



# Full wwPDB X-ray Structure Validation Report

Jun 16, 2014 – 07:17 PM BST

PDB ID : 4V6A  
Title : Structure of EF-P bound to the 70S ribosome.  
Authors : Stanley, R.E.; Blaha, G.  
Deposited on : 2009-06-15  
Resolution : 3.10 Å(reported)

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

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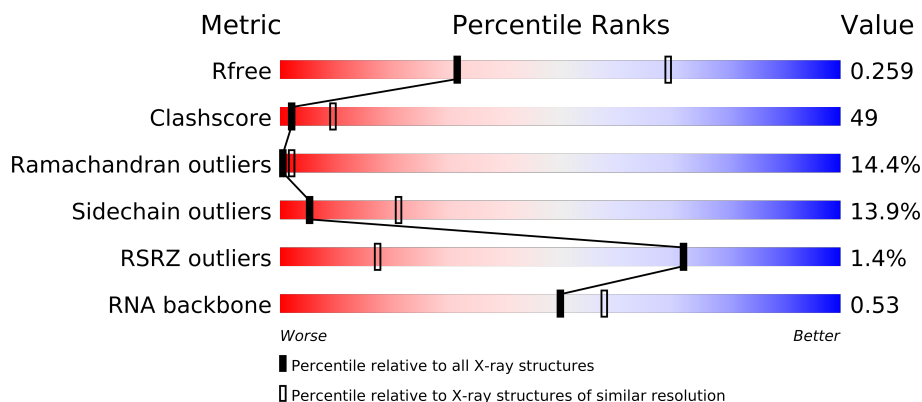
The following versions of software and data (see [references](#)) were used in the production of this report:

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 3.10 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	1007 (3.18-3.02)
Clashscore	79885	1078 (3.16-3.04)
Ramachandran outliers	78287	1044 (3.16-3.04)
Sidechain outliers	78261	1044 (3.16-3.04)
RSRZ outliers	66119	1008 (3.18-3.02)
RNA backbone	1838	1047 (3.60-2.60)

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  $\geq 3$ , 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	184	
22	CV	184	
23	AW	77	
23	CW	77	
24	AX	5	
24	CX	5	
25	BA	2915	
25	DA	2915	
26	BB	122	
26	DB	122	
27	BC	229	
27	DC	229	

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Mol	Chain	Length	Quality of chain
28	BD	276	
28	DD	276	
29	BE	206	
29	DE	206	
30	BF	210	
30	DF	210	
31	BG	182	
31	DG	182	
32	BH	180	
32	DH	180	
33	BI	148	
33	DI	148	
34	BN	140	
34	DN	140	
35	BO	122	
35	DO	122	
36	BP	150	
36	DP	150	
37	BQ	141	
37	DQ	141	
38	BR	118	
38	DR	118	
39	BS	112	
39	DS	112	
40	BT	146	
40	DT	146	
41	BU	118	
41	DU	118	
42	BV	101	
42	DV	101	
43	BW	113	
43	DW	113	
44	BX	96	
44	DX	96	
45	BY	110	
45	DY	110	
46	BZ	206	
46	DZ	206	
47	B0	85	
47	D0	85	
48	B1	98	
48	D1	98	

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Mol	Chain	Length	Quality of chain
49	B2	72	
49	D2	72	
50	B3	60	
50	D3	60	
51	B4	71	
51	D4	71	
52	B5	60	
52	D5	60	
53	B6	54	
53	D6	54	
54	B7	49	
54	D7	49	
55	B8	65	
55	D8	65	
56	B9	37	
56	D9	37	

## 2 Entry composition

There are 58 unique types of molecules in this entry. The entry contains 290405 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
			32144	14306	5964	10379	1495			
1	CA	1504	Total	C	N	O	P	0	0	0
			32332	14390	5992	10446	1504			

- 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
			1004	635	195	174			
9	CI	127	Total	C	N	O	0	0	0
			1004	635	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	1
			947	585	196	164	2			
13	CM	120	Total	C	N	O	S	0	0	1
			947	585	196	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	80	Total	C	N	O	S	0	0	1
			613	392	110	109	2			
19	CS	78	Total	C	N	O	S	0	0	1
			619	397	111	109	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 protein called Elongation factor P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	AV	176	Total	C	N	O	S	0	0	0
			1367	870	223	267	7			
22	CV	176	Total	C	N	O	S	0	0	0
			1367	870	223	267	7			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	AW	77	Total	C	N	O	P	0	0	0
			1644	732	297	538	77			
23	CW	77	Total	C	N	O	P	0	0	0
			1644	732	297	538	77			

- Molecule 24 is a RNA chain called RNA (5'-R(P\*AP\*AP\*AP\*UP\*G)-3').

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	AX	5	Total	C	N	O	P	0	0	0
			110	49	22	34	5			
24	CX	5	Total	C	N	O	P	0	0	0
			110	49	22	34	5			

- Molecule 25 is a RNA chain called 23S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	BA	2767	Total	C	N	O	P	0	0	0
			59596	26524	11148	19158	2766			
25	DA	2777	Total	C	N	O	P	0	0	0
			59809	26619	11186	19228	2776			

- Molecule 26 is a RNA chain called 5S ribosomal RNA.

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

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

- Molecule 27 is a protein called 50S ribosomal protein L1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	BC	224	Total	C	N	O	S	2	0	0
			1702	1075	309	315	3			
27	DC	220	Total	C	N	O	S	1	0	0
			1640	1033	297	307	3			

- Molecule 28 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	BD	274	Total	C	N	O	S	0	0	1
			2127	1341	425	358	3			
28	DD	274	Total	C	N	O	S	0	0	1
			2115	1335	419	358	3			

- Molecule 29 is a protein called 50S ribosomal protein L3.

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

- Molecule 30 is a protein called 50S ribosomal protein L4.

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

- Molecule 31 is a protein called 50S ribosomal protein L5.

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

- Molecule 32 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	BH	168	Total	C	N	O	S	0	0	1
			1231	780	228	222	1			
32	DH	160	Total	C	N	O	S	0	0	1
			1223	773	229	220	1			

- Molecule 33 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	BI	146	Total	C	N	O	S	0	0	1
			1043	661	185	196	1			
33	DI	146	Total	C	N	O	S	0	0	1
			871	543	162	165	1			

- Molecule 34 is a protein called 50S ribosomal protein L13.

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

- Molecule 35 is a protein called 50S ribosomal protein L14.

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

- Molecule 36 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	BP	146	Total	C	N	O	S	0	0	0
			1114	692	227	193	2			
36	DP	146	Total	C	N	O	S	0	0	0
			1079	672	216	189	2			

- Molecule 37 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	BQ	139	Total	C	N	O	S	0	0	1
			1099	702	209	181	7			
37	DQ	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			

- Molecule 38 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	BR	116	Total	C	N	O		0	0	0
			923	575	191	157				
38	DR	117	Total	C	N	O		0	0	0
			960	599	202	159				

- Molecule 39 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	BS	101	Total	C	N	O		0	0	1
			777	489	156	132				
39	DS	99	Total	C	N	O		0	0	1
			771	486	155	130				

- Molecule 40 is a protein called 50S ribosomal protein L19.

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

- Molecule 41 is a protein called 50S ribosomal protein L20.

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

- Molecule 42 is a protein called 50S ribosomal protein L21.

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

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

- Molecule 43 is a protein called 50S ribosomal protein L22.

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

- Molecule 44 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	BX	94	Total	C	N	O	S	0	0	1
			735	477	134	124				
44	DX	93	Total	C	N	O	S	0	0	1
			726	471	132	123				

- Molecule 45 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	BY	101	Total	C	N	O	S	0	0	1
			757	486	144	123	4			
45	DY	101	Total	C	N	O	S	0	0	1
			776	500	149	123	4			

- Molecule 46 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	BZ	182	Total	C	N	O	S	0	0	1
			1438	917	258	261	2			
46	DZ	177	Total	C	N	O	S	0	0	1
			1404	897	253	252	2			

- Molecule 47 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	B0	77	Total	C	N	O	S	0	0	0
			613	379	129	104	1			
47	D0	84	Total	C	N	O	S	0	0	0
			662	410	140	111	1			

- Molecule 48 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	B1	96	Total	C	N	O	S	0	0	0
			757	478	149	129	1			
48	D1	94	Total	C	N	O	S	0	0	1
			732	460	146	125	1			

- Molecule 49 is a protein called 50S ribosomal protein L29.

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	B3	59	Total	C	N	O	S	0	0	1
			460	293	90	77				
50	D3	60	Total	C	N	O	S	0	0	1
			468	298	91	78	1			

- Molecule 51 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	B4	31	Total	C	N	O	S	0	0	1
			226	142	37	43	4			
51	D4	31	Total	C	N	O	S	0	0	1
			226	142	37	43	4			

- Molecule 52 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	B5	57	Total	C	N	O	S	0	0	1
			435	272	88	70	5			
52	D5	59	Total	C	N	O	S	0	0	0
			459	288	90	76	5			

- Molecule 53 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	B6	49	Total	C	N	O	S	0	0	1
			401	247	82	68	4			
53	D6	48	Total	C	N	O	S	0	0	0
			322	199	62	57	4			

- Molecule 54 is a protein called 50S ribosomal protein L34.

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

- Molecule 55 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	B8	63	Total	C	N	O	S	0	0	1
			496	317	101	76	2			
55	D8	62	Total	C	N	O	S	0	0	1
			467	299	95	71	2			

- Molecule 56 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
56	B9	36	Total	C	N	O	S	0	0	0
			294	179	66	46	3			
56	D9	36	Total	C	N	O	S	0	0	0
			299	183	67	46	3			

- Molecule 57 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	BA	459	Total	Mg	0	0
			459	459		
57	CA	109	Total	Mg	0	0
			109	109		
57	DF	1	Total	Mg	0	0
			1	1		
57	BE	1	Total	Mg	0	0
			1	1		
57	AW	2	Total	Mg	0	0
			2	2		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	B1	1	Total 1	Mg 1	0	0
57	BP	3	Total 3	Mg 3	0	0
57	DR	1	Total 1	Mg 1	0	0
57	B5	4	Total 4	Mg 4	0	0
57	BB	9	Total 9	Mg 9	0	0
57	BT	1	Total 1	Mg 1	0	0
57	BF	1	Total 1	Mg 1	0	0
57	BX	1	Total 1	Mg 1	0	0
57	AA	117	Total 117	Mg 117	0	0
57	BQ	3	Total 3	Mg 3	0	0
57	D6	2	Total 2	Mg 2	0	0
57	CX	1	Total 1	Mg 1	0	0
57	BU	1	Total 1	Mg 1	0	0
57	DD	1	Total 1	Mg 1	0	0
57	BR	1	Total 1	Mg 1	0	0
57	DA	305	Total 305	Mg 305	0	0
57	B7	1	Total 1	Mg 1	0	0
57	AL	1	Total 1	Mg 1	0	0
57	DP	1	Total 1	Mg 1	0	0
57	CW	5	Total 5	Mg 5	0	0
57	D5	2	Total 2	Mg 2	0	0

*Continued on next page...*

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	BD	1	Total 1	Mg 1	0	0
57	AT	1	Total 1	Mg 1	0	0
57	B0	2	Total 2	Mg 2	0	0
57	CE	1	Total 1	Mg 1	0	0
57	DB	10	Total 10	Mg 10	0	0
57	BH	1	Total 1	Mg 1	0	0

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

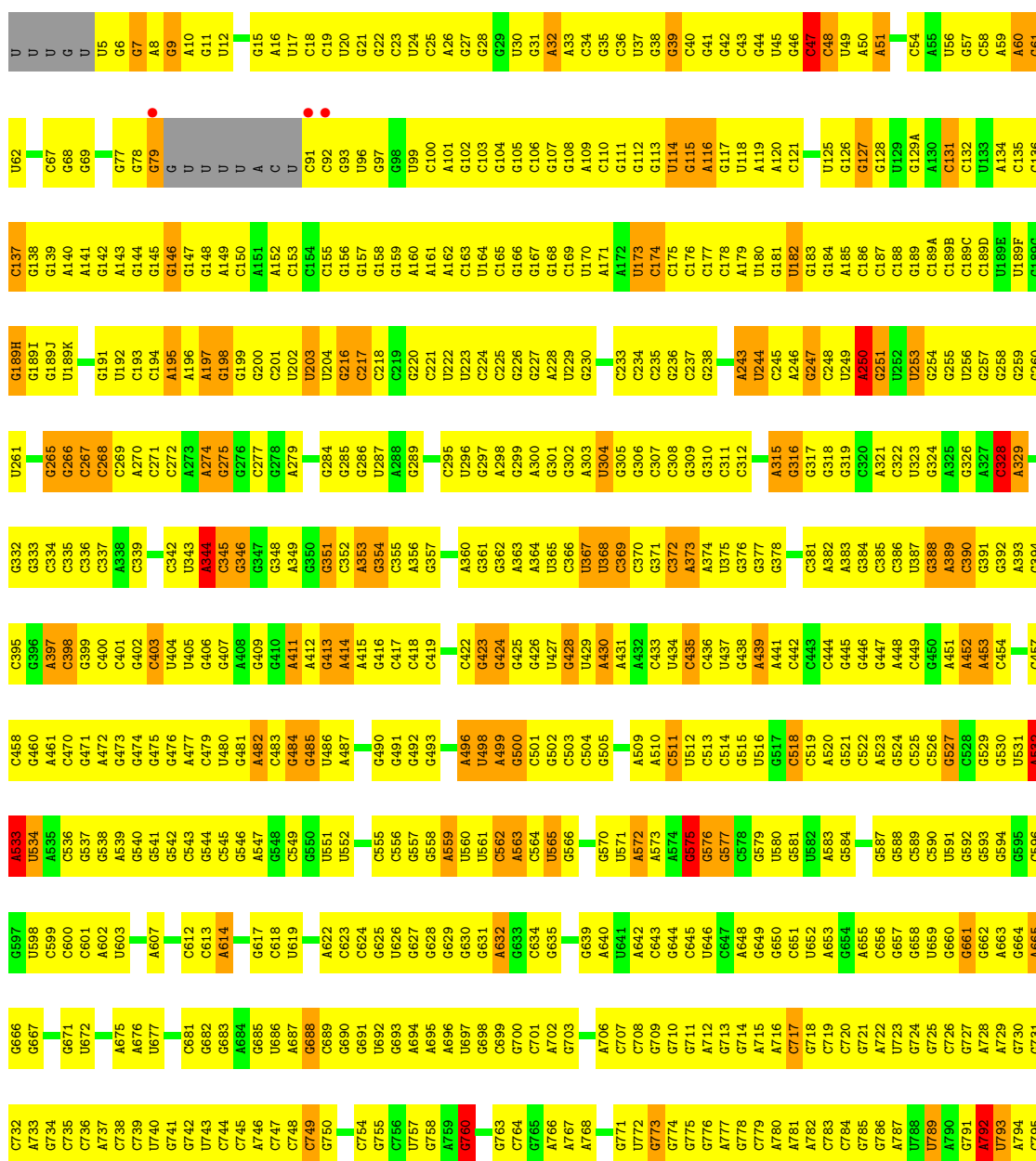
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
58	B5	1	Total 1	Zn 1	0	0
58	AD	1	Total 1	Zn 1	0	0
58	B9	1	Total 1	Zn 1	0	0
58	D9	1	Total 1	Zn 1	0	0
58	D5	1	Total 1	Zn 1	0	0
58	CD	1	Total 1	Zn 1	0	0

### 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.

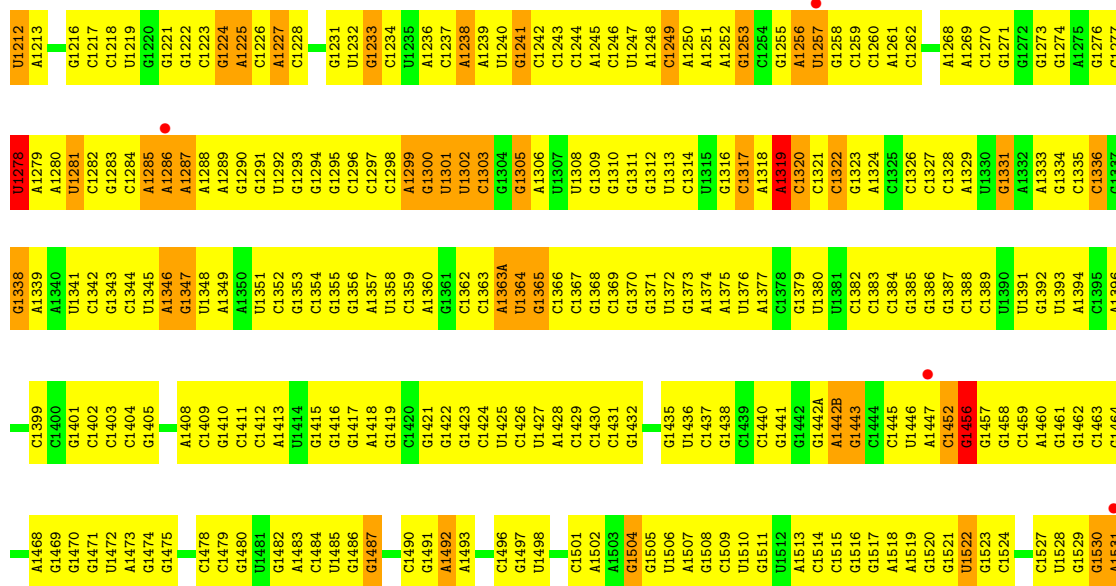
- Molecule 1: 16S ribosomal RNA

Chain AA: 



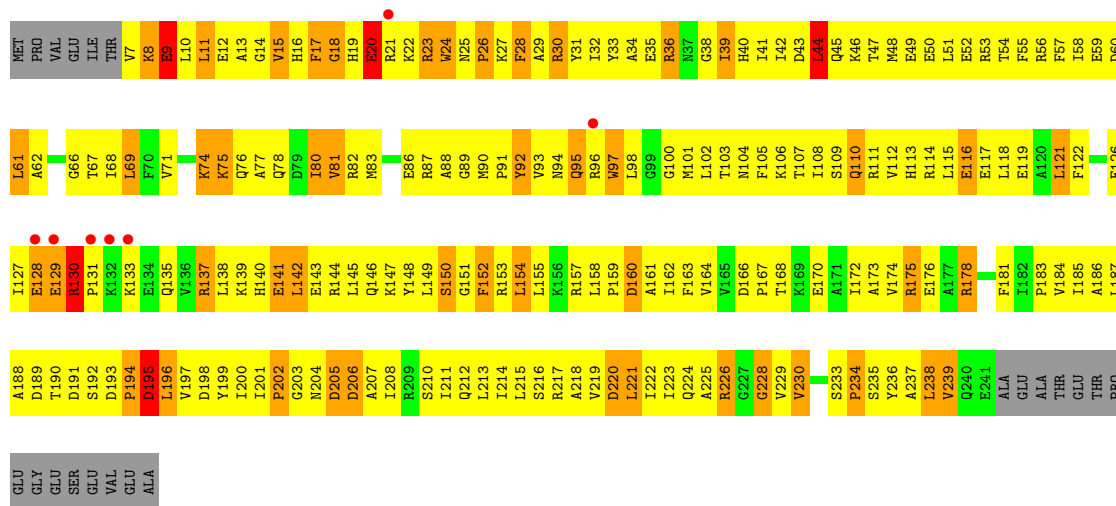






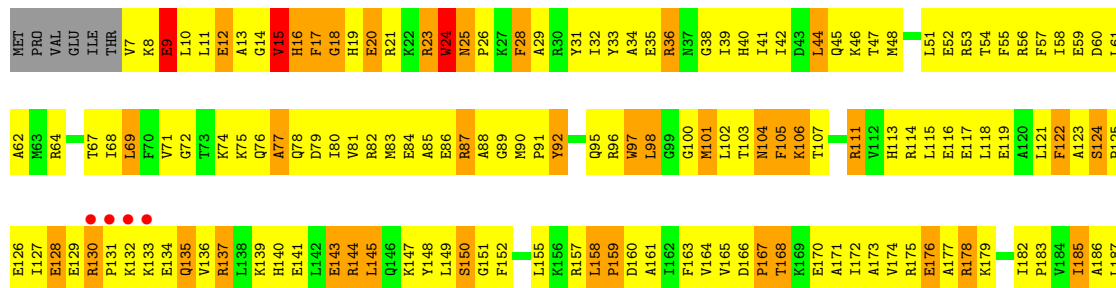
• Molecule 2: 30S ribosomal protein S2

Chain AB: ■ ■ ■ ■



• Molecule 2: 30S ribosomal protein S2

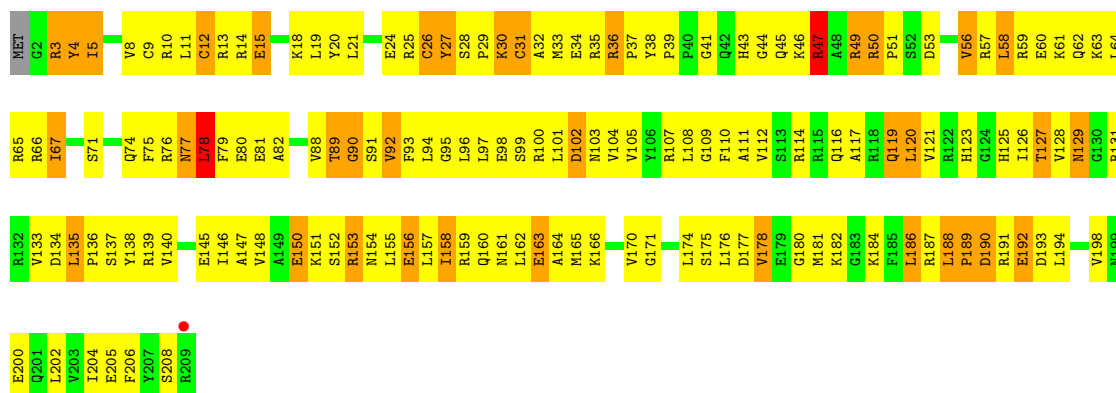
Chain CB: ■ ■ ■ ■





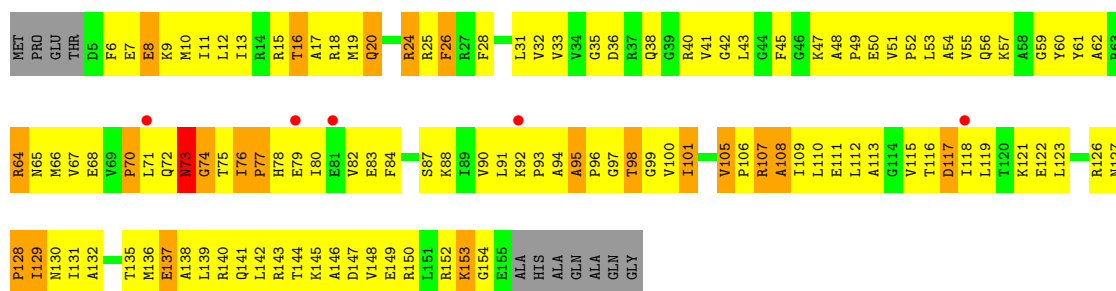
- Molecule 4: 30S ribosomal protein S4

Chain CD:



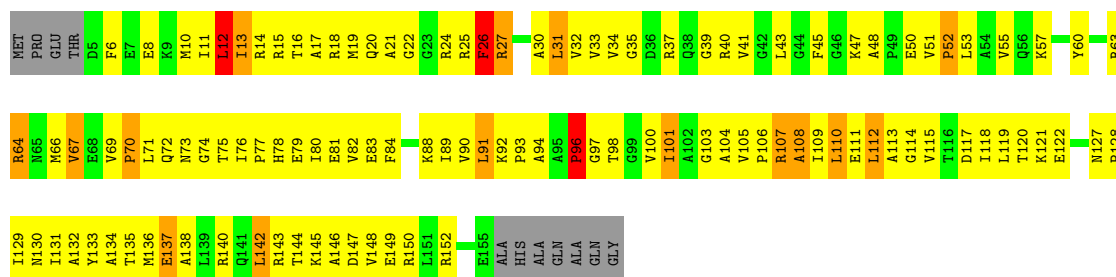
- Molecule 5: 30S ribosomal protein S5

Chain AE:



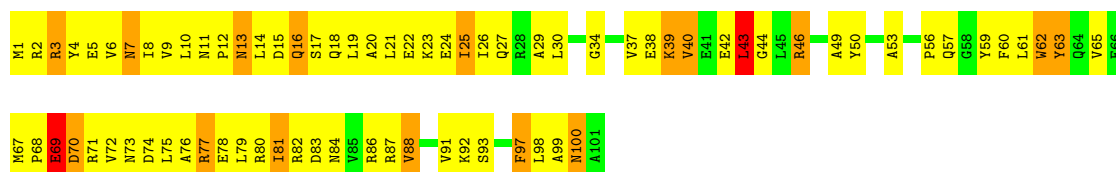
- Molecule 5: 30S ribosomal protein S5

Chain CE:



- Molecule 6: 30S ribosomal protein S6

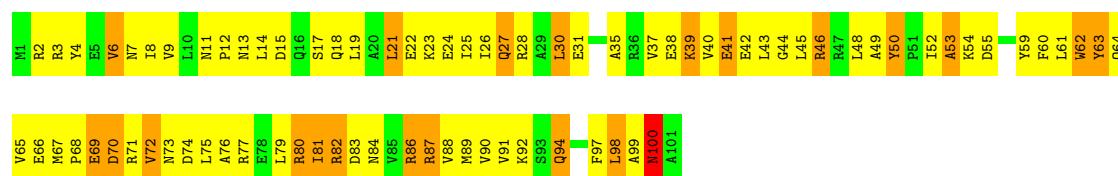
Chain AF:



- Molecule 6: 30S ribosomal protein S6

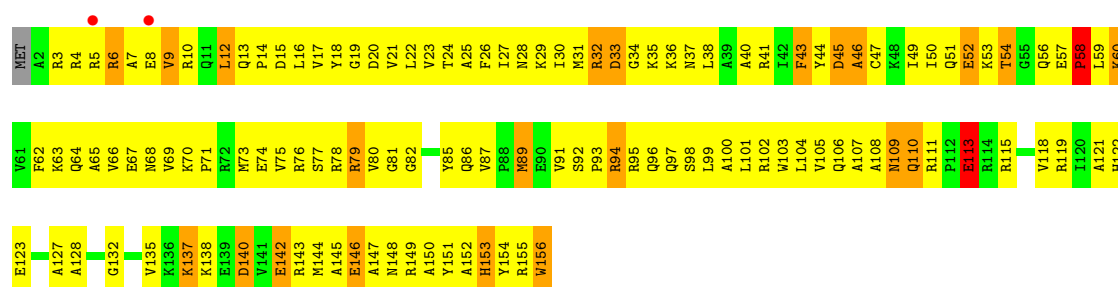


Chain CF:



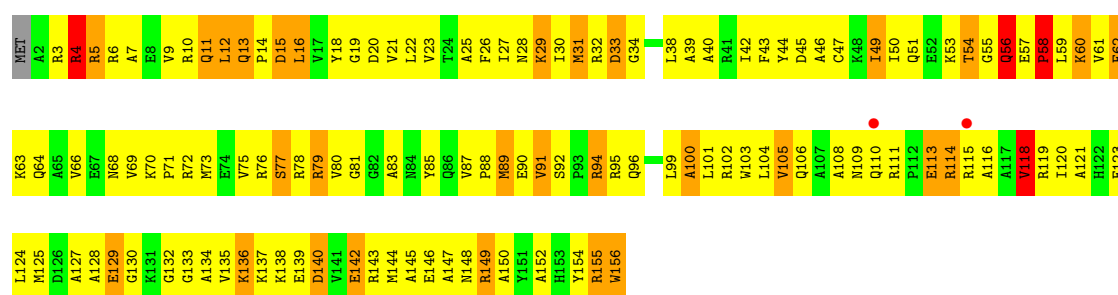
- Molecule 7: 30S ribosomal protein S7

Chain AG:



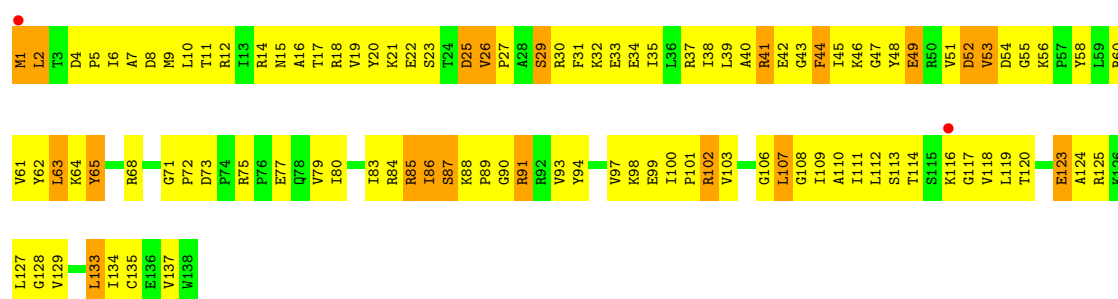
- Molecule 7: 30S ribosomal protein S7

Chain CG:



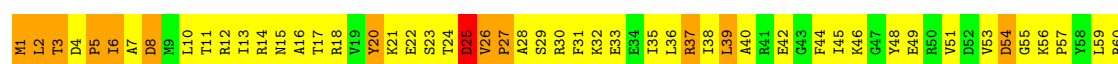
- Molecule 8: 30S ribosomal protein S8

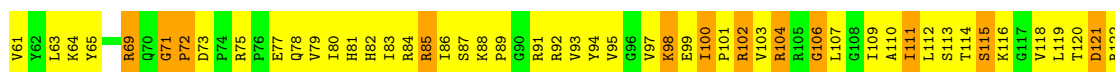
Chain AH:



- Molecule 8: 30S ribosomal protein S8

Chain CH:





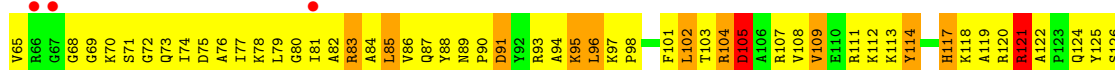
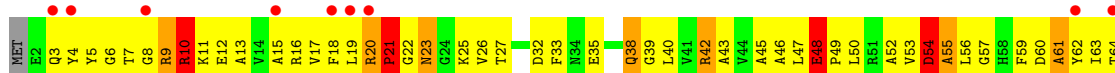
• Molecule 9: 30S ribosomal protein S9

Chain AI:



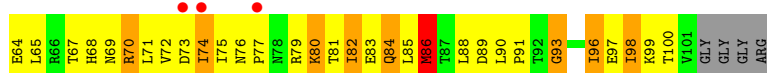
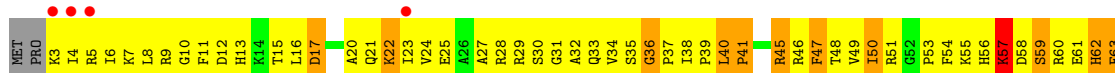
• Molecule 9: 30S ribosomal protein S9

Chain CI:



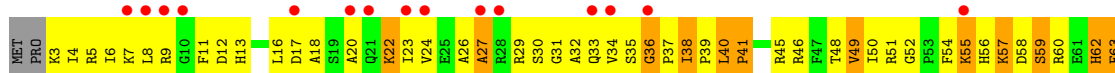
• Molecule 10: 30S ribosomal protein S10

Chain AJ:



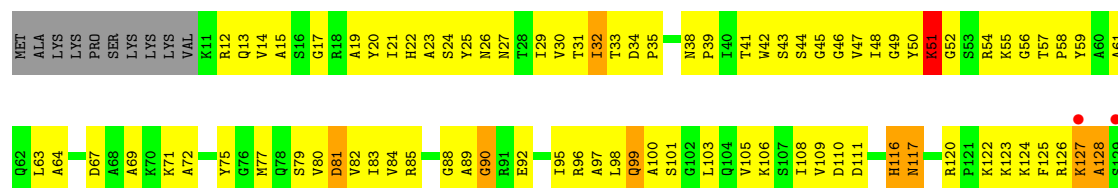
• Molecule 10: 30S ribosomal protein S10

Chain CJ:



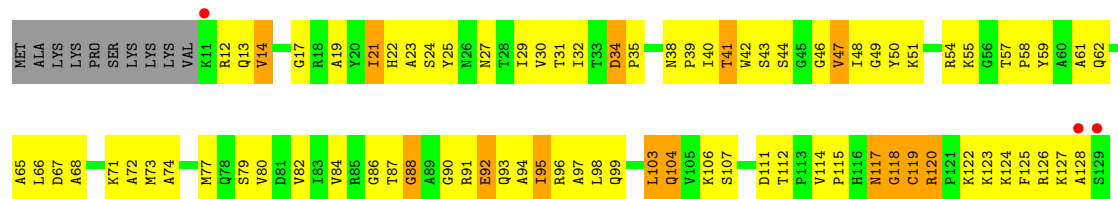
- Molecule 11: 30S ribosomal protein S11

Chain AK:



- Molecule 11: 30S ribosomal protein S11

Chain CK:



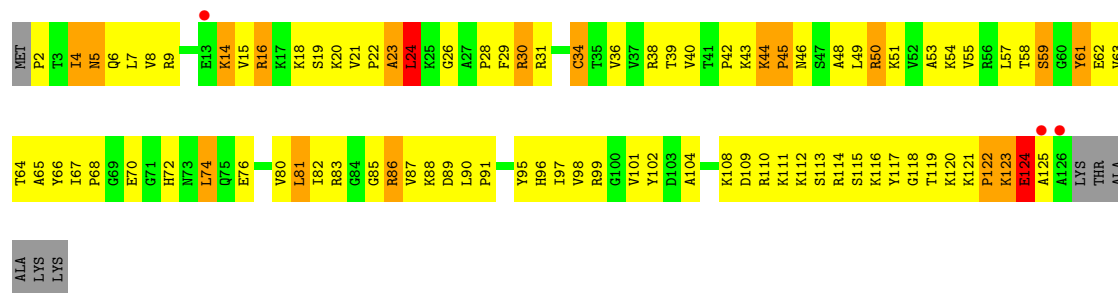
- Molecule 12: 30S ribosomal protein S12

Chain AL:



- Molecule 12: 30S ribosomal protein S12

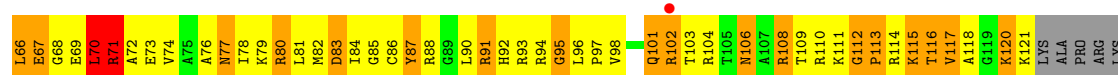
Chain CL:



- Molecule 13: 30S ribosomal protein S13

Chain AM:





- Molecule 13: 30S ribosomal protein S13

Chain CM:



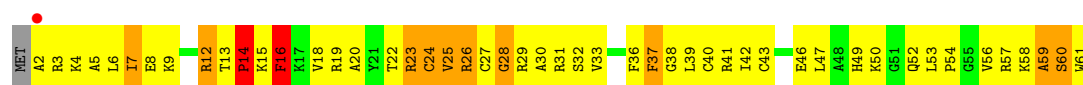
- Molecule 14: 30S ribosomal protein S14

Chain AN:



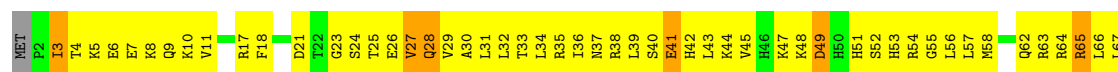
- Molecule 14: 30S ribosomal protein S14

Chain CN:



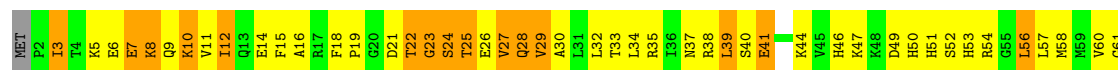
- Molecule 15: 30S ribosomal protein S15

Chain AO:



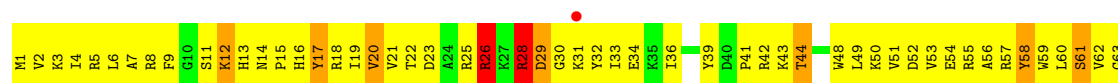
- Molecule 15: 30S ribosomal protein S15

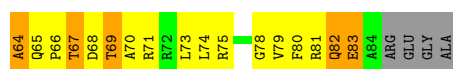
Chain CO:



- Molecule 16: 30S ribosomal protein S16

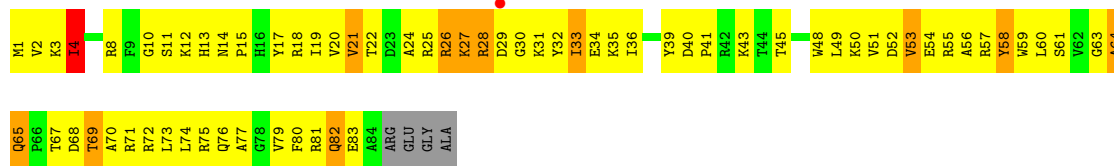
Chain AP:





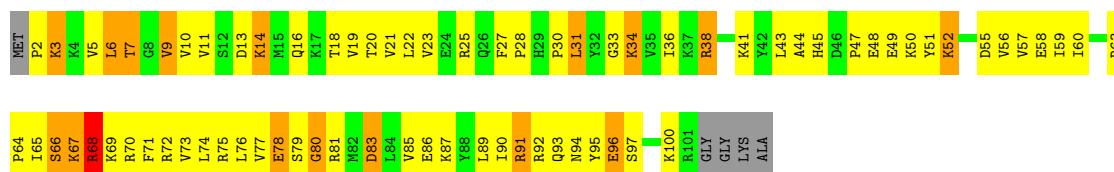
- Molecule 16: 30S ribosomal protein S16

Chain CP:



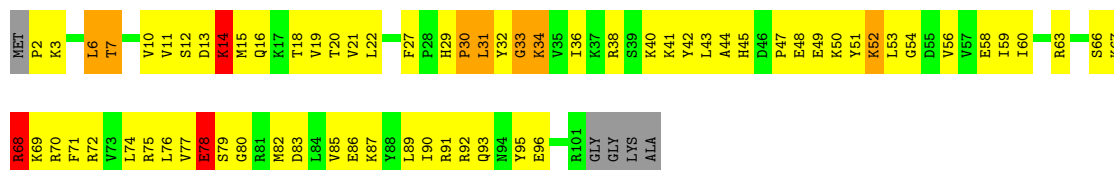
- Molecule 17: 30S ribosomal protein S17

Chain AQ:



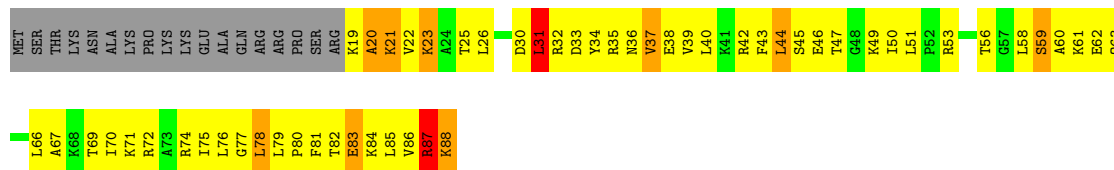
- Molecule 17: 30S ribosomal protein S17

Chain CQ:



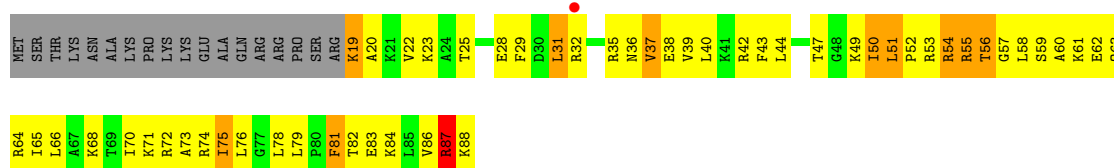
- Molecule 18: 30S ribosomal protein S18

Chain AR:



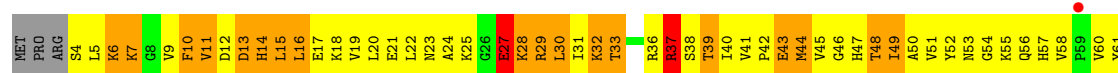
- Molecule 18: 30S ribosomal protein S18

Chain CR:



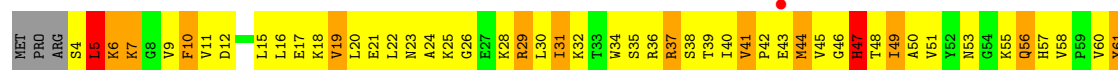
- Molecule 19: 30S ribosomal protein S19

Chain AS: 



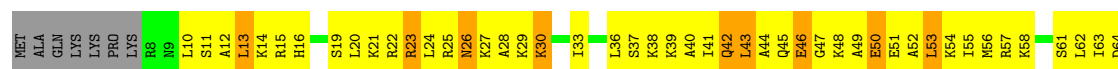
- Molecule 19: 30S ribosomal protein S19

Chain CS: 



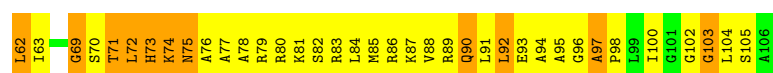
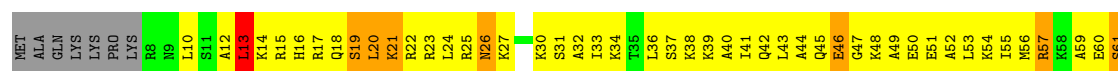
- Molecule 20: 30S ribosomal protein S20

Chain AT: 



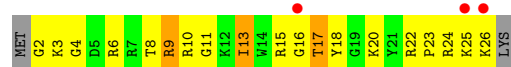
- Molecule 20: 30S ribosomal protein S20

Chain CT: 



- Molecule 21: 30S ribosomal protein Thx

Chain AU: 



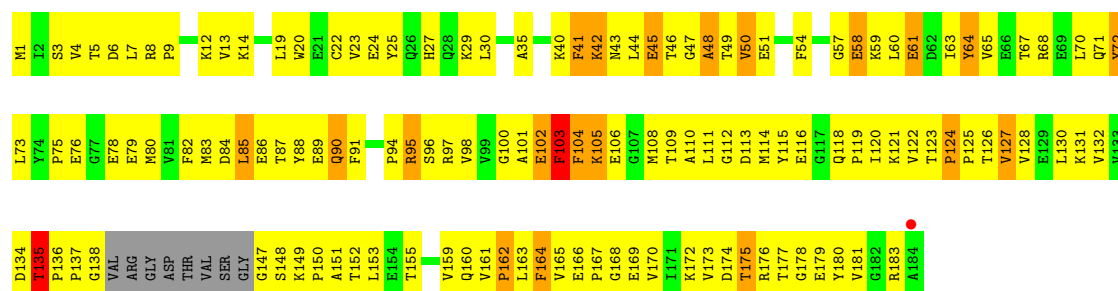
- Molecule 21: 30S ribosomal protein Thx

Chain CU: 



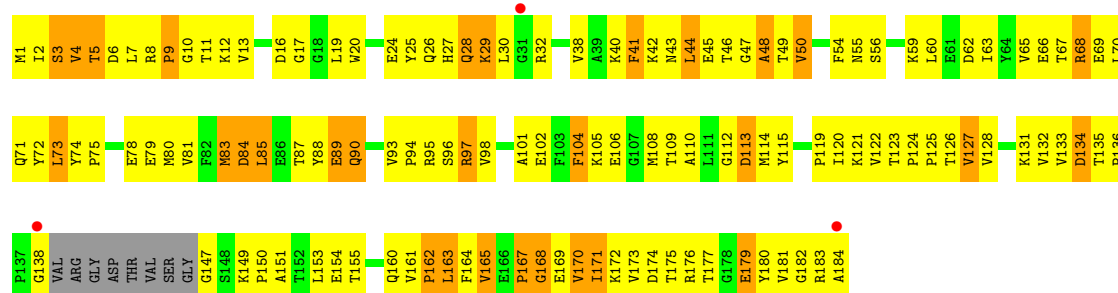
- Molecule 22: Elongation factor P

Chain AV: 



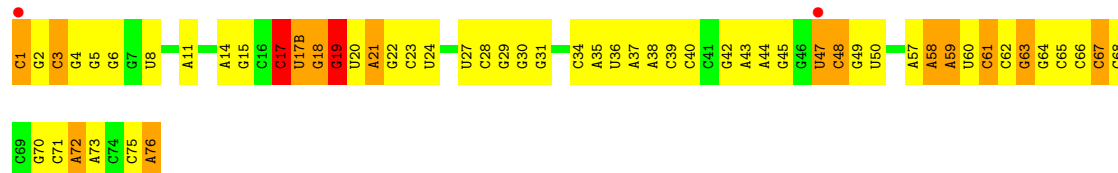
• Molecule 22: Elongation factor P

Chain CV:



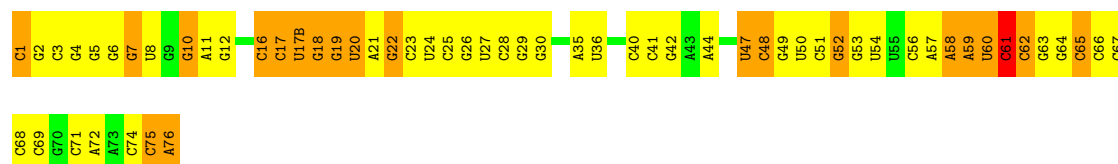
• Molecule 23: tRNA-Met

Chain AW:



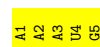
• Molecule 23: tRNA-Met

Chain CW:



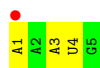
• Molecule 24: RNA (5'-R(P\*AP\*AP\*AP\*UP\*G)-3')

Chain AX:



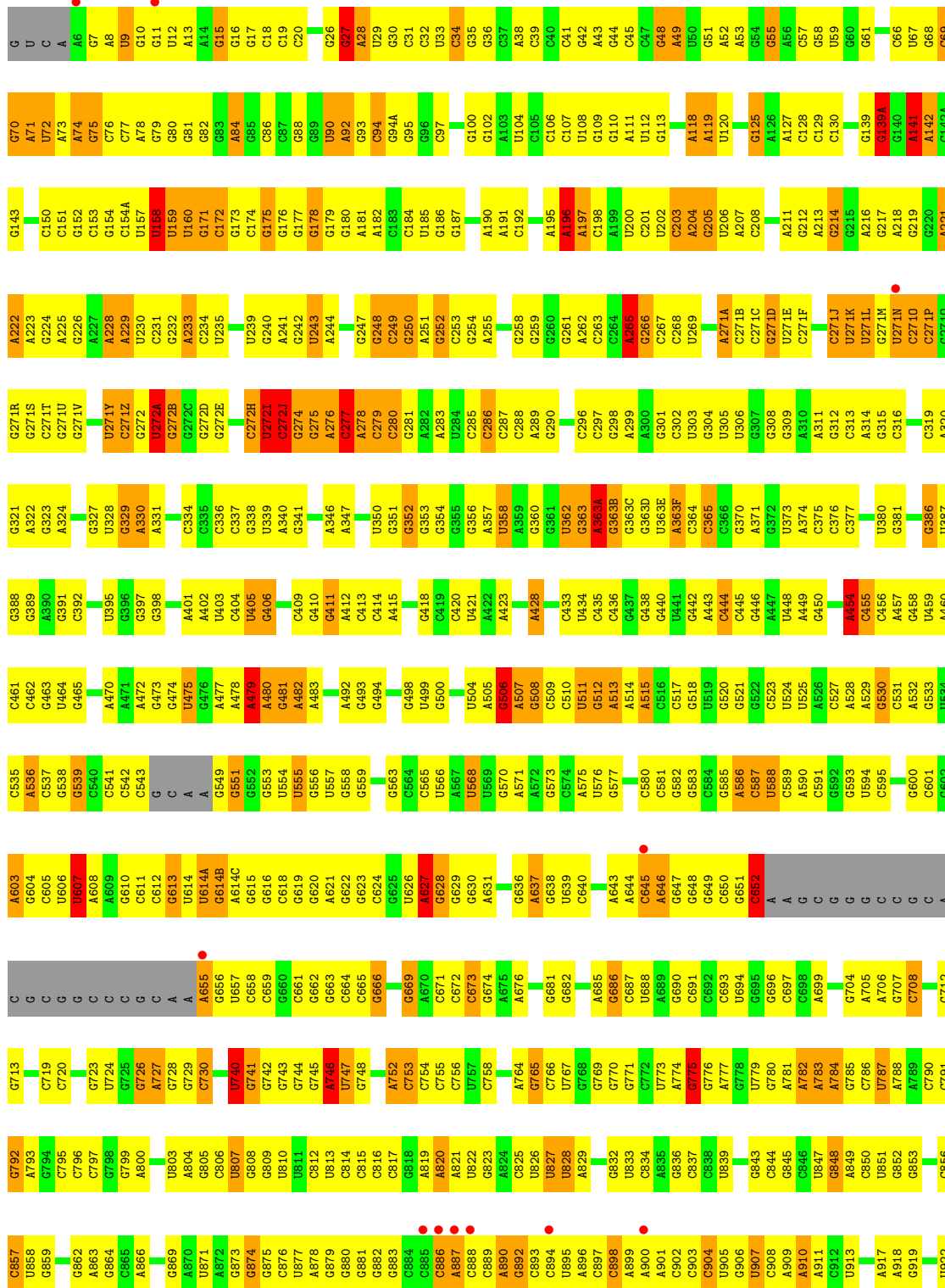
• Molecule 24: RNA (5'-R(P\*AP\*AP\*AP\*UP\*G)-3')

Chain CX:



• Molecule 25: 23S ribosomal RNA

Chain BA:





A1900	G1823	G1750	G1604	C1408	A1269	G1187	C1119	C995	C923
A1901	G1824	C1751	C1605	C1409	C1270	U1188	G1120	A996	C924
G1902	A1825	G1675	G1606	C1410	G1271	G1189	C1121	G997	C925
G1903	G1826	G1753	C1607	C1411	A1272	G1190	C1122	C998	A926
G1906	C1827	C1754	A1608	G1414	U1273	G1191	C1123	U999	G927
G1907	G1828	A1755	A1609	G1415	G1276	G1195	G1124	A1000	G928
G1908	A1829	G1756	A1610	U1415	A1277	G1195	G1125	A1001	U930
G1909	C1830	U1757	G1680	G1416	G1277	G1195	G1125	A1002	U931
G1910	G1831	G1758	G1681	G1417	A1278	G1203	U1130	G1003	G932
U1911	C1832	A1759	G1682	C1418	G1279	A1204	G1131	C1004	G933
A1912	U1833	A1762	G1683	A1419	G1280	U1205	G1132	C1005	G934
A1913	G1834	G1763	G1684	A1420	G1281	G1206	G1133	C1006	A941
C1914	C1835	G1764	A1616	U1420	U1282	G1207	G1134	A1009	G942
U1915	G1836	C1765	C1686	G1421	G1283	C1208	G1135	A1010	U943
A1916	U1766	U1767	G1687	G1422	U1288	G1209	G1136	A1011	U944
U1917	G1768	C1767	G1688	G1423	C1289	A1210	G1137	G1012	A945
A1918	A1837	U1769	A1690	A1424	G1290	U1211	C1140	C1013	G946
G1921	G1842	G1770	G1691	C1425	C1291	G1212	U1141	U1014	C951
G1922	C1843	C1771	U1692	G1426	U1292	A1213	A1142	G1017	G952
U1923	A1847	A1772	G1693	G1427	U1293	A1214	A1143	C1018	A953
G1924	C1848	C1773	G1694	U1431	G1294	G1215	G1144	U1019	G954
C1925	G1850	U1774	A1695	C1432	C1295	G1216	C1145	A1020	C955
U1926	G1851	G1775	G1696	U1433	G1296	C1221	C1146	A1021	G956
G1929	A1852	U1777	A1688	A1434	G1297	C1221A	C1147	G1022	A957
G1930	C1853	U1778	G1699	G1435	U1300	C1222	A1148	U1023	U958
U1931	A1854	A1779	C1635	G1436	A1301	G1223	G1149	G1024	A959
A1932	G1855	A1780	A1637	A1439	A1302	C1224	C1150	G1025	A960
C1933	C1856	C1781	C1638	G1442	G1303	G1232	C1151	U1026	C961
G1934	G1857	A1782	U1639	G1443	A1307	C1233	C1152	A1027	G962
G1935	C1858	A1783	G1640	G1444	U1307	U1234	C1153	A1028	U963
A1936	A1859	A1784	A1641	G1445	A1308	G1235	C1154	G964	C964
G1937	G1860	A1785	G1642	A1445A	A1309	G1236	A1155	A1032	G966
A1938	C1861	A1786	C1643	C1446	G1310	U1237	G1161	U1035	U969
U1939	G1862	U1787	C1644	G1447	G1311	G1238	C1162	G1036	C970
U1940	C1863	C1788	G1709	G1448	U1312	G1239	G1163	G1037	C971
C1941	G1864	A1789	C1711	A1449	U1313	U1240	G1164	A1038	A972
G1948	C1865	C1790	C1712	G1450	C1314	A1241	U1165	G1039	G973
G1949	A1876	A1791	G1713	C1450A	G1315	A1242	G1166	C1040	G974
U1950	G1877	G1792	G1714	C1451	A1316	G1243	U1167	G1041	C975
A1951	C1878	U1796	G1718	A1452	A1317	G1244	G1168	G1042	G975A
A1952	C1882	U1797	G1719	U1453	C1320	G1245	G1169	C1043	C976
G1953	G1883	U1798	U1720	G1455	A1321	A1247	G1170	G1044	G977
A1954	C1884	G1799	G1721	G1456	A1322	C1251	G1171	A1045	G978
U1955	A1885	C1800	A1722	A1457	U1323	G1252	G1172	A	G979
U1956	C1886	G1801	G1739	C1458	G1324	A1253	A1174	A	A980
C1957	C1887	A1802	G1740	G1459	G1325	G1253	U1175	A	A981
G1958	U1888	A1803	A1741	A1460	U1326	G1256	G1176	C	C982
U1959	A1889	C1804	G1742	G1461	C1327	G1256	A1177	A	A983
G1963	C1890	U1805	C1743	G1462	G1328	G1260	C1178	C	G987
C1964	A1891	G1745	G1744	C1463	A1331	G1261	C1179	C	A990
G1965	G1892	G1816	A1746	G1464	U1332	C1262	C1180	A	C991
A1966	C1893	G1747	G1746	G1465	C1333	U1263	G1181	G	C992
C1967	A1894	U1747A	G1747	C1467	G1334	G1264	G1182	A	G993
G1968	U1897	U1820	U1748	A1468	U1405	A1265	G1183	G	C994
A1969	C1898	A1821	G1748	C1469	G1338	G1268	C1185	A	
	G1899	G1822	A1749	G1470	G1339		G1186	G	

U2847	C2784	A2721	C2652	G2581	C2442	G2370	A2309	C2240	A2170	U2109	G2037	A1970
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U2849	C2787	G2723	A2654	G2583	G2444	G2372	A2311	G2242	A2172	G2111	C2039	A1972
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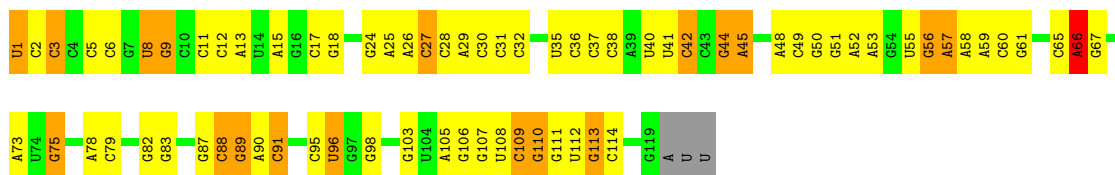
• Molecule 25: 23S ribosomal RNA

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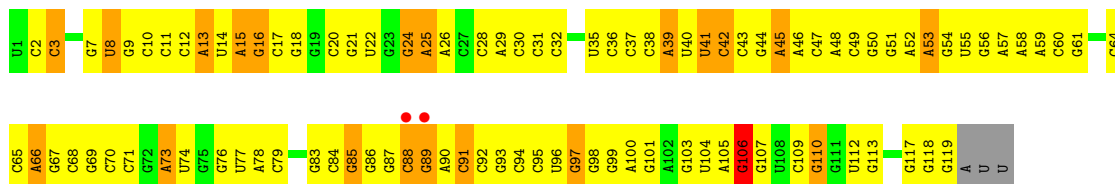
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G1992	G1925	A1845	U1778	U1692	C1617	C1548	G1485	G1425	G1356	G1291	G1224	G1164	C1040
U1993	U1926	G1846	U1779	C1693	G1618	C1549	G1486	G1426	U1357	C1292	G1225	U1165	C1041
G1998	G1927	U1851	A1780	G1696	G1620	C1550	G1487	A1427	A1359	U1294	A1226	U1167	C1042
C1999	A1928	G1852	G1783	G1697	C1625	A1554	G1488	C1428	G1361	G1296	G1229	G1169	C1044
G2002	G1929	A1853	A1784	A1698	G1626	G1555	U1489	G1429	G1362	C1297	C1230	G1170	A1045
C2006	A1930	A1854	A1785	A1699	G1626	G1556	A1490	G1430	U1367	U1292	G1231	G1171	G1046
C2007	U1936	G1855	A1786	A1700	U1629	C1557	G1491	U1431	A1359	U1294	G1232	G1173	G1047
C2008	G1937	G1857	A1787	A1701	G1630	A1558	C1493	C1432	A1360	G1295	C1233	A1174	A1048
G2009	A1938	C1862	G1788	G1702	A1632	G1559	A1494	U1433	G1361	G1296	U1234	U1175	A1060
C2010	U1939	G1863	G1789	G1703	A1632	G1560	A1495	A1434	G1362	C1297	G1230	G1176	G1051
G2012	U1940	U1864	C1790	G1704	C1636	G1561	A1496	G1435	C1363	C1298	G1231	G1177	C1052
A2013	A1944	G1865	A1791	U1706	A1637	A1562	U1497	G1436	A1365	G1299	G1232	G1178	G1053
A2014	G1945	C1866	C1792	C1793	C1638	C1565	C1498	C1437	A1366	U1300	C1233	G1112	A1049
A2015	U1946	A1876	G1795	G1710	C1640	A1566	U1503	U1438	G1369	A1301	U1234	A1177	A1050
A2019	C1948	G1878	U1796	C1711	A1641	G1568	C1505	A1440	G1370	A1302	G1235	C1178	G1051
A2020	G1949	U1797	U1712	G1717	G1642	A1569	C1506	G1442	U1371	A1302	G1235	C1179	C1052
	A2019	C1879	U1713	G1718	G1643	A1570	A1507	G1443	G1372	A1302	G1235	C1180	A
	A2020	C1880	G1714	G1714	C1644	A1508	A1508	G1444				C1181	G

Chain BB: 



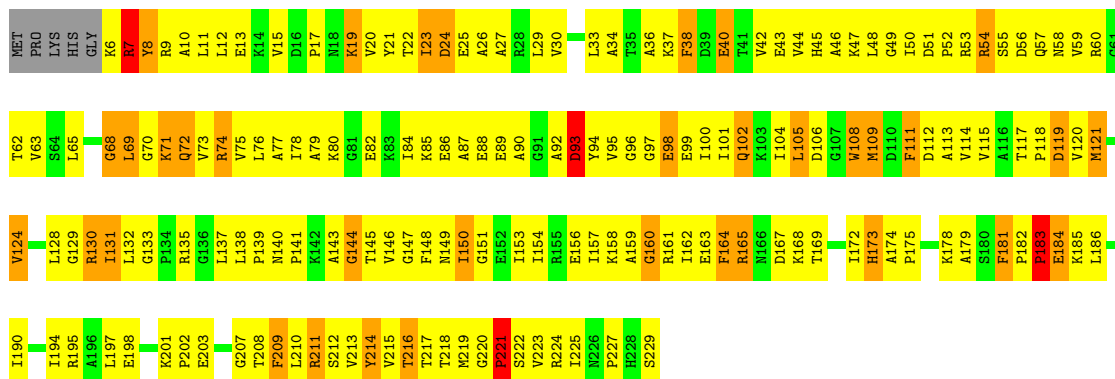
- Molecule 26: 5S ribosomal RNA

Chain DB:



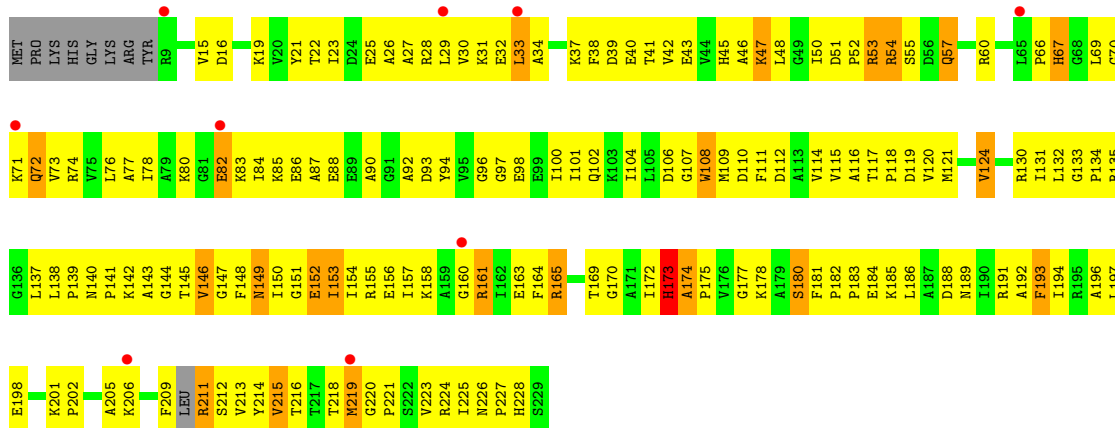
- Molecule 27: 50S ribosomal protein L1

Chain BC:



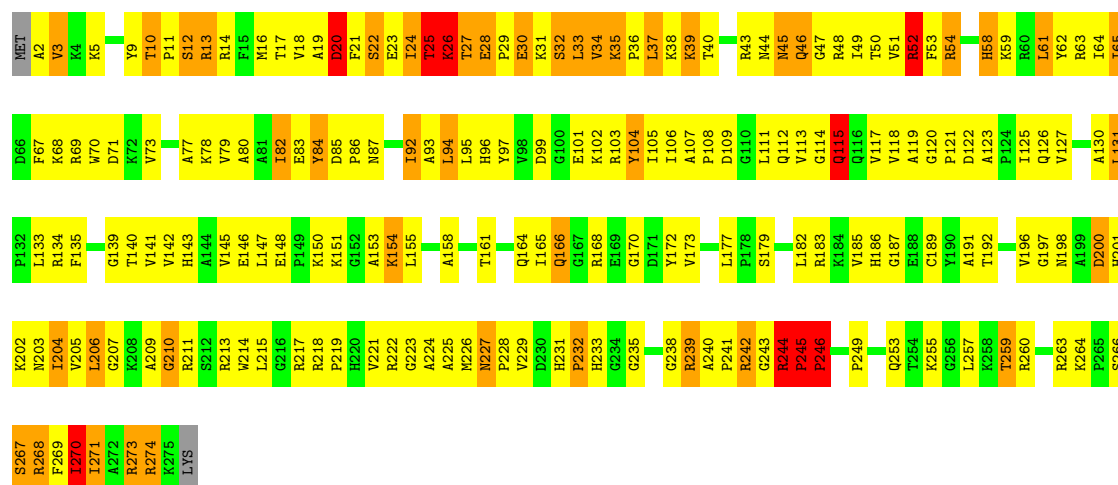
- Molecule 27: 50S ribosomal protein L1

Chain DC:



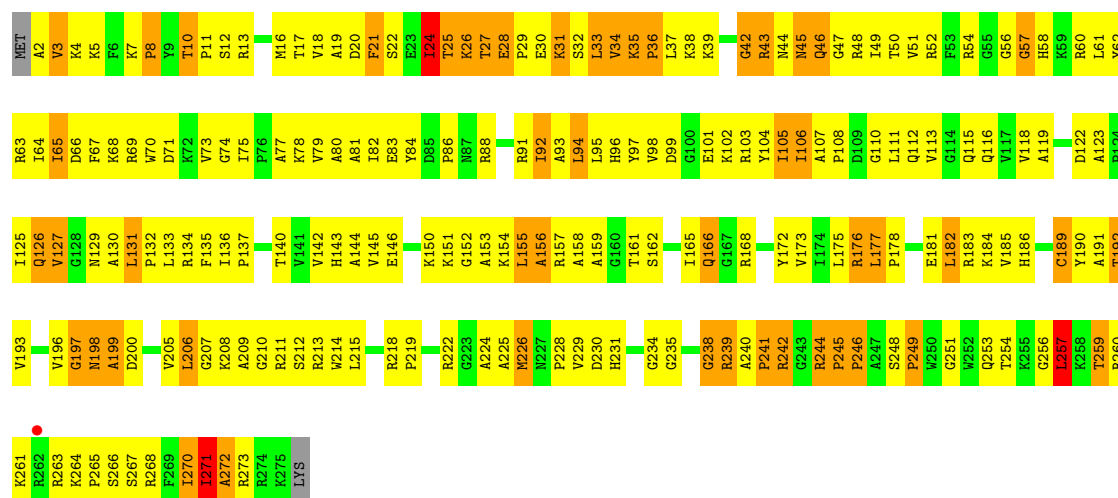
- Molecule 28: 50S ribosomal protein L2

Chain BD:



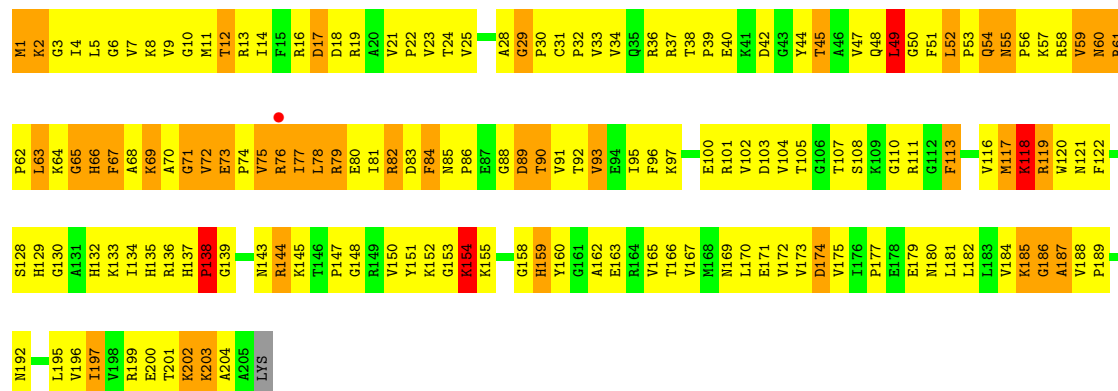
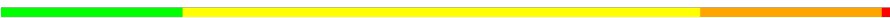
- Molecule 28: 50S ribosomal protein L2

Chain DD:



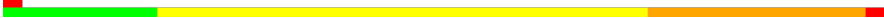
- Molecule 29: 50S ribosomal protein L3

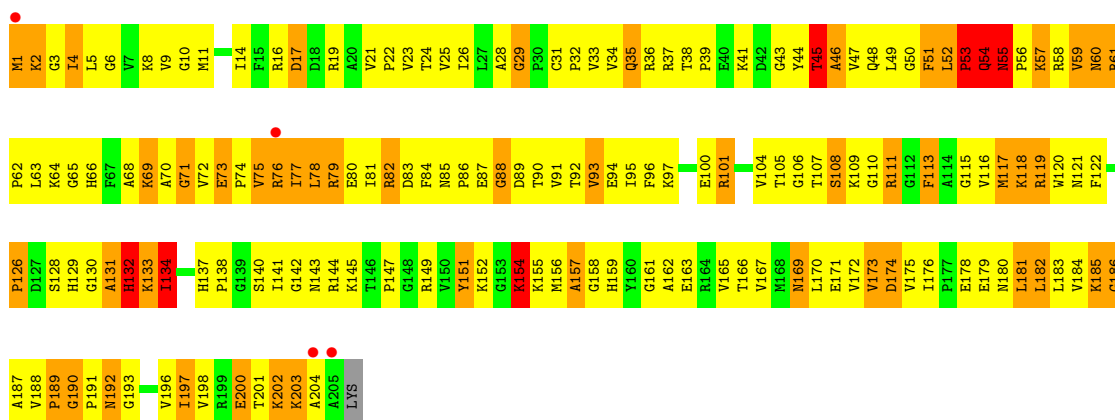
Chain BE:



- Molecule 29: 50S ribosomal protein L3

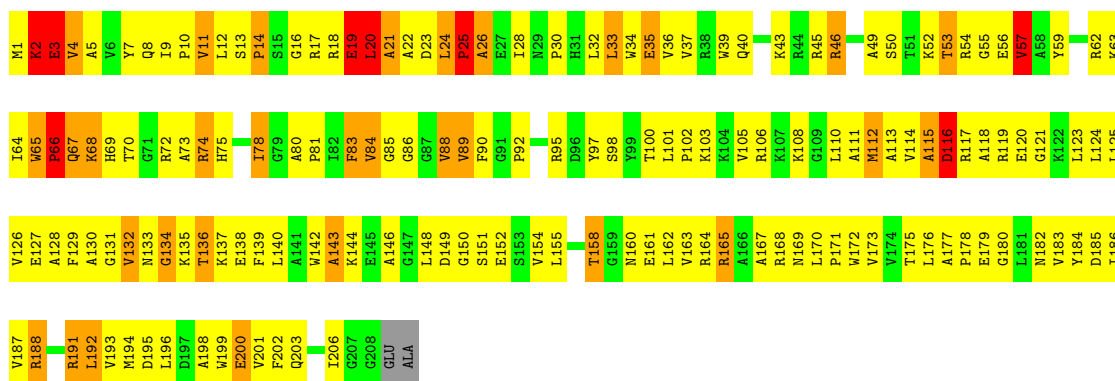
Chain DE:





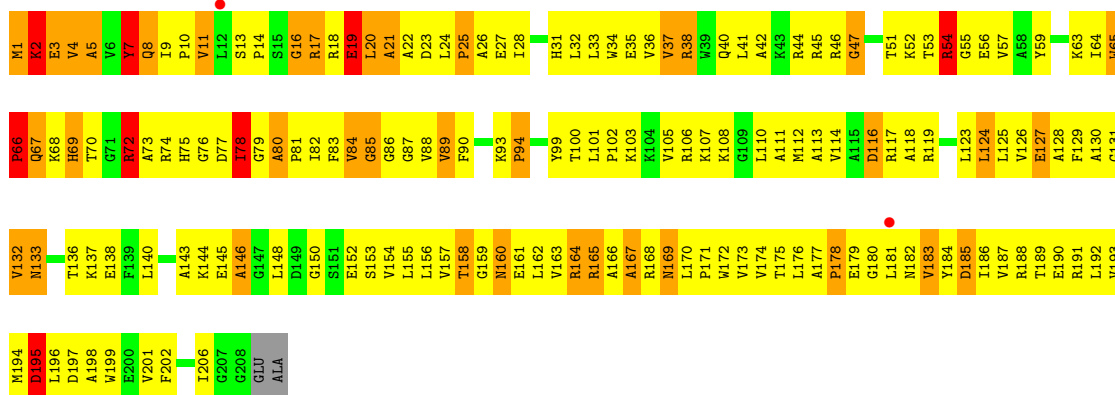
• Molecule 30: 50S ribosomal protein L4

Chain BF:



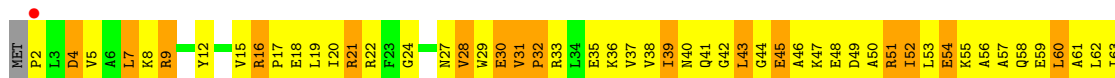
• Molecule 30: 50S ribosomal protein L4

Chain DF:



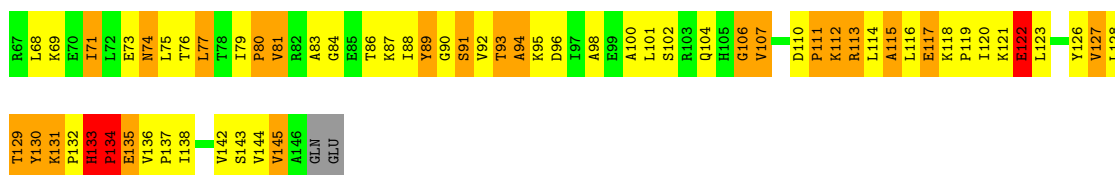
• Molecule 31: 50S ribosomal protein L5

Chain BG:



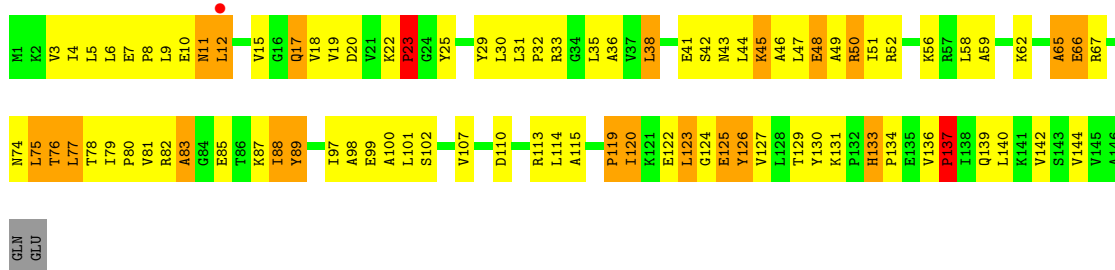






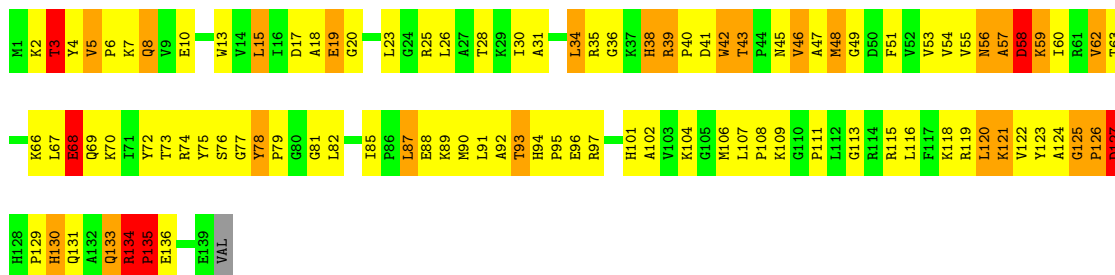
- Molecule 33: 50S ribosomal protein L9

Chain DI:



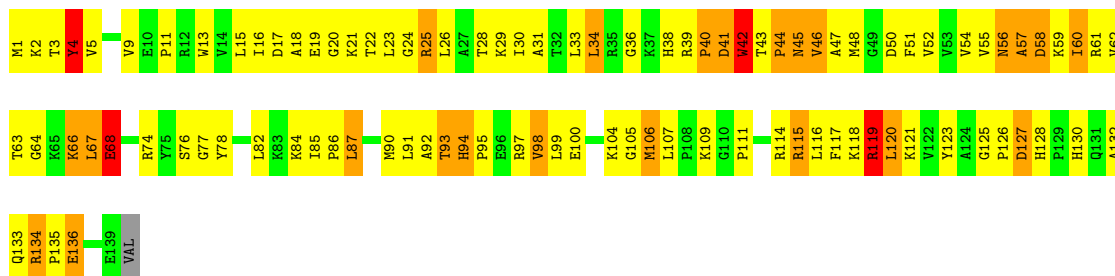
- Molecule 34: 50S ribosomal protein L13

Chain BN:



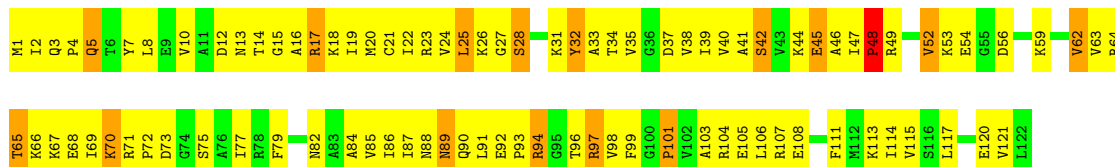
- Molecule 34: 50S ribosomal protein L13

Chain DN:



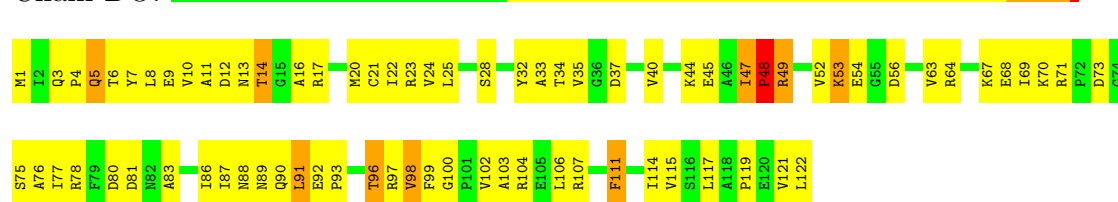
- Molecule 35: 50S ribosomal protein L14

Chain BO:



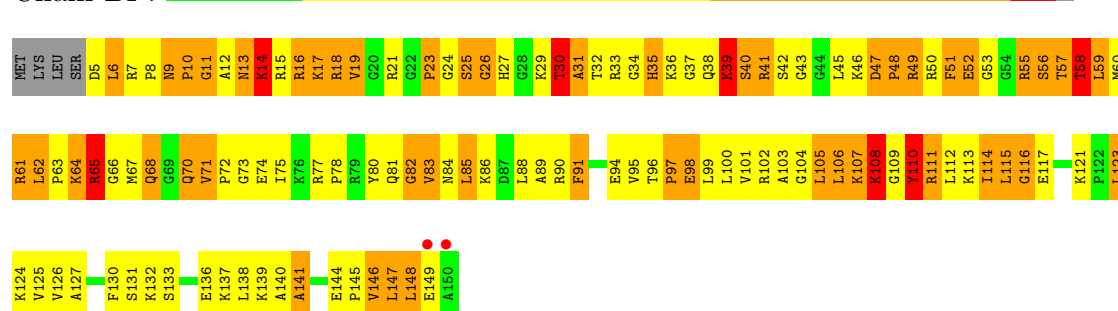
- Molecule 35: 50S ribosomal protein L14

Chain DO:



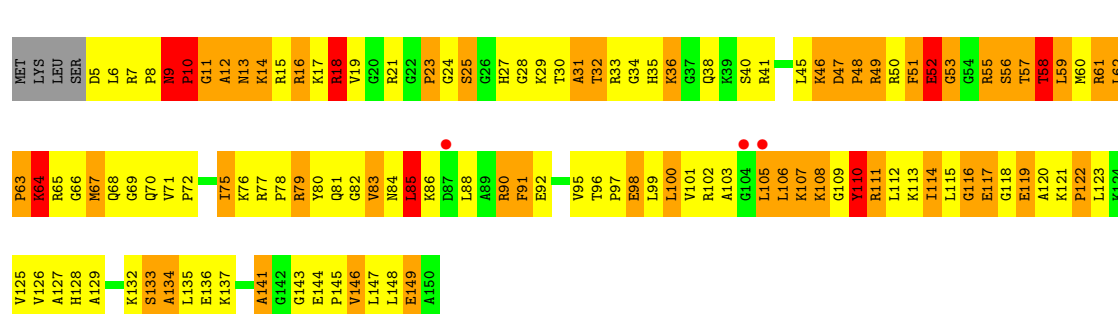
- Molecule 36: 50S ribosomal protein L15

Chain BP:



- Molecule 36: 50S ribosomal protein L15

Chain DP:



- Molecule 37: 50S ribosomal protein L16

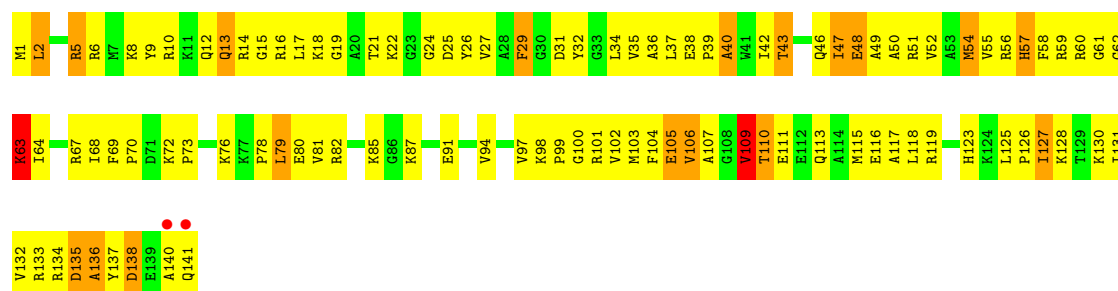
Chain BQ:



- Molecule 37: 50S ribosomal protein L16

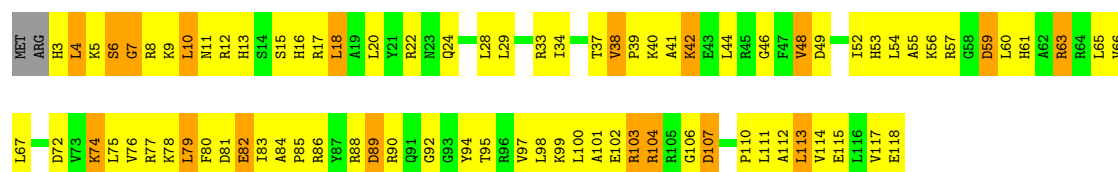
Chain DQ:





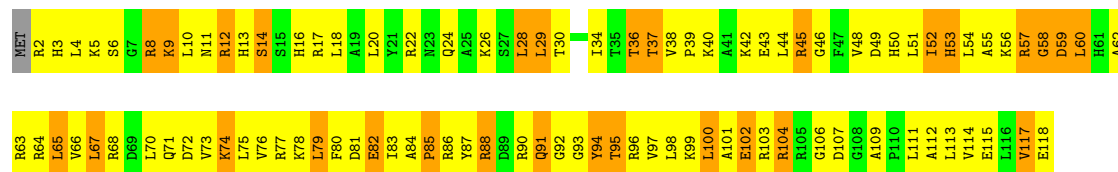
- Molecule 38: 50S ribosomal protein L17

Chain BR:



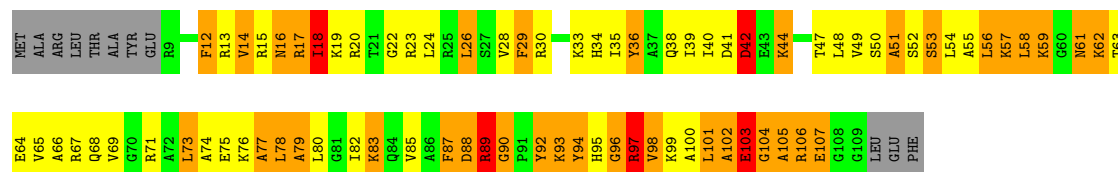
- Molecule 38: 50S ribosomal protein L17

Chain DR:



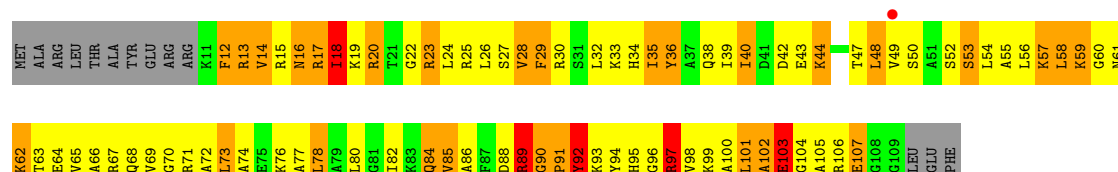
- Molecule 39: 50S ribosomal protein L18

Chain BS:



- Molecule 39: 50S ribosomal protein L18

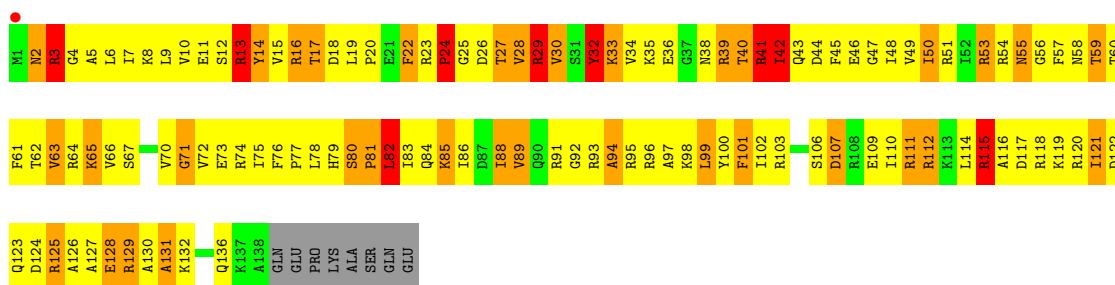
Chain DS:



- Molecule 40: 50S ribosomal protein L19

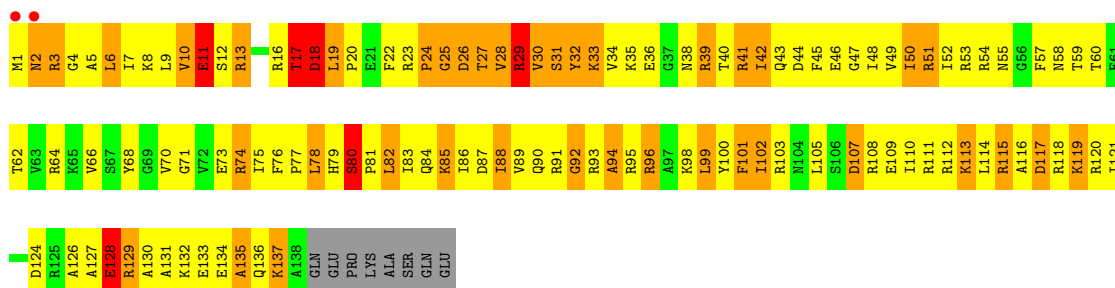
Chain BT:





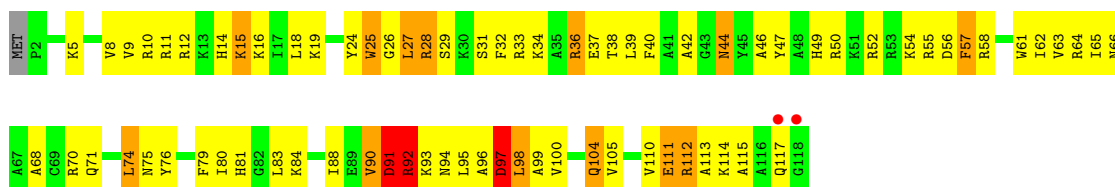
- Molecule 40: 50S ribosomal protein L19

Chain DT:



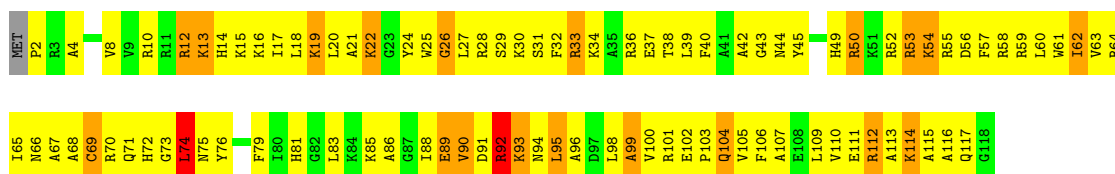
- Molecule 41: 50S ribosomal protein L20

Chain BU:



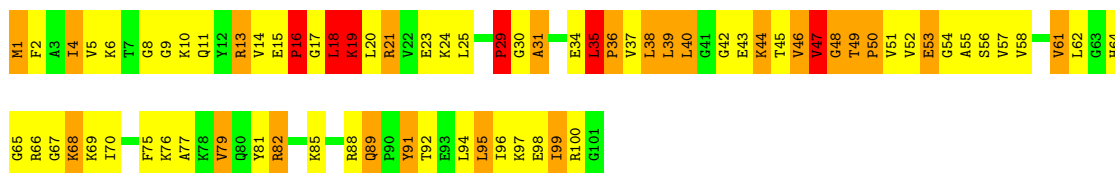
- Molecule 41: 50S ribosomal protein L20

Chain DU:



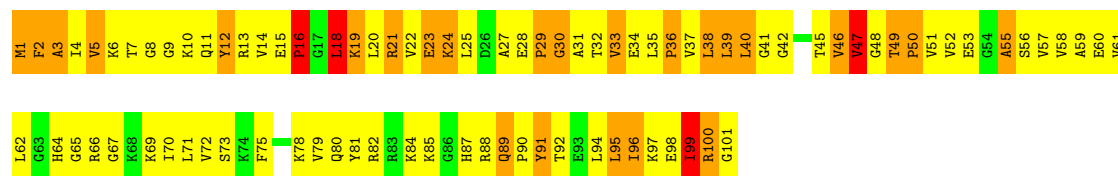
- Molecule 42: 50S ribosomal protein L21

Chain BV:



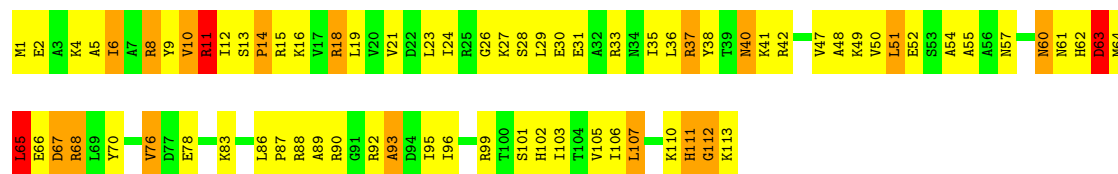
- Molecule 42: 50S ribosomal protein L21

Chain DV:



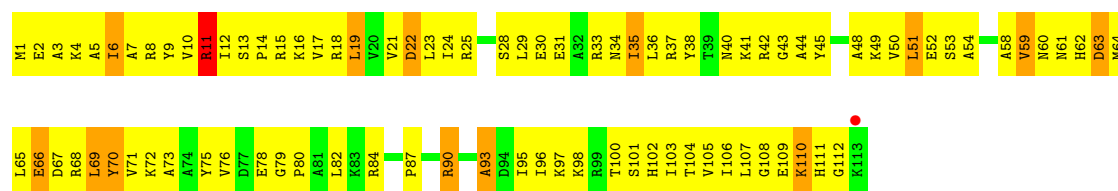
- Molecule 43: 50S ribosomal protein L22

Chain BW:



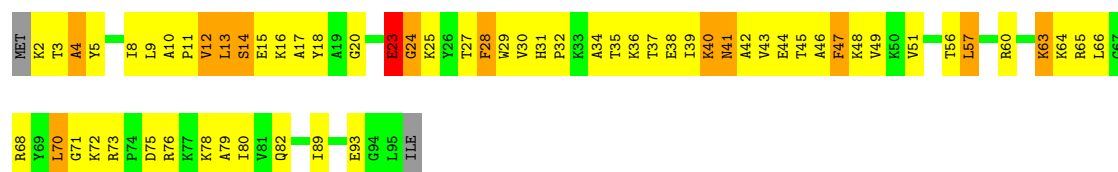
- Molecule 43: 50S ribosomal protein L22

Chain DW:



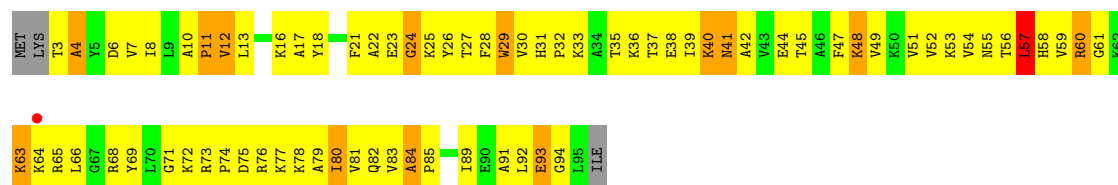
- Molecule 44: 50S ribosomal protein L23

Chain BX:



- Molecule 44: 50S ribosomal protein L23

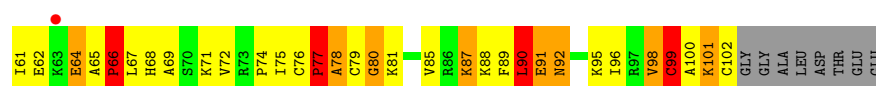
Chain DX:



- Molecule 45: 50S ribosomal protein L24

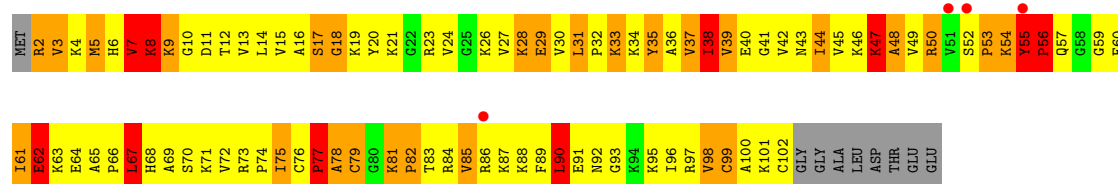
Chain BY:





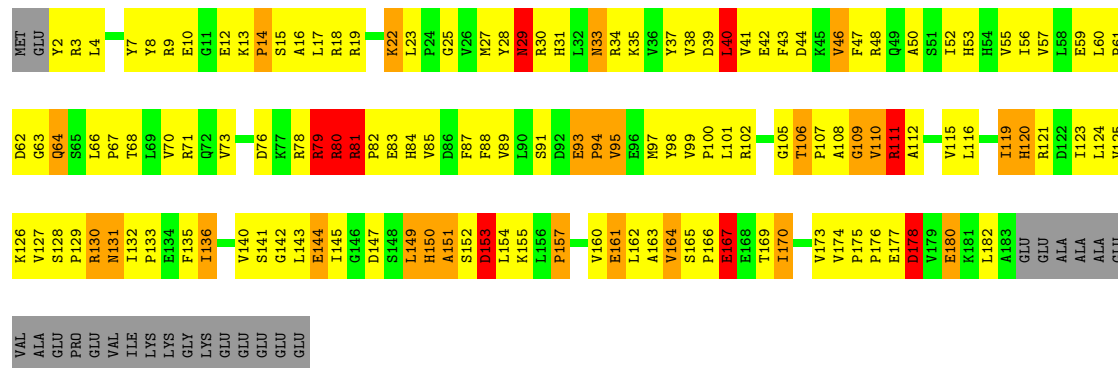
- Molecule 45: 50S ribosomal protein L24

Chain DY:



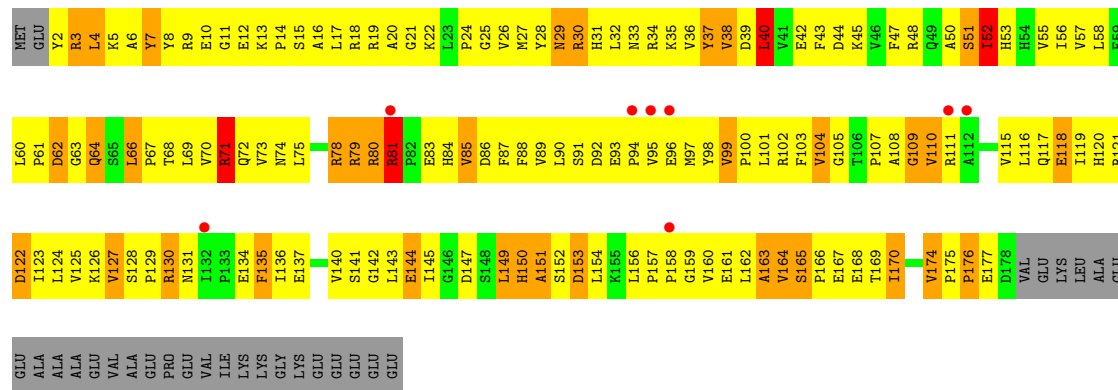
- Molecule 46: 50S ribosomal protein L25

Chain BZ:



- Molecule 46: 50S ribosomal protein L25

Chain DZ:



- Molecule 47: 50S ribosomal protein L27

Chain B0:





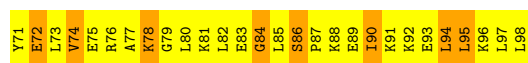
- Molecule 47: 50S ribosomal protein L27

Chain D0:



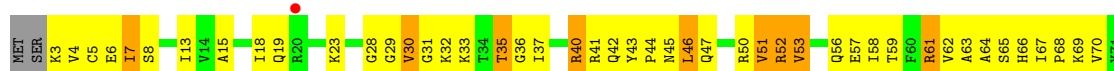
- Molecule 48: 50S ribosomal protein L28

Chain B1:



- Molecule 48: 50S ribosomal protein L28

Chain D1:



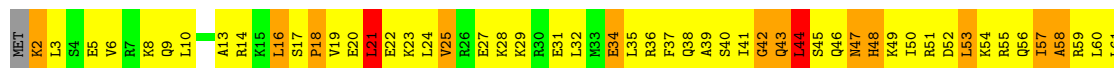
- Molecule 49: 50S ribosomal protein L29

Chain B2:



- Molecule 49: 50S ribosomal protein L29

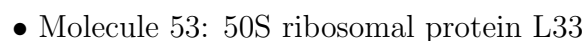
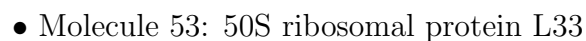
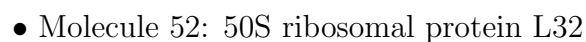
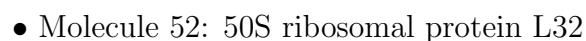
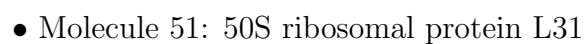
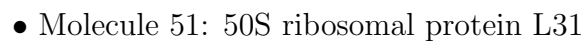
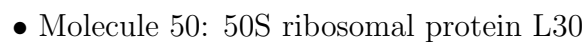
Chain D2:



- Molecule 50: 50S ribosomal protein L30



Age Group	Percentage
18-24	~5%
25-34	~45%
35-44	~40%
45-54	~10%
55-64	~1%
65-74	~1%
75-84	~1%
85+	~1%





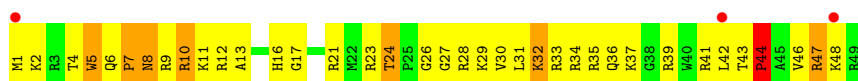
- Molecule 54: 50S ribosomal protein L34

Chain B7:



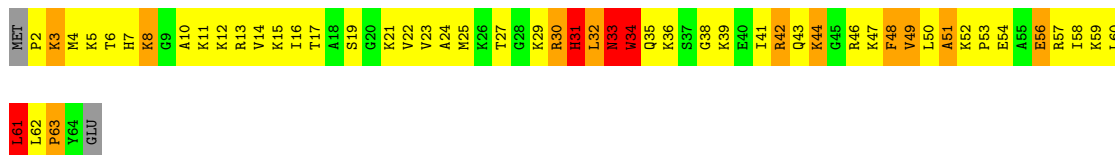
- Molecule 54: 50S ribosomal protein L34

Chain D7:



- Molecule 55: 50S ribosomal protein L35

Chain B8:



- Molecule 55: 50S ribosomal protein L35

Chain D8:



- Molecule 56: 50S ribosomal protein L36

Chain B9:



- Molecule 56: 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, $\alpha$ , $\beta$ , $\gamma$	209.53Å 447.03Å 622.75Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	(Not available) – 3.10 49.65 – 3.10	Depositor EDS
% Data completeness (in resolution range)	(Not available) ((Not available)-3.10) 94.7 (49.65-3.10)	Depositor EDS
$R_{merge}$	0.26	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.10 (at 3.12Å)	Xtriage
Refinement program	CNS	Depositor
R, $R_{free}$	0.252 , 0.302 0.262 , 0.259	Depositor DCC
$R_{free}$ test set	49631 reflections (5.28%)	DCC
Wilson B-factor (Å <sup>2</sup> )	72.6	Xtriage
Anisotropy	0.174	Xtriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.25 , 23.2	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning	$\langle  L  \rangle = 0.42$ , $\langle L^2 \rangle = 0.25$	Xtriage
Outliers	0 of 989777 reflections	Xtriage
$F_o, F_c$ correlation	0.89	EDS
Total number of atoms	290405	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	65.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.57% of the height of the origin peak. No significant pseudotranslation is detected.*

<sup>1</sup>Intensities estimated from amplitudes.

## 5 Model quality ⓘ

### 5.1 Standard geometry ⓘ

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

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with  $|Z| > 5$  is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
1	AA	0.82	6/35982 (0.0%)	0.78	24/56156 (0.0%)
1	CA	0.47	0/36193	0.72	9/56490 (0.0%)
2	AB	0.41	0/1936	0.69	0/2611
2	CB	0.43	0/1936	0.73	1/2611 (0.0%)
3	AC	0.41	0/1637	0.66	0/2207
3	CC	0.40	0/1637	0.66	0/2207
4	AD	0.41	0/1733	0.69	0/2318
4	CD	0.42	0/1733	0.72	1/2318 (0.0%)
5	AE	0.42	0/1163	0.68	0/1566
5	CE	0.40	0/1163	0.69	0/1566
6	AF	0.44	0/856	0.71	0/1154
6	CF	0.40	0/856	0.70	0/1154
7	AG	0.42	0/1276	0.67	0/1709
7	CG	0.42	0/1276	0.67	0/1709
8	AH	0.41	0/1136	0.72	0/1527
8	CH	0.39	0/1136	0.67	0/1527
9	AI	0.46	0/1022	0.69	0/1369
9	CI	0.43	0/1022	0.70	0/1369
10	AJ	0.43	0/808	0.71	0/1087
10	CJ	0.45	0/808	0.72	0/1087
11	AK	0.41	0/900	0.72	1/1213 (0.1%)
11	CK	0.39	0/900	0.67	0/1213
12	AL	0.41	0/987	0.78	0/1322
12	CL	0.41	0/987	0.77	1/1322 (0.1%)
13	AM	0.41	0/957	0.78	1/1283 (0.1%)
13	CM	0.39	0/957	0.76	1/1283 (0.1%)
14	AN	0.43	0/501	0.69	0/664
14	CN	0.45	0/501	0.66	0/664
15	AO	0.42	0/745	0.66	0/992
15	CO	0.39	0/745	0.67	1/992 (0.1%)
16	AP	0.42	0/717	0.71	1/965 (0.1%)
16	CP	0.42	0/717	0.73	1/965 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
17	AQ	0.44	0/837	0.67	0/1119
17	CQ	0.40	0/837	0.70	0/1119
18	AR	0.40	0/579	0.73	0/768
18	CR	0.45	0/579	0.75	0/768
19	AS	0.42	0/625	0.74	0/844
19	CS	0.45	0/632	0.76	0/853
20	AT	0.37	0/765	0.74	0/1007
20	CT	0.38	0/765	0.73	0/1007
21	AU	0.52	0/213	0.58	0/279
21	CU	0.48	0/213	0.61	0/279
22	AV	0.47	0/1393	0.68	0/1883
22	CV	0.46	0/1393	0.67	0/1883
23	AW	0.61	3/1836 (0.2%)	0.90	6/2859 (0.2%)
23	CW	0.50	1/1836 (0.1%)	0.72	1/2859 (0.0%)
24	AX	0.99	1/123 (0.8%)	0.68	0/188
24	CX	0.89	1/123 (0.8%)	0.67	0/188
25	BA	0.68	8/66745 (0.0%)	0.78	54/104189 (0.1%)
25	DA	0.56	10/66983 (0.0%)	0.76	54/104560 (0.1%)
26	BB	0.50	0/2853	0.79	3/4451 (0.1%)
26	DB	0.47	0/2853	0.72	2/4451 (0.0%)
27	BC	0.41	0/1732	0.69	0/2335
27	DC	0.87	1/1668 (0.1%)	0.65	0/2251
28	BD	0.56	0/2177	0.88	4/2935 (0.1%)
28	DD	0.48	0/2165	0.83	0/2921
29	BE	0.52	0/1597	0.84	2/2155 (0.1%)
29	DE	0.49	0/1597	0.84	1/2155 (0.0%)
30	BF	0.54	0/1659	0.82	1/2246 (0.0%)
30	DF	0.44	0/1659	0.74	0/2246
31	BG	0.45	0/1499	0.75	1/2016 (0.0%)
31	DG	0.43	0/1499	0.77	2/2016 (0.1%)
32	BH	0.55	0/1254	0.83	0/1703
32	DH	0.43	0/1246	0.75	2/1684 (0.1%)
33	BI	0.41	0/1056	0.75	0/1443
33	DI	0.37	0/881	0.73	0/1219
34	BN	0.52	0/1132	0.82	2/1527 (0.1%)
34	DN	0.41	0/1132	0.75	0/1527
35	BO	0.52	0/943	0.79	0/1269
35	DO	0.47	0/943	0.72	0/1269
36	BP	0.54	0/1131	1.08	7/1504 (0.5%)
36	DP	0.45	0/1095	0.90	4/1460 (0.3%)
37	BQ	0.46	0/1120	0.70	0/1498
37	DQ	0.45	0/1143	0.71	0/1527
38	BR	0.49	0/936	0.80	1/1256 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
38	DR	0.42	0/974	0.78	0/1302
39	BS	0.47	0/785	0.85	2/1048 (0.2%)
39	DS	0.47	0/779	0.83	1/1038 (0.1%)
40	BT	0.49	0/1156	0.87	3/1544 (0.2%)
40	DT	0.46	0/1156	0.85	1/1544 (0.1%)
41	BU	0.53	0/975	0.79	0/1297
41	DU	0.42	0/975	0.71	0/1297
42	BV	0.54	0/790	0.88	0/1057
42	DV	0.42	0/790	0.77	0/1057
43	BW	0.52	0/907	0.77	0/1216
43	DW	0.42	0/907	0.71	0/1216
44	BX	0.56	0/749	0.81	1/1006 (0.1%)
44	DX	0.47	0/740	0.72	0/995
45	BY	0.58	0/770	0.93	1/1031 (0.1%)
45	DY	0.49	0/789	0.88	1/1053 (0.1%)
46	BZ	0.44	0/1470	0.72	1/1998 (0.1%)
46	DZ	0.42	0/1436	0.70	0/1951
47	B0	0.54	0/621	0.76	0/827
47	D0	0.45	0/671	0.68	0/892
48	B1	0.51	0/764	0.78	0/1014
48	D1	0.41	0/739	0.72	0/983
49	B2	0.45	0/600	0.69	0/793
49	D2	0.42	0/600	0.69	0/793
50	B3	0.47	0/465	0.73	0/625
50	D3	0.36	0/473	0.70	0/636
51	B4	0.57	0/229	0.83	0/311
51	D4	0.46	0/229	0.73	0/311
52	B5	0.58	0/449	0.86	0/608
52	D5	0.51	0/473	0.73	0/639
53	B6	0.68	1/408 (0.2%)	0.95	2/548 (0.4%)
53	D6	0.47	0/328	0.96	1/450 (0.2%)
54	B7	0.59	0/427	0.83	1/563 (0.2%)
54	D7	0.47	0/427	0.74	0/563
55	B8	0.55	0/503	0.94	3/663 (0.5%)
55	D8	0.49	0/473	0.82	0/626
56	B9	0.49	0/297	0.74	0/391
56	D9	0.43	0/302	0.70	0/397
All	All	0.59	32/313996 (0.0%)	0.76	207/468619 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	AA	0	38
1	CA	0	17
23	AW	0	2
23	CW	0	2
25	BA	3	106
25	DA	1	76
26	BB	0	2
26	DB	0	1
28	BD	0	1
52	B5	0	1
52	D5	0	1
All	All	4	247

All (32) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1223	C	C4'-C3'	85.69	2.47	1.53
1	AA	1223	C	C3'-C2'	69.16	2.29	1.52
1	AA	1223	C	C3'-O3'	-41.26	0.84	1.42
27	DC	180	SER	CB-OG	31.26	1.82	1.42
1	AA	1223	C	N3-C4	27.30	1.53	1.33
1	AA	1223	C	C2-N3	-25.68	1.15	1.35
1	AA	1222	G	O3'-P	15.61	1.79	1.61
25	DA	550	G	C6-O6	12.22	1.35	1.24
25	BA	1106	G	C6-O6	11.44	1.34	1.24
23	AW	17	C	C4-N4	-11.37	1.23	1.33
25	DA	551	G	C6-O6	10.85	1.33	1.24
25	DA	1106	G	C6-O6	10.76	1.33	1.24
24	AX	1	A	OP3-P	-7.27	1.52	1.61
25	DA	652	C	N1-C2	7.19	1.47	1.40
23	AW	1	C	OP3-P	-7.10	1.52	1.61
23	CW	1	C	OP3-P	-7.09	1.52	1.61
25	BA	272(J)	C	N1-C2	7.08	1.47	1.40
24	CX	1	A	OP3-P	-7.05	1.52	1.61
25	DA	277	C	N1-C2	6.82	1.47	1.40
25	DA	1106	G	C2-N2	6.42	1.41	1.34
25	BA	1106	G	C2-N2	6.23	1.40	1.34
23	AW	17	C	N3-C4	6.04	1.38	1.33
25	DA	158	U	N1-C2	5.98	1.44	1.38
25	DA	652	C	C2-O2	5.53	1.29	1.24
25	BA	655	A	C5-C6	5.51	1.46	1.41
25	BA	1106	G	C6-N1	-5.44	1.35	1.39
25	DA	1106	G	C6-N1	-5.43	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BA	783	A	C5-C6	-5.40	1.36	1.41
53	B6	42	TRP	CB-CG	5.14	1.59	1.50
25	BA	277	C	N1-C2	5.12	1.45	1.40
25	BA	655	A	N3-C4	5.04	1.37	1.34
25	DA	277	C	C4-C5	5.01	1.47	1.43

All (207) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1223	C	C4'-C3'-C2'	-42.89	59.71	102.60
1	AA	1223	C	C3'-C2'-C1'	32.11	127.19	101.50
1	AA	1223	C	P-O3'-C3'	-30.31	83.33	119.70
1	AA	1223	C	O4'-C4'-C3'	20.77	124.77	104.00
1	AA	1223	C	N3-C4-C5	-18.18	114.63	121.90
23	AW	17	C	N3-C4-C5	-17.93	114.73	121.90
1	AA	1223	C	C4'-C3'-O3'	-15.78	76.27	109.40
23	AW	17	C	C2-N3-C4	14.39	127.10	119.90
25	DA	551	G	C5-C6-N1	13.00	118.00	111.50
25	DA	550	G	C5-C6-N1	12.55	117.78	111.50
25	DA	1106	G	C5-C6-N1	12.48	117.74	111.50
25	BA	1106	G	C5-C6-N1	12.14	117.57	111.50
25	BA	1992	G	C2'-C3'-O3'	11.20	134.13	109.50
25	DA	551	G	C6-N1-C2	-11.09	118.44	125.10
25	BA	1106	G	C6-N1-C2	-10.91	118.55	125.10
25	DA	1106	G	C6-N1-C2	-10.79	118.62	125.10
25	DA	550	G	C6-N1-C2	-10.75	118.65	125.10
25	DA	1992	G	C2'-C3'-O3'	10.65	132.93	109.50
25	DA	1698	A	N9-C1'-C2'	9.73	126.64	114.00
25	BA	454	A	C2'-C3'-O3'	9.48	130.35	109.50
25	DA	550	G	C5-C6-O6	-9.33	123.00	128.60
25	BA	1106	G	N1-C2-N3	9.26	129.45	123.90
25	DA	551	G	C5-C6-O6	-9.07	123.16	128.60
1	AA	1223	C	N3-C4-N4	8.90	124.23	118.00
25	DA	1385	G	C2'-C3'-O3'	8.85	128.98	109.50
25	DA	1106	G	N1-C2-N3	8.83	129.20	123.90
1	AA	1223	C	C2'-C3'-O3'	-8.81	90.11	109.50
25	DA	550	G	N1-C2-N3	8.75	129.15	123.90
25	DA	551	G	N1-C2-N3	8.68	129.10	123.90
25	DA	1799	G	C2'-C3'-O3'	8.66	128.55	109.50
25	DA	1106	G	C5-C6-O6	-8.63	123.42	128.60
1	AA	575	G	C2'-C3'-O3'	8.44	128.06	109.50
25	BA	775	G	C2'-C3'-O3'	8.43	128.04	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	AW	17	C	C5-C4-N4	8.35	126.05	120.20
1	AA	913	A	C2'-C3'-O3'	8.24	127.64	109.50
25	BA	1653	G	C2'-C3'-O3'	8.18	127.49	109.50
25	BA	1396	U	N1-C1'-C2'	7.98	124.38	114.00
25	DA	1653	G	C2'-C3'-O3'	7.94	126.98	109.50
25	BA	1786	A	N9-C1'-C2'	7.91	124.28	114.00
25	BA	1106	G	C5-C6-O6	-7.89	123.87	128.60
36	BP	53	GLY	N-CA-C	-7.77	93.68	113.10
25	BA	479	A	C2'-C3'-O3'	7.75	126.54	109.50
36	BP	41	ARG	N-CA-C	-7.63	90.40	111.00
25	DA	1112	G	N9-C1'-C2'	-7.60	103.64	112.00
25	BA	1799	G	C2'-C3'-O3'	7.60	126.22	109.50
36	BP	52	GLU	N-CA-C	7.57	131.44	111.00
36	BP	58	THR	N-CA-C	-7.55	90.61	111.00
25	DA	1758	G	C2'-C3'-O3'	7.43	125.85	109.50
1	AA	1223	C	C5'-C4'-C3'	-7.42	104.13	116.00
25	BA	1427	A	C2'-C3'-O3'	7.30	125.56	109.50
55	B8	49	VAL	N-CA-C	-7.24	91.46	111.00
25	BA	2753	A	N9-C1'-C2'	-7.09	104.20	112.00
1	CA	274	A	C2'-C3'-O3'	6.93	124.79	113.70
1	AA	1222	G	O3'-P-O5'	-6.93	90.84	104.00
25	BA	627	A	C2'-C3'-O3'	6.90	124.74	113.70
25	BA	1616	A	N9-C1'-C2'	6.88	122.94	114.00
25	BA	48	G	C5'-C4'-C3'	-6.85	105.04	116.00
25	BA	673	C	C5'-C4'-C3'	-6.85	105.04	116.00
25	BA	740	U	C5'-C4'-O4'	-6.84	100.89	109.10
55	B8	32	LEU	CA-CB-CG	6.79	130.92	115.30
25	DA	1493	C	N1-C1'-C2'	6.74	122.77	114.00
23	AW	17	C	N1-C2-O2	6.72	122.93	118.90
25	BA	1616	A	O4'-C1'-N9	6.71	113.57	108.20
28	BD	210	GLY	N-CA-C	-6.71	96.33	113.10
25	DA	2346	A	N9-C1'-C2'	6.68	122.69	114.00
25	BA	1106	G	N3-C2-N2	-6.67	115.23	119.90
25	DA	1786	A	N9-C1'-C2'	6.66	122.65	114.00
25	DA	550	G	N3-C2-N2	-6.62	115.27	119.90
39	BS	16	ASN	N-CA-C	-6.59	93.22	111.00
1	CA	839	U	N1-C1'-C2'	6.56	122.53	114.00
25	DA	1106	G	N3-C2-N2	-6.54	115.32	119.90
1	AA	760	G	N9-C1'-C2'	-6.53	104.82	112.00
1	CA	1456	G	N9-C1'-C2'	6.52	122.48	114.00
25	BA	603	A	C2'-C3'-O3'	6.49	124.09	113.70
25	DA	790	C	C2'-C3'-O3'	6.49	124.08	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	1992	G	O4'-C1'-N9	-6.44	103.05	108.20
25	DA	551	G	N3-C2-N2	-6.42	115.40	119.90
36	DP	53	GLY	N-CA-C	-6.38	97.14	113.10
1	AA	1066	C	N1-C1'-C2'	-6.37	104.99	112.00
25	BA	506	G	C2'-C3'-O3'	6.35	123.87	113.70
25	BA	1495	A	N9-C1'-C2'	6.30	122.19	114.00
25	BA	1698	A	O4'-C1'-N9	6.30	113.24	108.20
2	CB	135	GLN	N-CA-C	-6.28	94.05	111.00
31	DG	54	GLU	N-CA-C	-6.26	94.09	111.00
1	AA	328	C	N1-C1'-C2'	6.25	122.12	114.00
25	BA	945	A	C2'-C3'-O3'	6.24	123.69	113.70
36	DP	52	GLU	N-CA-C	6.18	127.70	111.00
1	AA	5	U	O5'-P-OP1	6.17	118.10	110.70
25	BA	1559	G	N9-C1'-C2'	6.16	122.01	114.00
25	DA	973	A	C2'-C3'-O3'	6.13	123.50	113.70
1	CA	652	U	N1-C1'-C2'	6.11	121.94	114.00
23	AW	17	C	N1-C2-N3	-6.11	114.93	119.20
25	BA	2750	A	C2'-C3'-O3'	6.10	123.45	113.70
1	AA	47	C	N1-C1'-C2'	6.09	121.92	114.00
31	DG	60	LEU	CA-CB-CG	6.09	129.31	115.30
25	BA	141	A	N9-C1'-C2'	6.07	121.90	114.00
28	BD	244	ARG	C-N-CD	-6.05	107.28	120.60
40	DT	80	SER	N-CA-C	6.05	127.34	111.00
36	DP	58	THR	N-CA-C	-6.04	94.68	111.00
26	DB	106	G	N9-C1'-C2'	-6.04	105.35	112.00
25	DA	277	C	C1'-O4'-C4'	-6.03	105.08	109.90
25	BA	27	G	N9-C1'-C2'	6.02	121.83	114.00
29	DE	118	LYS	N-CA-C	-6.02	94.74	111.00
25	BA	2491	U	N1-C1'-C2'	-5.97	105.43	112.00
25	DA	332	A	C2'-C3'-O3'	5.96	123.24	113.70
1	CA	1319	A	N9-C1'-C2'	5.94	121.72	114.00
25	DA	2165	G	C2'-C3'-O3'	5.90	123.13	113.70
23	CW	7	G	N9-C1'-C2'	5.89	121.65	114.00
25	DA	2490	G	C2'-C3'-O3'	5.88	123.11	113.70
25	BA	1819	A	C2'-C3'-O3'	5.85	123.07	113.70
32	DH	156	ALA	N-CA-C	-5.85	95.21	111.00
25	DA	158	U	N1-C1'-C2'	5.84	121.59	114.00
25	DA	1698	A	O4'-C1'-N9	5.83	112.87	108.20
25	BA	2346	A	N9-C1'-C2'	5.80	121.53	114.00
26	BB	75	G	C5'-C4'-C3'	-5.78	106.75	116.00
25	BA	1497	U	N1-C1'-C2'	5.78	121.51	114.00
25	DA	1773	A	N9-C1'-C2'	-5.76	105.67	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	BA	2116	G	N9-C1'-C2'	5.74	121.47	114.00
36	BP	116	GLY	N-CA-C	5.72	127.41	113.10
46	BZ	178	ASP	N-CA-C	5.70	126.40	111.00
25	BA	1494	A	N9-C1'-C2'	-5.70	105.73	112.00
25	DA	2031	A	N9-C1'-C2'	5.69	121.40	114.00
26	BB	44	G	N9-C1'-C2'	5.69	121.39	114.00
25	BA	1559	G	O4'-C1'-N9	5.68	112.74	108.20
34	BN	43	THR	N-CA-C	-5.68	95.67	111.00
25	DA	1669	A	N9-C1'-C2'	5.65	121.35	114.00
25	DA	2497	A	C2'-C3'-O3'	5.64	122.73	113.70
36	DP	41	ARG	N-CA-C	-5.63	95.79	111.00
32	DH	157	TYR	N-CA-C	-5.58	95.94	111.00
53	D6	46	HIS	N-CA-C	5.58	126.06	111.00
25	DA	932	G	N9-C1'-C2'	5.58	121.25	114.00
1	AA	1053	G	N9-C1'-C2'	5.57	121.24	114.00
15	CO	23	GLY	N-CA-C	-5.55	99.21	113.10
45	BY	52	SER	N-CA-C	-5.54	96.04	111.00
25	BA	585	G	OP2-P-O3'	5.50	117.31	105.20
25	BA	961	C	C5'-C4'-O4'	5.50	115.70	109.10
1	AA	7	G	N9-C1'-C2'	5.50	121.15	114.00
36	BP	51	PHE	N-CA-C	5.50	125.85	111.00
31	BG	129	GLY	N-CA-C	-5.47	99.42	113.10
25	BA	2286	A	C2'-C3'-O3'	5.44	122.41	113.70
25	BA	874	G	N9-C1'-C2'	-5.44	106.02	112.00
28	BD	245	PRO	N-CA-C	-5.43	97.97	112.10
40	BT	29	ARG	N-CA-C	5.42	125.63	111.00
16	CP	4	ILE	N-CA-C	-5.41	96.39	111.00
1	AA	1201	A	C2'-C3'-O3'	5.41	122.35	113.70
45	DY	54	LYS	N-CA-C	-5.40	96.42	111.00
38	BR	7	GLY	N-CA-C	5.39	126.59	113.10
44	BX	23	GLU	N-CA-C	-5.37	96.49	111.00
29	BE	65	GLY	N-CA-C	-5.37	99.67	113.10
53	B6	10	LEU	CA-CB-CG	5.36	127.62	115.30
1	AA	533	A	C2'-C3'-O3'	5.34	122.25	113.70
28	BD	20	ASP	N-CA-C	-5.33	96.60	111.00
39	BS	17	ARG	N-CA-C	-5.33	96.62	111.00
1	AA	792	A	C2'-C3'-O3'	5.32	122.22	113.70
25	DA	1558	A	C2'-C3'-O3'	5.32	122.22	113.70
25	BA	932	G	C2'-C3'-O3'	5.31	122.19	113.70
25	DA	2034	U	N1-C1'-C2'	-5.29	106.18	112.00
1	AA	563	A	N9-C1'-C2'	5.27	120.85	114.00
1	CA	47	C	N1-C1'-C2'	5.27	120.85	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	B7	42	LEU	CA-CB-CG	5.25	127.39	115.30
36	BP	70	GLN	N-CA-C	-5.25	96.83	111.00
25	BA	265	A	C2'-C3'-O3'	5.23	122.06	113.70
23	AW	1	C	OP1-P-OP2	-5.22	111.77	119.60
25	DA	2832	U	C2'-C3'-O3'	5.22	122.05	113.70
26	BB	1	U	N1-C1'-C2'	5.21	120.78	114.00
25	DA	1204	A	N9-C1'-C2'	5.21	120.77	114.00
4	CD	12	CYS	CA-CB-SG	5.20	123.36	114.00
25	BA	27	G	C5'-C4'-O4'	-5.19	102.87	109.10
25	DA	2832	U	N1-C1'-C2'	5.19	120.74	114.00
29	BE	118	LYS	N-CA-C	-5.18	97.00	111.00
25	DA	1419	A	N9-C1'-C2'	5.18	120.74	114.00
13	CM	12	ASN	N-CA-C	5.16	124.94	111.00
25	DA	2791	C	N1-C1'-C2'	5.16	120.71	114.00
25	DA	442	G	N9-C1'-C2'	5.15	120.70	114.00
16	AP	12	LYS	N-CA-C	-5.15	97.10	111.00
25	BA	2073	C	N1-C1'-C2'	-5.12	106.37	112.00
25	BA	506	G	N9-C1'-C2'	5.12	120.66	114.00
25	DA	2060	A	C5'-C4'-O4'	-5.12	102.96	109.10
25	DA	673	C	C5'-C4'-C3'	-5.10	107.84	116.00
25	BA	1042	G	N9-C1'-C2'	5.09	120.62	114.00
25	BA	958	U	N1-C1'-C2'	-5.09	106.40	112.00
25	DA	629	G	C5'-C4'-C3'	-5.09	107.85	116.00
25	BA	2033	A	N9-C1'-C2'	5.09	120.61	114.00
25	DA	1955	U	N1-C1'-C2'	5.08	120.61	114.00
1	AA	344	A	C2'-C3'-O3'	5.07	121.82	113.70
30	BF	66	PRO	N-CA-C	5.07	125.28	112.10
55	B8	48	PHE	N-CA-C	-5.07	97.32	111.00
39	DS	16	ASN	N-CA-C	-5.06	97.33	111.00
53	B6	46	HIS	N-CA-C	5.06	124.66	111.00
25	BA	2405	G	N9-C1'-C2'	5.05	120.56	114.00
12	CL	85	GLY	N-CA-C	-5.05	100.48	113.10
1	CA	266	G	C2'-C3'-O3'	5.04	121.77	113.70
1	CA	250	A	N9-C1'-C2'	5.04	120.55	114.00
11	AK	128	ALA	N-CA-C	-5.04	97.40	111.00
25	DA	1980	G	OP1-P-O3'	5.03	116.27	105.20
13	AM	70	LEU	N-CA-C	-5.03	97.42	111.00
25	BA	934	G	C5'-C4'-C3'	-5.03	107.96	116.00
25	BA	1307	A	C5'-C4'-C3'	-5.03	107.96	116.00
25	DA	2581	G	C2'-C3'-O3'	5.03	121.75	113.70
25	DA	1792	G	N9-C1'-C2'	-5.02	106.47	112.00
26	DB	97	G	N9-C1'-C2'	-5.02	106.48	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	BT	71	GLY	N-CA-C	-5.02	100.56	113.10
40	BT	59	THR	N-CA-C	-5.01	97.48	111.00
34	BN	3	THR	N-CA-C	-5.00	97.49	111.00
25	BA	142	A	N9-C1'-C2'	5.00	120.50	114.00
1	CA	115	G	N9-C1'-C2'	5.00	120.50	114.00
25	DA	1847	A	N9-C1'-C2'	5.00	120.50	114.00

All (4) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
25	BA	454	A	C3'
25	BA	775	G	C3'
25	BA	1992	G	C3'
25	DA	1992	G	C3'

All (247) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	AA	1049	U	Sidechain
1	AA	1077	G	Sidechain
1	AA	1081	G	Sidechain
1	AA	1126	U	Sidechain
1	AA	114	U	Sidechain
1	AA	1166	G	Sidechain
1	AA	1194	U	Sidechain
1	AA	1223	C	Sidechain
1	AA	127	G	Sidechain
1	AA	1275	A	Sidechain
1	AA	1336	C	Sidechain
1	AA	1380	U	Sidechain
1	AA	1401	G	Sidechain
1	AA	1464	G	Sidechain
1	AA	1522	U	Sidechain
1	AA	1530	G	Sidechain
1	AA	250	A	Sidechain
1	AA	253	U	Sidechain
1	AA	265	G	Sidechain
1	AA	304	U	Sidechain
1	AA	329	A	Sidechain
1	AA	344	A	Sidechain
1	AA	403	C	Sidechain
1	AA	411	A	Sidechain

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
1	AA	47	C	Sidechain
1	AA	498	U	Sidechain
1	AA	532	A	Sidechain
1	AA	561	U	Sidechain
1	AA	565	U	Sidechain
1	AA	575	G	Sidechain
1	AA	700	G	Sidechain
1	AA	760	G	Sidechain
1	AA	773	G	Sidechain
1	AA	789	U	Sidechain
1	AA	850	U	Sidechain
1	AA	863	U	Sidechain
1	AA	931	C	Sidechain
1	AA	960	U	Sidechain
23	AW	19	G	Sidechain
23	AW	21	A	Sidechain
52	B5	51	TYR	Sidechain
25	BA	1001	A	Sidechain
25	BA	1139	G	Sidechain
25	BA	1142	U	Sidechain
25	BA	1212	G	Sidechain
25	BA	1215	G	Sidechain
25	BA	1244	G	Sidechain
25	BA	125	G	Sidechain
25	BA	1283	G	Sidechain
25	BA	1300	U	Sidechain
25	BA	1310	G	Sidechain
25	BA	1316	U	Sidechain
25	BA	1320	C	Sidechain
25	BA	1344	G	Sidechain
25	BA	1354	A	Sidechain
25	BA	1377	G	Sidechain
25	BA	1379	A	Sidechain
25	BA	139(A)	G	Sidechain
25	BA	1395	A	Sidechain
25	BA	141	A	Sidechain
25	BA	1433	U	Sidechain
25	BA	1460	A	Sidechain
25	BA	1494	A	Sidechain
25	BA	15	G	Sidechain
25	BA	1532	C	Sidechain
25	BA	1558	A	Sidechain

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Mol	Chain	Res	Type	Group
25	BA	1559	G	Sidechain
25	BA	1567	A	Sidechain
25	BA	158	U	Sidechain
25	BA	1597	A	Sidechain
25	BA	1633	G	Sidechain
25	BA	1647	G	Sidechain
25	BA	1693	U	Sidechain
25	BA	1754	C	Sidechain
25	BA	1763	G	Sidechain
25	BA	1772	G	Sidechain
25	BA	1773	A	Sidechain
25	BA	1778	U	Sidechain
25	BA	178	G	Sidechain
25	BA	1797	C	Sidechain
25	BA	1801	G	Sidechain
25	BA	1839	G	Sidechain
25	BA	1950	G	Sidechain
25	BA	1956	U	Sidechain
25	BA	196	A	Sidechain
25	BA	1992	G	Sidechain
25	BA	2053	G	Sidechain
25	BA	2093	G	Sidechain
25	BA	2227	A	Sidechain
25	BA	2306	C	Sidechain
25	BA	2307	G	Sidechain
25	BA	2320	A	Sidechain
25	BA	2323	G	Sidechain
25	BA	2382	G	Sidechain
25	BA	2406	U	Sidechain
25	BA	2423	U	Sidechain
25	BA	243	U	Sidechain
25	BA	2452	C	Sidechain
25	BA	2481	G	Sidechain
25	BA	249	C	Sidechain
25	BA	2504	U	Sidechain
25	BA	2517	C	Sidechain
25	BA	2542	A	Sidechain
25	BA	2553	G	Sidechain
25	BA	2569	G	Sidechain
25	BA	2573	C	Sidechain
25	BA	2580	U	Sidechain
25	BA	2581	G	Sidechain

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Mol	Chain	Res	Type	Group
25	BA	2584	U	Sidechain
25	BA	2586	C	Sidechain
25	BA	2679	A	Sidechain
25	BA	271(D)	G	Sidechain
25	BA	2712	U	Sidechain
25	BA	272(A)	U	Sidechain
25	BA	272(I)	U	Sidechain
25	BA	2739	U	Sidechain
25	BA	2753	A	Sidechain
25	BA	2754	U	Sidechain
25	BA	2836	U	Sidechain
25	BA	308	G	Sidechain
25	BA	363(A)	A	Sidechain
25	BA	395	U	Sidechain
25	BA	463	G	Sidechain
25	BA	51	G	Sidechain
25	BA	511	U	Sidechain
25	BA	515	A	Sidechain
25	BA	555	U	Sidechain
25	BA	568	U	Sidechain
25	BA	607	U	Sidechain
25	BA	648	G	Sidechain
25	BA	652	C	Sidechain
25	BA	666	G	Sidechain
25	BA	685	A	Sidechain
25	BA	70	G	Sidechain
25	BA	746	A	Sidechain
25	BA	747	U	Sidechain
25	BA	767	U	Sidechain
25	BA	787	U	Sidechain
25	BA	807	U	Sidechain
25	BA	820	A	Sidechain
25	BA	845	G	Sidechain
25	BA	892	G	Sidechain
25	BA	9	U	Sidechain
25	BA	913	U	Sidechain
25	BA	958	U	Sidechain
25	BA	959	A	Sidechain
25	BA	992	C	Sidechain
26	BB	66	A	Sidechain
26	BB	96	U	Sidechain
28	BD	9	TYR	Sidechain

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Mol	Chain	Res	Type	Group
1	CA	1062	U	Sidechain
1	CA	1077	G	Sidechain
1	CA	118	U	Sidechain
1	CA	1278	U	Sidechain
1	CA	1319	A	Sidechain
1	CA	1393	U	Sidechain
1	CA	1522	U	Sidechain
1	CA	244	U	Sidechain
1	CA	250	A	Sidechain
1	CA	266	G	Sidechain
1	CA	481	G	Sidechain
1	CA	484	G	Sidechain
1	CA	652	U	Sidechain
1	CA	760	G	Sidechain
1	CA	79	G	Sidechain
1	CA	90	U	Sidechain
1	CA	921	U	Sidechain
23	CW	61	C	Sidechain
23	CW	71	C	Sidechain
52	D5	51	TYR	Sidechain
25	DA	1026	U	Sidechain
25	DA	1112	G	Sidechain
25	DA	1204	A	Sidechain
25	DA	1220	A	Sidechain
25	DA	1283	G	Sidechain
25	DA	1286	A	Sidechain
25	DA	1300	U	Sidechain
25	DA	1323	U	Sidechain
25	DA	1324	G	Sidechain
25	DA	1379	A	Sidechain
25	DA	1390	U	Sidechain
25	DA	1419	A	Sidechain
25	DA	1452	A	Sidechain
25	DA	1457	A	Sidechain
25	DA	1465	G	Sidechain
25	DA	15	G	Sidechain
25	DA	1529	G	Sidechain
25	DA	1531	C	Sidechain
25	DA	1532	C	Sidechain
25	DA	157	U	Sidechain
25	DA	1693	U	Sidechain
25	DA	1699	G	Sidechain

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Mol	Chain	Res	Type	Group
25	DA	1772	G	Sidechain
25	DA	1773	A	Sidechain
25	DA	1779	U	Sidechain
25	DA	1792	G	Sidechain
25	DA	1820	U	Sidechain
25	DA	1855	G	Sidechain
25	DA	1938	A	Sidechain
25	DA	1940	U	Sidechain
25	DA	196	A	Sidechain
25	DA	2034	U	Sidechain
25	DA	2086	U	Sidechain
25	DA	2118	U	Sidechain
25	DA	2119	A	Sidechain
25	DA	2181	G	Sidechain
25	DA	2182	G	Sidechain
25	DA	2243	U	Sidechain
25	DA	2328	A	Sidechain
25	DA	2335	A	Sidechain
25	DA	243	U	Sidechain
25	DA	249	C	Sidechain
25	DA	2504	U	Sidechain
25	DA	2525	G	Sidechain
25	DA	2526	G	Sidechain
25	DA	2593	U	Sidechain
25	DA	2611	U	Sidechain
25	DA	2712	U	Sidechain
25	DA	2746	U	Sidechain
25	DA	277	C	Sidechain
25	DA	279	C	Sidechain
25	DA	2857	G	Sidechain
25	DA	2871	C	Sidechain
25	DA	372	G	Sidechain
25	DA	450	G	Sidechain
25	DA	459	U	Sidechain
25	DA	463	G	Sidechain
25	DA	481	G	Sidechain
25	DA	52	A	Sidechain
25	DA	607	U	Sidechain
25	DA	630	G	Sidechain
25	DA	639	U	Sidechain
25	DA	642	G	Sidechain
25	DA	685	A	Sidechain

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Mol	Chain	Res	Type	Group
25	DA	700	G	Sidechain
25	DA	792	G	Sidechain
25	DA	801	G	Sidechain
25	DA	807	U	Sidechain
25	DA	822	U	Sidechain
25	DA	9	U	Sidechain
25	DA	909	A	Sidechain
25	DA	914	C	Sidechain
25	DA	932	G	Sidechain
25	DA	956	G	Sidechain
25	DA	99	U	Sidechain
25	DA	996	A	Sidechain
26	DB	106	G	Sidechain

## 5.2 Close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	32144	0	16225	1841	0
1	CA	32332	0	16317	1680	0
2	AB	1901	0	1951	360	0
2	CB	1901	0	1951	361	0
3	AC	1613	0	1677	329	0
3	CC	1613	0	1677	275	0
4	AD	1703	0	1763	325	0
4	CD	1703	0	1763	212	0
5	AE	1147	0	1207	168	0
5	CE	1147	0	1207	177	0
6	AF	843	0	857	111	0
6	CF	843	0	857	137	0
7	AG	1257	0	1296	192	0
7	CG	1257	0	1296	213	0
8	AH	1116	0	1177	183	0
8	CH	1116	0	1177	170	0
9	AI	1004	0	1031	187	0
9	CI	1004	0	1031	200	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
10	AJ	795	0	840	215	0
10	CJ	795	0	840	192	0
11	AK	885	0	904	130	0
11	CK	885	0	904	111	0
12	AL	971	0	1057	168	0
12	CL	971	0	1057	133	0
13	AM	947	0	1008	191	0
13	CM	947	0	1008	135	0
14	AN	492	0	533	111	0
14	CN	492	0	533	95	0
15	AO	734	0	771	102	0
15	CO	734	0	771	111	0
16	AP	701	0	720	122	0
16	CP	701	0	720	98	0
17	AQ	824	0	891	108	0
17	CQ	824	0	891	88	0
18	AR	574	0	644	108	0
18	CR	574	0	644	102	0
19	AS	613	0	621	132	0
19	CS	619	0	639	120	0
20	AT	763	0	861	142	0
20	CT	763	0	861	138	0
21	AU	209	0	221	15	0
21	CU	209	0	221	31	0
22	AV	1367	0	1364	182	0
22	CV	1367	0	1364	199	0
23	AW	1644	0	834	67	0
23	CW	1644	0	836	75	0
24	AX	110	0	55	4	0
24	CX	110	0	55	3	0
25	BA	59596	0	30049	2582	0
25	DA	59809	0	30157	2949	0
26	BB	2551	0	1295	92	0
26	DB	2551	0	1295	145	0
27	BC	1702	0	1747	274	0
27	DC	1640	0	1651	242	0
28	BD	2127	0	2208	330	0
28	DD	2115	0	2186	338	0
29	BE	1564	0	1629	252	0
29	DE	1564	0	1629	273	0
30	BF	1624	0	1677	280	0
30	DF	1624	0	1677	300	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
31	BG	1474	0	1535	285	0
31	DG	1474	0	1535	269	0
32	BH	1231	0	1260	198	0
32	DH	1223	0	1282	234	0
33	BI	1043	0	1019	181	0
33	DI	871	0	680	103	0
34	BN	1105	0	1180	132	0
34	DN	1105	0	1180	175	0
35	BO	933	0	996	158	0
35	DO	933	0	996	112	0
36	BP	1114	0	1187	332	0
36	DP	1079	0	1117	265	0
37	BQ	1099	0	1160	144	0
37	DQ	1122	0	1179	190	0
38	BR	923	0	949	105	0
38	DR	960	0	1021	156	0
39	BS	777	0	825	180	0
39	DS	771	0	832	159	0
40	BT	1142	0	1202	274	0
40	DT	1142	0	1202	231	0
41	BU	958	0	1015	150	0
41	DU	958	0	1015	224	0
42	BV	779	0	852	167	0
42	DV	779	0	852	217	0
43	BW	896	0	953	91	0
43	DW	896	0	953	126	0
44	BX	735	0	791	85	0
44	DX	726	0	778	122	0
45	BY	757	0	821	198	0
45	DY	776	0	870	199	0
46	BZ	1438	0	1455	202	0
46	DZ	1404	0	1432	302	0
47	B0	613	0	633	88	0
47	D0	662	0	688	109	0
48	B1	757	0	843	108	0
48	D1	732	0	808	99	0
49	B2	598	0	653	56	0
49	D2	598	0	653	101	0
50	B3	460	0	512	46	0
50	D3	468	0	523	91	0
51	B4	226	0	229	46	0
51	D4	226	0	229	39	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
52	B5	435	0	452	58	0
52	D5	459	0	477	64	0
53	B6	401	0	399	118	0
53	D6	322	0	250	85	0
54	B7	419	0	467	27	0
54	D7	419	0	467	49	0
55	B8	496	0	567	113	0
55	D8	467	0	519	114	0
56	B9	294	0	311	43	0
56	D9	299	0	325	31	0
57	AA	117	0	0	0	0
57	AL	1	0	0	0	0
57	AT	1	0	0	0	0
57	AW	2	0	0	0	0
57	B0	2	0	0	0	0
57	B1	1	0	0	0	0
57	B5	4	0	0	0	0
57	B7	1	0	0	0	0
57	BA	459	0	0	1	0
57	BB	9	0	0	0	0
57	BD	1	0	0	0	0
57	BE	1	0	0	0	0
57	BF	1	0	0	0	0
57	BH	1	0	0	0	0
57	BP	3	0	0	0	0
57	BQ	3	0	0	0	0
57	BR	1	0	0	0	0
57	BT	1	0	0	0	0
57	BU	1	0	0	0	0
57	BX	1	0	0	0	0
57	CA	109	0	0	0	0
57	CE	1	0	0	0	0
57	CW	5	0	0	0	0
57	CX	1	0	0	0	0
57	D5	2	0	0	0	0
57	D6	2	0	0	0	0
57	DA	305	0	0	0	0
57	DB	10	0	0	0	0
57	DD	1	0	0	0	0
57	DF	1	0	0	0	0
57	DP	1	0	0	0	0
57	DR	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
58	AD	1	0	0	0	0
58	B5	1	0	0	0	0
58	B9	1	0	0	0	0
58	CD	1	0	0	0	0
58	D5	1	0	0	1	0
58	D9	1	0	0	2	0
All	All	290405	0	198457	23826	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 49.

All (23826) close contacts within the same asymmetric unit are listed below.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:D5:49:CYS:SG	58:D5:103:ZN:ZN	0.84	1.63
56:D9:14:CYS:SG	58:D9:101:ZN:ZN	1.23	1.27
27:DC:180:SER:CB	27:DC:180:SER:OG	1.82	1.25
36:BP:59:LEU:HA	36:BP:61:ARG:NH1	1.53	1.21
39:BS:97:ARG:NH2	39:BS:98:VAL:HA	1.55	1.20
33:BI:117:GLU:HG3	33:BI:118:LYS:H	1.07	1.17
25:BA:2875:C:H4'	40:BT:5:ALA:HB2	1.26	1.17
35:DO:98:VAL:HG12	35:DO:117:LEU:HD22	1.26	1.17
25:DA:1899:G:N2	25:DA:1902:C:H41	1.42	1.17
10:AJ:63:PHE:HB3	14:AN:58:LYS:HA	1.26	1.17
32:BH:10:PRO:O	32:BH:11:VAL:HB	1.41	1.17
25:BA:171:G:H2'	25:BA:172:C:H5''	1.26	1.16
46:DZ:165:SER:HB2	46:DZ:167:GLU:N	1.59	1.16
16:AP:26:ARG:HH11	16:AP:26:ARG:HB3	1.11	1.16
25:DA:543:C:H2'	25:DA:545:G:H5'	1.24	1.15
31:DG:76:SER:HB2	31:DG:83:ARG:HB2	1.19	1.14
2:CB:161:ALA:HB1	2:CB:185:ILE:HD11	1.24	1.14
1:AA:979:C:H3'	1:AA:980:C:H5''	1.17	1.14
34:DN:4:TYR:HB2	41:DU:64:ARG:HH22	1.03	1.14
32:DH:43:VAL:HG11	32:DH:52:VAL:HA	1.28	1.14
40:BT:112:ARG:HH11	40:BT:112:ARG:HB3	1.11	1.14
37:DQ:132:VAL:HG11	46:DZ:80:ARG:HH22	1.01	1.14
48:D1:86:SER:HB2	48:D1:89:GLU:HB2	1.29	1.13
25:DA:1884:A:H2'	25:DA:1885:A:H5''	1.26	1.13
44:DX:35:THR:HG22	44:DX:37:THR:H	1.12	1.13
25:DA:479:A:H4'	25:DA:480:A:H5'	1.21	1.13
19:CS:63:THR:HG22	19:CS:66:MET:HG2	1.27	1.13
9:CI:21:PRO:HA	9:CI:59:PHE:HA	1.21	1.13
25:BA:2206:G:H21	25:BA:2207:G:H5'	1.05	1.13

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1108:U:H2'	25:BA:1109:C:H5'	1.29	1.13
32:BH:158:HIS:CB	32:BH:169:VAL:O	1.95	1.13
28:BD:49:ILE:HD11	28:BD:52:ARG:HA	1.19	1.12
2:AB:18:GLY:H	2:AB:42:ILE:HG22	1.13	1.12
25:DA:2645:G:H3'	25:DA:2646:C:H5'	1.22	1.12
1:AA:1348:U:H4'	9:AI:120:ARG:HD2	1.27	1.12
20:AT:42:GLN:HG3	20:AT:43:LEU:HD23	1.29	1.12
25:BA:612:C:H2'	25:BA:613:G:H5''	1.15	1.12
42:DV:19:LYS:HG2	42:DV:94:LEU:HB2	1.30	1.12
38:DR:53:HIS:HA	38:DR:56:LYS:HD3	1.29	1.12
7:CG:4:ARG:HB3	7:CG:4:ARG:HH11	0.99	1.11
25:BA:2178:C:H5''	27:BC:47:LYS:HE2	1.31	1.11
48:D1:46:LEU:HA	48:D1:63:ALA:HA	1.30	1.11
1:CA:1116:C:H2'	1:CA:1117:G:H5''	1.22	1.11
42:BV:47:VAL:HB	42:BV:50:PRO:O	1.48	1.11
2:CB:132:LYS:HA	2:CB:135:GLN:HE21	1.11	1.11
1:AA:382:A:H2'	1:AA:383:A:H8	1.12	1.11
25:BA:242:G:H5''	55:B8:62:LEU:HD13	1.22	1.10
1:CA:979:C:H3'	1:CA:980:C:H5''	1.24	1.10
1:CA:1133:G:H22	1:CA:1143:G:H1'	1.12	1.10
13:CM:91:ARG:HB3	13:CM:98:VAL:HG22	1.24	1.10
45:DY:50:ARG:CZ	45:DY:54:LYS:HB3	1.81	1.10
25:BA:612:C:C2'	25:BA:613:G:H5''	1.81	1.10
25:BA:2787:C:H1'	29:BE:61:ARG:HG3	1.26	1.10
19:CS:32:LYS:HA	19:CS:50:ALA:HB3	1.33	1.10
25:BA:2645:G:H3'	25:BA:2646:C:H5'	1.32	1.10
22:CV:161:VAL:HB	22:CV:165:VAL:HG21	1.29	1.10
33:BI:94:ALA:HB1	33:BI:111:PRO:HB3	1.28	1.09
31:DG:39:ILE:HD11	31:DG:155:MET:HG3	1.18	1.09
1:AA:1223:C:C3'	1:AA:1223:C:C2'	2.29	1.09
1:CA:1363(A):A:H4'	1:CA:1364:U:H5''	1.23	1.09
25:DA:886:C:C2'	25:DA:887:A:H4'	1.82	1.09
25:BA:1177:A:H4'	25:BA:1178:C:H5''	1.33	1.09
25:DA:1359:A:H2'	25:DA:1360:A:H5'	1.31	1.09
45:DY:8:LYS:HE3	45:DY:72:VAL:HG23	1.34	1.09
25:DA:2701:C:H3'	25:DA:2702:U:H5''	1.20	1.09
49:D2:65:ASN:HB3	49:D2:69:ARG:HH22	1.13	1.09
37:DQ:140:ALA:HB3	46:DZ:52:ILE:HD13	1.32	1.09
29:DE:77:ILE:HG22	29:DE:78:LEU:HG	1.27	1.09
25:BA:143:G:H1'	44:BX:37:THR:HG21	1.31	1.09
30:BF:3:GLU:HB2	30:BF:19:GLU:HB2	1.34	1.08
22:CV:123:THR:HG23	22:CV:176:ARG:HH22	1.07	1.08

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2312:U:H2'	25:DA:2313:C:H5''	1.10	1.08
25:BA:1899:G:N2	25:BA:1902:C:H41	1.49	1.08
25:DA:279:C:H4'	25:DA:280:C:H5''	1.36	1.08
29:BE:59:VAL:HG22	29:BE:60:ASN:H	1.17	1.08
25:DA:542:C:N4	25:DA:551:G:O6	1.85	1.08
25:BA:2101:G:H2'	25:BA:2102:U:H5''	1.35	1.08
1:AA:345:C:H4'	1:AA:346:G:H5'	1.27	1.08
38:DR:8:ARG:HE	38:DR:8:ARG:HA	1.01	1.08
1:AA:192:U:H4'	20:AT:103:GLY:H	1.17	1.08
53:B6:44:ARG:O	53:B6:45:LYS:HD2	1.53	1.08
3:AC:63:ASN:HA	3:AC:98:ASN:HB3	1.12	1.08
52:B5:4:HIS:HB3	52:B5:5:PRO:CD	1.85	1.07
46:DZ:128:SER:HB3	46:DZ:131:ASN:HD22	1.18	1.07
30:DF:17:ARG:HH11	30:DF:17:ARG:HB2	1.16	1.07
2:CB:131:PRO:HG2	2:CB:134:GLU:HB2	1.08	1.07
45:BY:10:GLY:HA2	45:BY:27:VAL:HG13	1.08	1.07
3:CC:87:LEU:HA	3:CC:90:GLU:HG2	1.28	1.07
25:DA:886:C:H2'	25:DA:887:A:C4'	1.85	1.07
25:DA:555:U:H1'	25:DA:556:G:N7	1.69	1.07
44:DX:27:THR:HG22	44:DX:80:ILE:HB	1.31	1.07
3:AC:92:ALA:HB2	3:AC:99:VAL:HG21	1.36	1.07
30:DF:78:ILE:H	30:DF:78:ILE:HD13	1.11	1.07
27:DC:73:VAL:HG13	27:DC:112:ASP:HB2	1.35	1.07
51:D4:37:PRO:HA	51:D4:51:TYR:HA	1.33	1.07
25:BA:1396:U:H1'	25:BA:1397:U:C6	1.90	1.07
10:AJ:27:ALA:HB1	10:AJ:34:VAL:HG21	1.36	1.07
5:AE:43:LEU:HD21	5:AE:132:ALA:HB1	1.36	1.06
25:DA:1045:A:H5'	25:DA:1047:G:H4'	1.38	1.06
46:BZ:68:THR:HG22	46:BZ:89:VAL:HA	1.35	1.06
40:BT:62:THR:HG22	40:BT:75:ILE:HG12	1.38	1.06
1:AA:1397:C:H3'	1:AA:1398:A:H5''	1.07	1.06
25:DA:2415:G:H4'	36:DP:67:MET:H	1.19	1.06
18:CR:73:ALA:HB3	18:CR:79:LEU:HD12	1.31	1.06
25:DA:925:C:H2'	25:DA:926:A:H5''	1.32	1.06
25:DA:157:U:H3'	25:DA:158:U:H5''	1.31	1.06
25:BA:1747(A):G:H2'	25:BA:1748:G:H5''	1.38	1.06
25:DA:2833:G:H3'	25:DA:2834:G:C5'	1.86	1.06
31:DG:139:LEU:HD23	31:DG:139:LEU:H	1.20	1.06
25:DA:612:C:H2'	25:DA:613:G:H5''	1.32	1.06
45:BY:76:CYS:SG	45:BY:77:PRO:HD2	1.96	1.06
28:BD:270:ILE:H	28:BD:270:ILE:HD13	1.17	1.06
36:BP:16:ARG:HD3	36:BP:18:ARG:H	1.17	1.06

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BC:73:VAL:HG13	27:BC:112:ASP:HB2	1.33	1.06
25:DA:1668:A:H4'	25:DA:1669:A:H5'	1.37	1.06
45:BY:87:LYS:HG3	45:BY:88:LYS:H	1.21	1.06
46:BZ:150:HIS:HB3	46:BZ:169:THR:HA	1.10	1.06
7:CG:105:VAL:HG12	7:CG:109:ASN:HD21	1.18	1.05
32:DH:89:ILE:HD12	32:DH:90:LYS:H	1.15	1.05
44:DX:12:VAL:HB	44:DX:17:ALA:HB1	1.37	1.05
39:BS:97:ARG:HH21	39:BS:98:VAL:CA	1.68	1.05
25:DA:847:U:O2'	25:DA:848:G:H5'	1.56	1.05
25:BA:272(H):C:H3'	25:BA:272(I):U:H5''	1.29	1.05
31:BG:61:ALA:HA	31:BG:64:THR:HG22	1.39	1.05
25:BA:1887:C:H2'	25:BA:1888:G:H5''	1.33	1.05
25:DA:1567:A:H5'	28:DD:58:HIS:HD2	1.17	1.05
44:DX:12:VAL:HG23	44:DX:13:LEU:H	0.93	1.05
25:BA:1639:U:O2'	25:BA:1640:C:H5''	1.56	1.05
25:BA:2801(A):A:H4'	25:BA:2802:G:H5'	1.10	1.05
33:BI:92:VAL:HG22	33:BI:120:ILE:HB	1.32	1.04
25:DA:2729:G:H1'	29:DE:187:ALA:HB2	1.38	1.04
12:CL:38:ARG:HG2	12:CL:39:THR:H	1.18	1.04
25:DA:242:G:H5''	55:D8:62:LEU:HD13	1.31	1.04
29:BE:3:GLY:HA3	29:BE:81:ILE:HG21	1.38	1.04
25:BA:1899:G:H22	25:BA:1902:C:N4	1.54	1.04
1:AA:1145:C:H4'	1:AA:1146:A:H5'	1.38	1.04
32:DH:85:LYS:HD3	32:DH:133:VAL:HB	1.36	1.04
8:CH:10:LEU:HD22	8:CH:83:ILE:HD11	1.39	1.04
44:DX:12:VAL:CG2	44:DX:13:LEU:H	1.71	1.04
53:B6:12:GLU:HB3	53:B6:23:THR:HG22	1.39	1.04
4:AD:49:ARG:HD3	4:AD:50:ARG:H	1.15	1.04
27:BC:102:GLN:HE21	27:BC:102:GLN:HA	1.23	1.03
31:DG:115:ARG:HH11	31:DG:136:ARG:HD3	1.14	1.03
25:BA:542:C:O2'	25:BA:543:C:H5'	1.58	1.03
8:CH:6:ILE:H	8:CH:6:ILE:HD12	1.21	1.03
36:BP:84:ASN:HA	36:BP:115:LEU:O	1.58	1.03
28:BD:24:ILE:HG23	28:BD:25:THR:H	1.23	1.03
32:DH:20:ALA:HB2	32:DH:25:LYS:HE3	1.39	1.03
31:DG:16:ARG:HH12	31:DG:28:VAL:HG13	1.20	1.03
41:BU:92:ARG:HD2	42:BV:11:GLN:NE2	1.74	1.03
38:DR:8:ARG:HA	38:DR:8:ARG:NE	1.72	1.03
1:AA:433:C:H2'	1:AA:434:U:C6	1.94	1.03
32:DH:159:GLU:HG3	32:DH:160:LYS:HG3	1.41	1.03
31:DG:39:ILE:HD13	31:DG:157:ILE:HG12	1.39	1.02
25:DA:2394:C:OP1	36:DP:63:PRO:HD2	1.58	1.02

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:33:TYR:HB3	2:CB:41:ILE:HG22	1.38	1.02
1:AA:433:C:H2'	1:AA:434:U:H6	1.21	1.02
25:BA:1594:G:H5'	25:BA:1594:G:H8	1.20	1.02
25:BA:2876:G:H4'	40:BT:3:ARG:HD3	1.33	1.02
25:DA:1899:G:H22	25:DA:1902:C:N4	1.58	1.02
2:CB:61:LEU:HD21	2:CB:68:ILE:HD11	1.41	1.02
41:DU:111:GLU:HA	41:DU:114:LYS:HD3	1.40	1.02
32:DH:89:ILE:CD1	32:DH:90:LYS:H	1.72	1.02
36:BP:146:VAL:HG22	36:BP:147:LEU:H	1.23	1.02
25:DA:1747(A):G:H2'	25:DA:1748:G:H5''	1.40	1.02
2:AB:21:ARG:HB3	2:AB:39:ILE:HA	1.40	1.02
19:AS:53:ASN:HD21	19:AS:55:LYS:HB3	1.22	1.02
11:CK:48:ILE:HG22	11:CK:49:GLY:H	1.19	1.02
25:DA:285:C:H2'	25:DA:286:C:H5''	1.37	1.02
1:CA:322:C:H4'	20:CT:23:ARG:HD2	1.40	1.02
1:AA:1025:U:H4'	1:AA:1026:G:H8	1.25	1.02
25:DA:2887:U:H2'	25:DA:2888:C:C6	1.95	1.02
17:AQ:67:LYS:O	17:AQ:68:ARG:HB2	1.59	1.02
1:CA:1145:C:H4'	1:CA:1146:A:H5'	1.41	1.02
28:BD:35:LYS:HB2	28:BD:36:PRO:HD3	1.40	1.02
8:AH:100:ILE:HB	8:AH:125:ARG:HH12	1.22	1.02
55:B8:33:ASN:H	55:B8:33:ASN:HD22	1.02	1.02
50:D3:13:ILE:H	50:D3:13:ILE:HD12	1.22	1.02
25:DA:2312:U:C2'	25:DA:2313:C:H5''	1.89	1.01
45:DY:28:LYS:HA	45:DY:39:VAL:H	1.22	1.01
36:DP:65:ARG:NH2	55:D8:15:LYS:HB2	1.73	1.01
45:BY:46:LYS:HG2	45:BY:47:LYS:H	1.23	1.01
16:CP:72:ARG:HH21	16:CP:73:LEU:HD21	1.21	1.01
46:BZ:125:VAL:HG21	46:BZ:160:VAL:HG13	1.41	1.01
40:BT:28:VAL:HG22	40:BT:47:GLY:N	1.73	1.01
8:CH:110:ALA:HB3	8:CH:121:ASP:HB3	1.38	1.01
25:DA:275:G:H2'	25:DA:276:A:H4'	1.40	1.01
25:BA:1851:U:H2'	25:BA:1852:C:H5'	1.38	1.01
37:DQ:141:GLN:H	46:DZ:98:TYR:HB2	1.18	1.01
45:DY:28:LYS:HB2	45:DY:38:ILE:H	1.26	1.01
3:AC:71:ALA:HB1	3:AC:109:PRO:HG3	1.38	1.01
1:AA:1222:G:C2'	1:AA:1223:C:H5'	1.90	1.01
30:BF:178:PRO:HB2	30:BF:201:VAL:HG11	1.42	1.01
25:BA:541:C:C4	25:BA:542:C:N4	2.28	1.01
4:AD:108:LEU:HD11	4:AD:174:LEU:HD22	1.43	1.01
29:BE:32:PRO:HB3	29:BE:69:LYS:HB3	1.43	1.01
41:DU:92:ARG:HB2	41:DU:92:ARG:HH11	1.26	1.01

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:DX:12:VAL:HG23	44:DX:13:LEU:N	1.72	1.01
45:BY:27:VAL:HA	45:BY:28:LYS:NZ	1.76	1.01
25:BA:2175:C:H2'	25:BA:2176:A:H5''	1.41	1.01
32:BH:46:GLU:HG3	32:BH:51:ARG:HB2	1.41	1.00
1:CA:1305:G:H22	1:CA:1331:G:H2'	1.20	1.00
13:AM:97:PRO:HB2	13:AM:101:GLN:NE2	1.75	1.00
25:BA:2468:G:HO2'	25:BA:2469:A:H8	1.03	1.00
43:DW:4:LYS:HG2	43:DW:106:ILE:HG22	1.40	1.00
35:BO:97:ARG:HA	35:BO:117:LEU:HD21	1.41	1.00
1:CA:1133:G:N2	1:CA:1143:G:H1'	1.74	1.00
25:BA:272(H):C:H3'	25:BA:272(I):U:C5'	1.91	1.00
12:CL:44:LYS:HB3	12:CL:45:PRO:CD	1.91	1.00
52:D5:4:HIS:HB3	52:D5:5:PRO:HD3	1.39	1.00
25:DA:2701:C:H3'	25:DA:2702:U:C5'	1.91	1.00
25:BA:886:C:H2'	25:BA:887:A:H4'	1.01	1.00
28:DD:49:ILE:HD11	28:DD:52:ARG:HA	1.41	1.00
2:AB:115:LEU:HD23	2:AB:153:ARG:HD2	1.42	1.00
53:D6:41:PRO:CD	53:D6:46:HIS:H	1.75	1.00
43:DW:73:ALA:HB3	43:DW:106:ILE:HD11	1.39	1.00
28:DD:44:ASN:HB3	28:DD:49:ILE:HA	1.44	1.00
1:AA:265:G:H2'	1:AA:266:G:H5''	1.43	0.99
36:BP:62:LEU:HD13	36:BP:62:LEU:H	1.24	0.99
3:CC:52:LEU:HD23	3:CC:52:LEU:H	1.28	0.99
45:BY:26:LYS:HG2	45:BY:27:VAL:H	1.22	0.99
25:DA:958:U:H5''	37:DQ:14:ARG:HD3	1.42	0.99
3:CC:124:ILE:HG21	3:CC:189:ALA:HB1	1.44	0.99
25:DA:271(S):G:H2'	25:DA:271(T):C:H5''	1.41	0.99
38:DR:2:ARG:NH2	38:DR:5:LYS:HE2	1.76	0.99
11:AK:111:ASP:HA	18:AR:84:LYS:HG3	1.44	0.99
11:AK:127:LYS:HE2	11:AK:127:LYS:HA	1.38	0.99
3:CC:20:SER:HB2	3:CC:40:ARG:HH22	1.23	0.99
36:BP:85:LEU:HA	36:BP:88:LEU:HD13	1.45	0.99
2:CB:178:ARG:HB2	2:CB:178:ARG:HH11	1.28	0.99
1:CA:1305:G:H5''	21:CU:5:ASP:H	1.24	0.99
1:AA:1152:A:H5''	10:AJ:13:HIS:HB2	1.41	0.99
25:BA:330:A:H2	25:BA:1210:A:H2'	1.26	0.99
4:AD:62:GLN:HE22	4:AD:65:ARG:HE	0.99	0.99
53:D6:12:GLU:HA	53:D6:23:THR:HA	1.44	0.99
5:AE:76:ILE:HG12	5:AE:77:PRO:HD2	1.41	0.99
11:CK:127:LYS:HA	11:CK:127:LYS:HE2	1.43	0.99
45:BY:27:VAL:HA	45:BY:28:LYS:HZ1	1.25	0.98
25:DA:2749:A:H4'	32:DH:62:LYS:HB3	1.45	0.98

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DF:3:GLU:HA	30:DF:24:LEU:HB3	1.43	0.98
55:B8:32:LEU:HB3	55:B8:36:LYS:HZ3	1.24	0.98
2:AB:168:THR:HG23	2:AB:192:SER:OG	1.62	0.98
28:BD:242:ARG:HD2	28:BD:242:ARG:H	1.28	0.98
40:DT:60:THR:HG22	40:DT:77:PRO:HA	1.44	0.98
22:CV:8:ARG:HE	23:CW:4:G:H5''	1.29	0.98
46:DZ:127:VAL:HG22	46:DZ:128:SER:H	1.27	0.98
42:DV:62:LEU:HD21	42:DV:95:LEU:HB2	1.42	0.98
3:AC:50:ALA:HB1	3:AC:70:VAL:HG11	1.39	0.98
2:AB:14:GLY:O	2:AB:15:VAL:HG22	1.63	0.98
5:AE:145:LYS:HA	8:AH:107:LEU:HD21	1.43	0.98
25:BA:272(D):G:H1	25:BA:364:C:H42	1.11	0.98
22:CV:72:TYR:N	22:CV:109:THR:HG21	1.77	0.98
32:BH:123:PHE:HA	32:BH:133:VAL:HG22	1.45	0.98
3:CC:182:ILE:HG12	3:CC:203:PHE:HA	1.44	0.98
1:CA:1134:G:H22	1:CA:1141:C:H1'	1.22	0.98
31:BG:137:GLU:HG2	31:BG:152:LEU:HD11	1.44	0.98
40:DT:50:ILE:HD11	40:DT:102:ILE:HD11	1.41	0.98
25:DA:10:G:H2'	25:DA:11:G:H8	1.26	0.98
25:BA:2758:A:H2'	25:BA:2759:G:H5''	1.45	0.98
9:CI:26:VAL:HG22	9:CI:61:ALA:HB3	1.46	0.98
31:BG:161:THR:HG22	31:BG:163:ALA:H	1.27	0.98
1:AA:1289:A:H5''	21:AU:10:ARG:HH21	1.28	0.98
41:BU:90:VAL:C	41:BU:92:ARG:HD3	1.84	0.98
25:BA:1803:A:O2'	28:BD:259:THR:HG21	1.64	0.98
46:DZ:149:LEU:HD13	46:DZ:149:LEU:H	1.29	0.98
1:CA:1000:U:H2'	1:CA:1001:A:H8	1.29	0.97
25:DA:2839:G:H21	38:DR:92:GLY:HA3	1.27	0.97
5:CE:50:GLU:HG3	5:CE:52:PRO:HD2	1.42	0.97
1:CA:1346:A:H61	1:CA:1374:A:H3'	1.26	0.97
10:AJ:5:ARG:HH21	10:AJ:99:LYS:HB2	1.23	0.97
25:BA:1697:G:H3'	25:BA:1698:A:H5''	1.46	0.97
25:BA:886:C:C2'	25:BA:887:A:H4'	1.93	0.97
25:DA:2792:G:H1	25:DA:2804:C:H42	1.03	0.97
25:DA:2245:U:H5'	25:DA:2246:G:H5'	1.46	0.97
2:CB:69:LEU:HD22	2:CB:91:PRO:HB2	1.41	0.97
31:DG:114:ILE:HB	31:DG:117:PHE:HB2	1.46	0.97
25:DA:1865:G:H5'	25:DA:1866:C:OP2	1.65	0.97
2:CB:48:MET:HA	2:CB:51:LEU:HD12	1.44	0.97
1:CA:1133:G:H2'	1:CA:1134:G:C8	2.00	0.97
40:DT:34:VAL:HA	40:DT:39:ARG:HA	1.45	0.97
42:BV:19:LYS:HG3	42:BV:20:LEU:O	1.65	0.97

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DD:28:GLU:H	28:DD:29:PRO:HD2	1.27	0.97
28:DD:106:ILE:HD11	28:DD:196:VAL:HG13	1.45	0.97
8:AH:64:LYS:HG2	8:AH:79:VAL:HG21	1.43	0.97
25:DA:2648:C:H2'	25:DA:2649:U:H6	1.27	0.97
33:DI:45:LYS:HE3	33:DI:46:ALA:N	1.78	0.97
1:CA:975:A:H4'	1:CA:976:G:H5''	1.41	0.97
45:DY:27:VAL:HA	45:DY:28:LYS:HZ1	1.29	0.97
31:BG:51:ARG:HA	31:BG:51:ARG:HE	1.28	0.97
25:BA:886:C:H2'	25:BA:887:A:C4'	1.95	0.97
25:DA:94(A):G:H21	49:D2:47:ASN:HD22	1.09	0.97
7:AG:69:VAL:HG21	7:AG:104:LEU:HD21	1.46	0.97
47:D0:72:ARG:HE	47:D0:75:LEU:HD13	1.26	0.97
30:BF:46:ARG:HH11	30:BF:46:ARG:HG3	1.30	0.97
25:BA:925:C:H2'	25:BA:926:A:H5''	1.45	0.97
15:CO:87:ILE:HG22	15:CO:88:ARG:H	1.26	0.97
30:BF:67:GLN:HG3	30:BF:67:GLN:O	1.64	0.97
40:DT:92:GLY:O	40:DT:93:ARG:HG2	1.65	0.97
32:DH:19:VAL:HG12	32:DH:20:ALA:H	1.29	0.96
25:DA:2887:U:H2'	25:DA:2888:C:H6	1.27	0.96
42:BV:19:LYS:NZ	42:BV:20:LEU:H	1.63	0.96
25:BA:34:C:O2'	25:BA:35:G:H5'	1.64	0.96
25:BA:1779:U:H5	25:BA:1784:A:N7	1.63	0.96
25:DA:925:C:C2'	25:DA:926:A:H5''	1.93	0.96
22:CV:12:LYS:HD3	22:CV:65:VAL:HB	1.45	0.96
27:DC:15:VAL:HG22	27:DC:29:LEU:HD21	1.47	0.96
48:B1:51:VAL:HG21	48:B1:74:VAL:HG21	1.42	0.96
6:CF:91:VAL:HG11	18:CR:72:ARG:NH2	1.80	0.96
25:BA:1022:G:H22	25:BA:1142(A):A:H2	1.11	0.96
3:AC:40:ARG:HA	3:AC:43:LEU:HD12	1.46	0.96
30:DF:9:ILE:HA	30:DF:13:SER:O	1.65	0.96
36:DP:16:ARG:HD3	36:DP:18:ARG:H	1.30	0.96
30:BF:191:ARG:HH11	30:BF:191:ARG:HB3	1.28	0.96
43:DW:13:SER:HB3	43:DW:16:LYS:HE3	1.48	0.96
14:CN:23:ARG:HH11	14:CN:30:ALA:HB2	1.28	0.96
1:CA:1116:C:C2'	1:CA:1117:G:H5''	1.96	0.96
17:AQ:67:LYS:HA	17:AQ:70:ARG:HH12	1.31	0.96
39:BS:97:ARG:HH21	39:BS:98:VAL:HA	0.82	0.96
50:D3:8:LEU:HD12	50:D3:31:LEU:HA	1.48	0.96
1:AA:1397:C:C3'	1:AA:1398:A:H5''	1.96	0.96
2:CB:122:PHE:HA	2:CB:139:LYS:NZ	1.80	0.96
3:AC:83:ARG:O	3:AC:86:VAL:HG22	1.65	0.96
3:AC:63:ASN:HA	3:AC:98:ASN:CB	1.95	0.96

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:D6:14:THR:O	53:D6:49:HIS:HA	1.66	0.96
14:AN:26:ARG:HH12	14:AN:47:LEU:HD11	1.29	0.96
11:AK:50:TYR:HD2	11:AK:54:ARG:HB3	1.30	0.96
46:BZ:78:ARG:O	46:BZ:79:ARG:HB2	1.66	0.96
36:BP:48:PRO:HG2	36:BP:49:ARG:H	1.29	0.96
1:CA:1252:A:H61	1:CA:1285:A:H61	1.14	0.96
45:BY:28:LYS:N	45:BY:28:LYS:HZ2	1.64	0.96
53:B6:11:LEU:HD13	53:B6:12:GLU:H	1.27	0.96
41:DU:92:ARG:HD2	41:DU:95:LEU:HB2	1.43	0.95
25:DA:1484:G:H3'	25:DA:1485:G:H5''	1.46	0.95
37:DQ:132:VAL:HG11	46:DZ:80:ARG:NH2	1.79	0.95
41:BU:92:ARG:HH21	41:BU:95:LEU:N	1.64	0.95
1:CA:1298:C:H2'	7:CG:114:ARG:NH1	1.81	0.95
1:CA:1000:U:H2'	1:CA:1001:A:C8	2.01	0.95
25:DA:2348:U:H2'	25:DA:2349:G:H5''	1.45	0.95
25:DA:543:C:C2'	25:DA:545:G:H5'	1.96	0.95
44:DX:80:ILE:HD13	44:DX:80:ILE:O	1.66	0.95
40:DT:3:ARG:HB2	40:DT:6:LEU:HB2	1.45	0.95
29:DE:55:ASN:ND2	29:DE:58:ARG:HH11	1.65	0.95
25:BA:272(I):U:H2'	25:BA:274:G:C8	2.01	0.95
19:CS:19:VAL:O	19:CS:23:ASN:HB2	1.64	0.95
33:BI:3:VAL:HG12	33:BI:38:LEU:HA	1.46	0.95
31:DG:137:GLU:HG2	31:DG:152:LEU:HD11	1.49	0.95
47:B0:40:ARG:HD2	47:B0:40:ARG:H	1.26	0.95
45:DY:75:ILE:HG12	45:DY:79:CYS:HA	1.48	0.95
1:AA:1321:C:C5'	1:AA:1322:C:H5''	1.95	0.95
30:BF:2:LYS:HE2	30:BF:25:PRO:HB3	1.48	0.95
25:DA:2689:U:H5''	25:DA:2690:C:H5'	1.49	0.95
35:BO:86:ILE:HG22	35:BO:94:ARG:HG3	1.48	0.95
25:BA:571:A:H5'	25:BA:2030:A:H62	1.32	0.95
31:DG:82:LEU:HD22	31:DG:87:PRO:HG3	1.47	0.95
25:DA:2832:U:H4'	25:DA:2833:G:C5'	1.96	0.95
49:D2:35:LEU:HD12	49:D2:53:LEU:HD12	1.47	0.95
45:DY:95:LYS:HG3	45:DY:100:ALA:HA	1.48	0.95
36:DP:83:VAL:HG22	36:DP:88:LEU:HD11	1.48	0.95
36:BP:40:SER:O	36:BP:41:ARG:HD2	1.66	0.95
39:BS:56:LEU:HD22	39:BS:58:LEU:HD13	1.45	0.95
1:AA:197:A:H4'	1:AA:198:G:O5'	1.66	0.95
29:BE:77:ILE:HG22	29:BE:78:LEU:H	1.30	0.95
31:BG:51:ARG:NE	31:BG:51:ARG:HA	1.80	0.95
25:DA:1689:A:H62	25:DA:1698:A:H2	1.13	0.95
3:CC:76:VAL:HA	3:CC:83:ARG:CZ	1.97	0.95

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:612:C:C2'	25:DA:613:G:H5''	1.97	0.95
52:B5:45:VAL:HG13	52:B5:50:GLY:HA2	1.49	0.95
37:DQ:38:GLU:HG3	37:DQ:127:ILE:HG22	1.47	0.95
17:CQ:76:LEU:HD21	17:CQ:79:SER:HB2	1.49	0.95
25:BA:2206:G:H21	25:BA:2207:G:C5'	1.78	0.95
25:DA:886:C:H2'	25:DA:887:A:H4'	0.97	0.95
36:BP:9:ASN:H	36:BP:10:PRO:HD3	1.30	0.95
15:AO:82:ILE:HG12	15:AO:87:ILE:HB	1.49	0.95
47:D0:40:GLN:HE22	47:D0:45:PHE:H	1.10	0.95
25:DA:2645:G:H3'	25:DA:2646:C:C5'	1.95	0.94
25:BA:662:G:OP1	36:BP:18:ARG:HD2	1.65	0.94
28:DD:26:LYS:HZ3	28:DD:82:ILE:H	1.13	0.94
1:AA:1305:G:N2	1:AA:1331:G:H2'	1.82	0.94
31:DG:103:LEU:HA	31:DG:106:LEU:HB3	1.49	0.94
30:DF:20:LEU:HB3	30:DF:23:ASP:OD2	1.67	0.94
31:BG:63:ILE:HA	31:BG:143:GLU:HG3	1.46	0.94
5:AE:11:ILE:HD11	5:AE:33:VAL:HG23	1.46	0.94
10:CJ:48:THR:HA	10:CJ:62:HIS:HB3	1.48	0.94
25:BA:1332:G:H5''	25:BA:1332:G:H8	1.30	0.94
32:BH:18:GLU:HB2	32:BH:25:LYS:HG3	1.50	0.94
47:D0:36:ILE:HD11	47:D0:39:ARG:HG2	1.49	0.94
25:DA:1411:C:H2'	25:DA:1412:A:C8	2.02	0.94
25:DA:272(G):C:H42	25:DA:363(C):G:H1	1.00	0.94
30:BF:22:ALA:HA	30:BF:26:ALA:HB2	1.49	0.94
25:BA:2101:G:C2'	25:BA:2102:U:H5''	1.97	0.94
54:D7:8:ASN:HD22	54:D7:9:ARG:N	1.64	0.94
1:AA:1373:G:H4'	7:AG:31:MET:HE1	1.45	0.94
45:BY:37:VAL:HG21	45:BY:72:VAL:HG21	1.46	0.94
25:BA:1389:G:H1	25:BA:1398:C:H42	1.01	0.94
36:BP:81:GLN:HG2	36:BP:106:LEU:HA	1.46	0.94
1:CA:1200:C:H5''	1:CA:1201:A:H3'	1.50	0.94
25:DA:910:A:H62	37:DQ:12:GLN:HA	1.31	0.94
45:DY:27:VAL:HA	45:DY:28:LYS:NZ	1.81	0.94
31:BG:47:LYS:HD3	31:BG:82:LEU:HG	1.48	0.94
1:AA:963:G:H21	10:AJ:55:LYS:HD3	1.29	0.94
1:CA:1033:G:H3'	1:CA:1034:G:C5'	1.97	0.94
39:DS:58:LEU:HD21	39:DS:68:GLN:HB2	1.49	0.94
19:AS:50:ALA:HB1	19:AS:57:HIS:HB3	1.50	0.94
30:BF:25:PRO:HG3	30:BF:119:ARG:HA	1.50	0.94
40:DT:13:ARG:NH1	40:DT:13:ARG:HA	1.83	0.94
25:BA:1464:C:HO2'	25:BA:1528:A:H8	1.05	0.94
39:BS:89:ARG:HB3	39:BS:92:TYR:HB3	1.48	0.94

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:382:A:H2'	1:AA:383:A:C8	2.02	0.94
25:BA:2394:C:OP1	36:BP:63:PRO:HD2	1.66	0.94
25:BA:1019:U:H3	25:BA:1142(A):A:H62	1.12	0.94
1:AA:555:C:H2'	1:AA:556:C:H6	1.31	0.94
2:CB:16:HIS:HD2	2:CB:210:SER:HA	1.33	0.94
45:DY:10:GLY:HA2	45:DY:27:VAL:HG13	1.49	0.94
4:AD:14:ARG:HB2	4:AD:40:PRO:HD2	1.50	0.94
2:CB:111:ARG:HA	2:CB:111:ARG:HE	1.31	0.94
26:DB:7:G:H3'	26:DB:8:U:H5''	1.47	0.94
39:DS:17:ARG:HG3	39:DS:18:ILE:H	1.29	0.94
42:DV:46:VAL:HG22	42:DV:47:VAL:H	1.32	0.94
40:BT:29:ARG:HB2	40:BT:85:LYS:NZ	1.83	0.94
25:BA:1314:C:H5'	25:BA:1314:C:H6	1.32	0.94
46:DZ:25:GLY:HA3	46:DZ:85:VAL:HG23	1.47	0.93
3:AC:76:VAL:HA	3:AC:83:ARG:HH12	1.33	0.93
45:BY:28:LYS:HB2	45:BY:37:VAL:HB	1.46	0.93
25:DA:1411:C:H2'	25:DA:1412:A:H8	1.32	0.93
23:CW:1:C:H2'	23:CW:2:G:H8	1.32	0.93
3:AC:157:ILE:HD13	3:AC:166:GLU:HB2	1.48	0.93
39:BS:14:VAL:HG12	39:BS:15:ARG:H	1.33	0.93
9:AI:53:VAL:HG23	9:AI:54:ASP:H	1.31	0.93
41:BU:92:ARG:NH2	41:BU:94:ASN:HB3	1.84	0.93
38:DR:8:ARG:HE	38:DR:8:ARG:CA	1.81	0.93
25:BA:857:C:H5'	47:B0:76:ARG:HH22	1.31	0.93
43:BW:60:ASN:N	43:BW:60:ASN:HD22	1.65	0.93
13:CM:3:ARG:HH21	13:CM:7:VAL:HA	1.32	0.93
30:DF:132:VAL:HG13	30:DF:133:ASN:H	1.32	0.93
29:DE:55:ASN:HD21	29:DE:58:ARG:HH11	1.14	0.93
1:AA:344:A:H3'	1:AA:346:G:O6	1.66	0.93
25:DA:2833:G:H3'	25:DA:2834:G:H5''	1.49	0.93
32:BH:89:ILE:HD11	32:BH:129:THR:HB	1.47	0.93
1:AA:1056:U:H5'	3:AC:163:ALA:HB2	1.51	0.93
40:BT:112:ARG:HB3	40:BT:112:ARG:NH1	1.83	0.93
25:DA:1567:A:H5'	28:DD:58:HIS:CD2	2.02	0.93
25:BA:1689:A:H62	25:BA:1698:A:H2	1.12	0.93
45:DY:76:CYS:SG	45:DY:77:PRO:HD2	2.08	0.93
25:BA:2472:G:H5'	25:BA:2473:U:H5''	1.50	0.93
25:DA:2090:G:H21	48:D1:45:ASN:HD21	1.12	0.93
1:AA:1348:U:HO2'	1:AA:1349:A:H8	1.02	0.93
42:DV:51:VAL:HG12	42:DV:52:VAL:H	1.31	0.93
25:DA:10:G:H2'	25:DA:11:G:C8	2.04	0.93
1:AA:473:G:H2'	1:AA:474:G:H8	1.31	0.93

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DP:96:THR:HG22	36:DP:126:VAL:HB	1.51	0.93
53:D6:40:CYS:HA	53:D6:46:HIS:CB	1.98	0.93
28:BD:270:ILE:CD1	28:BD:270:ILE:H	1.82	0.93
34:DN:15:LEU:HD13	34:DN:16:ILE:N	1.83	0.93
45:BY:10:GLY:CA	45:BY:27:VAL:HG13	1.97	0.93
53:B6:12:GLU:HA	53:B6:23:THR:HA	1.50	0.93
39:DS:66:ALA:O	39:DS:69:VAL:HG12	1.69	0.93
34:DN:23:LEU:HB3	34:DN:60:ILE:HG21	1.48	0.93
1:CA:1030:C:H2'	1:CA:1030(A):G:H5'	1.51	0.93
27:BC:71:LYS:HG2	27:BC:158:LYS:HD2	1.48	0.93
3:CC:47:LEU:HD21	3:CC:68:VAL:HG11	1.51	0.93
39:DS:34:HIS:HB3	39:DS:53:SER:HB3	1.51	0.93
25:BA:676:A:H8	25:BA:2069:G:H21	1.15	0.93
33:DI:127:VAL:HA	33:DI:139:GLN:HA	1.51	0.93
28:DD:244:ARG:HG2	28:DD:245:PRO:HG3	1.50	0.93
31:DG:76:SER:HB2	31:DG:83:ARG:CB	1.99	0.93
25:BA:1747(A):G:C2'	25:BA:1748:G:H5''	1.99	0.93
55:B8:33:ASN:O	55:B8:34:TRP:HB3	1.67	0.93
1:CA:1113:C:H5'	3:CC:14:ILE:HD12	1.49	0.93
1:CA:1316:G:H2'	1:CA:1317:C:H5''	1.51	0.93
1:CA:1124:G:H5'	10:CJ:35:SER:HB2	1.51	0.93
32:BH:111:HIS:CD2	32:BH:112:PRO:HD2	2.04	0.93
28:BD:273:ARG:CB	28:BD:273:ARG:HH11	1.81	0.93
1:AA:1223:C:C3'	1:AA:1223:C:C4'	2.47	0.93
25:DA:285:C:C2'	25:DA:286:C:H5''	1.97	0.93
25:DA:2170:A:H5''	27:DC:135:ARG:HH12	1.33	0.93
37:DQ:24:GLY:HA2	37:DQ:67:ARG:HH22	1.32	0.92
25:BA:2206:G:N2	25:BA:2207:G:H5'	1.83	0.92
1:AA:1158:C:H4'	2:AB:133:LYS:HE3	1.48	0.92
2:CB:208:ILE:HA	2:CB:211:ILE:HD12	1.50	0.92
19:CS:11:VAL:HA	19:CS:38:SER:HB3	1.48	0.92
1:CA:1137:C:H4'	1:CA:1138:G:C2	2.04	0.92
53:D6:41:PRO:HD3	53:D6:46:HIS:H	1.32	0.92
25:BA:2491:U:H5'	25:BA:2570:G:H5''	1.50	0.92
29:DE:34:VAL:HG23	29:DE:48:GLN:HE21	1.34	0.92
25:DA:157:U:C3'	25:DA:158:U:H5''	1.99	0.92
40:DT:82:LEU:H	40:DT:82:LEU:HD12	1.31	0.92
1:AA:1194:U:H2'	1:AA:1195:C:C6	2.05	0.92
27:DC:150:ILE:O	27:DC:154:ILE:HG13	1.67	0.92
2:AB:91:PRO:HG2	2:AB:155:LEU:HB2	1.50	0.92
3:CC:52:LEU:HD12	3:CC:55:VAL:HG22	1.50	0.92
25:BA:2090:G:H21	48:B1:45:ASN:ND2	1.66	0.92

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DR:67:LEU:HD13	38:DR:76:VAL:HG21	1.50	0.92
27:BC:84:ILE:HG23	27:BC:95:VAL:HG11	1.49	0.92
25:DA:481:G:H1'	25:DA:506:G:N2	1.84	0.92
2:CB:131:PRO:HG2	2:CB:134:GLU:CB	1.97	0.92
29:DE:59:VAL:HG22	29:DE:60:ASN:H	1.31	0.92
4:AD:7:PRO:HB2	4:AD:10:ARG:HD2	1.48	0.92
42:BV:18:LEU:HD13	42:BV:19:LYS:H	1.33	0.92
39:BS:67:ARG:NH1	39:BS:100:ALA:H	1.66	0.92
36:BP:23:PRO:HB2	36:BP:33:ARG:HG3	1.50	0.92
30:BF:8:GLN:HB3	30:BF:126:VAL:HA	1.51	0.92
25:DA:1747(A):G:C2'	25:DA:1748:G:H5''	2.00	0.92
36:DP:83:VAL:HG11	36:DP:112:LEU:HD21	1.50	0.92
8:AH:127:LEU:O	8:AH:127:LEU:HD13	1.70	0.92
25:DA:1686:C:H5'	25:DA:1686:C:H6	1.34	0.92
25:BA:171:G:C2'	25:BA:172:C:H5''	1.99	0.92
31:DG:111:LEU:HD22	31:DG:120:LEU:HD21	1.49	0.92
25:BA:2513:G:N2	29:BE:143:ASN:HD21	1.67	0.92
25:DA:1467:C:H42	25:DA:1525:G:H1	1.11	0.92
31:BG:76:SER:HB2	31:BG:83:ARG:HB2	1.52	0.92
25:DA:2753:A:O2'	25:DA:2754:U:H5'	1.68	0.92
22:CV:13:VAL:HA	22:CV:62:ASP:HA	1.52	0.92
1:AA:1116:C:C2'	1:AA:1117:G:H5''	1.99	0.92
4:AD:33:MET:CE	4:AD:37:PRO:HA	1.98	0.92
25:BA:2290:G:H5'	25:BA:2290:G:H8	1.32	0.92
1:AA:1338:G:H4'	22:AV:183:ARG:HH22	1.35	0.92
1:AA:392:G:H2'	1:AA:393:A:C8	2.05	0.92
3:AC:134:ILE:HG21	3:AC:168:ALA:HB3	1.50	0.92
40:BT:115:ARG:HA	40:BT:115:ARG:HE	1.34	0.92
25:BA:784:A:N7	28:BD:229:VAL:HG21	1.84	0.92
55:B8:6:THR:HA	55:B8:61:LEU:HD11	1.52	0.92
48:D1:52:ARG:HG3	48:D1:53:VAL:H	1.34	0.92
31:DG:39:ILE:HG23	31:DG:92:VAL:HG13	1.52	0.92
43:DW:73:ALA:O	43:DW:106:ILE:HG12	1.70	0.92
39:DS:97:ARG:NH2	39:DS:98:VAL:HA	1.85	0.92
18:CR:50:ILE:HD12	18:CR:70:ILE:HG21	1.51	0.92
33:BI:133:HIS:HB2	33:BI:134:PRO:HD2	1.49	0.92
30:BF:3:GLU:HA	30:BF:24:LEU:HB3	1.51	0.92
53:D6:12:GLU:HB3	53:D6:23:THR:HG22	1.50	0.92
35:DO:104:ARG:HE	40:DT:33:LYS:HE3	1.33	0.92
12:AL:66:TYR:HD1	12:AL:87:VAL:HG21	1.33	0.92
29:BE:93:VAL:HG21	29:BE:180:ASN:HA	1.50	0.91
10:CJ:4:ILE:HB	10:CJ:74:ILE:HD11	1.50	0.91

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:77:G:H1	1:CA:92:C:N4	1.67	0.91
25:DA:495:G:H21	43:DW:61:ASN:HD21	1.18	0.91
25:DA:1717:G:H3'	25:DA:1718:G:H5''	1.48	0.91
40:BT:55:ASN:H	40:BT:59:THR:HG22	1.33	0.91
1:CA:1342:C:H1'	9:CI:124:GLN:NE2	1.85	0.91
20:CT:82:SER:O	20:CT:86:ARG:HB2	1.68	0.91
25:BA:1590:U:C2'	25:BA:1591:G:H5''	1.99	0.91
20:CT:50:GLU:HA	20:CT:100:ILE:HG21	1.52	0.91
31:DG:161:THR:HG22	31:DG:163:ALA:H	1.31	0.91
28:BD:85:ASP:HB2	28:BD:92:ILE:HD12	1.53	0.91
25:BA:2068:U:H3	25:BA:2430:A:H2	1.04	0.91
42:DV:19:LYS:HZ3	42:DV:20:LEU:HB2	1.34	0.91
7:CG:4:ARG:NH1	7:CG:4:ARG:HB3	1.85	0.91
3:AC:63:ASN:CA	3:AC:98:ASN:HB3	2.00	0.91
1:AA:376:G:OP2	16:AP:67:THR:HG21	1.70	0.91
1:AA:392:G:H2'	1:AA:393:A:H8	1.33	0.91
7:CG:4:ARG:CB	7:CG:4:ARG:HH11	1.83	0.91
27:DC:21:TYR:HB2	27:DC:225:ILE:HG22	1.50	0.91
25:DA:106:C:H2'	25:DA:107:C:H6	1.33	0.91
25:DA:64:A:H8	25:DA:64:A:H5'	1.35	0.91
2:AB:122:PHE:HB2	2:AB:139:LYS:NZ	1.86	0.91
5:CE:79:GLU:HB3	5:CE:92:LYS:HA	1.51	0.91
25:BA:626:U:H5''	25:BA:627:A:H5'	1.53	0.91
23:CW:59:A:H2'	23:CW:60:U:H5'	1.52	0.91
25:BA:528:A:C2	25:BA:2042:A:H2'	2.06	0.91
25:DA:27:G:O2'	25:DA:28:A:H8	1.54	0.91
29:BE:9:VAL:HG12	29:BE:25:VAL:O	1.70	0.91
25:DA:2206:G:H21	25:DA:2207:G:H5'	1.31	0.91
36:BP:50:ARG:HG3	36:BP:51:PHE:N	1.83	0.91
3:AC:34:LEU:HG	3:AC:38:ARG:HH21	1.35	0.91
1:AA:1128:C:H1'	1:AA:1146:A:H61	1.33	0.91
36:BP:105:LEU:O	36:BP:106:LEU:HB3	1.69	0.91
25:DA:61:G:H1	25:DA:94:C:N4	1.68	0.91
25:DA:2176:A:H4'	27:DC:216:THR:HG21	1.50	0.91
25:DA:730:C:H2'	25:DA:731:C:H6	1.34	0.91
25:DA:2468:G:HO2'	25:DA:2469:A:H8	1.12	0.91
48:D1:3:LYS:HG3	48:D1:4:VAL:H	1.35	0.91
25:DA:676:A:H8	25:DA:2069:G:H21	1.11	0.91
36:BP:115:LEU:HB2	36:BP:131:SER:HB3	1.52	0.91
51:B4:62:CYS:SG	51:B4:64:LYS:HG2	2.11	0.91
2:CB:29:ALA:HA	2:CB:32:ILE:HD13	1.51	0.91
25:BA:1396:U:H1'	25:BA:1397:U:H6	1.27	0.91

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:BY:49:VAL:HG23	45:BY:50:ARG:H	1.36	0.91
25:DA:274:G:H22	25:DA:363:G:H22	1.18	0.91
3:CC:132:ARG:HH12	4:CD:47:ARG:HH22	1.00	0.91
25:BA:1614:A:H62	43:BW:93:ALA:HB2	1.34	0.91
1:CA:472:A:H4'	16:CP:82:GLN:HE22	1.35	0.91
25:DA:914:C:H2'	25:DA:915:C:H5'	1.52	0.91
41:DU:90:VAL:HG12	41:DU:91:ASP:H	1.33	0.91
25:DA:2832:U:H4'	25:DA:2833:G:H5''	1.51	0.91
1:AA:1030:C:H41	1:AA:1031:G:H21	1.19	0.91
5:CE:72:GLN:HE21	5:CE:144:THR:HG22	1.33	0.91
25:DA:243:U:OP1	55:D8:6:THR:HG21	1.70	0.91
7:CG:72:ARG:H	7:CG:138:LYS:HE2	1.35	0.91
52:B5:4:HIS:HB3	52:B5:5:PRO:HD3	1.53	0.91
25:BA:2090:G:H21	48:B1:45:ASN:HD21	1.18	0.91
27:DC:43:GLU:HB2	27:DC:216:THR:O	1.70	0.91
32:BH:12:PRO:O	32:BH:13:LYS:HB2	1.68	0.90
31:DG:76:SER:HB3	31:DG:84:LYS:H	1.35	0.90
25:BA:1173:G:H3'	25:BA:1174:A:C5'	2.00	0.90
32:DH:85:LYS:HD2	32:DH:141:VAL:HG12	1.53	0.90
29:DE:181:LEU:HD21	40:DT:7:ILE:HG22	1.54	0.90
1:AA:838:G:H2'	1:AA:839:U:H5''	1.53	0.90
1:CA:652:U:O2'	1:CA:653:A:H5''	1.71	0.90
41:BU:74:LEU:HD12	41:BU:74:LEU:H	1.36	0.90
40:BT:112:ARG:CB	40:BT:112:ARG:HH11	1.84	0.90
28:BD:244:ARG:HG2	28:BD:245:PRO:HG3	1.54	0.90
1:AA:1397:C:H3'	1:AA:1398:A:C5'	1.98	0.90
27:BC:128:LEU:HA	27:BC:131:ILE:HD12	1.51	0.90
2:AB:44:LEU:HD12	2:AB:44:LEU:H	1.36	0.90
42:BV:19:LYS:HG2	42:BV:94:LEU:HB2	1.52	0.90
12:AL:38:ARG:HD2	12:AL:40:VAL:HG12	1.52	0.90
1:CA:76:C:N4	1:CA:93:G:H1	1.70	0.90
26:BB:48:A:H4'	39:BS:95:HIS:HD2	1.36	0.90
2:CB:28:PHE:HB2	2:CB:194:PRO:HD3	1.53	0.90
34:DN:25:ARG:HG3	34:DN:25:ARG:HH11	1.37	0.90
25:DA:286:C:H2'	25:DA:287:C:H5'	1.52	0.90
10:AJ:12:ASP:OD1	10:AJ:15:THR:HG23	1.71	0.90
27:BC:80:LYS:HG2	31:BG:50:ALA:H	1.34	0.90
15:AO:25:THR:HG21	15:AO:70:LEU:HB2	1.52	0.90
25:DA:881:G:H2'	25:DA:882:G:C8	2.06	0.90
28:DD:79:VAL:HG11	28:DD:111:LEU:HD11	1.54	0.90
1:CA:1012:U:H2'	1:CA:1013:G:C8	2.06	0.90
11:AK:32:ILE:HD13	11:AK:32:ILE:H	1.36	0.90

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:21:ARG:HB3	2:CB:39:ILE:HA	1.54	0.90
25:DA:954:G:H5''	37:DQ:13:GLN:OE1	1.72	0.90
16:AP:50:LYS:HD3	16:AP:51:VAL:N	1.86	0.90
14:AN:27:CYS:SG	14:AN:29:ARG:HB2	2.12	0.90
25:DA:1654:A:P	38:DR:3:HIS:HB2	2.12	0.90
36:DP:75:ILE:HD12	36:DP:75:ILE:H	1.36	0.90
5:CE:17:ALA:HA	5:CE:26:PHE:HA	1.53	0.90
25:BA:2829:C:H2'	25:BA:2830:G:H8	1.35	0.90
39:BS:89:ARG:HB3	39:BS:92:TYR:CB	2.02	0.90
31:DG:66:GLN:NE2	31:DG:94:LEU:HD23	1.87	0.90
31:BG:139:LEU:H	31:BG:139:LEU:HD23	1.34	0.90
40:BT:28:VAL:HG22	40:BT:47:GLY:H	1.37	0.90
52:D5:4:HIS:HB3	52:D5:5:PRO:CD	1.99	0.90
3:CC:16:ARG:HB2	3:CC:16:ARG:HH11	1.36	0.90
1:CA:1028:C:O2	1:CA:1033:G:H2'	1.72	0.90
25:DA:310:A:O2'	25:DA:311:A:H2'	1.71	0.90
28:BD:155:LEU:HD23	28:BD:177:LEU:HD22	1.53	0.90
1:AA:56:U:H2'	1:AA:57:G:C8	2.07	0.90
33:DI:12:LEU:HB2	33:DI:19:VAL:HG11	1.52	0.90
41:DU:92:ARG:HG2	42:DV:11:GLN:HB2	1.51	0.90
45:DY:7:VAL:HB	45:DY:8:LYS:HD2	1.54	0.90
32:DH:85:LYS:HG3	32:DH:145:ALA:HB2	1.50	0.90
1:AA:501:C:H2'	1:AA:502:G:H8	1.35	0.90
1:CA:80:G:H1	1:CA:90:U:H4'	1.37	0.90
25:DA:1654:A:OP1	38:DR:3:HIS:HB2	1.71	0.90
1:AA:57:G:H2'	1:AA:58:C:C6	2.06	0.90
10:CJ:30:SER:OG	10:CJ:81:THR:HG22	1.71	0.90
50:B3:44:ARG:O	50:B3:48:GLU:HG2	1.70	0.90
36:BP:58:THR:O	36:BP:61:ARG:CZ	2.20	0.90
22:CV:71:GLN:HE21	22:CV:72:TYR:H	1.15	0.90
30:BF:9:ILE:HG12	30:BF:14:PRO:HA	1.52	0.90
1:CA:266:G:H5''	1:CA:268:C:H41	1.35	0.90
25:DA:571:A:H5'	25:DA:2030:A:H62	1.34	0.90
1:CA:76:C:H42	1:CA:93:G:H1	0.91	0.89
12:CL:67:ILE:HG12	12:CL:97:ILE:HD12	1.52	0.89
23:AW:1:C:H42	23:AW:72:A:H61	1.19	0.89
40:DT:54:ARG:HA	40:DT:59:THR:OG1	1.72	0.89
25:BA:524:U:H2'	25:BA:525:U:C6	2.07	0.89
25:BA:549:G:H2'	25:BA:551:G:H5''	1.52	0.89
25:DA:528:A:H8	25:DA:528:A:H3'	1.36	0.89
27:BC:29:LEU:HD21	27:BC:223:VAL:HG11	1.54	0.89
38:DR:2:ARG:CZ	38:DR:5:LYS:HE2	2.03	0.89

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:132:ARG:NH1	4:CD:47:ARG:HH22	1.70	0.89
28:DD:101:GLU:OE1	28:DD:103:ARG:HD3	1.72	0.89
2:AB:9:GLU:O	2:AB:12:GLU:HB2	1.72	0.89
29:BE:154:LYS:HE3	29:BE:154:LYS:HA	1.54	0.89
7:CG:20:ASP:HB3	7:CG:23:VAL:HG23	1.55	0.89
45:BY:50:ARG:HD3	45:BY:53:PRO:CG	2.02	0.89
45:BY:45:VAL:HG22	45:BY:61:ILE:HA	1.54	0.89
31:DG:82:LEU:HD13	31:DG:87:PRO:HB3	1.53	0.89
25:DA:2611:U:H5'	25:DA:2611:U:H6	1.38	0.89
3:CC:89:GLU:HG3	3:CC:90:GLU:OE2	1.71	0.89
36:BP:64:LYS:HB3	55:B8:25:MET:HG3	1.53	0.89
12:CL:22:PRO:O	12:CL:24:LEU:HD13	1.71	0.89
46:BZ:15:SER:HA	46:BZ:18:ARG:HD2	1.52	0.89
53:B6:30:THR:HB	53:B6:31:PRO:HD2	1.52	0.89
2:CB:8:LYS:C	2:CB:12:GLU:HG3	1.93	0.89
23:CW:23:C:H2'	23:CW:24:U:H6	1.38	0.89
30:DF:10:PRO:HG2	30:DF:13:SER:HB2	1.55	0.89
25:BA:330:A:HO2'	25:BA:331:A:H8	1.17	0.89
3:AC:134:ILE:HG23	3:AC:151:VAL:HB	1.55	0.89
54:B7:8:ASN:HD22	54:B7:8:ASN:C	1.76	0.89
41:DU:90:VAL:HG21	42:DV:39:LEU:HG	1.55	0.89
47:D0:53:MET:HB3	47:D0:59:LEU:HD23	1.54	0.89
25:BA:2833:G:H3'	25:BA:2834:G:C5'	2.02	0.89
28:BD:240:ALA:HB1	28:BD:241:PRO:HD2	1.55	0.89
25:BA:1114:G:H3'	25:BA:1115:G:H5''	1.52	0.89
4:AD:131:ARG:HD3	4:AD:131:ARG:H	1.38	0.89
2:CB:54:THR:O	2:CB:58:ILE:HG12	1.71	0.89
19:AS:39:THR:HG22	19:AS:40:ILE:H	1.36	0.89
3:AC:54:ARG:HG2	3:AC:55:VAL:N	1.86	0.89
8:AH:100:ILE:HB	8:AH:125:ARG:NH1	1.87	0.89
13:AM:70:LEU:O	13:AM:74:VAL:HG23	1.73	0.89
1:AA:1363(A):A:H5''	1:AA:1364:U:OP1	1.72	0.89
19:CS:16:LEU:O	19:CS:20:LEU:HG	1.71	0.89
1:AA:878:G:H5'	8:AH:89:PRO:HG2	1.52	0.89
1:AA:134:A:H61	16:AP:25:ARG:NH1	1.70	0.89
4:AD:49:ARG:HD3	4:AD:50:ARG:N	1.88	0.89
55:B8:32:LEU:HB3	55:B8:36:LYS:NZ	1.88	0.89
4:AD:62:GLN:NE2	4:AD:65:ARG:HE	1.70	0.89
20:AT:26:ASN:HD22	20:AT:27:LYS:H	1.19	0.89
2:AB:80:ILE:HD11	2:AB:215:LEU:HB2	1.55	0.89
3:CC:58:GLU:HB3	3:CC:65:ALA:HB2	1.55	0.89
28:BD:70:TRP:CH2	28:BD:150:LYS:HA	2.08	0.89

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:47:THR:HG23	2:CB:202:PRO:HG2	1.55	0.88
1:AA:977:A:N6	1:AA:1224:G:OP1	2.06	0.88
1:AA:21:G:H2'	1:AA:22:G:C8	2.08	0.88
29:BE:51:PHE:O	29:BE:74:PRO:HB2	1.73	0.88
25:DA:2126:A:H4'	25:DA:2127:G:O5'	1.73	0.88
25:DA:1175:U:H4'	25:DA:1176:G:H2'	1.55	0.88
40:DT:66:VAL:HA	40:DT:71:GLY:HA2	1.54	0.88
1:AA:192:U:H4'	20:AT:103:GLY:N	1.88	0.88
36:BP:64:LYS:CB	55:B8:25:MET:HG3	2.03	0.88
25:BA:2387:U:H5'	25:BA:2388:A:OP2	1.73	0.88
32:DH:13:LYS:HD3	32:DH:14:GLY:H	1.38	0.88
1:CA:613:C:H42	1:CA:627:G:H1	1.18	0.88
31:BG:72:ARG:NH1	31:BG:86:MET:HG2	1.88	0.88
42:BV:35:LEU:HB3	42:BV:37:VAL:HG23	1.56	0.88
35:DO:87:ILE:HG22	35:DO:88:ASN:H	1.37	0.88
25:DA:2184:G:H21	25:DA:2185:C:H41	1.21	0.88
22:CV:172:LYS:HG3	22:CV:184:ALA:HA	1.53	0.88
30:DF:155:LEU:HD21	30:DF:186:ILE:HD13	1.54	0.88
1:AA:9:G:H5'	5:AE:122:GLU:OE2	1.74	0.88
25:BA:1591:G:H5'	25:BA:1591:G:H8	1.36	0.88
32:BH:27:LYS:HG2	32:BH:32:GLU:HG3	1.52	0.88
48:D1:5:CYS:SG	48:D1:62:VAL:HG23	2.14	0.88
45:DY:28:LYS:H	45:DY:28:LYS:HZ2	1.20	0.88
10:AJ:32:ALA:H	10:AJ:76:ASN:CB	1.86	0.88
2:CB:113:HIS:O	2:CB:117:GLU:HG3	1.74	0.88
5:CE:72:GLN:NE2	5:CE:144:THR:HG22	1.88	0.88
25:BA:2701:C:H3'	25:BA:2702:U:C5'	2.03	0.88
51:D4:48:ILE:H	51:D4:48:ILE:HD12	1.37	0.88
51:B4:53:THR:O	51:B4:54:LYS:HG2	1.73	0.88
28:BD:270:ILE:O	28:BD:271:ILE:HB	1.71	0.88
36:BP:16:ARG:HB2	36:BP:16:ARG:NH1	1.88	0.88
40:BT:85:LYS:HA	40:BT:85:LYS:HZ2	1.35	0.88
11:CK:96:ARG:HA	11:CK:99:GLN:HG2	1.54	0.88
5:AE:51:VAL:HB	5:AE:52:PRO:HD3	1.53	0.88
7:AG:23:VAL:HG13	7:AG:43:PHE:CE2	2.09	0.88
25:BA:541:C:N3	25:BA:542:C:N4	2.22	0.88
36:BP:62:LEU:N	36:BP:62:LEU:HD13	1.88	0.88
31:BG:51:ARG:CA	31:BG:51:ARG:HE	1.85	0.88
28:DD:30:GLU:HG3	28:DD:63:ARG:CZ	2.02	0.88
27:BC:75:VAL:HG22	27:BC:113:ALA:HB3	1.54	0.88
28:BD:79:VAL:HG21	28:BD:111:LEU:HD21	1.53	0.88
1:AA:405:U:H3'	1:AA:406:G:H5'	1.56	0.88

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BZ:143:LEU:HD11	46:BZ:149:LEU:HD12	1.53	0.88
1:AA:1187:G:OP1	9:AI:113:LYS:HE2	1.73	0.88
46:DZ:164:VAL:HG13	46:DZ:168:GLU:HB3	1.52	0.88
34:DN:28:THR:HG23	34:DN:29:LYS:H	1.37	0.88
25:DA:1884:A:C2'	25:DA:1885:A:H5''	2.02	0.88
22:CV:136:PRO:O	22:CV:149:LYS:HD2	1.74	0.88
40:BT:28:VAL:HG12	40:BT:29:ARG:HD3	1.54	0.88
36:BP:25:SER:O	36:BP:30:THR:HG23	1.73	0.88
33:BI:115:ALA:HB2	33:BI:129:THR:OG1	1.71	0.88
1:AA:627:G:O2'	1:AA:628:G:H5'	1.74	0.88
1:AA:424:G:H2'	1:AA:425:G:H8	1.35	0.88
41:DU:95:LEU:HD21	42:DV:13:ARG:HB2	1.54	0.88
1:AA:1222:G:H2'	1:AA:1223:C:H5'	1.56	0.88
10:AJ:4:ILE:HB	10:AJ:74:ILE:HG13	1.53	0.88
10:AJ:5:ARG:NH2	10:AJ:99:LYS:HB2	1.88	0.88
28:BD:31:LYS:HG3	28:BD:33:LEU:HD13	1.55	0.88
36:DP:59:LEU:HA	36:DP:61:ARG:CZ	2.03	0.88
55:B8:33:ASN:H	55:B8:33:ASN:ND2	1.72	0.88
4:AD:11:LEU:HD13	4:AD:66:ARG:HD3	1.55	0.88
27:BC:79:ALA:HA	27:BC:120:VAL:HG21	1.56	0.88
40:DT:28:VAL:HG13	40:DT:46:GLU:HA	1.54	0.88
36:BP:23:PRO:HB2	36:BP:33:ARG:CD	2.03	0.88
25:BA:1504:C:H2'	25:BA:1505:C:H5''	1.56	0.88
42:DV:39:LEU:HD12	42:DV:51:VAL:HA	1.55	0.88
28:BD:44:ASN:HB3	28:BD:49:ILE:HA	1.54	0.88
19:AS:16:LEU:O	19:AS:20:LEU:HG	1.74	0.88
2:AB:140:HIS:HA	2:AB:143:GLU:HG3	1.54	0.88
27:DC:37:LYS:HD2	27:DC:37:LYS:H	1.36	0.88
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.09	0.88
1:CA:1310:G:H5'	13:CM:77:ASN:HD21	1.38	0.88
49:D2:65:ASN:HB3	49:D2:69:ARG:NH2	1.89	0.88
31:BG:44:GLY:H	31:BG:88:ILE:HG12	1.39	0.88
29:BE:75:VAL:O	29:BE:77:ILE:N	2.07	0.88
40:DT:27:THR:HG23	40:DT:28:VAL:H	1.37	0.88
1:CA:1123:A:N3	10:CJ:38:ILE:HG22	1.89	0.88
43:DW:59:VAL:HG23	43:DW:65:LEU:H	1.38	0.88
30:BF:198:ALA:O	30:BF:201:VAL:HG12	1.74	0.87
16:AP:58:TYR:O	16:AP:61:SER:HB3	1.74	0.87
40:DT:13:ARG:CZ	40:DT:13:ARG:HA	2.04	0.87
27:BC:172:ILE:HG21	27:BC:197:LEU:HD21	1.55	0.87
25:BA:847:U:H2'	25:BA:848:G:H5''	1.53	0.87
40:DT:115:ARG:HA	40:DT:115:ARG:HE	1.39	0.87

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BI:117:GLU:HG3	33:BI:118:LYS:N	1.89	0.87
29:BE:78:LEU:C	29:BE:79:ARG:HD2	1.93	0.87
25:DA:2803:C:H2'	25:DA:2804:C:C5	2.09	0.87
25:DA:2168:G:H2'	25:DA:2169:A:H5''	1.55	0.87
51:B4:44:CYS:HB2	51:B4:64:LYS:HG3	1.56	0.87
11:CK:126:ARG:HB3	11:CK:126:ARG:NH1	1.89	0.87
1:CA:1324:A:H4'	1:CA:1362:C:H4'	1.54	0.87
25:BA:2689:U:H5''	25:BA:2690:C:H5'	1.56	0.87
27:BC:46:ALA:HA	27:BC:212:SER:O	1.73	0.87
34:DN:4:TYR:HB2	41:DU:64:ARG:NH2	1.87	0.87
37:DQ:102:VAL:HG12	37:DQ:103:MET:H	1.37	0.87
25:DA:81:G:H21	45:DY:2:ARG:HH12	1.20	0.87
30:DF:4:VAL:HA	30:DF:18:ARG:O	1.74	0.87
36:BP:65:ARG:HH11	36:BP:65:ARG:HG3	1.37	0.87
25:DA:271(S):G:C2'	25:DA:271(T):C:H5''	2.05	0.87
27:DC:146:VAL:HG12	27:DC:147:GLY:H	1.39	0.87
25:DA:1194:A:H3'	25:DA:1195:G:H5''	1.54	0.87
25:DA:2330:G:H1'	47:D0:41:ARG:HB2	1.56	0.87
25:BA:740:U:H6	25:BA:740:U:H5'	1.38	0.87
28:BD:44:ASN:HB2	28:BD:48:ARG:O	1.74	0.87
3:AC:70:VAL:HG12	3:AC:72:LYS:H	1.39	0.87
25:BA:1598:C:H5'	44:BX:36:LYS:HB2	1.53	0.87
10:AJ:40:LEU:HD23	10:AJ:40:LEU:H	1.40	0.87
30:BF:111:ALA:HB2	30:BF:206:ILE:HG21	1.56	0.87
9:AI:18:PHE:HD1	9:AI:62:TYR:HD2	1.21	0.87
25:BA:612:C:H2'	25:BA:613:G:C5'	2.02	0.87
25:BA:1594:G:H5'	25:BA:1594:G:C8	2.09	0.87
7:AG:145:ALA:O	7:AG:146:GLU:HB2	1.73	0.87
41:BU:92:ARG:NH2	41:BU:95:LEU:HG	1.89	0.87
25:BA:2645:G:H3'	25:BA:2646:C:C5'	2.02	0.87
13:AM:66:LEU:HA	13:AM:70:LEU:HD12	1.55	0.87
25:DA:828:U:H2'	25:DA:829:A:C8	2.08	0.87
1:AA:920:U:H2'	1:AA:921:U:H6	1.37	0.87
1:CA:1139:G:H5'	1:CA:1140:C:OP1	1.74	0.87
1:AA:1203:C:H2'	1:AA:1204:A:H8	1.37	0.87
1:CA:1062:U:H2'	1:CA:1063:C:C6	2.10	0.87
18:AR:82:THR:HG22	18:AR:83:GLU:H	1.40	0.87
1:AA:67:C:O2'	1:AA:171:A:H1'	1.74	0.87
29:BE:116:VAL:O	29:BE:117:MET:HB3	1.75	0.87
8:AH:85:ARG:HD3	8:AH:86:ILE:N	1.89	0.87
6:CF:6:VAL:HG22	6:CF:90:VAL:HG22	1.56	0.87
40:BT:3:ARG:O	40:BT:7:ILE:HG12	1.75	0.87

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2701:C:C3'	25:DA:2702:U:H5''	2.05	0.87
25:BA:1397:U:H5'	25:BA:1398:C:OP2	1.74	0.87
32:DH:156:ALA:HB3	32:DH:159:GLU:HB3	1.54	0.87
36:DP:59:LEU:HA	36:DP:61:ARG:NH1	1.90	0.87
25:BA:330:A:C2	25:BA:1210:A:H2'	2.10	0.87
15:CO:33:THR:HA	15:CO:63:ARG:HH21	1.40	0.87
27:DC:215:VAL:HB	27:DC:223:VAL:HB	1.55	0.87
36:BP:7:ARG:O	36:BP:10:PRO:HD3	1.73	0.87
28:BD:273:ARG:HB2	28:BD:273:ARG:NH1	1.90	0.87
42:BV:35:LEU:C	42:BV:37:VAL:H	1.79	0.87
1:AA:1301:U:H3'	1:AA:1302:U:H5''	1.56	0.87
22:CV:45:GLU:HA	22:CV:121:LYS:HD3	1.56	0.87
25:BA:1902:C:H4'	28:BD:244:ARG:HA	1.57	0.86
3:AC:57:ILE:HA	3:AC:65:ALA:HB3	1.55	0.86
53:B6:20:ASN:ND2	53:B6:21:TYR:H	1.72	0.86
32:BH:117:PRO:HB3	32:BH:123:PHE:CE1	2.10	0.86
27:BC:80:LYS:HD3	27:BC:120:VAL:HG12	1.57	0.86
25:BA:1019:U:HO2'	25:BA:1021:A:H2	0.87	0.86
2:AB:68:ILE:HD12	2:AB:161:ALA:HB3	1.57	0.86
25:BA:1481:U:H5'	25:BA:1482:G:OP2	1.75	0.86
25:BA:409:C:O2'	25:BA:410:G:H5'	1.75	0.86
20:CT:73:HIS:HB3	20:CT:74:LYS:HD3	1.55	0.86
25:DA:2392:A:H2	25:DA:2424:C:H42	1.20	0.86
3:CC:64:VAL:HG13	3:CC:97:LYS:NZ	1.90	0.86
8:AH:63:LEU:HD23	8:AH:65:TYR:HH	1.39	0.86
19:CS:36:ARG:HH12	19:CS:75:ALA:HB3	1.40	0.86
1:CA:1154:G:H2'	1:CA:1155:G:C8	2.09	0.86
1:CA:1154:G:H2'	1:CA:1155:G:H8	1.38	0.86
25:DA:2169:A:H1'	27:DC:130:ARG:HH22	1.39	0.86
27:DC:139:PRO:HB3	27:DC:146:VAL:HG22	1.54	0.86
28:DD:10:THR:HG23	28:DD:13:ARG:CB	2.05	0.86
27:BC:43:GLU:HB2	27:BC:216:THR:HG23	1.56	0.86
4:CD:128:VAL:HG12	4:CD:129:ASN:ND2	1.88	0.86
25:BA:2317:C:H2'	25:BA:2318:G:H5'	1.56	0.86
4:CD:30:LYS:HA	4:CD:35:ARG:HD2	1.54	0.86
45:BY:49:VAL:CG2	45:BY:50:ARG:H	1.88	0.86
27:BC:80:LYS:HG2	31:BG:50:ALA:N	1.90	0.86
5:CE:82:VAL:HG11	5:CE:137:GLU:HB3	1.57	0.86
5:CE:64:ARG:HE	5:CE:64:ARG:HA	1.40	0.86
28:BD:108:PRO:HG2	28:BD:111:LEU:HB2	1.56	0.86
32:DH:44:VAL:HG12	32:DH:45:VAL:H	1.40	0.86
40:BT:125:ARG:HH11	40:BT:125:ARG:HA	1.39	0.86

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:17:VAL:HG11	9:CI:81:ILE:HD13	1.57	0.86
52:B5:37:LYS:HG3	52:B5:38:ALA:H	1.40	0.86
30:DF:168:ARG:HG2	30:DF:175:THR:HG21	1.58	0.86
30:DF:195:ASP:HB2	30:DF:198:ALA:HB3	1.55	0.86
55:D8:32:LEU:HG	55:D8:36:LYS:HE2	1.55	0.86
1:CA:1101:A:H4'	1:CA:1102:A:O5'	1.75	0.86
45:BY:16:ALA:HB1	45:BY:21:LYS:NZ	1.90	0.86
45:DY:50:ARG:NH2	45:DY:54:LYS:HB3	1.90	0.86
25:DA:158:U:H4'	25:DA:159:U:OP1	1.73	0.86
28:DD:44:ASN:CB	28:DD:49:ILE:HA	2.03	0.86
34:DN:111:PRO:HA	34:DN:114:ARG:NH1	1.91	0.86
16:AP:20:VAL:HG23	16:AP:34:GLU:O	1.75	0.86
25:BA:494:G:H21	43:BW:57:ASN:HD21	1.20	0.86
41:DU:65:ILE:HD11	41:DU:96:ALA:CB	2.04	0.86
25:BA:1887:C:C2'	25:BA:1888:G:H5''	2.06	0.86
28:BD:35:LYS:HA	28:BD:64:ILE:HG22	1.57	0.86
25:BA:364:C:H2'	25:BA:365:C:H5''	1.56	0.86
10:CJ:49:VAL:HG23	14:CN:41:ARG:HB2	1.56	0.86
39:DS:20:ARG:N	39:DS:20:ARG:HH11	1.73	0.86
25:BA:539:G:H8	25:BA:539:G:H5'	1.37	0.86
25:BA:27:G:N2	25:BA:512:G:H2'	1.91	0.86
25:DA:522:G:H2'	25:DA:523:C:C6	2.09	0.86
25:BA:157:U:H2'	25:BA:158:U:C6	2.10	0.86
2:CB:137:ARG:NH1	2:CB:141:GLU:HB2	1.89	0.86
22:CV:123:THR:HG23	22:CV:176:ARG:NH2	1.90	0.86
4:AD:79:PHE:CZ	4:AD:204:ILE:HA	2.11	0.86
36:BP:23:PRO:HB2	36:BP:33:ARG:CG	2.06	0.86
1:CA:81:U:H5'	1:CA:81:U:H6	1.41	0.86
1:AA:1006:C:H2'	1:AA:1007:C:C6	2.10	0.86
39:DS:84:GLN:HA	39:DS:106:ARG:HB2	1.58	0.86
2:CB:19:HIS:ND1	2:CB:20:GLU:HG2	1.91	0.86
41:DU:69:CYS:SG	41:DU:74:LEU:HD13	2.14	0.86
30:DF:78:ILE:CD1	30:DF:78:ILE:H	1.84	0.86
5:AE:11:ILE:HD11	5:AE:33:VAL:CG2	2.05	0.86
3:CC:94:LEU:HD12	3:CC:95:THR:N	1.91	0.86
14:CN:26:ARG:HD2	14:CN:43:CYS:SG	2.16	0.86
15:AO:75:PRO:HB2	15:AO:79:ARG:HH21	1.40	0.86
33:BI:113:ARG:NH1	33:BI:132:PRO:HD3	1.91	0.86
50:D3:40:THR:O	50:D3:44:ARG:HG3	1.76	0.86
30:DF:53:THR:HG23	30:DF:55:GLY:H	1.39	0.86
1:AA:1036:G:H2'	1:AA:1037:C:H5'	1.55	0.86
44:DX:12:VAL:HB	44:DX:17:ALA:CB	2.06	0.86

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:20:SER:HB2	3:AC:40:ARG:HH22	1.41	0.86
3:AC:83:ARG:HG2	3:AC:83:ARG:HH11	1.39	0.86
33:BI:48:GLU:HA	33:BI:51:ILE:HG22	1.57	0.86
25:DA:2092:U:H4'	25:DA:2093:G:O5'	1.75	0.86
25:DA:1126:A:H4'	25:DA:1127:A:O5'	1.76	0.86
39:DS:62:LYS:H	39:DS:65:VAL:HG23	1.41	0.85
1:AA:373:A:O2'	1:AA:374:A:H5'	1.76	0.85
27:DC:132:LEU:HD22	27:DC:137:LEU:HB2	1.58	0.85
25:BA:2845:G:O2'	25:BA:2846:G:H5'	1.75	0.85
22:AV:29:LYS:HG3	25:BA:2254:C:H4'	1.57	0.85
46:DZ:29:ASN:O	46:DZ:31:HIS:N	2.08	0.85
1:AA:979:C:H3'	1:AA:980:C:C5'	2.03	0.85
29:DE:52:LEU:HD23	29:DE:75:VAL:HB	1.58	0.85
29:DE:48:GLN:HE22	29:DE:64:LYS:HE3	1.40	0.85
1:AA:1036:G:H5''	1:AA:1037:C:C5	2.10	0.85
22:AV:130:LEU:HB3	22:AV:153:LEU:HD12	1.56	0.85
9:CI:53:VAL:HG23	9:CI:54:ASP:H	1.39	0.85
25:BA:275:G:H2'	25:BA:276:A:H4'	1.59	0.85
25:DA:71:A:H5''	25:DA:73:A:C8	2.11	0.85
25:BA:925:C:C2'	25:BA:926:A:H5''	2.06	0.85
25:DA:1503:U:H2'	25:DA:1504:C:H6	1.41	0.85
44:BX:63:LYS:HE3	44:BX:72:LYS:HE3	1.56	0.85
38:BR:67:LEU:HD13	38:BR:76:VAL:HG21	1.56	0.85
39:BS:17:ARG:C	39:BS:19:LYS:H	1.78	0.85
4:CD:170:VAL:HG12	4:CD:171:GLY:H	1.40	0.85
26:DB:68:C:H2'	26:DB:69:G:H8	1.39	0.85
39:BS:34:HIS:ND1	39:BS:54:LEU:HB2	1.91	0.85
42:BV:39:LEU:HB3	42:BV:47:VAL:HG11	1.56	0.85
2:CB:134:GLU:HA	2:CB:137:ARG:HB3	1.58	0.85
16:AP:56:ALA:O	16:AP:60:LEU:HG	1.76	0.85
46:BZ:165:SER:HB2	46:BZ:167:GLU:N	1.90	0.85
29:DE:108:SER:HB3	29:DE:165:VAL:HG21	1.57	0.85
10:CJ:37:PRO:HA	10:CJ:72:VAL:HG22	1.58	0.85
25:BA:524:U:H2'	25:BA:525:U:H6	1.39	0.85
34:DN:111:PRO:HA	34:DN:114:ARG:HH12	1.40	0.85
39:DS:85:VAL:H	39:DS:106:ARG:HG3	1.39	0.85
6:AF:69:GLU:HG2	6:AF:70:ASP:H	1.39	0.85
13:CM:51:ALA:O	13:CM:55:ARG:HB2	1.76	0.85
41:BU:112:ARG:HG2	41:BU:112:ARG:HH11	1.38	0.85
26:DB:15:A:H5'	26:DB:16:G:H8	1.42	0.85
26:DB:68:C:H2'	26:DB:69:G:C8	2.12	0.85
25:BA:1717:G:H2'	25:BA:1718:G:H5''	1.58	0.85

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:33:LEU:HD21	14:CN:53:LEU:HD22	1.57	0.85
2:CB:236:TYR:HA	2:CB:239:VAL:CG2	2.06	0.85
34:DN:4:TYR:CB	41:DU:64:ARG:HH22	1.89	0.85
35:BO:104:ARG:NE	40:BT:33:LYS:HD2	1.92	0.85
45:BY:13:VAL:HG12	45:BY:74:PRO:HA	1.56	0.85
53:D6:19:ARG:HG2	53:D6:20:ASN:N	1.92	0.85
45:BY:53:PRO:HD2	45:BY:56:PRO:HA	1.57	0.85
40:BT:27:THR:HG23	40:BT:28:VAL:H	1.40	0.85
25:DA:2348:U:C2'	25:DA:2349:G:H5''	2.04	0.85
25:DA:2876:G:H4'	40:DT:3:ARG:HD3	1.59	0.85
56:B9:11:CYS:HB3	56:B9:32:HIS:HE1	1.40	0.85
25:BA:1394:U:C3'	25:BA:1395:A:H5''	2.07	0.85
36:DP:146:VAL:HG13	36:DP:147:LEU:H	1.42	0.85
25:DA:543:C:H2'	25:DA:545:G:C5'	2.05	0.85
46:DZ:150:HIS:HA	46:DZ:170:ILE:HG12	1.59	0.85
1:AA:372:C:H4'	1:AA:373:A:OP1	1.75	0.85
25:BA:848:G:H2'	25:BA:849:A:C8	2.12	0.85
28:DD:81:ALA:HA	28:DD:113:VAL:HG12	1.56	0.85
25:BA:2883:A:H5'	25:BA:2884:U:H5'	1.58	0.85
25:DA:1186:G:H2'	25:DA:1187:G:O4'	1.76	0.85
1:CA:1134:G:N2	1:CA:1141:C:H1'	1.92	0.85
25:DA:2681:C:H5	25:DA:2725:A:H62	1.22	0.85
42:BV:18:LEU:HD22	42:BV:19:LYS:N	1.91	0.85
25:DA:638:G:H2'	25:DA:639:U:C6	2.11	0.85
25:DA:528:A:C8	25:DA:528:A:H3'	2.12	0.85
20:CT:26:ASN:HB2	20:CT:71:THR:HG23	1.58	0.85
6:AF:24:GLU:HG3	6:AF:25:ILE:N	1.92	0.85
10:AJ:48:THR:HA	10:AJ:62:HIS:CB	2.07	0.85
20:CT:43:LEU:HB3	20:CT:48:LYS:HB2	1.59	0.85
43:BW:5:ALA:HB1	43:BW:50:VAL:HG22	1.58	0.85
37:DQ:141:GLN:N	46:DZ:98:TYR:HB2	1.91	0.85
46:DZ:9:ARG:HH21	46:DZ:25:GLY:N	1.75	0.85
1:CA:1157:A:H5'	1:CA:1158:C:C5	2.11	0.85
28:BD:270:ILE:N	28:BD:270:ILE:HD13	1.92	0.85
4:AD:119:GLN:HG2	4:AD:123:HIS:CD2	2.10	0.85
47:D0:41:ARG:H	47:D0:41:ARG:HD2	1.39	0.85
25:DA:2233:U:H2'	25:DA:2234:G:C8	2.12	0.85
30:DF:137:LYS:HA	30:DF:140:LEU:HD23	1.59	0.85
1:AA:444:C:H2'	1:AA:445:G:H8	1.42	0.85
39:BS:97:ARG:HE	39:BS:98:VAL:N	1.75	0.85
25:DA:1018:C:H2'	25:DA:1019:U:H6	1.40	0.85
25:DA:479:A:H4'	25:DA:480:A:C5'	2.06	0.85

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:10:ARG:NH2	9:CI:11:LYS:HE2	1.91	0.85
1:AA:1323:G:H2'	1:AA:1324:A:C8	2.11	0.85
10:AJ:4:ILE:HG13	10:AJ:77:PRO:HB3	1.58	0.85
25:BA:784:A:C5	28:BD:229:VAL:HG21	2.11	0.85
5:CE:137:GLU:HA	5:CE:140:ARG:NH1	1.91	0.85
25:DA:1666:G:O3'	35:DO:6:THR:HG23	1.77	0.85
1:AA:939:G:H5''	7:AG:102:ARG:HH12	1.42	0.85
1:CA:1391:U:H2'	1:CA:1392:G:C8	2.12	0.85
44:BX:30:VAL:HG21	44:BX:39:ILE:HD11	1.58	0.85
2:AB:18:GLY:H	2:AB:42:ILE:CG2	1.89	0.84
25:BA:1178:C:HO2'	25:BA:1179:C:H6	0.86	0.84
15:CO:74:ASP:OD2	15:CO:77:ARG:HG2	1.77	0.84
25:DA:2165:G:O2'	25:DA:2166:G:H5'	1.75	0.84
25:BA:1590:U:H2'	25:BA:1591:G:H5''	1.58	0.84
25:BA:1504:C:C2'	25:BA:1505:C:H5''	2.07	0.84
1:AA:1106:G:H4'	3:AC:171:GLY:O	1.75	0.84
34:BN:2:LYS:O	34:BN:3:THR:HG23	1.76	0.84
29:DE:48:GLN:NE2	29:DE:78:LEU:HD13	1.92	0.84
4:AD:49:ARG:HH11	4:AD:49:ARG:HA	1.41	0.84
28:DD:43:ARG:HB3	28:DD:54:ARG:HB2	1.59	0.84
20:CT:86:ARG:O	20:CT:90:GLN:HG3	1.77	0.84
25:DA:1318:C:H3'	25:DA:1319:G:H5''	1.59	0.84
28:DD:2:ALA:HB3	28:DD:20:ASP:OD2	1.77	0.84
1:CA:524:G:H2'	1:CA:525:C:C6	2.11	0.84
19:AS:62:ILE:HD12	19:AS:66:MET:HG3	1.57	0.84
25:BA:280:C:H5'	25:BA:280:C:H6	1.38	0.84
1:AA:10:A:H2'	1:AA:11:G:H8	1.39	0.84
25:BA:2175:C:C2'	25:BA:2176:A:H5''	2.06	0.84
3:CC:20:SER:HB2	3:CC:40:ARG:NH2	1.91	0.84
22:CV:6:ASP:HA	22:CV:8:ARG:NH1	1.92	0.84
25:DA:638:G:H2'	25:DA:639:U:H6	1.42	0.84
1:AA:942:G:H21	9:AI:124:GLN:HE22	1.25	0.84
44:BX:12:VAL:HG22	44:BX:27:THR:O	1.77	0.84
6:CF:17:SER:O	6:CF:21:LEU:HD22	1.77	0.84
20:CT:57:ARG:NH1	20:CT:57:ARG:HB2	1.91	0.84
31:BG:95:ARG:HH11	31:BG:95:ARG:HG2	1.41	0.84
46:DZ:156:LEU:HD11	46:DZ:162:LEU:HG	1.58	0.84
25:BA:613:G:H5'	25:BA:613:G:H8	1.43	0.84
2:AB:30:ARG:HH21	2:AB:194:PRO:HG2	1.39	0.84
25:BA:1458:C:H4'	25:BA:1459:G:O5'	1.74	0.84
25:DA:18:C:H2'	25:DA:19:C:H6	1.42	0.84
44:DX:36:LYS:HD3	44:DX:56:THR:HG23	1.58	0.84

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:31:GLY:HA2	10:AJ:76:ASN:HD22	1.40	0.84
36:DP:63:PRO:C	36:DP:65:ARG:H	1.81	0.84
45:DY:96:ILE:CG1	45:DY:99:CYS:HB2	2.05	0.84
30:DF:160:ASN:ND2	30:DF:162:LEU:H	1.76	0.84
7:AG:109:ASN:O	7:AG:110:GLN:HG3	1.78	0.84
11:AK:97:ALA:O	11:AK:101:SER:HB3	1.76	0.84
6:CF:100:ASN:H	18:CR:23:LYS:NZ	1.75	0.84
27:BC:98:GLU:H	27:BC:98:GLU:CD	1.80	0.84
33:BI:88:ILE:HG22	33:BI:90:GLY:H	1.41	0.84
41:DU:58:ARG:O	41:DU:62:ILE:HG12	1.77	0.84
28:BD:43:ARG:HB3	28:BD:54:ARG:HB2	1.59	0.84
41:BU:92:ARG:HH21	41:BU:95:LEU:H	1.20	0.84
45:DY:50:ARG:HD3	45:DY:54:LYS:H	1.41	0.84
19:CS:50:ALA:HB1	19:CS:57:HIS:HB3	1.56	0.84
32:DH:85:LYS:CD	32:DH:133:VAL:HB	2.06	0.84
13:AM:34:LEU:HD22	13:AM:39:ILE:HB	1.57	0.84
25:DA:779:U:OP1	28:DD:49:ILE:HG22	1.78	0.84
25:BA:1826:G:H4'	28:BD:242:ARG:HH21	1.42	0.84
40:DT:100:TYR:O	40:DT:102:ILE:N	2.10	0.84
25:DA:903:C:H2'	25:DA:904:C:C6	2.11	0.84
1:AA:472:A:H5''	16:AP:80:PHE:HB3	1.59	0.84
22:CV:135:THR:HB	22:CV:151:ALA:HB2	1.60	0.84
25:BA:191:A:H2'	25:BA:192:C:H6	1.42	0.84
35:DO:98:VAL:CG1	35:DO:117:LEU:HD22	2.07	0.84
46:DZ:165:SER:HB2	46:DZ:167:GLU:H	1.40	0.84
2:CB:16:HIS:CD2	2:CB:210:SER:HA	2.11	0.84
36:DP:16:ARG:NH1	36:DP:16:ARG:HB2	1.92	0.84
31:BG:47:LYS:O	31:BG:51:ARG:HG2	1.77	0.84
53:B6:9:LEU:O	53:B6:9:LEU:HD23	1.78	0.84
25:DA:389:G:H22	36:DP:72:PRO:HD3	1.41	0.84
25:DA:1494:A:O2'	25:DA:1495:A:H5''	1.78	0.84
19:AS:9:VAL:O	19:AS:11:VAL:N	2.09	0.84
29:BE:69:LYS:HD3	29:BE:89:ASP:HA	1.57	0.84
25:DA:2648:C:H2'	25:DA:2649:U:C6	2.13	0.84
25:DA:1591:G:H5'	25:DA:1591:G:H8	1.43	0.84
25:DA:913:U:H4'	25:DA:914:C:OP1	1.76	0.84
1:CA:1161:C:H2'	1:CA:1162:C:H6	1.40	0.84
25:BA:1038:C:H42	25:BA:1117:G:H1	1.26	0.84
12:CL:121:LYS:HD2	12:CL:122:PRO:HD2	1.60	0.84
32:BH:43:VAL:HG12	32:BH:52:VAL:HA	1.59	0.84
3:AC:59:ARG:HG2	3:AC:63:ASN:O	1.77	0.84
4:AD:50:ARG:NH1	4:AD:50:ARG:HB3	1.93	0.84

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DR:4:LEU:O	38:DR:4:LEU:HD13	1.77	0.84
25:BA:271(S):G:H2'	25:BA:271(T):C:C6	2.13	0.84
10:CJ:51:ARG:HG3	10:CJ:59:SER:O	1.77	0.84
28:DD:159:ALA:HB1	28:DD:198:ASN:HB3	1.60	0.84
39:DS:13:ARG:O	39:DS:15:ARG:HG2	1.77	0.84
25:DA:2870:C:H2'	25:DA:2871:C:H5'	1.59	0.84
34:DN:74:ARG:HH12	34:DN:85:ILE:HD12	1.42	0.84
45:DY:88:LYS:HB3	45:DY:90:LEU:HD12	1.57	0.84
29:BE:59:VAL:HG22	29:BE:60:ASN:N	1.93	0.83
25:DA:1410:G:H2'	25:DA:1411:C:C6	2.13	0.83
25:DA:1685:C:C2'	25:DA:1686:C:H5''	2.07	0.83
25:DA:1717:G:C3'	25:DA:1718:G:H5''	2.08	0.83
25:DA:130:C:H2'	25:DA:131:G:H5''	1.58	0.83
25:BA:8:A:H2'	25:BA:9:U:C5	2.13	0.83
25:BA:774:A:H2	25:BA:787:U:HO2'	1.23	0.83
1:CA:1363(A):A:H1'	1:CA:1365:G:N7	1.92	0.83
45:DY:4:LYS:HD2	45:DY:32:PRO:CG	2.07	0.83
30:DF:78:ILE:N	30:DF:78:ILE:HD13	1.91	0.83
13:AM:3:ARG:HG2	13:AM:9:ILE:HD11	1.59	0.83
31:BG:44:GLY:N	31:BG:88:ILE:HG12	1.93	0.83
5:AE:71:LEU:HD21	5:AE:115:VAL:HG22	1.59	0.83
2:CB:124:SER:OG	2:CB:126:GLU:HG3	1.78	0.83
33:BI:133:HIS:HB2	33:BI:134:PRO:CD	2.08	0.83
21:AU:6:ARG:HD3	21:AU:15:ARG:NH2	1.93	0.83
33:DI:10:GLU:O	33:DI:11:ASN:HB2	1.78	0.83
26:DB:87:G:H3'	26:DB:88:C:H5''	1.61	0.83
23:CW:10:G:H5'	23:CW:10:G:H8	1.41	0.83
45:BY:10:GLY:HA2	45:BY:27:VAL:CG1	2.01	0.83
25:BA:274:G:H3'	25:BA:274:G:N3	1.93	0.83
36:BP:146:VAL:HG22	36:BP:147:LEU:N	1.94	0.83
34:DN:114:ARG:HH11	34:DN:114:ARG:HB2	1.43	0.83
1:CA:992:U:H1'	1:CA:993:G:C2	2.13	0.83
43:DW:5:ALA:HB1	43:DW:50:VAL:HG22	1.60	0.83
2:CB:55:PHE:HE1	2:CB:218:ALA:HA	1.42	0.83
25:DA:884:C:H3'	25:DA:885:C:H5'	1.61	0.83
34:DN:107:LEU:HD22	34:DN:116:LEU:HD12	1.60	0.83
10:AJ:50:ILE:HA	10:AJ:60:ARG:HG2	1.60	0.83
15:AO:17:ARG:HD3	15:AO:26:GLU:HG3	1.59	0.83
1:AA:375:U:H4'	16:AP:17:TYR:HE2	1.43	0.83
52:D5:25:LEU:H	52:D5:25:LEU:HD12	1.42	0.83
2:AB:100:GLY:HA2	2:AB:103:THR:HB	1.60	0.83
40:BT:78:LEU:O	40:BT:78:LEU:HD23	1.77	0.83

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BC:21:TYR:HB2	27:BC:225:ILE:HG22	1.61	0.83
13:AM:23:TYR:HB3	13:AM:67:GLU:HB2	1.58	0.83
36:BP:64:LYS:O	36:BP:66:GLY:N	2.12	0.83
38:DR:98:LEU:HB2	38:DR:113:LEU:HB3	1.58	0.83
25:DA:2791:C:H1'	25:DA:2792:G:C8	2.13	0.83
15:CO:82:ILE:HD11	15:CO:88:ARG:HG3	1.60	0.83
30:DF:160:ASN:HD21	30:DF:162:LEU:HB2	1.42	0.83
1:AA:522:C:H41	12:AL:50:ARG:HH22	1.22	0.83
1:CA:355:C:H5'	1:CA:389:A:OP2	1.78	0.83
25:DA:2474:C:O2	25:DA:2474:C:H2'	1.77	0.83
4:CD:145:GLU:HG2	4:CD:184:LYS:HG2	1.60	0.83
14:AN:4:LYS:HD2	14:AN:7:ILE:HD11	1.61	0.83
40:BT:50:ILE:HD11	40:BT:102:ILE:HD11	1.60	0.83
11:CK:48:ILE:HG22	11:CK:49:GLY:N	1.91	0.83
32:BH:132:ARG:O	32:BH:133:VAL:HG23	1.79	0.83
40:BT:54:ARG:HA	40:BT:59:THR:HB	1.59	0.83
1:AA:1036:G:H3'	1:AA:1037:C:C6	2.13	0.83
25:DA:2712:U:H1'	25:DA:2712(A):A:C8	2.12	0.83
45:DY:28:LYS:HB2	45:DY:38:ILE:N	1.93	0.83
30:DF:117:ARG:HD2	30:DF:190:GLU:O	1.79	0.83
55:D8:61:LEU:HD22	55:D8:62:LEU:HG	1.58	0.83
30:DF:167:ALA:HB1	30:DF:173:VAL:HG11	1.61	0.83
25:BA:90:U:O2'	25:BA:92:A:H5''	1.79	0.83
27:BC:74:ARG:O	27:BC:111:PHE:HB2	1.79	0.83
1:CA:112:G:H21	1:CA:354:G:H5'	1.41	0.83
48:D1:52:ARG:HH12	48:D1:78:LYS:HD3	1.42	0.83
7:CG:91:VAL:HG12	7:CG:92:SER:H	1.43	0.83
40:BT:50:ILE:HD11	40:BT:102:ILE:CD1	2.08	0.83
46:BZ:150:HIS:HB3	46:BZ:169:THR:CA	2.04	0.83
2:AB:45:GLN:HG2	2:AB:49:GLU:OE1	1.79	0.83
3:CC:58:GLU:O	3:CC:64:VAL:HA	1.79	0.83
25:DA:2881:C:H2'	25:DA:2882:A:C8	2.13	0.83
22:AV:134:ASP:CG	22:AV:135:THR:H	1.81	0.83
1:CA:81:U:O4	1:CA:83:U:H3'	1.79	0.83
28:BD:108:PRO:HB3	28:BD:143:HIS:CE1	2.13	0.83
25:BA:94:C:H5'	25:BA:94(A):G:OP2	1.78	0.83
25:BA:285:C:H2'	25:BA:286:C:H5'	1.59	0.83
17:AQ:91:ARG:HB3	17:AQ:91:ARG:HH11	1.44	0.83
25:DA:910:A:C5	37:DQ:13:GLN:HG3	2.14	0.83
45:DY:2:ARG:O	45:DY:5:MET:HG2	1.77	0.83
28:BD:242:ARG:HD2	28:BD:242:ARG:N	1.91	0.83
10:CJ:49:VAL:CG2	14:CN:41:ARG:HB2	2.09	0.83

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:D7:8:ASN:C	54:D7:8:ASN:HD22	1.81	0.83
44:BX:56:THR:HG22	44:BX:79:ALA:HB2	1.59	0.83
25:DA:1190:G:H5''	36:DP:35:HIS:HA	1.61	0.83
25:BA:389:G:H22	36:BP:72:PRO:HD3	1.44	0.83
32:BH:7:LEU:N	32:BH:8:PRO:HD3	1.94	0.83
34:DN:62:VAL:HG22	34:DN:66:LYS:HE3	1.61	0.83
1:CA:979:C:H3'	1:CA:980:C:C5'	2.08	0.83
29:DE:31:CYS:HG	29:DE:51:PHE:HD2	1.26	0.83
25:DA:555:U:H1'	25:DA:556:G:C8	2.14	0.83
28:BD:30:GLU:CD	28:BD:30:GLU:H	1.79	0.83
6:CF:72:VAL:HG13	6:CF:73:ASN:H	1.44	0.83
12:AL:80:VAL:HG11	12:AL:97:ILE:HG12	1.61	0.83
28:DD:30:GLU:HG3	28:DD:63:ARG:NH2	1.94	0.83
37:DQ:63:LYS:HZ3	46:DZ:174:VAL:HG21	1.43	0.83
50:B3:47:VAL:HG11	50:B3:56:VAL:HG21	1.60	0.83
1:AA:1162:C:H2'	1:AA:1163:C:C6	2.13	0.83
25:BA:875:G:H2'	25:BA:876:C:C6	2.13	0.83
8:CH:89:PRO:HA	8:CH:92:ARG:HH11	1.42	0.83
42:DV:18:LEU:HD22	42:DV:19:LYS:H	1.44	0.82
25:BA:779:U:OP1	28:BD:49:ILE:HG22	1.79	0.82
8:AH:102:ARG:H	8:AH:102:ARG:HE	1.23	0.82
36:BP:68:GLN:HE21	36:BP:68:GLN:C	1.82	0.82
53:D6:12:GLU:CB	53:D6:23:THR:HG22	2.08	0.82
42:BV:18:LEU:CD1	42:BV:19:LYS:H	1.92	0.82
47:D0:70:GLN:NE2	47:D0:80:HIS:HE2	1.75	0.82
25:BA:1750:G:O2'	25:BA:1751:C:H5'	1.78	0.82
25:DA:2178:C:O2'	27:DC:169:THR:HB	1.78	0.82
25:DA:1286:A:H2'	25:DA:1288:U:OP2	1.78	0.82
36:BP:17:LYS:O	36:BP:19:VAL:N	2.09	0.82
25:BA:141:A:H8	25:BA:1408:C:HO2'	1.24	0.82
1:AA:977:A:C2	1:AA:1224:G:N1	2.47	0.82
25:DA:81:G:H21	45:DY:2:ARG:NH1	1.78	0.82
25:DA:1639:U:H2'	25:DA:1640:C:H5''	1.61	0.82
37:BQ:51:ARG:HH11	37:BQ:51:ARG:HB3	1.42	0.82
32:BH:123:PHE:HA	32:BH:133:VAL:CG2	2.08	0.82
42:BV:25:LEU:H	42:BV:92:THR:HG21	1.42	0.82
18:CR:70:ILE:HG22	18:CR:74:ARG:HD2	1.59	0.82
12:CL:22:PRO:C	12:CL:24:LEU:H	1.82	0.82
25:DA:1171:G:H3'	25:DA:1173:G:H4'	1.59	0.82
6:AF:91:VAL:HG13	18:AR:72:ARG:NH2	1.93	0.82
25:BA:2763:G:H8	25:BA:2763:G:H5'	1.42	0.82
28:DD:5:LYS:HA	28:DD:17:THR:HG22	1.60	0.82

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1902:C:O2'	28:DD:244:ARG:HB2	1.79	0.82
41:BU:92:ARG:HD2	42:BV:11:GLN:CD	1.98	0.82
53:D6:40:CYS:HA	53:D6:46:HIS:HB3	1.60	0.82
47:D0:53:MET:HB3	47:D0:59:LEU:CD2	2.09	0.82
51:B4:42:CYS:SG	51:B4:62:CYS:HB3	2.20	0.82
25:BA:27:G:H22	25:BA:512:G:H2'	1.42	0.82
28:DD:130:ALA:C	28:DD:131:LEU:HD12	2.00	0.82
22:CV:24:GLU:OE2	22:CV:40:LYS:HD3	1.79	0.82
25:DA:774:A:H2	25:DA:787:U:HO2'	0.87	0.82
1:CA:418:C:H2'	1:CA:419:C:H6	1.43	0.82
25:BA:12:U:H2'	25:BA:12:U:O2	1.77	0.82
25:DA:1246:A:OP2	36:DP:18:ARG:HG3	1.78	0.82
25:DA:18:C:H2'	25:DA:19:C:C6	2.13	0.82
25:BA:8:A:H2'	25:BA:9:U:C6	2.13	0.82
9:AI:3:GLN:HG2	9:AI:20:ARG:HH12	1.43	0.82
53:D6:10:LEU:HG	55:D8:34:TRP:CD1	2.15	0.82
14:CN:12:ARG:C	14:CN:14:PRO:HD2	1.99	0.82
36:BP:50:ARG:HD3	55:B8:59:LYS:HZ1	1.44	0.82
1:AA:1321:C:H5'	1:AA:1322:C:H5''	1.62	0.82
38:DR:10:LEU:HD22	38:DR:17:ARG:HH11	1.42	0.82
10:AJ:27:ALA:CB	10:AJ:34:VAL:HG21	2.10	0.82
25:DA:1590:U:C2'	25:DA:1591:G:H5''	2.09	0.82
1:AA:523:A:N6	12:AL:50:ARG:HH12	1.77	0.82
1:AA:939:G:H1	1:AA:1344:C:H42	1.27	0.82
28:DD:70:TRP:CH2	28:DD:150:LYS:HA	2.14	0.82
38:DR:104:ARG:HH12	38:DR:109:ALA:HB3	1.43	0.82
25:DA:586:A:H5'	30:DF:89:VAL:HG21	1.61	0.82
4:CD:13:ARG:HD3	4:CD:36:ARG:O	1.78	0.82
37:DQ:24:GLY:HA2	37:DQ:67:ARG:NH2	1.94	0.82
2:CB:132:LYS:HA	2:CB:135:GLN:NE2	1.92	0.82
1:CA:1139:G:H1'	1:CA:1141:C:H41	1.43	0.82
25:BA:2808:U:H2'	25:BA:2809:A:H5'	1.61	0.82
29:DE:47:VAL:HG23	29:DE:84:PHE:O	1.79	0.82
25:BA:1639:U:H4'	25:BA:2699:C:H4'	1.60	0.82
4:AD:173:TRP:HZ3	4:AD:193:ASP:HB3	1.44	0.82
1:CA:999:C:H2'	1:CA:1000:U:C6	2.15	0.82
27:DC:150:ILE:HG23	27:DC:154:ILE:HD11	1.59	0.82
5:CE:137:GLU:HA	5:CE:140:ARG:HH12	1.45	0.82
36:DP:78:PRO:HB2	36:DP:111:ARG:HD2	1.62	0.82
25:DA:2875:C:H4'	40:DT:5:ALA:HB2	1.61	0.82
46:DZ:128:SER:CB	46:DZ:131:ASN:HD22	1.93	0.82
46:DZ:3:ARG:HG3	46:DZ:57:VAL:HB	1.61	0.82

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:D8:4:MET:O	55:D8:62:LEU:HD11	1.80	0.82
8:AH:101:PRO:HA	8:AH:102:ARG:HH21	1.43	0.82
25:DA:2206:G:N2	25:DA:2207:G:H5'	1.95	0.82
40:DT:133:GLU:OE2	40:DT:137:LYS:HB2	1.78	0.82
4:CD:3:ARG:O	4:CD:5:ILE:HG13	1.80	0.82
16:CP:20:VAL:HG23	16:CP:34:GLU:O	1.80	0.82
1:CA:503:C:OP2	12:CL:113:SER:HB3	1.80	0.82
25:BA:1108:U:C2'	25:BA:1109:C:H5'	2.08	0.82
30:BF:116:ASP:HB2	30:BF:119:ARG:HH21	1.45	0.82
25:DA:1109:C:H41	25:DA:1110:G:N2	1.77	0.82
10:AJ:48:THR:HA	10:AJ:62:HIS:HB2	1.61	0.82
55:B8:52:LYS:N	55:B8:53:PRO:HD2	1.95	0.82
2:CB:97:TRP:HZ2	2:CB:102:LEU:HD13	1.44	0.82
42:DV:1:MET:H3	42:DV:15:GLU:HG2	1.45	0.82
19:CS:63:THR:CG2	19:CS:66:MET:HG2	2.09	0.82
7:CG:46:ALA:O	7:CG:50:ILE:HG12	1.78	0.82
30:BF:4:VAL:HA	30:BF:19:GLU:HB3	1.62	0.82
25:BA:1348:G:H2'	25:BA:1349:A:H5''	1.62	0.82
1:CA:1305:G:N2	1:CA:1331:G:H2'	1.94	0.82
1:AA:1305:G:H22	1:AA:1331:G:H2'	1.44	0.82
25:DA:271(I):G:H3'	25:DA:271(J):C:H6	1.45	0.82
8:AH:87:SER:HA	8:AH:93:VAL:HG23	1.61	0.82
19:AS:46:GLY:HA2	19:AS:61:TYR:HE1	1.43	0.82
26:DB:87:G:C3'	26:DB:88:C:H5''	2.10	0.82
50:D3:3:ARG:O	50:D3:58:VAL:HG13	1.80	0.82
25:DA:1300:U:H4'	25:DA:1301:A:O5'	1.79	0.82
55:B8:61:LEU:HD12	55:B8:61:LEU:N	1.93	0.82
2:AB:187:LEU:HD12	2:AB:205:ASP:HB3	1.61	0.82
8:AH:102:ARG:NE	8:AH:102:ARG:H	1.77	0.82
45:BY:49:VAL:HG23	45:BY:50:ARG:N	1.94	0.82
40:BT:85:LYS:CA	40:BT:85:LYS:HZ2	1.93	0.82
40:DT:83:ILE:HG13	40:DT:84:GLN:N	1.95	0.82
1:CA:1225:A:H5'	13:CM:103:THR:OG1	1.79	0.82
1:AA:56:U:H2'	1:AA:57:G:H8	1.44	0.82
1:AA:67:C:H2'	1:AA:68:G:C8	2.15	0.82
7:AG:113:GLU:CG	7:AG:119:ARG:HG2	2.10	0.82
25:BA:2331:G:H4'	47:B0:42:THR:H	1.43	0.82
25:DA:34:C:O2'	25:DA:35:G:H5'	1.79	0.82
1:CA:664:G:H22	1:CA:741:G:H1	1.28	0.82
26:BB:87:G:H1'	26:BB:90:A:H62	1.45	0.82
7:CG:13:GLN:HG3	7:CG:14:PRO:HD2	1.61	0.82
20:AT:89:ARG:HD2	20:AT:104:LEU:HD11	1.60	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:21:ARG:HG2	3:AC:58:GLU:HG2	1.61	0.81
4:AD:33:MET:HE1	4:AD:37:PRO:HA	1.62	0.81
40:DT:83:ILE:HG13	40:DT:84:GLN:H	1.44	0.81
10:CJ:49:VAL:O	10:CJ:60:ARG:HB3	1.78	0.81
25:BA:1484:G:C3'	25:BA:1485:G:H5''	2.10	0.81
1:CA:982:U:H5	14:CN:31:ARG:HH12	1.27	0.81
5:AE:87:SER:HB3	5:AE:131:ILE:HD13	1.62	0.81
8:AH:54:ASP:O	8:AH:56:LYS:HG3	1.80	0.81
9:CI:4:TYR:HB2	9:CI:19:LEU:HB2	1.62	0.81
25:BA:1494:A:O2'	25:BA:1495:A:H5''	1.78	0.81
45:DY:4:LYS:HD2	45:DY:32:PRO:HG3	1.61	0.81
25:DA:925:C:H2'	25:DA:926:A:C5'	2.10	0.81
1:AA:1330:U:H3'	1:AA:1331:G:O4'	1.80	0.81
35:DO:107:ARG:NH1	40:DT:35:LYS:HD2	1.94	0.81
28:DD:28:GLU:H	28:DD:29:PRO:CD	1.92	0.81
1:AA:974:A:H1'	14:AN:31:ARG:HE	1.45	0.81
22:AV:132:VAL:HG21	22:AV:151:ALA:HB1	1.62	0.81
6:CF:69:GLU:HG2	6:CF:70:ASP:H	1.44	0.81
49:D2:2:LYS:HA	49:D2:2:LYS:HE3	1.61	0.81
25:DA:1451:C:H5'	25:DA:1452:A:H5'	1.62	0.81
25:BA:70:G:H21	25:BA:71:A:H62	1.25	0.81
22:AV:80:MET:HE2	22:AV:98:VAL:HG11	1.59	0.81
44:BX:8:ILE:HD11	44:BX:43:VAL:HG22	1.61	0.81
22:CV:105:LYS:HG2	22:CV:106:GLU:H	1.45	0.81
25:BA:251:A:H5'	36:BP:51:PHE:HZ	1.45	0.81
28:DD:244:ARG:HG2	28:DD:245:PRO:CG	2.09	0.81
3:AC:15:THR:HG21	3:AC:181:ASN:HB2	1.61	0.81
9:AI:96:LEU:CG	9:AI:102:LEU:HB2	2.10	0.81
16:AP:26:ARG:NH1	16:AP:26:ARG:HB3	1.94	0.81
46:DZ:79:ARG:O	46:DZ:80:ARG:HG2	1.80	0.81
32:DH:43:VAL:CG1	32:DH:52:VAL:HA	2.09	0.81
1:CA:1128:C:H1'	1:CA:1146:A:H61	1.45	0.81
25:DA:1923:U:H2'	25:DA:1924:C:H6	1.44	0.81
36:DP:64:LYS:HB3	55:D8:25:MET:HG3	1.62	0.81
53:D6:38:LYS:HA	53:D6:47:THR:O	1.79	0.81
1:CA:453:A:H4'	16:CP:72:ARG:HG3	1.60	0.81
11:AK:126:ARG:C	11:AK:128:ALA:H	1.84	0.81
25:DA:2804:C:H2'	25:DA:2805:G:H5'	1.63	0.81
42:BV:19:LYS:HG3	42:BV:20:LEU:N	1.95	0.81
39:DS:17:ARG:O	39:DS:19:LYS:N	2.13	0.81
25:DA:2090:G:H21	48:D1:45:ASN:ND2	1.79	0.81
6:AF:2:ARG:HD2	6:AF:69:GLU:HB3	1.63	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:CP:20:VAL:HG21	16:CP:32:TYR:CG	2.15	0.81
30:BF:134:GLY:H	30:BF:162:LEU:HG	1.45	0.81
22:AV:3:SER:HA	22:AV:59:LYS:HA	1.62	0.81
12:AL:44:LYS:HB3	12:AL:45:PRO:CD	2.11	0.81
25:BA:821:A:H2'	25:BA:946:G:H5''	1.63	0.81
25:BA:1301:A:O2'	25:BA:1302:A:H3'	1.81	0.81
29:DE:3:GLY:O	29:DE:4:ILE:HB	1.80	0.81
31:BG:9:ARG:HH11	31:BG:9:ARG:HB3	1.45	0.81
7:CG:71:PRO:HG3	7:CG:103:TRP:HZ3	1.45	0.81
9:CI:9:ARG:O	9:CI:10:ARG:HB2	1.79	0.81
3:AC:76:VAL:HA	3:AC:83:ARG:NH1	1.95	0.81
32:DH:85:LYS:HZ2	32:DH:133:VAL:HG21	1.44	0.81
53:B6:13:CYS:O	53:B6:21:TYR:HA	1.81	0.81
40:DT:27:THR:O	40:DT:28:VAL:HB	1.81	0.81
2:CB:122:PHE:HA	2:CB:139:LYS:HZ1	1.42	0.81
28:DD:112:GLN:H	28:DD:115:GLN:NE2	1.77	0.81
2:CB:87:ARG:HE	2:CB:233:SER:HB2	1.46	0.81
1:AA:1278:U:H5''	1:AA:1279:A:O4'	1.80	0.81
25:DA:538:G:H2'	25:DA:539:G:H8	1.43	0.81
38:BR:117:VAL:O	38:BR:118:GLU:HB2	1.81	0.81
3:AC:123:GLN:O	3:AC:128:PHE:HB2	1.81	0.81
33:DI:133:HIS:CB	33:DI:134:PRO:HD3	2.09	0.81
25:DA:2267:A:H3'	25:DA:2268:A:H5''	1.63	0.81
1:AA:1322:C:H4'	1:AA:1323:G:OP1	1.79	0.81
31:BG:88:ILE:HG13	31:BG:89:GLY:H	1.44	0.81
1:AA:1025:U:H4'	1:AA:1026:G:C8	2.15	0.81
25:BA:1851:U:C2'	25:BA:1852:C:H5'	2.10	0.81
25:BA:784:A:H5''	28:BD:227:ASN:HD21	1.45	0.81
28:DD:36:PRO:HA	28:DD:62:TYR:O	1.80	0.81
6:CF:61:LEU:O	6:CF:62:TRP:HB2	1.80	0.81
22:AV:23:VAL:HG23	22:AV:24:GLU:HG2	1.62	0.81
3:AC:14:ILE:HG22	14:AN:57:ARG:HH21	1.45	0.81
1:CA:1343:G:H1'	9:CI:121:ARG:HH12	1.46	0.81
41:BU:90:VAL:HG12	41:BU:91:ASP:H	1.44	0.81
29:BE:44:TYR:O	29:BE:45:THR:HB	1.80	0.81
45:DY:28:LYS:CA	45:DY:39:VAL:H	1.93	0.81
45:DY:31:LEU:HG	45:DY:34:LYS:HB3	1.62	0.81
25:BA:1389:G:H1	25:BA:1398:C:N4	1.79	0.81
2:AB:163:PHE:HA	2:AB:185:ILE:O	1.80	0.81
30:BF:46:ARG:HH11	30:BF:46:ARG:CG	1.92	0.81
15:CO:64:ARG:HH11	15:CO:68:ARG:NH2	1.78	0.81
40:DT:89:VAL:HG12	40:DT:91:ARG:HG3	1.63	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BI:4:ILE:HA	33:BI:17:GLN:O	1.80	0.81
22:AV:161:VAL:HB	22:AV:165:VAL:HG21	1.63	0.81
25:DA:730:C:H2'	25:DA:731:C:C6	2.16	0.81
5:AE:50:GLU:HG3	5:AE:52:PRO:HD2	1.63	0.81
25:DA:2870:C:C2'	25:DA:2871:C:H5'	2.11	0.81
25:DA:2784:C:H2'	25:DA:2785:C:C6	2.16	0.81
8:CH:97:VAL:HG13	8:CH:98:LYS:H	1.45	0.81
25:DA:999:U:H2'	25:DA:1000:A:H5'	1.63	0.81
31:DG:43:LEU:HB2	31:DG:88:ILE:HD11	1.63	0.81
1:AA:17:U:H2'	1:AA:18:C:C6	2.16	0.81
25:DA:7:G:H2'	25:DA:8:A:C8	2.16	0.81
31:BG:47:LYS:HE3	31:BG:81:LYS:HB2	1.63	0.81
1:AA:963:G:N2	10:AJ:55:LYS:HD3	1.94	0.81
46:BZ:101:LEU:HB2	46:BZ:121:ARG:O	1.80	0.81
39:DS:34:HIS:HA	39:DS:54:LEU:HD23	1.62	0.81
36:BP:23:PRO:CB	36:BP:33:ARG:HG3	2.11	0.81
6:CF:21:LEU:O	6:CF:25:ILE:HG12	1.80	0.81
31:BG:2:PRO:HG2	51:B4:51:TYR:CD2	2.15	0.81
31:BG:128:ARG:C	31:BG:130:ASN:H	1.79	0.81
29:DE:116:VAL:O	29:DE:117:MET:HB3	1.81	0.81
33:DI:9:LEU:HD21	33:DI:35:LEU:HD13	1.63	0.81
46:DZ:164:VAL:CG1	46:DZ:168:GLU:HB3	2.10	0.81
41:DU:92:ARG:CB	41:DU:92:ARG:HH11	1.94	0.81
1:CA:1346:A:N6	1:CA:1374:A:H3'	1.94	0.81
42:BV:46:VAL:HG22	42:BV:47:VAL:H	1.43	0.81
45:DY:2:ARG:HD2	45:DY:3:VAL:HG23	1.62	0.81
30:DF:9:ILE:HG22	30:DF:11:VAL:O	1.80	0.81
1:AA:1502:A:H5''	1:AA:1504:G:N7	1.96	0.81
45:BY:88:LYS:HB3	45:BY:90:LEU:HD12	1.63	0.81
2:AB:16:HIS:NE2	2:AB:213:LEU:HD13	1.96	0.81
13:AM:49:THR:HB	13:AM:52:GLU:HG3	1.61	0.81
1:AA:1121:U:H2'	1:AA:1122:U:H6	1.46	0.81
39:BS:17:ARG:O	39:BS:19:LYS:N	2.14	0.81
36:BP:17:LYS:O	36:BP:17:LYS:HG3	1.80	0.81
37:BQ:62:GLY:HA2	46:BZ:115:VAL:HG21	1.63	0.81
25:BA:2681:C:H5	25:BA:2725:A:H62	1.29	0.81
42:DV:19:LYS:HG2	42:DV:94:LEU:CB	2.11	0.81
45:BY:28:LYS:HA	45:BY:39:VAL:H	1.44	0.81
1:AA:1129:C:H5''	1:AA:1139:G:O6	1.80	0.81
14:CN:23:ARG:NH1	14:CN:30:ALA:HB2	1.94	0.81
1:CA:1322:C:H5''	13:CM:100:GLY:HA3	1.63	0.81
1:CA:1034:G:H2'	1:CA:1035:A:C8	2.16	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2122:U:H3	25:DA:2176:A:H61	1.28	0.81
25:BA:1484:G:H3'	25:BA:1485:G:H5''	1.63	0.81
11:AK:33:THR:HG22	11:AK:39:PRO:HA	1.60	0.81
25:DA:2808:U:C2'	25:DA:2809:A:H5'	2.11	0.81
42:DV:28:GLU:HB3	42:DV:29:PRO:HD2	1.62	0.81
25:DA:2186:G:O2'	25:DA:2187:G:H5'	1.81	0.81
13:AM:66:LEU:H	13:AM:66:LEU:HD12	1.45	0.81
5:AE:33:VAL:O	5:AE:112:LEU:HD12	1.80	0.81
32:BH:85:LYS:HZ2	32:BH:133:VAL:HB	1.45	0.81
1:CA:1324:A:C4'	1:CA:1362:C:H4'	2.10	0.81
38:DR:104:ARG:CB	38:DR:104:ARG:HH11	1.94	0.81
37:DQ:56:ARG:HH11	37:DQ:56:ARG:HA	1.44	0.81
22:CV:68:ARG:HH11	22:CV:68:ARG:HB2	1.46	0.81
50:D3:28:LEU:HD21	50:D3:35:ARG:HB2	1.61	0.80
44:DX:35:THR:HG22	44:DX:37:THR:N	1.94	0.80
29:BE:33:VAL:HG13	29:BE:69:LYS:HE3	1.62	0.80
40:DT:28:VAL:O	40:DT:29:ARG:HG2	1.80	0.80
5:CE:110:LEU:HD13	5:CE:118:ILE:HD13	1.63	0.80
25:BA:1846:G:H5'	25:BA:1847:A:OP2	1.81	0.80
28:DD:182:LEU:O	28:DD:271:ILE:HG13	1.81	0.80
9:AI:53:VAL:HG13	9:AI:95:LYS:HE3	1.62	0.80
31:DG:76:SER:CB	31:DG:84:LYS:H	1.94	0.80
25:DA:903:C:H2'	25:DA:904:C:H6	1.46	0.80
46:DZ:150:HIS:HB2	46:DZ:169:THR:HA	1.64	0.80
1:CA:742:G:H5''	15:CO:58:MET:HE1	1.63	0.80
36:BP:29:LYS:HD2	36:BP:29:LYS:N	1.95	0.80
25:DA:151:C:O2'	25:DA:152:G:H5'	1.81	0.80
25:DA:2680:C:H5'	29:DE:189:PRO:HA	1.63	0.80
3:CC:62:ASP:HA	3:CC:97:LYS:HE2	1.61	0.80
25:DA:61:G:H1	25:DA:94:C:H42	0.84	0.80
1:CA:1071:C:H2'	1:CA:1072:G:H8	1.46	0.80
1:CA:1492:A:H3'	1:CA:1493:A:H8	1.43	0.80
25:DA:1278:A:OP1	38:DR:36:THR:HG22	1.80	0.80
50:D3:29:ARG:HH11	50:D3:29:ARG:CB	1.94	0.80
28:DD:24:ILE:CG1	28:DD:25:THR:H	1.90	0.80
53:B6:11:LEU:HD13	53:B6:12:GLU:N	1.94	0.80
40:DT:82:LEU:HD12	40:DT:82:LEU:N	1.95	0.80
6:CF:91:VAL:HG11	18:CR:72:ARG:HH21	1.45	0.80
9:AI:114:TYR:HE1	10:AJ:60:ARG:H	1.25	0.80
28:DD:35:LYS:H	28:DD:36:PRO:CD	1.95	0.80
53:B6:7:ILE:O	53:B6:28:ARG:HB2	1.79	0.80
1:AA:878:G:C5'	8:AH:89:PRO:HG2	2.11	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:148:G:H2'	1:AA:149:A:C8	2.16	0.80
28:BD:65:ILE:HD13	28:BD:65:ILE:H	1.46	0.80
25:DA:1784:A:H4'	25:DA:1785:A:O5'	1.80	0.80
1:AA:1291:G:H4'	9:AI:38:GLN:O	1.82	0.80
25:DA:1024:G:H3'	25:DA:1025:G:H5''	1.64	0.80
19:AS:20:LEU:HA	19:AS:23:ASN:HB2	1.64	0.80
32:DH:89:ILE:HD12	32:DH:90:LYS:N	1.96	0.80
28:DD:24:ILE:CG1	28:DD:25:THR:N	2.44	0.80
28:BD:30:GLU:N	28:BD:30:GLU:CD	2.35	0.80
48:B1:50:ARG:HH11	48:B1:50:ARG:HG2	1.46	0.80
47:D0:40:GLN:NE2	47:D0:45:PHE:H	1.79	0.80
10:CJ:34:VAL:CG1	10:CJ:72:VAL:HG12	2.12	0.80
36:BP:29:LYS:H	36:BP:29:LYS:HD2	1.45	0.80
27:DC:76:LEU:HD11	27:DC:100:ILE:HG12	1.62	0.80
48:D1:80:LEU:O	48:D1:82:LEU:HD22	1.81	0.80
25:DA:1340:U:H4'	25:DA:1341:U:OP2	1.80	0.80
46:DZ:130:ARG:N	46:DZ:130:ARG:HD3	1.95	0.80
2:CB:19:HIS:CE1	2:CB:20:GLU:HG2	2.16	0.80
2:CB:215:LEU:O	2:CB:219:VAL:HG23	1.81	0.80
3:AC:50:ALA:CB	3:AC:70:VAL:HG11	2.12	0.80
36:BP:64:LYS:C	36:BP:66:GLY:H	1.83	0.80
3:CC:16:ARG:NH1	3:CC:16:ARG:HB2	1.96	0.80
25:DA:2808:U:H2'	25:DA:2809:A:H5'	1.63	0.80
1:CA:1277:C:H2'	1:CA:1278:U:C5'	2.12	0.80
25:DA:2227:A:H5'	28:DD:263:ARG:NH1	1.96	0.80
17:CQ:22:LEU:HD13	17:CQ:41:LYS:HG2	1.63	0.80
5:CE:148:VAL:HG21	8:CH:107:LEU:HD13	1.64	0.80
39:BS:106:ARG:HD2	39:BS:107:GLU:O	1.81	0.80
34:BN:96:GLU:N	34:BN:96:GLU:OE2	2.13	0.80
39:BS:14:VAL:HG12	39:BS:15:ARG:N	1.96	0.80
42:DV:39:LEU:HB3	42:DV:47:VAL:HG21	1.64	0.80
46:DZ:13:LYS:HB2	46:DZ:17:LEU:HD13	1.64	0.80
10:AJ:33:GLN:HB2	10:AJ:75:ILE:HD11	1.63	0.80
55:D8:61:LEU:CD2	55:D8:62:LEU:HG	2.11	0.80
40:BT:27:THR:O	40:BT:28:VAL:HB	1.82	0.80
36:BP:65:ARG:NH2	55:B8:15:LYS:HB2	1.97	0.80
16:AP:4:ILE:HB	16:AP:66:PRO:HB3	1.62	0.80
4:CD:128:VAL:HG12	4:CD:129:ASN:HD21	1.45	0.80
25:BA:265:A:H1'	25:BA:266:G:O4'	1.81	0.80
25:DA:833:U:H2'	25:DA:834:C:C6	2.15	0.80
25:BA:2166:G:H2'	25:BA:2167:U:H6	1.45	0.80
42:DV:19:LYS:HG3	42:DV:20:LEU:N	1.97	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DG:125:PHE:O	31:DG:128:ARG:HG2	1.80	0.80
3:AC:58:GLU:O	3:AC:59:ARG:HG3	1.80	0.80
35:DO:87:ILE:HG22	35:DO:88:ASN:N	1.95	0.80
6:CF:11:ASN:O	6:CF:14:LEU:HG	1.81	0.80
12:AL:73:ASN:ND2	12:AL:74:LEU:H	1.79	0.80
40:BT:89:VAL:HG11	40:BT:91:ARG:NE	1.97	0.80
25:DA:2116:G:H3'	25:DA:2117:A:C8	2.16	0.80
25:DA:2645:G:C3'	25:DA:2646:C:H5'	2.09	0.80
30:BF:7:TYR:HD2	30:BF:16:GLY:H	1.30	0.80
3:CC:52:LEU:CD2	3:CC:52:LEU:H	1.94	0.80
10:CJ:63:PHE:HA	14:CN:59:ALA:HB2	1.64	0.80
28:BD:273:ARG:HH11	28:BD:273:ARG:HB3	1.47	0.80
5:CE:76:ILE:HG12	5:CE:77:PRO:HD2	1.64	0.80
1:AA:499:A:H4'	1:AA:500:G:H5'	1.64	0.80
18:CR:22:VAL:HB	18:CR:56:THR:HA	1.64	0.80
55:D8:52:LYS:N	55:D8:53:PRO:HD2	1.97	0.80
46:BZ:9:ARG:HH21	46:BZ:25:GLY:H	1.30	0.80
18:CR:37:VAL:HG11	18:CR:78:LEU:HB3	1.64	0.80
25:DA:1846:G:H5'	25:DA:1847:A:OP2	1.82	0.80
1:CA:826:C:H2'	1:CA:827:U:H6	1.44	0.80
1:CA:838:G:H2'	1:CA:839:U:H5''	1.62	0.80
31:BG:28:VAL:O	31:BG:31:VAL:HG12	1.80	0.80
56:D9:7:VAL:HG13	56:D9:34:GLN:HE21	1.47	0.80
39:BS:97:ARG:HE	39:BS:97:ARG:C	1.86	0.80
25:BA:158:U:H4'	25:BA:159:U:OP1	1.82	0.80
41:DU:104:GLN:H	41:DU:104:GLN:CD	1.84	0.80
9:CI:95:LYS:HD3	9:CI:96:LEU:N	1.96	0.80
1:CA:1142:G:O2'	1:CA:1143:G:H5'	1.81	0.80
35:BO:104:ARG:HE	40:BT:33:LYS:HD2	1.46	0.80
28:BD:71:ASP:HB2	28:BD:103:ARG:HH22	1.46	0.80
2:AB:114:ARG:HH11	2:AB:114:ARG:HG3	1.44	0.80
40:DT:62:THR:HG22	40:DT:75:ILE:HG12	1.64	0.80
40:DT:88:ILE:HG22	40:DT:89:VAL:HG23	1.64	0.80
1:AA:1053:G:C3'	1:AA:1054:C:H5'	2.11	0.80
4:CD:28:SER:O	4:CD:30:LYS:N	2.14	0.80
4:CD:78:LEU:HD21	4:CD:96:LEU:HB3	1.64	0.80
25:DA:2340:G:O2'	25:DA:2341:G:H5'	1.82	0.80
25:DA:271(Z):C:O2	25:DA:272(C):G:H1'	1.80	0.80
12:AL:121:LYS:HD2	12:AL:122:PRO:HD2	1.62	0.80
10:AJ:34:VAL:HG13	10:AJ:73:ASP:O	1.81	0.79
36:BP:16:ARG:NE	36:BP:18:ARG:HB2	1.96	0.79
25:BA:2393:A:H5'	36:BP:62:LEU:HB3	1.63	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1332:G:H5''	25:BA:1332:G:C8	2.16	0.79
1:AA:458:C:H2'	1:AA:460:G:H8	1.44	0.79
22:AV:149:LYS:HZ3	22:AV:163:LEU:HA	1.46	0.79
25:DA:1962:C:H4'	25:DA:1963:U:OP1	1.81	0.79
1:AA:1123:A:H4'	10:AJ:36:GLY:HA3	1.64	0.79
40:BT:129:ARG:CZ	40:BT:131:ALA:HB3	2.11	0.79
20:CT:32:ALA:O	20:CT:36:LEU:HD23	1.82	0.79
22:AV:84:ASP:HB3	22:AV:89:GLU:OE1	1.82	0.79
37:DQ:17:LEU:O	37:DQ:18:LYS:HD2	1.83	0.79
1:CA:1346:A:N1	1:CA:1374:A:H5''	1.96	0.79
42:BV:39:LEU:CB	42:BV:47:VAL:HG11	2.12	0.79
40:DT:28:VAL:HG21	40:DT:46:GLU:HG3	1.63	0.79
36:DP:85:LEU:HA	36:DP:88:LEU:HD22	1.63	0.79
2:AB:61:LEU:HD23	2:AB:68:ILE:HD11	1.65	0.79
29:DE:134:ILE:HD13	29:DE:134:ILE:N	1.97	0.79
20:AT:44:ALA:HB2	20:AT:88:VAL:HG13	1.62	0.79
25:DA:1796:U:H4'	28:DD:256:GLY:H	1.48	0.79
25:BA:2159:G:H3'	25:BA:2159:G:N3	1.97	0.79
13:CM:39:ILE:HD12	13:CM:56:LEU:HD21	1.64	0.79
32:BH:8:PRO:C	32:BH:9:ILE:HD12	2.02	0.79
20:AT:57:ARG:NH1	20:AT:102:GLY:HA3	1.97	0.79
21:CU:18:TYR:HB3	21:CU:22:ARG:O	1.80	0.79
1:CA:1305:G:H5''	21:CU:5:ASP:N	1.97	0.79
2:AB:114:ARG:NH1	2:AB:118:LEU:HD21	1.96	0.79
5:AE:76:ILE:HG22	5:AE:93:PRO:HB3	1.64	0.79
3:CC:147:LYS:HB3	3:CC:203:PHE:CD2	2.18	0.79
19:CS:36:ARG:HA	19:CS:71:LEU:HB2	1.65	0.79
36:DP:105:LEU:HD23	36:DP:105:LEU:N	1.96	0.79
40:BT:56:GLY:O	40:BT:59:THR:HG23	1.81	0.79
25:DA:529:A:H62	25:DA:2041:U:H3	1.30	0.79
6:CF:40:VAL:O	6:CF:41:GLU:HG2	1.81	0.79
34:BN:120:LEU:HD22	34:BN:121:LYS:N	1.96	0.79
1:CA:990:C:H2'	1:CA:991:U:C6	2.16	0.79
1:AA:300:A:H2'	1:AA:301:G:O4'	1.81	0.79
32:BH:54:ARG:HH11	32:BH:65:HIS:CD2	2.01	0.79
25:BA:955:C:OP1	37:BQ:87:LYS:HE2	1.81	0.79
25:DA:361:G:H2'	25:DA:362:U:H5''	1.64	0.79
6:AF:78:GLU:HA	6:AF:81:ILE:HD11	1.62	0.79
50:D3:7:LYS:O	50:D3:54:VAL:HG13	1.82	0.79
7:CG:25:ALA:HA	7:CG:28:ASN:HD22	1.47	0.79
55:D8:61:LEU:HD22	55:D8:62:LEU:N	1.98	0.79
2:AB:35:GLU:H	2:AB:36:ARG:HE	1.31	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:CT:15:ARG:O	20:CT:19:SER:HB2	1.81	0.79
27:BC:46:ALA:HB2	27:BC:213:VAL:HG13	1.64	0.79
25:DA:814:C:H1'	25:DA:1225:G:H21	1.44	0.79
1:CA:222:U:H2'	1:CA:223:U:C6	2.17	0.79
45:DY:90:LEU:O	45:DY:91:GLU:HG3	1.82	0.79
17:AQ:80:GLY:O	17:AQ:81:ARG:HG2	1.82	0.79
44:DX:65:ARG:HH11	44:DX:65:ARG:HG2	1.46	0.79
30:DF:143:ALA:HB1	30:DF:148:LEU:HB2	1.63	0.79
35:DO:44:LYS:O	35:DO:54:GLU:HG2	1.83	0.79
1:CA:946:A:H2'	1:CA:947:G:C8	2.18	0.79
1:AA:1313:U:OP1	19:AS:6:LYS:HG3	1.81	0.79
22:CV:69:GLU:HG2	22:CV:85:LEU:HG	1.65	0.79
34:DN:15:LEU:HD13	34:DN:16:ILE:H	1.43	0.79
27:BC:84:ILE:O	27:BC:88:GLU:HG2	1.83	0.79
45:DY:17:SER:HB2	45:DY:71:LYS:HD2	1.63	0.79
14:CN:13:THR:N	14:CN:14:PRO:HD2	1.97	0.79
25:BA:1434:A:H61	25:BA:1558:A:N6	1.81	0.79
25:BA:2815:C:H5'	52:B5:29:THR:HG21	1.64	0.79
1:CA:45:U:H2'	1:CA:46:G:C8	2.17	0.79
25:BA:2197:U:O2'	25:BA:2198:A:H2'	1.83	0.79
1:AA:1116:C:H2'	1:AA:1117:G:H5''	1.63	0.79
2:CB:164:VAL:HB	2:CB:186:ALA:HB2	1.64	0.79
50:D3:4:LEU:HD23	50:D3:5:LYS:N	1.98	0.79
1:CA:1137:C:H4'	1:CA:1138:G:N1	1.97	0.79
25:BA:1178:C:O2'	25:BA:1179:C:H6	1.64	0.79
4:AD:31:CYS:O	4:AD:31:CYS:SG	2.39	0.79
16:AP:28:ARG:HG2	16:AP:28:ARG:HH11	1.48	0.79
32:DH:12:PRO:HG2	32:DH:49:VAL:HA	1.62	0.79
25:DA:1045:A:H5'	25:DA:1047:G:C4'	2.11	0.79
53:D6:19:ARG:NH1	53:D6:43:CYS:SG	2.56	0.79
3:CC:68:VAL:HG12	3:CC:70:VAL:HG23	1.63	0.79
25:DA:2162:G:H2'	25:DA:2163:C:H6	1.48	0.79
25:BA:2285:C:H5'	25:BA:2286:A:OP2	1.82	0.79
9:CI:3:GLN:HG2	9:CI:20:ARG:HG3	1.64	0.79
29:DE:9:VAL:HG13	29:DE:25:VAL:O	1.82	0.79
1:CA:930:C:H2'	1:CA:931:C:H5'	1.64	0.79
13:CM:32:GLU:HA	13:CM:35:GLU:HG2	1.65	0.79
48:B1:11:ARG:HB3	48:B1:11:ARG:HH11	1.47	0.79
25:DA:2068:U:H3	25:DA:2430:A:H2	1.30	0.79
41:DU:88:ILE:O	41:DU:88:ILE:HD12	1.82	0.79
48:D1:52:ARG:NH1	48:D1:78:LYS:HD3	1.98	0.79
25:BA:276:A:H3'	25:BA:276:A:N3	1.97	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2801(A):A:C4'	25:BA:2802:G:H5'	2.05	0.79
28:BD:31:LYS:O	28:BD:36:PRO:HD3	1.81	0.79
36:BP:127:ALA:O	36:BP:148:LEU:HD12	1.82	0.79
2:AB:114:ARG:HH12	2:AB:118:LEU:HD11	1.48	0.79
10:AJ:50:ILE:HD11	14:AN:41:ARG:HD3	1.62	0.79
39:BS:67:ARG:NH1	39:BS:100:ALA:N	2.30	0.79
20:AT:26:ASN:HD22	20:AT:27:LYS:N	1.80	0.79
25:BA:191:A:H2'	25:BA:192:C:C6	2.17	0.79
46:DZ:175:PRO:HB2	46:DZ:176:PRO:HD2	1.65	0.79
1:CA:673:G:H2'	1:CA:674:G:C8	2.18	0.79
26:BB:30:C:H2'	26:BB:31:C:H5'	1.63	0.79
3:CC:148:GLY:HA3	3:CC:172:ARG:O	1.82	0.79
25:BA:1884:A:H2'	25:BA:1885:A:H5''	1.64	0.79
30:DF:24:LEU:HB3	30:DF:25:PRO:HD2	1.62	0.79
55:D8:30:ARG:HE	55:D8:30:ARG:HA	1.46	0.79
32:DH:83:TYR:HA	32:DH:135:GLY:H	1.46	0.79
55:B8:33:ASN:N	55:B8:33:ASN:HD22	1.80	0.79
25:DA:2881:C:H2'	25:DA:2882:A:H8	1.47	0.79
25:DA:94(A):G:H21	49:D2:47:ASN:ND2	1.80	0.79
1:AA:377:G:OP1	16:AP:3:LYS:HD2	1.82	0.79
39:BS:67:ARG:HH12	39:BS:100:ALA:H	1.31	0.79
1:CA:189(A):C:H2'	1:CA:189(B):C:C6	2.17	0.79
28:DD:35:LYS:H	28:DD:36:PRO:HD2	1.47	0.79
25:DA:1497:U:H5'	25:DA:1498:C:C5	2.18	0.79
25:BA:1884:A:C2'	25:BA:1885:A:H5''	2.13	0.79
31:BG:180:PHE:C	31:BG:182:LYS:H	1.86	0.79
25:DA:1336:A:H2'	25:DA:1337:G:H8	1.48	0.79
7:CG:83:ALA:HB3	7:CG:85:TYR:CE2	2.18	0.79
32:DH:147:ASN:N	32:DH:147:ASN:HD22	1.81	0.79
50:D3:10:LYS:HG3	50:D3:11:SER:H	1.44	0.79
25:DA:2180:U:H2'	25:DA:2181:G:C8	2.18	0.79
45:DY:31:LEU:HD23	45:DY:36:ALA:H	1.47	0.79
22:CV:84:ASP:O	22:CV:85:LEU:HB2	1.82	0.79
32:BH:85:LYS:CD	32:BH:133:VAL:HB	2.12	0.79
32:BH:63:SER:O	32:BH:64:LEU:HB2	1.81	0.79
42:BV:14:VAL:HB	42:BV:96:ILE:HG13	1.64	0.79
25:DA:271(E):U:H2'	25:DA:271(F):C:C6	2.17	0.79
25:BA:1779:U:C5	25:BA:1784:A:N7	2.51	0.79
45:DY:81:LYS:HD3	45:DY:97:ARG:HB3	1.65	0.79
28:DD:65:ILE:HD11	28:DD:67:PHE:CE1	2.17	0.79
13:CM:44:ARG:HB2	13:CM:47:ASP:OD1	1.83	0.79
25:DA:1667:G:H22	25:DA:1992:G:H5'	1.48	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DD:182:LEU:H	28:DD:272:ALA:HB3	1.45	0.79
12:AL:24:LEU:HD11	12:AL:61:TYR:OH	1.83	0.79
17:CQ:19:VAL:HG23	17:CQ:44:ALA:HB3	1.65	0.79
25:BA:1651:G:OP1	38:BR:40:LYS:HE2	1.81	0.79
26:DB:11:C:H3'	26:DB:12:C:H6	1.48	0.79
29:DE:154:LYS:HA	29:DE:154:LYS:HE3	1.64	0.79
53:D6:13:CYS:HA	53:D6:50:ARG:O	1.82	0.78
2:AB:80:ILE:CD1	2:AB:212:GLN:HA	2.13	0.78
13:CM:34:LEU:HD13	13:CM:41:PRO:HG3	1.65	0.78
30:BF:191:ARG:CB	30:BF:191:ARG:HH11	1.96	0.78
1:CA:1123:A:O2'	10:CJ:36:GLY:HA3	1.83	0.78
25:DA:1176:G:O2'	25:DA:1177:A:H5'	1.83	0.78
25:DA:833:U:H2'	25:DA:834:C:H6	1.48	0.78
27:DC:74:ARG:HH11	27:DC:74:ARG:HB2	1.48	0.78
38:DR:79:LEU:HA	38:DR:83:ILE:CG1	2.14	0.78
39:BS:95:HIS:CG	39:BS:96:GLY:H	2.02	0.78
9:AI:11:LYS:H	9:AI:104:ARG:NH2	1.81	0.78
32:BH:43:VAL:HG11	32:BH:52:VAL:HG22	1.65	0.78
9:CI:19:LEU:HB3	9:CI:59:PHE:CD2	2.17	0.78
7:CG:132:GLY:HA3	7:CG:135:VAL:HG23	1.65	0.78
30:BF:19:GLU:O	30:BF:20:LEU:HB2	1.82	0.78
25:BA:1396:U:H1'	25:BA:1397:U:C5	2.19	0.78
1:AA:1065:U:H4'	1:AA:1066:C:C5'	2.13	0.78
28:BD:267:SER:HA	28:BD:270:ILE:HD12	1.65	0.78
1:AA:1032:G:H2'	1:AA:1033:G:C8	2.18	0.78
13:AM:52:GLU:O	13:AM:56:LEU:HB2	1.83	0.78
30:DF:176:LEU:HG	30:DF:177:ALA:H	1.46	0.78
20:CT:92:LEU:O	20:CT:96:GLY:HA3	1.82	0.78
28:DD:35:LYS:O	28:DD:64:ILE:HG22	1.84	0.78
22:CV:24:GLU:HB2	22:CV:40:LYS:HB3	1.65	0.78
4:AD:121:VAL:O	4:AD:134:ASP:HA	1.82	0.78
46:BZ:152:SER:O	46:BZ:154:LEU:N	2.17	0.78
1:AA:423:G:H2'	1:AA:423:G:N3	1.99	0.78
1:CA:1374:A:H2'	1:CA:1375:A:H8	1.48	0.78
7:CG:15:ASP:H	7:CG:20:ASP:N	1.80	0.78
1:CA:1129:C:H41	1:CA:1135:U:H3	1.31	0.78
25:DA:271(E):U:H2'	25:DA:271(F):C:H6	1.48	0.78
19:CS:15:LEU:HD12	19:CS:31:ILE:HD11	1.65	0.78
48:B1:26:ARG:HB2	48:B1:26:ARG:CZ	2.12	0.78
41:DU:86:ALA:HB2	41:DU:116:ALA:HB2	1.65	0.78
1:AA:157:G:H2'	1:AA:158:G:H8	1.47	0.78
25:DA:265:A:H1'	25:DA:266:G:O4'	1.82	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1248:A:H2'	1:CA:1249:C:H5'	1.66	0.78
1:CA:797:C:OP1	11:CK:124:LYS:HE2	1.84	0.78
25:BA:2199:A:H5'	25:BA:2200:C:OP2	1.84	0.78
9:CI:56:LEU:HD23	9:CI:56:LEU:O	1.82	0.78
41:BU:65:ILE:HD11	41:BU:96:ALA:HB3	1.64	0.78
31:BG:68:PRO:HB2	31:BG:90:LEU:HD22	1.66	0.78
8:CH:7:ALA:HB2	8:CH:85:ARG:HG3	1.64	0.78
53:B6:10:LEU:HD12	55:B8:34:TRP:CD1	2.19	0.78
4:AD:173:TRP:CD1	4:AD:174:LEU:HG	2.19	0.78
3:CC:147:LYS:HG3	3:CC:204:LEU:O	1.83	0.78
7:AG:69:VAL:HG21	7:AG:104:LEU:CD2	2.12	0.78
1:AA:963:G:H21	10:AJ:55:LYS:CD	1.97	0.78
25:DA:2171:A:H2'	25:DA:2172:U:C6	2.19	0.78
25:BA:784:A:H5''	28:BD:227:ASN:ND2	1.99	0.78
25:BA:2317:C:C2'	25:BA:2318:G:H5'	2.12	0.78
22:CV:135:THR:HB	22:CV:151:ALA:CB	2.14	0.78
40:DT:136:GLN:HG3	40:DT:137:LYS:H	1.49	0.78
1:AA:148:G:H2'	1:AA:149:A:H8	1.48	0.78
8:CH:23:SER:HA	8:CH:63:LEU:CD2	2.13	0.78
4:AD:92:VAL:O	4:AD:96:LEU:HD22	1.84	0.78
28:BD:5:LYS:HA	28:BD:17:THR:HG22	1.63	0.78
27:DC:140:ASN:HB3	27:DC:143:ALA:HB3	1.63	0.78
49:B2:42:GLY:O	49:B2:44:LEU:N	2.16	0.78
25:BA:2068:U:N3	25:BA:2430:A:H2	1.79	0.78
25:DA:479:A:C4'	25:DA:480:A:H5'	2.08	0.78
28:DD:43:ARG:CB	28:DD:54:ARG:HB2	2.13	0.78
3:CC:43:LEU:HD11	3:CC:91:LEU:HD21	1.65	0.78
2:AB:61:LEU:HD21	2:AB:160:ASP:HB2	1.64	0.78
46:DZ:157:PRO:HG2	46:DZ:160:VAL:HG21	1.65	0.78
1:CA:1372:U:H5''	9:CI:71:SER:HB3	1.66	0.78
45:DY:28:LYS:HB2	45:DY:37:VAL:HB	1.64	0.78
3:AC:63:ASN:H	3:AC:97:LYS:NZ	1.79	0.78
13:AM:2:ALA:HB3	13:AM:9:ILE:HG23	1.64	0.78
31:BG:61:ALA:HB2	31:BG:68:PRO:HD3	1.64	0.78
1:AA:975:A:H4'	1:AA:976:G:H5''	1.66	0.78
17:AQ:91:ARG:HA	17:AQ:94:ASN:HD22	1.46	0.78
22:AV:101:ALA:O	22:AV:104:PHE:HB2	1.84	0.78
40:BT:89:VAL:HG11	40:BT:91:ARG:HE	1.47	0.78
1:AA:203:U:H1'	1:AA:216:G:C6	2.18	0.78
1:CA:862:C:O2'	1:CA:863:U:H5'	1.84	0.78
28:DD:166:GLN:HE21	28:DD:166:GLN:HA	1.49	0.78
25:DA:203:C:H3'	25:DA:204:A:H5''	1.66	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2543:G:H2'	25:BA:2544:G:C8	2.19	0.78
25:BA:1983:C:O2'	25:BA:1984:G:H5'	1.83	0.78
1:AA:818:G:O2'	1:AA:819:A:H5'	1.82	0.78
25:BA:242:G:H5''	55:B8:62:LEU:CD1	2.11	0.78
7:CG:105:VAL:HG12	7:CG:109:ASN:ND2	1.97	0.78
46:BZ:68:THR:CG2	46:BZ:89:VAL:HA	2.14	0.78
8:AH:102:ARG:N	8:AH:102:ARG:HE	1.80	0.78
36:BP:9:ASN:H	36:BP:10:PRO:CD	1.97	0.78
25:DA:191:A:H2'	25:DA:192:C:C6	2.17	0.78
36:DP:128:HIS:CD2	36:DP:148:LEU:HD12	2.18	0.78
1:CA:1165:C:H2'	1:CA:1166:G:H8	1.47	0.78
1:AA:104:G:O2'	1:AA:105:G:H5'	1.84	0.78
25:DA:2695:C:H2'	25:DA:2696:U:H6	1.49	0.78
9:AI:97:LYS:HB3	9:AI:98:PRO:HD3	1.66	0.78
26:DB:22:U:H3	26:DB:61:G:H1	1.31	0.78
38:BR:12:ARG:HG3	38:BR:12:ARG:HH11	1.48	0.78
25:BA:2245:U:H5'	25:BA:2246:G:H5'	1.66	0.78
39:BS:89:ARG:O	39:BS:92:TYR:HB3	1.83	0.78
41:BU:92:ARG:HH22	41:BU:94:ASN:HB3	1.48	0.78
31:DG:101:ILE:HD13	31:DG:102:PHE:N	1.99	0.78
31:DG:114:ILE:HB	31:DG:117:PHE:CB	2.14	0.78
1:CA:1033:G:H3'	1:CA:1034:G:H5''	1.64	0.78
25:BA:2290:G:C8	25:BA:2290:G:H5'	2.16	0.78
25:BA:780:G:H21	25:BA:783:A:H62	1.32	0.78
8:AH:84:ARG:O	8:AH:135:CYS:HB2	1.84	0.78
2:AB:178:ARG:HH11	2:AB:178:ARG:HG2	1.46	0.78
28:BD:10:THR:HG23	28:BD:13:ARG:HB3	1.65	0.78
25:BA:2839:G:H5'	38:BR:46:GLY:HA2	1.64	0.78
29:BE:119:ARG:HG2	29:BE:160:TYR:HB2	1.66	0.78
6:AF:37:VAL:HA	6:AF:65:VAL:HG12	1.65	0.78
35:BO:17:ARG:CD	35:BO:47:ILE:HD11	2.13	0.78
25:BA:159:U:C2'	25:BA:160:U:H5'	2.14	0.78
37:DQ:18:LYS:O	37:DQ:98:LYS:HD3	1.83	0.78
31:DG:134:GLY:C	31:DG:135:LEU:HD12	2.04	0.78
45:DY:28:LYS:O	45:DY:38:ILE:HB	1.84	0.78
20:AT:86:ARG:O	20:AT:90:GLN:HG3	1.83	0.78
2:AB:34:ALA:HB3	2:AB:41:ILE:HB	1.66	0.78
46:DZ:150:HIS:CB	46:DZ:169:THR:HA	2.14	0.78
39:DS:34:HIS:CE1	39:DS:54:LEU:HB2	2.18	0.78
1:AA:555:C:H2'	1:AA:556:C:C6	2.18	0.78
12:AL:52:VAL:HG13	12:AL:65:ALA:O	1.83	0.78
27:BC:69:LEU:HD12	27:BC:162:ILE:HG23	1.65	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1036:G:C2'	1:AA:1037:C:H5'	2.13	0.78
1:AA:1036:G:H5''	1:AA:1037:C:H5	1.46	0.78
55:B8:52:LYS:N	55:B8:53:PRO:CD	2.46	0.78
4:AD:101:LEU:HB2	4:AD:138:TYR:HB3	1.65	0.78
25:BA:2022:U:O2'	25:BA:2617:C:H5'	1.84	0.78
1:CA:175:C:H2'	1:CA:176:C:C6	2.19	0.78
12:AL:116:LYS:HB2	12:AL:117:TYR:HD1	1.47	0.78
25:DA:1365:A:H5''	48:D1:41:ARG:HH12	1.48	0.78
29:BE:101:ARG:NH1	29:BE:171:GLU:HB2	1.98	0.78
32:BH:20:ALA:HB1	32:BH:21:PRO:CD	2.14	0.78
1:AA:1262:C:H2'	1:AA:1263:C:C6	2.19	0.78
2:CB:9:GLU:H	2:CB:9:GLU:CD	1.87	0.78
9:CI:52:ALA:HB1	9:CI:95:LYS:HB2	1.66	0.78
25:BA:1173:G:H3'	25:BA:1174:A:H5'	1.66	0.78
25:BA:2758:A:C2'	25:BA:2759:G:H5''	2.14	0.78
15:CO:61:GLY:O	15:CO:64:ARG:HB3	1.84	0.78
25:BA:607:U:OP1	30:BF:102:PRO:HA	1.84	0.78
23:AW:3:C:H2'	23:AW:4:G:C8	2.19	0.78
42:BV:5:VAL:CG2	42:BV:35:LEU:HG	2.14	0.78
26:DB:15:A:H3'	26:DB:16:G:H5'	1.65	0.78
25:DA:1889:A:O2'	25:DA:2087:G:H5'	1.84	0.78
25:DA:1336:A:H2'	25:DA:1337:G:C8	2.19	0.78
5:CE:6:PHE:HB2	5:CE:34:VAL:HG13	1.66	0.78
1:CA:1194:U:H2'	1:CA:1195:C:H6	1.48	0.78
25:DA:1375:C:H2'	25:DA:1376:C:H6	1.49	0.78
2:CB:7:VAL:HB	2:CB:11:LEU:HD12	1.66	0.77
1:CA:1289:A:H2'	1:CA:1290:G:H5'	1.65	0.77
41:BU:90:VAL:O	41:BU:92:ARG:HD3	1.82	0.77
11:AK:85:ARG:HG2	11:AK:111:ASP:O	1.83	0.77
3:CC:6:HIS:HB2	14:CN:49:HIS:HB3	1.64	0.77
25:BA:740:U:H5'	25:BA:740:U:C6	2.18	0.77
30:DF:195:ASP:HB2	30:DF:198:ALA:CB	2.13	0.77
55:D8:32:LEU:H	55:D8:32:LEU:HD23	1.47	0.77
1:AA:1003:G:H2'	1:AA:1004:A:H4'	1.66	0.77
5:AE:127:ASN:O	5:AE:131:ILE:HG12	1.84	0.77
25:DA:1799:G:H5'	25:DA:1819:A:H61	1.47	0.77
8:CH:1:MET:HE2	8:CH:2:LEU:H	1.49	0.77
1:CA:180:U:H2'	1:CA:181:G:H5'	1.65	0.77
29:DE:132:HIS:O	29:DE:133:LYS:HG3	1.84	0.77
26:BB:65:C:C2'	26:BB:66:A:H5'	2.14	0.77
25:DA:1188:U:O2'	25:DA:1189:A:H5'	1.84	0.77
45:DY:31:LEU:HB2	45:DY:32:PRO:HA	1.65	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DD:24:ILE:HG13	28:DD:25:THR:N	1.97	0.77
2:AB:55:PHE:CD1	2:AB:221:LEU:HG	2.18	0.77
1:CA:333:G:H4'	20:CT:16:HIS:CE1	2.19	0.77
13:AM:65:LYS:HD2	13:AM:69:GLU:HG3	1.66	0.77
25:BA:2759:G:H5'	25:BA:2759:G:C8	2.19	0.77
1:AA:475:G:H2'	1:AA:476:G:H8	1.50	0.77
1:AA:664:G:H22	1:AA:741:G:H1	1.32	0.77
25:BA:279:C:OP1	25:BA:280:C:H5''	1.84	0.77
1:CA:137:C:H42	1:CA:226:G:H1	1.29	0.77
6:CF:60:PHE:C	6:CF:61:LEU:HD12	2.04	0.77
9:CI:23:ASN:HD22	9:CI:23:ASN:N	1.78	0.77
22:CV:161:VAL:CB	22:CV:165:VAL:HG21	2.12	0.77
30:BF:195:ASP:HB2	30:BF:198:ALA:HB2	1.65	0.77
12:CL:38:ARG:CG	12:CL:39:THR:H	1.92	0.77
29:BE:49:LEU:HD12	29:BE:49:LEU:H	1.48	0.77
25:DA:1685:C:H2'	25:DA:1686:C:H5''	1.64	0.77
25:DA:881:G:H2'	25:DA:882:G:H8	1.46	0.77
25:BA:1114:G:C3'	25:BA:1115:G:H5''	2.13	0.77
46:BZ:149:LEU:H	46:BZ:149:LEU:HD13	1.49	0.77
32:DH:44:VAL:HG12	32:DH:45:VAL:N	1.98	0.77
37:DQ:43:THR:HB	37:DQ:94:VAL:HG12	1.66	0.77
56:B9:14:CYS:HB3	56:B9:27:CYS:HB2	1.65	0.77
6:CF:99:ALA:O	6:CF:100:ASN:HB2	1.84	0.77
25:DA:2360:A:OP1	55:D8:49:VAL:HG12	1.85	0.77
25:DA:1529:G:H2'	25:DA:1530:C:C5	2.20	0.77
1:CA:818:G:O2'	1:CA:819:A:H5'	1.83	0.77
1:AA:77:G:H1	1:AA:92:C:N4	1.82	0.77
54:D7:21:ARG:HG2	54:D7:21:ARG:HH11	1.47	0.77
1:CA:597:G:H1'	1:CA:644:G:N2	1.99	0.77
42:DV:18:LEU:HD22	42:DV:19:LYS:N	1.99	0.77
1:CA:1352:C:H2'	1:CA:1353:G:C8	2.19	0.77
32:DH:89:ILE:HD11	32:DH:129:THR:HG22	1.67	0.77
35:DO:35:VAL:HG11	35:DO:103:ALA:HB3	1.66	0.77
32:BH:85:LYS:NZ	32:BH:133:VAL:HB	1.99	0.77
37:BQ:29:PHE:HB2	37:BQ:105:GLU:OE2	1.85	0.77
1:AA:356:A:C2'	1:AA:357:G:H5'	2.14	0.77
53:B6:8:LYS:O	53:B6:9:LEU:HB3	1.84	0.77
27:BC:164:PHE:O	27:BC:172:ILE:HD11	1.84	0.77
25:BA:1717:G:C2'	25:BA:1718:G:H5''	2.14	0.77
56:B9:11:CYS:HB3	56:B9:32:HIS:CE1	2.19	0.77
1:AA:939:G:H5''	7:AG:102:ARG:HH22	1.49	0.77
1:CA:1172:C:H2'	1:CA:1173:G:H8	1.48	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:87:ARG:HE	2:CB:233:SER:CB	1.96	0.77
31:BG:114:ILE:HB	31:BG:117:PHE:HB2	1.67	0.77
46:BZ:111:ARG:HD3	46:BZ:112:ALA:N	1.99	0.77
38:BR:78:LYS:O	38:BR:82:GLU:HB3	1.85	0.77
37:DQ:81:VAL:HG23	47:D0:7:LEU:HD22	1.66	0.77
1:CA:523:A:H61	12:CL:50:ARG:HH12	1.32	0.77
3:AC:113:ALA:HB3	3:AC:114:PRO:HD3	1.66	0.77
10:AJ:63:PHE:CB	14:AN:58:LYS:HA	2.11	0.77
46:DZ:126:LYS:HB3	46:DZ:161:GLU:HB3	1.66	0.77
42:BV:53:GLU:O	42:BV:55:ALA:N	2.17	0.77
31:DG:39:ILE:HD12	31:DG:156:ASP:O	1.83	0.77
45:BY:11:ASP:H	45:BY:28:LYS:HZ1	1.29	0.77
25:DA:242:G:H5''	55:D8:62:LEU:CD1	2.13	0.77
20:CT:23:ARG:O	20:CT:27:LYS:HB2	1.83	0.77
1:AA:1101:A:H4'	1:AA:1102:A:O5'	1.83	0.77
31:BG:97:ASP:O	31:BG:101:ILE:HG23	1.85	0.77
13:AM:13:LYS:HA	13:AM:44:ARG:NH1	1.99	0.77
25:BA:2116:G:H5''	25:BA:2117:A:N7	1.99	0.77
29:DE:33:VAL:HG21	29:DE:36:ARG:HH21	1.50	0.77
28:BD:273:ARG:CB	28:BD:273:ARG:NH1	2.45	0.77
53:B6:28:ARG:NH1	53:B6:29:ASN:H	1.80	0.77
31:BG:106:LEU:HA	31:BG:110:ALA:HB3	1.64	0.77
37:BQ:43:THR:HB	37:BQ:45:GLN:HG2	1.65	0.77
25:DA:1348:G:C2'	25:DA:1349:A:H5''	2.15	0.77
41:BU:90:VAL:HG12	41:BU:91:ASP:N	1.99	0.77
22:CV:147:GLY:HA3	22:CV:163:LEU:HD13	1.65	0.77
31:DG:39:ILE:CD1	31:DG:155:MET:HG3	2.09	0.77
28:DD:24:ILE:HD12	28:DD:25:THR:H	1.49	0.77
53:B6:19:ARG:HG3	53:B6:20:ASN:H	1.48	0.77
2:AB:217:ARG:N	2:AB:217:ARG:HD3	2.00	0.77
2:AB:139:LYS:O	2:AB:143:GLU:HG2	1.84	0.77
4:AD:22:LYS:O	4:AD:113:SER:HB3	1.85	0.77
10:CJ:63:PHE:HA	14:CN:59:ALA:CB	2.15	0.77
40:DT:28:VAL:HG22	40:DT:47:GLY:N	1.99	0.77
19:CS:15:LEU:O	19:CS:19:VAL:HB	1.84	0.77
1:AA:1208:C:H2'	1:AA:1209:C:H6	1.48	0.77
12:CL:23:ALA:HA	12:CL:95:TYR:HE2	1.50	0.77
1:CA:1492:A:H3'	1:CA:1493:A:C8	2.20	0.77
25:DA:782:A:H5'	25:DA:783:A:C2	2.20	0.77
25:DA:935:C:H2'	25:DA:936:C:H6	1.49	0.77
22:AV:43:ASN:HD22	22:AV:48:ALA:HB3	1.48	0.77
25:BA:2171:A:H4'	25:BA:2172:U:H5'	1.67	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:BT:92:GLY:C	40:BT:94:ALA:H	1.88	0.77
25:DA:1952:A:C2	35:DO:22:ILE:HG23	2.20	0.77
45:DY:8:LYS:HE3	45:DY:72:VAL:CG2	2.13	0.77
23:CW:23:C:H2'	23:CW:24:U:C6	2.20	0.77
30:DF:192:LEU:HD23	30:DF:193:VAL:N	1.98	0.77
53:D6:19:ARG:HG2	53:D6:20:ASN:H	1.46	0.77
36:BP:125:VAL:O	36:BP:145:PRO:HD2	1.84	0.77
25:DA:2533:A:H3'	25:DA:2534:A:H5''	1.65	0.77
2:AB:16:HIS:HA	2:AB:210:SER:OG	1.85	0.77
25:DA:274:G:N2	25:DA:363:G:H22	1.81	0.77
25:BA:2477:C:N4	56:B9:10:ILE:HG12	1.98	0.77
2:AB:127:ILE:HA	2:AB:130:ARG:HG3	1.66	0.77
25:DA:2838:G:H1'	38:DR:45:ARG:HH12	1.50	0.77
1:CA:1218:C:H2'	1:CA:1219:U:C5	2.20	0.77
1:AA:404:U:H2'	1:AA:405:U:H6	1.50	0.77
22:AV:79:GLU:HG2	22:AV:94:PRO:HA	1.66	0.77
1:AA:947:G:H2'	1:AA:948:C:C6	2.20	0.77
2:CB:223:ILE:HA	2:CB:226:ARG:HB2	1.67	0.77
29:DE:51:PHE:O	29:DE:74:PRO:HB2	1.84	0.77
29:DE:78:LEU:O	29:DE:79:ARG:HD2	1.84	0.77
38:DR:10:LEU:HD22	38:DR:17:ARG:NH1	2.00	0.77
53:D6:41:PRO:HD3	53:D6:46:HIS:N	1.99	0.77
2:AB:217:ARG:O	2:AB:221:LEU:HB2	1.85	0.77
1:AA:1363(A):A:H1'	1:AA:1365:G:N7	1.99	0.77
45:DY:95:LYS:HE3	45:DY:99:CYS:O	1.85	0.77
39:DS:90:GLY:C	39:DS:92:TYR:H	1.85	0.77
25:BA:1190:G:H5''	36:BP:35:HIS:HA	1.66	0.77
22:AV:147:GLY:HA2	22:AV:163:LEU:HG	1.65	0.77
5:CE:81:GLU:HG2	5:CE:90:VAL:HG12	1.64	0.77
1:CA:1014:A:H2'	1:CA:1015:A:C8	2.19	0.77
55:D8:33:ASN:N	55:D8:33:ASN:HD22	1.83	0.77
16:AP:21:VAL:HG13	16:AP:33:ILE:HB	1.66	0.77
30:BF:132:VAL:HG22	30:BF:133:ASN:H	1.50	0.77
32:DH:40:GLU:HB2	32:DH:41:MET:SD	2.24	0.77
25:BA:1509(A):A:H2'	25:BA:1509(B):A:C8	2.20	0.77
32:DH:117:PRO:HB3	32:DH:123:PHE:CE1	2.20	0.77
43:BW:28:SER:OG	43:BW:31:GLU:HB3	1.85	0.77
36:BP:47:ASP:HB3	36:BP:48:PRO:CA	2.14	0.77
37:DQ:21:THR:HG21	37:DQ:101:ARG:HB2	1.65	0.77
3:AC:34:LEU:HG	3:AC:38:ARG:NH2	2.00	0.77
30:DF:17:ARG:CB	30:DF:17:ARG:HH11	1.96	0.77
28:DD:83:GLU:HB2	28:DD:92:ILE:HD11	1.67	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:D8:39:LYS:HA	55:D8:42:ARG:NH1	2.00	0.77
25:BA:61:G:H1	25:BA:94:C:H42	1.31	0.77
34:BN:34:LEU:HD23	34:BN:107:LEU:HD11	1.67	0.77
7:CG:80:VAL:HG21	7:CG:85:TYR:CD1	2.19	0.77
25:DA:2815:C:H5'	52:D5:29:THR:HG21	1.66	0.77
25:DA:345:A:H5''	25:DA:346:A:OP1	1.85	0.77
25:DA:271(U):G:O2'	25:DA:271(V):G:H5'	1.84	0.77
36:DP:133:SER:O	36:DP:135:LEU:N	2.18	0.77
29:BE:96:PHE:O	29:BE:97:LYS:HE2	1.85	0.77
43:DW:8:ARG:HG3	43:DW:8:ARG:HH11	1.50	0.77
25:DA:478:A:H2'	25:DA:479:A:H5'	1.66	0.76
7:CG:47:CYS:HB3	7:CG:58:PRO:HG2	1.67	0.76
27:BC:156:GLU:OE1	27:BC:159:ALA:HB3	1.84	0.76
31:DG:16:ARG:HH12	31:DG:28:VAL:CG1	1.96	0.76
55:B8:19:SER:HB2	55:B8:21:LYS:HG3	1.67	0.76
9:CI:47:LEU:C	9:CI:49:PRO:HD2	2.05	0.76
36:DP:101:VAL:HB	36:DP:107:LYS:HA	1.66	0.76
1:AA:458:C:H2'	1:AA:460:G:C8	2.20	0.76
25:DA:27:G:HO2'	25:DA:28:A:H8	0.81	0.76
6:AF:9:VAL:HB	6:AF:87:ARG:HB2	1.65	0.76
23:AW:17:C:H2'	23:AW:17(B):U:C5	2.19	0.76
1:CA:353:A:H5'	1:CA:353:A:H8	1.49	0.76
1:CA:135:C:H2'	1:CA:136:C:H5'	1.67	0.76
36:BP:59:LEU:HA	36:BP:61:ARG:HH11	1.46	0.76
2:CB:97:TRP:CZ2	2:CB:102:LEU:HD13	2.20	0.76
42:BV:38:LEU:O	42:BV:39:LEU:HD13	1.85	0.76
25:BA:2784:C:H1'	29:BE:37:ARG:HH12	1.49	0.76
3:AC:54:ARG:HG2	3:AC:55:VAL:H	1.49	0.76
30:DF:3:GLU:HA	30:DF:24:LEU:CB	2.15	0.76
2:AB:189:ASP:HB3	2:AB:203:GLY:O	1.85	0.76
25:DA:286:C:H6	25:DA:286:C:H5'	1.48	0.76
45:BY:50:ARG:HD3	45:BY:53:PRO:HG2	1.67	0.76
11:AK:111:ASP:HA	18:AR:84:LYS:CG	2.15	0.76
1:CA:1186:G:H3'	1:CA:1187:G:H5''	1.67	0.76
25:DA:8:A:H2'	25:DA:9:U:C6	2.20	0.76
15:CO:23:GLY:O	15:CO:24:SER:HB3	1.85	0.76
10:CJ:34:VAL:HG22	10:CJ:74:ILE:HG22	1.66	0.76
11:AK:19:ALA:HB2	11:AK:32:ILE:HG22	1.66	0.76
33:DI:12:LEU:HD23	33:DI:12:LEU:H	1.50	0.76
22:AV:60:LEU:O	22:AV:61:GLU:HB3	1.84	0.76
52:D5:52:TYR:N	52:D5:52:TYR:CD1	2.53	0.76
1:AA:599:C:H2'	1:AA:600:C:H6	1.50	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2801(A):A:H4'	25:DA:2802:G:H5'	1.67	0.76
37:DQ:135:ASP:CG	37:DQ:136:ALA:H	1.88	0.76
42:DV:20:LEU:HB3	42:DV:21:ARG:HE	1.48	0.76
1:AA:1221:G:OP1	19:AS:36:ARG:HD3	1.84	0.76
3:AC:62:ASP:HA	3:AC:97:LYS:HE2	1.67	0.76
40:BT:51:ARG:HG3	40:BT:98:LYS:HG3	1.67	0.76
27:BC:132:LEU:HB2	27:BC:137:LEU:HB2	1.67	0.76
25:BA:2795:G:H2'	25:BA:2795:G:N3	1.98	0.76
36:BP:144:GLU:N	36:BP:145:PRO:HD3	1.99	0.76
12:CL:43:LYS:HG2	12:CL:44:LYS:N	1.99	0.76
25:DA:2162:G:O2'	25:DA:2163:C:H5'	1.85	0.76
12:AL:66:TYR:CD1	12:AL:87:VAL:HG21	2.20	0.76
25:BA:528:A:H2	25:BA:2043:C:H5'	1.49	0.76
43:DW:59:VAL:C	43:DW:60:ASN:HD22	1.87	0.76
45:BY:16:ALA:HB1	45:BY:21:LYS:HZ2	1.45	0.76
25:BA:2762:G:H2'	25:BA:2763:G:H5''	1.67	0.76
29:DE:120:TRP:CE3	29:DE:155:LYS:HE3	2.20	0.76
25:BA:1111:A:O2'	25:BA:1112:G:H4'	1.85	0.76
1:AA:96:U:H2'	1:AA:97:G:C8	2.21	0.76
25:BA:2182:G:H2'	25:BA:2183:C:C6	2.20	0.76
42:DV:98:GLU:OE1	42:DV:100:ARG:HD3	1.85	0.76
7:CG:146:GLU:HA	7:CG:149:ARG:HB2	1.68	0.76
9:CI:95:LYS:NZ	9:CI:96:LEU:HD12	2.00	0.76
25:BA:1175:U:H4'	25:BA:1176:G:H2'	1.65	0.76
29:DE:34:VAL:O	29:DE:35:GLN:HB3	1.83	0.76
25:BA:2103:C:H42	25:BA:2186:G:H1	1.33	0.76
25:BA:2369:A:O2'	25:BA:2370:G:H5'	1.85	0.76
25:DA:1108:U:H2'	25:DA:1109:C:H5'	1.66	0.76
28:DD:24:ILE:CD1	28:DD:25:THR:H	1.99	0.76
2:AB:77:ALA:HB2	2:AB:211:ILE:HD13	1.67	0.76
28:DD:28:GLU:N	28:DD:29:PRO:HD2	2.00	0.76
6:CF:74:ASP:HA	6:CF:77:ARG:HH12	1.50	0.76
18:CR:70:ILE:O	18:CR:74:ARG:HG3	1.85	0.76
25:DA:26:G:H1'	25:DA:515:A:H61	1.49	0.76
1:AA:40:C:H2'	1:AA:41:G:C8	2.20	0.76
4:CD:30:LYS:C	4:CD:32:ALA:H	1.86	0.76
50:D3:1:MET:N	50:D3:2:PRO:HD3	1.99	0.76
18:AR:46:GLU:HB3	18:AR:85:LEU:HD13	1.66	0.76
38:DR:117:VAL:O	38:DR:118:GLU:HB2	1.84	0.76
1:AA:243:A:H4'	1:AA:244:U:O5'	1.84	0.76
11:AK:29:ILE:HD13	11:AK:44:SER:HB3	1.67	0.76
38:BR:74:LYS:CE	38:BR:77:ARG:HH21	1.98	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2297:C:O2'	25:DA:2298:A:H5'	1.86	0.76
25:DA:1899:G:N2	25:DA:1902:C:N4	2.24	0.76
32:DH:126:PRO:O	32:DH:127:GLU:HB2	1.86	0.76
45:BY:48:ALA:O	45:BY:49:VAL:HG22	1.86	0.76
1:AA:1200:C:H5''	1:AA:1201:A:H3'	1.66	0.76
37:BQ:134:ARG:HA	37:BQ:137:TYR:CE1	2.20	0.76
52:B5:53:ALA:HA	52:B5:56:LYS:HZ1	1.49	0.76
25:DA:1590:U:H2'	25:DA:1591:G:C5'	2.16	0.76
1:AA:1207:G:H2'	1:AA:1208:C:C6	2.21	0.76
46:BZ:13:LYS:HE3	46:BZ:16:ALA:CB	2.14	0.76
35:DO:10:VAL:HG21	35:DO:16:ALA:O	1.85	0.76
27:BC:69:LEU:CD1	27:BC:162:ILE:HG23	2.16	0.76
55:D8:39:LYS:HA	55:D8:42:ARG:HH12	1.51	0.76
26:BB:87:G:C3'	26:BB:88:C:H5''	2.15	0.76
38:DR:84:ALA:HB3	38:DR:85:PRO:HD3	1.67	0.76
25:DA:2727:G:O3'	35:DO:70:LYS:HE2	1.84	0.76
25:DA:1276:A:H1'	38:DR:16:HIS:HE1	1.51	0.76
30:BF:164:ARG:HG3	30:BF:175:THR:OG1	1.86	0.76
22:AV:126:THR:HG22	22:AV:174:ASP:OD1	1.86	0.76
47:D0:5:LYS:HZ3	47:D0:6:GLY:H	1.34	0.76
47:B0:18:LYS:C	47:B0:19:ARG:HD2	2.05	0.76
30:BF:108:LYS:HD2	30:BF:112:MET:HE2	1.67	0.76
25:DA:2317:C:C2'	25:DA:2318:G:H5'	2.15	0.76
17:AQ:50:LYS:HE3	17:AQ:51:TYR:CE1	2.21	0.76
39:BS:95:HIS:CG	39:BS:96:GLY:N	2.53	0.76
37:DQ:24:GLY:CA	37:DQ:67:ARG:HH22	1.98	0.76
19:CS:48:THR:HG22	19:CS:61:TYR:HA	1.66	0.76
25:BA:2787:C:H1'	29:BE:61:ARG:CG	2.12	0.76
35:BO:35:VAL:HG11	35:BO:103:ALA:HB3	1.68	0.76
36:DP:6:LEU:H	36:DP:6:LEU:HD23	1.49	0.76
10:AJ:6:ILE:HD11	10:AJ:72:VAL:HB	1.65	0.76
55:D8:60:LEU:O	55:D8:61:LEU:HD13	1.86	0.76
53:D6:12:GLU:H	53:D6:12:GLU:CD	1.89	0.76
2:CB:140:HIS:HA	2:CB:143:GLU:HG3	1.68	0.76
25:DA:676:A:H2	25:DA:802:A:H61	1.34	0.76
25:BA:847:U:H2'	25:BA:848:G:C5'	2.15	0.76
31:BG:173:LEU:HA	31:BG:176:LEU:HD12	1.67	0.76
38:DR:79:LEU:HA	38:DR:83:ILE:HG13	1.66	0.76
11:AK:41:THR:HG22	11:AK:42:TRP:H	1.51	0.76
34:BN:134:ARG:N	34:BN:134:ARG:HD3	2.00	0.76
1:AA:1211:U:H5'	1:AA:1212:U:OP1	1.85	0.76
6:AF:7:ASN:HD22	6:AF:7:ASN:N	1.82	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BP:50:ARG:HG3	36:BP:51:PHE:H	1.48	0.76
1:AA:1372:U:H5''	9:AI:71:SER:HB3	1.65	0.76
42:DV:18:LEU:HD13	42:DV:19:LYS:H	1.50	0.76
22:CV:172:LYS:HB2	22:CV:181:VAL:HG22	1.66	0.76
25:DA:2415:G:O3'	36:DP:66:GLY:HA3	1.86	0.76
40:DT:32:TYR:HD2	40:DT:32:TYR:H	1.33	0.76
8:AH:63:LEU:HD23	8:AH:65:TYR:OH	1.86	0.76
30:BF:65:TRP:CZ3	30:BF:73:ALA:O	2.38	0.76
25:DA:2348:U:H2'	25:DA:2349:G:C5'	2.16	0.76
39:DS:69:VAL:O	39:DS:72:ALA:HB3	1.86	0.76
30:DF:178:PRO:HB3	30:DF:201:VAL:HG11	1.66	0.76
27:DC:37:LYS:N	27:DC:37:LYS:HD2	1.99	0.76
53:B6:28:ARG:HH11	53:B6:29:ASN:H	1.33	0.76
25:DA:2389:G:H5''	25:DA:2390:U:H5'	1.68	0.76
4:CD:39:PRO:HD2	4:CD:44:GLY:O	1.85	0.76
37:BQ:59:ARG:HB2	37:BQ:59:ARG:HH11	1.51	0.76
46:DZ:68:THR:HG22	46:DZ:89:VAL:HA	1.67	0.76
9:CI:97:LYS:HB3	9:CI:98:PRO:HD3	1.68	0.76
25:BA:2648:C:H2'	25:BA:2649:U:C6	2.20	0.76
1:AA:1116:C:O2'	1:AA:1117:G:H5''	1.86	0.76
2:CB:16:HIS:HA	2:CB:210:SER:OG	1.84	0.76
1:AA:1128:C:H5''	9:AI:16:ARG:HH22	1.50	0.76
4:AD:79:PHE:HZ	4:AD:204:ILE:HA	1.49	0.76
15:CO:7:GLU:O	15:CO:10:LYS:HG2	1.85	0.76
33:BI:51:ILE:O	33:BI:51:ILE:HD13	1.84	0.76
1:CA:1035:A:H2'	1:CA:1036:G:O4'	1.86	0.76
1:CA:189(A):C:H2'	1:CA:189(B):C:H6	1.47	0.76
25:BA:875:G:H2'	25:BA:876:C:H6	1.49	0.76
22:AV:114:MET:SD	22:AV:119:PRO:HG3	2.24	0.76
25:BA:2729:G:H1'	29:BE:187:ALA:HB2	1.67	0.76
8:CH:91:ARG:HG2	8:CH:91:ARG:HH11	1.49	0.76
19:AS:18:LYS:HD3	19:AS:18:LYS:O	1.85	0.76
35:BO:53:LYS:N	35:BO:53:LYS:HD2	2.01	0.76
25:BA:1494:A:N3	25:BA:1494:A:H2'	2.00	0.76
25:BA:541:C:H2'	25:BA:542:C:C6	2.21	0.76
1:CA:1305:G:H5'	21:CU:4:GLY:HA3	1.66	0.76
13:CM:15:VAL:HG23	13:CM:16:ASP:H	1.51	0.76
25:DA:2791:C:H1'	25:DA:2792:G:N7	2.01	0.76
31:DG:86:MET:HB3	31:DG:87:PRO:HD3	1.68	0.76
25:DA:1590:U:H2'	25:DA:1591:G:H5''	1.66	0.76
25:DA:2169:A:C1'	27:DC:130:ARG:HH22	1.98	0.76
1:AA:1007:C:H2'	1:AA:1008:C:H6	1.51	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1318:C:C3'	25:DA:1319:G:H5''	2.15	0.76
1:AA:110:C:H2'	1:AA:111:G:O4'	1.86	0.76
20:CT:33:ILE:HG23	20:CT:63:ILE:HG12	1.67	0.76
25:DA:1824:G:O2'	25:DA:1825:A:H5'	1.85	0.76
25:BA:212:G:O2'	25:BA:213:A:H5'	1.86	0.76
25:BA:2528:U:H5''	56:B9:31:LYS:HE2	1.67	0.76
42:DV:49:THR:HB	42:DV:50:PRO:CD	2.16	0.76
1:CA:1142:G:H2'	1:CA:1143:G:H8	1.51	0.76
30:BF:3:GLU:CB	30:BF:19:GLU:HB2	2.16	0.76
30:BF:20:LEU:HB3	30:BF:23:ASP:OD2	1.86	0.76
1:CA:323:U:O3'	20:CT:22:ARG:HD3	1.86	0.76
1:AA:270:A:H2'	1:AA:271:C:C6	2.21	0.76
16:CP:74:LEU:O	16:CP:79:VAL:HG23	1.87	0.76
1:AA:1338:G:O2'	1:AA:1339:A:H5'	1.86	0.76
10:CJ:26:ALA:HA	10:CJ:29:ARG:HH21	1.50	0.76
25:BA:1503:U:H2'	25:BA:1504:C:C6	2.21	0.76
4:CD:13:ARG:HD2	4:CD:38:TYR:O	1.85	0.76
1:AA:59:A:H5'	1:AA:60:A:C5'	2.16	0.76
25:BA:445:C:O2'	25:BA:446:G:H5'	1.86	0.76
14:AN:8:GLU:HB3	14:AN:12:ARG:HH11	1.50	0.76
7:AG:18:TYR:CD2	7:AG:59:LEU:HD12	2.21	0.76
23:CW:47:U:H3'	23:CW:48:C:C5'	2.16	0.76
40:BT:41:ARG:O	40:BT:42:ILE:HD12	1.86	0.75
10:AJ:24:VAL:O	10:AJ:28:ARG:HG3	1.85	0.75
25:DA:1041:C:N4	25:DA:1115:G:H1	1.84	0.75
53:D6:19:ARG:CG	53:D6:20:ASN:H	1.99	0.75
28:BD:24:ILE:HG13	28:BD:83:GLU:HA	1.68	0.75
32:DH:159:GLU:HG3	32:DH:160:LYS:N	2.00	0.75
40:BT:28:VAL:HG13	40:BT:46:GLU:HA	1.67	0.75
3:CC:20:SER:CB	3:CC:40:ARG:HH22	1.99	0.75
34:DN:104:LYS:HB2	34:DN:117:PHE:CE1	2.21	0.75
8:AH:16:ALA:O	8:AH:19:VAL:HG22	1.85	0.75
25:DA:271(K):U:H2'	33:DI:50:ARG:NH2	2.01	0.75
1:CA:736:C:H2'	1:CA:737:A:C8	2.21	0.75
25:BA:1590:U:H2'	25:BA:1591:G:C5'	2.16	0.75
28:DD:108:PRO:HB3	28:DD:143:HIS:CE1	2.20	0.75
6:AF:19:LEU:HD21	6:AF:59:TYR:CE2	2.21	0.75
1:CA:821:G:H2'	1:CA:822:C:H6	1.51	0.75
44:DX:32:PRO:HA	44:DX:77:LYS:HB2	1.68	0.75
25:DA:2758:A:H3'	25:DA:2759:G:H5''	1.67	0.75
1:AA:538:G:OP2	12:AL:112:LYS:HB2	1.87	0.75
17:AQ:27:PHE:CZ	17:AQ:36:ILE:HD11	2.21	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:BX:3:THR:O	44:BX:4:ALA:HB2	1.84	0.75
54:B7:24:THR:HG23	54:B7:27:GLY:H	1.49	0.75
36:BP:47:ASP:HB3	36:BP:48:PRO:HA	1.66	0.75
1:CA:1118:C:OP1	9:CI:9:ARG:HD3	1.87	0.75
25:DA:608:A:H2'	25:DA:609:A:C8	2.21	0.75
2:AB:30:ARG:HH21	2:AB:194:PRO:CG	1.99	0.75
13:AM:49:THR:HG22	13:AM:51:ALA:H	1.51	0.75
30:BF:67:GLN:CG	30:BF:67:GLN:O	2.34	0.75
1:AA:473:G:H2'	1:AA:474:G:C8	2.17	0.75
2:AB:9:GLU:HA	2:AB:12:GLU:OE1	1.86	0.75
12:CL:22:PRO:O	12:CL:24:LEU:N	2.14	0.75
32:DH:117:PRO:HB3	32:DH:123:PHE:CD1	2.21	0.75
29:BE:167:VAL:HG11	29:BE:187:ALA:O	1.85	0.75
33:BI:117:GLU:CG	33:BI:118:LYS:H	1.92	0.75
2:CB:155:LEU:HD13	2:CB:157:ARG:H	1.50	0.75
2:AB:18:GLY:N	2:AB:42:ILE:HG22	1.96	0.75
7:CG:26:PHE:O	7:CG:30:ILE:HG12	1.86	0.75
25:DA:2787:C:H1'	29:DE:61:ARG:HG2	1.68	0.75
30:DF:8:GLN:HB3	30:DF:126:VAL:HA	1.68	0.75
1:AA:1190:G:OP1	3:AC:5:ILE:HG13	1.85	0.75
32:DH:85:LYS:HD2	32:DH:141:VAL:CG1	2.16	0.75
25:DA:2880:C:H1'	38:DR:92:GLY:O	1.87	0.75
5:CE:51:VAL:O	5:CE:55:VAL:HG23	1.87	0.75
42:BV:5:VAL:HG21	42:BV:35:LEU:HG	1.67	0.75
26:DB:15:A:H1'	26:DB:110:G:C8	2.21	0.75
4:CD:157:LEU:HB3	4:CD:161:ASN:ND2	2.01	0.75
22:AV:13:VAL:HG21	22:AV:60:LEU:HB3	1.68	0.75
25:DA:1952:A:C6	35:DO:22:ILE:HD12	2.21	0.75
25:BA:2850:A:OP2	25:BA:2866:U:H5	1.68	0.75
3:AC:48:TYR:HA	3:AC:52:LEU:HD22	1.67	0.75
11:AK:24:SER:O	11:AK:88:GLY:HA2	1.86	0.75
52:B5:13:LYS:H	52:B5:13:LYS:HD2	1.51	0.75
29:BE:55:ASN:O	29:BE:57:LYS:N	2.17	0.75
39:DS:74:ALA:O	39:DS:78:LEU:HD12	1.85	0.75
39:BS:92:TYR:O	39:BS:94:TYR:N	2.19	0.75
50:D3:29:ARG:NH1	50:D3:29:ARG:HB2	2.02	0.75
7:CG:75:VAL:HG12	7:CG:88:PRO:HB3	1.66	0.75
25:DA:280:C:H42	25:DA:360:G:H1	1.34	0.75
30:DF:28:ILE:HG21	30:DF:116:ASP:HB2	1.68	0.75
10:AJ:28:ARG:NH1	10:AJ:34:VAL:H	1.84	0.75
25:DA:850:C:O2'	25:DA:851:U:H5'	1.86	0.75
1:AA:235:C:H2'	1:AA:236:G:H8	1.50	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:DE:110:GLY:O	38:DR:2:ARG:NE	2.17	0.75
25:DA:2803:C:OP1	25:DA:2803:C:H4'	1.84	0.75
25:DA:71:A:H5'	25:DA:71:A:H8	1.50	0.75
1:AA:972:C:O3'	10:AJ:57:LYS:HG3	1.85	0.75
30:BF:9:ILE:HA	30:BF:13:SER:O	1.87	0.75
8:AH:88:LYS:HB3	8:AH:89:PRO:HD2	1.68	0.75
11:AK:69:ALA:HB1	11:AK:103:LEU:HD21	1.66	0.75
4:CD:162:LEU:HD12	4:CD:181:MET:CE	2.17	0.75
22:AV:40:LYS:HG3	22:AV:51:GLU:HB2	1.69	0.75
4:AD:96:LEU:HB3	4:AD:139:ARG:NH1	2.02	0.75
2:AB:178:ARG:HH21	8:AH:68:ARG:NH2	1.85	0.75
35:BO:17:ARG:HD3	35:BO:47:ILE:HD11	1.69	0.75
25:DA:1210:A:H4'	25:DA:1211:U:O5'	1.86	0.75
41:DU:59:ARG:O	41:DU:63:VAL:HG23	1.87	0.75
25:DA:1639:U:C2'	25:DA:1640:C:H5''	2.15	0.75
25:BA:2102:U:H2'	25:BA:2103:C:O4'	1.87	0.75
25:BA:2168:G:N2	25:BA:2170:A:H3'	2.02	0.75
45:BY:87:LYS:O	45:BY:88:LYS:HB2	1.85	0.75
2:AB:16:HIS:HD2	2:AB:210:SER:HA	1.50	0.75
2:AB:122:PHE:HB2	2:AB:139:LYS:HZ1	1.48	0.75
10:AJ:16:LEU:O	10:AJ:20:ALA:HB2	1.87	0.75
22:CV:71:GLN:NE2	22:CV:72:TYR:H	1.84	0.75
1:AA:556:C:O2'	1:AA:557:G:H5'	1.86	0.75
1:AA:386:C:O2'	1:AA:387:U:H5'	1.86	0.75
1:AA:407:G:O2'	4:AD:116:GLN:HG3	1.87	0.75
25:BA:1394:U:C2'	25:BA:1395:A:H5''	2.17	0.75
18:CR:56:THR:OG1	18:CR:58:LEU:HD13	1.86	0.75
45:DY:86:ARG:HG2	45:DY:88:LYS:H	1.51	0.75
1:AA:1277:C:C2'	1:AA:1278:U:H5'	2.17	0.75
8:CH:39:LEU:HD13	8:CH:44:PHE:HB2	1.68	0.75
15:AO:4:THR:HB	15:AO:6:GLU:OE2	1.87	0.75
49:B2:17:SER:H	49:B2:67:LYS:HZ2	1.31	0.75
25:BA:251:A:H5'	36:BP:51:PHE:CZ	2.21	0.75
19:AS:10:PHE:HZ	19:AS:70:LYS:HD2	1.49	0.75
38:DR:8:ARG:O	38:DR:10:LEU:HG	1.87	0.75
16:AP:53:VAL:O	16:AP:57:ARG:HG2	1.87	0.75
1:AA:1030(A):G:H1'	1:AA:1031:G:H1	1.51	0.75
4:AD:33:MET:HE3	4:AD:37:PRO:HA	1.66	0.75
8:AH:6:ILE:H	8:AH:6:ILE:HD12	1.52	0.75
1:CA:734:G:N2	18:CR:75:ILE:HD11	2.01	0.75
25:DA:2123:G:H2'	25:DA:2124:G:C8	2.22	0.75
55:D8:33:ASN:HA	55:D8:36:LYS:HD2	1.68	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DP:80:TYR:CE1	36:DP:111:ARG:HD3	2.22	0.75
1:CA:821:G:H2'	1:CA:822:C:C6	2.22	0.75
38:DR:51:LEU:HD13	38:DR:70:LEU:HD21	1.66	0.75
34:BN:34:LEU:O	34:BN:49:GLY:HA3	1.84	0.75
25:BA:1434:A:H61	25:BA:1558:A:H62	1.31	0.75
38:DR:74:LYS:HE2	38:DR:77:ARG:HH21	1.52	0.75
25:DA:2801:A:H5'	25:DA:2802:G:N7	2.01	0.75
14:AN:8:GLU:HB3	14:AN:12:ARG:NH1	2.01	0.75
49:B2:17:SER:H	49:B2:67:LYS:NZ	1.84	0.75
4:CD:112:VAL:HG12	4:CD:116:GLN:OE1	1.86	0.75
25:DA:2828:C:O2'	25:DA:2829:C:H5'	1.87	0.75
49:B2:2:LYS:HD2	49:B2:5:GLU:OE1	1.87	0.75
37:DQ:82:ARG:NH2	47:D0:4:LYS:HD3	2.02	0.75
25:BA:1032:A:OP1	56:B9:8:LYS:HE3	1.85	0.75
25:BA:1931:U:H6	25:BA:1931:U:H5'	1.50	0.75
1:AA:1117:G:H4'	9:AI:104:ARG:NH1	2.02	0.75
25:DA:2107:C:H3'	25:DA:2108:C:H5''	1.68	0.75
44:DX:55:ASN:HB2	44:DX:80:ILE:HD12	1.69	0.75
36:DP:16:ARG:CD	36:DP:18:ARG:H	2.00	0.75
22:CV:84:ASP:HB2	22:CV:89:GLU:HG2	1.68	0.75
31:BG:161:THR:HG22	31:BG:163:ALA:N	2.02	0.75
42:BV:18:LEU:HD13	42:BV:19:LYS:N	2.00	0.75
25:BA:1314:C:C6	25:BA:1314:C:H5'	2.20	0.75
33:DI:127:VAL:HA	33:DI:139:GLN:CA	2.16	0.75
10:CJ:34:VAL:HG12	10:CJ:72:VAL:HG12	1.66	0.75
25:DA:2472:G:C5'	25:DA:2473:U:H5''	2.17	0.75
55:D8:51:ALA:N	55:D8:53:PRO:HD2	2.01	0.75
25:DA:628:G:H2'	25:DA:629:G:H8	1.50	0.75
11:CK:32:ILE:CD1	11:CK:72:ALA:HB2	2.17	0.75
25:BA:1161:C:H1'	42:BV:8:GLY:O	1.87	0.75
33:BI:81:VAL:HG11	33:BI:88:ILE:HD12	1.68	0.75
25:DA:997:G:OP1	41:DU:93:LYS:HD3	1.87	0.75
42:DV:29:PRO:O	42:DV:31:ALA:N	2.19	0.75
25:BA:1902:C:O2'	28:BD:244:ARG:HB2	1.85	0.75
30:DF:124:LEU:HD11	30:DF:126:VAL:HG12	1.69	0.75
2:AB:21:ARG:HB3	2:AB:39:ILE:CA	2.14	0.75
25:DA:275:G:H3'	25:DA:276:A:H5''	1.68	0.75
40:DT:31:SER:HB2	40:DT:32:TYR:CD2	2.21	0.75
22:CV:11:THR:HG22	22:CV:12:LYS:H	1.51	0.75
38:DR:72:ASP:O	38:DR:76:VAL:HG23	1.85	0.75
20:AT:26:ASN:HB2	20:AT:71:THR:HG23	1.69	0.75
25:DA:2330:G:H1'	47:D0:41:ARG:CB	2.17	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:AR:40:LEU:HB3	18:AR:79:LEU:HD11	1.68	0.75
1:AA:560:U:H5'	1:AA:566:G:N2	2.01	0.75
26:DB:11:C:H3'	26:DB:12:C:C6	2.21	0.75
1:CA:1165:C:H2'	1:CA:1166:G:C8	2.22	0.75
1:CA:131:C:H2'	1:CA:132:C:H6	1.52	0.75
31:BG:124:SER:HB2	31:BG:131:TYR:CE1	2.22	0.75
25:BA:159:U:O2'	25:BA:160:U:H5'	1.86	0.75
41:BU:92:ARG:CZ	41:BU:92:ARG:HB2	2.17	0.75
31:DG:39:ILE:HG23	31:DG:92:VAL:CG1	2.16	0.75
1:AA:184:G:C4'	1:AA:224:C:H4'	2.16	0.75
2:AB:114:ARG:HA	2:AB:117:GLU:OE1	1.86	0.75
49:D2:10:LEU:HD21	49:D2:59:ARG:CD	2.17	0.75
30:BF:89:VAL:HG12	30:BF:90:PHE:N	2.02	0.75
1:AA:10:A:H2'	1:AA:11:G:C8	2.21	0.75
30:BF:132:VAL:HG13	30:BF:133:ASN:N	2.02	0.75
48:B1:11:ARG:HB3	48:B1:11:ARG:NH1	2.00	0.75
25:BA:1885:A:H8	25:BA:1885:A:H5'	1.52	0.75
49:B2:2:LYS:HA	49:B2:5:GLU:OE1	1.87	0.75
8:AH:23:SER:HB2	8:AH:61:VAL:O	1.86	0.75
37:DQ:140:ALA:CB	46:DZ:52:ILE:HD13	2.15	0.74
25:DA:1142:U:H5''	25:DA:1142(A):A:C8	2.22	0.74
7:CG:147:ALA:C	7:CG:148:ASN:HD22	1.90	0.74
25:DA:851:U:H3	25:DA:926:A:H61	1.34	0.74
45:BY:87:LYS:HG3	45:BY:88:LYS:N	2.01	0.74
2:AB:54:THR:HG21	2:AB:201:ILE:HD11	1.69	0.74
1:CA:1112:C:O2	3:CC:179:ARG:HG2	1.86	0.74
36:BP:24:GLY:HA2	36:BP:33:ARG:NH1	2.02	0.74
3:CC:132:ARG:HH22	4:CD:47:ARG:NH2	1.85	0.74
1:CA:1161:C:H2'	1:CA:1162:C:C6	2.21	0.74
2:AB:172:ILE:HD12	2:AB:172:ILE:H	1.51	0.74
25:DA:1530:C:H2'	25:DA:1531:C:C6	2.22	0.74
25:DA:2060:A:H3'	30:DF:68:LYS:NZ	2.02	0.74
3:AC:20:SER:HB2	3:AC:40:ARG:NH2	2.02	0.74
45:BY:28:LYS:HZ2	45:BY:28:LYS:H	1.35	0.74
25:DA:924:C:H2'	25:DA:925:C:H6	1.51	0.74
25:DA:242:G:C5'	55:D8:62:LEU:HD13	2.15	0.74
8:CH:7:ALA:CB	8:CH:85:ARG:HG3	2.16	0.74
28:BD:25:THR:HB	28:BD:26:LYS:HD3	1.68	0.74
13:AM:74:VAL:O	13:AM:78:ILE:HG13	1.87	0.74
1:AA:531:U:H4'	1:AA:532:A:H4'	1.66	0.74
25:DA:1887:C:H3'	25:DA:1888:G:H5''	1.67	0.74
7:AG:74:GLU:HG2	7:AG:91:VAL:HG22	1.68	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DQ:58:PHE:HZ	37:DQ:106:VAL:HG11	1.51	0.74
27:BC:130:ARG:HB3	27:BC:130:ARG:HH11	1.52	0.74
1:AA:992:U:H1'	1:AA:993:G:C2	2.22	0.74
25:BA:154:G:H1	25:BA:172:C:H42	1.34	0.74
46:DZ:135:PHE:CE1	46:DZ:137:GLU:HG2	2.22	0.74
50:D3:4:LEU:HD23	50:D3:5:LYS:H	1.52	0.74
42:DV:31:ALA:O	42:DV:60:GLU:HG3	1.86	0.74
25:BA:1106:G:N2	25:BA:1107:G:O6	2.19	0.74
25:DA:159:U:H2'	25:DA:159:U:O2	1.86	0.74
25:DA:286:C:H2'	25:DA:287:C:C5'	2.16	0.74
29:BE:48:GLN:O	29:BE:48:GLN:HG2	1.85	0.74
1:CA:1298:C:H2'	7:CG:114:ARG:HH11	1.50	0.74
25:DA:1484:G:C3'	25:DA:1485:G:H5''	2.15	0.74
33:BI:7:GLU:OE2	33:BI:8:PRO:HD2	1.87	0.74
1:CA:742:G:H5''	15:CO:58:MET:CE	2.16	0.74
6:CF:38:GLU:O	6:CF:39:LYS:HB2	1.86	0.74
46:DZ:130:ARG:H	46:DZ:130:ARG:HD3	1.49	0.74
35:BO:25:LEU:HD12	35:BO:38:VAL:HG12	1.70	0.74
1:AA:571:U:O5'	1:AA:571:U:H6	1.70	0.74
46:DZ:156:LEU:HB3	46:DZ:160:VAL:O	1.87	0.74
9:CI:9:ARG:HA	9:CI:13:ALA:O	1.88	0.74
25:DA:2312:U:H2'	25:DA:2313:C:C5'	2.04	0.74
13:AM:3:ARG:HG2	13:AM:9:ILE:CD1	2.15	0.74
32:DH:159:GLU:HG3	32:DH:160:LYS:CG	2.16	0.74
1:AA:1181:G:H2'	1:AA:1182:G:O4'	1.88	0.74
8:AH:63:LEU:HB3	8:AH:65:TYR:CE1	2.22	0.74
2:CB:140:HIS:O	2:CB:143:GLU:HB2	1.88	0.74
10:AJ:50:ILE:H	10:AJ:50:ILE:HD13	1.51	0.74
38:DR:67:LEU:HD21	38:DR:73:VAL:HG22	1.70	0.74
1:CA:738:C:H2'	1:CA:739:C:H6	1.52	0.74
25:BA:2833:G:H3'	25:BA:2834:G:H5'	1.68	0.74
6:AF:24:GLU:HG3	6:AF:25:ILE:H	1.48	0.74
7:AG:113:GLU:HG3	7:AG:119:ARG:HG2	1.67	0.74
55:D8:50:LEU:HD12	55:D8:51:ALA:H	1.51	0.74
12:AL:61:TYR:H	12:AL:61:TYR:HD1	1.35	0.74
32:DH:38:SER:O	32:DH:40:GLU:N	2.18	0.74
19:AS:29:ARG:HH11	19:AS:30:LEU:HB2	1.51	0.74
23:AW:23:C:H2'	23:AW:24:U:C6	2.23	0.74
27:BC:42:VAL:HG21	27:BC:186:LEU:HD13	1.69	0.74
25:BA:1488:G:H5'	25:BA:1489:U:OP2	1.87	0.74
25:BA:1497:U:C5'	25:BA:1498:C:H5	2.00	0.74
36:BP:58:THR:O	36:BP:61:ARG:NE	2.21	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BI:91:SER:HB2	33:BI:119:PRO:HB2	1.68	0.74
34:DN:42:TRP:H	34:DN:48:MET:HE1	1.52	0.74
25:DA:1348:G:H2'	25:DA:1349:A:H5''	1.68	0.74
25:BA:1491:G:H5'	28:BD:99:ASP:OD1	1.87	0.74
25:BA:2786:U:H2'	25:BA:2787:C:H6	1.52	0.74
4:AD:110:PHE:CE2	4:AD:148:VAL:HG23	2.22	0.74
4:AD:175:SER:OG	4:AD:186:LEU:HD21	1.87	0.74
1:AA:411:A:H62	1:AA:413:G:H21	1.36	0.74
4:AD:62:GLN:HE22	4:AD:65:ARG:NE	1.80	0.74
10:CJ:40:LEU:HG	10:CJ:69:ASN:HB3	1.69	0.74
2:AB:91:PRO:HG3	2:AB:154:LEU:HB2	1.70	0.74
41:BU:74:LEU:HD12	41:BU:74:LEU:N	1.99	0.74
1:AA:1437:C:H2'	1:AA:1438:G:C8	2.22	0.74
14:CN:12:ARG:HD3	14:CN:12:ARG:H	1.52	0.74
29:DE:134:ILE:H	29:DE:134:ILE:HD13	1.51	0.74
25:DA:1531:C:H6	25:DA:1531:C:O5'	1.70	0.74
47:B0:19:ARG:N	47:B0:19:ARG:HD2	2.02	0.74
40:BT:34:VAL:HG13	40:BT:39:ARG:HA	1.69	0.74
15:AO:23:GLY:O	15:AO:24:SER:HB3	1.86	0.74
33:BI:94:ALA:HB1	33:BI:111:PRO:CB	2.14	0.74
2:CB:15:VAL:HG21	2:CB:209:ARG:HE	1.51	0.74
42:DV:19:LYS:CE	42:DV:20:LEU:H	2.00	0.74
9:CI:81:ILE:O	9:CI:85:LEU:HG	1.87	0.74
31:DG:139:LEU:CD2	31:DG:139:LEU:H	1.99	0.74
45:DY:8:LYS:HZ1	45:DY:73:ARG:C	1.89	0.74
22:CV:8:ARG:NE	23:CW:4:G:H5''	2.01	0.74
22:CV:72:TYR:OH	22:CV:75:PRO:HG3	1.88	0.74
1:AA:838:G:C2'	1:AA:839:U:H5''	2.17	0.74
36:DP:146:VAL:HG13	36:DP:147:LEU:N	2.02	0.74
25:BA:277:C:H2'	25:BA:277:C:O2	1.86	0.74
6:CF:21:LEU:O	6:CF:24:GLU:HG2	1.87	0.74
12:AL:43:LYS:HG2	12:AL:44:LYS:N	2.02	0.74
1:AA:601:C:H2'	1:AA:602:A:C8	2.23	0.74
1:AA:59:A:H5'	1:AA:60:A:H5''	1.70	0.74
25:BA:807:U:OP2	36:BP:39:LYS:HG3	1.88	0.74
7:CG:49:ILE:HG22	7:CG:53:LYS:HG3	1.68	0.74
25:BA:2202:C:H1'	28:BD:151:LYS:NZ	2.03	0.74
48:B1:24:ALA:HB3	48:B1:27:GLU:HG3	1.69	0.74
25:BA:106:C:H2'	25:BA:107:C:H6	1.51	0.74
22:CV:132:VAL:HG12	22:CV:169:GLU:O	1.88	0.74
11:CK:29:ILE:HD12	11:CK:43:SER:O	1.87	0.74
25:BA:686:G:H5''	54:B7:11:LYS:HE2	1.69	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:51:ARG:HG2	10:AJ:61:GLU:H	1.52	0.74
25:DA:2267:A:H2'	25:DA:2267:A:N3	2.00	0.74
44:DX:27:THR:HA	44:DX:80:ILE:HA	1.70	0.74
25:DA:608:A:OP1	30:DF:100:THR:HG21	1.88	0.74
36:BP:7:ARG:O	36:BP:7:ARG:HD3	1.86	0.74
1:AA:522:C:H41	12:AL:50:ARG:NH2	1.85	0.74
18:AR:82:THR:HG22	18:AR:83:GLU:N	2.01	0.74
25:DA:176:G:O2'	25:DA:177:G:H5'	1.88	0.74
25:DA:1278:A:O2'	25:DA:1279:G:H5'	1.87	0.74
25:DA:1281:G:H5'	25:DA:1281:G:H8	1.53	0.74
25:BA:2127:G:H4'	27:BC:38:PHE:HD2	1.51	0.74
36:DP:90:ARG:HD2	36:DP:91:PHE:CD1	2.23	0.74
32:BH:30:LYS:NZ	32:BH:81:GLU:HG2	2.02	0.74
42:BV:34:GLU:O	42:BV:36:PRO:HD3	1.87	0.74
1:AA:997:U:H2'	1:AA:998:G:H5'	1.68	0.74
19:CS:6:LYS:HE3	19:CS:6:LYS:H	1.53	0.74
26:BB:48:A:H4'	39:BS:95:HIS:CD2	2.22	0.74
41:DU:29:SER:OG	41:DU:30:LYS:HE2	1.88	0.74
42:DV:19:LYS:HZ3	42:DV:20:LEU:CB	2.00	0.74
25:DA:2110:G:H5''	25:DA:2118:U:N3	2.02	0.74
30:DF:34:TRP:CZ2	36:DP:12:ALA:HB2	2.23	0.74
53:D6:39:TYR:C	53:D6:46:HIS:HB2	2.08	0.74
10:CJ:63:PHE:HB2	14:CN:57:ARG:O	1.87	0.74
25:DA:2469:A:N6	25:DA:2481:G:H1'	2.03	0.74
25:BA:549:G:C2'	25:BA:551:G:H5''	2.18	0.74
25:BA:2763:G:C8	25:BA:2763:G:H5'	2.22	0.74
31:BG:126:ASP:O	31:BG:128:ARG:NE	2.17	0.74
1:CA:1071:C:H2'	1:CA:1072:G:C8	2.22	0.74
23:CW:62:C:H2'	23:CW:63:G:H8	1.50	0.74
25:DA:843:G:O2'	25:DA:844:C:H5'	1.88	0.74
13:AM:27:LYS:HE3	13:AM:31:LYS:HE3	1.70	0.74
25:BA:752:A:O2'	25:BA:753:C:OP2	2.06	0.74
5:AE:45:PHE:HE1	5:AE:47:LYS:HE3	1.52	0.74
31:DG:10:LYS:O	31:DG:15:VAL:HG23	1.88	0.74
25:BA:197:A:H5'	25:BA:197:A:H8	1.52	0.74
2:CB:183:PRO:HA	2:CB:198:ASP:OD1	1.88	0.74
19:AS:36:ARG:HB2	19:AS:72:GLY:CA	2.18	0.74
36:DP:16:ARG:C	36:DP:16:ARG:HH11	1.90	0.74
25:BA:1800:C:OP1	28:BD:266:SER:HB2	1.88	0.74
1:AA:271:C:H2'	1:AA:272:C:H6	1.51	0.74
13:AM:66:LEU:HD12	13:AM:66:LEU:N	2.01	0.74
25:BA:2415:G:O3'	36:BP:66:GLY:HA3	1.88	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DT:32:TYR:N	40:DT:32:TYR:CD2	2.56	0.74
1:CA:973:G:H3'	1:CA:974:A:H5''	1.68	0.74
7:AG:100:ALA:O	7:AG:104:LEU:HD23	1.86	0.74
25:BA:2492:U:H2'	25:BA:2493:U:C6	2.22	0.74
53:B6:9:LEU:C	53:B6:9:LEU:HD23	2.07	0.74
20:AT:72:LEU:HD23	20:AT:73:HIS:H	1.52	0.74
25:BA:1459:G:N3	25:BA:1459:G:H2'	2.02	0.74
30:DF:54:ARG:HD3	30:DF:54:ARG:O	1.88	0.74
25:DA:1614:A:H62	43:DW:93:ALA:HB2	1.52	0.74
48:B1:13:ILE:HD12	48:B1:13:ILE:O	1.88	0.74
1:CA:723:U:O2	1:CA:723:U:H2'	1.87	0.74
46:DZ:164:VAL:HG12	46:DZ:165:SER:N	2.01	0.74
50:D3:8:LEU:O	50:D3:31:LEU:HD23	1.87	0.74
50:D3:10:LYS:HB3	50:D3:53:LEU:HA	1.70	0.74
35:BO:71:ARG:HH11	35:BO:71:ARG:HG3	1.53	0.74
33:BI:26:ALA:O	33:BI:31:LEU:HB2	1.87	0.74
1:AA:375:U:H4'	16:AP:17:TYR:CE2	2.23	0.74
25:DA:64:A:H5'	25:DA:64:A:C8	2.22	0.74
28:DD:10:THR:HG23	28:DD:13:ARG:HB2	1.67	0.74
16:AP:20:VAL:HG21	16:AP:32:TYR:CG	2.23	0.74
56:B9:13:LYS:HD3	56:B9:28:GLU:OE2	1.88	0.74
25:BA:2883:A:C5'	25:BA:2884:U:H5'	2.18	0.74
1:AA:947:G:H2'	1:AA:948:C:H6	1.52	0.74
37:DQ:64:ILE:HG23	37:DQ:106:VAL:HG13	1.69	0.74
32:DH:103:LEU:H	32:DH:103:LEU:HD23	1.53	0.74
25:DA:649:G:H2'	25:DA:650:C:C6	2.23	0.74
1:CA:1411:C:H2'	1:CA:1412:C:C6	2.22	0.74
42:DV:34:GLU:O	42:DV:36:PRO:HD3	1.86	0.73
42:DV:39:LEU:O	42:DV:40:LEU:HB2	1.86	0.73
31:DG:115:ARG:NH1	31:DG:136:ARG:HD3	1.98	0.73
31:DG:139:LEU:HA	31:DG:144:ILE:HG21	1.68	0.73
30:DF:118:ALA:HA	30:DF:123:LEU:HB3	1.70	0.73
36:BP:16:ARG:HD3	36:BP:18:ARG:N	1.99	0.73
50:D3:13:ILE:H	50:D3:13:ILE:CD1	2.00	0.73
5:AE:11:ILE:HD12	5:AE:31:LEU:CD1	2.17	0.73
30:BF:65:TRP:HZ3	30:BF:73:ALA:O	1.70	0.73
22:AV:132:VAL:HG12	22:AV:169:GLU:O	1.88	0.73
1:CA:79:G:N2	1:CA:91:C:H41	1.86	0.73
25:BA:1751:C:O2'	25:BA:1752:C:H5'	1.87	0.73
12:AL:116:LYS:HB2	12:AL:117:TYR:CD1	2.22	0.73
4:CD:24:GLU:HG3	4:CD:112:VAL:HG21	1.70	0.73
27:DC:67:HIS:NE2	27:DC:188:ASP:HB2	2.03	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:734:G:H21	18:AR:75:ILE:HD11	1.53	0.73
1:CA:167:G:O2'	1:CA:168:G:H5'	1.88	0.73
25:BA:1292:U:H2'	25:BA:1293:C:H6	1.52	0.73
1:AA:965:A:H4'	1:AA:966:G:OP1	1.87	0.73
1:CA:6:G:H4'	1:CA:298:A:H4'	1.68	0.73
30:DF:46:ARG:HH11	30:DF:46:ARG:HG2	1.52	0.73
25:DA:2050:C:H1'	29:DE:156:MET:CE	2.17	0.73
25:BA:893:C:H2'	25:BA:894:C:C6	2.23	0.73
32:BH:9:ILE:HD12	32:BH:9:ILE:N	2.03	0.73
45:BY:11:ASP:H	45:BY:28:LYS:NZ	1.86	0.73
53:D6:39:TYR:O	53:D6:46:HIS:HB2	1.88	0.73
32:DH:25:LYS:HB2	32:DH:32:GLU:OE2	1.88	0.73
10:AJ:9:ARG:HG2	10:AJ:69:ASN:OD1	1.87	0.73
1:AA:532:A:H62	3:AC:156:ARG:HH12	1.36	0.73
28:DD:112:GLN:N	28:DD:115:GLN:NE2	2.35	0.73
1:CA:513:C:H2'	1:CA:514:C:H6	1.51	0.73
25:DA:528:A:H2	25:DA:2043:C:C5'	2.01	0.73
46:BZ:105:GLY:O	46:BZ:140:VAL:HG13	1.86	0.73
6:CF:40:VAL:HG22	6:CF:41:GLU:H	1.53	0.73
22:AV:24:GLU:HB2	22:AV:40:LYS:HB2	1.70	0.73
13:CM:39:ILE:HD12	13:CM:56:LEU:CD2	2.18	0.73
26:BB:65:C:H41	26:BB:109:C:H2'	1.52	0.73
23:AW:17:C:H2'	23:AW:17(B):U:H5	1.50	0.73
27:BC:7:ARG:HE	27:BC:11:LEU:HD22	1.53	0.73
7:AG:138:LYS:HE2	7:AG:142:GLU:OE1	1.87	0.73
35:BO:107:ARG:HH21	40:BT:35:LYS:HD2	1.53	0.73
25:BA:649:G:H2'	25:BA:650:C:C6	2.23	0.73
25:DA:1741:A:H2'	25:DA:1742:G:O4'	1.88	0.73
1:AA:250:A:H4'	1:AA:251:G:O5'	1.88	0.73
2:CB:91:PRO:HA	2:CB:151:GLY:O	1.87	0.73
34:DN:25:ARG:CG	34:DN:25:ARG:HH11	2.02	0.73
34:DN:91:LEU:HD23	34:DN:98:VAL:HG21	1.70	0.73
42:DV:14:VAL:HB	42:DV:96:ILE:HG13	1.68	0.73
42:DV:21:ARG:N	42:DV:21:ARG:NE	2.36	0.73
25:DA:821:A:H2'	25:DA:946:G:H5''	1.69	0.73
44:DX:26:TYR:CD2	44:DX:92:LEU:HD12	2.22	0.73
9:CI:50:LEU:HA	9:CI:53:VAL:HG22	1.68	0.73
26:DB:41:U:O4	31:DG:71:THR:HA	1.88	0.73
25:BA:272(I):U:H4'	25:BA:272(I):U:OP1	1.86	0.73
4:AD:36:ARG:HB3	4:AD:36:ARG:HH11	1.51	0.73
1:AA:1053:G:N7	1:AA:1199:U:H2'	2.04	0.73
37:BQ:110:THR:OG1	37:BQ:112:GLU:HG2	1.88	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CF:67:MET:HB2	6:CF:68:PRO:HD2	1.69	0.73
1:AA:841:U:O2'	1:AA:848:C:H5'	1.88	0.73
1:CA:93:G:O2'	1:CA:96:U:H5'	1.89	0.73
25:BA:279:C:OP1	25:BA:279:C:H4'	1.88	0.73
53:D6:10:LEU:HG	55:D8:34:TRP:HD1	1.52	0.73
25:DA:2537:U:H2'	25:DA:2538:C:C6	2.22	0.73
1:CA:1260:C:H4'	1:CA:1283:G:O2'	1.88	0.73
37:BQ:17:LEU:HD23	37:BQ:17:LEU:N	2.03	0.73
32:DH:106:THR:HG22	32:DH:112:PRO:HB3	1.71	0.73
25:BA:402:A:O2'	25:BA:403:U:H5'	1.87	0.73
4:CD:100:ARG:O	4:CD:104:VAL:HG23	1.88	0.73
48:B1:93:GLU:O	48:B1:96:LYS:HG2	1.88	0.73
32:BH:10:PRO:HD2	32:BH:50:VAL:O	1.89	0.73
16:AP:26:ARG:HH11	16:AP:26:ARG:CB	1.97	0.73
25:DA:1025:G:N7	25:DA:1135:C:H1'	2.04	0.73
42:DV:28:GLU:HB3	42:DV:29:PRO:CD	2.19	0.73
29:DE:73:GLU:HG3	29:DE:74:PRO:HD2	1.69	0.73
1:AA:1136:U:H5''	1:AA:1137:C:C4	2.23	0.73
2:AB:220:ASP:HA	2:AB:223:ILE:HG12	1.71	0.73
25:BA:2175:C:H4'	27:BC:220:GLY:HA2	1.69	0.73
1:AA:411:A:O2'	1:AA:413:G:H5'	1.89	0.73
33:DI:41:GLU:O	33:DI:45:LYS:HG3	1.86	0.73
1:CA:1027:C:H1'	1:CA:1035:A:C2	2.24	0.73
25:BA:2308:G:O6	25:BA:2310:A:H2'	1.88	0.73
1:CA:738:C:H2'	1:CA:739:C:C6	2.23	0.73
1:CA:233:C:H2'	1:CA:234:C:H6	1.52	0.73
18:AR:50:ILE:HD12	18:AR:70:ILE:HD13	1.69	0.73
6:CF:48:LEU:HD21	6:CF:60:PHE:CZ	2.23	0.73
31:BG:172:LEU:O	31:BG:176:LEU:HG	1.88	0.73
11:CK:44:SER:H	11:CK:47:VAL:HG23	1.52	0.73
11:CK:44:SER:N	11:CK:47:VAL:HG23	2.03	0.73
25:DA:2396:G:O2'	48:D1:29:GLY:HA3	1.89	0.73
27:DC:101:ILE:HG23	27:DC:102:GLN:N	2.03	0.73
25:BA:2292:C:O2'	25:BA:2293:C:H5'	1.88	0.73
32:BH:27:LYS:HG2	32:BH:32:GLU:CG	2.18	0.73
41:DU:90:VAL:C	41:DU:92:ARG:H	1.91	0.73
44:DX:25:LYS:HA	44:DX:81:VAL:O	1.87	0.73
7:CG:50:ILE:O	7:CG:54:THR:HG22	1.87	0.73
2:AB:47:THR:HA	2:AB:202:PRO:HG2	1.71	0.73
2:CB:114:ARG:HH12	2:CB:118:LEU:HD21	1.54	0.73
1:AA:372:C:O2	1:AA:372:C:H2'	1.87	0.73
33:BI:113:ARG:O	33:BI:130:TYR:HA	1.87	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DC:218:THR:O	27:DC:219:MET:HG3	1.89	0.73
25:DA:191:A:H2'	25:DA:192:C:H6	1.54	0.73
25:BA:2332:U:H5'	25:BA:2336:A:N6	2.02	0.73
4:CD:96:LEU:HD12	4:CD:96:LEU:H	1.53	0.73
1:CA:270:A:H2'	1:CA:271:C:C6	2.23	0.73
25:DA:263:C:O2'	25:DA:264:C:H5'	1.89	0.73
1:AA:1230:C:H2'	1:AA:1231:G:H8	1.52	0.73
34:BN:5:VAL:HG13	34:BN:5:VAL:O	1.89	0.73
25:BA:1607:C:H4'	25:BA:1608:A:O5'	1.87	0.73
7:AG:50:ILE:HG21	7:AG:58:PRO:HA	1.69	0.73
25:BA:827:U:O2	25:BA:2246:G:H4'	1.89	0.73
39:BS:76:LYS:O	39:BS:80:LEU:HD13	1.88	0.73
33:BI:94:ALA:CB	33:BI:111:PRO:HB3	2.16	0.73
25:BA:171:G:H2'	25:BA:172:C:C5'	2.14	0.73
31:DG:137:GLU:HB3	31:DG:139:LEU:CD2	2.19	0.73
19:AS:32:LYS:HA	19:AS:50:ALA:HB3	1.70	0.73
45:BY:27:VAL:CA	45:BY:28:LYS:NZ	2.51	0.73
35:DO:3:GLN:HB2	35:DO:4:PRO:HD2	1.70	0.73
2:AB:220:ASP:HA	2:AB:223:ILE:CG1	2.19	0.73
11:CK:48:ILE:CG2	11:CK:49:GLY:H	1.99	0.73
25:BA:483:A:O2'	45:BY:48:ALA:HB3	1.89	0.73
27:BC:45:HIS:ND1	27:BC:173:HIS:HB3	2.03	0.73
10:AJ:39:PRO:HA	10:AJ:70:ARG:HA	1.69	0.73
40:DT:28:VAL:HB	40:DT:88:ILE:HG12	1.71	0.73
11:AK:50:TYR:CD2	11:AK:54:ARG:HB3	2.21	0.73
27:DC:84:ILE:HD11	31:DG:50:ALA:HB1	1.70	0.73
30:BF:102:PRO:HB2	30:BF:105:VAL:HG23	1.71	0.73
1:AA:438:G:H4'	4:AD:123:HIS:HD1	1.52	0.73
44:BX:71:GLY:C	44:BX:72:LYS:HD2	2.07	0.73
1:CA:1174:G:H2'	1:CA:1175:G:H8	1.53	0.73
5:AE:95:ALA:HB1	5:AE:96:PRO:CD	2.18	0.73
7:AG:79:ARG:HE	7:AG:81:GLY:HA2	1.52	0.73
37:BQ:1:MET:O	37:BQ:2:LEU:HB2	1.88	0.73
38:BR:84:ALA:HB3	38:BR:85:PRO:HD3	1.70	0.73
18:AR:37:VAL:HG23	18:AR:38:GLU:N	2.03	0.73
2:CB:172:ILE:H	2:CB:172:ILE:HD12	1.54	0.73
3:AC:140:ARG:HH11	3:AC:140:ARG:HG3	1.53	0.73
2:CB:97:TRP:CH2	2:CB:173:ALA:HA	2.24	0.73
42:DV:19:LYS:HB3	42:DV:94:LEU:O	1.88	0.73
22:CV:161:VAL:HG12	22:CV:171:ILE:HD12	1.70	0.73
25:BA:1639:U:C2'	25:BA:1640:C:H5''	2.18	0.73
53:B6:20:ASN:ND2	53:B6:21:TYR:N	2.36	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:BD:24:ILE:HD12	28:BD:84:TYR:HB2	1.68	0.73
28:BD:31:LYS:HB3	28:BD:35:LYS:HG3	1.70	0.73
1:AA:1158:C:H4'	2:AB:133:LYS:CE	2.19	0.73
22:CV:73:LEU:HD21	22:CV:83:MET:HB2	1.70	0.73
40:DT:91:ARG:HA	40:DT:117:ASP:H	1.54	0.73
20:AT:30:LYS:O	20:AT:30:LYS:HE2	1.87	0.73
37:DQ:63:LYS:HA	46:DZ:177:GLU:OE1	1.89	0.73
36:BP:17:LYS:C	36:BP:19:VAL:H	1.92	0.73
27:DC:140:ASN:HB3	27:DC:143:ALA:CB	2.19	0.73
10:AJ:30:SER:OG	10:AJ:81:THR:HG22	1.87	0.73
22:AV:131:LYS:HB2	22:AV:170:VAL:HG22	1.70	0.73
5:CE:12:LEU:HD13	5:CE:13:ILE:N	2.04	0.73
10:AJ:84:GLN:HA	10:AJ:88:LEU:HD23	1.71	0.73
23:AW:47:U:H3'	23:AW:48:C:C5'	2.18	0.73
27:DC:158:LYS:HA	27:DC:158:LYS:HE2	1.71	0.73
1:AA:677:U:H3	1:AA:713:G:H22	1.35	0.73
1:AA:1405:G:O4'	1:AA:1519:A:H4'	1.89	0.73
1:CA:977:A:H2'	1:CA:978:A:H5''	1.71	0.73
39:BS:61:ASN:HB3	39:BS:64:GLU:HB3	1.70	0.73
21:AU:16:GLY:O	21:AU:17:THR:HG23	1.87	0.73
42:DV:19:LYS:NZ	42:DV:20:LEU:H	1.85	0.73
25:DA:946:G:O2'	25:DA:947:G:H5'	1.89	0.73
31:DG:108:ASN:C	31:DG:112:PRO:HG2	2.09	0.73
3:AC:41:GLY:O	3:AC:45:LYS:HG3	1.88	0.73
1:AA:21:G:H2'	1:AA:22:G:H8	1.51	0.73
18:CR:73:ALA:CB	18:CR:79:LEU:HD12	2.15	0.73
10:AJ:16:LEU:HD13	10:AJ:16:LEU:O	1.88	0.73
31:BG:76:SER:CB	31:BG:84:LYS:H	2.01	0.73
6:CF:76:ALA:O	6:CF:80:ARG:HG2	1.89	0.73
23:CW:59:A:C2'	23:CW:60:U:H5'	2.18	0.73
53:B6:30:THR:HB	53:B6:31:PRO:CD	2.18	0.73
4:CD:170:VAL:HG12	4:CD:171:GLY:N	2.04	0.73
32:BH:54:ARG:HB3	32:BH:65:HIS:HD2	1.53	0.73
25:DA:2884:U:H1'	52:D5:52:TYR:HH	1.54	0.73
43:DW:87:PRO:HA	43:DW:93:ALA:HA	1.69	0.73
25:BA:1443:G:O2'	25:BA:1444:G:H5'	1.89	0.73
5:AE:105:VAL:H	5:AE:106:PRO:HD2	1.54	0.73
25:DA:1025:G:C8	25:DA:1135:C:H1'	2.24	0.73
25:BA:613:G:H5'	25:BA:613:G:C8	2.24	0.73
7:CG:108:ALA:HA	7:CG:111:ARG:HD2	1.69	0.73
1:CA:942:G:N2	9:CI:124:GLN:HE22	1.85	0.73
3:AC:83:ARG:NH1	3:AC:83:ARG:HG2	1.97	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:83:ARG:O	3:CC:83:ARG:HD2	1.89	0.73
8:CH:4:ASP:OD1	8:CH:85:ARG:NH1	2.22	0.73
29:BE:32:PRO:CB	29:BE:69:LYS:HB3	2.18	0.73
1:AA:1367:C:H5'	10:AJ:60:ARG:NH1	2.04	0.73
1:AA:523:A:H61	12:AL:89:ASP:HB2	1.53	0.73
25:BA:1591:G:H5'	25:BA:1591:G:C8	2.23	0.73
25:BA:1591:G:O2'	25:BA:1592:C:H5'	1.88	0.73
25:DA:106:C:H2'	25:DA:107:C:C6	2.22	0.73
6:AF:23:LYS:O	6:AF:27:GLN:HG2	1.88	0.73
22:AV:102:GLU:HB2	22:AV:103:PHE:CD1	2.24	0.73
1:AA:1260:C:OP1	1:AA:1284:C:H4'	1.89	0.73
17:AQ:13:ASP:H	17:AQ:14:LYS:NZ	1.87	0.73
25:BA:1839:G:H5'	25:BA:1839:G:H8	1.54	0.73
8:CH:11:THR:HG22	8:CH:15:ASN:HD21	1.54	0.73
28:DD:45:ASN:ND2	28:DD:50:THR:HG21	2.04	0.73
42:DV:1:MET:N	42:DV:15:GLU:HG2	2.03	0.73
25:BA:1494:A:O2'	25:BA:1495:A:C5'	2.36	0.73
9:CI:53:VAL:HG23	9:CI:54:ASP:N	2.03	0.73
40:BT:100:TYR:HD2	40:BT:103:ARG:HH21	1.33	0.73
45:BY:46:LYS:HG2	45:BY:47:LYS:N	2.01	0.73
25:BA:365:C:H5'	25:BA:365:C:H6	1.53	0.73
34:DN:115:ARG:HG3	34:DN:115:ARG:HH11	1.52	0.73
35:BO:86:ILE:CG2	35:BO:94:ARG:HG3	2.18	0.73
31:DG:51:ARG:HE	31:DG:51:ARG:HA	1.54	0.73
47:D0:36:ILE:HD12	47:D0:58:THR:HG23	1.70	0.73
1:CA:1004:A:N7	1:CA:1035:A:N7	2.37	0.73
1:AA:840:C:H4'	1:AA:848:C:N3	2.04	0.73
25:BA:1394:U:H2'	25:BA:1395:A:H5''	1.71	0.73
1:CA:197:A:N6	1:CA:221:C:H5'	2.04	0.73
1:CA:990:C:H2'	1:CA:991:U:H6	1.54	0.73
37:BQ:67:ARG:NH1	37:BQ:102:VAL:HB	2.03	0.73
7:CG:56:GLN:NE2	7:CG:56:GLN:H	1.87	0.72
25:BA:2791:C:H4'	25:BA:2792:G:O5'	1.87	0.72
1:AA:346:G:OP1	40:BT:41:ARG:CZ	2.37	0.72
3:AC:39:ILE:O	3:AC:43:LEU:HG	1.89	0.72
36:BP:88:LEU:HD23	36:BP:95:VAL:HG21	1.72	0.72
3:CC:189:ALA:HB3	3:CC:196:LEU:HB2	1.71	0.72
4:AD:10:ARG:HH11	4:AD:10:ARG:HG2	1.53	0.72
4:AD:30:LYS:C	4:AD:32:ALA:H	1.91	0.72
33:BI:38:LEU:HD12	33:BI:38:LEU:H	1.53	0.72
16:AP:28:ARG:HG2	16:AP:28:ARG:NH1	2.03	0.72
25:DA:1686:C:C6	25:DA:1686:C:H5'	2.20	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:676:A:H8	25:DA:2069:G:N2	1.87	0.72
53:B6:28:ARG:HB3	53:B6:28:ARG:HH11	1.53	0.72
53:B6:28:ARG:NH1	53:B6:29:ASN:N	2.36	0.72
1:AA:500:G:N2	1:AA:546:G:H1'	2.04	0.72
25:BA:389:G:H5''	48:B1:26:ARG:HH12	1.52	0.72
25:DA:2227:A:H5'	28:DD:263:ARG:HH11	1.52	0.72
5:CE:150:ARG:HB2	5:CE:150:ARG:CZ	2.19	0.72
32:BH:119:GLU:O	32:BH:140:LYS:NZ	2.22	0.72
25:DA:1297:C:H2'	25:DA:1298:C:H6	1.54	0.72
46:BZ:10:GLU:HB2	46:BZ:12:GLU:OE1	1.88	0.72
1:AA:806:C:H2'	1:AA:807:A:H8	1.52	0.72
48:B1:73:LEU:HD13	48:B1:94:LEU:HD22	1.71	0.72
28:BD:43:ARG:HH11	28:BD:44:ASN:CG	1.91	0.72
7:CG:99:LEU:HB3	7:CG:103:TRP:CZ3	2.24	0.72
9:CI:11:LYS:H	9:CI:104:ARG:HH21	1.37	0.72
1:AA:1321:C:H5''	1:AA:1322:C:H5''	1.70	0.72
29:DE:77:ILE:HG22	29:DE:78:LEU:H	1.55	0.72
31:DG:2:PRO:O	31:DG:3:LEU:HB2	1.89	0.72
2:AB:194:PRO:HG2	2:AB:195:ASP:H	1.54	0.72
40:BT:27:THR:HG23	40:BT:28:VAL:N	2.03	0.72
25:DA:7:G:H2'	25:DA:8:A:H8	1.51	0.72
25:BA:2759:G:H5'	25:BA:2759:G:H8	1.54	0.72
39:DS:18:ILE:O	39:DS:18:ILE:HG23	1.87	0.72
1:AA:356:A:O2'	1:AA:357:G:H5'	1.90	0.72
29:BE:119:ARG:CG	29:BE:160:TYR:HB2	2.18	0.72
2:AB:233:SER:OG	2:AB:234:PRO:HD2	1.89	0.72
8:CH:49:GLU:HG3	8:CH:60:ARG:HB2	1.70	0.72
54:D7:16:HIS:CB	54:D7:44:PRO:HG2	2.19	0.72
5:AE:8:GLU:HG3	5:AE:32:VAL:HG11	1.69	0.72
4:CD:146:ILE:HD12	4:CD:146:ILE:H	1.53	0.72
36:DP:50:ARG:HG3	36:DP:51:PHE:N	2.03	0.72
33:BI:92:VAL:CG2	33:BI:120:ILE:HB	2.17	0.72
46:DZ:95:VAL:O	46:DZ:127:VAL:HG12	1.89	0.72
2:CB:14:GLY:O	2:CB:15:VAL:HG13	1.90	0.72
41:DU:90:VAL:HG12	41:DU:91:ASP:N	2.04	0.72
20:AT:58:LYS:O	20:AT:61:SER:HB3	1.89	0.72
29:DE:59:VAL:HG22	29:DE:60:ASN:N	2.02	0.72
36:DP:17:LYS:O	36:DP:17:LYS:HG2	1.90	0.72
40:BT:85:LYS:HE3	40:BT:85:LYS:C	2.10	0.72
13:AM:25:ILE:CD1	13:AM:66:LEU:HD23	2.17	0.72
39:DS:34:HIS:CG	39:DS:54:LEU:HB2	2.24	0.72
1:AA:475:G:H2'	1:AA:476:G:C8	2.24	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:552:U:H4'	12:AL:83:ARG:HG2	1.70	0.72
28:DD:80:ALA:HB2	28:DD:96:HIS:CD2	2.24	0.72
26:DB:15:A:H3'	26:DB:16:G:C5'	2.19	0.72
25:DA:2472:G:H5'	25:DA:2473:U:H5''	1.71	0.72
23:CW:47:U:H3'	23:CW:48:C:H5'	1.72	0.72
40:BT:12:SER:C	40:BT:14:TYR:H	1.92	0.72
1:AA:47:C:O2'	1:AA:48:C:H5'	1.89	0.72
39:BS:52:SER:OG	39:BS:55:ALA:HB3	1.89	0.72
25:BA:2682:U:H6	25:BA:2682:U:H5'	1.55	0.72
2:CB:116:GLU:HA	2:CB:119:GLU:HB2	1.70	0.72
25:BA:994:C:H3'	41:BU:54:LYS:HE3	1.71	0.72
1:AA:1288:A:N1	1:AA:1371:G:H1'	2.05	0.72
2:CB:52:GLU:HB2	2:CB:56:ARG:HH12	1.52	0.72
41:BU:88:ILE:HG23	42:BV:47:VAL:HG23	1.69	0.72
42:BV:4:ILE:HB	42:BV:39:LEU:O	1.90	0.72
28:DD:26:LYS:HZ3	28:DD:82:ILE:N	1.86	0.72
32:DH:83:TYR:HA	32:DH:135:GLY:N	2.03	0.72
1:AA:1030:C:H2'	1:AA:1030(A):G:H5'	1.69	0.72
1:CA:1216:G:H5''	14:CN:5:ALA:HB2	1.72	0.72
1:AA:1056:U:H2'	1:AA:1057:G:H8	1.54	0.72
16:AP:82:GLN:O	16:AP:83:GLU:HB2	1.89	0.72
25:BA:2701:C:H3'	25:BA:2702:U:H5''	1.69	0.72
11:CK:84:VAL:HG11	11:CK:95:ILE:HD11	1.70	0.72
25:DA:2870:C:H2'	25:DA:2871:C:C5'	2.19	0.72
25:DA:150:C:H2'	25:DA:151:C:C6	2.25	0.72
12:AL:24:LEU:HD11	12:AL:61:TYR:CZ	2.24	0.72
1:AA:92:C:H2'	1:AA:93:G:H8	1.53	0.72
1:CA:1518:A:H2'	1:CA:1519:A:C8	2.24	0.72
8:CH:29:SER:HB3	8:CH:32:LYS:HG3	1.71	0.72
1:CA:631:G:H2'	1:CA:632:A:C8	2.24	0.72
9:AI:96:LEU:HG	9:AI:102:LEU:HB2	1.72	0.72
31:DG:76:SER:HB3	31:DG:84:LYS:N	2.03	0.72
41:BU:95:LEU:HD11	42:BV:11:GLN:O	1.90	0.72
2:AB:33:TYR:HB2	2:AB:43:ASP:HA	1.71	0.72
3:CC:141:VAL:HG12	3:CC:146:ALA:CB	2.19	0.72
37:BQ:134:ARG:NH2	46:BZ:121:ARG:HD2	2.04	0.72
39:DS:35:ILE:H	39:DS:53:SER:CB	2.03	0.72
13:CM:3:ARG:NH2	13:CM:7:VAL:HA	2.05	0.72
52:D5:3:LYS:HA	52:D5:3:LYS:HE3	1.71	0.72
11:CK:96:ARG:HA	11:CK:99:GLN:CG	2.19	0.72
25:BA:848:G:O6	25:BA:928:G:H2'	1.90	0.72
1:AA:1255:G:H3'	1:AA:1279:A:H62	1.55	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2531:A:H61	25:BA:2662:A:H61	1.37	0.72
25:DA:667:U:O2	55:D8:2:PRO:HD2	1.88	0.72
44:DX:24:GLY:O	44:DX:82:GLN:HA	1.90	0.72
4:CD:34:GLU:O	4:CD:37:PRO:HD3	1.89	0.72
25:DA:2327:A:H2'	25:DA:2328:A:C8	2.25	0.72
33:BI:27:ARG:HD3	48:B1:71:TYR:CE1	2.24	0.72
13:CM:89:GLY:O	13:CM:93:ARG:HD2	1.88	0.72
3:AC:41:GLY:HA3	3:AC:45:LYS:HZ2	1.54	0.72
1:AA:267:C:OP2	17:AQ:67:LYS:HD2	1.89	0.72
1:AA:502:G:H2'	1:AA:503:C:H6	1.54	0.72
5:AE:68:GLU:O	5:AE:70:PRO:HD3	1.89	0.72
9:CI:26:VAL:HB	9:CI:33:PHE:HB2	1.71	0.72
38:DR:45:ARG:HG3	38:DR:95:THR:CG2	2.20	0.72
8:AH:20:TYR:HE2	8:AH:75:ARG:HE	1.35	0.72
14:AN:26:ARG:NH1	14:AN:47:LEU:HD11	2.04	0.72
39:DS:56:LEU:O	39:DS:56:LEU:HD23	1.89	0.72
1:AA:472:A:H4'	16:AP:80:PHE:O	1.90	0.72
10:CJ:31:GLY:HA2	10:CJ:78:ASN:OD1	1.90	0.72
5:AE:50:GLU:HB3	5:AE:53:LEU:HD13	1.71	0.72
34:DN:74:ARG:HH12	34:DN:85:ILE:CD1	2.02	0.72
22:AV:102:GLU:H	22:AV:102:GLU:CD	1.91	0.72
27:DC:97:GLY:O	27:DC:100:ILE:HG22	1.89	0.72
1:CA:1277:C:H2'	1:CA:1278:U:H5''	1.71	0.72
40:BT:88:ILE:HG22	40:BT:89:VAL:N	2.03	0.72
1:CA:991:U:O2	1:CA:991:U:H2'	1.89	0.72
6:AF:60:PHE:O	6:AF:61:LEU:HD12	1.88	0.72
34:BN:13:TRP:O	34:BN:135:PRO:HD2	1.89	0.72
1:AA:793:U:O2	1:AA:1516:G:H4'	1.90	0.72
25:DA:1230:C:H2'	25:DA:1231:G:C8	2.25	0.72
25:BA:2219:G:O2'	25:BA:2220:G:H5'	1.90	0.72
38:BR:113:LEU:HD23	38:BR:113:LEU:O	1.88	0.72
4:CD:187:ARG:NH2	4:CD:193:ASP:OD2	2.23	0.72
16:AP:43:LYS:HG3	16:AP:48:TRP:CD2	2.24	0.72
1:AA:1081:G:O2'	1:AA:1082:G:H5'	1.88	0.72
3:AC:7:PRO:O	3:AC:11:ARG:HG2	1.89	0.72
41:DU:98:LEU:HD22	42:DV:2:PHE:HZ	1.55	0.72
1:AA:344:A:H5''	1:AA:345:C:C5	2.24	0.72
3:AC:20:SER:CB	3:AC:40:ARG:HH22	2.03	0.72
25:DA:631:A:OP1	36:DP:64:LYS:HE2	1.90	0.72
32:DH:83:TYR:HB3	32:DH:134:SER:HA	1.69	0.72
16:CP:39:TYR:CD2	16:CP:73:LEU:HD11	2.25	0.72
29:BE:47:VAL:O	29:BE:80:GLU:HA	1.89	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BV:18:LEU:HD22	42:BV:19:LYS:H	1.52	0.72
40:DT:3:ARG:CB	40:DT:6:LEU:HB2	2.18	0.72
45:DY:96:ILE:HD11	45:DY:99:CYS:SG	2.29	0.72
1:CA:1004:A:H62	1:CA:1035:A:H8	1.35	0.72
30:DF:160:ASN:HD22	30:DF:162:LEU:H	1.35	0.72
5:CE:83:GLU:HG3	5:CE:88:LYS:HG3	1.70	0.72
28:DD:32:SER:O	28:DD:34:VAL:N	2.21	0.72
39:DS:85:VAL:N	39:DS:106:ARG:HG3	2.05	0.72
25:DA:1887:C:C3'	25:DA:1888:G:H5''	2.20	0.72
25:BA:58:G:C2	25:BA:59:U:O2	2.42	0.72
25:BA:1434:A:O2'	25:BA:1435:G:H5'	1.90	0.72
2:AB:172:ILE:HD12	2:AB:172:ILE:N	2.05	0.72
25:BA:1709:U:H2'	25:BA:1710:C:C6	2.24	0.72
45:DY:48:ALA:HB3	45:DY:59:GLY:O	1.89	0.72
35:DO:63:VAL:HG23	35:DO:64:ARG:HG3	1.72	0.72
10:CJ:56:HIS:O	10:CJ:58:ASP:N	2.21	0.72
36:DP:121:LYS:O	36:DP:123:LEU:HG	1.89	0.72
50:B3:19:GLN:HE22	50:B3:52:HIS:HE1	1.35	0.72
25:BA:2277:G:C2'	25:BA:2278:A:H5'	2.19	0.72
25:DA:2308:G:O6	25:DA:2310:A:H2'	1.89	0.72
46:DZ:127:VAL:HG22	46:DZ:128:SER:N	2.03	0.72
25:DA:2183:C:H2'	25:DA:2184:G:H8	1.54	0.72
3:AC:31:HIS:HA	3:AC:34:LEU:HD22	1.72	0.72
45:BY:53:PRO:C	45:BY:55:TYR:H	1.93	0.72
13:CM:23:TYR:CZ	13:CM:71:ARG:HD3	2.25	0.72
5:AE:107:ARG:HG2	5:AE:108:ALA:N	2.04	0.72
8:AH:44:PHE:HA	8:AH:79:VAL:HG12	1.70	0.72
47:D0:72:ARG:HB2	47:D0:75:LEU:HB3	1.72	0.72
10:CJ:8:LEU:HB2	10:CJ:70:ARG:HB3	1.71	0.72
25:BA:277:C:H4'	25:BA:278:A:OP2	1.89	0.72
6:CF:100:ASN:H	18:CR:23:LYS:HZ1	1.35	0.72
6:CF:97:PHE:CD2	18:CR:31:LEU:HD21	2.24	0.72
1:CA:820:U:H4'	1:CA:821:G:OP2	1.90	0.72
1:CA:881:G:P	12:CL:9:ARG:HH22	2.13	0.72
55:B8:51:ALA:HA	55:B8:54:GLU:OE2	1.90	0.72
9:CI:46:ALA:HB2	9:CI:74:ILE:HG23	1.72	0.72
25:DA:2884:U:H1'	52:D5:52:TYR:OH	1.89	0.72
7:AG:51:GLN:HG2	7:AG:58:PRO:HD3	1.72	0.72
30:DF:32:LEU:O	30:DF:36:VAL:HG23	1.90	0.72
25:DA:1794:U:H2'	25:DA:1795:C:H6	1.54	0.72
32:BH:91:GLY:HA2	32:BH:160:LYS:CB	2.20	0.72
48:D1:19:GLN:HB2	48:D1:35:THR:HG23	1.69	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1032:A:OP1	56:D9:8:LYS:HE3	1.90	0.72
32:BH:32:GLU:HG2	32:BH:33:LEU:H	1.55	0.72
34:DN:28:THR:HG23	34:DN:29:LYS:N	2.04	0.72
44:DX:12:VAL:HG12	44:DX:27:THR:OG1	1.90	0.72
45:DY:11:ASP:O	45:DY:28:LYS:HE2	1.90	0.72
40:BT:62:THR:CG2	40:BT:75:ILE:HG12	2.18	0.72
25:DA:849:A:H2	50:D3:24:LYS:HG2	1.55	0.72
35:BO:3:GLN:HG3	35:BO:4:PRO:HD2	1.70	0.72
2:AB:130:ARG:HB2	2:AB:135:GLN:HE21	1.54	0.72
5:AE:76:ILE:CG1	5:AE:77:PRO:HD2	2.19	0.72
42:BV:19:LYS:HB3	42:BV:94:LEU:O	1.89	0.72
37:BQ:60:ARG:HB3	37:BQ:60:ARG:CZ	2.20	0.72
25:BA:1332:G:N2	25:BA:1609:A:H2'	2.05	0.72
39:DS:17:ARG:HG3	39:DS:18:ILE:N	2.04	0.72
25:BA:1801:G:OP2	28:BD:154:LYS:HE2	1.90	0.72
43:DW:23:LEU:HD13	52:D5:25:LEU:HD13	1.70	0.72
6:AF:77:ARG:HB2	6:AF:77:ARG:HH11	1.53	0.72
25:DA:2317:C:H2'	25:DA:2318:G:H5'	1.69	0.72
35:DO:64:ARG:HH21	35:DO:100:GLY:HA3	1.54	0.72
27:DC:226:ASN:OD1	27:DC:227:PRO:HD2	1.90	0.72
1:CA:1281:U:H4'	1:CA:1282:C:OP2	1.88	0.72
29:BE:105:THR:HG23	29:BE:166:THR:OG1	1.89	0.72
1:CA:1250:A:H4'	9:CI:68:GLY:H	1.53	0.72
25:BA:911:A:H2'	37:BQ:9:TYR:OH	1.90	0.72
2:CB:33:TYR:HB3	2:CB:41:ILE:CG2	2.17	0.72
25:DA:1140:C:H5''	34:DN:66:LYS:NZ	2.04	0.72
1:CA:1343:G:H2'	1:CA:1344:C:C6	2.24	0.72
25:BA:2808:U:C2'	25:BA:2809:A:H5'	2.19	0.72
25:BA:2784:C:H1'	29:BE:37:ARG:NH1	2.05	0.72
25:DA:2415:G:H4'	36:DP:67:MET:N	2.00	0.72
2:AB:80:ILE:HD12	2:AB:212:GLN:HA	1.72	0.72
22:CV:84:ASP:HB3	22:CV:89:GLU:H	1.55	0.72
3:CC:15:THR:HG22	3:CC:16:ARG:N	2.05	0.72
25:BA:1803:A:H2	25:BA:1822:G:N3	1.86	0.72
25:DA:2792:G:H1	25:DA:2804:C:N4	1.83	0.72
39:DS:92:TYR:CD1	39:DS:93:LYS:N	2.58	0.72
25:DA:2176:A:C4'	27:DC:216:THR:HG21	2.20	0.72
8:AH:7:ALA:HB2	8:AH:85:ARG:HG3	1.71	0.72
38:DR:104:ARG:HB2	38:DR:104:ARG:HH11	1.53	0.72
25:DA:1301:A:O2'	25:DA:1302:A:H3'	1.89	0.72
35:BO:18:LYS:HB2	35:BO:45:GLU:HG2	1.71	0.72
38:DR:11:ASN:O	38:DR:12:ARG:HG3	1.90	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:DX:31:HIS:ND1	44:DX:32:PRO:HD2	2.04	0.72
11:CK:93:GLN:O	11:CK:97:ALA:HB2	1.89	0.72
27:DC:77:ALA:HA	27:DC:115:VAL:HG23	1.71	0.72
28:BD:121:PRO:HB3	28:BD:135:PHE:CE1	2.25	0.72
47:B0:54:ARG:HB3	47:B0:54:ARG:CZ	2.18	0.72
31:BG:148:MET:O	31:BG:149:VAL:HG13	1.89	0.72
31:BG:21:ARG:HD3	31:BG:21:ARG:C	2.11	0.72
1:AA:448:A:H2'	1:AA:449:C:C6	2.25	0.72
32:BH:10:PRO:O	32:BH:11:VAL:CB	2.25	0.71
46:DZ:125:VAL:HB	46:DZ:161:GLU:O	1.90	0.71
25:DA:481:G:H1'	25:DA:506:G:H22	1.53	0.71
1:CA:1363(A):A:H5''	1:CA:1364:U:OP1	1.90	0.71
35:BO:104:ARG:HH21	40:BT:33:LYS:HE2	1.55	0.71
27:BC:73:VAL:HG13	27:BC:112:ASP:CB	2.17	0.71
32:DH:94:TYR:HE1	32:DH:108:GLY:H	1.36	0.71
1:CA:973:G:H1'	10:CJ:55:LYS:HE2	1.71	0.71
15:CO:87:ILE:HG22	15:CO:88:ARG:N	2.01	0.71
30:BF:183:VAL:O	30:BF:187:VAL:HG23	1.90	0.71
15:AO:82:ILE:HG23	15:AO:83:GLU:H	1.55	0.71
17:AQ:78:GLU:OE2	17:AQ:81:ARG:HD2	1.89	0.71
27:DC:74:ARG:HB2	27:DC:111:PHE:HA	1.71	0.71
4:CD:133:VAL:HG13	4:CD:135:LEU:CD2	2.20	0.71
25:DA:1678:G:N2	25:DA:1989:G:H22	1.87	0.71
7:CG:64:GLN:HE21	7:CG:68:ASN:ND2	1.88	0.71
37:DQ:135:ASP:C	37:DQ:137:TYR:H	1.94	0.71
46:DZ:163:ALA:O	46:DZ:164:VAL:HG23	1.90	0.71
19:CS:64:GLU:O	19:CS:67:VAL:HG23	1.90	0.71
29:DE:59:VAL:HG11	29:DE:63:LEU:HD11	1.71	0.71
25:BA:2103:C:C3'	25:BA:2104:G:H5''	2.20	0.71
3:AC:86:VAL:O	3:AC:89:GLU:HB3	1.90	0.71
28:BD:270:ILE:O	28:BD:271:ILE:CB	2.37	0.71
27:BC:73:VAL:CG1	27:BC:112:ASP:HB2	2.15	0.71
12:CL:38:ARG:HG2	12:CL:39:THR:N	1.98	0.71
16:CP:72:ARG:NH2	16:CP:73:LEU:HD21	2.02	0.71
4:AD:59:ARG:CZ	4:AD:59:ARG:HA	2.20	0.71
25:DA:902:C:H2'	25:DA:903:C:C6	2.25	0.71
6:CF:69:GLU:O	6:CF:72:VAL:HG12	1.90	0.71
3:CC:132:ARG:HH12	4:CD:47:ARG:NH2	1.83	0.71
1:AA:1003:G:C2'	1:AA:1004:A:H4'	2.19	0.71
18:AR:85:LEU:HG	18:AR:86:VAL:H	1.55	0.71
25:BA:286:C:H6	25:BA:286:C:H5'	1.55	0.71
1:CA:930:C:C2'	1:CA:931:C:H5'	2.21	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:BB:29:A:H2'	26:BB:30:C:C6	2.25	0.71
31:BG:39:ILE:HD11	31:BG:155:MET:HB2	1.72	0.71
1:AA:992:U:H3	1:AA:1044:A:N6	1.88	0.71
5:AE:10:MET:HA	5:AE:32:VAL:HG22	1.73	0.71
25:BA:1547:C:O2'	25:BA:1548:C:H5'	1.90	0.71
25:BA:2110:G:H2'	25:BA:2120:G:H5'	1.70	0.71
46:DZ:107:PRO:HA	46:DZ:141:SER:HA	1.71	0.71
29:BE:173:VAL:O	29:BE:174:ASP:HB3	1.90	0.71
1:CA:386:C:O2'	1:CA:387:U:H5'	1.89	0.71
25:DA:323:G:H2'	30:DF:169:ASN:ND2	2.05	0.71
43:BW:10:VAL:O	43:BW:11:ARG:HB2	1.88	0.71
25:BA:2876:G:H4'	40:BT:3:ARG:CD	2.15	0.71
9:AI:112:LYS:HA	9:AI:119:ALA:HB2	1.72	0.71
41:DU:73:GLY:O	41:DU:74:LEU:HD12	1.90	0.71
25:DA:952:G:P	37:DQ:16:ARG:HH22	2.13	0.71
48:D1:84:GLY:O	48:D1:86:SER:N	2.17	0.71
7:CG:12:LEU:CD1	7:CG:25:ALA:HB2	2.20	0.71
25:DA:1047:G:H21	25:DA:1111:A:H62	1.37	0.71
1:AA:1152:A:H5'	10:AJ:70:ARG:NH2	2.05	0.71
1:CA:1036:G:H5''	1:CA:1037:C:C5	2.25	0.71
23:CW:17:C:H2'	23:CW:17(B):U:H5	1.55	0.71
35:DO:86:ILE:H	35:DO:86:ILE:HD12	1.56	0.71
46:BZ:149:LEU:N	46:BZ:149:LEU:HD13	2.04	0.71
43:DW:5:ALA:HB3	43:DW:105:VAL:H	1.55	0.71
1:CA:662:G:H2'	1:CA:663:A:C8	2.25	0.71
38:BR:53:HIS:HB2	38:BR:94:TYR:CE1	2.25	0.71
26:BB:24:G:N7	26:BB:56:G:H2'	2.04	0.71
1:CA:436:C:H2'	1:CA:437:U:H6	1.55	0.71
7:AG:93:PRO:O	7:AG:96:GLN:HB3	1.90	0.71
48:B1:73:LEU:HD22	48:B1:97:LEU:HD12	1.70	0.71
30:DF:36:VAL:HG11	30:DF:183:VAL:CG1	2.20	0.71
1:AA:107:G:H2'	1:AA:108:G:H5'	1.72	0.71
47:B0:67:GLU:CG	47:B0:79:HIS:HB2	2.20	0.71
33:BI:68:LEU:HA	33:BI:71:ILE:CG2	2.19	0.71
56:B9:7:VAL:HG21	56:B9:36:GLN:HB2	1.71	0.71
25:DA:185:U:H2'	25:DA:186:G:C8	2.25	0.71
25:DA:140:G:H1'	25:DA:141:A:H2	1.55	0.71
25:DA:1971:A:C4	28:DD:241:PRO:HG3	2.25	0.71
46:DZ:11:GLY:HA3	46:DZ:35:LYS:NZ	2.05	0.71
41:DU:92:ARG:HE	41:DU:94:ASN:HD22	1.36	0.71
1:AA:191:G:H2'	1:AA:192:U:C6	2.25	0.71
10:AJ:7:LYS:HB2	10:AJ:97:GLU:HB2	1.72	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:19:C:O2'	1:AA:20:U:H5'	1.89	0.71
11:AK:111:ASP:CA	18:AR:84:LYS:HG3	2.19	0.71
3:CC:58:GLU:HB3	3:CC:65:ALA:CB	2.21	0.71
25:DA:272(G):C:N4	25:DA:363(C):G:H1	1.84	0.71
25:DA:2168:G:C2'	25:DA:2169:A:H5''	2.20	0.71
25:BA:2308:G:H22	31:BG:77:ILE:HG21	1.55	0.71
54:B7:8:ASN:HD22	54:B7:9:ARG:N	1.88	0.71
3:CC:33:LEU:O	3:CC:37:GLN:HG2	1.90	0.71
43:BW:50:VAL:HG13	43:BW:105:VAL:HG21	1.72	0.71
18:CR:59:SER:OG	18:CR:62:GLU:HG3	1.90	0.71
1:CA:1492:A:OP1	1:CA:1492:A:H4'	1.89	0.71
25:DA:1803:A:O2'	28:DD:259:THR:HG21	1.89	0.71
46:BZ:111:ARG:HD3	46:BZ:111:ARG:C	2.10	0.71
29:BE:97:LYS:HA	29:BE:97:LYS:HE2	1.73	0.71
27:DC:101:ILE:HG23	27:DC:102:GLN:H	1.55	0.71
39:BS:33:LYS:HB3	39:BS:34:HIS:CD2	2.26	0.71
10:AJ:63:PHE:HB3	14:AN:58:LYS:CA	2.15	0.71
25:DA:2105:C:H2'	25:DA:2106:G:C5'	2.20	0.71
9:CI:50:LEU:HD22	9:CI:55:ALA:HB3	1.72	0.71
2:CB:115:LEU:HD13	2:CB:145:LEU:HD12	1.72	0.71
13:CM:97:PRO:HA	13:CM:110:ARG:HD3	1.72	0.71
3:AC:19:GLU:HA	3:AC:54:ARG:HH12	1.56	0.71
45:BY:8:LYS:NZ	45:BY:72:VAL:HB	2.05	0.71
35:DO:4:PRO:O	35:DO:5:GLN:HB2	1.91	0.71
28:BD:27:THR:HG23	28:BD:83:GLU:HB3	1.73	0.71
36:DP:63:PRO:HB3	55:D8:13:ARG:HB3	1.70	0.71
13:CM:4:ILE:HD12	13:CM:10:PRO:HG3	1.72	0.71
22:CV:72:TYR:HE1	22:CV:80:MET:HB3	1.55	0.71
46:BZ:80:ARG:O	46:BZ:81:ARG:C	2.28	0.71
1:AA:424:G:H2'	1:AA:425:G:C8	2.22	0.71
29:DE:4:ILE:HD13	29:DE:91:VAL:HG12	1.73	0.71
1:AA:77:G:H1	1:AA:92:C:H42	1.38	0.71
1:AA:539:A:H2'	1:AA:540:G:C8	2.26	0.71
25:BA:1497:U:H5''	25:BA:1498:C:H5	1.55	0.71
50:B3:19:GLN:HE22	50:B3:52:HIS:CE1	2.09	0.71
47:B0:47:GLY:H	47:B0:50:VAL:HB	1.54	0.71
26:DB:45:A:H1'	31:DG:95:ARG:NH2	2.05	0.71
37:DQ:111:GLU:O	37:DQ:115:MET:HG2	1.90	0.71
39:BS:62:LYS:H	39:BS:65:VAL:HG23	1.56	0.71
37:DQ:35:VAL:HG12	37:DQ:130:LYS:HB3	1.71	0.71
44:DX:12:VAL:CB	44:DX:17:ALA:HB1	2.18	0.71
20:AT:50:GLU:HG3	20:AT:51:GLU:N	2.05	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1238:A:OP1	1:CA:1335:C:H1'	1.91	0.71
31:DG:103:LEU:H	31:DG:103:LEU:HD12	1.55	0.71
32:DH:94:TYR:HE1	32:DH:108:GLY:N	1.88	0.71
29:BE:68:ALA:C	29:BE:70:ALA:H	1.94	0.71
25:BA:2572:A:N7	29:BE:145:LYS:HB2	2.05	0.71
25:DA:1467:C:N4	25:DA:1525:G:H1	1.87	0.71
22:AV:132:VAL:CG2	22:AV:151:ALA:HB1	2.20	0.71
1:CA:77:G:H1	1:CA:92:C:H42	1.33	0.71
55:D8:32:LEU:HG	55:D8:36:LYS:CE	2.21	0.71
1:AA:1034:G:H21	1:AA:1035:A:H62	1.36	0.71
20:CT:54:LYS:O	20:CT:57:ARG:HB3	1.90	0.71
22:AV:60:LEU:O	22:AV:61:GLU:CB	2.39	0.71
22:AV:68:ARG:HD2	22:AV:114:MET:HG3	1.72	0.71
1:CA:863:U:H2'	1:CA:865:A:OP2	1.91	0.71
11:CK:32:ILE:HD13	11:CK:72:ALA:HB2	1.70	0.71
8:CH:11:THR:HG22	8:CH:15:ASN:ND2	2.06	0.71
12:CL:66:TYR:HB3	12:CL:96:HIS:HD2	1.55	0.71
38:BR:10:LEU:CB	38:BR:17:ARG:NE	2.54	0.71
7:AG:13:GLN:O	7:AG:24:THR:HG21	1.91	0.71
37:DQ:67:ARG:NH1	37:DQ:102:VAL:HB	2.06	0.71
48:D1:46:LEU:CA	48:D1:63:ALA:HA	2.15	0.71
7:CG:140:ASP:HA	7:CG:143:ARG:HH11	1.56	0.71
25:DA:2306:C:H5	25:DA:2307:G:HO2'	1.39	0.71
1:AA:1321:C:H4'	13:AM:87:TYR:CE2	2.25	0.71
10:AJ:34:VAL:CG2	10:AJ:74:ILE:HG22	2.21	0.71
25:DA:607:U:OP1	30:DF:102:PRO:HA	1.90	0.71
53:B6:48:VAL:O	53:B6:49:HIS:HB2	1.90	0.71
19:AS:53:ASN:ND2	19:AS:55:LYS:HB3	2.00	0.71
22:CV:71:GLN:C	22:CV:109:THR:HG21	2.10	0.71
25:DA:2838:G:H1'	38:DR:45:ARG:NH1	2.05	0.71
48:B1:51:VAL:CG2	48:B1:74:VAL:HG21	2.20	0.71
25:DA:320:A:H2'	30:DF:136:THR:HG21	1.72	0.71
1:AA:356:A:H2'	1:AA:357:G:H5'	1.72	0.71
10:CJ:78:ASN:ND2	10:CJ:80:LYS:HB3	2.06	0.71
47:D0:41:ARG:CD	47:D0:41:ARG:H	2.04	0.71
1:CA:184:G:H5'	1:CA:224:C:H4'	1.71	0.71
25:DA:2889:C:H2'	25:DA:2889:C:O2	1.88	0.71
25:BA:871:U:OP1	37:BQ:5:ARG:HG3	1.89	0.71
32:BH:113:VAL:HG11	32:BH:151:ILE:HD12	1.72	0.71
13:AM:93:ARG:N	13:AM:93:ARG:HD2	2.05	0.71
47:D0:82:ARG:O	47:D0:82:ARG:HG3	1.90	0.71
48:B1:80:LEU:HD23	48:B1:81:LYS:N	2.05	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:DV:51:VAL:HG12	42:DV:52:VAL:N	2.05	0.71
37:DQ:35:VAL:CG1	37:DQ:130:LYS:HB3	2.20	0.71
45:DY:36:ALA:HB1	45:DY:67:LEU:O	1.90	0.71
29:DE:32:PRO:HB3	29:DE:69:LYS:HB3	1.72	0.71
3:AC:64:VAL:HG22	3:AC:98:ASN:O	1.91	0.71
45:BY:8:LYS:HE2	45:BY:37:VAL:HG11	1.72	0.71
10:AJ:3:LYS:HD2	10:AJ:77:PRO:HG3	1.73	0.71
36:BP:101:VAL:HG23	36:BP:102:ARG:N	2.04	0.71
36:DP:63:PRO:C	36:DP:65:ARG:N	2.41	0.71
29:BE:75:VAL:HG12	29:BE:76:ARG:H	1.55	0.71
14:CN:6:LEU:HB3	14:CN:23:ARG:NH2	2.05	0.71
37:BQ:60:ARG:HG2	46:BZ:178:ASP:HB3	1.73	0.71
2:CB:111:ARG:HA	2:CB:111:ARG:NE	2.05	0.71
5:CE:75:THR:HG23	5:CE:76:ILE:H	1.56	0.71
1:CA:460:G:H1'	1:CA:472:A:H61	1.55	0.71
1:CA:1017:G:H2'	1:CA:1018:C:C6	2.25	0.71
39:DS:85:VAL:H	39:DS:106:ARG:CG	2.02	0.71
25:DA:1503:U:H2'	25:DA:1504:C:C6	2.24	0.71
23:CW:10:G:C8	23:CW:10:G:H5'	2.24	0.71
7:AG:132:GLY:H	7:AG:135:VAL:CG2	2.04	0.71
33:DI:5:LEU:HD23	33:DI:7:GLU:O	1.90	0.71
25:BA:558:G:P	34:BN:111:PRO:HD2	2.30	0.71
25:DA:2734:A:H5'	25:DA:2735:G:OP2	1.89	0.71
29:DE:203:LYS:HG3	29:DE:204:ALA:N	2.05	0.71
25:DA:434:U:H4'	25:DA:435:C:OP1	1.90	0.71
33:DI:38:LEU:H	33:DI:38:LEU:HD12	1.56	0.71
1:AA:802:A:H3'	1:AA:803:G:H8	1.56	0.71
32:BH:32:GLU:O	32:BH:33:LEU:HD23	1.91	0.71
25:DA:1165:U:H2'	25:DA:1166:C:C6	2.26	0.71
44:DX:56:THR:O	44:DX:57:LEU:HB3	1.89	0.71
19:CS:40:ILE:HB	19:CS:69:HIS:O	1.90	0.71
19:AS:39:THR:HG22	19:AS:40:ILE:N	2.06	0.71
13:AM:3:ARG:HB3	13:AM:7:VAL:HA	1.73	0.71
2:AB:43:ASP:OD2	2:AB:46:LYS:HB2	1.90	0.71
1:AA:235:C:H5'	17:AQ:70:ARG:HG2	1.71	0.71
25:DA:276:A:N3	25:DA:276:A:H3'	2.04	0.71
32:BH:85:LYS:HD3	32:BH:133:VAL:CG1	2.20	0.71
25:BA:1313:U:H2'	25:BA:1610:A:C2	2.26	0.71
25:DA:64:A:H5''	44:DX:64:LYS:CE	2.21	0.71
18:AR:85:LEU:HG	18:AR:86:VAL:N	2.06	0.71
31:BG:180:PHE:C	31:BG:182:LYS:N	2.42	0.71
30:DF:36:VAL:HG11	30:DF:183:VAL:HG11	1.71	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2046:G:H5'	52:D5:19:ARG:HB2	1.73	0.71
25:BA:271(M):G:C2'	25:BA:271(N):U:H5''	2.21	0.71
25:BA:1474:C:H2'	25:BA:1475:G:H8	1.55	0.71
4:CD:19:LEU:HD23	4:CD:21:LEU:HD11	1.73	0.71
48:D1:52:ARG:HH12	48:D1:78:LYS:CD	2.02	0.71
1:CA:1363(A):A:H4'	1:CA:1364:U:C5'	2.12	0.71
25:BA:2103:C:H2'	25:BA:2104:G:H5''	1.73	0.71
35:BO:71:ARG:HH12	40:BT:74:ARG:NH1	1.89	0.71
28:BD:182:LEU:O	28:BD:270:ILE:O	2.09	0.71
46:BZ:150:HIS:HA	46:BZ:170:ILE:HG12	1.72	0.71
32:DH:86:GLU:HA	32:DH:132:ARG:HA	1.73	0.71
12:CL:44:LYS:HB3	12:CL:45:PRO:HD2	1.72	0.71
1:AA:1157:A:H4'	1:AA:1158:C:O5'	1.91	0.71
3:CC:50:ALA:HB1	3:CC:70:VAL:HG11	1.72	0.71
25:DA:71:A:H4'	25:DA:72:U:O5'	1.89	0.71
27:DC:135:ARG:HB3	27:DC:137:LEU:HD13	1.71	0.71
23:CW:59:A:H2'	23:CW:60:U:C5'	2.21	0.71
10:CJ:78:ASN:HD21	10:CJ:80:LYS:HB3	1.55	0.71
1:CA:130:A:C8	17:CQ:63:ARG:HG3	2.25	0.71
1:CA:624:C:H2'	1:CA:625:G:C8	2.26	0.71
1:AA:939:G:H5''	7:AG:102:ARG:NH1	2.06	0.71
27:BC:74:ARG:HB2	27:BC:111:PHE:HA	1.73	0.71
9:AI:88:TYR:O	9:AI:89:ASN:HB2	1.89	0.71
8:AH:52:ASP:O	8:AH:53:VAL:HG23	1.89	0.71
12:AL:25:LYS:HE3	12:AL:30:ARG:HH12	1.53	0.71
25:BA:1722:A:O2'	25:BA:1739:U:H5''	1.91	0.71
25:DA:2894:G:N3	25:DA:2894:G:H2'	2.06	0.71
1:CA:645:C:H2'	1:CA:646:U:H6	1.54	0.71
25:BA:1204:A:H61	25:BA:1240:U:H2'	1.55	0.71
25:DA:1132:A:H5''	34:DN:82:LEU:CD2	2.21	0.71
25:BA:1958:C:O2'	25:BA:1959:G:H5'	1.90	0.71
29:BE:24:THR:HG22	29:BE:186:GLY:H	1.55	0.71
25:DA:118:A:OP2	25:DA:119:A:H5''	1.91	0.71
55:B8:4:MET:HB3	55:B8:61:LEU:HD22	1.71	0.70
1:AA:1116:C:H2'	1:AA:1117:G:C5'	2.21	0.70
25:BA:1171:G:H5''	25:BA:1173:G:H4'	1.73	0.70
29:DE:36:ARG:HH22	29:DE:88:GLY:HA3	1.55	0.70
32:DH:20:ALA:HB1	32:DH:21:PRO:CD	2.20	0.70
45:BY:48:ALA:O	45:BY:50:ARG:N	2.23	0.70
12:CL:44:LYS:HB3	12:CL:45:PRO:HD3	1.72	0.70
25:DA:2804:C:C2'	25:DA:2805:G:H5'	2.21	0.70
15:CO:70:LEU:HD21	15:CO:77:ARG:O	1.91	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DT:27:THR:HG23	40:DT:28:VAL:N	2.06	0.70
6:AF:60:PHE:C	6:AF:61:LEU:HD12	2.11	0.70
11:AK:44:SER:H	11:AK:47:VAL:CG2	2.04	0.70
31:BG:39:ILE:HD11	31:BG:155:MET:SD	2.31	0.70
22:AV:172:LYS:HB2	22:AV:181:VAL:HG23	1.73	0.70
31:BG:96:ARG:O	31:BG:99:MET:HB3	1.90	0.70
22:CV:102:GLU:H	22:CV:102:GLU:CD	1.95	0.70
30:BF:123:LEU:HD12	30:BF:124:LEU:H	1.55	0.70
25:DA:942:G:O2'	25:DA:943:U:H5'	1.90	0.70
1:CA:1057:G:H2'	1:CA:1058:G:O4'	1.90	0.70
25:DA:2314:C:O2'	25:DA:2315:G:H5'	1.90	0.70
50:D3:6:VAL:HB	50:D3:54:VAL:CG1	2.20	0.70
42:DV:20:LEU:HB3	42:DV:21:ARG:HH21	1.55	0.70
25:DA:996:A:H1'	42:DV:9:GLY:O	1.91	0.70
25:DA:953:A:OP2	37:DQ:16:ARG:NH2	2.23	0.70
41:BU:66:ASN:HD21	41:BU:70:ARG:HH21	1.39	0.70
25:BA:2785:C:O2'	25:BA:2786:U:H5'	1.91	0.70
3:AC:105:GLU:HG2	3:AC:106:VAL:N	2.04	0.70
36:BP:85:LEU:HD23	36:BP:85:LEU:N	2.06	0.70
31:DG:16:ARG:NH1	31:DG:28:VAL:HG13	2.03	0.70
13:AM:94:ARG:O	13:AM:96:LEU:HG	1.91	0.70
25:DA:902:C:H2'	25:DA:903:C:H6	1.55	0.70
22:AV:134:ASP:CG	22:AV:135:THR:N	2.44	0.70
28:DD:71:ASP:HB2	28:DD:103:ARG:HH22	1.55	0.70
25:DA:538:G:H2'	25:DA:539:G:C8	2.25	0.70
25:BA:2126:A:C6	25:BA:2163:C:H4'	2.27	0.70
35:BO:49:ARG:HH11	35:BO:49:ARG:HG2	1.56	0.70
28:BD:142:VAL:HG21	28:BD:191:ALA:HB1	1.72	0.70
35:BO:1:MET:CE	35:BO:67:LYS:HG2	2.21	0.70
1:CA:532:A:H3'	1:CA:533:A:H5''	1.72	0.70
25:BA:2092:U:H5	25:BA:2226:C:OP2	1.74	0.70
25:BA:1756:G:H4'	25:BA:1758:G:O4'	1.91	0.70
28:BD:28:GLU:H	28:BD:29:PRO:HD2	1.53	0.70
29:BE:16:ARG:O	29:BE:17:ASP:HB2	1.89	0.70
34:BN:42:TRP:HA	34:BN:48:MET:CE	2.21	0.70
8:AH:10:LEU:H	8:AH:10:LEU:HD12	1.55	0.70
5:AE:98:THR:HG22	5:AE:117:ASP:HB3	1.71	0.70
42:BV:77:ALA:O	42:BV:79:VAL:HG12	1.91	0.70
39:BS:92:TYR:C	39:BS:94:TYR:H	1.94	0.70
41:DU:90:VAL:HG13	42:DV:11:GLN:NE2	2.06	0.70
41:DU:65:ILE:HD11	41:DU:96:ALA:HB3	1.73	0.70
25:DA:2182:G:O2'	25:DA:2183:C:H5'	1.91	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:4:TYR:HA	9:CI:88:TYR:CD1	2.26	0.70
1:CA:1240:U:O3'	7:CG:38:LEU:HD21	1.91	0.70
42:BV:46:VAL:HG13	42:BV:47:VAL:N	2.06	0.70
30:BF:3:GLU:HB2	30:BF:19:GLU:CB	2.18	0.70
3:AC:62:ASP:OD2	3:AC:97:LYS:HG3	1.91	0.70
25:BA:1342:A:C5	25:BA:1397:U:OP2	2.44	0.70
25:DA:612:C:C3'	25:DA:613:G:H5''	2.21	0.70
32:DH:19:VAL:HG12	32:DH:20:ALA:N	2.06	0.70
25:DA:271(T):C:H6	25:DA:271(T):C:H5'	1.56	0.70
5:AE:110:LEU:O	5:AE:113:ALA:HB3	1.91	0.70
42:BV:18:LEU:CG	42:BV:19:LYS:H	2.02	0.70
6:CF:89:MET:HG2	6:CF:89:MET:O	1.91	0.70
26:DB:50:G:P	39:DS:63:THR:HG23	2.31	0.70
28:BD:155:LEU:HD23	28:BD:177:LEU:CD2	2.19	0.70
1:AA:878:G:H5'	8:AH:89:PRO:CG	2.22	0.70
25:DA:814:C:O2'	25:DA:815:C:H5'	1.91	0.70
17:AQ:78:GLU:HG2	17:AQ:81:ARG:HD2	1.72	0.70
25:BA:1884:A:H2'	25:BA:1885:A:C5'	2.20	0.70
35:BO:45:GLU:HA	35:BO:54:GLU:OE1	1.91	0.70
1:AA:60:A:H4'	1:AA:61:G:O5'	1.90	0.70
25:DA:2502:G:H5''	25:DA:2503:A:H5''	1.73	0.70
7:CG:6:ARG:HH21	7:CG:94:ARG:HH22	1.37	0.70
25:DA:1721:G:C6	25:DA:1739:U:H5'	2.27	0.70
25:DA:1491:G:O2'	25:DA:1492:G:H5'	1.91	0.70
25:DA:2103:C:C3'	25:DA:2104:G:H5''	2.19	0.70
13:AM:10:PRO:O	13:AM:11:ARG:HB2	1.90	0.70
28:DD:26:LYS:O	28:DD:27:THR:HB	1.91	0.70
53:B6:19:ARG:HG3	53:B6:20:ASN:N	2.06	0.70
36:DP:58:THR:C	36:DP:60:MET:H	1.93	0.70
25:DA:271(T):C:H6	25:DA:271(T):C:C5'	2.03	0.70
8:AH:5:PRO:HG2	8:AH:6:ILE:HD12	1.73	0.70
36:BP:23:PRO:C	36:BP:33:ARG:CZ	2.60	0.70
1:AA:718:G:H5'	11:AK:117:ASN:CG	2.12	0.70
1:CA:878:G:H5''	8:CH:89:PRO:HG2	1.72	0.70
51:B4:37:PRO:O	51:B4:55:PRO:HG3	1.92	0.70
3:AC:128:PHE:HD2	3:AC:129:ALA:H	1.38	0.70
11:AK:44:SER:H	11:AK:47:VAL:HG23	1.56	0.70
25:DA:2298:A:H2'	25:DA:2299:G:O4'	1.90	0.70
23:AW:47:U:H3'	23:AW:48:C:H5''	1.72	0.70
25:BA:271(M):G:O2'	25:BA:271(N):U:H5''	1.91	0.70
1:CA:935:A:H8	1:CA:935:A:H5'	1.55	0.70
25:DA:2019:A:O3'	41:DU:27:LEU:HD12	1.92	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:D3:50:VAL:O	50:D3:50:VAL:HG23	1.91	0.70
48:D1:50:ARG:HG2	48:D1:50:ARG:NH1	2.06	0.70
33:BI:83:ALA:HA	33:BI:89:TYR:CD1	2.26	0.70
42:DV:18:LEU:CD2	42:DV:19:LYS:H	2.04	0.70
7:CG:15:ASP:HB3	7:CG:19:GLY:N	2.06	0.70
1:AA:1313:U:P	19:AS:6:LYS:HG3	2.31	0.70
19:AS:36:ARG:HB2	19:AS:72:GLY:HA2	1.72	0.70
30:DF:64:ILE:HD12	30:DF:78:ILE:HG23	1.73	0.70
46:BZ:64:GLN:OE1	46:BZ:66:LEU:HD11	1.91	0.70
36:BP:114:ILE:HD12	36:BP:115:LEU:N	2.07	0.70
17:AQ:68:ARG:H	17:AQ:70:ARG:HH11	1.38	0.70
1:CA:1305:G:OP1	21:CU:2:GLY:HA3	1.91	0.70
40:DT:80:SER:HB3	40:DT:81:PRO:HD3	1.73	0.70
25:BA:271(U):G:O2'	25:BA:271(V):G:H5'	1.92	0.70
32:BH:64:LEU:HD23	32:BH:67:LEU:HD23	1.74	0.70
1:AA:973:G:O4'	10:AJ:55:LYS:HB3	1.91	0.70
25:BA:2053:G:H5'	29:BE:144:ARG:O	1.91	0.70
25:BA:628:G:H2'	25:BA:629:G:H8	1.57	0.70
25:BA:2700:C:O2'	25:BA:2701:C:H5'	1.90	0.70
26:DB:88:C:H2'	26:DB:89:G:C8	2.27	0.70
22:AV:71:GLN:O	22:AV:82:PHE:HA	1.91	0.70
38:DR:81:ASP:O	38:DR:82:GLU:HB2	1.91	0.70
8:CH:1:MET:HE2	8:CH:2:LEU:N	2.05	0.70
3:CC:27:LYS:HB3	3:CC:27:LYS:NZ	2.06	0.70
46:BZ:145:ILE:HG22	46:BZ:173:VAL:HG12	1.71	0.70
25:DA:1034:G:H5'	56:D9:18:ARG:HD2	1.73	0.70
1:AA:1131:G:H2'	1:AA:1132:C:C6	2.26	0.70
3:AC:5:ILE:HD13	3:AC:10:PHE:HB2	1.74	0.70
36:BP:16:ARG:CZ	36:BP:18:ARG:HB2	2.21	0.70
53:B6:35:GLU:N	53:B6:51:GLU:OE2	2.25	0.70
36:BP:81:GLN:CG	36:BP:106:LEU:HA	2.19	0.70
2:AB:115:LEU:HD13	2:AB:145:LEU:HB3	1.72	0.70
25:BA:330:A:O2'	25:BA:331:A:H8	1.74	0.70
4:AD:9:CYS:SG	4:AD:22:LYS:HD2	2.32	0.70
3:CC:8:ILE:HD12	3:CC:16:ARG:NH2	2.07	0.70
10:CJ:48:THR:CA	10:CJ:62:HIS:HB3	2.20	0.70
17:CQ:76:LEU:HD12	17:CQ:77:VAL:H	1.57	0.70
25:BA:857:C:H5'	47:B0:76:ARG:NH2	2.07	0.70
25:BA:528:A:H8	25:BA:528:A:H3'	1.56	0.70
25:BA:28:A:N6	25:BA:512:G:H1'	2.05	0.70
1:AA:1005:A:H4'	1:AA:1037:C:O2'	1.91	0.70
25:DA:1319:G:O2'	25:DA:1320:C:H5'	1.91	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:AG:108:ALA:O	7:AG:119:ARG:HD2	1.92	0.70
16:CP:21:VAL:O	16:CP:33:ILE:HG12	1.91	0.70
1:AA:1279:A:H61	3:AC:26:LYS:NZ	1.90	0.70
32:BH:98:LEU:HD12	32:BH:102:ALA:O	1.91	0.70
50:B3:52:HIS:CD2	50:B3:52:HIS:H	2.09	0.70
22:AV:110:ALA:HB1	22:AV:123:THR:O	1.92	0.70
25:DA:1636:C:H2'	25:DA:1637:A:C8	2.26	0.70
25:DA:2036:C:H5'	25:DA:2036:C:H6	1.57	0.70
1:AA:256:U:H2'	1:AA:257:G:H8	1.57	0.70
11:AK:13:GLN:HE22	11:AK:75:TYR:HA	1.55	0.70
9:AI:17:VAL:HG21	9:AI:80:GLY:HA3	1.73	0.70
10:AJ:51:ARG:NE	10:AJ:61:GLU:HB2	2.06	0.70
27:BC:101:ILE:O	27:BC:105:LEU:HB2	1.90	0.70
28:BD:31:LYS:O	28:BD:35:LYS:HB2	1.91	0.70
12:CL:44:LYS:CB	12:CL:45:PRO:CD	2.70	0.70
5:CE:51:VAL:HB	5:CE:52:PRO:HD3	1.74	0.70
5:CE:70:PRO:HB3	5:CE:144:THR:HG23	1.74	0.70
3:CC:134:ILE:HG22	3:CC:168:ALA:HB3	1.73	0.70
31:BG:72:ARG:HD3	31:BG:86:MET:HA	1.74	0.70
1:AA:404:U:H2'	1:AA:405:U:C6	2.27	0.70
55:D8:43:GLN:C	55:D8:44:LYS:HD2	2.12	0.70
25:BA:2884:U:C2	52:B5:51:TYR:HE1	2.09	0.70
55:D8:52:LYS:N	55:D8:53:PRO:CD	2.54	0.70
1:AA:688:G:O2'	1:AA:689:C:H5'	1.92	0.70
30:DF:75:HIS:HE1	30:DF:82:ILE:HD11	1.57	0.70
1:AA:999:C:H2'	1:AA:1000:U:C6	2.26	0.70
25:DA:615:G:OP2	30:DF:40:GLN:HG2	1.92	0.70
49:D2:13:ALA:O	49:D2:16:LEU:HB2	1.91	0.70
30:DF:152:GLU:OE2	30:DF:191:ARG:HD2	1.91	0.70
54:D7:26:GLY:O	54:D7:30:VAL:HG23	1.92	0.70
1:CA:731:G:OP1	1:CA:766:A:H1'	1.92	0.70
5:AE:135:THR:O	5:AE:138:ALA:HB3	1.92	0.70
25:BA:252:G:OP2	36:BP:50:ARG:NH1	2.24	0.70
39:BS:13:ARG:O	39:BS:15:ARG:HG2	1.91	0.70
2:CB:219:VAL:HA	2:CB:222:ILE:CD1	2.21	0.70
1:CA:1347:G:H8	9:CI:107:ARG:HB3	1.56	0.70
45:DY:47:LYS:HD2	45:DY:47:LYS:N	2.06	0.70
52:B5:4:HIS:HB3	52:B5:5:PRO:HD2	1.71	0.70
32:BH:84:SER:O	32:BH:85:LYS:HB3	1.91	0.70
27:BC:118:PRO:HD2	27:BC:148:PHE:CE1	2.27	0.70
1:CA:96:U:O2'	1:CA:97:G:H5'	1.91	0.70
46:BZ:107:PRO:HB3	46:BZ:143:LEU:HB2	1.72	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:181:G:H4'	1:CA:182:U:H5'	1.72	0.70
1:AA:539:A:OP1	12:AL:111:LYS:HE2	1.91	0.70
25:BA:2277:G:O2'	25:BA:2278:A:H5'	1.91	0.70
1:CA:677:U:H3	1:CA:713:G:H22	1.40	0.70
25:BA:1270:C:H5''	25:BA:1271:G:O5'	1.90	0.70
25:DA:589:C:H2'	25:DA:590:A:H8	1.55	0.70
39:BS:78:LEU:HD11	39:BS:103:GLU:HB3	1.74	0.70
32:BH:7:LEU:N	32:BH:8:PRO:CD	2.54	0.70
50:D3:30:ARG:HD3	50:D3:33:GLN:NE2	2.07	0.70
9:CI:10:ARG:NH2	9:CI:72:GLY:HA2	2.06	0.70
1:AA:1314:C:H2'	1:AA:1315:U:C6	2.27	0.70
45:DY:14:LEU:HG	45:DY:15:VAL:H	1.56	0.70
38:DR:8:ARG:HB3	38:DR:43:GLU:OE1	1.91	0.70
10:AJ:5:ARG:HG2	10:AJ:6:ILE:N	2.06	0.70
36:BP:16:ARG:CZ	36:BP:16:ARG:HB2	2.21	0.70
52:B5:54:GLY:H	52:B5:56:LYS:NZ	1.90	0.70
1:CA:627:G:O2'	1:CA:628:G:H5'	1.91	0.70
1:AA:1034:G:N2	1:AA:1035:A:H62	1.89	0.70
38:BR:63:ARG:HH11	38:BR:63:ARG:HB2	1.57	0.70
46:BZ:9:ARG:HH21	46:BZ:25:GLY:N	1.88	0.70
12:CL:66:TYR:O	12:CL:68:PRO:HD3	1.91	0.70
25:BA:908:C:O2'	25:BA:909:A:H5'	1.92	0.70
28:BD:210:GLY:O	28:BD:211:ARG:HB3	1.92	0.70
1:CA:139:G:O2'	1:CA:140:A:H5'	1.92	0.70
20:AT:99:LEU:C	20:AT:100:ILE:HD12	2.12	0.70
42:BV:49:THR:HG22	42:BV:50:PRO:HD3	1.72	0.70
29:DE:34:VAL:HG21	29:DE:78:LEU:HD22	1.73	0.70
3:AC:92:ALA:HB2	3:AC:99:VAL:CG2	2.19	0.70
53:D6:13:CYS:O	53:D6:21:TYR:HA	1.92	0.70
25:DA:612:C:H2'	25:DA:613:G:C5'	2.15	0.70
28:BD:35:LYS:NZ	28:BD:103:ARG:HA	2.07	0.70
13:CM:69:GLU:OE1	13:CM:69:GLU:HA	1.92	0.70
27:BC:80:LYS:HE3	31:BG:48:GLU:HA	1.73	0.70
1:AA:357:G:OP1	1:AA:367:U:H5''	1.92	0.70
1:CA:1124:G:C5'	10:CJ:35:SER:HB2	2.22	0.70
20:CT:69:GLY:O	20:CT:73:HIS:NE2	2.23	0.70
22:AV:29:LYS:HG3	25:BA:2254:C:C4'	2.21	0.70
38:BR:72:ASP:HB3	38:BR:75:LEU:HB3	1.72	0.70
6:CF:11:ASN:HB3	6:CF:14:LEU:HD21	1.73	0.70
17:AQ:92:ARG:O	17:AQ:95:TYR:HB2	1.91	0.70
4:CD:63:LYS:HE3	4:CD:198:VAL:HG22	1.71	0.70
12:AL:44:LYS:HB3	12:AL:45:PRO:HD3	1.73	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:840:C:H5''	1:CA:841:U:OP1	1.92	0.70
28:BD:121:PRO:HB3	28:BD:135:PHE:HE1	1.54	0.70
25:DA:1227:G:O2'	25:DA:1228:G:H5'	1.92	0.70
25:BA:1658:C:OP1	57:BA:3459:MG:MG	1.33	0.70
26:BB:2:C:H2'	26:BB:3:C:C6	2.26	0.70
48:D1:15:ALA:O	48:D1:40:ARG:HG3	1.92	0.70
13:AM:55:ARG:O	13:AM:58:GLU:HB2	1.92	0.70
33:DI:97:ILE:O	33:DI:100:ALA:HB3	1.91	0.70
28:DD:257:LEU:HD13	28:DD:257:LEU:O	1.92	0.70
25:DA:2600:A:H2'	25:DA:2601:C:C6	2.27	0.70
25:BA:242:G:C5'	55:B8:62:LEU:HD13	2.14	0.69
2:CB:55:PHE:CE1	2:CB:218:ALA:HA	2.27	0.69
41:DU:52:ARG:HD3	41:DU:55:ARG:HE	1.57	0.69
25:DA:2185:C:H5'	25:DA:2186:G:OP2	1.92	0.69
9:CI:63:ILE:HD11	9:CI:81:ILE:HD11	1.74	0.69
41:BU:112:ARG:CG	41:BU:112:ARG:HH11	2.04	0.69
29:DE:54:GLN:O	29:DE:55:ASN:HB2	1.91	0.69
53:D6:15:GLU:O	53:D6:15:GLU:HG3	1.91	0.69
28:BD:24:ILE:HG23	28:BD:25:THR:N	2.04	0.69
29:BE:47:VAL:HG21	29:BE:86:PRO:HD3	1.72	0.69
13:CM:66:LEU:HD12	13:CM:66:LEU:N	2.07	0.69
43:BW:60:ASN:N	43:BW:60:ASN:ND2	2.40	0.69
5:AE:12:LEU:HD13	5:AE:13:ILE:N	2.06	0.69
56:B9:9:ARG:HB3	56:B9:9:ARG:NH1	2.07	0.69
6:CF:19:LEU:HD11	6:CF:59:TYR:CE1	2.26	0.69
49:B2:38:GLN:HB3	49:B2:44:LEU:O	1.92	0.69
29:BE:101:ARG:CZ	29:BE:171:GLU:HB2	2.21	0.69
1:CA:1194:U:H2'	1:CA:1195:C:C6	2.26	0.69
25:DA:2061:G:OP2	25:DA:2502:G:H5'	1.91	0.69
25:BA:1292:U:H2'	25:BA:1293:C:C6	2.27	0.69
8:AH:103:VAL:CG2	8:AH:110:ALA:HB2	2.22	0.69
1:CA:1293:G:H2'	1:CA:1294:G:C8	2.27	0.69
2:AB:97:TRP:CZ2	2:AB:102:LEU:HD13	2.27	0.69
17:CQ:13:ASP:N	17:CQ:14:LYS:HZ2	1.90	0.69
23:CW:51:C:H2'	23:CW:52:G:O4'	1.92	0.69
41:DU:92:ARG:NE	41:DU:94:ASN:HB3	2.06	0.69
25:BA:2178:C:C5'	27:BC:47:LYS:HE2	2.18	0.69
31:DG:152:LEU:O	31:DG:153:ARG:HB2	1.91	0.69
1:AA:1137:C:H4'	1:AA:1138:G:C2	2.27	0.69
53:B6:19:ARG:O	53:B6:20:ASN:O	2.09	0.69
25:BA:479:A:H4'	25:BA:480:A:H5'	1.73	0.69
8:CH:110:ALA:HB3	8:CH:121:ASP:CB	2.19	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:114:ARG:NH1	2:AB:118:LEU:HD11	2.06	0.69
2:AB:122:PHE:HB2	2:AB:139:LYS:HZ2	1.58	0.69
36:BP:65:ARG:HG3	36:BP:65:ARG:NH1	2.05	0.69
2:CB:178:ARG:HH11	2:CB:178:ARG:CB	2.04	0.69
22:CV:12:LYS:CD	22:CV:65:VAL:HB	2.22	0.69
37:BQ:27:VAL:O	37:BQ:28:ALA:HB3	1.91	0.69
36:DP:107:LYS:O	36:DP:109:GLY:N	2.25	0.69
25:DA:2331:G:O4'	47:D0:42:GLY:HA3	1.91	0.69
39:DS:69:VAL:CG1	39:DS:99:LYS:HE3	2.22	0.69
39:DS:69:VAL:HG13	39:DS:99:LYS:HE3	1.73	0.69
12:CL:23:ALA:C	12:CL:24:LEU:HD22	2.11	0.69
25:DA:1194:A:C3'	25:DA:1195:G:H5''	2.22	0.69
25:DA:813:U:H2'	25:DA:814:C:C6	2.27	0.69
1:AA:920:U:H2'	1:AA:921:U:C6	2.26	0.69
55:D8:28:GLY:C	55:D8:32:LEU:HD21	2.12	0.69
18:CR:31:LEU:HD23	18:CR:31:LEU:H	1.55	0.69
26:DB:88:C:H2'	26:DB:89:G:N9	2.07	0.69
29:DE:101:ARG:NE	29:DE:169:ASN:HD21	1.90	0.69
5:CE:37:ARG:HH12	5:CE:112:LEU:HD22	1.55	0.69
1:AA:599:C:H2'	1:AA:600:C:C6	2.27	0.69
1:AA:1442(A):G:C8	40:BT:118:ARG:HD2	2.27	0.69
1:CA:131:C:H2'	1:CA:132:C:C6	2.27	0.69
25:BA:850:C:O3'	50:B3:49:LYS:NZ	2.26	0.69
25:DA:889:C:H1'	25:DA:890:A:O4'	1.91	0.69
25:BA:289:A:H2'	25:BA:290:G:O4'	1.92	0.69
36:DP:86:LYS:HB2	36:DP:118:GLY:HA3	1.73	0.69
3:AC:127:ARG:HH11	3:AC:127:ARG:HG2	1.57	0.69
17:CQ:86:GLU:O	17:CQ:90:ILE:HG12	1.91	0.69
16:AP:9:PHE:HE2	16:AP:18:ARG:HD2	1.57	0.69
35:DO:98:VAL:HG12	35:DO:117:LEU:CD2	2.14	0.69
32:BH:12:PRO:HD2	32:BH:49:VAL:HA	1.74	0.69
25:DA:1668:A:C4'	25:DA:1669:A:H5'	2.19	0.69
1:AA:1030(D):A:H3'	1:AA:1031:G:H8	1.56	0.69
25:DA:275:G:C2'	25:DA:276:A:H4'	2.18	0.69
4:AD:173:TRP:HB3	4:AD:187:ARG:NH1	2.06	0.69
3:CC:35:GLU:HA	3:CC:38:ARG:CD	2.23	0.69
42:BV:18:LEU:CD2	42:BV:19:LYS:H	2.06	0.69
33:BI:48:GLU:HA	33:BI:51:ILE:CG2	2.21	0.69
31:DG:82:LEU:HD22	31:DG:87:PRO:CG	2.21	0.69
10:CJ:9:ARG:O	10:CJ:94:VAL:HG13	1.92	0.69
28:DD:79:VAL:HG11	28:DD:111:LEU:CD1	2.22	0.69
1:AA:1162:C:H2'	1:AA:1163:C:H6	1.56	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CF:48:LEU:HD21	6:CF:60:PHE:HZ	1.56	0.69
29:DE:116:VAL:HG21	29:DE:122:PHE:CD2	2.27	0.69
28:DD:182:LEU:N	28:DD:272:ALA:HB3	2.06	0.69
1:CA:838:G:C2'	1:CA:839:U:H5''	2.22	0.69
49:D2:17:SER:O	49:D2:21:LEU:HB2	1.92	0.69
25:DA:784:A:C5	28:DD:229:VAL:HG21	2.27	0.69
49:B2:46:GLN:OE1	49:B2:46:GLN:HA	1.90	0.69
22:CV:43:ASN:HB3	22:CV:46:THR:O	1.92	0.69
40:DT:112:ARG:NH2	40:DT:113:LYS:HE3	2.06	0.69
25:DA:2104:G:H5'	25:DA:2104:G:N3	2.06	0.69
25:BA:1109:C:C5	25:BA:1110:G:H1'	2.27	0.69
1:CA:1117:G:H21	1:CA:1180:A:H1'	1.58	0.69
1:CA:1237:C:H4'	1:CA:1334:G:N2	2.06	0.69
25:DA:81:G:N2	45:DY:2:ARG:HH12	1.89	0.69
25:BA:2391:G:OP1	55:B8:32:LEU:HD12	1.92	0.69
30:BF:66:PRO:O	30:BF:67:GLN:HB3	1.90	0.69
19:CS:10:PHE:HZ	19:CS:70:LYS:HZ3	1.39	0.69
1:CA:1004:A:O2'	1:CA:1005:A:H5'	1.93	0.69
25:DA:2175:C:H2'	25:DA:2176:A:H5''	1.74	0.69
1:CA:1014:A:N3	1:CA:1219:U:H1'	2.07	0.69
1:AA:1004:A:H2'	1:AA:1037:C:O2	1.93	0.69
26:BB:40:U:H1'	26:BB:45:A:H61	1.57	0.69
6:CF:97:PHE:HD2	18:CR:31:LEU:HD21	1.58	0.69
4:CD:135:LEU:HB2	4:CD:138:TYR:HB2	1.74	0.69
25:DA:652:C:H2'	25:DA:652:C:O2	1.92	0.69
15:CO:39:LEU:HD13	15:CO:56:LEU:HD13	1.74	0.69
12:AL:76:GLU:O	12:AL:77:HIS:HB2	1.92	0.69
45:BY:2:ARG:N	45:BY:4:LYS:HG2	2.08	0.69
46:BZ:60:LEU:H	46:BZ:60:LEU:HD22	1.57	0.69
46:DZ:111:ARG:HG2	46:DZ:111:ARG:HH11	1.57	0.69
16:CP:26:ARG:HD2	16:CP:31:LYS:O	1.92	0.69
28:BD:2:ALA:HB3	28:BD:20:ASP:OD2	1.92	0.69
32:BH:32:GLU:HG2	32:BH:33:LEU:N	2.07	0.69
30:BF:195:ASP:HB2	30:BF:198:ALA:CB	2.21	0.69
3:AC:70:VAL:HG12	3:AC:71:ALA:N	2.07	0.69
45:BY:29:GLU:N	45:BY:29:GLU:OE1	2.26	0.69
27:BC:133:GLY:HA2	27:BC:138:LEU:HD12	1.74	0.69
25:BA:272(I):U:H2'	25:BA:274:G:H8	1.56	0.69
36:BP:97:PRO:HD3	36:BP:126:VAL:O	1.92	0.69
5:AE:41:VAL:CG2	5:AE:113:ALA:HA	2.22	0.69
38:DR:98:LEU:HD12	38:DR:113:LEU:HD23	1.72	0.69
1:AA:1206:G:H4'	3:AC:192:THR:O	1.92	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:CE:81:GLU:HB3	5:CE:88:LYS:NZ	2.08	0.69
25:BA:529:A:H62	25:BA:2041:U:H3	1.37	0.69
25:DA:2175:C:H1'	27:DC:219:MET:HA	1.74	0.69
1:CA:624:C:H2'	1:CA:625:G:H8	1.57	0.69
37:DQ:61:GLY:O	46:DZ:177:GLU:HB2	1.91	0.69
28:DD:268:ARG:HB2	28:DD:268:ARG:HH11	1.56	0.69
1:AA:512:U:H2'	1:AA:513:C:C6	2.26	0.69
37:DQ:58:PHE:HD1	37:DQ:58:PHE:O	1.76	0.69
28:BD:73:VAL:HG13	28:BD:120:GLY:HA2	1.75	0.69
25:DA:323:G:H1'	25:DA:1205:U:O2	1.92	0.69
35:DO:1:MET:HB2	35:DO:32:TYR:HB3	1.74	0.69
38:BR:54:LEU:HD23	38:BR:66:VAL:HG23	1.75	0.69
34:DN:76:SER:O	34:DN:78:TYR:N	2.25	0.69
27:BC:184:GLU:CD	27:BC:184:GLU:H	1.95	0.69
23:AW:50:U:H3	23:AW:64:G:H1	1.40	0.69
27:BC:10:ALA:HA	27:BC:13:GLU:OE1	1.93	0.69
41:BU:49:HIS:HA	41:BU:52:ARG:HB2	1.74	0.69
27:BC:62:THR:HG22	27:BC:163:GLU:HG2	1.74	0.69
1:CA:1141:C:H2'	1:CA:1142:G:N7	2.07	0.69
31:DG:128:ARG:C	31:DG:130:ASN:H	1.96	0.69
31:DG:139:LEU:HA	31:DG:144:ILE:HG12	1.74	0.69
16:AP:49:LEU:HD22	16:AP:73:LEU:HD22	1.74	0.69
10:AJ:34:VAL:HG22	10:AJ:74:ILE:HG22	1.72	0.69
2:AB:75:LYS:HE3	2:AB:78:GLN:OE1	1.93	0.69
1:CA:376:G:OP2	16:CP:67:THR:HG21	1.93	0.69
25:DA:8:A:H2'	25:DA:9:U:C5	2.28	0.69
2:AB:68:ILE:CD1	2:AB:161:ALA:HB3	2.22	0.69
31:BG:76:SER:HB3	31:BG:84:LYS:H	1.57	0.69
6:CF:82:ARG:HA	6:CF:82:ARG:HH11	1.57	0.69
30:BF:111:ALA:HB2	30:BF:206:ILE:CG2	2.22	0.69
25:BA:2762:G:C2'	25:BA:2763:G:H5''	2.22	0.69
38:DR:24:GLN:HE22	38:DR:36:THR:HG21	1.56	0.69
1:CA:1277:C:O2'	1:CA:1279:A:H1'	1.93	0.69
1:CA:152:A:H61	1:CA:170:U:H1'	1.57	0.69
28:DD:142:VAL:HG23	28:DD:192:THR:C	2.12	0.69
25:BA:2340:G:O2'	25:BA:2341:G:H5'	1.92	0.69
22:AV:112:GLY:HA2	22:AV:121:LYS:O	1.91	0.69
25:DA:1862:G:O2'	25:DA:1863:G:H5'	1.91	0.69
9:AI:70:LYS:O	9:AI:74:ILE:HG13	1.92	0.69
2:CB:132:LYS:CA	2:CB:135:GLN:HE21	1.99	0.69
22:CV:163:LEU:N	22:CV:163:LEU:HD23	2.08	0.69
31:DG:56:ALA:HB2	31:DG:153:ARG:CZ	2.23	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:DY:2:ARG:HD2	45:DY:3:VAL:H	1.58	0.69
16:AP:74:LEU:O	16:AP:79:VAL:HG23	1.92	0.69
10:AJ:4:ILE:HA	10:AJ:100:THR:HG22	1.74	0.69
45:BY:77:PRO:O	45:BY:99:CYS:SG	2.48	0.69
32:DH:127:GLU:HG3	32:DH:128:PRO:HD2	1.75	0.69
53:B6:20:ASN:HB2	53:B6:42:TRP:CD1	2.27	0.69
4:AD:36:ARG:HH11	4:AD:36:ARG:CG	2.04	0.69
1:AA:974:A:H1'	14:AN:31:ARG:NE	2.07	0.69
34:DN:23:LEU:HB3	34:DN:60:ILE:CG2	2.21	0.69
12:AL:87:VAL:HG12	12:AL:89:ASP:H	1.58	0.69
25:BA:528:A:C8	25:BA:528:A:H3'	2.28	0.69
3:CC:132:ARG:O	3:CC:136:GLN:HB2	1.93	0.69
1:CA:460:G:C6	1:CA:470:C:H5''	2.28	0.69
32:DH:68:THR:C	32:DH:70:THR:H	1.95	0.69
26:BB:8:U:H5'	39:BS:17:ARG:HH12	1.57	0.69
25:BA:1408:C:O2'	25:BA:1409:C:H5'	1.92	0.69
1:CA:826:C:H2'	1:CA:827:U:C6	2.26	0.69
34:BN:76:SER:O	34:BN:78:TYR:N	2.26	0.69
48:B1:23:LYS:HD3	48:B1:28:GLY:HA3	1.74	0.69
28:BD:130:ALA:C	28:BD:131:LEU:HD12	2.12	0.69
54:D7:30:VAL:O	54:D7:34:ARG:HG3	1.93	0.69
2:AB:97:TRP:HZ2	2:AB:102:LEU:HD13	1.56	0.69
1:CA:1244:C:H2'	1:CA:1245:A:C8	2.28	0.69
28:DD:176:ARG:HH11	28:DD:176:ARG:HG2	1.58	0.69
25:BA:2875:C:C4'	40:BT:5:ALA:HB2	2.15	0.69
25:BA:176:G:O2'	25:BA:177:G:H5'	1.92	0.69
46:DZ:94:PRO:HA	46:DZ:127:VAL:O	1.92	0.69
1:CA:1347:G:N2	1:CA:1373:G:H2'	2.08	0.69
22:CV:110:ALA:HB2	22:CV:125:PRO:HD3	1.74	0.69
25:BA:2371:G:H4'	53:B6:45:LYS:HG3	1.75	0.69
18:CR:44:LEU:HD11	18:CR:79:LEU:HD22	1.73	0.69
25:DA:847:U:HO2'	25:DA:848:G:H5'	1.56	0.69
25:DA:924:C:H2'	25:DA:925:C:C6	2.28	0.69
27:BC:128:LEU:HB3	27:BC:132:LEU:HD21	1.73	0.69
4:AD:50:ARG:HB3	4:AD:50:ARG:HH11	1.55	0.69
28:BD:77:ALA:HB2	28:BD:97:TYR:CD2	2.27	0.69
32:DH:109:PHE:HE1	32:DH:152:ARG:HG2	1.58	0.69
40:BT:27:THR:CG2	40:BT:28:VAL:H	2.05	0.69
1:AA:502:G:H2'	1:AA:503:C:C6	2.27	0.69
31:BG:47:LYS:HD3	31:BG:82:LEU:CG	2.22	0.69
15:CO:70:LEU:HD23	15:CO:78:TYR:HA	1.74	0.69
22:CV:11:THR:HG22	22:CV:12:LYS:N	2.08	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:50:ILE:N	10:AJ:50:ILE:HD13	2.07	0.69
39:DS:99:LYS:O	39:DS:101:LEU:HD12	1.92	0.69
39:DS:15:ARG:HB3	39:DS:18:ILE:HG21	1.75	0.69
25:DA:1685:C:H2'	25:DA:1686:C:C5'	2.22	0.69
25:BA:528:A:O2'	25:BA:529:A:H5'	1.93	0.69
1:CA:255:G:H1'	17:CQ:16:GLN:NE2	2.07	0.69
1:CA:537:G:H5''	12:CL:110:ARG:NH1	2.08	0.69
28:DD:80:ALA:HB2	28:DD:96:HIS:HD2	1.57	0.69
5:AE:57:LYS:HE2	5:AE:61:TYR:OH	1.92	0.69
1:AA:625:G:H2'	1:AA:626:U:C6	2.27	0.69
9:AI:18:PHE:CD1	9:AI:62:TYR:HD2	2.09	0.69
6:AF:86:ARG:O	6:AF:87:ARG:HG2	1.91	0.69
31:BG:98:ARG:HA	31:BG:101:ILE:HD12	1.75	0.69
22:AV:84:ASP:C	22:AV:86:GLU:H	1.94	0.69
1:CA:45:U:H2'	1:CA:46:G:H8	1.55	0.69
37:DQ:78:PRO:HD2	37:DQ:81:VAL:HG11	1.72	0.69
25:DA:935:C:H2'	25:DA:936:C:C6	2.28	0.69
6:AF:6:VAL:C	6:AF:7:ASN:HD22	1.96	0.69
25:BA:2563:U:O2'	35:BO:28:SER:HB2	1.93	0.69
17:CQ:27:PHE:HE1	17:CQ:36:ILE:HD11	1.57	0.69
27:BC:165:ARG:CB	27:BC:165:ARG:HH11	2.06	0.69
28:BD:12:SER:C	28:BD:14:ARG:H	1.94	0.69
23:AW:28:C:O2'	23:AW:29:G:H5'	1.93	0.69
25:BA:518:G:H4'	43:BW:18:ARG:NH1	2.08	0.69
29:BE:1:MET:HB2	29:BE:83:ASP:O	1.91	0.69
13:CM:102:ARG:O	13:CM:107:ALA:HB2	1.93	0.69
45:DY:23:ARG:HH21	45:DY:40:GLU:CB	2.06	0.69
54:D7:2:LYS:N	54:D7:2:LYS:HD2	2.07	0.69
25:BA:481:G:H1'	25:BA:506:G:N2	2.08	0.69
2:CB:188:ALA:O	2:CB:189:ASP:HB3	1.93	0.69
25:DA:1458:C:H4'	25:DA:1459:G:O5'	1.91	0.69
13:AM:108:ARG:HH11	13:AM:108:ARG:HA	1.58	0.69
43:DW:18:ARG:HG2	43:DW:76:VAL:HG11	1.75	0.69
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.28	0.69
56:D9:26:ILE:N	56:D9:26:ILE:HD12	2.08	0.69
21:AU:10:ARG:HA	21:AU:13:ILE:HD12	1.75	0.69
2:CB:80:ILE:HD13	2:CB:211:ILE:CG2	2.22	0.69
20:AT:42:GLN:HG3	20:AT:43:LEU:CD2	2.18	0.69
31:DG:122:PRO:HD3	31:DG:181:ARG:HB3	1.74	0.69
29:DE:48:GLN:CD	29:DE:78:LEU:HD13	2.12	0.69
3:AC:29:TYR:O	3:AC:33:LEU:HB2	1.93	0.69
25:BA:1348:G:C2'	25:BA:1349:A:H5''	2.23	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:6:ILE:HG12	10:AJ:72:VAL:O	1.93	0.69
1:CA:1295:G:H21	1:CA:1302:U:H3	1.40	0.69
1:AA:501:C:H2'	1:AA:502:G:C8	2.25	0.69
4:AD:57:ARG:HH11	4:AD:57:ARG:HG3	1.57	0.69
27:BC:119:ASP:OD2	27:BC:148:PHE:HE1	1.76	0.69
30:BF:22:ALA:CA	30:BF:26:ALA:HB2	2.21	0.69
25:DA:574:C:N3	29:DE:145:LYS:HE2	2.08	0.69
1:CA:1452:C:H1'	1:CA:1456:G:N2	2.08	0.69
45:BY:42:VAL:HG12	45:BY:65:ALA:HB3	1.75	0.69
16:CP:13:HIS:C	16:CP:15:PRO:HD3	2.12	0.69
47:B0:22:VAL:HA	47:B0:37:VAL:HG22	1.74	0.69
25:DA:2892:A:H3'	25:DA:2893:G:H5''	1.73	0.69
6:AF:77:ARG:HG3	6:AF:78:GLU:N	2.06	0.69
37:DQ:58:PHE:CD1	37:DQ:58:PHE:O	2.46	0.69
25:DA:2537:U:H2'	25:DA:2538:C:H6	1.58	0.69
48:D1:50:ARG:HG2	48:D1:50:ARG:HH11	1.57	0.69
25:DA:784:A:N7	28:DD:229:VAL:HG21	2.08	0.69
1:CA:600:C:H2'	1:CA:601:C:H6	1.58	0.69
25:DA:688:U:H5'	25:DA:1780:A:C2	2.28	0.69
1:CA:556:C:O2'	1:CA:557:G:H5'	1.93	0.69
1:AA:881:G:P	12:AL:9:ARG:HH22	2.16	0.69
25:BA:110:G:O2'	25:BA:111:A:H5'	1.92	0.69
33:DI:83:ALA:CB	33:DI:88:ILE:HA	2.23	0.69
25:BA:907:U:OP1	37:BQ:24:GLY:N	2.26	0.69
36:BP:48:PRO:HG2	36:BP:49:ARG:N	2.07	0.69
41:DU:24:TYR:HB2	41:DU:29:SER:HB3	1.74	0.69
44:DX:27:THR:HG22	44:DX:80:ILE:CB	2.16	0.69
25:DA:2631:G:N3	25:DA:2810:A:H2	1.91	0.69
30:BF:4:VAL:H	30:BF:19:GLU:CB	2.05	0.69
36:BP:85:LEU:CD2	36:BP:85:LEU:H	2.06	0.69
20:CT:21:LYS:O	20:CT:25:ARG:HB2	1.91	0.69
13:AM:101:GLN:HE21	13:AM:101:GLN:N	1.91	0.69
3:CC:19:GLU:HA	3:CC:54:ARG:HH22	1.58	0.69
47:D0:71:ASP:C	47:D0:72:ARG:HG2	2.12	0.69
2:CB:122:PHE:HA	2:CB:139:LYS:HZ2	1.57	0.69
39:DS:35:ILE:H	39:DS:53:SER:HB3	1.55	0.69
33:BI:133:HIS:O	33:BI:134:PRO:C	2.30	0.69
1:CA:191:G:C4	20:CT:105:SER:HB3	2.28	0.69
1:CA:1163:C:H2'	1:CA:1164:G:C8	2.28	0.69
25:DA:1026:U:O2'	25:DA:1027:A:H5'	1.93	0.69
25:DA:2695:C:H2'	25:DA:2696:U:C6	2.28	0.69
6:AF:61:LEU:HD23	6:AF:63:TYR:OH	1.92	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AL:107:VAL:HG23	12:AL:117:TYR:HB3	1.74	0.69
25:BA:2531:A:H2	25:BA:2658:C:O2	1.76	0.69
33:DI:3:VAL:HG12	33:DI:38:LEU:HA	1.73	0.69
2:CB:179:LYS:HA	8:CH:72:PRO:HD3	1.75	0.69
25:DA:83:G:N2	25:DA:102:G:H2'	2.08	0.69
25:BA:1935:G:H1'	25:BA:1964:G:N2	2.08	0.69
25:BA:2533:A:H2'	25:BA:2534:A:H5''	1.74	0.69
1:AA:309:G:H2'	1:AA:310:G:H8	1.58	0.69
1:CA:477:A:O2'	1:CA:479:C:H5'	1.93	0.69
34:BN:68:GLU:HG2	34:BN:88:GLU:CD	2.13	0.69
25:BA:1951:U:H2'	25:BA:1953:A:OP2	1.93	0.69
2:CB:185:ILE:HD12	2:CB:185:ILE:H	1.59	0.68
2:CB:200:ILE:HG22	2:CB:202:PRO:HD3	1.74	0.68
42:DV:18:LEU:HD13	42:DV:19:LYS:N	2.08	0.68
1:CA:1342:C:H1'	9:CI:124:GLN:HE22	1.54	0.68
41:BU:93:LYS:HA	41:BU:96:ALA:HB3	1.74	0.68
42:BV:38:LEU:O	42:BV:51:VAL:HG13	1.93	0.68
31:DG:39:ILE:HD11	31:DG:155:MET:CG	2.11	0.68
3:AC:64:VAL:HG22	3:AC:99:VAL:HA	1.74	0.68
25:BA:1396:U:C1'	25:BA:1397:U:C6	2.74	0.68
1:AA:1131:G:H1	1:AA:1143:G:H21	1.39	0.68
10:AJ:32:ALA:H	10:AJ:76:ASN:HB2	1.58	0.68
36:BP:85:LEU:HD23	36:BP:85:LEU:H	1.58	0.68
31:BG:81:LYS:O	31:BG:82:LEU:O	2.11	0.68
40:DT:92:GLY:C	40:DT:94:ALA:H	1.96	0.68
1:AA:1203:C:O2'	1:AA:1204:A:H5'	1.93	0.68
1:CA:1026:G:H2'	1:CA:1026:G:N3	2.07	0.68
30:DF:156:LEU:HD12	30:DF:157:VAL:N	2.08	0.68
1:AA:667:G:H4'	15:AO:51:HIS:CE1	2.27	0.68
25:BA:1040:C:H2'	25:BA:1041:C:O4'	1.94	0.68
36:DP:71:VAL:HG12	36:DP:72:PRO:HD3	1.76	0.68
25:DA:932:G:H4'	25:DA:933:A:O5'	1.93	0.68
25:BA:141:A:H1'	25:BA:1408:C:O2'	1.92	0.68
25:BA:1300:U:H4'	25:BA:1301:A:O5'	1.94	0.68
29:DE:101:ARG:HH21	29:DE:171:GLU:N	1.91	0.68
12:AL:107:VAL:HG21	12:AL:117:TYR:HD2	1.57	0.68
26:BB:65:C:O2'	26:BB:66:A:H5'	1.94	0.68
27:BC:68:GLY:H	27:BC:181:PHE:HZ	1.41	0.68
30:BF:124:LEU:O	30:BF:193:VAL:HA	1.93	0.68
15:CO:56:LEU:O	15:CO:60:VAL:HG23	1.92	0.68
25:DA:2082:A:H2'	25:DA:2083:G:O4'	1.93	0.68
9:AI:8:GLY:HA3	9:AI:76:ALA:O	1.93	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:AV:78:GLU:O	22:AV:95:ARG:HG3	1.92	0.68
39:BS:34:HIS:CE1	39:BS:54:LEU:HB2	2.28	0.68
50:D3:29:ARG:HH11	50:D3:29:ARG:HB2	1.55	0.68
28:BD:44:ASN:CB	28:BD:49:ILE:HA	2.23	0.68
45:DY:47:LYS:HA	45:DY:60:PHE:CZ	2.28	0.68
28:BD:30:GLU:OE1	28:BD:30:GLU:N	2.25	0.68
28:BD:31:LYS:CE	28:BD:94:LEU:HD11	2.23	0.68
28:DD:44:ASN:HB2	28:DD:48:ARG:O	1.92	0.68
10:CJ:54:PHE:CG	10:CJ:55:LYS:HE3	2.27	0.68
25:DA:882:G:H2'	25:DA:883:G:H8	1.58	0.68
1:CA:253:U:H2'	1:CA:254:G:H8	1.57	0.68
1:CA:1062:U:H2'	1:CA:1063:C:C5	2.27	0.68
28:DD:145:VAL:HG12	28:DD:146:GLU:O	1.93	0.68
1:AA:539:A:H2'	1:AA:540:G:H8	1.57	0.68
4:CD:104:VAL:HG21	4:CD:140:VAL:HG21	1.76	0.68
1:AA:437:U:OP1	4:AD:155:LEU:HD22	1.94	0.68
22:AV:45:GLU:H	22:AV:45:GLU:CD	1.96	0.68
25:BA:142:A:H8	25:BA:1595:G:H21	1.40	0.68
23:CW:19:G:H3'	23:CW:20:U:H5'	1.75	0.68
52:D5:37:LYS:HG3	52:D5:38:ALA:N	2.07	0.68
7:AG:32:ARG:O	7:AG:33:ASP:HB2	1.93	0.68
46:DZ:118:GLU:HB2	46:DZ:121:ARG:HG2	1.73	0.68
46:DZ:16:ALA:HA	46:DZ:19:ARG:HD2	1.76	0.68
34:BN:2:LYS:NZ	41:BU:95:LEU:HD21	2.08	0.68
1:AA:1324:A:H4'	1:AA:1362:C:O3'	1.93	0.68
40:BT:32:TYR:HB2	40:BT:81:PRO:HB3	1.73	0.68
27:DC:73:VAL:HA	27:DC:112:ASP:CG	2.14	0.68
29:BE:89:ASP:O	29:BE:90:THR:HB	1.92	0.68
1:CA:1305:G:H22	1:CA:1331:G:C2'	2.03	0.68
2:AB:113:HIS:O	2:AB:117:GLU:HG3	1.93	0.68
29:DE:111:ARG:HA	38:DR:2:ARG:HB2	1.74	0.68
22:CV:12:LYS:O	22:CV:63:ILE:HG12	1.93	0.68
45:DY:96:ILE:HG12	45:DY:99:CYS:HB2	1.75	0.68
39:DS:53:SER:OG	39:DS:54:LEU:HD22	1.94	0.68
1:AA:67:C:H2'	1:AA:68:G:H8	1.57	0.68
16:CP:14:ASN:N	16:CP:15:PRO:HD3	2.08	0.68
1:CA:757:U:O2'	1:CA:758:G:H5'	1.94	0.68
25:BA:71:A:H5'	25:BA:71:A:C8	2.28	0.68
29:DE:80:GLU:O	29:DE:81:ILE:HD13	1.93	0.68
1:CA:495:A:H4'	1:CA:496:A:O5'	1.92	0.68
25:BA:1713:U:O2'	25:BA:1714:G:H5'	1.94	0.68
46:BZ:60:LEU:N	46:BZ:60:LEU:HD22	2.08	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1952:A:C5	35:BO:22:ILE:HD12	2.28	0.68
32:BH:40:GLU:O	32:BH:41:MET:HB2	1.92	0.68
3:AC:182:ILE:HG23	3:AC:202:ILE:O	1.93	0.68
25:DA:1907:G:O2'	25:DA:1908:C:H5'	1.92	0.68
43:BW:111:HIS:CG	43:BW:112:GLY:H	2.11	0.68
1:AA:1446:U:H3	1:AA:1452:C:HO2'	1.41	0.68
39:BS:92:TYR:CD1	39:BS:93:LYS:N	2.61	0.68
25:BA:2645:G:C3'	25:BA:2646:C:H5'	2.16	0.68
26:DB:41:U:C5	31:DG:69:ALA:HB1	2.28	0.68
36:DP:5:ASP:OD2	36:DP:6:LEU:HD23	1.93	0.68
32:DH:163:TYR:N	32:DH:163:TYR:CD1	2.61	0.68
25:BA:2392:A:OP2	55:B8:31:HIS:HE1	1.76	0.68
40:BT:85:LYS:NZ	40:BT:85:LYS:HA	2.09	0.68
5:AE:113:ALA:HB3	5:AE:115:VAL:HG23	1.75	0.68
42:BV:15:GLU:HB3	42:BV:16:PRO:HD2	1.73	0.68
12:CL:99:ARG:HB2	12:CL:117:TYR:HA	1.76	0.68
25:DA:1174:A:H5''	25:DA:1175:U:H5'	1.76	0.68
26:DB:15:A:H5'	26:DB:16:G:C8	2.25	0.68
22:AV:103:PHE:N	22:AV:103:PHE:CD1	2.59	0.68
1:CA:797:C:O2'	1:CA:798:G:H5'	1.93	0.68
25:BA:2543:G:H2'	25:BA:2544:G:H8	1.57	0.68
25:DA:2795:G:N3	25:DA:2795:G:H2'	2.07	0.68
1:CA:1411:C:H2'	1:CA:1412:C:H6	1.57	0.68
55:B8:43:GLN:C	55:B8:44:LYS:HD2	2.13	0.68
25:BA:1204:A:N6	25:BA:1240:U:H2'	2.08	0.68
34:BN:42:TRP:HA	34:BN:48:MET:HE1	1.75	0.68
25:BA:518:G:H4'	43:BW:18:ARG:HH11	1.56	0.68
1:CA:1423:G:H5'	35:DO:49:ARG:NH2	2.07	0.68
25:DA:225:A:H2'	25:DA:226:G:H5'	1.73	0.68
25:BA:1215:G:O2'	25:BA:1216:G:H5'	1.93	0.68
7:CG:21:VAL:HG23	7:CG:22:LEU:H	1.58	0.68
27:DC:54:ARG:HB3	27:DC:54:ARG:NH1	2.08	0.68
33:BI:88:ILE:HG12	33:BI:122:GLU:N	2.09	0.68
2:CB:185:ILE:N	2:CB:185:ILE:HD12	2.08	0.68
25:DA:861:A:H2'	25:DA:862:G:O4'	1.93	0.68
25:DA:951:C:O2'	25:DA:952:G:H5'	1.93	0.68
25:BA:2178:C:H5''	27:BC:47:LYS:CE	2.19	0.68
7:CG:12:LEU:HD11	7:CG:25:ALA:HB2	1.75	0.68
34:BN:2:LYS:HZ3	41:BU:95:LEU:HD21	1.58	0.68
31:DG:106:LEU:O	31:DG:110:ALA:HB3	1.94	0.68
25:BA:1297:C:OP1	25:BA:2710:C:H4'	1.93	0.68
29:BE:34:VAL:HG21	29:BE:78:LEU:HD22	1.74	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DI:4:ILE:HG12	33:DI:18:VAL:HG22	1.76	0.68
1:AA:1053:G:H5''	1:AA:1200:C:H41	1.59	0.68
33:BI:8:PRO:O	33:BI:9:LEU:HD23	1.92	0.68
31:DG:48:GLU:O	31:DG:51:ARG:HG2	1.93	0.68
2:AB:8:LYS:N	2:AB:8:LYS:HD3	2.09	0.68
25:DA:1494:A:C2'	25:DA:1495:A:H5''	2.23	0.68
30:BF:140:LEU:HD13	30:BF:170:LEU:HD21	1.74	0.68
25:DA:1257:C:H5'	30:DF:75:HIS:NE2	2.07	0.68
27:BC:60:ARG:NE	27:BC:165:ARG:HD2	2.08	0.68
7:AG:115:ARG:O	7:AG:118:VAL:HG22	1.93	0.68
1:AA:853:G:O2'	1:AA:854:G:H5'	1.94	0.68
27:BC:195:ARG:HD2	27:BC:198:GLU:OE1	1.93	0.68
27:BC:57:GLN:HG2	27:BC:202:PRO:HB2	1.74	0.68
1:AA:324:G:OP1	20:AT:70:SER:HB3	1.92	0.68
25:DA:2556:C:H2'	25:DA:2557:G:O4'	1.93	0.68
13:AM:91:ARG:HB3	13:AM:98:VAL:HG22	1.74	0.68
46:DZ:134:GLU:O	46:DZ:135:PHE:HB3	1.93	0.68
48:D1:46:LEU:CD2	48:D1:46:LEU:H	2.06	0.68
7:CG:113:GLU:HB2	7:CG:119:ARG:HG2	1.76	0.68
21:CU:25:LYS:NZ	21:CU:25:LYS:HB2	2.08	0.68
42:BV:39:LEU:HB3	42:BV:47:VAL:CG1	2.23	0.68
2:CB:132:LYS:O	2:CB:136:VAL:HG23	1.93	0.68
30:DF:153:SER:OG	30:DF:190:GLU:HG3	1.92	0.68
45:BY:26:LYS:HG2	45:BY:27:VAL:N	2.04	0.68
2:AB:11:LEU:HB3	2:AB:213:LEU:HD11	1.74	0.68
1:AA:417:C:O2'	1:AA:418:C:H5'	1.93	0.68
25:BA:364:C:C2'	25:BA:365:C:H5''	2.24	0.68
9:CI:49:PRO:HA	9:CI:101:PHE:CE1	2.29	0.68
48:B1:53:VAL:HG11	48:B1:90:ILE:HG21	1.74	0.68
14:CN:6:LEU:HB3	14:CN:23:ARG:HH21	1.58	0.68
27:DC:80:LYS:HZ1	31:DG:49:ASP:H	1.41	0.68
25:DA:626:U:H5'	25:DA:627:A:C5'	2.23	0.68
1:CA:1030(A):G:H2'	1:CA:1030(C):G:OP2	1.93	0.68
36:BP:24:GLY:O	36:BP:25:SER:HB2	1.94	0.68
6:CF:86:ARG:O	6:CF:87:ARG:HB2	1.93	0.68
25:BA:2829:C:H2'	25:BA:2830:G:C8	2.24	0.68
1:AA:544:G:H2'	1:AA:545:C:H6	1.58	0.68
52:B5:51:TYR:O	52:B5:52:TYR:C	2.32	0.68
1:AA:1074:G:O2'	2:AB:103:THR:HG21	1.92	0.68
22:AV:126:THR:O	22:AV:127:VAL:HB	1.92	0.68
11:CK:22:HIS:HB3	11:CK:29:ILE:HG23	1.76	0.68
1:CA:1412:C:H2'	1:CA:1413:A:C8	2.28	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CG:64:GLN:HE21	7:CG:68:ASN:HD22	1.38	0.68
29:BE:174:ASP:OD2	29:BE:175:VAL:N	2.27	0.68
1:AA:1456:G:N3	1:AA:1456:G:H5''	2.08	0.68
25:BA:1360:A:H5'	25:BA:1361:G:OP2	1.92	0.68
25:BA:271(E):U:H2'	25:BA:271(F):C:C6	2.28	0.68
25:DA:2691:C:O2'	25:DA:2692:C:H5'	1.94	0.68
1:AA:1010:G:H2'	1:AA:1011:G:C8	2.29	0.68
44:DX:63:LYS:HA	44:DX:72:LYS:HA	1.76	0.68
40:BT:11:GLU:OE2	40:BT:11:GLU:N	2.26	0.68
1:AA:575:G:OP1	1:AA:575:G:H4'	1.92	0.68
2:CB:75:LYS:HA	2:CB:78:GLN:HB2	1.76	0.68
25:DA:2615:U:C2	52:D5:7:PRO:HA	2.28	0.68
56:D9:7:VAL:HG13	56:D9:34:GLN:NE2	2.07	0.68
1:AA:1251:A:O2'	1:AA:1252:A:H5'	1.92	0.68
32:BH:43:VAL:O	32:BH:43:VAL:HG23	1.94	0.68
46:DZ:124:LEU:O	46:DZ:163:ALA:HB3	1.94	0.68
46:DZ:90:LEU:H	46:DZ:90:LEU:HD12	1.59	0.68
2:CB:204:ASN:C	2:CB:204:ASN:HD22	1.95	0.68
20:AT:50:GLU:O	20:AT:54:LYS:HB2	1.93	0.68
48:D1:67:ILE:N	48:D1:68:PRO:HD2	2.09	0.68
41:BU:91:ASP:CG	41:BU:96:ALA:HB2	2.14	0.68
25:BA:997:G:OP1	41:BU:93:LYS:HD3	1.93	0.68
1:AA:957:U:H1'	1:AA:960:U:N3	2.08	0.68
49:D2:65:ASN:ND2	49:D2:69:ARG:HH12	1.92	0.68
25:DA:280:C:N4	25:DA:360:G:H1	1.90	0.68
25:BA:2101:G:H2'	25:BA:2102:U:C5'	2.18	0.68
40:BT:83:ILE:HG13	40:BT:84:GLN:HG2	1.76	0.68
3:AC:46:GLU:O	3:AC:47:LEU:HB3	1.93	0.68
35:BO:75:SER:HA	40:BT:75:ILE:O	1.93	0.68
25:BA:2175:C:C3'	25:BA:2176:A:H5''	2.23	0.68
35:BO:97:ARG:HH11	35:BO:97:ARG:HG3	1.58	0.68
5:AE:137:GLU:O	5:AE:141:GLN:HG3	1.93	0.68
27:DC:223:VAL:O	27:DC:225:ILE:HG23	1.93	0.68
34:DN:15:LEU:HB3	34:DN:136:GLU:HA	1.75	0.68
10:CJ:39:PRO:HA	10:CJ:70:ARG:HA	1.74	0.68
1:AA:613:C:H2'	1:AA:614:A:C8	2.29	0.68
36:DP:111:ARG:HA	36:DP:128:HIS:ND1	2.08	0.68
11:AK:101:SER:OG	11:AK:103:LEU:HD23	1.94	0.68
1:CA:112:G:N2	1:CA:354:G:H5'	2.09	0.68
14:CN:13:THR:N	14:CN:14:PRO:CD	2.57	0.68
2:AB:170:GLU:O	2:AB:174:VAL:HG23	1.94	0.68
43:DW:8:ARG:HG3	43:DW:8:ARG:NH1	2.07	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:601:C:H2'	1:AA:602:A:H8	1.58	0.68
35:BO:14:THR:HG22	35:BO:52:VAL:HG11	1.74	0.68
30:DF:72:ARG:NH1	30:DF:72:ARG:HB3	2.08	0.68
27:BC:60:ARG:HD3	27:BC:165:ARG:HB3	1.75	0.68
1:CA:243:A:H4'	1:CA:244:U:O5'	1.94	0.68
1:CA:708:C:H2'	1:CA:709:G:H8	1.58	0.68
50:B3:8:LEU:HB2	50:B3:28:LEU:HD13	1.75	0.68
32:DH:71:LEU:H	32:DH:74:ASN:ND2	1.92	0.68
37:DQ:133:ARG:HH11	37:DQ:133:ARG:HG3	1.59	0.68
25:DA:1829:A:H8	25:DA:1829:A:H5'	1.57	0.68
14:CN:50:LYS:HE3	14:CN:52:GLN:HE22	1.58	0.68
25:DA:1316:U:O2'	25:DA:1317:A:H5'	1.93	0.68
1:AA:1060:C:C5	3:AC:2:GLY:HA2	2.28	0.68
2:CB:23:ARG:O	2:CB:23:ARG:HD2	1.94	0.68
25:DA:911:A:H2'	37:DQ:9:TYR:OH	1.93	0.68
25:BA:610:G:H2'	25:BA:611:C:C6	2.29	0.68
1:CA:1117:G:N2	1:CA:1180:A:H1'	2.07	0.68
1:CA:1179:A:H5''	9:CI:102:LEU:HD12	1.76	0.68
9:CI:15:ALA:HB2	9:CI:65:VAL:HB	1.74	0.68
34:BN:40:PRO:HB3	41:BU:68:ALA:HB2	1.76	0.68
41:BU:65:ILE:HD11	41:BU:96:ALA:CB	2.23	0.68
1:CA:1131:G:H2'	1:CA:1132:C:C6	2.29	0.68
3:AC:92:ALA:CA	3:AC:99:VAL:HG11	2.24	0.68
52:B5:4:HIS:CB	52:B5:5:PRO:CD	2.69	0.68
3:CC:76:VAL:HG12	3:CC:83:ARG:NH2	2.08	0.68
1:AA:1125:U:O4	10:AJ:5:ARG:HD3	1.93	0.68
25:DA:1042:G:H1'	25:DA:1115:G:N2	2.09	0.68
1:AA:1500:A:O2'	1:AA:1501:C:H5'	1.92	0.68
1:AA:1121:U:H2'	1:AA:1122:U:C6	2.28	0.68
5:AE:73:ASN:O	5:AE:75:THR:N	2.27	0.68
25:DA:271(I):G:H3'	25:DA:271(J):C:C6	2.27	0.68
25:BA:674:G:O2'	30:BF:74:ARG:HD3	1.94	0.68
39:DS:34:HIS:CD2	39:DS:54:LEU:HB2	2.29	0.68
39:DS:96:GLY:O	39:DS:98:VAL:N	2.22	0.68
33:BI:129:THR:O	33:BI:130:TYR:HB2	1.92	0.68
25:DA:2175:C:C3'	25:DA:2176:A:H5''	2.23	0.68
28:DD:31:LYS:HZ2	28:DD:33:LEU:HD22	1.58	0.68
1:AA:40:C:H2'	1:AA:41:G:H8	1.59	0.68
37:DQ:47:ILE:C	37:DQ:49:ALA:H	1.97	0.68
46:BZ:22:LYS:N	46:BZ:22:LYS:HD2	2.09	0.68
25:DA:1803:A:H4'	28:DD:259:THR:CG2	2.24	0.68
10:AJ:29:ARG:NH2	10:AJ:30:SER:HB3	2.08	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:82:ILE:HG23	10:AJ:86:MET:SD	2.34	0.68
44:DX:53:LYS:HB3	44:DX:82:GLN:HB3	1.76	0.68
1:AA:448:A:H2'	1:AA:449:C:H6	1.58	0.68
25:DA:141:A:H8	25:DA:1408:C:HO2'	1.42	0.68
7:AG:76:ARG:HD3	7:AG:89:MET:SD	2.34	0.68
44:DX:44:GLU:O	44:DX:48:LYS:HA	1.94	0.68
25:DA:1151:G:H2'	25:DA:1152:C:C6	2.29	0.68
2:CB:72:GLY:HA2	2:CB:165:VAL:HG21	1.76	0.68
25:DA:906:G:H5'	25:DA:907:U:OP2	1.94	0.68
23:AW:37:A:H3'	23:AW:38:A:H8	1.59	0.68
48:D1:13:ILE:HD11	48:D1:42:GLN:OE1	1.94	0.68
8:CH:14:ARG:O	8:CH:18:ARG:HD3	1.94	0.68
56:D9:10:ILE:HB	56:D9:32:HIS:HD2	1.58	0.68
50:D3:6:VAL:HG12	50:D3:56:VAL:HA	1.75	0.68
41:DU:79:PHE:HE2	41:DU:83:LEU:HD22	1.57	0.68
1:AA:1223:C:O3'	1:AA:1223:C:C4'	2.41	0.68
30:DF:101:LEU:O	30:DF:106:ARG:NH1	2.27	0.68
36:BP:125:VAL:HG23	36:BP:125:VAL:O	1.94	0.68
3:CC:124:ILE:CG2	3:CC:189:ALA:HB1	2.23	0.68
5:AE:41:VAL:HG21	5:AE:113:ALA:HA	1.74	0.68
25:BA:271(S):G:H2'	25:BA:271(T):C:H6	1.58	0.68
10:CJ:80:LYS:O	10:CJ:84:GLN:NE2	2.27	0.68
1:AA:438:G:H4'	4:AD:123:HIS:ND1	2.08	0.68
1:AA:490:G:O2'	1:AA:491:G:H5'	1.92	0.68
1:CA:1174:G:H2'	1:CA:1175:G:C8	2.29	0.68
43:DW:5:ALA:HB2	43:DW:105:VAL:HB	1.75	0.68
4:CD:162:LEU:HD12	4:CD:181:MET:HE3	1.75	0.68
30:BF:134:GLY:N	30:BF:162:LEU:HG	2.08	0.68
8:CH:97:VAL:HG13	8:CH:98:LYS:N	2.08	0.68
46:BZ:7:TYR:HB2	46:BZ:37:TYR:CE2	2.29	0.68
19:AS:29:ARG:O	19:AS:31:ILE:HG22	1.93	0.68
1:AA:965:A:O2'	1:AA:966:G:H5'	1.93	0.68
25:DA:2691:C:H6	25:DA:2691:C:H5'	1.59	0.68
49:D2:5:GLU:O	49:D2:8:LYS:HB2	1.92	0.68
10:CJ:32:ALA:HB3	10:CJ:75:ILE:HG13	1.76	0.68
1:CA:57:G:H2'	1:CA:58:C:C6	2.29	0.68
46:BZ:180:GLU:CD	46:BZ:180:GLU:H	1.97	0.68
15:AO:55:GLY:HA2	15:AO:58:MET:HE3	1.75	0.68
25:BA:229:A:H3'	25:BA:230:U:H5'	1.76	0.68
25:DA:404:C:H4'	25:DA:405:U:H5'	1.75	0.68
33:BI:144:VAL:HG23	33:BI:145:VAL:N	2.09	0.68
1:AA:1115:C:H2'	1:AA:1116:C:C6	2.28	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DB:91:C:H2'	26:DB:92:C:C6	2.29	0.68
44:DX:7:VAL:CG1	44:DX:39:ILE:HD13	2.24	0.68
25:DA:557:U:H2'	25:DA:558:G:C8	2.29	0.68
27:BC:71:LYS:C	27:BC:73:VAL:H	1.97	0.68
12:CL:38:ARG:HB3	12:CL:38:ARG:HH11	1.57	0.68
1:AA:1030(A):G:H2'	1:AA:1030(C):G:OP2	1.94	0.68
3:CC:43:LEU:N	3:CC:43:LEU:HD12	2.09	0.68
8:AH:5:PRO:O	8:AH:8:ASP:HB3	1.93	0.68
1:CA:734:G:H21	18:CR:75:ILE:HD11	1.58	0.68
10:CJ:83:GLU:C	10:CJ:85:LEU:H	1.98	0.68
40:DT:54:ARG:HG2	40:DT:54:ARG:HH11	1.59	0.68
19:AS:46:GLY:HA2	19:AS:61:TYR:CE1	2.28	0.68
38:BR:117:VAL:HG12	38:BR:118:GLU:N	2.09	0.68
25:DA:1464:C:H2'	25:DA:1465:G:H8	1.59	0.68
40:BT:117:ASP:O	40:BT:121:ILE:HB	1.94	0.68
25:BA:910:A:C5	37:BQ:13:GLN:HG3	2.29	0.68
33:DI:38:LEU:HD12	33:DI:38:LEU:N	2.09	0.68
27:BC:57:GLN:HG2	27:BC:202:PRO:CB	2.23	0.68
25:BA:1909:C:H42	25:BA:1921:G:H1	1.41	0.68
40:BT:53:ARG:HD2	40:BT:60:THR:OG1	1.93	0.68
25:DA:719:C:O2'	25:DA:720:C:H5'	1.93	0.68
44:DX:60:ARG:HH22	54:D7:47:ARG:NH2	1.91	0.68
1:CA:853:G:O2'	1:CA:854:G:H5'	1.93	0.68
50:D3:8:LEU:HA	50:D3:54:VAL:HG22	1.75	0.67
7:CG:113:GLU:CG	7:CG:119:ARG:HG2	2.24	0.67
7:CG:57:GLU:O	7:CG:61:VAL:HG23	1.95	0.67
29:BE:59:VAL:CG2	29:BE:60:ASN:H	2.00	0.67
25:DA:1107:G:H2'	25:DA:1108:U:C6	2.28	0.67
25:DA:171:G:H2'	25:DA:172:C:O4'	1.94	0.67
29:DE:24:THR:HB	29:DE:186:GLY:HA2	1.75	0.67
4:AD:18:LYS:HG2	4:AD:33:MET:CG	2.24	0.67
5:AE:92:LYS:HB3	5:AE:119:LEU:HB2	1.74	0.67
25:DA:271(J):C:H5'	25:DA:271(K):U:OP2	1.94	0.67
49:D2:64:LEU:HD21	49:D2:68:ARG:HH21	1.58	0.67
40:DT:92:GLY:O	40:DT:94:ALA:N	2.22	0.67
25:BA:2330:G:H4'	47:B0:43:ARG:HH12	1.59	0.67
25:DA:626:U:H3	36:DP:105:LEU:HA	1.58	0.67
47:D0:53:MET:HE3	47:D0:57:PHE:HA	1.75	0.67
10:CJ:17:ASP:HA	10:CJ:70:ARG:NH1	2.10	0.67
25:BA:2512:C:H2'	25:BA:2513:G:O4'	1.93	0.67
1:AA:579:G:H5'	1:AA:728:A:H1'	1.75	0.67
25:DA:310:A:OP1	45:DY:18:GLY:HA2	1.94	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:528:A:C2	25:DA:2043:C:H4'	2.29	0.67
6:AF:69:GLU:O	6:AF:71:ARG:N	2.27	0.67
25:DA:1496:A:H5'	25:DA:1497:U:OP2	1.94	0.67
25:DA:2472:G:H5'	25:DA:2473:U:C5'	2.24	0.67
31:BG:5:VAL:HG11	31:BG:101:ILE:HG22	1.75	0.67
4:CD:96:LEU:N	4:CD:96:LEU:HD12	2.07	0.67
25:BA:1509(A):A:H2'	25:BA:1509(B):A:H8	1.57	0.67
25:DA:185:U:H2'	25:DA:186:G:H8	1.59	0.67
1:AA:1412:C:H2'	1:AA:1413:A:H8	1.59	0.67
25:DA:292:C:H42	25:DA:348:G:H1	1.42	0.67
46:BZ:129:PRO:HA	46:BZ:132:ILE:HD11	1.75	0.67
9:CI:42:ARG:HH11	9:CI:42:ARG:HG2	1.59	0.67
22:CV:101:ALA:O	22:CV:104:PHE:HB2	1.94	0.67
1:AA:1371:G:O3'	9:AI:69:GLY:HA3	1.94	0.67
9:CI:69:GLY:O	9:CI:73:GLN:HG3	1.95	0.67
20:AT:87:LYS:HE3	20:AT:91:LEU:HG	1.75	0.67
53:D6:40:CYS:HA	53:D6:46:HIS:HB2	1.75	0.67
46:BZ:165:SER:HB2	46:BZ:166:PRO:C	2.15	0.67
17:AQ:67:LYS:O	17:AQ:68:ARG:CB	2.41	0.67
42:BV:19:LYS:HE2	42:BV:19:LYS:HA	1.76	0.67
45:DY:75:ILE:HD11	45:DY:79:CYS:HB2	1.75	0.67
25:BA:858:U:O2	25:BA:2268:A:H2'	1.94	0.67
30:DF:160:ASN:C	30:DF:160:ASN:HD22	1.97	0.67
12:AL:67:ILE:HG12	12:AL:97:ILE:HD12	1.76	0.67
1:CA:1106:G:H2'	1:CA:1107:C:H6	1.60	0.67
7:CG:83:ALA:HB3	7:CG:85:TYR:HE2	1.56	0.67
1:AA:167:G:O2'	1:AA:168:G:H5'	1.94	0.67
25:DA:1952:A:C5	35:DO:22:ILE:HD12	2.29	0.67
22:AV:131:LYS:HE2	22:AV:168:GLY:O	1.94	0.67
36:DP:45:LEU:HD23	36:DP:46:LYS:H	1.59	0.67
28:BD:69:ARG:HH21	28:BD:192:THR:HG21	1.59	0.67
1:AA:255:G:H1'	17:AQ:16:GLN:NE2	2.09	0.67
25:DA:235:U:H2'	25:DA:236:C:H6	1.59	0.67
6:AF:3:ARG:HB3	6:AF:93:SER:HB2	1.76	0.67
25:DA:1436:G:H1'	25:DA:1477:A:O2'	1.93	0.67
7:AG:4:ARG:HB3	7:AG:5:ARG:HH11	1.59	0.67
17:CQ:7:THR:CG2	17:CQ:58:GLU:HG2	2.25	0.67
1:AA:589:C:H42	1:AA:650:G:H1	1.43	0.67
20:CT:41:ILE:HA	20:CT:44:ALA:HB3	1.76	0.67
33:BI:83:ALA:HB2	33:BI:88:ILE:HA	1.77	0.67
1:AA:1252:A:H2	1:AA:1355:G:H4'	1.59	0.67
1:AA:1117:G:O2'	9:AI:104:ARG:HG2	1.93	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1189:C:P	10:AJ:51:ARG:HH22	2.17	0.67
41:DU:111:GLU:HA	41:DU:114:LYS:CD	2.20	0.67
1:CA:1348:U:H2'	1:CA:1349:A:H8	1.60	0.67
25:DA:2533:A:C3'	25:DA:2534:A:H5''	2.23	0.67
2:AB:13:ALA:C	2:AB:15:VAL:H	1.96	0.67
15:CO:6:GLU:H	15:CO:6:GLU:CD	1.96	0.67
15:AO:26:GLU:OE2	15:AO:77:ARG:HD2	1.95	0.67
30:DF:136:THR:HA	30:DF:166:ALA:HB1	1.76	0.67
25:BA:587:C:C5	36:BP:33:ARG:HG2	2.29	0.67
20:AT:72:LEU:HD23	20:AT:73:HIS:N	2.08	0.67
1:AA:1007:C:H2'	1:AA:1008:C:C6	2.29	0.67
3:CC:29:TYR:HE2	3:CC:33:LEU:HD22	1.59	0.67
20:CT:46:GLU:OE1	20:CT:48:LYS:HG2	1.94	0.67
1:AA:444:C:H2'	1:AA:445:G:C8	2.27	0.67
25:DA:2292:C:O2'	25:DA:2293:C:H5'	1.94	0.67
25:BA:2023:G:H5'	25:BA:2617:C:H4'	1.77	0.67
1:AA:1442(A):G:H8	40:BT:118:ARG:HH11	1.41	0.67
51:B4:39:ARG:HG2	51:B4:49:GLU:OE1	1.94	0.67
38:BR:61:HIS:O	38:BR:65:LEU:HD13	1.94	0.67
25:BA:1666:G:O2'	25:BA:1667:G:H5'	1.95	0.67
3:AC:14:ILE:HG22	14:AN:57:ARG:NH2	2.10	0.67
41:DU:101:ARG:O	41:DU:102:GLU:HG2	1.94	0.67
42:DV:19:LYS:HG3	42:DV:20:LEU:H	1.58	0.67
25:DA:971:C:C2'	25:DA:972:G:H5'	2.24	0.67
1:CA:1252:A:H61	1:CA:1285:A:N6	1.91	0.67
2:CB:131:PRO:CG	2:CB:134:GLU:HB2	2.04	0.67
13:CM:78:ILE:HA	13:CM:81:LEU:HD12	1.75	0.67
22:CV:127:VAL:H	22:CV:174:ASP:HA	1.58	0.67
36:BP:99:LEU:O	36:BP:99:LEU:HD23	1.95	0.67
2:AB:30:ARG:O	2:AB:46:LYS:HE2	1.94	0.67
43:DW:1:MET:CE	43:DW:2:GLU:H	2.08	0.67
46:DZ:149:LEU:HD13	46:DZ:149:LEU:N	2.06	0.67
15:CO:87:ILE:CG2	15:CO:88:ARG:H	2.04	0.67
45:DY:96:ILE:HG13	45:DY:99:CYS:HB2	1.76	0.67
25:DA:626:U:H5'	25:DA:627:A:H5'	1.76	0.67
5:CE:88:LYS:HG2	5:CE:89:ILE:N	2.10	0.67
12:AL:38:ARG:HG2	12:AL:39:THR:N	2.10	0.67
10:CJ:78:ASN:ND2	10:CJ:80:LYS:CB	2.58	0.67
32:BH:98:LEU:HA	32:BH:103:LEU:HA	1.75	0.67
27:BC:139:PRO:CB	27:BC:146:VAL:HG22	2.25	0.67
25:BA:1914:C:H2'	25:BA:1915:U:O4'	1.94	0.67
22:AV:72:TYR:HD1	22:AV:73:LEU:H	1.41	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1462:G:O2'	1:CA:1463:C:H5'	1.94	0.67
12:CL:5:ASN:HB2	17:CQ:34:LYS:NZ	2.09	0.67
40:BT:70:VAL:HG12	40:BT:71:GLY:N	2.08	0.67
32:BH:6:ARG:CA	32:BH:8:PRO:HD3	2.24	0.67
37:DQ:134:ARG:HE	46:DZ:121:ARG:HH11	1.40	0.67
2:CB:171:ALA:HA	2:CB:174:VAL:HG23	1.76	0.67
2:CB:194:PRO:O	2:CB:196:LEU:N	2.27	0.67
42:DV:39:LEU:HB3	42:DV:47:VAL:HG11	1.76	0.67
25:DA:1598:C:H5'	44:DX:36:LYS:HB2	1.75	0.67
7:CG:50:ILE:HD11	7:CG:121:ALA:HB1	1.75	0.67
25:BA:2791:C:H41	25:BA:2803:C:N4	1.91	0.67
25:DA:2305:A:H3'	25:DA:2306:C:H5''	1.77	0.67
30:DF:7:TYR:HB2	30:DF:16:GLY:C	2.15	0.67
53:D6:52:VAL:HG12	53:D6:53:LYS:N	2.09	0.67
27:BC:150:ILE:HA	27:BC:153:ILE:HD12	1.76	0.67
47:D0:49:LYS:HG3	47:D0:80:HIS:ND1	2.09	0.67
30:BF:52:LYS:HA	30:BF:56:GLU:OE2	1.94	0.67
37:BQ:60:ARG:HA	46:BZ:178:ASP:OD1	1.95	0.67
1:CA:1025:U:H4'	1:CA:1026:G:H8	1.58	0.67
25:BA:919:G:H22	25:BA:2268:A:H3'	1.60	0.67
25:BA:586:A:H5'	30:BF:89:VAL:HG21	1.76	0.67
1:CA:265:G:H2'	1:CA:267:C:H5	1.59	0.67
25:DA:1175:U:O5'	25:DA:1176:G:H5'	1.94	0.67
36:DP:128:HIS:HD2	36:DP:148:LEU:HD12	1.58	0.67
6:CF:18:GLN:HA	6:CF:21:LEU:HD23	1.77	0.67
36:BP:71:VAL:O	36:BP:72:PRO:C	2.27	0.67
31:BG:125:PHE:O	31:BG:128:ARG:HG2	1.95	0.67
40:BT:34:VAL:HG22	40:BT:39:ARG:HB3	1.75	0.67
32:BH:91:GLY:HA2	32:BH:160:LYS:HB3	1.75	0.67
25:DA:292:C:N4	25:DA:348:G:H1	1.92	0.67
1:AA:639:G:O2'	1:AA:640:A:H5'	1.94	0.67
25:DA:1705:G:O2'	25:DA:1706:U:H5'	1.94	0.67
27:DC:90:ALA:HB2	27:DC:155:ARG:NH1	2.08	0.67
25:BA:1365:A:H5''	48:B1:41:ARG:HH22	1.58	0.67
25:DA:922:U:H2'	25:DA:923:C:C6	2.29	0.67
11:CK:50:TYR:HD2	11:CK:54:ARG:HB3	1.59	0.67
3:AC:112:SER:O	3:AC:116:VAL:HG23	1.93	0.67
42:DV:18:LEU:CD1	42:DV:19:LYS:H	2.08	0.67
25:BA:997:G:O2'	25:BA:998:C:H5'	1.94	0.67
1:CA:1134:G:H2'	1:CA:1135:U:H5'	1.77	0.67
45:DY:37:VAL:HG21	45:DY:72:VAL:HG11	1.75	0.67
3:AC:63:ASN:N	3:AC:97:LYS:HZ3	1.92	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DF:10:PRO:CG	30:DF:13:SER:HB2	2.23	0.67
3:CC:87:LEU:CA	3:CC:90:GLU:HG2	2.15	0.67
13:AM:3:ARG:NE	13:AM:7:VAL:HB	2.10	0.67
53:B6:20:ASN:HB2	53:B6:42:TRP:HD1	1.58	0.67
20:CT:12:ALA:C	20:CT:14:LYS:H	1.96	0.67
2:CB:139:LYS:O	2:CB:143:GLU:HG2	1.93	0.67
39:DS:15:ARG:HB3	39:DS:18:ILE:CG2	2.25	0.67
10:CJ:40:LEU:HB2	10:CJ:41:PRO:HD2	1.76	0.67
25:BA:1459:G:C8	25:BA:1461:G:H1'	2.30	0.67
25:DA:521:G:H2'	25:DA:522:G:H8	1.59	0.67
6:AF:19:LEU:HD23	6:AF:19:LEU:O	1.95	0.67
6:AF:19:LEU:O	6:AF:23:LYS:HG3	1.94	0.67
10:AJ:48:THR:HA	10:AJ:62:HIS:HB3	1.77	0.67
29:DE:169:ASN:C	29:DE:169:ASN:HD22	1.95	0.67
31:BG:40:ASN:HB2	31:BG:91:ARG:HB2	1.77	0.67
29:BE:101:ARG:NH2	29:BE:169:ASN:O	2.26	0.67
25:DA:2389:G:C5'	25:DA:2390:U:H5'	2.25	0.67
31:BG:55:LYS:NZ	31:BG:150:ASP:H	1.93	0.67
22:CV:95:ARG:NH2	22:CV:101:ALA:HB3	2.10	0.67
31:DG:172:LEU:O	31:DG:172:LEU:HD12	1.94	0.67
1:AA:1241:G:H1	1:AA:1296:C:H42	1.43	0.67
1:AA:113:G:H2'	1:AA:114:U:H6	1.58	0.67
44:BX:24:GLY:O	44:BX:82:GLN:HA	1.94	0.67
38:BR:102:GLU:OE1	43:BW:37:ARG:NH1	2.28	0.67
32:BH:149:ARG:HD3	32:BH:164:TYR:CD1	2.29	0.67
25:BA:2059:A:H5'	25:BA:2060:A:OP2	1.93	0.67
1:CA:562:C:H6	1:CA:562:C:H5'	1.59	0.67
9:AI:53:VAL:HG23	9:AI:54:ASP:N	2.06	0.67
25:BA:174:C:H3'	25:BA:175:G:H5''	1.76	0.67
42:DV:39:LEU:HB3	42:DV:47:VAL:CG2	2.25	0.67
1:CA:1376:U:H2'	1:CA:1377:A:C8	2.28	0.67
30:BF:28:ILE:O	30:BF:28:ILE:HD12	1.94	0.67
40:BT:83:ILE:HG13	40:BT:84:GLN:N	2.09	0.67
25:BA:1396:U:C1'	25:BA:1397:U:H6	2.04	0.67
26:BB:106:G:O2'	26:BB:107:G:H5'	1.95	0.67
25:DA:157:U:H3'	25:DA:158:U:C5'	2.16	0.67
28:BD:270:ILE:HG12	28:BD:271:ILE:H	1.59	0.67
32:DH:163:TYR:H	32:DH:163:TYR:HD1	1.43	0.67
27:BC:102:GLN:HE21	27:BC:102:GLN:CA	2.00	0.67
32:DH:156:ALA:C	32:DH:158:HIS:N	2.47	0.67
2:AB:116:GLU:HB3	2:AB:153:ARG:NH2	2.09	0.67
22:CV:84:ASP:CB	22:CV:89:GLU:H	2.08	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BH:117:PRO:HB3	32:BH:123:PHE:HE1	1.58	0.67
25:BA:674:G:H1'	30:BF:74:ARG:HD2	1.77	0.67
1:AA:975:A:H5'	1:AA:975:A:H8	1.57	0.67
30:BF:34:TRP:CZ2	36:BP:12:ALA:HB2	2.30	0.67
27:DC:148:PHE:C	27:DC:150:ILE:H	1.97	0.67
5:CE:88:LYS:HG2	5:CE:89:ILE:H	1.59	0.67
25:DA:2122:U:H3	25:DA:2176:A:N6	1.92	0.67
51:B4:42:CYS:HA	51:B4:59:VAL:O	1.95	0.67
46:BZ:13:LYS:C	46:BZ:15:SER:H	1.98	0.67
25:BA:2701:C:C3'	25:BA:2702:U:H5''	2.24	0.67
25:BA:71:A:H5'	25:BA:71:A:H8	1.59	0.67
28:DD:271:ILE:O	28:DD:272:ALA:HB2	1.93	0.67
25:BA:1224:C:O2'	42:BV:85:LYS:HD3	1.95	0.67
25:BA:2184:G:H2'	25:BA:2185:C:C6	2.28	0.67
19:AS:29:ARG:HD2	19:AS:30:LEU:N	2.10	0.67
25:DA:2050:C:H1'	29:DE:156:MET:HE1	1.76	0.67
31:DG:7:LEU:HD22	31:DG:100:TRP:CZ3	2.28	0.67
30:BF:123:LEU:HD12	30:BF:124:LEU:N	2.10	0.67
25:BA:80:G:O2'	25:BA:81:G:H5'	1.94	0.67
1:AA:323:U:H2'	1:AA:324:G:O4'	1.94	0.67
44:BX:65:ARG:HG2	44:BX:66:LEU:N	2.10	0.67
34:DN:125:GLY:HA3	34:DN:126:PRO:O	1.94	0.67
25:DA:1843:C:H5'	28:DD:253:GLN:NE2	2.10	0.67
1:CA:967:C:H4'	9:CI:125:TYR:HE2	1.60	0.67
20:AT:16:HIS:CE1	20:AT:20:LEU:HD21	2.29	0.67
22:CV:114:MET:SD	22:CV:119:PRO:HG3	2.34	0.67
2:CB:219:VAL:HA	2:CB:222:ILE:HD12	1.77	0.67
25:DA:1142(A):A:OP2	25:DA:1142(A):A:H3'	1.95	0.67
25:DA:2840:C:H4'	38:DR:53:HIS:CD2	2.29	0.67
7:CG:38:LEU:O	7:CG:42:ILE:HG13	1.94	0.67
1:AA:224:C:O2'	1:AA:225:C:H5'	1.94	0.67
3:AC:34:LEU:HD23	3:AC:35:GLU:N	2.09	0.67
3:AC:40:ARG:HA	3:AC:43:LEU:CD1	2.22	0.67
1:AA:1131:G:H2'	1:AA:1132:C:H6	1.58	0.67
32:DH:89:ILE:HG13	32:DH:129:THR:O	1.93	0.67
31:BG:54:GLU:OE1	31:BG:54:GLU:HA	1.95	0.67
36:DP:62:LEU:HG	36:DP:63:PRO:N	2.08	0.67
37:BQ:56:ARG:HG2	37:BQ:56:ARG:HH11	1.60	0.67
10:CJ:63:PHE:CD2	10:CJ:63:PHE:N	2.62	0.67
33:DI:48:GLU:C	33:DI:50:ARG:H	1.96	0.67
43:BW:60:ASN:H	43:BW:60:ASN:HD22	1.43	0.67
1:AA:1194:U:H2'	1:AA:1195:C:H6	1.56	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:AV:163:LEU:O	22:AV:165:VAL:N	2.27	0.67
1:AA:545:C:H5''	4:AD:72:GLU:HG2	1.77	0.67
43:DW:59:VAL:HG13	43:DW:59:VAL:O	1.95	0.67
22:AV:130:LEU:CB	22:AV:153:LEU:HD12	2.25	0.67
8:CH:21:LYS:O	8:CH:63:LEU:HD23	1.95	0.67
25:DA:1799:G:H5'	25:DA:1819:A:N6	2.09	0.67
25:DA:650:C:N3	25:DA:651:G:N7	2.42	0.67
27:DC:181:PHE:CB	27:DC:186:LEU:HG	2.24	0.67
48:D1:29:GLY:C	48:D1:30:VAL:HG23	2.16	0.67
25:DA:1296:G:O2'	25:DA:1297:C:H5'	1.94	0.67
47:B0:9:THR:HG22	47:B0:10:ARG:H	1.60	0.67
49:D2:16:LEU:O	49:D2:17:SER:HB3	1.95	0.67
25:DA:588:U:H1'	30:DF:90:PHE:CD1	2.29	0.67
17:CQ:12:SER:HA	17:CQ:14:LYS:HZ3	1.59	0.67
2:CB:72:GLY:HA2	2:CB:165:VAL:CG2	2.25	0.67
13:CM:57:ARG:NH1	51:D4:60:GLU:HG3	2.09	0.67
1:AA:1216:G:OP1	14:AN:2:ALA:HA	1.94	0.67
29:DE:10:GLY:HA2	29:DE:192:ASN:HD21	1.58	0.67
48:B1:5:CYS:SG	48:B1:62:VAL:HG23	2.35	0.67
17:CQ:52:LYS:H	17:CQ:52:LYS:HD2	1.59	0.67
25:BA:248:G:C2	25:BA:2431:U:H4'	2.29	0.67
37:DQ:141:GLN:HE22	46:DZ:71:ARG:HD3	1.59	0.67
2:CB:207:ALA:HB1	2:CB:209:ARG:HG2	1.74	0.67
41:DU:92:ARG:O	41:DU:94:ASN:N	2.26	0.67
25:DA:971:C:O2'	25:DA:972:G:H5'	1.95	0.67
1:CA:1129:C:H5''	1:CA:1139:G:O6	1.95	0.67
45:DY:31:LEU:HB2	45:DY:32:PRO:CA	2.24	0.67
29:DE:61:ARG:HB3	29:DE:62:PRO:CD	2.25	0.67
25:BA:1397:U:H2'	25:BA:1397:U:O2	1.94	0.67
10:AJ:25:GLU:C	10:AJ:27:ALA:H	1.96	0.67
25:BA:1593:G:C2'	25:BA:1594:G:H5''	2.25	0.67
45:BY:43:ASN:HA	45:BY:64:GLU:HA	1.75	0.67
42:BV:2:PHE:O	42:BV:14:VAL:O	2.13	0.67
30:BF:53:THR:HG22	30:BF:56:GLU:CG	2.25	0.67
37:BQ:134:ARG:HA	37:BQ:137:TYR:HE1	1.60	0.67
26:DB:7:G:H3'	26:DB:8:U:C5'	2.23	0.67
30:DF:156:LEU:HD12	30:DF:157:VAL:H	1.58	0.67
20:AT:71:THR:HG22	20:AT:72:LEU:N	2.10	0.67
1:AA:939:G:H1	1:AA:1344:C:N4	1.92	0.67
25:DA:20:C:H2'	25:DA:21:A:H8	1.60	0.67
31:BG:173:LEU:HD22	31:BG:178:PHE:CZ	2.30	0.67
25:DA:1796:U:H4'	28:DD:256:GLY:N	2.09	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2197:U:O2'	25:BA:2198:A:C8	2.46	0.67
48:B1:80:LEU:HD22	48:B1:82:LEU:CD1	2.25	0.67
18:CR:82:THR:HG22	18:CR:83:GLU:H	1.60	0.67
37:BQ:68:ILE:HG23	37:BQ:103:MET:HA	1.77	0.67
25:BA:1416:G:HO2'	25:BA:1417:C:H6	1.41	0.67
17:AQ:18:THR:HG23	17:AQ:69:LYS:HE3	1.76	0.67
6:CF:23:LYS:O	6:CF:27:GLN:HG2	1.95	0.67
1:AA:1288:A:H2'	1:AA:1289:A:C8	2.30	0.67
46:DZ:165:SER:HB2	46:DZ:166:PRO:C	2.15	0.67
7:CG:100:ALA:O	7:CG:104:LEU:HD23	1.94	0.67
13:CM:106:ASN:C	13:CM:108:ARG:H	1.98	0.67
53:B6:40:CYS:SG	53:B6:45:LYS:NZ	2.65	0.67
25:DA:556:G:H2'	25:DA:557:U:C6	2.30	0.67
25:DA:1116:C:O2'	25:DA:1117:G:H5'	1.93	0.67
28:BD:21:PHE:O	28:BD:23:GLU:N	2.27	0.67
2:AB:35:GLU:HG2	2:AB:38:GLY:O	1.94	0.67
42:BV:19:LYS:HZ3	42:BV:20:LEU:H	1.43	0.67
48:B1:52:ARG:HG3	48:B1:53:VAL:H	1.60	0.67
10:AJ:50:ILE:HA	10:AJ:60:ARG:CG	2.25	0.67
31:DG:81:LYS:O	31:DG:82:LEU:O	2.13	0.67
6:CF:75:LEU:C	6:CF:75:LEU:HD23	2.15	0.67
2:AB:9:GLU:HA	2:AB:12:GLU:CD	2.15	0.67
27:BC:69:LEU:HD13	27:BC:160:GLY:C	2.16	0.67
34:DN:74:ARG:HG3	34:DN:74:ARG:HH11	1.59	0.67
1:CA:1277:C:H2'	1:CA:1278:U:H5'	1.76	0.67
7:CG:78:ARG:HE	7:CG:79:ARG:H	1.41	0.67
28:BD:10:THR:HG23	28:BD:13:ARG:CB	2.25	0.67
9:CI:22:GLY:C	9:CI:23:ASN:HD22	1.99	0.67
1:CA:270:A:H2'	1:CA:271:C:H6	1.58	0.67
32:DH:67:LEU:O	32:DH:71:LEU:HB2	1.95	0.67
10:CJ:32:ALA:N	10:CJ:76:ASN:HB2	2.10	0.67
1:CA:609:A:O2'	1:CA:610:G:H5'	1.95	0.67
1:AA:865:A:H2	1:AA:918:A:H4'	1.60	0.67
33:BI:102:SER:HA	33:BI:107:VAL:H	1.60	0.67
25:DA:563:G:H5'	25:DA:572:A:H4'	1.75	0.67
25:DA:2028:U:H2'	25:DA:2029:G:O4'	1.95	0.67
25:BA:1125:G:H5'	56:B9:37:GLY:HA2	1.74	0.67
25:DA:1762:A:H8	25:DA:1762:A:O5'	1.78	0.67
49:B2:64:LEU:HD23	49:B2:64:LEU:O	1.94	0.67
2:CB:236:TYR:HA	2:CB:239:VAL:HG23	1.77	0.66
41:DU:92:ARG:NE	41:DU:94:ASN:HD22	1.93	0.66
1:AA:1222:G:O2'	1:AA:1223:C:H5'	1.95	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BF:25:PRO:HG3	30:BF:119:ARG:CA	2.25	0.66
25:BA:1342:A:N1	25:BA:1396:U:O2'	2.26	0.66
31:BG:61:ALA:HA	31:BG:64:THR:CG2	2.20	0.66
36:BP:95:VAL:HG22	36:BP:125:VAL:HG12	1.78	0.66
29:BE:52:LEU:HD22	29:BE:76:ARG:HD2	1.75	0.66
13:AM:23:TYR:CE1	13:AM:71:ARG:HD3	2.31	0.66
8:AH:20:TYR:HA	8:AH:65:TYR:CE2	2.30	0.66
17:CQ:78:GLU:HG3	17:CQ:78:GLU:O	1.94	0.66
39:DS:89:ARG:HH11	39:DS:92:TYR:HA	1.60	0.66
31:BG:76:SER:O	31:BG:77:ILE:HD13	1.96	0.66
27:BC:34:ALA:HB2	27:BC:217:THR:HB	1.76	0.66
32:DH:46:GLU:O	32:DH:47:GLU:CB	2.43	0.66
37:DQ:47:ILE:O	37:DQ:49:ALA:N	2.28	0.66
1:CA:1392:G:N2	1:CA:1502:A:H8	1.93	0.66
25:DA:2178:C:H2'	25:DA:2179:C:H6	1.61	0.66
6:CF:19:LEU:HD23	6:CF:19:LEU:O	1.94	0.66
25:DA:1530:C:H6	25:DA:1530:C:O5'	1.78	0.66
25:DA:2795:G:N1	25:DA:2799:C:H5'	2.10	0.66
3:AC:44:GLU:HG2	3:AC:52:LEU:HD11	1.76	0.66
30:DF:84:VAL:HG12	30:DF:85:GLY:N	2.09	0.66
25:BA:1203:G:H3'	25:BA:1204:A:H5''	1.76	0.66
22:AV:72:TYR:HD1	22:AV:73:LEU:N	1.93	0.66
10:AJ:89:ASP:C	10:AJ:90:LEU:HD12	2.15	0.66
25:DA:2684:U:O2'	35:DO:68:GLU:HG3	1.94	0.66
25:BA:1042:G:H21	25:BA:1043:C:H4'	1.58	0.66
49:D2:29:LYS:O	49:D2:32:LEU:HB3	1.95	0.66
12:CL:123:LYS:HE2	12:CL:123:LYS:HA	1.76	0.66
2:CB:24:TRP:CZ3	2:CB:26:PRO:HA	2.30	0.66
42:DV:40:LEU:HA	42:DV:45:THR:HB	1.77	0.66
1:CA:1288:A:H2'	1:CA:1289:A:C8	2.30	0.66
9:CI:80:GLY:O	9:CI:84:ALA:N	2.27	0.66
31:DG:178:PHE:HB3	31:DG:180:PHE:CE1	2.30	0.66
19:AS:49:ILE:HD12	19:AS:49:ILE:N	2.10	0.66
1:AA:1432:G:OP1	40:BT:107:ASP:HB2	1.95	0.66
2:AB:187:LEU:HD23	2:AB:214:ILE:HG21	1.77	0.66
25:DA:283:A:H5'	25:DA:284:U:H5	1.60	0.66
25:BA:2636:U:H4'	29:BE:80:GLU:OE1	1.94	0.66
42:BV:65:GLY:O	42:BV:66:ARG:HG3	1.95	0.66
8:AH:73:ASP:OD2	8:AH:75:ARG:HD3	1.95	0.66
48:B1:86:SER:HB3	48:B1:89:GLU:OE2	1.95	0.66
25:BA:1019:U:H3	25:BA:1142(A):A:N6	1.90	0.66
30:DF:178:PRO:HG2	30:DF:179:GLU:OE2	1.94	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:AV:134:ASP:HB3	22:AV:152:THR:H	1.58	0.66
1:AA:523:A:H61	12:AL:50:ARG:HH12	1.40	0.66
40:BT:55:ASN:H	40:BT:59:THR:CG2	2.05	0.66
23:AW:71:C:H2'	23:AW:72:A:O4'	1.95	0.66
25:BA:1484:G:H2'	25:BA:1485:G:H5''	1.77	0.66
31:BG:95:ARG:NH1	31:BG:95:ARG:HG2	2.10	0.66
6:CF:100:ASN:ND2	18:CR:23:LYS:HE3	2.09	0.66
36:BP:71:VAL:HG12	36:BP:72:PRO:HD3	1.77	0.66
31:BG:128:ARG:C	31:BG:130:ASN:N	2.48	0.66
25:DA:782:A:C2	28:DD:226:MET:HG2	2.30	0.66
25:BA:2158:A:H3'	25:BA:2159:G:H5''	1.77	0.66
25:BA:630:G:H4'	25:BA:640:C:H4'	1.76	0.66
1:CA:379:C:O2'	1:CA:380:G:H5'	1.95	0.66
48:B1:80:LEU:HB3	48:B1:82:LEU:HD21	1.77	0.66
29:DE:196:VAL:HG23	29:DE:197:ILE:N	2.10	0.66
34:BN:90:MET:O	34:BN:93:THR:O	2.13	0.66
11:CK:27:ASN:ND2	11:CK:55:LYS:HE2	2.10	0.66
9:AI:48:GLU:N	9:AI:49:PRO:HD2	2.10	0.66
2:CB:18:GLY:N	2:CB:42:ILE:HG22	2.11	0.66
50:D3:10:LYS:HB3	50:D3:53:LEU:HD23	1.77	0.66
41:DU:98:LEU:O	41:DU:100:VAL:N	2.27	0.66
48:D1:86:SER:HB2	48:D1:89:GLU:CB	2.18	0.66
25:BA:1490:A:H5'	25:BA:1491:G:OP2	1.95	0.66
1:CA:1343:G:H1'	9:CI:121:ARG:NH1	2.10	0.66
30:BF:20:LEU:O	30:BF:24:LEU:HB2	1.95	0.66
30:DF:196:LEU:O	30:DF:199:TRP:HB3	1.95	0.66
32:DH:89:ILE:HD11	32:DH:129:THR:CG2	2.25	0.66
29:BE:81:ILE:HG22	29:BE:81:ILE:O	1.93	0.66
2:AB:48:MET:HA	2:AB:51:LEU:HD12	1.76	0.66
25:BA:479:A:H4'	25:BA:480:A:C5'	2.25	0.66
1:CA:1305:G:HO2'	1:CA:1306:A:H8	1.37	0.66
12:CL:43:LYS:HG2	12:CL:44:LYS:H	1.59	0.66
25:BA:2414:G:H21	36:BP:67:MET:CE	2.08	0.66
4:AD:61:LYS:HE2	4:AD:65:ARG:HD3	1.77	0.66
42:BV:1:MET:HB2	42:BV:99:ILE:HG13	1.77	0.66
25:BA:271(J):C:C3'	25:BA:271(K):U:H5''	2.25	0.66
25:DA:299:A:H5''	45:DY:84:ARG:HH21	1.60	0.66
10:CJ:95:GLU:OE2	10:CJ:95:GLU:HA	1.94	0.66
25:DA:2126:A:N1	25:DA:2162:G:O2'	2.27	0.66
31:BG:83:ARG:HH11	31:BG:84:LYS:HZ2	1.43	0.66
1:AA:523:A:H61	12:AL:89:ASP:CB	2.09	0.66
25:BA:1484:G:C2'	25:BA:1485:G:H5''	2.26	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:CK:126:ARG:HH11	11:CK:126:ARG:HB3	1.60	0.66
25:BA:278:A:H4'	25:BA:279:C:OP2	1.95	0.66
28:DD:131:LEU:N	28:DD:131:LEU:HD12	2.10	0.66
6:CF:41:GLU:O	6:CF:43:LEU:N	2.28	0.66
25:BA:2162:G:O2'	25:BA:2163:C:H5'	1.95	0.66
47:D0:7:LEU:N	47:D0:7:LEU:HD23	2.10	0.66
25:DA:2758:A:C3'	25:DA:2759:G:H5''	2.24	0.66
4:CD:74:GLN:HE22	4:CD:137:SER:HB3	1.59	0.66
17:CQ:14:LYS:N	17:CQ:14:LYS:HE3	2.10	0.66
36:BP:45:LEU:HD23	36:BP:46:LYS:N	2.11	0.66
1:AA:1111:A:H2'	1:AA:1112:C:C6	2.29	0.66
37:DQ:134:ARG:NH2	46:DZ:121:ARG:HD2	2.10	0.66
25:DA:996:A:H4'	41:DU:92:ARG:NH1	2.11	0.66
42:DV:37:VAL:O	42:DV:38:LEU:HB2	1.93	0.66
37:DQ:102:VAL:HG12	37:DQ:103:MET:N	2.08	0.66
25:DA:2106:G:H2'	25:DA:2107:C:O4'	1.95	0.66
7:CG:71:PRO:O	7:CG:91:VAL:HG21	1.95	0.66
3:AC:75:VAL:O	3:AC:83:ARG:NH1	2.28	0.66
8:CH:6:ILE:HD12	8:CH:6:ILE:N	2.05	0.66
1:AA:1027:C:H2'	1:AA:1028:C:C5	2.30	0.66
29:BE:47:VAL:HG21	29:BE:86:PRO:CD	2.25	0.66
25:BA:2415:G:H4'	36:BP:67:MET:N	2.11	0.66
32:BH:70:THR:O	32:BH:72:ILE:N	2.29	0.66
8:AH:11:THR:HG22	8:AH:15:ASN:HD21	1.59	0.66
45:DY:95:LYS:HG3	45:DY:100:ALA:CA	2.25	0.66
30:BF:34:TRP:CH2	36:BP:12:ALA:HB2	2.30	0.66
25:BA:2389:G:H5''	25:BA:2390:U:H5'	1.76	0.66
35:DO:14:THR:HG22	35:DO:16:ALA:H	1.61	0.66
45:DY:86:ARG:HD2	45:DY:88:LYS:HD2	1.77	0.66
27:DC:140:ASN:OD1	27:DC:142:LYS:HG2	1.95	0.66
25:DA:1257:C:H4'	30:DF:83:PHE:CE2	2.30	0.66
1:CA:18:C:H5''	5:CE:127:ASN:HD21	1.61	0.66
10:CJ:33:GLN:H	10:CJ:75:ILE:HG12	1.59	0.66
1:CA:1246:C:H2'	1:CA:1247:U:C6	2.30	0.66
17:AQ:60:ILE:HG22	17:AQ:72:ARG:O	1.94	0.66
1:AA:784:C:H4'	25:BA:1837:C:OP1	1.95	0.66
12:AL:123:LYS:HE2	12:AL:124:GLU:C	2.16	0.66
25:DA:1049:C:H2'	25:DA:1049:C:O2	1.94	0.66
25:DA:1851:U:O2'	25:DA:1852:C:H5'	1.95	0.66
43:BW:52:GLU:O	43:BW:55:ALA:HB3	1.95	0.66
7:AG:101:LEU:O	7:AG:105:VAL:HG23	1.96	0.66
46:DZ:157:PRO:HG2	46:DZ:160:VAL:CG2	2.24	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DZ:6:ALA:O	46:DZ:60:LEU:HA	1.96	0.66
2:CB:204:ASN:ND2	2:CB:206:ASP:H	1.92	0.66
37:DQ:132:VAL:CG1	46:DZ:80:ARG:HH22	1.94	0.66
31:DG:111:LEU:HA	31:DG:114:ILE:HD11	1.78	0.66
53:B6:44:ARG:O	53:B6:45:LYS:CD	2.39	0.66
25:BA:2371:G:C4'	53:B6:45:LYS:HG3	2.26	0.66
25:DA:1047:G:N2	25:DA:1111:A:H62	1.94	0.66
13:AM:65:LYS:HG2	13:AM:69:GLU:O	1.96	0.66
1:CA:1186:G:C3'	1:CA:1187:G:H5''	2.25	0.66
25:DA:875:G:H4'	46:DZ:169:THR:HG21	1.77	0.66
25:BA:1697:G:C3'	25:BA:1698:A:H5''	2.24	0.66
25:DA:1310:G:H2'	25:DA:1311:G:H5'	1.78	0.66
1:CA:1033:G:C3'	1:CA:1034:G:C5'	2.73	0.66
23:CW:1:C:O2'	23:CW:2:G:H5'	1.96	0.66
30:DF:167:ALA:HA	30:DF:170:LEU:HD13	1.77	0.66
25:BA:2090:G:N2	48:B1:45:ASN:HD21	1.92	0.66
25:DA:1684:C:H2'	25:DA:1685:C:H6	1.60	0.66
20:AT:63:ILE:HG22	20:AT:77:ALA:HB1	1.77	0.66
1:AA:544:G:H2'	1:AA:545:C:C6	2.30	0.66
1:CA:1161:C:O2'	1:CA:1162:C:H5'	1.96	0.66
1:CA:394:G:H2'	1:CA:395:C:H6	1.60	0.66
1:CA:394:G:H2'	1:CA:395:C:C6	2.30	0.66
39:BS:85:VAL:HG23	39:BS:106:ARG:HG3	1.78	0.66
1:CA:1281:U:H5'	1:CA:1282:C:H5	1.60	0.66
34:BN:36:GLY:O	34:BN:42:TRP:CE3	2.49	0.66
13:CM:57:ARG:HH12	51:D4:60:GLU:HG3	1.60	0.66
7:AG:78:ARG:HB3	7:AG:87:VAL:HG23	1.78	0.66
44:DX:40:LYS:O	44:DX:42:ALA:N	2.27	0.66
1:CA:34:C:H42	1:CA:550:G:H1	1.44	0.66
23:AW:61:C:O2'	23:AW:62:C:H5'	1.94	0.66
1:AA:315:A:H4'	1:AA:316:G:H5''	1.77	0.66
25:DA:380:U:H2'	25:DA:381:G:H8	1.61	0.66
49:D2:42:GLY:O	49:D2:44:LEU:N	2.28	0.66
39:BS:88:ASP:CG	39:BS:89:ARG:H	1.98	0.66
25:DA:1899:G:H22	25:DA:1902:C:H41	0.72	0.66
25:BA:154:G:C6	25:BA:154(A):C:C4	2.84	0.66
46:DZ:67:PRO:HB2	46:DZ:90:LEU:HD13	1.77	0.66
2:CB:212:GLN:NE2	2:CB:216:SER:HB2	2.10	0.66
32:DH:43:VAL:HG11	32:DH:52:VAL:CA	2.18	0.66
1:CA:1148:U:H2'	1:CA:1149:C:O4'	1.96	0.66
25:DA:1108:U:C2'	25:DA:1109:C:H5'	2.26	0.66
45:BY:90:LEU:HD13	45:BY:91:GLU:H	1.59	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BP:107:LYS:O	36:BP:109:GLY:N	2.27	0.66
25:DA:2358:G:H1	36:DP:55:ARG:HH22	1.42	0.66
1:AA:235:C:H2'	1:AA:236:G:C8	2.30	0.66
4:AD:110:PHE:HE2	4:AD:148:VAL:HG23	1.58	0.66
3:CC:52:LEU:HD23	3:CC:52:LEU:N	2.05	0.66
38:DR:45:ARG:HD3	38:DR:97:VAL:HG23	1.75	0.66
37:BQ:134:ARG:CZ	46:BZ:121:ARG:HD2	2.25	0.66
19:CS:49:ILE:HD12	19:CS:60:VAL:HG13	1.78	0.66
34:DN:134:ARG:N	34:DN:134:ARG:HD3	2.11	0.66
34:DN:58:ASP:O	34:DN:60:ILE:N	2.23	0.66
1:CA:80:G:H2'	1:CA:81:U:H5	1.61	0.66
31:DG:129:GLY:O	31:DG:161:THR:HB	1.95	0.66
1:AA:1298:C:H1'	1:AA:1299:A:C2	2.31	0.66
1:CA:223:U:O2'	1:CA:224:C:H5'	1.96	0.66
25:BA:389:G:H22	36:BP:72:PRO:CD	2.08	0.66
4:CD:96:LEU:H	4:CD:96:LEU:CD1	2.08	0.66
4:AD:122:ARG:O	4:AD:134:ASP:HB3	1.95	0.66
7:AG:59:LEU:HD23	7:AG:59:LEU:O	1.96	0.66
5:AE:7:GLU:O	5:AE:8:GLU:HB3	1.96	0.66
28:BD:69:ARG:NH2	28:BD:192:THR:HG21	2.11	0.66
11:AK:12:ARG:HE	11:AK:14:VAL:HG12	1.60	0.66
28:DD:218:ARG:HB3	28:DD:219:PRO:HD2	1.78	0.66
25:BA:2879:C:H4'	25:BA:2880:C:OP1	1.96	0.66
25:BA:1587:A:H3'	25:BA:1588:C:H6	1.59	0.66
46:DZ:55:VAL:HG12	46:DZ:56:ILE:N	2.10	0.66
19:AS:32:LYS:O	19:AS:33:THR:HB	1.96	0.66
20:AT:81:LYS:C	20:AT:83:ARG:H	1.98	0.66
27:DC:73:VAL:HG13	27:DC:112:ASP:CB	2.20	0.66
25:DA:852:G:H2'	25:DA:853:G:H8	1.58	0.66
31:BG:59:GLU:OE2	31:BG:144:ILE:HG12	1.96	0.66
28:BD:82:ILE:HG22	28:BD:82:ILE:O	1.95	0.66
32:DH:108:GLY:HA3	32:DH:152:ARG:HH21	1.61	0.66
1:AA:1030(A):G:H1'	1:AA:1031:G:N1	2.10	0.66
16:CP:67:THR:HB	16:CP:70:ALA:HB2	1.78	0.66
25:DA:274:G:H22	25:DA:363:G:N2	1.94	0.66
25:BA:631:A:OP1	36:BP:64:LYS:HE2	1.96	0.66
11:AK:122:LYS:O	11:AK:126:ARG:HG3	1.95	0.66
3:CC:66:VAL:O	3:CC:66:VAL:HG12	1.96	0.66
10:CJ:50:ILE:HD13	10:CJ:60:ARG:HD3	1.77	0.66
25:DA:9:U:O4	25:DA:2629:A:N7	2.29	0.66
42:BV:66:ARG:HH11	42:BV:66:ARG:HG2	1.60	0.66
15:CO:74:ASP:OD1	15:CO:76:GLU:HB3	1.96	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DP:105:LEU:H	36:DP:105:LEU:HD23	1.59	0.66
36:DP:114:ILE:HD12	36:DP:115:LEU:N	2.09	0.66
25:DA:1686:C:H2'	25:DA:1687:G:O4'	1.95	0.66
4:AD:131:ARG:H	4:AD:131:ARG:CD	2.09	0.66
4:AD:3:ARG:HD3	4:AD:3:ARG:O	1.95	0.66
1:CA:222:U:H2'	1:CA:223:U:H6	1.60	0.66
37:BQ:61:GLY:O	37:BQ:62:GLY:O	2.14	0.66
26:BB:56:G:H4'	26:BB:57:A:H8	1.61	0.66
26:BB:56:G:H5'	31:BG:27:ASN:ND2	2.11	0.66
1:AA:807:A:H2'	1:AA:808:C:C6	2.29	0.66
1:AA:1382:C:H2'	1:AA:1383:C:C6	2.30	0.66
11:CK:27:ASN:CG	11:CK:55:LYS:HE2	2.16	0.66
25:DA:2346:A:H8	25:DA:2383:G:C5	2.13	0.66
12:AL:79:VAL:H	12:AL:103:ASP:CG	1.98	0.66
25:DA:2439:A:H5'	25:DA:2439:A:C8	2.30	0.66
11:CK:111:ASP:HA	18:CR:84:LYS:HD2	1.77	0.66
36:BP:48:PRO:CG	36:BP:49:ARG:H	2.05	0.66
3:AC:14:ILE:CD1	3:AC:178:LEU:HB3	2.26	0.66
46:DZ:135:PHE:HE1	46:DZ:137:GLU:HG2	1.60	0.66
42:DV:46:VAL:O	42:DV:47:VAL:HG13	1.95	0.66
44:DX:12:VAL:HG12	44:DX:27:THR:O	1.95	0.66
44:DX:26:TYR:HD2	44:DX:92:LEU:HD12	1.59	0.66
31:DG:137:GLU:HB3	31:DG:139:LEU:HD21	1.77	0.66
13:AM:83:ASP:CG	13:AM:84:ILE:H	1.98	0.66
30:BF:28:ILE:HG21	30:BF:116:ASP:HB3	1.77	0.66
30:DF:1:MET:CE	30:DF:27:GLU:HG3	2.26	0.66
51:D4:37:PRO:HB3	51:D4:51:TYR:CD2	2.30	0.66
45:BY:90:LEU:CD1	45:BY:91:GLU:H	2.08	0.66
36:BP:80:TYR:CE1	36:BP:111:ARG:HB3	2.30	0.66
32:DH:156:ALA:H	32:DH:158:HIS:H	1.42	0.66
2:AB:19:HIS:O	2:AB:39:ILE:HG23	1.95	0.66
10:AJ:17:ASP:O	10:AJ:20:ALA:HB3	1.96	0.66
22:CV:73:LEU:HD12	22:CV:81:VAL:HG12	1.78	0.66
32:BH:85:LYS:HG2	32:BH:133:VAL:HB	1.77	0.66
31:BG:129:GLY:HA3	31:BG:163:ALA:O	1.95	0.66
40:DT:28:VAL:O	40:DT:29:ARG:CG	2.44	0.66
48:B1:86:SER:HB2	48:B1:89:GLU:HB2	1.76	0.66
1:AA:460:G:H1'	1:AA:472:A:H61	1.61	0.66
25:DA:192:C:H2'	25:DA:193:U:H5'	1.78	0.66
25:DA:528:A:H2	25:DA:2043:C:H5'	1.60	0.66
25:DA:1174:A:H5''	25:DA:1175:U:C5'	2.25	0.66
34:DN:114:ARG:NH1	34:DN:114:ARG:HB2	2.11	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:AK:95:ILE:HG23	11:AK:108:ILE:HD11	1.78	0.66
1:CA:179:A:H2'	1:CA:180:U:H6	1.60	0.66
27:BC:182:PRO:HG2	27:BC:185:LYS:HD2	1.78	0.66
35:BO:1:MET:HE2	35:BO:67:LYS:HG2	1.76	0.66
1:AA:1382:C:H2'	1:AA:1383:C:H6	1.61	0.66
1:AA:1281:U:H5'	1:AA:1282:C:C5	2.31	0.66
1:CA:1382:C:O2'	1:CA:1383:C:H5'	1.96	0.66
1:CA:487:A:H2'	1:CA:488:C:O4'	1.96	0.66
13:CM:40:ASN:HD21	13:CM:42:ALA:HB3	1.61	0.66
25:BA:2348:U:H2'	25:BA:2349:G:C5'	2.25	0.66
29:DE:176:ILE:HD12	29:DE:176:ILE:N	2.10	0.66
40:BT:13:ARG:HA	40:BT:13:ARG:NH1	2.11	0.66
7:AG:43:PHE:O	7:AG:46:ALA:HB3	1.96	0.66
46:DZ:44:ASP:O	46:DZ:48:ARG:HG2	1.96	0.66
19:CS:62:ILE:O	19:CS:62:ILE:HG23	1.95	0.66
28:BD:43:ARG:HD2	28:BD:44:ASN:OD1	1.96	0.66
41:BU:90:VAL:CG1	41:BU:91:ASP:H	2.03	0.66
45:DY:37:VAL:HG11	45:DY:72:VAL:HG21	1.78	0.66
40:BT:80:SER:CB	40:BT:81:PRO:HD3	2.25	0.66
3:AC:90:GLU:HA	3:AC:93:LYS:HB3	1.78	0.66
45:BY:8:LYS:HZ1	45:BY:72:VAL:HB	1.60	0.66
53:B6:12:GLU:CA	53:B6:23:THR:HA	2.26	0.66
28:BD:26:LYS:HZ1	28:BD:82:ILE:HB	1.60	0.66
1:AA:258:G:H2'	1:AA:259:G:H8	1.61	0.66
29:BE:68:ALA:HB3	29:BE:69:LYS:NZ	2.10	0.66
2:AB:168:THR:HG23	2:AB:192:SER:HG	1.57	0.66
22:CV:71:GLN:HG3	22:CV:72:TYR:N	2.11	0.66
28:DD:93:ALA:HB3	28:DD:105:ILE:HG23	1.78	0.66
1:AA:1053:G:H3'	1:AA:1054:C:H5'	1.76	0.66
1:AA:975:A:H5'	1:AA:975:A:C8	2.31	0.66
25:DA:1591:G:H5'	25:DA:1591:G:C8	2.29	0.66
1:AA:557:G:H2'	1:AA:558:G:C8	2.30	0.66
31:BG:72:ARG:CZ	31:BG:86:MET:HG2	2.25	0.66
35:DO:87:ILE:HG21	35:DO:91:LEU:HA	1.78	0.66
25:DA:1192:G:O2'	25:DA:1193:G:H5'	1.96	0.66
6:AF:49:ALA:HB2	18:AR:78:LEU:O	1.96	0.66
18:AR:44:LEU:HD11	18:AR:79:LEU:HB3	1.78	0.66
1:AA:10:A:OP2	5:AE:126:ARG:HD3	1.96	0.66
25:DA:1027:A:H4'	26:DB:88:C:N3	2.10	0.66
55:B8:58:ILE:HG22	55:B8:58:ILE:O	1.95	0.66
31:BG:5:VAL:HG22	31:BG:8:LYS:HB2	1.78	0.66
39:BS:85:VAL:H	39:BS:106:ARG:HB2	1.60	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1123:A:O2'	10:AJ:38:ILE:HG23	1.96	0.66
25:BA:2202:C:H1'	28:BD:151:LYS:HZ1	1.60	0.66
27:BC:6:LYS:HB3	27:BC:6:LYS:NZ	2.10	0.66
44:DX:72:LYS:HD2	44:DX:72:LYS:N	2.11	0.66
29:DE:10:GLY:HA2	29:DE:192:ASN:ND2	2.11	0.66
1:AA:35:G:O2'	12:AL:118:GLY:HA2	1.96	0.66
25:BA:620:G:H4'	25:BA:621:A:C5'	2.24	0.66
32:DH:149:ARG:HD3	32:DH:164:TYR:HE1	1.61	0.66
44:BX:60:ARG:HH22	54:B7:47:ARG:NH2	1.94	0.66
25:DA:2356:C:O3'	47:D0:20:ARG:HD3	1.95	0.66
25:BA:1786:A:C2	25:BA:2606:C:H1'	2.30	0.66
40:BT:65:LYS:HE3	40:BT:66:VAL:C	2.16	0.66
42:DV:35:LEU:C	42:DV:37:VAL:H	1.99	0.66
1:CA:942:G:H21	9:CI:124:GLN:HE22	1.43	0.66
36:BP:136:GLU:O	36:BP:139:LYS:N	2.25	0.66
2:AB:187:LEU:HA	2:AB:201:ILE:HB	1.78	0.66
38:DR:4:LEU:CD1	38:DR:4:LEU:O	2.44	0.66
1:AA:1126:U:O2'	1:AA:1127:G:H5'	1.95	0.66
27:DC:15:VAL:HG13	27:DC:21:TYR:CE1	2.31	0.66
1:CA:952:U:H2'	1:CA:953:G:H8	1.59	0.66
27:DC:80:LYS:HE3	31:DG:50:ALA:H	1.60	0.66
47:D0:40:GLN:HG3	47:D0:42:GLY:O	1.96	0.66
39:DS:93:LYS:HG3	39:DS:93:LYS:O	1.96	0.66
12:AL:42:PRO:HG3	12:AL:48:ALA:N	2.10	0.66
25:DA:528:A:C3'	25:DA:528:A:C8	2.77	0.66
1:CA:226:G:O2'	1:CA:227:G:H5'	1.96	0.66
1:CA:192:U:H4'	20:CT:103:GLY:HA2	1.78	0.66
6:CF:100:ASN:N	18:CR:23:LYS:NZ	2.42	0.66
25:DA:2715:C:H2'	25:DA:2716:U:H6	1.60	0.66
28:DD:264:LYS:HG3	28:DD:265:PRO:HD2	1.76	0.66
1:CA:929:G:H2'	1:CA:930:C:C6	2.31	0.66
38:DR:99:LYS:HB2	38:DR:99:LYS:NZ	2.10	0.66
25:BA:1111:A:C2'	25:BA:1112:G:H4'	2.26	0.66
19:AS:24:ALA:O	19:AS:25:LYS:HB2	1.95	0.66
25:DA:2060:A:H3'	30:DF:68:LYS:HZ1	1.61	0.66
25:BA:1472:A:H2'	25:BA:1473:G:O4'	1.95	0.66
25:BA:80:G:C2'	25:BA:81:G:H5'	2.26	0.66
46:BZ:91:SER:O	46:BZ:129:PRO:HG2	1.96	0.66
1:AA:315:A:O2'	1:AA:316:G:OP2	2.09	0.66
25:BA:181:A:H5''	54:B7:36:GLN:NE2	2.11	0.66
38:BR:3:HIS:O	38:BR:4:LEU:CB	2.44	0.66
36:BP:89:ALA:HA	36:BP:121:LYS:HD3	1.77	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1709:U:H2'	25:DA:1710:C:C6	2.31	0.66
25:BA:2300:G:H1	25:BA:2316:C:H42	1.43	0.66
37:DQ:5:ARG:O	37:DQ:6:ARG:HG2	1.95	0.66
25:DA:2853:C:H2'	25:DA:2854:G:H8	1.60	0.66
17:CQ:89:LEU:HD23	17:CQ:89:LEU:O	1.96	0.66
25:BA:792:G:H5''	25:BA:793:A:H5'	1.77	0.66
46:DZ:27:MET:SD	46:DZ:58:LEU:HD12	2.36	0.65
46:DZ:7:TYR:CD1	46:DZ:7:TYR:N	2.61	0.65
37:DQ:140:ALA:HA	46:DZ:98:TYR:CG	2.31	0.65
30:BF:116:ASP:HB2	30:BF:119:ARG:NH2	2.11	0.65
30:DF:28:ILE:HG12	30:DF:119:ARG:NH2	2.11	0.65
25:DA:1109:C:H41	25:DA:1110:G:H21	1.43	0.65
3:AC:3:ASN:O	3:AC:4:LYS:HB2	1.96	0.65
25:DA:2833:G:H3'	25:DA:2834:G:H5'	1.76	0.65
25:BA:363(A):A:H2'	25:BA:363(A):A:N3	2.09	0.65
32:DH:83:TYR:CA	32:DH:135:GLY:H	2.08	0.65
1:CA:1305:G:O2'	1:CA:1306:A:H8	1.78	0.65
4:AD:14:ARG:HA	4:AD:39:PRO:HB3	1.78	0.65
3:CC:64:VAL:N	3:CC:97:LYS:HZ1	1.94	0.65
46:DZ:143:LEU:HD11	46:DZ:149:LEU:HD12	1.78	0.65
1:CA:1001:A:N3	1:CA:1001:A:H2'	2.11	0.65
33:BI:3:VAL:O	33:BI:18:VAL:HA	1.96	0.65
1:CA:1025:U:H4'	1:CA:1026:G:C8	2.31	0.65
39:DS:61:ASN:O	39:DS:62:LYS:HB2	1.95	0.65
6:CF:2:ARG:O	6:CF:66:GLU:HA	1.96	0.65
33:BI:132:PRO:HB2	33:BI:133:HIS:CE1	2.32	0.65
19:AS:46:GLY:H	19:AS:62:ILE:HG23	1.59	0.65
50:B3:47:VAL:HG11	50:B3:56:VAL:CG2	2.24	0.65
7:CG:13:GLN:HG3	7:CG:14:PRO:CD	2.26	0.65
1:CA:1277:C:H6	1:CA:1278:U:H5'	1.59	0.65
37:BQ:43:THR:OG1	37:BQ:46:GLN:HG3	1.96	0.65
38:BR:20:LEU:O	38:BR:24:GLN:HG3	1.95	0.65
25:DA:1459:G:C8	25:DA:1461:G:H1'	2.31	0.65
35:DO:49:ARG:HH11	35:DO:49:ARG:HG2	1.61	0.65
25:DA:2853:C:H2'	25:DA:2854:G:C8	2.30	0.65
1:CA:927:G:H2'	1:CA:928:G:C8	2.31	0.65
43:DW:35:ILE:HG22	43:DW:35:ILE:O	1.96	0.65
34:BN:15:LEU:HD12	34:BN:15:LEU:C	2.17	0.65
56:D9:26:ILE:HG22	56:D9:27:CYS:H	1.61	0.65
33:BI:144:VAL:HG23	33:BI:145:VAL:H	1.62	0.65
9:AI:40:LEU:HB2	9:AI:43:ALA:HB2	1.78	0.65
25:DA:863:A:H2'	25:DA:864:G:H8	1.61	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:19:LEU:HB3	9:CI:59:PHE:HD2	1.59	0.65
29:DE:77:ILE:HG22	29:DE:78:LEU:N	2.11	0.65
10:AJ:7:LYS:HD3	10:AJ:71:LEU:HD13	1.78	0.65
25:BA:541:C:H2'	25:BA:542:C:C5	2.30	0.65
45:BY:50:ARG:HD3	45:BY:53:PRO:HG3	1.77	0.65
4:AD:36:ARG:CB	4:AD:36:ARG:HH11	2.08	0.65
22:CV:7:LEU:O	22:CV:8:ARG:HD2	1.97	0.65
3:CC:8:ILE:HG23	3:CC:16:ARG:HG2	1.79	0.65
25:DA:2790:A:H2'	25:DA:2791:C:H5'	1.77	0.65
25:BA:2491:U:H5'	25:BA:2570:G:C5'	2.25	0.65
1:AA:100:C:H2'	1:AA:101:A:O4'	1.96	0.65
1:AA:939:G:H5''	7:AG:102:ARG:NH2	2.11	0.65
25:DA:1280:G:H2'	25:DA:1281:G:H5''	1.78	0.65
25:BA:2127:G:H4'	27:BC:38:PHE:CD2	2.30	0.65
25:BA:806:C:OP2	36:BP:39:LYS:HD3	1.95	0.65
18:AR:35:ARG:O	18:AR:37:VAL:HG13	1.96	0.65
47:B0:50:VAL:HG22	47:B0:80:VAL:HG23	1.77	0.65
1:AA:256:U:H2'	1:AA:257:G:C8	2.32	0.65
34:DN:56:ASN:HD21	34:DN:59:LYS:HG3	1.61	0.65
25:DA:1788:C:O2'	25:DA:1789:A:H5'	1.95	0.65
25:BA:262:A:H2'	25:BA:263:C:O4'	1.96	0.65
54:B7:45:ALA:O	54:B7:46:VAL:HG23	1.96	0.65
11:CK:23:ALA:HB1	11:CK:88:GLY:HA3	1.77	0.65
1:AA:828:A:H2'	1:AA:829:G:O4'	1.95	0.65
43:DW:84:ARG:HB2	43:DW:96:ILE:HG22	1.77	0.65
54:D7:32:LYS:HD3	54:D7:32:LYS:O	1.96	0.65
25:DA:2617:C:O2'	25:DA:2618:G:H5'	1.96	0.65
1:AA:1410:G:H2'	1:AA:1411:C:H6	1.61	0.65
38:DR:54:LEU:HD23	38:DR:66:VAL:HG23	1.79	0.65
32:DH:28:GLY:HA3	32:DH:79:VAL:HG21	1.78	0.65
43:BW:4:LYS:HA	43:BW:106:ILE:HG22	1.78	0.65
1:AA:1440:C:H2'	1:AA:1441:G:H5'	1.78	0.65
3:CC:137:ALA:HA	3:CC:140:ARG:HB2	1.79	0.65
25:BA:1998:G:O2'	25:BA:1999:C:H5'	1.96	0.65
2:CB:7:VAL:O	2:CB:11:LEU:HB2	1.95	0.65
41:BU:91:ASP:O	41:BU:93:LYS:N	2.29	0.65
1:CA:1128:C:H2'	1:CA:1139:G:O6	1.96	0.65
45:DY:38:ILE:HG22	45:DY:39:VAL:N	2.11	0.65
45:DY:2:ARG:HD2	45:DY:3:VAL:CG2	2.26	0.65
25:BA:2103:C:C2'	25:BA:2104:G:H5''	2.26	0.65
1:AA:1133:G:H2'	1:AA:1134:G:C8	2.31	0.65
36:BP:146:VAL:O	36:BP:148:LEU:N	2.29	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:31:TYR:HA	2:AB:46:LYS:HG2	1.78	0.65
20:CT:22:ARG:HH11	20:CT:22:ARG:HG3	1.61	0.65
17:AQ:68:ARG:H	17:AQ:70:ARG:NH1	1.94	0.65
53:D6:12:GLU:N	53:D6:12:GLU:CD	2.48	0.65
22:CV:3:SER:HA	22:CV:59:LYS:HA	1.77	0.65
22:CV:8:ARG:HH21	23:CW:4:G:C5'	2.08	0.65
15:CO:78:TYR:C	15:CO:80:ALA:H	1.99	0.65
40:DT:89:VAL:HG11	40:DT:91:ARG:HE	1.61	0.65
15:AO:87:ILE:HG22	15:AO:88:ARG:N	2.12	0.65
30:BF:9:ILE:HA	30:BF:14:PRO:O	1.95	0.65
10:CJ:84:GLN:O	10:CJ:85:LEU:HD23	1.96	0.65
17:CQ:20:THR:HA	17:CQ:43:LEU:HD23	1.77	0.65
1:AA:1301:U:H3'	1:AA:1302:U:C5'	2.26	0.65
1:CA:880:C:O2'	1:CA:881:G:H5'	1.96	0.65
40:BT:129:ARG:NH1	40:BT:131:ALA:HB3	2.12	0.65
38:DR:78:LYS:O	38:DR:82:GLU:HB3	1.97	0.65
4:AD:100:ARG:HH22	4:AD:137:SER:HB3	1.62	0.65
25:DA:1528(A):A:N7	25:DA:1529:G:C8	2.64	0.65
1:AA:537:G:H2'	1:AA:538:G:H8	1.60	0.65
1:AA:107:G:C2'	1:AA:108:G:H5'	2.26	0.65
25:DA:2022:U:O2'	25:DA:2617:C:H5'	1.95	0.65
47:B0:55:ASP:O	47:B0:56:PHE:HB2	1.96	0.65
30:DF:129:PHE:CD2	30:DF:163:VAL:HG21	2.30	0.65
1:CA:447:G:N1	1:CA:485:G:H1'	2.12	0.65
39:BS:36:TYR:HD1	39:BS:36:TYR:N	1.94	0.65
10:AJ:56:HIS:O	10:AJ:58:ASP:N	2.28	0.65
32:BH:19:VAL:HG11	32:BH:43:VAL:O	1.97	0.65
44:DX:8:ILE:N	44:DX:8:ILE:HD12	2.11	0.65
1:CA:1291:G:O3'	9:CI:39:GLY:HA3	1.96	0.65
22:CV:174:ASP:OD2	22:CV:177:THR:HG23	1.96	0.65
22:CV:173:VAL:HA	22:CV:179:GLU:O	1.95	0.65
13:AM:101:GLN:H	13:AM:101:GLN:HE21	1.45	0.65
25:BA:271(A):A:H5'	25:BA:271(B):C:OP2	1.96	0.65
46:DZ:150:HIS:ND1	46:DZ:151:ALA:N	2.44	0.65
33:DI:42:SER:O	33:DI:45:LYS:HE2	1.96	0.65
31:DG:72:ARG:NH1	31:DG:86:MET:HA	2.11	0.65
25:DA:1591:G:H2'	25:DA:1592:C:C6	2.32	0.65
6:CF:87:ARG:HG2	6:CF:87:ARG:HH11	1.61	0.65
28:BD:92:ILE:HD13	28:BD:92:ILE:H	1.60	0.65
3:CC:134:ILE:C	3:CC:136:GLN:H	1.99	0.65
20:CT:71:THR:HG22	20:CT:72:LEU:H	1.61	0.65
1:CA:1172:C:H2'	1:CA:1173:G:C8	2.29	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CL:114:ARG:HB3	12:CL:119:THR:HB	1.78	0.65
38:DR:52:ILE:O	38:DR:55:ALA:N	2.29	0.65
25:DA:1798:U:C5'	28:DD:259:THR:HG22	2.26	0.65
32:DH:147:ASN:H	32:DH:147:ASN:HD22	1.43	0.65
25:BA:1712:C:O2'	25:BA:1713:U:H5'	1.95	0.65
43:BW:111:HIS:CD2	43:BW:113:LYS:H	2.14	0.65
25:DA:614(A):U:H5''	25:DA:614(B):G:OP1	1.95	0.65
25:BA:17:G:H2'	25:BA:18:C:C6	2.31	0.65
3:CC:157:ILE:HD13	3:CC:166:GLU:HB2	1.78	0.65
4:CD:26:CYS:HA	4:CD:31:CYS:HB2	1.78	0.65
25:DA:2776:A:H4'	25:DA:2777:G:H5''	1.78	0.65
4:CD:189:PRO:HB2	4:CD:194:LEU:HD21	1.78	0.65
3:CC:127:ARG:HG2	3:CC:127:ARG:HH11	1.60	0.65
1:AA:180:U:H2'	1:AA:181:G:H5'	1.77	0.65
39:BS:99:LYS:O	39:BS:101:LEU:HD12	1.97	0.65
39:BS:74:ALA:HB2	39:BS:101:LEU:HD23	1.78	0.65
25:DA:2189:U:C3'	25:DA:2190:G:H5''	2.27	0.65
19:CS:9:VAL:O	19:CS:11:VAL:N	2.28	0.65
7:CG:66:VAL:HG12	7:CG:66:VAL:O	1.96	0.65
1:AA:977:A:N1	1:AA:1224:G:C2	2.64	0.65
3:AC:103:VAL:HG12	3:AC:103:VAL:O	1.96	0.65
3:AC:107:GLN:O	3:AC:109:PRO:HD3	1.95	0.65
3:CC:78:GLY:HA3	3:CC:83:ARG:HB3	1.77	0.65
25:BA:542:C:H6	25:BA:542:C:O5'	1.78	0.65
20:CT:13:LEU:HD12	20:CT:17:ARG:HH21	1.60	0.65
55:B8:32:LEU:O	55:B8:33:ASN:O	2.14	0.65
11:AK:110:ASP:O	18:AR:84:LYS:HD2	1.97	0.65
4:AD:31:CYS:C	4:AD:33:MET:H	1.98	0.65
25:DA:875:G:H2'	25:DA:876:C:C6	2.32	0.65
6:CF:91:VAL:CG1	18:CR:72:ARG:NH2	2.56	0.65
14:AN:27:CYS:O	14:AN:27:CYS:SG	2.54	0.65
37:BQ:63:LYS:NZ	37:BQ:63:LYS:HB2	2.10	0.65
19:CS:44:MET:HA	19:CS:44:MET:CE	2.26	0.65
55:D8:8:LYS:O	55:D8:12:LYS:HG3	1.96	0.65
25:DA:309:G:N3	25:DA:329:G:O2'	2.29	0.65
25:DA:1497:U:H5'	25:DA:1498:C:H5	1.59	0.65
29:DE:101:ARG:CD	29:DE:169:ASN:HD21	2.10	0.65
25:BA:271(M):G:O2'	25:BA:271(N):U:H3'	1.97	0.65
17:CQ:32:TYR:O	17:CQ:34:LYS:N	2.30	0.65
49:B2:64:LEU:HD21	49:B2:68:ARG:HE	1.62	0.65
25:BA:1999:C:H4'	25:BA:2723:C:O2	1.96	0.65
25:BA:2520:C:C6	25:BA:2567:G:H1'	2.32	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BN:57:ALA:O	34:BN:58:ASP:O	2.15	0.65
27:DC:47:LYS:NZ	27:DC:212:SER:HB2	2.11	0.65
1:AA:833:U:H2'	1:AA:834:C:C6	2.31	0.65
2:AB:82:ARG:HD2	2:AB:83:MET:CE	2.27	0.65
8:AH:12:ARG:NH1	8:AH:26:VAL:HA	2.10	0.65
13:CM:9:ILE:HG22	13:CM:9:ILE:O	1.95	0.65
25:BA:1941:C:H5'	25:BA:1941:C:H6	1.61	0.65
29:BE:37:ARG:O	29:BE:45:THR:HA	1.96	0.65
31:DG:39:ILE:CG2	31:DG:92:VAL:HG13	2.25	0.65
3:AC:90:GLU:OE1	3:AC:93:LYS:HD3	1.97	0.65
30:DF:155:LEU:HB2	30:DF:189:THR:OG1	1.97	0.65
10:AJ:24:VAL:HG22	10:AJ:72:VAL:HG11	1.77	0.65
36:DP:58:THR:O	36:DP:61:ARG:NE	2.29	0.65
29:BE:78:LEU:O	29:BE:79:ARG:HD2	1.95	0.65
1:CA:998:G:H2'	1:CA:999:C:C6	2.31	0.65
19:CS:5:LEU:HG	19:CS:10:PHE:CD1	2.31	0.65
45:DY:98:VAL:O	45:DY:99:CYS:SG	2.54	0.65
39:DS:20:ARG:N	39:DS:20:ARG:NH1	2.44	0.65
1:AA:390:C:H2'	1:AA:391:G:C8	2.32	0.65
22:CV:45:GLU:HA	22:CV:121:LYS:CD	2.24	0.65
31:BG:5:VAL:HG23	31:BG:8:LYS:H	1.61	0.65
30:DF:65:TRP:CZ3	30:DF:72:ARG:HB2	2.31	0.65
1:CA:1313:U:OP1	19:CS:6:LYS:HG3	1.96	0.65
27:DC:186:LEU:HA	27:DC:189:ASN:HD22	1.61	0.65
32:DH:149:ARG:HA	32:DH:162:ILE:HG21	1.79	0.65
1:CA:155:C:O2'	1:CA:156:G:H5'	1.97	0.65
43:DW:40:ASN:O	43:DW:41:LYS:HG2	1.97	0.65
5:AE:26:PHE:CD1	5:AE:26:PHE:N	2.64	0.65
1:CA:721:G:H4'	1:CA:722:A:O4'	1.97	0.65
1:CA:725:G:O2'	1:CA:726:C:H5'	1.97	0.65
33:BI:56:LYS:O	33:BI:60:GLU:HB3	1.96	0.65
46:DZ:144:GLU:H	46:DZ:147:ASP:HB3	1.61	0.65
2:CB:7:VAL:O	2:CB:11:LEU:HD12	1.97	0.65
25:DA:2103:C:H5'	25:DA:2104:G:OP2	1.97	0.65
3:AC:43:LEU:O	3:AC:47:LEU:HB3	1.97	0.65
5:AE:129:ILE:O	5:AE:132:ALA:HB3	1.97	0.65
4:AD:146:ILE:HD12	4:AD:146:ILE:N	2.11	0.65
22:CV:73:LEU:CD2	22:CV:83:MET:HB2	2.26	0.65
34:DN:34:LEU:HD21	34:DN:120:LEU:HG	1.79	0.65
1:AA:1056:U:H5'	3:AC:163:ALA:CB	2.26	0.65
1:AA:45:U:H2'	1:AA:46:G:C8	2.32	0.65
23:AW:1:C:H42	23:AW:72:A:N6	1.92	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DO:86:ILE:HD12	35:DO:86:ILE:N	2.12	0.65
46:BZ:142:GLY:O	46:BZ:143:LEU:HD22	1.97	0.65
43:DW:29:LEU:HD22	43:DW:69:LEU:HD12	1.79	0.65
1:AA:1106:G:H5'	3:AC:172:ARG:HG2	1.78	0.65
25:DA:1578:U:H2'	25:DA:1579:A:H5'	1.79	0.65
49:B2:32:LEU:HD23	49:B2:32:LEU:O	1.96	0.65
37:BQ:17:LEU:HD11	37:BQ:41:TRP:CD1	2.31	0.65
28:DD:45:ASN:HD21	28:DD:50:THR:HG21	1.59	0.65
25:DA:221:A:C4	25:DA:233:A:H1'	2.31	0.65
43:DW:7:ALA:O	43:DW:102:HIS:HA	1.97	0.65
30:BF:84:VAL:HG12	30:BF:85:GLY:N	2.09	0.65
25:DA:15:G:H2'	25:DA:16:G:H8	1.61	0.65
8:AH:90:GLY:O	8:AH:91:ARG:HB2	1.96	0.65
25:DA:2208:A:H1'	25:DA:2219:G:C5	2.32	0.65
15:AO:7:GLU:O	15:AO:10:LYS:HG2	1.97	0.65
1:CA:1486:G:H2'	1:CA:1487:G:O4'	1.96	0.65
25:BA:2790:A:H2'	25:BA:2790:A:N3	2.10	0.65
37:DQ:27:VAL:HG23	37:DQ:137:TYR:CE2	2.32	0.65
25:DA:1140:C:O2	25:DA:1140:C:H2'	1.96	0.65
41:DU:111:GLU:O	41:DU:114:LYS:HG2	1.96	0.65
42:BV:4:ILE:HG22	42:BV:39:LEU:HD23	1.77	0.65
31:DG:134:GLY:O	31:DG:135:LEU:HD12	1.97	0.65
19:AS:10:PHE:CZ	19:AS:70:LYS:HD2	2.31	0.65
1:AA:137:C:H42	1:AA:226:G:H1	1.44	0.65
45:BY:27:VAL:HG12	45:BY:28:LYS:N	2.12	0.65
45:BY:101:LYS:HG2	45:BY:102:CYS:N	2.12	0.65
2:AB:204:ASN:HD21	2:AB:207:ALA:H	1.43	0.65
8:CH:42:GLU:HG3	8:CH:109:ILE:HD12	1.78	0.65
3:CC:141:VAL:HG12	3:CC:146:ALA:HB2	1.78	0.65
3:CC:64:VAL:HG13	3:CC:97:LYS:HZ1	1.61	0.65
2:CB:140:HIS:HA	2:CB:143:GLU:CG	2.27	0.65
40:DT:8:LYS:O	40:DT:10:VAL:N	2.30	0.65
31:BG:75:LYS:O	31:BG:84:LYS:HA	1.96	0.65
48:D1:3:LYS:HG3	48:D1:4:VAL:N	2.08	0.65
18:CR:59:SER:H	18:CR:62:GLU:CD	2.00	0.65
1:CA:418:C:H2'	1:CA:419:C:C6	2.30	0.65
25:BA:11:G:O2'	25:BA:12:U:H5'	1.97	0.65
31:BG:29:TRP:O	31:BG:31:VAL:N	2.29	0.65
44:DX:60:ARG:HA	44:DX:75:ASP:OD2	1.96	0.65
25:DA:325:G:H2'	25:DA:326:G:H8	1.62	0.65
7:AG:80:VAL:HG21	7:AG:85:TYR:HD1	1.62	0.65
25:BA:2590:A:O2'	25:BA:2591:C:H5'	1.96	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DC:163:GLU:HG2	27:DC:164:PHE:N	2.12	0.65
25:DA:646:A:H2'	25:DA:647:G:O4'	1.97	0.65
25:DA:955:C:OP1	37:DQ:87:LYS:HE2	1.96	0.65
26:DB:55:U:H1'	31:DG:29:TRP:CD1	2.32	0.65
1:CA:1288:A:H2'	1:CA:1289:A:H8	1.62	0.65
42:BV:45:THR:HG22	42:BV:45:THR:O	1.97	0.65
2:CB:141:GLU:O	2:CB:145:LEU:HB2	1.96	0.65
1:CA:980:C:H5'	1:CA:981:U:C5	2.32	0.65
13:CM:92:HIS:HA	13:CM:110:ARG:NH2	2.11	0.65
31:DG:43:LEU:HD12	31:DG:153:ARG:HG3	1.78	0.65
1:CA:1363(A):A:H1'	1:CA:1365:G:C8	2.30	0.65
25:DA:2787:C:O2	29:DE:61:ARG:NH1	2.26	0.65
3:AC:89:GLU:O	3:AC:93:LYS:N	2.25	0.65
45:BY:8:LYS:HD2	45:BY:8:LYS:N	2.11	0.65
45:BY:7:VAL:HB	45:BY:8:LYS:HZ3	1.61	0.65
31:BG:60:LEU:O	31:BG:63:ILE:HG12	1.95	0.65
29:BE:84:PHE:CZ	29:BE:86:PRO:HG3	2.32	0.65
35:BO:113:LYS:O	35:BO:117:LEU:HB2	1.97	0.65
1:AA:708:C:H2'	1:AA:709:G:H8	1.62	0.65
4:AD:14:ARG:HG3	4:AD:15:GLU:N	2.11	0.65
35:DO:35:VAL:HG21	35:DO:69:ILE:HD13	1.78	0.65
25:DA:271(P):C:H5''	33:DI:45:LYS:NZ	2.12	0.65
22:CV:19:LEU:HD22	22:CV:63:ILE:HD13	1.78	0.65
52:B5:53:ALA:CA	52:B5:56:LYS:HZ1	2.10	0.65
1:AA:393:A:O2'	1:AA:394:G:H5'	1.97	0.65
1:AA:1002:G:N3	1:AA:1002:G:H2'	2.11	0.65
47:B0:37:VAL:HG12	47:B0:39:GLN:HG2	1.79	0.65
40:BT:88:ILE:HG22	40:BT:89:VAL:HG23	1.79	0.65
32:DH:147:ASN:ND2	32:DH:147:ASN:H	1.95	0.65
25:DA:52:A:O2'	25:DA:53:A:H5'	1.97	0.65
1:CA:677:U:H2'	1:CA:678:U:C6	2.32	0.65
35:DO:1:MET:HE3	35:DO:67:LYS:HG2	1.79	0.65
25:DA:2553:G:H3'	25:DA:2554:U:H5''	1.78	0.65
1:AA:1410:G:O2'	1:AA:1411:C:H5'	1.97	0.65
4:CD:126:ILE:HG22	4:CD:127:THR:N	2.12	0.65
25:BA:2112:G:O2'	25:BA:2113:U:H5'	1.97	0.65
42:BV:98:GLU:OE1	42:BV:100:ARG:HD3	1.96	0.65
25:BA:74:A:H4'	25:BA:75:G:O5'	1.96	0.65
1:AA:237:C:H5''	17:AQ:25:ARG:HH11	1.61	0.65
37:DQ:10:ARG:HG3	37:DQ:10:ARG:HH11	1.61	0.65
39:BS:101:LEU:HD22	39:BS:102:ALA:O	1.98	0.65
50:D3:8:LEU:CD1	50:D3:31:LEU:HA	2.26	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:DV:19:LYS:CG	42:DV:94:LEU:HB2	2.18	0.65
1:CA:1240:U:OP2	7:CG:116:ALA:HB2	1.97	0.65
29:DE:36:ARG:HH22	29:DE:88:GLY:CA	2.09	0.65
29:DE:33:VAL:HG12	29:DE:90:THR:H	1.62	0.65
30:BF:7:TYR:CE1	30:BF:196:LEU:HD11	2.31	0.65
29:BE:67:PHE:O	29:BE:70:ALA:HB2	1.97	0.65
25:BA:2476:A:H2'	25:BA:2477:C:H5''	1.77	0.65
40:DT:34:VAL:HG13	40:DT:39:ARG:CG	2.27	0.65
40:DT:28:VAL:HG22	40:DT:46:GLU:C	2.18	0.65
30:BF:191:ARG:NH1	30:BF:191:ARG:HB3	2.08	0.65
19:CS:19:VAL:HG22	19:CS:44:MET:SD	2.37	0.65
25:DA:2170:A:H5''	27:DC:135:ARG:NH1	2.08	0.65
25:DA:2126:A:H5'	27:DC:38:PHE:CZ	2.32	0.65
32:DH:68:THR:C	32:DH:70:THR:N	2.51	0.65
11:CK:96:ARG:CA	11:CK:99:GLN:HG2	2.27	0.65
25:BA:539:G:C8	25:BA:539:G:H5'	2.26	0.65
13:CM:47:ASP:O	13:CM:48:LEU:HB3	1.96	0.65
25:DA:2474:C:H5''	25:DA:2475:C:H5	1.62	0.65
25:DA:1190:G:H2'	25:DA:1191:G:H8	1.62	0.65
25:BA:2331:G:O3'	47:B0:42:THR:HG22	1.97	0.65
30:BF:133:ASN:HA	30:BF:162:LEU:HD21	1.79	0.65
25:DA:2808:U:H2'	25:DA:2809:A:C5'	2.27	0.65
39:BS:85:VAL:CG2	39:BS:106:ARG:HG3	2.27	0.65
4:AD:88:VAL:HG13	5:AE:97:GLY:HA3	1.79	0.65
1:AA:538:G:H2'	1:AA:539:A:C8	2.32	0.65
48:B1:13:ILE:C	48:B1:13:ILE:HD12	2.18	0.65
25:BA:374:A:H1'	25:BA:401:A:N6	2.12	0.65
34:BN:36:GLY:HA3	34:BN:48:MET:CE	2.27	0.65
43:BW:111:HIS:CD2	43:BW:112:GLY:H	2.15	0.65
1:CA:1510:U:H2'	1:CA:1511:G:C8	2.32	0.65
8:CH:12:ARG:HG2	8:CH:24:THR:HG21	1.79	0.65
1:CA:47:C:H4'	1:CA:48:C:O5'	1.96	0.65
1:AA:318:G:O2'	1:AA:319:G:H5'	1.97	0.65
1:AA:1080:A:H4'	5:AE:16:THR:OG1	1.96	0.65
13:CM:33:ALA:HA	13:CM:59:TYR:HE2	1.61	0.65
23:CW:50:U:H3	23:CW:64:G:H1	1.43	0.65
25:BA:197:A:C8	25:BA:197:A:H5'	2.32	0.64
20:AT:50:GLU:HG3	20:AT:51:GLU:H	1.61	0.64
1:CA:1179:A:H2'	1:CA:1180:A:O4'	1.98	0.64
1:AA:1321:C:H5'	1:AA:1322:C:C5'	2.27	0.64
30:BF:3:GLU:HA	30:BF:24:LEU:CB	2.25	0.64
1:AA:1066:C:H42	1:AA:1191:A:H62	1.43	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DP:63:PRO:O	36:DP:65:ARG:N	2.30	0.64
13:AM:97:PRO:HA	13:AM:110:ARG:HD3	1.79	0.64
13:AM:40:ASN:HD22	13:AM:43:THR:HG23	1.63	0.64
8:AH:6:ILE:N	8:AH:6:ILE:HD12	2.10	0.64
1:CA:1033:G:C3'	1:CA:1034:G:H5''	2.27	0.64
30:DF:164:ARG:HD2	30:DF:176:LEU:O	1.96	0.64
25:BA:2491:U:C5'	25:BA:2570:G:H5''	2.25	0.64
5:CE:80:ILE:HG22	8:CH:104:ARG:NH2	2.12	0.64
25:BA:1614:A:N6	43:BW:93:ALA:HB2	2.12	0.64
33:DI:12:LEU:O	33:DI:12:LEU:HG	1.98	0.64
42:DV:72:VAL:HG22	42:DV:85:LYS:HB3	1.79	0.64
1:CA:1452:C:H4'	1:CA:1456:G:C4	2.32	0.64
25:DA:1991:U:H2'	25:DA:1992:G:H5''	1.79	0.64
18:AR:46:GLU:HB3	18:AR:85:LEU:CD1	2.27	0.64
25:BA:92:A:O2'	25:BA:93:G:H5'	1.97	0.64
29:DE:2:LYS:HE3	29:DE:95:ILE:HG23	1.79	0.64
38:DR:63:ARG:HA	38:DR:80:PHE:CZ	2.32	0.64
5:CE:37:ARG:NH1	5:CE:112:LEU:HD22	2.11	0.64
25:BA:2864:G:O2'	25:BA:2865:U:H5'	1.96	0.64
19:AS:29:ARG:NH1	19:AS:30:LEU:HB2	2.12	0.64
25:BA:1473:G:O2'	25:BA:1474:C:H5'	1.97	0.64
25:BA:2533:A:C3'	25:BA:2534:A:H5''	2.27	0.64
15:AO:55:GLY:HA2	15:AO:58:MET:CE	2.28	0.64
8:CH:12:ARG:NH1	8:CH:27:PRO:HD3	2.12	0.64
35:BO:59:LYS:NZ	35:BO:89:ASN:HD21	1.95	0.64
1:CA:1056:U:H5'	3:CC:163:ALA:HB2	1.77	0.64
25:DA:2192:G:H2'	25:DA:2193:G:H5''	1.78	0.64
1:AA:763:G:H2'	1:AA:764:C:H6	1.62	0.64
25:BA:1025:G:OP1	25:BA:1025:G:H8	1.81	0.64
11:AK:81:ASP:OD1	11:AK:106:LYS:HD3	1.97	0.64
25:BA:862:G:H2'	25:BA:863:A:O4'	1.97	0.64
25:BA:1773:A:H2'	25:BA:1774:C:H5'	1.79	0.64
26:DB:29:A:H2'	26:DB:30:C:C6	2.32	0.64
1:AA:795:C:H1'	1:AA:1506:U:C6	2.32	0.64
39:BS:35:ILE:H	39:BS:53:SER:HB3	1.60	0.64
25:DA:1024:G:OP2	25:DA:1025:G:H3'	1.97	0.64
41:DU:73:GLY:O	41:DU:74:LEU:O	2.15	0.64
44:DX:7:VAL:HG12	44:DX:39:ILE:HD13	1.79	0.64
7:CG:115:ARG:HB2	7:CG:118:VAL:CG2	2.27	0.64
9:CI:50:LEU:HD13	9:CI:55:ALA:O	1.97	0.64
9:CI:82:ALA:O	9:CI:96:LEU:HD11	1.96	0.64
31:DG:141:PHE:O	31:DG:144:ILE:HG22	1.96	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:D6:44:ARG:O	53:D6:45:LYS:HG2	1.97	0.64
53:B6:19:ARG:CG	53:B6:20:ASN:H	2.02	0.64
53:B6:20:ASN:C	53:B6:21:TYR:CD1	2.71	0.64
25:DA:287:C:H2'	25:DA:288:C:O4'	1.97	0.64
1:AA:1330:U:H4'	13:AM:23:TYR:CE2	2.32	0.64
22:CV:72:TYR:CE1	22:CV:80:MET:HB3	2.32	0.64
34:DN:115:ARG:HG3	34:DN:115:ARG:NH1	2.10	0.64
49:D2:10:LEU:HD21	49:D2:59:ARG:HD3	1.79	0.64
30:BF:46:ARG:NH1	30:BF:46:ARG:CG	2.51	0.64
33:BI:12:LEU:HG	33:BI:12:LEU:O	1.97	0.64
36:DP:120:ALA:HB3	36:DP:137:LYS:O	1.97	0.64
1:AA:1207:G:H2'	1:AA:1208:C:H6	1.62	0.64
1:CA:80:G:H3'	1:CA:81:U:H5'	1.79	0.64
28:DD:33:LEU:HD22	28:DD:102:LYS:HZ2	1.60	0.64
11:CK:96:ARG:O	11:CK:99:GLN:HG2	1.97	0.64
22:AV:80:MET:SD	22:AV:101:ALA:HB1	2.37	0.64
26:BB:30:C:C2'	26:BB:31:C:H5'	2.26	0.64
8:CH:35:ILE:O	8:CH:39:LEU:HB2	1.97	0.64
1:CA:165:C:H2'	1:CA:166:G:H8	1.61	0.64
36:DP:49:ARG:HD2	55:D8:58:ILE:HG22	1.78	0.64
49:D2:17:SER:HB3	49:D2:20:GLU:HB3	1.79	0.64
35:DO:1:MET:HE3	35:DO:67:LYS:HE2	1.78	0.64
1:CA:707:C:O2	11:CK:39:PRO:HD3	1.98	0.64
25:DA:2346:A:C8	25:DA:2383:G:C5	2.85	0.64
26:DB:55:U:O2'	26:DB:56:G:H5'	1.97	0.64
12:AL:15:VAL:HG23	12:AL:16:ARG:N	2.11	0.64
3:AC:175:LEU:HD11	3:AC:201:TYR:CD2	2.32	0.64
2:AB:95:GLN:HE21	2:AB:147:LYS:CG	2.08	0.64
25:DA:1268:A:H2'	25:DA:1269:A:O4'	1.97	0.64
15:CO:65:ARG:HH11	15:CO:65:ARG:HG2	1.62	0.64
25:BA:139(A):G:N2	44:BX:44:GLU:OE1	2.29	0.64
14:AN:57:ARG:HG2	14:AN:58:LYS:H	1.62	0.64
25:BA:154(A):C:N3	25:BA:172:C:N4	2.46	0.64
46:DZ:124:LEU:HD12	46:DZ:125:VAL:N	2.12	0.64
42:DV:21:ARG:N	42:DV:21:ARG:HE	1.94	0.64
41:BU:90:VAL:HG22	42:BV:39:LEU:HG	1.79	0.64
1:CA:1133:G:H2'	1:CA:1134:G:H8	1.61	0.64
25:DA:884:C:C3'	25:DA:885:C:H5'	2.27	0.64
19:AS:12:ASP:OD1	19:AS:37:ARG:NH1	2.31	0.64
19:AS:20:LEU:HA	19:AS:23:ASN:CB	2.28	0.64
25:BA:2187:G:O2'	25:BA:2188:C:H5'	1.97	0.64
28:BD:32:SER:O	28:BD:34:VAL:N	2.30	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:BT:28:VAL:HG22	40:BT:46:GLU:HA	1.78	0.64
29:BE:34:VAL:HG21	29:BE:48:GLN:HE21	1.62	0.64
14:CN:4:LYS:HA	14:CN:7:ILE:HD11	1.78	0.64
36:DP:83:VAL:HG13	36:DP:83:VAL:O	1.96	0.64
36:DP:97:PRO:O	36:DP:98:GLU:HB3	1.97	0.64
25:DA:2174:C:O2'	27:DC:219:MET:HG2	1.97	0.64
32:DH:15:VAL:HG21	32:DH:76:VAL:HG13	1.80	0.64
35:DO:88:ASN:O	35:DO:90:GLN:N	2.29	0.64
30:BF:132:VAL:HG22	30:BF:133:ASN:N	2.11	0.64
25:DA:2892:A:H3'	25:DA:2893:G:C5'	2.27	0.64
6:AF:63:TYR:O	6:AF:65:VAL:HG13	1.96	0.64
25:DA:2060:A:C3'	30:DF:68:LYS:HZ1	2.10	0.64
31:DG:96:ARG:O	31:DG:99:MET:HB3	1.96	0.64
25:BA:1755:A:H2'	25:BA:1756:G:H5'	1.77	0.64
16:CP:25:ARG:HG3	16:CP:25:ARG:HH11	1.62	0.64
12:CL:89:ASP:O	12:CL:91:PRO:HD3	1.97	0.64
1:AA:831:U:H2'	1:AA:832:C:H6	1.61	0.64
25:BA:828:U:O2	25:BA:828:U:H3'	1.97	0.64
1:CA:579:G:H5'	1:CA:728:A:H1'	1.78	0.64
1:CA:1504:G:OP1	1:CA:1507:A:H4'	1.97	0.64
1:AA:1286:A:H2'	1:AA:1287:A:H4'	1.79	0.64
1:AA:1349:A:OP2	9:AI:118:LYS:NZ	2.30	0.64
46:DZ:27:MET:HG3	46:DZ:87:PHE:HB3	1.80	0.64
34:DN:36:GLY:O	34:DN:48:MET:HE2	1.97	0.64
25:DA:1140:C:H5''	34:DN:66:LYS:HZ3	1.61	0.64
42:DV:18:LEU:CG	42:DV:19:LYS:H	2.10	0.64
25:DA:2267:A:H3'	25:DA:2268:A:C5'	2.27	0.64
1:CA:1252:A:N6	1:CA:1285:A:H61	1.91	0.64
7:CG:60:LYS:HA	7:CG:60:LYS:NZ	2.12	0.64
30:DF:4:VAL:H	30:DF:19:GLU:HB2	1.62	0.64
10:AJ:6:ILE:O	10:AJ:71:LEU:HD12	1.96	0.64
25:BA:1747(A):G:H2'	25:BA:1748:G:C5'	2.23	0.64
25:DA:1567:A:C8	28:DD:84:TYR:HE2	2.15	0.64
36:BP:90:ARG:HH22	36:BP:105:LEU:HD22	1.62	0.64
25:BA:2477:C:H41	56:B9:10:ILE:HG12	1.63	0.64
3:CC:70:VAL:HG12	3:CC:71:ALA:N	2.11	0.64
40:DT:32:TYR:O	40:DT:33:LYS:HB2	1.97	0.64
3:CC:114:PRO:HD3	3:CC:183:ASP:OD1	1.97	0.64
36:DP:83:VAL:CG1	36:DP:112:LEU:HD21	2.23	0.64
36:DP:85:LEU:HD12	36:DP:120:ALA:HB2	1.80	0.64
1:CA:1027:C:H2'	1:CA:1028:C:C5	2.32	0.64
1:AA:532:A:H3'	1:AA:533:A:C5'	2.27	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DC:150:ILE:HG23	27:DC:154:ILE:CD1	2.27	0.64
27:BC:43:GLU:HB2	27:BC:216:THR:CG2	2.27	0.64
28:DD:146:GLU:HB3	28:DD:189:CYS:SG	2.37	0.64
16:CP:22:THR:HA	16:CP:33:ILE:HG12	1.77	0.64
8:CH:46:LYS:HG3	8:CH:63:LEU:O	1.98	0.64
32:BH:98:LEU:HD22	32:BH:125:VAL:HG23	1.79	0.64
31:DG:104:GLU:HG2	51:D4:50:THR:HG21	1.79	0.64
28:DD:69:ARG:NH2	28:DD:192:THR:HB	2.12	0.64
25:BA:1012:U:O4	34:BN:28:THR:HG21	1.97	0.64
1:CA:927:G:H2'	1:CA:928:G:H8	1.60	0.64
25:DA:325:G:H2'	25:DA:326:G:C8	2.33	0.64
7:AG:140:ASP:HA	7:AG:143:ARG:NH1	2.12	0.64
25:BA:1665:A:H5''	35:BO:66:LYS:HG3	1.79	0.64
25:BA:2514:U:H2'	25:BA:2515:C:C6	2.32	0.64
1:AA:1507:A:H2'	1:AA:1508:G:C8	2.32	0.64
28:BD:78:LYS:HE2	28:BD:114:GLY:O	1.97	0.64
26:DB:105:A:H2'	26:DB:106:G:O4'	1.97	0.64
46:DZ:71:ARG:HB2	46:DZ:86:ASP:HB3	1.79	0.64
44:DX:89:ILE:O	44:DX:93:GLU:HG2	1.97	0.64
1:AA:1324:A:O4'	1:AA:1362:C:H4'	1.98	0.64
25:DA:1106:G:N3	25:DA:1107:G:N7	2.46	0.64
31:BG:64:THR:HG23	31:BG:66:GLN:H	1.62	0.64
25:DA:1567:A:C5'	28:DD:58:HIS:HD2	2.01	0.64
1:CA:642:A:N3	8:CH:113:SER:OG	2.27	0.64
13:AM:66:LEU:HA	13:AM:70:LEU:CD1	2.26	0.64
25:DA:2749:A:H4'	32:DH:62:LYS:CB	2.24	0.64
35:DO:111:PHE:O	35:DO:115:VAL:HG23	1.97	0.64
10:CJ:54:PHE:CE2	10:CJ:55:LYS:HD2	2.32	0.64
31:BG:129:GLY:O	31:BG:161:THR:HB	1.97	0.64
25:DA:70:G:H21	25:DA:71:A:H62	1.46	0.64
32:BH:89:ILE:HG13	32:BH:129:THR:O	1.97	0.64
1:AA:522:C:N4	12:AL:50:ARG:HH22	1.95	0.64
16:CP:82:GLN:HE21	16:CP:82:GLN:N	1.95	0.64
17:CQ:67:LYS:HA	17:CQ:70:ARG:HH12	1.61	0.64
25:BA:2124:G:H1'	27:BC:43:GLU:OE2	1.97	0.64
25:BA:2344:U:OP1	53:B6:38:LYS:HD2	1.97	0.64
25:DA:1171:G:H5'	25:DA:1173:G:H5''	1.79	0.64
45:BY:68:HIS:HB3	45:BY:71:LYS:NZ	2.12	0.64
25:DA:2092:U:C5	25:DA:2226:C:OP2	2.50	0.64
25:BA:1394:U:H3'	25:BA:1395:A:H5''	1.79	0.64
6:AF:42:GLU:O	6:AF:44:GLY:N	2.30	0.64
6:CF:98:LEU:HD22	18:CR:28:GLU:OE1	1.98	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:90:U:H2'	25:BA:90:U:O2	1.97	0.64
38:BR:56:LYS:HE3	38:BR:94:TYR:OH	1.97	0.64
28:DD:270:ILE:H	28:DD:270:ILE:HD12	1.62	0.64
25:DA:272(C):G:H2'	25:DA:272(D):G:H8	1.62	0.64
1:AA:1442:G:H1	1:AA:1461:G:H21	1.45	0.64
39:DS:76:LYS:O	39:DS:80:LEU:HD13	1.97	0.64
1:CA:1313:U:P	19:CS:6:LYS:HG3	2.37	0.64
29:BE:173:VAL:O	29:BE:174:ASP:CB	2.45	0.64
25:BA:1187:G:H5''	42:BV:81:TYR:CE2	2.32	0.64
25:DA:1149:G:H2'	25:DA:1150:C:C6	2.33	0.64
25:DA:179:G:O2'	25:DA:180:G:H5'	1.96	0.64
25:DA:2192:G:C2'	25:DA:2193:G:H5''	2.28	0.64
25:BA:1766:U:H2'	25:BA:1767:C:H6	1.63	0.64
42:DV:11:GLN:C	42:DV:12:TYR:HD2	2.01	0.64
9:CI:10:ARG:HH21	9:CI:11:LYS:HE2	1.60	0.64
42:BV:39:LEU:O	42:BV:40:LEU:HB2	1.96	0.64
40:BT:80:SER:HB3	40:BT:81:PRO:CD	2.27	0.64
53:B6:40:CYS:SG	53:B6:45:LYS:HE3	2.37	0.64
25:DA:2370:G:O2'	53:D6:45:LYS:HE2	1.98	0.64
11:AK:120:ARG:NH1	11:AK:126:ARG:NE	2.46	0.64
1:AA:1280:A:C8	10:AJ:41:PRO:HD2	2.32	0.64
5:AE:41:VAL:HG12	5:AE:42:GLY:N	2.12	0.64
11:CK:127:LYS:CA	11:CK:127:LYS:HE2	2.24	0.64
3:CC:92:ALA:HB2	3:CC:99:VAL:HG21	1.80	0.64
31:BG:51:ARG:N	31:BG:51:ARG:HE	1.95	0.64
14:AN:22:THR:CG2	14:AN:33:VAL:HB	2.27	0.64
40:DT:11:GLU:CD	40:DT:11:GLU:N	2.51	0.64
1:AA:27:G:H5'	4:AD:209:ARG:HD3	1.78	0.64
12:AL:66:TYR:HD2	12:AL:67:ILE:N	1.96	0.64
5:CE:145:LYS:O	5:CE:149:GLU:HG2	1.97	0.64
29:BE:9:VAL:HG12	29:BE:25:VAL:C	2.18	0.64
25:DA:2092:U:H5	25:DA:2226:C:OP2	1.80	0.64
27:DC:116:ALA:HB1	27:DC:120:VAL:CG2	2.28	0.64
26:DB:10:C:H2'	26:DB:11:C:H6	1.62	0.64
25:BA:2617:C:O2'	25:BA:2618:G:H5'	1.97	0.64
25:DA:1529:G:C5	25:DA:1530:C:N4	2.65	0.64
1:AA:96:U:H2'	1:AA:97:G:H8	1.63	0.64
30:DF:54:ARG:HG3	30:DF:81:PRO:HD3	1.78	0.64
25:DA:648:G:O2'	25:DA:649:G:H5'	1.97	0.64
17:AQ:14:LYS:NZ	17:AQ:14:LYS:N	2.46	0.64
34:BN:36:GLY:HA3	34:BN:48:MET:HE3	1.79	0.64
18:CR:86:VAL:O	18:CR:87:ARG:O	2.16	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:D6:27:LYS:O	53:D6:28:ARG:C	2.36	0.64
1:CA:714:G:H2'	1:CA:715:A:C8	2.31	0.64
25:BA:576:U:H2'	25:BA:577:G:C8	2.32	0.64
1:AA:351:G:OP2	1:AA:351:G:H8	1.81	0.64
9:AI:11:LYS:H	9:AI:104:ARG:HH21	1.43	0.64
2:CB:21:ARG:H	2:CB:23:ARG:HH22	1.46	0.64
28:BD:54:ARG:HG3	28:BD:54:ARG:NH1	2.11	0.64
1:CA:1270:C:OP2	21:CU:24:ARG:NH2	2.29	0.64
1:AA:957:U:H1'	1:AA:960:U:H3	1.62	0.64
29:DE:47:VAL:HG21	29:DE:86:PRO:HD2	1.79	0.64
29:DE:77:ILE:CG2	29:DE:78:LEU:HG	2.16	0.64
30:DF:181:LEU:HD11	30:DF:186:ILE:HD11	1.77	0.64
31:BG:43:LEU:HB2	31:BG:88:ILE:CG1	2.28	0.64
32:DH:85:LYS:HE2	32:DH:145:ALA:N	2.12	0.64
36:BP:115:LEU:HB2	36:BP:131:SER:CB	2.27	0.64
36:BP:81:GLN:HG2	36:BP:106:LEU:CA	2.25	0.64
47:D0:72:ARG:NE	47:D0:75:LEU:HD13	2.08	0.64
25:BA:39:C:O2	30:BF:46:ARG:NH2	2.31	0.64
40:DT:24:PRO:HA	40:DT:49:VAL:HG13	1.80	0.64
1:AA:398:C:O2'	1:AA:399:G:H5'	1.98	0.64
1:CA:79:G:N1	1:CA:91:C:H5	1.96	0.64
20:CT:39:LYS:O	20:CT:42:GLN:HB3	1.98	0.64
4:CD:13:ARG:C	4:CD:15:GLU:H	1.99	0.64
29:DE:92:THR:O	29:DE:95:ILE:HD13	1.97	0.64
22:AV:43:ASN:ND2	22:AV:48:ALA:HB3	2.13	0.64
44:DX:29:TRP:HA	44:DX:29:TRP:CE3	2.33	0.64
31:BG:134:GLY:C	31:BG:135:LEU:HD12	2.18	0.64
35:BO:107:ARG:NH2	40:BT:35:LYS:HD2	2.12	0.64
16:AP:43:LYS:HG3	16:AP:48:TRP:CG	2.33	0.64
25:DA:142:A:H5'	25:DA:142(A):C:OP2	1.97	0.64
25:BA:557:U:O2'	25:BA:558:G:H5'	1.98	0.64
9:AI:49:PRO:HG3	9:AI:81:ILE:HB	1.80	0.64
13:CM:33:ALA:HA	13:CM:59:TYR:CE2	2.32	0.64
25:BA:576:U:O5'	25:BA:576:U:H6	1.81	0.64
35:BO:90:GLN:O	35:BO:91:LEU:HB2	1.96	0.64
7:AG:77:SER:HA	7:AG:86:GLN:HA	1.79	0.64
31:DG:21:ARG:HD3	31:DG:22:ARG:N	2.13	0.64
25:BA:1429:G:H2'	25:BA:1430:C:C6	2.33	0.64
46:BZ:39:ASP:OD1	46:BZ:41:VAL:HG12	1.97	0.64
52:D5:42:PRO:O	52:D5:44:THR:HG23	1.97	0.64
42:DV:3:ALA:HB1	42:DV:38:LEU:HD11	1.78	0.64
37:DQ:132:VAL:CG1	46:DZ:80:ARG:HH12	2.11	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2105:C:H2'	25:DA:2106:G:H5'	1.80	0.64
25:DA:2644:G:H2'	25:DA:2645:G:C8	2.33	0.64
1:CA:1352:C:H2'	1:CA:1353:G:H8	1.62	0.64
7:CG:20:ASP:HB3	7:CG:23:VAL:CG2	2.28	0.64
1:CA:1127:G:H2'	1:CA:1128:C:O4'	1.98	0.64
19:AS:9:VAL:C	19:AS:11:VAL:H	1.99	0.64
19:AS:19:VAL:HG11	19:AS:44:MET:HG3	1.78	0.64
35:BO:104:ARG:HB3	35:BO:104:ARG:NH1	2.13	0.64
25:DA:557:U:H2'	25:DA:558:G:H8	1.63	0.64
30:DF:64:ILE:HD12	30:DF:78:ILE:CG2	2.28	0.64
10:AJ:32:ALA:CB	10:AJ:76:ASN:HB2	2.28	0.64
36:DP:65:ARG:NH2	55:D8:15:LYS:CB	2.56	0.64
45:BY:46:LYS:CG	45:BY:47:LYS:H	2.03	0.64
12:CL:43:LYS:CG	12:CL:44:LYS:H	2.11	0.64
28:DD:43:ARG:HD2	28:DD:44:ASN:OD1	1.98	0.64
4:AD:42:GLN:HG2	4:AD:43:HIS:CD2	2.32	0.64
5:AE:101:ILE:HD11	5:AE:119:LEU:HD23	1.79	0.64
25:DA:271(O):C:OP1	25:DA:271(O):C:H3'	1.98	0.64
33:DI:41:GLU:HA	33:DI:44:LEU:HB3	1.79	0.64
1:CA:1124:G:H1'	10:CJ:38:ILE:HG21	1.79	0.64
10:CJ:38:ILE:HG13	10:CJ:71:LEU:O	1.98	0.64
20:CT:57:ARG:HH11	20:CT:57:ARG:HB2	1.63	0.64
18:AR:46:GLU:HB3	18:AR:85:LEU:HD22	1.79	0.64
12:CL:2:PRO:HA	12:CL:6:GLN:NE2	2.12	0.64
55:B8:51:ALA:HA	55:B8:54:GLU:CD	2.18	0.64
25:BA:2331:G:O2'	25:BA:2336:A:N1	2.20	0.64
30:BF:132:VAL:HG13	30:BF:133:ASN:H	1.61	0.64
48:B1:73:LEU:HD13	48:B1:94:LEU:CD2	2.28	0.64
1:CA:1293:G:H2'	1:CA:1294:G:H8	1.60	0.64
17:CQ:13:ASP:H	17:CQ:14:LYS:NZ	1.95	0.64
1:CA:1423:G:C5'	35:DO:49:ARG:NH2	2.60	0.64
41:BU:24:TYR:HB2	41:BU:29:SER:HB3	1.80	0.64
1:AA:237:C:H5''	17:AQ:25:ARG:NH1	2.12	0.64
25:DA:1423:G:H2'	25:DA:1424:G:H8	1.62	0.64
17:AQ:52:LYS:HD2	17:AQ:52:LYS:H	1.63	0.64
34:BN:116:LEU:O	34:BN:119:ARG:HB2	1.97	0.64
25:BA:2064:C:H2'	25:BA:2065:C:C6	2.33	0.64
44:BX:70:LEU:HD12	44:BX:70:LEU:N	2.12	0.64
40:DT:108:ARG:HA	40:DT:111:ARG:NH1	2.11	0.64
16:AP:63:GLY:O	16:AP:64:ALA:HB2	1.98	0.64
42:DV:2:PHE:HB2	42:DV:42:GLY:N	2.13	0.64
1:CA:1157:A:H5'	1:CA:1158:C:C6	2.32	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:42:LEU:HA	3:AC:45:LYS:HD2	1.79	0.64
28:BD:26:LYS:HD3	28:BD:26:LYS:N	2.13	0.64
36:BP:147:LEU:O	36:BP:148:LEU:O	2.16	0.64
1:AA:1030:C:N4	1:AA:1031:G:H21	1.92	0.64
13:AM:65:LYS:CD	13:AM:69:GLU:HG3	2.27	0.64
3:CC:70:VAL:HG12	3:CC:72:LYS:N	2.13	0.64
25:BA:2759:G:H8	25:BA:2759:G:C5'	2.11	0.64
25:BA:1022:G:N2	25:BA:1142(A):A:C2	2.62	0.64
36:DP:85:LEU:HA	36:DP:88:LEU:HD13	1.80	0.64
16:AP:13:HIS:C	16:AP:15:PRO:HD3	2.18	0.64
20:CT:96:GLY:O	20:CT:97:ALA:HB3	1.97	0.64
28:DD:79:VAL:CG1	28:DD:111:LEU:HD11	2.28	0.64
7:AG:108:ALA:HA	7:AG:111:ARG:HD2	1.78	0.64
25:BA:287:C:H2'	25:BA:288:C:H6	1.63	0.64
29:DE:4:ILE:O	29:DE:5:LEU:HD23	1.98	0.64
38:DR:44:LEU:HD13	38:DR:44:LEU:O	1.98	0.64
9:CI:3:GLN:HG2	9:CI:20:ARG:CG	2.27	0.64
38:DR:74:LYS:CE	38:DR:77:ARG:HH21	2.10	0.64
22:AV:44:LEU:HD13	22:AV:65:VAL:HG11	1.79	0.64
8:CH:91:ARG:NH1	17:CQ:33:GLY:HA3	2.12	0.64
7:AG:47:CYS:HB3	7:AG:58:PRO:HB3	1.78	0.64
6:AF:46:ARG:HH12	18:AR:37:VAL:HG21	1.62	0.64
17:AQ:13:ASP:H	17:AQ:14:LYS:HZ1	1.44	0.64
17:CQ:27:PHE:CE1	17:CQ:36:ILE:HD11	2.33	0.64
29:BE:2:LYS:NZ	29:BE:95:ILE:O	2.30	0.64
25:BA:1925:C:O2'	25:BA:1926:U:H5'	1.97	0.64
25:DA:1170:G:H1	25:DA:1179:C:H42	1.45	0.64
27:DC:149:ASN:HB2	27:DC:152:GLU:HG3	1.79	0.64
25:DA:2751:G:H3'	25:DA:2752:C:H6	1.63	0.64
34:DN:28:THR:O	34:DN:31:ALA:HB3	1.97	0.64
25:BA:786:C:O2'	25:BA:787:U:H5'	1.98	0.64
1:CA:1149:C:H2'	1:CA:1150:U:C6	2.34	0.64
41:BU:91:ASP:C	41:BU:93:LYS:N	2.45	0.64
3:AC:41:GLY:CA	3:AC:45:LYS:HZ2	2.10	0.64
2:AB:114:ARG:HG3	2:AB:114:ARG:NH1	2.13	0.64
25:DA:2820:A:O3'	38:DR:2:ARG:NH2	2.31	0.64
15:AO:63:ARG:HG2	15:AO:67:LEU:HD12	1.80	0.64
27:DC:139:PRO:CB	27:DC:146:VAL:HG22	2.27	0.64
12:AL:80:VAL:HG12	12:AL:81:LEU:N	2.13	0.64
1:CA:80:G:H2'	1:CA:81:U:C5	2.33	0.64
6:CF:6:VAL:HA	6:CF:90:VAL:HA	1.79	0.64
20:CT:72:LEU:O	20:CT:72:LEU:HD13	1.98	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DH:44:VAL:CG1	32:DH:45:VAL:H	2.11	0.64
44:BX:63:LYS:HE3	44:BX:72:LYS:CE	2.28	0.64
1:AA:490:G:H2'	1:AA:491:G:H8	1.61	0.64
25:BA:58:G:H1	25:BA:69:C:H42	1.46	0.64
30:BF:108:LYS:HD2	30:BF:112:MET:CE	2.27	0.64
50:B3:28:LEU:HA	50:B3:33:GLN:OE1	1.98	0.64
10:AJ:46:ARG:HG2	10:AJ:64:GLU:OE1	1.98	0.64
25:DA:516:C:C2'	25:DA:517:C:H5'	2.28	0.64
1:CA:125:U:H2'	1:CA:126:G:C8	2.33	0.64
25:BA:404:C:H4'	25:BA:405:U:H5'	1.79	0.64
2:CB:88:ALA:HB2	2:CB:219:VAL:HG13	1.80	0.63
19:CS:63:THR:HG22	19:CS:66:MET:CG	2.17	0.63
1:AA:1320:C:N4	19:AS:37:ARG:HB3	2.13	0.63
25:DA:1359:A:H62	25:DA:1372:U:H3	1.44	0.63
35:BO:69:ILE:HD12	35:BO:69:ILE:N	2.12	0.63
3:AC:68:VAL:HG12	3:AC:70:VAL:HG23	1.79	0.63
30:DF:1:MET:SD	30:DF:26:ALA:HA	2.37	0.63
10:AJ:32:ALA:N	10:AJ:76:ASN:CB	2.59	0.63
25:DA:2832:U:H4'	25:DA:2833:G:H5'	1.80	0.63
53:B6:12:GLU:HA	53:B6:23:THR:CA	2.26	0.63
36:BP:127:ALA:C	36:BP:148:LEU:HD12	2.18	0.63
29:BE:47:VAL:HG23	29:BE:84:PHE:O	1.97	0.63
32:BH:117:PRO:HB3	32:BH:123:PHE:CD1	2.32	0.63
3:CC:15:THR:HG22	3:CC:16:ARG:H	1.62	0.63
25:DA:2839:G:N2	38:DR:92:GLY:HA3	2.08	0.63
19:CS:16:LEU:O	19:CS:20:LEU:N	2.31	0.63
2:AB:68:ILE:O	2:AB:91:PRO:HD2	1.98	0.63
5:CE:81:GLU:HG2	5:CE:90:VAL:HA	1.81	0.63
54:B7:8:ASN:C	54:B7:8:ASN:ND2	2.45	0.63
7:AG:113:GLU:HB2	7:AG:119:ARG:HG2	1.81	0.63
55:B8:51:ALA:HA	55:B8:54:GLU:OE1	1.97	0.63
28:BD:65:ILE:CD1	28:BD:65:ILE:H	2.10	0.63
12:AL:25:LYS:C	12:AL:27:ALA:H	2.01	0.63
25:BA:2171:A:C4'	25:BA:2172:U:H5'	2.28	0.63
27:DC:181:PHE:HB2	27:DC:186:LEU:HG	1.80	0.63
25:DA:2208:A:H1'	25:DA:2219:G:C4	2.32	0.63
26:DB:55:U:H1'	31:DG:29:TRP:HD1	1.61	0.63
23:CW:29:G:O2'	23:CW:30:G:H5'	1.98	0.63
1:AA:757:U:H2'	1:AA:758:G:O4'	1.99	0.63
1:CA:1096:C:H2'	1:CA:1097:C:C6	2.32	0.63
4:CD:18:LYS:HE3	4:CD:20:TYR:CZ	2.32	0.63
23:AW:6:G:N2	23:AW:68:C:H1'	2.12	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:D0:23:VAL:HA	47:D0:38:VAL:HG22	1.78	0.63
14:AN:51:GLY:C	14:AN:53:LEU:H	2.01	0.63
25:BA:2291:U:H5''	25:BA:2380:C:O2'	1.98	0.63
34:DN:9:VAL:HG11	34:DN:39:ARG:HH12	1.63	0.63
41:DU:44:ASN:HD21	42:DV:75:PHE:N	1.95	0.63
41:DU:92:ARG:HD2	41:DU:95:LEU:H	1.63	0.63
34:DN:2:LYS:NZ	41:DU:95:LEU:HG	2.13	0.63
42:DV:15:GLU:CB	42:DV:16:PRO:HD2	2.28	0.63
42:DV:19:LYS:NZ	42:DV:20:LEU:HB2	2.11	0.63
9:CI:21:PRO:CA	9:CI:59:PHE:HA	2.14	0.63
48:D1:46:LEU:H	48:D1:46:LEU:HD22	1.63	0.63
7:CG:92:SER:O	7:CG:96:GLN:HB2	1.99	0.63
31:DG:111:LEU:HD13	31:DG:120:LEU:HD11	1.81	0.63
29:DE:50:GLY:O	29:DE:51:PHE:HB2	1.98	0.63
25:BA:1902:C:H5'	28:BD:246:PRO:HD3	1.79	0.63
30:DF:155:LEU:CD2	30:DF:186:ILE:HA	2.28	0.63
29:DE:8:LYS:HE3	29:DE:188:VAL:HG13	1.80	0.63
28:BD:102:LYS:C	28:BD:103:ARG:HG2	2.18	0.63
2:AB:41:ILE:HD12	2:AB:41:ILE:N	2.14	0.63
4:AD:108:LEU:HD11	4:AD:174:LEU:CD2	2.25	0.63
4:AD:9:CYS:SG	4:AD:31:CYS:O	2.56	0.63
22:CV:84:ASP:OD1	22:CV:85:LEU:N	2.32	0.63
25:BA:1798:U:C5'	28:BD:259:THR:HG22	2.28	0.63
25:DA:94:C:H5'	25:DA:94(A):G:OP2	1.97	0.63
6:CF:89:MET:SD	18:CR:76:LEU:HD21	2.38	0.63
1:AA:474:G:O2'	1:AA:475:G:H5'	1.99	0.63
30:BF:88:VAL:HG13	30:BF:89:VAL:N	2.12	0.63
25:BA:1589:C:H2'	25:BA:1590:U:C6	2.33	0.63
25:BA:2282:G:H5''	25:BA:2283:C:O4'	1.98	0.63
25:DA:814:C:H1'	25:DA:1225:G:N2	2.11	0.63
36:DP:146:VAL:HG22	36:DP:147:LEU:N	2.13	0.63
1:CA:192:U:C4'	20:CT:103:GLY:HA2	2.29	0.63
7:CG:78:ARG:HG3	7:CG:79:ARG:N	2.12	0.63
4:CD:100:ARG:HH12	4:CD:137:SER:HB3	1.63	0.63
1:CA:532:A:H3'	1:CA:533:A:C5'	2.28	0.63
41:DU:34:LYS:HA	41:DU:34:LYS:HE2	1.80	0.63
43:DW:18:ARG:HG2	43:DW:76:VAL:CG1	2.27	0.63
11:CK:50:TYR:CD2	11:CK:54:ARG:HB3	2.32	0.63
41:BU:39:LEU:O	41:BU:42:ALA:N	2.31	0.63
25:DA:1178:C:H2'	25:DA:1179:C:C6	2.33	0.63
50:D3:45:GLY:O	50:D3:48:GLU:HB2	1.98	0.63
27:DC:30:VAL:HA	27:DC:33:LEU:HB2	1.79	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:260:G:H5'	25:DA:261:G:OP2	1.97	0.63
3:AC:100:ALA:O	3:AC:101:LEU:HB2	1.97	0.63
25:BA:184:C:H2'	25:BA:185:U:C6	2.33	0.63
25:DA:1216:G:H2'	25:DA:1217:C:C6	2.33	0.63
31:DG:13:GLU:O	31:DG:14:GLU:HB2	1.99	0.63
40:BT:3:ARG:C	40:BT:5:ALA:H	2.00	0.63
2:CB:16:HIS:CE1	2:CB:213:LEU:HD12	2.33	0.63
42:DV:22:VAL:O	42:DV:23:GLU:HB2	1.99	0.63
44:DX:57:LEU:O	44:DX:57:LEU:HD13	1.98	0.63
9:CI:48:GLU:HB2	9:CI:78:LYS:HZ3	1.63	0.63
35:BO:71:ARG:HE	35:BO:105:GLU:CD	2.02	0.63
46:BZ:29:ASN:C	46:BZ:31:HIS:H	2.01	0.63
1:AA:1030:C:H5	1:AA:1031:G:N2	1.96	0.63
25:BA:363(F):A:O2'	25:BA:364:C:C5	2.51	0.63
38:DR:98:LEU:O	38:DR:113:LEU:N	2.31	0.63
49:D2:31:GLU:O	49:D2:35:LEU:HB2	1.99	0.63
36:BP:6:LEU:C	36:BP:9:ASN:HD21	2.01	0.63
30:BF:22:ALA:HA	30:BF:26:ALA:CB	2.25	0.63
1:CA:1202:G:H2'	1:CA:1203:C:C6	2.33	0.63
27:DC:131:ILE:HD12	27:DC:131:ILE:N	2.13	0.63
31:DG:161:THR:HG22	31:DG:163:ALA:N	2.10	0.63
27:DC:174:ALA:HB1	27:DC:175:PRO:HD2	1.81	0.63
17:CQ:43:LEU:O	17:CQ:69:LYS:HG3	1.98	0.63
5:AE:57:LYS:HG2	5:AE:61:TYR:CE2	2.34	0.63
1:AA:1107:C:P	3:AC:172:ARG:HD2	2.39	0.63
29:DE:81:ILE:HG22	29:DE:81:ILE:O	1.98	0.63
3:AC:123:GLN:HB3	3:AC:128:PHE:CD1	2.34	0.63
1:AA:157:G:H2'	1:AA:158:G:C8	2.32	0.63
1:AA:91:C:C5	1:AA:92:C:H1'	2.34	0.63
25:DA:330:A:H2	25:DA:1210:A:H2'	1.62	0.63
7:AG:92:SER:O	7:AG:96:GLN:HB2	1.98	0.63
27:BC:178:LYS:O	27:BC:181:PHE:HB2	1.98	0.63
1:CA:62:U:O2'	1:CA:379:C:H1'	1.97	0.63
7:AG:132:GLY:H	7:AG:135:VAL:HG21	1.63	0.63
28:BD:142:VAL:HG23	28:BD:192:THR:C	2.19	0.63
13:AM:90:LEU:O	13:AM:91:ARG:HG2	1.98	0.63
25:DA:922:U:H2'	25:DA:923:C:H6	1.63	0.63
25:BA:2577:A:H5''	25:BA:2578:G:H5'	1.79	0.63
29:DE:202:LYS:HD3	29:DE:202:LYS:N	2.12	0.63
8:CH:101:PRO:HA	8:CH:102:ARG:HH21	1.63	0.63
25:DA:2660:A:H2'	25:DA:2661:G:O4'	1.99	0.63
25:DA:2747:G:O6	25:DA:2755:C:H5''	1.98	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2756:U:H1'	25:DA:2757:A:H5''	1.79	0.63
25:DA:999:U:C2'	25:DA:1000:A:H5'	2.28	0.63
42:DV:62:LEU:CD2	42:DV:95:LEU:HB2	2.25	0.63
1:CA:1347:G:C8	9:CI:107:ARG:HB3	2.34	0.63
1:CA:1139:G:H1'	1:CA:1141:C:N4	2.12	0.63
45:DY:14:LEU:HD12	45:DY:24:VAL:HG22	1.80	0.63
45:DY:28:LYS:CB	45:DY:37:VAL:HB	2.28	0.63
55:D8:30:ARG:NE	55:D8:30:ARG:HA	2.10	0.63
25:BA:2799:C:H5''	25:BA:2802:G:C6	2.33	0.63
2:AB:76:GLN:O	2:AB:208:ILE:HG12	1.98	0.63
2:AB:30:ARG:NH2	2:AB:194:PRO:HG2	2.13	0.63
1:AA:1026:G:N3	1:AA:1026:G:H2'	2.13	0.63
1:AA:265:G:C2'	1:AA:266:G:H5''	2.23	0.63
40:BT:28:VAL:HG13	40:BT:46:GLU:CA	2.28	0.63
36:BP:6:LEU:HD12	36:BP:9:ASN:HB3	1.81	0.63
39:DS:30:ARG:H	39:DS:89:ARG:NH2	1.96	0.63
1:AA:472:A:H1'	16:AP:82:GLN:OE1	1.98	0.63
6:AF:25:ILE:HG22	6:AF:26:ILE:N	2.14	0.63
17:AQ:91:ARG:HB3	17:AQ:91:ARG:NH1	2.12	0.63
25:BA:141:A:H8	25:BA:1408:C:O2'	1.80	0.63
13:CM:35:GLU:HG3	13:CM:36:LYS:N	2.13	0.63
9:CI:23:ASN:N	9:CI:23:ASN:ND2	2.45	0.63
25:DA:2315:G:H2'	25:DA:2316:C:C6	2.34	0.63
51:D4:60:GLU:O	51:D4:61:VAL:HB	1.99	0.63
11:CK:111:ASP:O	11:CK:112:THR:C	2.36	0.63
41:BU:28:ARG:HD3	41:BU:38:THR:OG1	1.98	0.63
10:CJ:22:LYS:NZ	10:CJ:23:ILE:HG12	2.13	0.63
25:BA:2306:C:C5	25:BA:2307:G:H1'	2.33	0.63
1:AA:592:G:H2'	1:AA:593:G:H8	1.62	0.63
41:DU:20:LEU:O	41:DU:20:LEU:HD13	1.97	0.63
25:BA:2338:G:O2'	25:BA:2339:G:H5'	1.98	0.63
1:CA:1327:C:OP1	21:CU:20:LYS:HB3	1.99	0.63
1:CA:15:G:H4'	5:CE:24:ARG:HH12	1.63	0.63
25:BA:825:C:O2'	36:BP:55:ARG:HD3	1.98	0.63
39:BS:33:LYS:C	39:BS:34:HIS:HD2	2.02	0.63
1:AA:1354:C:O2'	1:AA:1355:G:H5'	1.97	0.63
9:AI:17:VAL:HG21	9:AI:80:GLY:CA	2.29	0.63
9:AI:95:LYS:HD3	9:AI:96:LEU:N	2.13	0.63
25:DA:1142(A):A:H8	25:DA:1142(A):A:H5'	1.64	0.63
1:CA:1271:G:H5'	1:CA:1314:C:C5'	2.28	0.63
9:CI:17:VAL:CG1	9:CI:81:ILE:HD13	2.28	0.63
30:BF:20:LEU:HB3	30:BF:23:ASP:CG	2.19	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DR:10:LEU:HB3	38:DR:17:ARG:HD2	1.81	0.63
1:AA:1499:A:O2'	1:AA:1500:A:H5'	1.98	0.63
53:D6:15:GLU:CG	53:D6:18:ARG:HG2	2.28	0.63
53:D6:42:TRP:HA	53:D6:42:TRP:CE3	2.33	0.63
31:BG:137:GLU:HG2	31:BG:139:LEU:HD21	1.80	0.63
13:CM:23:TYR:CE1	13:CM:70:LEU:HD13	2.34	0.63
37:BQ:66:ILE:HG12	37:BQ:104:PHE:CE2	2.32	0.63
47:D0:70:GLN:NE2	47:D0:80:HIS:NE2	2.46	0.63
40:DT:23:ARG:CZ	40:DT:120:ARG:HD3	2.29	0.63
14:AN:27:CYS:O	14:AN:29:ARG:N	2.31	0.63
30:DF:161:GLU:HG2	30:DF:164:ARG:NH2	2.12	0.63
25:BA:780:G:OP1	28:BD:218:ARG:NH2	2.32	0.63
5:CE:69:VAL:CG1	5:CE:71:LEU:HG	2.29	0.63
1:AA:626:U:H2'	1:AA:627:G:C8	2.34	0.63
27:BC:69:LEU:HB3	27:BC:160:GLY:HA2	1.80	0.63
22:AV:153:LEU:HD21	22:AV:159:VAL:HG12	1.81	0.63
8:AH:54:ASP:HB2	8:AH:56:LYS:HE2	1.79	0.63
31:BG:125:PHE:CZ	31:BG:173:LEU:HD12	2.34	0.63
38:DR:86:ARG:HB3	38:DR:118:GLU:OE2	1.98	0.63
29:BE:102:VAL:HG22	29:BE:170:LEU:O	1.98	0.63
25:BA:2865:U:P	40:BT:119:LYS:HZ1	2.21	0.63
48:D1:29:GLY:O	48:D1:30:VAL:HG23	1.98	0.63
25:DA:1722:A:O2'	25:DA:1739:U:H5''	1.98	0.63
5:AE:83:GLU:HG2	5:AE:88:LYS:HG3	1.80	0.63
2:AB:95:GLN:HE21	2:AB:147:LYS:HG2	1.63	0.63
25:BA:30:G:H2'	25:BA:31:C:C6	2.33	0.63
1:AA:1293:G:O2'	1:AA:1294:G:H5'	1.97	0.63
41:BU:31:SER:HB3	41:BU:34:LYS:HB2	1.80	0.63
6:AF:98:LEU:HD12	6:AF:98:LEU:H	1.64	0.63
26:DB:3:C:H42	26:DB:118:G:H1	1.47	0.63
25:DA:598:G:H5'	36:DP:15:ARG:HD2	1.80	0.63
39:BS:61:ASN:CB	39:BS:64:GLU:HB3	2.28	0.63
2:CB:24:TRP:CG	2:CB:25:ASN:N	2.67	0.63
34:DN:90:MET:HB3	34:DN:98:VAL:HG22	1.80	0.63
41:DU:50:ARG:HG3	41:DU:50:ARG:HH21	1.64	0.63
42:DV:4:ILE:O	42:DV:39:LEU:HD22	1.98	0.63
25:DA:1118:C:H5'	46:DZ:79:ARG:HH22	1.63	0.63
25:DA:2840:C:H1'	38:DR:91:GLN:OE1	1.97	0.63
9:CI:9:ARG:N	9:CI:76:ALA:HB1	2.14	0.63
25:DA:2306:C:H5	25:DA:2307:G:O2'	1.82	0.63
25:BA:1177:A:C4'	25:BA:1178:C:H5''	2.21	0.63
29:DE:75:VAL:O	29:DE:77:ILE:N	2.23	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:64:VAL:CG2	3:AC:99:VAL:HA	2.27	0.63
30:DF:28:ILE:O	30:DF:28:ILE:HD12	1.98	0.63
1:AA:434:U:H2'	1:AA:435:C:C6	2.32	0.63
43:DW:73:ALA:HB3	43:DW:106:ILE:CD1	2.22	0.63
10:AJ:39:PRO:HB3	10:AJ:70:ARG:HG3	1.81	0.63
32:BH:124:GLU:HB2	32:BH:132:ARG:HB2	1.79	0.63
3:CC:60:ALA:HB3	3:CC:63:ASN:OD1	1.99	0.63
25:BA:925:C:H2'	25:BA:926:A:C5'	2.27	0.63
1:CA:1225:A:H5''	1:CA:1226:C:C5	2.33	0.63
47:B0:40:ARG:CD	47:B0:40:ARG:H	2.05	0.63
1:CA:1119:C:H2'	1:CA:1120:G:O4'	1.98	0.63
6:CF:72:VAL:HG13	6:CF:73:ASN:N	2.12	0.63
28:BD:92:ILE:HD13	28:BD:92:ILE:N	2.14	0.63
12:AL:38:ARG:HD2	12:AL:40:VAL:CG1	2.28	0.63
45:BY:66:PRO:O	45:BY:67:LEU:HB3	1.98	0.63
26:DB:70:C:H2'	26:DB:71:C:H6	1.64	0.63
50:B3:5:LYS:HG3	50:B3:36:VAL:HG12	1.78	0.63
1:AA:1277:C:O2'	1:AA:1278:U:H5'	1.99	0.63
27:DC:74:ARG:NH1	27:DC:74:ARG:HB2	2.13	0.63
25:DA:1547:C:H2'	25:DA:1548:C:H6	1.62	0.63
16:AP:43:LYS:HE3	16:AP:48:TRP:CZ3	2.33	0.63
25:BA:558:G:OP2	34:BN:111:PRO:HD2	1.99	0.63
25:DA:1750:G:O2'	25:DA:1751:C:H5'	1.99	0.63
53:D6:9:LEU:CD2	53:D6:11:LEU:HB3	2.29	0.63
46:DZ:110:VAL:HG13	46:DZ:110:VAL:O	1.99	0.63
8:CH:86:ILE:HG12	8:CH:135:CYS:HA	1.80	0.63
25:BA:608:A:OP1	30:BF:100:THR:HG21	1.99	0.63
25:DA:1902:C:H5'	28:DD:246:PRO:HD3	1.80	0.63
1:AA:1115:C:H2'	1:AA:1116:C:H6	1.62	0.63
2:CB:218:ALA:O	2:CB:222:ILE:HG13	1.98	0.63
34:DN:99:LEU:O	34:DN:99:LEU:HD13	1.97	0.63
41:DU:95:LEU:HD11	42:DV:12:TYR:C	2.19	0.63
41:DU:93:LYS:HA	41:DU:96:ALA:HB2	1.81	0.63
25:DA:910:A:N6	37:DQ:12:GLN:HA	2.10	0.63
7:CG:139:GLU:O	7:CG:142:GLU:HB2	1.99	0.63
7:CG:73:MET:HA	7:CG:91:VAL:HG23	1.81	0.63
1:CA:1129:C:H5''	1:CA:1139:G:C6	2.34	0.63
31:DG:143:GLU:HA	51:D4:54:LYS:CE	2.28	0.63
25:BA:143:G:H1'	44:BX:37:THR:CG2	2.20	0.63
36:DP:16:ARG:HD3	36:DP:18:ARG:N	2.08	0.63
36:DP:16:ARG:O	36:DP:16:ARG:NH1	2.30	0.63
31:BG:64:THR:CG2	31:BG:66:GLN:H	2.11	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:BD:33:LEU:HD12	28:BD:33:LEU:H	1.64	0.63
2:AB:24:TRP:CZ2	2:AB:26:PRO:HB3	2.33	0.63
3:CC:112:SER:HB3	3:CC:115:LEU:HD12	1.81	0.63
1:AA:1151:A:H5'	10:AJ:41:PRO:HA	1.79	0.63
32:BH:122:THR:O	32:BH:133:VAL:HG22	1.99	0.63
25:DA:6:A:H2	25:DA:7:G:C8	2.17	0.63
33:DI:45:LYS:HE3	33:DI:45:LYS:C	2.18	0.63
25:DA:93:G:H2'	25:DA:94:C:C6	2.33	0.63
14:CN:2:ALA:O	14:CN:6:LEU:HD12	1.99	0.63
37:BQ:27:VAL:HG12	37:BQ:28:ALA:N	2.12	0.63
1:CA:1036:G:H5''	1:CA:1037:C:H5	1.62	0.63
30:DF:132:VAL:HG13	30:DF:133:ASN:N	2.09	0.63
25:DA:2069:G:H2'	25:DA:2070:G:H5'	1.80	0.63
1:AA:841:U:H3'	1:AA:848:C:O4'	1.99	0.63
1:CA:1014:A:H2	1:CA:1219:U:O2	1.82	0.63
5:AE:48:ALA:HB3	5:AE:54:ALA:N	2.14	0.63
9:AI:26:VAL:HA	9:AI:60:ASP:O	1.98	0.63
25:DA:2712:U:O2'	25:DA:2713:A:H5'	1.99	0.63
25:BA:286:C:O2'	25:BA:287:C:H5'	1.98	0.63
1:AA:203:U:H1'	1:AA:216:G:N1	2.14	0.63
29:BE:101:ARG:NH2	29:BE:171:GLU:N	2.47	0.63
1:AA:807:A:H2'	1:AA:808:C:H6	1.63	0.63
25:BA:2277:G:H2'	25:BA:2278:A:H5'	1.80	0.63
1:AA:484:G:H4'	1:AA:485:G:O5'	1.99	0.63
25:DA:2199:A:H3'	25:DA:2200:C:H6	1.64	0.63
23:AW:28:C:H42	23:AW:42:G:H1	1.46	0.63
51:D4:61:VAL:HG13	51:D4:65:CYS:HB2	1.80	0.63
25:DA:2443:C:O2'	25:DA:2444:G:H5'	1.99	0.63
56:B9:17:ILE:CD1	56:B9:18:ARG:H	2.12	0.63
1:CA:299:G:H2'	1:CA:300:A:C8	2.34	0.63
2:AB:52:GLU:O	2:AB:52:GLU:HG2	1.98	0.63
25:DA:2256:G:H2'	25:DA:2257:U:H6	1.64	0.63
39:BS:78:LEU:HD11	39:BS:103:GLU:CB	2.29	0.63
7:AG:26:PHE:O	7:AG:30:ILE:HG12	1.99	0.63
42:DV:49:THR:HB	42:DV:50:PRO:HD2	1.80	0.63
25:BA:1106:G:H2'	25:BA:1107:G:H8	1.62	0.63
20:AT:51:GLU:HA	20:AT:54:LYS:CB	2.29	0.63
1:CA:1242:C:O2'	1:CA:1243:C:H5'	1.99	0.63
9:CI:53:VAL:CG2	9:CI:54:ASP:H	2.12	0.63
1:CA:1133:G:C8	1:CA:1134:G:N7	2.67	0.63
25:BA:1173:G:H2'	25:BA:1175:U:H5	1.63	0.63
45:DY:12:THR:HA	45:DY:26:LYS:HA	1.81	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DH:89:ILE:CD1	32:DH:90:LYS:N	2.53	0.63
8:CH:10:LEU:HD22	8:CH:83:ILE:CD1	2.25	0.63
36:BP:85:LEU:HD21	36:BP:116:GLY:O	1.98	0.63
36:DP:56:SER:O	36:DP:57:THR:C	2.37	0.63
17:AQ:67:LYS:HA	17:AQ:70:ARG:NH1	2.07	0.63
42:BV:91:TYR:C	42:BV:91:TYR:CD1	2.72	0.63
25:DA:75:G:H4'	49:D2:55:ARG:HH11	1.64	0.63
12:CL:74:LEU:HD21	12:CL:104:ALA:HA	1.80	0.63
28:DD:39:LYS:HD2	28:DD:62:TYR:HB2	1.81	0.63
55:D8:43:GLN:O	55:D8:44:LYS:HD2	1.97	0.63
39:BS:17:ARG:C	39:BS:19:LYS:N	2.46	0.63
1:CA:375:U:O2'	16:CP:28:ARG:HD2	1.99	0.63
25:DA:1281:G:C8	25:DA:1281:G:H5'	2.34	0.63
55:D8:50:LEU:HA	55:D8:53:PRO:HG3	1.79	0.63
4:AD:100:ARG:CZ	4:AD:137:SER:HA	2.29	0.63
25:BA:2528:U:H5''	56:B9:31:LYS:CE	2.28	0.63
47:B0:65:VAL:O	47:B0:80:VAL:HA	1.99	0.63
34:DN:56:ASN:HD22	34:DN:56:ASN:C	2.01	0.63
8:CH:12:ARG:HH12	8:CH:27:PRO:HD3	1.64	0.63
14:AN:48:ALA:HA	14:AN:53:LEU:HD12	1.80	0.63
25:DA:98:G:OP1	49:D2:3:LEU:HB2	1.99	0.63
1:AA:895:G:H2'	1:AA:896:C:C6	2.33	0.63
35:DO:7:TYR:C	35:DO:8:LEU:HD23	2.19	0.63
25:BA:755:C:H2'	25:BA:756:C:C6	2.33	0.63
25:BA:1570:A:H2'	25:BA:1571:A:C8	2.34	0.63
25:BA:1499:C:O2'	25:BA:1500:G:H5'	1.99	0.63
52:B5:16:ARG:C	52:B5:18:ALA:H	2.02	0.63
25:BA:2071:A:H8	25:BA:2071:A:OP2	1.81	0.63
25:BA:852:G:O2'	25:BA:853:G:H5'	1.98	0.63
1:AA:631:G:H2'	1:AA:632:A:C8	2.34	0.63
39:BS:97:ARG:CZ	39:BS:98:VAL:HA	2.24	0.63
46:DZ:56:ILE:O	46:DZ:67:PRO:HA	1.98	0.63
25:DA:1019:U:HO2'	25:DA:1021:A:H2	1.45	0.63
25:DA:917:A:H2'	25:DA:918:A:O4'	1.99	0.63
45:DY:66:PRO:O	45:DY:67:LEU:HD23	1.98	0.63
30:DF:28:ILE:HG22	30:DF:112:MET:CG	2.28	0.63
45:BY:26:LYS:HG2	45:BY:27:VAL:HG23	1.80	0.63
45:BY:53:PRO:C	45:BY:55:TYR:N	2.53	0.63
1:AA:1524:C:H2'	1:AA:1525:G:C8	2.33	0.63
4:AD:61:LYS:HE3	4:AD:207:TYR:OH	1.99	0.63
25:BA:1797:C:C2'	25:BA:1798:U:H5'	2.28	0.63
19:CS:20:LEU:HA	19:CS:23:ASN:CB	2.28	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:DY:97:ARG:HG2	45:DY:97:ARG:HH11	1.62	0.63
25:DA:637:A:H4'	25:DA:638:G:O5'	1.99	0.63
47:D0:36:ILE:HD12	47:D0:58:THR:CG2	2.29	0.63
39:DS:88:ASP:OD2	39:DS:89:ARG:N	2.31	0.63
10:CJ:4:ILE:HB	10:CJ:74:ILE:CD1	2.28	0.63
25:BA:2308:G:H8	25:BA:2309:A:H3'	1.63	0.63
12:AL:29:PHE:HE1	12:AL:83:ARG:HG3	1.63	0.63
25:BA:1451:C:O2'	25:BA:1457:A:N6	2.32	0.63
37:DQ:63:LYS:NZ	46:DZ:174:VAL:HG21	2.14	0.63
26:BB:87:G:H3'	26:BB:88:C:H5''	1.79	0.63
12:AL:44:LYS:CB	12:AL:45:PRO:HD3	2.29	0.63
7:CG:78:ARG:HB3	7:CG:85:TYR:O	1.99	0.63
32:BH:121:ILE:HG13	32:BH:140:LYS:HE2	1.81	0.63
34:BN:62:VAL:HG22	34:BN:66:LYS:HD2	1.81	0.63
1:AA:1385:G:O2'	1:AA:1386:G:H5'	1.99	0.63
38:BR:101:ALA:O	38:BR:102:GLU:HB2	1.98	0.63
25:DA:229:A:H3'	25:DA:230:U:H5'	1.80	0.63
25:BA:1405:U:H2'	25:BA:1406:U:C6	2.33	0.63
1:AA:723:U:H2'	1:AA:723:U:O2	1.98	0.63
9:AI:79:LEU:O	9:AI:79:LEU:HD13	1.99	0.63
1:CA:328:C:H2'	1:CA:328:C:O2	1.98	0.63
55:B8:4:MET:HE1	55:B8:61:LEU:HD23	1.80	0.62
55:B8:4:MET:O	55:B8:62:LEU:HD11	1.99	0.62
25:DA:971:C:H2'	25:DA:972:G:H5'	1.81	0.62
7:CG:47:CYS:HB3	7:CG:58:PRO:CG	2.28	0.62
1:CA:1348:U:H4'	9:CI:120:ARG:HD2	1.81	0.62
31:DG:139:LEU:HD23	31:DG:139:LEU:N	2.04	0.62
2:AB:80:ILE:HD11	2:AB:215:LEU:CB	2.29	0.62
4:AD:57:ARG:NH1	4:AD:57:ARG:HG3	2.11	0.62
3:CC:173:VAL:HG13	3:CC:182:ILE:HD13	1.80	0.62
30:BF:53:THR:HG23	30:BF:55:GLY:H	1.63	0.62
14:AN:32:SER:OG	14:AN:41:ARG:HB3	1.99	0.62
39:DS:90:GLY:C	39:DS:92:TYR:N	2.53	0.62
25:DA:64:A:H5''	44:DX:64:LYS:HE3	1.80	0.62
25:DA:26:G:H1'	25:DA:515:A:N6	2.14	0.62
25:DA:2175:C:C1'	27:DC:219:MET:HA	2.29	0.62
43:BW:86:LEU:HD12	43:BW:87:PRO:HD2	1.80	0.62
1:CA:1217:C:H2'	1:CA:1218:C:O4'	1.99	0.62
27:BC:164:PHE:HD1	27:BC:164:PHE:O	1.82	0.62
1:CA:419:C:H2'	1:CA:419:C:O2	1.96	0.62
38:DR:104:ARG:HB2	38:DR:111:LEU:HD21	1.80	0.62
1:AA:598:U:H4'	8:AH:94:TYR:CG	2.33	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BG:131:TYR:HB3	31:BG:159:VAL:CG1	2.29	0.62
25:DA:1132:A:H5''	34:DN:82:LEU:HD22	1.80	0.62
25:BA:2563:U:H4'	35:BO:28:SER:HA	1.79	0.62
25:BA:1587:A:H3'	25:BA:1588:C:C6	2.34	0.62
25:BA:535:C:O2'	25:BA:536:A:H5'	1.99	0.62
46:BZ:38:VAL:HG21	46:BZ:43:PHE:CD2	2.34	0.62
25:DA:335:C:H2'	25:DA:336:C:H6	1.64	0.62
25:BA:370:G:H4'	25:BA:371:A:OP2	1.98	0.62
1:CA:1469:G:H2'	1:CA:1470:G:H8	1.64	0.62
1:CA:683:G:H2'	1:CA:684:A:C8	2.34	0.62
7:CG:59:LEU:C	7:CG:59:LEU:HD23	2.20	0.62
1:AA:724:G:O2'	1:AA:725:G:H5'	1.99	0.62
32:BH:8:PRO:CA	32:BH:9:ILE:HD12	2.29	0.62
2:CB:210:SER:O	2:CB:214:ILE:HG12	1.99	0.62
34:DN:4:TYR:CD1	34:DN:4:TYR:N	2.66	0.62
30:BF:43:LYS:HA	30:BF:98:SER:HB3	1.81	0.62
25:DA:1923:U:O2'	25:DA:1924:C:H5'	1.98	0.62
1:AA:343:U:H2'	1:AA:346:G:O6	1.99	0.62
40:BT:16:ARG:HD2	40:BT:18:ASP:OD1	1.99	0.62
45:BY:76:CYS:O	45:BY:99:CYS:SG	2.57	0.62
46:BZ:119:ILE:O	46:BZ:120:HIS:CB	2.47	0.62
25:BA:637:A:H2'	36:BP:117:GLU:OE2	1.98	0.62
36:BP:95:VAL:CG2	36:BP:125:VAL:HG12	2.29	0.62
25:DA:288:C:H2'	25:DA:289:A:C8	2.34	0.62
13:AM:40:ASN:HB3	13:AM:43:THR:HG23	1.80	0.62
13:AM:23:TYR:HE1	13:AM:71:ARG:HA	1.63	0.62
25:BA:673:C:C2'	25:BA:674:G:H5'	2.29	0.62
40:DT:23:ARG:HG2	40:DT:120:ARG:NH1	2.14	0.62
33:BI:9:LEU:H	33:BI:13:GLY:HA2	1.63	0.62
27:DC:121:MET:CE	27:DC:139:PRO:HB2	2.29	0.62
1:AA:523:A:N6	12:AL:89:ASP:HB2	2.13	0.62
28:DD:92:ILE:H	28:DD:92:ILE:HD13	1.62	0.62
12:CL:19:SER:O	12:CL:21:VAL:N	2.32	0.62
25:BA:2287:A:H2	25:BA:2346:A:N1	1.97	0.62
43:DW:29:LEU:HD12	43:DW:29:LEU:O	1.99	0.62
43:DW:19:LEU:HB3	52:D5:25:LEU:HD11	1.81	0.62
1:CA:367:U:C6	1:CA:394:G:N2	2.67	0.62
4:CD:108:LEU:CD1	4:CD:174:LEU:HD13	2.30	0.62
6:AF:91:VAL:HG12	6:AF:92:LYS:N	2.14	0.62
25:BA:2303:G:O2'	31:BG:132:ASN:HB2	1.98	0.62
35:BO:17:ARG:HD2	35:BO:47:ILE:HD11	1.80	0.62
29:BE:97:LYS:O	29:BE:100:GLU:HB2	1.99	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:312:G:H5'	25:DA:331:A:O2'	2.00	0.62
1:AA:1518:A:H2'	1:AA:1519:A:C8	2.34	0.62
31:DG:36:LYS:HA	31:DG:99:MET:CE	2.29	0.62
43:DW:10:VAL:O	43:DW:12:ILE:HG22	1.98	0.62
1:CA:599:C:H4'	8:CH:130:GLY:O	1.98	0.62
1:AA:1010:G:H2'	1:AA:1011:G:H8	1.64	0.62
1:AA:1296:C:H5'	1:AA:1297:C:OP2	1.99	0.62
30:BF:68:LYS:HA	30:BF:68:LYS:NZ	2.14	0.62
37:BQ:36:ALA:HB1	37:BQ:127:ILE:HD12	1.79	0.62
25:BA:2348:U:C2'	25:BA:2349:G:H5''	2.29	0.62
35:BO:59:LYS:HZ1	35:BO:89:ASN:HD21	1.46	0.62
1:AA:189(D):C:H1'	1:AA:189(H):G:C2	2.34	0.62
1:AA:1180:A:OP1	9:AI:103:THR:HG23	1.98	0.62
25:DA:1014:U:H2'	25:DA:1015:G:H8	1.64	0.62
25:DA:2465:C:O2'	25:DA:2466:C:H5'	1.98	0.62
25:DA:752:A:O2'	25:DA:753:C:OP2	2.18	0.62
25:DA:2572:A:C8	29:DE:144:ARG:HB3	2.33	0.62
8:CH:119:LEU:HB3	8:CH:123:GLU:HB2	1.81	0.62
25:DA:270:A:O2'	25:DA:271:A:H5'	1.99	0.62
49:B2:14:ARG:HH11	49:B2:14:ARG:HG3	1.63	0.62
25:BA:898:C:O2'	25:BA:899:A:H5'	1.98	0.62
39:BS:101:LEU:CD1	39:BS:101:LEU:H	2.12	0.62
2:CB:24:TRP:CZ3	2:CB:29:ALA:HB2	2.35	0.62
34:DN:67:LEU:HD12	34:DN:67:LEU:N	2.13	0.62
30:BF:40:GLN:HE22	30:BF:182:ASN:HB2	1.63	0.62
7:CG:133:GLY:O	7:CG:136:LYS:HB2	1.98	0.62
45:DY:61:ILE:O	45:DY:62:GLU:HB2	1.99	0.62
3:AC:92:ALA:HA	3:AC:95:THR:O	1.99	0.62
25:DA:558:G:O2'	25:DA:559:G:H5'	1.99	0.62
53:D6:15:GLU:HG3	53:D6:18:ARG:HE	1.63	0.62
32:DH:156:ALA:CB	32:DH:159:GLU:HB3	2.27	0.62
2:AB:188:ALA:HB3	2:AB:200:ILE:HG23	1.81	0.62
2:AB:19:HIS:NE2	2:AB:206:ASP:HB2	2.13	0.62
13:CM:69:GLU:O	13:CM:70:LEU:HB2	1.99	0.62
52:D5:4:HIS:CB	52:D5:5:PRO:CD	2.76	0.62
36:BP:62:LEU:HD11	55:B8:27:THR:HA	1.81	0.62
1:AA:1152:A:OP1	10:AJ:68:HIS:HD2	1.82	0.62
1:AA:504:C:H2'	1:AA:511:C:H5	1.63	0.62
4:AD:79:PHE:CE1	4:AD:204:ILE:HA	2.35	0.62
14:AN:27:CYS:C	14:AN:29:ARG:H	2.03	0.62
46:BZ:177:GLU:C	46:BZ:178:ASP:OD1	2.37	0.62
26:DB:7:G:H4'	39:DS:29:PHE:CD1	2.34	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:DS:62:LYS:H	39:DS:65:VAL:CG2	2.09	0.62
30:DF:160:ASN:ND2	30:DF:162:LEU:HB2	2.12	0.62
2:AB:66:GLY:HA2	2:AB:160:ASP:OD1	1.99	0.62
18:CR:70:ILE:CG2	18:CR:74:ARG:HD2	2.29	0.62
51:B4:57:ILE:CG2	51:B4:59:VAL:HG23	2.29	0.62
36:DP:75:ILE:HD12	36:DP:75:ILE:N	2.12	0.62
25:DA:1171:G:C5'	25:DA:1173:G:H5''	2.29	0.62
18:AR:50:ILE:CD1	18:AR:70:ILE:HG21	2.29	0.62
31:BG:9:ARG:NH1	31:BG:9:ARG:HB3	2.14	0.62
22:AV:19:LEU:HB3	22:AV:44:LEU:HD12	1.79	0.62
19:AS:29:ARG:O	19:AS:31:ILE:N	2.31	0.62
25:BA:1186:G:H2'	25:BA:1187:G:O4'	1.99	0.62
25:BA:507:A:H5''	25:BA:508:G:H5''	1.81	0.62
25:BA:1667:G:H22	25:BA:1992:G:H5'	1.63	0.62
25:BA:1262:A:N3	52:B5:10:LYS:HE3	2.13	0.62
3:AC:189:ALA:HB3	3:AC:196:LEU:H	1.63	0.62
25:BA:829:A:N7	25:BA:2248:C:H5'	2.14	0.62
25:DA:343:C:O2	25:DA:343:C:H2'	1.97	0.62
25:DA:939:G:O2'	25:DA:940:G:H5'	1.98	0.62
25:BA:2559:C:H2'	25:BA:2559:C:O2	1.98	0.62
30:BF:101:LEU:H	30:BF:106:ARG:HH12	1.47	0.62
1:AA:453:A:H2'	1:AA:454:C:C6	2.34	0.62
25:DA:2344:U:H4'	25:DA:2345:G:OP1	1.97	0.62
25:DA:1313:U:H4'	25:DA:1332:G:H4'	1.80	0.62
33:BI:93:THR:N	33:BI:96:ASP:OD1	2.29	0.62
2:CB:36:ARG:H	2:CB:41:ILE:HD13	1.65	0.62
25:DA:971:C:H2'	25:DA:972:G:C5'	2.29	0.62
9:CI:104:ARG:O	9:CI:105:ASP:HB2	1.98	0.62
1:CA:1158:C:H4'	2:CB:133:LYS:HE3	1.80	0.62
29:BE:44:TYR:O	29:BE:45:THR:CB	2.48	0.62
31:BG:63:ILE:CA	31:BG:143:GLU:HG3	2.26	0.62
31:BG:57:ALA:HB2	31:BG:90:LEU:HD11	1.81	0.62
53:B6:34:LEU:O	53:B6:35:GLU:HB3	1.97	0.62
2:AB:200:ILE:HD12	2:AB:200:ILE:H	1.64	0.62
19:AS:53:ASN:ND2	19:AS:55:LYS:H	1.98	0.62
4:AD:172:PRO:O	4:AD:174:LEU:N	2.33	0.62
5:AE:148:VAL:HG11	8:AH:107:LEU:HD22	1.81	0.62
28:BD:179:SER:HB2	28:BD:274:ARG:HG2	1.82	0.62
48:B1:56:GLN:HE22	48:B1:85:LEU:HD23	1.63	0.62
47:B0:40:ARG:HD2	47:B0:40:ARG:N	2.07	0.62
27:DC:80:LYS:HB3	31:DG:50:ALA:HA	1.80	0.62
10:CJ:4:ILE:HG23	10:CJ:99:LYS:O	1.98	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:254:G:OP1	17:CQ:67:LYS:O	2.18	0.62
25:DA:571:A:O2'	42:DV:78:LYS:HE2	1.99	0.62
32:DH:12:PRO:O	32:DH:15:VAL:HG22	1.99	0.62
1:CA:1329:A:H62	21:CU:7:ARG:NH2	1.96	0.62
25:BA:538:G:H2'	25:BA:539:G:H5'	1.81	0.62
44:BX:35:THR:O	44:BX:39:ILE:HG12	1.99	0.62
31:BG:106:LEU:HA	31:BG:110:ALA:CB	2.30	0.62
8:CH:20:TYR:OH	8:CH:75:ARG:HB3	1.99	0.62
25:DA:1547:C:H2'	25:DA:1548:C:C6	2.34	0.62
37:BQ:59:ARG:CB	37:BQ:59:ARG:HH11	2.12	0.62
19:AS:29:ARG:HD2	19:AS:30:LEU:H	1.65	0.62
27:BC:7:ARG:C	27:BC:7:ARG:HD3	2.19	0.62
25:BA:954:G:H4'	37:BQ:13:GLN:NE2	2.15	0.62
15:AO:35:ARG:O	15:AO:38:ARG:HB2	1.99	0.62
25:BA:1024:G:H3'	25:BA:1025:G:H5''	1.81	0.62
44:BX:64:LYS:HD3	44:BX:73:ARG:CZ	2.29	0.62
25:DA:755:C:H2'	25:DA:756:C:H6	1.64	0.62
1:AA:767:A:H2'	1:AA:768:A:O4'	1.99	0.62
25:BA:1603:A:H8	25:BA:1603:A:H5'	1.64	0.62
56:D9:2:LYS:N	56:D9:4:ARG:HH21	1.98	0.62
28:BD:112:GLN:O	28:BD:115:GLN:HB2	1.99	0.62
1:AA:334:C:H2'	1:AA:335:C:C6	2.34	0.62
38:DR:100:LEU:O	52:D5:44:THR:HB	1.98	0.62
7:AG:27:ILE:HD12	7:AG:40:ALA:HA	1.81	0.62
9:AI:121:ARG:HH11	9:AI:121:ARG:HG2	1.64	0.62
46:DZ:6:ALA:O	46:DZ:60:LEU:HD13	1.99	0.62
2:CB:171:ALA:HA	2:CB:174:VAL:CG2	2.28	0.62
42:DV:38:LEU:O	42:DV:51:VAL:HG13	2.00	0.62
48:D1:88:LYS:HD3	48:D1:88:LYS:C	2.20	0.62
45:DY:27:VAL:HG12	45:DY:29:GLU:H	1.64	0.62
20:AT:89:ARG:CD	20:AT:104:LEU:HD11	2.30	0.62
45:BY:8:LYS:HE3	45:BY:72:VAL:HG11	1.80	0.62
25:DA:1107:G:H2'	25:DA:1108:U:H6	1.63	0.62
46:BZ:94:PRO:HB2	46:BZ:126:LYS:HE3	1.82	0.62
13:AM:19:LEU:HB3	13:AM:25:ILE:HG21	1.80	0.62
36:BP:64:LYS:C	36:BP:66:GLY:N	2.51	0.62
25:BA:271(R):G:H2'	25:BA:271(S):G:H8	1.64	0.62
40:DT:28:VAL:CG1	40:DT:46:GLU:HA	2.27	0.62
14:AN:26:ARG:HD2	14:AN:43:CYS:SG	2.38	0.62
16:AP:4:ILE:HB	16:AP:66:PRO:CB	2.30	0.62
10:CJ:16:LEU:HD11	10:CJ:70:ARG:HB2	1.80	0.62
28:DD:108:PRO:HG2	28:DD:111:LEU:HB2	1.82	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1016:A:H2'	1:CA:1017:G:O4'	2.00	0.62
27:BC:29:LEU:CD2	27:BC:223:VAL:HG11	2.29	0.62
20:AT:30:LYS:HA	20:AT:30:LYS:HE2	1.80	0.62
9:AI:26:VAL:HG13	9:AI:61:ALA:O	1.99	0.62
6:AF:8:ILE:HG22	6:AF:9:VAL:N	2.14	0.62
19:AS:62:ILE:HD12	19:AS:66:MET:CG	2.27	0.62
52:D5:51:TYR:O	52:D5:54:GLY:N	2.31	0.62
1:AA:992:U:H3	1:AA:1044:A:H62	1.46	0.62
10:AJ:80:LYS:HE3	10:AJ:83:GLU:OE2	2.00	0.62
27:BC:165:ARG:HB2	27:BC:165:ARG:HH11	1.62	0.62
25:BA:1952:A:C6	25:BA:1953:A:N1	2.66	0.62
41:BU:31:SER:C	41:BU:33:ARG:H	2.03	0.62
1:AA:189(C):C:H2'	1:AA:189(D):C:O4'	2.00	0.62
25:DA:409:C:O2'	25:DA:410:G:H5'	1.99	0.62
1:CA:987:G:H2'	1:CA:988:G:H8	1.64	0.62
5:CE:96:PRO:HA	5:CE:117:ASP:OD2	2.00	0.62
1:AA:681:C:H2'	1:AA:682:G:H8	1.63	0.62
25:DA:2668:G:O2'	25:DA:2669:G:H5'	2.00	0.62
10:CJ:65:LEU:O	10:CJ:65:LEU:HG	1.97	0.62
25:BA:614(A):U:H5''	25:BA:614(B):G:OP1	1.99	0.62
39:BS:79:ALA:O	39:BS:80:LEU:HD12	1.99	0.62
7:AG:12:LEU:HD11	7:AG:25:ALA:HB2	1.81	0.62
42:DV:58:VAL:HB	42:DV:98:GLU:HG2	1.79	0.62
19:CS:66:MET:HB2	19:CS:74:PHE:CZ	2.34	0.62
7:CG:73:MET:HE1	7:CG:90:GLU:HG2	1.82	0.62
9:CI:17:VAL:HG22	9:CI:63:ILE:HD13	1.81	0.62
25:BA:2787:C:O2	29:BE:61:ARG:NH1	2.32	0.62
19:AS:42:PRO:O	19:AS:44:MET:SD	2.58	0.62
16:AP:39:TYR:O	16:AP:39:TYR:CG	2.52	0.62
30:DF:10:PRO:HG2	30:DF:13:SER:CB	2.28	0.62
1:AA:1502:A:H5''	1:AA:1504:G:C8	2.33	0.62
28:DD:25:THR:O	28:DD:26:LYS:C	2.38	0.62
55:B8:17:THR:OG1	55:B8:21:LYS:HB2	2.00	0.62
1:AA:1152:A:H5'	10:AJ:70:ARG:HH22	1.63	0.62
4:AD:9:CYS:O	4:AD:13:ARG:HD3	1.99	0.62
1:CA:1316:G:C2'	1:CA:1317:C:H5''	2.28	0.62
27:DC:80:LYS:HD3	27:DC:119:ASP:HB2	1.81	0.62
1:AA:45:U:H2'	1:AA:46:G:H8	1.63	0.62
6:CF:30:LEU:HB3	6:CF:35:ALA:HB3	1.82	0.62
6:CF:52:ILE:O	6:CF:53:ALA:HB3	2.00	0.62
28:DD:31:LYS:HG3	28:DD:33:LEU:HB2	1.80	0.62
1:CA:626:U:H2'	1:CA:627:G:H8	1.63	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1310:G:O2'	1:CA:1311:G:H5'	2.00	0.62
18:CR:54:ARG:HG3	18:CR:54:ARG:HH11	1.65	0.62
1:CA:389:A:H2'	1:CA:390:C:H5'	1.82	0.62
25:DA:2807:G:C3'	25:DA:2808:U:H5''	2.29	0.62
35:BO:47:ILE:HD12	35:BO:47:ILE:H	1.64	0.62
25:BA:1112:G:O2'	25:BA:1113:U:O4'	2.16	0.62
4:CD:133:VAL:HG13	4:CD:135:LEU:HD23	1.81	0.62
25:DA:1805:U:O2	28:DD:50:THR:HB	1.98	0.62
32:BH:144:VAL:O	32:BH:148:ILE:HG12	1.99	0.62
4:CD:8:VAL:C	4:CD:10:ARG:H	2.03	0.62
5:AE:116:THR:HG22	5:AE:117:ASP:OD1	2.00	0.62
43:DW:12:ILE:HD13	43:DW:17:VAL:CG1	2.30	0.62
23:CW:19:G:H3'	23:CW:20:U:C5'	2.29	0.62
38:DR:54:LEU:O	38:DR:57:ARG:HG3	1.99	0.62
8:CH:28:ALA:HB2	8:CH:59:LEU:HG	1.80	0.62
17:AQ:76:LEU:HD12	17:AQ:77:VAL:H	1.65	0.62
23:AW:67:C:H2'	23:AW:68:C:H5'	1.81	0.62
29:DE:38:THR:OG1	29:DE:41:LYS:HG2	2.00	0.62
1:CA:444:C:H2'	1:CA:445:G:H8	1.65	0.62
43:DW:111:HIS:CG	43:DW:112:GLY:H	2.17	0.62
5:CE:94:ALA:HB1	5:CE:98:THR:HG21	1.82	0.62
25:DA:2387:U:H5'	25:DA:2388:A:OP2	2.00	0.62
1:CA:193:C:H2'	1:CA:194:C:C6	2.35	0.62
1:AA:492:G:H2'	1:AA:493:G:C8	2.35	0.62
2:CB:74:LYS:HB2	2:CB:76:GLN:HE21	1.63	0.62
25:DA:534:U:O2'	41:DU:49:HIS:HD2	1.82	0.62
1:AA:1300:G:O6	1:AA:1334:G:H3'	2.00	0.62
7:CG:31:MET:SD	7:CG:34:GLY:HA2	2.38	0.62
7:AG:12:LEU:HD22	7:AG:24:THR:OG1	1.99	0.62
50:D3:5:LYS:HA	50:D3:35:ARG:O	1.99	0.62
41:DU:88:ILE:O	41:DU:90:VAL:N	2.32	0.62
45:DY:50:ARG:HD3	45:DY:54:LYS:N	2.13	0.62
31:DG:111:LEU:CD2	31:DG:120:LEU:HD21	2.27	0.62
31:DG:180:PHE:C	31:DG:182:LYS:H	2.03	0.62
31:DG:63:ILE:HB	31:DG:141:PHE:CD1	2.34	0.62
19:AS:15:LEU:O	19:AS:19:VAL:HG23	2.00	0.62
25:BA:1174:A:H3'	25:BA:1174:A:N3	2.14	0.62
29:DE:34:VAL:HG23	29:DE:34:VAL:O	1.99	0.62
38:DR:9:LYS:O	38:DR:10:LEU:HG	2.00	0.62
3:AC:38:ARG:O	3:AC:42:LEU:HD12	2.00	0.62
3:AC:89:GLU:HG3	3:AC:93:LYS:HD2	1.80	0.62
45:BY:38:ILE:HG22	45:BY:39:VAL:N	2.13	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BC:102:GLN:HA	27:BC:102:GLN:NE2	2.07	0.62
36:DP:65:ARG:HH12	55:D8:46:ARG:HH22	1.47	0.62
29:BE:68:ALA:O	29:BE:70:ALA:N	2.32	0.62
1:AA:542:G:H5'	4:AD:41:GLY:CA	2.30	0.62
4:AD:38:TYR:CD2	4:AD:45:GLN:HB3	2.34	0.62
32:DH:56:SER:OG	32:DH:58:GLU:HG3	1.99	0.62
25:DA:2845:G:O2'	25:DA:2846:G:H5'	1.98	0.62
25:DA:271(I):G:N3	25:DA:271(J):C:H1'	2.14	0.62
1:AA:849:C:O2'	1:AA:850:U:H5'	2.00	0.62
12:CL:67:ILE:HD13	12:CL:72:HIS:CD2	2.35	0.62
25:BA:286:C:H2'	25:BA:287:C:H6	1.64	0.62
40:DT:136:GLN:CG	40:DT:137:LYS:H	2.05	0.62
25:BA:2313:C:H4'	31:BG:91:ARG:HG3	1.81	0.62
25:DA:1777:U:O2'	25:DA:1778:U:H5'	1.99	0.62
25:BA:2160:G:H2'	25:BA:2161:C:C6	2.34	0.62
26:BB:58:A:H3'	26:BB:59:A:H8	1.64	0.62
2:AB:172:ILE:H	2:AB:172:ILE:CD1	2.12	0.62
25:DA:2884:U:C2	52:D5:51:TYR:HE1	2.18	0.62
1:AA:514:C:H2'	1:AA:515:G:C8	2.35	0.62
32:BH:30:LYS:HZ2	32:BH:81:GLU:HG2	1.64	0.62
27:DC:67:HIS:CE1	27:DC:185:LYS:HA	2.33	0.62
54:D7:16:HIS:HB3	54:D7:44:PRO:HG2	1.81	0.62
33:DI:100:ALA:C	33:DI:102:SER:H	2.00	0.62
27:DC:47:LYS:HZ3	27:DC:212:SER:HB2	1.64	0.62
14:AN:53:LEU:HB3	14:AN:56:VAL:HG21	1.80	0.62
25:DA:2756:U:H4'	25:DA:2757:A:OP1	1.98	0.62
25:BA:536:A:H2'	25:BA:537:C:C6	2.35	0.62
18:AR:63:GLN:OE1	18:AR:63:GLN:HA	1.99	0.62
1:AA:986:A:H1'	19:AS:54:GLY:O	1.99	0.62
30:BF:184:TYR:O	30:BF:188:ARG:HG2	1.99	0.62
8:AH:119:LEU:HB2	8:AH:124:ALA:HB2	1.82	0.62
1:CA:16:A:O2'	1:CA:17:U:H5'	1.99	0.62
25:BA:207:A:H2'	25:BA:208:C:O4'	2.00	0.62
31:BG:165:THR:HB	31:BG:167:GLU:OE2	1.99	0.62
40:DT:129:ARG:HG3	40:DT:129:ARG:O	1.99	0.62
1:AA:317:G:O5'	1:AA:317:G:H8	1.83	0.62
40:BT:128:GLU:O	40:BT:130:ALA:N	2.33	0.62
25:BA:2031:A:C6	25:BA:2498:C:H1'	2.35	0.62
1:AA:24:U:H2'	1:AA:25:C:H6	1.65	0.62
36:BP:41:ARG:CD	36:BP:45:LEU:HD12	2.30	0.62
1:AA:1346:A:O3'	1:AA:1347:G:H4'	1.99	0.62
25:DA:862:G:H2'	25:DA:863:A:H8	1.64	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:D1:86:SER:O	48:D1:90:ILE:HG12	1.99	0.62
25:DA:1885:A:H5'	25:DA:1885:A:H8	1.64	0.62
1:CA:946:A:H2'	1:CA:947:G:H8	1.63	0.62
45:BY:8:LYS:H	45:BY:8:LYS:HD2	1.63	0.62
10:AJ:32:ALA:O	10:AJ:33:GLN:HG3	2.00	0.62
27:BC:132:LEU:HG	27:BC:138:LEU:HG	1.80	0.62
13:AM:7:VAL:O	13:AM:9:ILE:HG13	1.99	0.62
36:BP:101:VAL:CG2	36:BP:102:ARG:N	2.63	0.62
32:DH:156:ALA:C	32:DH:158:HIS:H	2.00	0.62
16:CP:43:LYS:HG3	16:CP:48:TRP:CD2	2.35	0.62
10:CJ:49:VAL:HG23	14:CN:41:ARG:HD2	1.81	0.62
46:DZ:151:ALA:HB3	46:DZ:153:ASP:OD1	1.99	0.62
1:CA:997:U:O2'	1:CA:998:G:H5'	2.00	0.62
25:DA:57:C:H2'	25:DA:58:G:O4'	1.99	0.62
11:CK:87:THR:HA	11:CK:91:ARG:NH1	2.14	0.62
1:CA:1311:G:H2'	1:CA:1312:G:O4'	2.00	0.62
16:AP:22:THR:HA	16:AP:33:ILE:HG12	1.80	0.62
32:BH:20:ALA:HB1	32:BH:21:PRO:HD3	1.82	0.62
5:CE:6:PHE:HB3	5:CE:35:GLY:O	1.99	0.62
37:BQ:46:GLN:NE2	37:BQ:126:PRO:HD3	2.14	0.62
1:CA:639:G:O2'	1:CA:640:A:H5'	2.00	0.62
25:DA:1790:C:H5''	25:DA:1791:A:OP1	2.00	0.62
25:DA:809:G:O2'	25:DA:810:U:H5'	1.98	0.62
8:CH:112:LEU:HD12	8:CH:112:LEU:O	1.98	0.62
25:DA:1570:A:H5'	28:DD:38:LYS:HB2	1.82	0.62
25:BA:943:U:OP2	36:BP:38:GLN:OE1	2.17	0.62
25:BA:2100:G:H1	25:BA:2189:U:H5	1.47	0.62
25:BA:2642:G:O2'	25:BA:2643:G:H5'	2.00	0.62
39:BS:61:ASN:O	39:BS:62:LYS:HB2	1.99	0.62
2:CB:15:VAL:HG21	2:CB:209:ARG:NE	2.14	0.62
25:DA:2110:G:H5''	25:DA:2118:U:C4	2.35	0.62
7:CG:145:ALA:O	7:CG:146:GLU:HB2	1.99	0.62
41:BU:90:VAL:O	41:BU:92:ARG:N	2.33	0.62
45:DY:26:LYS:O	45:DY:28:LYS:HE3	2.00	0.62
35:BO:35:VAL:HG21	35:BO:69:ILE:HG12	1.81	0.62
53:D6:41:PRO:HD3	53:D6:46:HIS:CA	2.29	0.62
28:DD:26:LYS:NZ	28:DD:82:ILE:H	1.94	0.62
28:BD:97:TYR:HE1	28:BD:103:ARG:HG3	1.63	0.62
1:AA:1031:G:H2'	1:AA:1032:G:C8	2.35	0.62
1:CA:1297:C:H1'	1:CA:1298:C:H5	1.65	0.62
13:CM:12:ASN:HA	13:CM:45:VAL:HB	1.80	0.62
3:CC:70:VAL:HG12	3:CC:72:LYS:H	1.62	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1827:C:O2'	25:BA:1828:G:H5'	1.98	0.62
1:AA:1199:U:H4'	10:AJ:54:PHE:CZ	2.35	0.62
25:DA:2876:G:H4'	40:DT:2:ASN:O	2.00	0.62
45:DY:95:LYS:CG	45:DY:100:ALA:HA	2.26	0.62
1:CA:1152:A:OP1	10:CJ:68:HIS:NE2	2.33	0.62
40:BT:55:ASN:N	40:BT:59:THR:HG22	2.11	0.62
5:AE:12:LEU:HD22	5:AE:13:ILE:H	1.64	0.62
25:BA:1503:U:H2'	25:BA:1504:C:H6	1.65	0.62
1:AA:1437:C:H2'	1:AA:1438:G:H8	1.61	0.62
11:AK:92:GLU:O	11:AK:96:ARG:HG3	2.00	0.62
40:BT:15:VAL:HA	40:BT:79:HIS:HD2	1.64	0.62
25:DA:2716:U:O2'	25:DA:2717:G:H5'	2.00	0.62
25:BA:285:C:C2'	25:BA:286:C:H5'	2.30	0.62
25:DA:1779:U:H5	25:DA:1784:A:N7	1.98	0.62
47:D0:5:LYS:NZ	47:D0:6:GLY:H	1.96	0.62
27:DC:186:LEU:HD23	27:DC:189:ASN:HD22	1.63	0.62
1:CA:18:C:H5"	5:CE:127:ASN:ND2	2.14	0.62
25:BA:1188:U:H4'	42:BV:79:VAL:HG23	1.80	0.62
48:D1:50:ARG:O	48:D1:51:VAL:HB	1.99	0.62
28:BD:210:GLY:O	28:BD:211:ARG:CB	2.47	0.62
41:DU:81:HIS:O	41:DU:85:LYS:HB2	2.00	0.62
6:CF:27:GLN:O	6:CF:31:GLU:HB2	2.00	0.62
37:DQ:37:LEU:HB2	37:DQ:128:LYS:O	1.99	0.62
21:AU:25:LYS:HG2	21:AU:26:LYS:N	2.14	0.62
7:AG:6:ARG:HH21	7:AG:94:ARG:NH2	1.97	0.62
25:BA:1843:C:O2'	25:BA:1844:C:H5'	2.00	0.62
30:BF:11:VAL:HG12	30:BF:12:LEU:H	1.63	0.62
37:DQ:62:GLY:HA2	46:DZ:115:VAL:HG21	1.82	0.62
1:CA:1208:C:H2'	1:CA:1209:C:C6	2.35	0.62
25:BA:2691:C:H5'	25:BA:2691:C:H6	1.65	0.62
33:BI:93:THR:H	33:BI:96:ASP:CG	2.02	0.62
1:AA:1114:C:H1'	14:AN:60:SER:OG	2.00	0.62
25:DA:543:C:C2	25:DA:551:G:N2	2.67	0.62
31:DG:76:SER:CB	31:DG:83:ARG:HB2	2.13	0.62
37:DQ:42:ILE:HG12	37:DQ:103:MET:HE2	1.81	0.62
46:DZ:13:LYS:HB3	46:DZ:16:ALA:HB3	1.82	0.62
48:D1:84:GLY:C	48:D1:86:SER:H	2.02	0.62
25:BA:2178:C:H2'	25:BA:2179:C:H6	1.64	0.62
41:BU:91:ASP:OD2	41:BU:96:ALA:CB	2.48	0.62
2:CB:95:GLN:HE21	2:CB:147:LYS:CG	2.12	0.62
31:DG:117:PHE:O	31:DG:118:ARG:HG3	2.00	0.62
1:AA:953:G:H2'	1:AA:954:G:O4'	1.99	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1128:C:C5'	9:AI:16:ARG:HH22	2.13	0.62
40:BT:98:LYS:HB3	40:BT:100:TYR:CE1	2.35	0.62
25:DA:171:G:O2'	25:DA:172:C:H5'	2.00	0.62
25:DA:2728:U:O2'	25:DA:2729:G:H5'	1.99	0.62
32:DH:83:TYR:HA	32:DH:135:GLY:CA	2.29	0.62
40:BT:29:ARG:HB2	40:BT:85:LYS:HZ1	1.62	0.62
4:AD:108:LEU:HB3	4:AD:110:PHE:CE1	2.34	0.62
25:BA:2176:A:H4'	27:BC:222:SER:OG	1.99	0.62
13:AM:65:LYS:HE3	13:AM:73:GLU:OE2	2.00	0.62
42:BV:18:LEU:HD22	42:BV:19:LYS:CA	2.30	0.62
27:BC:87:ALA:HA	27:BC:154:ILE:HD12	1.79	0.62
47:B0:40:ARG:NH1	47:B0:43:ARG:HD2	2.15	0.62
26:DB:32:C:C2	26:DB:51:G:N2	2.68	0.62
1:CA:1151:A:H2'	1:CA:1152:A:C8	2.35	0.62
10:CJ:34:VAL:HG13	10:CJ:73:ASP:C	2.20	0.62
27:BC:164:PHE:O	27:BC:164:PHE:CD1	2.53	0.62
1:AA:718:G:H5'	11:AK:117:ASN:OD1	2.00	0.62
25:DA:1853:A:H2'	25:DA:1854:A:C8	2.34	0.62
25:DA:2712:U:OP1	25:DA:2714:G:H4'	2.00	0.62
48:B1:26:ARG:HB2	48:B1:26:ARG:NH1	2.15	0.62
25:DA:2178:C:H2'	25:DA:2179:C:C6	2.33	0.62
28:DD:146:GLU:HG2	28:DD:152:GLY:O	2.00	0.62
12:AL:44:LYS:CB	12:AL:45:PRO:CD	2.78	0.62
39:BS:106:ARG:O	39:BS:106:ARG:HD2	1.99	0.62
12:AL:24:LEU:HD23	12:AL:59:SER:HB2	1.82	0.62
25:DA:265:A:C8	25:DA:266:G:H1'	2.34	0.62
17:AQ:59:ILE:HG22	17:AQ:71:PHE:CD1	2.34	0.62
29:BE:170:LEU:HD23	29:BE:184:VAL:HG11	1.80	0.62
40:BT:118:ARG:HA	40:BT:121:ILE:HB	1.81	0.62
30:DF:72:ARG:HB3	30:DF:72:ARG:HH11	1.63	0.62
17:AQ:14:LYS:HZ2	17:AQ:14:LYS:N	1.98	0.62
45:DY:23:ARG:NH2	45:DY:40:GLU:O	2.33	0.62
25:BA:481:G:O2'	25:BA:482:A:P	2.58	0.62
25:DA:1150:C:O2'	25:DA:1151:G:H5'	1.99	0.62
10:CJ:33:GLN:OE1	10:CJ:75:ILE:HD11	2.00	0.62
15:AO:8:LYS:HE3	15:AO:31:LEU:HD11	1.81	0.62
26:DB:44:G:H1'	26:DB:47:C:N4	2.15	0.62
36:BP:112:LEU:HD22	36:BP:113:LYS:N	2.15	0.62
25:BA:2873:A:C2	38:BR:7:GLY:HA2	2.35	0.62
25:BA:1573:G:H2'	25:BA:1574:C:H5'	1.81	0.62
25:DA:2014:A:H2'	25:DA:2015:A:C8	2.33	0.62
25:BA:1260:G:H2'	25:BA:1261:C:C6	2.35	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:564:C:H5'	12:CL:7:LEU:CD1	2.30	0.62
8:AH:43:GLY:O	8:AH:45:ILE:N	2.32	0.62
52:D5:35:GLU:O	52:D5:36:CYS:SG	2.57	0.61
25:DA:1971:A:H1'	28:DD:240:ALA:O	1.99	0.61
7:AG:44:TYR:O	7:AG:46:ALA:N	2.29	0.61
32:BH:8:PRO:HA	32:BH:9:ILE:HD12	1.82	0.61
25:DA:863:A:O2'	25:DA:864:G:H5'	2.00	0.61
9:CI:63:ILE:HG22	9:CI:64:THR:N	2.15	0.61
9:CI:9:ARG:H	9:CI:76:ALA:HB1	1.65	0.61
2:CB:144:ARG:HG3	2:CB:145:LEU:N	2.15	0.61
31:DG:116:ASP:O	31:DG:118:ARG:HG3	1.99	0.61
1:AA:1222:G:O2'	1:AA:1223:C:C5'	2.48	0.61
46:BZ:29:ASN:HB2	46:BZ:88:PHE:CE2	2.35	0.61
27:BC:128:LEU:HB3	27:BC:132:LEU:CD2	2.30	0.61
2:AB:208:ILE:HA	2:AB:211:ILE:HD12	1.81	0.61
2:AB:29:ALA:O	2:AB:32:ILE:HG22	2.00	0.61
28:DD:43:ARG:HB3	28:DD:54:ARG:CB	2.30	0.61
35:DO:104:ARG:NE	40:DT:33:LYS:HE3	2.10	0.61
32:BH:85:LYS:CG	32:BH:133:VAL:HB	2.30	0.61
14:AN:24:CYS:H	14:AN:33:VAL:HG11	1.62	0.61
39:DS:34:HIS:ND1	39:DS:54:LEU:HB2	2.15	0.61
25:DA:1523:U:H2'	25:DA:1524:G:H8	1.65	0.61
25:DA:2175:C:C2'	25:DA:2176:A:H5''	2.30	0.61
25:BA:848:G:H2'	25:BA:849:A:H8	1.61	0.61
25:DA:2333:A:H5'	25:DA:2335:A:O4'	2.00	0.61
29:BE:55:ASN:C	29:BE:57:LYS:H	2.03	0.61
25:BA:910:A:N7	37:BQ:13:GLN:HG3	2.15	0.61
31:DG:96:ARG:N	31:DG:99:MET:HE3	2.14	0.61
27:BC:143:ALA:O	27:BC:145:THR:HG23	2.00	0.61
32:DH:149:ARG:HD3	32:DH:164:TYR:CE1	2.34	0.61
25:BA:29:U:H2'	25:BA:30:G:C8	2.35	0.61
45:BY:31:LEU:HB2	45:BY:32:PRO:HA	1.82	0.61
18:CR:47:THR:HB	18:CR:49:LYS:HG2	1.81	0.61
22:AV:75:PRO:HD3	22:AV:106:GLU:HG2	1.82	0.61
39:DS:25:ARG:CZ	39:DS:40:ILE:HD12	2.30	0.61
34:DN:90:MET:HA	34:DN:90:MET:CE	2.30	0.61
41:DU:91:ASP:OD2	41:DU:96:ALA:HA	1.99	0.61
41:DU:93:LYS:HA	41:DU:96:ALA:CB	2.30	0.61
7:CG:108:ALA:HB1	7:CG:120:ILE:HD13	1.81	0.61
7:CG:148:ASN:C	7:CG:150:ALA:H	2.03	0.61
29:DE:61:ARG:HB3	29:DE:62:PRO:HD3	1.81	0.61
23:CW:22:G:O2'	23:CW:23:C:H5'	2.01	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:BT:80:SER:HB3	40:BT:81:PRO:HD3	1.82	0.61
1:AA:186:C:H2'	1:AA:187:C:C6	2.35	0.61
1:AA:225:C:H2'	1:AA:226:G:H8	1.65	0.61
3:AC:35:GLU:O	3:AC:39:ILE:HG13	2.00	0.61
3:AC:32:LEU:O	3:AC:36:ASP:HB2	2.00	0.61
10:AJ:24:VAL:HG21	10:AJ:37:PRO:HG3	1.81	0.61
32:DH:108:GLY:HA3	32:DH:152:ARG:NH2	2.15	0.61
32:DH:156:ALA:N	32:DH:158:HIS:H	1.98	0.61
2:AB:46:LYS:HA	2:AB:49:GLU:OE2	2.00	0.61
1:AA:1026:G:H3'	1:AA:1027:C:C5'	2.30	0.61
4:AD:146:ILE:HD12	4:AD:146:ILE:H	1.65	0.61
2:AB:140:HIS:HA	2:AB:143:GLU:CG	2.27	0.61
32:BH:85:LYS:HB3	32:BH:133:VAL:O	2.01	0.61
1:CA:973:G:C1'	10:CJ:55:LYS:HE2	2.29	0.61
3:CC:181:ASN:ND2	3:CC:204:LEU:HB2	2.15	0.61
10:AJ:50:ILE:CD1	14:AN:41:ARG:HD3	2.28	0.61
1:CA:956:U:H2'	1:CA:957:U:H6	1.64	0.61
31:DG:72:ARG:HH11	31:DG:86:MET:HA	1.65	0.61
43:BW:38:TYR:OH	52:B5:47:PRO:HG3	2.00	0.61
25:BA:857:C:C5'	47:B0:76:ARG:HH22	2.09	0.61
1:AA:1206:G:O4'	3:AC:194:GLY:HA2	1.99	0.61
27:DC:37:LYS:O	27:DC:38:PHE:HB3	1.99	0.61
42:BV:35:LEU:O	42:BV:37:VAL:N	2.34	0.61
1:AA:405:U:C3'	1:AA:406:G:H5'	2.29	0.61
1:AA:169:C:H2'	1:AA:170:U:H5'	1.82	0.61
25:BA:27:G:N2	25:BA:512:G:C2'	2.63	0.61
39:DS:85:VAL:C	39:DS:106:ARG:HG3	2.20	0.61
11:AK:80:VAL:CG1	11:AK:103:LEU:HD12	2.30	0.61
1:CA:880:C:H2'	1:CA:881:G:H8	1.65	0.61
22:AV:13:VAL:HG22	22:AV:14:LYS:N	2.15	0.61
6:CF:62:TRP:CH2	6:CF:64:GLN:HB2	2.35	0.61
31:BG:126:ASP:C	31:BG:128:ARG:H	2.04	0.61
40:BT:88:ILE:HG22	40:BT:89:VAL:CG2	2.30	0.61
8:CH:23:SER:HA	8:CH:63:LEU:HD23	1.80	0.61
22:AV:65:VAL:HG12	22:AV:65:VAL:O	2.00	0.61
25:BA:1497:U:H5''	25:BA:1498:C:C5	2.35	0.61
36:DP:45:LEU:HD23	36:DP:46:LYS:N	2.15	0.61
25:BA:871:U:H4'	37:BQ:69:PHE:CD2	2.35	0.61
37:BQ:72:LYS:HB3	37:BQ:94:VAL:CG2	2.31	0.61
25:BA:2685:G:H5'	35:BO:68:GLU:OE1	2.00	0.61
25:BA:1530:C:H6	25:BA:1530:C:O5'	1.83	0.61
25:DA:2779:U:H4'	25:DA:2780:G:H5'	1.81	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BS:41:ASP:OD2	39:BS:44:LYS:HD3	2.00	0.61
45:DY:44:ILE:HG22	45:DY:45:VAL:N	2.15	0.61
39:BS:38:GLN:OE1	39:BS:47:THR:HG21	2.01	0.61
25:DA:908:C:O2'	25:DA:909:A:H5'	1.99	0.61
1:AA:409:G:OP1	4:AD:24:GLU:HB2	1.99	0.61
1:CA:9:G:H5''	5:CE:122:GLU:OE1	2.00	0.61
1:CA:229:U:O2'	1:CA:230:G:H5'	1.99	0.61
7:AG:67:GLU:HA	7:AG:67:GLU:OE2	1.99	0.61
25:DA:1971:A:C5	28:DD:241:PRO:HG3	2.35	0.61
1:AA:1347:G:N2	1:AA:1373:G:H2'	2.15	0.61
46:DZ:9:ARG:HH21	46:DZ:25:GLY:H	1.46	0.61
2:CB:56:ARG:HH11	2:CB:56:ARG:HG2	1.64	0.61
44:DX:55:ASN:HB2	44:DX:80:ILE:CD1	2.30	0.61
1:CA:1353:G:O2'	1:CA:1354:C:H5'	2.00	0.61
1:CA:948:C:C5	13:CM:106:ASN:ND2	2.69	0.61
22:CV:138:GLY:C	22:CV:149:LYS:HB3	2.21	0.61
29:DE:71:GLY:O	29:DE:73:GLU:N	2.34	0.61
53:D6:16:CYS:SG	53:D6:49:HIS:N	2.62	0.61
40:BT:28:VAL:HG21	40:BT:46:GLU:HG3	1.80	0.61
29:BE:32:PRO:HB3	29:BE:69:LYS:CB	2.25	0.61
10:AJ:16:LEU:HD11	10:AJ:70:ARG:HB2	1.80	0.61
14:AN:26:ARG:HG3	14:AN:27:CYS:H	1.64	0.61
36:BP:24:GLY:CA	36:BP:33:ARG:NH1	2.63	0.61
40:BT:56:GLY:O	40:BT:59:THR:CG2	2.48	0.61
23:CW:16:C:H4'	23:CW:60:U:O2'	2.00	0.61
1:AA:545:C:O2'	1:AA:546:G:H5'	2.00	0.61
26:BB:111:G:H2'	26:BB:112:U:O4'	2.01	0.61
25:BA:286:C:H2'	25:BA:287:C:C6	2.35	0.61
29:BE:14:ILE:HB	40:BT:14:TYR:CE2	2.36	0.61
25:BA:1739:U:O2	25:BA:1739:U:H2'	2.00	0.61
25:BA:181:A:H5''	54:B7:36:GLN:HE21	1.64	0.61
27:DC:47:LYS:CE	27:DC:212:SER:HB2	2.30	0.61
8:AH:91:ARG:HG2	8:AH:91:ARG:HH11	1.65	0.61
1:AA:735:C:H2'	1:AA:736:C:C6	2.35	0.61
13:CM:82:MET:HG2	13:CM:82:MET:O	1.98	0.61
40:BT:124:ASP:O	40:BT:127:ALA:HB3	2.01	0.61
25:DA:1755:A:H2'	25:DA:1756:G:H5'	1.81	0.61
1:CA:1211:U:H5'	1:CA:1212:U:OP1	1.99	0.61
38:DR:37:THR:OG1	38:DR:39:PRO:HD2	2.00	0.61
1:CA:201:C:H42	1:CA:216:G:H1	1.48	0.61
35:DO:53:LYS:N	35:DO:53:LYS:HD2	2.14	0.61
49:B2:63:VAL:HA	49:B2:66:GLU:HG2	1.82	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CL:108:LYS:O	12:CL:109:ASP:HB2	1.98	0.61
27:DC:193:PHE:HE2	27:DC:197:LEU:HD22	1.65	0.61
25:DA:491:G:O6	43:DW:49:LYS:HE2	1.99	0.61
25:BA:1678:G:N2	25:BA:1989:G:H22	1.97	0.61
18:AR:26:LEU:HD13	18:AR:39:VAL:HG13	1.82	0.61
4:CD:62:GLN:HA	4:CD:62:GLN:HE21	1.64	0.61
25:BA:197:A:N6	25:BA:2430:A:H2'	2.15	0.61
3:AC:8:ILE:HG22	14:AN:49:HIS:O	2.01	0.61
25:DA:543:C:C3'	25:DA:545:G:H5'	2.30	0.61
41:DU:114:LYS:HA	41:DU:117:GLN:HB2	1.82	0.61
1:CA:1292:U:C5'	9:CI:38:GLN:HE22	2.13	0.61
9:CI:5:TYR:O	9:CI:84:ALA:HA	2.01	0.61
22:CV:138:GLY:O	22:CV:163:LEU:HB3	2.00	0.61
22:CV:170:VAL:HB	22:CV:184:ALA:HB3	1.82	0.61
30:BF:21:ALA:C	30:BF:23:ASP:H	2.04	0.61
10:AJ:47:PHE:HZ	10:AJ:65:LEU:HB2	1.66	0.61
52:B5:4:HIS:CB	52:B5:5:PRO:HD3	2.28	0.61
36:DP:16:ARG:CZ	36:DP:16:ARG:HB2	2.30	0.61
1:AA:1144:G:H21	1:AA:1146:A:H62	1.47	0.61
25:BA:637:A:P	36:BP:116:GLY:HA2	2.41	0.61
36:BP:95:VAL:HA	36:BP:99:LEU:HD13	1.82	0.61
25:DA:275:G:H3'	25:DA:276:A:C5'	2.31	0.61
29:BE:75:VAL:HG12	29:BE:76:ARG:N	2.15	0.61
25:BA:2469:A:N6	25:BA:2481:G:H1'	2.15	0.61
25:BA:272(D):G:H1	25:BA:364:C:N4	1.90	0.61
8:AH:44:PHE:O	8:AH:64:LYS:HB3	2.00	0.61
31:BG:51:ARG:CA	31:BG:51:ARG:NE	2.50	0.61
48:B1:50:ARG:HG2	48:B1:50:ARG:NH1	2.15	0.61
39:DS:19:LYS:HB3	39:DS:20:ARG:HH12	1.65	0.61
23:CW:1:C:H2'	23:CW:2:G:C8	2.23	0.61
34:DN:58:ASP:O	34:DN:60:ILE:HG13	2.01	0.61
1:CA:1123:A:O2'	10:CJ:38:ILE:HG23	1.99	0.61
1:CA:735:C:H5'	18:CR:71:LYS:HD3	1.83	0.61
6:CF:50:TYR:HE2	6:CF:52:ILE:HD11	1.64	0.61
25:DA:2125:G:N2	25:DA:2174:C:H42	1.98	0.61
1:CA:536:C:H2'	1:CA:537:G:C8	2.36	0.61
25:BA:2286:A:H3'	53:B6:31:PRO:HB2	1.83	0.61
1:AA:627:G:C2'	1:AA:628:G:H5'	2.30	0.61
55:D8:40:GLU:O	55:D8:44:LYS:HD3	2.01	0.61
39:DS:106:ARG:O	39:DS:107:GLU:HB3	1.99	0.61
1:CA:366:C:O2'	1:CA:394:G:N2	2.33	0.61
25:BA:389:G:H1	36:BP:71:VAL:HG12	1.65	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:178:ARG:HG3	8:AH:71:GLY:HA2	1.82	0.61
22:AV:67:THR:O	22:AV:67:THR:HG22	1.99	0.61
34:BN:133:GLN:HG2	34:BN:134:ARG:N	2.15	0.61
25:BA:2849:U:O4	40:BT:23:ARG:NH2	2.32	0.61
32:BH:137:ASP:HB3	32:BH:140:LYS:HB3	1.83	0.61
25:DA:116:C:O2'	25:DA:117:G:H5'	2.00	0.61
28:BD:28:GLU:HB2	28:BD:29:PRO:HD3	1.81	0.61
36:DP:119:GLU:HA	36:DP:119:GLU:OE1	2.01	0.61
25:BA:481:G:H1'	25:BA:506:G:H21	1.64	0.61
1:AA:1447:A:H8	1:AA:1456:G:O6	1.83	0.61
25:DA:1711:C:H2'	25:DA:1712:C:C6	2.36	0.61
25:BA:1462:C:H2'	25:BA:1463:C:C6	2.34	0.61
25:DA:927:G:H2'	25:DA:928:G:H5'	1.81	0.61
6:AF:97:PHE:C	6:AF:97:PHE:CD2	2.74	0.61
33:DI:119:PRO:O	33:DI:120:ILE:C	2.38	0.61
48:D1:7:ILE:HG22	48:D1:8:SER:N	2.15	0.61
43:BW:62:HIS:O	43:BW:64:MET:HG3	1.99	0.61
1:AA:1289:A:H5''	21:AU:10:ARG:NH2	2.10	0.61
25:DA:2105:C:C2'	25:DA:2106:G:H5''	2.30	0.61
7:CG:140:ASP:HA	7:CG:143:ARG:NH1	2.15	0.61
42:BV:39:LEU:HD12	42:BV:47:VAL:HG11	1.81	0.61
25:DA:1359:A:C2'	25:DA:1360:A:H5'	2.17	0.61
30:DF:3:GLU:CD	30:DF:3:GLU:H	2.03	0.61
25:DA:1039:G:H1	25:DA:1116:C:N4	1.98	0.61
53:D6:40:CYS:SG	53:D6:45:LYS:NZ	2.70	0.61
46:BZ:164:VAL:HG12	46:BZ:165:SER:N	2.15	0.61
25:DA:825:C:O2	36:DP:55:ARG:HD3	2.01	0.61
25:DA:274:G:N3	25:DA:274:G:H3'	2.15	0.61
29:DE:111:ARG:HH11	29:DE:111:ARG:HG2	1.66	0.61
11:AK:127:LYS:CE	11:AK:127:LYS:HA	2.23	0.61
3:CC:13:GLY:HA3	14:CN:57:ARG:HH21	1.66	0.61
25:DA:874:G:H2'	25:DA:875:G:H8	1.66	0.61
42:BV:17:GLY:O	42:BV:18:LEU:HB3	2.00	0.61
47:D0:72:ARG:HE	47:D0:75:LEU:CD1	2.06	0.61
1:CA:1320:C:O2	19:CS:72:GLY:HA3	2.01	0.61
26:DB:48:A:H4'	39:DS:95:HIS:HD2	1.66	0.61
10:CJ:24:VAL:HG22	10:CJ:72:VAL:HG11	1.81	0.61
1:CA:736:C:H2'	1:CA:737:A:H8	1.62	0.61
16:CP:82:GLN:N	16:CP:82:GLN:NE2	2.48	0.61
11:CK:103:LEU:HD13	11:CK:104:GLN:N	2.16	0.61
3:AC:127:ARG:HD2	3:AC:127:ARG:N	2.14	0.61
1:CA:295:C:O2'	1:CA:296:U:H5'	2.01	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DF:41:LEU:O	30:DF:44:ARG:HG2	2.00	0.61
25:BA:17:G:H2'	25:BA:18:C:H6	1.65	0.61
41:BU:25:TRP:CD1	41:BU:26:GLY:N	2.68	0.61
4:CD:88:VAL:O	4:CD:92:VAL:HG23	2.01	0.61
37:DQ:57:HIS:HE1	37:DQ:116:GLU:HB3	1.65	0.61
29:DE:178:GLU:HG3	29:DE:179:GLU:OE2	2.01	0.61
25:BA:336:C:O2'	25:BA:337:C:H5'	2.00	0.61
1:AA:518:C:H2'	1:AA:530:G:N3	2.16	0.61
1:AA:1169:A:H2'	1:AA:1170:A:C8	2.35	0.61
25:DA:1773:A:H2'	25:DA:1774:C:H5'	1.81	0.61
25:DA:1405:U:H2'	25:DA:1406:U:H6	1.64	0.61
33:BI:93:THR:O	33:BI:96:ASP:HB2	2.00	0.61
1:AA:1349:A:H2'	1:AA:1350:A:O4'	1.99	0.61
41:BU:65:ILE:HD11	41:BU:93:LYS:HA	1.82	0.61
13:CM:78:ILE:HG23	13:CM:92:HIS:ND1	2.15	0.61
28:BD:245:PRO:O	28:BD:246:PRO:C	2.39	0.61
40:BT:29:ARG:N	40:BT:45:PHE:O	2.33	0.61
10:AJ:8:LEU:O	10:AJ:16:LEU:HD21	2.01	0.61
23:CW:68:C:O2'	23:CW:69:C:H5'	2.00	0.61
34:DN:121:LYS:HB3	34:DN:123:TYR:HE1	1.65	0.61
8:AH:44:PHE:HB3	8:AH:80:ILE:HG12	1.82	0.61
46:BZ:97:MET:O	46:BZ:124:LEU:HA	1.99	0.61
33:BI:38:LEU:N	33:BI:38:LEU:HD12	2.15	0.61
15:AO:17:ARG:HH11	15:AO:17:ARG:HG3	1.66	0.61
25:DA:495:G:H21	43:DW:61:ASN:ND2	1.93	0.61
5:CE:69:VAL:C	5:CE:71:LEU:H	2.04	0.61
28:DD:111:LEU:HD13	28:DD:112:GLN:N	2.15	0.61
46:BZ:13:LYS:HE3	46:BZ:16:ALA:HB2	1.82	0.61
25:BA:1718:G:C2'	25:BA:1719:G:H5'	2.30	0.61
10:AJ:48:THR:HG23	10:AJ:62:HIS:HB3	1.82	0.61
1:CA:197:A:N3	1:CA:198:G:H1'	2.15	0.61
52:D5:25:LEU:N	52:D5:25:LEU:HD12	2.15	0.61
36:DP:23:PRO:HB3	36:DP:34:GLY:H	1.66	0.61
9:AI:4:TYR:HD1	9:AI:4:TYR:N	1.99	0.61
22:AV:7:LEU:HB2	22:AV:25:TYR:CE1	2.35	0.61
17:AQ:78:GLU:CG	17:AQ:81:ARG:HD2	2.30	0.61
26:DB:10:C:H2'	26:DB:11:C:C6	2.36	0.61
4:AD:74:GLN:HA	4:AD:77:ASN:HD22	1.66	0.61
1:CA:180:U:C2'	1:CA:181:G:H5'	2.29	0.61
25:BA:2485:G:H5''	37:BQ:46:GLN:HE21	1.65	0.61
25:BA:1453:U:OP1	38:BR:77:ARG:NH1	2.33	0.61
25:DA:2080:G:OP1	48:D1:35:THR:HG21	2.00	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:871:U:H4'	37:BQ:69:PHE:CE2	2.35	0.61
25:DA:2025:C:H2'	25:DA:2026:C:C6	2.35	0.61
17:CQ:13:ASP:H	17:CQ:14:LYS:HZ2	1.45	0.61
43:BW:18:ARG:HG3	43:BW:76:VAL:CG1	2.30	0.61
25:DA:664:C:H2'	25:DA:665:C:H6	1.66	0.61
29:DE:147:PRO:HB2	29:DE:149:ARG:HG2	1.83	0.61
2:AB:238:LEU:H	2:AB:238:LEU:HD23	1.66	0.61
25:DA:659:C:H6	25:DA:659:C:H5''	1.65	0.61
25:DA:2512:C:H2'	25:DA:2513:G:O4'	1.99	0.61
39:BS:88:ASP:CG	39:BS:89:ARG:N	2.54	0.61
29:BE:93:VAL:CG2	29:BE:180:ASN:HA	2.29	0.61
9:AI:96:LEU:O	9:AI:101:PHE:N	2.27	0.61
2:CB:77:ALA:HB1	2:CB:211:ILE:HD13	1.81	0.61
41:DU:79:PHE:O	41:DU:83:LEU:HB2	2.01	0.61
1:AA:1322:C:H6	1:AA:1322:C:OP1	1.83	0.61
1:AA:186:C:H5'	20:AT:78:ALA:HB1	1.83	0.61
2:AB:15:VAL:O	2:AB:15:VAL:HG23	2.01	0.61
45:BY:43:ASN:O	45:BY:44:ILE:HB	2.01	0.61
25:DA:274:G:N3	25:DA:274:G:H2'	2.15	0.61
13:AM:47:ASP:O	13:AM:48:LEU:HD13	2.00	0.61
11:AK:120:ARG:HH12	11:AK:126:ARG:NE	1.99	0.61
32:BH:70:THR:OG1	32:BH:71:LEU:N	2.34	0.61
28:DD:106:ILE:HD11	28:DD:196:VAL:CG1	2.24	0.61
31:BG:46:ALA:HA	31:BG:51:ARG:CB	2.31	0.61
2:CB:123:ALA:O	2:CB:124:SER:HB2	2.00	0.61
2:CB:124:SER:C	2:CB:126:GLU:H	2.02	0.61
1:CA:1036:G:H5'	1:CA:1037:C:OP2	2.00	0.61
25:DA:319:C:H2'	25:DA:320:A:C8	2.35	0.61
30:DF:179:GLU:N	30:DF:179:GLU:OE2	2.23	0.61
22:AV:149:LYS:HZ3	22:AV:163:LEU:CA	2.13	0.61
1:AA:398:C:H2'	1:AA:399:G:H8	1.65	0.61
12:CL:22:PRO:C	12:CL:24:LEU:N	2.53	0.61
30:BF:114:VAL:HG11	30:BF:202:PHE:CE2	2.36	0.61
4:CD:30:LYS:C	4:CD:32:ALA:N	2.54	0.61
1:AA:1007:C:C6	1:AA:1008:C:H5	2.19	0.61
56:B9:9:ARG:NH2	56:B9:14:CYS:O	2.33	0.61
7:AG:113:GLU:CB	7:AG:119:ARG:HG2	2.31	0.61
25:BA:821:A:C2'	25:BA:946:G:H5''	2.30	0.61
1:CA:1492:A:C3'	1:CA:1493:A:H8	2.13	0.61
25:BA:1651:G:H2'	25:BA:1652:A:O4'	2.01	0.61
8:CH:73:ASP:OD2	8:CH:75:ARG:HD3	2.00	0.61
20:CT:33:ILE:HD12	20:CT:63:ILE:HA	1.82	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1273:G:H3'	1:CA:1274:G:H8	1.65	0.61
5:CE:150:ARG:HB2	5:CE:150:ARG:NH1	2.16	0.61
1:AA:802:A:H3'	1:AA:803:G:C8	2.35	0.61
13:AM:55:ARG:HA	13:AM:58:GLU:HG3	1.83	0.61
43:DW:18:ARG:NH1	43:DW:76:VAL:HG13	2.15	0.61
25:BA:229:A:C5'	25:BA:230:U:H5'	2.30	0.61
1:AA:864:A:H2'	1:AA:865:A:C8	2.34	0.61
39:BS:36:TYR:N	39:BS:36:TYR:CD1	2.65	0.61
25:BA:17:G:H4'	41:BU:25:TRP:CH2	2.36	0.61
15:CO:65:ARG:NH1	15:CO:65:ARG:HG2	2.15	0.61
2:CB:149:LEU:O	2:CB:152:PHE:HB3	2.01	0.61
27:DC:69:LEU:CD2	27:DC:70:GLY:H	2.14	0.61
49:B2:21:LEU:O	49:B2:25:VAL:HG23	2.00	0.61
25:DA:1719:G:O2'	25:DA:1720:U:H5'	2.01	0.61
25:DA:2665:A:O2'	25:DA:2666:C:H5'	2.01	0.61
25:BA:1882:C:H5'	25:BA:1883:G:OP2	2.00	0.61
46:DZ:91:SER:HB3	46:DZ:93:GLU:HG2	1.82	0.61
25:BA:2826:A:C2'	25:BA:2827:C:H5'	2.30	0.61
39:BS:34:HIS:CG	39:BS:54:LEU:HB2	2.35	0.61
29:BE:179:GLU:HB3	29:BE:181:LEU:HD13	1.82	0.61
1:AA:1187:G:N2	14:AN:60:SER:OG	2.33	0.61
21:AU:9:ARG:O	21:AU:13:ILE:HG13	2.01	0.61
46:DZ:98:TYR:HA	46:DZ:123:ILE:O	1.99	0.61
20:AT:51:GLU:HA	20:AT:54:LYS:HB3	1.82	0.61
31:DG:66:GLN:HE21	31:DG:94:LEU:HD23	1.63	0.61
45:DY:28:LYS:NZ	45:DY:28:LYS:H	1.95	0.61
29:DE:59:VAL:HG13	29:DE:60:ASN:N	2.15	0.61
30:BF:4:VAL:HB	30:BF:17:ARG:NE	2.15	0.61
30:BF:4:VAL:H	30:BF:19:GLU:HB2	1.64	0.61
3:AC:63:ASN:N	3:AC:97:LYS:NZ	2.49	0.61
1:AA:1145:C:H5'	1:AA:1146:A:OP1	2.00	0.61
46:BZ:68:THR:HB	46:BZ:88:PHE:O	2.00	0.61
25:BA:600:G:N2	25:BA:605:C:O3'	2.34	0.61
3:CC:35:GLU:HA	3:CC:38:ARG:HD2	1.83	0.61
3:CC:62:ASP:OD2	3:CC:97:LYS:HG3	2.00	0.61
10:CJ:50:ILE:HG22	10:CJ:52:GLY:H	1.64	0.61
1:CA:974:A:P	14:CN:41:ARG:HH12	2.24	0.61
38:DR:98:LEU:HB2	38:DR:113:LEU:CB	2.28	0.61
30:BF:53:THR:HG22	30:BF:56:GLU:HG3	1.82	0.61
25:BA:1778:U:H2'	25:BA:1784:A:N6	2.16	0.61
40:DT:11:GLU:H	40:DT:11:GLU:CD	2.03	0.61
31:DG:72:ARG:HH11	31:DG:72:ARG:HG2	1.66	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1038:C:H2'	1:CA:1039:C:C6	2.36	0.61
10:CJ:69:ASN:O	10:CJ:70:ARG:HB2	2.00	0.61
36:BP:33:ARG:O	36:BP:35:HIS:O	2.19	0.61
23:CW:58:A:H1'	23:CW:60:U:C5	2.35	0.61
26:DB:13:A:C2	26:DB:16:G:H1'	2.36	0.61
25:DA:20:C:H2'	25:DA:21:A:C8	2.36	0.61
49:B2:28:LYS:HB3	49:B2:57:ILE:CD1	2.31	0.61
38:DR:104:ARG:NH1	38:DR:109:ALA:HB3	2.14	0.61
29:DE:134:ILE:CD1	29:DE:134:ILE:N	2.63	0.61
52:D5:50:GLY:O	52:D5:51:TYR:O	2.18	0.61
32:BH:103:LEU:HD23	32:BH:103:LEU:H	1.66	0.61
43:BW:10:VAL:O	43:BW:11:ARG:CB	2.49	0.61
30:BF:68:LYS:HG3	30:BF:69:HIS:CE1	2.35	0.61
37:DQ:5:ARG:C	37:DQ:6:ARG:HG2	2.21	0.61
25:BA:1843:C:H2'	25:BA:1844:C:H6	1.66	0.61
1:AA:746:A:H2'	1:AA:747:C:H6	1.66	0.61
25:DA:620:G:H5'	25:DA:621:A:OP1	2.01	0.61
25:BA:1683:C:H2'	25:BA:1684:C:H6	1.65	0.61
25:BA:747:U:OP2	52:B5:3:LYS:HE2	2.00	0.61
28:BD:39:LYS:HB2	28:BD:62:TYR:HB2	1.82	0.61
25:BA:2360:A:H2'	25:BA:2361:A:O4'	2.00	0.61
1:AA:902:G:O2'	1:AA:903:G:H5'	2.01	0.61
46:DZ:4:LEU:HD12	46:DZ:5:LYS:N	2.16	0.61
46:DZ:53:HIS:HE1	46:DZ:122:ASP:OD2	1.84	0.61
46:DZ:8:TYR:CD1	46:DZ:60:LEU:HD12	2.36	0.61
1:AA:979:C:C3'	1:AA:980:C:H5''	2.11	0.61
34:DN:42:TRP:CH2	34:DN:44:PRO:HA	2.36	0.61
41:DU:44:ASN:HD21	42:DV:75:PHE:HB3	1.65	0.61
42:DV:14:VAL:HG11	42:DV:96:ILE:HD11	1.82	0.61
25:BA:774:A:H2	25:BA:787:U:O2'	1.83	0.61
7:CG:39:ALA:HA	7:CG:42:ILE:HD12	1.82	0.61
9:CI:10:ARG:HD2	9:CI:105:ASP:OD1	2.01	0.61
1:AA:227:G:H2'	1:AA:228:A:C8	2.35	0.61
25:DA:852:G:H2'	25:DA:853:G:C8	2.35	0.61
28:BD:267:SER:C	28:BD:269:PHE:H	2.02	0.61
40:BT:64:ARG:HD2	40:BT:73:GLU:HG2	1.82	0.61
25:DA:274:G:N2	25:DA:275:G:O4'	2.33	0.61
13:AM:24:GLY:C	13:AM:25:ILE:HD12	2.20	0.61
25:BA:330:A:H2	25:BA:1210:A:C2'	2.08	0.61
10:CJ:63:PHE:H	10:CJ:63:PHE:HD2	1.48	0.61
25:DA:876:C:H2'	25:DA:877:U:C6	2.36	0.61
40:DT:28:VAL:HG13	40:DT:46:GLU:CA	2.30	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:CT:100:ILE:H	20:CT:100:ILE:HD12	1.66	0.61
1:CA:1014:A:C2	1:CA:1219:U:H1'	2.36	0.61
28:DD:65:ILE:HA	28:DD:104:TYR:HB2	1.83	0.61
20:AT:30:LYS:CA	20:AT:30:LYS:HE2	2.31	0.61
55:D8:29:LYS:HG2	55:D8:29:LYS:O	2.00	0.61
45:BY:20:TYR:O	45:BY:23:ARG:HG3	2.01	0.61
44:BX:30:VAL:HG21	44:BX:39:ILE:CD1	2.30	0.61
12:AL:44:LYS:CG	12:AL:45:PRO:HD3	2.31	0.61
1:AA:1423:G:H5''	35:BO:49:ARG:HH22	1.64	0.61
27:BC:178:LYS:HA	27:BC:178:LYS:HE2	1.82	0.61
22:CV:169:GLU:OE2	22:CV:183:ARG:NH1	2.34	0.61
34:BN:89:LYS:O	34:BN:93:THR:HG22	2.01	0.61
32:DH:31:GLY:O	32:DH:79:VAL:HG11	2.01	0.61
25:BA:1034:G:H5'	56:B9:18:ARG:CD	2.31	0.61
8:CH:54:ASP:HB3	8:CH:56:LYS:HE2	1.82	0.61
1:CA:99:U:H2'	1:CA:100:C:C6	2.36	0.61
25:BA:302:C:H2'	25:BA:303:U:H6	1.66	0.61
25:BA:2553:G:H3'	25:BA:2554:U:H5''	1.82	0.61
41:BU:46:ALA:O	41:BU:50:ARG:HG3	2.01	0.61
1:CA:777:A:H2'	1:CA:778:G:H8	1.66	0.61
25:DA:402:A:O2'	25:DA:403:U:H5'	1.99	0.61
39:BS:34:HIS:HB3	39:BS:53:SER:HB3	1.83	0.61
39:BS:79:ALA:C	39:BS:80:LEU:HD12	2.22	0.61
46:DZ:156:LEU:HD22	46:DZ:160:VAL:HG12	1.83	0.61
46:DZ:9:ARG:NH2	46:DZ:25:GLY:N	2.46	0.61
2:CB:15:VAL:CG2	2:CB:209:ARG:HB3	2.31	0.61
25:DA:478:A:C2'	25:DA:479:A:H5'	2.30	0.61
9:CI:19:LEU:O	9:CI:21:PRO:HD3	2.00	0.61
1:AA:1321:C:H5''	1:AA:1322:C:H3'	1.83	0.61
25:DA:2787:C:H1'	29:DE:61:ARG:CG	2.31	0.61
45:BY:27:VAL:C	45:BY:28:LYS:HZ2	2.02	0.61
46:BZ:29:ASN:CG	46:BZ:29:ASN:O	2.38	0.61
40:BT:19:LEU:HD22	40:BT:85:LYS:HB2	1.82	0.61
13:CM:25:ILE:CD1	13:CM:66:LEU:HD23	2.30	0.61
25:BA:1826:G:H4'	28:BD:242:ARG:NH2	2.15	0.61
22:CV:19:LEU:HB3	22:CV:44:LEU:HD12	1.82	0.61
10:AJ:49:VAL:CG2	14:AN:41:ARG:HB2	2.31	0.61
1:CA:952:U:H2'	1:CA:953:G:C8	2.36	0.61
15:AO:82:ILE:HD11	15:AO:87:ILE:O	2.00	0.61
3:AC:157:ILE:CD1	3:AC:166:GLU:HB2	2.28	0.61
22:AV:136:PRO:C	22:AV:138:GLY:H	2.01	0.61
12:CL:23:ALA:HA	12:CL:95:TYR:CE2	2.34	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AF:49:ALA:CB	18:AR:78:LEU:O	2.49	0.61
40:BT:125:ARG:HH11	40:BT:125:ARG:CA	2.13	0.61
3:CC:33:LEU:HD21	14:CN:53:LEU:CD2	2.31	0.61
9:CI:43:ALA:HA	9:CI:74:ILE:HD13	1.81	0.61
25:DA:2694:G:O2'	25:DA:2695:C:H5'	2.01	0.61
17:AQ:51:TYR:CD2	17:AQ:57:VAL:HG11	2.36	0.61
4:CD:146:ILE:HD12	4:CD:146:ILE:N	2.15	0.61
46:BZ:144:GLU:OE2	46:BZ:145:ILE:HG12	2.01	0.61
1:AA:1100:C:OP2	2:AB:96:ARG:HG2	2.00	0.61
1:AA:452:A:HO2'	1:AA:453:A:H8	1.48	0.61
17:CQ:45:HIS:CD2	17:CQ:47:PRO:HD3	2.36	0.61
25:BA:43:A:O2'	25:BA:44:G:H5'	2.00	0.61
25:DA:807:U:H2'	25:DA:808:G:C8	2.36	0.61
14:AN:34:TYR:H	14:AN:34:TYR:HD1	1.47	0.61
5:CE:47:LYS:O	5:CE:48:ALA:HB2	2.01	0.61
32:BH:43:VAL:CG1	32:BH:52:VAL:HG22	2.31	0.60
25:DA:2107:C:C3'	25:DA:2108:C:H5''	2.31	0.60
32:BH:154:PRO:O	32:BH:155:SER:CB	2.49	0.60
28:BD:51:VAL:O	28:BD:51:VAL:HG12	2.01	0.60
29:DE:34:VAL:O	29:DE:35:GLN:CB	2.49	0.60
40:BT:80:SER:CB	40:BT:81:PRO:CD	2.79	0.60
25:DA:158:U:O3'	25:DA:159:U:H4'	2.01	0.60
45:BY:78:ALA:HB3	45:BY:99:CYS:SG	2.41	0.60
12:CL:38:ARG:NH1	12:CL:38:ARG:HB3	2.16	0.60
1:AA:271:C:H2'	1:AA:272:C:C6	2.34	0.60
4:AD:18:LYS:C	4:AD:19:LEU:HD12	2.22	0.60
32:BH:85:LYS:HD3	32:BH:133:VAL:HB	1.83	0.60
1:CA:1216:G:H5''	14:CN:5:ALA:CB	2.30	0.60
15:AO:17:ARG:CD	15:AO:26:GLU:HG3	2.31	0.60
15:AO:70:LEU:O	15:AO:70:LEU:HD12	2.01	0.60
47:D0:36:ILE:CD1	47:D0:39:ARG:HG2	2.26	0.60
38:DR:67:LEU:HD13	38:DR:76:VAL:CG2	2.29	0.60
36:BP:23:PRO:O	36:BP:33:ARG:HD2	2.01	0.60
22:AV:169:GLU:OE2	22:AV:183:ARG:HD2	2.00	0.60
1:AA:67:C:HO2'	1:AA:171:A:H1'	1.64	0.60
1:AA:1036:G:H3'	1:AA:1037:C:H6	1.62	0.60
6:CF:24:GLU:O	6:CF:28:ARG:HG3	2.01	0.60
33:DI:133:HIS:CB	33:DI:134:PRO:CD	2.78	0.60
35:BO:47:ILE:HG23	35:BO:48:PRO:HD2	1.82	0.60
1:AA:109:A:C8	1:AA:326:G:H2'	2.35	0.60
55:B8:29:LYS:HG3	55:B8:29:LYS:O	2.01	0.60
47:B0:71:ARG:O	47:B0:74:LEU:HB2	2.01	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1474:C:H2'	25:BA:1475:G:C8	2.34	0.60
27:BC:139:PRO:HB3	27:BC:146:VAL:HG22	1.83	0.60
1:CA:707:C:H2'	1:CA:708:C:C6	2.36	0.60
25:BA:229:A:H5''	25:BA:230:U:H5'	1.82	0.60
1:AA:930:C:O2'	1:AA:931:C:H5'	2.01	0.60
22:CV:66:GLU:O	22:CV:114:MET:HB2	2.01	0.60
11:CK:111:ASP:OD2	18:CR:84:LYS:HE3	2.00	0.60
25:BA:1997:G:O2'	25:BA:1998:G:H5'	2.01	0.60
41:BU:27:LEU:O	41:BU:29:SER:N	2.33	0.60
18:AR:53:ARG:HD2	18:AR:63:GLN:HB2	1.82	0.60
30:BF:11:VAL:HG12	30:BF:12:LEU:N	2.16	0.60
45:BY:32:PRO:C	45:BY:34:LYS:H	2.03	0.60
25:BA:901:A:H3'	25:BA:902:C:H6	1.65	0.60
35:DO:47:ILE:HG13	35:DO:48:PRO:HD2	1.82	0.60
1:AA:659:U:O2'	1:AA:660:G:H5'	2.01	0.60
25:DA:2836:U:H2'	25:DA:2837:G:C8	2.36	0.60
42:DV:99:ILE:H	42:DV:99:ILE:HD13	1.66	0.60
25:DA:900:A:C2	25:DA:901:A:H1'	2.36	0.60
25:BA:2072:G:O2'	25:BA:2073:C:H5'	2.00	0.60
33:BI:57:ARG:NE	33:BI:57:ARG:HA	2.16	0.60
28:BD:166:GLN:N	28:BD:166:GLN:HE21	1.99	0.60
55:B8:4:MET:CE	55:B8:61:LEU:HD23	2.30	0.60
19:AS:42:PRO:O	19:AS:43:GLU:HB2	1.99	0.60
45:DY:8:LYS:NZ	45:DY:74:PRO:N	2.49	0.60
29:DE:36:ARG:HD3	29:DE:85:ASN:ND2	2.15	0.60
3:AC:76:VAL:CA	3:AC:83:ARG:HH12	2.12	0.60
36:DP:16:ARG:NH2	36:DP:18:ARG:HG2	2.15	0.60
25:DA:1042:G:C4	25:DA:1114:G:N2	2.69	0.60
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.36	0.60
32:DH:98:LEU:HD12	32:DH:102:ALA:O	2.01	0.60
25:DA:690:G:H2'	25:DA:691:C:C6	2.37	0.60
40:DT:62:THR:CG2	40:DT:75:ILE:HG12	2.30	0.60
33:BI:48:GLU:CA	33:BI:51:ILE:HG22	2.28	0.60
27:DC:83:LYS:HD3	27:DC:86:GLU:OE1	2.01	0.60
33:BI:114:LEU:O	33:BI:115:ALA:HB2	2.01	0.60
28:DD:211:ARG:O	28:DD:215:LEU:HG	2.01	0.60
1:AA:1003:G:H2'	1:AA:1004:A:C4'	2.30	0.60
13:CM:49:THR:HG22	13:CM:51:ALA:H	1.66	0.60
8:AH:54:ASP:CB	8:AH:56:LYS:HE2	2.32	0.60
25:BA:2126:A:H4'	25:BA:2127:G:O5'	2.01	0.60
27:BC:201:LYS:HE3	27:BC:209:PHE:HB2	1.82	0.60
1:AA:988:G:H21	1:AA:1016:A:H1'	1.66	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:AW:24:U:O2'	25:BA:1923:U:H5''	2.00	0.60
2:AB:96:ARG:HH11	2:AB:148:TYR:HE1	1.49	0.60
25:DA:1751:C:O2'	25:DA:1752:C:H5'	2.00	0.60
31:BG:165:THR:OG1	31:BG:168:GLU:HG3	2.01	0.60
25:DA:807:U:H2'	25:DA:808:G:H8	1.65	0.60
1:AA:1248:A:H2'	1:AA:1249:C:H5'	1.83	0.60
25:BA:1907:G:O2'	25:BA:1908:C:H5'	2.01	0.60
25:DA:979:G:H3'	25:DA:980:A:H5''	1.83	0.60
43:DW:66:GLU:O	43:DW:68:ARG:N	2.34	0.60
3:AC:108:ASN:OD1	3:AC:110:ASN:HB2	1.99	0.60
25:DA:921:G:H4'	25:DA:2269:A:C5	2.36	0.60
15:AO:39:LEU:HD13	15:AO:56:LEU:HB2	1.83	0.60
37:BQ:58:PHE:HD1	37:BQ:58:PHE:O	1.84	0.60
25:DA:1679:U:C2'	25:DA:1680:U:H5'	2.31	0.60
2:CB:103:THR:C	2:CB:105:PHE:H	2.05	0.60
36:BP:47:ASP:OD1	36:BP:49:ARG:HG3	2.00	0.60
36:BP:57:THR:OG1	36:BP:59:LEU:HB2	2.00	0.60
39:BS:87:PHE:HZ	39:BS:97:ARG:HH12	1.48	0.60
3:AC:16:ARG:HH22	3:AC:183:ASP:HA	1.65	0.60
41:DU:50:ARG:HG3	41:DU:50:ARG:NH2	2.14	0.60
42:DV:49:THR:CB	42:DV:50:PRO:CD	2.80	0.60
20:AT:50:GLU:CA	20:AT:100:ILE:HG12	2.31	0.60
7:CG:60:LYS:HA	7:CG:60:LYS:HZ3	1.64	0.60
19:AS:5:LEU:HD11	19:AS:9:VAL:HA	1.82	0.60
36:DP:16:ARG:NE	36:DP:18:ARG:HB2	2.16	0.60
45:BY:100:ALA:O	45:BY:101:LYS:HB2	2.01	0.60
32:DH:89:ILE:O	32:DH:90:LYS:HB2	2.02	0.60
28:DD:26:LYS:NZ	28:DD:82:ILE:O	2.34	0.60
32:DH:94:TYR:HD1	32:DH:107:VAL:HA	1.65	0.60
1:CA:376:G:O2'	1:CA:377:G:H5'	2.01	0.60
13:AM:20:THR:HA	13:AM:25:ILE:HG22	1.82	0.60
1:AA:1203:C:OP1	14:AN:3:ARG:HD3	2.01	0.60
1:CA:953:G:H2'	1:CA:954:G:O4'	2.01	0.60
25:DA:1310:G:OP2	54:D7:9:ARG:HD2	2.00	0.60
39:DS:89:ARG:O	39:DS:92:TYR:HB3	2.00	0.60
2:AB:91:PRO:HG3	2:AB:155:LEU:H	1.67	0.60
25:DA:2611:U:H5'	25:DA:2611:U:C6	2.29	0.60
1:AA:942:G:N2	9:AI:124:GLN:HE22	1.96	0.60
29:DE:92:THR:O	29:DE:94:GLU:N	2.34	0.60
18:AR:37:VAL:CG2	18:AR:38:GLU:N	2.64	0.60
7:AG:6:ARG:HE	7:AG:94:ARG:HH12	1.48	0.60
1:CA:777:A:H2'	1:CA:778:G:C8	2.35	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BR:104:ARG:HD3	38:BR:111:LEU:HD21	1.82	0.60
28:DD:183:ARG:NH1	28:DD:184:LYS:O	2.34	0.60
25:BA:1419:A:O2'	25:BA:1420:U:H5''	2.01	0.60
1:AA:657:G:H4'	15:AO:28:GLN:HG2	1.83	0.60
25:DA:407:G:H2'	25:DA:408:G:C8	2.36	0.60
2:CB:20:GLU:HB2	2:CB:190:THR:OG1	2.01	0.60
41:DU:52:ARG:HD3	41:DU:55:ARG:NE	2.17	0.60
42:DV:87:HIS:C	42:DV:87:HIS:CD2	2.74	0.60
42:BV:39:LEU:CD1	42:BV:51:VAL:HA	2.31	0.60
45:BY:28:LYS:HB2	45:BY:38:ILE:H	1.66	0.60
1:AA:1065:U:H4'	1:AA:1066:C:O5'	2.01	0.60
31:BG:88:ILE:HG13	31:BG:89:GLY:N	2.16	0.60
25:DA:593:G:C5'	55:D8:61:LEU:HD23	2.31	0.60
28:BD:35:LYS:HB3	28:BD:104:TYR:CE1	2.37	0.60
1:AA:433:C:H2'	1:AA:434:U:C5	2.36	0.60
36:BP:148:LEU:O	36:BP:149:GLU:HB2	2.00	0.60
2:AB:58:ILE:CD1	2:AB:185:ILE:HD13	2.32	0.60
1:CA:1460:A:OP2	20:CT:27:LYS:NZ	2.35	0.60
42:BV:18:LEU:HD22	42:BV:19:LYS:HA	1.83	0.60
19:CS:16:LEU:C	19:CS:20:LEU:HG	2.21	0.60
25:DA:320:A:H3'	30:DF:136:THR:HG22	1.82	0.60
1:AA:1055:A:O2'	3:AC:156:ARG:HD2	2.01	0.60
2:AB:155:LEU:HD22	2:AB:157:ARG:H	1.66	0.60
45:DY:88:LYS:NZ	45:DY:93:GLY:HA3	2.15	0.60
1:CA:879:C:O2'	1:CA:880:C:H5'	2.00	0.60
29:DE:44:TYR:O	29:DE:45:THR:HB	2.00	0.60
25:DA:2892:A:H2'	25:DA:2893:G:H4'	1.83	0.60
28:DD:268:ARG:HB2	28:DD:268:ARG:NH1	2.16	0.60
22:AV:90:GLN:HB2	27:BC:140:ASN:HD21	1.65	0.60
25:DA:1798:U:H5''	28:DD:259:THR:HG22	1.82	0.60
13:CM:52:GLU:O	13:CM:56:LEU:HD23	2.02	0.60
31:BG:110:ALA:C	31:BG:112:PRO:HD2	2.22	0.60
1:AA:77:G:H2'	1:AA:77:G:N3	2.16	0.60
25:BA:322:A:OP1	30:BF:168:ARG:HD3	2.01	0.60
12:AL:108:LYS:O	12:AL:109:ASP:HB2	2.02	0.60
7:AG:79:ARG:HH11	7:AG:79:ARG:HG3	1.66	0.60
1:CA:977:A:C2'	1:CA:978:A:H5''	2.31	0.60
1:AA:932:C:H3'	7:AG:3:ARG:HD2	1.82	0.60
2:CB:98:LEU:HB2	2:CB:101:MET:HE2	1.83	0.60
25:BA:2383:G:O2'	25:BA:2384:G:H5'	2.00	0.60
1:CA:1191:A:H5''	3:CC:4:LYS:NZ	2.17	0.60
39:BS:83:LYS:HG2	39:BS:105:ALA:HB3	1.82	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:414:A:H2'	1:AA:415:A:C8	2.36	0.60
38:BR:11:ASN:OD1	38:BR:11:ASN:O	2.19	0.60
31:BG:53:LEU:N	31:BG:53:LEU:HD22	2.15	0.60
44:BX:47:PHE:HD2	44:BX:89:ILE:HG23	1.67	0.60
47:B0:51:GLY:N	47:B0:61:LEU:HD12	2.16	0.60
25:BA:152:G:O2'	25:BA:153:C:H5'	2.02	0.60
41:DU:44:ASN:ND2	42:DV:75:PHE:HB3	2.16	0.60
22:CV:172:LYS:HB2	22:CV:181:VAL:CG2	2.32	0.60
45:DY:46:LYS:HB3	45:DY:47:LYS:CE	2.31	0.60
3:AC:76:VAL:HG21	3:AC:103:VAL:HG11	1.83	0.60
13:AM:94:ARG:NH2	25:BA:887:A:H3'	2.17	0.60
1:AA:1152:A:H3'	10:AJ:13:HIS:HD2	1.67	0.60
5:AE:110:LEU:HD13	5:AE:118:ILE:HG21	1.83	0.60
27:BC:86:GLU:OE1	27:BC:150:ILE:HG22	2.00	0.60
2:CB:121:LEU:O	2:CB:121:LEU:HD23	2.01	0.60
36:BP:7:ARG:HD3	36:BP:7:ARG:C	2.21	0.60
36:DP:96:THR:HG22	36:DP:126:VAL:CB	2.30	0.60
33:BI:113:ARG:HD3	33:BI:131:LYS:H	1.65	0.60
27:BC:40:GLU:HB3	27:BC:218:THR:HB	1.84	0.60
2:AB:10:LEU:C	2:AB:12:GLU:H	2.05	0.60
11:CK:122:LYS:O	11:CK:126:ARG:HG3	2.02	0.60
25:BA:2882:A:H2'	25:BA:2883:A:O5'	2.02	0.60
18:AR:46:GLU:O	18:AR:85:LEU:HD13	2.01	0.60
22:AV:40:LYS:HA	22:AV:51:GLU:HA	1.84	0.60
31:BG:132:ASN:OD1	31:BG:158:ALA:HB2	2.02	0.60
39:BS:85:VAL:O	39:BS:106:ARG:HG2	2.01	0.60
8:CH:69:ARG:NH1	8:CH:75:ARG:O	2.33	0.60
9:CI:22:GLY:HA3	9:CI:60:ASP:OD2	2.02	0.60
11:AK:67:ASP:OD2	11:AK:71:LYS:HE3	2.01	0.60
20:CT:60:GLU:O	20:CT:63:ILE:HB	2.02	0.60
1:AA:1082:G:O2'	1:AA:1083:U:H5'	2.02	0.60
32:BH:39:PRO:C	32:BH:40:GLU:HG2	2.22	0.60
3:AC:175:LEU:HD11	3:AC:201:TYR:HD2	1.66	0.60
46:DZ:108:ALA:O	46:DZ:110:VAL:N	2.34	0.60
25:DA:1773:A:C2'	25:DA:1774:C:H5'	2.31	0.60
25:DA:1234:U:O2'	25:DA:1235:G:H5'	2.01	0.60
4:AD:157:LEU:O	4:AD:161:ASN:ND2	2.34	0.60
25:BA:2680:C:H5'	29:BE:189:PRO:HA	1.83	0.60
4:AD:145:GLU:OE1	4:AD:182:LYS:HD2	2.01	0.60
35:DO:9:GLU:O	35:DO:83:ALA:HA	2.00	0.60
25:BA:414:C:H2'	25:BA:415:A:C8	2.37	0.60
20:CT:51:GLU:O	20:CT:55:ILE:HG12	2.01	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BH:86:GLU:N	32:BH:86:GLU:OE1	2.34	0.60
25:DA:1416:G:N2	25:DA:1583:A:H1'	2.17	0.60
25:DA:2522:U:C2'	25:DA:2523:G:H5'	2.32	0.60
41:DU:58:ARG:HA	41:DU:61:TRP:CE3	2.36	0.60
41:DU:90:VAL:CG2	42:DV:39:LEU:HG	2.29	0.60
25:DA:2105:C:H2'	25:DA:2106:G:H5''	1.82	0.60
44:DX:12:VAL:CG1	44:DX:27:THR:O	2.49	0.60
7:CG:113:GLU:CB	7:CG:119:ARG:HG2	2.32	0.60
7:CG:50:ILE:C	7:CG:54:THR:HG22	2.21	0.60
16:AP:57:ARG:NH1	16:AP:79:VAL:O	2.35	0.60
29:DE:163:GLU:O	29:DE:165:VAL:HG23	2.02	0.60
2:AB:24:TRP:NE1	2:AB:26:PRO:HD3	2.16	0.60
25:BA:483:A:H4'	45:BY:49:VAL:HG13	1.82	0.60
35:BO:5:GLN:HE21	35:BO:20:MET:CE	2.14	0.60
3:CC:70:VAL:O	3:CC:106:VAL:HG23	2.00	0.60
40:DT:38:ASN:O	40:DT:39:ARG:C	2.39	0.60
34:DN:120:LEU:HD13	34:DN:120:LEU:O	2.01	0.60
25:DA:856:C:O2'	47:D0:69:PHE:HE1	1.84	0.60
5:CE:135:THR:O	5:CE:138:ALA:HB3	2.01	0.60
3:CC:108:ASN:HB3	3:CC:111:LEU:HB2	1.84	0.60
43:BW:87:PRO:HA	43:BW:93:ALA:HA	1.84	0.60
43:DW:30:GLU:O	43:DW:33:ARG:HB2	2.01	0.60
40:DT:115:ARG:CA	40:DT:115:ARG:HE	2.14	0.60
20:CT:75:ASN:O	20:CT:78:ALA:HB3	2.01	0.60
6:AF:42:GLU:C	6:AF:44:GLY:H	2.03	0.60
1:CA:1391:U:H2'	1:CA:1392:G:H8	1.63	0.60
1:CA:137:C:N4	1:CA:226:G:H1	1.99	0.60
29:DE:4:ILE:C	29:DE:5:LEU:HD23	2.22	0.60
19:AS:28:LYS:HD2	19:AS:29:ARG:CZ	2.32	0.60
32:BH:91:GLY:HA3	32:BH:94:TYR:CD2	2.35	0.60
47:B0:65:VAL:HG12	47:B0:66:VAL:N	2.16	0.60
1:AA:589:C:O2'	1:AA:590:C:H5'	2.00	0.60
1:CA:194:C:H2'	1:CA:195:A:H5''	1.82	0.60
25:DA:1968:G:H5'	25:DA:1969:A:OP1	2.01	0.60
25:BA:795:C:H2'	25:BA:796:C:H6	1.65	0.60
1:AA:177:C:H2'	1:AA:178:C:H6	1.67	0.60
25:BA:2750:A:H1'	25:BA:2752:C:H41	1.66	0.60
41:DU:43:GLY:HA3	42:DV:73:SER:OG	2.02	0.60
25:DA:1817:G:H2'	25:DA:1818:U:H5'	1.83	0.60
32:BH:152:ARG:HB2	32:BH:162:ILE:HG13	1.83	0.60
32:BH:109:PHE:CE1	32:BH:152:ARG:NH2	2.70	0.60
3:AC:37:GLN:HE21	3:AC:37:GLN:C	2.05	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:D5:33:CYS:SG	52:D5:35:GLU:O	2.60	0.60
29:BE:179:GLU:O	29:BE:180:ASN:HB2	2.02	0.60
25:DA:1899:G:O2'	25:DA:1900:A:H5''	2.01	0.60
28:DD:244:ARG:CG	28:DD:245:PRO:HG3	2.29	0.60
9:AI:118:LYS:O	9:AI:119:ALA:HB3	2.02	0.60
41:DU:89:GLU:HG3	41:DU:89:GLU:O	2.01	0.60
1:CA:1372:U:H5''	9:CI:71:SER:CB	2.32	0.60
25:DA:2305:A:C3'	25:DA:2306:C:H5''	2.31	0.60
19:AS:5:LEU:CD1	19:AS:9:VAL:HA	2.32	0.60
45:DY:2:ARG:CD	45:DY:3:VAL:H	2.15	0.60
1:AA:221:C:H2'	1:AA:222:U:H6	1.66	0.60
25:DA:1042:G:N3	25:DA:1042:G:H2'	2.16	0.60
25:DA:1116:C:H2'	25:DA:1117:G:H8	1.66	0.60
28:BD:97:TYR:CE1	28:BD:103:ARG:HG3	2.37	0.60
2:AB:16:HIS:CD2	2:AB:210:SER:HA	2.34	0.60
2:AB:22:LYS:H	2:AB:40:HIS:CE1	2.20	0.60
37:BQ:51:ARG:HH11	37:BQ:51:ARG:CB	2.13	0.60
40:DT:17:THR:HG23	40:DT:18:ASP:H	1.65	0.60
3:CC:64:VAL:HG22	3:CC:99:VAL:HA	1.83	0.60
3:CC:6:HIS:CB	14:CN:49:HIS:HB3	2.30	0.60
25:DA:2245:U:H5'	25:DA:2246:G:C5'	2.26	0.60
30:BF:65:TRP:CZ3	30:BF:72:ARG:HB2	2.36	0.60
37:BQ:54:MET:HG2	37:BQ:64:ILE:HD11	1.83	0.60
1:CA:1005:A:H4'	1:CA:1037:C:O2'	2.02	0.60
10:CJ:7:LYS:O	10:CJ:96:ILE:HA	2.01	0.60
40:BT:114:LEU:O	40:BT:115:ARG:O	2.20	0.60
42:BV:35:LEU:C	42:BV:37:VAL:N	2.53	0.60
1:AA:499:A:C4'	1:AA:500:G:H5'	2.30	0.60
18:AR:44:LEU:HA	18:AR:49:LYS:O	2.02	0.60
6:AF:87:ARG:O	6:AF:88:VAL:HG23	2.02	0.60
50:B3:35:ARG:HG2	50:B3:37:LEU:HD21	1.83	0.60
29:DE:101:ARG:NE	29:DE:169:ASN:ND2	2.49	0.60
25:BA:2115:G:N2	25:BA:2117:A:C2	2.69	0.60
22:AV:67:THR:H	23:AW:17(B):U:H3	1.49	0.60
1:AA:1018:C:H2'	1:AA:1019:C:C6	2.36	0.60
36:BP:39:LYS:HA	36:BP:39:LYS:HE2	1.82	0.60
4:CD:19:LEU:HG	4:CD:21:LEU:HD21	1.84	0.60
11:AK:12:ARG:NE	11:AK:14:VAL:HG12	2.16	0.60
1:AA:865:A:C2	1:AA:918:A:H4'	2.36	0.60
1:CA:125:U:H2'	1:CA:126:G:H8	1.66	0.60
25:DA:335:C:O2'	25:DA:336:C:H5'	2.01	0.60
7:CG:18:TYR:HB3	7:CG:59:LEU:HD12	1.83	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DC:193:PHE:CZ	27:DC:197:LEU:HD13	2.37	0.60
25:BA:2668:G:O2'	25:BA:2669:G:H5'	2.02	0.60
25:DA:1917:U:O2'	25:DA:1918:A:H5'	2.01	0.60
7:AG:21:VAL:HG23	7:AG:22:LEU:H	1.65	0.60
36:DP:143:GLY:C	36:DP:145:PRO:HD3	2.21	0.60
34:BN:97:ARG:O	34:BN:101:HIS:HB2	2.01	0.60
10:AJ:63:PHE:HA	14:AN:59:ALA:H	1.67	0.60
50:D3:7:LYS:HE2	50:D3:32:GLN:HA	1.84	0.60
20:AT:50:GLU:CB	20:AT:100:ILE:HG12	2.32	0.60
41:BU:61:TRP:HB3	41:BU:93:LYS:HB3	1.82	0.60
13:CM:93:ARG:C	13:CM:94:ARG:HD2	2.22	0.60
25:BA:2803:C:OP1	25:BA:2803:C:H4'	2.00	0.60
45:DY:37:VAL:O	45:DY:66:PRO:HA	2.01	0.60
45:DY:8:LYS:C	45:DY:9:LYS:HG2	2.20	0.60
30:DF:111:ALA:HA	30:DF:202:PHE:HZ	1.67	0.60
45:BY:27:VAL:CA	45:BY:28:LYS:HZ2	2.14	0.60
28:BD:26:LYS:NZ	28:BD:82:ILE:HB	2.17	0.60
31:DG:17:PRO:O	31:DG:20:ILE:N	2.33	0.60
29:BE:73:GLU:HG3	29:BE:74:PRO:HD2	1.83	0.60
2:AB:127:ILE:CA	2:AB:130:ARG:HG3	2.31	0.60
25:BA:1798:U:H5''	28:BD:259:THR:HG22	1.84	0.60
25:DA:2838:G:C1'	38:DR:45:ARG:HH12	2.14	0.60
8:AH:15:ASN:O	8:AH:19:VAL:HG13	2.01	0.60
49:D2:64:LEU:O	49:D2:67:LYS:HB2	2.02	0.60
47:D0:70:GLN:HE21	47:D0:80:HIS:HE2	1.47	0.60
39:DS:54:LEU:C	39:DS:56:LEU:H	2.05	0.60
1:CA:1010:G:H2'	1:CA:1011:G:C8	2.36	0.60
11:AK:19:ALA:CB	11:AK:32:ILE:HG22	2.32	0.60
50:D3:1:MET:H3	50:D3:2:PRO:HD3	1.64	0.60
6:AF:72:VAL:HG13	6:AF:73:ASN:H	1.67	0.60
36:DP:147:LEU:HG	36:DP:148:LEU:H	1.66	0.60
25:DA:2807:G:H2'	25:DA:2808:U:H5''	1.83	0.60
2:AB:162:ILE:HD11	2:AB:184:VAL:HG13	1.83	0.60
25:DA:1204:A:H1'	25:DA:1206:G:C5	2.37	0.60
25:BA:1721:G:H8	25:BA:1741:A:H62	1.50	0.60
28:BD:142:VAL:HG21	28:BD:191:ALA:CB	2.32	0.60
25:BA:1773:A:C2'	25:BA:1774:C:H5'	2.31	0.60
45:BY:9:LYS:HA	45:BY:30:VAL:HG21	1.84	0.60
25:BA:1907:G:H2'	25:BA:1908:C:C6	2.37	0.60
29:DE:39:PRO:HA	29:DE:43:GLY:CA	2.31	0.60
12:AL:5:ASN:OD1	17:AQ:34:LYS:HE2	2.01	0.60
25:BA:665:C:O2'	25:BA:666:G:H5'	2.02	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1902:C:H4'	28:DD:244:ARG:HA	1.84	0.60
34:DN:67:LEU:O	34:DN:68:GLU:HB2	2.02	0.60
41:DU:79:PHE:CE2	41:DU:83:LEU:HD22	2.36	0.60
25:DA:2183:C:OP2	25:DA:2183:C:H3'	2.02	0.60
25:BA:779:U:P	28:BD:49:ILE:HG22	2.42	0.60
9:CI:8:GLY:O	9:CI:9:ARG:HB2	2.02	0.60
42:BV:4:ILE:HD12	42:BV:40:LEU:HD12	1.82	0.60
25:BA:2632:A:C2	29:BE:61:ARG:HD3	2.37	0.60
26:BB:106:G:H5'	46:BZ:30:ARG:HB2	1.83	0.60
40:BT:106:SER:C	40:BT:107:ASP:OD1	2.40	0.60
25:DA:824:A:H2'	25:DA:825:C:C6	2.36	0.60
25:DA:286:C:C2'	25:DA:287:C:C5'	2.80	0.60
27:BC:45:HIS:CE1	27:BC:173:HIS:HB3	2.36	0.60
13:CM:4:ILE:CD1	13:CM:10:PRO:HG3	2.32	0.60
1:CA:1060:C:H4'	10:CJ:51:ARG:HB3	1.84	0.60
42:BV:19:LYS:CG	42:BV:20:LEU:O	2.43	0.60
52:B5:54:GLY:N	52:B5:56:LYS:NZ	2.49	0.60
1:AA:356:A:H2'	1:AA:357:G:C5'	2.31	0.60
10:CJ:5:ARG:HG2	10:CJ:99:LYS:HB2	1.84	0.60
39:BS:67:ARG:HH12	39:BS:100:ALA:HB3	1.66	0.60
20:CT:100:ILE:HD12	20:CT:100:ILE:N	2.16	0.60
5:CE:103:GLY:O	5:CE:107:ARG:HB3	2.02	0.60
27:DC:216:THR:HG23	27:DC:220:GLY:O	2.02	0.60
30:BF:125:LEU:HD11	30:BF:199:TRP:CD1	2.37	0.60
25:DA:2474:C:C2'	25:DA:2474:C:O2	2.49	0.60
30:DF:63:LYS:NZ	30:DF:67:GLN:HB2	2.17	0.60
19:CS:6:LYS:H	19:CS:6:LYS:CE	2.13	0.60
27:DC:182:PRO:HD2	27:DC:185:LYS:HB2	1.84	0.60
25:BA:1721:G:H5'	25:BA:1722:A:OP2	2.02	0.60
1:AA:908:A:H2'	1:AA:909:A:C8	2.37	0.60
27:BC:198:GLU:HG2	27:BC:210:LEU:HD11	1.83	0.60
40:BT:70:VAL:HG12	40:BT:71:GLY:O	2.01	0.60
1:CA:9:G:O2'	1:CA:10:A:H5'	2.02	0.60
5:CE:31:LEU:HD11	5:CE:43:LEU:CD1	2.31	0.60
2:CB:98:LEU:HB2	2:CB:101:MET:CE	2.32	0.60
25:DA:2540:C:O2'	25:DA:2541:A:H5'	2.02	0.60
31:BG:115:ARG:HH11	31:BG:136:ARG:HD3	1.67	0.60
11:AK:48:ILE:HD11	11:AK:64:ALA:HA	1.84	0.60
25:DA:1910:G:O2'	25:DA:1911:U:H5'	2.02	0.60
25:DA:2412:A:H2'	25:DA:2413:G:O4'	2.01	0.60
25:DA:213:A:O2'	25:DA:214:G:H5'	2.02	0.60
39:BS:90:GLY:C	39:BS:92:TYR:H	2.05	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:BT:3:ARG:C	40:BT:5:ALA:N	2.55	0.60
46:DZ:29:ASN:O	46:DZ:29:ASN:CG	2.40	0.60
1:AA:1316:G:H2'	1:AA:1317:C:H5''	1.84	0.60
1:CA:1363(A):A:H2'	1:CA:1363(A):A:N3	2.16	0.60
30:BF:3:GLU:CB	30:BF:24:LEU:HG	2.31	0.60
25:DA:609:A:H2'	25:DA:610:G:O4'	2.02	0.60
25:BA:1854:A:H62	25:BA:1888:G:H8	1.48	0.60
53:B6:36:LEU:HD12	53:B6:48:VAL:HG11	1.83	0.60
25:DA:272(I):U:H5''	25:DA:272(J):C:OP1	2.02	0.60
13:CM:66:LEU:HA	13:CM:70:LEU:HD12	1.83	0.60
1:AA:413:G:H1'	1:AA:428:G:H21	1.67	0.60
4:AD:11:LEU:CD1	4:AD:66:ARG:HD3	2.31	0.60
10:CJ:54:PHE:CD1	10:CJ:55:LYS:HE3	2.37	0.60
25:DA:61:G:H5'	49:D2:50:ILE:HD12	1.83	0.60
40:DT:28:VAL:CG2	40:DT:46:GLU:HG3	2.32	0.60
15:AO:82:ILE:HD13	15:AO:82:ILE:C	2.21	0.60
1:AA:376:G:O3'	16:AP:5:ARG:HD2	2.01	0.60
39:BS:67:ARG:HH12	39:BS:100:ALA:CB	2.15	0.60
25:BA:1410:G:O2'	25:BA:1411:C:H5'	2.01	0.60
3:CC:130:VAL:O	3:CC:134:ILE:HG12	2.01	0.60
25:BA:2344:U:H4'	25:BA:2345:G:OP1	2.02	0.60
20:AT:67:ALA:HA	20:AT:72:LEU:O	2.01	0.60
25:BA:61:G:H1	25:BA:94:C:N4	1.99	0.60
25:BA:141:A:C8	25:BA:1408:C:O2'	2.54	0.60
6:CF:61:LEU:O	6:CF:62:TRP:CB	2.49	0.60
25:DA:2808:U:O2'	25:DA:2809:A:H5'	2.02	0.60
55:D8:49:VAL:O	55:D8:53:PRO:HG3	2.01	0.60
55:D8:50:LEU:O	55:D8:51:ALA:HB3	2.02	0.60
49:B2:43:GLN:O	49:B2:44:LEU:HD23	2.02	0.60
29:BE:119:ARG:HG2	29:BE:160:TYR:CB	2.30	0.60
12:AL:107:VAL:CG2	12:AL:117:TYR:HB3	2.32	0.60
27:BC:42:VAL:HG21	27:BC:186:LEU:CD1	2.31	0.60
25:BA:507:A:H5''	25:BA:508:G:C5'	2.31	0.60
13:AM:91:ARG:CB	13:AM:98:VAL:HG22	2.32	0.60
1:AA:1333:A:H2'	1:AA:1334:G:O4'	2.02	0.60
36:BP:112:LEU:C	36:BP:112:LEU:HD13	2.22	0.60
2:CB:96:ARG:H	2:CB:96:ARG:HD2	1.67	0.60
1:CA:149:A:H2'	1:CA:150:C:C6	2.36	0.60
1:CA:1020:U:H2'	1:CA:1020:U:O2	2.01	0.60
25:BA:881:G:N2	25:BA:895:U:O2	2.25	0.60
25:BA:1246:A:O2'	25:BA:1247:A:H5'	2.02	0.60
1:CA:412:A:H4'	1:CA:413:G:O5'	2.01	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:543:C:C2'	25:DA:545:G:C5'	2.73	0.59
50:D3:56:VAL:HG12	50:D3:57:GLU:N	2.17	0.59
25:DA:1019:U:H3	25:DA:1142(A):A:H62	1.49	0.59
9:CI:11:LYS:O	9:CI:12:GLU:HB2	2.02	0.59
31:DG:174:GLU:HA	31:DG:178:PHE:HB2	1.84	0.59
45:DY:28:LYS:CB	45:DY:38:ILE:H	2.09	0.59
30:BF:2:LYS:N	30:BF:2:LYS:HD3	2.16	0.59
25:DA:1668:A:O4'	25:DA:1669:A:C2	2.54	0.59
32:DH:85:LYS:HZ2	32:DH:133:VAL:CG2	2.12	0.59
36:BP:132:LYS:O	36:BP:136:GLU:HG2	2.02	0.59
36:DP:58:THR:O	36:DP:60:MET:N	2.35	0.59
17:AQ:45:HIS:HB2	17:AQ:65:ILE:HD13	1.83	0.59
40:BT:28:VAL:HG22	40:BT:46:GLU:C	2.21	0.59
1:AA:1148:U:O2'	1:AA:1149:C:H5'	2.02	0.59
32:DH:58:GLU:O	32:DH:62:LYS:HG3	2.02	0.59
1:CA:1366:C:H2'	1:CA:1367:C:H6	1.65	0.59
25:DA:1866:C:H2'	25:DA:1876:A:O4'	2.01	0.59
42:BV:1:MET:HB2	42:BV:99:ILE:CG1	2.32	0.59
42:BV:21:ARG:HD3	42:BV:21:ARG:H	1.67	0.59
10:AJ:49:VAL:HG23	14:AN:41:ARG:HB2	1.83	0.59
36:BP:26:GLY:HA2	36:BP:30:THR:CG2	2.31	0.59
8:AH:87:SER:HA	8:AH:93:VAL:CG2	2.30	0.59
50:D3:1:MET:HG3	50:D3:39:ASP:O	2.01	0.59
25:BA:1312:U:OP1	44:BX:63:LYS:HD2	2.02	0.59
4:CD:108:LEU:HD12	4:CD:174:LEU:HD13	1.83	0.59
44:BX:56:THR:HG22	44:BX:79:ALA:CB	2.30	0.59
1:CA:568:G:O6	12:CL:2:PRO:HD3	2.02	0.59
9:AI:4:TYR:HB2	9:AI:19:LEU:HD12	1.84	0.59
9:AI:20:ARG:O	9:AI:59:PHE:HA	2.02	0.59
25:BA:2331:G:C4'	47:B0:41:GLY:HA3	2.32	0.59
17:CQ:22:LEU:CD1	17:CQ:41:LYS:HG2	2.29	0.59
8:AH:98:LYS:C	8:AH:99:GLU:HG3	2.21	0.59
1:AA:1015:A:H2'	1:AA:1016:A:C8	2.37	0.59
1:AA:1018:C:H2'	1:AA:1019:C:H6	1.67	0.59
10:AJ:29:ARG:HH22	10:AJ:80:LYS:CD	2.15	0.59
1:AA:47:C:O2'	1:AA:48:C:C5'	2.49	0.59
1:CA:386:C:C2'	1:CA:387:U:H5'	2.31	0.59
33:DI:83:ALA:HB1	33:DI:88:ILE:HA	1.82	0.59
41:BU:39:LEU:O	41:BU:40:PHE:C	2.40	0.59
34:BN:125:GLY:HA3	34:BN:126:PRO:O	2.02	0.59
25:DA:2218:U:H2'	25:DA:2219:G:H5'	1.84	0.59
2:AB:101:MET:O	2:AB:105:PHE:HA	2.02	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:534:U:O2'	41:DU:49:HIS:CD2	2.55	0.59
36:BP:112:LEU:HD22	36:BP:113:LYS:H	1.66	0.59
25:BA:458:G:O2'	54:B7:39:ARG:HD3	2.02	0.59
54:D7:35:ARG:NH1	54:D7:42:LEU:HD11	2.17	0.59
48:B1:8:SER:OG	48:B1:10:LYS:HG3	2.01	0.59
36:DP:122:PRO:HG3	36:DP:141:ALA:O	2.00	0.59
33:BI:79:ILE:HB	33:BI:142:VAL:HA	1.84	0.59
43:DW:90:ARG:HH11	43:DW:90:ARG:HG3	1.67	0.59
25:BA:890:A:H2'	25:BA:892:G:C8	2.37	0.59
56:D9:26:ILE:H	56:D9:26:ILE:HD12	1.67	0.59
50:D3:4:LEU:HD11	50:D3:56:VAL:HG13	1.84	0.59
25:DA:1012:U:O4	34:DN:28:THR:HG21	2.02	0.59
25:DA:2115:G:H22	25:DA:2119:A:P	2.26	0.59
9:CI:18:PHE:O	9:CI:19:LEU:HD23	2.03	0.59
9:CI:53:VAL:O	9:CI:54:ASP:HB2	2.01	0.59
13:AM:79:LYS:O	13:AM:82:MET:N	2.35	0.59
45:DY:6:HIS:CE1	45:DY:30:VAL:HG11	2.37	0.59
30:BF:3:GLU:CA	30:BF:24:LEU:HB3	2.28	0.59
10:AJ:4:ILE:HG22	10:AJ:5:ARG:N	2.17	0.59
53:D6:20:ASN:ND2	53:D6:21:TYR:N	2.49	0.59
25:BA:2170:A:H5'	27:BC:135:ARG:HH12	1.67	0.59
2:AB:36:ARG:N	2:AB:36:ARG:NE	2.50	0.59
16:CP:70:ALA:O	16:CP:74:LEU:HD12	2.02	0.59
35:BO:12:ASP:HA	35:BO:97:ARG:O	2.02	0.59
36:BP:62:LEU:CD1	36:BP:62:LEU:N	2.59	0.59
1:AA:777:A:H2'	1:AA:778:G:C8	2.37	0.59
1:AA:411:A:N6	1:AA:413:G:H21	1.99	0.59
38:DR:97:VAL:HA	38:DR:113:LEU:O	2.02	0.59
27:BC:117:THR:HA	27:BC:147:GLY:O	2.01	0.59
1:CA:582:U:OP1	15:CO:68:ARG:NH2	2.35	0.59
36:BP:10:PRO:O	36:BP:11:GLY:O	2.19	0.59
16:AP:28:ARG:HG2	16:AP:29:ASP:OD2	2.02	0.59
1:CA:90:U:OP1	1:CA:91:C:H5''	2.01	0.59
1:CA:91:C:H2'	1:CA:92:C:O5'	2.02	0.59
25:DA:2069:G:C2'	25:DA:2070:G:H5'	2.30	0.59
23:CW:10:G:N2	23:CW:26:G:H1'	2.16	0.59
38:DR:44:LEU:HD13	38:DR:44:LEU:C	2.22	0.59
55:D8:50:LEU:C	55:D8:53:PRO:HD2	2.22	0.59
1:CA:141:A:H1'	1:CA:182:U:O2	2.02	0.59
25:BA:2529:G:OP2	25:BA:2530:A:H5''	2.02	0.59
44:DX:29:TRP:CZ3	44:DX:78:LYS:HD3	2.37	0.59
4:CD:135:LEU:H	4:CD:135:LEU:HD22	1.67	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2202:C:H2'	25:BA:2203:U:O4'	2.01	0.59
32:BH:137:ASP:OD1	32:BH:138:LYS:N	2.35	0.59
29:BE:175:VAL:HG23	29:BE:175:VAL:O	2.01	0.59
1:CA:433:C:O2'	1:CA:434:U:H5'	2.01	0.59
5:AE:100:VAL:HG23	5:AE:116:THR:O	2.02	0.59
1:CA:302:G:N3	1:CA:556:C:H4'	2.17	0.59
38:DR:58:GLY:O	38:DR:59:ASP:O	2.20	0.59
29:BE:92:THR:H	29:BE:95:ILE:HD13	1.65	0.59
8:CH:31:PHE:HZ	8:CH:134:ILE:HD11	1.67	0.59
52:B5:16:ARG:HD2	52:B5:20:ARG:NH1	2.16	0.59
1:AA:530:G:N2	1:AA:1492:A:H61	1.99	0.59
28:DD:165:ILE:HG23	28:DD:173:VAL:HG21	1.85	0.59
25:BA:2584:U:O2	25:BA:2585:U:C4	2.56	0.59
25:DA:2581:G:O2'	25:DA:2582:G:OP2	2.17	0.59
25:DA:1474:C:H2'	25:DA:1475:G:O4'	2.02	0.59
26:BB:78:A:H2'	26:BB:79:C:O4'	2.02	0.59
31:DG:70:VAL:HG23	31:DG:70:VAL:O	2.02	0.59
43:BW:1:MET:HE2	43:BW:2:GLU:O	2.03	0.59
46:DZ:127:VAL:CG2	46:DZ:128:SER:H	2.03	0.59
1:CA:1141:C:H2'	1:CA:1142:G:C8	2.37	0.59
31:DG:43:LEU:N	31:DG:43:LEU:HD13	2.18	0.59
1:AA:1270:C:O2'	1:AA:1271:G:H5'	2.02	0.59
19:AS:33:THR:HG21	19:AS:49:ILE:HG22	1.84	0.59
16:AP:58:TYR:CD1	16:AP:58:TYR:C	2.75	0.59
30:DF:20:LEU:O	30:DF:24:LEU:HB2	2.01	0.59
45:BY:39:VAL:HG12	45:BY:40:GLU:N	2.17	0.59
8:CH:4:ASP:OD2	8:CH:6:ILE:HD13	2.02	0.59
20:CT:12:ALA:C	20:CT:14:LYS:N	2.54	0.59
12:CL:44:LYS:CB	12:CL:45:PRO:HD3	2.31	0.59
1:AA:1148:U:H2'	1:AA:1149:C:O4'	2.02	0.59
1:AA:1121:U:H3	1:AA:1152:A:H61	1.51	0.59
22:CV:7:LEU:O	22:CV:25:TYR:CD1	2.55	0.59
5:AE:70:PRO:HB3	5:AE:144:THR:CG2	2.31	0.59
2:CB:124:SER:OG	2:CB:125:PRO:HD2	2.02	0.59
2:CB:125:PRO:O	2:CB:128:GLU:HB2	2.03	0.59
14:AN:32:SER:O	14:AN:40:CYS:HA	2.02	0.59
1:CA:1033:G:O5'	1:CA:1033:G:H8	1.86	0.59
1:AA:521:G:O2'	1:AA:522:C:H5'	2.02	0.59
25:DA:729:G:N7	28:DD:209:ALA:HB3	2.17	0.59
25:BA:1451:C:N3	25:BA:1459:G:O6	2.35	0.59
1:AA:1002:G:N2	1:AA:1039:C:O2	2.35	0.59
22:AV:153:LEU:CD2	22:AV:159:VAL:HG12	2.32	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:BX:63:LYS:HB3	44:BX:72:LYS:HE3	1.84	0.59
1:CA:1502:A:H2	1:CA:1505:G:H1	1.49	0.59
2:AB:178:ARG:NH1	2:AB:178:ARG:HG2	2.16	0.59
6:AF:61:LEU:HB3	6:AF:63:TYR:HE2	1.67	0.59
25:BA:2261:C:O2'	25:BA:2262:U:H5'	2.02	0.59
30:DF:66:PRO:O	30:DF:67:GLN:HB3	2.03	0.59
47:B0:54:ARG:CZ	47:B0:54:ARG:CB	2.80	0.59
27:BC:60:ARG:CZ	27:BC:165:ARG:HD2	2.33	0.59
1:AA:831:U:H2'	1:AA:832:C:C6	2.36	0.59
27:DC:85:LYS:HA	27:DC:88:GLU:HG3	1.84	0.59
14:AN:25:VAL:HG23	14:AN:38:GLY:O	2.02	0.59
1:CA:64:G:H4'	1:CA:65:U:H5''	1.82	0.59
2:AB:28:PHE:O	2:AB:28:PHE:CD1	2.55	0.59
10:AJ:96:ILE:HD13	10:AJ:96:ILE:H	1.67	0.59
39:BS:35:ILE:H	39:BS:53:SER:CB	2.15	0.59
35:DO:11:ALA:O	35:DO:98:VAL:HA	2.02	0.59
25:DA:976:C:H42	25:DA:987:G:H1	1.49	0.59
44:DX:8:ILE:H	44:DX:8:ILE:HD12	1.67	0.59
20:AT:50:GLU:HA	20:AT:100:ILE:HG12	1.84	0.59
1:CA:1131:G:H1	1:CA:1143:G:H21	1.51	0.59
31:DG:64:THR:OG1	31:DG:94:LEU:HD21	2.02	0.59
1:AA:978:A:H61	1:AA:1316:G:H21	1.50	0.59
1:CA:1363:C:H5'	1:CA:1363(A):A:O5'	2.01	0.59
25:DA:1359:A:H2'	25:DA:1360:A:C5'	2.19	0.59
3:AC:54:ARG:CG	3:AC:55:VAL:H	2.14	0.59
45:BY:13:VAL:HG12	45:BY:74:PRO:CA	2.30	0.59
31:BG:63:ILE:HA	31:BG:143:GLU:CG	2.28	0.59
2:AB:35:GLU:HA	2:AB:39:ILE:O	2.02	0.59
3:CC:189:ALA:O	3:CC:191:THR:HG23	2.02	0.59
5:AE:11:ILE:CD1	5:AE:33:VAL:HG23	2.26	0.59
40:DT:34:VAL:HG13	40:DT:39:ARG:HG3	1.82	0.59
30:BF:64:ILE:HD12	30:BF:78:ILE:HG22	1.85	0.59
40:DT:28:VAL:HG11	40:DT:46:GLU:HG3	1.84	0.59
40:DT:8:LYS:O	40:DT:11:GLU:OE2	2.20	0.59
1:CA:1320:C:C2	19:CS:72:GLY:HA3	2.37	0.59
45:DY:78:ALA:O	45:DY:79:CYS:HB3	2.01	0.59
31:DG:47:LYS:NZ	31:DG:82:LEU:HD12	2.17	0.59
45:DY:82:PRO:O	45:DY:96:ILE:HG22	2.02	0.59
1:CA:1033:G:H3'	1:CA:1034:G:H5'	1.80	0.59
1:CA:1036:G:H3'	1:CA:1037:C:C6	2.37	0.59
34:DN:58:ASP:C	34:DN:60:ILE:H	2.05	0.59
25:DA:1684:C:H2'	25:DA:1685:C:C6	2.36	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BG:76:SER:HB3	31:BG:84:LYS:N	2.18	0.59
18:CR:71:LYS:HA	18:CR:74:ARG:HD3	1.84	0.59
33:BI:113:ARG:CD	33:BI:131:LYS:H	2.16	0.59
1:CA:1218:C:H2'	1:CA:1219:U:C6	2.37	0.59
25:DA:1568:G:P	28:DD:63:ARG:HH22	2.25	0.59
25:BA:309:G:O3'	45:BY:18:GLY:HA2	2.03	0.59
4:CD:166:LYS:HG2	4:CD:178:VAL:HG11	1.85	0.59
8:AH:53:VAL:HG12	8:AH:54:ASP:OD2	2.02	0.59
44:BX:10:ALA:HB1	44:BX:11:PRO:HD2	1.85	0.59
38:DR:24:GLN:HB2	38:DR:44:LEU:HD23	1.84	0.59
1:CA:1277:C:C2'	1:CA:1278:U:C5'	2.80	0.59
8:CH:20:TYR:HA	8:CH:65:TYR:CZ	2.37	0.59
44:DX:29:TRP:CZ3	44:DX:78:LYS:HB3	2.37	0.59
1:CA:407:G:O2'	4:CD:116:GLN:HG3	2.02	0.59
27:BC:8:TYR:O	27:BC:11:LEU:HB3	2.02	0.59
48:B1:78:LYS:O	48:B1:80:LEU:N	2.35	0.59
25:BA:556:G:H2'	25:BA:557:U:C6	2.38	0.59
25:BA:1757:U:H3'	25:BA:1758:G:H5''	1.83	0.59
28:BD:28:GLU:CD	28:BD:28:GLU:N	2.56	0.59
41:DU:27:LEU:HB3	41:DU:31:SER:HB3	1.85	0.59
1:CA:609:A:C2'	1:CA:610:G:H5'	2.32	0.59
2:AB:98:LEU:O	2:AB:101:MET:HG3	2.02	0.59
25:DA:2751:G:H3'	25:DA:2752:C:C6	2.37	0.59
46:BZ:23:LEU:HD21	46:BZ:85:VAL:HG13	1.85	0.59
25:BA:186:G:O2'	25:BA:187:G:H5'	2.01	0.59
25:BA:2672:G:H3'	25:BA:2673:G:H5''	1.84	0.59
38:DR:75:LEU:HD13	38:DR:75:LEU:O	2.01	0.59
25:BA:1403:C:H5''	25:BA:1471:A:H1'	1.84	0.59
1:AA:161:A:H2'	1:AA:162:A:C8	2.36	0.59
39:BS:35:ILE:HG22	39:BS:53:SER:HB2	1.84	0.59
46:DZ:56:ILE:CG2	46:DZ:57:VAL:N	2.65	0.59
50:D3:10:LYS:HG3	50:D3:11:SER:N	2.16	0.59
7:CG:75:VAL:HA	7:CG:88:PRO:HA	1.84	0.59
22:CV:127:VAL:N	22:CV:174:ASP:HA	2.16	0.59
16:AP:49:LEU:HD12	16:AP:50:LYS:N	2.18	0.59
3:AC:46:GLU:O	3:AC:47:LEU:CB	2.50	0.59
30:DF:3:GLU:HB2	30:DF:24:LEU:HG	1.84	0.59
45:BY:27:VAL:HG12	45:BY:28:LYS:H	1.65	0.59
25:DA:2679:A:O2'	25:DA:2680:C:H5'	2.02	0.59
32:BH:85:LYS:O	32:BH:132:ARG:HA	2.03	0.59
30:BF:149:ASP:OD2	30:BF:151:SER:HB2	2.02	0.59
25:DA:1482:G:H2'	25:DA:1484:G:C8	2.38	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:369:C:OP2	1:AA:388:G:N2	2.35	0.59
33:DI:127:VAL:HA	33:DI:139:GLN:CB	2.32	0.59
25:DA:2165:G:H2'	25:DA:2166:G:C8	2.37	0.59
25:DA:2166:G:H2'	25:DA:2167:U:O4'	2.03	0.59
22:AV:161:VAL:HG12	22:AV:180:TYR:HB2	1.85	0.59
23:CW:17(B):U:H4'	23:CW:18:G:OP1	2.01	0.59
46:BZ:15:SER:HA	46:BZ:18:ARG:CD	2.31	0.59
25:DA:1171:G:H3'	25:DA:1173:G:C4'	2.32	0.59
25:BA:2389:G:C5'	25:BA:2390:U:H5'	2.32	0.59
28:BD:108:PRO:HB3	28:BD:143:HIS:HE1	1.67	0.59
26:BB:8:U:O2'	39:BS:40:ILE:HD13	2.02	0.59
25:BA:1718:G:H2'	25:BA:1719:G:H5'	1.84	0.59
1:CA:663:A:O2'	1:CA:664:G:H5'	2.02	0.59
48:D1:82:LEU:O	48:D1:82:LEU:HD23	2.03	0.59
25:BA:2162:G:H2'	25:BA:2163:C:O4'	2.02	0.59
1:CA:930:C:H2'	1:CA:931:C:C5'	2.32	0.59
27:DC:74:ARG:HB3	27:DC:94:TYR:HE2	1.68	0.59
25:DA:1529:G:H3'	25:DA:1530:C:H5	1.68	0.59
37:DQ:85:LYS:HG3	47:D0:7:LEU:HB2	1.83	0.59
25:DA:649:G:H2'	25:DA:650:C:H6	1.67	0.59
47:B0:69:GLN:NE2	47:B0:79:HIS:NE2	2.49	0.59
25:DA:54:G:H2'	25:DA:55:G:H5''	1.85	0.59
3:AC:182:ILE:HG23	3:AC:202:ILE:C	2.22	0.59
1:AA:1384:C:H2'	1:AA:1385:G:C8	2.38	0.59
53:D6:30:THR:CB	53:D6:31:PRO:CD	2.80	0.59
1:AA:1489:G:O2'	1:AA:1490:C:H5'	2.02	0.59
25:DA:2192:G:H2'	25:DA:2193:G:C5'	2.33	0.59
1:CA:1096:C:H2'	1:CA:1097:C:H6	1.68	0.59
41:BU:34:LYS:HA	41:BU:34:LYS:HE2	1.84	0.59
38:DR:29:LEU:HD23	38:DR:75:LEU:HD11	1.85	0.59
42:DV:66:ARG:O	42:DV:88:ARG:NH2	2.35	0.59
16:CP:58:TYR:C	16:CP:58:TYR:CD1	2.75	0.59
38:DR:22:ARG:O	38:DR:26:LYS:HG3	2.02	0.59
1:CA:1053:G:C3'	1:CA:1054:C:H5'	2.32	0.59
1:CA:830:G:H2'	1:CA:831:U:O4'	2.02	0.59
23:AW:76:A:H3'	25:BA:2602:A:N6	2.17	0.59
25:DA:742:G:H2'	25:DA:743:G:H8	1.67	0.59
25:BA:2084:C:O2'	25:BA:2085:C:H5'	2.01	0.59
9:AI:31:GLN:HG2	9:AI:35:GLU:HB3	1.83	0.59
1:AA:1111:A:H2'	1:AA:1112:C:H6	1.67	0.59
9:AI:53:VAL:CG1	9:AI:95:LYS:HE3	2.32	0.59
32:BH:12:PRO:CD	32:BH:49:VAL:HA	2.33	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:9:GLU:N	2:CB:12:GLU:HG3	2.17	0.59
42:DV:15:GLU:CG	42:DV:16:PRO:HD2	2.33	0.59
25:DA:2183:C:H2'	25:DA:2184:G:C8	2.36	0.59
25:BA:773:U:H4'	28:BD:47:GLY:HA3	1.85	0.59
21:CU:10:ARG:HA	21:CU:13:ILE:HD12	1.83	0.59
31:DG:125:PHE:CD1	31:DG:125:PHE:N	2.69	0.59
16:AP:55:ARG:O	16:AP:58:TYR:N	2.36	0.59
10:AJ:34:VAL:HG22	10:AJ:74:ILE:HA	1.84	0.59
40:BT:106:SER:CB	40:BT:110:ILE:HD11	2.33	0.59
25:DA:2833:G:C3'	25:DA:2834:G:C5'	2.74	0.59
45:BY:87:LYS:CG	45:BY:88:LYS:H	2.05	0.59
25:BA:274:G:C3'	25:BA:274:G:N3	2.66	0.59
32:DH:84:SER:O	32:DH:85:LYS:HB3	2.00	0.59
8:CH:5:PRO:HD2	8:CH:6:ILE:HD12	1.85	0.59
36:BP:107:LYS:C	36:BP:109:GLY:H	2.05	0.59
1:CA:323:U:H5'	20:CT:23:ARG:HB2	1.84	0.59
25:DA:275:G:N2	25:DA:363:G:C6	2.71	0.59
1:CA:1305:G:C5'	21:CU:5:ASP:H	2.09	0.59
2:AB:115:LEU:CD1	2:AB:142:LEU:HD12	2.33	0.59
36:BP:62:LEU:CD1	36:BP:62:LEU:H	1.93	0.59
11:AK:111:ASP:HA	18:AR:84:LYS:CD	2.33	0.59
53:D6:51:GLU:O	53:D6:52:VAL:HB	2.03	0.59
49:D2:47:ASN:O	49:D2:49:LYS:N	2.36	0.59
40:DT:27:THR:O	40:DT:28:VAL:CB	2.50	0.59
48:B1:56:GLN:NE2	48:B1:85:LEU:HD23	2.16	0.59
19:CS:45:VAL:C	19:CS:47:HIS:H	2.05	0.59
47:D0:66:VAL:O	47:D0:81:VAL:HA	2.03	0.59
1:CA:79:G:H1'	1:CA:80:G:P	2.43	0.59
28:DD:210:GLY:O	28:DD:212:SER:N	2.34	0.59
1:CA:234:C:H2'	1:CA:235:C:H6	1.67	0.59
28:DD:65:ILE:HD11	28:DD:67:PHE:CD1	2.36	0.59
27:BC:164:PHE:C	27:BC:172:ILE:HD11	2.23	0.59
25:DA:522:G:H2'	25:DA:523:C:H6	1.67	0.59
25:DA:1280:G:C3'	25:DA:1281:G:H5''	2.33	0.59
28:BD:65:ILE:HD13	28:BD:65:ILE:N	2.17	0.59
26:BB:55:U:O2'	26:BB:56:G:H5'	2.03	0.59
1:CA:1261:A:H4'	1:CA:1283:G:H5''	1.84	0.59
10:AJ:29:ARG:HH21	10:AJ:30:SER:HB3	1.68	0.59
25:BA:1444:G:H2'	25:BA:1445(A):C:C5	2.37	0.59
25:BA:1839:G:H5'	25:BA:1839:G:C8	2.37	0.59
1:AA:113:G:H2'	1:AA:114:U:C6	2.37	0.59
23:AW:62:C:H2'	23:AW:63:G:C8	2.37	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:859:A:H2'	1:AA:860:A:O4'	2.03	0.59
17:AQ:10:VAL:HG23	17:AQ:55:ASP:O	2.02	0.59
26:DB:2:C:H2'	26:DB:3:C:C6	2.38	0.59
7:AG:6:ARG:O	7:AG:6:ARG:HG2	2.02	0.59
25:DA:912:C:OP1	37:DQ:8:LYS:NZ	2.35	0.59
13:CM:82:MET:O	13:CM:83:ASP:O	2.19	0.59
28:BD:223:GLY:HA3	28:BD:231:HIS:CE1	2.38	0.59
2:AB:164:VAL:HB	2:AB:186:ALA:CB	2.33	0.59
4:CD:89:THR:O	4:CD:90:GLY:C	2.41	0.59
1:CA:1066:C:H5'	1:CA:1067:A:OP2	2.03	0.59
12:AL:32:GLY:HA3	12:AL:57:LEU:HD13	1.84	0.59
1:CA:491:G:H2'	1:CA:492:G:H8	1.68	0.59
25:DA:2773:C:O2'	25:DA:2774:C:H5'	2.01	0.59
2:CB:187:LEU:HD22	2:CB:205:ASP:HB3	1.84	0.59
1:CA:590:C:H2'	1:CA:591:U:H6	1.68	0.59
12:AL:37:VAL:HG12	12:AL:37:VAL:O	2.03	0.59
54:D7:36:GLN:HG2	54:D7:36:GLN:O	2.02	0.59
5:CE:57:LYS:O	5:CE:60:TYR:HB3	2.02	0.59
52:D5:35:GLU:O	52:D5:49:CYS:SG	2.60	0.59
2:CB:217:ARG:O	2:CB:221:LEU:HD23	2.02	0.59
2:CB:58:ILE:O	2:CB:62:ALA:HB2	2.03	0.59
48:D1:62:VAL:HG22	48:D1:63:ALA:N	2.18	0.59
38:DR:10:LEU:HB3	38:DR:17:ARG:NE	2.18	0.59
36:DP:16:ARG:HD3	36:DP:17:LYS:N	2.17	0.59
10:AJ:4:ILE:HG22	10:AJ:5:ARG:H	1.67	0.59
5:AE:43:LEU:HD22	5:AE:136:MET:HG2	1.84	0.59
25:DA:1998:G:H4'	25:DA:2724:C:O2'	2.01	0.59
53:B6:19:ARG:CG	53:B6:20:ASN:N	2.58	0.59
53:B6:36:LEU:HD23	53:B6:36:LEU:H	1.68	0.59
32:DH:108:GLY:CA	32:DH:152:ARG:HH21	2.16	0.59
36:DP:65:ARG:HH22	55:D8:15:LYS:HB2	1.66	0.59
46:BZ:133:PRO:HD3	46:BZ:160:VAL:CG2	2.33	0.59
25:DA:274:G:N3	25:DA:274:G:C2'	2.65	0.59
25:BA:2635:C:OP1	29:BE:77:ILE:HD13	2.03	0.59
25:DA:271(K):U:H3'	25:DA:271(M):G:N2	2.17	0.59
40:DT:6:LEU:O	40:DT:10:VAL:HG23	2.01	0.59
25:DA:636:G:OP1	36:DP:132:LYS:HB2	2.02	0.59
1:CA:1028:C:H6	1:CA:1028:C:O5'	1.84	0.59
39:DS:90:GLY:O	39:DS:92:TYR:N	2.35	0.59
25:DA:1682:G:H2'	25:DA:1683:C:C6	2.37	0.59
18:CR:68:LYS:HE3	18:CR:71:LYS:NZ	2.18	0.59
28:BD:85:ASP:CB	28:BD:92:ILE:HD12	2.29	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:665:A:H1'	1:AA:733:A:O4'	2.03	0.59
1:CA:1452:C:H2'	1:CA:1452:C:O2	2.03	0.59
25:DA:520:G:H2'	25:DA:521:G:H8	1.68	0.59
56:B9:14:CYS:HB3	56:B9:27:CYS:CB	2.32	0.59
1:CA:1392:G:H21	1:CA:1502:A:H8	1.50	0.59
1:CA:881:G:H2'	1:CA:882:C:O4'	2.03	0.59
31:BG:9:ARG:HH11	31:BG:9:ARG:CB	2.13	0.59
22:AV:84:ASP:O	22:AV:86:GLU:N	2.36	0.59
29:DE:134:ILE:HG12	29:DE:134:ILE:O	2.01	0.59
12:AL:26:GLY:O	12:AL:27:ALA:C	2.41	0.59
38:DR:94:TYR:CD1	38:DR:94:TYR:N	2.71	0.59
1:CA:865:A:H5'	1:CA:1078:U:C5	2.37	0.59
43:BW:35:ILE:HG23	52:B5:28:PRO:HD2	1.84	0.59
11:AK:22:HIS:HB3	11:AK:29:ILE:HG23	1.83	0.59
4:CD:102:ASP:HB3	4:CD:136:PRO:HA	1.83	0.59
25:DA:195:A:OP1	36:DP:46:LYS:HE2	2.02	0.59
25:BA:2533:A:C2'	25:BA:2534:A:H5''	2.32	0.59
25:DA:1149:G:H2'	25:DA:1150:C:C5	2.37	0.59
32:DH:79:VAL:C	32:DH:81:GLU:H	2.04	0.59
1:AA:763:G:H2'	1:AA:764:C:C6	2.37	0.59
1:CA:716:A:H1'	11:CK:118:GLY:HA2	1.82	0.59
2:CB:96:ARG:O	2:CB:98:LEU:N	2.35	0.59
15:AO:27:VAL:HG12	15:AO:28:GLN:N	2.16	0.59
47:B0:51:GLY:H	47:B0:61:LEU:HD12	1.68	0.59
25:BA:2366:A:H4'	47:B0:61:LEU:HD21	1.85	0.59
1:CA:349:A:O2'	1:CA:350:G:H5'	2.02	0.59
37:DQ:32:TYR:O	37:DQ:105:GLU:HB2	2.03	0.59
36:BP:82:GLY:O	36:BP:83:VAL:HB	2.03	0.59
1:AA:115:G:H4'	1:AA:116:A:O5'	2.00	0.59
46:DZ:97:MET:CE	46:DZ:99:VAL:HG22	2.33	0.59
29:DE:173:VAL:HG23	29:DE:183:LEU:HB3	1.84	0.59
25:BA:1525:G:H2'	25:BA:1526:G:H8	1.68	0.59
25:BA:1567:A:H5'	28:BD:58:HIS:CD2	2.37	0.59
33:BI:93:THR:HA	33:BI:116:LEU:CD2	2.33	0.59
28:DD:244:ARG:HG2	28:DD:245:PRO:CB	2.32	0.59
9:AI:43:ALA:HA	9:AI:74:ILE:HG21	1.85	0.59
41:DU:92:ARG:CG	42:DV:11:GLN:NE2	2.66	0.59
41:DU:65:ILE:HD11	41:DU:96:ALA:HB1	1.83	0.59
42:DV:52:VAL:HG13	42:DV:55:ALA:HB2	1.85	0.59
48:D1:83:GLU:O	48:D1:84:GLY:O	2.21	0.59
28:BD:54:ARG:CG	28:BD:54:ARG:HH11	2.15	0.59
1:AA:194:C:H2'	1:AA:195:A:H5''	1.83	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DG:137:GLU:HB3	31:DG:139:LEU:HD23	1.85	0.59
30:BF:24:LEU:CD1	30:BF:25:PRO:HD2	2.32	0.59
40:BT:80:SER:OG	40:BT:81:PRO:HD3	2.02	0.59
38:DR:10:LEU:HB3	38:DR:17:ARG:CZ	2.33	0.59
45:BY:13:VAL:HG21	45:BY:72:VAL:CG1	2.31	0.59
1:AA:1064:G:H21	1:AA:1190:G:H2'	1.68	0.59
53:B6:15:GLU:O	53:B6:15:GLU:HG2	2.03	0.59
53:B6:18:ARG:HD3	53:B6:18:ARG:N	2.18	0.59
2:AB:22:LYS:O	2:AB:24:TRP:N	2.32	0.59
40:BT:28:VAL:O	40:BT:29:ARG:CB	2.50	0.59
33:DI:4:ILE:HD11	33:DI:44:LEU:HA	1.84	0.59
1:AA:1049:U:H5'	1:AA:1201:A:OP2	2.02	0.59
19:CS:15:LEU:O	19:CS:19:VAL:N	2.35	0.59
17:CQ:76:LEU:HD12	17:CQ:77:VAL:N	2.17	0.59
36:BP:9:ASN:N	36:BP:10:PRO:HD3	2.09	0.59
1:AA:406:G:H5''	4:AD:5:ILE:HD13	1.84	0.59
43:DW:3:ALA:HB3	43:DW:58:ALA:HB2	1.83	0.59
11:CK:126:ARG:CZ	11:CK:126:ARG:HB3	2.33	0.59
25:DA:814:C:C1'	25:DA:1225:G:H21	2.13	0.59
16:AP:19:ILE:O	16:AP:20:VAL:HB	2.02	0.59
26:DB:87:G:H3'	26:DB:88:C:C5'	2.32	0.59
9:AI:4:TYR:CD1	9:AI:4:TYR:N	2.69	0.59
22:CV:68:ARG:HH11	22:CV:68:ARG:CB	2.14	0.59
1:CA:1106:G:H5''	3:CC:172:ARG:CD	2.33	0.59
17:CQ:19:VAL:CG2	17:CQ:44:ALA:HB3	2.33	0.59
34:BN:133:GLN:CG	34:BN:134:ARG:N	2.66	0.59
25:DA:442:G:O4'	30:DF:46:ARG:HD3	2.02	0.59
1:AA:1230:C:O2'	1:AA:1231:G:H5'	2.03	0.59
33:DI:7:GLU:OE2	33:DI:8:PRO:HD2	2.02	0.59
40:BT:53:ARG:HG2	40:BT:53:ARG:HH11	1.67	0.59
14:AN:2:ALA:O	14:AN:6:LEU:HD12	2.03	0.59
54:B7:48:LYS:HD3	54:B7:48:LYS:N	2.17	0.59
25:DA:2271:G:H4'	47:D0:20:ARG:NH1	2.18	0.59
35:BO:111:PHE:O	35:BO:115:VAL:HG23	2.03	0.59
16:CP:18:ARG:HD3	16:CP:35:LYS:HD2	1.85	0.59
27:DC:71:LYS:O	27:DC:72:GLN:HG2	2.03	0.59
25:BA:1824:G:O2'	25:BA:1825:A:H5'	2.02	0.59
1:CA:913:A:O2'	1:CA:914:A:OP2	2.20	0.59
43:BW:13:SER:HB3	43:BW:16:LYS:HD2	1.85	0.59
28:BD:205:VAL:O	28:BD:206:LEU:C	2.40	0.59
1:CA:309:G:O2'	1:CA:310:G:H5'	2.03	0.59
25:BA:1130:U:O2	25:BA:2025:C:H5''	2.01	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:23:ARG:HB3	2:CB:23:ARG:CZ	2.33	0.59
41:DU:70:ARG:HA	41:DU:74:LEU:O	2.03	0.59
42:DV:19:LYS:CG	42:DV:20:LEU:N	2.66	0.59
41:DU:102:GLU:HG3	42:DV:2:PHE:CE1	2.38	0.59
7:CG:55:GLY:N	7:CG:56:GLN:HE21	2.00	0.59
7:CG:55:GLY:H	7:CG:56:GLN:NE2	2.00	0.59
45:DY:31:LEU:HD22	45:DY:31:LEU:N	2.18	0.59
25:DA:2810:A:H2'	29:DE:61:ARG:CZ	2.33	0.59
30:BF:4:VAL:HB	30:BF:17:ARG:HE	1.68	0.59
1:AA:1068:G:N7	1:AA:1094:G:H2'	2.18	0.59
45:BY:59:GLY:O	45:BY:60:PHE:HB2	2.01	0.59
29:BE:70:ALA:O	29:BE:71:GLY:C	2.40	0.59
1:CA:1302:U:OP1	13:CM:13:LYS:NZ	2.33	0.59
13:AM:8:GLU:OE1	13:AM:22:ILE:HG23	2.03	0.59
10:AJ:11:PHE:HE2	10:AJ:67:THR:HG1	1.51	0.59
33:DI:45:LYS:C	33:DI:47:LEU:N	2.56	0.59
15:CO:64:ARG:NH1	15:CO:68:ARG:NH2	2.50	0.59
1:CA:1225:A:H5''	1:CA:1226:C:H5	1.68	0.59
25:BA:271(J):C:H5'	25:BA:271(K):U:OP2	2.03	0.59
36:DP:83:VAL:H	36:DP:115:LEU:HD21	1.66	0.59
39:DS:57:LYS:HG2	39:DS:58:LEU:N	2.17	0.59
25:BA:2472:G:H5'	25:BA:2473:U:C5'	2.30	0.59
16:AP:11:SER:HB2	16:AP:14:ASN:HB3	1.84	0.59
40:BT:115:ARG:HA	40:BT:115:ARG:NE	2.13	0.59
33:BI:113:ARG:HH11	33:BI:132:PRO:HD3	1.62	0.59
43:BW:92:ARG:HH11	43:BW:92:ARG:HG2	1.67	0.59
10:CJ:83:GLU:O	10:CJ:85:LEU:N	2.35	0.59
25:BA:2833:G:H3'	25:BA:2834:G:H5''	1.85	0.59
32:DH:13:LYS:CD	32:DH:14:GLY:H	2.14	0.59
1:AA:1037:C:O2'	1:AA:1038:C:H5'	2.03	0.59
56:B9:12:ASP:OD1	56:B9:13:LYS:N	2.35	0.59
44:BX:30:VAL:HG11	44:BX:39:ILE:HD12	1.83	0.59
27:BC:22:THR:H	27:BC:25:GLU:HB2	1.67	0.59
1:AA:1277:C:H2'	1:AA:1278:U:H5'	1.85	0.59
31:BG:166:ASP:O	31:BG:170:ARG:N	2.19	0.59
25:DA:176:G:C2'	25:DA:177:G:H5'	2.33	0.59
28:DD:166:GLN:HE21	28:DD:166:GLN:CA	2.14	0.59
1:AA:950:U:H2'	1:AA:951:G:C8	2.37	0.59
1:AA:997:U:H2'	1:AA:998:G:C5'	2.32	0.59
31:DG:36:LYS:HD3	31:DG:95:ARG:NH1	2.18	0.59
45:DY:23:ARG:HH21	45:DY:40:GLU:HB2	1.68	0.59
25:DA:720:C:H2'	25:DA:721:C:H6	1.68	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2348:U:H2'	25:BA:2349:G:H5''	1.85	0.59
25:DA:230:U:O2'	25:DA:231:C:H5'	2.02	0.59
45:DY:44:ILE:HG22	45:DY:45:VAL:H	1.67	0.59
25:DA:742:G:H2'	25:DA:743:G:C8	2.38	0.59
4:CD:200:GLU:H	4:CD:200:GLU:CD	2.06	0.59
31:BG:171:ALA:O	31:BG:174:GLU:HB3	2.02	0.59
25:BA:1294:U:O2'	25:BA:1295:C:H5'	2.02	0.59
25:BA:2223:G:H2'	25:BA:2224:G:H5'	1.84	0.59
19:CS:41:VAL:HG12	19:CS:42:PRO:HD2	1.84	0.59
1:CA:107:G:C2'	1:CA:108:G:H5'	2.32	0.59
43:DW:34:ASN:C	43:DW:36:LEU:H	2.06	0.59
38:DR:101:ALA:HB2	52:D5:44:THR:OG1	2.02	0.59
25:BA:195:A:OP1	36:BP:46:LYS:HE2	2.03	0.59
25:BA:2875:C:O2'	40:BT:5:ALA:HB3	2.03	0.59
2:CB:237:ALA:O	2:CB:238:LEU:HB3	2.03	0.59
2:CB:9:GLU:HA	2:CB:12:GLU:OE1	2.03	0.59
37:DQ:21:THR:CG2	37:DQ:101:ARG:HB2	2.31	0.59
44:DX:35:THR:O	44:DX:39:ILE:HG12	2.03	0.59
31:DG:102:PHE:HE2	31:DG:141:PHE:HE1	1.49	0.59
31:DG:40:ASN:O	31:DG:155:MET:HB2	2.03	0.59
25:DA:483:A:H1'	45:DY:60:PHE:HZ	1.66	0.59
25:BA:1902:C:H4'	28:BD:244:ARG:CA	2.32	0.59
30:DF:8:GLN:CB	30:DF:126:VAL:HA	2.33	0.59
30:DF:24:LEU:HB3	30:DF:25:PRO:CD	2.31	0.59
45:BY:78:ALA:CB	45:BY:99:CYS:SG	2.91	0.59
28:BD:71:ASP:CB	28:BD:103:ARG:HH22	2.14	0.59
2:AB:19:HIS:CG	2:AB:20:GLU:H	2.21	0.59
17:AQ:66:SER:O	17:AQ:67:LYS:C	2.41	0.59
4:AD:79:PHE:CE1	4:AD:204:ILE:HD13	2.37	0.59
3:CC:61:ALA:O	3:CC:62:ASP:HB2	2.01	0.59
3:CC:64:VAL:HG13	3:CC:97:LYS:HZ2	1.68	0.59
14:CN:26:ARG:CD	14:CN:43:CYS:SG	2.89	0.59
10:AJ:50:ILE:HA	10:AJ:60:ARG:CB	2.33	0.59
29:DE:181:LEU:HD11	40:DT:7:ILE:HG21	1.84	0.59
8:AH:84:ARG:HG3	8:AH:85:ARG:N	2.18	0.59
43:DW:64:MET:HE1	43:DW:108:GLY:HA2	1.85	0.59
9:AI:18:PHE:O	9:AI:61:ALA:HA	2.03	0.59
43:BW:57:ASN:O	43:BW:61:ASN:HB2	2.03	0.59
26:BB:8:U:H5'	39:BS:17:ARG:NH1	2.17	0.59
26:DB:17:C:H2'	26:DB:18:G:C8	2.38	0.59
31:BG:98:ARG:HA	31:BG:101:ILE:CD1	2.33	0.59
25:BA:2160:G:O2'	25:BA:2161:C:H5'	2.03	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AF:74:ASP:O	6:AF:77:ARG:N	2.35	0.59
34:BN:134:ARG:NE	34:BN:134:ARG:O	2.35	0.59
1:AA:538:G:O3'	12:AL:111:LYS:HD3	2.02	0.59
1:CA:437:U:H2'	1:CA:438:G:H5'	1.83	0.59
5:AE:45:PHE:CE1	5:AE:47:LYS:HE3	2.35	0.59
34:BN:41:ASP:O	34:BN:42:TRP:C	2.42	0.59
13:AM:55:ARG:HA	13:AM:58:GLU:CG	2.33	0.59
1:CA:636:U:O2'	1:CA:637:G:H5'	2.03	0.59
25:BA:1043:C:O2'	25:BA:1044:G:H8	1.85	0.59
47:B0:52:MET:HB2	47:B0:58:LEU:HD23	1.83	0.59
17:AQ:56:VAL:O	17:AQ:76:LEU:HD12	2.02	0.59
25:BA:1033:U:H5''	25:BA:1034:G:OP1	2.03	0.59
1:CA:444:C:H2'	1:CA:445:G:C8	2.37	0.59
1:AA:735:C:H2'	1:AA:736:C:H6	1.68	0.59
25:DA:979:G:H3'	25:DA:980:A:C5'	2.33	0.59
36:DP:143:GLY:O	36:DP:145:PRO:HD3	2.03	0.59
25:DA:2773:C:OP1	29:DE:166:THR:OG1	2.21	0.59
26:DB:94:C:O2'	26:DB:95:C:H5'	2.02	0.59
25:BA:688:U:H5'	25:BA:1780:A:C2	2.38	0.59
33:DI:136:VAL:HG22	33:DI:136:VAL:O	2.03	0.59
1:AA:364:A:H2'	1:AA:365:U:O2	2.02	0.59
33:BI:93:THR:H	33:BI:96:ASP:CB	2.15	0.58
1:AA:1351:U:H4'	7:AG:33:ASP:OD2	2.03	0.58
32:BH:25:LYS:HB2	32:BH:32:GLU:OE2	2.03	0.58
2:CB:19:HIS:O	2:CB:20:GLU:O	2.20	0.58
42:DV:40:LEU:C	42:DV:45:THR:HB	2.22	0.58
48:D1:70:VAL:HA	48:D1:73:LEU:HD12	1.85	0.58
1:CA:1118:C:H1'	1:CA:1179:A:C4	2.37	0.58
1:CA:1349:A:H5''	9:CI:121:ARG:HB2	1.85	0.58
41:BU:68:ALA:O	41:BU:71:GLN:HG3	2.02	0.58
42:BV:4:ILE:O	42:BV:4:ILE:HG22	2.01	0.58
31:DG:88:ILE:HG13	31:DG:89:GLY:H	1.68	0.58
9:CI:126:SER:C	9:CI:128:ARG:H	2.05	0.58
1:AA:19:C:H2'	1:AA:20:U:H6	1.68	0.58
27:BC:71:LYS:CG	27:BC:158:LYS:HD2	2.28	0.58
35:DO:4:PRO:O	35:DO:5:GLN:CB	2.50	0.58
53:B6:37:ARG:O	53:B6:48:VAL:O	2.21	0.58
2:AB:21:ARG:HA	2:AB:40:HIS:ND1	2.18	0.58
3:CC:114:PRO:HA	3:CC:185:GLY:HA3	1.84	0.58
25:DA:828:U:C2'	25:DA:829:A:C8	2.84	0.58
2:CB:124:SER:O	2:CB:127:ILE:HG12	2.03	0.58
36:DP:98:GLU:HG2	36:DP:99:LEU:N	2.17	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1030(B):C:H3'	1:CA:1030(C):G:C8	2.38	0.58
25:DA:528:A:N1	25:DA:2042:A:H2'	2.18	0.58
12:CL:24:LEU:HD13	12:CL:24:LEU:N	2.17	0.58
18:AR:66:LEU:HG	18:AR:70:ILE:HD11	1.83	0.58
25:DA:1027:A:H4'	26:DB:88:C:C2	2.37	0.58
4:CD:150:GLU:O	4:CD:153:ARG:HG2	2.02	0.58
38:DR:24:GLN:HE22	38:DR:36:THR:CG2	2.15	0.58
6:AF:74:ASP:O	6:AF:75:LEU:C	2.40	0.58
19:AS:18:LYS:O	19:AS:22:LEU:HD23	2.03	0.58
44:BX:3:THR:O	44:BX:4:ALA:CB	2.51	0.58
1:CA:437:U:C2'	1:CA:438:G:H5'	2.33	0.58
25:DA:54:G:C3'	25:DA:55:G:H5''	2.33	0.58
22:CV:102:GLU:CD	22:CV:102:GLU:N	2.56	0.58
33:BI:101:LEU:O	33:BI:107:VAL:HG12	2.02	0.58
40:BT:13:ARG:HA	40:BT:13:ARG:CZ	2.33	0.58
1:AA:658:G:C2	1:AA:749:C:N3	2.70	0.58
42:DV:99:ILE:CD1	42:DV:99:ILE:H	2.15	0.58
25:DA:919:G:H2'	25:DA:920:G:H8	1.68	0.58
25:BA:86:C:H4'	25:BA:104:U:H1'	1.85	0.58
1:AA:125:U:H2'	1:AA:126:G:C8	2.38	0.58
19:CS:51:VAL:O	19:CS:58:VAL:HG22	2.03	0.58
1:AA:353:A:H5'	1:AA:353:A:H8	1.67	0.58
25:DA:583:G:H5''	41:DU:10:ARG:NH1	2.18	0.58
20:CT:79:ARG:HD2	20:CT:83:ARG:NH1	2.18	0.58
1:CA:1515:C:H2'	1:CA:1516:G:H8	1.67	0.58
25:DA:1035:U:H3	25:DA:1120:G:H1	1.50	0.58
1:AA:1288:A:H2'	1:AA:1289:A:H8	1.67	0.58
26:DB:106:G:O2'	26:DB:107:G:H5'	2.03	0.58
2:CB:9:GLU:HA	2:CB:12:GLU:CD	2.23	0.58
41:DU:105:VAL:HG11	42:DV:2:PHE:CE2	2.38	0.58
44:DX:12:VAL:HG21	44:DX:21:PHE:CZ	2.38	0.58
1:CA:1288:A:H1'	1:CA:1352:C:HO2'	1.68	0.58
34:BN:2:LYS:HZ1	42:BV:13:ARG:H	1.50	0.58
1:CA:1129:C:OP1	1:CA:1130:A:H5''	2.03	0.58
1:AA:1316:G:N2	1:AA:1318:A:H3'	2.18	0.58
29:DE:47:VAL:HG21	29:DE:86:PRO:CD	2.33	0.58
27:BC:101:ILE:HG12	27:BC:128:LEU:HD11	1.85	0.58
45:BY:85:VAL:HG13	45:BY:92:ASN:OD1	2.01	0.58
28:BD:80:ALA:HB2	28:BD:96:HIS:CD2	2.38	0.58
1:AA:1327:C:H5''	21:AU:20:LYS:HB3	1.85	0.58
43:DW:72:LYS:HB3	43:DW:106:ILE:HG13	1.85	0.58
4:AD:18:LYS:HG2	4:AD:33:MET:HG2	1.83	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BH:85:LYS:CE	32:BH:133:VAL:HB	2.33	0.58
1:CA:1368:G:H4'	10:CJ:46:ARG:HH12	1.68	0.58
42:BV:19:LYS:CG	42:BV:20:LEU:N	2.66	0.58
33:DI:48:GLU:O	33:DI:50:ARG:N	2.32	0.58
25:BA:1019:U:O2'	25:BA:1021:A:H2	1.70	0.58
46:BZ:79:ARG:O	46:BZ:81:ARG:N	2.34	0.58
54:D7:8:ASN:ND2	54:D7:10:ARG:H	2.01	0.58
25:DA:2162:G:H2'	25:DA:2163:C:C6	2.33	0.58
22:AV:149:LYS:HE2	22:AV:162:PRO:O	2.04	0.58
5:CE:110:LEU:CD1	5:CE:118:ILE:HD13	2.33	0.58
5:CE:69:VAL:HG12	5:CE:71:LEU:HG	1.85	0.58
25:DA:327:G:N2	25:DA:328:U:H1'	2.18	0.58
20:AT:63:ILE:HG21	20:AT:77:ALA:O	2.03	0.58
1:AA:629:G:H2'	1:AA:630:G:O4'	2.03	0.58
30:BF:155:LEU:HD23	30:BF:186:ILE:HD13	1.83	0.58
25:BA:391:G:H2'	25:BA:391:G:N3	2.18	0.58
16:AP:20:VAL:HG21	16:AP:32:TYR:CD2	2.37	0.58
25:DA:1577:C:H2'	25:DA:1578:U:C6	2.38	0.58
8:CH:89:PRO:CA	8:CH:92:ARG:HH11	2.12	0.58
29:DE:46:ALA:HB2	29:DE:82:ARG:HA	1.85	0.58
25:DA:150:C:H2'	25:DA:151:C:H6	1.66	0.58
25:DA:1280:G:C2'	25:DA:1281:G:H5''	2.32	0.58
6:AF:43:LEU:HB2	6:AF:60:PHE:HB2	1.85	0.58
15:CO:39:LEU:O	15:CO:39:LEU:HD23	2.03	0.58
12:AL:76:GLU:O	12:AL:77:HIS:CB	2.50	0.58
3:CC:119:ARG:NH2	3:CC:140:ARG:HD3	2.18	0.58
33:BI:60:GLU:HG3	33:BI:61:ARG:N	2.17	0.58
18:CR:86:VAL:C	18:CR:87:ARG:HD3	2.24	0.58
36:DP:14:LYS:C	36:DP:15:ARG:HG3	2.24	0.58
25:BA:2826:A:H2'	25:BA:2827:C:H5'	1.85	0.58
25:BA:1907:G:H2'	25:BA:1908:C:H6	1.67	0.58
25:DA:2772:C:H2'	25:DA:2773:C:H6	1.68	0.58
47:D0:60:PHE:N	47:D0:60:PHE:CD2	2.71	0.58
1:CA:32:A:H2'	1:CA:33:A:C8	2.37	0.58
48:B1:29:GLY:O	48:B1:31:GLY:N	2.36	0.58
25:BA:1930:G:N2	25:BA:1968:G:H2'	2.17	0.58
39:DS:23:ARG:O	39:DS:24:LEU:HB2	2.03	0.58
1:CA:667:G:H4'	15:CO:51:HIS:ND1	2.18	0.58
25:BA:969:U:H2'	25:BA:970:C:C6	2.38	0.58
36:BP:56:SER:O	36:BP:58:THR:N	2.37	0.58
33:BI:93:THR:N	33:BI:96:ASP:HB2	2.19	0.58
34:DN:46:VAL:CG1	34:DN:48:MET:HG2	2.32	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:481:G:H1'	25:DA:506:G:H21	1.68	0.58
1:CA:948:C:O2'	1:CA:949:A:H5'	2.03	0.58
7:CG:16:LEU:CD1	9:CI:45:ALA:HB2	2.32	0.58
41:BU:88:ILE:HG23	42:BV:47:VAL:CG2	2.33	0.58
42:BV:51:VAL:HG12	42:BV:52:VAL:N	2.19	0.58
1:AA:1315:U:H2'	1:AA:1316:G:C8	2.38	0.58
19:AS:36:ARG:C	19:AS:38:SER:H	2.06	0.58
45:DY:36:ALA:HB1	45:DY:67:LEU:C	2.22	0.58
40:BT:100:TYR:O	40:BT:103:ARG:HG3	2.03	0.58
53:D6:40:CYS:CA	53:D6:46:HIS:CB	2.79	0.58
36:BP:16:ARG:HD3	36:BP:16:ARG:C	2.23	0.58
46:BZ:150:HIS:CB	46:BZ:169:THR:HA	2.06	0.58
2:AB:74:LYS:O	2:AB:76:GLN:N	2.37	0.58
1:AA:1026:G:H3'	1:AA:1027:C:H5'	1.85	0.58
5:AE:41:VAL:O	5:AE:66:MET:HA	2.03	0.58
34:DN:30:ILE:HG22	34:DN:34:LEU:HD22	1.84	0.58
1:AA:390:C:H2'	1:AA:391:G:H8	1.64	0.58
39:DS:98:VAL:O	39:DS:98:VAL:HG13	2.03	0.58
29:BE:9:VAL:CG1	29:BE:25:VAL:HB	2.33	0.58
1:AA:664:G:N2	1:AA:741:G:H1	2.00	0.58
27:BC:26:ALA:O	27:BC:30:VAL:HB	2.03	0.58
25:DA:1565:C:H2'	28:DD:21:PHE:HE1	1.68	0.58
28:DD:65:ILE:O	28:DD:65:ILE:HD13	2.03	0.58
18:AR:82:THR:CG2	18:AR:83:GLU:H	2.13	0.58
32:DH:46:GLU:HG2	32:DH:46:GLU:O	2.02	0.58
43:BW:61:ASN:N	43:BW:61:ASN:HD22	2.02	0.58
36:DP:80:TYR:CZ	36:DP:111:ARG:HD3	2.39	0.58
6:AF:21:LEU:O	6:AF:24:GLU:HG2	2.03	0.58
6:CF:100:ASN:CB	18:CR:28:GLU:HA	2.32	0.58
1:CA:1162:C:O2'	1:CA:1163:C:H5'	2.04	0.58
12:AL:73:ASN:CG	12:AL:74:LEU:H	2.02	0.58
1:CA:1248:A:C2'	1:CA:1249:C:H5'	2.32	0.58
1:AA:1273:G:H3'	1:AA:1274:G:H8	1.68	0.58
9:CI:23:ASN:HB2	9:CI:25:LYS:HG2	1.84	0.58
38:DR:99:LYS:HZ2	38:DR:99:LYS:HB2	1.67	0.58
30:DF:84:VAL:O	30:DF:86:GLY:N	2.35	0.58
36:DP:47:ASP:HB3	36:DP:48:PRO:CA	2.33	0.58
25:BA:506:G:O2'	25:BA:507:A:OP2	2.19	0.58
1:AA:1227:A:O2'	13:AM:115:LYS:CB	2.50	0.58
33:BI:102:SER:O	33:BI:106:GLY:HA2	2.04	0.58
10:AJ:89:ASP:O	10:AJ:90:LEU:HD12	2.03	0.58
25:DA:380:U:H2'	25:DA:381:G:C8	2.39	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AL:78:SER:HB3	12:AL:103:ASP:HB3	1.85	0.58
1:CA:1485:U:O2'	1:CA:1486:G:H5'	2.03	0.58
25:DA:1216:G:O2'	25:DA:1217:C:H5'	2.02	0.58
25:BA:2307:G:H5''	25:BA:2307:G:N3	2.19	0.58
25:BA:1448:G:H21	25:BA:1528(A):A:H2	1.51	0.58
5:AE:150:ARG:HG3	5:AE:150:ARG:HH11	1.67	0.58
17:CQ:59:ILE:CG2	17:CQ:71:PHE:HB3	2.33	0.58
45:DY:101:LYS:HG2	45:DY:102:CYS:N	2.18	0.58
25:BA:1662:C:O2'	25:BA:1663:C:H5'	2.02	0.58
25:BA:1579:A:H2'	25:BA:1580:A:O4'	2.03	0.58
25:BA:397:G:O2'	25:BA:398:G:H5'	2.03	0.58
3:CC:100:ALA:O	3:CC:101:LEU:HB2	2.01	0.58
3:CC:24:ALA:HB1	3:CC:32:LEU:HD12	1.85	0.58
7:AG:15:ASP:O	7:AG:19:GLY:HA2	2.04	0.58
48:D1:86:SER:CB	48:D1:89:GLU:HB2	2.19	0.58
7:CG:115:ARG:HB2	7:CG:118:VAL:HG21	1.85	0.58
2:CB:95:GLN:HE21	2:CB:147:LYS:HG2	1.66	0.58
22:CV:136:PRO:O	22:CV:138:GLY:N	2.35	0.58
30:BF:4:VAL:CA	30:BF:19:GLU:HB3	2.32	0.58
20:AT:75:ASN:O	20:AT:78:ALA:N	2.36	0.58
3:AC:63:ASN:H	3:AC:97:LYS:HZ1	1.49	0.58
1:AA:1128:C:H2'	1:AA:1139:G:O6	2.02	0.58
53:D6:42:TRP:HA	53:D6:42:TRP:HE3	1.66	0.58
25:DA:158:U:H1'	25:DA:159:U:C5'	2.33	0.58
13:AM:11:ARG:HG2	13:AM:12:ASN:H	1.68	0.58
31:BG:61:ALA:CA	31:BG:64:THR:HG22	2.25	0.58
32:DH:19:VAL:CG1	32:DH:20:ALA:H	2.11	0.58
32:DH:159:GLU:HG3	32:DH:160:LYS:H	1.68	0.58
36:DP:58:THR:C	36:DP:60:MET:N	2.56	0.58
25:BA:2122:U:H3	25:BA:2176:A:H61	1.50	0.58
35:BO:5:GLN:HG3	35:BO:20:MET:HE2	1.86	0.58
40:DT:38:ASN:OD1	40:DT:38:ASN:O	2.21	0.58
3:CC:35:GLU:O	3:CC:39:ILE:HG13	2.03	0.58
3:CC:64:VAL:HG21	3:CC:99:VAL:HG12	1.85	0.58
42:BV:17:GLY:HA2	42:BV:96:ILE:O	2.02	0.58
27:BC:149:ASN:O	27:BC:151:GLY:N	2.37	0.58
1:CA:1321:C:H5''	1:CA:1322:C:H2'	1.84	0.58
33:BI:14:ASP:O	33:BI:15:VAL:O	2.21	0.58
1:AA:394:G:H2'	1:AA:395:C:C6	2.38	0.58
5:CE:75:THR:HG23	5:CE:76:ILE:N	2.17	0.58
31:BG:72:ARG:HH11	31:BG:72:ARG:HG2	1.67	0.58
35:DO:10:VAL:HG22	35:DO:17:ARG:O	2.03	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AE:51:VAL:O	5:AE:55:VAL:HG23	2.03	0.58
11:AK:59:TYR:CE2	11:AK:63:LEU:HD11	2.38	0.58
1:AA:1036:G:C3'	1:AA:1037:C:H5'	2.34	0.58
44:BX:41:ASN:HD22	44:BX:41:ASN:N	2.00	0.58
1:CA:878:G:C5'	8:CH:89:PRO:HG2	2.33	0.58
28:DD:172:TYR:CD1	28:DD:186:HIS:HA	2.38	0.58
4:CD:15:GLU:CG	4:CD:63:LYS:HG2	2.33	0.58
31:BG:2:PRO:C	31:BG:4:ASP:H	2.06	0.58
25:DA:628:G:H2'	25:DA:629:G:C8	2.36	0.58
25:BA:807:U:O2'	25:BA:808:G:H5'	2.02	0.58
25:DA:2310:A:O2'	25:DA:2311:A:H5'	2.04	0.58
31:DG:7:LEU:HD22	31:DG:100:TRP:HZ3	1.68	0.58
25:BA:271(P):C:OP1	33:BI:45:LYS:HE3	2.03	0.58
1:CA:152:A:N6	1:CA:170:U:H1'	2.18	0.58
13:AM:114:ARG:O	13:AM:115:LYS:HD3	2.04	0.58
25:DA:1477:A:C2	25:DA:1515:G:C2	2.91	0.58
14:AN:54:PRO:O	14:AN:56:VAL:HG23	2.03	0.58
2:CB:74:LYS:HB2	2:CB:76:GLN:NE2	2.19	0.58
8:AH:40:ALA:HA	8:AH:45:ILE:HG13	1.85	0.58
1:AA:644:G:O2'	1:AA:645:C:H5'	2.04	0.58
44:BX:29:TRP:CE3	44:BX:78:LYS:HB3	2.38	0.58
15:CO:69:TYR:O	15:CO:72:ARG:HB3	2.04	0.58
25:DA:1441:G:O2'	25:DA:1442:G:H5'	2.03	0.58
25:DA:2052:G:C8	29:DE:141:ILE:HD11	2.38	0.58
25:BA:2273:A:O2'	25:BA:2274:A:H5'	2.02	0.58
3:AC:114:PRO:HD3	3:AC:184:TYR:O	2.02	0.58
46:DZ:11:GLY:HA3	46:DZ:35:LYS:HZ1	1.69	0.58
42:DV:15:GLU:HB3	42:DV:16:PRO:HD2	1.83	0.58
25:BA:615:G:OP2	30:BF:43:LYS:HD3	2.04	0.58
41:BU:66:ASN:HB2	41:BU:76:TYR:HB2	1.84	0.58
1:CA:1157:A:H4'	1:CA:1158:C:O5'	2.04	0.58
49:D2:65:ASN:CB	49:D2:69:ARG:HH22	2.01	0.58
30:DF:18:ARG:O	30:DF:19:GLU:HB3	2.03	0.58
30:DF:57:VAL:HG12	30:DF:59:TYR:HD1	1.67	0.58
32:DH:115:VAL:HG11	32:DH:148:ILE:HD11	1.84	0.58
4:AD:108:LEU:CD1	4:AD:174:LEU:HD13	2.33	0.58
2:AB:127:ILE:O	2:AB:127:ILE:HG22	2.04	0.58
3:CC:64:VAL:CG2	3:CC:99:VAL:HG12	2.33	0.58
46:BZ:78:ARG:HH11	46:BZ:78:ARG:HG3	1.69	0.58
19:CS:31:ILE:HG23	19:CS:31:ILE:O	2.03	0.58
33:BI:40:THR:O	33:BI:44:LEU:HB2	2.04	0.58
2:CB:111:ARG:HE	2:CB:111:ARG:CA	2.12	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DT:54:ARG:HG2	40:DT:54:ARG:NH1	2.17	0.58
35:DO:87:ILE:CG2	35:DO:88:ASN:H	2.10	0.58
25:BA:848:G:N9	25:BA:933:A:H8	2.02	0.58
1:AA:1038:C:H2'	1:AA:1039:C:C2	2.39	0.58
25:BA:1718:G:H8	25:BA:1718:G:H5'	1.69	0.58
28:DD:146:GLU:HG2	28:DD:152:GLY:C	2.24	0.58
1:CA:848:C:H2'	1:CA:849:C:C6	2.39	0.58
25:DA:1528(A):A:C8	25:DA:1529:G:C8	2.91	0.58
37:DQ:58:PHE:CZ	37:DQ:106:VAL:HG11	2.37	0.58
1:CA:1268:A:H2'	1:CA:1269:A:C8	2.38	0.58
22:AV:172:LYS:HB2	22:AV:181:VAL:CG2	2.34	0.58
43:BW:110:LYS:HG3	43:BW:111:HIS:ND1	2.18	0.58
25:DA:225:A:C2'	25:DA:226:G:H5'	2.33	0.58
49:D2:38:GLN:OE1	49:D2:44:LEU:HD12	2.04	0.58
25:BA:620:G:H4'	25:BA:621:A:H5'	1.85	0.58
38:DR:54:LEU:HD23	38:DR:66:VAL:CG2	2.32	0.58
34:BN:58:ASP:O	34:BN:59:LYS:C	2.41	0.58
1:AA:334:C:H2'	1:AA:335:C:H6	1.68	0.58
25:DA:419:C:H2'	25:DA:420:C:H6	1.68	0.58
1:AA:284:G:O2'	1:AA:285:G:H5'	2.03	0.58
25:BA:1819:A:H5''	28:BD:161:THR:HG21	1.84	0.58
49:D2:25:VAL:O	49:D2:28:LYS:HB2	2.03	0.58
1:AA:8:A:N7	4:AD:208:SER:HB2	2.18	0.58
1:CA:19:C:O2'	1:CA:20:U:H5'	2.04	0.58
28:DD:175:LEU:HD12	28:DD:185:VAL:CG2	2.33	0.58
25:DA:1445(A):C:H2'	25:DA:1446:C:C6	2.39	0.58
10:CJ:97:GLU:OE2	10:CJ:97:GLU:HA	2.02	0.58
4:AD:114:ARG:HG3	4:AD:114:ARG:HH11	1.67	0.58
52:D5:40:LYS:HD2	52:D5:41:PRO:O	2.03	0.58
25:BA:197:A:H62	25:BA:2430:A:H2'	1.67	0.58
33:BI:116:LEU:C	33:BI:117:GLU:HG2	2.24	0.58
9:AI:74:ILE:O	9:AI:74:ILE:HG22	2.03	0.58
2:CB:166:ASP:HB3	2:CB:170:GLU:OE1	2.03	0.58
50:D3:54:VAL:HG12	50:D3:55:ARG:N	2.18	0.58
42:DV:25:LEU:H	42:DV:92:THR:HG21	1.69	0.58
1:AA:1319:A:H2'	1:AA:1323:G:C8	2.39	0.58
30:DF:125:LEU:HD11	30:DF:199:TRP:CD1	2.39	0.58
30:DF:114:VAL:HG21	30:DF:202:PHE:CE2	2.38	0.58
10:AJ:32:ALA:N	10:AJ:76:ASN:HB2	2.18	0.58
25:DA:1111:A:H2'	25:DA:1112:G:O4'	2.03	0.58
25:DA:172:C:H2'	25:DA:173:G:H8	1.69	0.58
25:DA:2680:C:H2'	25:DA:2681:C:O2	2.03	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DH:20:ALA:HB1	32:DH:21:PRO:HD2	1.86	0.58
40:BT:28:VAL:O	40:BT:29:ARG:CG	2.52	0.58
29:DE:111:ARG:C	38:DR:2:ARG:HB2	2.24	0.58
22:CV:6:ASP:HA	22:CV:8:ARG:HH11	1.67	0.58
3:CC:16:ARG:HH11	3:CC:16:ARG:CB	2.12	0.58
46:DZ:142:GLY:C	46:DZ:143:LEU:HD22	2.23	0.58
25:DA:71:A:C8	25:DA:71:A:H5'	2.36	0.58
30:DF:157:VAL:O	30:DF:158:THR:HB	2.03	0.58
25:DA:2091:U:H1'	48:D1:47:GLN:NE2	2.19	0.58
3:AC:134:ILE:HD12	3:AC:151:VAL:HB	1.85	0.58
3:AC:134:ILE:HD11	3:AC:153:VAL:HG21	1.85	0.58
39:DS:97:ARG:CZ	39:DS:98:VAL:HA	2.33	0.58
6:CF:77:ARG:HB3	6:CF:77:ARG:NH1	2.18	0.58
6:CF:86:ARG:O	6:CF:87:ARG:CB	2.52	0.58
1:CA:189(J):G:O2'	1:CA:189(K):U:H5'	2.04	0.58
10:CJ:78:ASN:OD1	10:CJ:81:THR:HG23	2.02	0.58
26:DB:69:G:O2'	26:DB:70:C:H5'	2.04	0.58
1:AA:939:G:C5'	7:AG:102:ARG:HH22	2.13	0.58
26:BB:40:U:H1'	26:BB:45:A:N6	2.18	0.58
18:CR:58:LEU:HB3	18:CR:62:GLU:HB2	1.85	0.58
26:DB:88:C:C4	26:DB:89:G:C6	2.91	0.58
40:BT:78:LEU:C	40:BT:79:HIS:ND1	2.57	0.58
55:B8:22:VAL:O	55:B8:49:VAL:HG23	2.04	0.58
32:BH:54:ARG:HB3	32:BH:65:HIS:CD2	2.38	0.58
54:D7:21:ARG:HG2	54:D7:21:ARG:NH1	2.19	0.58
40:BT:92:GLY:C	40:BT:94:ALA:N	2.53	0.58
38:BR:74:LYS:HE2	38:BR:77:ARG:HH21	1.66	0.58
1:AA:1016:A:H2'	1:AA:1017:G:O4'	2.04	0.58
25:BA:2850:A:OP2	25:BA:2866:U:C5	2.53	0.58
34:BN:4:TYR:H	41:BU:64:ARG:HH22	1.51	0.58
4:CD:33:MET:CE	4:CD:37:PRO:HA	2.33	0.58
25:BA:2683:C:P	40:BT:53:ARG:HH22	2.26	0.58
49:D2:38:GLN:HB3	49:D2:44:LEU:HD12	1.85	0.58
25:BA:826:U:H2'	25:BA:828:U:O4'	2.03	0.58
5:CE:94:ALA:CB	5:CE:98:THR:HG21	2.33	0.58
1:CA:1079:G:H2'	1:CA:1080:A:C8	2.37	0.58
25:BA:943:U:OP2	36:BP:38:GLN:CD	2.42	0.58
37:DQ:116:GLU:O	37:DQ:119:ARG:N	2.37	0.58
25:DA:1405:U:H2'	25:DA:1406:U:C6	2.38	0.58
27:DC:82:GLU:CD	27:DC:82:GLU:H	2.07	0.58
25:BA:2526:G:H5'	25:BA:2742:C:O2'	2.02	0.58
7:AG:155:ARG:O	7:AG:156:TRP:HD1	1.85	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DF:188:ARG:HG3	36:DP:7:ARG:HH12	1.68	0.58
32:BH:22:GLY:C	32:BH:23:ARG:HD3	2.23	0.58
9:AI:46:ALA:HB1	9:AI:77:ILE:CG2	2.34	0.58
25:BA:159:U:C3'	25:BA:160:U:H5'	2.33	0.58
37:DQ:27:VAL:HG23	37:DQ:137:TYR:HE2	1.69	0.58
2:CB:24:TRP:HZ3	2:CB:29:ALA:HB2	1.67	0.58
1:CA:1139:G:H4'	1:CA:1140:C:C6	2.38	0.58
25:DA:1923:U:H2'	25:DA:1924:C:C6	2.33	0.58
25:BA:1902:C:C5'	28:BD:246:PRO:HD3	2.34	0.58
1:AA:1070:U:H2'	1:AA:1071:C:H6	1.67	0.58
50:D3:26:LEU:HD21	50:D3:46:ASN:HB2	1.85	0.58
13:AM:3:ARG:NH2	31:BG:139:LEU:HD12	2.18	0.58
25:BA:2799:C:H5''	25:BA:2802:G:O6	2.02	0.58
55:B8:33:ASN:O	55:B8:34:TRP:CB	2.49	0.58
25:BA:479:A:C4'	25:BA:480:A:H5'	2.34	0.58
8:CH:38:ILE:HD11	8:CH:118:VAL:O	2.04	0.58
1:CA:1300:G:HO2'	1:CA:1301:U:H6	1.51	0.58
13:AM:23:TYR:CE1	13:AM:71:ARG:HA	2.39	0.58
35:BO:64:ARG:NH2	35:BO:99:PHE:O	2.37	0.58
4:AD:58:LEU:HD22	4:AD:59:ARG:NH1	2.19	0.58
22:CV:6:ASP:HA	22:CV:8:ARG:HH12	1.65	0.58
3:CC:43:LEU:HD11	3:CC:91:LEU:CD2	2.33	0.58
46:DZ:149:LEU:CD1	46:DZ:149:LEU:H	2.11	0.58
25:DA:2839:G:H5'	38:DR:46:GLY:HA2	1.86	0.58
15:CO:5:LYS:O	15:CO:9:GLN:HG2	2.04	0.58
40:DT:8:LYS:HA	40:DT:11:GLU:OE2	2.03	0.58
33:BI:52:ARG:HG3	33:BI:53:ALA:N	2.18	0.58
17:CQ:76:LEU:HD11	17:CQ:78:GLU:O	2.03	0.58
25:DA:1590:U:H2'	25:DA:1591:G:H5'	1.86	0.58
27:BC:63:VAL:O	27:BC:161:ARG:HA	2.04	0.58
1:CA:1457:G:H2'	1:CA:1458:G:C8	2.38	0.58
25:DA:2472:G:H5''	25:DA:2473:U:H5''	1.85	0.58
3:AC:25:GLY:C	3:AC:27:LYS:H	2.07	0.58
38:BR:53:HIS:HD2	38:BR:94:TYR:OH	1.87	0.58
1:AA:1442(A):G:N7	40:BT:118:ARG:HD2	2.19	0.58
3:AC:48:TYR:HA	3:AC:52:LEU:CD2	2.31	0.58
1:CA:436:C:H2'	1:CA:437:U:C6	2.39	0.58
25:BA:649:G:H2'	25:BA:650:C:H6	1.67	0.58
1:CA:1273:G:H3'	1:CA:1274:G:C8	2.39	0.58
50:B3:54:VAL:HG12	50:B3:55:ARG:N	2.19	0.58
25:BA:1666:G:C2'	25:BA:1667:G:H5'	2.34	0.58
25:BA:2348:U:H2'	25:BA:2349:G:H5'	1.85	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:642:G:H21	25:DA:646:A:H2	1.50	0.58
5:CE:96:PRO:HA	5:CE:117:ASP:CG	2.23	0.58
1:CA:1190:G:OP1	3:CC:4:LYS:HA	2.04	0.58
1:CA:1191:A:OP1	3:CC:3:ASN:ND2	2.35	0.58
25:BA:1358:G:O2'	25:BA:1359:A:H5''	2.04	0.58
6:AF:99:ALA:HB2	18:AR:31:LEU:HD22	1.85	0.58
41:BU:12:ARG:HA	41:BU:15:LYS:HD2	1.85	0.58
3:CC:164:ARG:HG2	3:CC:165:THR:H	1.68	0.58
20:AT:56:MET:SD	20:AT:85:MET:HB3	2.44	0.58
1:AA:1406:U:O2'	1:AA:1407:C:H5'	2.04	0.58
25:DA:370:G:H4'	25:DA:371:A:OP2	2.02	0.58
48:D1:23:LYS:HE2	48:D1:28:GLY:HA3	1.85	0.58
25:BA:982:C:H6	25:BA:982:C:O5'	1.85	0.58
25:BA:2095:C:H2'	25:BA:2096:U:O4'	2.03	0.58
33:BI:25:TYR:O	33:BI:29:TYR:HB3	2.04	0.58
33:DI:126:TYR:O	33:DI:140:LEU:N	2.37	0.58
39:BS:30:ARG:HB3	39:BS:89:ARG:NH2	2.18	0.58
3:AC:8:ILE:HG22	3:AC:9:GLY:N	2.17	0.58
32:BH:6:ARG:C	32:BH:8:PRO:HD3	2.24	0.58
42:DV:2:PHE:CB	42:DV:42:GLY:N	2.67	0.58
44:DX:7:VAL:HG11	44:DX:39:ILE:HA	1.84	0.58
7:CG:47:CYS:HA	7:CG:50:ILE:HB	1.83	0.58
1:CA:1292:U:H5'	9:CI:38:GLN:NE2	2.18	0.58
21:CU:10:ARG:O	21:CU:13:ILE:HB	2.03	0.58
31:DG:107:LEU:HD11	31:DG:178:PHE:CE1	2.38	0.58
31:DG:180:PHE:C	31:DG:182:LYS:N	2.57	0.58
29:DE:34:VAL:CG2	29:DE:48:GLN:HE21	2.11	0.58
30:DF:110:LEU:HD21	30:DF:181:LEU:HD23	1.84	0.58
30:DF:22:ALA:O	30:DF:26:ALA:HB2	2.03	0.58
25:DA:1669:A:H5''	35:DO:5:GLN:HE21	1.68	0.58
25:BA:1853:A:H2'	25:BA:1854:A:C8	2.38	0.58
25:BA:542:C:HO2'	25:BA:543:C:H5'	1.63	0.58
32:DH:159:GLU:CG	32:DH:160:LYS:N	2.65	0.58
20:CT:16:HIS:O	20:CT:19:SER:HB3	2.04	0.58
4:AD:53:ASP:O	4:AD:57:ARG:NH1	2.37	0.58
9:CI:114:TYR:CE1	10:CJ:60:ARG:N	2.72	0.58
9:CI:26:VAL:CG2	9:CI:61:ALA:HB3	2.29	0.58
40:DT:93:ARG:NH1	40:DT:95:ARG:HD3	2.19	0.58
1:AA:973:G:C1'	10:AJ:55:LYS:HE2	2.34	0.58
14:AN:26:ARG:CD	14:AN:43:CYS:SG	2.92	0.58
1:CA:1322:C:H5''	13:CM:100:GLY:CA	2.34	0.58
36:DP:99:LEU:HG	36:DP:102:ARG:HH11	1.69	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DF:164:ARG:HG2	30:DF:164:ARG:HH11	1.69	0.58
27:DC:130:ARG:HG2	27:DC:130:ARG:HH11	1.67	0.58
25:DA:882:G:H2'	25:DA:883:G:C8	2.38	0.58
12:CL:24:LEU:C	12:CL:26:GLY:H	2.06	0.58
1:AA:321:A:H2'	1:AA:322:C:C6	2.38	0.58
1:AA:942:G:H21	9:AI:124:GLN:NE2	1.99	0.58
43:DW:50:VAL:HG13	43:DW:105:VAL:HG21	1.84	0.58
9:AI:21:PRO:HA	9:AI:58:HIS:O	2.03	0.58
9:AI:4:TYR:HB2	9:AI:19:LEU:HB2	1.85	0.58
25:BA:2159:G:H2'	25:BA:2160:G:O4'	2.04	0.58
6:AF:37:VAL:HG12	6:AF:38:GLU:N	2.19	0.58
6:AF:46:ARG:NH1	18:AR:37:VAL:HG11	2.19	0.58
4:CD:33:MET:HE1	4:CD:37:PRO:HA	1.84	0.58
25:DA:942:G:C2'	25:DA:943:U:H5'	2.34	0.58
4:AD:154:ASN:O	4:AD:159:ARG:HG2	2.02	0.58
25:BA:2065:C:H2'	25:BA:2066:C:H6	1.69	0.58
5:AE:152:ARG:HG2	8:AH:43:GLY:HA3	1.84	0.58
39:BS:38:GLN:HB2	39:BS:47:THR:CG2	2.33	0.58
25:BA:1864:U:H2'	25:BA:1865:G:H5'	1.85	0.58
9:AI:106:ALA:O	9:AI:108:VAL:HG13	2.03	0.58
25:DA:467:G:OP1	54:D7:33:ARG:HD2	2.03	0.58
31:DG:38:VAL:HG22	31:DG:93:THR:HG23	1.84	0.58
25:DA:2567:G:H2'	25:DA:2568:C:C6	2.39	0.58
22:AV:42:LYS:HG2	22:AV:49:THR:HG22	1.84	0.58
12:CL:54:LYS:HG2	12:CL:64:THR:HG22	1.86	0.58
25:DA:1468:C:H2'	25:DA:1469:A:H8	1.68	0.58
18:AR:30:ASP:C	18:AR:32:ARG:H	2.07	0.58
26:DB:40:U:HO2'	26:DB:43:C:H5	1.52	0.58
39:BS:33:LYS:C	39:BS:34:HIS:CD2	2.77	0.58
39:BS:97:ARG:C	39:BS:97:ARG:NE	2.57	0.58
25:DA:1899:G:H21	25:DA:1902:C:H5	1.52	0.58
32:BH:9:ILE:HG21	32:BH:49:VAL:HG21	1.84	0.58
25:BA:154:G:C6	25:BA:154(A):C:N4	2.71	0.58
46:DZ:101:LEU:HD11	46:DZ:123:ILE:HG22	1.86	0.58
25:DA:910:A:C6	25:DA:911:A:C6	2.91	0.58
19:CS:67:VAL:HG12	19:CS:68:GLY:N	2.18	0.58
1:CA:1347:G:H21	1:CA:1373:G:H2'	1.68	0.58
41:BU:93:LYS:HA	41:BU:96:ALA:CB	2.33	0.58
25:DA:278:A:C8	25:DA:278:A:O5'	2.57	0.58
31:BG:68:PRO:HB2	31:BG:90:LEU:CD2	2.33	0.58
25:BA:543:C:H6	25:BA:543:C:O5'	1.86	0.58
28:BD:26:LYS:O	28:BD:27:THR:HB	2.03	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:74:LYS:HE3	2:AB:166:ASP:CB	2.34	0.58
8:CH:137:VAL:HG12	8:CH:138:TRP:N	2.19	0.58
25:DA:274:G:H1	25:DA:363:G:N2	2.02	0.58
13:AM:15:VAL:CG2	13:AM:34:LEU:HD11	2.33	0.58
36:BP:65:ARG:NH2	55:B8:46:ARG:HH22	2.02	0.58
3:CC:147:LYS:HB2	3:CC:203:PHE:O	2.03	0.58
3:CC:207:VAL:HG12	3:CC:207:VAL:O	2.04	0.58
1:CA:973:G:H1'	10:CJ:55:LYS:CE	2.33	0.58
49:D2:46:GLN:O	49:D2:49:LYS:HB2	2.04	0.58
25:BA:1022:G:N2	25:BA:1142(A):A:H2	1.93	0.58
1:CA:1221:G:OP1	19:CS:36:ARG:HD3	2.03	0.58
1:CA:955:U:H2'	1:CA:956:U:O4'	2.04	0.58
47:D0:52:GLY:O	47:D0:59:LEU:HD23	2.02	0.58
25:BA:591:C:O2	55:B8:2:PRO:HA	2.03	0.58
25:DA:1524:G:H2'	25:DA:1525:G:H8	1.69	0.58
25:BA:528:A:H2	25:BA:2043:C:C5'	2.15	0.58
25:DA:309:G:O3'	45:DY:18:GLY:HA2	2.03	0.58
25:DA:573:G:O2'	25:DA:574:C:H3'	2.04	0.58
1:CA:628:G:H2'	1:CA:629:G:C8	2.39	0.58
17:AQ:90:ILE:HG22	17:AQ:94:ASN:HD21	1.68	0.58
25:BA:389:G:N1	36:BP:71:VAL:HG12	2.18	0.58
25:BA:874:G:O2'	25:BA:875:G:H5'	2.04	0.58
6:CF:3:ARG:HH12	6:CF:38:GLU:CD	2.07	0.58
31:BG:180:PHE:O	31:BG:182:LYS:N	2.37	0.58
25:DA:651:G:N2	25:DA:652:C:C4	2.72	0.58
25:BA:1712:C:C2'	25:BA:1713:U:H5'	2.34	0.58
1:CA:296:U:H2'	1:CA:297:G:C8	2.38	0.58
1:CA:55:A:C6	1:CA:56:U:C2	2.91	0.58
29:BE:92:THR:O	29:BE:95:ILE:HD13	2.03	0.58
1:AA:895:G:H2'	1:AA:896:C:H6	1.68	0.58
1:CA:1471:G:O2'	1:CA:1472:U:H5'	2.04	0.58
1:AA:692:U:H2'	1:AA:694:A:OP2	2.04	0.58
25:DA:254:G:O6	55:D8:5:LYS:HG2	2.04	0.58
35:BO:10:VAL:HG21	35:BO:16:ALA:C	2.24	0.58
48:B1:3:LYS:HG3	48:B1:4:VAL:H	1.68	0.58
25:BA:1860:G:O2'	25:BA:1861:G:H5'	2.04	0.58
27:BC:54:ARG:HH11	27:BC:54:ARG:HG2	1.67	0.58
20:AT:74:LYS:H	20:AT:74:LYS:HD3	1.68	0.58
25:DA:1786:A:C2	25:DA:2606:C:H1'	2.38	0.58
3:CC:73:PRO:C	3:CC:75:VAL:H	2.07	0.58
25:BA:2376:A:N6	39:BS:92:TYR:HE2	2.01	0.58
7:AG:44:TYR:HE1	9:AI:41:VAL:HG11	1.68	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AI:78:LYS:HE3	9:AI:101:PHE:HE2	1.69	0.58
25:BA:172:C:H2'	25:BA:172:C:O2	2.04	0.58
46:DZ:125:VAL:HG12	46:DZ:162:LEU:HA	1.86	0.58
50:D3:36:VAL:HG23	50:D3:36:VAL:O	2.03	0.58
25:DA:1018:C:H2'	25:DA:1019:U:C6	2.31	0.58
25:DA:997:G:H5'	41:DU:93:LYS:NZ	2.18	0.58
46:DZ:78:ARG:O	46:DZ:79:ARG:HB2	2.03	0.58
25:BA:1106:G:H2'	25:BA:1107:G:C8	2.38	0.58
20:AT:42:GLN:HE21	20:AT:43:LEU:HA	1.69	0.58
31:DG:56:ALA:HB2	31:DG:153:ARG:NH1	2.19	0.58
3:AC:88:ARG:HA	3:AC:91:LEU:HD12	1.86	0.58
13:AM:11:ARG:HG2	13:AM:12:ASN:N	2.18	0.58
13:AM:97:PRO:CA	13:AM:110:ARG:HD3	2.34	0.58
35:BO:4:PRO:O	35:BO:5:GLN:HB2	2.03	0.58
2:AB:131:PRO:O	2:AB:135:GLN:HB2	2.03	0.58
25:DA:271(S):G:C3'	25:DA:271(T):C:H5''	2.33	0.58
10:AJ:50:ILE:CD1	10:AJ:50:ILE:H	2.15	0.58
14:AN:24:CYS:H	14:AN:33:VAL:CG1	2.16	0.58
25:DA:1310:G:C2'	25:DA:1311:G:H5'	2.34	0.58
30:DF:133:ASN:HA	30:DF:162:LEU:HD23	1.86	0.58
25:BA:2308:G:N2	31:BG:79:ASN:HB2	2.17	0.58
5:CE:91:LEU:HD12	5:CE:120:THR:HG22	1.86	0.58
25:BA:626:U:C5'	25:BA:627:A:H5'	2.32	0.58
25:BA:628:G:H2'	25:BA:629:G:C8	2.39	0.58
25:BA:528:A:C8	25:BA:528:A:C3'	2.86	0.58
5:CE:26:PHE:O	5:CE:27:ARG:HB2	2.03	0.58
23:AW:3:C:H2'	23:AW:4:G:H8	1.69	0.58
53:B6:33:LYS:HA	53:B6:33:LYS:HE2	1.85	0.58
7:AG:149:ARG:HD3	11:AK:59:TYR:CZ	2.39	0.58
30:DF:53:THR:HG22	30:DF:56:GLU:OE2	2.03	0.58
25:BA:1718:G:O2'	25:BA:1719:G:H5'	2.04	0.58
6:CF:14:LEU:HB3	6:CF:18:GLN:HE21	1.69	0.58
6:CF:100:ASN:N	18:CR:23:LYS:HZ2	2.01	0.58
31:BG:111:LEU:HA	31:BG:114:ILE:HD11	1.84	0.58
29:BE:23:VAL:HA	29:BE:184:VAL:O	2.04	0.58
1:CA:1313:U:OP2	19:CS:6:LYS:HB3	2.04	0.58
5:CE:11:ILE:O	5:CE:12:LEU:O	2.21	0.58
25:DA:2200:C:OP1	48:D1:50:ARG:HG3	2.03	0.58
1:AA:255:G:H2'	1:AA:256:U:C6	2.39	0.58
1:CA:676:A:H1'	11:CK:115:PRO:HB3	1.85	0.58
29:DE:105:THR:HB	29:DE:197:ILE:CG2	2.33	0.58
23:AW:61:C:H2'	23:AW:62:C:H6	1.68	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1410:G:H2'	1:AA:1411:C:C6	2.39	0.58
35:BO:87:ILE:HG22	35:BO:88:ASN:O	2.04	0.58
1:CA:1327:C:H2'	1:CA:1328:C:C6	2.39	0.58
7:AG:6:ARG:NH2	7:AG:94:ARG:NH2	2.51	0.58
25:DA:960:A:C4'	25:DA:2457:U:H4'	2.34	0.58
1:AA:336:C:H2'	1:AA:337:C:H6	1.69	0.58
37:BQ:35:VAL:HG23	37:BQ:100:GLY:O	2.04	0.58
25:BA:2771:C:H2'	25:BA:2772:C:C6	2.38	0.58
25:DA:2290:G:O2'	25:DA:2381:C:H1'	2.04	0.58
25:DA:2009:G:C2'	25:DA:2010:G:H5'	2.34	0.58
47:D0:29:GLN:O	47:D0:31:VAL:HG13	2.04	0.58
41:DU:14:HIS:C	41:DU:16:LYS:N	2.57	0.58
13:AM:4:ILE:HG22	13:AM:5:ALA:H	1.69	0.58
1:AA:233:C:O2'	1:AA:234:C:H5'	2.03	0.58
1:CA:312:C:H2'	1:CA:313:A:H8	1.68	0.58
4:AD:188:LEU:N	4:AD:188:LEU:HD23	2.19	0.58
26:BB:1:U:H2'	26:BB:1:U:O2	2.04	0.58
26:DB:59:A:H2'	26:DB:60:C:C6	2.38	0.58
1:AA:1360:A:H2'	1:AA:1361:G:O4'	2.03	0.58
39:BS:61:ASN:HD22	39:BS:61:ASN:C	2.06	0.57
2:CB:204:ASN:HD22	2:CB:206:ASP:H	1.50	0.57
41:DU:61:TRP:O	41:DU:63:VAL:N	2.37	0.57
41:DU:92:ARG:HD2	41:DU:95:LEU:N	2.19	0.57
1:CA:1288:A:H1'	1:CA:1352:C:O2'	2.03	0.57
2:CB:131:PRO:O	2:CB:135:GLN:HG3	2.04	0.57
22:CV:171:ILE:HG13	22:CV:180:TYR:HD1	1.69	0.57
45:DY:9:LYS:O	45:DY:28:LYS:NZ	2.32	0.57
3:AC:36:ASP:HA	3:AC:39:ILE:HD12	1.85	0.57
28:BD:24:ILE:HG12	28:BD:25:THR:N	2.19	0.57
28:BD:31:LYS:HE3	28:BD:94:LEU:HD11	1.84	0.57
4:AD:187:ARG:HH12	4:AD:189:PRO:HA	1.69	0.57
3:CC:59:ARG:HG2	3:CC:64:VAL:HG12	1.86	0.57
34:DN:118:LYS:C	34:DN:120:LEU:H	2.07	0.57
25:DA:2839:G:H5'	38:DR:46:GLY:CA	2.34	0.57
31:BG:47:LYS:N	31:BG:51:ARG:HG3	2.19	0.57
46:BZ:177:GLU:C	46:BZ:178:ASP:CG	2.62	0.57
33:BI:4:ILE:HG12	33:BI:18:VAL:HG22	1.86	0.57
31:DG:47:LYS:N	31:DG:51:ARG:HG3	2.19	0.57
39:DS:56:LEU:O	39:DS:57:LYS:HB3	2.04	0.57
39:DS:20:ARG:NH1	39:DS:20:ARG:HG2	2.18	0.57
32:BH:89:ILE:HD11	32:BH:129:THR:CB	2.27	0.57
25:DA:310:A:P	45:DY:18:GLY:HA2	2.44	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2701:C:C3'	25:BA:2702:U:C5'	2.80	0.57
6:AF:49:ALA:HB1	18:AR:80:PRO:HB3	1.86	0.57
1:AA:445:G:H2'	1:AA:446:G:H8	1.69	0.57
16:CP:22:THR:HA	16:CP:33:ILE:CG1	2.34	0.57
31:BG:16:ARG:CZ	31:BG:31:VAL:HG13	2.34	0.57
6:AF:30:LEU:HD23	6:AF:75:LEU:HD11	1.86	0.57
12:AL:24:LEU:HD22	12:AL:24:LEU:N	2.19	0.57
4:AD:122:ARG:O	4:AD:124:GLY:N	2.36	0.57
37:BQ:42:ILE:CG2	37:BQ:47:ILE:HG13	2.34	0.57
38:BR:77:ARG:HG3	38:BR:77:ARG:HH11	1.68	0.57
1:CA:1408:A:H2'	1:CA:1409:C:C6	2.39	0.57
27:BC:7:ARG:HD3	27:BC:8:TYR:N	2.19	0.57
34:BN:4:TYR:CG	41:BU:100:VAL:HG11	2.38	0.57
25:BA:1711:C:O2'	25:BA:1712:C:H5'	2.03	0.57
32:BH:41:MET:O	32:BH:42:ARG:O	2.22	0.57
25:DA:1925:C:O2'	25:DA:1926:U:H5'	2.04	0.57
25:BA:75:G:H4'	49:B2:55:ARG:NH1	2.19	0.57
13:CM:33:ALA:HB2	13:CM:64:TRP:HZ2	1.68	0.57
1:AA:1509:C:O2'	1:AA:1510:U:H5'	2.04	0.57
25:BA:2558:C:C4	25:BA:2559:C:C5	2.92	0.57
1:CA:16:A:N1	1:CA:919:A:H2	2.01	0.57
27:DC:193:PHE:CE2	27:DC:197:LEU:HD22	2.38	0.57
5:CE:32:VAL:HG12	5:CE:33:VAL:N	2.19	0.57
25:DA:500:G:N1	25:DA:503:A:OP2	2.37	0.57
25:BA:699:A:H4'	25:BA:1634:A:N7	2.18	0.57
25:BA:2626:C:O2'	25:BA:2627:G:H5'	2.04	0.57
1:CA:39:G:O2'	1:CA:40:C:H5'	2.03	0.57
44:DX:73:ARG:HB3	44:DX:74:PRO:HD2	1.86	0.57
25:DA:272:G:N3	25:DA:272(B):G:H1'	2.19	0.57
25:DA:378:C:O2'	25:DA:379:G:H5'	2.04	0.57
33:BI:93:THR:H	33:BI:96:ASP:HB2	1.69	0.57
7:AG:44:TYR:CE1	9:AI:41:VAL:HG11	2.39	0.57
9:AI:46:ALA:HB1	9:AI:77:ILE:HG21	1.86	0.57
2:CB:48:MET:O	2:CB:51:LEU:HB2	2.04	0.57
25:DA:1160:G:H2'	25:DA:1161:C:C6	2.39	0.57
41:DU:90:VAL:O	41:DU:92:ARG:N	2.32	0.57
44:DX:47:PHE:HE2	44:DX:91:ALA:HB3	1.68	0.57
25:BA:1576:U:H2'	25:BA:1577:C:C6	2.39	0.57
25:BA:1109:C:C6	25:BA:1110:G:H1'	2.39	0.57
7:CG:57:GLU:HG3	7:CG:60:LYS:HB3	1.86	0.57
1:CA:1231:G:H5''	9:CI:128:ARG:HG3	1.86	0.57
1:AA:1128:C:N4	1:AA:1139:G:H2'	2.19	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AM:2:ALA:O	13:AM:10:PRO:HD2	2.03	0.57
25:DA:2422:A:H4'	25:DA:2423:U:OP1	2.03	0.57
40:BT:85:LYS:NZ	40:BT:85:LYS:CA	2.67	0.57
25:BA:2481:G:HO2'	25:BA:2482:G:P	2.26	0.57
35:BO:8:LEU:HB2	35:BO:19:ILE:HG13	1.85	0.57
25:BA:655:A:OP2	25:BA:655:A:H3'	2.04	0.57
10:AJ:67:THR:HG22	10:AJ:67:THR:O	2.04	0.57
14:CN:24:CYS:SG	14:CN:24:CYS:O	2.61	0.57
28:DD:159:ALA:CB	28:DD:198:ASN:HB3	2.33	0.57
40:DT:23:ARG:O	40:DT:25:GLY:N	2.37	0.57
2:CB:121:LEU:HD23	2:CB:121:LEU:C	2.25	0.57
15:AO:82:ILE:HG23	15:AO:83:GLU:N	2.18	0.57
25:DA:1589:C:H2'	25:DA:1590:U:H6	1.69	0.57
39:DS:56:LEU:O	39:DS:57:LYS:CB	2.52	0.57
47:B0:25:TYR:O	47:B0:28:GLN:HG3	2.04	0.57
25:BA:1190:G:H5''	36:BP:35:HIS:CA	2.34	0.57
36:BP:25:SER:C	36:BP:27:HIS:H	2.06	0.57
5:CE:144:THR:O	5:CE:147:ASP:OD2	2.22	0.57
25:DA:2124:G:H5'	27:DC:175:PRO:HD3	1.85	0.57
15:AO:49:ASP:OD1	15:AO:52:SER:HB2	2.05	0.57
1:CA:628:G:H2'	1:CA:629:G:H8	1.69	0.57
11:AK:80:VAL:HG11	11:AK:103:LEU:HD12	1.85	0.57
34:DN:74:ARG:HH22	34:DN:85:ILE:HD11	1.69	0.57
33:DI:10:GLU:CD	33:DI:11:ASN:N	2.57	0.57
36:BP:71:VAL:CG1	36:BP:72:PRO:HD3	2.34	0.57
46:DZ:174:VAL:HG23	46:DZ:175:PRO:O	2.04	0.57
4:CD:15:GLU:HG3	4:CD:63:LYS:HG2	1.85	0.57
22:AV:84:ASP:OD2	22:AV:86:GLU:HB3	2.04	0.57
2:AB:178:ARG:O	8:AH:72:PRO:HD3	2.04	0.57
36:DP:133:SER:O	36:DP:136:GLU:N	2.28	0.57
1:AA:598:U:H4'	8:AH:94:TYR:CD2	2.39	0.57
32:BH:103:LEU:HG	32:BH:105:LEU:CD2	2.34	0.57
1:CA:601:C:H2'	1:CA:602:A:C8	2.39	0.57
25:DA:614(B):G:H1'	30:DF:44:ARG:HD2	1.86	0.57
27:DC:149:ASN:O	27:DC:152:GLU:HG3	2.04	0.57
8:CH:86:ILE:HG21	8:CH:133:LEU:HD22	1.86	0.57
38:DR:37:THR:HG21	38:DR:40:LYS:HE3	1.86	0.57
1:AA:693:G:H1'	7:AG:82:GLY:HA3	1.86	0.57
1:AA:1468:A:H2'	1:AA:1469:G:O4'	2.04	0.57
51:D4:43:GLY:C	51:D4:45:GLY:H	2.07	0.57
25:DA:2098:U:H2'	25:DA:2099:U:C6	2.39	0.57
25:BA:2716:U:O2'	25:BA:2717:G:H5'	2.03	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CL:15:VAL:HG23	12:CL:16:ARG:H	1.68	0.57
40:BT:22:PHE:CD2	40:BT:22:PHE:N	2.72	0.57
9:AI:10:ARG:HD3	9:AI:75:ASP:CG	2.25	0.57
46:DZ:56:ILE:HG22	46:DZ:57:VAL:N	2.19	0.57
25:DA:991:C:H5'	25:DA:991:C:H6	1.69	0.57
25:DA:1138:G:H1'	34:DN:105:GLY:O	2.04	0.57
37:DQ:39:PRO:O	37:DQ:40:ALA:HB2	2.04	0.57
7:CG:75:VAL:HG21	7:CG:144:MET:HB3	1.86	0.57
2:CB:115:LEU:HD13	2:CB:145:LEU:HB3	1.86	0.57
31:DG:173:LEU:HD22	31:DG:178:PHE:CZ	2.39	0.57
29:DE:78:LEU:C	29:DE:79:ARG:HD2	2.25	0.57
45:BY:8:LYS:CE	45:BY:37:VAL:HG11	2.34	0.57
25:BA:1342:A:C2	25:BA:1396:U:O2'	2.56	0.57
25:DA:1109:C:H5	25:DA:1110:G:N3	2.02	0.57
53:D6:15:GLU:HG2	53:D6:18:ARG:HG2	1.86	0.57
32:DH:127:GLU:CG	32:DH:128:PRO:HD2	2.34	0.57
2:AB:62:ALA:HB2	2:AB:222:ILE:HG23	1.85	0.57
4:AD:15:GLU:HG3	4:AD:63:LYS:HE2	1.86	0.57
22:CV:7:LEU:C	22:CV:8:ARG:HD2	2.24	0.57
22:CV:72:TYR:H	22:CV:109:THR:HG21	1.67	0.57
1:CA:963:G:H21	10:CJ:55:LYS:HD3	1.69	0.57
25:BA:2746:U:H2'	25:BA:2747:G:H5'	1.86	0.57
40:DT:28:VAL:O	40:DT:29:ARG:CB	2.52	0.57
1:CA:1012:U:H2'	1:CA:1013:G:H8	1.68	0.57
28:BD:147:LEU:HD13	28:BD:155:LEU:CD1	2.34	0.57
28:DD:33:LEU:HD12	28:DD:33:LEU:H	1.69	0.57
2:AB:9:GLU:C	2:AB:12:GLU:HB2	2.25	0.57
25:BA:2282:G:O2'	25:BA:2283:C:OP2	2.22	0.57
9:AI:23:ASN:HB2	9:AI:60:ASP:OD1	2.04	0.57
18:AR:50:ILE:HD12	18:AR:70:ILE:CD1	2.34	0.57
36:DP:111:ARG:HG2	36:DP:128:HIS:ND1	2.18	0.57
18:CR:52:PRO:HB2	18:CR:54:ARG:NH1	2.19	0.57
45:DY:86:ARG:HG2	45:DY:88:LYS:N	2.20	0.57
4:CD:150:GLU:HG2	4:CD:151:LYS:N	2.19	0.57
44:BX:10:ALA:O	44:BX:28:PHE:HB3	2.04	0.57
22:AV:4:VAL:O	22:AV:6:ASP:N	2.37	0.57
1:CA:1072:G:H2'	1:CA:1073:U:C6	2.40	0.57
2:AB:178:ARG:NH1	2:AB:196:LEU:HA	2.20	0.57
6:AF:38:GLU:O	6:AF:39:LYS:HB2	2.04	0.57
35:BO:18:LYS:HB2	35:BO:45:GLU:CG	2.33	0.57
11:AK:29:ILE:HD12	11:AK:30:VAL:N	2.19	0.57
4:CD:117:ALA:O	4:CD:121:VAL:HG23	2.05	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:133:VAL:HG13	4:CD:135:LEU:HD22	1.86	0.57
49:B2:6:VAL:O	49:B2:9:GLN:HB2	2.04	0.57
27:DC:188:ASP:HA	27:DC:191:ARG:HB3	1.87	0.57
27:DC:66:PRO:HG2	27:DC:67:HIS:CD2	2.40	0.57
10:AJ:84:GLN:HA	10:AJ:88:LEU:HB3	1.86	0.57
36:DP:49:ARG:HD2	55:D8:58:ILE:CG2	2.35	0.57
44:DX:53:LYS:HB3	44:DX:82:GLN:CB	2.34	0.57
25:BA:1203:G:H3'	25:BA:1204:A:C5'	2.33	0.57
29:BE:24:THR:HG22	29:BE:186:GLY:N	2.19	0.57
8:AH:10:LEU:H	8:AH:10:LEU:CD1	2.18	0.57
8:AH:10:LEU:HD12	8:AH:10:LEU:N	2.19	0.57
25:BA:1006:C:C2	25:BA:1138:G:N2	2.72	0.57
1:AA:180:U:C2'	1:AA:181:G:H5'	2.34	0.57
2:AB:147:LYS:HE2	2:AB:148:TYR:CE1	2.40	0.57
25:DA:1416:G:H2'	25:DA:1417:C:C6	2.39	0.57
25:DA:2541:A:H4'	25:DA:2764:A:C2	2.38	0.57
1:CA:1515:C:H2'	1:CA:1516:G:C8	2.39	0.57
1:AA:912:C:H2'	1:AA:913:A:C8	2.40	0.57
25:DA:2521:C:H42	25:DA:2544:G:H1	1.51	0.57
25:BA:1745(A):C:H5'	25:BA:1746:G:OP2	2.05	0.57
4:AD:126:ILE:HG22	4:AD:127:THR:H	1.69	0.57
25:BA:958:U:O4	37:BQ:40:ALA:HA	2.03	0.57
6:AF:22:GLU:OE2	6:AF:22:GLU:HA	2.03	0.57
1:CA:1044:A:H2'	1:CA:1045:C:O4'	2.04	0.57
25:BA:771:G:OP1	54:B7:10:ARG:NH1	2.38	0.57
25:DA:2510:C:O2'	25:DA:2511:U:H5'	2.04	0.57
9:AI:96:LEU:CD2	9:AI:102:LEU:HB2	2.33	0.57
46:DZ:162:LEU:HD22	46:DZ:166:PRO:HG3	1.87	0.57
46:DZ:7:TYR:N	46:DZ:7:TYR:HD1	2.02	0.57
45:DY:4:LYS:HD2	45:DY:32:PRO:HG2	1.84	0.57
45:DY:8:LYS:CE	45:DY:72:VAL:HG23	2.23	0.57
29:DE:57:LYS:HB3	29:DE:57:LYS:NZ	2.19	0.57
29:DE:61:ARG:CB	29:DE:62:PRO:CD	2.82	0.57
40:BT:41:ARG:O	40:BT:41:ARG:HD2	2.05	0.57
36:DP:16:ARG:HD3	36:DP:16:ARG:C	2.25	0.57
45:BY:28:LYS:NZ	45:BY:28:LYS:N	2.47	0.57
1:AA:924:C:H2'	1:AA:925:G:C8	2.39	0.57
25:DA:2399:G:N2	25:DA:2418:A:H1'	2.19	0.57
36:BP:85:LEU:CD2	36:BP:85:LEU:N	2.67	0.57
28:BD:71:ASP:HB2	28:BD:103:ARG:NH2	2.17	0.57
32:DH:91:GLY:HA3	32:DH:94:TYR:CD2	2.39	0.57
19:AS:52:TYR:CE1	19:AS:56:GLN:HA	2.40	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1327:C:H5''	21:AU:20:LYS:CB	2.34	0.57
1:AA:1157:A:C1'	1:AA:1181:G:H21	2.17	0.57
14:CN:29:ARG:HH21	14:CN:42:ILE:HD11	1.69	0.57
19:CS:20:LEU:HA	19:CS:23:ASN:HB2	1.87	0.57
1:CA:1030(C):G:O2'	1:CA:1030(D):A:H5'	2.05	0.57
27:DC:135:ARG:HH11	27:DC:135:ARG:HG3	1.70	0.57
1:AA:1195:C:H5''	1:AA:1196:U:OP2	2.03	0.57
12:AL:83:ARG:HB2	12:AL:98:VAL:CG2	2.34	0.57
1:CA:81:U:C6	1:CA:81:U:H5'	2.31	0.57
25:DA:2175:C:H3'	25:DA:2176:A:H5''	1.86	0.57
28:DD:92:ILE:H	28:DD:92:ILE:CD1	2.17	0.57
25:BA:2701:C:H2'	25:BA:2702:U:H5''	1.87	0.57
1:AA:920:U:O2'	1:AA:921:U:H5'	2.04	0.57
6:AF:72:VAL:HG13	6:AF:73:ASN:N	2.18	0.57
1:CA:190:U:H2'	1:CA:191:G:H8	1.70	0.57
13:CM:35:GLU:HG3	13:CM:36:LYS:H	1.69	0.57
12:CL:48:ALA:HB3	12:CL:50:ARG:HE	1.68	0.57
12:CL:48:ALA:O	12:CL:49:LEU:HD22	2.04	0.57
25:DA:38:A:H2'	25:DA:39:C:C6	2.39	0.57
36:DP:50:ARG:CG	36:DP:51:PHE:N	2.67	0.57
48:B1:75:GLU:O	48:B1:78:LYS:HB2	2.03	0.57
31:DG:13:GLU:O	31:DG:14:GLU:CB	2.53	0.57
25:BA:2232:U:O2'	25:BA:2233:U:H5'	2.04	0.57
11:AK:34:ASP:HB2	11:AK:35:PRO:HD2	1.86	0.57
38:DR:38:VAL:O	38:DR:42:LYS:HG3	2.04	0.57
25:BA:582:G:H2'	25:BA:583:G:C8	2.39	0.57
4:AD:60:GLU:HG2	4:AD:202:LEU:CB	2.35	0.57
25:BA:252:G:H2'	25:BA:253:C:H6	1.70	0.57
33:BI:83:ALA:HB1	33:BI:87:LYS:O	2.05	0.57
9:AI:104:ARG:O	9:AI:105:ASP:CB	2.52	0.57
9:AI:83:ARG:O	9:AI:86:VAL:HG12	2.04	0.57
2:CB:102:LEU:HD12	2:CB:102:LEU:N	2.19	0.57
2:CB:68:ILE:HD12	2:CB:161:ALA:HB3	1.86	0.57
2:CB:52:GLU:O	2:CB:56:ARG:HG2	2.05	0.57
50:D3:5:LYS:NZ	50:D3:34:GLU:OE2	2.31	0.57
25:DA:1022:G:O6	34:DN:66:LYS:HD3	2.04	0.57
41:DU:36:ARG:HH21	42:DV:82:ARG:NH1	2.02	0.57
46:DZ:19:ARG:C	46:DZ:21:GLY:H	2.07	0.57
1:CA:1118:C:H5'	9:CI:104:ARG:HG2	1.85	0.57
1:CA:1237:C:H3'	1:CA:1336:C:H41	1.69	0.57
19:AS:9:VAL:HG12	19:AS:9:VAL:O	2.04	0.57
30:BF:19:GLU:CD	30:BF:19:GLU:N	2.57	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:226:G:O2'	1:AA:227:G:H5'	2.04	0.57
16:AP:53:VAL:HG23	16:AP:54:GLU:H	1.70	0.57
28:DD:25:THR:HG22	28:DD:26:LYS:H	1.69	0.57
29:DE:104:VAL:HG11	29:DE:188:VAL:CG2	2.34	0.57
29:BE:71:GLY:O	29:BE:72:VAL:C	2.42	0.57
35:BO:117:LEU:HD23	35:BO:117:LEU:O	2.04	0.57
4:AD:14:ARG:HA	4:AD:39:PRO:CB	2.35	0.57
40:DT:34:VAL:HA	40:DT:39:ARG:CA	2.28	0.57
14:CN:59:ALA:HB1	14:CN:61:TRP:HZ3	1.70	0.57
25:BA:2758:A:C3'	25:BA:2759:G:H5''	2.34	0.57
42:BV:19:LYS:HZ2	42:BV:20:LEU:H	1.47	0.57
15:CO:25:THR:HG21	15:CO:70:LEU:HD13	1.85	0.57
47:D0:52:GLY:H	47:D0:62:LEU:CD1	2.17	0.57
39:DS:17:ARG:CG	39:DS:18:ILE:N	2.67	0.57
30:DF:176:LEU:HG	30:DF:177:ALA:N	2.19	0.57
34:DN:57:ALA:O	34:DN:58:ASP:O	2.22	0.57
12:AL:83:ARG:HB2	12:AL:98:VAL:HG22	1.86	0.57
25:DA:26:G:N1	25:DA:27:G:N2	2.53	0.57
25:BA:494:G:N2	43:BW:57:ASN:HD21	1.97	0.57
25:BA:538:G:C2'	25:BA:539:G:H5''	2.33	0.57
36:DP:146:VAL:HG22	36:DP:147:LEU:H	1.68	0.57
9:AI:2:GLU:HG2	9:AI:3:GLN:HG3	1.86	0.57
25:DA:2788:C:O2'	25:DA:2809:A:N3	2.38	0.57
25:BA:2262:U:O2'	25:BA:2263:C:H5'	2.03	0.57
25:DA:2060:A:O2'	25:DA:2061:G:P	2.62	0.57
25:BA:1239:G:H2'	25:BA:1240:U:O4'	2.05	0.57
34:BN:36:GLY:O	34:BN:42:TRP:HE3	1.87	0.57
1:AA:255:G:H2'	1:AA:256:U:H6	1.69	0.57
25:DA:2692:C:H2'	25:DA:2693:A:H8	1.70	0.57
17:CQ:31:LEU:HG	17:CQ:32:TYR:CE2	2.38	0.57
5:AE:26:PHE:HD1	5:AE:26:PHE:H	1.51	0.57
28:DD:37:LEU:O	28:DD:38:LYS:C	2.42	0.57
2:CB:96:ARG:N	2:CB:96:ARG:HD2	2.19	0.57
43:BW:14:PRO:HG2	43:BW:78:GLU:HG3	1.85	0.57
15:AO:18:PHE:CE1	15:AO:21:ASP:HB2	2.40	0.57
37:DQ:59:ARG:O	37:DQ:60:ARG:HB2	2.04	0.57
25:DA:1434:A:H61	25:DA:1558:A:H62	1.50	0.57
25:BA:1003:G:N2	25:BA:1153:C:C2	2.71	0.57
40:DT:64:ARG:HD3	40:DT:73:GLU:HG3	1.85	0.57
39:BS:92:TYR:C	39:BS:94:TYR:N	2.53	0.57
9:AI:96:LEU:HD21	9:AI:102:LEU:HB2	1.86	0.57
37:DQ:26:TYR:HA	37:DQ:137:TYR:CE1	2.40	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:D3:29:ARG:HB3	50:D3:29:ARG:HH11	1.70	0.57
34:DN:43:THR:O	34:DN:46:VAL:HG12	2.04	0.57
48:D1:52:ARG:HG3	48:D1:53:VAL:N	2.13	0.57
48:D1:53:VAL:CG1	48:D1:90:ILE:HG21	2.34	0.57
19:CS:63:THR:HG23	19:CS:65:ASN:N	2.19	0.57
20:AT:46:GLU:OE1	20:AT:48:LYS:HE2	2.04	0.57
1:CA:1333:A:H2'	1:CA:1334:G:O4'	2.04	0.57
7:CG:15:ASP:O	7:CG:16:LEU:HG	2.03	0.57
9:CI:8:GLY:HA3	9:CI:15:ALA:H	1.69	0.57
45:DY:28:LYS:C	45:DY:38:ILE:HB	2.24	0.57
25:DA:154(A):C:N3	25:DA:171:G:O6	2.38	0.57
28:BD:35:LYS:HB2	28:BD:36:PRO:CD	2.25	0.57
45:BY:61:ILE:O	45:BY:62:GLU:CD	2.43	0.57
13:AM:40:ASN:ND2	13:AM:43:THR:HG23	2.19	0.57
4:AD:22:LYS:HG3	4:AD:26:CYS:SG	2.44	0.57
8:AH:46:LYS:HE2	8:AH:63:LEU:O	2.03	0.57
49:D2:57:ILE:O	49:D2:58:ALA:C	2.43	0.57
1:AA:974:A:O4'	14:AN:31:ARG:HD3	2.05	0.57
11:AK:57:THR:CG2	11:AK:58:PRO:HD2	2.34	0.57
37:BQ:63:LYS:HD3	37:BQ:65:PHE:CZ	2.39	0.57
33:BI:48:GLU:O	33:BI:51:ILE:HG22	2.04	0.57
1:CA:1004:A:N6	1:CA:1035:A:H8	2.02	0.57
1:CA:1038:C:H2'	1:CA:1039:C:C5	2.39	0.57
16:AP:28:ARG:C	16:AP:30:GLY:H	2.07	0.57
6:CF:72:VAL:O	6:CF:75:LEU:HB3	2.04	0.57
28:DD:10:THR:HG23	28:DD:13:ARG:HB3	1.85	0.57
25:DA:528:A:C2	25:DA:2043:C:C5'	2.86	0.57
8:AH:134:ILE:O	8:AH:135:CYS:HB3	2.04	0.57
4:AD:3:ARG:HE	4:AD:5:ILE:HG13	1.70	0.57
52:B5:51:TYR:O	52:B5:52:TYR:O	2.22	0.57
1:CA:224:C:H2'	1:CA:225:C:H6	1.70	0.57
4:CD:11:LEU:O	4:CD:13:ARG:O	2.21	0.57
47:B0:39:GLN:NE2	47:B0:42:THR:HA	2.19	0.57
38:BR:49:ASP:OD1	38:BR:95:THR:HG22	2.04	0.57
6:AF:75:LEU:HD23	6:AF:79:LEU:HG	1.87	0.57
4:AD:133:VAL:HG12	4:AD:135:LEU:H	1.70	0.57
46:BZ:153:ASP:O	46:BZ:154:LEU:HG	2.05	0.57
35:BO:47:ILE:HD12	35:BO:47:ILE:N	2.18	0.57
25:DA:2282:G:H1'	25:DA:2390:U:H3	1.69	0.57
40:BT:118:ARG:O	40:BT:119:LYS:C	2.42	0.57
11:CK:67:ASP:OD2	11:CK:71:LYS:HE3	2.05	0.57
25:BA:1497:U:H2'	25:BA:1497:U:O2	2.04	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:106:C:H2'	25:BA:107:C:C6	2.38	0.57
25:BA:1139:G:O2'	25:BA:1140:C:H5'	2.05	0.57
1:AA:436:C:H2'	1:AA:437:U:C6	2.40	0.57
1:AA:783:C:O2'	1:AA:784:C:H5'	2.04	0.57
1:CA:201:C:N4	1:CA:216:G:H1	2.03	0.57
25:DA:2364:C:O2'	25:DA:2365:G:H5'	2.04	0.57
25:DA:869:G:H2'	25:DA:870:A:H8	1.69	0.57
27:DC:27:ALA:HB1	27:DC:183:PRO:HA	1.86	0.57
2:CB:231:GLU:HB2	2:CB:232:PRO:CD	2.35	0.57
27:BC:52:PRO:HG2	27:BC:168:LYS:O	2.04	0.57
20:AT:38:LYS:HA	20:AT:41:ILE:HG12	1.85	0.57
44:DX:3:THR:HA	44:DX:6:ASP:OD2	2.03	0.57
43:BW:29:LEU:HD13	43:BW:51:LEU:HD11	1.87	0.57
26:BB:32:C:C2	26:BB:51:G:N2	2.72	0.57
25:BA:769:G:H5'	25:BA:1379:A:N6	2.19	0.57
25:BA:2108:C:O2	25:BA:2108:C:H2'	2.04	0.57
33:DI:76:THR:O	33:DI:77:LEU:CB	2.52	0.57
9:AI:11:LYS:C	9:AI:13:ALA:H	2.08	0.57
1:AA:134:A:H2'	1:AA:135:C:O4'	2.05	0.57
9:CI:4:TYR:HB2	9:CI:19:LEU:HD12	1.86	0.57
7:CG:143:ARG:O	7:CG:147:ALA:CB	2.53	0.57
42:BV:46:VAL:HG22	42:BV:47:VAL:N	2.18	0.57
45:DY:29:GLU:N	45:DY:29:GLU:OE1	2.37	0.57
49:D2:65:ASN:HD22	49:D2:69:ARG:HH12	1.52	0.57
3:AC:70:VAL:HG12	3:AC:72:LYS:N	2.16	0.57
36:DP:9:ASN:H	36:DP:10:PRO:HD2	1.70	0.57
53:D6:41:PRO:HD2	53:D6:46:HIS:H	1.63	0.57
45:BY:78:ALA:HB2	45:BY:99:CYS:HG	1.70	0.57
29:BE:3:GLY:HA3	29:BE:81:ILE:CG2	2.23	0.57
16:CP:49:LEU:HG	16:CP:49:LEU:O	2.04	0.57
5:AE:76:ILE:HG22	5:AE:93:PRO:CB	2.35	0.57
1:CA:1123:A:H4'	10:CJ:36:GLY:HA2	1.85	0.57
1:CA:1151:A:C6	1:CA:1152:A:N6	2.73	0.57
31:BG:76:SER:CB	31:BG:83:ARG:HB2	2.31	0.57
5:CE:72:GLN:O	5:CE:73:ASN:HB3	2.04	0.57
1:CA:513:C:H2'	1:CA:514:C:C6	2.36	0.57
12:CL:80:VAL:HG12	12:CL:81:LEU:N	2.20	0.57
1:CA:612:C:O2'	1:CA:613:C:H5'	2.04	0.57
25:DA:521:G:H2'	25:DA:522:G:C8	2.39	0.57
1:CA:741:G:O2'	1:CA:742:G:H5'	2.04	0.57
22:AV:7:LEU:HB2	22:AV:25:TYR:CD1	2.40	0.57
25:DA:2291:U:O2'	25:DA:2374:C:H1'	2.05	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BN:78:TYR:H	34:BN:78:TYR:HD1	1.52	0.57
25:BA:2357:U:OP1	47:B0:19:ARG:NH1	2.37	0.57
8:CH:91:ARG:HH12	17:CQ:33:GLY:HA3	1.70	0.57
14:AN:12:ARG:C	14:AN:14:PRO:HD2	2.25	0.57
10:AJ:29:ARG:HH22	10:AJ:80:LYS:HD2	1.68	0.57
38:BR:17:ARG:O	38:BR:20:LEU:HB3	2.04	0.57
25:DA:49:A:H5''	25:DA:50:U:H3'	1.85	0.57
27:BC:183:PRO:HB2	27:BC:184:GLU:OE2	2.05	0.57
45:DY:23:ARG:HH21	45:DY:40:GLU:HB3	1.70	0.57
25:DA:1215:G:O2'	25:DA:1216:G:H5'	2.05	0.57
1:AA:737:A:H2'	1:AA:738:C:H6	1.70	0.57
1:AA:178:C:O2'	1:AA:179:A:H5'	2.05	0.57
28:DD:133:LEU:CB	28:DD:173:VAL:HG11	2.35	0.57
19:CS:42:PRO:O	19:CS:43:GLU:HB3	2.04	0.57
1:CA:115:G:O2'	1:CA:116:A:OP2	2.20	0.57
25:DA:227:A:H5''	36:DP:76:LYS:HE2	1.87	0.57
43:DW:38:TYR:OH	52:D5:47:PRO:HG3	2.03	0.57
25:BA:669:G:N3	25:BA:669:G:H2'	2.20	0.57
1:AA:643:C:H5'	8:AH:31:PHE:CD1	2.40	0.57
43:DW:21:VAL:O	43:DW:24:ILE:HG12	2.04	0.57
34:DN:45:ASN:O	34:DN:45:ASN:CG	2.42	0.57
48:D1:44:PRO:O	48:D1:46:LEU:HD22	2.05	0.57
9:CI:15:ALA:HA	9:CI:65:VAL:HA	1.85	0.57
31:DG:102:PHE:CE2	31:DG:141:PHE:HE1	2.22	0.57
30:DF:192:LEU:HD23	30:DF:193:VAL:H	1.66	0.57
1:AA:1071:C:O2'	1:AA:1072:G:H5'	2.04	0.57
31:BG:64:THR:HG23	31:BG:66:GLN:N	2.19	0.57
29:BE:30:PRO:O	29:BE:32:PRO:HD3	2.05	0.57
25:BA:2476:A:H2	25:BA:2477:C:C5	2.22	0.57
37:BQ:66:ILE:HG12	37:BQ:104:PHE:HE2	1.69	0.57
3:CC:54:ARG:NH1	3:CC:56:ASP:HB2	2.20	0.57
35:DO:104:ARG:HH22	40:DT:35:LYS:NZ	2.03	0.57
25:BA:2759:G:C8	25:BA:2759:G:C5'	2.85	0.57
9:CI:26:VAL:HG13	9:CI:61:ALA:O	2.05	0.57
25:BA:1688:U:H5'	25:BA:1689:A:OP1	2.04	0.57
42:BV:19:LYS:CE	42:BV:20:LEU:H	2.18	0.57
1:CA:659:U:H2'	1:CA:660:G:C8	2.39	0.57
25:DA:2876:G:O5'	40:DT:3:ARG:HA	2.05	0.57
25:BA:271(J):C:H3'	25:BA:271(K):U:H5''	1.85	0.57
31:DG:85:GLY:O	31:DG:87:PRO:HD2	2.05	0.57
36:DP:85:LEU:HB3	36:DP:114:ILE:HD11	1.86	0.57
26:DB:52:A:H62	39:DS:33:LYS:HE3	1.69	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:479:C:H2'	1:AA:480:U:C6	2.40	0.57
27:BC:85:LYS:HD3	27:BC:88:GLU:OE2	2.05	0.57
1:AA:838:G:N2	1:AA:849:C:H1'	2.19	0.57
46:BZ:13:LYS:N	46:BZ:14:PRO:HD3	2.19	0.57
25:DA:1171:G:H3'	25:DA:1173:G:C5'	2.35	0.57
12:AL:43:LYS:HG2	12:AL:44:LYS:H	1.69	0.57
8:CH:95:VAL:HB	8:CH:99:GLU:HB2	1.87	0.57
25:DA:151:C:HO2'	25:DA:152:G:H5'	1.70	0.57
17:CQ:92:ARG:HA	17:CQ:95:TYR:CD2	2.39	0.57
27:DC:74:ARG:CB	27:DC:111:PHE:HA	2.35	0.57
1:AA:1261:A:H2'	1:AA:1262:C:O4'	2.04	0.57
1:CA:406:G:H2'	1:CA:407:G:H8	1.70	0.57
37:BQ:69:PHE:CD1	37:BQ:70:PRO:HD2	2.39	0.57
1:AA:254:G:O2'	1:AA:255:G:H5'	2.05	0.57
23:AW:29:G:C2'	23:AW:30:G:H5'	2.35	0.57
25:BA:1991:U:H2'	25:BA:1992:G:H5''	1.85	0.57
25:BA:1786:A:H2	25:BA:2606:C:H1'	1.69	0.57
3:CC:127:ARG:NH1	3:CC:127:ARG:HG2	2.20	0.57
25:BA:863:A:O2'	25:BA:864:G:H5'	2.05	0.57
25:DA:1214:A:H2'	25:DA:1215:G:H8	1.69	0.57
1:CA:1327:C:H2'	1:CA:1328:C:H6	1.68	0.57
25:DA:747:U:O2	25:DA:2014:A:H1'	2.05	0.57
25:DA:2074:U:O2'	25:DA:2597:G:H1'	2.04	0.57
36:DP:24:GLY:O	36:DP:25:SER:HB2	2.03	0.57
25:DA:1513:C:H2'	25:DA:1514:U:H6	1.69	0.57
1:CA:538:G:O3'	12:CL:111:LYS:HE2	2.05	0.57
1:CA:1176:A:H2'	1:CA:1177:G:O4'	2.05	0.57
25:DA:2261:C:O2'	25:DA:2262:U:H5'	2.05	0.57
26:DB:42:C:H4'	31:DG:67:LYS:O	2.04	0.57
4:CD:57:ARG:HB3	4:CD:206:PHE:HB2	1.85	0.57
25:BA:2291:U:H2'	25:BA:2292:C:C6	2.40	0.57
9:AI:42:ARG:HH11	9:AI:42:ARG:HG2	1.69	0.57
46:DZ:18:ARG:HB3	46:DZ:81:ARG:HH12	1.69	0.57
42:BV:49:THR:CG2	42:BV:50:PRO:HD3	2.34	0.57
22:CV:161:VAL:O	22:CV:162:PRO:O	2.23	0.57
30:BF:3:GLU:HB3	30:BF:24:LEU:HG	1.86	0.57
20:AT:83:ARG:O	20:AT:86:ARG:HB3	2.04	0.57
10:AJ:4:ILE:CG1	10:AJ:77:PRO:HB3	2.31	0.57
25:DA:1042:G:C1'	25:DA:1114:G:H22	2.16	0.57
1:AA:1394:A:C6	1:AA:1501:C:H4'	2.40	0.57
46:BZ:165:SER:HB2	46:BZ:166:PRO:CA	2.35	0.57
31:BG:139:LEU:HD23	31:BG:139:LEU:N	2.12	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:19:HIS:CE1	2:AB:206:ASP:HB2	2.40	0.57
4:AD:59:ARG:HA	4:AD:59:ARG:NE	2.20	0.57
14:CN:59:ALA:HB1	14:CN:61:TRP:CZ3	2.40	0.57
40:DT:88:ILE:CG2	40:DT:89:VAL:HG23	2.34	0.57
14:AN:23:ARG:O	14:AN:23:ARG:HG3	2.04	0.57
25:DA:2349:G:H8	25:DA:2349:G:H5'	1.70	0.57
31:DG:47:LYS:HD3	31:DG:82:LEU:CD1	2.35	0.57
52:B5:37:LYS:HG3	52:B5:38:ALA:N	2.16	0.57
1:CA:1151:A:H1'	10:CJ:39:PRO:CG	2.35	0.57
10:CJ:34:VAL:CG2	10:CJ:74:ILE:HG22	2.35	0.57
25:BA:814:C:C5	36:BP:27:HIS:NE2	2.73	0.57
36:BP:35:HIS:O	36:BP:36:LYS:HB2	2.05	0.57
28:DD:210:GLY:HA2	28:DD:213:ARG:HG2	1.86	0.57
10:CJ:89:ASP:C	10:CJ:91:PRO:HD3	2.25	0.57
28:BD:68:LYS:HB2	28:BD:70:TRP:CH2	2.40	0.57
1:AA:1106:G:H5''	3:AC:172:ARG:CG	2.34	0.57
43:DW:5:ALA:HB3	43:DW:105:VAL:N	2.18	0.57
36:DP:31:ALA:C	36:DP:33:ARG:H	2.08	0.57
25:BA:2762:G:C3'	25:BA:2763:G:H5''	2.35	0.57
31:BG:98:ARG:O	31:BG:101:ILE:HD13	2.04	0.57
25:BA:839:U:O2'	25:BA:1191:G:H1'	2.04	0.57
25:BA:2160:G:H2'	25:BA:2161:C:H6	1.70	0.57
25:DA:1276:A:H1'	38:DR:16:HIS:CE1	2.36	0.57
1:CA:1405:G:O4'	1:CA:1519:A:H4'	2.05	0.57
28:BD:12:SER:C	28:BD:14:ARG:N	2.58	0.57
27:BC:48:LEU:HD22	27:BC:210:LEU:HD23	1.85	0.57
1:AA:1216:G:H2'	1:AA:1217:C:C6	2.40	0.57
25:BA:2349:G:H5'	25:BA:2349:G:H8	1.70	0.57
1:AA:1440:C:C2'	1:AA:1441:G:H5'	2.34	0.57
34:BN:57:ALA:C	34:BN:58:ASP:O	2.42	0.57
1:AA:1336:C:H4'	1:AA:1337:G:C4	2.39	0.57
28:DD:133:LEU:HB3	28:DD:173:VAL:HG11	1.87	0.57
1:CA:1066:C:H3'	1:CA:1067:A:C8	2.40	0.57
25:BA:1642:G:O2'	25:BA:1643:G:H5'	2.04	0.57
25:DA:832:G:H21	36:DP:53:GLY:CA	2.17	0.57
11:CK:34:ASP:HB2	11:CK:35:PRO:CD	2.35	0.57
38:BR:79:LEU:HA	38:BR:83:ILE:HG13	1.87	0.57
19:CS:53:ASN:OD1	19:CS:56:GLN:N	2.38	0.57
4:AD:98:GLU:OE2	4:AD:103:ASN:ND2	2.34	0.57
1:AA:1232:U:H2'	1:AA:1233:G:O4'	2.05	0.57
39:BS:12:PHE:HD1	39:BS:12:PHE:O	1.88	0.57
28:BD:45:ASN:ND2	28:BD:50:THR:HG21	2.20	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AH:22:GLU:OE1	8:AH:62:TYR:HE1	1.88	0.57
25:DA:125:G:H1'	54:D7:13:ALA:HB1	1.86	0.57
39:BS:88:ASP:OD2	39:BS:89:ARG:N	2.38	0.57
7:AG:16:LEU:CD1	9:AI:45:ALA:HB2	2.35	0.57
25:DA:996:A:C2	25:DA:997:G:C8	2.93	0.57
34:DN:42:TRP:CD1	41:DU:63:VAL:HG11	2.39	0.57
25:DA:1118:C:H5'	46:DZ:79:ARG:NH2	2.18	0.57
7:CG:3:ARG:O	7:CG:4:ARG:HG2	2.05	0.57
25:BA:2787:C:O2	25:BA:2787:C:H2'	2.04	0.57
31:DG:39:ILE:HD12	31:DG:40:ASN:H	1.69	0.57
19:AS:33:THR:CG2	19:AS:49:ILE:HG22	2.35	0.57
19:AS:36:ARG:CZ	19:AS:75:ALA:HB3	2.35	0.57
45:DY:42:VAL:O	45:DY:64:GLU:HA	2.05	0.57
25:DA:1047:G:N7	25:DA:1110:G:C6	2.72	0.57
1:AA:1500:A:C2'	1:AA:1501:C:H5'	2.35	0.57
53:D6:40:CYS:CA	53:D6:46:HIS:HB3	2.33	0.57
36:DP:59:LEU:CA	36:DP:61:ARG:CZ	2.81	0.57
2:AB:220:ASP:HA	2:AB:223:ILE:CD1	2.35	0.57
29:BE:52:LEU:HB3	29:BE:75:VAL:HB	1.87	0.57
1:AA:1149:C:H2'	1:AA:1150:U:C6	2.40	0.57
3:CC:63:ASN:HA	3:CC:98:ASN:O	2.05	0.57
46:BZ:101:LEU:HD11	46:BZ:123:ILE:HG22	1.87	0.57
5:CE:144:THR:O	5:CE:145:LYS:C	2.43	0.57
41:BU:74:LEU:N	41:BU:74:LEU:CD1	2.68	0.57
46:BZ:13:LYS:O	46:BZ:15:SER:N	2.37	0.57
39:DS:85:VAL:H	39:DS:106:ARG:HB2	1.70	0.57
4:CD:170:VAL:CG1	4:CD:171:GLY:H	2.16	0.57
11:AK:98:LEU:O	11:AK:101:SER:OG	2.23	0.57
27:BC:22:THR:O	27:BC:24:ASP:N	2.37	0.57
1:CA:502:G:H2'	1:CA:503:C:C6	2.40	0.57
1:AA:1256:A:O3'	1:AA:1257:U:H4'	2.05	0.57
31:BG:16:ARG:O	31:BG:20:ILE:HG13	2.05	0.57
1:CA:930:C:O2'	1:CA:931:C:H5'	2.04	0.57
4:AD:135:LEU:C	4:AD:137:SER:H	2.09	0.57
11:CK:124:LYS:HD2	11:CK:125:PHE:CE1	2.39	0.57
11:CK:57:THR:HG23	11:CK:58:PRO:HD2	1.84	0.57
25:DA:1204:A:HO2'	25:DA:1205:U:P	2.28	0.57
13:AM:88:ARG:O	13:AM:98:VAL:HG11	2.04	0.57
46:BZ:129:PRO:HA	46:BZ:132:ILE:CD1	2.35	0.57
43:DW:84:ARG:O	43:DW:95:ILE:HA	2.05	0.57
46:BZ:4:LEU:HD21	46:BZ:38:VAL:HG11	1.87	0.57
3:AC:189:ALA:CB	3:AC:196:LEU:HB2	2.35	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:CR:47:THR:HG21	18:CR:49:LYS:HE2	1.86	0.57
25:DA:664:C:H2'	25:DA:665:C:C6	2.39	0.57
2:CB:177:ALA:HA	2:CB:182:ILE:HD12	1.85	0.57
15:AO:28:GLN:OE1	15:AO:66:LEU:HD21	2.05	0.57
39:BS:82:ILE:HG22	39:BS:83:LYS:N	2.19	0.57
4:AD:60:GLU:HG2	4:AD:202:LEU:HG	1.87	0.57
25:DA:1556:C:H2'	25:DA:1557:C:C6	2.39	0.57
1:CA:157:G:O2'	1:CA:158:G:H5'	2.05	0.57
25:DA:1508:A:H4'	25:DA:1509(A):A:C5	2.40	0.57
40:DT:134:GLU:O	40:DT:135:ALA:HB2	2.05	0.57
27:BC:19:LYS:HG2	27:BC:20:VAL:N	2.20	0.57
1:AA:1496:C:H2'	1:AA:1497:G:O4'	2.05	0.57
1:CA:828:A:H2'	1:CA:829:G:O4'	2.05	0.57
33:BI:93:THR:HA	33:BI:116:LEU:HD21	1.87	0.56
1:AA:1117:G:H5'	1:AA:1117:G:H8	1.70	0.56
2:CB:21:ARG:H	2:CB:23:ARG:NH2	2.03	0.56
25:DA:1138:G:H2'	25:DA:1139:G:O4'	2.05	0.56
25:DA:999:U:O2'	25:DA:1000:A:H5''	2.05	0.56
41:DU:110:VAL:O	41:DU:113:ALA:N	2.36	0.56
42:DV:39:LEU:CD1	42:DV:51:VAL:HA	2.30	0.56
1:CA:1376:U:H2'	1:CA:1377:A:H8	1.68	0.56
7:CG:69:VAL:O	7:CG:138:LYS:HG3	2.05	0.56
7:CG:70:LYS:O	7:CG:138:LYS:HE3	2.04	0.56
25:DA:484:C:H2'	25:DA:485:C:H6	1.70	0.56
36:BP:101:VAL:CG2	36:BP:102:ARG:H	2.19	0.56
28:BD:31:LYS:CB	28:BD:35:LYS:HG3	2.34	0.56
25:DA:283:A:O2'	25:DA:284:U:OP1	2.23	0.56
40:BT:85:LYS:CE	40:BT:85:LYS:C	2.73	0.56
13:AM:56:LEU:O	13:AM:60:VAL:HG23	2.05	0.56
11:AK:125:PHE:O	11:AK:128:ALA:HB3	2.05	0.56
4:AD:36:ARG:HH11	4:AD:36:ARG:HG2	1.69	0.56
14:CN:3:ARG:O	14:CN:6:LEU:N	2.38	0.56
40:DT:13:ARG:CZ	40:DT:13:ARG:CA	2.81	0.56
27:DC:87:ALA:HA	27:DC:154:ILE:HD13	1.85	0.56
25:BA:1589:C:H2'	25:BA:1590:U:H6	1.69	0.56
25:BA:1590:U:O2'	25:BA:1591:G:H5''	2.05	0.56
27:DC:173:HIS:O	27:DC:174:ALA:HB3	2.03	0.56
25:DA:2469:A:H62	25:DA:2481:G:H1'	1.70	0.56
39:DS:106:ARG:HD2	39:DS:107:GLU:O	2.05	0.56
6:AF:1:MET:O	6:AF:2:ARG:HG3	2.04	0.56
25:DA:1494:A:H3'	25:DA:1494:A:N3	2.20	0.56
25:BA:71:A:H2	44:BX:31:HIS:CE1	2.21	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:77:ASN:O	4:CD:78:LEU:C	2.43	0.56
28:DD:166:GLN:NE2	28:DD:166:GLN:HA	2.18	0.56
38:BR:12:ARG:CG	38:BR:12:ARG:HH11	2.18	0.56
38:DR:11:ASN:O	38:DR:12:ARG:CG	2.52	0.56
44:DX:32:PRO:HA	44:DX:77:LYS:CB	2.34	0.56
1:AA:514:C:H2'	1:AA:515:G:H8	1.68	0.56
7:AG:50:ILE:C	7:AG:54:THR:HG23	2.25	0.56
25:BA:1952:A:C2	35:BO:22:ILE:HG23	2.40	0.56
40:BT:53:ARG:O	40:BT:53:ARG:HD3	2.06	0.56
1:CA:446:G:H2'	1:CA:447:G:O4'	2.05	0.56
7:AG:80:VAL:HG21	7:AG:85:TYR:CD1	2.38	0.56
35:BO:91:LEU:HD12	35:BO:111:PHE:CZ	2.40	0.56
35:BO:87:ILE:CG2	35:BO:91:LEU:HA	2.35	0.56
1:AA:656:C:H4'	15:AO:62:GLN:NE2	2.19	0.56
1:CA:1065:U:O2'	1:CA:1066:C:OP2	2.21	0.56
1:AA:789:U:H2'	1:AA:791:G:OP2	2.05	0.56
25:DA:2007:C:H4'	25:DA:2824:C:H4'	1.87	0.56
41:DU:26:GLY:C	41:DU:28:ARG:H	2.07	0.56
6:AF:15:ASP:OD1	6:AF:17:SER:HB2	2.05	0.56
25:DA:1272:A:H3'	25:DA:1273:U:H5'	1.87	0.56
3:AC:173:VAL:O	3:AC:173:VAL:HG12	2.05	0.56
3:CC:175:LEU:HD12	3:CC:175:LEU:H	1.70	0.56
42:BV:29:PRO:O	42:BV:61:VAL:HG22	2.05	0.56
18:AR:21:LYS:O	18:AR:23:LYS:N	2.39	0.56
25:BA:990:A:OP2	25:BA:991:C:OP2	2.23	0.56
1:AA:1354:C:H2'	1:AA:1355:G:H8	1.69	0.56
7:AG:31:MET:SD	7:AG:34:GLY:HA2	2.45	0.56
32:BH:17:VAL:O	32:BH:45:VAL:HG21	2.05	0.56
46:DZ:13:LYS:HB2	46:DZ:17:LEU:CD1	2.35	0.56
44:DX:26:TYR:O	44:DX:81:VAL:HG22	2.05	0.56
1:CA:1243:C:OP2	21:CU:10:ARG:NH2	2.38	0.56
3:AC:70:VAL:O	3:AC:106:VAL:N	2.38	0.56
30:DF:28:ILE:HG22	30:DF:112:MET:HG2	1.86	0.56
53:B6:16:CYS:O	53:B6:18:ARG:NH1	2.39	0.56
25:BA:2405:G:O2'	25:BA:2411:A:N6	2.38	0.56
45:BY:52:SER:O	45:BY:53:PRO:O	2.23	0.56
4:AD:108:LEU:HB3	4:AD:110:PHE:HE1	1.70	0.56
25:BA:1210:A:H5'	25:BA:1212:G:O4'	2.05	0.56
1:AA:428:G:O4'	1:AA:430:A:C8	2.59	0.56
3:CC:180:ALA:O	3:CC:205:GLY:O	2.24	0.56
14:CN:24:CYS:O	14:CN:26:ARG:N	2.38	0.56
27:BC:118:PRO:HA	27:BC:121:MET:HB2	1.87	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:D2:53:LEU:HD22	49:D2:57:ILE:HD11	1.86	0.56
47:D0:73:GLY:O	47:D0:75:LEU:N	2.38	0.56
25:BA:674:G:O2'	30:BF:67:GLN:OE1	2.23	0.56
40:DT:25:GLY:O	40:DT:26:ASP:HB2	2.05	0.56
40:DT:49:VAL:O	40:DT:49:VAL:HG13	2.05	0.56
36:DP:97:PRO:O	36:DP:98:GLU:CB	2.53	0.56
27:DC:37:LYS:CD	27:DC:37:LYS:H	2.13	0.56
25:BA:2492:U:H2'	25:BA:2493:U:H6	1.66	0.56
18:CR:43:PHE:C	18:CR:51:LEU:HD12	2.25	0.56
25:BA:2828:C:O2'	25:BA:2829:C:H5'	2.05	0.56
10:CJ:30:SER:HB2	10:CJ:81:THR:HA	1.86	0.56
28:DD:83:GLU:OE1	28:DD:104:TYR:CE2	2.59	0.56
28:BD:145:VAL:HG12	28:BD:146:GLU:O	2.05	0.56
1:AA:624:C:H2'	1:AA:625:G:C8	2.40	0.56
25:BA:26:G:N1	25:BA:27:G:N2	2.52	0.56
25:DA:2233:U:H2'	25:DA:2234:G:H8	1.63	0.56
25:BA:277:C:H6	25:BA:277:C:OP1	1.87	0.56
20:CT:57:ARG:CZ	20:CT:57:ARG:HB2	2.34	0.56
18:CR:52:PRO:HB2	18:CR:54:ARG:HH11	1.69	0.56
4:CD:145:GLU:HG2	4:CD:184:LYS:CG	2.33	0.56
1:CA:757:U:H1'	1:CA:879:C:H1'	1.87	0.56
1:CA:1277:C:C2'	1:CA:1278:U:H5''	2.35	0.56
22:AV:90:GLN:HB2	27:BC:140:ASN:ND2	2.20	0.56
17:AQ:21:VAL:HG11	17:AQ:59:ILE:HD11	1.87	0.56
25:BA:2564:A:C2	25:BA:2647:U:H4'	2.40	0.56
1:CA:165:C:O2'	1:CA:166:G:H5'	2.05	0.56
54:D7:16:HIS:HB2	54:D7:44:PRO:HG2	1.86	0.56
1:CA:59:A:H3'	1:CA:331:G:H22	1.69	0.56
1:CA:431:A:O2'	1:CA:432:A:H5'	2.05	0.56
11:AK:13:GLN:NE2	11:AK:75:TYR:HA	2.19	0.56
1:CA:707:C:H2'	1:CA:708:C:H6	1.69	0.56
1:AA:1217:C:O2'	1:AA:1218:C:H5'	2.05	0.56
8:CH:28:ALA:HA	8:CH:59:LEU:CD1	2.35	0.56
25:BA:2306:C:H5	25:BA:2307:G:H1'	1.70	0.56
1:AA:176:C:O2'	1:AA:177:C:H5'	2.05	0.56
25:BA:2652:C:H42	25:BA:2668:G:H1	1.52	0.56
27:DC:82:GLU:CD	27:DC:82:GLU:N	2.58	0.56
1:CA:1091:U:H1'	1:CA:1095:U:O2	2.05	0.56
1:CA:119:A:O2'	1:CA:120:A:OP2	2.18	0.56
20:AT:94:ALA:O	20:AT:95:ALA:HB2	2.05	0.56
18:CR:19:LYS:HE2	18:CR:19:LYS:N	2.20	0.56
7:CG:155:ARG:O	7:CG:156:TRP:HD1	1.88	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DR:28:LEU:HD21	38:DR:114:VAL:HG12	1.86	0.56
30:DF:38:ARG:HD3	30:DF:99:TYR:OH	2.05	0.56
25:DA:1681:G:OP2	25:DA:1681:G:H8	1.88	0.56
16:AP:75:ARG:HG3	16:AP:75:ARG:HH11	1.70	0.56
46:DZ:28:TYR:O	46:DZ:88:PHE:HA	2.04	0.56
2:CB:213:LEU:O	2:CB:213:LEU:HD23	2.05	0.56
2:CB:17:PHE:HB2	2:CB:42:ILE:HG23	1.87	0.56
42:DV:19:LYS:CG	42:DV:20:LEU:H	2.18	0.56
41:DU:90:VAL:CG1	42:DV:11:GLN:NE2	2.68	0.56
42:DV:12:TYR:N	42:DV:12:TYR:HD2	2.03	0.56
25:DA:820:A:O2'	25:DA:821:A:H5'	2.05	0.56
25:BA:773:U:C4'	28:BD:47:GLY:HA3	2.35	0.56
1:CA:1290:G:H2'	1:CA:1291:G:H5'	1.87	0.56
7:CG:120:ILE:HG22	7:CG:124:LEU:HD11	1.87	0.56
9:CI:16:ARG:HB2	9:CI:64:THR:CG2	2.35	0.56
41:BU:66:ASN:HD21	41:BU:70:ARG:NH2	2.03	0.56
25:BA:2808:U:H2'	25:BA:2809:A:C5'	2.32	0.56
25:BA:2102:U:H5	25:BA:2187:G:H22	1.53	0.56
25:BA:2371:G:H4'	53:B6:45:LYS:CB	2.36	0.56
3:AC:54:ARG:CG	3:AC:55:VAL:N	2.61	0.56
30:DF:127:GLU:OE1	30:DF:196:LEU:HD12	2.06	0.56
30:DF:202:PHE:HE1	30:DF:206:ILE:HD13	1.71	0.56
1:AA:1134:G:N2	1:AA:1141:C:C2	2.73	0.56
10:AJ:4:ILE:CG2	10:AJ:74:ILE:HD11	2.35	0.56
1:AA:16:A:O2'	1:AA:17:U:H5'	2.06	0.56
25:DA:850:C:C2'	25:DA:851:U:H5'	2.35	0.56
25:DA:848:G:O2'	25:DA:849:A:H5'	2.06	0.56
28:BD:96:HIS:ND1	28:BD:102:LYS:HG2	2.21	0.56
32:DH:157:TYR:O	32:DH:158:HIS:HB2	2.05	0.56
2:AB:207:ALA:O	2:AB:211:ILE:HG13	2.06	0.56
1:CA:453:A:C4'	16:CP:72:ARG:HG3	2.31	0.56
1:CA:452:A:HO2'	1:CA:453:A:H8	1.53	0.56
25:BA:2636:U:H2'	25:BA:2637:U:C6	2.40	0.56
13:AM:48:LEU:HD22	13:AM:48:LEU:N	2.20	0.56
2:AB:140:HIS:CA	2:AB:143:GLU:HG3	2.32	0.56
25:BA:2416:C:H2'	25:BA:2417:C:H6	1.70	0.56
11:AK:120:ARG:NH1	11:AK:126:ARG:HE	2.04	0.56
10:AJ:40:LEU:HG	10:AJ:69:ASN:HB3	1.88	0.56
4:AD:13:ARG:HB2	4:AD:38:TYR:O	2.05	0.56
25:BA:364:C:H2'	25:BA:365:C:C5'	2.33	0.56
25:BA:1797:C:H2'	25:BA:1798:U:H5'	1.87	0.56
1:CA:659:U:OP1	15:CO:9:GLN:NE2	2.38	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DC:80:LYS:CE	31:DG:50:ALA:H	2.18	0.56
15:AO:25:THR:HG21	15:AO:70:LEU:CB	2.30	0.56
30:DF:132:VAL:HG22	30:DF:133:ASN:N	2.20	0.56
10:CJ:17:ASP:HA	10:CJ:70:ARG:HH11	1.70	0.56
10:CJ:20:ALA:O	10:CJ:24:VAL:HG23	2.05	0.56
10:CJ:34:VAL:HG11	10:CJ:72:VAL:HG12	1.87	0.56
6:CF:2:ARG:NE	6:CF:69:GLU:HB3	2.20	0.56
12:AL:29:PHE:HD1	12:AL:83:ARG:HA	1.70	0.56
5:CE:76:ILE:HG22	5:CE:93:PRO:HB3	1.87	0.56
22:CV:67:THR:H	23:CW:17(B):U:H3	1.53	0.56
25:DA:914:C:C2'	25:DA:915:C:H5'	2.32	0.56
1:CA:626:U:H2'	1:CA:627:G:C8	2.40	0.56
1:CA:613:C:N4	1:CA:627:G:H1	1.96	0.56
25:BA:1458:C:C4'	25:BA:1459:G:O5'	2.50	0.56
5:AE:51:VAL:HB	5:AE:52:PRO:CD	2.30	0.56
18:AR:66:LEU:O	18:AR:69:THR:N	2.36	0.56
1:AA:68:G:H1	1:AA:101:A:H61	1.52	0.56
25:BA:538:G:H2'	25:BA:539:G:C5'	2.35	0.56
1:AA:1037:C:H2'	1:AA:1038:C:C6	2.40	0.56
22:AV:153:LEU:HD21	22:AV:159:VAL:CG1	2.36	0.56
1:CA:173:U:H5''	1:CA:197:A:O4'	2.05	0.56
8:CH:88:LYS:HB3	8:CH:89:PRO:HD2	1.87	0.56
25:DA:783:A:H4'	25:DA:1779:U:O2	2.05	0.56
27:DC:76:LEU:CD2	27:DC:104:ILE:HD11	2.35	0.56
1:AA:1124:G:H1'	10:AJ:38:ILE:CG2	2.35	0.56
17:AQ:78:GLU:CD	17:AQ:81:ARG:HD2	2.25	0.56
2:AB:178:ARG:HG3	8:AH:71:GLY:C	2.25	0.56
1:CA:181:G:H4'	1:CA:182:U:C5'	2.35	0.56
25:DA:1464:C:H2'	25:DA:1465:G:C8	2.39	0.56
1:CA:406:G:H1'	1:CA:495:A:N1	2.20	0.56
1:CA:262:A:H2'	1:CA:263:A:C8	2.40	0.56
25:DA:252:G:O2'	25:DA:253:C:H5'	2.05	0.56
1:CA:59:A:H5'	1:CA:60:A:C5'	2.36	0.56
30:BF:192:LEU:O	30:BF:193:VAL:HG23	2.04	0.56
25:DA:1491:G:O4'	28:DD:99:ASP:OD2	2.23	0.56
1:CA:710:G:H2'	1:CA:711:G:H8	1.70	0.56
11:CK:115:PRO:C	11:CK:117:ASN:H	2.08	0.56
33:DI:98:ALA:C	33:DI:100:ALA:H	2.08	0.56
27:DC:54:ARG:NH1	27:DC:54:ARG:CB	2.69	0.56
10:CJ:32:ALA:O	10:CJ:33:GLN:HG3	2.05	0.56
30:BF:68:LYS:HA	30:BF:68:LYS:HZ3	1.69	0.56
49:D2:38:GLN:HB2	49:D2:45:SER:HB2	1.87	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:AQ:55:ASP:HB3	17:AQ:76:LEU:HD13	1.88	0.56
25:DA:1169:G:H2'	25:DA:1170:G:O4'	2.05	0.56
23:AW:5:G:O2'	23:AW:6:G:H5'	2.05	0.56
1:CA:15:G:H8	1:CA:1396:A:O2'	1.87	0.56
30:BF:185:ASP:HA	30:BF:188:ARG:HG3	1.87	0.56
45:BY:6:HIS:HE1	45:BY:32:PRO:HB3	1.70	0.56
25:DA:927:G:C2'	25:DA:928:G:H5'	2.35	0.56
2:CB:105:PHE:O	2:CB:107:THR:N	2.39	0.56
27:DC:71:LYS:N	27:DC:71:LYS:HD3	2.19	0.56
49:D2:18:PRO:HG2	49:D2:19:VAL:H	1.70	0.56
4:AD:68:TYR:HA	4:AD:114:ARG:HD2	1.87	0.56
20:AT:37:SER:O	20:AT:40:ALA:HB3	2.05	0.56
25:BA:712:G:O2'	25:BA:713:G:H5'	2.05	0.56
1:AA:580:U:H2'	1:AA:581:G:C8	2.40	0.56
25:DA:1277:G:H4'	38:DR:20:LEU:HD11	1.87	0.56
25:DA:640:C:H2'	25:DA:641:C:C6	2.39	0.56
13:AM:117:VAL:HG12	13:AM:118:ALA:N	2.20	0.56
1:AA:882:C:O2'	1:AA:883:C:H5'	2.05	0.56
25:DA:606:U:H4'	25:DA:658:C:H4'	1.87	0.56
1:AA:1238:A:OP1	1:AA:1335:C:H1'	2.05	0.56
35:DO:24:VAL:CG2	35:DO:33:ALA:HB2	2.35	0.56
25:DA:1877:A:H5'	25:DA:1878:G:OP2	2.05	0.56
12:AL:7:LEU:O	12:AL:11:GLY:HA2	2.05	0.56
25:BA:2856:C:O2'	25:BA:2857:G:H5'	2.04	0.56
4:AD:195:ALA:C	4:AD:196:LEU:HD12	2.26	0.56
22:CV:41:PHE:N	22:CV:41:PHE:CD1	2.74	0.56
17:CQ:93:GLN:HA	17:CQ:96:GLU:OE1	2.04	0.56
56:D9:26:ILE:HG22	56:D9:27:CYS:N	2.20	0.56
33:BI:90:GLY:O	33:BI:91:SER:HB3	2.05	0.56
42:DV:39:LEU:HB3	42:DV:47:VAL:CG1	2.35	0.56
19:CS:61:TYR:O	19:CS:62:ILE:HB	2.05	0.56
20:AT:50:GLU:HB3	20:AT:100:ILE:HG12	1.86	0.56
7:CG:143:ARG:O	7:CG:147:ALA:HB2	2.04	0.56
25:BA:1011:G:OP2	41:BU:66:ASN:ND2	2.37	0.56
41:BU:112:ARG:NH1	41:BU:112:ARG:CG	2.65	0.56
25:BA:2186:G:H2'	25:BA:2187:G:C8	2.41	0.56
1:AA:221:C:H2'	1:AA:222:U:C6	2.40	0.56
3:CC:78:GLY:CA	3:CC:83:ARG:HB3	2.34	0.56
10:AJ:4:ILE:HB	10:AJ:74:ILE:CG1	2.29	0.56
30:DF:101:LEU:HD12	30:DF:102:PRO:HD2	1.86	0.56
46:BZ:150:HIS:O	46:BZ:151:ALA:O	2.23	0.56
25:DA:2680:C:C5'	29:DE:189:PRO:HA	2.35	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:286:C:C2'	25:DA:287:C:H5'	2.29	0.56
1:AA:1030:C:C5	1:AA:1031:G:N2	2.73	0.56
40:BT:20:PRO:HD2	40:BT:85:LYS:O	2.05	0.56
13:CM:11:ARG:O	13:CM:45:VAL:HG21	2.05	0.56
5:AE:33:VAL:HG11	5:AE:109:ILE:HA	1.87	0.56
3:CC:97:LYS:HG2	3:CC:98:ASN:N	2.20	0.56
25:DA:1754:C:H5'	40:DT:101:PHE:CE2	2.40	0.56
37:BQ:32:TYR:OH	37:BQ:111:GLU:HB2	2.05	0.56
15:AO:87:ILE:O	15:AO:88:ARG:HB2	2.06	0.56
47:D0:43:THR:O	47:D0:43:THR:HG23	2.06	0.56
47:D0:45:PHE:O	47:D0:59:LEU:HD11	2.05	0.56
1:CA:1202:G:H2'	1:CA:1203:C:O4'	2.05	0.56
31:BG:83:ARG:HH11	31:BG:84:LYS:NZ	2.03	0.56
25:BA:2285:C:C5	53:B6:27:LYS:HE3	2.40	0.56
28:BD:146:GLU:HA	28:BD:153:ALA:HA	1.88	0.56
5:AE:53:LEU:H	5:AE:53:LEU:HD12	1.69	0.56
28:BD:108:PRO:HG2	28:BD:111:LEU:CB	2.33	0.56
13:CM:48:LEU:HG	13:CM:53:VAL:HG23	1.87	0.56
1:CA:176:C:O2'	1:CA:177:C:H5'	2.06	0.56
25:BA:2208:A:H1'	25:BA:2219:G:C5	2.39	0.56
25:DA:142:A:H8	25:DA:1595:G:H21	1.49	0.56
17:CQ:83:ASP:HA	17:CQ:86:GLU:OE1	2.06	0.56
22:CV:42:LYS:HD3	22:CV:47:GLY:O	2.06	0.56
27:BC:165:ARG:NH1	27:BC:165:ARG:HB2	2.20	0.56
12:CL:8:VAL:HG13	17:CQ:29:HIS:CD2	2.40	0.56
1:AA:781:A:H2'	1:AA:782:A:H5'	1.88	0.56
1:AA:1282:C:H2'	1:AA:1283:G:C8	2.40	0.56
25:BA:1405:U:H2'	25:BA:1406:U:H6	1.69	0.56
1:AA:724:G:C2	1:AA:725:G:C8	2.94	0.56
37:DQ:116:GLU:OE2	37:DQ:119:ARG:NH2	2.38	0.56
28:DD:183:ARG:HG2	28:DD:184:LYS:N	2.20	0.56
25:BA:2753:A:C2	25:BA:2754:U:C2	2.93	0.56
25:DA:2540:C:C2'	25:DA:2541:A:H5'	2.36	0.56
25:BA:1889:A:N1	25:BA:2234:G:H1'	2.20	0.56
25:BA:2223:G:OP1	28:BD:172:TYR:OH	2.20	0.56
1:AA:1380:U:O2'	1:AA:1381:U:H5''	2.04	0.56
18:CR:19:LYS:O	18:CR:20:ALA:HB3	2.05	0.56
25:DA:1921:G:O2'	25:DA:1922:G:H5'	2.05	0.56
25:BA:2461:C:H2'	25:BA:2462:U:C6	2.40	0.56
25:BA:1165:U:O2'	25:BA:1166:C:H5'	2.05	0.56
31:DG:88:ILE:HG13	31:DG:89:GLY:N	2.21	0.56
3:AC:35:GLU:O	3:AC:38:ARG:HG2	2.05	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1244:G:H4'	36:DP:11:GLY:HA2	1.87	0.56
25:DA:1048:A:OP2	25:DA:1110:G:N2	2.38	0.56
53:D6:19:ARG:O	53:D6:20:ASN:O	2.24	0.56
13:AM:3:ARG:HG2	13:AM:9:ILE:CG1	2.34	0.56
36:BP:80:TYR:CD1	36:BP:111:ARG:HB3	2.40	0.56
25:DA:1747(A):G:C3'	25:DA:1748:G:H5''	2.35	0.56
2:AB:55:PHE:CE1	2:AB:221:LEU:HG	2.40	0.56
29:BE:72:VAL:O	29:BE:73:GLU:O	2.24	0.56
22:CV:89:GLU:O	22:CV:90:GLN:HB2	2.04	0.56
3:CC:7:PRO:O	3:CC:11:ARG:HG2	2.05	0.56
40:DT:23:ARG:NH2	40:DT:120:ARG:HD3	2.20	0.56
37:BQ:111:GLU:OE2	37:BQ:133:ARG:NH2	2.37	0.56
37:BQ:27:VAL:O	37:BQ:28:ALA:CB	2.53	0.56
40:DT:7:ILE:O	40:DT:10:VAL:HB	2.06	0.56
30:BF:36:VAL:HG11	30:BF:183:VAL:HG11	1.88	0.56
39:DS:34:HIS:CA	39:DS:54:LEU:HD23	2.34	0.56
3:AC:153:VAL:HG13	3:AC:198:VAL:HG13	1.88	0.56
1:CA:81:U:H2'	1:CA:82:U:C6	2.41	0.56
1:CA:80:G:H5'	1:CA:83:U:OP1	2.05	0.56
5:CE:72:GLN:HE21	5:CE:77:PRO:HB3	1.70	0.56
33:DI:19:VAL:HG22	33:DI:20:ASP:H	1.70	0.56
8:AH:86:ILE:HG22	8:AH:87:SER:N	2.21	0.56
25:DA:1579:A:H2'	25:DA:1580:A:C8	2.40	0.56
25:BA:12:U:C2'	25:BA:12:U:O2	2.53	0.56
40:BT:88:ILE:HG22	40:BT:89:VAL:H	1.70	0.56
31:BG:16:ARG:NH1	31:BG:31:VAL:CG1	2.69	0.56
5:AE:95:ALA:HB1	5:AE:96:PRO:HD2	1.87	0.56
1:AA:1424:C:O2'	1:AA:1425:U:H5'	2.06	0.56
37:DQ:81:VAL:HG23	47:D0:7:LEU:CD2	2.36	0.56
25:BA:2261:C:OP1	47:B0:16:GLN:HG2	2.05	0.56
7:AG:18:TYR:HD2	7:AG:59:LEU:HD12	1.70	0.56
35:BO:25:LEU:HD12	35:BO:38:VAL:CG1	2.35	0.56
48:B1:95:LEU:C	48:B1:97:LEU:N	2.59	0.56
1:CA:1250:A:H4'	9:CI:68:GLY:N	2.21	0.56
25:DA:2812:G:N2	25:DA:2889:C:H1'	2.20	0.56
7:AG:135:VAL:C	7:AG:137:LYS:H	2.08	0.56
40:DT:113:LYS:O	40:DT:114:LEU:HD23	2.06	0.56
32:DH:71:LEU:HA	32:DH:74:ASN:HD22	1.70	0.56
9:AI:48:GLU:N	9:AI:49:PRO:CD	2.69	0.56
3:CC:116:VAL:O	3:CC:119:ARG:HB3	2.05	0.56
34:BN:58:ASP:O	34:BN:60:ILE:N	2.38	0.56
25:BA:2070:G:H2'	25:BA:2071:A:O4'	2.06	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2031:A:O2'	25:BA:2032:G:P	2.64	0.56
4:CD:62:GLN:NE2	4:CD:62:GLN:HA	2.20	0.56
1:AA:660:G:H2'	1:AA:661:G:O4'	2.05	0.56
25:DA:1679:U:H2'	25:DA:1680:U:H5'	1.88	0.56
1:AA:175:C:O2'	1:AA:176:C:H5'	2.05	0.56
15:CO:66:LEU:O	15:CO:69:TYR:HB3	2.05	0.56
43:BW:12:ILE:HG13	43:BW:42:ARG:HH12	1.71	0.56
27:BC:70:GLY:C	27:BC:72:GLN:H	2.09	0.56
1:CA:1318:A:H1'	19:CS:37:ARG:NH2	2.20	0.56
3:AC:178:LEU:C	3:AC:180:ALA:H	2.09	0.56
25:DA:862:G:H2'	25:DA:863:A:C8	2.41	0.56
25:DA:910:A:C4	37:DQ:13:GLN:HG3	2.41	0.56
1:CA:1251:A:H1'	1:CA:1369:C:O2'	2.05	0.56
7:CG:71:PRO:HA	7:CG:138:LYS:HG2	1.86	0.56
7:CG:75:VAL:HG12	7:CG:88:PRO:CB	2.35	0.56
25:BA:2807:G:C3'	25:BA:2808:U:H5''	2.36	0.56
1:AA:1223:C:C2'	1:AA:1223:C:O3'	2.44	0.56
13:AM:80:ARG:C	13:AM:82:MET:H	2.09	0.56
45:DY:10:GLY:CA	45:DY:27:VAL:HG13	2.29	0.56
45:DY:43:ASN:HA	45:DY:64:GLU:HA	1.88	0.56
25:DA:278:A:H8	25:DA:278:A:O5'	1.89	0.56
35:BO:71:ARG:NH1	35:BO:71:ARG:HG3	2.16	0.56
38:DR:10:LEU:HB3	38:DR:17:ARG:CD	2.36	0.56
55:D8:61:LEU:HD22	55:D8:62:LEU:H	1.71	0.56
53:B6:48:VAL:O	53:B6:49:HIS:CB	2.53	0.56
25:DA:352:G:N3	25:DA:352:G:H2'	2.20	0.56
40:BT:28:VAL:HG22	40:BT:46:GLU:CA	2.35	0.56
5:AE:111:GLU:C	5:AE:113:ALA:H	2.09	0.56
8:AH:6:ILE:H	8:AH:6:ILE:CD1	2.18	0.56
1:AA:1053:G:C5	1:AA:1199:U:H2'	2.40	0.56
1:CA:1316:G:H2'	1:CA:1317:C:C5'	2.31	0.56
27:DC:80:LYS:NZ	31:DG:48:GLU:HB2	2.21	0.56
31:DG:86:MET:HB3	31:DG:87:PRO:CD	2.35	0.56
36:DP:79:ARG:NH2	36:DP:109:GLY:HA3	2.20	0.56
1:AA:473:G:H4'	16:AP:81:ARG:HH21	1.70	0.56
27:DC:138:LEU:HD13	27:DC:139:PRO:N	2.19	0.56
25:BA:2310:A:O2'	25:BA:2311:A:H5'	2.06	0.56
1:AA:662:G:O2'	1:AA:836:G:H5'	2.05	0.56
12:CL:80:VAL:HG13	12:CL:97:ILE:HG23	1.86	0.56
2:AB:7:VAL:N	2:AB:8:LYS:HZ3	2.03	0.56
18:AR:43:PHE:HE2	18:AR:58:LEU:HD11	1.71	0.56
55:D8:33:ASN:N	55:D8:33:ASN:ND2	2.49	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DN:114:ARG:HH11	34:DN:114:ARG:CB	2.16	0.56
25:DA:520:G:H2'	25:DA:521:G:C8	2.41	0.56
25:BA:280:C:H5'	25:BA:280:C:C6	2.30	0.56
44:BX:12:VAL:HG21	44:BX:27:THR:HB	1.88	0.56
6:CF:97:PHE:O	18:CR:31:LEU:HD23	2.05	0.56
9:AI:3:GLN:HG2	9:AI:20:ARG:NH1	2.17	0.56
22:CV:105:LYS:HG2	22:CV:106:GLU:N	2.18	0.56
27:DC:98:GLU:O	27:DC:101:ILE:HG22	2.05	0.56
1:AA:47:C:HO2'	1:AA:48:C:H5'	1.69	0.56
28:BD:131:LEU:N	28:BD:131:LEU:HD12	2.20	0.56
28:BD:28:GLU:HB2	28:BD:29:PRO:CD	2.35	0.56
25:DA:1721:G:O6	25:DA:1739:U:H5'	2.06	0.56
1:CA:1244:C:H2'	1:CA:1245:A:H8	1.66	0.56
25:DA:718:A:H2'	25:DA:719:C:O4'	2.05	0.56
25:BA:1028:A:N6	25:BA:1125:G:H2'	2.21	0.56
29:DE:6:GLY:O	29:DE:196:VAL:HG22	2.05	0.56
34:BN:55:VAL:HG22	34:BN:126:PRO:HA	1.87	0.56
45:BY:36:ALA:HA	45:BY:69:ALA:H	1.70	0.56
20:AT:85:MET:HG3	20:AT:85:MET:O	2.05	0.56
30:DF:31:HIS:HB2	36:DP:13:ASN:HB3	1.86	0.56
46:BZ:8:TYR:CE2	46:BZ:34:ARG:HD2	2.41	0.56
25:BA:380:U:H5'	48:B1:18:ILE:HD13	1.87	0.56
3:AC:186:PHE:CG	3:AC:187:ALA:N	2.73	0.56
25:BA:461:C:O2'	25:BA:462:C:H5'	2.04	0.56
25:BA:2322:A:H2'	25:BA:2323:G:O4'	2.04	0.56
33:BI:128:LEU:O	33:BI:137:PRO:HA	2.06	0.56
25:DA:2866:U:C6	25:DA:2868:A:H1'	2.40	0.56
25:DA:836:G:H2'	25:DA:837:C:C6	2.41	0.56
25:DA:2492:U:H2'	25:DA:2492:U:O2	2.04	0.56
46:DZ:102:ARG:HB2	46:DZ:135:PHE:CD1	2.41	0.56
25:BA:1106:G:C2'	25:BA:1107:G:C8	2.88	0.56
1:CA:1116:C:C3'	1:CA:1117:G:H5''	2.35	0.56
1:CA:1128:C:O2'	1:CA:1146:A:N1	2.38	0.56
13:CM:92:HIS:CD2	13:CM:98:VAL:HG21	2.40	0.56
25:BA:2787:C:C1'	29:BE:61:ARG:HG3	2.18	0.56
1:AA:1318:A:H4'	19:AS:10:PHE:HB2	1.87	0.56
30:BF:3:GLU:HA	30:BF:24:LEU:HD12	1.87	0.56
3:AC:21:ARG:O	3:AC:58:GLU:HA	2.05	0.56
30:DF:5:ALA:HB3	30:DF:18:ARG:HB3	1.88	0.56
25:DA:2402:C:H2'	25:DA:2403:C:C5'	2.36	0.56
32:DH:85:LYS:CG	32:DH:133:VAL:HB	2.36	0.56
53:B6:12:GLU:HB3	53:B6:23:THR:CG2	2.27	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:220:ASP:HA	2:AB:223:ILE:HD11	1.87	0.56
17:AQ:45:HIS:CB	17:AQ:65:ILE:HD13	2.36	0.56
4:AD:108:LEU:HD12	4:AD:174:LEU:HD13	1.88	0.56
29:BE:65:GLY:HA2	29:BE:70:ALA:HB1	1.87	0.56
13:CM:14:ARG:HA	13:CM:43:THR:O	2.06	0.56
2:AB:142:LEU:HA	2:AB:145:LEU:HB2	1.87	0.56
4:AD:30:LYS:C	4:AD:32:ALA:N	2.58	0.56
3:CC:62:ASP:CA	3:CC:97:LYS:HE2	2.35	0.56
15:CO:11:VAL:O	15:CO:14:GLU:N	2.38	0.56
6:CF:91:VAL:HG11	18:CR:72:ARG:HH22	1.67	0.56
1:AA:556:C:C2'	1:AA:557:G:H5'	2.36	0.56
6:CF:82:ARG:HA	6:CF:82:ARG:NH1	2.20	0.56
33:BI:133:HIS:ND1	33:BI:133:HIS:N	2.52	0.56
25:DA:1827:C:C2'	25:DA:1828:G:H5'	2.36	0.56
3:CC:111:LEU:HD21	3:CC:145:GLY:O	2.06	0.56
28:BD:147:LEU:HD13	28:BD:155:LEU:HD11	1.88	0.56
1:AA:1002:G:N2	1:AA:1003:G:H1'	2.19	0.56
1:AA:1004:A:N6	1:AA:1035:A:C8	2.73	0.56
25:DA:2485:G:H5''	37:DQ:46:GLN:HE21	1.69	0.56
39:BS:16:ASN:O	39:BS:19:LYS:HB3	2.04	0.56
44:BX:41:ASN:O	44:BX:45:THR:HG23	2.05	0.56
1:CA:191:G:O2'	1:CA:192:U:H5'	2.05	0.56
20:CT:57:ARG:NH1	20:CT:103:GLY:H	2.03	0.56
18:CR:31:LEU:H	18:CR:31:LEU:CD2	2.19	0.56
1:CA:501:C:H2'	1:CA:502:G:H8	1.70	0.56
55:D8:50:LEU:HD12	55:D8:51:ALA:N	2.19	0.56
25:BA:1558:A:O2'	25:BA:1559:G:OP2	2.18	0.56
25:DA:2795:G:C2	25:DA:2799:C:H5'	2.40	0.56
25:BA:2263:C:H2'	25:BA:2264:C:H6	1.69	0.56
11:CK:103:LEU:HD13	11:CK:104:GLN:H	1.71	0.56
19:CS:6:LYS:HG2	19:CS:7:LYS:CE	2.36	0.56
22:CV:78:GLU:O	22:CV:95:ARG:HG3	2.05	0.56
1:CA:1484:C:O2'	1:CA:1485:U:H5'	2.06	0.56
25:BA:1252:G:C2	25:BA:1253:A:C2	2.93	0.56
25:DA:1352:U:O2'	25:DA:1353:A:H5'	2.06	0.56
25:BA:1530:C:O2'	25:BA:1531:C:H5'	2.06	0.56
44:BX:47:PHE:CD1	44:BX:47:PHE:N	2.73	0.56
1:AA:642:A:N3	8:AH:113:SER:OG	2.38	0.56
5:AE:143:ARG:HD2	8:AH:77:GLU:OE2	2.06	0.56
29:DE:128:SER:O	29:DE:130:GLY:N	2.38	0.56
22:CV:153:LEU:C	22:CV:155:THR:H	2.08	0.56
49:B2:27:GLU:O	49:B2:31:GLU:HG3	2.06	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1478:C:H2'	1:CA:1479:C:H6	1.71	0.56
25:DA:1858:G:H2'	25:DA:1883:G:N2	2.21	0.56
1:CA:1228:C:OP1	13:CM:115:LYS:HD3	2.05	0.56
34:BN:108:PRO:O	34:BN:113:GLY:HA3	2.05	0.56
23:CW:41:C:O2'	23:CW:42:G:H5'	2.06	0.56
40:DT:118:ARG:O	40:DT:121:ILE:HG22	2.06	0.56
38:DR:101:ALA:O	38:DR:102:GLU:CB	2.54	0.56
1:AA:1112:C:C4	3:AC:178:LEU:HD23	2.40	0.56
46:DZ:26:VAL:HG12	46:DZ:86:ASP:OD2	2.05	0.56
46:DZ:9:ARG:HA	46:DZ:37:TYR:HD2	1.71	0.56
1:AA:134:A:N6	16:AP:25:ARG:NH1	2.48	0.56
41:DU:104:GLN:N	41:DU:104:GLN:CD	2.57	0.56
41:DU:92:ARG:CD	41:DU:95:LEU:H	2.19	0.56
25:DA:973:A:O4'	25:DA:1188:U:C6	2.58	0.56
25:DA:2110:G:H5''	25:DA:2118:U:H3	1.70	0.56
44:DX:12:VAL:HG21	44:DX:21:PHE:HZ	1.71	0.56
1:CA:939:G:H2'	1:CA:940:C:C6	2.41	0.56
1:CA:942:G:H21	9:CI:124:GLN:NE2	2.03	0.56
7:CG:119:ARG:O	7:CG:123:GLU:HB2	2.06	0.56
10:AJ:45:ARG:HD3	10:AJ:47:PHE:CE2	2.41	0.56
1:AA:1132:C:O2'	1:AA:1133:G:H5'	2.06	0.56
3:AC:3:ASN:ND2	3:AC:4:LYS:NZ	2.53	0.56
25:DA:593:G:O4'	55:D8:4:MET:HE1	2.06	0.56
32:DH:91:GLY:HA3	32:DH:94:TYR:HD2	1.71	0.56
29:BE:5:LEU:HD12	29:BE:51:PHE:HB2	1.88	0.56
40:DT:82:LEU:H	40:DT:82:LEU:CD1	2.12	0.56
22:CV:72:TYR:N	22:CV:109:THR:CG2	2.60	0.56
3:CC:41:GLY:O	3:CC:45:LYS:HG3	2.06	0.56
3:CC:9:GLY:O	14:CN:58:LYS:HG3	2.06	0.56
1:AA:823:G:H21	8:AH:1:MET:HE3	1.70	0.56
47:D0:72:ARG:HB2	47:D0:75:LEU:CB	2.36	0.56
25:BA:1021:A:C8	25:BA:1021:A:H3'	2.41	0.56
25:DA:637:A:O5'	36:DP:116:GLY:HA2	2.06	0.56
15:AO:63:ARG:HG2	15:AO:67:LEU:CD1	2.35	0.56
39:DS:35:ILE:O	39:DS:35:ILE:HG23	2.05	0.56
1:AA:370:C:H2'	1:AA:371:G:C8	2.41	0.56
16:AP:67:THR:HG22	16:AP:68:ASP:H	1.71	0.56
1:CA:1151:A:H1'	10:CJ:39:PRO:HG3	1.86	0.56
39:DS:98:VAL:CG2	39:DS:100:ALA:HB2	2.35	0.56
6:CF:69:GLU:HG2	6:CF:70:ASP:N	2.19	0.56
6:CF:79:LEU:HD12	6:CF:88:VAL:HG11	1.86	0.56
27:BC:34:ALA:HB2	27:BC:217:THR:CB	2.35	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DB:17:C:H2'	26:DB:18:G:H8	1.71	0.56
1:CA:221:C:H2'	1:CA:222:U:C6	2.41	0.56
55:B8:51:ALA:C	55:B8:53:PRO:HD2	2.26	0.56
25:DA:1281:G:H2'	25:DA:1282:U:O4'	2.05	0.56
1:AA:149:A:H2'	1:AA:150:C:C6	2.41	0.56
1:AA:1425:U:H2'	1:AA:1426:C:H6	1.71	0.56
29:DE:132:HIS:O	29:DE:133:LYS:CG	2.53	0.56
29:BE:97:LYS:HE2	29:BE:97:LYS:CA	2.36	0.56
25:BA:2261:C:P	47:B0:16:GLN:HG2	2.46	0.56
25:BA:2271:G:H5'	47:B0:19:ARG:HG3	1.88	0.56
52:B5:13:LYS:H	52:B5:13:LYS:CD	2.18	0.56
33:BI:68:LEU:HA	33:BI:71:ILE:HG21	1.88	0.56
25:DA:184:C:H2'	25:DA:185:U:C6	2.41	0.56
4:AD:154:ASN:O	4:AD:155:LEU:C	2.44	0.56
1:AA:1387:G:H2'	1:AA:1388:C:C6	2.40	0.56
1:CA:1246:C:H2'	1:CA:1247:U:H6	1.71	0.56
25:DA:2271:G:H4'	47:D0:20:ARG:HH12	1.71	0.56
4:CD:190:ASP:OD2	4:CD:190:ASP:C	2.44	0.56
15:AO:11:VAL:HG21	15:AO:34:LEU:HD22	1.87	0.56
25:BA:755:C:H2'	25:BA:756:C:H6	1.70	0.56
18:AR:53:ARG:HB2	18:AR:63:GLN:HE21	1.70	0.56
3:CC:82:GLU:O	3:CC:86:VAL:HG22	2.06	0.56
25:BA:1830:C:O2'	25:BA:1831:G:H5'	2.06	0.56
25:DA:758:C:H2'	25:DA:759:G:H8	1.70	0.56
25:DA:1656:C:H2'	25:DA:1657:C:H6	1.70	0.56
4:CD:180:GLY:C	4:CD:182:LYS:HE3	2.26	0.56
56:D9:11:CYS:SG	56:D9:32:HIS:CD2	2.99	0.56
37:DQ:135:ASP:C	37:DQ:137:TYR:N	2.58	0.56
34:DN:2:LYS:O	34:DN:4:TYR:CZ	2.59	0.56
42:DV:22:VAL:O	42:DV:23:GLU:CB	2.53	0.56
25:DA:2189:U:H3'	25:DA:2190:G:H5''	1.87	0.56
1:CA:1341:U:O2'	1:CA:1342:C:H5'	2.05	0.56
1:CA:1292:U:H5'	9:CI:38:GLN:HE22	1.71	0.56
45:DY:54:LYS:O	45:DY:55:TYR:O	2.23	0.56
22:CV:127:VAL:HG21	23:CW:23:C:H5''	1.88	0.56
25:BA:2370:G:H2'	25:BA:2371:G:O4'	2.06	0.56
28:DD:26:LYS:HZ1	28:DD:82:ILE:HB	1.71	0.56
25:BA:2795:G:N1	25:BA:2799:C:H5'	2.21	0.56
2:AB:23:ARG:O	2:AB:23:ARG:HG2	2.04	0.56
45:BY:45:VAL:CG2	45:BY:61:ILE:HA	2.33	0.56
52:D5:4:HIS:O	52:D5:5:PRO:C	2.42	0.56
2:AB:149:LEU:HD22	2:AB:152:PHE:HD1	1.70	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1113:C:O2'	1:CA:1114:C:H5'	2.05	0.56
3:CC:181:ASN:HD21	3:CC:204:LEU:HB2	1.70	0.56
10:CJ:48:THR:HG22	10:CJ:49:VAL:N	2.20	0.56
14:CN:40:CYS:HG	14:CN:43:CYS:HG	1.51	0.56
25:DA:2791:C:H6	25:DA:2792:G:N7	2.03	0.56
25:DA:74:A:H4'	25:DA:75:G:O5'	2.06	0.56
30:BF:66:PRO:O	30:BF:67:GLN:CB	2.53	0.56
2:CB:128:GLU:HG3	2:CB:129:GLU:HG3	1.88	0.56
1:AA:393:A:C2'	1:AA:394:G:H5'	2.36	0.56
20:CT:96:GLY:O	20:CT:97:ALA:CB	2.54	0.56
25:DA:2476:A:C2	25:DA:2477:C:C4	2.94	0.56
28:DD:30:GLU:HG3	28:DD:63:ARG:NE	2.20	0.56
35:DO:52:VAL:HG23	35:DO:56:ASP:OD1	2.06	0.56
25:BA:740:U:H6	25:BA:740:U:C5'	2.13	0.56
18:AR:50:ILE:HD12	18:AR:70:ILE:HG21	1.88	0.56
25:BA:2882:A:C2'	25:BA:2883:A:O5'	2.53	0.56
50:B3:35:ARG:HG3	50:B3:35:ARG:HH11	1.70	0.56
16:CP:20:VAL:HG21	16:CP:32:TYR:CD1	2.41	0.56
25:BA:2313:C:H2'	25:BA:2314:C:H6	1.71	0.56
28:DD:270:ILE:H	28:DD:270:ILE:CD1	2.19	0.56
27:DC:78:ILE:HG22	27:DC:120:VAL:HG11	1.88	0.56
55:D8:51:ALA:C	55:D8:53:PRO:HD2	2.26	0.56
18:CR:37:VAL:HG23	18:CR:38:GLU:N	2.20	0.56
34:BN:120:LEU:HD11	34:BN:122:VAL:CG2	2.36	0.56
12:AL:61:TYR:CD1	12:AL:61:TYR:N	2.74	0.56
4:AD:122:ARG:C	4:AD:124:GLY:H	2.09	0.56
8:CH:29:SER:HB2	8:CH:32:LYS:NZ	2.20	0.56
11:CK:59:TYR:O	11:CK:62:GLN:HB3	2.05	0.56
1:CA:542:G:H2'	1:CA:543:C:H6	1.71	0.56
1:CA:430:A:P	4:CD:8:VAL:H	2.28	0.56
25:DA:2346:A:C8	25:DA:2383:G:C6	2.94	0.56
31:DG:29:TRP:HA	31:DG:29:TRP:CE3	2.41	0.56
25:DA:2757:A:C2	32:DH:63:SER:HB3	2.41	0.56
18:AR:36:ASN:ND2	18:AR:39:VAL:HB	2.21	0.56
1:CA:779:C:C2'	1:CA:780:A:H5'	2.36	0.56
31:BG:53:LEU:H	31:BG:53:LEU:HD22	1.70	0.56
25:DA:2522:U:H2'	25:DA:2523:G:H5'	1.88	0.56
2:CB:187:LEU:HD22	2:CB:205:ASP:CB	2.36	0.56
54:D7:29:LYS:O	54:D7:33:ARG:HB2	2.06	0.56
1:CA:115:G:H1'	1:CA:116:A:N7	2.20	0.56
4:AD:98:GLU:HG3	4:AD:103:ASN:HD21	1.69	0.56
1:CA:1424:C:O2'	1:CA:1425:U:H5'	2.06	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:341:C:H2'	1:CA:342:C:C6	2.40	0.56
25:DA:2818:G:O2'	25:DA:2819:G:H5'	2.06	0.56
25:BA:2853:C:H2'	25:BA:2854:G:H8	1.71	0.56
38:BR:59:ASP:OD2	38:BR:59:ASP:N	2.38	0.56
25:DA:1810:A:H2'	25:DA:1811:G:O4'	2.06	0.56
25:BA:127:A:H5''	25:BA:128:C:C6	2.41	0.56
1:AA:1051:C:H2'	1:AA:1052:U:C6	2.41	0.56
1:AA:1089:G:H2'	1:AA:1090:U:H6	1.71	0.56
33:BI:92:VAL:CG2	33:BI:120:ILE:HD12	2.36	0.56
10:AJ:51:ARG:CZ	10:AJ:61:GLU:HB2	2.36	0.56
50:D3:9:VAL:HA	50:D3:32:GLN:OE1	2.06	0.56
41:DU:71:GLN:O	41:DU:73:GLY:N	2.37	0.56
25:DA:917:A:C2	25:DA:918:A:H1'	2.41	0.56
7:CG:66:VAL:O	7:CG:70:LYS:HB2	2.06	0.56
42:BV:47:VAL:O	42:BV:49:THR:O	2.23	0.56
31:DG:102:PHE:HE2	31:DG:141:PHE:CE1	2.24	0.56
45:DY:8:LYS:HD2	45:DY:8:LYS:N	2.21	0.56
25:DA:2810:A:O2'	29:DE:61:ARG:HG3	2.06	0.56
29:DE:24:THR:HG21	29:DE:188:VAL:CG1	2.36	0.56
25:BA:541:C:N3	25:BA:542:C:C4	2.73	0.56
8:CH:7:ALA:HB2	8:CH:85:ARG:HH11	1.70	0.56
36:BP:108:LYS:C	36:BP:110:TYR:N	2.57	0.56
36:BP:96:THR:O	36:BP:98:GLU:HG2	2.05	0.56
28:BD:21:PHE:O	28:BD:24:ILE:HG22	2.06	0.56
45:BY:50:ARG:O	45:BY:51:VAL:HG23	2.05	0.56
35:DO:107:ARG:HH11	40:DT:35:LYS:HD2	1.67	0.56
1:CA:1316:G:N1	1:CA:1319:A:OP2	2.39	0.56
19:CS:20:LEU:HA	19:CS:23:ASN:HB3	1.88	0.56
19:CS:4:SER:O	19:CS:5:LEU:HB2	2.04	0.56
52:B5:53:ALA:HA	52:B5:56:LYS:NZ	2.21	0.56
52:B5:54:GLY:H	52:B5:56:LYS:HZ1	1.51	0.56
1:AA:1208:C:H2'	1:AA:1209:C:C6	2.34	0.56
22:AV:136:PRO:C	22:AV:138:GLY:N	2.60	0.56
28:DD:209:ALA:C	28:DD:210:GLY:O	2.43	0.56
23:AW:3:C:H6	23:AW:3:C:O5'	1.88	0.56
28:DD:30:GLU:CD	28:DD:63:ARG:HE	2.09	0.56
1:AA:546:G:P	4:AD:72:GLU:HB3	2.46	0.56
25:BA:848:G:C1'	25:BA:933:A:H8	2.18	0.56
6:CF:18:GLN:O	6:CF:21:LEU:N	2.39	0.56
25:DA:1495:A:H3'	25:DA:1496:A:C2	2.41	0.56
49:B2:28:LYS:HB3	49:B2:57:ILE:HD13	1.87	0.56
55:B8:53:PRO:O	55:B8:57:ARG:N	2.34	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DD:268:ARG:CB	28:DD:268:ARG:NH1	2.69	0.56
26:BB:56:G:H4'	26:BB:57:A:C8	2.40	0.56
4:AD:96:LEU:HD13	4:AD:96:LEU:N	2.21	0.56
6:AF:7:ASN:ND2	6:AF:7:ASN:N	2.54	0.56
10:AJ:84:GLN:CA	10:AJ:88:LEU:HD23	2.36	0.56
25:DA:1205:U:H3'	25:DA:1206:G:H5'	1.87	0.56
1:CA:600:C:H2'	1:CA:601:C:C6	2.41	0.56
25:DA:404:C:H4'	25:DA:405:U:C5'	2.35	0.56
9:CI:42:ARG:NH1	9:CI:42:ARG:HG2	2.21	0.56
12:AL:123:LYS:HD2	12:AL:124:GLU:H	1.71	0.56
25:DA:2012:G:O3'	43:DW:96:ILE:HD11	2.06	0.56
25:DA:2013:A:H4'	43:DW:96:ILE:HD12	1.88	0.56
34:BN:58:ASP:C	34:BN:60:ILE:N	2.58	0.56
34:BN:47:ALA:HB1	34:BN:116:LEU:HD21	1.87	0.56
25:DA:597:U:H2'	25:DA:598:G:C8	2.41	0.56
25:DA:1014:U:H2'	25:DA:1015:G:C8	2.41	0.56
36:BP:113:LYS:HG2	36:BP:113:LYS:O	2.05	0.56
6:AF:97:PHE:HD2	6:AF:97:PHE:C	2.08	0.56
25:DA:621:A:H3'	25:DA:622:G:H8	1.71	0.56
1:CA:1426:C:O2'	1:CA:1427:U:H5'	2.06	0.56
46:BZ:56:ILE:O	46:BZ:67:PRO:HA	2.06	0.56
33:BI:75:LEU:O	33:BI:76:THR:HG23	2.05	0.56
25:DA:2426:A:H3'	25:DA:2427:C:H5'	1.87	0.56
25:BA:2734:A:H2'	25:BA:2735:G:O4'	2.06	0.56
9:AI:40:LEU:HB2	9:AI:43:ALA:CB	2.35	0.55
42:DV:20:LEU:CB	42:DV:21:ARG:HE	2.16	0.55
48:D1:52:ARG:CG	48:D1:53:VAL:H	2.09	0.55
25:BA:1576:U:H2'	25:BA:1577:C:H6	1.70	0.55
19:AS:33:THR:HG23	19:AS:51:VAL:HA	1.88	0.55
19:AS:51:VAL:HB	19:AS:58:VAL:HG22	1.88	0.55
45:DY:42:VAL:HB	45:DY:65:ALA:HB3	1.86	0.55
53:D6:41:PRO:HD3	53:D6:46:HIS:HA	1.88	0.55
32:DH:122:THR:HB	32:DH:134:SER:HB2	1.88	0.55
36:BP:98:GLU:HA	36:BP:101:VAL:HG22	1.88	0.55
40:BT:28:VAL:C	40:BT:29:ARG:HD3	2.27	0.55
4:AD:79:PHE:CE1	4:AD:203:VAL:HG12	2.41	0.55
40:DT:88:ILE:HG22	40:DT:89:VAL:N	2.20	0.55
40:DT:92:GLY:C	40:DT:94:ALA:N	2.59	0.55
46:BZ:124:LEU:HD23	46:BZ:163:ALA:O	2.05	0.55
25:DA:2163:C:H2'	25:DA:2164:C:O4'	2.05	0.55
6:CF:74:ASP:HA	6:CF:77:ARG:NH1	2.19	0.55
1:CA:188:C:O2'	1:CA:189:G:H5'	2.06	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2123:G:H2'	25:DA:2124:G:H8	1.69	0.55
12:AL:38:ARG:CG	12:AL:39:THR:N	2.70	0.55
10:CJ:90:LEU:N	10:CJ:91:PRO:HD3	2.21	0.55
17:CQ:66:SER:OG	17:CQ:69:LYS:HB3	2.06	0.55
20:AT:30:LYS:O	20:AT:33:ILE:HB	2.04	0.55
43:DW:29:LEU:CD2	43:DW:69:LEU:HD12	2.37	0.55
25:BA:1718:G:H2'	25:BA:1719:G:C5'	2.36	0.55
18:AR:46:GLU:CB	18:AR:85:LEU:HD22	2.35	0.55
33:DI:10:GLU:OE2	33:DI:11:ASN:N	2.40	0.55
25:DA:839:U:H2'	25:DA:840:C:C6	2.40	0.55
22:AV:103:PHE:N	22:AV:103:PHE:HD1	2.02	0.55
22:AV:85:LEU:HD11	22:AV:109:THR:HG22	1.87	0.55
1:AA:300:A:H1'	1:AA:565:U:O2	2.06	0.55
1:CA:674:G:H2'	1:CA:675:A:H8	1.70	0.55
11:AK:41:THR:HG21	11:AK:71:LYS:CB	2.35	0.55
31:BG:39:ILE:HD11	31:BG:155:MET:CB	2.35	0.55
1:AA:808:C:OP2	15:AO:48:LYS:HE3	2.06	0.55
48:B1:80:LEU:HD23	48:B1:81:LYS:H	1.72	0.55
1:CA:711:G:O2'	1:CA:712:A:H5'	2.06	0.55
25:BA:1139:G:H5'	34:BN:102:ALA:CB	2.37	0.55
18:CR:82:THR:HG22	18:CR:83:GLU:N	2.21	0.55
12:CL:124:GLU:CD	12:CL:124:GLU:H	2.10	0.55
49:D2:41:ILE:HD11	49:D2:44:LEU:HG	1.88	0.55
34:BN:43:THR:HB	34:BN:46:VAL:HG12	1.88	0.55
1:CA:328:C:C2'	1:CA:328:C:O2	2.53	0.55
25:BA:535:C:C2'	25:BA:536:A:H5'	2.35	0.55
1:CA:17:U:O4'	1:CA:1080:A:H1'	2.06	0.55
12:AL:55:VAL:HG12	12:AL:57:LEU:HD22	1.88	0.55
46:DZ:97:MET:HE3	46:DZ:99:VAL:HG22	1.87	0.55
25:BA:1525:G:H2'	25:BA:1526:G:C8	2.41	0.55
25:DA:418:G:O2'	25:DA:419:C:H5'	2.06	0.55
25:DA:1518:U:H2'	25:DA:1519:G:O4'	2.06	0.55
28:DD:68:LYS:O	28:DD:68:LYS:HG3	2.04	0.55
17:AQ:6:LEU:HD23	17:AQ:23:VAL:HG21	1.88	0.55
33:BI:92:VAL:HG21	33:BI:120:ILE:HD12	1.87	0.55
2:CB:167:PRO:O	2:CB:170:GLU:N	2.40	0.55
42:DV:46:VAL:CG2	42:DV:47:VAL:H	2.14	0.55
42:DV:69:LYS:HG3	42:DV:87:HIS:H	1.71	0.55
44:DX:21:PHE:C	44:DX:23:GLU:H	2.08	0.55
1:CA:1372:U:H2'	1:CA:1373:G:O4'	2.05	0.55
31:DG:117:PHE:C	31:DG:118:ARG:HG3	2.27	0.55
25:DA:1360:A:H2'	25:DA:1361:G:O4'	2.06	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:184:G:O4'	1:AA:224:C:H4'	2.06	0.55
3:AC:62:ASP:HA	3:AC:97:LYS:CE	2.36	0.55
25:DA:2832:U:C4'	25:DA:2833:G:H5''	2.28	0.55
25:BA:1638:C:H4'	25:BA:2710:C:O2	2.06	0.55
53:B6:19:ARG:HG3	53:B6:42:TRP:HE1	1.70	0.55
53:B6:20:ASN:HD22	53:B6:21:TYR:H	1.54	0.55
55:D8:23:VAL:HG12	55:D8:46:ARG:HH11	1.70	0.55
40:BT:45:PHE:HE2	40:BT:63:VAL:HB	1.70	0.55
8:CH:137:VAL:HG12	8:CH:138:TRP:H	1.71	0.55
10:AJ:39:PRO:CA	10:AJ:70:ARG:HG3	2.36	0.55
4:AD:10:ARG:NH1	4:AD:40:PRO:HG3	2.22	0.55
22:CV:70:LEU:HA	22:CV:85:LEU:HB2	1.88	0.55
14:CN:26:ARG:HG3	14:CN:27:CYS:H	1.71	0.55
34:DN:51:PHE:CE2	34:DN:119:ARG:HD2	2.42	0.55
32:BH:67:LEU:O	32:BH:71:LEU:HB2	2.05	0.55
28:DD:159:ALA:HA	28:DD:196:VAL:HG12	1.89	0.55
15:CO:12:ILE:O	15:CO:16:ALA:HB2	2.06	0.55
52:B5:48:GLU:O	52:B5:49:CYS:HB3	2.07	0.55
47:D0:51:VAL:HG12	47:D0:59:LEU:HD22	1.87	0.55
2:AB:67:THR:O	2:AB:68:ILE:HD13	2.07	0.55
25:BA:588:U:H2'	25:BA:589:C:C6	2.41	0.55
36:BP:23:PRO:HB2	36:BP:33:ARG:NE	2.21	0.55
1:CA:81:U:O4	1:CA:84:U:OP2	2.25	0.55
1:CA:460:G:N1	1:CA:470:C:H5''	2.21	0.55
25:BA:549:G:C3'	25:BA:551:G:H5''	2.35	0.55
27:BC:26:ALA:HB1	27:BC:223:VAL:HG21	1.89	0.55
1:AA:877:C:OP1	8:AH:88:LYS:HE3	2.07	0.55
32:DH:12:PRO:HD2	32:DH:49:VAL:HG12	1.87	0.55
45:BY:16:ALA:HA	45:BY:21:LYS:HD2	1.87	0.55
38:BR:72:ASP:HB3	38:BR:75:LEU:CB	2.36	0.55
28:DD:20:ASP:O	28:DD:22:SER:N	2.39	0.55
4:CD:166:LYS:HG2	4:CD:178:VAL:CG1	2.36	0.55
31:BG:5:VAL:HG12	51:B4:51:TYR:CE1	2.41	0.55
51:B4:37:PRO:HA	51:B4:51:TYR:HA	1.87	0.55
25:BA:2166:G:H2'	25:BA:2167:U:C6	2.35	0.55
22:AV:114:MET:HE1	22:AV:119:PRO:HD3	1.87	0.55
35:DO:20:MET:HE2	35:DO:44:LYS:HE3	1.89	0.55
1:CA:1106:G:H2'	1:CA:1107:C:C6	2.40	0.55
4:AD:135:LEU:HD22	4:AD:135:LEU:N	2.22	0.55
25:DA:1645:G:OP1	25:DA:1646:C:H5'	2.06	0.55
1:CA:1281:U:H3'	1:CA:1282:C:C6	2.41	0.55
35:BO:1:MET:HB2	35:BO:32:TYR:HB3	1.89	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:679:C:O2'	1:CA:680:C:H5'	2.05	0.55
25:BA:481:G:H4'	25:BA:482:A:H5'	1.88	0.55
35:BO:22:ILE:HB	35:BO:40:VAL:HG12	1.87	0.55
23:AW:37:A:H3'	23:AW:38:A:C8	2.39	0.55
1:AA:1513:A:H2'	1:AA:1514:C:C6	2.42	0.55
25:DA:1710:C:H2'	25:DA:1711:C:H6	1.72	0.55
12:AL:14:LYS:CD	12:AL:15:VAL:H	2.19	0.55
30:BF:185:ASP:OD1	30:BF:188:ARG:NH1	2.39	0.55
25:BA:2873:A:H2	38:BR:7:GLY:HA2	1.69	0.55
5:CE:31:LEU:HD11	5:CE:43:LEU:HD11	1.87	0.55
15:AO:43:LEU:C	15:AO:45:VAL:H	2.08	0.55
16:CP:52:ASP:OD1	16:CP:55:ARG:HG2	2.07	0.55
34:BN:74:ARG:HH12	34:BN:85:ILE:CD1	2.20	0.55
25:DA:1333:C:H2'	25:DA:1334:G:H8	1.70	0.55
2:AB:237:ALA:H	2:AB:239:VAL:HG23	1.71	0.55
46:BZ:52:ILE:HG22	46:BZ:70:VAL:HB	1.88	0.55
1:CA:658:G:O2'	15:CO:22:THR:HG21	2.06	0.55
28:BD:117:VAL:HG12	28:BD:118:VAL:N	2.21	0.55
25:BA:1866:C:H2'	25:BA:1876:A:O4'	2.06	0.55
25:DA:1902:C:H1'	28:DD:244:ARG:HG3	1.88	0.55
37:DQ:141:GLN:HB2	46:DZ:98:TYR:H	1.72	0.55
46:DZ:9:ARG:NH1	46:DZ:35:LYS:HB2	2.21	0.55
41:DU:90:VAL:C	41:DU:92:ARG:N	2.60	0.55
42:DV:4:ILE:HA	42:DV:12:TYR:O	2.06	0.55
20:AT:42:GLN:HG3	20:AT:43:LEU:N	2.20	0.55
41:BU:58:ARG:HA	41:BU:61:TRP:CE3	2.41	0.55
25:BA:2807:G:H3'	25:BA:2808:U:H5''	1.86	0.55
1:AA:1320:C:H5'	1:AA:1320:C:H6	1.70	0.55
29:DE:70:ALA:O	29:DE:71:GLY:C	2.45	0.55
30:BF:20:LEU:HB3	30:BF:23:ASP:OD1	2.06	0.55
53:B6:40:CYS:SG	53:B6:45:LYS:CE	2.95	0.55
3:AC:21:ARG:HE	3:AC:58:GLU:CD	2.10	0.55
45:BY:25:GLY:HA3	45:BY:39:VAL:HG13	1.89	0.55
3:CC:83:ARG:HD2	3:CC:83:ARG:C	2.27	0.55
25:BA:1396:U:C6	25:BA:1397:U:C6	2.94	0.55
1:AA:1065:U:H1'	1:AA:1066:C:OP2	2.06	0.55
25:BA:662:G:OP1	36:BP:18:ARG:CD	2.46	0.55
31:DG:16:ARG:HH22	31:DG:28:VAL:HG12	1.71	0.55
32:DH:158:HIS:O	32:DH:159:GLU:CB	2.53	0.55
1:AA:1028:C:C2'	1:AA:1029:C:H5'	2.36	0.55
1:AA:267:C:P	17:AQ:67:LYS:HB2	2.46	0.55
13:CM:16:ASP:HB3	13:CM:34:LEU:HD11	1.87	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:141:GLU:HG2	2:AB:145:LEU:HD23	1.89	0.55
31:BG:47:LYS:HA	31:BG:82:LEU:HD21	1.87	0.55
15:CO:25:THR:O	15:CO:29:VAL:HG23	2.05	0.55
15:CO:8:LYS:O	15:CO:12:ILE:HG13	2.05	0.55
14:AN:24:CYS:HB2	14:AN:33:VAL:HG12	1.87	0.55
19:CS:10:PHE:HZ	19:CS:70:LYS:NZ	2.03	0.55
33:BI:44:LEU:O	33:BI:47:LEU:HB3	2.05	0.55
52:B5:40:LYS:HB2	52:B5:40:LYS:NZ	2.22	0.55
1:CA:1200:C:H5''	1:CA:1201:A:C3'	2.31	0.55
25:BA:2389:G:H5''	25:BA:2390:U:O4'	2.06	0.55
42:BV:5:VAL:HG23	42:BV:35:LEU:HG	1.88	0.55
26:BB:45:A:H1'	31:BG:95:ARG:HH21	1.70	0.55
25:DA:19:C:O2'	25:DA:20:C:H5'	2.07	0.55
50:B3:35:ARG:NH1	50:B3:35:ARG:HG3	2.20	0.55
25:BA:2762:G:C3'	25:BA:2763:G:C5'	2.84	0.55
31:BG:126:ASP:HA	31:BG:166:ASP:OD1	2.06	0.55
1:CA:1255:G:O2'	1:CA:1259:C:O4'	2.24	0.55
1:CA:848:C:H2'	1:CA:849:C:H6	1.72	0.55
8:CH:21:LYS:O	8:CH:22:GLU:C	2.45	0.55
25:DA:203:C:C3'	25:DA:204:A:H5''	2.36	0.55
37:BQ:43:THR:O	37:BQ:46:GLN:N	2.39	0.55
44:DX:29:TRP:CE3	44:DX:78:LYS:HB3	2.41	0.55
11:AK:23:ALA:HB1	11:AK:88:GLY:HA3	1.88	0.55
27:BC:130:ARG:CB	27:BC:130:ARG:HH11	2.18	0.55
1:CA:164:U:H2'	1:CA:165:C:C6	2.41	0.55
5:AE:7:GLU:HG3	5:AE:8:GLU:N	2.22	0.55
30:DF:40:GLN:OE1	30:DF:184:TYR:HB2	2.07	0.55
29:BE:175:VAL:HG12	29:BE:182:LEU:CD1	2.36	0.55
25:BA:1042:G:C3'	25:BA:1043:C:H5'	2.36	0.55
49:D2:32:LEU:HD22	49:D2:36:ARG:NH1	2.20	0.55
35:BO:91:LEU:HD12	35:BO:111:PHE:CE1	2.41	0.55
34:BN:43:THR:HG22	34:BN:45:ASN:OD1	2.05	0.55
1:CA:1098:C:H2'	1:CA:1099:G:O4'	2.06	0.55
1:AA:693:G:H2'	1:AA:694:A:C8	2.41	0.55
29:BE:120:TRP:O	29:BE:121:ASN:HB2	2.07	0.55
26:BB:17:C:C2'	26:BB:18:G:H5'	2.36	0.55
25:BA:903:C:H2'	25:BA:904:C:C6	2.41	0.55
21:AU:2:GLY:O	21:AU:4:GLY:N	2.39	0.55
1:AA:685:G:O2'	1:AA:686:U:H5'	2.06	0.55
25:DA:469:G:C2'	25:DA:470:A:H5''	2.36	0.55
25:BA:231:C:O2'	25:BA:232:G:H5'	2.06	0.55
25:DA:680:G:H2'	25:DA:681:G:C8	2.41	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BS:87:PHE:CG	39:BS:88:ASP:N	2.74	0.55
46:DZ:51:SER:O	46:DZ:52:ILE:HG23	2.07	0.55
25:DA:550:G:H2'	25:DA:551:G:O4'	2.07	0.55
41:DU:104:GLN:HA	41:DU:107:ALA:HB3	1.87	0.55
41:DU:92:ARG:HD3	41:DU:92:ARG:O	2.06	0.55
42:DV:20:LEU:HB3	42:DV:21:ARG:NH2	2.21	0.55
42:DV:38:LEU:HD23	42:DV:39:LEU:N	2.22	0.55
25:DA:861:A:C2	25:DA:917:A:C4	2.94	0.55
13:CM:106:ASN:C	13:CM:108:ARG:N	2.60	0.55
31:DG:103:LEU:CA	31:DG:106:LEU:HB3	2.30	0.55
31:DG:128:ARG:HB3	31:DG:130:ASN:ND2	2.22	0.55
3:AC:83:ARG:CG	3:AC:83:ARG:HH11	2.13	0.55
25:BA:1888:G:N3	25:BA:1888:G:H5'	2.19	0.55
36:DP:56:SER:O	36:DP:58:THR:N	2.40	0.55
1:CA:452:A:O2'	1:CA:453:A:H5'	2.06	0.55
34:DN:30:ILE:O	34:DN:34:LEU:HB2	2.06	0.55
42:BV:2:PHE:HB3	42:BV:42:GLY:N	2.21	0.55
39:DS:35:ILE:O	39:DS:53:SER:HB2	2.05	0.55
1:AA:457:C:H2'	1:AA:458:C:C6	2.41	0.55
10:CJ:9:ARG:O	10:CJ:16:LEU:HD23	2.06	0.55
20:CT:50:GLU:HA	20:CT:100:ILE:CG2	2.33	0.55
5:CE:26:PHE:N	5:CE:26:PHE:CD1	2.72	0.55
25:BA:2287:A:H62	25:BA:2344:U:H3	1.51	0.55
32:DH:12:PRO:HG2	32:DH:49:VAL:CA	2.33	0.55
30:BF:113:ALA:HB1	30:BF:186:ILE:HG21	1.89	0.55
55:D8:33:ASN:CA	55:D8:36:LYS:HD2	2.35	0.55
36:DP:146:VAL:CG1	36:DP:147:LEU:H	2.09	0.55
7:AG:111:ARG:HB3	7:AG:113:GLU:OE2	2.07	0.55
25:DA:1778:U:O4	25:DA:1784:A:H1'	2.07	0.55
4:CD:76:ARG:O	4:CD:80:GLU:HG2	2.07	0.55
29:DE:137:HIS:ND1	29:DE:138:PRO:HD2	2.22	0.55
1:AA:688:G:H2'	1:AA:689:C:C6	2.41	0.55
32:BH:81:GLU:HB3	32:BH:83:TYR:CE1	2.42	0.55
1:CA:1410:G:H2'	1:CA:1411:C:C6	2.42	0.55
25:DA:2050:C:H2'	25:DA:2051:A:O4'	2.06	0.55
28:BD:134:ARG:HB3	28:BD:187:GLY:HA3	1.88	0.55
25:DA:1636:C:H2'	25:DA:1637:A:H8	1.71	0.55
27:BC:9:ARG:HD3	27:BC:10:ALA:N	2.22	0.55
1:AA:1228:C:OP1	13:AM:108:ARG:NH2	2.40	0.55
38:DR:57:ARG:HH21	38:DR:62:ALA:HB2	1.70	0.55
31:DG:29:TRP:HA	31:DG:29:TRP:HE3	1.72	0.55
1:CA:1469:G:H2'	1:CA:1470:G:C8	2.42	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:88:VAL:HG13	5:CE:97:GLY:CA	2.36	0.55
25:BA:413:C:H2'	25:BA:414:C:H6	1.70	0.55
4:AD:196:LEU:C	4:AD:198:VAL:H	2.10	0.55
1:AA:1089:G:H2'	1:AA:1090:U:C6	2.42	0.55
25:BA:32:C:O2'	25:BA:33:U:H5'	2.06	0.55
9:AI:15:ALA:HB2	9:AI:65:VAL:HG23	1.88	0.55
1:CA:189(C):C:H2'	1:CA:189(D):C:O4'	2.05	0.55
25:DA:1004:C:H1'	25:DA:1010:A:C4	2.42	0.55
37:BQ:3:MET:O	37:BQ:3:MET:HG3	2.07	0.55
25:BA:2823:A:OP1	29:BE:113:PHE:HB2	2.05	0.55
56:D9:15:LYS:O	56:D9:26:ILE:HD12	2.05	0.55
33:BI:123:LEU:HD13	33:BI:144:VAL:HG12	1.87	0.55
33:BI:83:ALA:HA	33:BI:89:TYR:CE1	2.42	0.55
7:AG:28:ASN:OD1	7:AG:36:LYS:NZ	2.40	0.55
9:AI:37:PHE:CZ	9:AI:74:ILE:HG12	2.42	0.55
10:AJ:63:PHE:HB2	14:AN:57:ARG:O	2.05	0.55
32:BH:44:VAL:O	32:BH:45:VAL:C	2.44	0.55
2:CB:163:PHE:HD2	2:CB:185:ILE:HB	1.71	0.55
25:DA:2642:G:O2'	25:DA:2643:G:H5'	2.05	0.55
7:CG:99:LEU:HD23	7:CG:102:ARG:NH1	2.22	0.55
7:CG:9:VAL:HG12	7:CG:11:GLN:H	1.72	0.55
41:BU:91:ASP:C	41:BU:93:LYS:H	2.08	0.55
41:BU:91:ASP:OD2	41:BU:96:ALA:HA	2.06	0.55
25:DA:80:G:O2'	25:DA:81:G:H5'	2.06	0.55
45:DY:8:LYS:HG2	45:DY:13:VAL:HG11	1.88	0.55
30:DF:17:ARG:HB2	30:DF:17:ARG:NH1	2.01	0.55
25:DA:614:U:H4'	25:DA:614(C):A:N6	2.21	0.55
37:BQ:51:ARG:O	37:BQ:55:VAL:HG13	2.07	0.55
1:AA:797:C:H2'	1:AA:798:G:H8	1.72	0.55
3:CC:113:ALA:HB2	3:CC:183:ASP:HB3	1.89	0.55
40:DT:50:ILE:HA	40:DT:99:LEU:CD1	2.37	0.55
27:BC:150:ILE:O	27:BC:154:ILE:HG13	2.06	0.55
14:AN:41:ARG:HG2	14:AN:41:ARG:HH11	1.72	0.55
25:BA:782:A:H5'	25:BA:783:A:C2	2.41	0.55
5:CE:90:VAL:HG22	5:CE:121:LYS:HB3	1.89	0.55
1:AA:666:G:O2'	1:AA:667:G:H5'	2.07	0.55
1:CA:253:U:H2'	1:CA:254:G:C8	2.41	0.55
28:DD:31:LYS:NZ	28:DD:102:LYS:HZ2	2.04	0.55
53:B6:30:THR:O	53:B6:31:PRO:C	2.45	0.55
16:AP:19:ILE:HG22	16:AP:36:ILE:HD11	1.89	0.55
39:DS:84:GLN:HA	39:DS:106:ARG:CB	2.33	0.55
50:D3:1:MET:HG3	50:D3:44:ARG:HH21	1.71	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1319:G:C2'	25:DA:1320:C:H5'	2.37	0.55
8:CH:89:PRO:HA	8:CH:92:ARG:NH1	2.18	0.55
12:AL:44:LYS:HG2	12:AL:45:PRO:HD3	1.88	0.55
25:DA:1281:G:O2'	25:DA:1282:U:H5'	2.06	0.55
25:DA:1339:G:C2	25:DA:1340:U:H5	2.23	0.55
8:CH:20:TYR:O	8:CH:21:LYS:HB2	2.07	0.55
25:DA:2801:A:H2'	25:DA:2801:A:N3	2.20	0.55
25:BA:2564:A:OP1	25:BA:2648:C:H4'	2.07	0.55
35:BO:52:VAL:HG13	35:BO:52:VAL:O	2.06	0.55
25:DA:39:C:H2'	25:DA:40:C:C6	2.41	0.55
25:BA:639:U:O2'	25:BA:640:C:H5'	2.07	0.55
25:DA:1219:G:H1	25:DA:1230:C:H42	1.55	0.55
25:BA:2208:A:H1'	25:BA:2219:G:C4	2.42	0.55
38:BR:100:LEU:HD21	38:BR:113:LEU:HB2	1.89	0.55
3:AC:127:ARG:HD2	3:AC:127:ARG:H	1.72	0.55
40:DT:112:ARG:O	40:DT:112:ARG:HG2	2.06	0.55
25:DA:518:G:H4'	43:DW:18:ARG:NH1	2.21	0.55
25:BA:224:G:H2'	25:BA:225:A:O4'	2.06	0.55
37:DQ:133:ARG:HG3	37:DQ:133:ARG:NH1	2.20	0.55
32:DH:88:LEU:N	32:DH:88:LEU:HD12	2.21	0.55
15:AO:3:ILE:H	15:AO:3:ILE:HD13	1.71	0.55
7:AG:152:ALA:C	7:AG:154:TYR:H	2.10	0.55
25:DA:2193:G:H2'	25:DA:2194:G:O4'	2.07	0.55
2:AB:96:ARG:O	2:AB:98:LEU:N	2.39	0.55
5:CE:43:LEU:H	5:CE:136:MET:HE1	1.69	0.55
25:DA:900:A:H2'	25:DA:900:A:N3	2.22	0.55
25:DA:919:G:N2	25:DA:2269:A:OP2	2.40	0.55
16:CP:52:ASP:O	16:CP:54:GLU:N	2.39	0.55
4:AD:60:GLU:OE1	4:AD:199:ASN:HB2	2.06	0.55
25:BA:438:G:O2'	25:BA:440:G:H5'	2.05	0.55
25:BA:2841:C:O2'	25:BA:2842:G:H5'	2.07	0.55
46:BZ:108:ALA:O	46:BZ:110:VAL:N	2.40	0.55
42:BV:9:GLY:O	42:BV:10:LYS:HG3	2.06	0.55
22:CV:16:ASP:O	22:CV:17:GLY:C	2.44	0.55
25:DA:1979:C:H6	25:DA:1979:C:O5'	1.89	0.55
25:DA:2682:U:H6	25:DA:2682:U:H5'	1.72	0.55
40:DT:57:PHE:O	40:DT:58:ASN:OD1	2.22	0.55
25:DA:209:C:H2'	25:DA:210:C:H6	1.71	0.55
1:CA:22:G:H2'	1:CA:23:C:C6	2.42	0.55
1:AA:1092:A:C2	1:AA:1183:A:C2	2.93	0.55
37:DQ:135:ASP:CG	37:DQ:136:ALA:N	2.59	0.55
34:DN:22:THR:O	34:DN:25:ARG:HB2	2.07	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DU:92:ARG:HG2	42:DV:11:GLN:CB	2.33	0.55
37:DQ:17:LEU:HD12	37:DQ:39:PRO:HB2	1.89	0.55
37:DQ:67:ARG:HH11	37:DQ:102:VAL:HB	1.70	0.55
42:BV:39:LEU:HD22	42:BV:39:LEU:N	2.22	0.55
40:BT:41:ARG:O	40:BT:42:ILE:C	2.45	0.55
16:AP:56:ALA:O	16:AP:60:LEU:CG	2.50	0.55
3:AC:21:ARG:HE	3:AC:58:GLU:CG	2.18	0.55
10:AJ:28:ARG:HH12	10:AJ:33:GLN:HB3	1.71	0.55
2:AB:33:TYR:HB2	2:AB:43:ASP:CA	2.36	0.55
25:BA:480:A:O4'	45:BY:44:ILE:HG21	2.07	0.55
16:CP:72:ARG:O	16:CP:75:ARG:HB3	2.06	0.55
25:BA:652:C:O2'	25:BA:655:A:N6	2.39	0.55
25:BA:605:C:H1'	25:BA:657:U:O2'	2.06	0.55
25:DA:2629:A:N3	25:DA:2629:A:H3'	2.22	0.55
28:DD:158:ALA:O	28:DD:159:ALA:C	2.44	0.55
25:BA:1784:A:H4'	25:BA:1785:A:C5'	2.37	0.55
2:CB:126:GLU:C	2:CB:128:GLU:N	2.59	0.55
14:AN:24:CYS:HG	14:AN:43:CYS:HG	1.52	0.55
45:DY:76:CYS:HG	45:DY:77:PRO:HD2	1.71	0.55
20:CT:89:ARG:O	20:CT:93:GLU:HB3	2.07	0.55
5:CE:100:VAL:O	5:CE:107:ARG:NH2	2.39	0.55
1:AA:1435:G:H2'	1:AA:1436:U:H6	1.67	0.55
1:AA:1106:G:OP1	3:AC:172:ARG:HD3	2.07	0.55
6:CF:100:ASN:H	18:CR:23:LYS:HZ2	1.53	0.55
38:BR:53:HIS:HA	38:BR:56:LYS:HB2	1.89	0.55
25:DA:151:C:C2'	25:DA:152:G:H5'	2.37	0.55
25:DA:1779:U:C5	25:DA:1784:A:N7	2.75	0.55
25:DA:1803:A:C8	25:DA:1804:C:C5	2.95	0.55
25:BA:1479:G:H5'	25:BA:1558:A:H2	1.71	0.55
12:AL:22:PRO:O	12:AL:24:LEU:HD22	2.06	0.55
37:DQ:81:VAL:CG2	47:D0:7:LEU:HB3	2.37	0.55
8:AH:98:LYS:O	8:AH:99:GLU:HG3	2.06	0.55
37:BQ:59:ARG:NH1	37:BQ:59:ARG:HB2	2.19	0.55
11:CK:32:ILE:HD11	11:CK:41:THR:HG22	1.89	0.55
25:DA:442:G:C4'	30:DF:46:ARG:HD3	2.37	0.55
32:BH:118:PRO:HG2	32:BH:121:ILE:HD12	1.89	0.55
25:DA:2328:A:H2'	25:DA:2329:G:O4'	2.07	0.55
17:CQ:86:GLU:O	17:CQ:90:ILE:N	2.38	0.55
25:BA:1932:A:H2'	25:BA:1933:G:O4'	2.06	0.55
25:BA:1012:U:O4	34:BN:25:ARG:HA	2.05	0.55
1:CA:1423:G:H5'	35:DO:49:ARG:HH21	1.72	0.55
25:DA:180:G:OP2	54:D7:32:LYS:HE2	2.07	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:441:A:N7	1:AA:442:C:C4	2.75	0.55
1:CA:1208:C:H2'	1:CA:1209:C:H6	1.70	0.55
16:CP:64:ALA:O	16:CP:65:GLN:C	2.45	0.55
12:AL:55:VAL:O	12:AL:62:GLU:HA	2.07	0.55
25:DA:2771:C:H2'	25:DA:2772:C:C6	2.42	0.55
25:BA:125:G:C6	54:B7:10:ARG:HG3	2.41	0.55
41:DU:26:GLY:C	41:DU:28:ARG:N	2.59	0.55
43:BW:95:ILE:O	43:BW:95:ILE:HD12	2.07	0.55
25:DA:1255:U:C5	30:DF:73:ALA:HA	2.41	0.55
28:DD:134:ARG:HG3	28:DD:135:PHE:CD2	2.42	0.55
36:BP:75:ILE:O	36:BP:75:ILE:HG22	2.06	0.55
1:CA:833:U:H2'	1:CA:834:C:C6	2.41	0.55
43:BW:26:GLY:O	43:BW:27:LYS:HG3	2.07	0.55
2:AB:228:GLY:C	2:AB:230:VAL:H	2.09	0.55
1:CA:791:G:C6	1:CA:792:A:N7	2.73	0.55
17:AQ:7:THR:HG23	17:AQ:58:GLU:HG2	1.87	0.55
33:BI:120:ILE:HG22	33:BI:122:GLU:H	1.71	0.55
46:DZ:28:TYR:O	46:DZ:29:ASN:HB3	2.07	0.55
41:DU:111:GLU:CA	41:DU:114:LYS:HD3	2.27	0.55
25:BA:1109:C:H5	25:BA:1110:G:H1'	1.71	0.55
9:CI:118:LYS:O	9:CI:119:ALA:HB3	2.06	0.55
1:CA:1291:G:H4'	9:CI:38:GLN:O	2.07	0.55
42:BV:39:LEU:HD12	42:BV:51:VAL:HA	1.88	0.55
31:DG:115:ARG:HH11	31:DG:136:ARG:CD	2.04	0.55
31:DG:111:LEU:CD1	31:DG:120:LEU:HD11	2.36	0.55
3:AC:41:GLY:C	3:AC:45:LYS:HZ2	2.10	0.55
1:AA:15:G:N2	5:AE:18:ARG:HA	2.21	0.55
5:AE:19:MET:O	5:AE:20:GLN:HB2	2.06	0.55
25:DA:157:U:C2'	25:DA:158:U:H5''	2.37	0.55
28:DD:26:LYS:O	28:DD:27:THR:CB	2.55	0.55
13:CM:19:LEU:HB3	13:CM:25:ILE:HG21	1.88	0.55
1:CA:974:A:H8	1:CA:974:A:OP1	1.89	0.55
10:CJ:63:PHE:HD2	10:CJ:63:PHE:N	2.04	0.55
14:CN:27:CYS:O	14:CN:29:ARG:N	2.40	0.55
1:AA:1053:G:N7	1:AA:1199:U:H3'	2.22	0.55
14:AN:26:ARG:HG2	14:AN:26:ARG:HH11	1.71	0.55
25:DA:1485:G:C8	25:DA:1486:A:N7	2.75	0.55
10:CJ:12:ASP:OD2	10:CJ:13:HIS:N	2.40	0.55
39:BS:67:ARG:NH1	39:BS:100:ALA:HB3	2.21	0.55
25:DA:2123:G:C4	25:DA:2176:A:C2	2.95	0.55
25:BA:523:C:O2'	25:BA:524:U:H5'	2.06	0.55
25:BA:538:G:O2'	25:BA:539:G:H5''	2.06	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1034:G:H21	1:AA:1035:A:N6	2.04	0.55
1:AA:1039:C:H2'	1:AA:1040:U:C6	2.41	0.55
26:BB:112:U:H2'	26:BB:113:G:C8	2.42	0.55
18:AR:86:VAL:HG12	18:AR:87:ARG:N	2.21	0.55
31:BG:114:ILE:O	31:BG:116:ASP:N	2.40	0.55
8:CH:46:LYS:HE2	8:CH:63:LEU:O	2.05	0.55
18:AR:35:ARG:C	18:AR:37:VAL:H	2.09	0.55
48:B1:80:LEU:HD22	48:B1:82:LEU:CD2	2.37	0.55
25:DA:2314:C:H2'	25:DA:2315:G:H8	1.72	0.55
25:BA:1658:C:H2'	25:BA:1659:U:C6	2.41	0.55
54:D7:46:VAL:HG12	54:D7:47:ARG:N	2.21	0.55
1:CA:608:A:H2'	1:CA:609:A:H8	1.72	0.55
12:AL:123:LYS:HD2	12:AL:124:GLU:N	2.22	0.55
25:BA:2880:C:H1'	38:BR:92:GLY:O	2.07	0.55
44:BX:60:ARG:HH22	54:B7:47:ARG:HH21	1.54	0.55
1:AA:1510:U:H2'	1:AA:1511:G:C8	2.42	0.55
25:DA:2572:A:P	29:DE:144:ARG:HB2	2.46	0.55
1:AA:736:C:H2'	1:AA:737:A:C8	2.42	0.55
29:BE:38:THR:HB	29:BE:40:GLU:OE2	2.07	0.55
29:BE:199:ARG:HB2	29:BE:199:ARG:NH1	2.22	0.55
41:BU:44:ASN:HD22	41:BU:44:ASN:N	2.05	0.55
25:BA:315:G:H2'	25:BA:316:C:C6	2.42	0.55
20:CT:56:MET:HG3	20:CT:84:LEU:CD1	2.36	0.55
50:D3:51:ALA:O	50:D3:54:VAL:N	2.37	0.55
41:DU:117:GLN:HA	41:DU:117:GLN:NE2	2.21	0.55
25:DA:2189:U:H2'	25:DA:2190:G:H5''	1.88	0.55
44:DX:7:VAL:HB	44:DX:8:ILE:HD12	1.87	0.55
20:AT:50:GLU:O	20:AT:53:LEU:HD12	2.06	0.55
1:CA:1290:G:C2'	1:CA:1291:G:H5'	2.37	0.55
45:DY:8:LYS:HZ1	45:DY:74:PRO:N	2.04	0.55
1:AA:220:G:O2'	1:AA:221:C:H5'	2.07	0.55
30:DF:19:GLU:O	30:DF:20:LEU:HB2	2.06	0.55
45:BY:28:LYS:O	45:BY:29:GLU:C	2.45	0.55
25:DA:1106:G:H2'	25:DA:1107:G:H5''	1.89	0.55
25:DA:1042:G:H1'	25:DA:1115:G:H21	1.72	0.55
25:DA:611:C:H2'	25:DA:612:C:C6	2.42	0.55
25:DA:613:G:N2	25:DA:614(C):A:O2'	2.40	0.55
36:BP:16:ARG:HH11	36:BP:16:ARG:HB2	1.69	0.55
31:BG:137:GLU:CG	31:BG:152:LEU:HD11	2.26	0.55
32:DH:85:LYS:NZ	32:DH:133:VAL:HG11	2.22	0.55
25:BA:541:C:N4	25:BA:542:C:N4	2.54	0.55
40:BT:28:VAL:CG2	40:BT:47:GLY:N	2.61	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:275:G:C8	25:DA:275:G:H3'	2.42	0.55
4:AD:104:VAL:HG11	4:AD:146:ILE:HG12	1.87	0.55
13:AM:74:VAL:O	13:AM:77:ASN:HB2	2.07	0.55
25:DA:271(P):C:C5'	33:DI:45:LYS:NZ	2.69	0.55
25:DA:57:C:O2'	25:DA:58:G:H5'	2.07	0.55
1:CA:1320:C:H2'	1:CA:1321:C:O4'	2.06	0.55
15:AO:87:ILE:CG2	15:AO:88:ARG:N	2.70	0.55
22:AV:148:SER:HA	22:AV:161:VAL:O	2.07	0.55
33:BI:113:ARG:HD3	33:BI:131:LYS:N	2.22	0.55
8:CH:104:ARG:C	8:CH:106:GLY:H	2.11	0.55
25:DA:243:U:O2'	25:DA:244:A:H5'	2.06	0.55
25:BA:2287:A:C2	25:BA:2346:A:N1	2.75	0.55
25:BA:2833:G:C3'	25:BA:2834:G:C5'	2.81	0.55
28:BD:240:ALA:HB1	28:BD:241:PRO:CD	2.33	0.55
28:BD:79:VAL:HG21	28:BD:111:LEU:CD2	2.30	0.55
11:CK:120:ARG:NH1	11:CK:126:ARG:HD2	2.22	0.55
18:CR:54:ARG:NH1	18:CR:54:ARG:HG3	2.21	0.55
36:DP:71:VAL:CG1	36:DP:72:PRO:HD3	2.36	0.55
22:AV:104:PHE:O	22:AV:155:THR:HG21	2.06	0.55
29:DE:3:GLY:HA3	29:DE:81:ILE:HG21	1.89	0.55
25:BA:1113:U:H4'	25:BA:1113:U:OP1	2.07	0.55
22:AV:126:THR:O	22:AV:127:VAL:CB	2.55	0.55
17:AQ:59:ILE:CG2	17:AQ:71:PHE:HB3	2.37	0.55
25:BA:211:A:O2'	25:BA:212:G:H5'	2.07	0.55
1:CA:61:G:O2'	1:CA:62:U:H5'	2.06	0.55
1:CA:62:U:H2'	1:CA:63:C:C6	2.41	0.55
25:BA:1721:G:H8	25:BA:1741:A:N6	2.04	0.55
27:BC:60:ARG:CD	27:BC:165:ARG:HB3	2.36	0.55
25:BA:1184:G:H5'	50:B3:29:ARG:HH12	1.70	0.55
44:DX:60:ARG:NH2	54:D7:47:ARG:NH2	2.54	0.55
25:DA:2256:G:H2'	25:DA:2257:U:C6	2.41	0.55
26:DB:94:C:H2'	26:DB:95:C:H6	1.72	0.55
44:BX:75:ASP:C	44:BX:76:ARG:HG3	2.27	0.55
41:DU:13:LYS:O	41:DU:17:ILE:HG12	2.07	0.55
41:DU:15:LYS:O	41:DU:19:LYS:HG3	2.06	0.55
1:CA:116:A:H61	1:CA:313:A:H1'	1.71	0.55
1:CA:312:C:H2'	1:CA:313:A:C8	2.42	0.55
7:CG:87:VAL:HG11	7:CG:155:ARG:HA	1.87	0.55
48:B1:18:ILE:HG21	48:B1:20:ARG:CZ	2.37	0.55
1:AA:1096:C:H2'	1:AA:1097:C:C6	2.41	0.55
25:BA:2016:U:O2'	25:BA:2017:U:H5'	2.06	0.55
7:AG:65:ALA:HB1	7:AG:127:ALA:HB3	1.89	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:250:A:H5''	1:CA:251:G:OP1	2.06	0.55
33:DI:65:ALA:O	33:DI:67:ARG:N	2.40	0.55
30:BF:148:LEU:HD22	30:BF:154:VAL:HG21	1.87	0.55
37:DQ:79:LEU:HD22	37:DQ:80:GLU:CG	2.37	0.55
39:DS:48:LEU:N	39:DS:48:LEU:HD12	2.21	0.55
41:DU:40:PHE:CD1	42:DV:75:PHE:CE2	2.95	0.55
42:DV:12:TYR:CD2	42:DV:12:TYR:N	2.75	0.55
42:DV:20:LEU:HD23	42:DV:21:ARG:HH21	1.70	0.55
25:DA:821:A:C2'	25:DA:946:G:H5''	2.36	0.55
37:DQ:17:LEU:CD1	37:DQ:39:PRO:HB2	2.37	0.55
25:DA:2111:C:H5'	25:DA:2118:U:H1'	1.89	0.55
25:BA:786:C:C2'	25:BA:787:U:H5'	2.37	0.55
1:CA:1251:A:H2'	1:CA:1252:A:C8	2.42	0.55
1:CA:1374:A:H2'	1:CA:1375:A:C8	2.36	0.55
7:CG:27:ILE:HD13	7:CG:40:ALA:HA	1.88	0.55
7:CG:73:MET:HG3	7:CG:89:MET:O	2.06	0.55
42:BV:39:LEU:HA	42:BV:47:VAL:CG1	2.37	0.55
22:CV:161:VAL:CG1	22:CV:171:ILE:HD12	2.37	0.55
31:DG:138:GLN:NE2	31:DG:153:ARG:HB3	2.21	0.55
1:AA:960:U:H1'	1:AA:1223:C:H5''	1.88	0.55
19:AS:39:THR:CG2	19:AS:40:ILE:H	2.16	0.55
45:DY:30:VAL:HG12	45:DY:31:LEU:N	2.21	0.55
25:BA:2103:C:N4	25:BA:2186:G:H1	2.05	0.55
3:AC:41:GLY:C	3:AC:45:LYS:HG3	2.27	0.55
3:CC:76:VAL:HA	3:CC:83:ARG:NH2	2.22	0.55
40:BT:100:TYR:HB3	40:BT:103:ARG:HE	1.72	0.55
25:BA:2170:A:H5''	27:BC:135:ARG:NH2	2.22	0.55
28:DD:26:LYS:HG2	28:DD:26:LYS:O	2.05	0.55
28:BD:26:LYS:O	28:BD:27:THR:CB	2.55	0.55
28:BD:34:VAL:O	28:BD:34:VAL:HG13	2.07	0.55
8:CH:113:SER:HA	8:CH:118:VAL:HA	1.89	0.55
13:AM:22:ILE:HB	13:AM:25:ILE:HB	1.89	0.55
5:AE:101:ILE:H	5:AE:101:ILE:HD13	1.72	0.55
15:CO:75:PRO:O	15:CO:78:TYR:HB3	2.06	0.55
1:CA:1047:G:O2'	1:CA:1048:G:H5'	2.07	0.55
14:AN:24:CYS:SG	14:AN:43:CYS:SG	3.00	0.55
52:B5:47:PRO:O	52:B5:48:GLU:HG3	2.07	0.55
30:BF:102:PRO:HB2	30:BF:105:VAL:CG2	2.36	0.55
15:AO:80:ALA:O	15:AO:84:LYS:HB2	2.07	0.55
39:DS:18:ILE:O	39:DS:18:ILE:CG2	2.53	0.55
3:AC:155:GLY:O	3:AC:157:ILE:HG13	2.07	0.55
25:DA:2089:U:O2'	25:DA:2090:G:H5'	2.06	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:78:G:N2	1:CA:79:G:N1	2.55	0.55
12:AL:38:ARG:HG2	12:AL:39:THR:H	1.70	0.55
1:CA:233:C:O2'	1:CA:234:C:H5'	2.06	0.55
52:D5:2:ALA:O	52:D5:3:LYS:HE3	2.07	0.55
25:DA:21:A:O2'	25:DA:22:C:H5'	2.07	0.55
1:CA:757:U:H2'	1:CA:758:G:O4'	2.07	0.55
28:DD:70:TRP:HZ3	28:DD:146:GLU:OE2	1.90	0.55
25:BA:58:G:H1	25:BA:69:C:N4	2.03	0.55
25:BA:58:G:N2	25:BA:70:G:C4	2.75	0.55
26:BB:30:C:H2'	26:BB:31:C:C5'	2.33	0.55
1:AA:62:U:H4'	1:AA:385:C:O2	2.07	0.55
11:CK:57:THR:CG2	11:CK:58:PRO:HD2	2.37	0.55
25:DA:141:A:H8	25:DA:1408:C:O2'	1.89	0.55
25:DA:435:C:H2'	25:DA:436:C:H5'	1.89	0.55
28:DD:257:LEU:C	28:DD:257:LEU:HD22	2.28	0.55
46:DZ:111:ARG:HG2	46:DZ:111:ARG:NH1	2.20	0.55
1:CA:302:G:O2'	1:CA:556:C:H5''	2.07	0.55
12:AL:78:SER:HA	12:AL:103:ASP:OD2	2.07	0.55
1:AA:833:U:H2'	1:AA:834:C:H6	1.71	0.55
40:DT:111:ARG:HG3	40:DT:111:ARG:HH11	1.71	0.55
36:DP:125:VAL:O	36:DP:145:PRO:HD2	2.07	0.55
2:CB:231:GLU:HB2	2:CB:232:PRO:HD2	1.89	0.55
11:CK:34:ASP:HB3	11:CK:40:ILE:HD11	1.89	0.55
25:BA:2006:C:O2'	25:BA:2823:A:N3	2.40	0.55
8:AH:48:TYR:HA	8:AH:60:ARG:O	2.07	0.55
25:BA:708:C:H42	25:BA:723:G:H1	1.53	0.55
1:AA:1342:C:H4'	9:AI:125:TYR:HB3	1.88	0.55
12:AL:2:PRO:O	12:AL:3:THR:C	2.46	0.55
37:DQ:110:THR:OG1	37:DQ:113:GLN:HG3	2.07	0.55
44:BX:23:GLU:O	44:BX:25:LYS:N	2.39	0.55
33:BI:122:GLU:OE1	33:BI:123:LEU:O	2.25	0.55
40:BT:2:ASN:O	40:BT:4:GLY:N	2.40	0.55
3:AC:14:ILE:HD11	3:AC:178:LEU:HB3	1.88	0.55
7:AG:23:VAL:HG13	7:AG:43:PHE:HE2	1.69	0.55
25:BA:171:G:C3'	25:BA:172:C:H5''	2.37	0.55
46:DZ:9:ARG:HB2	46:DZ:37:TYR:HB3	1.88	0.55
50:D3:54:VAL:CG1	50:D3:55:ARG:N	2.70	0.55
25:DA:994:C:H3'	41:DU:54:LYS:HE3	1.89	0.55
34:DN:41:ASP:O	41:DU:64:ARG:NE	2.39	0.55
25:DA:947:G:H2'	25:DA:948:G:H8	1.72	0.55
46:DZ:18:ARG:HA	46:DZ:22:LYS:O	2.07	0.55
48:D1:56:GLN:HG3	48:D1:87:PRO:HA	1.89	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2107:C:H2'	25:DA:2108:C:O4'	2.07	0.55
13:CM:93:ARG:O	13:CM:94:ARG:HD2	2.07	0.55
29:DE:33:VAL:HG21	29:DE:36:ARG:NH2	2.20	0.55
29:DE:71:GLY:C	29:DE:73:GLU:H	2.11	0.55
30:DF:182:ASN:O	30:DF:186:ILE:HG12	2.06	0.55
25:BA:1386:C:H5''	25:BA:1396:U:O4	2.07	0.55
1:AA:1502:A:H2	1:AA:1505:G:H1	1.54	0.55
29:DE:21:VAL:HG23	29:DE:21:VAL:O	2.07	0.55
29:BE:3:GLY:CA	29:BE:81:ILE:HG21	2.27	0.55
25:DA:1748:G:C8	25:DA:1748:G:H5'	2.42	0.55
2:AB:34:ALA:HB1	2:AB:36:ARG:HE	1.72	0.55
46:BZ:94:PRO:O	46:BZ:95:VAL:C	2.45	0.55
29:BE:34:VAL:CG2	29:BE:48:GLN:HE21	2.20	0.55
2:AB:112:VAL:HG13	2:AB:153:ARG:HG2	1.89	0.55
2:AB:114:ARG:HD2	2:AB:117:GLU:OE1	2.07	0.55
1:AA:683:G:C2	1:AA:708:C:N3	2.75	0.55
3:CC:141:VAL:HG11	3:CC:202:ILE:HD12	1.88	0.55
28:DD:158:ALA:O	28:DD:161:THR:HG23	2.05	0.55
49:D2:10:LEU:HB3	49:D2:14:ARG:NH1	2.22	0.55
1:AA:1363(A):A:H1'	1:AA:1365:G:C8	2.41	0.55
1:AA:973:G:H1'	10:AJ:55:LYS:HE2	1.89	0.55
40:DT:3:ARG:CG	40:DT:6:LEU:HB2	2.37	0.55
52:B5:36:CYS:SG	52:B5:37:LYS:N	2.80	0.55
36:BP:6:LEU:C	36:BP:9:ASN:ND2	2.61	0.55
47:D0:52:GLY:N	47:D0:62:LEU:HD11	2.22	0.55
1:AA:505:G:H5'	1:AA:534:U:H2'	1.89	0.55
31:BG:109:VAL:HG13	51:B4:59:VAL:CG1	2.36	0.55
11:CK:82:VAL:HG11	11:CK:95:ILE:HD13	1.88	0.55
11:CK:86:GLY:O	11:CK:91:ARG:NH1	2.40	0.55
25:DA:1223:G:N2	25:DA:1225:G:H3'	2.22	0.55
1:CA:1457:G:H2'	1:CA:1458:G:H8	1.72	0.55
6:AF:1:MET:H1	6:AF:1:MET:HE2	1.72	0.55
36:DP:70:GLN:HB3	36:DP:72:PRO:HD2	1.88	0.55
4:CD:11:LEU:C	4:CD:13:ARG:N	2.58	0.55
4:CD:59:ARG:O	4:CD:63:LYS:HG3	2.07	0.55
25:DA:1452:A:O2'	25:DA:1453:U:H2'	2.06	0.55
22:AV:175:THR:C	22:AV:176:ARG:HD3	2.28	0.55
4:AD:101:LEU:HG	4:AD:121:VAL:CG1	2.36	0.55
25:BA:726:G:O2'	25:BA:727:A:P	2.64	0.55
35:BO:49:ARG:NH1	35:BO:49:ARG:HG2	2.21	0.55
1:CA:353:A:H5'	1:CA:353:A:C8	2.37	0.55
1:AA:537:G:H2'	1:AA:538:G:C8	2.41	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:116:GLN:O	4:CD:119:GLN:HB3	2.07	0.55
25:DA:1914:C:H2'	25:DA:1915:U:O4'	2.06	0.55
27:BC:8:TYR:O	27:BC:12:LEU:N	2.39	0.55
27:DC:226:ASN:ND2	27:DC:228:HIS:H	2.05	0.55
25:BA:2363:C:O2'	25:BA:2364:C:H5'	2.07	0.55
33:BI:68:LEU:HD23	33:BI:68:LEU:O	2.07	0.55
22:CV:46:THR:O	22:CV:47:GLY:C	2.46	0.55
25:BA:1139:G:H5'	34:BN:102:ALA:HB1	1.89	0.55
32:DH:88:LEU:N	32:DH:88:LEU:CD1	2.70	0.55
17:CQ:89:LEU:HD23	17:CQ:89:LEU:C	2.26	0.55
26:DB:57:A:H1'	31:DG:30:GLU:HB3	1.88	0.55
45:BY:31:LEU:HD22	45:BY:31:LEU:N	2.22	0.55
25:DA:622:G:O2'	25:DA:623:G:H5'	2.07	0.55
25:BA:796:C:H2'	25:BA:797:C:C6	2.41	0.55
25:DA:1818:U:C4	28:DD:154:LYS:HG2	2.41	0.55
29:DE:174:ASP:O	29:DE:183:LEU:HB2	2.07	0.55
1:AA:706:A:O2'	11:AK:31:THR:HG21	2.07	0.55
25:BA:1272:A:H3'	25:BA:1273:U:H5'	1.89	0.55
1:CA:803:G:H2'	1:CA:804:U:O4'	2.06	0.55
43:BW:90:ARG:HG3	43:BW:90:ARG:NH1	2.22	0.55
25:DA:2196:C:O2'	25:DA:2197:U:H5'	2.07	0.55
25:BA:1939:U:OP1	25:BA:2604:U:O2'	2.25	0.55
43:DW:51:LEU:HD22	43:DW:51:LEU:O	2.07	0.55
42:BV:62:LEU:HD21	42:BV:95:LEU:HB2	1.88	0.55
29:BE:64:LYS:HG2	29:BE:64:LYS:O	2.07	0.55
46:DZ:70:VAL:HG22	46:DZ:87:PHE:HE2	1.72	0.54
48:D1:84:GLY:C	48:D1:86:SER:N	2.58	0.54
25:BA:1496:A:C8	25:BA:1577:C:O2'	2.59	0.54
9:CI:95:LYS:HZ3	9:CI:96:LEU:HD12	1.71	0.54
1:AA:1314:C:H2'	1:AA:1315:U:H6	1.72	0.54
25:DA:2702:U:H6	25:DA:2702:U:OP1	1.90	0.54
30:BF:3:GLU:H	30:BF:3:GLU:CD	2.10	0.54
3:AC:89:GLU:CG	3:AC:93:LYS:HD2	2.37	0.54
30:DF:4:VAL:H	30:DF:19:GLU:CB	2.19	0.54
46:BZ:28:TYR:O	46:BZ:29:ASN:HB3	2.06	0.54
36:BP:108:LYS:N	36:BP:108:LYS:HD2	2.22	0.54
45:BY:48:ALA:HB2	45:BY:59:GLY:C	2.27	0.54
1:AA:709:G:O2'	1:AA:710:G:H5'	2.06	0.54
3:CC:11:ARG:HD2	3:CC:178:LEU:O	2.08	0.54
42:BV:99:ILE:H	42:BV:99:ILE:HD13	1.72	0.54
30:BF:63:LYS:HE3	30:BF:67:GLN:HB3	1.89	0.54
46:BZ:98:TYR:HA	46:BZ:123:ILE:O	2.08	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DP:115:LEU:HG	36:DP:116:GLY:N	2.22	0.54
54:D7:8:ASN:ND2	54:D7:8:ASN:C	2.52	0.54
39:DS:88:ASP:CG	39:DS:89:ARG:H	2.09	0.54
1:AA:533:A:O2'	1:AA:534:U:H5''	2.07	0.54
1:AA:481:G:H21	1:AA:482:A:N6	2.05	0.54
25:BA:1590:U:C2'	25:BA:1591:G:C5'	2.78	0.54
5:CE:41:VAL:HG13	5:CE:113:ALA:HA	1.90	0.54
28:DD:12:SER:HB2	28:DD:208:LYS:HB3	1.87	0.54
12:AL:38:ARG:CG	12:AL:39:THR:H	2.21	0.54
1:CA:1013:G:N2	1:CA:1015:A:H3'	2.22	0.54
5:CE:15:ARG:CZ	5:CE:26:PHE:CE2	2.90	0.54
46:BZ:13:LYS:HB3	46:BZ:16:ALA:CB	2.37	0.54
51:D4:41:ILE:HD13	51:D4:47:VAL:HG22	1.89	0.54
18:CR:53:ARG:HH21	18:CR:59:SER:C	2.09	0.54
16:CP:28:ARG:NH1	16:CP:29:ASP:OD2	2.40	0.54
4:CD:166:LYS:HA	4:CD:178:VAL:HG11	1.88	0.54
25:BA:816:C:H2'	25:BA:817:C:H6	1.71	0.54
22:AV:87:THR:O	27:BC:141:PRO:HG2	2.06	0.54
12:AL:24:LEU:HD21	12:AL:61:TYR:CE1	2.42	0.54
26:BB:65:C:H2'	26:BB:66:A:H5'	1.89	0.54
23:AW:39:C:H2'	23:AW:40:C:H6	1.72	0.54
41:BU:39:LEU:HA	41:BU:42:ALA:HB3	1.89	0.54
4:CD:188:LEU:O	4:CD:190:ASP:N	2.40	0.54
30:BF:84:VAL:C	30:BF:86:GLY:H	2.11	0.54
25:BA:901:A:H3'	25:BA:902:C:C6	2.42	0.54
1:CA:20:U:O2'	1:CA:21:G:H5'	2.07	0.54
25:BA:1002:G:H2'	25:BA:1003:G:O4'	2.07	0.54
25:DA:2262:U:O2'	25:DA:2263:C:H5'	2.07	0.54
13:AM:117:VAL:HG12	13:AM:118:ALA:H	1.71	0.54
29:BE:137:HIS:HB3	29:BE:138:PRO:CD	2.37	0.54
25:BA:2580:U:H5''	29:BE:130:GLY:O	2.06	0.54
1:CA:217:C:H2'	1:CA:218:C:C6	2.42	0.54
28:BD:109:ASP:HB2	28:BD:197:GLY:N	2.22	0.54
26:BB:5:C:O2'	26:BB:6:C:H5'	2.08	0.54
25:BA:2876:G:H2'	25:BA:2877:G:H8	1.71	0.54
1:AA:1372:U:H5''	9:AI:71:SER:CB	2.35	0.54
25:DA:543:C:C3'	25:DA:545:G:C5'	2.85	0.54
2:CB:9:GLU:OE2	2:CB:9:GLU:N	2.38	0.54
42:DV:5:VAL:HG12	42:DV:14:VAL:HG22	1.89	0.54
42:DV:20:LEU:HB3	42:DV:21:ARG:NE	2.18	0.54
1:CA:1346:A:C6	7:CG:10:ARG:HD3	2.42	0.54
7:CG:132:GLY:HA3	7:CG:135:VAL:CG2	2.36	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CG:75:VAL:CG2	7:CG:144:MET:HB3	2.37	0.54
41:BU:66:ASN:C	41:BU:68:ALA:H	2.10	0.54
25:BA:2803:C:H5'	25:BA:2804:C:OP1	2.07	0.54
31:DG:71:THR:OG1	31:DG:89:GLY:HA3	2.08	0.54
1:AA:955:U:O2'	1:AA:956:U:H5'	2.07	0.54
45:DY:14:LEU:HG	45:DY:15:VAL:N	2.21	0.54
22:CV:127:VAL:HA	22:CV:174:ASP:HA	1.88	0.54
32:DH:115:VAL:HG21	32:DH:148:ILE:HD12	1.89	0.54
36:BP:102:ARG:HH21	36:BP:102:ARG:HB2	1.72	0.54
2:AB:80:ILE:HD12	2:AB:212:GLN:HG2	1.89	0.54
45:BY:50:ARG:CD	45:BY:53:PRO:HG3	2.37	0.54
13:AM:8:GLU:OE2	13:AM:67:GLU:HG2	2.07	0.54
36:BP:65:ARG:HB2	55:B8:12:LYS:O	2.06	0.54
29:DE:111:ARG:CA	38:DR:2:ARG:HB2	2.37	0.54
11:AK:111:ASP:HA	18:AR:84:LYS:HE3	1.89	0.54
11:AK:126:ARG:C	11:AK:128:ALA:N	2.56	0.54
1:CA:1367:C:H5'	10:CJ:60:ARG:NH2	2.21	0.54
25:DA:8:A:H2'	25:DA:9:U:H6	1.71	0.54
42:BV:19:LYS:NZ	42:BV:20:LEU:N	2.46	0.54
1:CA:1119:C:O2'	1:CA:1120:G:H5'	2.07	0.54
5:CE:107:ARG:C	5:CE:109:ILE:N	2.58	0.54
1:CA:1018:C:H2'	1:CA:1019:C:C6	2.42	0.54
7:AG:146:GLU:HA	7:AG:149:ARG:HB2	1.88	0.54
50:D3:1:MET:N	50:D3:2:PRO:CD	2.70	0.54
1:CA:524:G:H2'	1:CA:525:C:H6	1.66	0.54
19:AS:62:ILE:HG13	19:AS:63:THR:N	2.20	0.54
20:CT:104:LEU:HD23	20:CT:104:LEU:C	2.28	0.54
25:DA:2870:C:O2'	25:DA:2871:C:H5'	2.07	0.54
50:D3:3:ARG:HB3	50:D3:59:VAL:O	2.07	0.54
6:AF:77:ARG:CB	6:AF:77:ARG:HH11	2.21	0.54
1:AA:167:G:C2'	1:AA:168:G:H5'	2.38	0.54
1:AA:59:A:C5'	1:AA:60:A:H5'	2.35	0.54
40:BT:23:ARG:O	40:BT:25:GLY:N	2.40	0.54
29:DE:113:PHE:HE2	29:DE:157:ALA:HB1	1.71	0.54
25:BA:649:G:C5	25:BA:650:C:C4	2.94	0.54
36:DP:48:PRO:O	36:DP:49:ARG:C	2.44	0.54
25:BA:2277:G:OP2	47:B0:9:THR:HG21	2.07	0.54
1:AA:1413:A:O2'	1:AA:1414:U:H5'	2.07	0.54
37:BQ:38:GLU:HA	37:BQ:99:PRO:HG3	1.89	0.54
9:AI:81:ILE:O	9:AI:85:LEU:HG	2.08	0.54
25:BA:2065:C:O2'	25:BA:2066:C:H5'	2.06	0.54
23:CW:29:G:C2'	23:CW:30:G:H5'	2.38	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1475:G:H5'	25:DA:1476:C:OP2	2.06	0.54
31:DG:131:TYR:O	31:DG:159:VAL:HG12	2.07	0.54
25:DA:1344:G:H5'	25:DA:1384:A:N1	2.22	0.54
32:DH:24:VAL:HG22	32:DH:35:VAL:O	2.06	0.54
1:CA:859:A:H2'	1:CA:860:A:O4'	2.08	0.54
43:DW:82:LEU:HB2	43:DW:98:LYS:HB2	1.88	0.54
25:DA:768:G:O2'	25:DA:1379:A:N6	2.40	0.54
1:CA:402:G:O2'	1:CA:403:C:H5'	2.07	0.54
12:CL:34:CYS:HB3	12:CL:55:VAL:HG22	1.89	0.54
33:BI:81:VAL:CG1	33:BI:88:ILE:HD12	2.36	0.54
9:AI:96:LEU:CD1	9:AI:102:LEU:HB2	2.38	0.54
32:BH:43:VAL:O	32:BH:43:VAL:CG2	2.55	0.54
2:CB:221:LEU:HD22	2:CB:221:LEU:N	2.22	0.54
2:CB:34:ALA:O	2:CB:41:ILE:HB	2.08	0.54
31:DG:125:PHE:HB2	31:DG:166:ASP:OD2	2.08	0.54
40:BT:83:ILE:HD11	40:BT:84:GLN:HE21	1.71	0.54
45:BY:27:VAL:HA	45:BY:28:LYS:HZ2	1.65	0.54
40:BT:50:ILE:HG22	40:BT:62:THR:OG1	2.07	0.54
1:AA:1071:C:H2'	1:AA:1072:G:H8	1.72	0.54
3:AC:3:ASN:HD21	3:AC:4:LYS:HZ1	1.54	0.54
25:DA:607:U:H5'	25:DA:619:G:O6	2.08	0.54
25:BA:272(I):U:N3	25:BA:363(A):A:C6	2.74	0.54
31:BG:43:LEU:HB2	31:BG:88:ILE:HD11	1.89	0.54
2:AB:188:ALA:O	2:AB:203:GLY:N	2.38	0.54
25:BA:2469:A:C2	25:BA:2470:G:H1'	2.43	0.54
11:AK:124:LYS:HD2	11:AK:125:PHE:CE1	2.42	0.54
1:CA:961:U:O2'	1:CA:962:C:H5'	2.07	0.54
3:CC:113:ALA:HB3	3:CC:183:ASP:CG	2.27	0.54
46:DZ:150:HIS:HB3	46:DZ:169:THR:HA	1.89	0.54
1:CA:976:G:OP1	14:CN:32:SER:N	2.38	0.54
9:AI:114:TYR:N	9:AI:114:TYR:CD2	2.73	0.54
46:BZ:178:ASP:OD1	46:BZ:178:ASP:N	2.39	0.54
16:AP:17:TYR:CD1	16:AP:17:TYR:N	2.75	0.54
27:DC:135:ARG:O	27:DC:137:LEU:HD12	2.07	0.54
6:CF:9:VAL:HB	6:CF:87:ARG:HB2	1.89	0.54
4:AD:4:TYR:CD2	4:AD:5:ILE:N	2.75	0.54
27:BC:65:LEU:N	27:BC:160:GLY:O	2.32	0.54
1:AA:99:U:H2'	1:AA:100:C:C6	2.42	0.54
18:AR:46:GLU:HB3	18:AR:85:LEU:CD2	2.38	0.54
8:CH:89:PRO:HA	8:CH:92:ARG:CD	2.37	0.54
1:CA:544:G:OP1	4:CD:66:ARG:NH2	2.40	0.54
1:CA:1277:C:C3'	1:CA:1278:U:C5'	2.85	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1425:U:H2'	1:AA:1426:C:C6	2.42	0.54
25:BA:2114:A:H2'	25:BA:2115:G:O4'	2.07	0.54
37:BQ:46:GLN:O	37:BQ:47:ILE:C	2.45	0.54
25:BA:2171:A:O2'	25:BA:2172:U:H6	1.90	0.54
40:BT:92:GLY:O	40:BT:94:ALA:N	2.37	0.54
31:BG:135:LEU:HD21	31:BG:157:ILE:HD11	1.90	0.54
19:CS:6:LYS:HG2	19:CS:7:LYS:HE3	1.89	0.54
47:B0:67:GLU:HG2	47:B0:79:HIS:HB2	1.88	0.54
25:DA:141:A:C8	25:DA:1408:C:O2'	2.57	0.54
25:DA:2736:G:O2'	25:DA:2737:G:H5'	2.07	0.54
50:B3:49:LYS:HG2	50:B3:49:LYS:O	2.07	0.54
43:BW:18:ARG:HG3	43:BW:76:VAL:HG13	1.89	0.54
1:CA:601:C:O2'	1:CA:602:A:H5'	2.08	0.54
29:DE:6:GLY:C	29:DE:196:VAL:HG22	2.27	0.54
23:CW:28:C:H2'	23:CW:29:G:H8	1.72	0.54
1:AA:23:C:O2'	1:AA:24:U:H5'	2.08	0.54
25:DA:920:G:O2'	25:DA:921:G:H5'	2.06	0.54
16:CP:58:TYR:HD1	16:CP:59:TRP:N	2.06	0.54
25:DA:1508:A:H5'	25:DA:1509:C:OP1	2.07	0.54
1:CA:1427:U:H2'	1:CA:1428:A:C8	2.42	0.54
45:DY:16:ALA:HB1	45:DY:21:LYS:NZ	2.22	0.54
3:CC:150:LYS:HE2	3:CC:152:ILE:HD11	1.89	0.54
1:CA:370:C:O2'	1:CA:371:G:H5'	2.08	0.54
26:DB:20:C:O2'	26:DB:21:G:H5'	2.07	0.54
32:BH:147:ASN:O	32:BH:150:ALA:HB3	2.07	0.54
15:AO:37:ASN:HD22	15:AO:37:ASN:N	2.04	0.54
48:B1:46:LEU:HA	48:B1:63:ALA:HA	1.88	0.54
25:BA:428:A:H8	25:BA:428:A:OP2	1.90	0.54
2:AB:87:ARG:O	2:AB:87:ARG:HG2	2.05	0.54
22:CV:28:GLN:HG3	22:CV:30:LEU:HD23	1.88	0.54
25:BA:247:G:H4'	25:BA:386:G:C5	2.42	0.54
36:BP:61:ARG:O	55:B8:13:ARG:HD3	2.08	0.54
39:BS:28:VAL:HG12	39:BS:29:PHE:N	2.22	0.54
39:BS:14:VAL:HG13	39:BS:90:GLY:HA2	1.89	0.54
33:BI:81:VAL:HG11	33:BI:88:ILE:CD1	2.37	0.54
1:AA:1118:C:H1'	1:AA:1179:A:C4	2.42	0.54
7:AG:32:ARG:O	7:AG:33:ASP:CB	2.56	0.54
9:AI:111:ARG:HG2	9:AI:112:LYS:N	2.22	0.54
9:AI:73:GLN:C	9:AI:75:ASP:H	2.10	0.54
9:AI:96:LEU:HD12	9:AI:101:PHE:CB	2.37	0.54
37:DQ:140:ALA:HA	46:DZ:98:TYR:CB	2.37	0.54
25:DA:998:C:H2'	25:DA:999:U:O4'	2.08	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DB:98:G:H2'	26:DB:99:G:O4'	2.08	0.54
9:CI:4:TYR:HA	9:CI:88:TYR:CE1	2.42	0.54
25:BA:613:G:H8	25:BA:613:G:C5'	2.17	0.54
1:CA:1375:A:H5'	7:CG:28:ASN:HB3	1.90	0.54
1:CA:980:C:H3'	1:CA:981:U:C6	2.42	0.54
1:CA:971:G:P	1:CA:1231:G:H21	2.30	0.54
1:AA:185:A:H2'	1:AA:186:C:C6	2.42	0.54
1:AA:223:U:H2'	1:AA:224:C:C6	2.42	0.54
3:AC:74:GLY:HA2	3:AC:77:ILE:HD12	1.89	0.54
10:AJ:4:ILE:HG23	10:AJ:100:THR:HG22	1.89	0.54
10:AJ:6:ILE:CD1	10:AJ:72:VAL:HB	2.37	0.54
1:AA:1070:U:OP1	5:AE:18:ARG:NH2	2.40	0.54
25:BA:478:A:C2'	25:BA:479:A:H5'	2.38	0.54
29:BE:68:ALA:HB3	29:BE:69:LYS:HZ3	1.71	0.54
25:BA:2416:C:P	36:BP:66:GLY:HA3	2.47	0.54
1:AA:1148:U:O3'	9:AI:14:VAL:HG11	2.08	0.54
4:AD:63:LYS:O	4:AD:67:ILE:HG13	2.08	0.54
5:AE:73:ASN:CG	5:AE:73:ASN:O	2.46	0.54
5:AE:144:THR:O	5:AE:145:LYS:C	2.46	0.54
32:BH:85:LYS:HD3	32:BH:133:VAL:CB	2.38	0.54
30:BF:53:THR:HG22	30:BF:56:GLU:CD	2.28	0.54
33:BI:37:VAL:HG13	33:BI:38:LEU:HD12	1.89	0.54
30:BF:117:ARG:HH21	30:BF:187:VAL:HA	1.71	0.54
39:DS:89:ARG:HB3	39:DS:92:TYR:HB3	1.88	0.54
25:BA:923:C:O2'	25:BA:924:C:H5'	2.07	0.54
25:BA:809:G:O2'	25:BA:810:U:H5'	2.07	0.54
36:BP:33:ARG:O	36:BP:34:GLY:C	2.45	0.54
33:BI:130:TYR:HB3	33:BI:136:VAL:CG1	2.37	0.54
25:BA:528:A:H2	25:BA:2042:A:H2'	1.68	0.54
25:BA:528:A:N1	25:BA:2042:A:H2'	2.21	0.54
46:BZ:107:PRO:HA	46:BZ:141:SER:O	2.08	0.54
27:BC:69:LEU:HD13	27:BC:160:GLY:HA2	1.90	0.54
45:BY:16:ALA:HB1	45:BY:21:LYS:HZ3	1.72	0.54
44:BX:12:VAL:HG21	44:BX:17:ALA:HB1	1.89	0.54
25:DA:1496:A:H8	25:DA:1577:C:O2'	1.90	0.54
17:AQ:91:ARG:CA	17:AQ:94:ASN:HD22	2.19	0.54
36:BP:71:VAL:HG13	36:BP:72:PRO:N	2.23	0.54
29:DE:4:ILE:HG12	29:DE:28:ALA:HB1	1.89	0.54
1:CA:1258:G:O2'	1:CA:1259:C:H5'	2.07	0.54
1:AA:1422:G:O2'	1:AA:1423:G:H5'	2.07	0.54
20:CT:33:ILE:HG23	20:CT:63:ILE:CG1	2.38	0.54
25:DA:651:G:N2	25:DA:652:C:N4	2.55	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BN:5:VAL:CG1	34:BN:5:VAL:O	2.54	0.54
55:B8:44:LYS:N	55:B8:44:LYS:HD2	2.21	0.54
31:DG:36:LYS:HA	31:DG:99:MET:HE2	1.89	0.54
33:DI:88:ILE:O	33:DI:89:TYR:C	2.45	0.54
25:BA:1006:C:O2	34:BN:106:MET:HG2	2.07	0.54
54:B7:36:GLN:HG2	54:B7:36:GLN:O	2.07	0.54
38:DR:50:HIS:O	38:DR:54:LEU:HB2	2.08	0.54
25:BA:2514:U:H2'	25:BA:2515:C:H6	1.71	0.54
25:DA:224:G:N7	25:DA:420:C:H4'	2.23	0.54
1:AA:336:C:H2'	1:AA:337:C:C6	2.42	0.54
1:CA:1227:A:C8	1:CA:1228:C:H1'	2.42	0.54
32:DH:24:VAL:O	32:DH:24:VAL:HG23	2.08	0.54
25:BA:2038:G:H2'	25:BA:2039:C:C6	2.42	0.54
1:AA:872:A:O2'	1:AA:873:A:H5''	2.07	0.54
25:BA:1181:C:H2'	25:BA:1182:A:C8	2.43	0.54
1:AA:274:A:O2'	1:AA:275:G:H8	1.88	0.54
39:BS:13:ARG:O	39:BS:14:VAL:HB	2.07	0.54
46:DZ:100:PRO:O	46:DZ:135:PHE:HA	2.08	0.54
44:DX:35:THR:HG22	44:DX:36:LYS:N	2.22	0.54
30:BF:40:GLN:O	30:BF:43:LYS:HG2	2.06	0.54
48:D1:72:GLU:O	48:D1:75:GLU:HB3	2.07	0.54
7:CG:69:VAL:HG13	7:CG:134:ALA:O	2.07	0.54
31:DG:117:PHE:HZ	31:DG:179:PRO:HB2	1.72	0.54
1:AA:1321:C:C3'	1:AA:1322:C:H5''	2.38	0.54
1:AA:1125:U:OP2	1:AA:1145:C:N4	2.41	0.54
36:BP:16:ARG:O	36:BP:18:ARG:N	2.41	0.54
2:AB:220:ASP:CA	2:AB:223:ILE:HG12	2.37	0.54
25:BA:2123:G:O4'	27:BC:173:HIS:HD2	1.91	0.54
13:AM:66:LEU:O	13:AM:67:GLU:O	2.25	0.54
25:BA:2476:A:C2	25:BA:2477:C:C4	2.96	0.54
33:DI:4:ILE:HG21	33:DI:47:LEU:HD21	1.89	0.54
25:BA:1784:A:H4'	25:BA:1785:A:H5''	1.90	0.54
25:DA:1590:U:O2'	25:DA:1591:G:H5''	2.06	0.54
38:DR:67:LEU:O	38:DR:67:LEU:HD12	2.08	0.54
6:CF:75:LEU:O	6:CF:79:LEU:HG	2.07	0.54
43:BW:86:LEU:HD12	43:BW:87:PRO:CD	2.36	0.54
27:BC:216:THR:OG1	27:BC:217:THR:N	2.41	0.54
32:DH:70:THR:HA	32:DH:73:ALA:HB3	1.89	0.54
5:AE:13:ILE:HD13	5:AE:51:VAL:HG13	1.90	0.54
1:AA:499:A:H4'	1:AA:500:G:OP1	2.07	0.54
18:AR:44:LEU:CD1	18:AR:80:PRO:HD2	2.38	0.54
16:AP:21:VAL:HG12	16:AP:34:GLU:O	2.07	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AF:21:LEU:O	6:AF:24:GLU:CG	2.55	0.54
7:AG:111:ARG:CB	7:AG:113:GLU:HG2	2.37	0.54
6:AF:91:VAL:CG1	6:AF:92:LYS:N	2.71	0.54
25:DA:147:U:H2'	25:DA:148:C:C6	2.43	0.54
25:BA:266:G:H2'	25:BA:267:C:O5'	2.07	0.54
22:AV:84:ASP:C	22:AV:86:GLU:N	2.60	0.54
25:BA:1884:A:O3'	27:BC:207:GLY:HA2	2.08	0.54
1:AA:158:G:H2'	1:AA:159:G:H8	1.73	0.54
32:BH:137:ASP:CB	32:BH:140:LYS:HB3	2.37	0.54
1:AA:106:C:H2'	1:AA:107:G:H8	1.73	0.54
46:BZ:180:GLU:CD	46:BZ:180:GLU:N	2.58	0.54
25:DA:720:C:H2'	25:DA:721:C:C6	2.41	0.54
25:BA:1416:G:O2'	25:BA:1417:C:H6	1.90	0.54
41:BU:31:SER:O	41:BU:33:ARG:N	2.32	0.54
25:BA:746:A:C6	25:BA:2611:U:H5''	2.42	0.54
48:B1:30:VAL:HG23	48:B1:31:GLY:H	1.72	0.54
1:CA:1478:C:H2'	1:CA:1479:C:C6	2.43	0.54
1:CA:22:G:H4'	1:CA:885:G:C8	2.43	0.54
35:BO:63:VAL:HG11	35:BO:85:VAL:HG23	1.88	0.54
34:BN:91:LEU:O	34:BN:95:PRO:HB3	2.07	0.54
46:BZ:135:PHE:O	46:BZ:136:ILE:HG13	2.08	0.54
30:DF:52:LYS:O	30:DF:88:VAL:HG12	2.08	0.54
25:DA:2619:C:H4'	29:DE:151:TYR:O	2.08	0.54
28:DD:4:LYS:HE3	28:DD:19:ALA:O	2.08	0.54
25:DA:686:G:H5''	54:D7:11:LYS:HE2	1.89	0.54
39:BS:28:VAL:HB	39:BS:89:ARG:CG	2.38	0.54
42:DV:19:LYS:HZ3	42:DV:20:LEU:H	1.56	0.54
44:DX:28:PHE:CZ	44:DX:92:LEU:HD11	2.43	0.54
25:BA:1109:C:H41	25:BA:1110:G:H21	1.56	0.54
42:BV:39:LEU:CD1	42:BV:47:VAL:HG11	2.37	0.54
22:CV:172:LYS:CB	22:CV:181:VAL:HG22	2.36	0.54
31:DG:114:ILE:HG22	31:DG:115:ARG:N	2.22	0.54
25:DA:2700:C:O2'	25:DA:2701:C:H5'	2.08	0.54
25:BA:2103:C:H3'	25:BA:2104:G:H5''	1.90	0.54
16:AP:54:GLU:O	16:AP:57:ARG:HB2	2.08	0.54
40:BT:50:ILE:CD1	40:BT:102:ILE:HD11	2.34	0.54
53:B6:11:LEU:O	53:B6:23:THR:HA	2.08	0.54
36:BP:139:LYS:C	36:BP:141:ALA:H	2.09	0.54
25:DA:352:G:H1'	25:DA:354:G:N7	2.22	0.54
25:DA:272(J):C:H5'	25:DA:274:G:O5'	2.07	0.54
25:BA:651:G:N2	25:BA:652:C:H41	2.06	0.54
4:AD:79:PHE:HE1	4:AD:203:VAL:HG12	1.73	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AE:107:ARG:CG	5:AE:108:ALA:N	2.70	0.54
40:DT:98:LYS:HB3	40:DT:100:TYR:CE1	2.42	0.54
25:BA:1018:C:O2'	25:BA:1019:U:H5'	2.08	0.54
15:AO:78:TYR:O	15:AO:81:LEU:HB3	2.07	0.54
27:DC:135:ARG:HB3	27:DC:137:LEU:CD1	2.37	0.54
2:AB:92:TYR:N	2:AB:151:GLY:O	2.40	0.54
25:DA:1685:C:O2'	25:DA:1686:C:H5''	2.06	0.54
5:CE:82:VAL:HG11	5:CE:137:GLU:CB	2.35	0.54
23:CW:17:C:H2'	23:CW:17(B):U:C5	2.40	0.54
55:D8:6:THR:O	55:D8:8:LYS:N	2.40	0.54
25:BA:392:C:H5''	25:BA:409:C:H5''	1.89	0.54
4:CD:165:MET:HE2	4:CD:176:LEU:CD2	2.38	0.54
29:DE:81:ILE:O	29:DE:82:ARG:O	2.25	0.54
2:CB:233:SER:OG	2:CB:234:PRO:HD2	2.06	0.54
11:AK:33:THR:HB	11:AK:38:ASN:O	2.08	0.54
25:DA:2892:A:C5	25:DA:2893:G:H1'	2.41	0.54
31:BG:16:ARG:N	31:BG:17:PRO:HD2	2.21	0.54
30:BF:139:PHE:CE2	30:BF:167:ALA:HB2	2.42	0.54
25:DA:330:A:C2	25:DA:1210:A:H2'	2.43	0.54
4:CD:101:LEU:HD13	4:CD:133:VAL:HG11	1.87	0.54
22:CV:167:PRO:C	22:CV:169:GLU:H	2.11	0.54
34:BN:4:TYR:O	34:BN:5:VAL:O	2.25	0.54
29:BE:14:ILE:HB	40:BT:14:TYR:CZ	2.43	0.54
27:DC:54:ARG:HB3	27:DC:54:ARG:CZ	2.37	0.54
10:CJ:32:ALA:HB2	10:CJ:76:ASN:CG	2.27	0.54
10:AJ:89:ASP:HB3	10:AJ:91:PRO:HD3	1.90	0.54
25:DA:2776:A:H4'	25:DA:2777:G:C5'	2.37	0.54
4:CD:126:ILE:HG22	4:CD:127:THR:H	1.72	0.54
12:AL:14:LYS:HD2	12:AL:15:VAL:H	1.72	0.54
25:DA:1178:C:H2'	25:DA:1179:C:C5	2.43	0.54
14:AN:48:ALA:CA	14:AN:53:LEU:HD12	2.37	0.54
25:BA:1260:G:H2'	25:BA:1261:C:H6	1.72	0.54
43:BW:62:HIS:O	43:BW:63:ASP:C	2.46	0.54
25:BA:1863:G:H2'	25:BA:1864:U:C6	2.42	0.54
25:DA:1416:G:H22	25:DA:1583:A:H1'	1.72	0.54
25:BA:2736:G:O2'	25:BA:2737:G:H5'	2.07	0.54
25:BA:357:A:H2'	25:BA:358:U:C6	2.43	0.54
1:CA:1431:C:C2'	1:CA:1432:G:H5'	2.38	0.54
47:B0:23:LYS:O	47:B0:24:ARG:HG2	2.08	0.54
32:DH:66:GLY:HA2	32:DH:69:ARG:HB3	1.88	0.54
25:DA:760:G:H2'	25:DA:761:A:O4'	2.08	0.54
29:BE:93:VAL:HG21	29:BE:180:ASN:CA	2.32	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:112:SER:HB3	3:AC:115:LEU:HD12	1.89	0.54
25:BA:174:C:C3'	25:BA:175:G:H5''	2.37	0.54
46:DZ:55:VAL:HG11	46:DZ:67:PRO:HB3	1.90	0.54
2:CB:42:ILE:HD11	2:CB:202:PRO:HB2	1.90	0.54
25:DA:1022:G:C6	25:DA:1140:C:C4	2.95	0.54
34:DN:28:THR:CG2	34:DN:29:LYS:H	2.15	0.54
34:DN:90:MET:HE2	34:DN:90:MET:HA	1.90	0.54
1:CA:1237:C:C4'	1:CA:1334:G:H21	2.20	0.54
1:CA:1292:U:H5'	9:CI:38:GLN:OE1	2.07	0.54
1:CA:1158:C:N3	1:CA:1160:G:C8	2.75	0.54
30:BF:3:GLU:HB3	30:BF:20:LEU:O	2.08	0.54
3:AC:77:ILE:O	3:AC:83:ARG:HB3	2.07	0.54
45:BY:37:VAL:HG23	45:BY:38:ILE:N	2.23	0.54
1:AA:1498:U:H1'	1:AA:1499:A:N7	2.23	0.54
25:DA:2402:C:H2'	25:DA:2403:C:H5'	1.90	0.54
31:BG:58:GLN:O	31:BG:62:LEU:HB2	2.06	0.54
53:B6:12:GLU:HB2	53:B6:21:TYR:HB3	1.89	0.54
25:BA:541:C:C2	25:BA:542:C:C4	2.96	0.54
1:AA:1024:G:H2'	1:AA:1025:U:C5	2.43	0.54
25:BA:2392:A:H2	25:BA:2424:C:H42	1.55	0.54
4:AD:30:LYS:CB	4:AD:35:ARG:HH11	2.20	0.54
5:AE:92:LYS:O	5:AE:118:ILE:HD12	2.07	0.54
28:DD:28:GLU:N	28:DD:29:PRO:CD	2.57	0.54
27:BC:148:PHE:C	27:BC:150:ILE:H	2.10	0.54
25:DA:70:G:H21	25:DA:71:A:N6	2.05	0.54
27:DC:215:VAL:O	27:DC:223:VAL:HG23	2.07	0.54
1:CA:1225:A:H5'	13:CM:103:THR:HG1	1.70	0.54
47:D0:52:GLY:N	47:D0:62:LEU:CD1	2.71	0.54
25:BA:857:C:H1'	47:B0:25:TYR:CE2	2.43	0.54
1:AA:532:A:H62	3:AC:156:ARG:NH1	2.05	0.54
1:AA:376:G:O2'	1:AA:377:G:H5'	2.07	0.54
1:CA:1152:A:O2'	1:CA:1153:C:H6	1.91	0.54
22:AV:134:ASP:HB3	22:AV:152:THR:N	2.22	0.54
1:AA:399:G:H2'	1:AA:400:C:C6	2.43	0.54
1:AA:552:U:C4'	12:AL:83:ARG:HG2	2.38	0.54
25:BA:1410:G:H1	25:BA:1592:C:H42	1.54	0.54
25:DA:27:G:N2	25:DA:512:G:H2'	2.23	0.54
28:DD:205:VAL:O	28:DD:207:GLY:N	2.41	0.54
25:DA:310:A:O2'	25:DA:311:A:C8	2.61	0.54
45:DY:17:SER:OG	45:DY:18:GLY:N	2.40	0.54
12:CL:24:LEU:C	12:CL:26:GLY:N	2.60	0.54
53:B6:26:ASN:O	53:B6:27:LYS:HG2	2.08	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:B6:28:ARG:HA	53:B6:32:ASN:ND2	2.23	0.54
42:BV:5:VAL:HG22	42:BV:6:LYS:N	2.22	0.54
4:AD:119:GLN:HG2	4:AD:123:HIS:HD2	1.69	0.54
43:DW:33:ARG:O	43:DW:37:ARG:HB2	2.08	0.54
1:AA:1239:A:H2'	1:AA:1298:C:H42	1.72	0.54
25:DA:1855:G:C6	25:DA:1888:G:C8	2.96	0.54
45:DY:88:LYS:HB3	45:DY:90:LEU:CD1	2.33	0.54
46:DZ:175:PRO:CB	46:DZ:176:PRO:HD2	2.37	0.54
38:BR:95:THR:HA	38:BR:117:VAL:HG23	1.89	0.54
25:BA:2126:A:N6	25:BA:2163:C:H4'	2.23	0.54
38:DR:78:LYS:O	38:DR:83:ILE:HG12	2.07	0.54
23:AW:17(B):U:H4'	23:AW:18:G:OP1	2.07	0.54
25:BA:2849:U:OP2	40:BT:95:ARG:NH1	2.36	0.54
25:BA:97:C:H5''	49:B2:2:LYS:HB2	1.90	0.54
37:DQ:64:ILE:HG23	37:DQ:106:VAL:CG1	2.37	0.54
29:BE:104:VAL:HG11	29:BE:188:VAL:HG23	1.89	0.54
41:DU:27:LEU:HB3	41:DU:31:SER:CB	2.38	0.54
25:DA:466:A:OP1	54:D7:34:ARG:NH1	2.41	0.54
25:BA:1656:C:H2'	25:BA:1657:C:C6	2.43	0.54
1:CA:1468:A:H2'	1:CA:1469:G:O4'	2.08	0.54
3:AC:125:GLU:HG2	3:AC:189:ALA:O	2.08	0.54
1:CA:1095:U:P	1:CA:1108:G:H22	2.30	0.54
47:D0:26:TYR:O	47:D0:29:GLN:HB2	2.08	0.54
8:AH:31:PHE:O	8:AH:35:ILE:HG13	2.07	0.54
48:B1:20:ARG:HH11	48:B1:20:ARG:HG2	1.72	0.54
1:CA:1427:U:H2'	1:CA:1428:A:H8	1.71	0.54
1:CA:1513:A:H2'	1:CA:1514:C:C6	2.43	0.54
25:DA:565:C:H4'	25:DA:1253:A:C6	2.43	0.54
43:DW:78:GLU:HG3	43:DW:79:GLY:O	2.08	0.54
25:BA:2402:C:O2'	25:BA:2403:C:H6	1.91	0.54
25:DA:446:G:H4'	25:DA:447:A:H5'	1.90	0.54
29:DE:19:ARG:O	29:DE:19:ARG:HG3	2.06	0.54
3:CC:28:GLN:HG3	3:CC:31:HIS:HD2	1.72	0.54
6:AF:50:TYR:CZ	18:AR:77:GLY:HA2	2.42	0.54
1:CA:382:A:H2'	1:CA:383:A:C8	2.43	0.54
25:BA:1897:G:H2'	25:BA:1898:U:O4'	2.08	0.54
26:DB:73:A:C4	26:DB:105:A:C2	2.96	0.54
46:DZ:8:TYR:HD1	46:DZ:60:LEU:HD12	1.72	0.54
2:CB:208:ILE:HA	2:CB:211:ILE:CD1	2.31	0.54
2:CB:15:VAL:HB	2:CB:209:ARG:HB3	1.90	0.54
34:DN:42:TRP:CE3	34:DN:43:THR:N	2.73	0.54
41:DU:90:VAL:HA	42:DV:11:GLN:HE22	1.73	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DZ:81:ARG:NH2	46:DZ:83:GLU:HA	2.22	0.54
19:CS:64:GLU:O	19:CS:65:ASN:C	2.46	0.54
19:CS:9:VAL:HG12	19:CS:39:THR:HB	1.89	0.54
48:D1:69:LYS:HE3	48:D1:72:GLU:OE2	2.08	0.54
7:CG:109:ASN:HA	7:CG:119:ARG:NH2	2.23	0.54
31:DG:144:ILE:HG23	31:DG:144:ILE:O	2.08	0.54
19:AS:51:VAL:CG1	19:AS:75:ALA:HB2	2.37	0.54
25:BA:1343:G:N3	25:BA:1384:A:H2	2.05	0.54
28:BD:26:LYS:HE2	28:BD:113:VAL:HG21	1.89	0.54
16:CP:68:ASP:O	16:CP:71:ARG:HG2	2.08	0.54
55:B8:23:VAL:CG1	55:B8:46:ARG:HB3	2.37	0.54
25:BA:651:G:N2	25:BA:652:C:N4	2.55	0.54
4:AD:10:ARG:NH1	4:AD:10:ARG:HG2	2.22	0.54
25:DA:6:A:N3	25:DA:6:A:H2'	2.23	0.54
34:DN:116:LEU:O	34:DN:119:ARG:N	2.41	0.54
15:CO:9:GLN:C	15:CO:11:VAL:N	2.56	0.54
27:DC:146:VAL:HG12	27:DC:147:GLY:N	2.18	0.54
27:DC:83:LYS:NZ	27:DC:148:PHE:HB3	2.23	0.54
25:BA:810:U:O2'	36:BP:33:ARG:NH1	2.40	0.54
5:CE:72:GLN:NE2	5:CE:77:PRO:HB3	2.23	0.54
51:B4:60:GLU:O	51:B4:61:VAL:HB	2.08	0.54
5:CE:17:ALA:HB2	5:CE:26:PHE:CD2	2.42	0.54
12:CL:57:LEU:HD21	12:CL:63:VAL:HG22	1.89	0.54
32:DH:70:THR:O	32:DH:72:ILE:N	2.35	0.54
25:BA:2701:C:C2'	25:BA:2702:U:H5''	2.38	0.54
51:D4:39:ARG:C	51:D4:40:ILE:HD12	2.28	0.54
1:CA:1523:G:H2'	1:CA:1524:C:H6	1.73	0.54
1:CA:190:U:O2	20:CT:105:SER:HB2	2.07	0.54
4:CD:150:GLU:CG	4:CD:151:LYS:H	2.21	0.54
25:DA:1190:G:C2	25:DA:1191:G:N7	2.76	0.54
36:DP:31:ALA:C	36:DP:33:ARG:N	2.61	0.54
1:AA:1124:G:H1'	10:AJ:38:ILE:HG21	1.90	0.54
31:BG:111:LEU:HD22	31:BG:120:LEU:HD21	1.90	0.54
1:AA:155:C:O2'	1:AA:156:G:H5'	2.08	0.54
47:D0:5:LYS:HB3	47:D0:5:LYS:HZ2	1.72	0.54
36:DP:91:PHE:N	36:DP:91:PHE:CD1	2.75	0.54
25:DA:843:G:C2'	25:DA:844:C:H5'	2.38	0.54
28:BD:142:VAL:CG2	28:BD:191:ALA:HB1	2.38	0.54
25:DA:2199:A:H5'	25:DA:2200:C:OP2	2.08	0.54
25:BA:350:U:H2'	25:BA:351:G:O4'	2.08	0.54
27:BC:62:THR:HG22	27:BC:163:GLU:CG	2.38	0.54
27:DC:209:PHE:O	27:DC:211:ARG:N	2.41	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:AG:144:MET:O	7:AG:147:ALA:HB3	2.07	0.54
25:BA:1571:A:H2'	25:BA:1572:A:C8	2.43	0.54
25:BA:535:C:O2	25:BA:559:G:C2	2.61	0.54
1:AA:986:A:H2'	1:AA:987:G:C8	2.43	0.54
1:AA:1170:A:H2'	1:AA:1171:G:O4'	2.07	0.54
25:BA:1863:G:H2'	25:BA:1864:U:H6	1.73	0.54
25:DA:2363:C:O2'	25:DA:2364:C:H5'	2.08	0.54
26:DB:58:A:H2'	26:DB:59:A:O4'	2.07	0.54
43:BW:29:LEU:HD12	43:BW:29:LEU:O	2.07	0.54
1:CA:1424:C:H2'	1:CA:1425:U:O4'	2.08	0.54
22:CV:97:ARG:HD3	22:CV:120:ILE:O	2.07	0.54
1:AA:247:G:OP2	17:AQ:100:LYS:N	2.41	0.54
25:BA:363(C):G:H2'	25:BA:363(D):G:H8	1.73	0.54
11:CK:30:VAL:HG23	11:CK:30:VAL:O	2.08	0.54
25:BA:66:C:O2'	25:BA:67:U:H5'	2.08	0.54
32:DH:153:LYS:HD3	32:DH:153:LYS:N	2.23	0.54
8:AH:83:ILE:O	8:AH:83:ILE:HG23	2.08	0.54
1:CA:186:C:H1'	20:CT:85:MET:CE	2.38	0.54
25:DA:2707:G:H2'	25:DA:2708:G:H8	1.72	0.54
39:BS:89:ARG:CB	39:BS:92:TYR:HB3	2.30	0.54
9:AI:43:ALA:O	9:AI:45:ALA:N	2.34	0.54
42:DV:46:VAL:HG22	42:DV:47:VAL:N	2.13	0.54
1:CA:1115:C:H2'	1:CA:1116:C:C6	2.42	0.54
42:BV:38:LEU:C	42:BV:39:LEU:HD13	2.27	0.54
31:DG:64:THR:HG23	31:DG:66:GLN:H	1.73	0.54
45:DY:8:LYS:HZ1	45:DY:73:ARG:CA	2.20	0.54
30:BF:4:VAL:H	30:BF:19:GLU:HB3	1.70	0.54
1:AA:225:C:H2'	1:AA:226:G:C8	2.42	0.54
25:DA:555:U:C1'	25:DA:556:G:N7	2.59	0.54
40:BT:106:SER:O	40:BT:107:ASP:CB	2.55	0.54
1:AA:1391:U:H2'	1:AA:1392:G:H8	1.73	0.54
25:BA:1887:C:C3'	25:BA:1888:G:H5''	2.38	0.54
12:CL:38:ARG:CG	12:CL:39:THR:N	2.65	0.54
25:DA:2533:A:H2'	25:DA:2534:A:C4'	2.37	0.54
2:AB:194:PRO:O	2:AB:197:VAL:HG23	2.08	0.54
2:AB:200:ILE:HD12	2:AB:200:ILE:N	2.22	0.54
13:CM:24:GLY:HA3	13:CM:66:LEU:HB3	1.90	0.54
25:BA:2417:C:C2	25:BA:2418:A:C8	2.96	0.54
25:DA:2723:C:OP1	38:DR:5:LYS:NZ	2.41	0.54
1:AA:416:G:H1	1:AA:427:U:H3	1.56	0.54
5:CE:53:LEU:HD12	5:CE:53:LEU:H	1.73	0.54
25:DA:2791:C:C1'	25:DA:2792:G:C8	2.88	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:D2:51:ARG:O	49:D2:54:LYS:HB2	2.08	0.54
25:BA:673:C:H5'	30:BF:54:ARG:HH12	1.73	0.54
18:CR:75:ILE:HG22	18:CR:76:LEU:HD22	1.88	0.54
1:AA:1363(A):A:N3	1:AA:1363(A):A:H2'	2.23	0.54
1:AA:1365:G:O2'	1:AA:1366:C:H5'	2.08	0.54
37:BQ:54:MET:HG2	37:BQ:64:ILE:CD1	2.38	0.54
12:AL:72:HIS:HB3	12:AL:99:ARG:HH12	1.72	0.54
18:AR:87:ARG:HG2	18:AR:88:LYS:N	2.23	0.54
25:BA:94(A):G:N3	49:B2:47:ASN:ND2	2.56	0.54
55:B8:53:PRO:HA	55:B8:56:GLU:HB3	1.89	0.54
6:CF:40:VAL:HG22	6:CF:41:GLU:N	2.23	0.54
25:BA:816:C:H2'	25:BA:817:C:C6	2.42	0.54
25:DA:1936:A:H2	25:DA:1962:C:O2	1.91	0.54
1:AA:7:G:H21	5:AE:121:LYS:HG2	1.72	0.54
1:CA:862:C:C2'	1:CA:863:U:H5'	2.37	0.54
14:AN:13:THR:N	14:AN:14:PRO:CD	2.71	0.54
8:CH:39:LEU:HD13	8:CH:44:PHE:CB	2.36	0.54
25:BA:401:A:H2'	25:BA:402:A:C8	2.43	0.54
25:DA:2240:C:O2'	25:DA:2241:A:H5'	2.07	0.54
7:AG:5:ARG:O	7:AG:7:ALA:N	2.36	0.54
43:BW:37:ARG:HG3	43:BW:37:ARG:HH11	1.73	0.54
32:BH:149:ARG:HG3	32:BH:149:ARG:O	2.07	0.54
1:CA:967:C:H4'	9:CI:125:TYR:CE2	2.43	0.54
1:CA:1416:G:N2	1:CA:1485:U:H1'	2.23	0.54
7:AG:85:TYR:CD1	7:AG:154:TYR:HE1	2.26	0.54
49:B2:55:ARG:HH21	49:B2:55:ARG:HG3	1.73	0.54
25:BA:517:C:OP1	52:B5:16:ARG:NH2	2.41	0.54
8:CH:119:LEU:HD13	8:CH:123:GLU:HB3	1.90	0.54
25:BA:2549:G:H1	25:BA:2559:C:H42	1.56	0.54
25:DA:664:C:H4'	25:DA:941:A:OP1	2.08	0.54
29:DE:175:VAL:HG12	29:DE:182:LEU:HD13	1.88	0.54
29:DE:142:GLY:O	29:DE:143:ASN:ND2	2.41	0.54
25:BA:314:A:O2'	25:BA:315:G:H5'	2.08	0.54
33:DI:114:LEU:O	33:DI:115:ALA:HB3	2.08	0.54
18:AR:19:LYS:O	18:AR:20:ALA:HB2	2.07	0.54
1:CA:811:C:O2'	1:CA:901:A:N1	2.41	0.54
25:DA:1355:G:O2'	25:DA:1356:G:H5'	2.07	0.54
1:AA:697:U:C2'	1:AA:698:G:H5'	2.37	0.54
1:AA:1473:A:O2'	1:AA:1474:G:H5'	2.08	0.54
52:D5:31:VAL:HB	52:D5:32:PRO:HD2	1.90	0.54
36:BP:50:ARG:HB3	55:B8:59:LYS:HD2	1.90	0.54
29:BE:181:LEU:HD21	40:BT:7:ILE:HG22	1.88	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:980:C:H3'	1:AA:981:U:C6	2.43	0.54
50:D3:29:ARG:NH1	50:D3:29:ARG:CB	2.63	0.54
25:DA:1000:A:C2	25:DA:1155:A:C4	2.96	0.54
34:DN:43:THR:HG22	34:DN:45:ASN:ND2	2.23	0.54
41:DU:101:ARG:C	41:DU:102:GLU:HG2	2.28	0.54
25:BA:773:U:H2'	25:BA:774:A:H5'	1.89	0.54
25:BA:610:G:H2'	25:BA:611:C:H6	1.72	0.54
31:DG:111:LEU:HB2	31:DG:112:PRO:HD3	1.90	0.54
30:BF:20:LEU:CB	30:BF:23:ASP:OD2	2.56	0.54
40:BT:30:VAL:HG22	40:BT:84:GLN:O	2.07	0.54
3:AC:57:ILE:HG12	3:AC:66:VAL:H	1.72	0.54
25:DA:1246:A:O2'	25:DA:1247:A:H5'	2.08	0.54
30:DF:3:GLU:CG	30:DF:19:GLU:HB2	2.37	0.54
25:DA:1048:A:N6	25:DA:1108:U:H5	2.06	0.54
25:DA:274:G:H1	25:DA:363:G:H22	1.56	0.54
40:DT:31:SER:HB2	40:DT:32:TYR:CE2	2.42	0.54
3:CC:15:THR:O	3:CC:16:ARG:C	2.46	0.54
25:BA:1162:G:H4'	42:BV:24:LYS:CB	2.38	0.54
2:CB:122:PHE:O	2:CB:127:ILE:HD11	2.08	0.54
25:DA:1590:U:C2'	25:DA:1591:G:C5'	2.79	0.54
1:CA:1202:G:O2'	1:CA:1203:C:H5'	2.08	0.54
2:CB:114:ARG:HA	2:CB:117:GLU:CD	2.28	0.54
39:DS:89:ARG:HB3	39:DS:92:TYR:CB	2.38	0.54
16:AP:28:ARG:HH11	16:AP:28:ARG:CG	2.17	0.54
6:CF:84:ASN:O	6:CF:86:ARG:HG3	2.08	0.54
23:CW:58:A:H4'	23:CW:59:A:OP1	2.07	0.54
25:BA:2124:G:N2	27:BC:219:MET:HE3	2.23	0.54
11:CK:87:THR:HG22	11:CK:87:THR:O	2.08	0.54
45:BY:42:VAL:CG1	45:BY:65:ALA:HB3	2.37	0.54
18:CR:57:GLY:O	18:CR:58:LEU:HD12	2.08	0.54
25:DA:1286:A:C2'	25:DA:1288:U:OP2	2.52	0.54
4:CD:13:ARG:O	4:CD:15:GLU:N	2.37	0.54
30:BF:133:ASN:O	30:BF:138:GLU:OE1	2.26	0.54
37:BQ:61:GLY:O	46:BZ:176:PRO:HB3	2.07	0.54
1:CA:1070:U:H5'	5:CE:18:ARG:HH22	1.73	0.54
25:DA:1281:G:C2'	25:DA:1282:U:H5'	2.38	0.54
28:BD:65:ILE:HD11	28:BD:67:PHE:CE1	2.43	0.54
30:DF:84:VAL:C	30:DF:86:GLY:H	2.10	0.54
27:DC:178:LYS:HB2	27:DC:181:PHE:CE1	2.43	0.54
1:CA:269:C:H2'	1:CA:270:A:C8	2.42	0.54
36:DP:50:ARG:HH21	36:DP:50:ARG:HG2	1.73	0.54
25:DA:1231:G:H2'	25:DA:1232:G:H8	1.73	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:BD:28:GLU:H	28:BD:29:PRO:CD	2.20	0.54
11:CK:115:PRO:C	11:CK:117:ASN:N	2.61	0.54
33:DI:98:ALA:O	33:DI:100:ALA:N	2.41	0.54
16:CP:25:ARG:HG3	16:CP:25:ARG:NH1	2.23	0.54
1:CA:598:U:H2'	1:CA:599:C:C6	2.42	0.54
10:CJ:32:ALA:C	10:CJ:33:GLN:HG3	2.28	0.54
34:DN:55:VAL:HG13	34:DN:126:PRO:HA	1.90	0.54
44:DX:40:LYS:HG2	44:DX:41:ASN:N	2.23	0.54
4:CD:79:PHE:O	4:CD:82:ALA:HB3	2.08	0.54
16:CP:60:LEU:HD23	16:CP:64:ALA:HB3	1.90	0.54
48:B1:66:HIS:C	48:B1:68:PRO:HD2	2.28	0.54
25:DA:1322:A:OP1	43:DW:11:ARG:HG3	2.08	0.54
40:DT:130:ALA:O	40:DT:132:LYS:N	2.41	0.54
53:D6:33:LYS:O	53:D6:34:LEU:O	2.26	0.54
25:DA:1346:G:H2'	25:DA:1347:G:H8	1.72	0.54
25:BA:1310:G:H1'	25:BA:1611:C:H5'	1.90	0.54
34:BN:115:ARG:HG2	34:BN:115:ARG:HH11	1.71	0.54
43:DW:9:TYR:CD2	43:DW:9:TYR:N	2.76	0.54
33:BI:74:ASN:HD22	33:BI:74:ASN:H	1.56	0.54
25:DA:2766:G:N3	25:DA:2766:G:H2'	2.23	0.54
10:AJ:22:LYS:NZ	10:AJ:23:ILE:HA	2.23	0.54
50:D3:7:LYS:HA	50:D3:33:GLN:O	2.08	0.53
34:DN:97:ARG:O	34:DN:100:GLU:N	2.42	0.53
42:DV:34:GLU:O	42:DV:36:PRO:CD	2.55	0.53
46:DZ:78:ARG:HH11	46:DZ:78:ARG:HG3	1.73	0.53
25:DA:2183:C:C6	25:DA:2183:C:OP2	2.61	0.53
1:CA:1286:A:H2'	1:CA:1287:A:H4'	1.90	0.53
9:CI:53:VAL:O	9:CI:54:ASP:CB	2.56	0.53
13:CM:88:ARG:HA	13:CM:98:VAL:CG1	2.38	0.53
25:BA:1177:A:H4'	25:BA:1178:C:C5'	2.22	0.53
45:DY:28:LYS:HA	45:DY:39:VAL:N	2.06	0.53
25:BA:2101:G:C3'	25:BA:2102:U:H5''	2.39	0.53
30:DF:18:ARG:HG3	30:DF:19:GLU:H	1.72	0.53
30:DF:28:ILE:HG22	30:DF:112:MET:HG3	1.89	0.53
1:AA:1430:C:H2'	1:AA:1431:C:C6	2.43	0.53
3:AC:3:ASN:HD21	3:AC:4:LYS:NZ	2.05	0.53
30:DF:102:PRO:HB2	30:DF:105:VAL:HG23	1.90	0.53
32:DH:89:ILE:CG1	32:DH:129:THR:HA	2.37	0.53
31:BG:137:GLU:CG	31:BG:139:LEU:HD21	2.37	0.53
53:B6:36:LEU:HD13	53:B6:50:ARG:NH1	2.23	0.53
36:BP:96:THR:O	36:BP:98:GLU:N	2.41	0.53
28:BD:21:PHE:HB3	28:BD:24:ILE:CG2	2.38	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2533:A:H2'	25:DA:2534:A:C5'	2.38	0.53
25:BA:651:G:N3	25:BA:651:G:H2'	2.23	0.53
3:CC:124:ILE:HG21	3:CC:189:ALA:CB	2.28	0.53
1:AA:1525:G:O2'	1:AA:1526:G:H5'	2.07	0.53
4:AD:61:LYS:O	4:AD:65:ARG:HB2	2.08	0.53
3:CC:64:VAL:O	3:CC:66:VAL:HG23	2.08	0.53
10:CJ:63:PHE:CB	14:CN:59:ALA:H	2.21	0.53
40:DT:27:THR:CG2	40:DT:28:VAL:H	2.04	0.53
9:AI:114:TYR:N	9:AI:114:TYR:HD2	2.07	0.53
40:DT:3:ARG:HH11	40:DT:3:ARG:HG3	1.72	0.53
33:BI:15:VAL:O	33:BI:17:GLN:N	2.42	0.53
17:CQ:77:VAL:O	17:CQ:78:GLU:HG2	2.08	0.53
1:CA:1033:G:C2'	1:CA:1034:G:H5''	2.38	0.53
39:DS:20:ARG:HH11	39:DS:20:ARG:HG2	1.70	0.53
1:AA:473:G:H4'	16:AP:81:ARG:NH2	2.23	0.53
10:CJ:34:VAL:HA	10:CJ:73:ASP:O	2.07	0.53
2:AB:61:LEU:CD1	2:AB:66:GLY:HA3	2.38	0.53
1:CA:78:G:H21	1:CA:79:G:H1	1.54	0.53
5:CE:82:VAL:HG21	5:CE:138:ALA:HA	1.89	0.53
5:CE:81:GLU:HA	5:CE:89:ILE:O	2.08	0.53
27:DC:173:HIS:CD2	27:DC:173:HIS:N	2.74	0.53
35:DO:14:THR:HG21	35:DO:86:ILE:HD13	1.90	0.53
25:BA:2701:C:H3'	25:BA:2702:U:H5'	1.87	0.53
20:CT:43:LEU:HB3	20:CT:48:LYS:CB	2.36	0.53
1:AA:1105:A:H2'	1:AA:1106:G:H8	1.73	0.53
19:AS:62:ILE:CD1	19:AS:66:MET:HG3	2.34	0.53
43:DW:5:ALA:HB1	43:DW:50:VAL:CG2	2.35	0.53
8:CH:20:TYR:HD1	8:CH:65:TYR:CE2	2.26	0.53
29:BE:119:ARG:HG2	29:BE:160:TYR:CG	2.44	0.53
56:B9:7:VAL:CG2	56:B9:36:GLN:HB2	2.36	0.53
25:BA:481:G:O2'	25:BA:482:A:OP2	2.26	0.53
1:CA:296:U:H2'	1:CA:297:G:H8	1.72	0.53
1:AA:879:C:O2'	1:AA:880:C:H5'	2.07	0.53
25:BA:2533:A:H3'	25:BA:2534:A:H5''	1.89	0.53
4:AD:156:GLU:HB3	4:AD:160:GLN:HE21	1.72	0.53
27:DC:47:LYS:HE2	27:DC:212:SER:HB2	1.90	0.53
25:DA:2287:A:C4	25:DA:2289:G:C8	2.96	0.53
5:CE:31:LEU:CD2	5:CE:45:PHE:HB2	2.37	0.53
4:AD:199:ASN:CG	4:AD:202:LEU:HD23	2.28	0.53
46:BZ:3:ARG:HG3	46:BZ:57:VAL:HB	1.89	0.53
54:D7:5:TRP:CE3	54:D7:5:TRP:HA	2.42	0.53
25:BA:1367:A:N7	25:BA:1368:G:H1'	2.23	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2035:G:H4'	25:BA:2036:C:OP2	2.08	0.53
1:CA:547:A:H4'	1:CA:548:G:O5'	2.07	0.53
1:AA:576:G:N2	1:AA:760:G:OP2	2.40	0.53
31:DG:77:ILE:HG22	31:DG:79:ASN:H	1.73	0.53
3:AC:205:GLY:O	3:AC:206:GLU:HG3	2.09	0.53
25:DA:43:A:O2'	25:DA:44:G:H5'	2.08	0.53
27:DC:42:VAL:N	27:DC:177:GLY:O	2.40	0.53
2:CB:23:ARG:O	2:CB:23:ARG:CG	2.55	0.53
25:DA:952:G:OP1	37:DQ:16:ARG:NH2	2.41	0.53
46:DZ:78:ARG:HG3	46:DZ:78:ARG:NH1	2.23	0.53
1:CA:1270:C:O2'	1:CA:1314:C:H5'	2.08	0.53
30:DF:117:ARG:NH2	30:DF:187:VAL:HA	2.23	0.53
27:BC:133:GLY:HA2	27:BC:138:LEU:CD1	2.38	0.53
29:DE:8:LYS:O	29:DE:193:GLY:N	2.40	0.53
36:BP:140:ALA:O	36:BP:141:ALA:HB3	2.09	0.53
2:AB:116:GLU:OE2	2:AB:153:ARG:NH2	2.41	0.53
25:DA:271(T):C:C6	25:DA:271(T):C:H5'	2.38	0.53
4:AD:29:PRO:HA	4:AD:34:GLU:HG2	1.90	0.53
5:AE:41:VAL:HG12	5:AE:42:GLY:H	1.71	0.53
22:CV:71:GLN:HA	22:CV:109:THR:OG1	2.07	0.53
47:D0:49:LYS:HE3	47:D0:80:HIS:CD2	2.43	0.53
30:BF:151:SER:O	30:BF:152:GLU:HG3	2.08	0.53
1:CA:1034:G:H3'	1:CA:1034:G:H8	1.72	0.53
26:DB:38:C:O2	26:DB:48:A:H1'	2.08	0.53
1:AA:1056:U:C5'	3:AC:163:ALA:HB2	2.31	0.53
1:AA:386:C:C2'	1:AA:387:U:H5'	2.38	0.53
10:CJ:7:LYS:NZ	10:CJ:40:LEU:CD2	2.71	0.53
1:AA:398:C:H2'	1:AA:399:G:C8	2.44	0.53
25:DA:764:A:OP1	28:DD:208:LYS:HE2	2.08	0.53
1:AA:731:G:OP1	1:AA:766:A:H1'	2.08	0.53
12:CL:67:ILE:HD13	12:CL:74:LEU:HD12	1.90	0.53
31:BG:85:GLY:C	31:BG:87:PRO:HD2	2.28	0.53
46:BZ:140:VAL:HA	46:BZ:143:LEU:HD23	1.90	0.53
25:DA:1225:G:H2'	25:DA:1226:A:C8	2.43	0.53
22:AV:159:VAL:HG23	22:AV:178:GLY:O	2.08	0.53
25:DA:2635:C:O2'	29:DE:80:GLU:HG3	2.08	0.53
31:BG:5:VAL:O	31:BG:9:ARG:HG3	2.07	0.53
8:CH:97:VAL:C	8:CH:99:GLU:H	2.12	0.53
31:BG:107:LEU:HD22	31:BG:178:PHE:HA	1.90	0.53
39:BS:104:GLY:O	39:BS:106:ARG:N	2.37	0.53
1:AA:155:C:H2'	1:AA:156:G:H8	1.73	0.53
8:CH:21:LYS:HG2	8:CH:23:SER:O	2.08	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2183:C:H2'	25:BA:2184:G:H8	1.74	0.53
25:DA:2320:A:N3	25:DA:2320:A:H2'	2.23	0.53
14:AN:12:ARG:C	14:AN:14:PRO:CD	2.77	0.53
1:AA:419:C:H5'	1:AA:513:C:H4'	1.90	0.53
25:DA:1678:G:H22	25:DA:1989:G:H22	1.54	0.53
25:BA:2562:U:C2'	25:BA:2563:U:H5'	2.39	0.53
27:BC:60:ARG:CD	27:BC:165:ARG:HD2	2.37	0.53
1:AA:639:G:H2'	1:AA:640:A:H8	1.72	0.53
34:DN:126:PRO:O	34:DN:127:ASP:HB2	2.08	0.53
27:DC:47:LYS:O	27:DC:211:ARG:HB2	2.07	0.53
56:B9:17:ILE:HD13	56:B9:18:ARG:H	1.73	0.53
1:CA:443:C:H2'	1:CA:444:C:C6	2.43	0.53
25:BA:1844:C:O2'	25:BA:1845:G:H5'	2.07	0.53
25:BA:1264:G:C6	25:BA:1265:A:N6	2.76	0.53
25:BA:747:U:O2	25:BA:2014:A:H1'	2.08	0.53
5:CE:43:LEU:H	5:CE:136:MET:CE	2.21	0.53
43:DW:68:ARG:O	43:DW:110:LYS:HD3	2.09	0.53
1:AA:115:G:O2'	1:AA:116:A:OP2	2.24	0.53
1:AA:125:U:H2'	1:AA:126:G:H8	1.72	0.53
25:DA:1444:G:H2'	25:DA:1445(A):C:C5	2.43	0.53
25:DA:1920:C:O2'	25:DA:1921:G:H5'	2.07	0.53
1:CA:161:A:O2'	1:CA:162:A:H5'	2.08	0.53
25:DA:209:C:H2'	25:DA:210:C:C6	2.43	0.53
28:BD:18:VAL:CG1	28:BD:19:ALA:N	2.70	0.53
43:BW:21:VAL:C	43:BW:23:LEU:H	2.11	0.53
33:DI:74:ASN:O	33:DI:75:LEU:O	2.27	0.53
1:AA:360:A:O2'	1:AA:361:G:H5'	2.09	0.53
56:D9:32:HIS:O	56:D9:34:GLN:HG3	2.08	0.53
1:CA:337:C:N4	1:CA:338:A:H62	2.06	0.53
9:AI:10:ARG:HD3	9:AI:75:ASP:HB3	1.88	0.53
46:DZ:29:ASN:C	46:DZ:31:HIS:H	2.07	0.53
46:DZ:47:PHE:CD2	46:DZ:51:SER:HA	2.44	0.53
25:DA:1164:G:H2'	25:DA:1165:U:C6	2.43	0.53
34:DN:42:TRP:HA	34:DN:42:TRP:CE3	2.44	0.53
41:DU:90:VAL:CG1	41:DU:91:ASP:H	2.08	0.53
37:DQ:35:VAL:HG22	37:DQ:36:ALA:N	2.23	0.53
25:DA:2105:C:O2'	25:DA:2106:G:H5''	2.08	0.53
1:AA:195:A:H2'	1:AA:196:A:C8	2.43	0.53
45:DY:50:ARG:CZ	45:DY:54:LYS:CB	2.72	0.53
25:BA:1176:G:O2'	25:BA:1177:A:H5'	2.08	0.53
1:AA:342:C:H2'	1:AA:343:U:C6	2.44	0.53
20:AT:86:ARG:HH11	20:AT:86:ARG:HG3	1.73	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AI:16:ARG:O	9:AI:63:ILE:HG23	2.09	0.53
40:BT:100:TYR:CD2	40:BT:103:ARG:NH2	2.70	0.53
25:BA:1639:U:H4'	25:BA:2699:C:C4'	2.34	0.53
53:B6:11:LEU:CD1	53:B6:12:GLU:N	2.69	0.53
53:B6:36:LEU:HD12	53:B6:48:VAL:CG1	2.37	0.53
1:AA:1030(D):A:H3'	1:AA:1031:G:C8	2.42	0.53
46:BZ:94:PRO:HA	46:BZ:127:VAL:O	2.08	0.53
13:CM:22:ILE:CG2	13:CM:25:ILE:HD13	2.38	0.53
1:AA:1327:C:O2'	1:AA:1328:C:H5'	2.08	0.53
13:AM:101:GLN:N	13:AM:101:GLN:NE2	2.54	0.53
35:BO:2:ILE:HG22	35:BO:3:GLN:N	2.22	0.53
3:CC:182:ILE:HG23	3:CC:202:ILE:C	2.28	0.53
46:DZ:151:ALA:C	46:DZ:153:ASP:H	2.12	0.53
8:AH:11:THR:HA	8:AH:14:ARG:NH1	2.23	0.53
47:D0:73:GLY:C	47:D0:75:LEU:H	2.10	0.53
1:AA:1363(A):A:H1'	1:AA:1365:G:C5	2.42	0.53
14:AN:23:ARG:HD2	14:AN:28:GLY:O	2.08	0.53
19:CS:35:SER:O	19:CS:71:LEU:HD12	2.07	0.53
27:DC:80:LYS:HE3	31:DG:50:ALA:N	2.22	0.53
1:AA:374:A:C2	1:AA:391:G:O4'	2.61	0.53
34:DN:57:ALA:O	34:DN:58:ASP:C	2.46	0.53
27:DC:118:PRO:HD3	27:DC:147:GLY:O	2.07	0.53
5:CE:110:LEU:O	5:CE:115:VAL:HB	2.08	0.53
51:B4:44:CYS:CB	51:B4:64:LYS:HG3	2.32	0.53
3:CC:134:ILE:CG2	3:CC:168:ALA:HB3	2.38	0.53
25:DA:914:C:H6	25:DA:914:C:H3'	1.73	0.53
33:DI:12:LEU:N	33:DI:12:LEU:HD23	2.22	0.53
8:AH:4:ASP:CG	8:AH:85:ARG:HH12	2.12	0.53
25:BA:2320:A:H2'	25:BA:2320:A:N3	2.23	0.53
16:AP:20:VAL:HG22	16:AP:21:VAL:N	2.23	0.53
7:AG:108:ALA:C	7:AG:110:GLN:H	2.10	0.53
22:AV:124:PRO:HD2	22:AV:176:ARG:HH12	1.72	0.53
51:B4:38:ALA:HA	51:B4:55:PRO:HB3	1.89	0.53
31:BG:5:VAL:CG2	31:BG:8:LYS:H	2.21	0.53
2:CB:87:ARG:HG3	2:CB:233:SER:CB	2.38	0.53
25:BA:2158:A:H3'	25:BA:2159:G:C5'	2.38	0.53
31:BG:120:LEU:H	31:BG:180:PHE:HA	1.73	0.53
4:AD:76:ARG:HH11	4:AD:76:ARG:HG2	1.73	0.53
4:CD:134:ASP:OD2	4:CD:135:LEU:HD13	2.08	0.53
5:CE:150:ARG:CB	5:CE:150:ARG:CZ	2.86	0.53
25:DA:436:C:H2'	25:DA:437:G:C8	2.43	0.53
43:BW:110:LYS:HG3	43:BW:111:HIS:CE1	2.44	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:AW:38:A:H2'	23:AW:39:C:O4'	2.09	0.53
23:AW:61:C:H2'	23:AW:62:C:C6	2.42	0.53
17:AQ:52:LYS:HD2	17:AQ:55:ASP:OD2	2.08	0.53
25:BA:1857:G:C6	25:BA:1858:G:N1	2.77	0.53
33:BI:79:ILE:O	33:BI:143:SER:HB3	2.08	0.53
25:BA:2602:A:OP2	25:BA:2603:G:H5''	2.08	0.53
1:CA:343:U:O3'	1:CA:344:A:H8	1.91	0.53
21:AU:2:GLY:C	21:AU:4:GLY:H	2.12	0.53
1:AA:189(F):U:O4	17:AQ:63:ARG:N	2.38	0.53
4:AD:169:LYS:HE2	4:AD:170:VAL:N	2.24	0.53
39:BS:50:SER:O	39:BS:51:ALA:CB	2.56	0.53
1:CA:1001(A):G:H2'	1:CA:1002:G:O4'	2.08	0.53
25:DA:2855:C:O2'	25:DA:2856:C:H5'	2.08	0.53
27:BC:50:ILE:HD12	27:BC:51:ASP:N	2.24	0.53
30:DF:93:LYS:HD2	30:DF:94:PRO:HD2	1.89	0.53
25:BA:1763:G:H4'	25:BA:1763:G:OP1	2.07	0.53
25:DA:895:U:H5''	25:DA:896:A:OP1	2.08	0.53
9:AI:95:LYS:O	9:AI:99:LEU:HB3	2.08	0.53
46:DZ:127:VAL:HG13	46:DZ:128:SER:N	2.23	0.53
9:CI:63:ILE:CD1	9:CI:81:ILE:HD11	2.39	0.53
25:BA:1171:G:H3'	25:BA:1173:G:H4'	1.90	0.53
3:AC:47:LEU:HD12	3:AC:47:LEU:O	2.09	0.53
3:AC:73:PRO:O	3:AC:76:VAL:N	2.39	0.53
30:DF:199:TRP:O	30:DF:202:PHE:HB3	2.08	0.53
25:DA:1039:G:H1	25:DA:1116:C:H42	1.56	0.53
45:BY:100:ALA:O	45:BY:101:LYS:CB	2.57	0.53
53:B6:12:GLU:CB	53:B6:23:THR:HG22	2.27	0.53
36:BP:125:VAL:HG23	36:BP:130:PHE:HZ	1.72	0.53
40:BT:20:PRO:CD	40:BT:85:LYS:O	2.57	0.53
4:AD:172:PRO:O	4:AD:186:LEU:HD12	2.08	0.53
43:DW:72:LYS:HB3	43:DW:106:ILE:O	2.08	0.53
35:BO:97:ARG:HG3	35:BO:97:ARG:NH1	2.24	0.53
1:AA:1157:A:H1'	1:AA:1181:G:H21	1.72	0.53
25:BA:312:G:H5'	25:BA:331:A:O2'	2.07	0.53
53:D6:51:GLU:O	53:D6:52:VAL:CB	2.57	0.53
1:CA:1059:C:H2'	1:CA:1060:C:C6	2.44	0.53
1:CA:973:G:N3	10:CJ:55:LYS:NZ	2.54	0.53
3:CC:34:LEU:HG	3:CC:38:ARG:NH2	2.24	0.53
34:DN:13:TRP:HA	34:DN:51:PHE:O	2.08	0.53
1:CA:1000:U:H6	1:CA:1000:U:O5'	1.91	0.53
42:BV:1:MET:H3	42:BV:16:PRO:HD3	1.74	0.53
40:DT:24:PRO:HA	40:DT:49:VAL:O	2.07	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DP:107:LYS:C	36:DP:109:GLY:H	2.10	0.53
52:B5:54:GLY:N	52:B5:56:LYS:HZ1	2.04	0.53
36:BP:34:GLY:O	36:BP:35:HIS:O	2.26	0.53
33:BI:130:TYR:HB3	33:BI:136:VAL:HG13	1.90	0.53
33:BI:69:LYS:O	33:BI:73:GLU:HG2	2.09	0.53
1:CA:80:G:N1	1:CA:90:U:H4'	2.15	0.53
3:CC:143:GLU:C	3:CC:145:GLY:H	2.12	0.53
43:DW:64:MET:O	43:DW:109:GLU:OE1	2.26	0.53
43:DW:37:ARG:HG3	43:DW:37:ARG:HH11	1.74	0.53
30:BF:113:ALA:O	30:BF:114:VAL:C	2.47	0.53
30:DF:53:THR:HG22	30:DF:56:GLU:CD	2.29	0.53
36:DP:80:TYR:CD1	36:DP:111:ARG:HB3	2.44	0.53
1:CA:923:A:OP1	5:CE:21:ALA:HB2	2.08	0.53
25:DA:1495:A:N3	25:DA:1495:A:H2'	2.24	0.53
25:DA:1495:A:H3'	25:DA:1496:A:N3	2.24	0.53
49:B2:47:ASN:O	49:B2:49:LYS:N	2.41	0.53
4:CD:64:LEU:HD11	4:CD:97:LEU:CD1	2.39	0.53
26:BB:56:G:H4'	26:BB:57:A:O5'	2.07	0.53
27:DC:92:ALA:O	27:DC:94:TYR:N	2.42	0.53
4:AD:101:LEU:CD2	4:AD:133:VAL:HB	2.38	0.53
49:B2:32:LEU:HD22	49:B2:36:ARG:HH11	1.72	0.53
25:BA:704:G:H1'	25:BA:726:G:N2	2.23	0.53
25:BA:1508:A:H4'	25:BA:1509(A):A:C5	2.44	0.53
8:CH:91:ARG:HG2	8:CH:91:ARG:NH1	2.22	0.53
25:BA:1497:U:H5'	25:BA:1498:C:H5	1.74	0.53
25:BA:952:G:OP1	37:BQ:16:ARG:NH2	2.42	0.53
7:AG:49:ILE:HA	7:AG:52:GLU:HB2	1.89	0.53
29:BE:165:VAL:HG12	29:BE:166:THR:N	2.22	0.53
47:B0:69:GLN:CD	47:B0:71:ARG:HD3	2.29	0.53
27:BC:194:ILE:O	27:BC:198:GLU:HG3	2.07	0.53
25:DA:234:C:H2'	25:DA:235:U:C6	2.44	0.53
25:DA:236:C:O2'	25:DA:237:C:H5'	2.08	0.53
25:BA:1042:G:H5''	25:BA:1043:C:C6	2.43	0.53
53:D6:30:THR:CB	53:D6:31:PRO:HD3	2.39	0.53
1:AA:745:C:O2'	1:AA:746:A:H5'	2.08	0.53
28:BD:166:GLN:CA	28:BD:166:GLN:HE21	2.22	0.53
2:CB:100:GLY:CA	2:CB:104:ASN:HB3	2.39	0.53
16:CP:63:GLY:O	16:CP:64:ALA:HB2	2.08	0.53
25:DA:1657:C:H2'	25:DA:1658:C:H6	1.73	0.53
25:BA:2006:C:H6	25:BA:2006:C:O5'	1.91	0.53
1:AA:1095:U:H5''	1:AA:1109:C:O2	2.08	0.53
25:BA:2677:G:H2'	25:BA:2678:C:H6	1.72	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1746:G:C2	25:DA:1747:G:C8	2.97	0.53
1:CA:671:G:O2'	1:CA:672:U:H5'	2.09	0.53
22:CV:29:LYS:HG3	22:CV:29:LYS:O	2.07	0.53
1:AA:617:G:C6	1:AA:618:C:C5	2.97	0.53
41:BU:10:ARG:O	41:BU:11:ARG:C	2.46	0.53
55:B8:6:THR:HA	55:B8:61:LEU:CD1	2.34	0.53
1:AA:1369:C:H2'	1:AA:1370:G:O4'	2.09	0.53
9:AI:17:VAL:CG2	9:AI:80:GLY:HA3	2.38	0.53
26:DB:73:A:O2'	26:DB:74:U:H5'	2.09	0.53
25:DA:1019:U:H3	25:DA:1142(A):A:N6	2.06	0.53
25:DA:976:C:N4	25:DA:987:G:H1	2.06	0.53
42:DV:39:LEU:HB2	42:DV:40:LEU:HD23	1.91	0.53
25:DA:947:G:H2'	25:DA:948:G:C8	2.43	0.53
37:DQ:42:ILE:N	37:DQ:42:ILE:CD1	2.71	0.53
20:AT:49:ALA:HB1	20:AT:100:ILE:HD13	1.89	0.53
9:CI:83:ARG:C	9:CI:86:VAL:HG12	2.29	0.53
45:DY:28:LYS:CB	45:DY:39:VAL:H	2.21	0.53
45:DY:14:LEU:N	45:DY:73:ARG:O	2.35	0.53
29:DE:55:ASN:ND2	29:DE:58:ARG:NH1	2.47	0.53
1:AA:1071:C:H2'	1:AA:1072:G:C8	2.43	0.53
28:BD:264:LYS:HD3	28:BD:266:SER:OG	2.09	0.53
36:BP:91:PHE:CD2	36:BP:95:VAL:HG12	2.44	0.53
28:BD:25:THR:C	28:BD:26:LYS:HD3	2.29	0.53
25:BA:1593:G:C3'	25:BA:1594:G:H5''	2.38	0.53
40:BT:27:THR:O	40:BT:28:VAL:CB	2.53	0.53
1:AA:797:C:O2'	1:AA:798:G:H5'	2.08	0.53
4:AD:36:ARG:HG2	4:AD:36:ARG:NH1	2.23	0.53
35:DO:69:ILE:HD12	35:DO:77:ILE:HG23	1.88	0.53
3:CC:60:ALA:O	3:CC:61:ALA:HB3	2.08	0.53
46:DZ:149:LEU:N	46:DZ:149:LEU:CD1	2.72	0.53
46:DZ:153:ASP:C	46:DZ:154:LEU:HD23	2.29	0.53
14:CN:4:LYS:HA	14:CN:7:ILE:CD1	2.39	0.53
27:DC:45:HIS:O	27:DC:46:ALA:HB2	2.08	0.53
25:DA:192:C:O2'	25:DA:802:A:N3	2.39	0.53
42:DV:72:VAL:CG2	42:DV:85:LYS:HB3	2.38	0.53
1:AA:446:G:O2'	1:AA:447:G:H5'	2.08	0.53
19:AS:63:THR:HG23	19:AS:65:ASN:H	1.73	0.53
40:BT:15:VAL:HA	40:BT:79:HIS:CD2	2.43	0.53
4:CD:110:PHE:CD1	4:CD:110:PHE:N	2.76	0.53
1:AA:1255:G:H5'	1:AA:1256:A:OP1	2.09	0.53
28:DD:270:ILE:C	28:DD:271:ILE:HG12	2.29	0.53
8:CH:17:THR:HG22	8:CH:63:LEU:HD12	1.91	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:AQ:5:VAL:HG13	17:AQ:59:ILE:O	2.09	0.53
29:BE:55:ASN:C	29:BE:57:LYS:N	2.59	0.53
11:CK:41:THR:HG23	11:CK:42:TRP:N	2.24	0.53
25:BA:2364:C:C2'	25:BA:2365:G:H5'	2.39	0.53
48:B1:75:GLU:HA	48:B1:78:LYS:HE2	1.91	0.53
25:DA:2517:C:H2'	25:DA:2542:A:C2	2.43	0.53
25:BA:1755:A:H2'	25:BA:1756:G:C5'	2.39	0.53
4:AD:205:GLU:OE1	5:AE:100:VAL:HB	2.08	0.53
25:BA:1655:A:H3'	25:BA:1656:C:C6	2.44	0.53
23:AW:64:G:C6	23:AW:65:C:C4	2.96	0.53
25:BA:1771:C:H1'	25:BA:1786:A:C8	2.44	0.53
2:AB:82:ARG:HD2	2:AB:83:MET:HE1	1.90	0.53
25:BA:993:G:OP1	41:BU:50:ARG:NH2	2.41	0.53
1:CA:149:A:H2'	1:CA:150:C:H6	1.73	0.53
27:DC:82:GLU:O	27:DC:85:LYS:HB2	2.08	0.53
16:CP:55:ARG:NE	16:CP:55:ARG:HA	2.23	0.53
25:BA:315:G:H2'	25:BA:316:C:H6	1.74	0.53
1:AA:189(B):C:H42	1:AA:189(I):G:H1	1.57	0.53
1:CA:241:C:O2'	1:CA:242:C:H5'	2.08	0.53
25:DA:2732:G:O2'	25:DA:2733:A:H5'	2.08	0.53
25:BA:2327:A:H2'	25:BA:2328:A:C8	2.43	0.53
1:CA:745:C:H2'	1:CA:746:A:H8	1.73	0.53
34:BN:30:ILE:HD13	34:BN:54:VAL:HG21	1.90	0.53
3:AC:79:ARG:HG3	3:AC:82:GLU:OE2	2.09	0.53
1:CA:784:C:H4'	25:DA:1837:C:OP1	2.08	0.53
38:BR:99:LYS:O	52:B5:44:THR:HA	2.08	0.53
26:DB:117:G:H5'	39:DS:55:ALA:HB1	1.90	0.53
1:AA:1116:C:C2'	1:AA:1117:G:C5'	2.78	0.53
25:DA:1022:G:O2'	25:DA:1023:U:P	2.66	0.53
34:DN:2:LYS:HZ3	41:DU:95:LEU:HG	1.73	0.53
19:CS:48:THR:HA	19:CS:61:TYR:O	2.08	0.53
1:CA:1232:U:H2'	1:CA:1233:G:O4'	2.08	0.53
7:CG:32:ARG:O	7:CG:33:ASP:CB	2.57	0.53
7:CG:73:MET:HA	7:CG:91:VAL:CG2	2.39	0.53
1:CA:1142:G:H2'	1:CA:1143:G:C8	2.39	0.53
25:DA:884:C:H2'	25:DA:884:C:O2	2.07	0.53
1:AA:1222:G:C3'	1:AA:1223:C:H5'	2.39	0.53
30:BF:178:PRO:CB	30:BF:201:VAL:HG11	2.26	0.53
40:BT:33:LYS:HE2	40:BT:43:GLN:NE2	2.23	0.53
25:BA:1348:G:H2'	25:BA:1349:A:C5'	2.35	0.53
1:AA:1070:U:H2'	1:AA:1071:C:C6	2.43	0.53
1:AA:1399:C:C2	1:AA:1502:A:N6	2.77	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2170:A:H5''	27:BC:135:ARG:HH22	1.74	0.53
29:DE:24:THR:HG21	29:DE:188:VAL:HG12	1.91	0.53
25:BA:480:A:C1'	45:BY:44:ILE:HG21	2.39	0.53
16:CP:72:ARG:HH21	16:CP:73:LEU:CD2	2.09	0.53
40:BT:85:LYS:HZ2	40:BT:85:LYS:C	2.12	0.53
25:BA:2123:G:O4'	27:BC:173:HIS:CD2	2.62	0.53
13:CM:69:GLU:OE1	13:CM:72:ALA:HB3	2.08	0.53
1:CA:1305:G:C5'	21:CU:4:GLY:HA3	2.37	0.53
5:AE:41:VAL:O	5:AE:67:VAL:N	2.41	0.53
25:DA:2749:A:O3'	32:DH:62:LYS:HD3	2.09	0.53
40:DT:32:TYR:CD1	40:DT:81:PRO:HB2	2.43	0.53
5:AE:145:LYS:O	5:AE:149:GLU:HG2	2.09	0.53
8:AH:20:TYR:HA	8:AH:65:TYR:HE2	1.73	0.53
25:DA:271(J):C:H2'	25:DA:271(J):C:O2	2.08	0.53
33:DI:47:LEU:O	33:DI:51:ILE:N	2.27	0.53
31:BG:47:LYS:NZ	31:BG:82:LEU:HD12	2.23	0.53
46:BZ:79:ARG:C	46:BZ:81:ARG:H	2.11	0.53
1:CA:955:U:O2'	1:CA:956:U:H5'	2.08	0.53
36:DP:106:LEU:HD13	36:DP:112:LEU:HD23	1.90	0.53
10:CJ:34:VAL:HG13	10:CJ:73:ASP:O	2.08	0.53
29:BE:116:VAL:HG21	29:BE:122:PHE:CD2	2.43	0.53
22:AV:134:ASP:CB	22:AV:152:THR:HB	2.39	0.53
2:AB:8:LYS:O	2:AB:12:GLU:N	2.42	0.53
46:BZ:149:LEU:CD1	46:BZ:149:LEU:N	2.71	0.53
55:D8:32:LEU:CG	55:D8:36:LYS:HE2	2.35	0.53
39:BS:19:LYS:C	39:BS:20:ARG:HH11	2.11	0.53
7:AG:111:ARG:HB2	7:AG:113:GLU:HG2	1.91	0.53
31:BG:15:VAL:HG21	31:BG:176:LEU:HD23	1.89	0.53
1:CA:1277:C:C2'	1:CA:1278:U:H5'	2.37	0.53
1:CA:1106:G:C4	1:CA:1107:C:C5	2.96	0.53
22:CV:131:LYS:HG3	22:CV:168:GLY:O	2.08	0.53
10:AJ:29:ARG:NH2	10:AJ:30:SER:CB	2.72	0.53
1:AA:806:C:O2'	1:AA:807:A:H5'	2.09	0.53
12:CL:29:PHE:CE1	12:CL:83:ARG:HG3	2.44	0.53
25:DA:2738:A:C2	25:DA:2767:C:O2	2.61	0.53
4:CD:8:VAL:C	4:CD:10:ARG:N	2.61	0.53
44:DX:48:LYS:O	44:DX:49:VAL:HG13	2.09	0.53
25:DA:516:C:OP1	52:D5:13:LYS:NZ	2.41	0.53
35:DO:7:TYR:O	35:DO:8:LEU:HD23	2.09	0.53
25:DA:1513:C:H2'	25:DA:1514:U:C6	2.43	0.53
25:DA:2262:U:H5	47:D0:16:SER:HG	1.56	0.53
22:AV:12:LYS:HB3	22:AV:63:ILE:HD11	1.90	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BQ:107:ALA:C	37:BQ:109:VAL:H	2.10	0.53
25:BA:843:G:C2'	25:BA:844:C:H5'	2.39	0.53
25:BA:1243:G:H2'	25:BA:1244:G:O4'	2.08	0.53
35:DO:119:PRO:HB2	40:DT:68:TYR:CE2	2.44	0.53
25:DA:1141:U:OP1	34:DN:25:ARG:NH1	2.42	0.53
44:DX:28:PHE:O	44:DX:30:VAL:HG13	2.09	0.53
1:CA:1372:U:OP2	9:CI:11:LYS:HE3	2.09	0.53
9:CI:50:LEU:HA	9:CI:53:VAL:CG2	2.36	0.53
31:DG:106:LEU:HG	31:DG:107:LEU:N	2.23	0.53
31:DG:59:GLU:C	31:DG:61:ALA:N	2.61	0.53
36:DP:16:ARG:CB	36:DP:16:ARG:HH11	2.22	0.53
36:DP:17:LYS:C	36:DP:19:VAL:H	2.10	0.53
25:BA:661:C:O2'	36:BP:16:ARG:O	2.22	0.53
25:BA:662:G:P	36:BP:18:ARG:HD2	2.48	0.53
31:BG:138:GLN:H	31:BG:139:LEU:HD23	1.74	0.53
28:BD:35:LYS:HB3	28:BD:104:TYR:HE1	1.73	0.53
2:AB:47:THR:HA	2:AB:202:PRO:CG	2.37	0.53
40:BT:48:ILE:HD12	40:BT:48:ILE:H	1.74	0.53
25:DA:779:U:P	28:DD:49:ILE:HG22	2.49	0.53
10:AJ:40:LEU:HG	10:AJ:69:ASN:CB	2.39	0.53
40:DT:62:THR:HA	40:DT:74:ARG:O	2.08	0.53
14:CN:24:CYS:HB2	14:CN:40:CYS:N	2.24	0.53
49:D2:27:GLU:O	49:D2:31:GLU:HG3	2.09	0.53
27:DC:225:ILE:O	27:DC:225:ILE:HG13	2.08	0.53
25:BA:1021:A:H62	25:BA:1141:U:H3	1.57	0.53
19:CS:19:VAL:HG22	19:CS:44:MET:HG2	1.91	0.53
19:CS:36:ARG:CZ	19:CS:72:GLY:HA2	2.39	0.53
33:BI:47:LEU:HD23	33:BI:47:LEU:C	2.29	0.53
30:DF:170:LEU:HB2	30:DF:173:VAL:HB	1.91	0.53
36:BP:23:PRO:HD2	36:BP:33:ARG:HE	1.72	0.53
6:CF:49:ALA:O	6:CF:50:TYR:HB3	2.09	0.53
12:CL:30:ARG:HG2	12:CL:57:LEU:HD12	1.91	0.53
8:AH:86:ILE:O	8:AH:88:LYS:HG3	2.09	0.53
20:AT:26:ASN:HB3	20:AT:71:THR:OG1	2.08	0.53
25:BA:1504:C:C3'	25:BA:1505:C:H5''	2.38	0.53
18:AR:43:PHE:O	18:AR:44:LEU:O	2.27	0.53
1:CA:1458:G:H2'	1:CA:1459:C:H6	1.72	0.53
25:BA:512:G:HO2'	25:BA:513:A:P	2.31	0.53
26:BB:110:G:H2'	26:BB:111:G:H8	1.73	0.53
52:B5:42:PRO:HB2	52:B5:43:HIS:HD2	1.74	0.53
4:CD:64:LEU:HB2	4:CD:198:VAL:HG11	1.90	0.53
55:B8:52:LYS:H	55:B8:53:PRO:CD	2.22	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AH:54:ASP:C	8:AH:56:LYS:H	2.11	0.53
29:DE:101:ARG:HD3	29:DE:169:ASN:HD21	1.72	0.53
6:CF:3:ARG:HH11	6:CF:64:GLN:HE21	1.56	0.53
28:DD:270:ILE:N	28:DD:270:ILE:HD12	2.23	0.53
38:DR:81:ASP:O	38:DR:82:GLU:CB	2.57	0.53
1:AA:166:G:O2'	1:AA:167:G:H5'	2.09	0.53
25:DA:1464:C:HO2'	25:DA:1528:A:H8	1.56	0.53
25:DA:2283:C:H2'	25:DA:2284:C:O4'	2.09	0.53
29:BE:184:VAL:CG1	29:BE:185:LYS:N	2.72	0.53
25:BA:1473:G:C2'	25:BA:1474:C:H5'	2.39	0.53
34:BN:126:PRO:HG2	34:BN:127:ASP:OD1	2.09	0.53
2:AB:95:GLN:HG3	2:AB:148:TYR:HA	1.89	0.53
1:CA:579:G:H2'	1:CA:580:U:C6	2.44	0.53
45:BY:32:PRO:O	45:BY:34:LYS:N	2.42	0.53
25:BA:882:G:H2'	25:BA:883:G:C8	2.44	0.53
43:DW:90:ARG:HG3	43:DW:90:ARG:NH1	2.23	0.53
25:BA:2733:A:O2'	25:BA:2734:A:H5'	2.09	0.53
40:DT:57:PHE:CD2	40:DT:58:ASN:N	2.76	0.53
6:AF:82:ARG:C	6:AF:84:ASN:H	2.11	0.53
38:BR:38:VAL:O	38:BR:42:LYS:HG3	2.09	0.53
32:DH:169:VAL:O	32:DH:171:LEU:N	2.41	0.53
39:BS:26:LEU:HG	39:BS:39:ILE:HD11	1.91	0.53
1:CA:41:G:H2'	1:CA:42:G:C8	2.42	0.53
25:DA:2488:A:O2'	25:DA:2489:G:H5'	2.09	0.53
25:DA:394:A:O2'	25:DA:395:U:H5'	2.09	0.53
55:D8:21:LYS:HD3	55:D8:48:PHE:CZ	2.44	0.53
1:AA:142:G:N3	1:AA:142:G:H2'	2.24	0.53
25:DA:384:U:H2'	25:DA:385:C:H6	1.73	0.53
13:CM:26:GLY:O	13:CM:30:ALA:HB2	2.08	0.53
25:DA:501:A:H8	25:DA:501:A:OP1	1.92	0.53
5:AE:80:ILE:HG13	5:AE:91:LEU:HD23	1.90	0.53
35:BO:101:PRO:HG3	40:BT:67:SER:OG	2.08	0.53
1:AA:1186:G:H21	14:AN:61:TRP:C	2.12	0.53
9:AI:13:ALA:HB1	9:AI:73:GLN:HA	1.90	0.53
25:BA:154(A):C:C4	25:BA:157:U:C4	2.96	0.53
41:DU:90:VAL:CA	42:DV:11:GLN:HE22	2.22	0.53
42:DV:28:GLU:O	42:DV:61:VAL:HG21	2.09	0.53
1:CA:1135:U:H2'	1:CA:1137:C:O4'	2.09	0.53
22:CV:149:LYS:HG2	22:CV:162:PRO:O	2.09	0.53
13:AM:79:LYS:O	13:AM:81:LEU:N	2.41	0.53
28:BD:34:VAL:O	28:BD:35:LYS:HD3	2.08	0.53
28:BD:64:ILE:HG23	28:BD:64:ILE:O	2.08	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:284:U:H2'	25:DA:285:C:C6	2.43	0.53
1:AA:1028:C:H2'	1:AA:1033:G:H22	1.74	0.53
16:CP:67:THR:HG22	16:CP:68:ASP:N	2.23	0.53
40:BT:64:ARG:HA	40:BT:72:VAL:O	2.08	0.53
8:CH:103:VAL:HG23	8:CH:110:ALA:HB2	1.90	0.53
35:BO:97:ARG:HA	35:BO:117:LEU:CD2	2.27	0.53
4:AD:42:GLN:O	4:AD:43:HIS:HD2	1.92	0.53
22:CV:71:GLN:NE2	22:CV:109:THR:HG23	2.23	0.53
10:CJ:50:ILE:HG22	10:CJ:51:ARG:N	2.23	0.53
25:DA:874:G:H2'	25:DA:875:G:C8	2.43	0.53
25:DA:94(A):G:N2	49:D2:47:ASN:ND2	2.55	0.53
47:D0:49:LYS:HG3	47:D0:80:HIS:CG	2.43	0.53
27:DC:215:VAL:CG2	27:DC:225:ILE:HD13	2.38	0.53
14:CN:4:LYS:HD2	14:CN:7:ILE:HD11	1.91	0.53
33:BI:12:LEU:HD23	33:BI:12:LEU:N	2.24	0.53
1:CA:83:U:H2'	1:CA:83:U:O2	2.08	0.53
10:CJ:29:ARG:HH12	10:CJ:30:SER:HB3	1.73	0.53
20:AT:30:LYS:C	20:AT:30:LYS:HE2	2.29	0.53
11:CK:87:THR:HA	11:CK:91:ARG:HH12	1.72	0.53
43:DW:29:LEU:HG	43:DW:33:ARG:NH1	2.23	0.53
32:DH:46:GLU:O	32:DH:47:GLU:HB2	2.09	0.53
37:DQ:46:GLN:O	37:DQ:49:ALA:HB3	2.08	0.53
6:CF:61:LEU:HB3	6:CF:63:TYR:HE2	1.73	0.53
25:DA:2784:C:H2'	25:DA:2785:C:H6	1.70	0.53
25:BA:2681:C:H5	25:BA:2725:A:N6	2.02	0.53
4:CD:78:LEU:HD21	4:CD:96:LEU:CB	2.35	0.53
2:AB:172:ILE:N	2:AB:172:ILE:CD1	2.72	0.53
25:BA:2115:G:C6	25:BA:2117:A:H2'	2.43	0.53
7:AG:70:LYS:HB3	7:AG:96:GLN:OE1	2.09	0.53
2:AB:233:SER:OG	2:AB:234:PRO:CD	2.56	0.53
36:DP:47:ASP:HB3	36:DP:48:PRO:HA	1.89	0.53
25:DA:1227:G:C2'	25:DA:1228:G:H5'	2.39	0.53
25:BA:2712:U:H1'	25:BA:2712(A):A:C8	2.44	0.53
48:B1:5:CYS:O	48:B1:9:GLY:HA2	2.08	0.53
33:BI:107:VAL:O	33:BI:107:VAL:HG13	2.09	0.53
41:BU:40:PHE:CZ	42:BV:82:ARG:HD3	2.44	0.53
34:BN:18:ALA:O	34:BN:19:GLU:C	2.47	0.53
18:CR:87:ARG:O	18:CR:88:LYS:HB2	2.09	0.53
25:BA:2062:A:H2'	25:BA:2063:C:H5'	1.91	0.53
10:CJ:22:LYS:HZ1	10:CJ:23:ILE:HG12	1.73	0.53
7:AG:6:ARG:HH21	7:AG:94:ARG:CZ	2.21	0.53
36:BP:83:VAL:HG12	36:BP:83:VAL:O	2.08	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:BD:221:VAL:HG13	28:BD:226:MET:HE1	1.90	0.53
25:DA:583:G:H5''	41:DU:10:ARG:HH12	1.74	0.53
44:BX:29:TRP:CZ2	44:BX:76:ARG:NH2	2.76	0.53
8:AH:39:LEU:HD22	8:AH:39:LEU:H	1.73	0.53
28:BD:46:GLN:OE1	28:BD:46:GLN:N	2.42	0.53
29:BE:38:THR:OG1	29:BE:40:GLU:HG2	2.07	0.53
1:CA:332:G:OP2	20:CT:10:LEU:HD22	2.08	0.53
3:AC:149:ALA:O	3:AC:150:LYS:HB2	2.08	0.53
25:BA:1268:A:H2'	25:BA:1269:A:O4'	2.09	0.53
1:AA:583:A:H2'	1:AA:584:G:O4'	2.09	0.53
25:DA:2478:A:H2'	25:DA:2479:G:H5'	1.90	0.53
25:BA:1338:G:O2'	25:BA:1393:A:N1	2.39	0.53
25:BA:2243:U:O2'	25:BA:2244:U:H5'	2.09	0.53
25:BA:1036:G:O2'	25:BA:1037:G:H5'	2.08	0.53
31:DG:170:ARG:HD2	31:DG:170:ARG:O	2.09	0.53
7:AG:12:LEU:HD21	7:AG:28:ASN:ND2	2.24	0.53
32:BH:9:ILE:CG2	32:BH:49:VAL:HG21	2.39	0.53
25:DA:999:U:C2'	25:DA:1000:A:C5'	2.87	0.53
34:DN:42:TRP:HA	34:DN:42:TRP:HE3	1.73	0.53
42:DV:15:GLU:HG2	42:DV:16:PRO:HD2	1.91	0.53
25:DA:954:G:N3	25:DA:2274:A:H2	2.07	0.53
1:CA:1236:A:OP1	21:CU:3:LYS:HG3	2.09	0.53
1:CA:1372:U:O2'	1:CA:1373:G:H5'	2.09	0.53
1:CA:939:G:H5''	7:CG:102:ARG:NH2	2.23	0.53
7:CG:148:ASN:HD22	7:CG:148:ASN:N	2.06	0.53
7:CG:71:PRO:HG3	7:CG:103:TRP:CZ3	2.35	0.53
9:CI:95:LYS:HZ2	9:CI:96:LEU:HD12	1.70	0.53
13:CM:108:ARG:NH2	13:CM:114:ARG:HA	2.24	0.53
31:DG:173:LEU:HD22	31:DG:178:PHE:CE2	2.44	0.53
30:BF:19:GLU:O	30:BF:20:LEU:CB	2.56	0.53
16:AP:59:TRP:O	16:AP:60:LEU:C	2.45	0.53
3:AC:87:LEU:O	3:AC:91:LEU:HG	2.08	0.53
3:CC:89:GLU:OE2	3:CC:90:GLU:HA	2.09	0.53
30:DF:101:LEU:CD1	30:DF:102:PRO:HD2	2.39	0.53
36:BP:125:VAL:HG21	36:BP:138:LEU:CD2	2.39	0.53
25:BA:498:G:HO2'	45:BY:60:PHE:HZ	1.57	0.53
36:BP:62:LEU:N	36:BP:62:LEU:HD22	2.23	0.53
22:CV:74:TYR:CE2	22:CV:81:VAL:HG21	2.44	0.53
7:AG:150:ALA:HB2	11:AK:50:TYR:HE2	1.74	0.53
17:CQ:51:TYR:OH	17:CQ:75:ARG:HA	2.08	0.53
25:BA:616:G:H2'	25:BA:618:C:O4'	2.08	0.53
39:DS:19:LYS:C	39:DS:20:ARG:NH1	2.62	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:AP:68:ASP:C	16:AP:70:ALA:H	2.12	0.53
1:AA:472:A:C1'	16:AP:82:GLN:HE22	2.22	0.53
1:CA:1030(A):G:H21	1:CA:1032:G:H1	1.57	0.53
27:DC:121:MET:HE1	27:DC:139:PRO:HB2	1.90	0.53
1:AA:394:G:H2'	1:AA:395:C:H6	1.74	0.53
28:DD:10:THR:O	28:DD:13:ARG:HB3	2.09	0.53
25:DA:310:A:C2'	25:DA:311:A:H2'	2.39	0.53
20:AT:26:ASN:ND2	20:AT:27:LYS:H	2.00	0.53
16:AP:20:VAL:HG21	16:AP:32:TYR:CB	2.38	0.53
25:DA:816:C:O2'	25:DA:817:C:H5'	2.09	0.53
25:DA:1602:U:H3'	25:DA:1603:A:H5'	1.91	0.53
25:BA:1111:A:H2'	25:BA:1112:G:C4'	2.39	0.53
35:BO:14:THR:HG22	35:BO:52:VAL:CG1	2.38	0.53
1:AA:750:G:N3	15:AO:23:GLY:HA3	2.24	0.53
7:AG:52:GLU:C	7:AG:54:THR:H	2.12	0.53
25:DA:2811:G:C2'	25:DA:2812:G:H5'	2.39	0.53
3:CC:26:LYS:HG3	3:CC:27:LYS:N	2.22	0.53
28:DD:129:ASN:O	28:DD:192:THR:HA	2.09	0.53
1:CA:604:G:O2'	1:CA:605:U:H5'	2.09	0.53
46:BZ:93:GLU:O	46:BZ:129:PRO:HD3	2.07	0.53
25:DA:2023:G:H5'	25:DA:2617:C:H4'	1.90	0.53
41:BU:26:GLY:C	41:BU:28:ARG:N	2.60	0.53
35:BO:87:ILE:HG22	35:BO:88:ASN:N	2.23	0.53
25:DA:909:A:H2'	25:DA:912:C:H5	1.73	0.53
1:AA:746:A:H2'	1:AA:747:C:C6	2.44	0.53
37:BQ:58:PHE:CD1	37:BQ:58:PHE:O	2.62	0.53
1:CA:589:C:O2'	1:CA:590:C:H5'	2.09	0.53
1:CA:107:G:H2'	1:CA:108:G:H5'	1.90	0.53
41:DU:28:ARG:NH1	41:DU:38:THR:OG1	2.39	0.53
29:BE:66:HIS:HD2	29:BE:66:HIS:O	1.92	0.53
1:AA:189(B):C:N4	1:AA:189(I):G:H1	2.07	0.53
1:CA:1437:C:O2'	1:CA:1438:G:H5'	2.07	0.53
45:BY:79:CYS:O	45:BY:80:GLY:O	2.27	0.53
9:CI:111:ARG:HG2	9:CI:112:LYS:N	2.23	0.53
25:BA:2521:C:H5'	25:BA:2522:U:OP2	2.09	0.53
1:CA:1442(B):A:OP2	1:CA:1442(B):A:H3'	2.09	0.53
4:AD:80:GLU:C	4:AD:84:LYS:HE2	2.29	0.53
25:BA:1424:G:H2'	25:BA:1425:G:O4'	2.08	0.53
16:AP:8:ARG:HG2	16:AP:8:ARG:HH11	1.73	0.53
25:DA:775:G:O2'	25:DA:776:G:OP2	2.25	0.53
25:BA:2195:C:O2'	25:BA:2196:C:H5'	2.09	0.53
9:AI:95:LYS:HD3	9:AI:95:LYS:C	2.29	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:D3:4:LEU:HD22	50:D3:6:VAL:HG13	1.90	0.53
34:DN:24:GLY:O	34:DN:28:THR:HG22	2.09	0.53
46:DZ:38:VAL:HG23	46:DZ:39:ASP:N	2.24	0.53
46:DZ:79:ARG:C	46:DZ:81:ARG:H	2.13	0.53
25:DA:1885:A:H2	25:DA:2103:C:HO2'	1.57	0.53
44:DX:26:TYR:CG	44:DX:89:ILE:HD12	2.44	0.53
20:AT:57:ARG:HD2	20:AT:102:GLY:CA	2.39	0.53
21:CU:24:ARG:O	21:CU:25:LYS:CB	2.57	0.53
13:CM:88:ARG:HA	13:CM:98:VAL:HG13	1.90	0.53
31:DG:143:GLU:HA	51:D4:54:LYS:HE2	1.90	0.53
29:DE:47:VAL:HG12	29:DE:49:LEU:HD12	1.91	0.53
29:DE:63:LEU:O	29:DE:64:LYS:C	2.47	0.53
20:AT:103:GLY:O	20:AT:104:LEU:O	2.27	0.53
3:CC:89:GLU:O	3:CC:93:LYS:N	2.42	0.53
10:AJ:4:ILE:HG12	10:AJ:100:THR:CG2	2.39	0.53
40:BT:106:SER:O	40:BT:107:ASP:HB3	2.09	0.53
25:BA:272(I):U:N3	25:BA:274:G:O6	2.41	0.53
55:D8:61:LEU:HD21	55:D8:62:LEU:HG	1.91	0.53
25:BA:541:C:C2	25:BA:542:C:C5	2.97	0.53
2:AB:24:TRP:CD1	2:AB:26:PRO:HD3	2.44	0.53
13:CM:65:LYS:HD2	13:CM:69:GLU:OE2	2.08	0.53
1:AA:1126:U:H1'	1:AA:1280:A:C2	2.44	0.53
25:DA:271(P):C:C5'	33:DI:45:LYS:HZ1	2.22	0.53
31:BG:48:GLU:O	31:BG:49:ASP:HB3	2.09	0.53
49:D2:54:LYS:O	49:D2:57:ILE:HG12	2.09	0.53
48:B1:57:GLU:O	48:B1:58:ILE:O	2.27	0.53
46:BZ:78:ARG:O	46:BZ:79:ARG:CB	2.48	0.53
30:BF:117:ARG:NH2	30:BF:187:VAL:HA	2.24	0.53
39:DS:14:VAL:HG13	39:DS:90:GLY:HA2	1.89	0.53
1:AA:373:A:HO2'	1:AA:374:A:H5'	1.73	0.53
1:CA:91:C:C2'	1:CA:92:C:O5'	2.57	0.53
25:DA:64:A:H5''	44:DX:64:LYS:HE2	1.89	0.53
25:DA:914:C:H5	25:DA:915:C:C6	2.27	0.53
11:AK:19:ALA:HA	11:AK:32:ILE:HA	1.90	0.53
25:BA:492:A:H2'	25:BA:493:G:O4'	2.09	0.53
56:B9:11:CYS:O	56:B9:14:CYS:SG	2.67	0.53
26:BB:45:A:H1'	31:BG:95:ARG:NH2	2.24	0.53
2:AB:104:ASN:ND2	2:AB:107:THR:HB	2.24	0.53
50:B3:36:VAL:HG23	50:B3:36:VAL:O	2.09	0.53
1:CA:880:C:H2'	1:CA:881:G:C8	2.44	0.53
8:AH:52:ASP:O	8:AH:53:VAL:CG2	2.57	0.53
39:BS:106:ARG:HD2	39:BS:106:ARG:C	2.29	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:841:U:O2'	1:CA:848:C:H5'	2.09	0.53
1:AA:949:A:C6	1:AA:950:U:C4	2.97	0.53
25:BA:1045:A:N6	25:BA:1111:A:N7	2.57	0.53
25:DA:2317:C:H2'	25:DA:2318:G:C5'	2.39	0.53
25:DA:262:A:H2'	25:DA:263:C:O4'	2.08	0.53
35:DO:64:ARG:NH1	35:DO:81:ASP:OD2	2.42	0.53
38:BR:10:LEU:CB	38:BR:17:ARG:HE	2.22	0.53
32:BH:113:VAL:HG21	32:BH:151:ILE:CG2	2.39	0.53
34:BN:68:GLU:HG2	34:BN:88:GLU:OE2	2.09	0.53
1:CA:246:A:O3'	1:CA:247:G:H4'	2.09	0.53
25:BA:1416:G:N2	25:BA:1582:C:O2	2.36	0.53
32:DH:149:ARG:HG3	32:DH:150:ALA:N	2.23	0.53
4:CD:31:CYS:SG	4:CD:31:CYS:O	2.67	0.53
26:DB:29:A:OP2	39:DS:32:LEU:HB2	2.09	0.53
1:AA:530:G:H22	1:AA:1492:A:H61	1.56	0.53
1:AA:414:A:H2'	1:AA:415:A:O4'	2.09	0.53
29:DE:19:ARG:HA	35:DO:73:ASP:HA	1.91	0.53
46:BZ:46:VAL:O	46:BZ:48:ARG:N	2.42	0.53
25:DA:1505:C:C5	25:DA:1506:C:H1'	2.44	0.53
15:CO:3:ILE:HG23	15:CO:38:ARG:HH12	1.74	0.53
25:DA:2720:U:H2'	25:DA:2720:U:O2	2.08	0.53
25:DA:603:A:H4'	25:DA:604:G:OP1	2.08	0.53
1:CA:49:U:C2	1:CA:361:G:N2	2.77	0.53
1:CA:117:G:O2'	1:CA:118:U:H5'	2.09	0.53
34:BN:104:LYS:O	34:BN:104:LYS:HG2	2.09	0.53
25:BA:2813:A:C2'	25:BA:2814:C:H5'	2.39	0.53
39:BS:35:ILE:CG2	39:BS:53:SER:HB2	2.39	0.52
33:BI:88:ILE:HG22	33:BI:90:GLY:N	2.20	0.52
37:DQ:134:ARG:HE	46:DZ:121:ARG:NH1	2.06	0.52
2:CB:44:LEU:HD12	2:CB:44:LEU:N	2.24	0.52
2:CB:54:THR:C	2:CB:58:ILE:HG12	2.30	0.52
2:CB:61:LEU:CD2	2:CB:68:ILE:HD11	2.26	0.52
1:AA:980:C:H5'	1:AA:981:U:C5	2.44	0.52
41:DU:69:CYS:SG	41:DU:79:PHE:HB2	2.49	0.52
41:DU:92:ARG:HD2	41:DU:95:LEU:CB	2.29	0.52
32:DH:43:VAL:HB	32:DH:51:ARG:O	2.09	0.52
37:DQ:24:GLY:O	37:DQ:101:ARG:HA	2.09	0.52
25:DA:2187:G:O2'	25:DA:2188:C:H5'	2.10	0.52
19:CS:64:GLU:HG3	19:CS:65:ASN:N	2.23	0.52
28:BD:49:ILE:HD11	28:BD:52:ARG:CA	2.14	0.52
7:CG:148:ASN:N	7:CG:148:ASN:ND2	2.56	0.52
22:CV:172:LYS:CG	22:CV:184:ALA:HA	2.31	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DG:128:ARG:C	31:DG:130:ASN:N	2.58	0.52
30:DF:180:GLY:O	30:DF:181:LEU:C	2.47	0.52
30:DF:116:ASP:OD2	36:DP:5:ASP:N	2.42	0.52
3:CC:90:GLU:O	3:CC:93:LYS:HB3	2.09	0.52
25:BA:1342:A:N1	25:BA:1345:C:C2	2.77	0.52
46:BZ:119:ILE:O	46:BZ:120:HIS:HB2	2.09	0.52
2:AB:35:GLU:N	2:AB:41:ILE:HD13	2.23	0.52
4:AD:175:SER:HB3	4:AD:186:LEU:HD11	1.90	0.52
29:BE:75:VAL:CG1	29:BE:76:ARG:H	2.18	0.52
13:AM:20:THR:O	13:AM:22:ILE:N	2.38	0.52
9:CI:113:LYS:HD2	9:CI:113:LYS:N	2.23	0.52
30:BF:149:ASP:OD1	30:BF:149:ASP:N	2.40	0.52
25:DA:1591:G:H2'	25:DA:1592:C:H6	1.71	0.52
36:BP:26:GLY:HA2	36:BP:30:THR:HG23	1.89	0.52
20:CT:100:ILE:CD1	20:CT:100:ILE:H	2.22	0.52
25:DA:27:G:H22	25:DA:512:G:H2'	1.74	0.52
25:DA:2476:A:C2	25:DA:2477:C:C5	2.97	0.52
25:BA:2285:C:C5'	25:BA:2286:A:OP2	2.56	0.52
31:BG:72:ARG:HH12	31:BG:86:MET:CE	2.22	0.52
1:AA:1040:U:H2'	1:AA:1041:A:C8	2.44	0.52
25:DA:1887:C:C2'	25:DA:1888:G:H5''	2.38	0.52
25:DA:1887:C:H2'	25:DA:1888:G:H5''	1.91	0.52
11:AK:105:VAL:HG23	11:AK:105:VAL:O	2.08	0.52
40:BT:78:LEU:O	40:BT:79:HIS:ND1	2.42	0.52
36:BP:71:VAL:C	36:BP:73:GLY:N	2.57	0.52
8:AH:53:VAL:HB	8:AH:58:TYR:CD1	2.44	0.52
29:DE:97:LYS:H	29:DE:100:GLU:CD	2.13	0.52
29:DE:121:ASN:O	29:DE:122:PHE:C	2.47	0.52
25:DA:782:A:O2'	28:DD:225:ALA:HB1	2.09	0.52
12:AL:73:ASN:CG	12:AL:74:LEU:N	2.62	0.52
25:DA:1529:G:C4	25:DA:1530:C:N4	2.78	0.52
11:AK:29:ILE:HD11	11:AK:42:TRP:HE3	1.75	0.52
25:BA:321:G:N3	30:BF:165:ARG:HD3	2.24	0.52
11:CK:72:ALA:C	11:CK:74:ALA:H	2.11	0.52
37:BQ:1:MET:O	37:BQ:2:LEU:CB	2.56	0.52
1:AA:1253:G:H1	1:AA:1284:C:H42	1.57	0.52
36:DP:50:ARG:NH2	36:DP:50:ARG:HG2	2.24	0.52
16:AP:43:LYS:HA	16:AP:48:TRP:HB3	1.90	0.52
31:BG:55:LYS:HZ1	31:BG:150:ASP:H	1.57	0.52
1:CA:648:A:H2'	1:CA:649:G:C8	2.43	0.52
35:DO:1:MET:CE	35:DO:67:LYS:HE2	2.39	0.52
25:DA:871:U:OP1	37:DQ:5:ARG:HG3	2.09	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BI:61:ARG:O	33:BI:62:LYS:C	2.46	0.52
25:BA:1264:G:OP1	52:B5:19:ARG:NH2	2.38	0.52
1:AA:1360:A:O2'	1:AA:1361:G:H5'	2.08	0.52
28:DD:56:GLY:O	28:DD:57:GLY:O	2.27	0.52
25:DA:2366:A:H2'	25:DA:2367:G:O4'	2.09	0.52
25:BA:644:A:C2'	25:BA:645:C:H5''	2.39	0.52
25:BA:836:G:H2'	25:BA:837:C:C6	2.45	0.52
1:AA:229:U:O2'	1:AA:230:G:H5'	2.09	0.52
26:DB:64:C:O2'	26:DB:65:C:H5'	2.09	0.52
25:BA:671:C:O2'	25:BA:672:C:H5'	2.08	0.52
23:CW:53:G:O2'	23:CW:54:U:H5'	2.09	0.52
55:B8:60:LEU:C	55:B8:61:LEU:HD12	2.28	0.52
36:BP:50:ARG:HB3	55:B8:59:LYS:NZ	2.24	0.52
3:AC:11:ARG:HG2	3:AC:11:ARG:HH11	1.74	0.52
1:AA:1346:A:C6	7:AG:10:ARG:NE	2.77	0.52
34:DN:97:ARG:O	34:DN:98:VAL:C	2.47	0.52
37:DQ:42:ILE:N	37:DQ:42:ILE:HD12	2.25	0.52
46:DZ:40:LEU:O	46:DZ:44:ASP:HB2	2.09	0.52
25:BA:1490:A:H5'	25:BA:1494:A:N6	2.24	0.52
31:DG:111:LEU:O	31:DG:114:ILE:HG13	2.09	0.52
1:AA:343:U:N3	1:AA:346:G:N2	2.57	0.52
16:AP:49:LEU:CD2	16:AP:73:LEU:HD22	2.37	0.52
1:AA:1128:C:H1'	1:AA:1146:A:N6	2.13	0.52
46:BZ:66:LEU:HD23	46:BZ:89:VAL:HG11	1.91	0.52
53:B6:35:GLU:O	53:B6:51:GLU:HG3	2.09	0.52
36:DP:59:LEU:HG	55:D8:13:ARG:NH1	2.24	0.52
1:CA:453:A:H5'	1:CA:453:A:H8	1.73	0.52
1:CA:1297:C:H1'	1:CA:1298:C:C5	2.42	0.52
4:AD:13:ARG:O	4:AD:15:GLU:N	2.42	0.52
38:DR:96:ARG:NE	38:DR:115:GLU:OE1	2.39	0.52
33:DI:48:GLU:C	33:DI:50:ARG:N	2.61	0.52
1:CA:975:A:C4'	1:CA:976:G:H5''	2.27	0.52
25:DA:95:G:N2	25:DA:96:G:H1'	2.23	0.52
40:DT:89:VAL:O	40:DT:91:ARG:N	2.42	0.52
11:AK:50:TYR:CD2	11:AK:54:ARG:HD2	2.43	0.52
7:AG:153:HIS:CE1	11:AK:57:THR:HG23	2.45	0.52
36:DP:84:ASN:ND2	36:DP:115:LEU:HG	2.24	0.52
16:AP:67:THR:HB	16:AP:70:ALA:HB2	1.92	0.52
1:CA:1151:A:H2'	1:CA:1152:A:H8	1.72	0.52
2:AB:61:LEU:CD2	2:AB:68:ILE:HD11	2.37	0.52
5:CE:90:VAL:CG2	5:CE:121:LYS:HB3	2.39	0.52
25:BA:528:A:C2	25:BA:2043:C:H5'	2.39	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2177:C:H4'	27:DC:214:TYR:CD1	2.44	0.52
25:BA:2331:G:O4'	47:B0:41:GLY:HA3	2.08	0.52
22:AV:102:GLU:O	22:AV:104:PHE:N	2.42	0.52
25:DA:2807:G:C2'	25:DA:2808:U:H5''	2.39	0.52
25:BA:271(Y):U:HO2'	25:BA:271(Z):C:H6	1.58	0.52
31:BG:17:PRO:HA	31:BG:20:ILE:HD12	1.91	0.52
25:BA:1884:A:C2'	25:BA:1885:A:C5'	2.85	0.52
4:AD:117:ALA:O	4:AD:121:VAL:HG23	2.08	0.52
6:AF:10:LEU:HD12	6:AF:10:LEU:N	2.23	0.52
29:DE:132:HIS:O	29:DE:133:LYS:CB	2.58	0.52
13:AM:102:ARG:HB3	13:AM:102:ARG:HH11	1.73	0.52
30:DF:63:LYS:HZ1	30:DF:67:GLN:HB2	1.74	0.52
25:BA:649:G:H2'	25:BA:650:C:O4'	2.09	0.52
37:BQ:1:MET:HG2	37:BQ:1:MET:O	2.09	0.52
25:BA:1442:G:O2'	25:BA:1443:G:H5'	2.09	0.52
17:AQ:13:ASP:N	17:AQ:14:LYS:NZ	2.55	0.52
25:DA:1794:U:H2'	25:DA:1795:C:C6	2.41	0.52
1:CA:935:A:C8	1:CA:935:A:H5'	2.41	0.52
28:BD:209:ALA:C	28:BD:210:GLY:O	2.43	0.52
34:BN:62:VAL:CG2	34:BN:66:LYS:HD2	2.39	0.52
29:DE:105:THR:O	29:DE:197:ILE:HG22	2.08	0.52
30:BF:83:PHE:O	30:BF:85:GLY:N	2.42	0.52
46:BZ:38:VAL:HG21	46:BZ:43:PHE:HB2	1.91	0.52
38:DR:26:LYS:NZ	38:DR:71:GLN:HB3	2.24	0.52
25:DA:1557:C:OP2	25:DA:1558:A:O2'	2.20	0.52
43:BW:48:ALA:O	43:BW:51:LEU:HB3	2.09	0.52
22:CV:153:LEU:O	22:CV:155:THR:N	2.40	0.52
25:BA:1910:G:O2'	25:BA:1911:U:H5'	2.09	0.52
25:DA:803:U:O2'	25:DA:804:A:H5'	2.09	0.52
1:CA:868:C:H2'	1:CA:869:G:O4'	2.10	0.52
56:D9:11:CYS:SG	56:D9:14:CYS:SG	3.01	0.52
39:BS:28:VAL:HB	39:BS:89:ARG:HG3	1.90	0.52
1:AA:1372:U:O2'	1:AA:1373:G:H5'	2.08	0.52
7:AG:20:ASP:HB3	7:AG:23:VAL:CG2	2.39	0.52
25:BA:154:G:H1	25:BA:172:C:N4	2.04	0.52
37:DQ:140:ALA:HB2	46:DZ:122:ASP:CB	2.39	0.52
41:DU:104:GLN:NE2	41:DU:105:VAL:HG23	2.23	0.52
48:D1:88:LYS:NZ	48:D1:92:LYS:HB2	2.24	0.52
42:BV:52:VAL:O	42:BV:52:VAL:HG13	2.09	0.52
45:DY:50:ARG:HD3	45:DY:53:PRO:HA	1.90	0.52
31:DG:139:LEU:HA	31:DG:144:ILE:CG2	2.38	0.52
31:DG:41:GLN:HG2	31:DG:155:MET:HB3	1.91	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DF:19:GLU:O	30:DF:20:LEU:CB	2.58	0.52
30:DF:111:ALA:HA	30:DF:202:PHE:CZ	2.43	0.52
25:BA:1342:A:C6	25:BA:1396:U:O3'	2.63	0.52
1:AA:1139:G:N2	1:AA:1142:G:O6	2.42	0.52
46:BZ:62:ASP:C	46:BZ:64:GLN:H	2.12	0.52
45:BY:88:LYS:O	45:BY:89:PHE:HB2	2.10	0.52
32:DH:139:GLN:HG3	32:DH:140:LYS:N	2.24	0.52
32:DH:85:LYS:HE3	32:DH:144:VAL:HB	1.91	0.52
1:CA:324:G:N2	1:CA:327:A:C8	2.77	0.52
43:DW:4:LYS:CG	43:DW:106:ILE:HG22	2.28	0.52
2:AB:115:LEU:HD11	2:AB:142:LEU:HD12	1.91	0.52
25:BA:622:G:O2'	25:BA:623:G:H5'	2.10	0.52
4:AD:39:PRO:HD2	4:AD:44:GLY:O	2.09	0.52
53:D6:52:VAL:HG12	53:D6:53:LYS:H	1.73	0.52
40:DT:16:ARG:NH1	40:DT:16:ARG:HG3	2.24	0.52
40:DT:30:VAL:HG21	40:DT:84:GLN:H	1.75	0.52
40:DT:32:TYR:O	40:DT:41:ARG:O	2.26	0.52
22:CV:70:LEU:N	22:CV:70:LEU:HD23	2.24	0.52
46:DZ:143:LEU:CD1	46:DZ:149:LEU:HD12	2.38	0.52
38:DR:45:ARG:HD3	38:DR:97:VAL:CG2	2.40	0.52
25:DA:2790:A:N3	25:DA:2790:A:H2'	2.24	0.52
27:BC:149:ASN:OD1	27:BC:153:ILE:HG13	2.09	0.52
25:DA:71:A:C5'	25:DA:73:A:C8	2.89	0.52
40:DT:28:VAL:HG22	40:DT:46:GLU:HA	1.92	0.52
40:DT:3:ARG:HB2	40:DT:6:LEU:H	1.74	0.52
30:BF:1:MET:HB3	30:BF:26:ALA:HA	1.91	0.52
1:CA:189:G:H1	1:CA:189(K):U:H3	1.58	0.52
23:CW:16:C:O5'	23:CW:16:C:H6	1.92	0.52
40:DT:59:THR:HG23	40:DT:59:THR:O	2.09	0.52
25:DA:528:A:C2	25:DA:2042:A:H2'	2.44	0.52
25:DA:1174:A:H3'	25:DA:1174:A:N3	2.23	0.52
32:DH:13:LYS:HA	32:DH:13:LYS:HE2	1.91	0.52
32:DH:68:THR:O	32:DH:70:THR:O	2.28	0.52
45:DY:88:LYS:HZ1	45:DY:93:GLY:HA3	1.73	0.52
22:AV:102:GLU:C	22:AV:104:PHE:H	2.13	0.52
29:DE:4:ILE:HG13	29:DE:5:LEU:H	1.74	0.52
46:DZ:130:ARG:H	46:DZ:130:ARG:CD	2.19	0.52
46:BZ:9:ARG:NH2	46:BZ:25:GLY:O	2.43	0.52
4:AD:91:SER:O	4:AD:92:VAL:C	2.47	0.52
25:DA:2695:C:O2'	25:DA:2696:U:H5'	2.08	0.52
25:BA:1508:A:H4'	25:BA:1509(A):A:C8	2.44	0.52
25:DA:2815:C:O2'	52:D5:43:HIS:HD2	1.91	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:52:LEU:HD23	3:AC:52:LEU:H	1.73	0.52
11:AK:88:GLY:C	11:AK:90:GLY:H	2.13	0.52
27:BC:182:PRO:HG2	27:BC:185:LYS:CD	2.39	0.52
47:B0:48:LYS:H	47:B0:79:HIS:HD1	1.57	0.52
25:BA:271(O):C:HO2'	25:BA:271(P):C:H6	1.57	0.52
25:BA:1188:U:C4'	42:BV:79:VAL:HG23	2.39	0.52
22:CV:20:TRP:CZ3	22:CV:43:ASN:HB2	2.44	0.52
35:DO:1:MET:HB2	35:DO:32:TYR:CB	2.39	0.52
25:BA:2534:A:H5'	25:BA:2534:A:H8	1.74	0.52
43:DW:84:ARG:HB2	43:DW:96:ILE:CG2	2.39	0.52
25:DA:2466:C:H5''	56:D9:6:SER:HB2	1.91	0.52
1:CA:1206:G:H2'	1:CA:1207:G:H8	1.74	0.52
1:CA:229:U:C2'	1:CA:230:G:H5'	2.40	0.52
29:DE:39:PRO:O	29:DE:43:GLY:HA2	2.09	0.52
42:DV:66:ARG:HH11	42:DV:66:ARG:HG2	1.74	0.52
26:DB:59:A:H2'	26:DB:60:C:H6	1.73	0.52
20:AT:38:LYS:O	20:AT:39:LYS:C	2.48	0.52
25:BA:2402:C:O2'	25:BA:2403:C:C6	2.61	0.52
25:DA:2707:G:H5''	38:DR:68:ARG:HH21	1.74	0.52
25:DA:2720:U:H3'	25:DA:2721:A:H8	1.75	0.52
25:BA:1381:G:H2'	25:BA:1382:G:H5'	1.91	0.52
25:DA:1218:C:O2	25:DA:1218:C:H2'	2.08	0.52
25:BA:328:U:H6	25:BA:328:U:O5'	1.92	0.52
33:DI:123:LEU:O	33:DI:142:VAL:HA	2.09	0.52
25:DA:1958:C:O2'	25:DA:1959:G:H5'	2.09	0.52
1:AA:182:U:OP2	1:AA:183:G:OP2	2.26	0.52
14:AN:45:ARG:HG3	14:AN:45:ARG:HH11	1.74	0.52
46:DZ:136:ILE:HD13	46:DZ:156:LEU:HD23	1.91	0.52
42:DV:19:LYS:HZ3	42:DV:20:LEU:N	2.07	0.52
42:DV:20:LEU:CA	42:DV:21:ARG:HE	2.22	0.52
25:BA:1493:C:C2'	25:BA:1493:C:O2	2.58	0.52
41:BU:91:ASP:O	41:BU:92:ARG:NE	2.43	0.52
1:AA:1323:G:H2'	1:AA:1324:A:H8	1.70	0.52
29:DE:32:PRO:O	29:DE:34:VAL:HG13	2.08	0.52
30:DF:155:LEU:CD2	30:DF:186:ILE:HD13	2.35	0.52
46:BZ:71:ARG:HG2	46:BZ:88:PHE:HB2	1.92	0.52
53:D6:16:CYS:O	53:D6:17:LYS:CB	2.57	0.52
53:D6:17:LYS:CB	53:D6:18:ARG:NH1	2.72	0.52
25:DA:2392:A:N1	25:DA:2424:C:N3	2.58	0.52
25:DA:823:G:H2'	25:DA:824:A:C8	2.44	0.52
2:AB:80:ILE:HD12	2:AB:212:GLN:CA	2.40	0.52
2:AB:86:GLU:C	2:AB:88:ALA:H	2.11	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2176:A:O2'	27:BC:45:HIS:CD2	2.63	0.52
3:CC:19:GLU:HG3	3:CC:54:ARG:CZ	2.39	0.52
40:DT:82:LEU:CD1	40:DT:82:LEU:N	2.68	0.52
25:BA:1799:G:N7	28:BD:179:SER:OG	2.37	0.52
31:BG:47:LYS:CD	31:BG:82:LEU:HG	2.29	0.52
14:CN:7:ILE:HG22	14:CN:28:GLY:HA3	1.91	0.52
2:CB:121:LEU:HA	2:CB:126:GLU:OE1	2.08	0.52
37:BQ:65:PHE:HB2	37:BQ:105:GLU:O	2.09	0.52
1:CA:1319:A:H5'	1:CA:1320:C:OP1	2.10	0.52
33:BI:47:LEU:O	33:BI:50:ARG:N	2.38	0.52
36:DP:85:LEU:HB3	36:DP:114:ILE:CD1	2.39	0.52
27:DC:117:THR:HA	27:DC:147:GLY:O	2.09	0.52
22:AV:147:GLY:N	22:AV:163:LEU:CD2	2.72	0.52
5:CE:71:LEU:HD21	5:CE:115:VAL:HG22	1.90	0.52
25:DA:245:G:H5'	36:DP:69:GLY:HA3	1.91	0.52
10:CJ:30:SER:O	10:CJ:78:ASN:ND2	2.39	0.52
12:CL:80:VAL:CG1	12:CL:81:LEU:N	2.72	0.52
53:B6:9:LEU:HD22	53:B6:26:ASN:HB3	1.92	0.52
1:CA:628:G:O2'	1:CA:629:G:H5'	2.09	0.52
45:BY:68:HIS:HB3	45:BY:71:LYS:HZ2	1.74	0.52
39:BS:19:LYS:C	39:BS:20:ARG:NH1	2.62	0.52
44:BX:41:ASN:H	44:BX:41:ASN:ND2	2.08	0.52
6:CF:100:ASN:HB3	18:CR:28:GLU:HA	1.91	0.52
6:CF:97:PHE:HD2	18:CR:31:LEU:CD2	2.23	0.52
1:CA:390:C:O3'	16:CP:28:ARG:NH2	2.42	0.52
4:CD:150:GLU:CG	4:CD:151:LYS:N	2.73	0.52
38:DR:109:ALA:O	38:DR:111:LEU:HD22	2.09	0.52
25:DA:152:G:H2'	25:DA:153:C:O4'	2.08	0.52
46:DZ:129:PRO:HB2	46:DZ:130:ARG:HD3	1.91	0.52
44:DX:65:ARG:HG3	44:DX:69:TYR:O	2.09	0.52
31:BG:111:LEU:HA	31:BG:114:ILE:CD1	2.38	0.52
35:BO:47:ILE:CG2	35:BO:48:PRO:HD2	2.39	0.52
22:AV:19:LEU:HD12	22:AV:120:ILE:HD13	1.90	0.52
1:AA:540:G:H2'	1:AA:541:G:O4'	2.09	0.52
19:AS:29:ARG:H	19:AS:29:ARG:HD2	1.74	0.52
25:BA:2203:U:O2'	28:BD:151:LYS:HG2	2.09	0.52
11:CK:29:ILE:CD1	11:CK:44:SER:HB3	2.39	0.52
25:DA:2538:C:O2'	25:DA:2539:C:H5'	2.10	0.52
25:DA:49:A:H5''	25:DA:51:G:H5'	1.90	0.52
5:AE:98:THR:H	5:AE:117:ASP:CG	2.13	0.52
1:CA:486:U:H2'	1:CA:487:A:H8	1.74	0.52
36:BP:121:LYS:HE2	36:BP:123:LEU:HD21	1.91	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AE:15:ARG:CZ	5:AE:26:PHE:CE2	2.92	0.52
1:AA:591:U:H2'	1:AA:592:G:H8	1.75	0.52
46:BZ:38:VAL:CG2	46:BZ:43:PHE:HB2	2.39	0.52
1:CA:1206:G:H2'	1:CA:1207:G:C8	2.45	0.52
37:DQ:57:HIS:ND1	37:DQ:117:ALA:HA	2.25	0.52
1:AA:176:C:H2'	1:AA:177:C:C6	2.44	0.52
10:AJ:96:ILE:CD1	10:AJ:96:ILE:N	2.72	0.52
19:CS:58:VAL:O	19:CS:58:VAL:HG23	2.09	0.52
29:BE:63:LEU:O	29:BE:64:LYS:C	2.47	0.52
25:BA:352:G:H1'	25:BA:354:G:N7	2.24	0.52
25:DA:1328:G:H2'	25:DA:1330:C:C5	2.45	0.52
25:DA:1345:C:H5'	25:DA:1396:U:C5	2.45	0.52
37:BQ:19:GLY:O	37:BQ:98:LYS:HD3	2.09	0.52
25:BA:1515:G:O2'	25:BA:1516:C:H5'	2.10	0.52
25:BA:301:G:H5'	25:BA:334:C:O2'	2.09	0.52
9:AI:37:PHE:HB3	9:AI:43:ALA:HB1	1.92	0.52
25:BA:150:C:H42	25:BA:176:G:H1	1.58	0.52
46:DZ:101:LEU:HD12	46:DZ:101:LEU:N	2.25	0.52
37:DQ:134:ARG:HH21	46:DZ:121:ARG:HD2	1.74	0.52
1:AA:134:A:H61	16:AP:25:ARG:HH12	1.55	0.52
2:CB:167:PRO:O	2:CB:168:THR:C	2.47	0.52
2:CB:9:GLU:N	2:CB:9:GLU:CD	2.58	0.52
41:DU:83:LEU:HG	41:DU:88:ILE:HD11	1.91	0.52
42:DV:2:PHE:O	42:DV:3:ALA:HB3	2.10	0.52
42:DV:38:LEU:HD23	42:DV:38:LEU:C	2.29	0.52
46:DZ:19:ARG:O	46:DZ:21:GLY:N	2.43	0.52
25:BA:1496:A:H8	25:BA:1577:C:O2'	1.93	0.52
7:CG:43:PHE:O	7:CG:46:ALA:HB3	2.10	0.52
30:BF:3:GLU:HB3	30:BF:24:LEU:CB	2.40	0.52
45:BY:28:LYS:C	45:BY:38:ILE:HB	2.30	0.52
9:AI:28:VAL:HA	9:AI:63:ILE:O	2.09	0.52
1:AA:1470:G:O2'	1:AA:1471:G:H5'	2.10	0.52
1:AA:1191:A:H2'	1:AA:1192:C:C6	2.43	0.52
25:DA:2417:C:O2'	25:DA:2418:A:H5'	2.08	0.52
12:CL:39:THR:O	12:CL:39:THR:HG23	2.09	0.52
32:DH:83:TYR:CB	32:DH:135:GLY:H	2.22	0.52
36:BP:85:LEU:HB3	36:BP:114:ILE:HD11	1.90	0.52
31:DG:17:PRO:HA	31:DG:20:ILE:HD12	1.92	0.52
32:DH:170:ARG:N	32:DH:170:ARG:HD2	2.24	0.52
46:BZ:127:VAL:HG22	46:BZ:128:SER:N	2.24	0.52
40:BT:28:VAL:CG2	40:BT:47:GLY:H	2.18	0.52
4:AD:185:PHE:CE2	4:AD:189:PRO:HD3	2.45	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:15:THR:C	10:AJ:17:ASP:H	2.11	0.52
1:AA:428:G:C6	1:AA:430:A:N6	2.78	0.52
27:BC:118:PRO:HD3	27:BC:147:GLY:C	2.30	0.52
31:BG:46:ALA:HA	31:BG:51:ARG:HB2	1.90	0.52
15:CO:64:ARG:HH11	15:CO:68:ARG:HH21	1.53	0.52
1:CA:1316:G:H4'	14:CN:18:VAL:CG1	2.40	0.52
31:DG:80:PHE:O	31:DG:81:LYS:O	2.28	0.52
25:DA:626:U:H5'	25:DA:627:A:O5'	2.09	0.52
39:DS:53:SER:O	39:DS:56:LEU:HB3	2.10	0.52
30:DF:157:VAL:O	30:DF:158:THR:CB	2.56	0.52
25:BA:2473:U:O2	25:BA:2473:U:C2'	2.58	0.52
25:BA:814:C:H5	36:BP:27:HIS:CD2	2.27	0.52
31:BG:83:ARG:NH1	31:BG:84:LYS:NZ	2.58	0.52
25:DA:2468:G:H8	25:DA:2476:A:H62	1.58	0.52
27:BC:223:VAL:HG23	27:BC:223:VAL:O	2.10	0.52
4:AD:112:VAL:HG22	4:AD:116:GLN:NE2	2.25	0.52
25:BA:1484:G:H21	25:BA:1505:C:N4	2.07	0.52
25:BA:2298:A:H2'	25:BA:2299:G:O4'	2.10	0.52
26:BB:110:G:H2'	26:BB:111:G:C8	2.43	0.52
36:DP:111:ARG:HG3	36:DP:111:ARG:HH21	1.75	0.52
40:BT:78:LEU:CD2	40:BT:78:LEU:O	2.56	0.52
22:AV:4:VAL:C	22:AV:6:ASP:N	2.61	0.52
29:DE:3:GLY:O	29:DE:4:ILE:CB	2.54	0.52
29:DE:2:LYS:HZ1	29:DE:96:PHE:HD1	1.56	0.52
6:CF:7:ASN:HD21	6:CF:62:TRP:HD1	1.58	0.52
11:AK:38:ASN:HD22	11:AK:38:ASN:N	2.07	0.52
1:CA:1070:U:H2'	1:CA:1071:C:H6	1.75	0.52
27:BC:209:PHE:O	27:BC:211:ARG:HG3	2.09	0.52
4:CD:121:VAL:O	4:CD:134:ASP:HA	2.10	0.52
42:BV:23:GLU:OE1	42:BV:23:GLU:HA	2.07	0.52
47:B0:69:GLN:OE1	47:B0:71:ARG:HD3	2.09	0.52
25:DA:140:G:O2'	25:DA:141:A:N3	2.42	0.52
25:DA:2301:C:H2'	25:DA:2302:G:H8	1.74	0.52
46:BZ:109:GLY:HA3	46:BZ:173:VAL:HG11	1.92	0.52
27:BC:6:LYS:HB3	27:BC:6:LYS:HZ2	1.72	0.52
1:CA:556:C:C2'	1:CA:557:G:H5'	2.38	0.52
25:DA:2555:U:H2'	25:DA:2556:C:H5'	1.92	0.52
49:D2:5:GLU:HA	49:D2:8:LYS:HG3	1.92	0.52
2:AB:95:GLN:HG3	2:AB:148:TYR:HD1	1.74	0.52
25:DA:2572:A:H8	29:DE:144:ARG:HB3	1.72	0.52
1:AA:24:U:H2'	1:AA:25:C:C6	2.44	0.52
25:BA:302:C:H2'	25:BA:303:U:C6	2.43	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2290:G:N1	25:DA:2343:C:O2	2.43	0.52
25:DA:272:G:C2	25:DA:272(B):G:C4	2.97	0.52
25:DA:1657:C:H2'	25:DA:1658:C:C6	2.45	0.52
25:DA:239:U:H2'	25:DA:240:G:O4'	2.09	0.52
25:BA:1027:A:C2	25:BA:2488:A:H5'	2.44	0.52
1:AA:102:G:O2'	1:AA:103:C:H5'	2.09	0.52
25:BA:606:U:H4'	25:BA:658:C:H4'	1.90	0.52
4:CD:25:ARG:O	4:CD:27:TYR:N	2.42	0.52
25:BA:1578:U:OP2	25:BA:1578:U:H6	1.92	0.52
50:B3:59:VAL:HG12	50:B3:60:GLU:N	2.25	0.52
1:AA:1060:C:O2'	10:AJ:56:HIS:HD2	1.93	0.52
25:BA:154:G:C5	25:BA:154(A):C:C4	2.98	0.52
2:CB:161:ALA:CB	2:CB:185:ILE:HD11	2.17	0.52
2:CB:42:ILE:HD13	2:CB:203:GLY:HA2	1.92	0.52
2:CB:56:ARG:NH1	2:CB:56:ARG:HG2	2.25	0.52
2:CB:92:TYR:C	2:CB:92:TYR:CD1	2.83	0.52
50:D3:10:LYS:CG	50:D3:11:SER:H	2.16	0.52
50:D3:6:VAL:CG1	50:D3:56:VAL:HA	2.39	0.52
34:DN:25:ARG:NH1	34:DN:25:ARG:CG	2.65	0.52
42:DV:58:VAL:HB	42:DV:98:GLU:CG	2.39	0.52
48:D1:86:SER:HB3	48:D1:89:GLU:CD	2.30	0.52
9:CI:121:ARG:HD3	9:CI:121:ARG:C	2.30	0.52
2:CB:137:ARG:HH12	2:CB:141:GLU:HB2	1.74	0.52
22:CV:180:TYR:CZ	22:CV:182:GLY:HA2	2.45	0.52
1:CA:1234:C:H1'	1:CA:1364:U:O2	2.09	0.52
25:BA:1171:G:H22	25:BA:1175:U:H5''	1.74	0.52
45:DY:2:ARG:CD	45:DY:3:VAL:N	2.72	0.52
25:BA:1748:G:H8	25:BA:1748:G:H5'	1.75	0.52
31:BG:66:GLN:HB3	31:BG:92:VAL:HG21	1.90	0.52
25:BA:2799:C:H3'	25:BA:2799:C:OP2	2.10	0.52
28:BD:102:LYS:O	28:BD:103:ARG:HG2	2.10	0.52
40:BT:28:VAL:HG13	40:BT:46:GLU:CB	2.40	0.52
27:BC:173:HIS:ND1	27:BC:173:HIS:N	2.58	0.52
1:CA:1300:G:O2'	1:CA:1301:U:H5''	2.09	0.52
13:CM:20:THR:C	13:CM:22:ILE:H	2.11	0.52
36:BP:63:PRO:C	36:BP:65:ARG:N	2.63	0.52
5:AE:41:VAL:O	5:AE:67:VAL:HG12	2.10	0.52
32:BH:70:THR:O	32:BH:71:LEU:C	2.47	0.52
25:BA:1803:A:C2	25:BA:1822:G:N3	2.75	0.52
8:AH:65:TYR:HA	8:AH:79:VAL:HG23	1.90	0.52
15:CO:9:GLN:O	15:CO:11:VAL:N	2.43	0.52
25:BA:1021:A:H8	25:BA:1021:A:H3'	1.74	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:CN:6:LEU:O	14:CN:8:GLU:N	2.42	0.52
10:AJ:54:PHE:CD1	10:AJ:55:LYS:HE3	2.44	0.52
14:AN:22:THR:HB	14:AN:33:VAL:HG21	1.92	0.52
27:DC:80:LYS:HA	27:DC:84:ILE:HD11	1.92	0.52
10:CJ:16:LEU:HD11	10:CJ:69:ASN:O	2.09	0.52
1:AA:741:G:O2'	1:AA:742:G:H5'	2.09	0.52
25:BA:932:G:H3'	25:BA:932:G:OP1	2.09	0.52
25:BA:932:G:H4'	25:BA:933:A:O5'	2.10	0.52
25:BA:309:G:H4'	45:BY:18:GLY:HA3	1.91	0.52
26:BB:8:U:C5'	39:BS:17:ARG:HH12	2.23	0.52
1:CA:190:U:C2	20:CT:105:SER:HB2	2.44	0.52
25:BA:389:G:C5'	48:B1:26:ARG:HH12	2.19	0.52
25:BA:141:A:H1'	25:BA:1408:C:HO2'	1.73	0.52
28:DD:70:TRP:CZ3	28:DD:150:LYS:HA	2.43	0.52
22:AV:83:MET:HE1	22:AV:88:TYR:HB3	1.92	0.52
4:AD:76:ARG:C	4:AD:78:LEU:N	2.60	0.52
25:DA:1529:G:H2'	25:DA:1530:C:C6	2.44	0.52
30:DF:65:TRP:HB3	30:DF:66:PRO:HD2	1.89	0.52
1:CA:1409:C:O2'	1:CA:1410:G:H5'	2.09	0.52
48:D1:29:GLY:C	48:D1:31:GLY:H	2.13	0.52
27:DC:101:ILE:CG2	27:DC:102:GLN:N	2.71	0.52
43:BW:9:TYR:H	43:BW:102:HIS:CD2	2.27	0.52
33:DI:31:LEU:HD21	33:DI:38:LEU:HG	1.91	0.52
2:AB:173:ALA:HA	2:AB:176:GLU:HB2	1.92	0.52
32:BH:149:ARG:HD3	32:BH:164:TYR:CE1	2.45	0.52
49:D2:37:PHE:O	49:D2:41:ILE:HG12	2.10	0.52
25:BA:1654:A:OP1	38:BR:3:HIS:O	2.26	0.52
34:BN:17:ASP:OD2	34:BN:18:ALA:N	2.42	0.52
33:BI:62:LYS:HD2	33:BI:62:LYS:C	2.30	0.52
3:AC:175:LEU:HD21	3:AC:201:TYR:CE2	2.45	0.52
47:D0:37:LEU:O	47:D0:38:VAL:HG23	2.09	0.52
6:AF:98:LEU:HD12	6:AF:98:LEU:N	2.24	0.52
25:BA:1034:G:H5'	56:B9:18:ARG:HD2	1.91	0.52
1:CA:443:C:H2'	1:CA:444:C:H6	1.75	0.52
18:AR:53:ARG:HB2	18:AR:63:GLN:NE2	2.24	0.52
1:CA:1080:A:H4'	5:CE:16:THR:HB	1.91	0.52
45:BY:31:LEU:CB	45:BY:32:PRO:HA	2.39	0.52
25:DA:1416:G:H2'	25:DA:1417:C:C5	2.44	0.52
1:CA:913:A:H4'	1:CA:914:A:O5'	2.09	0.52
25:BA:2006:C:H2'	25:BA:2007:C:H6	1.75	0.52
43:BW:90:ARG:HG3	43:BW:90:ARG:HH11	1.75	0.52
25:DA:1321:A:H2'	25:DA:1322:A:O4'	2.09	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:D8:21:LYS:HD3	55:D8:48:PHE:CE2	2.45	0.52
25:BA:2540:C:O2'	25:BA:2740:A:N3	2.39	0.52
25:BA:1354:A:H2'	25:BA:1355:G:O4'	2.10	0.52
38:BR:103:ARG:HH11	43:BW:40:ASN:ND2	2.06	0.52
3:AC:131:ARG:NH2	3:AC:167:TRP:O	2.43	0.52
42:DV:33:VAL:HG23	42:DV:59:ALA:O	2.09	0.52
8:AH:9:MET:HB2	8:AH:32:LYS:HE2	1.92	0.52
12:AL:86:ARG:HH11	12:AL:86:ARG:HB2	1.73	0.52
25:BA:1518:U:H2'	25:BA:1519:G:O4'	2.09	0.52
35:DO:97:ARG:HA	35:DO:117:LEU:HD21	1.90	0.52
1:AA:1285:A:H4'	1:AA:1286:A:O5'	2.10	0.52
32:BH:44:VAL:O	32:BH:46:GLU:CD	2.47	0.52
25:DA:2182:G:H2'	25:DA:2183:C:H6	1.74	0.52
25:DA:2645:G:C3'	25:DA:2646:C:C5'	2.79	0.52
1:CA:1116:C:H2'	1:CA:1117:G:C5'	2.15	0.52
1:CA:1285:A:H1'	1:CA:1286:A:OP2	2.09	0.52
13:AM:82:MET:HE3	25:BA:888:C:H1'	1.91	0.52
29:DE:70:ALA:O	29:DE:73:GLU:N	2.40	0.52
36:DP:12:ALA:HB1	36:DP:16:ARG:HB3	1.90	0.52
26:BB:42:C:O2'	31:BG:66:GLN:HG2	2.08	0.52
31:BG:43:LEU:CB	31:BG:88:ILE:HD11	2.40	0.52
8:CH:4:ASP:CG	8:CH:85:ARG:HH12	2.13	0.52
28:BD:30:GLU:HB2	28:BD:104:TYR:OH	2.10	0.52
25:DA:2657:A:O2'	32:DH:160:LYS:HE3	2.10	0.52
40:DT:74:ARG:HD2	40:DT:76:PHE:CZ	2.45	0.52
34:DN:26:LEU:HG	34:DN:30:ILE:HD11	1.92	0.52
27:BC:118:PRO:HD2	27:BC:148:PHE:CD1	2.45	0.52
15:CO:33:THR:HA	15:CO:63:ARG:NH2	2.19	0.52
40:DT:89:VAL:HG12	40:DT:91:ARG:CG	2.39	0.52
22:CV:19:LEU:HD22	22:CV:63:ILE:CD1	2.39	0.52
1:AA:1199:U:H4'	10:AJ:54:PHE:CE1	2.45	0.52
47:D0:27:GLU:OE1	47:D0:68:GLU:HA	2.10	0.52
36:BP:30:THR:HG22	36:BP:31:ALA:H	1.74	0.52
3:CC:108:ASN:CB	3:CC:111:LEU:HD12	2.40	0.52
43:BW:92:ARG:HG2	43:BW:92:ARG:NH1	2.25	0.52
28:DD:111:LEU:O	28:DD:112:GLN:HG3	2.10	0.52
1:CA:233:C:H2'	1:CA:234:C:C6	2.40	0.52
25:BA:2124:G:H4'	27:BC:175:PRO:HG3	1.91	0.52
25:BA:1040:C:N3	25:BA:1115:G:O6	2.43	0.52
45:BY:20:TYR:CZ	45:BY:42:VAL:HA	2.44	0.52
1:AA:1041:A:H2'	1:AA:1042:G:C8	2.45	0.52
25:BA:1718:G:C8	25:BA:1718:G:H5'	2.44	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:37:U:O2'	1:CA:38:G:H5'	2.09	0.52
25:DA:1278:A:O3'	38:DR:34:ILE:HD12	2.09	0.52
34:BN:120:LEU:HD22	34:BN:120:LEU:C	2.30	0.52
25:BA:1434:A:C2'	25:BA:1435:G:H5'	2.40	0.52
4:AD:101:LEU:CB	4:AD:138:TYR:HB3	2.37	0.52
25:BA:213:A:H2'	25:BA:214:G:O4'	2.09	0.52
1:AA:538:G:OP1	12:AL:111:LYS:N	2.40	0.52
25:DA:2496:C:O2'	25:DA:2497:A:H5'	2.10	0.52
25:DA:55:G:H2'	25:DA:56:A:H8	1.74	0.52
35:DO:49:ARG:NH1	35:DO:49:ARG:HG2	2.24	0.52
27:DC:54:ARG:HH11	27:DC:54:ARG:CB	2.23	0.52
25:DA:1843:C:O2'	25:DA:1844:C:H5'	2.10	0.52
30:BF:83:PHE:O	30:BF:84:VAL:HB	2.09	0.52
25:BA:2065:C:H2'	25:BA:2066:C:C6	2.44	0.52
1:CA:1327:C:O2'	1:CA:1328:C:H5'	2.09	0.52
25:BA:1949:G:H2'	25:BA:1950:G:C8	2.44	0.52
25:DA:2478:A:C2'	25:DA:2479:G:H5'	2.40	0.52
12:AL:94:ARG:C	12:AL:95:TYR:CD1	2.83	0.52
1:CA:1338:G:H2'	1:CA:1339:A:C8	2.44	0.52
33:DI:29:TYR:C	33:DI:32:PRO:HD2	2.30	0.52
25:BA:1436:G:H1'	25:BA:1477:A:O2'	2.10	0.52
28:DD:228:PRO:HD3	28:DD:235:GLY:HA3	1.92	0.52
1:CA:560:U:H5'	1:CA:566:G:N2	2.24	0.52
25:DA:2203:U:O2'	28:DD:151:LYS:HG2	2.09	0.52
14:AN:46:GLU:O	14:AN:50:LYS:HG3	2.09	0.52
3:AC:115:LEU:O	3:AC:119:ARG:HB2	2.09	0.52
1:AA:1348:U:C4'	9:AI:120:ARG:HD2	2.19	0.52
32:BH:46:GLU:CG	32:BH:51:ARG:HB2	2.28	0.52
46:DZ:128:SER:HB3	46:DZ:131:ASN:ND2	2.03	0.52
42:DV:40:LEU:CA	42:DV:45:THR:HB	2.38	0.52
42:DV:65:GLY:HA3	42:DV:91:TYR:CZ	2.45	0.52
25:DA:953:A:O2'	25:DA:954:G:H5'	2.09	0.52
25:DA:952:G:P	37:DQ:16:ARG:HH12	2.32	0.52
26:DB:76:G:H21	46:DZ:74:ASN:HD21	1.56	0.52
20:AT:43:LEU:HB3	20:AT:52:ALA:HA	1.92	0.52
9:CI:65:VAL:HG21	9:CI:73:GLN:CG	2.39	0.52
2:CB:144:ARG:HA	2:CB:147:LYS:HB3	1.92	0.52
1:AA:1223:C:OP2	1:AA:1224:G:N7	2.42	0.52
9:CI:126:SER:O	9:CI:128:ARG:HD2	2.09	0.52
1:AA:345:C:H4'	1:AA:346:G:C5'	2.19	0.52
25:BA:275:G:C2'	25:BA:276:A:H4'	2.38	0.52
25:BA:276:A:C3'	25:BA:276:A:N3	2.72	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1028:C:H2'	1:AA:1029:C:H5'	1.91	0.52
45:BY:61:ILE:C	45:BY:62:GLU:OE2	2.48	0.52
25:DA:275:G:C8	25:DA:275:G:C3'	2.93	0.52
25:BA:624:C:O2	25:BA:657:U:H4'	2.10	0.52
25:DA:1999:C:H4'	25:DA:2723:C:O2	2.10	0.52
1:AA:1149:C:OP2	9:AI:9:ARG:NH2	2.43	0.52
5:AE:72:GLN:HG3	5:AE:77:PRO:HA	1.91	0.52
5:AE:73:ASN:O	5:AE:75:THR:HG22	2.10	0.52
25:BA:1827:C:C2'	25:BA:1828:G:H5'	2.39	0.52
22:CV:71:GLN:HA	22:CV:109:THR:HG21	1.92	0.52
3:CC:96:GLY:O	3:CC:97:LYS:CB	2.58	0.52
1:CA:1367:C:H5'	10:CJ:60:ARG:CZ	2.40	0.52
25:BA:2758:A:H2'	25:BA:2759:G:C5'	2.32	0.52
8:AH:1:MET:N	8:AH:1:MET:SD	2.72	0.52
25:BA:674:G:C1'	30:BF:74:ARG:HD2	2.39	0.52
47:D0:40:GLN:HE21	47:D0:44:ARG:N	2.07	0.52
1:CA:1202:G:H2'	1:CA:1203:C:H6	1.74	0.52
1:CA:1025:U:H5''	1:CA:1026:G:OP1	2.10	0.52
39:DS:57:LYS:HG2	39:DS:58:LEU:H	1.75	0.52
30:DF:164:ARG:HG3	30:DF:175:THR:OG1	2.10	0.52
39:BS:67:ARG:HH11	39:BS:100:ALA:N	2.04	0.52
33:BI:69:LYS:HE3	33:BI:73:GLU:OE1	2.10	0.52
1:CA:79:G:H1'	1:CA:80:G:OP1	2.10	0.52
1:CA:1011:G:H2'	1:CA:1012:U:C6	2.44	0.52
1:CA:536:C:H2'	1:CA:537:G:H8	1.75	0.52
27:BC:15:VAL:HG13	27:BC:223:VAL:HG12	1.91	0.52
55:D8:40:GLU:O	55:D8:44:LYS:CD	2.57	0.52
1:AA:1006:C:H2'	1:AA:1007:C:C5	2.44	0.52
39:DS:85:VAL:HG23	39:DS:86:ALA:N	2.24	0.52
6:AF:8:ILE:CG2	6:AF:9:VAL:N	2.72	0.52
20:CT:43:LEU:HB2	20:CT:52:ALA:HA	1.92	0.52
18:AR:86:VAL:HG12	18:AR:87:ARG:HD2	1.92	0.52
16:CP:28:ARG:HG2	16:CP:29:ASP:OD2	2.09	0.52
4:CD:175:SER:OG	4:CD:184:LYS:HB2	2.09	0.52
17:AQ:91:ARG:CB	17:AQ:91:ARG:HH11	2.21	0.52
25:DA:1190:G:H2'	25:DA:1191:G:C8	2.42	0.52
1:AA:1163:C:H2'	1:AA:1164:G:C8	2.45	0.52
22:AV:13:VAL:CG2	22:AV:14:LYS:N	2.73	0.52
38:BR:97:VAL:HG22	38:BR:114:VAL:HG22	1.92	0.52
31:BG:172:LEU:HD21	31:BG:176:LEU:HD11	1.92	0.52
44:DX:65:ARG:HG2	44:DX:65:ARG:NH1	2.22	0.52
26:DB:11:C:O5'	26:DB:12:C:H5	1.93	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:BO:17:ARG:HD3	35:BO:47:ILE:CD1	2.40	0.52
25:DA:492:A:H2'	25:DA:493:G:O4'	2.10	0.52
25:DA:1275:A:N1	25:DA:1295:C:O2'	2.35	0.52
40:BT:24:PRO:HB3	40:BT:99:LEU:HD21	1.90	0.52
27:BC:178:LYS:O	27:BC:186:LEU:HD11	2.08	0.52
1:AA:996:A:H2'	1:AA:997:U:C6	2.44	0.52
3:AC:126:ARG:O	3:AC:127:ARG:C	2.48	0.52
27:BC:59:VAL:O	27:BC:165:ARG:HA	2.10	0.52
1:AA:1228:C:N4	13:AM:104:ARG:O	2.42	0.52
43:BW:111:HIS:CG	43:BW:112:GLY:N	2.78	0.52
25:DA:1151:G:H2'	25:DA:1152:C:H6	1.71	0.52
22:CV:104:PHE:CE1	22:CV:124:PRO:HG3	2.45	0.52
1:CA:1463:C:O2'	1:CA:1464:G:H5'	2.10	0.52
1:CA:562:C:C6	1:CA:562:C:H5'	2.44	0.52
37:BQ:36:ALA:HB2	37:BQ:103:MET:SD	2.50	0.52
1:CA:35:G:H2'	1:CA:36:C:C6	2.44	0.52
1:CA:34:C:N4	1:CA:550:G:H1	2.06	0.52
25:DA:1712:C:H2'	25:DA:1713:U:H6	1.74	0.52
46:BZ:41:VAL:HG13	46:BZ:42:GLU:N	2.25	0.52
26:DB:118:G:H2'	26:DB:119:G:H8	1.74	0.52
53:D6:9:LEU:HD21	53:D6:11:LEU:HB3	1.92	0.52
56:B9:17:ILE:HG23	56:B9:18:ARG:N	2.24	0.52
1:AA:681:C:O2'	1:AA:682:G:H5'	2.10	0.52
25:DA:1353:A:H4'	28:DD:38:LYS:NZ	2.24	0.52
5:CE:43:LEU:N	5:CE:136:MET:HE1	2.25	0.52
2:CB:100:GLY:O	2:CB:101:MET:C	2.49	0.52
2:CB:105:PHE:O	2:CB:106:LYS:C	2.48	0.52
4:AD:147:ALA:HA	4:AD:182:LYS:HA	1.91	0.52
44:BX:29:TRP:CZ3	44:BX:78:LYS:HD3	2.45	0.52
43:BW:29:LEU:CD1	43:BW:51:LEU:HD11	2.39	0.52
25:DA:1858:G:H2'	25:DA:1883:G:H22	1.73	0.52
25:BA:2406:U:N3	36:BP:75:ILE:HD12	2.24	0.52
37:BQ:107:ALA:O	37:BQ:109:VAL:HG23	2.09	0.52
31:DG:23:PHE:O	31:DG:24:GLY:C	2.48	0.52
25:DA:1641:A:H2'	25:DA:1642:G:O4'	2.10	0.52
33:BI:116:LEU:HG	33:BI:117:GLU:H	1.75	0.52
9:AI:47:LEU:N	9:AI:47:LEU:HD12	2.24	0.52
46:DZ:55:VAL:HG13	46:DZ:90:LEU:HD11	1.92	0.52
2:CB:217:ARG:HA	2:CB:220:ASP:OD2	2.10	0.52
2:CB:8:LYS:O	2:CB:11:LEU:N	2.43	0.52
25:DA:1019:U:O2'	25:DA:1021:A:H2	1.92	0.52
41:DU:64:ARG:O	41:DU:67:ALA:HB3	2.09	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:DV:15:GLU:HG2	42:DV:16:PRO:CD	2.39	0.52
26:DB:76:G:O3'	46:DZ:18:ARG:NH2	2.42	0.52
37:DQ:42:ILE:HG12	37:DQ:103:MET:CE	2.40	0.52
25:DA:2108:C:C2	25:DA:2182:G:C6	2.97	0.52
1:CA:1346:A:H5''	9:CI:120:ARG:HH12	1.73	0.52
1:CA:1129:C:OP1	1:CA:1130:A:C5'	2.58	0.52
29:BE:39:PRO:HG3	29:BE:45:THR:OG1	2.10	0.52
25:BA:1397:U:C2'	25:BA:1397:U:O2	2.56	0.52
10:AJ:28:ARG:NH1	10:AJ:28:ARG:HG2	2.25	0.52
40:BT:100:TYR:C	40:BT:102:ILE:H	2.14	0.52
25:DA:1747(A):G:C2	25:DA:1748:G:C8	2.98	0.52
40:BT:28:VAL:CG2	40:BT:46:GLU:HG3	2.40	0.52
29:BE:51:PHE:CD2	29:BE:52:LEU:N	2.77	0.52
29:BE:71:GLY:O	29:BE:73:GLU:N	2.43	0.52
13:AM:95:GLY:O	13:AM:96:LEU:HD23	2.10	0.52
2:AB:141:GLU:O	2:AB:142:LEU:C	2.48	0.52
23:CW:4:G:H2'	23:CW:5:G:C8	2.45	0.52
25:BA:363(F):A:HO2'	25:BA:364:C:H5	1.55	0.52
1:CA:1060:C:O2'	1:CA:1061:G:H5'	2.10	0.52
3:CC:43:LEU:N	3:CC:43:LEU:CD1	2.73	0.52
9:CI:114:TYR:N	9:CI:114:TYR:CD2	2.78	0.52
42:BV:91:TYR:C	42:BV:91:TYR:HD1	2.12	0.52
33:DI:45:LYS:C	33:DI:47:LEU:H	2.13	0.52
37:BQ:133:ARG:O	37:BQ:134:ARG:HB2	2.09	0.52
2:CB:114:ARG:HA	2:CB:117:GLU:CG	2.40	0.52
1:AA:370:C:H2'	1:AA:371:G:H8	1.73	0.52
10:CJ:16:LEU:O	10:CJ:20:ALA:HB2	2.10	0.52
22:AV:149:LYS:NZ	22:AV:163:LEU:HA	2.20	0.52
39:DS:97:ARG:NH2	39:DS:98:VAL:CA	2.65	0.52
23:AW:1:C:H2'	23:AW:2:G:H8	1.75	0.52
27:BC:29:LEU:HD11	27:BC:33:LEU:HD21	1.92	0.52
28:DD:30:GLU:HA	28:DD:83:GLU:OE2	2.10	0.52
39:DS:85:VAL:H	39:DS:106:ARG:CB	2.21	0.52
6:AF:69:GLU:O	6:AF:72:VAL:HG12	2.09	0.52
11:AK:108:ILE:HG22	18:AR:87:ARG:HA	1.91	0.52
25:DA:1496:A:C8	25:DA:1577:C:O2'	2.60	0.52
4:CD:110:PHE:HD1	4:CD:110:PHE:N	2.07	0.52
9:AI:57:GLY:C	9:AI:59:PHE:H	2.13	0.52
28:DD:146:GLU:HA	28:DD:152:GLY:O	2.10	0.52
4:CD:38:TYR:CZ	4:CD:45:GLN:NE2	2.78	0.52
2:CB:87:ARG:HG3	2:CB:233:SER:OG	2.09	0.52
1:CA:1256:A:O3'	1:CA:1257:U:H4'	2.10	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1277:C:C3'	1:CA:1278:U:H5'	2.39	0.52
26:BB:56:G:H5'	31:BG:27:ASN:HD21	1.74	0.52
25:BA:1885:A:C8	25:BA:1885:A:H5'	2.38	0.52
1:CA:522:C:H41	12:CL:50:ARG:HH22	1.55	0.52
25:BA:2171:A:H4'	25:BA:2172:U:C5'	2.37	0.52
25:DA:494:G:OP1	43:DW:8:ARG:NH1	2.43	0.52
25:BA:374:A:H2'	25:BA:375:C:H5'	1.92	0.52
23:CW:35:A:O2'	23:CW:36:U:H5'	2.09	0.52
25:DA:587:C:O2'	25:DA:588:U:OP2	2.22	0.52
28:DD:142:VAL:HG23	28:DD:192:THR:O	2.09	0.52
23:AW:29:G:O2'	23:AW:30:G:H5'	2.10	0.52
1:CA:1074:G:H1	1:CA:1083:U:H3	1.58	0.52
40:BT:70:VAL:HG12	40:BT:71:GLY:H	1.74	0.52
25:BA:2880:C:O2'	38:BR:90:ARG:HD3	2.09	0.52
46:BZ:39:ASP:O	46:BZ:40:LEU:C	2.48	0.52
56:B9:26:ILE:HD12	56:B9:26:ILE:N	2.25	0.52
25:DA:1608:A:H1'	25:DA:1610:A:OP2	2.10	0.52
1:AA:492:G:H2'	1:AA:493:G:H8	1.72	0.52
25:BA:1864:U:C2'	25:BA:1865:G:H5'	2.40	0.52
48:B1:64:ALA:O	48:B1:67:ILE:HG13	2.09	0.52
1:AA:617:G:H4'	16:AP:44:THR:O	2.10	0.52
15:AO:30:ALA:HB2	15:AO:85:LEU:HD11	1.91	0.52
21:AU:18:TYR:HB3	21:AU:22:ARG:O	2.10	0.52
2:CB:60:ASP:O	2:CB:64:ARG:HG2	2.10	0.52
28:DD:118:VAL:HG13	28:DD:123:ALA:HB2	1.91	0.52
42:BV:43:GLU:HA	42:BV:43:GLU:OE1	2.08	0.52
42:BV:89:GLN:OE1	42:BV:89:GLN:HA	2.09	0.52
39:DS:64:GLU:O	39:DS:67:ARG:HB2	2.10	0.52
31:DG:165:THR:OG1	31:DG:168:GLU:HG3	2.10	0.52
36:BP:59:LEU:HA	36:BP:61:ARG:CZ	2.34	0.52
1:AA:1187:G:H2'	1:AA:1188:A:C8	2.45	0.52
3:AC:15:THR:CG2	3:AC:181:ASN:HB2	2.34	0.52
46:DZ:60:LEU:HD22	46:DZ:60:LEU:N	2.25	0.52
25:DA:543:C:N3	25:DA:551:G:C2	2.77	0.52
2:CB:238:LEU:O	2:CB:239:VAL:C	2.49	0.52
41:DU:50:ARG:HD3	41:DU:53:ARG:NH2	2.24	0.52
42:DV:51:VAL:CG1	42:DV:52:VAL:H	2.11	0.52
25:DA:1187:G:H5''	42:DV:81:TYR:CE2	2.44	0.52
32:BH:154:PRO:HB3	32:BH:163:TYR:CZ	2.44	0.52
1:CA:1370:G:O2'	1:CA:1371:G:H5'	2.10	0.52
7:CG:113:GLU:HG3	7:CG:119:ARG:HA	1.92	0.52
21:CU:9:ARG:HH11	21:CU:22:ARG:HG3	1.73	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:999:U:H2'	25:BA:1000:A:C5'	2.40	0.52
29:DE:61:ARG:HD2	29:DE:62:PRO:HD3	1.91	0.52
22:CV:126:THR:HG22	22:CV:176:ARG:HG2	1.91	0.52
25:BA:2371:G:H4'	53:B6:45:LYS:CG	2.39	0.52
30:DF:4:VAL:O	30:DF:4:VAL:HG23	2.10	0.52
10:AJ:4:ILE:HG12	10:AJ:100:THR:HG21	1.91	0.52
25:DA:157:U:C4	25:DA:158:U:C5	2.98	0.52
25:DA:158:U:H1'	25:DA:159:U:C4'	2.40	0.52
31:BG:152:LEU:HG	31:BG:153:ARG:H	1.75	0.52
26:BB:41:U:O4	31:BG:71:THR:HA	2.10	0.52
29:DE:104:VAL:HG11	29:DE:188:VAL:HG23	1.92	0.52
2:AB:25:ASN:O	2:AB:27:LYS:N	2.43	0.52
2:AB:56:ARG:O	2:AB:60:ASP:HB2	2.10	0.52
25:BA:2477:C:H3'	25:BA:2477:C:H6	1.74	0.52
3:CC:70:VAL:CG1	3:CC:71:ALA:N	2.73	0.52
1:AA:542:G:O2'	1:AA:543:C:H5'	2.09	0.52
10:CJ:49:VAL:CG2	14:CN:41:ARG:HD2	2.40	0.52
42:BV:19:LYS:NZ	42:BV:20:LEU:HB2	2.24	0.52
33:DI:47:LEU:O	33:DI:50:ARG:HB3	2.09	0.52
25:DA:72:U:C5	49:D2:61:LEU:HB3	2.45	0.52
15:CO:27:VAL:O	15:CO:28:GLN:C	2.49	0.52
1:AA:1053:G:O5'	1:AA:1054:C:H3'	2.09	0.52
36:DP:88:LEU:N	36:DP:88:LEU:HD12	2.25	0.52
25:BA:857:C:O2	25:BA:857:C:H2'	2.08	0.52
6:CF:79:LEU:O	6:CF:81:ILE:N	2.43	0.52
5:CE:69:VAL:O	5:CE:71:LEU:N	2.42	0.52
12:AL:39:THR:HG23	12:AL:39:THR:O	2.10	0.52
8:AH:86:ILE:HG21	8:AH:133:LEU:HD22	1.92	0.52
20:AT:72:LEU:HD22	20:AT:77:ALA:HB2	1.91	0.52
51:D4:46:ASN:ND2	51:D4:47:VAL:N	2.58	0.52
1:CA:1456:G:C2'	1:CA:1457:G:H5'	2.40	0.52
20:CT:40:ALA:C	20:CT:42:GLN:N	2.61	0.52
6:AF:42:GLU:C	6:AF:44:GLY:N	2.62	0.52
1:AA:939:G:P	7:AG:95:ARG:HH22	2.33	0.52
6:CF:15:ASP:OD1	6:CF:17:SER:HB2	2.10	0.52
25:BA:2629:A:N3	25:BA:2629:A:H3'	2.24	0.52
27:DC:78:ILE:HG12	27:DC:100:ILE:HG21	1.92	0.52
25:DA:2291:U:H2'	25:DA:2292:C:C6	2.45	0.52
11:AK:41:THR:HG21	11:AK:71:LYS:HB3	1.92	0.52
22:CV:167:PRO:O	22:CV:169:GLU:N	2.43	0.52
1:AA:998:G:H2'	1:AA:999:C:O4'	2.09	0.52
27:DC:101:ILE:CG2	27:DC:102:GLN:H	2.21	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:140:ARG:HG3	3:AC:140:ARG:NH1	2.23	0.52
8:AH:103:VAL:HG21	8:AH:110:ALA:HB2	1.90	0.52
25:DA:784:A:H5'	25:DA:785:G:OP1	2.10	0.52
34:BN:70:LYS:HE3	34:BN:72:TYR:HE2	1.75	0.52
50:B3:8:LEU:HD23	50:B3:54:VAL:HG22	1.91	0.52
49:B2:64:LEU:HD21	49:B2:68:ARG:NE	2.25	0.52
34:BN:89:LYS:HB3	34:BN:89:LYS:NZ	2.25	0.52
34:BN:56:ASN:O	34:BN:57:ALA:O	2.28	0.52
25:BA:2826:A:C3'	25:BA:2827:C:H5'	2.40	0.52
1:CA:591:U:OP2	8:CH:30:ARG:NH2	2.43	0.52
49:D2:19:VAL:O	49:D2:23:LYS:HG3	2.09	0.52
4:AD:132:ARG:HH11	4:AD:132:ARG:HG2	1.74	0.52
26:BB:11:C:H3'	26:BB:12:C:H6	1.74	0.52
1:AA:1484:C:O2'	1:AA:1485:U:H5'	2.09	0.52
25:BA:758:C:O2	25:BA:1981:A:H2	1.93	0.52
25:DA:1904:G:N2	25:DA:1905:C:H1'	2.25	0.52
1:AA:1402:C:H2'	1:AA:1403:C:O4'	2.09	0.52
25:DA:1902:C:C5'	28:DD:246:PRO:HD3	2.40	0.51
9:AI:96:LEU:HD11	9:AI:102:LEU:HB2	1.91	0.51
25:BA:160:U:H1'	25:BA:171:G:O5'	2.10	0.51
25:DA:1141:U:P	34:DN:25:ARG:HH12	2.33	0.51
44:DX:92:LEU:C	44:DX:94:GLY:H	2.13	0.51
7:CG:25:ALA:HA	7:CG:28:ASN:ND2	2.22	0.51
25:BA:2803:C:H2'	25:BA:2804:C:C6	2.45	0.51
30:BF:4:VAL:N	30:BF:19:GLU:HB3	2.24	0.51
1:AA:184:G:H4'	1:AA:224:C:H4'	1.92	0.51
25:DA:1246:A:P	36:DP:18:ARG:HG3	2.49	0.51
30:DF:34:TRP:CH2	36:DP:12:ALA:HB2	2.45	0.51
53:B6:41:PRO:HG3	53:B6:49:HIS:HE1	1.74	0.51
36:BP:98:GLU:C	36:BP:100:LEU:N	2.59	0.51
36:BP:106:LEU:HG	36:BP:107:LYS:N	2.26	0.51
32:DH:156:ALA:HB3	32:DH:158:HIS:O	2.10	0.51
2:AB:22:LYS:H	2:AB:40:HIS:HE1	1.57	0.51
2:AB:24:TRP:CZ3	2:AB:26:PRO:HA	2.45	0.51
2:AB:36:ARG:H	2:AB:41:ILE:HD13	1.76	0.51
29:BE:48:GLN:NE2	29:BE:78:LEU:HD13	2.25	0.51
13:AM:40:ASN:HD22	13:AM:43:THR:CG2	2.22	0.51
25:DA:1653:G:O5'	25:DA:1653:G:H8	1.93	0.51
4:AD:13:ARG:O	4:AD:14:ARG:HB3	2.08	0.51
34:DN:18:ALA:CB	34:DN:26:LEU:HD13	2.41	0.51
30:BF:65:TRP:CH2	30:BF:72:ARG:HB2	2.45	0.51
30:BF:152:GLU:CD	30:BF:191:ARG:HD2	2.30	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:DS:36:TYR:HA	39:DS:52:SER:HA	1.91	0.51
1:CA:1030(B):C:H6	1:CA:1030(B):C:O5'	1.92	0.51
27:DC:137:LEU:HD12	27:DC:137:LEU:N	2.25	0.51
48:B1:45:ASN:ND2	48:B1:47:GLN:NE2	2.57	0.51
36:BP:24:GLY:N	36:BP:33:ARG:CZ	2.73	0.51
3:AC:134:ILE:CG2	3:AC:151:VAL:HB	2.35	0.51
12:CL:110:ARG:CZ	12:CL:117:TYR:HE1	2.23	0.51
35:DO:90:GLN:O	35:DO:91:LEU:HB2	2.10	0.51
43:DW:58:ALA:HB1	43:DW:64:MET:SD	2.50	0.51
27:BC:69:LEU:HD11	27:BC:162:ILE:HG23	1.92	0.51
34:DN:111:PRO:HA	34:DN:114:ARG:CZ	2.40	0.51
1:AA:939:G:C5'	7:AG:102:ARG:HH12	2.18	0.51
38:DR:24:GLN:NE2	38:DR:36:THR:HG21	2.25	0.51
4:CD:78:LEU:O	4:CD:81:GLU:HB3	2.09	0.51
25:BA:2159:G:N3	25:BA:2159:G:C3'	2.72	0.51
26:BB:56:G:C5'	31:BG:27:ASN:ND2	2.72	0.51
25:BA:2620:C:OP1	29:BE:152:LYS:O	2.29	0.51
25:BA:2617:C:C2'	25:BA:2618:G:H5'	2.41	0.51
25:BA:320:A:H2'	30:BF:136:THR:HG21	1.92	0.51
37:BQ:17:LEU:HD21	37:BQ:41:TRP:HE1	1.75	0.51
25:DA:323:G:C2'	30:DF:169:ASN:ND2	2.74	0.51
43:BW:8:ARG:HB3	43:BW:9:TYR:CD1	2.45	0.51
1:CA:676:A:O2'	1:CA:677:U:H5'	2.09	0.51
54:B7:47:ARG:C	54:B7:48:LYS:HD3	2.30	0.51
38:DR:59:ASP:OD2	38:DR:62:ALA:HB3	2.09	0.51
34:BN:57:ALA:O	34:BN:58:ASP:C	2.47	0.51
3:AC:175:LEU:HD21	3:AC:201:TYR:HE2	1.75	0.51
25:BA:233:A:C2'	25:BA:234:C:H5'	2.41	0.51
8:CH:134:ILE:O	8:CH:135:CYS:HB3	2.10	0.51
1:AA:146:G:H2'	1:AA:146:G:N3	2.26	0.51
25:BA:1820:U:H4'	25:BA:1821:A:OP2	2.10	0.51
19:CS:53:ASN:OD1	19:CS:56:GLN:O	2.28	0.51
1:CA:189(D):C:H3'	1:CA:189(E):U:C5	2.44	0.51
25:BA:327:G:O2'	25:BA:328:U:H5'	2.10	0.51
1:CA:359:U:H2'	1:CA:360:A:H8	1.74	0.51
51:D4:58:TYR:O	51:D4:59:VAL:HG23	2.09	0.51
1:CA:303:A:OP1	12:CL:14:LYS:HE3	2.10	0.51
25:DA:2432:A:C6	48:D1:33:LYS:HB3	2.45	0.51
26:BB:37:C:O2	39:BS:95:HIS:NE2	2.43	0.51
39:BS:34:HIS:CE1	39:BS:54:LEU:CB	2.94	0.51
7:AG:15:ASP:OD2	7:AG:16:LEU:N	2.44	0.51
9:AI:6:GLY:O	9:AI:80:GLY:HA2	2.10	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:157:U:C4	25:BA:158:U:C4	2.99	0.51
50:D3:6:VAL:HB	50:D3:54:VAL:HG11	1.90	0.51
34:DN:87:LEU:O	34:DN:91:LEU:HG	2.10	0.51
42:DV:89:GLN:OE1	42:DV:90:PRO:HD2	2.10	0.51
25:DA:863:A:H2'	25:DA:864:G:C8	2.44	0.51
25:DA:2103:C:C2'	25:DA:2104:G:H5''	2.40	0.51
25:DA:2189:U:C2'	25:DA:2190:G:H5''	2.41	0.51
45:DY:47:LYS:CD	45:DY:47:LYS:N	2.72	0.51
29:DE:52:LEU:HD22	29:DE:76:ARG:HD2	1.91	0.51
30:BF:5:ALA:N	30:BF:18:ARG:O	2.43	0.51
22:CV:110:ALA:CB	22:CV:123:THR:O	2.58	0.51
22:CV:110:ALA:HB2	22:CV:125:PRO:CD	2.39	0.51
3:AC:70:VAL:CG1	3:AC:71:ALA:N	2.73	0.51
30:DF:155:LEU:HD22	30:DF:185:ASP:O	2.10	0.51
36:DP:16:ARG:CB	36:DP:16:ARG:NH1	2.68	0.51
8:CH:7:ALA:HB2	8:CH:85:ARG:NH1	2.25	0.51
25:BA:1593:G:H2'	25:BA:1594:G:H5''	1.91	0.51
25:DA:287:C:H42	25:DA:354:G:H1	1.57	0.51
25:BA:2635:C:OP1	29:BE:77:ILE:HG21	2.09	0.51
29:BE:68:ALA:C	29:BE:70:ALA:N	2.63	0.51
55:B8:47:LYS:C	55:B8:48:PHE:O	2.46	0.51
3:CC:19:GLU:HA	3:CC:54:ARG:NH2	2.22	0.51
25:BA:1018:C:C2'	25:BA:1019:U:H5'	2.41	0.51
25:DA:1409:C:H2'	25:DA:1410:G:C8	2.46	0.51
1:AA:9:G:C2	1:AA:26:A:C2	2.98	0.51
23:CW:2:G:H5''	47:D0:8:GLY:HA2	1.92	0.51
30:DF:131:GLY:CA	30:DF:138:GLU:HB3	2.40	0.51
32:BH:127:GLU:O	32:BH:129:THR:N	2.43	0.51
10:CJ:37:PRO:HA	10:CJ:72:VAL:CG2	2.35	0.51
31:BG:75:LYS:O	31:BG:76:SER:HB3	2.10	0.51
1:AA:44:G:OP2	16:AP:12:LYS:HE3	2.10	0.51
25:DA:2070:G:H2'	25:DA:2071:A:O4'	2.09	0.51
3:CC:134:ILE:C	3:CC:136:GLN:N	2.64	0.51
46:BZ:107:PRO:HD3	46:BZ:140:VAL:HG22	1.91	0.51
40:DT:115:ARG:NE	40:DT:115:ARG:HA	2.19	0.51
26:BB:9:G:OP1	39:BS:17:ARG:NH1	2.43	0.51
1:AA:939:G:H5''	7:AG:102:ARG:CZ	2.40	0.51
6:CF:44:GLY:O	6:CF:59:TYR:HA	2.09	0.51
25:DA:2808:U:C2	25:DA:2892:A:N6	2.78	0.51
1:CA:1256:A:H61	1:CA:1278:U:H1'	1.75	0.51
25:DA:1964:G:H4'	25:DA:1965:C:OP2	2.09	0.51
5:CE:35:GLY:N	5:CE:112:LEU:HD12	2.25	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BR:74:LYS:HE3	38:BR:77:ARG:HH21	1.72	0.51
30:BF:176:LEU:HG	30:BF:177:ALA:O	2.11	0.51
19:AS:22:LEU:HD12	19:AS:27:GLU:CB	2.41	0.51
1:AA:512:U:H2'	1:AA:513:C:H6	1.70	0.51
1:AA:538:G:H2'	1:AA:539:A:H8	1.74	0.51
3:AC:44:GLU:HA	3:AC:52:LEU:HD11	1.92	0.51
31:BG:133:LEU:HD23	31:BG:157:ILE:O	2.10	0.51
19:AS:29:ARG:HD2	19:AS:29:ARG:N	2.26	0.51
25:BA:1488:G:C6	25:BA:1489:U:N3	2.78	0.51
55:B8:29:LYS:HD3	55:B8:44:LYS:HG2	1.92	0.51
1:CA:645:C:H2'	1:CA:646:U:C6	2.41	0.51
16:AP:9:PHE:HE2	16:AP:18:ARG:CD	2.21	0.51
1:CA:1074:G:O2'	1:CA:1075:C:H5'	2.09	0.51
11:CK:27:ASN:ND2	11:CK:55:LYS:CE	2.72	0.51
25:DA:2346:A:C8	25:DA:2383:G:C4	2.99	0.51
25:BA:16:G:H2'	25:BA:17:G:H8	1.76	0.51
5:AE:152:ARG:HD3	8:AH:42:GLU:O	2.10	0.51
14:AN:34:TYR:CD1	14:AN:34:TYR:N	2.78	0.51
5:CE:47:LYS:HD2	5:CE:47:LYS:N	2.26	0.51
2:AB:164:VAL:HB	2:AB:186:ALA:HB2	1.92	0.51
1:CA:590:C:H2'	1:CA:591:U:C6	2.44	0.51
49:D2:22:GLU:O	49:D2:23:LYS:C	2.47	0.51
41:DU:8:VAL:HG12	41:DU:12:ARG:HG2	1.92	0.51
20:AT:38:LYS:HA	20:AT:41:ILE:CG1	2.40	0.51
25:DA:678:C:H2'	25:DA:679:C:C6	2.45	0.51
9:AI:15:ALA:HB2	9:AI:65:VAL:CG2	2.39	0.51
1:CA:189(D):C:H3'	1:CA:189(E):U:C6	2.45	0.51
30:DF:47:GLY:O	30:DF:94:PRO:HA	2.10	0.51
3:AC:150:LYS:HG3	3:AC:169:ALA:HB2	1.92	0.51
25:DA:1904:G:H2'	25:DA:1905:C:O4'	2.10	0.51
25:DA:2276:G:C2	25:DA:2277:G:C8	2.98	0.51
41:BU:110:VAL:O	41:BU:114:LYS:HG2	2.10	0.51
19:CS:17:GLU:O	19:CS:21:GLU:HG3	2.10	0.51
22:CV:79:GLU:HG2	22:CV:94:PRO:HA	1.93	0.51
19:CS:24:ALA:O	19:CS:25:LYS:HB2	2.09	0.51
25:DA:715:G:O2'	25:DA:716:A:H5'	2.10	0.51
1:CA:1474:G:H4'	25:DA:1701:A:C2	2.45	0.51
1:CA:572:A:H5''	1:CA:917:G:H4'	1.92	0.51
25:BA:10:G:H2'	25:BA:10:G:N3	2.25	0.51
20:AT:24:LEU:O	20:AT:24:LEU:HD22	2.10	0.51
35:DO:13:ASN:ND2	35:DO:96:THR:OG1	2.44	0.51
4:AD:141:ARG:HB3	4:AD:142:PRO:CD	2.41	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BP:40:SER:C	36:BP:41:ARG:HD2	2.29	0.51
9:AI:17:VAL:HG21	9:AI:80:GLY:C	2.31	0.51
46:DZ:34:ARG:O	46:DZ:36:VAL:HG13	2.10	0.51
41:DU:104:GLN:NE2	41:DU:104:GLN:H	2.08	0.51
42:DV:35:LEU:O	42:DV:37:VAL:N	2.43	0.51
25:DA:966:G:H1'	25:DA:2267:A:N6	2.25	0.51
25:DA:2184:G:H21	25:DA:2185:C:N4	1.99	0.51
30:BF:40:GLN:NE2	30:BF:182:ASN:HB2	2.25	0.51
2:CB:133:LYS:O	2:CB:137:ARG:N	2.43	0.51
30:DF:3:GLU:HB3	30:DF:20:LEU:O	2.10	0.51
53:B6:36:LEU:HD23	53:B6:36:LEU:N	2.26	0.51
53:B6:15:GLU:OE2	53:B6:41:PRO:CB	2.58	0.51
53:B6:41:PRO:HG3	53:B6:49:HIS:CE1	2.45	0.51
36:DP:61:ARG:HH11	55:D8:13:ARG:HD2	1.76	0.51
2:AB:217:ARG:HA	2:AB:220:ASP:OD2	2.10	0.51
4:AD:173:TRP:HB3	4:AD:187:ARG:HH11	1.75	0.51
2:AB:111:ARG:HH21	2:AB:114:ARG:HG2	1.75	0.51
1:AA:708:C:H2'	1:AA:709:G:C8	2.45	0.51
10:AJ:40:LEU:H	10:AJ:40:LEU:CD2	2.19	0.51
4:AD:13:ARG:HH11	4:AD:13:ARG:HG3	1.74	0.51
1:CA:1059:C:H2'	1:CA:1060:C:H6	1.74	0.51
46:DZ:143:LEU:N	46:DZ:143:LEU:HD22	2.25	0.51
46:DZ:149:LEU:HD23	46:DZ:170:ILE:HD11	1.92	0.51
42:BV:21:ARG:HA	42:BV:92:THR:O	2.11	0.51
37:BQ:29:PHE:HD2	37:BQ:65:PHE:CE1	2.29	0.51
25:DA:856:C:O2'	47:D0:69:PHE:CE1	2.59	0.51
39:DS:20:ARG:HH11	39:DS:20:ARG:CG	2.22	0.51
25:BA:2052:G:H4'	29:BE:143:ASN:O	2.10	0.51
1:AA:850:U:H2'	1:AA:851:G:H8	1.75	0.51
25:DA:2031:A:C6	25:DA:2498:C:H1'	2.45	0.51
25:DA:528:A:O2'	25:DA:529:A:H5'	2.10	0.51
20:AT:26:ASN:ND2	20:AT:27:LYS:N	2.56	0.51
1:CA:624:C:H4'	16:CP:10:GLY:O	2.11	0.51
1:AA:42:G:H2'	1:AA:43:C:C6	2.45	0.51
18:AR:66:LEU:O	18:AR:69:THR:HB	2.10	0.51
55:D8:36:LYS:O	55:D8:37:SER:C	2.48	0.51
25:BA:538:G:C2'	25:BA:539:G:C5'	2.88	0.51
56:B9:9:ARG:CB	56:B9:9:ARG:NH1	2.72	0.51
44:BX:8:ILE:HD11	44:BX:43:VAL:CG2	2.34	0.51
12:AL:43:LYS:NZ	12:AL:44:LYS:HB2	2.25	0.51
29:DE:101:ARG:HB3	29:DE:169:ASN:ND2	2.25	0.51
38:BR:117:VAL:CG1	38:BR:118:GLU:N	2.72	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DC:96:GLY:HA3	27:DC:100:ILE:HB	1.92	0.51
31:BG:16:ARG:NH1	31:BG:31:VAL:HG11	2.25	0.51
25:DA:1799:G:C5'	25:DA:1819:A:N6	2.72	0.51
40:BT:92:GLY:O	40:BT:93:ARG:HB3	2.10	0.51
1:AA:734:G:N2	18:AR:75:ILE:HD11	2.22	0.51
17:CQ:12:SER:HA	17:CQ:14:LYS:NZ	2.25	0.51
25:BA:2562:U:H1'	35:BO:23:ARG:HD3	1.92	0.51
25:BA:1028:A:H61	25:BA:1125:G:H2'	1.74	0.51
15:AO:10:LYS:HG3	15:AO:11:VAL:N	2.24	0.51
18:AR:53:ARG:HE	18:AR:59:SER:C	2.13	0.51
25:DA:1569:A:O2'	28:DD:38:LYS:HG3	2.11	0.51
25:BA:2721:A:H2'	25:BA:2722:G:O4'	2.11	0.51
25:BA:2623:G:H5'	25:BA:2826:A:O2'	2.11	0.51
5:AE:150:ARG:CG	5:AE:150:ARG:HH11	2.23	0.51
48:B1:20:ARG:O	48:B1:21:ARG:HG2	2.10	0.51
25:BA:2540:C:O2	25:BA:2740:A:H2	1.93	0.51
34:BN:75:TYR:HA	34:BN:81:GLY:O	2.11	0.51
1:CA:1490:C:O2'	1:CA:1491:G:H5'	2.11	0.51
26:BB:25:A:H2'	26:BB:26:A:O4'	2.10	0.51
25:BA:1469:A:O2'	25:BA:1470:G:H5'	2.10	0.51
48:B1:12:PRO:HB3	48:B1:44:PRO:HD3	1.92	0.51
30:DF:174:VAL:HG12	30:DF:174:VAL:O	2.11	0.51
25:DA:510:C:H3'	25:DA:510:C:OP1	2.10	0.51
1:CA:1360:A:H8	1:CA:1360:A:OP1	1.94	0.51
26:BB:44:G:C2	26:BB:48:A:C2	2.99	0.51
39:BS:58:LEU:O	39:BS:59:LYS:O	2.29	0.51
9:AI:43:ALA:C	9:AI:45:ALA:H	2.12	0.51
46:DZ:29:ASN:HB2	46:DZ:88:PHE:CE2	2.46	0.51
2:CB:28:PHE:CB	2:CB:194:PRO:HD3	2.36	0.51
2:CB:67:THR:O	2:CB:68:ILE:HD13	2.09	0.51
41:DU:62:ILE:HD12	41:DU:76:TYR:OH	2.10	0.51
41:DU:92:ARG:CD	41:DU:94:ASN:HB3	2.41	0.51
42:DV:19:LYS:HZ3	42:DV:20:LEU:CA	2.23	0.51
25:DA:2105:C:C2'	25:DA:2106:G:C5'	2.87	0.51
44:DX:26:TYR:O	44:DX:81:VAL:N	2.38	0.51
7:CG:99:LEU:HD22	7:CG:103:TRP:CH2	2.46	0.51
13:AM:86:CYS:HA	19:AS:73:GLU:O	2.09	0.51
45:DY:36:ALA:HA	45:DY:69:ALA:N	2.26	0.51
1:AA:191:G:H1'	20:AT:105:SER:HB3	1.91	0.51
53:D6:40:CYS:CA	53:D6:46:HIS:HB2	2.41	0.51
36:BP:16:ARG:CZ	36:BP:18:ARG:CG	2.88	0.51
46:BZ:164:VAL:HG12	46:BZ:165:SER:H	1.76	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:D8:60:LEU:C	55:D8:61:LEU:HD13	2.30	0.51
53:B6:15:GLU:O	53:B6:16:CYS:HB2	2.10	0.51
2:AB:35:GLU:HG3	2:AB:40:HIS:CD2	2.45	0.51
25:BA:2476:A:N1	25:BA:2477:C:C4	2.78	0.51
28:DD:43:ARG:HB2	28:DD:54:ARG:HB2	1.90	0.51
3:CC:124:ILE:HG22	3:CC:125:GLU:N	2.23	0.51
22:CV:71:GLN:HE21	22:CV:72:TYR:N	1.98	0.51
15:CO:63:ARG:HG3	15:CO:64:ARG:N	2.24	0.51
40:DT:10:VAL:O	40:DT:13:ARG:NH2	2.43	0.51
1:CA:1221:G:O2'	1:CA:1222:G:H5'	2.09	0.51
1:AA:532:A:H3'	1:AA:533:A:H5''	1.91	0.51
27:DC:114:VAL:HG21	27:DC:132:LEU:HD11	1.93	0.51
20:CT:82:SER:O	20:CT:86:ARG:CB	2.52	0.51
1:CA:457:C:O2'	1:CA:458:C:H5'	2.10	0.51
10:CJ:85:LEU:O	10:CJ:87:THR:N	2.43	0.51
12:CL:74:LEU:HD21	12:CL:104:ALA:CA	2.40	0.51
25:DA:2485:G:O2'	25:DA:2486:G:H5'	2.10	0.51
31:BG:36:LYS:HD3	31:BG:95:ARG:HH12	1.76	0.51
34:BN:129:PRO:HG2	34:BN:130:HIS:H	1.76	0.51
50:D3:59:VAL:HG12	50:D3:60:GLU:N	2.26	0.51
44:BX:9:LEU:HD11	44:BX:31:HIS:HA	1.92	0.51
22:AV:111:LEU:O	22:AV:122:VAL:HA	2.11	0.51
30:BF:132:VAL:O	30:BF:133:ASN:C	2.49	0.51
31:BG:20:ILE:O	31:BG:24:GLY:N	2.44	0.51
31:BG:108:ASN:O	31:BG:112:PRO:HG2	2.11	0.51
7:CG:79:ARG:HD3	7:CG:81:GLY:H	1.75	0.51
4:AD:133:VAL:HG13	4:AD:135:LEU:HD23	1.91	0.51
25:BA:729:G:H5'	25:BA:730:C:H5''	1.93	0.51
12:AL:107:VAL:HG21	12:AL:117:TYR:CD2	2.43	0.51
1:AA:948:C:O2'	1:AA:949:A:H5'	2.10	0.51
1:AA:688:G:H2'	1:AA:689:C:H6	1.73	0.51
1:AA:384:G:O2'	1:AA:385:C:H5'	2.10	0.51
31:BG:39:ILE:HD11	31:BG:155:MET:CG	2.39	0.51
23:CW:62:C:H2'	23:CW:63:G:C8	2.38	0.51
25:BA:374:A:C2	25:BA:401:A:C4	2.99	0.51
5:CE:127:ASN:CB	5:CE:130:ASN:HD22	2.23	0.51
25:BA:851:U:H5'	50:B3:49:LYS:HZ2	1.75	0.51
4:AD:150:GLU:N	4:AD:150:GLU:OE1	2.44	0.51
1:AA:1009:G:O2'	1:AA:1010:G:H5'	2.11	0.51
25:DA:1316:U:H2'	25:DA:1317:A:H8	1.75	0.51
9:AI:49:PRO:HG2	9:AI:81:ILE:CG2	2.41	0.51
4:CD:105:VAL:HG21	4:CD:126:ILE:HG13	1.91	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DB:28:C:H2'	26:DB:29:A:C8	2.45	0.51
25:BA:234:C:H2'	25:BA:235:U:C6	2.46	0.51
1:AA:189(D):C:H1'	1:AA:189(H):G:N1	2.25	0.51
13:CM:83:ASP:C	13:CM:85:GLY:H	2.14	0.51
4:CD:62:GLN:HE22	4:CD:65:ARG:HE	1.58	0.51
25:BA:2552:U:H2'	25:BA:2554:U:H5''	1.92	0.51
5:CE:30:ALA:O	5:CE:45:PHE:HA	2.11	0.51
44:BX:75:ASP:O	44:BX:76:ARG:HG3	2.11	0.51
36:DP:7:ARG:HH11	36:DP:7:ARG:HG2	1.74	0.51
43:BW:47:VAL:O	43:BW:48:ALA:C	2.49	0.51
46:BZ:3:ARG:HE	46:BZ:59:GLU:HG2	1.74	0.51
25:BA:2744:G:N2	25:BA:2761:G:H1'	2.26	0.51
1:CA:1435:G:H2'	1:CA:1436:U:C6	2.44	0.51
14:AN:36:PHE:HD1	14:AN:37:PHE:N	2.09	0.51
28:DD:248:SER:HB2	28:DD:249:PRO:HD2	1.93	0.51
41:DU:21:ALA:O	41:DU:22:LYS:C	2.48	0.51
1:CA:202:U:OP2	1:CA:203:U:H5	1.92	0.51
40:DT:96:ARG:HG2	40:DT:96:ARG:HH11	1.74	0.51
44:DX:58:HIS:N	44:DX:58:HIS:CD2	2.79	0.51
25:DA:277:C:H2'	25:DA:277:C:O2	2.08	0.51
25:BA:2097:C:H2'	25:BA:2098:U:O4'	2.11	0.51
25:BA:1891:G:C6	25:BA:1892:C:C4	2.98	0.51
25:DA:1036:G:OP1	32:DH:59:ARG:HB2	2.11	0.51
1:AA:1373:G:H4'	7:AG:31:MET:CE	2.30	0.51
2:CB:69:LEU:HD22	2:CB:91:PRO:CB	2.28	0.51
26:DB:83:G:H4'	50:D3:52:HIS:CD2	2.45	0.51
25:DA:990:A:OP2	25:DA:991:C:OP2	2.29	0.51
41:DU:91:ASP:O	41:DU:93:LYS:N	2.43	0.51
42:DV:39:LEU:HD12	42:DV:50:PRO:O	2.10	0.51
26:DB:92:C:OP1	37:DQ:19:GLY:N	2.38	0.51
48:D1:73:LEU:O	48:D1:77:ALA:HB2	2.11	0.51
7:CG:29:LYS:HB3	7:CG:105:VAL:HG21	1.91	0.51
9:CI:16:ARG:O	9:CI:63:ILE:HG23	2.10	0.51
25:BA:995:C:C5	41:BU:57:PHE:HE1	2.28	0.51
31:DG:180:PHE:O	31:DG:182:LYS:N	2.44	0.51
25:DA:1359:A:N7	25:DA:1372:U:O4	2.43	0.51
29:DE:68:ALA:O	29:DE:70:ALA:N	2.43	0.51
25:DA:1109:C:C5	25:DA:1110:G:N3	2.79	0.51
25:DA:2686:G:C2	25:DA:2724:C:O2	2.63	0.51
2:AB:210:SER:O	2:AB:214:ILE:HG12	2.11	0.51
2:AB:30:ARG:HG3	2:AB:31:TYR:CE2	2.46	0.51
2:AB:57:PHE:O	2:AB:60:ASP:HB3	2.10	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:CT:13:LEU:C	20:CT:13:LEU:HD12	2.31	0.51
40:BT:85:LYS:HE3	40:BT:85:LYS:O	2.10	0.51
29:BE:33:VAL:HG23	29:BE:47:VAL:HG13	1.93	0.51
13:AM:23:TYR:HD1	13:AM:67:GLU:HA	1.75	0.51
1:AA:542:G:H5'	4:AD:41:GLY:HA2	1.91	0.51
22:CV:83:MET:HE1	22:CV:88:TYR:HB3	1.92	0.51
25:BA:38:A:H2'	25:BA:39:C:C6	2.46	0.51
46:BZ:97:MET:O	46:BZ:124:LEU:HD12	2.10	0.51
33:BI:49:ALA:O	33:BI:53:ALA:HB2	2.11	0.51
32:BH:111:HIS:CG	32:BH:112:PRO:HD2	2.44	0.51
25:BA:2513:G:N2	29:BE:143:ASN:ND2	2.49	0.51
27:DC:45:HIS:CE1	27:DC:173:HIS:HD1	2.29	0.51
13:AM:57:ARG:NH1	13:AM:57:ARG:HB3	2.25	0.51
25:BA:2286:A:H8	25:BA:2287:A:C6	2.28	0.51
8:AH:85:ARG:C	8:AH:85:ARG:HD3	2.29	0.51
46:BZ:140:VAL:O	46:BZ:143:LEU:HD23	2.11	0.51
18:AR:70:ILE:O	18:AR:74:ARG:HG3	2.11	0.51
1:AA:99:U:H2'	1:AA:100:C:C5	2.45	0.51
32:DH:46:GLU:CG	32:DH:46:GLU:O	2.59	0.51
44:BX:72:LYS:N	44:BX:72:LYS:HD2	2.24	0.51
6:AF:1:MET:H1	6:AF:68:PRO:HA	1.75	0.51
28:DD:81:ALA:HA	28:DD:113:VAL:CG1	2.35	0.51
25:DA:1497:U:C5'	25:DA:1498:C:C5	2.93	0.51
45:DY:87:LYS:HG3	45:DY:88:LYS:N	2.25	0.51
1:AA:1074:G:O2'	2:AB:103:THR:CG2	2.57	0.51
17:AQ:89:LEU:O	17:AQ:92:ARG:HB3	2.10	0.51
37:DQ:63:LYS:HZ3	37:DQ:63:LYS:HB2	1.75	0.51
1:AA:1175:G:O2'	1:AA:1176:A:H5'	2.11	0.51
8:CH:89:PRO:HA	8:CH:92:ARG:HD2	1.91	0.51
25:DA:1451:C:H5'	25:DA:1452:A:C5'	2.37	0.51
22:AV:98:VAL:HA	22:AV:122:VAL:HB	1.92	0.51
29:DE:116:VAL:HG21	29:DE:122:PHE:CE2	2.45	0.51
25:DA:456:C:C2	44:DX:69:TYR:HE2	2.29	0.51
37:DQ:78:PRO:O	37:DQ:81:VAL:HG12	2.09	0.51
25:BA:2171:A:HO2'	25:BA:2172:U:P	2.34	0.51
34:BN:133:GLN:O	34:BN:134:ARG:HB3	2.10	0.51
40:BT:23:ARG:HG2	40:BT:120:ARG:NH1	2.24	0.51
2:AB:173:ALA:O	2:AB:176:GLU:N	2.43	0.51
1:CA:640:A:H2'	1:CA:641:U:O4'	2.09	0.51
25:DA:2552:U:H2'	25:DA:2554:U:H5''	1.91	0.51
25:DA:2439:A:H5'	25:DA:2439:A:H8	1.72	0.51
25:BA:233:A:H2'	25:BA:234:C:H5'	1.92	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1406:U:H3'	25:DA:1407:C:C6	2.45	0.51
25:BA:795:C:H2'	25:BA:796:C:C6	2.45	0.51
25:BA:582:G:H2'	25:BA:583:G:H8	1.74	0.51
25:BA:1164:G:H2'	25:BA:1165:U:C6	2.46	0.51
1:CA:860:A:H2'	1:CA:861:G:O4'	2.10	0.51
31:DG:167:GLU:C	31:DG:169:ALA:N	2.62	0.51
35:DO:34:THR:HG22	35:DO:37:ASP:OD2	2.10	0.51
43:DW:52:GLU:HA	43:DW:52:GLU:OE2	2.10	0.51
56:B9:22:ARG:HB2	56:B9:24:TYR:HE1	1.76	0.51
25:DA:579:G:H2'	25:DA:580:C:C6	2.44	0.51
32:DH:125:VAL:O	32:DH:125:VAL:HG12	2.09	0.51
25:DA:1763:G:OP1	25:DA:1763:G:H4'	2.10	0.51
25:DA:2827:C:O5'	25:DA:2827:C:H6	1.93	0.51
25:DA:524:U:H2'	25:DA:524:U:O2	2.10	0.51
1:CA:314:C:O2'	1:CA:315:A:H5'	2.09	0.51
25:BA:1954:G:C2	25:BA:2551:C:H5''	2.46	0.51
1:AA:1245:A:H2'	1:AA:1246:C:O4'	2.10	0.51
25:BA:154(A):C:H2'	25:BA:157:U:O4'	2.09	0.51
46:DZ:47:PHE:CE2	46:DZ:51:SER:HA	2.46	0.51
46:DZ:55:VAL:CG1	46:DZ:56:ILE:N	2.74	0.51
25:DA:543:C:H6	25:DA:543:C:O5'	1.93	0.51
41:DU:61:TRP:C	41:DU:63:VAL:H	2.14	0.51
42:DV:69:LYS:HA	42:DV:87:HIS:O	2.10	0.51
1:CA:1238:A:N1	1:CA:1303:C:H4'	2.26	0.51
41:BU:61:TRP:CB	41:BU:93:LYS:HB3	2.41	0.51
2:CB:134:GLU:HA	2:CB:137:ARG:CB	2.36	0.51
31:DG:125:PHE:HZ	31:DG:180:PHE:CE2	2.29	0.51
1:AA:952:U:O2'	1:AA:953:G:H5'	2.11	0.51
25:BA:1171:G:H1	25:BA:1178:C:H42	1.58	0.51
45:DY:46:LYS:HB3	45:DY:47:LYS:NZ	2.26	0.51
29:DE:89:ASP:O	29:DE:90:THR:HB	2.10	0.51
1:AA:346:G:N3	1:AA:346:G:C2'	2.74	0.51
1:AA:222:U:H2'	1:AA:223:U:C6	2.45	0.51
3:AC:105:GLU:CG	3:AC:106:VAL:N	2.74	0.51
45:BY:27:VAL:C	45:BY:28:LYS:NZ	2.64	0.51
3:CC:89:GLU:HG3	3:CC:90:GLU:CD	2.30	0.51
30:DF:59:TYR:CD2	30:DF:78:ILE:HG12	2.46	0.51
13:AM:3:ARG:CG	13:AM:9:ILE:HD11	2.37	0.51
53:B6:20:ASN:O	53:B6:21:TYR:CG	2.64	0.51
29:BE:48:GLN:CG	29:BE:78:LEU:HD13	2.40	0.51
13:AM:45:VAL:HA	13:AM:48:LEU:HD11	1.93	0.51
40:DT:84:GLN:OE1	40:DT:86:ILE:HG22	2.11	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:271(F):C:O2'	25:DA:271(G):C:H5'	2.10	0.51
36:BP:6:LEU:CB	36:BP:9:ASN:ND2	2.74	0.51
30:DF:158:THR:OG1	30:DF:159:GLY:N	2.44	0.51
1:AA:373:A:C2	1:AA:482:A:N6	2.79	0.51
25:DA:1686:C:H2'	25:DA:1687:G:C5'	2.40	0.51
45:BY:17:SER:OG	45:BY:18:GLY:N	2.42	0.51
56:B9:9:ARG:CB	56:B9:9:ARG:HH11	2.23	0.51
6:AF:12:PRO:HG2	6:AF:13:ASN:OD1	2.10	0.51
4:CD:64:LEU:HD12	4:CD:64:LEU:O	2.10	0.51
1:AA:1279:A:N6	3:AC:26:LYS:NZ	2.57	0.51
38:BR:41:ALA:HB1	38:BR:114:VAL:CG2	2.40	0.51
8:CH:97:VAL:O	8:CH:99:GLU:N	2.44	0.51
31:BG:172:LEU:HD23	31:BG:173:LEU:N	2.26	0.51
4:AD:134:ASP:N	4:AD:134:ASP:OD2	2.39	0.51
4:AD:88:VAL:HG22	5:AE:96:PRO:HB2	1.91	0.51
39:DS:74:ALA:HB1	39:DS:103:GLU:HB2	1.91	0.51
27:BC:186:LEU:O	27:BC:190:ILE:HG13	2.10	0.51
36:DP:90:ARG:HD2	36:DP:91:PHE:HD1	1.75	0.51
1:AA:1086:U:O2'	1:AA:1087:G:H5'	2.10	0.51
47:B0:48:LYS:O	47:B0:50:VAL:HG23	2.11	0.51
26:DB:45:A:H1'	31:DG:95:ARG:CZ	2.41	0.51
28:DD:75:ILE:HD13	28:DD:99:ASP:HB2	1.93	0.51
25:BA:1657:C:O2'	25:BA:1658:C:H5'	2.10	0.51
25:BA:78:A:H2'	25:BA:79:G:H8	1.76	0.51
1:AA:1228:C:OP1	13:AM:115:LYS:HE3	2.11	0.51
4:AD:162:LEU:HD12	4:AD:181:MET:HE2	1.93	0.51
25:DA:719:C:C2'	25:DA:720:C:H5'	2.40	0.51
32:BH:149:ARG:HD3	32:BH:164:TYR:HD1	1.72	0.51
44:BX:70:LEU:HD12	44:BX:70:LEU:H	1.74	0.51
25:BA:2549:G:H1	25:BA:2559:C:N4	2.08	0.51
25:BA:1677:A:H2'	25:BA:1678:G:O4'	2.10	0.51
42:DV:99:ILE:N	42:DV:99:ILE:HD13	2.25	0.51
25:BA:1791:A:H5'	25:BA:1792:G:OP2	2.10	0.51
25:BA:2016:U:O2	52:B5:7:PRO:HG2	2.11	0.51
1:CA:250:A:H4'	1:CA:251:G:O5'	2.10	0.51
25:DA:686:G:N7	54:D7:5:TRP:CH2	2.79	0.51
32:DH:64:LEU:O	32:DH:66:GLY:N	2.39	0.51
3:AC:179:ARG:O	3:AC:206:GLU:HA	2.10	0.51
1:CA:745:C:H2'	1:CA:746:A:C8	2.46	0.51
1:AA:139:G:H2'	1:AA:140:A:C8	2.45	0.51
25:DA:277:C:C2'	25:DA:277:C:O2	2.59	0.51
1:CA:102:G:O2'	1:CA:103:C:H5'	2.11	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2587:A:N6	25:DA:2608:G:H1'	2.26	0.51
1:AA:1444:C:C2'	1:AA:1445:C:H5'	2.40	0.51
1:CA:336:C:O2'	1:CA:337:C:H5'	2.10	0.51
7:AG:31:MET:SD	7:AG:35:LYS:N	2.84	0.51
2:CB:52:GLU:HB2	2:CB:56:ARG:NH1	2.24	0.51
41:DU:62:ILE:HG22	41:DU:62:ILE:O	2.10	0.51
1:CA:981:U:O5'	1:CA:981:U:H6	1.94	0.51
29:DE:61:ARG:CB	29:DE:62:PRO:HD3	2.40	0.51
45:BY:27:VAL:HG12	45:BY:29:GLU:H	1.74	0.51
46:BZ:66:LEU:HD23	46:BZ:89:VAL:CG1	2.40	0.51
1:AA:20:U:H2'	1:AA:21:G:O4'	2.10	0.51
53:D6:44:ARG:O	53:D6:45:LYS:CG	2.58	0.51
25:BA:274:G:H22	25:BA:363:G:N2	2.08	0.51
25:BA:2401:U:OP1	53:B6:19:ARG:NH2	2.44	0.51
36:BP:125:VAL:HG23	36:BP:130:PHE:CZ	2.45	0.51
2:AB:44:LEU:CD1	2:AB:44:LEU:H	2.13	0.51
50:D3:13:ILE:N	50:D3:13:ILE:HD12	2.07	0.51
40:BT:64:ARG:HG2	40:BT:64:ARG:HH11	1.75	0.51
43:DW:106:ILE:HG13	43:DW:106:ILE:O	2.11	0.51
13:AM:94:ARG:O	13:AM:96:LEU:N	2.43	0.51
55:B8:21:LYS:HD3	55:B8:48:PHE:HE2	1.75	0.51
42:BV:64:HIS:ND1	42:BV:92:THR:CG2	2.73	0.51
8:AH:11:THR:O	8:AH:15:ASN:ND2	2.44	0.51
46:BZ:124:LEU:HG	46:BZ:163:ALA:HB3	1.93	0.51
25:DA:2876:G:P	40:DT:4:GLY:H	2.33	0.51
25:BA:616:G:N2	25:BA:618:C:H1'	2.26	0.51
1:CA:1033:G:H2'	1:CA:1034:G:H5''	1.93	0.51
30:DF:158:THR:O	30:DF:178:PRO:HD2	2.10	0.51
30:DF:160:ASN:ND2	30:DF:160:ASN:C	2.64	0.51
25:DA:1686:C:O2'	25:DA:1687:G:H5'	2.10	0.51
22:AV:138:GLY:O	22:AV:163:LEU:HD22	2.11	0.51
5:CE:81:GLU:HB3	5:CE:88:LYS:HZ1	1.74	0.51
25:BA:528:A:C2	25:BA:2043:C:C5'	2.92	0.51
25:DA:2470:G:O6	25:DA:2480:C:N3	2.43	0.51
5:CE:26:PHE:O	5:CE:27:ARG:CB	2.59	0.51
25:DA:328:U:H4'	45:DY:68:HIS:CD2	2.45	0.51
28:DD:33:LEU:CD2	28:DD:102:LYS:HZ2	2.23	0.51
42:BV:5:VAL:CG2	42:BV:6:LYS:N	2.72	0.51
11:CK:82:VAL:HG22	11:CK:98:LEU:HD12	1.93	0.51
4:AD:3:ARG:O	4:AD:5:ILE:HG13	2.11	0.51
1:AA:613:C:H2'	1:AA:614:A:O4'	2.11	0.51
25:BA:278:A:H1'	25:BA:362:U:O2	2.10	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
55:B8:51:ALA:CA	55:B8:54:GLU:OE2	2.59	0.51
51:B4:51:TYR:N	51:B4:51:TYR:CD1	2.78	0.51
55:D8:49:VAL:HG23	55:D8:53:PRO:HB3	1.91	0.51
1:AA:1124:G:O2'	10:AJ:38:ILE:HG21	2.11	0.51
25:DA:2068:U:N3	25:DA:2430:A:H2	2.03	0.51
8:CH:63:LEU:HD22	8:CH:63:LEU:N	2.26	0.51
8:CH:20:TYR:HA	8:CH:65:TYR:CE2	2.45	0.51
1:AA:513:C:O2'	1:AA:514:C:H5'	2.11	0.51
11:CK:44:SER:N	11:CK:47:VAL:CG2	2.73	0.51
25:DA:843:G:HO2'	25:DA:844:C:H5'	1.75	0.51
5:AE:28:PHE:O	5:AE:47:LYS:HA	2.10	0.51
7:AG:79:ARG:HG3	7:AG:79:ARG:NH1	2.23	0.51
28:DD:45:ASN:HB2	28:DD:46:GLN:OE1	2.11	0.51
25:DA:251:A:H5'	36:DP:51:PHE:HE2	1.75	0.51
55:B8:39:LYS:O	55:B8:43:GLN:HG3	2.11	0.51
1:CA:60:A:H4'	1:CA:61:G:O5'	2.11	0.51
1:CA:647:C:O2'	1:CA:648:A:H5'	2.10	0.51
25:BA:2092:U:C5	25:BA:2226:C:OP2	2.61	0.51
42:BV:76:LYS:HB3	42:BV:79:VAL:HG11	1.93	0.51
43:BW:33:ARG:NE	43:BW:52:GLU:OE1	2.43	0.51
25:BA:2567:G:H2'	25:BA:2568:C:C6	2.45	0.51
1:CA:724:G:O2'	1:CA:725:G:H5'	2.11	0.51
12:AL:15:VAL:O	12:AL:16:ARG:HB3	2.10	0.51
53:D6:9:LEU:O	53:D6:25:LYS:HA	2.11	0.51
8:CH:31:PHE:CZ	8:CH:134:ILE:HD11	2.46	0.51
8:CH:134:ILE:HG22	8:CH:135:CYS:SG	2.51	0.51
25:BA:514:A:H1'	25:BA:581:C:O2'	2.10	0.51
27:DC:165:ARG:N	27:DC:172:ILE:HD11	2.26	0.51
54:B7:34:ARG:HH21	54:B7:39:ARG:NE	2.08	0.51
25:DA:1473:G:H2'	25:DA:1474:C:C6	2.46	0.51
29:DE:26:ILE:HB	29:DE:182:LEU:HB3	1.92	0.51
5:AE:147:ASP:O	5:AE:150:ARG:HB3	2.10	0.51
25:DA:1920:C:H6	25:DA:1920:C:O5'	1.93	0.51
1:CA:1479:C:H2'	1:CA:1480:G:H8	1.76	0.51
1:CA:1228:C:H4'	13:CM:116:THR:H	1.75	0.51
45:DY:16:ALA:HB1	45:DY:21:LYS:HZ3	1.75	0.51
25:DA:894:C:O2'	25:DA:895:U:H5'	2.11	0.51
25:DA:1836:C:O2'	25:DA:1837:C:H5'	2.10	0.51
25:BA:2538:C:O2'	25:BA:2539:C:H5'	2.10	0.51
12:AL:110:ARG:HH11	12:AL:110:ARG:HG2	1.76	0.51
25:BA:1445:A:N3	25:BA:1445:A:H2'	2.24	0.51
41:BU:79:PHE:CE2	41:BU:83:LEU:HD22	2.46	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:123:GLN:NE2	3:CC:133:ALA:HB1	2.25	0.51
55:B8:7:HIS:CB	55:B8:59:LYS:HE2	2.40	0.51
25:DA:542:C:H2'	25:DA:543:C:C6	2.46	0.51
50:D3:5:LYS:HE3	50:D3:34:GLU:HB3	1.92	0.51
50:D3:8:LEU:HD21	50:D3:23:LEU:HD21	1.93	0.51
25:DA:1158:C:H4'	50:D3:32:GLN:HB2	1.91	0.51
25:DA:1184:G:OP1	50:D3:30:ARG:HD2	2.11	0.51
25:DA:1187:G:H8	25:DA:1187:G:O5'	1.94	0.51
34:DN:1:MET:H3	42:DV:20:LEU:HD21	1.76	0.51
37:DQ:68:ILE:HD13	37:DQ:103:MET:HB3	1.93	0.51
19:CS:64:GLU:O	19:CS:67:VAL:CG2	2.59	0.51
7:CG:55:GLY:H	7:CG:56:GLN:HE21	1.58	0.51
9:CI:7:THR:HB	9:CI:83:ARG:HH11	1.76	0.51
25:DA:483:A:H2'	25:DA:484:C:O4'	2.11	0.51
45:DY:28:LYS:N	45:DY:28:LYS:HZ2	2.01	0.51
45:DY:42:VAL:HG12	45:DY:43:ASN:N	2.26	0.51
3:AC:31:HIS:C	3:AC:33:LEU:N	2.63	0.51
36:DP:17:LYS:C	36:DP:19:VAL:N	2.64	0.51
30:DF:57:VAL:CG1	30:DF:59:TYR:HD1	2.23	0.51
36:DP:64:LYS:C	36:DP:64:LYS:HD3	2.30	0.51
31:BG:59:GLU:O	31:BG:62:LEU:N	2.43	0.51
53:B6:19:ARG:HD3	53:B6:42:TRP:HZ2	1.75	0.51
45:BY:48:ALA:HB2	45:BY:59:GLY:O	2.10	0.51
25:DA:274:G:N3	25:DA:274:G:C3'	2.74	0.51
25:DA:958:U:OP2	37:DQ:14:ARG:NH1	2.44	0.51
10:AJ:39:PRO:CB	10:AJ:70:ARG:HG3	2.40	0.51
1:AA:542:G:OP1	4:AD:10:ARG:NH2	2.44	0.51
3:CC:15:THR:HG21	3:CC:181:ASN:HB2	1.93	0.51
40:DT:48:ILE:HG22	40:DT:49:VAL:N	2.25	0.51
39:DS:20:ARG:HH11	39:DS:20:ARG:CA	2.24	0.51
3:AC:155:GLY:O	3:AC:157:ILE:N	2.44	0.51
32:BH:89:ILE:HD12	32:BH:90:LYS:N	2.25	0.51
25:BA:2491:U:O2'	25:BA:2492:U:C5'	2.59	0.51
27:DC:117:THR:HG23	27:DC:150:ILE:HD12	1.93	0.51
5:CE:103:GLY:N	5:CE:106:PRO:HG2	2.26	0.51
3:CC:132:ARG:NH2	4:CD:47:ARG:NH2	2.58	0.51
1:CA:515:G:N2	1:CA:537:G:C4	2.79	0.51
32:DH:15:VAL:HG23	32:DH:15:VAL:O	2.09	0.51
36:DP:148:LEU:O	36:DP:149:GLU:HB2	2.11	0.51
6:CF:99:ALA:HB2	18:CR:31:LEU:HD22	1.93	0.51
4:CD:59:ARG:HH22	4:CD:66:ARG:NH2	2.09	0.51
25:DA:1300:U:H1'	25:DA:1626:G:C2	2.46	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:DE:4:ILE:HG13	29:DE:5:LEU:N	2.26	0.51
1:AA:1255:G:H5''	3:AC:26:LYS:NZ	2.26	0.51
28:DD:270:ILE:O	28:DD:271:ILE:HG23	2.11	0.51
28:DD:261:LYS:HB3	28:DD:264:LYS:HB2	1.93	0.51
6:AF:61:LEU:O	6:AF:62:TRP:HB2	2.10	0.51
1:CA:523:A:N6	12:CL:50:ARG:HH12	2.07	0.51
1:CA:135:C:C2'	1:CA:136:C:H5'	2.40	0.51
30:BF:150:GLY:HA2	30:BF:172:TRP:CD2	2.45	0.51
29:BE:21:VAL:O	29:BE:23:VAL:HG13	2.11	0.51
1:AA:988:G:N2	1:AA:1016:A:H1'	2.25	0.51
4:CD:135:LEU:N	4:CD:135:LEU:HD22	2.26	0.51
25:BA:686:G:H21	25:BA:788:A:H61	1.59	0.51
4:CD:71:SER:OG	4:CD:74:GLN:HB2	2.11	0.51
25:DA:1297:C:H2'	25:DA:1298:C:C6	2.42	0.51
4:CD:19:LEU:HG	4:CD:21:LEU:CD2	2.41	0.51
15:CO:39:LEU:HD13	15:CO:56:LEU:CD1	2.40	0.51
1:AA:880:C:O2'	1:AA:881:G:H5'	2.11	0.51
25:BA:111:A:O2'	25:BA:112:U:H5'	2.11	0.51
32:DH:71:LEU:HA	32:DH:74:ASN:ND2	2.24	0.51
34:BN:55:VAL:HG22	34:BN:56:ASN:H	1.76	0.51
8:CH:26:VAL:O	8:CH:27:PRO:C	2.49	0.51
1:CA:987:G:H2'	1:CA:988:G:C8	2.44	0.51
25:DA:912:C:P	37:DQ:8:LYS:HZ1	2.33	0.51
25:BA:2653:U:O2	25:BA:2668:G:C2	2.64	0.51
25:BA:2222:G:O2'	25:BA:2223:G:H5'	2.11	0.51
47:D0:26:TYR:H	47:D0:29:GLN:NE2	2.08	0.51
4:AD:98:GLU:HG3	4:AD:103:ASN:ND2	2.26	0.51
1:CA:199:G:H1	1:CA:218:C:H42	1.57	0.51
25:BA:2296:U:H4'	25:BA:2297:C:OP1	2.11	0.51
35:BO:34:THR:HG22	35:BO:37:ASP:OD2	2.10	0.51
25:DA:2020:A:H5'	52:D5:12:SER:HB3	1.92	0.51
35:BO:70:LYS:HZ2	35:BO:70:LYS:HB2	1.75	0.51
25:BA:1644:C:H2'	25:BA:1644:C:O2	2.10	0.51
17:AQ:31:LEU:HD12	17:AQ:31:LEU:O	2.11	0.51
31:BG:35:GLU:HG3	31:BG:162:THR:HG23	1.92	0.51
1:AA:1187:G:P	9:AI:113:LYS:HE2	2.51	0.51
42:DV:81:TYR:C	42:DV:82:ARG:HG3	2.32	0.51
37:DQ:101:ARG:HG3	37:DQ:102:VAL:O	2.10	0.51
19:CS:63:THR:CB	19:CS:66:MET:HE3	2.41	0.51
41:BU:70:ARG:NH2	41:BU:75:ASN:HB2	2.26	0.51
13:CM:89:GLY:O	13:CM:91:ARG:N	2.44	0.51
31:DG:60:LEU:HD22	31:DG:63:ILE:HD11	1.93	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:977:A:H2	1:AA:1224:G:H1	1.59	0.51
1:AA:956:U:O2'	1:AA:957:U:H5'	2.11	0.51
1:CA:1234:C:H4'	1:CA:1364:U:H1'	1.93	0.51
22:CV:110:ALA:HB3	22:CV:123:THR:O	2.11	0.51
35:BO:69:ILE:HB	35:BO:77:ILE:HG22	1.93	0.51
1:AA:198:G:H2'	1:AA:199:G:H8	1.76	0.51
1:AA:1137:C:C4'	1:AA:1138:G:C2	2.93	0.51
32:DH:89:ILE:HD13	32:DH:90:LYS:H	1.72	0.51
32:DH:85:LYS:HD3	32:DH:133:VAL:CB	2.25	0.51
25:BA:637:A:OP2	36:BP:116:GLY:HA2	2.11	0.51
31:DG:16:ARG:CZ	31:DG:31:VAL:HG11	2.41	0.51
1:AA:258:G:H2'	1:AA:259:G:C8	2.45	0.51
17:AQ:45:HIS:CD2	17:AQ:47:PRO:HD3	2.45	0.51
45:BY:53:PRO:HD2	45:BY:56:PRO:CA	2.35	0.51
45:BY:48:ALA:HB2	45:BY:59:GLY:CA	2.41	0.51
1:CA:452:A:C6	1:CA:453:A:C6	2.99	0.51
3:CC:52:LEU:C	3:CC:54:ARG:H	2.15	0.51
1:AA:695:A:H2'	1:AA:696:A:C8	2.46	0.51
53:D6:52:VAL:CG1	53:D6:53:LYS:N	2.74	0.51
22:CV:87:THR:C	22:CV:89:GLU:OE2	2.50	0.51
1:AA:824:C:O2'	1:AA:825:G:H5'	2.11	0.51
27:BC:80:LYS:NZ	31:BG:48:GLU:HG3	2.25	0.51
49:D2:63:VAL:HA	49:D2:66:GLU:CG	2.41	0.51
25:BA:616:G:C2	25:BA:618:C:H1'	2.46	0.51
25:BA:1313:U:H2'	25:BA:1610:A:N1	2.26	0.51
39:DS:34:HIS:NE2	39:DS:54:LEU:HB2	2.25	0.51
30:DF:166:ALA:O	30:DF:167:ALA:HB2	2.11	0.51
1:AA:1055:A:C2	1:AA:1056:U:H1'	2.46	0.51
16:AP:14:ASN:N	16:AP:15:PRO:HD3	2.25	0.51
5:CE:91:LEU:HD22	5:CE:138:ALA:HB1	1.92	0.51
25:DA:730:C:O2'	25:DA:731:C:H5'	2.11	0.51
1:CA:625:G:O2'	1:CA:626:U:H5'	2.10	0.51
25:BA:1459:G:N3	25:BA:1459:G:C2'	2.73	0.51
1:AA:1438:G:H2'	1:AA:1439:C:C6	2.46	0.51
43:DW:59:VAL:HG23	43:DW:65:LEU:N	2.18	0.51
6:CF:12:PRO:O	6:CF:14:LEU:N	2.40	0.51
18:CR:52:PRO:O	18:CR:56:THR:HG22	2.11	0.51
25:BA:287:C:H2'	25:BA:288:C:C6	2.45	0.51
28:DD:70:TRP:CD1	28:DD:70:TRP:C	2.84	0.51
4:CD:4:TYR:O	4:CD:5:ILE:HB	2.11	0.51
1:CA:501:C:H2'	1:CA:502:G:C8	2.45	0.51
26:BB:87:G:C2'	26:BB:88:C:H5''	2.40	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BF:132:VAL:HG22	30:BF:133:ASN:OD1	2.11	0.51
30:BF:132:VAL:CG1	30:BF:133:ASN:N	2.69	0.51
1:AA:1256:A:H3'	3:AC:27:LYS:NZ	2.26	0.51
25:DA:1341:U:O4	44:DX:16:LYS:HE2	2.10	0.51
25:BA:1558:A:H4'	25:BA:1559:G:O5'	2.10	0.51
7:CG:80:VAL:HG12	7:CG:80:VAL:O	2.10	0.51
38:DR:87:TYR:O	38:DR:88:ARG:C	2.49	0.51
1:AA:158:G:H2'	1:AA:159:G:C8	2.46	0.51
25:BA:2199:A:H5''	25:BA:2200:C:H5	1.76	0.51
25:DA:312:G:H4'	25:DA:331:A:N3	2.26	0.51
25:BA:951:C:O2'	25:BA:952:G:H5'	2.10	0.51
32:BH:97:ARG:O	32:BH:98:LEU:CB	2.58	0.51
35:DO:102:VAL:HB	35:DO:106:LEU:CD1	2.40	0.51
25:BA:2352:A:H2'	25:BA:2353:G:H5'	1.92	0.51
25:DA:55:G:N3	25:DA:127:A:C2	2.78	0.51
28:DD:73:VAL:O	28:DD:75:ILE:N	2.42	0.51
49:D2:21:LEU:HD21	49:D2:60:LEU:HD22	1.92	0.51
25:BA:2712:U:O2'	25:BA:2712(A):A:P	2.69	0.51
40:DT:112:ARG:NH1	40:DT:112:ARG:HB3	2.26	0.51
1:AA:36:C:H4'	12:AL:119:THR:O	2.11	0.51
25:BA:620:G:H4'	25:BA:621:A:H5''	1.92	0.51
25:DA:1710:C:O2'	25:DA:1711:C:H5'	2.10	0.51
1:CA:1055:A:H2	3:CC:194:GLY:HA3	1.75	0.51
35:BO:91:LEU:N	35:BO:91:LEU:CD2	2.73	0.51
29:DE:38:THR:OG1	29:DE:41:LYS:HE2	2.11	0.51
27:DC:69:LEU:HD22	27:DC:70:GLY:H	1.76	0.51
5:CE:43:LEU:HD22	5:CE:136:MET:CG	2.40	0.51
1:CA:147:G:C2'	1:CA:148:G:H5'	2.41	0.51
37:DQ:34:LEU:HD23	37:DQ:104:PHE:HD1	1.76	0.51
8:AH:111:ILE:O	8:AH:112:LEU:HB3	2.11	0.51
25:BA:1805:U:O2	28:BD:50:THR:HB	2.10	0.51
1:CA:1227:A:O2'	13:CM:115:LYS:HB2	2.10	0.51
1:CA:342:C:C2'	1:CA:343:U:H5'	2.41	0.51
29:BE:137:HIS:HB3	29:BE:138:PRO:HD2	1.93	0.51
1:CA:403:C:H2'	1:CA:404:U:C6	2.45	0.51
25:DA:1357:U:H2'	25:DA:1358:G:C8	2.46	0.51
25:DA:43:A:H2'	25:DA:44:G:C8	2.46	0.51
1:AA:1444:C:O2'	1:AA:1445:C:H5'	2.11	0.51
25:DA:696:G:O2'	25:DA:697:C:H5'	2.10	0.51
25:DA:1629:U:H2'	25:DA:1630:G:C8	2.45	0.51
1:CA:1384:C:H2'	1:CA:1385:G:C8	2.45	0.51
23:CW:76:A:H4'	23:CW:76:A:OP1	2.11	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BG:70:VAL:HG23	31:BG:70:VAL:O	2.10	0.51
12:CL:101:VAL:O	12:CL:102:TYR:HB2	2.11	0.51
33:DI:122:GLU:C	33:DI:124:GLY:H	2.14	0.51
46:DZ:50:ALA:O	46:DZ:51:SER:HB3	2.11	0.51
2:CB:167:PRO:HG2	2:CB:192:SER:CB	2.40	0.51
42:DV:28:GLU:O	42:DV:29:PRO:O	2.29	0.51
44:DX:35:THR:HB	44:DX:38:GLU:H	1.76	0.51
41:BU:112:ARG:NH1	41:BU:112:ARG:HG2	2.17	0.51
42:BV:38:LEU:HG	42:BV:39:LEU:N	2.27	0.51
1:CA:1138:G:C2	1:CA:1140:C:C4	2.99	0.51
13:CM:98:VAL:HG12	13:CM:98:VAL:O	2.11	0.51
31:DG:141:PHE:N	31:DG:141:PHE:CD2	2.79	0.51
3:AC:71:ALA:CB	3:AC:109:PRO:HG3	2.26	0.51
45:BY:38:ILE:O	45:BY:39:VAL:HB	2.11	0.51
53:B6:36:LEU:HB2	53:B6:49:HIS:O	2.10	0.51
28:BD:21:PHE:HB3	28:BD:24:ILE:HG22	1.92	0.51
19:AS:53:ASN:HD21	19:AS:55:LYS:CB	2.09	0.51
29:BE:53:PRO:O	29:BE:75:VAL:HG23	2.10	0.51
1:AA:1307:U:OP1	13:AM:101:GLN:HG2	2.11	0.51
37:BQ:55:VAL:CG2	37:BQ:56:ARG:N	2.74	0.51
12:CL:44:LYS:CG	12:CL:45:PRO:HD3	2.41	0.51
2:AB:110:GLN:O	2:AB:114:ARG:HB2	2.11	0.51
55:B8:21:LYS:HD3	55:B8:48:PHE:CE2	2.46	0.51
1:AA:542:G:H5'	4:AD:41:GLY:HA3	1.93	0.51
14:CN:24:CYS:O	14:CN:25:VAL:C	2.49	0.51
25:DA:2880:C:O3'	38:DR:90:ARG:NH1	2.44	0.51
15:CO:23:GLY:O	15:CO:24:SER:CB	2.58	0.51
31:DG:85:GLY:C	31:DG:87:PRO:HD2	2.32	0.51
39:DS:19:LYS:O	39:DS:19:LYS:HG2	2.11	0.51
1:AA:355:C:H5'	1:AA:389:A:OP2	2.11	0.51
10:CJ:36:GLY:O	10:CJ:72:VAL:HG13	2.10	0.51
2:AB:157:ARG:HG2	2:AB:158:LEU:H	1.76	0.51
25:BA:587:C:C4	36:BP:33:ARG:HG2	2.46	0.51
36:BP:23:PRO:CG	36:BP:33:ARG:HG3	2.41	0.51
6:CF:87:ARG:HG2	6:CF:87:ARG:NH1	2.26	0.51
3:CC:108:ASN:CG	3:CC:111:LEU:HD12	2.31	0.51
1:AA:839:U:H5'	1:AA:840:C:N4	2.26	0.51
1:AA:850:U:H2'	1:AA:851:G:C8	2.45	0.51
44:BX:12:VAL:O	44:BX:13:LEU:HB2	2.11	0.51
18:AR:86:VAL:O	18:AR:87:ARG:O	2.28	0.51
25:BA:191:A:O2'	25:BA:192:C:H5'	2.11	0.51
25:BA:7:G:H2'	25:BA:8:A:O4'	2.10	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:502:G:H2'	1:CA:503:C:H6	1.74	0.51
22:AV:40:LYS:CG	22:AV:51:GLU:HB2	2.38	0.51
28:DD:264:LYS:CG	28:DD:265:PRO:HD2	2.40	0.51
25:DA:1530:C:C6	25:DA:1530:C:O5'	2.63	0.51
30:BF:170:LEU:HD23	30:BF:172:TRP:CE2	2.45	0.51
25:BA:2728:U:O2'	25:BA:2729:G:H5'	2.11	0.51
25:BA:211:A:H2'	25:BA:212:G:O4'	2.10	0.51
1:CA:406:G:N2	1:CA:437:U:C2	2.79	0.51
4:CD:119:GLN:NE2	4:CD:123:HIS:NE2	2.59	0.51
27:DC:41:THR:HA	27:DC:178:LYS:HA	1.92	0.51
37:BQ:72:LYS:HB3	37:BQ:94:VAL:HG22	1.93	0.51
22:CV:42:LYS:HE3	22:CV:49:THR:HG22	1.93	0.51
25:DA:1907:G:H2'	25:DA:1908:C:C6	2.46	0.51
25:DA:139:G:N3	44:DX:41:ASN:OD1	2.44	0.51
32:DH:149:ARG:HA	32:DH:162:ILE:CG2	2.40	0.51
25:DA:516:C:O2'	25:DA:517:C:H5'	2.11	0.51
4:CD:94:LEU:O	4:CD:95:GLY:C	2.49	0.51
25:BA:1863:G:H2'	25:BA:1864:U:O4'	2.11	0.51
1:CA:1067:A:N1	1:CA:1108:G:O2'	2.40	0.51
25:DA:2567:G:H2'	25:DA:2568:C:H6	1.75	0.51
4:AD:120:LEU:HD23	4:AD:125:HIS:HD2	1.75	0.51
3:AC:206:GLU:O	3:AC:208:ILE:N	2.44	0.51
3:AC:132:ARG:O	3:AC:135:LYS:HB2	2.11	0.51
1:CA:424:G:H2'	1:CA:425:G:H8	1.75	0.51
25:BA:272(A):U:C6	25:BA:272(A):U:O5'	2.64	0.51
14:AN:16:PHE:HB3	14:AN:18:VAL:HG23	1.92	0.51
26:BB:35:U:O2'	26:BB:36:C:H5'	2.11	0.51
25:BA:2458:G:C4	25:BA:2490:G:C2	2.98	0.51
25:BA:1290:C:O2'	25:BA:1291:C:H5'	2.11	0.51
25:DA:267:C:O2'	25:DA:268:C:H5'	2.11	0.51
39:DS:26:LEU:HG	39:DS:39:ILE:HD11	1.93	0.51
25:BA:2599:G:O2'	25:BA:2600:A:H5'	2.11	0.51
8:CH:93:VAL:HG12	8:CH:94:TYR:N	2.26	0.51
25:DA:76:C:N3	25:DA:111:A:C2	2.78	0.51
25:BA:1149:G:O2'	25:BA:1150:C:H5'	2.11	0.51
52:D5:31:VAL:N	52:D5:40:LYS:O	2.33	0.50
46:DZ:135:PHE:CD1	46:DZ:136:ILE:N	2.79	0.50
2:CB:21:ARG:CB	2:CB:39:ILE:HA	2.35	0.50
25:DA:996:A:H61	25:DA:1159:U:H3	1.59	0.50
25:DA:997:G:O2'	25:DA:998:C:H5'	2.11	0.50
34:DN:97:ARG:HA	34:DN:100:GLU:HB2	1.94	0.50
25:DA:860:U:O2'	25:DA:861:A:H5'	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:D1:52:ARG:O	48:D1:56:GLN:O	2.28	0.50
19:CS:61:TYR:O	19:CS:62:ILE:CB	2.58	0.50
9:CI:4:TYR:CB	9:CI:19:LEU:HD12	2.41	0.50
25:BA:1108:U:C4	25:BA:1109:C:O2	2.64	0.50
48:D1:62:VAL:HG11	48:D1:70:VAL:HG21	1.91	0.50
22:CV:138:GLY:H	22:CV:149:LYS:HD3	1.76	0.50
31:DG:41:GLN:HB3	31:DG:43:LEU:HD21	1.93	0.50
1:AA:1314:C:H41	19:AS:4:SER:N	2.08	0.50
30:BF:178:PRO:HB2	30:BF:201:VAL:CG1	2.27	0.50
1:AA:191:G:H2'	1:AA:192:U:H6	1.75	0.50
16:AP:39:TYR:CG	16:AP:73:LEU:HD11	2.46	0.50
30:DF:3:GLU:CB	30:DF:24:LEU:HG	2.41	0.50
40:BT:100:TYR:O	40:BT:102:ILE:N	2.44	0.50
25:DA:2400:G:H2'	25:DA:2401:U:O4'	2.11	0.50
45:BY:91:GLU:O	45:BY:92:ASN:HB2	2.12	0.50
31:BG:45:GLU:OE1	31:BG:45:GLU:HA	2.12	0.50
32:DH:86:GLU:H	32:DH:86:GLU:CD	2.14	0.50
36:DP:65:ARG:CZ	55:D8:15:LYS:HB2	2.37	0.50
2:AB:74:LYS:HE3	2:AB:166:ASP:HB2	1.92	0.50
55:B8:32:LEU:HB3	55:B8:36:LYS:CE	2.40	0.50
1:CA:1302:U:C6	13:CM:17:VAL:HG21	2.46	0.50
13:CM:11:ARG:O	13:CM:13:LYS:N	2.39	0.50
4:AD:36:ARG:CG	4:AD:36:ARG:NH1	2.70	0.50
4:AD:58:LEU:HD22	4:AD:59:ARG:HH12	1.76	0.50
14:CN:27:CYS:C	14:CN:29:ARG:H	2.15	0.50
14:CN:29:ARG:NH2	14:CN:42:ILE:HD11	2.25	0.50
25:BA:1796:U:H2'	25:BA:1797:C:C6	2.46	0.50
42:BV:66:ARG:NH1	42:BV:66:ARG:HG2	2.26	0.50
25:DA:271(P):C:H2'	25:DA:271(Q):G:H8	1.76	0.50
27:BC:86:GLU:CD	27:BC:150:ILE:HG22	2.31	0.50
1:CA:1033:G:O5'	1:CA:1033:G:C8	2.63	0.50
25:BA:676:A:H1'	25:BA:2443:C:H1'	1.92	0.50
27:DC:130:ARG:HG2	27:DC:130:ARG:NH1	2.26	0.50
25:BA:2491:U:O2'	25:BA:2492:U:H5'	2.10	0.50
2:AB:155:LEU:HG	2:AB:159:PRO:HG3	1.93	0.50
36:BP:26:GLY:CA	36:BP:30:THR:HG23	2.42	0.50
27:DC:45:HIS:HA	27:DC:173:HIS:HB3	1.94	0.50
28:DD:206:LEU:O	28:DD:211:ARG:HG2	2.10	0.50
28:DD:110:GLY:O	28:DD:112:GLN:HG3	2.12	0.50
8:AH:85:ARG:HD3	8:AH:86:ILE:H	1.71	0.50
25:BA:1485:G:N2	25:BA:1505:C:C2	2.78	0.50
1:CA:1447:A:H8	1:CA:1456:G:O6	1.94	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:CT:72:LEU:HD22	20:CT:73:HIS:N	2.26	0.50
25:DA:1126:A:H8	25:DA:1126:A:OP1	1.94	0.50
26:BB:113:G:H2'	26:BB:114:C:C6	2.45	0.50
27:BC:76:LEU:CD2	27:BC:104:ILE:HD11	2.41	0.50
30:BF:132:VAL:CG2	30:BF:133:ASN:H	2.13	0.50
25:DA:149:A:C2	25:DA:150:C:C2	2.98	0.50
18:CR:37:VAL:CG1	18:CR:78:LEU:HB3	2.38	0.50
25:DA:2579:C:H4'	29:DE:134:ILE:HD12	1.93	0.50
5:CE:6:PHE:HB2	5:CE:34:VAL:CG1	2.39	0.50
22:AV:127:VAL:HG22	22:AV:174:ASP:HA	1.92	0.50
12:AL:109:ASP:O	12:AL:111:LYS:HG3	2.11	0.50
11:CK:19:ALA:CB	11:CK:32:ILE:HG22	2.41	0.50
25:BA:686:G:N2	25:BA:788:A:H61	2.08	0.50
25:DA:54:G:H3'	25:DA:55:G:H5''	1.93	0.50
3:CC:27:LYS:HZ3	3:CC:27:LYS:HB3	1.74	0.50
36:DP:86:LYS:CB	36:DP:118:GLY:HA3	2.41	0.50
25:BA:1012:U:C4	34:BN:28:THR:HG21	2.46	0.50
1:CA:34:C:O2'	1:CA:35:G:H5'	2.11	0.50
3:CC:119:ARG:HH21	3:CC:140:ARG:HD3	1.77	0.50
3:AC:84:ILE:HG13	3:AC:101:LEU:HD13	1.92	0.50
1:CA:350:G:O2'	1:CA:351:G:H5'	2.11	0.50
25:DA:2543:G:H5'	25:DA:2543:G:H8	1.76	0.50
4:AD:127:THR:HG22	4:AD:132:ARG:HA	1.94	0.50
42:DV:27:ALA:HB2	42:DV:33:VAL:HG11	1.93	0.50
25:DA:580:C:H2'	25:DA:581:C:H6	1.75	0.50
13:CM:117:VAL:HG13	13:CM:118:ALA:N	2.25	0.50
35:BO:15:GLY:O	35:BO:46:ALA:HB1	2.12	0.50
4:AD:90:GLY:O	4:AD:200:GLU:OE2	2.28	0.50
25:DA:68:G:H2'	25:DA:68:G:N3	2.27	0.50
25:BA:2180:U:H2'	25:BA:2181:G:C8	2.46	0.50
39:BS:34:HIS:N	39:BS:34:HIS:CD2	2.77	0.50
25:DA:1902:C:C1'	28:DD:244:ARG:HG3	2.42	0.50
3:AC:181:ASN:HD21	3:AC:204:LEU:HD12	1.76	0.50
32:BH:9:ILE:HG22	32:BH:49:VAL:HB	1.94	0.50
16:AP:25:ARG:O	16:AP:26:ARG:O	2.29	0.50
2:CB:45:GLN:O	2:CB:48:MET:N	2.41	0.50
2:CB:8:LYS:NZ	2:CB:217:ARG:NH1	2.59	0.50
41:DU:106:PHE:HA	41:DU:109:LEU:HD12	1.93	0.50
41:DU:91:ASP:OD2	41:DU:96:ALA:CB	2.59	0.50
38:DR:53:HIS:O	38:DR:53:HIS:ND1	2.45	0.50
1:CA:938:A:O2'	1:CA:939:G:H5'	2.12	0.50
7:CG:75:VAL:O	7:CG:75:VAL:HG23	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:17:VAL:HA	9:CI:63:ILE:HG12	1.94	0.50
25:BA:996:A:O3'	41:BU:92:ARG:HB3	2.12	0.50
1:CA:1145:C:H5'	1:CA:1146:A:OP1	2.11	0.50
25:BA:2804:C:H2'	25:BA:2805:G:H5'	1.94	0.50
45:DY:2:ARG:HD2	45:DY:3:VAL:N	2.25	0.50
30:DF:7:TYR:HB3	30:DF:16:GLY:N	2.26	0.50
25:BA:1389:G:O6	25:BA:1398:C:N4	2.44	0.50
46:BZ:29:ASN:O	46:BZ:31:HIS:N	2.41	0.50
25:BA:2168:G:H22	25:BA:2170:A:H3'	1.74	0.50
32:DH:33:LEU:CD1	32:DH:137:ASP:HA	2.41	0.50
28:BD:24:ILE:O	28:BD:26:LYS:NZ	2.43	0.50
2:AB:86:GLU:C	2:AB:88:ALA:N	2.65	0.50
13:AM:15:VAL:HA	13:AM:18:ALA:HB3	1.91	0.50
36:BP:65:ARG:O	36:BP:68:GLN:HG3	2.12	0.50
22:CV:8:ARG:HH21	23:CW:4:G:H5''	1.74	0.50
22:CV:70:LEU:HA	22:CV:84:ASP:O	2.10	0.50
3:CC:43:LEU:H	3:CC:43:LEU:CD1	2.24	0.50
46:DZ:140:VAL:HG23	46:DZ:143:LEU:CD2	2.42	0.50
15:CO:24:SER:C	15:CO:28:GLN:HE21	2.15	0.50
2:CB:124:SER:CB	2:CB:126:GLU:HG3	2.42	0.50
11:AK:56:GLY:O	11:AK:89:ALA:HB3	2.12	0.50
40:DT:8:LYS:C	40:DT:10:VAL:N	2.64	0.50
33:BI:47:LEU:O	33:BI:48:GLU:C	2.48	0.50
33:BI:46:ALA:O	33:BI:49:ALA:HB3	2.11	0.50
39:DS:16:ASN:O	39:DS:20:ARG:NH2	2.44	0.50
1:AA:1193:G:H2'	1:AA:1194:U:C6	2.46	0.50
27:DC:150:ILE:O	27:DC:154:ILE:CG1	2.52	0.50
55:B8:2:PRO:O	55:B8:3:LYS:C	2.49	0.50
25:DA:1686:C:C2'	25:DA:1687:G:H5'	2.40	0.50
6:CF:81:ILE:O	6:CF:82:ARG:C	2.50	0.50
12:AL:80:VAL:CG1	12:AL:97:ILE:HG23	2.41	0.50
5:CE:70:PRO:HB3	5:CE:144:THR:CG2	2.42	0.50
5:CE:76:ILE:CG1	5:CE:77:PRO:HD2	2.40	0.50
53:B6:30:THR:O	53:B6:32:ASN:N	2.43	0.50
35:DO:80:ASP:HB2	40:DT:70:VAL:CG1	2.41	0.50
4:AD:111:ALA:HB1	4:AD:116:GLN:OE1	2.11	0.50
25:DA:815:C:C2	25:DA:1193:G:C2	3.00	0.50
37:DQ:47:ILE:HG22	37:DQ:48:GLU:N	2.25	0.50
20:CT:102:GLY:O	20:CT:104:LEU:N	2.45	0.50
25:BA:876:C:O2'	25:BA:877:U:H5'	2.11	0.50
22:AV:102:GLU:C	22:AV:104:PHE:N	2.63	0.50
31:BG:4:ASP:HA	31:BG:8:LYS:HD3	1.92	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:268:C:H2'	25:BA:269:U:O4'	2.11	0.50
1:CA:841:U:H3'	1:CA:848:C:O4'	2.11	0.50
20:AT:88:VAL:HG12	20:AT:92:LEU:HD12	1.93	0.50
1:CA:929:G:H2'	1:CA:930:C:H6	1.74	0.50
49:B2:38:GLN:O	49:B2:41:ILE:HG12	2.11	0.50
30:DF:75:HIS:CE1	30:DF:82:ILE:HD11	2.42	0.50
25:DA:2526:G:C5	25:DA:2527:C:C5	2.99	0.50
10:AJ:79:ARG:HD3	10:AJ:82:ILE:HG13	1.93	0.50
31:BG:148:MET:C	31:BG:149:VAL:HG22	2.32	0.50
28:BD:11:PRO:O	28:BD:12:SER:CB	2.59	0.50
1:AA:1241:G:H1	1:AA:1296:C:N4	2.06	0.50
25:BA:828:U:C3'	25:BA:828:U:O2	2.59	0.50
18:CR:87:ARG:HG2	18:CR:87:ARG:HH11	1.75	0.50
35:BO:91:LEU:N	35:BO:91:LEU:HD22	2.24	0.50
1:AA:757:U:OP1	1:AA:822:C:O2'	2.27	0.50
1:CA:779:C:O2'	1:CA:780:A:H5'	2.12	0.50
5:CE:31:LEU:HD22	5:CE:45:PHE:HB2	1.92	0.50
39:BS:82:ILE:CG2	39:BS:83:LYS:N	2.74	0.50
28:DD:165:ILE:HG23	28:DD:173:VAL:CG2	2.41	0.50
10:AJ:96:ILE:HD13	10:AJ:96:ILE:N	2.26	0.50
25:BA:2234:G:H2'	25:BA:2235:G:O4'	2.11	0.50
25:BA:55:G:N3	25:BA:127:A:H2	2.09	0.50
37:DQ:79:LEU:HD22	37:DQ:80:GLU:HG3	1.93	0.50
25:DA:686:G:H21	25:DA:788:A:H61	1.58	0.50
42:BV:43:GLU:C	42:BV:44:LYS:HG3	2.31	0.50
25:DA:692:C:H5''	28:DD:42:GLY:H	1.75	0.50
46:BZ:61:PRO:C	46:BZ:63:GLY:H	2.13	0.50
28:BD:139:GLY:N	28:BD:165:ILE:O	2.45	0.50
28:DD:132:PRO:HG3	28:DD:190:TYR:CZ	2.46	0.50
34:DN:92:ALA:O	34:DN:93:THR:HB	2.12	0.50
25:DA:487:C:H1'	43:DW:53:SER:CB	2.41	0.50
1:CA:759:A:H2'	1:CA:760:G:H5'	1.92	0.50
6:CF:92:LYS:HB2	6:CF:92:LYS:HZ2	1.75	0.50
52:D5:32:PRO:O	52:D5:33:CYS:CB	2.59	0.50
2:CB:24:TRP:H	2:CB:24:TRP:HD1	1.58	0.50
25:DA:1141:U:H6	34:DN:63:THR:HG1	1.58	0.50
26:DB:76:G:H21	46:DZ:74:ASN:ND2	2.08	0.50
19:CS:63:THR:HG23	19:CS:64:GLU:N	2.26	0.50
25:BA:614(C):A:H4'	25:BA:615:G:OP1	2.11	0.50
7:CG:54:THR:HG23	7:CG:56:GLN:HE21	1.76	0.50
9:CI:53:VAL:HG21	9:CI:85:LEU:HD22	1.93	0.50
9:CI:53:VAL:HG23	9:CI:55:ALA:H	1.76	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:64:THR:O	9:CI:64:THR:HG23	2.12	0.50
2:CB:115:LEU:HB2	2:CB:145:LEU:HD12	1.94	0.50
25:BA:2632:A:H2	29:BE:61:ARG:HD3	1.76	0.50
45:DY:28:LYS:N	45:DY:28:LYS:HE3	2.26	0.50
46:BZ:68:THR:HB	46:BZ:88:PHE:C	2.31	0.50
25:DA:2402:C:H5	25:DA:2415:G:H22	1.59	0.50
36:DP:64:LYS:O	36:DP:64:LYS:HD3	2.12	0.50
45:BY:90:LEU:HD13	45:BY:91:GLU:HG2	1.94	0.50
13:AM:3:ARG:HG2	13:AM:9:ILE:HG12	1.92	0.50
31:BG:41:GLN:O	31:BG:43:LEU:HD22	2.11	0.50
53:B6:51:GLU:C	53:B6:52:VAL:HG23	2.32	0.50
35:BO:65:THR:O	35:BO:79:PHE:HB2	2.11	0.50
1:AA:1152:A:C3'	10:AJ:13:HIS:HD2	2.24	0.50
46:DZ:153:ASP:O	46:DZ:154:LEU:HD23	2.12	0.50
25:BA:1162:G:O2'	25:BA:1163:G:H5'	2.11	0.50
28:DD:197:GLY:O	28:DD:198:ASN:HB2	2.12	0.50
8:AH:44:PHE:HA	8:AH:79:VAL:CG1	2.40	0.50
25:DA:2650:U:O2'	25:DA:2651:C:H5'	2.12	0.50
27:BC:80:LYS:HG2	31:BG:50:ALA:CA	2.42	0.50
31:DG:47:LYS:HD3	31:DG:82:LEU:HG	1.93	0.50
25:BA:2491:U:O2'	25:BA:2492:U:O5'	2.28	0.50
29:BE:116:VAL:O	29:BE:117:MET:CB	2.47	0.50
25:BA:2289:G:H2'	25:BA:2290:G:H5''	1.92	0.50
1:CA:735:C:O2'	1:CA:736:C:H5'	2.12	0.50
25:DA:2467:C:H4'	37:DQ:123:HIS:CD2	2.46	0.50
10:CJ:80:LYS:HE3	10:CJ:80:LYS:O	2.12	0.50
32:DH:13:LYS:HD3	32:DH:14:GLY:N	2.19	0.50
5:AE:57:LYS:HG2	5:AE:61:TYR:HE2	1.75	0.50
1:CA:1164:G:N1	1:CA:1173:G:C6	2.80	0.50
4:CD:13:ARG:C	4:CD:15:GLU:N	2.64	0.50
25:DA:1453:U:H4'	25:DA:1455:G:OP1	2.12	0.50
11:AK:33:THR:CG2	11:AK:39:PRO:HA	2.38	0.50
28:DD:267:SER:CA	28:DD:270:ILE:HD11	2.42	0.50
25:DA:272(C):G:H2'	25:DA:272(D):G:C8	2.43	0.50
40:BT:129:ARG:NE	40:BT:131:ALA:HB3	2.26	0.50
25:DA:90:U:O2	25:DA:90:U:C2'	2.59	0.50
27:DC:74:ARG:HB3	27:DC:94:TYR:CE2	2.47	0.50
8:CH:13:ILE:O	8:CH:17:THR:HG23	2.12	0.50
25:DA:1544:A:N7	25:DA:1545:A:C6	2.80	0.50
52:D5:51:TYR:CD1	52:D5:52:TYR:CE1	3.00	0.50
11:AK:24:SER:OG	11:AK:25:TYR:N	2.44	0.50
31:BG:39:ILE:CD1	31:BG:155:MET:HB2	2.40	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:993:G:H1	1:AA:1045:C:N4	2.09	0.50
25:DA:2620:C:OP1	29:DE:152:LYS:O	2.29	0.50
1:AA:1083:U:C5	1:AA:1084:G:C5	3.00	0.50
1:AA:1086:U:C2'	1:AA:1087:G:H5'	2.42	0.50
25:DA:323:G:O2'	25:DA:1205:U:N3	2.42	0.50
12:CL:83:ARG:NH2	12:CL:96:HIS:ND1	2.59	0.50
25:DA:2811:G:O2'	25:DA:2812:G:H5'	2.11	0.50
3:AC:126:ARG:HG2	3:AC:126:ARG:NH1	2.26	0.50
4:AD:162:LEU:CD1	4:AD:181:MET:HG2	2.41	0.50
27:DC:153:ILE:HA	27:DC:156:GLU:HB3	1.93	0.50
53:D6:11:LEU:C	53:D6:11:LEU:HD22	2.32	0.50
7:CG:18:TYR:CD2	7:CG:59:LEU:HB2	2.46	0.50
25:DA:1314:C:H6	25:DA:1314:C:H5'	1.76	0.50
25:BA:2721:A:H1'	25:BA:2873:A:O2'	2.10	0.50
1:CA:100:C:H2'	1:CA:101:A:O4'	2.11	0.50
25:BA:992:C:O2'	25:BA:993:G:H5'	2.12	0.50
25:DA:1817:G:C2'	25:DA:1818:U:H5'	2.41	0.50
25:BA:2672:G:C3'	25:BA:2673:G:H5''	2.42	0.50
25:DA:2052:G:H5'	29:DE:142:GLY:H	1.77	0.50
1:CA:160:A:H4'	1:CA:344:A:C2	2.47	0.50
7:AG:68:ASN:HD22	7:AG:128:ALA:HA	1.75	0.50
25:DA:686:G:N2	25:DA:788:A:H61	2.08	0.50
1:AA:1474:G:H4'	25:BA:1701:A:C2	2.46	0.50
25:DA:1330:C:O2'	25:DA:1331:A:H5'	2.11	0.50
25:BA:2488:A:H2'	25:BA:2489:G:O4'	2.11	0.50
25:DA:1270:C:H5''	25:DA:1271:G:O5'	2.12	0.50
46:DZ:62:ASP:HB2	46:DZ:64:GLN:NE2	2.25	0.50
25:DA:1400:G:H2'	25:DA:1401:G:C8	2.46	0.50
7:AG:60:LYS:HA	7:AG:60:LYS:HE3	1.92	0.50
25:DA:197:A:H8	25:DA:197:A:H5'	1.75	0.50
34:BN:38:HIS:N	34:BN:38:HIS:ND1	2.59	0.50
37:DQ:76:LYS:HB3	37:DQ:91:GLU:HG3	1.92	0.50
48:B1:88:LYS:HD3	48:B1:88:LYS:C	2.31	0.50
48:B1:87:PRO:HG2	48:B1:88:LYS:H	1.77	0.50
7:AG:24:THR:HA	7:AG:27:ILE:HB	1.93	0.50
21:AU:13:ILE:O	21:AU:16:GLY:N	2.43	0.50
50:D3:8:LEU:O	50:D3:32:GLN:N	2.32	0.50
37:DQ:132:VAL:HB	46:DZ:80:ARG:HH12	1.75	0.50
1:CA:1369:C:H2'	1:CA:1370:G:C8	2.46	0.50
7:CG:147:ALA:C	7:CG:148:ASN:ND2	2.62	0.50
25:BA:995:C:C4	41:BU:57:PHE:HE1	2.30	0.50
1:AA:343:U:C2'	1:AA:346:G:O6	2.59	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:BT:80:SER:O	40:BT:82:LEU:N	2.43	0.50
16:AP:53:VAL:HG12	16:AP:79:VAL:HG22	1.92	0.50
3:AC:92:ALA:HA	3:AC:99:VAL:HG11	1.93	0.50
45:BY:27:VAL:HG12	45:BY:29:GLU:OE1	2.10	0.50
13:AM:6:GLY:H	31:BG:113:ARG:HH21	1.58	0.50
28:DD:24:ILE:HD13	28:DD:84:TYR:HB2	1.94	0.50
32:DH:159:GLU:CG	32:DH:160:LYS:HG3	2.28	0.50
2:AB:44:LEU:HD12	2:AB:44:LEU:N	2.16	0.50
25:DA:275:G:H3'	25:DA:275:G:H8	1.76	0.50
13:CM:15:VAL:HG23	13:CM:16:ASP:N	2.24	0.50
2:AB:108:ILE:O	2:AB:111:ARG:HB2	2.11	0.50
40:DT:17:THR:HG23	40:DT:18:ASP:N	2.27	0.50
22:CV:73:LEU:HD12	22:CV:81:VAL:CG1	2.40	0.50
28:DD:198:ASN:O	28:DD:200:ASP:N	2.45	0.50
25:BA:926:A:H5'	25:BA:926:A:H8	1.77	0.50
40:DT:27:THR:HA	40:DT:87:ASP:HB2	1.94	0.50
33:BI:48:GLU:O	33:BI:52:ARG:HG2	2.11	0.50
31:DG:45:GLU:C	31:DG:47:LYS:H	2.13	0.50
3:AC:134:ILE:HG21	3:AC:168:ALA:CB	2.32	0.50
6:CF:70:ASP:O	6:CF:72:VAL:N	2.44	0.50
20:CT:53:LEU:HD12	20:CT:100:ILE:HB	1.94	0.50
5:CE:81:GLU:HB3	5:CE:88:LYS:HZ3	1.75	0.50
3:CC:132:ARG:CZ	4:CD:47:ARG:HH22	2.23	0.50
1:AA:731:G:H2'	1:AA:732:C:C6	2.47	0.50
10:CJ:81:THR:O	10:CJ:83:GLU:N	2.45	0.50
12:CL:24:LEU:HD22	12:CL:24:LEU:N	2.26	0.50
46:BZ:13:LYS:HB3	46:BZ:16:ALA:HB2	1.94	0.50
28:BD:70:TRP:CE2	28:BD:150:LYS:HD3	2.46	0.50
28:BD:70:TRP:CD1	28:BD:70:TRP:C	2.85	0.50
25:DA:1194:A:H2'	25:DA:1195:G:O4'	2.12	0.50
36:DP:148:LEU:O	36:DP:149:GLU:CB	2.60	0.50
1:CA:185:A:H61	1:CA:192:U:H3	1.58	0.50
23:CW:10:G:C6	23:CW:26:G:C2	2.99	0.50
27:BC:215:VAL:HG23	27:BC:225:ILE:CD1	2.41	0.50
22:AV:102:GLU:HB2	22:AV:103:PHE:CE1	2.46	0.50
3:AC:25:GLY:C	3:AC:27:LYS:N	2.65	0.50
38:BR:41:ALA:O	38:BR:44:LEU:N	2.45	0.50
31:BG:172:LEU:CD2	31:BG:176:LEU:HD11	2.41	0.50
27:DC:76:LEU:O	27:DC:76:LEU:HG	2.12	0.50
25:DA:272(D):G:O2'	25:DA:272(E):G:H5'	2.11	0.50
22:AV:70:LEU:HB3	22:AV:82:PHE:HB3	1.93	0.50
31:BG:111:LEU:HD11	31:BG:120:LEU:HD11	1.93	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1336:A:O2'	25:DA:1337:G:H5'	2.12	0.50
12:AL:25:LYS:HE3	12:AL:30:ARG:NH1	2.26	0.50
4:AD:91:SER:O	4:AD:93:PHE:N	2.45	0.50
38:DR:12:ARG:HG2	38:DR:16:HIS:CD2	2.46	0.50
20:CT:61:SER:O	20:CT:63:ILE:N	2.45	0.50
7:AG:18:TYR:HB3	7:AG:59:LEU:HD12	1.94	0.50
1:AA:712:A:H2'	1:AA:713:G:C8	2.46	0.50
25:BA:2365:G:O6	55:B8:39:LYS:HE3	2.12	0.50
25:DA:185:U:H4'	25:DA:218:A:H4'	1.93	0.50
25:DA:2301:C:H2'	25:DA:2302:G:O4'	2.11	0.50
17:CQ:83:ASP:O	17:CQ:87:LYS:HG2	2.10	0.50
13:AM:111:LYS:O	13:AM:112:GLY:O	2.28	0.50
1:CA:244:U:H5'	1:CA:244:U:H6	1.76	0.50
1:AA:861:G:O2'	1:AA:862:C:H5'	2.12	0.50
3:CC:119:ARG:HE	3:CC:140:ARG:HD2	1.76	0.50
25:BA:1430:C:H2'	25:BA:1431:U:C6	2.46	0.50
34:BN:46:VAL:O	34:BN:47:ALA:HB3	2.12	0.50
25:DA:1607:C:H4'	25:DA:1608:A:O5'	2.11	0.50
26:DB:44:G:H1'	26:DB:47:C:H41	1.76	0.50
35:DO:53:LYS:HD2	35:DO:53:LYS:H	1.76	0.50
5:CE:43:LEU:HD22	5:CE:136:MET:HG3	1.93	0.50
3:AC:110:ASN:ND2	3:AC:144:SER:HB2	2.26	0.50
25:DA:2582:G:N2	25:DA:2583:G:H1'	2.26	0.50
2:AB:28:PHE:O	2:AB:28:PHE:HD1	1.94	0.50
43:DW:34:ASN:O	43:DW:36:LEU:N	2.45	0.50
17:CQ:59:ILE:HG22	17:CQ:71:PHE:CD1	2.46	0.50
3:CC:23:TYR:HD1	10:CJ:11:PHE:CE2	2.29	0.50
1:CA:833:U:H2'	1:CA:834:C:H6	1.76	0.50
1:AA:1186:G:H4'	9:AI:110:GLU:OE2	2.12	0.50
1:AA:774:G:H2'	1:AA:775:G:H8	1.77	0.50
25:DA:1202:C:H42	25:DA:1243:G:H1	1.60	0.50
9:AI:99:LEU:HD12	9:AI:101:PHE:CE1	2.46	0.50
9:AI:6:GLY:N	9:AI:84:ALA:HB2	2.27	0.50
10:AJ:61:GLU:OE1	14:AN:58:LYS:HE2	2.12	0.50
2:CB:213:LEU:C	2:CB:213:LEU:HD23	2.32	0.50
41:DU:110:VAL:HG12	41:DU:114:LYS:NZ	2.26	0.50
42:DV:30:GLY:HA2	42:DV:61:VAL:O	2.11	0.50
7:CG:50:ILE:O	7:CG:50:ILE:HG22	2.11	0.50
7:CG:73:MET:CE	7:CG:90:GLU:HG2	2.41	0.50
7:CG:91:VAL:HG12	7:CG:92:SER:N	2.19	0.50
41:BU:65:ILE:O	41:BU:68:ALA:HB3	2.11	0.50
25:BA:2805:G:C6	25:BA:2807:G:C6	3.00	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:DY:31:LEU:HD23	45:DY:36:ALA:N	2.21	0.50
29:BE:60:ASN:ND2	29:BE:62:PRO:HD2	2.26	0.50
1:AA:192:U:C1'	20:AT:103:GLY:HA2	2.41	0.50
20:AT:87:LYS:HD2	20:AT:90:GLN:HB2	1.93	0.50
30:DF:7:TYR:HB2	30:DF:17:ARG:N	2.27	0.50
25:BA:1342:A:N7	25:BA:1397:U:OP2	2.44	0.50
25:DA:1109:C:H5	25:DA:1110:G:C4	2.30	0.50
40:BT:50:ILE:HD11	40:BT:102:ILE:CG1	2.41	0.50
25:BA:2419:U:H5'	53:B6:23:THR:HG21	1.94	0.50
28:BD:30:GLU:OE1	28:BD:30:GLU:O	2.29	0.50
2:AB:58:ILE:C	2:AB:60:ASP:N	2.64	0.50
1:CA:109:A:C6	1:CA:326:G:C6	3.00	0.50
1:AA:1030:C:C2'	1:AA:1030(A):G:H5'	2.38	0.50
16:CP:43:LYS:C	16:CP:45:THR:H	2.14	0.50
4:AD:52:SER:OG	4:AD:55:ALA:HB2	2.12	0.50
25:BA:1826:G:H2'	25:BA:1827:C:H6	1.77	0.50
35:DO:76:ALA:HB3	40:DT:75:ILE:HB	1.94	0.50
25:BA:363(F):A:O2'	25:BA:364:C:H5	1.92	0.50
22:CV:71:GLN:CG	22:CV:72:TYR:N	2.75	0.50
3:CC:43:LEU:H	3:CC:43:LEU:HD12	1.74	0.50
1:CA:1368:G:H4'	10:CJ:46:ARG:NH1	2.26	0.50
34:DN:30:ILE:O	34:DN:34:LEU:HD22	2.12	0.50
25:BA:1162:G:H2'	25:BA:1163:G:H8	1.77	0.50
15:CO:82:ILE:HG23	15:CO:83:GLU:N	2.26	0.50
25:BA:1783:A:C2	25:BA:2587:A:C4	3.00	0.50
48:B1:52:ARG:O	48:B1:56:GLN:O	2.30	0.50
48:B1:58:ILE:HD12	48:B1:90:ILE:HG22	1.94	0.50
40:DT:3:ARG:CG	40:DT:6:LEU:HD12	2.42	0.50
36:DP:105:LEU:CD2	36:DP:105:LEU:N	2.68	0.50
39:DS:28:VAL:HG12	39:DS:29:PHE:H	1.76	0.50
25:DA:300:A:P	45:DY:84:ARG:HH22	2.34	0.50
30:DF:133:ASN:HB2	30:DF:138:GLU:OE2	2.11	0.50
10:CJ:7:LYS:NZ	10:CJ:40:LEU:HD21	2.25	0.50
1:AA:742:G:O2'	1:AA:743:U:H5'	2.11	0.50
25:BA:2283:C:H2'	25:BA:2284:C:H5'	1.94	0.50
25:BA:2845:G:C2'	25:BA:2846:G:H5'	2.42	0.50
25:DA:1300:U:O2	25:DA:1300:U:O4'	2.30	0.50
1:AA:1255:G:H3'	1:AA:1279:A:N6	2.23	0.50
25:DA:1528:A:O2'	25:DA:1528(A):A:H5'	2.11	0.50
30:DF:66:PRO:O	30:DF:67:GLN:CB	2.60	0.50
1:AA:997:U:C2'	1:AA:998:G:C5'	2.89	0.50
2:AB:235:SER:HG	2:AB:236:TYR:HD1	1.58	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2662:A:H2'	25:BA:2663:G:O4'	2.10	0.50
25:DA:1231:G:O2'	25:DA:1232:G:H5'	2.11	0.50
28:BD:134:ARG:HG3	28:BD:135:PHE:CD2	2.47	0.50
47:B0:54:ARG:HB2	47:B0:54:ARG:NH1	2.26	0.50
28:DD:75:ILE:HG21	28:DD:99:ASP:HB2	1.93	0.50
1:CA:486:U:H2'	1:CA:487:A:C8	2.46	0.50
1:CA:1056:U:O3'	3:CC:155:GLY:HA3	2.11	0.50
27:DC:26:ALA:O	27:DC:30:VAL:HG12	2.11	0.50
4:CD:91:SER:O	4:CD:92:VAL:C	2.49	0.50
25:BA:797:C:OP1	30:BF:62:ARG:HB2	2.11	0.50
28:DD:133:LEU:HD21	28:DD:191:ALA:CB	2.42	0.50
42:DV:66:ARG:HB2	42:DV:88:ARG:NH2	2.26	0.50
20:CT:79:ARG:HD2	20:CT:83:ARG:CZ	2.42	0.50
25:BA:1165:U:H2'	25:BA:1166:C:C6	2.46	0.50
15:AO:37:ASN:O	15:AO:41:GLU:HB2	2.12	0.50
3:CC:126:ARG:HG2	3:CC:126:ARG:HH11	1.75	0.50
25:DA:962:G:O2'	25:DA:963:U:H5'	2.11	0.50
1:AA:1061:G:C2'	1:AA:1062:U:H5'	2.41	0.50
1:AA:1466:C:O2'	1:AA:1467:G:H5'	2.11	0.50
32:BH:143:GLN:O	32:BH:146:ALA:N	2.45	0.50
1:CA:575:G:OP1	1:CA:575:G:H4'	2.10	0.50
11:AK:20:TYR:CE2	11:AK:83:ILE:HD12	2.47	0.50
25:DA:201:C:O2'	25:DA:202:U:H5'	2.10	0.50
36:BP:41:ARG:NE	36:BP:45:LEU:HD12	2.26	0.50
39:BS:61:ASN:ND2	39:BS:61:ASN:C	2.65	0.50
35:DO:98:VAL:O	35:DO:98:VAL:HG13	2.12	0.50
1:AA:1117:G:H4'	9:AI:104:ARG:HH12	1.74	0.50
9:AI:121:ARG:NH1	9:AI:121:ARG:HG2	2.26	0.50
32:BH:15:VAL:HG11	32:BH:79:VAL:HG23	1.93	0.50
2:CB:17:PHE:O	2:CB:204:ASN:HB2	2.11	0.50
25:DA:1022:G:H2'	25:DA:1025:G:N2	2.27	0.50
34:DN:99:LEU:C	34:DN:99:LEU:HD13	2.32	0.50
25:DA:2100:G:C2'	25:DA:2101:G:H5'	2.42	0.50
25:DA:2109:U:H1'	25:DA:2181:G:N2	2.25	0.50
25:BA:1493:C:H2'	25:BA:1493:C:O2	2.11	0.50
7:CG:30:ILE:HB	7:CG:39:ALA:HB1	1.92	0.50
41:BU:112:ARG:HE	42:BV:46:VAL:HG11	1.77	0.50
2:CB:132:LYS:NZ	2:CB:136:VAL:HG21	2.26	0.50
35:BO:69:ILE:HG21	35:BO:105:GLU:OE2	2.12	0.50
45:BY:28:LYS:CB	45:BY:37:VAL:HB	2.31	0.50
25:BA:1342:A:O2'	25:BA:1344:G:OP2	2.26	0.50
25:DA:158:U:H3	25:DA:171:G:P	2.34	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:662:G:OP1	36:BP:18:ARG:NH1	2.35	0.50
25:BA:1638:C:H1'	25:BA:2698:U:O2'	2.11	0.50
25:DA:2392:A:N3	25:DA:2392:A:H5'	2.26	0.50
2:AB:22:LYS:N	2:AB:40:HIS:HE1	2.10	0.50
1:CA:323:U:H2'	1:CA:324:G:O4'	2.11	0.50
20:CT:14:LYS:O	20:CT:18:GLN:HG3	2.11	0.50
13:AM:25:ILE:HD11	13:AM:66:LEU:HD23	1.91	0.50
43:DW:2:GLU:OE2	43:DW:72:LYS:NZ	2.43	0.50
25:BA:655:A:C3'	25:BA:656:G:H5'	2.42	0.50
3:CC:64:VAL:CG2	3:CC:99:VAL:HA	2.41	0.50
1:CA:963:G:H21	10:CJ:55:LYS:CD	2.23	0.50
46:DZ:119:ILE:O	46:DZ:170:ILE:O	2.30	0.50
42:BV:15:GLU:O	42:BV:16:PRO:C	2.49	0.50
42:BV:19:LYS:CG	42:BV:94:LEU:HB2	2.35	0.50
49:D2:58:ALA:O	49:D2:61:LEU:N	2.43	0.50
48:B1:86:SER:CB	48:B1:89:GLU:CD	2.80	0.50
46:BZ:80:ARG:O	46:BZ:82:PRO:N	2.44	0.50
19:CS:15:LEU:HD22	19:CS:15:LEU:N	2.26	0.50
1:AA:28:G:O2'	1:AA:296:U:H5''	2.12	0.50
25:BA:2473:U:O2	25:BA:2473:U:H2'	2.09	0.50
6:CF:4:TYR:OH	6:CF:69:GLU:HA	2.12	0.50
12:AL:53:ALA:HB2	12:AL:67:ILE:HD11	1.94	0.50
25:DA:2207:G:N3	25:DA:2207:G:H2'	2.26	0.50
25:DA:309:G:O3'	45:DY:18:GLY:CA	2.59	0.50
25:BA:2174:C:C2	27:BC:219:MET:HE1	2.46	0.50
28:DD:80:ALA:HB3	28:DD:94:LEU:HD13	1.94	0.50
25:BA:1903:G:OP1	28:BD:241:PRO:HB2	2.12	0.50
25:DA:1225:G:O3'	42:DV:84:LYS:HD3	2.11	0.50
11:AK:95:ILE:HD12	11:AK:108:ILE:CD1	2.41	0.50
1:CA:1173:G:OP1	7:CG:5:ARG:NH2	2.45	0.50
34:DN:74:ARG:HG3	34:DN:74:ARG:NH1	2.25	0.50
36:DP:31:ALA:O	36:DP:33:ARG:N	2.45	0.50
1:CA:544:G:C6	1:CA:545:C:C4	3.00	0.50
1:CA:662:G:H2'	1:CA:663:A:H8	1.76	0.50
26:BB:87:G:H2'	26:BB:88:C:H5''	1.94	0.50
22:AV:100:GLY:O	22:AV:104:PHE:HD1	1.95	0.50
22:AV:1:MET:HA	22:AV:61:GLU:HA	1.94	0.50
29:DE:44:TYR:HD2	29:DE:82:ARG:HD3	1.77	0.50
36:BP:21:ARG:HD3	36:BP:29:LYS:HE3	1.94	0.50
39:BS:85:VAL:HG22	39:BS:106:ARG:CB	2.41	0.50
10:AJ:35:SER:O	10:AJ:36:GLY:O	2.29	0.50
25:DA:90:U:H2'	25:DA:90:U:O2	2.12	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2182:G:H2'	25:BA:2183:C:C5	2.46	0.50
40:BT:34:VAL:HG13	40:BT:39:ARG:CA	2.39	0.50
37:BQ:16:ARG:C	37:BQ:17:LEU:HD23	2.31	0.50
1:CA:631:G:C2'	1:CA:632:A:C8	2.93	0.50
12:CL:29:PHE:HE1	12:CL:83:ARG:HG3	1.75	0.50
33:DI:8:PRO:HB3	33:DI:15:VAL:H	1.76	0.50
54:D7:27:GLY:O	54:D7:30:VAL:N	2.44	0.50
1:CA:1082:G:O2'	1:CA:1083:U:H5'	2.11	0.50
8:CH:12:ARG:HG2	8:CH:24:THR:CG2	2.41	0.50
5:CE:19:MET:SD	5:CE:24:ARG:HB3	2.52	0.50
52:B5:15:ARG:O	52:B5:18:ALA:HB3	2.11	0.50
18:AR:36:ASN:ND2	18:AR:39:VAL:CG2	2.75	0.50
7:AG:21:VAL:HG23	7:AG:22:LEU:N	2.26	0.50
1:AA:117:G:H2'	1:AA:118:U:O4'	2.12	0.50
1:AA:127:G:O2'	1:AA:128:G:H5'	2.12	0.50
40:DT:64:ARG:HH12	40:DT:103:ARG:HA	1.77	0.50
25:BA:313:C:O2'	25:BA:314:A:H5'	2.12	0.50
1:CA:403:C:O2'	1:CA:404:U:H5'	2.11	0.50
25:DA:968:G:C6	25:DA:969:U:C4	3.00	0.50
25:BA:2843:G:O2'	25:BA:2844:G:H5'	2.12	0.50
25:DA:790:C:O2'	25:DA:791:C:H5'	2.11	0.50
5:CE:84:PHE:HB2	5:CE:134:ALA:HB2	1.93	0.50
25:DA:2563:U:H2'	25:DA:2565:A:OP2	2.10	0.50
23:CW:56:C:O2	31:DG:78:SER:HB2	2.11	0.50
55:B8:6:THR:HG21	55:B8:63:PRO:HD3	1.93	0.50
35:DO:97:ARG:HG3	35:DO:97:ARG:HH11	1.77	0.50
25:BA:159:U:H3'	25:BA:160:U:H2'	1.94	0.50
2:CB:21:ARG:HB2	2:CB:38:GLY:O	2.12	0.50
50:D3:5:LYS:HG3	50:D3:36:VAL:HA	1.94	0.50
41:DU:52:ARG:HH11	41:DU:52:ARG:HG3	1.75	0.50
25:DA:954:G:OP1	37:DQ:15:GLY:N	2.45	0.50
44:DX:57:LEU:HD22	44:DX:57:LEU:C	2.32	0.50
7:CG:32:ARG:O	7:CG:33:ASP:HB2	2.12	0.50
1:CA:1129:C:H1'	1:CA:1132:C:C5	2.47	0.50
22:CV:150:PRO:CB	22:CV:160:GLN:HE22	2.24	0.50
1:AA:957:U:C1'	1:AA:960:U:H3	2.24	0.50
29:BE:60:ASN:CG	29:BE:62:PRO:HD2	2.31	0.50
1:AA:160:A:H2	1:AA:343:U:H1'	1.76	0.50
36:DP:10:PRO:O	36:DP:11:GLY:O	2.30	0.50
1:AA:19:C:H2'	1:AA:20:U:C6	2.45	0.50
25:DA:171:G:OP1	25:DA:171:G:C8	2.64	0.50
28:BD:35:LYS:HZ2	28:BD:103:ARG:HA	1.76	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:24:TRP:CE2	2:AB:26:PRO:HD3	2.47	0.50
2:AB:78:GLN:O	2:AB:81:VAL:HB	2.12	0.50
25:BA:1826:G:C4'	28:BD:242:ARG:HH21	2.20	0.50
40:DT:39:ARG:O	40:DT:41:ARG:N	2.45	0.50
22:CV:84:ASP:HB3	22:CV:89:GLU:N	2.26	0.50
25:BA:1798:U:H5'	28:BD:259:THR:HG22	1.94	0.50
46:DZ:140:VAL:HG23	46:DZ:143:LEU:HG	1.92	0.50
46:DZ:150:HIS:HA	46:DZ:170:ILE:CG1	2.36	0.50
25:BA:1162:G:H4'	42:BV:24:LYS:HB2	1.94	0.50
8:AH:109:ILE:HG23	8:AH:137:VAL:HB	1.94	0.50
33:BI:9:LEU:HB2	33:BI:12:LEU:O	2.12	0.50
36:DP:85:LEU:CA	36:DP:88:LEU:HD13	2.41	0.50
3:AC:134:ILE:HD11	3:AC:153:VAL:CG2	2.41	0.50
39:DS:98:VAL:C	39:DS:100:ALA:H	2.14	0.50
25:DA:192:C:C2'	25:DA:193:U:H5'	2.41	0.50
51:B4:40:ILE:HB	51:B4:48:ILE:HG13	1.92	0.50
10:CJ:78:ASN:HD22	10:CJ:80:LYS:HB2	1.77	0.50
5:AE:53:LEU:O	5:AE:56:GLN:HB3	2.11	0.50
1:AA:622:A:C8	1:AA:623:C:C5	2.99	0.50
39:BS:17:ARG:O	39:BS:18:ILE:HG22	2.12	0.50
26:DB:16:G:O2'	26:DB:17:C:H5'	2.11	0.50
1:AA:490:G:C4	1:AA:491:G:C8	3.00	0.50
25:DA:17:G:H4'	41:DU:25:TRP:CH2	2.47	0.50
28:DD:271:ILE:O	28:DD:272:ALA:CB	2.58	0.50
22:AV:71:GLN:H	22:AV:83:MET:H	1.59	0.50
6:AF:63:TYR:O	6:AF:65:VAL:N	2.45	0.50
37:BQ:46:GLN:O	37:BQ:48:GLU:N	2.45	0.50
44:DX:29:TRP:HA	44:DX:29:TRP:HE3	1.77	0.50
27:DC:186:LEU:HA	27:DC:189:ASN:ND2	2.26	0.50
1:CA:1260:C:C6	1:CA:1260:C:H3'	2.46	0.50
36:DP:49:ARG:HH21	36:DP:50:ARG:NH2	2.10	0.50
1:CA:432:A:H2'	1:CA:433:C:O4'	2.12	0.50
33:DI:100:ALA:C	33:DI:102:SER:N	2.65	0.50
25:BA:1012:U:C5	34:BN:28:THR:HG21	2.47	0.50
32:BH:164:TYR:O	32:BH:165:ALA:HB2	2.12	0.50
51:D4:60:GLU:O	51:D4:61:VAL:CB	2.59	0.50
1:AA:918:A:H2'	1:AA:919:A:O4'	2.11	0.50
1:AA:442:C:H42	1:AA:492:G:H1	1.59	0.50
25:BA:1684:C:H2'	25:BA:1685:C:C6	2.47	0.50
2:CB:96:ARG:HD3	2:CB:148:TYR:HE1	1.77	0.50
1:AA:967:C:H4'	9:AI:125:TYR:CE2	2.46	0.50
25:DA:444:C:O2'	25:DA:445:C:H5'	2.12	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:697:U:H2'	1:AA:698:G:H5'	1.93	0.50
15:AO:30:ALA:CA	15:AO:85:LEU:HD11	2.42	0.50
1:AA:152:A:H2'	1:AA:153:C:O4'	2.11	0.50
1:AA:827:U:O4	1:AA:870:U:H1'	2.11	0.50
4:AD:164:ALA:O	4:AD:168:ARG:HD2	2.12	0.50
25:DA:332:A:H1'	25:DA:333:G:OP1	2.12	0.50
36:BP:94:GLU:HG3	36:BP:124:LYS:HB3	1.93	0.50
1:CA:633:G:H5'	1:CA:634:C:OP2	2.11	0.50
25:BA:1119:C:O2'	25:BA:1120:G:H5'	2.12	0.50
29:BE:36:ARG:HD3	29:BE:85:ASN:ND2	2.27	0.50
40:BT:111:ARG:HG3	40:BT:111:ARG:HH11	1.75	0.50
7:AG:35:LYS:O	7:AG:38:LEU:N	2.45	0.50
3:AC:9:GLY:HA3	14:AN:49:HIS:HA	1.93	0.50
25:DA:864:G:H2'	25:DA:865:C:C6	2.46	0.50
45:DY:2:ARG:O	45:DY:4:LYS:N	2.45	0.50
45:DY:8:LYS:O	45:DY:9:LYS:HG2	2.11	0.50
25:BA:2102:U:H5	25:BA:2187:G:H1	1.58	0.50
1:AA:344:A:H3'	1:AA:346:G:C6	2.43	0.50
3:AC:104:GLN:NE2	3:AC:105:GLU:O	2.45	0.50
3:AC:70:VAL:HG12	3:AC:71:ALA:H	1.74	0.50
31:BG:43:LEU:HD21	31:BG:90:LEU:HB2	1.94	0.50
32:DH:85:LYS:HZ2	32:DH:133:VAL:HG11	1.76	0.50
32:DH:97:ARG:HG2	32:DH:98:LEU:N	2.27	0.50
32:DH:91:GLY:O	32:DH:92:ILE:HG13	2.11	0.50
36:BP:146:VAL:CG2	36:BP:147:LEU:H	2.01	0.50
20:CT:13:LEU:HD12	20:CT:14:LYS:N	2.26	0.50
16:CP:48:TRP:CE3	16:CP:49:LEU:HB2	2.46	0.50
40:BT:28:VAL:HG12	40:BT:29:ARG:CD	2.34	0.50
1:AA:1330:U:H4'	13:AM:23:TYR:CD2	2.46	0.50
13:AM:15:VAL:HG23	13:AM:34:LEU:HD11	1.94	0.50
35:BO:2:ILE:HB	35:BO:33:ALA:HB3	1.94	0.50
4:AD:61:LYS:C	4:AD:63:LYS:H	2.14	0.50
23:CW:6:G:O2'	23:CW:7:G:H5'	2.11	0.50
25:DA:2803:C:H5'	25:DA:2804:C:P	2.51	0.50
25:BA:1784:A:H4'	25:BA:1785:A:O5'	2.10	0.50
1:CA:1047:G:C2'	1:CA:1048:G:H5'	2.41	0.50
14:CN:6:LEU:O	14:CN:9:LYS:N	2.44	0.50
1:AA:1364:U:O2'	1:AA:1365:G:H5'	2.12	0.50
1:CA:952:U:O2'	1:CA:953:G:H5'	2.12	0.50
19:CS:20:LEU:O	19:CS:23:ASN:N	2.43	0.50
6:CF:53:ALA:C	6:CF:55:ASP:H	2.15	0.50
18:CR:50:ILE:HD11	18:CR:74:ARG:NH1	2.27	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BI:112:LYS:H	33:BI:114:LEU:HD12	1.76	0.50
43:BW:92:ARG:O	43:BW:93:ALA:HB3	2.11	0.50
51:D4:62:CYS:C	51:D4:64:LYS:H	2.14	0.50
25:DA:1666:G:C2'	25:DA:1667:G:H5'	2.42	0.50
36:DP:35:HIS:O	36:DP:36:LYS:CB	2.59	0.50
40:DT:136:GLN:CG	40:DT:137:LYS:N	2.74	0.50
31:BG:126:ASP:O	31:BG:128:ARG:N	2.43	0.50
37:BQ:61:GLY:O	46:BZ:176:PRO:CB	2.60	0.50
31:BG:110:ALA:O	31:BG:111:LEU:C	2.50	0.50
4:AD:93:PHE:O	4:AD:94:LEU:C	2.50	0.50
27:DC:60:ARG:HH21	27:DC:143:ALA:HB2	1.76	0.50
29:BE:100:GLU:O	29:BE:172:VAL:HG23	2.12	0.50
20:CT:62:LEU:HD23	20:CT:62:LEU:O	2.11	0.50
25:DA:1825:A:O4'	28:DD:254:THR:HG21	2.11	0.50
22:CV:132:VAL:O	22:CV:168:GLY:N	2.45	0.50
32:BH:30:LYS:HZ2	32:BH:81:GLU:HA	1.77	0.50
48:B1:76:ARG:HH21	48:B1:97:LEU:HB3	1.76	0.50
25:DA:251:A:H5'	36:DP:51:PHE:CE2	2.47	0.50
26:DB:45:A:C8	31:DG:95:ARG:NE	2.77	0.50
33:DI:98:ALA:C	33:DI:100:ALA:N	2.65	0.50
36:DP:86:LYS:HB2	36:DP:117:GLU:O	2.11	0.50
27:BC:6:LYS:NZ	27:BC:9:ARG:HB2	2.27	0.50
27:BC:194:ILE:HG22	27:BC:198:GLU:CD	2.32	0.50
25:DA:2555:U:C2'	25:DA:2556:C:H5'	2.41	0.50
14:CN:50:LYS:HE3	14:CN:52:GLN:NE2	2.25	0.50
34:DN:126:PRO:C	34:DN:127:ASP:OD1	2.50	0.50
25:BA:2348:U:O2'	25:BA:2349:G:H5''	2.11	0.50
25:BA:1997:G:H2'	25:BA:1998:G:H8	1.75	0.50
1:AA:1509:C:H2'	1:AA:1510:U:O4'	2.12	0.50
1:AA:351:G:OP2	1:AA:351:G:C8	2.63	0.50
25:DA:755:C:O2'	25:DA:756:C:H5'	2.12	0.50
25:BA:2611:U:O2'	52:B5:3:LYS:HG2	2.12	0.50
25:BA:2753:A:O2'	25:BA:2754:U:C6	2.63	0.50
25:BA:2233:U:H2'	25:BA:2234:G:C8	2.47	0.50
3:CC:73:PRO:C	3:CC:75:VAL:N	2.65	0.50
25:DA:1877:A:H3'	25:DA:1878:G:O4'	2.12	0.50
29:BE:120:TRP:CD1	29:BE:155:LYS:HB3	2.47	0.50
1:AA:685:G:C2	1:AA:686:U:C4	3.00	0.50
25:BA:231:C:H2'	25:BA:232:G:O4'	2.11	0.50
8:AH:51:VAL:HG21	8:AH:60:ARG:HG2	1.94	0.50
25:BA:1469:A:H2'	25:BA:1470:G:C8	2.47	0.50
25:BA:2109:U:H1'	25:BA:2181:G:N2	2.27	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:337:C:H2'	25:DA:338:G:O4'	2.12	0.50
39:BS:68:GLN:HA	39:BS:71:ARG:NH1	2.27	0.50
25:DA:1764:G:H2'	25:DA:1765:C:C6	2.46	0.50
43:DW:28:SER:OG	43:DW:31:GLU:HB2	2.11	0.50
33:BI:80:PRO:O	33:BI:81:VAL:HB	2.11	0.50
46:DZ:28:TYR:N	46:DZ:87:PHE:O	2.39	0.50
2:CB:80:ILE:HD11	2:CB:212:GLN:HA	1.93	0.50
2:CB:21:ARG:C	2:CB:23:ARG:HH12	2.14	0.50
2:CB:8:LYS:O	2:CB:10:LEU:N	2.44	0.50
25:DA:1141:U:H2'	34:DN:63:THR:HB	1.94	0.50
41:DU:110:VAL:O	41:DU:113:ALA:HB3	2.12	0.50
41:DU:57:PHE:O	41:DU:60:LEU:N	2.45	0.50
42:DV:15:GLU:O	42:DV:16:PRO:C	2.50	0.50
25:BA:2178:C:O2'	27:BC:169:THR:HB	2.12	0.50
48:D1:46:LEU:N	48:D1:46:LEU:CD2	2.70	0.50
25:BA:1154:G:OP2	41:BU:58:ARG:NH1	2.45	0.50
19:CS:32:LYS:HA	19:CS:50:ALA:CB	2.23	0.50
1:AA:1254:C:OP1	10:AJ:45:ARG:HG2	2.11	0.50
1:AA:1147:C:O2	9:AI:16:ARG:NH1	2.45	0.50
53:D6:48:VAL:O	53:D6:49:HIS:HB2	2.10	0.50
29:DE:21:VAL:O	29:DE:23:VAL:HG13	2.10	0.50
32:DH:85:LYS:NZ	32:DH:133:VAL:HG21	2.21	0.50
53:B6:11:LEU:O	53:B6:24:GLU:N	2.44	0.50
36:BP:140:ALA:O	36:BP:141:ALA:CB	2.59	0.50
36:DP:58:THR:O	36:DP:58:THR:HG22	2.12	0.50
25:BA:478:A:N1	25:BA:500:G:H4'	2.26	0.50
25:DA:274:G:N2	25:DA:275:G:C1'	2.75	0.50
13:CM:34:LEU:CD1	13:CM:41:PRO:HG3	2.38	0.50
13:AM:97:PRO:HA	13:AM:110:ARG:CD	2.42	0.50
11:AK:123:LYS:HA	11:AK:126:ARG:HG3	1.92	0.50
10:AJ:13:HIS:HB3	10:AJ:68:HIS:CD2	2.47	0.50
9:CI:114:TYR:HE1	10:CJ:60:ARG:N	2.09	0.50
10:CJ:49:VAL:HG23	14:CN:41:ARG:CD	2.42	0.50
32:BH:71:LEU:HA	32:BH:74:ASN:HD22	1.77	0.50
47:D0:71:ASP:O	47:D0:72:ARG:HG2	2.11	0.50
40:DT:23:ARG:HB2	40:DT:24:PRO:HD2	1.93	0.50
40:DT:28:VAL:HG11	40:DT:46:GLU:CG	2.41	0.50
1:AA:1363(A):A:C5'	1:AA:1364:U:OP1	2.51	0.50
30:DF:154:VAL:N	30:DF:172:TRP:O	2.45	0.50
36:BP:27:HIS:C	36:BP:27:HIS:CD2	2.85	0.50
25:BA:2289:G:C2'	25:BA:2290:G:H5''	2.42	0.50
25:BA:781:A:C8	28:BD:219:PRO:HG3	2.47	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:33:A:OP2	1:AA:398:C:H5'	2.12	0.50
12:AL:50:ARG:HG2	12:AL:50:ARG:HH11	1.76	0.50
12:AL:87:VAL:C	12:AL:89:ASP:H	2.15	0.50
1:CA:81:U:H2'	1:CA:82:U:H6	1.76	0.50
1:CA:189(H):G:O2'	1:CA:189(I):G:H5'	2.12	0.50
5:CE:109:ILE:O	5:CE:111:GLU:N	2.45	0.50
11:AK:32:ILE:CD1	11:AK:32:ILE:H	2.15	0.50
25:DA:1568:G:OP2	28:DD:63:ARG:NH2	2.45	0.50
12:CL:65:ALA:HB2	12:CL:82:ILE:HD12	1.94	0.50
1:CA:1309:G:C6	1:CA:1329:A:C2	2.99	0.50
1:CA:1522:U:O2'	1:CA:1523:G:H5'	2.12	0.50
25:DA:2179:C:H1'	27:DC:169:THR:HG22	1.94	0.50
25:DA:538:G:C2	25:DA:539:G:C5	3.00	0.50
46:DZ:130:ARG:N	46:DZ:130:ARG:CD	2.70	0.50
39:BS:85:VAL:HG22	39:BS:106:ARG:HB2	1.94	0.50
46:BZ:17:LEU:O	46:BZ:22:LYS:N	2.41	0.50
4:AD:100:ARG:NH1	4:AD:137:SER:HA	2.26	0.50
26:BB:65:C:N4	26:BB:109:C:H2'	2.24	0.50
25:DA:1275:A:N7	38:DR:16:HIS:HB2	2.26	0.50
30:BF:164:ARG:O	30:BF:168:ARG:HB2	2.12	0.50
20:CT:33:ILE:CG2	20:CT:63:ILE:HG12	2.39	0.50
25:DA:184:C:H2'	25:DA:185:U:H6	1.77	0.50
25:DA:2738:A:N1	25:DA:2739:U:C2	2.80	0.50
45:BY:2:ARG:O	45:BY:3:VAL:HB	2.11	0.50
35:DO:1:MET:CE	35:DO:67:LYS:HG2	2.41	0.50
1:AA:1228:C:O3'	13:AM:116:THR:HA	2.12	0.50
25:BA:1964:G:H4'	25:BA:1965:C:OP2	2.12	0.50
25:BA:1952:A:C6	35:BO:22:ILE:HD12	2.46	0.50
25:BA:226:G:H21	25:BA:228:A:H62	1.59	0.50
10:CJ:32:ALA:CB	10:CJ:76:ASN:HB2	2.41	0.50
1:AA:931:C:H42	1:AA:1386:G:H1	1.60	0.50
1:CA:484:G:O2'	1:CA:485:G:OP2	2.27	0.50
1:AA:834:C:H2'	1:AA:835:U:C6	2.46	0.50
15:AO:38:ARG:HH11	15:AO:38:ARG:HG2	1.76	0.50
29:BE:91:VAL:HG13	29:BE:95:ILE:HG12	1.93	0.50
25:DA:939:G:C2'	25:DA:940:G:H5'	2.42	0.50
27:DC:193:PHE:O	27:DC:196:ALA:N	2.45	0.50
25:BA:1448:G:HO2'	25:BA:1528(A):A:N6	2.10	0.50
25:BA:1357:U:H2'	25:BA:1358:G:O4'	2.11	0.50
33:BI:29:TYR:CE1	33:BI:33:ARG:NE	2.79	0.50
4:AD:98:GLU:CG	4:AD:103:ASN:HD21	2.25	0.50
9:AI:126:SER:O	9:AI:128:ARG:HD3	2.12	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1399:C:OP1	44:BX:25:LYS:NZ	2.40	0.50
25:BA:272(A):U:H6	25:BA:272(A):U:C5'	2.25	0.50
25:BA:2180:U:H2'	25:BA:2181:G:O4'	2.10	0.50
41:DU:112:ARG:O	41:DU:115:ALA:HB3	2.12	0.50
8:CH:33:GLU:O	8:CH:37:ARG:HB2	2.12	0.50
1:CA:1205:U:H4'	3:CC:195:VAL:HG21	1.94	0.50
22:AV:64:TYR:CD1	22:AV:64:TYR:N	2.80	0.50
22:CV:27:HIS:HE1	25:DA:2255:G:H5'	1.77	0.50
39:BS:78:LEU:C	39:BS:80:LEU:H	2.15	0.49
3:AC:14:ILE:HD13	3:AC:178:LEU:HB3	1.94	0.49
50:D3:4:LEU:O	50:D3:37:LEU:N	2.45	0.49
7:CG:71:PRO:CG	7:CG:103:TRP:HZ3	2.22	0.49
7:CG:106:GLN:HA	7:CG:109:ASN:HD22	1.76	0.49
25:DA:2305:A:H2'	25:DA:2306:C:H5''	1.93	0.49
25:DA:278:A:H5''	25:DA:279:C:OP2	2.11	0.49
3:AC:35:GLU:HG2	3:AC:39:ILE:HD11	1.94	0.49
25:BA:2698:U:H2'	25:BA:2699:C:C6	2.46	0.49
32:DH:94:TYR:CD1	32:DH:107:VAL:HA	2.46	0.49
25:BA:1593:G:C3'	25:BA:1594:G:C5'	2.90	0.49
25:DA:283:A:H5'	25:DA:284:U:C5	2.45	0.49
4:AD:104:VAL:HG12	4:AD:108:LEU:HD13	1.93	0.49
8:AH:16:ALA:HB1	8:AH:63:LEU:HD21	1.93	0.49
48:B1:53:VAL:HG23	48:B1:74:VAL:HG13	1.94	0.49
14:AN:21:TYR:HE2	14:AN:23:ARG:HH21	1.60	0.49
1:CA:1320:C:OP1	19:CS:70:LYS:NZ	2.45	0.49
36:DP:112:LEU:HD22	36:DP:113:LYS:N	2.27	0.49
1:CA:1034:G:H3'	1:CA:1034:G:C8	2.47	0.49
32:BH:127:GLU:C	32:BH:129:THR:H	2.15	0.49
32:BH:89:ILE:HD12	32:BH:90:LYS:H	1.77	0.49
10:CJ:24:VAL:CG2	10:CJ:72:VAL:HG11	2.42	0.49
31:BG:76:SER:CA	31:BG:84:LYS:H	2.25	0.49
40:BT:54:ARG:HH11	40:BT:54:ARG:HG2	1.77	0.49
1:CA:265:G:H2'	1:CA:267:C:C5	2.45	0.49
25:BA:1040:C:O5'	25:BA:1040:C:H6	1.94	0.49
32:DH:68:THR:O	32:DH:70:THR:N	2.45	0.49
25:BA:1503:U:C4	25:BA:1504:C:N4	2.80	0.49
44:BX:41:ASN:ND2	44:BX:41:ASN:N	2.59	0.49
1:CA:222:U:C2	1:CA:223:U:C5	3.00	0.49
6:CF:100:ASN:HB2	18:CR:28:GLU:HA	1.92	0.49
34:BN:129:PRO:O	34:BN:131:GLN:OE1	2.30	0.49
36:BP:71:VAL:O	36:BP:73:GLY:N	2.44	0.49
50:B3:26:LEU:O	50:B3:35:ARG:HD3	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:570:G:H1'	1:CA:820:U:C4	2.48	0.49
1:CA:878:G:O4'	8:CH:3:THR:HG21	2.11	0.49
25:DA:148:C:H5'	25:DA:149:A:OP2	2.12	0.49
22:AV:71:GLN:OE1	22:AV:85:LEU:HD21	2.12	0.49
4:AD:191:ARG:O	4:AD:191:ARG:HD2	2.12	0.49
1:AA:598:U:O2'	1:AA:599:C:H5'	2.12	0.49
25:BA:212:G:C2'	25:BA:213:A:H5'	2.41	0.49
25:BA:952:G:C6	25:BA:953:A:N7	2.80	0.49
25:DA:1205:U:H3'	25:DA:1206:G:C5'	2.41	0.49
50:B3:54:VAL:HG12	50:B3:55:ARG:H	1.75	0.49
44:BX:60:ARG:HH12	54:B7:47:ARG:HH22	1.59	0.49
25:DA:2777:G:H5''	25:DA:2778:A:C5'	2.42	0.49
1:CA:728:A:H2'	1:CA:729:A:C8	2.46	0.49
40:DT:108:ARG:HA	40:DT:111:ARG:HH12	1.73	0.49
25:DA:747:U:H6	25:DA:747:U:O5'	1.95	0.49
25:DA:919:G:H2'	25:DA:920:G:C8	2.46	0.49
1:AA:175:C:H4'	20:AT:25:ARG:NH1	2.26	0.49
1:CA:64:G:N2	1:CA:67:C:C4	2.80	0.49
25:DA:2772:C:H2'	25:DA:2773:C:C6	2.45	0.49
16:CP:18:ARG:HH11	16:CP:35:LYS:HD2	1.77	0.49
20:AT:74:LYS:HD3	20:AT:74:LYS:N	2.24	0.49
4:CD:57:ARG:NE	4:CD:205:GLU:OE2	2.45	0.49
1:AA:791:G:N2	1:AA:1497:G:H4'	2.27	0.49
26:BB:17:C:H2'	26:BB:18:G:H5'	1.94	0.49
28:DD:134:ARG:HD3	28:DD:135:PHE:CZ	2.47	0.49
36:BP:70:GLN:HA	36:BP:70:GLN:OE1	2.12	0.49
25:BA:1272:A:H3'	25:BA:1273:U:C5'	2.42	0.49
25:DA:775:G:H4'	25:DA:776:G:O5'	2.11	0.49
11:AK:52:GLY:O	11:AK:55:LYS:HE2	2.12	0.49
42:BV:69:LYS:HA	42:BV:88:ARG:HG2	1.93	0.49
16:CP:3:LYS:O	16:CP:4:ILE:HG13	2.11	0.49
25:DA:769:G:O2'	25:DA:770:G:H5'	2.11	0.49
28:DD:245:PRO:O	28:DD:246:PRO:C	2.51	0.49
1:AA:1353:G:C2	1:AA:1370:G:C2	3.00	0.49
46:DZ:101:LEU:HD13	46:DZ:121:ARG:O	2.12	0.49
46:DZ:10:GLU:C	46:DZ:12:GLU:OE2	2.50	0.49
2:CB:207:ALA:HB1	2:CB:209:ARG:CG	2.41	0.49
2:CB:68:ILE:O	2:CB:90:MET:HB3	2.12	0.49
2:CB:91:PRO:CG	2:CB:155:LEU:HB2	2.42	0.49
25:DA:1002:G:H2'	25:DA:1003:G:O4'	2.12	0.49
34:DN:43:THR:HG22	34:DN:45:ASN:HD22	1.77	0.49
25:DA:864:G:N2	25:DA:867:C:N4	2.60	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:CS:61:TYR:CG	19:CS:62:ILE:N	2.79	0.49
19:CS:63:THR:HB	19:CS:66:MET:HE3	1.93	0.49
28:BD:54:ARG:HG3	28:BD:54:ARG:HH11	1.73	0.49
1:CA:1287:A:H2'	1:CA:1288:A:C8	2.47	0.49
41:BU:112:ARG:HH21	42:BV:46:VAL:CG1	2.26	0.49
19:AS:9:VAL:O	19:AS:11:VAL:HG12	2.12	0.49
45:DY:31:LEU:CB	45:DY:32:PRO:CA	2.89	0.49
30:BF:196:LEU:C	30:BF:198:ALA:H	2.15	0.49
40:BT:41:ARG:C	40:BT:42:ILE:HD12	2.32	0.49
38:DR:8:ARG:NE	38:DR:9:LYS:H	2.08	0.49
16:AP:49:LEU:HD12	16:AP:49:LEU:C	2.33	0.49
25:DA:632:A:N3	25:DA:2403:C:H1'	2.27	0.49
32:DH:85:LYS:O	32:DH:133:VAL:N	2.45	0.49
25:DA:2662:A:H2'	25:DA:2663:G:O4'	2.12	0.49
19:AS:53:ASN:OD1	19:AS:56:GLN:O	2.30	0.49
35:BO:4:PRO:HA	35:BO:21:CYS:SG	2.52	0.49
2:AB:142:LEU:O	2:AB:143:GLU:C	2.51	0.49
1:AA:1523:G:OP1	11:AK:123:LYS:HD2	2.11	0.49
5:AE:40:ARG:HA	5:AE:67:VAL:O	2.12	0.49
3:CC:11:ARG:HG2	3:CC:11:ARG:HH11	1.78	0.49
3:CC:5:ILE:O	3:CC:5:ILE:HD12	2.12	0.49
14:CN:27:CYS:O	14:CN:27:CYS:SG	2.70	0.49
25:DA:6:A:C2	25:DA:7:G:C5	3.00	0.49
1:AA:825:G:N2	8:AH:11:THR:HG21	2.27	0.49
1:CA:954:G:H2'	1:CA:955:U:C6	2.47	0.49
30:DF:132:VAL:HG13	30:DF:133:ASN:OD1	2.13	0.49
32:BH:89:ILE:O	32:BH:90:LYS:C	2.48	0.49
25:DA:26:G:C6	25:DA:27:G:N2	2.79	0.49
3:CC:138:VAL:HG21	3:CC:168:ALA:O	2.13	0.49
12:CL:116:LYS:O	12:CL:117:TYR:CB	2.60	0.49
4:AD:129:ASN:HB2	4:AD:131:ARG:NH1	2.27	0.49
35:DO:86:ILE:O	35:DO:87:ILE:HD13	2.12	0.49
5:AE:53:LEU:H	5:AE:53:LEU:CD1	2.24	0.49
30:BF:111:ALA:O	30:BF:115:ALA:HB2	2.12	0.49
20:CT:46:GLU:O	20:CT:48:LYS:N	2.45	0.49
16:CP:22:THR:HA	16:CP:33:ILE:CD1	2.41	0.49
7:CG:79:ARG:HD3	7:CG:81:GLY:N	2.27	0.49
25:BA:1983:C:C2'	25:BA:1984:G:H5'	2.42	0.49
2:AB:178:ARG:HG3	8:AH:71:GLY:CA	2.43	0.49
25:BA:2114:A:H2'	25:BA:2115:G:C1'	2.42	0.49
20:CT:59:ALA:O	20:CT:63:ILE:HG13	2.12	0.49
1:AA:998:G:O2'	1:AA:999:C:H5'	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:402:A:C2'	25:BA:403:U:H5'	2.43	0.49
23:AW:47:U:H5''	23:AW:48:C:H5'	1.93	0.49
36:DP:49:ARG:HH21	36:DP:50:ARG:HH22	1.60	0.49
47:B0:10:ARG:O	47:B0:13:ARG:NH2	2.45	0.49
25:BA:2277:G:H2'	25:BA:2278:A:C5'	2.40	0.49
30:DF:40:GLN:CD	30:DF:184:TYR:HB2	2.33	0.49
48:B1:80:LEU:HB3	48:B1:82:LEU:CD2	2.41	0.49
25:DA:2515:C:O2	25:DA:2570:G:C2	2.65	0.49
28:BD:125:ILE:HD13	28:BD:131:LEU:HD21	1.93	0.49
1:CA:677:U:H2'	1:CA:678:U:H6	1.73	0.49
25:BA:72:U:C4	25:BA:112:U:H4'	2.47	0.49
1:CA:1074:G:C2	1:CA:1075:C:C2	3.00	0.49
25:DA:225:A:O2'	25:DA:257:A:H4'	2.11	0.49
25:BA:2061:G:HO2'	25:BA:2063:C:H5	1.59	0.49
4:CD:88:VAL:HG13	5:CE:97:GLY:HA3	1.93	0.49
2:CB:175:ARG:O	2:CB:177:ALA:N	2.45	0.49
44:BX:46:ALA:HB3	44:BX:47:PHE:HD1	1.77	0.49
1:CA:491:G:C4	1:CA:492:G:C8	2.99	0.49
33:DI:129:THR:CB	33:DI:137:PRO:HA	2.41	0.49
25:DA:1445(A):C:H2'	25:DA:1446:C:H6	1.77	0.49
35:BO:10:VAL:HG23	35:BO:10:VAL:O	2.12	0.49
4:CD:180:GLY:O	4:CD:182:LYS:HE3	2.12	0.49
25:DA:679:C:O2'	25:DA:680:G:H5'	2.13	0.49
1:CA:189(D):C:H2'	1:CA:189(E):U:O4'	2.12	0.49
43:DW:51:LEU:C	43:DW:51:LEU:HD13	2.33	0.49
48:B1:66:HIS:O	48:B1:69:LYS:N	2.45	0.49
25:DA:1270:C:O2'	25:DA:1325:G:H2'	2.12	0.49
8:CH:40:ALA:HB2	8:CH:45:ILE:HG13	1.93	0.49
29:BE:158:GLY:O	29:BE:159:HIS:C	2.50	0.49
42:DV:8:GLY:O	42:DV:10:LYS:HE2	2.12	0.49
23:AW:59:A:C2'	23:AW:60:U:H5'	2.43	0.49
25:BA:1315:C:O2'	25:BA:1316:U:H5'	2.11	0.49
25:BA:2726:U:HO2'	25:BA:2727:G:C5'	2.25	0.49
25:BA:2191:G:H2'	25:BA:2192:G:O4'	2.12	0.49
25:BA:250:G:C6	25:BA:251:A:C6	3.01	0.49
36:BP:55:ARG:O	36:BP:56:SER:OG	2.24	0.49
25:BA:2876:G:O5'	40:BT:3:ARG:HA	2.11	0.49
1:AA:1371:G:OP2	9:AI:11:LYS:HD2	2.13	0.49
16:AP:25:ARG:HH11	16:AP:25:ARG:HG3	1.76	0.49
2:CB:236:TYR:HA	2:CB:239:VAL:HG21	1.92	0.49
2:CB:82:ARG:O	2:CB:86:GLU:HG3	2.11	0.49
42:DV:100:ARG:HG3	42:DV:100:ARG:O	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:DV:49:THR:CB	42:DV:50:PRO:HD2	2.42	0.49
42:DV:58:VAL:O	42:DV:97:LYS:HB2	2.12	0.49
25:BA:1815:A:OP2	28:BD:54:ARG:NH2	2.43	0.49
25:DA:484:C:H2'	25:DA:485:C:C6	2.46	0.49
35:BO:77:ILE:HD12	40:BT:74:ARG:HG2	1.94	0.49
40:BT:30:VAL:HA	40:BT:43:GLN:O	2.11	0.49
1:AA:191:G:C1'	20:AT:105:SER:HB3	2.43	0.49
30:DF:123:LEU:HD12	30:DF:124:LEU:N	2.28	0.49
10:AJ:37:PRO:HA	10:AJ:72:VAL:HG22	1.94	0.49
10:AJ:98:ILE:N	10:AJ:98:ILE:HD12	2.27	0.49
29:DE:108:SER:OG	29:DE:163:GLU:HG2	2.13	0.49
2:AB:41:ILE:HD12	2:AB:41:ILE:H	1.77	0.49
1:AA:267:C:OP1	17:AQ:67:LYS:HB2	2.12	0.49
40:BT:48:ILE:O	40:BT:63:VAL:HA	2.12	0.49
8:CH:120:THR:C	8:CH:122:ARG:H	2.16	0.49
35:BO:65:THR:HA	35:BO:82:ASN:HA	1.94	0.49
4:AD:13:ARG:HG3	4:AD:13:ARG:NH1	2.26	0.49
34:DN:117:PHE:O	34:DN:120:LEU:HB3	2.12	0.49
25:DA:2839:G:H4'	38:DR:49:ASP:HB2	1.95	0.49
33:DI:48:GLU:CD	33:DI:48:GLU:N	2.65	0.49
33:BI:20:ASP:OD2	33:BI:20:ASP:C	2.51	0.49
30:BF:34:TRP:O	30:BF:36:VAL:N	2.45	0.49
1:CA:1201:A:H1'	1:CA:1202:G:OP2	2.12	0.49
1:AA:369:C:O2'	1:AA:370:C:H5'	2.12	0.49
1:AA:372:C:C4'	1:AA:373:A:OP1	2.56	0.49
1:AA:377:G:O2'	1:AA:378:G:H5'	2.13	0.49
10:CJ:6:ILE:HG22	10:CJ:98:ILE:HD11	1.92	0.49
25:BA:813:U:H2'	25:BA:814:C:C6	2.46	0.49
25:DA:1682:G:C2	25:DA:1683:C:C2	3.00	0.49
1:CA:735:C:H2'	1:CA:736:C:H6	1.77	0.49
5:CE:107:ARG:O	5:CE:109:ILE:N	2.46	0.49
25:DA:2175:C:H2'	25:DA:2176:A:O4'	2.12	0.49
12:CL:80:VAL:CG1	12:CL:97:ILE:HG23	2.41	0.49
23:AW:70:G:O2'	23:AW:71:C:H5'	2.12	0.49
25:BA:2286:A:C8	25:BA:2287:A:C6	3.00	0.49
28:BD:70:TRP:CZ3	28:BD:146:GLU:OE2	2.64	0.49
51:D4:46:ASN:HB2	51:D4:64:LYS:HD2	1.94	0.49
25:DA:1028:A:N3	25:DA:2486:G:O2'	2.43	0.49
37:DQ:46:GLN:NE2	37:DQ:126:PRO:HD3	2.27	0.49
1:CA:197:A:N6	1:CA:221:C:C5'	2.75	0.49
55:B8:53:PRO:HG2	55:B8:54:GLU:N	2.27	0.49
30:BF:132:VAL:CG1	30:BF:133:ASN:H	2.21	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1255:G:H5''	1:AA:1279:A:H61	1.77	0.49
26:BB:55:U:O3'	31:BG:27:ASN:ND2	2.38	0.49
17:AQ:21:VAL:HG21	17:AQ:59:ILE:HD11	1.94	0.49
39:DS:77:ALA:O	39:DS:80:LEU:HB2	2.13	0.49
25:DA:1655:A:H4'	29:DE:115:GLY:H	1.77	0.49
27:BC:8:TYR:HA	27:BC:11:LEU:HB3	1.94	0.49
7:AG:138:LYS:O	7:AG:142:GLU:N	2.44	0.49
1:CA:1260:C:H6	1:CA:1260:C:H3'	1.76	0.49
1:CA:271:C:H2'	1:CA:272:C:H6	1.77	0.49
25:DA:434:U:C4'	25:DA:435:C:OP1	2.60	0.49
25:BA:1721:G:C6	25:BA:1739:U:H5'	2.47	0.49
25:DA:54:G:C2'	25:DA:55:G:H5''	2.42	0.49
42:BV:76:LYS:O	42:BV:79:VAL:HG13	2.13	0.49
10:CJ:32:ALA:HB3	10:CJ:75:ILE:CG1	2.40	0.49
41:BU:27:LEU:C	41:BU:29:SER:H	2.16	0.49
1:CA:153:C:H2'	1:CA:154:C:C6	2.47	0.49
31:DG:18:GLU:O	31:DG:22:ARG:HB2	2.11	0.49
1:AA:902:G:H2'	1:AA:903:G:H8	1.78	0.49
2:CB:103:THR:OG1	2:CB:176:GLU:HG2	2.13	0.49
16:CP:59:TRP:O	16:CP:64:ALA:HB2	2.12	0.49
28:DD:175:LEU:HD12	28:DD:185:VAL:HG21	1.93	0.49
38:DR:38:VAL:HG22	38:DR:112:ALA:HB2	1.94	0.49
44:DX:3:THR:O	44:DX:4:ALA:HB3	2.11	0.49
1:CA:1442(A):G:C5	40:DT:118:ARG:HG3	2.46	0.49
1:AA:967:C:H4'	9:AI:125:TYR:HE2	1.77	0.49
31:DG:124:SER:HB2	31:DG:131:TYR:CE1	2.48	0.49
1:CA:898:G:N2	1:CA:901:A:OP2	2.45	0.49
25:DA:384:U:H2'	25:DA:385:C:C6	2.46	0.49
5:AE:91:LEU:N	5:AE:91:LEU:HD22	2.27	0.49
25:BA:644:A:O2'	25:BA:645:C:H5''	2.13	0.49
3:AC:132:ARG:O	3:AC:133:ALA:C	2.51	0.49
8:AH:29:SER:O	8:AH:32:LYS:HB2	2.12	0.49
25:BA:2537:U:H2'	25:BA:2538:C:C6	2.47	0.49
52:D5:12:SER:C	52:D5:14:ALA:H	2.14	0.49
30:DF:77:ASP:C	30:DF:79:GLY:H	2.16	0.49
1:CA:1126:U:OP1	1:CA:1126:U:H6	1.95	0.49
28:BD:202:LYS:CG	28:BD:203:ASN:N	2.75	0.49
25:DA:2602:A:OP2	25:DA:2603:G:H5''	2.12	0.49
1:AA:1059:C:O2	10:AJ:53:PRO:HG3	2.12	0.49
32:BH:33:LEU:HD11	32:BH:136:ILE:O	2.12	0.49
25:DA:551:G:H2'	25:DA:552:G:C8	2.48	0.49
2:CB:15:VAL:CG2	2:CB:209:ARG:HE	2.24	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:DX:23:GLU:O	44:DX:25:LYS:N	2.44	0.49
9:CI:88:TYR:O	9:CI:89:ASN:CG	2.51	0.49
7:CG:111:ARG:NH1	7:CG:113:GLU:CD	2.66	0.49
9:CI:50:LEU:O	9:CI:54:ASP:N	2.46	0.49
25:DA:78:A:H2'	25:DA:79:G:H8	1.76	0.49
45:DY:8:LYS:CD	45:DY:8:LYS:N	2.76	0.49
30:DF:3:GLU:HB2	30:DF:19:GLU:HB2	1.92	0.49
25:BA:1349:A:N6	25:BA:1598:C:N4	2.61	0.49
53:D6:20:ASN:C	53:D6:21:TYR:CD1	2.86	0.49
25:DA:610:G:N2	25:DA:619:G:H1'	2.28	0.49
28:BD:267:SER:O	28:BD:269:PHE:N	2.46	0.49
25:DA:286:C:H6	25:DA:286:C:C5'	2.19	0.49
25:DA:275:G:C8	25:DA:275:G:P	3.05	0.49
1:AA:1151:A:O2'	1:AA:1152:A:H8	1.94	0.49
4:AD:19:LEU:HD12	4:AD:19:LEU:N	2.27	0.49
5:AE:11:ILE:HD12	5:AE:31:LEU:HD12	1.90	0.49
32:BH:63:SER:O	32:BH:64:LEU:CB	2.56	0.49
42:BV:1:MET:N	42:BV:99:ILE:HD11	2.27	0.49
28:DD:93:ALA:HB3	28:DD:105:ILE:CG2	2.42	0.49
36:DP:98:GLU:H	36:DP:101:VAL:HG13	1.76	0.49
17:CQ:76:LEU:HD11	17:CQ:78:GLU:C	2.31	0.49
25:DA:1309:G:P	54:D7:9:ARG:HD3	2.53	0.49
39:DS:17:ARG:C	39:DS:19:LYS:N	2.65	0.49
25:BA:857:C:C5'	47:B0:76:ARG:NH2	2.73	0.49
10:CJ:99:LYS:O	10:CJ:100:THR:HG23	2.12	0.49
6:CF:30:LEU:CD2	6:CF:75:LEU:HD11	2.41	0.49
13:AM:57:ARG:HH11	13:AM:57:ARG:HB3	1.77	0.49
13:AM:54:VAL:HA	13:AM:57:ARG:HH12	1.78	0.49
1:AA:840:C:H5''	1:AA:848:C:O2	2.13	0.49
43:BW:61:ASN:N	43:BW:61:ASN:ND2	2.59	0.49
43:DW:75:TYR:OH	43:DW:104:THR:HG21	2.12	0.49
56:B9:9:ARG:CZ	56:B9:9:ARG:HB3	2.42	0.49
6:CF:37:VAL:O	6:CF:38:GLU:HG3	2.13	0.49
25:DA:88:G:C2	25:DA:89:G:C8	2.99	0.49
29:BE:152:LYS:HB3	34:BN:78:TYR:HA	1.94	0.49
12:AL:117:TYR:CD1	12:AL:117:TYR:N	2.79	0.49
25:DA:1547:C:O2'	25:DA:1548:C:H5'	2.12	0.49
25:BA:2171:A:O2'	25:BA:2172:U:C6	2.66	0.49
25:BA:1510:G:H2'	25:BA:1511:C:C6	2.47	0.49
25:BA:444:C:OP2	30:BF:49:ALA:HB2	2.12	0.49
40:BT:117:ASP:OD1	40:BT:118:ARG:N	2.45	0.49
25:BA:2682:U:C6	25:BA:2682:U:H5'	2.42	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:B3:19:GLN:NE2	50:B3:52:HIS:CE1	2.80	0.49
25:DA:1794:U:O2'	25:DA:1795:C:H5'	2.12	0.49
25:DA:1132:A:O2'	25:DA:1133:U:O5'	2.30	0.49
25:BA:81:G:H21	45:BY:2:ARG:NH1	2.10	0.49
25:BA:1042:G:N2	25:BA:1043:C:H4'	2.26	0.49
49:D2:38:GLN:CD	49:D2:44:LEU:HD12	2.33	0.49
18:CR:86:VAL:O	18:CR:87:ARG:HD3	2.12	0.49
1:CA:986:A:H2'	1:CA:987:G:C8	2.47	0.49
7:CG:31:MET:CE	7:CG:34:GLY:HA2	2.42	0.49
25:BA:1678:G:H22	25:BA:1989:G:H22	1.60	0.49
25:BA:2753:A:O2'	25:BA:2754:U:O5'	2.30	0.49
29:DE:39:PRO:HA	29:DE:43:GLY:HA2	1.95	0.49
25:BA:2602:A:H4'	25:BA:2603:G:C5'	2.42	0.49
25:DA:758:C:O2	25:DA:1981:A:H2	1.94	0.49
46:BZ:52:ILE:HG22	46:BZ:70:VAL:O	2.12	0.49
1:CA:900:A:H2'	1:CA:901:A:O4'	2.12	0.49
1:CA:1001(A):G:H2'	1:CA:1002:G:H8	1.77	0.49
1:AA:152:A:C2'	1:AA:153:C:H5'	2.42	0.49
41:DU:68:ALA:CB	41:DU:99:ALA:HB1	2.41	0.49
17:AQ:74:LEU:HD12	17:AQ:75:ARG:HG2	1.94	0.49
1:CA:1440:C:C2'	1:CA:1441:G:H5'	2.43	0.49
25:DA:702:G:H2'	25:DA:703:U:H6	1.77	0.49
28:DD:222:ARG:NH1	28:DD:224:ALA:HB3	2.26	0.49
6:CF:94:GLN:NE2	18:CR:32:ARG:HD2	2.28	0.49
37:DQ:1:MET:O	37:DQ:2:LEU:HB2	2.11	0.49
28:DD:156:ALA:O	28:DD:157:ARG:HG3	2.13	0.49
25:DA:1882:C:H2'	25:DA:1882:C:O2	2.11	0.49
1:AA:164:U:O2'	1:AA:165:C:H5'	2.11	0.49
55:B8:7:HIS:CE1	55:B8:59:LYS:HZ3	2.30	0.49
1:AA:1112:C:N3	3:AC:178:LEU:HD23	2.28	0.49
7:AG:31:MET:HE1	7:AG:36:LYS:HB2	1.93	0.49
25:DA:1142:U:H5''	25:DA:1142(A):A:H8	1.76	0.49
34:DN:62:VAL:HG22	34:DN:66:LYS:CE	2.37	0.49
41:DU:57:PHE:O	41:DU:58:ARG:C	2.49	0.49
37:DQ:12:GLN:HB3	37:DQ:73:PRO:HD2	1.94	0.49
25:DA:2101:G:N2	25:DA:2189:U:C2	2.79	0.49
19:CS:63:THR:HG22	19:CS:66:MET:HE3	1.93	0.49
27:BC:167:ASP:OD1	27:BC:169:THR:N	2.46	0.49
7:CG:15:ASP:CG	7:CG:16:LEU:H	2.16	0.49
25:BA:2804:C:C2'	25:BA:2805:G:H5'	2.42	0.49
45:DY:38:ILE:HD12	45:DY:64:GLU:HB2	1.93	0.49
30:BF:21:ALA:C	30:BF:23:ASP:N	2.65	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DF:7:TYR:HE2	30:DF:10:PRO:HG3	1.77	0.49
3:CC:76:VAL:C	3:CC:83:ARG:HG3	2.32	0.49
53:B6:19:ARG:HD3	53:B6:42:TRP:CZ2	2.47	0.49
2:AB:88:ALA:HB2	2:AB:219:VAL:CG1	2.42	0.49
2:AB:51:LEU:O	2:AB:55:PHE:HB2	2.13	0.49
40:BT:47:GLY:HA3	40:BT:64:ARG:O	2.11	0.49
25:DA:275:G:N7	25:DA:276:A:O4'	2.45	0.49
29:BE:76:ARG:O	29:BE:77:ILE:O	2.31	0.49
35:BO:8:LEU:HB2	35:BO:19:ILE:CG1	2.41	0.49
4:AD:30:LYS:HB2	4:AD:35:ARG:HH11	1.77	0.49
25:DA:10:G:O6	25:DA:2629:A:H8	1.96	0.49
25:DA:11:G:H2'	25:DA:11:G:N3	2.27	0.49
25:DA:875:G:C4'	46:DZ:169:THR:HG21	2.42	0.49
27:BC:119:ASP:OD2	27:BC:148:PHE:CE1	2.62	0.49
27:BC:80:LYS:CD	27:BC:120:VAL:HG12	2.38	0.49
1:AA:1053:G:N7	1:AA:1199:U:C2'	2.73	0.49
10:AJ:50:ILE:N	10:AJ:50:ILE:CD1	2.75	0.49
25:BA:1332:G:N2	25:BA:1609:A:C2'	2.76	0.49
25:DA:2167:U:H2'	25:DA:2168:G:C8	2.46	0.49
25:DA:2166:G:N2	25:DA:2172:U:O4	2.45	0.49
27:DC:138:LEU:HD13	27:DC:139:PRO:CD	2.42	0.49
18:CR:68:LYS:HE3	18:CR:71:LYS:HZ1	1.78	0.49
12:AL:38:ARG:HB2	12:AL:38:ARG:CZ	2.43	0.49
27:BC:27:ALA:O	27:BC:30:VAL:HG12	2.11	0.49
20:CT:72:LEU:HD22	20:CT:72:LEU:C	2.33	0.49
25:BA:511:U:C5	25:BA:512:G:C5	3.00	0.49
1:AA:1004:A:C2'	1:AA:1037:C:O2	2.59	0.49
43:BW:50:VAL:HG21	43:BW:103:ILE:O	2.11	0.49
1:CA:184:G:H2'	1:CA:185:A:H8	1.77	0.49
25:BA:191:A:O2'	25:BA:192:C:O4'	2.28	0.49
45:DY:87:LYS:C	45:DY:89:PHE:H	2.15	0.49
17:AQ:91:ARG:HA	17:AQ:94:ASN:ND2	2.23	0.49
25:DA:121:G:H4'	25:DA:149:A:H5'	1.93	0.49
1:CA:838:G:N2	1:CA:849:C:C2	2.80	0.49
4:CD:77:ASN:O	4:CD:80:GLU:N	2.45	0.49
25:DA:2342:C:O2	25:DA:2374:C:H5''	2.12	0.49
1:AA:950:U:H5	13:AM:102:ARG:HH12	1.60	0.49
1:AA:1460:A:H2'	1:AA:1461:G:O4'	2.12	0.49
30:DF:84:VAL:C	30:DF:86:GLY:N	2.66	0.49
32:BH:30:LYS:NZ	32:BH:81:GLU:CG	2.73	0.49
25:DA:845:G:OP2	25:DA:845:G:H8	1.94	0.49
18:AR:37:VAL:CG2	18:AR:38:GLU:H	2.24	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:AJ:81:THR:O	10:AJ:83:GLU:N	2.46	0.49
1:AA:1405:G:H1'	1:AA:1519:A:O4'	2.11	0.49
47:B0:48:LYS:HG3	47:B0:79:HIS:HD1	1.78	0.49
25:BA:1739:U:O2	25:BA:1739:U:C2'	2.61	0.49
25:DA:2517:C:H2'	25:DA:2542:A:H2	1.78	0.49
29:BE:24:THR:CG2	29:BE:186:GLY:HA2	2.42	0.49
35:BO:1:MET:HE3	35:BO:67:LYS:HG2	1.92	0.49
49:D2:24:LEU:HD23	49:D2:60:LEU:HD21	1.93	0.49
27:BC:57:GLN:HG2	27:BC:202:PRO:HB3	1.94	0.49
1:CA:708:C:H2'	1:CA:709:G:C8	2.44	0.49
40:BT:65:LYS:HG3	40:BT:65:LYS:O	2.13	0.49
30:BF:80:ALA:O	30:BF:83:PHE:HB2	2.13	0.49
25:BA:231:C:C2'	25:BA:232:G:H5'	2.42	0.49
6:AF:82:ARG:O	6:AF:84:ASN:N	2.42	0.49
41:BU:105:VAL:HG22	42:BV:44:LYS:HG2	1.94	0.49
25:DA:2825:C:H2'	25:DA:2826:A:H5'	1.94	0.49
31:DG:54:GLU:O	31:DG:58:GLN:HG3	2.12	0.49
25:DA:724:U:H2'	25:DA:725:G:O4'	2.12	0.49
25:DA:296:C:O2'	25:DA:297:C:H5'	2.12	0.49
52:D5:41:PRO:HG2	52:D5:44:THR:HG21	1.94	0.49
3:AC:6:HIS:HD2	3:AC:7:PRO:HD2	1.77	0.49
7:AG:16:LEU:HD11	9:AI:45:ALA:HB2	1.94	0.49
37:DQ:140:ALA:HB3	46:DZ:52:ILE:CD1	2.22	0.49
2:CB:207:ALA:C	2:CB:209:ARG:H	2.16	0.49
25:DA:1006:C:O2'	25:DA:1007:C:H5'	2.13	0.49
25:DA:996:A:N6	25:DA:1160:G:C6	2.81	0.49
42:DV:95:LEU:O	42:DV:96:ILE:C	2.48	0.49
20:AT:49:ALA:HB1	20:AT:100:ILE:CD1	2.42	0.49
7:CG:15:ASP:H	7:CG:19:GLY:C	2.15	0.49
7:CG:73:MET:HE2	7:CG:90:GLU:HA	1.93	0.49
9:CI:10:ARG:NH2	9:CI:11:LYS:CE	2.71	0.49
42:BV:49:THR:HB	42:BV:50:PRO:CD	2.43	0.49
25:DA:886:C:H6	25:DA:886:C:O5'	1.96	0.49
25:BA:2791:C:H41	25:BA:2803:C:H41	1.57	0.49
19:AS:12:ASP:O	19:AS:15:LEU:HB2	2.13	0.49
19:AS:16:LEU:O	19:AS:20:LEU:N	2.45	0.49
45:DY:46:LYS:HG3	45:DY:62:GLU:HG2	1.94	0.49
3:AC:92:ALA:HB2	3:AC:99:VAL:HG11	1.94	0.49
36:DP:64:LYS:O	36:DP:64:LYS:CD	2.61	0.49
25:DA:853:G:H2'	25:DA:854:G:C8	2.48	0.49
28:DD:26:LYS:NZ	28:DD:82:ILE:HB	2.27	0.49
2:AB:60:ASP:O	2:AB:62:ALA:N	2.45	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:BT:45:PHE:CE2	40:BT:63:VAL:HB	2.46	0.49
25:DA:274:G:N2	25:DA:275:G:N9	2.60	0.49
35:BO:3:GLN:O	35:BO:4:PRO:C	2.51	0.49
1:AA:797:C:OP1	11:AK:124:LYS:HE2	2.13	0.49
11:AK:125:PHE:C	11:AK:127:LYS:N	2.62	0.49
10:AJ:39:PRO:HA	10:AJ:70:ARG:HG3	1.93	0.49
8:AH:11:THR:HG22	8:AH:15:ASN:ND2	2.27	0.49
49:D2:53:LEU:O	49:D2:57:ILE:HG12	2.13	0.49
14:AN:22:THR:HG21	14:AN:33:VAL:HB	1.94	0.49
19:CS:36:ARG:HH12	19:CS:75:ALA:CB	2.18	0.49
35:BO:86:ILE:H	35:BO:86:ILE:HD12	1.78	0.49
1:AA:27:G:H2'	1:AA:28:G:H8	1.77	0.49
25:BA:2472:G:H3'	25:BA:2475:C:N4	2.27	0.49
8:AH:127:LEU:HD12	8:AH:129:VAL:HG22	1.93	0.49
33:BI:112:LYS:O	33:BI:114:LEU:N	2.35	0.49
1:AA:32:A:H2'	1:AA:33:A:C8	2.47	0.49
25:DA:2469:A:H3'	25:DA:2470:G:O4'	2.12	0.49
25:DA:246:C:C2'	25:DA:247:G:H5'	2.43	0.49
1:AA:663:A:O2'	1:AA:664:G:H5'	2.13	0.49
1:AA:837:G:O2'	1:AA:838:G:H5'	2.12	0.49
10:CJ:78:ASN:O	10:CJ:82:ILE:HG12	2.13	0.49
4:AD:131:ARG:N	4:AD:131:ARG:HD3	2.17	0.49
20:AT:64:ASP:HA	20:AT:67:ALA:HB3	1.93	0.49
1:AA:498:U:HO2'	1:AA:499:A:P	2.34	0.49
4:AD:3:ARG:HE	4:AD:5:ILE:CG1	2.24	0.49
25:DA:814:C:H2'	25:DA:815:C:C6	2.47	0.49
20:CT:48:LYS:O	20:CT:52:ALA:HB2	2.12	0.49
18:CR:60:ALA:O	18:CR:64:ARG:HG3	2.12	0.49
25:BA:2762:G:H3'	25:BA:2763:G:C5'	2.42	0.49
22:AV:104:PHE:O	22:AV:105:LYS:HB2	2.13	0.49
29:DE:97:LYS:HA	29:DE:97:LYS:HE2	1.94	0.49
38:BR:117:VAL:O	38:BR:118:GLU:CB	2.56	0.49
25:DA:2783:G:O2'	25:DA:2784:C:H5'	2.12	0.49
25:BA:2165:G:H2'	25:BA:2166:G:C8	2.48	0.49
1:CA:839:U:H2'	1:CA:839:U:O2	2.12	0.49
38:BR:12:ARG:HG3	38:BR:12:ARG:NH1	2.23	0.49
1:AA:243:A:O2'	1:AA:244:U:OP2	2.31	0.49
30:BF:167:ALA:HA	30:BF:170:LEU:HD13	1.94	0.49
25:BA:2528:U:OP1	56:B9:31:LYS:HD2	2.12	0.49
36:DP:47:ASP:OD2	36:DP:50:ARG:NH2	2.46	0.49
4:CD:8:VAL:HG11	4:CD:21:LEU:HB2	1.94	0.49
48:D1:51:VAL:HG21	48:D1:74:VAL:HG21	1.93	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:908:A:H2'	1:AA:909:A:H8	1.76	0.49
1:CA:295:C:H2'	1:CA:296:U:H6	1.78	0.49
25:BA:1933:G:H2'	25:BA:1934:C:C6	2.47	0.49
1:AA:1456:G:H3'	1:AA:1457:G:H8	1.77	0.49
44:DX:60:ARG:CB	44:DX:60:ARG:HH11	2.26	0.49
22:AV:72:TYR:CD1	22:AV:73:LEU:N	2.79	0.49
10:AJ:90:LEU:N	10:AJ:91:PRO:CD	2.76	0.49
25:DA:2286:A:C5	25:DA:2346:A:N1	2.80	0.49
1:AA:1099:G:C5	1:AA:1100:C:C4	3.01	0.49
23:AW:67:C:C2'	23:AW:68:C:H5'	2.43	0.49
31:BG:165:THR:HG23	31:BG:168:GLU:OE2	2.13	0.49
25:DA:927:G:C6	25:DA:928:G:N3	2.81	0.49
4:AD:188:LEU:H	4:AD:188:LEU:HD23	1.75	0.49
36:DP:13:ASN:C	36:DP:13:ASN:ND2	2.64	0.49
1:AA:874:G:H2'	1:AA:875:C:H6	1.78	0.49
25:DA:1328:G:H2'	25:DA:1330:C:C4	2.48	0.49
25:DA:1262:A:N3	52:D5:10:LYS:HE3	2.28	0.49
25:DA:1400:G:H2'	25:DA:1401:G:H8	1.77	0.49
25:BA:2190:G:O2'	25:BA:2191:G:H5'	2.12	0.49
25:DA:1892:C:H2'	25:DA:1893:C:H6	1.77	0.49
28:BD:93:ALA:HB2	28:BD:107:ALA:HB2	1.95	0.49
3:AC:60:ALA:O	3:AC:61:ALA:HB2	2.13	0.49
50:B3:2:PRO:HG2	50:B3:3:ARG:H	1.78	0.49
25:BA:1704:G:O2'	25:BA:1705:G:H5'	2.13	0.49
17:AQ:22:LEU:HD13	17:AQ:41:LYS:HG2	1.93	0.49
25:BA:242:G:N2	25:BA:254:G:H2'	2.27	0.49
39:BS:99:LYS:O	39:BS:101:LEU:N	2.44	0.49
33:BI:92:VAL:O	33:BI:92:VAL:HG23	2.12	0.49
3:AC:113:ALA:O	3:AC:116:VAL:N	2.46	0.49
25:BA:152:G:H2'	25:BA:153:C:H6	1.77	0.49
2:CB:16:HIS:HD2	2:CB:210:SER:CA	2.14	0.49
42:DV:49:THR:O	42:DV:50:PRO:C	2.51	0.49
25:BA:1493:C:H4'	25:BA:1494:A:OP1	2.12	0.49
28:BD:52:ARG:O	28:BD:53:PHE:HB2	2.13	0.49
20:AT:57:ARG:HH11	20:AT:102:GLY:HA3	1.75	0.49
9:CI:15:ALA:CB	9:CI:65:VAL:HB	2.40	0.49
41:BU:58:ARG:O	41:BU:62:ILE:HG12	2.12	0.49
42:BV:45:THR:O	42:BV:46:VAL:O	2.31	0.49
25:BA:2808:U:H5'	25:BA:2891:G:O6	2.13	0.49
25:DA:1361:G:H1	25:DA:1370:C:H42	1.61	0.49
25:DA:2632:A:O2'	29:DE:61:ARG:NH2	2.44	0.49
40:BT:32:TYR:CB	40:BT:81:PRO:HB3	2.41	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:D6:41:PRO:CD	53:D6:46:HIS:N	2.58	0.49
28:BD:82:ILE:CG2	28:BD:82:ILE:O	2.59	0.49
32:DH:107:VAL:HG23	32:DH:109:PHE:CD1	2.48	0.49
2:AB:219:VAL:O	2:AB:222:ILE:N	2.45	0.49
25:BA:2391:G:H1'	25:BA:2424:C:H41	1.76	0.49
13:AM:39:ILE:O	13:AM:41:PRO:HD3	2.11	0.49
13:AM:69:GLU:O	13:AM:70:LEU:HB2	2.11	0.49
2:AB:114:ARG:O	2:AB:118:LEU:HG	2.12	0.49
9:CI:26:VAL:O	9:CI:33:PHE:N	2.46	0.49
25:DA:1484:G:H3'	25:DA:1485:G:C5'	2.32	0.49
52:B5:37:LYS:O	52:B5:38:ALA:O	2.30	0.49
2:AB:69:LEU:HA	2:AB:91:PRO:O	2.13	0.49
30:BF:45:ARG:NH1	30:BF:97:TYR:CE1	2.81	0.49
1:AA:398:C:H6	1:AA:398:C:O5'	1.96	0.49
25:DA:2123:G:C5	25:DA:2176:A:C6	3.00	0.49
12:CL:21:VAL:HG13	12:CL:95:TYR:CE2	2.48	0.49
8:AH:84:ARG:HG2	8:AH:84:ARG:HH11	1.77	0.49
25:DA:1175:U:O2	25:DA:1175:U:C2'	2.60	0.49
1:AA:628:G:O2'	1:AA:629:G:H5'	2.12	0.49
16:AP:20:VAL:CG2	16:AP:21:VAL:N	2.75	0.49
6:AF:14:LEU:HB3	6:AF:18:GLN:HE21	1.78	0.49
25:DA:1495:A:C4	25:DA:1496:A:C2	3.01	0.49
16:CP:21:VAL:HG13	16:CP:34:GLU:HB3	1.95	0.49
55:B8:51:ALA:N	55:B8:53:PRO:HD2	2.27	0.49
22:AV:4:VAL:HG13	22:AV:60:LEU:HD23	1.94	0.49
1:AA:1258:G:H2'	1:AA:1259:C:C6	2.47	0.49
44:DX:65:ARG:HH11	44:DX:65:ARG:CG	2.19	0.49
25:BA:1652:A:C2'	25:BA:1653:G:H5'	2.43	0.49
25:BA:320:A:C2	25:BA:323:G:C6	3.01	0.49
22:AV:127:VAL:CG2	22:AV:174:ASP:HA	2.42	0.49
29:BE:102:VAL:O	29:BE:103:ASP:OD1	2.31	0.49
29:BE:184:VAL:HG12	29:BE:185:LYS:N	2.28	0.49
1:AA:60:A:OP1	1:AA:111:G:N2	2.45	0.49
25:BA:2528:U:H2'	25:BA:2530:A:O5'	2.11	0.49
25:DA:1209:G:H21	25:DA:1210:A:H62	1.60	0.49
25:DA:263:C:C2'	25:DA:264:C:H5'	2.42	0.49
25:BA:1607:C:N4	25:BA:1621:U:H2'	2.28	0.49
7:AG:132:GLY:H	7:AG:135:VAL:HG23	1.78	0.49
25:DA:1131:G:O2'	25:DA:1132:A:H5'	2.12	0.49
8:AH:103:VAL:HB	8:AH:108:GLY:C	2.32	0.49
1:CA:598:U:H2'	1:CA:599:C:H6	1.78	0.49
34:BN:66:LYS:O	34:BN:70:LYS:HB3	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:153:ARG:O	4:AD:154:ASN:C	2.50	0.49
1:AA:1456:G:H2'	1:AA:1457:G:O4'	2.13	0.49
25:BA:229:A:C3'	25:BA:230:U:H5'	2.43	0.49
12:CL:124:GLU:CD	12:CL:124:GLU:N	2.65	0.49
2:AB:105:PHE:O	2:AB:106:LYS:C	2.50	0.49
1:CA:299:G:C6	1:CA:300:A:C6	3.00	0.49
1:CA:300:A:H1'	1:CA:565:U:O2	2.13	0.49
52:B5:12:SER:OG	52:B5:15:ARG:HB3	2.13	0.49
1:CA:194:C:C2'	1:CA:195:A:H5''	2.42	0.49
7:CG:31:MET:HE3	7:CG:34:GLY:HA2	1.93	0.49
1:CA:782:A:O3'	1:CA:1515:C:H4'	2.12	0.49
1:AA:1380:U:H5''	1:AA:1381:U:OP1	2.12	0.49
29:DE:128:SER:O	29:DE:129:HIS:HB2	2.13	0.49
3:CC:151:VAL:HG12	3:CC:152:ILE:N	2.28	0.49
39:BS:50:SER:O	39:BS:51:ALA:HB2	2.12	0.49
25:BA:2521:C:O2	25:BA:2521:C:H2'	2.11	0.49
25:BA:696:G:O2'	25:BA:697:C:H5'	2.12	0.49
25:DA:1983:C:O2'	25:DA:1984:G:H5'	2.12	0.49
7:CG:63:LYS:HD2	7:CG:63:LYS:O	2.13	0.49
25:DA:281:G:N2	25:DA:358:U:C5	2.80	0.49
47:D0:19:LYS:HD2	47:D0:19:LYS:N	2.28	0.49
1:CA:397:A:H5'	1:CA:398:C:OP1	2.12	0.49
39:DS:43:GLU:OE1	39:DS:43:GLU:HA	2.13	0.49
25:DA:154:G:N3	25:DA:154:G:H2'	2.26	0.49
25:DA:272(A):U:OP2	25:DA:272(A):U:O4'	2.31	0.49
27:DC:194:ILE:HG23	27:DC:198:GLU:CD	2.33	0.49
32:BH:43:VAL:CG1	32:BH:52:VAL:HG13	2.43	0.49
25:BA:157:U:O2'	25:BA:171:G:N2	2.43	0.49
41:DU:102:GLU:HB2	41:DU:105:VAL:CG2	2.42	0.49
42:DV:6:LYS:HG3	42:DV:11:GLN:HG2	1.93	0.49
42:DV:34:GLU:HA	42:DV:57:VAL:O	2.12	0.49
25:DA:971:C:OP1	25:DA:974:G:C8	2.65	0.49
9:CI:103:THR:HG22	9:CI:104:ARG:N	2.26	0.49
13:CM:93:ARG:N	13:CM:93:ARG:HD2	2.28	0.49
45:DY:50:ARG:CD	45:DY:54:LYS:H	2.20	0.49
19:AS:4:SER:O	19:AS:5:LEU:HB3	2.13	0.49
1:CA:1231:G:C5'	9:CI:128:ARG:HG3	2.42	0.49
25:BA:2102:U:H5'	25:BA:2102:U:O2	2.13	0.49
1:AA:186:C:O3'	20:AT:82:SER:HB3	2.13	0.49
3:AC:92:ALA:N	3:AC:99:VAL:HG11	2.27	0.49
30:DF:118:ALA:HB2	30:DF:123:LEU:CD2	2.42	0.49
36:DP:11:GLY:O	36:DP:12:ALA:C	2.51	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:BY:90:LEU:O	45:BY:91:GLU:O	2.31	0.49
31:BG:71:THR:O	31:BG:88:ILE:O	2.31	0.49
53:B6:20:ASN:O	53:B6:21:TYR:CD1	2.66	0.49
53:B6:13:CYS:HA	53:B6:50:ARG:O	2.12	0.49
20:CT:18:GLN:O	20:CT:19:SER:C	2.51	0.49
16:CP:45:THR:O	16:CP:48:TRP:HD1	1.95	0.49
2:AB:141:GLU:O	2:AB:143:GLU:N	2.45	0.49
36:BP:62:LEU:HD22	36:BP:62:LEU:H	1.78	0.49
3:CC:47:LEU:HD23	3:CC:52:LEU:HD13	1.94	0.49
14:CN:24:CYS:HA	14:CN:38:GLY:O	2.13	0.49
27:BC:90:ALA:HB1	27:BC:154:ILE:HB	1.93	0.49
15:CO:29:VAL:HB	15:CO:81:LEU:HD21	1.94	0.49
30:BF:72:ARG:HB3	30:BF:72:ARG:NH1	2.27	0.49
2:CB:126:GLU:C	2:CB:128:GLU:H	2.16	0.49
14:AN:24:CYS:HG	14:AN:40:CYS:HG	1.59	0.49
37:BQ:60:ARG:CZ	37:BQ:60:ARG:CB	2.90	0.49
46:BZ:78:ARG:NH1	46:BZ:78:ARG:HG3	2.27	0.49
25:DA:2347:C:H2'	25:DA:2348:U:C6	2.48	0.49
30:BF:187:VAL:CG1	36:BP:6:LEU:O	2.61	0.49
47:D0:53:MET:CE	47:D0:57:PHE:HA	2.41	0.49
25:DA:857:C:O2	25:DA:857:C:H2'	2.11	0.49
1:AA:44:G:C6	1:AA:45:U:C2	3.01	0.49
4:AD:109:GLY:C	4:AD:111:ALA:N	2.65	0.49
27:BC:69:LEU:HD13	27:BC:160:GLY:CA	2.42	0.49
1:CA:184:G:O2'	1:CA:185:A:H5'	2.13	0.49
20:CT:57:ARG:CZ	20:CT:102:GLY:HA2	2.43	0.49
11:AK:96:ARG:HA	11:AK:99:GLN:HG3	1.95	0.49
4:CD:163:GLU:C	4:CD:165:MET:H	2.16	0.49
25:BA:285:C:C2'	25:BA:286:C:C5'	2.90	0.49
50:B3:36:VAL:O	50:B3:37:LEU:HD23	2.13	0.49
25:BA:2358:G:H21	55:B8:52:LYS:NZ	2.10	0.49
6:AF:77:ARG:NH1	6:AF:77:ARG:CB	2.75	0.49
26:BB:57:A:H4'	31:BG:30:GLU:OE1	2.13	0.49
31:BG:106:LEU:CA	31:BG:110:ALA:HB3	2.39	0.49
12:AL:30:ARG:HD3	12:AL:59:SER:HB3	1.95	0.49
4:AD:78:LEU:HB2	4:AD:93:PHE:HE2	1.77	0.49
29:BE:170:LEU:HD11	29:BE:187:ALA:HB3	1.95	0.49
4:CD:71:SER:O	4:CD:75:PHE:HB2	2.13	0.49
25:DA:183:C:O2'	25:DA:184:C:H5'	2.12	0.49
25:DA:2737:G:H2'	25:DA:2738:A:H8	1.78	0.49
1:CA:430:A:H2'	1:CA:431:A:H5'	1.95	0.49
25:DA:55:G:H2'	25:DA:56:A:C8	2.48	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CJ:32:ALA:H	10:CJ:76:ASN:HB2	1.78	0.49
25:DA:235:U:H2'	25:DA:236:C:C6	2.44	0.49
25:BA:15:G:O2'	25:BA:16:G:H5'	2.13	0.49
25:BA:234:C:H2'	25:BA:235:U:H6	1.77	0.49
29:DE:201:THR:OG1	29:DE:202:LYS:N	2.46	0.49
1:CA:1326:C:OP1	21:CU:12:LYS:HD2	2.13	0.49
40:BT:126:ALA:C	40:BT:128:GLU:H	2.16	0.49
1:AA:409:G:P	4:AD:24:GLU:HB2	2.52	0.49
2:CB:103:THR:N	2:CB:176:GLU:OE1	2.46	0.49
12:AL:5:ASN:O	12:AL:8:VAL:HB	2.13	0.49
25:DA:2583:G:C5	25:DA:2584:U:C4	3.01	0.49
29:DE:182:LEU:HD12	29:DE:183:LEU:H	1.78	0.49
25:DA:1444:G:H2'	25:DA:1445(A):C:C4	2.48	0.49
32:BH:23:ARG:HG3	32:BH:23:ARG:HH11	1.76	0.49
25:DA:2009:G:H2'	25:DA:2010:G:H5'	1.95	0.49
25:BA:2121:G:O2'	27:BC:168:LYS:HG2	2.13	0.49
25:BA:460:A:H2'	25:BA:461:C:O4'	2.13	0.49
25:BA:1242:A:H5'	25:BA:1243:G:OP2	2.12	0.49
25:BA:2776:A:H4'	25:BA:2777:G:H5''	1.94	0.49
1:AA:671:G:H2'	1:AA:672:U:C6	2.48	0.49
1:CA:450:G:N7	1:CA:481:G:C6	2.81	0.49
6:AF:4:TYR:CD2	6:AF:67:MET:HG2	2.47	0.49
1:CA:320:C:H2'	1:CA:321:A:O4'	2.11	0.49
35:DO:25:LEU:CD1	35:DO:40:VAL:HG23	2.43	0.49
26:DB:73:A:C2'	26:DB:74:U:H5'	2.42	0.49
46:DZ:36:VAL:HG21	46:DZ:87:PHE:HD1	1.78	0.49
46:DZ:70:VAL:HG22	46:DZ:87:PHE:CE2	2.48	0.49
1:AA:135:C:O2	16:AP:1:MET:N	2.42	0.49
2:CB:168:THR:CA	2:CB:171:ALA:HB2	2.43	0.49
50:D3:29:ARG:C	50:D3:30:ARG:HG3	2.33	0.49
41:DU:55:ARG:O	41:DU:59:ARG:HG3	2.13	0.49
41:DU:69:CYS:SG	41:DU:74:LEU:CD1	2.96	0.49
42:DV:2:PHE:HB3	42:DV:41:GLY:HA2	1.95	0.49
7:CG:16:LEU:HD11	9:CI:45:ALA:HB2	1.94	0.49
42:BV:52:VAL:O	42:BV:53:GLU:O	2.31	0.49
22:CV:150:PRO:HB3	22:CV:160:GLN:HE22	1.78	0.49
25:DA:2303:G:H1	25:DA:2313:C:N4	2.10	0.49
1:AA:978:A:H1'	1:AA:1322:C:O2	2.13	0.49
1:AA:952:U:H4'	1:AA:964:A:N1	2.27	0.49
35:BO:104:ARG:HH11	35:BO:104:ARG:CB	2.25	0.49
25:BA:1389:G:N1	25:BA:1398:C:N4	2.49	0.49
25:DA:160:U:H2'	25:DA:171:G:O5'	2.13	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BC:156:GLU:C	27:BC:158:LYS:H	2.15	0.49
32:DH:90:LYS:HB2	32:DH:163:TYR:CE1	2.48	0.49
25:BA:2799:C:H1'	25:BA:2801:A:C8	2.48	0.49
4:AD:174:LEU:HD23	4:AD:184:LYS:O	2.13	0.49
10:AJ:8:LEU:HB2	10:AJ:70:ARG:O	2.12	0.49
25:DA:6:A:H2	25:DA:7:G:C5	2.30	0.49
15:CO:30:ALA:HA	15:CO:85:LEU:HD11	1.94	0.49
33:BI:31:LEU:HD21	33:BI:38:LEU:HG	1.94	0.49
39:DS:27:SER:HA	39:DS:88:ASP:HB3	1.94	0.49
1:CA:1119:C:N4	1:CA:1154:G:H1	2.11	0.49
40:BT:55:ASN:O	40:BT:57:PHE:O	2.31	0.49
48:D1:3:LYS:HG3	48:D1:4:VAL:HG12	1.95	0.49
1:CA:1015:A:H2'	1:CA:1016:A:C8	2.48	0.49
4:AD:128:VAL:O	4:AD:129:ASN:HB2	2.13	0.49
8:AH:86:ILE:HG22	8:AH:93:VAL:HG21	1.95	0.49
25:DA:1173:G:H2'	25:DA:1174:A:H5'	1.94	0.49
1:AA:39:G:C5	1:AA:498:U:O4	2.64	0.49
45:BY:41:GLY:O	45:BY:42:VAL:C	2.51	0.49
45:BY:65:ALA:HB1	45:BY:66:PRO:HD2	1.94	0.49
18:AR:86:VAL:HG12	18:AR:87:ARG:CD	2.42	0.49
25:DA:1498:C:O4'	25:DA:1577:C:H4'	2.13	0.49
45:DY:86:ARG:CD	45:DY:88:LYS:HD2	2.43	0.49
4:CD:163:GLU:O	4:CD:165:MET:N	2.45	0.49
25:DA:97:C:H5''	49:D2:2:LYS:CB	2.42	0.49
22:AV:4:VAL:C	22:AV:6:ASP:H	2.16	0.49
6:CF:60:PHE:O	6:CF:61:LEU:HD12	2.11	0.49
25:DA:2808:U:H5'	25:DA:2891:G:O6	2.13	0.49
38:DR:84:ALA:O	38:DR:86:ARG:N	2.46	0.49
35:BO:52:VAL:HA	35:BO:56:ASP:OD1	2.13	0.49
35:BO:53:LYS:H	35:BO:53:LYS:HD2	1.77	0.49
7:AG:92:SER:O	7:AG:96:GLN:CB	2.60	0.49
19:AS:28:LYS:HD2	19:AS:29:ARG:NE	2.28	0.49
23:AW:22:G:O2'	23:AW:23:C:H5'	2.13	0.49
27:DC:23:ILE:HB	27:DC:191:ARG:NH2	2.28	0.49
1:AA:448:A:C4	1:AA:487:A:C2	3.01	0.49
25:DA:1132:A:H5''	34:DN:82:LEU:HD21	1.94	0.49
27:BC:60:ARG:HD3	27:BC:165:ARG:HD2	1.94	0.49
1:CA:1082:G:C2'	1:CA:1083:U:H5'	2.43	0.49
25:BA:2606:C:O2'	25:BA:2607:G:H5'	2.12	0.49
8:AH:12:ARG:NH1	8:AH:25:ASP:O	2.46	0.49
25:BA:218:A:C2'	25:BA:219:G:H5'	2.43	0.49
1:CA:985:C:H2'	1:CA:986:A:H8	1.77	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:744:C:H2'	1:AA:745:C:C6	2.48	0.49
16:CP:18:ARG:HD3	16:CP:35:LYS:CD	2.43	0.49
25:BA:1130:U:C2	25:BA:2025:C:H5''	2.48	0.49
22:AV:50:VAL:O	22:AV:50:VAL:HG13	2.11	0.49
22:CV:97:ARG:HG2	22:CV:97:ARG:HH11	1.78	0.49
1:AA:189(J):G:C6	1:AA:189(K):U:C4	3.00	0.49
17:AQ:74:LEU:HD13	17:AQ:74:LEU:O	2.13	0.49
22:AV:27:HIS:CE1	22:AV:35:ALA:HB1	2.47	0.49
25:BA:2009:G:N3	38:BR:107:ASP:HA	2.27	0.49
25:BA:744:G:H2'	25:BA:745:G:O4'	2.13	0.49
26:DB:25:A:H2'	26:DB:26:A:C8	2.48	0.49
25:BA:681:G:H2'	25:BA:682:G:O4'	2.13	0.49
14:AN:44:LEU:C	14:AN:44:LEU:HD12	2.33	0.49
29:BE:8:LYS:HE2	29:BE:192:ASN:ND2	2.27	0.49
56:D9:14:CYS:HA	56:D9:27:CYS:SG	2.53	0.49
33:BI:116:LEU:O	33:BI:117:GLU:CB	2.61	0.49
1:CA:337:C:H2'	1:CA:338:A:C8	2.47	0.49
1:AA:1119:C:N3	1:AA:1154:G:O6	2.45	0.49
14:AN:45:ARG:HG3	14:AN:45:ARG:NH1	2.27	0.49
46:DZ:98:TYR:CE1	46:DZ:124:LEU:HB2	2.46	0.49
25:DA:1155:A:O2'	25:DA:1156:A:H2'	2.13	0.49
41:DU:83:LEU:CG	41:DU:88:ILE:HD11	2.43	0.49
42:DV:2:PHE:HB3	42:DV:41:GLY:CA	2.42	0.49
37:DQ:35:VAL:HG23	37:DQ:100:GLY:O	2.13	0.49
25:DA:2117:A:H3'	25:DA:2118:U:C5'	2.43	0.49
25:BA:1490:A:C5'	25:BA:1494:A:N6	2.76	0.49
20:AT:57:ARG:HD2	20:AT:102:GLY:C	2.33	0.49
20:AT:53:LEU:C	20:AT:55:ILE:N	2.66	0.49
7:CG:28:ASN:C	7:CG:30:ILE:H	2.16	0.49
41:BU:91:ASP:O	41:BU:92:ARG:C	2.51	0.49
40:BT:41:ARG:HH22	40:BT:43:GLN:HG3	1.77	0.49
38:DR:9:LYS:O	38:DR:10:LEU:CG	2.61	0.49
1:AA:223:U:H2'	1:AA:224:C:H6	1.77	0.49
30:DF:118:ALA:HB2	30:DF:123:LEU:HD22	1.93	0.49
3:CC:84:ILE:O	3:CC:87:LEU:N	2.46	0.49
1:AA:1065:U:C5	1:AA:1190:G:H1'	2.48	0.49
25:DA:851:U:H2'	25:DA:852:G:H8	1.77	0.49
31:BG:54:GLU:O	31:BG:57:ALA:N	2.43	0.49
27:BC:102:GLN:NE2	27:BC:102:GLN:CA	2.73	0.49
28:BD:21:PHE:O	28:BD:22:SER:C	2.50	0.49
28:BD:26:LYS:HZ2	28:BD:82:ILE:HG22	1.78	0.49
25:DA:2393:A:H5'	36:DP:62:LEU:HB2	1.95	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:288:C:H2'	25:DA:289:A:H8	1.77	0.49
45:BY:48:ALA:O	45:BY:49:VAL:CG2	2.57	0.49
8:CH:109:ILE:HG22	8:CH:137:VAL:HB	1.94	0.49
1:CA:1298:C:H2'	7:CG:114:ARG:HH12	1.70	0.49
13:AM:15:VAL:HG21	13:AM:34:LEU:HD11	1.94	0.49
25:DA:2056:G:H1	52:D5:4:HIS:HD2	1.61	0.49
3:CC:189:ALA:HB3	3:CC:196:LEU:CB	2.41	0.49
1:CA:963:G:N2	10:CJ:55:LYS:HD3	2.28	0.49
32:BH:76:VAL:C	32:BH:78:GLY:N	2.65	0.49
25:DA:71:A:H4'	25:DA:72:U:C5'	2.43	0.49
14:AN:23:ARG:HD3	14:AN:29:ARG:O	2.13	0.49
33:BI:47:LEU:HD23	33:BI:48:GLU:N	2.27	0.49
27:DC:138:LEU:HD13	27:DC:139:PRO:HD2	1.94	0.49
12:AL:29:PHE:HB3	12:AL:81:LEU:HD11	1.95	0.49
12:AL:81:LEU:HD13	12:AL:81:LEU:C	2.33	0.49
12:AL:67:ILE:HG22	12:AL:99:ARG:HH11	1.77	0.49
12:CL:97:ILE:HG22	12:CL:98:VAL:N	2.27	0.49
12:CL:57:LEU:HD11	12:CL:82:ILE:HG13	1.95	0.49
46:BZ:13:LYS:C	46:BZ:15:SER:N	2.66	0.49
25:BA:1451:C:H5'	25:BA:1452:A:H5'	1.94	0.49
51:D4:46:ASN:HD21	51:D4:48:ILE:HG13	1.78	0.49
18:AR:66:LEU:CG	18:AR:70:ILE:HD11	2.41	0.49
25:BA:280:C:C5'	25:BA:280:C:H6	2.16	0.49
40:DT:133:GLU:HG3	40:DT:137:LYS:O	2.13	0.49
29:DE:2:LYS:CE	29:DE:95:ILE:HG23	2.42	0.49
29:DE:28:ALA:HB3	29:DE:93:VAL:HG22	1.95	0.49
1:AA:299:G:C6	1:AA:300:A:C6	3.01	0.49
4:AD:88:VAL:O	4:AD:92:VAL:HG23	2.13	0.49
35:BO:7:TYR:CZ	35:BO:44:LYS:HG3	2.48	0.49
52:D5:51:TYR:HD1	52:D5:52:TYR:CE1	2.30	0.49
25:DA:2282:G:H5''	25:DA:2283:C:O4'	2.13	0.49
1:AA:965:A:C4'	1:AA:966:G:OP1	2.57	0.49
5:CE:10:MET:SD	5:CE:13:ILE:HD11	2.53	0.49
25:DA:1459:G:C4	25:DA:1461:G:H1'	2.48	0.49
25:BA:1935:G:C1'	25:BA:1964:G:N2	2.75	0.49
34:DN:126:PRO:O	34:DN:127:ASP:CB	2.60	0.49
25:BA:554:U:O2'	25:BA:555:U:H5'	2.12	0.49
25:DA:1332:G:N2	25:DA:1610:A:N7	2.55	0.49
1:CA:1206:G:H2'	1:CA:1207:G:O4'	2.13	0.49
45:BY:32:PRO:C	45:BY:34:LYS:N	2.63	0.49
7:AG:63:LYS:NZ	7:AG:67:GLU:HB2	2.28	0.49
1:AA:738:C:N4	1:AA:739:C:N4	2.61	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:655:A:H2'	1:AA:656:C:C6	2.47	0.49
25:BA:669:G:N3	25:BA:669:G:C2'	2.76	0.49
4:CD:60:GLU:HG2	4:CD:202:LEU:HD12	1.94	0.49
46:BZ:56:ILE:HG22	46:BZ:57:VAL:N	2.28	0.49
1:AA:1095:U:H2'	1:AA:1096:C:C6	2.48	0.49
25:BA:358:U:H6	25:BA:358:U:OP2	1.95	0.49
10:AJ:22:LYS:HE3	10:AJ:23:ILE:CG1	2.43	0.49
33:DI:25:TYR:CE1	33:DI:30:LEU:HD21	2.48	0.49
1:CA:633:G:H3'	1:CA:634:C:C6	2.47	0.49
25:DA:704:G:H1'	25:DA:726:G:N2	2.28	0.49
25:DA:412:A:N7	25:DA:2411:A:H2	2.11	0.49
1:AA:651:C:H2'	1:AA:652:U:C6	2.48	0.49
13:AM:120:LYS:C	13:AM:120:LYS:HD3	2.32	0.49
29:BE:203:LYS:HE3	29:BE:203:LYS:O	2.13	0.49
43:DW:6:ILE:HG22	43:DW:6:ILE:O	2.12	0.49
6:AF:16:GLN:CD	6:AF:16:GLN:H	2.16	0.49
39:BS:14:VAL:CG1	39:BS:15:ARG:H	2.01	0.48
39:BS:34:HIS:CD2	39:BS:54:LEU:HD23	2.48	0.48
39:BS:89:ARG:CD	39:BS:92:TYR:HA	2.43	0.48
1:AA:1114:C:N3	1:AA:1115:C:C5	2.81	0.48
9:AI:40:LEU:O	9:AI:43:ALA:HB3	2.13	0.48
9:AI:10:ARG:HD3	9:AI:75:ASP:CB	2.43	0.48
25:BA:172:C:H2'	25:BA:173:G:H5'	1.95	0.48
2:CB:92:TYR:CD1	2:CB:151:GLY:HA3	2.48	0.48
2:CB:7:VAL:HB	2:CB:11:LEU:CD1	2.40	0.48
50:D3:6:VAL:O	50:D3:34:GLU:HA	2.13	0.48
42:DV:1:MET:O	42:DV:15:GLU:HG3	2.12	0.48
25:DA:916:G:C2'	25:DA:917:A:H5''	2.42	0.48
25:BA:2206:G:N3	25:BA:2206:G:H3'	2.28	0.48
7:CG:145:ALA:O	7:CG:147:ALA:N	2.44	0.48
25:BA:999:U:H2'	25:BA:1000:A:H5''	1.94	0.48
1:CA:979:C:OP1	1:CA:981:U:O4	2.31	0.48
25:BA:2807:G:H2'	25:BA:2808:U:H5''	1.95	0.48
1:AA:1270:C:H2'	1:AA:1271:G:C8	2.48	0.48
1:AA:1270:C:H2'	1:AA:1271:G:H8	1.78	0.48
45:DY:28:LYS:N	45:DY:28:LYS:CE	2.76	0.48
22:CV:177:THR:OG1	22:CV:179:GLU:HB2	2.13	0.48
35:BO:104:ARG:NH1	35:BO:104:ARG:CB	2.76	0.48
3:AC:42:LEU:N	3:AC:45:LYS:NZ	2.61	0.48
30:DF:124:LEU:HD11	30:DF:126:VAL:CG1	2.40	0.48
27:BC:132:LEU:HD23	27:BC:132:LEU:H	1.77	0.48
25:BA:275:G:C5	25:BA:276:A:H1'	2.48	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BG:71:THR:O	31:BG:89:GLY:HA3	2.13	0.48
25:BA:2801:A:N3	25:BA:2801:A:H2'	2.28	0.48
3:CC:50:ALA:HB1	3:CC:70:VAL:CG1	2.40	0.48
40:DT:33:LYS:NZ	40:DT:43:GLN:NE2	2.61	0.48
25:BA:1803:A:O3'	28:BD:259:THR:HG23	2.12	0.48
15:CO:75:PRO:HG2	15:CO:76:GLU:H	1.78	0.48
40:DT:26:ASP:C	40:DT:26:ASP:OD2	2.50	0.48
36:DP:88:LEU:N	36:DP:88:LEU:CD1	2.76	0.48
1:AA:9:G:C2	1:AA:26:A:N1	2.81	0.48
30:DF:132:VAL:O	30:DF:133:ASN:O	2.31	0.48
1:AA:477:A:O2'	1:AA:479:C:H5'	2.13	0.48
1:AA:479:C:C6	1:AA:480:U:C5	3.01	0.48
10:CJ:40:LEU:HG	10:CJ:69:ASN:CB	2.41	0.48
1:CA:737:A:H2'	1:CA:738:C:C6	2.48	0.48
5:CE:133:TYR:O	5:CE:137:GLU:HB2	2.13	0.48
5:CE:79:GLU:HA	5:CE:91:LEU:O	2.12	0.48
25:DA:764:A:N3	28:DD:213:ARG:NH1	2.61	0.48
3:CC:136:GLN:O	3:CC:139:GLN:HB3	2.13	0.48
4:CD:46:LYS:O	4:CD:47:ARG:C	2.50	0.48
51:D4:48:ILE:H	51:D4:48:ILE:CD1	2.16	0.48
25:BA:492:A:C2'	25:BA:493:G:H5'	2.43	0.48
1:CA:922:G:H4'	5:CE:20:GLN:HA	1.95	0.48
1:CA:197:A:C6	1:CA:221:C:H5'	2.47	0.48
1:CA:389:A:C2'	1:CA:390:C:H5'	2.43	0.48
22:AV:4:VAL:HA	22:AV:7:LEU:HG	1.95	0.48
22:CV:68:ARG:HB2	22:CV:68:ARG:NH1	2.20	0.48
25:BA:817:C:O2'	25:BA:839:U:H5''	2.13	0.48
1:CA:1070:U:H2'	1:CA:1071:C:C6	2.47	0.48
25:BA:2162:G:H2'	25:BA:2163:C:H6	1.78	0.48
34:BN:78:TYR:N	34:BN:78:TYR:CD1	2.81	0.48
1:CA:523:A:H61	12:CL:50:ARG:NH1	2.06	0.48
25:BA:2850:A:N7	25:BA:2868:A:O2'	2.33	0.48
3:AC:44:GLU:CG	3:AC:52:LEU:HD11	2.41	0.48
25:DA:651:G:N2	25:DA:652:C:C5	2.81	0.48
3:AC:140:ARG:O	3:AC:143:GLU:N	2.46	0.48
1:CA:935:A:H2'	1:CA:936:C:H6	1.78	0.48
25:DA:2039:C:OP1	34:DN:109:LYS:HD3	2.12	0.48
25:BA:851:U:H5'	50:B3:49:LYS:NZ	2.28	0.48
23:AW:64:G:H2'	23:AW:65:C:O4'	2.12	0.48
25:DA:2692:C:H2'	25:DA:2693:A:C8	2.47	0.48
1:CA:707:C:O2'	1:CA:708:C:H5'	2.13	0.48
25:DA:1829:A:C8	25:DA:1829:A:H5'	2.45	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1909:C:N4	25:BA:1921:G:H1	2.08	0.48
25:DA:1515:G:O2'	25:DA:1516:C:H5'	2.13	0.48
34:DN:125:GLY:HA3	34:DN:126:PRO:C	2.32	0.48
29:DE:176:ILE:CD1	29:DE:176:ILE:N	2.75	0.48
34:BN:55:VAL:HG13	34:BN:56:ASN:HB2	1.94	0.48
46:DZ:144:GLU:OE1	46:DZ:144:GLU:HA	2.13	0.48
25:DA:15:G:H2'	25:DA:16:G:C8	2.44	0.48
8:CH:28:ALA:CB	8:CH:59:LEU:HG	2.43	0.48
25:BA:1985:G:O2'	25:BA:1986:A:H5'	2.13	0.48
23:CW:28:C:O2'	23:CW:29:G:H5'	2.13	0.48
25:DA:596:G:O2'	25:DA:597:U:H5'	2.12	0.48
1:AA:8:A:N7	4:AD:208:SER:CB	2.75	0.48
25:BA:1860:G:H2'	25:BA:1861:G:H8	1.78	0.48
4:AD:56:VAL:O	4:AD:60:GLU:HB2	2.12	0.48
1:AA:248:C:O2'	1:AA:249:U:H5'	2.13	0.48
25:BA:643:A:O2'	25:BA:644:A:H5'	2.13	0.48
30:DF:79:GLY:O	30:DF:80:ALA:C	2.49	0.48
5:CE:101:ILE:HD11	5:CE:119:LEU:HD23	1.95	0.48
2:AB:181:PHE:O	2:AB:183:PRO:HD3	2.13	0.48
25:BA:1363:C:O2'	25:BA:1364:G:H5'	2.13	0.48
37:BQ:6:ARG:O	37:BQ:7:MET:HG3	2.12	0.48
25:DA:1198:U:H2'	25:DA:1199:U:H6	1.78	0.48
25:BA:1680:U:O2'	25:BA:1681:G:H5'	2.13	0.48
18:CR:25:THR:O	18:CR:25:THR:HG22	2.12	0.48
25:BA:2079:U:H2'	25:BA:2080:G:O4'	2.13	0.48
1:AA:260:G:H2'	1:AA:261:U:C6	2.48	0.48
3:AC:184:TYR:OH	3:AC:199:LYS:HE2	2.12	0.48
46:DZ:9:ARG:NH2	46:DZ:25:GLY:O	2.46	0.48
25:DA:560:C:H4'	41:DU:52:ARG:HH12	1.79	0.48
41:DU:65:ILE:CD1	41:DU:96:ALA:HB1	2.42	0.48
7:CG:3:ARG:HG2	7:CG:3:ARG:O	2.12	0.48
1:CA:1240:U:H3'	1:CA:1241:G:C5'	2.42	0.48
7:CG:15:ASP:HB3	7:CG:19:GLY:H	1.78	0.48
13:CM:94:ARG:NH2	25:DA:887:A:H8	2.11	0.48
45:DY:11:ASP:H	45:DY:28:LYS:NZ	2.10	0.48
30:BF:3:GLU:C	30:BF:24:LEU:HD12	2.33	0.48
35:BO:104:ARG:HE	40:BT:33:LYS:CD	2.21	0.48
30:DF:9:ILE:CG2	30:DF:11:VAL:O	2.57	0.48
53:D6:43:CYS:O	53:D6:44:ARG:CB	2.61	0.48
36:BP:16:ARG:CD	36:BP:18:ARG:HB2	2.43	0.48
25:BA:274:G:H22	25:BA:363:G:H22	1.62	0.48
53:B6:15:GLU:OE1	53:B6:18:ARG:HG3	2.12	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:283:A:C2	25:DA:427:U:H1'	2.48	0.48
40:BT:28:VAL:O	40:BT:29:ARG:HD3	2.12	0.48
4:AD:173:TRP:HD1	4:AD:174:LEU:HG	1.77	0.48
29:BE:33:VAL:CG2	29:BE:47:VAL:HG13	2.42	0.48
13:AM:21:TYR:O	13:AM:22:ILE:HG13	2.12	0.48
35:BO:3:GLN:CG	35:BO:4:PRO:HD2	2.41	0.48
25:BA:271(A):A:N1	25:BA:272(D):G:O2'	2.38	0.48
3:CC:34:LEU:HD13	14:CN:25:VAL:HG11	1.95	0.48
25:BA:673:C:H2'	25:BA:674:G:H5'	1.94	0.48
1:AA:974:A:C1'	14:AN:31:ARG:NE	2.75	0.48
40:DT:8:LYS:O	40:DT:11:GLU:OE1	2.31	0.48
25:DA:635:C:O2'	25:DA:639:U:OP1	2.30	0.48
17:CQ:56:VAL:O	17:CQ:76:LEU:HD12	2.13	0.48
25:DA:1410:G:H1	25:DA:1592:C:H42	1.59	0.48
25:BA:858:U:H1'	25:BA:2268:A:O2'	2.13	0.48
1:CA:1030(C):G:C2'	1:CA:1030(D):A:H5'	2.43	0.48
27:DC:131:ILE:HD12	27:DC:131:ILE:H	1.77	0.48
5:CE:81:GLU:CG	5:CE:90:VAL:HA	2.42	0.48
12:CL:24:LEU:H	12:CL:24:LEU:HD13	1.77	0.48
25:DA:1175:U:H2'	25:DA:1175:U:O2	2.13	0.48
26:DB:15:A:H1'	26:DB:110:G:N7	2.27	0.48
1:CA:1502:A:H2	1:CA:1505:G:N1	2.11	0.48
3:AC:148:GLY:HA3	3:AC:172:ARG:O	2.13	0.48
16:CP:14:ASN:N	16:CP:15:PRO:CD	2.76	0.48
25:DA:2473:U:O2	25:DA:2473:U:C2'	2.60	0.48
50:B3:4:LEU:CD2	50:B3:56:VAL:HG13	2.42	0.48
22:AV:1:MET:SD	22:AV:61:GLU:HB2	2.53	0.48
29:DE:169:ASN:O	29:DE:169:ASN:ND2	2.46	0.48
29:DE:2:LYS:HE2	29:DE:96:PHE:CD1	2.48	0.48
2:CB:87:ARG:HE	2:CB:233:SER:HB3	1.73	0.48
49:B2:41:ILE:HD11	49:B2:44:LEU:HG	1.94	0.48
36:DP:135:LEU:HD21	36:DP:144:GLU:HG3	1.95	0.48
1:CA:132:C:H5'	1:CA:262:A:O2'	2.13	0.48
7:AG:73:MET:HA	7:AG:91:VAL:HG23	1.95	0.48
22:CV:164:PHE:HE1	22:CV:183:ARG:HD3	1.77	0.48
11:CK:22:HIS:HB3	11:CK:29:ILE:O	2.13	0.48
42:BV:34:GLU:O	42:BV:36:PRO:CD	2.60	0.48
27:DC:181:PHE:HB3	27:DC:186:LEU:HG	1.93	0.48
25:DA:615:G:OP2	30:DF:40:GLN:CG	2.61	0.48
1:CA:1057:G:H5''	3:CC:154:SER:OG	2.13	0.48
13:AM:98:VAL:HG12	13:AM:98:VAL:O	2.14	0.48
34:BN:56:ASN:C	34:BN:57:ALA:O	2.49	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:BE:2:LYS:HE2	29:BE:95:ILE:CG2	2.42	0.48
1:CA:230:G:N2	1:CA:231:G:H1'	2.29	0.48
27:DC:193:PHE:CE2	27:DC:197:LEU:HD13	2.48	0.48
28:BD:39:LYS:HG3	28:BD:40:THR:N	2.28	0.48
25:BA:1792:G:H5'	28:BD:205:VAL:HG13	1.94	0.48
25:BA:2774:C:H2'	25:BA:2775:A:O4'	2.12	0.48
4:AD:126:ILE:N	4:AD:126:ILE:HD13	2.28	0.48
32:DH:169:VAL:O	32:DH:169:VAL:HG13	2.13	0.48
31:DG:19:LEU:O	31:DG:23:PHE:HB2	2.12	0.48
8:CH:87:SER:HA	8:CH:93:VAL:HG23	1.94	0.48
1:AA:152:A:H2'	1:AA:153:C:H5'	1.94	0.48
1:CA:426:G:O2'	1:CA:427:U:H5'	2.14	0.48
29:BE:128:SER:OG	29:BE:129:HIS:N	2.44	0.48
1:CA:806:C:H2'	1:CA:807:A:C8	2.48	0.48
1:CA:622:A:C8	1:CA:623:C:C6	3.00	0.48
22:CV:133:VAL:O	22:CV:134:ASP:HB2	2.13	0.48
5:CE:105:VAL:HG11	5:CE:131:ILE:HG22	1.95	0.48
25:DA:2652:C:H5'	25:DA:2653:U:OP2	2.12	0.48
5:AE:36:ASP:OD2	5:AE:38:GLN:N	2.39	0.48
1:AA:401:C:O2'	1:AA:402:G:H5'	2.13	0.48
37:BQ:92:GLY:C	37:BQ:93:TYR:CD1	2.86	0.48
16:AP:6:LEU:HD12	16:AP:6:LEU:N	2.28	0.48
25:BA:435:C:H2'	25:BA:436:C:H5'	1.95	0.48
56:D9:11:CYS:N	56:D9:14:CYS:SG	2.85	0.48
1:AA:1187:G:H2'	1:AA:1188:A:O4'	2.13	0.48
7:AG:24:THR:O	7:AG:27:ILE:HB	2.14	0.48
7:AG:27:ILE:HD13	7:AG:43:PHE:HB2	1.95	0.48
10:AJ:51:ARG:NH2	10:AJ:61:GLU:HG3	2.27	0.48
46:DZ:100:PRO:C	46:DZ:101:LEU:HD12	2.34	0.48
2:CB:21:ARG:HB3	2:CB:39:ILE:CA	2.34	0.48
25:DA:819:A:C4	25:DA:1189:A:C2	3.01	0.48
1:CA:1252:A:H2'	1:CA:1253:G:O4'	2.13	0.48
1:CA:1342:C:H1'	9:CI:124:GLN:HE21	1.75	0.48
7:CG:109:ASN:HA	7:CG:119:ARG:CZ	2.43	0.48
7:CG:124:LEU:O	7:CG:128:ALA:CB	2.61	0.48
25:BA:2788:C:O2	25:BA:2809:A:H2	1.95	0.48
25:BA:2810:A:H2'	29:BE:61:ARG:NH2	2.28	0.48
25:DA:2304:G:H5'	25:DA:2305:A:OP2	2.12	0.48
30:BF:24:LEU:HD12	30:BF:25:PRO:HD2	1.95	0.48
40:BT:16:ARG:O	40:BT:17:THR:HB	2.13	0.48
16:AP:53:VAL:HG23	16:AP:54:GLU:N	2.27	0.48
51:D4:37:PRO:HB3	51:D4:51:TYR:CE2	2.48	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:925:C:C2'	25:DA:926:A:C5'	2.80	0.48
25:DA:157:U:C3'	25:DA:158:U:C5'	2.81	0.48
45:BY:78:ALA:CB	45:BY:99:CYS:HG	2.25	0.48
25:DA:2657:A:H2'	25:DA:2658:C:H5'	1.94	0.48
2:AB:88:ALA:HB1	2:AB:90:MET:HE2	1.95	0.48
25:BA:2122:U:H3	25:BA:2176:A:N6	2.11	0.48
13:CM:25:ILE:HD11	13:CM:66:LEU:HD23	1.94	0.48
40:DT:35:LYS:O	40:DT:36:GLU:HB3	2.13	0.48
42:BV:64:HIS:ND1	42:BV:92:THR:HG22	2.28	0.48
15:CO:9:GLN:C	15:CO:11:VAL:H	2.16	0.48
1:AA:1049:U:C6	1:AA:1201:A:H5'	2.48	0.48
25:DA:637:A:OP2	36:DP:116:GLY:N	2.45	0.48
39:DS:99:LYS:C	39:DS:101:LEU:H	2.16	0.48
25:DA:2164:C:H3'	25:DA:2165:G:H8	1.77	0.48
33:BI:114:LEU:O	33:BI:115:ALA:CB	2.61	0.48
1:CA:80:G:C3'	1:CA:81:U:H5'	2.44	0.48
51:B4:62:CYS:SG	51:B4:63:SER:N	2.86	0.48
25:DA:246:C:H41	55:D8:8:LYS:HG2	1.78	0.48
1:AA:731:G:H2'	1:AA:732:C:H6	1.77	0.48
32:DH:15:VAL:HG12	32:DH:29:PRO:HD3	1.93	0.48
43:DW:64:MET:O	43:DW:65:LEU:HB3	2.14	0.48
25:DA:1224:C:O2'	42:DV:85:LYS:HA	2.14	0.48
20:CT:31:SER:O	20:CT:34:LYS:HB2	2.13	0.48
20:CT:75:ASN:OD1	20:CT:75:ASN:N	2.39	0.48
44:BX:63:LYS:CE	44:BX:72:LYS:HE3	2.37	0.48
4:CD:13:ARG:O	4:CD:14:ARG:HB3	2.14	0.48
38:DR:51:LEU:CD1	38:DR:70:LEU:HD21	2.40	0.48
39:BS:85:VAL:O	39:BS:106:ARG:CG	2.61	0.48
4:AD:78:LEU:HD22	4:AD:139:ARG:HH12	1.77	0.48
17:AQ:50:LYS:HE3	17:AQ:51:TYR:CZ	2.48	0.48
49:B2:17:SER:N	49:B2:67:LYS:NZ	2.58	0.48
10:CJ:56:HIS:C	10:CJ:58:ASP:H	2.14	0.48
47:B0:54:ARG:NH1	47:B0:54:ARG:CB	2.76	0.48
25:DA:436:C:H2'	25:DA:437:G:H8	1.77	0.48
25:DA:1459:G:C2	25:DA:1461:G:C8	3.01	0.48
25:BA:2532:G:H2'	25:BA:2533:A:C8	2.48	0.48
25:BA:2347:C:H2'	25:BA:2348:U:C6	2.49	0.48
25:BA:1311:G:C2	44:BX:60:ARG:NH1	2.81	0.48
35:BO:59:LYS:NZ	35:BO:89:ASN:ND2	2.61	0.48
41:DU:18:LEU:O	41:DU:20:LEU:N	2.46	0.48
1:AA:518:C:C4	1:AA:530:G:C6	3.01	0.48
25:BA:1956:U:H1'	25:BA:2552:U:OP1	2.13	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:DV:99:ILE:O	42:DV:101:GLY:N	2.46	0.48
15:AO:65:ARG:O	15:AO:68:ARG:N	2.40	0.48
39:BS:82:ILE:O	39:BS:83:LYS:HB2	2.13	0.48
25:BA:2736:G:C2'	25:BA:2737:G:H5'	2.43	0.48
28:BD:231:HIS:HD2	28:BD:249:PRO:HG3	1.79	0.48
25:BA:2223:G:C2'	25:BA:2224:G:H5'	2.43	0.48
11:AK:34:ASP:HB2	11:AK:35:PRO:CD	2.43	0.48
4:AD:17:VAL:HG21	4:AD:197:PRO:HB2	1.94	0.48
25:BA:2406:U:O4	36:BP:70:GLN:HB3	2.12	0.48
25:BA:1168:G:C2	25:BA:1182:A:C2	3.01	0.48
1:CA:1431:C:H2'	1:CA:1432:G:H5'	1.95	0.48
1:CA:1002:G:N3	1:CA:1002:G:H2'	2.28	0.48
3:AC:138:VAL:HG13	3:AC:149:ALA:HB3	1.95	0.48
1:AA:277:C:OP1	17:AQ:41:LYS:HE3	2.13	0.48
39:DS:43:GLU:O	39:DS:44:LYS:HB2	2.12	0.48
25:BA:803:U:H2'	25:BA:804:A:H5'	1.93	0.48
25:DA:1975:G:C6	25:DA:1976:U:N3	2.81	0.48
17:CQ:53:LEU:HD23	17:CQ:54:GLY:N	2.28	0.48
25:DA:1439:A:H2'	25:DA:1440:G:O4'	2.12	0.48
25:DA:738:G:C2'	25:DA:739:G:H5'	2.43	0.48
38:BR:88:ARG:HD2	38:BR:89:ASP:OD1	2.13	0.48
1:AA:328:C:H4'	1:AA:329:A:H5'	1.96	0.48
28:DD:162:SER:O	28:DD:178:PRO:HG3	2.14	0.48
6:CF:54:LYS:HD3	6:CF:54:LYS:N	2.27	0.48
25:DA:2376:A:OP1	25:DA:2376:A:H8	1.96	0.48
20:CT:24:LEU:C	20:CT:24:LEU:HD13	2.34	0.48
15:CO:37:ASN:O	15:CO:40:SER:HB3	2.13	0.48
1:AA:519:C:O2'	1:AA:520:A:H5'	2.14	0.48
25:BA:706:A:C2	25:BA:707:G:H1'	2.49	0.48
7:AG:43:PHE:C	7:AG:43:PHE:CD1	2.87	0.48
9:AI:96:LEU:HD12	9:AI:101:PHE:HB2	1.95	0.48
32:BH:17:VAL:HG21	32:BH:50:VAL:HG22	1.96	0.48
46:DZ:53:HIS:HB3	46:DZ:100:PRO:HD3	1.94	0.48
46:DZ:101:LEU:HD11	46:DZ:123:ILE:CG2	2.42	0.48
46:DZ:27:MET:HA	46:DZ:87:PHE:O	2.13	0.48
2:CB:14:GLY:C	2:CB:15:VAL:HG22	2.33	0.48
2:CB:174:VAL:HG11	2:CB:196:LEU:HD13	1.95	0.48
34:DN:62:VAL:HG11	34:DN:67:LEU:HG	1.94	0.48
19:CS:62:ILE:HA	19:CS:66:MET:SD	2.54	0.48
20:AT:61:SER:O	20:AT:65:LYS:HG2	2.13	0.48
7:CG:66:VAL:O	7:CG:70:LYS:HD2	2.14	0.48
45:DY:47:LYS:HA	45:DY:60:PHE:CE2	2.48	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:346:G:N3	1:AA:346:G:H2'	2.28	0.48
3:AC:87:LEU:O	3:AC:89:GLU:N	2.47	0.48
30:DF:117:ARG:NH2	36:DP:5:ASP:N	2.60	0.48
40:BT:106:SER:O	40:BT:107:ASP:OD1	2.32	0.48
25:BA:1639:U:C2'	25:BA:1640:C:C5'	2.89	0.48
25:DA:2729:G:H1'	29:DE:187:ALA:CB	2.28	0.48
28:BD:30:GLU:HA	28:BD:83:GLU:OE1	2.13	0.48
40:BT:29:ARG:HB2	40:BT:85:LYS:HZ3	1.70	0.48
4:AD:110:PHE:CD2	4:AD:148:VAL:HG23	2.48	0.48
40:DT:45:PHE:CE2	40:DT:74:ARG:HB2	2.48	0.48
1:CA:1059:C:H6	1:CA:1059:C:O5'	1.97	0.48
36:DP:81:GLN:OE1	36:DP:106:LEU:HA	2.13	0.48
25:DA:1689:A:N6	25:DA:1698:A:H2	1.97	0.48
10:CJ:8:LEU:HB3	10:CJ:16:LEU:HD21	1.95	0.48
25:DA:2126:A:N6	25:DA:2163:C:H4'	2.28	0.48
27:DC:150:ILE:HG12	27:DC:154:ILE:HD11	1.95	0.48
2:AB:92:TYR:CD1	2:AB:92:TYR:C	2.87	0.48
28:DD:210:GLY:O	28:DD:211:ARG:CB	2.59	0.48
28:DD:102:LYS:O	28:DD:103:ARG:HG2	2.12	0.48
12:CL:95:TYR:N	12:CL:95:TYR:CD1	2.81	0.48
5:AE:54:ALA:O	5:AE:57:LYS:N	2.46	0.48
4:CD:30:LYS:HA	4:CD:35:ARG:CD	2.36	0.48
25:BA:492:A:H2'	25:BA:493:G:H5'	1.94	0.48
25:DA:2225:A:H5'	25:DA:2226:C:O4'	2.13	0.48
6:CF:24:GLU:O	6:CF:28:ARG:NH1	2.47	0.48
16:CP:22:THR:HA	16:CP:33:ILE:HD11	1.95	0.48
25:BA:2335:A:O2'	25:BA:2336:A:H5''	2.13	0.48
1:AA:1258:G:O2'	1:AA:1259:C:H5'	2.13	0.48
25:BA:269:U:C5	25:BA:271(Y):U:C4	3.01	0.48
31:BG:31:VAL:HG23	31:BG:32:PRO:HD2	1.95	0.48
4:CD:96:LEU:HB3	4:CD:139:ARG:NH1	2.28	0.48
25:DA:1796:U:H2'	25:DA:1797:C:H6	1.78	0.48
1:AA:565:U:C5	1:AA:566:G:C4	3.01	0.48
1:CA:1106:G:H5''	3:CC:172:ARG:HG2	1.94	0.48
17:CQ:18:THR:HG22	17:CQ:19:VAL:N	2.29	0.48
1:AA:1273:G:H3'	1:AA:1274:G:C8	2.45	0.48
25:DA:2816:C:O3'	38:DR:99:LYS:HE2	2.13	0.48
1:AA:1014:A:C2	1:AA:1219:U:H1'	2.47	0.48
40:BT:23:ARG:NH2	40:BT:120:ARG:HD3	2.29	0.48
1:CA:132:C:C4'	1:CA:262:A:H1'	2.44	0.48
32:BH:103:LEU:HG	32:BH:105:LEU:HD21	1.94	0.48
5:AE:10:MET:N	5:AE:32:VAL:HG13	2.27	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DF:36:VAL:O	30:DF:40:GLN:HB2	2.14	0.48
31:BG:18:GLU:O	31:BG:22:ARG:N	2.43	0.48
25:DA:587:C:H4'	25:DA:588:U:O5'	2.13	0.48
25:BA:1582:C:O2'	25:BA:1586:A:C8	2.66	0.48
23:AW:62:C:H2'	23:AW:63:G:H8	1.77	0.48
25:DA:270:A:C2'	25:DA:271:A:H5'	2.43	0.48
4:CD:79:PHE:HB2	4:CD:93:PHE:CZ	2.49	0.48
30:BF:185:ASP:HA	30:BF:188:ARG:CG	2.43	0.48
25:BA:2643:G:H2'	25:BA:2644:G:O4'	2.14	0.48
5:CE:43:LEU:HD11	5:CE:132:ALA:HB1	1.95	0.48
5:CE:45:PHE:CD2	5:CE:47:LYS:HE3	2.48	0.48
25:DA:1815:A:C5	25:DA:1817:G:C6	3.01	0.48
29:DE:175:VAL:O	29:DE:175:VAL:HG23	2.13	0.48
28:BD:221:VAL:HG13	28:BD:226:MET:CE	2.43	0.48
49:D2:22:GLU:HA	49:D2:25:VAL:HG23	1.96	0.48
7:AG:155:ARG:O	7:AG:156:TRP:CD1	2.65	0.48
41:DU:12:ARG:O	41:DU:14:HIS:N	2.46	0.48
25:DA:1478:G:C2	25:DA:1479:G:C8	3.01	0.48
1:AA:1342:C:H6	1:AA:1342:C:O5'	1.97	0.48
15:AO:37:ASN:ND2	15:AO:37:ASN:N	2.61	0.48
25:DA:2825:C:H2'	25:DA:2826:A:C5'	2.43	0.48
38:DR:13:HIS:O	38:DR:14:SER:C	2.52	0.48
48:D1:93:GLU:C	48:D1:95:LEU:H	2.16	0.48
25:DA:1221:C:H5'	25:DA:1221:C:H6	1.79	0.48
1:AA:1421:G:C4	1:AA:1480:G:N2	2.81	0.48
28:BD:213:ARG:HD2	28:BD:217:ARG:O	2.13	0.48
25:BA:2334:G:H5'	39:BS:13:ARG:HG3	1.96	0.48
25:BA:2876:G:C4'	40:BT:3:ARG:HD3	2.24	0.48
9:AI:50:LEU:HA	9:AI:53:VAL:HG22	1.94	0.48
32:BH:46:GLU:O	32:BH:47:GLU:O	2.31	0.48
50:D3:8:LEU:CD1	50:D3:31:LEU:HG	2.44	0.48
41:DU:91:ASP:OD2	41:DU:96:ALA:CA	2.62	0.48
42:DV:38:LEU:C	42:DV:39:LEU:HD13	2.34	0.48
42:DV:1:MET:HE1	42:DV:42:GLY:HA3	1.95	0.48
44:DX:36:LYS:CD	44:DX:56:THR:HG23	2.39	0.48
1:AA:978:A:O2'	1:AA:1322:C:N3	2.45	0.48
1:AA:191:G:C4	20:AT:105:SER:HB3	2.49	0.48
16:AP:50:LYS:NZ	16:AP:52:ASP:HB2	2.27	0.48
16:AP:59:TRP:C	16:AP:61:SER:N	2.66	0.48
20:AT:89:ARG:NH2	20:AT:104:LEU:HD21	2.28	0.48
10:AJ:3:LYS:HD2	10:AJ:77:PRO:CG	2.43	0.48
25:BA:272(I):U:N3	25:BA:363(A):A:N6	2.60	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DH:158:HIS:CD2	32:DH:170:ARG:O	2.67	0.48
2:AB:204:ASN:ND2	2:AB:207:ALA:HB3	2.29	0.48
25:BA:477:A:C6	25:BA:478:A:C6	3.01	0.48
29:BE:31:CYS:O	29:BE:90:THR:HA	2.14	0.48
13:AM:66:LEU:O	13:AM:69:GLU:O	2.32	0.48
37:BQ:55:VAL:HG23	37:BQ:56:ARG:N	2.28	0.48
2:AB:111:ARG:HB3	2:AB:149:LEU:HD11	1.95	0.48
2:AB:114:ARG:HH12	2:AB:118:LEU:CD1	2.24	0.48
25:DA:2722:G:H2'	25:DA:2723:C:C6	2.48	0.48
4:AD:62:GLN:O	4:AD:66:ARG:HD2	2.14	0.48
5:AE:111:GLU:C	5:AE:113:ALA:N	2.66	0.48
3:CC:114:PRO:HD3	3:CC:183:ASP:CG	2.34	0.48
40:DT:93:ARG:HH12	40:DT:95:ARG:HD3	1.77	0.48
33:BI:10:GLU:O	33:BI:12:LEU:HD23	2.14	0.48
36:BP:7:ARG:O	36:BP:10:PRO:CD	2.55	0.48
47:D0:53:MET:HG3	47:D0:53:MET:O	2.14	0.48
1:AA:296:U:O2'	1:AA:297:G:H5'	2.14	0.48
1:AA:406:G:H21	4:AD:119:GLN:HE22	1.60	0.48
1:CA:1456:G:N2	1:CA:1457:G:C4	2.81	0.48
38:BR:63:ARG:HA	38:BR:80:PHE:CZ	2.48	0.48
3:CC:29:TYR:CE2	3:CC:33:LEU:HD22	2.43	0.48
25:DA:1759:A:H5''	25:DA:2715:C:H1'	1.95	0.48
28:DD:186:HIS:O	28:DD:189:CYS:HB2	2.13	0.48
44:BX:31:HIS:ND1	44:BX:32:PRO:HD2	2.28	0.48
29:DE:91:VAL:HG13	29:DE:95:ILE:CD1	2.43	0.48
4:AD:96:LEU:HD13	4:AD:96:LEU:H	1.78	0.48
2:AB:178:ARG:NH2	8:AH:68:ARG:NH2	2.58	0.48
25:DA:2320:A:C2	25:DA:2333:A:N7	2.82	0.48
31:BG:131:TYR:HB3	31:BG:159:VAL:HG13	1.96	0.48
25:BA:2531:A:C2	25:BA:2658:C:O2	2.62	0.48
25:DA:2199:A:C2	25:DA:2200:C:H1'	2.49	0.48
1:AA:909:A:N3	1:AA:1413:A:O2'	2.36	0.48
25:DA:99:U:C4'	25:DA:102:G:H1'	2.44	0.48
25:DA:348:G:H2'	25:DA:349:G:H8	1.78	0.48
11:CK:51:LYS:HA	11:CK:55:LYS:HD3	1.94	0.48
1:CA:447:G:C6	1:CA:485:G:H1'	2.48	0.48
17:AQ:52:LYS:HD2	17:AQ:52:LYS:N	2.27	0.48
10:AJ:46:ARG:HA	10:AJ:64:GLU:HA	1.96	0.48
13:CM:79:LYS:O	13:CM:82:MET:SD	2.70	0.48
17:AQ:33:GLY:O	17:AQ:34:LYS:O	2.32	0.48
2:AB:164:VAL:HB	2:AB:186:ALA:HB1	1.96	0.48
16:CP:18:ARG:HD3	16:CP:35:LYS:CE	2.43	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1775:U:H2'	25:BA:1776:G:H5'	1.96	0.48
15:CO:72:ARG:HH11	15:CO:72:ARG:HG2	1.78	0.48
25:DA:2574:G:O2'	29:DE:143:ASN:HB3	2.12	0.48
25:DA:960:A:H4'	25:DA:2457:U:H4'	1.93	0.48
4:CD:56:VAL:HG12	4:CD:202:LEU:HD13	1.96	0.48
25:DA:1508:A:H4'	25:DA:1509(A):A:C6	2.48	0.48
25:BA:2852:G:O2'	25:BA:2853:C:H5'	2.13	0.48
1:AA:1109:C:H2'	1:AA:1110:A:O4'	2.13	0.48
30:DF:93:LYS:CD	30:DF:94:PRO:HD2	2.44	0.48
25:BA:2677:G:H2'	25:BA:2678:C:C6	2.48	0.48
1:CA:359:U:H2'	1:CA:360:A:C8	2.48	0.48
51:D4:58:TYR:O	51:D4:59:VAL:CB	2.62	0.48
25:BA:2818:G:H1'	25:BA:2836:U:O2'	2.14	0.48
25:BA:1446:C:O2'	25:BA:1447:G:H5'	2.14	0.48
26:DB:85:G:O2'	26:DB:86:G:H5'	2.13	0.48
4:CD:156:GLU:HB3	4:CD:160:GLN:NE2	2.28	0.48
1:CA:52:G:H2'	1:CA:53:A:H8	1.79	0.48
6:AF:56:PRO:HG2	6:AF:57:GLN:HG3	1.96	0.48
11:CK:17:GLY:H	11:CK:80:VAL:HG12	1.76	0.48
33:BI:92:VAL:HA	33:BI:96:ASP:OD1	2.13	0.48
25:BA:2876:G:H2'	25:BA:2877:G:C8	2.48	0.48
7:AG:31:MET:HG3	7:AG:32:ARG:N	2.29	0.48
7:AG:31:MET:O	7:AG:32:ARG:HB2	2.13	0.48
7:AG:35:LYS:O	7:AG:38:LEU:HB3	2.14	0.48
31:DG:76:SER:CB	31:DG:84:LYS:N	2.69	0.48
2:CB:77:ALA:CB	2:CB:211:ILE:HD13	2.42	0.48
41:DU:36:ARG:HE	41:DU:40:PHE:HZ	1.59	0.48
42:DV:62:LEU:N	42:DV:62:LEU:HD22	2.28	0.48
48:D1:86:SER:CB	48:D1:89:GLU:CD	2.81	0.48
1:CA:1286:A:C2	21:CU:18:TYR:OH	2.67	0.48
22:CV:163:LEU:CD2	22:CV:163:LEU:N	2.76	0.48
19:AS:44:MET:SD	19:AS:44:MET:N	2.87	0.48
45:DY:11:ASP:O	45:DY:13:VAL:HG13	2.13	0.48
3:AC:76:VAL:CG2	3:AC:103:VAL:HG11	2.42	0.48
30:DF:202:PHE:CE1	30:DF:206:ILE:HD13	2.48	0.48
25:DA:556:G:C4	25:DA:557:U:C5	3.01	0.48
46:BZ:66:LEU:N	46:BZ:66:LEU:HD12	2.29	0.48
19:AS:55:LYS:O	19:AS:56:GLN:HB3	2.12	0.48
25:BA:2476:A:C2'	25:BA:2477:C:H5''	2.43	0.48
2:AB:137:ARG:HD3	2:AB:138:LEU:N	2.29	0.48
5:AE:101:ILE:CD1	5:AE:119:LEU:HD23	2.42	0.48
3:CC:35:GLU:C	3:CC:38:ARG:HG2	2.33	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BC:118:PRO:HD3	27:BC:147:GLY:O	2.13	0.48
7:AG:69:VAL:HB	7:AG:100:ALA:HB1	1.95	0.48
30:BF:57:VAL:HG13	30:BF:59:TYR:HD1	1.79	0.48
10:AJ:50:ILE:HG22	10:AJ:60:ARG:HG2	1.95	0.48
1:CA:1225:A:H2'	1:CA:1225:A:N3	2.28	0.48
31:DG:44:GLY:O	31:DG:46:ALA:N	2.35	0.48
26:DB:52:A:N7	39:DS:33:LYS:HE2	2.28	0.48
27:DC:148:PHE:C	27:DC:150:ILE:N	2.66	0.48
1:CA:187:C:O2'	1:CA:188:C:H5'	2.14	0.48
25:DA:1493:C:C5	25:DA:2206:G:O2'	2.67	0.48
1:CA:93:G:C2'	1:CA:96:U:H5'	2.43	0.48
28:DD:35:LYS:HG3	28:DD:104:TYR:HE1	1.77	0.48
20:AT:71:THR:HG22	20:AT:72:LEU:H	1.77	0.48
46:BZ:116:LEU:CD1	46:BZ:140:VAL:HG21	2.43	0.48
44:BX:40:LYS:HG3	44:BX:51:VAL:HB	1.93	0.48
1:AA:1104:G:O2'	1:AA:1105:A:H5'	2.13	0.48
25:DA:1495:A:N3	25:DA:1496:A:C2	2.81	0.48
43:DW:19:LEU:N	43:DW:19:LEU:HD13	2.28	0.48
16:CP:8:ARG:HB3	16:CP:28:ARG:NH1	2.28	0.48
17:AQ:95:TYR:O	17:AQ:97:SER:N	2.47	0.48
55:B8:53:PRO:O	55:B8:57:ARG:HB2	2.14	0.48
18:CR:61:LYS:O	18:CR:65:ILE:HG13	2.12	0.48
29:DE:100:GLU:C	29:DE:101:ARG:HG2	2.32	0.48
9:CI:70:LYS:O	9:CI:74:ILE:HG13	2.13	0.48
1:AA:109:A:H3'	1:AA:110:C:H5'	1.96	0.48
27:BC:182:PRO:HG2	27:BC:185:LYS:CG	2.44	0.48
1:CA:384:G:O2'	1:CA:385:C:H5'	2.14	0.48
25:DA:2737:G:O2'	25:DA:2738:A:H5'	2.14	0.48
1:CA:428:G:C8	1:CA:430:A:C4	3.02	0.48
25:DA:2039:C:P	34:DN:109:LYS:HD3	2.54	0.48
17:CQ:13:ASP:H	17:CQ:14:LYS:CE	2.26	0.48
43:DW:12:ILE:HG13	43:DW:42:ARG:HH12	1.79	0.48
1:CA:605:U:O2'	1:CA:606:G:H5'	2.14	0.48
22:AV:45:GLU:OE1	22:AV:46:THR:HG23	2.14	0.48
44:DX:61:GLY:H	44:DX:75:ASP:HA	1.79	0.48
1:CA:484:G:H4'	1:CA:485:G:O5'	2.14	0.48
25:DA:2777:G:H4'	25:DA:2778:A:H5'	1.95	0.48
25:DA:1423:G:H2'	25:DA:1424:G:C8	2.45	0.48
25:DA:98:G:OP1	49:D2:3:LEU:CB	2.62	0.48
25:BA:829:A:C8	25:BA:2248:C:H5'	2.48	0.48
1:CA:51:A:N7	1:CA:114:U:O2'	2.46	0.48
25:DA:503:A:H4'	25:DA:504:U:H5''	1.95	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:AO:21:ASP:OD2	15:AO:21:ASP:C	2.52	0.48
25:DA:470:A:H2'	25:DA:471:A:O4'	2.14	0.48
25:DA:445:C:H2'	25:DA:446:G:C8	2.49	0.48
1:AA:360:A:H2'	1:AA:361:G:C8	2.49	0.48
56:B9:20:HIS:C	56:B9:22:ARG:H	2.16	0.48
14:AN:16:PHE:CB	14:AN:18:VAL:HG23	2.44	0.48
34:DN:94:HIS:N	34:DN:95:PRO:CD	2.76	0.48
25:DA:487:C:H1'	43:DW:53:SER:HB2	1.94	0.48
8:CH:45:ILE:O	8:CH:45:ILE:HG13	2.13	0.48
25:BA:2193:G:H2'	25:BA:2194:G:O4'	2.13	0.48
25:BA:2748:A:C6	25:BA:2749:A:C6	3.01	0.48
2:CB:158:LEU:O	2:CB:159:PRO:O	2.31	0.48
25:DA:601:C:O2'	25:DA:605:C:OP1	2.31	0.48
8:AH:120:THR:H	8:AH:123:GLU:HB2	1.77	0.48
32:BH:59:ARG:C	32:BH:61:HIS:H	2.17	0.48
1:CA:1402:C:H2'	1:CA:1403:C:O4'	2.14	0.48
25:BA:1333:C:H2'	25:BA:1334:G:H8	1.78	0.48
4:CD:67:ILE:O	4:CD:114:ARG:HD2	2.13	0.48
25:BA:593:G:H1'	55:B8:4:MET:HE2	1.96	0.48
1:AA:1286:A:C8	1:AA:1287:A:H4'	2.49	0.48
46:DZ:71:ARG:CB	46:DZ:86:ASP:HB3	2.44	0.48
25:DA:976:C:H5'	25:DA:1156:A:N6	2.29	0.48
25:DA:948:G:O2'	25:DA:949:C:H5'	2.14	0.48
1:AA:194:C:C2'	1:AA:195:A:H5''	2.43	0.48
48:D1:66:HIS:O	48:D1:67:ILE:C	2.51	0.48
41:BU:80:ILE:O	41:BU:81:HIS:C	2.49	0.48
34:BN:2:LYS:HZ3	41:BU:95:LEU:CD2	2.25	0.48
25:BA:2785:C:H2'	25:BA:2786:U:C6	2.48	0.48
19:AS:51:VAL:O	19:AS:58:VAL:HG13	2.13	0.48
3:AC:31:HIS:C	3:AC:33:LEU:H	2.15	0.48
3:AC:40:ARG:HG2	3:AC:55:VAL:HG11	1.95	0.48
3:AC:42:LEU:HD11	3:AC:94:LEU:HD21	1.96	0.48
25:DA:1106:G:H8	25:DA:1106:G:H3'	1.78	0.48
1:AA:12:U:H4'	1:AA:526:C:H4'	1.95	0.48
1:AA:923:A:C5	1:AA:924:C:C4	3.01	0.48
53:D6:20:ASN:OD1	53:D6:49:HIS:NE2	2.46	0.48
25:DA:2399:G:H22	25:DA:2418:A:H1'	1.78	0.48
25:DA:851:U:H4'	50:D3:46:ASN:OD1	2.12	0.48
25:DA:158:U:H1'	25:DA:159:U:H4'	1.94	0.48
32:DH:89:ILE:HD11	32:DH:129:THR:CB	2.43	0.48
45:BY:43:ASN:O	45:BY:44:ILE:CB	2.61	0.48
29:BE:50:GLY:HA3	29:BE:74:PRO:HG3	1.95	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:167:PRO:HG2	2:AB:192:SER:HB2	1.95	0.48
35:DO:115:VAL:HG13	35:DO:121:VAL:HG21	1.96	0.48
3:CC:35:GLU:O	3:CC:38:ARG:HG2	2.14	0.48
25:BA:2746:U:C2'	25:BA:2747:G:H5'	2.43	0.48
42:BV:21:ARG:HB3	42:BV:91:TYR:HB2	1.96	0.48
22:CV:12:LYS:O	22:CV:63:ILE:N	2.45	0.48
15:AO:79:ARG:HA	15:AO:82:ILE:CG2	2.44	0.48
1:CA:1200:C:C5'	1:CA:1201:A:H3'	2.35	0.48
30:DF:128:ALA:O	30:DF:130:ALA:N	2.46	0.48
10:CJ:9:ARG:HA	10:CJ:68:HIS:O	2.13	0.48
36:BP:23:PRO:HB2	36:BP:33:ARG:HD2	1.93	0.48
30:BF:9:ILE:O	30:BF:9:ILE:HG22	2.14	0.48
12:AL:87:VAL:HG12	12:AL:89:ASP:HB2	1.96	0.48
5:CE:70:PRO:O	5:CE:71:LEU:C	2.51	0.48
23:CW:61:C:OP2	23:CW:61:C:H6	1.96	0.48
27:BC:15:VAL:O	27:BC:17:PRO:HD3	2.13	0.48
12:CL:21:VAL:HG13	12:CL:95:TYR:CZ	2.49	0.48
25:BA:847:U:C2'	25:BA:848:G:C5'	2.89	0.48
18:AR:82:THR:C	18:AR:83:GLU:HG2	2.33	0.48
4:CD:165:MET:HE2	4:CD:176:LEU:HD22	1.96	0.48
25:DA:841:A:C2	25:DA:938:G:C2	3.01	0.48
9:AI:24:GLY:HA2	9:AI:57:GLY:O	2.14	0.48
38:DR:111:LEU:HD22	38:DR:111:LEU:N	2.29	0.48
25:DA:782:A:H5'	25:DA:783:A:N3	2.28	0.48
25:DA:2228:G:P	28:DD:263:ARG:HH12	2.37	0.48
4:AD:100:ARG:HG2	4:AD:100:ARG:HH11	1.79	0.48
4:AD:118:ARG:O	4:AD:121:VAL:HG23	2.14	0.48
4:AD:134:ASP:O	4:AD:136:PRO:HD3	2.13	0.48
36:DP:133:SER:O	36:DP:134:ALA:C	2.51	0.48
46:DZ:68:THR:HG22	46:DZ:89:VAL:CA	2.40	0.48
25:BA:2728:U:O2'	29:BE:22:PRO:HG3	2.14	0.48
49:B2:16:LEU:O	49:B2:17:SER:CB	2.62	0.48
1:CA:438:G:H4'	4:CD:123:HIS:ND1	2.29	0.48
31:BG:133:LEU:N	31:BG:133:LEU:HD23	2.28	0.48
25:DA:2061:G:H5''	25:DA:2503:A:C2	2.49	0.48
23:AW:11:A:H61	23:AW:24:U:H3	1.60	0.48
15:CO:56:LEU:C	15:CO:60:VAL:HG23	2.34	0.48
4:AD:156:GLU:HB3	4:AD:160:GLN:NE2	2.28	0.48
32:DH:71:LEU:N	32:DH:74:ASN:ND2	2.60	0.48
25:BA:218:A:C2	25:BA:235:U:H4'	2.49	0.48
25:BA:1034:G:H5'	56:B9:18:ARG:HD3	1.94	0.48
1:AA:453:A:H2'	1:AA:454:C:H6	1.77	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1843:C:O5'	25:BA:1843:C:H6	1.97	0.48
39:DS:24:LEU:HD22	39:DS:24:LEU:N	2.28	0.48
6:AF:100:ASN:ND2	18:AR:23:LYS:HE3	2.29	0.48
25:BA:712:G:C2'	25:BA:713:G:H5'	2.43	0.48
28:BD:117:VAL:CG1	28:BD:118:VAL:N	2.77	0.48
30:BF:143:ALA:O	30:BF:144:LYS:C	2.50	0.48
1:AA:1342:C:O2'	1:AA:1343:G:H5'	2.13	0.48
1:CA:1431:C:O2'	1:CA:1432:G:H5'	2.13	0.48
25:DA:1197:G:H2'	25:DA:1198:U:C6	2.49	0.48
25:DA:1198:U:C2	25:DA:1199:U:C5	3.01	0.48
40:DT:124:ASP:C	40:DT:126:ALA:N	2.65	0.48
25:BA:1916:A:H3'	25:BA:1917:U:C6	2.47	0.48
30:BF:30:PRO:O	30:BF:33:LEU:N	2.47	0.48
1:AA:994:A:C2	14:AN:5:ALA:HB2	2.48	0.48
3:CC:79:ARG:HG3	3:CC:79:ARG:O	2.12	0.48
16:CP:36:ILE:O	16:CP:36:ILE:HG13	2.13	0.48
43:BW:65:LEU:HD13	43:BW:68:ARG:HG3	1.96	0.48
1:AA:1372:U:H2'	1:AA:1373:G:O4'	2.13	0.48
3:AC:11:ARG:O	3:AC:13:GLY:N	2.47	0.48
2:CB:59:GLU:O	2:CB:62:ALA:HB3	2.12	0.48
50:D3:52:HIS:ND1	50:D3:53:LEU:HG	2.29	0.48
50:D3:8:LEU:HD12	50:D3:30:ARG:O	2.13	0.48
48:D1:53:VAL:HG11	48:D1:90:ILE:HG21	1.95	0.48
44:DX:26:TYR:HB3	44:DX:92:LEU:HD12	1.95	0.48
19:CS:63:THR:CG2	19:CS:66:MET:H	2.26	0.48
25:BA:2206:G:C2	25:BA:2207:G:H5'	2.48	0.48
20:AT:57:ARG:CZ	20:AT:102:GLY:HA3	2.44	0.48
48:D1:63:ALA:O	48:D1:65:SER:N	2.47	0.48
1:CA:949:A:C4	1:CA:1233:G:C2	3.02	0.48
25:BA:1000:A:H62	25:BA:1154:G:H2'	1.79	0.48
1:AA:952:U:H4'	1:AA:964:A:H61	1.77	0.48
25:BA:1171:G:N2	25:BA:1175:U:H5''	2.29	0.48
45:DY:60:PHE:HA	45:DY:62:GLU:OE2	2.14	0.48
53:B6:40:CYS:HB2	53:B6:46:HIS:CE1	2.49	0.48
3:AC:89:GLU:O	3:AC:92:ALA:N	2.46	0.48
36:DP:9:ASN:O	36:DP:10:PRO:C	2.52	0.48
40:BT:106:SER:HB2	40:BT:110:ILE:HD11	1.95	0.48
1:AA:1066:C:N4	1:AA:1191:A:H62	2.12	0.48
1:AA:15:G:H21	5:AE:18:ARG:HA	1.78	0.48
25:BA:1637:A:H2'	25:BA:1638:C:C6	2.49	0.48
36:BP:133:SER:O	36:BP:136:GLU:HB2	2.13	0.48
2:AB:16:HIS:CD2	2:AB:213:LEU:HD22	2.48	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:75:LYS:O	2:AB:76:GLN:HG3	2.13	0.48
17:AQ:66:SER:O	17:AQ:68:ARG:N	2.46	0.48
45:BY:52:SER:O	45:BY:53:PRO:C	2.51	0.48
40:BT:47:GLY:C	40:BT:63:VAL:HG12	2.35	0.48
29:BE:48:GLN:CD	29:BE:78:LEU:HD13	2.34	0.48
25:DA:1652:A:C2'	25:DA:1653:G:H5'	2.43	0.48
35:DO:69:ILE:HB	35:DO:77:ILE:HG23	1.95	0.48
25:BA:272(E):G:C2	25:BA:364:C:C4	3.01	0.48
3:CC:35:GLU:CD	3:CC:95:THR:HG21	2.33	0.48
10:CJ:62:HIS:O	14:CN:59:ALA:HB3	2.13	0.48
25:DA:9:U:O4	25:DA:2629:A:C5	2.67	0.48
25:BA:2747:G:C2	25:BA:2756:U:C5	3.01	0.48
25:DA:875:G:C5	25:DA:876:C:C4	3.02	0.48
25:DA:271(P):C:H5''	33:DI:45:LYS:HZ3	1.79	0.48
31:BG:47:LYS:HZ2	31:BG:82:LEU:HD12	1.77	0.48
36:DP:85:LEU:CD1	36:DP:120:ALA:HB2	2.44	0.48
25:DA:2331:G:O2'	47:D0:43:THR:HG22	2.13	0.48
1:AA:376:G:H1	1:AA:387:U:H3	1.61	0.48
27:DC:139:PRO:HB3	27:DC:145:THR:O	2.14	0.48
1:AA:44:G:H2'	1:AA:45:U:O4'	2.14	0.48
3:AC:134:ILE:HG23	3:AC:151:VAL:CB	2.34	0.48
25:BA:780:G:N2	25:BA:783:A:H62	2.04	0.48
20:CT:91:LEU:C	20:CT:93:GLU:H	2.16	0.48
25:DA:2175:C:H2'	25:DA:2176:A:C5'	2.43	0.48
25:DA:243:U:C2'	25:DA:244:A:H5'	2.44	0.48
15:AO:49:ASP:OD1	15:AO:49:ASP:C	2.52	0.48
40:DT:55:ASN:H	40:DT:59:THR:HB	1.78	0.48
20:CT:26:ASN:O	20:CT:30:LYS:HB2	2.12	0.48
14:CN:53:LEU:O	14:CN:56:VAL:HG23	2.14	0.48
16:CP:28:ARG:HH11	16:CP:28:ARG:HG2	1.79	0.48
4:CD:162:LEU:HD12	4:CD:181:MET:HE2	1.95	0.48
37:DQ:63:LYS:HA	46:DZ:177:GLU:CG	2.44	0.48
1:CA:661:G:O2'	1:CA:662:G:H5'	2.14	0.48
29:DE:101:ARG:NH2	29:DE:171:GLU:HB2	2.29	0.48
31:BG:106:LEU:O	31:BG:110:ALA:HB3	2.14	0.48
32:BH:20:ALA:CB	32:BH:21:PRO:CD	2.86	0.48
13:AM:13:LYS:HA	13:AM:44:ARG:HH11	1.79	0.48
1:AA:1461:G:O2'	1:AA:1462:G:H5'	2.14	0.48
7:AG:92:SER:HB2	7:AG:93:PRO:HD2	1.94	0.48
48:B1:23:LYS:CD	48:B1:28:GLY:HA3	2.43	0.48
30:DF:46:ARG:HG2	30:DF:46:ARG:NH1	2.26	0.48
10:AJ:82:ILE:HG23	10:AJ:86:MET:CE	2.44	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DW:10:VAL:O	43:DW:12:ILE:N	2.47	0.48
43:DW:14:PRO:O	43:DW:15:ARG:C	2.52	0.48
2:CB:179:LYS:HA	8:CH:72:PRO:CD	2.43	0.48
25:DA:83:G:H22	25:DA:102:G:H2'	1.77	0.48
25:BA:1934:C:C2'	25:BA:1935:G:H5'	2.44	0.48
11:CK:38:ASN:HA	11:CK:39:PRO:HD3	1.76	0.48
25:DA:781:A:C8	28:DD:219:PRO:HG3	2.49	0.48
1:AA:35:G:H2'	1:AA:36:C:C6	2.48	0.48
4:CD:98:GLU:HA	4:CD:103:ASN:ND2	2.28	0.48
30:BF:84:VAL:C	30:BF:86:GLY:N	2.65	0.48
25:DA:1170:G:O6	25:DA:1179:C:N4	2.45	0.48
4:CD:18:LYS:HE3	4:CD:20:TYR:OH	2.14	0.48
25:BA:2099:U:H2'	25:BA:2100:G:O4'	2.14	0.48
2:CB:100:GLY:HA3	2:CB:104:ASN:HB3	1.96	0.48
1:CA:148:G:H2'	1:CA:149:A:C8	2.49	0.48
1:CA:1066:C:H3'	1:CA:1067:A:H8	1.78	0.48
25:BA:1775:U:C2'	25:BA:1776:G:H5'	2.44	0.48
25:DA:2009:G:O2'	25:DA:2010:G:H5'	2.13	0.48
4:AD:127:THR:HB	4:AD:130:GLY:O	2.14	0.48
34:BN:94:HIS:N	34:BN:95:PRO:CD	2.76	0.48
10:AJ:22:LYS:HE3	10:AJ:23:ILE:N	2.29	0.48
15:CO:3:ILE:CG2	15:CO:34:LEU:HD21	2.44	0.48
25:BA:272(A):U:O3'	25:BA:272(B):G:H4'	2.14	0.48
25:BA:2004:G:H2'	25:BA:2005:A:H5'	1.95	0.48
25:DA:1879:C:O2'	25:DA:1880:C:H5'	2.13	0.48
42:BV:58:VAL:O	42:BV:97:LYS:HB2	2.13	0.48
1:CA:1087:G:H2'	1:CA:1088:G:C8	2.49	0.48
1:AA:855:G:O2'	1:AA:856:C:H5'	2.14	0.48
25:BA:2436:G:C6	25:BA:2437:U:C4	3.01	0.48
11:AK:51:LYS:N	11:AK:51:LYS:CD	2.76	0.48
7:AG:43:PHE:HD1	7:AG:43:PHE:C	2.17	0.48
9:AI:113:LYS:N	9:AI:113:LYS:HD2	2.28	0.48
2:CB:51:LEU:O	2:CB:55:PHE:HD2	1.97	0.48
25:DA:991:C:O2'	25:DA:992:C:H5'	2.14	0.48
41:DU:58:ARG:HA	41:DU:61:TRP:HE3	1.76	0.48
1:CA:1372:U:C2'	1:CA:1373:G:H5'	2.44	0.48
7:CG:124:LEU:O	7:CG:128:ALA:HB2	2.14	0.48
1:AA:1318:A:H1'	19:AS:37:ARG:HH21	1.78	0.48
45:DY:62:GLU:O	45:DY:63:LYS:HG3	2.14	0.48
29:DE:59:VAL:O	29:DE:60:ASN:HB3	2.13	0.48
25:BA:2103:C:H3'	25:BA:2104:G:C5'	2.43	0.48
36:DP:6:LEU:H	36:DP:6:LEU:CD2	2.25	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1397:U:H5'	25:BA:1398:C:P	2.53	0.48
1:AA:1138:G:N2	1:AA:1140:C:C4	2.82	0.48
1:AA:1430:C:C2	1:AA:1471:G:C2	3.02	0.48
13:AM:3:ARG:HE	13:AM:7:VAL:HB	1.78	0.48
32:DH:139:GLN:CG	32:DH:140:LYS:N	2.77	0.48
32:DH:85:LYS:HZ2	32:DH:133:VAL:CB	2.26	0.48
25:DA:2532:G:H4'	25:DA:2657:A:N1	2.29	0.48
36:BP:126:VAL:HG12	36:BP:148:LEU:HD11	1.94	0.48
2:AB:33:TYR:HB3	2:AB:41:ILE:O	2.14	0.48
55:B8:32:LEU:CB	55:B8:36:LYS:CE	2.92	0.48
27:BC:44:VAL:O	27:BC:173:HIS:HA	2.13	0.48
25:BA:2476:A:C2	25:BA:2477:C:C5	3.02	0.48
25:DA:1653:G:H3'	38:DR:4:LEU:HB2	1.95	0.48
1:AA:779:C:O2'	11:AK:120:ARG:HD3	2.13	0.48
4:AD:14:ARG:HB2	4:AD:40:PRO:CD	2.34	0.48
4:AD:58:LEU:HD23	4:AD:58:LEU:C	2.34	0.48
22:CV:4:VAL:C	22:CV:6:ASP:H	2.17	0.48
32:BH:85:LYS:HD3	32:BH:133:VAL:HG12	1.94	0.48
3:CC:206:GLU:HB3	3:CC:207:VAL:H	1.43	0.48
15:CO:82:ILE:CG2	15:CO:83:GLU:N	2.76	0.48
30:BF:74:ARG:O	30:BF:74:ARG:HG3	2.14	0.48
1:AA:976:G:H5'	1:AA:1358:U:O2'	2.13	0.48
1:AA:1365:G:H2'	1:AA:1366:C:O4'	2.12	0.48
1:AA:1367:C:H5'	10:AJ:60:ARG:HH12	1.78	0.48
1:CA:1222:G:OP1	1:CA:1321:C:H2'	2.12	0.48
1:AA:451:A:C2	1:AA:480:U:C4	3.02	0.48
32:BH:106:THR:HG22	32:BH:112:PRO:HB3	1.96	0.48
25:DA:27:G:H1'	25:DA:513:A:H62	1.79	0.48
51:B4:59:VAL:O	51:B4:59:VAL:HG12	2.12	0.48
51:B4:63:SER:O	51:B4:64:LYS:HD3	2.14	0.48
8:AH:86:ILE:O	8:AH:88:LYS:N	2.47	0.48
1:AA:321:A:H2'	1:AA:322:C:H6	1.76	0.48
1:CA:968:A:H4'	1:CA:969:A:OP2	2.14	0.48
1:AA:718:G:H21	18:AR:49:LYS:NZ	2.12	0.48
50:D3:1:MET:H2	50:D3:2:PRO:HD3	1.77	0.48
6:CF:25:ILE:O	6:CF:28:ARG:HB2	2.14	0.48
4:CD:150:GLU:HG2	4:CD:151:LYS:H	1.76	0.48
25:BA:286:C:H5'	25:BA:286:C:C6	2.42	0.48
14:CN:13:THR:HG23	14:CN:20:ALA:HB2	1.94	0.48
26:BB:87:G:H3'	26:BB:88:C:C5'	2.44	0.48
51:B4:37:PRO:HA	51:B4:50:THR:O	2.14	0.48
12:AL:114:ARG:HH22	12:AL:121:LYS:HD3	1.78	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BG:181:ARG:O	31:BG:182:LYS:OXT	2.32	0.48
4:AD:115:ARG:O	4:AD:118:ARG:HB3	2.13	0.48
4:AD:94:LEU:CD1	4:AD:191:ARG:HD3	2.44	0.48
28:BD:13:ARG:NH1	28:BD:16:MET:SD	2.87	0.48
25:DA:1529:G:C2'	25:DA:1530:C:C5	2.92	0.48
32:DH:101:ARG:HB2	32:DH:101:ARG:HE	1.56	0.48
25:BA:1497:U:C5'	25:BA:1498:C:C5	2.90	0.48
25:BA:753:C:O2'	25:BA:754:C:H5'	2.14	0.48
27:DC:181:PHE:HB2	27:DC:186:LEU:CG	2.44	0.48
1:CA:1283:G:O2'	1:CA:1284:C:H5'	2.13	0.48
25:BA:1710:C:H2'	25:BA:1711:C:C6	2.48	0.48
31:DG:7:LEU:O	31:DG:7:LEU:HD23	2.14	0.48
25:DA:51:G:N3	25:DA:119:A:C2	2.81	0.48
30:DF:152:GLU:CD	30:DF:191:ARG:HD2	2.35	0.48
36:DP:118:GLY:O	36:DP:119:GLU:C	2.52	0.48
16:CP:26:ARG:CD	16:CP:31:LYS:O	2.62	0.48
1:AA:1227:A:O2'	13:AM:115:LYS:HB3	2.13	0.48
1:AA:892:A:O2'	1:AA:1415:G:H4'	2.14	0.48
4:AD:150:GLU:N	4:AD:150:GLU:CD	2.68	0.48
1:AA:112:G:O2'	1:AA:113:G:H5'	2.14	0.48
2:AB:82:ARG:HB3	2:AB:83:MET:HE2	1.95	0.48
29:DE:201:THR:C	29:DE:202:LYS:HD3	2.33	0.48
26:DB:118:G:O5'	26:DB:118:G:H8	1.96	0.48
46:BZ:73:VAL:HG22	46:BZ:85:VAL:HG12	1.96	0.48
46:BZ:43:PHE:CZ	46:BZ:85:VAL:HG11	2.49	0.48
25:DA:1608:A:HO2'	25:DA:1610:A:P	2.36	0.48
1:CA:16:A:N1	1:CA:919:A:C2	2.82	0.48
25:DA:1658:C:H42	25:DA:2002:G:H1	1.60	0.48
25:BA:66:C:C2'	25:BA:67:U:H5'	2.44	0.48
25:BA:843:G:O2'	25:BA:844:C:H5'	2.13	0.48
12:AL:86:ARG:HB3	12:AL:94:ARG:HA	1.96	0.48
1:CA:359:U:O2'	1:CA:360:A:H5'	2.14	0.48
25:BA:272:G:C4	25:BA:421:U:C5	3.02	0.48
34:BN:73:THR:CG2	34:BN:82:LEU:HD11	2.44	0.48
8:CH:114:THR:C	8:CH:116:LYS:N	2.67	0.48
12:AL:102:TYR:C	12:AL:104:ALA:H	2.16	0.48
42:BV:30:GLY:O	42:BV:31:ALA:O	2.32	0.48
29:DE:158:GLY:O	29:DE:159:HIS:C	2.51	0.48
38:BR:18:LEU:HD11	38:BR:22:ARG:HE	1.79	0.48
1:AA:811:C:C5	1:AA:812:C:N4	2.81	0.48
25:BA:158:U:H1'	25:BA:159:U:O5'	2.14	0.48
25:BA:175:G:H8	25:BA:175:G:C5'	2.27	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1142:U:H5''	25:DA:1142(A):A:N7	2.28	0.48
48:D1:88:LYS:HZ1	48:D1:92:LYS:HB2	1.79	0.48
19:CS:63:THR:H	19:CS:66:MET:CG	2.27	0.48
7:CG:29:LYS:O	7:CG:105:VAL:HG11	2.14	0.48
7:CG:70:LYS:HG2	7:CG:96:GLN:HG2	1.96	0.48
31:DG:64:THR:HG23	31:DG:65:GLY:N	2.29	0.48
1:AA:959:A:C2	1:AA:1222:G:O4'	2.67	0.48
29:DE:48:GLN:HE22	29:DE:64:LYS:CE	2.20	0.48
30:BF:25:PRO:HD3	30:BF:118:ALA:HB3	1.96	0.48
25:BA:2102:U:C2'	25:BA:2103:C:O4'	2.61	0.48
20:AT:87:LYS:HE3	20:AT:91:LEU:CG	2.42	0.48
45:BY:8:LYS:HE3	45:BY:72:VAL:CG1	2.44	0.48
53:D6:40:CYS:SG	53:D6:45:LYS:CE	3.02	0.48
53:B6:12:GLU:HG3	53:B6:21:TYR:CD2	2.49	0.48
13:AM:24:GLY:O	13:AM:25:ILE:HD12	2.14	0.48
1:AA:1181:G:C2'	1:AA:1182:G:O4'	2.59	0.48
25:DA:2722:G:O2'	25:DA:2723:C:H5'	2.14	0.48
32:BH:85:LYS:O	32:BH:85:LYS:CG	2.60	0.48
38:DR:45:ARG:HG3	38:DR:95:THR:HG21	1.93	0.48
49:D2:59:ARG:O	49:D2:63:VAL:HG23	2.13	0.48
15:CO:81:LEU:HA	15:CO:84:LYS:HB2	1.96	0.48
14:AN:21:TYR:HE2	14:AN:23:ARG:NH2	2.12	0.48
40:DT:8:LYS:C	40:DT:10:VAL:H	2.17	0.48
33:BI:47:LEU:HD23	33:BI:51:ILE:HB	1.95	0.48
25:BA:2330:G:H4'	47:B0:43:ARG:NH1	2.28	0.48
35:BO:86:ILE:N	35:BO:86:ILE:HD12	2.28	0.48
52:B5:33:CYS:O	52:B5:34:PRO:C	2.51	0.48
52:B5:33:CYS:SG	52:B5:36:CYS:HB3	2.54	0.48
22:AV:134:ASP:HB2	22:AV:152:THR:HB	1.96	0.48
25:DA:1792:G:H5''	28:DD:205:VAL:HG13	1.96	0.48
28:DD:112:GLN:HB2	28:DD:115:GLN:HE21	1.78	0.48
8:AH:86:ILE:CB	8:AH:133:LEU:HD22	2.44	0.48
32:DH:72:ILE:O	32:DH:76:VAL:HG23	2.13	0.48
1:AA:405:U:O2	1:AA:498:U:H2'	2.13	0.48
55:D8:33:ASN:HD22	55:D8:36:LYS:HD2	1.79	0.48
18:AR:85:LEU:CG	18:AR:86:VAL:H	2.26	0.48
18:AR:87:ARG:O	18:AR:88:LYS:HB2	2.14	0.48
25:BA:90:U:C2'	25:BA:90:U:O2	2.60	0.48
30:BF:130:ALA:O	30:BF:132:VAL:N	2.47	0.48
25:BA:1223:G:H5'	25:BA:1224:C:OP2	2.13	0.48
29:DE:134:ILE:HB	29:DE:137:HIS:HB2	1.94	0.48
27:BC:38:PHE:C	27:BC:38:PHE:CD1	2.86	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BR:12:ARG:CG	38:BR:12:ARG:NH1	2.76	0.48
2:AB:174:VAL:HG13	2:AB:184:VAL:HG11	1.95	0.48
1:AA:950:U:H2'	1:AA:951:G:H8	1.79	0.48
11:AK:29:ILE:HD12	11:AK:43:SER:O	2.13	0.48
25:DA:651:G:H2'	25:DA:651:G:N3	2.29	0.48
25:DA:1655:A:C2	25:DA:2049:G:H4'	2.48	0.48
25:BA:2350:C:H2'	25:BA:2351:G:O4'	2.14	0.48
25:DA:1204:A:H1'	25:DA:1206:G:N7	2.29	0.48
25:DA:2302:G:C6	25:DA:2315:G:C6	3.01	0.48
48:D1:50:ARG:HH11	48:D1:50:ARG:CG	2.21	0.48
25:DA:518:G:H4'	43:DW:18:ARG:CZ	2.43	0.48
33:DI:82:ARG:O	33:DI:83:ALA:HB2	2.14	0.48
27:DC:53:ARG:HG2	27:DC:53:ARG:NH1	2.29	0.48
25:DA:1151:G:H4'	41:DU:81:HIS:CG	2.49	0.48
1:AA:860:A:H2'	1:AA:861:G:O4'	2.14	0.48
2:AB:144:ARG:HA	2:AB:147:LYS:HB3	1.95	0.48
25:DA:1314:C:OP1	25:DA:1332:G:OP1	2.32	0.48
25:BA:84:A:H5'	45:BY:9:LYS:HB3	1.96	0.48
13:CM:83:ASP:C	13:CM:85:GLY:N	2.67	0.48
25:BA:1678:G:N2	25:BA:1989:G:N2	2.62	0.48
15:AO:27:VAL:O	15:AO:28:GLN:C	2.51	0.48
4:AD:147:ALA:HA	4:AD:182:LYS:CB	2.43	0.48
25:BA:2086:U:H2'	25:BA:2087:G:C8	2.49	0.48
1:CA:1090:U:H2'	1:CA:1091:U:H6	1.78	0.48
25:BA:1448:G:N3	25:BA:1528(A):A:H2	2.12	0.48
40:DT:64:ARG:HH11	40:DT:64:ARG:HG2	1.79	0.48
26:BB:32:C:N3	26:BB:51:G:N2	2.62	0.48
1:CA:1421:G:C6	1:CA:1480:G:C6	3.02	0.48
7:AG:60:LYS:HB2	7:AG:60:LYS:NZ	2.28	0.48
27:DC:32:GLU:C	27:DC:34:ALA:H	2.18	0.48
25:DA:699:A:C2'	25:DA:700:G:H5'	2.43	0.48
19:AS:45:VAL:O	19:AS:45:VAL:HG23	2.14	0.48
45:DY:33:LYS:H	45:DY:33:LYS:HD3	1.79	0.48
8:AH:33:GLU:O	8:AH:34:GLU:C	2.52	0.48
25:BA:2822:G:O2'	25:BA:2824:C:OP2	2.25	0.48
2:CB:207:ALA:C	2:CB:209:ARG:N	2.66	0.47
42:DV:23:GLU:O	42:DV:24:LYS:C	2.50	0.47
25:BA:2179:C:O2	25:BA:2179:C:H2'	2.13	0.47
7:CG:102:ARG:O	7:CG:106:GLN:HG3	2.14	0.47
9:CI:8:GLY:N	9:CI:15:ALA:O	2.47	0.47
41:BU:66:ASN:ND2	41:BU:70:ARG:HH21	2.11	0.47
1:CA:1127:G:H21	1:CA:1147:C:H41	1.61	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CM:94:ARG:O	13:CM:96:LEU:HG	2.14	0.47
22:CV:136:PRO:O	22:CV:149:LYS:CD	2.56	0.47
1:AA:1137:C:H4'	1:AA:1138:G:N2	2.29	0.47
10:AJ:24:VAL:HG12	10:AJ:24:VAL:O	2.13	0.47
10:AJ:25:GLU:C	10:AJ:27:ALA:N	2.64	0.47
1:AA:1428:A:H2'	1:AA:1429:C:C6	2.48	0.47
45:BY:98:VAL:O	45:BY:99:CYS:O	2.32	0.47
31:BG:64:THR:CG2	31:BG:65:GLY:N	2.76	0.47
29:DE:11:MET:HB2	29:DE:23:VAL:O	2.14	0.47
36:BP:136:GLU:OE1	36:BP:136:GLU:HA	2.14	0.47
25:DA:287:C:H6	25:DA:287:C:H5'	1.79	0.47
55:B8:32:LEU:CB	55:B8:36:LYS:HE2	2.43	0.47
29:BE:69:LYS:HD3	29:BE:89:ASP:CA	2.35	0.47
13:CM:23:TYR:HD1	13:CM:67:GLU:HA	1.79	0.47
13:AM:40:ASN:HB3	13:AM:43:THR:CG2	2.44	0.47
43:DW:1:MET:HE2	43:DW:2:GLU:H	1.79	0.47
3:CC:54:ARG:HB3	3:CC:69:HIS:HB2	1.96	0.47
25:DA:2822:G:O6	38:DR:4:LEU:HB3	2.14	0.47
3:CC:113:ALA:HB3	3:CC:114:PRO:HD3	1.95	0.47
15:CO:78:TYR:O	15:CO:82:ILE:HG22	2.14	0.47
37:BQ:63:LYS:HZ2	37:BQ:63:LYS:HB2	1.77	0.47
36:BP:10:PRO:O	36:BP:11:GLY:C	2.52	0.47
1:AA:472:A:H5''	16:AP:80:PHE:CB	2.39	0.47
8:AH:127:LEU:HD12	8:AH:129:VAL:CG2	2.44	0.47
39:DS:98:VAL:HG22	39:DS:100:ALA:HB2	1.95	0.47
25:DA:245:G:N7	55:D8:8:LYS:NZ	2.59	0.47
1:AA:726:C:O2'	1:AA:727:G:H5'	2.14	0.47
12:CL:116:LYS:O	12:CL:117:TYR:HB2	2.14	0.47
12:CL:21:VAL:HG12	12:CL:21:VAL:O	2.14	0.47
35:DO:86:ILE:H	35:DO:86:ILE:CD1	2.27	0.47
25:BA:391:G:N2	25:BA:392:C:H1'	2.29	0.47
1:CA:1101:A:H1'	1:CA:1102:A:O4'	2.14	0.47
39:BS:18:ILE:C	39:BS:20:ARG:H	2.17	0.47
56:B9:27:CYS:SG	56:B9:28:GLU:N	2.87	0.47
1:CA:878:G:C6	1:CA:879:C:N4	2.82	0.47
28:DD:70:TRP:CZ3	28:DD:146:GLU:OE2	2.66	0.47
1:CA:502:G:OP1	12:CL:115:SER:N	2.43	0.47
22:AV:4:VAL:O	22:AV:7:LEU:N	2.46	0.47
29:DE:101:ARG:HH21	29:DE:170:LEU:C	2.17	0.47
29:DE:44:TYR:CD2	29:DE:82:ARG:HD3	2.49	0.47
31:BG:2:PRO:HD2	51:B4:51:TYR:CE1	2.48	0.47
39:BS:106:ARG:O	39:BS:107:GLU:O	2.31	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:271(Y):U:O2'	25:BA:271(Z):C:H6	1.97	0.47
25:DA:1796:U:H2'	25:DA:1797:C:C6	2.48	0.47
6:AF:38:GLU:O	6:AF:39:LYS:CB	2.62	0.47
48:B1:23:LYS:O	48:B1:24:ALA:C	2.52	0.47
25:DA:1614:A:H62	43:DW:93:ALA:CB	2.25	0.47
2:AB:233:SER:O	2:AB:235:SER:N	2.47	0.47
25:BA:1934:C:O2'	25:BA:1935:G:H5'	2.14	0.47
1:CA:1423:G:H5''	35:DO:49:ARG:HH22	1.78	0.47
25:DA:2554:U:H2'	25:DA:2555:U:C6	2.49	0.47
25:BA:229:A:H3'	25:BA:230:U:C5'	2.42	0.47
54:D7:47:ARG:O	54:D7:48:LYS:HD3	2.14	0.47
1:AA:1376:U:H2'	1:AA:1377:A:C8	2.48	0.47
47:B0:52:MET:HE3	47:B0:56:PHE:HA	1.95	0.47
25:DA:1029:A:H2'	25:DA:1030:G:O4'	2.13	0.47
25:BA:879:G:N2	25:BA:899:A:H1'	2.29	0.47
25:BA:614(A):U:H4'	25:BA:614(B):G:O5'	2.13	0.47
1:AA:737:A:H2'	1:AA:738:C:C6	2.48	0.47
46:DZ:30:ARG:NH2	46:DZ:93:GLU:OE2	2.43	0.47
5:CE:43:LEU:HD21	5:CE:132:ALA:HB1	1.95	0.47
25:DA:1434:A:H61	25:DA:1558:A:N6	2.12	0.47
8:AH:35:ILE:HG22	8:AH:39:LEU:CD2	2.44	0.47
33:BI:127:VAL:C	33:BI:128:LEU:HD23	2.35	0.47
25:BA:960:A:C4'	25:BA:2457:U:H4'	2.44	0.47
25:BA:1680:U:C2'	25:BA:1681:G:H5'	2.44	0.47
25:DA:710:G:O2'	25:DA:711:G:H5'	2.13	0.47
47:B0:35:ILE:HD12	47:B0:35:ILE:C	2.34	0.47
1:AA:1078:U:H4'	5:AE:84:PHE:HZ	1.79	0.47
30:BF:50:SER:HA	30:BF:92:PRO:O	2.14	0.47
39:BS:35:ILE:HG23	39:BS:35:ILE:O	2.14	0.47
35:DO:12:ASP:HB3	35:DO:97:ARG:O	2.15	0.47
2:CB:204:ASN:C	2:CB:204:ASN:ND2	2.65	0.47
2:CB:23:ARG:O	2:CB:23:ARG:CD	2.60	0.47
2:CB:31:TYR:C	2:CB:32:ILE:HD12	2.35	0.47
2:CB:92:TYR:C	2:CB:92:TYR:HD1	2.16	0.47
50:D3:7:LYS:O	50:D3:54:VAL:HG22	2.14	0.47
41:DU:52:ARG:NH1	41:DU:52:ARG:HG3	2.29	0.47
48:D1:52:ARG:HH12	48:D1:78:LYS:CE	2.26	0.47
25:DA:2117:A:H3'	25:DA:2118:U:H5''	1.95	0.47
25:DA:2182:G:H2'	25:DA:2183:C:C6	2.48	0.47
44:DX:35:THR:HB	44:DX:38:GLU:CB	2.44	0.47
7:CG:10:ARG:O	7:CG:11:GLN:O	2.31	0.47
1:CA:1138:G:N2	1:CA:1140:C:N4	2.62	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2810:A:C2'	29:BE:61:ARG:NH2	2.77	0.47
30:BF:3:GLU:HA	30:BF:24:LEU:CG	2.44	0.47
3:AC:59:ARG:O	10:AJ:93:GLY:HA2	2.14	0.47
30:DF:28:ILE:HG12	30:DF:119:ARG:HH22	1.78	0.47
36:BP:101:VAL:HG23	36:BP:102:ARG:H	1.77	0.47
25:DA:1748:G:H8	25:DA:1748:G:H5'	1.78	0.47
8:AH:100:ILE:HB	8:AH:125:ARG:CZ	2.43	0.47
3:CC:53:ALA:O	3:CC:54:ARG:HB2	2.14	0.47
32:DH:54:ARG:O	32:DH:55:PRO:O	2.32	0.47
40:DT:30:VAL:HG22	40:DT:84:GLN:HG3	1.96	0.47
22:CV:69:GLU:O	22:CV:85:LEU:HB3	2.14	0.47
1:CA:1112:C:C4	3:CC:178:LEU:HD23	2.50	0.47
37:BQ:115:MET:O	37:BQ:119:ARG:HB2	2.14	0.47
37:BQ:137:TYR:OH	46:BZ:80:ARG:NH1	2.47	0.47
19:CS:20:LEU:C	19:CS:23:ASN:H	2.18	0.47
19:CS:31:ILE:HG23	19:CS:49:ILE:HA	1.95	0.47
31:DG:51:ARG:NE	31:DG:51:ARG:HA	2.24	0.47
36:DP:85:LEU:HD23	36:DP:85:LEU:N	2.28	0.47
25:DA:1409:C:H2'	25:DA:1410:G:H8	1.79	0.47
10:CJ:6:ILE:HD11	10:CJ:72:VAL:HB	1.95	0.47
36:BP:23:PRO:O	36:BP:33:ARG:CZ	2.62	0.47
36:BP:23:PRO:HG2	36:BP:33:ARG:HG3	1.96	0.47
29:BE:12:THR:HG22	40:BT:58:ASN:ND2	2.29	0.47
5:CE:137:GLU:CA	5:CE:140:ARG:HH12	2.22	0.47
12:CL:67:ILE:HG21	12:CL:72:HIS:CD2	2.49	0.47
23:AW:1:C:N4	23:AW:72:A:H61	2.00	0.47
20:AT:30:LYS:HZ3	20:AT:33:ILE:HB	1.80	0.47
56:B9:30:PRO:C	56:B9:32:HIS:N	2.65	0.47
25:BA:2832:U:O4	25:BA:2883:A:H5''	2.14	0.47
1:CA:189(L):G:O2'	1:CA:190:U:H5'	2.13	0.47
7:AG:109:ASN:HA	7:AG:119:ARG:HE	1.78	0.47
47:B0:39:GLN:HE22	47:B0:42:THR:HA	1.78	0.47
1:CA:664:G:N2	1:CA:741:G:H1	2.06	0.47
1:CA:827:U:H2'	1:CA:870:U:O4	2.13	0.47
1:CA:840:C:H4'	1:CA:848:C:N3	2.28	0.47
25:DA:272(E):G:C6	25:DA:364:C:N4	2.82	0.47
22:AV:83:MET:CE	22:AV:88:TYR:HB3	2.44	0.47
4:AD:70:ILE:HD12	4:AD:100:ARG:NE	2.29	0.47
47:D0:7:LEU:H	47:D0:7:LEU:HD23	1.79	0.47
37:BQ:43:THR:CB	37:BQ:45:GLN:HG2	2.40	0.47
32:DH:38:SER:C	32:DH:40:GLU:H	2.12	0.47
1:AA:60:A:O2'	1:AA:61:G:OP2	2.33	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:DC:66:PRO:HG3	27:DC:188:ASP:O	2.14	0.47
25:DA:2049:G:N2	25:DA:2620:C:C2	2.83	0.47
22:AV:131:LYS:HA	22:AV:170:VAL:HA	1.95	0.47
25:DA:250:G:C6	25:DA:251:A:C6	3.03	0.47
1:AA:106:C:H2'	1:AA:107:G:C8	2.48	0.47
47:B0:50:VAL:CG2	47:B0:80:VAL:HG23	2.43	0.47
25:BA:271(L):U:H4'	25:BA:271(M):G:C4	2.50	0.47
25:DA:2514:U:H2'	25:DA:2515:C:C6	2.49	0.47
1:CA:532:A:H5'	3:CC:161:GLU:OE2	2.15	0.47
25:BA:1188:U:O2'	25:BA:1189:A:H5'	2.14	0.47
27:BC:9:ARG:O	27:BC:13:GLU:HG3	2.13	0.47
27:BC:62:THR:CG2	27:BC:163:GLU:HG2	2.42	0.47
25:DA:1863:G:H2'	25:DA:1864:U:O4'	2.14	0.47
29:DE:197:ILE:O	29:DE:197:ILE:HG12	2.14	0.47
1:CA:236:G:H2'	1:CA:237:C:C6	2.49	0.47
8:CH:100:ILE:O	8:CH:102:ARG:NH2	2.47	0.47
25:BA:1882:C:H3'	25:BA:1883:G:H8	1.79	0.47
25:BA:2013:A:C2'	25:BA:2014:A:H5'	2.44	0.47
25:DA:1583:A:H5'	25:DA:1584:C:OP1	2.13	0.47
25:BA:2753:A:O2'	25:BA:2754:U:P	2.72	0.47
41:DU:14:HIS:NE2	41:DU:32:PHE:CB	2.77	0.47
20:AT:38:LYS:HG3	20:AT:41:ILE:HD11	1.96	0.47
49:B2:30:ARG:HG3	49:B2:31:GLU:N	2.29	0.47
1:CA:1431:C:H2'	1:CA:1432:G:C5'	2.44	0.47
43:DW:9:TYR:HD2	43:DW:9:TYR:N	2.10	0.47
28:BD:18:VAL:HG12	28:BD:19:ALA:N	2.29	0.47
55:D8:19:SER:HB2	55:D8:21:LYS:HG3	1.96	0.47
28:DD:231:HIS:HD2	28:DD:249:PRO:HG3	1.79	0.47
25:DA:580:C:H2'	25:DA:581:C:C6	2.49	0.47
25:DA:1764:G:H2'	25:DA:1765:C:H6	1.79	0.47
25:DA:297:C:H5''	45:DY:85:VAL:HG21	1.95	0.47
25:DA:1692:U:O2'	25:DA:1693:U:H2'	2.14	0.47
1:AA:1108:G:H5'	3:AC:176:HIS:ND1	2.29	0.47
34:DN:33:LEU:HD23	34:DN:52:VAL:CG2	2.44	0.47
25:DA:429:A:C6	25:DA:430:G:N1	2.82	0.47
25:DA:1259:G:O2'	25:DA:1260:G:H5'	2.13	0.47
25:BA:1762:A:O5'	25:BA:1762:A:C8	2.67	0.47
20:AT:80:ARG:HG2	20:AT:80:ARG:HH11	1.79	0.47
25:BA:2524:G:H5''	25:BA:2524:G:H8	1.79	0.47
20:AT:10:LEU:O	20:AT:12:ALA:N	2.44	0.47
25:DA:1031:G:H4'	56:D9:8:LYS:HD2	1.95	0.47
39:BS:54:LEU:HD13	39:BS:57:LYS:O	2.14	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DZ:58:LEU:HB2	46:DZ:66:LEU:CD1	2.44	0.47
25:DA:1166:C:H2'	25:DA:1167:U:O4'	2.14	0.47
25:DA:533:G:H5'	41:DU:24:TYR:CE2	2.50	0.47
41:DU:79:PHE:HE1	41:DU:110:VAL:HG22	1.78	0.47
41:DU:92:ARG:HH11	41:DU:92:ARG:CG	2.27	0.47
41:DU:92:ARG:HG3	42:DV:11:GLN:NE2	2.29	0.47
48:D1:52:ARG:CZ	48:D1:78:LYS:HD3	2.44	0.47
19:CS:9:VAL:HG12	19:CS:9:VAL:O	2.14	0.47
25:BA:612:C:C3'	25:BA:613:G:H5''	2.40	0.47
1:CA:941:G:N2	1:CA:942:G:H1'	2.29	0.47
7:CG:15:ASP:N	7:CG:19:GLY:HA2	2.28	0.47
9:CI:76:ALA:O	9:CI:79:LEU:HB3	2.15	0.47
41:BU:97:ASP:CG	41:BU:98:LEU:N	2.65	0.47
25:BA:2811:G:C6	25:BA:2891:G:N2	2.82	0.47
19:AS:13:ASP:C	19:AS:15:LEU:N	2.68	0.47
19:AS:5:LEU:HD11	19:AS:9:VAL:CA	2.44	0.47
45:DY:47:LYS:O	45:DY:49:VAL:HG23	2.14	0.47
29:DE:65:GLY:HA2	29:DE:70:ALA:CB	2.44	0.47
30:BF:4:VAL:N	30:BF:19:GLU:CB	2.74	0.47
1:AA:227:G:H2'	1:AA:228:A:H8	1.79	0.47
30:DF:110:LEU:HD13	30:DF:110:LEU:C	2.33	0.47
45:BY:25:GLY:HA3	45:BY:39:VAL:CG1	2.43	0.47
3:CC:84:ILE:O	3:CC:87:LEU:HB2	2.14	0.47
25:DA:2656:U:C5	25:DA:2664:G:N2	2.82	0.47
1:CA:1297:C:O2'	7:CG:114:ARG:NH2	2.47	0.47
1:CA:1331:G:OP2	13:CM:23:TYR:HD2	1.97	0.47
13:AM:49:THR:CB	13:AM:52:GLU:HG3	2.39	0.47
13:AM:97:PRO:HB2	13:AM:101:GLN:HE22	1.68	0.47
4:AD:22:LYS:CD	4:AD:26:CYS:SG	3.02	0.47
11:CK:127:LYS:CE	11:CK:127:LYS:HA	2.27	0.47
35:DO:76:ALA:HB3	40:DT:75:ILE:HD12	1.96	0.47
22:CV:71:GLN:CA	22:CV:109:THR:HG21	2.43	0.47
22:CV:89:GLU:CD	22:CV:89:GLU:N	2.67	0.47
1:CA:1188:A:C2'	1:CA:1189:C:H5'	2.44	0.47
10:CJ:63:PHE:HB3	14:CN:58:LYS:HA	1.96	0.47
1:CA:997:U:C2'	1:CA:998:G:H5'	2.44	0.47
27:BC:80:LYS:HD3	27:BC:120:VAL:CG1	2.39	0.47
14:AN:22:THR:HB	14:AN:33:VAL:CG2	2.43	0.47
37:BQ:29:PHE:CB	37:BQ:105:GLU:OE2	2.57	0.47
52:B5:50:GLY:N	52:B5:56:LYS:HB3	2.29	0.47
36:BP:6:LEU:HB2	36:BP:9:ASN:HD22	1.78	0.47
47:D0:40:GLN:NE2	47:D0:44:ARG:N	2.62	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1027:C:O5'	1:CA:1027:C:H6	1.96	0.47
25:DA:341:G:C2	25:DA:342:G:C4	3.02	0.47
1:AA:461:A:C5	1:AA:471:G:C6	3.02	0.47
1:AA:376:G:H5''	16:AP:5:ARG:HB2	1.96	0.47
12:AL:80:VAL:CG1	12:AL:81:LEU:N	2.77	0.47
23:CW:58:A:O2'	23:CW:59:A:O5'	2.32	0.47
27:DC:174:ALA:HB1	27:DC:175:PRO:CD	2.44	0.47
25:DA:1792:G:C5'	28:DD:205:VAL:HG13	2.43	0.47
1:AA:728:A:C8	15:AO:54:ARG:NH1	2.82	0.47
1:CA:651:C:H2'	1:CA:652:U:O4'	2.14	0.47
10:CJ:83:GLU:C	10:CJ:85:LEU:N	2.63	0.47
1:AA:403:C:H2'	1:AA:404:U:H6	1.80	0.47
4:AD:2:GLY:O	4:AD:3:ARG:C	2.53	0.47
18:AR:58:LEU:HD23	18:AR:62:GLU:HB3	1.95	0.47
1:CA:1458:G:H5''	20:CT:31:SER:OG	2.14	0.47
20:CT:30:LYS:O	20:CT:34:LYS:HG3	2.14	0.47
25:BA:1717:G:C3'	25:BA:1718:G:H5''	2.44	0.47
27:BC:21:TYR:HB3	27:BC:25:GLU:HB2	1.96	0.47
50:B3:4:LEU:O	50:B3:36:VAL:HA	2.15	0.47
11:AK:33:THR:HB	11:AK:38:ASN:C	2.34	0.47
25:BA:2128:C:H6	25:BA:2128:C:O5'	1.98	0.47
25:DA:88:G:H2'	25:DA:88:G:N3	2.28	0.47
8:CH:20:TYR:HA	8:CH:65:TYR:OH	2.14	0.47
8:CH:69:ARG:CZ	8:CH:75:ARG:O	2.63	0.47
25:BA:2106:G:O2'	25:BA:2107:C:H5'	2.14	0.47
25:BA:2648:C:H2'	25:BA:2649:U:H6	1.72	0.47
25:BA:2865:U:OP2	40:BT:119:LYS:NZ	2.39	0.47
7:CG:49:ILE:O	7:CG:53:LYS:HB2	2.14	0.47
1:AA:1230:C:H2'	1:AA:1231:G:C8	2.41	0.47
7:AG:49:ILE:HA	7:AG:52:GLU:CB	2.44	0.47
25:DA:252:G:P	36:DP:50:ARG:HH11	2.37	0.47
17:CQ:85:VAL:O	17:CQ:86:GLU:C	2.52	0.47
25:DA:1459:G:C6	25:DA:1461:G:C4	3.02	0.47
27:DC:53:ARG:HG2	27:DC:53:ARG:HH11	1.79	0.47
25:DA:2615:U:N1	52:D5:7:PRO:HA	2.30	0.47
25:BA:2059:A:O2'	30:BF:69:HIS:CD2	2.66	0.47
1:CA:967:C:O5'	1:CA:967:C:H6	1.97	0.47
34:BN:92:ALA:O	34:BN:93:THR:HB	2.15	0.47
12:AL:78:SER:HB3	12:AL:103:ASP:CB	2.44	0.47
32:DH:88:LEU:HD13	32:DH:164:TYR:O	2.14	0.47
35:BO:88:ASN:OD1	35:BO:92:GLU:N	2.48	0.47
10:AJ:46:ARG:HA	10:AJ:64:GLU:HB3	1.94	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CG:18:TYR:HB3	7:CG:59:LEU:CD1	2.44	0.47
45:BY:6:HIS:HB3	45:BY:35:TYR:HE1	1.78	0.47
25:BA:1858:G:HO2'	25:BA:1859:A:H8	1.62	0.47
1:AA:1248:A:H2'	1:AA:1249:C:C5'	2.44	0.47
15:AO:65:ARG:NH1	15:AO:65:ARG:HG2	2.29	0.47
22:CV:41:PHE:HZ	22:CV:54:PHE:HE2	1.62	0.47
25:BA:1892:C:O2'	25:BA:1893:C:H5'	2.13	0.47
1:CA:1205:U:H4'	3:CC:195:VAL:CG2	2.44	0.47
8:AH:41:ARG:O	8:AH:41:ARG:CD	2.62	0.47
30:DF:33:LEU:O	30:DF:37:VAL:HG23	2.14	0.47
1:AA:648:A:H2'	1:AA:649:G:H8	1.79	0.47
1:AA:1389:C:H2'	1:AA:1390:U:O4'	2.14	0.47
11:CK:12:ARG:HD3	11:CK:13:GLN:N	2.30	0.47
29:BE:151:TYR:HB3	34:BN:79:PRO:CG	2.44	0.47
1:AA:1311:G:H2'	1:AA:1312:G:O4'	2.14	0.47
44:BX:14:SER:O	44:BX:15:GLU:C	2.52	0.47
1:AA:1395:C:O5'	1:AA:1395:C:H6	1.97	0.47
33:BI:86:THR:C	33:BI:122:GLU:OE2	2.53	0.47
25:BA:2875:C:H4'	40:BT:5:ALA:CB	2.20	0.47
1:CA:338:A:H2'	1:CA:339:C:C6	2.50	0.47
1:AA:1291:G:O2'	9:AI:38:GLN:HB3	2.15	0.47
1:AA:1119:C:OP1	9:AI:83:ARG:NH1	2.48	0.47
32:BH:33:LEU:HD21	32:BH:136:ILE:CG2	2.44	0.47
46:DZ:27:MET:HA	46:DZ:87:PHE:HB2	1.96	0.47
2:CB:212:GLN:CG	2:CB:235:SER:HB2	2.44	0.47
2:CB:7:VAL:HG12	2:CB:11:LEU:HG	1.95	0.47
25:DA:997:G:C2	25:DA:998:C:C6	3.02	0.47
41:DU:66:ASN:O	41:DU:70:ARG:HB2	2.15	0.47
42:DV:4:ILE:HG23	42:DV:12:TYR:O	2.15	0.47
20:AT:100:ILE:HD12	20:AT:100:ILE:N	2.29	0.47
20:AT:42:GLN:CG	20:AT:43:LEU:HD23	2.21	0.47
42:BV:38:LEU:HD23	42:BV:52:VAL:CG1	2.44	0.47
1:CA:1137:C:H4'	1:CA:1138:G:N2	2.27	0.47
31:DG:108:ASN:CA	31:DG:112:PRO:HG2	2.43	0.47
40:BT:30:VAL:HG21	40:BT:83:ILE:CG1	2.45	0.47
40:BT:32:TYR:CD1	40:BT:81:PRO:HA	2.49	0.47
30:DF:110:LEU:O	30:DF:113:ALA:HB3	2.14	0.47
30:DF:185:ASP:OD1	30:DF:185:ASP:N	2.47	0.47
3:CC:84:ILE:HG23	3:CC:85:ARG:N	2.29	0.47
28:BD:267:SER:C	28:BD:269:PHE:N	2.66	0.47
28:BD:24:ILE:CG2	28:BD:25:THR:H	2.05	0.47
31:DG:28:VAL:HG12	31:DG:28:VAL:O	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:288:C:O2	25:DA:288:C:H2'	2.14	0.47
29:BE:69:LYS:CD	29:BE:89:ASP:HA	2.39	0.47
13:CM:10:PRO:O	13:CM:45:VAL:HG11	2.15	0.47
35:BO:2:ILE:HG13	35:BO:8:LEU:HD11	1.95	0.47
3:CC:112:SER:CB	3:CC:115:LEU:HD12	2.43	0.47
5:AE:112:LEU:HD23	5:AE:112:LEU:N	2.30	0.47
3:CC:177:THR:HB	3:CC:180:ALA:HB2	1.96	0.47
25:BA:2747:G:O6	25:BA:2755:C:H5''	2.13	0.47
25:BA:1798:U:H5	28:BD:274:ARG:NH1	2.13	0.47
25:DA:874:G:O2'	25:DA:875:G:H5'	2.15	0.47
49:D2:48:HIS:HA	49:D2:51:ARG:HG2	1.95	0.47
2:CB:124:SER:C	2:CB:126:GLU:N	2.67	0.47
10:AJ:49:VAL:C	10:AJ:60:ARG:HB3	2.33	0.47
37:BQ:64:ILE:HA	37:BQ:106:VAL:HG12	1.96	0.47
19:CS:15:LEU:HD12	19:CS:31:ILE:CD1	2.42	0.47
25:BA:618:C:N4	25:BA:619:G:C6	2.82	0.47
25:DA:856:C:H2'	25:DA:857:C:C6	2.49	0.47
26:DB:31:C:H2'	26:DB:32:C:H6	1.80	0.47
25:DA:320:A:H3'	30:DF:136:THR:CG2	2.43	0.47
1:AA:375:U:OP1	16:AP:69:THR:HG21	2.13	0.47
39:BS:67:ARG:HH12	39:BS:100:ALA:N	2.00	0.47
30:BF:9:ILE:O	30:BF:128:ALA:HB2	2.14	0.47
1:CA:735:C:H2'	1:CA:736:C:C6	2.49	0.47
5:CE:72:GLN:HE21	5:CE:144:THR:CG2	2.18	0.47
25:DA:2125:G:N2	25:DA:2174:C:N4	2.63	0.47
25:DA:729:G:O2'	25:DA:763:G:H4'	2.13	0.47
51:B4:40:ILE:O	51:B4:47:VAL:HA	2.15	0.47
10:CJ:26:ALA:CA	10:CJ:29:ARG:HH21	2.22	0.47
12:CL:19:SER:C	12:CL:21:VAL:N	2.67	0.47
45:BY:71:LYS:HZ3	45:BY:71:LYS:HB2	1.80	0.47
25:DA:522:G:C6	25:DA:523:C:N4	2.82	0.47
44:BX:40:LYS:O	44:BX:42:ALA:N	2.47	0.47
1:AA:942:G:H2'	1:AA:943:U:H6	1.80	0.47
1:CA:390:C:O5'	1:CA:390:C:H6	1.97	0.47
6:CF:63:TYR:N	6:CF:63:TYR:CD2	2.82	0.47
2:AB:178:ARG:HH12	2:AB:196:LEU:HA	1.79	0.47
25:DA:2612:C:P	29:DE:132:HIS:HE2	2.38	0.47
12:CL:50:ARG:H	12:CL:50:ARG:HD2	1.79	0.47
1:AA:948:C:C6	13:AM:106:ASN:ND2	2.82	0.47
25:DA:344:G:N2	25:DA:345:A:N6	2.62	0.47
1:AA:600:C:O2'	1:AA:601:C:H5'	2.15	0.47
34:BN:134:ARG:O	34:BN:135:PRO:O	2.32	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AL:108:LYS:O	12:AL:109:ASP:CB	2.62	0.47
36:DP:48:PRO:HG2	36:DP:49:ARG:H	1.78	0.47
32:BH:94:TYR:CB	32:BH:107:VAL:HG12	2.44	0.47
11:CK:62:GLN:O	11:CK:66:LEU:HG	2.14	0.47
1:CA:385:C:O2'	1:CA:386:C:H5'	2.14	0.47
25:DA:142:A:N6	25:DA:1595:G:O2'	2.47	0.47
49:D2:24:LEU:HD23	49:D2:60:LEU:CD2	2.43	0.47
49:D2:21:LEU:CD2	49:D2:60:LEU:HD22	2.44	0.47
25:DA:2600:A:H2'	25:DA:2601:C:H6	1.76	0.47
4:AD:153:ARG:HG2	4:AD:181:MET:SD	2.54	0.47
1:CA:57:G:C5	1:CA:58:C:C4	3.02	0.47
40:BT:53:ARG:CG	40:BT:53:ARG:HH11	2.27	0.47
41:BU:27:LEU:C	41:BU:29:SER:N	2.68	0.47
27:DC:172:ILE:HG21	27:DC:197:LEU:HD11	1.95	0.47
44:BX:46:ALA:HB3	44:BX:47:PHE:CD1	2.50	0.47
44:BX:47:PHE:CD2	44:BX:89:ILE:HG23	2.47	0.47
1:AA:127:G:H4'	17:AQ:2:PRO:HD2	1.96	0.47
44:BX:29:TRP:CH2	44:BX:78:LYS:HD3	2.49	0.47
25:BA:1272:A:OP2	25:BA:1647:G:OP1	2.33	0.47
1:CA:901:A:N7	1:CA:902:G:H1'	2.28	0.47
25:DA:1984:G:O2'	25:DA:1985:G:H5'	2.14	0.47
25:BA:1743:C:H2'	25:BA:1744:C:O4'	2.14	0.47
1:AA:958:A:N3	1:AA:985:C:O2'	2.45	0.47
25:DA:1839:G:C8	25:DA:1839:G:H5'	2.49	0.47
39:BS:93:LYS:O	39:BS:94:TYR:C	2.51	0.47
7:AG:44:TYR:HE1	9:AI:41:VAL:HG21	1.79	0.47
46:DZ:27:MET:HE2	46:DZ:36:VAL:HG11	1.95	0.47
46:DZ:60:LEU:CD2	46:DZ:60:LEU:H	2.27	0.47
46:DZ:9:ARG:HH11	46:DZ:35:LYS:HB2	1.79	0.47
50:D3:56:VAL:O	50:D3:57:GLU:HB3	2.14	0.47
25:DA:1012:U:P	41:DU:70:ARG:HH22	2.37	0.47
42:DV:15:GLU:CB	42:DV:16:PRO:CD	2.92	0.47
25:DA:947:G:N2	25:DA:971:C:C2	2.82	0.47
25:DA:2110:G:C5'	25:DA:2118:U:H3	2.26	0.47
9:CI:18:PHE:HD1	9:CI:62:TYR:CD2	2.33	0.47
1:CA:1352:C:OP1	21:CU:3:LYS:NZ	2.45	0.47
7:CG:56:GLN:CD	7:CG:56:GLN:H	2.16	0.47
9:CI:69:GLY:O	9:CI:73:GLN:N	2.32	0.47
1:CA:1134:G:C2'	1:CA:1135:U:H5'	2.44	0.47
45:DY:54:LYS:O	45:DY:55:TYR:CD1	2.68	0.47
19:AS:58:VAL:O	19:AS:58:VAL:HG23	2.15	0.47
19:AS:6:LYS:CD	19:AS:6:LYS:H	2.28	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:DE:60:ASN:O	29:DE:61:ARG:C	2.52	0.47
35:BO:104:ARG:C	35:BO:106:LEU:H	2.17	0.47
20:AT:90:GLN:HA	20:AT:93:GLU:OE2	2.14	0.47
25:BA:2367:G:O2'	25:BA:2368:C:H5'	2.14	0.47
30:DF:114:VAL:HG22	30:DF:192:LEU:CD1	2.45	0.47
36:DP:17:LYS:HG3	36:DP:19:VAL:CG2	2.45	0.47
27:BC:132:LEU:HA	27:BC:135:ARG:HD2	1.96	0.47
2:AB:21:ARG:HD2	2:AB:38:GLY:HA3	1.97	0.47
1:AA:1027:C:H2'	1:AA:1028:C:C4	2.50	0.47
3:CC:53:ALA:HB2	3:CC:115:LEU:HG	1.96	0.47
1:AA:542:G:P	4:AD:10:ARG:NH2	2.86	0.47
1:CA:1188:A:H2'	1:CA:1189:C:H5'	1.96	0.47
10:CJ:49:VAL:HG21	14:CN:41:ARG:HB2	1.91	0.47
34:DN:26:LEU:HG	34:DN:30:ILE:CD1	2.45	0.47
28:DD:158:ALA:HB3	28:DD:161:THR:HG21	1.95	0.47
8:AH:109:ILE:CG2	8:AH:137:VAL:HB	2.45	0.47
25:DA:271(J):C:C3'	25:DA:271(K):U:H5''	2.44	0.47
33:DI:43:ASN:O	33:DI:46:ALA:N	2.47	0.47
25:DA:71:A:OP2	25:DA:71:A:H3'	2.13	0.47
47:D0:73:GLY:C	47:D0:75:LEU:N	2.68	0.47
15:CO:16:ALA:HB1	15:CO:21:ASP:HB3	1.95	0.47
30:BF:54:ARG:O	30:BF:54:ARG:CG	2.63	0.47
27:DC:15:VAL:HG13	27:DC:21:TYR:CZ	2.50	0.47
15:AO:75:PRO:HB2	15:AO:79:ARG:NH2	2.19	0.47
1:CA:1003:G:H2'	1:CA:1004:A:O4'	2.15	0.47
25:DA:2090:G:N2	48:D1:47:GLN:HE22	2.11	0.47
33:BI:132:PRO:HB2	33:BI:133:HIS:ND1	2.29	0.47
5:CE:103:GLY:H	5:CE:106:PRO:HG2	1.79	0.47
28:DD:205:VAL:O	28:DD:206:LEU:C	2.53	0.47
28:BD:155:LEU:N	28:BD:155:LEU:HD12	2.30	0.47
1:AA:878:G:H5''	8:AH:89:PRO:HG2	1.93	0.47
1:AA:1239:A:H62	1:AA:1299:A:N6	2.12	0.47
25:BA:512:G:O2'	25:BA:513:A:C8	2.67	0.47
1:AA:1002:G:N2	1:AA:1003:G:C1'	2.78	0.47
26:DB:15:A:H1'	26:DB:110:G:C5	2.50	0.47
25:BA:94(A):G:H21	49:B2:47:ASN:HD22	1.61	0.47
26:BB:87:G:H21	26:BB:90:A:H8	1.58	0.47
25:DA:97:C:H5''	49:D2:2:LYS:HB2	1.96	0.47
25:BA:71:A:H5''	25:BA:73:A:C8	2.49	0.47
25:BA:1300:U:H5'	25:BA:1300:U:O2	2.15	0.47
29:DE:45:THR:CG2	29:DE:83:ASP:HA	2.45	0.47
28:DD:267:SER:HA	28:DD:270:ILE:HD11	1.95	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:AV:89:GLU:HG3	22:AV:91:PHE:CZ	2.49	0.47
25:DA:805:G:O6	25:DA:2068:U:C5	2.67	0.47
4:AD:89:THR:O	4:AD:91:SER:N	2.39	0.47
19:CS:6:LYS:CD	19:CS:7:LYS:HE3	2.44	0.47
40:BT:14:TYR:CD1	40:BT:14:TYR:N	2.82	0.47
25:BA:1186:G:O2'	25:BA:1187:G:H5'	2.14	0.47
11:AK:12:ARG:HG2	11:AK:13:GLN:N	2.29	0.47
43:BW:76:VAL:CG2	43:BW:101:SER:HB3	2.45	0.47
13:AM:108:ARG:HG3	13:AM:108:ARG:NH1	2.29	0.47
1:AA:1414:U:H2'	1:AA:1415:G:H8	1.79	0.47
1:CA:1423:G:H5''	35:DO:49:ARG:NH2	2.29	0.47
17:CQ:7:THR:HG23	17:CQ:58:GLU:HG2	1.93	0.47
1:AA:51:A:N7	1:AA:114:U:O2'	2.42	0.47
12:AL:123:LYS:HE2	12:AL:124:GLU:O	2.15	0.47
25:DA:2219:G:O2'	25:DA:2220:G:H5'	2.14	0.47
25:DA:671:C:O2'	25:DA:672:C:H5'	2.14	0.47
4:AD:68:TYR:CE2	4:AD:97:LEU:HB3	2.50	0.47
25:BA:769:G:O2'	25:BA:770:G:H5'	2.14	0.47
25:BA:55:G:N3	25:BA:127:A:C2	2.83	0.47
46:BZ:52:ILE:CG2	46:BZ:70:VAL:HB	2.45	0.47
1:CA:189(E):U:C6	1:CA:189(E):U:OP2	2.68	0.47
54:D7:5:TRP:HE3	54:D7:5:TRP:HA	1.78	0.47
25:DA:776:G:O6	25:DA:793:A:H2'	2.15	0.47
28:DD:231:HIS:CD2	28:DD:249:PRO:HG3	2.50	0.47
25:DA:1202:C:C5	25:DA:1203:G:C5	3.02	0.47
1:AA:671:G:H2'	1:AA:672:U:H6	1.80	0.47
25:BA:2749:A:H4'	32:BH:62:LYS:HB3	1.97	0.47
25:BA:1625:C:C2'	25:BA:1626:G:H5'	2.44	0.47
1:AA:1418:A:H2	25:BA:1948:G:N3	2.13	0.47
53:B6:17:LYS:HD3	53:B6:17:LYS:O	2.13	0.47
2:AB:71:VAL:HA	2:AB:93:VAL:HG22	1.95	0.47
25:BA:340:A:H2'	25:BA:341:G:O4'	2.14	0.47
25:DA:1221(A):C:H2'	25:DA:1222:C:H6	1.79	0.47
32:BH:7:LEU:H	32:BH:8:PRO:HD3	1.74	0.47
46:DZ:164:VAL:CG1	46:DZ:165:SER:N	2.74	0.47
46:DZ:165:SER:CB	46:DZ:167:GLU:H	2.20	0.47
46:DZ:8:TYR:CE2	46:DZ:34:ARG:HD2	2.49	0.47
46:DZ:26:VAL:N	46:DZ:85:VAL:O	2.42	0.47
2:CB:15:VAL:C	2:CB:16:HIS:CG	2.87	0.47
2:CB:168:THR:HG21	2:CB:192:SER:HA	1.97	0.47
2:CB:28:PHE:CE1	2:CB:32:ILE:HD11	2.49	0.47
2:CB:55:PHE:HA	2:CB:58:ILE:HB	1.96	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DN:67:LEU:O	34:DN:68:GLU:CB	2.61	0.47
25:BA:1490:A:O5'	25:BA:1494:A:N6	2.48	0.47
20:AT:51:GLU:HA	20:AT:54:LYS:HB2	1.96	0.47
25:BA:611:C:H2'	25:BA:612:C:C6	2.49	0.47
31:DG:125:PHE:HD1	31:DG:125:PHE:N	2.12	0.47
30:BF:4:VAL:HA	30:BF:18:ARG:O	2.15	0.47
16:AP:59:TRP:O	16:AP:61:SER:N	2.47	0.47
36:DP:17:LYS:O	36:DP:17:LYS:CG	2.60	0.47
36:DP:5:ASP:OD1	36:DP:9:ASN:ND2	2.48	0.47
25:DA:2728:U:O2'	29:DE:22:PRO:HG3	2.14	0.47
25:DA:823:G:O2'	25:DA:824:A:H5'	2.15	0.47
25:DA:2393:A:H4'	36:DP:60:MET:O	2.14	0.47
1:CA:109:A:H2'	1:CA:326:G:N2	2.30	0.47
25:DA:276:A:N3	25:DA:276:A:C3'	2.77	0.47
4:AD:172:PRO:C	4:AD:174:LEU:H	2.17	0.47
43:DW:2:GLU:HA	43:DW:107:LEU:O	2.14	0.47
1:AA:339:C:OP2	35:BO:97:ARG:NH2	2.47	0.47
32:BH:123:PHE:CD2	32:BH:133:VAL:HG21	2.49	0.47
14:CN:26:ARG:HD2	14:CN:43:CYS:CB	2.44	0.47
27:DC:80:LYS:HZ1	31:DG:48:GLU:HB2	1.80	0.47
15:AO:70:LEU:HD11	15:AO:77:ARG:O	2.15	0.47
25:DA:2168:G:N2	25:DA:2170:A:H3'	2.29	0.47
39:DS:98:VAL:HG22	39:DS:100:ALA:N	2.29	0.47
25:DA:495:G:N3	43:DW:61:ASN:OD1	2.47	0.47
1:CA:189:G:H2'	1:CA:189(A):C:C6	2.50	0.47
1:CA:188:C:H2'	1:CA:189:G:H8	1.79	0.47
5:CE:80:ILE:HD11	5:CE:138:ALA:CA	2.44	0.47
1:CA:520:A:N1	1:CA:536:C:H1'	2.29	0.47
1:CA:537:G:H5''	12:CL:110:ARG:HH12	1.78	0.47
28:DD:31:LYS:O	28:DD:32:SER:C	2.52	0.47
28:DD:62:TYR:CD1	28:DD:62:TYR:C	2.88	0.47
28:DD:94:LEU:HD22	28:DD:95:LEU:N	2.29	0.47
51:D4:48:ILE:HD12	51:D4:48:ILE:N	2.19	0.47
7:AG:146:GLU:CA	7:AG:149:ARG:HB2	2.45	0.47
1:AA:170:U:O2'	1:AA:171:A:H5'	2.15	0.47
25:BA:27:G:O2'	25:BA:28:A:P	2.72	0.47
27:BC:23:ILE:HG13	27:BC:229:SER:OG	2.14	0.47
25:DA:2420:C:OP1	55:D8:34:TRP:HA	2.15	0.47
25:DA:1625:C:H2'	25:DA:1626:G:O4'	2.15	0.47
26:BB:89:G:C5	26:BB:90:A:C5	3.03	0.47
38:BR:117:VAL:HG12	38:BR:118:GLU:H	1.75	0.47
25:DA:1339:G:C2	25:DA:1340:U:C5	3.02	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:269:U:C5	25:BA:271(Y):U:C5	3.02	0.47
25:DA:2341:G:H2'	25:DA:2342:C:C6	2.50	0.47
25:BA:1558:A:HO2'	25:BA:1559:G:P	2.34	0.47
25:BA:2115:G:O6	25:BA:2117:A:H2'	2.14	0.47
25:BA:319:C:H2'	25:BA:320:A:O4'	2.14	0.47
25:DA:2389:G:H5''	25:DA:2390:U:C5'	2.41	0.47
30:DF:63:LYS:NZ	30:DF:75:HIS:O	2.43	0.47
25:DA:648:G:C2'	25:DA:649:G:H5'	2.44	0.47
1:CA:1261:A:H2'	1:CA:1262:C:O4'	2.15	0.47
1:CA:430:A:C2'	1:CA:431:A:H5'	2.44	0.47
25:DA:2516:G:C5	25:DA:2517:C:C4	3.02	0.47
1:CA:679:C:H42	1:CA:711:G:H1	1.63	0.47
33:DI:100:ALA:O	33:DI:102:SER:N	2.47	0.47
22:AV:45:GLU:CD	22:AV:45:GLU:N	2.67	0.47
1:AA:1376:U:O2'	1:AA:1377:A:H5'	2.14	0.47
37:BQ:68:ILE:CG2	37:BQ:103:MET:HA	2.44	0.47
54:D7:32:LYS:HD3	54:D7:32:LYS:C	2.34	0.47
1:CA:665:A:H2'	1:CA:725:G:N2	2.30	0.47
4:CD:127:THR:HG23	4:CD:147:ALA:O	2.14	0.47
25:BA:1431:U:H2'	25:BA:1432:C:H6	1.80	0.47
25:DA:1817:G:H5''	28:DD:88:ARG:NH2	2.30	0.47
12:AL:32:GLY:CA	12:AL:57:LEU:HD13	2.43	0.47
29:DE:173:VAL:O	29:DE:174:ASP:O	2.32	0.47
1:AA:245:C:C2	1:AA:284:G:C2	3.02	0.47
25:BA:2773:C:O2'	25:BA:2774:C:H5'	2.15	0.47
12:CL:16:ARG:HE	12:CL:16:ARG:HB2	1.52	0.47
25:DA:2543:G:H2'	25:DA:2544:G:C8	2.50	0.47
25:DA:1656:C:H2'	25:DA:1657:C:C6	2.48	0.47
46:BZ:70:VAL:HG22	46:BZ:87:PHE:HE2	1.79	0.47
25:DA:2707:G:H2'	25:DA:2708:G:C8	2.49	0.47
25:BA:1366:A:H2'	25:BA:1367:A:O4'	2.14	0.47
15:AO:30:ALA:HA	15:AO:85:LEU:HD11	1.95	0.47
25:DA:412:A:H2'	25:DA:413:C:H5'	1.97	0.47
1:AA:587:G:O2'	1:AA:588:G:H5'	2.13	0.47
25:DA:2671:A:C2	25:DA:2672:G:C4	3.02	0.47
23:AW:43:A:H2'	23:AW:44:A:C8	2.49	0.47
1:CA:655:A:C2	1:CA:754:C:N4	2.82	0.47
2:CB:79:ASP:C	2:CB:81:VAL:N	2.66	0.47
1:AA:721:G:H1'	1:AA:722:A:C2	2.49	0.47
52:D5:37:LYS:HG3	52:D5:38:ALA:H	1.80	0.47
36:BP:50:ARG:NH2	36:BP:50:ARG:HG2	2.29	0.47
26:BB:38:C:O2	26:BB:48:A:H1'	2.14	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BS:89:ARG:C	39:BS:92:TYR:HB3	2.35	0.47
1:AA:1286:A:H2'	1:AA:1287:A:C4'	2.44	0.47
9:AI:11:LYS:HG2	9:AI:12:GLU:HG2	1.96	0.47
7:AG:44:TYR:CE1	9:AI:41:VAL:HG21	2.50	0.47
46:DZ:60:LEU:HD22	46:DZ:60:LEU:H	1.80	0.47
46:DZ:66:LEU:HA	46:DZ:67:PRO:HD3	1.74	0.47
37:DQ:141:GLN:NE2	46:DZ:71:ARG:HD3	2.27	0.47
2:CB:20:GLU:HB3	2:CB:23:ARG:NH1	2.30	0.47
2:CB:213:LEU:C	2:CB:213:LEU:CD2	2.83	0.47
25:DA:1024:G:P	25:DA:1025:G:H3'	2.54	0.47
42:DV:19:LYS:HE2	42:DV:19:LYS:HA	1.96	0.47
25:DA:1139:G:C2	25:DA:1140:C:C6	3.03	0.47
25:DA:1142(A):A:O2'	25:DA:1143:A:H3'	2.13	0.47
41:DU:98:LEU:C	41:DU:100:VAL:N	2.68	0.47
41:DU:53:ARG:O	41:DU:57:PHE:HD1	1.97	0.47
2:AB:18:GLY:HA2	2:AB:42:ILE:H	1.79	0.47
1:CA:1271:G:H5'	1:CA:1314:C:H5'	1.95	0.47
9:CI:65:VAL:HG21	9:CI:73:GLN:HG2	1.96	0.47
42:BV:47:VAL:O	42:BV:50:PRO:O	2.33	0.47
25:BA:2645:G:C3'	25:BA:2646:C:C5'	2.85	0.47
22:CV:149:LYS:HE2	22:CV:163:LEU:C	2.35	0.47
31:DG:103:LEU:N	31:DG:103:LEU:HD12	2.27	0.47
31:DG:107:LEU:HD23	31:DG:111:LEU:HD12	1.97	0.47
29:DE:53:PRO:C	29:DE:54:GLN:HG2	2.34	0.47
1:AA:192:U:H4'	20:AT:103:GLY:CA	2.45	0.47
16:AP:55:ARG:C	16:AP:57:ARG:N	2.67	0.47
30:DF:1:MET:O	30:DF:3:GLU:N	2.48	0.47
27:DC:73:VAL:CG1	27:DC:112:ASP:HB2	2.26	0.47
26:BB:105:A:H2'	26:BB:106:G:O4'	2.15	0.47
46:BZ:29:ASN:ND2	46:BZ:89:VAL:O	2.47	0.47
1:AA:1064:G:C5	1:AA:1066:C:N4	2.82	0.47
1:AA:1067:A:H2'	1:AA:1093:A:H4'	1.96	0.47
25:DA:2416:C:OP1	36:DP:64:LYS:O	2.32	0.47
25:DA:159:U:C2'	25:DA:159:U:O2	2.60	0.47
36:BP:109:GLY:O	36:BP:110:TYR:CB	2.63	0.47
31:DG:16:ARG:O	31:DG:20:ILE:HG13	2.15	0.47
25:DA:283:A:N1	25:DA:427:U:H1'	2.29	0.47
55:B8:36:LYS:HB3	55:B8:41:ILE:HG13	1.96	0.47
45:BY:49:VAL:CG2	45:BY:50:ARG:N	2.54	0.47
40:BT:28:VAL:O	40:BT:29:ARG:HB2	2.13	0.47
4:AD:110:PHE:CZ	4:AD:146:ILE:O	2.67	0.47
29:BE:33:VAL:N	29:BE:69:LYS:HD2	2.30	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1302:U:H6	13:CM:17:VAL:HG21	1.79	0.47
1:AA:1307:U:H2'	1:AA:1308:U:C6	2.49	0.47
13:AM:39:ILE:HG22	13:AM:40:ASN:N	2.30	0.47
13:AM:34:LEU:CD1	13:AM:41:PRO:HA	2.45	0.47
13:AM:23:TYR:HE1	13:AM:71:ARG:CA	2.26	0.47
1:AA:1151:A:C4	1:AA:1152:A:N7	2.82	0.47
10:AJ:8:LEU:HB3	10:AJ:16:LEU:CD2	2.44	0.47
5:AE:41:VAL:HG22	5:AE:112:LEU:O	2.14	0.47
9:CI:33:PHE:CZ	9:CI:47:LEU:HD11	2.49	0.47
46:DZ:149:LEU:HD23	46:DZ:170:ILE:CD1	2.45	0.47
8:AH:20:TYR:OH	8:AH:75:ARG:HB3	2.15	0.47
25:DA:271(P):C:H5'	33:DI:45:LYS:HZ1	1.78	0.47
25:DA:271(O):C:O2'	25:DA:271(P):C:C5	2.65	0.47
22:CV:19:LEU:HD11	22:CV:115:TYR:CD2	2.49	0.47
14:AN:26:ARG:CG	14:AN:27:CYS:H	2.27	0.47
19:CS:16:LEU:O	19:CS:19:VAL:N	2.48	0.47
19:CS:44:MET:HG3	19:CS:47:HIS:CB	2.44	0.47
45:DY:76:CYS:O	45:DY:77:PRO:C	2.53	0.47
25:BA:607:U:P	30:BF:103:LYS:HG3	2.54	0.47
15:AO:70:LEU:HD11	15:AO:77:ARG:HG3	1.96	0.47
47:D0:69:PHE:HD2	47:D0:79:VAL:HG22	1.78	0.47
1:AA:557:G:H2'	1:AA:558:G:N9	2.29	0.47
43:BW:60:ASN:H	43:BW:60:ASN:ND2	2.10	0.47
16:AP:4:ILE:H	16:AP:66:PRO:HA	1.78	0.47
1:AA:368:U:O4'	1:AA:368:U:O2	2.33	0.47
1:AA:458:C:N3	1:AA:474:G:N1	2.63	0.47
16:AP:68:ASP:C	16:AP:70:ALA:N	2.66	0.47
25:BA:814:C:H41	36:BP:27:HIS:CD2	2.33	0.47
30:BF:45:ARG:HD3	30:BF:97:TYR:CD2	2.50	0.47
22:AV:136:PRO:O	22:AV:138:GLY:N	2.48	0.47
6:CF:50:TYR:O	6:CF:50:TYR:CD2	2.67	0.47
12:AL:87:VAL:HG12	12:AL:89:ASP:CB	2.45	0.47
5:CE:107:ARG:C	5:CE:109:ILE:H	2.17	0.47
28:DD:31:LYS:HZ2	28:DD:102:LYS:HZ2	1.63	0.47
28:DD:35:LYS:N	28:DD:36:PRO:CD	2.65	0.47
25:DA:1175:U:C5'	25:DA:1176:G:H8	2.28	0.47
42:BV:35:LEU:HB3	42:BV:37:VAL:CG2	2.36	0.47
42:BV:35:LEU:N	42:BV:35:LEU:HD22	2.29	0.47
4:AD:119:GLN:HG2	4:AD:123:HIS:NE2	2.28	0.47
25:BA:2299:G:C6	25:BA:2318:G:C8	3.02	0.47
55:D8:33:ASN:HA	55:D8:36:LYS:CD	2.42	0.47
55:D8:37:SER:O	55:D8:39:LYS:N	2.47	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:BY:20:TYR:CE1	45:BY:42:VAL:HA	2.50	0.47
25:BA:26:G:C6	25:BA:27:G:C2	3.02	0.47
1:AA:1001(A):G:O2'	1:AA:1002:G:H5'	2.15	0.47
25:BA:2846:G:H2'	25:BA:2847:U:O4'	2.15	0.47
22:AV:150:PRO:HG3	22:AV:160:GLN:HE22	1.79	0.47
1:CA:224:C:H2'	1:CA:225:C:C6	2.49	0.47
25:DA:130:C:C2'	25:DA:131:G:H5''	2.38	0.47
4:CD:157:LEU:O	4:CD:158:ILE:C	2.53	0.47
1:CA:877:C:OP1	8:CH:88:LYS:CE	2.63	0.47
18:CR:65:ILE:O	18:CR:66:LEU:C	2.53	0.47
25:BA:2336:A:H61	47:B0:42:THR:HG21	1.79	0.47
25:DA:2637:U:C2	25:DA:2782:G:N2	2.82	0.47
22:AV:23:VAL:CG2	22:AV:24:GLU:HG2	2.37	0.47
25:DA:2808:U:H5'	25:DA:2808:U:H6	1.80	0.47
25:DA:148:C:H5'	25:DA:149:A:P	2.55	0.47
25:BA:2166:G:C5	25:BA:2167:U:C5	3.02	0.47
1:CA:990:C:H2'	1:CA:991:U:C1'	2.45	0.47
25:BA:1885:A:H2'	25:BA:1886:C:H5'	1.95	0.47
35:BO:45:GLU:HA	35:BO:54:GLU:CG	2.44	0.47
1:CA:179:A:C4	1:CA:180:U:C5	3.03	0.47
38:BR:78:LYS:HG3	38:BR:82:GLU:OE2	2.14	0.47
1:CA:521:G:O2'	1:CA:522:C:H5'	2.15	0.47
30:BF:136:THR:O	30:BF:140:LEU:HB2	2.15	0.47
30:BF:140:LEU:HD12	30:BF:140:LEU:HA	1.76	0.47
11:CK:32:ILE:O	11:CK:32:ILE:HG13	2.15	0.47
31:BG:135:LEU:HD12	31:BG:135:LEU:N	2.30	0.47
27:DC:186:LEU:HD23	27:DC:189:ASN:ND2	2.29	0.47
25:BA:401:A:H2'	25:BA:402:A:H8	1.79	0.47
10:AJ:82:ILE:HG23	10:AJ:86:MET:HE1	1.97	0.47
5:CE:127:ASN:HB3	5:CE:130:ASN:HD22	1.78	0.47
44:DX:24:GLY:O	44:DX:83:VAL:N	2.46	0.47
33:BI:65:ALA:O	33:BI:68:LEU:HB3	2.14	0.47
1:CA:648:A:H2'	1:CA:649:G:H8	1.79	0.47
41:DU:34:LYS:HA	41:DU:34:LYS:CE	2.44	0.47
25:BA:1655:A:H3'	25:BA:1656:C:H6	1.78	0.47
8:AH:106:GLY:O	8:AH:108:GLY:N	2.48	0.47
12:AL:76:GLU:O	12:AL:77:HIS:ND1	2.48	0.47
35:BO:40:VAL:CG1	35:BO:41:ALA:N	2.77	0.47
25:DA:1906:G:O2'	25:DA:1907:G:H5'	2.15	0.47
25:BA:1215:G:C2'	25:BA:1216:G:H5'	2.44	0.47
52:D5:6:VAL:CG2	52:D5:7:PRO:HD2	2.44	0.47
1:CA:243:A:O2'	1:CA:244:U:OP2	2.26	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2300:G:H1	25:BA:2316:C:N4	2.09	0.47
27:DC:212:SER:HB3	27:DC:224:ARG:NE	2.30	0.47
33:BI:56:LYS:O	33:BI:56:LYS:HG3	2.14	0.47
15:AO:3:ILE:HG22	15:AO:38:ARG:NE	2.30	0.47
25:BA:863:A:H2'	25:BA:864:G:C8	2.50	0.47
12:CL:87:VAL:O	12:CL:89:ASP:N	2.48	0.47
29:BE:2:LYS:CE	29:BE:95:ILE:O	2.63	0.47
41:BU:34:LYS:CA	41:BU:34:LYS:HE2	2.45	0.47
53:D6:11:LEU:O	53:D6:24:GLU:N	2.48	0.47
52:B5:16:ARG:C	52:B5:18:ALA:N	2.67	0.47
7:CG:59:LEU:O	7:CG:59:LEU:HD23	2.15	0.47
1:CA:918:A:H2'	1:CA:919:A:O4'	2.15	0.47
1:AA:986:A:H2'	1:AA:987:G:H8	1.79	0.47
15:AO:53:HIS:O	15:AO:56:LEU:HB3	2.14	0.47
25:DA:214:G:H1'	25:DA:216:A:O2'	2.14	0.47
25:DA:1474:C:H2'	25:DA:1475:G:C1'	2.44	0.47
25:BA:1789:A:OP1	28:BD:221:VAL:HA	2.13	0.47
3:CC:22:TRP:CZ3	3:CC:24:ALA:HB2	2.50	0.47
41:DU:14:HIS:O	41:DU:15:LYS:C	2.52	0.47
19:CS:53:ASN:HD21	19:CS:55:LYS:HB3	1.78	0.47
20:AT:94:ALA:O	20:AT:95:ALA:CB	2.63	0.47
1:AA:883:C:O2'	1:AA:884:U:H5'	2.14	0.47
46:BZ:2:TYR:O	46:BZ:57:VAL:HG23	2.13	0.47
43:BW:89:ALA:O	43:BW:90:ARG:HB2	2.14	0.47
29:BE:66:HIS:C	29:BE:66:HIS:CD2	2.87	0.47
25:BA:1243:G:C6	25:BA:1244:G:C5	3.02	0.47
4:AD:80:GLU:O	4:AD:84:LYS:HE2	2.15	0.47
15:CO:3:ILE:HG21	15:CO:34:LEU:HD21	1.97	0.47
33:DI:25:TYR:O	33:DI:29:TYR:HB3	2.15	0.47
46:DZ:61:PRO:C	46:DZ:63:GLY:H	2.17	0.47
5:CE:84:PHE:CB	5:CE:134:ALA:HB2	2.44	0.47
8:CH:36:LEU:O	8:CH:45:ILE:HD11	2.15	0.47
25:BA:2193:G:H5'	25:BA:2193:G:H8	1.79	0.47
13:AM:120:LYS:HD3	13:AM:121:LYS:N	2.30	0.47
25:DA:964:C:C3'	25:DA:965:C:H5''	2.45	0.47
25:BA:2654:A:N1	25:BA:2665:A:H5''	2.30	0.47
25:BA:2624:G:O2'	25:BA:2625:G:H5'	2.14	0.47
25:DA:1363:C:O2'	25:DA:1809:A:N3	2.43	0.47
1:CA:950:U:H2'	1:CA:951:G:C8	2.50	0.47
29:BE:6:GLY:HA2	29:BE:28:ALA:HA	1.95	0.47
26:BB:60:C:H2'	26:BB:61:G:H8	1.79	0.47
25:DA:2761:G:N3	25:DA:2761:G:H2'	2.30	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DZ:116:LEU:HD23	46:DZ:116:LEU:C	2.34	0.47
29:DE:29:GLY:HA2	29:DE:180:ASN:CB	2.45	0.47
15:CO:41:GLU:HA	15:CO:44:LYS:HE2	1.95	0.47
28:DD:137:PRO:O	28:DD:140:THR:OG1	2.28	0.47
25:DA:2361:A:OP1	55:D8:27:THR:HG23	2.15	0.47
37:BQ:75:THR:CG2	37:BQ:76:LYS:N	2.76	0.47
25:DA:454:A:H4'	25:DA:455:C:OP2	2.13	0.47
25:BA:2523:G:N3	25:BA:2764:A:O2'	2.47	0.47
25:BA:1232:G:C6	25:BA:1233:C:C4	3.02	0.47
40:DT:105:LEU:HD23	40:DT:105:LEU:HA	1.74	0.47
26:BB:95:C:H2'	26:BB:96:U:C6	2.50	0.47
31:BG:105:LYS:NZ	51:B4:52:SER:HB3	2.30	0.47
25:DA:594:U:H2'	25:DA:595:C:C6	2.50	0.47
13:CM:62:ASN:O	13:CM:63:THR:C	2.53	0.47
25:BA:254:G:N7	55:B8:5:LYS:HE2	2.30	0.47
39:BS:101:LEU:HD13	39:BS:101:LEU:N	2.30	0.47
9:AI:104:ARG:HH11	9:AI:104:ARG:HG2	1.80	0.47
42:DV:19:LYS:HE2	42:DV:20:LEU:H	1.79	0.47
25:DA:2103:C:H2'	25:DA:2104:G:H5''	1.97	0.47
25:BA:1106:G:N3	25:BA:1107:G:N7	2.62	0.47
1:CA:947:G:H2'	1:CA:948:C:C6	2.50	0.47
9:CI:54:ASP:O	9:CI:56:LEU:N	2.42	0.47
1:CA:1372:U:OP1	9:CI:72:GLY:N	2.48	0.47
41:BU:61:TRP:CZ2	41:BU:94:ASN:OD1	2.66	0.47
41:BU:68:ALA:C	41:BU:70:ARG:N	2.68	0.47
31:DG:139:LEU:CD2	31:DG:139:LEU:N	2.72	0.47
1:AA:1316:G:C2'	1:AA:1317:C:H5''	2.44	0.47
1:AA:1316:G:N1	1:AA:1319:A:OP2	2.43	0.47
1:AA:344:A:O2'	1:AA:345:C:OP1	2.29	0.47
30:DF:25:PRO:HG3	30:DF:119:ARG:CA	2.45	0.47
45:BY:13:VAL:HG21	45:BY:72:VAL:HG13	1.96	0.47
10:AJ:6:ILE:CG1	10:AJ:72:VAL:O	2.63	0.47
27:BC:71:LYS:C	27:BC:73:VAL:N	2.66	0.47
53:B6:20:ASN:CG	53:B6:21:TYR:N	2.68	0.47
20:CT:13:LEU:CD1	20:CT:17:ARG:HH21	2.24	0.47
55:B8:32:LEU:CB	55:B8:36:LYS:NZ	2.71	0.47
40:BT:19:LEU:HD22	40:BT:85:LYS:CB	2.43	0.47
1:CA:1299:A:C5	1:CA:1301:U:C2	3.03	0.47
43:DW:71:VAL:HA	43:DW:107:LEU:HD12	1.97	0.47
25:BA:655:A:P	25:BA:655:A:H3'	2.54	0.47
10:CJ:63:PHE:CB	14:CN:58:LYS:HA	2.44	0.47
40:DT:100:TYR:O	40:DT:101:PHE:C	2.53	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BV:18:LEU:CG	42:BV:19:LYS:N	2.74	0.47
49:D2:57:ILE:HG22	49:D2:61:LEU:HD11	1.97	0.47
15:CO:29:VAL:O	15:CO:30:ALA:C	2.53	0.47
40:DT:8:LYS:O	40:DT:11:GLU:CD	2.53	0.47
33:BI:48:GLU:O	33:BI:50:ARG:N	2.48	0.47
30:BF:36:VAL:HG11	30:BF:183:VAL:CG1	2.44	0.47
47:D0:36:ILE:CD1	47:D0:58:THR:HG23	2.42	0.47
22:AV:135:THR:HG22	22:AV:167:PRO:HD3	1.96	0.47
25:DA:245:G:O6	55:D8:8:LYS:NZ	2.47	0.47
25:DA:247:G:N7	25:DA:249:C:C2	2.83	0.47
1:AA:838:G:C2	1:AA:849:C:C2	3.02	0.47
45:DY:17:SER:CB	45:DY:71:LYS:HD2	2.40	0.47
1:CA:1309:G:O2'	13:CM:77:ASN:ND2	2.48	0.47
18:AR:50:ILE:HG23	18:AR:70:ILE:CD1	2.44	0.47
25:DA:2483:C:H2'	25:DA:2484:G:O4'	2.15	0.47
25:DA:1889:A:N1	25:DA:2234:G:H1'	2.29	0.47
6:CF:22:GLU:O	6:CF:25:ILE:HB	2.15	0.47
1:CA:224:C:O2'	1:CA:225:C:H5'	2.15	0.47
6:CF:99:ALA:HB2	18:CR:31:LEU:HD13	1.97	0.47
18:CR:53:ARG:NH2	18:CR:60:ALA:N	2.63	0.47
1:CA:1162:C:H42	1:CA:1174:G:H1	1.62	0.47
4:CD:150:GLU:N	4:CD:150:GLU:OE1	2.48	0.47
4:CD:158:ILE:HG22	4:CD:181:MET:HE1	1.96	0.47
17:AQ:93:GLN:HA	17:AQ:96:GLU:OE1	2.14	0.47
1:CA:662:G:O2'	1:CA:836:G:H5''	2.14	0.47
28:DD:226:MET:HB3	28:DD:230:ASP:HB2	1.97	0.47
12:AL:24:LEU:HD23	12:AL:59:SER:CB	2.44	0.47
4:AD:101:LEU:HD21	4:AD:133:VAL:HB	1.96	0.47
25:BA:705:A:C8	25:BA:727:A:C2	3.03	0.47
25:BA:1111:A:H2'	25:BA:1112:G:O4'	2.15	0.47
25:BA:601:C:OP1	30:BF:108:LYS:NZ	2.42	0.47
32:DH:113:VAL:CG1	32:DH:114:VAL:N	2.77	0.47
27:DC:181:PHE:HB2	27:DC:186:LEU:CD1	2.45	0.47
27:BC:7:ARG:HH11	27:BC:7:ARG:HG3	1.79	0.47
25:BA:640:C:O2	25:BA:649:G:C2	2.68	0.47
46:BZ:10:GLU:HB2	46:BZ:12:GLU:CD	2.35	0.47
48:B1:95:LEU:C	48:B1:97:LEU:H	2.17	0.47
44:DX:24:GLY:HA2	44:DX:83:VAL:HG23	1.96	0.47
25:BA:2364:C:H2'	25:BA:2365:G:H5'	1.97	0.47
25:BA:289:A:H61	25:BA:351:G:H1'	1.80	0.47
27:BC:60:ARG:NE	27:BC:143:ALA:HB2	2.30	0.47
28:BD:12:SER:O	28:BD:14:ARG:N	2.48	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AM:88:ARG:HA	13:AM:98:VAL:CG1	2.45	0.47
7:AG:5:ARG:N	7:AG:5:ARG:HD2	2.30	0.47
34:DN:56:ASN:C	34:DN:56:ASN:ND2	2.67	0.47
49:B2:64:LEU:C	49:B2:64:LEU:HD23	2.34	0.47
11:CK:24:SER:OG	11:CK:25:TYR:N	2.47	0.47
10:CJ:45:ARG:CB	10:CJ:65:LEU:HB3	2.44	0.47
25:DA:806:C:H2'	25:DA:807:U:H6	1.80	0.47
25:BA:1448:G:HO2'	25:BA:1528(A):A:H61	1.61	0.47
1:AA:1381:U:N1	7:AG:156:TRP:HZ3	2.13	0.47
4:CD:202:LEU:O	4:CD:205:GLU:HB2	2.15	0.47
25:BA:33:U:HO2'	25:BA:454:A:H2	1.60	0.47
7:AG:64:GLN:HG2	7:AG:128:ALA:HB1	1.97	0.47
25:BA:960:A:H4'	25:BA:2457:U:H4'	1.96	0.47
25:DA:1839:G:H8	25:DA:1839:G:H5'	1.80	0.47
26:BB:60:C:H2'	26:BB:61:G:C8	2.49	0.47
25:BA:719:C:H2'	25:BA:720:C:C6	2.50	0.47
27:DC:201:LYS:NZ	27:DC:205:ALA:HB3	2.30	0.47
1:CA:1530:G:HO2'	1:CA:1531:A:H8	1.61	0.47
11:AK:21:ILE:N	11:AK:21:ILE:HD12	2.30	0.47
25:DA:830:G:H4'	25:DA:831:G:OP2	2.14	0.47
25:DA:566:U:H2'	25:DA:567:A:O4'	2.15	0.47
8:CH:80:ILE:HG22	8:CH:80:ILE:O	2.14	0.47
37:BQ:21:THR:O	37:BQ:23:GLY:N	2.48	0.47
22:CV:2:ILE:O	22:CV:60:LEU:N	2.44	0.47
25:BA:1994:C:O2'	25:BA:1995:U:H5'	2.15	0.47
25:BA:248:G:O5'	25:BA:249:C:H5''	2.15	0.47
36:BP:48:PRO:O	36:BP:50:ARG:N	2.48	0.47
32:BH:9:ILE:O	32:BH:10:PRO:C	2.52	0.47
2:CB:212:GLN:O	2:CB:216:SER:HB3	2.15	0.47
2:CB:82:ARG:HA	2:CB:92:TYR:CE2	2.49	0.47
41:DU:61:TRP:C	41:DU:63:VAL:N	2.67	0.47
19:CS:11:VAL:HG13	19:CS:11:VAL:O	2.15	0.47
25:BA:2177:C:O2'	25:BA:2178:C:H5'	2.15	0.47
42:BV:45:THR:CG2	42:BV:45:THR:O	2.63	0.47
25:DA:2307:G:N3	25:DA:2307:G:H5''	2.30	0.47
19:AS:10:PHE:CE1	19:AS:39:THR:OG1	2.68	0.47
19:AS:41:VAL:HG13	19:AS:42:PRO:HD2	1.96	0.47
45:DY:27:VAL:HG12	45:DY:29:GLU:OE1	2.15	0.47
45:DY:27:VAL:HG12	45:DY:29:GLU:CD	2.35	0.47
1:AA:186:C:H2'	1:AA:187:C:H6	1.76	0.47
30:DF:20:LEU:O	30:DF:21:ALA:O	2.32	0.47
30:DF:28:ILE:CG1	30:DF:119:ARG:NH2	2.76	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DF:9:ILE:HG22	30:DF:9:ILE:O	2.15	0.47
25:DA:452:G:H5'	30:DF:59:TYR:CE1	2.50	0.47
25:BA:1389:G:C6	25:BA:1398:C:N4	2.83	0.47
1:AA:1136:U:H5''	1:AA:1137:C:C5	2.50	0.47
1:AA:1065:U:H4'	1:AA:1066:C:H5''	1.97	0.47
25:DA:2401:U:OP1	53:D6:19:ARG:NH2	2.47	0.47
36:DP:58:THR:O	36:DP:61:ARG:CD	2.63	0.47
46:BZ:94:PRO:CB	46:BZ:126:LYS:HG2	2.45	0.47
29:BE:74:PRO:O	29:BE:75:VAL:O	2.33	0.47
1:AA:426:G:C6	1:AA:427:U:C4	3.03	0.47
4:AD:62:GLN:NE2	4:AD:65:ARG:NE	2.51	0.47
40:DT:16:ARG:HD2	40:DT:18:ASP:OD2	2.14	0.47
25:BA:2756:U:H1'	25:BA:2757:A:H5''	1.97	0.47
5:CE:50:GLU:HB3	5:CE:53:LEU:HD13	1.96	0.47
40:DT:25:GLY:O	40:DT:26:ASP:CB	2.63	0.47
40:DT:89:VAL:CG1	40:DT:91:ARG:HG3	2.40	0.47
25:BA:1778:U:H2'	25:BA:1784:A:H62	1.80	0.47
37:BQ:29:PHE:N	37:BQ:105:GLU:OE2	2.47	0.47
37:BQ:50:ALA:O	37:BQ:54:MET:HB2	2.15	0.47
36:DP:83:VAL:HG23	36:DP:105:LEU:HD12	1.97	0.47
36:DP:85:LEU:HA	36:DP:88:LEU:CD2	2.40	0.47
47:D0:44:ARG:HG2	47:D0:44:ARG:HH11	1.79	0.47
25:DA:1308:A:H2'	25:DA:1309:G:O4'	2.15	0.47
39:DS:17:ARG:O	39:DS:18:ILE:C	2.53	0.47
39:DS:89:ARG:C	39:DS:92:TYR:HB3	2.36	0.47
25:BA:2230:G:H1'	48:B1:45:ASN:CB	2.45	0.47
36:BP:35:HIS:O	36:BP:36:LYS:CB	2.63	0.47
25:BA:2512:C:H5''	29:BE:122:PHE:CD2	2.50	0.47
22:AV:134:ASP:O	22:AV:135:THR:HG22	2.15	0.47
6:CF:82:ARG:O	6:CF:84:ASN:N	2.48	0.47
12:AL:29:PHE:HA	12:AL:82:ILE:O	2.14	0.47
5:CE:113:ALA:HB3	5:CE:115:VAL:HG23	1.97	0.47
25:DA:1565:C:H42	25:DA:1568:G:H1	1.63	0.47
25:BA:1114:G:H2'	25:BA:1115:G:O4'	2.15	0.47
20:AT:26:ASN:HA	20:AT:29:LYS:HE3	1.96	0.47
51:D4:62:CYS:SG	51:D4:64:LYS:HB2	2.55	0.47
4:AD:3:ARG:NE	4:AD:5:ILE:HD11	2.30	0.47
25:BA:2317:C:H2'	25:BA:2318:G:C5'	2.38	0.47
32:DH:44:VAL:O	32:DH:46:GLU:OE2	2.32	0.47
55:D8:33:ASN:H	55:D8:33:ASN:ND2	2.12	0.47
45:BY:17:SER:HB2	45:BY:71:LYS:HD2	1.97	0.47
25:DA:19:C:H2'	25:DA:20:C:H6	1.80	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DB:87:G:C2'	26:DB:88:C:H5''	2.45	0.47
16:CP:11:SER:HB2	16:CP:14:ASN:HB3	1.97	0.47
25:BA:285:C:H2'	25:BA:286:C:C5'	2.38	0.47
25:BA:2359:C:O4'	55:B8:52:LYS:HE3	2.15	0.47
1:CA:663:A:H5''	18:CR:61:LYS:HE3	1.97	0.47
30:BF:132:VAL:CG2	30:BF:133:ASN:N	2.76	0.47
25:DA:174:C:O2	25:DA:174:C:H2'	2.15	0.47
5:CE:18:ARG:HG2	5:CE:25:ARG:O	2.14	0.47
38:DR:48:VAL:HG12	38:DR:52:ILE:HG12	1.96	0.47
38:DR:48:VAL:O	38:DR:51:LEU:N	2.48	0.47
25:DA:1779:U:H5	25:DA:1784:A:C8	2.33	0.47
25:DA:1784:A:H4'	25:DA:1785:A:C5'	2.45	0.47
18:CR:36:ASN:O	18:CR:38:GLU:N	2.47	0.47
29:DE:9:VAL:HG22	29:DE:25:VAL:HB	1.96	0.47
12:AL:21:VAL:HG12	12:AL:23:ALA:CB	2.45	0.47
29:BE:111:ARG:HD2	29:BE:160:TYR:HE1	1.80	0.47
30:BF:170:LEU:HA	30:BF:171:PRO:HD3	1.74	0.47
25:BA:2863:C:O2'	25:BA:2864:G:H5'	2.15	0.47
40:BT:118:ARG:HA	40:BT:121:ILE:CB	2.44	0.47
8:CH:39:LEU:HD23	8:CH:111:ILE:HD11	1.96	0.47
7:CG:49:ILE:HG22	7:CG:53:LYS:CG	2.40	0.47
32:BH:103:LEU:HD21	32:BH:115:VAL:HB	1.97	0.47
32:BH:91:GLY:HA2	32:BH:160:LYS:HB2	1.96	0.47
31:DG:99:MET:O	31:DG:100:TRP:C	2.53	0.47
1:CA:429:U:H1'	1:CA:430:A:H5''	1.96	0.47
28:BD:142:VAL:HG23	28:BD:192:THR:O	2.15	0.47
25:BA:79:G:N3	25:BA:346:A:C2	2.83	0.47
27:BC:62:THR:HG22	27:BC:163:GLU:HA	1.97	0.47
29:BE:1:MET:N	29:BE:1:MET:SD	2.71	0.47
1:CA:601:C:H2'	1:CA:602:A:H8	1.78	0.47
25:DA:572:A:C2	25:DA:2033:A:C2	3.03	0.47
25:DA:2286:A:C5	25:DA:2346:A:C2	3.03	0.47
25:DA:2777:G:H5''	25:DA:2778:A:H5'	1.95	0.47
23:CW:50:U:H6	23:CW:50:U:OP2	1.98	0.47
1:CA:715:A:O2'	1:CA:716:A:H5'	2.15	0.47
25:BA:1432:C:O2'	25:BA:1433:U:H5'	2.15	0.47
17:AQ:76:LEU:HD21	17:AQ:79:SER:HB2	1.97	0.47
1:AA:1292:U:H2'	1:AA:1293:G:O4'	2.15	0.47
1:AA:189(C):C:O2'	1:AA:189(D):C:H5'	2.15	0.47
25:DA:271:A:N6	25:DA:271(X):G:H1'	2.30	0.47
25:BA:898:C:C2'	25:BA:899:A:H5'	2.44	0.47
20:AT:21:LYS:O	20:AT:25:ARG:HB2	2.15	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2667:C:O2	32:BH:109:PHE:HA	2.15	0.47
25:BA:1790:C:H5''	25:BA:1791:A:OP1	2.14	0.47
32:BH:23:ARG:HG3	32:BH:23:ARG:NH1	2.30	0.47
40:DT:73:GLU:OE1	40:DT:103:ARG:NH1	2.47	0.47
43:BW:36:LEU:HD13	43:BW:48:ALA:HA	1.95	0.47
47:D0:15:ASP:CG	47:D0:16:SER:H	2.18	0.47
1:CA:341:C:H2'	1:CA:342:C:H6	1.78	0.47
8:AH:49:GLU:O	8:AH:49:GLU:HG3	2.15	0.47
33:DI:29:TYR:CE1	33:DI:33:ARG:NE	2.83	0.47
46:DZ:63:GLY:O	46:DZ:64:GLN:O	2.32	0.47
47:D0:17:GLN:HG3	47:D0:19:LYS:HE3	1.97	0.47
25:BA:2524:G:H5''	25:BA:2524:G:C8	2.50	0.47
25:BA:2665:A:O2'	25:BA:2666:C:H5'	2.14	0.47
25:BA:719:C:H6	25:BA:719:C:O5'	1.98	0.47
25:DA:269:U:O2	25:DA:269:U:H2'	2.15	0.47
28:DD:126:GLN:HE21	28:DD:126:GLN:HB3	1.48	0.47
25:BA:1013:C:O2'	25:BA:1014:U:H5'	2.15	0.47
25:DA:271(B):C:O2'	25:DA:271(C):C:H5'	2.15	0.47
25:BA:305:U:H2'	25:BA:306:U:C6	2.49	0.47
14:CN:15:LYS:HB3	14:CN:16:PHE:CE2	2.50	0.47
25:DA:474:G:O2'	25:DA:475:U:OP1	2.24	0.47
8:CH:125:ARG:HG3	8:CH:125:ARG:HH11	1.80	0.47
52:D5:32:PRO:O	52:D5:38:ALA:O	2.33	0.47
25:BA:2376:A:H2'	25:BA:2377:A:O4'	2.15	0.47
9:AI:112:LYS:HG3	9:AI:118:LYS:HA	1.96	0.47
25:BA:150:C:H2'	25:BA:151:C:H6	1.79	0.47
34:DN:63:THR:OG1	34:DN:66:LYS:HE2	2.14	0.47
34:DN:67:LEU:HD12	34:DN:67:LEU:H	1.77	0.47
42:DV:3:ALA:HB1	42:DV:38:LEU:HD21	1.97	0.47
32:BH:154:PRO:HB3	32:BH:163:TYR:OH	2.15	0.47
1:CA:1251:A:H5'	9:CI:12:GLU:OE1	2.15	0.47
21:CU:24:ARG:O	21:CU:25:LYS:HB3	2.15	0.47
41:BU:111:GLU:O	41:BU:112:ARG:C	2.53	0.47
41:BU:92:ARG:NH2	41:BU:95:LEU:CG	2.72	0.47
42:BV:39:LEU:CA	42:BV:47:VAL:HG11	2.45	0.47
13:AM:83:ASP:CG	13:AM:84:ILE:N	2.66	0.47
19:AS:6:LYS:HD2	19:AS:6:LYS:H	1.78	0.47
29:DE:57:LYS:C	29:DE:59:VAL:H	2.18	0.47
3:AC:66:VAL:O	3:AC:66:VAL:HG12	2.15	0.47
30:DF:34:TRP:HE3	30:DF:35:GLU:HG3	1.80	0.47
3:CC:76:VAL:HG12	3:CC:83:ARG:HH22	1.78	0.47
25:DA:160:U:C2'	25:DA:171:G:O5'	2.63	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BC:129:GLY:O	27:BC:133:GLY:HA3	2.15	0.47
13:AM:3:ARG:CZ	13:AM:7:VAL:HB	2.45	0.47
53:B6:22:ALA:HB2	53:B6:39:TYR:CE2	2.50	0.47
53:B6:34:LEU:HA	53:B6:51:GLU:OE2	2.15	0.47
28:BD:34:VAL:O	28:BD:35:LYS:CD	2.63	0.47
1:AA:1032:G:H2'	1:AA:1033:G:H8	1.73	0.47
45:BY:51:VAL:HG12	45:BY:52:SER:N	2.30	0.47
46:BZ:127:VAL:HG22	46:BZ:128:SER:H	1.80	0.47
25:DA:276:A:C4	25:DA:276:A:H3'	2.49	0.47
1:CA:1298:C:H4'	1:CA:1299:A:C4	2.50	0.47
25:BA:2481:G:O2'	25:BA:2482:G:P	2.73	0.47
1:AA:1149:C:C4	1:AA:1150:U:C4	3.03	0.47
1:AA:509:A:H5''	4:AD:55:ALA:HB2	1.97	0.47
3:CC:35:GLU:OE2	3:CC:95:THR:HG21	2.13	0.47
25:BA:1689:A:N7	25:BA:1698:A:N1	2.63	0.47
8:AH:14:ARG:NH1	8:AH:14:ARG:HB3	2.30	0.47
31:DG:86:MET:O	31:DG:87:PRO:O	2.33	0.47
45:DY:81:LYS:O	45:DY:82:PRO:O	2.33	0.47
36:DP:83:VAL:H	36:DP:115:LEU:CD2	2.26	0.47
25:DA:2334:G:H21	39:DS:18:ILE:HG12	1.80	0.47
30:DF:161:GLU:O	30:DF:165:ARG:HG3	2.15	0.47
1:CA:1030:C:H2'	1:CA:1030(A):G:C5'	2.32	0.47
25:BA:590:A:H2'	25:BA:591:C:C6	2.50	0.47
20:CT:90:GLN:O	20:CT:91:LEU:HD23	2.15	0.47
1:CA:266:G:H4'	1:CA:267:C:C5	2.50	0.47
25:BA:2124:G:H22	27:BC:219:MET:HE3	1.80	0.47
1:AA:718:G:C1'	11:AK:116:HIS:HA	2.45	0.47
25:BA:27:G:O2'	25:BA:28:A:C8	2.68	0.47
50:D3:1:MET:HG3	50:D3:44:ARG:NH2	2.29	0.47
25:DA:2225:A:H4'	25:DA:2226:C:C6	2.50	0.47
20:CT:48:LYS:HD3	20:CT:48:LYS:HA	1.69	0.47
20:CT:48:LYS:O	20:CT:52:ALA:CB	2.63	0.47
25:DA:1666:G:H2'	25:DA:1667:G:H5'	1.96	0.47
4:CD:153:ARG:HA	4:CD:158:ILE:HG21	1.97	0.47
37:DQ:63:LYS:HA	46:DZ:177:GLU:CD	2.34	0.47
20:AT:44:ALA:CB	20:AT:88:VAL:HG13	2.39	0.47
25:BA:1884:A:O2'	25:BA:1885:A:H5''	2.13	0.47
12:AL:25:LYS:C	12:AL:27:ALA:N	2.68	0.47
48:D1:41:ARG:HD3	48:D1:43:TYR:CE2	2.49	0.47
25:DA:1448:G:N3	25:DA:1528(A):A:H2	2.13	0.47
32:DH:40:GLU:O	32:DH:41:MET:HB2	2.16	0.47
19:AS:14:HIS:O	19:AS:18:LYS:HB3	2.14	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:BT:118:ARG:HA	40:BT:121:ILE:CG2	2.45	0.47
25:DA:1257:C:H4'	30:DF:83:PHE:CD2	2.50	0.47
40:BT:38:ASN:O	40:BT:39:ARG:C	2.53	0.47
1:AA:999:C:H2'	1:AA:1000:U:C5	2.49	0.47
36:DP:46:LYS:HG2	36:DP:52:GLU:CG	2.45	0.47
40:BT:12:SER:C	40:BT:14:TYR:N	2.64	0.47
48:D1:19:GLN:CB	48:D1:35:THR:HG23	2.44	0.47
48:B1:80:LEU:HD22	48:B1:82:LEU:HD13	1.96	0.47
25:BA:851:U:P	50:B3:49:LYS:HZ1	2.37	0.47
38:BR:54:LEU:HD23	38:BR:66:VAL:CG2	2.45	0.47
1:AA:436:C:H2'	1:AA:437:U:H6	1.80	0.47
1:AA:1457:G:O2'	1:AA:1458:G:H5'	2.14	0.47
1:AA:1216:G:H2'	1:AA:1217:C:H6	1.77	0.47
25:DA:525:U:O2'	25:DA:526:A:H5'	2.14	0.47
8:CH:28:ALA:HA	8:CH:59:LEU:HD11	1.96	0.47
8:AH:116:LYS:O	8:AH:119:LEU:HD21	2.15	0.47
40:BT:130:ALA:O	40:BT:132:LYS:HG3	2.14	0.47
45:BY:35:TYR:CE2	45:BY:69:ALA:HB3	2.50	0.47
18:AR:36:ASN:HD21	18:AR:39:VAL:HB	1.79	0.47
25:BA:1683:C:H2'	25:BA:1684:C:C6	2.49	0.47
37:DQ:104:PHE:O	37:DQ:105:GLU:HB3	2.14	0.47
1:AA:645:C:O2'	1:AA:646:U:H5'	2.14	0.47
4:AD:68:TYR:N	4:AD:68:TYR:CD1	2.82	0.47
25:DA:1469:A:O2'	25:DA:1470:G:H5'	2.15	0.47
25:DA:832:G:H21	36:DP:53:GLY:HA3	1.80	0.47
4:AD:98:GLU:HA	4:AD:103:ASN:ND2	2.29	0.47
46:BZ:70:VAL:HG22	46:BZ:87:PHE:CE2	2.50	0.47
1:AA:1472:U:O2'	1:AA:1473:A:H5'	2.14	0.47
43:DW:52:GLU:C	43:DW:54:ALA:H	2.18	0.47
46:DZ:61:PRO:O	46:DZ:63:GLY:N	2.43	0.47
1:AA:994:A:H2'	1:AA:995:C:H6	1.80	0.47
25:BA:1788:C:OP1	28:BD:222:ARG:NH2	2.48	0.47
25:BA:1627:G:C2'	25:BA:1628:G:H5'	2.45	0.47
25:DA:2352:A:H2'	25:DA:2353:G:O4'	2.15	0.47
1:CA:363:A:C6	12:CL:28:PRO:HD2	2.50	0.47
5:CE:143:ARG:HG3	5:CE:143:ARG:HH11	1.80	0.47
25:BA:203:C:H2'	25:BA:204:A:OP1	2.15	0.47
12:CL:36:VAL:O	12:CL:53:ALA:HA	2.14	0.47
44:DX:10:ALA:HB1	44:DX:11:PRO:HD2	1.96	0.47
27:BC:93:ASP:HB2	27:BC:94:TYR:CD2	2.49	0.47
9:AI:53:VAL:CG2	9:AI:54:ASP:H	2.13	0.46
25:DA:1022:G:O2'	25:DA:1023:U:OP2	2.33	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DU:91:ASP:OD2	41:DU:96:ALA:HB2	2.15	0.46
42:DV:24:LYS:HA	42:DV:92:THR:HG23	1.98	0.46
44:DX:80:ILE:HD13	44:DX:80:ILE:C	2.33	0.46
25:BA:773:U:O2'	28:BD:48:ARG:HD3	2.15	0.46
1:CA:1233:G:OP2	9:CI:124:GLN:HG3	2.15	0.46
7:CG:26:PHE:CZ	7:CG:30:ILE:HD11	2.51	0.46
31:DG:141:PHE:O	31:DG:144:ILE:CG2	2.63	0.46
1:AA:1322:C:O2'	1:AA:1323:G:H5'	2.15	0.46
3:AC:74:GLY:HA2	3:AC:77:ILE:CD1	2.45	0.46
30:DF:118:ALA:HA	30:DF:123:LEU:CB	2.41	0.46
31:BG:43:LEU:HB2	31:BG:88:ILE:CD1	2.45	0.46
25:DA:1567:A:C5	28:DD:84:TYR:CE2	3.03	0.46
55:D8:46:ARG:NH1	55:D8:46:ARG:HG2	2.29	0.46
25:BA:1593:G:H2'	25:BA:1594:G:C5'	2.44	0.46
20:CT:25:ARG:HG3	20:CT:25:ARG:HH11	1.80	0.46
45:BY:53:PRO:O	45:BY:55:TYR:N	2.48	0.46
16:CP:75:ARG:C	16:CP:77:ALA:H	2.19	0.46
29:BE:50:GLY:HA2	29:BE:78:LEU:HB3	1.97	0.46
13:AM:14:ARG:HB2	13:AM:16:ASP:OD2	2.14	0.46
35:BO:4:PRO:O	35:BO:5:GLN:CB	2.62	0.46
1:AA:786:G:H2'	1:AA:787:A:O4'	2.15	0.46
40:DT:16:ARG:HD2	40:DT:18:ASP:OD1	2.14	0.46
22:CV:3:SER:OG	22:CV:4:VAL:N	2.47	0.46
3:CC:94:LEU:HD12	3:CC:95:THR:H	1.79	0.46
9:CI:49:PRO:HA	9:CI:101:PHE:HE1	1.78	0.46
42:BV:24:LYS:HA	42:BV:92:THR:HG23	1.97	0.46
25:DA:271(H):G:H2'	25:DA:271(I):G:O4'	2.15	0.46
25:BA:1021:A:C3'	25:BA:1021:A:C8	2.98	0.46
1:AA:975:A:O2'	14:AN:32:SER:HA	2.16	0.46
40:DT:10:VAL:C	40:DT:12:SER:H	2.17	0.46
33:BI:50:ARG:C	33:BI:52:ARG:N	2.68	0.46
45:DY:75:ILE:HG12	45:DY:79:CYS:CA	2.33	0.46
36:DP:115:LEU:HD23	36:DP:115:LEU:N	2.30	0.46
36:BP:6:LEU:HD12	36:BP:9:ASN:ND2	2.30	0.46
47:D0:27:GLU:H	47:D0:69:PHE:HE1	1.63	0.46
25:DA:320:A:C2'	30:DF:136:THR:HG21	2.43	0.46
1:AA:1206:G:O4'	3:AC:194:GLY:CA	2.63	0.46
1:CA:1030(A):G:O2'	1:CA:1031:G:N2	2.47	0.46
10:CJ:8:LEU:CB	10:CJ:70:ARG:HB3	2.43	0.46
25:DA:2162:G:H5''	25:DA:2172:U:O2'	2.15	0.46
1:AA:551:U:O2'	12:AL:83:ARG:HD2	2.15	0.46
25:DA:2124:G:C5'	27:DC:175:PRO:HD3	2.45	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2174:C:H1'	27:DC:219:MET:HE3	1.97	0.46
1:CA:255:G:O6	1:CA:266:G:O6	2.34	0.46
29:BE:154:LYS:HE3	29:BE:154:LYS:CA	2.30	0.46
20:AT:26:ASN:HB2	20:AT:71:THR:CG2	2.42	0.46
31:BG:72:ARG:NH1	31:BG:72:ARG:HG2	2.30	0.46
11:CK:82:VAL:N	11:CK:107:SER:O	2.47	0.46
36:DP:27:HIS:HD2	36:DP:28:GLY:N	2.13	0.46
50:D3:2:PRO:O	50:D3:39:ASP:HB3	2.14	0.46
25:DA:1125:G:C6	25:DA:1126:A:N6	2.83	0.46
25:BA:1719:G:C6	25:BA:1720:U:C4	3.03	0.46
6:AF:11:ASN:OD1	6:AF:13:ASN:ND2	2.48	0.46
25:DA:1666:G:O2'	25:DA:1667:G:H5'	2.15	0.46
1:AA:1101:A:O2'	1:AA:1102:A:OP2	2.30	0.46
25:BA:1751:C:C2'	25:BA:1752:C:H5'	2.45	0.46
38:BR:53:HIS:O	38:BR:53:HIS:ND1	2.49	0.46
25:DA:2785:C:O2'	25:DA:2786:U:H5'	2.16	0.46
1:AA:301:G:H2'	1:AA:302:G:H8	1.80	0.46
25:BA:2197:U:O2'	25:BA:2198:A:H8	1.94	0.46
25:DA:2801(A):A:O3'	25:DA:2802:G:H3'	2.15	0.46
25:BA:2203:U:H1'	28:BD:151:LYS:HE2	1.97	0.46
38:BR:55:ALA:HB3	38:BR:84:ALA:HB2	1.97	0.46
30:DF:36:VAL:HB	30:DF:183:VAL:HG21	1.96	0.46
29:BE:175:VAL:HG12	29:BE:182:LEU:HD13	1.96	0.46
25:DA:2515:C:O2'	25:DA:2516:G:H5'	2.14	0.46
25:DA:942:G:H2'	25:DA:943:U:C5'	2.45	0.46
1:CA:599:C:O2'	1:CA:600:C:H5'	2.15	0.46
25:DA:872:A:C6	25:DA:906:G:C2	3.03	0.46
8:CH:18:ARG:HA	8:CH:78:GLN:OE1	2.15	0.46
40:BT:70:VAL:CG1	40:BT:71:GLY:N	2.75	0.46
49:D2:34:GLU:O	49:D2:38:GLN:HG2	2.16	0.46
25:BA:2063:C:C4	25:BA:2064:C:C4	3.03	0.46
25:DA:516:C:H2'	25:DA:517:C:H5'	1.97	0.46
56:B9:17:ILE:HB	56:B9:26:ILE:HD13	1.97	0.46
4:CD:88:VAL:HG22	5:CE:96:PRO:HB2	1.97	0.46
27:DC:165:ARG:HH11	27:DC:165:ARG:HG3	1.79	0.46
15:AO:43:LEU:HD11	15:AO:53:HIS:HA	1.96	0.46
25:DA:1917:U:C2'	25:DA:1918:A:H5'	2.44	0.46
1:AA:364:A:C2	1:AA:365:U:O4	2.68	0.46
4:AD:60:GLU:HG2	4:AD:202:LEU:CG	2.45	0.46
8:AH:35:ILE:HG23	8:AH:111:ILE:HD13	1.97	0.46
1:AA:142:G:H2'	1:AA:143:A:C8	2.50	0.46
31:DG:165:THR:C	31:DG:167:GLU:H	2.19	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1403:C:H6	1:AA:1403:C:O5'	1.98	0.46
25:BA:1316:U:O2'	25:BA:1317:A:H5'	2.15	0.46
25:BA:2192:G:H2'	25:BA:2193:G:H5''	1.96	0.46
25:BA:741:G:O2'	25:BA:742:G:H5'	2.14	0.46
8:AH:41:ARG:HH12	8:AH:123:GLU:CD	2.18	0.46
25:BA:1625:C:H2'	25:BA:1626:G:O4'	2.15	0.46
1:CA:754:C:H3'	1:CA:754:C:O2	2.15	0.46
1:AA:562:C:H1'	12:AL:12:ARG:HD2	1.97	0.46
43:DW:62:HIS:O	43:DW:63:ASP:C	2.53	0.46
7:AG:97:GLN:O	7:AG:98:SER:C	2.53	0.46
1:CA:273:A:O2'	1:CA:274:A:H5'	2.14	0.46
4:AD:190:ASP:O	4:AD:194:LEU:HD23	2.14	0.46
37:BQ:79:LEU:HD23	37:BQ:80:GLU:HG3	1.97	0.46
25:DA:1561:G:O2'	25:DA:1562:A:H5'	2.15	0.46
25:BA:2581:G:H2'	25:BA:2581:G:N3	2.30	0.46
25:DA:1644:C:O2	25:DA:1644:C:H2'	2.13	0.46
25:BA:1144:G:H2'	25:BA:1145:C:C6	2.50	0.46
13:CM:99:ARG:O	13:CM:101:GLN:HG3	2.14	0.46
1:CA:507:C:H2'	1:CA:508:C:C5	2.50	0.46
25:DA:1032:A:H2	25:DA:1122:G:H22	1.61	0.46
33:BI:83:ALA:CB	33:BI:88:ILE:HA	2.43	0.46
1:AA:1348:U:O2'	1:AA:1349:A:O5'	2.33	0.46
46:DZ:167:GLU:C	46:DZ:167:GLU:CD	2.74	0.46
46:DZ:24:PRO:O	46:DZ:84:HIS:HA	2.15	0.46
2:CB:155:LEU:CD1	2:CB:157:ARG:H	2.22	0.46
50:D3:29:ARG:O	50:D3:30:ARG:HG3	2.15	0.46
37:DQ:132:VAL:CB	46:DZ:80:ARG:HH12	2.28	0.46
44:DX:21:PHE:C	44:DX:23:GLU:N	2.68	0.46
25:BA:614(C):A:C8	30:BF:180:GLY:HA3	2.50	0.46
7:CG:127:ALA:HA	7:CG:132:GLY:HA3	1.97	0.46
7:CG:99:LEU:O	7:CG:100:ALA:C	2.53	0.46
20:AT:81:LYS:C	20:AT:83:ARG:N	2.67	0.46
20:AT:86:ARG:HG3	20:AT:86:ARG:NH1	2.30	0.46
25:DA:632:A:H2'	25:DA:633:A:C8	2.51	0.46
25:DA:171:G:C2'	25:DA:172:C:H5'	2.45	0.46
25:DA:171:G:N7	25:DA:172:C:C4	2.83	0.46
36:BP:144:GLU:N	36:BP:145:PRO:CD	2.74	0.46
1:CA:452:A:C5	1:CA:453:A:C5	3.03	0.46
25:DA:275:G:H1'	25:DA:363:G:N2	2.30	0.46
1:AA:510:A:N3	1:AA:543:C:H1'	2.30	0.46
4:AD:59:ARG:NH2	4:AD:62:GLN:HB2	2.30	0.46
22:CV:73:LEU:HD21	22:CV:83:MET:CB	2.43	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:CV:84:ASP:CG	22:CV:85:LEU:N	2.69	0.46
3:CC:8:ILE:HD12	3:CC:16:ARG:CZ	2.45	0.46
46:DZ:140:VAL:HG23	46:DZ:143:LEU:HD23	1.96	0.46
15:CO:82:ILE:O	15:CO:82:ILE:HD13	2.15	0.46
1:CA:994:A:H61	1:CA:1047:G:H4'	1.80	0.46
37:BQ:29:PHE:CA	37:BQ:105:GLU:OE2	2.64	0.46
37:BQ:64:ILE:CG2	37:BQ:65:PHE:N	2.79	0.46
19:CS:36:ARG:HB3	19:CS:36:ARG:HH11	1.80	0.46
19:CS:44:MET:HE2	19:CS:44:MET:HA	1.95	0.46
34:DN:57:ALA:C	34:DN:58:ASP:O	2.53	0.46
31:BG:76:SER:HB3	31:BG:84:LYS:HA	1.98	0.46
31:BG:76:SER:HA	31:BG:84:LYS:H	1.81	0.46
22:AV:164:PHE:O	22:AV:166:GLU:HG2	2.15	0.46
12:AL:47:SER:O	12:AL:48:ALA:HB2	2.16	0.46
25:DA:1792:G:O2'	25:DA:1793:C:H5'	2.15	0.46
51:B4:59:VAL:O	51:B4:61:VAL:N	2.48	0.46
1:CA:458:C:H42	1:CA:473:G:H1	1.62	0.46
25:BA:1485:G:C8	25:BA:1486:A:N7	2.84	0.46
18:AR:71:LYS:HA	18:AR:74:ARG:HD2	1.96	0.46
37:DQ:47:ILE:C	37:DQ:49:ALA:N	2.60	0.46
25:BA:2816:C:O2	25:BA:2883:A:O2'	2.24	0.46
43:BW:5:ALA:HB2	43:BW:54:ALA:HB2	1.96	0.46
26:BB:40:U:O2'	26:BB:45:A:N6	2.48	0.46
25:BA:93:G:H2'	25:BA:94:C:C6	2.51	0.46
22:AV:176:ARG:HD3	22:AV:176:ARG:N	2.31	0.46
25:BA:1301:A:C8	25:BA:1303:G:C8	3.02	0.46
25:DA:1278:A:H4'	38:DR:34:ILE:HD12	1.97	0.46
46:BZ:9:ARG:O	46:BZ:35:LYS:HB2	2.15	0.46
22:AV:68:ARG:HB3	22:AV:84:ASP:OD1	2.15	0.46
31:BG:103:LEU:HD23	31:BG:106:LEU:HD23	1.98	0.46
25:DA:1529:G:H3'	25:DA:1530:C:C5	2.50	0.46
37:BQ:46:GLN:O	37:BQ:49:ALA:N	2.48	0.46
25:BA:1045:A:N7	25:BA:1111:A:N6	2.63	0.46
14:AN:9:LYS:HA	14:AN:12:ARG:HD3	1.96	0.46
25:BA:638:G:H2'	25:BA:639:U:H6	1.79	0.46
1:CA:1260:C:O2'	1:CA:1283:G:H4'	2.14	0.46
24:CX:3:A:H2'	24:CX:4:U:C6	2.50	0.46
4:CD:192:GLU:HG3	4:CD:193:ASP:N	2.30	0.46
31:BG:22:ARG:HG2	31:BG:22:ARG:HH11	1.81	0.46
27:BC:6:LYS:CB	27:BC:6:LYS:HZ2	2.28	0.46
25:DA:292:C:H6	25:DA:292:C:OP2	1.99	0.46
1:AA:858:G:O2'	1:AA:859:A:H5''	2.15	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:591:U:H2'	1:AA:592:G:C8	2.50	0.46
7:AG:41:ARG:HH11	7:AG:41:ARG:HG2	1.80	0.46
1:AA:724:G:H2'	1:AA:725:G:H8	1.80	0.46
25:BA:1877:A:H5'	25:BA:1878:G:OP2	2.15	0.46
25:DA:1417:C:H1'	25:DA:1586:A:N6	2.30	0.46
25:BA:2750:A:H1'	25:BA:2752:C:N4	2.30	0.46
25:BA:1526:G:C6	25:BA:1527:G:C2	3.02	0.46
5:AE:150:ARG:HB2	5:AE:150:ARG:CZ	2.45	0.46
1:CA:114:U:H2'	1:CA:115:G:C8	2.49	0.46
25:DA:1272:A:C3'	25:DA:1273:U:H5'	2.45	0.46
25:BA:2038:G:H2'	25:BA:2039:C:H6	1.78	0.46
14:AN:16:PHE:N	14:AN:16:PHE:CD2	2.80	0.46
25:BA:2600:A:H2'	25:BA:2601:C:C6	2.50	0.46
46:DZ:62:ASP:O	46:DZ:64:GLN:HG3	2.16	0.46
20:AT:13:LEU:HD12	20:AT:14:LYS:N	2.30	0.46
1:AA:729:A:H2'	1:AA:730:G:H8	1.80	0.46
46:BZ:53:HIS:CG	46:BZ:100:PRO:HG3	2.50	0.46
1:CA:1387:G:C6	1:CA:1388:C:N4	2.83	0.46
26:DB:35:U:O2'	26:DB:36:C:H5'	2.15	0.46
35:DO:12:ASP:CB	35:DO:97:ARG:O	2.63	0.46
9:AI:37:PHE:HA	9:AI:40:LEU:HD12	1.98	0.46
10:AJ:63:PHE:N	10:AJ:63:PHE:CD2	2.83	0.46
46:DZ:55:VAL:HG12	46:DZ:56:ILE:H	1.78	0.46
41:DU:53:ARG:O	41:DU:56:ASP:HB2	2.16	0.46
41:DU:89:GLU:CD	42:DV:50:PRO:HG3	2.36	0.46
9:CI:6:GLY:HA2	9:CI:83:ARG:HG2	1.96	0.46
41:BU:91:ASP:CG	41:BU:96:ALA:CB	2.82	0.46
42:BV:47:VAL:O	42:BV:48:GLY:C	2.52	0.46
1:CA:1134:G:H2'	1:CA:1135:U:C5'	2.44	0.46
1:CA:1145:C:H1'	1:CA:1146:A:N7	2.31	0.46
19:AS:6:LYS:C	19:AS:7:LYS:HE3	2.36	0.46
25:DA:84:A:H1'	25:DA:85:G:O4'	2.15	0.46
45:DY:37:VAL:HG21	45:DY:72:VAL:CG1	2.42	0.46
29:BE:60:ASN:C	29:BE:62:PRO:HD2	2.35	0.46
3:AC:21:ARG:CG	3:AC:58:GLU:HG2	2.40	0.46
3:AC:73:PRO:HG3	3:AC:105:GLU:HB2	1.98	0.46
30:DF:113:ALA:HB1	30:DF:186:ILE:HG21	1.97	0.46
36:DP:16:ARG:CA	36:DP:16:ARG:HH11	2.27	0.46
25:DA:2419:U:O4	55:D8:30:ARG:NH1	2.48	0.46
25:DA:2400:G:N2	25:DA:2417:C:C2	2.83	0.46
25:BA:2169:A:H2'	25:BA:2170:A:O4'	2.15	0.46
32:DH:89:ILE:HG12	32:DH:129:THR:HA	1.97	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DD:24:ILE:O	28:DD:26:LYS:HD3	2.16	0.46
36:BP:108:LYS:O	36:BP:110:TYR:N	2.48	0.46
1:CA:688:G:H2'	1:CA:689:C:C6	2.50	0.46
1:CA:324:G:N2	1:CA:326:G:H3'	2.31	0.46
46:BZ:125:VAL:HG23	46:BZ:161:GLU:C	2.36	0.46
13:CM:13:LYS:O	13:CM:14:ARG:O	2.32	0.46
43:DW:1:MET:HE3	43:DW:2:GLU:H	1.80	0.46
28:DD:44:ASN:OD1	28:DD:44:ASN:N	2.49	0.46
34:DN:34:LEU:HD11	34:DN:119:ARG:O	2.16	0.46
42:BV:18:LEU:CD2	42:BV:19:LYS:N	2.65	0.46
8:AH:6:ILE:N	8:AH:6:ILE:CD1	2.78	0.46
25:DA:96:G:H4'	49:D2:48:HIS:CD2	2.50	0.46
15:CO:64:ARG:HH11	15:CO:68:ARG:HH22	1.60	0.46
36:DP:79:ARG:NH2	36:DP:109:GLY:CA	2.79	0.46
25:DA:321:G:C2	25:DA:341:G:H4'	2.50	0.46
30:DF:165:ARG:HG3	30:DF:165:ARG:HH11	1.79	0.46
1:AA:374:A:H2'	1:AA:375:U:O4'	2.16	0.46
1:AA:482:A:O2'	1:AA:483:C:O4'	2.34	0.46
25:DA:2127:G:C2	25:DA:2128:C:C4	3.03	0.46
5:CE:106:PRO:O	5:CE:109:ILE:HB	2.15	0.46
10:CJ:78:ASN:ND2	10:CJ:80:LYS:HB2	2.31	0.46
28:DD:92:ILE:N	28:DD:92:ILE:HD13	2.26	0.46
53:B6:9:LEU:CD2	53:B6:26:ASN:HB3	2.45	0.46
32:DH:70:THR:C	32:DH:72:ILE:H	2.17	0.46
25:DA:1193:G:H2'	25:DA:1194:A:H8	1.80	0.46
6:CF:24:GLU:HG3	6:CF:28:ARG:HH12	1.80	0.46
12:CL:114:ARG:NH2	12:CL:121:LYS:HA	2.31	0.46
38:DR:63:ARG:HG3	38:DR:80:PHE:CE2	2.50	0.46
27:DC:76:LEU:HD21	27:DC:104:ILE:HD11	1.98	0.46
25:BA:267:C:O2'	25:BA:268:C:H5'	2.15	0.46
20:AT:44:ALA:HA	20:AT:92:LEU:HD21	1.97	0.46
27:DC:60:ARG:HH21	27:DC:143:ALA:CB	2.29	0.46
49:B2:32:LEU:HD11	49:B2:54:LYS:HG2	1.97	0.46
8:AH:68:ARG:HG2	8:AH:68:ARG:NH1	2.30	0.46
11:CK:41:THR:HG21	11:CK:71:LYS:HB2	1.97	0.46
25:DA:652:C:O2	25:DA:652:C:C2'	2.61	0.46
8:CH:29:SER:CB	8:CH:32:LYS:NZ	2.78	0.46
25:DA:115:C:O2'	25:DA:116:C:H5'	2.15	0.46
25:BA:1188:U:H5'	42:BV:79:VAL:CG2	2.45	0.46
25:DA:2726:U:H6	35:DO:67:LYS:HZ3	1.63	0.46
49:D2:5:GLU:O	49:D2:9:GLN:HG3	2.16	0.46
1:AA:782:A:H4'	1:AA:1514:C:O2'	2.15	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:D2:38:GLN:O	49:D2:41:ILE:HG13	2.14	0.46
40:BT:13:ARG:CA	40:BT:13:ARG:CZ	2.93	0.46
29:BE:92:THR:N	29:BE:95:ILE:HD13	2.30	0.46
4:CD:18:LYS:CE	4:CD:20:TYR:OH	2.64	0.46
1:AA:592:G:H2'	1:AA:593:G:C8	2.46	0.46
25:DA:2574:G:N3	29:DE:143:ASN:ND2	2.62	0.46
41:DU:8:VAL:O	41:DU:12:ARG:HG2	2.15	0.46
28:BD:198:ASN:ND2	28:BD:198:ASN:O	2.48	0.46
1:CA:770:C:O4'	1:CA:900:A:H2	1.97	0.46
25:BA:1401:G:H2'	25:BA:1402:C:O4'	2.15	0.46
25:BA:1221:C:O2'	25:BA:1221(A):C:H5'	2.16	0.46
27:BC:58:ASN:HD22	27:BC:58:ASN:N	2.13	0.46
31:DG:37:VAL:HG13	31:DG:158:ALA:O	2.15	0.46
25:BA:1694:C:O4'	25:BA:1695:G:C2	2.68	0.46
13:CM:112:GLY:O	13:CM:113:PRO:O	2.34	0.46
1:AA:1291:G:OP1	7:AG:37:ASN:ND2	2.49	0.46
1:AA:1349:A:OP1	9:AI:121:ARG:N	2.49	0.46
32:BH:9:ILE:HG23	32:BH:51:ARG:HG3	1.97	0.46
25:DA:543:C:C4	25:DA:551:G:N1	2.83	0.46
2:CB:166:ASP:OD2	2:CB:167:PRO:HD2	2.15	0.46
2:CB:212:GLN:HG3	2:CB:235:SER:HB2	1.96	0.46
2:CB:163:PHE:CE1	2:CB:215:LEU:HD23	2.50	0.46
26:DB:83:G:O2'	26:DB:84:C:H5'	2.14	0.46
42:DV:2:PHE:HB2	42:DV:42:GLY:CA	2.46	0.46
25:DA:916:G:O2'	25:DA:917:A:H5''	2.15	0.46
46:DZ:13:LYS:C	46:DZ:15:SER:H	2.18	0.46
46:DZ:13:LYS:C	46:DZ:15:SER:N	2.66	0.46
1:CA:1237:C:H3'	1:CA:1336:C:N4	2.31	0.46
1:CA:1271:G:H5'	1:CA:1314:C:H5''	1.94	0.46
1:CA:1292:U:H5'	9:CI:38:GLN:CD	2.35	0.46
7:CG:16:LEU:CD2	9:CI:45:ALA:HB2	2.44	0.46
1:CA:1133:G:C4	1:CA:1142:G:N2	2.84	0.46
25:BA:2807:G:H2'	25:BA:2808:U:C4'	2.45	0.46
45:DY:32:PRO:O	45:DY:35:TYR:N	2.49	0.46
25:BA:2103:C:C3'	25:BA:2104:G:C5'	2.93	0.46
38:DR:10:LEU:HD13	38:DR:17:ARG:NH1	2.30	0.46
20:AT:104:LEU:C	20:AT:104:LEU:HD23	2.35	0.46
3:AC:36:ASP:O	3:AC:39:ILE:HB	2.15	0.46
36:DP:17:LYS:O	36:DP:19:VAL:N	2.47	0.46
30:DF:57:VAL:CG1	30:DF:59:TYR:CD1	2.98	0.46
10:AJ:5:ARG:HH21	10:AJ:99:LYS:CB	2.10	0.46
1:AA:1065:U:C4	1:AA:1190:G:H1'	2.51	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BZ:151:ALA:HA	46:BZ:167:GLU:N	2.31	0.46
25:DA:592:G:O2'	55:D8:4:MET:HB3	2.14	0.46
8:CH:6:ILE:H	8:CH:6:ILE:CD1	1.97	0.46
36:BP:111:ARG:HH21	36:BP:111:ARG:HG3	1.80	0.46
32:DH:108:GLY:C	32:DH:152:ARG:HH21	2.18	0.46
55:D8:13:ARG:O	55:D8:13:ARG:HG3	2.16	0.46
2:AB:34:ALA:HB1	2:AB:36:ARG:NE	2.31	0.46
25:BA:2476:A:N1	25:BA:2477:C:N3	2.63	0.46
12:CL:45:PRO:C	12:CL:46:ASN:HD22	2.19	0.46
2:AB:149:LEU:O	2:AB:150:SER:C	2.54	0.46
22:CV:83:MET:HE2	22:CV:88:TYR:C	2.35	0.46
3:CC:8:ILE:C	3:CC:10:PHE:N	2.68	0.46
47:D0:72:ARG:HH21	47:D0:75:LEU:HD11	1.80	0.46
30:BF:65:TRP:CH2	30:BF:72:ARG:CB	2.98	0.46
27:DC:19:LYS:HD3	27:DC:21:TYR:CZ	2.50	0.46
11:AK:50:TYR:HD2	11:AK:54:ARG:CB	2.14	0.46
25:BA:271(K):U:H2'	33:BI:50:ARG:HD3	1.97	0.46
33:BI:43:ASN:O	33:BI:44:LEU:C	2.54	0.46
36:DP:105:LEU:O	36:DP:106:LEU:HB3	2.15	0.46
36:DP:82:GLY:O	36:DP:83:VAL:HB	2.14	0.46
37:DQ:38:GLU:HG3	37:DQ:127:ILE:CG2	2.34	0.46
30:DF:157:VAL:HG12	30:DF:158:THR:N	2.30	0.46
1:AA:1055:A:N7	1:AA:1206:G:C6	2.84	0.46
34:DN:15:LEU:HD12	34:DN:136:GLU:HG3	1.98	0.46
31:BG:109:VAL:HG13	51:B4:59:VAL:HG11	1.96	0.46
31:BG:72:ARG:NH1	31:BG:86:MET:HE2	2.29	0.46
1:CA:1521:G:H2'	1:CA:1522:U:C6	2.50	0.46
50:D3:39:ASP:OD1	50:D3:44:ARG:HG2	2.14	0.46
1:AA:1037:C:OP2	1:AA:1037:C:H6	1.98	0.46
18:AR:85:LEU:CG	18:AR:86:VAL:N	2.78	0.46
33:DI:10:GLU:OE1	33:DI:11:ASN:OD1	2.34	0.46
1:CA:357:G:OP1	1:CA:367:U:H5''	2.16	0.46
29:DE:101:ARG:NH2	29:DE:171:GLU:N	2.62	0.46
18:CR:37:VAL:CG2	18:CR:38:GLU:N	2.79	0.46
1:CA:838:G:N1	1:CA:840:C:O4'	2.49	0.46
6:AF:75:LEU:O	6:AF:79:LEU:HG	2.16	0.46
25:DA:456:C:C4	44:DX:69:TYR:CE2	3.04	0.46
31:BG:111:LEU:N	31:BG:112:PRO:CD	2.78	0.46
1:AA:157:G:O2'	1:AA:158:G:H5'	2.15	0.46
5:CE:37:ARG:HH11	5:CE:37:ARG:HG2	1.80	0.46
22:AV:65:VAL:HG22	22:AV:115:TYR:HB2	1.97	0.46
1:AA:600:C:OP1	8:AH:97:VAL:HG12	2.16	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2647:U:O2'	25:BA:2648:C:H5'	2.15	0.46
19:AS:31:ILE:HG23	19:AS:31:ILE:O	2.15	0.46
25:BA:752:A:H4'	25:BA:753:C:O5'	2.16	0.46
27:DC:185:LYS:O	27:DC:189:ASN:ND2	2.49	0.46
1:AA:1405:G:H1'	1:AA:1519:A:C4'	2.45	0.46
25:DA:140:G:N2	25:DA:142:A:N1	2.61	0.46
13:AM:93:ARG:N	13:AM:93:ARG:CD	2.75	0.46
1:AA:946:A:OP1	13:AM:114:ARG:NH2	2.49	0.46
35:BO:22:ILE:HG12	35:BO:41:ALA:HA	1.97	0.46
43:BW:37:ARG:HH11	43:BW:37:ARG:CG	2.28	0.46
25:BA:2059:A:O2'	30:BF:69:HIS:HD2	1.99	0.46
49:D2:38:GLN:O	49:D2:44:LEU:HB3	2.15	0.46
25:DA:180:G:P	54:D7:32:LYS:HE2	2.55	0.46
26:DB:57:A:H5'	31:DG:27:ASN:HD22	1.81	0.46
29:DE:200:GLU:HG2	29:DE:201:THR:N	2.31	0.46
40:BT:128:GLU:OE1	40:BT:128:GLU:C	2.53	0.46
37:DQ:37:LEU:HD23	37:DQ:128:LYS:O	2.16	0.46
45:BY:6:HIS:CE1	45:BY:32:PRO:HB3	2.50	0.46
27:DC:48:LEU:HD11	27:DC:172:ILE:CG2	2.45	0.46
25:BA:2235:G:H2'	25:BA:2236:C:C6	2.50	0.46
29:DE:182:LEU:HD12	29:DE:183:LEU:N	2.30	0.46
25:DA:1403:C:H5''	25:DA:1471:A:H1'	1.98	0.46
1:CA:657:G:O2'	1:CA:658:G:H5'	2.15	0.46
12:CL:55:VAL:O	12:CL:62:GLU:HA	2.14	0.46
48:B1:64:ALA:HA	48:B1:67:ILE:HG13	1.97	0.46
1:CA:857:C:H2'	1:CA:858:G:O4'	2.14	0.46
4:AD:141:ARG:HB3	4:AD:142:PRO:HD3	1.98	0.46
25:DA:414:C:H4'	25:DA:1879:C:O2	2.14	0.46
25:BA:2002:G:O2'	25:BA:2003:G:H5'	2.15	0.46
19:CS:22:LEU:HD22	19:CS:22:LEU:N	2.30	0.46
1:CA:24:U:H2'	1:CA:25:C:H6	1.79	0.46
48:D1:18:ILE:HG12	48:D1:37:ILE:HG12	1.96	0.46
1:CA:1023:G:H8	1:CA:1023:G:OP2	1.98	0.46
22:AV:125:PRO:HD2	22:AV:128:VAL:HG12	1.97	0.46
34:DN:19:GLU:HG3	34:DN:20:GLY:N	2.31	0.46
40:DT:109:GLU:O	40:DT:110:ILE:C	2.54	0.46
36:BP:56:SER:O	36:BP:57:THR:C	2.54	0.46
46:DZ:127:VAL:CG2	46:DZ:128:SER:N	2.72	0.46
46:DZ:11:GLY:N	46:DZ:12:GLU:OE2	2.49	0.46
2:CB:80:ILE:HD13	2:CB:211:ILE:HB	1.97	0.46
25:DA:1006:C:C2	25:DA:1138:G:N2	2.83	0.46
25:DA:2100:G:H2'	25:DA:2101:G:H5'	1.97	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1495:A:N3	25:BA:1496:A:C2	2.83	0.46
25:BA:1109:C:H5	25:BA:1110:G:N3	2.13	0.46
25:BA:999:U:C2'	25:BA:1000:A:H5''	2.45	0.46
25:BA:2646:C:H6	25:BA:2646:C:O5'	1.97	0.46
13:AM:79:LYS:O	13:AM:82:MET:HG2	2.16	0.46
19:AS:72:GLY:C	19:AS:74:PHE:H	2.19	0.46
30:BF:21:ALA:N	30:BF:23:ASP:OD1	2.49	0.46
30:BF:24:LEU:HD13	30:BF:25:PRO:HD2	1.97	0.46
3:AC:34:LEU:CG	3:AC:38:ARG:HH21	2.15	0.46
30:DF:155:LEU:HB3	30:DF:192:LEU:HA	1.97	0.46
10:AJ:5:ARG:CG	10:AJ:6:ILE:N	2.76	0.46
1:AA:1429:C:H2'	1:AA:1430:C:C6	2.51	0.46
40:BT:102:ILE:O	40:BT:106:SER:HB3	2.16	0.46
1:AA:1397:C:C3'	1:AA:1398:A:C5'	2.76	0.46
53:D6:41:PRO:HD2	53:D6:45:LYS:HA	1.98	0.46
25:DA:1669:A:H2'	25:DA:1670:C:H5'	1.97	0.46
25:BA:272(I):U:C2	25:BA:274:G:N7	2.84	0.46
25:BA:1636:C:H2'	25:BA:1637:A:C8	2.50	0.46
32:DH:86:GLU:HA	32:DH:131:VAL:O	2.15	0.46
53:B6:23:THR:O	53:B6:23:THR:OG1	2.34	0.46
36:BP:105:LEU:N	36:BP:105:LEU:HD23	2.31	0.46
28:BD:26:LYS:NZ	28:BD:82:ILE:H	2.14	0.46
17:AQ:65:ILE:O	17:AQ:66:SER:HB3	2.16	0.46
8:CH:137:VAL:O	8:CH:138:TRP:HB3	2.16	0.46
35:DO:75:SER:HB3	40:DT:32:TYR:OH	2.16	0.46
15:CO:87:ILE:O	15:CO:88:ARG:HB2	2.15	0.46
48:B1:50:ARG:O	48:B1:58:ILE:O	2.34	0.46
48:B1:86:SER:HB2	48:B1:89:GLU:CB	2.45	0.46
33:BI:47:LEU:CD2	33:BI:51:ILE:HB	2.45	0.46
39:DS:30:ARG:H	39:DS:89:ARG:HH21	1.63	0.46
30:DF:165:ARG:NH1	30:DF:165:ARG:HG3	2.30	0.46
1:AA:533:A:C5	1:AA:536:C:C4	3.04	0.46
27:DC:38:PHE:CD1	27:DC:39:ASP:N	2.83	0.46
2:AB:92:TYR:CD1	2:AB:151:GLY:HA3	2.51	0.46
2:AB:61:LEU:HG	2:AB:66:GLY:HA3	1.97	0.46
28:DD:210:GLY:O	28:DD:211:ARG:HB3	2.16	0.46
1:AA:727:G:N1	1:AA:731:G:C6	2.83	0.46
25:BA:2287:A:C2	25:BA:2346:A:C2	3.04	0.46
5:AE:48:ALA:O	5:AE:50:GLU:N	2.48	0.46
1:CA:1324:A:O4'	1:CA:1362:C:H4'	2.16	0.46
20:CT:39:LYS:C	20:CT:42:GLN:HB3	2.35	0.46
22:AV:159:VAL:HG22	22:AV:160:GLN:N	2.31	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:AK:82:VAL:CG1	11:AK:108:ILE:HG12	2.45	0.46
6:CF:100:ASN:HD22	18:CR:23:LYS:HE3	1.79	0.46
18:CR:57:GLY:C	18:CR:58:LEU:HD12	2.36	0.46
25:DA:1577:C:H2'	25:DA:1578:U:C1'	2.46	0.46
4:CD:163:GLU:O	4:CD:166:LYS:HG3	2.16	0.46
25:DA:2712:U:O2'	25:DA:2712(A):A:P	2.73	0.46
25:BA:2359:C:C1'	55:B8:52:LYS:HE3	2.46	0.46
55:B8:58:ILE:O	55:B8:58:ILE:CG2	2.62	0.46
29:DE:46:ALA:CB	29:DE:82:ARG:HA	2.46	0.46
38:BR:53:HIS:CD2	38:BR:94:TYR:OH	2.67	0.46
25:BA:2313:C:H2'	25:BA:2314:C:C6	2.51	0.46
26:BB:30:C:H1'	26:BB:57:A:H61	1.81	0.46
4:AD:74:GLN:O	4:AD:78:LEU:HG	2.15	0.46
8:AH:68:ARG:HG2	8:AH:68:ARG:HH11	1.79	0.46
25:DA:1528:A:C5	25:DA:1544:A:N1	2.84	0.46
25:DA:1447:G:H1'	25:DA:1545:A:H1'	1.98	0.46
12:CL:50:ARG:HD2	12:CL:50:ARG:N	2.30	0.46
25:BA:2116:G:H4'	25:BA:2117:A:OP1	2.14	0.46
25:BA:2171:A:H1'	25:BA:2172:U:O4'	2.16	0.46
11:AK:29:ILE:HD12	11:AK:30:VAL:H	1.79	0.46
1:AA:993:G:O6	1:AA:1045:C:N4	2.48	0.46
13:AM:27:LYS:HE3	13:AM:31:LYS:CE	2.43	0.46
1:AA:1516:G:H2'	1:AA:1518:A:OP2	2.15	0.46
1:AA:1086:U:H6	1:AA:1086:U:H5'	1.79	0.46
1:CA:59:A:C5'	1:CA:60:A:H5''	2.46	0.46
25:DA:182:A:O2'	25:DA:183:C:H5'	2.15	0.46
1:CA:509:A:N3	1:CA:543:C:O2'	2.45	0.46
48:D1:50:ARG:O	48:D1:51:VAL:CB	2.63	0.46
25:DA:1148:A:C4	25:DA:1149:G:C8	3.03	0.46
25:DA:2683:C:P	40:DT:53:ARG:HH22	2.38	0.46
32:DH:164:TYR:O	32:DH:165:ALA:HB2	2.15	0.46
1:CA:153:C:O2'	1:CA:154:C:H5'	2.15	0.46
25:BA:2591:C:H2'	25:BA:2592:G:C8	2.50	0.46
17:AQ:52:LYS:N	17:AQ:55:ASP:OD2	2.42	0.46
14:AN:51:GLY:C	14:AN:53:LEU:N	2.69	0.46
27:DC:69:LEU:CD2	27:DC:70:GLY:N	2.78	0.46
2:CB:103:THR:O	2:CB:105:PHE:N	2.36	0.46
1:CA:412:A:H5'	1:CA:413:G:OP1	2.16	0.46
25:DA:2365:G:H4'	47:D0:60:PHE:CZ	2.50	0.46
4:AD:98:GLU:CD	4:AD:103:ASN:HD21	2.19	0.46
30:BF:143:ALA:O	30:BF:146:ALA:N	2.49	0.46
48:B1:46:LEU:HD23	48:B1:46:LEU:H	1.80	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:386:G:H3'	25:BA:388:G:N2	2.30	0.46
38:BR:38:VAL:HA	38:BR:112:ALA:HB2	1.97	0.46
1:CA:41:G:H2'	1:CA:42:G:H8	1.79	0.46
25:BA:658:C:H2'	25:BA:659:C:H6	1.80	0.46
25:BA:2818:G:H4'	25:BA:2837:G:C4'	2.46	0.46
25:BA:1131:G:H21	34:BN:73:THR:CG2	2.28	0.46
2:AB:71:VAL:HG13	2:AB:93:VAL:HG21	1.98	0.46
15:CO:49:ASP:OD1	15:CO:52:SER:HB2	2.16	0.46
25:DA:2547:U:H2'	25:DA:2548:G:H8	1.81	0.46
33:BI:55:ALA:O	33:BI:59:ALA:HB3	2.16	0.46
1:CA:706:A:O2'	11:CK:31:THR:HG22	2.16	0.46
21:CU:6:ARG:C	21:CU:8:THR:H	2.18	0.46
25:DA:2520:C:H6	25:DA:2520:C:O5'	1.98	0.46
25:BA:1532:C:H6	25:BA:1532:C:O5'	1.97	0.46
1:CA:44:G:OP2	16:CP:12:LYS:HE3	2.16	0.46
25:DA:2248:C:H2'	25:DA:2249:U:H5'	1.97	0.46
25:BA:2293:C:H2'	25:BA:2294:C:H6	1.80	0.46
39:BS:14:VAL:CG1	39:BS:15:ARG:N	2.64	0.46
39:BS:28:VAL:CG1	39:BS:29:PHE:N	2.79	0.46
39:BS:56:LEU:O	39:BS:56:LEU:HD23	2.16	0.46
39:BS:93:LYS:O	39:BS:93:LYS:HG3	2.16	0.46
3:AC:116:VAL:HA	3:AC:119:ARG:HD2	1.97	0.46
37:DQ:135:ASP:O	37:DQ:137:TYR:N	2.49	0.46
7:CG:3:ARG:O	7:CG:4:ARG:CG	2.63	0.46
7:CG:143:ARG:O	7:CG:145:ALA:O	2.34	0.46
7:CG:27:ILE:HA	7:CG:30:ILE:CG1	2.46	0.46
21:CU:9:ARG:O	21:CU:13:ILE:HG13	2.15	0.46
34:BN:2:LYS:O	34:BN:3:THR:CG2	2.56	0.46
1:CA:1129:C:O5'	1:CA:1130:A:H5'	2.15	0.46
31:DG:60:LEU:O	31:DG:64:THR:HG22	2.15	0.46
1:AA:1221:G:O2'	1:AA:1222:G:H5'	2.15	0.46
29:BE:19:ARG:HA	35:BO:73:ASP:HA	1.97	0.46
3:AC:73:PRO:O	3:AC:76:VAL:HG22	2.16	0.46
52:B5:4:HIS:O	52:B5:6:VAL:HG13	2.16	0.46
53:D6:17:LYS:CB	53:D6:18:ARG:CZ	2.93	0.46
25:BA:1639:U:H2'	25:BA:1640:C:C5'	2.46	0.46
55:D8:61:LEU:HD13	55:D8:62:LEU:H	1.80	0.46
25:DA:593:G:H5'	55:D8:61:LEU:HD23	1.97	0.46
32:DH:85:LYS:O	32:DH:132:ARG:HA	2.16	0.46
55:D8:46:ARG:HH11	55:D8:46:ARG:HG2	1.80	0.46
2:AB:188:ALA:O	2:AB:202:PRO:HA	2.15	0.46
1:AA:1027:C:O5'	1:AA:1027:C:H6	1.98	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1030(C):G:C4	1:AA:1030(D):A:C8	3.03	0.46
29:BE:77:ILE:HG22	29:BE:78:LEU:N	2.13	0.46
29:BE:78:LEU:O	29:BE:78:LEU:HD12	2.15	0.46
5:AE:77:PRO:HG2	5:AE:78:HIS:H	1.80	0.46
40:DT:31:SER:HA	40:DT:82:LEU:HA	1.97	0.46
15:CO:21:ASP:OD2	15:CO:24:SER:HB2	2.16	0.46
27:DC:21:TYR:CD2	27:DC:25:GLU:OE1	2.69	0.46
37:BQ:110:THR:OG1	37:BQ:111:GLU:N	2.48	0.46
37:BQ:133:ARG:HB3	37:BQ:134:ARG:H	1.59	0.46
1:CA:957:U:O2	1:CA:959:A:H8	1.99	0.46
35:BO:94:ARG:HB3	35:BO:94:ARG:HH11	1.81	0.46
27:DC:80:LYS:HZ3	31:DG:48:GLU:CB	2.29	0.46
36:DP:101:VAL:HG12	36:DP:106:LEU:HD23	1.97	0.46
34:DN:15:LEU:HD12	34:DN:136:GLU:CG	2.45	0.46
10:CJ:17:ASP:CA	10:CJ:70:ARG:NH1	2.76	0.46
2:AB:91:PRO:CG	2:AB:155:LEU:H	2.28	0.46
25:BA:590:A:OP1	30:BF:95:ARG:NH1	2.48	0.46
1:CA:79:G:H8	1:CA:84:U:OP1	1.98	0.46
1:AA:839:U:O2	1:AA:839:U:C2'	2.63	0.46
1:CA:234:C:H2'	1:CA:235:C:C6	2.49	0.46
28:DD:65:ILE:C	28:DD:65:ILE:HD13	2.35	0.46
43:DW:60:ASN:N	43:DW:60:ASN:HD22	2.13	0.46
25:BA:2318:G:C2'	25:BA:2319:G:OP1	2.64	0.46
32:DH:44:VAL:CG1	32:DH:45:VAL:N	2.68	0.46
4:CD:110:PHE:CD1	4:CD:162:LEU:HD21	2.50	0.46
1:AA:1174:G:H2'	1:AA:1175:G:H8	1.80	0.46
1:AA:1174:G:O2'	1:AA:1175:G:H5'	2.15	0.46
6:AF:91:VAL:CG1	18:AR:72:ARG:NH2	2.74	0.46
25:DA:1962:C:O2'	25:DA:1963:U:H3'	2.15	0.46
1:AA:156:G:C2'	1:AA:157:G:H5'	2.46	0.46
1:AA:104:G:C2'	1:AA:105:G:H5'	2.45	0.46
25:BA:2839:G:C5'	38:BR:46:GLY:HA2	2.42	0.46
1:AA:948:C:C5	13:AM:106:ASN:ND2	2.84	0.46
30:BF:167:ALA:HB1	30:BF:173:VAL:HG11	1.96	0.46
4:CD:123:HIS:HB2	4:CD:125:HIS:CD2	2.51	0.46
1:CA:1260:C:C6	1:CA:1260:C:C3'	2.98	0.46
1:CA:1260:C:OP1	1:CA:1284:C:H4'	2.14	0.46
54:D7:12:ARG:CZ	54:D7:44:PRO:HB3	2.46	0.46
36:DP:47:ASP:HB3	36:DP:48:PRO:C	2.36	0.46
25:BA:646:A:H2'	25:BA:647:G:O4'	2.15	0.46
1:CA:600:C:O2'	1:CA:601:C:H5'	2.15	0.46
4:AD:156:GLU:OE1	4:AD:156:GLU:N	2.48	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:75:LYS:HG2	2:CB:78:GLN:OE1	2.16	0.46
51:D4:61:VAL:HG13	51:D4:65:CYS:CB	2.45	0.46
1:CA:609:A:H2'	1:CA:610:G:H5'	1.96	0.46
8:AH:12:ARG:HH11	8:AH:26:VAL:HA	1.78	0.46
7:AG:151:TYR:O	7:AG:154:TYR:HB2	2.15	0.46
26:DB:54:G:C2	26:DB:55:U:C5	3.04	0.46
17:AQ:38:ARG:HA	17:AQ:38:ARG:HE	1.81	0.46
15:CO:54:ARG:HG2	15:CO:54:ARG:HH11	1.80	0.46
18:CR:87:ARG:NH1	18:CR:87:ARG:HG2	2.30	0.46
35:BO:88:ASN:O	35:BO:90:GLN:N	2.49	0.46
46:DZ:109:GLY:O	46:DZ:110:VAL:HB	2.16	0.46
25:DA:2508:G:C2	25:DA:2582:G:C6	3.03	0.46
16:CP:55:ARG:HE	16:CP:55:ARG:HA	1.81	0.46
28:DD:175:LEU:HD12	28:DD:185:VAL:HG23	1.97	0.46
26:DB:42:C:H5'	31:DG:68:PRO:O	2.15	0.46
25:BA:2579:C:O2'	25:BA:2580:U:H5'	2.16	0.46
12:CL:55:VAL:O	12:CL:62:GLU:HG3	2.15	0.46
1:AA:1487:G:O2'	1:AA:1488:G:H5'	2.16	0.46
25:DA:790:C:O2'	25:DA:791:C:C5'	2.64	0.46
23:AW:58:A:O2'	23:AW:60:U:C5	2.65	0.46
25:BA:743:G:O2'	25:BA:744:G:H5'	2.15	0.46
25:DA:1197:G:H2'	25:DA:1198:U:H6	1.79	0.46
25:DA:699:A:H2'	25:DA:700:G:H5'	1.98	0.46
25:DA:795:C:H2'	25:DA:796:C:H6	1.80	0.46
42:DV:79:VAL:O	42:DV:80:GLN:C	2.54	0.46
54:B7:1:MET:O	54:B7:2:LYS:C	2.52	0.46
28:DD:155:LEU:HD23	28:DD:177:LEU:HD21	1.98	0.46
25:BA:118:A:H5'	25:BA:119:A:H8	1.80	0.46
25:BA:244:A:C2	25:BA:255:A:C4	3.03	0.46
33:BI:121:LYS:O	33:BI:122:GLU:HB2	2.14	0.46
29:BE:93:VAL:HG11	29:BE:181:LEU:O	2.15	0.46
46:DZ:11:GLY:HA3	46:DZ:35:LYS:HZ2	1.80	0.46
2:CB:23:ARG:HG2	2:CB:23:ARG:O	2.15	0.46
2:CB:209:ARG:NH1	2:CB:240:GLN:HG3	2.30	0.46
2:CB:24:TRP:CZ2	2:CB:26:PRO:HB3	2.50	0.46
46:DZ:13:LYS:O	46:DZ:17:LEU:HD13	2.16	0.46
9:CI:48:GLU:HB2	9:CI:78:LYS:NZ	2.28	0.46
2:CB:133:LYS:O	2:CB:137:ARG:HB2	2.15	0.46
31:DG:115:ARG:HD3	31:DG:136:ARG:HD2	1.96	0.46
31:DG:141:PHE:HB3	31:DG:142:PRO:HD2	1.98	0.46
30:BF:179:GLU:OE2	30:BF:179:GLU:N	2.36	0.46
1:AA:197:A:N6	1:AA:221:C:C5'	2.79	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:23:TYR:CD1	10:AJ:10:GLY:HA2	2.51	0.46
52:B5:4:HIS:O	52:B5:6:VAL:CG1	2.64	0.46
1:AA:922:G:N3	1:AA:1398:A:H2	2.14	0.46
25:DA:2533:A:H2'	25:DA:2534:A:H5''	1.98	0.46
25:DA:2392:A:H2'	25:DA:2393:A:O4'	2.16	0.46
2:AB:30:ARG:HE	2:AB:194:PRO:HG3	1.79	0.46
1:AA:266:G:H1	1:AA:270:A:H62	1.63	0.46
13:CM:31:LYS:O	13:CM:34:LEU:HB2	2.15	0.46
4:AD:14:ARG:CG	4:AD:15:GLU:N	2.75	0.46
25:DA:2846:G:H2'	25:DA:2847:U:O4'	2.15	0.46
8:AH:65:TYR:N	8:AH:65:TYR:CD1	2.84	0.46
1:CA:975:A:C8	1:CA:1357:A:H2	2.34	0.46
1:CA:659:U:H2'	1:CA:660:G:H8	1.81	0.46
19:CS:19:VAL:CG2	19:CS:44:MET:HG2	2.45	0.46
35:BO:86:ILE:HG22	35:BO:94:ARG:CG	2.33	0.46
26:DB:7:G:O5'	39:DS:29:PHE:CE1	2.69	0.46
27:DC:150:ILE:CG2	27:DC:154:ILE:HD11	2.37	0.46
30:BF:88:VAL:CG1	30:BF:89:VAL:N	2.78	0.46
25:BA:783:A:H2'	25:BA:784:A:O5'	2.16	0.46
6:CF:8:ILE:HG22	6:CF:9:VAL:N	2.30	0.46
1:CA:77:G:H2'	1:CA:78:G:H5'	1.97	0.46
1:CA:456:C:H2'	1:CA:457:C:C6	2.51	0.46
35:DO:87:ILE:CG2	35:DO:91:LEU:HA	2.45	0.46
51:D4:62:CYS:SG	51:D4:64:LYS:CB	3.04	0.46
1:AA:406:G:O2'	1:AA:407:G:H5'	2.16	0.46
30:DF:53:THR:C	30:DF:55:GLY:H	2.19	0.46
26:DB:15:A:C3'	26:DB:16:G:H5'	2.40	0.46
25:BA:1719:G:O2'	25:BA:1720:U:H5'	2.15	0.46
43:DW:50:VAL:HG13	43:DW:105:VAL:CG2	2.46	0.46
14:AN:4:LYS:HA	14:AN:7:ILE:HG12	1.98	0.46
49:B2:49:LYS:O	49:B2:53:LEU:HB2	2.16	0.46
28:DD:125:ILE:HD13	28:DD:131:LEU:HD22	1.97	0.46
1:AA:1279:A:N6	3:AC:26:LYS:HZ3	2.14	0.46
25:DA:540:C:O2'	25:DA:541:C:H5'	2.15	0.46
27:BC:37:LYS:CD	27:BC:37:LYS:N	2.79	0.46
25:DA:1375:C:H2'	25:DA:1376:C:C6	2.39	0.46
6:AF:5:GLU:O	6:AF:7:ASN:ND2	2.48	0.46
14:AN:13:THR:HG22	14:AN:13:THR:O	2.16	0.46
1:AA:1442:G:H2'	1:AA:1442(A):G:H5'	1.97	0.46
3:AC:52:LEU:CD2	3:AC:52:LEU:H	2.28	0.46
8:CH:39:LEU:O	8:CH:44:PHE:HB2	2.16	0.46
25:DA:845:G:O2'	25:DA:846:C:H5	1.98	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:140:ARG:O	3:AC:142:MET:N	2.48	0.46
5:CE:10:MET:CE	5:CE:13:ILE:HD11	2.46	0.46
31:BG:148:MET:O	31:BG:149:VAL:HG22	2.15	0.46
25:DA:588:U:H2'	25:DA:589:C:C6	2.51	0.46
25:DA:1956:U:H1'	25:DA:2552:U:OP1	2.15	0.46
37:BQ:36:ALA:O	37:BQ:99:PRO:HA	2.16	0.46
25:DA:563:G:H21	41:DU:37:GLU:CD	2.19	0.46
49:B2:64:LEU:O	49:B2:68:ARG:HG2	2.15	0.46
1:AA:861:G:C2'	1:AA:862:C:H5'	2.45	0.46
25:BA:18:C:O2'	25:BA:554:U:OP1	2.34	0.46
25:BA:2591:C:OP2	28:BD:238:GLY:O	2.33	0.46
27:DC:149:ASN:ND2	27:DC:153:ILE:HG12	2.31	0.46
53:D6:9:LEU:HD23	53:D6:9:LEU:C	2.36	0.46
2:CB:175:ARG:O	2:CB:176:GLU:C	2.53	0.46
25:BA:969:U:H4'	50:B3:14:GLY:O	2.15	0.46
25:BA:1662:C:HO2'	25:BA:1663:C:H5'	1.80	0.46
7:CG:152:ALA:O	7:CG:155:ARG:HG3	2.16	0.46
8:AH:48:TYR:O	8:AH:49:GLU:HB3	2.16	0.46
35:BO:63:VAL:H	35:BO:84:ALA:HA	1.81	0.46
1:AA:698:G:C5	1:AA:699:C:C5	3.04	0.46
1:CA:117:G:H2'	1:CA:118:U:O4'	2.16	0.46
43:DW:52:GLU:C	43:DW:54:ALA:N	2.69	0.46
37:BQ:21:THR:O	37:BQ:22:LYS:C	2.52	0.46
23:AW:19:G:C2	23:AW:57:A:C2	3.04	0.46
1:CA:276:G:H5'	17:CQ:15:MET:SD	2.56	0.46
25:BA:298:G:N2	25:BA:339:U:C5	2.84	0.46
25:BA:765:G:H2'	25:BA:766:C:C6	2.51	0.46
30:BF:129:PHE:CD2	30:BF:163:VAL:HG21	2.50	0.46
25:DA:1038:C:H2'	25:DA:1038:C:O2	2.16	0.46
16:CP:76:GLN:O	16:CP:76:GLN:HG2	2.15	0.46
1:AA:890:G:O2'	1:AA:906:G:O6	2.32	0.46
52:D5:41:PRO:O	52:D5:44:THR:HG23	2.15	0.46
25:DA:543:C:C2	25:DA:551:G:C2	3.04	0.46
2:CB:12:GLU:O	2:CB:16:HIS:ND1	2.41	0.46
34:DN:62:VAL:HG13	34:DN:62:VAL:O	2.15	0.46
34:DN:97:ARG:O	34:DN:99:LEU:N	2.49	0.46
25:BA:2177:C:H5''	27:BC:214:TYR:CZ	2.51	0.46
41:BU:91:ASP:OD2	41:BU:96:ALA:HB2	2.13	0.46
31:DG:103:LEU:H	31:DG:103:LEU:CD1	2.25	0.46
31:DG:114:ILE:O	31:DG:115:ARG:C	2.54	0.46
31:DG:130:ASN:HB3	31:DG:160:VAL:HA	1.98	0.46
1:AA:1321:C:H3'	1:AA:1322:C:H5''	1.97	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:AS:6:LYS:CE	19:AS:6:LYS:H	2.28	0.46
25:DA:84:A:H5'	45:DY:9:LYS:HB3	1.97	0.46
25:DA:81:G:N2	45:DY:2:ARG:NH1	2.53	0.46
1:AA:197:A:N6	1:AA:221:C:H5'	2.30	0.46
10:AJ:34:VAL:HG21	10:AJ:74:ILE:HG22	1.95	0.46
25:DA:1112:G:O2'	25:DA:1113:U:O4'	2.33	0.46
3:AC:5:ILE:C	3:AC:5:ILE:HD12	2.35	0.46
31:BG:42:GLY:O	31:BG:44:GLY:N	2.40	0.46
36:BP:88:LEU:N	36:BP:88:LEU:HD12	2.30	0.46
36:BP:146:VAL:CG2	36:BP:147:LEU:N	2.66	0.46
1:AA:1030(D):A:H2'	1:AA:1031:G:O4'	2.16	0.46
45:BY:52:SER:C	45:BY:53:PRO:O	2.52	0.46
45:BY:48:ALA:HB2	45:BY:59:GLY:N	2.30	0.46
1:CA:1296:C:H5'	1:CA:1297:C:OP2	2.16	0.46
35:BO:97:ARG:HH21	35:BO:99:PHE:HE1	1.64	0.46
32:DH:55:PRO:O	32:DH:56:SER:O	2.34	0.46
32:BH:85:LYS:NZ	32:BH:133:VAL:CB	2.75	0.46
10:CJ:49:VAL:HG22	10:CJ:50:ILE:N	2.31	0.46
14:CN:24:CYS:HA	14:CN:39:LEU:HA	1.98	0.46
42:BV:1:MET:CB	42:BV:99:ILE:HG13	2.44	0.46
15:CO:9:GLN:NE2	15:CO:12:ILE:HD12	2.31	0.46
1:CA:1036:G:OP2	1:CA:1037:C:N4	2.48	0.46
26:DB:52:A:O2'	26:DB:53:A:C8	2.67	0.46
12:AL:42:PRO:HA	12:AL:90:LEU:CD2	2.46	0.46
12:AL:80:VAL:HG13	12:AL:97:ILE:HG23	1.98	0.46
25:DA:64:A:H2'	25:DA:65:C:O4'	2.15	0.46
51:B4:57:ILE:HG22	51:B4:59:VAL:HG23	1.96	0.46
11:AK:32:ILE:HG13	11:AK:72:ALA:HB2	1.98	0.46
8:AH:84:ARG:HG2	8:AH:84:ARG:NH1	2.31	0.46
35:DO:80:ASP:HB2	40:DT:70:VAL:HG12	1.98	0.46
35:DO:87:ILE:HG23	35:DO:92:GLU:O	2.16	0.46
32:DH:46:GLU:O	32:DH:47:GLU:HB3	2.16	0.46
37:DQ:46:GLN:HE22	37:DQ:126:PRO:HG3	1.81	0.46
26:DB:69:G:C6	26:DB:70:C:C4	3.04	0.46
1:CA:37:U:H5''	12:CL:121:LYS:HB2	1.98	0.46
50:B3:4:LEU:HD23	50:B3:57:GLU:O	2.15	0.46
1:CA:742:G:H5''	15:CO:58:MET:HE2	1.97	0.46
29:DE:45:THR:O	29:DE:46:ALA:HB2	2.16	0.46
25:DA:2784:C:C4	25:DA:2785:C:N4	2.84	0.46
25:DA:152:G:H1	25:DA:174:C:H42	1.63	0.46
6:AF:76:ALA:O	6:AF:80:ARG:HG3	2.16	0.46
26:BB:29:A:O2'	26:BB:58:A:N1	2.40	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AL:21:VAL:HG12	12:AL:23:ALA:HB2	1.97	0.46
6:AF:62:TRP:C	6:AF:63:TYR:CD2	2.89	0.46
1:AA:1423:G:C5'	35:BO:49:ARG:NH2	2.79	0.46
1:AA:600:C:H4'	8:AH:128:GLY:O	2.16	0.46
25:BA:2270:G:H2'	25:BA:2271:G:O4'	2.16	0.46
1:AA:1014:A:H4'	19:AS:14:HIS:NE2	2.31	0.46
32:BH:115:VAL:HG11	32:BH:148:ILE:CD1	2.46	0.46
25:DA:2328:A:H2'	25:DA:2329:G:C8	2.50	0.46
31:DG:36:LYS:HD3	31:DG:95:ARG:HH12	1.80	0.46
37:BQ:72:LYS:HB3	37:BQ:94:VAL:HG23	1.97	0.46
5:AE:74:GLY:O	5:AE:116:THR:N	2.46	0.46
1:AA:255:G:H1'	17:AQ:16:GLN:HE21	1.81	0.46
5:AE:82:VAL:CG1	5:AE:83:GLU:N	2.78	0.46
25:DA:1862:G:C2'	25:DA:1863:G:H5'	2.46	0.46
13:CM:102:ARG:NH1	13:CM:102:ARG:HG3	2.30	0.46
25:BA:2348:U:C2'	25:BA:2349:G:C5'	2.90	0.46
8:AH:12:ARG:CZ	8:AH:27:PRO:HD3	2.45	0.46
15:AO:32:LEU:O	15:AO:33:THR:C	2.52	0.46
1:AA:681:C:H2'	1:AA:682:G:C8	2.47	0.46
1:AA:1236:A:H2'	1:AA:1237:C:C6	2.51	0.46
25:BA:580:C:H2'	25:BA:581:C:C6	2.51	0.46
25:DA:2665:A:C2	25:DA:2666:C:C2	3.04	0.46
25:BA:414:C:H1'	25:BA:1864:U:O2'	2.16	0.46
4:CD:200:GLU:O	4:CD:204:ILE:HG12	2.16	0.46
25:BA:376:C:H2'	25:BA:377:C:C6	2.50	0.46
15:CO:62:GLN:O	15:CO:66:LEU:HD13	2.16	0.46
4:CD:57:ARG:NH1	4:CD:57:ARG:HG3	2.31	0.46
25:DA:1333:C:H2'	25:DA:1334:G:C8	2.50	0.46
25:BA:1272:A:C3'	25:BA:1273:U:C5'	2.94	0.46
29:BE:66:HIS:O	29:BE:66:HIS:CD2	2.69	0.46
15:CO:3:ILE:HG21	15:CO:34:LEU:CD2	2.44	0.46
33:DI:124:GLY:O	33:DI:125:GLU:CB	2.64	0.46
25:BA:1917:U:H2'	25:BA:1918:A:C8	2.51	0.46
25:DA:2672:G:H3'	25:DA:2673:G:H5''	1.97	0.46
25:DA:269:U:H1'	25:DA:424:G:N2	2.31	0.46
25:BA:1627:G:H2'	25:BA:1628:G:H5'	1.98	0.46
49:D2:52:ASP:O	49:D2:56:GLN:HG3	2.15	0.46
11:CK:92:GLU:C	11:CK:94:ALA:H	2.17	0.46
25:BA:449:A:C2'	25:BA:450:G:H5'	2.46	0.46
25:BA:178:G:O2'	25:BA:179:G:H5'	2.16	0.46
25:BA:455:C:N3	25:BA:472:A:H2'	2.30	0.46
25:BA:568:U:O2	25:BA:570:G:C8	2.68	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DZ:103:PHE:O	46:DZ:104:VAL:C	2.54	0.46
25:BA:918:A:H4'	26:BB:98:G:N3	2.30	0.46
25:DA:248:G:C2	25:DA:2431:U:H4'	2.51	0.46
46:DZ:134:GLU:HG2	46:DZ:134:GLU:O	2.16	0.46
46:DZ:8:TYR:HE2	46:DZ:34:ARG:HD2	1.81	0.46
2:CB:236:TYR:HA	2:CB:239:VAL:CB	2.46	0.46
2:CB:54:THR:HG22	2:CB:58:ILE:CG1	2.46	0.46
2:CB:80:ILE:HD11	2:CB:212:GLN:CA	2.45	0.46
25:DA:1012:U:OP1	41:DU:70:ARG:NH1	2.48	0.46
25:DA:1158:C:H4'	50:D3:31:LEU:O	2.16	0.46
25:DA:997:G:C2'	25:DA:998:C:H5'	2.46	0.46
46:DZ:19:ARG:HH11	46:DZ:19:ARG:HG3	1.79	0.46
25:DA:2117:A:H3'	25:DA:2118:U:H3'	1.97	0.46
44:DX:35:THR:CG2	44:DX:36:LYS:N	2.78	0.46
7:CG:116:ALA:O	7:CG:120:ILE:HG12	2.16	0.46
7:CG:140:ASP:C	7:CG:142:GLU:N	2.69	0.46
7:CG:15:ASP:OD2	7:CG:44:TYR:OH	2.33	0.46
1:CA:1118:C:H5'	9:CI:104:ARG:CG	2.45	0.46
25:BA:987:G:O2'	25:BA:1000:A:H1'	2.16	0.46
1:AA:1269:A:N1	1:AA:1313:U:O4'	2.49	0.46
1:AA:191:G:O2'	1:AA:192:U:H5'	2.16	0.46
3:AC:40:ARG:HG3	3:AC:40:ARG:HH11	1.81	0.46
30:DF:19:GLU:N	30:DF:19:GLU:OE1	2.49	0.46
25:BA:1388:G:H2'	25:BA:1389:G:H8	1.81	0.46
25:BA:1245:G:OP1	36:BP:16:ARG:NE	2.48	0.46
36:BP:16:ARG:HH11	36:BP:16:ARG:C	2.19	0.46
25:BA:1638:C:O2'	25:BA:1639:U:H5'	2.16	0.46
29:DE:106:GLY:HA3	29:DE:189:PRO:HG2	1.97	0.46
29:DE:14:ILE:HG12	29:DE:21:VAL:HG23	1.97	0.46
32:DH:158:HIS:O	32:DH:159:GLU:HB3	2.15	0.46
2:AB:22:LYS:N	2:AB:40:HIS:CE1	2.84	0.46
1:AA:271:C:O2'	1:AA:272:C:H5'	2.15	0.46
29:BE:48:GLN:CG	29:BE:48:GLN:O	2.59	0.46
1:AA:1310:G:N2	1:AA:1328:C:C2	2.84	0.46
1:AA:1150:U:O2'	10:AJ:39:PRO:O	2.30	0.46
1:AA:542:G:H2'	1:AA:543:C:H6	1.81	0.46
4:AD:11:LEU:N	4:AD:11:LEU:HD23	2.31	0.46
22:CV:73:LEU:HD21	22:CV:83:MET:HG3	1.97	0.46
3:CC:43:LEU:C	3:CC:45:LYS:N	2.68	0.46
27:BC:115:VAL:HG21	27:BC:154:ILE:HG12	1.98	0.46
7:AG:69:VAL:O	7:AG:71:PRO:HD3	2.15	0.46
1:CA:1048:G:OP1	14:CN:3:ARG:HB3	2.16	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:127:ILE:O	2:CB:129:GLU:N	2.48	0.46
37:BQ:116:GLU:OE2	37:BQ:119:ARG:NH2	2.42	0.46
1:CA:960:U:H2'	1:CA:1225:A:H62	1.80	0.46
25:DA:2331:G:N3	25:DA:2336:A:H2	2.13	0.46
39:DS:35:ILE:H	39:DS:53:SER:HB2	1.79	0.46
26:DB:50:G:OP2	39:DS:62:LYS:HD3	2.15	0.46
25:BA:2512:C:H4'	29:BE:122:PHE:CE2	2.50	0.46
6:CF:81:ILE:HG22	6:CF:82:ARG:N	2.29	0.46
33:BI:112:LYS:C	33:BI:114:LEU:H	2.17	0.46
25:BA:528:A:C2'	25:BA:529:A:H5'	2.46	0.46
1:CA:235:C:H5'	17:CQ:70:ARG:HG2	1.97	0.46
1:AA:612:C:O2'	1:AA:613:C:H5'	2.16	0.46
30:BF:199:TRP:O	30:BF:203:GLN:HG3	2.16	0.46
36:DP:147:LEU:HG	36:DP:148:LEU:N	2.30	0.46
25:DA:2086:U:H2'	25:DA:2087:G:C8	2.51	0.46
25:BA:7:G:H5'	34:BN:130:HIS:HD2	1.81	0.46
1:CA:419:C:C2'	1:CA:419:C:O2	2.64	0.46
40:BT:129:ARG:HD2	40:BT:131:ALA:CB	2.46	0.46
25:BA:2127:G:O6	25:BA:2162:G:C6	2.69	0.46
12:AL:24:LEU:O	12:AL:26:GLY:N	2.49	0.46
28:BD:16:MET:HB2	28:BD:207:GLY:HA3	1.98	0.46
6:AF:37:VAL:C	6:AF:38:GLU:HG3	2.37	0.46
54:B7:27:GLY:O	54:B7:30:VAL:HB	2.16	0.46
1:AA:1459:C:O2'	1:AA:1460:A:H5'	2.16	0.46
40:BT:24:PRO:HA	40:BT:49:VAL:HG13	1.98	0.46
1:CA:132:C:H4'	1:CA:262:A:H1'	1.98	0.46
30:DF:65:TRP:CZ3	30:DF:72:ARG:CB	2.98	0.46
7:AG:91:VAL:HB	7:AG:96:GLN:NE2	2.30	0.46
23:AW:47:U:C5'	23:AW:48:C:H5'	2.46	0.46
48:B1:72:GLU:OE1	48:B1:76:ARG:HD3	2.16	0.46
29:BE:108:SER:HB3	29:BE:165:VAL:HG21	1.97	0.46
25:BA:2351:G:O6	55:B8:39:LYS:HG3	2.15	0.46
50:B3:7:LYS:HE2	50:B3:32:GLN:HA	1.98	0.46
25:DA:292:C:H2'	25:DA:293:U:H5'	1.97	0.46
1:AA:1378:C:OP1	7:AG:7:ALA:HB3	2.16	0.46
34:BN:58:ASP:OD1	34:BN:124:ALA:HB1	2.16	0.46
25:DA:2344:U:C4'	25:DA:2345:G:OP1	2.62	0.46
1:CA:985:C:H2'	1:CA:986:A:C8	2.51	0.46
37:DQ:34:LEU:HD13	37:DQ:118:LEU:HB3	1.98	0.46
44:DX:3:THR:CA	44:DX:6:ASP:OD2	2.64	0.46
25:DA:1272:A:H3'	25:DA:1273:U:C5'	2.45	0.46
25:BA:380:U:O2'	25:BA:381:G:H5'	2.15	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:403:C:H2'	1:CA:404:U:H6	1.81	0.46
25:BA:272:G:N3	25:BA:272(B):G:H1'	2.31	0.46
25:BA:960:A:C8	25:BA:962:G:C8	3.04	0.46
1:CA:398:C:O2'	1:CA:399:G:H5'	2.16	0.46
5:CE:105:VAL:CG1	5:CE:131:ILE:HG22	2.46	0.46
25:DA:1430:C:H2'	25:DA:1431:U:C6	2.51	0.46
25:DA:618:C:OP2	30:DF:103:LYS:HE3	2.16	0.46
1:CA:1379:G:C6	1:CA:1380:U:O4	2.69	0.46
25:DA:669:G:H2'	25:DA:670:A:N7	2.31	0.46
30:BF:10:PRO:HA	30:BF:127:GLU:HB3	1.96	0.46
1:CA:775:G:O2'	1:CA:776:G:H5'	2.16	0.46
11:CK:114:VAL:HG13	11:CK:114:VAL:O	2.16	0.46
27:BC:157:ILE:HG22	27:BC:157:ILE:O	2.16	0.46
44:DX:59:VAL:O	44:DX:59:VAL:HG12	2.15	0.46
37:DQ:51:ARG:HG2	37:DQ:51:ARG:HH11	1.81	0.46
25:BA:971:C:H2'	25:BA:972:G:O4'	2.16	0.46
25:DA:207:A:H2'	25:DA:208:C:O4'	2.16	0.46
34:BN:7:LYS:O	34:BN:8:GLN:C	2.54	0.46
1:AA:268:C:H2'	1:AA:269:C:H6	1.81	0.46
25:BA:258:G:O2'	25:BA:259:G:H5'	2.16	0.46
56:D9:8:LYS:H	56:D9:34:GLN:HE22	1.64	0.46
39:BS:61:ASN:O	39:BS:62:LYS:CB	2.64	0.46
32:BH:8:PRO:C	32:BH:9:ILE:CD1	2.81	0.46
46:DZ:55:VAL:HA	46:DZ:69:LEU:HD23	1.98	0.46
2:CB:12:GLU:C	2:CB:14:GLY:H	2.20	0.46
41:DU:104:GLN:HE22	41:DU:105:VAL:HG23	1.81	0.46
41:DU:90:VAL:CG1	41:DU:91:ASP:N	2.73	0.46
42:DV:64:HIS:CE1	42:DV:92:THR:HG22	2.50	0.46
9:CI:11:LYS:O	9:CI:11:LYS:HG2	2.16	0.46
41:BU:61:TRP:O	41:BU:62:ILE:C	2.53	0.46
2:CB:130:ARG:HB2	2:CB:135:GLN:HG2	1.98	0.46
1:CA:1125:U:OP2	1:CA:1145:C:N4	2.47	0.46
25:DA:84:A:H4'	25:DA:85:G:OP1	2.16	0.46
3:AC:87:LEU:C	3:AC:89:GLU:N	2.69	0.46
30:DF:59:TYR:CD2	30:DF:78:ILE:CG1	2.99	0.46
25:BA:1598:C:C5'	44:BX:36:LYS:HB2	2.38	0.46
25:DA:2402:C:O2'	25:DA:2403:C:H5'	2.16	0.46
28:DD:25:THR:O	28:DD:27:THR:HG22	2.15	0.46
32:DH:27:LYS:HG2	32:DH:32:GLU:CD	2.37	0.46
1:CA:1443:G:C6	1:CA:1460:A:C2	3.03	0.46
40:BT:28:VAL:HG13	40:BT:46:GLU:HB2	1.97	0.46
4:AD:110:PHE:CD2	4:AD:148:VAL:CG2	2.99	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:690:G:H4'	25:DA:780:G:OP1	2.16	0.46
25:BA:2414:G:H21	36:BP:67:MET:HE1	1.79	0.46
34:DN:104:LYS:C	34:DN:106:MET:H	2.18	0.46
25:DA:2791:C:C6	25:DA:2792:G:N7	2.83	0.46
42:BV:65:GLY:HA3	42:BV:91:TYR:CE1	2.51	0.46
40:DT:27:THR:HG22	40:DT:49:VAL:HB	1.97	0.46
27:DC:213:VAL:HB	27:DC:225:ILE:O	2.16	0.46
1:CA:1475:G:H4'	25:DA:1689:A:H4'	1.97	0.46
6:CF:68:PRO:O	6:CF:69:GLU:C	2.54	0.46
5:CE:75:THR:CG2	5:CE:76:ILE:H	2.21	0.46
13:AM:57:ARG:HH21	51:B4:60:GLU:HG2	1.81	0.46
12:AL:38:ARG:NH1	12:AL:38:ARG:HB3	2.31	0.46
25:DA:881:G:O2'	25:DA:882:G:H5'	2.16	0.46
28:BD:79:VAL:CG2	28:BD:111:LEU:HD21	2.36	0.46
45:BY:22:GLY:O	45:BY:23:ARG:HG2	2.16	0.46
25:BA:512:G:O2'	25:BA:513:A:P	2.73	0.46
22:AV:29:LYS:O	22:AV:29:LYS:HD3	2.16	0.46
19:AS:47:HIS:O	19:AS:48:THR:C	2.55	0.46
7:AG:111:ARG:HE	7:AG:123:GLU:CA	2.29	0.46
2:AB:103:THR:HG22	2:AB:104:ASN:N	2.31	0.46
27:BC:23:ILE:HG22	27:BC:24:ASP:N	2.30	0.46
25:BA:833:U:H2'	25:BA:834:C:C6	2.51	0.46
25:DA:540:C:H2'	25:DA:541:C:H6	1.80	0.46
8:CH:97:VAL:CG1	8:CH:98:LYS:N	2.79	0.46
1:CA:277:C:H2'	1:CA:278:G:H8	1.81	0.46
25:DA:2339:G:H2'	25:DA:2340:G:H8	1.80	0.46
20:AT:88:VAL:O	20:AT:92:LEU:HB2	2.16	0.46
25:BA:1884:A:H2'	25:BA:1885:A:H5'	1.97	0.46
27:DC:92:ALA:C	27:DC:94:TYR:H	2.19	0.46
8:CH:21:LYS:HB2	8:CH:21:LYS:HE3	1.65	0.46
49:B2:35:LEU:O	49:B2:38:GLN:N	2.49	0.46
25:BA:1510:G:O2'	25:BA:1511:C:H5'	2.16	0.46
52:D5:45:VAL:HG22	52:D5:51:TYR:CD2	2.51	0.46
47:B0:16:GLN:O	47:B0:18:LYS:HD3	2.16	0.46
1:CA:1409:C:H4'	25:DA:1915:U:O4	2.16	0.46
25:BA:1443:G:C2'	25:BA:1444:G:H5'	2.45	0.46
32:BH:121:ILE:HD12	32:BH:144:VAL:HG21	1.97	0.46
31:BG:21:ARG:HD3	31:BG:22:ARG:N	2.31	0.46
43:BW:9:TYR:O	43:BW:10:VAL:C	2.50	0.46
25:DA:2630:G:H1'	25:DA:2894:G:C4	2.51	0.46
28:DD:99:ASP:O	28:DD:99:ASP:OD2	2.34	0.46
13:AM:55:ARG:C	13:AM:58:GLU:HB2	2.36	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DD:142:VAL:HG13	28:DD:142:VAL:O	2.16	0.46
23:AW:28:C:C2'	23:AW:29:G:H5'	2.45	0.46
43:BW:111:HIS:CD2	43:BW:113:LYS:N	2.84	0.46
25:DA:2346:A:N7	25:DA:2383:G:N1	2.63	0.46
25:DA:1789:A:H2'	25:DA:1790:C:C6	2.51	0.46
1:CA:16:A:C2'	1:CA:17:U:H5'	2.45	0.46
25:DA:2584:U:H2'	25:DA:2585:U:H2'	1.97	0.46
16:CP:55:ARG:O	16:CP:58:TYR:HB3	2.16	0.46
1:AA:116:A:C2'	1:AA:117:G:H5'	2.46	0.46
25:BA:688:U:C5'	25:BA:1780:A:C2	2.99	0.46
25:DA:1469:A:H2'	25:DA:1470:G:C8	2.51	0.46
41:DU:8:VAL:HG12	41:DU:12:ARG:CG	2.45	0.46
11:CK:34:ASP:CB	11:CK:35:PRO:CD	2.93	0.46
25:DA:1509(A):A:O2'	25:DA:1509(B):A:H5'	2.15	0.46
46:BZ:8:TYR:HE2	46:BZ:34:ARG:HD2	1.78	0.46
1:CA:791:G:C5	1:CA:792:A:N7	2.84	0.46
25:BA:723:G:C2	25:BA:724:U:C2	3.04	0.46
47:B0:23:LYS:O	47:B0:24:ARG:HD3	2.16	0.46
14:AN:36:PHE:C	14:AN:36:PHE:CD1	2.89	0.46
28:BD:139:GLY:HA2	28:BD:165:ILE:O	2.15	0.46
46:DZ:62:ASP:HB2	46:DZ:64:GLN:HE21	1.81	0.46
1:CA:1401:G:H2'	1:CA:1402:C:O4'	2.16	0.46
25:BA:1333:C:O2'	25:BA:1334:G:H5'	2.16	0.46
25:DA:880:G:O6	25:DA:897:C:N4	2.49	0.46
17:CQ:40:LYS:HE2	17:CQ:42:TYR:CE2	2.51	0.46
25:DA:2577:A:H5''	25:DA:2578:G:H5'	1.96	0.46
25:DA:2687:U:H2'	25:DA:2688:U:O4'	2.15	0.46
42:BV:75:PHE:CD1	42:BV:75:PHE:C	2.89	0.46
1:AA:926:G:H22	24:AX:2:A:H3'	1.81	0.46
7:CG:95:ARG:HG3	7:CG:95:ARG:HH11	1.81	0.46
1:CA:891:U:O2'	1:CA:892:A:H5'	2.16	0.46
36:BP:50:ARG:HB3	55:B8:59:LYS:CE	2.46	0.45
33:BI:84:GLY:O	33:BI:86:THR:N	2.45	0.45
40:BT:3:ARG:O	40:BT:5:ALA:N	2.49	0.45
28:DD:240:ALA:HA	28:DD:241:PRO:HD3	1.73	0.45
9:AI:115:GLY:HA2	10:AJ:58:ASP:OD1	2.15	0.45
41:DU:90:VAL:CG1	42:DV:11:GLN:HE22	2.30	0.45
37:DQ:97:VAL:HG11	37:DQ:103:MET:CE	2.46	0.45
25:DA:1857:G:H4'	25:DA:2188:C:O2'	2.16	0.45
1:CA:1369:C:H2'	1:CA:1370:G:O4'	2.16	0.45
7:CG:101:LEU:O	7:CG:102:ARG:C	2.53	0.45
13:CM:97:PRO:CA	13:CM:110:ARG:HD3	2.44	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DG:106:LEU:HA	31:DG:110:ALA:CB	2.46	0.45
31:DG:42:GLY:C	31:DG:43:LEU:HD22	2.37	0.45
1:AA:173:U:H1'	1:AA:174:C:OP1	2.16	0.45
3:AC:39:ILE:HA	3:AC:42:LEU:HD13	1.98	0.45
3:AC:42:LEU:CD2	3:AC:90:GLU:HB3	2.47	0.45
1:AA:16:A:C2'	1:AA:17:U:H5'	2.46	0.45
53:D6:40:CYS:N	53:D6:46:HIS:HB2	2.31	0.45
13:AM:11:ARG:CG	13:AM:12:ASN:H	2.28	0.45
32:DH:85:LYS:O	32:DH:133:VAL:HG23	2.16	0.45
53:B6:18:ARG:HB2	53:B6:19:ARG:H	1.47	0.45
2:AB:214:ILE:O	2:AB:218:ALA:HB2	2.16	0.45
2:AB:225:ALA:O	2:AB:226:ARG:HB2	2.17	0.45
2:AB:88:ALA:C	2:AB:90:MET:HE2	2.36	0.45
25:BA:2123:G:C1'	27:BC:173:HIS:HD2	2.29	0.45
1:CA:1299:A:N3	1:CA:1299:A:H2'	2.31	0.45
13:AM:19:LEU:C	13:AM:25:ILE:HG21	2.36	0.45
10:AJ:69:ASN:O	10:AJ:70:ARG:HB2	2.14	0.45
40:DT:77:PRO:O	40:DT:78:LEU:HB2	2.16	0.45
3:CC:13:GLY:CA	14:CN:57:ARG:HH21	2.28	0.45
14:CN:24:CYS:SG	14:CN:27:CYS:SG	3.10	0.45
8:AH:2:LEU:HD11	8:AH:5:PRO:HA	1.96	0.45
27:BC:80:LYS:CE	31:BG:48:GLU:HA	2.42	0.45
15:CO:78:TYR:C	15:CO:80:ALA:N	2.68	0.45
40:DT:29:ARG:HH21	40:DT:88:ILE:HD11	1.81	0.45
14:AN:29:ARG:NH2	14:AN:41:ARG:CZ	2.80	0.45
11:AK:58:PRO:O	11:AK:61:ALA:N	2.49	0.45
46:BZ:177:GLU:O	46:BZ:178:ASP:CG	2.54	0.45
47:B0:20:LEU:HD13	47:B0:40:ARG:NE	2.31	0.45
36:DP:84:ASN:HD22	36:DP:84:ASN:N	2.14	0.45
26:DB:39:A:N3	26:DB:39:A:H2'	2.31	0.45
25:DA:321:G:H2'	25:DA:340:A:N3	2.32	0.45
48:D1:45:ASN:HD21	48:D1:47:GLN:NE2	2.14	0.45
25:DA:2128:C:OP1	27:DC:37:LYS:N	2.49	0.45
2:AB:89:GLY:O	2:AB:154:LEU:HD13	2.16	0.45
12:AL:29:PHE:CE1	12:AL:83:ARG:HG3	2.49	0.45
25:DA:2124:G:H5''	27:DC:175:PRO:HG3	1.98	0.45
25:DA:729:G:H5'	25:DA:730:C:H5''	1.98	0.45
25:DA:914:C:C5	25:DA:915:C:C6	3.04	0.45
1:AA:662:G:H2'	1:AA:663:A:C8	2.52	0.45
25:DA:568:U:O2	25:DA:570:G:H8	2.00	0.45
12:CL:67:ILE:CD1	12:CL:74:LEU:HD12	2.46	0.45
25:DA:1565:C:H2'	28:DD:21:PHE:CE1	2.51	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DD:63:ARG:HG3	28:DD:63:ARG:HH11	1.82	0.45
28:DD:30:GLU:CD	28:DD:63:ARG:NE	2.69	0.45
29:BE:153:GLY:O	29:BE:154:LYS:C	2.54	0.45
20:AT:26:ASN:O	20:AT:27:LYS:C	2.54	0.45
25:BA:2282:G:H4'	25:BA:2389:G:O2'	2.16	0.45
31:BG:85:GLY:O	31:BG:87:PRO:HD2	2.16	0.45
1:CA:1458:G:H2'	1:CA:1459:C:C6	2.51	0.45
25:BA:493:G:H2'	25:BA:494:G:O4'	2.16	0.45
25:DA:519:U:O4'	43:DW:75:TYR:HB3	2.16	0.45
39:BS:16:ASN:C	39:BS:17:ARG:O	2.52	0.45
25:DA:839:U:H2'	25:DA:840:C:H6	1.81	0.45
48:B1:26:ARG:HH11	48:B1:26:ARG:CG	2.28	0.45
50:B3:36:VAL:CG2	50:B3:36:VAL:O	2.64	0.45
25:DA:2177:C:O2'	25:DA:2178:C:H5'	2.15	0.45
25:BA:57:C:O2'	25:BA:58:G:H5'	2.15	0.45
44:BX:9:LEU:O	44:BX:10:ALA:HB2	2.16	0.45
38:BR:117:VAL:CG1	38:BR:118:GLU:H	2.28	0.45
37:DQ:52:VAL:HG12	37:DQ:56:ARG:HG2	1.98	0.45
25:BA:2127:G:H2'	25:BA:2128:C:C6	2.51	0.45
1:CA:1106:G:H5''	3:CC:172:ARG:CG	2.45	0.45
12:AL:116:LYS:C	12:AL:117:TYR:HD1	2.19	0.45
1:AA:1263:C:H2'	1:AA:1264:C:C6	2.52	0.45
8:CH:39:LEU:HD22	8:CH:39:LEU:HA	1.77	0.45
30:DF:84:VAL:HG12	30:DF:85:GLY:H	1.80	0.45
48:B1:13:ILE:C	48:B1:13:ILE:CD1	2.84	0.45
27:DC:227:PRO:HG2	27:DC:228:HIS:CD2	2.51	0.45
25:DA:2768:C:H2'	25:DA:2769:C:O4'	2.15	0.45
1:CA:542:G:P	4:CD:10:ARG:HH21	2.38	0.45
25:BA:2227:A:H5''	28:BD:263:ARG:NH1	2.31	0.45
25:BA:1921:G:O2'	25:BA:1922:G:H5'	2.15	0.45
25:DA:348:G:C4	25:DA:349:G:C8	3.04	0.45
25:BA:1990:C:H2'	25:BA:1991:U:C6	2.51	0.45
17:CQ:30:PRO:O	17:CQ:31:LEU:HB2	2.15	0.45
25:BA:2606:C:C2'	25:BA:2607:G:H5'	2.46	0.45
25:DA:2617:C:C2'	25:DA:2618:G:H5'	2.45	0.45
25:DA:2777:G:C4'	25:DA:2778:A:H5'	2.47	0.45
1:CA:236:G:H2'	1:CA:237:C:H6	1.81	0.45
25:BA:1603:A:C8	25:BA:1603:A:H5'	2.46	0.45
10:CJ:45:ARG:NH1	14:CN:36:PHE:CE2	2.79	0.45
1:AA:1336:C:H1'	1:AA:1337:G:C6	2.51	0.45
37:DQ:119:ARG:HG2	37:DQ:119:ARG:HH11	1.81	0.45
25:BA:1684:C:H2'	25:BA:1685:C:H6	1.79	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:644:G:C2'	1:AA:645:C:H5'	2.46	0.45
37:DQ:79:LEU:HD23	37:DQ:80:GLU:N	2.32	0.45
35:BO:63:VAL:HG11	35:BO:85:VAL:CG2	2.46	0.45
37:BQ:107:ALA:C	37:BQ:109:VAL:N	2.69	0.45
25:DA:272(A):U:P	25:DA:272(A):U:O4'	2.73	0.45
2:AB:93:VAL:O	2:AB:93:VAL:HG23	2.16	0.45
27:BC:92:ALA:O	27:BC:94:TYR:N	2.49	0.45
13:CM:111:LYS:HB3	13:CM:112:GLY:H	1.48	0.45
25:DA:2064:C:H2'	25:DA:2065:C:C6	2.51	0.45
25:DA:1973:G:H2'	25:DA:1974:C:C6	2.50	0.45
22:CV:112:GLY:HA2	22:CV:122:VAL:HA	1.98	0.45
25:BA:2582:G:C2	25:BA:2583:G:C8	3.04	0.45
25:DA:108:U:H2'	25:DA:109:G:C8	2.51	0.45
25:DA:537:C:OP1	25:DA:995:C:N4	2.49	0.45
25:DA:705:A:C2	25:DA:727:A:H1'	2.50	0.45
27:DC:161:ARG:HD2	27:DC:161:ARG:O	2.16	0.45
35:BO:24:VAL:HG13	35:BO:24:VAL:O	2.15	0.45
14:CN:22:THR:OG1	14:CN:33:VAL:CG2	2.64	0.45
17:AQ:20:THR:HG23	17:AQ:43:LEU:HD23	1.98	0.45
25:BA:195:A:H4'	25:BA:251:A:O2'	2.16	0.45
33:BI:144:VAL:CG2	33:BI:145:VAL:N	2.79	0.45
1:AA:1118:C:O2'	1:AA:1119:C:H5'	2.16	0.45
2:CB:20:GLU:OE1	2:CB:20:GLU:HA	2.16	0.45
41:DU:90:VAL:HA	42:DV:11:GLN:NE2	2.31	0.45
34:DN:1:MET:N	42:DV:20:LEU:HD21	2.31	0.45
42:DV:35:LEU:C	42:DV:37:VAL:N	2.68	0.45
46:DZ:14:PRO:O	46:DZ:18:ARG:NE	2.50	0.45
48:D1:94:LEU:O	48:D1:96:LYS:N	2.49	0.45
44:DX:27:THR:HA	44:DX:79:ALA:O	2.16	0.45
44:DX:47:PHE:CD2	44:DX:89:ILE:HG23	2.51	0.45
21:CU:25:LYS:HB2	21:CU:25:LYS:HZ2	1.78	0.45
22:CV:149:LYS:CD	22:CV:163:LEU:HA	2.46	0.45
31:DG:116:ASP:O	31:DG:117:PHE:O	2.34	0.45
31:DG:115:ARG:HD2	31:DG:136:ARG:HG3	1.98	0.45
31:DG:59:GLU:C	31:DG:61:ALA:H	2.19	0.45
19:AS:37:ARG:H	19:AS:37:ARG:HG3	1.45	0.45
45:DY:42:VAL:HG12	45:DY:43:ASN:H	1.81	0.45
30:BF:7:TYR:HD2	30:BF:16:GLY:N	2.05	0.45
28:BD:243:GLY:O	28:BD:244:ARG:HB3	2.16	0.45
45:BY:26:LYS:CG	45:BY:27:VAL:H	2.01	0.45
30:DF:59:TYR:HD2	30:DF:78:ILE:CG1	2.29	0.45
1:AA:1131:G:H1	1:AA:1143:G:N2	2.08	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:922:G:H2'	1:AA:923:A:C8	2.51	0.45
25:BA:1636:C:H2'	25:BA:1637:A:H8	1.80	0.45
25:BA:1637:A:C6	25:BA:1638:C:C4	3.05	0.45
29:DE:188:VAL:CG2	29:DE:189:PRO:HD2	2.46	0.45
36:DP:55:ARG:O	36:DP:56:SER:OG	2.30	0.45
2:AB:212:GLN:O	2:AB:216:SER:N	2.49	0.45
1:AA:266:G:O2'	1:AA:267:C:OP2	2.31	0.45
17:AQ:45:HIS:CG	17:AQ:47:PRO:HD3	2.51	0.45
13:CM:5:ALA:HB3	13:CM:22:ILE:HG23	1.97	0.45
13:AM:14:ARG:HG2	13:AM:14:ARG:H	1.53	0.45
25:DA:2821:A:OP2	29:DE:110:GLY:N	2.48	0.45
53:D6:12:GLU:HA	53:D6:23:THR:CA	2.30	0.45
5:AE:41:VAL:CG1	5:AE:42:GLY:N	2.80	0.45
10:CJ:55:LYS:HE2	10:CJ:55:LYS:HB3	1.75	0.45
25:DA:7:G:C5'	34:DN:130:HIS:HD2	2.29	0.45
34:DN:104:LYS:HB2	34:DN:117:PHE:HE1	1.74	0.45
15:CO:28:GLN:O	15:CO:32:LEU:HG	2.15	0.45
22:CV:11:THR:CG2	22:CV:12:LYS:N	2.78	0.45
10:AJ:50:ILE:CG1	14:AN:41:ARG:HD3	2.46	0.45
36:DP:99:LEU:HG	36:DP:102:ARG:NH1	2.30	0.45
30:DF:158:THR:O	30:DF:177:ALA:HA	2.16	0.45
1:AA:516:U:O4	1:AA:533:A:OP2	2.34	0.45
36:DP:126:VAL:HG12	36:DP:127:ALA:N	2.31	0.45
27:DC:150:ILE:CG2	27:DC:151:GLY:N	2.78	0.45
12:AL:89:ASP:O	12:AL:90:LEU:HD23	2.16	0.45
10:CJ:31:GLY:N	10:CJ:81:THR:CG2	2.79	0.45
1:CA:256:U:H2'	1:CA:257:G:O4'	2.16	0.45
46:BZ:18:ARG:HH12	46:BZ:83:GLU:HB3	1.81	0.45
4:CD:128:VAL:O	4:CD:129:ASN:ND2	2.50	0.45
44:BX:12:VAL:HG21	44:BX:17:ALA:CB	2.45	0.45
1:CA:544:G:P	4:CD:66:ARG:HH22	2.40	0.45
25:BA:2302:G:C2'	25:BA:2303:G:H5'	2.46	0.45
1:AA:7:G:C2	1:AA:298:A:C6	3.05	0.45
25:BA:1885:A:C2'	25:BA:1886:C:H5'	2.45	0.45
28:BD:10:THR:CG2	28:BD:13:ARG:HB3	2.42	0.45
8:AH:97:VAL:HG13	8:AH:98:LYS:HG3	1.98	0.45
25:BA:630:G:C4'	25:BA:640:C:H4'	2.46	0.45
1:CA:18:C:OP1	5:CE:14:ARG:NH1	2.47	0.45
5:CE:12:LEU:HD23	5:CE:128:PRO:CB	2.47	0.45
25:BA:2663:G:C6	25:BA:2664:G:C4	3.04	0.45
25:DA:2737:G:H2'	25:DA:2738:A:C8	2.52	0.45
1:CA:936:C:O2'	1:CA:937:A:H5'	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:CV:20:TRP:HA	22:CV:42:LYS:O	2.17	0.45
2:CB:188:ALA:O	2:CB:189:ASP:CB	2.63	0.45
25:BA:225:A:C2'	25:BA:226:G:H5'	2.47	0.45
27:DC:53:ARG:O	27:DC:54:ARG:C	2.54	0.45
2:CB:71:VAL:O	2:CB:165:VAL:HG22	2.16	0.45
41:DU:33:ARG:O	41:DU:37:GLU:HG3	2.16	0.45
25:DA:2012:G:O2'	43:DW:96:ILE:HD11	2.16	0.45
8:CH:25:ASP:O	8:CH:26:VAL:HB	2.16	0.45
8:CH:26:VAL:HG13	8:CH:59:LEU:HB2	1.97	0.45
1:AA:1079:G:C6	1:AA:1080:A:N6	2.84	0.45
25:DA:1313:U:H2'	25:DA:1313:U:O2	2.16	0.45
18:AR:53:ARG:HD2	18:AR:63:GLN:CB	2.46	0.45
25:BA:2668:G:C2'	25:BA:2669:G:H5'	2.46	0.45
44:BX:57:LEU:CD1	44:BX:78:LYS:HG2	2.46	0.45
20:AT:38:LYS:O	20:AT:40:ALA:N	2.49	0.45
1:CA:538:G:O2'	1:CA:539:A:H5'	2.15	0.45
1:CA:1442(A):G:N7	40:DT:118:ARG:HG3	2.32	0.45
25:DA:1004:C:O4'	25:DA:1010:A:C6	2.68	0.45
9:AI:125:TYR:OH	9:AI:127:LYS:HG3	2.16	0.45
25:BA:1381:G:C2'	25:BA:1382:G:H5'	2.46	0.45
25:DA:1957:C:H2'	25:DA:1958:C:C6	2.51	0.45
5:CE:101:ILE:CD1	5:CE:119:LEU:HD23	2.46	0.45
11:CK:90:GLY:C	11:CK:92:GLU:N	2.67	0.45
1:CA:511:C:C2	1:CA:512:U:C5	3.03	0.45
25:BA:271(C):C:O2'	25:BA:271(D):G:H5'	2.16	0.45
25:DA:422:A:H2'	25:DA:423:A:C8	2.51	0.45
25:BA:956:G:H5''	37:BQ:77:LYS:HE2	1.98	0.45
1:AA:304:U:H2'	1:AA:305:G:C8	2.52	0.45
25:DA:2842:G:H2'	25:DA:2843:G:O4'	2.15	0.45
25:BA:1414:G:C6	25:BA:1415:U:C4	3.04	0.45
11:CK:79:SER:OG	11:CK:106:LYS:HD2	2.16	0.45
25:DA:2058:A:N6	25:DA:2059:A:N6	2.64	0.45
25:BA:1009:A:H5''	41:BU:63:VAL:CG2	2.46	0.45
25:BA:2291:U:O2'	25:BA:2374:C:H1'	2.17	0.45
39:BS:54:LEU:C	39:BS:56:LEU:H	2.19	0.45
46:DZ:43:PHE:CD1	46:DZ:43:PHE:C	2.89	0.45
2:CB:41:ILE:HG22	2:CB:41:ILE:O	2.16	0.45
42:DV:39:LEU:HD22	42:DV:39:LEU:N	2.32	0.45
37:DQ:42:ILE:H	37:DQ:42:ILE:CD1	2.29	0.45
25:DA:2103:C:H3'	25:DA:2104:G:C5'	2.45	0.45
44:DX:21:PHE:O	44:DX:23:GLU:N	2.50	0.45
9:CI:87:GLN:C	9:CI:89:ASN:H	2.19	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2177:C:H6	25:BA:2177:C:O5'	1.98	0.45
1:CA:1117:G:O3'	9:CI:104:ARG:HG2	2.16	0.45
41:BU:65:ILE:HG22	41:BU:66:ASN:N	2.30	0.45
25:DA:483:A:H1'	45:DY:60:PHE:CZ	2.49	0.45
25:DA:84:A:N3	25:DA:85:G:H1'	2.32	0.45
45:DY:4:LYS:CD	45:DY:32:PRO:HG3	2.40	0.45
29:DE:33:VAL:HG23	29:DE:47:VAL:HG13	1.98	0.45
29:DE:50:GLY:O	29:DE:51:PHE:CB	2.65	0.45
16:AP:39:TYR:CD2	16:AP:73:LEU:HD11	2.51	0.45
20:AT:83:ARG:O	20:AT:84:LEU:C	2.53	0.45
52:B5:4:HIS:O	52:B5:5:PRO:C	2.51	0.45
30:DF:23:ASP:OD2	30:DF:24:LEU:HD23	2.15	0.45
46:BZ:29:ASN:C	46:BZ:31:HIS:N	2.67	0.45
50:D3:21:ALA:O	50:D3:24:LYS:N	2.49	0.45
35:DO:5:GLN:OE1	35:DO:5:GLN:HA	2.17	0.45
25:BA:274:G:C2'	25:BA:274:G:N3	2.79	0.45
31:BG:59:GLU:O	31:BG:60:LEU:C	2.54	0.45
25:BA:1639:U:HO2'	25:BA:1640:C:H5''	1.74	0.45
36:BP:125:VAL:HG21	36:BP:138:LEU:HD21	1.98	0.45
25:DA:285:C:C3'	25:DA:286:C:H5''	2.44	0.45
20:CT:12:ALA:O	20:CT:14:LYS:N	2.49	0.45
45:BY:53:PRO:HD2	45:BY:56:PRO:O	2.17	0.45
40:BT:26:ASP:OD2	40:BT:26:ASP:O	2.34	0.45
40:BT:28:VAL:CG1	40:BT:46:GLU:HA	2.42	0.45
25:DA:271(T):C:C5'	25:DA:271(T):C:C6	2.92	0.45
1:AA:426:G:P	4:AD:36:ARG:HH22	2.39	0.45
4:AD:63:LYS:HE3	4:AD:63:LYS:HB2	1.71	0.45
31:BG:50:ALA:C	31:BG:51:ARG:HE	2.20	0.45
19:CS:19:VAL:HG22	19:CS:44:MET:CG	2.46	0.45
45:DY:82:PRO:O	45:DY:83:THR:HG23	2.16	0.45
30:DF:157:VAL:HB	30:DF:194:MET:HB3	1.98	0.45
1:AA:376:G:N3	1:AA:389:A:C2	2.84	0.45
27:DC:118:PRO:HD2	27:DC:148:PHE:CE1	2.51	0.45
25:DA:2122:U:O2'	25:DA:2123:G:H5'	2.15	0.45
1:CA:472:A:H2'	1:CA:473:G:O4'	2.15	0.45
27:BC:174:ALA:HA	27:BC:175:PRO:HD3	1.83	0.45
8:AH:86:ILE:HB	8:AH:133:LEU:HD22	1.99	0.45
51:B4:54:LYS:C	51:B4:56:GLU:H	2.19	0.45
30:BF:114:VAL:HG11	30:BF:202:PHE:HE2	1.80	0.45
55:D8:41:ILE:O	55:D8:42:ARG:C	2.55	0.45
45:BY:14:LEU:HD12	45:BY:15:VAL:H	1.81	0.45
39:DS:104:GLY:C	39:DS:106:ARG:H	2.18	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AF:11:ASN:HB3	6:AF:14:LEU:HG	1.97	0.45
25:DA:1759:A:H5''	25:DA:2715:C:C1'	2.46	0.45
1:CA:113:G:H1'	1:CA:354:G:H5''	1.97	0.45
25:BA:11:G:C2'	25:BA:12:U:H5'	2.46	0.45
6:CF:3:ARG:HD3	6:CF:64:GLN:NE2	2.31	0.45
1:CA:1259:C:H42	1:CA:1276:G:H1	1.63	0.45
28:DD:263:ARG:O	28:DD:264:LYS:C	2.54	0.45
25:DA:1335:U:H2'	25:DA:1336:A:H8	1.82	0.45
27:DC:74:ARG:HH11	27:DC:111:PHE:HA	1.81	0.45
4:AD:89:THR:C	4:AD:91:SER:H	2.20	0.45
4:AD:96:LEU:O	4:AD:99:SER:N	2.46	0.45
6:AF:37:VAL:O	6:AF:38:GLU:HG3	2.16	0.45
1:AA:243:A:C2	1:AA:246:A:C8	3.05	0.45
25:DA:2297:C:N4	25:DA:2320:A:N7	2.65	0.45
27:BC:181:PHE:CD2	27:BC:186:LEU:HG	2.52	0.45
1:CA:1269:A:C2	1:CA:1313:U:O4'	2.69	0.45
25:DA:846:C:H6	25:DA:846:C:O5'	1.99	0.45
32:BH:96:ALA:HB2	32:BH:105:LEU:HD13	1.98	0.45
32:BH:97:ARG:O	32:BH:98:LEU:HB2	2.16	0.45
1:CA:1498:U:H4'	1:CA:1519:A:H2	1.81	0.45
47:B0:65:VAL:CG1	47:B0:66:VAL:N	2.79	0.45
45:BY:3:VAL:HG12	45:BY:3:VAL:O	2.16	0.45
25:BA:2562:U:H1'	35:BO:23:ARG:CD	2.47	0.45
41:BU:24:TYR:HE1	41:BU:39:LEU:CD2	2.29	0.45
12:AL:15:VAL:HG23	12:AL:16:ARG:H	1.78	0.45
45:BY:36:ALA:HA	45:BY:69:ALA:N	2.31	0.45
25:BA:2013:A:H2'	25:BA:2014:A:H5'	1.96	0.45
28:BD:39:LYS:HE3	28:BD:39:LYS:HB2	1.73	0.45
25:BA:2679:A:O2'	25:BA:2680:C:H5'	2.15	0.45
5:AE:150:ARG:HB2	5:AE:150:ARG:NH1	2.30	0.45
25:BA:1819:A:H4'	25:BA:1820:U:O5'	2.16	0.45
4:AD:126:ILE:HG22	4:AD:127:THR:N	2.32	0.45
25:DA:1512:U:H2'	25:DA:1513:C:C6	2.52	0.45
25:BA:461:C:C2'	25:BA:462:C:H5'	2.47	0.45
28:DD:228:PRO:HG3	28:DD:234:GLY:O	2.16	0.45
1:CA:424:G:O2'	1:CA:425:G:H5'	2.16	0.45
28:BD:139:GLY:HA2	28:BD:164:GLN:HG2	1.98	0.45
1:CA:397:A:H5''	1:CA:397:A:N3	2.30	0.45
17:CQ:53:LEU:HD22	17:CQ:82:MET:CE	2.46	0.45
38:BR:18:LEU:HD11	38:BR:22:ARG:NE	2.31	0.45
31:BG:105:LYS:CE	51:B4:52:SER:HB3	2.46	0.45
25:BA:179:G:O2'	25:BA:180:G:H5'	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:422:A:C6	25:DA:423:A:C6	3.04	0.45
25:DA:1418:G:OP1	25:DA:1588:C:O2'	2.30	0.45
31:DG:33:ARG:CZ	31:DG:33:ARG:HB3	2.45	0.45
10:CJ:3:LYS:HD2	10:CJ:77:PRO:HG3	1.98	0.45
41:BU:18:LEU:O	41:BU:19:LYS:C	2.53	0.45
1:CA:563:A:N7	1:CA:567:G:H1'	2.31	0.45
25:BA:205:G:O2'	25:BA:206:U:OP2	2.35	0.45
25:BA:1707:G:H2'	25:BA:1708:C:O4'	2.15	0.45
55:B8:62:LEU:N	55:B8:63:PRO:HD2	2.32	0.45
25:BA:666:G:OP1	36:BP:47:ASP:O	2.34	0.45
3:AC:112:SER:OG	3:AC:115:LEU:HG	2.16	0.45
7:AG:28:ASN:C	7:AG:30:ILE:H	2.19	0.45
32:BH:28:GLY:HA3	32:BH:79:VAL:CG2	2.46	0.45
46:DZ:37:TYR:C	46:DZ:37:TYR:CD1	2.90	0.45
2:CB:57:PHE:O	2:CB:58:ILE:C	2.55	0.45
25:DA:863:A:P	37:DQ:22:LYS:HG2	2.56	0.45
25:DA:917:A:N1	25:DA:918:A:N3	2.64	0.45
19:CS:40:ILE:CG2	19:CS:67:VAL:HA	2.46	0.45
20:AT:57:ARG:HD2	20:AT:102:GLY:HA3	1.98	0.45
1:CA:1145:C:C4'	1:CA:1146:A:H5'	2.30	0.45
25:BA:2784:C:O2'	25:BA:2785:C:H5'	2.17	0.45
40:BT:41:ARG:NH2	40:BT:43:GLN:HB2	2.31	0.45
3:AC:97:LYS:CG	3:AC:98:ASN:H	2.30	0.45
51:D4:37:PRO:HB3	51:D4:51:TYR:CG	2.51	0.45
10:AJ:32:ALA:H	10:AJ:76:ASN:CG	2.19	0.45
50:D3:18:ASP:O	50:D3:21:ALA:N	2.50	0.45
25:BA:1800:C:OP1	28:BD:266:SER:CB	2.63	0.45
36:BP:16:ARG:CB	36:BP:16:ARG:HH11	2.28	0.45
25:DA:1669:A:H5''	35:DO:5:GLN:NE2	2.31	0.45
46:BZ:119:ILE:O	46:BZ:170:ILE:HA	2.15	0.45
13:AM:2:ALA:HB3	13:AM:9:ILE:CG2	2.41	0.45
31:BG:42:GLY:O	31:BG:88:ILE:HG12	2.17	0.45
32:DH:102:ALA:HB1	32:DH:115:VAL:O	2.17	0.45
25:DA:2533:A:C2'	25:DA:2534:A:H5''	2.46	0.45
2:AB:47:THR:HG23	2:AB:202:PRO:HG2	1.98	0.45
1:CA:109:A:C6	1:CA:327:A:C6	3.05	0.45
1:AA:1030(B):C:H3'	1:AA:1030(C):G:C8	2.51	0.45
3:CC:55:VAL:HG12	3:CC:55:VAL:O	2.16	0.45
25:DA:1652:A:O2'	25:DA:1653:G:H5'	2.16	0.45
4:AD:14:ARG:HA	4:AD:39:PRO:HG3	1.98	0.45
4:AD:8:VAL:C	4:AD:10:ARG:H	2.19	0.45
25:BA:1689:A:N6	25:BA:1698:A:H2	1.96	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:CO:7:GLU:O	15:CO:8:LYS:C	2.55	0.45
40:DT:1:MET:O	40:DT:2:ASN:C	2.55	0.45
29:DE:181:LEU:HD11	40:DT:7:ILE:CG2	2.47	0.45
31:DG:73:ALA:O	31:DG:85:GLY:HA2	2.16	0.45
25:DA:2331:G:H4'	47:D0:43:THR:H	1.81	0.45
30:DF:170:LEU:HD23	30:DF:172:TRP:CZ2	2.52	0.45
10:CJ:36:GLY:HA2	10:CJ:37:PRO:HD3	1.85	0.45
10:CJ:6:ILE:HG22	10:CJ:98:ILE:CD1	2.46	0.45
25:BA:782:A:H4'	25:BA:783:A:O5'	2.17	0.45
1:CA:84:U:H2'	1:CA:88:A:H5'	1.97	0.45
43:DW:80:PRO:O	43:DW:100:THR:HG22	2.16	0.45
28:DD:16:MET:CE	28:DD:211:ARG:HE	2.29	0.45
51:B4:42:CYS:HB2	51:B4:43:GLY:H	1.37	0.45
1:AA:839:U:O2	1:AA:839:U:H2'	2.16	0.45
25:DA:568:U:O2	25:DA:570:G:C8	2.69	0.45
28:BD:133:LEU:HB3	28:BD:173:VAL:HG11	1.98	0.45
25:DA:1174:A:H5''	25:DA:1175:U:H5''	1.97	0.45
1:AA:41:G:O2'	1:AA:42:G:H5'	2.16	0.45
4:AD:3:ARG:NE	4:AD:5:ILE:HG13	2.31	0.45
30:BF:125:LEU:HD12	30:BF:194:MET:HB2	1.98	0.45
1:CA:965:A:C2	1:CA:969:A:C2	3.05	0.45
25:BA:410:G:C2	25:BA:418:G:N3	2.85	0.45
55:D8:29:LYS:HD3	55:D8:44:LYS:CB	2.45	0.45
25:BA:26:G:C6	25:BA:27:G:N1	2.84	0.45
36:DP:32:THR:O	36:DP:33:ARG:CB	2.64	0.45
1:CA:757:U:H5''	1:CA:822:C:O2	2.16	0.45
38:DR:104:ARG:NH1	38:DR:104:ARG:CB	2.71	0.45
8:AH:54:ASP:O	8:AH:56:LYS:N	2.49	0.45
25:DA:2807:G:H3'	25:DA:2808:U:H5''	1.99	0.45
25:DA:151:C:C2	25:DA:176:G:N2	2.85	0.45
6:AF:77:ARG:NH1	6:AF:77:ARG:HB2	2.27	0.45
25:DA:805:G:O6	25:DA:2068:U:H5	1.99	0.45
38:DR:82:GLU:H	38:DR:85:PRO:HD2	1.81	0.45
1:CA:1194:U:H4'	5:CE:22:GLY:O	2.15	0.45
46:DZ:32:LEU:HD23	46:DZ:89:VAL:HG21	1.99	0.45
20:CT:60:GLU:HG3	20:CT:81:LYS:HE3	1.97	0.45
1:AA:997:U:O2'	1:AA:998:G:H5''	2.16	0.45
32:BH:120:GLY:HA3	32:BH:140:LYS:HZ3	1.81	0.45
32:BH:91:GLY:H	32:BH:160:LYS:HA	1.81	0.45
13:AM:108:ARG:HH11	13:AM:108:ARG:HG3	1.82	0.45
4:AD:152:SER:O	4:AD:153:ARG:C	2.54	0.45
13:AM:92:HIS:CD2	13:AM:98:VAL:HG21	2.52	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:245:C:O2'	1:CA:246:A:P	2.74	0.45
25:DA:139(A):G:O6	25:DA:1596:A:OP1	2.34	0.45
11:CK:24:SER:O	11:CK:88:GLY:HA2	2.15	0.45
14:AN:53:LEU:HB3	14:AN:56:VAL:CG2	2.46	0.45
26:DB:118:G:H2'	26:DB:119:G:C8	2.50	0.45
1:AA:986:A:H2'	1:AA:987:G:O4'	2.17	0.45
25:DA:664:C:O2'	25:DA:665:C:H5'	2.16	0.45
16:CP:59:TRP:CE3	16:CP:59:TRP:HA	2.51	0.45
54:D7:36:GLN:CG	54:D7:36:GLN:O	2.63	0.45
1:CA:1478:C:O2'	1:CA:1479:C:H5'	2.16	0.45
25:BA:748:G:C8	43:BW:89:ALA:HB1	2.50	0.45
1:AA:140:A:H2'	1:AA:141:A:C8	2.52	0.45
51:D4:58:TYR:O	51:D4:59:VAL:HB	2.16	0.45
41:BU:110:VAL:O	41:BU:113:ALA:HB3	2.17	0.45
14:AN:36:PHE:CD1	14:AN:37:PHE:N	2.84	0.45
46:BZ:61:PRO:C	46:BZ:63:GLY:N	2.69	0.45
6:AF:4:TYR:CE2	6:AF:67:MET:HG2	2.51	0.45
8:CH:114:THR:C	8:CH:116:LYS:H	2.20	0.45
8:CH:114:THR:O	8:CH:116:LYS:N	2.50	0.45
11:AK:21:ILE:HB	11:AK:84:VAL:HG12	1.97	0.45
25:DA:2547:U:H2'	25:DA:2548:G:C8	2.50	0.45
25:DA:425:G:O2'	25:DA:426:C:H5'	2.16	0.45
29:BE:147:PRO:HG2	29:BE:148:GLY:N	2.32	0.45
41:BU:115:ALA:C	41:BU:117:GLN:H	2.19	0.45
25:BA:2886:G:N2	25:BA:2887:U:C2	2.84	0.45
2:CB:53:ARG:NH1	2:CB:199:TYR:HA	2.32	0.45
12:CL:58:THR:O	12:CL:59:SER:CB	2.65	0.45
49:B2:70:GLN:HG3	49:B2:71:ASN:H	1.81	0.45
1:AA:1275:A:O2'	1:AA:1276:G:H5'	2.17	0.45
52:D5:37:LYS:O	52:D5:38:ALA:C	2.54	0.45
29:BE:179:GLU:CB	29:BE:181:LEU:HD13	2.46	0.45
1:CA:337:C:N4	1:CA:338:A:N6	2.64	0.45
3:AC:15:THR:HG22	3:AC:16:ARG:N	2.32	0.45
7:AG:15:ASP:H	7:AG:20:ASP:H	1.64	0.45
9:AI:50:LEU:O	9:AI:53:VAL:HG22	2.16	0.45
42:DV:20:LEU:C	42:DV:21:ARG:HE	2.20	0.45
25:DA:950:G:O2'	25:DA:951:C:H5'	2.17	0.45
25:DA:972:G:OP2	25:DA:974:G:H5'	2.16	0.45
26:DB:92:C:OP2	37:DQ:18:LYS:HE3	2.17	0.45
20:AT:43:LEU:HD12	20:AT:52:ALA:HA	1.99	0.45
48:D1:72:GLU:HA	48:D1:75:GLU:HB3	1.99	0.45
1:CA:1351:U:H2'	1:CA:1352:C:C6	2.51	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CG:58:PRO:O	7:CG:61:VAL:N	2.50	0.45
1:CA:1129:C:N4	1:CA:1135:U:H3	2.08	0.45
19:AS:36:ARG:NH2	19:AS:75:ALA:HB3	2.31	0.45
45:DY:8:LYS:CD	45:DY:8:LYS:H	2.29	0.45
25:BA:1899:G:N2	25:BA:1902:C:N4	2.31	0.45
40:BT:16:ARG:NH2	40:BT:82:LEU:HD12	2.31	0.45
1:AA:185:A:H2'	1:AA:186:C:H6	1.81	0.45
20:AT:83:ARG:O	20:AT:84:LEU:O	2.35	0.45
10:AJ:32:ALA:HB3	10:AJ:76:ASN:HB2	1.99	0.45
53:D6:41:PRO:HG2	53:D6:42:TRP:N	2.31	0.45
27:BC:112:ASP:O	27:BC:137:LEU:HD22	2.17	0.45
31:BG:58:GLN:NE2	31:BG:59:GLU:HB2	2.31	0.45
31:DG:16:ARG:CZ	31:DG:31:VAL:CG1	2.95	0.45
2:AB:14:GLY:O	2:AB:15:VAL:CG2	2.50	0.45
2:AB:215:LEU:HA	2:AB:218:ALA:CB	2.47	0.45
2:AB:223:ILE:O	2:AB:226:ARG:HB3	2.16	0.45
40:BT:28:VAL:O	40:BT:29:ARG:CD	2.65	0.45
13:CM:23:TYR:CE1	13:CM:71:ARG:HB2	2.51	0.45
1:AA:1327:C:H2'	1:AA:1328:C:C6	2.51	0.45
55:B8:10:ALA:C	55:B8:12:LYS:N	2.69	0.45
4:AD:30:LYS:HA	4:AD:35:ARG:HD2	1.97	0.45
4:AD:28:SER:OG	4:AD:30:LYS:HG2	2.16	0.45
5:AE:110:LEU:HD22	5:AE:115:VAL:HG21	1.98	0.45
23:CW:5:G:O2'	23:CW:6:G:H5'	2.17	0.45
3:CC:113:ALA:CB	3:CC:183:ASP:HB3	2.46	0.45
10:CJ:50:ILE:CD1	10:CJ:57:LYS:HD2	2.47	0.45
1:CA:974:A:OP2	14:CN:41:ARG:NH1	2.49	0.45
40:DT:102:ILE:O	40:DT:102:ILE:HG13	2.16	0.45
8:AH:1:MET:O	8:AH:2:LEU:CB	2.64	0.45
25:DA:70:G:H2'	25:DA:113:G:O2'	2.15	0.45
47:D0:72:ARG:HH21	47:D0:75:LEU:CD1	2.29	0.45
40:DT:28:VAL:HG22	40:DT:46:GLU:CA	2.46	0.45
25:BA:1021:A:H8	25:BA:1022:G:H4'	1.80	0.45
33:BI:10:GLU:O	33:BI:11:ASN:CB	2.65	0.45
17:CQ:77:VAL:O	17:CQ:78:GLU:CB	2.64	0.45
47:D0:27:GLU:HG3	47:D0:28:GLY:N	2.31	0.45
1:AA:1193:G:O2'	1:AA:1194:U:H5'	2.16	0.45
25:BA:784:A:N7	28:BD:229:VAL:CG2	2.67	0.45
25:DA:2122:U:O2	27:DC:173:HIS:HE1	2.00	0.45
51:B4:40:ILE:HB	51:B4:48:ILE:CG1	2.46	0.45
51:B4:60:GLU:O	51:B4:61:VAL:CB	2.64	0.45
25:DA:573:G:O6	25:DA:2030:A:H3'	2.17	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DD:60:ARG:NH1	28:DD:86:PRO:O	2.50	0.45
28:BD:146:GLU:HB2	28:BD:189:CYS:HB3	1.97	0.45
35:DO:14:THR:HG21	35:DO:86:ILE:CD1	2.47	0.45
1:CA:1329:A:N7	21:CU:7:ARG:NH2	2.59	0.45
1:CA:1523:G:H2'	1:CA:1524:C:C6	2.50	0.45
25:DA:812:C:O2'	25:DA:813:U:H5'	2.17	0.45
11:AK:59:TYR:CZ	11:AK:63:LEU:HD11	2.51	0.45
1:AA:718:G:H1'	11:AK:116:HIS:HA	1.97	0.45
1:CA:1101:A:O2'	1:CA:1102:A:OP2	2.35	0.45
16:AP:20:VAL:HG21	16:AP:32:TYR:HB2	1.98	0.45
25:BA:27:G:O2'	25:BA:28:A:H8	2.00	0.45
1:AA:1107:C:OP1	3:AC:174:PRO:HD3	2.15	0.45
25:DA:1578:U:C2'	25:DA:1579:A:H5'	2.45	0.45
4:CD:162:LEU:HA	4:CD:162:LEU:HD23	1.64	0.45
25:BA:286:C:H6	25:BA:286:C:C5'	2.27	0.45
36:DP:33:ARG:O	36:DP:35:HIS:O	2.34	0.45
38:DR:111:LEU:H	38:DR:111:LEU:HD22	1.81	0.45
25:BA:1300:U:O2'	25:BA:1301:A:OP2	2.30	0.45
38:DR:55:ALA:HA	38:DR:80:PHE:CE1	2.52	0.45
22:AV:87:THR:HG1	22:AV:89:GLU:CD	2.19	0.45
25:DA:1798:U:H5'	28:DD:259:THR:HG22	1.97	0.45
6:AF:78:GLU:O	6:AF:81:ILE:HG13	2.16	0.45
41:DU:86:ALA:HB2	41:DU:116:ALA:CB	2.41	0.45
29:BE:119:ARG:HD3	29:BE:160:TYR:HB2	1.98	0.45
29:BE:119:ARG:CD	29:BE:160:TYR:HB2	2.46	0.45
22:AV:94:PRO:O	22:AV:96:SER:N	2.50	0.45
36:DP:135:LEU:CD2	36:DP:144:GLU:HG3	2.46	0.45
7:AG:50:ILE:CG2	7:AG:58:PRO:HA	2.44	0.45
25:DA:251:A:H2'	25:DA:252:G:O4'	2.17	0.45
41:DU:27:LEU:O	41:DU:31:SER:N	2.35	0.45
25:DA:2199:A:H3'	25:DA:2200:C:C6	2.50	0.45
10:CJ:33:GLN:O	10:CJ:75:ILE:HG12	2.17	0.45
25:BA:1416:G:O2'	25:BA:1417:C:O5'	2.35	0.45
1:CA:550:G:C2	1:CA:551:U:C2	3.04	0.45
33:BI:62:LYS:O	33:BI:66:GLU:HB3	2.16	0.45
2:AB:95:GLN:CB	2:AB:148:TYR:HD1	2.30	0.45
34:BN:119:ARG:NH1	34:BN:119:ARG:HG3	2.32	0.45
1:CA:1326:C:O2'	1:CA:1327:C:H5'	2.15	0.45
25:DA:598:G:C5'	36:DP:15:ARG:HD2	2.44	0.45
25:DA:1312:U:H4'	25:DA:1313:U:O5'	2.16	0.45
25:DA:672:C:C2	25:DA:809:G:N2	2.85	0.45
25:BA:1574:C:O5'	25:BA:1574:C:H6	1.99	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1955:U:O2'	25:BA:1956:U:H5'	2.17	0.45
1:AA:145:G:N3	1:AA:146:G:H1'	2.31	0.45
1:CA:913:A:H1'	1:CA:914:A:O4'	2.17	0.45
40:DT:134:GLU:O	40:DT:135:ALA:CB	2.65	0.45
23:CW:40:C:O2'	23:CW:41:C:H5'	2.16	0.45
1:CA:658:G:O4'	15:CO:22:THR:HB	2.17	0.45
15:AO:40:SER:O	15:AO:44:LYS:HE3	2.17	0.45
48:B1:66:HIS:O	48:B1:67:ILE:C	2.55	0.45
1:CA:1432:G:OP1	40:DT:107:ASP:HB2	2.16	0.45
47:B0:23:LYS:O	47:B0:24:ARG:CG	2.65	0.45
1:CA:1483:A:H2	25:DA:1959:G:N3	2.14	0.45
25:BA:296:C:O2'	25:BA:297:C:H5'	2.16	0.45
26:BB:12:C:H2'	47:B0:72:GLY:HA3	1.98	0.45
1:AA:775:G:O2'	1:AA:776:G:H5'	2.16	0.45
1:CA:753:A:H4'	1:CA:754:C:H5''	1.98	0.45
28:DD:155:LEU:HG	28:DD:177:LEU:HD22	1.97	0.45
1:CA:892:A:O2'	1:CA:1415:G:H4'	2.16	0.45
20:CT:94:ALA:O	20:CT:95:ALA:HB3	2.17	0.45
55:B8:14:VAL:HG23	55:B8:24:ALA:HB2	1.99	0.45
1:AA:49:U:O2'	1:AA:50:A:H2'	2.16	0.45
1:AA:1477:C:O2'	1:AA:1478:C:H5'	2.16	0.45
25:DA:1702:G:C6	25:DA:1703:G:N7	2.85	0.45
1:AA:529:G:O6	12:AL:46:ASN:ND2	2.49	0.45
1:CA:909:A:H2'	1:CA:910:C:O4'	2.16	0.45
1:CA:289:G:C6	1:CA:290:C:N4	2.84	0.45
25:BA:2240:C:O2'	25:BA:2241:A:H5'	2.15	0.45
25:DA:2742:C:OP1	56:D9:35:ARG:HD3	2.17	0.45
25:BA:1804:C:H6	25:BA:1804:C:O5'	1.98	0.45
28:DD:78:LYS:HE3	28:DD:78:LYS:HB2	1.79	0.45
25:BA:2246:G:H1'	25:BA:2426:A:C2	2.52	0.45
39:BS:95:HIS:O	39:BS:96:GLY:C	2.53	0.45
33:BI:120:ILE:HD13	33:BI:126:TYR:CD1	2.52	0.45
25:BA:2874:C:C6	25:BA:2875:C:H5	2.35	0.45
1:AA:1059:C:H2'	1:AA:1060:C:H6	1.82	0.45
46:DZ:7:TYR:HB2	46:DZ:37:TYR:CZ	2.51	0.45
50:D3:19:GLN:NE2	50:D3:52:HIS:CE1	2.85	0.45
25:DA:1158:C:H2'	25:DA:1159:U:O4'	2.16	0.45
42:DV:60:GLU:HB3	42:DV:97:LYS:HE2	1.98	0.45
25:DA:818:G:O2'	25:DA:819:A:H5''	2.16	0.45
25:DA:2103:C:C3'	25:DA:2104:G:C5'	2.92	0.45
25:DA:2183:C:H3'	25:DA:2183:C:P	2.56	0.45
7:CG:136:LYS:NZ	7:CG:140:ASP:OD1	2.45	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CM:88:ARG:O	13:CM:98:VAL:HG11	2.17	0.45
31:DG:106:LEU:HG	31:DG:107:LEU:HD23	1.99	0.45
31:DG:59:GLU:OE1	31:DG:153:ARG:NH2	2.48	0.45
1:AA:1324:A:H2'	1:AA:1325:C:O4'	2.17	0.45
19:AS:6:LYS:N	19:AS:6:LYS:HE3	2.32	0.45
30:BF:19:GLU:HG2	30:BF:20:LEU:N	2.31	0.45
30:BF:2:LYS:HG2	30:BF:25:PRO:CB	2.46	0.45
3:AC:76:VAL:HG21	3:AC:103:VAL:CG1	2.45	0.45
3:AC:19:GLU:HA	3:AC:54:ARG:NH1	2.29	0.45
3:AC:68:VAL:CG1	3:AC:70:VAL:HG23	2.45	0.45
30:DF:59:TYR:HD2	30:DF:78:ILE:HG13	1.81	0.45
25:DA:1106:G:C8	25:DA:1106:G:H3'	2.51	0.45
40:BT:51:ARG:HG2	40:BT:98:LYS:HE3	1.97	0.45
28:BD:267:SER:O	28:BD:268:ARG:HB2	2.17	0.45
25:DA:1567:A:C5'	28:DD:58:HIS:CD2	2.87	0.45
25:BA:1639:U:H2'	25:BA:1640:C:H5''	1.98	0.45
29:DE:11:MET:HB3	29:DE:24:THR:HA	1.99	0.45
53:B6:35:GLU:HG3	53:B6:51:GLU:CD	2.37	0.45
32:DH:94:TYR:OH	32:DH:160:LYS:HD3	2.16	0.45
2:AB:194:PRO:HG2	2:AB:195:ASP:OD1	2.17	0.45
3:CC:19:GLU:HG3	3:CC:54:ARG:NH1	2.31	0.45
1:CA:1187:G:OP1	9:CI:113:LYS:HE2	2.16	0.45
25:DA:2790:A:C2'	25:DA:2791:C:H5'	2.46	0.45
42:BV:2:PHE:CB	42:BV:42:GLY:N	2.79	0.45
49:D2:10:LEU:HD21	49:D2:59:ARG:HD2	1.96	0.45
25:DA:74:A:H5''	25:DA:75:G:O4'	2.16	0.45
15:CO:75:PRO:HG2	15:CO:76:GLU:N	2.32	0.45
14:AN:27:CYS:HB3	14:AN:43:CYS:SG	2.56	0.45
11:AK:57:THR:HG23	11:AK:58:PRO:HD2	1.98	0.45
1:CA:1026:G:O6	1:CA:1035:A:N1	2.50	0.45
1:CA:1028:C:H2'	1:CA:1029:C:H5'	1.99	0.45
10:CJ:18:ALA:C	10:CJ:20:ALA:H	2.19	0.45
25:BA:2492:U:C2	25:BA:2493:U:C5	3.04	0.45
30:BF:89:VAL:HG12	30:BF:90:PHE:H	1.77	0.45
6:CF:72:VAL:CG1	6:CF:73:ASN:H	2.24	0.45
25:DA:2070:G:C2	25:DA:2442:C:C2	3.04	0.45
1:CA:472:A:H4'	16:CP:82:GLN:NE2	2.17	0.45
45:DY:68:HIS:HB3	45:DY:71:LYS:HZ3	1.81	0.45
11:CK:65:ALA:HB1	11:CK:98:LEU:CD2	2.46	0.45
25:BA:1505:C:C5	25:BA:1506:C:H1'	2.52	0.45
18:AR:44:LEU:O	18:AR:51:LEU:HG	2.15	0.45
25:DA:20:C:O2'	25:DA:21:A:H5'	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DP:33:ARG:O	36:DP:34:GLY:C	2.53	0.45
9:AI:89:ASN:HB3	9:AI:92:TYR:HD1	1.81	0.45
25:DA:2636:U:H4'	29:DE:80:GLU:OE2	2.17	0.45
6:CF:41:GLU:HB2	6:CF:62:TRP:HB3	1.98	0.45
35:BO:17:ARG:O	35:BO:18:LYS:HD2	2.16	0.45
25:BA:2114:A:H2'	25:BA:2115:G:C8	2.51	0.45
1:AA:988:G:H2'	1:AA:989:C:O4'	2.17	0.45
25:BA:1488:G:N2	25:BA:1502:C:C2	2.85	0.45
32:BH:98:LEU:HD22	32:BH:125:VAL:CG2	2.47	0.45
25:DA:2735:G:H2'	25:DA:2736:G:H8	1.80	0.45
17:CQ:14:LYS:CD	17:CQ:14:LYS:H	2.29	0.45
27:BC:6:LYS:NZ	27:BC:9:ARG:CB	2.79	0.45
27:BC:139:PRO:HA	27:BC:145:THR:OG1	2.17	0.45
13:AM:108:ARG:HH11	13:AM:108:ARG:CG	2.30	0.45
25:BA:1935:G:H1'	25:BA:1964:G:C2	2.52	0.45
23:CW:19:G:C4	23:CW:57:A:C2	3.05	0.45
32:BH:41:MET:SD	32:BH:41:MET:N	2.90	0.45
27:BC:195:ARG:HH11	27:BC:195:ARG:HG3	1.81	0.45
30:BF:69:HIS:N	30:BF:69:HIS:ND1	2.64	0.45
25:BA:1771:C:C1'	25:BA:1786:A:C8	2.99	0.45
29:BE:134:ILE:O	29:BE:136:ARG:N	2.50	0.45
1:AA:274:A:O2'	1:AA:275:G:O5'	2.34	0.45
26:DB:65:C:C2'	26:DB:66:A:H5'	2.47	0.45
25:BA:658:C:H2'	25:BA:659:C:C6	2.51	0.45
1:CA:1473:A:O2'	1:CA:1474:G:H5'	2.16	0.45
4:AD:168:ARG:HH11	4:AD:168:ARG:HG3	1.82	0.45
31:BG:7:LEU:HD12	31:BG:104:GLU:HA	1.98	0.45
1:CA:25:C:H2'	1:CA:26:A:C8	2.52	0.45
11:CK:92:GLU:C	11:CK:94:ALA:N	2.70	0.45
38:DR:60:LEU:HD22	38:DR:64:ARG:HG3	1.98	0.45
25:BA:1563:G:O2'	25:BA:1564:C:H5'	2.17	0.45
25:DA:458:G:O2'	54:D7:39:ARG:HD3	2.17	0.45
22:AV:8:ARG:O	22:AV:9:PRO:C	2.53	0.45
1:AA:885:G:H2'	1:AA:886:G:H8	1.80	0.45
25:DA:1292:U:H2'	25:DA:1293:C:C6	2.51	0.45
46:DZ:75:LEU:N	46:DZ:75:LEU:HD22	2.32	0.45
11:AK:17:GLY:HA3	11:AK:77:MET:SD	2.57	0.45
54:B7:20:ALA:O	54:B7:21:ARG:C	2.53	0.45
36:BP:47:ASP:HB3	36:BP:48:PRO:C	2.37	0.45
25:BA:157:U:O2	25:BA:171:G:C6	2.69	0.45
2:CB:61:LEU:HD21	2:CB:68:ILE:CD1	2.29	0.45
25:DA:1155:A:H4'	41:DU:55:ARG:HH12	1.81	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DU:96:ALA:C	41:DU:98:LEU:H	2.19	0.45
32:BH:155:SER:O	32:BH:158:HIS:N	2.50	0.45
9:CI:77:ILE:HG22	9:CI:78:LYS:N	2.30	0.45
9:CI:84:ALA:C	9:CI:86:VAL:H	2.20	0.45
13:CM:106:ASN:O	13:CM:108:ARG:N	2.49	0.45
25:BA:999:U:H5"	25:BA:1154:G:O6	2.16	0.45
25:DA:884:C:C3'	25:DA:885:C:C5'	2.95	0.45
25:DA:2305:A:C2'	25:DA:2306:C:H5"	2.46	0.45
31:DG:116:ASP:O	31:DG:117:PHE:C	2.54	0.45
31:DG:59:GLU:HA	31:DG:62:LEU:CD1	2.47	0.45
1:AA:1313:U:H2'	1:AA:1314:C:H6	1.82	0.45
45:DY:43:ASN:O	45:DY:63:LYS:O	2.35	0.45
25:DA:278:A:H4'	25:DA:279:C:OP2	2.17	0.45
3:AC:41:GLY:HA3	3:AC:45:LYS:NZ	2.27	0.45
3:AC:42:LEU:H	3:AC:42:LEU:HD12	1.82	0.45
3:AC:95:THR:HG22	3:AC:97:LYS:H	1.81	0.45
30:DF:114:VAL:CG2	30:DF:202:PHE:CE2	2.99	0.45
36:DP:12:ALA:CB	36:DP:16:ARG:HB3	2.46	0.45
45:BY:37:VAL:O	45:BY:38:ILE:HG12	2.17	0.45
31:BG:59:GLU:HA	31:BG:62:LEU:HB3	1.99	0.45
32:DH:132:ARG:C	32:DH:133:VAL:CG2	2.85	0.45
32:DH:87:LEU:HD21	32:DH:145:ALA:HB1	1.99	0.45
28:BD:35:LYS:O	28:BD:64:ILE:N	2.50	0.45
32:DH:158:HIS:HD2	32:DH:170:ARG:O	2.00	0.45
25:DA:2393:A:C4'	36:DP:60:MET:O	2.65	0.45
36:DP:58:THR:C	36:DP:61:ARG:NE	2.70	0.45
1:AA:1025:U:C4'	1:AA:1026:G:H8	2.11	0.45
8:AH:102:ARG:N	8:AH:102:ARG:NE	2.48	0.45
25:DA:275:G:C8	25:DA:276:A:C4'	2.99	0.45
25:BA:656:G:H2'	25:BA:657:U:O4'	2.16	0.45
4:AD:31:CYS:C	4:AD:33:MET:N	2.65	0.45
22:CV:8:ARG:NH2	23:CW:4:G:H5"	2.31	0.45
25:DA:2882:A:OP1	38:DR:96:ARG:HD3	2.16	0.45
30:BF:59:TYR:CD2	30:BF:78:ILE:HG12	2.51	0.45
40:DT:91:ARG:O	40:DT:93:ARG:N	2.38	0.45
22:CV:11:THR:CG2	22:CV:12:LYS:H	2.27	0.45
1:AA:1053:G:C6	1:AA:1199:U:H2'	2.52	0.45
1:AA:1365:G:H2'	1:AA:1366:C:C6	2.52	0.45
37:BQ:111:GLU:O	37:BQ:115:MET:HG2	2.16	0.45
36:DP:85:LEU:HD22	36:DP:115:LEU:O	2.17	0.45
52:B5:55:ARG:NE	52:B5:55:ARG:HA	2.31	0.45
16:AP:28:ARG:O	16:AP:30:GLY:N	2.47	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:473:G:H5''	16:AP:81:ARG:CZ	2.47	0.45
10:CJ:6:ILE:CD1	10:CJ:72:VAL:HB	2.46	0.45
1:AA:393:A:C2	1:AA:394:G:C8	3.05	0.45
1:CA:738:C:H5''	6:CF:69:GLU:HB2	1.99	0.45
6:CF:75:LEU:HD23	6:CF:76:ALA:N	2.32	0.45
25:DA:246:C:N4	55:D8:8:LYS:HG2	2.31	0.45
1:CA:253:U:O2'	1:CA:254:G:H5'	2.16	0.45
27:BC:33:LEU:HB3	27:BC:221:PRO:HB2	1.99	0.45
12:CL:57:LEU:CD2	12:CL:63:VAL:HG22	2.47	0.45
1:AA:613:C:H2'	1:AA:614:A:H8	1.78	0.45
25:BA:1484:G:H2'	25:BA:1485:G:C5'	2.46	0.45
1:CA:1456:G:O3'	20:CT:39:LYS:NZ	2.45	0.45
4:CD:30:LYS:CA	4:CD:35:ARG:HD2	2.38	0.45
56:B9:29:ASN:HA	56:B9:30:PRO:HD2	1.74	0.45
1:AA:1106:G:H5''	3:AC:172:ARG:CD	2.47	0.45
25:BA:278:A:C4'	25:BA:279:C:OP2	2.65	0.45
25:DA:17:G:O2'	25:DA:18:C:H5'	2.16	0.45
25:DA:2473:U:O2	25:DA:2473:U:H2'	2.16	0.45
25:DA:840:C:H2'	25:DA:841:A:C8	2.51	0.45
29:DE:169:ASN:C	29:DE:169:ASN:ND2	2.65	0.45
37:DQ:52:VAL:HA	37:DQ:55:VAL:HG22	1.98	0.45
25:DA:1963:U:O2	25:DA:1963:U:H2'	2.17	0.45
20:AT:44:ALA:HB1	20:AT:92:LEU:HG	1.99	0.45
34:BN:107:LEU:HD23	34:BN:107:LEU:HA	1.74	0.45
1:AA:565:U:H6	1:AA:566:G:H2'	1.81	0.45
35:DO:20:MET:CE	35:DO:44:LYS:HE3	2.47	0.45
4:AD:76:ARG:C	4:AD:78:LEU:H	2.20	0.45
49:B2:33:MET:HA	49:B2:36:ARG:NH1	2.32	0.45
29:BE:97:LYS:HA	29:BE:97:LYS:CE	2.45	0.45
1:AA:688:G:H5'	11:AK:46:GLY:O	2.17	0.45
1:AA:1015:A:C6	1:AA:1016:A:C6	3.04	0.45
8:CH:44:PHE:HA	8:CH:79:VAL:HG11	1.99	0.45
25:BA:806:C:OP2	36:BP:39:LYS:HB3	2.16	0.45
25:DA:2620:C:O2'	29:DE:157:ALA:O	2.34	0.45
5:AE:7:GLU:O	5:AE:8:GLU:CB	2.64	0.45
36:DP:123:LEU:C	36:DP:123:LEU:HD12	2.37	0.45
29:BE:175:VAL:O	29:BE:177:PRO:HD3	2.16	0.45
43:BW:11:ARG:HH21	43:BW:99:ARG:N	2.14	0.45
4:CD:10:ARG:HG2	4:CD:10:ARG:HH11	1.81	0.45
5:AE:98:THR:CG2	5:AE:117:ASP:HB3	2.43	0.45
1:AA:932:C:H42	1:AA:1385:G:H1	1.63	0.45
25:BA:1582:C:C2	25:BA:1583:A:C8	3.05	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:D2:29:LYS:O	49:D2:32:LEU:CB	2.63	0.45
12:CL:123:LYS:O	12:CL:125:ALA:N	2.49	0.45
1:CA:36:C:H5''	12:CL:120:LYS:HD3	1.99	0.45
25:BA:1588:C:O2	25:BA:1588:C:H2'	2.17	0.45
1:AA:36:C:O2'	1:AA:37:U:H5'	2.17	0.45
1:AA:238:G:P	17:AQ:25:ARG:HH12	2.39	0.45
8:CH:12:ARG:HD2	8:CH:26:VAL:HB	1.98	0.45
1:AA:1508:G:H2'	1:AA:1509:C:C6	2.52	0.45
1:CA:126:G:C6	1:CA:236:G:O6	2.69	0.45
25:BA:218:A:H2'	25:BA:219:G:H5'	1.98	0.45
1:CA:15:G:H4'	5:CE:24:ARG:NH1	2.30	0.45
1:CA:1470:G:O2'	1:CA:1471:G:H5'	2.17	0.45
1:AA:1237:C:O4'	1:AA:1334:G:N2	2.49	0.45
25:DA:1353:A:H4'	28:DD:38:LYS:HZ1	1.81	0.45
45:BY:31:LEU:CB	45:BY:32:PRO:CA	2.95	0.45
25:BA:2610:C:H4'	25:BA:2611:U:OP2	2.16	0.45
25:DA:1233:C:H2'	25:DA:1234:U:H6	1.82	0.45
28:DD:153:ALA:O	28:DD:154:LYS:HG3	2.17	0.45
25:BA:881:G:O2'	25:BA:882:G:H5'	2.16	0.45
1:AA:115:G:H1'	1:AA:116:A:N7	2.32	0.45
22:AV:20:TRP:HA	22:AV:42:LYS:O	2.17	0.45
25:DA:1479:G:H5'	25:DA:1558:A:H2	1.81	0.45
1:CA:1227:A:C8	1:CA:1228:C:C1'	3.00	0.45
1:CA:189(E):U:OP2	1:CA:189(E):U:H6	1.99	0.45
12:AL:3:THR:O	12:AL:4:ILE:C	2.55	0.45
37:DQ:109:VAL:HG13	37:DQ:110:THR:N	2.32	0.45
48:B1:63:ALA:O	48:B1:64:ALA:C	2.55	0.45
22:CV:96:SER:OG	22:CV:97:ARG:N	2.50	0.45
1:CA:304:U:H2'	1:CA:305:G:C8	2.51	0.45
29:BE:36:ARG:CD	29:BE:85:ASN:HD21	2.29	0.45
17:AQ:9:VAL:O	17:AQ:22:LEU:N	2.48	0.45
25:DA:2405:G:O2'	25:DA:2411:A:N6	2.44	0.45
25:DA:1197:G:C4	25:DA:1198:U:C5	3.04	0.45
25:BA:803:U:C2'	25:BA:804:A:H5'	2.46	0.45
25:BA:203:C:C2'	25:BA:204:A:OP1	2.64	0.45
1:CA:1388:C:H2'	1:CA:1389:C:C6	2.51	0.45
1:CA:1023:G:C8	1:CA:1023:G:OP2	2.70	0.45
25:DA:794:G:O2'	25:DA:795:C:H5'	2.16	0.45
47:B0:26:GLU:HB2	47:B0:68:PHE:HD1	1.82	0.45
25:BA:2780:G:OP1	34:BN:118:LYS:HE2	2.16	0.45
23:AW:34:C:H42	24:AX:5:G:H1	1.64	0.45
1:AA:131:C:H2'	1:AA:132:C:C6	2.51	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:775:G:O5'	25:BA:777:A:H1'	2.17	0.45
39:BS:77:ALA:O	39:BS:78:LEU:C	2.55	0.45
9:AI:38:GLN:O	9:AI:40:LEU:HG	2.16	0.45
25:BA:171:G:C6	25:BA:172:C:H5	2.35	0.45
2:CB:167:PRO:HG2	2:CB:192:SER:HB3	1.97	0.45
42:DV:39:LEU:HD22	42:DV:39:LEU:H	1.81	0.45
46:DZ:13:LYS:O	46:DZ:15:SER:N	2.50	0.45
25:DA:2116:G:C8	25:DA:2117:A:N7	2.85	0.45
25:BA:615:G:H5'	30:BF:182:ASN:HB3	1.98	0.45
1:CA:1271:G:C5'	1:CA:1314:C:H5"	2.46	0.45
7:CG:27:ILE:HA	7:CG:30:ILE:HG12	1.98	0.45
7:CG:54:THR:HG23	7:CG:56:GLN:HG2	1.98	0.45
21:CU:25:LYS:HZ3	21:CU:25:LYS:HB2	1.82	0.45
1:CA:1140:C:C2	1:CA:1141:C:C2	3.04	0.45
25:DA:886:C:O2	25:DA:887:A:H1'	2.17	0.45
1:AA:1223:C:C2'	1:AA:1224:G:P	3.05	0.45
1:AA:1320:C:H5"	19:AS:70:LYS:NZ	2.32	0.45
19:AS:10:PHE:HZ	19:AS:70:LYS:CD	2.23	0.45
30:BF:196:LEU:HD23	30:BF:196:LEU:HA	1.83	0.45
40:BT:80:SER:O	40:BT:82:LEU:HD12	2.16	0.45
3:AC:91:LEU:O	3:AC:95:THR:HB	2.17	0.45
25:DA:158:U:O2'	25:DA:159:U:H4'	2.17	0.45
36:BP:95:VAL:HG23	36:BP:95:VAL:O	2.15	0.45
2:AB:187:LEU:HD11	2:AB:204:ASN:O	2.16	0.45
55:B8:15:LYS:HG2	55:B8:16:ILE:O	2.17	0.45
5:AE:101:ILE:HG12	5:AE:119:LEU:HA	1.99	0.45
33:DI:4:ILE:CD1	33:DI:44:LEU:HA	2.46	0.45
30:BF:53:THR:OG1	30:BF:54:ARG:N	2.47	0.45
48:B1:89:GLU:O	48:B1:90:ILE:C	2.55	0.45
1:CA:1221:G:P	19:CS:36:ARG:HD3	2.56	0.45
1:CA:959:A:H2	1:CA:1221:G:N3	2.15	0.45
33:BI:41:GLU:O	33:BI:42:SER:C	2.55	0.45
36:BP:5:ASP:O	36:BP:6:LEU:HD23	2.17	0.45
36:BP:8:PRO:O	36:BP:9:ASN:HB3	2.16	0.45
15:AO:79:ARG:O	15:AO:80:ALA:C	2.55	0.45
47:D0:53:MET:HA	47:D0:58:THR:O	2.17	0.45
1:AA:354:G:C2	1:AA:355:C:C6	3.05	0.45
5:CE:70:PRO:O	5:CE:72:GLN:HG3	2.15	0.45
25:BA:626:U:H5"	25:BA:627:A:C5'	2.36	0.45
51:B4:40:ILE:HG23	51:B4:59:VAL:CG2	2.47	0.45
51:B4:61:VAL:HG12	51:B4:61:VAL:O	2.15	0.45
25:DA:914:C:C6	25:DA:914:C:H3'	2.51	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:246:C:H2'	25:DA:247:G:H5'	1.99	0.45
25:DA:528:A:H2	25:DA:2043:C:C4'	2.30	0.45
35:DO:93:PRO:HB3	35:DO:114:ILE:CD1	2.47	0.45
1:AA:1436:U:C4	1:AA:1437:C:C4	3.05	0.45
42:DV:72:VAL:HG23	42:DV:72:VAL:O	2.17	0.45
18:AR:74:ARG:HD3	18:AR:81:PHE:CE1	2.52	0.45
44:BX:40:LYS:O	44:BX:41:ASN:C	2.55	0.45
48:B1:26:ARG:HG3	48:B1:26:ARG:HH11	1.80	0.45
50:B3:36:VAL:C	50:B3:37:LEU:HD23	2.36	0.45
25:DA:786:C:O2'	25:DA:787:U:H5'	2.17	0.45
4:CD:36:ARG:HB3	4:CD:38:TYR:CE1	2.52	0.45
26:BB:90:A:H3'	26:BB:91:C:O4'	2.17	0.45
38:BR:44:LEU:O	38:BR:48:VAL:HG23	2.16	0.45
28:DD:267:SER:HA	28:DD:270:ILE:CG1	2.46	0.45
38:DR:44:LEU:HD13	38:DR:48:VAL:HG23	1.99	0.45
55:D8:50:LEU:HA	55:D8:53:PRO:CG	2.44	0.45
22:AV:70:LEU:HA	22:AV:83:MET:O	2.17	0.45
1:AA:602:A:H2'	1:AA:603:U:C6	2.50	0.45
1:AA:688:G:H5'	11:AK:46:GLY:C	2.37	0.45
25:DA:2317:C:O2'	25:DA:2318:G:H5'	2.17	0.45
32:BH:81:GLU:HB3	32:BH:83:TYR:CD1	2.51	0.45
42:BV:36:PRO:HA	42:BV:56:SER:HB3	1.98	0.45
27:DC:67:HIS:CD2	27:DC:67:HIS:N	2.82	0.45
25:DA:39:C:H2'	25:DA:40:C:H6	1.81	0.45
1:CA:1404:C:H2'	1:CA:1405:G:C8	2.52	0.45
43:BW:8:ARG:HB3	43:BW:9:TYR:CE1	2.51	0.45
33:DI:7:GLU:CD	33:DI:8:PRO:HD2	2.36	0.45
4:CD:8:VAL:HG13	4:CD:21:LEU:HD12	1.97	0.45
25:DA:2038:G:H2'	25:DA:2039:C:O4'	2.16	0.45
3:AC:126:ARG:HG2	3:AC:126:ARG:HH11	1.81	0.45
23:AW:29:G:H2'	23:AW:30:G:H5'	1.99	0.45
1:AA:1011:G:O2'	1:AA:1012:U:H5'	2.17	0.45
29:DE:197:ILE:O	29:DE:197:ILE:HG23	2.16	0.45
1:CA:551:U:H2'	1:CA:552:U:C6	2.52	0.45
54:B7:36:GLN:CG	54:B7:36:GLN:O	2.65	0.45
1:CA:47:C:O2'	1:CA:48:C:H5'	2.16	0.45
25:BA:1431:U:H2'	25:BA:1432:C:C6	2.52	0.45
2:CB:149:LEU:O	2:CB:152:PHE:N	2.48	0.45
1:CA:490:G:H2'	1:CA:491:G:H8	1.82	0.45
25:BA:1819:A:H5''	28:BD:158:ALA:HB3	1.98	0.45
25:DA:1445(A):C:O2'	25:DA:1446:C:H5'	2.17	0.45
25:DA:1512:U:H2'	25:DA:1513:C:H6	1.82	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1272:A:C3'	25:DA:1273:U:C5'	2.94	0.45
29:DE:126:PRO:C	29:DE:128:SER:N	2.70	0.45
1:AA:274:A:O2'	1:AA:275:G:C8	2.67	0.45
25:BA:2295:C:C2	25:BA:2296:U:C5	3.04	0.45
1:CA:950:U:H2'	1:CA:951:G:H8	1.82	0.45
25:BA:449:A:O2'	25:BA:450:G:H5'	2.17	0.45
26:BB:75:G:N3	46:BZ:84:HIS:CE1	2.85	0.45
25:DA:2404:C:O3'	36:DP:77:ARG:NH2	2.49	0.45
37:DQ:69:PHE:HA	37:DQ:70:PRO:HD3	1.85	0.45
1:AA:1113:C:O2	1:AA:1113:C:H2'	2.16	0.45
22:AV:41:PHE:N	22:AV:41:PHE:CD1	2.85	0.45
25:BA:520:G:H2'	25:BA:521:G:H8	1.82	0.45
39:BS:29:PHE:HD2	39:BS:30:ARG:N	2.15	0.45
39:BS:75:GLU:HA	39:BS:78:LEU:HD12	1.97	0.45
1:AA:1250:A:H2'	1:AA:1251:A:C8	2.51	0.45
3:AC:114:PRO:HD3	3:AC:183:ASP:OD2	2.17	0.45
25:BA:159:U:H3'	25:BA:160:U:C5'	2.47	0.45
37:DQ:140:ALA:HA	46:DZ:98:TYR:CD2	2.52	0.45
46:DZ:134:GLU:O	46:DZ:135:PHE:CB	2.63	0.45
2:CB:215:LEU:C	2:CB:219:VAL:HG23	2.36	0.45
2:CB:97:TRP:CE3	2:CB:97:TRP:O	2.70	0.45
25:DA:992:C:HO2'	42:DV:87:HIS:CE1	2.35	0.45
41:DU:102:GLU:HB2	41:DU:105:VAL:HG23	1.99	0.45
1:CA:1237:C:C4'	1:CA:1334:G:N2	2.72	0.45
7:CG:113:GLU:HG2	7:CG:119:ARG:HG2	1.96	0.45
31:DG:118:ARG:O	31:DG:181:ARG:NH2	2.50	0.45
31:DG:155:MET:HE2	31:DG:155:MET:N	2.32	0.45
1:AA:1320:C:O2	19:AS:72:GLY:HA3	2.17	0.45
1:AA:1322:C:C4'	1:AA:1323:G:OP1	2.56	0.45
9:CI:126:SER:O	9:CI:127:LYS:HB3	2.17	0.45
25:DA:78:A:H2'	25:DA:79:G:C8	2.52	0.45
25:DA:483:A:H4'	45:DY:47:LYS:HB2	1.98	0.45
25:DA:2698:U:H2'	25:DA:2699:C:C6	2.52	0.45
22:CV:127:VAL:CA	22:CV:174:ASP:HA	2.46	0.45
3:AC:23:TYR:CG	3:AC:24:ALA:N	2.85	0.45
30:DF:25:PRO:HG3	30:DF:119:ARG:HA	1.98	0.45
9:AI:16:ARG:HB2	9:AI:64:THR:HG23	1.99	0.45
1:AA:1064:G:N2	1:AA:1190:G:H2'	2.32	0.45
45:BY:76:CYS:HG	45:BY:77:PRO:HD2	1.78	0.45
27:BC:71:LYS:HG2	27:BC:158:LYS:CD	2.34	0.45
31:BG:63:ILE:HG22	31:BG:143:GLU:HG2	1.99	0.45
53:B6:22:ALA:O	53:B6:23:THR:OG1	2.33	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BP:108:LYS:O	36:BP:109:GLY:C	2.55	0.45
28:BD:25:THR:O	28:BD:26:LYS:C	2.56	0.45
29:BE:68:ALA:HB3	29:BE:69:LYS:HZ1	1.81	0.45
29:BE:89:ASP:O	29:BE:90:THR:CB	2.62	0.45
21:CU:4:GLY:O	21:CU:5:ASP:C	2.55	0.45
25:BA:2469:A:OP2	25:BA:2476:A:H8	2.00	0.45
4:AD:203:VAL:O	4:AD:206:PHE:HB3	2.17	0.45
25:BA:1688:U:O2	25:BA:1700:A:H5'	2.17	0.45
8:AH:11:THR:HA	8:AH:14:ARG:HH12	1.79	0.45
15:CO:63:ARG:NH1	15:CO:87:ILE:HD13	2.32	0.45
25:BA:1783:A:C2	25:BA:2587:A:C5	3.05	0.45
1:AA:1202:G:H2'	1:AA:1203:C:O4'	2.16	0.45
36:DP:83:VAL:HG13	36:DP:114:ILE:HA	1.99	0.45
17:CQ:50:LYS:HE3	17:CQ:51:TYR:CE1	2.52	0.45
25:BA:1313:U:H3'	25:BA:1314:C:C5'	2.47	0.45
39:DS:30:ARG:HH22	39:DS:62:LYS:HG2	1.80	0.45
30:DF:176:LEU:CG	30:DF:177:ALA:H	2.16	0.45
1:CA:1119:C:H42	1:CA:1154:G:H1	1.65	0.45
12:AL:52:VAL:HG12	12:AL:53:ALA:N	2.32	0.45
25:DA:2467:C:H2'	25:DA:2468:G:O4'	2.17	0.45
10:CJ:81:THR:C	10:CJ:83:GLU:N	2.70	0.45
53:B6:28:ARG:N	53:B6:32:ASN:OD1	2.50	0.45
1:AA:405:U:H3'	1:AA:406:G:C5'	2.38	0.45
1:AA:627:G:C2	1:AA:628:G:C8	3.04	0.45
25:BA:931:G:C2	25:BA:933:A:C5	3.05	0.45
25:BA:848:G:H1'	25:BA:933:A:H8	1.80	0.45
18:AR:45:SER:C	18:AR:47:THR:H	2.19	0.45
18:AR:71:LYS:O	18:AR:74:ARG:HB2	2.17	0.45
45:BY:16:ALA:CB	45:BY:21:LYS:HZ2	2.24	0.45
45:BY:66:PRO:O	45:BY:67:LEU:CB	2.64	0.45
31:BG:95:ARG:NH1	31:BG:95:ARG:CG	2.80	0.45
25:DA:840:C:OP2	25:DA:932:G:N2	2.47	0.45
36:BP:17:LYS:C	36:BP:19:VAL:N	2.62	0.45
1:CA:1277:C:H3'	1:CA:1278:U:H5'	1.99	0.45
25:DA:1935:G:H1	25:DA:1962:C:H2'	1.82	0.45
4:AD:102:ASP:HB3	4:AD:136:PRO:HA	1.98	0.45
22:AV:19:LEU:HD12	22:AV:120:ILE:CD1	2.47	0.45
4:CD:120:LEU:O	4:CD:123:HIS:N	2.48	0.45
4:CD:134:ASP:O	4:CD:136:PRO:HD3	2.16	0.45
25:DA:2497:A:O5'	25:DA:2497:A:C8	2.70	0.45
25:DA:1655:A:O2'	29:DE:115:GLY:HA3	2.17	0.45
1:CA:1261:A:C4'	1:CA:1283:G:H5''	2.46	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BN:4:TYR:O	34:BN:5:VAL:HG12	2.17	0.45
32:BH:118:PRO:CG	32:BH:121:ILE:HD12	2.46	0.45
48:B1:95:LEU:O	48:B1:98:LEU:HD23	2.17	0.45
28:BD:73:VAL:HG13	28:BD:120:GLY:CA	2.43	0.45
31:BG:55:LYS:HE2	31:BG:149:VAL:HA	1.98	0.45
31:BG:21:ARG:CD	31:BG:21:ARG:C	2.82	0.45
33:DI:8:PRO:HD3	33:DI:15:VAL:HB	1.99	0.45
1:AA:1227:A:O2'	13:AM:115:LYS:HB2	2.16	0.45
1:CA:295:C:H2'	1:CA:296:U:C6	2.51	0.45
50:B3:7:LYS:HA	50:B3:33:GLN:O	2.16	0.45
50:B3:8:LEU:HD13	50:B3:31:LEU:HG	1.99	0.45
1:AA:1384:C:H2'	1:AA:1385:G:H8	1.79	0.45
1:AA:865:A:H2	1:AA:918:A:C4'	2.28	0.45
34:BN:43:THR:HB	34:BN:46:VAL:CG1	2.46	0.45
7:AG:6:ARG:NH2	7:AG:94:ARG:HH22	2.15	0.45
5:CE:47:LYS:H	5:CE:47:LYS:HD2	1.81	0.45
25:BA:1865:G:N2	25:BA:1877:A:OP2	2.48	0.45
1:CA:1066:C:C4	1:CA:1067:A:N6	2.85	0.45
43:DW:36:LEU:HD13	43:DW:48:ALA:HA	1.99	0.45
25:DA:1442:G:C2	25:DA:1550:C:O2	2.70	0.45
33:BI:25:TYR:CE2	33:BI:29:TYR:CD2	3.05	0.45
54:D7:31:LEU:O	54:D7:33:ARG:N	2.50	0.45
1:CA:311:C:O2'	1:CA:312:C:H5'	2.17	0.45
25:DA:2850:A:H2'	25:DA:2851:A:C8	2.52	0.45
25:BA:2852:G:H2'	25:BA:2853:C:C6	2.51	0.45
20:CT:56:MET:HG3	20:CT:84:LEU:HD11	1.98	0.45
7:AG:64:GLN:HG3	7:AG:128:ALA:HA	1.99	0.45
10:AJ:22:LYS:CE	10:AJ:23:ILE:HG12	2.46	0.45
43:BW:40:ASN:O	43:BW:41:LYS:HG2	2.17	0.45
1:AA:994:A:N3	14:AN:5:ALA:HB2	2.32	0.45
25:BA:304:G:O2'	25:BA:305:U:H5'	2.17	0.45
25:DA:31:C:H2'	25:DA:32:C:H6	1.80	0.45
28:BD:228:PRO:HD3	28:BD:235:GLY:CA	2.47	0.45
25:DA:2505:G:O2'	25:DA:2506:U:H5''	2.17	0.45
25:BA:2704:C:H2'	25:BA:2705:A:O4'	2.17	0.45
25:DA:1051:G:C2'	25:DA:1051:G:N3	2.80	0.45
1:AA:1290:G:N3	1:AA:1290:G:H2'	2.32	0.45
41:DU:42:ALA:O	41:DU:45:TYR:HB2	2.17	0.45
26:DB:78:A:C2	26:DB:100:A:C4	3.05	0.45
3:AC:13:GLY:HA3	14:AN:57:ARG:CZ	2.47	0.45
46:DZ:125:VAL:HA	46:DZ:163:ALA:CB	2.47	0.45
46:DZ:27:MET:HG3	46:DZ:87:PHE:CB	2.47	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DZ:9:ARG:HB3	46:DZ:35:LYS:O	2.17	0.45
2:CB:80:ILE:HD13	2:CB:211:ILE:HG22	1.96	0.45
25:DA:1020:A:H4'	25:DA:1021:A:O5'	2.17	0.45
41:DU:103:PRO:O	41:DU:107:ALA:HB2	2.17	0.45
25:DA:2267:A:C2'	25:DA:2267:A:N3	2.75	0.45
46:DZ:21:GLY:O	46:DZ:40:LEU:HB2	2.16	0.45
7:CG:121:ALA:HA	7:CG:124:LEU:HD12	1.99	0.45
1:CA:1347:G:C5	9:CI:107:ARG:NH2	2.85	0.45
41:BU:96:ALA:C	41:BU:98:LEU:N	2.69	0.45
31:DG:43:LEU:HD12	31:DG:153:ARG:CG	2.44	0.45
1:AA:977:A:C2	1:AA:1224:G:C2	3.05	0.45
19:AS:32:LYS:O	19:AS:33:THR:CB	2.64	0.45
22:CV:126:THR:O	22:CV:127:VAL:O	2.35	0.45
1:AA:346:G:OP1	40:BT:41:ARG:NH2	2.49	0.45
35:BO:71:ARG:O	35:BO:73:ASP:N	2.50	0.45
35:BO:69:ILE:HD13	35:BO:77:ILE:HG23	1.99	0.45
16:AP:55:ARG:O	16:AP:56:ALA:C	2.55	0.45
3:AC:34:LEU:HD23	3:AC:35:GLU:H	1.82	0.45
1:AA:1137:C:H4'	1:AA:1138:G:N3	2.31	0.45
25:DA:1042:G:N3	25:DA:1042:G:C2'	2.80	0.45
53:D6:40:CYS:SG	53:D6:45:LYS:HE3	2.57	0.45
36:BP:16:ARG:NH2	36:BP:18:ARG:HG3	2.32	0.45
29:DE:167:VAL:HG11	29:DE:188:VAL:HA	1.99	0.45
28:BD:25:THR:HB	28:BD:26:LYS:CD	2.44	0.45
55:D8:23:VAL:HG12	55:D8:46:ARG:NH1	2.32	0.45
55:D8:23:VAL:CG1	55:D8:46:ARG:HB3	2.46	0.45
20:CT:18:GLN:O	20:CT:20:LEU:N	2.49	0.45
13:AM:53:VAL:O	13:AM:56:LEU:HB3	2.16	0.45
37:BQ:56:ARG:CG	37:BQ:56:ARG:HH11	2.27	0.45
36:BP:62:LEU:HA	36:BP:63:PRO:HD3	1.75	0.45
40:DT:16:ARG:HH11	40:DT:16:ARG:HG3	1.82	0.45
22:CV:89:GLU:HB2	22:CV:90:GLN:H	1.40	0.45
3:CC:16:ARG:HH22	3:CC:183:ASP:HA	1.81	0.45
1:CA:974:A:OP2	14:CN:29:ARG:NH1	2.50	0.45
25:DA:2651:C:N3	25:DA:2670:A:C2	2.85	0.45
49:D2:63:VAL:O	49:D2:67:LYS:HG2	2.16	0.45
15:CO:25:THR:O	15:CO:26:GLU:C	2.56	0.45
15:CO:83:GLU:C	15:CO:85:LEU:H	2.20	0.45
11:AK:45:GLY:O	11:AK:50:TYR:HB2	2.17	0.45
52:B5:40:LYS:HZ3	52:B5:46:CYS:HA	1.82	0.45
30:BF:183:VAL:HG23	30:BF:183:VAL:O	2.17	0.45
2:CB:114:ARG:HD2	2:CB:117:GLU:OE2	2.17	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:923:C:H1'	47:B0:28:GLN:HG2	1.99	0.45
25:DA:1685:C:C2'	25:DA:1686:C:C5'	2.85	0.45
39:DS:97:ARG:C	39:DS:97:ARG:NE	2.70	0.45
12:AL:66:TYR:CD2	12:AL:66:TYR:C	2.90	0.45
25:BA:1614:A:H2'	25:BA:1615:C:H5'	1.98	0.45
25:DA:914:C:C3'	25:DA:914:C:C6	3.00	0.45
10:CJ:30:SER:CB	10:CJ:81:THR:HA	2.47	0.45
43:BW:50:VAL:HG13	43:BW:105:VAL:CG2	2.44	0.45
43:BW:5:ALA:CB	43:BW:50:VAL:HG22	2.38	0.45
1:CA:37:U:O2'	1:CA:500:G:H4'	2.17	0.45
16:CP:17:TYR:HE1	16:CP:41:PRO:HG3	1.82	0.45
9:AI:2:GLU:N	9:AI:88:TYR:HH	2.15	0.45
30:BF:133:ASN:HA	30:BF:162:LEU:CD2	2.46	0.45
25:DA:2808:U:C5'	25:DA:2808:U:H6	2.30	0.45
38:DR:52:ILE:O	38:DR:55:ALA:HB3	2.18	0.45
27:DC:120:VAL:O	27:DC:124:VAL:HG23	2.17	0.45
1:CA:1258:G:H2'	1:CA:1259:C:C6	2.52	0.45
25:BA:266:G:C2'	25:BA:267:C:O5'	2.65	0.45
27:BC:140:ASN:OD1	27:BC:141:PRO:HD2	2.17	0.45
27:BC:37:LYS:O	27:BC:38:PHE:HB3	2.17	0.45
2:AB:174:VAL:O	2:AB:178:ARG:HB2	2.16	0.45
1:AA:1423:G:C6	1:AA:1424:C:C4	3.05	0.45
25:BA:2117:A:OP2	25:BA:2117:A:C8	2.70	0.45
22:AV:19:LEU:O	22:AV:43:ASN:HA	2.16	0.45
25:DA:271(U):G:C2'	25:DA:271(V):G:H5'	2.46	0.45
17:AQ:19:VAL:HG23	17:AQ:21:VAL:HG23	1.99	0.45
32:BH:30:LYS:HZ2	32:BH:81:GLU:CA	2.30	0.45
25:BA:1607:C:H5''	25:BA:1608:A:H5'	1.97	0.45
7:AG:53:LYS:C	7:AG:54:THR:HG22	2.38	0.45
17:AQ:14:LYS:H	17:AQ:14:LYS:HZ3	1.65	0.45
32:BH:137:ASP:OD1	32:BH:139:GLN:N	2.50	0.45
16:AP:43:LYS:HA	16:AP:48:TRP:CB	2.46	0.45
25:DA:52:A:OP2	25:DA:117:G:N1	2.36	0.45
34:BN:35:ARG:NH2	34:BN:42:TRP:HH2	2.15	0.45
1:CA:935:A:C6	1:CA:936:C:C4	3.05	0.45
25:DA:99:U:H4'	25:DA:102:G:H1'	1.98	0.45
25:BA:225:A:H2'	25:BA:226:G:H5'	1.98	0.45
25:DA:1315:C:H2'	25:DA:1316:U:C6	2.52	0.45
1:AA:1375:A:H4'	7:AG:29:LYS:NZ	2.32	0.45
25:DA:2852:G:O2'	25:DA:2853:C:H5'	2.17	0.45
17:AQ:25:ARG:HH21	17:AQ:38:ARG:HB3	1.81	0.45
25:BA:1774:C:H6	25:BA:1774:C:O5'	2.00	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1843:C:H2'	25:BA:1844:C:C6	2.48	0.45
25:BA:1531:C:H2'	25:BA:1531:C:O2	2.17	0.45
1:AA:749:C:O5'	1:AA:749:C:H6	2.00	0.45
3:AC:110:ASN:HD22	3:AC:144:SER:HB2	1.82	0.45
2:CB:98:LEU:HD12	2:CB:101:MET:HE3	1.98	0.45
1:CA:1054:C:O2	1:CA:1054:C:H2'	2.17	0.45
43:BW:14:PRO:O	43:BW:15:ARG:C	2.55	0.45
17:CQ:6:LEU:HD11	17:CQ:71:PHE:CE1	2.52	0.45
22:AV:42:LYS:CG	22:AV:49:THR:HG22	2.47	0.45
20:AT:38:LYS:C	20:AT:40:ALA:N	2.68	0.45
25:BA:55:G:O2'	25:BA:127:A:N1	2.37	0.45
25:BA:2406:U:C2	36:BP:75:ILE:HD12	2.51	0.45
25:BA:723:G:H2'	25:BA:724:U:O4'	2.17	0.45
25:DA:444:C:OP2	41:DU:2:PRO:HD3	2.17	0.45
25:DA:1356:G:O2'	25:DA:1357:U:H5'	2.16	0.45
1:AA:1474:G:C6	1:AA:1475:G:N7	2.85	0.45
25:BA:1338:G:N3	25:BA:1393:A:H2	2.15	0.45
1:CA:574:A:H5''	1:CA:575:G:OP2	2.17	0.45
25:DA:297:C:H2'	25:DA:298:G:O4'	2.16	0.45
7:CG:62:PHE:O	7:CG:63:LYS:C	2.55	0.45
28:DD:177:LEU:HA	28:DD:177:LEU:HD23	1.77	0.45
16:CP:50:LYS:HD3	16:CP:51:VAL:N	2.32	0.45
40:DT:22:PHE:CE2	40:DT:85:LYS:NZ	2.79	0.45
25:DA:736:C:O2'	25:DA:737:C:H5'	2.17	0.45
1:CA:69:G:O2'	1:CA:70:G:H5'	2.17	0.45
34:BN:53:VAL:O	34:BN:53:VAL:HG12	2.17	0.45
1:CA:995:C:H6	1:CA:995:C:O5'	1.99	0.45
25:BA:223:A:O2'	25:BA:420:C:H1'	2.17	0.45
52:D5:30:LEU:HD22	52:D5:40:LYS:C	2.37	0.44
56:D9:7:VAL:HA	56:D9:34:GLN:NE2	2.32	0.44
36:BP:48:PRO:O	36:BP:51:PHE:N	2.49	0.44
9:AI:11:LYS:HG2	9:AI:11:LYS:O	2.18	0.44
46:DZ:125:VAL:HA	46:DZ:163:ALA:HB3	1.98	0.44
25:DA:542:C:N3	25:DA:551:G:N1	2.62	0.44
2:CB:28:PHE:CD1	2:CB:28:PHE:O	2.70	0.44
2:CB:18:GLY:H	2:CB:42:ILE:HG22	1.79	0.44
42:DV:11:GLN:C	42:DV:12:TYR:CD2	2.85	0.44
25:DA:2273:A:O2'	25:DA:2274:A:H5'	2.17	0.44
37:DQ:132:VAL:CG1	46:DZ:80:ARG:NH1	2.80	0.44
31:DG:153:ARG:O	31:DG:153:ARG:HG2	2.18	0.44
25:DA:2313:C:O4'	31:DG:40:ASN:ND2	2.49	0.44
40:BT:16:ARG:HB3	40:BT:17:THR:H	1.55	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:54:ARG:O	3:AC:55:VAL:HG23	2.17	0.44
3:AC:66:VAL:O	3:AC:68:VAL:HG23	2.16	0.44
3:AC:64:VAL:N	3:AC:98:ASN:O	2.48	0.44
25:DA:1201:C:N3	25:DA:1245:G:C2	2.85	0.44
30:DF:107:LYS:O	30:DF:108:LYS:C	2.55	0.44
36:DP:19:VAL:HG23	36:DP:19:VAL:O	2.16	0.44
46:BZ:62:ASP:HB2	46:BZ:64:GLN:HG3	1.99	0.44
40:BT:50:ILE:HD11	40:BT:102:ILE:HG12	1.99	0.44
36:DP:66:GLY:O	36:DP:67:MET:O	2.36	0.44
25:BA:275:G:N2	25:BA:363:G:C6	2.80	0.44
25:DA:2746:U:C4'	32:DH:139:GLN:HA	2.47	0.44
32:DH:115:VAL:HG12	32:DH:116:GLU:N	2.32	0.44
32:DH:132:ARG:O	32:DH:133:VAL:HG22	2.17	0.44
28:BD:33:LEU:O	28:BD:34:VAL:HG12	2.17	0.44
36:DP:65:ARG:NH1	55:D8:46:ARG:HH22	2.14	0.44
2:AB:189:ASP:C	2:AB:191:ASP:H	2.20	0.44
2:AB:21:ARG:HB3	2:AB:39:ILE:N	2.32	0.44
2:AB:48:MET:CA	2:AB:51:LEU:HD12	2.47	0.44
13:AM:68:GLY:H	13:AM:71:ARG:HB3	1.81	0.44
35:BO:5:GLN:HA	35:BO:20:MET:HE2	1.98	0.44
35:BO:5:GLN:HE21	35:BO:20:MET:HE1	1.81	0.44
2:AB:121:LEU:CD2	2:AB:127:ILE:HD11	2.47	0.44
2:AB:138:LEU:HD23	2:AB:141:GLU:OE2	2.16	0.44
10:CJ:62:HIS:H	10:CJ:62:HIS:CD2	2.35	0.44
1:AA:1366:C:H2'	1:AA:1367:C:C6	2.52	0.44
14:AN:23:ARG:O	14:AN:24:CYS:C	2.56	0.44
19:CS:4:SER:O	19:CS:5:LEU:CB	2.65	0.44
31:DG:47:LYS:H	31:DG:51:ARG:HG3	1.82	0.44
36:DP:101:VAL:C	36:DP:103:ALA:H	2.20	0.44
1:CA:1003:G:H21	1:CA:1039:C:H42	1.65	0.44
1:AA:476:G:N1	1:AA:477:A:C5	2.85	0.44
34:DN:134:ARG:N	34:DN:134:ARG:CD	2.72	0.44
34:DN:134:ARG:O	34:DN:136:GLU:N	2.49	0.44
25:DA:1686:C:H6	25:DA:1686:C:C5'	2.16	0.44
1:AA:393:A:OP2	16:AP:12:LYS:HD3	2.18	0.44
5:CE:82:VAL:O	5:CE:89:ILE:HG22	2.17	0.44
43:BW:86:LEU:HD12	43:BW:87:PRO:N	2.31	0.44
10:CJ:85:LEU:C	10:CJ:87:THR:N	2.71	0.44
1:CA:252:U:H2'	1:CA:253:U:C6	2.53	0.44
1:CA:255:G:O2'	1:CA:256:U:H5'	2.16	0.44
25:DA:570:G:H2'	25:DA:2030:A:C5	2.52	0.44
23:AW:72:A:N6	23:AW:73:A:C6	2.85	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DD:95:LEU:O	28:DD:102:LYS:HA	2.17	0.44
2:AB:8:LYS:N	2:AB:8:LYS:CD	2.74	0.44
20:AT:71:THR:CG2	20:AT:72:LEU:H	2.28	0.44
11:CK:91:ARG:HH11	11:CK:91:ARG:HG3	1.81	0.44
1:AA:624:C:H2'	1:AA:625:G:H8	1.82	0.44
1:AA:614:A:C2	1:AA:627:G:C2	3.05	0.44
18:AR:74:ARG:HB3	18:AR:81:PHE:CE1	2.53	0.44
25:DA:2483:C:O2'	37:DQ:49:ALA:HB1	2.17	0.44
38:BR:75:LEU:O	38:BR:75:LEU:HD13	2.16	0.44
19:AS:48:THR:HG22	19:AS:61:TYR:HD1	1.82	0.44
25:BA:94(A):G:H2'	25:BA:95:G:O4'	2.17	0.44
55:B8:54:GLU:O	55:B8:58:ILE:HG13	2.17	0.44
25:DA:1784:A:N3	25:DA:1784:A:H2'	2.31	0.44
6:CF:46:ARG:HH12	18:CR:37:VAL:HG21	1.82	0.44
17:CQ:18:THR:HG23	17:CQ:44:ALA:O	2.16	0.44
25:DA:2815:C:H2'	25:DA:2816:C:C6	2.52	0.44
17:AQ:3:LYS:O	17:AQ:5:VAL:HG23	2.16	0.44
4:CD:119:GLN:O	4:CD:120:LEU:C	2.55	0.44
25:DA:2060:A:H3'	30:DF:68:LYS:HZ2	1.77	0.44
1:AA:997:U:C2'	1:AA:998:G:H5'	2.44	0.44
32:DH:113:VAL:HG12	32:DH:114:VAL:N	2.31	0.44
27:DC:191:ARG:HB2	27:DC:191:ARG:NH1	2.33	0.44
25:DA:1655:A:H4'	29:DE:115:GLY:N	2.32	0.44
18:AR:37:VAL:HG23	18:AR:38:GLU:H	1.77	0.44
36:DP:51:PHE:O	36:DP:52:GLU:HB2	2.16	0.44
1:CA:62:U:H2'	1:CA:63:C:H6	1.80	0.44
33:DI:31:LEU:CD1	33:DI:31:LEU:N	2.80	0.44
49:D2:21:LEU:O	49:D2:24:LEU:HB3	2.16	0.44
25:DA:589:C:H2'	25:DA:590:A:C8	2.44	0.44
1:CA:151:A:H2'	1:CA:152:A:O4'	2.17	0.44
8:CH:71:GLY:O	8:CH:72:PRO:C	2.55	0.44
25:BA:1140:C:P	34:BN:66:LYS:HZ3	2.39	0.44
3:AC:141:VAL:HG21	3:AC:202:ILE:HD12	2.00	0.44
17:CQ:52:LYS:H	17:CQ:52:LYS:CD	2.27	0.44
41:BU:37:GLU:O	41:BU:38:THR:C	2.55	0.44
25:DA:2639:A:C2	25:DA:2778:A:C8	3.05	0.44
25:BA:217:G:H2'	25:BA:218:A:O4'	2.16	0.44
3:AC:188:LEU:HD22	3:AC:188:LEU:N	2.32	0.44
1:AA:1166:G:N2	1:AA:1169:A:H3'	2.31	0.44
1:CA:1064:G:N2	1:CA:1190:G:H2'	2.32	0.44
20:AT:22:ARG:O	20:AT:25:ARG:HB3	2.17	0.44
37:BQ:35:VAL:HG23	37:BQ:100:GLY:C	2.38	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CL:15:VAL:HG23	12:CL:16:ARG:N	2.32	0.44
25:DA:2262:U:H2'	25:DA:2263:C:C6	2.52	0.44
12:AL:7:LEU:O	12:AL:11:GLY:CA	2.65	0.44
25:DA:1519:G:H5'	25:DA:1520:G:P	2.57	0.44
25:BA:1516:C:H2'	25:BA:1517:G:H8	1.82	0.44
1:AA:774:G:O2'	1:AA:775:G:H5'	2.17	0.44
25:BA:2822:G:O5'	25:BA:2822:G:H8	2.00	0.44
25:BA:1762:A:O5'	25:BA:1762:A:H8	1.98	0.44
20:AT:12:ALA:O	20:AT:14:LYS:N	2.50	0.44
25:BA:305:U:H2'	25:BA:306:U:H6	1.82	0.44
25:DA:2248:C:C2'	25:DA:2249:U:H5'	2.47	0.44
25:DA:108:U:H4'	25:DA:347:A:H2	1.83	0.44
49:B2:70:GLN:C	49:B2:72:ALA:H	2.21	0.44
25:DA:1291:C:O2'	25:DA:1292:U:H5'	2.17	0.44
46:DZ:75:LEU:H	46:DZ:75:LEU:HD22	1.81	0.44
25:BA:464:U:O2'	25:BA:465:G:H5'	2.16	0.44
25:DA:535:C:O2'	25:DA:536:A:H5'	2.16	0.44
25:BA:687:C:H5'	54:B7:4:THR:O	2.18	0.44
25:DA:2864:G:OP1	40:DT:119:LYS:HG3	2.17	0.44
25:DA:1481:U:H2'	25:DA:1481:U:O2	2.17	0.44
30:DF:2:LYS:HD3	30:DF:2:LYS:N	2.32	0.44
25:BA:2819:G:H2'	25:BA:2821:A:N7	2.33	0.44
46:BZ:27:MET:O	46:BZ:33:ASN:HA	2.17	0.44
7:AG:8:GLU:O	7:AG:9:VAL:C	2.56	0.44
3:CC:118:GLN:O	3:CC:122:GLU:HG3	2.18	0.44
25:DA:2408:U:H2'	25:DA:2409:G:C8	2.52	0.44
25:BA:251:A:C5'	36:BP:51:PHE:CZ	2.95	0.44
39:BS:28:VAL:CG1	39:BS:89:ARG:HG3	2.48	0.44
33:BI:116:LEU:O	33:BI:117:GLU:HG2	2.17	0.44
25:DA:1902:C:H2'	25:DA:1903:G:O5'	2.17	0.44
1:AA:1060:C:C4	3:AC:2:GLY:HA2	2.52	0.44
9:AI:104:ARG:O	9:AI:105:ASP:HB3	2.16	0.44
10:AJ:63:PHE:HB3	14:AN:58:LYS:HG2	2.00	0.44
26:DB:104:U:O2'	26:DB:105:A:H5'	2.16	0.44
46:DZ:9:ARG:O	46:DZ:35:LYS:HG3	2.17	0.44
46:DZ:29:ASN:HB2	46:DZ:88:PHE:HE2	1.81	0.44
1:AA:136:C:H1'	16:AP:1:MET:HB2	1.99	0.44
2:CB:8:LYS:O	2:CB:12:GLU:HG3	2.16	0.44
25:DA:1003:G:N2	25:DA:1153:C:C2	2.84	0.44
41:DU:98:LEU:C	41:DU:100:VAL:H	2.21	0.44
42:DV:45:THR:O	42:DV:46:VAL:HG12	2.17	0.44
42:DV:35:LEU:HB2	42:DV:57:VAL:HG13	2.00	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DQ:130:LYS:HG2	37:DQ:131:ILE:N	2.32	0.44
25:DA:2114:A:N1	25:DA:2119:A:N7	2.64	0.44
44:DX:92:LEU:O	44:DX:94:GLY:N	2.47	0.44
25:DA:479:A:HO2'	25:DA:481:G:H8	1.61	0.44
20:AT:100:ILE:HG22	20:AT:102:GLY:H	1.81	0.44
9:CI:104:ARG:O	9:CI:105:ASP:CB	2.61	0.44
9:CI:48:GLU:CB	9:CI:78:LYS:HZ3	2.30	0.44
19:AS:40:ILE:O	19:AS:67:VAL:O	2.35	0.44
45:DY:46:LYS:C	45:DY:47:LYS:HG3	2.38	0.44
45:DY:4:LYS:HG3	45:DY:5:MET:N	2.32	0.44
3:AC:58:GLU:H	3:AC:65:ALA:HB2	1.81	0.44
25:DA:851:U:H3	25:DA:926:A:N6	2.10	0.44
27:BC:135:ARG:HH11	27:BC:135:ARG:HG3	1.83	0.44
28:BD:31:LYS:CD	28:BD:94:LEU:HD11	2.47	0.44
32:DH:107:VAL:HG23	32:DH:109:PHE:HD1	1.82	0.44
1:CA:324:G:P	20:CT:22:ARG:HD3	2.56	0.44
2:AB:115:LEU:HD12	2:AB:142:LEU:HD12	1.98	0.44
1:AA:502:G:C2	1:AA:503:C:C2	3.06	0.44
53:D6:52:VAL:CG1	53:D6:53:LYS:H	2.30	0.44
3:CC:92:ALA:HA	3:CC:95:THR:O	2.17	0.44
25:BA:1803:A:H4'	28:BD:259:THR:CG2	2.47	0.44
46:BZ:123:ILE:HG12	46:BZ:124:LEU:N	2.31	0.44
52:B5:45:VAL:O	52:B5:46:CYS:C	2.56	0.44
47:D0:67:VAL:HG12	47:D0:68:GLU:N	2.32	0.44
3:AC:157:ILE:HD11	3:AC:166:GLU:N	2.32	0.44
16:AP:82:GLN:HE21	16:AP:82:GLN:HB3	1.64	0.44
3:AC:121:ALA:HA	3:AC:198:VAL:HG21	1.98	0.44
1:CA:83:U:O2	1:CA:83:U:C2'	2.65	0.44
25:DA:329:G:H1	45:DY:19:LYS:HZ2	1.64	0.44
28:DD:83:GLU:CB	28:DD:92:ILE:HD11	2.42	0.44
8:AH:4:ASP:OD1	8:AH:7:ALA:N	2.44	0.44
1:CA:356:A:H2'	1:CA:357:G:O4'	2.16	0.44
25:DA:841:A:H8	25:DA:841:A:O5'	2.00	0.44
1:CA:545:C:O2'	1:CA:546:G:H5'	2.18	0.44
5:AE:127:ASN:HB3	5:AE:130:ASN:HB2	1.99	0.44
25:DA:1339:G:H21	25:DA:1603:A:H1'	1.83	0.44
25:BA:2128:C:OP1	27:BC:37:LYS:HD3	2.17	0.44
38:DR:79:LEU:CD2	38:DR:79:LEU:C	2.85	0.44
2:CB:223:ILE:HG12	2:CB:223:ILE:H	1.54	0.44
30:BF:161:GLU:O	30:BF:165:ARG:HB2	2.17	0.44
1:CA:438:G:H4'	4:CD:123:HIS:HD1	1.81	0.44
36:DP:91:PHE:CE2	36:DP:95:VAL:HG12	2.52	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:BE:24:THR:HG22	29:BE:186:GLY:HA2	1.99	0.44
25:DA:56:A:C2	25:DA:115:C:O2	2.70	0.44
28:BD:69:ARG:NH2	28:BD:192:THR:CG2	2.80	0.44
25:BA:2562:U:H2'	25:BA:2563:U:H5'	1.99	0.44
1:CA:1075:C:OP1	2:CB:179:LYS:NZ	2.43	0.44
34:BN:67:LEU:O	34:BN:68:GLU:CB	2.64	0.44
18:CR:81:PHE:O	18:CR:82:THR:OG1	2.31	0.44
44:BX:60:ARG:HH12	54:B7:47:ARG:NH2	2.15	0.44
25:BA:1786:A:H1'	25:BA:1938:A:N6	2.32	0.44
32:DH:79:VAL:C	32:DH:81:GLU:N	2.71	0.44
25:BA:1773:A:H2'	25:BA:1774:C:C5'	2.45	0.44
1:AA:1507:A:C6	1:AA:1530:G:C6	3.05	0.44
10:CJ:22:LYS:O	10:CJ:22:LYS:HD2	2.16	0.44
25:BA:29:U:H2'	25:BA:30:G:H8	1.82	0.44
41:BU:31:SER:C	41:BU:33:ARG:N	2.71	0.44
25:DA:755:C:H2'	25:DA:756:C:C6	2.48	0.44
43:DW:111:HIS:CG	43:DW:112:GLY:N	2.84	0.44
26:DB:46:A:H2'	26:DB:47:C:C6	2.52	0.44
1:CA:1191:A:H5''	3:CC:4:LYS:HZ3	1.81	0.44
1:AA:146:G:C6	1:AA:147:G:C5	3.05	0.44
17:CQ:21:VAL:HG21	17:CQ:59:ILE:HD11	1.98	0.44
1:CA:162:A:C8	1:CA:163:C:H1'	2.52	0.44
40:DT:128:GLU:O	40:DT:130:ALA:N	2.51	0.44
36:BP:94:GLU:OE2	36:BP:124:LYS:HD3	2.17	0.44
25:DA:2653:U:N3	25:DA:2654:A:C6	2.85	0.44
25:DA:1975:G:N1	25:DA:1976:U:C2	2.86	0.44
8:AH:41:ARG:O	8:AH:41:ARG:CG	2.65	0.44
29:BE:147:PRO:HG2	29:BE:148:GLY:H	1.82	0.44
1:AA:1275:A:C5	1:AA:1276:G:C8	3.06	0.44
1:CA:171:A:H2'	1:CA:172:A:C8	2.52	0.44
19:CS:79:THR:O	19:CS:80:TYR:HB2	2.17	0.44
1:AA:200:G:H1	1:AA:217:C:N4	2.15	0.44
31:BG:141:PHE:HB3	31:BG:142:PRO:HD2	2.00	0.44
25:BA:1322:A:H2'	25:BA:1323:U:H6	1.82	0.44
3:CC:48:TYR:O	3:CC:48:TYR:CD1	2.70	0.44
1:CA:1418:A:H2	25:DA:1948:G:N3	2.15	0.44
40:BT:5:ALA:O	40:BT:8:LYS:HB2	2.17	0.44
1:CA:337:C:H2'	1:CA:338:A:H8	1.83	0.44
1:AA:1187:G:H3'	1:AA:1188:A:H8	1.82	0.44
3:AC:11:ARG:O	3:AC:14:ILE:HG23	2.17	0.44
7:AG:27:ILE:CD1	7:AG:43:PHE:HB2	2.47	0.44
9:AI:112:LYS:HD2	9:AI:117:HIS:O	2.16	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BH:46:GLU:O	32:BH:47:GLU:C	2.56	0.44
46:DZ:94:PRO:CA	46:DZ:127:VAL:O	2.64	0.44
2:CB:164:VAL:CG1	2:CB:166:ASP:H	2.30	0.44
2:CB:32:ILE:N	2:CB:32:ILE:HD12	2.33	0.44
34:DN:46:VAL:O	34:DN:47:ALA:HB3	2.17	0.44
46:DZ:13:LYS:HE3	46:DZ:16:ALA:HB3	1.99	0.44
25:DA:2102:U:H2'	25:DA:2103:C:C6	2.52	0.44
19:CS:63:THR:H	19:CS:66:MET:HE3	1.82	0.44
1:CA:1288:A:N1	1:CA:1371:G:H1'	2.31	0.44
9:CI:10:ARG:HA	9:CI:104:ARG:HE	1.82	0.44
21:CU:18:TYR:CD2	21:CU:24:ARG:HG2	2.53	0.44
25:BA:2807:G:H2'	25:BA:2808:U:O4'	2.16	0.44
45:DY:11:ASP:H	45:DY:28:LYS:HZ1	1.65	0.44
45:DY:28:LYS:CB	45:DY:39:VAL:N	2.80	0.44
29:DE:52:LEU:O	29:DE:53:PRO:O	2.35	0.44
29:DE:59:VAL:HG21	29:DE:63:LEU:HD12	1.99	0.44
30:BF:3:GLU:N	30:BF:3:GLU:CD	2.69	0.44
20:AT:75:ASN:O	20:AT:78:ALA:HB3	2.17	0.44
25:DA:1048:A:H61	25:DA:1108:U:H5	1.65	0.44
1:AA:1192:C:O2	5:AE:25:ARG:NH2	2.50	0.44
31:BG:63:ILE:HG22	31:BG:143:GLU:CG	2.46	0.44
25:BA:2392:A:OP1	55:B8:32:LEU:CD2	2.66	0.44
25:BA:480:A:OP2	45:BY:46:LYS:HE2	2.17	0.44
35:BO:19:ILE:HA	35:BO:42:SER:O	2.17	0.44
4:AD:18:LYS:HG2	4:AD:33:MET:HG3	1.98	0.44
40:DT:33:LYS:O	40:DT:39:ARG:O	2.35	0.44
3:CC:141:VAL:HG11	3:CC:202:ILE:CD1	2.48	0.44
1:CA:976:G:P	14:CN:32:SER:H	2.39	0.44
40:DT:93:ARG:O	40:DT:94:ALA:O	2.35	0.44
48:B1:50:ARG:O	48:B1:51:VAL:CB	2.64	0.44
33:BI:48:GLU:O	33:BI:49:ALA:C	2.55	0.44
36:BP:7:ARG:HH11	36:BP:7:ARG:HG2	1.82	0.44
1:CA:1034:G:C2'	1:CA:1035:A:C8	2.96	0.44
1:AA:458:C:C2	1:AA:460:G:C8	3.06	0.44
36:BP:25:SER:C	36:BP:27:HIS:N	2.69	0.44
6:CF:77:ARG:HB3	6:CF:77:ARG:CZ	2.47	0.44
5:CE:69:VAL:HG11	5:CE:71:LEU:HG	1.98	0.44
25:DA:26:G:C6	25:DA:27:G:C2	3.06	0.44
25:DA:310:A:O2'	25:DA:311:A:C2'	2.53	0.44
28:BD:154:LYS:C	28:BD:155:LEU:HD12	2.37	0.44
1:CA:267:C:OP2	17:CQ:67:LYS:HD2	2.17	0.44
28:BD:70:TRP:HZ3	28:BD:146:GLU:OE2	2.00	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2320:A:H8	25:BA:2321:G:O6	2.00	0.44
39:BS:17:ARG:HA	39:BS:20:ARG:HG2	1.98	0.44
25:DA:1853:A:N1	25:DA:2087:G:H1'	2.32	0.44
7:AG:113:GLU:HB2	7:AG:119:ARG:CG	2.46	0.44
28:DD:5:LYS:HD2	28:DD:17:THR:HG21	1.99	0.44
9:AI:58:HIS:C	9:AI:59:PHE:CD1	2.91	0.44
31:BG:5:VAL:HG21	31:BG:100:TRP:HB3	1.99	0.44
1:AA:1279:A:H61	3:AC:26:LYS:HZ3	1.62	0.44
31:BG:122:PRO:HD3	31:BG:181:ARG:HB3	1.99	0.44
7:CG:78:ARG:NE	7:CG:79:ARG:H	2.13	0.44
4:AD:91:SER:C	4:AD:93:PHE:N	2.70	0.44
38:BR:12:ARG:HD3	38:BR:16:HIS:ND1	2.33	0.44
25:DA:2801(A):A:C1'	25:DA:2802:G:H2'	2.47	0.44
11:CK:72:ALA:O	11:CK:77:MET:HB2	2.16	0.44
23:AW:23:C:H2'	23:AW:24:U:H6	1.76	0.44
22:CV:131:LYS:HE3	22:CV:131:LYS:HB2	1.79	0.44
1:AA:997:U:C2'	1:AA:998:G:H5''	2.47	0.44
27:DC:102:GLN:O	27:DC:106:ASP:N	2.49	0.44
3:AC:143:GLU:C	3:AC:145:GLY:H	2.20	0.44
30:DF:32:LEU:HD23	30:DF:32:LEU:O	2.17	0.44
32:BH:94:TYR:CZ	32:BH:160:LYS:HD3	2.53	0.44
1:CA:428:G:H4'	1:CA:429:U:O5'	2.17	0.44
1:AA:6:G:N1	5:AE:98:THR:OG1	2.48	0.44
1:AA:254:G:H21	17:AQ:16:GLN:NE2	2.15	0.44
1:CA:766:A:H2'	1:CA:767:A:O4'	2.18	0.44
22:CV:124:PRO:HB2	22:CV:175:THR:HG21	2.00	0.44
1:AA:1377:A:H2'	7:AG:7:ALA:HB2	2.00	0.44
12:AL:15:VAL:CG2	12:AL:16:ARG:N	2.77	0.44
34:BN:6:PRO:HD2	34:BN:43:THR:OG1	2.18	0.44
1:AA:656:C:O2'	1:AA:657:G:H5'	2.16	0.44
16:CP:58:TYR:O	16:CP:61:SER:OG	2.31	0.44
25:BA:1776:G:N2	25:BA:1789:A:H1'	2.32	0.44
25:BA:1450:G:C6	25:BA:1450(A):C:C4	3.05	0.44
25:DA:1469:A:H2'	25:DA:1470:G:H8	1.83	0.44
25:DA:2850:A:OP2	25:DA:2866:U:C5	2.70	0.44
3:CC:151:VAL:HG13	3:CC:199:LYS:O	2.17	0.44
43:DW:9:TYR:H	43:DW:9:TYR:HD2	1.65	0.44
39:BS:26:LEU:HG	39:BS:39:ILE:CD1	2.46	0.44
25:DA:775:G:C2	25:DA:777:A:N6	2.85	0.44
41:BU:104:GLN:HB2	42:BV:44:LYS:NZ	2.32	0.44
25:DA:1401:G:C6	25:DA:1402:C:C4	3.06	0.44
46:DZ:73:VAL:O	46:DZ:75:LEU:HD22	2.16	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:AU:8:THR:OG1	21:AU:11:GLY:HA3	2.16	0.44
1:CA:72:C:O2'	1:CA:73:G:H5'	2.17	0.44
25:BA:1278:A:O3'	38:BR:34:ILE:HD12	2.18	0.44
47:B0:64:GLY:HA3	47:B0:82:PRO:HA	1.99	0.44
25:BA:1782:C:H1'	25:BA:2609:U:H5''	1.98	0.44
1:CA:1417:G:C6	1:CA:1482:G:C6	3.05	0.44
27:BC:108:TRP:O	27:BC:109:MET:HB2	2.17	0.44
39:BS:24:LEU:CD2	39:BS:24:LEU:N	2.81	0.44
44:BX:93:GLU:OE1	44:BX:93:GLU:HA	2.17	0.44
1:CA:293:G:H8	1:CA:293:G:OP2	2.00	0.44
25:BA:2518:A:C8	25:BA:2518:A:H5'	2.53	0.44
25:BA:2279:G:N2	25:BA:2280:G:H1'	2.33	0.44
25:BA:252:G:O2'	25:BA:253:C:H5'	2.18	0.44
36:BP:50:ARG:CG	36:BP:51:PHE:N	2.66	0.44
1:AA:1348:U:H4'	9:AI:120:ARG:CD	2.20	0.44
46:DZ:3:ARG:O	46:DZ:4:LEU:HB2	2.18	0.44
2:CB:155:LEU:HD13	2:CB:157:ARG:N	2.25	0.44
2:CB:168:THR:HA	2:CB:171:ALA:HB2	2.00	0.44
34:DN:63:THR:O	34:DN:66:LYS:HG3	2.18	0.44
34:DN:66:LYS:O	34:DN:87:LEU:HD12	2.18	0.44
41:DU:36:ARG:HH21	42:DV:82:ARG:HH11	1.64	0.44
41:DU:52:ARG:O	41:DU:54:LYS:N	2.50	0.44
41:DU:57:PHE:O	41:DU:60:LEU:HB3	2.16	0.44
42:DV:2:PHE:HB3	42:DV:41:GLY:C	2.37	0.44
42:DV:87:HIS:NE2	42:DV:89:GLN:HG2	2.33	0.44
42:DV:91:TYR:C	42:DV:91:TYR:CD1	2.91	0.44
20:AT:46:GLU:O	20:AT:46:GLU:HG2	2.18	0.44
1:CA:932:C:H5'	7:CG:4:ARG:HG2	1.99	0.44
1:CA:934:C:H5	1:CA:1344:C:H2'	1.83	0.44
1:CA:1349:A:OP1	9:CI:118:LYS:O	2.36	0.44
31:DG:128:ARG:HB3	31:DG:130:ASN:HD22	1.82	0.44
13:AM:76:ALA:O	13:AM:79:LYS:HB2	2.18	0.44
35:BO:104:ARG:C	35:BO:106:LEU:N	2.71	0.44
40:BT:33:LYS:NZ	40:BT:74:ARG:NH1	2.65	0.44
25:DA:1249:U:C4'	41:DU:4:ALA:HB3	2.47	0.44
45:BY:13:VAL:CG2	45:BY:72:VAL:HG13	2.48	0.44
10:AJ:97:GLU:OE2	10:AJ:97:GLU:HA	2.17	0.44
10:AJ:97:GLU:O	10:AJ:98:ILE:HG13	2.17	0.44
31:BG:61:ALA:CB	31:BG:68:PRO:HD3	2.42	0.44
32:DH:85:LYS:HG2	32:DH:133:VAL:CG2	2.47	0.44
32:DH:122:THR:O	32:DH:133:VAL:HG13	2.17	0.44
8:CH:7:ALA:CA	8:CH:85:ARG:HG3	2.47	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DH:107:VAL:O	32:DH:109:PHE:N	2.50	0.44
45:BY:45:VAL:HG22	45:BY:60:PHE:O	2.17	0.44
13:CM:11:ARG:C	13:CM:45:VAL:HG21	2.38	0.44
13:CM:14:ARG:HG3	13:CM:14:ARG:O	2.17	0.44
43:DW:70:TYR:O	43:DW:107:LEU:HG	2.18	0.44
43:DW:1:MET:HE2	43:DW:2:GLU:O	2.18	0.44
12:CL:42:PRO:HG2	12:CL:46:ASN:O	2.17	0.44
2:AB:121:LEU:C	2:AB:121:LEU:HD23	2.37	0.44
25:BA:1210:A:H5''	25:BA:1211:U:H3'	1.98	0.44
5:AE:35:GLY:HA3	5:AE:112:LEU:HB3	1.99	0.44
40:DT:77:PRO:O	40:DT:78:LEU:CB	2.65	0.44
1:CA:972:C:O2'	10:CJ:55:LYS:HB2	2.16	0.44
34:DN:116:LEU:O	34:DN:117:PHE:C	2.55	0.44
38:DR:49:ASP:OD1	38:DR:95:THR:HB	2.17	0.44
42:BV:19:LYS:HG2	42:BV:94:LEU:CB	2.34	0.44
28:DD:197:GLY:O	28:DD:198:ASN:CB	2.66	0.44
40:DT:29:ARG:HD3	40:DT:29:ARG:HA	1.56	0.44
40:DT:28:VAL:CG1	40:DT:46:GLU:HG3	2.47	0.44
27:DC:15:VAL:CG2	27:DC:29:LEU:HD21	2.33	0.44
37:BQ:115:MET:HE2	37:BQ:115:MET:HA	1.99	0.44
40:DT:3:ARG:HG3	40:DT:6:LEU:HD12	1.98	0.44
25:DA:627:A:O2'	25:DA:636:G:N2	2.50	0.44
1:CA:1036:G:H3'	1:CA:1037:C:H6	1.80	0.44
39:DS:101:LEU:HD22	39:DS:101:LEU:C	2.38	0.44
39:DS:34:HIS:HA	39:DS:54:LEU:CD2	2.42	0.44
30:DF:168:ARG:CG	30:DF:175:THR:HG21	2.40	0.44
1:AA:460:G:N1	1:AA:470:C:H5''	2.32	0.44
1:AA:460:G:H1	1:AA:470:C:H5''	1.81	0.44
25:DA:2166:G:O2'	25:DA:2167:U:H5'	2.17	0.44
12:AL:66:TYR:C	12:AL:66:TYR:HD2	2.20	0.44
1:CA:79:G:N2	1:CA:91:C:N4	2.59	0.44
25:DA:2481:G:HO2'	25:DA:2482:G:H8	1.65	0.44
3:CC:139:GLN:HG3	3:CC:143:GLU:OE2	2.17	0.44
12:CL:21:VAL:CG1	12:CL:95:TYR:CE2	3.00	0.44
32:DH:12:PRO:O	32:DH:15:VAL:CG2	2.64	0.44
28:BD:79:VAL:O	28:BD:79:VAL:HG12	2.16	0.44
43:DW:64:MET:O	43:DW:65:LEU:CB	2.66	0.44
25:BA:329:G:OP2	45:BY:71:LYS:HD3	2.17	0.44
43:BW:5:ALA:HB1	43:BW:50:VAL:CG2	2.37	0.44
30:DF:140:LEU:HD22	30:DF:140:LEU:H	1.83	0.44
1:CA:524:G:O5'	1:CA:524:G:H8	2.00	0.44
1:CA:221:C:H2'	1:CA:222:U:H6	1.81	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CD:151:LYS:O	4:CD:151:LYS:HG2	2.17	0.44
27:BC:76:LEU:HG	27:BC:78:ILE:HG13	2.00	0.44
25:BA:2331:G:H4'	47:B0:41:GLY:HA3	1.98	0.44
1:CA:661:G:C2'	1:CA:662:G:H5'	2.47	0.44
29:DE:82:ARG:HB3	29:DE:83:ASP:OD2	2.17	0.44
28:DD:268:ARG:N	28:DD:270:ILE:HD11	2.33	0.44
39:BS:106:ARG:O	39:BS:106:ARG:CD	2.66	0.44
55:D8:50:LEU:O	55:D8:51:ALA:CB	2.65	0.44
22:AV:114:MET:HE3	22:AV:118:GLN:N	2.32	0.44
38:BR:12:ARG:HD3	38:BR:16:HIS:CE1	2.53	0.44
25:DA:1448:G:H5'	25:DA:1449:A:OP1	2.18	0.44
25:BA:97:C:H5''	49:B2:2:LYS:CB	2.47	0.44
25:DA:649:G:C5	25:DA:650:C:C4	3.05	0.44
18:AR:33:ASP:OD2	18:AR:34:TYR:N	2.50	0.44
5:CE:150:ARG:C	5:CE:152:ARG:N	2.70	0.44
25:DA:2889:C:C2'	25:DA:2889:C:O2	2.59	0.44
25:BA:271(O):C:O2'	25:BA:271(P):C:H6	2.01	0.44
16:CP:25:ARG:O	16:CP:26:ARG:O	2.35	0.44
38:BR:52:ILE:C	38:BR:54:LEU:H	2.20	0.44
13:AM:108:ARG:NH1	13:AM:111:LYS:O	2.50	0.44
41:DU:85:LYS:HD3	41:DU:85:LYS:O	2.16	0.44
25:BA:2870:C:H5''	38:BR:65:LEU:HD21	1.98	0.44
1:AA:113:G:C4	1:AA:114:U:C5	3.05	0.44
34:DN:55:VAL:HG13	34:DN:56:ASN:N	2.32	0.44
38:DR:58:GLY:C	38:DR:59:ASP:OD2	2.56	0.44
8:AH:91:ARG:HH11	8:AH:91:ARG:CG	2.29	0.44
25:DA:407:G:H2'	25:DA:408:G:H8	1.81	0.44
25:DA:1233:C:C4	25:DA:1234:U:C5	3.06	0.44
25:DA:742:G:H4'	25:DA:1676:A:H5'	1.99	0.44
3:CC:22:TRP:CH2	14:CN:54:PRO:HG2	2.53	0.44
28:BD:158:ALA:O	28:BD:196:VAL:HG11	2.17	0.44
25:BA:2856:C:H2'	25:BA:2857:G:O4'	2.18	0.44
25:BA:2460:U:C2'	25:BA:2461:C:H5'	2.47	0.44
25:DA:2489:G:O2'	25:DA:2490:G:H5'	2.18	0.44
11:AK:26:ASN:O	11:AK:55:LYS:HE3	2.17	0.44
16:CP:3:LYS:HG2	16:CP:24:ALA:HA	1.99	0.44
34:DN:40:PRO:HB3	41:DU:68:ALA:HB2	2.00	0.44
25:BA:918:A:H5''	26:BB:98:G:O2'	2.16	0.44
25:BA:956:G:C5'	37:BQ:77:LYS:HE2	2.48	0.44
1:AA:1275:A:H2'	1:AA:1276:G:H8	1.83	0.44
39:BS:24:LEU:N	39:BS:24:LEU:HD22	2.32	0.44
25:BA:1560:G:O2'	25:BA:1561:G:H5'	2.16	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:D5:57:VAL:HG23	52:D5:58:LEU:N	2.33	0.44
36:DP:29:LYS:N	36:DP:29:LYS:HD2	2.32	0.44
28:BD:233:HIS:CD2	28:BD:233:HIS:N	2.85	0.44
1:AA:634:C:H2'	1:AA:635:G:H8	1.82	0.44
25:BA:151:C:O2'	25:BA:152:G:H5'	2.17	0.44
37:DQ:141:GLN:NE2	46:DZ:71:ARG:O	2.50	0.44
2:CB:55:PHE:O	2:CB:56:ARG:C	2.56	0.44
41:DU:89:GLU:HG2	42:DV:50:PRO:HG3	1.99	0.44
42:DV:39:LEU:CB	42:DV:47:VAL:HG11	2.45	0.44
42:DV:32:THR:HA	42:DV:60:GLU:HA	2.00	0.44
28:BD:51:VAL:O	28:BD:52:ARG:O	2.34	0.44
48:D1:62:VAL:CG2	48:D1:63:ALA:N	2.81	0.44
7:CG:105:VAL:O	7:CG:109:ASN:ND2	2.51	0.44
7:CG:148:ASN:C	7:CG:150:ALA:N	2.70	0.44
34:BN:2:LYS:HZ1	42:BV:13:ARG:N	2.15	0.44
30:BF:24:LEU:HA	30:BF:24:LEU:HD13	1.87	0.44
35:BO:69:ILE:HD12	35:BO:69:ILE:H	1.80	0.44
3:AC:47:LEU:O	3:AC:49:SER:N	2.51	0.44
3:AC:92:ALA:CB	3:AC:99:VAL:HG11	2.47	0.44
3:AC:29:TYR:HE1	10:AJ:65:LEU:HD21	1.83	0.44
1:AA:15:G:H1'	5:AE:19:MET:SD	2.58	0.44
25:DA:2418:A:H2'	25:DA:2419:U:O4'	2.18	0.44
25:BA:274:G:N2	25:BA:363:G:H22	2.15	0.44
13:AM:11:ARG:CG	13:AM:12:ASN:N	2.81	0.44
28:DD:25:THR:C	28:DD:26:LYS:HD3	2.38	0.44
29:DE:104:VAL:CG1	29:DE:188:VAL:HG23	2.48	0.44
32:DH:138:LYS:N	32:DH:141:VAL:HG23	2.33	0.44
4:AD:49:ARG:HA	4:AD:49:ARG:NH1	2.22	0.44
28:BD:26:LYS:HE2	28:BD:113:VAL:CG2	2.47	0.44
2:AB:11:LEU:HA	2:AB:14:GLY:HA3	1.99	0.44
1:CA:453:A:H5''	16:CP:72:ARG:HD2	1.98	0.44
2:AB:111:ARG:HE	2:AB:145:LEU:HD11	1.81	0.44
3:CC:189:ALA:O	3:CC:191:THR:N	2.48	0.44
11:AK:122:LYS:HB3	11:AK:122:LYS:HE2	1.76	0.44
5:AE:33:VAL:O	5:AE:112:LEU:CD1	2.60	0.44
22:CV:83:MET:HE2	22:CV:89:GLU:N	2.32	0.44
22:CV:84:ASP:HB3	22:CV:88:TYR:HA	2.00	0.44
40:DT:50:ILE:HA	40:DT:99:LEU:HD11	1.98	0.44
34:DN:118:LYS:O	34:DN:121:LYS:HD2	2.18	0.44
42:BV:25:LEU:O	42:BV:64:HIS:CE1	2.70	0.44
37:BQ:132:VAL:HG11	46:BZ:80:ARG:NH2	2.33	0.44
25:DA:2348:U:C2'	25:DA:2349:G:C5'	2.84	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DT:13:ARG:NE	40:DT:13:ARG:HA	2.31	0.44
1:CA:1034:G:C3'	1:CA:1034:G:C8	3.00	0.44
39:DS:68:GLN:HG2	39:DS:71:ARG:NH1	2.32	0.44
39:DS:70:GLY:C	39:DS:72:ALA:N	2.71	0.44
34:DN:58:ASP:C	34:DN:60:ILE:N	2.69	0.44
10:CJ:6:ILE:CG1	10:CJ:72:VAL:O	2.66	0.44
10:CJ:96:ILE:HD13	10:CJ:96:ILE:O	2.18	0.44
27:DC:130:ARG:O	27:DC:134:PRO:HD2	2.18	0.44
31:BG:76:SER:HB3	31:BG:84:LYS:CA	2.48	0.44
1:AA:522:C:O2'	1:AA:523:A:H5'	2.17	0.44
12:AL:50:ARG:CB	12:AL:90:LEU:HD11	2.46	0.44
29:BE:12:THR:HB	29:BE:13:ARG:H	1.53	0.44
20:CT:87:LYS:O	20:CT:88:VAL:C	2.56	0.44
23:CW:60:U:H5''	23:CW:61:C:OP2	2.17	0.44
1:AA:740:U:O2'	1:AA:741:G:H5'	2.18	0.44
10:CJ:88:LEU:HD11	10:CJ:90:LEU:HD11	1.99	0.44
1:CA:130:A:N1	1:CA:233:C:H1'	2.33	0.44
25:DA:2041:U:C2	25:DA:2042:A:C8	3.05	0.44
27:BC:34:ALA:HB1	27:BC:40:GLU:OE2	2.17	0.44
27:BC:40:GLU:O	27:BC:179:ALA:HB2	2.17	0.44
25:BA:2387:U:H5''	25:BA:2387:U:H6	1.83	0.44
5:AE:57:LYS:O	5:AE:60:TYR:HB3	2.18	0.44
5:AE:59:GLY:O	5:AE:62:ALA:N	2.50	0.44
1:AA:404:U:C2	1:AA:405:U:C5	3.05	0.44
18:AR:44:LEU:O	18:AR:45:SER:HB3	2.17	0.44
4:CD:28:SER:O	4:CD:30:LYS:HG2	2.18	0.44
45:BY:14:LEU:HD12	45:BY:15:VAL:N	2.33	0.44
26:BB:111:G:O2'	26:BB:112:U:H5'	2.18	0.44
1:CA:1392:G:N2	1:CA:1502:A:C8	2.80	0.44
16:CP:8:ARG:HA	16:CP:17:TYR:HA	2.00	0.44
4:CD:108:LEU:HB3	4:CD:110:PHE:CE1	2.52	0.44
38:DR:104:ARG:HH11	38:DR:104:ARG:HB3	1.79	0.44
1:CA:277:C:OP2	17:CQ:41:LYS:NZ	2.51	0.44
40:BT:89:VAL:HG12	40:BT:91:ARG:HG3	1.98	0.44
46:BZ:9:ARG:HB3	46:BZ:35:LYS:HB3	1.99	0.44
10:AJ:38:ILE:HG13	10:AJ:38:ILE:O	2.18	0.44
17:AQ:78:GLU:OE2	17:AQ:81:ARG:CD	2.62	0.44
13:CM:32:GLU:HA	13:CM:35:GLU:CG	2.40	0.44
25:DA:2884:U:C2	52:D5:51:TYR:CE1	3.02	0.44
25:BA:445:C:C2'	25:BA:446:G:H5'	2.46	0.44
1:CA:405:U:H3'	1:CA:406:G:H5'	1.98	0.44
1:CA:167:G:C2'	1:CA:168:G:H5'	2.46	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:638:G:C4	25:BA:639:U:C5	3.06	0.44
47:B0:11:ASN:HA	47:B0:13:ARG:HH21	1.82	0.44
27:DC:226:ASN:CG	27:DC:227:PRO:HD2	2.37	0.44
25:DA:140:G:N2	25:DA:142:A:C2	2.73	0.44
31:DG:7:LEU:HD12	31:DG:104:GLU:HA	1.98	0.44
12:CL:83:ARG:N	12:CL:96:HIS:O	2.50	0.44
25:DA:2301:C:H2'	25:DA:2302:G:C8	2.52	0.44
1:CA:677:U:H1'	11:CK:119:CYS:SG	2.58	0.44
1:CA:678:U:O2'	1:CA:679:C:H5'	2.18	0.44
25:DA:2599:G:O2'	25:DA:2600:A:H5'	2.17	0.44
15:CO:35:ARG:O	15:CO:39:LEU:HB2	2.17	0.44
15:CO:53:HIS:O	15:CO:56:LEU:HB3	2.16	0.44
25:BA:80:G:H2'	25:BA:81:G:H5'	2.00	0.44
46:BZ:60:LEU:H	46:BZ:60:LEU:CD2	2.26	0.44
25:BA:1416:G:O2'	25:BA:1417:C:O4'	2.35	0.44
49:D2:32:LEU:O	49:D2:32:LEU:HD23	2.17	0.44
32:DH:146:ALA:O	32:DH:149:ARG:N	2.49	0.44
25:DA:2356:C:O3'	47:D0:20:ARG:CD	2.63	0.44
7:AG:80:VAL:HG21	7:AG:154:TYR:CE1	2.52	0.44
26:DB:57:A:C1'	31:DG:30:GLU:HB3	2.48	0.44
1:CA:825:G:O2'	8:CH:12:ARG:NH2	2.51	0.44
1:CA:728:A:C5	15:CO:54:ARG:HD2	2.52	0.44
1:AA:1507:A:H2'	1:AA:1508:G:H8	1.81	0.44
29:BE:92:THR:H	29:BE:95:ILE:CD1	2.28	0.44
25:BA:2247:A:H2'	25:BA:2248:C:H6	1.83	0.44
25:BA:1462:C:H2'	25:BA:1463:C:H6	1.81	0.44
2:CB:149:LEU:O	2:CB:150:SER:C	2.55	0.44
25:BA:1859:A:N6	25:BA:1883:G:O2'	2.51	0.44
4:CD:90:GLY:HA3	4:CD:200:GLU:HG3	1.98	0.44
1:CA:442:C:H42	1:CA:492:G:H1	1.65	0.44
25:BA:1448:G:N2	25:BA:1528(A):A:H2	2.15	0.44
25:DA:677:A:C6	25:DA:678:C:C4	3.06	0.44
29:BE:38:THR:HB	29:BE:40:GLU:CD	2.37	0.44
25:BA:1169:G:N2	25:BA:1181:C:C2	2.85	0.44
32:DH:65:HIS:ND1	32:DH:69:ARG:HD2	2.32	0.44
25:BA:1425:G:H2'	25:BA:1426:G:O4'	2.18	0.44
25:BA:1355:G:O2'	25:BA:1356:G:H5'	2.17	0.44
25:BA:272(A):U:C2'	25:BA:272(B):G:OP2	2.65	0.44
25:DA:1399:C:O2'	25:DA:1400:G:H5'	2.17	0.44
25:DA:968:G:O2'	25:DA:969:U:H5'	2.17	0.44
55:B8:38:GLY:O	55:B8:42:ARG:N	2.34	0.44
31:DG:105:LYS:CE	51:D4:52:SER:HB3	2.47	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DP:108:LYS:C	36:DP:110:TYR:H	2.20	0.44
1:AA:771:G:C6	1:AA:772:U:O4	2.70	0.44
3:AC:122:GLU:C	3:AC:124:ILE:N	2.70	0.44
1:CA:1496:C:H2'	1:CA:1497:G:O4'	2.18	0.44
23:CW:27:U:O2	23:CW:44:A:C2	2.71	0.44
7:AG:99:LEU:HD22	7:AG:103:TRP:CZ2	2.53	0.44
1:CA:498:U:O2'	1:CA:499:A:H5'	2.18	0.44
36:BP:47:ASP:HB2	36:BP:51:PHE:HB2	1.99	0.44
39:BS:49:VAL:CG2	39:BS:80:LEU:HD22	2.48	0.44
33:BI:89:TYR:N	33:BI:89:TYR:CD1	2.85	0.44
3:AC:6:HIS:CD2	3:AC:8:ILE:HB	2.52	0.44
2:CB:80:ILE:HD11	2:CB:212:GLN:N	2.32	0.44
9:CI:87:GLN:O	9:CI:90:PRO:HD3	2.17	0.44
25:BA:1494:A:N3	25:BA:1494:A:C2'	2.75	0.44
25:BA:2177:C:H4'	27:BC:214:TYR:CE1	2.52	0.44
1:CA:1290:G:H2'	1:CA:1291:G:C5'	2.48	0.44
1:AA:381:C:H2'	1:AA:382:A:O4'	2.17	0.44
25:DA:278:A:C4'	25:DA:279:C:OP2	2.65	0.44
40:BT:33:LYS:HE2	40:BT:43:GLN:HE22	1.82	0.44
1:AA:223:U:C2	1:AA:224:C:C5	3.06	0.44
30:DF:108:LYS:O	30:DF:112:MET:HB2	2.18	0.44
30:DF:24:LEU:O	30:DF:25:PRO:C	2.56	0.44
40:BT:106:SER:HA	40:BT:110:ILE:HG13	1.98	0.44
1:AA:1398:A:N1	5:AE:19:MET:HE2	2.32	0.44
13:AM:3:ARG:NE	13:AM:9:ILE:HD11	2.33	0.44
36:BP:115:LEU:HD23	36:BP:115:LEU:C	2.38	0.44
32:DH:91:GLY:C	32:DH:92:ILE:HG13	2.37	0.44
46:BZ:127:VAL:CG2	46:BZ:131:ASN:HD22	2.30	0.44
25:DA:275:G:N3	25:DA:363:G:C2	2.85	0.44
13:CM:2:ALA:O	13:CM:4:ILE:HG13	2.17	0.44
2:AB:117:GLU:O	2:AB:121:LEU:HB3	2.17	0.44
25:BA:2416:C:H6	25:BA:2416:C:O5'	2.01	0.44
25:BA:623:G:H2'	25:BA:624:C:C6	2.53	0.44
36:BP:63:PRO:C	36:BP:65:ARG:H	2.19	0.44
1:AA:1152:A:C2	1:AA:1153:C:C2	3.05	0.44
5:AE:148:VAL:HG12	5:AE:149:GLU:OE2	2.18	0.44
42:BV:16:PRO:O	42:BV:96:ILE:O	2.34	0.44
8:AH:64:LYS:O	8:AH:79:VAL:HB	2.17	0.44
15:CO:64:ARG:NH1	15:CO:68:ARG:HH21	2.13	0.44
25:BA:1021:A:C8	25:BA:1022:G:H4'	2.53	0.44
25:BA:1020:A:N1	25:BA:1141:U:H1'	2.33	0.44
25:BA:1022:G:C5'	34:BN:69:GLN:HE22	2.31	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BQ:27:VAL:HG23	37:BQ:137:TYR:CE1	2.53	0.44
52:B5:45:VAL:CG1	52:B5:50:GLY:HA2	2.32	0.44
25:BA:1609:A:H5'	25:BA:1617:C:OP1	2.18	0.44
25:BA:857:C:N4	25:BA:858:U:O4	2.51	0.44
30:DF:131:GLY:HA3	30:DF:138:GLU:HB3	1.98	0.44
30:DF:164:ARG:HG2	30:DF:164:ARG:NH1	2.31	0.44
30:DF:175:THR:HG23	30:DF:175:THR:O	2.18	0.44
16:AP:67:THR:CB	16:AP:70:ALA:HB2	2.48	0.44
27:BC:85:LYS:HA	27:BC:88:GLU:CD	2.37	0.44
25:BA:587:C:O2'	25:BA:588:U:P	2.76	0.44
1:CA:77:G:N1	1:CA:92:C:N4	2.49	0.44
28:DD:211:ARG:HA	28:DD:214:TRP:CE3	2.53	0.44
13:AM:50:GLU:O	13:AM:54:VAL:HG23	2.18	0.44
28:DD:31:LYS:HG3	28:DD:33:LEU:HD13	2.00	0.44
1:AA:877:C:O2'	1:AA:878:G:H5'	2.17	0.44
25:DA:1854:A:H62	25:DA:1888:G:H8	1.66	0.44
18:CR:58:LEU:HB3	18:CR:62:GLU:CB	2.46	0.44
17:AQ:83:ASP:O	17:AQ:87:LYS:HG2	2.18	0.44
1:CA:881:G:OP2	12:CL:9:ARG:NH2	2.51	0.44
25:DA:1299:G:H5''	25:DA:1300:U:OP1	2.18	0.44
5:AE:87:SER:HB3	5:AE:131:ILE:CD1	2.39	0.44
25:BA:820:A:O2'	25:BA:821:A:H5'	2.18	0.44
25:BA:1191:G:OP1	36:BP:21:ARG:NH1	2.51	0.44
27:DC:78:ILE:HG22	27:DC:120:VAL:CB	2.47	0.44
25:DA:1602:U:H3'	25:DA:1603:A:C5'	2.47	0.44
25:DA:456:C:N3	44:DX:69:TYR:CE2	2.86	0.44
27:BC:49:GLY:CA	27:BC:211:ARG:HD2	2.48	0.44
4:AD:76:ARG:O	4:AD:78:LEU:N	2.51	0.44
1:CA:865:A:H5'	1:CA:1078:U:C4	2.53	0.44
25:DA:204:A:O3'	25:DA:205:G:H4'	2.17	0.44
35:BO:53:LYS:N	35:BO:56:ASP:OD1	2.50	0.44
40:BT:117:ASP:OD1	40:BT:120:ARG:N	2.30	0.44
31:BG:38:VAL:HG12	31:BG:39:ILE:N	2.33	0.44
11:CK:29:ILE:HD13	11:CK:44:SER:HB3	2.00	0.44
25:BA:2682:U:C5'	25:BA:2682:U:H6	2.28	0.44
44:DX:24:GLY:CA	44:DX:83:VAL:HG23	2.48	0.44
15:CO:50:HIS:O	15:CO:53:HIS:N	2.35	0.44
17:CQ:2:PRO:O	17:CQ:3:LYS:C	2.56	0.44
1:CA:1082:G:H2'	1:CA:1083:U:O4'	2.17	0.44
34:BN:67:LEU:C	34:BN:88:GLU:HG3	2.38	0.44
25:DA:2231:C:H2'	25:DA:2232:U:O4'	2.18	0.44
12:CL:5:ASN:HB2	17:CQ:34:LYS:HZ3	1.82	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BQ:39:PRO:HG3	37:BQ:99:PRO:HD3	1.98	0.44
1:AA:862:C:O2'	1:AA:863:U:H5'	2.18	0.44
15:AO:32:LEU:C	15:AO:34:LEU:N	2.70	0.44
25:BA:413:C:H2'	25:BA:414:C:C6	2.52	0.44
25:BA:1567:A:H4'	28:BD:58:HIS:HD2	1.81	0.44
25:DA:2364:C:C2'	25:DA:2365:G:H5'	2.48	0.44
3:CC:153:VAL:O	3:CC:165:THR:HA	2.17	0.44
37:DQ:59:ARG:HG3	37:DQ:59:ARG:HH11	1.83	0.44
25:DA:2007:C:C4'	25:DA:2824:C:H4'	2.47	0.44
33:BI:76:THR:O	33:BI:77:LEU:O	2.36	0.44
20:CT:84:LEU:HD13	20:CT:84:LEU:C	2.37	0.44
23:AW:58:A:H2'	23:AW:60:U:OP2	2.18	0.44
47:B0:35:ILE:HD13	47:B0:38:ARG:HG2	2.00	0.44
25:DA:1431:U:H2'	25:DA:1432:C:C6	2.53	0.44
31:DG:33:ARG:NH2	31:DG:162:THR:HG21	2.33	0.44
1:AA:927:G:H2'	1:AA:928:G:H8	1.83	0.44
26:BB:27:C:H3'	26:BB:28:C:C6	2.52	0.44
17:CQ:60:ILE:HG22	17:CQ:72:ARG:O	2.17	0.44
22:CV:32:ARG:HB3	23:CW:74:C:O2	2.18	0.44
34:DN:84:LYS:O	34:DN:86:PRO:HD3	2.18	0.44
7:CG:125:MET:O	7:CG:129:GLU:HB2	2.17	0.44
1:CA:291:C:O2'	1:CA:292:G:H5'	2.17	0.44
1:AA:1329:A:P	13:AM:28:ALA:HB3	2.57	0.44
25:BA:1973:G:H2'	25:BA:1974:C:C6	2.52	0.44
17:CQ:68:ARG:HG3	17:CQ:68:ARG:O	2.18	0.44
28:BD:183:ARG:HG2	28:BD:183:ARG:HH11	1.82	0.44
9:AI:32:ASP:O	9:AI:34:ASN:N	2.50	0.44
52:D5:31:VAL:HB	52:D5:32:PRO:CD	2.48	0.44
25:BA:196:A:O4'	36:BP:46:LYS:HE3	2.17	0.44
36:BP:61:ARG:NH1	55:B8:13:ARG:HD2	2.33	0.44
39:BS:30:ARG:HH22	39:BS:62:LYS:HD2	1.83	0.44
33:BI:84:GLY:N	33:BI:89:TYR:HE1	2.16	0.44
25:DA:1903:G:OP1	28:DD:241:PRO:O	2.35	0.44
9:AI:11:LYS:O	9:AI:13:ALA:N	2.47	0.44
25:DA:542:C:H2'	25:DA:543:C:H6	1.82	0.44
2:CB:19:HIS:HD2	2:CB:204:ASN:ND2	2.16	0.44
25:DA:997:G:H5'	41:DU:93:LYS:HZ3	1.80	0.44
37:DQ:97:VAL:HG21	37:DQ:103:MET:HE3	2.00	0.44
37:DQ:131:ILE:HG22	37:DQ:132:VAL:N	2.33	0.44
48:D1:83:GLU:O	48:D1:86:SER:OG	2.36	0.44
19:CS:63:THR:CG2	19:CS:66:MET:HE3	2.47	0.44
1:CA:1118:C:H6	1:CA:1118:C:O5'	2.00	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1251:A:H1'	1:CA:1369:C:HO2'	1.83	0.44
9:CI:117:HIS:HB2	9:CI:121:ARG:O	2.18	0.44
9:CI:80:GLY:O	9:CI:83:ARG:N	2.51	0.44
1:CA:1363(A):A:C5'	1:CA:1364:U:OP1	2.63	0.44
29:DE:61:ARG:CG	29:DE:62:PRO:HD3	2.48	0.44
30:BF:7:TYR:HE1	30:BF:196:LEU:HD11	1.79	0.44
25:BA:1899:G:H22	25:BA:1902:C:H41	0.68	0.44
3:AC:29:TYR:O	3:AC:33:LEU:CB	2.63	0.44
3:CC:76:VAL:O	3:CC:83:ARG:HG3	2.17	0.44
25:BA:1344:G:H5'	25:BA:1384:A:C6	2.52	0.44
25:BA:1386:C:H2'	25:BA:1387:C:H6	1.83	0.44
53:D6:15:GLU:OE2	53:D6:18:ARG:HG3	2.18	0.44
25:DA:852:G:O2'	25:DA:853:G:H5'	2.17	0.44
45:BY:87:LYS:O	45:BY:88:LYS:CB	2.60	0.44
31:BG:56:ALA:HB2	31:BG:153:ARG:NE	2.33	0.44
31:BG:43:LEU:HB2	31:BG:88:ILE:HG12	1.99	0.44
28:DD:27:THR:HG23	28:DD:27:THR:O	2.16	0.44
25:BA:2799:C:H1'	25:BA:2801:A:N7	2.32	0.44
25:DA:593:G:C1'	55:D8:4:MET:HE1	2.47	0.44
32:DH:33:LEU:HD11	32:DH:136:ILE:O	2.18	0.44
25:BA:1594:G:C5'	25:BA:1594:G:C8	2.93	0.44
25:BA:2123:G:H1'	27:BC:173:HIS:HB2	2.00	0.44
1:AA:707:C:O2'	1:AA:708:C:H5'	2.18	0.44
1:AA:427:U:H5''	1:AA:428:G:OP2	2.18	0.44
3:CC:64:VAL:N	3:CC:97:LYS:NZ	2.62	0.44
14:CN:9:LYS:HG2	14:CN:9:LYS:O	2.18	0.44
10:AJ:54:PHE:CG	10:AJ:55:LYS:HE3	2.52	0.44
14:AN:41:ARG:HG2	14:AN:41:ARG:NH1	2.33	0.44
1:CA:1221:G:O3'	19:CS:77:THR:HG21	2.17	0.44
33:BI:40:THR:O	33:BI:41:GLU:C	2.56	0.44
45:DY:78:ALA:O	45:DY:79:CYS:CB	2.66	0.44
30:BF:34:TRP:O	30:BF:35:GLU:C	2.55	0.44
15:AO:74:ASP:OD2	15:AO:77:ARG:HG2	2.18	0.44
39:DS:36:TYR:N	39:DS:36:TYR:CD1	2.85	0.44
25:DA:299:A:N1	25:DA:322:A:O2'	2.43	0.44
36:BP:24:GLY:O	36:BP:25:SER:CB	2.62	0.44
30:BF:8:GLN:O	30:BF:9:ILE:C	2.56	0.44
25:BA:628:G:C6	25:BA:636:G:C2	3.06	0.44
3:CC:108:ASN:HA	3:CC:109:PRO:HD3	1.84	0.44
2:AB:10:LEU:C	2:AB:12:GLU:N	2.70	0.44
11:CK:91:ARG:O	11:CK:95:ILE:HG12	2.18	0.44
25:DA:814:C:C5	36:DP:27:HIS:CE1	3.06	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:169:C:C2'	1:AA:170:U:H5'	2.47	0.44
45:BY:23:ARG:HB3	45:BY:23:ARG:HE	1.63	0.44
1:AA:1036:G:OP2	1:AA:1037:C:N4	2.51	0.44
38:BR:63:ARG:O	38:BR:67:LEU:HB2	2.18	0.44
56:B9:30:PRO:C	56:B9:32:HIS:H	2.20	0.44
11:AK:95:ILE:O	11:AK:99:GLN:HG2	2.17	0.44
25:DA:1578:U:OP2	25:DA:1578:U:H6	2.01	0.44
31:BG:128:ARG:HB2	31:BG:130:ASN:O	2.18	0.44
29:BE:111:ARG:HB2	29:BE:160:TYR:O	2.18	0.44
1:CA:179:A:H2'	1:CA:180:U:C6	2.47	0.44
25:BA:2485:G:C5'	37:BQ:46:GLN:HE21	2.29	0.44
22:AV:127:VAL:HA	22:AV:173:VAL:O	2.17	0.44
40:BT:120:ARG:HA	40:BT:123:GLN:HG2	1.98	0.44
30:BF:123:LEU:HD13	30:BF:192:LEU:HD13	1.99	0.44
42:BV:76:LYS:HB2	42:BV:81:TYR:HB3	2.00	0.44
1:CA:712:A:H2'	1:CA:713:G:O4'	2.18	0.44
25:DA:588:U:H1'	30:DF:90:PHE:CG	2.52	0.44
4:AD:150:GLU:O	4:AD:153:ARG:HG3	2.17	0.44
1:CA:1422:G:H2'	1:CA:1423:G:H8	1.82	0.44
25:DA:1955:U:O2'	25:DA:1956:U:H5'	2.17	0.44
1:CA:243:A:C2	1:CA:246:A:C8	3.06	0.44
37:BQ:103:MET:HE1	37:BQ:125:LEU:HD13	1.98	0.44
37:DQ:10:ARG:HG3	37:DQ:10:ARG:NH1	2.30	0.44
1:CA:1097:C:O2'	1:CA:1169:A:H1'	2.18	0.44
14:AN:53:LEU:O	14:AN:56:VAL:HB	2.17	0.44
30:BF:101:LEU:HB3	30:BF:106:ARG:NH1	2.32	0.44
1:AA:1237:C:H2'	1:AA:1336:C:C5	2.52	0.44
15:AO:65:ARG:HH11	15:AO:65:ARG:HG2	1.83	0.44
25:BA:1789:A:H2'	25:BA:1790:C:C6	2.53	0.44
25:BA:958:U:O2'	25:BA:959:A:P	2.76	0.44
40:DT:64:ARG:HD3	40:DT:73:GLU:CG	2.48	0.44
8:AH:35:ILE:HG22	8:AH:39:LEU:HD21	2.00	0.44
36:DP:13:ASN:ND2	36:DP:13:ASN:O	2.51	0.44
25:BA:2853:C:O2'	25:BA:2854:G:H5'	2.17	0.44
48:B1:67:ILE:N	48:B1:68:PRO:HD2	2.33	0.44
25:BA:1168:G:H1	25:BA:1181:C:H42	1.66	0.44
51:D4:58:TYR:N	51:D4:58:TYR:CD2	2.86	0.44
1:AA:994:A:H2'	1:AA:995:C:C6	2.53	0.44
25:DA:2672:G:C3'	25:DA:2673:G:H5''	2.47	0.44
25:DA:32:C:H1'	25:DA:474:G:N2	2.32	0.44
26:DB:100:A:C4	26:DB:101:G:C8	3.06	0.44
1:AA:189:G:C6	1:AA:189(A):C:C4	3.06	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:BE:195:LEU:HD12	29:BE:196:VAL:N	2.33	0.44
1:AA:363:A:OP2	12:AL:31:ARG:HB3	2.18	0.44
25:DA:188:G:C6	25:DA:189:G:C4	3.05	0.44
34:BN:39:ARG:HH11	34:BN:39:ARG:HG2	1.83	0.44
25:BA:2555:U:H2'	25:BA:2556:C:O4'	2.17	0.44
25:DA:1945:G:O5'	25:DA:1945:G:H8	2.01	0.44
39:BS:35:ILE:CD1	39:BS:99:LYS:HD3	2.47	0.44
1:AA:1288:A:O2'	1:AA:1289:A:H5'	2.18	0.44
26:DB:73:A:C5	26:DB:105:A:C2	3.06	0.44
2:CB:197:VAL:HB	2:CB:200:ILE:HG12	2.00	0.44
2:CB:84:GLU:HB3	2:CB:219:VAL:HG21	1.99	0.44
25:DA:1142(A):A:C8	25:DA:1142(A):A:H5'	2.48	0.44
34:DN:62:VAL:HG22	34:DN:66:LYS:HB2	1.99	0.44
41:DU:110:VAL:HG12	41:DU:114:LYS:HZ2	1.81	0.44
42:DV:47:VAL:HB	42:DV:50:PRO:O	2.18	0.44
37:DQ:102:VAL:CG1	37:DQ:103:MET:H	2.20	0.44
25:DA:910:A:C6	37:DQ:13:GLN:HG3	2.50	0.44
37:DQ:16:ARG:CG	37:DQ:17:LEU:H	2.30	0.44
25:BA:1493:C:C5	25:BA:2206:G:O2'	2.70	0.44
27:BC:214:TYR:CD2	27:BC:224:ARG:HB2	2.53	0.44
48:D1:46:LEU:O	48:D1:46:LEU:HD23	2.17	0.44
7:CG:115:ARG:O	7:CG:119:ARG:HG3	2.18	0.44
31:DG:63:ILE:HG22	31:DG:143:GLU:HB2	2.00	0.44
1:AA:1324:A:C4'	1:AA:1362:C:H4'	2.48	0.44
25:DA:1359:A:N6	25:DA:1372:U:H3	2.13	0.44
29:DE:59:VAL:CG2	29:DE:60:ASN:N	2.71	0.44
29:BE:62:PRO:HG2	29:BE:62:PRO:O	2.18	0.44
1:AA:192:U:C4'	20:AT:103:GLY:N	2.73	0.44
25:DA:2417:C:C2	25:DA:2418:A:C8	3.06	0.44
13:AM:3:ARG:CA	13:AM:9:ILE:HG12	2.48	0.44
36:BP:91:PHE:HD2	36:BP:95:VAL:HG12	1.81	0.44
36:BP:98:GLU:H	36:BP:100:LEU:H	1.65	0.44
28:BD:35:LYS:CA	28:BD:64:ILE:HG22	2.37	0.44
20:CT:23:ARG:O	20:CT:27:LYS:CB	2.60	0.44
25:DA:276:A:N3	25:DA:276:A:C2'	2.81	0.44
1:CA:1239:A:H62	1:CA:1299:A:H62	1.64	0.44
13:CM:20:THR:HA	13:CM:25:ILE:HG22	1.98	0.44
13:AM:21:TYR:C	13:AM:22:ILE:HG13	2.38	0.44
36:BP:64:LYS:HD2	55:B8:25:MET:SD	2.58	0.44
5:AE:139:LEU:C	5:AE:141:GLN:H	2.21	0.44
3:CC:181:ASN:HD22	3:CC:205:GLY:H	1.65	0.44
10:CJ:49:VAL:CG2	10:CJ:50:ILE:N	2.80	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CC:9:GLY:HA3	14:CN:49:HIS:HA	1.99	0.44
27:DC:16:ASP:OD2	27:DC:19:LYS:HB2	2.18	0.44
1:CA:1221:G:C2'	1:CA:1222:G:H5'	2.47	0.44
27:DC:80:LYS:HA	31:DG:50:ALA:CB	2.48	0.44
15:AO:25:THR:O	15:AO:26:GLU:C	2.57	0.44
25:DA:857:C:H5'	47:D0:77:ARG:HH22	1.82	0.44
2:CB:114:ARG:CD	2:CB:117:GLU:OE2	2.66	0.44
30:DF:178:PRO:CB	30:DF:201:VAL:HG11	2.42	0.44
1:AA:457:C:C4	1:AA:458:C:N4	2.86	0.44
1:AA:482:A:O2'	1:AA:483:C:C6	2.64	0.44
27:DC:131:ILE:O	27:DC:135:ARG:HD2	2.18	0.44
27:DC:83:LYS:HZ1	27:DC:148:PHE:HB3	1.82	0.44
25:BA:589:C:H2'	25:BA:590:A:C8	2.53	0.44
36:BP:25:SER:O	36:BP:27:HIS:N	2.50	0.44
36:BP:24:GLY:CA	36:BP:33:ARG:CZ	2.95	0.44
25:DA:2173:A:O2'	25:DA:2174:C:C6	2.68	0.44
37:DQ:123:HIS:C	37:DQ:125:LEU:H	2.21	0.44
1:CA:473:G:H5''	16:CP:81:ARG:HH21	1.83	0.44
12:CL:24:LEU:HD12	12:CL:61:TYR:CG	2.53	0.44
8:AH:88:LYS:HB3	8:AH:89:PRO:CD	2.44	0.44
20:CT:40:ALA:C	20:CT:42:GLN:H	2.20	0.44
4:CD:30:LYS:O	4:CD:32:ALA:N	2.50	0.44
25:BA:492:A:H2'	25:BA:493:G:C5'	2.48	0.44
39:DS:85:VAL:O	39:DS:106:ARG:HG3	2.17	0.44
38:BR:67:LEU:CD1	38:BR:76:VAL:HG21	2.39	0.44
36:DP:78:PRO:HB2	36:DP:111:ARG:CD	2.41	0.44
6:AF:53:ALA:HB3	6:AF:86:ARG:HD3	2.00	0.44
6:CF:12:PRO:HB3	6:CF:45:LEU:HD13	2.00	0.44
6:CF:99:ALA:N	18:CR:31:LEU:HD22	2.33	0.44
1:CA:394:G:C5	1:CA:395:C:C5	3.06	0.44
4:CD:162:LEU:O	4:CD:165:MET:HB2	2.17	0.44
9:AI:4:TYR:OH	9:AI:21:PRO:HG3	2.17	0.44
6:CF:3:ARG:HG3	6:CF:65:VAL:O	2.18	0.44
6:AF:81:ILE:H	6:AF:81:ILE:HG13	1.57	0.44
8:CH:63:LEU:HD22	8:CH:63:LEU:H	1.83	0.44
34:BN:134:ARG:CD	34:BN:134:ARG:N	2.75	0.44
25:DA:1210:A:H1'	25:DA:1212:G:C2	2.52	0.44
8:CH:44:PHE:HA	8:CH:79:VAL:CG1	2.48	0.44
25:BA:2202:C:H1'	28:BD:151:LYS:HZ3	1.77	0.44
48:D1:29:GLY:C	48:D1:30:VAL:CG2	2.86	0.44
48:B1:72:GLU:OE1	48:B1:72:GLU:C	2.57	0.44
25:DA:195:A:H61	25:DA:198:C:H3'	1.82	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
35:DO:63:VAL:HB	35:DO:106:LEU:HD11	2.00	0.44
46:DZ:107:PRO:CA	46:DZ:141:SER:HA	2.46	0.44
25:DA:2894:G:N3	25:DA:2894:G:C2'	2.79	0.44
5:AE:82:VAL:HG21	5:AE:138:ALA:HA	2.00	0.44
25:BA:289:A:N6	25:BA:351:G:H1'	2.33	0.44
15:CO:56:LEU:O	15:CO:57:LEU:C	2.55	0.44
1:CA:246:A:C5	1:CA:279:A:C6	3.06	0.44
7:AG:75:VAL:O	7:AG:76:ARG:HG3	2.18	0.44
25:BA:2870:C:H2'	25:BA:2871:C:O4'	2.16	0.44
30:BF:68:LYS:CG	30:BF:69:HIS:CE1	3.01	0.44
25:DA:1843:C:H5'	28:DD:253:GLN:HE22	1.83	0.44
25:BA:2520:C:C6	25:BA:2567:G:C1'	3.00	0.44
25:DA:13:A:N1	25:DA:525:U:H2'	2.33	0.44
10:AJ:46:ARG:HG2	10:AJ:64:GLU:HB3	1.99	0.44
23:AW:5:G:C2'	23:AW:6:G:H5'	2.48	0.44
25:DA:1215:G:C2'	25:DA:1216:G:H5'	2.48	0.44
1:CA:1328:C:OP1	13:CM:28:ALA:HB2	2.18	0.44
46:BZ:38:VAL:HG21	46:BZ:43:PHE:CG	2.52	0.44
25:DA:1570:A:O4'	28:DD:38:LYS:HE2	2.17	0.44
25:BA:992:C:H2'	25:BA:993:G:H8	1.83	0.44
35:DO:47:ILE:HG23	35:DO:48:PRO:HD2	1.99	0.44
2:CB:103:THR:C	2:CB:105:PHE:N	2.70	0.44
25:DA:1472:A:H2'	25:DA:1473:G:O4'	2.17	0.44
1:CA:913:A:HO2'	1:CA:914:A:P	2.40	0.44
25:DA:419:C:H2'	25:DA:420:C:O4'	2.18	0.44
4:AD:68:TYR:N	4:AD:68:TYR:HD1	2.16	0.44
45:DY:16:ALA:CB	45:DY:21:LYS:NZ	2.81	0.44
15:AO:36:ILE:HG22	15:AO:37:ASN:HD22	1.83	0.44
33:BI:74:ASN:HD22	33:BI:74:ASN:N	2.16	0.44
12:AL:110:ARG:HH11	12:AL:110:ARG:CG	2.31	0.44
25:BA:272(A):U:H6	25:BA:272(A):U:O5'	2.00	0.44
29:BE:36:ARG:HD3	29:BE:85:ASN:HD21	1.83	0.44
11:AK:27:ASN:HB2	11:AK:55:LYS:HE3	1.99	0.44
25:BA:2776:A:H4'	25:BA:2777:G:C5'	2.48	0.44
1:CA:622:A:N7	1:CA:623:C:C6	2.86	0.44
25:BA:2748:A:N6	25:BA:2749:A:C6	2.86	0.44
28:DD:126:GLN:O	28:DD:127:VAL:C	2.56	0.44
7:CG:95:ARG:NH1	7:CG:95:ARG:HG3	2.32	0.44
25:DA:315:G:H2'	25:DA:316:C:O4'	2.17	0.44
25:DA:2078:C:C4	25:DA:2079:U:C4	3.05	0.44
34:DN:3:THR:O	34:DN:5:VAL:HG12	2.18	0.44
25:BA:2692:C:H2'	25:BA:2693:A:C8	2.53	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DD:238:GLY:O	28:DD:239:ARG:O	2.36	0.44
40:DT:19:LEU:HA	40:DT:20:PRO:HD3	1.84	0.44
37:BQ:12:GLN:HB3	37:BQ:73:PRO:HD2	1.99	0.44
27:BC:89:GLU:OE1	27:BC:89:GLU:HA	2.17	0.44
25:BA:966:G:O4'	25:BA:2267:A:N6	2.51	0.44
1:AA:814:A:N7	1:AA:816:A:C4	2.86	0.44
25:BA:250:G:H2'	25:BA:251:A:C8	2.53	0.44
39:BS:101:LEU:O	39:BS:102:ALA:O	2.36	0.44
25:BA:150:C:O2'	25:BA:151:C:H5'	2.18	0.44
37:DQ:141:GLN:OXT	46:DZ:52:ILE:C	2.56	0.44
2:CB:173:ALA:O	2:CB:174:VAL:C	2.56	0.44
2:CB:239:VAL:O	2:CB:240:GLN:HB2	2.18	0.44
41:DU:98:LEU:O	41:DU:101:ARG:O	2.36	0.44
42:DV:31:ALA:H	42:DV:61:VAL:HG22	1.83	0.44
37:DQ:132:VAL:HG11	46:DZ:80:ARG:CZ	2.43	0.44
44:DX:36:LYS:HD2	44:DX:54:VAL:O	2.18	0.44
1:CA:1148:U:OP1	9:CI:7:THR:HG21	2.17	0.44
25:BA:995:C:O2	34:BN:2:LYS:O	2.35	0.44
41:BU:95:LEU:HD12	42:BV:11:GLN:HB2	1.98	0.44
42:BV:38:LEU:H	42:BV:51:VAL:HG13	1.83	0.44
22:CV:171:ILE:C	22:CV:184:ALA:HB2	2.38	0.44
19:AS:36:ARG:HA	19:AS:71:LEU:HB2	2.00	0.44
30:BF:28:ILE:CG2	30:BF:116:ASP:HB3	2.45	0.44
45:BY:38:ILE:HA	45:BY:38:ILE:HD13	1.91	0.44
50:D3:46:ASN:O	50:D3:49:LYS:N	2.50	0.44
29:DE:11:MET:CB	29:DE:24:THR:HA	2.48	0.44
28:BD:96:HIS:CE1	28:BD:102:LYS:HE2	2.53	0.44
25:DA:282:A:C6	25:DA:284:U:C2	3.05	0.44
1:AA:259:G:H1	1:AA:267:C:H42	1.66	0.44
13:AM:15:VAL:O	13:AM:19:LEU:CD2	2.66	0.44
2:AB:118:LEU:N	2:AB:118:LEU:HD23	2.33	0.44
11:AK:111:ASP:HA	18:AR:84:LYS:CE	2.47	0.44
25:BA:1826:G:O2'	28:BD:242:ARG:NH2	2.51	0.44
14:CN:59:ALA:O	14:CN:60:SER:HB2	2.18	0.44
32:BH:73:ALA:O	32:BH:76:VAL:N	2.51	0.44
1:AA:451:A:N7	1:AA:481:G:C6	2.86	0.44
16:AP:15:PRO:O	16:AP:41:PRO:HD2	2.17	0.44
34:DN:15:LEU:HB3	34:DN:136:GLU:CA	2.46	0.44
1:CA:1121:U:H2'	1:CA:1122:U:H6	1.82	0.44
1:CA:1152:A:O2'	1:CA:1153:C:P	2.76	0.44
27:DC:135:ARG:CG	27:DC:135:ARG:HH11	2.31	0.44
27:DC:148:PHE:O	27:DC:150:ILE:N	2.51	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:91:PRO:HG3	2:AB:154:LEU:CB	2.45	0.44
22:AV:132:VAL:O	22:AV:132:VAL:HG13	2.16	0.44
22:AV:149:LYS:NZ	22:AV:163:LEU:HD23	2.33	0.44
6:CF:49:ALA:O	6:CF:50:TYR:CB	2.66	0.44
5:CE:82:VAL:CG2	5:CE:138:ALA:HA	2.47	0.44
3:CC:108:ASN:ND2	3:CC:111:LEU:HD12	2.32	0.44
28:DD:111:LEU:C	28:DD:112:GLN:HG3	2.38	0.44
25:BA:2830:G:C2	25:BA:2831:G:C8	3.06	0.44
28:BD:133:LEU:HD11	28:BD:145:VAL:HG13	1.98	0.44
9:AI:5:TYR:CD2	9:AI:18:PHE:CE2	3.06	0.44
1:AA:719:C:O2'	18:AR:49:LYS:HB3	2.17	0.44
20:CT:30:LYS:NZ	20:CT:80:ARG:CZ	2.81	0.44
55:D8:33:ASN:ND2	55:D8:36:LYS:HD2	2.32	0.44
37:DQ:46:GLN:O	37:DQ:50:ALA:N	2.40	0.44
6:AF:24:GLU:O	6:AF:27:GLN:HB2	2.17	0.44
11:AK:82:VAL:HG11	11:AK:95:ILE:CD1	2.48	0.44
12:CL:112:LYS:O	12:CL:113:SER:C	2.56	0.44
30:BF:135:LYS:HB3	30:BF:138:GLU:HG3	1.99	0.44
25:DA:2637:U:C2'	25:DA:2638:G:H5'	2.48	0.44
6:CF:48:LEU:HD21	6:CF:60:PHE:CE1	2.53	0.44
6:CF:62:TRP:CD1	18:CR:35:ARG:CZ	3.01	0.44
6:CF:63:TYR:N	6:CF:63:TYR:HD2	2.16	0.44
18:CR:37:VAL:O	18:CR:38:GLU:C	2.55	0.44
1:AA:298:A:H2'	1:AA:299:G:C8	2.53	0.44
31:BG:111:LEU:CD1	31:BG:120:LEU:HD11	2.48	0.44
38:DR:118:GLU:HA	38:DR:118:GLU:OE1	2.17	0.44
25:DA:205:G:O2'	25:DA:206:U:P	2.76	0.44
29:BE:111:ARG:HD2	29:BE:160:TYR:CE1	2.52	0.44
6:AF:61:LEU:HB3	6:AF:63:TYR:CE2	2.51	0.44
25:DA:1952:A:C5	35:DO:22:ILE:CD1	3.00	0.44
25:BA:2183:C:O2'	25:BA:2184:G:H5'	2.18	0.44
25:DA:1276:A:N7	25:DA:1645:G:C2	2.86	0.44
20:CT:33:ILE:CD1	20:CT:63:ILE:HA	2.47	0.44
49:B2:6:VAL:HG12	49:B2:7:ARG:N	2.31	0.44
32:BH:81:GLU:CD	32:BH:83:TYR:HE1	2.21	0.44
10:AJ:84:GLN:CB	10:AJ:88:LEU:HD23	2.48	0.44
55:D8:2:PRO:O	55:D8:3:LYS:C	2.55	0.44
32:BH:107:VAL:O	32:BH:107:VAL:HG23	2.18	0.44
47:B0:50:VAL:HG21	47:B0:78:VAL:O	2.17	0.44
28:DD:77:ALA:HA	28:DD:97:TYR:HA	2.00	0.44
27:BC:6:LYS:HZ1	27:BC:9:ARG:CB	2.31	0.44
25:DA:1149:G:C2	25:DA:1150:C:N4	2.86	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2683:C:OP1	40:BT:53:ARG:NH2	2.51	0.44
15:AO:32:LEU:O	15:AO:35:ARG:N	2.50	0.44
25:DA:1423:G:H1	25:DA:1575:C:H42	1.64	0.44
1:CA:782:A:H2'	1:CA:783:C:H5'	2.00	0.44
25:DA:1556:C:H2'	25:DA:1557:C:H6	1.81	0.44
1:AA:706:A:O2'	11:AK:31:THR:CG2	2.66	0.44
22:CV:30:LEU:HD11	23:CW:72:A:H5''	1.99	0.44
25:DA:1904:G:O2'	25:DA:1905:C:H5'	2.18	0.44
30:DF:79:GLY:O	30:DF:80:ALA:O	2.36	0.44
28:BD:204:ILE:O	28:BD:204:ILE:HG13	2.18	0.44
25:BA:1692:U:H2'	25:BA:1694:C:C5	2.53	0.44
38:BR:33:ARG:HG3	38:BR:115:GLU:HB3	1.99	0.44
25:DA:1526:G:C6	25:DA:1527:G:C2	3.06	0.44
44:DX:84:ALA:HB1	44:DX:85:PRO:HD2	2.00	0.44
36:BP:13:ASN:HD22	36:BP:13:ASN:C	2.20	0.44
1:AA:524:G:H2'	1:AA:525:C:C6	2.52	0.44
39:BS:101:LEU:HD12	39:BS:101:LEU:H	1.83	0.43
39:BS:62:LYS:O	39:BS:65:VAL:HB	2.18	0.43
28:DD:244:ARG:HA	28:DD:245:PRO:HA	1.79	0.43
1:AA:1116:C:H2'	1:AA:1117:G:H5'	1.99	0.43
1:AA:1347:G:O2'	1:AA:1348:U:P	2.76	0.43
3:AC:181:ASN:ND2	3:AC:204:LEU:HD12	2.33	0.43
2:CB:102:LEU:CD1	2:CB:102:LEU:N	2.81	0.43
2:CB:24:TRP:CH2	2:CB:26:PRO:HA	2.53	0.43
50:D3:19:GLN:HE22	50:D3:52:HIS:CE1	2.36	0.43
34:DN:25:ARG:C	34:DN:28:THR:HG22	2.39	0.43
41:DU:69:CYS:O	41:DU:74:LEU:HD12	2.18	0.43
25:DA:946:G:H2'	25:DA:947:G:H8	1.83	0.43
46:DZ:39:ASP:OD1	46:DZ:42:GLU:HG3	2.18	0.43
25:DA:2115:G:N2	25:DA:2119:A:OP2	2.49	0.43
25:DA:479:A:O4'	25:DA:480:A:C8	2.71	0.43
2:AB:17:PHE:C	2:AB:17:PHE:CD2	2.91	0.43
9:CI:7:THR:H	9:CI:83:ARG:CD	2.31	0.43
9:CI:53:VAL:HG11	9:CI:85:LEU:HD13	2.00	0.43
19:AS:58:VAL:O	19:AS:58:VAL:CG2	2.66	0.43
29:DE:75:VAL:C	29:DE:77:ILE:H	2.16	0.43
29:DE:89:ASP:O	29:DE:90:THR:CB	2.66	0.43
30:DF:1:MET:HE1	30:DF:27:GLU:HG3	2.00	0.43
45:BY:39:VAL:HG12	45:BY:40:GLU:H	1.83	0.43
25:BA:1347:G:C2'	25:BA:1348:G:H5'	2.47	0.43
3:AC:3:ASN:ND2	3:AC:4:LYS:HZ1	2.14	0.43
25:DA:633:A:H2'	25:DA:634:C:H5'	2.00	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:BY:78:ALA:HB2	45:BY:99:CYS:SG	2.56	0.43
25:DA:2681:C:C4	25:DA:2724:C:C5	3.06	0.43
29:DE:104:VAL:HG11	29:DE:188:VAL:HG21	2.00	0.43
53:B6:11:LEU:HD12	53:B6:12:GLU:O	2.19	0.43
53:B6:51:GLU:O	53:B6:52:VAL:HG23	2.18	0.43
28:BD:26:LYS:O	28:BD:27:THR:HG22	2.18	0.43
2:AB:220:ASP:O	2:AB:224:GLN:N	2.49	0.43
2:AB:34:ALA:CB	2:AB:41:ILE:HB	2.44	0.43
25:DA:363:G:C5	25:DA:363(A):A:N7	2.86	0.43
13:AM:66:LEU:O	13:AM:67:GLU:C	2.55	0.43
13:AM:94:ARG:HH21	25:BA:887:A:H3'	1.80	0.43
25:DA:2822:G:H2'	25:DA:2823:A:H5''	1.99	0.43
11:AK:111:ASP:CB	18:AR:84:LYS:HG3	2.48	0.43
1:AA:1152:A:C4	1:AA:1153:C:C6	3.06	0.43
25:BA:1826:G:H2'	25:BA:1827:C:C6	2.53	0.43
30:BF:64:ILE:HG21	30:BF:75:HIS:HB2	2.00	0.43
25:BA:2329:G:H2'	25:BA:2330:G:C8	2.53	0.43
1:AA:458:C:C2	1:AA:460:G:N7	2.86	0.43
10:CJ:5:ARG:HD2	10:CJ:99:LYS:HG3	1.99	0.43
1:AA:551:U:O2'	1:AA:552:U:H5'	2.18	0.43
12:AL:87:VAL:C	12:AL:89:ASP:N	2.72	0.43
5:CE:78:HIS:CD2	5:CE:78:HIS:C	2.92	0.43
25:DA:1827:C:H2'	25:DA:1828:G:H5'	2.00	0.43
4:CD:43:HIS:HB3	4:CD:46:LYS:HE2	2.00	0.43
17:CQ:67:LYS:HA	17:CQ:70:ARG:NH1	2.31	0.43
45:BY:15:VAL:CG1	45:BY:17:SER:HB3	2.48	0.43
31:BG:36:LYS:HB3	31:BG:95:ARG:NH1	2.33	0.43
25:DA:1498:C:C4'	25:DA:1577:C:H5'	2.48	0.43
17:AQ:83:ASP:HA	17:AQ:86:GLU:OE2	2.18	0.43
25:BA:2331:G:H4'	47:B0:42:THR:N	2.22	0.43
22:AV:3:SER:O	22:AV:6:ASP:OD2	2.36	0.43
29:DE:4:ILE:HG22	29:DE:198:VAL:O	2.18	0.43
1:CA:838:G:N2	1:CA:840:C:H5'	2.32	0.43
31:BG:116:ASP:O	31:BG:117:PHE:O	2.36	0.43
7:CG:85:TYR:HE1	7:CG:154:TYR:HH	1.66	0.43
12:AL:21:VAL:O	12:AL:23:ALA:N	2.45	0.43
4:CD:120:LEU:O	4:CD:121:VAL:C	2.57	0.43
25:BA:108:U:H2'	25:BA:109:G:H8	1.83	0.43
31:DG:11:TYR:HA	31:DG:15:VAL:HB	2.00	0.43
25:DA:39:C:O2'	25:DA:40:C:H5'	2.18	0.43
25:BA:1721:G:C2	25:BA:1739:U:OP2	2.72	0.43
28:DD:97:TYR:C	28:DD:99:ASP:H	2.20	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
54:D7:24:THR:HG23	54:D7:27:GLY:HA3	2.00	0.43
5:AE:88:LYS:NZ	5:AE:123:LEU:HD12	2.33	0.43
25:BA:81:G:H2'	25:BA:82:G:O4'	2.18	0.43
25:DA:1459:G:C5	25:DA:1461:G:H1'	2.53	0.43
43:DW:14:PRO:HG3	43:DW:101:SER:OG	2.18	0.43
1:AA:909:A:H2'	1:AA:910:C:O4'	2.17	0.43
7:CG:21:VAL:HG23	7:CG:22:LEU:N	2.28	0.43
1:AA:932:C:H5''	7:AG:3:ARG:CD	2.48	0.43
49:D2:38:GLN:CA	49:D2:44:LEU:HB3	2.48	0.43
25:DA:2627:G:N2	25:DA:2777:G:OP2	2.51	0.43
25:BA:68:G:N2	25:BA:74:A:C4	2.86	0.43
25:BA:2061:G:N2	25:BA:2062:A:N7	2.66	0.43
25:BA:1252:G:O4'	41:BU:33:ARG:NH1	2.51	0.43
53:D6:11:LEU:O	53:D6:11:LEU:HD13	2.18	0.43
25:DA:912:C:H2'	25:DA:912:C:O2	2.18	0.43
22:AV:20:TRP:CZ3	22:AV:50:VAL:HG12	2.52	0.43
27:BC:54:ARG:HH11	27:BC:54:ARG:CG	2.31	0.43
25:DA:811:U:H1'	25:DA:1251:C:O4'	2.18	0.43
4:AD:199:ASN:HB3	4:AD:202:LEU:HB2	2.00	0.43
25:DA:1479:G:C4	25:DA:1480:G:C8	3.06	0.43
40:DT:64:ARG:HB2	40:DT:73:GLU:HG2	1.99	0.43
25:DA:2262:U:H2'	25:DA:2263:C:H6	1.83	0.43
8:AH:47:GLY:O	8:AH:62:TYR:HB2	2.18	0.43
48:B1:18:ILE:HG13	48:B1:37:ILE:HG12	1.99	0.43
1:CA:160:A:H2'	1:CA:161:A:O4'	2.18	0.43
33:DI:65:ALA:C	33:DI:67:ARG:N	2.72	0.43
12:AL:110:ARG:NH1	12:AL:113:SER:O	2.51	0.43
25:BA:2296:U:O2	25:BA:2333:A:N3	2.51	0.43
25:DA:723:G:H2'	25:DA:724:U:O4'	2.17	0.43
23:AW:44:A:H2'	23:AW:45:G:O4'	2.17	0.43
1:AA:268:C:O2'	1:AA:269:C:H5'	2.18	0.43
17:AQ:20:THR:HG23	17:AQ:43:LEU:CD2	2.48	0.43
23:CW:66:C:H2'	23:CW:67:C:O4'	2.17	0.43
25:DA:1011:G:O2'	25:DA:1013:C:H5''	2.18	0.43
4:AD:176:LEU:HD12	4:AD:177:ASP:H	1.82	0.43
1:AA:820:U:H4'	1:AA:821:G:OP2	2.18	0.43
23:AW:14:A:H2'	23:AW:15:G:H5'	2.00	0.43
25:DA:2034:U:HO2'	25:DA:2035:G:P	2.41	0.43
10:CJ:64:GLU:OE2	10:CJ:66:ARG:NE	2.51	0.43
16:CP:40:ASP:OD2	16:CP:40:ASP:C	2.56	0.43
31:DG:4:ASP:CG	31:DG:4:ASP:O	2.56	0.43
25:BA:248:G:N3	25:BA:2431:U:H4'	2.33	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1348:U:N3	1:AA:1374:A:N7	2.66	0.43
25:BA:158:U:H1'	25:BA:159:U:H4'	2.00	0.43
25:BA:159:U:C3'	25:BA:160:U:C5'	2.95	0.43
46:DZ:152:SER:HB2	46:DZ:166:PRO:HB2	2.00	0.43
2:CB:29:ALA:CA	2:CB:32:ILE:HD13	2.36	0.43
25:DA:1022:G:N1	25:DA:1140:C:N3	2.66	0.43
25:DA:1164:G:H2'	25:DA:1165:U:H6	1.81	0.43
42:DV:47:VAL:O	42:DV:48:GLY:C	2.56	0.43
25:DA:966:G:C6	25:DA:967:C:N3	2.86	0.43
25:DA:2116:G:H8	25:DA:2117:A:N7	2.16	0.43
25:DA:2184:G:O2'	25:DA:2185:C:C2	2.72	0.43
1:CA:1270:C:O3'	1:CA:1314:C:H4'	2.18	0.43
9:CI:63:ILE:HG22	9:CI:64:THR:H	1.81	0.43
22:CV:150:PRO:HG3	22:CV:160:GLN:HE22	1.83	0.43
25:DA:2312:U:C2'	25:DA:2313:C:C5'	2.80	0.43
31:DG:141:PHE:N	31:DG:141:PHE:HD2	2.16	0.43
30:BF:119:ARG:C	30:BF:121:GLY:N	2.71	0.43
30:BF:3:GLU:HB3	30:BF:24:LEU:CG	2.48	0.43
3:AC:92:ALA:C	3:AC:94:LEU:H	2.21	0.43
30:DF:124:LEU:HD12	30:DF:124:LEU:C	2.38	0.43
1:AA:1132:C:N4	1:AA:1133:G:C6	2.86	0.43
10:AJ:4:ILE:HG23	10:AJ:100:THR:CG2	2.47	0.43
5:AE:128:PRO:O	5:AE:129:ILE:C	2.56	0.43
1:AA:1431:C:O2'	1:AA:1432:G:H5'	2.19	0.43
1:AA:1067:A:N3	1:AA:1068:G:H1'	2.33	0.43
25:DA:171:G:H2'	25:DA:172:C:C5'	2.48	0.43
27:BC:132:LEU:HG	27:BC:138:LEU:CG	2.48	0.43
31:BG:43:LEU:C	31:BG:45:GLU:N	2.71	0.43
25:DA:2729:G:H2'	25:DA:2730:C:C6	2.53	0.43
12:CL:38:ARG:HD2	12:CL:40:VAL:HG12	1.99	0.43
25:DA:593:G:H4'	55:D8:61:LEU:HD23	2.00	0.43
36:BP:110:TYR:O	36:BP:111:ARG:C	2.57	0.43
2:AB:24:TRP:CH2	2:AB:26:PRO:HA	2.54	0.43
1:CA:324:G:OP1	20:CT:70:SER:HB2	2.17	0.43
1:CA:1301:U:H3'	1:CA:1302:U:H5''	1.99	0.43
11:AK:109:VAL:HG12	11:AK:110:ASP:N	2.33	0.43
10:AJ:16:LEU:HD11	10:AJ:69:ASN:O	2.18	0.43
22:CV:88:TYR:O	27:DC:141:PRO:CG	2.66	0.43
32:BH:116:GLU:OE2	32:BH:117:PRO:O	2.35	0.43
1:CA:962:C:H42	1:CA:973:G:H1	1.65	0.43
10:CJ:54:PHE:CE1	10:CJ:55:LYS:NZ	2.84	0.43
42:BV:14:VAL:HG11	42:BV:96:ILE:HD11	2.00	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BG:49:ASP:O	31:BG:50:ALA:HB3	2.18	0.43
49:D2:10:LEU:CD2	49:D2:59:ARG:HB3	2.47	0.43
15:CO:84:LYS:O	15:CO:85:LEU:HD23	2.18	0.43
40:DT:91:ARG:HG2	40:DT:116:ALA:HA	2.00	0.43
2:CB:139:LYS:HA	2:CB:139:LYS:HD3	1.72	0.43
19:CS:19:VAL:HG13	19:CS:19:VAL:O	2.18	0.43
25:BA:607:U:O4	25:BA:619:G:H2'	2.18	0.43
30:BF:36:VAL:O	30:BF:39:TRP:HB3	2.18	0.43
3:AC:130:VAL:HG11	3:AC:157:ILE:HG23	2.00	0.43
2:AB:160:ASP:N	2:AB:160:ASP:OD2	2.51	0.43
27:BC:85:LYS:HA	27:BC:88:GLU:CG	2.48	0.43
25:DA:1685:C:H2'	25:DA:1686:C:H5'	2.00	0.43
12:AL:83:ARG:HH22	12:AL:96:HIS:CD2	2.36	0.43
20:CT:53:LEU:CD1	20:CT:100:ILE:HB	2.48	0.43
25:DA:2122:U:O2	27:DC:173:HIS:CE1	2.71	0.43
12:AL:38:ARG:CB	12:AL:38:ARG:NH1	2.82	0.43
8:AH:87:SER:HB2	8:AH:93:VAL:HB	1.99	0.43
9:AI:26:VAL:HG22	9:AI:60:ASP:O	2.19	0.43
55:D8:32:LEU:H	55:D8:32:LEU:CD2	2.25	0.43
30:DF:53:THR:O	30:DF:55:GLY:N	2.51	0.43
1:CA:922:G:C2	1:CA:923:A:C4	3.06	0.43
25:DA:2714:G:H2'	25:DA:2715:C:H6	1.82	0.43
25:BA:873:G:N2	25:BA:905:U:O2	2.51	0.43
14:CN:12:ARG:CD	14:CN:12:ARG:H	2.24	0.43
6:CF:44:GLY:HA2	6:CF:59:TYR:CE1	2.53	0.43
25:DA:1797:C:O2'	25:DA:1798:U:H5'	2.18	0.43
6:AF:74:ASP:C	6:AF:76:ALA:N	2.71	0.43
31:BG:120:LEU:O	31:BG:121:ASN:C	2.55	0.43
12:AL:23:ALA:C	12:AL:24:LEU:HD22	2.39	0.43
12:AL:21:VAL:C	12:AL:23:ALA:H	2.22	0.43
25:DA:2799:C:O2'	25:DA:2801:A:N7	2.51	0.43
11:AK:44:SER:O	11:AK:47:VAL:N	2.51	0.43
40:BT:121:ILE:HG22	40:BT:122:ASP:N	2.33	0.43
25:DA:2060:A:HO2'	25:DA:2061:G:P	2.41	0.43
30:DF:68:LYS:O	30:DF:70:THR:N	2.48	0.43
29:DE:156:MET:O	29:DE:157:ALA:O	2.36	0.43
18:AR:34:TYR:CD1	18:AR:35:ARG:HG3	2.52	0.43
48:B1:73:LEU:HB3	48:B1:94:LEU:CD2	2.48	0.43
25:DA:1229:G:C6	25:DA:1230:C:C4	3.06	0.43
25:BA:647:G:H21	25:BA:2350:C:H4'	1.81	0.43
47:B0:48:LYS:HB2	47:B0:79:HIS:HB3	1.99	0.43
31:DG:36:LYS:HA	31:DG:99:MET:HE1	2.01	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:646:U:H2'	1:CA:647:C:C6	2.53	0.43
25:BA:1958:C:HO2'	25:BA:1959:G:H5'	1.83	0.43
25:DA:55:G:H1'	25:DA:127:A:H2	1.83	0.43
34:BN:36:GLY:HA3	34:BN:48:MET:HE1	2.00	0.43
41:DU:31:SER:HB3	41:DU:34:LYS:HB2	2.00	0.43
28:BD:211:ARG:O	28:BD:215:LEU:HG	2.18	0.43
2:AB:97:TRP:HZ3	2:AB:176:GLU:OE2	2.01	0.43
28:DD:69:ARG:NH2	28:DD:192:THR:CB	2.80	0.43
8:CH:77:GLU:HG3	8:CH:78:GLN:N	2.33	0.43
17:CQ:7:THR:HG22	17:CQ:58:GLU:HG2	1.99	0.43
25:BA:1990:C:C2'	25:BA:1991:U:O5'	2.65	0.43
1:AA:1216:G:C6	1:AA:1217:C:N4	2.86	0.43
25:DA:2023:G:C5'	25:DA:2617:C:H4'	2.48	0.43
25:BA:2020:A:OP1	41:BU:26:GLY:HA3	2.18	0.43
35:BO:87:ILE:CG2	35:BO:88:ASN:N	2.80	0.43
16:AP:63:GLY:O	16:AP:64:ALA:CB	2.63	0.43
25:DA:753:C:O5'	25:DA:753:C:H6	2.01	0.43
25:BA:2031:A:H1'	25:BA:2455:G:O2'	2.18	0.43
25:BA:2189:U:O2	25:BA:2189:U:O4'	2.36	0.43
38:BR:110:PRO:C	38:BR:111:LEU:HD22	2.38	0.43
19:CS:41:VAL:HA	19:CS:42:PRO:HD3	1.90	0.43
1:AA:1406:U:C2'	1:AA:1407:C:H5'	2.48	0.43
1:CA:656:C:H2'	1:CA:657:G:H8	1.83	0.43
1:CA:402:G:C2'	1:CA:403:C:H5'	2.48	0.43
22:CV:96:SER:O	22:CV:98:VAL:N	2.51	0.43
25:DA:1354:A:H2'	25:DA:1355:G:O4'	2.18	0.43
25:DA:1346:G:H2'	25:DA:1347:G:C8	2.52	0.43
17:AQ:63:ARG:HG2	17:AQ:64:PRO:HD2	2.00	0.43
1:AA:139:G:H2'	1:AA:140:A:H8	1.82	0.43
4:AD:81:GLU:O	4:AD:85:LYS:HG2	2.18	0.43
1:AA:1485:U:H2'	1:AA:1486:G:C8	2.53	0.43
25:DA:532:A:N1	25:DA:2020:A:H1'	2.34	0.43
25:BA:962:G:H2'	25:BA:963:U:H6	1.83	0.43
25:DA:296:C:H2'	25:DA:297:C:H6	1.83	0.43
25:DA:1983:C:C2'	25:DA:1984:G:H5'	2.48	0.43
25:DA:561:G:H1'	41:DU:45:TYR:CE2	2.53	0.43
25:DA:2863:C:O2'	25:DA:2864:G:H5'	2.18	0.43
1:CA:1429:C:H2'	1:CA:1430:C:C6	2.53	0.43
16:CP:56:ALA:O	16:CP:57:ARG:C	2.55	0.43
9:CI:108:VAL:O	9:CI:109:VAL:C	2.57	0.43
25:DA:575:A:O2'	25:DA:576:U:H5'	2.18	0.43
33:DI:58:LEU:O	33:DI:62:LYS:N	2.37	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:AT:15:ARG:HA	20:AT:15:ARG:HD3	1.85	0.43
5:CE:8:GLU:HG2	5:CE:8:GLU:O	2.18	0.43
33:DI:79:ILE:O	33:DI:81:VAL:N	2.50	0.43
29:BE:202:LYS:C	29:BE:204:ALA:N	2.71	0.43
25:BA:2463:C:O2'	25:BA:2464:C:H5'	2.18	0.43
25:BA:2293:C:OP1	39:BS:92:TYR:OH	2.35	0.43
39:BS:97:ARG:HH21	39:BS:99:LYS:N	2.16	0.43
7:AG:20:ASP:HB3	7:AG:23:VAL:HB	2.00	0.43
25:BA:49:A:N6	25:BA:177:G:C4	2.86	0.43
46:DZ:10:GLU:HB2	46:DZ:12:GLU:OE2	2.18	0.43
41:DU:53:ARG:HG3	41:DU:57:PHE:HE1	1.83	0.43
42:DV:39:LEU:CB	42:DV:47:VAL:HG21	2.43	0.43
42:DV:65:GLY:HA3	42:DV:91:TYR:CE1	2.53	0.43
37:DQ:19:GLY:HA2	37:DQ:99:PRO:HD2	1.99	0.43
46:DZ:79:ARG:O	46:DZ:81:ARG:N	2.51	0.43
25:BA:1107:G:H2'	25:BA:1108:U:O5'	2.18	0.43
20:AT:42:GLN:HE22	20:AT:46:GLU:HB2	1.83	0.43
48:D1:67:ILE:N	48:D1:68:PRO:CD	2.80	0.43
41:BU:91:ASP:C	41:BU:92:ARG:NE	2.72	0.43
1:CA:1128:C:H2'	1:CA:1130:A:N7	2.33	0.43
1:AA:343:U:O2'	1:AA:346:G:O6	2.33	0.43
40:BT:30:VAL:HG21	40:BT:83:ILE:HG12	2.00	0.43
40:BT:32:TYR:O	40:BT:33:LYS:C	2.56	0.43
40:BT:33:LYS:HZ2	40:BT:74:ARG:CZ	2.31	0.43
16:AP:52:ASP:OD1	16:AP:55:ARG:HG2	2.17	0.43
45:BY:27:VAL:CG1	45:BY:28:LYS:N	2.79	0.43
31:DG:2:PRO:HD2	51:D4:51:TYR:CE2	2.54	0.43
25:DA:2402:C:C2'	25:DA:2403:C:H5'	2.48	0.43
25:DA:173:G:H2'	25:DA:173:G:N3	2.32	0.43
25:BA:498:G:O2'	45:BY:60:PHE:HZ	2.00	0.43
46:BZ:127:VAL:HG23	46:BZ:131:ASN:HD22	1.84	0.43
25:BA:2175:C:H2'	25:BA:2176:A:C5'	2.30	0.43
13:CM:14:ARG:HH21	13:CM:41:PRO:C	2.21	0.43
13:AM:15:VAL:O	13:AM:16:ASP:C	2.55	0.43
13:AM:59:TYR:O	13:AM:60:VAL:C	2.56	0.43
1:AA:707:C:H5''	11:AK:85:ARG:NH1	2.33	0.43
25:BA:330:A:O2'	25:BA:331:A:C8	2.56	0.43
40:DT:78:LEU:O	40:DT:79:HIS:ND1	2.51	0.43
32:BH:85:LYS:HG2	32:BH:133:VAL:N	2.33	0.43
32:BH:85:LYS:HZ2	32:BH:133:VAL:CB	2.24	0.43
1:CA:1060:C:H2'	1:CA:1061:G:H8	1.83	0.43
1:CA:1112:C:N4	3:CC:178:LEU:HD23	2.33	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:1754:C:H5'	40:DT:101:PHE:CZ	2.53	0.43
40:DT:51:ARG:HG3	40:DT:98:LYS:HE3	1.99	0.43
8:AH:65:TYR:CA	8:AH:79:VAL:HG23	2.48	0.43
27:BC:77:ALA:HA	27:BC:115:VAL:HG23	1.99	0.43
30:BF:65:TRP:CH2	30:BF:73:ALA:O	2.71	0.43
30:BF:78:ILE:H	30:BF:78:ILE:HD13	1.83	0.43
48:B1:86:SER:HB3	48:B1:89:GLU:CD	2.38	0.43
48:B1:90:ILE:HG22	48:B1:91:LYS:N	2.31	0.43
6:CF:89:MET:HG2	6:CF:91:VAL:HG23	1.99	0.43
54:D7:8:ASN:HD21	54:D7:10:ARG:H	1.63	0.43
1:AA:27:G:C5'	4:AD:209:ARG:HD3	2.45	0.43
1:AA:26:A:O2'	4:AD:209:ARG:NE	2.50	0.43
39:DS:92:TYR:HD1	39:DS:93:LYS:H	1.56	0.43
1:AA:356:A:C2'	1:AA:357:G:C5'	2.90	0.43
25:DA:2165:G:H3'	25:DA:2166:G:C8	2.54	0.43
27:DC:144:GLY:O	27:DC:145:THR:HG23	2.19	0.43
12:AL:50:ARG:HB2	12:AL:90:LEU:HD11	2.00	0.43
5:CE:107:ARG:HG3	5:CE:111:GLU:OE2	2.19	0.43
43:BW:88:ARG:HB2	43:BW:92:ARG:HB3	1.98	0.43
1:CA:460:G:O6	1:CA:470:C:H5''	2.17	0.43
1:CA:651:C:H2'	1:CA:652:U:C6	2.53	0.43
28:BD:155:LEU:N	28:BD:155:LEU:CD1	2.82	0.43
23:AW:1:C:H2'	23:AW:2:G:C8	2.53	0.43
32:DH:26:VAL:HG11	32:DH:76:VAL:HG22	2.00	0.43
43:DW:3:ALA:CB	43:DW:58:ALA:HB2	2.47	0.43
25:DA:1193:G:H2'	25:DA:1194:A:C8	2.53	0.43
1:AA:675:A:H1'	11:AK:116:HIS:ND1	2.33	0.43
4:CD:28:SER:HB3	4:CD:30:LYS:HE2	1.98	0.43
25:DA:519:U:O2'	25:DA:520:G:H5'	2.18	0.43
1:AA:1037:C:H3'	1:AA:1037:C:OP2	2.17	0.43
25:DA:20:C:C2	25:DA:21:A:C8	3.06	0.43
25:DA:2021:C:H5	41:DU:25:TRP:CG	2.36	0.43
14:CN:13:THR:CG2	14:CN:20:ALA:HB2	2.48	0.43
12:AL:43:LYS:HZ2	12:AL:44:LYS:HB2	1.84	0.43
6:CF:19:LEU:C	6:CF:19:LEU:HD23	2.37	0.43
31:BG:126:ASP:C	31:BG:128:ARG:N	2.71	0.43
33:DI:35:LEU:O	33:DI:36:ALA:HB2	2.18	0.43
1:CA:826:C:C2	1:CA:827:U:C5	3.07	0.43
22:AV:71:GLN:O	22:AV:82:PHE:CA	2.62	0.43
25:DA:1797:C:C2'	25:DA:1798:U:H5'	2.47	0.43
4:AD:122:ARG:O	4:AD:134:ASP:CB	2.66	0.43
1:AA:1261:A:H61	1:AA:1274:G:H1'	1.83	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:299:A:N3	25:BA:319:C:O2'	2.48	0.43
25:BA:2203:U:C1'	28:BD:151:LYS:HE2	2.48	0.43
32:BH:30:LYS:NZ	32:BH:81:GLU:HA	2.33	0.43
30:DF:54:ARG:HG3	30:DF:54:ARG:NH1	2.33	0.43
7:AG:50:ILE:O	7:AG:50:ILE:HG22	2.19	0.43
25:DA:198:C:H2'	25:DA:199:A:H5''	2.00	0.43
36:DP:46:LYS:HA	36:DP:46:LYS:HD2	1.77	0.43
35:DO:64:ARG:NH2	35:DO:100:GLY:HA3	2.27	0.43
32:BH:94:TYR:OH	32:BH:160:LYS:HD3	2.17	0.43
25:BA:2110:G:H4'	25:BA:2111:C:OP2	2.18	0.43
43:BW:8:ARG:NH1	43:BW:8:ARG:HG3	2.32	0.43
1:AA:106:C:H2'	1:AA:107:G:O4'	2.18	0.43
22:CV:20:TRP:HB3	22:CV:42:LYS:O	2.19	0.43
25:BA:2534:A:C2	25:BA:2535:G:H1'	2.53	0.43
1:AA:1446:U:C4	1:AA:1452:C:H1'	2.54	0.43
1:AA:323:U:OP1	20:AT:23:ARG:HA	2.18	0.43
44:DX:71:GLY:C	44:DX:72:LYS:HD2	2.38	0.43
25:DA:1148:A:H2'	25:DA:1149:G:H8	1.82	0.43
1:CA:966:G:H2'	1:CA:967:C:C6	2.54	0.43
15:AO:5:LYS:O	15:AO:9:GLN:HG2	2.18	0.43
8:CH:101:PRO:C	8:CH:102:ARG:HE	2.21	0.43
25:BA:1246:A:C2'	25:BA:1247:A:H5'	2.48	0.43
28:BD:231:HIS:CD2	28:BD:249:PRO:HG3	2.53	0.43
25:BA:969:U:OP1	50:B3:17:LYS:HG2	2.17	0.43
3:CC:23:TYR:CD1	3:CC:24:ALA:N	2.86	0.43
41:DU:12:ARG:O	41:DU:13:LYS:C	2.57	0.43
1:AA:642:A:H2'	1:AA:643:C:C6	2.53	0.43
35:BO:63:VAL:HG22	35:BO:84:ALA:HA	2.00	0.43
28:DD:228:PRO:HD3	28:DD:235:GLY:CA	2.48	0.43
25:BA:2843:G:C4	25:BA:2844:G:C8	3.06	0.43
17:AQ:74:LEU:HD13	17:AQ:74:LEU:C	2.39	0.43
25:BA:742:G:H4'	25:BA:1676:A:H5'	2.00	0.43
38:BR:18:LEU:CD1	38:BR:18:LEU:C	2.86	0.43
1:AA:562:C:H6	1:AA:562:C:H5'	1.83	0.43
38:BR:34:ILE:HA	38:BR:34:ILE:HD13	1.72	0.43
25:DA:1605:C:H2'	25:DA:1606:G:H5'	2.00	0.43
32:BH:68:THR:O	32:BH:69:ARG:C	2.56	0.43
25:BA:1754:C:H4'	40:BT:101:PHE:CD2	2.54	0.43
25:BA:1207:C:H2'	25:BA:1208:C:H6	1.82	0.43
22:AV:54:PHE:HB3	22:AV:58:GLU:OE2	2.18	0.43
23:CW:11:A:O2'	23:CW:12:G:H5'	2.19	0.43
25:DA:1488:G:H2'	25:DA:1488:G:N3	2.33	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:196:A:N3	25:DA:196:A:H2'	2.33	0.43
25:BA:977:G:O2'	25:BA:978:G:H5'	2.17	0.43
25:BA:241:A:O4'	25:BA:243:U:C6	2.71	0.43
1:CA:317:G:H1	1:CA:336:C:N4	2.16	0.43
10:AJ:51:ARG:HG3	10:AJ:59:SER:O	2.18	0.43
2:CB:168:THR:N	2:CB:171:ALA:HB2	2.33	0.43
25:DA:952:G:H21	25:DA:2267:A:H62	1.65	0.43
25:DA:864:G:H2'	25:DA:865:C:H6	1.83	0.43
25:DA:861:A:C6	25:DA:917:A:C8	3.07	0.43
25:DA:971:C:C2'	25:DA:972:G:C5'	2.92	0.43
44:DX:35:THR:HB	44:DX:38:GLU:HB3	1.99	0.43
1:CA:1237:C:H2'	1:CA:1336:C:C5	2.53	0.43
9:CI:103:THR:CG2	9:CI:104:ARG:N	2.81	0.43
22:CV:149:LYS:HE3	22:CV:165:VAL:HG23	1.98	0.43
31:DG:110:ALA:HA	31:DG:140:ILE:HG22	2.00	0.43
31:DG:42:GLY:O	31:DG:88:ILE:CG1	2.66	0.43
1:AA:1222:G:O2'	1:AA:1223:C:H5''	2.18	0.43
45:DY:28:LYS:CA	45:DY:38:ILE:HB	2.49	0.43
45:DY:28:LYS:HG3	45:DY:37:VAL:HB	2.00	0.43
25:DA:1639:U:H4'	25:DA:2699:C:H4'	2.00	0.43
25:DA:2787:C:O2'	29:DE:61:ARG:HG3	2.19	0.43
29:DE:36:ARG:CD	29:DE:85:ASN:ND2	2.79	0.43
3:AC:22:TRP:CH2	3:AC:32:LEU:HB2	2.53	0.43
30:DF:64:ILE:N	30:DF:76:GLY:O	2.51	0.43
10:AJ:31:GLY:O	10:AJ:32:ALA:C	2.56	0.43
1:AA:1072:G:H2'	1:AA:1073:U:C6	2.53	0.43
36:DP:66:GLY:O	36:DP:67:MET:C	2.56	0.43
36:BP:16:ARG:CZ	36:BP:18:ARG:CB	2.93	0.43
25:BA:1854:A:H3'	25:BA:1855:G:H8	1.83	0.43
32:DH:86:GLU:HB3	32:DH:132:ARG:HG2	1.99	0.43
2:AB:45:GLN:O	2:AB:46:LYS:C	2.55	0.43
2:AB:88:ALA:CB	2:AB:90:MET:HE2	2.48	0.43
2:AB:129:GLU:O	2:AB:130:ARG:O	2.37	0.43
1:AA:1523:G:C6	1:AA:1524:C:C4	3.06	0.43
10:AJ:11:PHE:O	10:AJ:68:HIS:ND1	2.51	0.43
1:AA:503:C:O2'	1:AA:504:C:H5'	2.18	0.43
8:AH:21:LYS:O	8:AH:63:LEU:HD23	2.18	0.43
27:BC:115:VAL:HG11	27:BC:153:ILE:HG22	2.00	0.43
49:D2:14:ARG:HH11	49:D2:14:ARG:HG2	1.83	0.43
15:CO:6:GLU:O	15:CO:7:GLU:C	2.56	0.43
48:B1:85:LEU:O	48:B1:86:SER:CB	2.65	0.43
46:BZ:76:ASP:O	46:BZ:80:ARG:N	2.51	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1223:C:OP1	1:CA:1225:A:H8	2.01	0.43
19:CS:31:ILE:CG2	19:CS:49:ILE:HA	2.48	0.43
19:CS:49:ILE:HD13	19:CS:71:LEU:HD22	1.99	0.43
36:DP:98:GLU:C	36:DP:101:VAL:HG22	2.38	0.43
25:BA:2491:U:H4'	25:BA:2570:G:OP1	2.17	0.43
29:BE:117:MET:O	29:BE:118:LYS:HB2	2.17	0.43
25:BA:2309:A:N3	25:BA:2310:A:C2	2.87	0.43
22:AV:135:THR:OG1	22:AV:149:LYS:HG3	2.19	0.43
33:BI:114:LEU:O	33:BI:129:THR:N	2.51	0.43
31:DG:161:THR:C	31:DG:163:ALA:H	2.20	0.43
23:CW:17:C:OP1	23:CW:60:U:O2'	2.30	0.43
27:DC:173:HIS:O	27:DC:174:ALA:CB	2.66	0.43
51:B4:40:ILE:N	51:B4:40:ILE:HD12	2.33	0.43
28:BD:68:LYS:HB2	28:BD:70:TRP:CZ3	2.54	0.43
25:BA:2388:A:N7	25:BA:2389:G:C6	2.86	0.43
51:D4:41:ILE:O	51:D4:41:ILE:HG22	2.19	0.43
11:CK:96:ARG:C	11:CK:99:GLN:HG2	2.38	0.43
1:AA:403:C:O2'	1:AA:404:U:H5'	2.17	0.43
1:AA:613:C:H42	1:AA:627:G:H1	1.64	0.43
1:CA:968:A:N9	1:CA:1062:U:H4'	2.34	0.43
1:CA:225:C:H2'	1:CA:226:G:H8	1.83	0.43
11:AK:99:GLN:C	11:AK:101:SER:H	2.22	0.43
6:CF:99:ALA:O	6:CF:100:ASN:CB	2.59	0.43
25:DA:2406:U:O4	36:DP:70:GLN:HB2	2.18	0.43
25:BA:90:U:HO2'	25:BA:92:A:H5''	1.79	0.43
29:DE:2:LYS:NZ	29:DE:96:PHE:HA	2.33	0.43
6:CF:44:GLY:O	6:CF:60:PHE:N	2.51	0.43
8:CH:97:VAL:CG1	8:CH:98:LYS:H	2.22	0.43
1:CA:1277:C:C6	1:CA:1278:U:H5'	2.46	0.43
25:BA:1885:A:H2'	25:BA:1886:C:C5'	2.48	0.43
31:BG:111:LEU:O	31:BG:114:ILE:HG13	2.18	0.43
38:DR:77:ARG:O	38:DR:81:ASP:OD1	2.36	0.43
49:B2:44:LEU:O	49:B2:45:SER:HB2	2.18	0.43
6:AF:37:VAL:CG1	6:AF:38:GLU:N	2.82	0.43
25:BA:323:G:C8	30:BF:171:PRO:HG3	2.53	0.43
40:BT:23:ARG:CZ	40:BT:120:ARG:HD3	2.49	0.43
11:CK:32:ILE:CD1	11:CK:41:THR:HG22	2.48	0.43
29:DE:113:PHE:CE2	29:DE:157:ALA:HB1	2.52	0.43
25:BA:2352:A:C2'	25:BA:2353:G:H5'	2.49	0.43
25:DA:2736:G:H2'	25:DA:2737:G:H8	1.84	0.43
25:DA:2046:G:O5'	52:D5:19:ARG:HA	2.18	0.43
25:BA:1270:C:O2'	25:BA:1325:G:H2'	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:D5:6:VAL:HG23	52:D5:7:PRO:HD2	2.00	0.43
1:CA:48:C:H6	1:CA:365:U:O4	2.01	0.43
11:AK:79:SER:OG	11:AK:106:LYS:HD2	2.18	0.43
44:BX:44:GLU:O	44:BX:48:LYS:HA	2.17	0.43
25:BA:405:U:H3'	25:BA:406:G:H5'	2.00	0.43
49:B2:25:VAL:O	49:B2:26:ARG:C	2.57	0.43
25:DA:1676:A:H2'	25:DA:1677:A:O4'	2.18	0.43
1:CA:439:A:H2'	1:CA:441:A:O5'	2.19	0.43
41:DU:12:ARG:NH1	41:DU:12:ARG:HG3	2.32	0.43
42:BV:29:PRO:HA	42:BV:61:VAL:HG22	2.00	0.43
25:BA:975(A):G:H1'	25:BA:990:A:C2	2.53	0.43
46:BZ:3:ARG:NE	46:BZ:59:GLU:OE2	2.52	0.43
43:BW:83:LYS:HG2	43:BW:95:ILE:HD13	1.99	0.43
15:CO:3:ILE:HD13	15:CO:38:ARG:NH2	2.33	0.43
40:DT:124:ASP:O	40:DT:127:ALA:N	2.51	0.43
1:AA:200:G:N2	1:AA:218:C:C2	2.86	0.43
23:CW:74:C:H2'	23:CW:75:C:H5'	2.00	0.43
25:DA:2624:G:C2'	25:DA:2625:G:H5'	2.49	0.43
55:D8:16:ILE:HG13	55:D8:22:VAL:HG22	2.00	0.43
25:BA:201:C:C2'	25:BA:202:U:H5'	2.48	0.43
2:AB:126:GLU:C	2:AB:128:GLU:H	2.22	0.43
25:DA:2493:U:H2'	25:DA:2494:G:O4'	2.18	0.43
13:AM:32:GLU:O	13:AM:32:GLU:HG2	2.18	0.43
55:D8:7:HIS:O	55:D8:9:GLY:N	2.51	0.43
25:BA:253:C:O2'	25:BA:254:G:H5'	2.18	0.43
1:CA:339:C:OP2	35:DO:97:ARG:NH1	2.52	0.43
25:DA:1902:C:H4'	28:DD:244:ARG:CA	2.49	0.43
46:DZ:122:ASP:OD1	46:DZ:122:ASP:N	2.51	0.43
46:DZ:26:VAL:O	46:DZ:87:PHE:N	2.41	0.43
50:D3:52:HIS:CE1	50:D3:53:LEU:HG	2.53	0.43
25:DA:1153:C:OP1	41:DU:76:TYR:OH	2.16	0.43
25:DA:1167:U:C2	25:DA:1183:G:N2	2.86	0.43
34:DN:63:THR:HG1	34:DN:66:LYS:HE2	1.83	0.43
1:CA:1240:U:H3'	1:CA:1241:G:H5'	1.99	0.43
7:CG:39:ALA:HA	7:CG:42:ILE:CD1	2.46	0.43
9:CI:11:LYS:H	9:CI:104:ARG:NH2	2.10	0.43
25:BA:995:C:C4	41:BU:57:PHE:CE1	3.06	0.43
25:DA:2303:G:C4	25:DA:2304:G:C8	3.07	0.43
31:DG:138:GLN:HE22	31:DG:153:ARG:HB3	1.83	0.43
1:AA:1222:G:OP2	1:AA:1322:C:N4	2.52	0.43
19:AS:58:VAL:HG23	19:AS:60:VAL:HG12	2.00	0.43
3:AC:87:LEU:O	3:AC:88:ARG:C	2.57	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:BY:11:ASP:O	45:BY:28:LYS:HE2	2.18	0.43
1:AA:1132:C:N4	1:AA:1133:G:N1	2.67	0.43
40:BT:50:ILE:HD12	40:BT:50:ILE:HA	1.86	0.43
25:DA:2403:C:N4	25:DA:2415:G:N1	2.65	0.43
25:DA:631:A:H2'	25:DA:632:A:O4'	2.19	0.43
2:AB:21:ARG:O	2:AB:23:ARG:N	2.49	0.43
25:DA:286:C:C2'	25:DA:287:C:H5''	2.48	0.43
1:AA:1030:C:H5	1:AA:1031:G:H22	1.62	0.43
13:CM:25:ILE:N	13:CM:25:ILE:HD12	2.34	0.43
25:BA:2467:C:H2'	25:BA:2468:G:O4'	2.18	0.43
37:BQ:51:ARG:HH12	37:BQ:52:VAL:HG23	1.83	0.43
4:AD:9:CYS:HA	4:AD:12:CYS:HB2	2.00	0.43
4:AD:11:LEU:O	4:AD:13:ARG:O	2.37	0.43
35:DO:104:ARG:HH22	40:DT:35:LYS:HZ3	1.65	0.43
22:CV:8:ARG:CZ	23:CW:4:G:H5''	2.49	0.43
22:CV:71:GLN:HA	22:CV:109:THR:CG2	2.48	0.43
47:D0:71:ASP:OD1	47:D0:72:ARG:N	2.45	0.43
14:AN:27:CYS:CB	14:AN:43:CYS:SG	3.06	0.43
37:BQ:54:MET:SD	37:BQ:118:LEU:HD23	2.59	0.43
37:BQ:134:ARG:NH1	37:BQ:134:ARG:HG3	2.33	0.43
37:BQ:137:TYR:OH	46:BZ:80:ARG:CZ	2.66	0.43
46:BZ:79:ARG:O	46:BZ:80:ARG:HG2	2.18	0.43
1:CA:1005:A:N3	1:CA:1036:G:N1	2.59	0.43
39:DS:28:VAL:HB	39:DS:89:ARG:HG3	1.99	0.43
25:BA:922:U:H2'	25:BA:923:C:C6	2.54	0.43
30:DF:150:GLY:HA2	30:DF:172:TRP:CD2	2.53	0.43
30:DF:162:LEU:C	30:DF:164:ARG:N	2.72	0.43
1:AA:1206:G:C6	1:AA:1207:G:C5	3.06	0.43
1:CA:458:C:N4	1:CA:474:G:C6	2.86	0.43
25:DA:245:G:O2'	25:DA:246:C:H5'	2.18	0.43
1:AA:741:G:H2'	1:AA:742:G:H8	1.82	0.43
1:AA:836:G:C6	1:AA:851:G:C6	3.07	0.43
1:CA:1218:C:H2'	1:CA:1219:U:H5	1.79	0.43
10:CJ:31:GLY:CA	10:CJ:78:ASN:OD1	2.63	0.43
46:BZ:18:ARG:HH11	46:BZ:18:ARG:HG2	1.83	0.43
1:AA:321:A:H4'	1:AA:1436:U:H5'	2.00	0.43
25:BA:1481:U:H5''	25:BA:1481:U:H6	1.83	0.43
20:CT:73:HIS:HB3	20:CT:74:LYS:CD	2.35	0.43
14:CN:37:PHE:HZ	14:CN:56:VAL:HG21	1.84	0.43
44:BX:39:ILE:O	44:BX:42:ALA:HB3	2.19	0.43
19:AS:48:THR:HG22	19:AS:61:TYR:HA	2.01	0.43
25:DA:389:G:H1	36:DP:71:VAL:H	1.66	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:92:A:H2'	25:BA:93:G:O4'	2.18	0.43
17:AQ:90:ILE:O	17:AQ:91:ARG:C	2.57	0.43
25:BA:2302:G:H21	31:BG:128:ARG:HD2	1.83	0.43
46:BZ:37:TYR:O	46:BZ:37:TYR:CG	2.71	0.43
25:BA:2128:C:N3	25:BA:2161:C:O2	2.51	0.43
32:BH:54:ARG:NH1	32:BH:65:HIS:CD2	2.78	0.43
26:DB:9:G:C6	26:DB:10:C:C4	3.07	0.43
12:CL:50:ARG:CB	12:CL:90:LEU:HD11	2.48	0.43
37:BQ:43:THR:O	37:BQ:44:ALA:C	2.55	0.43
40:BT:93:ARG:O	40:BT:94:ALA:O	2.35	0.43
32:DH:101:ARG:HB3	32:DH:117:PRO:HG3	2.00	0.43
25:DA:2801(A):A:O4'	25:DA:2802:G:H2'	2.18	0.43
31:BG:39:ILE:HA	31:BG:156:ASP:O	2.18	0.43
11:CK:29:ILE:HD12	11:CK:44:SER:HB3	1.99	0.43
1:CA:166:G:O2'	1:CA:167:G:H5'	2.19	0.43
37:BQ:17:LEU:CD2	37:BQ:17:LEU:N	2.74	0.43
1:AA:676:A:O2'	1:AA:677:U:H5'	2.18	0.43
27:DC:226:ASN:ND2	27:DC:228:HIS:N	2.66	0.43
25:DA:1240:U:H2'	25:DA:1241:A:OP2	2.18	0.43
25:BA:1756:G:O2'	25:BA:1758:G:H5'	2.18	0.43
50:D3:22:ALA:CB	50:D3:50:VAL:HG11	2.47	0.43
28:BD:211:ARG:HA	28:BD:214:TRP:CE3	2.54	0.43
23:AW:27:U:H2'	23:AW:28:C:C6	2.54	0.43
25:DA:1458:C:C4'	25:DA:1459:G:O5'	2.64	0.43
1:CA:1083:U:C5	1:CA:1084:G:C6	3.06	0.43
25:DA:83:G:N2	25:DA:103:A:OP2	2.51	0.43
4:AD:159:ARG:O	4:AD:160:GLN:C	2.57	0.43
1:AA:1446:U:N3	1:AA:1452:C:H1'	2.33	0.43
2:CB:71:VAL:O	2:CB:165:VAL:HG13	2.18	0.43
25:DA:1515:G:C2'	25:DA:1516:C:H5'	2.48	0.43
49:D2:39:ALA:O	49:D2:42:GLY:N	2.48	0.43
1:CA:486:U:O2'	1:CA:487:A:H5'	2.18	0.43
40:BT:13:ARG:NE	40:BT:13:ARG:CA	2.80	0.43
25:BA:1311:G:C5	54:B7:47:ARG:NH2	2.87	0.43
25:BA:16:G:O2'	25:BA:17:G:H5'	2.18	0.43
4:CD:188:LEU:HD23	4:CD:189:PRO:HD2	2.00	0.43
1:CA:154:C:O2'	1:CA:155:C:H5'	2.19	0.43
25:DA:2755:C:O2'	25:DA:2756:U:H2'	2.19	0.43
25:BA:852:G:H5'	50:B3:45:GLY:HA3	1.99	0.43
25:BA:1949:G:H1	25:BA:1957:C:H42	1.66	0.43
3:AC:110:ASN:O	3:AC:111:LEU:C	2.57	0.43
16:CP:52:ASP:OD2	16:CP:54:GLU:HG2	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:BD:223:GLY:C	28:BD:225:ALA:H	2.21	0.43
5:AE:150:ARG:O	5:AE:153:LYS:HG2	2.19	0.43
25:BA:2526:G:O2'	56:B9:2:LYS:NZ	2.42	0.43
4:CD:57:ARG:HG3	4:CD:57:ARG:HH11	1.83	0.43
7:AG:65:ALA:HB2	7:AG:128:ALA:HB2	2.00	0.43
1:CA:802:A:H2'	1:CA:803:G:H5'	2.00	0.43
25:DA:447:A:C6	25:DA:473:G:C4	3.07	0.43
39:BS:50:SER:HB3	39:BS:51:ALA:H	1.64	0.43
28:DD:118:VAL:HG22	28:DD:119:ALA:N	2.32	0.43
1:CA:1384:C:H2'	1:CA:1385:G:H8	1.84	0.43
1:AA:994:A:N1	1:AA:1047:G:H4'	2.34	0.43
8:CH:114:THR:HG22	8:CH:131:GLY:N	2.34	0.43
25:DA:1839:G:C8	25:DA:1927:A:H1'	2.54	0.43
1:AA:720:C:C4	1:AA:721:G:C6	3.06	0.43
5:CE:142:LEU:O	5:CE:143:ARG:HG2	2.18	0.43
16:CP:50:LYS:HD3	16:CP:50:LYS:C	2.39	0.43
25:DA:576:U:H2'	25:DA:577:G:C8	2.53	0.43
25:DA:1835:G:H1'	25:DA:1931:U:C2	2.53	0.43
1:CA:260:G:H2'	1:CA:261:U:C6	2.54	0.43
33:BI:95:LYS:HA	33:BI:98:ALA:HB3	2.00	0.43
30:DF:144:LYS:O	30:DF:146:ALA:N	2.40	0.43
12:CL:51:LYS:HD2	12:CL:51:LYS:N	2.33	0.43
18:CR:55:ARG:HH11	18:CR:55:ARG:HG3	1.83	0.43
4:CD:50:ARG:HA	4:CD:51:PRO:HD3	1.84	0.43
17:AQ:48:GLU:O	17:AQ:49:GLU:C	2.57	0.43
25:BA:197:A:H2'	25:BA:198:C:H5'	2.00	0.43
25:BA:248:G:H5'	25:BA:250:G:N7	2.32	0.43
36:BP:50:ARG:HG2	36:BP:50:ARG:HH21	1.82	0.43
33:BI:122:GLU:OE1	33:BI:123:LEU:N	2.51	0.43
7:AG:31:MET:HG3	7:AG:32:ARG:H	1.84	0.43
9:AI:104:ARG:HH11	9:AI:104:ARG:CG	2.32	0.43
9:AI:45:ALA:O	9:AI:47:LEU:N	2.52	0.43
9:AI:84:ALA:C	9:AI:86:VAL:H	2.22	0.43
2:CB:212:GLN:HE22	2:CB:216:SER:HB2	1.84	0.43
2:CB:80:ILE:HD13	2:CB:211:ILE:CB	2.49	0.43
25:DA:1022:G:C5	25:DA:1140:C:N4	2.86	0.43
34:DN:2:LYS:O	34:DN:4:TYR:CE1	2.71	0.43
37:DQ:24:GLY:HA3	37:DQ:101:ARG:HD3	2.00	0.43
48:D1:52:ARG:O	48:D1:53:VAL:HB	2.18	0.43
25:DA:2102:U:O4'	25:DA:2102:U:O2	2.36	0.43
9:CI:52:ALA:HB3	9:CI:95:LYS:HE2	2.00	0.43
9:CI:63:ILE:CG2	9:CI:64:THR:N	2.80	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BU:91:ASP:C	41:BU:92:ARG:HE	2.22	0.43
22:CV:149:LYS:CE	22:CV:165:VAL:HG23	2.49	0.43
30:BF:4:VAL:CB	30:BF:17:ARG:HE	2.30	0.43
28:BD:246:PRO:HG2	28:BD:255:LYS:HD2	2.00	0.43
3:AC:43:LEU:O	3:AC:46:GLU:O	2.35	0.43
30:DF:107:LYS:O	30:DF:110:LEU:N	2.51	0.43
1:AA:1133:G:C2	1:AA:1142:G:N1	2.86	0.43
1:AA:1070:U:P	5:AE:25:ARG:NH1	2.92	0.43
25:DA:157:U:H2'	25:DA:158:U:C4'	2.48	0.43
31:BG:57:ALA:CB	31:BG:90:LEU:HD11	2.45	0.43
8:CH:4:ASP:HA	8:CH:5:PRO:HD3	1.79	0.43
25:DA:2534:A:C6	25:DA:2535:G:C4	3.06	0.43
2:AB:46:LYS:HA	2:AB:49:GLU:CD	2.38	0.43
13:CM:66:LEU:CD1	13:CM:66:LEU:N	2.77	0.43
13:AM:71:ARG:O	13:AM:72:ALA:C	2.56	0.43
25:BA:2469:A:O3'	37:BQ:56:ARG:NH2	2.51	0.43
35:BO:64:ARG:HD3	35:BO:79:PHE:CE2	2.53	0.43
25:DA:958:U:C5'	37:DQ:14:ARG:HD3	2.30	0.43
10:AJ:15:THR:C	10:AJ:17:ASP:N	2.72	0.43
4:AD:43:HIS:O	4:AD:45:GLN:N	2.51	0.43
35:DO:107:ARG:HH21	35:DO:115:VAL:CG1	2.32	0.43
23:CW:4:G:H1	23:CW:69:C:H42	1.65	0.43
25:DA:58:G:N2	25:DA:70:G:C4	2.87	0.43
15:CO:78:TYR:O	15:CO:80:ALA:N	2.49	0.43
40:DT:29:ARG:NH2	40:DT:88:ILE:HD11	2.33	0.43
1:AA:974:A:H5'	1:AA:975:A:OP1	2.18	0.43
37:BQ:30:GLY:N	37:BQ:105:GLU:OE2	2.52	0.43
25:BA:1332:G:H22	25:BA:1609:A:H2'	1.80	0.43
1:CA:1037:C:H2'	1:CA:1038:C:C6	2.53	0.43
26:DB:50:G:OP1	39:DS:63:THR:HG23	2.19	0.43
1:CA:1030(C):G:O5'	1:CA:1030(C):G:H8	2.01	0.43
2:AB:91:PRO:HA	2:AB:151:GLY:O	2.18	0.43
25:DA:1686:C:H2'	25:DA:1687:G:H5'	2.00	0.43
22:AV:166:GLU:HB3	22:AV:167:PRO:HD2	2.00	0.43
25:DA:329:G:H1	45:DY:19:LYS:NZ	2.17	0.43
53:B6:28:ARG:CB	53:B6:28:ARG:HH11	2.26	0.43
1:AA:623:C:C4	1:AA:624:C:C5	3.07	0.43
55:D8:29:LYS:N	55:D8:32:LEU:HD21	2.34	0.43
13:CM:47:ASP:O	13:CM:48:LEU:CB	2.66	0.43
3:AC:171:GLY:O	3:AC:172:ARG:HG2	2.19	0.43
11:AK:80:VAL:O	11:AK:105:VAL:HA	2.19	0.43
1:CA:1174:G:C2	1:CA:1175:G:C5	3.06	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:104:ASN:CG	2:AB:107:THR:HB	2.38	0.43
25:BA:92:A:H2'	25:BA:93:G:H8	1.83	0.43
49:D2:2:LYS:HE3	49:D2:2:LYS:CA	2.42	0.43
25:DA:1339:G:H5''	44:DX:16:LYS:HD3	2.00	0.43
1:AA:156:G:C6	1:AA:166:G:C6	3.07	0.43
1:AA:1014:A:H2'	1:AA:1015:A:C8	2.53	0.43
19:AS:22:LEU:HD12	19:AS:27:GLU:HB3	2.00	0.43
25:BA:2528:U:C5'	56:B9:31:LYS:HE2	2.42	0.43
25:BA:2865:U:C4	25:BA:2866:U:C4	3.07	0.43
4:CD:102:ASP:HB3	4:CD:136:PRO:CA	2.46	0.43
27:BC:182:PRO:O	27:BC:185:LYS:HB2	2.18	0.43
40:BT:39:ARG:O	40:BT:40:THR:O	2.35	0.43
33:BI:68:LEU:O	33:BI:71:ILE:HG23	2.19	0.43
48:B1:80:LEU:HD22	48:B1:82:LEU:HD11	1.97	0.43
25:BA:271(M):G:H2'	25:BA:271(N):U:H5''	1.97	0.43
1:CA:152:A:N6	1:CA:170:U:C2	2.87	0.43
27:BC:165:ARG:NH1	27:BC:165:ARG:CB	2.79	0.43
1:CA:708:C:O2'	1:CA:709:G:H5'	2.18	0.43
23:AW:39:C:H2'	23:AW:40:C:C6	2.53	0.43
8:CH:77:GLU:CG	8:CH:78:GLN:N	2.81	0.43
25:DA:237:C:H2'	25:DA:238:C:C6	2.53	0.43
1:AA:829:G:O2'	1:AA:830:G:H5'	2.18	0.43
7:AG:140:ASP:HA	7:AG:143:ARG:HH12	1.82	0.43
18:AR:36:ASN:ND2	18:AR:39:VAL:HG21	2.33	0.43
1:AA:658:G:H2'	1:AA:659:U:C6	2.52	0.43
31:BG:53:LEU:N	31:BG:53:LEU:CD2	2.81	0.43
28:BD:58:HIS:O	28:BD:59:LYS:C	2.55	0.43
25:BA:2742:C:OP1	56:B9:35:ARG:HD3	2.19	0.43
35:DO:24:VAL:HG23	35:DO:33:ALA:HB2	2.01	0.43
27:BC:50:ILE:HD12	27:BC:51:ASP:C	2.39	0.43
1:AA:189(I):G:H2'	1:AA:189(J):G:H8	1.82	0.43
26:DB:117:G:C5'	39:DS:55:ALA:HB1	2.48	0.43
3:AC:138:VAL:HG22	3:AC:149:ALA:HB1	2.00	0.43
25:DA:2825:C:C2'	25:DA:2826:A:H5'	2.49	0.43
25:DA:723:G:H2'	25:DA:724:U:C6	2.53	0.43
1:CA:621:A:H2'	1:CA:622:A:C8	2.54	0.43
37:DQ:51:ARG:HG2	37:DQ:51:ARG:NH1	2.33	0.43
1:AA:217:C:H2'	1:AA:218:C:C6	2.54	0.43
29:DE:16:ARG:O	29:DE:17:ASP:C	2.57	0.43
33:DI:56:LYS:O	33:DI:59:ALA:HB3	2.18	0.43
25:BA:1606:G:O5'	25:BA:1606:G:H8	2.02	0.43
25:BA:1213:A:C8	25:BA:1237:A:C6	3.06	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BZ:155:LYS:O	46:BZ:157:PRO:CD	2.67	0.43
1:AA:714:G:H2'	1:AA:715:A:C8	2.53	0.43
28:BD:122:ASP:OD1	28:BD:123:ALA:N	2.52	0.43
56:D9:7:VAL:HG12	56:D9:25:VAL:CG2	2.49	0.43
39:BS:74:ALA:HB1	39:BS:103:GLU:HB2	2.00	0.43
39:BS:78:LEU:O	39:BS:80:LEU:N	2.49	0.43
39:BS:95:HIS:O	39:BS:97:ARG:N	2.52	0.43
35:DO:12:ASP:HB3	35:DO:98:VAL:HA	2.01	0.43
9:AI:118:LYS:O	9:AI:119:ALA:CB	2.67	0.43
10:AJ:58:ASP:O	10:AJ:59:SER:OG	2.35	0.43
46:DZ:10:GLU:OE2	46:DZ:10:GLU:N	2.44	0.43
2:CB:8:LYS:HZ3	2:CB:217:ARG:NH1	2.16	0.43
41:DU:92:ARG:NH1	41:DU:92:ARG:HB2	2.11	0.43
42:DV:39:LEU:O	42:DV:40:LEU:CB	2.61	0.43
25:DA:952:G:C6	25:DA:953:A:N7	2.86	0.43
25:DA:918:A:H5''	26:DB:98:G:O2'	2.19	0.43
25:DA:2100:G:N1	25:DA:2101:G:N3	2.65	0.43
1:CA:1354:C:H2'	1:CA:1355:G:C8	2.54	0.43
7:CG:15:ASP:HB3	7:CG:19:GLY:CA	2.48	0.43
7:CG:32:ARG:HB2	7:CG:32:ARG:HH11	1.83	0.43
41:BU:88:ILE:HG22	41:BU:90:VAL:HG23	2.00	0.43
41:BU:97:ASP:O	41:BU:99:ALA:N	2.52	0.43
13:CM:88:ARG:HG2	13:CM:88:ARG:HH11	1.83	0.43
1:AA:1319:A:H2'	1:AA:1323:G:N7	2.34	0.43
30:BF:178:PRO:HG2	30:BF:179:GLU:OE2	2.19	0.43
28:BD:244:ARG:HG2	28:BD:245:PRO:CG	2.36	0.43
3:AC:23:TYR:CE2	3:AC:24:ALA:O	2.71	0.43
3:AC:42:LEU:HD23	3:AC:90:GLU:HB3	2.01	0.43
45:BY:8:LYS:HE2	45:BY:37:VAL:CG1	2.46	0.43
3:CC:83:ARG:HE	3:CC:87:LEU:HD12	1.82	0.43
25:BA:1599:C:OP2	44:BX:36:LYS:HG3	2.18	0.43
32:DH:163:TYR:N	32:DH:163:TYR:HD1	2.05	0.43
29:DE:185:LYS:O	29:DE:187:ALA:N	2.50	0.43
29:DE:21:VAL:HA	29:DE:22:PRO:HD2	1.82	0.43
36:BP:98:GLU:O	36:BP:101:VAL:HG22	2.19	0.43
2:AB:204:ASN:HD21	2:AB:207:ALA:HB3	1.83	0.43
2:AB:59:GLU:HB2	2:AB:221:LEU:CD1	2.49	0.43
2:AB:81:VAL:HB	2:AB:94:ASN:OD1	2.18	0.43
11:CK:46:GLY:C	11:CK:48:ILE:H	2.21	0.43
25:DA:282:A:H2'	25:DA:283:A:H5''	2.00	0.43
55:B8:32:LEU:HB2	55:B8:36:LYS:HE2	2.00	0.43
40:BT:26:ASP:OD2	40:BT:26:ASP:C	2.54	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1239:A:N1	1:CA:1296:C:N3	2.67	0.43
13:CM:4:ILE:HG22	13:CM:5:ALA:N	2.33	0.43
2:AB:111:ARG:HA	2:AB:111:ARG:NE	2.34	0.43
1:AA:1152:A:H3'	10:AJ:13:HIS:CD2	2.50	0.43
4:AD:42:GLN:HG2	4:AD:43:HIS:HD2	1.79	0.43
3:CC:205:GLY:O	3:CC:206:GLU:HG3	2.19	0.43
25:DA:7:G:N1	25:DA:2896:C:N4	2.67	0.43
34:DN:121:LYS:HG2	34:DN:130:HIS:CE1	2.54	0.43
49:D2:10:LEU:HB3	49:D2:14:ARG:HH12	1.82	0.43
25:DA:57:C:C2'	25:DA:58:G:H5'	2.49	0.43
15:CO:27:VAL:O	15:CO:29:VAL:N	2.51	0.43
48:B1:89:GLU:O	48:B1:92:LYS:HB3	2.19	0.43
31:DG:80:PHE:HD1	31:DG:80:PHE:O	2.02	0.43
26:DB:52:A:H2	26:DB:53:A:N6	2.16	0.43
25:DA:321:G:OP2	30:DF:136:THR:HG22	2.18	0.43
16:AP:14:ASN:OD1	16:AP:42:ARG:NH2	2.51	0.43
8:AH:127:LEU:O	8:AH:127:LEU:CD1	2.56	0.43
25:DA:1523:U:C2	25:DA:1524:G:C8	3.07	0.43
3:AC:120:VAL:CG1	3:AC:198:VAL:HG11	2.49	0.43
6:CF:53:ALA:HB3	6:CF:86:ARG:NH1	2.34	0.43
25:BA:1590:U:H2'	25:BA:1591:G:H5'	1.97	0.43
20:CT:100:ILE:CD1	20:CT:100:ILE:N	2.82	0.43
5:CE:100:VAL:HG13	5:CE:118:ILE:CG2	2.49	0.43
1:CA:473:G:H5''	16:CP:81:ARG:NH2	2.34	0.43
25:DA:866:A:C6	25:DA:914:C:N3	2.87	0.43
10:CJ:85:LEU:O	10:CJ:88:LEU:N	2.52	0.43
23:AW:2:G:C4	23:AW:3:C:C5	3.07	0.43
27:BC:26:ALA:HA	27:BC:29:LEU:HB3	2.01	0.43
46:BZ:16:ALA:HA	46:BZ:19:ARG:HH11	1.84	0.43
25:BA:2284:C:OP1	53:B6:5:VAL:CB	2.67	0.43
1:AA:321:A:C2	1:AA:333:G:N2	2.86	0.43
9:AI:23:ASN:HB3	9:AI:25:LYS:HG2	2.01	0.43
9:AI:5:TYR:CD2	9:AI:18:PHE:HE2	2.36	0.43
20:CT:74:LYS:HB2	20:CT:75:ASN:OD1	2.18	0.43
25:BA:309:G:H8	25:BA:309:G:O5'	2.01	0.43
45:DY:91:GLU:HB3	45:DY:92:ASN:H	1.68	0.43
25:BA:285:C:O2'	25:BA:286:C:H5''	2.18	0.43
4:CD:11:LEU:O	4:CD:12:CYS:C	2.57	0.43
55:B8:22:VAL:HG21	55:B8:53:PRO:HB2	2.01	0.43
25:BA:2164:C:H2'	25:BA:2165:G:C8	2.54	0.43
1:CA:838:G:C2	1:CA:849:C:N3	2.87	0.43
22:AV:70:LEU:HD21	22:AV:91:PHE:CE2	2.53	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2744:G:N2	32:DH:143:GLN:OE1	2.51	0.43
1:CA:179:A:C5	1:CA:180:U:C5	3.06	0.43
25:BA:1509(A):A:C2'	25:BA:1509(B):A:H8	2.29	0.43
30:BF:169:ASN:CG	30:BF:169:ASN:O	2.55	0.43
25:DA:2758:A:C2'	25:DA:2759:G:H5''	2.49	0.43
31:BG:37:VAL:HG22	31:BG:159:VAL:HG23	2.01	0.43
1:AA:992:U:H4'	1:AA:993:G:O5'	2.19	0.43
25:DA:1297:C:OP1	25:DA:2710:C:H4'	2.19	0.43
8:CH:29:SER:HB2	8:CH:32:LYS:HZ3	1.83	0.43
25:BA:2365:G:OP1	47:B0:54:ARG:HG3	2.19	0.43
28:BD:130:ALA:HB2	28:BD:192:THR:HG22	2.01	0.43
25:BA:2226:C:H2'	25:BA:2227:A:O4'	2.17	0.43
25:BA:507:A:H5''	25:BA:508:G:H5'	2.00	0.43
1:AA:892:A:C2	1:AA:893:C:C2	3.07	0.43
4:AD:154:ASN:HB2	4:AD:155:LEU:H	1.67	0.43
1:AA:1456:G:O2'	1:AA:1457:G:H5'	2.18	0.43
32:DH:71:LEU:CA	32:DH:74:ASN:ND2	2.81	0.43
25:DA:2231:C:OP1	48:D1:42:GLN:HA	2.17	0.43
1:CA:56:U:O2'	1:CA:57:G:H5'	2.19	0.43
1:CA:1484:C:H2'	1:CA:1485:U:H6	1.84	0.43
1:CA:1507:A:C2	1:CA:1508:G:C4	3.06	0.43
25:BA:515:A:H2	25:BA:1260:G:N3	2.16	0.43
15:AO:43:LEU:C	15:AO:45:VAL:N	2.71	0.43
1:AA:145:G:C2	1:AA:146:G:H1'	2.54	0.43
25:BA:890:A:H2'	25:BA:892:G:H8	1.81	0.43
26:DB:94:C:H2'	26:DB:95:C:C6	2.54	0.43
33:DI:130:TYR:N	33:DI:136:VAL:HG12	2.34	0.43
47:D0:60:PHE:HD2	47:D0:60:PHE:N	2.13	0.43
12:CL:54:LYS:HG2	12:CL:64:THR:CG2	2.48	0.43
25:BA:1860:G:C4	25:BA:1861:G:C8	3.07	0.43
1:CA:539:A:H2'	1:CA:540:G:C8	2.54	0.43
4:AD:196:LEU:HB3	4:AD:197:PRO:HD2	2.01	0.43
4:CD:177:ASP:O	4:CD:180:GLY:N	2.50	0.43
46:BZ:55:VAL:HG12	46:BZ:56:ILE:N	2.34	0.43
25:BA:2676:C:O2'	25:BA:2677:G:H5'	2.19	0.43
34:DN:93:THR:O	34:DN:93:THR:HG23	2.18	0.43
25:BA:742:G:O2'	25:BA:743:G:H5'	2.18	0.43
43:BW:66:GLU:C	43:BW:68:ARG:H	2.22	0.43
14:CN:15:LYS:O	14:CN:16:PHE:O	2.36	0.43
25:DA:108:U:H2'	25:DA:109:G:H8	1.83	0.43
1:AA:303:A:H2'	1:AA:304:U:H6	1.84	0.43
25:DA:2034:U:O2'	25:DA:2035:G:O5'	2.33	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2493:U:O5'	25:DA:2493:U:H6	2.01	0.43
29:DE:190:GLY:HA2	29:DE:191:PRO:HD3	1.86	0.43
22:AV:177:THR:HB	22:AV:179:GLU:HG3	2.01	0.43
25:DA:2462:U:H2'	25:DA:2463:C:O4'	2.18	0.43
38:BR:29:LEU:CD1	38:BR:29:LEU:N	2.81	0.43
36:BP:49:ARG:HB2	36:BP:50:ARG:H	1.50	0.43
39:BS:62:LYS:H	39:BS:65:VAL:CG2	2.30	0.43
33:BI:116:LEU:O	33:BI:117:GLU:HB3	2.18	0.43
46:DZ:9:ARG:HA	46:DZ:37:TYR:CD2	2.52	0.43
2:CB:57:PHE:CZ	2:CB:61:LEU:HD22	2.54	0.43
25:DA:1184:G:C2'	25:DA:1185:C:H5'	2.48	0.43
25:DA:533:G:H1	25:DA:560:C:H42	1.65	0.43
42:DV:12:TYR:CE1	42:DV:22:VAL:HG12	2.53	0.43
42:DV:1:MET:H3	42:DV:16:PRO:HD3	1.84	0.43
42:DV:75:PHE:CD1	42:DV:75:PHE:C	2.92	0.43
25:DA:2104:G:H2'	25:DA:2105:C:H5'	2.00	0.43
25:DA:1348:G:H2'	25:DA:1349:A:C5'	2.44	0.43
25:BA:1107:G:O2'	25:BA:1108:U:H5'	2.19	0.43
1:CA:1290:G:O2'	1:CA:1291:G:H5'	2.18	0.43
7:CG:57:GLU:O	7:CG:57:GLU:HG3	2.19	0.43
9:CI:50:LEU:CA	9:CI:53:VAL:HG22	2.45	0.43
9:CI:86:VAL:HG21	9:CI:96:LEU:HD22	2.01	0.43
41:BU:97:ASP:OD1	41:BU:98:LEU:N	2.52	0.43
13:AM:83:ASP:OD1	19:AS:74:PHE:CE1	2.71	0.43
19:AS:33:THR:CG2	19:AS:51:VAL:HA	2.49	0.43
30:BF:2:LYS:HG2	30:BF:25:PRO:HB2	2.00	0.43
1:AA:160:A:C2	1:AA:343:U:H1'	2.54	0.43
3:AC:22:TRP:HE3	3:AC:23:TYR:O	2.01	0.43
3:AC:69:HIS:HA	3:AC:104:GLN:O	2.19	0.43
30:DF:114:VAL:HG22	30:DF:192:LEU:HD11	2.00	0.43
1:AA:1139:G:H5'	1:AA:1140:C:OP1	2.18	0.43
10:AJ:28:ARG:HH11	10:AJ:28:ARG:HG2	1.82	0.43
25:DA:1048:A:N6	25:DA:1108:U:C5	2.87	0.43
40:BT:100:TYR:C	40:BT:102:ILE:N	2.72	0.43
45:BY:77:PRO:O	45:BY:78:ALA:HB2	2.19	0.43
27:BC:129:GLY:HA2	27:BC:138:LEU:HD11	2.00	0.43
31:BG:59:GLU:C	31:BG:62:LEU:H	2.22	0.43
53:B6:11:LEU:HD21	53:B6:53:LYS:N	2.33	0.43
4:AD:50:ARG:CB	4:AD:50:ARG:HH11	2.26	0.43
25:DA:2532:G:N2	25:DA:2663:G:H1'	2.34	0.43
19:AS:52:TYR:CZ	19:AS:56:GLN:HA	2.54	0.43
20:CT:22:ARG:CG	20:CT:22:ARG:NH1	2.82	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:AM:94:ARG:HA	13:AM:94:ARG:HD3	1.81	0.43
5:AE:107:ARG:O	5:AE:109:ILE:N	2.52	0.43
5:AE:72:GLN:N	5:AE:75:THR:O	2.50	0.43
35:DO:71:ARG:NH2	35:DO:122:LEU:OXT	2.41	0.43
40:DT:18:ASP:OD1	40:DT:18:ASP:N	2.52	0.43
40:DT:30:VAL:HA	40:DT:43:GLN:O	2.18	0.43
40:DT:30:VAL:HA	40:DT:44:ASP:HA	1.99	0.43
3:CC:8:ILE:CD1	3:CC:16:ARG:NH2	2.79	0.43
14:CN:58:LYS:HB3	14:CN:58:LYS:HE3	1.80	0.43
8:AH:63:LEU:HB3	8:AH:65:TYR:HE1	1.80	0.43
49:D2:61:LEU:O	49:D2:64:LEU:HB3	2.19	0.43
48:B1:50:ARG:O	48:B1:51:VAL:HB	2.19	0.43
1:AA:1199:U:H5'	10:AJ:54:PHE:CE2	2.53	0.43
14:AN:24:CYS:SG	14:AN:40:CYS:SG	3.08	0.43
46:BZ:97:MET:C	46:BZ:124:LEU:HD12	2.39	0.43
40:DT:8:LYS:CA	40:DT:11:GLU:OE2	2.66	0.43
33:BI:13:GLY:O	33:BI:14:ASP:O	2.36	0.43
1:CA:1104:G:C5'	2:CB:111:ARG:HH11	2.32	0.43
39:DS:88:ASP:CG	39:DS:89:ARG:N	2.72	0.43
10:CJ:7:LYS:HE2	10:CJ:71:LEU:HD13	2.00	0.43
25:BA:784:A:C8	28:BD:229:VAL:HG21	2.51	0.43
39:DS:98:VAL:HG21	39:DS:100:ALA:HB2	2.01	0.43
5:CE:81:GLU:HG2	5:CE:90:VAL:CG1	2.44	0.43
2:AB:7:VAL:O	2:AB:7:VAL:HG12	2.18	0.43
53:B6:32:ASN:HB3	53:B6:33:LYS:H	1.42	0.43
40:DT:70:VAL:HG12	40:DT:71:GLY:O	2.18	0.43
31:BG:86:MET:O	31:BG:87:PRO:C	2.57	0.43
51:D4:40:ILE:N	51:D4:40:ILE:HD12	2.34	0.43
5:AE:59:GLY:O	5:AE:60:TYR:C	2.57	0.43
25:BA:2298:A:H62	25:BA:2318:G:H8	1.64	0.43
26:BB:112:U:H2'	26:BB:113:G:H8	1.83	0.43
39:BS:19:LYS:O	39:BS:20:ARG:NH1	2.52	0.43
21:AU:6:ARG:HD3	21:AU:15:ARG:HH22	1.77	0.43
46:DZ:174:VAL:HB	46:DZ:175:PRO:HD2	2.01	0.43
25:DA:540:C:H2'	25:DA:541:C:C6	2.54	0.43
11:AK:33:THR:HG22	11:AK:39:PRO:CA	2.40	0.43
25:BA:266:G:H1'	25:BA:283:A:N6	2.34	0.43
27:BC:37:LYS:HD2	27:BC:37:LYS:N	2.34	0.43
26:BB:58:A:H3'	26:BB:59:A:C8	2.51	0.43
49:B2:43:GLN:O	49:B2:44:LEU:HB2	2.18	0.43
25:BA:1509(B):A:H2'	25:BA:1510:G:C8	2.54	0.43
52:D5:52:TYR:HD1	52:D5:52:TYR:N	2.11	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:CK:72:ALA:HB1	11:CK:77:MET:HG2	2.01	0.43
1:AA:993:G:H1	1:AA:1045:C:H42	1.65	0.43
10:AJ:85:LEU:O	10:AJ:86:MET:C	2.57	0.43
1:CA:59:A:H5'	1:CA:60:A:H5'	1.99	0.43
47:B0:48:LYS:HG3	47:B0:79:HIS:ND1	2.34	0.43
25:DA:942:G:H8	25:DA:942:G:O5'	2.01	0.43
50:D3:22:ALA:O	50:D3:25:ALA:HB3	2.18	0.43
25:DA:2036:C:O2'	25:DA:2037:G:H5'	2.18	0.43
1:AA:253:U:O2'	1:AA:254:G:H5'	2.19	0.43
25:BA:1270:C:H5''	25:BA:1271:G:C5'	2.48	0.43
27:BC:6:LYS:CB	27:BC:6:LYS:NZ	2.80	0.43
25:BA:906:G:H5'	25:BA:907:U:OP2	2.19	0.43
25:BA:2870:C:C5'	38:BR:65:LEU:HD21	2.48	0.43
1:CA:608:A:C4	1:CA:609:A:C8	3.07	0.43
41:BU:36:ARG:O	41:BU:39:LEU:N	2.52	0.43
1:CA:1055:A:H1'	3:CC:156:ARG:NH1	2.34	0.43
1:CA:1508:G:H2'	1:CA:1509:C:O4'	2.19	0.43
1:AA:1508:G:O2'	1:AA:1509:C:H5'	2.19	0.43
25:BA:1351:C:O2'	25:BA:1571:A:H1'	2.18	0.43
25:BA:190:A:C8	25:BA:207:A:C6	3.07	0.43
1:CA:564:C:H5'	12:CL:7:LEU:HD11	2.00	0.43
45:BY:31:LEU:HD13	45:BY:31:LEU:HA	1.66	0.43
25:BA:2767:C:O2'	25:BA:2768:C:H5'	2.17	0.43
1:AA:126:G:C2	1:AA:127:G:C4	3.07	0.43
25:DA:1443:G:C2'	25:DA:1444:G:H5'	2.48	0.43
46:BZ:3:ARG:HE	46:BZ:59:GLU:CG	2.32	0.43
25:DA:469:G:O2'	25:DA:470:A:H5''	2.18	0.43
15:AO:37:ASN:HA	15:AO:40:SER:HB3	2.01	0.43
25:DA:43:A:H2'	25:DA:44:G:H8	1.82	0.43
41:BU:104:GLN:HB2	41:BU:104:GLN:HE21	1.65	0.43
28:DD:132:PRO:O	28:DD:136:ILE:HG13	2.18	0.43
25:DA:1389:G:C2	25:DA:1399:C:O2	2.72	0.43
1:CA:52:G:H2'	1:CA:53:A:C8	2.54	0.43
25:DA:709:U:H2'	25:DA:710:G:C8	2.54	0.43
30:DF:2:LYS:O	30:DF:2:LYS:HG2	2.18	0.43
34:DN:3:THR:O	34:DN:5:VAL:N	2.52	0.43
4:AD:177:ASP:O	4:AD:177:ASP:OD1	2.37	0.43
25:DA:553:G:H2'	25:DA:554:U:O4'	2.19	0.43
25:BA:2766:G:N3	25:BA:2766:G:H2'	2.33	0.43
1:CA:592:G:H2'	1:CA:593:G:H8	1.84	0.43
3:CC:188:LEU:HD22	3:CC:188:LEU:N	2.34	0.43
25:BA:691:C:H6	25:BA:691:C:O5'	2.02	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BS:89:ARG:HD3	39:BS:92:TYR:HA	2.00	0.43
3:AC:6:HIS:CD2	3:AC:7:PRO:HD2	2.52	0.43
7:AG:44:TYR:CD2	7:AG:44:TYR:N	2.86	0.43
14:AN:59:ALA:O	14:AN:60:SER:HB2	2.19	0.43
32:BH:17:VAL:CG2	32:BH:45:VAL:HG13	2.49	0.43
32:BH:9:ILE:N	32:BH:9:ILE:CD1	2.70	0.43
26:DB:104:U:H4'	46:DZ:71:ARG:HD2	2.00	0.43
46:DZ:11:GLY:O	46:DZ:12:GLU:HG3	2.18	0.43
46:DZ:43:PHE:CZ	46:DZ:47:PHE:CD2	3.06	0.43
46:DZ:2:TYR:O	46:DZ:56:ILE:HA	2.18	0.43
41:DU:52:ARG:O	41:DU:53:ARG:C	2.57	0.43
1:CA:1241:G:H2'	1:CA:1242:C:C6	2.53	0.43
7:CG:136:LYS:C	7:CG:138:LYS:H	2.21	0.43
7:CG:40:ALA:O	7:CG:44:TYR:CD1	2.72	0.43
7:CG:66:VAL:CG1	7:CG:66:VAL:O	2.65	0.43
25:BA:998:C:H2'	25:BA:999:U:O4'	2.18	0.43
25:BA:2809:A:O2'	25:BA:2810:A:H5'	2.18	0.43
31:DG:115:ARG:HD2	31:DG:136:ARG:CD	2.49	0.43
31:DG:66:GLN:HE22	31:DG:94:LEU:HA	1.84	0.43
30:DF:114:VAL:CG2	30:DF:202:PHE:HE2	2.32	0.43
25:DA:1041:C:OP1	46:DZ:45:LYS:NZ	2.50	0.43
1:AA:15:G:C4	1:AA:16:A:C8	3.06	0.43
25:DA:610:G:H2'	25:DA:611:C:C6	2.54	0.43
30:DF:102:PRO:HB2	30:DF:105:VAL:CG2	2.49	0.43
28:BD:266:SER:O	28:BD:267:SER:O	2.37	0.43
31:BG:60:LEU:HB3	31:BG:68:PRO:HG2	2.01	0.43
12:CL:38:ARG:CB	12:CL:38:ARG:NH1	2.82	0.43
29:BE:81:ILE:O	29:BE:81:ILE:CG2	2.64	0.43
17:AQ:68:ARG:N	17:AQ:70:ARG:NH1	2.66	0.43
45:BY:48:ALA:CB	45:BY:59:GLY:N	2.82	0.43
16:CP:48:TRP:CE3	16:CP:48:TRP:O	2.72	0.43
16:CP:48:TRP:O	16:CP:48:TRP:HE3	2.01	0.43
8:CH:103:VAL:HG21	8:CH:109:ILE:O	2.19	0.43
1:AA:1306:A:O2'	1:AA:1307:U:H5'	2.18	0.43
25:BA:2469:A:H5'	25:BA:2470:G:OP2	2.18	0.43
36:BP:65:ARG:O	36:BP:66:GLY:C	2.57	0.43
25:DA:1653:G:O5'	25:DA:1653:G:C8	2.71	0.43
40:DT:76:PHE:HA	40:DT:77:PRO:HD3	1.72	0.43
32:BH:123:PHE:CD2	32:BH:133:VAL:CG2	3.01	0.43
1:CA:973:G:H1'	10:CJ:55:LYS:HZ3	1.83	0.43
3:CC:60:ALA:O	3:CC:61:ALA:CB	2.67	0.43
25:BA:2746:U:H2'	25:BA:2747:G:C5'	2.48	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:271(K):U:H2'	33:DI:50:ARG:CZ	2.48	0.43
49:D2:67:LYS:HD3	49:D2:67:LYS:HA	1.85	0.43
15:CO:76:GLU:C	15:CO:78:TYR:H	2.21	0.43
30:BF:32:LEU:HD21	30:BF:105:VAL:O	2.19	0.43
1:CA:1104:G:H5'	2:CB:111:ARG:HH11	1.83	0.43
39:DS:93:LYS:O	39:DS:95:HIS:N	2.51	0.43
1:AA:369:C:H2'	1:AA:369:C:O2	2.18	0.43
34:DN:16:ILE:CG2	34:DN:54:VAL:HA	2.49	0.43
22:AV:134:ASP:HB3	22:AV:152:THR:HB	2.01	0.43
12:AL:83:ARG:NH2	12:AL:96:HIS:CD2	2.86	0.43
1:CA:78:G:N2	1:CA:79:G:C6	2.87	0.43
5:CE:89:ILE:HD11	5:CE:91:LEU:HD13	2.01	0.43
51:B4:46:ASN:OD1	51:B4:62:CYS:SG	2.73	0.43
1:AA:665:A:H2'	1:AA:732:C:O2	2.19	0.43
25:DA:528:A:H2	25:DA:2043:C:H4'	1.80	0.43
28:DD:65:ILE:HD11	28:DD:67:PHE:CZ	2.54	0.43
25:BA:847:U:H5	25:BA:933:A:H62	1.67	0.43
20:CT:73:HIS:O	20:CT:76:ALA:HB3	2.18	0.43
25:DA:1498:C:O4'	25:DA:1577:C:C4'	2.66	0.43
55:B8:51:ALA:O	55:B8:54:GLU:OE1	2.36	0.43
37:DQ:56:ARG:CA	37:DQ:56:ARG:HH11	2.24	0.43
25:BA:815:C:OP1	42:BV:85:LYS:NZ	2.51	0.43
28:BD:65:ILE:CD1	28:BD:65:ILE:N	2.78	0.43
46:BZ:9:ARG:HG3	46:BZ:17:LEU:HD21	2.01	0.43
18:CR:36:ASN:O	18:CR:37:VAL:C	2.57	0.43
1:CA:1106:G:C5	1:CA:1107:C:C5	3.07	0.43
25:BA:727:A:O2'	25:BA:728:G:H5'	2.19	0.43
1:AA:59:A:C5'	1:AA:60:A:C5'	2.93	0.43
1:CA:687:A:H4'	11:CK:47:VAL:HG13	2.01	0.43
25:DA:673:C:OP1	30:DF:54:ARG:NH1	2.52	0.43
1:CA:1413:A:H8	1:CA:1413:A:O5'	2.01	0.43
27:DC:178:LYS:HB2	27:DC:181:PHE:HE1	1.81	0.43
27:DC:23:ILE:HB	27:DC:191:ARG:HH22	1.84	0.43
25:BA:556:G:H2'	25:BA:557:U:H6	1.81	0.43
25:DA:2200:C:H42	25:DA:2223:G:H1	1.66	0.43
17:CQ:14:LYS:H	17:CQ:14:LYS:HD2	1.83	0.43
25:DA:1459:G:H2'	25:DA:1461:G:O4'	2.19	0.43
33:DI:83:ALA:HB2	33:DI:88:ILE:HA	1.96	0.43
27:BC:48:LEU:CD2	27:BC:210:LEU:HD23	2.48	0.43
25:DA:2557:G:C6	25:DA:2558:C:N4	2.87	0.43
25:DA:349:G:N3	25:DA:349:G:H2'	2.34	0.43
1:AA:590:C:OP1	8:AH:30:ARG:N	2.43	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1587:A:C3'	25:BA:1588:C:H6	2.29	0.43
25:BA:791:C:H4'	25:BA:792:G:OP1	2.18	0.43
4:CD:98:GLU:OE1	4:CD:194:LEU:HD11	2.19	0.43
3:CC:155:GLY:O	3:CC:156:ARG:HB2	2.18	0.43
25:DA:2192:G:C2'	25:DA:2193:G:C5'	2.94	0.43
7:AG:140:ASP:OD1	7:AG:143:ARG:NH2	2.52	0.43
53:D6:28:ARG:O	53:D6:29:ASN:C	2.56	0.43
13:CM:83:ASP:OD2	13:CM:83:ASP:N	2.52	0.43
37:DQ:54:MET:O	37:DQ:57:HIS:N	2.52	0.43
25:BA:1403:C:C5'	25:BA:1471:A:H1'	2.49	0.43
16:CP:60:LEU:HA	16:CP:64:ALA:HB3	2.01	0.43
25:DA:1468:C:H2'	25:DA:1469:A:C8	2.51	0.43
1:AA:643:C:H5'	8:AH:31:PHE:CE1	2.54	0.43
1:CA:161:A:H2'	1:CA:162:A:C8	2.53	0.43
46:BZ:3:ARG:HG3	46:BZ:57:VAL:O	2.19	0.43
39:DS:49:VAL:HG12	39:DS:50:SER:N	2.34	0.43
1:AA:872:A:C5	1:AA:874:G:C8	3.07	0.43
25:BA:1477:A:H5'	25:BA:1478:G:OP2	2.19	0.43
25:DA:2432:A:C5	48:D1:33:LYS:HB3	2.54	0.43
1:AA:520:A:P	12:AL:49:LEU:HD23	2.59	0.43
25:BA:1742:G:C6	25:BA:1743:C:N3	2.87	0.43
1:AA:1483:A:H1'	25:BA:1948:G:H1'	2.01	0.43
1:CA:1388:C:O2'	1:CA:1389:C:H5'	2.18	0.43
25:BA:52:A:O2'	25:BA:53:A:H5'	2.18	0.43
38:BR:33:ARG:HG3	38:BR:115:GLU:CB	2.49	0.43
25:DA:1612:C:H2'	25:DA:1613:G:O5'	2.19	0.43
38:BR:5:LYS:O	38:BR:6:SER:CB	2.66	0.43
8:CH:53:VAL:C	8:CH:55:GLY:N	2.71	0.43
28:BD:105:ILE:O	28:BD:106:ILE:C	2.55	0.43
31:DG:5:VAL:HG23	31:DG:8:LYS:HB2	2.00	0.43
31:DG:133:LEU:N	31:DG:133:LEU:HD23	2.34	0.43
18:CR:29:PHE:CD1	18:CR:29:PHE:O	2.72	0.43
1:CA:786:G:H2'	1:CA:787:A:O4'	2.19	0.43
25:BA:1339:G:H5''	44:BX:16:LYS:HD3	2.01	0.43
25:DA:2243:U:O2'	25:DA:2244:U:H5'	2.18	0.43
1:AA:1240:U:O2	7:AG:32:ARG:HD3	2.19	0.43
1:AA:1349:A:OP1	9:AI:120:ARG:HB2	2.19	0.43
37:DQ:137:TYR:O	37:DQ:138:ASP:O	2.37	0.43
37:DQ:140:ALA:HB2	46:DZ:122:ASP:CG	2.40	0.43
46:DZ:9:ARG:CA	46:DZ:37:TYR:HD2	2.32	0.43
2:CB:68:ILE:CD1	2:CB:161:ALA:HB3	2.48	0.43
2:CB:35:GLU:C	2:CB:36:ARG:HE	2.22	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DN:39:ARG:HD3	34:DN:41:ASP:OD1	2.19	0.43
25:DA:863:A:OP1	37:DQ:22:LYS:HG2	2.19	0.43
25:DA:2106:G:N1	25:DA:2184:G:H1'	2.34	0.43
9:CI:86:VAL:CG2	9:CI:96:LEU:HD22	2.48	0.43
41:BU:91:ASP:N	41:BU:92:ARG:HD3	2.30	0.43
41:BU:92:ARG:O	41:BU:94:ASN:N	2.43	0.43
2:CB:131:PRO:O	2:CB:134:GLU:N	2.52	0.43
19:AS:15:LEU:C	19:AS:19:VAL:HG23	2.39	0.43
19:AS:39:THR:CG2	19:AS:40:ILE:N	2.76	0.43
29:BE:18:ASP:O	35:BO:73:ASP:HB3	2.18	0.43
3:AC:97:LYS:HG2	3:AC:98:ASN:H	1.84	0.43
25:BA:1343:G:N3	25:BA:1384:A:C2	2.86	0.43
53:D6:20:ASN:ND2	53:D6:21:TYR:H	2.15	0.43
53:D6:41:PRO:HG2	53:D6:42:TRP:H	1.84	0.43
53:D6:47:THR:HB	53:D6:48:VAL:H	1.69	0.43
45:BY:101:LYS:CG	45:BY:102:CYS:N	2.82	0.43
25:BA:2709:G:H2'	25:BA:2710:C:C6	2.54	0.43
32:DH:115:VAL:HG11	32:DH:148:ILE:CD1	2.47	0.43
25:BA:637:A:O5'	36:BP:116:GLY:HA2	2.19	0.43
36:BP:81:GLN:CD	36:BP:106:LEU:HA	2.39	0.43
28:BD:24:ILE:O	28:BD:82:ILE:HG22	2.19	0.43
25:DA:2532:G:C6	25:DA:2533:A:C6	3.07	0.43
2:AB:194:PRO:CG	2:AB:195:ASP:H	2.25	0.43
2:AB:206:ASP:O	2:AB:211:ILE:HD11	2.19	0.43
2:AB:215:LEU:HA	2:AB:218:ALA:HB2	2.01	0.43
2:AB:88:ALA:HB1	2:AB:90:MET:CE	2.49	0.43
25:BA:478:A:H2'	25:BA:479:A:H5'	2.01	0.43
16:CP:49:LEU:O	16:CP:49:LEU:CG	2.65	0.43
8:CH:120:THR:O	8:CH:122:ARG:N	2.52	0.43
8:CH:38:ILE:HG21	8:CH:120:THR:CG2	2.49	0.43
13:AM:65:LYS:CG	13:AM:69:GLU:O	2.65	0.43
25:DA:779:U:O2'	25:DA:780:G:H5'	2.18	0.43
3:CC:105:GLU:HG2	3:CC:106:VAL:N	2.34	0.43
1:CA:1112:C:H42	3:CC:177:THR:HA	1.84	0.43
25:BA:1803:A:O3'	28:BD:259:THR:CG2	2.67	0.43
28:DD:105:ILE:HD12	28:DD:106:ILE:H	1.83	0.43
8:AH:1:MET:O	8:AH:2:LEU:HB3	2.19	0.43
31:BG:81:LYS:O	31:BG:82:LEU:C	2.57	0.43
14:AN:26:ARG:HD2	14:AN:43:CYS:CB	2.49	0.43
37:BQ:119:ARG:NH2	37:BQ:120:ILE:HD11	2.34	0.43
26:DB:52:A:C2	26:DB:53:A:N6	2.87	0.43
39:DS:17:ARG:O	39:DS:20:ARG:NH1	2.51	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:356:A:O2'	1:AA:368:U:H4'	2.19	0.43
1:AA:461:A:C6	1:AA:471:G:C6	3.06	0.43
10:CJ:34:VAL:HG22	10:CJ:74:ILE:HA	2.01	0.43
25:BA:2570:G:H2'	25:BA:2571:C:C6	2.53	0.43
33:BI:130:TYR:O	33:BI:135:GLU:HA	2.19	0.43
33:BI:133:HIS:CB	33:BI:134:PRO:CD	2.86	0.43
1:CA:79:G:C1'	1:CA:80:G:P	3.07	0.43
5:CE:145:LYS:C	5:CE:149:GLU:HG2	2.40	0.43
1:CA:256:U:O2'	1:CA:257:G:H5'	2.18	0.43
17:CQ:67:LYS:O	17:CQ:69:LYS:N	2.51	0.43
53:B6:27:LYS:O	53:B6:28:ARG:O	2.37	0.43
4:AD:5:ILE:O	4:AD:5:ILE:HG22	2.19	0.43
25:BA:930:U:H4'	25:BA:931:G:O5'	2.19	0.43
18:AR:66:LEU:HG	18:AR:67:ALA:N	2.32	0.43
25:BA:1394:U:C5	25:BA:1395:A:C5	3.07	0.43
36:DP:147:LEU:O	36:DP:148:LEU:CB	2.67	0.43
25:DA:1494:A:H4'	25:DA:1496:A:N1	2.34	0.43
4:CD:162:LEU:HD12	4:CD:181:MET:HG2	2.01	0.43
25:BA:2336:A:H61	47:B0:42:THR:CG2	2.32	0.43
9:CI:40:LEU:HB3	9:CI:43:ALA:HB2	2.00	0.43
8:CH:23:SER:HB2	8:CH:61:VAL:O	2.19	0.43
12:CL:50:ARG:HB3	12:CL:90:LEU:HD11	2.00	0.43
25:BA:2171:A:O2'	25:BA:2172:U:O5'	2.24	0.43
25:DA:271(A):A:N7	25:DA:271(W):G:N2	2.67	0.43
44:DX:31:HIS:CD2	44:DX:33:LYS:HB2	2.53	0.43
40:BT:118:ARG:O	40:BT:121:ILE:N	2.52	0.43
27:BC:181:PHE:CE2	27:BC:185:LYS:HB3	2.53	0.43
25:BA:2277:G:C2'	25:BA:2278:A:C5'	2.94	0.43
25:DA:2039:C:OP2	34:DN:109:LYS:CD	2.67	0.43
25:DA:2286:A:O3'	53:D6:31:PRO:HG2	2.19	0.43
1:AA:758:G:H8	1:AA:758:G:O5'	2.02	0.43
25:DA:755:C:H6	25:DA:755:C:O5'	2.02	0.43
4:CD:93:PHE:O	4:CD:94:LEU:C	2.56	0.43
1:CA:230:G:C2	1:CA:231:G:H1'	2.54	0.43
1:CA:98:G:H2'	1:CA:99:U:O4'	2.19	0.43
1:AA:1248:A:C2'	1:AA:1249:C:C5'	2.97	0.43
25:DA:1967:C:H2'	25:DA:1968:G:O4'	2.19	0.43
1:CA:831:U:H2'	1:CA:832:C:H6	1.83	0.43
25:BA:1775:U:H2'	25:BA:1776:G:C5'	2.49	0.43
4:AD:64:LEU:HB2	4:AD:198:VAL:CG1	2.49	0.43
25:BA:200:U:O2	25:BA:386:G:N2	2.52	0.43
32:DH:65:HIS:CE1	32:DH:69:ARG:HD2	2.54	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:AP:7:ALA:O	16:AP:8:ARG:C	2.57	0.43
1:CA:858:G:O6	1:CA:869:G:H3'	2.19	0.43
3:AC:131:ARG:O	3:AC:132:ARG:C	2.57	0.43
15:AO:30:ALA:CB	15:AO:85:LEU:HD11	2.47	0.43
28:BD:202:LYS:HG3	28:BD:203:ASN:N	2.33	0.43
25:DA:1438:U:O2'	25:DA:1439:A:H5'	2.18	0.43
4:CD:155:LEU:O	4:CD:156:GLU:C	2.56	0.43
1:CA:363:A:OP2	12:CL:31:ARG:HB3	2.19	0.43
25:BA:1221(A):C:O2'	25:BA:1222:C:H5'	2.18	0.43
25:DA:1291:C:H2'	25:DA:1292:U:C6	2.54	0.43
1:AA:286:G:O2'	1:AA:287:U:H5'	2.19	0.43
1:CA:1527:C:H2'	1:CA:1528:U:C6	2.54	0.43
25:DA:1425:G:H2'	25:DA:1426:G:O4'	2.19	0.43
52:D5:8:LYS:O	52:D5:9:LYS:HG2	2.19	0.43
5:AE:24:ARG:H	5:AE:24:ARG:HG2	1.60	0.43
1:AA:716:A:H2'	1:AA:717:C:O4'	2.19	0.43
26:DB:112:U:H2'	26:DB:113:G:H8	1.83	0.43
25:DA:1031:G:O3'	56:D9:8:LYS:HG2	2.19	0.42
36:BP:50:ARG:CB	55:B8:59:LYS:NZ	2.82	0.42
25:DA:1899:G:N2	25:DA:1902:C:C5	2.87	0.42
1:AA:1370:G:O3'	9:AI:12:GLU:HG3	2.19	0.42
7:AG:31:MET:SD	7:AG:34:GLY:CA	3.06	0.42
37:DQ:26:TYR:HB2	37:DQ:137:TYR:CD1	2.54	0.42
46:DZ:94:PRO:HB3	46:DZ:126:LYS:HE3	1.99	0.42
2:CB:28:PHE:CG	2:CB:28:PHE:O	2.71	0.42
34:DN:45:ASN:HD22	34:DN:45:ASN:H	1.67	0.42
41:DU:66:ASN:HB2	41:DU:76:TYR:HB2	2.00	0.42
25:DA:971:C:H2'	25:DA:972:G:O4'	2.19	0.42
1:CA:1343:G:H2'	1:CA:1344:C:H6	1.82	0.42
7:CG:15:ASP:H	7:CG:20:ASP:H	1.63	0.42
1:CA:1129:C:O5'	1:CA:1130:A:H8	2.01	0.42
31:DG:137:GLU:O	31:DG:140:ILE:HG13	2.18	0.42
31:DG:143:GLU:HA	51:D4:54:LYS:HE3	2.00	0.42
13:AM:82:MET:HG3	13:AM:82:MET:O	2.18	0.42
19:AS:51:VAL:HG11	19:AS:75:ALA:HB2	2.00	0.42
45:DY:28:LYS:HB3	45:DY:39:VAL:N	2.33	0.42
3:AC:76:VAL:CA	3:AC:83:ARG:NH1	2.74	0.42
30:DF:19:GLU:CG	30:DF:20:LEU:N	2.82	0.42
36:DP:17:LYS:HG3	36:DP:19:VAL:HG23	2.01	0.42
1:AA:1430:C:H2'	1:AA:1431:C:H6	1.84	0.42
1:AA:1501:C:N4	1:AA:1504:G:C2	2.87	0.42
53:D6:15:GLU:CG	53:D6:18:ARG:HE	2.28	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2402:C:HO2'	25:DA:2403:C:P	2.42	0.42
25:BA:272(I):U:H2'	25:BA:274:G:N7	2.31	0.42
55:D8:60:LEU:C	55:D8:61:LEU:CD1	2.88	0.42
32:DH:138:LYS:H	32:DH:141:VAL:HG23	1.84	0.42
36:BP:114:ILE:HD12	36:BP:115:LEU:H	1.83	0.42
32:DH:25:LYS:HB3	32:DH:34:GLU:OE2	2.19	0.42
25:BA:1593:G:C2'	25:BA:1594:G:C5'	2.96	0.42
45:BY:56:PRO:O	45:BY:57:GLN:O	2.37	0.42
16:CP:71:ARG:O	16:CP:72:ARG:C	2.57	0.42
1:AA:1331:G:H4'	1:AA:1331:G:OP1	2.19	0.42
11:AK:111:ASP:C	18:AR:84:LYS:HE3	2.39	0.42
1:AA:691:G:N2	1:AA:696:A:OP2	2.52	0.42
5:AE:101:ILE:O	5:AE:101:ILE:HG12	2.19	0.42
5:AE:107:ARG:HG2	5:AE:108:ALA:H	1.83	0.42
5:AE:73:ASN:C	5:AE:75:THR:H	2.22	0.42
5:AE:76:ILE:HD11	5:AE:142:LEU:CD1	2.49	0.42
5:AE:92:LYS:HA	5:AE:93:PRO:HD2	1.94	0.42
40:DT:80:SER:CB	40:DT:81:PRO:HD3	2.46	0.42
3:CC:206:GLU:O	3:CC:208:ILE:N	2.51	0.42
1:CA:973:G:H1'	10:CJ:55:LYS:NZ	2.34	0.42
3:CC:34:LEU:CD1	14:CN:25:VAL:HG11	2.48	0.42
34:DN:123:TYR:CE1	34:DN:130:HIS:HE1	2.37	0.42
25:BA:1803:A:HO2'	28:BD:259:THR:HG21	1.76	0.42
33:DI:48:GLU:O	33:DI:52:ARG:N	2.52	0.42
27:BC:115:VAL:HB	27:BC:150:ILE:HD11	2.01	0.42
27:BC:118:PRO:O	27:BC:121:MET:HB2	2.19	0.42
30:BF:53:THR:CG2	30:BF:56:GLU:HG3	2.49	0.42
1:CA:1216:G:OP1	14:CN:2:ALA:HA	2.19	0.42
1:AA:1053:G:N7	1:AA:1199:U:C3'	2.81	0.42
14:AN:29:ARG:HG3	14:AN:29:ARG:HH11	1.84	0.42
37:BQ:64:ILE:HG13	46:BZ:177:GLU:OE2	2.18	0.42
33:BI:52:ARG:HG3	33:BI:53:ALA:H	1.83	0.42
36:DP:83:VAL:HG21	36:DP:100:LEU:HD11	2.00	0.42
36:BP:6:LEU:HD12	36:BP:9:ASN:CB	2.48	0.42
15:AO:17:ARG:CG	15:AO:26:GLU:HG3	2.49	0.42
15:AO:87:ILE:CG2	15:AO:88:ARG:H	2.31	0.42
47:D0:40:GLN:HE22	47:D0:45:PHE:N	1.94	0.42
25:BA:1609:A:O2'	25:BA:1610:A:H5'	2.18	0.42
30:BF:1:MET:HE1	30:BF:26:ALA:HB1	2.01	0.42
39:DS:35:ILE:HD13	39:DS:66:ALA:HB1	2.01	0.42
1:AA:558:G:C4	1:AA:559:A:C2	3.07	0.42
26:DB:38:C:H2'	26:DB:39:A:O4'	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:473:G:O3'	16:AP:81:ARG:NH2	2.52	0.42
2:AB:157:ARG:CZ	2:AB:157:ARG:HB3	2.49	0.42
36:BP:23:PRO:C	36:BP:33:ARG:NE	2.72	0.42
1:CA:82:U:H2'	1:CA:83:U:C6	2.54	0.42
28:DD:209:ALA:O	28:DD:210:GLY:O	2.37	0.42
31:BG:109:VAL:HG13	51:B4:59:VAL:HG13	2.00	0.42
16:CP:80:PHE:O	16:CP:81:ARG:C	2.57	0.42
36:DP:68:GLN:HE22	55:D8:12:LYS:HB3	1.84	0.42
25:DA:573:G:H1	25:DA:2031:A:P	2.42	0.42
8:AH:86:ILE:HG12	8:AH:135:CYS:HA	2.00	0.42
28:BD:70:TRP:HZ3	28:BD:146:GLU:CD	2.21	0.42
43:DW:69:LEU:HA	43:DW:108:GLY:O	2.19	0.42
18:AR:58:LEU:HB3	18:AR:62:GLU:CB	2.49	0.42
25:DA:2092:U:HO2'	25:DA:2093:G:P	2.42	0.42
22:AV:29:LYS:CG	25:BA:2254:C:H4'	2.41	0.42
6:AF:24:GLU:CG	6:AF:25:ILE:N	2.71	0.42
1:CA:992:U:O2'	1:CA:993:G:OP2	2.32	0.42
4:CD:150:GLU:C	4:CD:152:SER:N	2.72	0.42
25:BA:873:G:C2	25:BA:905:U:O2	2.72	0.42
25:BA:877:U:H2'	25:BA:878:A:O5'	2.19	0.42
4:CD:59:ARG:HH11	4:CD:59:ARG:HG2	1.83	0.42
8:CH:97:VAL:C	8:CH:99:GLU:N	2.72	0.42
32:BH:54:ARG:HH11	32:BH:65:HIS:CG	2.36	0.42
6:AF:77:ARG:CG	6:AF:78:GLU:N	2.78	0.42
2:AB:193:ASP:OD2	2:AB:196:LEU:HD11	2.19	0.42
25:DA:344:G:N2	25:DA:345:A:H62	2.17	0.42
38:BR:77:ARG:HG3	38:BR:77:ARG:NH1	2.34	0.42
14:AN:13:THR:N	14:AN:14:PRO:HD3	2.34	0.42
44:DX:29:TRP:HE3	44:DX:77:LYS:O	2.02	0.42
42:BV:8:GLY:HA3	42:BV:23:GLU:CG	2.49	0.42
23:AW:11:A:N6	23:AW:24:U:H3	2.17	0.42
31:DG:9:ARG:C	31:DG:11:TYR:N	2.72	0.42
25:DA:2536:G:C5	25:DA:2537:U:C5	3.07	0.42
6:AF:46:ARG:HH12	18:AR:37:VAL:HG11	1.84	0.42
1:AA:1405:G:H21	1:AA:1518:A:H1'	1.83	0.42
36:DP:47:ASP:HB3	36:DP:48:PRO:O	2.19	0.42
30:DF:40:GLN:HE22	30:DF:184:TYR:HB3	1.83	0.42
27:DC:77:ALA:HA	27:DC:115:VAL:CG2	2.45	0.42
25:DA:142(A):C:H2'	25:DA:143:G:O4'	2.19	0.42
28:DD:142:VAL:HG23	28:DD:193:VAL:HA	2.02	0.42
25:DA:226:G:H21	25:DA:228:A:H62	1.66	0.42
25:DA:348:G:H2'	25:DA:349:G:O4'	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CL:5:ASN:CB	17:CQ:34:LYS:NZ	2.81	0.42
11:CK:50:TYR:HD2	11:CK:54:ARG:CB	2.29	0.42
29:DE:105:THR:HB	29:DE:197:ILE:HG23	2.00	0.42
7:AG:78:ARG:HG2	7:AG:78:ARG:HH11	1.84	0.42
2:AB:82:ARG:HB3	2:AB:83:MET:CE	2.48	0.42
15:AO:9:GLN:O	15:AO:10:LYS:C	2.58	0.42
25:BA:1573:G:C2'	25:BA:1574:C:H5'	2.49	0.42
1:AA:518:C:O2'	1:AA:530:G:N2	2.51	0.42
41:BU:47:TYR:HA	41:BU:50:ARG:NH2	2.35	0.42
39:BS:83:LYS:O	39:BS:105:ALA:HB3	2.18	0.42
8:CH:30:ARG:HB2	8:CH:30:ARG:HH11	1.83	0.42
37:DQ:34:LEU:HD23	37:DQ:104:PHE:CD1	2.54	0.42
3:CC:22:TRP:CZ2	14:CN:54:PRO:HG2	2.54	0.42
1:AA:1406:U:H2'	1:AA:1407:C:C5'	2.49	0.42
32:DH:66:GLY:CA	32:DH:69:ARG:HB3	2.49	0.42
25:DA:489:G:N2	25:DA:1321:A:OP1	2.51	0.42
10:AJ:22:LYS:HE3	10:AJ:23:ILE:HG12	2.01	0.42
1:AA:361:G:O2'	1:AA:362:G:H5'	2.18	0.42
1:AA:141:A:C5	1:AA:142:G:C8	3.07	0.42
1:CA:1204:A:H2'	1:CA:1205:U:O4'	2.19	0.42
1:CA:1205:U:O2'	3:CC:195:VAL:HG23	2.18	0.42
25:DA:1879:C:O5'	25:DA:1879:C:H6	2.01	0.42
13:CM:58:GLU:O	13:CM:62:ASN:HB2	2.19	0.42
25:DA:30:G:C5	25:DA:31:C:C4	3.07	0.42
25:BA:48:G:O2'	25:BA:118:A:N1	2.47	0.42
25:BA:1279:G:H5'	38:BR:34:ILE:CD1	2.49	0.42
1:AA:754:C:H1'	15:AO:69:TYR:CG	2.54	0.42
50:B3:22:ALA:O	50:B3:25:ALA:HB3	2.19	0.42
25:BA:1234:U:C2'	25:BA:1235:G:H5'	2.49	0.42
1:CA:549:C:H6	1:CA:549:C:O5'	2.01	0.42
2:CB:85:ALA:O	2:CB:89:GLY:N	2.52	0.42
36:BP:48:PRO:O	36:BP:49:ARG:C	2.56	0.42
39:BS:97:ARG:NH2	39:BS:99:LYS:H	2.17	0.42
3:AC:113:ALA:HB3	3:AC:184:TYR:O	2.18	0.42
7:AG:15:ASP:N	7:AG:20:ASP:H	2.17	0.42
9:AI:47:LEU:N	9:AI:47:LEU:CD1	2.82	0.42
2:CB:24:TRP:HZ3	2:CB:29:ALA:CB	2.32	0.42
34:DN:39:ARG:HD2	34:DN:48:MET:HE3	2.01	0.42
41:DU:102:GLU:N	41:DU:103:PRO:CD	2.82	0.42
42:DV:64:HIS:ND1	42:DV:92:THR:HG22	2.34	0.42
25:DA:917:A:C6	25:DA:918:A:C4	3.07	0.42
46:DZ:19:ARG:C	46:DZ:21:GLY:N	2.72	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:193:C:O2'	1:AA:194:C:H5'	2.19	0.42
1:CA:1242:C:O5'	1:CA:1242:C:H6	2.00	0.42
31:DG:111:LEU:HA	31:DG:114:ILE:CD1	2.49	0.42
22:CV:128:VAL:N	22:CV:173:VAL:O	2.51	0.42
25:BA:2102:U:H2'	25:BA:2103:C:C6	2.54	0.42
10:AJ:45:ARG:HH11	10:AJ:45:ARG:HG3	1.84	0.42
45:BY:40:GLU:HA	45:BY:40:GLU:OE2	2.18	0.42
26:BB:105:A:H4'	46:BZ:88:PHE:CE2	2.54	0.42
40:BT:100:TYR:HB3	40:BT:103:ARG:NE	2.34	0.42
40:BT:51:ARG:O	40:BT:61:PHE:HA	2.19	0.42
1:AA:1392:G:N2	1:AA:1502:A:C8	2.87	0.42
1:AA:1394:A:OP1	1:AA:1394:A:H8	2.02	0.42
1:AA:922:G:C6	1:AA:923:A:C6	3.07	0.42
1:AA:922:G:N3	1:AA:1398:A:C2	2.87	0.42
25:DA:158:U:O2	25:DA:159:U:H5'	2.19	0.42
25:DA:2679:A:H5'	29:DE:165:VAL:HG11	2.01	0.42
32:DH:140:LYS:O	32:DH:140:LYS:HG2	2.19	0.42
36:BP:107:LYS:C	36:BP:109:GLY:N	2.71	0.42
36:BP:136:GLU:O	36:BP:138:LEU:N	2.52	0.42
28:BD:26:LYS:HZ1	28:BD:82:ILE:N	2.16	0.42
2:AB:25:ASN:HA	2:AB:26:PRO:HD2	1.79	0.42
40:BT:26:ASP:O	40:BT:27:THR:O	2.37	0.42
13:CM:22:ILE:HB	13:CM:25:ILE:HD13	2.01	0.42
2:AB:127:ILE:C	2:AB:130:ARG:HG3	2.39	0.42
4:AD:43:HIS:O	4:AD:44:GLY:C	2.57	0.42
40:DT:60:THR:HG22	40:DT:77:PRO:CA	2.31	0.42
22:CV:70:LEU:HD23	22:CV:70:LEU:H	1.84	0.42
3:CC:64:VAL:HG23	3:CC:66:VAL:HG23	2.00	0.42
25:BA:1803:A:H4'	28:BD:259:THR:HG23	2.01	0.42
25:DA:904:C:H2'	25:DA:904:C:O2	2.19	0.42
46:DZ:140:VAL:HG23	46:DZ:143:LEU:CG	2.49	0.42
27:BC:80:LYS:HD2	31:BG:49:ASP:H	1.84	0.42
49:D2:63:VAL:HA	49:D2:66:GLU:HG2	1.99	0.42
1:AA:963:G:H1	1:AA:972:C:H42	1.67	0.42
33:BI:40:THR:O	33:BI:44:LEU:CB	2.67	0.42
45:DY:77:PRO:O	45:DY:78:ALA:HB2	2.18	0.42
15:AO:82:ILE:CG2	15:AO:83:GLU:H	2.29	0.42
30:BF:22:ALA:C	30:BF:26:ALA:HB2	2.39	0.42
1:CA:1028:C:O2	1:CA:1034:G:H5''	2.19	0.42
1:AA:556:C:O2	1:AA:556:C:H2'	2.18	0.42
30:DF:170:LEU:HA	30:DF:171:PRO:HD3	1.84	0.42
1:AA:371:G:H1	1:AA:390:C:N4	2.17	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:AP:14:ASN:OD1	16:AP:16:HIS:HE1	2.02	0.42
22:AV:147:GLY:N	22:AV:163:LEU:HD21	2.34	0.42
6:CF:52:ILE:HG22	6:CF:52:ILE:O	2.19	0.42
1:CA:81:U:H6	1:CA:81:U:C5'	2.23	0.42
1:CA:80:G:C6	1:CA:88:A:N7	2.87	0.42
43:DW:80:PRO:O	43:DW:100:THR:CG2	2.67	0.42
25:DA:1493:C:O2	25:DA:1493:C:C2'	2.66	0.42
25:DA:764:A:C5	28:DD:209:ALA:HB1	2.55	0.42
1:AA:840:C:H5''	1:AA:841:U:OP1	2.19	0.42
1:AA:663:A:H5''	18:AR:61:LYS:HE3	2.01	0.42
28:DD:111:LEU:HD13	28:DD:111:LEU:C	2.38	0.42
28:DD:35:LYS:HA	28:DD:35:LYS:HD3	1.77	0.42
35:DO:87:ILE:HD13	35:DO:93:PRO:HA	2.01	0.42
5:AE:50:GLU:OE2	5:AE:51:VAL:HG23	2.19	0.42
1:AA:39:G:C4	1:AA:40:C:C5	3.06	0.42
42:DV:85:LYS:HE2	42:DV:85:LYS:HB2	1.75	0.42
18:AR:47:THR:O	18:AR:82:THR:HA	2.19	0.42
1:AA:1302:U:C5	13:AM:17:VAL:HG21	2.54	0.42
45:BY:20:TYR:O	45:BY:21:LYS:C	2.58	0.42
45:BY:68:HIS:HB3	45:BY:71:LYS:HZ1	1.83	0.42
1:CA:922:G:C6	1:CA:923:A:C6	3.07	0.42
1:CA:225:C:H2'	1:CA:226:G:C8	2.54	0.42
18:CR:59:SER:HB3	18:CR:62:GLU:OE2	2.18	0.42
25:BA:1116:C:O2'	25:BA:1117:G:H5'	2.19	0.42
27:BC:23:ILE:HD12	27:BC:229:SER:O	2.19	0.42
1:CA:375:U:OP1	16:CP:69:THR:HG21	2.18	0.42
14:AN:4:LYS:HA	14:AN:7:ILE:HD11	2.01	0.42
25:BA:141:A:C1'	25:BA:1408:C:HO2'	2.32	0.42
4:CD:63:LYS:HB2	4:CD:198:VAL:HG22	2.01	0.42
4:CD:15:GLU:HG2	4:CD:63:LYS:HG2	2.00	0.42
55:D8:50:LEU:C	55:D8:53:PRO:CD	2.87	0.42
22:AV:83:MET:HE2	22:AV:88:TYR:O	2.19	0.42
38:DR:84:ALA:HB3	38:DR:85:PRO:CD	2.41	0.42
25:BA:2620:C:O2'	29:BE:119:ARG:NH2	2.52	0.42
25:DA:1466:G:N2	25:DA:1547:C:N3	2.67	0.42
1:AA:1014:A:H2	1:AA:1219:U:H1'	1.84	0.42
27:BC:68:GLY:N	27:BC:181:PHE:HZ	2.13	0.42
7:AG:138:LYS:O	7:AG:142:GLU:HB2	2.18	0.42
7:AG:51:GLN:C	7:AG:54:THR:O	2.57	0.42
10:AJ:80:LYS:O	10:AJ:80:LYS:HE3	2.18	0.42
28:DD:46:GLN:OE1	28:DD:46:GLN:N	2.51	0.42
39:BS:52:SER:CB	39:BS:55:ALA:HB3	2.48	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BR:98:LEU:HB2	38:BR:113:LEU:HD22	2.01	0.42
1:AA:1086:U:H2'	1:AA:1087:G:O4'	2.20	0.42
25:BA:910:A:C6	25:BA:911:A:C6	3.07	0.42
11:CK:58:PRO:HB2	11:CK:93:GLN:HG3	2.01	0.42
31:BG:18:GLU:O	31:BG:19:LEU:C	2.57	0.42
42:BV:76:LYS:O	42:BV:79:VAL:CG1	2.67	0.42
1:AA:255:G:H1'	17:AQ:16:GLN:HE22	1.84	0.42
49:D2:16:LEU:CD1	49:D2:20:GLU:HG3	2.49	0.42
5:AE:135:THR:O	5:AE:138:ALA:CB	2.66	0.42
25:BA:2712:U:O2'	25:BA:2713:A:H5'	2.19	0.42
4:AD:156:GLU:CB	4:AD:160:GLN:HE21	2.32	0.42
43:BW:110:LYS:O	43:BW:111:HIS:HB3	2.19	0.42
1:AA:1386:G:H2'	1:AA:1387:G:H8	1.84	0.42
51:B4:39:ARG:HG2	51:B4:39:ARG:HH11	1.83	0.42
43:DW:35:ILE:O	43:DW:35:ILE:CG2	2.66	0.42
25:DA:13:A:N3	25:DA:15:G:C6	2.88	0.42
4:CD:126:ILE:CG2	4:CD:127:THR:N	2.79	0.42
25:BA:1025:G:C4	25:BA:1135:C:H1'	2.54	0.42
46:BZ:41:VAL:HG13	46:BZ:42:GLU:H	1.84	0.42
4:CD:20:TYR:N	4:CD:20:TYR:CD1	2.88	0.42
14:AN:51:GLY:O	14:AN:53:LEU:N	2.52	0.42
25:DA:1313:U:C2'	25:DA:1313:U:O2	2.67	0.42
7:AG:62:PHE:O	7:AG:63:LYS:C	2.57	0.42
15:AO:39:LEU:HD23	15:AO:39:LEU:HA	1.89	0.42
25:DA:2541:A:H4'	25:DA:2764:A:N1	2.34	0.42
5:AE:150:ARG:CG	5:AE:150:ARG:NH1	2.82	0.42
36:DP:7:ARG:N	36:DP:8:PRO:HD2	2.33	0.42
41:DU:15:LYS:HE3	41:DU:19:LYS:NZ	2.34	0.42
13:AM:4:ILE:HG22	13:AM:5:ALA:N	2.34	0.42
11:CK:34:ASP:OD2	11:CK:34:ASP:C	2.56	0.42
27:BC:19:LYS:CG	27:BC:20:VAL:N	2.81	0.42
1:CA:217:C:H2'	1:CA:218:C:H6	1.83	0.42
22:CV:97:ARG:NH1	22:CV:120:ILE:O	2.52	0.42
34:BN:26:LEU:HD12	34:BN:26:LEU:O	2.19	0.42
33:DI:25:TYR:HE1	33:DI:30:LEU:HD21	1.84	0.42
42:BV:69:LYS:HG3	42:BV:70:ILE:N	2.33	0.42
28:BD:202:LYS:CG	28:BD:203:ASN:H	2.31	0.42
28:BD:203:ASN:O	28:BD:204:ILE:C	2.58	0.42
22:AV:125:PRO:HD2	22:AV:128:VAL:CG1	2.48	0.42
25:BA:36:G:N3	25:BA:450:G:O2'	2.52	0.42
25:DA:2578:G:N7	29:DE:140:SER:HB2	2.34	0.42
31:DG:5:VAL:O	31:DG:8:LYS:N	2.52	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:347:G:C2	1:CA:348:G:C8	3.07	0.42
25:DA:2094:G:OP2	33:DI:22:LYS:HD2	2.18	0.42
55:D8:14:VAL:HG23	55:D8:24:ALA:HB2	2.01	0.42
1:AA:868:C:O2'	1:AA:869:G:H5'	2.19	0.42
37:DQ:31:ASP:OD2	37:DQ:107:ALA:HA	2.19	0.42
27:DC:50:ILE:HD11	27:DC:170:GLY:HA2	2.01	0.42
25:DA:1326:U:O5'	25:DA:1326:U:H6	2.01	0.42
25:DA:1949:G:H2'	25:DA:1950:G:O4'	2.19	0.42
52:D5:41:PRO:HG2	52:D5:44:THR:CG2	2.49	0.42
25:BA:825:C:C2'	36:BP:55:ARG:HD3	2.49	0.42
39:BS:34:HIS:NE2	39:BS:54:LEU:HG	2.33	0.42
1:AA:1251:A:H2'	1:AA:1252:A:O4'	2.18	0.42
1:AA:1352:C:H2'	1:AA:1353:G:C8	2.54	0.42
9:AI:42:ARG:NH1	9:AI:42:ARG:HG2	2.33	0.42
46:DZ:84:HIS:HE1	46:DZ:86:ASP:OD2	2.02	0.42
2:CB:29:ALA:HA	2:CB:32:ILE:CD1	2.36	0.42
2:CB:67:THR:HA	2:CB:90:MET:SD	2.59	0.42
25:DA:1000:A:H62	25:DA:1154:G:H2'	1.84	0.42
25:DA:1141:U:C5	34:DN:64:GLY:HA3	2.54	0.42
41:DU:98:LEU:HB2	41:DU:106:PHE:HB2	2.02	0.42
41:DU:93:LYS:O	41:DU:96:ALA:HB3	2.20	0.42
41:DU:92:ARG:HD3	41:DU:94:ASN:HB3	2.00	0.42
42:DV:49:THR:HB	42:DV:50:PRO:HD3	1.98	0.42
42:DV:15:GLU:O	42:DV:96:ILE:HG21	2.19	0.42
25:DA:952:G:C6	25:DA:966:G:C6	3.07	0.42
37:DQ:12:GLN:HE21	37:DQ:72:LYS:NZ	2.18	0.42
19:CS:63:THR:HG22	19:CS:66:MET:CE	2.50	0.42
1:CA:1354:C:H2'	1:CA:1355:G:H8	1.84	0.42
7:CG:50:ILE:CD1	7:CG:121:ALA:HB1	2.45	0.42
7:CG:146:GLU:OE2	7:CG:149:ARG:HD2	2.19	0.42
1:CA:1346:A:C5'	9:CI:120:ARG:HH12	2.33	0.42
22:CV:170:VAL:C	22:CV:184:ALA:HB3	2.38	0.42
19:AS:60:VAL:HG21	19:AS:74:PHE:HB3	2.01	0.42
53:B6:44:ARG:HA	53:B6:44:ARG:HD3	1.80	0.42
3:AC:50:ALA:HB1	3:AC:72:LYS:O	2.20	0.42
30:DF:126:VAL:O	30:DF:127:GLU:HB2	2.18	0.42
30:DF:3:GLU:HG3	30:DF:19:GLU:HB2	2.00	0.42
3:CC:89:GLU:OE2	3:CC:93:LYS:HD2	2.19	0.42
25:DA:1108:U:H2'	25:DA:1109:C:C5'	2.42	0.42
1:AA:20:U:O2'	1:AA:21:G:H5'	2.19	0.42
25:DA:631:A:O2'	36:DP:67:MET:HB3	2.18	0.42
53:B6:19:ARG:HB3	53:B6:19:ARG:HE	1.71	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CH:5:PRO:O	8:CH:8:ASP:HB3	2.19	0.42
28:BD:30:GLU:HB3	28:BD:83:GLU:OE1	2.19	0.42
2:AB:163:PHE:CE2	2:AB:185:ILE:HG22	2.54	0.42
1:AA:266:G:H5'	1:AA:267:C:C5	2.54	0.42
25:DA:275:G:C8	25:DA:276:A:O4'	2.72	0.42
29:BE:47:VAL:HG12	29:BE:49:LEU:HD12	2.02	0.42
13:AM:66:LEU:HA	13:AM:70:LEU:CB	2.49	0.42
43:DW:71:VAL:HG12	43:DW:71:VAL:O	2.19	0.42
25:BA:2393:A:H5'	36:BP:62:LEU:HD12	2.01	0.42
3:CC:71:ALA:HB2	3:CC:115:LEU:HD11	2.01	0.42
25:DA:2839:G:H4'	38:DR:49:ASP:CB	2.48	0.42
49:D2:53:LEU:O	49:D2:53:LEU:HD23	2.18	0.42
25:BA:674:G:H1'	30:BF:74:ARG:CD	2.46	0.42
30:BF:54:ARG:HG2	30:BF:54:ARG:O	2.19	0.42
30:BF:65:TRP:HB2	30:BF:66:PRO:HD2	2.01	0.42
37:BQ:63:LYS:NZ	37:BQ:63:LYS:CB	2.82	0.42
25:DA:638:G:C4	25:DA:639:U:C5	3.08	0.42
52:B5:40:LYS:HB2	52:B5:40:LYS:HZ2	1.84	0.42
52:B5:55:ARG:O	52:B5:56:LYS:O	2.37	0.42
39:DS:28:VAL:HG12	39:DS:36:TYR:O	2.19	0.42
1:AA:1206:G:O4'	3:AC:194:GLY:N	2.52	0.42
16:AP:17:TYR:N	16:AP:17:TYR:HD1	2.16	0.42
34:DN:128:HIS:NE2	34:DN:134:ARG:HG2	2.35	0.42
30:BF:8:GLN:HG2	30:BF:126:VAL:HG12	2.01	0.42
3:AC:121:ALA:CA	3:AC:198:VAL:HG21	2.49	0.42
33:BI:112:LYS:N	33:BI:114:LEU:HD12	2.33	0.42
1:AA:662:G:O2'	1:AA:836:G:C5'	2.67	0.42
27:BC:36:ALA:HB3	27:BC:40:GLU:OE1	2.20	0.42
28:BD:70:TRP:CZ2	28:BD:150:LYS:HA	2.49	0.42
55:D8:32:LEU:HD12	55:D8:36:LYS:HZ1	1.84	0.42
55:D8:37:SER:C	55:D8:39:LYS:N	2.72	0.42
25:BA:2846:G:H2'	25:BA:2847:U:C6	2.54	0.42
13:CM:49:THR:HG22	13:CM:50:GLU:N	2.34	0.42
1:AA:445:G:C6	1:AA:490:G:C6	3.07	0.42
19:AS:62:ILE:HA	19:AS:66:MET:SD	2.58	0.42
18:CR:53:ARG:HH21	18:CR:60:ALA:N	2.17	0.42
25:DA:1496:A:H8	25:DA:1577:C:HO2'	1.51	0.42
16:CP:8:ARG:NH2	16:CP:15:PRO:HG3	2.33	0.42
25:BA:92:A:H2'	25:BA:93:G:C8	2.54	0.42
27:BC:76:LEU:HD23	27:BC:111:PHE:HE1	1.85	0.42
25:BA:411:G:O2'	36:BP:72:PRO:HG3	2.19	0.42
25:BA:877:U:H1'	25:BA:900:A:N6	2.34	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DT:136:GLN:HG3	40:DT:137:LYS:HG2	2.00	0.42
48:D1:80:LEU:HD13	48:D1:82:LEU:HD13	2.01	0.42
1:CA:278:G:N2	17:CQ:95:TYR:HB3	2.33	0.42
2:AB:178:ARG:NH1	2:AB:178:ARG:CG	2.79	0.42
35:BO:48:PRO:HB3	35:BO:49:ARG:NH1	2.34	0.42
26:BB:66:A:C4	26:BB:109:C:C5	3.07	0.42
34:BN:133:GLN:O	34:BN:134:ARG:CB	2.66	0.42
1:AA:59:A:N3	1:AA:59:A:H2'	2.35	0.42
1:AA:515:G:C2	1:AA:537:G:C6	3.07	0.42
40:BT:24:PRO:HA	40:BT:49:VAL:O	2.20	0.42
25:DA:1257:C:O2	30:DF:84:VAL:HG23	2.20	0.42
19:CS:6:LYS:HG2	19:CS:7:LYS:HE2	2.01	0.42
30:DF:54:ARG:HG3	30:DF:54:ARG:HH11	1.84	0.42
32:DH:103:LEU:O	32:DH:114:VAL:HG13	2.18	0.42
1:AA:792:A:H4'	1:AA:793:U:C5'	2.49	0.42
17:AQ:13:ASP:OD1	17:AQ:13:ASP:O	2.37	0.42
32:BH:98:LEU:HB2	32:BH:125:VAL:HG21	2.00	0.42
25:DA:1739:U:O2	25:DA:1739:U:H2'	2.18	0.42
1:CA:936:C:H2'	1:CA:937:A:O4'	2.18	0.42
1:CA:602:A:C2	1:CA:637:G:C2	3.07	0.42
1:AA:307:C:C6	1:AA:308:C:C5	3.07	0.42
25:DA:235:U:C2	25:DA:236:C:C5	3.07	0.42
34:BN:89:LYS:HB3	34:BN:89:LYS:HZ2	1.84	0.42
1:AA:36:C:C4	1:AA:37:U:C4	3.07	0.42
15:AO:8:LYS:O	15:AO:9:GLN:C	2.57	0.42
2:AB:101:MET:O	2:AB:105:PHE:CA	2.67	0.42
35:BO:93:PRO:HB3	35:BO:114:ILE:HD11	2.02	0.42
25:DA:2755:C:C4	56:D9:19:ARG:NH1	2.88	0.42
25:DA:2465:C:O3'	56:D9:5:ALA:HB3	2.18	0.42
1:AA:439:A:C5	1:AA:441:A:H1'	2.54	0.42
33:DI:119:PRO:O	33:DI:120:ILE:O	2.37	0.42
25:DA:1417:C:H1'	25:DA:1586:A:H62	1.83	0.42
49:D2:23:LYS:HE2	49:D2:23:LYS:HB3	1.77	0.42
51:D4:43:GLY:C	51:D4:45:GLY:N	2.72	0.42
25:DA:869:G:H2'	25:DA:870:A:C8	2.53	0.42
1:AA:1097:C:O2'	1:AA:1098:C:H5'	2.18	0.42
39:DS:48:LEU:HD12	39:DS:48:LEU:H	1.83	0.42
39:DS:49:VAL:HG11	39:DS:73:LEU:HD23	2.01	0.42
46:BZ:135:PHE:C	46:BZ:136:ILE:HG13	2.39	0.42
1:AA:247:G:C2	1:AA:248:C:C6	3.07	0.42
41:BU:10:ARG:HG2	41:BU:14:HIS:CD2	2.54	0.42
1:CA:358:U:O2'	1:CA:359:U:H5'	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:AW:59:A:H2'	23:AW:60:U:H5'	2.01	0.42
25:BA:2192:G:C2'	25:BA:2193:G:H5''	2.48	0.42
26:BB:75:G:N1	26:BB:103:G:N2	2.68	0.42
25:DA:1368:G:OP1	54:D7:28:ARG:NH2	2.51	0.42
18:CR:39:VAL:O	18:CR:40:LEU:C	2.58	0.42
25:BA:1682:G:OP1	25:BA:1699:G:N1	2.51	0.42
1:AA:1168:A:H8	1:AA:1168:A:OP1	2.01	0.42
25:DA:2006:C:H6	25:DA:2006:C:O5'	2.02	0.42
8:AH:38:ILE:HD11	8:AH:118:VAL:O	2.19	0.42
25:BA:799:G:C6	25:BA:800:A:C6	3.07	0.42
40:BT:8:LYS:HB3	40:BT:8:LYS:HE2	1.78	0.42
1:AA:1353:G:O2'	1:AA:1354:C:H5'	2.19	0.42
3:AC:11:ARG:HH21	3:AC:180:ALA:HB3	1.85	0.42
7:AG:121:ALA:O	7:AG:122:HIS:C	2.57	0.42
9:AI:117:HIS:C	9:AI:118:LYS:HG3	2.40	0.42
42:DV:2:PHE:HB3	42:DV:42:GLY:N	2.34	0.42
42:DV:34:GLU:HA	42:DV:58:VAL:HA	2.02	0.42
46:DZ:13:LYS:N	46:DZ:14:PRO:HD3	2.34	0.42
25:BA:1106:G:C4	25:BA:1107:G:N7	2.87	0.42
25:BA:1109:C:H5''	25:BA:1110:G:OP2	2.19	0.42
1:CA:1240:U:C4	7:CG:32:ARG:HD3	2.54	0.42
7:CG:54:THR:CG2	7:CG:56:GLN:HG2	2.49	0.42
9:CI:10:ARG:HD3	9:CI:75:ASP:HB3	2.01	0.42
13:CM:108:ARG:HH22	13:CM:114:ARG:HA	1.84	0.42
41:BU:90:VAL:O	41:BU:92:ARG:CD	2.61	0.42
51:D4:53:THR:O	51:D4:54:LYS:HG2	2.19	0.42
31:DG:118:ARG:C	31:DG:181:ARG:HH21	2.23	0.42
1:AA:1319:A:C5	1:AA:1323:G:C4	3.08	0.42
1:AA:954:G:H2'	1:AA:955:U:C6	2.54	0.42
1:AA:1320:C:H41	19:AS:37:ARG:HB3	1.83	0.42
45:DY:11:ASP:N	45:DY:28:LYS:HZ1	2.17	0.42
29:DE:32:PRO:HA	29:DE:90:THR:HA	2.01	0.42
35:BO:77:ILE:HG23	35:BO:77:ILE:O	2.18	0.42
25:DA:1201:C:C2	25:DA:1245:G:C2	3.07	0.42
25:DA:2402:C:H2'	25:DA:2403:C:O5'	2.20	0.42
25:DA:2403:C:C4	25:DA:2415:G:C2	3.07	0.42
31:BG:66:GLN:O	31:BG:67:LYS:C	2.57	0.42
25:BA:542:C:C2'	25:BA:543:C:H5'	2.46	0.42
36:BP:88:LEU:C	36:BP:90:ARG:H	2.22	0.42
32:DH:157:TYR:O	32:DH:158:HIS:CB	2.67	0.42
20:CT:20:LEU:O	20:CT:21:LYS:C	2.57	0.42
55:B8:34:TRP:CG	55:B8:35:GLN:N	2.87	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:105:VAL:HG13	4:AD:110:PHE:HB2	2.02	0.42
11:AK:111:ASP:CA	18:AR:84:LYS:HE3	2.49	0.42
4:AD:35:ARG:O	4:AD:37:PRO:HD3	2.19	0.42
4:AD:54:TYR:O	4:AD:55:ALA:C	2.58	0.42
5:AE:99:GLY:O	5:AE:101:ILE:HD13	2.18	0.42
34:DN:118:LYS:C	34:DN:120:LEU:N	2.72	0.42
25:DA:2839:G:H5'	38:DR:46:GLY:HA3	2.01	0.42
25:DA:827:U:O2	25:DA:2246:G:H4'	2.19	0.42
27:BC:117:THR:OG1	27:BC:120:VAL:HG22	2.19	0.42
31:DG:51:ARG:HE	31:DG:51:ARG:CA	2.27	0.42
36:DP:101:VAL:HG23	36:DP:102:ARG:N	2.33	0.42
39:DS:33:LYS:C	39:DS:34:HIS:HD2	2.23	0.42
39:DS:61:ASN:O	39:DS:62:LYS:CB	2.66	0.42
5:CE:107:ARG:CG	5:CE:108:ALA:N	2.82	0.42
28:DD:210:GLY:HA2	28:DD:213:ARG:CG	2.49	0.42
12:AL:38:ARG:CB	12:AL:38:ARG:CZ	2.97	0.42
12:CL:99:ARG:HD2	12:CL:99:ARG:HA	1.81	0.42
20:AT:30:LYS:CE	20:AT:30:LYS:O	2.60	0.42
1:CA:613:C:H2'	1:CA:614:A:O4'	2.20	0.42
1:AA:623:C:H2'	1:AA:624:C:H6	1.84	0.42
43:DW:37:ARG:HG3	43:DW:37:ARG:NH1	2.34	0.42
43:DW:59:VAL:CG1	43:DW:59:VAL:O	2.65	0.42
25:DA:1224:C:H2'	25:DA:1225:G:O4'	2.20	0.42
25:DA:1028:A:N6	25:DA:1125:G:H2'	2.33	0.42
26:DB:70:C:O2'	26:DB:71:C:H5'	2.19	0.42
25:BA:1394:U:H3'	25:BA:1395:A:C5'	2.49	0.42
36:DP:147:LEU:O	36:DP:148:LEU:HB2	2.19	0.42
1:AA:1104:G:H2'	1:AA:1105:A:H8	1.85	0.42
25:BA:280:C:N4	25:BA:360:G:H1	2.17	0.42
7:AG:111:ARG:HE	7:AG:123:GLU:HB2	1.85	0.42
45:DY:88:LYS:O	45:DY:89:PHE:HB3	2.20	0.42
9:AI:20:ARG:HG3	9:AI:20:ARG:HH11	1.85	0.42
55:B8:53:PRO:HG2	55:B8:54:GLU:H	1.85	0.42
51:B4:50:THR:OG1	51:B4:51:TYR:N	2.52	0.42
38:BR:48:VAL:O	38:BR:49:ASP:C	2.58	0.42
31:BG:16:ARG:HD3	31:BG:16:ARG:HA	1.73	0.42
1:AA:1124:G:C1'	10:AJ:38:ILE:HG21	2.49	0.42
6:AF:29:ALA:O	6:AF:30:LEU:C	2.57	0.42
29:DE:9:VAL:HG11	29:DE:25:VAL:HG12	2.00	0.42
1:AA:600:C:H2'	1:AA:601:C:C6	2.55	0.42
11:AK:44:SER:O	11:AK:46:GLY:N	2.52	0.42
25:BA:322:A:OP2	30:BF:169:ASN:HB2	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2758:A:H2'	25:DA:2759:G:H5''	2.02	0.42
11:AK:88:GLY:C	11:AK:90:GLY:N	2.73	0.42
29:BE:54:GLN:HB2	29:BE:55:ASN:H	1.49	0.42
39:DS:78:LEU:C	39:DS:80:LEU:H	2.22	0.42
30:DF:68:LYS:HD2	30:DF:68:LYS:HA	1.82	0.42
35:BO:38:VAL:HG12	35:BO:39:ILE:N	2.33	0.42
5:CE:127:ASN:HB3	5:CE:130:ASN:HB2	2.01	0.42
1:AA:486:U:O2'	1:AA:487:A:H5'	2.18	0.42
43:BW:76:VAL:HG21	43:BW:101:SER:HB3	2.01	0.42
1:AA:308:C:H2'	1:AA:309:G:C8	2.55	0.42
50:B3:6:VAL:CG2	50:B3:28:LEU:HD11	2.49	0.42
12:AL:123:LYS:CD	12:AL:124:GLU:N	2.82	0.42
1:CA:153:C:H2'	1:CA:154:C:H6	1.84	0.42
25:BA:899:A:H2'	25:BA:899:A:N3	2.33	0.42
3:AC:189:ALA:O	3:AC:190:ARG:C	2.57	0.42
25:BA:84:A:H5''	45:BY:9:LYS:HE3	2.02	0.42
27:DC:48:LEU:HD11	27:DC:172:ILE:HB	2.00	0.42
37:DQ:119:ARG:HG2	37:DQ:119:ARG:NH1	2.35	0.42
25:BA:746:A:C5	25:BA:2611:U:H5''	2.54	0.42
44:BX:57:LEU:HD12	44:BX:57:LEU:O	2.19	0.42
6:AF:99:ALA:HB2	18:AR:31:LEU:HD13	2.01	0.42
1:CA:885:G:O2'	1:CA:886:G:H5'	2.18	0.42
37:DQ:110:THR:HG23	37:DQ:113:GLN:OE1	2.19	0.42
25:BA:2744:G:C2	25:BA:2761:G:C4	3.07	0.42
25:BA:2457:U:C2'	25:BA:2458:G:H5'	2.50	0.42
25:DA:738:G:O2'	25:DA:739:G:H5'	2.19	0.42
25:BA:2004:G:C2'	25:BA:2005:A:H5'	2.50	0.42
25:DA:2578:G:H4'	25:DA:2578:G:OP2	2.18	0.42
25:BA:1972:A:O2'	25:BA:1973:G:H5'	2.19	0.42
18:CR:39:VAL:O	18:CR:42:ARG:HB2	2.20	0.42
28:DD:7:LYS:HA	28:DD:8:PRO:HD3	1.76	0.42
19:AS:78:ARG:O	19:AS:79:THR:CB	2.68	0.42
36:BP:14:LYS:C	36:BP:15:ARG:HG3	2.40	0.42
25:BA:239:U:H2'	25:BA:240:G:O4'	2.19	0.42
25:DA:1902:C:C2'	25:DA:1903:G:O5'	2.67	0.42
32:BH:25:LYS:CB	32:BH:32:GLU:OE2	2.68	0.42
50:D3:8:LEU:HD12	50:D3:31:LEU:CA	2.35	0.42
41:DU:88:ILE:CD1	41:DU:88:ILE:O	2.62	0.42
41:DU:90:VAL:HA	42:DV:11:GLN:OE1	2.20	0.42
19:CS:66:MET:O	19:CS:66:MET:HG3	2.20	0.42
25:BA:774:A:C2	25:BA:787:U:O2'	2.62	0.42
20:AT:98:PRO:C	20:AT:100:ILE:H	2.21	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CG:108:ALA:C	7:CG:110:GLN:H	2.21	0.42
1:CA:1286:A:H2	21:CU:18:TYR:HH	1.67	0.42
25:BA:1000:A:H8	25:BA:1000:A:H5'	1.84	0.42
41:BU:62:ILE:HD13	41:BU:93:LYS:HG2	2.01	0.42
41:BU:94:ASN:O	41:BU:97:ASP:HB3	2.19	0.42
42:BV:39:LEU:HA	42:BV:47:VAL:HG11	2.00	0.42
42:BV:45:THR:O	42:BV:46:VAL:C	2.58	0.42
1:AA:382:A:C4	1:AA:383:A:N7	2.88	0.42
31:DG:125:PHE:HB2	31:DG:126:ASP:H	1.56	0.42
1:AA:1265:G:N2	1:AA:1271:G:H1'	2.35	0.42
25:BA:1171:G:O6	25:BA:1178:C:N4	2.53	0.42
1:AA:188:C:H4'	20:AT:89:ARG:NH1	2.34	0.42
3:AC:42:LEU:O	3:AC:45:LYS:HB2	2.20	0.42
10:AJ:47:PHE:CZ	10:AJ:65:LEU:HB2	2.49	0.42
25:DA:661:C:H4'	36:DP:16:ARG:HH12	1.84	0.42
30:DF:202:PHE:CD1	30:DF:202:PHE:C	2.93	0.42
1:AA:1128:C:H5''	9:AI:16:ARG:NH2	2.25	0.42
25:DA:1109:C:N4	25:DA:1110:G:H21	2.13	0.42
25:DA:1115:G:H2'	25:DA:1116:C:C6	2.54	0.42
1:AA:922:G:H4'	5:AE:20:GLN:HA	2.00	0.42
25:BA:275:G:C8	25:BA:275:G:H3'	2.55	0.42
13:AM:3:ARG:HB3	13:AM:7:VAL:CA	2.45	0.42
53:B6:20:ASN:C	53:B6:21:TYR:CG	2.92	0.42
36:BP:125:VAL:CG2	36:BP:125:VAL:O	2.66	0.42
50:D3:12:PRO:HD2	50:D3:13:ILE:HD12	2.01	0.42
25:BA:1850:G:H2'	25:BA:1851:U:C6	2.55	0.42
13:CM:14:ARG:O	13:CM:15:VAL:C	2.57	0.42
3:CC:52:LEU:CD1	3:CC:55:VAL:HG22	2.37	0.42
5:AE:110:LEU:O	5:AE:115:VAL:HG23	2.20	0.42
25:BA:1827:C:H2'	25:BA:1828:G:C5'	2.49	0.42
1:CA:1113:C:H2'	1:CA:1114:C:H6	1.84	0.42
3:CC:8:ILE:C	3:CC:10:PHE:H	2.22	0.42
3:CC:5:ILE:HG23	10:CJ:51:ARG:HH12	1.84	0.42
10:CJ:63:PHE:HA	14:CN:59:ALA:H	1.84	0.42
14:CN:42:ILE:O	14:CN:46:GLU:HB2	2.20	0.42
46:DZ:149:LEU:O	46:DZ:149:LEU:HD22	2.19	0.42
1:CA:1001:A:N3	1:CA:1001:A:C2'	2.82	0.42
25:DA:2803:C:H2'	25:DA:2804:C:C4	2.54	0.42
28:DD:158:ALA:HB3	28:DD:161:THR:CG2	2.49	0.42
8:AH:63:LEU:CB	8:AH:65:TYR:CE1	2.98	0.42
49:D2:63:VAL:HA	49:D2:66:GLU:CD	2.40	0.42
25:DA:74:A:C5'	25:DA:75:G:O4'	2.68	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:1020:A:C2	25:BA:1141:U:C2	3.07	0.42
7:AG:150:ALA:O	11:AK:57:THR:HG21	2.19	0.42
25:BA:607:U:OP1	30:BF:103:LYS:HG3	2.19	0.42
1:AA:295:C:H2'	1:AA:296:U:O4'	2.19	0.42
25:DA:1523:U:H2'	25:DA:1524:G:C8	2.50	0.42
20:CT:91:LEU:C	20:CT:93:GLU:N	2.73	0.42
1:AA:727:G:C6	1:AA:731:G:C6	3.07	0.42
1:AA:731:G:O2'	1:AA:732:C:H5'	2.19	0.42
53:B6:8:LYS:O	53:B6:9:LEU:CB	2.55	0.42
5:AE:53:LEU:N	5:AE:53:LEU:HD12	2.34	0.42
20:CT:72:LEU:HD21	20:CT:77:ALA:CA	2.49	0.42
16:AP:20:VAL:HG23	16:AP:34:GLU:C	2.39	0.42
25:DA:1126:A:H4'	25:DA:1127:A:C5'	2.49	0.42
26:DB:17:C:H2'	26:DB:18:G:O4'	2.20	0.42
19:AS:62:ILE:HD12	19:AS:66:MET:SD	2.58	0.42
19:AS:62:ILE:CG1	19:AS:63:THR:N	2.82	0.42
18:AR:86:VAL:CG1	18:AR:87:ARG:N	2.82	0.42
18:CR:22:VAL:O	18:CR:23:LYS:C	2.58	0.42
25:DA:389:G:H22	36:DP:72:PRO:CD	2.20	0.42
46:DZ:175:PRO:HB2	46:DZ:176:PRO:CD	2.43	0.42
25:BA:876:C:O5'	25:BA:876:C:H6	2.02	0.42
1:CA:877:C:H1'	8:CH:3:THR:OG1	2.18	0.42
25:BA:2762:G:H3'	25:BA:2763:G:H5'	2.00	0.42
16:CP:33:ILE:HD13	16:CP:33:ILE:N	2.34	0.42
25:DA:539:G:H2'	25:DA:540:C:C6	2.55	0.42
38:BR:53:HIS:CG	38:BR:53:HIS:O	2.72	0.42
27:DC:120:VAL:O	27:DC:124:VAL:N	2.48	0.42
22:AV:70:LEU:HD11	22:AV:119:PRO:HG2	2.01	0.42
27:BC:141:PRO:O	27:BC:144:GLY:N	2.52	0.42
35:BO:44:LYS:O	35:BO:45:GLU:HB3	2.19	0.42
1:AA:79:G:N2	1:AA:91:C:C5	2.87	0.42
11:AK:29:ILE:CD1	11:AK:44:SER:HB3	2.43	0.42
25:DA:2496:C:P	37:DQ:82:ARG:HB2	2.58	0.42
27:BC:182:PRO:CG	27:BC:185:LYS:HD2	2.49	0.42
1:CA:271:C:H2'	1:CA:272:C:C6	2.54	0.42
5:CE:127:ASN:O	5:CE:128:PRO:C	2.57	0.42
25:BA:2353:G:H1	25:BA:2364:C:H42	1.67	0.42
25:DA:1204:A:H61	25:DA:1240:U:H2'	1.84	0.42
25:DA:1596:A:O2'	25:DA:1597:A:H5'	2.19	0.42
40:BT:53:ARG:CG	40:BT:53:ARG:NH1	2.82	0.42
35:DO:68:GLU:HG2	35:DO:68:GLU:O	2.18	0.42
40:BT:13:ARG:CZ	40:BT:13:ARG:N	2.83	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2020:A:O2'	25:BA:2021:C:H5'	2.18	0.42
31:DG:27:ASN:C	31:DG:29:TRP:H	2.21	0.42
34:BN:51:PHE:CZ	34:BN:119:ARG:CD	3.02	0.42
25:BA:2063:C:C5	25:BA:2064:C:C5	3.08	0.42
44:BX:64:LYS:HE2	44:BX:64:LYS:HB3	1.71	0.42
26:DB:95:C:H2'	26:DB:96:U:C6	2.54	0.42
15:CO:66:LEU:N	15:CO:66:LEU:HD12	2.34	0.42
1:CA:20:U:C2'	1:CA:21:G:H5'	2.50	0.42
25:DA:378:C:C2'	25:DA:379:G:H5'	2.48	0.42
25:BA:1641:A:H2'	25:BA:1642:G:O4'	2.19	0.42
22:CV:41:PHE:N	22:CV:41:PHE:HD1	2.16	0.42
20:CT:56:MET:HG3	20:CT:84:LEU:HD12	2.01	0.42
30:BF:144:LYS:C	30:BF:146:ALA:H	2.23	0.42
37:DQ:79:LEU:HD22	37:DQ:80:GLU:HG2	2.00	0.42
15:AO:40:SER:O	15:AO:44:LYS:HB2	2.19	0.42
39:BS:51:ALA:O	39:BS:69:VAL:CG2	2.68	0.42
15:CO:3:ILE:HG23	15:CO:38:ARG:NH1	2.34	0.42
5:CE:101:ILE:HD11	5:CE:119:LEU:CD2	2.50	0.42
25:BA:2748:A:C6	25:BA:2749:A:C5	3.08	0.42
8:AH:41:ARG:O	8:AH:41:ARG:HD2	2.18	0.42
25:DA:1221(A):C:O2'	25:DA:1222:C:H5'	2.19	0.42
2:CB:79:ASP:C	2:CB:81:VAL:H	2.22	0.42
1:CA:1023:G:H2'	1:CA:1023:G:N3	2.34	0.42
25:DA:2862:G:C6	25:DA:2863:C:C4	3.08	0.42
23:CW:49:G:H1	23:CW:65:C:H42	1.67	0.42
25:DA:2047:U:O2'	25:DA:2048:G:H5'	2.19	0.42
25:BA:822:U:H2'	25:BA:823:G:C8	2.55	0.42
19:CS:28:LYS:HB3	19:CS:29:ARG:H	1.58	0.42
25:BA:565:C:H2'	25:BA:566:U:O4'	2.19	0.42
30:BF:158:THR:OG1	30:BF:160:ASN:N	2.51	0.42
25:DA:462:C:C4	25:DA:463:G:N7	2.87	0.42
41:DU:39:LEU:HD23	41:DU:39:LEU:HA	1.85	0.42
28:BD:61:LEU:HA	28:BD:61:LEU:HD13	1.79	0.42
25:DA:1830:C:O5'	25:DA:1830:C:H6	2.02	0.42
27:DC:55:SER:C	27:DC:57:GLN:N	2.72	0.42
56:D9:11:CYS:HB2	56:D9:14:CYS:H	1.85	0.42
36:BP:47:ASP:HB3	36:BP:48:PRO:O	2.19	0.42
39:BS:30:ARG:HD2	39:BS:30:ARG:HA	1.91	0.42
40:BT:8:LYS:C	40:BT:10:VAL:N	2.72	0.42
46:DZ:162:LEU:O	46:DZ:163:ALA:HB2	2.20	0.42
2:CB:167:PRO:O	2:CB:171:ALA:N	2.52	0.42
25:DA:948:G:C2	25:DA:949:C:C2	3.08	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:CS:66:MET:HA	19:CS:69:HIS:HD2	1.85	0.42
25:BA:1491:G:O2'	28:BD:101:GLU:HB2	2.20	0.42
25:BA:2206:G:N2	25:BA:2207:G:C5'	2.60	0.42
9:CI:120:ARG:O	9:CI:122:ALA:N	2.52	0.42
9:CI:45:ALA:O	9:CI:78:LYS:NZ	2.52	0.42
9:CI:16:ARG:HB2	9:CI:64:THR:HG23	2.01	0.42
41:BU:58:ARG:HH11	41:BU:58:ARG:HG2	1.83	0.42
42:BV:46:VAL:O	42:BV:47:VAL:HG13	2.19	0.42
45:DY:8:LYS:HB3	45:DY:9:LYS:H	1.40	0.42
1:AA:184:G:O2'	1:AA:185:A:H5'	2.19	0.42
16:AP:58:TYR:HD1	16:AP:58:TYR:C	2.20	0.42
20:AT:87:LYS:HA	20:AT:87:LYS:HD2	1.67	0.42
25:BA:2368:C:O2'	25:BA:2369:A:H5'	2.20	0.42
3:AC:39:ILE:HA	3:AC:42:LEU:CD1	2.49	0.42
3:AC:92:ALA:CB	3:AC:99:VAL:HG21	2.26	0.42
25:DA:1247:A:C2	25:DA:1249:U:C6	3.08	0.42
30:DF:123:LEU:HD12	30:DF:124:LEU:H	1.85	0.42
30:DF:34:TRP:CE3	30:DF:35:GLU:HG3	2.54	0.42
30:DF:8:GLN:O	30:DF:9:ILE:C	2.58	0.42
36:BP:16:ARG:CB	36:BP:16:ARG:NH1	2.71	0.42
29:DE:8:LYS:HE3	29:DE:188:VAL:CG1	2.49	0.42
25:BA:2404:C:C2'	25:BA:2405:G:H5'	2.49	0.42
36:BP:111:ARG:NH2	36:BP:111:ARG:HG3	2.34	0.42
28:BD:31:LYS:HD3	28:BD:94:LEU:HD11	2.00	0.42
28:BD:26:LYS:NZ	28:BD:82:ILE:CB	2.82	0.42
46:BZ:94:PRO:HB3	46:BZ:126:LYS:HG2	2.00	0.42
8:CH:82:HIS:HB3	8:CH:138:TRP:CE2	2.54	0.42
29:BE:52:LEU:O	29:BE:75:VAL:N	2.48	0.42
35:BO:13:ASN:ND2	35:BO:97:ARG:CB	2.83	0.42
55:B8:17:THR:CG2	55:B8:23:VAL:HG23	2.50	0.42
3:CC:47:LEU:HD21	3:CC:68:VAL:CG1	2.34	0.42
25:DA:2821:A:H2'	25:DA:2822:G:O4'	2.19	0.42
1:AA:1152:A:H5''	10:AJ:13:HIS:CB	2.30	0.42
4:AD:7:PRO:CB	4:AD:10:ARG:HD2	2.36	0.42
3:CC:64:VAL:O	3:CC:65:ALA:C	2.57	0.42
3:CC:92:ALA:HB2	3:CC:99:VAL:CG2	2.48	0.42
14:CN:57:ARG:HG2	14:CN:58:LYS:H	1.84	0.42
40:DT:51:ARG:HG2	40:DT:52:ILE:N	2.34	0.42
25:DA:6:A:H2	25:DA:7:G:C4	2.36	0.42
1:CA:975:A:H5'	1:CA:975:A:H8	1.85	0.42
49:D2:49:LYS:O	49:D2:53:LEU:HB2	2.19	0.42
31:DG:48:GLU:C	31:DG:50:ALA:N	2.70	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:DY:99:CYS:O	45:DY:100:ALA:HB2	2.19	0.42
1:CA:1027:C:H2'	1:CA:1028:C:C6	2.53	0.42
10:CJ:94:VAL:HG12	10:CJ:95:GLU:N	2.34	0.42
30:BF:45:ARG:HD3	30:BF:97:TYR:CG	2.54	0.42
33:BI:130:TYR:O	33:BI:135:GLU:HB3	2.19	0.42
1:CA:80:G:H1	1:CA:90:U:C4'	2.21	0.42
1:CA:187:C:O2'	20:CT:89:ARG:NH2	2.53	0.42
20:CT:90:GLN:HA	20:CT:93:GLU:OE2	2.18	0.42
25:DA:27:G:O2'	25:DA:28:A:P	2.77	0.42
25:DA:27:G:C2'	25:DA:28:A:OP2	2.66	0.42
25:DA:2481:G:O2'	25:DA:2482:G:P	2.77	0.42
1:CA:652:U:O4	1:CA:752:G:O2'	2.26	0.42
25:DA:328:U:O2'	45:DY:70:SER:HB3	2.20	0.42
55:D8:32:LEU:HB2	55:D8:36:LYS:NZ	2.35	0.42
45:BY:16:ALA:CB	45:BY:21:LYS:NZ	2.74	0.42
26:DB:13:A:H2'	26:DB:14:U:H5''	2.02	0.42
6:AF:69:GLU:HG2	6:AF:70:ASP:N	2.21	0.42
13:CM:46:LYS:HG3	13:CM:47:ASP:OD1	2.20	0.42
25:DA:1991:U:C2'	25:DA:1992:G:H5''	2.46	0.42
44:BX:13:LEU:HD22	44:BX:18:TYR:OH	2.18	0.42
25:DA:2021:C:C5	41:DU:25:TRP:CD2	3.07	0.42
43:DW:19:LEU:CB	52:D5:25:LEU:HD11	2.47	0.42
25:DA:932:G:HO2'	25:DA:933:A:P	2.42	0.42
36:DP:33:ARG:O	36:DP:35:HIS:N	2.53	0.42
36:BP:71:VAL:CG1	36:BP:72:PRO:CD	2.97	0.42
25:DA:774:A:C2	25:DA:787:U:O2'	2.53	0.42
25:BA:70:G:H21	25:BA:71:A:N6	2.04	0.42
22:AV:100:GLY:O	22:AV:102:GLU:O	2.38	0.42
38:BR:94:TYR:O	38:BR:117:VAL:HG23	2.19	0.42
28:DD:268:ARG:CB	28:DD:268:ARG:HH11	2.28	0.42
1:CA:1276:G:O2'	1:CA:1277:C:H5'	2.18	0.42
17:AQ:80:GLY:C	17:AQ:81:ARG:HG2	2.37	0.42
49:B2:34:GLU:O	49:B2:38:GLN:HG3	2.19	0.42
25:DA:1376:C:O2'	25:DA:1377:G:H5'	2.19	0.42
25:DA:2799:C:H5''	25:DA:2802:G:C6	2.55	0.42
1:AA:689:C:P	11:AK:46:GLY:HA3	2.60	0.42
20:CT:61:SER:C	20:CT:63:ILE:N	2.73	0.42
25:DA:1208:C:O2'	25:DA:1209:G:H5'	2.18	0.42
25:BA:1497:U:C2'	25:BA:1497:U:O2	2.68	0.42
28:BD:148:GLU:CB	28:BD:151:LYS:HD2	2.50	0.42
25:BA:108:U:H2'	25:BA:109:G:C8	2.54	0.42
25:DA:844:C:H3'	25:DA:845:G:C8	2.55	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2205:C:O2	25:BA:2220:G:C2	2.73	0.42
25:DA:1204:A:H2	25:DA:1241:A:N1	2.18	0.42
25:DA:1204:A:O2'	25:DA:1205:U:O5'	2.35	0.42
30:DF:169:ASN:HA	30:DF:169:ASN:HD22	1.54	0.42
4:CD:8:VAL:O	4:CD:10:ARG:N	2.53	0.42
25:BA:2712:U:O2'	25:BA:2712(A):A:OP2	2.29	0.42
3:AC:127:ARG:NH1	3:AC:127:ARG:HG2	2.27	0.42
15:CO:50:HIS:O	15:CO:53:HIS:HB3	2.20	0.42
28:BD:2:ALA:O	28:BD:3:VAL:O	2.37	0.42
25:BA:76:C:C2	25:BA:111:A:C2	3.07	0.42
1:AA:1241:G:H2'	1:AA:1242:C:C6	2.55	0.42
44:BX:65:ARG:CG	44:BX:66:LEU:N	2.80	0.42
20:AT:20:LEU:HG	20:AT:20:LEU:H	1.54	0.42
44:DX:40:LYS:C	44:DX:42:ALA:H	2.22	0.42
25:BA:1499:C:C2'	25:BA:1500:G:H5'	2.49	0.42
52:B5:16:ARG:HG2	52:B5:17:ASP:OD1	2.19	0.42
1:CA:328:C:H4'	1:CA:329:A:H5'	2.01	0.42
1:AA:334:C:C4	1:AA:335:C:N4	2.88	0.42
25:DA:2740:A:C6	25:DA:2741:A:C6	3.08	0.42
54:D7:31:LEU:C	54:D7:33:ARG:N	2.73	0.42
46:BZ:135:PHE:O	46:BZ:136:ILE:CG1	2.68	0.42
3:AC:150:LYS:HA	3:AC:169:ALA:HB2	2.02	0.42
3:AC:150:LYS:O	3:AC:200:ALA:HA	2.20	0.42
25:BA:671:C:H41	36:BP:42:SER:HA	1.84	0.42
1:CA:868:C:O2'	1:CA:869:G:H5'	2.19	0.42
25:BA:963:U:H2'	25:BA:964:C:C6	2.54	0.42
43:DW:62:HIS:CD2	43:DW:62:HIS:N	2.87	0.42
25:DA:1433:U:O2	25:DA:1561:G:C2	2.72	0.42
25:BA:1221:C:H2'	25:BA:1221(A):C:H6	1.84	0.42
1:CA:26:A:H2'	1:CA:27:G:H5'	2.02	0.42
16:CP:53:VAL:O	16:CP:57:ARG:HG2	2.20	0.42
25:DA:1612:C:C2'	25:DA:1613:G:O5'	2.67	0.42
25:BA:1686:C:H2'	25:BA:1687:G:O4'	2.19	0.42
19:CS:78:ARG:HH11	19:CS:78:ARG:HG3	1.84	0.42
53:B6:25:LYS:O	53:B6:25:LYS:CG	2.67	0.42
1:CA:587:G:C2	1:CA:755:G:C5	3.08	0.42
1:CA:493:G:HO2'	1:CA:494:U:H6	1.63	0.42
25:BA:2848:G:C8	40:BT:97:ALA:HB2	2.55	0.42
25:DA:2062:A:HO2'	25:DA:2063:C:C5'	2.33	0.42
28:BD:86:PRO:HG2	28:BD:87:ASN:ND2	2.35	0.42
25:BA:2291:U:O2'	25:BA:2374:C:O2	2.35	0.42
9:AI:80:GLY:C	9:AI:82:ALA:H	2.23	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BH:11:VAL:O	32:BH:11:VAL:HG12	2.20	0.42
46:DZ:53:HIS:HB3	46:DZ:100:PRO:CD	2.50	0.42
25:DA:1186:G:O2'	25:DA:1187:G:H5'	2.19	0.42
26:DB:83:G:H4'	50:D3:52:HIS:HD2	1.83	0.42
41:DU:60:LEU:HD13	41:DU:61:TRP:N	2.35	0.42
42:DV:18:LEU:CD1	42:DV:18:LEU:N	2.83	0.42
42:DV:60:GLU:H	42:DV:97:LYS:HG2	1.85	0.42
26:DB:76:G:H2'	26:DB:77:U:O4'	2.19	0.42
25:DA:2188:C:C5	25:DA:2189:U:N3	2.88	0.42
25:DA:2643:G:O2'	25:DA:2644:G:H5'	2.20	0.42
1:CA:1287:A:H61	1:CA:1371:G:C4'	2.31	0.42
1:CA:1288:A:C2	1:CA:1289:A:C4	3.08	0.42
7:CG:88:PRO:HB3	7:CG:145:ALA:HA	2.02	0.42
1:CA:1142:G:C8	1:CA:1143:G:C8	3.08	0.42
31:DG:181:ARG:O	31:DG:182:LYS:C	2.58	0.42
1:AA:137:C:O2'	16:AP:61:SER:O	2.38	0.42
3:AC:22:TRP:HZ3	3:AC:24:ALA:HB2	1.84	0.42
25:BA:1347:G:H2'	25:BA:1348:G:H5'	2.01	0.42
1:AA:1085:U:C2	1:AA:1094:G:O6	2.71	0.42
25:BA:272(J):C:OP1	25:BA:274:G:C8	2.72	0.42
36:BP:101:VAL:HG12	36:BP:106:LEU:HG	2.01	0.42
36:BP:99:LEU:O	36:BP:103:ALA:HB2	2.20	0.42
32:DH:105:LEU:O	32:DH:107:VAL:HG22	2.19	0.42
2:AB:204:ASN:HD21	2:AB:207:ALA:CB	2.33	0.42
2:AB:216:SER:O	2:AB:220:ASP:OD1	2.37	0.42
2:AB:41:ILE:CD1	2:AB:41:ILE:N	2.81	0.42
2:AB:133:LYS:C	2:AB:135:GLN:H	2.23	0.42
36:BP:62:LEU:HB2	55:B8:30:ARG:HH21	1.85	0.42
1:AA:778:G:O2'	1:AA:779:C:H5'	2.19	0.42
1:AA:1148:U:C2'	1:AA:1149:C:H5'	2.49	0.42
1:AA:1149:C:OP1	9:AI:14:VAL:HG21	2.19	0.42
4:AD:106:TYR:CE1	4:AD:113:SER:HA	2.55	0.42
3:CC:5:ILE:HG23	10:CJ:51:ARG:NH1	2.35	0.42
10:CJ:48:THR:HG22	10:CJ:49:VAL:H	1.83	0.42
42:BV:21:ARG:HG2	42:BV:91:TYR:CD1	2.54	0.42
42:BV:1:MET:H3	42:BV:99:ILE:HD11	1.83	0.42
8:AH:44:PHE:CE2	8:AH:109:ILE:HG21	2.54	0.42
33:DI:45:LYS:O	33:DI:47:LEU:N	2.52	0.42
27:BC:80:LYS:HA	31:BG:50:ALA:HB2	2.01	0.42
25:DA:70:G:O4'	25:DA:73:A:H1'	2.20	0.42
48:B1:51:VAL:O	48:B1:57:GLU:O	2.37	0.42
11:AK:58:PRO:HD3	11:AK:89:ALA:O	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:BF:117:ARG:HA	30:BF:120:GLU:OE1	2.19	0.42
1:AA:557:G:C6	1:AA:558:G:C6	3.07	0.42
30:DF:157:VAL:C	30:DF:158:THR:HG22	2.40	0.42
1:AA:369:C:O2	1:AA:370:C:C6	2.73	0.42
16:AP:66:PRO:C	16:AP:67:THR:O	2.57	0.42
34:DN:15:LEU:CD1	34:DN:16:ILE:N	2.70	0.42
27:DC:132:LEU:HA	27:DC:132:LEU:HD23	1.74	0.42
33:BI:113:ARG:HD3	33:BI:131:LYS:HA	2.02	0.42
33:BI:131:LYS:HA	33:BI:132:PRO:HD3	1.74	0.42
1:CA:79:G:H1'	1:CA:80:G:O5'	2.19	0.42
3:CC:143:GLU:C	3:CC:145:GLY:N	2.73	0.42
1:CA:233:C:C2	1:CA:234:C:C5	3.08	0.42
2:AB:9:GLU:CA	2:AB:9:GLU:OE2	2.67	0.42
20:AT:33:ILE:HD13	20:AT:62:LEU:HB3	2.01	0.42
32:DH:70:THR:C	32:DH:72:ILE:N	2.72	0.42
5:AE:48:ALA:C	5:AE:50:GLU:H	2.22	0.42
1:AA:321:A:C2	1:AA:333:G:C2	3.08	0.42
37:DQ:43:THR:HG23	37:DQ:46:GLN:HG3	2.01	0.42
5:AE:126:ARG:HG3	5:AE:126:ARG:HH11	1.84	0.42
25:DA:817:C:N3	25:DA:1191:G:C6	2.87	0.42
22:AV:104:PHE:CE1	22:AV:124:PRO:HB3	2.54	0.42
22:AV:25:TYR:CD2	22:AV:25:TYR:C	2.92	0.42
29:DE:81:ILE:CG2	29:DE:81:ILE:O	2.66	0.42
29:DE:95:ILE:HG22	29:DE:96:PHE:N	2.34	0.42
38:BR:44:LEU:HD13	38:BR:48:VAL:HG21	2.01	0.42
25:BA:815:C:H2'	25:BA:816:C:H6	1.84	0.42
17:CQ:22:LEU:HD13	17:CQ:41:LYS:CG	2.44	0.42
25:DA:2291:U:C4	25:DA:2292:C:N4	2.88	0.42
34:BN:34:LEU:HD11	34:BN:120:LEU:HB2	2.01	0.42
1:CA:1248:A:N3	9:CI:70:LYS:HE3	2.35	0.42
29:BE:111:ARG:NE	29:BE:160:TYR:CE1	2.88	0.42
1:AA:109:A:H8	1:AA:326:G:H2'	1.85	0.42
40:BT:49:VAL:O	40:BT:49:VAL:HG13	2.20	0.42
1:AA:998:G:H8	1:AA:998:G:H5'	1.85	0.42
1:CA:167:G:HO2'	1:CA:168:G:H5'	1.83	0.42
1:AA:965:A:C2	1:AA:969:A:C2	3.08	0.42
24:CX:3:A:H2'	24:CX:4:U:H6	1.84	0.42
25:BA:2353:G:H5''	47:B0:31:ARG:NH1	2.34	0.42
26:DB:45:A:H2'	26:DB:45:A:N3	2.35	0.42
48:B1:75:GLU:CD	48:B1:78:LYS:NZ	2.73	0.42
25:DA:1130:U:O2	25:DA:2025:C:H5''	2.20	0.42
28:DD:142:VAL:HG23	28:DD:193:VAL:N	2.33	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BN:62:VAL:HG13	34:BN:62:VAL:O	2.20	0.42
35:BO:40:VAL:HG12	35:BO:41:ALA:N	2.33	0.42
25:DA:1906:G:C2	25:DA:1925:C:O2	2.73	0.42
25:BA:1416:G:C2'	25:BA:1417:C:H6	2.32	0.42
25:DA:1710:C:N3	25:DA:1749:A:C2	2.86	0.42
33:BI:60:GLU:CG	33:BI:61:ARG:N	2.83	0.42
2:AB:106:LYS:O	2:AB:109:SER:HB2	2.19	0.42
2:AB:95:GLN:CG	2:AB:148:TYR:HD1	2.32	0.42
1:CA:578:C:O2'	1:CA:728:A:H1'	2.20	0.42
1:CA:715:A:H2'	1:CA:716:A:C8	2.54	0.42
25:BA:31:C:H4'	25:BA:1238:G:H4'	2.01	0.42
18:AR:63:GLN:OE1	18:AR:63:GLN:CA	2.68	0.42
25:BA:1858:G:H2'	25:BA:1883:G:H22	1.85	0.42
52:B5:2:ALA:O	52:B5:3:LYS:CE	2.68	0.42
47:B0:49:ASN:HB3	47:B0:62:VAL:HG22	2.02	0.42
25:BA:882:G:H2'	25:BA:883:G:H8	1.84	0.42
38:DR:18:LEU:HD11	38:DR:22:ARG:CZ	2.50	0.42
1:CA:1090:U:O2'	1:CA:1091:U:H5'	2.20	0.42
4:AD:120:LEU:HB3	4:AD:126:ILE:HD11	2.01	0.42
4:AD:127:THR:HG22	4:AD:132:ARG:CA	2.49	0.42
1:AA:1233:G:C6	1:AA:1234:C:N4	2.87	0.42
25:DA:2426:A:H3'	25:DA:2427:C:C5'	2.48	0.42
25:DA:2427:C:OP1	25:DA:2429:G:OP1	2.37	0.42
1:CA:22:G:O2'	1:CA:23:C:H5'	2.19	0.42
1:CA:769:G:O2'	1:CA:770:C:H5'	2.20	0.42
1:AA:618:C:H5'	1:AA:619:U:H5''	2.02	0.42
15:CO:3:ILE:N	15:CO:3:ILE:HD13	2.34	0.42
1:CA:1440:C:O2'	1:CA:1441:G:H5'	2.20	0.42
25:DA:702:G:H2'	25:DA:703:U:C6	2.54	0.42
11:CK:61:ALA:HB3	11:CK:90:GLY:HA3	2.02	0.42
1:CA:563:A:C8	1:CA:567:G:H1'	2.55	0.42
25:BA:1209:G:O2'	25:BA:1237:A:N1	2.41	0.42
25:BA:129:C:H2'	25:BA:130:C:H6	1.84	0.42
25:DA:2238:G:N3	25:DA:2238:G:H2'	2.34	0.42
4:CD:61:LYS:O	4:CD:61:LYS:HG2	2.19	0.42
52:D5:55:ARG:HA	52:D5:55:ARG:HD2	1.65	0.42
24:AX:3:A:H2'	24:AX:4:U:H6	1.85	0.42
39:DS:59:LYS:HB3	39:DS:60:GLY:H	1.57	0.42
52:D5:37:LYS:CG	52:D5:38:ALA:N	2.79	0.42
25:BA:196:A:H2'	25:BA:196:A:N3	2.34	0.42
3:AC:14:ILE:H	14:AN:57:ARG:NH2	2.18	0.42
7:AG:12:LEU:HD21	7:AG:28:ASN:HD21	1.83	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1179:A:H5''	9:AI:102:LEU:HD12	2.01	0.42
32:BH:15:VAL:HB	32:BH:27:LYS:O	2.20	0.42
46:DZ:157:PRO:HD2	46:DZ:160:VAL:HG11	2.01	0.42
46:DZ:158:PRO:C	46:DZ:160:VAL:H	2.23	0.42
46:DZ:52:ILE:HG22	46:DZ:70:VAL:O	2.18	0.42
46:DZ:55:VAL:CG1	46:DZ:56:ILE:H	2.31	0.42
50:D3:6:VAL:HB	50:D3:54:VAL:HG12	2.01	0.42
42:DV:81:TYR:C	42:DV:82:ARG:CG	2.88	0.42
19:CS:46:GLY:N	19:CS:62:ILE:HG23	2.35	0.42
28:BD:52:ARG:O	28:BD:53:PHE:CB	2.68	0.42
27:BC:214:TYR:N	27:BC:214:TYR:CD1	2.87	0.42
1:CA:1148:U:O2'	1:CA:1149:C:H5'	2.19	0.42
9:CI:6:GLY:CA	9:CI:84:ALA:HB2	2.49	0.42
9:CI:52:ALA:CB	9:CI:95:LYS:HE2	2.50	0.42
21:CU:21:TYR:O	21:CU:22:ARG:HB2	2.19	0.42
19:AS:6:LYS:O	19:AS:7:LYS:HE3	2.19	0.42
38:DR:10:LEU:CB	38:DR:17:ARG:HD2	2.49	0.42
1:AA:197:A:H1'	1:AA:198:G:O4'	2.20	0.42
3:AC:103:VAL:O	3:AC:105:GLU:N	2.52	0.42
1:AA:18:C:O2'	1:AA:19:C:H5'	2.20	0.42
35:DO:4:PRO:HA	35:DO:21:CYS:O	2.20	0.42
25:BA:274:G:N2	25:BA:275:G:OP2	2.52	0.42
13:AM:2:ALA:CB	13:AM:9:ILE:HG23	2.44	0.42
32:DH:27:LYS:HE3	32:DH:32:GLU:HB2	2.02	0.42
2:AB:187:LEU:HD12	2:AB:205:ASP:CB	2.42	0.42
2:AB:43:ASP:O	2:AB:44:LEU:C	2.57	0.42
16:CP:68:ASP:C	16:CP:70:ALA:H	2.23	0.42
29:BE:52:LEU:CD2	29:BE:76:ARG:HD2	2.46	0.42
13:CM:12:ASN:HA	13:CM:45:VAL:CG2	2.49	0.42
13:AM:15:VAL:O	13:AM:19:LEU:HD22	2.20	0.42
35:BO:12:ASP:HA	35:BO:98:VAL:HA	2.02	0.42
35:BO:2:ILE:HG22	35:BO:3:GLN:H	1.84	0.42
1:AA:1158:C:O2'	1:AA:1159:U:H4'	2.19	0.42
1:AA:710:G:H2'	1:AA:711:G:H8	1.85	0.42
22:CV:8:ARG:O	22:CV:10:GLY:N	2.53	0.42
22:CV:8:ARG:HA	22:CV:9:PRO:HD3	1.90	0.42
3:CC:11:ARG:O	3:CC:13:GLY:N	2.44	0.42
32:BH:71:LEU:CA	32:BH:74:ASN:HD22	2.32	0.42
25:DA:2838:G:C2	25:DA:2881:C:C2	3.08	0.42
25:DA:2791:C:C1'	25:DA:2792:G:N7	2.80	0.42
25:DA:827:U:OP2	25:DA:828:U:C5	2.73	0.42
25:DA:271(G):C:O2'	25:DA:271(H):G:H5'	2.20	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:BC:80:LYS:HA	31:BG:50:ALA:CB	2.50	0.42
47:D0:70:GLN:HE21	47:D0:70:GLN:HB3	1.62	0.42
19:CS:44:MET:HG3	19:CS:47:HIS:HB2	2.01	0.42
15:AO:70:LEU:HD23	15:AO:81:LEU:HD23	2.02	0.42
26:DB:51:G:N2	26:DB:52:A:C2	2.88	0.42
34:DN:16:ILE:HG22	34:DN:54:VAL:HA	2.01	0.42
1:CA:1123:A:H4'	10:CJ:36:GLY:CA	2.49	0.42
10:CJ:74:ILE:HG12	10:CJ:74:ILE:H	1.71	0.42
25:BA:2230:G:H1'	48:B1:45:ASN:CG	2.40	0.42
25:BA:2724:C:OP1	29:BE:118:LYS:NZ	2.49	0.42
29:BE:116:VAL:HG13	29:BE:116:VAL:O	2.20	0.42
22:AV:132:VAL:HG22	22:AV:134:ASP:H	1.84	0.42
40:BT:57:PHE:CG	40:BT:58:ASN:N	2.87	0.42
20:CT:98:PRO:C	20:CT:100:ILE:N	2.73	0.42
1:CA:266:G:H5''	1:CA:268:C:N4	2.18	0.42
1:CA:615:C:H2'	1:CA:616:G:O4'	2.20	0.42
1:CA:1310:G:OP1	13:CM:77:ASN:OD1	2.38	0.42
1:CA:968:A:C4'	1:CA:969:A:OP2	2.68	0.42
1:AA:940:C:O2'	1:AA:941:G:H5'	2.19	0.42
12:CL:114:ARG:CZ	12:CL:114:ARG:HB2	2.49	0.42
1:AA:1256:A:C8	3:AC:27:LYS:HE3	2.55	0.42
6:CF:62:TRP:O	6:CF:62:TRP:HE3	2.03	0.42
1:CA:278:G:O4'	1:CA:282:A:H1'	2.20	0.42
25:BA:2167:U:O2	25:BA:2167:U:H2'	2.20	0.42
25:DA:2341:G:H2'	25:DA:2342:C:O4'	2.19	0.42
29:DE:137:HIS:HB3	29:DE:138:PRO:HD2	2.02	0.42
25:BA:2619:C:O2'	25:BA:2620:C:H5'	2.19	0.42
25:BA:530:G:C5	25:BA:2022:U:H5''	2.55	0.42
32:BH:20:ALA:HB1	32:BH:21:PRO:HD2	1.98	0.42
37:BQ:42:ILE:HA	37:BQ:46:GLN:OE1	2.19	0.42
2:CB:223:ILE:CA	2:CB:226:ARG:HB2	2.45	0.42
1:AA:59:A:H5'	1:AA:60:A:H5'	1.99	0.42
32:BH:91:GLY:HA3	32:BH:94:TYR:CG	2.55	0.42
48:D1:35:THR:HG23	48:D1:36:GLY:H	1.85	0.42
29:BE:186:GLY:O	29:BE:188:VAL:N	2.48	0.42
25:BA:346:A:H2'	25:BA:347:A:H5'	2.02	0.42
41:BU:52:ARG:O	41:BU:55:ARG:HG3	2.20	0.42
1:CA:604:G:C2	1:CA:635:G:C5	3.07	0.42
1:AA:306:G:H2'	1:AA:307:C:H5'	2.02	0.42
25:BA:1140:C:O3'	34:BN:25:ARG:NH1	2.53	0.42
1:AA:1375:A:H2'	1:AA:1376:U:O4'	2.19	0.42
1:AA:932:C:H4'	7:AG:4:ARG:NH2	2.35	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:2684:U:OP1	40:DT:53:ARG:HD3	2.19	0.42
49:D2:38:GLN:C	49:D2:44:LEU:HB3	2.40	0.42
1:AA:1282:C:H2'	1:AA:1283:G:H8	1.82	0.42
1:AA:439:A:C8	1:AA:496:A:N1	2.87	0.42
1:CA:920:U:H1'	1:CA:1080:A:C2	2.54	0.42
30:BF:11:VAL:CG1	30:BF:12:LEU:H	2.30	0.42
25:DA:1234:U:C2'	25:DA:1235:G:H5'	2.50	0.42
25:DA:1968:G:H5'	25:DA:1969:A:P	2.59	0.42
43:DW:34:ASN:C	43:DW:36:LEU:N	2.72	0.42
1:AA:8:A:C5	4:AD:208:SER:HB2	2.54	0.42
25:DA:2543:G:O2'	25:DA:2544:G:H5'	2.20	0.42
37:DQ:59:ARG:O	37:DQ:60:ARG:CB	2.68	0.42
25:BA:1003:G:C2	25:BA:1153:C:C2	3.08	0.42
25:BA:2108:C:O2	25:BA:2108:C:C2'	2.68	0.42
25:DA:1508:A:H4'	25:DA:1509(A):A:C4	2.54	0.42
44:BX:5:TYR:CZ	49:B2:30:ARG:HB2	2.54	0.42
25:BA:2853:C:H2'	25:BA:2854:G:C8	2.54	0.42
25:BA:2732:G:H3'	25:BA:2733:A:O4'	2.19	0.42
1:CA:886:G:H2'	1:CA:887:G:O4'	2.20	0.42
29:BE:199:ARG:HB2	29:BE:199:ARG:HH11	1.83	0.42
22:CV:28:GLN:OE1	22:CV:38:VAL:HG21	2.20	0.42
33:DI:29:TYR:O	33:DI:32:PRO:HD2	2.19	0.42
25:BA:2295:C:N3	25:BA:2296:U:C5	2.88	0.42
1:CA:1385:G:O2'	1:CA:1386:G:H5'	2.20	0.42
11:CK:17:GLY:CA	11:CK:80:VAL:HG12	2.50	0.42
22:AV:9:PRO:HA	22:AV:22:CYS:O	2.20	0.42
23:CW:49:G:O6	23:CW:65:C:N4	2.53	0.42
25:DA:985:C:O2'	25:DA:986:C:H5'	2.20	0.42
25:DA:1181:C:H2'	25:DA:1182:A:C8	2.55	0.42
31:DG:91:ARG:C	31:DG:91:ARG:HD2	2.40	0.42
25:BA:2504:U:O5'	25:BA:2504:U:H6	2.03	0.42
27:DC:107:GLY:O	27:DC:108:TRP:C	2.58	0.42
26:BB:48:A:H2'	26:BB:49:C:C6	2.54	0.42
39:BS:56:LEU:O	39:BS:57:LYS:HB3	2.20	0.42
3:AC:180:ALA:O	3:AC:181:ASN:HB3	2.20	0.42
7:AG:24:THR:O	7:AG:27:ILE:N	2.52	0.42
10:AJ:51:ARG:HG3	10:AJ:59:SER:C	2.41	0.42
25:BA:157:U:N3	25:BA:158:U:C4	2.88	0.42
46:DZ:157:PRO:HB2	46:DZ:158:PRO:CD	2.50	0.42
2:CB:54:THR:HG21	2:CB:201:ILE:HD11	2.01	0.42
25:DA:1141:U:H5''	25:DA:1142(A):A:O4'	2.19	0.42
25:DA:975(A):G:O2'	25:DA:976:C:H5'	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:533:G:H5'	41:DU:24:TYR:CD2	2.55	0.42
41:DU:92:ARG:C	41:DU:92:ARG:HD3	2.41	0.42
42:DV:35:LEU:HD22	42:DV:35:LEU:N	2.35	0.42
25:DA:973:A:H1'	25:DA:974:G:OP1	2.20	0.42
26:DB:97:G:C6	26:DB:98:G:N7	2.87	0.42
44:DX:18:TYR:HA	44:DX:21:PHE:CD1	2.55	0.42
25:DA:2646:C:H2'	25:DA:2647:U:O4'	2.20	0.42
1:CA:1335:C:H4'	1:CA:1336:C:C5	2.55	0.42
1:CA:948:C:C6	13:CM:106:ASN:ND2	2.81	0.42
25:BA:2810:A:O2'	29:BE:61:ARG:CZ	2.68	0.42
9:CI:126:SER:C	9:CI:128:ARG:N	2.73	0.42
45:DY:20:TYR:CE1	45:DY:42:VAL:HG22	2.55	0.42
25:DA:2633:G:H1'	29:DE:62:PRO:HG3	2.01	0.42
25:BA:2370:G:H21	53:B6:45:LYS:NZ	2.17	0.42
3:AC:63:ASN:HA	3:AC:98:ASN:CG	2.40	0.42
3:AC:95:THR:C	3:AC:97:LYS:H	2.24	0.42
25:BA:1386:C:H2'	25:BA:1387:C:C6	2.55	0.42
10:AJ:21:GLN:O	10:AJ:24:VAL:HB	2.20	0.42
25:DA:1116:C:H2'	25:DA:1117:G:C8	2.52	0.42
25:DA:2415:G:H2'	25:DA:2416:C:C6	2.54	0.42
25:DA:853:G:H2'	25:DA:854:G:H8	1.85	0.42
32:DH:83:TYR:CA	32:DH:135:GLY:N	2.74	0.42
32:DH:144:VAL:O	32:DH:148:ILE:HG12	2.19	0.42
53:B6:15:GLU:OE1	53:B6:18:ARG:CG	2.67	0.42
1:CA:453:A:H5'	1:CA:453:A:C8	2.53	0.42
29:BE:77:ILE:CG2	29:BE:78:LEU:H	2.07	0.42
29:BE:79:ARG:N	29:BE:79:ARG:HD2	2.31	0.42
13:CM:16:ASP:O	13:CM:19:LEU:HB2	2.19	0.42
2:AB:111:ARG:NH2	2:AB:114:ARG:HG2	2.35	0.42
2:AB:115:LEU:C	2:AB:117:GLU:H	2.23	0.42
3:CC:112:SER:O	3:CC:115:LEU:HB2	2.19	0.42
3:CC:121:ALA:O	3:CC:125:GLU:OE1	2.38	0.42
1:AA:1121:U:H3	1:AA:1152:A:N6	2.17	0.42
1:AA:1152:A:O2'	1:AA:1153:C:P	2.78	0.42
14:CN:39:LEU:CD1	14:CN:47:LEU:HD12	2.50	0.42
25:DA:2847:U:OP1	40:DT:98:LYS:HD3	2.19	0.42
25:DA:902:C:O2'	25:DA:903:C:H5'	2.20	0.42
25:DA:2882:A:H5'	38:DR:96:ARG:HG3	2.01	0.42
25:DA:271(K):U:H2'	33:DI:50:ARG:HH22	1.83	0.42
25:BA:2444:G:OP1	30:BF:67:GLN:NE2	2.53	0.42
25:BA:1779:U:C2	25:BA:1783:A:N7	2.87	0.42
27:DC:15:VAL:HG23	27:DC:29:LEU:HD11	2.02	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:971:G:OP1	1:AA:972:C:H5''	2.20	0.42
11:AK:50:TYR:CD1	11:AK:50:TYR:N	2.88	0.42
40:DT:10:VAL:O	40:DT:12:SER:N	2.53	0.42
19:CS:45:VAL:C	19:CS:47:HIS:N	2.72	0.42
36:DP:101:VAL:CG2	36:DP:102:ARG:N	2.83	0.42
25:DA:857:C:C5'	47:D0:77:ARG:HH22	2.33	0.42
1:CA:1120:G:H2'	1:CA:1121:U:C6	2.55	0.42
1:AA:1338:G:C2'	1:AA:1339:A:H5'	2.48	0.42
22:AV:165:VAL:HG23	22:AV:165:VAL:O	2.20	0.42
1:CA:735:C:OP1	18:CR:68:LYS:HG3	2.20	0.42
6:CF:52:ILE:O	6:CF:53:ALA:CB	2.64	0.42
18:CR:50:ILE:O	18:CR:51:LEU:O	2.37	0.42
25:DA:1826:G:H2'	25:DA:1827:C:H6	1.85	0.42
25:DA:2481:G:O2'	25:DA:2482:G:O5'	2.38	0.42
1:AA:848:C:C6	1:AA:848:C:O5'	2.73	0.42
10:CJ:81:THR:C	10:CJ:83:GLU:H	2.22	0.42
28:DD:30:GLU:OE1	28:DD:63:ARG:NE	2.53	0.42
8:AH:86:ILE:CG2	8:AH:133:LEU:HD22	2.49	0.42
32:DH:76:VAL:C	32:DH:78:GLY:H	2.21	0.42
5:AE:52:PRO:O	5:AE:53:LEU:C	2.58	0.42
11:CK:122:LYS:C	11:CK:126:ARG:HG3	2.40	0.42
1:AA:68:G:N2	1:AA:69:G:H1'	2.35	0.42
55:D8:29:LYS:HD3	55:D8:44:LYS:HB2	2.01	0.42
20:CT:46:GLU:CG	20:CT:46:GLU:O	2.67	0.42
25:BA:9:U:O4	25:BA:2629:A:N7	2.52	0.42
26:DB:87:G:H2'	26:DB:88:C:H5''	2.01	0.42
23:CW:25:C:H2'	23:CW:26:G:O4'	2.19	0.42
52:D5:25:LEU:H	52:D5:25:LEU:CD1	2.15	0.42
25:DA:2712:U:O2'	25:DA:2712(A):A:H3'	2.20	0.42
25:DA:841:A:O2'	25:DA:842:G:H5'	2.20	0.42
9:AI:4:TYR:CE2	9:AI:59:PHE:HE2	2.37	0.42
8:AH:54:ASP:C	8:AH:56:LYS:N	2.73	0.42
38:BR:86:ARG:NH1	38:BR:118:GLU:HG2	2.35	0.42
25:DA:2808:U:C2'	25:DA:2809:A:C5'	2.90	0.42
34:BN:31:ALA:HA	34:BN:34:LEU:HB2	2.02	0.42
1:AA:300:A:N3	1:AA:565:U:N3	2.63	0.42
25:BA:729:G:OP2	28:BD:13:ARG:NH1	2.53	0.42
6:AF:39:LYS:HG3	6:AF:40:VAL:N	2.35	0.42
5:CE:37:ARG:HA	5:CE:114:GLY:CA	2.49	0.42
1:AA:950:U:C5	13:AM:102:ARG:NH1	2.88	0.42
25:DA:1208:C:C4	25:DA:1209:G:N7	2.88	0.42
29:BE:24:THR:HG22	29:BE:186:GLY:CA	2.49	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:973:A:C8	25:BA:1188:U:C2	3.08	0.42
46:BZ:60:LEU:N	46:BZ:60:LEU:CD2	2.79	0.42
13:AM:108:ARG:HH11	13:AM:108:ARG:CA	2.30	0.42
34:BN:70:LYS:HB3	34:BN:87:LEU:HB2	2.01	0.42
44:DX:40:LYS:HG2	44:DX:41:ASN:HD22	1.84	0.42
34:BN:18:ALA:O	34:BN:20:GLY:N	2.53	0.42
35:BO:88:ASN:OD1	35:BO:92:GLU:O	2.38	0.42
41:DU:18:LEU:C	41:DU:20:LEU:N	2.72	0.42
7:AG:41:ARG:HG2	7:AG:41:ARG:NH1	2.34	0.42
8:CH:119:LEU:HD13	8:CH:123:GLU:CB	2.50	0.42
25:DA:2287:A:N3	25:DA:2289:G:C8	2.88	0.42
25:BA:2455:G:H2'	25:BA:2456:C:C6	2.54	0.42
25:BA:1530:C:H3'	25:BA:1530:C:C6	2.54	0.42
7:AG:63:LYS:HZ1	7:AG:67:GLU:HB2	1.84	0.42
43:BW:62:HIS:O	43:BW:63:ASP:O	2.38	0.42
8:CH:56:LYS:HA	8:CH:57:PRO:HD3	1.88	0.42
25:BA:302:C:O2'	25:BA:303:U:H5'	2.20	0.42
5:CE:32:VAL:CG1	5:CE:33:VAL:N	2.83	0.42
20:AT:22:ARG:HH11	20:AT:22:ARG:HG3	1.84	0.42
25:DA:2740:A:C6	25:DA:2764:A:C8	3.07	0.42
28:DD:133:LEU:HD21	28:DD:191:ALA:HB2	2.01	0.42
8:CH:30:ARG:HB2	8:CH:30:ARG:NH1	2.35	0.42
17:CQ:59:ILE:HG22	17:CQ:71:PHE:HD1	1.85	0.42
8:AH:22:GLU:OE1	8:AH:62:TYR:CE1	2.70	0.42
25:DA:469:G:H2'	25:DA:470:A:H5''	2.01	0.42
48:B1:65:SER:O	48:B1:68:PRO:HD2	2.20	0.42
22:CV:97:ARG:HG2	22:CV:97:ARG:NH1	2.34	0.42
3:AC:79:ARG:O	3:AC:82:GLU:OE2	2.37	0.42
45:BY:75:ILE:HG13	45:BY:79:CYS:O	2.20	0.42
25:DA:776:G:H4'	25:DA:777:A:O5'	2.20	0.42
31:DG:167:GLU:C	31:DG:169:ALA:H	2.24	0.42
34:DN:93:THR:O	34:DN:94:HIS:HB2	2.19	0.42
1:AA:1479:C:H2'	1:AA:1480:G:C8	2.55	0.42
8:AH:120:THR:HG23	8:AH:123:GLU:OE2	2.20	0.42
1:CA:1088:G:N1	1:CA:1089:G:C5	2.88	0.42
25:BA:1625:C:H2'	25:BA:1626:G:H5'	2.01	0.42
37:BQ:75:THR:HA	37:BQ:89:ASN:O	2.19	0.42
1:AA:926:G:N2	24:AX:2:A:H3'	2.35	0.42
1:CA:172:A:OP2	1:CA:172:A:H8	2.03	0.42
36:DP:108:LYS:C	36:DP:110:TYR:N	2.72	0.42
25:DA:2078:C:H2'	25:DA:2079:U:C6	2.55	0.42
36:BP:13:ASN:HD22	36:BP:13:ASN:N	2.18	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:CR:29:PHE:CD1	18:CR:29:PHE:C	2.93	0.42
25:BA:129:C:O2'	25:BA:130:C:H5'	2.19	0.42
25:BA:1276:A:C2	25:BA:1277:G:C8	3.08	0.42
12:AL:33:VAL:HG12	12:AL:34:CYS:N	2.35	0.42
25:BA:77:C:H5''	49:B2:10:LEU:HD11	2.00	0.42
2:AB:175:ARG:HB3	2:AB:175:ARG:HE	1.71	0.42
25:BA:2840:C:O5'	25:BA:2840:C:H6	2.03	0.42
40:BT:36:GLU:HG2	40:BT:36:GLU:O	2.19	0.42
25:DA:1632:A:H8	25:DA:1632:A:O5'	2.02	0.42
4:CD:109:GLY:C	4:CD:111:ALA:N	2.73	0.42
25:BA:250:G:OP2	55:B8:13:ARG:NH2	2.53	0.42
25:BA:252:G:H2'	25:BA:253:C:C6	2.52	0.42
26:BB:37:C:C2'	26:BB:38:C:H5'	2.50	0.42
40:BT:6:LEU:HD23	40:BT:9:LEU:HD12	2.02	0.42
1:AA:1370:G:C2	1:AA:1371:G:N7	2.88	0.42
3:AC:6:HIS:NE2	3:AC:184:TYR:CG	2.85	0.42
37:DQ:141:GLN:CA	46:DZ:52:ILE:HB	2.50	0.42
25:DA:949:C:O2'	25:DA:950:G:H5'	2.19	0.42
48:D1:94:LEU:HD22	48:D1:94:LEU:O	2.19	0.42
20:AT:43:LEU:N	20:AT:43:LEU:HD23	2.35	0.42
48:D1:67:ILE:O	48:D1:70:VAL:HB	2.20	0.42
41:BU:66:ASN:O	41:BU:68:ALA:N	2.45	0.42
1:CA:1133:G:N2	1:CA:1143:G:C1'	2.65	0.42
13:CM:92:HIS:CG	13:CM:98:VAL:HG21	2.54	0.42
22:CV:171:ILE:CA	22:CV:184:ALA:HB2	2.49	0.42
22:CV:171:ILE:HG13	22:CV:180:TYR:CD1	2.53	0.42
1:AA:1320:C:O2'	19:AS:73:GLU:HG2	2.20	0.42
45:DY:46:LYS:C	45:DY:47:LYS:CG	2.88	0.42
30:BF:198:ALA:C	30:BF:200:GLU:H	2.22	0.42
30:BF:3:GLU:CA	30:BF:24:LEU:HD12	2.50	0.42
35:BO:104:ARG:O	35:BO:108:GLU:HG3	2.20	0.42
30:DF:7:TYR:CE2	30:DF:10:PRO:HG3	2.55	0.42
3:CC:84:ILE:HG12	3:CC:88:ARG:HG3	2.02	0.42
31:BG:43:LEU:C	31:BG:45:GLU:H	2.23	0.42
28:DD:91:ARG:O	28:DD:107:ALA:N	2.47	0.42
2:AB:219:VAL:O	2:AB:220:ASP:C	2.58	0.42
29:BE:79:ARG:HH11	29:BE:79:ARG:HG2	1.85	0.42
13:AM:97:PRO:HB2	13:AM:101:GLN:CD	2.34	0.42
36:BP:62:LEU:CD2	36:BP:62:LEU:H	2.31	0.42
25:DA:1652:A:H2'	25:DA:1653:G:H5'	2.00	0.42
1:AA:786:G:C2	1:AA:797:C:O2	2.73	0.42
1:AA:509:A:C6	1:AA:510:A:N1	2.88	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AD:28:SER:OG	4:AD:29:PRO:CD	2.68	0.42
3:CC:15:THR:CG2	3:CC:16:ARG:H	2.24	0.42
25:BA:2758:A:C4	32:BH:67:LEU:HD21	2.54	0.42
25:DA:1865:G:H5'	25:DA:1866:C:P	2.59	0.42
1:AA:824:C:H4'	8:AH:1:MET:N	2.35	0.42
2:CB:127:ILE:O	2:CB:128:GLU:C	2.58	0.42
36:DP:113:LYS:HB2	36:DP:129:ALA:HB3	2.01	0.42
1:CA:1035:A:C2'	1:CA:1036:G:O4'	2.63	0.42
25:BA:857:C:H1'	47:B0:25:TYR:HE2	1.83	0.42
1:CA:1151:A:H1'	10:CJ:39:PRO:HG2	2.02	0.42
3:AC:120:VAL:O	3:AC:121:ALA:C	2.59	0.42
1:AA:33:A:N3	12:AL:29:PHE:HE2	2.17	0.42
1:CA:77:G:C2'	1:CA:78:G:H5'	2.50	0.42
1:CA:88:A:H5''	1:CA:90:U:O2	2.19	0.42
1:CA:189(I):G:O2'	1:CA:189(J):G:H5'	2.20	0.42
5:CE:39:GLY:O	5:CE:69:VAL:HG23	2.20	0.42
25:DA:2481:G:C2'	25:DA:2482:G:OP2	2.67	0.42
51:B4:46:ASN:ND2	51:B4:46:ASN:C	2.73	0.42
50:B3:44:ARG:HE	50:B3:44:ARG:HB2	1.52	0.42
25:DA:2040:C:H2'	25:DA:2041:U:O4'	2.19	0.42
28:DD:31:LYS:NZ	28:DD:33:LEU:HD13	2.35	0.42
25:BA:2344:U:C4'	25:BA:2345:G:OP1	2.66	0.42
5:AE:48:ALA:HB3	5:AE:54:ALA:CA	2.49	0.42
27:BC:172:ILE:CG2	27:BC:197:LEU:HD21	2.38	0.42
30:BF:113:ALA:O	30:BF:115:ALA:N	2.53	0.42
1:AA:718:G:H21	18:AR:49:LYS:HZ3	1.67	0.42
38:BR:72:ASP:O	38:BR:76:VAL:HG23	2.19	0.42
26:BB:8:U:H3	26:BB:113:G:H1	1.68	0.42
26:DB:13:A:O2'	26:DB:14:U:H3'	2.20	0.42
1:CA:190:U:N3	20:CT:105:SER:HB2	2.35	0.42
1:CA:226:G:C2'	1:CA:227:G:H5'	2.49	0.42
18:CR:59:SER:N	18:CR:62:GLU:OE2	2.53	0.42
1:CA:352:C:H4'	1:CA:354:G:OP1	2.19	0.42
17:AQ:93:GLN:O	17:AQ:94:ASN:C	2.58	0.42
25:BA:834:C:H4'	55:B8:52:LYS:NZ	2.35	0.42
8:AH:53:VAL:O	8:AH:54:ASP:HB2	2.19	0.42
29:DE:1:MET:O	29:DE:2:LYS:C	2.58	0.42
51:B4:38:ALA:HA	51:B4:55:PRO:CB	2.49	0.42
22:AV:24:GLU:CB	22:AV:40:LYS:HB2	2.47	0.42
25:DA:1797:C:C4	25:DA:1798:U:C5	3.08	0.42
31:BG:114:ILE:O	31:BG:114:ILE:HG22	2.20	0.42
4:AD:101:LEU:HG	4:AD:121:VAL:HG13	2.01	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CI:40:LEU:HA	9:CI:40:LEU:HD23	1.92	0.42
6:AF:10:LEU:CD1	6:AF:61:LEU:HD13	2.50	0.42
25:BA:2116:G:H5'	25:BA:2117:A:OP2	2.19	0.42
36:DP:91:PHE:HB2	36:DP:92:GLU:H	1.64	0.42
25:BA:638:G:H2'	25:BA:639:U:C6	2.55	0.42
48:B1:98:LEU:N	48:B1:98:LEU:HD23	2.34	0.42
25:BA:2662:A:C2'	25:BA:2663:G:H5'	2.50	0.42
37:BQ:70:PRO:HA	37:BQ:94:VAL:O	2.20	0.42
25:BA:1473:G:H2'	25:BA:1474:C:H5'	2.02	0.42
25:DA:55:G:H1'	25:DA:127:A:C2	2.55	0.42
25:BA:1659:U:O2'	25:BA:2712(A):A:N1	2.48	0.42
28:DD:176:ARG:CG	28:DD:176:ARG:HH11	2.30	0.42
13:AM:108:ARG:O	13:AM:111:LYS:O	2.37	0.42
50:B3:6:VAL:HA	50:B3:55:ARG:O	2.20	0.42
46:BZ:130:ARG:C	46:BZ:132:ILE:H	2.23	0.42
25:DA:237:C:O2'	25:DA:238:C:H5'	2.19	0.42
34:BN:92:ALA:O	34:BN:93:THR:CB	2.68	0.42
1:AA:782:A:H2'	1:AA:783:C:O4'	2.20	0.42
25:DA:2357:U:P	47:D0:20:ARG:HD3	2.60	0.42
25:DA:1711:C:H2'	25:DA:1712:C:H6	1.83	0.42
25:BA:863:A:H2'	25:BA:864:G:H8	1.83	0.42
10:CJ:22:LYS:HE3	10:CJ:22:LYS:HB3	1.79	0.42
25:DA:2256:G:N2	25:DA:2275:C:N4	2.68	0.42
52:B5:9:LYS:C	52:B5:10:LYS:O	2.54	0.42
40:DT:129:ARG:O	40:DT:129:ARG:CG	2.65	0.42
5:CE:33:VAL:CG2	5:CE:43:LEU:HD12	2.49	0.42
1:AA:656:C:H4'	15:AO:62:GLN:CD	2.40	0.42
15:AO:62:GLN:HA	15:AO:65:ARG:HD3	2.01	0.42
25:DA:1918:A:C2	25:DA:1919:A:N6	2.88	0.42
38:DR:71:GLN:HA	38:DR:71:GLN:HE21	1.84	0.42
41:DU:8:VAL:CG1	41:DU:12:ARG:NE	2.83	0.42
4:AD:132:ARG:HG2	4:AD:132:ARG:NH1	2.32	0.42
25:BA:1152:C:O2'	25:BA:1153:C:H5'	2.20	0.42
25:DA:1507:A:H2'	25:DA:1508:A:O4'	2.19	0.42
22:CV:153:LEU:C	22:CV:155:THR:N	2.72	0.42
37:DQ:79:LEU:HD23	37:DQ:80:GLU:H	1.85	0.42
9:AI:127:LYS:O	9:AI:128:ARG:C	2.58	0.42
12:AL:2:PRO:O	12:AL:3:THR:O	2.38	0.42
44:BX:20:GLY:O	44:BX:25:LYS:HB2	2.20	0.42
29:BE:134:ILE:HG22	29:BE:137:HIS:ND1	2.35	0.42
25:BA:2580:U:C5'	29:BE:130:GLY:O	2.68	0.42
25:BA:2008:C:O2'	25:BA:2009:G:H5'	2.20	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:B0:35:ILE:HD12	47:B0:35:ILE:O	2.20	0.42
25:BA:455:C:N3	25:BA:473:G:H5'	2.34	0.42
40:BT:101:PHE:O	40:BT:101:PHE:CD2	2.73	0.42
25:BA:1234:U:O2'	25:BA:1235:G:H5'	2.19	0.42
25:DA:135:G:O2'	25:DA:136:G:H5'	2.20	0.42
40:DT:42:ILE:N	40:DT:42:ILE:HD12	2.35	0.42
1:AA:163:C:O2	1:AA:163:C:H2'	2.19	0.42
1:CA:685:G:C2	1:CA:686:U:C4	3.07	0.42
25:DA:1053:C:H3'	25:DA:1053:C:O2	2.20	0.42
50:B3:18:ASP:N	50:B3:18:ASP:OD1	2.53	0.42
12:AL:91:PRO:C	12:AL:93:VAL:H	2.23	0.42
25:DA:599:G:C2	25:DA:600:G:C8	3.08	0.42
27:BC:96:GLY:O	27:BC:100:ILE:HB	2.20	0.42
33:BI:93:THR:HG23	33:BI:119:PRO:HA	2.02	0.41
35:DO:117:LEU:HD23	35:DO:117:LEU:O	2.19	0.41
1:AA:1118:C:OP1	9:AI:104:ARG:HD3	2.19	0.41
3:AC:113:ALA:HB3	3:AC:114:PRO:CD	2.45	0.41
7:AG:24:THR:O	7:AG:25:ALA:C	2.55	0.41
7:AG:12:LEU:CD1	7:AG:25:ALA:HB2	2.49	0.41
25:DA:993:G:C5	25:DA:994:C:C5	3.08	0.41
42:DV:15:GLU:H	42:DV:18:LEU:HD11	1.85	0.41
26:DB:97:G:O2'	26:DB:98:G:H5'	2.19	0.41
37:DQ:97:VAL:HG11	37:DQ:103:MET:HE3	2.02	0.41
46:DZ:15:SER:OG	46:DZ:19:ARG:NH1	2.53	0.41
48:D1:88:LYS:HD3	48:D1:89:GLU:N	2.35	0.41
25:DA:2183:C:H6	25:DA:2183:C:OP2	2.01	0.41
44:DX:26:TYR:HB3	44:DX:92:LEU:CD1	2.50	0.41
19:CS:46:GLY:H	19:CS:62:ILE:HG23	1.85	0.41
48:D1:75:GLU:C	48:D1:77:ALA:H	2.23	0.41
41:BU:91:ASP:OD2	41:BU:96:ALA:CA	2.67	0.41
42:BV:51:VAL:CG1	42:BV:52:VAL:N	2.83	0.41
1:CA:1134:G:N2	1:CA:1141:C:O2	2.50	0.41
45:DY:50:ARG:NH1	45:DY:54:LYS:HB3	2.30	0.41
25:BA:1171:G:N3	25:BA:1171:G:H2'	2.35	0.41
44:BX:37:THR:HG22	44:BX:38:GLU:N	2.35	0.41
30:DF:28:ILE:CG2	30:DF:119:ARG:HH21	2.33	0.41
25:DA:1106:G:H2'	25:DA:1107:G:C5'	2.50	0.41
25:DA:2419:U:O4	55:D8:30:ARG:CZ	2.68	0.41
25:BA:2170:A:C5'	27:BC:135:ARG:HH22	2.33	0.41
25:BA:272(I):U:C4	25:BA:363(A):A:N6	2.88	0.41
1:AA:434:U:C2	1:AA:435:C:C5	3.08	0.41
25:DA:2532:G:H2'	25:DA:2533:A:O4'	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:51:LEU:C	2:AB:53:ARG:H	2.22	0.41
1:AA:1308:U:O2'	1:AA:1309:G:H5'	2.20	0.41
2:AB:121:LEU:HD21	2:AB:127:ILE:HD11	2.01	0.41
36:BP:64:LYS:HB2	55:B8:25:MET:HG3	1.95	0.41
36:BP:62:LEU:HD22	36:BP:62:LEU:O	2.20	0.41
4:AD:33:MET:C	4:AD:35:ARG:H	2.22	0.41
22:CV:8:ARG:HH21	23:CW:4:G:H5'	1.82	0.41
25:DA:9:U:H5''	34:DN:115:ARG:NH2	2.35	0.41
32:BH:71:LEU:C	32:BH:73:ALA:N	2.73	0.41
46:DZ:119:ILE:HB	46:DZ:170:ILE:O	2.20	0.41
25:DA:2648:C:O2'	25:DA:2649:U:H5'	2.20	0.41
27:BC:121:MET:O	27:BC:124:VAL:HB	2.20	0.41
15:CO:15:PHE:HE2	15:CO:84:LYS:HB3	1.84	0.41
47:D0:52:GLY:H	47:D0:62:LEU:HD12	1.84	0.41
39:DS:35:ILE:CG2	39:DS:53:SER:HB2	2.50	0.41
39:DS:35:ILE:HD11	39:DS:99:LYS:HD3	2.02	0.41
1:AA:296:U:H2'	1:AA:297:G:C8	2.55	0.41
26:DB:48:A:H4'	39:DS:95:HIS:CD2	2.52	0.41
25:DA:2334:G:H5'	39:DS:13:ARG:HG3	2.02	0.41
25:BA:2069:G:N2	25:BA:2443:C:C2	2.89	0.41
36:BP:24:GLY:HA2	36:BP:33:ARG:HH12	1.80	0.41
29:BE:144:ARG:HB3	29:BE:145:LYS:H	1.51	0.41
20:CT:92:LEU:HD23	20:CT:96:GLY:HA3	2.02	0.41
25:BA:627:A:O2'	25:BA:628:G:C8	2.71	0.41
23:CW:58:A:H2'	23:CW:60:U:OP2	2.20	0.41
25:DA:2173:A:C2	25:DA:2174:C:O2	2.72	0.41
25:DA:729:G:O4'	28:DD:208:LYS:NZ	2.50	0.41
51:D4:40:ILE:O	51:D4:47:VAL:HA	2.20	0.41
1:AA:544:G:C5	1:AA:545:C:C5	3.07	0.41
9:AI:18:PHE:CD1	9:AI:62:TYR:CD2	2.99	0.41
37:DQ:48:GLU:HG3	37:DQ:48:GLU:O	2.20	0.41
45:DY:87:LYS:O	45:DY:91:GLU:O	2.37	0.41
1:CA:366:C:O2'	1:CA:367:U:P	2.78	0.41
1:CA:389:A:H2'	1:CA:390:C:C5'	2.47	0.41
6:CF:59:TYR:HD2	6:CF:61:LEU:HD11	1.85	0.41
25:BA:2314:C:H2'	25:BA:2315:G:H8	1.84	0.41
39:BS:106:ARG:O	39:BS:106:ARG:CG	2.67	0.41
29:DE:9:VAL:CG1	29:DE:25:VAL:HG12	2.49	0.41
49:B2:35:LEU:O	49:B2:36:ARG:C	2.57	0.41
29:DE:131:ALA:HB1	29:DE:132:HIS:H	1.62	0.41
25:BA:2116:G:H5''	25:BA:2117:A:C8	2.54	0.41
30:BF:161:GLU:HG3	30:BF:164:ARG:HH22	1.85	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:384:G:C6	1:AA:385:C:N4	2.88	0.41
25:BA:2849:U:O2	25:BA:2866:U:H1'	2.20	0.41
30:DF:63:LYS:HD3	30:DF:65:TRP:O	2.20	0.41
25:DA:675:A:H4'	30:DF:67:GLN:OE1	2.19	0.41
17:AQ:14:LYS:NZ	17:AQ:14:LYS:H	2.15	0.41
54:D7:43:THR:OG1	54:D7:44:PRO:HD2	2.20	0.41
1:AA:47:C:O2'	1:AA:48:C:OP2	2.34	0.41
44:DX:24:GLY:O	44:DX:83:VAL:HG22	2.20	0.41
25:DA:1230:C:H2'	25:DA:1231:G:H8	1.82	0.41
38:BR:113:LEU:HD23	38:BR:113:LEU:C	2.38	0.41
1:CA:63:C:O2'	1:CA:380:G:H4'	2.20	0.41
25:DA:323:G:H3'	30:DF:169:ASN:HD21	1.85	0.41
1:CA:428:G:C5	1:CA:430:A:C6	3.08	0.41
25:DA:942:G:C2'	25:DA:943:U:C5'	2.98	0.41
28:BD:119:ALA:HA	28:BD:130:ALA:O	2.20	0.41
3:CC:27:LYS:HB3	3:CC:27:LYS:HZ2	1.82	0.41
1:CA:636:U:H5'	17:CQ:2:PRO:HD3	2.01	0.41
1:AA:1452:C:O2'	1:AA:1456:G:N2	2.53	0.41
1:AA:1456:G:O2'	20:AT:36:LEU:HD11	2.19	0.41
8:CH:77:GLU:HG3	8:CH:78:GLN:H	1.85	0.41
7:AG:105:VAL:O	7:AG:106:GLN:C	2.58	0.41
7:AG:106:GLN:O	7:AG:107:ALA:C	2.59	0.41
46:DZ:144:GLU:N	46:DZ:147:ASP:HB3	2.32	0.41
35:BO:87:ILE:HG21	35:BO:91:LEU:HA	2.00	0.41
34:BN:119:ARG:HH11	34:BN:119:ARG:HG3	1.83	0.41
10:CJ:22:LYS:C	10:CJ:22:LYS:HD2	2.40	0.41
1:AA:1292:U:P	7:AG:41:ARG:NH2	2.93	0.41
49:B2:14:ARG:HG3	49:B2:14:ARG:NH1	2.32	0.41
4:CD:92:VAL:O	4:CD:93:PHE:C	2.57	0.41
26:DB:46:A:H2'	26:DB:47:C:H6	1.85	0.41
25:BA:514:A:O2'	25:BA:515:A:H5'	2.20	0.41
2:CB:150:SER:C	2:CB:152:PHE:H	2.24	0.41
25:DA:2585:U:O4'	25:DA:2585:U:O2	2.37	0.41
37:BQ:35:VAL:HG12	37:BQ:130:LYS:O	2.20	0.41
49:B2:27:GLU:O	49:B2:30:ARG:HG2	2.20	0.41
1:AA:1089:G:C2	1:AA:1090:U:C2	3.08	0.41
25:BA:2732:G:H3'	25:BA:2733:A:C5'	2.50	0.41
1:CA:770:C:O4'	1:CA:900:A:C2	2.73	0.41
43:BW:21:VAL:O	43:BW:24:ILE:HG12	2.19	0.41
4:AD:81:GLU:HA	4:AD:84:LYS:HG2	2.02	0.41
25:DA:2198:A:O5'	33:DI:33:ARG:NH2	2.53	0.41
1:AA:1444:C:H2'	1:AA:1445:C:H5'	2.00	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DW:31:GLU:HA	43:DW:31:GLU:OE2	2.20	0.41
25:DA:795:C:H2'	25:DA:796:C:C6	2.54	0.41
33:BI:2:LYS:HB2	33:BI:39:ALA:HB3	2.02	0.41
25:DA:1977:A:C6	25:DA:1978:A:C4	3.08	0.41
9:CI:32:ASP:O	9:CI:35:GLU:HB3	2.20	0.41
25:BA:373:U:O2	25:BA:423:A:H2	2.03	0.41
4:AD:46:LYS:O	4:AD:47:ARG:C	2.59	0.41
25:BA:1668:A:N3	25:BA:1670:C:C4	2.88	0.41
29:BE:197:ILE:O	29:BE:197:ILE:HG12	2.20	0.41
27:DC:110:ASP:O	27:DC:110:ASP:CG	2.59	0.41
1:AA:607:A:C4	16:AP:31:LYS:HE3	2.55	0.41
56:D9:14:CYS:CA	56:D9:27:CYS:SG	3.09	0.41
39:BS:101:LEU:CD1	39:BS:101:LEU:N	2.77	0.41
3:AC:113:ALA:HB1	3:AC:185:GLY:HA3	2.01	0.41
26:DB:73:A:H2'	26:DB:74:U:H5'	2.02	0.41
37:DQ:134:ARG:NH2	46:DZ:118:GLU:OE1	2.52	0.41
2:CB:221:LEU:N	2:CB:221:LEU:CD2	2.82	0.41
2:CB:236:TYR:C	2:CB:238:LEU:H	2.23	0.41
2:CB:32:ILE:CG2	2:CB:33:TYR:N	2.83	0.41
2:CB:86:GLU:HG3	2:CB:92:TYR:HE2	1.85	0.41
25:DA:1141:U:H6	34:DN:63:THR:OG1	2.03	0.41
25:DA:951:C:H2'	25:DA:952:G:H8	1.85	0.41
44:DX:18:TYR:HA	44:DX:21:PHE:CE1	2.55	0.41
44:DX:47:PHE:CE2	44:DX:91:ALA:HB3	2.50	0.41
19:CS:63:THR:HG23	19:CS:66:MET:H	1.85	0.41
9:CI:89:ASN:C	9:CI:91:ASP:H	2.22	0.41
1:AA:193:C:H2'	1:AA:194:C:C6	2.55	0.41
1:CA:939:G:H2'	1:CA:940:C:H6	1.84	0.41
7:CG:115:ARG:HB2	7:CG:118:VAL:HG22	2.02	0.41
7:CG:71:PRO:HA	7:CG:138:LYS:CG	2.51	0.41
41:BU:58:ARG:NH2	41:BU:93:LYS:NZ	2.67	0.41
41:BU:66:ASN:C	41:BU:68:ALA:N	2.72	0.41
13:CM:92:HIS:HD2	13:CM:110:ARG:NH2	2.18	0.41
31:DG:62:LEU:C	31:DG:64:THR:H	2.23	0.41
30:DF:10:PRO:CD	30:DF:13:SER:HB2	2.50	0.41
1:AA:1131:G:C4	1:AA:1132:C:C5	3.08	0.41
1:AA:1066:C:O2'	1:AA:1067:A:O5'	2.38	0.41
25:DA:2401:U:H5''	25:DA:2402:C:OP2	2.21	0.41
25:DA:157:U:N3	25:DA:158:U:C2	2.89	0.41
25:DA:2832:U:O2'	25:DA:2833:G:OP2	2.28	0.41
32:DH:89:ILE:HD11	32:DH:129:THR:HB	2.01	0.41
31:BG:63:ILE:HB	31:BG:143:GLU:OE1	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CH:83:ILE:O	8:CH:83:ILE:HG23	2.19	0.41
36:BP:78:PRO:HB2	36:BP:111:ARG:HD2	2.01	0.41
36:BP:77:ARG:HB2	36:BP:78:PRO:HD2	2.02	0.41
28:BD:35:LYS:NZ	28:BD:102:LYS:O	2.49	0.41
2:AB:218:ALA:O	2:AB:222:ILE:HG13	2.19	0.41
1:CA:688:G:H2'	1:CA:689:C:H6	1.85	0.41
20:CT:22:ARG:O	20:CT:25:ARG:N	2.53	0.41
8:AH:100:ILE:HA	8:AH:101:PRO:HD3	1.85	0.41
29:BE:52:LEU:HD23	29:BE:75:VAL:HB	2.02	0.41
1:CA:1300:G:O2'	1:CA:1301:U:H6	2.02	0.41
35:BO:62:VAL:CG1	35:BO:65:THR:HG22	2.50	0.41
2:AB:137:ARG:O	2:AB:141:GLU:N	2.46	0.41
4:AD:65:ARG:HG3	4:AD:75:PHE:CD1	2.55	0.41
4:AD:7:PRO:HB2	4:AD:10:ARG:CD	2.35	0.41
32:DH:55:PRO:O	32:DH:56:SER:C	2.59	0.41
40:DT:32:TYR:HD2	40:DT:32:TYR:N	1.92	0.41
3:CC:43:LEU:O	3:CC:45:LYS:N	2.52	0.41
42:BV:91:TYR:HD1	42:BV:92:THR:N	2.18	0.41
42:BV:25:LEU:HD12	42:BV:94:LEU:HD21	2.01	0.41
8:AH:44:PHE:HB3	8:AH:80:ILE:CG1	2.49	0.41
25:DA:2649:U:O2'	25:DA:2650:U:H5'	2.20	0.41
1:CA:976:G:OP2	1:CA:1358:U:O2'	2.38	0.41
27:BC:87:ALA:O	27:BC:90:ALA:HB3	2.19	0.41
1:CA:750:G:N3	15:CO:23:GLY:HA3	2.35	0.41
14:AN:26:ARG:HD2	14:AN:43:CYS:HB3	2.02	0.41
52:B5:46:CYS:C	52:B5:48:GLU:H	2.22	0.41
39:DS:27:SER:HB2	39:DS:88:ASP:OD1	2.20	0.41
30:DF:161:GLU:HA	30:DF:164:ARG:HB2	2.02	0.41
1:AA:355:C:N3	1:AA:356:A:C5	2.88	0.41
1:AA:1193:G:H2'	1:AA:1194:U:H6	1.84	0.41
30:BF:95:ARG:NH2	30:BF:97:TYR:HE1	2.18	0.41
25:BA:2053:G:OP1	29:BE:144:ARG:HD3	2.20	0.41
28:BD:218:ARG:HB3	28:BD:219:PRO:HD2	2.02	0.41
5:CE:103:GLY:H	5:CE:106:PRO:CG	2.33	0.41
25:DA:1826:G:H4'	28:DD:242:ARG:NH1	2.35	0.41
51:B4:62:CYS:SG	51:B4:64:LYS:CG	2.96	0.41
1:AA:666:G:C2	1:AA:741:G:C4	3.08	0.41
27:BC:33:LEU:HD11	27:BC:223:VAL:HG13	2.02	0.41
28:DD:30:GLU:O	28:DD:32:SER:N	2.53	0.41
16:AP:19:ILE:HG12	16:AP:19:ILE:H	1.61	0.41
16:AP:20:VAL:CG2	16:AP:32:TYR:HB2	2.50	0.41
44:BX:71:GLY:O	44:BX:72:LYS:HD2	2.21	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:939:G:C6	1:AA:940:C:N4	2.88	0.41
25:BA:278:A:O5'	25:BA:278:A:C8	2.73	0.41
4:CD:15:GLU:CD	4:CD:59:ARG:HH21	2.23	0.41
25:BA:70:G:H2'	25:BA:113:G:O2'	2.21	0.41
6:CF:41:GLU:HG3	6:CF:62:TRP:CE3	2.56	0.41
1:CA:1258:G:H2'	1:CA:1259:C:H6	1.85	0.41
25:BA:2166:G:C4	25:BA:2167:U:C5	3.09	0.41
25:DA:1335:U:O2'	25:DA:1336:A:H5'	2.20	0.41
7:CG:76:ARG:O	7:CG:77:SER:O	2.38	0.41
4:AD:100:ARG:NH1	4:AD:100:ARG:HG2	2.35	0.41
2:AB:170:GLU:C	2:AB:172:ILE:H	2.23	0.41
25:DA:1529:G:C4	25:DA:1530:C:C4	3.08	0.41
1:AA:91:C:OP2	1:AA:92:C:C4	2.73	0.41
30:BF:161:GLU:HG3	30:BF:164:ARG:NH2	2.34	0.41
17:AQ:19:VAL:HG22	17:AQ:44:ALA:HB3	2.02	0.41
40:BT:25:GLY:N	40:BT:49:VAL:CG1	2.84	0.41
11:CK:77:MET:HG3	11:CK:103:LEU:HD21	2.01	0.41
1:AA:992:U:HO2'	1:AA:993:G:P	2.42	0.41
27:BC:8:TYR:N	27:BC:8:TYR:CD1	2.84	0.41
25:BA:1607:C:H4'	25:BA:1608:A:C5'	2.49	0.41
48:B1:73:LEU:CD1	48:B1:94:LEU:HD22	2.46	0.41
8:CH:48:TYR:CD1	8:CH:48:TYR:C	2.94	0.41
25:BA:2662:A:H2'	25:BA:2663:G:H5'	2.01	0.41
50:B3:52:HIS:CD2	50:B3:52:HIS:N	2.83	0.41
48:D1:35:THR:HG23	48:D1:36:GLY:N	2.35	0.41
25:DA:1678:G:N2	25:DA:1989:G:N2	2.63	0.41
1:CA:386:C:H2'	1:CA:387:U:C5'	2.50	0.41
33:BI:68:LEU:CA	33:BI:71:ILE:CG2	2.95	0.41
22:CV:43:ASN:CB	22:CV:48:ALA:HB3	2.50	0.41
12:AL:75:GLN:O	12:AL:77:HIS:N	2.53	0.41
1:CA:635:G:C6	1:CA:636:U:C4	3.08	0.41
1:AA:1011:G:C6	1:AA:1012:U:C4	3.08	0.41
50:B3:28:LEU:HD23	50:B3:28:LEU:HA	1.89	0.41
23:AW:31:G:C2	23:AW:40:C:C2	3.08	0.41
25:DA:781:A:P	28:DD:218:ARG:HH22	2.43	0.41
25:BA:181:A:H2	25:BA:434:U:O4'	2.03	0.41
34:BN:19:GLU:O	34:BN:59:LYS:O	2.37	0.41
8:CH:16:ALA:HB2	8:CH:24:THR:OG1	2.20	0.41
10:CJ:45:ARG:NH1	14:CN:36:PHE:CD2	2.77	0.41
4:CD:204:ILE:HD13	4:CD:204:ILE:N	2.35	0.41
1:CA:107:G:O2'	1:CA:108:G:H5'	2.19	0.41
40:DT:73:GLU:OE1	40:DT:103:ARG:CZ	2.67	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DP:25:SER:O	36:DP:30:THR:CB	2.67	0.41
11:CK:34:ASP:HB2	11:CK:35:PRO:HD3	2.02	0.41
3:CC:81:GLY:C	3:CC:82:GLU:HG3	2.40	0.41
39:DS:48:LEU:O	39:DS:49:VAL:HG23	2.20	0.41
47:B0:21:GLY:O	47:B0:23:LYS:HG2	2.20	0.41
27:BC:51:ASP:OD1	27:BC:53:ARG:HB2	2.21	0.41
45:BY:79:CYS:O	45:BY:80:GLY:C	2.57	0.41
1:CA:1442(B):A:P	1:CA:1442(B):A:H3'	2.60	0.41
28:DD:248:SER:O	28:DD:251:GLY:N	2.38	0.41
25:BA:962:G:OP1	25:BA:963:U:OP2	2.39	0.41
35:DO:25:LEU:HD11	35:DO:40:VAL:HG23	2.02	0.41
1:CA:26:A:C2'	1:CA:27:G:H5'	2.50	0.41
12:CL:58:THR:O	12:CL:59:SER:HB3	2.21	0.41
15:CO:18:PHE:C	15:CO:18:PHE:CD1	2.94	0.41
25:DA:2278:A:N6	47:D0:14:ARG:O	2.53	0.41
17:AQ:11:VAL:HG12	17:AQ:85:VAL:HG22	2.03	0.41
25:BA:663:G:C5	25:BA:664:C:C4	3.08	0.41
25:DA:1812:A:H2'	25:DA:1813:G:H8	1.85	0.41
25:DA:2593:U:O2'	25:DA:2594:C:H5'	2.20	0.41
28:BD:63:ARG:N	28:BD:63:ARG:HD2	2.35	0.41
4:CD:58:LEU:CD2	4:CD:58:LEU:C	2.88	0.41
29:DE:87:GLU:HG2	29:DE:87:GLU:H	1.71	0.41
20:CT:38:LYS:HE2	20:CT:38:LYS:HB3	1.86	0.41
25:BA:324:A:N6	25:BA:338:G:O2'	2.50	0.41
25:BA:693:C:H2'	25:BA:694:U:C6	2.55	0.41
1:AA:1118:C:H6	1:AA:1118:C:O5'	2.03	0.41
1:AA:1347:G:C6	9:AI:107:ARG:NH2	2.88	0.41
2:CB:15:VAL:HG23	2:CB:16:HIS:NE2	2.35	0.41
2:CB:40:HIS:HB2	2:CB:190:THR:HG21	2.02	0.41
34:DN:62:VAL:CG2	34:DN:66:LYS:HE3	2.40	0.41
46:DZ:16:ALA:O	46:DZ:19:ARG:HB2	2.20	0.41
46:DZ:39:ASP:O	46:DZ:40:LEU:C	2.59	0.41
25:BA:773:U:C5'	28:BD:47:GLY:HA3	2.51	0.41
2:AB:18:GLY:N	2:AB:42:ILE:CG2	2.71	0.41
1:CA:1236:A:H2'	1:CA:1237:C:C6	2.55	0.41
41:BU:66:ASN:O	41:BU:70:ARG:HB2	2.21	0.41
41:BU:68:ALA:O	41:BU:71:GLN:N	2.50	0.41
1:CA:1308:U:OP1	13:CM:97:PRO:HA	2.19	0.41
26:DB:41:U:C6	31:DG:69:ALA:HB1	2.54	0.41
25:DA:79:G:O2'	25:DA:80:G:H5'	2.20	0.41
45:DY:6:HIS:HE1	45:DY:30:VAL:HG11	1.80	0.41
1:AA:138:G:H1	1:AA:225:C:H42	1.67	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AC:42:LEU:N	3:AC:45:LYS:HZ3	2.18	0.41
3:AC:70:VAL:CG1	3:AC:71:ALA:H	2.32	0.41
10:AJ:65:LEU:HD12	14:AN:55:GLY:O	2.20	0.41
46:BZ:28:TYR:CD1	46:BZ:28:TYR:C	2.94	0.41
25:DA:2416:C:H2'	25:DA:2417:C:H6	1.84	0.41
25:DA:1748:G:C5'	25:DA:1748:G:H8	2.34	0.41
2:AB:217:ARG:CD	2:AB:217:ARG:N	2.72	0.41
2:AB:46:LYS:O	2:AB:50:GLU:HG2	2.21	0.41
46:BZ:125:VAL:CG2	46:BZ:160:VAL:HG13	2.31	0.41
1:CA:1296:C:C5	1:CA:1297:C:N4	2.88	0.41
25:BA:2467:C:H4'	37:BQ:123:HIS:CD2	2.56	0.41
1:AA:1160:G:O6	1:AA:1181:G:O6	2.39	0.41
25:BA:2394:C:P	36:BP:63:PRO:HD2	2.57	0.41
11:AK:111:ASP:OD2	18:AR:84:LYS:HE3	2.21	0.41
1:AA:785:G:N2	1:AA:798:G:C4	2.88	0.41
1:AA:1151:A:C6	1:AA:1152:A:N6	2.87	0.41
4:AD:7:PRO:HB2	4:AD:10:ARG:HB2	2.03	0.41
3:CC:182:ILE:HG22	3:CC:183:ASP:N	2.35	0.41
48:B1:86:SER:CB	48:B1:89:GLU:OE2	2.67	0.41
1:AA:1201:A:H4'	1:AA:1203:C:OP2	2.20	0.41
37:BQ:60:ARG:CB	37:BQ:60:ARG:NH1	2.83	0.41
40:DT:13:ARG:HH11	40:DT:13:ARG:HA	1.78	0.41
1:CA:1322:C:H4'	1:CA:1323:G:OP1	2.21	0.41
30:BF:32:LEU:O	30:BF:36:VAL:HG23	2.19	0.41
47:D0:43:THR:C	47:D0:45:PHE:N	2.74	0.41
1:CA:1033:G:C8	1:CA:1034:G:H5''	2.56	0.41
26:DB:48:A:OP1	39:DS:93:LYS:HB3	2.19	0.41
1:AA:1207:G:O2'	1:AA:1208:C:H5'	2.21	0.41
25:DA:2166:G:C5	25:DA:2167:U:C4	3.08	0.41
36:BP:24:GLY:N	36:BP:33:ARG:NH2	2.67	0.41
22:AV:137:PRO:O	22:AV:138:GLY:O	2.38	0.41
1:AA:32:A:H61	1:AA:552:U:H3	1.68	0.41
12:AL:42:PRO:HG3	12:AL:47:SER:C	2.40	0.41
5:CE:78:HIS:ND1	8:CH:104:ARG:HG3	2.35	0.41
25:DA:26:G:OP1	43:DW:80:PRO:HB3	2.21	0.41
25:DA:2173:A:O2'	25:DA:2174:C:O4'	2.38	0.41
25:DA:2470:G:OP1	25:DA:2470:G:H4'	2.20	0.41
1:AA:742:G:C2'	1:AA:743:U:H5'	2.51	0.41
25:DA:574:C:N3	29:DE:145:LYS:CE	2.81	0.41
25:BA:2389:G:H5''	25:BA:2390:U:C5'	2.45	0.41
1:CA:616:G:H1'	1:CA:625:G:N2	2.35	0.41
55:D8:32:LEU:HB2	55:D8:36:LYS:HZ1	1.86	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1105:A:H2'	1:AA:1106:G:C8	2.54	0.41
25:BA:277:C:OP1	25:BA:277:C:O4'	2.38	0.41
36:DP:71:VAL:HG13	36:DP:72:PRO:N	2.35	0.41
25:DA:2472:G:H5'	25:DA:2473:U:H5'	2.01	0.41
8:AH:56:LYS:O	8:AH:58:TYR:HD1	2.03	0.41
22:AV:100:GLY:O	22:AV:104:PHE:CD1	2.73	0.41
37:DQ:52:VAL:O	37:DQ:56:ARG:HG2	2.20	0.41
27:DC:78:ILE:HG22	27:DC:120:VAL:CG1	2.49	0.41
46:BZ:22:LYS:HG2	46:BZ:37:TYR:CE1	2.55	0.41
18:CR:78:LEU:HA	18:CR:78:LEU:HD23	1.86	0.41
1:AA:7:G:N2	5:AE:121:LYS:HG2	2.35	0.41
38:DR:78:LYS:NZ	38:DR:83:ILE:HD11	2.36	0.41
25:BA:2543:G:H2'	25:BA:2544:G:O4'	2.20	0.41
29:BE:21:VAL:HG23	29:BE:23:VAL:CG1	2.50	0.41
44:DX:31:HIS:NE2	44:DX:33:LYS:HB2	2.34	0.41
31:BG:135:LEU:CD1	31:BG:135:LEU:N	2.83	0.41
36:DP:90:ARG:O	36:DP:90:ARG:HG2	2.19	0.41
7:AG:51:GLN:HG2	7:AG:56:GLN:O	2.20	0.41
10:AJ:84:GLN:O	10:AJ:85:LEU:HD23	2.20	0.41
8:CH:60:ARG:HH11	8:CH:60:ARG:HG3	1.84	0.41
1:AA:1086:U:H2'	1:AA:1087:G:H5'	2.03	0.41
1:CA:59:A:H5'	1:CA:60:A:H5''	2.01	0.41
25:DA:1241:A:O2'	25:DA:1242:A:H5'	2.20	0.41
1:CA:710:G:H2'	1:CA:711:G:C8	2.52	0.41
28:BD:20:ASP:OD1	28:BD:20:ASP:C	2.59	0.41
25:DA:1459:G:N9	25:DA:1461:G:H1'	2.34	0.41
34:BN:102:ALA:O	34:BN:106:MET:HE3	2.19	0.41
25:DA:1926:U:O2	25:DA:1928:A:C8	2.73	0.41
49:D2:34:GLU:O	49:D2:37:PHE:HB2	2.20	0.41
1:AA:834:C:OP1	18:AR:60:ALA:HB2	2.19	0.41
25:BA:826:U:OP1	25:BA:2428:G:H3'	2.20	0.41
35:BO:88:ASN:ND2	35:BO:90:GLN:OE1	2.52	0.41
25:DA:597:U:H2'	25:DA:598:G:H8	1.82	0.41
31:BG:165:THR:HG1	31:BG:168:GLU:HG3	1.85	0.41
25:DA:672:C:N3	25:DA:809:G:C2	2.88	0.41
38:DR:37:THR:CG2	38:DR:40:LYS:HE3	2.49	0.41
1:CA:1054:C:OP1	1:CA:1198:G:OP2	2.37	0.41
33:DI:65:ALA:O	33:DI:66:GLU:C	2.59	0.41
1:CA:199:G:H1	1:CA:218:C:N4	2.18	0.41
1:AA:874:G:H2'	1:AA:875:C:C6	2.55	0.41
20:CT:10:LEU:HD23	20:CT:10:LEU:O	2.20	0.41
25:DA:777:A:C2	25:DA:778:G:C4	3.09	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:CO:34:LEU:O	15:CO:34:LEU:HD12	2.20	0.41
8:CH:36:LEU:HA	8:CH:36:LEU:HD23	1.85	0.41
1:CA:426:G:H4'	4:CD:41:GLY:O	2.20	0.41
1:AA:1479:C:H2'	1:AA:1480:G:H8	1.85	0.41
25:DA:1879:C:H2'	25:DA:1880:C:O4'	2.20	0.41
8:AH:34:GLU:O	8:AH:37:ARG:HB3	2.19	0.41
47:B0:38:ARG:HD3	47:B0:57:THR:OG1	2.20	0.41
25:DA:2448:A:HO2'	25:DA:2449:U:H5	1.62	0.41
1:CA:373:A:C2	1:CA:374:A:C8	3.08	0.41
25:BA:2555:U:C2'	25:BA:2556:C:H5'	2.51	0.41
1:CA:1429:C:H2'	1:CA:1430:C:H6	1.85	0.41
15:CO:18:PHE:HB2	15:CO:19:PRO:HD2	2.02	0.41
27:DC:28:ARG:O	27:DC:31:LYS:HB2	2.20	0.41
25:BA:2011:U:C2'	25:BA:2012:G:H5'	2.50	0.41
25:BA:2670:A:C2	25:BA:2671:A:C4	3.07	0.41
20:AT:45:GLN:C	20:AT:47:GLY:N	2.73	0.41
25:DA:1820:U:H3	28:DD:199:ALA:HA	1.86	0.41
38:DR:65:LEU:HA	38:DR:65:LEU:HD12	1.84	0.41
47:B0:83:LEU:N	47:B0:83:LEU:HD12	2.35	0.41
38:BR:13:HIS:H	38:BR:13:HIS:CD2	2.38	0.41
25:BA:1324:G:C2	25:BA:1328:G:N1	2.89	0.41
1:CA:1168:A:H8	1:CA:1168:A:P	2.43	0.41
34:DN:61:ARG:NH1	34:DN:61:ARG:HG3	2.35	0.41
25:BA:2249:U:H4'	25:BA:2275:C:H5	1.85	0.41
1:CA:692:U:H2'	1:CA:694:A:OP2	2.21	0.41
25:BA:1690:A:H2'	25:BA:1691:C:O4'	2.20	0.41
25:DA:773:U:H4'	28:DD:47:GLY:CA	2.50	0.41
25:BA:243:U:OP1	55:B8:6:THR:HG21	2.19	0.41
36:BP:45:LEU:HD23	36:BP:46:LYS:H	1.83	0.41
36:BP:48:PRO:CG	36:BP:49:ARG:N	2.68	0.41
25:BA:832:G:O2'	36:BP:52:GLU:HB3	2.20	0.41
1:AA:1346:A:N1	1:AA:1374:A:H5''	2.36	0.41
3:AC:116:VAL:HA	3:AC:119:ARG:HB2	2.01	0.41
3:AC:178:LEU:N	3:AC:178:LEU:HD22	2.36	0.41
9:AI:113:LYS:H	9:AI:119:ALA:HA	1.84	0.41
9:AI:78:LYS:HE3	9:AI:101:PHE:CE2	2.53	0.41
46:DZ:53:HIS:ND1	46:DZ:100:PRO:HD3	2.35	0.41
2:CB:155:LEU:HD11	2:CB:157:ARG:C	2.41	0.41
2:CB:221:LEU:HD13	2:CB:221:LEU:HA	1.92	0.41
25:DA:953:A:C2	25:DA:954:G:C8	3.08	0.41
25:DA:2110:G:N2	25:DA:2180:U:C5	2.88	0.41
25:DA:2181:G:H8	25:DA:2181:G:OP2	2.03	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:CS:39:THR:HG22	19:CS:40:ILE:O	2.20	0.41
9:CI:89:ASN:C	9:CI:91:ASP:N	2.73	0.41
20:AT:55:ILE:O	20:AT:58:LYS:N	2.54	0.41
1:CA:1375:A:C6	1:CA:1376:U:C4	3.08	0.41
7:CG:12:LEU:HD13	7:CG:25:ALA:HB2	2.02	0.41
7:CG:75:VAL:HG12	7:CG:88:PRO:CA	2.50	0.41
41:BU:57:PHE:O	41:BU:58:ARG:C	2.58	0.41
25:DA:279:C:C4'	25:DA:280:C:H5''	2.27	0.41
40:BT:16:ARG:O	40:BT:17:THR:CB	2.67	0.41
16:AP:55:ARG:HG3	16:AP:55:ARG:HH11	1.85	0.41
36:DP:16:ARG:CZ	36:DP:18:ARG:HG2	2.49	0.41
3:CC:77:ILE:HG23	3:CC:84:ILE:HG21	2.02	0.41
9:AI:16:ARG:HB2	9:AI:64:THR:CG2	2.49	0.41
25:DA:1044:G:C6	25:DA:1112:G:C6	3.08	0.41
25:DA:1108:U:O5'	25:DA:1108:U:H6	2.04	0.41
3:AC:3:ASN:ND2	3:AC:4:LYS:HZ3	2.18	0.41
25:DA:2370:G:H2'	25:DA:2371:G:C8	2.55	0.41
32:DH:137:ASP:O	32:DH:138:LYS:HB2	2.21	0.41
53:B6:41:PRO:O	53:B6:42:TRP:C	2.58	0.41
2:AB:194:PRO:O	2:AB:195:ASP:C	2.58	0.41
4:AD:108:LEU:HD23	4:AD:110:PHE:HE1	1.85	0.41
29:BE:33:VAL:HG22	29:BE:33:VAL:O	2.20	0.41
29:BE:78:LEU:O	29:BE:79:ARG:CD	2.67	0.41
1:AA:797:C:H2'	1:AA:798:G:C8	2.52	0.41
1:AA:1152:A:C5'	10:AJ:13:HIS:HB2	2.30	0.41
1:AA:426:G:C5	1:AA:427:U:C4	3.08	0.41
4:AD:52:SER:OG	4:AD:55:ALA:CB	2.68	0.41
40:DT:79:HIS:O	40:DT:81:PRO:HD3	2.20	0.41
22:CV:4:VAL:C	22:CV:6:ASP:N	2.74	0.41
23:CW:4:G:H2'	23:CW:5:G:H8	1.85	0.41
3:CC:8:ILE:CG2	3:CC:16:ARG:HG2	2.49	0.41
40:DT:99:LEU:HB2	40:DT:101:PHE:CE1	2.56	0.41
25:DA:876:C:H2'	25:DA:877:U:O4'	2.20	0.41
1:AA:460:G:N3	1:AA:460:G:H2'	2.36	0.41
10:CJ:7:LYS:HA	10:CJ:7:LYS:HD3	1.86	0.41
25:BA:2493:U:H6	25:BA:2493:U:O5'	2.02	0.41
25:BA:2290:G:C8	25:BA:2290:G:C5'	2.98	0.41
1:AA:944:G:N1	1:AA:1338:G:OP2	2.52	0.41
6:CF:75:LEU:HD23	6:CF:79:LEU:HG	2.01	0.41
20:CT:87:LYS:O	20:CT:90:GLN:N	2.53	0.41
25:DA:327:G:N2	45:DY:70:SER:OG	2.53	0.41
12:CL:24:LEU:HD23	12:CL:57:LEU:HG	2.01	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BZ:13:LYS:HB3	46:BZ:16:ALA:HB3	2.02	0.41
32:DH:13:LYS:CA	32:DH:13:LYS:HE2	2.50	0.41
25:BA:2702:U:H4'	25:BA:2703:C:OP1	2.20	0.41
4:AD:109:GLY:C	4:AD:111:ALA:H	2.22	0.41
1:CA:1329:A:H62	21:CU:7:ARG:HH22	1.65	0.41
11:CK:123:LYS:HA	11:CK:126:ARG:HG3	2.03	0.41
18:AR:56:THR:HB	18:AR:58:LEU:CD1	2.50	0.41
45:BY:71:LYS:NZ	45:BY:71:LYS:HB2	2.36	0.41
16:AP:21:VAL:O	16:AP:33:ILE:HB	2.20	0.41
25:BA:512:G:O2'	25:BA:513:A:H8	2.03	0.41
25:BA:512:G:C2'	25:BA:513:A:OP2	2.68	0.41
39:DS:102:ALA:O	39:DS:104:GLY:N	2.52	0.41
39:BS:20:ARG:HA	39:BS:20:ARG:HD3	1.65	0.41
26:DB:70:C:HO2'	26:DB:71:C:H5'	1.84	0.41
6:AF:24:GLU:CG	6:AF:25:ILE:H	2.26	0.41
1:CA:1399:C:C2	1:CA:1502:A:N6	2.89	0.41
36:DP:71:VAL:O	36:DP:72:PRO:C	2.59	0.41
25:DA:1498:C:H4'	25:DA:1577:C:H5'	2.01	0.41
1:AA:1075:C:H5'	2:AB:103:THR:HG21	2.02	0.41
25:DA:2473:U:H3	25:DA:2474:C:H6	1.66	0.41
48:B1:26:ARG:CG	48:B1:26:ARG:NH1	2.84	0.41
25:BA:873:G:O2'	25:BA:874:G:H5'	2.20	0.41
1:CA:882:C:H41	12:CL:6:GLN:HE22	1.67	0.41
25:DA:1283:G:N2	25:DA:1286:A:OP2	2.53	0.41
9:AI:22:GLY:N	9:AI:58:HIS:O	2.46	0.41
1:AA:1256:A:H3'	3:AC:27:LYS:HZ3	1.83	0.41
25:DA:2809:A:C2	25:DA:2892:A:N3	2.89	0.41
28:DD:182:LEU:O	28:DD:271:ILE:CG1	2.62	0.41
40:BT:89:VAL:CG1	40:BT:91:ARG:NE	2.77	0.41
31:BG:16:ARG:HH21	31:BG:33:ARG:HG3	1.84	0.41
4:CD:78:LEU:HD21	4:CD:139:ARG:HH12	1.86	0.41
25:DA:89:G:H3'	25:DA:90:U:C5'	2.50	0.41
32:DH:143:GLN:NE2	32:DH:147:ASN:HD21	2.17	0.41
5:CE:35:GLY:HA3	5:CE:112:LEU:HB3	2.02	0.41
1:CA:823:G:H21	8:CH:1:MET:CE	2.34	0.41
1:AA:243:A:H4'	1:AA:244:U:C5'	2.50	0.41
11:AK:43:SER:HA	11:AK:47:VAL:HG21	2.03	0.41
11:AK:44:SER:C	11:AK:46:GLY:H	2.23	0.41
17:AQ:57:VAL:HG21	17:AQ:73:VAL:HG13	2.02	0.41
1:CA:1260:C:H4'	1:CA:1284:C:H5'	2.01	0.41
8:CH:48:TYR:HA	8:CH:60:ARG:O	2.20	0.41
32:BH:94:TYR:HB3	32:BH:107:VAL:HG12	2.03	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1281:U:H3'	1:CA:1282:C:C5	2.55	0.41
55:B8:43:GLN:O	55:B8:44:LYS:HD2	2.20	0.41
25:BA:2364:C:O2'	25:BA:2365:G:H5'	2.20	0.41
25:DA:55:G:C2	25:DA:116:C:C2	3.09	0.41
28:BD:125:ILE:HD13	28:BD:131:LEU:CD2	2.50	0.41
3:AC:126:ARG:CG	3:AC:126:ARG:HH11	2.34	0.41
25:BA:110:G:C2'	25:BA:111:A:H5'	2.49	0.41
25:DA:1907:G:C6	25:DA:1908:C:C4	3.08	0.41
27:BC:57:GLN:HA	27:BC:202:PRO:HB3	2.02	0.41
1:AA:589:C:H2'	1:AA:590:C:H6	1.85	0.41
13:CM:57:ARG:NH1	51:D4:60:GLU:CG	2.80	0.41
54:B7:48:LYS:CD	54:B7:48:LYS:N	2.81	0.41
1:AA:180:U:H2'	1:AA:181:G:C5'	2.49	0.41
25:DA:2205:C:C4	25:DA:2208:A:C6	3.08	0.41
8:CH:12:ARG:HH11	8:CH:26:VAL:HA	1.84	0.41
37:DQ:62:GLY:HA2	46:DZ:115:VAL:CG2	2.50	0.41
1:CA:1206:G:H4'	3:CC:192:THR:O	2.20	0.41
25:BA:1264:G:H2'	25:BA:2014:A:N6	2.35	0.41
25:BA:2553:G:H3'	25:BA:2554:U:C5'	2.50	0.41
2:CB:100:GLY:HA2	2:CB:104:ASN:HB3	2.03	0.41
38:BR:111:LEU:HD13	38:BR:111:LEU:HA	1.84	0.41
4:AD:161:ASN:C	4:AD:163:GLU:H	2.24	0.41
25:BA:459:U:OP1	54:B7:39:ARG:HA	2.21	0.41
25:DA:2456:C:C2'	25:DA:2457:U:H5'	2.50	0.41
41:DU:12:ARG:C	41:DU:14:HIS:N	2.73	0.41
4:AD:120:LEU:CD2	4:AD:125:HIS:HD2	2.33	0.41
38:BR:57:ARG:HB3	38:BR:59:ASP:OD2	2.19	0.41
29:BE:64:LYS:C	29:BE:66:HIS:H	2.23	0.41
1:CA:303:A:H2'	1:CA:304:U:H6	1.85	0.41
25:BA:2748:A:C2	25:BA:2749:A:C4	3.09	0.41
25:BA:52:A:H61	25:BA:118:A:H5''	1.86	0.41
25:BA:2555:U:H2'	25:BA:2556:C:H5'	2.02	0.41
25:BA:1206:G:C6	25:BA:1207:C:C4	3.08	0.41
1:AA:936:C:H2'	1:AA:937:A:H8	1.85	0.41
23:AW:35:A:O2'	23:AW:36:U:H5'	2.20	0.41
25:BA:2511:U:O2	29:BE:139:GLY:HA3	2.20	0.41
48:D1:32:LYS:HB3	48:D1:32:LYS:HE2	1.85	0.41
25:BA:1375:C:H6	25:BA:1375:C:O5'	2.03	0.41
46:BZ:174:VAL:HB	46:BZ:175:PRO:HD2	2.03	0.41
25:BA:198:C:H6	25:BA:198:C:O5'	2.04	0.41
36:BP:41:ARG:HD3	36:BP:45:LEU:HD12	2.00	0.41
39:BS:49:VAL:HG22	39:BS:80:LEU:HD22	2.02	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BI:89:TYR:N	33:BI:89:TYR:HD1	2.17	0.41
29:BE:29:GLY:HA2	29:BE:180:ASN:HB3	2.02	0.41
32:BH:6:ARG:C	32:BH:8:PRO:CD	2.87	0.41
26:DB:73:A:H2'	26:DB:74:U:C5'	2.49	0.41
46:DZ:127:VAL:HA	46:DZ:159:GLY:O	2.21	0.41
2:CB:195:ASP:C	2:CB:197:VAL:H	2.23	0.41
25:DA:1000:A:N1	25:DA:1155:A:C4	2.89	0.41
42:DV:20:LEU:HD23	42:DV:21:ARG:NH2	2.36	0.41
42:DV:62:LEU:N	42:DV:62:LEU:CD2	2.84	0.41
42:DV:21:ARG:HB3	42:DV:91:TYR:HB2	2.03	0.41
25:DA:818:G:C2'	25:DA:819:A:H5''	2.51	0.41
19:CS:40:ILE:HD13	19:CS:62:ILE:CD1	2.50	0.41
1:CA:1347:G:OP2	9:CI:107:ARG:HG2	2.20	0.41
41:BU:76:TYR:OH	41:BU:93:LYS:HE3	2.21	0.41
1:CA:1144:G:N3	1:CA:1145:C:O2	2.53	0.41
25:DA:884:C:H2'	25:DA:885:C:H5''	2.02	0.41
45:DY:55:TYR:O	45:DY:56:PRO:C	2.59	0.41
1:AA:1268:A:C2	1:AA:1269:A:C2	3.09	0.41
1:AA:1221:G:OP1	1:AA:1321:C:N3	2.54	0.41
29:DE:69:LYS:HD3	29:DE:89:ASP:HA	2.02	0.41
3:AC:90:GLU:CD	3:AC:90:GLU:H	2.24	0.41
30:DF:8:GLN:HG2	30:DF:126:VAL:HG12	2.03	0.41
25:DA:614:U:O2	25:DA:614:U:O4'	2.39	0.41
31:BG:56:ALA:O	31:BG:60:LEU:HB2	2.20	0.41
31:BG:59:GLU:HA	31:BG:62:LEU:CB	2.51	0.41
25:BA:2404:C:O3'	36:BP:77:ARG:NH2	2.53	0.41
36:BP:106:LEU:HD11	36:BP:110:TYR:O	2.20	0.41
2:AB:34:ALA:HB3	2:AB:41:ILE:CB	2.42	0.41
2:AB:46:LYS:HD2	2:AB:49:GLU:OE2	2.21	0.41
25:BA:480:A:H2	25:BA:499:U:O2	2.03	0.41
46:BZ:125:VAL:HG22	46:BZ:126:LYS:N	2.34	0.41
1:AA:1309:G:H2'	1:AA:1310:G:O4'	2.19	0.41
36:BP:68:GLN:CA	36:BP:68:GLN:HE21	2.28	0.41
1:AA:778:G:O5'	1:AA:778:G:H8	2.04	0.41
4:AD:36:ARG:HB3	4:AD:36:ARG:NH1	2.28	0.41
4:AD:36:ARG:NH1	4:AD:38:TYR:CE1	2.88	0.41
1:CA:1188:A:H2'	1:CA:1189:C:C5'	2.50	0.41
25:DA:10:G:C2'	25:DA:11:G:H8	2.13	0.41
25:DA:6:A:C2	25:DA:7:G:C8	3.04	0.41
25:DA:874:G:N2	25:DA:904:C:C2	2.89	0.41
46:DZ:149:LEU:C	46:DZ:149:LEU:HD22	2.41	0.41
25:DA:2838:G:C6	25:DA:2839:G:C5	3.08	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BV:18:LEU:O	42:BV:19:LYS:O	2.38	0.41
8:AH:63:LEU:CB	8:AH:65:TYR:HE1	2.34	0.41
49:D2:64:LEU:C	49:D2:64:LEU:HD13	2.40	0.41
7:AG:69:VAL:CG2	7:AG:104:LEU:HD21	2.33	0.41
30:BF:46:ARG:NH1	30:BF:46:ARG:HG3	2.10	0.41
15:CO:70:LEU:O	15:CO:71:GLN:C	2.59	0.41
37:BQ:134:ARG:HA	37:BQ:137:TYR:CD1	2.53	0.41
1:CA:1223:C:OP2	1:CA:1224:G:H8	2.04	0.41
33:BI:38:LEU:HD13	33:BI:40:THR:HG23	2.03	0.41
27:DC:84:ILE:HD11	31:DG:50:ALA:CB	2.47	0.41
25:DA:638:G:C2'	25:DA:639:U:H6	2.22	0.41
36:DP:102:ARG:HG2	36:DP:102:ARG:O	2.20	0.41
36:BP:5:ASP:HB3	36:BP:6:LEU:H	1.52	0.41
15:AO:25:THR:CG2	15:AO:70:LEU:HD22	2.49	0.41
15:AO:76:GLU:C	15:AO:78:TYR:H	2.24	0.41
1:CA:1119:C:C2'	1:CA:1120:G:H5'	2.51	0.41
31:BG:77:ILE:N	31:BG:83:ARG:HB3	2.36	0.41
25:BA:784:A:C5'	28:BD:227:ASN:ND2	2.78	0.41
6:CF:50:TYR:HE2	6:CF:52:ILE:CD1	2.31	0.41
12:AL:81:LEU:HD13	12:AL:82:ILE:N	2.35	0.41
1:CA:79:G:N7	1:CA:80:G:C5	2.89	0.41
25:BA:1591:G:C2'	25:BA:1592:C:H5'	2.51	0.41
25:DA:27:G:O2'	25:DA:28:A:O5'	2.38	0.41
1:AA:848:C:O2'	1:AA:849:C:H5'	2.20	0.41
28:DD:143:HIS:O	28:DD:144:ALA:C	2.57	0.41
1:CA:520:A:C2	1:CA:536:C:H1'	2.56	0.41
28:DD:30:GLU:CG	28:DD:63:ARG:NE	2.84	0.41
32:DH:12:PRO:HG2	32:DH:49:VAL:CB	2.51	0.41
56:B9:14:CYS:HB3	56:B9:27:CYS:SG	2.60	0.41
25:BA:2816:C:H1'	52:B5:43:HIS:CE1	2.55	0.41
37:DQ:63:LYS:NZ	37:DQ:63:LYS:HB2	2.35	0.41
4:CD:36:ARG:HB3	4:CD:38:TYR:CZ	2.55	0.41
29:DE:44:TYR:O	29:DE:45:THR:CB	2.64	0.41
25:DA:2638:G:P	29:DE:82:ARG:NH2	2.94	0.41
51:B4:38:ALA:N	51:B4:50:THR:O	2.54	0.41
31:BG:2:PRO:C	31:BG:4:ASP:N	2.73	0.41
31:BG:125:PHE:CZ	31:BG:170:ARG:HA	2.56	0.41
38:DR:34:ILE:HA	38:DR:34:ILE:HD13	1.79	0.41
38:DR:94:TYR:C	38:DR:117:VAL:HG23	2.41	0.41
4:AD:89:THR:C	4:AD:91:SER:N	2.73	0.41
25:BA:2543:G:O2'	25:BA:2544:G:H5'	2.21	0.41
25:BA:323:G:H2'	30:BF:169:ASN:ND2	2.36	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2356:C:H2'	25:BA:2357:U:O4'	2.20	0.41
1:AA:61:G:C6	1:AA:62:U:C4	3.07	0.41
37:DQ:64:ILE:HG12	37:DQ:106:VAL:HG12	2.02	0.41
10:AJ:79:ARG:HA	10:AJ:79:ARG:HD3	1.74	0.41
1:AA:773:G:N1	1:AA:807:A:C6	2.89	0.41
25:BA:2364:C:H2'	25:BA:2365:G:C5'	2.50	0.41
25:BA:2365:G:P	47:B0:54:ARG:HG3	2.61	0.41
25:DA:1131:G:C8	25:DA:2025:C:H4'	2.55	0.41
28:BD:125:ILE:O	28:BD:126:GLN:HB3	2.20	0.41
46:BZ:144:GLU:OE1	46:BZ:144:GLU:HA	2.20	0.41
25:DA:589:C:O2'	25:DA:590:A:H5'	2.21	0.41
33:DI:83:ALA:CB	33:DI:88:ILE:CA	2.97	0.41
25:BA:1933:G:H2'	25:BA:1934:C:H6	1.86	0.41
34:BN:87:LEU:O	34:BN:88:GLU:C	2.57	0.41
4:AD:150:GLU:HG2	4:AD:151:LYS:N	2.35	0.41
1:CA:876:G:O5'	8:CH:14:ARG:NH1	2.53	0.41
25:DA:2285:C:H42	25:DA:2383:G:H1	1.67	0.41
41:BU:36:ARG:CG	41:BU:37:GLU:N	2.83	0.41
25:DA:2191:G:N2	25:DA:2192:G:H1'	2.35	0.41
25:BA:139:G:H2'	25:BA:139(A):G:H5''	2.02	0.41
46:BZ:39:ASP:HB3	46:BZ:42:GLU:HB3	2.02	0.41
1:CA:984:C:H2'	1:CA:985:C:C6	2.56	0.41
1:AA:945:G:C2	1:AA:1337:G:C2	3.09	0.41
49:B2:66:GLU:HA	49:B2:69:ARG:NH1	2.35	0.41
15:AO:42:HIS:O	15:AO:45:VAL:HB	2.21	0.41
16:CP:60:LEU:HA	16:CP:60:LEU:HD23	1.87	0.41
1:AA:311:C:O2'	1:AA:312:C:H5'	2.20	0.41
25:DA:2365:G:OP1	47:D0:54:GLY:HA3	2.20	0.41
1:AA:645:C:H2'	1:AA:646:U:O4'	2.19	0.41
25:DA:2605:U:H2'	25:DA:2606:C:C6	2.55	0.41
46:BZ:8:TYR:HE2	46:BZ:34:ARG:CD	2.33	0.41
1:CA:11:G:H2'	1:CA:12:U:H6	1.86	0.41
25:DA:692:C:O2'	25:DA:693:C:H5'	2.20	0.41
25:DA:710:G:H2'	25:DA:711:G:H8	1.86	0.41
1:AA:983:A:H5'	1:AA:984:C:OP2	2.20	0.41
47:D0:50:ASN:ND2	47:D0:83:PRO:HD3	2.36	0.41
8:AH:114:THR:OG1	8:AH:117:GLY:O	2.32	0.41
17:CQ:48:GLU:O	17:CQ:49:GLU:C	2.58	0.41
25:BA:1326:U:C2	25:BA:1648:C:H1'	2.55	0.41
25:BA:945:A:C4	25:BA:2448:A:C2	3.08	0.41
25:DA:2857:G:N1	25:DA:2861:G:C6	2.88	0.41
31:BG:52:ILE:HG12	31:BG:52:ILE:H	1.55	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:BE:110:GLY:HA2	29:BE:162:ALA:N	2.36	0.41
25:BA:182:A:H2	25:BA:433:C:O2	2.03	0.41
25:BA:827:U:H2'	25:BA:2068:U:C2	2.56	0.41
39:BS:48:LEU:O	39:BS:49:VAL:HG23	2.21	0.41
46:DZ:26:VAL:CG1	46:DZ:86:ASP:OD2	2.69	0.41
2:CB:68:ILE:O	2:CB:91:PRO:HD2	2.19	0.41
41:DU:69:CYS:O	41:DU:74:LEU:CD1	2.69	0.41
42:DV:34:GLU:CD	42:DV:56:SER:HB2	2.40	0.41
48:D1:90:ILE:O	48:D1:94:LEU:N	2.43	0.41
25:DA:480:A:H2	25:DA:499:U:O2	2.04	0.41
7:CG:146:GLU:CA	7:CG:149:ARG:HB2	2.46	0.41
9:CI:121:ARG:HH11	9:CI:121:ARG:HG2	1.85	0.41
41:BU:76:TYR:CZ	41:BU:80:ILE:HG13	2.56	0.41
19:CS:32:LYS:HE3	19:CS:32:LYS:HB2	1.82	0.41
31:DG:103:LEU:HA	31:DG:106:LEU:CB	2.36	0.41
25:BA:1170:G:C2	25:BA:1171:G:N7	2.89	0.41
29:DE:33:VAL:HG23	29:DE:47:VAL:CG1	2.50	0.41
30:BF:7:TYR:HB3	30:BF:16:GLY:C	2.40	0.41
1:AA:192:U:C4'	20:AT:103:GLY:HA2	2.51	0.41
30:DF:19:GLU:HG2	30:DF:20:LEU:N	2.36	0.41
45:BY:27:VAL:CG1	45:BY:29:GLU:OE1	2.68	0.41
1:AA:1134:G:C2	1:AA:1142:G:C2	3.08	0.41
46:BZ:29:ASN:O	46:BZ:30:ARG:HB3	2.21	0.41
1:AA:1066:C:O2'	1:AA:1067:A:C5'	2.68	0.41
53:B6:15:GLU:HB3	53:B6:18:ARG:HG2	2.01	0.41
25:BA:637:A:OP2	36:BP:116:GLY:N	2.54	0.41
20:CT:12:ALA:O	20:CT:15:ARG:N	2.47	0.41
25:BA:480:A:H1'	45:BY:44:ILE:HG21	2.02	0.41
8:CH:109:ILE:CG2	8:CH:137:VAL:HB	2.51	0.41
13:AM:25:ILE:CD1	13:AM:66:LEU:CD2	2.95	0.41
37:BQ:51:ARG:CD	37:BQ:66:ILE:HD11	2.50	0.41
1:AA:1181:G:C6	1:AA:1182:G:C2	3.09	0.41
35:DO:71:ARG:NH2	35:DO:77:ILE:HG21	2.34	0.41
22:CV:72:TYR:H	22:CV:109:THR:CG2	2.29	0.41
22:CV:74:TYR:HA	22:CV:75:PRO:HD3	1.77	0.41
25:DA:7:G:H2'	25:DA:8:A:O4'	2.20	0.41
25:DA:7:G:H5''	34:DN:130:HIS:HD2	1.85	0.41
25:BA:2755:C:H6	25:BA:2755:C:O5'	2.03	0.41
42:BV:19:LYS:HZ3	42:BV:20:LEU:N	2.11	0.41
8:AH:11:THR:HG23	8:AH:14:ARG:HH12	1.85	0.41
14:CN:6:LEU:O	14:CN:7:ILE:C	2.59	0.41
2:CB:121:LEU:CA	2:CB:126:GLU:OE1	2.68	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:BZ:99:VAL:O	46:BZ:101:LEU:CD1	2.69	0.41
25:DA:635:C:O2'	25:DA:636:G:H5'	2.20	0.41
15:AO:82:ILE:HD13	15:AO:83:GLU:N	2.35	0.41
39:DS:91:PRO:O	39:DS:93:LYS:N	2.52	0.41
25:DA:319:C:H2'	25:DA:320:A:O4'	2.21	0.41
30:DF:130:ALA:O	30:DF:132:VAL:N	2.54	0.41
16:AP:11:SER:HB2	16:AP:14:ASN:CB	2.50	0.41
25:DA:2128:C:OP2	27:DC:37:LYS:HD3	2.20	0.41
1:CA:84:U:C2'	1:CA:88:A:H5'	2.51	0.41
1:CA:80:G:O6	1:CA:88:A:OP2	2.38	0.41
5:CE:147:ASP:N	5:CE:147:ASP:OD2	2.53	0.41
25:BA:628:G:C5	25:BA:629:G:N7	2.89	0.41
25:DA:2176:A:OP1	27:DC:221:PRO:HA	2.21	0.41
25:DA:729:G:C5	28:DD:208:LYS:HB2	2.56	0.41
1:AA:666:G:H5'	1:AA:726:C:H1'	2.01	0.41
25:DA:883:G:N2	25:DA:893:C:O2	2.52	0.41
25:BA:2124:G:H22	27:BC:219:MET:CE	2.33	0.41
1:AA:39:G:C6	1:AA:40:C:C4	3.08	0.41
46:BZ:106:THR:HA	46:BZ:107:PRO:HD2	1.90	0.41
20:CT:40:ALA:O	20:CT:42:GLN:N	2.53	0.41
6:AF:18:GLN:O	6:AF:21:LEU:N	2.49	0.41
19:AS:62:ILE:HD12	19:AS:63:THR:H	1.85	0.41
27:BC:21:TYR:N	27:BC:21:TYR:CD1	2.88	0.41
1:CA:366:C:HO2'	1:CA:367:U:P	2.43	0.41
9:AI:57:GLY:O	9:AI:59:PHE:N	2.53	0.41
22:AV:101:ALA:N	22:AV:102:GLU:OE2	2.54	0.41
13:CM:39:ILE:O	13:CM:39:ILE:HG22	2.20	0.41
25:DA:89:G:N2	25:DA:456:C:N4	2.68	0.41
25:BA:1885:A:H4'	27:BC:211:ARG:HH22	1.86	0.41
31:BG:118:ARG:O	31:BG:181:ARG:HA	2.20	0.41
7:CG:77:SER:O	7:CG:78:ARG:HB2	2.21	0.41
38:BR:15:SER:O	38:BR:16:HIS:C	2.59	0.41
22:AV:47:GLY:O	22:AV:48:ALA:C	2.59	0.41
52:D5:45:VAL:HG22	52:D5:51:TYR:HD2	1.85	0.41
1:AA:1014:A:H4'	19:AS:14:HIS:CD2	2.55	0.41
20:CT:33:ILE:HD11	20:CT:62:LEU:O	2.20	0.41
25:BA:2203:U:O2	25:BA:2221:G:C2	2.73	0.41
33:BI:27:ARG:HD3	48:B1:71:TYR:HE1	1.81	0.41
25:DA:1594:G:N2	25:DA:1595:G:H1'	2.35	0.41
33:DI:5:LEU:HD13	33:DI:17:GLN:O	2.20	0.41
1:CA:542:G:H2'	1:CA:543:C:C6	2.52	0.41
25:DA:118:A:C8	25:DA:119:A:C8	3.09	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:533:A:H1'	1:CA:534:U:OP1	2.20	0.41
25:BA:1655:A:C8	25:BA:1656:C:C5	3.09	0.41
2:AB:102:LEU:N	2:AB:102:LEU:HD12	2.36	0.41
28:DD:66:ASP:OD2	28:DD:69:ARG:HA	2.21	0.41
23:CW:19:G:C5	23:CW:57:A:C2	3.09	0.41
25:DA:2683:C:H2'	25:DA:2684:U:H6	1.85	0.41
12:CL:123:LYS:HE2	12:CL:124:GLU:OE1	2.20	0.41
34:BN:58:ASP:C	34:BN:60:ILE:H	2.24	0.41
29:BE:2:LYS:HE2	29:BE:95:ILE:HG23	2.03	0.41
1:AA:1237:C:H6	1:AA:1237:C:O5'	2.04	0.41
1:CA:1108:G:H5'	3:CC:176:HIS:CE1	2.56	0.41
1:AA:126:G:N1	1:AA:127:G:C5	2.89	0.41
26:DB:40:U:N3	26:DB:43:C:H5''	2.35	0.41
25:BA:2772:C:O2'	25:BA:2773:C:H5'	2.20	0.41
28:BD:46:GLN:CD	28:BD:46:GLN:N	2.74	0.41
46:BZ:50:ALA:HB1	46:BZ:56:ILE:HD11	2.01	0.41
1:CA:189(D):C:H2'	1:CA:189(E):U:C6	2.56	0.41
45:DY:16:ALA:HA	45:DY:21:LYS:NZ	2.35	0.41
31:DG:77:ILE:HG22	31:DG:79:ASN:N	2.35	0.41
25:DA:357:A:C2	25:DA:358:U:C2	3.09	0.41
26:DB:26:A:OP2	26:DB:26:A:H8	2.04	0.41
25:DA:1691:C:O2'	25:DA:1692:U:H5'	2.21	0.41
25:DA:31:C:C4	25:DA:32:C:C5	3.09	0.41
46:BZ:27:MET:O	46:BZ:27:MET:HG3	2.21	0.41
31:DG:105:LYS:HE2	51:D4:52:SER:HB3	2.02	0.41
36:BP:13:ASN:C	36:BP:13:ASN:ND2	2.73	0.41
25:BA:1167:U:C2	25:BA:1183:G:N2	2.89	0.41
25:BA:41:C:H2'	25:BA:42:G:O4'	2.21	0.41
25:BA:2593:U:H2'	25:BA:2594:C:H6	1.84	0.41
49:B2:50:ILE:HG22	49:B2:51:ARG:N	2.35	0.41
1:AA:1494:G:C2	1:AA:1495:U:C6	3.09	0.41
25:BA:2778:A:O2'	25:BA:2781:A:H5'	2.21	0.41
25:BA:594:U:H2'	25:BA:595:C:C6	2.55	0.41
25:BA:2706:G:H2'	25:BA:2707:G:O4'	2.20	0.41
5:AE:90:VAL:O	5:AE:90:VAL:CG2	2.68	0.41
31:DG:175:LEU:CD1	31:DG:175:LEU:N	2.84	0.41
13:CM:84:ILE:HG22	13:CM:84:ILE:O	2.19	0.41
25:DA:645:C:O2	25:DA:645:C:C2'	2.67	0.41
26:DB:103:G:O2'	46:DZ:72:GLN:NE2	2.51	0.41
1:CA:414:A:H2'	1:CA:415:A:O4'	2.21	0.41
25:DA:2528:U:H5''	56:D9:31:LYS:CE	2.50	0.41
1:CA:317:G:C6	1:CA:318:G:N7	2.89	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DZ:101:LEU:HD11	46:DZ:123:ILE:HB	2.03	0.41
2:CB:97:TRP:CZ2	2:CB:173:ALA:HA	2.53	0.41
34:DN:42:TRP:HE3	34:DN:43:THR:H	1.62	0.41
41:DU:92:ARG:HG2	42:DV:11:GLN:NE2	2.35	0.41
37:DQ:101:ARG:HD2	37:DQ:102:VAL:N	2.35	0.41
2:AB:17:PHE:HD2	2:AB:17:PHE:O	2.04	0.41
25:BA:613:G:N2	25:BA:614(C):A:O2'	2.54	0.41
9:CI:118:LYS:CB	9:CI:118:LYS:NZ	2.84	0.41
31:DG:106:LEU:HA	31:DG:110:ALA:HB3	2.02	0.41
31:DG:114:ILE:CB	31:DG:117:PHE:HB2	2.34	0.41
35:BO:71:ARG:NE	35:BO:105:GLU:OE1	2.52	0.41
16:AP:39:TYR:HB2	16:AP:73:LEU:HD13	2.02	0.41
20:AT:78:ALA:HA	20:AT:81:LYS:HD3	2.02	0.41
3:AC:41:GLY:O	3:AC:42:LEU:C	2.59	0.41
30:DF:7:TYR:CB	30:DF:16:GLY:N	2.84	0.41
45:BY:11:ASP:N	45:BY:28:LYS:HZ1	2.09	0.41
1:AA:1145:C:C4'	1:AA:1146:A:H5'	2.27	0.41
10:AJ:28:ARG:HH11	10:AJ:28:ARG:CG	2.34	0.41
1:AA:1064:G:C6	1:AA:1066:C:N4	2.88	0.41
1:AA:924:C:O2'	1:AA:1502:A:N6	2.53	0.41
50:D3:26:LEU:HD21	50:D3:46:ASN:CB	2.50	0.41
28:DD:84:TYR:CD1	28:DD:91:ARG:NH1	2.89	0.41
25:DA:2681:C:OP2	29:DE:109:LYS:NZ	2.47	0.41
36:BP:84:ASN:HD22	36:BP:115:LEU:HD23	1.86	0.41
2:AB:222:ILE:H	2:AB:222:ILE:HG13	1.68	0.41
46:BZ:127:VAL:CG2	46:BZ:131:ASN:ND2	2.83	0.41
13:AM:34:LEU:CD2	13:AM:39:ILE:HB	2.41	0.41
1:CA:345:C:H3'	40:DT:41:ARG:NH2	2.35	0.41
22:CV:4:VAL:HG23	22:CV:5:THR:N	2.36	0.41
1:CA:1187:G:H2'	1:CA:1188:A:H5'	2.01	0.41
3:CC:10:PHE:HD2	3:CC:11:ARG:NH1	2.19	0.41
3:CC:14:ILE:HG21	3:CC:178:LEU:HB3	2.03	0.41
10:CJ:48:THR:CB	10:CJ:62:HIS:HB3	2.51	0.41
34:DN:34:LEU:HD12	34:DN:34:LEU:HA	1.86	0.41
34:DN:11:PRO:HB3	34:DN:51:PHE:HE1	1.86	0.41
25:DA:2791:C:O2'	25:DA:2792:G:P	2.79	0.41
8:AH:21:LYS:H	8:AH:65:TYR:HH	1.62	0.41
27:BC:118:PRO:HB2	27:BC:148:PHE:CZ	2.56	0.41
25:DA:94(A):G:C6	25:DA:95:G:N7	2.89	0.41
10:AJ:54:PHE:CE2	10:AJ:55:LYS:HD2	2.56	0.41
33:BI:10:GLU:OE2	33:BI:11:ASN:N	2.53	0.41
17:CQ:75:ARG:NH1	17:CQ:77:VAL:HG22	2.35	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BP:6:LEU:HB2	36:BP:9:ASN:ND2	2.36	0.41
15:AO:17:ARG:HD3	15:AO:26:GLU:CG	2.40	0.41
15:AO:81:LEU:O	15:AO:82:ILE:C	2.59	0.41
30:BF:1:MET:HE2	30:BF:26:ALA:C	2.41	0.41
1:CA:1027:C:H1'	1:CA:1035:A:N1	2.33	0.41
27:DC:118:PRO:HD2	27:DC:148:PHE:CZ	2.56	0.41
2:AB:154:LEU:O	2:AB:155:LEU:C	2.58	0.41
30:BF:13:SER:O	30:BF:14:PRO:O	2.38	0.41
29:BE:117:MET:O	29:BE:117:MET:HG2	2.20	0.41
25:DA:1524:G:C4	25:DA:1525:G:C8	3.09	0.41
12:AL:99:ARG:HG2	12:AL:99:ARG:H	1.70	0.41
20:CT:88:VAL:O	20:CT:92:LEU:HB2	2.21	0.41
25:BA:527:C:H4'	25:BA:528:A:O5'	2.20	0.41
51:B4:44:CYS:O	51:B4:45:GLY:C	2.59	0.41
1:CA:266:G:H5'	1:CA:266:G:C8	2.55	0.41
12:CL:98:VAL:O	12:CL:99:ARG:C	2.59	0.41
12:CL:63:VAL:HG11	12:CL:95:TYR:CE1	2.55	0.41
53:B6:9:LEU:C	53:B6:9:LEU:CD2	2.80	0.41
35:DO:16:ALA:HB2	35:DO:52:VAL:HG11	2.02	0.41
35:DO:17:ARG:HB3	35:DO:45:GLU:O	2.20	0.41
18:AR:50:ILE:O	18:AR:51:LEU:C	2.58	0.41
25:BA:2319:G:H1'	25:BA:2320:A:C4	2.56	0.41
39:BS:20:ARG:HH11	39:BS:20:ARG:N	2.19	0.41
7:AG:111:ARG:HE	7:AG:123:GLU:HA	1.86	0.41
25:DA:2870:C:C2'	25:DA:2871:C:C5'	2.87	0.41
1:AA:1075:C:H4'	1:AA:1101:A:N6	2.35	0.41
4:CD:148:VAL:HG12	4:CD:152:SER:HB2	2.02	0.41
14:AN:4:LYS:HA	14:AN:7:ILE:CD1	2.50	0.41
25:DA:817:C:O2'	25:DA:839:U:H5''	2.21	0.41
25:BA:834:C:C4'	55:B8:52:LYS:HZ1	2.34	0.41
29:DE:2:LYS:NZ	29:DE:100:GLU:OE2	2.53	0.41
29:DE:93:VAL:C	29:DE:95:ILE:N	2.73	0.41
28:DD:268:ARG:H	28:DD:270:ILE:HD11	1.86	0.41
25:BA:815:C:H2'	25:BA:816:C:C6	2.55	0.41
17:CQ:10:VAL:HG13	17:CQ:19:VAL:HB	2.01	0.41
1:AA:1263:C:H2'	1:AA:1264:C:H6	1.86	0.41
22:AV:115:TYR:O	22:AV:116:GLU:HB2	2.21	0.41
22:AV:97:ARG:NH1	22:AV:120:ILE:HG22	2.36	0.41
25:DA:2884:U:H2'	25:DA:2885:C:H5'	2.03	0.41
30:BF:175:THR:O	30:BF:176:LEU:HB2	2.19	0.41
1:AA:1017:G:H2'	1:AA:1018:C:C6	2.56	0.41
1:AA:109:A:H3'	1:AA:110:C:C5'	2.50	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:AQ:27:PHE:HA	17:AQ:28:PRO:HD3	1.90	0.41
30:DF:66:PRO:C	30:DF:68:LYS:H	2.24	0.41
7:AG:50:ILE:HA	7:AG:54:THR:HG21	2.01	0.41
25:DA:1594:G:C2	25:DA:1595:G:H1'	2.56	0.41
1:AA:6:G:H3'	1:AA:6:G:N3	2.35	0.41
25:BA:1657:C:H4'	29:BE:133:LYS:HB3	2.01	0.41
48:D1:15:ALA:O	48:D1:40:ARG:CG	2.66	0.41
54:D7:2:LYS:H	54:D7:2:LYS:HD2	1.82	0.41
25:BA:1935:G:O2'	25:BA:1936:A:H5''	2.21	0.41
27:DC:52:PRO:HG2	27:DC:53:ARG:HD2	2.01	0.41
49:D2:8:LYS:O	49:D2:9:GLN:C	2.58	0.41
49:D2:6:VAL:O	49:D2:9:GLN:HB2	2.20	0.41
1:AA:1376:U:H2'	1:AA:1377:A:H8	1.86	0.41
10:AJ:89:ASP:HB3	10:AJ:91:PRO:CD	2.51	0.41
25:DA:2684:U:O2'	25:DA:2685:G:H5'	2.20	0.41
49:D2:41:ILE:O	49:D2:43:GLN:N	2.54	0.41
1:AA:1410:G:N2	1:AA:1491:G:H1'	2.35	0.41
35:BO:115:VAL:CG1	35:BO:121:VAL:HG21	2.51	0.41
28:BD:37:LEU:HD23	28:BD:38:LYS:H	1.86	0.41
1:AA:189(C):C:C2'	1:AA:189(D):C:H5'	2.51	0.41
4:CD:92:VAL:O	4:CD:95:GLY:N	2.54	0.41
27:DC:69:LEU:HD23	27:DC:70:GLY:N	2.36	0.41
1:CA:99:U:H2'	1:CA:100:C:H6	1.84	0.41
25:BA:2752:C:H2'	25:BA:2753:A:H5'	2.03	0.41
25:DA:1815:A:C4	25:DA:1817:G:C5	3.08	0.41
25:DA:1815:A:C6	25:DA:1817:G:C6	3.09	0.41
16:CP:58:TYR:CD1	16:CP:59:TRP:N	2.86	0.41
25:DA:2772:C:C2	25:DA:2773:C:C5	3.09	0.41
25:BA:376:C:H2'	25:BA:377:C:H6	1.83	0.41
25:DA:2052:G:O4'	29:DE:142:GLY:HA3	2.20	0.41
25:DA:1471:A:OP2	25:DA:1519:G:N1	2.48	0.41
1:CA:189(C):C:O2'	1:CA:189(D):C:H5'	2.21	0.41
28:BD:198:ASN:CG	28:BD:198:ASN:O	2.59	0.41
25:BA:1168:G:H2'	25:BA:1169:G:O4'	2.20	0.41
1:CA:560:U:H6	1:CA:560:U:H2'	1.71	0.41
28:BD:93:ALA:N	28:BD:107:ALA:HB2	2.36	0.41
25:BA:1362:C:O2'	25:BA:1363:C:H5'	2.20	0.41
25:BA:706:A:H2'	25:BA:707:G:O4'	2.21	0.41
25:DA:964:C:H2'	25:DA:965:C:H5''	2.03	0.41
19:CS:18:LYS:O	19:CS:22:LEU:HD23	2.20	0.41
25:DA:1430:C:O2'	25:DA:1431:U:H5'	2.20	0.41
25:DA:1431:U:H2'	25:DA:1432:C:H6	1.85	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2885:C:N3	25:BA:2886:G:H1'	2.35	0.41
25:DA:531:C:OP1	25:DA:561:G:N2	2.54	0.41
13:AM:28:ALA:C	13:AM:30:ALA:H	2.24	0.41
25:BA:1754:C:H5'	40:BT:101:PHE:CZ	2.55	0.41
33:BI:98:ALA:C	33:BI:100:ALA:N	2.73	0.41
25:BA:690:G:H2'	25:BA:691:C:C6	2.56	0.41
26:DB:112:U:H2'	26:DB:113:G:C8	2.55	0.41
26:BB:50:G:OP1	39:BS:63:THR:HG23	2.20	0.41
26:BB:82:G:O2'	26:BB:83:G:H5'	2.21	0.41
49:B2:61:LEU:HA	49:B2:61:LEU:HD23	1.91	0.41
48:B1:40:ARG:HB2	48:B1:40:ARG:HE	1.70	0.41
25:BA:475:U:H4'	25:BA:510:C:H5'	2.03	0.41
56:D9:7:VAL:CG1	56:D9:25:VAL:HG23	2.50	0.41
25:DA:1122:G:O2'	25:DA:1123:C:H5'	2.20	0.41
1:CA:317:G:C5	1:CA:318:G:N7	2.88	0.41
28:DD:244:ARG:HG2	28:DD:245:PRO:CA	2.51	0.41
32:BH:19:VAL:HG21	32:BH:44:VAL:HA	2.02	0.41
2:CB:40:HIS:CB	2:CB:190:THR:HG21	2.51	0.41
2:CB:36:ARG:C	2:CB:38:GLY:N	2.73	0.41
41:DU:98:LEU:CB	41:DU:106:PHE:HB2	2.50	0.41
42:DV:21:ARG:N	42:DV:21:ARG:CD	2.84	0.41
25:DA:954:G:C5'	37:DQ:13:GLN:OE1	2.57	0.41
20:AT:65:LYS:O	20:AT:68:LYS:HG3	2.21	0.41
41:BU:80:ILE:O	41:BU:84:LYS:N	2.42	0.41
31:DG:173:LEU:HB3	31:DG:178:PHE:CD2	2.55	0.41
45:DY:38:ILE:HD13	45:DY:38:ILE:HA	1.81	0.41
49:D2:65:ASN:HD22	49:D2:69:ARG:NH1	2.17	0.41
30:BF:7:TYR:HB2	30:BF:17:ARG:N	2.35	0.41
16:AP:57:ARG:CZ	16:AP:79:VAL:O	2.69	0.41
3:AC:23:TYR:CD2	3:AC:24:ALA:N	2.89	0.41
36:DP:10:PRO:O	36:DP:11:GLY:C	2.59	0.41
3:CC:89:GLU:OE2	3:CC:93:LYS:HB2	2.20	0.41
25:BA:1345:C:OP2	25:BA:1346:G:OP2	2.39	0.41
1:AA:1429:C:H2'	1:AA:1430:C:H6	1.85	0.41
1:AA:1191:A:P	3:AC:3:ASN:HD22	2.44	0.41
53:D6:14:THR:C	53:D6:16:CYS:H	2.24	0.41
32:DH:86:GLU:N	32:DH:86:GLU:OE1	2.42	0.41
36:BP:88:LEU:C	36:BP:90:ARG:N	2.72	0.41
2:AB:78:GLN:NE2	2:AB:94:ASN:O	2.48	0.41
25:BA:483:A:H1'	45:BY:60:PHE:HD1	1.86	0.41
35:BO:2:ILE:HD11	35:BO:82:ASN:HB3	2.02	0.41
2:AB:129:GLU:HB3	2:AB:130:ARG:H	1.56	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:779:C:H2'	1:AA:780:A:O4'	2.20	0.41
35:DO:122:LEU:HD23	40:DT:43:GLN:HE22	1.86	0.41
3:CC:173:VAL:O	3:CC:173:VAL:HG12	2.20	0.41
25:DA:875:G:H2'	25:DA:876:C:H6	1.84	0.41
33:DI:43:ASN:O	33:DI:47:LEU:HD13	2.19	0.41
15:CO:33:THR:HG23	15:CO:63:ARG:NH2	2.36	0.41
15:CO:25:THR:CG2	15:CO:70:LEU:HD13	2.51	0.41
15:CO:26:GLU:OE2	15:CO:77:ARG:HD2	2.20	0.41
25:DA:1589:C:O2'	25:DA:1590:U:H5'	2.21	0.41
25:BA:1464:C:H2'	25:BA:1465:G:H8	1.86	0.41
2:CB:113:HIS:C	2:CB:117:GLU:HG3	2.38	0.41
30:DF:164:ARG:O	30:DF:166:ALA:N	2.54	0.41
30:DF:176:LEU:CG	30:DF:177:ALA:N	2.83	0.41
16:AP:71:ARG:NH2	16:AP:80:PHE:CE2	2.88	0.41
10:CJ:8:LEU:HB3	10:CJ:16:LEU:CD2	2.51	0.41
27:DC:131:ILE:N	27:DC:131:ILE:CD1	2.82	0.41
25:BA:586:A:N1	25:BA:809:G:O2'	2.46	0.41
25:DA:1467:C:H4'	25:DA:1467:C:OP1	2.21	0.41
22:AV:161:VAL:CB	22:AV:165:VAL:HG21	2.43	0.41
33:BI:69:LYS:HB2	33:BI:136:VAL:HB	2.02	0.41
5:CE:69:VAL:C	5:CE:71:LEU:N	2.70	0.41
25:DA:2123:G:C6	25:DA:2176:A:C6	3.08	0.41
1:CA:1015:A:H2'	1:CA:1016:A:O4'	2.19	0.41
28:DD:63:ARG:NH1	28:DD:63:ARG:HG3	2.35	0.41
25:DA:2611:U:H1'	52:D5:3:LYS:HG3	2.02	0.41
53:B6:28:ARG:O	53:B6:30:THR:N	2.54	0.41
8:AH:133:LEU:C	8:AH:133:LEU:HD23	2.41	0.41
20:AT:29:LYS:O	20:AT:33:ILE:HG12	2.20	0.41
25:DA:1171:G:H2'	25:DA:1171:G:N3	2.35	0.41
1:CA:616:G:N3	1:CA:625:G:C2	2.89	0.41
18:AR:47:THR:O	18:AR:83:GLU:HG2	2.21	0.41
45:BY:14:LEU:HD11	45:BY:22:GLY:HA2	2.01	0.41
6:AF:68:PRO:O	6:AF:69:GLU:O	2.39	0.41
6:AF:18:GLN:O	6:AF:21:LEU:HB2	2.21	0.41
1:AA:939:G:H4'	7:AG:102:ARG:HH22	1.85	0.41
11:AK:95:ILE:CG2	11:AK:108:ILE:HD11	2.48	0.41
4:CD:145:GLU:OE1	4:CD:184:LYS:NZ	2.39	0.41
49:B2:53:LEU:O	49:B2:57:ILE:HG12	2.20	0.41
1:CA:417:C:O2'	1:CA:418:C:H5'	2.19	0.41
31:BG:123:ASN:O	31:BG:126:ASP:OD2	2.38	0.41
31:BG:20:ILE:O	31:BG:24:GLY:HA2	2.21	0.41
7:CG:78:ARG:CG	7:CG:79:ARG:N	2.81	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:202:U:H3'	1:AA:203:U:C6	2.56	0.41
25:DA:271(V):G:H2'	25:DA:271(W):G:O4'	2.20	0.41
46:DZ:68:THR:HG22	46:DZ:89:VAL:HG22	2.03	0.41
44:DX:29:TRP:CZ2	44:DX:76:ARG:NH2	2.87	0.41
1:CA:406:G:H2'	1:CA:407:G:C8	2.54	0.41
4:CD:135:LEU:O	4:CD:136:PRO:C	2.59	0.41
25:DA:2496:C:C2'	25:DA:2497:A:H5'	2.50	0.41
25:BA:1497:U:P	25:BA:1497:U:O4'	2.79	0.41
25:BA:107:C:H2'	25:BA:108:U:C6	2.55	0.41
1:CA:687:A:H4'	11:CK:47:VAL:CG1	2.50	0.41
32:DH:103:LEU:N	32:DH:103:LEU:HD23	2.27	0.41
48:B1:73:LEU:O	48:B1:77:ALA:N	2.44	0.41
40:BT:12:SER:O	40:BT:14:TYR:N	2.52	0.41
1:CA:1405:G:H1'	1:CA:1518:A:O2'	2.21	0.41
1:AA:1084:G:OP1	1:AA:1086:U:C4	2.74	0.41
36:DP:121:LYS:HE2	36:DP:121:LYS:HB3	1.83	0.41
11:CK:58:PRO:HG2	11:CK:59:TYR:H	1.86	0.41
25:DA:1131:G:OP2	25:DA:2515:C:H4'	2.20	0.41
25:BA:1952:A:C5	25:BA:1953:A:C6	3.09	0.41
32:DH:71:LEU:HD12	32:DH:71:LEU:HA	1.91	0.41
25:BA:1990:C:H2'	25:BA:1991:U:O5'	2.20	0.41
25:BA:1582:C:H2'	25:BA:1583:A:O4'	2.20	0.41
49:D2:37:PHE:O	49:D2:40:SER:OG	2.30	0.41
25:DA:1713:U:O2'	25:DA:1714:G:H5'	2.21	0.41
1:AA:1237:C:H3'	1:AA:1336:C:N4	2.34	0.41
1:AA:1220:G:H21	19:AS:54:GLY:CA	2.33	0.41
25:BA:1530:C:C3'	25:BA:1530:C:C6	3.03	0.41
27:DC:192:ALA:O	27:DC:193:PHE:C	2.59	0.41
1:AA:902:G:H2'	1:AA:903:G:C8	2.56	0.41
1:AA:903:G:O2'	1:AA:904:C:H5'	2.21	0.41
5:CE:47:LYS:O	5:CE:48:ALA:CB	2.67	0.41
2:CB:103:THR:HG22	2:CB:104:ASN:N	2.36	0.41
4:AD:147:ALA:HA	4:AD:182:LYS:HB3	2.03	0.41
7:AG:14:PRO:HG3	7:AG:21:VAL:HG13	2.02	0.41
25:DA:2770:G:H5'	25:DA:2771:C:OP2	2.20	0.41
25:BA:1467:C:H42	25:BA:1525:G:H1	1.69	0.41
1:AA:594:G:H1	1:AA:645:C:H42	1.69	0.41
3:CC:164:ARG:CG	3:CC:165:THR:H	2.26	0.41
41:DU:14:HIS:O	41:DU:16:LYS:N	2.54	0.41
40:DT:64:ARG:HG2	40:DT:64:ARG:NH1	2.35	0.41
25:DA:2002:G:O5'	25:DA:2002:G:H8	2.04	0.41
1:CA:161:A:C6	1:CA:162:A:C6	3.09	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:12:U:H3	1:CA:22:G:H1	1.68	0.41
30:BF:142:TRP:O	30:BF:143:ALA:C	2.58	0.41
22:CV:113:ASP:HB2	22:CV:120:ILE:CG1	2.51	0.41
34:BN:26:LEU:O	34:BN:30:ILE:HG13	2.21	0.41
22:CV:93:VAL:HA	22:CV:94:PRO:HD3	1.90	0.41
25:DA:248:G:N3	25:DA:2431:U:H4'	2.36	0.41
1:AA:577:G:H1'	1:AA:816:A:C4	2.56	0.41
1:AA:570:G:H1'	1:AA:820:U:C4	2.56	0.41
1:AA:286:G:H2'	1:AA:287:U:O4'	2.21	0.41
25:BA:822:U:O2'	25:BA:823:G:H5'	2.21	0.41
1:CA:685:G:O2'	1:CA:686:U:H5'	2.20	0.41
43:DW:43:GLY:O	43:DW:44:ALA:C	2.58	0.41
28:BD:185:VAL:HG12	28:BD:186:HIS:N	2.35	0.41
29:BE:200:GLU:OE2	29:BE:200:GLU:N	2.49	0.41
55:B8:11:LYS:HG2	55:B8:11:LYS:O	2.20	0.41
47:D0:84:LEU:O	47:D0:84:LEU:HD12	2.20	0.41
8:CH:81:HIS:H	8:CH:81:HIS:HD1	1.69	0.41
32:BH:170:ARG:O	32:BH:171:LEU:CB	2.69	0.41
36:BP:47:ASP:CB	36:BP:48:PRO:CA	2.91	0.41
39:BS:101:LEU:C	39:BS:101:LEU:HD22	2.42	0.41
1:CA:317:G:C6	1:CA:318:G:C5	3.08	0.41
1:AA:1116:C:HO2'	1:AA:1117:G:H5''	1.85	0.41
7:AG:12:LEU:HB3	7:AG:13:GLN:H	1.61	0.41
2:CB:14:GLY:O	2:CB:15:VAL:HG22	2.20	0.41
2:CB:200:ILE:O	2:CB:201:ILE:HD13	2.21	0.41
25:DA:1166:C:O2	25:DA:1184:G:C2	2.74	0.41
41:DU:95:LEU:O	41:DU:98:LEU:HG	2.21	0.41
42:DV:39:LEU:HD13	42:DV:39:LEU:N	2.35	0.41
1:AA:980:C:H3'	1:AA:981:U:H6	1.85	0.41
25:DA:975(A):G:N2	25:DA:990:A:O4'	2.54	0.41
25:DA:560:C:H4'	41:DU:52:ARG:HH22	1.86	0.41
41:DU:92:ARG:NH1	41:DU:92:ARG:CG	2.84	0.41
25:DA:946:G:H2'	25:DA:947:G:C8	2.55	0.41
26:DB:77:U:C5	26:DB:99:G:N2	2.89	0.41
37:DQ:101:ARG:HD2	37:DQ:102:VAL:H	1.86	0.41
37:DQ:39:PRO:HA	37:DQ:97:VAL:O	2.20	0.41
20:AT:49:ALA:O	20:AT:52:ALA:HB3	2.20	0.41
20:AT:42:GLN:CG	20:AT:43:LEU:N	2.84	0.41
20:AT:53:LEU:C	20:AT:55:ILE:H	2.25	0.41
48:D1:67:ILE:HB	48:D1:68:PRO:CD	2.51	0.41
1:CA:946:A:C2	1:CA:1236:A:C2	3.09	0.41
41:BU:92:ARG:CD	41:BU:92:ARG:N	2.83	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:CM:86:CYS:O	13:CM:89:GLY:N	2.51	0.41
25:BA:2784:C:H4'	29:BE:42:ASP:OD1	2.20	0.41
31:DG:127:GLY:H	31:DG:166:ASP:HB2	1.85	0.41
19:AS:5:LEU:H	19:AS:6:LYS:NZ	2.19	0.41
13:AM:81:LEU:HB3	13:AM:86:CYS:SG	2.61	0.41
19:AS:15:LEU:O	19:AS:16:LEU:C	2.58	0.41
19:AS:32:LYS:HB2	19:AS:32:LYS:HE3	1.74	0.41
19:AS:51:VAL:HG12	19:AS:75:ALA:HB2	2.02	0.41
25:DA:2699:C:H2'	25:DA:2700:C:O4'	2.21	0.41
29:DE:51:PHE:O	29:DE:52:LEU:CB	2.68	0.41
1:AA:344:A:H5''	1:AA:345:C:H5	1.83	0.41
25:DA:1201:C:H42	25:DA:1244:G:H1	1.67	0.41
1:AA:1140:C:C2	1:AA:1141:C:N3	2.88	0.41
27:BC:132:LEU:HG	27:BC:138:LEU:CD2	2.50	0.41
25:BA:363(A):A:N1	25:BA:363(B):G:C4	2.89	0.41
31:BG:88:ILE:CG1	31:BG:89:GLY:H	2.24	0.41
25:DA:2679:A:H4'	29:DE:165:VAL:HG11	2.03	0.41
32:DH:139:GLN:C	32:DH:139:GLN:CD	2.78	0.41
32:DH:85:LYS:HG3	32:DH:145:ALA:CB	2.37	0.41
53:B6:11:LEU:HD11	53:B6:52:VAL:O	2.21	0.41
36:BP:108:LYS:C	36:BP:110:TYR:H	2.23	0.41
2:AB:49:GLU:HG3	2:AB:49:GLU:H	1.64	0.41
2:AB:75:LYS:C	2:AB:76:GLN:HG3	2.41	0.41
1:AA:271:C:H6	1:AA:271:C:O5'	2.04	0.41
17:AQ:45:HIS:HB2	17:AQ:65:ILE:CD1	2.50	0.41
40:BT:27:THR:OG1	40:BT:28:VAL:N	2.52	0.41
29:BE:31:CYS:HA	29:BE:32:PRO:HD3	1.80	0.41
13:AM:74:VAL:O	13:AM:77:ASN:CB	2.69	0.41
25:BA:2477:C:C5	56:B9:10:ILE:HD13	2.55	0.41
25:BA:2468:G:O2'	25:BA:2469:A:P	2.79	0.41
25:BA:2477:C:C6	25:BA:2477:C:C3'	3.04	0.41
35:BO:12:ASP:OD2	35:BO:12:ASP:C	2.60	0.41
25:DA:2056:G:H2'	25:DA:2056:G:N3	2.35	0.41
2:AB:140:HIS:O	2:AB:143:GLU:HB2	2.21	0.41
1:AA:1158:C:H4'	2:AB:133:LYS:NZ	2.35	0.41
2:AB:118:LEU:O	2:AB:122:PHE:HB2	2.20	0.41
36:BP:65:ARG:HH22	55:B8:15:LYS:HB2	1.80	0.41
1:AA:1152:A:C4	1:AA:1153:C:C5	3.09	0.41
5:AE:139:LEU:O	5:AE:142:LEU:HG	2.21	0.41
1:AA:417:C:N4	1:AA:426:G:H1	2.19	0.41
4:AD:14:ARG:HA	4:AD:39:PRO:CG	2.51	0.41
4:AD:52:SER:O	4:AD:53:ASP:C	2.59	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:D6:12:GLU:O	53:D6:51:GLU:O	2.38	0.41
25:BA:271(U):G:C2'	25:BA:271(V):G:H5'	2.50	0.41
3:CC:35:GLU:HA	3:CC:38:ARG:HG2	2.03	0.41
5:CE:53:LEU:HD12	5:CE:53:LEU:N	2.36	0.41
42:BV:25:LEU:H	42:BV:92:THR:CG2	2.22	0.41
1:CA:1356:G:O2'	1:CA:1357:A:H5'	2.20	0.41
25:DA:74:A:O2'	25:DA:75:G:OP2	2.31	0.41
47:D0:70:GLN:OE1	47:D0:72:ARG:HD3	2.21	0.41
30:BF:63:LYS:NZ	30:BF:75:HIS:O	2.52	0.41
10:AJ:54:PHE:CZ	10:AJ:55:LYS:NZ	2.82	0.41
37:BQ:32:TYR:O	37:BQ:105:GLU:HA	2.21	0.41
37:BQ:63:LYS:HB2	37:BQ:63:LYS:HZ3	1.85	0.41
1:CA:1224:G:O6	1:CA:1322:C:C2	2.74	0.41
1:CA:1225:A:N3	1:CA:1225:A:C2'	2.83	0.41
27:DC:80:LYS:NZ	31:DG:49:ASP:H	2.16	0.41
36:DP:101:VAL:C	36:DP:103:ALA:N	2.74	0.41
30:BF:34:TRP:O	30:BF:37:VAL:N	2.54	0.41
26:DB:52:A:N7	39:DS:33:LYS:CE	2.83	0.41
39:DS:34:HIS:CD2	39:DS:34:HIS:N	2.89	0.41
39:DS:53:SER:OG	39:DS:54:LEU:N	2.51	0.41
1:CA:1026:G:C2'	1:CA:1026:G:N3	2.81	0.41
39:DS:57:LYS:CG	39:DS:58:LEU:N	2.81	0.41
39:DS:89:ARG:HD3	39:DS:92:TYR:HB3	2.02	0.41
25:DA:299:A:O2'	25:DA:319:C:H4'	2.21	0.41
25:DA:300:A:C4	25:DA:334:C:H1'	2.55	0.41
25:DA:2091:U:O2'	48:D1:47:GLN:HG3	2.20	0.41
1:AA:390:C:O3'	16:AP:28:ARG:NH2	2.54	0.41
10:CJ:16:LEU:HD13	10:CJ:70:ARG:HD2	2.02	0.41
25:DA:2162:G:O3'	25:DA:2172:U:H2'	2.20	0.41
39:BS:66:ALA:O	39:BS:67:ARG:C	2.59	0.41
25:DA:1683:C:H2'	25:DA:1684:C:C6	2.55	0.41
25:DA:1524:G:H2'	25:DA:1525:G:C8	2.53	0.41
12:AL:42:PRO:CG	12:AL:48:ALA:N	2.81	0.41
12:AL:98:VAL:O	12:AL:99:ARG:C	2.59	0.41
40:BT:57:PHE:CD2	40:BT:58:ASN:N	2.87	0.41
1:CA:189(H):G:C2'	1:CA:189(I):G:H5'	2.51	0.41
5:CE:91:LEU:HG	5:CE:118:ILE:HD11	2.03	0.41
5:CE:83:GLU:CG	5:CE:88:LYS:HG3	2.46	0.41
28:DD:210:GLY:C	28:DD:212:SER:N	2.73	0.41
48:D1:3:LYS:CG	48:D1:4:VAL:H	2.09	0.41
25:DA:2175:C:O4'	27:DC:219:MET:HA	2.21	0.41
25:DA:2481:G:O2'	25:DA:2482:G:H8	2.04	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:667:G:N3	15:AO:49:ASP:OD2	2.54	0.41
25:DA:1568:G:H5'	28:DD:60:ARG:HA	2.03	0.41
53:B6:26:ASN:O	53:B6:27:LYS:CG	2.68	0.41
25:BA:2285:C:H3'	25:BA:2286:A:H5''	2.03	0.41
25:BA:2287:A:N6	25:BA:2344:U:H3	2.16	0.41
32:DH:12:PRO:O	32:DH:13:LYS:CB	2.69	0.41
5:AE:60:TYR:CZ	5:AE:64:ARG:NH1	2.89	0.41
1:AA:544:G:C5	1:AA:545:C:C4	3.09	0.41
1:AA:613:C:N4	1:AA:627:G:H1	2.19	0.41
27:BC:63:VAL:HG12	27:BC:164:PHE:HE2	1.86	0.41
27:BC:69:LEU:HD13	27:BC:161:ARG:N	2.36	0.41
1:CA:1523:G:OP1	11:CK:123:LYS:HD3	2.21	0.41
47:D0:41:ARG:CD	47:D0:41:ARG:N	2.80	0.41
9:AI:5:TYR:CE2	9:AI:18:PHE:HE2	2.39	0.41
18:AR:78:LEU:HD23	18:AR:78:LEU:HA	1.84	0.41
1:AA:1299:A:C8	1:AA:1301:U:H1'	2.56	0.41
20:CT:72:LEU:HD21	20:CT:77:ALA:HB2	2.02	0.41
56:B9:11:CYS:O	56:B9:12:ASP:C	2.59	0.41
6:AF:9:VAL:HA	6:AF:59:TYR:O	2.21	0.41
44:BX:40:LYS:HE3	44:BX:41:ASN:HD21	1.86	0.41
1:AA:1106:G:H5''	3:AC:172:ARG:HD3	2.02	0.41
19:AS:63:THR:HG22	19:AS:66:MET:HG2	2.03	0.41
1:AA:10:A:N3	1:AA:11:G:C8	2.88	0.41
1:AA:10:A:C2	1:AA:11:G:C5	3.09	0.41
18:CR:53:ARG:NH2	18:CR:59:SER:C	2.73	0.41
1:AA:1101:A:HO2'	1:AA:1102:A:P	2.43	0.41
27:BC:111:PHE:CD2	27:BC:111:PHE:N	2.89	0.41
17:AQ:87:LYS:O	17:AQ:91:ARG:HG3	2.20	0.41
25:DA:2177:C:C2'	25:DA:2178:C:H5'	2.51	0.41
28:DD:146:GLU:CB	28:DD:189:CYS:SG	3.07	0.41
25:DA:1300:U:O2'	25:DA:1301:A:OP2	2.34	0.41
8:AH:52:ASP:C	8:AH:53:VAL:HG23	2.40	0.41
44:BX:28:PHE:N	44:BX:28:PHE:CD1	2.88	0.41
25:DA:1451:C:O2'	25:DA:1457:A:C6	2.74	0.41
38:BR:95:THR:CA	38:BR:117:VAL:HG23	2.50	0.41
1:AA:1255:G:O3'	1:AA:1258:G:H1'	2.21	0.41
6:CF:7:ASN:ND2	6:CF:62:TRP:CD1	2.85	0.41
38:DR:44:LEU:CD1	38:DR:44:LEU:C	2.87	0.41
1:CA:1072:G:H2'	1:CA:1073:U:H6	1.85	0.41
25:DA:1279:G:H2'	25:DA:1280:G:O4'	2.20	0.41
39:BS:85:VAL:HG22	39:BS:106:ARG:HG3	2.02	0.41
40:BT:88:ILE:CG2	40:BT:89:VAL:H	2.27	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:BT:129:ARG:HD2	40:BT:131:ALA:HB3	2.01	0.41
22:AV:71:GLN:N	22:AV:83:MET:O	2.54	0.41
32:BH:54:ARG:CB	32:BH:65:HIS:HD2	2.26	0.41
1:CA:991:U:O2	1:CA:991:U:C2'	2.62	0.41
26:BB:24:G:C5	26:BB:56:G:C4	3.09	0.41
25:BA:2199:A:N3	25:BA:2199:A:H2'	2.36	0.41
25:BA:2199:A:H1'	33:BI:28:ASN:ND2	2.35	0.41
25:BA:322:A:P	30:BF:169:ASN:HB2	2.60	0.41
25:BA:2261:C:OP1	47:B0:16:GLN:CG	2.68	0.41
17:AQ:44:ALA:HB1	17:AQ:73:VAL:HG22	2.02	0.41
37:BQ:59:ARG:H	37:BQ:59:ARG:HG2	1.65	0.41
29:BE:21:VAL:HG23	29:BE:21:VAL:O	2.21	0.41
19:AS:22:LEU:HD12	19:AS:27:GLU:HB2	2.02	0.41
27:BC:178:LYS:HA	27:BC:178:LYS:CE	2.49	0.41
15:AO:23:GLY:O	15:AO:24:SER:CB	2.60	0.41
25:BA:807:U:H2'	25:BA:808:G:H8	1.86	0.41
25:DA:39:C:O2	30:DF:46:ARG:NH2	2.54	0.41
1:CA:875:C:O2'	8:CH:11:THR:HG23	2.20	0.41
36:DP:46:LYS:HG2	36:DP:52:GLU:HG2	2.02	0.41
55:B8:29:LYS:CD	55:B8:44:LYS:HG2	2.51	0.41
1:CA:62:U:OP1	1:CA:385:C:O2'	2.35	0.41
25:DA:1206:G:C2	25:DA:1207:C:C2	3.09	0.41
25:BA:271(M):G:C5	25:BA:271(O):C:N4	2.89	0.41
1:CA:649:G:O2'	1:CA:650:G:H5'	2.21	0.41
49:D2:13:ALA:HA	49:D2:16:LEU:HD23	2.02	0.41
11:CK:115:PRO:O	11:CK:117:ASN:N	2.40	0.41
54:D7:2:LYS:N	54:D7:2:LYS:CD	2.79	0.41
43:DW:15:ARG:HA	43:DW:18:ARG:HD2	2.02	0.41
1:AA:1414:U:H2'	1:AA:1415:G:C8	2.55	0.41
1:AA:1447:A:H2'	1:AA:1456:G:O6	2.21	0.41
27:DC:51:ASP:HA	27:DC:52:PRO:HD2	1.86	0.41
1:CA:876:G:P	8:CH:14:ARG:HH11	2.44	0.41
22:CV:104:PHE:CZ	22:CV:124:PRO:HG3	2.55	0.41
1:AA:931:C:C2	1:AA:1387:G:C2	3.08	0.41
12:CL:4:ILE:HG22	17:CQ:34:LYS:HD2	2.03	0.41
1:CA:609:A:H2'	1:CA:610:G:C5'	2.51	0.41
9:AI:81:ILE:HG22	9:AI:81:ILE:O	2.21	0.41
9:AI:49:PRO:HG2	9:AI:81:ILE:HG22	2.02	0.41
25:DA:1049:C:C2'	25:DA:1049:C:O2	2.63	0.41
1:AA:1490:C:C2	1:AA:1491:G:C8	3.08	0.41
47:B0:55:ASP:OD1	47:B0:55:ASP:O	2.38	0.41
47:B0:52:MET:CB	47:B0:58:LEU:HD23	2.50	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AH:12:ARG:NH1	8:AH:27:PRO:HD3	2.35	0.41
15:AO:38:ARG:NH1	15:AO:38:ARG:HG2	2.36	0.41
25:BA:2590:A:H5''	28:BD:239:ARG:HH11	1.84	0.41
7:AG:152:ALA:O	7:AG:154:TYR:N	2.53	0.41
25:BA:2112:G:C2'	25:BA:2113:U:H5'	2.50	0.41
1:CA:1097:C:O2'	1:CA:1098:C:H5'	2.21	0.41
25:DA:1214:A:H2'	25:DA:1215:G:C8	2.52	0.41
25:DA:752:A:H4'	25:DA:753:C:O5'	2.21	0.41
3:AC:188:LEU:HB3	3:AC:189:ALA:H	1.63	0.41
25:DA:747:U:C4	25:DA:2613:U:C5	3.09	0.41
18:AR:26:LEU:HD11	18:AR:42:ARG:HD2	2.02	0.41
25:BA:1889:A:H1'	25:BA:2087:G:O4'	2.21	0.41
1:AA:115:G:H1	1:AA:312:C:H42	1.68	0.41
43:BW:14:PRO:O	43:BW:16:LYS:N	2.54	0.41
33:DI:113:ARG:O	33:DI:130:TYR:CB	2.69	0.41
25:DA:582:G:H2'	25:DA:583:G:C8	2.56	0.41
17:CQ:6:LEU:HD12	17:CQ:6:LEU:H	1.86	0.41
15:CO:66:LEU:N	15:CO:66:LEU:CD1	2.83	0.41
18:AR:30:ASP:C	18:AR:32:ARG:N	2.72	0.41
4:AD:188:LEU:CD2	4:AD:188:LEU:H	2.31	0.41
43:BW:51:LEU:C	43:BW:51:LEU:HD13	2.41	0.41
25:DA:2262:U:H5	47:D0:16:SER:OG	2.02	0.41
25:BA:2006:C:H2'	25:BA:2007:C:C6	2.56	0.41
1:CA:790:A:C6	1:CA:791:G:C6	3.08	0.41
1:AA:1109:C:O2'	1:AA:1110:A:H5'	2.21	0.41
1:AA:139:G:C2	1:AA:140:A:C4	3.08	0.41
38:BR:37:THR:OG1	38:BR:39:PRO:HD2	2.20	0.41
13:CM:27:LYS:O	13:CM:30:ALA:HB3	2.21	0.41
20:CT:10:LEU:H	20:CT:10:LEU:HD23	1.86	0.41
1:AA:564:C:C6	17:AQ:31:LEU:HD11	2.56	0.41
1:CA:1440:C:H2'	1:CA:1441:G:H5'	2.02	0.41
25:DA:725:G:C6	25:DA:726:G:N1	2.89	0.41
38:BR:107:ASP:C	38:BR:107:ASP:OD2	2.59	0.41
25:BA:435:C:C2'	25:BA:436:C:H5'	2.50	0.41
1:AA:721:G:H4'	1:AA:722:A:O4'	2.20	0.41
25:DA:32:C:H2'	25:DA:32:C:O2	2.21	0.41
54:D7:23:ARG:O	54:D7:28:ARG:NH1	2.51	0.41
25:BA:822:U:H2'	25:BA:823:G:H8	1.85	0.41
25:DA:599:G:C6	25:DA:600:G:N7	2.89	0.41
1:AA:1023:G:OP2	1:AA:1023:G:H8	2.03	0.41
42:BV:67:GLY:O	42:BV:68:LYS:C	2.59	0.41
19:AS:17:GLU:O	19:AS:21:GLU:HG3	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:38:G:H22	1:AA:397:A:C5'	2.34	0.41
25:DA:1695:G:H2'	25:DA:1696:G:H5'	2.03	0.41
1:AA:572:A:H5''	1:AA:917:G:H4'	2.02	0.41
25:BA:2027:G:H2'	25:BA:2028:U:O4'	2.21	0.41
25:DA:2377:A:H2'	25:DA:2378:A:C8	2.56	0.41
25:DA:662:G:C2	25:DA:663:G:C5	3.08	0.41
26:DB:79:C:H6	26:DB:79:C:O5'	2.04	0.41
25:BA:1901:A:H2'	25:BA:1901:A:N3	2.36	0.41
39:DS:12:PHE:O	39:DS:12:PHE:HD1	2.03	0.41
54:D7:37:LYS:O	54:D7:37:LYS:HG2	2.21	0.41
5:AE:9:LYS:O	5:AE:9:LYS:HG2	2.21	0.41
25:BA:2068:U:C2	25:BA:2430:A:H2	2.38	0.41
40:BT:2:ASN:HD22	40:BT:3:ARG:NH2	2.19	0.41
40:BT:8:LYS:O	40:BT:9:LEU:C	2.59	0.41
1:AA:1286:A:N6	1:AA:1354:C:O3'	2.52	0.41
7:AG:27:ILE:HD11	7:AG:43:PHE:CB	2.51	0.41
9:AI:96:LEU:HA	9:AI:101:PHE:HB2	2.02	0.41
14:AN:57:ARG:CG	14:AN:58:LYS:H	2.31	0.41
32:BH:17:VAL:HG23	32:BH:45:VAL:HG13	2.03	0.41
32:BH:15:VAL:CG1	32:BH:79:VAL:HG23	2.50	0.41
2:CB:207:ALA:O	2:CB:211:ILE:HG13	2.21	0.41
2:CB:39:ILE:O	2:CB:41:ILE:CD1	2.69	0.41
2:CB:84:GLU:OE1	2:CB:216:SER:HA	2.21	0.41
34:DN:91:LEU:CD2	34:DN:98:VAL:HG21	2.45	0.41
41:DU:66:ASN:CB	41:DU:76:TYR:HB2	2.51	0.41
42:DV:19:LYS:HG2	42:DV:94:LEU:CA	2.51	0.41
25:DA:2182:G:C2	25:DA:2183:C:C5	3.09	0.41
9:CI:27:THR:O	9:CI:62:TYR:HA	2.20	0.41
2:AB:17:PHE:HB2	2:AB:42:ILE:HG22	2.03	0.41
1:CA:1372:U:OP2	9:CI:11:LYS:NZ	2.52	0.41
7:CG:101:LEU:O	7:CG:104:LEU:N	2.54	0.41
7:CG:135:VAL:O	7:CG:139:GLU:HG3	2.20	0.41
9:CI:79:LEU:O	9:CI:83:ARG:N	2.49	0.41
9:CI:95:LYS:HD3	9:CI:95:LYS:C	2.41	0.41
19:CS:34:TRP:CE2	19:CS:57:HIS:HE1	2.39	0.41
31:DG:115:ARG:CD	31:DG:136:ARG:CD	2.99	0.41
1:AA:1221:G:H4'	19:AS:77:THR:HG21	2.02	0.41
45:DY:37:VAL:O	45:DY:66:PRO:O	2.39	0.41
29:DE:59:VAL:CG2	29:DE:60:ASN:H	2.07	0.41
22:CV:127:VAL:CG2	23:CW:23:C:H5''	2.49	0.41
23:CW:24:U:O2'	25:DA:1923:U:H5''	2.21	0.41
40:BT:41:ARG:NH2	40:BT:43:GLN:HG3	2.36	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:173:U:H5''	1:AA:197:A:O4'	2.21	0.41
45:BY:27:VAL:CG1	45:BY:28:LYS:H	2.32	0.41
10:AJ:3:LYS:CD	10:AJ:77:PRO:HG3	2.46	0.41
25:DA:1112:G:O2'	25:DA:1113:U:O5'	2.33	0.41
25:DA:850:C:H4'	50:D3:18:ASP:HB2	2.02	0.41
45:BY:99:CYS:O	45:BY:100:ALA:HB2	2.21	0.41
28:BD:270:ILE:HG12	28:BD:271:ILE:N	2.30	0.41
25:DA:2746:U:H4'	32:DH:139:GLN:HA	2.02	0.41
28:BD:35:LYS:CB	28:BD:36:PRO:HD3	2.25	0.41
32:DH:25:LYS:H	32:DH:25:LYS:CD	2.34	0.41
2:AB:30:ARG:NH2	2:AB:194:PRO:CG	2.75	0.41
2:AB:58:ILE:O	2:AB:60:ASP:N	2.54	0.41
20:CT:22:ARG:HG3	20:CT:22:ARG:NH1	2.30	0.41
1:AA:1305:G:OP2	1:AA:1305:G:H8	2.04	0.41
12:CL:46:ASN:N	12:CL:46:ASN:ND2	2.68	0.41
13:AM:94:ARG:O	13:AM:95:GLY:C	2.59	0.41
55:B8:23:VAL:HG12	55:B8:46:ARG:HH11	1.86	0.41
25:BA:651:G:P	55:B8:19:SER:OG	2.79	0.41
4:AD:206:PHE:HD2	4:AD:207:TYR:CE1	2.39	0.41
25:BA:1827:C:H1'	25:BA:1970:A:N3	2.36	0.41
3:CC:91:LEU:O	3:CC:94:LEU:HG	2.21	0.41
10:CJ:46:ARG:NH1	14:CN:61:TRP:CZ2	2.89	0.41
34:DN:17:ASP:OD2	34:DN:18:ALA:N	2.53	0.41
25:DA:2881:C:O2'	25:DA:2882:A:H5'	2.21	0.41
42:BV:19:LYS:CA	42:BV:19:LYS:HE2	2.49	0.41
42:BV:2:PHE:HB2	42:BV:42:GLY:CA	2.51	0.41
27:BC:118:PRO:HD3	27:BC:147:GLY:CA	2.51	0.41
49:D2:64:LEU:HD21	49:D2:68:ARG:NH2	2.29	0.41
25:DA:60:G:C6	25:DA:74:A:N6	2.89	0.41
1:AA:973:G:C6	1:AA:974:A:N6	2.88	0.41
33:BI:12:LEU:HB2	33:BI:19:VAL:HG11	2.02	0.41
47:D0:66:VAL:HG12	47:D0:67:VAL:N	2.36	0.41
2:CB:111:ARG:HH21	2:CB:114:ARG:CB	2.34	0.41
39:DS:27:SER:CA	39:DS:88:ASP:HB3	2.51	0.41
1:AA:471:G:C6	1:AA:472:A:C5	3.08	0.41
16:AP:15:PRO:HB3	16:AP:17:TYR:HE1	1.85	0.41
2:AB:158:LEU:N	2:AB:158:LEU:HD12	2.36	0.41
25:BA:2308:G:N7	25:BA:2309:A:H2'	2.36	0.41
6:CF:8:ILE:CG2	6:CF:9:VAL:N	2.84	0.41
18:CR:71:LYS:O	18:CR:74:ARG:HB2	2.20	0.41
12:AL:42:PRO:HD2	12:AL:48:ALA:O	2.21	0.41
1:AA:848:C:H3'	1:AA:848:C:C6	2.56	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DD:33:LEU:O	28:DD:34:VAL:C	2.59	0.41
2:AB:9:GLU:O	2:AB:12:GLU:CB	2.58	0.41
12:CL:24:LEU:HD12	12:CL:61:TYR:CD1	2.55	0.41
28:BD:68:LYS:HG3	28:BD:68:LYS:O	2.21	0.41
42:BV:35:LEU:H	42:BV:35:LEU:CD2	2.34	0.41
35:DO:87:ILE:CG2	35:DO:88:ASN:N	2.67	0.41
1:AA:407:G:O4'	4:AD:119:GLN:OE1	2.39	0.41
4:AD:3:ARG:NE	4:AD:5:ILE:CG1	2.84	0.41
25:BA:848:G:N9	25:BA:933:A:C8	2.86	0.41
27:BC:213:VAL:HG21	27:BC:227:PRO:HG3	2.02	0.41
20:CT:30:LYS:HD3	20:CT:30:LYS:O	2.21	0.41
6:AF:18:GLN:C	6:AF:20:ALA:H	2.24	0.41
25:DA:1496:A:H5'	25:DA:1497:U:P	2.60	0.41
25:DA:2714:G:C5	25:DA:2715:C:C5	3.09	0.41
1:CA:878:G:H2'	1:CA:879:C:C6	2.56	0.41
49:D2:2:LYS:HA	49:D2:2:LYS:CE	2.43	0.41
38:BR:53:HIS:HB2	38:BR:94:TYR:CZ	2.55	0.41
25:BA:2166:G:C8	25:BA:2167:U:H5	2.39	0.41
25:DA:2359:C:H2'	25:DA:2360:A:O4'	2.20	0.41
25:DA:2340:G:HO2'	25:DA:2341:G:H5'	1.81	0.41
6:AF:43:LEU:H	6:AF:43:LEU:HD13	1.85	0.41
1:AA:1423:G:H5''	35:BO:49:ARG:NH2	2.34	0.41
25:DA:1799:G:H8	28:DD:181:GLU:OE1	2.03	0.41
43:BW:31:GLU:O	43:BW:35:ILE:HG13	2.21	0.41
22:AV:127:VAL:HG22	22:AV:174:ASP:CA	2.51	0.41
4:CD:112:VAL:N	4:CD:116:GLN:OE1	2.50	0.41
1:CA:5:U:HO2'	1:CA:6:G:P	2.44	0.41
27:BC:7:ARG:NH1	27:BC:7:ARG:HG3	2.36	0.41
32:DH:111:HIS:HA	32:DH:112:PRO:HD2	1.94	0.41
29:BE:165:VAL:CG1	29:BE:166:THR:N	2.83	0.41
4:CD:10:ARG:NH1	4:CD:10:ARG:HG2	2.36	0.41
25:DA:1721:G:H5'	25:DA:1722:A:OP2	2.21	0.41
17:CQ:90:ILE:O	17:CQ:91:ARG:C	2.59	0.41
25:BA:79:G:O2'	25:BA:80:G:H5'	2.21	0.41
43:DW:14:PRO:O	43:DW:17:VAL:HG22	2.21	0.41
1:CA:604:G:C6	1:CA:605:U:N3	2.89	0.41
4:AD:155:LEU:O	4:AD:156:GLU:C	2.59	0.41
4:AD:156:GLU:O	4:AD:159:ARG:N	2.54	0.41
25:DA:1315:C:H2'	25:DA:1316:U:H6	1.85	0.41
25:DA:348:G:H2'	25:DA:349:G:C8	2.55	0.41
44:DX:42:ALA:O	44:DX:45:THR:N	2.54	0.41
49:D2:43:GLN:O	49:D2:44:LEU:CD2	2.69	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:BT:13:ARG:HH11	40:BT:13:ARG:HA	1.83	0.41
25:DA:178:G:C6	25:DA:179:G:C5	3.08	0.41
25:BA:2020:A:P	41:BU:27:LEU:HD23	2.61	0.41
25:DA:2777:G:C5'	25:DA:2778:A:H5'	2.51	0.41
28:BD:238:GLY:O	28:BD:239:ARG:HG2	2.21	0.41
1:CA:1052:U:O2'	1:CA:1055:A:OP2	2.35	0.41
46:BZ:40:LEU:O	46:BZ:44:ASP:HB2	2.21	0.41
53:D6:9:LEU:HD23	53:D6:11:LEU:HB3	2.03	0.41
1:AA:895:G:C6	1:AA:896:C:C4	3.09	0.41
39:BS:38:GLN:HB2	39:BS:47:THR:HG21	2.03	0.41
25:DA:664:C:H4'	25:DA:941:A:P	2.61	0.41
1:CA:779:C:H2'	1:CA:780:A:O4'	2.21	0.41
28:BD:166:GLN:CA	28:BD:166:GLN:NE2	2.82	0.41
38:BR:111:LEU:N	38:BR:111:LEU:HD22	2.36	0.41
4:AD:163:GLU:HA	4:AD:163:GLU:OE2	2.20	0.41
23:AW:76:A:H3'	25:BA:2602:A:H61	1.85	0.41
46:DZ:97:MET:HE2	46:DZ:99:VAL:HG22	2.03	0.41
25:BA:699:A:C2	25:BA:1633:G:N3	2.89	0.41
1:CA:540:G:C6	1:CA:541:G:C5	3.08	0.41
26:BB:17:C:O2'	26:BB:18:G:H5'	2.20	0.41
1:AA:1088:G:C2	1:AA:1098:C:C2	3.09	0.41
28:BD:197:GLY:O	28:BD:198:ASN:HB3	2.21	0.41
25:DA:896:A:N9	46:DZ:145:ILE:HD12	2.35	0.41
26:DB:65:C:O2'	26:DB:66:A:H5'	2.21	0.41
41:BU:114:LYS:H	41:BU:114:LYS:HG2	1.74	0.41
25:DA:1783:A:H5'	25:DA:2608:G:H4'	2.03	0.41
25:BA:960:A:H4'	25:BA:2457:U:C5'	2.52	0.41
25:DA:487:C:C5	25:DA:488:G:N7	2.89	0.41
25:DA:2563:U:H4'	35:DO:28:SER:HA	2.03	0.41
16:CP:3:LYS:HB3	16:CP:4:ILE:H	1.70	0.41
23:AW:58:A:O2'	23:AW:60:U:H5	2.01	0.41
39:DS:42:ASP:O	39:DS:43:GLU:HB2	2.21	0.41
25:BA:1649:G:N3	38:BR:107:ASP:HB2	2.36	0.41
37:BQ:75:THR:HG23	37:BQ:76:LYS:N	2.36	0.41
1:AA:268:C:H2'	1:AA:269:C:C6	2.56	0.41
23:CW:74:C:C2'	23:CW:75:C:H5'	2.51	0.41
25:BA:201:C:O2'	25:BA:202:U:H5'	2.20	0.41
25:BA:2011:U:H2'	25:BA:2012:G:H5'	2.03	0.41
4:AD:166:LYS:HG3	4:AD:178:VAL:HG11	2.03	0.41
25:BA:1288:U:C2	25:BA:1327:C:O2	2.74	0.41
25:BA:2694:G:O2'	25:BA:2695:C:H5'	2.21	0.41
25:DA:2859:G:C6	25:DA:2860:A:N6	2.89	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DB:37:C:N3	26:DB:49:C:O4'	2.54	0.41
25:BA:1146:C:O2'	25:BA:1147:C:H5'	2.21	0.41
1:CA:1178:G:OP2	9:CI:93:ARG:NH2	2.54	0.41
1:CA:1041:A:H3'	1:CA:1042:G:C8	2.56	0.41
25:DA:1688:U:O2	25:DA:1700:A:H5'	2.21	0.41
56:D9:14:CYS:HG	58:D9:101:ZN:ZN	0.09	0.40
36:BP:50:ARG:HB3	55:B8:59:LYS:HZ2	1.85	0.40
25:BA:195:A:C8	25:BA:197:A:OP1	2.73	0.40
33:BI:123:LEU:HD13	33:BI:144:VAL:CG1	2.51	0.40
33:BI:144:VAL:CG2	33:BI:145:VAL:H	2.30	0.40
33:BI:93:THR:HB	33:BI:94:ALA:H	1.65	0.40
29:BE:10:GLY:HA3	40:BT:8:LYS:HD2	2.02	0.40
1:AA:1060:C:C4	3:AC:2:GLY:CA	3.04	0.40
2:CB:11:LEU:HD12	2:CB:217:ARG:NH2	2.36	0.40
2:CB:163:PHE:HE1	2:CB:215:LEU:HD23	1.86	0.40
50:D3:51:ALA:O	50:D3:53:LEU:N	2.54	0.40
25:DA:1140:C:H5'	25:DA:1141:U:OP2	2.21	0.40
41:DU:93:LYS:HA	41:DU:96:ALA:HB3	2.02	0.40
44:DX:23:GLU:C	44:DX:25:LYS:H	2.23	0.40
19:CS:63:THR:H	19:CS:66:MET:CE	2.34	0.40
9:CI:11:LYS:N	9:CI:104:ARG:HH21	2.11	0.40
9:CI:79:LEU:O	9:CI:83:ARG:HB3	2.21	0.40
41:BU:62:ILE:H	41:BU:62:ILE:HG12	1.73	0.40
1:CA:1145:C:H4'	1:CA:1146:A:C5'	2.31	0.40
13:CM:93:ARG:HG2	25:DA:888:C:OP2	2.21	0.40
25:BA:2807:G:C2'	25:BA:2808:U:H5''	2.50	0.40
22:CV:149:LYS:HA	22:CV:150:PRO:HD3	1.65	0.40
25:BA:2187:G:C2'	25:BA:2188:C:H5'	2.51	0.40
35:BO:104:ARG:CZ	40:BT:33:LYS:HD2	2.49	0.40
16:AP:55:ARG:O	16:AP:57:ARG:N	2.54	0.40
3:AC:94:LEU:HD12	3:AC:94:LEU:C	2.42	0.40
10:AJ:31:GLY:CA	10:AJ:76:ASN:HD22	2.20	0.40
27:BC:156:GLU:OE1	27:BC:156:GLU:HA	2.21	0.40
25:DA:1567:A:C8	28:DD:84:TYR:CE2	3.03	0.40
25:BA:2795:G:C2	25:BA:2799:C:H5'	2.55	0.40
8:CH:5:PRO:HD2	8:CH:6:ILE:CD1	2.50	0.40
2:AB:19:HIS:CG	2:AB:20:GLU:N	2.88	0.40
20:CT:20:LEU:O	20:CT:23:ARG:N	2.55	0.40
17:AQ:67:LYS:O	17:AQ:67:LYS:HG2	2.19	0.40
1:CA:452:A:OP1	16:CP:43:LYS:NZ	2.52	0.40
13:AM:59:TYR:HB3	13:AM:60:VAL:H	1.65	0.40
35:BO:5:GLN:HE21	35:BO:20:MET:HE2	1.86	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:690:G:H2'	1:AA:691:G:O4'	2.21	0.40
10:AJ:40:LEU:O	10:AJ:69:ASN:HB2	2.21	0.40
1:AA:542:G:H2'	1:AA:543:C:C6	2.55	0.40
32:DH:54:ARG:NH2	32:DH:57:ASP:OD1	2.54	0.40
40:DT:32:TYR:O	40:DT:33:LYS:CB	2.66	0.40
32:BH:71:LEU:N	32:BH:74:ASN:ND2	2.69	0.40
48:B1:50:ARG:O	48:B1:51:VAL:HG12	2.22	0.40
1:AA:1366:C:H2'	1:AA:1367:C:H6	1.86	0.40
7:AG:148:ASN:C	7:AG:150:ALA:N	2.74	0.40
25:DA:636:G:H5'	25:DA:639:U:OP1	2.22	0.40
36:DP:115:LEU:HD23	36:DP:115:LEU:H	1.86	0.40
15:AO:63:ARG:NH1	15:AO:87:ILE:HD13	2.36	0.40
47:D0:51:VAL:CG2	47:D0:81:VAL:HG23	2.51	0.40
23:CW:2:G:C5'	47:D0:8:GLY:HA2	2.50	0.40
25:BA:814:C:H5	36:BP:27:HIS:NE2	2.20	0.40
25:BA:2052:G:H2'	25:BA:2053:G:H8	1.86	0.40
1:AA:523:A:C2	1:AA:527:G:O6	2.73	0.40
15:AO:52:SER:C	15:AO:54:ARG:N	2.74	0.40
25:DA:1654:A:OP2	38:DR:3:HIS:HB2	2.21	0.40
25:BA:523:C:H4'	25:BA:553:G:H22	1.86	0.40
12:CL:65:ALA:HB2	12:CL:82:ILE:CD1	2.51	0.40
1:AA:39:G:C6	1:AA:40:C:N4	2.89	0.40
46:BZ:116:LEU:C	46:BZ:116:LEU:HD23	2.42	0.40
25:BA:1484:G:N2	25:BA:1505:C:N4	2.69	0.40
56:B9:30:PRO:O	56:B9:32:HIS:N	2.54	0.40
25:BA:1394:U:C3'	25:BA:1395:A:C5'	2.90	0.40
44:BX:12:VAL:CG2	44:BX:27:THR:HB	2.51	0.40
6:CF:24:GLU:C	6:CF:28:ARG:NH1	2.75	0.40
18:CR:62:GLU:O	18:CR:63:GLN:C	2.60	0.40
25:DA:1283:G:H2'	25:DA:1285:G:OP2	2.21	0.40
25:BA:141:A:H5'	25:BA:141:A:N3	2.36	0.40
29:DE:37:ARG:HG3	29:DE:80:GLU:OE1	2.21	0.40
31:BG:2:PRO:HG2	51:B4:51:TYR:CE2	2.55	0.40
27:DC:78:ILE:O	27:DC:116:ALA:HA	2.20	0.40
25:DA:1935:G:H1'	25:DA:1964:G:N2	2.36	0.40
25:DA:361:G:C2'	25:DA:362:U:H5''	2.44	0.40
12:AL:24:LEU:HD21	12:AL:61:TYR:CD1	2.56	0.40
29:BE:101:ARG:HB2	29:BE:201:THR:CG2	2.51	0.40
1:AA:78:G:HO2'	1:AA:79:G:N2	2.18	0.40
25:BA:1508:A:H4'	25:BA:1509(A):A:C4	2.56	0.40
25:BA:1113:U:OP1	25:BA:1113:U:C4'	2.69	0.40
25:DA:2297:C:H2'	25:DA:2297:C:O2	2.20	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:384:G:H2'	1:AA:385:C:C6	2.56	0.40
1:AA:537:G:O2'	1:AA:538:G:H5'	2.21	0.40
40:BT:23:ARG:HG2	40:BT:120:ARG:HH12	1.85	0.40
1:AA:1045:C:H2'	1:AA:1045:C:O2	2.21	0.40
7:CG:45:ASP:O	7:CG:49:ILE:HD11	2.21	0.40
13:AM:27:LYS:HD2	13:AM:27:LYS:HA	1.78	0.40
22:AV:131:LYS:CB	22:AV:170:VAL:HG22	2.46	0.40
25:BA:1445(A):C:H2'	25:BA:1445(A):C:O2	2.20	0.40
5:CE:150:ARG:O	5:CE:152:ARG:N	2.54	0.40
1:CA:1498:U:C4	24:CX:4:U:H4'	2.57	0.40
1:AA:106:C:C2	1:AA:107:G:C8	3.08	0.40
25:DA:183:C:C2'	25:DA:184:C:H5'	2.51	0.40
25:BA:1721:G:N2	25:BA:1739:U:OP2	2.54	0.40
25:BA:1204:A:N1	25:BA:1241:A:H2	2.18	0.40
25:DA:2037:G:H2'	25:DA:2038:G:C8	2.55	0.40
1:CA:680:C:O2'	1:CA:681:C:H5'	2.21	0.40
26:BB:2:C:C2	26:BB:3:C:C5	3.10	0.40
1:CA:555:C:H2'	1:CA:556:C:C6	2.57	0.40
1:AA:1452:C:H4'	1:AA:1456:G:N1	2.36	0.40
17:CQ:29:HIS:HA	17:CQ:30:PRO:HD2	1.80	0.40
35:DO:68:GLU:HA	35:DO:78:ARG:HB2	2.02	0.40
25:DA:2286:A:C4	25:DA:2346:A:N1	2.89	0.40
1:AA:34:C:H2'	1:AA:35:G:C8	2.56	0.40
25:BA:15:G:C2	25:BA:16:G:C8	3.09	0.40
41:BU:24:TYR:OH	41:BU:39:LEU:HD23	2.21	0.40
3:CC:166:GLU:O	3:CC:167:TRP:C	2.59	0.40
34:BN:58:ASP:CA	34:BN:60:ILE:HG13	2.51	0.40
38:DR:103:ARG:HH11	43:DW:40:ASN:HD22	1.69	0.40
43:DW:7:ALA:N	43:DW:103:ILE:O	2.49	0.40
25:BA:1766:U:O2	25:BA:1987:G:C2	2.74	0.40
10:CJ:22:LYS:HZ2	10:CJ:23:ILE:HG12	1.83	0.40
1:CA:299:G:O5'	1:CA:299:G:H8	2.04	0.40
1:AA:724:G:N3	1:AA:725:G:C8	2.89	0.40
25:DA:1030:G:H4'	25:DA:2466:C:O2'	2.21	0.40
1:CA:1207:G:C6	1:CA:1208:C:N4	2.89	0.40
45:BY:6:HIS:CE1	45:BY:30:VAL:HG11	2.55	0.40
39:BS:42:ASP:C	39:BS:44:LYS:N	2.73	0.40
1:CA:1212:U:O2	1:CA:1212:U:O4'	2.38	0.40
25:BA:1858:G:N3	25:BA:1883:G:C2	2.88	0.40
1:CA:778:G:O2'	1:CA:779:C:H5'	2.21	0.40
11:AK:48:ILE:HG22	11:AK:49:GLY:H	1.86	0.40
1:CA:1067:A:H3'	1:CA:1093:A:O3'	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:D0:54:GLY:O	47:D0:56:ASP:N	2.54	0.40
25:DA:2364:C:H2'	25:DA:2365:G:O4'	2.21	0.40
25:BA:1448:G:H2'	25:BA:1449:A:C8	2.56	0.40
1:AA:645:C:C2'	1:AA:646:U:H5'	2.51	0.40
25:BA:1745:C:H2'	25:BA:1745(A):C:O4'	2.21	0.40
4:AD:196:LEU:N	4:AD:196:LEU:HD12	2.35	0.40
1:CA:834:C:H2'	1:CA:835:U:C6	2.56	0.40
25:DA:2478:A:H2'	25:DA:2479:G:C5'	2.51	0.40
25:DA:776:G:N7	25:DA:793:A:O2'	2.49	0.40
1:AA:182:U:C4	1:AA:183:G:H1'	2.56	0.40
33:DI:33:ARG:HH11	33:DI:33:ARG:HG2	1.86	0.40
56:B9:20:HIS:O	56:B9:22:ARG:N	2.52	0.40
3:CC:123:GLN:O	3:CC:126:ARG:HB2	2.22	0.40
11:AK:27:ASN:OD1	11:AK:55:LYS:HB3	2.22	0.40
37:BQ:93:TYR:N	37:BQ:93:TYR:CD1	2.90	0.40
15:CO:49:ASP:C	15:CO:49:ASP:OD1	2.59	0.40
25:BA:1322:A:C5	25:BA:1323:U:C5	3.10	0.40
25:BA:2692:C:H2'	25:BA:2693:A:H8	1.86	0.40
28:DD:239:ARG:HH21	28:DD:239:ARG:HG2	1.85	0.40
33:DI:22:LYS:O	33:DI:23:PRO:C	2.59	0.40
18:CR:40:LEU:HD23	18:CR:40:LEU:N	2.36	0.40
29:DE:161:GLY:O	29:DE:162:ALA:C	2.60	0.40
16:AP:2:VAL:HA	16:AP:23:ASP:HA	2.02	0.40
32:BH:99:VAL:HG12	32:BH:99:VAL:O	2.21	0.40
15:AO:47:LYS:HG2	15:AO:47:LYS:H	1.63	0.40
25:BA:1439:A:C2	25:BA:1553:A:C5	3.10	0.40
36:BP:46:LYS:HG2	36:BP:52:GLU:CD	2.42	0.40
7:AG:32:ARG:HH11	7:AG:32:ARG:HG2	1.86	0.40
9:AI:73:GLN:O	9:AI:75:ASP:N	2.55	0.40
9:AI:37:PHE:CE2	9:AI:74:ILE:HG12	2.56	0.40
32:BH:12:PRO:HB2	32:BH:15:VAL:HG22	2.02	0.40
32:BH:9:ILE:O	32:BH:11:VAL:HG23	2.20	0.40
46:DZ:25:GLY:HA2	46:DZ:84:HIS:CD2	2.56	0.40
46:DZ:37:TYR:O	46:DZ:37:TYR:CD1	2.74	0.40
25:DA:1001:A:H2'	25:DA:1002:G:O4'	2.21	0.40
25:DA:1141:U:OP2	34:DN:22:THR:HG21	2.21	0.40
42:DV:52:VAL:O	42:DV:52:VAL:HG13	2.20	0.40
46:DZ:18:ARG:HB3	46:DZ:81:ARG:NH1	2.36	0.40
44:DX:36:LYS:HE2	44:DX:55:ASN:HA	2.03	0.40
1:AA:194:C:O3'	20:AT:68:LYS:HD3	2.20	0.40
9:CI:117:HIS:C	9:CI:118:LYS:HG3	2.42	0.40
31:DG:135:LEU:HB2	31:DG:155:MET:HE2	2.04	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
45:DY:27:VAL:HA	45:DY:28:LYS:CE	2.47	0.40
29:DE:31:CYS:SG	29:DE:51:PHE:CD2	3.07	0.40
25:DA:2810:A:C2'	29:DE:61:ARG:CZ	2.99	0.40
30:BF:3:GLU:HA	30:BF:24:LEU:CD1	2.50	0.40
1:AA:187:C:O2'	1:AA:188:C:H5'	2.22	0.40
53:B6:46:HIS:C	53:B6:47:THR:HG23	2.42	0.40
45:BY:26:LYS:O	45:BY:28:LYS:HE3	2.21	0.40
25:BA:1342:A:OP1	44:BX:36:LYS:HE2	2.22	0.40
1:AA:12:U:H3	1:AA:22:G:H1	1.68	0.40
46:BZ:151:ALA:HA	46:BZ:166:PRO:C	2.42	0.40
32:DH:139:GLN:C	32:DH:141:VAL:H	2.25	0.40
36:BP:84:ASN:C	36:BP:86:LYS:N	2.72	0.40
2:AB:185:ILE:HG12	2:AB:199:TYR:HB2	2.03	0.40
2:AB:197:VAL:HB	2:AB:200:ILE:HG13	2.02	0.40
2:AB:217:ARG:HD3	2:AB:217:ARG:H	1.79	0.40
1:CA:689:C:P	11:CK:46:GLY:HA3	2.62	0.40
55:B8:34:TRP:CE2	55:B8:35:GLN:HB2	2.56	0.40
29:BE:86:PRO:C	29:BE:88:GLY:N	2.75	0.40
13:CM:11:ARG:NH2	31:DG:146:TYR:CD2	2.89	0.40
13:AM:15:VAL:HG12	13:AM:45:VAL:HG22	2.03	0.40
1:AA:696:A:H1'	1:AA:786:G:O2'	2.21	0.40
28:BD:242:ARG:CD	28:BD:242:ARG:H	2.15	0.40
25:DA:9:U:H5''	34:DN:115:ARG:HH21	1.87	0.40
28:BD:274:ARG:HD3	28:BD:274:ARG:H	1.87	0.40
28:DD:28:GLU:CD	28:DD:28:GLU:N	2.74	0.40
8:AH:109:ILE:O	8:AH:137:VAL:N	2.50	0.40
33:DI:43:ASN:O	33:DI:44:LEU:C	2.60	0.40
33:DI:43:ASN:O	33:DI:46:ALA:HB3	2.20	0.40
40:DT:27:THR:OG1	40:DT:28:VAL:N	2.54	0.40
14:AN:22:THR:HG22	14:AN:33:VAL:HB	2.02	0.40
25:DA:2347:C:H2'	25:DA:2348:U:H6	1.85	0.40
47:D0:43:THR:O	47:D0:45:PHE:N	2.54	0.40
47:D0:52:GLY:H	47:D0:62:LEU:HD11	1.81	0.40
1:AA:458:C:C4	1:AA:460:G:N7	2.90	0.40
10:CJ:17:ASP:HA	10:CJ:20:ALA:HB3	2.04	0.40
1:CA:89:C:OP1	1:CA:90:U:N3	2.54	0.40
5:CE:110:LEU:O	5:CE:115:VAL:CB	2.69	0.40
25:DA:2031:A:C5	25:DA:2498:C:H1'	2.56	0.40
12:CL:24:LEU:O	12:CL:26:GLY:N	2.54	0.40
25:DA:1175:U:O3'	25:DA:1176:G:H3'	2.22	0.40
1:AA:545:C:O2'	1:AA:549:C:OP1	2.39	0.40
20:CT:26:ASN:C	20:CT:26:ASN:HD22	2.25	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:CT:34:LYS:O	20:CT:37:SER:HB2	2.21	0.40
30:DF:53:THR:C	30:DF:55:GLY:N	2.74	0.40
13:CM:53:VAL:C	13:CM:55:ARG:N	2.75	0.40
25:BA:1394:U:C4	25:BA:1395:A:C6	3.09	0.40
5:CE:20:GLN:O	5:CE:21:ALA:C	2.59	0.40
44:BX:39:ILE:O	44:BX:40:LYS:O	2.39	0.40
1:CA:192:U:O4'	20:CT:103:GLY:HA2	2.21	0.40
20:CT:57:ARG:HH11	20:CT:103:GLY:H	1.66	0.40
7:AG:108:ALA:O	7:AG:110:GLN:N	2.49	0.40
1:AA:1102:A:C6	1:AA:1103:C:C4	3.09	0.40
4:CD:157:LEU:HB3	4:CD:161:ASN:HD21	1.82	0.40
4:CD:3:ARG:HD3	4:CD:3:ARG:H	1.84	0.40
1:CA:1256:A:O5'	1:CA:1258:G:H1'	2.21	0.40
31:BG:12:TYR:O	31:BG:16:ARG:HB2	2.22	0.40
34:BN:120:LEU:HD11	34:BN:122:VAL:HG23	2.03	0.40
26:BB:30:C:O4'	26:BB:58:A:C2	2.75	0.40
38:DR:85:PRO:C	38:DR:87:TYR:H	2.24	0.40
8:CH:64:LYS:C	8:CH:65:TYR:CD1	2.95	0.40
25:BA:726:G:O2'	25:BA:727:A:O5'	2.39	0.40
32:DH:41:MET:SD	32:DH:41:MET:N	2.95	0.40
25:DA:493:G:H4'	43:DW:8:ARG:HB2	2.02	0.40
25:BA:322:A:H4'	25:BA:323:G:OP2	2.21	0.40
49:B2:5:GLU:O	49:B2:6:VAL:C	2.59	0.40
31:BG:39:ILE:HD12	31:BG:156:ASP:O	2.21	0.40
36:DP:95:VAL:HG23	36:DP:95:VAL:O	2.20	0.40
31:DG:6:ALA:O	31:DG:10:LYS:HB2	2.21	0.40
36:DP:123:LEU:O	36:DP:123:LEU:HD12	2.20	0.40
1:AA:486:U:H2'	1:AA:487:A:O4'	2.22	0.40
33:DI:31:LEU:HD12	33:DI:31:LEU:N	2.35	0.40
25:DA:1133:U:O2	25:DA:1137:G:H5''	2.21	0.40
28:BD:142:VAL:O	28:BD:142:VAL:HG13	2.20	0.40
1:CA:600:C:C2	1:CA:639:G:C2	3.09	0.40
1:CA:246:A:N3	1:CA:247:G:H1'	2.37	0.40
1:AA:1383:C:H2'	1:AA:1384:C:C6	2.57	0.40
25:BA:1914:C:P	25:BA:1914:C:O2	2.79	0.40
25:BA:1042:G:H3'	25:BA:1043:C:H5'	2.02	0.40
9:AI:49:PRO:CG	9:AI:81:ILE:HB	2.50	0.40
25:DA:2346:A:N7	25:DA:2383:G:C6	2.90	0.40
34:BN:55:VAL:HG22	34:BN:56:ASN:N	2.37	0.40
1:AA:1080:A:C4'	5:AE:16:THR:OG1	2.67	0.40
46:BZ:41:VAL:O	46:BZ:44:ASP:HB3	2.21	0.40
23:AW:66:C:H2'	23:AW:67:C:C6	2.56	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:AN:53:LEU:HD23	14:AN:53:LEU:HA	1.87	0.40
25:BA:185:U:H4'	25:BA:218:A:H4'	2.04	0.40
25:BA:614:U:H2'	25:BA:614(A):U:O4'	2.22	0.40
2:CB:149:LEU:HD22	2:CB:152:PHE:CD1	2.56	0.40
47:B0:61:LEU:C	47:B0:62:VAL:HG13	2.41	0.40
1:AA:175:C:H2'	1:AA:175:C:O2	2.21	0.40
1:CA:64:G:H3'	1:CA:64:G:OP1	2.21	0.40
1:CA:1108:G:H5'	3:CC:176:HIS:ND1	2.36	0.40
1:AA:116:A:O2'	1:AA:117:G:H5'	2.20	0.40
25:BA:1792:G:C5'	28:BD:205:VAL:HG13	2.51	0.40
33:DI:136:VAL:O	33:DI:137:PRO:C	2.60	0.40
25:BA:1448:G:H5'	25:BA:1449:A:OP1	2.21	0.40
1:AA:1379:G:H2'	1:AA:1380:U:H6	1.86	0.40
27:BC:54:ARG:HB3	27:BC:56:ASP:OD1	2.21	0.40
11:CK:14:VAL:HG11	11:CK:34:ASP:HB2	2.03	0.40
25:BA:1829:A:H2'	25:BA:1830:C:H5'	2.02	0.40
30:DF:73:ALA:O	30:DF:74:ARG:C	2.59	0.40
30:BF:148:LEU:HD23	30:BF:148:LEU:HA	1.90	0.40
38:BR:38:VAL:N	38:BR:39:PRO:CD	2.84	0.40
55:D8:21:LYS:HZ3	55:D8:48:PHE:HZ	1.66	0.40
25:DA:2719:G:C2'	25:DA:2720:U:OP2	2.69	0.40
25:DA:1342:A:N1	25:DA:1345:C:C2	2.89	0.40
25:DA:708:C:H42	25:DA:723:G:H1	1.69	0.40
25:DA:723:G:H2'	25:DA:724:U:H6	1.86	0.40
25:BA:2818:G:O2'	25:BA:2837:G:H5'	2.21	0.40
25:DA:429:A:C5	25:DA:430:G:C6	3.09	0.40
31:BG:104:GLU:O	31:BG:105:LYS:C	2.59	0.40
41:BU:117:GLN:NE2	41:BU:117:GLN:HA	2.35	0.40
25:BA:2593:U:H2'	25:BA:2594:C:C6	2.57	0.40
1:CA:1445:C:H2'	1:CA:1446:U:O4'	2.21	0.40
25:BA:1832:C:N4	25:BA:1833:U:C4	2.89	0.40
33:BI:5:LEU:HD12	33:BI:5:LEU:H	1.86	0.40
1:CA:1461:G:H8	1:CA:1461:G:O5'	2.04	0.40
55:D8:26:LYS:HA	55:D8:26:LYS:HD3	1.76	0.40
48:B1:83:GLU:O	48:B1:84:GLY:O	2.39	0.40
25:BA:1996:C:P	35:BO:31:LYS:NZ	2.94	0.40
55:B8:61:LEU:CD1	55:B8:61:LEU:N	2.53	0.40
55:B8:6:THR:HG22	55:B8:61:LEU:HD13	2.04	0.40
55:B8:6:THR:CG2	55:B8:63:PRO:HD3	2.50	0.40
33:BI:88:ILE:CG1	33:BI:122:GLU:N	2.81	0.40
33:BI:123:LEU:CD1	33:BI:144:VAL:HG12	2.50	0.40
29:BE:11:MET:O	40:BT:8:LYS:NZ	2.53	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:BT:8:LYS:O	40:BT:10:VAL:N	2.54	0.40
35:DO:11:ALA:O	35:DO:12:ASP:HB3	2.20	0.40
7:AG:46:ALA:HB1	7:AG:121:ALA:HB2	2.03	0.40
9:AI:45:ALA:O	9:AI:46:ALA:C	2.58	0.40
37:DQ:134:ARG:O	37:DQ:135:ASP:HB3	2.22	0.40
2:CB:8:LYS:O	2:CB:12:GLU:N	2.50	0.40
2:CB:82:ARG:HG3	2:CB:92:TYR:OH	2.20	0.40
25:DA:2115:G:H2'	25:DA:2116:G:C5'	2.51	0.40
25:DA:1349:A:N6	25:DA:1598:C:N4	2.69	0.40
1:CA:947:G:C5	1:CA:948:C:C4	3.08	0.40
7:CG:134:ALA:C	7:CG:136:LYS:N	2.70	0.40
7:CG:47:CYS:O	7:CG:51:GLN:HG2	2.21	0.40
1:AA:1265:G:H22	1:AA:1271:G:H1'	1.85	0.40
1:AA:1267:C:C5	1:AA:1268:A:C5	3.09	0.40
13:AM:83:ASP:OD1	19:AS:74:PHE:HE1	2.05	0.40
30:BF:196:LEU:C	30:BF:198:ALA:N	2.75	0.40
35:BO:77:ILE:HD13	40:BT:74:ARG:HD3	2.02	0.40
30:DF:57:VAL:HG21	30:DF:87:GLY:CA	2.52	0.40
25:DA:608:A:H2'	25:DA:609:A:H8	1.79	0.40
27:BC:131:ILE:HB	27:BC:132:LEU:H	1.73	0.40
46:BZ:166:PRO:O	46:BZ:167:GLU:HB2	2.21	0.40
25:BA:275:G:H1'	25:BA:363:G:N2	2.36	0.40
8:CH:7:ALA:HA	8:CH:85:ARG:HG3	2.04	0.40
25:DA:2663:G:H2'	25:DA:2664:G:H8	1.85	0.40
2:AB:32:ILE:HG13	2:AB:33:TYR:N	2.36	0.40
1:CA:325:A:H2'	1:CA:326:G:O4'	2.22	0.40
25:BA:498:G:O2'	25:BA:499:U:H5'	2.21	0.40
46:BZ:127:VAL:HB	46:BZ:160:VAL:HA	2.02	0.40
13:AM:39:ILE:CD1	13:AM:56:LEU:HD23	2.52	0.40
2:AB:110:GLN:HB2	2:AB:110:GLN:HE21	1.57	0.40
5:AE:11:ILE:HB	5:AE:31:LEU:HD12	2.03	0.40
5:AE:33:VAL:HG22	5:AE:109:ILE:HG12	2.02	0.40
40:DT:16:ARG:H	40:DT:79:HIS:CD2	2.39	0.40
25:BA:271(T):C:O2'	25:BA:271(U):G:H5'	2.21	0.40
1:CA:1189:C:OP1	10:CJ:51:ARG:NH2	2.42	0.40
3:CC:178:LEU:HA	3:CC:178:LEU:HD13	1.81	0.40
1:CA:1060:C:C5'	10:CJ:51:ARG:HB3	2.52	0.40
34:DN:18:ALA:HB1	34:DN:21:LYS:HB3	2.02	0.40
40:DT:29:ARG:NH2	40:DT:46:GLU:OE1	2.55	0.40
14:CN:4:LYS:O	14:CN:8:GLU:HB2	2.21	0.40
37:BQ:132:VAL:HG11	46:BZ:80:ARG:HH22	1.85	0.40
31:DG:44:GLY:O	31:DG:47:LYS:NZ	2.55	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DG:72:ARG:NH1	31:DG:72:ARG:HG2	2.32	0.40
15:AO:63:ARG:O	15:AO:67:LEU:HD12	2.21	0.40
15:AO:76:GLU:HA	15:AO:76:GLU:OE1	2.22	0.40
25:BA:1331:A:O2'	25:BA:1332:G:C8	2.74	0.40
30:BF:1:MET:CG	30:BF:26:ALA:HA	2.51	0.40
39:DS:14:VAL:HG12	39:DS:15:ARG:N	2.36	0.40
1:AA:375:U:H2'	1:AA:376:G:C8	2.57	0.40
1:AA:389:A:H2'	1:AA:390:C:C5'	2.50	0.40
1:CA:1152:A:H5''	10:CJ:13:HIS:HD2	1.85	0.40
1:AA:1194:U:C2'	1:AA:1195:C:H6	2.30	0.40
40:BT:58:ASN:O	40:BT:58:ASN:OD1	2.38	0.40
28:DD:18:VAL:HG12	28:DD:211:ARG:NH2	2.36	0.40
13:AM:57:ARG:NH1	13:AM:57:ARG:CB	2.85	0.40
1:AA:741:G:H2'	1:AA:742:G:C8	2.56	0.40
32:DH:70:THR:HA	32:DH:73:ALA:CB	2.51	0.40
43:DW:64:MET:HB3	43:DW:109:GLU:OE1	2.21	0.40
30:BF:113:ALA:C	30:BF:115:ALA:N	2.70	0.40
30:BF:202:PHE:O	30:BF:203:GLN:C	2.59	0.40
1:AA:1298:C:H1'	1:AA:1299:A:N1	2.35	0.40
5:CE:64:ARG:HG3	5:CE:64:ARG:O	2.21	0.40
55:D8:29:LYS:HB2	55:D8:44:LYS:HG2	2.04	0.40
13:CM:48:LEU:HG	13:CM:53:VAL:CG2	2.51	0.40
16:CP:27:LYS:O	16:CP:28:ARG:C	2.60	0.40
17:AQ:93:GLN:C	17:AQ:95:TYR:N	2.73	0.40
53:D6:10:LEU:CG	55:D8:34:TRP:CD1	2.95	0.40
55:B8:50:LEU:O	55:B8:52:LYS:N	2.52	0.40
25:BA:2302:G:C6	25:BA:2315:G:C6	3.09	0.40
1:CA:1493:A:N1	25:DA:1913:A:N3	2.69	0.40
6:AF:75:LEU:HD23	6:AF:79:LEU:CG	2.51	0.40
4:AD:102:ASP:HA	4:AD:121:VAL:HG21	2.02	0.40
4:AD:135:LEU:C	4:AD:137:SER:N	2.73	0.40
46:BZ:152:SER:O	46:BZ:153:ASP:C	2.60	0.40
2:AB:198:ASP:HA	8:AH:68:ARG:NH2	2.36	0.40
25:BA:728:G:C5	25:BA:730:C:C4	3.09	0.40
1:AA:1423:G:C5'	35:BO:49:ARG:HH22	2.30	0.40
25:DA:1465:G:C2	25:DA:1466:G:N9	2.89	0.40
25:DA:1952:A:C6	25:DA:1953:A:N1	2.89	0.40
43:BW:28:SER:C	43:BW:30:GLU:N	2.73	0.40
19:AS:25:LYS:HB2	19:AS:27:GLU:OE2	2.22	0.40
25:DA:1824:G:N3	28:DD:254:THR:OG1	2.49	0.40
25:BA:444:C:H2'	25:BA:445:C:O5'	2.21	0.40
25:DA:330:A:HO2'	25:DA:331:A:H8	1.68	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BG:131:TYR:CE2	31:BG:133:LEU:HD22	2.56	0.40
31:BG:39:ILE:HD13	31:BG:157:ILE:HG12	2.03	0.40
1:AA:992:U:O2'	1:AA:993:G:P	2.79	0.40
30:DF:183:VAL:HG13	30:DF:183:VAL:H	1.64	0.40
31:BG:18:GLU:HG3	31:BG:22:ARG:HD2	2.02	0.40
25:DA:1988:C:H2'	25:DA:1989:G:C8	2.56	0.40
34:DN:82:LEU:HD12	34:DN:82:LEU:HA	1.79	0.40
17:CQ:11:VAL:HG12	17:CQ:85:VAL:HG22	2.03	0.40
25:BA:1934:C:H2'	25:BA:1935:G:H5'	2.03	0.40
32:BH:40:GLU:O	32:BH:41:MET:CB	2.65	0.40
27:BC:210:LEU:H	27:BC:210:LEU:HG	1.67	0.40
25:DA:1148:A:H2'	25:DA:1149:G:C8	2.56	0.40
25:DA:234:C:O2'	25:DA:235:U:H5'	2.21	0.40
20:CT:41:ILE:CA	20:CT:44:ALA:HB3	2.47	0.40
31:DG:32:PRO:CB	31:DG:172:LEU:HD22	2.51	0.40
37:BQ:103:MET:CE	37:BQ:125:LEU:HD13	2.51	0.40
41:BU:24:TYR:CE1	41:BU:39:LEU:CD2	3.05	0.40
1:CA:725:G:C2'	1:CA:726:C:H5'	2.52	0.40
1:CA:1501:C:N4	1:CA:1504:G:C2	2.90	0.40
27:DC:22:THR:O	27:DC:26:ALA:HB2	2.21	0.40
8:CH:84:ARG:O	8:CH:135:CYS:HB2	2.21	0.40
25:BA:2072:G:C2'	25:BA:2073:C:H5'	2.51	0.40
25:DA:2740:A:N6	25:DA:2741:A:C6	2.89	0.40
25:DA:1910:G:C2'	25:DA:1911:U:H5'	2.52	0.40
1:CA:590:C:O2'	1:CA:591:U:H5'	2.22	0.40
28:BD:170:GLY:C	28:BD:172:TYR:H	2.24	0.40
25:BA:1449:A:N7	25:BA:1450:G:C8	2.90	0.40
44:BX:57:LEU:HD11	44:BX:78:LYS:CG	2.51	0.40
49:B2:30:ARG:CG	49:B2:31:GLU:N	2.84	0.40
30:DF:51:THR:HB	30:DF:88:VAL:HG11	2.03	0.40
11:CK:21:ILE:HA	11:CK:30:VAL:HG12	2.02	0.40
10:AJ:22:LYS:HZ2	10:AJ:23:ILE:HA	1.86	0.40
39:BS:26:LEU:HA	39:BS:39:ILE:HD13	2.03	0.40
1:AA:1485:U:H2'	1:AA:1486:G:H8	1.87	0.40
1:AA:1486:G:H2'	1:AA:1487:G:O4'	2.21	0.40
25:DA:579:G:C2	25:DA:1262:A:C4	3.10	0.40
25:BA:1281:G:N2	25:BA:1290:C:C2	2.89	0.40
28:BD:200:ASP:O	28:BD:202:LYS:N	2.54	0.40
25:DA:1892:C:H2'	25:DA:1893:C:C6	2.56	0.40
26:DB:24:G:O2'	26:DB:25:A:OP2	2.29	0.40
1:CA:1087:G:H2'	1:CA:1088:G:H8	1.86	0.40
25:DA:271(C):C:O2'	25:DA:271(D):G:H5'	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:CP:76:GLN:O	16:CP:76:GLN:CG	2.68	0.40
25:BA:221:A:O2'	25:BA:222:A:OP2	2.32	0.40
1:AA:914:A:O2'	1:AA:915:A:H5'	2.21	0.40
25:DA:2084:C:H2'	25:DA:2085:C:H6	1.87	0.40
9:AI:122:ALA:HB1	9:AI:123:PRO:HD2	2.02	0.40
32:BH:126:PRO:HG2	32:BH:130:ARG:HB3	2.04	0.40
25:BA:2228:G:H2'	25:BA:2229:C:O4'	2.22	0.40
25:BA:2049:G:C2'	25:BA:2050:C:H5'	2.51	0.40
1:CA:795:C:O5'	1:CA:795:C:H6	2.04	0.40
46:BZ:102:ARG:HE	46:BZ:102:ARG:HB3	1.62	0.40
44:DX:52:VAL:HG12	44:DX:52:VAL:O	2.22	0.40
1:CA:945:G:H2'	1:CA:945:G:N3	2.36	0.40
25:DA:497:A:H2'	25:DA:498:G:O4'	2.21	0.40
1:CA:699:C:H2'	1:CA:700:G:H5'	2.03	0.40
48:D1:6:GLU:HG3	48:D1:61:ARG:O	2.20	0.40
25:BA:2343:C:O3'	25:BA:2373:G:H4'	2.22	0.40
15:CO:46:HIS:O	15:CO:47:LYS:C	2.58	0.40
39:BS:93:LYS:CG	39:BS:93:LYS:O	2.69	0.40
1:AA:1060:C:OP1	14:AN:45:ARG:NH2	2.55	0.40
1:AA:1373:G:OP1	9:AI:42:ARG:HD2	2.22	0.40
10:AJ:51:ARG:CG	10:AJ:61:GLU:H	2.28	0.40
46:DZ:52:ILE:CG2	46:DZ:70:VAL:O	2.69	0.40
2:CB:161:ALA:HA	2:CB:183:PRO:O	2.22	0.40
2:CB:58:ILE:HD11	2:CB:185:ILE:HG21	2.03	0.40
2:CB:15:VAL:CB	2:CB:209:ARG:HB3	2.50	0.40
50:D3:4:LEU:CD2	50:D3:6:VAL:HG13	2.51	0.40
25:DA:1012:U:H3	34:DN:25:ARG:NE	2.19	0.40
25:DA:999:U:H2'	25:DA:1000:A:C5'	2.41	0.40
26:DB:93:G:P	46:DZ:78:ARG:HH12	2.45	0.40
9:CI:21:PRO:HA	9:CI:59:PHE:CA	2.15	0.40
1:CA:1241:G:C6	1:CA:1242:C:N4	2.89	0.40
9:CI:102:LEU:HA	9:CI:102:LEU:HD22	1.84	0.40
25:BA:1000:A:C2	25:BA:1155:A:C4	3.09	0.40
25:DA:885:C:HO2'	25:DA:886:C:C1'	2.34	0.40
25:BA:2792:G:O2'	25:BA:2793:G:H5'	2.21	0.40
1:AA:1270:C:H4'	1:AA:1314:C:H5'	2.03	0.40
1:AA:977:A:C2	1:AA:1224:G:C6	3.10	0.40
19:AS:36:ARG:NH2	19:AS:72:GLY:O	2.55	0.40
1:CA:1363(A):A:C8	1:CA:1365:G:C4	3.10	0.40
45:DY:28:LYS:HB3	45:DY:39:VAL:CG2	2.50	0.40
29:DE:71:GLY:C	29:DE:73:GLU:N	2.73	0.40
25:DA:278:A:P	25:DA:279:C:C4	3.15	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:DF:181:LEU:CD1	30:DF:186:ILE:HD11	2.47	0.40
30:DF:197:ASP:C	30:DF:199:TRP:N	2.73	0.40
30:DF:3:GLU:CA	30:DF:24:LEU:CB	2.95	0.40
25:DA:1246:A:H4'	30:DF:45:ARG:HH12	1.85	0.40
45:BY:27:VAL:C	45:BY:28:LYS:HE3	2.42	0.40
10:AJ:4:ILE:CG2	10:AJ:5:ARG:N	2.85	0.40
10:AJ:33:GLN:O	10:AJ:75:ILE:HG12	2.21	0.40
25:DA:2370:G:C6	25:DA:2371:G:C6	3.09	0.40
50:D3:24:LYS:O	50:D3:24:LYS:HG3	2.20	0.40
25:DA:171:G:P	25:DA:171:G:C8	3.14	0.40
28:BD:266:SER:C	28:BD:267:SER:O	2.59	0.40
46:BZ:165:SER:HB2	46:BZ:167:GLU:H	1.80	0.40
32:DH:127:GLU:C	32:DH:129:THR:H	2.25	0.40
25:BA:275:G:H3'	25:BA:275:G:H8	1.86	0.40
13:AM:7:VAL:HG13	31:BG:113:ARG:HD2	2.03	0.40
31:BG:64:THR:OG1	31:BG:94:LEU:HD11	2.22	0.40
25:DA:2679:A:C2	25:DA:2729:G:C2	3.10	0.40
53:B6:41:PRO:O	53:B6:43:CYS:N	2.55	0.40
53:B6:19:ARG:CD	53:B6:42:TRP:HE1	2.34	0.40
20:CT:20:LEU:O	20:CT:22:ARG:N	2.54	0.40
40:BT:85:LYS:HZ2	40:BT:86:ILE:N	2.18	0.40
8:CH:109:ILE:HD11	8:CH:120:THR:CG2	2.51	0.40
36:BP:65:ARG:NH2	55:B8:15:LYS:CB	2.78	0.40
1:AA:1121:U:C6	1:AA:1122:U:H5	2.40	0.40
5:AE:139:LEU:O	5:AE:141:GLN:N	2.54	0.40
5:AE:42:GLY:HA3	5:AE:65:ASN:O	2.22	0.40
40:DT:83:ILE:CG1	40:DT:84:GLN:H	2.25	0.40
14:CN:60:SER:C	14:CN:61:TRP:HE3	2.24	0.40
25:DA:271(L):U:O2	25:DA:271(M):G:O6	2.39	0.40
33:DI:47:LEU:HD12	33:DI:47:LEU:N	2.36	0.40
1:CA:749:C:H2'	1:CA:750:G:H8	1.86	0.40
15:CO:87:ILE:CG2	15:CO:88:ARG:N	2.71	0.40
15:CO:9:GLN:O	15:CO:10:LYS:C	2.60	0.40
48:B1:52:ARG:O	48:B1:53:VAL:HB	2.22	0.40
14:AN:24:CYS:HB2	14:AN:40:CYS:HB3	2.03	0.40
37:BQ:64:ILE:HG22	37:BQ:65:PHE:N	2.36	0.40
33:BI:19:VAL:HG22	33:BI:20:ASP:N	2.36	0.40
33:BI:38:LEU:CD1	33:BI:38:LEU:H	2.19	0.40
1:CA:1038:C:H2'	1:CA:1039:C:C4	2.57	0.40
25:BA:1465:G:C6	25:BA:1466:G:N7	2.90	0.40
39:DS:29:PHE:HD2	39:DS:30:ARG:N	2.20	0.40
10:CJ:5:ARG:O	10:CJ:5:ARG:HG3	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:BA:2309:A:H2'	25:BA:2310:A:H5'	2.02	0.40
1:AA:392:G:C2	1:AA:393:A:C4	3.10	0.40
12:AL:87:VAL:HG12	12:AL:89:ASP:N	2.33	0.40
28:BD:92:ILE:CD1	28:BD:92:ILE:N	2.83	0.40
25:DA:764:A:C5	28:DD:209:ALA:CB	3.04	0.40
28:DD:11:PRO:C	28:DD:13:ARG:N	2.73	0.40
25:BA:2831:G:P	29:BE:58:ARG:HH22	2.44	0.40
27:BC:30:VAL:HG22	27:BC:217:THR:HG22	2.02	0.40
28:DD:92:ILE:N	28:DD:92:ILE:CD1	2.82	0.40
40:DT:70:VAL:HG12	40:DT:71:GLY:N	2.37	0.40
11:CK:95:ILE:O	11:CK:99:GLN:NE2	2.45	0.40
4:AD:4:TYR:O	4:AD:5:ILE:HB	2.22	0.40
1:AA:622:A:C8	1:AA:623:C:C6	3.09	0.40
1:AA:626:U:H2'	1:AA:627:G:H8	1.81	0.40
11:CK:126:ARG:C	11:CK:128:ALA:H	2.24	0.40
25:DA:2224:G:H4'	25:DA:2226:C:C2	2.56	0.40
25:DA:19:C:H2'	25:DA:20:C:C6	2.56	0.40
1:CA:355:C:C4	1:CA:356:A:N7	2.90	0.40
4:CD:174:LEU:O	4:CD:186:LEU:HD11	2.21	0.40
4:CD:175:SER:O	4:CD:176:LEU:HB2	2.21	0.40
25:DA:2397:G:C2	25:DA:2420:C:C2	3.10	0.40
11:AK:38:ASN:ND2	11:AK:38:ASN:N	2.69	0.40
25:DA:833:U:O2'	25:DA:834:C:H5'	2.21	0.40
22:AV:108:MET:CE	22:AV:109:THR:H	2.35	0.40
22:AV:70:LEU:HD23	22:AV:84:ASP:HA	2.04	0.40
29:DE:134:ILE:HA	29:DE:137:HIS:HD2	1.85	0.40
1:AA:300:A:C2	1:AA:566:G:O6	2.74	0.40
25:BA:2200:C:O5'	25:BA:2200:C:H6	2.05	0.40
1:CA:176:C:H2'	1:CA:177:C:C6	2.56	0.40
37:DQ:85:LYS:HE2	47:D0:7:LEU:HD12	2.04	0.40
25:BA:2117:A:OP2	25:BA:2117:A:H8	2.04	0.40
13:AM:102:ARG:CB	13:AM:102:ARG:HH11	2.33	0.40
13:AM:102:ARG:CG	13:AM:102:ARG:HH11	2.34	0.40
1:AA:601:C:O2'	1:AA:602:A:H5'	2.21	0.40
25:BA:2263:C:H2'	25:BA:2264:C:C6	2.54	0.40
28:BD:148:GLU:HB2	28:BD:151:LYS:HD2	2.02	0.40
1:AA:1000:U:O5'	1:AA:1000:U:H6	2.04	0.40
48:B1:13:ILE:HD11	48:B1:42:GLN:OE1	2.22	0.40
1:AA:806:C:H2'	1:AA:807:A:C8	2.43	0.40
28:BD:120:GLY:HA2	28:BD:121:PRO:HD3	1.89	0.40
1:AA:448:A:OP2	1:AA:485:G:N2	2.48	0.40
1:CA:59:A:C5'	1:CA:60:A:C5'	2.99	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BW:6:ILE:HG22	43:BW:8:ARG:HG2	2.02	0.40
5:AE:94:ALA:HB1	5:AE:98:THR:HG21	2.04	0.40
1:CA:937:A:N6	1:CA:1345:U:O4	2.49	0.40
48:D1:51:VAL:O	48:D1:57:GLU:O	2.39	0.40
25:DA:1620:G:O2'	54:D7:2:LYS:HE3	2.21	0.40
13:AM:108:ARG:HA	13:AM:108:ARG:NH1	2.29	0.40
1:CA:297:G:H4'	1:CA:557:G:H4'	2.03	0.40
25:BA:1952:A:C4	35:BO:22:ILE:HD12	2.57	0.40
25:DA:139(A):G:N2	44:DX:44:GLU:OE1	2.54	0.40
54:D7:47:ARG:C	54:D7:48:LYS:HD3	2.42	0.40
49:D2:38:GLN:H	49:D2:38:GLN:HG2	1.63	0.40
47:B0:55:ASP:O	47:B0:56:PHE:CB	2.66	0.40
5:AE:17:ALA:HB2	5:AE:26:PHE:CD2	2.56	0.40
35:BO:111:PHE:O	35:BO:114:ILE:HB	2.21	0.40
25:DA:1575:C:H2'	25:DA:1575:C:O2	2.21	0.40
25:DA:2751:G:H2'	25:DA:2751:G:N3	2.36	0.40
25:BA:1570:A:H4'	28:BD:38:LYS:HE2	2.03	0.40
25:DA:1569:A:H2'	25:DA:1570:A:O4'	2.22	0.40
1:CA:9:G:H2'	1:CA:10:A:H8	1.86	0.40
31:BG:136:ARG:O	31:BG:154:GLY:CA	2.69	0.40
9:AI:31:GLN:HE21	9:AI:31:GLN:HB2	1.69	0.40
1:CA:441:A:N7	1:CA:442:C:C4	2.90	0.40
1:CA:287:U:O2'	1:CA:288:A:H5'	2.22	0.40
25:DA:2262:U:C5	47:D0:16:SER:OG	2.74	0.40
30:BF:143:ALA:HB1	30:BF:148:LEU:HB2	2.02	0.40
1:AA:872:A:C2	1:AA:874:G:C6	3.10	0.40
25:BA:1309:G:C6	25:BA:1310:G:C5	3.10	0.40
43:BW:21:VAL:C	43:BW:23:LEU:N	2.74	0.40
1:CA:1001(A):G:C8	1:CA:1002:G:C8	3.09	0.40
39:BS:39:ILE:HG12	39:BS:73:LEU:HD11	2.04	0.40
39:DS:67:ARG:HG2	39:DS:67:ARG:HH11	1.85	0.40
1:AA:1486:G:H2'	1:AA:1487:G:C8	2.56	0.40
25:DA:716:A:C2	25:DA:717:G:H1'	2.56	0.40
1:CA:1474:G:H4'	25:DA:1701:A:N3	2.36	0.40
48:B1:43:TYR:HA	48:B1:44:PRO:HD3	1.93	0.40
1:AA:1061:G:O2'	1:AA:1062:U:H5'	2.22	0.40
46:BZ:53:HIS:ND1	46:BZ:100:PRO:HD3	2.37	0.40
25:BA:298:G:H8	25:BA:298:G:O5'	2.03	0.40
25:DA:109:G:O2'	25:DA:110:G:H5'	2.21	0.40
15:AO:69:TYR:O	15:AO:73:GLU:HG2	2.21	0.40
20:AT:45:GLN:O	20:AT:47:GLY:N	2.55	0.40
25:BA:19:C:O2'	25:BA:20:C:H5'	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:DA:957:A:N1	25:DA:2458:G:H4'	2.36	0.40
25:BA:1005:C:N3	25:BA:1143:A:C2	2.90	0.40
25:DA:1801:G:H3'	25:DA:1802:A:H5'	2.03	0.40
40:BT:76:PHE:HA	40:BT:77:PRO:HD3	1.76	0.40
25:BA:1123:C:H2'	25:BA:1124:C:C6	2.57	0.40
39:DS:38:GLN:OE1	39:DS:47:THR:HG21	2.22	0.40
25:DA:1387:C:H2'	25:DA:1388:G:O4'	2.22	0.40
15:AO:57:LEU:HA	15:AO:57:LEU:HD23	1.90	0.40
4:CD:49:ARG:HH11	4:CD:49:ARG:HG2	1.86	0.40
15:AO:64:ARG:HG2	15:AO:64:ARG:HH11	1.86	0.40
5:CE:40:ARG:HH11	5:CE:40:ARG:HG2	1.86	0.40
25:BA:251:A:C5'	36:BP:51:PHE:CE2	3.04	0.40
26:BB:6:C:O2'	39:BS:29:PHE:HE1	2.04	0.40
9:AI:11:LYS:C	9:AI:12:GLU:HG2	2.42	0.40
25:BA:152:G:C4	25:BA:175:G:N2	2.90	0.40
2:CB:19:HIS:CD2	2:CB:204:ASN:HA	2.56	0.40
2:CB:15:VAL:HG21	2:CB:209:ARG:HH21	1.87	0.40
2:CB:36:ARG:C	2:CB:38:GLY:H	2.24	0.40
2:CB:44:LEU:O	2:CB:47:THR:HB	2.22	0.40
2:CB:92:TYR:CE1	2:CB:151:GLY:N	2.84	0.40
50:D3:7:LYS:HB2	50:D3:34:GLU:HG2	2.03	0.40
25:DA:1155:A:H4'	41:DU:55:ARG:NH1	2.36	0.40
25:DA:990:A:N6	25:DA:1186:G:H1'	2.36	0.40
25:DA:997:G:H5'	41:DU:93:LYS:HZ2	1.85	0.40
26:DB:83:G:C2'	26:DB:84:C:H5'	2.51	0.40
34:DN:2:LYS:HZ2	41:DU:95:LEU:HG	1.84	0.40
25:DA:864:G:H22	25:DA:867:C:H42	1.69	0.40
44:DX:35:THR:H	44:DX:38:GLU:HB3	1.86	0.40
19:CS:9:VAL:C	19:CS:11:VAL:H	2.25	0.40
9:CI:53:VAL:HG13	9:CI:95:LYS:HE3	2.02	0.40
1:CA:1234:C:C1'	1:CA:1364:U:O2	2.69	0.40
1:CA:971:G:C8	1:CA:1365:G:H4'	2.55	0.40
35:BO:69:ILE:CD1	35:BO:69:ILE:N	2.80	0.40
3:AC:91:LEU:N	3:AC:91:LEU:HD23	2.37	0.40
36:DP:9:ASN:H	36:DP:10:PRO:CD	2.33	0.40
25:BA:1387:C:C2	25:BA:1388:G:C8	3.09	0.40
55:D8:30:ARG:O	55:D8:31:HIS:HB3	2.22	0.40
25:DA:2417:C:H2'	25:DA:2418:A:C8	2.56	0.40
25:DA:157:U:N3	25:DA:171:G:C6	2.90	0.40
25:DA:1567:A:N7	28:DD:84:TYR:CE2	2.90	0.40
53:B6:12:GLU:HA	53:B6:23:THR:N	2.37	0.40
8:CH:5:PRO:O	8:CH:8:ASP:N	2.54	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:377:G:O2'	1:CA:378:G:H5'	2.22	0.40
16:CP:67:THR:CG2	16:CP:68:ASP:N	2.85	0.40
25:DA:272(I):U:C5'	25:DA:272(J):C:OP1	2.67	0.40
13:AM:66:LEU:HA	13:AM:70:LEU:HB2	2.03	0.40
13:AM:78:ILE:H	13:AM:78:ILE:HG13	1.56	0.40
55:B8:23:VAL:HG13	55:B8:46:ARG:HB3	2.03	0.40
25:BA:2393:A:H4'	36:BP:60:MET:O	2.22	0.40
3:CC:112:SER:HB3	3:CC:115:LEU:HB2	2.03	0.40
1:AA:1148:U:H2'	1:AA:1149:C:C5'	2.52	0.40
4:AD:8:VAL:O	4:AD:11:LEU:HG	2.21	0.40
22:CV:73:LEU:HD21	22:CV:83:MET:CG	2.52	0.40
25:DA:9:U:O2	25:DA:9:U:H2'	2.21	0.40
25:DA:2790:A:N3	25:DA:2790:A:C2'	2.85	0.40
42:BV:17:GLY:O	42:BV:18:LEU:CB	2.66	0.40
1:AA:824:C:H4'	8:AH:1:MET:H1	1.87	0.40
8:AH:19:VAL:O	8:AH:20:TYR:HB2	2.20	0.40
8:AH:6:ILE:C	8:AH:8:ASP:N	2.74	0.40
25:DA:271(L):U:O2	25:DA:271(L):U:O4'	2.39	0.40
49:D2:51:ARG:HB2	49:D2:55:ARG:NH2	2.36	0.40
25:DA:95:G:H4'	49:D2:46:GLN:OE1	2.22	0.40
15:CO:7:GLU:O	15:CO:9:GLN:N	2.54	0.40
14:CN:3:ARG:O	14:CN:4:LYS:C	2.60	0.40
46:BZ:79:ARG:C	46:BZ:81:ARG:N	2.75	0.40
37:BQ:137:TYR:OH	46:BZ:80:ARG:NH2	2.54	0.40
25:DA:636:G:OP1	36:DP:132:LYS:CB	2.69	0.40
36:DP:101:VAL:O	36:DP:103:ALA:O	2.40	0.40
17:CQ:51:TYR:HE2	17:CQ:76:LEU:N	2.20	0.40
25:BA:1605:C:H5'	25:BA:1610:A:N6	2.37	0.40
2:AB:92:TYR:HD1	2:AB:92:TYR:C	2.25	0.40
25:BA:2308:G:H22	31:BG:79:ASN:HB2	1.84	0.40
6:CF:73:ASN:O	6:CF:74:ASP:C	2.59	0.40
33:BI:110:ASP:N	33:BI:130:TYR:OH	2.54	0.40
5:CE:79:GLU:CA	5:CE:91:LEU:O	2.69	0.40
25:DA:729:G:OP2	28:DD:13:ARG:NH1	2.53	0.40
55:D8:8:LYS:HG3	55:D8:12:LYS:HE3	2.03	0.40
10:CJ:26:ALA:HA	10:CJ:29:ARG:NH2	2.25	0.40
10:CJ:27:ALA:HA	10:CJ:30:SER:OG	2.21	0.40
23:AW:71:C:H2'	23:AW:72:A:C1'	2.51	0.40
11:CK:65:ALA:HB1	11:CK:98:LEU:HD23	2.03	0.40
25:BA:848:G:C4	25:BA:933:A:H8	2.39	0.40
1:AA:1239:A:C4	1:AA:1298:C:N4	2.89	0.40
44:BX:63:LYS:CB	44:BX:72:LYS:HE3	2.51	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:DB:70:C:H2'	26:DB:71:C:C6	2.50	0.40
6:AF:44:GLY:O	6:AF:59:TYR:HA	2.22	0.40
34:BN:123:TYR:CE1	34:BN:130:HIS:HE1	2.39	0.40
4:CD:150:GLU:CD	4:CD:151:LYS:H	2.24	0.40
9:AI:24:GLY:CA	9:AI:57:GLY:O	2.70	0.40
25:BA:269:U:O2	25:BA:269:U:H2'	2.21	0.40
4:AD:117:ALA:O	4:AD:118:ARG:C	2.59	0.40
26:BB:66:A:H61	26:BB:108:U:H2'	1.86	0.40
25:DA:1208:C:C2'	25:DA:1209:G:H5'	2.51	0.40
32:BH:81:GLU:HB3	32:BH:83:TYR:HE1	1.85	0.40
1:AA:484:G:HO2'	1:AA:485:G:P	2.44	0.40
25:DA:1239:G:H2'	25:DA:1240:U:O4'	2.21	0.40
25:BA:871:U:C5'	37:BQ:69:PHE:CE2	3.05	0.40
1:CA:935:A:O2'	1:CA:936:C:H5'	2.21	0.40
1:CA:1081:G:O2'	1:CA:1082:G:H5'	2.21	0.40
25:DA:257:A:C5	25:DA:258:G:C8	3.09	0.40
1:CA:247:G:C2	1:CA:248:C:C5	3.10	0.40
50:B3:29:ARG:N	50:B3:33:GLN:OE1	2.51	0.40
20:AT:16:HIS:O	20:AT:19:SER:N	2.53	0.40
25:DA:1788:C:C2'	25:DA:1789:A:H5'	2.50	0.40
41:BU:36:ARG:O	41:BU:37:GLU:C	2.59	0.40
43:DW:40:ASN:O	43:DW:41:LYS:CG	2.66	0.40
1:AA:1080:A:O3'	5:AE:16:THR:OG1	2.40	0.40
25:BA:1023:U:H2'	25:BA:1024:G:H5'	2.04	0.40
7:AG:140:ASP:O	7:AG:144:MET:HG2	2.22	0.40
25:BA:2061:G:N3	25:BA:2062:A:N7	2.70	0.40
5:CE:33:VAL:HG22	5:CE:43:LEU:HD12	2.02	0.40
17:AQ:33:GLY:O	17:AQ:34:LYS:C	2.59	0.40
1:AA:353:A:H5'	1:AA:353:A:C8	2.52	0.40
49:D2:22:GLU:O	49:D2:25:VAL:N	2.55	0.40
25:DA:1251:C:OP1	41:DU:13:LYS:HD2	2.22	0.40
26:DB:59:A:C5	26:DB:60:C:C4	3.09	0.40
4:AD:126:ILE:C	4:AD:127:THR:HG23	2.41	0.40
1:CA:540:G:H2'	1:CA:541:G:O4'	2.22	0.40
28:BD:45:ASN:OD1	28:BD:46:GLN:N	2.55	0.40
4:AD:64:LEU:HD22	4:AD:198:VAL:HG11	2.04	0.40
48:B1:46:LEU:CD2	48:B1:46:LEU:H	2.34	0.40
22:CV:113:ASP:HB2	22:CV:120:ILE:HG12	2.03	0.40
11:CK:30:VAL:HG23	11:CK:68:ALA:HB2	2.03	0.40
1:AA:697:U:H2'	1:AA:698:G:C5'	2.51	0.40
25:BA:1251:C:OP1	41:BU:10:ARG:HG3	2.21	0.40
52:D5:12:SER:C	52:D5:14:ALA:N	2.75	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:DD:132:PRO:HG3	28:DD:190:TYR:CE1	2.57	0.40
1:AA:328:C:O2	1:AA:328:C:C2'	2.70	0.40
11:CK:17:GLY:C	11:CK:80:VAL:HG12	2.42	0.40
40:DT:124:ASP:C	40:DT:126:ALA:H	2.25	0.40
25:DA:2065:C:H1'	25:DA:2449:U:O2	2.21	0.40
25:BA:2508:G:C2	25:BA:2582:G:C6	3.10	0.40
25:DA:2505:G:O6	25:DA:2576:G:H2'	2.22	0.40
31:DG:91:ARG:C	31:DG:91:ARG:CD	2.90	0.40
20:AT:45:GLN:C	20:AT:47:GLY:H	2.25	0.40
43:BW:70:TYR:O	43:BW:107:LEU:HA	2.21	0.40
25:DA:698:C:O2'	25:DA:734:A:N6	2.52	0.40
5:CE:66:MET:O	5:CE:67:VAL:HB	2.22	0.40
25:DA:431:U:O2'	25:DA:432:A:H5'	2.21	0.40
25:BA:1842:G:O2'	28:BD:253:GLN:OE1	2.38	0.40
1:CA:911:U:H2'	1:CA:912:C:C6	2.57	0.40
37:BQ:85:LYS:HB3	47:B0:8:SER:N	2.37	0.40
54:D7:6:GLN:O	54:D7:7:PRO:C	2.60	0.40
47:D0:34:GLY:O	47:D0:35:ASN:C	2.60	0.40
5:CE:63:ARG:HG3	5:CE:63:ARG:H	1.59	0.40
12:AL:51:LYS:N	12:AL:51:LYS:HD2	2.36	0.40
8:AH:18:ARG:HD2	8:AH:18:ARG:N	2.36	0.40
1:AA:348:G:C2'	1:AA:349:A:H5'	2.52	0.40
43:DW:22:ASP:OD2	43:DW:25:ARG:NH2	2.54	0.40
25:DA:306:U:C2'	25:DA:307:G:H5'	2.52	0.40
25:BA:1613:G:C2	25:BA:1619:G:C5	3.10	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%)	128 (55%)	72 (31%)	33 (14%)	<b>0</b> <b>2</b>

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	CB	233/256 (91%)	138 (59%)	54 (23%)	41 (18%)	0	0
3	AC	205/239 (86%)	106 (52%)	68 (33%)	31 (15%)	0	1
3	CC	205/239 (86%)	134 (65%)	45 (22%)	26 (13%)	0	3
4	AD	206/209 (99%)	124 (60%)	52 (25%)	30 (15%)	0	2
4	CD	206/209 (99%)	132 (64%)	46 (22%)	28 (14%)	0	2
5	AE	149/162 (92%)	107 (72%)	26 (17%)	16 (11%)	1	5
5	CE	149/162 (92%)	98 (66%)	37 (25%)	14 (9%)	1	7
6	AF	99/101 (98%)	63 (64%)	27 (27%)	9 (9%)	1	8
6	CF	99/101 (98%)	61 (62%)	19 (19%)	19 (19%)	0	0
7	AG	153/156 (98%)	98 (64%)	39 (26%)	16 (10%)	1	5
7	CG	153/156 (98%)	95 (62%)	34 (22%)	24 (16%)	0	1
8	AH	136/138 (99%)	96 (71%)	28 (21%)	12 (9%)	1	8
8	CH	136/138 (99%)	93 (68%)	26 (19%)	17 (12%)	1	3
9	AI	125/128 (98%)	82 (66%)	27 (22%)	16 (13%)	0	3
9	CI	125/128 (98%)	80 (64%)	32 (26%)	13 (10%)	1	5
10	AJ	97/105 (92%)	58 (60%)	29 (30%)	10 (10%)	1	6
10	CJ	97/105 (92%)	59 (61%)	26 (27%)	12 (12%)	1	3
11	AK	117/129 (91%)	88 (75%)	23 (20%)	6 (5%)	3	22
11	CK	117/129 (91%)	86 (74%)	25 (21%)	6 (5%)	3	22
12	AL	123/132 (93%)	84 (68%)	23 (19%)	16 (13%)	0	3
12	CL	123/132 (93%)	86 (70%)	21 (17%)	16 (13%)	0	3
13	AM	118/126 (94%)	72 (61%)	24 (20%)	22 (19%)	0	0
13	CM	118/126 (94%)	72 (61%)	22 (19%)	24 (20%)	0	0
14	AN	58/61 (95%)	34 (59%)	14 (24%)	10 (17%)	0	0
14	CN	58/61 (95%)	33 (57%)	15 (26%)	10 (17%)	0	0
15	AO	86/89 (97%)	58 (67%)	20 (23%)	8 (9%)	1	7
15	CO	86/89 (97%)	55 (64%)	19 (22%)	12 (14%)	0	2
16	AP	82/88 (93%)	46 (56%)	26 (32%)	10 (12%)	1	4
16	CP	82/88 (93%)	46 (56%)	26 (32%)	10 (12%)	1	4
17	AQ	98/105 (93%)	73 (74%)	14 (14%)	11 (11%)	1	5
17	CQ	98/105 (93%)	71 (72%)	19 (19%)	8 (8%)	1	10

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
18	AR	68/88 (77%)	39 (57%)	17 (25%)	12 (18%)	0	0
18	CR	68/88 (77%)	37 (54%)	26 (38%)	5 (7%)	2	11
19	AS	78/93 (84%)	47 (60%)	16 (20%)	15 (19%)	0	0
19	CS	76/93 (82%)	50 (66%)	16 (21%)	10 (13%)	0	2
20	AT	97/106 (92%)	66 (68%)	18 (19%)	13 (13%)	0	2
20	CT	97/106 (92%)	57 (59%)	27 (28%)	13 (13%)	0	2
21	AU	23/27 (85%)	12 (52%)	7 (30%)	4 (17%)	0	0
21	CU	23/27 (85%)	13 (56%)	7 (30%)	3 (13%)	0	3
22	AV	172/184 (94%)	124 (72%)	31 (18%)	17 (10%)	1	6
22	CV	172/184 (94%)	126 (73%)	28 (16%)	18 (10%)	1	5
27	BC	222/229 (97%)	165 (74%)	33 (15%)	24 (11%)	1	5
27	DC	216/229 (94%)	141 (65%)	62 (29%)	13 (6%)	2	17
28	BD	272/276 (99%)	194 (71%)	47 (17%)	31 (11%)	1	4
28	DD	272/276 (99%)	187 (69%)	47 (17%)	38 (14%)	0	2
29	BE	203/206 (98%)	130 (64%)	37 (18%)	36 (18%)	0	0
29	DE	203/206 (98%)	122 (60%)	35 (17%)	46 (23%)	0	0
30	BF	206/210 (98%)	136 (66%)	46 (22%)	24 (12%)	1	4
30	DF	206/210 (98%)	123 (60%)	48 (23%)	35 (17%)	0	0
31	BG	179/182 (98%)	118 (66%)	43 (24%)	18 (10%)	1	6
31	DG	179/182 (98%)	109 (61%)	44 (25%)	26 (14%)	0	2
32	BH	166/180 (92%)	98 (59%)	33 (20%)	35 (21%)	0	0
32	DH	158/180 (88%)	80 (51%)	49 (31%)	29 (18%)	0	0
33	BI	144/148 (97%)	84 (58%)	32 (22%)	28 (19%)	0	0
33	DI	144/148 (97%)	74 (51%)	41 (28%)	29 (20%)	0	0
34	BN	137/140 (98%)	104 (76%)	14 (10%)	19 (14%)	0	2
34	DN	137/140 (98%)	79 (58%)	38 (28%)	20 (15%)	0	2
35	BO	120/122 (98%)	91 (76%)	17 (14%)	12 (10%)	1	6
35	DO	120/122 (98%)	100 (83%)	15 (12%)	5 (4%)	4	27
36	BP	144/150 (96%)	71 (49%)	34 (24%)	39 (27%)	0	0
36	DP	144/150 (96%)	69 (48%)	34 (24%)	41 (28%)	0	0
37	BQ	137/141 (97%)	102 (74%)	23 (17%)	12 (9%)	1	8

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
37	DQ	139/141 (99%)	91 (66%)	35 (25%)	13 (9%)	1	7
38	BR	114/118 (97%)	82 (72%)	21 (18%)	11 (10%)	1	7
38	DR	115/118 (98%)	81 (70%)	17 (15%)	17 (15%)	0	2
39	BS	99/112 (88%)	44 (44%)	25 (25%)	30 (30%)	0	0
39	DS	97/112 (87%)	48 (50%)	25 (26%)	24 (25%)	0	0
40	BT	136/146 (93%)	86 (63%)	21 (15%)	29 (21%)	0	0
40	DT	136/146 (93%)	72 (53%)	33 (24%)	31 (23%)	0	0
41	BU	115/118 (98%)	74 (64%)	31 (27%)	10 (9%)	1	9
41	DU	115/118 (98%)	75 (65%)	25 (22%)	15 (13%)	0	3
42	BV	99/101 (98%)	68 (69%)	13 (13%)	18 (18%)	0	0
42	DV	99/101 (98%)	57 (58%)	20 (20%)	22 (22%)	0	0
43	BW	111/113 (98%)	75 (68%)	24 (22%)	12 (11%)	1	5
43	DW	111/113 (98%)	82 (74%)	18 (16%)	11 (10%)	1	6
44	BX	92/96 (96%)	64 (70%)	21 (23%)	7 (8%)	2	11
44	DX	91/96 (95%)	64 (70%)	16 (18%)	11 (12%)	1	4
45	BY	99/110 (90%)	38 (38%)	23 (23%)	38 (38%)	0	0
45	DY	99/110 (90%)	39 (39%)	26 (26%)	34 (34%)	0	0
46	BZ	180/206 (87%)	114 (63%)	41 (23%)	25 (14%)	0	2
46	DZ	175/206 (85%)	103 (59%)	46 (26%)	26 (15%)	0	1
47	B0	75/85 (88%)	60 (80%)	13 (17%)	2 (3%)	8	39
47	D0	82/85 (96%)	60 (73%)	15 (18%)	7 (8%)	1	9
48	B1	94/98 (96%)	65 (69%)	15 (16%)	14 (15%)	0	1
48	D1	92/98 (94%)	65 (71%)	17 (18%)	10 (11%)	1	5
49	B2	69/72 (96%)	53 (77%)	9 (13%)	7 (10%)	1	6
49	D2	69/72 (96%)	41 (59%)	17 (25%)	11 (16%)	0	1
50	B3	57/60 (95%)	51 (90%)	5 (9%)	1 (2%)	13	52
50	D3	58/60 (97%)	38 (66%)	13 (22%)	7 (12%)	1	4
51	B4	29/71 (41%)	13 (45%)	9 (31%)	7 (24%)	0	0
51	D4	29/71 (41%)	13 (45%)	9 (31%)	7 (24%)	0	0
52	B5	55/60 (92%)	31 (56%)	10 (18%)	14 (26%)	0	0
52	D5	57/60 (95%)	35 (61%)	11 (19%)	11 (19%)	0	0

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
53	B6	47/54 (87%)	19 (40%)	13 (28%)	15 (32%)	0	0
53	D6	46/54 (85%)	19 (41%)	11 (24%)	16 (35%)	0	0
54	B7	47/49 (96%)	40 (85%)	7 (15%)	0	100	100
54	D7	47/49 (96%)	37 (79%)	6 (13%)	4 (8%)	1	9
55	B8	61/65 (94%)	36 (59%)	16 (26%)	9 (15%)	0	2
55	D8	60/65 (92%)	37 (62%)	14 (23%)	9 (15%)	0	1
56	B9	34/37 (92%)	24 (71%)	9 (26%)	1 (3%)	7	38
56	D9	34/37 (92%)	31 (91%)	3 (9%)	0	100	100
All	All	12117/12954 (94%)	7729 (64%)	2646 (22%)	1742 (14%)	0	2

All (1742) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AB	15	VAL
2	AB	23	ARG
2	AB	26	PRO
2	AB	75	LYS
2	AB	128	GLU
2	AB	129	GLU
2	AB	150	SER
2	AB	154	LEU
2	AB	195	ASP
2	AB	226	ARG
2	AB	230	VAL
2	AB	234	PRO
3	AC	12	LEU
3	AC	61	ALA
3	AC	101	LEU
3	AC	127	ARG
3	AC	156	ARG
3	AC	207	VAL
4	AD	24	GLU
4	AD	47	ARG
4	AD	123	HIS
4	AD	153	ARG
4	AD	154	ASN
4	AD	156	GLU
4	AD	172	PRO
4	AD	173	TRP

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Mol	Chain	Res	Type
4	AD	208	SER
5	AE	74	GLY
5	AE	146	ALA
6	AF	40	VAL
6	AF	69	GLU
6	AF	70	ASP
6	AF	83	ASP
7	AG	9	VAL
7	AG	33	ASP
8	AH	44	PHE
8	AH	91	ARG
9	AI	23	ASN
9	AI	44	VAL
9	AI	89	ASN
9	AI	95	LYS
9	AI	105	ASP
10	AJ	57	LYS
10	AJ	82	ILE
11	AK	15	ALA
12	AL	25	LYS
12	AL	42	PRO
12	AL	44	LYS
12	AL	59	SER
12	AL	77	HIS
13	AM	12	ASN
13	AM	60	VAL
13	AM	67	GLU
13	AM	70	LEU
13	AM	83	ASP
13	AM	95	GLY
13	AM	113	PRO
13	AM	116	THR
13	AM	117	VAL
14	AN	16	PHE
14	AN	25	VAL
14	AN	59	ALA
14	AN	60	SER
16	AP	26	ARG
16	AP	28	ARG
16	AP	62	VAL
16	AP	64	ALA
17	AQ	34	LYS

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Mol	Chain	Res	Type
17	AQ	67	LYS
18	AR	20	ALA
18	AR	22	VAL
18	AR	37	VAL
18	AR	44	LEU
18	AR	78	LEU
18	AR	87	ARG
19	AS	10	PHE
19	AS	28	LYS
19	AS	30	LEU
19	AS	32	LYS
19	AS	79	THR
20	AT	11	SER
20	AT	13	LEU
20	AT	70	SER
20	AT	71	THR
20	AT	95	ALA
20	AT	104	LEU
21	AU	3	LYS
22	AV	50	VAL
22	AV	58	GLU
22	AV	61	GLU
22	AV	85	LEU
22	AV	164	PHE
27	BC	7	ARG
27	BC	124	VAL
27	BC	144	GLY
27	BC	150	ILE
27	BC	183	PRO
27	BC	209	PHE
27	BC	221	PRO
28	BD	12	SER
28	BD	22	SER
28	BD	24	ILE
28	BD	27	THR
28	BD	33	LEU
28	BD	45	ASN
28	BD	52	ARG
28	BD	127	VAL
28	BD	141	VAL
28	BD	245	PRO
28	BD	246	PRO

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Mol	Chain	Res	Type
28	BD	271	ILE
29	BE	54	GLN
29	BE	55	ASN
29	BE	71	GLY
29	BE	72	VAL
29	BE	73	GLU
29	BE	75	VAL
29	BE	76	ARG
29	BE	77	ILE
29	BE	118	LYS
30	BF	2	LYS
30	BF	3	GLU
30	BF	11	VAL
30	BF	14	PRO
30	BF	20	LEU
30	BF	25	PRO
30	BF	53	THR
30	BF	66	PRO
30	BF	132	VAL
31	BG	30	GLU
31	BG	76	SER
31	BG	82	LEU
31	BG	86	MET
31	BG	87	PRO
31	BG	117	PHE
31	BG	149	VAL
32	BH	12	PRO
32	BH	13	LYS
32	BH	21	PRO
32	BH	42	ARG
32	BH	45	VAL
32	BH	47	GLU
32	BH	56	SER
32	BH	71	LEU
32	BH	83	TYR
32	BH	98	LEU
32	BH	138	LYS
32	BH	154	PRO
32	BH	155	SER
32	BH	165	ALA
33	BI	15	VAL
33	BI	94	ALA

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Mol	Chain	Res	Type
33	BI	106	GLY
33	BI	115	ALA
33	BI	117	GLU
33	BI	133	HIS
33	BI	145	VAL
34	BN	3	THR
34	BN	57	ALA
34	BN	58	ASP
34	BN	62	VAL
34	BN	63	THR
34	BN	68	GLU
34	BN	77	GLY
34	BN	93	THR
34	BN	126	PRO
35	BO	48	PRO
35	BO	52	VAL
36	BP	9	ASN
36	BP	11	GLY
36	BP	17	LYS
36	BP	18	ARG
36	BP	31	ALA
36	BP	35	HIS
36	BP	47	ASP
36	BP	48	PRO
36	BP	56	SER
36	BP	57	THR
36	BP	58	THR
36	BP	65	ARG
36	BP	98	GLU
36	BP	106	LEU
36	BP	107	LYS
36	BP	108	LYS
36	BP	146	VAL
36	BP	147	LEU
36	BP	148	LEU
37	BQ	2	LEU
37	BQ	21	THR
37	BQ	27	VAL
38	BR	4	LEU
38	BR	6	SER
38	BR	9	LYS
39	BS	23	ARG

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Mol	Chain	Res	Type
39	BS	51	ALA
39	BS	58	LEU
39	BS	59	LYS
39	BS	62	LYS
39	BS	83	LYS
39	BS	88	ASP
39	BS	93	LYS
39	BS	102	ALA
39	BS	103	GLU
39	BS	105	ALA
39	BS	107	GLU
40	BT	3	ARG
40	BT	17	THR
40	BT	24	PRO
40	BT	27	THR
40	BT	30	VAL
40	BT	39	ARG
40	BT	40	THR
40	BT	80	SER
40	BT	88	ILE
40	BT	94	ALA
40	BT	107	ASP
40	BT	115	ARG
41	BU	90	VAL
41	BU	91	ASP
41	BU	98	LEU
42	BV	16	PRO
42	BV	18	LEU
42	BV	19	LYS
42	BV	29	PRO
42	BV	31	ALA
42	BV	35	LEU
42	BV	46	VAL
42	BV	49	THR
42	BV	50	PRO
42	BV	53	GLU
42	BV	54	GLY
43	BW	11	ARG
43	BW	63	ASP
43	BW	111	HIS
44	BX	4	ALA
44	BX	34	ALA

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Mol	Chain	Res	Type
44	BX	40	LYS
45	BY	7	VAL
45	BY	17	SER
45	BY	38	ILE
45	BY	42	VAL
45	BY	51	VAL
45	BY	52	SER
45	BY	56	PRO
45	BY	60	PHE
45	BY	66	PRO
45	BY	77	PRO
45	BY	78	ALA
45	BY	90	LEU
45	BY	91	GLU
45	BY	92	ASN
45	BY	98	VAL
45	BY	99	CYS
45	BY	101	LYS
46	BZ	79	ARG
46	BZ	95	VAL
46	BZ	110	VAL
46	BZ	151	ALA
46	BZ	153	ASP
46	BZ	167	GLU
48	B1	30	VAL
48	B1	50	ARG
48	B1	58	ILE
48	B1	78	LYS
48	B1	86	SER
49	B2	43	GLN
49	B2	44	LEU
49	B2	47	ASN
49	B2	48	HIS
51	B4	42	CYS
51	B4	52	SER
51	B4	61	VAL
52	B5	4	HIS
52	B5	32	PRO
52	B5	38	ALA
52	B5	49	CYS
52	B5	56	LYS
52	B5	57	VAL

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Mol	Chain	Res	Type
53	B6	15	GLU
53	B6	19	ARG
53	B6	20	ASN
53	B6	28	ARG
53	B6	29	ASN
53	B6	46	HIS
53	B6	48	VAL
53	B6	49	HIS
55	B8	3	LYS
55	B8	33	ASN
55	B8	34	TRP
2	CB	9	GLU
2	CB	15	VAL
2	CB	18	GLY
2	CB	20	GLU
2	CB	77	ALA
2	CB	105	PHE
2	CB	106	LYS
2	CB	128	GLU
2	CB	143	GLU
2	CB	150	SER
2	CB	159	PRO
2	CB	167	PRO
2	CB	189	ASP
2	CB	195	ASP
2	CB	238	LEU
2	CB	239	VAL
2	CB	240	GLN
3	CC	62	ASP
3	CC	97	LYS
3	CC	101	LEU
3	CC	190	ARG
4	CD	4	TYR
4	CD	29	PRO
4	CD	77	ASN
4	CD	164	ALA
4	CD	178	VAL
4	CD	189	PRO
4	CD	191	ARG
4	CD	208	SER
5	CE	12	LEU
5	CE	26	PHE

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Mol	Chain	Res	Type
5	CE	27	ARG
6	CF	42	GLU
6	CF	50	TYR
6	CF	62	TRP
6	CF	71	ARG
6	CF	81	ILE
6	CF	87	ARG
7	CG	7	ALA
7	CG	11	GLN
7	CG	12	LEU
7	CG	15	ASP
7	CG	56	GLN
7	CG	77	SER
8	CH	3	THR
9	CI	10	ARG
9	CI	21	PRO
9	CI	54	ASP
9	CI	105	ASP
9	CI	109	VAL
10	CJ	38	ILE
10	CJ	57	LYS
10	CJ	84	GLN
10	CJ	92	THR
11	CK	117	ASN
12	CL	14	LYS
12	CL	20	LYS
12	CL	23	ALA
12	CL	44	LYS
12	CL	59	SER
12	CL	124	GLU
13	CM	12	ASN
13	CM	14	ARG
13	CM	15	VAL
13	CM	63	THR
13	CM	67	GLU
13	CM	70	LEU
13	CM	83	ASP
13	CM	113	PRO
14	CN	14	PRO
14	CN	16	PHE
14	CN	25	VAL
15	CO	73	GLU

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Mol	Chain	Res	Type
16	CP	19	ILE
16	CP	26	ARG
16	CP	64	ALA
17	CQ	31	LEU
17	CQ	33	GLY
17	CQ	34	LYS
18	CR	51	LEU
18	CR	87	ARG
19	CS	5	LEU
19	CS	10	PHE
19	CS	61	TYR
19	CS	62	ILE
19	CS	80	TYR
20	CT	47	GLY
20	CT	49	ALA
22	CV	9	PRO
22	CV	84	ASP
22	CV	85	LEU
22	CV	90	GLN
22	CV	162	PRO
27	DC	93	ASP
28	DD	3	VAL
28	DD	21	PHE
28	DD	24	ILE
28	DD	27	THR
28	DD	31	LYS
28	DD	33	LEU
28	DD	34	VAL
28	DD	35	LYS
28	DD	57	GLY
28	DD	127	VAL
28	DD	198	ASN
28	DD	199	ALA
28	DD	271	ILE
28	DD	272	ALA
29	DE	4	ILE
29	DE	35	GLN
29	DE	53	PRO
29	DE	55	ASN
29	DE	59	VAL
29	DE	61	ARG
29	DE	69	LYS

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Mol	Chain	Res	Type
29	DE	72	VAL
29	DE	77	ILE
29	DE	82	ARG
29	DE	88	GLY
29	DE	93	VAL
29	DE	118	LYS
29	DE	132	HIS
29	DE	133	LYS
29	DE	157	ALA
29	DE	174	ASP
29	DE	186	GLY
29	DE	197	ILE
30	DF	2	LYS
30	DF	3	GLU
30	DF	19	GLU
30	DF	20	LEU
30	DF	21	ALA
30	DF	25	PRO
30	DF	69	HIS
30	DF	89	VAL
30	DF	127	GLU
30	DF	132	VAL
30	DF	133	ASN
30	DF	158	THR
30	DF	167	ALA
30	DF	195	ASP
31	DG	14	GLU
31	DG	45	GLU
31	DG	81	LYS
31	DG	82	LEU
31	DG	86	MET
31	DG	87	PRO
31	DG	99	MET
31	DG	110	ALA
31	DG	117	PHE
31	DG	145	THR
31	DG	153	ARG
32	DH	47	GLU
32	DH	55	PRO
32	DH	56	SER
32	DH	138	LYS
32	DH	156	ALA

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Mol	Chain	Res	Type
32	DH	158	HIS
32	DH	159	GLU
32	DH	165	ALA
32	DH	170	ARG
33	DI	75	LEU
33	DI	77	LEU
33	DI	85	GLU
33	DI	87	LYS
33	DI	88	ILE
33	DI	89	TYR
33	DI	107	VAL
33	DI	120	ILE
33	DI	133	HIS
34	DN	42	TRP
34	DN	58	ASP
34	DN	68	GLU
34	DN	77	GLY
34	DN	93	THR
34	DN	132	ALA
35	DO	48	PRO
35	DO	89	ASN
35	DO	111	PHE
36	DP	10	PRO
36	DP	14	LYS
36	DP	31	ALA
36	DP	46	LYS
36	DP	49	ARG
36	DP	57	THR
36	DP	58	THR
36	DP	83	VAL
36	DP	108	LYS
36	DP	111	ARG
36	DP	119	GLU
36	DP	122	PRO
36	DP	134	ALA
37	DQ	2	LEU
37	DQ	13	GLN
37	DQ	47	ILE
37	DQ	63	LYS
37	DQ	135	ASP
37	DQ	138	ASP
38	DR	12	ARG

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Mol	Chain	Res	Type
38	DR	14	SER
38	DR	59	ASP
38	DR	82	GLU
39	DS	18	ILE
39	DS	44	LYS
39	DS	53	SER
39	DS	57	LYS
39	DS	58	LEU
39	DS	59	LYS
39	DS	62	LYS
39	DS	90	GLY
39	DS	92	TYR
39	DS	97	ARG
39	DS	103	GLU
40	DT	24	PRO
40	DT	26	ASP
40	DT	29	ARG
40	DT	30	VAL
40	DT	31	SER
40	DT	40	THR
40	DT	80	SER
40	DT	90	GLN
40	DT	94	ALA
40	DT	101	PHE
40	DT	107	ASP
40	DT	131	ALA
41	DU	74	LEU
41	DU	89	GLU
41	DU	92	ARG
41	DU	99	ALA
42	DV	16	PRO
42	DV	29	PRO
42	DV	30	GLY
42	DV	46	VAL
42	DV	47	VAL
42	DV	55	ALA
43	DW	11	ARG
43	DW	35	ILE
43	DW	67	ASP
43	DW	93	ALA
43	DW	110	LYS
44	DX	12	VAL

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Mol	Chain	Res	Type
44	DX	40	LYS
44	DX	41	ASN
44	DX	57	LEU
45	DY	5	MET
45	DY	7	VAL
45	DY	9	LYS
45	DY	17	SER
45	DY	41	GLY
45	DY	44	ILE
45	DY	47	LYS
45	DY	48	ALA
45	DY	53	PRO
45	DY	55	TYR
45	DY	56	PRO
45	DY	67	LEU
45	DY	77	PRO
45	DY	78	ALA
45	DY	79	CYS
45	DY	82	PRO
46	DZ	4	LEU
46	DZ	29	ASN
46	DZ	30	ARG
46	DZ	40	LEU
46	DZ	64	GLN
46	DZ	92	ASP
46	DZ	110	VAL
46	DZ	135	PHE
46	DZ	151	ALA
46	DZ	163	ALA
46	DZ	164	VAL
47	D0	41	ARG
47	D0	55	ARG
48	D1	30	VAL
48	D1	51	VAL
48	D1	52	ARG
48	D1	58	ILE
49	D2	43	GLN
49	D2	47	ASN
49	D2	48	HIS
50	D3	2	PRO
50	D3	56	VAL
51	D4	59	VAL

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Mol	Chain	Res	Type
51	D4	65	CYS
52	D5	4	HIS
52	D5	32	PRO
52	D5	33	CYS
52	D5	49	CYS
52	D5	51	TYR
52	D5	57	VAL
53	D6	17	LYS
53	D6	19	ARG
53	D6	20	ASN
53	D6	28	ARG
53	D6	30	THR
53	D6	34	LEU
53	D6	41	PRO
53	D6	44	ARG
53	D6	46	HIS
53	D6	51	GLU
53	D6	52	VAL
55	D8	34	TRP
55	D8	61	LEU
2	AB	9	GLU
2	AB	18	GLY
2	AB	61	LEU
2	AB	97	TRP
2	AB	141	GLU
2	AB	142	LEU
3	AC	18	TRP
3	AC	47	LEU
3	AC	48	TYR
3	AC	66	VAL
3	AC	89	GLU
3	AC	104	GLN
3	AC	141	VAL
3	AC	189	ALA
4	AD	3	ARG
4	AD	4	TYR
4	AD	25	ARG
4	AD	44	GLY
4	AD	91	SER
4	AD	147	ALA
4	AD	155	LEU
4	AD	171	GLY

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Mol	Chain	Res	Type
6	AF	39	LYS
6	AF	43	LEU
7	AG	6	ARG
7	AG	17	VAL
7	AG	32	ARG
7	AG	46	ALA
7	AG	58	PRO
7	AG	113	GLU
8	AH	53	VAL
8	AH	87	SER
8	AH	107	LEU
9	AI	33	PHE
9	AI	35	GLU
9	AI	46	ALA
9	AI	61	ALA
9	AI	74	ILE
10	AJ	36	GLY
10	AJ	70	ARG
12	AL	3	THR
12	AL	24	LEU
12	AL	38	ARG
12	AL	74	LEU
13	AM	59	TYR
13	AM	71	ARG
13	AM	80	ARG
13	AM	91	ARG
13	AM	112	GLY
14	AN	24	CYS
14	AN	28	GLY
14	AN	29	ARG
15	AO	81	LEU
15	AO	86	GLY
16	AP	20	VAL
16	AP	29	ASP
16	AP	83	GLU
17	AQ	66	SER
17	AQ	68	ARG
17	AQ	80	GLY
18	AR	23	LYS
18	AR	83	GLU
19	AS	37	ARG
19	AS	80	TYR

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Mol	Chain	Res	Type
20	AT	74	LYS
20	AT	84	LEU
20	AT	86	ARG
21	AU	9	ARG
21	AU	23	PRO
22	AV	5	THR
22	AV	48	ALA
22	AV	95	ARG
22	AV	127	VAL
27	BC	68	GLY
27	BC	93	ASP
27	BC	108	TRP
27	BC	109	MET
27	BC	131	ILE
28	BD	3	VAL
28	BD	26	LYS
28	BD	35	LYS
28	BD	58	HIS
28	BD	267	SER
29	BE	17	ASP
29	BE	29	GLY
29	BE	45	THR
29	BE	60	ASN
29	BE	69	LYS
29	BE	89	ASP
29	BE	93	VAL
29	BE	117	MET
29	BE	159	HIS
29	BE	174	ASP
29	BE	187	ALA
30	BF	21	ALA
30	BF	35	GLU
30	BF	57	VAL
30	BF	115	ALA
30	BF	131	GLY
30	BF	134	GLY
30	BF	143	ALA
31	BG	81	LYS
31	BG	104	GLU
31	BG	115	ARG
31	BG	124	SER
31	BG	126	ASP

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Mol	Chain	Res	Type
32	BH	84	SER
32	BH	92	ILE
32	BH	133	VAL
32	BH	168	PRO
33	BI	14	ASP
33	BI	16	GLY
33	BI	29	TYR
33	BI	77	LEU
33	BI	80	PRO
33	BI	81	VAL
33	BI	113	ARG
34	BN	5	VAL
34	BN	8	GLN
34	BN	133	GLN
34	BN	135	PRO
35	BO	26	LYS
35	BO	27	GLY
35	BO	62	VAL
35	BO	89	ASN
36	BP	14	LYS
36	BP	25	SER
36	BP	49	ARG
36	BP	82	GLY
36	BP	110	TYR
36	BP	111	ARG
36	BP	141	ALA
37	BQ	18	LYS
37	BQ	47	ILE
37	BQ	62	GLY
37	BQ	88	GLY
37	BQ	134	ARG
38	BR	8	ARG
38	BR	10	LEU
38	BR	82	GLU
39	BS	44	LYS
39	BS	53	SER
39	BS	77	ALA
39	BS	78	LEU
39	BS	79	ALA
39	BS	90	GLY
39	BS	96	GLY
39	BS	97	ARG

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Mol	Chain	Res	Type
39	BS	104	GLY
40	BT	2	ASN
40	BT	28	VAL
40	BT	29	ARG
40	BT	33	LYS
40	BT	41	ARG
40	BT	42	ILE
40	BT	81	PRO
40	BT	82	LEU
40	BT	101	PHE
40	BT	129	ARG
40	BT	136	GLN
41	BU	25	TRP
41	BU	28	ARG
41	BU	32	PHE
41	BU	92	ARG
42	BV	4	ILE
42	BV	44	LYS
42	BV	79	VAL
43	BW	10	VAL
43	BW	40	ASN
44	BX	24	GLY
45	BY	3	VAL
45	BY	5	MET
45	BY	27	VAL
45	BY	33	LYS
45	BY	39	VAL
45	BY	44	ILE
45	BY	49	VAL
45	BY	80	GLY
45	BY	87	LYS
46	BZ	29	ASN
46	BZ	33	ASN
46	BZ	46	VAL
46	BZ	47	PHE
46	BZ	64	GLN
46	BZ	111	ARG
46	BZ	120	HIS
46	BZ	164	VAL
46	BZ	182	LEU
48	B1	51	VAL
48	B1	79	GLY

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Mol	Chain	Res	Type
48	B1	84	GLY
48	B1	90	ILE
49	B2	42	GLY
52	B5	12	SER
52	B5	52	TYR
53	B6	51	GLU
55	B8	8	LYS
55	B8	31	HIS
55	B8	56	GLU
55	B8	61	LEU
2	CB	97	TRP
2	CB	98	LEU
2	CB	101	MET
2	CB	104	ASN
2	CB	122	PHE
2	CB	168	THR
2	CB	194	PRO
2	CB	228	GLY
3	CC	4	LYS
3	CC	16	ARG
3	CC	81	GLY
3	CC	145	GLY
3	CC	156	ARG
3	CC	160	ALA
3	CC	167	TRP
3	CC	185	GLY
3	CC	189	ALA
3	CC	207	VAL
4	CD	26	CYS
4	CD	30	LYS
4	CD	56	VAL
4	CD	78	LEU
4	CD	90	GLY
4	CD	153	ARG
5	CE	110	LEU
5	CE	146	ALA
6	CF	13	ASN
6	CF	39	LYS
6	CF	41	GLU
6	CF	80	ARG
6	CF	83	ASP
7	CG	16	LEU

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Mol	Chain	Res	Type
7	CG	33	ASP
8	CH	2	LEU
8	CH	98	LYS
8	CH	121	ASP
9	CI	121	ARG
10	CJ	70	ARG
10	CJ	82	ILE
10	CJ	86	MET
11	CK	88	GLY
11	CK	118	GLY
12	CL	24	LEU
12	CL	61	TYR
12	CL	76	GLU
12	CL	88	LYS
13	CM	4	ILE
13	CM	48	LEU
13	CM	60	VAL
13	CM	90	LEU
13	CM	91	ARG
13	CM	100	GLY
13	CM	114	ARG
14	CN	7	ILE
14	CN	24	CYS
14	CN	28	GLY
14	CN	59	ALA
15	CO	79	ARG
16	CP	30	GLY
16	CP	53	VAL
17	CQ	78	GLU
17	CQ	80	GLY
18	CR	37	VAL
19	CS	26	GLY
19	CS	31	ILE
19	CS	67	VAL
20	CT	19	SER
20	CT	62	LEU
20	CT	69	GLY
20	CT	71	THR
20	CT	90	GLN
20	CT	103	GLY
22	CV	3	SER
22	CV	48	ALA

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Mol	Chain	Res	Type
22	CV	56	SER
22	CV	127	VAL
22	CV	134	ASP
27	DC	54	ARG
27	DC	108	TRP
27	DC	202	PRO
27	DC	215	VAL
28	DD	42	GLY
28	DD	51	VAL
28	DD	74	GLY
28	DD	197	GLY
28	DD	206	LEU
28	DD	241	PRO
28	DD	273	ARG
29	DE	2	LYS
29	DE	54	GLN
29	DE	57	LYS
29	DE	60	ASN
29	DE	71	GLY
29	DE	75	VAL
29	DE	76	ARG
29	DE	154	LYS
29	DE	190	GLY
30	DF	4	VAL
30	DF	7	TYR
30	DF	16	GLY
30	DF	84	VAL
30	DF	146	ALA
31	DG	24	GLY
31	DG	63	ILE
31	DG	70	VAL
31	DG	100	TRP
31	DG	126	ASP
31	DG	144	ILE
31	DG	154	GLY
31	DG	172	LEU
32	DH	21	PRO
32	DH	39	PRO
32	DH	46	GLU
32	DH	83	TYR
32	DH	108	GLY
32	DH	119	GLU

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Mol	Chain	Res	Type
33	DI	11	ASN
33	DI	65	ALA
33	DI	66	GLU
33	DI	126	TYR
33	DI	144	VAL
34	DN	4	TYR
34	DN	57	ALA
34	DN	127	ASP
35	DO	5	GLN
36	DP	11	GLY
36	DP	23	PRO
36	DP	36	LYS
36	DP	38	GLN
36	DP	59	LEU
36	DP	64	LYS
36	DP	67	MET
36	DP	98	GLU
36	DP	107	LYS
36	DP	110	TYR
36	DP	116	GLY
36	DP	146	VAL
36	DP	149	GLU
37	DQ	29	PHE
37	DQ	48	GLU
38	DR	88	ARG
38	DR	93	GLY
38	DR	107	ASP
39	DS	22	GLY
39	DS	23	ARG
39	DS	94	TYR
40	DT	9	LEU
40	DT	11	GLU
40	DT	28	VAL
40	DT	33	LYS
40	DT	85	LYS
40	DT	102	ILE
40	DT	135	ALA
41	DU	26	GLY
41	DU	62	ILE
41	DU	90	VAL
42	DV	2	PHE
42	DV	50	PRO

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Mol	Chain	Res	Type
42	DV	53	GLU
42	DV	67	GLY
42	DV	71	LEU
42	DV	100	ARG
43	DW	63	ASP
43	DW	66	GLU
43	DW	69	LEU
44	DX	4	ALA
44	DX	93	GLU
45	DY	3	VAL
45	DY	29	GLU
45	DY	35	TYR
45	DY	38	ILE
45	DY	39	VAL
45	DY	90	LEU
45	DY	99	CYS
46	DZ	20	ALA
46	DZ	52	ILE
47	D0	8	GLY
47	D0	17	GLN
47	D0	64	ASP
47	D0	74	ARG
48	D1	7	ILE
48	D1	64	ALA
48	D1	84	GLY
48	D1	95	LEU
49	D2	42	GLY
49	D2	44	LEU
50	D3	39	ASP
50	D3	52	HIS
51	D4	58	TYR
51	D4	61	VAL
52	D5	38	ALA
54	D7	32	LYS
55	D8	7	HIS
55	D8	8	LYS
2	AB	20	GLU
2	AB	95	GLN
2	AB	202	PRO
2	AB	239	VAL
3	AC	22	TRP
3	AC	110	ASN

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Mol	Chain	Res	Type
3	AC	150	LYS
3	AC	179	ARG
3	AC	181	ASN
3	AC	190	ARG
4	AD	93	PHE
4	AD	200	GLU
5	AE	8	GLU
5	AE	73	ASN
5	AE	140	ARG
6	AF	88	VAL
7	AG	45	ASP
7	AG	146	GLU
7	AG	153	HIS
8	AH	41	ARG
8	AH	55	GLY
8	AH	123	GLU
8	AH	133	LEU
9	AI	58	HIS
9	AI	107	ARG
10	AJ	86	MET
10	AJ	93	GLY
11	AK	90	GLY
11	AK	99	GLN
12	AL	14	LYS
12	AL	76	GLU
12	AL	124	GLU
13	AM	7	VAL
13	AM	48	LEU
13	AM	49	THR
13	AM	85	GLY
14	AN	52	GLN
16	AP	61	SER
17	AQ	3	LYS
17	AQ	31	LEU
17	AQ	78	GLU
17	AQ	96	GLU
18	AR	25	THR
19	AS	15	LEU
19	AS	33	THR
19	AS	39	THR
19	AS	48	THR
20	AT	93	GLU

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Mol	Chain	Res	Type
22	AV	76	GLU
27	BC	23	ILE
27	BC	69	LEU
27	BC	97	GLY
27	BC	164	PHE
28	BD	13	ARG
28	BD	206	LEU
28	BD	224	ALA
28	BD	242	ARG
29	BE	2	LYS
29	BE	49	LEU
29	BE	82	ARG
29	BE	132	HIS
29	BE	135	HIS
29	BE	138	PRO
29	BE	154	LYS
30	BF	19	GLU
30	BF	84	VAL
31	BG	127	GLY
32	BH	20	ALA
32	BH	39	PRO
32	BH	40	GLU
32	BH	97	ARG
32	BH	137	ASP
33	BI	42	SER
33	BI	62	LYS
33	BI	91	SER
33	BI	111	PRO
33	BI	112	LYS
33	BI	122	GLU
34	BN	19	GLU
36	BP	10	PRO
36	BP	30	THR
36	BP	40	SER
36	BP	97	PRO
36	BP	137	LYS
37	BQ	13	GLN
37	BQ	22	LYS
37	BQ	135	ASP
38	BR	59	ASP
39	BS	14	VAL
39	BS	56	LEU

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Mol	Chain	Res	Type
39	BS	57	LYS
39	BS	87	PHE
39	BS	89	ARG
39	BS	94	TYR
40	BT	13	ARG
40	BT	32	TYR
40	BT	131	ALA
41	BU	97	ASP
41	BU	111	GLU
42	BV	40	LEU
43	BW	67	ASP
44	BX	41	ASN
45	BY	9	LYS
45	BY	26	LYS
45	BY	53	PRO
45	BY	57	GLN
45	BY	96	ILE
46	BZ	80	ARG
46	BZ	109	GLY
46	BZ	119	ILE
46	BZ	157	PRO
48	B1	27	GLU
48	B1	28	GLY
48	B1	53	VAL
48	B1	54	ALA
51	B4	43	GLY
51	B4	46	ASN
51	B4	59	VAL
52	B5	17	ASP
52	B5	23	HIS
53	B6	17	LYS
53	B6	26	ASN
53	B6	31	PRO
53	B6	35	GLU
55	B8	51	ALA
55	B8	63	PRO
2	CB	25	ASN
2	CB	158	LEU
2	CB	176	GLU
2	CB	234	PRO
3	CC	63	ASN
3	CC	100	ALA

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Mol	Chain	Res	Type
3	CC	181	ASN
4	CD	5	ILE
4	CD	27	TYR
4	CD	47	ARG
4	CD	99	SER
4	CD	131	ARG
4	CD	156	GLU
4	CD	163	GLU
4	CD	186	LEU
5	CE	96	PRO
5	CE	142	LEU
6	CF	69	GLU
6	CF	70	ASP
6	CF	72	VAL
6	CF	82	ARG
6	CF	100	ASN
7	CG	29	LYS
7	CG	31	MET
7	CG	58	PRO
7	CG	62	PHE
7	CG	100	ALA
7	CG	155	ARG
8	CH	25	ASP
8	CH	26	VAL
9	CI	9	ARG
9	CI	57	GLY
12	CL	74	LEU
12	CL	86	ARG
13	CM	16	ASP
13	CM	97	PRO
14	CN	19	ARG
14	CN	26	ARG
15	CO	12	ILE
15	CO	28	GLN
16	CP	4	ILE
16	CP	28	ARG
17	CQ	68	ARG
18	CR	50	ILE
20	CT	61	SER
20	CT	97	ALA
21	CU	25	LYS
22	CV	44	LEU

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Mol	Chain	Res	Type
22	CV	154	GLU
22	CV	168	GLY
27	DC	149	ASN
27	DC	173	HIS
28	DD	36	PRO
28	DD	156	ALA
28	DD	239	ARG
28	DD	242	ARG
28	DD	246	PRO
29	DE	29	GLY
29	DE	46	ALA
29	DE	66	HIS
29	DE	108	SER
29	DE	119	ARG
29	DE	131	ALA
29	DE	185	LYS
29	DE	189	PRO
30	DF	5	ALA
30	DF	42	ALA
30	DF	54	ARG
30	DF	72	ARG
30	DF	94	PRO
30	DF	145	GLU
30	DF	165	ARG
31	DG	32	PRO
31	DG	115	ARG
32	DH	13	LYS
32	DH	20	ALA
32	DH	85	LYS
33	DI	23	PRO
33	DI	50	ARG
33	DI	83	ALA
33	DI	99	GLU
33	DI	101	LEU
33	DI	137	PRO
34	DN	44	PRO
34	DN	66	LYS
34	DN	119	ARG
34	DN	133	GLN
34	DN	135	PRO
36	DP	25	SER
36	DP	32	THR

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Mol	Chain	Res	Type
36	DP	47	ASP
36	DP	52	GLU
36	DP	55	ARG
36	DP	56	SER
36	DP	63	PRO
36	DP	106	LEU
37	DQ	105	GLU
37	DQ	136	ALA
38	DR	102	GLU
39	DS	105	ALA
40	DT	25	GLY
40	DT	27	THR
40	DT	92	GLY
40	DT	129	ARG
40	DT	137	LYS
41	DU	12	ARG
41	DU	13	LYS
41	DU	19	LYS
41	DU	53	ARG
41	DU	54	LYS
41	DU	72	HIS
41	DU	93	LYS
42	DV	23	GLU
42	DV	24	LYS
42	DV	40	LEU
43	DW	45	TYR
44	DX	22	ALA
45	DY	8	LYS
45	DY	50	ARG
45	DY	52	SER
46	DZ	38	VAL
46	DZ	62	ASP
46	DZ	80	ARG
46	DZ	127	VAL
46	DZ	150	HIS
46	DZ	165	SER
46	DZ	176	PRO
48	D1	85	LEU
49	D2	58	ALA
50	D3	13	ILE
51	D4	44	CYS
52	D5	43	HIS

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Mol	Chain	Res	Type
53	D6	23	THR
53	D6	29	ASN
53	D6	33	LYS
55	D8	3	LYS
55	D8	31	HIS
2	AB	44	LEU
2	AB	81	VAL
2	AB	194	PRO
2	AB	229	VAL
3	AC	29	TYR
3	AC	55	VAL
3	AC	88	ARG
3	AC	131	ARG
3	AC	206	GLU
4	AD	14	ARG
4	AD	73	ARG
4	AD	88	VAL
5	AE	49	PRO
5	AE	77	PRO
5	AE	105	VAL
5	AE	128	PRO
5	AE	129	ILE
5	AE	153	LYS
7	AG	12	LEU
7	AG	109	ASN
9	AI	54	ASP
9	AI	104	ARG
10	AJ	59	SER
10	AJ	84	GLN
11	AK	127	LYS
13	AM	87	TYR
13	AM	106	ASN
15	AO	28	GLN
17	AQ	83	ASP
18	AR	21	LYS
19	AS	73	GLU
19	AS	78	ARG
20	AT	46	GLU
22	AV	105	LYS
27	BC	19	LYS
27	BC	71	LYS
27	BC	98	GLU

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Mol	Chain	Res	Type
27	BC	160	GLY
27	BC	203	GLU
28	BD	25	THR
28	BD	28	GLU
28	BD	115	GLN
28	BD	244	ARG
29	BE	52	LEU
29	BE	185	LYS
30	BF	26	ALA
30	BF	68	LYS
31	BG	96	ARG
31	BG	110	ALA
32	BH	11	VAL
32	BH	60	ARG
32	BH	128	PRO
32	BH	159	GLU
32	BH	169	VAL
33	BI	39	ALA
33	BI	49	ALA
33	BI	107	VAL
34	BN	42	TRP
34	BN	134	ARG
35	BO	5	GLN
36	BP	37	GLY
36	BP	104	GLY
37	BQ	28	ALA
38	BR	106	GLY
39	BS	42	ASP
40	BT	16	ARG
42	BV	48	GLY
43	BW	65	LEU
43	BW	93	ALA
44	BX	13	LEU
45	BY	29	GLU
45	BY	31	LEU
45	BY	40	GLU
45	BY	81	LYS
46	BZ	14	PRO
46	BZ	40	LEU
46	BZ	178	ASP
47	B0	17	ALA
49	B2	70	GLN

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Mol	Chain	Res	Type
52	B5	33	CYS
52	B5	34	PRO
53	B6	30	THR
53	B6	52	VAL
2	CB	24	TRP
2	CB	83	MET
2	CB	226	ARG
3	CC	13	GLY
3	CC	46	GLU
3	CC	206	GLU
4	CD	119	GLN
4	CD	120	LEU
5	CE	70	PRO
5	CE	108	ALA
6	CF	53	ALA
7	CG	4	ARG
7	CG	94	ARG
7	CG	129	GLU
8	CH	115	SER
9	CI	55	ALA
9	CI	94	ALA
10	CJ	36	GLY
12	CL	16	ARG
12	CL	118	GLY
13	CM	57	ARG
13	CM	111	LYS
14	CN	60	SER
15	CO	7	GLU
15	CO	25	THR
15	CO	27	VAL
16	CP	83	GLU
17	CQ	14	LYS
17	CQ	30	PRO
18	CR	54	ARG
19	CS	47	HIS
20	CT	21	LYS
21	CU	7	ARG
22	CV	50	VAL
22	CV	97	ARG
27	DC	174	ALA
28	DD	8	PRO
28	DD	257	LEU

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Mol	Chain	Res	Type
28	DD	266	SER
29	DE	17	ASP
29	DE	51	PHE
29	DE	117	MET
29	DE	126	PRO
29	DE	151	TYR
30	DF	11	VAL
30	DF	66	PRO
30	DF	85	GLY
31	DG	47	LYS
31	DG	75	LYS
32	DH	92	ILE
33	DI	49	ALA
33	DI	78	THR
33	DI	80	PRO
33	DI	125	GLU
34	DN	40	PRO
36	DP	9	ASN
36	DP	12	ALA
36	DP	85	LEU
36	DP	133	SER
37	DQ	57	HIS
38	DR	9	LYS
38	DR	45	ARG
38	DR	106	GLY
39	DS	14	VAL
39	DS	17	ARG
39	DS	107	GLU
40	DT	2	ASN
40	DT	17	THR
40	DT	128	GLU
41	DU	22	LYS
42	DV	18	LEU
42	DV	36	PRO
42	DV	38	LEU
42	DV	49	THR
43	DW	22	ASP
44	DX	48	LYS
45	DY	62	GLU
46	DZ	51	SER
49	D2	21	LEU
51	D4	54	LYS

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Mol	Chain	Res	Type
52	D5	36	CYS
53	D6	42	TRP
55	D8	35	GLN
55	D8	62	LEU
2	AB	11	LEU
2	AB	28	PHE
2	AB	116	GLU
2	AB	130	ARG
2	AB	190	THR
3	AC	103	VAL
3	AC	121	ALA
3	AC	200	ALA
4	AD	40	PRO
4	AD	189	PRO
5	AE	6	PHE
5	AE	108	ALA
6	AF	62	TRP
7	AG	110	GLN
8	AH	29	SER
8	AH	49	GLU
9	AI	11	LYS
10	AJ	41	PRO
11	AK	51	LYS
11	AK	100	ALA
12	AL	4	ILE
12	AL	16	ARG
12	AL	45	PRO
13	AM	4	ILE
13	AM	21	TYR
14	AN	13	THR
15	AO	77	ARG
15	AO	82	ILE
15	AO	88	ARG
18	AR	31	LEU
18	AR	59	SER
19	AS	27	GLU
19	AS	76	PRO
20	AT	28	ALA
21	AU	13	ILE
22	AV	135	THR
22	AV	175	THR
27	BC	55	SER

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Mol	Chain	Res	Type
27	BC	72	GLN
28	BD	34	VAL
28	BD	201	HIS
28	BD	204	ILE
28	BD	268	ARG
29	BE	84	PHE
30	BF	4	VAL
30	BF	89	VAL
30	BF	116	ASP
31	BG	153	ARG
32	BH	57	ASP
32	BH	158	HIS
33	BI	31	LEU
33	BI	44	LEU
33	BI	130	TYR
33	BI	134	PRO
34	BN	59	LYS
34	BN	127	ASP
35	BO	25	LEU
35	BO	45	GLU
35	BO	120	GLU
36	BP	23	PRO
36	BP	26	GLY
36	BP	83	VAL
38	BR	42	LYS
38	BR	107	ASP
39	BS	18	ILE
39	BS	22	GLY
40	BT	55	ASN
41	BU	9	VAL
43	BW	6	ILE
43	BW	112	GLY
46	BZ	94	PRO
52	B5	5	PRO
52	B5	48	GLU
56	B9	28	GLU
2	CB	12	GLU
2	CB	13	ALA
2	CB	46	LYS
2	CB	130	ARG
2	CB	204	ASN
3	CC	30	ARG

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Mol	Chain	Res	Type
3	CC	53	ALA
3	CC	109	PRO
4	CD	31	CYS
4	CD	89	THR
5	CE	74	GLY
5	CE	104	ALA
5	CE	129	ILE
7	CG	91	VAL
7	CG	137	LYS
7	CG	149	ARG
8	CH	20	TYR
8	CH	37	ARG
8	CH	51	VAL
8	CH	71	GLY
8	CH	72	PRO
8	CH	111	ILE
9	CI	85	LEU
10	CJ	27	ALA
10	CJ	93	GLY
11	CK	73	MET
13	CM	7	VAL
13	CM	107	ALA
13	CM	116	THR
15	CO	8	LYS
15	CO	10	LYS
15	CO	56	LEU
16	CP	69	THR
19	CS	30	LEU
20	CT	13	LEU
20	CT	20	LEU
27	DC	124	VAL
27	DC	133	GLY
27	DC	160	GLY
27	DC	193	PHE
29	DE	45	THR
29	DE	56	PRO
29	DE	134	ILE
30	DF	14	PRO
30	DF	178	PRO
31	DG	181	ARG
32	DH	81	GLU
32	DH	127	GLU

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Mol	Chain	Res	Type
32	DH	151	ILE
32	DH	162	ILE
32	DH	166	GLY
32	DH	169	VAL
33	DI	76	THR
33	DI	123	LEU
34	DN	46	VAL
34	DN	60	ILE
34	DN	94	HIS
34	DN	98	VAL
34	DN	106	MET
36	DP	48	PRO
36	DP	141	ALA
37	DQ	40	ALA
38	DR	52	ILE
38	DR	53	HIS
38	DR	85	PRO
39	DS	102	ALA
40	DT	18	ASP
40	DT	117	ASP
42	DV	3	ALA
42	DV	96	ILE
43	DW	6	ILE
45	DY	57	GLN
46	DZ	104	VAL
46	DZ	109	GLY
49	D2	57	ILE
49	D2	70	GLN
50	D3	16	PRO
50	D3	57	GLU
52	D5	5	PRO
53	D6	49	HIS
4	AD	5	ILE
4	AD	92	VAL
4	AD	109	GLY
4	AD	136	PRO
4	AD	159	ARG
5	AE	70	PRO
7	AG	94	ARG
9	AI	57	GLY
14	AN	14	PRO
15	AO	29	VAL

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Mol	Chain	Res	Type
16	AP	67	THR
22	AV	57	GLY
22	AV	103	PHE
28	BD	270	ILE
29	BE	90	THR
32	BH	8	PRO
32	BH	49	VAL
36	BP	39	LYS
36	BP	43	GLY
40	BT	116	ALA
43	BW	49	LYS
45	BY	37	VAL
45	BY	41	GLY
45	BY	95	LYS
49	B2	17	SER
2	CB	211	ILE
2	CB	215	LEU
3	CC	51	GLY
3	CC	103	VAL
4	CD	158	ILE
8	CH	100	ILE
9	CI	48	GLU
9	CI	61	ALA
10	CJ	41	PRO
13	CM	23	TYR
15	CO	24	SER
16	CP	65	GLN
22	CV	73	LEU
28	DD	25	THR
28	DD	45	ASN
28	DD	46	GLN
28	DD	244	ARG
29	DE	52	LEU
30	DF	8	GLN
30	DF	47	GLY
31	DG	96	ARG
32	DH	66	GLY
33	DI	110	ASP
33	DI	119	PRO
35	DO	98	VAL
36	DP	18	ARG
38	DR	30	THR

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Mol	Chain	Res	Type
39	DS	85	VAL
39	DS	89	ARG
40	DT	88	ILE
44	DX	24	GLY
45	DY	31	LEU
46	DZ	71	ARG
48	D1	53	VAL
54	D7	44	PRO
55	D8	38	GLY
2	AB	39	ILE
3	AC	8	ILE
4	AD	178	VAL
6	AF	34	GLY
7	AG	66	VAL
27	BC	114	VAL
32	BH	10	PRO
42	BV	36	PRO
47	B0	41	GLY
3	CC	86	VAL
4	CD	92	VAL
6	CF	6	VAL
6	CF	26	ILE
7	CG	118	VAL
7	CG	130	GLY
13	CM	98	VAL
15	CO	29	VAL
22	CV	4	VAL
22	CV	167	PRO
28	DD	177	LEU
31	DG	112	PRO
37	DQ	109	VAL
38	DR	58	GLY
39	DS	82	ILE
39	DS	91	PRO
44	DX	84	ALA
45	DY	81	LYS
49	D2	18	PRO
51	D4	47	VAL
52	D5	42	PRO
3	AC	159	GLY
8	AH	86	ILE
15	AO	27	VAL

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Mol	Chain	Res	Type
20	AT	97	ALA
28	BD	232	PRO
29	BE	59	VAL
32	BH	91	GLY
34	BN	125	GLY
35	BO	101	PRO
36	BP	71	VAL
38	BR	48	VAL
43	BW	14	PRO
46	BZ	81	ARG
46	BZ	136	ILE
48	B1	74	VAL
51	B4	54	LYS
2	CB	214	ILE
5	CE	67	VAL
8	CH	106	GLY
12	CL	45	PRO
29	DE	73	GLU
32	DH	29	PRO
32	DH	49	VAL
44	DX	11	PRO
45	DY	37	VAL
46	DZ	105	GLY
54	D7	7	PRO
54	D7	17	GLY
2	AB	228	GLY
3	AC	174	PRO
5	AE	154	GLY
16	AP	78	GLY
17	AQ	30	PRO
29	BE	186	GLY
32	BH	7	LEU
33	BI	131	LYS
35	BO	72	PRO
50	B3	13	ILE
5	CE	13	ILE
7	CG	105	VAL
10	CJ	49	VAL
11	CK	95	ILE
12	CL	122	PRO
27	DC	146	VAL
28	DD	28	GLU

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Mol	Chain	Res	Type
28	DD	238	GLY
28	DD	245	PRO
30	DF	78	ILE
32	DH	154	PRO
33	DI	131	LYS
40	DT	10	VAL
45	DY	98	VAL
47	D0	42	GLY
10	AJ	74	ILE
22	AV	124	PRO
22	AV	162	PRO
29	BE	4	ILE
29	BE	56	PRO
31	BG	28	VAL
31	BG	142	PRO
2	CB	124	SER
8	CH	5	PRO
8	CH	27	PRO
21	CU	22	ARG
28	DD	249	PRO
30	DF	80	ALA
38	DR	117	VAL
42	DV	99	ILE
45	DY	18	GLY
45	DY	61	ILE
46	DZ	81	ARG
49	D2	25	VAL
5	AE	95	ALA
12	AL	118	GLY
29	BE	61	ARG
30	BF	81	PRO
42	BV	47	VAL
44	BX	49	VAL
7	CG	13	GLN
11	CK	34	ASP
39	DS	35	ILE

### 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%)	173 (86%)	29 (14%)	5	19
2	CB	202/220 (92%)	179 (89%)	23 (11%)	8	31
3	AC	160/188 (85%)	142 (89%)	18 (11%)	9	32
3	CC	160/188 (85%)	146 (91%)	14 (9%)	14	49
4	AD	180/181 (99%)	157 (87%)	23 (13%)	6	24
4	CD	180/181 (99%)	158 (88%)	22 (12%)	7	26
5	AE	115/123 (94%)	102 (89%)	13 (11%)	9	32
5	CE	115/123 (94%)	104 (90%)	11 (10%)	12	42
6	AF	90/90 (100%)	77 (86%)	13 (14%)	5	19
6	CF	90/90 (100%)	81 (90%)	9 (10%)	11	38
7	AG	126/127 (99%)	112 (89%)	14 (11%)	9	33
7	CG	126/127 (99%)	110 (87%)	16 (13%)	6	24
8	AH	119/119 (100%)	109 (92%)	10 (8%)	16	52
8	CH	119/119 (100%)	108 (91%)	11 (9%)	13	45
9	AI	97/99 (98%)	80 (82%)	17 (18%)	3	11
9	CI	97/99 (98%)	78 (80%)	19 (20%)	2	8
10	AJ	88/92 (96%)	75 (85%)	13 (15%)	4	17
10	CJ	88/92 (96%)	79 (90%)	9 (10%)	11	37
11	AK	90/99 (91%)	85 (94%)	5 (6%)	30	70
11	CK	90/99 (91%)	81 (90%)	9 (10%)	11	38
12	AL	104/109 (95%)	94 (90%)	10 (10%)	12	42
12	CL	104/109 (95%)	92 (88%)	12 (12%)	8	31
13	AM	95/101 (94%)	74 (78%)	21 (22%)	1	6
13	CM	95/101 (94%)	79 (83%)	16 (17%)	3	11
14	AN	49/50 (98%)	40 (82%)	9 (18%)	2	9
14	CN	49/50 (98%)	44 (90%)	5 (10%)	11	37
15	AO	79/80 (99%)	73 (92%)	6 (8%)	19	58
15	CO	79/80 (99%)	73 (92%)	6 (8%)	19	58
16	AP	72/74 (97%)	64 (89%)	8 (11%)	9	33
16	CP	72/74 (97%)	65 (90%)	7 (10%)	12	41
17	AQ	94/97 (97%)	86 (92%)	8 (8%)	15	51
17	CQ	94/97 (97%)	86 (92%)	8 (8%)	15	51

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
18	AR	61/77 (79%)	57 (93%)	4 (7%)	24	64
18	CR	61/77 (79%)	54 (88%)	7 (12%)	8	31
19	AS	65/80 (81%)	52 (80%)	13 (20%)	2	8
19	CS	68/80 (85%)	56 (82%)	12 (18%)	3	10
20	AT	76/82 (93%)	67 (88%)	9 (12%)	8	29
20	CT	76/82 (93%)	66 (87%)	10 (13%)	6	23
21	AU	19/22 (86%)	17 (90%)	2 (10%)	10	35
21	CU	19/22 (86%)	18 (95%)	1 (5%)	32	72
22	AV	148/154 (96%)	136 (92%)	12 (8%)	17	53
22	CV	148/154 (96%)	129 (87%)	19 (13%)	6	24
27	BC	175/181 (97%)	148 (85%)	27 (15%)	4	15
27	DC	165/181 (91%)	146 (88%)	19 (12%)	8	31
28	BD	215/218 (99%)	179 (83%)	36 (17%)	3	11
28	DD	213/218 (98%)	184 (86%)	29 (14%)	5	21
29	BE	165/166 (99%)	144 (87%)	21 (13%)	6	24
29	DE	165/166 (99%)	140 (85%)	25 (15%)	4	16
30	BF	165/166 (99%)	137 (83%)	28 (17%)	3	11
30	DF	165/166 (99%)	143 (87%)	22 (13%)	6	22
31	BG	155/156 (99%)	126 (81%)	29 (19%)	2	9
31	DG	155/156 (99%)	132 (85%)	23 (15%)	4	17
32	BH	127/148 (86%)	115 (91%)	12 (9%)	13	43
32	DH	132/148 (89%)	111 (84%)	21 (16%)	4	13
33	BI	97/124 (78%)	78 (80%)	19 (20%)	2	8
33	DI	49/124 (40%)	41 (84%)	8 (16%)	3	12
34	BN	117/119 (98%)	95 (81%)	22 (19%)	2	9
34	DN	117/119 (98%)	100 (86%)	17 (14%)	5	18
35	BO	100/100 (100%)	90 (90%)	10 (10%)	11	38
35	DO	100/100 (100%)	91 (91%)	9 (9%)	14	47
36	BP	112/116 (97%)	88 (79%)	24 (21%)	1	7
36	DP	103/116 (89%)	81 (79%)	22 (21%)	1	7
37	BQ	109/111 (98%)	95 (87%)	14 (13%)	6	24

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
37	DQ	111/111 (100%)	100 (90%)	11 (10%)	11	39
38	BR	92/101 (91%)	80 (87%)	12 (13%)	6	23
38	DR	100/101 (99%)	83 (83%)	17 (17%)	3	11
39	BS	76/88 (86%)	61 (80%)	15 (20%)	2	8
39	DS	77/88 (88%)	60 (78%)	17 (22%)	1	6
40	BT	120/127 (94%)	94 (78%)	26 (22%)	1	6
40	DT	120/127 (94%)	97 (81%)	23 (19%)	2	9
41	BU	92/94 (98%)	77 (84%)	15 (16%)	3	12
41	DU	92/94 (98%)	82 (89%)	10 (11%)	9	34
42	BV	82/82 (100%)	63 (77%)	19 (23%)	1	5
42	DV	82/82 (100%)	66 (80%)	16 (20%)	2	8
43	BW	91/92 (99%)	77 (85%)	14 (15%)	4	15
43	DW	91/92 (99%)	84 (92%)	7 (8%)	18	57
44	BX	75/78 (96%)	64 (85%)	11 (15%)	4	18
44	DX	74/78 (95%)	66 (89%)	8 (11%)	9	34
45	BY	79/91 (87%)	64 (81%)	15 (19%)	2	9
45	DY	84/91 (92%)	69 (82%)	15 (18%)	2	10
46	BZ	158/179 (88%)	136 (86%)	22 (14%)	5	21
46	DZ	155/179 (87%)	131 (84%)	24 (16%)	4	14
47	B0	62/67 (92%)	56 (90%)	6 (10%)	12	41
47	D0	66/67 (98%)	56 (85%)	10 (15%)	4	16
48	B1	81/83 (98%)	66 (82%)	15 (18%)	2	9
48	D1	78/83 (94%)	69 (88%)	9 (12%)	8	31
49	B2	66/67 (98%)	57 (86%)	9 (14%)	5	21
49	D2	66/67 (98%)	57 (86%)	9 (14%)	5	21
50	B3	50/52 (96%)	43 (86%)	7 (14%)	5	21
50	D3	51/52 (98%)	48 (94%)	3 (6%)	28	68
51	B4	27/63 (43%)	23 (85%)	4 (15%)	4	17
51	D4	27/63 (43%)	25 (93%)	2 (7%)	20	59
52	B5	48/52 (92%)	36 (75%)	12 (25%)	1	3
52	D5	51/52 (98%)	44 (86%)	7 (14%)	5	21

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
53	B6	43/52 (83%)	32 (74%)	11 (26%)	1	2
53	D6	24/52 (46%)	14 (58%)	10 (42%)	0	0
54	B7	41/42 (98%)	38 (93%)	3 (7%)	20	59
54	D7	41/42 (98%)	32 (78%)	9 (22%)	1	6
55	B8	52/55 (94%)	44 (85%)	8 (15%)	4	15
55	D8	46/55 (84%)	36 (78%)	10 (22%)	1	6
56	B9	32/34 (94%)	26 (81%)	6 (19%)	2	9
56	D9	33/34 (97%)	28 (85%)	5 (15%)	4	16
All	All	9998/10736 (93%)	8606 (86%)	1392 (14%)	5	21

All (1392) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AB	8	LYS
2	AB	9	GLU
2	AB	17	PHE
2	AB	20	GLU
2	AB	24	TRP
2	AB	30	ARG
2	AB	36	ARG
2	AB	44	LEU
2	AB	69	LEU
2	AB	74	LYS
2	AB	80	ILE
2	AB	92	TYR
2	AB	110	GLN
2	AB	119	GLU
2	AB	121	LEU
2	AB	130	ARG
2	AB	137	ARG
2	AB	146	GLN
2	AB	152	PHE
2	AB	160	ASP
2	AB	175	ARG
2	AB	178	ARG
2	AB	195	ASP
2	AB	196	LEU
2	AB	205	ASP
2	AB	206	ASP

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Mol	Chain	Res	Type
2	AB	220	ASP
2	AB	221	LEU
2	AB	238	LEU
3	AC	12	LEU
3	AC	14	ILE
3	AC	16	ARG
3	AC	17	ASP
3	AC	21	ARG
3	AC	29	TYR
3	AC	34	LEU
3	AC	37	GLN
3	AC	47	LEU
3	AC	76	VAL
3	AC	83	ARG
3	AC	85	ARG
3	AC	101	LEU
3	AC	126	ARG
3	AC	127	ARG
3	AC	128	PHE
3	AC	175	LEU
3	AC	198	VAL
4	AD	3	ARG
4	AD	9	CYS
4	AD	11	LEU
4	AD	12	CYS
4	AD	13	ARG
4	AD	26	CYS
4	AD	31	CYS
4	AD	36	ARG
4	AD	49	ARG
4	AD	53	ASP
4	AD	68	TYR
4	AD	96	LEU
4	AD	114	ARG
4	AD	121	VAL
4	AD	131	ARG
4	AD	134	ASP
4	AD	150	GLU
4	AD	154	ASN
4	AD	169	LYS
4	AD	178	VAL
4	AD	187	ARG

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Mol	Chain	Res	Type
4	AD	188	LEU
4	AD	200	GLU
5	AE	16	THR
5	AE	20	GLN
5	AE	24	ARG
5	AE	26	PHE
5	AE	64	ARG
5	AE	73	ASN
5	AE	76	ILE
5	AE	79	GLU
5	AE	98	THR
5	AE	101	ILE
5	AE	107	ARG
5	AE	117	ASP
5	AE	137	GLU
6	AF	3	ARG
6	AF	7	ASN
6	AF	13	ASN
6	AF	16	GLN
6	AF	25	ILE
6	AF	43	LEU
6	AF	46	ARG
6	AF	63	TYR
6	AF	69	GLU
6	AF	77	ARG
6	AF	81	ILE
6	AF	97	PHE
6	AF	100	ASN
7	AG	43	PHE
7	AG	45	ASP
7	AG	52	GLU
7	AG	54	THR
7	AG	57	GLU
7	AG	58	PRO
7	AG	60	LYS
7	AG	79	ARG
7	AG	89	MET
7	AG	113	GLU
7	AG	137	LYS
7	AG	140	ASP
7	AG	142	GLU
7	AG	156	TRP

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Mol	Chain	Res	Type
8	AH	1	MET
8	AH	2	LEU
8	AH	17	THR
8	AH	25	ASP
8	AH	26	VAL
8	AH	52	ASP
8	AH	63	LEU
8	AH	65	TYR
8	AH	85	ARG
8	AH	102	ARG
9	AI	4	TYR
9	AI	7	THR
9	AI	10	ARG
9	AI	20	ARG
9	AI	28	VAL
9	AI	31	GLN
9	AI	48	GLU
9	AI	66	ARG
9	AI	95	LYS
9	AI	99	LEU
9	AI	102	LEU
9	AI	104	ARG
9	AI	114	TYR
9	AI	116	LYS
9	AI	120	ARG
9	AI	121	ARG
9	AI	128	ARG
10	AJ	17	ASP
10	AJ	22	LYS
10	AJ	40	LEU
10	AJ	45	ARG
10	AJ	47	PHE
10	AJ	50	ILE
10	AJ	57	LYS
10	AJ	62	HIS
10	AJ	63	PHE
10	AJ	80	LYS
10	AJ	86	MET
10	AJ	96	ILE
10	AJ	98	ILE
11	AK	32	ILE
11	AK	51	LYS

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Mol	Chain	Res	Type
11	AK	81	ASP
11	AK	116	HIS
11	AK	117	ASN
12	AL	41	THR
12	AL	45	PRO
12	AL	50	ARG
12	AL	61	TYR
12	AL	66	TYR
12	AL	86	ARG
12	AL	89	ASP
12	AL	110	ARG
12	AL	117	TYR
12	AL	124	GLU
13	AM	12	ASN
13	AM	14	ARG
13	AM	16	ASP
13	AM	47	ASP
13	AM	48	LEU
13	AM	50	GLU
13	AM	56	LEU
13	AM	59	TYR
13	AM	64	TRP
13	AM	66	LEU
13	AM	70	LEU
13	AM	71	ARG
13	AM	77	ASN
13	AM	101	GLN
13	AM	102	ARG
13	AM	103	THR
13	AM	108	ARG
13	AM	109	THR
13	AM	113	PRO
13	AM	115	LYS
13	AM	120	LYS
14	AN	14	PRO
14	AN	18	VAL
14	AN	26	ARG
14	AN	32	SER
14	AN	33	VAL
14	AN	34	TYR
14	AN	35	ARG
14	AN	41	ARG

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Mol	Chain	Res	Type
14	AN	44	LEU
15	AO	3	ILE
15	AO	41	GLU
15	AO	49	ASP
15	AO	65	ARG
15	AO	71	GLN
15	AO	82	ILE
16	AP	17	TYR
16	AP	26	ARG
16	AP	28	ARG
16	AP	44	THR
16	AP	58	TYR
16	AP	65	GLN
16	AP	69	THR
16	AP	82	GLN
17	AQ	6	LEU
17	AQ	7	THR
17	AQ	9	VAL
17	AQ	14	LYS
17	AQ	38	ARG
17	AQ	52	LYS
17	AQ	68	ARG
17	AQ	91	ARG
18	AR	31	LEU
18	AR	76	LEU
18	AR	87	ARG
18	AR	88	LYS
19	AS	6	LYS
19	AS	7	LYS
19	AS	11	VAL
19	AS	13	ASP
19	AS	14	HIS
19	AS	16	LEU
19	AS	27	GLU
19	AS	29	ARG
19	AS	37	ARG
19	AS	43	GLU
19	AS	44	MET
19	AS	49	ILE
19	AS	66	MET
20	AT	23	ARG
20	AT	26	ASN

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Mol	Chain	Res	Type
20	AT	30	LYS
20	AT	42	GLN
20	AT	43	LEU
20	AT	50	GLU
20	AT	53	LEU
20	AT	93	GLU
20	AT	99	LEU
21	AU	17	THR
21	AU	24	ARG
22	AV	30	LEU
22	AV	41	PHE
22	AV	42	LYS
22	AV	45	GLU
22	AV	64	TYR
22	AV	72	TYR
22	AV	90	GLN
22	AV	102	GLU
22	AV	103	PHE
22	AV	104	PHE
22	AV	113	ASP
22	AV	135	THR
27	BC	7	ARG
27	BC	8	TYR
27	BC	24	ASP
27	BC	38	PHE
27	BC	40	GLU
27	BC	54	ARG
27	BC	74	ARG
27	BC	82	GLU
27	BC	93	ASP
27	BC	99	GLU
27	BC	102	GLN
27	BC	105	LEU
27	BC	106	ASP
27	BC	111	PHE
27	BC	119	ASP
27	BC	121	MET
27	BC	130	ARG
27	BC	165	ARG
27	BC	173	HIS
27	BC	181	PHE
27	BC	183	PRO

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Mol	Chain	Res	Type
27	BC	184	GLU
27	BC	208	THR
27	BC	211	ARG
27	BC	214	TYR
27	BC	216	THR
27	BC	221	PRO
28	BD	10	THR
28	BD	20	ASP
28	BD	25	THR
28	BD	26	LYS
28	BD	30	GLU
28	BD	32	SER
28	BD	37	LEU
28	BD	39	LYS
28	BD	46	GLN
28	BD	52	ARG
28	BD	54	ARG
28	BD	61	LEU
28	BD	65	ILE
28	BD	82	ILE
28	BD	84	TYR
28	BD	92	ILE
28	BD	94	LEU
28	BD	95	LEU
28	BD	104	TYR
28	BD	115	GLN
28	BD	131	LEU
28	BD	140	THR
28	BD	154	LYS
28	BD	166	GLN
28	BD	168	ARG
28	BD	200	ASP
28	BD	227	ASN
28	BD	232	PRO
28	BD	239	ARG
28	BD	246	PRO
28	BD	257	LEU
28	BD	259	THR
28	BD	260	ARG
28	BD	270	ILE
28	BD	273	ARG
28	BD	274	ARG

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Mol	Chain	Res	Type
29	BE	1	MET
29	BE	7	VAL
29	BE	12	THR
29	BE	49	LEU
29	BE	63	LEU
29	BE	66	HIS
29	BE	67	PHE
29	BE	78	LEU
29	BE	79	ARG
29	BE	82	ARG
29	BE	107	THR
29	BE	113	PHE
29	BE	119	ARG
29	BE	138	PRO
29	BE	144	ARG
29	BE	150	VAL
29	BE	154	LYS
29	BE	163	GLU
29	BE	197	ILE
29	BE	202	LYS
29	BE	203	LYS
30	BF	2	LYS
30	BF	3	GLU
30	BF	19	GLU
30	BF	20	LEU
30	BF	24	LEU
30	BF	25	PRO
30	BF	33	LEU
30	BF	46	ARG
30	BF	57	VAL
30	BF	65	TRP
30	BF	66	PRO
30	BF	67	GLN
30	BF	70	THR
30	BF	74	ARG
30	BF	78	ILE
30	BF	83	PHE
30	BF	88	VAL
30	BF	110	LEU
30	BF	112	MET
30	BF	116	ASP
30	BF	136	THR

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Mol	Chain	Res	Type
30	BF	137	LYS
30	BF	158	THR
30	BF	165	ARG
30	BF	188	ARG
30	BF	191	ARG
30	BF	192	LEU
30	BF	200	GLU
31	BG	4	ASP
31	BG	7	LEU
31	BG	9	ARG
31	BG	16	ARG
31	BG	21	ARG
31	BG	31	VAL
31	BG	32	PRO
31	BG	39	ILE
31	BG	43	LEU
31	BG	45	GLU
31	BG	51	ARG
31	BG	52	ILE
31	BG	54	GLU
31	BG	60	LEU
31	BG	64	THR
31	BG	66	GLN
31	BG	86	MET
31	BG	87	PRO
31	BG	90	LEU
31	BG	91	ARG
31	BG	101	ILE
31	BG	112	PRO
31	BG	113	ARG
31	BG	116	ASP
31	BG	130	ASN
31	BG	135	LEU
31	BG	139	LEU
31	BG	149	VAL
31	BG	167	GLU
32	BH	10	PRO
32	BH	13	LYS
32	BH	17	VAL
32	BH	23	ARG
32	BH	40	GLU
32	BH	41	MET

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Mol	Chain	Res	Type
32	BH	63	SER
32	BH	86	GLU
32	BH	105	LEU
32	BH	111	HIS
32	BH	149	ARG
32	BH	160	LYS
33	BI	10	GLU
33	BI	20	ASP
33	BI	38	LEU
33	BI	51	ILE
33	BI	60	GLU
33	BI	62	LYS
33	BI	66	GLU
33	BI	71	ILE
33	BI	74	ASN
33	BI	89	TYR
33	BI	93	THR
33	BI	104	GLN
33	BI	122	GLU
33	BI	127	VAL
33	BI	129	THR
33	BI	133	HIS
33	BI	134	PRO
33	BI	135	GLU
33	BI	138	ILE
34	BN	3	THR
34	BN	10	GLU
34	BN	15	LEU
34	BN	23	LEU
34	BN	34	LEU
34	BN	38	HIS
34	BN	39	ARG
34	BN	46	VAL
34	BN	48	MET
34	BN	56	ASN
34	BN	58	ASP
34	BN	68	GLU
34	BN	78	TYR
34	BN	87	LEU
34	BN	109	LYS
34	BN	120	LEU
34	BN	121	LYS

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Mol	Chain	Res	Type
34	BN	127	ASP
34	BN	130	HIS
34	BN	134	ARG
34	BN	135	PRO
34	BN	136	GLU
35	BO	17	ARG
35	BO	28	SER
35	BO	32	TYR
35	BO	42	SER
35	BO	48	PRO
35	BO	65	THR
35	BO	70	LYS
35	BO	94	ARG
35	BO	96	THR
35	BO	97	ARG
36	BP	6	LEU
36	BP	13	ASN
36	BP	14	LYS
36	BP	16	ARG
36	BP	19	VAL
36	BP	30	THR
36	BP	32	THR
36	BP	39	LYS
36	BP	55	ARG
36	BP	59	LEU
36	BP	61	ARG
36	BP	62	LEU
36	BP	64	LYS
36	BP	65	ARG
36	BP	68	GLN
36	BP	74	GLU
36	BP	85	LEU
36	BP	91	PHE
36	BP	105	LEU
36	BP	108	LYS
36	BP	110	TYR
36	BP	114	ILE
36	BP	115	LEU
36	BP	123	LEU
37	BQ	5	ARG
37	BQ	17	LEU
37	BQ	51	ARG

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Mol	Chain	Res	Type
37	BQ	58	PHE
37	BQ	59	ARG
37	BQ	63	LYS
37	BQ	75	THR
37	BQ	79	LEU
37	BQ	110	THR
37	BQ	111	GLU
37	BQ	133	ARG
37	BQ	134	ARG
37	BQ	135	ASP
37	BQ	138	ASP
38	BR	18	LEU
38	BR	28	LEU
38	BR	38	VAL
38	BR	60	LEU
38	BR	63	ARG
38	BR	74	LYS
38	BR	79	LEU
38	BR	81	ASP
38	BR	89	ASP
38	BR	103	ARG
38	BR	104	ARG
38	BR	113	LEU
39	BS	12	PHE
39	BS	18	ILE
39	BS	26	LEU
39	BS	29	PHE
39	BS	36	TYR
39	BS	42	ASP
39	BS	61	ASN
39	BS	73	LEU
39	BS	89	ARG
39	BS	92	TYR
39	BS	97	ARG
39	BS	98	VAL
39	BS	101	LEU
39	BS	103	GLU
39	BS	106	ARG
40	BT	3	ARG
40	BT	13	ARG
40	BT	14	TYR
40	BT	22	PHE

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Mol	Chain	Res	Type
40	BT	24	PRO
40	BT	29	ARG
40	BT	32	TYR
40	BT	41	ARG
40	BT	42	ILE
40	BT	44	ASP
40	BT	50	ILE
40	BT	53	ARG
40	BT	63	VAL
40	BT	65	LYS
40	BT	82	LEU
40	BT	85	LYS
40	BT	89	VAL
40	BT	96	ARG
40	BT	99	LEU
40	BT	109	GLU
40	BT	111	ARG
40	BT	112	ARG
40	BT	115	ARG
40	BT	121	ILE
40	BT	125	ARG
40	BT	128	GLU
41	BU	5	LYS
41	BU	8	VAL
41	BU	15	LYS
41	BU	16	LYS
41	BU	27	LEU
41	BU	36	ARG
41	BU	44	ASN
41	BU	56	ASP
41	BU	57	PHE
41	BU	74	LEU
41	BU	91	ASP
41	BU	92	ARG
41	BU	97	ASP
41	BU	104	GLN
41	BU	112	ARG
42	BV	1	MET
42	BV	13	ARG
42	BV	16	PRO
42	BV	18	LEU
42	BV	19	LYS

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Mol	Chain	Res	Type
42	BV	21	ARG
42	BV	29	PRO
42	BV	35	LEU
42	BV	38	LEU
42	BV	39	LEU
42	BV	47	VAL
42	BV	57	VAL
42	BV	61	VAL
42	BV	68	LYS
42	BV	82	ARG
42	BV	89	GLN
42	BV	91	TYR
42	BV	95	LEU
42	BV	99	ILE
43	BW	8	ARG
43	BW	11	ARG
43	BW	18	ARG
43	BW	19	LEU
43	BW	37	ARG
43	BW	51	LEU
43	BW	60	ASN
43	BW	63	ASP
43	BW	65	LEU
43	BW	67	ASP
43	BW	68	ARG
43	BW	76	VAL
43	BW	96	ILE
43	BW	107	LEU
44	BX	2	LYS
44	BX	12	VAL
44	BX	14	SER
44	BX	23	GLU
44	BX	28	PHE
44	BX	47	PHE
44	BX	57	LEU
44	BX	63	LYS
44	BX	68	ARG
44	BX	70	LEU
44	BX	80	ILE
45	BY	2	ARG
45	BY	7	VAL
45	BY	8	LYS

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Mol	Chain	Res	Type
45	BY	19	LYS
45	BY	28	LYS
45	BY	29	GLU
45	BY	32	PRO
45	BY	45	VAL
45	BY	47	LYS
45	BY	56	PRO
45	BY	64	GLU
45	BY	66	PRO
45	BY	77	PRO
45	BY	90	LEU
45	BY	99	CYS
46	BZ	22	LYS
46	BZ	29	ASN
46	BZ	40	LEU
46	BZ	79	ARG
46	BZ	80	ARG
46	BZ	81	ARG
46	BZ	93	GLU
46	BZ	106	THR
46	BZ	111	ARG
46	BZ	130	ARG
46	BZ	131	ASN
46	BZ	144	GLU
46	BZ	147	ASP
46	BZ	149	LEU
46	BZ	150	HIS
46	BZ	153	ASP
46	BZ	161	GLU
46	BZ	162	LEU
46	BZ	167	GLU
46	BZ	170	ILE
46	BZ	178	ASP
46	BZ	180	GLU
47	B0	9	THR
47	B0	19	ARG
47	B0	40	ARG
47	B0	55	ASP
47	B0	81	ARG
47	B0	83	LEU
48	B1	4	VAL
48	B1	11	ARG

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Mol	Chain	Res	Type
48	B1	25	LYS
48	B1	26	ARG
48	B1	40	ARG
48	B1	45	ASN
48	B1	46	LEU
48	B1	51	VAL
48	B1	59	THR
48	B1	61	ARG
48	B1	62	VAL
48	B1	69	LYS
48	B1	72	GLU
48	B1	94	LEU
48	B1	95	LEU
49	B2	3	LEU
49	B2	14	ARG
49	B2	30	ARG
49	B2	34	GLU
49	B2	44	LEU
49	B2	45	SER
49	B2	47	ASN
49	B2	53	LEU
49	B2	62	THR
50	B3	4	LEU
50	B3	8	LEU
50	B3	29	ARG
50	B3	31	LEU
50	B3	40	THR
50	B3	46	ASN
50	B3	55	ARG
51	B4	42	CYS
51	B4	44	CYS
51	B4	51	TYR
51	B4	56	GLU
52	B5	3	LYS
52	B5	4	HIS
52	B5	6	VAL
52	B5	13	LYS
52	B5	19	ARG
52	B5	26	THR
52	B5	29	THR
52	B5	39	MET
52	B5	40	LYS

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Mol	Chain	Res	Type
52	B5	52	TYR
52	B5	56	LYS
52	B5	57	VAL
53	B6	9	LEU
53	B6	10	LEU
53	B6	11	LEU
53	B6	12	GLU
53	B6	18	ARG
53	B6	24	GLU
53	B6	28	ARG
53	B6	31	PRO
53	B6	35	GLU
53	B6	37	ARG
53	B6	43	CYS
54	B7	1	MET
54	B7	8	ASN
54	B7	48	LYS
55	B8	8	LYS
55	B8	30	ARG
55	B8	31	HIS
55	B8	33	ASN
55	B8	34	TRP
55	B8	42	ARG
55	B8	44	LYS
55	B8	61	LEU
56	B9	2	LYS
56	B9	9	ARG
56	B9	12	ASP
56	B9	17	ILE
56	B9	31	LYS
56	B9	34	GLN
2	CB	9	GLU
2	CB	15	VAL
2	CB	16	HIS
2	CB	17	PHE
2	CB	23	ARG
2	CB	24	TRP
2	CB	28	PHE
2	CB	36	ARG
2	CB	44	LEU
2	CB	69	LEU
2	CB	87	ARG

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Mol	Chain	Res	Type
2	CB	92	TYR
2	CB	111	ARG
2	CB	137	ARG
2	CB	144	ARG
2	CB	145	LEU
2	CB	160	ASP
2	CB	178	ARG
2	CB	185	ILE
2	CB	193	ASP
2	CB	195	ASP
2	CB	204	ASN
2	CB	223	ILE
3	CC	6	HIS
3	CC	12	LEU
3	CC	16	ARG
3	CC	17	ASP
3	CC	52	LEU
3	CC	83	ARG
3	CC	89	GLU
3	CC	98	ASN
3	CC	108	ASN
3	CC	116	VAL
3	CC	124	ILE
3	CC	127	ARG
3	CC	140	ARG
3	CC	186	PHE
4	CD	3	ARG
4	CD	9	CYS
4	CD	15	GLU
4	CD	36	ARG
4	CD	47	ARG
4	CD	49	ARG
4	CD	50	ARG
4	CD	53	ASP
4	CD	58	LEU
4	CD	67	ILE
4	CD	78	LEU
4	CD	102	ASP
4	CD	107	ARG
4	CD	127	THR
4	CD	129	ASN
4	CD	135	LEU

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Mol	Chain	Res	Type
4	CD	150	GLU
4	CD	154	ASN
4	CD	159	ARG
4	CD	188	LEU
4	CD	190	ASP
4	CD	192	GLU
5	CE	12	LEU
5	CE	26	PHE
5	CE	31	LEU
5	CE	52	PRO
5	CE	64	ARG
5	CE	91	LEU
5	CE	96	PRO
5	CE	101	ILE
5	CE	107	ARG
5	CE	112	LEU
5	CE	137	GLU
6	CF	21	LEU
6	CF	27	GLN
6	CF	30	LEU
6	CF	46	ARG
6	CF	63	TYR
6	CF	86	ARG
6	CF	94	GLN
6	CF	98	LEU
6	CF	100	ASN
7	CG	4	ARG
7	CG	5	ARG
7	CG	49	ILE
7	CG	54	THR
7	CG	56	GLN
7	CG	58	PRO
7	CG	60	LYS
7	CG	79	ARG
7	CG	89	MET
7	CG	113	GLU
7	CG	114	ARG
7	CG	118	VAL
7	CG	136	LYS
7	CG	140	ASP
7	CG	142	GLU
7	CG	156	TRP

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Mol	Chain	Res	Type
8	CH	1	MET
8	CH	6	ILE
8	CH	8	ASP
8	CH	25	ASP
8	CH	39	LEU
8	CH	54	ASP
8	CH	69	ARG
8	CH	85	ARG
8	CH	102	ARG
8	CH	104	ARG
8	CH	115	SER
9	CI	10	ARG
9	CI	20	ARG
9	CI	21	PRO
9	CI	23	ASN
9	CI	38	GLN
9	CI	42	ARG
9	CI	48	GLU
9	CI	54	ASP
9	CI	83	ARG
9	CI	91	ASP
9	CI	95	LYS
9	CI	96	LEU
9	CI	102	LEU
9	CI	104	ARG
9	CI	105	ASP
9	CI	114	TYR
9	CI	117	HIS
9	CI	121	ARG
9	CI	128	ARG
10	CJ	22	LYS
10	CJ	40	LEU
10	CJ	55	LYS
10	CJ	59	SER
10	CJ	62	HIS
10	CJ	63	PHE
10	CJ	80	LYS
10	CJ	92	THR
10	CJ	96	ILE
11	CK	14	VAL
11	CK	21	ILE
11	CK	41	THR

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Mol	Chain	Res	Type
11	CK	47	VAL
11	CK	92	GLU
11	CK	103	LEU
11	CK	104	GLN
11	CK	119	CYS
11	CK	120	ARG
12	CL	4	ILE
12	CL	5	ASN
12	CL	18	LYS
12	CL	24	LEU
12	CL	30	ARG
12	CL	34	CYS
12	CL	50	ARG
12	CL	70	GLU
12	CL	81	LEU
12	CL	86	ARG
12	CL	123	LYS
12	CL	124	GLU
13	CM	40	ASN
13	CM	47	ASP
13	CM	48	LEU
13	CM	64	TRP
13	CM	66	LEU
13	CM	69	GLU
13	CM	70	LEU
13	CM	82	MET
13	CM	86	CYS
13	CM	91	ARG
13	CM	92	HIS
13	CM	93	ARG
13	CM	102	ARG
13	CM	108	ARG
13	CM	110	ARG
13	CM	113	PRO
14	CN	12	ARG
14	CN	14	PRO
14	CN	16	PHE
14	CN	23	ARG
14	CN	37	PHE
15	CO	3	ILE
15	CO	22	THR
15	CO	39	LEU

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Mol	Chain	Res	Type
15	CO	41	GLU
15	CO	65	ARG
15	CO	82	ILE
16	CP	1	MET
16	CP	2	VAL
16	CP	21	VAL
16	CP	27	LYS
16	CP	33	ILE
16	CP	58	TYR
16	CP	82	GLN
17	CQ	6	LEU
17	CQ	7	THR
17	CQ	14	LYS
17	CQ	38	ARG
17	CQ	52	LYS
17	CQ	68	ARG
17	CQ	74	LEU
17	CQ	78	GLU
18	CR	19	LYS
18	CR	31	LEU
18	CR	55	ARG
18	CR	56	THR
18	CR	75	ILE
18	CR	81	PHE
18	CR	87	ARG
19	CS	5	LEU
19	CS	6	LYS
19	CS	7	LYS
19	CS	12	ASP
19	CS	19	VAL
19	CS	29	ARG
19	CS	37	ARG
19	CS	41	VAL
19	CS	44	MET
19	CS	47	HIS
19	CS	49	ILE
19	CS	56	GLN
20	CT	13	LEU
20	CT	26	ASN
20	CT	45	GLN
20	CT	46	GLU
20	CT	57	ARG

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Mol	Chain	Res	Type
20	CT	72	LEU
20	CT	73	HIS
20	CT	74	LYS
20	CT	75	ASN
20	CT	92	LEU
21	CU	12	LYS
22	CV	1	MET
22	CV	5	THR
22	CV	26	GLN
22	CV	28	GLN
22	CV	29	LYS
22	CV	41	PHE
22	CV	50	VAL
22	CV	55	ASN
22	CV	68	ARG
22	CV	83	MET
22	CV	89	GLU
22	CV	104	PHE
22	CV	108	MET
22	CV	113	ASP
22	CV	163	LEU
22	CV	165	VAL
22	CV	170	VAL
22	CV	171	ILE
22	CV	179	GLU
27	DC	33	LEU
27	DC	40	GLU
27	DC	47	LYS
27	DC	53	ARG
27	DC	57	GLN
27	DC	67	HIS
27	DC	72	GLN
27	DC	82	GLU
27	DC	109	MET
27	DC	152	GLU
27	DC	153	ILE
27	DC	157	ILE
27	DC	161	ARG
27	DC	165	ARG
27	DC	173	HIS
27	DC	184	GLU
27	DC	206	LYS

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Mol	Chain	Res	Type
27	DC	211	ARG
27	DC	219	MET
28	DD	3	VAL
28	DD	10	THR
28	DD	24	ILE
28	DD	26	LYS
28	DD	43	ARG
28	DD	61	LEU
28	DD	65	ILE
28	DD	92	ILE
28	DD	94	LEU
28	DD	98	VAL
28	DD	105	ILE
28	DD	106	ILE
28	DD	116	GLN
28	DD	122	ASP
28	DD	126	GLN
28	DD	131	LEU
28	DD	155	LEU
28	DD	166	GLN
28	DD	168	ARG
28	DD	176	ARG
28	DD	182	LEU
28	DD	189	CYS
28	DD	192	THR
28	DD	226	MET
28	DD	257	LEU
28	DD	259	THR
28	DD	260	ARG
28	DD	270	ILE
28	DD	271	ILE
29	DE	1	MET
29	DE	45	THR
29	DE	53	PRO
29	DE	54	GLN
29	DE	55	ASN
29	DE	78	LEU
29	DE	79	ARG
29	DE	101	ARG
29	DE	107	THR
29	DE	111	ARG
29	DE	113	PHE

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Mol	Chain	Res	Type
29	DE	119	ARG
29	DE	132	HIS
29	DE	134	ILE
29	DE	154	LYS
29	DE	169	ASN
29	DE	172	VAL
29	DE	173	VAL
29	DE	181	LEU
29	DE	182	LEU
29	DE	184	VAL
29	DE	192	ASN
29	DE	200	GLU
29	DE	202	LYS
29	DE	203	LYS
30	DF	1	MET
30	DF	2	LYS
30	DF	7	TYR
30	DF	17	ARG
30	DF	19	GLU
30	DF	37	VAL
30	DF	38	ARG
30	DF	54	ARG
30	DF	65	TRP
30	DF	66	PRO
30	DF	67	GLN
30	DF	69	HIS
30	DF	72	ARG
30	DF	78	ILE
30	DF	116	ASP
30	DF	124	LEU
30	DF	160	ASN
30	DF	164	ARG
30	DF	169	ASN
30	DF	183	VAL
30	DF	185	ASP
30	DF	195	ASP
31	DG	21	ARG
31	DG	29	TRP
31	DG	32	PRO
31	DG	39	ILE
31	DG	43	LEU
31	DG	45	GLU

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Mol	Chain	Res	Type
31	DG	48	GLU
31	DG	51	ARG
31	DG	52	ILE
31	DG	53	LEU
31	DG	87	PRO
31	DG	97	ASP
31	DG	101	ILE
31	DG	113	ARG
31	DG	116	ASP
31	DG	125	PHE
31	DG	130	ASN
31	DG	139	LEU
31	DG	141	PHE
31	DG	143	GLU
31	DG	155	MET
31	DG	164	GLU
31	DG	181	ARG
32	DH	13	LYS
32	DH	17	VAL
32	DH	25	LYS
32	DH	27	LYS
32	DH	41	MET
32	DH	46	GLU
32	DH	54	ARG
32	DH	57	ASP
32	DH	68	THR
32	DH	86	GLU
32	DH	88	LEU
32	DH	101	ARG
32	DH	107	VAL
32	DH	139	GLN
32	DH	147	ASN
32	DH	149	ARG
32	DH	153	LYS
32	DH	157	TYR
32	DH	159	GLU
32	DH	163	TYR
32	DH	170	ARG
33	DI	6	LEU
33	DI	12	LEU
33	DI	17	GLN
33	DI	23	PRO

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Mol	Chain	Res	Type
33	DI	38	LEU
33	DI	45	LYS
33	DI	48	GLU
33	DI	137	PRO
34	DN	4	TYR
34	DN	25	ARG
34	DN	34	LEU
34	DN	38	HIS
34	DN	41	ASP
34	DN	42	TRP
34	DN	45	ASN
34	DN	50	ASP
34	DN	56	ASN
34	DN	67	LEU
34	DN	68	GLU
34	DN	87	LEU
34	DN	115	ARG
34	DN	119	ARG
34	DN	120	LEU
34	DN	134	ARG
34	DN	136	GLU
35	DO	14	THR
35	DO	23	ARG
35	DO	47	ILE
35	DO	48	PRO
35	DO	49	ARG
35	DO	53	LYS
35	DO	91	LEU
35	DO	96	THR
35	DO	99	PHE
36	DP	9	ASN
36	DP	10	PRO
36	DP	13	ASN
36	DP	16	ARG
36	DP	18	ARG
36	DP	21	ARG
36	DP	40	SER
36	DP	51	PHE
36	DP	52	GLU
36	DP	61	ARG
36	DP	62	LEU
36	DP	64	LYS

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Mol	Chain	Res	Type
36	DP	75	ILE
36	DP	79	ARG
36	DP	85	LEU
36	DP	90	ARG
36	DP	91	PHE
36	DP	100	LEU
36	DP	105	LEU
36	DP	110	TYR
36	DP	114	ILE
36	DP	117	GLU
37	DQ	5	ARG
37	DQ	25	ASP
37	DQ	29	PHE
37	DQ	43	THR
37	DQ	54	MET
37	DQ	63	LYS
37	DQ	79	LEU
37	DQ	106	VAL
37	DQ	109	VAL
37	DQ	110	THR
37	DQ	127	ILE
38	DR	6	SER
38	DR	8	ARG
38	DR	28	LEU
38	DR	29	LEU
38	DR	36	THR
38	DR	37	THR
38	DR	57	ARG
38	DR	60	LEU
38	DR	65	LEU
38	DR	67	LEU
38	DR	74	LYS
38	DR	79	LEU
38	DR	91	GLN
38	DR	94	TYR
38	DR	95	THR
38	DR	100	LEU
38	DR	104	ARG
39	DS	12	PHE
39	DS	13	ARG
39	DS	18	ILE
39	DS	20	ARG

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Mol	Chain	Res	Type
39	DS	28	VAL
39	DS	29	PHE
39	DS	36	TYR
39	DS	40	ILE
39	DS	48	LEU
39	DS	73	LEU
39	DS	78	LEU
39	DS	84	GLN
39	DS	89	ARG
39	DS	92	TYR
39	DS	97	ARG
39	DS	101	LEU
39	DS	103	GLU
40	DT	3	ARG
40	DT	6	LEU
40	DT	11	GLU
40	DT	13	ARG
40	DT	17	THR
40	DT	18	ASP
40	DT	19	LEU
40	DT	29	ARG
40	DT	32	TYR
40	DT	39	ARG
40	DT	41	ARG
40	DT	42	ILE
40	DT	50	ILE
40	DT	51	ARG
40	DT	74	ARG
40	DT	78	LEU
40	DT	82	LEU
40	DT	96	ARG
40	DT	99	LEU
40	DT	113	LYS
40	DT	115	ARG
40	DT	119	LYS
40	DT	128	GLU
41	DU	33	ARG
41	DU	50	ARG
41	DU	69	CYS
41	DU	74	LEU
41	DU	75	ASN
41	DU	92	ARG

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Mol	Chain	Res	Type
41	DU	95	LEU
41	DU	104	GLN
41	DU	112	ARG
41	DU	114	LYS
42	DV	1	MET
42	DV	5	VAL
42	DV	7	THR
42	DV	12	TYR
42	DV	16	PRO
42	DV	18	LEU
42	DV	19	LYS
42	DV	21	ARG
42	DV	33	VAL
42	DV	39	LEU
42	DV	47	VAL
42	DV	70	ILE
42	DV	89	GLN
42	DV	91	TYR
42	DV	95	LEU
42	DV	99	ILE
43	DW	11	ARG
43	DW	19	LEU
43	DW	51	LEU
43	DW	59	VAL
43	DW	70	TYR
43	DW	90	ARG
43	DW	97	LYS
44	DX	29	TRP
44	DX	51	VAL
44	DX	57	LEU
44	DX	60	ARG
44	DX	63	LYS
44	DX	66	LEU
44	DX	68	ARG
44	DX	80	ILE
45	DY	2	ARG
45	DY	7	VAL
45	DY	8	LYS
45	DY	28	LYS
45	DY	33	LYS
45	DY	38	ILE
45	DY	47	LYS

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Mol	Chain	Res	Type
45	DY	55	TYR
45	DY	56	PRO
45	DY	62	GLU
45	DY	67	LEU
45	DY	75	ILE
45	DY	77	PRO
45	DY	85	VAL
45	DY	90	LEU
46	DZ	3	ARG
46	DZ	7	TYR
46	DZ	33	ASN
46	DZ	37	TYR
46	DZ	40	LEU
46	DZ	52	ILE
46	DZ	66	LEU
46	DZ	71	ARG
46	DZ	78	ARG
46	DZ	79	ARG
46	DZ	81	ARG
46	DZ	85	VAL
46	DZ	96	GLU
46	DZ	99	VAL
46	DZ	117	GLN
46	DZ	118	GLU
46	DZ	120	HIS
46	DZ	122	ASP
46	DZ	130	ARG
46	DZ	144	GLU
46	DZ	149	LEU
46	DZ	153	ASP
46	DZ	170	ILE
46	DZ	174	VAL
47	D0	4	LYS
47	D0	7	LEU
47	D0	16	SER
47	D0	19	LYS
47	D0	20	ARG
47	D0	36	ILE
47	D0	41	ARG
47	D0	60	PHE
47	D0	72	ARG
47	D0	75	LEU

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Mol	Chain	Res	Type
48	D1	35	THR
48	D1	40	ARG
48	D1	46	LEU
48	D1	59	THR
48	D1	61	ARG
48	D1	72	GLU
48	D1	80	LEU
48	D1	82	LEU
48	D1	94	LEU
49	D2	2	LYS
49	D2	16	LEU
49	D2	21	LEU
49	D2	34	GLU
49	D2	44	LEU
49	D2	53	LEU
49	D2	64	LEU
49	D2	65	ASN
49	D2	71	ASN
50	D3	4	LEU
50	D3	16	PRO
50	D3	31	LEU
51	D4	44	CYS
51	D4	48	ILE
52	D5	3	LYS
52	D5	25	LEU
52	D5	29	THR
52	D5	40	LYS
52	D5	49	CYS
52	D5	52	TYR
52	D5	56	LYS
53	D6	9	LEU
53	D6	11	LEU
53	D6	12	GLU
53	D6	14	THR
53	D6	16	CYS
53	D6	18	ARG
53	D6	19	ARG
53	D6	41	PRO
53	D6	42	TRP
53	D6	46	HIS
54	D7	1	MET
54	D7	4	THR

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Mol	Chain	Res	Type
54	D7	5	TRP
54	D7	8	ASN
54	D7	10	ARG
54	D7	24	THR
54	D7	41	ARG
54	D7	44	PRO
54	D7	47	ARG
55	D8	6	THR
55	D8	14	VAL
55	D8	30	ARG
55	D8	32	LEU
55	D8	33	ASN
55	D8	34	TRP
55	D8	44	LYS
55	D8	47	LYS
55	D8	49	VAL
55	D8	61	LEU
56	D9	9	ARG
56	D9	26	ILE
56	D9	27	CYS
56	D9	28	GLU
56	D9	29	ASN

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (340) such sidechains are listed below:

Mol	Chain	Res	Type
2	AB	95	GLN
2	AB	110	GLN
2	AB	135	GLN
2	AB	146	GLN
2	AB	212	GLN
3	AC	3	ASN
3	AC	28	GLN
3	AC	37	GLN
3	AC	118	GLN
3	AC	123	GLN
3	AC	162	GLN
3	AC	170	GLN
3	AC	181	ASN
4	AD	42	GLN
4	AD	43	HIS
4	AD	62	GLN

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Mol	Chain	Res	Type
4	AD	77	ASN
4	AD	160	GLN
4	AD	161	ASN
5	AE	20	GLN
5	AE	56	GLN
5	AE	78	HIS
6	AF	7	ASN
6	AF	18	GLN
6	AF	27	GLN
6	AF	32	ASN
6	AF	64	GLN
6	AF	73	ASN
6	AF	100	ASN
7	AG	13	GLN
7	AG	56	GLN
7	AG	68	ASN
7	AG	106	GLN
7	AG	148	ASN
8	AH	15	ASN
9	AI	23	ASN
9	AI	124	GLN
10	AJ	13	HIS
10	AJ	56	HIS
10	AJ	68	HIS
10	AJ	76	ASN
11	AK	13	GLN
11	AK	38	ASN
11	AK	62	GLN
11	AK	93	GLN
11	AK	117	ASN
12	AL	6	GLN
12	AL	46	ASN
12	AL	96	HIS
13	AM	40	ASN
13	AM	92	HIS
13	AM	101	GLN
14	AN	49	HIS
15	AO	9	GLN
15	AO	13	GLN
15	AO	37	ASN
15	AO	71	GLN
17	AQ	16	GLN

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Mol	Chain	Res	Type
17	AQ	93	GLN
17	AQ	94	ASN
18	AR	36	ASN
19	AS	47	HIS
19	AS	53	ASN
19	AS	57	HIS
20	AT	18	GLN
20	AT	26	ASN
20	AT	42	GLN
22	AV	26	GLN
22	AV	28	GLN
22	AV	43	ASN
22	AV	118	GLN
22	AV	160	GLN
27	BC	45	HIS
27	BC	58	ASN
27	BC	67	HIS
27	BC	72	GLN
27	BC	102	GLN
28	BD	126	GLN
28	BD	143	HIS
28	BD	166	GLN
28	BD	186	HIS
28	BD	198	ASN
28	BD	220	HIS
28	BD	227	ASN
28	BD	231	HIS
29	BE	48	GLN
29	BE	54	GLN
29	BE	66	HIS
29	BE	85	ASN
29	BE	129	HIS
29	BE	143	ASN
29	BE	192	ASN
30	BF	29	ASN
30	BF	69	HIS
30	BF	160	ASN
30	BF	169	ASN
31	BG	58	GLN
32	BH	65	HIS
32	BH	74	ASN
32	BH	111	HIS

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Mol	Chain	Res	Type
32	BH	147	ASN
33	BI	28	ASN
33	BI	54	GLN
33	BI	74	ASN
34	BN	56	ASN
34	BN	69	GLN
34	BN	130	HIS
34	BN	131	GLN
35	BO	5	GLN
35	BO	82	ASN
35	BO	89	ASN
36	BP	9	ASN
36	BP	13	ASN
36	BP	68	GLN
36	BP	81	GLN
36	BP	84	ASN
36	BP	128	HIS
37	BQ	13	GLN
37	BQ	45	GLN
37	BQ	123	HIS
38	BR	11	ASN
38	BR	23	ASN
38	BR	53	HIS
38	BR	71	GLN
39	BS	34	HIS
40	BT	2	ASN
40	BT	55	ASN
40	BT	58	ASN
40	BT	84	GLN
40	BT	123	GLN
41	BU	44	ASN
41	BU	49	HIS
41	BU	72	HIS
41	BU	104	GLN
42	BV	11	GLN
43	BW	40	ASN
43	BW	57	ASN
43	BW	60	ASN
43	BW	61	ASN
43	BW	102	HIS
44	BX	41	ASN
44	BX	55	ASN

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Mol	Chain	Res	Type
46	BZ	117	GLN
46	BZ	120	HIS
47	B0	69	GLN
48	B1	45	ASN
48	B1	47	GLN
48	B1	56	GLN
49	B2	38	GLN
49	B2	43	GLN
49	B2	65	ASN
49	B2	70	GLN
50	B3	19	GLN
50	B3	46	ASN
50	B3	52	HIS
51	B4	46	ASN
52	B5	43	HIS
53	B6	20	ASN
54	B7	8	ASN
54	B7	36	GLN
55	B8	31	HIS
55	B8	33	ASN
56	B9	34	GLN
2	CB	76	GLN
2	CB	95	GLN
2	CB	110	GLN
2	CB	113	HIS
2	CB	135	GLN
2	CB	146	GLN
2	CB	204	ASN
2	CB	212	GLN
3	CC	28	GLN
3	CC	31	HIS
3	CC	37	GLN
3	CC	98	ASN
3	CC	123	GLN
3	CC	139	GLN
3	CC	170	GLN
3	CC	181	ASN
4	CD	45	GLN
4	CD	74	GLN
4	CD	119	GLN
4	CD	160	GLN
4	CD	161	ASN

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Mol	Chain	Res	Type
5	CE	72	GLN
5	CE	73	ASN
5	CE	130	ASN
6	CF	18	GLN
6	CF	27	GLN
6	CF	32	ASN
6	CF	64	GLN
6	CF	94	GLN
6	CF	100	ASN
7	CG	11	GLN
7	CG	13	GLN
7	CG	28	ASN
7	CG	56	GLN
7	CG	68	ASN
7	CG	96	GLN
7	CG	106	GLN
7	CG	109	ASN
7	CG	148	ASN
9	CI	23	ASN
9	CI	31	GLN
9	CI	73	GLN
9	CI	89	ASN
9	CI	124	GLN
10	CJ	13	HIS
10	CJ	56	HIS
11	CK	13	GLN
11	CK	93	GLN
11	CK	117	ASN
12	CL	5	ASN
12	CL	6	GLN
12	CL	46	ASN
12	CL	72	HIS
12	CL	77	HIS
13	CM	40	ASN
13	CM	77	ASN
13	CM	92	HIS
14	CN	49	HIS
14	CN	52	GLN
15	CO	9	GLN
15	CO	13	GLN
15	CO	37	ASN
15	CO	46	HIS

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Mol	Chain	Res	Type
16	CP	16	HIS
16	CP	82	GLN
17	CQ	16	GLN
19	CS	23	ASN
19	CS	47	HIS
19	CS	56	GLN
19	CS	57	HIS
20	CT	16	HIS
20	CT	26	ASN
20	CT	42	GLN
22	CV	26	GLN
22	CV	27	HIS
22	CV	55	ASN
22	CV	71	GLN
22	CV	118	GLN
22	CV	160	GLN
27	DC	67	HIS
27	DC	72	GLN
27	DC	189	ASN
27	DC	226	ASN
27	DC	228	HIS
28	DD	58	HIS
28	DD	96	HIS
28	DD	115	GLN
28	DD	126	GLN
28	DD	166	GLN
28	DD	198	ASN
28	DD	227	ASN
28	DD	253	GLN
29	DE	48	GLN
29	DE	54	GLN
29	DE	55	ASN
29	DE	66	HIS
29	DE	129	HIS
29	DE	159	HIS
29	DE	169	ASN
29	DE	180	ASN
29	DE	192	ASN
30	DF	160	ASN
30	DF	169	ASN
31	DG	27	ASN
31	DG	40	ASN

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Mol	Chain	Res	Type
31	DG	41	GLN
31	DG	66	GLN
31	DG	130	ASN
32	DH	74	ASN
32	DH	147	ASN
32	DH	158	HIS
33	DI	11	ASN
33	DI	43	ASN
34	DN	45	ASN
34	DN	56	ASN
34	DN	69	GLN
34	DN	94	HIS
34	DN	130	HIS
34	DN	131	GLN
35	DO	3	GLN
36	DP	13	ASN
36	DP	68	GLN
36	DP	81	GLN
36	DP	84	ASN
37	DQ	12	GLN
37	DQ	141	GLN
38	DR	16	HIS
38	DR	23	ASN
38	DR	24	GLN
38	DR	71	GLN
39	DS	34	HIS
39	DS	95	HIS
40	DT	43	GLN
40	DT	90	GLN
41	DU	44	ASN
41	DU	49	HIS
41	DU	72	HIS
41	DU	81	HIS
41	DU	94	ASN
41	DU	117	GLN
42	DV	11	GLN
43	DW	34	ASN
43	DW	40	ASN
43	DW	61	ASN
43	DW	62	HIS
44	DX	41	ASN
44	DX	55	ASN

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Mol	Chain	Res	Type
45	DY	6	HIS
46	DZ	31	HIS
46	DZ	53	HIS
46	DZ	54	HIS
46	DZ	64	GLN
46	DZ	72	GLN
46	DZ	74	ASN
46	DZ	117	GLN
46	DZ	131	ASN
47	D0	12	ASN
47	D0	29	GLN
47	D0	40	GLN
47	D0	50	ASN
47	D0	70	GLN
48	D1	45	ASN
48	D1	47	GLN
49	D2	43	GLN
49	D2	47	ASN
49	D2	65	ASN
50	D3	19	GLN
51	D4	46	ASN
52	D5	4	HIS
52	D5	43	HIS
53	D6	20	ASN
54	D7	8	ASN
54	D7	36	GLN
55	D8	7	HIS
55	D8	33	ASN
56	D9	32	HIS
56	D9	34	GLN

### 5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1492/1509 (98%)	236 (15%)	40 (2%)
1	CA	1503/1509 (99%)	227 (15%)	33 (2%)
23	AW	76/77 (98%)	18 (23%)	2 (2%)
23	CW	76/77 (98%)	19 (25%)	6 (7%)
24	AX	4/5 (80%)	0	0
24	CX	4/5 (80%)	0	0
25	BA	2761/2915 (94%)	508 (18%)	77 (2%)

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
25	DA	2771/2915 (95%)	546 (19%)	84 (3%)
26	BB	118/122 (96%)	19 (16%)	2 (1%)
26	DB	118/122 (96%)	20 (16%)	2 (1%)
All	All	8923/9256 (96%)	1593 (17%)	246 (2%)

All (1593) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	9	G
1	AA	31	G
1	AA	32	A
1	AA	39	G
1	AA	47	C
1	AA	48	C
1	AA	51	A
1	AA	54	C
1	AA	61	G
1	AA	79	G
1	AA	116	A
1	AA	120	A
1	AA	121	C
1	AA	129(A)	G
1	AA	131	C
1	AA	137	C
1	AA	144	G
1	AA	146	G
1	AA	173	U
1	AA	174	C
1	AA	182	U
1	AA	189(H)	G
1	AA	195	A
1	AA	198	G
1	AA	201	C
1	AA	203	U
1	AA	204	U
1	AA	216	G
1	AA	217	C
1	AA	244	U
1	AA	247	G
1	AA	251	G
1	AA	267	C
1	AA	268	C

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Mol	Chain	Res	Type
1	AA	275	G
1	AA	279	A
1	AA	289	G
1	AA	316	G
1	AA	328	C
1	AA	332	G
1	AA	345	C
1	AA	346	G
1	AA	351	G
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	367	U
1	AA	368	U
1	AA	369	C
1	AA	373	A
1	AA	388	G
1	AA	389	A
1	AA	390	C
1	AA	397	A
1	AA	398	C
1	AA	412	A
1	AA	413	G
1	AA	414	A
1	AA	422	C
1	AA	423	G
1	AA	424	G
1	AA	428	G
1	AA	429	U
1	AA	430	A
1	AA	431	A
1	AA	435	C
1	AA	439	A
1	AA	452	A
1	AA	453	A
1	AA	482	A
1	AA	484	G
1	AA	485	G
1	AA	496	A
1	AA	499	A
1	AA	500	G
1	AA	511	C

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Mol	Chain	Res	Type
1	AA	518	C
1	AA	527	G
1	AA	532	A
1	AA	533	A
1	AA	534	U
1	AA	547	A
1	AA	559	A
1	AA	562	C
1	AA	563	A
1	AA	572	A
1	AA	573	A
1	AA	575	G
1	AA	576	G
1	AA	577	G
1	AA	596	C
1	AA	614	A
1	AA	632	A
1	AA	653	A
1	AA	661	G
1	AA	665	A
1	AA	687	A
1	AA	688	G
1	AA	701	C
1	AA	702	A
1	AA	703	G
1	AA	717	C
1	AA	748	C
1	AA	749	C
1	AA	755	G
1	AA	793	U
1	AA	794	A
1	AA	816	A
1	AA	817	C
1	AA	828	A
1	AA	839	U
1	AA	841	U
1	AA	848	C
1	AA	859	A
1	AA	871	U
1	AA	873	A
1	AA	902	G
1	AA	914	A

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Mol	Chain	Res	Type
1	AA	926	G
1	AA	927	G
1	AA	934	C
1	AA	935	A
1	AA	961	U
1	AA	966	G
1	AA	969	A
1	AA	971	G
1	AA	972	C
1	AA	974	A
1	AA	975	A
1	AA	976	G
1	AA	977	A
1	AA	978	A
1	AA	980	C
1	AA	991	U
1	AA	992	U
1	AA	993	G
1	AA	998	G
1	AA	1001(A)	G
1	AA	1004	A
1	AA	1005	A
1	AA	1021	G
1	AA	1023	G
1	AA	1025	U
1	AA	1027	C
1	AA	1028	C
1	AA	1030(A)	G
1	AA	1036	G
1	AA	1037	C
1	AA	1050	G
1	AA	1053	G
1	AA	1054	C
1	AA	1064	G
1	AA	1065	U
1	AA	1066	C
1	AA	1086	U
1	AA	1094	G
1	AA	1101	A
1	AA	1102	A
1	AA	1117	G
1	AA	1124	G

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Mol	Chain	Res	Type
1	AA	1125	U
1	AA	1126	U
1	AA	1129	C
1	AA	1130	A
1	AA	1131	G
1	AA	1137	C
1	AA	1139	G
1	AA	1140	C
1	AA	1141	C
1	AA	1146	A
1	AA	1152	A
1	AA	1153	C
1	AA	1154	G
1	AA	1158	C
1	AA	1159	U
1	AA	1183	A
1	AA	1196	U
1	AA	1201	A
1	AA	1202	G
1	AA	1212	U
1	AA	1213	A
1	AA	1223	C
1	AA	1224	G
1	AA	1227	A
1	AA	1238	A
1	AA	1249	C
1	AA	1256	A
1	AA	1257	U
1	AA	1258	G
1	AA	1260	C
1	AA	1273	G
1	AA	1278	U
1	AA	1280	A
1	AA	1281	U
1	AA	1285	A
1	AA	1286	A
1	AA	1287	A
1	AA	1299	A
1	AA	1300	G
1	AA	1301	U
1	AA	1302	U
1	AA	1317	C

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Mol	Chain	Res	Type
1	AA	1320	C
1	AA	1322	C
1	AA	1323	G
1	AA	1331	G
1	AA	1336	C
1	AA	1339	A
1	AA	1346	A
1	AA	1347	G
1	AA	1348	U
1	AA	1349	A
1	AA	1363	C
1	AA	1363(A)	A
1	AA	1364	U
1	AA	1365	G
1	AA	1370	G
1	AA	1381	U
1	AA	1398	A
1	AA	1419	G
1	AA	1439	C
1	AA	1442(A)	G
1	AA	1442(B)	A
1	AA	1443	G
1	AA	1452	C
1	AA	1456	G
1	AA	1492	A
1	AA	1499	A
1	AA	1502	A
1	AA	1504	G
1	AA	1506	U
1	AA	1507	A
1	AA	1517	G
1	AA	1520	G
1	AA	1529	G
1	AA	1531	A
23	AW	3	C
23	AW	8	U
23	AW	17	C
23	AW	17(B)	U
23	AW	18	G
23	AW	19	G
23	AW	20	U
23	AW	21	A

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Mol	Chain	Res	Type
23	AW	47	U
23	AW	48	C
23	AW	49	G
23	AW	59	A
23	AW	61	C
23	AW	63	G
23	AW	67	C
23	AW	72	A
23	AW	75	C
23	AW	76	A
25	BA	13	A
25	BA	28	A
25	BA	34	C
25	BA	45	C
25	BA	49	A
25	BA	55	G
25	BA	69	C
25	BA	71	A
25	BA	72	U
25	BA	74	A
25	BA	75	G
25	BA	84	A
25	BA	88	G
25	BA	90	U
25	BA	92	A
25	BA	94	C
25	BA	100	G
25	BA	102	G
25	BA	118	A
25	BA	119	A
25	BA	120	U
25	BA	139(A)	G
25	BA	141	A
25	BA	159	U
25	BA	160	U
25	BA	171	G
25	BA	172	C
25	BA	175	G
25	BA	196	A
25	BA	197	A
25	BA	204	A
25	BA	205	G

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Mol	Chain	Res	Type
25	BA	214	G
25	BA	216	A
25	BA	221	A
25	BA	222	A
25	BA	228	A
25	BA	229	A
25	BA	233	A
25	BA	248	G
25	BA	250	G
25	BA	252	G
25	BA	261	G
25	BA	266	G
25	BA	271(A)	A
25	BA	271(J)	C
25	BA	271(K)	U
25	BA	271(L)	U
25	BA	271(N)	U
25	BA	271(O)	C
25	BA	271(P)	C
25	BA	271(Y)	U
25	BA	271(Z)	C
25	BA	272(A)	U
25	BA	272(B)	G
25	BA	272(H)	C
25	BA	272(I)	U
25	BA	272(J)	C
25	BA	274	G
25	BA	275	G
25	BA	276	A
25	BA	277	C
25	BA	278	A
25	BA	279	C
25	BA	281	G
25	BA	286	C
25	BA	311	A
25	BA	329	G
25	BA	330	A
25	BA	352	G
25	BA	353	G
25	BA	356	G
25	BA	358	U
25	BA	362	U

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Mol	Chain	Res	Type
25	BA	363	G
25	BA	363(A)	A
25	BA	363(B)	G
25	BA	363(E)	U
25	BA	363(F)	A
25	BA	365	C
25	BA	386	G
25	BA	387	U
25	BA	405	U
25	BA	406	G
25	BA	411	G
25	BA	412	A
25	BA	428	A
25	BA	443	A
25	BA	444	C
25	BA	448	U
25	BA	455	C
25	BA	456	C
25	BA	457	A
25	BA	470	A
25	BA	475	U
25	BA	480	A
25	BA	481	G
25	BA	482	A
25	BA	504	U
25	BA	505	A
25	BA	507	A
25	BA	508	G
25	BA	509	C
25	BA	513	A
25	BA	530	G
25	BA	531	C
25	BA	532	A
25	BA	533	G
25	BA	536	A
25	BA	539	G
25	BA	551	G
25	BA	563	G
25	BA	573	G
25	BA	575	A
25	BA	586	A
25	BA	588	U

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Mol	Chain	Res	Type
25	BA	604	G
25	BA	607	U
25	BA	613	G
25	BA	614(B)	G
25	BA	627	A
25	BA	628	G
25	BA	637	A
25	BA	645	C
25	BA	646	A
25	BA	652	C
25	BA	686	G
25	BA	708	C
25	BA	727	A
25	BA	730	C
25	BA	740	U
25	BA	741	G
25	BA	753	C
25	BA	764	A
25	BA	765	G
25	BA	776	G
25	BA	782	A
25	BA	784	A
25	BA	785	G
25	BA	790	C
25	BA	792	G
25	BA	805	G
25	BA	812	C
25	BA	819	A
25	BA	827	U
25	BA	828	U
25	BA	848	G
25	BA	856	C
25	BA	857	C
25	BA	859	G
25	BA	866	A
25	BA	869	G
25	BA	880	G
25	BA	886	C
25	BA	887	A
25	BA	889	C
25	BA	890	A
25	BA	896	A

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Mol	Chain	Res	Type
25	BA	897	C
25	BA	898	C
25	BA	904	C
25	BA	907	U
25	BA	910	A
25	BA	917	A
25	BA	926	A
25	BA	932	G
25	BA	933	A
25	BA	941	A
25	BA	945	A
25	BA	946	G
25	BA	958	U
25	BA	959	A
25	BA	961	C
25	BA	962	G
25	BA	974	G
25	BA	975	C
25	BA	975(A)	G
25	BA	980	A
25	BA	983	A
25	BA	990	A
25	BA	991	C
25	BA	996	A
25	BA	1000	A
25	BA	1005	C
25	BA	1012	U
25	BA	1013	C
25	BA	1017	G
25	BA	1022	G
25	BA	1025	G
25	BA	1026	U
25	BA	1034	G
25	BA	1039	G
25	BA	1043	C
25	BA	1110	G
25	BA	1111	A
25	BA	1112	G
25	BA	1113	U
25	BA	1115	G
25	BA	1122	G
25	BA	1135	C

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Mol	Chain	Res	Type
25	BA	1136	G
25	BA	1143	A
25	BA	1155	A
25	BA	1156	A
25	BA	1170	G
25	BA	1171	G
25	BA	1173	G
25	BA	1174	A
25	BA	1175	U
25	BA	1176	G
25	BA	1177	A
25	BA	1178	C
25	BA	1179	C
25	BA	1195	G
25	BA	1204	A
25	BA	1205	U
25	BA	1211	U
25	BA	1212	G
25	BA	1221	C
25	BA	1244	G
25	BA	1253	A
25	BA	1256	G
25	BA	1271	G
25	BA	1272	A
25	BA	1281	G
25	BA	1300	U
25	BA	1301	A
25	BA	1314	C
25	BA	1320	C
25	BA	1321	A
25	BA	1332	G
25	BA	1345	C
25	BA	1349	A
25	BA	1352	U
25	BA	1359	A
25	BA	1365	A
25	BA	1368	G
25	BA	1379	A
25	BA	1380	G
25	BA	1384	A
25	BA	1385	G
25	BA	1395	A

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Mol	Chain	Res	Type
25	BA	1396	U
25	BA	1398	C
25	BA	1399	C
25	BA	1407	C
25	BA	1416	G
25	BA	1420	U
25	BA	1421	G
25	BA	1427	A
25	BA	1428	C
25	BA	1445	A
25	BA	1449	A
25	BA	1450	G
25	BA	1451	C
25	BA	1455	G
25	BA	1459	G
25	BA	1461	G
25	BA	1467	C
25	BA	1471	A
25	BA	1478	G
25	BA	1481	U
25	BA	1482	G
25	BA	1485	G
25	BA	1487	G
25	BA	1488	G
25	BA	1490	A
25	BA	1493	C
25	BA	1494	A
25	BA	1495	A
25	BA	1497	U
25	BA	1498	C
25	BA	1502	C
25	BA	1505	C
25	BA	1509	C
25	BA	1509(A)	A
25	BA	1520	G
25	BA	1546	C
25	BA	1558	A
25	BA	1559	G
25	BA	1560	G
25	BA	1569	A
25	BA	1578	U
25	BA	1579	A

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Mol	Chain	Res	Type
25	BA	1584	C
25	BA	1586	A
25	BA	1588	C
25	BA	1591	G
25	BA	1594	G
25	BA	1598	C
25	BA	1603	A
25	BA	1608	A
25	BA	1616	A
25	BA	1617	C
25	BA	1618	A
25	BA	1640	C
25	BA	1648	C
25	BA	1653	G
25	BA	1654	A
25	BA	1674	G
25	BA	1682	G
25	BA	1696	G
25	BA	1698	A
25	BA	1699	G
25	BA	1700	A
25	BA	1718	G
25	BA	1722	A
25	BA	1739	U
25	BA	1740	G
25	BA	1744	C
25	BA	1745(A)	C
25	BA	1746	G
25	BA	1748	G
25	BA	1758	G
25	BA	1763	G
25	BA	1764	G
25	BA	1769	G
25	BA	1773	A
25	BA	1780	A
25	BA	1791	A
25	BA	1799	G
25	BA	1800	C
25	BA	1816	G
25	BA	1819	A
25	BA	1820	U
25	BA	1829	A

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Mol	Chain	Res	Type
25	BA	1839	G
25	BA	1847	A
25	BA	1865	G
25	BA	1877	A
25	BA	1878	G
25	BA	1882	C
25	BA	1885	A
25	BA	1888	G
25	BA	1889	A
25	BA	1900	A
25	BA	1906	G
25	BA	1913	A
25	BA	1914	C
25	BA	1916	A
25	BA	1929	G
25	BA	1930	G
25	BA	1931	U
25	BA	1936	A
25	BA	1938	A
25	BA	1941	C
25	BA	1955	U
25	BA	1963	U
25	BA	1967	C
25	BA	1969	A
25	BA	1970	A
25	BA	1971	A
25	BA	1972	A
25	BA	1981	A
25	BA	1982	C
25	BA	1993	U
25	BA	1997	G
25	BA	2020	A
25	BA	2023	G
25	BA	2031	A
25	BA	2032	G
25	BA	2033	A
25	BA	2043	C
25	BA	2052	G
25	BA	2055	C
25	BA	2056	G
25	BA	2059	A
25	BA	2060	A

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Mol	Chain	Res	Type
25	BA	2061	G
25	BA	2062	A
25	BA	2069	G
25	BA	2071	A
25	BA	2093	G
25	BA	2096	U
25	BA	2102	U
25	BA	2103	C
25	BA	2104	G
25	BA	2111	C
25	BA	2116	G
25	BA	2117	A
25	BA	2127	G
25	BA	2159	G
25	BA	2172	U
25	BA	2173	A
25	BA	2176	A
25	BA	2185	C
25	BA	2190	G
25	BA	2192	G
25	BA	2193	G
25	BA	2198	A
25	BA	2199	A
25	BA	2207	G
25	BA	2208	A
25	BA	2219	G
25	BA	2225	A
25	BA	2238	G
25	BA	2239	G
25	BA	2273	A
25	BA	2275	C
25	BA	2283	C
25	BA	2286	A
25	BA	2287	A
25	BA	2288	A
25	BA	2289	G
25	BA	2290	G
25	BA	2303	G
25	BA	2305	A
25	BA	2307	G
25	BA	2308	G
25	BA	2309	A

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Mol	Chain	Res	Type
25	BA	2316	C
25	BA	2319	G
25	BA	2320	A
25	BA	2325	G
25	BA	2334	G
25	BA	2335	A
25	BA	2336	A
25	BA	2345	G
25	BA	2347	C
25	BA	2349	G
25	BA	2383	G
25	BA	2385	C
25	BA	2388	A
25	BA	2399	G
25	BA	2402	C
25	BA	2425	A
25	BA	2429	G
25	BA	2430	A
25	BA	2435	A
25	BA	2439	A
25	BA	2441	C
25	BA	2447	G
25	BA	2448	A
25	BA	2469	A
25	BA	2470	G
25	BA	2472	G
25	BA	2475	C
25	BA	2476	A
25	BA	2477	C
25	BA	2478	A
25	BA	2482	G
25	BA	2484	G
25	BA	2491	U
25	BA	2492	U
25	BA	2502	G
25	BA	2505	G
25	BA	2506	U
25	BA	2507	C
25	BA	2513	G
25	BA	2518	A
25	BA	2529	G
25	BA	2534	A

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Mol	Chain	Res	Type
25	BA	2543	G
25	BA	2554	U
25	BA	2559	C
25	BA	2566	A
25	BA	2567	G
25	BA	2572	A
25	BA	2573	C
25	BA	2585	U
25	BA	2602	A
25	BA	2611	U
25	BA	2612	C
25	BA	2615	U
25	BA	2629	A
25	BA	2630	G
25	BA	2654	A
25	BA	2673	G
25	BA	2690	C
25	BA	2702	U
25	BA	2712(A)	A
25	BA	2713	A
25	BA	2714	G
25	BA	2724	C
25	BA	2726	U
25	BA	2748	A
25	BA	2750	A
25	BA	2751	G
25	BA	2752	C
25	BA	2754	U
25	BA	2757	A
25	BA	2758	A
25	BA	2759	G
25	BA	2762	G
25	BA	2763	G
25	BA	2764	A
25	BA	2765	A
25	BA	2778	A
25	BA	2790	A
25	BA	2791	C
25	BA	2792	G
25	BA	2796	U
25	BA	2799	C
25	BA	2802	G

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Mol	Chain	Res	Type
25	BA	2803	C
25	BA	2804	C
25	BA	2808	U
25	BA	2820	A
25	BA	2821	A
25	BA	2827	C
25	BA	2833	G
25	BA	2834	G
25	BA	2835	A
25	BA	2849	U
25	BA	2872	G
25	BA	2873	A
25	BA	2874	C
25	BA	2883	A
26	BB	3	C
26	BB	8	U
26	BB	9	G
26	BB	13	A
26	BB	15	A
26	BB	27	C
26	BB	42	C
26	BB	45	A
26	BB	52	A
26	BB	53	A
26	BB	57	A
26	BB	66	A
26	BB	67	G
26	BB	73	A
26	BB	88	C
26	BB	89	G
26	BB	91	C
26	BB	110	G
26	BB	113	G
1	CA	9	G
1	CA	31	G
1	CA	32	A
1	CA	39	G
1	CA	47	C
1	CA	48	C
1	CA	49	U
1	CA	51	A
1	CA	61	G

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Mol	Chain	Res	Type
1	CA	79	G
1	CA	80	G
1	CA	81	U
1	CA	89	C
1	CA	90	U
1	CA	91	C
1	CA	98	G
1	CA	116	A
1	CA	120	A
1	CA	121	C
1	CA	131	C
1	CA	163	C
1	CA	172	A
1	CA	173	U
1	CA	174	C
1	CA	181	G
1	CA	182	U
1	CA	195	A
1	CA	197	A
1	CA	203	U
1	CA	204	U
1	CA	216	G
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	274	A
1	CA	275	G
1	CA	289	G
1	CA	316	G
1	CA	321	A
1	CA	328	C
1	CA	332	G
1	CA	343	U
1	CA	345	C
1	CA	352	C
1	CA	353	A
1	CA	354	G
1	CA	367	U
1	CA	372	C

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Mol	Chain	Res	Type
1	CA	397	A
1	CA	406	G
1	CA	412	A
1	CA	413	G
1	CA	414	A
1	CA	422	C
1	CA	429	U
1	CA	430	A
1	CA	439	A
1	CA	442	C
1	CA	452	A
1	CA	453	A
1	CA	454	C
1	CA	482	A
1	CA	484	G
1	CA	485	G
1	CA	496	A
1	CA	498	U
1	CA	511	C
1	CA	518	C
1	CA	527	G
1	CA	532	A
1	CA	533	A
1	CA	534	U
1	CA	547	A
1	CA	559	A
1	CA	562	C
1	CA	572	A
1	CA	573	A
1	CA	575	G
1	CA	576	G
1	CA	577	G
1	CA	596	C
1	CA	630	G
1	CA	632	A
1	CA	653	A
1	CA	661	G
1	CA	665	A
1	CA	666	G
1	CA	687	A
1	CA	688	G
1	CA	703	G

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Mol	Chain	Res	Type
1	CA	723	U
1	CA	724	G
1	CA	731	G
1	CA	733	A
1	CA	749	C
1	CA	755	G
1	CA	777	A
1	CA	793	U
1	CA	794	A
1	CA	817	C
1	CA	818	G
1	CA	828	A
1	CA	839	U
1	CA	841	U
1	CA	848	C
1	CA	859	A
1	CA	871	U
1	CA	885	G
1	CA	902	G
1	CA	914	A
1	CA	926	G
1	CA	927	G
1	CA	934	C
1	CA	935	A
1	CA	960	U
1	CA	961	U
1	CA	968	A
1	CA	969	A
1	CA	974	A
1	CA	975	A
1	CA	976	G
1	CA	977	A
1	CA	980	C
1	CA	991	U
1	CA	992	U
1	CA	993	G
1	CA	1001(A)	G
1	CA	1003	G
1	CA	1004	A
1	CA	1005	A
1	CA	1006	C
1	CA	1023	G

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Mol	Chain	Res	Type
1	CA	1026	G
1	CA	1027	C
1	CA	1030	C
1	CA	1030(A)	G
1	CA	1030(D)	A
1	CA	1032	G
1	CA	1034	G
1	CA	1035	A
1	CA	1050	G
1	CA	1054	C
1	CA	1066	C
1	CA	1085	U
1	CA	1086	U
1	CA	1094	G
1	CA	1095	U
1	CA	1101	A
1	CA	1102	A
1	CA	1113	C
1	CA	1117	G
1	CA	1124	G
1	CA	1125	U
1	CA	1126	U
1	CA	1128	C
1	CA	1129	C
1	CA	1130	A
1	CA	1131	G
1	CA	1137	C
1	CA	1138	G
1	CA	1139	G
1	CA	1140	C
1	CA	1141	C
1	CA	1142	G
1	CA	1145	C
1	CA	1146	A
1	CA	1153	C
1	CA	1158	C
1	CA	1159	U
1	CA	1187	G
1	CA	1196	U
1	CA	1197	G
1	CA	1200	C
1	CA	1202	G

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Mol	Chain	Res	Type
1	CA	1212	U
1	CA	1224	G
1	CA	1225	A
1	CA	1227	A
1	CA	1233	G
1	CA	1238	A
1	CA	1241	G
1	CA	1249	C
1	CA	1253	G
1	CA	1256	A
1	CA	1257	U
1	CA	1278	U
1	CA	1280	A
1	CA	1281	U
1	CA	1286	A
1	CA	1287	A
1	CA	1299	A
1	CA	1300	G
1	CA	1301	U
1	CA	1302	U
1	CA	1303	C
1	CA	1305	G
1	CA	1317	C
1	CA	1319	A
1	CA	1320	C
1	CA	1322	C
1	CA	1331	G
1	CA	1336	C
1	CA	1338	G
1	CA	1346	A
1	CA	1347	G
1	CA	1359	C
1	CA	1363(A)	A
1	CA	1364	U
1	CA	1365	G
1	CA	1394	A
1	CA	1419	G
1	CA	1442(B)	A
1	CA	1443	G
1	CA	1452	C
1	CA	1456	G
1	CA	1487	G

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Mol	Chain	Res	Type
1	CA	1492	A
1	CA	1504	G
1	CA	1506	U
1	CA	1517	G
1	CA	1520	G
1	CA	1529	G
1	CA	1530	G
1	CA	1531	A
23	CW	3	C
23	CW	8	U
23	CW	10	G
23	CW	17	C
23	CW	17(B)	U
23	CW	18	G
23	CW	19	G
23	CW	20	U
23	CW	21	A
23	CW	22	G
23	CW	47	U
23	CW	48	C
23	CW	52	G
23	CW	59	A
23	CW	61	C
23	CW	62	C
23	CW	65	C
23	CW	75	C
23	CW	76	A
25	DA	13	A
25	DA	28	A
25	DA	34	C
25	DA	45	C
25	DA	49	A
25	DA	55	G
25	DA	61	G
25	DA	64	A
25	DA	69	C
25	DA	71	A
25	DA	72	U
25	DA	73	A
25	DA	75	G
25	DA	84	A
25	DA	85	G

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Mol	Chain	Res	Type
25	DA	88	G
25	DA	90	U
25	DA	92	A
25	DA	94	C
25	DA	95	G
25	DA	99	U
25	DA	100	G
25	DA	102	G
25	DA	118	A
25	DA	120	U
25	DA	126	A
25	DA	131	G
25	DA	139(A)	G
25	DA	141	A
25	DA	142	A
25	DA	148	C
25	DA	154	G
25	DA	157	U
25	DA	158	U
25	DA	159	U
25	DA	160	U
25	DA	171	G
25	DA	174	C
25	DA	175	G
25	DA	181	A
25	DA	196	A
25	DA	197	A
25	DA	199	A
25	DA	204	A
25	DA	205	G
25	DA	215	G
25	DA	216	A
25	DA	221	A
25	DA	222	A
25	DA	228	A
25	DA	229	A
25	DA	233	A
25	DA	248	G
25	DA	252	G
25	DA	261	G
25	DA	265	A
25	DA	266	G

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Mol	Chain	Res	Type
25	DA	271(J)	C
25	DA	271(K)	U
25	DA	271(L)	U
25	DA	271(N)	U
25	DA	271(O)	C
25	DA	271(P)	C
25	DA	271(T)	C
25	DA	271(Y)	U
25	DA	272	G
25	DA	272(A)	U
25	DA	272(B)	G
25	DA	272(H)	C
25	DA	272(J)	C
25	DA	274	G
25	DA	275	G
25	DA	276	A
25	DA	277	C
25	DA	278	A
25	DA	279	C
25	DA	281	G
25	DA	283	A
25	DA	284	U
25	DA	286	C
25	DA	287	C
25	DA	292	C
25	DA	316	C
25	DA	321	G
25	DA	322	A
25	DA	329	G
25	DA	330	A
25	DA	332	A
25	DA	333	G
25	DA	346	A
25	DA	352	G
25	DA	353	G
25	DA	362	U
25	DA	363(B)	G
25	DA	363(E)	U
25	DA	370	G
25	DA	371	A
25	DA	386	G
25	DA	396	G

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Mol	Chain	Res	Type
25	DA	405	U
25	DA	406	G
25	DA	411	G
25	DA	428	A
25	DA	434	U
25	DA	435	C
25	DA	443	A
25	DA	444	C
25	DA	448	U
25	DA	456	C
25	DA	457	A
25	DA	458	G
25	DA	470	A
25	DA	475	U
25	DA	481	G
25	DA	494	G
25	DA	503	A
25	DA	504	U
25	DA	505	A
25	DA	508	G
25	DA	509	C
25	DA	512	G
25	DA	517	C
25	DA	530	G
25	DA	531	C
25	DA	532	A
25	DA	533	G
25	DA	537	C
25	DA	542	C
25	DA	545	G
25	DA	562	U
25	DA	563	G
25	DA	573	G
25	DA	575	A
25	DA	588	U
25	DA	599	G
25	DA	603	A
25	DA	604	G
25	DA	607	U
25	DA	613	G
25	DA	614(B)	G
25	DA	615	G

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Mol	Chain	Res	Type
25	DA	620	G
25	DA	627	A
25	DA	637	A
25	DA	645	C
25	DA	646	A
25	DA	657	U
25	DA	686	G
25	DA	708	C
25	DA	722	A
25	DA	730	C
25	DA	747	U
25	DA	753	C
25	DA	764	A
25	DA	765	G
25	DA	776	G
25	DA	782	A
25	DA	784	A
25	DA	785	G
25	DA	790	C
25	DA	791	C
25	DA	792	G
25	DA	805	G
25	DA	812	C
25	DA	819	A
25	DA	827	U
25	DA	828	U
25	DA	830	G
25	DA	847	U
25	DA	848	G
25	DA	854	G
25	DA	857	C
25	DA	859	G
25	DA	866	A
25	DA	871	U
25	DA	885	C
25	DA	887	A
25	DA	889	C
25	DA	890	A
25	DA	896	A
25	DA	897	C
25	DA	904	C
25	DA	907	U

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Mol	Chain	Res	Type
25	DA	910	A
25	DA	914	C
25	DA	917	A
25	DA	926	A
25	DA	932	G
25	DA	933	A
25	DA	934	G
25	DA	941	A
25	DA	946	G
25	DA	958	U
25	DA	959	A
25	DA	961	C
25	DA	964	C
25	DA	965	C
25	DA	973	A
25	DA	974	G
25	DA	975	C
25	DA	975(A)	G
25	DA	983	A
25	DA	990	A
25	DA	991	C
25	DA	996	A
25	DA	1000	A
25	DA	1005	C
25	DA	1012	U
25	DA	1013	C
25	DA	1020	A
25	DA	1021	A
25	DA	1022	G
25	DA	1023	U
25	DA	1025	G
25	DA	1026	U
25	DA	1027	A
25	DA	1041	C
25	DA	1042	G
25	DA	1043	C
25	DA	1044	G
25	DA	1047	G
25	DA	1048	A
25	DA	1049	C
25	DA	1052	C
25	DA	1053	C

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Mol	Chain	Res	Type
25	DA	1110	G
25	DA	1111	A
25	DA	1112	G
25	DA	1113	U
25	DA	1116	C
25	DA	1126	A
25	DA	1127	A
25	DA	1129	A
25	DA	1132	A
25	DA	1133	U
25	DA	1135	C
25	DA	1136	G
25	DA	1155	A
25	DA	1167	U
25	DA	1173	G
25	DA	1174	A
25	DA	1175	U
25	DA	1176	G
25	DA	1177	A
25	DA	1179	C
25	DA	1186	G
25	DA	1195	G
25	DA	1204	A
25	DA	1205	U
25	DA	1206	G
25	DA	1211	U
25	DA	1212	G
25	DA	1213	A
25	DA	1220	A
25	DA	1221	C
25	DA	1253	A
25	DA	1256	G
25	DA	1271	G
25	DA	1272	A
25	DA	1281	G
25	DA	1300	U
25	DA	1301	A
25	DA	1314	C
25	DA	1319	G
25	DA	1329	U
25	DA	1345	C
25	DA	1349	A

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Mol	Chain	Res	Type
25	DA	1359	A
25	DA	1360	A
25	DA	1365	A
25	DA	1368	G
25	DA	1379	A
25	DA	1380	G
25	DA	1384	A
25	DA	1386	C
25	DA	1407	C
25	DA	1416	G
25	DA	1417	C
25	DA	1420	U
25	DA	1428	C
25	DA	1437	C
25	DA	1445	A
25	DA	1445(A)	C
25	DA	1449	A
25	DA	1450	G
25	DA	1451	C
25	DA	1452	A
25	DA	1455	G
25	DA	1459	G
25	DA	1461	G
25	DA	1467	C
25	DA	1471	A
25	DA	1475	G
25	DA	1478	G
25	DA	1481	U
25	DA	1482	G
25	DA	1484	G
25	DA	1485	G
25	DA	1488	G
25	DA	1490	A
25	DA	1491	G
25	DA	1493	C
25	DA	1494	A
25	DA	1495	A
25	DA	1496	A
25	DA	1497	U
25	DA	1498	C
25	DA	1505	C
25	DA	1509	C

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Mol	Chain	Res	Type
25	DA	1509(A)	A
25	DA	1520	G
25	DA	1554	A
25	DA	1558	A
25	DA	1559	G
25	DA	1569	A
25	DA	1578	U
25	DA	1579	A
25	DA	1584	C
25	DA	1586	A
25	DA	1588	C
25	DA	1591	G
25	DA	1594	G
25	DA	1603	A
25	DA	1608	A
25	DA	1609	A
25	DA	1610	A
25	DA	1616	A
25	DA	1617	C
25	DA	1618	A
25	DA	1640	C
25	DA	1648	C
25	DA	1651	G
25	DA	1653	G
25	DA	1654	A
25	DA	1674	G
25	DA	1675	C
25	DA	1686	C
25	DA	1699	G
25	DA	1700	A
25	DA	1718	G
25	DA	1722	A
25	DA	1739	U
25	DA	1740	G
25	DA	1744	C
25	DA	1746	G
25	DA	1748	G
25	DA	1758	G
25	DA	1759	A
25	DA	1763	G
25	DA	1764	G
25	DA	1773	A

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Mol	Chain	Res	Type
25	DA	1780	A
25	DA	1785	A
25	DA	1791	A
25	DA	1799	G
25	DA	1800	C
25	DA	1801	G
25	DA	1816	G
25	DA	1828	G
25	DA	1829	A
25	DA	1830	C
25	DA	1847	A
25	DA	1848	A
25	DA	1858	G
25	DA	1865	G
25	DA	1878	G
25	DA	1882	C
25	DA	1885	A
25	DA	1888	G
25	DA	1889	A
25	DA	1900	A
25	DA	1906	G
25	DA	1913	A
25	DA	1929	G
25	DA	1930	G
25	DA	1938	A
25	DA	1944	U
25	DA	1955	U
25	DA	1963	U
25	DA	1965	C
25	DA	1967	C
25	DA	1969	A
25	DA	1970	A
25	DA	1971	A
25	DA	1972	A
25	DA	1981	A
25	DA	1982	C
25	DA	1993	U
25	DA	2023	G
25	DA	2031	A
25	DA	2033	A
25	DA	2035	G
25	DA	2036	C

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Mol	Chain	Res	Type
25	DA	2043	C
25	DA	2055	C
25	DA	2056	G
25	DA	2060	A
25	DA	2061	G
25	DA	2062	A
25	DA	2069	G
25	DA	2092	U
25	DA	2093	G
25	DA	2103	C
25	DA	2104	G
25	DA	2106	G
25	DA	2108	C
25	DA	2111	C
25	DA	2112	G
25	DA	2116	G
25	DA	2117	A
25	DA	2118	U
25	DA	2127	G
25	DA	2166	G
25	DA	2169	A
25	DA	2172	U
25	DA	2173	A
25	DA	2176	A
25	DA	2182	G
25	DA	2183	C
25	DA	2185	C
25	DA	2190	G
25	DA	2193	G
25	DA	2198	A
25	DA	2199	A
25	DA	2200	C
25	DA	2207	G
25	DA	2208	A
25	DA	2219	G
25	DA	2225	A
25	DA	2226	C
25	DA	2238	G
25	DA	2239	G
25	DA	2267	A
25	DA	2268	A
25	DA	2283	C

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Mol	Chain	Res	Type
25	DA	2286	A
25	DA	2287	A
25	DA	2305	A
25	DA	2306	C
25	DA	2307	G
25	DA	2308	G
25	DA	2309	A
25	DA	2313	C
25	DA	2316	C
25	DA	2319	G
25	DA	2320	A
25	DA	2325	G
25	DA	2327	A
25	DA	2334	G
25	DA	2336	A
25	DA	2342	C
25	DA	2345	G
25	DA	2347	C
25	DA	2349	G
25	DA	2350	C
25	DA	2372	G
25	DA	2382	G
25	DA	2383	G
25	DA	2385	C
25	DA	2392	A
25	DA	2394	C
25	DA	2402	C
25	DA	2403	C
25	DA	2406	U
25	DA	2423	U
25	DA	2424	C
25	DA	2425	A
25	DA	2428	G
25	DA	2429	G
25	DA	2430	A
25	DA	2434	A
25	DA	2435	A
25	DA	2439	A
25	DA	2441	C
25	DA	2448	A
25	DA	2469	A
25	DA	2470	G

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Mol	Chain	Res	Type
25	DA	2476	A
25	DA	2482	G
25	DA	2491	U
25	DA	2498	C
25	DA	2502	G
25	DA	2505	G
25	DA	2506	U
25	DA	2518	A
25	DA	2520	C
25	DA	2523	G
25	DA	2529	G
25	DA	2534	A
25	DA	2542	A
25	DA	2543	G
25	DA	2554	U
25	DA	2566	A
25	DA	2567	G
25	DA	2573	C
25	DA	2582	G
25	DA	2602	A
25	DA	2609	U
25	DA	2611	U
25	DA	2612	C
25	DA	2629	A
25	DA	2630	G
25	DA	2646	C
25	DA	2654	A
25	DA	2673	G
25	DA	2675	A
25	DA	2682	U
25	DA	2690	C
25	DA	2691	C
25	DA	2702	U
25	DA	2712	U
25	DA	2712(A)	A
25	DA	2713	A
25	DA	2720	U
25	DA	2721	A
25	DA	2726	U
25	DA	2750	A
25	DA	2751	G
25	DA	2752	C

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Mol	Chain	Res	Type
25	DA	2754	U
25	DA	2757	A
25	DA	2759	G
25	DA	2762	G
25	DA	2765	A
25	DA	2766	G
25	DA	2778	A
25	DA	2780	G
25	DA	2789	C
25	DA	2791	C
25	DA	2792	G
25	DA	2796	U
25	DA	2799	C
25	DA	2802	G
25	DA	2803	C
25	DA	2804	C
25	DA	2808	U
25	DA	2820	A
25	DA	2821	A
25	DA	2833	G
25	DA	2834	G
25	DA	2835	A
25	DA	2849	U
25	DA	2872	G
25	DA	2893	G
25	DA	2894	G
25	DA	2896	C
26	DB	3	C
26	DB	8	U
26	DB	13	A
26	DB	15	A
26	DB	16	G
26	DB	25	A
26	DB	39	A
26	DB	41	U
26	DB	42	C
26	DB	45	A
26	DB	53	A
26	DB	67	G
26	DB	73	A
26	DB	85	G
26	DB	88	C

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Mol	Chain	Res	Type
26	DB	89	G
26	DB	90	A
26	DB	91	C
26	DB	109	C
26	DB	110	G

All (246) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	30	U
1	AA	47	C
1	AA	60	A
1	AA	115	G
1	AA	119	A
1	AA	173	U
1	AA	197	A
1	AA	243	A
1	AA	250	A
1	AA	266	G
1	AA	274	A
1	AA	315	A
1	AA	344	A
1	AA	366	C
1	AA	372	C
1	AA	428	G
1	AA	429	U
1	AA	484	G
1	AA	533	A
1	AA	575	G
1	AA	687	A
1	AA	748	C
1	AA	792	A
1	AA	913	A
1	AA	965	A
1	AA	974	A
1	AA	992	U
1	AA	1049	U
1	AA	1064	G
1	AA	1065	U
1	AA	1101	A
1	AA	1139	G
1	AA	1201	A

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Mol	Chain	Res	Type
1	AA	1223	C
1	AA	1285	A
1	AA	1322	C
1	AA	1363(A)	A
1	AA	1380	U
1	AA	1442(A)	G
1	AA	1528	U
23	AW	17(B)	U
23	AW	58	A
25	BA	27	G
25	BA	71	A
25	BA	74	A
25	BA	119	A
25	BA	158	U
25	BA	160	U
25	BA	203	C
25	BA	221	A
25	BA	265	A
25	BA	271(Y)	U
25	BA	272(A)	U
25	BA	277	C
25	BA	278	A
25	BA	280	C
25	BA	386	G
25	BA	442	G
25	BA	454	A
25	BA	474	G
25	BA	479	A
25	BA	481	G
25	BA	506	G
25	BA	512	G
25	BA	587	C
25	BA	603	A
25	BA	614(A)	U
25	BA	627	A
25	BA	669	G
25	BA	726	G
25	BA	740	U
25	BA	746	A
25	BA	752	A
25	BA	764	A
25	BA	775	G

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Mol	Chain	Res	Type
25	BA	932	G
25	BA	945	A
25	BA	961	C
25	BA	1033	U
25	BA	1210	A
25	BA	1300	U
25	BA	1314	C
25	BA	1332	G
25	BA	1427	A
25	BA	1458	C
25	BA	1558	A
25	BA	1594	G
25	BA	1608	A
25	BA	1609	A
25	BA	1653	G
25	BA	1780	A
25	BA	1799	G
25	BA	1819	A
25	BA	1839	G
25	BA	1885	A
25	BA	1941	C
25	BA	1992	G
25	BA	2031	A
25	BA	2110	G
25	BA	2116	G
25	BA	2126	A
25	BA	2171	A
25	BA	2282	G
25	BA	2286	A
25	BA	2334	G
25	BA	2344	U
25	BA	2382	G
25	BA	2468	G
25	BA	2481	G
25	BA	2491	U
25	BA	2506	U
25	BA	2610	C
25	BA	2629	A
25	BA	2689	U
25	BA	2750	A
25	BA	2756	U
25	BA	2763	G

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Mol	Chain	Res	Type
25	BA	2791	C
25	BA	2873	A
26	BB	56	G
26	BB	109	C
1	CA	30	U
1	CA	47	C
1	CA	60	A
1	CA	79	G
1	CA	115	G
1	CA	119	A
1	CA	173	U
1	CA	243	A
1	CA	250	A
1	CA	266	G
1	CA	274	A
1	CA	353	A
1	CA	366	C
1	CA	412	A
1	CA	428	G
1	CA	429	U
1	CA	484	G
1	CA	495	A
1	CA	533	A
1	CA	687	A
1	CA	748	C
1	CA	913	A
1	CA	968	A
1	CA	992	U
1	CA	1049	U
1	CA	1065	U
1	CA	1085	U
1	CA	1101	A
1	CA	1139	G
1	CA	1201	A
1	CA	1213	A
1	CA	1285	A
1	CA	1363(A)	A
23	CW	10	G
23	CW	16	C
23	CW	17(B)	U
23	CW	58	A
23	CW	60	U

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Mol	Chain	Res	Type
23	CW	61	C
25	DA	27	G
25	DA	71	A
25	DA	74	A
25	DA	125	G
25	DA	158	U
25	DA	221	A
25	DA	265	A
25	DA	271(N)	U
25	DA	271(Z)	C
25	DA	277	C
25	DA	278	A
25	DA	283	A
25	DA	321	G
25	DA	332	A
25	DA	345	A
25	DA	370	G
25	DA	434	U
25	DA	442	G
25	DA	474	G
25	DA	503	A
25	DA	587	C
25	DA	614(A)	U
25	DA	614(B)	G
25	DA	614(C)	A
25	DA	620	G
25	DA	752	A
25	DA	775	G
25	DA	790	C
25	DA	913	U
25	DA	932	G
25	DA	973	A
25	DA	1020	A
25	DA	1022	G
25	DA	1126	A
25	DA	1204	A
25	DA	1210	A
25	DA	1286	A
25	DA	1300	U
25	DA	1332	G
25	DA	1385	G
25	DA	1458	C

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Mol	Chain	Res	Type
25	DA	1490	A
25	DA	1558	A
25	DA	1591	G
25	DA	1608	A
25	DA	1653	G
25	DA	1686	C
25	DA	1758	G
25	DA	1784	A
25	DA	1799	G
25	DA	1829	A
25	DA	1962	C
25	DA	1980	G
25	DA	1992	G
25	DA	2060	A
25	DA	2092	U
25	DA	2110	G
25	DA	2126	A
25	DA	2165	G
25	DA	2171	A
25	DA	2172	U
25	DA	2225	A
25	DA	2282	G
25	DA	2286	A
25	DA	2344	U
25	DA	2402	C
25	DA	2405	G
25	DA	2422	A
25	DA	2439	A
25	DA	2468	G
25	DA	2481	G
25	DA	2490	G
25	DA	2497	A
25	DA	2542	A
25	DA	2581	G
25	DA	2610	C
25	DA	2611	U
25	DA	2629	A
25	DA	2689	U
25	DA	2750	A
25	DA	2756	U
25	DA	2791	C
25	DA	2832	U

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Mol	Chain	Res	Type
25	DA	2834	G
26	DB	24	G
26	DB	66	A

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

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

## 5.5 Carbohydrates ⓘ

There are no carbohydrates in this entry.

## 5.6 Ligand geometry ⓘ

Of 1056 ligands modelled in this entry, 1056 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, 95<sup>th</sup> 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 <sup>2</sup> )	Q<0.9
1	AA	1495/1509 (99%)	-0.09	28 (1%)	64	13	43, 73, 89, 96	1 (0%)
1	CA	1504/1509 (99%)	-0.11	25 (1%)	67	15	47, 71, 88, 97	1 (0%)
2	AB	235/256 (91%)	0.07	7 (2%)	48	7	65, 75, 82, 88	0
2	CB	235/256 (91%)	0.01	4 (1%)	67	15	66, 76, 82, 85	0
3	AC	207/239 (86%)	0.12	3 (1%)	72	17	67, 75, 82, 86	0
3	CC	207/239 (86%)	0.07	1 (0%)	88	39	67, 75, 81, 84	0
4	AD	208/209 (99%)	-0.15	0	100	100	61, 72, 79, 85	0
4	CD	208/209 (99%)	-0.11	1 (0%)	88	39	55, 68, 75, 83	0
5	AE	151/162 (93%)	0.05	5 (3%)	44	6	60, 69, 76, 83	0
5	CE	151/162 (93%)	-0.00	0	100	100	60, 69, 77, 90	0
6	AF	101/101 (100%)	-0.27	0	100	100	56, 67, 76, 81	0
6	CF	101/101 (100%)	-0.10	0	100	100	61, 70, 78, 83	0
7	AG	155/156 (99%)	-0.02	2 (1%)	74	19	63, 74, 80, 83	0
7	CG	155/156 (99%)	0.13	2 (1%)	74	19	67, 74, 81, 84	0
8	AH	138/138 (100%)	-0.11	2 (1%)	72	17	56, 69, 74, 79	0
8	CH	138/138 (100%)	-0.16	0	100	100	57, 70, 76, 82	0
9	AI	127/128 (99%)	0.30	3 (2%)	56	9	66, 77, 83, 87	0
9	CI	127/128 (99%)	0.68	12 (9%)	9	2	70, 77, 83, 86	0
10	AJ	99/105 (94%)	0.50	7 (7%)	16	3	66, 79, 84, 88	0
10	CJ	99/105 (94%)	1.14	19 (19%)	2	0	66, 79, 84, 87	0
11	AK	119/129 (92%)	0.15	2 (1%)	67	15	58, 68, 78, 82	0
11	CK	119/129 (92%)	-0.06	3 (2%)	54	9	64, 72, 78, 84	0
12	AL	125/132 (94%)	-0.15	1 (0%)	83	28	53, 67, 76, 85	0
12	CL	125/132 (94%)	0.11	3 (2%)	56	9	56, 65, 74, 84	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
13	AM	120/126 (95%)	0.20	1 (0%) 83 28	66, 75, 81, 83	0
13	CM	120/126 (95%)	0.06	1 (0%) 83 28	65, 75, 81, 84	0
14	AN	60/61 (98%)	0.01	0 100 100	65, 74, 80, 82	0
14	CN	60/61 (98%)	-0.06	1 (1%) 67 15	62, 74, 78, 82	0
15	AO	88/89 (98%)	-0.02	0 100 100	52, 66, 74, 79	0
15	CO	88/89 (98%)	-0.13	0 100 100	59, 68, 76, 78	0
16	AP	84/88 (95%)	-0.02	1 (1%) 75 20	62, 69, 77, 80	0
16	CP	84/88 (95%)	0.20	1 (1%) 75 20	59, 66, 75, 83	0
17	AQ	100/105 (95%)	-0.06	0 100 100	59, 68, 75, 76	0
17	CQ	100/105 (95%)	-0.20	0 100 100	58, 68, 76, 78	0
18	AR	70/88 (79%)	-0.07	0 100 100	58, 69, 78, 85	0
18	CR	70/88 (79%)	0.24	1 (1%) 72 17	63, 69, 77, 82	0
19	AS	80/93 (86%)	0.20	1 (1%) 74 19	66, 76, 83, 86	0
19	CS	78/93 (83%)	0.31	1 (1%) 74 19	70, 76, 82, 84	0
20	AT	99/106 (93%)	0.14	1 (1%) 79 23	62, 71, 79, 83	0
20	CT	99/106 (93%)	0.14	0 100 100	63, 69, 77, 83	0
21	AU	25/27 (92%)	0.85	3 (12%) 5 1	67, 74, 81, 83	0
21	CU	25/27 (92%)	1.07	2 (8%) 12 2	68, 77, 83, 85	0
22	AV	176/184 (95%)	-0.11	1 (0%) 86 36	51, 71, 79, 83	0
22	CV	176/184 (95%)	0.10	3 (1%) 67 15	58, 72, 80, 84	0
23	AW	77/77 (100%)	0.06	2 (2%) 53 8	45, 69, 81, 92	0
23	CW	77/77 (100%)	-0.39	0 100 100	58, 72, 83, 87	0
24	AX	5/5 (100%)	0.56	0 100 100	65, 65, 83, 88	0
24	CX	5/5 (100%)	0.63	1 (20%) 2 0	68, 70, 82, 88	0
25	BA	2767/2915 (94%)	-0.13	35 (1%) 74 19	25, 53, 82, 97	0
25	DA	2777/2915 (95%)	-0.12	43 (1%) 70 16	38, 65, 85, 97	0
26	BB	119/122 (97%)	-0.33	0 100 100	53, 67, 77, 86	0
26	DB	119/122 (97%)	-0.03	2 (1%) 67 15	68, 77, 83, 92	0
27	BC	224/229 (97%)	0.22	0 100 100	67, 76, 81, 86	1 (0%)
27	DC	220/229 (96%)	0.27	9 (4%) 35 5	66, 76, 82, 87	1 (0%)
28	BD	274/276 (99%)	-0.11	0 100 100	38, 53, 65, 74	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
28	DD	274/276 (99%)	-0.07	1 (0%) 90 45	42, 59, 70, 77	0
29	BE	205/206 (99%)	-0.07	1 (0%) 88 39	38, 58, 73, 77	0
29	DE	205/206 (99%)	0.02	4 (1%) 62 12	46, 65, 78, 82	0
30	BF	208/210 (99%)	0.05	0 100 100	35, 58, 78, 88	0
30	DF	208/210 (99%)	-0.03	2 (0%) 79 23	52, 69, 78, 90	0
31	BG	181/182 (99%)	-0.06	1 (0%) 86 36	60, 71, 79, 86	0
31	DG	181/182 (99%)	0.19	4 (2%) 59 11	65, 73, 81, 85	0
32	BH	168/180 (93%)	-0.05	0 100 100	25, 66, 75, 82	0
32	DH	160/180 (88%)	0.24	0 100 100	66, 76, 82, 87	0
33	BI	146/148 (98%)	-0.19	1 (0%) 84 32	55, 71, 77, 84	0
33	DI	146/148 (98%)	-0.13	1 (0%) 84 32	60, 73, 80, 83	0
34	BN	139/140 (99%)	-0.18	0 100 100	46, 59, 72, 77	0
34	DN	139/140 (99%)	0.09	0 100 100	60, 70, 77, 82	0
35	BO	122/122 (100%)	-0.17	0 100 100	44, 59, 70, 73	0
35	DO	122/122 (100%)	0.01	0 100 100	50, 63, 71, 75	0
36	BP	146/150 (97%)	0.06	2 (1%) 72 17	40, 65, 76, 81	0
36	DP	146/150 (97%)	0.34	3 (2%) 60 11	52, 70, 78, 82	0
37	BQ	139/141 (98%)	-0.15	0 100 100	45, 61, 71, 80	0
37	DQ	141/141 (100%)	0.05	2 (1%) 72 17	54, 69, 77, 83	0
38	BR	116/118 (98%)	-0.07	0 100 100	39, 57, 69, 74	0
38	DR	117/118 (99%)	-0.03	0 100 100	50, 63, 73, 78	0
39	BS	101/112 (90%)	0.20	0 100 100	49, 69, 74, 80	0
39	DS	99/112 (88%)	0.22	1 (1%) 79 23	63, 72, 79, 86	0
40	BT	138/146 (94%)	-0.00	1 (0%) 84 32	52, 65, 79, 83	0
40	DT	138/146 (94%)	0.06	2 (1%) 72 17	56, 67, 81, 84	0
41	BU	117/118 (99%)	-0.06	2 (1%) 67 15	41, 54, 68, 78	0
41	DU	117/118 (99%)	-0.09	0 100 100	55, 67, 76, 81	0
42	BV	101/101 (100%)	-0.18	0 100 100	41, 60, 71, 75	0
42	DV	101/101 (100%)	0.20	0 100 100	58, 74, 79, 85	0
43	BW	113/113 (100%)	-0.10	0 100 100	44, 53, 70, 86	0
43	DW	113/113 (100%)	-0.06	1 (0%) 81 25	56, 64, 78, 87	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
44	BX	94/96 (97%)	-0.09	0 100 100	42, 57, 69, 79	0
44	DX	93/96 (96%)	-0.00	1 (1%) 77 22	53, 67, 73, 81	0
45	BY	101/110 (91%)	0.03	1 (0%) 79 23	51, 64, 77, 81	0
45	DY	101/110 (91%)	0.18	4 (3%) 36 5	63, 74, 82, 85	0
46	BZ	182/206 (88%)	-0.03	0 100 100	56, 70, 78, 83	0
46	DZ	177/206 (85%)	0.28	8 (4%) 32 5	68, 76, 83, 87	0
47	B0	77/85 (90%)	0.00	1 (1%) 74 19	49, 59, 72, 81	0
47	D0	84/85 (98%)	0.15	2 (2%) 56 9	59, 68, 78, 84	0
48	B1	96/98 (97%)	-0.12	0 100 100	42, 60, 72, 77	0
48	D1	94/98 (95%)	0.15	2 (2%) 60 11	50, 64, 75, 78	0
49	B2	71/72 (98%)	-0.18	0 100 100	50, 61, 75, 80	0
49	D2	71/72 (98%)	-0.22	1 (1%) 72 17	60, 71, 79, 87	0
50	B3	59/60 (98%)	0.01	1 (1%) 67 15	45, 59, 71, 74	0
50	D3	60/60 (100%)	0.45	1 (1%) 67 15	62, 72, 82, 85	0
51	B4	31/71 (43%)	0.02	0 100 100	69, 75, 80, 86	0
51	D4	31/71 (43%)	-0.00	0 100 100	67, 74, 81, 84	0
52	B5	57/60 (95%)	-0.24	0 100 100	40, 55, 71, 73	0
52	D5	59/60 (98%)	0.16	2 (3%) 43 6	55, 68, 78, 86	0
53	B6	49/54 (90%)	0.18	0 100 100	39, 65, 75, 75	0
53	D6	48/54 (88%)	-0.08	0 100 100	54, 66, 73, 78	0
54	B7	49/49 (100%)	0.00	0 100 100	35, 46, 69, 76	0
54	D7	49/49 (100%)	0.49	3 (6%) 21 3	47, 58, 77, 83	0
55	B8	63/65 (96%)	0.03	0 100 100	43, 56, 69, 75	0
55	D8	62/65 (95%)	0.18	1 (1%) 68 15	54, 62, 68, 76	0
56	B9	36/37 (97%)	0.40	2 (5%) 24 3	52, 59, 69, 71	0
56	D9	36/37 (97%)	0.44	1 (2%) 50 8	60, 69, 76, 82	0
All	All	21272/22210 (95%)	-0.02	300 (1%) 72 17	25, 68, 82, 97	4 (0%)

All (300) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	CA	82	U	9.3
1	CA	83	U	8.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
1	CA	81	U	6.8
23	AW	1	C	6.4
1	CA	89	C	6.3
1	CA	84	U	6.2
25	BA	2802	G	5.7
25	DA	2802	G	5.6
1	AA	1030(B)	C	5.5
25	BA	2799	C	5.4
25	BA	2796	U	5.0
25	BA	2116	G	5.0
25	DA	2174	C	4.9
25	DA	2796	U	4.8
25	BA	2801	A	4.7
21	AU	26	LYS	4.6
40	DT	1	MET	4.6
25	DA	1046	A	4.5
25	DA	2894	G	4.5
45	DY	51	VAL	4.5
25	BA	2117	A	4.5
52	D5	59	GLU	4.4
25	DA	2795	G	4.3
25	DA	2799	C	4.3
25	BA	1509	C	4.3
25	BA	886	C	4.3
25	BA	2115	G	4.2
25	DA	2794	C	4.2
1	AA	1030(C)	G	4.2
25	DA	2793	G	4.2
1	CA	1030	C	4.1
26	DB	88	C	4.1
40	DT	2	ASN	4.1
25	DA	272(J)	C	4.0
1	CA	88	A	4.0
1	AA	1002	G	3.9
45	BY	63	LYS	3.9
1	AA	1224	G	3.9
1	AA	1030	C	3.9
25	DA	2803	C	3.8
1	CA	1001(A)	G	3.8
10	AJ	3	LYS	3.8
10	CJ	70	ARG	3.8
9	CI	66	ARG	3.8

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Mol	Chain	Res	Type	RSRZ
7	AG	8	GLU	3.8
25	BA	2126	A	3.7
25	BA	2801(A)	A	3.7
31	DG	2	PRO	3.7
52	D5	58	LEU	3.7
1	CA	1531	A	3.7
11	CK	128	ALA	3.7
1	CA	1002	G	3.6
9	CI	19	LEU	3.6
55	D8	35	GLN	3.6
25	BA	1174	A	3.5
25	DA	2804	C	3.5
9	CI	3	GLN	3.5
22	CV	184	ALA	3.5
10	CJ	21	GLN	3.4
10	CJ	8	LEU	3.4
25	BA	1176	G	3.4
25	DA	645	C	3.4
25	BA	888	C	3.3
9	CI	4	TYR	3.3
25	BA	11	G	3.3
10	CJ	10	GLY	3.3
31	BG	2	PRO	3.3
1	CA	1003	G	3.3
1	AA	1030(A)	G	3.3
37	DQ	140	ALA	3.2
3	AC	190	ARG	3.2
25	DA	2801(A)	A	3.2
43	DW	113	LYS	3.2
36	BP	150	ALA	3.2
44	DX	64	LYS	3.2
1	CA	80	G	3.2
21	CU	26	LYS	3.2
25	BA	1173	G	3.2
2	CB	133	LYS	3.2
29	DE	205	ALA	3.2
10	CJ	33	GLN	3.1
19	AS	59	PRO	3.1
13	AM	102	ARG	3.1
25	DA	896	A	3.1
25	DA	2175	C	3.1
1	AA	1003	G	3.1

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Mol	Chain	Res	Type	RSRZ
11	CK	129	SER	3.1
48	D1	93	GLU	3.1
12	CL	126	ALA	3.1
27	DC	206	LYS	3.0
10	CJ	34	VAL	3.0
25	DA	1043	C	3.0
1	AA	1452	C	3.0
10	AJ	73	ASP	3.0
2	CB	132	LYS	3.0
25	BA	1508	A	3.0
1	CA	1026	G	2.9
1	AA	1286	A	2.9
2	AB	132	LYS	2.9
25	DA	2310	A	2.9
31	DG	48	GLU	2.9
1	CA	1001	A	2.9
25	BA	6	A	2.9
25	DA	1108	U	2.9
50	B3	38	GLU	2.9
29	DE	204	ALA	2.9
25	DA	229	A	2.9
25	BA	1109	C	2.8
25	DA	1107	G	2.8
9	CI	20	ARG	2.8
10	CJ	71	LEU	2.8
36	DP	105	LEU	2.8
25	DA	2116	G	2.8
40	BT	1	MET	2.8
25	BA	887	A	2.8
1	CA	1030(B)	C	2.8
45	DY	55	TYR	2.8
9	CI	81	ILE	2.8
10	CJ	24	VAL	2.8
54	D7	1	MET	2.8
25	DA	2801	A	2.8
23	AW	47	U	2.7
10	CJ	28	ARG	2.7
25	DA	1509	C	2.7
5	AE	81	GLU	2.7
45	DY	52	SER	2.7
46	DZ	111	ARG	2.7
49	D2	72	ALA	2.7

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Mol	Chain	Res	Type	RSRZ
25	BA	655	A	2.7
25	BA	2803	C	2.7
50	D3	28	LEU	2.7
25	DA	1114	G	2.7
25	DA	279	C	2.7
1	CA	1257	U	2.7
21	AU	25	LYS	2.7
10	CJ	36	GLY	2.6
1	AA	1447	A	2.6
1	AA	1001(A)	G	2.6
11	AK	129	SER	2.6
25	DA	100	G	2.6
1	CA	1029	C	2.6
25	BA	2111	C	2.6
21	CU	25	LYS	2.6
1	CA	1030(A)	G	2.6
1	AA	1005	A	2.6
2	AB	21	ARG	2.6
1	AA	1223	C	2.6
1	CA	723	U	2.6
25	BA	2794	C	2.6
11	AK	127	LYS	2.6
10	CJ	73	ASP	2.5
25	DA	2118	U	2.6
10	AJ	77	PRO	2.5
24	CX	1	A	2.5
25	DA	1045	A	2.5
8	AH	1	MET	2.5
56	B9	37	GLY	2.5
9	CI	62	TYR	2.5
1	AA	1035	A	2.5
25	BA	900	A	2.5
25	BA	885	C	2.5
27	DC	82	GLU	2.5
1	AA	79	G	2.5
12	AL	16	ARG	2.5
1	CA	91	C	2.5
7	AG	5	ARG	2.5
9	CI	67	GLY	2.5
46	DZ	96	GLU	2.5
46	DZ	112	ALA	2.5
14	CN	2	ALA	2.5

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
25	BA	2795	G	2.5
25	DA	277	C	2.5
45	DY	86	ARG	2.5
47	B0	84	ALA	2.5
2	CB	131	PRO	2.4
37	DQ	141	GLN	2.4
46	DZ	94	PRO	2.4
46	DZ	95	VAL	2.4
7	CG	110	GLN	2.4
11	CK	11	LYS	2.4
7	CG	115	ARG	2.4
9	AI	104	ARG	2.4
25	BA	1532	C	2.4
36	BP	149	GLU	2.4
10	AJ	4	ILE	2.4
22	AV	184	ALA	2.4
25	BA	1509(A)	A	2.4
1	AA	1029	C	2.4
25	DA	1053	C	2.4
2	AB	133	LYS	2.4
31	DG	49	ASP	2.4
41	BU	118	GLY	2.4
25	BA	894	C	2.4
25	DA	2792	G	2.4
1	AA	1024	G	2.4
46	DZ	132	ILE	2.4
16	CP	29	ASP	2.4
2	AB	128	GLU	2.4
1	AA	1034	G	2.4
47	D0	74	ARG	2.4
10	CJ	17	ASP	2.4
3	CC	150	LYS	2.3
27	DC	9	ARG	2.3
25	BA	1107	G	2.3
10	AJ	74	ILE	2.3
8	AH	116	LYS	2.3
4	CD	209	ARG	2.3
29	BE	76	ARG	2.3
30	DF	12	LEU	2.3
1	CA	1447	A	2.3
1	CA	71	C	2.3
48	D1	20	ARG	2.3

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Mol	Chain	Res	Type	RSRZ
2	AB	129	GLU	2.3
27	DC	219	MET	2.3
19	CS	43	GLU	2.3
9	AI	4	TYR	2.3
54	D7	42	LEU	2.3
27	DC	29	LEU	2.3
33	BI	7	GLU	2.3
25	DA	1052	C	2.3
46	DZ	81	ARG	2.3
25	DA	1445	A	2.3
1	AA	1028	C	2.3
25	DA	1049	C	2.2
9	CI	64	THR	2.2
31	DG	50	ALA	2.2
20	AT	80	ARG	2.2
25	BA	271(N)	U	2.2
41	BU	117	GLN	2.2
10	CJ	7	LYS	2.2
26	DB	89	G	2.2
27	DC	33	LEU	2.2
2	AB	131	PRO	2.2
25	DA	2110	G	2.2
47	D0	2	ALA	2.2
9	AI	41	VAL	2.2
5	AE	79	GLU	2.2
25	DA	2173	A	2.2
2	AB	96	ARG	2.2
10	CJ	9	ARG	2.2
25	DA	2186	G	2.2
3	AC	188	LEU	2.2
10	CJ	55	LYS	2.2
18	CR	32	ARG	2.2
25	BA	1847	A	2.2
10	CJ	27	ALA	2.2
36	DP	104	GLY	2.2
1	AA	1027	C	2.1
25	DA	2791	C	2.1
27	DC	65	LEU	2.1
1	AA	1040	U	2.1
1	CA	1020	U	2.1
46	DZ	158	PRO	2.1
2	CB	130	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
1	AA	91	C	2.1
12	CL	125	ALA	2.1
25	BA	645	C	2.1
25	DA	1743	C	2.1
27	DC	160	GLY	2.1
27	DC	71	LYS	2.1
5	AE	92	LYS	2.1
10	CJ	23	ILE	2.1
54	D7	48	LYS	2.1
1	AA	1119	C	2.1
22	CV	138	GLY	2.1
1	AA	1036	G	2.1
1	CA	70	G	2.1
9	CI	15	ALA	2.1
13	CM	101	GLN	2.1
25	BA	1743	C	2.1
10	CJ	98	ILE	2.1
56	D9	37	GLY	2.1
1	AA	1531	A	2.1
28	DD	262	ARG	2.1
1	AA	92	C	2.1
16	AP	31	LYS	2.1
5	AE	71	LEU	2.1
36	DP	87	ASP	2.1
5	AE	118	ILE	2.1
1	AA	915	A	2.1
10	AJ	5	ARG	2.1
21	AU	16	GLY	2.1
9	CI	8	GLY	2.1
25	DA	311	A	2.1
25	DA	2117	A	2.1
9	CI	18	PHE	2.0
1	AA	1026	G	2.0
39	DS	49	VAL	2.0
3	AC	60	ALA	2.0
29	DE	76	ARG	2.0
22	CV	31	GLY	2.0
12	CL	13	GLU	2.0
29	DE	1	MET	2.0
1	CA	1286	A	2.0
10	AJ	23	ILE	2.0
25	DA	2120	G	2.0

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Mol	Chain	Res	Type	RSRZ
56	B9	5	ALA	2.0
30	DF	181	LEU	2.0
10	CJ	20	ALA	2.0
33	DI	12	LEU	2.0

## 6.2 Non-standard residues in protein, DNA, RNA chains ⓘ

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

## 6.3 Carbohydrates ⓘ

There are no carbohydrates in this entry.

## 6.4 Ligands ⓘ

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95<sup>th</sup> 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 <sup>2</sup> )	Q<0.9
57	MG	BA	3274	1/1	0.31	-	27,27,27,27	0
57	MG	DA	3198	1/1	0.31	-	31,31,31,31	0
57	MG	DA	3305	1/1	0.32	-	35,35,35,35	0
57	MG	BA	3363	1/1	0.21	-	23,23,23,23	0
57	MG	DA	3113	1/1	0.36	-	26,26,26,26	0
57	MG	DB	203	1/1	0.28	-	66,66,66,66	0
57	MG	BA	3234	1/1	0.06	-	38,38,38,38	0
57	MG	CA	1694	1/1	0.66	-	51,51,51,51	0
57	MG	AA	1655	1/1	0.22	-	6,6,6,6	0
57	MG	CA	1627	1/1	0.16	-	24,24,24,24	0
57	MG	BT	201	1/1	0.20	-	32,32,32,32	0
57	MG	AA	1642	1/1	0.33	-	67,67,67,67	0
57	MG	BA	3343	1/1	0.19	-	22,22,22,22	0
57	MG	BA	3215	1/1	0.22	-	35,35,35,35	0
57	MG	AA	1652	1/1	0.17	-	44,44,44,44	0
57	MG	DA	3026	1/1	0.08	-	33,33,33,33	0
57	MG	AA	1695	1/1	0.21	-	26,26,26,26	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	DA	3209	1/1	0.30	-	33,33,33,33	0
57	MG	CW	104	1/1	0.32	-	52,52,52,52	0
57	MG	BA	3049	1/1	0.39	-	24,24,24,24	0
57	MG	AA	1669	1/1	0.29	-	70,70,70,70	0
57	MG	BB	202	1/1	0.28	-	21,21,21,21	0
57	MG	BA	3088	1/1	0.23	-	24,24,24,24	0
57	MG	BA	3364	1/1	0.20	-	32,32,32,32	0
57	MG	BA	3358	1/1	0.15	-	38,38,38,38	0
57	MG	AA	1633	1/1	0.09	-	36,36,36,36	0
57	MG	AA	1675	1/1	0.20	-	50,50,50,50	0
57	MG	BA	3301	1/1	0.21	-	33,33,33,33	0
57	MG	BA	3065	1/1	0.28	-	24,24,24,24	0
57	MG	DA	3220	1/1	0.29	-	31,31,31,31	0
57	MG	AA	1603	1/1	0.11	-	18,18,18,18	0
57	MG	DA	3070	1/1	0.34	-	46,46,46,46	0
57	MG	CA	1685	1/1	0.10	-	33,33,33,33	0
57	MG	BA	3096	1/1	0.37	-	24,24,24,24	0
57	MG	BA	3303	1/1	0.33	-	26,26,26,26	0
57	MG	CA	1637	1/1	0.11	-	26,26,26,26	0
57	MG	DA	3109	1/1	0.08	-	33,33,33,33	0
57	MG	AA	1677	1/1	0.14	-	48,48,48,48	0
57	MG	BA	3328	1/1	0.23	-	32,32,32,32	0
57	MG	DA	3287	1/1	0.19	-	48,48,48,48	0
57	MG	DA	3015	1/1	0.20	-	36,36,36,36	0
57	MG	BA	3160	1/1	0.17	-	30,30,30,30	0
57	MG	AA	1605	1/1	0.21	-	51,51,51,51	0
57	MG	DA	3273	1/1	0.33	-	55,55,55,55	0
57	MG	DB	207	1/1	0.14	-	27,27,27,27	0
57	MG	BA	3182	1/1	0.42	-	27,27,27,27	0
57	MG	BA	3444	1/1	0.93	-	101,101,101,101	0
57	MG	CA	1615	1/1	0.40	-	63,63,63,63	0
57	MG	DA	3086	1/1	0.38	-	25,25,25,25	0
57	MG	BA	3383	1/1	0.18	-	48,48,48,48	0
57	MG	BA	3294	1/1	0.30	-	29,29,29,29	0
57	MG	BA	3436	1/1	0.30	-	48,48,48,48	0
57	MG	DA	3163	1/1	0.28	-	32,32,32,32	0
57	MG	BA	3168	1/1	0.12	-	33,33,33,33	0
57	MG	DA	3081	1/1	0.24	-	37,37,37,37	0
57	MG	BA	3118	1/1	2.36	-	205,205,205,205	0
57	MG	BA	3097	1/1	0.46	-	34,34,34,34	0
57	MG	BA	3012	1/1	0.35	-	22,22,22,22	0
57	MG	BA	3231	1/1	0.36	-	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	CA	1617	1/1	0.23	-	35,35,35,35	0
57	MG	BA	3009	1/1	0.20	-	16,16,16,16	0
57	MG	DA	3304	1/1	0.12	-	35,35,35,35	0
57	MG	AA	1625	1/1	0.25	-	37,37,37,37	0
57	MG	BA	3252	1/1	0.17	-	25,25,25,25	0
57	MG	BB	203	1/1	0.28	-	21,21,21,21	0
57	MG	CA	1708	1/1	0.69	-	76,76,76,76	0
57	MG	AA	1664	1/1	0.56	-	77,77,77,77	0
57	MG	BA	3040	1/1	0.19	-	24,24,24,24	0
57	MG	BA	3023	1/1	0.43	-	45,45,45,45	0
57	MG	DA	3297	1/1	0.15	-	48,48,48,48	0
57	MG	AA	1707	1/1	0.21	-	20,20,20,20	0
57	MG	DA	3098	1/1	0.41	-	32,32,32,32	0
57	MG	BA	3172	1/1	0.53	-	22,22,22,22	0
57	MG	BA	3271	1/1	0.24	-	40,40,40,40	0
57	MG	BA	3163	1/1	0.19	-	21,21,21,21	0
57	MG	BA	3245	1/1	0.14	-	27,27,27,27	0
57	MG	DA	3099	1/1	0.35	-	23,23,23,23	0
57	MG	BA	3405	1/1	0.08	-	25,25,25,25	0
57	MG	DB	201	1/1	0.19	-	53,53,53,53	0
57	MG	BA	3063	1/1	0.24	-	17,17,17,17	0
57	MG	AA	1687	1/1	0.26	-	44,44,44,44	0
57	MG	DA	3137	1/1	0.17	-	30,30,30,30	0
57	MG	DA	3135	1/1	0.17	-	42,42,42,42	0
57	MG	CA	1678	1/1	0.19	-	25,25,25,25	0
57	MG	DA	3283	1/1	0.19	-	62,62,62,62	0
57	MG	BA	3214	1/1	0.07	-	29,29,29,29	0
57	MG	BA	3173	1/1	0.11	-	40,40,40,40	0
57	MG	BA	3099	1/1	0.46	-	29,29,29,29	0
57	MG	AA	1629	1/1	0.13	-	56,56,56,56	0
57	MG	DA	3082	1/1	0.27	-	21,21,21,21	0
57	MG	DA	3180	1/1	0.22	-	49,49,49,49	0
57	MG	AA	1666	1/1	0.18	-	24,24,24,24	0
57	MG	BA	3228	1/1	0.37	-	36,36,36,36	0
57	MG	BA	3227	1/1	0.31	-	21,21,21,21	0
57	MG	BA	3397	1/1	0.20	-	44,44,44,44	0
57	MG	DA	3248	1/1	0.19	-	36,36,36,36	0
57	MG	DA	3208	1/1	0.07	-	59,59,59,59	0
57	MG	DA	3264	1/1	0.08	-	25,25,25,25	0
57	MG	DA	3210	1/1	0.28	-	41,41,41,41	0
57	MG	DA	3058	1/1	0.20	-	27,27,27,27	0
57	MG	AA	1696	1/1	0.22	-	26,26,26,26	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	DA	3233	1/1	0.13	-	17,17,17,17	0
57	MG	DA	3069	1/1	0.50	-	30,30,30,30	0
57	MG	AA	1608	1/1	0.14	-	65,65,65,65	0
57	MG	BA	3132	1/1	0.23	-	28,28,28,28	0
57	MG	BA	3195	1/1	0.23	-	47,47,47,47	0
57	MG	DA	3216	1/1	0.43	-	23,23,23,23	0
57	MG	DA	3144	1/1	0.34	-	44,44,44,44	0
57	MG	AA	1700	1/1	0.18	-	44,44,44,44	0
57	MG	B1	101	1/1	0.40	-	63,63,63,63	0
57	MG	DA	3280	1/1	0.14	-	44,44,44,44	0
57	MG	CA	1647	1/1	0.25	-	61,61,61,61	0
57	MG	BA	3034	1/1	0.20	-	19,19,19,19	0
57	MG	BA	3152	1/1	0.27	-	23,23,23,23	0
57	MG	BA	3108	1/1	0.25	-	35,35,35,35	0
57	MG	BA	3316	1/1	0.20	-	28,28,28,28	0
57	MG	DA	3183	1/1	0.20	-	54,54,54,54	0
57	MG	BA	3320	1/1	0.24	-	25,25,25,25	0
57	MG	DA	3201	1/1	0.40	-	32,32,32,32	0
57	MG	BA	3190	1/1	0.17	-	34,34,34,34	0
57	MG	BA	3061	1/1	0.39	-	25,25,25,25	0
57	MG	DA	3141	1/1	0.18	-	25,25,25,25	0
57	MG	DA	3073	1/1	0.49	-	49,49,49,49	0
57	MG	AA	1610	1/1	0.40	-	21,21,21,21	0
57	MG	CA	1675	1/1	0.44	-	33,33,33,33	0
57	MG	BA	3106	1/1	0.33	-	23,23,23,23	0
57	MG	BA	3053	1/1	0.44	-	63,63,63,63	0
57	MG	BA	3029	1/1	0.13	-	40,40,40,40	0
57	MG	BA	3254	1/1	0.22	-	37,37,37,37	0
57	MG	AA	1699	1/1	0.27	-	29,29,29,29	0
57	MG	DA	3186	1/1	0.08	-	29,29,29,29	0
57	MG	BA	3281	1/1	0.28	-	29,29,29,29	0
57	MG	DA	3094	1/1	0.55	-	71,71,71,71	0
57	MG	BA	3198	1/1	0.13	-	34,34,34,34	0
57	MG	CA	1701	1/1	0.23	-	25,25,25,25	0
57	MG	AA	1631	1/1	0.16	-	29,29,29,29	0
57	MG	CA	1635	1/1	0.28	-	22,22,22,22	0
57	MG	BA	3394	1/1	0.11	-	28,28,28,28	0
57	MG	BA	3415	1/1	0.21	-	36,36,36,36	0
57	MG	BA	3425	1/1	0.18	-	55,55,55,55	0
57	MG	BA	3253	1/1	0.46	-	41,41,41,41	0
57	MG	DA	3057	1/1	0.25	-	22,22,22,22	0
57	MG	BA	3398	1/1	0.18	-	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	DA	3140	1/1	0.25	-	36,36,36,36	0
57	MG	BA	3428	1/1	0.18	-	24,24,24,24	0
57	MG	DA	3050	1/1	0.46	-	46,46,46,46	0
57	MG	BA	3159	1/1	0.48	-	29,29,29,29	0
57	MG	BA	3207	1/1	0.20	-	74,74,74,74	0
57	MG	DA	3112	1/1	0.27	-	27,27,27,27	0
57	MG	BA	3308	1/1	0.32	-	22,22,22,22	0
57	MG	DA	3060	1/1	0.24	-	27,27,27,27	0
57	MG	BA	3137	1/1	0.42	-	46,46,46,46	0
57	MG	BA	3203	1/1	0.28	-	29,29,29,29	0
57	MG	AA	1604	1/1	0.31	-	38,38,38,38	0
57	MG	BA	3079	1/1	0.31	-	25,25,25,25	0
57	MG	BA	3113	1/1	0.45	-	32,32,32,32	0
57	MG	DB	210	1/1	0.15	-	41,41,41,41	0
57	MG	BA	3230	1/1	0.28	-	34,34,34,34	0
57	MG	BA	3404	1/1	0.08	-	53,53,53,53	0
57	MG	DA	3013	1/1	0.37	-	20,20,20,20	0
57	MG	BA	3418	1/1	0.23	-	31,31,31,31	0
57	MG	DA	3169	1/1	0.36	-	18,18,18,18	0
57	MG	AA	1647	1/1	0.23	-	45,45,45,45	0
57	MG	BA	3031	1/1	0.18	-	21,21,21,21	0
57	MG	BA	3068	1/1	0.24	-	30,30,30,30	0
57	MG	AA	1602	1/1	0.30	-	77,77,77,77	0
58	ZN	AD	301	1/1	0.58	-	192,192,192,192	0
57	MG	BA	3041	1/1	0.45	-	44,44,44,44	0
57	MG	BA	3262	1/1	0.52	-	32,32,32,32	0
57	MG	DA	3006	1/1	0.35	-	28,28,28,28	0
57	MG	DA	3021	1/1	0.23	-	34,34,34,34	0
57	MG	BA	3144	1/1	0.20	-	24,24,24,24	0
57	MG	DA	3020	1/1	0.31	-	23,23,23,23	0
57	MG	DA	3206	1/1	0.09	-	49,49,49,49	0
57	MG	CX	101	1/1	0.15	-	22,22,22,22	0
57	MG	BA	3153	1/1	0.14	-	42,42,42,42	0
57	MG	DA	3174	1/1	0.52	-	23,23,23,23	0
57	MG	BA	3385	1/1	0.14	-	54,54,54,54	0
57	MG	AA	1620	1/1	0.17	-	27,27,27,27	0
57	MG	BA	3134	1/1	0.16	-	22,22,22,22	0
57	MG	BA	3210	1/1	0.27	-	24,24,24,24	0
57	MG	DA	3214	1/1	0.34	-	29,29,29,29	0
57	MG	BA	3258	1/1	0.23	-	39,39,39,39	0
57	MG	BA	3086	1/1	1.90	-	130,130,130,130	0
57	MG	BA	3179	1/1	0.47	-	23,23,23,23	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	BA	3007	1/1	0.35	-	19,19,19,19	0
57	MG	AA	1626	1/1	0.25	-	35,35,35,35	0
57	MG	DA	3152	1/1	0.29	-	61,61,61,61	0
57	MG	CA	1676	1/1	0.21	-	48,48,48,48	0
57	MG	BA	3233	1/1	0.63	-	53,53,53,53	0
57	MG	BA	3103	1/1	0.28	-	21,21,21,21	0
57	MG	BA	3366	1/1	0.30	-	49,49,49,49	0
57	MG	DA	3296	1/1	0.38	-	40,40,40,40	0
57	MG	DA	3237	1/1	0.26	-	33,33,33,33	0
57	MG	BA	3434	1/1	0.26	-	28,28,28,28	0
57	MG	BA	3299	1/1	0.27	-	22,22,22,22	0
57	MG	CA	1643	1/1	0.12	-	44,44,44,44	0
57	MG	DA	3199	1/1	0.27	-	67,67,67,67	0
57	MG	CA	1601	1/1	0.23	-	39,39,39,39	0
57	MG	BA	3219	1/1	0.08	-	28,28,28,28	0
57	MG	BA	3200	1/1	0.35	-	20,20,20,20	0
57	MG	CA	1644	1/1	0.29	-	30,30,30,30	0
57	MG	BA	3251	1/1	0.23	-	23,23,23,23	0
57	MG	BA	3064	1/1	0.40	-	44,44,44,44	0
57	MG	BA	3371	1/1	0.14	-	48,48,48,48	0
57	MG	DA	3192	1/1	0.24	-	43,43,43,43	0
57	MG	CA	1603	1/1	0.19	-	49,49,49,49	0
57	MG	BA	3341	1/1	0.17	-	28,28,28,28	0
57	MG	CA	1674	1/1	0.30	-	41,41,41,41	0
57	MG	DA	3230	1/1	0.32	-	23,23,23,23	0
57	MG	CA	1654	1/1	0.15	-	17,17,17,17	0
57	MG	BA	3181	1/1	0.53	-	19,19,19,19	0
57	MG	BA	3104	1/1	0.27	-	37,37,37,37	0
57	MG	BA	3217	1/1	0.29	-	34,34,34,34	0
57	MG	CA	1709	1/1	0.36	-	28,28,28,28	0
57	MG	BA	3004	1/1	0.64	-	61,61,61,61	0
57	MG	AA	1653	1/1	0.22	-	28,28,28,28	0
57	MG	BA	3293	1/1	0.31	-	23,23,23,23	0
57	MG	BA	3339	1/1	0.28	-	29,29,29,29	0
57	MG	DA	3095	1/1	0.27	-	62,62,62,62	0
57	MG	DA	3255	1/1	0.29	-	46,46,46,46	0
57	MG	BP	201	1/1	1.51	-	205,205,205,205	0
57	MG	DA	3046	1/1	0.36	-	26,26,26,26	0
57	MG	BA	3244	1/1	0.23	-	47,47,47,47	0
57	MG	AA	1691	1/1	0.11	-	39,39,39,39	0
57	MG	BA	3201	1/1	0.09	-	24,24,24,24	0
57	MG	BA	3216	1/1	0.42	-	20,20,20,20	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	DA	3157	1/1	0.29	-	30,30,30,30	0
57	MG	DA	3247	1/1	0.22	-	23,23,23,23	0
57	MG	BA	3116	1/1	0.12	-	23,23,23,23	0
57	MG	BA	3288	1/1	0.19	-	18,18,18,18	0
57	MG	BA	3090	1/1	0.25	-	17,17,17,17	0
57	MG	BA	3211	1/1	0.21	-	38,38,38,38	0
57	MG	D5	101	1/1	0.17	-	38,38,38,38	0
57	MG	BA	3135	1/1	0.15	-	23,23,23,23	0
57	MG	BA	3037	1/1	0.20	-	9,9,9,9	0
57	MG	DA	3281	1/1	0.08	-	49,49,49,49	0
57	MG	BA	3377	1/1	0.09	-	23,23,23,23	0
57	MG	BA	3354	1/1	0.31	-	25,25,25,25	0
57	MG	BA	3382	1/1	0.27	-	26,26,26,26	0
57	MG	DA	3043	1/1	0.22	-	39,39,39,39	0
57	MG	DA	3130	1/1	0.30	-	34,34,34,34	0
57	MG	BA	3095	1/1	0.22	-	45,45,45,45	0
57	MG	AA	1640	1/1	0.24	-	19,19,19,19	0
57	MG	BA	3433	1/1	0.45	-	52,52,52,52	0
57	MG	BA	3453	1/1	0.25	-	41,41,41,41	0
57	MG	AA	1686	1/1	0.15	-	42,42,42,42	0
57	MG	DA	3200	1/1	0.31	-	66,66,66,66	0
57	MG	BA	3092	1/1	0.19	-	36,36,36,36	0
57	MG	BA	3307	1/1	0.42	-	24,24,24,24	0
57	MG	DA	3146	1/1	0.25	-	60,60,60,60	0
57	MG	BA	3273	1/1	0.22	-	40,40,40,40	0
57	MG	CA	1704	1/1	0.19	-	26,26,26,26	0
57	MG	DA	3229	1/1	0.17	-	19,19,19,19	0
57	MG	BA	3196	1/1	0.12	-	27,27,27,27	0
57	MG	BA	3022	1/1	2.26	-	205,205,205,205	0
57	MG	BA	3055	1/1	0.22	-	24,24,24,24	0
57	MG	BA	3105	1/1	0.15	-	15,15,15,15	0
57	MG	BA	3002	1/1	0.18	-	39,39,39,39	0
57	MG	BA	3265	1/1	0.12	-	67,67,67,67	0
57	MG	BA	3367	1/1	0.36	-	33,33,33,33	0
57	MG	BF	301	1/1	0.25	-	62,62,62,62	0
57	MG	DA	3150	1/1	0.21	-	21,21,21,21	0
57	MG	DA	3107	1/1	0.31	-	64,64,64,64	0
57	MG	CA	1667	1/1	0.14	-	23,23,23,23	0
57	MG	AA	1654	1/1	0.23	-	29,29,29,29	0
57	MG	BA	3141	1/1	0.30	-	45,45,45,45	0
57	MG	CA	1692	1/1	0.19	-	48,48,48,48	0
57	MG	DA	3258	1/1	0.22	-	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	BA	3424	1/1	0.17	-	26,26,26,26	0
57	MG	CA	1605	1/1	0.39	-	62,62,62,62	0
57	MG	BA	3072	1/1	0.43	-	23,23,23,23	0
57	MG	BA	3187	1/1	0.39	-	45,45,45,45	0
57	MG	AA	1656	1/1	0.13	-	28,28,28,28	0
57	MG	CA	1703	1/1	0.43	-	34,34,34,34	0
57	MG	BA	3110	1/1	0.23	-	32,32,32,32	0
57	MG	BA	3241	1/1	0.24	-	50,50,50,50	0
57	MG	B7	101	1/1	0.17	-	12,12,12,12	0
57	MG	DA	3093	1/1	0.25	-	19,19,19,19	0
57	MG	BA	3379	1/1	0.24	-	40,40,40,40	0
57	MG	AA	1697	1/1	0.18	-	27,27,27,27	0
57	MG	BB	208	1/1	0.36	-	36,36,36,36	0
57	MG	CW	103	1/1	0.23	-	27,27,27,27	0
57	MG	DA	3083	1/1	0.09	-	30,30,30,30	0
57	MG	CA	1648	1/1	0.07	-	28,28,28,28	0
57	MG	BA	3372	1/1	0.20	-	59,59,59,59	0
57	MG	DA	3215	1/1	0.34	-	37,37,37,37	0
57	MG	AA	1678	1/1	0.11	-	33,33,33,33	0
57	MG	BA	3081	1/1	0.47	-	16,16,16,16	0
57	MG	BA	3154	1/1	0.30	-	38,38,38,38	0
57	MG	B0	101	1/1	0.34	-	30,30,30,30	0
57	MG	DA	3035	1/1	0.39	-	22,22,22,22	0
57	MG	DA	3124	1/1	0.22	-	26,26,26,26	0
57	MG	DA	3257	1/1	0.09	-	35,35,35,35	0
57	MG	BX	101	1/1	0.12	-	36,36,36,36	0
57	MG	BA	3355	1/1	0.49	-	31,31,31,31	0
57	MG	BA	3114	1/1	0.34	-	24,24,24,24	0
57	MG	DA	3171	1/1	0.47	-	27,27,27,27	0
57	MG	DA	3138	1/1	0.27	-	17,17,17,17	0
57	MG	CA	1702	1/1	0.32	-	29,29,29,29	0
57	MG	BA	3349	1/1	0.22	-	38,38,38,38	0
57	MG	BA	3083	1/1	0.13	-	22,22,22,22	0
57	MG	DA	3011	1/1	0.30	-	20,20,20,20	0
57	MG	BA	3176	1/1	0.19	-	44,44,44,44	0
57	MG	B5	103	1/1	0.19	-	20,20,20,20	0
57	MG	BA	3452	1/1	0.13	-	16,16,16,16	0
57	MG	BR	201	1/1	0.42	-	35,35,35,35	0
57	MG	BA	3289	1/1	0.33	-	38,38,38,38	0
57	MG	BA	3175	1/1	0.17	-	71,71,71,71	0
57	MG	BA	3414	1/1	0.36	-	36,36,36,36	0
57	MG	AA	1705	1/1	0.25	-	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	DA	3134	1/1	0.14	-	24,24,24,24	0
57	MG	DA	3193	1/1	0.29	-	27,27,27,27	0
57	MG	DA	3165	1/1	0.23	-	43,43,43,43	0
57	MG	BA	3180	1/1	0.35	-	21,21,21,21	0
57	MG	BA	3020	1/1	0.34	-	19,19,19,19	0
57	MG	DB	206	1/1	0.12	-	19,19,19,19	0
57	MG	DA	3106	1/1	0.47	-	25,25,25,25	0
58	ZN	D9	101	1/1	0.17	-	30,30,30,30	0
57	MG	DA	3189	1/1	0.19	-	34,34,34,34	0
57	MG	BA	3205	1/1	0.12	-	45,45,45,45	0
57	MG	BA	3413	1/1	0.32	-	24,24,24,24	0
57	MG	DA	3038	1/1	0.43	-	49,49,49,49	0
57	MG	AA	1632	1/1	0.42	-	57,57,57,57	0
57	MG	CA	1613	1/1	0.43	-	42,42,42,42	0
57	MG	BA	3127	1/1	0.25	-	30,30,30,30	0
57	MG	DA	3143	1/1	0.21	-	23,23,23,23	0
57	MG	BA	3309	1/1	0.07	-	20,20,20,20	0
57	MG	CA	1683	1/1	0.15	-	36,36,36,36	0
57	MG	BA	3275	1/1	0.27	-	27,27,27,27	0
57	MG	DA	3148	1/1	0.23	-	24,24,24,24	0
57	MG	DA	3167	1/1	0.38	-	38,38,38,38	0
57	MG	BP	202	1/1	0.16	-	22,22,22,22	0
57	MG	AA	1641	1/1	0.20	-	30,30,30,30	0
57	MG	BA	3235	1/1	0.18	-	51,51,51,51	0
57	MG	DA	3066	1/1	0.32	-	22,22,22,22	0
57	MG	AA	1601	1/1	0.22	-	47,47,47,47	0
57	MG	BA	3027	1/1	0.13	-	26,26,26,26	0
57	MG	BA	3199	1/1	0.30	-	23,23,23,23	0
57	MG	BA	3417	1/1	0.31	-	62,62,62,62	0
57	MG	BA	3395	1/1	0.41	-	39,39,39,39	0
57	MG	BA	3046	1/1	0.29	-	32,32,32,32	0
57	MG	DA	3166	1/1	0.12	-	22,22,22,22	0
57	MG	DA	3190	1/1	0.22	-	44,44,44,44	0
57	MG	AW	101	1/1	0.21	-	6,6,6,6	0
57	MG	DA	3101	1/1	0.27	-	35,35,35,35	0
57	MG	DA	3023	1/1	0.21	-	42,42,42,42	0
57	MG	BA	3162	1/1	0.09	-	21,21,21,21	0
57	MG	BA	3263	1/1	0.07	-	36,36,36,36	0
57	MG	CE	201	1/1	0.25	-	42,42,42,42	0
57	MG	DA	3179	1/1	0.36	-	30,30,30,30	0
57	MG	DA	3158	1/1	0.36	-	44,44,44,44	0
57	MG	CA	1646	1/1	0.20	-	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	BA	3442	1/1	3.46	-	205,205,205,205	0
57	MG	BA	3044	1/1	0.28	-	22,22,22,22	0
57	MG	CA	1619	1/1	0.12	-	34,34,34,34	0
57	MG	DA	3178	1/1	0.07	-	30,30,30,30	0
57	MG	BA	3057	1/1	0.42	-	39,39,39,39	0
57	MG	BA	3030	1/1	0.39	-	37,37,37,37	0
57	MG	BA	3128	1/1	0.39	-	33,33,33,33	0
57	MG	BA	3264	1/1	0.26	-	34,34,34,34	0
57	MG	BA	3278	1/1	0.16	-	33,33,33,33	0
57	MG	AA	1621	1/1	0.24	-	48,48,48,48	0
57	MG	BA	3223	1/1	0.27	-	49,49,49,49	0
57	MG	AA	1692	1/1	0.28	-	51,51,51,51	0
57	MG	BA	3406	1/1	0.16	-	50,50,50,50	0
57	MG	AA	1660	1/1	0.20	-	31,31,31,31	0
57	MG	BQ	202	1/1	0.39	-	30,30,30,30	0
57	MG	BD	301	1/1	0.24	-	34,34,34,34	0
57	MG	BA	3298	1/1	0.14	-	20,20,20,20	0
57	MG	DA	3181	1/1	0.23	-	36,36,36,36	0
57	MG	DA	3236	1/1	0.09	-	30,30,30,30	0
57	MG	CA	1614	1/1	0.10	-	30,30,30,30	0
57	MG	BA	3070	1/1	0.13	-	23,23,23,23	0
57	MG	BA	3374	1/1	0.19	-	51,51,51,51	0
57	MG	AA	1676	1/1	0.27	-	30,30,30,30	0
57	MG	AA	1638	1/1	0.11	-	55,55,55,55	0
57	MG	BA	3164	1/1	0.16	-	35,35,35,35	0
57	MG	DA	3164	1/1	0.40	-	83,83,83,83	0
57	MG	BA	3155	1/1	0.57	-	37,37,37,37	0
57	MG	DA	3025	1/1	0.20	-	38,38,38,38	0
57	MG	DA	3294	1/1	0.36	-	19,19,19,19	0
57	MG	CW	105	1/1	0.27	-	61,61,61,61	0
57	MG	BA	3089	1/1	0.36	-	24,24,24,24	0
57	MG	BA	3257	1/1	0.17	-	41,41,41,41	0
57	MG	BA	3432	1/1	0.58	-	70,70,70,70	0
57	MG	DA	3125	1/1	0.27	-	26,26,26,26	0
57	MG	BA	3093	1/1	0.14	-	23,23,23,23	0
57	MG	AA	1711	1/1	0.31	-	58,58,58,58	0
57	MG	BA	3347	1/1	0.10	-	28,28,28,28	0
57	MG	BA	3312	1/1	0.33	-	22,22,22,22	0
57	MG	AA	1615	1/1	0.17	-	46,46,46,46	0
57	MG	BA	3026	1/1	0.25	-	31,31,31,31	0
57	MG	BA	3411	1/1	0.40	-	53,53,53,53	0
57	MG	BA	3078	1/1	0.33	-	29,29,29,29	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	AA	1659	1/1	0.19	-	58,58,58,58	0
57	MG	DA	3032	1/1	0.18	-	20,20,20,20	0
57	MG	DA	3267	1/1	0.50	-	73,73,73,73	0
57	MG	BA	3005	1/1	0.22	-	23,23,23,23	0
57	MG	AA	1704	1/1	0.14	-	64,64,64,64	0
57	MG	BA	3455	1/1	0.23	-	46,46,46,46	0
57	MG	CA	1657	1/1	0.12	-	37,37,37,37	0
57	MG	BA	3122	1/1	0.24	-	41,41,41,41	0
57	MG	AA	1698	1/1	0.33	-	37,37,37,37	0
57	MG	BA	3062	1/1	0.09	-	19,19,19,19	0
57	MG	CA	1673	1/1	0.16	-	26,26,26,26	0
57	MG	DA	3207	1/1	0.15	-	26,26,26,26	0
57	MG	DA	3017	1/1	0.34	-	21,21,21,21	0
57	MG	BA	3146	1/1	0.28	-	22,22,22,22	0
57	MG	DA	3212	1/1	0.18	-	18,18,18,18	0
57	MG	CA	1630	1/1	0.10	-	29,29,29,29	0
57	MG	BA	3403	1/1	0.23	-	48,48,48,48	0
57	MG	DA	3286	1/1	0.28	-	52,52,52,52	0
57	MG	AA	1635	1/1	0.41	-	31,31,31,31	0
57	MG	AA	1607	1/1	0.25	-	51,51,51,51	0
57	MG	CA	1662	1/1	0.35	-	26,26,26,26	0
57	MG	BA	3390	1/1	0.17	-	48,48,48,48	0
57	MG	BA	3193	1/1	0.12	-	47,47,47,47	0
57	MG	AA	1694	1/1	0.20	-	23,23,23,23	0
57	MG	BA	3447	1/1	0.44	-	27,27,27,27	0
57	MG	BA	3212	1/1	0.40	-	30,30,30,30	0
57	MG	DA	3196	1/1	0.24	-	26,26,26,26	0
57	MG	DA	3170	1/1	0.30	-	22,22,22,22	0
57	MG	BA	3427	1/1	0.24	-	40,40,40,40	0
57	MG	BA	3329	1/1	0.07	-	26,26,26,26	0
57	MG	BA	3348	1/1	0.39	-	55,55,55,55	0
57	MG	BA	3185	1/1	0.25	-	17,17,17,17	0
57	MG	CA	1638	1/1	0.40	-	35,35,35,35	0
57	MG	DA	3079	1/1	0.22	-	45,45,45,45	0
57	MG	BA	3242	1/1	0.23	-	24,24,24,24	0
57	MG	CA	1689	1/1	0.20	-	39,39,39,39	0
57	MG	BA	3059	1/1	0.30	-	28,28,28,28	0
57	MG	BA	3109	1/1	0.27	-	21,21,21,21	0
57	MG	BA	3021	1/1	1.60	-	180,180,180,180	0
57	MG	CA	1695	1/1	0.24	-	38,38,38,38	0
57	MG	DA	3077	1/1	0.33	-	22,22,22,22	0
57	MG	BA	3011	1/1	0.24	-	6,6,6,6	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	BA	3117	1/1	0.60	-	42,42,42,42	0
57	MG	BA	3400	1/1	0.07	-	32,32,32,32	0
57	MG	BA	3368	1/1	0.41	-	49,49,49,49	0
57	MG	BA	3392	1/1	0.17	-	52,52,52,52	0
57	MG	BA	3335	1/1	0.08	-	47,47,47,47	0
57	MG	DB	209	1/1	0.18	-	41,41,41,41	0
57	MG	DA	3119	1/1	0.25	-	42,42,42,42	0
57	MG	DA	3117	1/1	0.21	-	42,42,42,42	0
57	MG	DA	3246	1/1	0.37	-	43,43,43,43	0
57	MG	BA	3437	1/1	0.12	-	27,27,27,27	0
57	MG	BA	3282	1/1	0.32	-	22,22,22,22	0
57	MG	DA	3291	1/1	0.16	-	31,31,31,31	0
57	MG	BA	3167	1/1	0.28	-	65,65,65,65	0
57	MG	DF	301	1/1	0.34	-	49,49,49,49	0
57	MG	DA	3226	1/1	0.27	-	32,32,32,32	0
57	MG	DA	3203	1/1	0.18	-	52,52,52,52	0
57	MG	CA	1687	1/1	0.15	-	37,37,37,37	0
57	MG	BA	3361	1/1	0.22	-	31,31,31,31	0
57	MG	DA	3172	1/1	0.12	-	30,30,30,30	0
57	MG	DA	3051	1/1	0.25	-	6,6,6,6	0
57	MG	DA	3205	1/1	0.28	-	55,55,55,55	0
57	MG	DA	3123	1/1	0.22	-	25,25,25,25	0
57	MG	CA	1688	1/1	0.09	-	35,35,35,35	0
57	MG	CA	1620	1/1	0.47	-	29,29,29,29	0
57	MG	DA	3014	1/1	0.30	-	44,44,44,44	0
57	MG	CA	1666	1/1	0.33	-	18,18,18,18	0
57	MG	DA	3292	1/1	0.10	-	17,17,17,17	0
57	MG	BA	3140	1/1	0.07	-	33,33,33,33	0
57	MG	BA	3107	1/1	0.10	-	40,40,40,40	0
57	MG	DA	3151	1/1	0.28	-	43,43,43,43	0
57	MG	DA	3008	1/1	0.24	-	6,6,6,6	0
57	MG	DA	3010	1/1	0.40	-	66,66,66,66	0
57	MG	BA	3430	1/1	0.38	-	58,58,58,58	0
58	ZN	B9	101	1/1	0.13	-	75,75,75,75	0
57	MG	DA	3221	1/1	0.29	-	38,38,38,38	0
57	MG	BA	3391	1/1	0.22	-	44,44,44,44	0
57	MG	BA	3410	1/1	0.12	-	30,30,30,30	0
57	MG	BA	3045	1/1	0.18	-	6,6,6,6	0
57	MG	DA	3240	1/1	0.14	-	35,35,35,35	0
57	MG	BA	3357	1/1	0.20	-	38,38,38,38	0
57	MG	DA	3279	1/1	0.27	-	43,43,43,43	0
57	MG	DA	3160	1/1	0.27	-	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	BU	201	1/1	0.38	-	21,21,21,21	0
57	MG	BA	3119	1/1	0.41	-	23,23,23,23	0
57	MG	DA	3204	1/1	0.12	-	41,41,41,41	0
57	MG	BA	3441	1/1	0.39	-	37,37,37,37	0
57	MG	BA	3350	1/1	0.24	-	37,37,37,37	0
57	MG	DD	301	1/1	0.15	-	18,18,18,18	0
57	MG	DA	3133	1/1	0.15	-	31,31,31,31	0
57	MG	AA	1702	1/1	0.11	-	26,26,26,26	0
57	MG	BA	3098	1/1	0.26	-	25,25,25,25	0
57	MG	BA	3112	1/1	0.21	-	23,23,23,23	0
57	MG	BA	3297	1/1	0.21	-	21,21,21,21	0
57	MG	AA	1628	1/1	0.45	-	43,43,43,43	0
57	MG	BA	3422	1/1	0.43	-	20,20,20,20	0
57	MG	BA	3188	1/1	0.85	-	87,87,87,87	0
57	MG	CA	1705	1/1	0.20	-	48,48,48,48	0
57	MG	BA	3369	1/1	0.13	-	63,63,63,63	0
57	MG	DA	3002	1/1	0.59	-	37,37,37,37	0
57	MG	BA	3330	1/1	0.17	-	21,21,21,21	0
57	MG	BA	3124	1/1	0.21	-	41,41,41,41	0
57	MG	DA	3111	1/1	0.55	-	76,76,76,76	0
57	MG	BA	3412	1/1	0.21	-	35,35,35,35	0
57	MG	AA	1623	1/1	0.30	-	18,18,18,18	0
57	MG	BA	3401	1/1	0.11	-	46,46,46,46	0
57	MG	DA	3097	1/1	0.26	-	21,21,21,21	0
57	MG	DA	3078	1/1	0.21	-	44,44,44,44	0
57	MG	DA	3053	1/1	0.34	-	21,21,21,21	0
57	MG	BA	3008	1/1	0.41	-	16,16,16,16	0
57	MG	DA	3039	1/1	0.27	-	18,18,18,18	0
57	MG	DA	3232	1/1	0.31	-	40,40,40,40	0
57	MG	BA	3438	1/1	0.33	-	67,67,67,67	0
57	MG	DA	3018	1/1	0.36	-	21,21,21,21	0
57	MG	DA	3030	1/1	0.18	-	46,46,46,46	0
57	MG	DA	3187	1/1	0.28	-	48,48,48,48	0
57	MG	BA	3052	1/1	0.43	-	30,30,30,30	0
57	MG	CA	1700	1/1	0.35	-	56,56,56,56	0
57	MG	BA	3142	1/1	0.27	-	25,25,25,25	0
57	MG	CA	1661	1/1	0.33	-	26,26,26,26	0
57	MG	BA	3194	1/1	0.07	-	72,72,72,72	0
57	MG	AA	1663	1/1	0.10	-	27,27,27,27	0
57	MG	DA	3145	1/1	0.74	-	57,57,57,57	0
57	MG	CA	1707	1/1	0.60	-	62,62,62,62	0
57	MG	DA	3265	1/1	0.31	-	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	BB	205	1/1	0.24	-	19,19,19,19	0
57	MG	BA	3149	1/1	0.26	-	27,27,27,27	0
57	MG	BA	3218	1/1	0.39	-	23,23,23,23	0
57	MG	DA	3080	1/1	0.30	-	24,24,24,24	0
57	MG	DA	3061	1/1	0.20	-	22,22,22,22	0
57	MG	BA	3431	1/1	0.32	-	53,53,53,53	0
57	MG	CA	1602	1/1	0.17	-	35,35,35,35	0
57	MG	BA	3409	1/1	0.12	-	24,24,24,24	0
57	MG	BA	3006	1/1	0.26	-	27,27,27,27	0
57	MG	BA	3014	1/1	0.36	-	24,24,24,24	0
57	MG	BB	201	1/1	0.35	-	59,59,59,59	0
57	MG	BA	3416	1/1	0.16	-	42,42,42,42	0
57	MG	DA	3298	1/1	0.15	-	33,33,33,33	0
57	MG	CA	1677	1/1	0.33	-	27,27,27,27	0
57	MG	BA	3035	1/1	0.34	-	25,25,25,25	0
57	MG	DA	3085	1/1	0.36	-	49,49,49,49	0
57	MG	AA	1708	1/1	0.14	-	46,46,46,46	0
57	MG	DA	3142	1/1	0.18	-	51,51,51,51	0
57	MG	BA	3204	1/1	0.48	-	52,52,52,52	0
57	MG	BB	206	1/1	0.29	-	31,31,31,31	0
57	MG	AA	1667	1/1	0.23	-	62,62,62,62	0
57	MG	DA	3211	1/1	0.41	-	55,55,55,55	0
57	MG	BA	3352	1/1	0.27	-	22,22,22,22	0
57	MG	DA	3126	1/1	0.21	-	6,6,6,6	0
57	MG	CW	102	1/1	0.38	-	93,93,93,93	0
57	MG	DA	3089	1/1	0.10	-	19,19,19,19	0
57	MG	DB	202	1/1	0.15	-	61,61,61,61	0
57	MG	AA	1617	1/1	0.32	-	43,43,43,43	0
57	MG	BA	3237	1/1	0.11	-	21,21,21,21	0
57	MG	DA	3213	1/1	0.26	-	28,28,28,28	0
57	MG	BA	3184	1/1	0.26	-	53,53,53,53	0
57	MG	DA	3071	1/1	0.25	-	20,20,20,20	0
57	MG	CA	1680	1/1	0.10	-	31,31,31,31	0
57	MG	DA	3004	1/1	0.14	-	21,21,21,21	0
57	MG	DA	3254	1/1	0.28	-	60,60,60,60	0
57	MG	BA	3075	1/1	0.23	-	24,24,24,24	0
57	MG	DA	3275	1/1	0.28	-	48,48,48,48	0
57	MG	BA	3292	1/1	0.34	-	24,24,24,24	0
57	MG	DA	3270	1/1	0.25	-	47,47,47,47	0
57	MG	AA	1637	1/1	0.35	-	45,45,45,45	0
57	MG	BA	3388	1/1	0.37	-	37,37,37,37	0
57	MG	CA	1631	1/1	0.29	-	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	BA	3376	1/1	0.16	-	33,33,33,33	0
57	MG	AA	1689	1/1	0.17	-	55,55,55,55	0
57	MG	BA	3166	1/1	0.54	-	38,38,38,38	0
58	ZN	CD	301	1/1	0.35	-	81,81,81,81	0
57	MG	BA	3344	1/1	0.18	-	24,24,24,24	0
57	MG	CA	1671	1/1	0.10	-	54,54,54,54	0
57	MG	B5	101	1/1	0.47	-	78,78,78,78	0
57	MG	BA	3189	1/1	0.08	-	14,14,14,14	0
57	MG	BA	3420	1/1	0.23	-	45,45,45,45	0
57	MG	AA	1717	1/1	0.33	-	25,25,25,25	0
57	MG	AA	1650	1/1	0.21	-	28,28,28,28	0
57	MG	AA	1616	1/1	0.24	-	30,30,30,30	0
57	MG	AA	1693	1/1	0.10	-	45,45,45,45	0
57	MG	DA	3040	1/1	0.34	-	26,26,26,26	0
57	MG	BA	3069	1/1	0.28	-	30,30,30,30	0
57	MG	AA	1662	1/1	0.12	-	22,22,22,22	0
57	MG	CA	1625	1/1	0.22	-	31,31,31,31	0
57	MG	CA	1611	1/1	0.08	-	25,25,25,25	0
57	MG	CA	1663	1/1	0.13	-	33,33,33,33	0
57	MG	DB	205	1/1	0.31	-	42,42,42,42	0
57	MG	BA	3120	1/1	0.26	-	35,35,35,35	0
57	MG	DA	3118	1/1	0.19	-	33,33,33,33	0
57	MG	CA	1642	1/1	0.13	-	37,37,37,37	0
57	MG	DA	3302	1/1	0.29	-	36,36,36,36	0
57	MG	DA	3231	1/1	0.39	-	45,45,45,45	0
57	MG	AA	1680	1/1	0.29	-	49,49,49,49	0
57	MG	DA	3269	1/1	0.27	-	47,47,47,47	0
57	MG	DA	3239	1/1	0.25	-	32,32,32,32	0
57	MG	DA	3301	1/1	0.07	-	33,33,33,33	0
57	MG	BB	207	1/1	0.17	-	44,44,44,44	0
57	MG	BA	3087	1/1	0.34	-	23,23,23,23	0
57	MG	DA	3271	1/1	0.15	-	42,42,42,42	0
57	MG	BA	3284	1/1	0.17	-	15,15,15,15	0
57	MG	DA	3289	1/1	0.13	-	27,27,27,27	0
57	MG	CA	1698	1/1	0.19	-	33,33,33,33	0
57	MG	BA	3147	1/1	0.33	-	24,24,24,24	0
57	MG	BA	3448	1/1	0.41	-	54,54,54,54	0
57	MG	CA	1655	1/1	0.17	-	34,34,34,34	0
57	MG	BA	3032	1/1	0.24	-	6,6,6,6	0
57	MG	BA	3337	1/1	0.24	-	37,37,37,37	0
57	MG	BA	3229	1/1	0.25	-	6,6,6,6	0
57	MG	CA	1622	1/1	0.26	-	24,24,24,24	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	DA	3120	1/1	0.17	-	25,25,25,25	0
57	MG	BA	3024	1/1	0.36	-	20,20,20,20	0
57	MG	DR	201	1/1	0.13	-	22,22,22,22	0
57	MG	AA	1672	1/1	0.21	-	33,33,33,33	0
57	MG	AA	1710	1/1	0.14	-	30,30,30,30	0
57	MG	BA	3285	1/1	0.11	-	6,6,6,6	0
57	MG	AA	1618	1/1	0.16	-	64,64,64,64	0
57	MG	DA	3076	1/1	0.12	-	19,19,19,19	0
57	MG	DA	3091	1/1	0.12	-	26,26,26,26	0
57	MG	DA	3114	1/1	0.33	-	30,30,30,30	0
57	MG	BA	3206	1/1	0.18	-	22,22,22,22	0
57	MG	AA	1639	1/1	0.15	-	27,27,27,27	0
57	MG	BA	3208	1/1	0.05	-	56,56,56,56	0
57	MG	BA	3115	1/1	0.25	-	19,19,19,19	0
57	MG	DA	3029	1/1	0.13	-	22,22,22,22	0
57	MG	DA	3175	1/1	0.47	-	56,56,56,56	0
57	MG	BA	3300	1/1	0.51	-	67,67,67,67	0
57	MG	DA	3259	1/1	0.19	-	47,47,47,47	0
57	MG	AA	1714	1/1	0.22	-	42,42,42,42	0
57	MG	BA	3017	1/1	0.25	-	20,20,20,20	0
57	MG	BA	3042	1/1	0.33	-	10,10,10,10	0
57	MG	DA	3059	1/1	0.24	-	26,26,26,26	0
57	MG	DA	3224	1/1	0.33	-	14,14,14,14	0
57	MG	BA	3306	1/1	0.31	-	47,47,47,47	0
57	MG	DA	3274	1/1	0.19	-	36,36,36,36	0
57	MG	BA	3362	1/1	0.25	-	30,30,30,30	0
57	MG	BA	3080	1/1	0.33	-	32,32,32,32	0
57	MG	DA	3188	1/1	0.10	-	27,27,27,27	0
57	MG	B5	102	1/1	0.36	-	40,40,40,40	0
57	MG	BA	3378	1/1	0.20	-	55,55,55,55	0
57	MG	DA	3261	1/1	0.20	-	58,58,58,58	0
57	MG	BA	3243	1/1	0.24	-	51,51,51,51	0
57	MG	BA	3451	1/1	0.12	-	23,23,23,23	0
57	MG	BA	3260	1/1	0.22	-	24,24,24,24	0
57	MG	BA	3236	1/1	0.33	-	62,62,62,62	0
57	MG	DA	3202	1/1	0.52	-	38,38,38,38	0
57	MG	CA	1665	1/1	0.24	-	30,30,30,30	0
57	MG	DA	3067	1/1	0.21	-	56,56,56,56	0
57	MG	BA	3315	1/1	0.13	-	17,17,17,17	0
57	MG	DA	3122	1/1	0.14	-	48,48,48,48	0
57	MG	BA	3091	1/1	0.43	-	21,21,21,21	0
57	MG	BA	3259	1/1	0.17	-	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	BA	3238	1/1	0.40	-	20,20,20,20	0
57	MG	BA	3197	1/1	0.36	-	20,20,20,20	0
57	MG	DA	3009	1/1	0.20	-	18,18,18,18	0
57	MG	DA	3129	1/1	0.17	-	47,47,47,47	0
57	MG	BA	3126	1/1	0.30	-	66,66,66,66	0
57	MG	BA	3018	1/1	0.48	-	21,21,21,21	0
57	MG	BA	3177	1/1	0.31	-	21,21,21,21	0
57	MG	CA	1706	1/1	0.29	-	59,59,59,59	0
57	MG	BE	301	1/1	0.29	-	43,43,43,43	0
57	MG	BA	3101	1/1	0.09	-	21,21,21,21	0
57	MG	BA	3158	1/1	0.36	-	37,37,37,37	0
57	MG	DA	3277	1/1	0.19	-	57,57,57,57	0
57	MG	BA	3186	1/1	0.53	-	24,24,24,24	0
57	MG	DA	3176	1/1	0.30	-	24,24,24,24	0
57	MG	BA	3323	1/1	1.38	-	205,205,205,205	0
57	MG	DA	3278	1/1	0.26	-	59,59,59,59	0
57	MG	CA	1629	1/1	0.23	-	25,25,25,25	0
57	MG	BA	3121	1/1	0.19	-	20,20,20,20	0
57	MG	DA	3299	1/1	0.17	-	42,42,42,42	0
57	MG	CA	1610	1/1	0.28	-	30,30,30,30	0
57	MG	DA	3191	1/1	0.22	-	18,18,18,18	0
57	MG	BA	3213	1/1	0.34	-	43,43,43,43	0
57	MG	DA	3065	1/1	0.37	-	29,29,29,29	0
57	MG	BA	3038	1/1	1.42	-	163,163,163,163	0
57	MG	CA	1686	1/1	0.22	-	44,44,44,44	0
57	MG	CA	1649	1/1	0.29	-	65,65,65,65	0
57	MG	DA	3218	1/1	0.20	-	35,35,35,35	0
57	MG	CA	1626	1/1	0.47	-	67,67,67,67	0
57	MG	DA	3052	1/1	0.25	-	21,21,21,21	0
57	MG	BA	3286	1/1	0.29	-	24,24,24,24	0
57	MG	BA	3221	1/1	0.16	-	22,22,22,22	0
57	MG	DA	3041	1/1	0.12	-	19,19,19,19	0
57	MG	BA	3336	1/1	0.15	-	29,29,29,29	0
57	MG	BA	3047	1/1	0.42	-	62,62,62,62	0
57	MG	AA	1649	1/1	0.32	-	50,50,50,50	0
57	MG	DA	3290	1/1	0.56	-	50,50,50,50	0
57	MG	BA	3246	1/1	0.12	-	11,11,11,11	0
57	MG	DA	3054	1/1	0.51	-	27,27,27,27	0
57	MG	AA	1622	1/1	0.25	-	36,36,36,36	0
57	MG	DA	3056	1/1	0.24	-	30,30,30,30	0
57	MG	DA	3132	1/1	0.42	-	32,32,32,32	0
57	MG	BA	3150	1/1	0.39	-	29,29,29,29	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	BA	3272	1/1	0.44	-	23,23,23,23	0
57	MG	DA	3064	1/1	0.24	-	19,19,19,19	0
57	MG	AA	1609	1/1	0.22	-	48,48,48,48	0
57	MG	BA	3261	1/1	0.42	-	28,28,28,28	0
58	ZN	B5	105	1/1	0.15	-	90,90,90,90	0
57	MG	BA	3396	1/1	0.12	-	26,26,26,26	0
57	MG	BA	3321	1/1	0.34	-	22,22,22,22	0
57	MG	BA	3423	1/1	0.10	-	25,25,25,25	0
57	MG	BB	209	1/1	0.12	-	37,37,37,37	0
57	MG	DA	3300	1/1	0.15	-	38,38,38,38	0
57	MG	BA	3304	1/1	0.12	-	49,49,49,49	0
57	MG	BB	204	1/1	0.43	-	54,54,54,54	0
57	MG	DA	3045	1/1	0.42	-	59,59,59,59	0
57	MG	AA	1706	1/1	0.14	-	47,47,47,47	0
57	MG	BA	3133	1/1	0.36	-	60,60,60,60	0
57	MG	BA	3139	1/1	0.89	-	72,72,72,72	0
57	MG	DA	3027	1/1	0.14	-	33,33,33,33	0
57	MG	DA	3012	1/1	0.48	-	28,28,28,28	0
57	MG	DA	3096	1/1	0.20	-	34,34,34,34	0
57	MG	DA	3042	1/1	0.33	-	28,28,28,28	0
57	MG	DA	3005	1/1	0.46	-	45,45,45,45	0
57	MG	BA	3458	1/1	0.48	-	47,47,47,47	0
57	MG	DA	3185	1/1	0.28	-	37,37,37,37	0
57	MG	BA	3346	1/1	0.45	-	50,50,50,50	0
57	MG	DA	3276	1/1	0.15	-	51,51,51,51	0
57	MG	B0	102	1/1	0.19	-	33,33,33,33	0
57	MG	DA	3249	1/1	0.16	-	33,33,33,33	0
57	MG	BA	3338	1/1	0.10	-	18,18,18,18	0
57	MG	BA	3123	1/1	0.25	-	43,43,43,43	0
57	MG	CA	1628	1/1	0.19	-	26,26,26,26	0
57	MG	DA	3127	1/1	0.35	-	34,34,34,34	0
57	MG	D5	102	1/1	0.43	-	44,44,44,44	0
57	MG	BA	3269	1/1	0.24	-	27,27,27,27	0
57	MG	CA	1690	1/1	0.30	-	44,44,44,44	0
57	MG	BA	3443	1/1	0.22	-	24,24,24,24	0
57	MG	DA	3272	1/1	0.21	-	40,40,40,40	0
57	MG	DA	3092	1/1	0.30	-	25,25,25,25	0
57	MG	BA	3222	1/1	0.29	-	31,31,31,31	0
57	MG	DA	3285	1/1	0.18	-	38,38,38,38	0
57	MG	CA	1632	1/1	0.35	-	18,18,18,18	0
57	MG	BA	3248	1/1	0.28	-	34,34,34,34	0
57	MG	CA	1693	1/1	0.24	-	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	DA	3024	1/1	0.10	-	33,33,33,33	0
57	MG	BA	3161	1/1	0.23	-	25,25,25,25	0
57	MG	AA	1715	1/1	0.10	-	62,62,62,62	0
57	MG	DA	3194	1/1	0.30	-	61,61,61,61	0
57	MG	AA	1716	1/1	0.15	-	31,31,31,31	0
57	MG	DA	3047	1/1	0.34	-	26,26,26,26	0
57	MG	DA	3266	1/1	0.27	-	46,46,46,46	0
57	MG	BA	3033	1/1	0.23	-	34,34,34,34	0
57	MG	BA	3010	1/1	0.24	-	23,23,23,23	0
57	MG	BA	3291	1/1	0.28	-	24,24,24,24	0
57	MG	DA	3139	1/1	0.23	-	58,58,58,58	0
57	MG	BA	3268	1/1	0.62	-	46,46,46,46	0
57	MG	DA	3168	1/1	0.16	-	35,35,35,35	0
57	MG	CA	1652	1/1	0.32	-	59,59,59,59	0
57	MG	DA	3251	1/1	0.40	-	53,53,53,53	0
57	MG	CA	1664	1/1	0.36	-	42,42,42,42	0
57	MG	CA	1616	1/1	0.16	-	20,20,20,20	0
57	MG	DA	3303	1/1	0.27	-	54,54,54,54	0
57	MG	BA	3426	1/1	0.12	-	26,26,26,26	0
57	MG	BA	3224	1/1	0.33	-	31,31,31,31	0
57	MG	AA	1644	1/1	0.21	-	40,40,40,40	0
57	MG	BA	3077	1/1	0.81	-	63,63,63,63	0
57	MG	AA	1611	1/1	0.78	-	58,58,58,58	0
57	MG	CA	1679	1/1	0.08	-	29,29,29,29	0
57	MG	BA	3136	1/1	0.80	-	76,76,76,76	0
57	MG	DA	3161	1/1	0.35	-	50,50,50,50	0
57	MG	BH	201	1/1	0.15	-	21,21,21,21	0
57	MG	BA	3240	1/1	0.20	-	23,23,23,23	0
57	MG	BA	3445	1/1	0.12	-	36,36,36,36	0
57	MG	AA	1646	1/1	0.16	-	49,49,49,49	0
57	MG	DA	3037	1/1	0.43	-	45,45,45,45	0
57	MG	AA	1688	1/1	0.22	-	56,56,56,56	0
57	MG	BA	3232	1/1	0.44	-	38,38,38,38	0
57	MG	CA	1623	1/1	0.33	-	59,59,59,59	0
57	MG	DA	3055	1/1	0.24	-	24,24,24,24	0
57	MG	AA	1614	1/1	0.37	-	29,29,29,29	0
57	MG	DA	3250	1/1	0.35	-	26,26,26,26	0
57	MG	DA	3048	1/1	0.24	-	6,6,6,6	0
57	MG	DA	3074	1/1	0.23	-	21,21,21,21	0
57	MG	DB	204	1/1	0.17	-	43,43,43,43	0
57	MG	BA	3025	1/1	0.34	-	31,31,31,31	0
57	MG	BA	3314	1/1	0.07	-	22,22,22,22	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	AA	1613	1/1	0.30	-	75,75,75,75	0
57	MG	DA	3100	1/1	0.28	-	21,21,21,21	0
57	MG	DA	3217	1/1	0.52	-	54,54,54,54	0
57	MG	BA	3360	1/1	0.17	-	27,27,27,27	0
57	MG	BA	3429	1/1	0.14	-	33,33,33,33	0
57	MG	BA	3145	1/1	0.36	-	29,29,29,29	0
57	MG	DA	3154	1/1	0.11	-	61,61,61,61	0
57	MG	DA	3245	1/1	0.26	-	52,52,52,52	0
57	MG	AA	1681	1/1	0.36	-	63,63,63,63	0
57	MG	BA	3381	1/1	0.48	-	66,66,66,66	0
57	MG	BA	3191	1/1	0.17	-	40,40,40,40	0
57	MG	DA	3022	1/1	0.21	-	21,21,21,21	0
57	MG	AA	1606	1/1	0.22	-	42,42,42,42	0
57	MG	BA	3157	1/1	0.13	-	38,38,38,38	0
57	MG	BA	3459	1/1	0.19	-	35,35,35,35	0
57	MG	AA	1627	1/1	0.16	-	21,21,21,21	0
57	MG	DA	3049	1/1	0.23	-	15,15,15,15	0
57	MG	CA	1699	1/1	0.19	-	32,32,32,32	0
57	MG	AW	102	1/1	0.10	-	26,26,26,26	0
57	MG	BA	3277	1/1	0.24	-	29,29,29,29	0
57	MG	BA	3449	1/1	0.21	-	53,53,53,53	0
57	MG	BA	3279	1/1	0.06	-	26,26,26,26	0
57	MG	BA	3054	1/1	0.43	-	33,33,33,33	0
57	MG	CA	1691	1/1	0.53	-	67,67,67,67	0
57	MG	DA	3063	1/1	0.13	-	29,29,29,29	0
57	MG	DA	3088	1/1	0.23	-	20,20,20,20	0
57	MG	CA	1624	1/1	0.51	-	39,39,39,39	0
57	MG	BQ	203	1/1	0.22	-	27,27,27,27	0
57	MG	CA	1606	1/1	0.32	-	50,50,50,50	0
57	MG	CA	1634	1/1	0.11	-	37,37,37,37	0
57	MG	CA	1672	1/1	0.22	-	29,29,29,29	0
57	MG	AA	1658	1/1	0.14	-	23,23,23,23	0
57	MG	BA	3036	1/1	0.20	-	30,30,30,30	0
57	MG	BA	3380	1/1	0.23	-	37,37,37,37	0
57	MG	AA	1648	1/1	0.11	-	40,40,40,40	0
57	MG	BA	3408	1/1	0.34	-	57,57,57,57	0
57	MG	BA	3016	1/1	0.48	-	20,20,20,20	0
57	MG	BA	3384	1/1	0.19	-	42,42,42,42	0
57	MG	AL	201	1/1	0.40	-	29,29,29,29	0
57	MG	DA	3242	1/1	0.09	-	32,32,32,32	0
57	MG	CA	1651	1/1	0.15	-	28,28,28,28	0
57	MG	DA	3007	1/1	0.35	-	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	BA	3440	1/1	0.41	-	64,64,64,64	0
57	MG	BA	3305	1/1	0.35	-	41,41,41,41	0
57	MG	DA	3173	1/1	0.24	-	33,33,33,33	0
57	MG	AA	1701	1/1	0.28	-	33,33,33,33	0
57	MG	BA	3266	1/1	0.46	-	26,26,26,26	0
57	MG	CA	1640	1/1	0.60	-	61,61,61,61	0
57	MG	BA	3393	1/1	0.07	-	61,61,61,61	0
57	MG	BA	3356	1/1	0.16	-	21,21,21,21	0
57	MG	BA	3102	1/1	0.51	-	33,33,33,33	0
57	MG	DA	3256	1/1	0.25	-	62,62,62,62	0
57	MG	BA	3067	1/1	0.18	-	30,30,30,30	0
57	MG	DA	3149	1/1	0.48	-	38,38,38,38	0
57	MG	B5	104	1/1	0.19	-	33,33,33,33	0
57	MG	AA	1645	1/1	0.29	-	52,52,52,52	0
57	MG	DA	3036	1/1	0.48	-	27,27,27,27	0
57	MG	BA	3226	1/1	0.33	-	31,31,31,31	0
57	MG	DA	3156	1/1	0.75	-	58,58,58,58	0
57	MG	CA	1670	1/1	0.32	-	43,43,43,43	0
57	MG	AA	1703	1/1	0.12	-	51,51,51,51	0
57	MG	BA	3178	1/1	0.28	-	22,22,22,22	0
57	MG	CA	1659	1/1	0.32	-	32,32,32,32	0
57	MG	BA	3280	1/1	0.15	-	19,19,19,19	0
57	MG	BA	3169	1/1	0.17	-	21,21,21,21	0
57	MG	DA	3282	1/1	0.20	-	65,65,65,65	0
57	MG	BA	3076	1/1	0.31	-	24,24,24,24	0
57	MG	DA	3241	1/1	0.07	-	26,26,26,26	0
57	MG	BA	3283	1/1	0.33	-	20,20,20,20	0
57	MG	CA	1645	1/1	0.25	-	41,41,41,41	0
57	MG	BA	3322	1/1	0.25	-	29,29,29,29	0
57	MG	DA	3243	1/1	0.12	-	44,44,44,44	0
57	MG	BA	3085	1/1	0.15	-	17,17,17,17	0
57	MG	D6	101	1/1	0.26	-	57,57,57,57	0
57	MG	BA	3387	1/1	0.20	-	46,46,46,46	0
57	MG	CA	1633	1/1	0.31	-	45,45,45,45	0
57	MG	AA	1683	1/1	0.16	-	31,31,31,31	0
57	MG	BA	3138	1/1	0.10	-	39,39,39,39	0
57	MG	BA	3454	1/1	0.21	-	25,25,25,25	0
57	MG	DA	3222	1/1	0.31	-	26,26,26,26	0
57	MG	CA	1684	1/1	0.22	-	42,42,42,42	0
57	MG	BA	3325	1/1	0.29	-	22,22,22,22	0
57	MG	DB	208	1/1	0.35	-	48,48,48,48	0
57	MG	BA	3050	1/1	0.27	-	24,24,24,24	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	CA	1682	1/1	0.20	-	40,40,40,40	0
57	MG	BA	3255	1/1	0.38	-	31,31,31,31	0
57	MG	CA	1608	1/1	0.66	-	52,52,52,52	0
57	MG	BA	3365	1/1	0.35	-	23,23,23,23	0
57	MG	DA	3219	1/1	0.39	-	34,34,34,34	0
57	MG	AA	1674	1/1	0.18	-	49,49,49,49	0
57	MG	BA	3056	1/1	0.42	-	26,26,26,26	0
57	MG	BA	3143	1/1	0.33	-	31,31,31,31	0
57	MG	DA	3227	1/1	0.38	-	37,37,37,37	0
57	MG	BA	3131	1/1	0.31	-	26,26,26,26	0
57	MG	DA	3197	1/1	0.25	-	27,27,27,27	0
57	MG	AA	1630	1/1	0.20	-	41,41,41,41	0
57	MG	DA	3044	1/1	0.48	-	69,69,69,69	0
57	MG	DA	3252	1/1	0.39	-	27,27,27,27	0
57	MG	AA	1684	1/1	0.14	-	31,31,31,31	0
57	MG	DA	3268	1/1	0.19	-	43,43,43,43	0
57	MG	BA	3048	1/1	0.37	-	27,27,27,27	0
57	MG	DA	3177	1/1	0.44	-	52,52,52,52	0
57	MG	BA	3419	1/1	0.37	-	44,44,44,44	0
57	MG	D6	102	1/1	0.20	-	23,23,23,23	0
57	MG	AA	1657	1/1	0.12	-	54,54,54,54	0
57	MG	BA	3003	1/1	0.10	-	25,25,25,25	0
57	MG	BA	3290	1/1	0.23	-	22,22,22,22	0
57	MG	BA	3071	1/1	0.34	-	25,25,25,25	0
57	MG	BA	3151	1/1	0.35	-	24,24,24,24	0
57	MG	AA	1670	1/1	0.25	-	30,30,30,30	0
57	MG	CA	1660	1/1	0.41	-	22,22,22,22	0
57	MG	BA	3370	1/1	0.06	-	48,48,48,48	0
57	MG	BA	3421	1/1	0.18	-	32,32,32,32	0
57	MG	DA	3235	1/1	0.18	-	24,24,24,24	0
57	MG	BA	3247	1/1	0.05	-	33,33,33,33	0
57	MG	BA	3156	1/1	0.09	-	26,26,26,26	0
57	MG	DA	3090	1/1	0.28	-	31,31,31,31	0
57	MG	DA	3105	1/1	0.33	-	30,30,30,30	0
57	MG	DA	3260	1/1	0.09	-	31,31,31,31	0
57	MG	DA	3155	1/1	0.05	-	60,60,60,60	0
57	MG	DA	3162	1/1	0.20	-	24,24,24,24	0
57	MG	DA	3019	1/1	0.40	-	35,35,35,35	0
57	MG	DA	3131	1/1	0.24	-	39,39,39,39	0
57	MG	BA	3171	1/1	0.42	-	41,41,41,41	0
57	MG	BA	3013	1/1	0.14	-	56,56,56,56	0
57	MG	BA	3334	1/1	0.18	-	24,24,24,24	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	CA	1658	1/1	0.12	-	21,21,21,21	0
57	MG	BA	3148	1/1	0.24	-	64,64,64,64	0
57	MG	BA	3073	1/1	0.24	-	23,23,23,23	0
57	MG	BA	3001	1/1	0.21	-	50,50,50,50	0
57	MG	DA	3244	1/1	0.23	-	26,26,26,26	0
57	MG	DA	3184	1/1	0.24	-	54,54,54,54	0
57	MG	DA	3016	1/1	0.42	-	24,24,24,24	0
57	MG	BQ	201	1/1	0.18	-	24,24,24,24	0
57	MG	BA	3446	1/1	0.63	-	60,60,60,60	0
57	MG	CA	1607	1/1	0.20	-	37,37,37,37	0
57	MG	CA	1681	1/1	0.19	-	44,44,44,44	0
57	MG	AA	1661	1/1	0.37	-	67,67,67,67	0
57	MG	BA	3318	1/1	0.34	-	41,41,41,41	0
57	MG	BA	3296	1/1	0.20	-	25,25,25,25	0
57	MG	BA	3386	1/1	0.25	-	68,68,68,68	0
57	MG	AA	1643	1/1	0.11	-	23,23,23,23	0
57	MG	BA	3267	1/1	0.22	-	19,19,19,19	0
57	MG	CA	1621	1/1	0.20	-	22,22,22,22	0
57	MG	DA	3104	1/1	0.21	-	21,21,21,21	0
57	MG	CA	1656	1/1	0.37	-	43,43,43,43	0
57	MG	DA	3068	1/1	0.25	-	19,19,19,19	0
57	MG	CA	1696	1/1	0.32	-	54,54,54,54	0
57	MG	AA	1709	1/1	0.23	-	66,66,66,66	0
57	MG	BA	3125	1/1	0.36	-	60,60,60,60	0
57	MG	BA	3340	1/1	0.24	-	29,29,29,29	0
57	MG	DA	3253	1/1	0.12	-	20,20,20,20	0
57	MG	DA	3262	1/1	0.24	-	29,29,29,29	0
57	MG	DA	3153	1/1	0.18	-	41,41,41,41	0
57	MG	BA	3066	1/1	0.16	-	14,14,14,14	0
57	MG	AA	1612	1/1	0.37	-	25,25,25,25	0
57	MG	BA	3435	1/1	0.06	-	30,30,30,30	0
57	MG	AA	1665	1/1	0.44	-	63,63,63,63	0
57	MG	BA	3094	1/1	0.28	-	34,34,34,34	0
57	MG	AA	1685	1/1	0.25	-	42,42,42,42	0
57	MG	BA	3327	1/1	0.23	-	28,28,28,28	0
57	MG	DA	3225	1/1	0.32	-	44,44,44,44	0
57	MG	BA	3287	1/1	0.20	-	20,20,20,20	0
57	MG	BA	3111	1/1	0.14	-	20,20,20,20	0
57	MG	BA	3351	1/1	0.18	-	56,56,56,56	0
57	MG	CW	101	1/1	0.24	-	22,22,22,22	0
57	MG	AA	1713	1/1	0.09	-	43,43,43,43	0
57	MG	AT	201	1/1	0.12	-	22,22,22,22	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	BA	3389	1/1	0.22	-	21,21,21,21	0
57	MG	BA	3084	1/1	0.64	-	61,61,61,61	0
57	MG	DA	3136	1/1	0.15	-	22,22,22,22	0
57	MG	BA	3250	1/1	0.47	-	22,22,22,22	0
57	MG	BA	3019	1/1	0.34	-	25,25,25,25	0
57	MG	DA	3121	1/1	0.31	-	57,57,57,57	0
57	MG	DA	3293	1/1	0.29	-	39,39,39,39	0
57	MG	BA	3313	1/1	0.36	-	26,26,26,26	0
57	MG	DA	3159	1/1	0.41	-	38,38,38,38	0
57	MG	AA	1636	1/1	0.20	-	62,62,62,62	0
57	MG	BA	3270	1/1	0.33	-	43,43,43,43	0
57	MG	BA	3302	1/1	0.12	-	37,37,37,37	0
57	MG	BA	3183	1/1	0.10	-	22,22,22,22	0
57	MG	BA	3331	1/1	0.28	-	28,28,28,28	0
57	MG	DA	3075	1/1	0.23	-	27,27,27,27	0
57	MG	DA	3062	1/1	0.16	-	33,33,33,33	0
57	MG	CA	1669	1/1	0.21	-	21,21,21,21	0
57	MG	BA	3015	1/1	0.44	-	21,21,21,21	0
57	MG	BA	3375	1/1	0.39	-	36,36,36,36	0
57	MG	DA	3084	1/1	0.14	-	21,21,21,21	0
57	MG	BP	203	1/1	0.17	-	27,27,27,27	0
57	MG	DA	3003	1/1	0.15	-	30,30,30,30	0
57	MG	BA	3130	1/1	0.34	-	35,35,35,35	0
57	MG	DA	3116	1/1	0.30	-	33,33,33,33	0
57	MG	DA	3028	1/1	0.11	-	34,34,34,34	0
57	MG	CA	1636	1/1	0.12	-	28,28,28,28	0
57	MG	CA	1604	1/1	0.22	-	38,38,38,38	0
57	MG	CA	1653	1/1	0.19	-	36,36,36,36	0
57	MG	DA	3087	1/1	0.42	-	26,26,26,26	0
57	MG	AA	1671	1/1	0.18	-	42,42,42,42	0
57	MG	DA	3031	1/1	0.27	-	24,24,24,24	0
57	MG	AA	1673	1/1	0.13	-	40,40,40,40	0
57	MG	AA	1682	1/1	0.15	-	18,18,18,18	0
57	MG	DA	3102	1/1	0.31	-	32,32,32,32	0
57	MG	DA	3103	1/1	0.48	-	19,19,19,19	0
57	MG	BA	3319	1/1	0.05	-	28,28,28,28	0
57	MG	AA	1690	1/1	0.09	-	26,26,26,26	0
57	MG	DA	3182	1/1	0.11	-	37,37,37,37	0
57	MG	BA	3192	1/1	0.27	-	27,27,27,27	0
57	MG	BA	3225	1/1	0.15	-	16,16,16,16	0
57	MG	BA	3332	1/1	0.17	-	61,61,61,61	0
57	MG	BA	3456	1/1	0.31	-	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	DA	3228	1/1	0.22	-	25,25,25,25	0
57	MG	CA	1612	1/1	0.50	-	55,55,55,55	0
57	MG	BA	3407	1/1	0.39	-	66,66,66,66	0
57	MG	DA	3115	1/1	0.10	-	36,36,36,36	0
57	MG	CA	1609	1/1	0.19	-	27,27,27,27	0
57	MG	CA	1641	1/1	0.06	-	18,18,18,18	0
57	MG	BA	3439	1/1	0.12	-	32,32,32,32	0
57	MG	BA	3345	1/1	0.29	-	34,34,34,34	0
57	MG	AA	1668	1/1	0.10	-	40,40,40,40	0
57	MG	BA	3174	1/1	0.16	-	53,53,53,53	0
57	MG	DA	3295	1/1	0.31	-	40,40,40,40	0
57	MG	BA	3295	1/1	0.27	-	20,20,20,20	0
57	MG	BA	3100	1/1	0.52	-	28,28,28,28	0
57	MG	BA	3249	1/1	0.27	-	46,46,46,46	0
57	MG	DA	3238	1/1	0.17	-	33,33,33,33	0
57	MG	BA	3317	1/1	0.40	-	27,27,27,27	0
57	MG	CA	1650	1/1	0.16	-	28,28,28,28	0
57	MG	AA	1624	1/1	0.31	-	33,33,33,33	0
57	MG	DA	3147	1/1	0.48	-	18,18,18,18	0
57	MG	AA	1712	1/1	0.15	-	56,56,56,56	0
57	MG	BA	3039	1/1	0.66	-	39,39,39,39	0
57	MG	BA	3311	1/1	0.17	-	31,31,31,31	0
57	MG	BA	3060	1/1	0.37	-	47,47,47,47	0
57	MG	BA	3209	1/1	0.24	-	23,23,23,23	0
57	MG	BA	3074	1/1	0.35	-	31,31,31,31	0
57	MG	BA	3276	1/1	0.28	-	21,21,21,21	0
57	MG	BA	3239	1/1	0.25	-	46,46,46,46	0
57	MG	BA	3028	1/1	0.25	-	29,29,29,29	0
57	MG	BA	3342	1/1	0.11	-	22,22,22,22	0
57	MG	DA	3288	1/1	0.24	-	60,60,60,60	0
57	MG	DA	3263	1/1	0.14	-	28,28,28,28	0
57	MG	DA	3001	1/1	0.19	-	61,61,61,61	0
57	MG	CA	1668	1/1	0.19	-	27,27,27,27	0
57	MG	BA	3326	1/1	0.20	-	21,21,21,21	0
57	MG	DA	3234	1/1	0.32	-	33,33,33,33	0
58	ZN	D5	103	1/1	0.18	-	30,30,30,30	0
57	MG	DA	3034	1/1	0.19	-	57,57,57,57	0
57	MG	DA	3223	1/1	0.22	-	32,32,32,32	0
57	MG	DA	3072	1/1	0.54	-	72,72,72,72	0
57	MG	BA	3202	1/1	0.12	-	19,19,19,19	0
57	MG	AA	1651	1/1	0.18	-	49,49,49,49	0
57	MG	BA	3310	1/1	0.16	-	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
57	MG	BA	3373	1/1	0.17	-	31,31,31,31	0
57	MG	BA	3170	1/1	0.20	-	40,40,40,40	0
57	MG	BA	3450	1/1	0.42	-	44,44,44,44	0
57	MG	DA	3033	1/1	0.51	-	59,59,59,59	0
57	MG	DA	3195	1/1	0.83	-	73,73,73,73	0
57	MG	DP	201	1/1	0.14	-	38,38,38,38	0
57	MG	CA	1618	1/1	0.20	-	39,39,39,39	0
57	MG	BA	3082	1/1	0.33	-	24,24,24,24	0
57	MG	AA	1619	1/1	0.45	-	66,66,66,66	0
57	MG	BA	3220	1/1	0.16	-	30,30,30,30	0
57	MG	BA	3165	1/1	0.19	-	25,25,25,25	0
57	MG	CA	1697	1/1	0.04	-	39,39,39,39	0
57	MG	BA	3457	1/1	0.20	-	35,35,35,35	0
57	MG	DA	3128	1/1	0.26	-	24,24,24,24	0
57	MG	BA	3402	1/1	0.14	-	24,24,24,24	0
57	MG	BA	3256	1/1	0.14	-	25,25,25,25	0
57	MG	BA	3399	1/1	0.24	-	38,38,38,38	0
57	MG	BA	3324	1/1	0.12	-	25,25,25,25	0
57	MG	DA	3110	1/1	0.23	-	38,38,38,38	0
57	MG	BA	3353	1/1	0.36	-	36,36,36,36	0
57	MG	BA	3333	1/1	0.53	-	77,77,77,77	0
57	MG	AA	1634	1/1	0.41	-	41,41,41,41	0
57	MG	AA	1679	1/1	0.29	-	56,56,56,56	0
57	MG	BA	3129	1/1	0.16	-	25,25,25,25	0
57	MG	CA	1639	1/1	0.08	-	22,22,22,22	0
57	MG	BA	3359	1/1	0.20	-	44,44,44,44	0
57	MG	DA	3284	1/1	0.13	-	51,51,51,51	0
57	MG	BA	3051	1/1	0.46	-	51,51,51,51	0
57	MG	BA	3043	1/1	0.33	-	25,25,25,25	0
57	MG	DA	3108	1/1	0.51	-	47,47,47,47	0
57	MG	BA	3058	1/1	0.42	-	18,18,18,18	0

## 6.5 Other polymers ⓘ

There are no such residues in this entry.