2.36	0.41
27:DA:1169:G:H1	27:DA:1180:C:H42	1.69	0.41
48:BZ:43:PHE:CD1	48:BZ:44:ASP:N	2.88	0.41
48:BZ:38:VAL:HG23	48:BZ:43:PHE:HB2	2.01	0.41
48:BZ:44:ASP:C	48:BZ:46:VAL:N	2.73	0.41
34:BH:80:SER:O	34:BH:81:GLU:CB	2.68	0.41
27:DA:418:G:H2'	27:DA:419:C:C6	2.56	0.41
28:BB:61:G:N2	28:BB:62:C:C2	2.88	0.41
5:AE:53:LEU:H	5:AE:53:LEU:HD12	1.85	0.41
18:CR:22:VAL:O	18:CR:26:LEU:HG	2.20	0.41
27:BA:604:G:C6	27:BA:605:C:C4	3.08	0.41
27:BA:603:A:H4'	27:BA:604:G:OP1	2.21	0.41
50:D1:71:TYR:CD1	50:D1:71:TYR:N	2.89	0.41
16:AP:44:THR:O	16:AP:45:THR:CB	2.69	0.41
52:D3:19:GLN:HE22	52:D3:52:HIS:CE1	2.39	0.41
18:AR:85:LEU:HA	18:AR:85:LEU:HD12	1.75	0.41
27:BA:766:C:H2'	27:BA:767:U:H6	1.86	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:BB:70:C:H42	28:BB:107:G:H1	1.69	0.41
33:BG:7:LEU:HD23	33:BG:10:LYS:HB2	2.02	0.41
27:BA:1975:G:H2'	27:BA:1976:U:H5'	2.03	0.41
50:D1:94:LEU:O	50:D1:96:LYS:N	2.54	0.41
10:AJ:67:THR:O	10:AJ:67:THR:HG23	2.20	0.41
3:CC:130:VAL:HG21	3:CC:157:ILE:HG23	2.03	0.41
51:B2:19:VAL:HG12	51:B2:20:GLU:N	2.35	0.41
28:BB:64:C:C4	28:BB:65:C:C5	3.08	0.41
27:BA:2136:C:N4	27:BA:2155:G:H1	2.18	0.41
1:CA:610:G:O5'	1:CA:610:G:C8	2.74	0.41
32:BF:149:ASP:OD2	32:BF:149:ASP:N	2.54	0.41
7:CG:142:GLU:OE2	7:CG:142:GLU:HA	2.21	0.41
45:BW:34:ASN:HA	45:BW:34:ASN:HD22	1.70	0.41
11:CK:27:ASN:CG	11:CK:28:THR:N	2.74	0.41
20:CT:60:GLU:O	20:CT:64:ASP:HB2	2.21	0.41
1:AA:1191:A:OP2	3:AC:3:ASN:ND2	2.54	0.41
48:BZ:69:LEU:HD23	48:BZ:69:LEU:HA	1.88	0.41
18:CR:55:ARG:HH11	18:CR:55:ARG:HG3	1.84	0.41
11:AK:24:SER:HB3	11:AK:25:TYR:H	1.49	0.41
27:BA:592:G:O2'	57:B8:4:MET:HB2	2.21	0.41
27:BA:942:G:H2'	27:BA:943:U:C5'	2.50	0.41
38:BP:21:ARG:O	38:BP:23:PRO:HD3	2.20	0.41
27:BA:2792:G:C8	27:BA:2893:G:O6	2.74	0.41
47:BY:8:LYS:N	47:BY:8:LYS:CD	2.82	0.41
27:DA:242:G:C8	57:D8:5:LYS:HG2	2.56	0.41
27:DA:271(D):G:H2'	27:DA:271(E):U:H6	1.85	0.41
27:BA:1200:C:C2	27:BA:1246:A:C2	3.08	0.41
27:BA:662:G:P	38:BP:18:ARG:HD2	2.61	0.41
13:CM:8:GLU:OE2	13:CM:22:ILE:HG23	2.21	0.41
1:CA:722:A:O2'	1:CA:723:U:H2'	2.21	0.41
27:DA:385:C:O2	27:DA:390:A:C2	2.74	0.41
42:BT:81:PRO:HD2	42:BT:82:LEU:CD1	2.51	0.41
32:DF:9:ILE:CG1	32:DF:14:PRO:HA	2.49	0.41
29:BC:83:ILE:HA	29:BC:94:VAL:CG2	2.47	0.41
42:BT:109:GLU:HA	42:BT:112:ARG:CD	2.50	0.41
27:DA:994:C:OP1	43:DU:53:ARG:NH2	2.54	0.41
12:CL:53:ALA:O	12:CL:64:THR:HA	2.21	0.41
33:BG:154:GLY:C	33:BG:155:MET:HG2	2.41	0.41
11:AK:33:THR:C	11:AK:40:ILE:HD11	2.42	0.41
31:DE:59:VAL:HG21	31:DE:63:LEU:CD1	2.51	0.41
55:D6:17:LYS:CB	55:D6:18:ARG:NH1	2.81	0.41
27:DA:2249:U:O2'	27:DA:2250:G:OP1	2.33	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2070:G:C6	27:DA:2442:C:C4	3.09	0.41
38:DP:106:LEU:HD12	38:DP:106:LEU:HA	1.96	0.41
33:DG:31:VAL:CG2	33:DG:32:PRO:HD2	2.50	0.41
27:DA:1191:G:H21	27:DA:1192:G:H1'	1.86	0.41
27:DA:2555:U:O4	27:DA:2556:C:O2	2.38	0.41
27:DA:530:G:C2	27:DA:2021:C:O2'	2.68	0.41
1:CA:619:U:O4	4:CD:135:LEU:HD11	2.21	0.41
1:CA:201:C:N4	1:CA:203:U:N3	2.69	0.41
9:AI:99:LEU:HB3	9:AI:101:PHE:HE1	1.80	0.41
1:AA:1363(A):A:OP1	1:AA:1363(A):A:C8	2.74	0.41
1:AA:973:G:C3'	1:AA:974:A:H5''	2.47	0.41
1:AA:977:A:H1'	1:AA:982:U:O4	2.21	0.41
1:CA:344:A:C3'	1:CA:346:G:O6	2.69	0.41
42:DT:74:ARG:O	42:DT:75:ILE:HG13	2.21	0.41
27:DA:2747:G:H21	27:DA:2748:A:N6	2.18	0.41
16:AP:23:ASP:OD1	16:AP:23:ASP:C	2.59	0.41
32:BF:51:THR:HB	32:BF:88:VAL:HG11	2.03	0.41
27:BA:781:A:C2	27:BA:1776:G:N3	2.89	0.41
32:BF:61:GLY:O	32:BF:62:ARG:O	2.38	0.41
1:AA:60:A:H8	1:AA:60:A:P	2.44	0.41
1:CA:892:A:C2	1:CA:893:C:C2	3.09	0.41
1:AA:374:A:H2'	1:AA:375:U:H6	1.86	0.41
27:DA:513:A:C2	27:DA:514:A:N9	2.89	0.41
27:DA:775:G:N1	27:DA:787:U:C4	2.89	0.41
12:AL:57:LEU:N	12:AL:57:LEU:HD22	2.36	0.41
27:BA:1798:U:O2	27:BA:1802:A:H2	2.03	0.41
27:BA:2265:U:O2	27:BA:2276:G:C2	2.74	0.41
1:CA:1311:G:C2	1:CA:1327:C:N3	2.89	0.41
48:DZ:94:PRO:O	48:DZ:95:VAL:O	2.39	0.41
30:BD:142:VAL:HG23	30:BD:143:HIS:N	2.36	0.41
1:CA:752:G:O2'	1:CA:753:A:H5'	2.21	0.41
49:D0:53:MET:CE	49:D0:57:PHE:HD1	2.33	0.41
29:DC:39:GLU:HA	29:DC:179:SER:O	2.21	0.41
58:B9:29:ASN:OD1	58:B9:31:LYS:HB3	2.21	0.41
5:CE:20:GLN:O	5:CE:23:GLY:O	2.39	0.41
27:BA:173:G:C2	27:BA:174:C:C2	3.09	0.41
1:AA:15:G:C4'	5:AE:24:ARG:HH12	2.17	0.41
27:DA:686:G:C8	56:D7:7:PRO:HA	2.55	0.41
27:DA:695:G:C4	27:DA:768:G:N1	2.89	0.41
35:BI:91:SER:O	35:BI:92:VAL:CG1	2.68	0.41
35:BI:95:LYS:O	35:BI:98:ALA:HB3	2.21	0.41
27:BA:2544:G:H2'	27:BA:2545:G:H8	1.86	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:B6:30:THR:O	55:B6:31:PRO:C	2.59	0.41
3:AC:54:ARG:HG2	3:AC:54:ARG:HH11	1.86	0.41
27:BA:60:G:C8	27:BA:63:U:C5	3.09	0.41
27:BA:88:G:N2	27:BA:89:G:C4	2.89	0.41
27:DA:1678:G:H21	27:DA:1989:G:H1	1.67	0.41
27:DA:1458:C:C4'	27:DA:1459:G:O5'	2.67	0.41
30:BD:211:ARG:HA	30:BD:214:TRP:CD2	2.56	0.41
8:AH:14:ARG:HG3	8:AH:18:ARG:NH1	2.36	0.41
27:DA:2566:A:O2'	27:DA:2567:G:OP2	2.31	0.41
37:DO:79:PHE:N	37:DO:79:PHE:CD1	2.89	0.41
34:DH:44:VAL:C	34:DH:46:GLU:H	2.25	0.41
16:CP:68:ASP:HA	16:CP:71:ARG:HD3	2.03	0.41
33:DG:115:ARG:HH12	33:DG:136:ARG:HD3	1.86	0.41
1:AA:813:U:OP2	1:AA:816:A:N6	2.54	0.41
27:BA:491:G:H2'	27:BA:492:A:O5'	2.20	0.41
40:DR:26:LYS:HG2	40:DR:70:LEU:HD23	2.02	0.41
27:DA:489:G:N3	27:DA:1284:A:C6	2.89	0.41
27:DA:1209:G:O2'	27:DA:1237:A:N6	2.40	0.41
47:DY:45:VAL:CG1	47:DY:46:LYS:N	2.84	0.41
27:DA:2770:G:C5'	27:DA:2771:C:OP2	2.69	0.41
1:CA:709:G:H2'	1:CA:710:G:C8	2.56	0.41
27:BA:675:A:N6	27:BA:676:A:N6	2.69	0.41
12:AL:24:LEU:HD13	12:AL:24:LEU:N	2.35	0.41
27:DA:2801:A:O2'	27:DA:2895:U:H4'	2.21	0.41
39:BQ:26:TYR:O	39:BQ:26:TYR:CD1	2.74	0.41
38:BP:6:LEU:N	38:BP:6:LEU:HD23	2.31	0.41
2:AB:80:ILE:HD13	2:AB:211:ILE:CG2	2.51	0.41
33:BG:176:LEU:HD12	33:BG:176:LEU:H	1.86	0.41
30:DD:138:VAL:HG12	30:DD:168:ARG:NE	2.35	0.41
27:DA:1167:U:H1'	27:DA:1183:G:N2	2.34	0.41
27:BA:1836:C:C2'	27:BA:1837:C:H5'	2.51	0.41
27:BA:1740:G:O2'	27:BA:1741:A:H5'	2.21	0.41
24:CX:24:U:O2'	27:DA:1923:U:H5''	2.20	0.41
50:B1:53:VAL:CG2	50:B1:74:VAL:HG22	2.51	0.41
1:CA:690:G:H2'	1:CA:691:G:N9	2.36	0.41
1:AA:137:C:H2'	1:AA:138:G:H5'	2.03	0.41
1:CA:271:C:H2'	1:CA:272:C:C6	2.56	0.41
18:CR:65:ILE:H	18:CR:65:ILE:HG13	1.74	0.41
18:AR:52:PRO:O	18:AR:56:THR:HG23	2.21	0.41
27:DA:620:G:H5'	27:DA:621:A:OP1	2.21	0.41
1:CA:832:C:H2'	1:CA:833:U:O4'	2.21	0.41
39:DQ:108:GLY:CA	48:DZ:115:VAL:HG11	2.47	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:DY:87:LYS:HG3	47:DY:88:LYS:N	2.36	0.41
1:CA:1009:G:C6	1:CA:1021:G:C5	3.09	0.41
35:DI:39:ALA:O	35:DI:40:THR:C	2.59	0.41
12:AL:124:GLU:O	12:AL:125:ALA:C	2.59	0.41
27:DA:2673:G:H2'	27:DA:2674:G:H8	1.85	0.41
51:B2:13:ALA:HA	51:B2:16:LEU:CD1	2.51	0.41
9:CI:63:ILE:HD13	9:CI:77:ILE:HG23	2.02	0.41
34:DH:70:THR:HB	34:DH:71:LEU:H	1.57	0.41
28:BB:25:A:N3	28:BB:25:A:H2'	2.35	0.41
27:DA:2682:U:O4	27:DA:2728:U:H1'	2.21	0.41
27:BA:301:G:O6	27:BA:316:C:N4	2.55	0.41
6:CF:27:GLN:O	6:CF:28:ARG:C	2.59	0.41
35:BI:48:GLU:O	35:BI:52:ARG:HG2	2.21	0.41
27:DA:1037:G:H2'	27:DA:1038:C:O4'	2.21	0.41
27:DA:1941:C:C2	27:DA:1965:C:C2	3.08	0.41
27:DA:463:G:N2	27:DA:467:G:C4	2.89	0.41
40:DR:63:ARG:NH1	40:DR:63:ARG:HG3	2.36	0.41
27:DA:2855:C:H2'	27:DA:2856:C:C6	2.53	0.41
27:BA:681:G:H2'	27:BA:682:G:O4'	2.21	0.41
8:CH:97:VAL:HA	8:CH:100:ILE:CD1	2.51	0.41
27:DA:1526:G:C6	27:DA:1527:G:C2	3.09	0.41
1:AA:219:C:C4	1:AA:220:G:C8	3.10	0.41
1:CA:189(B):C:H2'	1:CA:189(C):C:C6	2.55	0.41
27:DA:1954:G:H1'	27:DA:1956:U:O4	2.21	0.41
30:BD:84:TYR:CD2	30:BD:85:ASP:N	2.89	0.41
2:CB:167:PRO:CD	2:CB:188:ALA:HB2	2.51	0.41
1:AA:787:A:C5	1:AA:788:U:C5	3.09	0.41
1:AA:366:C:O2'	1:AA:367:U:H5''	2.21	0.41
27:BA:819:A:OP2	27:BA:1187:G:N2	2.38	0.40
32:BF:13:SER:HA	32:BF:14:PRO:HD3	1.73	0.40
27:DA:1024:G:OP2	27:DA:1026:U:OP1	2.39	0.40
27:DA:1905:C:H4'	27:DA:1928:A:C2	2.56	0.40
27:DA:1789:A:OP1	30:DD:222:ARG:HG3	2.21	0.40
1:CA:507:C:P	1:CA:508:C:H3'	2.62	0.40
31:BE:77:ILE:CG2	31:BE:78:LEU:HD23	2.51	0.40
52:B3:29:ARG:H	52:B3:33:GLN:NE2	2.18	0.40
1:CA:719:C:H6	1:CA:720:C:C5	2.39	0.40
27:DA:389:G:N1	38:DP:71:VAL:CG1	2.76	0.40
42:BT:85:LYS:NZ	42:BT:85:LYS:CB	2.82	0.40
1:AA:129(A):G:H22	1:AA:189(E):U:H1'	1.85	0.40
27:DA:1889:A:C2	27:DA:1890:A:C4	3.08	0.40
27:DA:2232:U:HO2'	27:DA:2233:U:H5'	1.86	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DN:4:TYR:HB2	43:DU:64:ARG:CZ	2.51	0.40
27:DA:453:C:O2'	27:DA:472:A:N6	2.55	0.40
30:DD:24:ILE:O	30:DD:26:LYS:HD3	2.21	0.40
28:BB:83:G:H4'	52:B3:52:HIS:HD2	1.83	0.40
55:D6:15:GLU:CD	55:D6:18:ARG:HG3	2.42	0.40
55:D6:20:ASN:CG	55:D6:21:TYR:H	2.24	0.40
27:DA:2069:G:N2	27:DA:2070:G:N9	2.69	0.40
25:CY:75:A:O2'	27:DA:2395:C:C2	2.73	0.40
38:DP:95:VAL:HB	38:DP:100:LEU:HD21	2.03	0.40
33:DG:11:TYR:HD2	33:DG:12:TYR:CD2	2.39	0.40
4:AD:196:LEU:O	4:AD:198:VAL:N	2.53	0.40
27:DA:2548:G:H2'	27:DA:2549:G:O5'	2.21	0.40
27:DA:2552:U:O2	27:DA:2554:U:H5''	2.20	0.40
27:DA:942:G:N1	27:DA:943:U:C2	2.89	0.40
31:DE:141:ILE:O	31:DE:150:VAL:HG22	2.20	0.40
1:AA:177:C:OP1	20:AT:65:LYS:NZ	2.51	0.40
1:AA:323:U:H2'	1:AA:323:U:O2	2.21	0.40
1:CA:1136:U:H5''	1:CA:1137:C:C5	2.56	0.40
55:B6:15:GLU:OE2	55:B6:18:ARG:CD	2.69	0.40
46:DX:43:VAL:O	46:DX:44:GLU:O	2.38	0.40
1:CA:187:C:O4'	20:CT:85:MET:HG3	2.21	0.40
20:CT:14:LYS:HA	20:CT:17:ARG:HE	1.85	0.40
1:AA:1058:G:C5	1:AA:1059:C:C4	3.09	0.40
1:AA:1346:A:C8	1:AA:1348:U:C2	3.09	0.40
3:AC:30:ARG:CZ	14:AN:35:ARG:O	2.69	0.40
9:AI:116:LYS:O	9:AI:118:LYS:N	2.54	0.40
8:AH:12:ARG:NH1	8:AH:26:VAL:HA	2.36	0.40
12:CL:27:ALA:HA	12:CL:28:PRO:HD3	1.89	0.40
12:CL:55:VAL:O	12:CL:57:LEU:HD22	2.21	0.40
30:BD:185:VAL:HG12	30:BD:186:HIS:N	2.36	0.40
50:D1:51:VAL:HG13	50:D1:53:VAL:HG23	2.02	0.40
2:AB:167:PRO:HG3	2:AB:188:ALA:HB2	2.04	0.40
1:CA:243:A:H4'	1:CA:244:U:O5'	2.22	0.40
1:CA:310:G:OP2	16:CP:27:LYS:NZ	2.50	0.40
1:CA:244:U:C6	1:CA:894:G:C2	3.09	0.40
1:CA:664:G:N2	1:CA:741:G:H1	2.04	0.40
42:DT:2:ASN:O	42:DT:3:ARG:HG2	2.21	0.40
1:CA:144:G:C2	1:CA:179:A:C2	3.10	0.40
27:DA:775:G:C2	27:DA:777:A:N6	2.89	0.40
1:CA:716:A:H2'	1:CA:717:C:O4'	2.21	0.40
3:CC:159:GLY:HA3	3:CC:193:TYR:CE2	2.55	0.40
27:DA:154(A):C:N4	27:DA:172:C:N4	2.53	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:AY:4:G:N2	25:AY:69:C:C2	2.89	0.40
24:CX:17:C:C2'	24:CX:17(B):U:H5'	2.51	0.40
27:DA:1309:G:H2'	27:DA:1310:G:H5'	2.02	0.40
27:BA:2545:G:N3	27:BA:2565:A:H2	2.18	0.40
27:BA:2259:G:N2	27:BA:2282:G:C6	2.89	0.40
27:DA:955:C:C2'	27:DA:956:G:H5'	2.50	0.40
55:B6:11:LEU:HD12	55:B6:12:GLU:O	2.21	0.40
1:AA:541:G:O2'	1:AA:542:G:H5'	2.20	0.40
1:AA:545:C:O2'	1:AA:549:C:OP1	2.38	0.40
1:AA:619:U:O4	4:AD:135:LEU:HD11	2.20	0.40
1:AA:1243:C:H2'	1:AA:1244:C:C6	2.51	0.40
51:B2:24:LEU:HD11	51:B2:28:LYS:CE	2.51	0.40
51:B2:32:LEU:O	51:B2:35:LEU:CB	2.68	0.40
27:BA:68:G:C6	27:BA:69:C:C4	3.08	0.40
27:DA:1459:G:H2'	27:DA:1459:G:N3	2.36	0.40
27:DA:1416:G:O2'	27:DA:1417:C:O4'	2.38	0.40
7:AG:151:TYR:HA	7:AG:153:HIS:HE1	1.80	0.40
52:B3:22:ALA:CB	52:B3:46:ASN:HD22	2.34	0.40
37:DO:11:ALA:CB	37:DO:64:ARG:NH2	2.84	0.40
1:AA:1351:U:H2'	1:AA:1352:C:C6	2.56	0.40
4:AD:162:LEU:HA	4:AD:165:MET:HG2	2.02	0.40
3:AC:24:ALA:CB	3:AC:32:LEU:HD12	2.51	0.40
5:CE:144:THR:O	5:CE:147:ASP:OD2	2.39	0.40
7:CG:137:LYS:O	7:CG:141:VAL:CG2	2.65	0.40
2:AB:178:ARG:CG	2:AB:178:ARG:HH11	2.32	0.40
27:DA:7:G:H5''	36:DN:121:LYS:HZ1	1.86	0.40
27:BA:1049:C:N4	27:BA:1111:A:N1	2.69	0.40
26:AZ:3:SER:HB2	27:BA:1913:A:O2'	2.19	0.40
27:DA:2588:G:H2'	27:DA:2589:A:C8	2.56	0.40
27:BA:14:A:H2'	27:BA:15:G:O4'	2.21	0.40
6:CF:69:GLU:HG2	6:CF:70:ASP:N	2.36	0.40
6:CF:4:TYR:CD1	6:CF:92:LYS:HA	2.55	0.40
32:BF:160:ASN:ND2	32:BF:162:LEU:N	2.65	0.40
29:DC:54:SER:HB2	29:DC:55:ASP:H	1.74	0.40
2:AB:80:ILE:HD12	2:AB:212:GLN:HA	2.02	0.40
36:DN:126:PRO:HB2	36:DN:127:ASP:H	1.76	0.40
27:DA:1228:G:O2'	27:DA:1229:G:H5'	2.22	0.40
15:AO:51:HIS:ND1	15:AO:51:HIS:N	2.69	0.40
27:BA:2064:C:H2'	27:BA:2065:C:C6	2.56	0.40
27:DA:2595:G:N2	27:DA:2599:G:C5	2.89	0.40
1:AA:138:G:N2	1:AA:226:G:C4	2.89	0.40
27:BA:2611:U:O2	54:B5:3:LYS:HE3	2.20	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:841:U:H2'	1:AA:848:C:O4'	2.21	0.40
27:BA:177:G:O2'	27:BA:178:G:OP1	2.36	0.40
13:CM:35:GLU:CG	13:CM:36:LYS:N	2.84	0.40
11:AK:79:SER:HB2	11:AK:106:LYS:CD	2.51	0.40
27:BA:1448:G:N3	27:BA:1528(A):A:H2	2.19	0.40
20:AT:104:LEU:HD23	20:AT:105:SER:N	2.36	0.40
11:CK:57:THR:HB	11:CK:60:ALA:CB	2.51	0.40
1:CA:832:C:HO2'	1:CA:833:U:H5'	1.84	0.40
27:BA:610:G:O2'	27:BA:611:C:H5'	2.21	0.40
1:CA:334:C:O5'	1:CA:334:C:H6	2.04	0.40
1:CA:991:U:O2	1:CA:991:U:C2'	2.61	0.40
1:CA:134:A:H61	16:CP:25:ARG:NH1	2.14	0.40
27:DA:2241:A:C6	27:DA:2242:G:C6	3.09	0.40
1:AA:1458:G:C2'	1:AA:1459:C:H5'	2.51	0.40
24:AX:49:G:H1	24:AX:65:C:H42	1.67	0.40
7:AG:108:ALA:C	7:AG:110:GLN:H	2.25	0.40
4:CD:152:SER:O	4:CD:158:ILE:HG13	2.21	0.40
4:CD:154:ASN:N	4:CD:154:ASN:OD1	2.54	0.40
35:BI:42:SER:C	35:BI:44:LEU:N	2.74	0.40
1:AA:414:A:H2'	1:AA:415:A:O4'	2.21	0.40
1:AA:528:C:O2'	1:AA:529:G:H5'	2.21	0.40
14:AN:51:GLY:C	14:AN:53:LEU:N	2.71	0.40
27:DA:2360:A:C2	27:DA:2361:A:H1'	2.56	0.40
2:CB:129:GLU:O	2:CB:130:ARG:HB2	2.21	0.40
1:AA:1049:U:HO2'	1:AA:1050:G:P	2.44	0.40
1:AA:1049:U:O2	1:AA:1201:A:C4	2.74	0.40
35:DI:120:ILE:HG22	35:DI:121:LYS:N	2.36	0.40
40:BR:118:GLU:HG3	40:BR:118:GLU:OXT	2.19	0.40
4:CD:127:THR:HG22	4:CD:132:ARG:CB	2.51	0.40
27:BA:2706:G:O2'	40:BR:64:ARG:HD3	2.20	0.40
39:BQ:3:MET:O	39:BQ:5:ARG:N	2.54	0.40
29:DC:72:VAL:HG21	29:DC:161:ILE:CA	2.50	0.40
1:AA:1104:G:H4'	2:AB:111:ARG:HH11	1.85	0.40
1:CA:1439:C:H2'	1:CA:1440:C:O4'	2.21	0.40
28:BB:16:G:N3	28:BB:17:C:C6	2.89	0.40
27:BA:281:G:N2	27:BA:358:U:C5	2.90	0.40
39:BQ:68:ILE:HD13	39:BQ:103:MET:CE	2.51	0.40
7:CG:29:LYS:O	7:CG:105:VAL:HG21	2.21	0.40
8:AH:72:PRO:O	8:AH:73:ASP:C	2.60	0.40
27:DA:382:G:C2	27:DA:393:C:C2	3.09	0.40
28:DB:114:C:H2'	28:DB:115:G:C8	2.56	0.40
42:DT:77:PRO:O	42:DT:78:LEU:HB3	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:CN:41:ARG:NH1	14:CN:41:ARG:HG2	2.36	0.40
40:BR:23:ASN:H	40:BR:23:ASN:ND2	2.13	0.40
41:BS:26:LEU:HA	41:BS:39:ILE:HG12	2.02	0.40
27:DA:242:G:C5'	57:D8:62:LEU:HD13	2.22	0.40
27:DA:242:G:O2'	27:DA:243:U:P	2.79	0.40
30:DD:242:ARG:HG2	30:DD:246:PRO:HG3	2.03	0.40
48:DZ:157:PRO:O	48:DZ:160:VAL:HB	2.21	0.40
1:CA:543:C:O2'	1:CA:544:G:H5'	2.21	0.40
27:DA:389:G:O5'	27:DA:389:G:C8	2.71	0.40
32:DF:196:LEU:HA	32:DF:196:LEU:HD23	1.81	0.40
43:DU:39:LEU:O	43:DU:42:ALA:N	2.54	0.40
27:DA:1565:C:H3'	30:DD:21:PHE:CZ	2.56	0.40
1:AA:344:A:C3'	1:AA:346:G:O6	2.69	0.40
41:DS:97:ARG:CZ	41:DS:97:ARG:C	2.90	0.40
27:DA:2352:A:C6	27:DA:2366:A:C4	3.09	0.40
1:AA:192:U:H2'	1:AA:193:C:H6	1.86	0.40
39:BQ:109:VAL:CG1	39:BQ:110:THR:N	2.84	0.40
27:DA:142(A):C:C2'	27:DA:143:G:H5'	2.51	0.40
48:DZ:3:ARG:HA	48:DZ:57:VAL:H	1.86	0.40
31:DE:81:ILE:HG21	31:DE:84:PHE:HD1	1.86	0.40
1:AA:1061:G:H1'	10:AJ:56:HIS:CE1	2.57	0.40
14:AN:32:SER:O	14:AN:40:CYS:HA	2.21	0.40
1:AA:533:A:H1'	1:AA:534:U:OP1	2.21	0.40
27:BA:126:A:C5	27:BA:127:A:C6	3.09	0.40
27:BA:2070:G:N1	27:BA:2071:A:C2	2.90	0.40
27:BA:754:C:C2'	27:BA:755:C:O5'	2.70	0.40
1:AA:62:U:C2	1:AA:63:C:C5	3.10	0.40
2:AB:188:ALA:O	2:AB:202:PRO:HA	2.21	0.40
2:CB:17:PHE:N	2:CB:17:PHE:CD2	2.89	0.40
1:CA:238:G:O2'	1:CA:239:U:H5'	2.21	0.40
27:BA:1998:G:H2'	27:BA:1999:C:H6	1.85	0.40
1:AA:454:C:H2'	1:AA:455:C:C5	2.55	0.40
1:CA:145:G:C2	1:CA:146:G:H1'	2.56	0.40
27:BA:2197:U:O2'	27:BA:2198:A:OP2	2.32	0.40
27:BA:2199:A:H8	27:BA:2199:A:C5'	2.30	0.40
27:BA:372:G:HO2'	27:BA:373:U:P	2.44	0.40
27:DA:2536:G:H2'	27:DA:2537:U:H6	1.85	0.40
6:AF:8:ILE:HG23	6:AF:87:ARG:O	2.21	0.40
14:CN:24:CYS:H	14:CN:33:VAL:CG1	2.33	0.40
27:BA:2261:C:P	49:B0:17:GLN:OE1	2.79	0.40
27:BA:552:G:C6	27:BA:553:G:N7	2.89	0.40
39:DQ:32:TYR:O	39:DQ:105:GLU:HA	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2126:A:C5'	29:BC:36:LYS:HG2	2.52	0.40
27:DA:1352:U:H3	27:DA:1378:A:N6	2.12	0.40
27:DA:1340:U:C2	27:DA:1603:A:H8	2.39	0.40
27:BA:2259:G:O5'	27:BA:2259:G:H8	2.03	0.40
31:DE:112:GLY:O	31:DE:114:ALA:N	2.55	0.40
41:DS:78:LEU:C	41:DS:80:LEU:N	2.74	0.40
27:BA:2861:G:H2'	27:BA:2862:G:H8	1.85	0.40
1:AA:36:C:N4	1:AA:37:U:C4	2.89	0.40
27:DA:596:G:H2'	27:DA:597:U:C6	2.56	0.40
9:CI:3:GLN:HA	9:CI:20:ARG:HH12	1.86	0.40
20:AT:74:LYS:C	20:AT:76:ALA:N	2.73	0.40
48:BZ:99:VAL:HA	48:BZ:100:PRO:HD3	1.90	0.40
52:D3:22:ALA:HB3	52:D3:23:LEU:HD12	2.03	0.40
27:BA:729:G:OP2	30:BD:13:ARG:HD2	2.21	0.40
13:AM:76:ALA:CA	13:AM:79:LYS:NZ	2.84	0.40
42:DT:120:ARG:O	42:DT:124:ASP:OD1	2.39	0.40
1:CA:1315:U:C4	1:CA:1316:G:C4	3.09	0.40
27:BA:2187:G:C6	27:BA:2188:C:N3	2.90	0.40
27:DA:1447:G:C6	27:DA:1448:G:C6	3.09	0.40
1:AA:1002:G:H3'	1:AA:1003:G:C8	2.56	0.40
4:AD:162:LEU:HD12	4:AD:181:MET:CE	2.51	0.40
54:D5:45:VAL:HG12	54:D5:45:VAL:O	2.20	0.40
1:AA:577:G:H4'	1:AA:816:A:HO2'	1.85	0.40
25:CY:58:A:O2'	25:CY:59:U:H5'	2.21	0.40
27:BA:271(P):C:C6	27:BA:271(P):C:H5'	2.49	0.40
1:AA:1279:A:C4'	1:AA:1280:A:OP1	2.69	0.40
31:DE:14:ILE:HD12	42:DT:14:TYR:CE2	2.56	0.40
7:CG:143:ARG:O	7:CG:144:MET:C	2.60	0.40
48:BZ:52:ILE:HG22	48:BZ:70:VAL:HB	1.95	0.40
27:DA:9:U:O4	27:DA:2629:A:N7	2.55	0.40
8:CH:112:LEU:HD12	8:CH:114:THR:CG2	2.51	0.40
1:AA:870:U:H4'	1:AA:871:U:O5'	2.21	0.40
27:BA:1591:G:C4	27:BA:1592:C:C5	3.10	0.40
45:DW:20:VAL:C	45:DW:22:ASP:N	2.74	0.40
24:AX:74:C:H2'	24:AX:75:C:H5'	2.03	0.40
1:CA:937:A:H1'	1:CA:1379:G:N2	2.36	0.40
5:AE:20:GLN:O	5:AE:21:ALA:O	2.39	0.40
12:AL:27:ALA:CB	12:AL:30:ARG:NH2	2.84	0.40
1:AA:681:C:O2	1:AA:710:G:C2	2.73	0.40
37:BO:97:ARG:CB	37:BO:99:PHE:CE1	3.03	0.40
27:BA:45:C:H2'	27:BA:47:C:H6	1.83	0.40
1:CA:570:G:C2	1:CA:571:U:C5	3.09	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:578:C:O2	1:CA:579:G:N9	2.54	0.40
1:CA:764:C:C2	1:CA:765:G:C8	3.09	0.40
18:CR:76:LEU:H	18:CR:76:LEU:HD22	1.86	0.40
2:AB:77:ALA:CB	2:AB:211:ILE:HD13	2.50	0.40
27:DA:1229:G:C2	27:DA:1230:C:C2	3.10	0.40
3:AC:173:VAL:N	3:AC:174:PRO:CD	2.85	0.40
1:AA:1117:G:H2'	1:AA:1118:C:H5'	2.04	0.40
36:DN:85:ILE:CG2	36:DN:85:ILE:O	2.69	0.40
1:AA:966:G:O2'	1:AA:967:C:O5'	2.39	0.40
34:DH:113:VAL:HG21	34:DH:151:ILE:HG21	2.03	0.40
27:DA:2517:C:H2'	27:DA:2542:A:C2	2.55	0.40
10:AJ:22:LYS:C	10:AJ:22:LYS:CD	2.89	0.40
27:BA:2652:C:H5'	27:BA:2653:U:OP2	2.20	0.40
1:CA:9:G:OP2	5:CE:121:LYS:HD2	2.21	0.40
27:BA:2110:G:C5	27:BA:2120:G:C8	3.10	0.40
27:BA:2534:A:C2'	27:BA:2535:G:O5'	2.69	0.40
16:AP:67:THR:H	16:AP:70:ALA:CB	2.34	0.40
1:CA:1278:U:H5	10:CJ:99:LYS:HZ3	1.70	0.40
19:AS:64:GLU:O	19:AS:65:ASN:C	2.60	0.40
27:BA:1452:A:O3'	40:BR:77:ARG:NH1	2.54	0.40
27:BA:1861:G:C2	27:BA:1862:G:C8	3.09	0.40
27:DA:1355:G:C6	27:DA:1356:G:C5	3.09	0.40
35:DI:2:LYS:O	35:DI:39:ALA:HB2	2.21	0.40
13:AM:48:LEU:HG	13:AM:53:VAL:HG23	2.03	0.40
27:BA:2203:U:H2'	27:BA:2205:C:C6	2.56	0.40
43:DU:60:LEU:HA	43:DU:63:VAL:CG2	2.51	0.40
1:CA:557:G:H3'	1:CA:558:G:H8	1.86	0.40
27:DA:1845:G:OP1	30:DD:258:LYS:HD2	2.21	0.40
27:BA:2106:G:C2	27:BA:2184:G:C2	3.09	0.40
1:AA:796:C:OP1	11:AK:123:LYS:NZ	2.50	0.40
27:BA:1119:C:H6	27:BA:1119:C:O5'	2.04	0.40
27:DA:1171:G:C6	27:DA:1173:G:O2'	2.74	0.40
31:DE:168:MET:CE	31:DE:202:LYS:HE2	2.51	0.40
27:BA:731:C:O2'	27:BA:732:C:H5'	2.20	0.40
6:CF:27:GLN:HB3	6:CF:27:GLN:HE21	1.61	0.40
30:DD:228:PRO:HD3	30:DD:235:GLY:CA	2.51	0.40
27:BA:606:U:OP1	32:BF:104:LYS:HD2	2.22	0.40
24:AX:59:A:O2'	24:AX:60:U:C5'	2.70	0.40
1:AA:1258:G:C4	1:AA:1259:C:C5	3.10	0.40
1:AA:1378:C:H5''	7:AG:94:ARG:HH12	1.85	0.40
27:DA:2445:G:C2'	27:DA:2446:G:O5'	2.69	0.40
7:CG:5:ARG:C	7:CG:7:ALA:H	2.25	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2292:C:C2'	27:BA:2293:C:H5'	2.52	0.40
27:DA:2601:C:C2'	27:DA:2602:A:OP2	2.69	0.40
1:AA:1332:A:O2'	1:AA:1333:A:H5'	2.22	0.40
1:AA:1494:G:C6	26:AZ:1:KBE:HAA	2.56	0.40
46:BX:41:ASN:H	46:BX:41:ASN:HD22	1.69	0.40
27:BA:2193:G:H2'	27:BA:2194:G:H8	1.87	0.40
27:BA:2813:A:C2	27:BA:2888:C:O2	2.74	0.40
33:BG:148:MET:HA	33:BG:148:MET:HE3	2.03	0.40
33:BG:148:MET:HG3	33:BG:148:MET:O	2.20	0.40
1:AA:1420:C:H2'	1:AA:1421:G:C8	2.56	0.40
27:DA:191:A:O2'	27:DA:192:C:H5'	2.20	0.40
12:CL:42:PRO:HB2	12:CL:89:ASP:OD2	2.21	0.40
27:BA:1567:A:OP2	30:BD:84:TYR:OH	2.29	0.40
1:CA:482:A:H2'	1:CA:483:C:O4'	2.21	0.40
27:BA:921:G:H4'	27:BA:2269:A:C5	2.56	0.40
28:DB:57:A:H8	28:DB:57:A:O5'	2.04	0.40
48:BZ:11:GLY:C	48:BZ:12:GLU:CD	2.80	0.40
3:AC:10:PHE:CD1	3:AC:10:PHE:O	2.74	0.40
7:CG:94:ARG:HB2	7:CG:94:ARG:HE	1.51	0.40
46:DX:14:SER:O	46:DX:15:GLU:C	2.59	0.40
27:DA:403:U:H4'	27:DA:404:C:H5'	2.03	0.40
29:BC:147:PHE:O	29:BC:148:ASN:CB	2.69	0.40
27:BA:241:A:O3'	27:BA:242:G:H4'	2.22	0.40
32:BF:106:ARG:O	32:BF:107:LYS:C	2.59	0.40
38:BP:57:THR:HG1	38:BP:59:LEU:HB3	1.87	0.40
34:BH:137:ASP:CG	34:BH:140:LYS:HB3	2.42	0.40
1:AA:885:G:N2	1:AA:886:G:C4	2.89	0.40
36:DN:100:GLU:O	36:DN:104:LYS:CB	2.70	0.40
1:CA:504:C:O4'	1:CA:510:A:C6	2.74	0.40
32:BF:68:LYS:C	32:BF:70:THR:N	2.71	0.40
27:BA:560:C:H2'	27:BA:561:G:O5'	2.21	0.40
44:BV:14:VAL:O	44:BV:15:GLU:HG3	2.21	0.40
1:AA:1502:A:H2	1:AA:1505:G:H1	1.70	0.40
43:DU:33:ARG:O	43:DU:36:ARG:N	2.52	0.40
27:DA:451:C:H41	27:DA:453:C:H3'	1.86	0.40
27:DA:729:G:H5'	27:DA:730:C:H5''	2.02	0.40
51:D2:19:VAL:O	51:D2:21:LEU:N	2.54	0.40
55:D6:27:LYS:O	55:D6:29:ASN:OD1	2.39	0.40
55:D6:43:CYS:O	55:D6:44:ARG:O	2.40	0.40
57:D8:28:GLY:HA2	57:D8:32:LEU:HD21	2.03	0.40
27:DA:2347:C:H4'	55:D6:39:TYR:HE1	1.87	0.40
38:DP:65:ARG:O	38:DP:68:GLN:OE1	2.39	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:CK:29:ILE:HD11	11:CK:42:TRP:CE3	2.57	0.40
27:DA:1951:U:O2	27:DA:1953:A:H8	2.04	0.40
27:DA:2016:U:H2'	27:DA:2017:U:H6	1.86	0.40
20:AT:30:LYS:C	20:AT:32:ALA:N	2.75	0.40
55:B6:17:LYS:HB3	55:B6:18:ARG:NH1	2.36	0.40
34:BH:17:VAL:O	34:BH:45:VAL:HG22	2.20	0.40
34:BH:54:ARG:HA	34:BH:55:PRO:HD2	1.79	0.40
34:BH:61:HIS:O	34:BH:64:LEU:N	2.42	0.40
30:BD:35:LYS:HA	30:BD:64:ILE:CG2	2.48	0.40
1:CA:225:C:O2	1:CA:225:C:C2'	2.64	0.40
9:AI:50:LEU:CA	9:AI:53:VAL:HG22	2.48	0.40
48:BZ:81:ARG:CZ	48:BZ:82:PRO:O	2.69	0.40
8:AH:35:ILE:O	8:AH:38:ILE:HB	2.21	0.40
37:DO:110:GLY:O	37:DO:112:MET:N	2.55	0.40
1:CA:392:G:C2	1:CA:393:A:C4	3.09	0.40
43:BU:107:ALA:O	43:BU:110:VAL:HB	2.22	0.40
3:CC:148:GLY:CA	3:CC:203:PHE:HB3	2.51	0.40
26:CZ:4:SER:O	27:DA:1914:C:OP2	2.40	0.40
27:BA:1806:C:N4	27:BA:1812:A:C6	2.90	0.40
2:AB:113:HIS:C	2:AB:115:LEU:N	2.75	0.40
27:DA:599:G:N2	27:DA:659:C:C2	2.89	0.40
2:CB:85:ALA:HB3	2:CB:92:TYR:CD2	2.55	0.40
1:CA:606:G:H3'	1:CA:607:A:C5'	2.50	0.40
33:DG:105:LYS:HB3	33:DG:142:PRO:HG3	2.03	0.40
58:B9:24:TYR:CZ	58:B9:35:ARG:HD2	2.55	0.40
4:AD:23:GLY:HA3	4:AD:112:VAL:O	2.20	0.40
6:AF:39:LYS:CG	6:AF:40:VAL:N	2.85	0.40
4:AD:17:VAL:HG12	4:AD:18:LYS:O	2.21	0.40
27:DA:52:A:N6	27:DA:118:A:N3	2.69	0.40
1:AA:556:C:H2'	1:AA:557:G:H8	1.86	0.40
31:BE:117:MET:O	31:BE:117:MET:CG	2.69	0.40
39:DQ:132:VAL:HB	48:DZ:80:ARG:NH2	2.37	0.40
1:CA:781:A:H5'	1:CA:782:A:OP2	2.21	0.40
27:DA:1200:C:H2'	27:DA:1201:C:H6	1.85	0.40
27:BA:807:U:H2'	27:BA:808:G:O5'	2.21	0.40
3:AC:119:ARG:HA	3:AC:122:GLU:CD	2.41	0.40
32:BF:33:LEU:HA	32:BF:33:LEU:HD12	1.86	0.40
8:AH:83:ILE:CB	8:AH:137:VAL:HG13	2.45	0.40
1:AA:1238:A:OP1	1:AA:1335:C:H1'	2.21	0.40
27:BA:61:G:N7	51:B2:51:ARG:NH2	2.68	0.40
51:B2:28:LYS:O	51:B2:53:LEU:CD1	2.69	0.40
27:BA:74:A:HO2'	27:BA:88:G:H8	1.69	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:2641:G:H4'	36:DN:76:SER:HB3	2.03	0.40
1:AA:259:G:C4	1:AA:260:G:C8	3.09	0.40
30:DD:31:LYS:HD3	30:DD:94:LEU:HD11	2.03	0.40
27:DA:2313:C:C3'	27:DA:2313:C:C6	3.04	0.40
52:D3:22:ALA:O	52:D3:26:LEU:HG	2.21	0.40
35:DI:88:ILE:HD11	35:DI:123:LEU:N	2.36	0.40
35:DI:139:GLN:HG3	35:DI:140:LEU:H	1.85	0.40
35:DI:72:LEU:HD21	35:DI:75:LEU:HD23	2.03	0.40
1:CA:1442(A):G:H2'	1:CA:1442(A):G:N3	2.36	0.40
42:DT:106:SER:HA	42:DT:110:ILE:CG1	2.50	0.40
2:CB:178:ARG:NH2	8:CH:74:PRO:HB3	2.36	0.40
16:CP:71:ARG:O	16:CP:72:ARG:C	2.58	0.40
27:BA:271(O):C:O2'	27:BA:271(P):C:C5	2.71	0.40
5:CE:78:HIS:HD2	5:CE:79:GLU:O	2.03	0.40
27:DA:2467:C:N4	27:DA:2468:G:N1	2.68	0.40
27:DA:2470:G:O2'	27:DA:2471:C:H5'	2.21	0.40
47:BY:3:VAL:C	47:BY:5:MET:H	2.23	0.40
1:AA:189(J):G:C2	1:AA:189(K):U:C2	3.09	0.40
15:CO:42:HIS:CE1	15:CO:46:HIS:ND1	2.89	0.40
27:BA:2303:G:N2	27:BA:2314:C:C2	2.89	0.40
1:AA:203:U:H5'	1:AA:204:U:OP1	2.21	0.40
27:BA:217:G:C6	27:BA:218:A:C5	3.10	0.40
38:BP:6:LEU:CD1	38:BP:8:PRO:HG2	2.50	0.40
1:CA:918:A:C4	1:CA:919:A:C8	3.09	0.40
36:DN:24:GLY:O	36:DN:28:THR:HG22	2.21	0.40
52:D3:7:LYS:NZ	52:D3:32:GLN:NE2	2.68	0.40
27:DA:645:C:O2	27:DA:645:C:H2'	2.20	0.40
2:AB:46:LYS:C	2:AB:48:MET:N	2.74	0.40
8:CH:25:ASP:O	8:CH:26:VAL:HB	2.22	0.40
27:BA:1443:G:N2	27:BA:1549:C:C2	2.88	0.40
13:AM:116:THR:CG2	13:AM:117:VAL:H	2.34	0.40
27:DA:1986:A:N3	27:DA:1987:G:C8	2.90	0.40
50:B1:52:ARG:CG	50:B1:53:VAL:H	2.14	0.40
27:DA:2517:C:C6	27:DA:2542:A:C2	3.09	0.40
1:CA:690:G:H3'	1:CA:691:G:C8	2.55	0.40
9:CI:42:ARG:O	9:CI:74:ILE:HD13	2.21	0.40
1:AA:222:U:H2'	1:AA:222:U:O2	2.22	0.40
7:AG:137:LYS:O	7:AG:141:VAL:CG2	2.66	0.40
7:AG:71:PRO:HG3	7:AG:99:LEU:CD1	2.52	0.40
27:DA:1945:G:O2'	27:DA:1946:U:C5'	2.69	0.40
21:CU:24:ARG:NH1	21:CU:24:ARG:HG2	2.37	0.40
27:BA:1002:G:C2	27:BA:1003:G:H1'	2.57	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:2642:G:O2'	27:BA:2643:G:H5'	2.20	0.40
1:AA:1127:G:O6	1:AA:1145:C:N4	2.54	0.40
27:BA:530:G:C2	27:BA:2022:U:OP1	2.75	0.40
1:CA:1410:G:C2	1:CA:1491:G:C2	3.10	0.40
40:BR:81:ASP:O	40:BR:82:GLU:HB2	2.20	0.40
27:DA:1443:G:C6	27:DA:1444:G:C5	3.10	0.40
9:CI:15:ALA:HB2	9:CI:65:VAL:HB	2.03	0.40
27:DA:1887:C:H3'	27:DA:1888:G:C5'	2.46	0.40
30:DD:263:ARG:O	30:DD:264:LYS:C	2.60	0.40
1:AA:1452:C:O2'	1:AA:1456:G:N2	2.55	0.40
27:BA:2671:A:C2	27:BA:2672:G:N3	2.90	0.40
1:CA:28:G:O2'	1:CA:296:U:OP1	2.40	0.40
35:BI:41:GLU:O	35:BI:44:LEU:CB	2.70	0.40
51:B2:13:ALA:HA	51:B2:16:LEU:CG	2.51	0.40
4:AD:176:LEU:HD12	4:AD:182:LYS:O	2.22	0.40
29:BC:195:ALA:C	29:BC:197:GLU:N	2.74	0.40
19:CS:22:LEU:CD1	19:CS:27:GLU:HB3	2.50	0.40
32:BF:57:VAL:HG13	32:BF:59:TYR:H	1.86	0.40
35:BI:116:LEU:HD12	35:BI:117:GLU:N	2.35	0.40
2:AB:228:GLY:O	2:AB:229:VAL:C	2.60	0.40
2:AB:87:ARG:HE	2:AB:233:SER:HB2	1.86	0.40
3:AC:142:MET:HA	3:AC:146:ALA:HB3	2.02	0.40
27:BA:42:G:C6	27:BA:43:A:C4	3.09	0.40
27:DA:889:C:O2'	27:DA:890:A:P	2.79	0.40
1:AA:1483:A:C8	1:AA:1484:C:C6	3.08	0.40
27:BA:1594:G:C2	27:BA:1595:G:C4	3.10	0.40
27:DA:2533:A:H2'	27:DA:2534:A:O4'	2.20	0.40
2:AB:217:ARG:HA	2:AB:217:ARG:HD3	1.74	0.40
7:AG:127:ALA:C	7:AG:129:GLU:H	2.25	0.40
27:BA:2368:C:O2	27:BA:2369:A:C8	2.74	0.40
4:AD:52:SER:O	4:AD:55:ALA:CB	2.69	0.40
27:DA:555:U:HO2'	27:DA:556:G:H8	1.68	0.40
1:AA:1333:A:H2'	1:AA:1334:G:O5'	2.21	0.40
6:CF:2:ARG:O	6:CF:66:GLU:HG3	2.21	0.40
1:AA:119:A:C8	1:AA:240:C:N4	2.89	0.40
46:BX:41:ASN:O	46:BX:42:ALA:C	2.59	0.40
4:AD:76:ARG:O	4:AD:79:PHE:N	2.55	0.40
30:DD:134:ARG:HD3	30:DD:135:PHE:CZ	2.57	0.40
27:BA:2746:U:C2'	27:BA:2747:G:H5'	2.50	0.40
3:AC:131:ARG:NH1	3:AC:135:LYS:HE3	2.35	0.40
27:BA:1794:U:H2'	27:BA:1795:C:C6	2.56	0.40
27:DA:2074:U:O2	27:DA:2436:G:C2	2.74	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1076:C:H2'	1:CA:1077:G:C8	2.56	0.40
1:AA:241:C:C2	1:AA:286:G:C2	3.09	0.40
27:DA:2844:G:C2	27:DA:2874:C:N3	2.89	0.40
27:DA:2046:G:C2	27:DA:2047:U:C6	3.09	0.40
5:CE:82:VAL:O	5:CE:89:ILE:HG22	2.21	0.40
23:AW:14:A:H1'	23:AW:21:A:C6	2.57	0.40
27:DA:444:C:H4'	32:DF:49:ALA:HB2	2.03	0.40
27:DA:54:G:H1'	56:D7:35:ARG:HH11	1.86	0.40
35:BI:124:GLY:O	35:BI:125:GLU:OE1	2.40	0.40
27:DA:1553:A:C8	27:DA:1555:G:C6	3.10	0.40
49:D0:21:LEU:HD23	49:D0:39:ARG:HB3	2.02	0.40
44:BV:80:GLN:NE2	44:BV:80:GLN:HA	2.37	0.40
30:BD:233:HIS:CD2	30:BD:233:HIS:N	2.90	0.40
27:BA:86:C:H2'	27:BA:86:C:O2	2.21	0.40
43:DU:6:THR:HG21	43:DU:10:ARG:HE	1.86	0.40
27:BA:2402:C:C3'	27:BA:2403:C:H5'	2.51	0.40
27:BA:240:G:C6	27:BA:241:A:N6	2.90	0.40
25:AY:75:A:N6	27:BA:2422:A:O4'	2.55	0.40
27:BA:251:A:C5'	38:BP:51:PHE:HZ	2.34	0.40
32:BF:127:GLU:HG2	32:BF:196:LEU:HD12	2.04	0.40
47:BY:79:CYS:SG	47:BY:80:GLY:N	2.94	0.40
27:DA:1790:C:H2'	27:DA:1791:A:C4	2.56	0.40
1:CA:1305:G:C8	1:CA:1305:G:OP2	2.75	0.40
13:CM:23:TYR:HE1	13:CM:71:ARG:HA	1.87	0.40
1:AA:268:C:H2'	1:AA:269:C:H6	1.86	0.40
42:BT:46:GLU:HG3	42:BT:47:GLY:N	2.36	0.40
1:AA:1401:G:O2'	1:AA:1402:C:H5'	2.21	0.40
27:DA:1158:C:O2'	27:DA:1159:U:C5'	2.61	0.40
43:DU:104:GLN:O	43:DU:105:VAL:C	2.60	0.40
43:DU:67:ALA:HA	43:DU:70:ARG:HB2	2.04	0.40
43:DU:80:ILE:HA	43:DU:83:LEU:HB2	2.03	0.40
44:DV:2:PHE:CB	44:DV:42:GLY:CA	2.91	0.40
47:DY:84:ARG:HB3	47:DY:85:VAL:H	1.74	0.40
1:CA:1253:G:H5'	10:CJ:44:VAL:O	2.21	0.40
27:DA:1576:U:H2'	27:DA:1577:C:H6	1.87	0.40
27:DA:1560:G:H5'	27:DA:1560:G:H8	1.86	0.40
27:DA:1855:G:O2'	27:DA:1856:G:H5'	2.21	0.40
27:DA:1856:G:C2	27:DA:1857:G:H1'	2.57	0.40
54:B5:18:ALA:C	54:B5:20:ARG:N	2.69	0.40
33:BG:63:ILE:HG12	33:BG:63:ILE:H	1.66	0.40
27:DA:864:G:C4	27:DA:865:C:H5	2.39	0.40
27:DA:869:G:C4	27:DA:870:A:N7	2.90	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:D0:19:LYS:O	49:D0:20:ARG:C	2.59	0.40
57:D8:17:THR:HG23	57:D8:23:VAL:CG2	2.51	0.40
27:DA:2258:C:C2'	27:DA:2426:A:H4'	2.52	0.40
27:DA:2495:G:C2	27:DA:2496:C:C2	3.10	0.40
27:DA:2554:U:H2'	27:DA:2555:U:H6	1.87	0.40
27:DA:675:A:O2'	32:DF:67:GLN:NE2	2.55	0.40
27:DA:969:U:OP1	52:D3:17:LYS:CG	2.58	0.40
27:DA:581:C:OP1	43:DU:31:SER:OG	2.40	0.40
1:AA:169:C:H2'	1:AA:170:U:H6	1.85	0.40
20:AT:59:ALA:C	20:AT:61:SER:N	2.74	0.40
31:DE:81:ILE:O	31:DE:82:ARG:CB	2.66	0.40
47:DY:17:SER:HB2	47:DY:71:LYS:HB3	2.02	0.40
4:CD:108:LEU:CD1	4:CD:174:LEU:HD13	2.51	0.40
1:AA:1316:G:N2	1:AA:1319:A:OP2	2.53	0.40
1:AA:1060:C:C4	3:AC:2:GLY:HA2	2.57	0.40
19:AS:37:ARG:C	19:AS:37:ARG:HD3	2.41	0.40
8:AH:34:GLU:OE1	8:AH:34:GLU:HA	2.21	0.40
12:CL:82:ILE:HD13	12:CL:82:ILE:HA	1.85	0.40
2:AB:44:LEU:O	2:AB:47:THR:HB	2.20	0.40
31:DE:15:PHE:CZ	42:DT:80:SER:CB	3.04	0.40
42:DT:62:THR:HG22	42:DT:75:ILE:HG13	2.03	0.40
19:AS:41:VAL:HA	19:AS:42:PRO:HD3	1.88	0.40
30:DD:174:ILE:C	30:DD:175:LEU:HD23	2.40	0.40
27:BA:2072:G:C6	27:BA:2073:C:C4	3.09	0.40
27:BA:791:C:H4'	27:BA:792:G:OP1	2.21	0.40
31:BE:47:VAL:HB	31:BE:49:LEU:HD11	2.02	0.40
2:AB:97:TRP:CH2	2:AB:176:GLU:OE2	2.75	0.40
1:CA:238:G:P	17:CQ:25:ARG:HH22	2.43	0.40
41:BS:106:ARG:O	41:BS:106:ARG:HG2	2.21	0.40
1:CA:1066:C:C5'	1:CA:1066:C:C6	2.88	0.40
37:BO:2:ILE:HG12	37:BO:33:ALA:O	2.21	0.40
37:BO:22:ILE:CG1	37:BO:41:ALA:HA	2.35	0.40
27:BA:1481:U:C2'	27:BA:1481:U:O2	2.62	0.40
1:CA:1198:G:C6	1:CA:1199:U:C4	3.10	0.40
14:CN:21:TYR:CD2	14:CN:22:THR:O	2.72	0.40
36:DN:74:ARG:O	36:DN:82:LEU:HA	2.21	0.40
1:CA:1328:C:P	21:CU:21:TYR:HH	2.44	0.40
1:CA:1308:U:O3'	13:CM:92:HIS:CE1	2.74	0.40
40:BR:5:LYS:HD2	40:BR:5:LYS:N	2.37	0.40
14:CN:15:LYS:HB3	14:CN:16:PHE:CD2	2.57	0.40
27:BA:2842:G:C6	27:BA:2876:G:N1	2.89	0.40
41:BS:103:GLU:CD	41:BS:103:GLU:N	2.74	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BP:81:GLN:OE1	38:BP:106:LEU:CA	2.70	0.40
29:DC:62:VAL:O	29:DC:63:SER:C	2.60	0.40
56:D7:14:LYS:HG2	56:D7:14:LYS:H	1.67	0.40
27:BA:807:U:C2'	27:BA:808:G:C5'	2.99	0.40
30:BD:146:GLU:HB3	30:BD:189:CYS:HB3	2.04	0.40
1:AA:1173:G:C5	1:AA:1174:G:N7	2.89	0.40
37:DO:16:ALA:HB1	37:DO:43:VAL:CG1	2.52	0.40
27:DA:660:G:C6	27:DA:661:C:C2	3.10	0.40
46:BX:5:TYR:HD1	51:B2:29:LYS:HB2	1.87	0.40
34:DH:147:ASN:H	34:DH:147:ASN:HD22	1.57	0.40
27:DA:2302:G:N3	27:DA:2302:G:H2'	2.36	0.40
39:BQ:52:VAL:HG13	39:BQ:56:ARG:HG3	2.03	0.40
1:AA:1330:U:OP1	13:AM:25:ILE:O	2.40	0.40
27:DA:2561:A:C2	27:DA:2562:U:C6	3.10	0.40
27:DA:2848:G:O2'	27:DA:2867:G:N1	2.35	0.40
42:DT:118:ARG:C	42:DT:120:ARG:N	2.70	0.40
39:DQ:55:VAL:O	39:DQ:56:ARG:C	2.59	0.40
1:AA:577:G:C6	1:AA:765:G:C2	3.09	0.40
1:CA:600:C:N3	1:CA:639:G:C2	2.90	0.40
27:BA:271(R):G:H2'	27:BA:271(S):G:C8	2.57	0.40
38:BP:71:VAL:HG13	38:BP:72:PRO:N	2.37	0.40
23:CW:47:C:C2	23:CW:58:A:H1'	2.56	0.40
10:CJ:4:ILE:HB	10:CJ:74:ILE:HG13	2.02	0.40
40:DR:59:ASP:O	40:DR:62:ALA:HB3	2.21	0.40
45:DW:20:VAL:O	45:DW:23:LEU:HB2	2.21	0.40
27:BA:363(B):G:H5'	27:BA:363(C):G:OP2	2.22	0.40
48:DZ:102:ARG:HD3	48:DZ:135:PHE:CD1	2.57	0.40
1:CA:866:C:C5	1:CA:867:G:H1'	2.55	0.40
34:DH:160:LYS:HG3	34:DH:160:LYS:H	1.70	0.40
43:BU:31:SER:HG	43:BU:34:LYS:N	2.17	0.40
52:B3:3:ARG:HB3	52:B3:59:VAL:HB	2.03	0.40
36:DN:89:LYS:C	36:DN:89:LYS:HZ3	2.25	0.40
27:BA:1905:C:H1'	27:BA:1928:A:C2	2.57	0.40
1:AA:1295:G:C6	1:AA:1296:C:C4	3.09	0.40
1:AA:953:G:O6	13:AM:104:ARG:HD2	2.21	0.40
1:AA:592:G:C2	1:AA:593:G:N7	2.90	0.40
10:CJ:13:HIS:HB3	10:CJ:68:HIS:NE2	2.36	0.40
13:CM:80:ARG:C	13:CM:82:MET:N	2.75	0.40
1:CA:109:A:H2'	1:CA:326:G:H21	1.87	0.40
1:CA:321:A:O2'	1:CA:322:C:C5'	2.64	0.40
1:CA:332:G:C4	1:CA:333:G:C8	3.09	0.40
1:CA:270:A:C6	1:CA:271:C:C4	3.09	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1629:U:O2'	27:DA:2698:U:OP1	2.39	0.40
1:AA:9:G:H5'	5:AE:122:GLU:CD	2.42	0.40
36:BN:35:ARG:C	36:BN:37:LYS:N	2.74	0.40
1:CA:1523:G:C5	1:CA:1524:C:C4	3.10	0.40
27:DA:1819:A:C5'	30:DD:158:ALA:CB	2.95	0.40
23:AW:58:A:H2'	23:AW:59:U:O4'	2.21	0.40
1:CA:112:G:HO2'	1:CA:354:G:HO2'	1.66	0.40
49:B0:65:GLY:CA	49:B0:83:PRO:HA	2.46	0.40
48:DZ:144:GLU:HB3	48:DZ:145:ILE:H	1.52	0.40
3:CC:119:ARG:HE	3:CC:140:ARG:NE	2.19	0.40
53:D4:43:GLY:H	53:D4:59:VAL:HG12	1.86	0.40
31:BE:120:TRP:CG	31:BE:155:LYS:HB3	2.56	0.40
27:BA:206:U:O2'	27:BA:207:A:H5'	2.22	0.40
4:CD:165:MET:SD	4:CD:168:ARG:HD3	2.61	0.40
9:CI:29:ASN:OD1	9:CI:64:THR:HA	2.21	0.40
27:BA:1346:G:N3	27:BA:1347:G:C8	2.88	0.40
47:DY:50:ARG:NH2	47:DY:55:TYR:HE1	2.19	0.40
27:BA:1505:C:H3'	27:BA:1506:C:C5	2.56	0.40
1:AA:1047:G:O2'	1:AA:1215:G:O2'	2.25	0.40
35:BI:116:LEU:HD12	35:BI:117:GLU:H	1.86	0.40
15:AO:5:LYS:HA	15:AO:8:LYS:CB	2.50	0.40
17:CQ:31:LEU:HD23	17:CQ:32:TYR:CE2	2.56	0.40
27:BA:2228:G:C5	27:BA:2229:C:C4	3.09	0.40
20:AT:44:ALA:O	20:AT:92:LEU:HD23	2.21	0.40
50:D1:47:GLN:HE21	50:D1:47:GLN:CA	2.34	0.40
27:BA:866:A:O2'	27:BA:867:C:H5'	2.21	0.40
45:BW:68:ARG:O	45:BW:110:LYS:N	2.54	0.40
32:BF:191:ARG:HH11	32:BF:191:ARG:HG2	1.86	0.40
3:AC:42:LEU:HA	3:AC:45:LYS:HG3	2.03	0.40
11:AK:88:GLY:C	11:AK:90:GLY:N	2.74	0.40
27:DA:2854:G:C2	27:DA:2864:G:C2	3.10	0.40
27:BA:681:G:H2'	27:BA:682:G:C8	2.54	0.40
1:AA:506:G:H2'	1:AA:507:C:C6	2.56	0.40
27:DA:1525:G:H2'	27:DA:1526:G:C8	2.56	0.40
18:CR:46:GLU:HA	18:CR:46:GLU:OE2	2.22	0.40
1:AA:218:C:H2'	1:AA:219:C:O4'	2.21	0.40
30:DD:40:THR:O	30:DD:41:GLY:C	2.56	0.40
37:BO:38:VAL:C	37:BO:39:ILE:HG23	2.42	0.40
27:DA:405:U:HO2'	27:DA:406:G:P	2.45	0.40
27:DA:1836:C:H2'	27:DA:1836:C:O2	2.21	0.40
24:CX:61:C:O2'	24:CX:62:C:P	2.79	0.40
27:DA:1750:G:H2'	27:DA:1751:C:C6	2.57	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1752:C:H2'	27:DA:1753:G:C8	2.57	0.40
27:BA:569:U:H2'	27:BA:570:G:O4'	2.21	0.40
5:AE:32:VAL:CG2	5:AE:58:ALA:HB3	2.52	0.40
40:DR:103:ARG:HB3	40:DR:109:ALA:O	2.21	0.40
27:BA:1707:G:C8	27:BA:1707:G:OP2	2.73	0.40
34:DH:122:THR:HB	34:DH:134:SER:HB2	2.04	0.40
29:BC:134:ARG:O	29:BC:136:LEU:N	2.42	0.40
1:CA:1188:A:H2'	1:CA:1189:C:H5'	2.02	0.40
27:DA:245:G:C5	27:DA:246:C:C5	3.09	0.40
27:DA:1793:C:O2	27:DA:1970:A:C2	2.75	0.40
27:BA:30:G:C6	27:BA:31:C:N4	2.89	0.40
1:CA:509:A:N3	1:CA:543:C:O2'	2.43	0.40
4:CD:77:ASN:O	4:CD:80:GLU:HB2	2.22	0.40
33:BG:140:ILE:H	33:BG:140:ILE:HG13	1.69	0.40
47:BY:46:LYS:HE2	47:BY:47:LYS:CE	2.49	0.40
47:BY:61:ILE:O	47:BY:62:GLU:O	2.39	0.40
44:BV:21:ARG:HG3	44:BV:93:GLU:HG3	2.02	0.40
27:DA:389:G:N1	38:DP:70:GLN:HG3	2.37	0.40
42:BT:82:LEU:O	42:BT:83:ILE:O	2.40	0.40
32:DF:107:LYS:HD3	32:DF:205:ARG:O	2.22	0.40
30:DD:57:GLY:N	30:DD:216:GLY:HA2	2.36	0.40
27:DA:2255:G:H2'	27:DA:2256:G:C8	2.57	0.40
27:DA:2348:U:OP2	57:D8:38:GLY:HA3	2.22	0.40
27:DA:2369:A:H2'	27:DA:2370:G:H8	1.86	0.40
27:DA:2393:A:H5'	38:DP:62:LEU:HB2	2.03	0.40
38:DP:61:ARG:HH11	57:D8:13:ARG:HD2	1.86	0.40
27:DA:460:A:H3'	27:DA:461:C:C6	2.56	0.40
27:DA:529:A:H62	27:DA:2041:U:H3	1.69	0.40
27:DA:831:G:H5'	27:DA:944:G:H22	1.87	0.40
20:AT:22:ARG:O	20:AT:23:ARG:C	2.60	0.40
45:BW:12:ILE:HG12	45:BW:13:SER:N	2.37	0.40
45:BW:13:SER:HA	45:BW:14:PRO:HD3	2.00	0.40
1:CA:401:C:O2'	1:CA:402:G:H5'	2.22	0.40
1:AA:1056:U:O2'	1:AA:1057:G:H5'	2.22	0.40
1:AA:1342:C:H2'	1:AA:1343:G:H8	1.86	0.40
1:AA:1347:G:HO2'	1:AA:1348:U:P	2.41	0.40
1:AA:1199:U:C4'	10:AJ:54:PHE:CE2	3.05	0.40
3:AC:6:HIS:ND1	14:AN:49:HIS:HB3	2.37	0.40
8:AH:32:LYS:HA	8:AH:35:ILE:CD1	2.47	0.40
16:CP:11:SER:HB2	16:CP:12:LYS:H	1.60	0.40
1:CA:275:G:H2'	1:CA:276:G:C8	2.56	0.40
52:B3:17:LYS:O	52:B3:20:LYS:N	2.55	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BA:744:G:P	31:BE:132:HIS:HB3	2.60	0.40
3:CC:89:GLU:OE2	3:CC:89:GLU:O	2.39	0.40
27:DA:2182:G:C2	27:DA:2183:C:N3	2.89	0.40
1:CA:681:C:H2'	1:CA:682:G:C8	2.56	0.40
1:CA:528:C:O2'	1:CA:529:G:H5'	2.21	0.40
49:B0:17:GLN:O	49:B0:18:ALA:C	2.59	0.40
27:BA:2271:G:OP1	49:B0:20:ARG:HA	2.22	0.40
12:AL:55:VAL:CG1	12:AL:56:ARG:N	2.85	0.40
27:BA:2579:C:H2'	27:BA:2580:U:O4'	2.22	0.40
48:DZ:43:PHE:CZ	48:DZ:85:VAL:HG11	2.57	0.40
48:DZ:78:ARG:O	48:DZ:79:ARG:HB2	2.21	0.40
38:BP:100:LEU:O	38:BP:105:LEU:O	2.40	0.40
38:BP:111:ARG:CZ	38:BP:149:GLU:HG3	2.51	0.40
1:CA:751:U:O4	1:CA:752:G:C2	2.74	0.40
27:DA:2158:A:H1'	27:DA:2159:G:C8	2.56	0.40
27:DA:2163:C:OP1	27:DA:2165:G:O6	2.40	0.40
27:BA:173:G:N2	27:BA:174:C:C2	2.89	0.40
35:BI:110:ASP:HA	35:BI:111:PRO:HD2	1.87	0.40
35:BI:79:ILE:HG22	35:BI:81:VAL:HG22	2.03	0.40
1:AA:441:A:N6	1:AA:494:U:C6	2.89	0.40
27:DA:960:A:C8	27:DA:962:G:C8	3.10	0.40
27:DA:311:A:N9	27:DA:332:A:N7	2.70	0.40
3:AC:122:GLU:O	3:AC:126:ARG:HG3	2.22	0.40
30:BD:68:LYS:HB2	30:BD:68:LYS:HE3	1.79	0.40
30:BD:68:LYS:HE3	30:BD:70:TRP:NE1	2.37	0.40
1:AA:1164:G:N1	1:AA:1173:G:C6	2.90	0.40
8:AH:6:ILE:HB	8:AH:85:ARG:NH2	2.36	0.40
28:DB:45:A:O4'	33:DG:95:ARG:NH1	2.55	0.40
3:CC:39:ILE:HG22	3:CC:43:LEU:HD11	1.99	0.40
52:D3:20:LYS:C	52:D3:22:ALA:H	2.24	0.40
1:AA:738:C:H5'	6:AF:72:VAL:HG11	2.02	0.40
13:AM:89:GLY:C	13:AM:90:LEU:O	2.55	0.40
5:CE:86:ALA:CB	5:CE:130:ASN:HD22	2.32	0.40
27:DA:2561:A:C4	27:DA:2562:U:C6	3.10	0.40
27:DA:2683:C:C6	27:DA:2684:U:C5	3.09	0.40
38:BP:90:ARG:HB2	38:BP:90:ARG:HE	1.57	0.40
27:BA:2525:G:N2	27:BA:2526:G:C4	2.89	0.40
27:BA:2188:C:H2'	27:BA:2189:U:O4'	2.20	0.40
1:AA:1351:U:H2'	1:AA:1352:C:H6	1.87	0.40
54:D5:46:CYS:HA	54:D5:47:PRO:HD2	1.93	0.40
33:DG:106:LEU:HA	33:DG:110:ALA:HB3	2.03	0.40
33:DG:111:LEU:HD11	33:DG:120:LEU:CD2	2.39	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:AO:35:ARG:HH12	15:AO:59:MET:CE	2.34	0.40
1:AA:1279:A:N3	1:AA:1279:A:H3'	2.36	0.40
1:CA:1154:G:O2'	1:CA:1155:G:O5'	2.39	0.40
5:CE:139:LEU:C	5:CE:141:GLN:H	2.24	0.40
7:CG:144:MET:O	7:CG:147:ALA:HB3	2.21	0.40
27:DA:219:G:H2'	27:DA:220:G:C8	2.56	0.40
45:DW:17:VAL:HG23	45:DW:18:ARG:N	2.37	0.40
27:DA:500:G:N1	27:DA:503:A:OP2	2.54	0.40
35:DI:11:ASN:O	35:DI:12:LEU:HD22	2.20	0.40
3:CC:14:ILE:O	3:CC:15:THR:C	2.60	0.40
27:BA:56:A:H2'	27:BA:57:C:C6	2.56	0.40
32:DF:170:LEU:HA	32:DF:170:LEU:HD12	1.88	0.40
2:AB:209:ARG:O	2:AB:210:SER:C	2.59	0.40
36:DN:86:PRO:HG2	36:DN:89:LYS:CB	2.50	0.40
27:BA:2048:G:N1	27:BA:2621:A:C2	2.89	0.40
27:DA:287:C:C5'	27:DA:287:C:H6	2.27	0.40
27:DA:68:G:H2'	27:DA:68:G:N3	2.36	0.40
1:CA:321:A:C2	1:CA:333:G:C2	3.09	0.40
27:DA:1629:U:O2'	27:DA:1630:G:H5'	2.21	0.40
27:DA:2280:G:O2'	27:DA:2281:C:H5'	2.22	0.40
5:AE:146:ALA:O	5:AE:147:ASP:C	2.60	0.40
13:CM:46:LYS:HG2	13:CM:47:ASP:OD1	2.20	0.40
51:D2:43:GLN:O	51:D2:44:LEU:CB	2.61	0.40
27:DA:1041:C:H5'	27:DA:1042:G:OP2	2.22	0.40
27:DA:1444:G:H2'	27:DA:1445(A):C:C5	2.56	0.40
9:CI:65:VAL:CG1	9:CI:73:GLN:NE2	2.85	0.40
24:CX:32:C:O2'	24:CX:33:U:H5'	2.22	0.40
48:BZ:33:ASN:O	48:BZ:34:ARG:C	2.60	0.40
1:CA:929:G:H8	1:CA:929:G:O5'	2.05	0.40
1:CA:134:A:N6	16:CP:25:ARG:NH1	2.66	0.40
12:AL:2:PRO:CA	12:AL:6:GLN:HE21	2.34	0.40
1:CA:1400:C:N4	24:CX:34:C:C6	2.89	0.40
9:CI:89:ASN:HA	9:CI:90:PRO:HD2	1.91	0.40
1:AA:930:C:O2'	1:AA:931:C:H5'	2.21	0.40
49:D0:5:LYS:O	49:D0:6:GLY:C	2.60	0.40
2:CB:134:GLU:HA	2:CB:137:ARG:HB2	2.04	0.40
54:B5:31:VAL:HB	54:B5:32:PRO:CD	2.50	0.40
27:BA:2353:G:C6	27:BA:2365:G:N2	2.89	0.40
7:AG:115:ARG:CB	7:AG:118:VAL:HG13	2.51	0.40
7:CG:155:ARG:O	7:CG:156:TRP:C	2.60	0.40
1:CA:1168:A:H3'	1:CA:1169:A:C8	2.49	0.40
1:CA:1168:A:C3'	1:CA:1169:A:H8	2.32	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DA:1170:G:H1	27:DA:1179:C:N4	2.19	0.40
24:CX:47:U:H2'	24:CX:50:U:OP1	2.21	0.40
27:DA:2600:A:C6	27:DA:2601:C:N4	2.90	0.40
27:BA:2765:A:C3'	27:BA:2766:G:H5'	2.52	0.40
10:AJ:33:GLN:O	10:AJ:75:ILE:HG12	2.20	0.40
30:DD:29:PRO:O	30:DD:29:PRO:HG2	2.20	0.40
5:AE:31:LEU:HD23	5:AE:31:LEU:HA	1.87	0.40
11:AK:65:ALA:O	11:AK:66:LEU:C	2.59	0.40
27:BA:107:C:C4	27:BA:108:U:H5	2.39	0.40
28:DB:66:A:C2'	28:DB:67:G:OP2	2.69	0.40
51:D2:41:ILE:HG13	51:D2:42:GLY:O	2.22	0.40
30:BD:85:ASP:OD2	30:BD:92:ILE:HG21	2.21	0.40
55:B6:4:GLU:O	55:B6:5:VAL:C	2.60	0.40
8:CH:45:ILE:C	8:CH:47:GLY:N	2.74	0.40
45:DW:111:HIS:CG	45:DW:112:GLY:H	2.39	0.40
56:D7:16:HIS:O	56:D7:44:PRO:HD2	2.21	0.40
1:AA:996:A:C2	1:AA:1046:A:H4'	2.56	0.40
58:B9:17:ILE:HD13	58:B9:17:ILE:HA	1.93	0.40
27:DA:2218:U:H3'	27:DA:2218:U:H6	1.87	0.40
27:BA:1424:G:H2'	27:BA:1425:G:O4'	2.21	0.40
15:CO:41:GLU:O	15:CO:44:LYS:HB3	2.22	0.40
52:D3:40:THR:C	52:D3:42:ALA:N	2.74	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%)	126 (54%)	73 (31%)	34 (15%)	0	1
2	CB	233/256 (91%)	151 (65%)	50 (22%)	32 (14%)	0	2
3	AC	205/239 (86%)	123 (60%)	54 (26%)	28 (14%)	0	2
3	CC	205/239 (86%)	121 (59%)	59 (29%)	25 (12%)	1	2

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
4	AD	206/209 (99%)	129 (63%)	52 (25%)	25 (12%)	1	2
4	CD	206/209 (99%)	126 (61%)	51 (25%)	29 (14%)	0	2
5	AE	149/162 (92%)	94 (63%)	38 (26%)	17 (11%)	1	3
5	CE	149/162 (92%)	103 (69%)	27 (18%)	19 (13%)	0	2
6	AF	99/101 (98%)	71 (72%)	18 (18%)	10 (10%)	1	4
6	CF	99/101 (98%)	76 (77%)	16 (16%)	7 (7%)	2	9
7	AG	153/156 (98%)	101 (66%)	39 (26%)	13 (8%)	1	6
7	CG	153/156 (98%)	102 (67%)	38 (25%)	13 (8%)	1	6
8	AH	136/138 (99%)	98 (72%)	27 (20%)	11 (8%)	1	7
8	CH	136/138 (99%)	81 (60%)	38 (28%)	17 (12%)	1	2
9	AI	125/128 (98%)	83 (66%)	29 (23%)	13 (10%)	1	4
9	CI	125/128 (98%)	82 (66%)	26 (21%)	17 (14%)	0	2
10	AJ	97/105 (92%)	64 (66%)	26 (27%)	7 (7%)	2	8
10	CJ	97/105 (92%)	55 (57%)	28 (29%)	14 (14%)	0	1
11	AK	117/129 (91%)	70 (60%)	34 (29%)	13 (11%)	1	3
11	CK	117/129 (91%)	87 (74%)	22 (19%)	8 (7%)	2	10
12	AL	123/132 (93%)	75 (61%)	25 (20%)	23 (19%)	0	1
12	CL	123/132 (93%)	76 (62%)	24 (20%)	23 (19%)	0	1
13	AM	118/126 (94%)	64 (54%)	33 (28%)	21 (18%)	0	1
13	CM	117/126 (93%)	64 (55%)	29 (25%)	24 (20%)	0	0
14	AN	58/61 (95%)	29 (50%)	19 (33%)	10 (17%)	0	1
14	CN	58/61 (95%)	35 (60%)	12 (21%)	11 (19%)	0	0
15	AO	86/89 (97%)	56 (65%)	19 (22%)	11 (13%)	0	2
15	CO	86/89 (97%)	49 (57%)	28 (33%)	9 (10%)	1	3
16	AP	82/88 (93%)	49 (60%)	21 (26%)	12 (15%)	0	1
16	CP	82/88 (93%)	45 (55%)	28 (34%)	9 (11%)	1	3
17	AQ	98/105 (93%)	73 (74%)	15 (15%)	10 (10%)	1	4
17	CQ	98/105 (93%)	70 (71%)	22 (22%)	6 (6%)	2	14
18	AR	68/88 (77%)	35 (52%)	21 (31%)	12 (18%)	0	1
18	CR	68/88 (77%)	41 (60%)	16 (24%)	11 (16%)	0	1
19	AS	77/93 (83%)	51 (66%)	15 (20%)	11 (14%)	0	1

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
19	CS	77/93 (83%)	46 (60%)	18 (23%)	13 (17%)	0	1
20	AT	97/106 (92%)	59 (61%)	20 (21%)	18 (19%)	0	1
20	CT	97/106 (92%)	52 (54%)	36 (37%)	9 (9%)	1	5
21	AU	23/27 (85%)	16 (70%)	4 (17%)	3 (13%)	0	2
21	CU	23/27 (85%)	14 (61%)	5 (22%)	4 (17%)	0	1
26	AZ	2/6 (33%)	1 (50%)	1 (50%)	0	100	100
26	CZ	2/6 (33%)	1 (50%)	1 (50%)	0	100	100
29	BC	183/229 (80%)	69 (38%)	49 (27%)	65 (36%)	0	0
29	DC	183/229 (80%)	69 (38%)	59 (32%)	55 (30%)	0	0
30	BD	270/276 (98%)	172 (64%)	66 (24%)	32 (12%)	1	2
30	DD	270/276 (98%)	180 (67%)	57 (21%)	33 (12%)	1	2
31	BE	203/206 (98%)	130 (64%)	38 (19%)	35 (17%)	0	1
31	DE	203/206 (98%)	125 (62%)	34 (17%)	44 (22%)	0	0
32	BF	206/210 (98%)	137 (66%)	31 (15%)	38 (18%)	0	1
32	DF	206/210 (98%)	125 (61%)	40 (19%)	41 (20%)	0	0
33	BG	179/182 (98%)	107 (60%)	47 (26%)	25 (14%)	0	2
33	DG	179/182 (98%)	109 (61%)	42 (24%)	28 (16%)	0	1
34	BH	162/180 (90%)	87 (54%)	43 (26%)	32 (20%)	0	0
34	DH	158/180 (88%)	88 (56%)	35 (22%)	35 (22%)	0	0
35	BI	144/148 (97%)	73 (51%)	33 (23%)	38 (26%)	0	0
35	DI	144/148 (97%)	80 (56%)	41 (28%)	23 (16%)	0	1
36	BN	137/140 (98%)	91 (66%)	27 (20%)	19 (14%)	0	2
36	DN	137/140 (98%)	82 (60%)	28 (20%)	27 (20%)	0	0
37	BO	120/122 (98%)	84 (70%)	25 (21%)	11 (9%)	1	5
37	DO	120/122 (98%)	80 (67%)	23 (19%)	17 (14%)	0	1
38	BP	144/150 (96%)	71 (49%)	42 (29%)	31 (22%)	0	0
38	DP	144/150 (96%)	72 (50%)	36 (25%)	36 (25%)	0	0
39	BQ	139/141 (99%)	98 (70%)	21 (15%)	20 (14%)	0	1
39	DQ	137/141 (97%)	88 (64%)	29 (21%)	20 (15%)	0	1
40	BR	115/118 (98%)	75 (65%)	25 (22%)	15 (13%)	0	2
40	DR	115/118 (98%)	66 (57%)	31 (27%)	18 (16%)	0	1

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
41	BS	97/112 (87%)	45 (46%)	24 (25%)	28 (29%)	0	0
41	DS	99/112 (88%)	51 (52%)	14 (14%)	34 (34%)	0	0
42	BT	136/146 (93%)	78 (57%)	26 (19%)	32 (24%)	0	0
42	DT	136/146 (93%)	68 (50%)	32 (24%)	36 (26%)	0	0
43	BU	115/118 (98%)	70 (61%)	27 (24%)	18 (16%)	0	1
43	DU	115/118 (98%)	69 (60%)	30 (26%)	16 (14%)	0	2
44	BV	99/101 (98%)	61 (62%)	24 (24%)	14 (14%)	0	2
44	DV	99/101 (98%)	61 (62%)	19 (19%)	19 (19%)	0	0
45	BW	111/113 (98%)	77 (69%)	23 (21%)	11 (10%)	1	4
45	DW	111/113 (98%)	71 (64%)	29 (26%)	11 (10%)	1	4
46	BX	91/96 (95%)	67 (74%)	16 (18%)	8 (9%)	1	5
46	DX	91/96 (95%)	60 (66%)	17 (19%)	14 (15%)	0	1
47	BY	99/110 (90%)	42 (42%)	22 (22%)	35 (35%)	0	0
47	DY	99/110 (90%)	37 (37%)	29 (29%)	33 (33%)	0	0
48	BZ	175/206 (85%)	99 (57%)	49 (28%)	27 (15%)	0	1
48	DZ	175/206 (85%)	97 (55%)	51 (29%)	27 (15%)	0	1
49	B0	82/85 (96%)	62 (76%)	12 (15%)	8 (10%)	1	4
49	D0	82/85 (96%)	61 (74%)	14 (17%)	7 (8%)	1	6
50	B1	92/98 (94%)	60 (65%)	20 (22%)	12 (13%)	0	2
50	D1	92/98 (94%)	65 (71%)	16 (17%)	11 (12%)	1	2
51	B2	69/72 (96%)	46 (67%)	14 (20%)	9 (13%)	0	2
51	D2	69/72 (96%)	37 (54%)	20 (29%)	12 (17%)	0	1
52	B3	58/60 (97%)	49 (84%)	7 (12%)	2 (3%)	6	31
52	D3	58/60 (97%)	46 (79%)	10 (17%)	2 (3%)	6	31
53	B4	29/71 (41%)	18 (62%)	6 (21%)	5 (17%)	0	1
53	D4	29/71 (41%)	17 (59%)	9 (31%)	3 (10%)	1	4
54	B5	57/60 (95%)	34 (60%)	13 (23%)	10 (18%)	0	1
54	D5	57/60 (95%)	33 (58%)	14 (25%)	10 (18%)	0	1
55	B6	49/54 (91%)	17 (35%)	14 (29%)	18 (37%)	0	0
55	D6	44/54 (82%)	16 (36%)	11 (25%)	17 (39%)	0	0
56	B7	47/49 (96%)	35 (74%)	8 (17%)	4 (8%)	1	6

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
56	D7	47/49 (96%)	30 (64%)	13 (28%)	4 (8%)	1	6
57	B8	62/65 (95%)	34 (55%)	19 (31%)	9 (14%)	0	1
57	D8	62/65 (95%)	32 (52%)	15 (24%)	15 (24%)	0	0
58	B9	34/37 (92%)	25 (74%)	8 (24%)	1 (3%)	7	35
58	D9	34/37 (92%)	18 (53%)	13 (38%)	3 (9%)	1	5
All	All	11702/12598 (93%)	7090 (61%)	2747 (24%)	1865 (16%)	0	1

All (1865) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AB	9	GLU
2	AB	15	VAL
2	AB	20	GLU
2	AB	96	ARG
2	AB	101	MET
2	AB	194	PRO
2	AB	229	VAL
3	AC	51	GLY
3	AC	61	ALA
3	AC	101	LEU
3	AC	113	ALA
3	AC	127	ARG
3	AC	135	LYS
3	AC	165	THR
4	AD	146	ILE
4	AD	179	GLU
5	AE	21	ALA
5	AE	129	ILE
5	AE	130	ASN
5	AE	141	GLN
6	AF	13	ASN
6	AF	16	GLN
6	AF	62	TRP
7	AG	7	ALA
7	AG	52	GLU
7	AG	53	LYS
7	AG	58	PRO
7	AG	155	ARG
8	AH	6	ILE
8	AH	49	GLU

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Mol	Chain	Res	Type
8	AH	77	GLU
8	AH	91	ARG
8	AH	97	VAL
9	AI	12	GLU
9	AI	23	ASN
9	AI	54	ASP
9	AI	61	ALA
9	AI	107	ARG
10	AJ	32	ALA
11	AK	24	SER
11	AK	48	ILE
11	AK	77	MET
11	AK	86	GLY
11	AK	89	ALA
12	AL	38	ARG
12	AL	44	LYS
12	AL	74	LEU
12	AL	86	ARG
12	AL	125	ALA
13	AM	12	ASN
13	AM	95	GLY
13	AM	117	VAL
14	AN	14	PRO
14	AN	15	LYS
14	AN	16	PHE
14	AN	28	GLY
14	AN	52	GLN
14	AN	59	ALA
15	AO	29	VAL
16	AP	24	ALA
16	AP	25	ARG
16	AP	45	THR
17	AQ	33	GLY
18	AR	20	ALA
18	AR	37	VAL
18	AR	87	ARG
19	AS	6	LYS
19	AS	10	PHE
19	AS	25	LYS
19	AS	28	LYS
19	AS	30	LEU
19	AS	61	TYR

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Mol	Chain	Res	Type
19	AS	62	ILE
19	AS	80	TYR
20	AT	28	ALA
20	AT	49	ALA
20	AT	63	ILE
20	AT	74	LYS
29	BC	38	ASP
29	BC	46	LYS
29	BC	52	ARG
29	BC	55	ASP
29	BC	140	PRO
29	BC	142	ALA
29	BC	148	ASN
29	BC	153	ILE
29	BC	156	ILE
29	BC	162	GLU
29	BC	166	ASP
29	BC	167	LYS
29	BC	170	ALA
29	BC	173	ALA
29	BC	174	PRO
29	BC	182	PRO
29	BC	193	ILE
29	BC	194	ARG
29	BC	195	ALA
29	BC	211	SER
29	BC	216	THR
29	BC	220	PRO
29	BC	222	VAL
30	BD	3	VAL
30	BD	25	THR
30	BD	33	LEU
30	BD	118	VAL
30	BD	169	GLU
30	BD	198	ASN
30	BD	211	ARG
30	BD	242	ARG
30	BD	268	ARG
30	BD	271	ILE
31	BE	4	ILE
31	BE	18	ASP
31	BE	46	ALA

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Mol	Chain	Res	Type
31	BE	53	PRO
31	BE	54	GLN
31	BE	55	ASN
31	BE	72	VAL
31	BE	75	VAL
31	BE	77	ILE
31	BE	82	ARG
31	BE	94	GLU
31	BE	118	LYS
31	BE	129	HIS
31	BE	131	ALA
31	BE	174	ASP
31	BE	187	ALA
31	BE	200	GLU
32	BF	4	VAL
32	BF	5	ALA
32	BF	22	ALA
32	BF	25	PRO
32	BF	62	ARG
32	BF	65	TRP
32	BF	68	LYS
32	BF	69	HIS
32	BF	74	ARG
32	BF	84	VAL
32	BF	90	PHE
32	BF	123	LEU
32	BF	127	GLU
32	BF	132	VAL
32	BF	160	ASN
33	BG	27	ASN
33	BG	47	LYS
33	BG	81	LYS
33	BG	82	LEU
33	BG	87	PRO
33	BG	96	ARG
33	BG	97	ASP
33	BG	115	ARG
33	BG	124	SER
33	BG	126	ASP
33	BG	179	PRO
34	BH	9	ILE
34	BH	10	PRO

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Mol	Chain	Res	Type
34	BH	12	PRO
34	BH	13	LYS
34	BH	21	PRO
34	BH	45	VAL
34	BH	54	ARG
34	BH	71	LEU
34	BH	83	TYR
34	BH	90	LYS
34	BH	92	ILE
34	BH	99	VAL
34	BH	108	GLY
34	BH	127	GLU
34	BH	138	LYS
34	BH	155	SER
34	BH	156	ALA
34	BH	158	HIS
34	BH	159	GLU
34	BH	165	ALA
34	BH	169	VAL
34	BH	170	ARG
35	BI	42	SER
35	BI	68	LEU
35	BI	83	ALA
35	BI	87	LYS
35	BI	91	SER
35	BI	92	VAL
35	BI	120	ILE
36	BN	47	ALA
36	BN	58	ASP
36	BN	68	GLU
36	BN	77	GLY
36	BN	94	HIS
36	BN	120	LEU
37	BO	58	VAL
37	BO	98	VAL
37	BO	109	LYS
38	BP	9	ASN
38	BP	11	GLY
38	BP	14	LYS
38	BP	25	SER
38	BP	31	ALA
38	BP	47	ASP

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Mol	Chain	Res	Type
38	BP	89	ALA
38	BP	106	LEU
38	BP	108	LYS
39	BQ	6	ARG
39	BQ	19	GLY
39	BQ	20	ALA
39	BQ	47	ILE
39	BQ	57	HIS
39	BQ	63	LYS
39	BQ	115	MET
39	BQ	134	ARG
39	BQ	136	ALA
40	BR	8	ARG
40	BR	14	SER
40	BR	102	GLU
41	BS	18	ILE
41	BS	23	ARG
41	BS	35	ILE
41	BS	53	SER
41	BS	58	LEU
41	BS	62	LYS
41	BS	78	LEU
41	BS	82	ILE
41	BS	88	ASP
41	BS	94	TYR
41	BS	96	GLY
41	BS	102	ALA
42	BT	14	TYR
42	BT	27	THR
42	BT	28	VAL
42	BT	30	VAL
42	BT	33	LYS
42	BT	35	LYS
42	BT	39	ARG
42	BT	41	ARG
42	BT	55	ASN
42	BT	69	GLY
42	BT	80	SER
42	BT	81	PRO
42	BT	83	ILE
42	BT	94	ALA
42	BT	107	ASP

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Mol	Chain	Res	Type
42	BT	116	ALA
43	BU	9	VAL
43	BU	26	GLY
43	BU	32	PHE
43	BU	42	ALA
43	BU	43	GLY
43	BU	74	LEU
43	BU	76	TYR
43	BU	90	VAL
43	BU	91	ASP
43	BU	93	LYS
44	BV	3	ALA
44	BV	16	PRO
44	BV	19	LYS
44	BV	29	PRO
44	BV	46	VAL
44	BV	49	THR
44	BV	50	PRO
45	BW	14	PRO
45	BW	44	ALA
45	BW	65	LEU
46	BX	12	VAL
46	BX	34	ALA
46	BX	93	GLU
47	BY	3	VAL
47	BY	5	MET
47	BY	31	LEU
47	BY	38	ILE
47	BY	40	GLU
47	BY	48	ALA
47	BY	50	ARG
47	BY	52	SER
47	BY	53	PRO
47	BY	56	PRO
47	BY	62	GLU
47	BY	64	GLU
47	BY	66	PRO
47	BY	68	HIS
47	BY	75	ILE
47	BY	77	PRO
47	BY	78	ALA
47	BY	87	LYS

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Mol	Chain	Res	Type
47	BY	88	LYS
47	BY	98	VAL
48	BZ	29	ASN
48	BZ	34	ARG
48	BZ	64	GLN
48	BZ	80	ARG
48	BZ	104	VAL
48	BZ	120	HIS
48	BZ	145	ILE
48	BZ	150	HIS
48	BZ	151	ALA
48	BZ	167	GLU
49	B0	18	ALA
49	B0	55	ARG
50	B1	4	VAL
50	B1	30	VAL
50	B1	38	SER
50	B1	52	ARG
50	B1	53	VAL
50	B1	76	ARG
51	B2	43	GLN
51	B2	47	ASN
52	B3	2	PRO
53	B4	61	VAL
54	B5	4	HIS
54	B5	32	PRO
54	B5	33	CYS
54	B5	35	GLU
55	B6	5	VAL
55	B6	7	ILE
55	B6	16	CYS
55	B6	17	LYS
55	B6	20	ASN
55	B6	29	ASN
55	B6	34	LEU
55	B6	46	HIS
55	B6	48	VAL
55	B6	52	VAL
57	B8	18	ALA
57	B8	34	TRP
57	B8	61	LEU
58	B9	15	LYS

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Mol	Chain	Res	Type
2	CB	9	GLU
2	CB	15	VAL
2	CB	77	ALA
2	CB	159	PRO
2	CB	189	ASP
2	CB	194	PRO
2	CB	195	ASP
2	CB	208	ILE
3	CC	7	PRO
3	CC	12	LEU
3	CC	15	THR
3	CC	60	ALA
3	CC	134	ILE
3	CC	154	SER
3	CC	156	ARG
3	CC	180	ALA
3	CC	207	VAL
4	CD	14	ARG
4	CD	30	LYS
4	CD	39	PRO
4	CD	101	LEU
5	CE	7	GLU
5	CE	21	ALA
5	CE	129	ILE
5	CE	144	THR
5	CE	146	ALA
5	CE	147	ASP
6	CF	39	LYS
6	CF	44	GLY
6	CF	45	LEU
7	CG	15	ASP
7	CG	58	PRO
7	CG	77	SER
7	CG	78	ARG
7	CG	84	ASN
8	CH	2	LEU
8	CH	22	GLU
8	CH	83	ILE
8	CH	91	ARG
9	CI	54	ASP
9	CI	107	ARG
10	CJ	32	ALA

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Mol	Chain	Res	Type
10	CJ	36	GLY
10	CJ	57	LYS
10	CJ	82	ILE
10	CJ	92	THR
11	CK	87	THR
12	CL	4	ILE
12	CL	15	VAL
12	CL	44	LYS
12	CL	61	TYR
12	CL	74	LEU
12	CL	112	LYS
12	CL	113	SER
13	CM	7	VAL
13	CM	48	LEU
13	CM	60	VAL
13	CM	67	GLU
13	CM	83	ASP
13	CM	95	GLY
13	CM	96	LEU
13	CM	113	PRO
14	CN	14	PRO
14	CN	16	PHE
14	CN	24	CYS
15	CO	13	GLN
16	CP	16	HIS
16	CP	77	ALA
17	CQ	34	LYS
17	CQ	78	GLU
18	CR	20	ALA
18	CR	54	ARG
18	CR	64	ARG
18	CR	65	ILE
18	CR	83	GLU
18	CR	87	ARG
19	CS	10	PHE
19	CS	25	LYS
19	CS	28	LYS
19	CS	31	ILE
19	CS	61	TYR
19	CS	62	ILE
20	CT	48	LYS
20	CT	49	ALA

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Mol	Chain	Res	Type
20	CT	71	THR
20	CT	97	ALA
21	CU	9	ARG
21	CU	22	ARG
21	CU	25	LYS
29	DC	38	ASP
29	DC	46	LYS
29	DC	49	ILE
29	DC	63	SER
29	DC	108	MET
29	DC	122	ALA
29	DC	133	PRO
29	DC	148	ASN
29	DC	151	GLU
29	DC	153	ILE
29	DC	156	ILE
29	DC	166	ASP
29	DC	167	LYS
29	DC	173	ALA
29	DC	174	PRO
29	DC	182	PRO
29	DC	183	GLU
29	DC	209	LEU
29	DC	211	SER
29	DC	217	THR
29	DC	220	PRO
29	DC	222	VAL
30	DD	12	SER
30	DD	24	ILE
30	DD	27	THR
30	DD	33	LEU
30	DD	45	ASN
30	DD	76	PRO
30	DD	118	VAL
30	DD	224	ALA
30	DD	242	ARG
30	DD	245	PRO
30	DD	246	PRO
30	DD	271	ILE
31	DE	4	ILE
31	DE	18	ASP
31	DE	20	ALA

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Mol	Chain	Res	Type
31	DE	30	PRO
31	DE	35	GLN
31	DE	45	THR
31	DE	54	GLN
31	DE	55	ASN
31	DE	59	VAL
31	DE	60	ASN
31	DE	71	GLY
31	DE	75	VAL
31	DE	77	ILE
31	DE	117	MET
31	DE	131	ALA
31	DE	174	ASP
31	DE	185	LYS
32	DF	4	VAL
32	DF	8	GLN
32	DF	11	VAL
32	DF	25	PRO
32	DF	59	TYR
32	DF	62	ARG
32	DF	64	ILE
32	DF	66	PRO
32	DF	67	GLN
32	DF	68	LYS
32	DF	89	VAL
32	DF	116	ASP
32	DF	129	PHE
32	DF	132	VAL
32	DF	133	ASN
32	DF	168	ARG
32	DF	202	PHE
32	DF	203	GLN
33	DG	34	LEU
33	DG	47	LYS
33	DG	51	ARG
33	DG	52	ILE
33	DG	82	LEU
33	DG	87	PRO
33	DG	96	ARG
33	DG	97	ASP
33	DG	117	PHE
33	DG	126	ASP

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Mol	Chain	Res	Type
33	DG	142	PRO
34	DH	24	VAL
34	DH	54	ARG
34	DH	55	PRO
34	DH	71	LEU
34	DH	83	TYR
34	DH	90	LYS
34	DH	92	ILE
34	DH	93	GLY
34	DH	109	PHE
34	DH	127	GLU
34	DH	155	SER
34	DH	156	ALA
34	DH	159	GLU
34	DH	160	LYS
35	DI	12	LEU
35	DI	40	THR
35	DI	42	SER
35	DI	77	LEU
35	DI	101	LEU
35	DI	117	GLU
35	DI	120	ILE
35	DI	130	TYR
35	DI	132	PRO
36	DN	4	TYR
36	DN	37	LYS
36	DN	42	TRP
36	DN	57	ALA
36	DN	59	LYS
36	DN	60	ILE
36	DN	77	GLY
36	DN	129	PRO
37	DO	6	THR
37	DO	48	PRO
37	DO	54	GLU
37	DO	101	PRO
38	DP	9	ASN
38	DP	11	GLY
38	DP	17	LYS
38	DP	19	VAL
38	DP	31	ALA
38	DP	33	ARG

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Mol	Chain	Res	Type
38	DP	35	HIS
38	DP	47	ASP
38	DP	65	ARG
38	DP	69	GLY
38	DP	106	LEU
38	DP	107	LYS
38	DP	108	LYS
38	DP	122	PRO
39	DQ	2	LEU
39	DQ	5	ARG
39	DQ	62	GLY
39	DQ	83	MET
39	DQ	109	VAL
39	DQ	138	ASP
40	DR	9	LYS
40	DR	15	SER
40	DR	20	LEU
40	DR	45	ARG
40	DR	58	GLY
40	DR	102	GLU
41	DS	10	ARG
41	DS	11	LYS
41	DS	15	ARG
41	DS	19	LYS
41	DS	23	ARG
41	DS	32	LEU
41	DS	35	ILE
41	DS	44	LYS
41	DS	57	LYS
41	DS	58	LEU
41	DS	59	LYS
41	DS	62	LYS
41	DS	83	LYS
41	DS	92	TYR
41	DS	97	ARG
41	DS	100	ALA
41	DS	103	GLU
42	DT	17	THR
42	DT	24	PRO
42	DT	28	VAL
42	DT	30	VAL
42	DT	36	GLU

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Mol	Chain	Res	Type
42	DT	39	ARG
42	DT	40	THR
42	DT	55	ASN
42	DT	81	PRO
42	DT	82	LEU
42	DT	83	ILE
42	DT	115	ARG
42	DT	136	GLN
43	DU	25	TRP
43	DU	79	PHE
43	DU	100	VAL
44	DV	3	ALA
44	DV	18	LEU
44	DV	29	PRO
44	DV	46	VAL
44	DV	77	ALA
44	DV	78	LYS
44	DV	79	VAL
46	DX	12	VAL
46	DX	44	GLU
46	DX	45	THR
46	DX	57	LEU
46	DX	91	ALA
46	DX	93	GLU
47	DY	3	VAL
47	DY	5	MET
47	DY	30	VAL
47	DY	44	ILE
47	DY	53	PRO
47	DY	56	PRO
47	DY	68	HIS
47	DY	77	PRO
47	DY	78	ALA
47	DY	82	PRO
47	DY	90	LEU
47	DY	101	LYS
48	DZ	29	ASN
48	DZ	30	ARG
48	DZ	48	ARG
48	DZ	64	GLN
48	DZ	80	ARG
48	DZ	95	VAL

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Mol	Chain	Res	Type
48	DZ	104	VAL
48	DZ	110	VAL
48	DZ	144	GLU
48	DZ	157	PRO
48	DZ	171	ALA
50	D1	31	GLY
50	D1	58	ILE
51	D2	44	LEU
51	D2	47	ASN
51	D2	48	HIS
51	D2	70	GLN
52	D3	2	PRO
53	D4	52	SER
54	D5	4	HIS
54	D5	12	SER
54	D5	38	ALA
54	D5	57	VAL
55	D6	9	LEU
55	D6	16	CYS
55	D6	17	LYS
55	D6	20	ASN
55	D6	23	THR
55	D6	29	ASN
55	D6	46	HIS
55	D6	52	VAL
56	D7	13	ALA
56	D7	15	THR
57	D8	32	LEU
57	D8	33	ASN
57	D8	35	GLN
57	D8	64	TYR
2	AB	10	LEU
2	AB	29	ALA
2	AB	30	ARG
2	AB	65	GLY
2	AB	88	ALA
2	AB	152	PHE
2	AB	157	ARG
2	AB	174	VAL
2	AB	208	ILE
2	AB	214	ILE
2	AB	227	GLY

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Mol	Chain	Res	Type
3	AC	3	ASN
3	AC	41	GLY
3	AC	49	SER
3	AC	81	GLY
3	AC	160	ALA
3	AC	176	HIS
4	AD	5	ILE
4	AD	124	GLY
5	AE	7	GLU
5	AE	16	THR
5	AE	74	GLY
5	AE	103	GLY
5	AE	150	ARG
6	AF	39	LYS
6	AF	78	GLU
7	AG	14	PRO
7	AG	23	VAL
7	AG	128	ALA
8	AH	2	LEU
9	AI	38	GLN
9	AI	41	VAL
9	AI	46	ALA
9	AI	117	HIS
10	AJ	6	ILE
10	AJ	82	ILE
11	AK	124	LYS
12	AL	4	ILE
12	AL	9	ARG
12	AL	24	LEU
12	AL	43	LYS
12	AL	59	SER
12	AL	113	SER
12	AL	114	ARG
12	AL	118	GLY
13	AM	8	GLU
13	AM	15	VAL
13	AM	21	TYR
13	AM	49	THR
13	AM	70	LEU
13	AM	83	ASP
13	AM	90	LEU
13	AM	91	ARG

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Mol	Chain	Res	Type
13	AM	100	GLY
13	AM	104	ARG
13	AM	105	THR
13	AM	112	GLY
14	AN	23	ARG
14	AN	29	ARG
14	AN	58	LYS
15	AO	86	GLY
16	AP	63	GLY
17	AQ	79	SER
17	AQ	80	GLY
17	AQ	82	MET
18	AR	23	LYS
18	AR	41	LYS
18	AR	57	GLY
18	AR	61	LYS
18	AR	72	ARG
20	AT	29	LYS
20	AT	48	LYS
20	AT	64	ASP
20	AT	71	THR
20	AT	97	ALA
20	AT	99	LEU
21	AU	7	ARG
29	BC	20	TYR
29	BC	48	GLY
29	BC	49	ILE
29	BC	69	GLY
29	BC	76	ALA
29	BC	77	ILE
29	BC	91	ALA
29	BC	109	ASP
29	BC	129	ARG
29	BC	133	PRO
29	BC	151	GLU
29	BC	164	ARG
29	BC	183	GLU
29	BC	201	PRO
30	BD	13	ARG
30	BD	27	THR
30	BD	34	VAL
30	BD	35	LYS

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Mol	Chain	Res	Type
30	BD	267	SER
31	BE	35	GLN
31	BE	59	VAL
31	BE	60	ASN
31	BE	69	LYS
31	BE	76	ARG
31	BE	88	GLY
31	BE	157	ALA
32	BF	7	TYR
32	BF	14	PRO
32	BF	21	ALA
32	BF	57	VAL
32	BF	129	PHE
32	BF	134	GLY
32	BF	146	ALA
32	BF	161	GLU
32	BF	168	ARG
32	BF	188	ARG
33	BG	3	LEU
33	BG	14	GLU
33	BG	86	MET
33	BG	153	ARG
33	BG	154	GLY
34	BH	24	VAL
34	BH	91	GLY
34	BH	93	GLY
34	BH	154	PRO
35	BI	15	VAL
35	BI	26	ALA
35	BI	43	ASN
35	BI	49	ALA
35	BI	85	GLU
35	BI	94	ALA
35	BI	111	PRO
35	BI	121	LYS
35	BI	122	GLU
35	BI	131	LYS
35	BI	135	GLU
35	BI	139	GLN
35	BI	140	LEU
35	BI	145	VAL
36	BN	37	LYS

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Mol	Chain	Res	Type
36	BN	42	TRP
36	BN	64	GLY
37	BO	52	VAL
37	BO	115	VAL
38	BP	23	PRO
38	BP	30	THR
38	BP	34	GLY
38	BP	65	ARG
38	BP	139	LYS
39	BQ	4	PRO
39	BQ	13	GLN
39	BQ	59	ARG
39	BQ	108	GLY
40	BR	5	LYS
40	BR	23	ASN
40	BR	42	LYS
40	BR	45	ARG
40	BR	82	GLU
41	BS	24	LEU
41	BS	57	LYS
41	BS	85	VAL
41	BS	86	ALA
41	BS	87	PHE
41	BS	89	ARG
41	BS	90	GLY
41	BS	97	ARG
41	BS	104	GLY
42	BT	24	PRO
42	BT	26	ASP
42	BT	29	ARG
42	BT	88	ILE
42	BT	128	GLU
42	BT	132	LYS
43	BU	62	ILE
43	BU	66	ASN
44	BV	18	LEU
44	BV	51	VAL
44	BV	55	ALA
44	BV	79	VAL
45	BW	15	ARG
45	BW	45	TYR
45	BW	63	ASP

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Mol	Chain	Res	Type
45	BW	110	LYS
46	BX	68	ARG
47	BY	17	SER
47	BY	41	GLY
47	BY	44	ILE
47	BY	47	LYS
47	BY	49	VAL
48	BZ	26	VAL
48	BZ	110	VAL
48	BZ	165	SER
49	B0	72	ARG
49	B0	73	GLY
50	B1	45	ASN
50	B1	58	ILE
50	B1	85	LEU
53	B4	52	SER
53	B4	65	CYS
54	B5	51	TYR
54	B5	57	VAL
55	B6	49	HIS
56	B7	12	ARG
57	B8	11	LYS
57	B8	41	ILE
57	B8	51	ALA
2	CB	32	ILE
2	CB	38	GLY
2	CB	88	ALA
2	CB	150	SER
2	CB	153	ARG
2	CB	240	GLN
3	CC	20	SER
3	CC	101	LEU
3	CC	145	GLY
3	CC	189	ALA
4	CD	4	TYR
4	CD	9	CYS
4	CD	47	ARG
4	CD	69	GLY
4	CD	76	ARG
4	CD	85	LYS
4	CD	88	VAL
4	CD	110	PHE

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Mol	Chain	Res	Type
4	CD	166	LYS
4	CD	171	GLY
5	CE	12	LEU
5	CE	70	PRO
5	CE	85	GLY
5	CE	104	ALA
6	CF	34	GLY
7	CG	116	ALA
8	CH	72	PRO
8	CH	76	PRO
8	CH	121	ASP
8	CH	129	VAL
9	CI	41	VAL
9	CI	61	ALA
9	CI	67	GLY
9	CI	94	ALA
9	CI	100	GLY
9	CI	119	ALA
9	CI	126	SER
10	CJ	23	ILE
10	CJ	59	SER
10	CJ	88	LEU
11	CK	49	GLY
12	CL	16	ARG
12	CL	62	GLU
12	CL	77	HIS
12	CL	118	GLY
12	CL	124	GLU
13	CM	58	GLU
13	CM	71	ARG
13	CM	81	LEU
13	CM	91	ARG
13	CM	100	GLY
13	CM	106	ASN
13	CM	117	VAL
14	CN	17	LYS
14	CN	23	ARG
14	CN	41	ARG
14	CN	46	GLU
15	CO	26	GLU
15	CO	86	GLY
16	CP	59	TRP

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Mol	Chain	Res	Type
16	CP	83	GLU
18	CR	27	GLY
19	CS	14	HIS
19	CS	29	ARG
19	CS	70	LYS
19	CS	80	TYR
20	CT	73	HIS
21	CU	3	LYS
29	DC	19	VAL
29	DC	22	ILE
29	DC	43	VAL
29	DC	52	ARG
29	DC	120	MET
29	DC	144	THR
29	DC	149	ILE
29	DC	152	ILE
29	DC	195	ALA
29	DC	210	ARG
30	DD	3	VAL
30	DD	16	MET
30	DD	57	GLY
30	DD	147	LEU
30	DD	191	ALA
30	DD	236	GLY
30	DD	239	ARG
30	DD	268	ARG
30	DD	272	ALA
31	DE	40	GLU
31	DE	53	PRO
31	DE	66	HIS
31	DE	70	ALA
31	DE	72	VAL
31	DE	82	ARG
31	DE	84	PHE
31	DE	94	GLU
31	DE	98	PRO
31	DE	102	VAL
31	DE	112	GLY
31	DE	113	PHE
31	DE	118	LYS
31	DE	129	HIS
31	DE	130	GLY

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Mol	Chain	Res	Type
31	DE	152	LYS
31	DE	162	ALA
31	DE	169	ASN
32	DF	5	ALA
32	DF	14	PRO
32	DF	21	ALA
32	DF	26	ALA
32	DF	69	HIS
32	DF	78	ILE
32	DF	81	PRO
32	DF	127	GLU
32	DF	134	GLY
32	DF	160	ASN
33	DG	110	ALA
33	DG	112	PRO
33	DG	123	ASN
33	DG	143	GLU
34	DH	21	PRO
34	DH	29	PRO
34	DH	41	MET
34	DH	84	SER
34	DH	98	LEU
34	DH	151	ILE
34	DH	158	HIS
34	DH	170	ARG
35	DI	21	VAL
35	DI	111	PRO
36	DN	47	ALA
36	DN	49	GLY
36	DN	58	ASP
36	DN	91	LEU
36	DN	105	GLY
36	DN	119	ARG
37	DO	7	TYR
37	DO	26	LYS
37	DO	68	GLU
37	DO	80	ASP
37	DO	98	VAL
37	DO	111	PHE
37	DO	120	GLU
38	DP	26	GLY
38	DP	34	GLY

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Mol	Chain	Res	Type
38	DP	48	PRO
38	DP	57	THR
38	DP	74	GLU
38	DP	110	TYR
38	DP	132	LYS
38	DP	141	ALA
38	DP	147	LEU
39	DQ	13	GLN
39	DQ	30	GLY
39	DQ	108	GLY
39	DQ	134	ARG
39	DQ	137	TYR
40	DR	7	GLY
40	DR	14	SER
40	DR	17	ARG
41	DS	14	VAL
41	DS	53	SER
41	DS	74	ALA
41	DS	90	GLY
41	DS	96	GLY
41	DS	98	VAL
41	DS	102	ALA
42	DT	10	VAL
42	DT	12	SER
42	DT	27	THR
42	DT	54	ARG
42	DT	58	ASN
42	DT	80	SER
42	DT	87	ASP
42	DT	94	ALA
42	DT	107	ASP
43	DU	7	GLY
43	DU	9	VAL
43	DU	26	GLY
43	DU	32	PHE
43	DU	54	LYS
43	DU	77	SER
43	DU	90	VAL
44	DV	23	GLU
44	DV	40	LEU
44	DV	48	GLY
44	DV	50	PRO

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Mol	Chain	Res	Type
44	DV	67	GLY
45	DW	11	ARG
45	DW	21	VAL
45	DW	56	ALA
45	DW	63	ASP
45	DW	111	HIS
46	DX	4	ALA
46	DX	11	PRO
46	DX	40	LYS
47	DY	9	LYS
47	DY	19	LYS
47	DY	41	GLY
47	DY	47	LYS
47	DY	81	LYS
47	DY	99	CYS
48	DZ	20	ALA
48	DZ	108	ALA
48	DZ	116	LEU
48	DZ	135	PHE
48	DZ	164	VAL
48	DZ	168	GLU
49	D0	33	ALA
49	D0	55	ARG
49	D0	83	PRO
51	D2	14	ARG
51	D2	18	PRO
51	D2	51	ARG
51	D2	57	ILE
52	D3	45	GLY
55	D6	15	GLU
55	D6	31	PRO
55	D6	41	PRO
57	D8	34	TRP
57	D8	40	GLU
57	D8	61	LEU
2	AB	48	MET
2	AB	49	GLU
2	AB	74	LYS
2	AB	97	TRP
2	AB	130	ARG
2	AB	183	PRO
2	AB	195	ASP

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Mol	Chain	Res	Type
3	AC	62	ASP
3	AC	144	SER
3	AC	146	ALA
3	AC	168	ALA
3	AC	181	ASN
4	AD	39	PRO
4	AD	63	LYS
4	AD	68	TYR
4	AD	99	SER
4	AD	149	ALA
4	AD	191	ARG
4	AD	193	ASP
5	AE	73	ASN
5	AE	98	THR
5	AE	108	ALA
5	AE	146	ALA
5	AE	154	GLY
6	AF	76	ALA
6	AF	93	SER
7	AG	39	ALA
8	AH	98	LYS
10	AJ	90	LEU
10	AJ	93	GLY
11	AK	87	THR
12	AL	45	PRO
12	AL	72	HIS
12	AL	77	HIS
12	AL	80	VAL
12	AL	102	TYR
13	AM	5	ALA
13	AM	7	VAL
14	AN	44	LEU
15	AO	18	PHE
15	AO	80	ALA
16	AP	31	LYS
16	AP	34	GLU
16	AP	68	ASP
16	AP	70	ALA
16	AP	71	ARG
17	AQ	49	GLU
17	AQ	75	ARG
19	AS	5	LEU

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Mol	Chain	Res	Type
19	AS	29	ARG
20	AT	42	GLN
21	AU	25	LYS
29	BC	37	PHE
29	BC	57	ASN
29	BC	89	ALA
29	BC	122	ALA
29	BC	130	ILE
29	BC	188	ASN
29	BC	196	LEU
29	BC	197	GLU
29	BC	213	TYR
30	BD	202	LYS
30	BD	239	ARG
30	BD	241	PRO
30	BD	244	ARG
31	BE	71	GLY
31	BE	83	ASP
31	BE	84	PHE
31	BE	108	SER
31	BE	151	TYR
32	BF	26	ALA
32	BF	158	THR
33	BG	112	PRO
33	BG	172	LEU
34	BH	27	LYS
34	BH	29	PRO
34	BH	62	LYS
35	BI	8	PRO
35	BI	11	ASN
35	BI	14	ASP
35	BI	24	GLY
35	BI	86	THR
35	BI	88	ILE
35	BI	133	HIS
36	BN	7	LYS
36	BN	40	PRO
36	BN	93	THR
36	BN	110	GLY
37	BO	76	ALA
37	BO	89	ASN
38	BP	35	HIS

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Mol	Chain	Res	Type
38	BP	36	LYS
38	BP	64	LYS
38	BP	111	ARG
38	BP	140	ALA
38	BP	144	GLU
38	BP	147	LEU
39	BQ	5	ARG
39	BQ	15	GLY
39	BQ	40	ALA
39	BQ	80	GLU
40	BR	46	GLY
40	BR	72	ASP
40	BR	73	VAL
41	BS	61	ASN
41	BS	83	LYS
42	BT	68	TYR
42	BT	82	LEU
42	BT	97	ALA
42	BT	123	GLN
43	BU	97	ASP
45	BW	6	ILE
46	BX	19	ALA
46	BX	23	GLU
47	BY	19	LYS
47	BY	82	PRO
48	BZ	113	GLY
48	BZ	133	PRO
49	B0	57	PHE
50	B1	74	VAL
50	B1	84	GLY
51	B2	14	ARG
51	B2	15	LYS
51	B2	37	PHE
51	B2	44	LEU
51	B2	48	HIS
51	B2	54	LYS
54	B5	34	PRO
54	B5	47	PRO
54	B5	56	LYS
55	B6	8	LYS
55	B6	15	GLU
55	B6	28	ARG

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Mol	Chain	Res	Type
55	B6	31	PRO
56	B7	11	LYS
56	B7	23	ARG
57	B8	33	ASN
2	CB	19	HIS
2	CB	27	LYS
2	CB	125	PRO
2	CB	128	GLU
2	CB	196	LEU
2	CB	229	VAL
2	CB	238	LEU
3	CC	4	LYS
3	CC	14	ILE
3	CC	55	VAL
3	CC	62	ASP
4	CD	3	ARG
4	CD	7	PRO
4	CD	26	CYS
4	CD	37	PRO
4	CD	92	VAL
4	CD	131	ARG
4	CD	138	TYR
4	CD	159	ARG
4	CD	165	MET
5	CE	16	THR
5	CE	37	ARG
5	CE	105	VAL
5	CE	108	ALA
5	CE	153	LYS
5	CE	154	GLY
7	CG	42	ILE
8	CH	49	GLU
8	CH	105	ARG
9	CI	11	LYS
9	CI	39	GLY
9	CI	53	VAL
9	CI	111	ARG
10	CJ	52	GLY
11	CK	12	ARG
11	CK	77	MET
12	CL	25	LYS
12	CL	88	LYS

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Mol	Chain	Res	Type
12	CL	102	TYR
13	CM	61	GLU
13	CM	109	THR
14	CN	25	VAL
14	CN	60	SER
15	CO	21	ASP
15	CO	27	VAL
15	CO	76	GLU
16	CP	54	GLU
16	CP	63	GLY
17	CQ	33	GLY
17	CQ	49	GLU
19	CS	27	GLU
20	CT	54	LYS
20	CT	95	ALA
29	DC	67	GLY
29	DC	130	ILE
29	DC	132	GLY
29	DC	154	ARG
29	DC	158	ALA
29	DC	170	ALA
29	DC	172	HIS
30	DD	134	ARG
30	DD	140	THR
30	DD	150	LYS
30	DD	225	ALA
31	DE	2	LYS
31	DE	27	LEU
31	DE	56	PRO
31	DE	90	THR
31	DE	122	PHE
31	DE	151	TYR
32	DF	117	ARG
32	DF	140	LEU
32	DF	150	GLY
32	DF	171	PRO
33	DG	3	LEU
33	DG	4	ASP
33	DG	10	LYS
33	DG	172	LEU
34	DH	108	GLY
35	DI	14	ASP

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Mol	Chain	Res	Type
35	DI	85	GLU
35	DI	145	VAL
36	DN	11	PRO
36	DN	12	ARG
36	DN	35	ARG
36	DN	40	PRO
36	DN	133	GLN
36	DN	135	PRO
38	DP	14	LYS
38	DP	30	THR
38	DP	42	SER
38	DP	55	ARG
38	DP	56	SER
38	DP	111	ARG
38	DP	145	PRO
38	DP	146	VAL
39	DQ	4	PRO
39	DQ	16	ARG
39	DQ	56	ARG
39	DQ	85	LYS
39	DQ	117	ALA
40	DR	94	TYR
40	DR	107	ASP
41	DS	24	LEU
41	DS	42	ASP
41	DS	78	LEU
41	DS	89	ARG
41	DS	93	LYS
41	DS	107	GLU
42	DT	29	ARG
42	DT	31	SER
42	DT	61	PHE
42	DT	68	TYR
43	DU	43	GLY
43	DU	63	VAL
44	DV	16	PRO
45	DW	9	TYR
45	DW	40	ASN
45	DW	80	PRO
45	DW	109	GLU
46	DX	13	LEU
46	DX	60	ARG

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Mol	Chain	Res	Type
47	DY	10	GLY
47	DY	62	GLU
47	DY	67	LEU
47	DY	100	ALA
48	DZ	107	PRO
48	DZ	163	ALA
48	DZ	165	SER
50	D1	56	GLN
50	D1	95	LEU
51	D2	17	SER
51	D2	23	LYS
51	D2	24	LEU
51	D2	43	GLN
54	D5	10	LYS
54	D5	32	PRO
55	D6	18	ARG
55	D6	28	ARG
55	D6	33	LYS
55	D6	43	CYS
55	D6	44	ARG
56	D7	14	LYS
57	D8	53	PRO
58	D9	31	LYS
2	AB	78	GLN
2	AB	237	ALA
3	AC	20	SER
3	AC	107	GLN
3	AC	119	ARG
4	AD	4	TYR
4	AD	42	GLN
4	AD	66	ARG
4	AD	85	LYS
4	AD	91	SER
4	AD	206	PHE
5	AE	85	GLY
5	AE	133	TYR
6	AF	17	SER
6	AF	84	ASN
7	AG	6	ARG
8	AH	15	ASN
8	AH	20	TYR
9	AI	49	PRO

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Mol	Chain	Res	Type
9	AI	103	THR
11	AK	40	ILE
11	AK	43	SER
11	AK	62	GLN
11	AK	106	LYS
11	AK	125	PHE
12	AL	88	LYS
13	AM	48	LEU
15	AO	33	THR
15	AO	40	SER
15	AO	73	GLU
15	AO	76	GLU
15	AO	88	ARG
17	AQ	14	LYS
18	AR	60	ALA
20	AT	12	ALA
20	AT	25	ARG
20	AT	65	LYS
20	AT	84	LEU
20	AT	98	PRO
29	BC	35	ALA
29	BC	54	SER
29	BC	66	HIS
30	BD	11	PRO
30	BD	12	SER
30	BD	28	GLU
30	BD	30	GLU
30	BD	32	SER
30	BD	80	ALA
30	BD	108	PRO
30	BD	127	VAL
30	BD	206	LEU
30	BD	238	GLY
30	BD	262	ARG
31	BE	117	MET
32	BF	71	GLY
32	BF	131	GLY
33	BG	46	ALA
33	BG	120	LEU
34	BH	40	GLU
34	BH	41	MET
35	BI	12	LEU

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Mol	Chain	Res	Type
35	BI	40	THR
35	BI	119	PRO
35	BI	130	TYR
35	BI	132	PRO
36	BN	126	PRO
37	BO	120	GLU
38	BP	48	PRO
38	BP	49	ARG
38	BP	56	SER
38	BP	98	GLU
38	BP	110	TYR
38	BP	149	GLU
39	BQ	133	ARG
40	BR	41	ALA
40	BR	49	ASP
41	BS	14	VAL
41	BS	46	VAL
41	BS	103	GLU
42	BT	20	PRO
42	BT	101	PHE
43	BU	60	LEU
45	BW	37	ARG
45	BW	105	VAL
46	BX	40	LYS
47	BY	11	ASP
48	BZ	45	LYS
48	BZ	107	PRO
48	BZ	171	ALA
48	BZ	172	ALA
49	B0	35	ASN
49	B0	71	ASP
51	B2	34	GLU
53	B4	54	LYS
55	B6	18	ARG
55	B6	44	ARG
57	B8	31	HIS
57	B8	40	GLU
2	CB	91	PRO
2	CB	106	LYS
2	CB	130	ARG
2	CB	167	PRO
3	CC	46	GLU

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Mol	Chain	Res	Type
3	CC	77	ILE
3	CC	98	ASN
3	CC	195	VAL
4	CD	13	ARG
4	CD	24	GLU
4	CD	80	GLU
4	CD	179	GLU
5	CE	130	ASN
6	CF	43	LEU
7	CG	7	ALA
8	CH	6	ILE
8	CH	73	ASP
9	CI	35	GLU
9	CI	117	HIS
10	CJ	41	PRO
10	CJ	86	MET
11	CK	50	TYR
11	CK	117	ASN
12	CL	48	ALA
12	CL	72	HIS
12	CL	78	SER
13	CM	59	TYR
13	CM	104	ARG
14	CN	19	ARG
15	CO	12	ILE
15	CO	19	PRO
17	CQ	64	PRO
18	CR	68	LYS
19	CS	12	ASP
29	DC	64	LEU
29	DC	125	SER
29	DC	145	VAL
29	DC	161	ILE
29	DC	168	THR
29	DC	213	TYR
30	DD	244	ARG
31	DE	204	ALA
32	DF	108	LYS
32	DF	158	THR
33	DG	49	ASP
33	DG	153	ARG
33	DG	179	PRO

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Mol	Chain	Res	Type
34	DH	13	LYS
34	DH	47	GLU
34	DH	53	GLU
34	DH	68	THR
34	DH	97	ARG
35	DI	30	LEU
35	DI	83	ALA
35	DI	89	TYR
36	DN	134	ARG
37	DO	5	GLN
39	DQ	29	PHE
39	DQ	67	ARG
40	DR	106	GLY
41	DS	18	ILE
41	DS	85	VAL
41	DS	91	PRO
42	DT	4	GLY
42	DT	20	PRO
42	DT	57	PHE
42	DT	88	ILE
42	DT	97	ALA
43	DU	45	TYR
43	DU	111	GLU
44	DV	24	LYS
44	DV	30	GLY
45	DW	75	TYR
46	DX	85	PRO
47	DY	31	LEU
47	DY	39	VAL
47	DY	50	ARG
47	DY	55	TYR
47	DY	66	PRO
48	DZ	46	VAL
48	DZ	65	SER
49	D0	35	ASN
50	D1	6	GLU
50	D1	45	ASN
50	D1	53	VAL
53	D4	61	VAL
54	D5	11	THR
54	D5	24	ALA
54	D5	33	CYS

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Mol	Chain	Res	Type
55	D6	49	HIS
57	D8	29	LYS
57	D8	37	SER
57	D8	54	GLU
58	D9	35	ARG
2	AB	159	PRO
2	AB	191	ASP
2	AB	192	SER
3	AC	54	ARG
4	AD	65	ARG
5	AE	27	ARG
7	AG	41	ARG
7	AG	100	ALA
9	AI	82	ALA
11	AK	39	PRO
12	AL	25	LYS
13	AM	81	LEU
15	AO	13	GLN
15	AO	87	ILE
17	AQ	78	GLU
18	AR	54	ARG
18	AR	55	ARG
21	AU	9	ARG
29	BC	64	LEU
29	BC	78	ALA
29	BC	152	ILE
29	BC	200	LYS
29	BC	215	THR
30	BD	23	GLU
31	BE	70	ALA
32	BF	102	PRO
33	BG	142	PRO
34	BH	55	PRO
35	BI	17	GLN
35	BI	101	LEU
36	BN	57	ALA
36	BN	127	ASP
39	BQ	28	ALA
39	BQ	119	ARG
41	BS	21	THR
42	BT	32	TYR
43	BU	92	ARG

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Mol	Chain	Res	Type
44	BV	53	GLU
45	BW	93	ALA
47	BY	57	GLN
47	BY	67	LEU
47	BY	81	LYS
48	BZ	163	ALA
48	BZ	173	VAL
49	B0	74	ARG
50	B1	37	ILE
52	B3	41	PRO
56	B7	46	VAL
2	CB	96	ARG
2	CB	169	LYS
3	CC	22	TRP
4	CD	5	ILE
5	CE	8	GLU
7	CG	33	ASP
8	CH	30	ARG
8	CH	68	ARG
8	CH	87	SER
8	CH	107	LEU
10	CJ	27	ALA
12	CL	73	ASN
13	CM	36	LYS
13	CM	116	THR
14	CN	59	ALA
15	CO	46	HIS
16	CP	28	ARG
16	CP	46	PRO
18	CR	36	ASN
18	CR	71	LYS
29	DC	54	SER
29	DC	57	ASN
29	DC	71	GLN
29	DC	78	ALA
29	DC	175	VAL
30	DD	11	PRO
30	DD	35	LYS
30	DD	44	ASN
32	DF	9	ILE
32	DF	70	THR
32	DF	84	VAL

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Mol	Chain	Res	Type
32	DF	161	GLU
32	DF	178	PRO
33	DG	86	MET
34	DH	45	VAL
34	DH	85	LYS
34	DH	154	PRO
35	DI	71	ILE
35	DI	87	LYS
35	DI	133	HIS
36	DN	5	VAL
36	DN	94	HIS
37	DO	14	THR
37	DO	93	PRO
37	DO	112	MET
38	DP	25	SER
38	DP	40	SER
40	DR	10	LEU
40	DR	90	ARG
40	DR	93	GLY
41	DS	22	GLY
42	DT	3	ARG
42	DT	35	LYS
42	DT	102	ILE
43	DU	65	ILE
44	DV	22	VAL
44	DV	35	LEU
44	DV	38	LEU
47	DY	17	SER
47	DY	27	VAL
47	DY	57	GLN
47	DY	96	ILE
48	DZ	38	VAL
50	D1	27	GLU
50	D1	52	ARG
53	D4	54	LYS
57	D8	18	ALA
57	D8	51	ALA
2	AB	143	GLU
3	AC	96	GLY
4	AD	88	VAL
4	AD	129	ASN
4	AD	164	ALA

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Mol	Chain	Res	Type
4	AD	196	LEU
9	AI	97	LYS
12	AL	11	GLY
12	AL	16	ARG
16	AP	28	ARG
17	AQ	17	LYS
17	AQ	66	SER
19	AS	26	GLY
20	AT	78	ALA
20	AT	96	GLY
29	BC	44	HIS
29	BC	50	ASP
29	BC	203	GLY
31	BE	45	THR
31	BE	66	HIS
32	BF	89	VAL
32	BF	178	PRO
33	BG	144	ILE
35	BI	89	TYR
37	BO	26	LYS
37	BO	48	PRO
37	BO	107	ARG
40	BR	39	PRO
40	BR	92	GLY
42	BT	56	GLY
42	BT	135	ALA
43	BU	25	TRP
47	BY	55	TYR
48	BZ	135	PHE
48	BZ	164	VAL
54	B5	50	GLY
2	CB	183	PRO
2	CB	237	ALA
3	CC	72	LYS
3	CC	197	GLY
5	CE	22	GLY
6	CF	33	TYR
7	CG	100	ALA
7	CG	112	PRO
8	CH	53	VAL
9	CI	123	PRO
11	CK	54	ARG

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Mol	Chain	Res	Type
11	CK	90	GLY
12	CL	9	ARG
12	CL	24	LEU
19	CS	17	GLU
20	CT	23	ARG
29	DC	200	LYS
30	DD	200	ASP
33	DG	14	GLU
35	DI	15	VAL
35	DI	37	VAL
36	DN	81	GLY
37	DO	102	VAL
38	DP	115	LEU
38	DP	144	GLU
40	DR	85	PRO
42	DT	92	GLY
43	DU	15	LYS
46	DX	94	GLY
49	D0	30	VAL
50	D1	30	VAL
50	D1	76	ARG
56	D7	32	LYS
57	D8	3	LYS
57	D8	14	VAL
58	D9	30	PRO
2	AB	167	PRO
3	AC	141	VAL
3	AC	207	VAL
7	AG	34	GLY
8	AH	75	ARG
8	AH	129	VAL
10	AJ	23	ILE
16	AP	78	GLY
29	BC	43	VAL
29	BC	161	ILE
29	BC	175	VAL
31	BE	29	GLY
32	BF	9	ILE
32	BF	66	PRO
32	BF	171	PRO
35	BI	134	PRO
38	BP	146	VAL

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Mol	Chain	Res	Type
43	BU	65	ILE
46	BX	94	GLY
47	BY	37	VAL
2	CB	80	ILE
4	CD	29	PRO
7	CG	81	GLY
18	CR	70	ILE
20	CT	33	ILE
29	DC	74	VAL
29	DC	140	PRO
29	DC	212	VAL
30	DD	108	PRO
30	DD	232	PRO
31	DE	39	PRO
34	DH	66	GLY
39	DQ	100	GLY
44	DV	47	VAL
45	DW	91	GLY
47	DY	98	VAL
48	DZ	158	PRO
49	D0	47	PRO
4	AD	69	GLY
18	AR	22	VAL
29	BC	58	VAL
29	BC	145	VAL
31	BE	52	LEU
32	BF	126	VAL
36	BN	135	PRO
44	BV	99	ILE
48	BZ	21	GLY
48	BZ	138	VAL
6	CF	11	ASN
9	CI	21	PRO
10	CJ	24	VAL
10	CJ	75	ILE
12	CL	22	PRO
12	CL	84	GLY
31	DE	9	VAL
33	DG	109	VAL
33	DG	159	VAL
37	DO	52	VAL
38	DP	7	ARG

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Mol	Chain	Res	Type
46	DX	39	ILE
47	DY	38	ILE
49	D0	6	GLY
54	D5	31	VAL
2	AB	172	ILE
3	AC	74	GLY
6	AF	40	VAL
12	AL	91	PRO
13	AM	38	GLY
13	AM	41	PRO
16	AP	62	VAL
29	BC	65	PRO
29	BC	90	GLY
33	BG	140	ILE
35	BI	84	GLY
36	BN	54	VAL
38	BP	116	GLY
43	BU	102	GLU
44	BV	48	GLY
47	BY	27	VAL
48	BZ	36	VAL
48	BZ	157	PRO
53	B4	55	PRO
3	CC	141	VAL
7	CG	88	PRO
16	CP	33	ILE
17	CQ	28	PRO
32	DF	102	PRO
32	DF	131	GLY
33	DG	122	PRO
34	DH	17	VAL
36	DN	16	ILE
39	DQ	126	PRO
40	DR	66	VAL
48	DZ	173	VAL
3	AC	55	VAL
3	AC	114	PRO
4	AD	92	VAL
32	BF	64	ILE
32	BF	207	GLY
33	BG	70	VAL
38	BP	97	PRO

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Mol	Chain	Res	Type
42	BT	25	GLY
47	BY	39	VAL
55	B6	41	PRO
2	CB	93	VAL
13	CM	85	GLY
29	DC	65	PRO
30	DD	127	VAL
33	DG	127	GLY
36	DN	78	TYR
40	DR	38	VAL
42	DT	42	ILE
48	DZ	115	VAL
2	AB	202	PRO
4	AD	204	ILE
10	AJ	36	GLY
29	BC	171	ILE
33	BG	63	ILE
36	BN	36	GLY
38	BP	63	PRO
41	BS	98	VAL
2	CB	72	GLY
13	CM	4	ILE
13	CM	6	GLY
34	DH	39	PRO
34	DH	44	VAL
35	DI	7	GLU
48	DZ	160	VAL
36	DN	126	PRO
30	BD	245	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%)	169 (84%)	33 (16%)	3	17
2	CB	202/220 (92%)	174 (86%)	28 (14%)	5	23
3	AC	160/188 (85%)	129 (81%)	31 (19%)	2	11

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	CC	160/188 (85%)	140 (88%)	20 (12%)	7	28
4	AD	180/181 (99%)	147 (82%)	33 (18%)	2	13
4	CD	180/181 (99%)	147 (82%)	33 (18%)	2	13
5	AE	115/123 (94%)	101 (88%)	14 (12%)	7	29
5	CE	115/123 (94%)	96 (84%)	19 (16%)	3	16
6	AF	90/90 (100%)	80 (89%)	10 (11%)	9	34
6	CF	90/90 (100%)	78 (87%)	12 (13%)	6	25
7	AG	126/127 (99%)	106 (84%)	20 (16%)	4	17
7	CG	126/127 (99%)	106 (84%)	20 (16%)	4	17
8	AH	119/119 (100%)	96 (81%)	23 (19%)	2	12
8	CH	119/119 (100%)	105 (88%)	14 (12%)	8	30
9	AI	97/99 (98%)	80 (82%)	17 (18%)	3	14
9	CI	97/99 (98%)	85 (88%)	12 (12%)	7	28
10	AJ	88/92 (96%)	68 (77%)	20 (23%)	1	6
10	CJ	88/92 (96%)	74 (84%)	14 (16%)	4	17
11	AK	90/99 (91%)	74 (82%)	16 (18%)	2	14
11	CK	90/99 (91%)	78 (87%)	12 (13%)	6	25
12	AL	104/109 (95%)	87 (84%)	17 (16%)	3	17
12	CL	104/109 (95%)	90 (86%)	14 (14%)	6	24
13	AM	94/101 (93%)	75 (80%)	19 (20%)	2	10
13	CM	88/101 (87%)	69 (78%)	19 (22%)	1	8
14	AN	49/50 (98%)	39 (80%)	10 (20%)	2	9
14	CN	49/50 (98%)	37 (76%)	12 (24%)	1	5
15	AO	79/80 (99%)	63 (80%)	16 (20%)	2	9
15	CO	79/80 (99%)	65 (82%)	14 (18%)	3	14
16	AP	72/74 (97%)	63 (88%)	9 (12%)	7	28
16	CP	72/74 (97%)	60 (83%)	12 (17%)	3	16
17	AQ	94/97 (97%)	80 (85%)	14 (15%)	4	20
17	CQ	94/97 (97%)	84 (89%)	10 (11%)	10	36
18	AR	61/77 (79%)	53 (87%)	8 (13%)	6	25
18	CR	61/77 (79%)	55 (90%)	6 (10%)	12	41

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
19	AS	69/80 (86%)	53 (77%)	16 (23%)	1	6
19	CS	69/80 (86%)	51 (74%)	18 (26%)	1	4
20	AT	76/82 (93%)	63 (83%)	13 (17%)	3	15
20	CT	76/82 (93%)	65 (86%)	11 (14%)	5	22
21	AU	19/22 (86%)	16 (84%)	3 (16%)	4	18
21	CU	19/22 (86%)	18 (95%)	1 (5%)	32	74
26	AZ	2/2 (100%)	2 (100%)	0	100	100
26	CZ	2/2 (100%)	2 (100%)	0	100	100
29	BC	61/181 (34%)	56 (92%)	5 (8%)	17	52
29	DC	61/181 (34%)	51 (84%)	10 (16%)	3	16
30	BD	213/218 (98%)	162 (76%)	51 (24%)	1	5
30	DD	213/218 (98%)	173 (81%)	40 (19%)	2	12
31	BE	165/166 (99%)	127 (77%)	38 (23%)	1	6
31	DE	165/166 (99%)	121 (73%)	44 (27%)	1	4
32	BF	165/166 (99%)	136 (82%)	29 (18%)	3	14
32	DF	165/166 (99%)	138 (84%)	27 (16%)	3	16
33	BG	155/156 (99%)	117 (76%)	38 (24%)	1	5
33	DG	155/156 (99%)	125 (81%)	30 (19%)	2	11
34	BH	136/148 (92%)	111 (82%)	25 (18%)	2	13
34	DH	132/148 (89%)	111 (84%)	21 (16%)	4	17
35	BI	102/124 (82%)	79 (78%)	23 (22%)	1	7
35	DI	103/124 (83%)	85 (82%)	18 (18%)	3	14
36	BN	117/119 (98%)	88 (75%)	29 (25%)	1	4
36	DN	117/119 (98%)	92 (79%)	25 (21%)	1	8
37	BO	100/100 (100%)	81 (81%)	19 (19%)	2	12
37	DO	100/100 (100%)	75 (75%)	25 (25%)	1	4
38	BP	112/116 (97%)	76 (68%)	36 (32%)	0	2
38	DP	112/116 (97%)	79 (70%)	33 (30%)	0	2
39	BQ	111/111 (100%)	85 (77%)	26 (23%)	1	5
39	DQ	110/111 (99%)	91 (83%)	19 (17%)	3	14
40	BR	100/101 (99%)	77 (77%)	23 (23%)	1	6

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
40	DR	100/101 (99%)	67 (67%)	33 (33%)	0	2
41	BS	77/88 (88%)	60 (78%)	17 (22%)	1	7
41	DS	76/88 (86%)	62 (82%)	14 (18%)	2	13
42	BT	120/127 (94%)	81 (68%)	39 (32%)	0	2
42	DT	120/127 (94%)	88 (73%)	32 (27%)	1	4
43	BU	92/94 (98%)	71 (77%)	21 (23%)	1	6
43	DU	92/94 (98%)	81 (88%)	11 (12%)	7	30
44	BV	82/82 (100%)	59 (72%)	23 (28%)	0	3
44	DV	82/82 (100%)	60 (73%)	22 (27%)	1	4
45	BW	91/92 (99%)	74 (81%)	17 (19%)	2	12
45	DW	91/92 (99%)	72 (79%)	19 (21%)	1	8
46	BX	74/78 (95%)	60 (81%)	14 (19%)	2	12
46	DX	74/78 (95%)	58 (78%)	16 (22%)	1	8
47	BY	84/91 (92%)	62 (74%)	22 (26%)	1	4
47	DY	84/91 (92%)	63 (75%)	21 (25%)	1	4
48	BZ	155/179 (87%)	127 (82%)	28 (18%)	2	13
48	DZ	155/179 (87%)	135 (87%)	20 (13%)	6	26
49	B0	66/67 (98%)	53 (80%)	13 (20%)	2	11
49	D0	66/67 (98%)	58 (88%)	8 (12%)	7	29
50	B1	74/83 (89%)	56 (76%)	18 (24%)	1	5
50	D1	78/83 (94%)	63 (81%)	15 (19%)	2	12
51	B2	66/67 (98%)	50 (76%)	16 (24%)	1	5
51	D2	66/67 (98%)	53 (80%)	13 (20%)	2	11
52	B3	51/52 (98%)	42 (82%)	9 (18%)	3	14
52	D3	51/52 (98%)	44 (86%)	7 (14%)	5	24
53	B4	27/63 (43%)	23 (85%)	4 (15%)	4	21
53	D4	27/63 (43%)	25 (93%)	2 (7%)	20	58
54	B5	51/52 (98%)	39 (76%)	12 (24%)	1	5
54	D5	51/52 (98%)	42 (82%)	9 (18%)	3	14
55	B6	43/52 (83%)	30 (70%)	13 (30%)	0	2
55	D6	44/52 (85%)	28 (64%)	16 (36%)	0	1

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
56	B7	41/42 (98%)	34 (83%)	7 (17%)	3	15
56	D7	41/42 (98%)	36 (88%)	5 (12%)	7	29
57	B8	53/55 (96%)	44 (83%)	9 (17%)	3	15
57	D8	53/55 (96%)	39 (74%)	14 (26%)	1	4
58	B9	33/34 (97%)	24 (73%)	9 (27%)	0	3
58	D9	33/34 (97%)	28 (85%)	5 (15%)	4	20
All	All	9600/10432 (92%)	7750 (81%)	1850 (19%)	2	12

All (1850) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AB	8	LYS
2	AB	15	VAL
2	AB	16	HIS
2	AB	17	PHE
2	AB	36	ARG
2	AB	44	LEU
2	AB	45	GLN
2	AB	53	ARG
2	AB	61	LEU
2	AB	64	ARG
2	AB	69	LEU
2	AB	74	LYS
2	AB	78	GLN
2	AB	80	ILE
2	AB	110	GLN
2	AB	113	HIS
2	AB	130	ARG
2	AB	137	ARG
2	AB	153	ARG
2	AB	155	LEU
2	AB	165	VAL
2	AB	175	ARG
2	AB	178	ARG
2	AB	183	PRO
2	AB	189	ASP
2	AB	196	LEU
2	AB	198	ASP
2	AB	204	ASN
2	AB	206	ASP

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Mol	Chain	Res	Type
2	AB	212	GLN
2	AB	213	LEU
2	AB	215	LEU
2	AB	238	LEU
3	AC	3	ASN
3	AC	5	ILE
3	AC	10	PHE
3	AC	11	ARG
3	AC	12	LEU
3	AC	16	ARG
3	AC	17	ASP
3	AC	21	ARG
3	AC	28	GLN
3	AC	29	TYR
3	AC	31	HIS
3	AC	36	ASP
3	AC	47	LEU
3	AC	52	LEU
3	AC	62	ASP
3	AC	63	ASN
3	AC	76	VAL
3	AC	77	ILE
3	AC	79	ARG
3	AC	94	LEU
3	AC	124	ILE
3	AC	151	VAL
3	AC	154	SER
3	AC	165	THR
3	AC	178	LEU
3	AC	192	THR
3	AC	193	TYR
3	AC	195	VAL
3	AC	198	VAL
3	AC	201	TYR
3	AC	204	LEU
4	AD	3	ARG
4	AD	9	CYS
4	AD	10	ARG
4	AD	11	LEU
4	AD	12	CYS
4	AD	15	GLU
4	AD	25	ARG

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Mol	Chain	Res	Type
4	AD	26	CYS
4	AD	28	SER
4	AD	31	CYS
4	AD	42	GLN
4	AD	50	ARG
4	AD	58	LEU
4	AD	72	GLU
4	AD	86	LYS
4	AD	92	VAL
4	AD	96	LEU
4	AD	98	GLU
4	AD	101	LEU
4	AD	118	ARG
4	AD	120	LEU
4	AD	122	ARG
4	AD	131	ARG
4	AD	135	LEU
4	AD	139	ARG
4	AD	146	ILE
4	AD	150	GLU
4	AD	161	ASN
4	AD	168	ARG
4	AD	188	LEU
4	AD	196	LEU
4	AD	208	SER
4	AD	209	ARG
5	AE	5	ASP
5	AE	10	MET
5	AE	16	THR
5	AE	20	GLN
5	AE	31	LEU
5	AE	43	LEU
5	AE	64	ARG
5	AE	73	ASN
5	AE	75	THR
5	AE	91	LEU
5	AE	101	ILE
5	AE	133	TYR
5	AE	141	GLN
5	AE	147	ASP
6	AF	6	VAL
6	AF	10	LEU

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Mol	Chain	Res	Type
6	AF	15	ASP
6	AF	16	GLN
6	AF	43	LEU
6	AF	55	ASP
6	AF	64	GLN
6	AF	80	ARG
6	AF	94	GLN
6	AF	98	LEU
7	AG	5	ARG
7	AG	21	VAL
7	AG	45	ASP
7	AG	57	GLU
7	AG	59	LEU
7	AG	61	VAL
7	AG	68	ASN
7	AG	78	ARG
7	AG	79	ARG
7	AG	89	MET
7	AG	92	SER
7	AG	104	LEU
7	AG	109	ASN
7	AG	114	ARG
7	AG	118	VAL
7	AG	141	VAL
7	AG	142	GLU
7	AG	143	ARG
7	AG	151	TYR
7	AG	156	TRP
8	AH	1	MET
8	AH	4	ASP
8	AH	19	VAL
8	AH	25	ASP
8	AH	26	VAL
8	AH	30	ARG
8	AH	41	ARG
8	AH	52	ASP
8	AH	63	LEU
8	AH	65	TYR
8	AH	75	ARG
8	AH	78	GLN
8	AH	84	ARG
8	AH	85	ARG

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Mol	Chain	Res	Type
8	AH	87	SER
8	AH	91	ARG
8	AH	103	VAL
8	AH	104	ARG
8	AH	107	LEU
8	AH	112	LEU
8	AH	118	VAL
8	AH	119	LEU
8	AH	133	LEU
9	AI	4	TYR
9	AI	10	ARG
9	AI	38	GLN
9	AI	41	VAL
9	AI	54	ASP
9	AI	62	TYR
9	AI	66	ARG
9	AI	78	LYS
9	AI	85	LEU
9	AI	91	ASP
9	AI	95	LYS
9	AI	102	LEU
9	AI	108	VAL
9	AI	114	TYR
9	AI	118	LYS
9	AI	121	ARG
9	AI	124	GLN
10	AJ	13	HIS
10	AJ	17	ASP
10	AJ	22	LYS
10	AJ	25	GLU
10	AJ	35	SER
10	AJ	40	LEU
10	AJ	49	VAL
10	AJ	54	PHE
10	AJ	55	LYS
10	AJ	57	LYS
10	AJ	59	SER
10	AJ	62	HIS
10	AJ	63	PHE
10	AJ	67	THR
10	AJ	70	ARG
10	AJ	74	ILE

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Mol	Chain	Res	Type
10	AJ	80	LYS
10	AJ	81	THR
10	AJ	90	LEU
10	AJ	96	ILE
11	AK	18	ARG
11	AK	24	SER
11	AK	26	ASN
11	AK	29	ILE
11	AK	30	VAL
11	AK	32	ILE
11	AK	38	ASN
11	AK	40	ILE
11	AK	51	LYS
11	AK	63	LEU
11	AK	92	GLU
11	AK	103	LEU
11	AK	116	HIS
11	AK	117	ASN
11	AK	125	PHE
11	AK	127	LYS
12	AL	10	LYS
12	AL	18	LYS
12	AL	24	LEU
12	AL	30	ARG
12	AL	33	VAL
12	AL	34	CYS
12	AL	35	THR
12	AL	40	VAL
12	AL	50	ARG
12	AL	64	THR
12	AL	70	GLU
12	AL	73	ASN
12	AL	78	SER
12	AL	80	VAL
12	AL	81	LEU
12	AL	86	ARG
12	AL	109	ASP
13	AM	12	ASN
13	AM	47	ASP
13	AM	48	LEU
13	AM	50	GLU
13	AM	56	LEU

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Mol	Chain	Res	Type
13	AM	58	GLU
13	AM	64	TRP
13	AM	65	LYS
13	AM	67	GLU
13	AM	69	GLU
13	AM	82	MET
13	AM	91	ARG
13	AM	93	ARG
13	AM	98	VAL
13	AM	102	ARG
13	AM	104	ARG
13	AM	108	ARG
13	AM	109	THR
13	AM	115	LYS
14	AN	12	ARG
14	AN	14	PRO
14	AN	16	PHE
14	AN	25	VAL
14	AN	33	VAL
14	AN	35	ARG
14	AN	41	ARG
14	AN	45	ARG
14	AN	53	LEU
14	AN	60	SER
15	AO	10	LYS
15	AO	24	SER
15	AO	26	GLU
15	AO	34	LEU
15	AO	35	ARG
15	AO	37	ASN
15	AO	38	ARG
15	AO	39	LEU
15	AO	41	GLU
15	AO	47	LYS
15	AO	49	ASP
15	AO	56	LEU
15	AO	65	ARG
15	AO	71	GLN
15	AO	82	ILE
15	AO	83	GLU
16	AP	1	MET
16	AP	26	ARG

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Mol	Chain	Res	Type
16	AP	27	LYS
16	AP	32	TYR
16	AP	62	VAL
16	AP	65	GLN
16	AP	69	THR
16	AP	71	ARG
16	AP	82	GLN
17	AQ	9	VAL
17	AQ	11	VAL
17	AQ	26	GLN
17	AQ	48	GLU
17	AQ	50	LYS
17	AQ	52	LYS
17	AQ	59	ILE
17	AQ	60	ILE
17	AQ	66	SER
17	AQ	77	VAL
17	AQ	78	GLU
17	AQ	81	ARG
17	AQ	94	ASN
17	AQ	98	LEU
18	AR	25	THR
18	AR	31	LEU
18	AR	32	ARG
18	AR	40	LEU
18	AR	53	ARG
18	AR	69	THR
18	AR	74	ARG
18	AR	87	ARG
19	AS	4	SER
19	AS	5	LEU
19	AS	6	LYS
19	AS	7	LYS
19	AS	13	ASP
19	AS	16	LEU
19	AS	22	LEU
19	AS	27	GLU
19	AS	29	ARG
19	AS	37	ARG
19	AS	39	THR
19	AS	41	VAL
19	AS	44	MET

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Mol	Chain	Res	Type
19	AS	49	ILE
19	AS	67	VAL
19	AS	79	THR
20	AT	18	GLN
20	AT	19	SER
20	AT	26	ASN
20	AT	35	THR
20	AT	36	LEU
20	AT	41	ILE
20	AT	64	ASP
20	AT	72	LEU
20	AT	75	ASN
20	AT	82	SER
20	AT	84	LEU
20	AT	86	ARG
20	AT	93	GLU
21	AU	8	THR
21	AU	12	LYS
21	AU	25	LYS
29	BC	24	GLU
29	BC	36	LYS
29	BC	64	LEU
29	BC	77	ILE
29	BC	94	VAL
30	BD	7	LYS
30	BD	10	THR
30	BD	13	ARG
30	BD	14	ARG
30	BD	15	PHE
30	BD	20	ASP
30	BD	21	PHE
30	BD	24	ILE
30	BD	26	LYS
30	BD	36	PRO
30	BD	44	ASN
30	BD	46	GLN
30	BD	48	ARG
30	BD	49	ILE
30	BD	50	THR
30	BD	52	ARG
30	BD	61	LEU
30	BD	65	ILE

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Mol	Chain	Res	Type
30	BD	69	ARG
30	BD	73	VAL
30	BD	75	ILE
30	BD	76	PRO
30	BD	94	LEU
30	BD	106	ILE
30	BD	111	LEU
30	BD	112	GLN
30	BD	113	VAL
30	BD	117	VAL
30	BD	122	ASP
30	BD	127	VAL
30	BD	131	LEU
30	BD	142	VAL
30	BD	146	GLU
30	BD	166	GLN
30	BD	192	THR
30	BD	198	ASN
30	BD	201	HIS
30	BD	211	ARG
30	BD	212	SER
30	BD	213	ARG
30	BD	218	ARG
30	BD	219	PRO
30	BD	220	HIS
30	BD	221	VAL
30	BD	229	VAL
30	BD	232	PRO
30	BD	252	TRP
30	BD	254	THR
30	BD	259	THR
30	BD	260	ARG
30	BD	271	ILE
31	BE	7	VAL
31	BE	14	ILE
31	BE	19	ARG
31	BE	24	THR
31	BE	33	VAL
31	BE	36	ARG
31	BE	40	GLU
31	BE	52	LEU
31	BE	55	ASN

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Mol	Chain	Res	Type
31	BE	61	ARG
31	BE	78	LEU
31	BE	79	ARG
31	BE	82	ARG
31	BE	86	PRO
31	BE	89	ASP
31	BE	92	THR
31	BE	94	GLU
31	BE	95	ILE
31	BE	102	VAL
31	BE	107	THR
31	BE	113	PHE
31	BE	118	LYS
31	BE	119	ARG
31	BE	134	ILE
31	BE	140	SER
31	BE	144	ARG
31	BE	146	THR
31	BE	150	VAL
31	BE	154	LYS
31	BE	164	ARG
31	BE	167	VAL
31	BE	173	VAL
31	BE	179	GLU
31	BE	181	LEU
31	BE	189	PRO
31	BE	197	ILE
31	BE	202	LYS
31	BE	203	LYS
32	BF	2	LYS
32	BF	3	GLU
32	BF	20	LEU
32	BF	25	PRO
32	BF	35	GLU
32	BF	38	ARG
32	BF	44	ARG
32	BF	57	VAL
32	BF	67	GLN
32	BF	78	ILE
32	BF	82	ILE
32	BF	84	VAL
32	BF	88	VAL

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Mol	Chain	Res	Type
32	BF	100	THR
32	BF	102	PRO
32	BF	106	ARG
32	BF	107	LYS
32	BF	108	LYS
32	BF	117	ARG
32	BF	125	LEU
32	BF	140	LEU
32	BF	151	SER
32	BF	160	ASN
32	BF	164	ARG
32	BF	183	VAL
32	BF	186	ILE
32	BF	194	MET
32	BF	202	PHE
32	BF	203	GLN
33	BG	3	LEU
33	BG	4	ASP
33	BG	8	LYS
33	BG	16	ARG
33	BG	21	ARG
33	BG	26	GLN
33	BG	40	ASN
33	BG	52	ILE
33	BG	53	LEU
33	BG	62	LEU
33	BG	63	ILE
33	BG	64	THR
33	BG	70	VAL
33	BG	87	PRO
33	BG	88	ILE
33	BG	90	LEU
33	BG	93	THR
33	BG	101	ILE
33	BG	103	LEU
33	BG	104	GLU
33	BG	105	LYS
33	BG	111	LEU
33	BG	113	ARG
33	BG	114	ILE
33	BG	116	ASP
33	BG	123	ASN

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Mol	Chain	Res	Type
33	BG	130	ASN
33	BG	136	ARG
33	BG	139	LEU
33	BG	149	VAL
33	BG	150	ASP
33	BG	153	ARG
33	BG	157	ILE
33	BG	159	VAL
33	BG	161	THR
33	BG	162	THR
33	BG	170	ARG
33	BG	175	LEU
34	BH	10	PRO
34	BH	12	PRO
34	BH	13	LYS
34	BH	17	VAL
34	BH	21	PRO
34	BH	25	LYS
34	BH	34	GLU
34	BH	41	MET
34	BH	46	GLU
34	BH	54	ARG
34	BH	61	HIS
34	BH	68	THR
34	BH	76	VAL
34	BH	84	SER
34	BH	85	LYS
34	BH	88	LEU
34	BH	103	LEU
34	BH	116	GLU
34	BH	133	VAL
34	BH	139	GLN
34	BH	151	ILE
34	BH	153	LYS
34	BH	157	TYR
34	BH	159	GLU
34	BH	170	ARG
35	BI	7	GLU
35	BI	14	ASP
35	BI	23	PRO
35	BI	28	ASN
35	BI	37	VAL

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Mol	Chain	Res	Type
35	BI	38	LEU
35	BI	43	ASN
35	BI	47	LEU
35	BI	60	GLU
35	BI	72	LEU
35	BI	77	LEU
35	BI	82	ARG
35	BI	89	TYR
35	BI	93	THR
35	BI	96	ASP
35	BI	99	GLU
35	BI	114	LEU
35	BI	121	LYS
35	BI	122	GLU
35	BI	130	TYR
35	BI	134	PRO
35	BI	138	ILE
35	BI	143	SER
36	BN	4	TYR
36	BN	8	GLN
36	BN	9	VAL
36	BN	12	ARG
36	BN	15	LEU
36	BN	17	ASP
36	BN	23	LEU
36	BN	32	THR
36	BN	34	LEU
36	BN	38	HIS
36	BN	39	ARG
36	BN	48	MET
36	BN	56	ASN
36	BN	60	ILE
36	BN	65	LYS
36	BN	67	LEU
36	BN	68	GLU
36	BN	87	LEU
36	BN	98	VAL
36	BN	99	LEU
36	BN	106	MET
36	BN	112	LEU
36	BN	115	ARG
36	BN	120	LEU

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Mol	Chain	Res	Type
36	BN	121	LYS
36	BN	127	ASP
36	BN	134	ARG
36	BN	135	PRO
36	BN	136	GLU
37	BO	1	MET
37	BO	2	ILE
37	BO	3	GLN
37	BO	8	LEU
37	BO	14	THR
37	BO	17	ARG
37	BO	23	ARG
37	BO	24	VAL
37	BO	25	LEU
37	BO	31	LYS
37	BO	32	TYR
37	BO	48	PRO
37	BO	52	VAL
37	BO	68	GLU
37	BO	73	ASP
37	BO	78	ARG
37	BO	92	GLU
37	BO	99	PHE
37	BO	117	LEU
38	BP	9	ASN
38	BP	10	PRO
38	BP	13	ASN
38	BP	15	ARG
38	BP	16	ARG
38	BP	19	VAL
38	BP	21	ARG
38	BP	32	THR
38	BP	38	GLN
38	BP	39	LYS
38	BP	41	ARG
38	BP	42	SER
38	BP	45	LEU
38	BP	49	ARG
38	BP	59	LEU
38	BP	61	ARG
38	BP	63	PRO
38	BP	64	LYS

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Mol	Chain	Res	Type
38	BP	65	ARG
38	BP	67	MET
38	BP	68	GLN
38	BP	83	VAL
38	BP	85	LEU
38	BP	88	LEU
38	BP	91	PHE
38	BP	98	GLU
38	BP	100	LEU
38	BP	105	LEU
38	BP	108	LYS
38	BP	110	TYR
38	BP	114	ILE
38	BP	117	GLU
38	BP	119	GLU
38	BP	123	LEU
38	BP	130	PHE
38	BP	132	LYS
39	BQ	1	MET
39	BQ	5	ARG
39	BQ	6	ARG
39	BQ	11	LYS
39	BQ	13	GLN
39	BQ	21	THR
39	BQ	25	ASP
39	BQ	51	ARG
39	BQ	52	VAL
39	BQ	55	VAL
39	BQ	58	PHE
39	BQ	76	LYS
39	BQ	81	VAL
39	BQ	103	MET
39	BQ	110	THR
39	BQ	111	GLU
39	BQ	112	GLU
39	BQ	113	GLN
39	BQ	115	MET
39	BQ	116	GLU
39	BQ	125	LEU
39	BQ	133	ARG
39	BQ	134	ARG
39	BQ	135	ASP

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Mol	Chain	Res	Type
39	BQ	137	TYR
39	BQ	139	GLU
40	BR	2	ARG
40	BR	4	LEU
40	BR	5	LYS
40	BR	6	SER
40	BR	8	ARG
40	BR	14	SER
40	BR	16	HIS
40	BR	18	LEU
40	BR	27	SER
40	BR	35	THR
40	BR	48	VAL
40	BR	49	ASP
40	BR	51	LEU
40	BR	54	LEU
40	BR	56	LYS
40	BR	60	LEU
40	BR	67	LEU
40	BR	71	GLN
40	BR	75	LEU
40	BR	76	VAL
40	BR	79	LEU
40	BR	81	ASP
40	BR	103	ARG
41	BS	11	LYS
41	BS	18	ILE
41	BS	20	ARG
41	BS	21	THR
41	BS	24	LEU
41	BS	26	LEU
41	BS	42	ASP
41	BS	65	VAL
41	BS	82	ILE
41	BS	85	VAL
41	BS	89	ARG
41	BS	92	TYR
41	BS	97	ARG
41	BS	99	LYS
41	BS	101	LEU
41	BS	103	GLU
41	BS	106	ARG

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Mol	Chain	Res	Type
42	BT	3	ARG
42	BT	6	LEU
42	BT	11	GLU
42	BT	13	ARG
42	BT	14	TYR
42	BT	16	ARG
42	BT	17	THR
42	BT	29	ARG
42	BT	31	SER
42	BT	32	TYR
42	BT	41	ARG
42	BT	44	ASP
42	BT	49	VAL
42	BT	51	ARG
42	BT	53	ARG
42	BT	59	THR
42	BT	62	THR
42	BT	65	LYS
42	BT	66	VAL
42	BT	68	TYR
42	BT	74	ARG
42	BT	78	LEU
42	BT	82	LEU
42	BT	84	GLN
42	BT	85	LYS
42	BT	90	GLN
42	BT	91	ARG
42	BT	106	SER
42	BT	107	ASP
42	BT	108	ARG
42	BT	110	ILE
42	BT	111	ARG
42	BT	114	LEU
42	BT	121	ILE
42	BT	122	ASP
42	BT	124	ASP
42	BT	125	ARG
42	BT	128	GLU
42	BT	132	LYS
43	BU	5	LYS
43	BU	9	VAL
43	BU	15	LYS

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Mol	Chain	Res	Type
43	BU	16	LYS
43	BU	19	LYS
43	BU	20	LEU
43	BU	27	LEU
43	BU	31	SER
43	BU	33	ARG
43	BU	49	HIS
43	BU	52	ARG
43	BU	60	LEU
43	BU	69	CYS
43	BU	70	ARG
43	BU	72	HIS
43	BU	74	LEU
43	BU	78	THR
43	BU	89	GLU
43	BU	92	ARG
43	BU	97	ASP
43	BU	104	GLN
44	BV	2	PHE
44	BV	14	VAL
44	BV	16	PRO
44	BV	18	LEU
44	BV	19	LYS
44	BV	35	LEU
44	BV	37	VAL
44	BV	39	LEU
44	BV	43	GLU
44	BV	49	THR
44	BV	52	VAL
44	BV	62	LEU
44	BV	64	HIS
44	BV	66	ARG
44	BV	69	LYS
44	BV	79	VAL
44	BV	82	ARG
44	BV	88	ARG
44	BV	91	TYR
44	BV	92	THR
44	BV	95	LEU
44	BV	99	ILE
44	BV	100	ARG
45	BW	6	ILE

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Mol	Chain	Res	Type
45	BW	11	ARG
45	BW	13	SER
45	BW	19	LEU
45	BW	33	ARG
45	BW	34	ASN
45	BW	36	LEU
45	BW	39	THR
45	BW	51	LEU
45	BW	60	ASN
45	BW	66	GLU
45	BW	67	ASP
45	BW	83	LYS
45	BW	90	ARG
45	BW	92	ARG
45	BW	106	ILE
45	BW	107	LEU
46	BX	11	PRO
46	BX	13	LEU
46	BX	27	THR
46	BX	28	PHE
46	BX	30	VAL
46	BX	38	GLU
46	BX	48	LYS
46	BX	57	LEU
46	BX	66	LEU
46	BX	68	ARG
46	BX	70	LEU
46	BX	76	ARG
46	BX	80	ILE
46	BX	81	VAL
47	BY	2	ARG
47	BY	6	HIS
47	BY	7	VAL
47	BY	8	LYS
47	BY	21	LYS
47	BY	28	LYS
47	BY	29	GLU
47	BY	32	PRO
47	BY	47	LYS
47	BY	53	PRO
47	BY	56	PRO
47	BY	62	GLU

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Mol	Chain	Res	Type
47	BY	66	PRO
47	BY	67	LEU
47	BY	70	SER
47	BY	73	ARG
47	BY	76	CYS
47	BY	77	PRO
47	BY	79	CYS
47	BY	89	PHE
47	BY	90	LEU
47	BY	97	ARG
48	BZ	5	LYS
48	BZ	22	LYS
48	BZ	30	ARG
48	BZ	38	VAL
48	BZ	40	LEU
48	BZ	49	GLN
48	BZ	52	ILE
48	BZ	66	LEU
48	BZ	71	ARG
48	BZ	75	LEU
48	BZ	78	ARG
48	BZ	79	ARG
48	BZ	80	ARG
48	BZ	81	ARG
48	BZ	85	VAL
48	BZ	88	PHE
48	BZ	101	LEU
48	BZ	103	PHE
48	BZ	123	ILE
48	BZ	131	ASN
48	BZ	137	GLU
48	BZ	144	GLU
48	BZ	147	ASP
48	BZ	149	LEU
48	BZ	153	ASP
48	BZ	154	LEU
48	BZ	167	GLU
48	BZ	170	ILE
49	B0	7	LEU
49	B0	12	ASN
49	B0	14	ARG
49	B0	30	VAL

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Mol	Chain	Res	Type
49	B0	36	ILE
49	B0	37	LEU
49	B0	40	GLN
49	B0	41	ARG
49	B0	53	MET
49	B0	55	ARG
49	B0	69	PHE
49	B0	75	LEU
49	B0	84	LEU
50	B1	5	CYS
50	B1	14	VAL
50	B1	16	ASN
50	B1	18	ILE
50	B1	30	VAL
50	B1	35	THR
50	B1	40	ARG
50	B1	41	ARG
50	B1	45	ASN
50	B1	46	LEU
50	B1	48	LYS
50	B1	58	ILE
50	B1	61	ARG
50	B1	65	SER
50	B1	72	GLU
50	B1	83	GLU
50	B1	94	LEU
50	B1	95	LEU
51	B2	7	ARG
51	B2	9	GLN
51	B2	14	ARG
51	B2	16	LEU
51	B2	17	SER
51	B2	30	ARG
51	B2	32	LEU
51	B2	35	LEU
51	B2	43	GLN
51	B2	44	LEU
51	B2	48	HIS
51	B2	52	ASP
51	B2	53	LEU
51	B2	62	THR
51	B2	64	LEU

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Mol	Chain	Res	Type
51	B2	71	ASN
52	B3	6	VAL
52	B3	8	LEU
52	B3	17	LYS
52	B3	18	ASP
52	B3	23	LEU
52	B3	24	LYS
52	B3	30	ARG
52	B3	35	ARG
52	B3	37	LEU
53	B4	44	CYS
53	B4	46	ASN
53	B4	51	TYR
53	B4	56	GLU
54	B5	3	LYS
54	B5	4	HIS
54	B5	6	VAL
54	B5	16	ARG
54	B5	29	THR
54	B5	30	LEU
54	B5	32	PRO
54	B5	40	LYS
54	B5	52	TYR
54	B5	56	LYS
54	B5	57	VAL
54	B5	60	VAL
55	B6	9	LEU
55	B6	10	LEU
55	B6	11	LEU
55	B6	17	LYS
55	B6	18	ARG
55	B6	19	ARG
55	B6	20	ASN
55	B6	36	LEU
55	B6	42	TRP
55	B6	47	THR
55	B6	48	VAL
55	B6	49	HIS
55	B6	51	GLU
56	B7	1	MET
56	B7	4	THR
56	B7	8	ASN

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Mol	Chain	Res	Type
56	B7	9	ARG
56	B7	10	ARG
56	B7	16	HIS
56	B7	24	THR
57	B8	8	LYS
57	B8	13	ARG
57	B8	30	ARG
57	B8	31	HIS
57	B8	33	ASN
57	B8	34	TRP
57	B8	35	GLN
57	B8	44	LYS
57	B8	61	LEU
58	B9	2	LYS
58	B9	11	CYS
58	B9	17	ILE
58	B9	20	HIS
58	B9	23	VAL
58	B9	27	CYS
58	B9	28	GLU
58	B9	29	ASN
58	B9	34	GLN
2	CB	15	VAL
2	CB	16	HIS
2	CB	17	PHE
2	CB	20	GLU
2	CB	36	ARG
2	CB	44	LEU
2	CB	69	LEU
2	CB	73	THR
2	CB	74	LYS
2	CB	80	ILE
2	CB	90	MET
2	CB	92	TYR
2	CB	110	GLN
2	CB	111	ARG
2	CB	112	VAL
2	CB	115	LEU
2	CB	137	ARG
2	CB	145	LEU
2	CB	155	LEU
2	CB	158	LEU

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Mol	Chain	Res	Type
2	CB	172	ILE
2	CB	187	LEU
2	CB	190	THR
2	CB	196	LEU
2	CB	198	ASP
2	CB	210	SER
2	CB	233	SER
2	CB	238	LEU
3	CC	12	LEU
3	CC	20	SER
3	CC	21	ARG
3	CC	29	TYR
3	CC	30	ARG
3	CC	34	LEU
3	CC	42	LEU
3	CC	52	LEU
3	CC	55	VAL
3	CC	94	LEU
3	CC	104	GLN
3	CC	127	ARG
3	CC	128	PHE
3	CC	131	ARG
3	CC	156	ARG
3	CC	165	THR
3	CC	188	LEU
3	CC	193	TYR
3	CC	196	LEU
3	CC	202	ILE
4	CD	3	ARG
4	CD	7	PRO
4	CD	9	CYS
4	CD	10	ARG
4	CD	11	LEU
4	CD	24	GLU
4	CD	26	CYS
4	CD	28	SER
4	CD	31	CYS
4	CD	33	MET
4	CD	49	ARG
4	CD	53	ASP
4	CD	78	LEU
4	CD	96	LEU

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Mol	Chain	Res	Type
4	CD	119	GLN
4	CD	120	LEU
4	CD	131	ARG
4	CD	135	LEU
4	CD	138	TYR
4	CD	140	VAL
4	CD	144	ASP
4	CD	146	ILE
4	CD	153	ARG
4	CD	163	GLU
4	CD	173	TRP
4	CD	175	SER
4	CD	177	ASP
4	CD	182	LYS
4	CD	185	PHE
4	CD	192	GLU
4	CD	193	ASP
4	CD	194	LEU
4	CD	204	ILE
5	CE	10	MET
5	CE	20	GLN
5	CE	41	VAL
5	CE	45	PHE
5	CE	64	ARG
5	CE	68	GLU
5	CE	73	ASN
5	CE	76	ILE
5	CE	79	GLU
5	CE	80	ILE
5	CE	87	SER
5	CE	101	ILE
5	CE	115	VAL
5	CE	116	THR
5	CE	125	SER
5	CE	126	ARG
5	CE	128	PRO
5	CE	147	ASP
5	CE	148	VAL
6	CF	10	LEU
6	CF	16	GLN
6	CF	19	LEU
6	CF	21	LEU

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Mol	Chain	Res	Type
6	CF	27	GLN
6	CF	69	GLU
6	CF	73	ASN
6	CF	80	ARG
6	CF	83	ASP
6	CF	90	VAL
6	CF	93	SER
6	CF	100	ASN
7	CG	4	ARG
7	CG	12	LEU
7	CG	17	VAL
7	CG	24	THR
7	CG	30	ILE
7	CG	32	ARG
7	CG	38	LEU
7	CG	45	ASP
7	CG	52	GLU
7	CG	58	PRO
7	CG	60	LYS
7	CG	77	SER
7	CG	79	ARG
7	CG	84	ASN
7	CG	88	PRO
7	CG	92	SER
7	CG	114	ARG
7	CG	124	LEU
7	CG	131	LYS
7	CG	142	GLU
8	CH	1	MET
8	CH	4	ASP
8	CH	8	ASP
8	CH	10	LEU
8	CH	52	ASP
8	CH	63	LEU
8	CH	65	TYR
8	CH	85	ARG
8	CH	102	ARG
8	CH	104	ARG
8	CH	105	ARG
8	CH	119	LEU
8	CH	127	LEU
8	CH	129	VAL

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Mol	Chain	Res	Type
9	CI	10	ARG
9	CI	40	LEU
9	CI	53	VAL
9	CI	95	LYS
9	CI	99	LEU
9	CI	103	THR
9	CI	104	ARG
9	CI	112	LYS
9	CI	114	TYR
9	CI	121	ARG
9	CI	125	TYR
9	CI	128	ARG
10	CJ	6	ILE
10	CJ	16	LEU
10	CJ	22	LYS
10	CJ	40	LEU
10	CJ	45	ARG
10	CJ	47	PHE
10	CJ	50	ILE
10	CJ	62	HIS
10	CJ	63	PHE
10	CJ	67	THR
10	CJ	80	LYS
10	CJ	86	MET
10	CJ	92	THR
10	CJ	96	ILE
11	CK	18	ARG
11	CK	33	THR
11	CK	50	TYR
11	CK	51	LYS
11	CK	87	THR
11	CK	103	LEU
11	CK	109	VAL
11	CK	114	VAL
11	CK	119	CYS
11	CK	124	LYS
11	CK	125	PHE
11	CK	129	SER
12	CL	18	LYS
12	CL	24	LEU
12	CL	30	ARG
12	CL	39	THR

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Mol	Chain	Res	Type
12	CL	41	THR
12	CL	50	ARG
12	CL	66	TYR
12	CL	70	GLU
12	CL	73	ASN
12	CL	77	HIS
12	CL	81	LEU
12	CL	86	ARG
12	CL	89	ASP
12	CL	124	GLU
13	CM	12	ASN
13	CM	14	ARG
13	CM	32	GLU
13	CM	47	ASP
13	CM	48	LEU
13	CM	50	GLU
13	CM	64	TRP
13	CM	65	LYS
13	CM	66	LEU
13	CM	67	GLU
13	CM	69	GLU
13	CM	70	LEU
13	CM	71	ARG
13	CM	82	MET
13	CM	84	ILE
13	CM	92	HIS
13	CM	93	ARG
13	CM	98	VAL
13	CM	110	ARG
14	CN	8	GLU
14	CN	12	ARG
14	CN	14	PRO
14	CN	18	VAL
14	CN	23	ARG
14	CN	26	ARG
14	CN	27	CYS
14	CN	33	VAL
14	CN	34	TYR
14	CN	35	ARG
14	CN	42	ILE
14	CN	44	LEU
15	CO	3	ILE

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Mol	Chain	Res	Type
15	CO	10	LYS
15	CO	22	THR
15	CO	37	ASN
15	CO	39	LEU
15	CO	47	LYS
15	CO	51	HIS
15	CO	54	ARG
15	CO	62	GLN
15	CO	65	ARG
15	CO	66	LEU
15	CO	71	GLN
15	CO	82	ILE
15	CO	83	GLU
16	CP	1	MET
16	CP	11	SER
16	CP	12	LYS
16	CP	16	HIS
16	CP	26	ARG
16	CP	27	LYS
16	CP	53	VAL
16	CP	61	SER
16	CP	65	GLN
16	CP	67	THR
16	CP	69	THR
16	CP	82	GLN
17	CQ	5	VAL
17	CQ	9	VAL
17	CQ	10	VAL
17	CQ	14	LYS
17	CQ	23	VAL
17	CQ	52	LYS
17	CQ	56	VAL
17	CQ	83	ASP
17	CQ	89	LEU
17	CQ	97	SER
18	CR	19	LYS
18	CR	26	LEU
18	CR	36	ASN
18	CR	38	GLU
18	CR	69	THR
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	11	VAL
19	CS	13	ASP
19	CS	22	LEU
19	CS	23	ASN
19	CS	27	GLU
19	CS	28	LYS
19	CS	29	ARG
19	CS	32	LYS
19	CS	37	ARG
19	CS	43	GLU
19	CS	44	MET
19	CS	49	ILE
19	CS	64	GLU
19	CS	65	ASN
19	CS	79	THR
20	CT	14	LYS
20	CT	26	ASN
20	CT	36	LEU
20	CT	41	ILE
20	CT	62	LEU
20	CT	64	ASP
20	CT	75	ASN
20	CT	82	SER
20	CT	90	GLN
20	CT	93	GLU
20	CT	104	LEU
21	CU	12	LYS
29	DC	20	TYR
29	DC	24	GLU
29	DC	36	LYS
29	DC	47	LEU
29	DC	55	ASP
29	DC	56	GLN
29	DC	58	VAL
29	DC	64	LEU
29	DC	77	ILE
29	DC	93	TYR
30	DD	10	THR
30	DD	13	ARG
30	DD	18	VAL

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Mol	Chain	Res	Type
30	DD	20	ASP
30	DD	26	LYS
30	DD	29	PRO
30	DD	37	LEU
30	DD	43	ARG
30	DD	58	HIS
30	DD	61	LEU
30	DD	65	ILE
30	DD	73	VAL
30	DD	86	PRO
30	DD	92	ILE
30	DD	94	LEU
30	DD	98	VAL
30	DD	104	TYR
30	DD	105	ILE
30	DD	140	THR
30	DD	147	LEU
30	DD	154	LYS
30	DD	155	LEU
30	DD	165	ILE
30	DD	168	ARG
30	DD	173	VAL
30	DD	178	PRO
30	DD	192	THR
30	DD	202	LYS
30	DD	204	ILE
30	DD	208	LYS
30	DD	218	ARG
30	DD	228	PRO
30	DD	230	ASP
30	DD	231	HIS
30	DD	239	ARG
30	DD	242	ARG
30	DD	246	PRO
30	DD	254	THR
30	DD	259	THR
30	DD	260	ARG
31	DE	1	MET
31	DE	4	ILE
31	DE	7	VAL
31	DE	9	VAL
31	DE	16	ARG

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Mol	Chain	Res	Type
31	DE	18	ASP
31	DE	22	PRO
31	DE	23	VAL
31	DE	24	THR
31	DE	30	PRO
31	DE	40	GLU
31	DE	52	LEU
31	DE	55	ASN
31	DE	57	LYS
31	DE	76	ARG
31	DE	78	LEU
31	DE	79	ARG
31	DE	82	ARG
31	DE	84	PHE
31	DE	86	PRO
31	DE	89	ASP
31	DE	92	THR
31	DE	101	ARG
31	DE	105	THR
31	DE	107	THR
31	DE	113	PHE
31	DE	116	VAL
31	DE	118	LYS
31	DE	119	ARG
31	DE	121	ASN
31	DE	127	ASP
31	DE	128	SER
31	DE	134	ILE
31	DE	144	ARG
31	DE	150	VAL
31	DE	154	LYS
31	DE	159	HIS
31	DE	166	THR
31	DE	168	MET
31	DE	179	GLU
31	DE	185	LYS
31	DE	197	ILE
31	DE	202	LYS
31	DE	203	LYS
32	DF	2	LYS
32	DF	4	VAL
32	DF	25	PRO

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Mol	Chain	Res	Type
32	DF	28	ILE
32	DF	38	ARG
32	DF	46	ARG
32	DF	53	THR
32	DF	65	TRP
32	DF	66	PRO
32	DF	67	GLN
32	DF	78	ILE
32	DF	81	PRO
32	DF	88	VAL
32	DF	99	TYR
32	DF	100	THR
32	DF	102	PRO
32	DF	112	MET
32	DF	125	LEU
32	DF	136	THR
32	DF	149	ASP
32	DF	158	THR
32	DF	175	THR
32	DF	183	VAL
32	DF	186	ILE
32	DF	190	GLU
32	DF	195	ASP
32	DF	201	VAL
33	DG	4	ASP
33	DG	5	VAL
33	DG	14	GLU
33	DG	16	ARG
33	DG	21	ARG
33	DG	22	ARG
33	DG	29	TRP
33	DG	35	GLU
33	DG	80	PHE
33	DG	83	ARG
33	DG	87	PRO
33	DG	92	VAL
33	DG	98	ARG
33	DG	101	ILE
33	DG	112	PRO
33	DG	113	ARG
33	DG	114	ILE
33	DG	116	ASP

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Mol	Chain	Res	Type
33	DG	117	PHE
33	DG	125	PHE
33	DG	130	ASN
33	DG	131	TYR
33	DG	132	ASN
33	DG	139	LEU
33	DG	143	GLU
33	DG	147	ASP
33	DG	153	ARG
33	DG	157	ILE
33	DG	162	THR
33	DG	166	ASP
34	DH	13	LYS
34	DH	24	VAL
34	DH	25	LYS
34	DH	41	MET
34	DH	46	GLU
34	DH	50	VAL
34	DH	54	ARG
34	DH	70	THR
34	DH	72	ILE
34	DH	74	ASN
34	DH	86	GLU
34	DH	88	LEU
34	DH	95	ARG
34	DH	103	LEU
34	DH	106	THR
34	DH	111	HIS
34	DH	147	ASN
34	DH	152	ARG
34	DH	153	LYS
34	DH	157	TYR
34	DH	170	ARG
35	DI	2	LYS
35	DI	5	LEU
35	DI	6	LEU
35	DI	12	LEU
35	DI	43	ASN
35	DI	47	LEU
35	DI	51	ILE
35	DI	68	LEU
35	DI	72	LEU

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Mol	Chain	Res	Type
35	DI	77	LEU
35	DI	86	THR
35	DI	102	SER
35	DI	109	ILE
35	DI	114	LEU
35	DI	122	GLU
35	DI	133	HIS
35	DI	138	ILE
35	DI	143	SER
36	DN	4	TYR
36	DN	23	LEU
36	DN	25	ARG
36	DN	28	THR
36	DN	34	LEU
36	DN	39	ARG
36	DN	41	ASP
36	DN	48	MET
36	DN	50	ASP
36	DN	54	VAL
36	DN	55	VAL
36	DN	56	ASN
36	DN	61	ARG
36	DN	63	THR
36	DN	73	THR
36	DN	88	GLU
36	DN	89	LYS
36	DN	98	VAL
36	DN	99	LEU
36	DN	119	ARG
36	DN	121	LYS
36	DN	127	ASP
36	DN	130	HIS
36	DN	134	ARG
36	DN	136	GLU
37	DO	1	MET
37	DO	7	TYR
37	DO	8	LEU
37	DO	9	GLU
37	DO	10	VAL
37	DO	18	LYS
37	DO	19	ILE
37	DO	22	ILE

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Mol	Chain	Res	Type
37	DO	35	VAL
37	DO	38	VAL
37	DO	42	SER
37	DO	45	GLU
37	DO	48	PRO
37	DO	49	ARG
37	DO	58	VAL
37	DO	59	LYS
37	DO	69	ILE
37	DO	75	SER
37	DO	79	PHE
37	DO	81	ASP
37	DO	87	ILE
37	DO	97	ARG
37	DO	98	VAL
37	DO	102	VAL
37	DO	117	LEU
38	DP	5	ASP
38	DP	6	LEU
38	DP	9	ASN
38	DP	13	ASN
38	DP	16	ARG
38	DP	18	ARG
38	DP	19	VAL
38	DP	21	ARG
38	DP	27	HIS
38	DP	30	THR
38	DP	39	LYS
38	DP	41	ARG
38	DP	47	ASP
38	DP	50	ARG
38	DP	51	PHE
38	DP	58	THR
38	DP	59	LEU
38	DP	61	ARG
38	DP	64	LYS
38	DP	68	GLN
38	DP	71	VAL
38	DP	83	VAL
38	DP	85	LEU
38	DP	87	ASP
38	DP	91	PHE

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Mol	Chain	Res	Type
38	DP	95	VAL
38	DP	98	GLU
38	DP	105	LEU
38	DP	108	LYS
38	DP	112	LEU
38	DP	122	PRO
38	DP	125	VAL
38	DP	130	PHE
39	DQ	17	LEU
39	DQ	27	VAL
39	DQ	29	PHE
39	DQ	45	GLN
39	DQ	51	ARG
39	DQ	52	VAL
39	DQ	59	ARG
39	DQ	63	LYS
39	DQ	66	ILE
39	DQ	76	LYS
39	DQ	79	LEU
39	DQ	81	VAL
39	DQ	82	ARG
39	DQ	89	ASN
39	DQ	106	VAL
39	DQ	112	GLU
39	DQ	129	THR
39	DQ	134	ARG
39	DQ	135	ASP
40	DR	2	ARG
40	DR	4	LEU
40	DR	5	LYS
40	DR	8	ARG
40	DR	15	SER
40	DR	17	ARG
40	DR	27	SER
40	DR	28	LEU
40	DR	29	LEU
40	DR	30	THR
40	DR	33	ARG
40	DR	51	LEU
40	DR	54	LEU
40	DR	56	LYS
40	DR	57	ARG

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Mol	Chain	Res	Type
40	DR	60	LEU
40	DR	67	LEU
40	DR	69	ASP
40	DR	71	GLN
40	DR	75	LEU
40	DR	79	LEU
40	DR	80	PHE
40	DR	81	ASP
40	DR	85	PRO
40	DR	88	ARG
40	DR	91	GLN
40	DR	94	TYR
40	DR	95	THR
40	DR	100	LEU
40	DR	103	ARG
40	DR	104	ARG
40	DR	111	LEU
40	DR	118	GLU
41	DS	12	PHE
41	DS	36	TYR
41	DS	58	LEU
41	DS	63	THR
41	DS	67	ARG
41	DS	73	LEU
41	DS	85	VAL
41	DS	87	PHE
41	DS	89	ARG
41	DS	92	TYR
41	DS	93	LYS
41	DS	97	ARG
41	DS	101	LEU
41	DS	106	ARG
42	DT	9	LEU
42	DT	11	GLU
42	DT	13	ARG
42	DT	14	TYR
42	DT	19	LEU
42	DT	22	PHE
42	DT	24	PRO
42	DT	29	ARG
42	DT	30	VAL
42	DT	38	ASN

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Mol	Chain	Res	Type
42	DT	41	ARG
42	DT	42	ILE
42	DT	46	GLU
42	DT	51	ARG
42	DT	55	ASN
42	DT	78	LEU
42	DT	80	SER
42	DT	81	PRO
42	DT	82	LEU
42	DT	84	GLN
42	DT	85	LYS
42	DT	86	ILE
42	DT	95	ARG
42	DT	96	ARG
42	DT	99	LEU
42	DT	100	TYR
42	DT	110	ILE
42	DT	113	LYS
42	DT	115	ARG
42	DT	119	LYS
42	DT	128	GLU
42	DT	132	LYS
43	DU	5	LYS
43	DU	15	LYS
43	DU	29	SER
43	DU	34	LYS
43	DU	52	ARG
43	DU	60	LEU
43	DU	63	VAL
43	DU	84	LYS
43	DU	92	ARG
43	DU	104	GLN
43	DU	105	VAL
44	DV	5	VAL
44	DV	18	LEU
44	DV	19	LYS
44	DV	21	ARG
44	DV	29	PRO
44	DV	32	THR
44	DV	33	VAL
44	DV	38	LEU
44	DV	39	LEU

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Mol	Chain	Res	Type
44	DV	40	LEU
44	DV	46	VAL
44	DV	49	THR
44	DV	56	SER
44	DV	61	VAL
44	DV	62	LEU
44	DV	68	LYS
44	DV	69	LYS
44	DV	71	LEU
44	DV	78	LYS
44	DV	89	GLN
44	DV	92	THR
44	DV	99	ILE
45	DW	6	ILE
45	DW	8	ARG
45	DW	11	ARG
45	DW	13	SER
45	DW	19	LEU
45	DW	23	LEU
45	DW	27	LYS
45	DW	50	VAL
45	DW	52	GLU
45	DW	57	ASN
45	DW	60	ASN
45	DW	63	ASP
45	DW	67	ASP
45	DW	70	TYR
45	DW	85	VAL
45	DW	86	LEU
45	DW	90	ARG
45	DW	96	ILE
45	DW	107	LEU
46	DX	5	TYR
46	DX	7	VAL
46	DX	8	ILE
46	DX	15	GLU
46	DX	27	THR
46	DX	51	VAL
46	DX	52	VAL
46	DX	53	LYS
46	DX	57	LEU
46	DX	60	ARG

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Mol	Chain	Res	Type
46	DX	68	ARG
46	DX	70	LEU
46	DX	76	ARG
46	DX	78	LYS
46	DX	80	ILE
46	DX	83	VAL
47	DY	6	HIS
47	DY	7	VAL
47	DY	8	LYS
47	DY	19	LYS
47	DY	28	LYS
47	DY	29	GLU
47	DY	32	PRO
47	DY	42	VAL
47	DY	47	LYS
47	DY	53	PRO
47	DY	55	TYR
47	DY	56	PRO
47	DY	60	PHE
47	DY	67	LEU
47	DY	71	LYS
47	DY	72	VAL
47	DY	76	CYS
47	DY	77	PRO
47	DY	79	CYS
47	DY	89	PHE
47	DY	90	LEU
48	DZ	7	TYR
48	DZ	18	ARG
48	DZ	22	LYS
48	DZ	31	HIS
48	DZ	40	LEU
48	DZ	52	ILE
48	DZ	60	LEU
48	DZ	72	GLN
48	DZ	78	ARG
48	DZ	79	ARG
48	DZ	90	LEU
48	DZ	92	ASP
48	DZ	103	PHE
48	DZ	118	GLU
48	DZ	128	SER

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Mol	Chain	Res	Type
48	DZ	130	ARG
48	DZ	131	ASN
48	DZ	144	GLU
48	DZ	147	ASP
48	DZ	149	LEU
49	D0	5	LYS
49	D0	20	ARG
49	D0	30	VAL
49	D0	41	ARG
49	D0	64	ASP
49	D0	70	GLN
49	D0	75	LEU
49	D0	84	LEU
50	D1	21	ARG
50	D1	30	VAL
50	D1	38	SER
50	D1	40	ARG
50	D1	45	ASN
50	D1	46	LEU
50	D1	47	GLN
50	D1	50	ARG
50	D1	58	ILE
50	D1	59	THR
50	D1	61	ARG
50	D1	80	LEU
50	D1	82	LEU
50	D1	90	ILE
50	D1	95	LEU
51	D2	2	LYS
51	D2	3	LEU
51	D2	4	SER
51	D2	5	GLU
51	D2	17	SER
51	D2	20	GLU
51	D2	32	LEU
51	D2	44	LEU
51	D2	53	LEU
51	D2	57	ILE
51	D2	60	LEU
51	D2	63	VAL
51	D2	69	ARG
52	D3	4	LEU

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Mol	Chain	Res	Type
52	D3	6	VAL
52	D3	8	LEU
52	D3	18	ASP
52	D3	23	LEU
52	D3	38	GLU
52	D3	52	HIS
53	D4	36	VAL
53	D4	56	GLU
54	D5	11	THR
54	D5	23	HIS
54	D5	25	LEU
54	D5	33	CYS
54	D5	36	CYS
54	D5	37	LYS
54	D5	40	LYS
54	D5	49	CYS
54	D5	56	LYS
55	D6	8	LYS
55	D6	10	LEU
55	D6	11	LEU
55	D6	13	CYS
55	D6	18	ARG
55	D6	19	ARG
55	D6	31	PRO
55	D6	32	ASN
55	D6	33	LYS
55	D6	36	LEU
55	D6	37	ARG
55	D6	40	CYS
55	D6	41	PRO
55	D6	42	TRP
55	D6	43	CYS
55	D6	47	THR
56	D7	1	MET
56	D7	4	THR
56	D7	8	ASN
56	D7	41	ARG
56	D7	42	LEU
57	D8	8	LYS
57	D8	16	ILE
57	D8	19	SER
57	D8	30	ARG

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Mol	Chain	Res	Type
57	D8	32	LEU
57	D8	33	ASN
57	D8	34	TRP
57	D8	42	ARG
57	D8	44	LYS
57	D8	52	LYS
57	D8	54	GLU
57	D8	56	GLU
57	D8	61	LEU
57	D8	63	PRO
58	D9	2	LYS
58	D9	9	ARG
58	D9	18	ARG
58	D9	28	GLU
58	D9	29	ASN

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (293) such sidechains are listed below:

Mol	Chain	Res	Type
2	AB	45	GLN
2	AB	78	GLN
2	AB	104	ASN
2	AB	110	GLN
2	AB	204	ASN
2	AB	224	GLN
3	AC	6	HIS
3	AC	28	GLN
3	AC	170	GLN
4	AD	119	GLN
4	AD	123	HIS
4	AD	125	HIS
4	AD	201	GLN
5	AE	72	GLN
5	AE	73	ASN
5	AE	78	HIS
6	AF	16	GLN
6	AF	18	GLN
6	AF	27	GLN
6	AF	32	ASN
6	AF	64	GLN
6	AF	73	ASN
6	AF	94	GLN

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Mol	Chain	Res	Type
6	AF	100	ASN
7	AG	13	GLN
7	AG	96	GLN
7	AG	97	GLN
7	AG	148	ASN
9	AI	23	ASN
9	AI	31	GLN
9	AI	73	GLN
9	AI	89	ASN
9	AI	124	GLN
10	AJ	56	HIS
10	AJ	62	HIS
11	AK	22	HIS
11	AK	38	ASN
11	AK	99	GLN
11	AK	117	ASN
12	AL	5	ASN
12	AL	6	GLN
12	AL	46	ASN
12	AL	73	ASN
12	AL	96	HIS
13	AM	40	ASN
13	AM	77	ASN
13	AM	101	GLN
15	AO	37	ASN
15	AO	62	GLN
16	AP	76	GLN
16	AP	82	GLN
17	AQ	16	GLN
17	AQ	26	GLN
17	AQ	93	GLN
20	AT	18	GLN
20	AT	26	ASN
20	AT	75	ASN
30	BD	58	HIS
30	BD	96	HIS
30	BD	115	GLN
30	BD	166	GLN
30	BD	186	HIS
30	BD	198	ASN
30	BD	220	HIS
30	BD	227	ASN

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Mol	Chain	Res	Type
30	BD	253	GLN
31	BE	35	GLN
31	BE	54	GLN
31	BE	55	ASN
31	BE	66	HIS
31	BE	121	ASN
31	BE	132	HIS
32	BF	69	HIS
32	BF	75	HIS
32	BF	160	ASN
32	BF	169	ASN
32	BF	203	GLN
32	BF	204	ASN
33	BG	26	GLN
33	BG	66	GLN
33	BG	108	ASN
34	BH	65	HIS
34	BH	147	ASN
34	BH	158	HIS
35	BI	17	GLN
35	BI	28	ASN
35	BI	43	ASN
35	BI	54	GLN
35	BI	105	HIS
35	BI	133	HIS
36	BN	56	ASN
36	BN	69	GLN
36	BN	94	HIS
36	BN	130	HIS
36	BN	131	GLN
37	BO	3	GLN
37	BO	13	ASN
37	BO	82	ASN
38	BP	9	ASN
38	BP	27	HIS
38	BP	38	GLN
38	BP	68	GLN
38	BP	84	ASN
38	BP	128	HIS
39	BQ	12	GLN
39	BQ	46	GLN
39	BQ	57	HIS

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Mol	Chain	Res	Type
39	BQ	123	HIS
40	BR	3	HIS
40	BR	16	HIS
40	BR	23	ASN
40	BR	24	GLN
40	BR	50	HIS
40	BR	53	HIS
40	BR	71	GLN
41	BS	68	GLN
42	BT	90	GLN
43	BU	49	HIS
43	BU	72	HIS
43	BU	104	GLN
43	BU	117	GLN
44	BV	11	GLN
45	BW	34	ASN
45	BW	40	ASN
45	BW	57	ASN
45	BW	61	ASN
45	BW	62	HIS
45	BW	102	HIS
45	BW	111	HIS
46	BX	31	HIS
46	BX	41	ASN
46	BX	55	ASN
48	BZ	33	ASN
48	BZ	54	HIS
48	BZ	117	GLN
48	BZ	131	ASN
49	B0	29	GLN
50	B1	19	GLN
50	B1	45	ASN
51	B2	9	GLN
51	B2	43	GLN
51	B2	46	GLN
52	B3	19	GLN
52	B3	33	GLN
52	B3	46	ASN
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	26	ASN
56	B7	6	GLN
56	B7	8	ASN
57	B8	31	HIS
57	B8	33	ASN
57	B8	35	GLN
57	B8	43	GLN
58	B9	29	ASN
58	B9	34	GLN
2	CB	16	HIS
2	CB	40	HIS
2	CB	110	GLN
2	CB	135	GLN
2	CB	146	GLN
3	CC	6	HIS
3	CC	28	GLN
3	CC	69	HIS
3	CC	123	GLN
3	CC	170	GLN
4	CD	62	GLN
4	CD	160	GLN
4	CD	161	ASN
5	CE	73	ASN
6	CF	7	ASN
6	CF	18	GLN
6	CF	27	GLN
6	CF	32	ASN
6	CF	94	GLN
6	CF	100	ASN
7	CG	11	GLN
7	CG	28	ASN
7	CG	84	ASN
7	CG	96	GLN
7	CG	97	GLN
8	CH	15	ASN
9	CI	23	ASN
9	CI	73	GLN
10	CJ	13	HIS
10	CJ	78	ASN
11	CK	13	GLN
11	CK	38	ASN
12	CL	5	ASN

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Mol	Chain	Res	Type
12	CL	72	HIS
13	CM	77	ASN
13	CM	92	HIS
13	CM	101	GLN
13	CM	106	ASN
15	CO	9	GLN
15	CO	13	GLN
15	CO	37	ASN
15	CO	50	HIS
15	CO	71	GLN
16	CP	82	GLN
17	CQ	93	GLN
18	CR	36	ASN
19	CS	14	HIS
19	CS	23	ASN
19	CS	47	HIS
19	CS	53	ASN
19	CS	57	HIS
20	CT	26	ASN
30	DD	87	ASN
30	DD	115	GLN
30	DD	186	HIS
30	DD	220	HIS
30	DD	253	GLN
31	DE	54	GLN
31	DE	55	ASN
31	DE	66	HIS
31	DE	129	HIS
31	DE	192	ASN
32	DF	8	GLN
32	DF	31	HIS
32	DF	75	HIS
33	DG	41	GLN
33	DG	132	ASN
34	DH	61	HIS
34	DH	74	ASN
34	DH	143	GLN
34	DH	147	ASN
35	DI	17	GLN
35	DI	105	HIS
36	DN	38	HIS
36	DN	56	ASN

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Mol	Chain	Res	Type
36	DN	69	GLN
36	DN	131	GLN
37	DO	5	GLN
37	DO	82	ASN
38	DP	9	ASN
38	DP	13	ASN
38	DP	27	HIS
38	DP	35	HIS
38	DP	38	GLN
38	DP	68	GLN
38	DP	84	ASN
38	DP	128	HIS
39	DQ	12	GLN
39	DQ	45	GLN
40	DR	16	HIS
40	DR	23	ASN
40	DR	24	GLN
40	DR	31	HIS
40	DR	53	HIS
40	DR	71	GLN
41	DS	16	ASN
41	DS	34	HIS
41	DS	68	GLN
42	DT	43	GLN
42	DT	90	GLN
42	DT	123	GLN
43	DU	49	HIS
43	DU	81	HIS
44	DV	11	GLN
44	DV	80	GLN
45	DW	34	ASN
45	DW	57	ASN
45	DW	102	HIS
46	DX	41	ASN
46	DX	58	HIS
47	DY	43	ASN
48	DZ	53	HIS
48	DZ	72	GLN
48	DZ	74	ASN
48	DZ	117	GLN
48	DZ	120	HIS
48	DZ	131	ASN

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Mol	Chain	Res	Type
49	D0	29	GLN
49	D0	70	GLN
50	D1	45	ASN
51	D2	43	GLN
51	D2	47	ASN
52	D3	19	GLN
52	D3	32	GLN
52	D3	46	ASN
52	D3	52	HIS
53	D4	46	ASN
54	D5	4	HIS
54	D5	43	HIS
55	D6	32	ASN
56	D7	8	ASN
56	D7	36	GLN
57	D8	31	HIS
57	D8	33	ASN
58	D9	29	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1493/1509 (98%)	351 (23%)	136 (9%)
1	CA	1493/1509 (98%)	365 (24%)	120 (8%)
22	AV	9/30 (30%)	0	0
22	CV	9/30 (30%)	0	0
23	AW	74/75 (98%)	17 (22%)	2 (2%)
23	CW	74/75 (98%)	16 (21%)	4 (5%)
24	AX	76/77 (98%)	19 (25%)	1 (1%)
24	CX	76/77 (98%)	19 (25%)	0
25	AY	74/75 (98%)	23 (31%)	1 (1%)
25	CY	74/75 (98%)	22 (29%)	1 (1%)
27	BA	2792/2915 (95%)	798 (28%)	220 (7%)
27	DA	2793/2915 (95%)	905 (32%)	280 (10%)
28	BB	116/122 (95%)	26 (22%)	5 (4%)
28	DB	116/122 (95%)	28 (24%)	8 (6%)
All	All	9269/9606 (96%)	2589 (27%)	778 (8%)

All (2589) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	8	A
1	AA	9	G
1	AA	13	U
1	AA	31	G
1	AA	32	A
1	AA	39	G
1	AA	41	G
1	AA	47	C
1	AA	48	C
1	AA	51	A
1	AA	52	G
1	AA	53	A
1	AA	61	G
1	AA	64	G
1	AA	65	U
1	AA	107	G
1	AA	110	C
1	AA	114	U
1	AA	116	A
1	AA	120	A
1	AA	121	C
1	AA	129(A)	G
1	AA	131	C
1	AA	132	C
1	AA	137	C
1	AA	143	A
1	AA	146	G
1	AA	170	U
1	AA	174	C
1	AA	181	G
1	AA	182	U
1	AA	183	G
1	AA	189(F)	U
1	AA	189(H)	G
1	AA	189(I)	G
1	AA	195	A
1	AA	198	G
1	AA	199	G
1	AA	203	U
1	AA	204	U
1	AA	216	G
1	AA	220	G
1	AA	237	C

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Mol	Chain	Res	Type
1	AA	244	U
1	AA	247	G
1	AA	251	G
1	AA	253	U
1	AA	258	G
1	AA	262	A
1	AA	266	G
1	AA	267	C
1	AA	274	A
1	AA	275	G
1	AA	279	A
1	AA	280	C
1	AA	281	G
1	AA	287	U
1	AA	289	G
1	AA	306	G
1	AA	316	G
1	AA	328	C
1	AA	330	C
1	AA	332	G
1	AA	344	A
1	AA	345	C
1	AA	346	G
1	AA	347	G
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	358	U
1	AA	367	U
1	AA	369	C
1	AA	373	A
1	AA	374	A
1	AA	389	A
1	AA	390	C
1	AA	397	A
1	AA	406	G
1	AA	412	A
1	AA	413	G
1	AA	414	A
1	AA	415	A
1	AA	421	U
1	AA	422	C

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Mol	Chain	Res	Type
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	439	A
1	AA	442	C
1	AA	451	A
1	AA	452	A
1	AA	453	A
1	AA	454	C
1	AA	455	C
1	AA	461	A
1	AA	470	C
1	AA	471	G
1	AA	472	A
1	AA	482	A
1	AA	484	G
1	AA	485	G
1	AA	486	U
1	AA	487	A
1	AA	495	A
1	AA	496	A
1	AA	498	U
1	AA	499	A
1	AA	508	C
1	AA	509	A
1	AA	511	C
1	AA	518	C
1	AA	521	G
1	AA	527	G
1	AA	531	U
1	AA	532	A
1	AA	533	A
1	AA	534	U
1	AA	535	A
1	AA	548	G
1	AA	559	A
1	AA	560	U
1	AA	562	C
1	AA	566	G

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Mol	Chain	Res	Type
1	AA	569	C
1	AA	572	A
1	AA	573	A
1	AA	575	G
1	AA	576	G
1	AA	577	G
1	AA	578	C
1	AA	579	G
1	AA	595	G
1	AA	596	C
1	AA	607	A
1	AA	623	C
1	AA	632	A
1	AA	642	A
1	AA	653	A
1	AA	665	A
1	AA	666	G
1	AA	687	A
1	AA	688	G
1	AA	693	G
1	AA	699	C
1	AA	701	C
1	AA	702	A
1	AA	703	G
1	AA	717	C
1	AA	718	G
1	AA	721	G
1	AA	722	A
1	AA	724	G
1	AA	731	G
1	AA	733	A
1	AA	748	C
1	AA	749	C
1	AA	752	G
1	AA	753	A
1	AA	755	G
1	AA	759	A
1	AA	767	A
1	AA	773	G
1	AA	777	A
1	AA	790	A
1	AA	793	U

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Mol	Chain	Res	Type
1	AA	801	U
1	AA	815	A
1	AA	816	A
1	AA	817	C
1	AA	818	G
1	AA	819	A
1	AA	821	G
1	AA	828	A
1	AA	839	U
1	AA	841	U
1	AA	848	C
1	AA	853	G
1	AA	855	G
1	AA	859	A
1	AA	871	U
1	AA	884	U
1	AA	885	G
1	AA	890	G
1	AA	902	G
1	AA	914	A
1	AA	922	G
1	AA	926	G
1	AA	927	G
1	AA	934	C
1	AA	935	A
1	AA	954	G
1	AA	960	U
1	AA	961	U
1	AA	966	G
1	AA	968	A
1	AA	969	A
1	AA	972	C
1	AA	974	A
1	AA	975	A
1	AA	976	G
1	AA	977	A
1	AA	978	A
1	AA	980	C
1	AA	981	U
1	AA	982	U
1	AA	983	A
1	AA	984	C

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Mol	Chain	Res	Type
1	AA	991	U
1	AA	992	U
1	AA	993	G
1	AA	1001(A)	G
1	AA	1005	A
1	AA	1006	C
1	AA	1009	G
1	AA	1016	A
1	AA	1017	G
1	AA	1027	C
1	AA	1030	C
1	AA	1030(A)	G
1	AA	1030(B)	C
1	AA	1030(C)	G
1	AA	1045	C
1	AA	1050	G
1	AA	1053	G
1	AA	1054	C
1	AA	1062	U
1	AA	1064	G
1	AA	1065	U
1	AA	1066	C
1	AA	1068	G
1	AA	1070	U
1	AA	1085	U
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	1125	U
1	AA	1126	U
1	AA	1127	G
1	AA	1129	C
1	AA	1130	A
1	AA	1136	U
1	AA	1137	C
1	AA	1139	G
1	AA	1140	C

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Mol	Chain	Res	Type
1	AA	1141	C
1	AA	1142	G
1	AA	1146	A
1	AA	1147	C
1	AA	1148	U
1	AA	1153	C
1	AA	1154	G
1	AA	1158	C
1	AA	1159	U
1	AA	1160	G
1	AA	1181	G
1	AA	1183	A
1	AA	1184	G
1	AA	1190	G
1	AA	1196	U
1	AA	1197	G
1	AA	1200	C
1	AA	1201	A
1	AA	1202	G
1	AA	1212	U
1	AA	1213	A
1	AA	1214	C
1	AA	1225	A
1	AA	1226	C
1	AA	1227	A
1	AA	1238	A
1	AA	1239	A
1	AA	1240	U
1	AA	1241	G
1	AA	1242	C
1	AA	1249	C
1	AA	1253	G
1	AA	1256	A
1	AA	1257	U
1	AA	1262	C
1	AA	1267	C
1	AA	1273	G
1	AA	1278	U
1	AA	1279	A
1	AA	1280	A
1	AA	1281	U
1	AA	1285	A

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Mol	Chain	Res	Type
1	AA	1286	A
1	AA	1287	A
1	AA	1296	C
1	AA	1297	C
1	AA	1298	C
1	AA	1299	A
1	AA	1300	G
1	AA	1301	U
1	AA	1302	U
1	AA	1305	G
1	AA	1306	A
1	AA	1317	C
1	AA	1320	C
1	AA	1322	C
1	AA	1323	G
1	AA	1325	C
1	AA	1331	G
1	AA	1335	C
1	AA	1336	C
1	AA	1337	G
1	AA	1347	G
1	AA	1353	G
1	AA	1363(A)	A
1	AA	1364	U
1	AA	1365	G
1	AA	1370	G
1	AA	1379	G
1	AA	1381	U
1	AA	1382	C
1	AA	1395	C
1	AA	1397	C
1	AA	1398	A
1	AA	1399	C
1	AA	1400	C
1	AA	1419	G
1	AA	1425	U
1	AA	1438	G
1	AA	1442	G
1	AA	1442(A)	G
1	AA	1442(B)	A
1	AA	1443	G
1	AA	1447	A

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Mol	Chain	Res	Type
1	AA	1452	C
1	AA	1456	G
1	AA	1487	G
1	AA	1492	A
1	AA	1498	U
1	AA	1499	A
1	AA	1504	G
1	AA	1506	U
1	AA	1507	A
1	AA	1517	G
1	AA	1519	A
1	AA	1520	G
1	AA	1529	G
1	AA	1531	A
23	AW	2	G
23	AW	5	G
23	AW	7	A
23	AW	8	U
23	AW	12	C
23	AW	16	C
23	AW	17	G
23	AW	18	G
23	AW	20	A
23	AW	23	G
23	AW	31	U
23	AW	43	C
23	AW	45	U
23	AW	48	C
23	AW	72	G
23	AW	73	C
23	AW	74	C
24	AX	3	C
24	AX	8	U
24	AX	13	C
24	AX	17	C
24	AX	17(B)	U
24	AX	18	G
24	AX	19	G
24	AX	20	U
24	AX	21	A
24	AX	47	U
24	AX	48	C

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Mol	Chain	Res	Type
24	AX	49	G
24	AX	59	A
24	AX	60	U
24	AX	63	G
24	AX	65	C
24	AX	73	A
24	AX	74	C
24	AX	75	C
25	AY	8	U
25	AY	11	C
25	AY	15	G
25	AY	16	C
25	AY	17	G
25	AY	18	G
25	AY	20	A
25	AY	21	A
25	AY	36	A
25	AY	38	U
25	AY	39	C
25	AY	42	G
25	AY	44	U
25	AY	45	U
25	AY	46	U
25	AY	48	C
25	AY	50	A
25	AY	57	A
25	AY	58	A
25	AY	60	C
25	AY	61	C
25	AY	69	C
25	AY	73	C
27	BA	13	A
27	BA	26	G
27	BA	28	A
27	BA	33	U
27	BA	34	C
27	BA	45	C
27	BA	49	A
27	BA	50	U
27	BA	55	G
27	BA	62	C
27	BA	64	A

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Mol	Chain	Res	Type
27	BA	69	C
27	BA	71	A
27	BA	72	U
27	BA	74	A
27	BA	75	G
27	BA	84	A
27	BA	85	G
27	BA	88	G
27	BA	90	U
27	BA	92	A
27	BA	93	G
27	BA	94	C
27	BA	99	U
27	BA	100	G
27	BA	102	G
27	BA	113	G
27	BA	117	G
27	BA	118	A
27	BA	119	A
27	BA	120	U
27	BA	121	G
27	BA	122	G
27	BA	125	G
27	BA	126	A
27	BA	128	C
27	BA	129	C
27	BA	131	G
27	BA	139(A)	G
27	BA	141	A
27	BA	148	C
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	178	G
27	BA	182	A
27	BA	196	A
27	BA	197	A
27	BA	199	A
27	BA	200	U

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Mol	Chain	Res	Type
27	BA	201	C
27	BA	204	A
27	BA	205	G
27	BA	206	U
27	BA	215	G
27	BA	216	A
27	BA	221	A
27	BA	222	A
27	BA	226	G
27	BA	227	A
27	BA	228	A
27	BA	229	A
27	BA	230	U
27	BA	232	G
27	BA	233	A
27	BA	239	U
27	BA	248	G
27	BA	261	G
27	BA	264	C
27	BA	266	G
27	BA	271(A)	A
27	BA	271(G)	C
27	BA	271(H)	G
27	BA	271(J)	C
27	BA	271(K)	U
27	BA	271(L)	U
27	BA	271(P)	C
27	BA	271(T)	C
27	BA	271(W)	G
27	BA	271(Y)	U
27	BA	271(Z)	C
27	BA	272	G
27	BA	272(H)	C
27	BA	272(J)	C
27	BA	275	G
27	BA	283	A
27	BA	284	U
27	BA	286	C
27	BA	287	C
27	BA	295	G
27	BA	301	G
27	BA	302	C

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Mol	Chain	Res	Type
27	BA	305	U
27	BA	310	A
27	BA	311	A
27	BA	316	C
27	BA	322	A
27	BA	323	G
27	BA	329	G
27	BA	330	A
27	BA	335	C
27	BA	341	G
27	BA	346	A
27	BA	352	G
27	BA	356	G
27	BA	358	U
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	371	A
27	BA	372	G
27	BA	386	G
27	BA	387	U
27	BA	391	G
27	BA	392	C
27	BA	394	A
27	BA	396	G
27	BA	398	G
27	BA	400	G
27	BA	402	A
27	BA	405	U
27	BA	406	G
27	BA	411	G
27	BA	412	A
27	BA	416	C
27	BA	421	U
27	BA	422	A
27	BA	428	A
27	BA	434	U
27	BA	435	C
27	BA	441	U
27	BA	443	A

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Mol	Chain	Res	Type
27	BA	448	U
27	BA	455	C
27	BA	456	C
27	BA	457	A
27	BA	470	A
27	BA	471	A
27	BA	473	G
27	BA	475	U
27	BA	479	A
27	BA	480	A
27	BA	481	G
27	BA	482	A
27	BA	494	G
27	BA	503	A
27	BA	504	U
27	BA	505	A
27	BA	508	G
27	BA	509	C
27	BA	510	C
27	BA	512	G
27	BA	525	U
27	BA	528	A
27	BA	530	G
27	BA	531	C
27	BA	532	A
27	BA	543	C
27	BA	548	A
27	BA	549	G
27	BA	551	G
27	BA	556	G
27	BA	561	G
27	BA	562	U
27	BA	563	G
27	BA	571	A
27	BA	572	A
27	BA	573	G
27	BA	574	C
27	BA	575	A
27	BA	588	U
27	BA	603	A
27	BA	604	G
27	BA	607	U

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Mol	Chain	Res	Type
27	BA	610	G
27	BA	614	U
27	BA	614(B)	G
27	BA	615	G
27	BA	620	G
27	BA	621	A
27	BA	622	G
27	BA	627	A
27	BA	628	G
27	BA	634	C
27	BA	637	A
27	BA	638	G
27	BA	645	C
27	BA	646	A
27	BA	652	C
27	BA	657	U
27	BA	668	G
27	BA	669	G
27	BA	670	A
27	BA	671	C
27	BA	686	G
27	BA	708	C
27	BA	717	G
27	BA	721	C
27	BA	722	A
27	BA	726	G
27	BA	729	G
27	BA	730	C
27	BA	740	U
27	BA	747	U
27	BA	748	G
27	BA	753	C
27	BA	754	C
27	BA	755	C
27	BA	762	U
27	BA	763	G
27	BA	764	A
27	BA	776	G
27	BA	779	U
27	BA	782	A
27	BA	784	A
27	BA	785	G

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Mol	Chain	Res	Type
27	BA	790	C
27	BA	791	C
27	BA	792	G
27	BA	793	A
27	BA	805	G
27	BA	806	C
27	BA	812	C
27	BA	819	A
27	BA	826	U
27	BA	827	U
27	BA	828	U
27	BA	830	G
27	BA	841	A
27	BA	845	G
27	BA	846	C
27	BA	848	G
27	BA	857	C
27	BA	859	G
27	BA	866	A
27	BA	888	C
27	BA	890	A
27	BA	896	A
27	BA	897	C
27	BA	900	A
27	BA	904	C
27	BA	907	U
27	BA	910	A
27	BA	914	C
27	BA	917	A
27	BA	932	G
27	BA	933	A
27	BA	941	A
27	BA	946	G
27	BA	952	G
27	BA	958	U
27	BA	959	A
27	BA	961	C
27	BA	964	C
27	BA	974	G
27	BA	975	C
27	BA	983	A
27	BA	985	C

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Mol	Chain	Res	Type
27	BA	990	A
27	BA	991	C
27	BA	994	C
27	BA	996	A
27	BA	997	G
27	BA	1005	C
27	BA	1008	C
27	BA	1009	A
27	BA	1012	U
27	BA	1013	C
27	BA	1017	G
27	BA	1020	A
27	BA	1021	A
27	BA	1022	G
27	BA	1023	U
27	BA	1024	G
27	BA	1025	G
27	BA	1026	U
27	BA	1031	G
27	BA	1033	U
27	BA	1034	G
27	BA	1035	U
27	BA	1042	G
27	BA	1043	C
27	BA	1044	G
27	BA	1045	A
27	BA	1046	A
27	BA	1047	G
27	BA	1049	C
27	BA	1050	A
27	BA	1051	G
27	BA	1052	C
27	BA	1053	C
27	BA	1054	A
27	BA	1110	G
27	BA	1111	A
27	BA	1112	G
27	BA	1113	U
27	BA	1115	G
27	BA	1122	G
27	BA	1126	A
27	BA	1127	A

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Mol	Chain	Res	Type
27	BA	1128	A
27	BA	1129	A
27	BA	1130	U
27	BA	1131	G
27	BA	1132	A
27	BA	1135	C
27	BA	1136	G
27	BA	1140	C
27	BA	1141	U
27	BA	1142	U
27	BA	1142(A)	A
27	BA	1143	A
27	BA	1155	A
27	BA	1170	G
27	BA	1171	G
27	BA	1173	G
27	BA	1174	A
27	BA	1175	U
27	BA	1176	G
27	BA	1177	A
27	BA	1178	C
27	BA	1179	C
27	BA	1180	C
27	BA	1186	G
27	BA	1190	G
27	BA	1193	G
27	BA	1195	G
27	BA	1204	A
27	BA	1205	U
27	BA	1211	U
27	BA	1212	G
27	BA	1213	A
27	BA	1214	A
27	BA	1220	A
27	BA	1221	C
27	BA	1224	C
27	BA	1226	A
27	BA	1230	C
27	BA	1233	C
27	BA	1236	G
27	BA	1237	A
27	BA	1248	G

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Mol	Chain	Res	Type
27	BA	1249	U
27	BA	1250	G
27	BA	1251	C
27	BA	1253	A
27	BA	1256	G
27	BA	1265	A
27	BA	1271	G
27	BA	1272	A
27	BA	1273	U
27	BA	1274	A
27	BA	1276	A
27	BA	1281	G
27	BA	1287	A
27	BA	1289	C
27	BA	1294	U
27	BA	1300	U
27	BA	1301	A
27	BA	1314	C
27	BA	1319	G
27	BA	1320	C
27	BA	1321	A
27	BA	1322	A
27	BA	1328	G
27	BA	1332	G
27	BA	1338	G
27	BA	1341	U
27	BA	1349	A
27	BA	1352	U
27	BA	1354	A
27	BA	1359	A
27	BA	1360	A
27	BA	1365	A
27	BA	1368	G
27	BA	1379	A
27	BA	1380	G
27	BA	1384	A
27	BA	1386	C
27	BA	1406	U
27	BA	1407	C
27	BA	1415	U
27	BA	1416	G
27	BA	1419	A

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Mol	Chain	Res	Type
27	BA	1420	U
27	BA	1427	A
27	BA	1428	C
27	BA	1429	G
27	BA	1430	C
27	BA	1437	C
27	BA	1445	A
27	BA	1445(A)	C
27	BA	1449	A
27	BA	1450	G
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	1482	G
27	BA	1485	G
27	BA	1490	A
27	BA	1491	G
27	BA	1493	C
27	BA	1494	A
27	BA	1495	A
27	BA	1497	U
27	BA	1498	C
27	BA	1500	G
27	BA	1501	C
27	BA	1502	C
27	BA	1505	C
27	BA	1506	C
27	BA	1509	C
27	BA	1509(A)	A
27	BA	1518	U
27	BA	1525	G
27	BA	1547	C
27	BA	1554	A
27	BA	1558	A
27	BA	1559	G
27	BA	1566	A
27	BA	1568	G
27	BA	1569	A
27	BA	1578	U

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Mol	Chain	Res	Type
27	BA	1579	A
27	BA	1584	C
27	BA	1586	A
27	BA	1588	C
27	BA	1594	G
27	BA	1595	G
27	BA	1597	A
27	BA	1598	C
27	BA	1603	A
27	BA	1604	C
27	BA	1608	A
27	BA	1609	A
27	BA	1610	A
27	BA	1615	C
27	BA	1616	A
27	BA	1617	C
27	BA	1618	A
27	BA	1622	G
27	BA	1635	G
27	BA	1636	C
27	BA	1640	C
27	BA	1648	C
27	BA	1651	G
27	BA	1670	C
27	BA	1674	G
27	BA	1675	C
27	BA	1681	G
27	BA	1682	G
27	BA	1686	C
27	BA	1699	G
27	BA	1700	A
27	BA	1703	G
27	BA	1707	G
27	BA	1717	G
27	BA	1718	G
27	BA	1721	G
27	BA	1722	A
27	BA	1739	U
27	BA	1740	G
27	BA	1742	G
27	BA	1745(A)	C
27	BA	1748	G

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Mol	Chain	Res	Type
27	BA	1754	C
27	BA	1758	G
27	BA	1759	A
27	BA	1763	G
27	BA	1764	G
27	BA	1771	C
27	BA	1773	A
27	BA	1776	G
27	BA	1780	A
27	BA	1781	C
27	BA	1785	A
27	BA	1788	C
27	BA	1791	A
27	BA	1799	G
27	BA	1800	C
27	BA	1802	A
27	BA	1815	A
27	BA	1816	G
27	BA	1820	U
27	BA	1829	A
27	BA	1835	G
27	BA	1838	C
27	BA	1839	G
27	BA	1840	G
27	BA	1847	A
27	BA	1848	A
27	BA	1858	G
27	BA	1865	G
27	BA	1877	A
27	BA	1878	G
27	BA	1880	C
27	BA	1882	C
27	BA	1885	A
27	BA	1888	G
27	BA	1889	A
27	BA	1892	C
27	BA	1900	A
27	BA	1905	C
27	BA	1906	G
27	BA	1912	A
27	BA	1913	A
27	BA	1915	U

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Mol	Chain	Res	Type
27	BA	1919	A
27	BA	1926	U
27	BA	1930	G
27	BA	1931	U
27	BA	1936	A
27	BA	1937	A
27	BA	1938	A
27	BA	1940	U
27	BA	1946	U
27	BA	1954	G
27	BA	1955	U
27	BA	1963	U
27	BA	1964	G
27	BA	1965	C
27	BA	1967	C
27	BA	1969	A
27	BA	1970	A
27	BA	1971	A
27	BA	1972	A
27	BA	1981	A
27	BA	1982	C
27	BA	1991	U
27	BA	1993	U
27	BA	1996	C
27	BA	1997	G
27	BA	2006	C
27	BA	2019	A
27	BA	2020	A
27	BA	2021	C
27	BA	2022	U
27	BA	2023	G
27	BA	2026	C
27	BA	2030	A
27	BA	2031	A
27	BA	2032	G
27	BA	2033	A
27	BA	2036	C
27	BA	2037	G
27	BA	2041	U
27	BA	2043	C
27	BA	2048	G
27	BA	2049	G

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Mol	Chain	Res	Type
27	BA	2051	A
27	BA	2052	G
27	BA	2055	C
27	BA	2056	G
27	BA	2058	A
27	BA	2059	A
27	BA	2060	A
27	BA	2061	G
27	BA	2062	A
27	BA	2068	U
27	BA	2069	G
27	BA	2092	U
27	BA	2093	G
27	BA	2099	U
27	BA	2100	G
27	BA	2101	G
27	BA	2103	C
27	BA	2104	G
27	BA	2110	G
27	BA	2111	C
27	BA	2112	G
27	BA	2113	U
27	BA	2116	G
27	BA	2117	A
27	BA	2118	U
27	BA	2119	A
27	BA	2120	G
27	BA	2121	G
27	BA	2126	A
27	BA	2127	G
27	BA	2128	C
27	BA	2131	G
27	BA	2132	U
27	BA	2133	G
27	BA	2136	C
27	BA	2146	C
27	BA	2147	G
27	BA	2157	G
27	BA	2159	G
27	BA	2160	G
27	BA	2172	U
27	BA	2173	A

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Mol	Chain	Res	Type
27	BA	2174	C
27	BA	2175	C
27	BA	2178	C
27	BA	2185	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	2201	C
27	BA	2207	G
27	BA	2208	A
27	BA	2218	U
27	BA	2219	G
27	BA	2226	C
27	BA	2238	G
27	BA	2239	G
27	BA	2240	C
27	BA	2250	G
27	BA	2251	G
27	BA	2252	G
27	BA	2266	A
27	BA	2267	A
27	BA	2268	A
27	BA	2273	A
27	BA	2275	C
27	BA	2283	C
27	BA	2287	A
27	BA	2288	A
27	BA	2290	G
27	BA	2293	C
27	BA	2297	C
27	BA	2305	A
27	BA	2306	C
27	BA	2307	G
27	BA	2308	G
27	BA	2309	A
27	BA	2310	A
27	BA	2311	A
27	BA	2312	U

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Mol	Chain	Res	Type
27	BA	2314	C
27	BA	2318	G
27	BA	2319	G
27	BA	2320	A
27	BA	2321	G
27	BA	2325	G
27	BA	2326	C
27	BA	2327	A
27	BA	2329	G
27	BA	2334	G
27	BA	2335	A
27	BA	2336	A
27	BA	2342	C
27	BA	2345	G
27	BA	2347	C
27	BA	2349	G
27	BA	2350	C
27	BA	2358	G
27	BA	2383	G
27	BA	2384	G
27	BA	2385	C
27	BA	2387	U
27	BA	2388	A
27	BA	2391	G
27	BA	2392	A
27	BA	2399	G
27	BA	2400	G
27	BA	2402	C
27	BA	2407	G
27	BA	2411	A
27	BA	2414	G
27	BA	2424	C
27	BA	2425	A
27	BA	2427	C
27	BA	2429	G
27	BA	2430	A
27	BA	2435	A
27	BA	2439	A
27	BA	2440	C
27	BA	2441	C
27	BA	2448	A
27	BA	2459	A

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Mol	Chain	Res	Type
27	BA	2469	A
27	BA	2470	G
27	BA	2474	C
27	BA	2476	A
27	BA	2477	C
27	BA	2478	A
27	BA	2482	G
27	BA	2484	G
27	BA	2486	G
27	BA	2487	G
27	BA	2491	U
27	BA	2495	G
27	BA	2502	G
27	BA	2503	A
27	BA	2504	U
27	BA	2505	G
27	BA	2506	U
27	BA	2513	G
27	BA	2518	A
27	BA	2520	C
27	BA	2523	G
27	BA	2525	G
27	BA	2529	G
27	BA	2534	A
27	BA	2535	G
27	BA	2543	G
27	BA	2546	U
27	BA	2550	G
27	BA	2554	U
27	BA	2559	C
27	BA	2566	A
27	BA	2567	G
27	BA	2573	C
27	BA	2577	A
27	BA	2582	G
27	BA	2586	C
27	BA	2602	A
27	BA	2610	C
27	BA	2611	U
27	BA	2612	C
27	BA	2614	A
27	BA	2615	U

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Mol	Chain	Res	Type
27	BA	2630	G
27	BA	2639	A
27	BA	2646	C
27	BA	2654	A
27	BA	2655	G
27	BA	2656	U
27	BA	2670	A
27	BA	2682	U
27	BA	2690	C
27	BA	2691	C
27	BA	2694	G
27	BA	2702	U
27	BA	2703	C
27	BA	2707	G
27	BA	2712	U
27	BA	2712(A)	A
27	BA	2713	A
27	BA	2725	A
27	BA	2726	U
27	BA	2727	G
27	BA	2729	G
27	BA	2732	G
27	BA	2733	A
27	BA	2739	U
27	BA	2744	G
27	BA	2751	G
27	BA	2752	C
27	BA	2757	A
27	BA	2761	G
27	BA	2764	A
27	BA	2765	A
27	BA	2777	G
27	BA	2778	A
27	BA	2779	U
27	BA	2789	C
27	BA	2790	A
27	BA	2791	C
27	BA	2792	G
27	BA	2793	G
27	BA	2794	C
27	BA	2796	U
27	BA	2799	C

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Mol	Chain	Res	Type
27	BA	2801	A
27	BA	2801(A)	A
27	BA	2802	G
27	BA	2803	C
27	BA	2804	C
27	BA	2807	G
27	BA	2808	U
27	BA	2813	A
27	BA	2817	G
27	BA	2818	G
27	BA	2820	A
27	BA	2821	A
27	BA	2833	G
27	BA	2834	G
27	BA	2835	A
27	BA	2836	U
27	BA	2848	G
27	BA	2849	U
27	BA	2857	G
27	BA	2864	G
27	BA	2868	A
27	BA	2872	G
27	BA	2874	C
27	BA	2875	C
27	BA	2876	G
27	BA	2877	G
27	BA	2879	C
27	BA	2880	C
27	BA	2893	G
27	BA	2894	G
27	BA	2895	U
28	BB	2	C
28	BB	8	U
28	BB	12	C
28	BB	13	A
28	BB	14	U
28	BB	15	A
28	BB	24	G
28	BB	25	A
28	BB	26	A
28	BB	32	C
28	BB	35	U

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Mol	Chain	Res	Type
28	BB	42	C
28	BB	45	A
28	BB	47	C
28	BB	52	A
28	BB	53	A
28	BB	58	A
28	BB	67	G
28	BB	73	A
28	BB	86	G
28	BB	88	C
28	BB	91	C
28	BB	92	C
28	BB	95	C
28	BB	110	G
28	BB	113	G
1	CA	8	A
1	CA	9	G
1	CA	10	A
1	CA	14	U
1	CA	22	G
1	CA	31	G
1	CA	32	A
1	CA	39	G
1	CA	47	C
1	CA	48	C
1	CA	51	A
1	CA	60	A
1	CA	61	G
1	CA	64	G
1	CA	65	U
1	CA	66	G
1	CA	101	A
1	CA	109	A
1	CA	110	C
1	CA	116	A
1	CA	120	A
1	CA	121	C
1	CA	129(A)	G
1	CA	130	A
1	CA	131	C
1	CA	132	C
1	CA	137	C

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Mol	Chain	Res	Type
1	CA	144	G
1	CA	146	G
1	CA	173	U
1	CA	174	C
1	CA	182	U
1	CA	189(E)	U
1	CA	194	C
1	CA	195	A
1	CA	198	G
1	CA	200	G
1	CA	203	U
1	CA	204	U
1	CA	216	G
1	CA	217	C
1	CA	218	C
1	CA	219	C
1	CA	220	G
1	CA	231	G
1	CA	241	C
1	CA	244	U
1	CA	246	A
1	CA	247	G
1	CA	251	G
1	CA	266	G
1	CA	267	C
1	CA	275	G
1	CA	279	A
1	CA	280	C
1	CA	289	G
1	CA	305	G
1	CA	306	G
1	CA	316	G
1	CA	321	A
1	CA	328	C
1	CA	330	C
1	CA	332	G
1	CA	342	C
1	CA	344	A
1	CA	345	C
1	CA	346	G
1	CA	347	G
1	CA	348	G

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Mol	Chain	Res	Type
1	CA	351	G
1	CA	352	C
1	CA	353	A
1	CA	354	G
1	CA	366	C
1	CA	367	U
1	CA	373	A
1	CA	389	A
1	CA	397	A
1	CA	398	C
1	CA	406	G
1	CA	411	A
1	CA	412	A
1	CA	413	G
1	CA	414	A
1	CA	421	U
1	CA	422	C
1	CA	423	G
1	CA	424	G
1	CA	428	G
1	CA	429	U
1	CA	430	A
1	CA	431	A
1	CA	435	C
1	CA	438	G
1	CA	439	A
1	CA	442	C
1	CA	444	C
1	CA	451	A
1	CA	452	A
1	CA	453	A
1	CA	454	C
1	CA	455	C
1	CA	461	A
1	CA	471	G
1	CA	472	A
1	CA	481	G
1	CA	482	A
1	CA	484	G
1	CA	485	G
1	CA	494	U
1	CA	495	A

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Mol	Chain	Res	Type
1	CA	496	A
1	CA	498	U
1	CA	499	A
1	CA	508	C
1	CA	509	A
1	CA	510	A
1	CA	511	C
1	CA	512	U
1	CA	517	G
1	CA	518	C
1	CA	527	G
1	CA	529	G
1	CA	531	U
1	CA	532	A
1	CA	533	A
1	CA	534	U
1	CA	547	A
1	CA	548	G
1	CA	559	A
1	CA	560	U
1	CA	561	U
1	CA	563	A
1	CA	564	C
1	CA	566	G
1	CA	567	G
1	CA	572	A
1	CA	573	A
1	CA	575	G
1	CA	576	G
1	CA	577	G
1	CA	587	G
1	CA	596	C
1	CA	598	U
1	CA	629	G
1	CA	630	G
1	CA	632	A
1	CA	641	U
1	CA	642	A
1	CA	643	C
1	CA	653	A
1	CA	654	G
1	CA	665	A

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Mol	Chain	Res	Type
1	CA	666	G
1	CA	687	A
1	CA	688	G
1	CA	701	C
1	CA	702	A
1	CA	703	G
1	CA	720	C
1	CA	721	G
1	CA	722	A
1	CA	729	A
1	CA	731	G
1	CA	748	C
1	CA	749	C
1	CA	754	C
1	CA	755	G
1	CA	774	G
1	CA	777	A
1	CA	793	U
1	CA	794	A
1	CA	811	C
1	CA	813	U
1	CA	815	A
1	CA	816	A
1	CA	817	C
1	CA	818	G
1	CA	819	A
1	CA	821	G
1	CA	827	U
1	CA	828	A
1	CA	835	U
1	CA	839	U
1	CA	841	U
1	CA	848	C
1	CA	851	G
1	CA	859	A
1	CA	871	U
1	CA	874	G
1	CA	875	C
1	CA	884	U
1	CA	885	G
1	CA	889	A
1	CA	890	G

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Mol	Chain	Res	Type
1	CA	902	G
1	CA	914	A
1	CA	916	G
1	CA	927	G
1	CA	934	C
1	CA	935	A
1	CA	936	C
1	CA	960	U
1	CA	962	C
1	CA	965	A
1	CA	966	G
1	CA	967	C
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	981	U
1	CA	983	A
1	CA	984	C
1	CA	985	C
1	CA	986	A
1	CA	991	U
1	CA	992	U
1	CA	993	G
1	CA	994	A
1	CA	995	C
1	CA	996	A
1	CA	1001(A)	G
1	CA	1004	A
1	CA	1006	C
1	CA	1016	A
1	CA	1024	G
1	CA	1027	C
1	CA	1030	C
1	CA	1030(A)	G
1	CA	1030(C)	G

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Mol	Chain	Res	Type
1	CA	1031	G
1	CA	1042	G
1	CA	1050	G
1	CA	1053	G
1	CA	1054	C
1	CA	1055	A
1	CA	1058	G
1	CA	1064	G
1	CA	1065	U
1	CA	1066	C
1	CA	1068	G
1	CA	1085	U
1	CA	1086	U
1	CA	1094	G
1	CA	1099	G
1	CA	1101	A
1	CA	1102	A
1	CA	1105	A
1	CA	1108	G
1	CA	1117	G
1	CA	1118	C
1	CA	1124	G
1	CA	1125	U
1	CA	1126	U
1	CA	1127	G
1	CA	1129	C
1	CA	1130	A
1	CA	1131	G
1	CA	1137	C
1	CA	1139	G
1	CA	1140	C
1	CA	1141	C
1	CA	1145	C
1	CA	1146	A
1	CA	1155	G
1	CA	1157	A
1	CA	1158	C
1	CA	1159	U
1	CA	1160	G
1	CA	1161	C
1	CA	1162	C
1	CA	1171	G

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Mol	Chain	Res	Type
1	CA	1182	G
1	CA	1183	A
1	CA	1184	G
1	CA	1195	C
1	CA	1196	U
1	CA	1197	G
1	CA	1200	C
1	CA	1201	A
1	CA	1202	G
1	CA	1212	U
1	CA	1213	A
1	CA	1216	G
1	CA	1224	G
1	CA	1225	A
1	CA	1226	C
1	CA	1227	A
1	CA	1232	U
1	CA	1238	A
1	CA	1239	A
1	CA	1240	U
1	CA	1241	G
1	CA	1256	A
1	CA	1257	U
1	CA	1258	G
1	CA	1260	C
1	CA	1263	C
1	CA	1273	G
1	CA	1280	A
1	CA	1281	U
1	CA	1285	A
1	CA	1286	A
1	CA	1287	A
1	CA	1297	C
1	CA	1299	A
1	CA	1300	G
1	CA	1301	U
1	CA	1302	U
1	CA	1305	G
1	CA	1306	A
1	CA	1317	C
1	CA	1319	A
1	CA	1320	C

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Mol	Chain	Res	Type
1	CA	1322	C
1	CA	1323	G
1	CA	1331	G
1	CA	1334	G
1	CA	1336	C
1	CA	1338	G
1	CA	1347	G
1	CA	1363(A)	A
1	CA	1364	U
1	CA	1365	G
1	CA	1370	G
1	CA	1378	C
1	CA	1381	U
1	CA	1394	A
1	CA	1395	C
1	CA	1397	C
1	CA	1398	A
1	CA	1419	G
1	CA	1429	C
1	CA	1442	G
1	CA	1442(A)	G
1	CA	1442(B)	A
1	CA	1443	G
1	CA	1444	C
1	CA	1447	A
1	CA	1452	C
1	CA	1456	G
1	CA	1492	A
1	CA	1498	U
1	CA	1499	A
1	CA	1502	A
1	CA	1503	A
1	CA	1504	G
1	CA	1505	G
1	CA	1506	U
1	CA	1507	A
1	CA	1517	G
1	CA	1519	A
1	CA	1520	G
1	CA	1521	G
1	CA	1525	G
1	CA	1528	U

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Mol	Chain	Res	Type
1	CA	1529	G
1	CA	1530	G
23	CW	8	U
23	CW	9	C
23	CW	16	C
23	CW	17	G
23	CW	20	A
23	CW	31	U
23	CW	36	A
23	CW	43	C
23	CW	45	U
23	CW	48	C
23	CW	53	U
23	CW	60	C
23	CW	71	A
23	CW	72	G
23	CW	73	C
23	CW	74	C
24	CX	8	U
24	CX	13	C
24	CX	17	C
24	CX	17(B)	U
24	CX	19	G
24	CX	20	U
24	CX	21	A
24	CX	47	U
24	CX	48	C
24	CX	49	G
24	CX	51	C
24	CX	61	C
24	CX	62	C
24	CX	63	G
24	CX	65	C
24	CX	68	C
24	CX	73	A
24	CX	74	C
24	CX	75	C
25	CY	8	U
25	CY	9	C
25	CY	11	C
25	CY	12	C
25	CY	16	C

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Mol	Chain	Res	Type
25	CY	17	G
25	CY	18	G
25	CY	20	A
25	CY	21	A
25	CY	36	A
25	CY	38	U
25	CY	42	G
25	CY	46	U
25	CY	47	C
25	CY	49	G
25	CY	50	A
25	CY	55	C
25	CY	57	A
25	CY	58	A
25	CY	60	C
25	CY	69	C
25	CY	73	C
27	DA	19	C
27	DA	33	U
27	DA	34	C
27	DA	35	G
27	DA	45	C
27	DA	49	A
27	DA	50	U
27	DA	51	G
27	DA	53	A
27	DA	61	G
27	DA	62	C
27	DA	64	A
27	DA	69	C
27	DA	71	A
27	DA	72	U
27	DA	73	A
27	DA	74	A
27	DA	75	G
27	DA	83	G
27	DA	84	A
27	DA	88	G
27	DA	90	U
27	DA	92	A
27	DA	93	G
27	DA	94	C

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Mol	Chain	Res	Type
27	DA	95	G
27	DA	99	U
27	DA	100	G
27	DA	102	G
27	DA	113	G
27	DA	118	A
27	DA	119	A
27	DA	120	U
27	DA	126	A
27	DA	129	C
27	DA	139(A)	G
27	DA	140	G
27	DA	141	A
27	DA	146	G
27	DA	149	A
27	DA	150	C
27	DA	154	G
27	DA	157	U
27	DA	158	U
27	DA	172	C
27	DA	173	G
27	DA	175	G
27	DA	177	G
27	DA	181	A
27	DA	182	A
27	DA	196	A
27	DA	197	A
27	DA	199	A
27	DA	200	U
27	DA	201	C
27	DA	204	A
27	DA	205	G
27	DA	214	G
27	DA	216	A
27	DA	217	G
27	DA	221	A
27	DA	222	A
27	DA	224	G
27	DA	227	A
27	DA	228	A
27	DA	232	G
27	DA	233	A

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Mol	Chain	Res	Type
27	DA	241	A
27	DA	242	G
27	DA	248	G
27	DA	249	C
27	DA	250	G
27	DA	252	G
27	DA	256	A
27	DA	261	G
27	DA	266	G
27	DA	267	C
27	DA	271(J)	C
27	DA	271(K)	U
27	DA	271(M)	G
27	DA	271(O)	C
27	DA	271(P)	C
27	DA	271(T)	C
27	DA	271(Y)	U
27	DA	271(Z)	C
27	DA	272	G
27	DA	272(C)	G
27	DA	272(H)	C
27	DA	272(J)	C
27	DA	274	G
27	DA	275	G
27	DA	283	A
27	DA	284	U
27	DA	285	C
27	DA	287	C
27	DA	288	C
27	DA	289	A
27	DA	301	G
27	DA	302	C
27	DA	310	A
27	DA	311	A
27	DA	313	C
27	DA	314	A
27	DA	316	C
27	DA	322	A
27	DA	323	G
27	DA	324	A
27	DA	329	G
27	DA	330	A

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Mol	Chain	Res	Type
27	DA	332	A
27	DA	333	G
27	DA	334	C
27	DA	338	G
27	DA	345	A
27	DA	346	A
27	DA	352	G
27	DA	353	G
27	DA	356	G
27	DA	358	U
27	DA	362	U
27	DA	363(B)	G
27	DA	363(E)	U
27	DA	363(F)	A
27	DA	364	C
27	DA	371	A
27	DA	372	G
27	DA	374	A
27	DA	387	U
27	DA	395	U
27	DA	396	G
27	DA	404	C
27	DA	405	U
27	DA	406	G
27	DA	411	G
27	DA	412	A
27	DA	413	C
27	DA	416	C
27	DA	422	A
27	DA	423	A
27	DA	428	A
27	DA	435	C
27	DA	443	A
27	DA	444	C
27	DA	445	C
27	DA	446	G
27	DA	447	A
27	DA	448	U
27	DA	449	A
27	DA	455	C
27	DA	456	C
27	DA	457	A

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Mol	Chain	Res	Type
27	DA	458	G
27	DA	460	A
27	DA	467	G
27	DA	470	A
27	DA	473	G
27	DA	475	U
27	DA	476	G
27	DA	478	A
27	DA	479	A
27	DA	480	A
27	DA	481	G
27	DA	482	A
27	DA	483	A
27	DA	492	A
27	DA	503	A
27	DA	504	U
27	DA	505	A
27	DA	506	G
27	DA	507	A
27	DA	509	C
27	DA	510	C
27	DA	512	G
27	DA	515	A
27	DA	527	C
27	DA	528	A
27	DA	530	G
27	DA	531	C
27	DA	532	A
27	DA	533	G
27	DA	542	C
27	DA	543	C
27	DA	548	A
27	DA	549	G
27	DA	551	G
27	DA	555	U
27	DA	561	G
27	DA	563	G
27	DA	568	U
27	DA	571	A
27	DA	572	A
27	DA	573	G
27	DA	575	A

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Mol	Chain	Res	Type
27	DA	583	G
27	DA	587	C
27	DA	588	U
27	DA	594	U
27	DA	602	G
27	DA	604	G
27	DA	607	U
27	DA	614(B)	G
27	DA	614(C)	A
27	DA	615	G
27	DA	620	G
27	DA	621	A
27	DA	622	G
27	DA	623	G
27	DA	627	A
27	DA	628	G
27	DA	629	G
27	DA	631	A
27	DA	632	A
27	DA	634	C
27	DA	635	C
27	DA	638	G
27	DA	645	C
27	DA	646	A
27	DA	657	U
27	DA	668	G
27	DA	669	G
27	DA	676	A
27	DA	686	G
27	DA	702	G
27	DA	705	A
27	DA	707	G
27	DA	708	C
27	DA	715	G
27	DA	720	C
27	DA	722	A
27	DA	726	G
27	DA	727	A
27	DA	728	G
27	DA	730	C
27	DA	740	U
27	DA	741	G

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Mol	Chain	Res	Type
27	DA	747	U
27	DA	748	G
27	DA	753	C
27	DA	762	U
27	DA	763	G
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	792	G
27	DA	794	G
27	DA	795	C
27	DA	800	A
27	DA	801	G
27	DA	805	G
27	DA	806	C
27	DA	812	C
27	DA	817	C
27	DA	819	A
27	DA	822	U
27	DA	827	U
27	DA	828	U
27	DA	830	G
27	DA	831	G
27	DA	848	G
27	DA	856	C
27	DA	857	C
27	DA	859	G
27	DA	863	A
27	DA	865	C
27	DA	866	A
27	DA	867	C
27	DA	872	A
27	DA	888	C
27	DA	890	A
27	DA	896	A
27	DA	897	C
27	DA	900	A
27	DA	904	C
27	DA	907	U

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Mol	Chain	Res	Type
27	DA	910	A
27	DA	917	A
27	DA	926	A
27	DA	927	G
27	DA	928	G
27	DA	932	G
27	DA	933	A
27	DA	941	A
27	DA	945	A
27	DA	946	G
27	DA	955	C
27	DA	957	A
27	DA	958	U
27	DA	959	A
27	DA	960	A
27	DA	961	C
27	DA	965	C
27	DA	966	G
27	DA	970	C
27	DA	974	G
27	DA	975	C
27	DA	980	A
27	DA	983	A
27	DA	986	C
27	DA	989	G
27	DA	990	A
27	DA	991	C
27	DA	996	A
27	DA	997	G
27	DA	999	U
27	DA	1000	A
27	DA	1004	C
27	DA	1005	C
27	DA	1008	C
27	DA	1009	A
27	DA	1010	A
27	DA	1011	G
27	DA	1012	U
27	DA	1013	C
27	DA	1015	G
27	DA	1020	A
27	DA	1021	A

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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	1027	A
27	DA	1031	G
27	DA	1033	U
27	DA	1034	G
27	DA	1035	U
27	DA	1036	G
27	DA	1039	G
27	DA	1040	C
27	DA	1044	G
27	DA	1045	A
27	DA	1047	G
27	DA	1049	C
27	DA	1050	A
27	DA	1051	G
27	DA	1053	C
27	DA	1054	A
27	DA	1055	G
27	DA	1110	G
27	DA	1111	A
27	DA	1112	G
27	DA	1115	G
27	DA	1126	A
27	DA	1127	A
27	DA	1128	A
27	DA	1130	U
27	DA	1132	A
27	DA	1133	U
27	DA	1135	C
27	DA	1136	G
27	DA	1142	U
27	DA	1142(A)	A
27	DA	1143	A
27	DA	1144	G
27	DA	1155	A
27	DA	1157	G
27	DA	1158	C
27	DA	1159	U
27	DA	1171	G

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Mol	Chain	Res	Type
27	DA	1173	G
27	DA	1174	A
27	DA	1175	U
27	DA	1176	G
27	DA	1177	A
27	DA	1179	C
27	DA	1180	C
27	DA	1186	G
27	DA	1195	G
27	DA	1204	A
27	DA	1205	U
27	DA	1206	G
27	DA	1207	C
27	DA	1208	C
27	DA	1210	A
27	DA	1211	U
27	DA	1216	G
27	DA	1220	A
27	DA	1221	C
27	DA	1236	G
27	DA	1237	A
27	DA	1238	G
27	DA	1243	G
27	DA	1247	A
27	DA	1248	G
27	DA	1251	C
27	DA	1252	G
27	DA	1253	A
27	DA	1255	U
27	DA	1256	G
27	DA	1265	A
27	DA	1267	U
27	DA	1268	A
27	DA	1271	G
27	DA	1272	A
27	DA	1273	U
27	DA	1276	A
27	DA	1281	G
27	DA	1285	G
27	DA	1288	U
27	DA	1289	C
27	DA	1290	C

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Mol	Chain	Res	Type
27	DA	1294	U
27	DA	1300	U
27	DA	1301	A
27	DA	1302	A
27	DA	1311	G
27	DA	1312	U
27	DA	1314	C
27	DA	1319	G
27	DA	1320	C
27	DA	1321	A
27	DA	1322	A
27	DA	1325	G
27	DA	1329	U
27	DA	1332	G
27	DA	1333	C
27	DA	1341	U
27	DA	1345	C
27	DA	1349	A
27	DA	1352	U
27	DA	1354	A
27	DA	1355	G
27	DA	1359	A
27	DA	1365	A
27	DA	1368	G
27	DA	1379	A
27	DA	1380	G
27	DA	1384	A
27	DA	1386	C
27	DA	1387	C
27	DA	1393	A
27	DA	1395	A
27	DA	1396	U
27	DA	1397	U
27	DA	1398	C
27	DA	1399	C
27	DA	1407	C
27	DA	1416	G
27	DA	1419	A
27	DA	1420	U
27	DA	1421	G
27	DA	1427	A
27	DA	1428	C

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Mol	Chain	Res	Type
27	DA	1437	C
27	DA	1445	A
27	DA	1445(A)	C
27	DA	1448	G
27	DA	1449	A
27	DA	1452	A
27	DA	1453	U
27	DA	1455	G
27	DA	1459	G
27	DA	1460	A
27	DA	1461	G
27	DA	1467	C
27	DA	1471	A
27	DA	1478	G
27	DA	1481	U
27	DA	1482	G
27	DA	1484	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
27	DA	1498	C
27	DA	1502	C
27	DA	1505	C
27	DA	1507	A
27	DA	1509	C
27	DA	1509(A)	A
27	DA	1516	C
27	DA	1519	G
27	DA	1520	G
27	DA	1523	U
27	DA	1546	C
27	DA	1547	C
27	DA	1549	C
27	DA	1554	A
27	DA	1555	G
27	DA	1558	A
27	DA	1559	G
27	DA	1560	G

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Mol	Chain	Res	Type
27	DA	1566	A
27	DA	1569	A
27	DA	1575	C
27	DA	1578	U
27	DA	1579	A
27	DA	1580	A
27	DA	1581	G
27	DA	1584	C
27	DA	1586	A
27	DA	1588	C
27	DA	1591	G
27	DA	1602	U
27	DA	1603	A
27	DA	1604	C
27	DA	1607	C
27	DA	1608	A
27	DA	1609	A
27	DA	1610	A
27	DA	1611	C
27	DA	1615	C
27	DA	1616	A
27	DA	1617	C
27	DA	1618	A
27	DA	1622	G
27	DA	1625	C
27	DA	1631(A)	A
27	DA	1634	A
27	DA	1635	G
27	DA	1640	C
27	DA	1648	C
27	DA	1654	A
27	DA	1674	G
27	DA	1675	C
27	DA	1681	G
27	DA	1682	G
27	DA	1686	C
27	DA	1688	U
27	DA	1694	C
27	DA	1695	G
27	DA	1696	G
27	DA	1699	G
27	DA	1700	A

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Mol	Chain	Res	Type
27	DA	1701	A
27	DA	1702	G
27	DA	1703	G
27	DA	1718	G
27	DA	1721	G
27	DA	1722	A
27	DA	1739	U
27	DA	1740	G
27	DA	1741	A
27	DA	1742	G
27	DA	1744	C
27	DA	1745(A)	C
27	DA	1748	G
27	DA	1753	G
27	DA	1754	C
27	DA	1756	G
27	DA	1758	G
27	DA	1759	A
27	DA	1763	G
27	DA	1764	G
27	DA	1773	A
27	DA	1778	U
27	DA	1780	A
27	DA	1782	C
27	DA	1783	A
27	DA	1785	A
27	DA	1787	A
27	DA	1791	A
27	DA	1799	G
27	DA	1800	C
27	DA	1801	G
27	DA	1803	A
27	DA	1815	A
27	DA	1816	G
27	DA	1819	A
27	DA	1820	U
27	DA	1827	C
27	DA	1828	G
27	DA	1829	A
27	DA	1838	C
27	DA	1839	G
27	DA	1847	A

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Mol	Chain	Res	Type
27	DA	1848	A
27	DA	1858	G
27	DA	1865	G
27	DA	1877	A
27	DA	1878	G
27	DA	1882	C
27	DA	1885	A
27	DA	1888	G
27	DA	1889	A
27	DA	1894	C
27	DA	1900	A
27	DA	1901	A
27	DA	1906	G
27	DA	1908	C
27	DA	1912	A
27	DA	1913	A
27	DA	1926	U
27	DA	1929	G
27	DA	1930	G
27	DA	1937	A
27	DA	1938	A
27	DA	1943	U
27	DA	1944	U
27	DA	1945	G
27	DA	1954	G
27	DA	1955	U
27	DA	1956	U
27	DA	1957	C
27	DA	1962	C
27	DA	1963	U
27	DA	1965	C
27	DA	1966	A
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	1993	U
27	DA	1996	C
27	DA	1997	G

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Mol	Chain	Res	Type
27	DA	2004	G
27	DA	2019	A
27	DA	2021	C
27	DA	2022	U
27	DA	2023	G
27	DA	2024	G
27	DA	2025	C
27	DA	2030	A
27	DA	2031	A
27	DA	2032	G
27	DA	2033	A
27	DA	2034	U
27	DA	2035	G
27	DA	2036	C
27	DA	2037	G
27	DA	2039	C
27	DA	2043	C
27	DA	2052	G
27	DA	2055	C
27	DA	2056	G
27	DA	2060	A
27	DA	2061	G
27	DA	2062	A
27	DA	2063	C
27	DA	2066	C
27	DA	2067	G
27	DA	2068	U
27	DA	2069	G
27	DA	2090	G
27	DA	2092	U
27	DA	2093	G
27	DA	2098	U
27	DA	2099	U
27	DA	2103	C
27	DA	2104	G
27	DA	2111	C
27	DA	2113	U
27	DA	2114	A
27	DA	2116	G
27	DA	2117	A
27	DA	2118	U
27	DA	2119	A

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Mol	Chain	Res	Type
27	DA	2120	G
27	DA	2121	G
27	DA	2126	A
27	DA	2127	G
27	DA	2128	C
27	DA	2131	G
27	DA	2133	G
27	DA	2136	C
27	DA	2144	U
27	DA	2146	C
27	DA	2147	G
27	DA	2148	G
27	DA	2157	G
27	DA	2159	G
27	DA	2160	G
27	DA	2172	U
27	DA	2173	A
27	DA	2174	C
27	DA	2175	C
27	DA	2176	A
27	DA	2179	C
27	DA	2187	G
27	DA	2189	U
27	DA	2190	G
27	DA	2192	G
27	DA	2193	G
27	DA	2196	C
27	DA	2197	U
27	DA	2198	A
27	DA	2199	A
27	DA	2200	C
27	DA	2207	G
27	DA	2208	A
27	DA	2218	U
27	DA	2219	G
27	DA	2222	G
27	DA	2225	A
27	DA	2226	C
27	DA	2227	A
27	DA	2234	G
27	DA	2238	G
27	DA	2239	G

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Mol	Chain	Res	Type
27	DA	2246	G
27	DA	2250	G
27	DA	2251	G
27	DA	2255	G
27	DA	2259	G
27	DA	2266	A
27	DA	2267	A
27	DA	2268	A
27	DA	2275	C
27	DA	2276	G
27	DA	2277	G
27	DA	2283	C
27	DA	2286	A
27	DA	2287	A
27	DA	2288	A
27	DA	2289	G
27	DA	2290	G
27	DA	2296	U
27	DA	2297	C
27	DA	2304	G
27	DA	2305	A
27	DA	2307	G
27	DA	2308	G
27	DA	2309	A
27	DA	2310	A
27	DA	2311	A
27	DA	2312	U
27	DA	2313	C
27	DA	2316	C
27	DA	2319	G
27	DA	2320	A
27	DA	2321	G
27	DA	2322	A
27	DA	2325	G
27	DA	2327	A
27	DA	2330	G
27	DA	2334	G
27	DA	2335	A
27	DA	2336	A
27	DA	2338	G
27	DA	2345	G
27	DA	2346	A

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Mol	Chain	Res	Type
27	DA	2347	C
27	DA	2349	G
27	DA	2355	C
27	DA	2383	G
27	DA	2384	G
27	DA	2385	C
27	DA	2387	U
27	DA	2392	A
27	DA	2395	C
27	DA	2398	U
27	DA	2399	G
27	DA	2400	G
27	DA	2402	C
27	DA	2403	C
27	DA	2406	U
27	DA	2422	A
27	DA	2423	U
27	DA	2424	C
27	DA	2425	A
27	DA	2427	C
27	DA	2428	G
27	DA	2429	G
27	DA	2430	A
27	DA	2431	U
27	DA	2434	A
27	DA	2439	A
27	DA	2440	C
27	DA	2441	C
27	DA	2447	G
27	DA	2448	A
27	DA	2452	C
27	DA	2458	G
27	DA	2459	A
27	DA	2460	U
27	DA	2469	A
27	DA	2470	G
27	DA	2476	A
27	DA	2477	C
27	DA	2482	G
27	DA	2483	C
27	DA	2484	G
27	DA	2490	G

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Mol	Chain	Res	Type
27	DA	2491	U
27	DA	2495	G
27	DA	2498	C
27	DA	2499	C
27	DA	2502	G
27	DA	2505	G
27	DA	2518	A
27	DA	2520	C
27	DA	2522	U
27	DA	2523	G
27	DA	2527	C
27	DA	2529	G
27	DA	2534	A
27	DA	2538	C
27	DA	2543	G
27	DA	2546	U
27	DA	2547	U
27	DA	2553	G
27	DA	2554	U
27	DA	2566	A
27	DA	2567	G
27	DA	2569	G
27	DA	2572	A
27	DA	2573	C
27	DA	2577	A
27	DA	2579	C
27	DA	2580	U
27	DA	2581	G
27	DA	2585	U
27	DA	2586	C
27	DA	2587	A
27	DA	2598	A
27	DA	2599	G
27	DA	2602	A
27	DA	2603	G
27	DA	2608	G
27	DA	2609	U
27	DA	2610	C
27	DA	2611	U
27	DA	2612	C
27	DA	2613	U
27	DA	2629	A

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Mol	Chain	Res	Type
27	DA	2630	G
27	DA	2632	A
27	DA	2636	U
27	DA	2639	A
27	DA	2645	G
27	DA	2646	C
27	DA	2654	A
27	DA	2655	G
27	DA	2656	U
27	DA	2657	A
27	DA	2673	G
27	DA	2682	U
27	DA	2683	C
27	DA	2686	G
27	DA	2690	C
27	DA	2691	C
27	DA	2702	U
27	DA	2703	C
27	DA	2707	G
27	DA	2712	U
27	DA	2712(A)	A
27	DA	2713	A
27	DA	2714	G
27	DA	2715	C
27	DA	2726	U
27	DA	2727	G
27	DA	2730	C
27	DA	2732	G
27	DA	2733	A
27	DA	2739	U
27	DA	2748	A
27	DA	2750	A
27	DA	2751	G
27	DA	2752	C
27	DA	2754	U
27	DA	2756	U
27	DA	2757	A
27	DA	2758	A
27	DA	2759	G
27	DA	2762	G
27	DA	2763	G
27	DA	2764	A

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Mol	Chain	Res	Type
27	DA	2765	A
27	DA	2777	G
27	DA	2778	A
27	DA	2780	G
27	DA	2789	C
27	DA	2791	C
27	DA	2792	G
27	DA	2794	C
27	DA	2795	G
27	DA	2796	U
27	DA	2799	C
27	DA	2801(A)	A
27	DA	2802	G
27	DA	2803	C
27	DA	2804	C
27	DA	2805	G
27	DA	2807	G
27	DA	2808	U
27	DA	2818	G
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	2849	U
27	DA	2861	G
27	DA	2866	U
27	DA	2867	G
27	DA	2872	G
27	DA	2874	C
27	DA	2875	C
27	DA	2879	C
27	DA	2880	C
27	DA	2883	A
27	DA	2889	C
27	DA	2893	G
27	DA	2894	G
27	DA	2895	U
27	DA	2896	C
28	DB	2	C
28	DB	8	U

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Mol	Chain	Res	Type
28	DB	12	C
28	DB	13	A
28	DB	15	A
28	DB	25	A
28	DB	26	A
28	DB	27	C
28	DB	28	C
28	DB	34	U
28	DB	35	U
28	DB	36	C
28	DB	40	U
28	DB	42	C
28	DB	45	A
28	DB	46	A
28	DB	52	A
28	DB	53	A
28	DB	60	C
28	DB	63	G
28	DB	67	G
28	DB	73	A
28	DB	77	U
28	DB	88	C
28	DB	90	A
28	DB	91	C
28	DB	110	G
28	DB	113	G

All (778) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	7	G
1	AA	13	U
1	AA	30	U
1	AA	52	G
1	AA	60	A
1	AA	63	C
1	AA	64	G
1	AA	109	A
1	AA	113	G
1	AA	115	G
1	AA	119	A
1	AA	129(A)	G

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Mol	Chain	Res	Type
1	AA	131	C
1	AA	173	U
1	AA	181	G
1	AA	182	U
1	AA	189(H)	G
1	AA	189(I)	G
1	AA	197	A
1	AA	198	G
1	AA	203	U
1	AA	204	U
1	AA	243	A
1	AA	246	A
1	AA	250	A
1	AA	266	G
1	AA	274	A
1	AA	279	A
1	AA	305	G
1	AA	306	G
1	AA	315	A
1	AA	327	A
1	AA	344	A
1	AA	346	G
1	AA	353	A
1	AA	366	C
1	AA	368	U
1	AA	372	C
1	AA	373	A
1	AA	412	A
1	AA	414	A
1	AA	422	C
1	AA	423	G
1	AA	428	G
1	AA	429	U
1	AA	438	G
1	AA	451	A
1	AA	453	A
1	AA	454	C
1	AA	461	A
1	AA	471	G
1	AA	484	G
1	AA	486	U
1	AA	495	A

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Mol	Chain	Res	Type
1	AA	498	U
1	AA	508	C
1	AA	530	G
1	AA	531	U
1	AA	533	A
1	AA	547	A
1	AA	559	A
1	AA	560	U
1	AA	577	G
1	AA	578	C
1	AA	595	G
1	AA	641	U
1	AA	653	A
1	AA	686	U
1	AA	687	A
1	AA	702	A
1	AA	717	C
1	AA	721	G
1	AA	722	A
1	AA	723	U
1	AA	748	C
1	AA	752	G
1	AA	758	G
1	AA	792	A
1	AA	815	A
1	AA	817	C
1	AA	819	A
1	AA	820	U
1	AA	840	C
1	AA	870	U
1	AA	884	U
1	AA	889	A
1	AA	913	A
1	AA	934	C
1	AA	960	U
1	AA	965	A
1	AA	968	A
1	AA	974	A
1	AA	977	A
1	AA	978	A
1	AA	983	A
1	AA	992	U

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Mol	Chain	Res	Type
1	AA	1049	U
1	AA	1053	G
1	AA	1064	G
1	AA	1065	U
1	AA	1067	A
1	AA	1085	U
1	AA	1086	U
1	AA	1101	A
1	AA	1125	U
1	AA	1126	U
1	AA	1139	G
1	AA	1145	C
1	AA	1146	A
1	AA	1147	C
1	AA	1151	A
1	AA	1154	G
1	AA	1157	A
1	AA	1158	C
1	AA	1182	G
1	AA	1196	U
1	AA	1200	C
1	AA	1201	A
1	AA	1211	U
1	AA	1224	G
1	AA	1239	A
1	AA	1279	A
1	AA	1285	A
1	AA	1297	C
1	AA	1299	A
1	AA	1305	G
1	AA	1319	A
1	AA	1336	C
1	AA	1337	G
1	AA	1380	U
1	AA	1381	U
1	AA	1394	A
1	AA	1399	C
1	AA	1442(A)	G
1	AA	1498	U
1	AA	1528	U
23	AW	7	A
23	AW	44	A

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Mol	Chain	Res	Type
24	AX	58	A
25	AY	57	A
27	BA	25	U
27	BA	27	G
27	BA	33	U
27	BA	49	A
27	BA	60	G
27	BA	61	G
27	BA	63	U
27	BA	71	A
27	BA	83	G
27	BA	99	U
27	BA	119	A
27	BA	121	G
27	BA	125	G
27	BA	140	G
27	BA	157	U
27	BA	177	G
27	BA	199	A
27	BA	204	A
27	BA	215	G
27	BA	221	A
27	BA	232	G
27	BA	271(Y)	U
27	BA	283	A
27	BA	301	G
27	BA	310	A
27	BA	311	A
27	BA	321	G
27	BA	329	G
27	BA	345	A
27	BA	370	G
27	BA	386	G
27	BA	390	A
27	BA	391	G
27	BA	411	G
27	BA	421	U
27	BA	434	U
27	BA	442	G
27	BA	454	A
27	BA	474	G
27	BA	479	A

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Mol	Chain	Res	Type
27	BA	481	G
27	BA	503	A
27	BA	530	G
27	BA	542	C
27	BA	571	A
27	BA	572	A
27	BA	587	C
27	BA	603	A
27	BA	614(A)	U
27	BA	614(B)	G
27	BA	614(C)	A
27	BA	620	G
27	BA	627	A
27	BA	637	A
27	BA	670	A
27	BA	685	A
27	BA	728	G
27	BA	729	G
27	BA	740	U
27	BA	752	A
27	BA	762	U
27	BA	790	C
27	BA	805	G
27	BA	827	U
27	BA	845	G
27	BA	856	C
27	BA	858	U
27	BA	945	A
27	BA	959	A
27	BA	974	G
27	BA	989	G
27	BA	995	C
27	BA	996	A
27	BA	1008	C
27	BA	1020	A
27	BA	1022	G
27	BA	1033	U
27	BA	1048	A
27	BA	1049	C
27	BA	1126	A
27	BA	1128	A
27	BA	1129	A

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Mol	Chain	Res	Type
27	BA	1132	A
27	BA	1141	U
27	BA	1142(A)	A
27	BA	1176	G
27	BA	1179	C
27	BA	1204	A
27	BA	1210	A
27	BA	1213	A
27	BA	1220	A
27	BA	1236	G
27	BA	1249	U
27	BA	1272	A
27	BA	1273	U
27	BA	1275	A
27	BA	1286	A
27	BA	1300	U
27	BA	1320	C
27	BA	1321	A
27	BA	1332	G
27	BA	1378	A
27	BA	1385	G
27	BA	1395	A
27	BA	1427	A
27	BA	1429	G
27	BA	1445	A
27	BA	1458	C
27	BA	1459	G
27	BA	1461	G
27	BA	1490	A
27	BA	1491	G
27	BA	1493	C
27	BA	1494	A
27	BA	1495	A
27	BA	1558	A
27	BA	1602	U
27	BA	1603	A
27	BA	1607	C
27	BA	1609	A
27	BA	1615	C
27	BA	1634	A
27	BA	1674	G
27	BA	1681	G

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Mol	Chain	Res	Type
27	BA	1686	C
27	BA	1722	A
27	BA	1758	G
27	BA	1780	A
27	BA	1784	A
27	BA	1799	G
27	BA	1815	A
27	BA	1819	A
27	BA	1838	C
27	BA	1839	G
27	BA	1847	A
27	BA	1912	A
27	BA	1913	A
27	BA	1929	G
27	BA	1931	U
27	BA	1945	G
27	BA	1962	C
27	BA	1992	G
27	BA	1996	C
27	BA	2021	C
27	BA	2035	G
27	BA	2036	C
27	BA	2048	G
27	BA	2068	U
27	BA	2092	U
27	BA	2111	C
27	BA	2116	G
27	BA	2120	G
27	BA	2126	A
27	BA	2128	C
27	BA	2145	C
27	BA	2158	A
27	BA	2159	G
27	BA	2160	G
27	BA	2171	A
27	BA	2172	U
27	BA	2173	A
27	BA	2174	C
27	BA	2197	U
27	BA	2199	A
27	BA	2200	C
27	BA	2225	A

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Mol	Chain	Res	Type
27	BA	2238	G
27	BA	2249	U
27	BA	2266	A
27	BA	2267	A
27	BA	2282	G
27	BA	2286	A
27	BA	2290	G
27	BA	2296	U
27	BA	2308	G
27	BA	2311	A
27	BA	2318	G
27	BA	2321	G
27	BA	2326	C
27	BA	2334	G
27	BA	2335	A
27	BA	2344	U
27	BA	2391	G
27	BA	2423	U
27	BA	2424	C
27	BA	2438	U
27	BA	2439	A
27	BA	2458	G
27	BA	2468	G
27	BA	2481	G
27	BA	2490	G
27	BA	2503	A
27	BA	2572	A
27	BA	2581	G
27	BA	2585	U
27	BA	2602	A
27	BA	2611	U
27	BA	2613	U
27	BA	2645	G
27	BA	2654	A
27	BA	2655	G
27	BA	2682	U
27	BA	2689	U
27	BA	2712	U
27	BA	2726	U
27	BA	2732	G
27	BA	2750	A
27	BA	2756	U

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Mol	Chain	Res	Type
27	BA	2776	A
27	BA	2778	A
27	BA	2791	C
27	BA	2792	G
27	BA	2803	C
27	BA	2804	C
27	BA	2820	A
27	BA	2832	U
27	BA	2835	A
27	BA	2848	G
27	BA	2873	A
27	BA	2879	C
28	BB	12	C
28	BB	24	G
28	BB	25	A
28	BB	34	U
28	BB	66	A
1	CA	7	G
1	CA	30	U
1	CA	47	C
1	CA	60	A
1	CA	64	G
1	CA	109	A
1	CA	115	G
1	CA	119	A
1	CA	129(A)	G
1	CA	131	C
1	CA	173	U
1	CA	181	G
1	CA	189(E)	U
1	CA	197	A
1	CA	199	G
1	CA	202	U
1	CA	204	U
1	CA	218	C
1	CA	243	A
1	CA	250	A
1	CA	266	G
1	CA	274	A
1	CA	279	A
1	CA	327	A
1	CA	344	A

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Mol	Chain	Res	Type
1	CA	347	G
1	CA	351	G
1	CA	352	C
1	CA	366	C
1	CA	372	C
1	CA	389	A
1	CA	422	C
1	CA	423	G
1	CA	428	G
1	CA	429	U
1	CA	451	A
1	CA	470	C
1	CA	481	G
1	CA	484	G
1	CA	486	U
1	CA	495	A
1	CA	508	C
1	CA	509	A
1	CA	511	C
1	CA	517	G
1	CA	533	A
1	CA	547	A
1	CA	548	G
1	CA	559	A
1	CA	560	U
1	CA	566	G
1	CA	595	G
1	CA	641	U
1	CA	687	A
1	CA	702	A
1	CA	721	G
1	CA	748	C
1	CA	753	A
1	CA	792	A
1	CA	815	A
1	CA	817	C
1	CA	870	U
1	CA	873	A
1	CA	874	G
1	CA	884	U
1	CA	889	A
1	CA	913	A

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Mol	Chain	Res	Type
1	CA	934	C
1	CA	960	U
1	CA	965	A
1	CA	967	C
1	CA	971	G
1	CA	978	A
1	CA	982	U
1	CA	983	A
1	CA	984	C
1	CA	992	U
1	CA	994	A
1	CA	1049	U
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	1085	U
1	CA	1086	U
1	CA	1101	A
1	CA	1139	G
1	CA	1145	C
1	CA	1154	G
1	CA	1157	A
1	CA	1160	G
1	CA	1161	C
1	CA	1182	G
1	CA	1196	U
1	CA	1200	C
1	CA	1201	A
1	CA	1211	U
1	CA	1224	G
1	CA	1225	A
1	CA	1239	A
1	CA	1285	A
1	CA	1297	C
1	CA	1299	A
1	CA	1305	G
1	CA	1335	C
1	CA	1345	U
1	CA	1363(A)	A

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Mol	Chain	Res	Type
1	CA	1380	U
1	CA	1394	A
1	CA	1397	C
1	CA	1398	A
1	CA	1442(A)	G
1	CA	1443	G
1	CA	1498	U
1	CA	1502	A
1	CA	1504	G
1	CA	1505	G
1	CA	1528	U
23	CW	7	A
23	CW	16	C
23	CW	44	A
23	CW	70	C
25	CY	46	U
27	DA	33	U
27	DA	49	A
27	DA	50	U
27	DA	60	G
27	DA	63	U
27	DA	71	A
27	DA	73	A
27	DA	92	A
27	DA	99	U
27	DA	119	A
27	DA	125	G
27	DA	140	G
27	DA	142	A
27	DA	171	G
27	DA	172	C
27	DA	177	G
27	DA	196	A
27	DA	197	A
27	DA	199	A
27	DA	200	U
27	DA	216	A
27	DA	221	A
27	DA	226	G
27	DA	232	G
27	DA	241	A
27	DA	249	C

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Mol	Chain	Res	Type
27	DA	265	A
27	DA	271(N)	U
27	DA	271(Y)	U
27	DA	283	A
27	DA	284	U
27	DA	301	G
27	DA	313	C
27	DA	321	G
27	DA	324	A
27	DA	329	G
27	DA	331	A
27	DA	332	A
27	DA	333	G
27	DA	334	C
27	DA	345	A
27	DA	363(F)	A
27	DA	370	G
27	DA	386	G
27	DA	395	U
27	DA	403	U
27	DA	411	G
27	DA	412	A
27	DA	421	U
27	DA	434	U
27	DA	435	C
27	DA	442	G
27	DA	446	G
27	DA	454	A
27	DA	455	C
27	DA	474	G
27	DA	477	A
27	DA	479	A
27	DA	481	G
27	DA	503	A
27	DA	504	U
27	DA	506	G
27	DA	507	A
27	DA	509	C
27	DA	527	C
27	DA	529	A
27	DA	542	C
27	DA	562	U

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Mol	Chain	Res	Type
27	DA	571	A
27	DA	587	C
27	DA	588	U
27	DA	603	A
27	DA	614(A)	U
27	DA	614(C)	A
27	DA	620	G
27	DA	627	A
27	DA	628	G
27	DA	634	C
27	DA	637	A
27	DA	669	G
27	DA	704	G
27	DA	726	G
27	DA	727	A
27	DA	740	U
27	DA	752	A
27	DA	762	U
27	DA	800	A
27	DA	805	G
27	DA	829	A
27	DA	830	G
27	DA	845	G
27	DA	856	C
27	DA	858	U
27	DA	865	C
27	DA	866	A
27	DA	932	G
27	DA	945	A
27	DA	959	A
27	DA	973	A
27	DA	1008	C
27	DA	1009	A
27	DA	1010	A
27	DA	1020	A
27	DA	1022	G
27	DA	1025	G
27	DA	1034	G
27	DA	1048	A
27	DA	1052	C
27	DA	1053	C
27	DA	1126	A

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Mol	Chain	Res	Type
27	DA	1128	A
27	DA	1132	A
27	DA	1142	U
27	DA	1142(A)	A
27	DA	1143	A
27	DA	1156	A
27	DA	1157	G
27	DA	1158	C
27	DA	1176	G
27	DA	1179	C
27	DA	1204	A
27	DA	1206	G
27	DA	1210	A
27	DA	1220	A
27	DA	1236	G
27	DA	1247	A
27	DA	1250	G
27	DA	1254	A
27	DA	1273	U
27	DA	1275	A
27	DA	1286	A
27	DA	1288	U
27	DA	1289	C
27	DA	1290	C
27	DA	1300	U
27	DA	1301	A
27	DA	1311	G
27	DA	1320	C
27	DA	1321	A
27	DA	1332	G
27	DA	1340	U
27	DA	1378	A
27	DA	1379	A
27	DA	1385	G
27	DA	1386	C
27	DA	1396	U
27	DA	1398	C
27	DA	1419	A
27	DA	1427	A
27	DA	1452	A
27	DA	1458	C
27	DA	1459	G

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Mol	Chain	Res	Type
27	DA	1460	A
27	DA	1495	A
27	DA	1554	A
27	DA	1558	A
27	DA	1565	C
27	DA	1602	U
27	DA	1603	A
27	DA	1607	C
27	DA	1615	C
27	DA	1634	A
27	DA	1653	G
27	DA	1674	G
27	DA	1681	G
27	DA	1693	U
27	DA	1695	G
27	DA	1696	G
27	DA	1700	A
27	DA	1706	U
27	DA	1722	A
27	DA	1741	A
27	DA	1758	G
27	DA	1780	A
27	DA	1782	C
27	DA	1784	A
27	DA	1799	G
27	DA	1815	A
27	DA	1819	A
27	DA	1828	G
27	DA	1847	A
27	DA	1893	C
27	DA	1900	A
27	DA	1929	G
27	DA	1936	A
27	DA	1939	U
27	DA	1943	U
27	DA	1945	G
27	DA	1953	A
27	DA	1962	C
27	DA	1992	G
27	DA	1996	C
27	DA	2021	C
27	DA	2022	U

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Mol	Chain	Res	Type
27	DA	2031	A
27	DA	2034	U
27	DA	2035	G
27	DA	2036	C
27	DA	2051	A
27	DA	2060	A
27	DA	2062	A
27	DA	2066	C
27	DA	2067	G
27	DA	2068	U
27	DA	2092	U
27	DA	2110	G
27	DA	2112	G
27	DA	2113	U
27	DA	2116	G
27	DA	2120	G
27	DA	2126	A
27	DA	2127	G
27	DA	2128	C
27	DA	2145	C
27	DA	2147	G
27	DA	2158	A
27	DA	2159	G
27	DA	2160	G
27	DA	2171	A
27	DA	2172	U
27	DA	2173	A
27	DA	2197	U
27	DA	2225	A
27	DA	2249	U
27	DA	2258	C
27	DA	2266	A
27	DA	2275	C
27	DA	2282	G
27	DA	2286	A
27	DA	2296	U
27	DA	2311	A
27	DA	2318	G
27	DA	2321	G
27	DA	2334	G
27	DA	2344	U
27	DA	2347	C

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Mol	Chain	Res	Type
27	DA	2382	G
27	DA	2383	G
27	DA	2391	G
27	DA	2402	C
27	DA	2405	G
27	DA	2422	A
27	DA	2424	C
27	DA	2427	C
27	DA	2458	G
27	DA	2468	G
27	DA	2481	G
27	DA	2482	G
27	DA	2490	G
27	DA	2497	A
27	DA	2498	C
27	DA	2517	C
27	DA	2566	A
27	DA	2585	U
27	DA	2610	C
27	DA	2612	C
27	DA	2629	A
27	DA	2638	G
27	DA	2645	G
27	DA	2654	A
27	DA	2656	U
27	DA	2681	C
27	DA	2682	U
27	DA	2689	U
27	DA	2712	U
27	DA	2726	U
27	DA	2750	A
27	DA	2756	U
27	DA	2757	A
27	DA	2777	G
27	DA	2791	C
27	DA	2803	C
27	DA	2805	G
27	DA	2832	U
27	DA	2834	G
27	DA	2848	G
27	DA	2866	U
27	DA	2873	A

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Mol	Chain	Res	Type
27	DA	2874	C
27	DA	2879	C
28	DB	12	C
28	DB	24	G
28	DB	25	A
28	DB	26	A
28	DB	27	C
28	DB	34	U
28	DB	35	U
28	DB	66	A

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

8 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	8.22	1 (12%)	6,8,10	0.79	0
26	DPP	AZ	2	26	5,5,6	7.06	1 (20%)	3,5,7	1.93	1 (33%)
26	UAL	AZ	5	26	7,8,9	2.19	3 (42%)	6,9,11	0.83	0
26	5OH	AZ	6	26	12,12,13	5.41	4 (33%)	13,16,18	0.81	0
26	KBE	CZ	1	26	8,8,9	5.99	1 (12%)	6,8,10	0.57	0
26	DPP	CZ	2	26	5,5,6	8.82	1 (20%)	3,5,7	2.13	1 (33%)
26	UAL	CZ	5	26	7,8,9	3.61	3 (42%)	6,9,11	3.33	4 (66%)
26	5OH	CZ	6	26	12,12,13	6.58	3 (25%)	13,16,18	0.81	0

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

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
26	DPP	AZ	2	26	-	0/2/4/6	0/0/0/0
26	UAL	AZ	5	26	-	0/3/7/9	0/0/0/0
26	5OH	AZ	6	26	-	0/2/18/20	0/1/1/1
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	5	26	-	0/3/7/9	0/0/0/0
26	5OH	CZ	6	26	-	0/2/18/20	0/1/1/1

All (17) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	AZ	1	KBE	O-C	23.23	1.27	1.11
26	CZ	6	5OH	O-C	22.05	1.26	1.11
26	CZ	2	DPP	O-C	19.62	1.24	1.11
26	AZ	6	5OH	O-C	17.55	1.23	1.11
26	CZ	1	KBE	O-C	16.87	1.23	1.11
26	AZ	2	DPP	O-C	15.73	1.22	1.11
26	CZ	5	UAL	CB-CA	6.74	1.44	1.35
26	CZ	5	UAL	C1-N1	-5.84	1.29	1.40
26	AZ	6	5OH	CQ-NP	4.51	1.40	1.35
26	CZ	6	5OH	CQ-NP	4.07	1.40	1.35
26	AZ	5	UAL	CB-CA	4.03	1.41	1.35
26	CZ	6	5OH	CQ-NR	3.83	1.40	1.30
26	AZ	6	5OH	CQ-NR	3.76	1.40	1.30
26	AZ	5	UAL	C1-N1	-2.73	1.35	1.40
26	CZ	5	UAL	CA-N	-2.62	1.30	1.35
26	AZ	5	UAL	CA-N	-2.20	1.31	1.35
26	AZ	6	5OH	CA-C	2.17	1.53	1.49

All (6) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	CZ	5	UAL	O2-C1-N2	-6.71	111.92	123.27
26	CZ	2	DPP	C-CA-N	-3.49	110.34	113.83
26	AZ	2	DPP	C-CA-N	-2.90	110.94	113.83
26	CZ	5	UAL	N2-C1-N1	2.69	121.55	115.64
26	CZ	5	UAL	O2-C1-N1	2.59	126.51	120.07
26	CZ	5	UAL	CB-N1-C1	-2.28	118.69	121.98

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 973 ligands modelled in this entry, 973 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	1495/1509 (99%)	-0.28	22 (1%) 70 16	48, 83, 149, 196	0
1	CA	1495/1509 (99%)	-0.24	22 (1%) 70 16	59, 91, 155, 196	0
2	AB	235/256 (91%)	0.04	3 (1%) 74 19	80, 114, 144, 161	0
2	CB	235/256 (91%)	0.02	3 (1%) 74 19	81, 118, 152, 171	0
3	AC	207/239 (86%)	-0.09	0 100 100	76, 101, 140, 153	0
3	CC	207/239 (86%)	0.01	1 (0%) 88 36	89, 109, 136, 147	0
4	AD	208/209 (99%)	-0.06	5 (2%) 56 11	65, 84, 101, 114	0
4	CD	208/209 (99%)	-0.23	1 (0%) 88 36	55, 77, 98, 107	0
5	AE	151/162 (93%)	-0.19	0 100 100	59, 81, 107, 122	0
5	CE	151/162 (93%)	-0.03	0 100 100	72, 88, 109, 145	0
6	AF	101/101 (100%)	-0.24	0 100 100	63, 84, 93, 110	0
6	CF	101/101 (100%)	-0.10	0 100 100	76, 88, 101, 134	0
7	AG	155/156 (99%)	-0.10	5 (3%) 45 9	74, 94, 129, 151	0
7	CG	155/156 (99%)	-0.04	7 (4%) 32 7	84, 103, 128, 140	0
8	AH	138/138 (100%)	-0.29	0 100 100	69, 84, 96, 107	0
8	CH	138/138 (100%)	-0.17	0 100 100	74, 91, 102, 117	0
9	AI	127/128 (99%)	0.14	3 (2%) 56 11	76, 115, 136, 144	0
9	CI	127/128 (99%)	0.07	2 (1%) 68 16	89, 121, 139, 143	0
10	AJ	99/105 (94%)	0.43	4 (4%) 36 7	80, 127, 152, 164	0
10	CJ	99/105 (94%)	0.51	6 (6%) 21 5	88, 125, 148, 154	0
11	AK	119/129 (92%)	0.20	2 (1%) 67 15	55, 79, 107, 127	0
11	CK	119/129 (92%)	0.08	8 (6%) 17 4	69, 88, 108, 124	0
12	AL	125/132 (94%)	-0.12	0 100 100	55, 69, 91, 126	0
12	CL	125/132 (94%)	0.09	3 (2%) 56 11	66, 82, 98, 129	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	AM	120/126 (95%)	-0.18	1 (0%) 83 26	58, 86, 98, 107	0
13	CM	119/126 (94%)	-0.15	0 100 100	80, 108, 125, 136	0
14	AN	60/61 (98%)	-0.08	0 100 100	76, 92, 110, 122	0
14	CN	60/61 (98%)	0.14	1 (1%) 67 15	90, 105, 120, 123	0
15	AO	88/89 (98%)	-0.04	3 (3%) 43 8	64, 76, 99, 114	0
15	CO	88/89 (98%)	0.10	1 (1%) 77 21	71, 84, 106, 117	0
16	AP	84/88 (95%)	-0.05	3 (3%) 41 8	68, 86, 108, 124	0
16	CP	84/88 (95%)	0.13	1 (1%) 75 20	71, 81, 105, 136	0
17	AQ	100/105 (95%)	0.09	2 (2%) 62 12	62, 79, 95, 99	0
17	CQ	100/105 (95%)	-0.19	0 100 100	64, 85, 100, 103	0
18	AR	70/88 (79%)	-0.11	0 100 100	67, 83, 106, 134	0
18	CR	70/88 (79%)	-0.04	0 100 100	73, 86, 107, 134	0
19	AS	79/93 (84%)	0.58	7 (8%) 10 3	87, 105, 127, 134	0
19	CS	79/93 (84%)	0.44	6 (7%) 14 3	101, 122, 143, 154	0
20	AT	99/106 (93%)	0.00	2 (2%) 62 12	71, 89, 118, 130	0
20	CT	99/106 (93%)	-0.13	1 (1%) 79 22	74, 90, 114, 125	0
21	AU	25/27 (92%)	1.59	9 (36%) 1 0	86, 92, 100, 118	0
21	CU	25/27 (92%)	1.78	8 (32%) 1 0	89, 104, 117, 119	0
22	AV	10/30 (33%)	0.36	1 (10%) 8 2	63, 73, 124, 133	0
22	CV	10/30 (33%)	-0.03	0 100 100	68, 85, 125, 130	0
23	AW	75/75 (100%)	0.52	15 (20%) 2 1	46, 119, 161, 185	0
23	CW	75/75 (100%)	0.28	7 (9%) 9 2	79, 141, 174, 184	0
24	AX	77/77 (100%)	-0.10	2 (2%) 53 10	48, 89, 121, 130	0
24	CX	77/77 (100%)	-0.13	1 (1%) 74 19	69, 98, 125, 132	0
25	AY	75/75 (100%)	0.99	19 (25%) 1 1	51, 157, 193, 194	0
25	CY	75/75 (100%)	1.16	23 (30%) 1 0	67, 167, 194, 194	0
26	AZ	2/6 (33%)	0.05	0 100 100	85, 85, 85, 88	0
26	CZ	2/6 (33%)	0.45	0 100 100	99, 99, 99, 100	0
27	BA	2800/2915 (96%)	-0.32	38 (1%) 72 18	30, 56, 157, 198	0
27	DA	2800/2915 (96%)	-0.21	53 (1%) 64 13	49, 77, 168, 197	0
28	BB	118/122 (96%)	-0.41	1 (0%) 83 26	47, 76, 119, 164	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
28	DB	118/122 (96%)	-0.15	4 (3%) 43 8	80, 104, 136, 162	0
29	BC	191/229 (83%)	0.90	33 (17%) 2 1	130, 167, 187, 195	0
29	DC	191/229 (83%)	1.15	48 (25%) 1 1	122, 173, 188, 191	0
30	BD	272/276 (98%)	-0.23	1 (0%) 90 41	32, 52, 68, 79	0
30	DD	272/276 (98%)	-0.21	0 100 100	46, 61, 78, 92	0
31	BE	205/206 (99%)	-0.14	2 (0%) 79 22	33, 58, 93, 104	0
31	DE	205/206 (99%)	-0.04	0 100 100	57, 84, 112, 121	0
32	BF	208/210 (99%)	-0.27	0 100 100	29, 60, 125, 149	0
32	DF	208/210 (99%)	0.04	2 (0%) 79 22	54, 86, 132, 152	0
33	BG	181/182 (99%)	-0.11	1 (0%) 86 32	64, 83, 116, 146	0
33	DG	181/182 (99%)	0.13	7 (3%) 37 7	79, 106, 132, 153	0
34	BH	164/180 (91%)	0.11	2 (1%) 75 20	68, 97, 124, 142	0
34	DH	160/180 (88%)	0.55	14 (8%) 10 3	110, 139, 159, 163	0
35	BI	146/148 (98%)	-0.23	0 100 100	62, 119, 140, 144	0
35	DI	146/148 (98%)	-0.12	0 100 100	67, 105, 128, 136	0
36	BN	139/140 (99%)	-0.32	1 (0%) 84 28	42, 57, 86, 104	0
36	DN	139/140 (99%)	-0.21	0 100 100	65, 91, 115, 124	0
37	BO	122/122 (100%)	-0.41	0 100 100	38, 57, 75, 88	0
37	DO	122/122 (100%)	-0.19	0 100 100	60, 77, 93, 100	0
38	BP	146/150 (97%)	0.15	0 100 100	37, 69, 102, 156	0
38	DP	146/150 (97%)	0.23	1 (0%) 84 28	61, 93, 122, 148	0
39	BQ	141/141 (100%)	-0.17	2 (1%) 72 18	42, 60, 92, 118	0
39	DQ	139/141 (98%)	-0.15	0 100 100	68, 90, 120, 134	0
40	BR	117/118 (99%)	-0.28	0 100 100	35, 52, 69, 82	0
40	DR	117/118 (99%)	-0.07	0 100 100	58, 71, 83, 96	0
41	BS	99/112 (88%)	-0.13	0 100 100	48, 76, 94, 105	0
41	DS	101/112 (90%)	0.17	3 (2%) 48 9	69, 100, 117, 122	0
42	BT	138/146 (94%)	-0.03	6 (4%) 34 7	51, 70, 126, 152	0
42	DT	138/146 (94%)	0.04	6 (4%) 34 7	61, 90, 149, 175	0
43	BU	117/118 (99%)	-0.18	1 (0%) 81 24	37, 49, 73, 95	0
43	DU	117/118 (99%)	0.20	4 (3%) 43 8	60, 91, 111, 124	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	BV	101/101 (100%)	-0.32	0 100 100	35, 65, 90, 116	0
44	DV	101/101 (100%)	0.06	1 (0%) 79 22	59, 106, 121, 129	0
45	BW	113/113 (100%)	-0.23	0 100 100	32, 46, 76, 136	0
45	DW	113/113 (100%)	-0.23	0 100 100	43, 64, 95, 130	0
46	BX	93/96 (96%)	-0.24	0 100 100	43, 53, 70, 91	0
46	DX	93/96 (96%)	-0.22	0 100 100	56, 71, 89, 95	0
47	BY	101/110 (91%)	-0.13	1 (0%) 79 22	58, 78, 145, 163	0
47	DY	101/110 (91%)	0.17	2 (1%) 62 12	73, 94, 149, 156	0
48	BZ	177/206 (85%)	0.29	8 (4%) 32 7	65, 107, 169, 177	0
48	DZ	177/206 (85%)	0.76	19 (10%) 6 2	104, 130, 177, 191	0
49	B0	84/85 (98%)	-0.03	2 (2%) 56 11	43, 56, 83, 103	0
49	D0	84/85 (98%)	0.33	5 (5%) 21 5	71, 83, 100, 118	0
50	B1	94/98 (95%)	-0.18	1 (1%) 77 21	44, 61, 92, 109	0
50	D1	94/98 (95%)	0.14	2 (2%) 60 12	54, 70, 94, 110	0
51	B2	71/72 (98%)	-0.24	2 (2%) 50 10	46, 66, 86, 117	0
51	D2	71/72 (98%)	-0.18	0 100 100	65, 86, 103, 107	0
52	B3	60/60 (100%)	-0.20	1 (1%) 67 15	43, 58, 85, 110	0
52	D3	60/60 (100%)	0.08	2 (3%) 44 8	75, 90, 112, 116	0
53	B4	31/71 (43%)	-0.30	0 100 100	92, 107, 120, 126	0
53	D4	31/71 (43%)	-0.21	0 100 100	108, 119, 128, 135	0
54	B5	59/60 (98%)	-0.23	1 (1%) 67 15	33, 51, 115, 135	0
54	D5	59/60 (98%)	-0.09	3 (5%) 27 6	60, 71, 143, 177	0
55	B6	51/54 (94%)	0.03	2 (3%) 37 7	59, 83, 106, 112	0
55	D6	46/54 (85%)	0.42	3 (6%) 18 4	56, 103, 116, 117	0
56	B7	49/49 (100%)	0.02	0 100 100	28, 44, 84, 115	0
56	D7	49/49 (100%)	0.42	2 (4%) 35 7	46, 59, 90, 101	0
57	B8	64/65 (98%)	-0.11	0 100 100	40, 56, 73, 97	0
57	D8	64/65 (98%)	0.02	0 100 100	60, 74, 87, 118	0
58	B9	36/37 (97%)	0.30	0 100 100	46, 63, 80, 93	0
58	D9	36/37 (97%)	0.82	8 (22%) 1 1	88, 122, 133, 137	0
All	All	21214/22204 (95%)	-0.09	505 (2%) 56 11	28, 83, 154, 198	0

All (505) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
27	BA	2802	G	14.6
27	DA	2802	G	10.4
48	DZ	111	ARG	10.3
27	BA	2801	A	9.0
27	DA	896	A	9.0
48	DZ	175	PRO	8.5
25	AY	59	U	8.0
27	BA	2795	G	7.8
29	DC	178	ALA	7.2
29	DC	165	ASN	6.9
25	CY	57	A	6.9
28	DB	88	C	6.9
27	BA	2799	C	6.4
29	DC	149	ILE	6.4
25	CY	48	C	6.4
1	AA	1027	C	6.3
29	BC	178	ALA	6.2
25	CY	46	U	6.2
48	DZ	112	ALA	5.9
27	DA	2795	G	5.8
27	DA	2801(A)	A	5.8
29	DC	150	GLY	5.7
29	DC	139	ASN	5.7
25	AY	48	C	5.6
25	AY	17	G	5.6
34	DH	43	VAL	5.6
25	AY	19	U	5.6
25	AY	60	C	5.5
34	DH	171	LEU	5.5
1	CA	1030(B)	C	5.5
33	DG	2	PRO	5.5
34	BH	171	LEU	5.5
29	DC	133	PRO	5.4
25	CY	47	C	5.3
11	CK	11	LYS	5.3
25	CY	33	G	5.2
27	DA	2796	U	5.2
27	DA	2799	C	5.1
24	AX	1	C	5.1
25	CY	32	U	5.0
39	BQ	140	ALA	5.0
27	DA	2894	G	5.0

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Mol	Chain	Res	Type	RSRZ
7	CG	78	ARG	4.9
27	BA	2801(A)	A	4.9
25	AY	46	U	4.9
25	CY	58	A	4.9
1	CA	1030(A)	G	4.9
27	DA	2125	G	4.9
27	BA	2796	U	4.9
29	BC	179	SER	4.8
10	CJ	86	MET	4.8
29	DC	179	SER	4.7
34	DH	170	ARG	4.7
23	AW	45	U	4.6
29	DC	41	VAL	4.6
48	DZ	176	PRO	4.6
1	AA	1036	G	4.6
21	CU	24	ARG	4.5
25	AY	58	A	4.5
27	DA	1044	G	4.4
27	DA	2794	C	4.4
47	BY	51	VAL	4.4
1	CA	1442(A)	G	4.4
29	DC	91	ALA	4.3
19	CS	36	ARG	4.3
27	DA	2169	A	4.3
7	AG	84	ASN	4.3
27	DA	1046	A	4.3
21	CU	18	TYR	4.2
25	AY	49	G	4.2
25	CY	7	A	4.2
29	BC	84	LYS	4.2
29	DC	70	LYS	4.2
25	CY	55	C	4.2
25	AY	7	A	4.2
27	DA	2893	G	4.2
31	BE	205	ALA	4.2
22	AV	1	A	4.2
42	BT	138	ALA	4.2
52	D3	1	MET	4.1
29	BC	176	GLY	4.1
27	DA	2803	C	4.1
25	AY	47	C	4.1
1	AA	1028	C	4.1

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Mol	Chain	Res	Type	RSRZ
29	DC	176	GLY	4.0
27	DA	883	G	4.0
19	CS	81	ARG	4.0
48	DZ	106	THR	4.0
27	BA	2136	C	3.9
29	DC	71	GLN	3.9
25	CY	49	G	3.9
25	AY	57	A	3.9
29	BC	120	MET	3.9
42	BT	93	ARG	3.9
39	BQ	141	GLN	3.9
1	CA	1027	C	3.9
21	AU	19	GLY	3.9
19	AS	81	ARG	3.8
55	D6	42	TRP	3.8
23	AW	13	A	3.8
29	DC	77	ILE	3.8
27	BA	878	A	3.8
29	DC	166	ASP	3.8
43	BU	118	GLY	3.8
1	AA	1026	G	3.8
34	DH	52	VAL	3.8
41	DS	37	ALA	3.8
29	DC	93	TYR	3.7
29	DC	37	PHE	3.7
25	CY	54	U	3.7
23	AW	49	G	3.7
27	BA	896	A	3.7
27	BA	2174	C	3.7
21	AU	17	THR	3.6
21	CU	17	THR	3.6
27	BA	2803	C	3.6
50	D1	81	LYS	3.6
27	DA	11	G	3.6
7	AG	83	ALA	3.6
23	CW	48	C	3.6
34	DH	40	GLU	3.6
1	CA	1001(A)	G	3.6
33	DG	74	LYS	3.6
1	CA	1030	C	3.6
27	DA	2310	A	3.5
42	DT	116	ALA	3.5

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Mol	Chain	Res	Type	RSRZ
25	CY	34	U	3.5
29	DC	140	PRO	3.5
52	B3	1	MET	3.5
1	CA	1030(C)	G	3.5
48	BZ	175	PRO	3.5
49	D0	14	ARG	3.5
34	DH	34	GLU	3.5
29	DC	73	ARG	3.5
48	DZ	174	VAL	3.5
29	BC	52	ARG	3.5
43	DU	89	GLU	3.4
49	D0	11	ARG	3.4
29	DC	163	PHE	3.4
25	CY	20	A	3.4
19	CS	37	ARG	3.4
27	BA	652	C	3.4
29	BC	79	LYS	3.4
31	BE	204	ALA	3.4
55	B6	42	TRP	3.4
29	DC	135	GLY	3.4
25	CY	17	G	3.4
27	BA	2116	G	3.4
29	DC	72	VAL	3.4
21	CU	22	ARG	3.3
29	DC	35	ALA	3.3
28	BB	88	C	3.3
29	DC	153	ILE	3.3
48	DZ	96	GLU	3.3
29	BC	43	VAL	3.3
27	DA	1055	G	3.3
29	DC	177	LYS	3.3
2	CB	133	LYS	3.3
23	AW	46	U	3.2
29	DC	95	GLY	3.2
27	BA	2894	G	3.2
29	DC	79	LYS	3.2
4	CD	209	ARG	3.2
42	BT	39	ARG	3.2
29	BC	77	ILE	3.2
29	DC	87	GLU	3.2
29	DC	151	GLU	3.2
25	CY	59	U	3.2

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Mol	Chain	Res	Type	RSRZ
15	AO	89	GLY	3.2
48	BZ	143	LEU	3.1
27	BA	2173	A	3.1
15	AO	88	ARG	3.1
25	CY	18	G	3.1
16	AP	13	HIS	3.1
23	AW	9	C	3.1
27	DA	2801	A	3.1
16	AP	12	LYS	3.1
23	AW	15	G	3.1
27	DA	897	C	3.1
29	DC	76	ALA	3.1
58	D9	5	ALA	3.0
21	AU	25	LYS	3.0
27	DA	1047	G	3.0
25	AY	20	A	3.0
25	CY	60	C	3.0
27	DA	2892	A	3.0
23	CW	49	G	3.0
1	AA	1286	A	3.0
1	CA	1026	G	3.0
23	CW	10	G	3.0
4	AD	134	ASP	3.0
23	AW	14	A	3.0
49	D0	13	GLY	3.0
27	BA	2804	C	3.0
42	BT	1	MET	3.0
7	CG	82	GLY	2.9
11	AK	129	SER	2.9
16	CP	84	ALA	2.9
1	AA	64	G	2.9
19	AS	52	TYR	2.9
33	DG	41	GLN	2.9
42	BT	115	ARG	2.9
25	AY	63	C	2.9
47	DY	51	VAL	2.9
25	AY	50	A	2.9
54	D5	2	ALA	2.9
27	DA	2348	U	2.9
27	BA	2794	C	2.9
1	AA	1025	U	2.9
1	AA	1031	G	2.9

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Mol	Chain	Res	Type	RSRZ
21	AU	21	TYR	2.9
27	BA	884	C	2.9
34	DH	42	ARG	2.9
10	CJ	10	GLY	2.9
29	DC	92	ASP	2.9
1	AA	91	C	2.9
1	CA	1043	C	2.9
27	DA	2174	C	2.9
51	B2	72	ALA	2.9
10	AJ	71	LEU	2.8
34	DH	169	VAL	2.8
33	BG	2	PRO	2.8
29	BC	132	GLY	2.8
10	AJ	86	MET	2.8
33	DG	89	GLY	2.8
48	BZ	96	GLU	2.8
34	DH	23	ARG	2.8
58	D9	24	TYR	2.8
25	AY	64	G	2.8
34	DH	96	ALA	2.8
27	BA	2150	U	2.8
27	BA	2137	C	2.8
29	DC	164	ARG	2.8
48	BZ	176	PRO	2.8
48	DZ	77	LYS	2.8
25	AY	35	G	2.8
27	BA	2793	G	2.8
29	BC	89	ALA	2.8
29	DC	96	GLY	2.8
42	DT	115	ARG	2.8
27	DA	181	A	2.8
1	CA	1117	G	2.8
1	AA	1005	A	2.7
11	CK	13	GLN	2.7
29	BC	121	GLY	2.7
27	DA	1045	A	2.7
29	DC	148	ASN	2.7
38	DP	150	ALA	2.7
29	BC	108	MET	2.7
27	DA	2124	G	2.7
41	DS	30	ARG	2.7
11	AK	11	LYS	2.7

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Mol	Chain	Res	Type	RSRZ
20	CT	104	LEU	2.7
52	D3	29	ARG	2.7
34	DH	44	VAL	2.7
21	CU	25	LYS	2.7
10	CJ	75	ILE	2.7
2	AB	133	LYS	2.7
42	DT	119	LYS	2.7
48	BZ	174	VAL	2.7
11	CK	12	ARG	2.7
27	DA	1053	C	2.6
56	D7	23	ARG	2.6
42	BT	137	LYS	2.6
29	BC	65	PRO	2.6
19	AS	71	LEU	2.6
27	DA	895	U	2.6
19	AS	33	THR	2.6
42	DT	117	ASP	2.6
27	DA	2793	G	2.6
29	BC	177	LYS	2.6
33	DG	182	LYS	2.6
27	DA	1049	C	2.6
58	D9	4	ARG	2.6
1	AA	104	G	2.6
34	DH	19	VAL	2.6
21	AU	18	TYR	2.6
23	CW	16	C	2.6
27	BA	897	C	2.6
27	DA	271(G)	C	2.6
9	AI	9	ARG	2.6
23	AW	10	G	2.6
27	DA	1052	C	2.6
19	CS	82	GLY	2.6
29	BC	81	GLU	2.6
9	CI	4	TYR	2.6
58	D9	34	GLN	2.6
49	D0	41	ARG	2.5
7	AG	82	GLY	2.5
27	BA	2151	G	2.5
23	AW	50	A	2.5
9	AI	4	TYR	2.5
33	DG	75	LYS	2.5
56	D7	29	LYS	2.5

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Mol	Chain	Res	Type	RSRZ
4	AD	3	ARG	2.5
29	BC	53	ARG	2.5
1	CA	1036	G	2.5
25	AY	18	G	2.5
48	DZ	161	GLU	2.5
27	DA	157	U	2.5
27	BA	271(Z)	C	2.5
28	DB	6	C	2.5
25	CY	45	U	2.5
4	AD	209	ARG	2.5
29	BC	91	ALA	2.5
1	AA	68	G	2.5
11	CK	32	ILE	2.5
27	DA	271(A)	A	2.5
23	AW	24	C	2.5
29	BC	110	PHE	2.5
27	DA	1048	A	2.5
1	CA	1024	G	2.5
15	CO	89	GLY	2.5
27	BA	2156	G	2.5
58	D9	35	ARG	2.5
27	DA	1108	U	2.4
29	DC	39	GLU	2.4
48	DZ	126	LYS	2.4
7	CG	76	ARG	2.4
27	BA	2138	C	2.4
19	CS	34	TRP	2.4
48	DZ	110	VAL	2.4
48	DZ	117	GLN	2.4
48	BZ	111	ARG	2.4
58	D9	37	GLY	2.4
27	DA	894	C	2.4
27	DA	2155	G	2.4
29	DC	69	GLY	2.4
34	DH	35	VAL	2.4
19	AS	56	GLN	2.4
20	AT	80	ARG	2.4
27	DA	2791	C	2.4
29	BC	139	ASN	2.4
13	AM	102	ARG	2.4
21	CU	9	ARG	2.4
25	CY	56	G	2.4

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Mol	Chain	Res	Type	RSRZ
9	CI	19	LEU	2.4
54	B5	60	VAL	2.4
21	CU	10	ARG	2.4
29	BC	92	ASP	2.4
25	AY	33	G	2.4
27	DA	2156	G	2.4
1	CA	1393	U	2.4
47	DY	50	ARG	2.4
16	AP	42	ARG	2.3
29	DC	182	PRO	2.3
48	DZ	143	LEU	2.3
2	CB	222	ILE	2.3
25	CY	31	U	2.3
27	DA	330	A	2.3
1	AA	1129	C	2.3
27	DA	2127	G	2.3
4	AD	7	PRO	2.3
23	AW	8	U	2.3
29	DC	38	ASP	2.3
29	BC	180	PHE	2.3
27	BA	2896	C	2.3
29	DC	84	LYS	2.3
7	AG	4	ARG	2.3
25	CY	44	U	2.3
55	D6	40	CYS	2.3
23	CW	50	A	2.3
11	CK	89	ALA	2.3
21	AU	24	ARG	2.3
23	AW	48	C	2.3
1	CA	69	G	2.3
27	DA	2792	G	2.3
30	BD	244	ARG	2.3
11	CK	42	TRP	2.3
1	AA	1024	G	2.3
27	DA	1026	U	2.3
21	AU	22	ARG	2.3
29	BC	154	ARG	2.3
1	AA	66	G	2.3
25	CY	6	U	2.3
29	BC	88	GLU	2.3
42	DT	137	LYS	2.3
27	DA	2173	A	2.3

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Mol	Chain	Res	Type	RSRZ
27	BA	2127	G	2.3
48	DZ	71	ARG	2.3
29	DC	136	LEU	2.3
4	AD	4	TYR	2.3
1	CA	1223	C	2.3
14	CN	2	ALA	2.3
34	DH	41	MET	2.3
41	DS	36	TYR	2.3
27	BA	1892	C	2.3
27	BA	2175	C	2.3
48	DZ	87	PHE	2.3
49	D0	12	ASN	2.3
21	AU	23	PRO	2.2
29	DC	34	THR	2.2
17	AQ	68	ARG	2.2
49	B0	8	GLY	2.2
28	DB	87	G	2.2
43	DU	90	VAL	2.2
19	CS	69	HIS	2.2
12	CL	10	LYS	2.2
48	DZ	97	MET	2.2
15	AO	87	ILE	2.2
29	DC	154	ARG	2.2
48	BZ	178	ASP	2.2
7	CG	79	ARG	2.2
48	BZ	169	THR	2.2
27	BA	275	G	2.2
27	BA	2155	G	2.2
58	D9	2	LYS	2.2
10	CJ	72	VAL	2.2
2	CB	215	LEU	2.2
29	BC	38	ASP	2.2
32	DF	167	ALA	2.2
7	CG	84	ASN	2.2
11	CK	22	HIS	2.2
27	DA	275	G	2.2
1	AA	1030(D)	A	2.2
29	BC	37	PHE	2.2
12	CL	13	GLU	2.2
27	DA	10	G	2.2
49	B0	3	HIS	2.2
29	DC	78	ALA	2.2

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Mol	Chain	Res	Type	RSRZ
29	BC	109	ASP	2.2
54	D5	59	GLU	2.2
48	DZ	114	GLY	2.2
55	B6	20	ASN	2.2
1	AA	1035	A	2.2
27	BA	1048	A	2.2
7	AG	79	ARG	2.2
44	DV	38	LEU	2.2
28	DB	5	C	2.2
10	CJ	66	ARG	2.2
34	BH	101	ARG	2.2
48	DZ	11	GLY	2.2
1	AA	1030(C)	G	2.2
24	AX	20	U	2.2
25	CY	51	G	2.2
27	BA	1044	G	2.2
19	AS	36	ARG	2.2
21	AU	6	ARG	2.2
1	CA	1025	U	2.2
10	CJ	28	ARG	2.2
10	AJ	43	ARG	2.1
23	CW	45	U	2.1
27	BA	2135	A	2.1
19	AS	57	HIS	2.1
27	DA	1043	C	2.1
51	B2	51	ARG	2.1
25	AY	15	G	2.1
29	BC	78	ALA	2.1
20	AT	83	ARG	2.1
1	AA	218	C	2.1
43	DU	91	ASP	2.1
29	DC	90	GLY	2.1
36	BN	83	LYS	2.1
1	AA	1034	G	2.1
27	DA	352	G	2.1
42	DT	2	ASN	2.1
23	AW	16	C	2.1
48	DZ	113	GLY	2.1
24	CX	21	A	2.1
29	DC	40	THR	2.1
29	DC	119	VAL	2.1
1	CA	1224	G	2.1

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Mol	Chain	Res	Type	RSRZ
17	AQ	69	LYS	2.1
7	CG	4	ARG	2.1
58	D9	22	ARG	2.1
29	DC	57	ASN	2.1
50	B1	82	LEU	2.1
2	AB	20	GLU	2.1
23	AW	25	A	2.1
1	AA	69	G	2.1
29	BC	190	ARG	2.1
23	CW	11	C	2.1
29	BC	76	ALA	2.1
21	CU	23	PRO	2.1
29	BC	35	ALA	2.1
29	BC	189	ILE	2.1
1	CA	1320	C	2.0
12	CL	126	ALA	2.0
23	AW	47	C	2.0
3	CC	155	GLY	2.0
9	AI	104	ARG	2.0
54	D5	58	LEU	2.0
27	DA	2645	G	2.0
29	DC	62	VAL	2.0
29	BC	40	THR	2.0
33	DG	43	LEU	2.0
10	AJ	10	GLY	2.0
7	CG	86	GLN	2.0
11	CK	129	SER	2.0
1	AA	65	U	2.0
1	CA	1031	G	2.0
1	CA	1042	G	2.0
27	DA	2152	G	2.0
55	D6	39	TYR	2.0
1	CA	1394	A	2.0
1	CA	1029	C	2.0
27	BA	1547	C	2.0
27	BA	2402	C	2.0
27	DA	884	C	2.0
2	AB	40	HIS	2.0
29	DC	74	VAL	2.0
27	BA	2126	A	2.0
32	DF	56	GLU	2.0
43	DU	117	GLN	2.0

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Mol	Chain	Res	Type	RSRZ
50	D1	21	ARG	2.0

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

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
26	DPP	CZ	2	6/7	0.16	-	94,96,97,97	0
26	UAL	AZ	5	9/10	0.20	-	81,82,83,84	0
26	DPP	AZ	2	6/7	0.14	-	79,82,82,84	0
26	UAL	CZ	5	9/10	0.37	-	97,99,99,99	0
26	5OH	AZ	6	12/13	0.17	-	84,89,92,94	0
26	KBE	AZ	1	9/10	0.39	-	78,79,82,82	0
26	5OH	CZ	6	12/13	0.29	-	99,101,102,102	0
26	KBE	CZ	1	9/10	0.34	-	89,91,93,94	0

6.3 Carbohydrates ⓘ

There are no carbohydrates in this entry.

6.4 Ligands ⓘ

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
59	MG	AA	1631	1/1	0.06	-	25,25,25,25	0
59	MG	DA	3191	1/1	0.09	-	77,77,77,77	0
59	MG	DA	3147	1/1	0.32	-	44,44,44,44	0
59	MG	CA	1691	1/1	0.16	-	55,55,55,55	0
59	MG	BA	3238	1/1	0.11	-	26,26,26,26	0
59	MG	CA	1673	1/1	0.26	-	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	BA	3209	1/1	0.10	-	27,27,27,27	0
59	MG	AA	1674	1/1	0.05	-	42,42,42,42	0
59	MG	BY	201	1/1	0.17	-	32,32,32,32	0
59	MG	AA	1733	1/1	0.14	-	30,30,30,30	0
59	MG	DA	3020	1/1	0.24	-	45,45,45,45	0
59	MG	BA	3167	1/1	0.19	-	31,31,31,31	0
59	MG	DA	3220	1/1	0.19	-	64,64,64,64	0
59	MG	BA	3270	1/1	0.20	-	64,64,64,64	0
59	MG	BA	3282	1/1	0.18	-	48,48,48,48	0
59	MG	AA	1604	1/1	0.33	-	56,56,56,56	0
59	MG	BA	3244	1/1	0.17	-	31,31,31,31	0
59	MG	BA	3034	1/1	0.32	-	37,37,37,37	0
59	MG	DA	3058	1/1	0.07	-	33,33,33,33	0
59	MG	DA	3201	1/1	0.11	-	33,33,33,33	0
59	MG	CA	1631	1/1	0.43	-	45,45,45,45	0
59	MG	AA	1713	1/1	0.17	-	57,57,57,57	0
59	MG	DA	3233	1/1	0.36	-	58,58,58,58	0
59	MG	DA	3070	1/1	0.15	-	10,10,10,10	0
59	MG	BA	3134	1/1	0.57	-	39,39,39,39	0
59	MG	BA	3204	1/1	0.10	-	2,2,2,2	0
59	MG	DA	3174	1/1	0.05	-	47,47,47,47	0
59	MG	BA	3263	1/1	0.17	-	37,37,37,37	0
59	MG	BA	3009	1/1	0.23	-	30,30,30,30	0
59	MG	BA	3024	1/1	0.15	-	22,22,22,22	0
59	MG	CV	102	1/1	0.35	-	44,44,44,44	0
59	MG	CA	1601	1/1	0.14	-	29,29,29,29	0
59	MG	B0	102	1/1	0.32	-	49,49,49,49	0
59	MG	BA	3073	1/1	0.13	-	10,10,10,10	0
59	MG	BA	3199	1/1	0.21	-	54,54,54,54	0
59	MG	DA	3046	1/1	0.18	-	15,15,15,15	0
59	MG	DA	3067	1/1	0.27	-	50,50,50,50	0
59	MG	CA	1640	1/1	0.10	-	47,47,47,47	0
59	MG	CA	1663	1/1	0.19	-	50,50,50,50	0
59	MG	BA	3397	1/1	0.31	-	66,66,66,66	0
59	MG	BA	3127	1/1	0.30	-	48,48,48,48	0
59	MG	BA	3005	1/1	0.07	-	17,17,17,17	0
59	MG	BA	3193	1/1	0.25	-	58,58,58,58	0
59	MG	DA	3157	1/1	0.41	-	62,62,62,62	0
59	MG	DA	3257	1/1	0.47	-	40,40,40,40	0
59	MG	CX	102	1/1	0.46	-	78,78,78,78	0
59	MG	DA	3263	1/1	0.48	-	62,62,62,62	0
59	MG	BA	3095	1/1	0.23	-	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	CA	1610	1/1	0.32	-	27,27,27,27	0
59	MG	BA	3086	1/1	0.51	-	46,46,46,46	0
59	MG	AA	1718	1/1	0.11	-	36,36,36,36	0
59	MG	BA	3046	1/1	0.13	-	30,30,30,30	0
59	MG	BA	3004	1/1	0.51	-	81,81,81,81	0
59	MG	BA	3294	1/1	1.02	-	72,72,72,72	0
59	MG	AA	1655	1/1	0.35	-	28,28,28,28	0
59	MG	DA	3255	1/1	0.13	-	13,13,13,13	0
59	MG	BA	3324	1/1	0.37	-	35,35,35,35	0
59	MG	DA	3235	1/1	0.22	-	68,68,68,68	0
59	MG	CA	1685	1/1	0.09	-	36,36,36,36	0
59	MG	DA	3130	1/1	0.32	-	27,27,27,27	0
59	MG	DA	3073	1/1	0.21	-	18,18,18,18	0
59	MG	AL	201	1/1	0.35	-	44,44,44,44	0
60	ZN	B5	102	1/1	0.06	-	75,75,75,75	0
59	MG	BA	3355	1/1	0.13	-	33,33,33,33	0
59	MG	BA	3120	1/1	0.23	-	49,49,49,49	0
59	MG	BA	3223	1/1	0.26	-	46,46,46,46	0
59	MG	BA	3206	1/1	0.16	-	36,36,36,36	0
59	MG	CA	1623	1/1	0.19	-	91,91,91,91	0
59	MG	DF	301	1/1	0.07	-	31,31,31,31	0
59	MG	DA	3132	1/1	0.19	-	60,60,60,60	0
59	MG	BA	3015	1/1	0.31	-	25,25,25,25	0
59	MG	AW	102	1/1	0.11	-	53,53,53,53	0
59	MG	BF	302	1/1	0.23	-	26,26,26,26	0
59	MG	AA	1726	1/1	0.25	-	32,32,32,32	0
59	MG	BA	3012	1/1	0.27	-	31,31,31,31	0
59	MG	BA	3205	1/1	0.24	-	86,86,86,86	0
59	MG	AA	1634	1/1	0.15	-	72,72,72,72	0
59	MG	BA	3100	1/1	0.24	-	22,22,22,22	0
59	MG	AA	1680	1/1	0.31	-	63,63,63,63	0
59	MG	CA	1674	1/1	0.36	-	63,63,63,63	0
59	MG	BA	3260	1/1	0.17	-	58,58,58,58	0
59	MG	DA	3167	1/1	0.14	-	42,42,42,42	0
59	MG	BA	3311	1/1	0.68	-	54,54,54,54	0
59	MG	DB	201	1/1	0.14	-	44,44,44,44	0
59	MG	AY	102	1/1	0.51	-	96,96,96,96	0
59	MG	AA	1612	1/1	0.08	-	32,32,32,32	0
59	MG	AA	1727	1/1	0.52	-	71,71,71,71	0
59	MG	BA	3356	1/1	0.13	-	41,41,41,41	0
59	MG	DA	3215	1/1	0.55	-	63,63,63,63	0
59	MG	BA	3266	1/1	0.31	-	27,27,27,27	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	BA	3297	1/1	0.68	-	95,95,95,95	0
59	MG	BA	3379	1/1	0.35	-	52,52,52,52	0
59	MG	BA	3022	1/1	0.14	-	12,12,12,12	0
59	MG	AA	1610	1/1	0.09	-	29,29,29,29	0
59	MG	BA	3075	1/1	0.22	-	32,32,32,32	0
59	MG	DA	3081	1/1	0.23	-	48,48,48,48	0
59	MG	BA	3188	1/1	0.42	-	22,22,22,22	0
59	MG	DA	3219	1/1	0.17	-	40,40,40,40	0
59	MG	DA	3126	1/1	0.45	-	48,48,48,48	0
59	MG	BA	3345	1/1	0.21	-	31,31,31,31	0
59	MG	BA	3233	1/1	0.16	-	32,32,32,32	0
59	MG	DA	3038	1/1	0.16	-	25,25,25,25	0
59	MG	DA	3228	1/1	0.06	-	16,16,16,16	0
59	MG	DA	3080	1/1	0.14	-	41,41,41,41	0
59	MG	DA	3270	1/1	0.22	-	61,61,61,61	0
59	MG	AA	1658	1/1	0.56	-	42,42,42,42	0
59	MG	BA	3067	1/1	0.34	-	36,36,36,36	0
59	MG	DA	3229	1/1	0.20	-	76,76,76,76	0
59	MG	BA	3396	1/1	0.15	-	37,37,37,37	0
59	MG	BA	3007	1/1	0.58	-	39,39,39,39	0
59	MG	BA	3175	1/1	0.18	-	43,43,43,43	0
59	MG	BA	3114	1/1	0.33	-	53,53,53,53	0
59	MG	AA	1621	1/1	0.25	-	54,54,54,54	0
59	MG	CA	1618	1/1	0.48	-	69,69,69,69	0
59	MG	BA	3398	1/1	0.42	-	66,66,66,66	0
59	MG	CA	1611	1/1	0.12	-	38,38,38,38	0
59	MG	DA	3031	1/1	0.13	-	31,31,31,31	0
59	MG	DA	3075	1/1	0.14	-	32,32,32,32	0
59	MG	BA	3312	1/1	0.10	-	42,42,42,42	0
59	MG	BA	3372	1/1	0.18	-	26,26,26,26	0
59	MG	BA	3069	1/1	0.22	-	20,20,20,20	0
59	MG	DA	3135	1/1	0.25	-	58,58,58,58	0
59	MG	AX	105	1/1	0.44	-	82,82,82,82	0
59	MG	DA	3144	1/1	0.59	-	57,57,57,57	0
59	MG	BA	3299	1/1	1.26	-	85,85,85,85	0
59	MG	BA	3085	1/1	0.38	-	18,18,18,18	0
59	MG	DA	3071	1/1	0.13	-	27,27,27,27	0
59	MG	DA	3247	1/1	0.28	-	82,82,82,82	0
59	MG	BA	3138	1/1	0.13	-	17,17,17,17	0
59	MG	BA	3208	1/1	0.19	-	54,54,54,54	0
59	MG	DA	3050	1/1	0.37	-	70,70,70,70	0
59	MG	CA	1666	1/1	0.07	-	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	BA	3329	1/1	0.10	-	48,48,48,48	0
59	MG	BA	3162	1/1	0.56	-	66,66,66,66	0
59	MG	BA	3176	1/1	0.25	-	27,27,27,27	0
59	MG	AA	1666	1/1	0.70	-	75,75,75,75	0
59	MG	BA	3328	1/1	0.20	-	35,35,35,35	0
59	MG	BA	3078	1/1	0.11	-	20,20,20,20	0
59	MG	BA	3107	1/1	0.16	-	13,13,13,13	0
59	MG	BA	3182	1/1	0.27	-	81,81,81,81	0
59	MG	BA	3079	1/1	0.15	-	23,23,23,23	0
59	MG	DA	3043	1/1	0.30	-	48,48,48,48	0
59	MG	DA	3097	1/1	0.40	-	65,65,65,65	0
59	MG	BA	3051	1/1	0.22	-	1,1,1,1	0
59	MG	BA	3228	1/1	0.44	-	21,21,21,21	0
59	MG	CA	1606	1/1	0.63	-	52,52,52,52	0
59	MG	BA	3251	1/1	0.27	-	34,34,34,34	0
59	MG	AA	1608	1/1	0.07	-	26,26,26,26	0
59	MG	BA	3119	1/1	0.15	-	20,20,20,20	0
59	MG	BA	3219	1/1	0.23	-	43,43,43,43	0
59	MG	BA	3241	1/1	0.20	-	38,38,38,38	0
59	MG	DA	3072	1/1	0.24	-	28,28,28,28	0
59	MG	AA	1689	1/1	0.18	-	73,73,73,73	0
59	MG	AA	1724	1/1	0.28	-	56,56,56,56	0
59	MG	BA	3310	1/1	0.35	-	55,55,55,55	0
59	MG	BA	3289	1/1	0.21	-	36,36,36,36	0
59	MG	BA	3291	1/1	0.11	-	42,42,42,42	0
59	MG	BA	3125	1/1	0.43	-	43,43,43,43	0
59	MG	BA	3043	1/1	0.29	-	22,22,22,22	0
59	MG	BA	3259	1/1	0.12	-	35,35,35,35	0
59	MG	BA	3395	1/1	0.18	-	46,46,46,46	0
59	MG	CA	1669	1/1	0.18	-	36,36,36,36	0
59	MG	BA	3190	1/1	0.15	-	29,29,29,29	0
59	MG	BA	3348	1/1	0.38	-	62,62,62,62	0
59	MG	CA	1667	1/1	0.25	-	37,37,37,37	0
59	MG	CA	1622	1/1	0.28	-	49,49,49,49	0
59	MG	DA	3183	1/1	0.11	-	100,100,100,100	0
59	MG	BA	3293	1/1	0.69	-	44,44,44,44	0
59	MG	AA	1675	1/1	0.45	-	38,38,38,38	0
59	MG	AA	1620	1/1	0.37	-	45,45,45,45	0
59	MG	BA	3200	1/1	0.16	-	51,51,51,51	0
59	MG	AA	1699	1/1	0.35	-	61,61,61,61	0
59	MG	DA	3212	1/1	0.43	-	61,61,61,61	0
59	MG	BA	3037	1/1	0.46	-	27,27,27,27	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	BA	3080	1/1	0.13	-	26,26,26,26	0
59	MG	DA	3241	1/1	0.23	-	42,42,42,42	0
59	MG	DA	3076	1/1	0.25	-	48,48,48,48	0
59	MG	AA	1672	1/1	0.16	-	51,51,51,51	0
59	MG	BA	3383	1/1	0.28	-	36,36,36,36	0
59	MG	CA	1681	1/1	0.06	-	58,58,58,58	0
59	MG	BA	3013	1/1	0.17	-	6,6,6,6	0
59	MG	BA	3261	1/1	0.17	-	53,53,53,53	0
59	MG	DA	3205	1/1	0.21	-	27,27,27,27	0
59	MG	BA	3149	1/1	0.41	-	31,31,31,31	0
59	MG	AA	1715	1/1	0.10	-	34,34,34,34	0
59	MG	AA	1677	1/1	0.41	-	75,75,75,75	0
59	MG	BA	3314	1/1	0.17	-	68,68,68,68	0
59	MG	BA	3110	1/1	0.16	-	39,39,39,39	0
59	MG	BA	3108	1/1	0.15	-	44,44,44,44	0
59	MG	DA	3227	1/1	0.31	-	72,72,72,72	0
59	MG	BA	3117	1/1	0.20	-	38,38,38,38	0
59	MG	DA	3148	1/1	0.60	-	40,40,40,40	0
59	MG	AD	301	1/1	0.13	-	49,49,49,49	0
59	MG	DA	3074	1/1	0.41	-	59,59,59,59	0
59	MG	AA	1628	1/1	0.37	-	46,46,46,46	0
59	MG	DA	3082	1/1	0.49	-	37,37,37,37	0
59	MG	DA	3197	1/1	0.24	-	84,84,84,84	0
59	MG	DA	3027	1/1	0.40	-	28,28,28,28	0
59	MG	BA	3265	1/1	0.22	-	28,28,28,28	0
59	MG	DA	3007	1/1	0.29	-	42,42,42,42	0
59	MG	BA	3056	1/1	0.74	-	59,59,59,59	0
59	MG	DA	3253	1/1	0.21	-	46,46,46,46	0
59	MG	BA	3302	1/1	0.16	-	42,42,42,42	0
59	MG	DA	3260	1/1	0.20	-	35,35,35,35	0
60	ZN	D4	101	1/1	0.11	-	147,147,147,147	0
59	MG	CA	1633	1/1	0.25	-	38,38,38,38	0
59	MG	BA	3150	1/1	0.14	-	33,33,33,33	0
59	MG	DA	3169	1/1	0.10	-	37,37,37,37	0
59	MG	AA	1611	1/1	0.12	-	52,52,52,52	0
59	MG	DA	3021	1/1	0.15	-	28,28,28,28	0
59	MG	DA	3133	1/1	0.23	-	69,69,69,69	0
59	MG	BA	3101	1/1	0.14	-	25,25,25,25	0
59	MG	AA	1657	1/1	0.14	-	53,53,53,53	0
59	MG	BA	3010	1/1	0.30	-	29,29,29,29	0
59	MG	AA	1629	1/1	0.11	-	78,78,78,78	0
59	MG	BA	3170	1/1	0.22	-	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	DA	3218	1/1	0.76	-	75,75,75,75	0
59	MG	AA	1696	1/1	0.16	-	34,34,34,34	0
59	MG	BA	3020	1/1	0.19	-	22,22,22,22	0
59	MG	BA	3304	1/1	0.44	-	22,22,22,22	0
59	MG	BA	3060	1/1	0.12	-	13,13,13,13	0
59	MG	BA	3203	1/1	0.15	-	38,38,38,38	0
59	MG	AA	1695	1/1	0.18	-	55,55,55,55	0
59	MG	BA	3083	1/1	0.16	-	6,6,6,6	0
59	MG	BA	3128	1/1	0.36	-	34,34,34,34	0
59	MG	CA	1644	1/1	0.77	-	68,68,68,68	0
59	MG	AW	101	1/1	0.42	-	135,135,135,135	0
59	MG	AA	1728	1/1	0.12	-	59,59,59,59	0
59	MG	BA	3144	1/1	0.12	-	37,37,37,37	0
59	MG	BA	3231	1/1	0.08	-	54,54,54,54	0
59	MG	BA	3335	1/1	0.42	-	52,52,52,52	0
59	MG	BP	201	1/1	0.11	-	21,21,21,21	0
59	MG	AA	1702	1/1	0.49	-	59,59,59,59	0
59	MG	BA	3087	1/1	0.21	-	39,39,39,39	0
59	MG	AA	1729	1/1	0.24	-	57,57,57,57	0
59	MG	AA	1654	1/1	0.20	-	100,100,100,100	0
59	MG	BA	3369	1/1	0.24	-	38,38,38,38	0
59	MG	CA	1602	1/1	0.33	-	46,46,46,46	0
59	MG	CA	1678	1/1	0.18	-	45,45,45,45	0
59	MG	BA	3246	1/1	0.44	-	46,46,46,46	0
59	MG	BA	3070	1/1	0.07	-	14,14,14,14	0
59	MG	CA	1670	1/1	0.27	-	67,67,67,67	0
59	MG	AA	1684	1/1	0.08	-	42,42,42,42	0
59	MG	DA	3118	1/1	0.17	-	41,41,41,41	0
59	MG	CA	1609	1/1	0.36	-	52,52,52,52	0
59	MG	AA	1636	1/1	0.25	-	21,21,21,21	0
59	MG	DA	3030	1/1	0.10	-	17,17,17,17	0
59	MG	DA	3064	1/1	0.17	-	48,48,48,48	0
59	MG	DA	3273	1/1	0.94	-	106,106,106,106	0
59	MG	AA	1708	1/1	0.04	-	64,64,64,64	0
59	MG	DA	3142	1/1	0.13	-	44,44,44,44	0
59	MG	D6	101	1/1	0.24	-	37,37,37,37	0
59	MG	DA	3041	1/1	0.29	-	7,7,7,7	0
59	MG	BA	3360	1/1	0.46	-	68,68,68,68	0
59	MG	AA	1602	1/1	0.15	-	44,44,44,44	0
59	MG	AA	1731	1/1	0.18	-	22,22,22,22	0
59	MG	CA	1652	1/1	0.34	-	86,86,86,86	0
59	MG	DA	3184	1/1	0.13	-	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	AA	1663	1/1	0.36	-	53,53,53,53	0
59	MG	DA	3236	1/1	0.95	-	91,91,91,91	0
59	MG	CA	1655	1/1	0.34	-	41,41,41,41	0
59	MG	DA	3250	1/1	0.46	-	61,61,61,61	0
59	MG	DA	3158	1/1	0.34	-	38,38,38,38	0
59	MG	DA	3164	1/1	0.31	-	51,51,51,51	0
59	MG	DA	3069	1/1	0.63	-	78,78,78,78	0
59	MG	AA	1644	1/1	0.23	-	48,48,48,48	0
59	MG	DA	3266	1/1	0.43	-	72,72,72,72	0
59	MG	CA	1686	1/1	0.23	-	64,64,64,64	0
59	MG	DD	303	1/1	0.43	-	95,95,95,95	0
59	MG	BA	3124	1/1	0.17	-	27,27,27,27	0
59	MG	BA	3156	1/1	0.28	-	25,25,25,25	0
59	MG	DA	3209	1/1	0.44	-	69,69,69,69	0
59	MG	CA	1630	1/1	0.33	-	55,55,55,55	0
59	MG	AA	1685	1/1	0.40	-	50,50,50,50	0
59	MG	DA	3083	1/1	0.32	-	35,35,35,35	0
59	MG	BA	3133	1/1	0.17	-	20,20,20,20	0
59	MG	CX	101	1/1	0.14	-	42,42,42,42	0
59	MG	DA	3196	1/1	0.38	-	48,48,48,48	0
59	MG	BA	3186	1/1	0.18	-	30,30,30,30	0
59	MG	BA	3296	1/1	0.28	-	61,61,61,61	0
59	MG	BA	3215	1/1	0.13	-	12,12,12,12	0
59	MG	BA	3047	1/1	0.19	-	30,30,30,30	0
59	MG	AA	1678	1/1	0.19	-	52,52,52,52	0
59	MG	BA	3250	1/1	0.10	-	21,21,21,21	0
59	MG	BA	3384	1/1	0.07	-	39,39,39,39	0
59	MG	AA	1627	1/1	0.36	-	55,55,55,55	0
59	MG	BA	3221	1/1	0.19	-	25,25,25,25	0
60	ZN	B4	101	1/1	0.06	-	117,117,117,117	0
59	MG	DA	3092	1/1	0.34	-	51,51,51,51	0
59	MG	CA	1687	1/1	0.11	-	56,56,56,56	0
59	MG	BA	3001	1/1	0.16	-	72,72,72,72	0
59	MG	BA	3129	1/1	0.14	-	27,27,27,27	0
59	MG	AA	1703	1/1	0.07	-	41,41,41,41	0
59	MG	DA	3114	1/1	0.07	-	42,42,42,42	0
59	MG	BA	3274	1/1	0.15	-	36,36,36,36	0
60	ZN	D9	101	1/1	0.03	-	109,109,109,109	0
59	MG	CA	1677	1/1	0.11	-	53,53,53,53	0
59	MG	BA	3386	1/1	0.18	-	20,20,20,20	0
59	MG	AA	1649	1/1	0.34	-	71,71,71,71	0
59	MG	CA	1646	1/1	0.24	-	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	DA	3116	1/1	0.14	-	43,43,43,43	0
59	MG	BA	3109	1/1	0.12	-	34,34,34,34	0
59	MG	AA	1676	1/1	0.16	-	77,77,77,77	0
59	MG	AA	1721	1/1	0.15	-	54,54,54,54	0
59	MG	BA	3224	1/1	0.29	-	63,63,63,63	0
59	MG	BA	3017	1/1	0.17	-	14,14,14,14	0
59	MG	DA	3232	1/1	0.29	-	80,80,80,80	0
59	MG	DA	3261	1/1	0.30	-	50,50,50,50	0
59	MG	AW	105	1/1	0.28	-	41,41,41,41	0
59	MG	DA	3033	1/1	0.10	-	10,10,10,10	0
59	MG	DA	3208	1/1	0.34	-	62,62,62,62	0
59	MG	BN	201	1/1	0.35	-	67,67,67,67	0
59	MG	BA	3168	1/1	0.15	-	37,37,37,37	0
59	MG	DA	3077	1/1	0.36	-	73,73,73,73	0
59	MG	DA	3243	1/1	0.34	-	35,35,35,35	0
59	MG	DA	3258	1/1	0.18	-	29,29,29,29	0
59	MG	DA	3230	1/1	0.39	-	46,46,46,46	0
59	MG	AT	202	1/1	0.45	-	70,70,70,70	0
59	MG	BA	3317	1/1	0.41	-	50,50,50,50	0
59	MG	DA	3108	1/1	0.43	-	51,51,51,51	0
59	MG	CA	1607	1/1	0.38	-	36,36,36,36	0
59	MG	BA	3346	1/1	0.33	-	35,35,35,35	0
59	MG	AA	1630	1/1	0.08	-	26,26,26,26	0
59	MG	DZ	301	1/1	0.18	-	55,55,55,55	0
59	MG	BA	3316	1/1	0.37	-	68,68,68,68	0
59	MG	BA	3359	1/1	0.26	-	51,51,51,51	0
59	MG	BR	201	1/1	0.44	-	41,41,41,41	0
59	MG	BA	3269	1/1	0.88	-	83,83,83,83	0
59	MG	D5	102	1/1	0.23	-	91,91,91,91	0
59	MG	CA	1625	1/1	0.54	-	54,54,54,54	0
59	MG	AA	1716	1/1	0.22	-	44,44,44,44	0
59	MG	DA	3023	1/1	0.05	-	33,33,33,33	0
59	MG	DA	3206	1/1	0.21	-	27,27,27,27	0
59	MG	BA	3105	1/1	0.19	-	14,14,14,14	0
59	MG	DA	3182	1/1	0.17	-	33,33,33,33	0
59	MG	BA	3201	1/1	0.18	-	111,111,111,111	0
59	MG	BE	301	1/1	0.18	-	12,12,12,12	0
59	MG	BA	3063	1/1	0.17	-	19,19,19,19	0
59	MG	BA	3115	1/1	0.24	-	22,22,22,22	0
59	MG	BA	3093	1/1	0.10	-	10,10,10,10	0
59	MG	CA	1627	1/1	0.15	-	62,62,62,62	0
59	MG	DA	3131	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
59	MG	AX	101	1/1	0.34	-	57,57,57,57	0
59	MG	DA	3185	1/1	0.07	-	42,42,42,42	0
59	MG	BA	3267	1/1	0.10	-	31,31,31,31	0
59	MG	DA	3003	1/1	0.19	-	36,36,36,36	0
59	MG	AA	1616	1/1	0.09	-	16,16,16,16	0
59	MG	DA	3137	1/1	0.11	-	28,28,28,28	0
59	MG	DA	3056	1/1	0.14	-	31,31,31,31	0
59	MG	BA	3030	1/1	0.10	-	18,18,18,18	0
59	MG	AA	1732	1/1	0.16	-	32,32,32,32	0
59	MG	BA	3279	1/1	0.16	-	62,62,62,62	0
59	MG	AA	1714	1/1	0.33	-	66,66,66,66	0
59	MG	AA	1646	1/1	0.24	-	61,61,61,61	0
59	MG	BA	3178	1/1	0.34	-	11,11,11,11	0
59	MG	BA	3353	1/1	0.31	-	50,50,50,50	0
59	MG	CA	1684	1/1	0.43	-	49,49,49,49	0
59	MG	CA	1659	1/1	0.12	-	64,64,64,64	0
59	MG	BA	3191	1/1	0.18	-	31,31,31,31	0
59	MG	DA	3200	1/1	0.26	-	46,46,46,46	0
59	MG	BA	3214	1/1	0.29	-	87,87,87,87	0
59	MG	BZ	301	1/1	0.16	-	42,42,42,42	0
59	MG	AA	1698	1/1	0.14	-	49,49,49,49	0
59	MG	AA	1626	1/1	0.10	-	48,48,48,48	0
59	MG	BA	3147	1/1	0.23	-	33,33,33,33	0
59	MG	BA	3035	1/1	0.14	-	22,22,22,22	0
59	MG	DA	3052	1/1	0.13	-	30,30,30,30	0
59	MG	AW	104	1/1	0.12	-	57,57,57,57	0
59	MG	BA	3135	1/1	0.24	-	38,38,38,38	0
59	MG	BA	3025	1/1	0.18	-	20,20,20,20	0
59	MG	BA	3245	1/1	0.66	-	48,48,48,48	0
59	MG	AW	103	1/1	0.45	-	73,73,73,73	0
59	MG	BA	3040	1/1	0.06	-	9,9,9,9	0
59	MG	BA	3065	1/1	0.07	-	13,13,13,13	0
59	MG	DA	3028	1/1	0.30	-	35,35,35,35	0
59	MG	BA	3285	1/1	0.13	-	28,28,28,28	0
59	MG	BA	3368	1/1	0.12	-	24,24,24,24	0
59	MG	BA	3281	1/1	0.25	-	41,41,41,41	0
59	MG	DA	3008	1/1	0.07	-	39,39,39,39	0
59	MG	BA	3377	1/1	0.35	-	43,43,43,43	0
59	MG	DA	3203	1/1	0.93	-	97,97,97,97	0
59	MG	DA	3166	1/1	0.12	-	41,41,41,41	0
59	MG	BA	3126	1/1	0.28	-	52,52,52,52	0
59	MG	AA	1725	1/1	0.26	-	84,84,84,84	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	DA	3239	1/1	0.94	-	78,78,78,78	0
59	MG	BA	3248	1/1	0.16	-	37,37,37,37	0
59	MG	DA	3244	1/1	0.18	-	33,33,33,33	0
59	MG	BA	3181	1/1	0.09	-	46,46,46,46	0
59	MG	BA	3357	1/1	0.24	-	54,54,54,54	0
59	MG	BA	3045	1/1	0.11	-	23,23,23,23	0
59	MG	BA	3341	1/1	0.33	-	86,86,86,86	0
59	MG	D5	101	1/1	0.13	-	28,28,28,28	0
59	MG	DA	3225	1/1	0.64	-	55,55,55,55	0
59	MG	CA	1634	1/1	0.04	-	17,17,17,17	0
59	MG	DA	3223	1/1	0.20	-	61,61,61,61	0
59	MG	BA	3077	1/1	0.07	-	23,23,23,23	0
59	MG	DA	3150	1/1	0.17	-	43,43,43,43	0
59	MG	AA	1690	1/1	0.22	-	40,40,40,40	0
59	MG	BA	3273	1/1	0.13	-	26,26,26,26	0
59	MG	DA	3010	1/1	0.28	-	39,39,39,39	0
59	MG	BA	3096	1/1	0.09	-	17,17,17,17	0
59	MG	DA	3198	1/1	0.47	-	56,56,56,56	0
59	MG	DA	3106	1/1	0.24	-	51,51,51,51	0
59	MG	BA	3268	1/1	0.46	-	44,44,44,44	0
59	MG	AA	1613	1/1	0.07	-	51,51,51,51	0
59	MG	DA	3264	1/1	0.26	-	41,41,41,41	0
59	MG	BA	3330	1/1	0.06	-	21,21,21,21	0
59	MG	BA	3184	1/1	0.36	-	56,56,56,56	0
59	MG	BA	3160	1/1	0.23	-	13,13,13,13	0
59	MG	DA	3204	1/1	0.11	-	41,41,41,41	0
59	MG	BA	3230	1/1	0.18	-	48,48,48,48	0
59	MG	AA	1704	1/1	0.05	-	40,40,40,40	0
59	MG	CA	1614	1/1	0.16	-	49,49,49,49	0
59	MG	DA	3111	1/1	0.49	-	71,71,71,71	0
59	MG	DA	3025	1/1	0.17	-	5,5,5,5	0
59	MG	DA	3011	1/1	0.33	-	37,37,37,37	0
59	MG	BA	3217	1/1	0.14	-	11,11,11,11	0
59	MG	BA	3141	1/1	0.23	-	1,1,1,1	0
59	MG	DA	3018	1/1	0.12	-	14,14,14,14	0
59	MG	CA	1680	1/1	0.19	-	59,59,59,59	0
59	MG	DA	3101	1/1	0.08	-	28,28,28,28	0
59	MG	DA	3141	1/1	0.13	-	46,46,46,46	0
59	MG	DA	3173	1/1	0.22	-	57,57,57,57	0
59	MG	CA	1636	1/1	0.12	-	55,55,55,55	0
59	MG	AA	1639	1/1	0.15	-	54,54,54,54	0
60	ZN	B9	101	1/1	0.06	-	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	DA	3112	1/1	0.19	-	70,70,70,70	0
59	MG	CA	1635	1/1	0.28	-	32,32,32,32	0
59	MG	DA	3179	1/1	0.11	-	33,33,33,33	0
59	MG	BA	3284	1/1	0.33	-	33,33,33,33	0
59	MG	DA	3175	1/1	0.57	-	53,53,53,53	0
59	MG	BA	3220	1/1	0.52	-	52,52,52,52	0
59	MG	DA	3252	1/1	0.31	-	47,47,47,47	0
59	MG	CA	1671	1/1	0.25	-	54,54,54,54	0
59	MG	BA	3068	1/1	0.19	-	15,15,15,15	0
59	MG	DA	3249	1/1	0.42	-	54,54,54,54	0
59	MG	DA	3178	1/1	0.58	-	36,36,36,36	0
59	MG	BA	3307	1/1	0.41	-	64,64,64,64	0
59	MG	DA	3207	1/1	0.86	-	69,69,69,69	0
59	MG	CE	202	1/1	0.09	-	40,40,40,40	0
59	MG	B5	101	1/1	0.41	-	37,37,37,37	0
59	MG	DA	3214	1/1	0.14	-	34,34,34,34	0
59	MG	BA	3187	1/1	0.38	-	35,35,35,35	0
59	MG	BD	301	1/1	0.12	-	13,13,13,13	0
59	MG	BA	3049	1/1	0.11	-	12,12,12,12	0
59	MG	BA	3050	1/1	0.30	-	4,4,4,4	0
59	MG	AW	106	1/1	0.50	-	94,94,94,94	0
59	MG	BA	3249	1/1	0.61	-	50,50,50,50	0
59	MG	AE	201	1/1	0.22	-	87,87,87,87	0
59	MG	BA	3023	1/1	0.19	-	23,23,23,23	0
59	MG	CA	1651	1/1	0.16	-	50,50,50,50	0
59	MG	AA	1683	1/1	0.12	-	31,31,31,31	0
59	MG	DA	3256	1/1	0.11	-	27,27,27,27	0
59	MG	BA	3019	1/1	0.33	-	21,21,21,21	0
59	MG	DA	3145	1/1	0.33	-	45,45,45,45	0
59	MG	BA	3213	1/1	0.54	-	54,54,54,54	0
59	MG	CA	1664	1/1	0.34	-	44,44,44,44	0
59	MG	BA	3253	1/1	0.23	-	56,56,56,56	0
59	MG	DA	3222	1/1	0.07	-	50,50,50,50	0
59	MG	DA	3123	1/1	0.23	-	32,32,32,32	0
59	MG	DA	3194	1/1	0.27	-	52,52,52,52	0
59	MG	BA	3059	1/1	0.05	-	33,33,33,33	0
59	MG	CA	1626	1/1	0.31	-	46,46,46,46	0
59	MG	DA	3136	1/1	0.30	-	47,47,47,47	0
59	MG	AA	1701	1/1	0.25	-	36,36,36,36	0
59	MG	BA	3042	1/1	0.19	-	22,22,22,22	0
59	MG	BA	3347	1/1	0.84	-	78,78,78,78	0
59	MG	BA	3276	1/1	0.22	-	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	BA	3198	1/1	0.06	-	16,16,16,16	0
59	MG	DA	3105	1/1	0.24	-	28,28,28,28	0
59	MG	BA	3090	1/1	0.12	-	32,32,32,32	0
59	MG	AA	1706	1/1	0.27	-	43,43,43,43	0
59	MG	CA	1603	1/1	0.45	-	113,113,113,113	0
59	MG	CA	1662	1/1	0.07	-	23,23,23,23	0
59	MG	DA	3242	1/1	0.17	-	34,34,34,34	0
59	MG	DA	3269	1/1	0.21	-	43,43,43,43	0
60	ZN	CD	301	1/1	0.24	-	61,61,61,61	0
59	MG	AT	201	1/1	0.11	-	92,92,92,92	0
59	MG	AA	1656	1/1	0.20	-	42,42,42,42	0
59	MG	AA	1653	1/1	0.18	-	47,47,47,47	0
59	MG	BA	3192	1/1	0.23	-	29,29,29,29	0
59	MG	BA	3148	1/1	0.15	-	27,27,27,27	0
59	MG	AA	1673	1/1	0.20	-	35,35,35,35	0
59	MG	BA	3011	1/1	0.12	-	31,31,31,31	0
59	MG	BA	3275	1/1	0.16	-	93,93,93,93	0
59	MG	BA	3211	1/1	0.14	-	16,16,16,16	0
59	MG	AX	104	1/1	0.24	-	45,45,45,45	0
59	MG	DA	3271	1/1	0.16	-	80,80,80,80	0
59	MG	DA	3066	1/1	0.23	-	31,31,31,31	0
59	MG	BA	3106	1/1	0.28	-	29,29,29,29	0
59	MG	BA	3055	1/1	0.18	-	21,21,21,21	0
59	MG	DA	3128	1/1	0.14	-	26,26,26,26	0
59	MG	DA	3015	1/1	0.43	-	37,37,37,37	0
59	MG	BA	3295	1/1	0.37	-	47,47,47,47	0
59	MG	BF	301	1/1	0.12	-	37,37,37,37	0
59	MG	CA	1605	1/1	0.54	-	99,99,99,99	0
59	MG	BA	3146	1/1	0.35	-	12,12,12,12	0
59	MG	BA	3174	1/1	0.14	-	43,43,43,43	0
59	MG	BA	3033	1/1	0.23	-	26,26,26,26	0
59	MG	CA	1657	1/1	0.51	-	62,62,62,62	0
59	MG	BA	3194	1/1	0.29	-	33,33,33,33	0
59	MG	BA	3179	1/1	0.34	-	31,31,31,31	0
59	MG	CA	1653	1/1	0.13	-	46,46,46,46	0
59	MG	BA	3243	1/1	0.30	-	35,35,35,35	0
59	MG	DA	3022	1/1	0.14	-	14,14,14,14	0
59	MG	DE	301	1/1	0.14	-	43,43,43,43	0
59	MG	BA	3218	1/1	0.13	-	21,21,21,21	0
59	MG	CA	1613	1/1	0.06	-	66,66,66,66	0
59	MG	AW	107	1/1	0.20	-	41,41,41,41	0
59	MG	BA	3235	1/1	0.45	-	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	BA	3151	1/1	0.30	-	22,22,22,22	0
59	MG	DA	3193	1/1	0.16	-	40,40,40,40	0
59	MG	BA	3290	1/1	0.25	-	69,69,69,69	0
59	MG	DA	3104	1/1	0.12	-	36,36,36,36	0
59	MG	DA	3171	1/1	0.43	-	75,75,75,75	0
59	MG	DA	3001	1/1	0.05	-	25,25,25,25	0
59	MG	CE	201	1/1	0.09	-	71,71,71,71	0
59	MG	BA	3394	1/1	0.17	-	49,49,49,49	0
59	MG	BA	3132	1/1	0.16	-	87,87,87,87	0
59	MG	BA	3365	1/1	0.20	-	36,36,36,36	0
59	MG	DA	3045	1/1	0.13	-	41,41,41,41	0
59	MG	BA	3255	1/1	0.10	-	22,22,22,22	0
59	MG	DA	3115	1/1	0.14	-	59,59,59,59	0
59	MG	BA	3375	1/1	0.20	-	38,38,38,38	0
59	MG	DA	3265	1/1	0.42	-	51,51,51,51	0
59	MG	DA	3125	1/1	0.34	-	59,59,59,59	0
59	MG	AA	1603	1/1	0.54	-	58,58,58,58	0
59	MG	AA	1643	1/1	0.19	-	51,51,51,51	0
59	MG	AA	1664	1/1	0.11	-	20,20,20,20	0
59	MG	BA	3044	1/1	0.28	-	28,28,28,28	0
59	MG	BA	3363	1/1	0.23	-	56,56,56,56	0
59	MG	AA	1638	1/1	0.14	-	50,50,50,50	0
59	MG	DA	3151	1/1	0.12	-	14,14,14,14	0
59	MG	BA	3378	1/1	0.30	-	25,25,25,25	0
59	MG	CA	1648	1/1	0.17	-	56,56,56,56	0
59	MG	BH	201	1/1	0.11	-	71,71,71,71	0
59	MG	CA	1682	1/1	0.45	-	61,61,61,61	0
59	MG	DA	3268	1/1	0.19	-	47,47,47,47	0
59	MG	AA	1670	1/1	0.23	-	36,36,36,36	0
59	MG	BA	3166	1/1	0.18	-	35,35,35,35	0
59	MG	BA	3308	1/1	0.82	-	49,49,49,49	0
59	MG	DA	3034	1/1	0.06	-	30,30,30,30	0
59	MG	BA	3315	1/1	0.33	-	46,46,46,46	0
59	MG	BA	3374	1/1	0.40	-	31,31,31,31	0
59	MG	DA	3088	1/1	0.14	-	36,36,36,36	0
59	MG	DA	3087	1/1	0.86	-	59,59,59,59	0
59	MG	BA	3323	1/1	0.14	-	61,61,61,61	0
59	MG	CA	1656	1/1	0.19	-	51,51,51,51	0
59	MG	DA	3139	1/1	0.07	-	18,18,18,18	0
59	MG	BA	3339	1/1	0.37	-	66,66,66,66	0
59	MG	BA	3252	1/1	0.13	-	18,18,18,18	0
59	MG	AA	1679	1/1	0.07	-	27,27,27,27	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	BA	3111	1/1	0.23	-	28,28,28,28	0
59	MG	BA	3145	1/1	0.29	-	13,13,13,13	0
59	MG	AA	1692	1/1	0.09	-	55,55,55,55	0
59	MG	AA	1618	1/1	0.20	-	22,22,22,22	0
59	MG	AC	301	1/1	0.15	-	64,64,64,64	0
59	MG	BA	3159	1/1	0.17	-	46,46,46,46	0
59	MG	DA	3165	1/1	0.05	-	49,49,49,49	0
59	MG	BA	3382	1/1	0.31	-	37,37,37,37	0
59	MG	BA	3099	1/1	0.81	-	51,51,51,51	0
59	MG	AX	103	1/1	0.12	-	32,32,32,32	0
60	ZN	AD	302	1/1	0.23	-	67,67,67,67	0
59	MG	DA	3163	1/1	0.37	-	62,62,62,62	0
59	MG	BA	3152	1/1	0.36	-	18,18,18,18	0
59	MG	AA	1688	1/1	0.25	-	47,47,47,47	0
59	MG	CA	1612	1/1	0.44	-	80,80,80,80	0
59	MG	BA	3088	1/1	0.28	-	22,22,22,22	0
59	MG	BA	3072	1/1	0.21	-	16,16,16,16	0
59	MG	BA	3393	1/1	0.13	-	40,40,40,40	0
59	MG	BA	3154	1/1	0.27	-	44,44,44,44	0
59	MG	DA	3226	1/1	0.62	-	70,70,70,70	0
59	MG	BA	3343	1/1	0.21	-	34,34,34,34	0
59	MG	CA	1615	1/1	0.52	-	51,51,51,51	0
59	MG	BA	3165	1/1	0.58	-	60,60,60,60	0
59	MG	DA	3103	1/1	0.08	-	38,38,38,38	0
59	MG	AA	1648	1/1	0.19	-	48,48,48,48	0
59	MG	BA	3021	1/1	0.23	-	3,3,3,3	0
59	MG	DA	3086	1/1	0.16	-	26,26,26,26	0
59	MG	BA	3195	1/1	0.14	-	79,79,79,79	0
59	MG	AA	1730	1/1	0.54	-	60,60,60,60	0
59	MG	DA	3254	1/1	0.20	-	54,54,54,54	0
59	MG	BA	3303	1/1	0.84	-	91,91,91,91	0
59	MG	DA	3172	1/1	0.32	-	55,55,55,55	0
59	MG	BA	3038	1/1	0.23	-	20,20,20,20	0
59	MG	AA	1659	1/1	0.20	-	73,73,73,73	0
59	MG	CA	1621	1/1	0.38	-	42,42,42,42	0
59	MG	BA	3027	1/1	0.22	-	35,35,35,35	0
59	MG	DA	3146	1/1	0.20	-	70,70,70,70	0
59	MG	CA	1608	1/1	0.61	-	57,57,57,57	0
59	MG	DA	3039	1/1	0.32	-	58,58,58,58	0
59	MG	BA	3062	1/1	0.12	-	14,14,14,14	0
59	MG	BA	3385	1/1	0.07	-	32,32,32,32	0
59	MG	BA	3332	1/1	0.42	-	105,105,105,105	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	DA	3044	1/1	0.10	-	22,22,22,22	0
59	MG	DA	3117	1/1	0.10	-	32,32,32,32	0
59	MG	BA	3002	1/1	0.15	-	59,59,59,59	0
59	MG	BA	3283	1/1	0.25	-	46,46,46,46	0
59	MG	BA	3226	1/1	0.10	-	33,33,33,33	0
59	MG	DA	3085	1/1	0.19	-	22,22,22,22	0
59	MG	DA	3177	1/1	0.41	-	29,29,29,29	0
59	MG	AA	1650	1/1	0.19	-	26,26,26,26	0
59	MG	DA	3143	1/1	0.25	-	30,30,30,30	0
59	MG	DA	3259	1/1	0.32	-	43,43,43,43	0
59	MG	AA	1662	1/1	0.19	-	23,23,23,23	0
59	MG	BA	3185	1/1	0.29	-	62,62,62,62	0
59	MG	DA	3084	1/1	0.15	-	48,48,48,48	0
59	MG	DA	3272	1/1	0.45	-	60,60,60,60	0
59	MG	DA	3202	1/1	0.08	-	34,34,34,34	0
59	MG	CA	1649	1/1	0.10	-	48,48,48,48	0
59	MG	DA	3002	1/1	0.24	-	31,31,31,31	0
59	MG	AA	1723	1/1	0.18	-	36,36,36,36	0
59	MG	DA	3122	1/1	0.22	-	31,31,31,31	0
59	MG	BA	3210	1/1	0.24	-	57,57,57,57	0
59	MG	DA	3120	1/1	0.20	-	55,55,55,55	0
59	MG	BA	3351	1/1	0.30	-	60,60,60,60	0
59	MG	DA	3061	1/1	0.30	-	28,28,28,28	0
59	MG	BA	3300	1/1	0.11	-	40,40,40,40	0
59	MG	DA	3267	1/1	0.27	-	53,53,53,53	0
59	MG	CA	1629	1/1	0.27	-	52,52,52,52	0
59	MG	BQ	201	1/1	0.14	-	48,48,48,48	0
59	MG	BA	3280	1/1	0.38	-	54,54,54,54	0
59	MG	CA	1690	1/1	0.18	-	46,46,46,46	0
59	MG	BU	201	1/1	0.28	-	22,22,22,22	0
59	MG	BA	3287	1/1	0.42	-	56,56,56,56	0
59	MG	DA	3138	1/1	0.11	-	19,19,19,19	0
59	MG	BA	3239	1/1	0.15	-	25,25,25,25	0
59	MG	BA	3391	1/1	0.14	-	31,31,31,31	0
59	MG	CA	1643	1/1	0.63	-	51,51,51,51	0
59	MG	BA	3136	1/1	0.06	-	30,30,30,30	0
59	MG	DA	3246	1/1	0.13	-	23,23,23,23	0
59	MG	DD	301	1/1	0.52	-	110,110,110,110	0
59	MG	BA	3123	1/1	0.19	-	45,45,45,45	0
59	MG	DA	3009	1/1	0.14	-	20,20,20,20	0
59	MG	DA	3059	1/1	0.03	-	28,28,28,28	0
59	MG	BA	3036	1/1	0.29	-	20,20,20,20	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	CA	1641	1/1	0.14	-	28,28,28,28	0
59	MG	BA	3362	1/1	0.35	-	51,51,51,51	0
59	MG	CA	1679	1/1	0.17	-	46,46,46,46	0
59	MG	AX	102	1/1	0.10	-	51,51,51,51	0
59	MG	BA	3076	1/1	0.38	-	34,34,34,34	0
59	MG	BA	3008	1/1	0.19	-	13,13,13,13	0
59	MG	CA	1624	1/1	0.14	-	24,24,24,24	0
59	MG	BA	3257	1/1	0.18	-	21,21,21,21	0
59	MG	BX	101	1/1	0.48	-	53,53,53,53	0
59	MG	DA	3047	1/1	0.14	-	25,25,25,25	0
59	MG	DA	3168	1/1	0.25	-	43,43,43,43	0
59	MG	CA	1688	1/1	0.18	-	59,59,59,59	0
59	MG	DA	3248	1/1	0.47	-	60,60,60,60	0
59	MG	BA	3364	1/1	0.12	-	8,8,8,8	0
59	MG	BA	3301	1/1	0.10	-	21,21,21,21	0
59	MG	BA	3016	1/1	0.41	-	27,27,27,27	0
59	MG	AA	1623	1/1	0.18	-	27,27,27,27	0
59	MG	BA	3161	1/1	0.42	-	16,16,16,16	0
59	MG	AA	1637	1/1	0.15	-	40,40,40,40	0
59	MG	DA	3014	1/1	0.19	-	79,79,79,79	0
59	MG	DA	3180	1/1	0.47	-	27,27,27,27	0
59	MG	BA	3334	1/1	0.14	-	32,32,32,32	0
59	MG	BA	3052	1/1	0.43	-	37,37,37,37	0
59	MG	BA	3240	1/1	0.14	-	60,60,60,60	0
59	MG	BA	3061	1/1	0.29	-	21,21,21,21	0
59	MG	AA	1605	1/1	0.19	-	54,54,54,54	0
59	MG	DA	3013	1/1	0.39	-	32,32,32,32	0
59	MG	AA	1606	1/1	0.13	-	63,63,63,63	0
59	MG	AA	1712	1/1	0.40	-	53,53,53,53	0
59	MG	DA	3176	1/1	0.13	-	51,51,51,51	0
59	MG	BA	3153	1/1	0.14	-	37,37,37,37	0
59	MG	AA	1686	1/1	0.13	-	58,58,58,58	0
59	MG	BA	3390	1/1	0.15	-	53,53,53,53	0
59	MG	CA	1661	1/1	0.46	-	42,42,42,42	0
59	MG	DA	3016	1/1	0.11	-	54,54,54,54	0
59	MG	DA	3154	1/1	0.06	-	64,64,64,64	0
59	MG	BA	3222	1/1	0.17	-	18,18,18,18	0
59	MG	BA	3236	1/1	0.18	-	23,23,23,23	0
59	MG	CA	1632	1/1	0.31	-	47,47,47,47	0
59	MG	BA	3225	1/1	0.18	-	43,43,43,43	0
59	MG	AA	1682	1/1	0.11	-	53,53,53,53	0
59	MG	AH	201	1/1	0.25	-	31,31,31,31	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	DA	3234	1/1	0.39	-	84,84,84,84	0
59	MG	DA	3188	1/1	0.23	-	40,40,40,40	0
59	MG	DA	3095	1/1	1.08	-	64,64,64,64	0
59	MG	BA	3092	1/1	0.07	-	20,20,20,20	0
59	MG	DA	3004	1/1	0.22	-	54,54,54,54	0
59	MG	BA	3157	1/1	0.10	-	42,42,42,42	0
59	MG	DA	3068	1/1	0.27	-	60,60,60,60	0
59	MG	BA	3137	1/1	0.20	-	34,34,34,34	0
59	MG	BA	3183	1/1	0.21	-	37,37,37,37	0
59	MG	DA	3152	1/1	0.38	-	54,54,54,54	0
59	MG	BA	3207	1/1	0.17	-	24,24,24,24	0
59	MG	AA	1711	1/1	0.22	-	68,68,68,68	0
59	MG	DR	201	1/1	0.28	-	65,65,65,65	0
59	MG	BA	3320	1/1	1.54	-	89,89,89,89	0
59	MG	BA	3262	1/1	0.20	-	27,27,27,27	0
59	MG	BA	3039	1/1	0.23	-	18,18,18,18	0
59	MG	BA	3026	1/1	0.29	-	29,29,29,29	0
59	MG	DA	3036	1/1	0.33	-	31,31,31,31	0
59	MG	DA	3049	1/1	0.15	-	41,41,41,41	0
59	MG	BA	3102	1/1	0.26	-	49,49,49,49	0
59	MG	BA	3130	1/1	0.08	-	13,13,13,13	0
59	MG	DA	3189	1/1	1.08	-	92,92,92,92	0
59	MG	BA	3286	1/1	0.17	-	26,26,26,26	0
59	MG	BA	3058	1/1	0.18	-	20,20,20,20	0
59	MG	CA	1642	1/1	0.24	-	29,29,29,29	0
59	MG	DA	3113	1/1	0.25	-	49,49,49,49	0
59	MG	BA	3057	1/1	0.12	-	23,23,23,23	0
59	MG	BA	3104	1/1	0.37	-	52,52,52,52	0
59	MG	AA	1641	1/1	0.18	-	62,62,62,62	0
59	MG	BA	3373	1/1	0.36	-	55,55,55,55	0
59	MG	AA	1609	1/1	0.09	-	23,23,23,23	0
59	MG	AA	1694	1/1	0.24	-	24,24,24,24	0
59	MG	AA	1619	1/1	0.58	-	47,47,47,47	0
59	MG	BA	3277	1/1	0.34	-	60,60,60,60	0
59	MG	BA	3272	1/1	0.27	-	30,30,30,30	0
59	MG	DA	3079	1/1	0.25	-	16,16,16,16	0
59	MG	BA	3306	1/1	0.14	-	29,29,29,29	0
59	MG	BA	3118	1/1	0.21	-	18,18,18,18	0
59	MG	BA	3309	1/1	0.04	-	41,41,41,41	0
59	MG	BA	3139	1/1	0.12	-	15,15,15,15	0
59	MG	BA	3094	1/1	0.13	-	12,12,12,12	0
59	MG	BA	3189	1/1	0.27	-	18,18,18,18	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	BA	3258	1/1	0.13	-	26,26,26,26	0
59	MG	BA	3392	1/1	0.28	-	63,63,63,63	0
59	MG	AA	1617	1/1	0.09	-	48,48,48,48	0
59	MG	DA	3035	1/1	0.58	-	63,63,63,63	0
59	MG	DA	3275	1/1	0.25	-	54,54,54,54	0
59	MG	BA	3064	1/1	0.26	-	32,32,32,32	0
59	MG	BA	3376	1/1	0.89	-	66,66,66,66	0
59	MG	AA	1687	1/1	0.05	-	27,27,27,27	0
59	MG	BA	3031	1/1	0.19	-	12,12,12,12	0
59	MG	DA	3238	1/1	0.53	-	101,101,101,101	0
59	MG	BA	3340	1/1	0.16	-	42,42,42,42	0
59	MG	DA	3119	1/1	0.61	-	62,62,62,62	0
59	MG	BA	3089	1/1	0.14	-	55,55,55,55	0
59	MG	BA	3371	1/1	0.30	-	57,57,57,57	0
59	MG	DA	3160	1/1	0.31	-	28,28,28,28	0
59	MG	AA	1651	1/1	0.27	-	37,37,37,37	0
59	MG	BA	3321	1/1	0.21	-	51,51,51,51	0
59	MG	CA	1637	1/1	0.06	-	29,29,29,29	0
59	MG	BA	3331	1/1	0.11	-	52,52,52,52	0
59	MG	AA	1668	1/1	0.20	-	194,194,194,194	0
59	MG	BA	3333	1/1	0.63	-	55,55,55,55	0
59	MG	DA	3274	1/1	0.18	-	62,62,62,62	0
59	MG	BA	3018	1/1	0.24	-	23,23,23,23	0
59	MG	AA	1717	1/1	0.16	-	50,50,50,50	0
59	MG	AA	1624	1/1	0.20	-	54,54,54,54	0
59	MG	BA	3400	1/1	0.21	-	39,39,39,39	0
59	MG	BA	3074	1/1	0.14	-	12,12,12,12	0
59	MG	AK	201	1/1	0.27	-	66,66,66,66	0
59	MG	BA	3326	1/1	0.11	-	35,35,35,35	0
59	MG	DA	3134	1/1	0.23	-	42,42,42,42	0
59	MG	AA	1632	1/1	0.35	-	53,53,53,53	0
59	MG	BA	3098	1/1	0.25	-	18,18,18,18	0
59	MG	AA	1709	1/1	0.07	-	44,44,44,44	0
59	MG	CA	1692	1/1	0.34	-	73,73,73,73	0
59	MG	BA	3389	1/1	0.20	-	44,44,44,44	0
59	MG	DA	3090	1/1	0.13	-	24,24,24,24	0
59	MG	AA	1665	1/1	0.28	-	49,49,49,49	0
59	MG	BA	3305	1/1	0.22	-	32,32,32,32	0
59	MG	DA	3110	1/1	0.12	-	38,38,38,38	0
59	MG	DA	3237	1/1	0.10	-	39,39,39,39	0
59	MG	DA	3063	1/1	0.14	-	53,53,53,53	0
59	MG	BA	3256	1/1	0.15	-	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	BA	3264	1/1	0.25	-	34,34,34,34	0
59	MG	DA	3217	1/1	0.39	-	85,85,85,85	0
59	MG	BA	3081	1/1	0.31	-	6,6,6,6	0
59	MG	DA	3107	1/1	0.10	-	32,32,32,32	0
59	MG	BA	3164	1/1	0.49	-	37,37,37,37	0
59	MG	DA	3055	1/1	0.35	-	42,42,42,42	0
59	MG	BA	3229	1/1	0.35	-	37,37,37,37	0
59	MG	BA	3091	1/1	0.34	-	34,34,34,34	0
59	MG	DA	3216	1/1	0.26	-	35,35,35,35	0
59	MG	BA	3122	1/1	0.24	-	38,38,38,38	0
59	MG	DA	3187	1/1	0.47	-	51,51,51,51	0
59	MG	BA	3113	1/1	0.35	-	34,34,34,34	0
59	MG	AA	1700	1/1	0.29	-	58,58,58,58	0
59	MG	CX	103	1/1	0.21	-	50,50,50,50	0
59	MG	DA	3093	1/1	0.29	-	40,40,40,40	0
59	MG	BA	3298	1/1	1.48	-	178,178,178,178	0
59	MG	BA	3142	1/1	0.19	-	18,18,18,18	0
59	MG	BA	3352	1/1	0.41	-	51,51,51,51	0
59	MG	DA	3062	1/1	0.16	-	24,24,24,24	0
59	MG	CA	1650	1/1	0.38	-	69,69,69,69	0
59	MG	AA	1647	1/1	0.28	-	80,80,80,80	0
59	MG	BA	3006	1/1	0.30	-	16,16,16,16	0
59	MG	BA	3237	1/1	0.47	-	32,32,32,32	0
59	MG	AA	1640	1/1	0.35	-	37,37,37,37	0
59	MG	DA	3017	1/1	0.24	-	16,16,16,16	0
59	MG	BA	3116	1/1	0.21	-	54,54,54,54	0
59	MG	CA	1628	1/1	0.09	-	27,27,27,27	0
59	MG	AA	1669	1/1	0.14	-	36,36,36,36	0
59	MG	BA	3029	1/1	0.12	-	23,23,23,23	0
59	MG	BA	3082	1/1	0.12	-	15,15,15,15	0
59	MG	DA	3153	1/1	0.20	-	28,28,28,28	0
59	MG	DA	3195	1/1	0.25	-	38,38,38,38	0
59	MG	AA	1607	1/1	0.42	-	43,43,43,43	0
59	MG	AA	1652	1/1	0.38	-	55,55,55,55	0
59	MG	AA	1614	1/1	0.23	-	45,45,45,45	0
59	MG	AF	201	1/1	0.13	-	39,39,39,39	0
59	MG	BA	3399	1/1	0.20	-	41,41,41,41	0
59	MG	AA	1681	1/1	0.09	-	30,30,30,30	0
59	MG	AX	106	1/1	0.15	-	43,43,43,43	0
59	MG	DA	3245	1/1	0.31	-	86,86,86,86	0
59	MG	BA	3313	1/1	0.40	-	55,55,55,55	0
59	MG	CA	1668	1/1	0.07	-	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	BB	201	1/1	0.06	-	18,18,18,18	0
59	MG	BA	3197	1/1	0.34	-	45,45,45,45	0
59	MG	BA	3318	1/1	0.31	-	41,41,41,41	0
59	MG	CV	101	1/1	0.23	-	36,36,36,36	0
59	MG	DA	3096	1/1	0.18	-	38,38,38,38	0
59	MG	AO	101	1/1	0.11	-	62,62,62,62	0
59	MG	DA	3192	1/1	0.21	-	39,39,39,39	0
59	MG	AA	1697	1/1	0.33	-	73,73,73,73	0
59	MG	BA	3367	1/1	0.44	-	35,35,35,35	0
59	MG	DA	3221	1/1	0.35	-	59,59,59,59	0
59	MG	BA	3202	1/1	0.11	-	28,28,28,28	0
59	MG	DA	3127	1/1	0.26	-	48,48,48,48	0
59	MG	CA	1658	1/1	0.13	-	40,40,40,40	0
59	MG	AA	1622	1/1	0.24	-	44,44,44,44	0
59	MG	DA	3155	1/1	0.14	-	56,56,56,56	0
59	MG	BA	3336	1/1	0.24	-	23,23,23,23	0
59	MG	BA	3227	1/1	0.12	-	69,69,69,69	0
59	MG	AA	1722	1/1	0.13	-	35,35,35,35	0
59	MG	DA	3098	1/1	0.13	-	37,37,37,37	0
59	MG	CA	1654	1/1	0.11	-	63,63,63,63	0
59	MG	AA	1625	1/1	0.16	-	32,32,32,32	0
59	MG	BA	3155	1/1	0.07	-	9,9,9,9	0
59	MG	CA	1665	1/1	0.27	-	34,34,34,34	0
59	MG	BA	3103	1/1	0.58	-	65,65,65,65	0
59	MG	AA	1691	1/1	0.44	-	56,56,56,56	0
59	MG	DA	3224	1/1	0.12	-	53,53,53,53	0
59	MG	BA	3278	1/1	0.32	-	50,50,50,50	0
59	MG	BA	3216	1/1	0.37	-	42,42,42,42	0
59	MG	DA	3109	1/1	0.58	-	65,65,65,65	0
59	MG	BA	3247	1/1	0.08	-	29,29,29,29	0
59	MG	DE	302	1/1	0.62	-	65,65,65,65	0
59	MG	AA	1645	1/1	0.32	-	64,64,64,64	0
59	MG	BA	3097	1/1	0.11	-	21,21,21,21	0
59	MG	AA	1693	1/1	0.13	-	41,41,41,41	0
59	MG	BA	3327	1/1	0.35	-	44,44,44,44	0
59	MG	BA	3337	1/1	0.28	-	61,61,61,61	0
59	MG	DA	3054	1/1	0.10	-	42,42,42,42	0
59	MG	CA	1616	1/1	0.25	-	46,46,46,46	0
59	MG	DA	3149	1/1	0.28	-	42,42,42,42	0
59	MG	AY	101	1/1	0.19	-	71,71,71,71	0
59	MG	DA	3006	1/1	0.25	-	20,20,20,20	0
59	MG	DA	3186	1/1	0.16	-	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	BA	3271	1/1	0.30	-	64,64,64,64	0
59	MG	BA	3242	1/1	0.50	-	44,44,44,44	0
59	MG	DA	3094	1/1	0.26	-	27,27,27,27	0
59	MG	BA	3158	1/1	0.10	-	40,40,40,40	0
59	MG	BA	3212	1/1	0.18	-	25,25,25,25	0
59	MG	CA	1645	1/1	0.05	-	27,27,27,27	0
59	MG	BA	3338	1/1	0.08	-	60,60,60,60	0
59	MG	BA	3171	1/1	0.33	-	51,51,51,51	0
59	MG	BA	3032	1/1	0.13	-	21,21,21,21	0
59	MG	CA	1683	1/1	0.52	-	55,55,55,55	0
59	MG	BA	3380	1/1	0.13	-	47,47,47,47	0
59	MG	DA	3019	1/1	0.17	-	13,13,13,13	0
59	MG	DD	302	1/1	0.46	-	34,34,34,34	0
59	MG	BA	3370	1/1	0.16	-	28,28,28,28	0
59	MG	BA	3173	1/1	0.14	-	17,17,17,17	0
59	MG	BA	3388	1/1	0.15	-	13,13,13,13	0
59	MG	BA	3177	1/1	0.20	-	65,65,65,65	0
59	MG	BA	3254	1/1	0.10	-	43,43,43,43	0
59	MG	DA	3089	1/1	0.30	-	26,26,26,26	0
59	MG	AA	1707	1/1	0.52	-	59,59,59,59	0
59	MG	BA	3071	1/1	0.04	-	42,42,42,42	0
59	MG	BA	3131	1/1	0.83	-	68,68,68,68	0
59	MG	DA	3024	1/1	0.12	-	29,29,29,29	0
59	MG	AA	1710	1/1	0.61	-	113,113,113,113	0
59	MG	BA	3028	1/1	0.22	-	41,41,41,41	0
59	MG	BA	3180	1/1	0.31	-	22,22,22,22	0
59	MG	DA	3231	1/1	0.19	-	43,43,43,43	0
59	MG	DA	3162	1/1	0.08	-	40,40,40,40	0
59	MG	AA	1661	1/1	0.12	-	34,34,34,34	0
59	MG	AA	1635	1/1	0.19	-	46,46,46,46	0
59	MG	BA	3288	1/1	0.15	-	33,33,33,33	0
59	MG	B0	101	1/1	0.22	-	58,58,58,58	0
59	MG	DA	3262	1/1	0.08	-	58,58,58,58	0
59	MG	BA	3361	1/1	0.11	-	25,25,25,25	0
59	MG	AA	1671	1/1	0.20	-	83,83,83,83	0
59	MG	DA	3140	1/1	0.43	-	38,38,38,38	0
59	MG	DA	3099	1/1	0.27	-	45,45,45,45	0
59	MG	DA	3102	1/1	0.10	-	84,84,84,84	0
59	MG	CA	1672	1/1	0.28	-	45,45,45,45	0
59	MG	DA	3156	1/1	0.26	-	28,28,28,28	0
59	MG	BA	3292	1/1	0.35	-	40,40,40,40	0
59	MG	CA	1647	1/1	0.42	-	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	DA	3078	1/1	0.20	-	58,58,58,58	0
59	MG	AA	1615	1/1	0.18	-	42,42,42,42	0
59	MG	DA	3161	1/1	0.46	-	32,32,32,32	0
59	MG	CA	1689	1/1	0.20	-	63,63,63,63	0
59	MG	CA	1604	1/1	0.10	-	21,21,21,21	0
59	MG	BA	3048	1/1	0.08	-	6,6,6,6	0
59	MG	DA	3057	1/1	0.11	-	21,21,21,21	0
59	MG	CA	1617	1/1	0.24	-	39,39,39,39	0
59	MG	DA	3240	1/1	0.20	-	49,49,49,49	0
59	MG	BA	3041	1/1	0.17	-	20,20,20,20	0
59	MG	BA	3003	1/1	0.42	-	42,42,42,42	0
60	ZN	D5	103	1/1	0.04	-	92,92,92,92	0
59	MG	DA	3005	1/1	0.28	-	50,50,50,50	0
59	MG	DA	3199	1/1	0.44	-	38,38,38,38	0
59	MG	BA	3053	1/1	0.18	-	11,11,11,11	0
59	MG	BA	3232	1/1	0.33	-	25,25,25,25	0
59	MG	CA	1638	1/1	0.19	-	46,46,46,46	0
59	MG	BA	3169	1/1	0.07	-	51,51,51,51	0
59	MG	BA	3172	1/1	0.36	-	40,40,40,40	0
59	MG	BA	3234	1/1	0.28	-	35,35,35,35	0
59	MG	BA	3112	1/1	0.15	-	52,52,52,52	0
59	MG	BA	3319	1/1	0.42	-	25,25,25,25	0
59	MG	BA	3366	1/1	0.40	-	64,64,64,64	0
59	MG	AA	1720	1/1	0.14	-	52,52,52,52	0
59	MG	BA	3014	1/1	0.22	-	63,63,63,63	0
59	MG	BA	3066	1/1	0.25	-	20,20,20,20	0
59	MG	AA	1719	1/1	0.24	-	58,58,58,58	0
59	MG	CA	1676	1/1	0.15	-	55,55,55,55	0
59	MG	CA	1619	1/1	0.47	-	80,80,80,80	0
59	MG	BA	3322	1/1	0.68	-	147,147,147,147	0
59	MG	BA	3054	1/1	0.14	-	22,22,22,22	0
59	MG	DA	3042	1/1	0.25	-	41,41,41,41	0
59	MG	AK	202	1/1	0.27	-	90,90,90,90	0
59	MG	DA	3210	1/1	0.46	-	57,57,57,57	0
59	MG	AA	1601	1/1	0.07	-	38,38,38,38	0
59	MG	DA	3091	1/1	0.17	-	67,67,67,67	0
59	MG	DA	3181	1/1	0.26	-	52,52,52,52	0
59	MG	DA	3211	1/1	1.05	-	78,78,78,78	0
59	MG	AA	1642	1/1	0.27	-	55,55,55,55	0
59	MG	BA	3354	1/1	0.10	-	41,41,41,41	0
59	MG	DA	3124	1/1	0.05	-	43,43,43,43	0
59	MG	DA	3040	1/1	0.07	-	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	AA	1633	1/1	0.09	-	37,37,37,37	0
59	MG	DA	3053	1/1	0.14	-	47,47,47,47	0
59	MG	AA	1660	1/1	0.41	-	40,40,40,40	0
59	MG	BA	3084	1/1	0.27	-	19,19,19,19	0
59	MG	BA	3121	1/1	0.10	-	38,38,38,38	0
59	MG	BA	3358	1/1	0.08	-	49,49,49,49	0
59	MG	DA	3251	1/1	0.16	-	44,44,44,44	0
59	MG	CQ	201	1/1	0.10	-	94,94,94,94	0
59	MG	BA	3350	1/1	0.11	-	20,20,20,20	0
59	MG	BA	3140	1/1	0.05	-	30,30,30,30	0
59	MG	BA	3381	1/1	0.17	-	43,43,43,43	0
59	MG	BA	3196	1/1	0.32	-	49,49,49,49	0
59	MG	BA	3344	1/1	0.08	-	37,37,37,37	0
59	MG	AA	1667	1/1	0.35	-	59,59,59,59	0
59	MG	DA	3170	1/1	0.12	-	52,52,52,52	0
59	MG	BA	3325	1/1	0.19	-	61,61,61,61	0
59	MG	DA	3190	1/1	0.13	-	33,33,33,33	0
59	MG	DA	3213	1/1	0.57	-	62,62,62,62	0
59	MG	DA	3026	1/1	0.13	-	36,36,36,36	0
59	MG	BA	3387	1/1	0.15	-	46,46,46,46	0
59	MG	DE	303	1/1	0.10	-	32,32,32,32	0
59	MG	DA	3129	1/1	0.40	-	35,35,35,35	0
59	MG	BA	3342	1/1	0.19	-	21,21,21,21	0
59	MG	DA	3065	1/1	0.27	-	51,51,51,51	0
59	MG	DA	3037	1/1	0.22	-	26,26,26,26	0
59	MG	DA	3032	1/1	0.08	-	9,9,9,9	0
59	MG	BA	3349	1/1	0.19	-	53,53,53,53	0
59	MG	CA	1639	1/1	0.33	-	74,74,74,74	0
59	MG	DA	3121	1/1	0.15	-	37,37,37,37	0
59	MG	CA	1660	1/1	0.11	-	45,45,45,45	0
59	MG	DA	3100	1/1	0.47	-	57,57,57,57	0
59	MG	DA	3012	1/1	0.20	-	33,33,33,33	0
59	MG	DA	3029	1/1	0.31	-	34,34,34,34	0
59	MG	DA	3048	1/1	0.20	-	48,48,48,48	0
59	MG	BA	3163	1/1	0.09	-	22,22,22,22	0
59	MG	DA	3159	1/1	0.10	-	16,16,16,16	0
59	MG	AX	107	1/1	0.50	-	80,80,80,80	0
59	MG	CA	1620	1/1	0.39	-	40,40,40,40	0
59	MG	BA	3143	1/1	0.24	-	37,37,37,37	0
59	MG	DA	3051	1/1	0.46	-	51,51,51,51	0
59	MG	AA	1705	1/1	0.12	-	47,47,47,47	0
59	MG	CA	1675	1/1	0.53	-	150,150,150,150	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
59	MG	DA	3060	1/1	0.10	-	16,16,16,16	0

6.5 Other polymers ⓘ

There are no such residues in this entry.