



Full wwPDB X-ray Structure Validation Report

Jun 16, 2014 – 10:35 PM BST

PDB ID : 4V8E
Title : Crystal structure analysis of ribosomal decoding (near-cognate tRNA-tyr complex).
Authors : Jenner, L.; Demeshkina, N.; Yusupov, M.; Yusupova, G.
Deposited on : 2011-12-07
Resolution : 3.30 Å(reported)

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

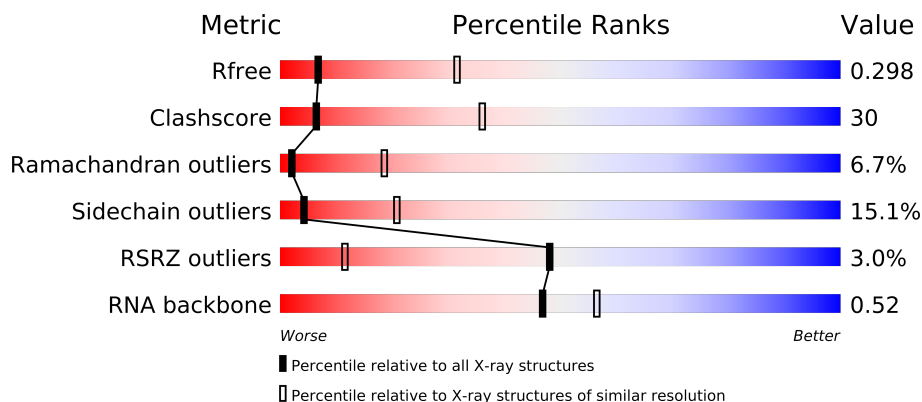
The following versions of software and data (see [references](#)) were used in the production of this report:

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

1 Overall quality at a glance

The reported resolution of this entry is 3.30 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	66092	1341 (3.40-3.20)
Clashscore	79885	1696 (3.40-3.20)
Ramachandran outliers	78287	1664 (3.40-3.20)
Sidechain outliers	78261	1662 (3.40-3.20)
RSRZ outliers	66119	1342 (3.40-3.20)
RNA backbone	1838	1042 (3.90-2.70)

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

Mol	Chain	Length	Quality of chain
1	AA	2912	
1	CA	2912	
2	AB	122	
2	CB	122	
3	AD	276	
3	CD	276	
4	AE	206	
4	CE	206	
5	AF	210	
5	CF	210	
6	AG	182	
6	CG	182	

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Mol	Chain	Length	Quality of chain
7	AH	180	
7	CH	180	
8	AK	148	
8	CK	148	
9	AM	140	
9	CM	140	
10	AN	122	
10	CN	122	
11	AO	150	
11	CO	150	
12	AP	141	
12	CP	141	
13	A0	118	
13	C0	118	
14	AQ	112	
14	CQ	112	
15	AR	146	
15	CR	146	
16	A1	118	
16	C1	118	
17	A2	101	
17	C2	101	
18	AS	113	
18	CS	113	
19	AT	96	
19	CT	96	
20	AU	110	
20	CU	110	
21	AV	206	
21	CV	206	
22	A3	85	
22	C3	85	
23	AZ	98	
23	CZ	98	
24	AW	72	
24	CW	72	
25	AX	60	
25	CX	60	
26	A4	71	
26	C4	71	
27	A5	60	
27	C5	60	

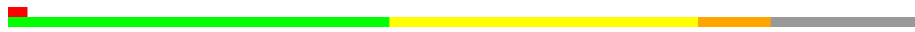
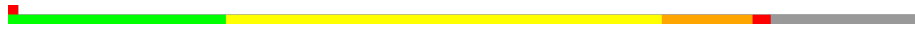


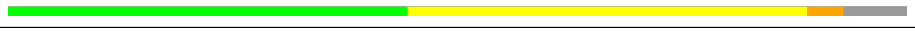
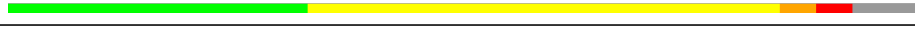




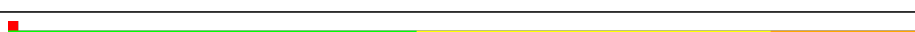

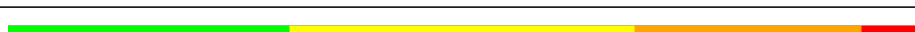
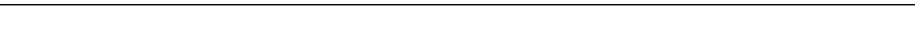
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Mol	Chain	Length	Quality of chain
28	A6	54	
28	C6	54	
29	A7	49	
29	C7	49	
30	A8	65	
30	C8	65	
31	BA	1506	
31	DA	1506	
32	BE	256	
32	DE	256	
33	BF	239	
33	DF	239	
34	BG	208	
34	DG	208	
35	BH	162	
35	DH	162	
36	BI	101	
36	DI	101	
37	BJ	156	
37	DJ	156	
38	BK	138	
38	DK	138	
39	BL	128	
39	DL	128	
40	BM	105	
40	DM	105	
41	BN	129	
41	DN	129	
42	BO	132	
42	DO	132	
43	BP	126	
43	DP	126	
44	BQ	61	
44	DQ	61	
45	BR	89	
45	DR	89	
46	BS	88	
46	DS	88	
47	BT	105	
47	DT	105	
48	BU	88	
48	DU	88	

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Mol	Chain	Length	Quality of chain
49	BV	93	
49	DV	93	
50	BW	106	
50	DW	106	
51	BX	27	
51	DX	27	
52	BB	85	
52	BD	85	
52	DB	85	
52	DD	85	
53	BC	77	
53	DC	77	
54	B1	16	
54	D1	16	

2 Entry composition

There are 57 unique types of molecules in this entry. The entry contains 303952 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 RNA (2912-MER).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AA	2912	Total	C	N	O	P	0	0	0
			62707	27911	11722	20163	2911			
1	CA	2907	Total	C	N	O	P	0	0	0
			62607	27866	11712	20123	2906			

There are 14 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AA	161	U	-	INSERTION	GB AP008226.1
AA	654A	A	G	CONFLICT	GB AP008226.1
AA	654E	C	G	CONFLICT	GB AP008226.1
AA	654P	G	C	CONFLICT	GB AP008226.1
AA	654T	A	C	CONFLICT	GB AP008226.1
AA	1058	U	G	CONFLICT	GB AP008226.1
AA	1080	A	C	CONFLICT	GB AP008226.1
CA	156	U	-	INSERTION	GB AP008226.1
CA	681	A	G	CONFLICT	GB AP008226.1
CA	685	C	G	CONFLICT	GB AP008226.1
CA	696	G	C	CONFLICT	GB AP008226.1
CA	700	A	C	CONFLICT	GB AP008226.1
CA	1105	U	G	CONFLICT	GB AP008226.1
CA	1127	A	C	CONFLICT	GB AP008226.1

- Molecule 2 is a RNA chain called 5S RIBOSOMAL RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AB	122	Total	C	N	O	P	0	0	0
			2617	1166	486	844	121			
2	CB	122	Total	C	N	O	P	0	0	0
			2617	1166	486	844	121			

- Molecule 3 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	AD	272	Total	C	N	O	S	0	0	0
			2115	1335	420	357	3			
3	CD	272	Total	C	N	O	S	0	0	0
			2115	1335	420	357	3			

- Molecule 4 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	AE	205	Total	C	N	O	S	0	0	0
			1568	991	300	271	6			
4	CE	205	Total	C	N	O	S	0	0	0
			1568	991	300	271	6			

- Molecule 5 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	AF	202	Total	C	N	O	S	0	0	0
			1585	1011	297	275	2			
5	CF	208	Total	C	N	O	S	0	0	0
			1627	1037	304	283	3			

- Molecule 6 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AG	181	Total	C	N	O	S	0	0	0
			1474	942	268	260	4			
6	CG	181	Total	C	N	O	S	0	0	0
			1474	942	268	260	4			

- Molecule 7 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	AH	170	Total	C	N	O	S	0	0	0
			1307	829	245	232	1			
7	CH	170	Total	C	N	O	S	0	0	0
			1307	829	245	232	1			

- Molecule 8 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	AK	146	Total	C	N	O	S	0	0	0
			1136	726	201	208	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	CK	146	Total	C	N	O	S	0	0	0
			1136	726	201	208	1			

- Molecule 9 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	AM	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			
9	CM	138	Total	C	N	O	S	0	0	0
			1104	712	206	182	4			

- Molecule 10 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	AN	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			
10	CN	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			

- Molecule 11 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	AO	150	Total	C	N	O	S	0	0	0
			1145	712	232	198	3			
11	CO	150	Total	C	N	O	S	0	0	0
			1145	712	232	198	3			

- Molecule 12 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	AP	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			
12	CP	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			

- Molecule 13 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	A0	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			
13	C0	117	Total	C	N	O	S	0	0	0
			960	599	202	159				

- Molecule 14 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
14	AQ	111	Total	C	N	O	0	0	0
			882	556	176	150			
14	CQ	111	Total	C	N	O	0	0	0
			882	556	176	150			

- Molecule 15 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	AR	137	Total	C	N	O	S	0	0	0
			1141	710	234	196	1			
15	CR	137	Total	C	N	O	S	0	0	0
			1141	710	234	196	1			

- Molecule 16 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	A1	117	Total	C	N	O	S	0	0	0
			964	610	202	151	1			
16	C1	117	Total	C	N	O	S	0	0	0
			964	610	202	151	1			

- Molecule 17 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	A2	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			
17	C2	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			

- Molecule 18 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	AS	113	Total	C	N	O	S	0	0	0
			900	566	177	155	2			
18	CS	113	Total	C	N	O	S	0	0	0
			900	566	177	155	2			

- Molecule 19 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
19	AT	92	Total	C	N	O	0	0	0
			725	471	131	123			
19	CT	92	Total	C	N	O	0	0	0
			725	471	131	123			

- Molecule 20 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AU	102	Total	C	N	O	S	0	0	0
			785	505	150	125	5			
20	CU	102	Total	C	N	O	S	0	0	0
			785	505	150	125	5			

- Molecule 21 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	AV	175	Total	C	N	O	S	0	0	0
			1397	892	251	251	3			
21	CV	179	Total	C	N	O	S	0	0	0
			1428	911	255	259	3			

- Molecule 22 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	A3	76	Total	C	N	O	S	0	0	0
			607	376	128	102	1			
22	C3	77	Total	C	N	O	S	0	0	0
			613	379	129	104	1			

- Molecule 23 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	AZ	97	Total	C	N	O	S	0	0	0
			763	481	150	131	1			
23	CZ	97	Total	C	N	O	S	0	0	0
			763	481	150	131	1			

- Molecule 24 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	AW	66	Total	C	N	O	S	0	0	0
			558	346	113	98	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	CW	66	Total	C	N	O	S	0	0	0
			558	346	113	98	1			

- Molecule 25 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	AX	59	Total	C	N	O		0	0	0
			469	298	90	81				
25	CX	59	Total	C	N	O		0	0	0
			469	298	90	81				

- Molecule 26 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	A4	66	Total	C	N	O	S	0	0	0
			533	335	96	97	5			
26	C4	63	Total	C	N	O	S	0	0	0
			515	326	93	91	5			

- Molecule 27 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	A5	59	Total	C	N	O	S	0	0	0
			459	288	90	76	5			
27	C5	59	Total	C	N	O	S	0	0	0
			459	288	90	76	5			

- Molecule 28 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	A6	45	Total	C	N	O	S	0	0	0
			389	241	79	65	4			
28	C6	45	Total	C	N	O	S	0	0	0
			389	241	79	65	4			

- Molecule 29 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	A7	45	Total	C	N	O	S	0	0	0
			391	240	97	52	2			
29	C7	45	Total	C	N	O	S	0	0	0
			391	240	97	52	2			

- Molecule 30 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	A8	60	Total	C	N	O	S	0	0	0
			480	306	98	74	2			
30	C8	60	Total	C	N	O	S	0	0	0
			480	306	98	74	2			

- Molecule 31 is a RNA chain called 16S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	BA	1502	Total	C	N	O	P	0	0	0
			32284	14370	5982	10431	1501			
31	DA	1502	Total	C	N	O	P	0	0	0
			32287	14370	5982	10433	1502			

- Molecule 32 is a protein called 30S RIBOSOMAL PROTEIN S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	BE	237	Total	C	N	O	S	0	0	0
			1924	1228	344	347	5			
32	DE	237	Total	C	N	O	S	0	0	0
			1924	1228	344	347	5			

- Molecule 33 is a protein called 30S RIBOSOMAL PROTEIN S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	BF	205	Total	C	N	O	S	0	0	0
			1605	1011	313	280	1			
33	DF	206	Total	C	N	O	S	0	0	0
			1612	1016	314	281	1			

- Molecule 34 is a protein called 30S RIBOSOMAL PROTEIN S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	BG	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			
34	DG	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			

- Molecule 35 is a protein called 30S RIBOSOMAL PROTEIN S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	BH	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			
35	DH	151	Total	C	N	O	S	0	0	0
			1155	729	218	204	4			

- Molecule 36 is a protein called 30S RIBOSOMAL PROTEIN S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	BI	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			
36	DI	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			

- Molecule 37 is a protein called 30S RIBOSOMAL PROTEIN S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	BJ	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			
37	DJ	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			

- Molecule 38 is a protein called 30S RIBOSOMAL PROTEIN S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	BK	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			
38	DK	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			

- Molecule 39 is a protein called 30S RIBOSOMAL PROTEIN S9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	BL	127	Total	C	N	O		0	0	0
			1010	639	197	174				
39	DL	127	Total	C	N	O		0	0	0
			1010	639	197	174				

- Molecule 40 is a protein called 30S RIBOSOMAL PROTEIN S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	BM	99	Total	C	N	O	S	0	0	0
			801	504	157	139	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	DM	99	Total	C	N	O	S	0	0	0
			801	504	157	139	1			

- Molecule 41 is a protein called 30S RIBOSOMAL PROTEIN S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	BN	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			
41	DN	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			

- Molecule 42 is a protein called 30S RIBOSOMAL PROTEIN S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	BO	125	Total	C	N	O	S	0	0	0
			975	614	196	164	1			
42	DO	125	Total	C	N	O	S	0	0	0
			975	614	196	164	1			

- Molecule 43 is a protein called 30S RIBOSOMAL PROTEIN S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	BP	116	Total	C	N	O	S	0	0	0
			928	574	191	161	2			
43	DP	117	Total	C	N	O	S	0	0	0
			933	577	192	162	2			

- Molecule 44 is a protein called 30S RIBOSOMAL PROTEIN S14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	BQ	58	Total	C	N	O	S	0	0	0
			476	303	99	70	4			
44	DQ	58	Total	C	N	O	S	0	0	0
			476	303	99	70	4			

- Molecule 45 is a protein called 30S RIBOSOMAL PROTEIN S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	BR	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			
45	DR	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			

- Molecule 46 is a protein called 30S RIBOSOMAL PROTEIN S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	BS	84	Total	C	N	O	S	0	0	0
			705	446	140	118	1			
46	DS	84	Total	C	N	O	S	0	0	0
			705	446	140	118	1			

- Molecule 47 is a protein called 30S RIBOSOMAL PROTEIN S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	BT	100	Total	C	N	O	S	0	0	0
			834	534	155	143	2			
47	DT	100	Total	C	N	O	S	0	0	0
			834	534	155	143	2			

- Molecule 48 is a protein called 30S RIBOSOMAL PROTEIN S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
48	BU	72	Total	C	N	O	0	0	0
			591	376	117	98			
48	DU	72	Total	C	N	O	0	0	0
			591	376	117	98			

- Molecule 49 is a protein called 30S RIBOSOMAL PROTEIN S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	BV	78	Total	C	N	O	S	0	0	0
			624	398	115	109	2			
49	DV	78	Total	C	N	O	S	0	0	0
			624	398	115	109	2			

- Molecule 50 is a protein called 30S RIBOSOMAL PROTEIN S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	BW	99	Total	C	N	O	S	0	0	0
			763	470	162	129	2			
50	DW	99	Total	C	N	O	S	0	0	0
			763	470	162	129	2			

- Molecule 51 is a protein called 30S RIBOSOMAL PROTEIN THX.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
51	BX	25	Total	C	N	O	0	0	0
			217	134	52	31			
51	DX	25	Total	C	N	O	0	0	0
			217	134	52	31			

- Molecule 52 is a RNA chain called TRNA-TYR.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
52	BB	85	Total	C	N	O	P	S	0	0	0
			1814	813	323	592	85	1			
52	BD	85	Total	C	N	O	P	S	0	0	0
			1814	813	323	592	85	1			
52	DB	85	Total	C	N	O	P	S	0	0	0
			1814	813	323	592	85	1			
52	DD	85	Total	C	N	O	P	S	0	0	0
			1814	813	323	592	85	1			

- Molecule 53 is a RNA chain called TRNA-FMET.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	BC	77	Total	C	N	O	P	0	0	0
			1643	732	298	536	77			
53	DC	77	Total	C	N	O	P	0	0	0
			1643	732	298	536	77			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
BC	18	C	U	CONFLICT	GB AP012306.1
DC	18	C	U	CONFLICT	GB AP012306.1

- Molecule 54 is a RNA chain called MRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	B1	16	Total	C	N	O	P	0	0	0
			347	156	69	106	16			
54	D1	16	Total	C	N	O	P	0	0	0
			347	156	69	106	16			

- Molecule 55 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

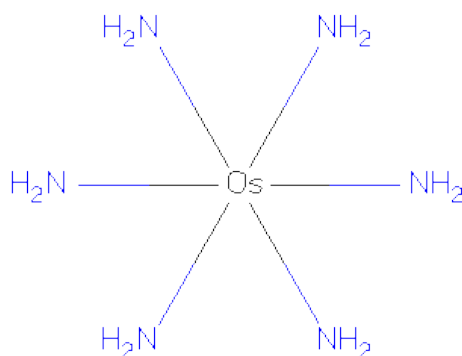
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	BA	115	Total Mg 115 115	0	0
55	CA	274	Total Mg 274 274	0	0
55	C5	1	Total Mg 1 1	0	0
55	AB	6	Total Mg 6 6	0	0
55	B1	1	Total Mg 1 1	0	0
55	DN	1	Total Mg 1 1	0	0
55	DC	6	Total Mg 6 6	0	0
55	BB	5	Total Mg 5 5	0	0
55	AE	3	Total Mg 3 3	0	0
55	DL	1	Total Mg 1 1	0	0
55	C0	1	Total Mg 1 1	0	0
55	AA	331	Total Mg 331 331	0	0
55	BQ	1	Total Mg 1 1	0	0
55	A5	1	Total Mg 1 1	0	0
55	BC	5	Total Mg 5 5	0	0
55	A1	1	Total Mg 1 1	0	0
55	BN	1	Total Mg 1 1	0	0
55	C7	1	Total Mg 1 1	0	0
55	DA	119	Total Mg 119 119	0	0
55	AO	3	Total Mg 3 3	0	0
55	A0	1	Total Mg 1 1	0	0
55	D1	1	Total Mg 1 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
55	CB	7	Total	Mg	0	0
			7	7		
55	BS	1	Total	Mg	0	0
			1	1		
55	BD	1	Total	Mg	0	0
			1	1		
55	CE	1	Total	Mg	0	0
			1	1		
55	A3	1	Total	Mg	0	0
			1	1		
55	AF	2	Total	Mg	0	0
			2	2		
55	DB	2	Total	Mg	0	0
			2	2		

- Molecule 56 is osmium (III) hexammine (three-letter code: OHX) (formula: $\text{H}_{12}\text{N}_6\text{Os}$).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AA	1	Total	N	Os	0	0
			7	6	1		
56	AB	1	Total	N	Os	0	0
			7	6	1		
56	AB	1	Total	N	Os	0	0
			7	6	1		
56	AB	1	Total	N	Os	0	0
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56	AB	1	Total	N	Os	0	0
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56	AB	1	Total	N	Os	0	0
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56	AB	1	Total	N	Os	0	0
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56	AB	1	Total	N	Os	0	0
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56	AB	1	Total	N	Os	0	0
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56	AB	1	Total	N	Os	0	0
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56	AB	1	Total	N	Os	0	0
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56	AB	1	Total	N	Os	0	0
			7	6	1		
56	AE	1	Total	N	Os	0	0
			7	6	1		
56	AF	1	Total	N	Os	0	0
			7	6	1		
56	AO	1	Total	N	Os	0	0
			7	6	1		
56	AO	1	Total	N	Os	0	0
			7	6	1		
56	A1	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	A1	1	Total	N	Os	0	0
			7	6	1		
56	A3	1	Total	N	Os	0	0
			7	6	1		
56	AW	1	Total	N	Os	0	0
			7	6	1		
56	A6	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
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56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	BA	1	Total	N	Os	0	0
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56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
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56	BA	1	Total	N	Os	0	0
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56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
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56	BA	1	Total	N	Os	0	0
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56	BA	1	Total	N	Os	0	0
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56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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			7	6	1		
56	BA	1	Total	N	Os	0	0
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56	BA	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
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56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
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56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
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56	BA	1	Total	N	Os	0	0
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56	BA	1	Total	N	Os	0	0
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56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
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56	BA	1	Total	N	Os	0	0
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56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
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56	BA	1	Total	N	Os	0	0
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			7	6	1		
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56	BA	1	Total	N	Os	0	0
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56	BA	1	Total	N	Os	0	0
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56	BA	1	Total	N	Os	0	0
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56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
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56	BA	1	Total	N	Os	0	0
			7	6	1		
56	BA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	BG	1	Total	N	Os	0	0
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56	BB	1	Total	N	Os	0	0
			7	6	1		
56	BB	1	Total	N	Os	0	0
			7	6	1		
56	BC	1	Total	N	Os	0	0
			7	6	1		
56	BC	1	Total	N	Os	0	0
			7	6	1		
56	BD	1	Total	N	Os	0	0
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56	BD	1	Total	N	Os	0	0
			7	6	1		
56	BD	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
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56	CA	1	Total	N	Os	0	0
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			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
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56	CA	1	Total	N	Os	0	0
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56	CA	1	Total	N	Os	0	0
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56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	CA	1	Total	N	Os	0	0
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56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
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			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	CA	1	Total	N	Os	0	0
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56	CA	1	Total	N	Os	0	0
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56	CA	1	Total	N	Os	0	0
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56	CA	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	CA	1	Total	N	Os	0	0
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			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
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56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
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56	CA	1	Total	N	Os	0	0
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56	CA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	CA	1	Total	N	Os	0	0
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56	CA	1	Total	N	Os	0	0
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56	CA	1	Total	N	Os	0	0
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56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
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56	CA	1	Total	N	Os	0	0
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56	CA	1	Total	N	Os	0	0
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56	CA	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	CA	1	Total	N	Os	0	0
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56	CA	1	Total	N	Os	0	0
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56	CA	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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56	CA	1	Total	N	Os	0	0
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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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56	CA	1	Total	N	Os	0	0
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56	CA	1	Total	N	Os	0	0
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56	CA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
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56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CA	1	Total	N	Os	0	0
			7	6	1		
56	CB	1	Total	N	Os	0	0
			7	6	1		
56	CB	1	Total	N	Os	0	0
			7	6	1		
56	CB	1	Total	N	Os	0	0
			7	6	1		
56	CB	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	CB	1	Total 7	N 6	Os 1	0	0
56	CB	1	Total 7	N 6	Os 1	0	0
56	CB	1	Total 7	N 6	Os 1	0	0
56	CB	1	Total 7	N 6	Os 1	0	0
56	CB	1	Total 7	N 6	Os 1	0	0
56	CB	1	Total 7	N 6	Os 1	0	0
56	CB	1	Total 7	N 6	Os 1	0	0
56	CB	1	Total 7	N 6	Os 1	0	0
56	CB	1	Total 7	N 6	Os 1	0	0
56	CF	1	Total 7	N 6	Os 1	0	0
56	CO	1	Total 7	N 6	Os 1	0	0
56	C1	1	Total 7	N 6	Os 1	0	0
56	C3	1	Total 7	N 6	Os 1	0	0
56	C5	1	Total 7	N 6	Os 1	0	0
56	C6	1	Total 7	N 6	Os 1	0	0
56	DA	1	Total 7	N 6	Os 1	0	0
56	DA	1	Total 7	N 6	Os 1	0	0
56	DA	1	Total 7	N 6	Os 1	0	0
56	DA	1	Total 7	N 6	Os 1	0	0
56	DA	1	Total 7	N 6	Os 1	0	0
56	DA	1	Total 7	N 6	Os 1	0	0

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DA	1	Total	N	Os	0	0
			7	6	1		
56	DG	1	Total	N	Os	0	0
			7	6	1		
56	DK	1	Total	N	Os	0	0
			7	6	1		
56	DR	1	Total	N	Os	0	0
			7	6	1		
56	DV	1	Total	N	Os	0	0
			7	6	1		
56	DB	1	Total	N	Os	0	0
			7	6	1		
56	DB	1	Total	N	Os	0	0
			7	6	1		
56	DB	1	Total	N	Os	0	0
			7	6	1		
56	DC	1	Total	N	Os	0	0
			7	6	1		
56	DC	1	Total	N	Os	0	0
			7	6	1		
56	DC	1	Total	N	Os	0	0
			7	6	1		
56	DC	1	Total	N	Os	0	0
			7	6	1		
56	DD	1	Total	N	Os	0	0
			7	6	1		

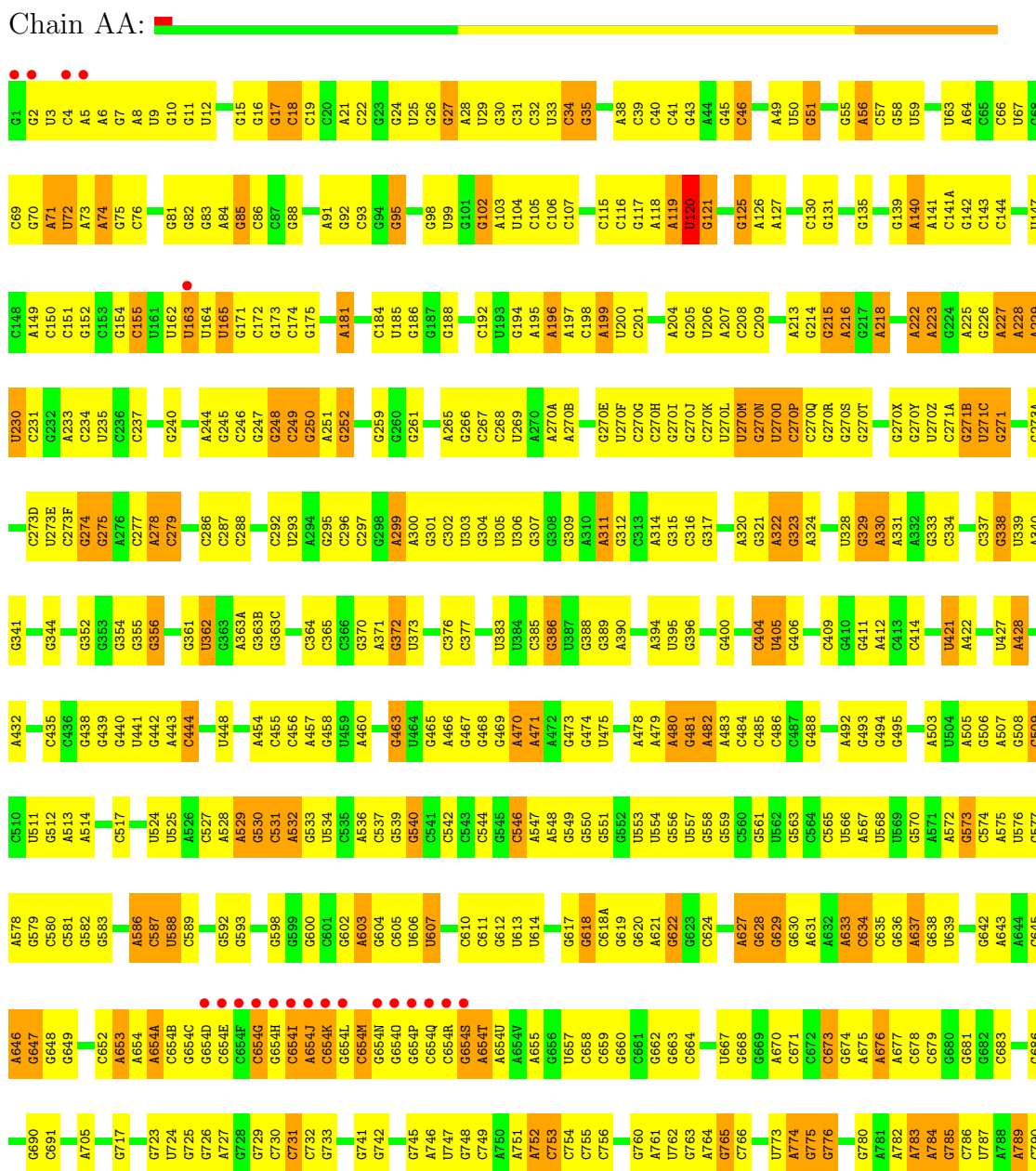
- Molecule 57 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	DG	1	Total	Zn	0	0
			1	1		
57	BG	1	Total	Zn	0	0
			1	1		
57	BQ	1	Total	Zn	0	0
			1	1		
57	DQ	1	Total	Zn	0	0
			1	1		

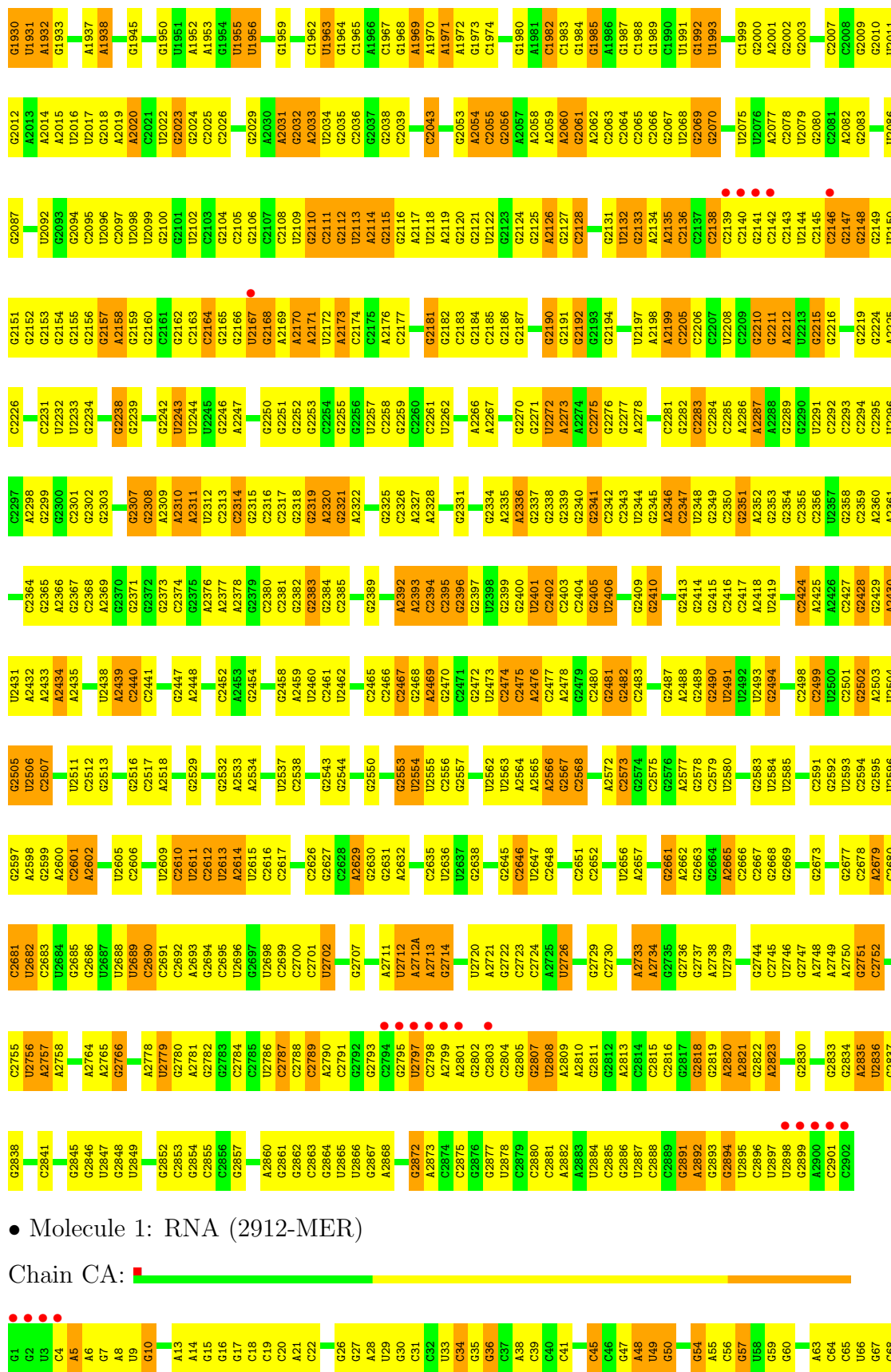
3 Residue-property plots

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

• Molecule 1: RNA (2912-MER)









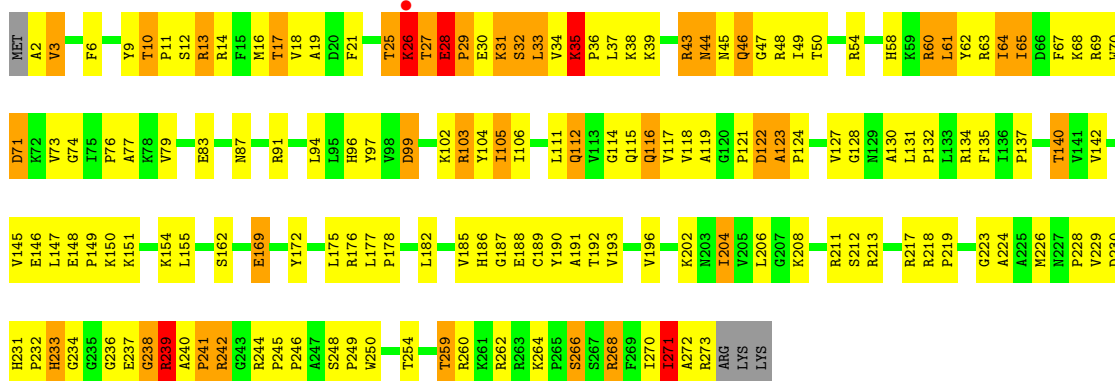






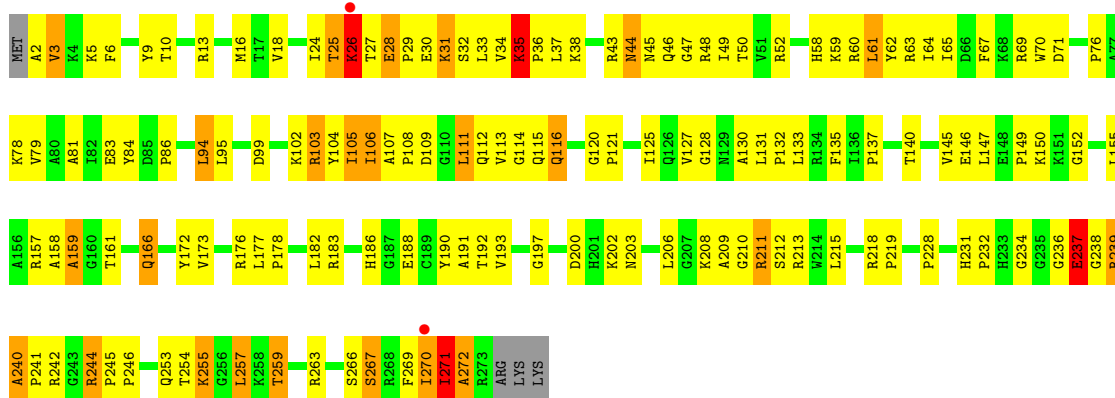
• Molecule 3: 50S ribosomal protein L2

Chain AD:



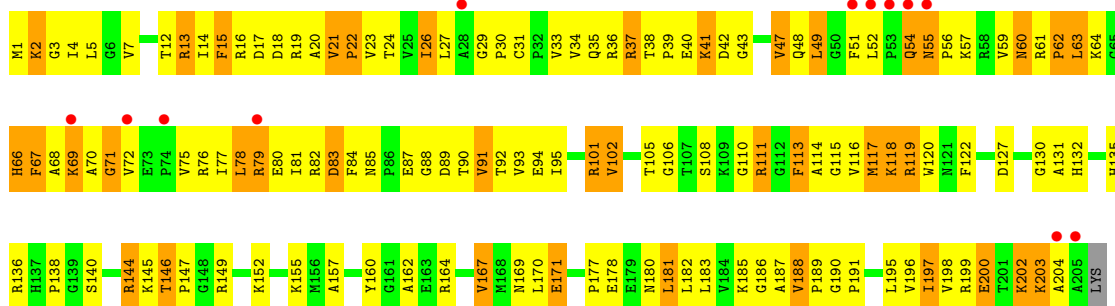
• Molecule 3: 50S ribosomal protein L2

Chain CD:



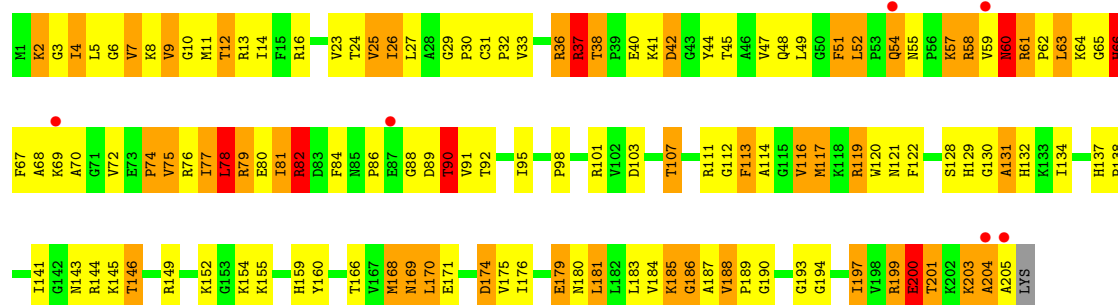
• Molecule 4: 50S ribosomal protein L3

Chain AE:



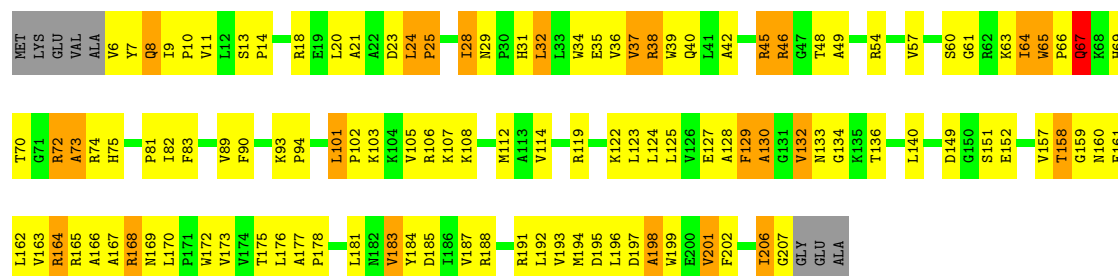
• Molecule 4: 50S ribosomal protein L3

Chain CE:



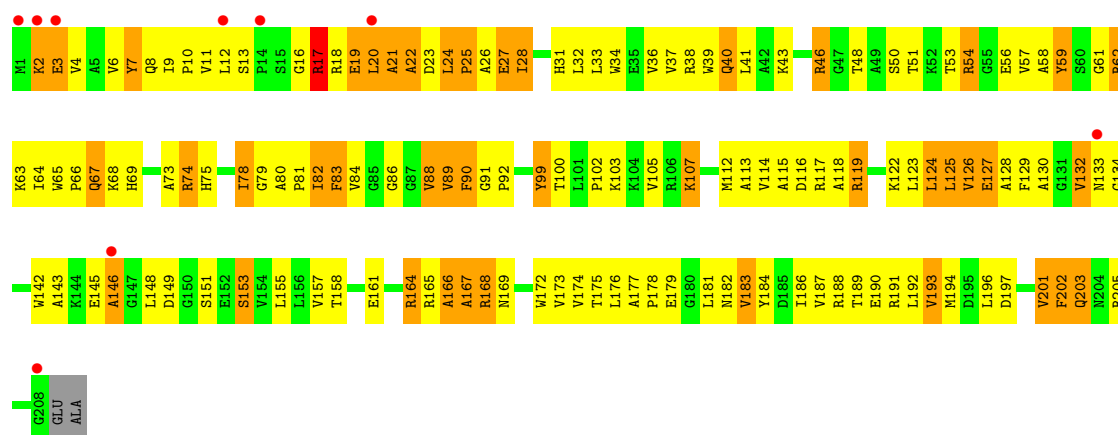
• Molecule 5: 50S ribosomal protein L4

Chain AF:



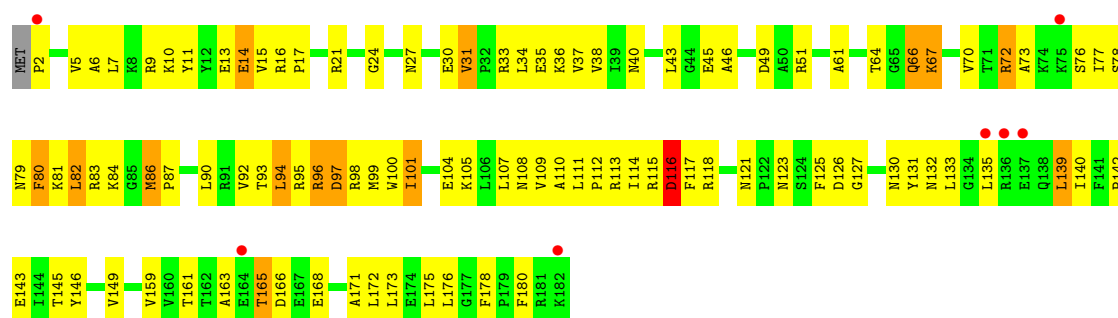
• Molecule 5: 50S ribosomal protein L4

Chain CF:



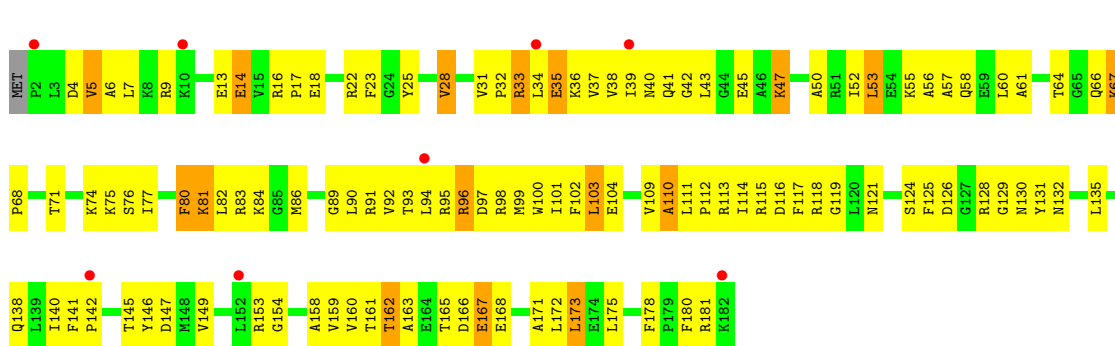
• Molecule 6: 50S ribosomal protein L5

Chain AG:



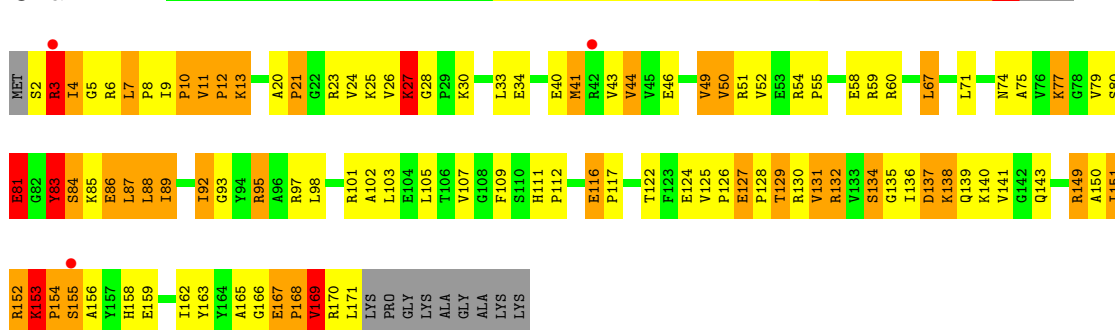
- Molecule 6: 50S ribosomal protein L5

Chain CG:



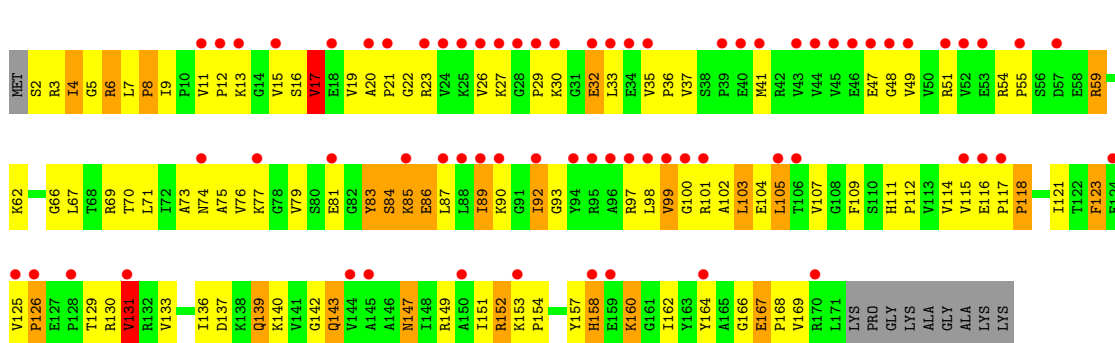
- Molecule 7: 50S ribosomal protein L6

Chain AH:



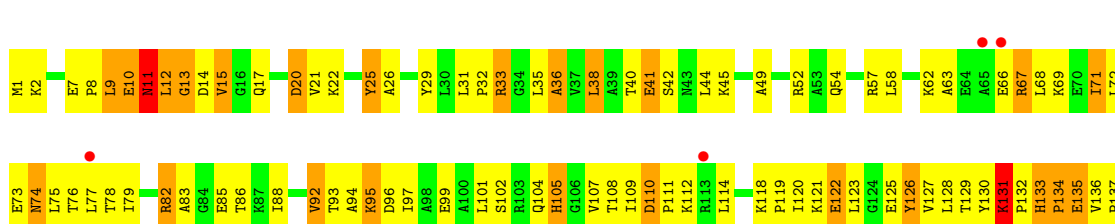
- Molecule 7: 50S ribosomal protein L6

Chain CH:



- Molecule 8: 50S ribosomal protein L9

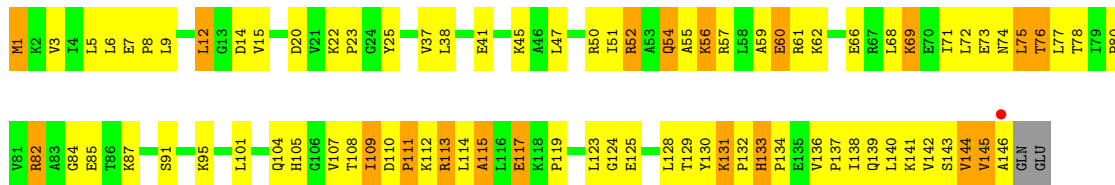
Chain AK:





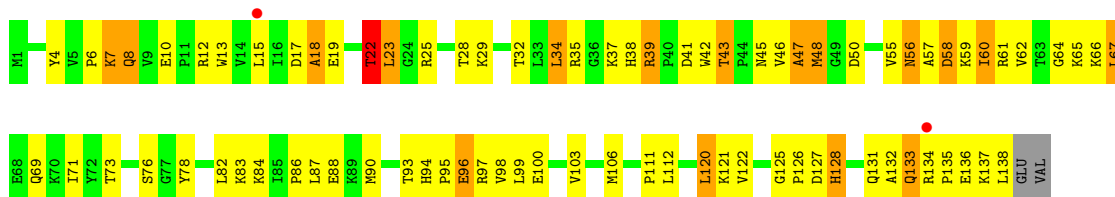
• Molecule 8: 50S ribosomal protein L9

Chain CK:



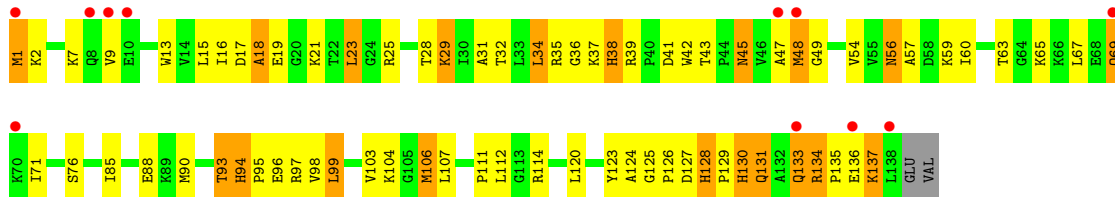
• Molecule 9: 50S ribosomal protein L13

Chain AM:



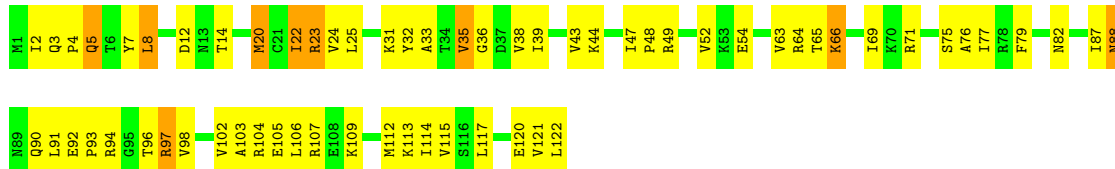
• Molecule 9: 50S ribosomal protein L13

Chain CM:



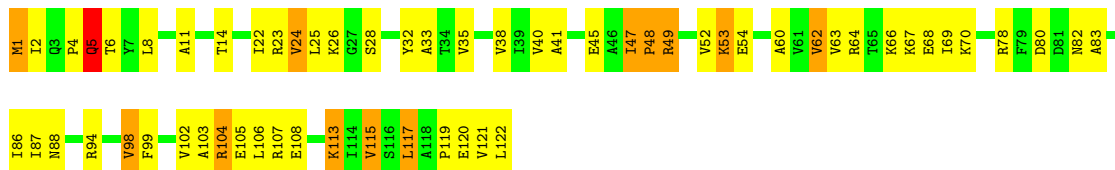
• Molecule 10: 50S ribosomal protein L14

Chain AN:

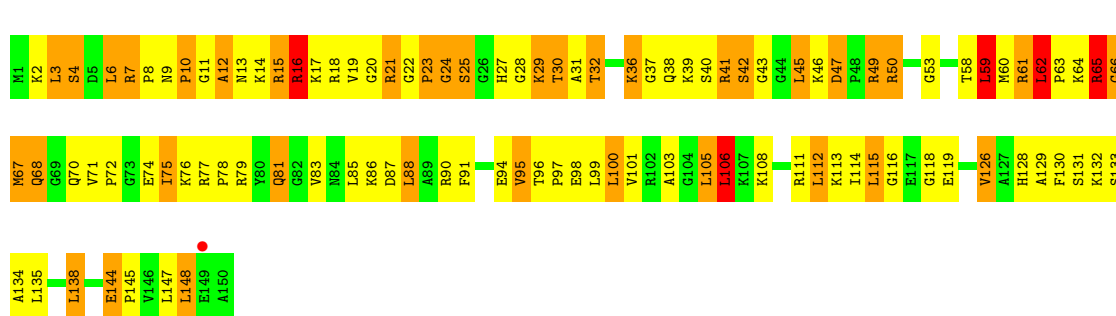



• Molecule 10: 50S ribosomal protein L14

Chain CN:

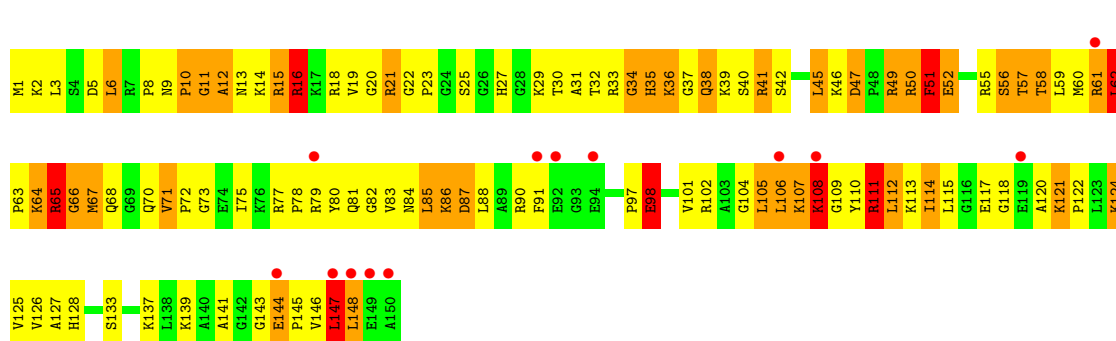


- Molecule 11: 50S ribosomal protein L15

Chain AO: 

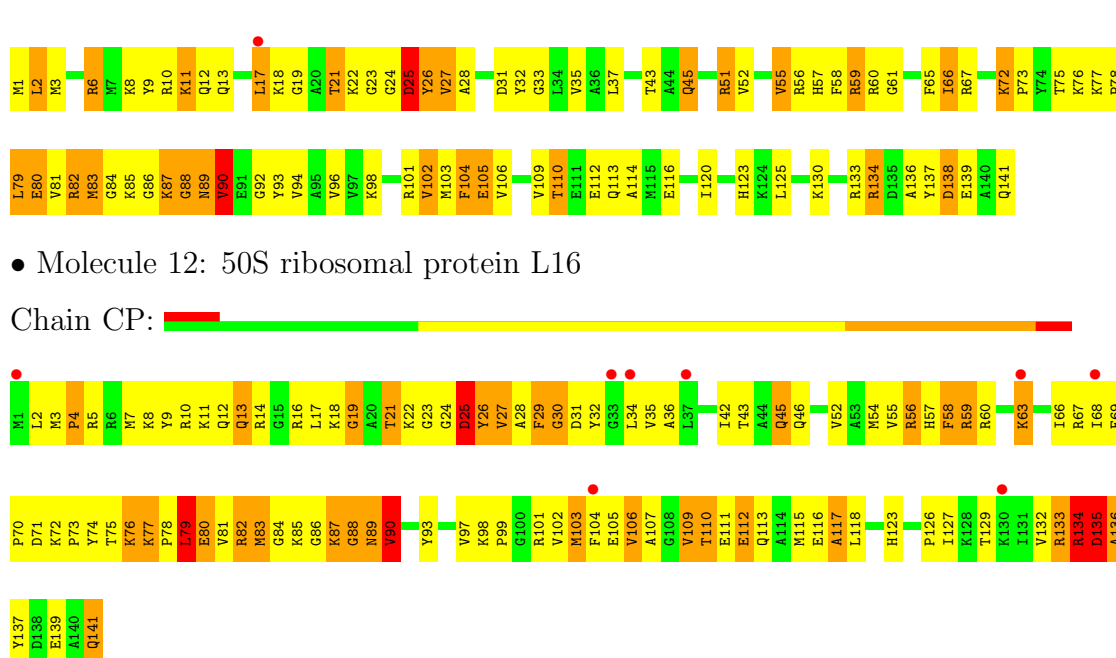
- Molecule 11: 50S ribosomal protein L15

Chain CO:



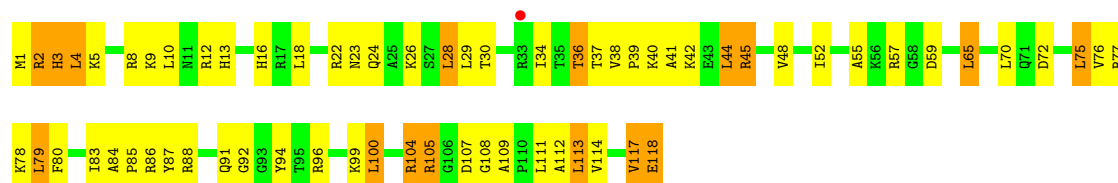
- Molecule 12: 50S ribosomal protein L16

Chain AP:



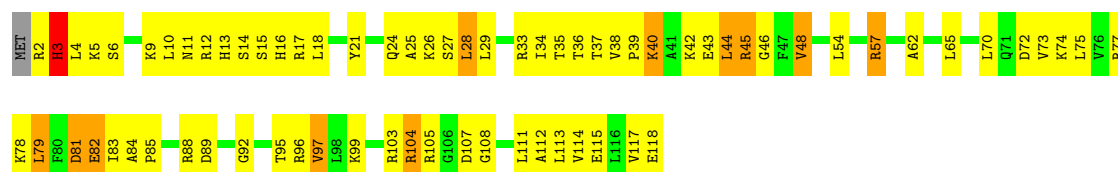
- Molecule 13: 50S ribosomal protein L17

Chain A0:



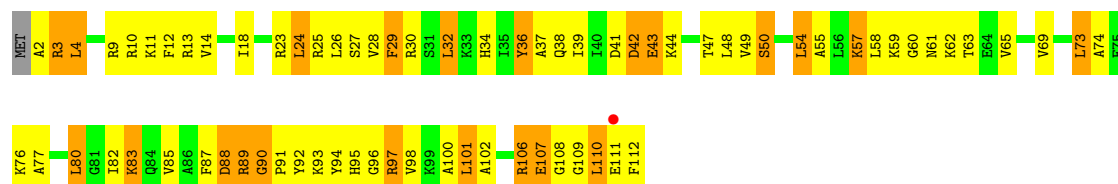
• Molecule 13: 50S ribosomal protein L17

Chain C0:



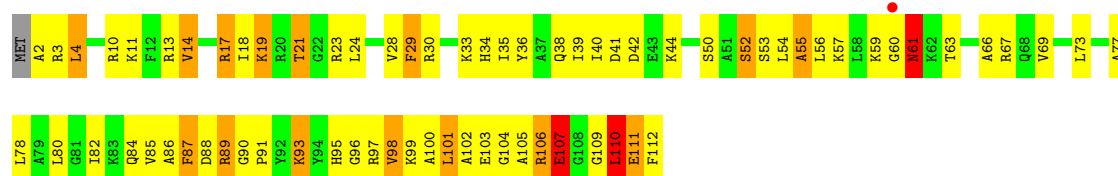
• Molecule 14: 50S ribosomal protein L18

Chain AQ:



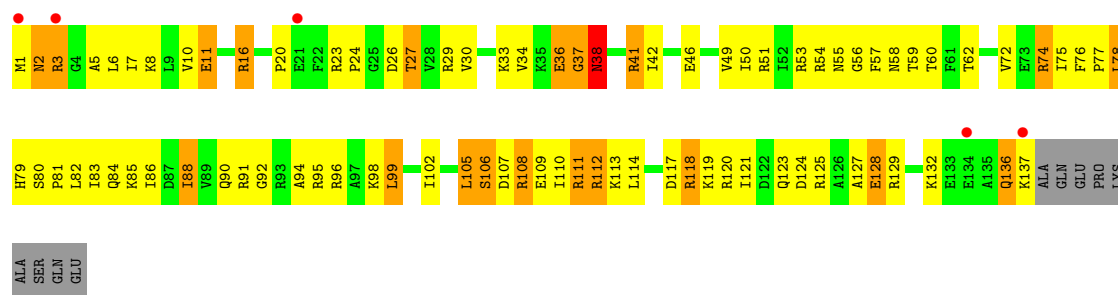
• Molecule 14: 50S ribosomal protein L18

Chain CQ:



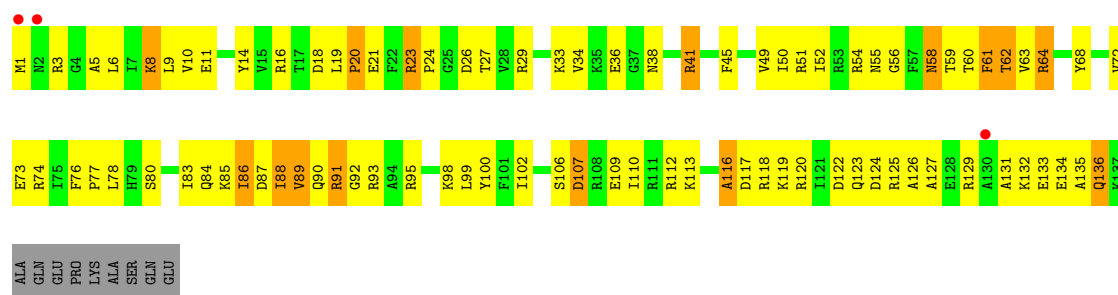
• Molecule 15: 50S ribosomal protein L19

Chain AR:



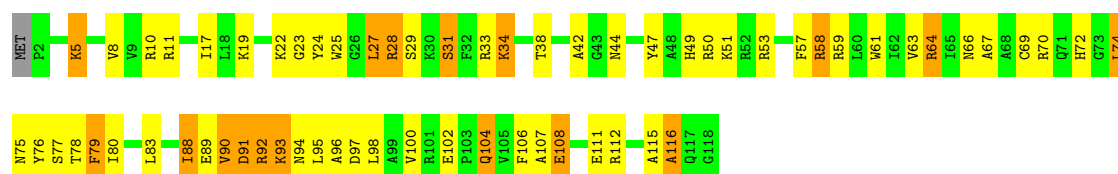
• Molecule 15: 50S ribosomal protein L19

Chain CR:



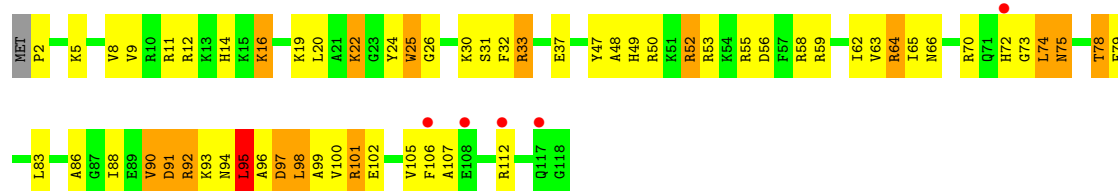
• Molecule 16: 50S ribosomal protein L20

Chain A1:



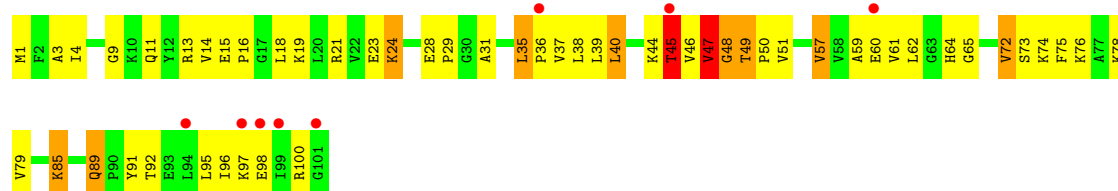
• Molecule 16: 50S ribosomal protein L20

Chain C1:



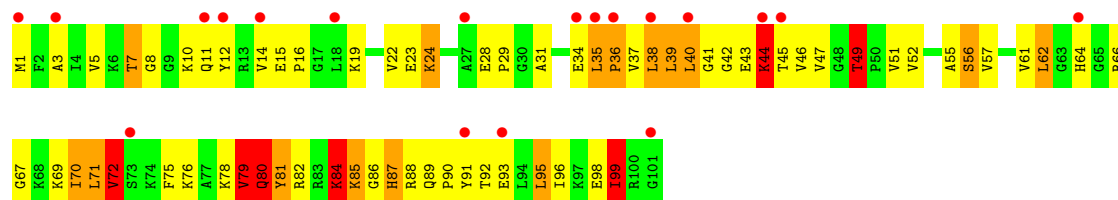
• Molecule 17: 50S ribosomal protein L21

Chain A2:



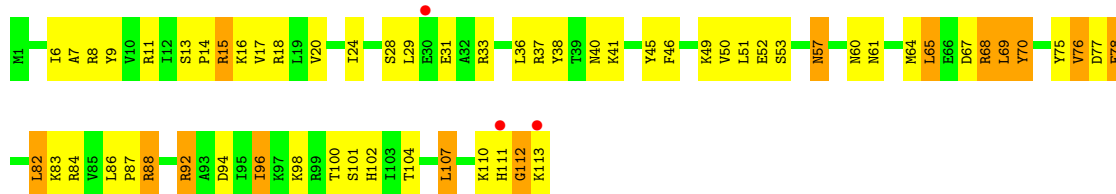
• Molecule 17: 50S ribosomal protein L21

Chain C2:



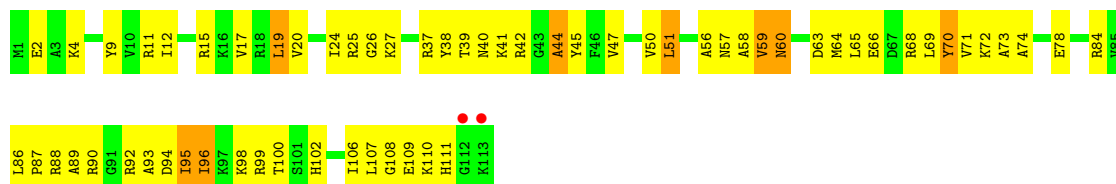
• Molecule 18: 50S ribosomal protein L22

Chain AS:



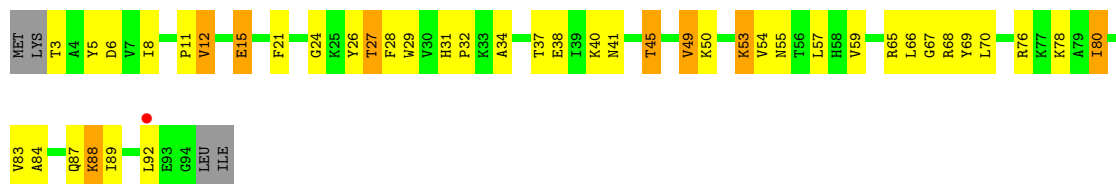
• Molecule 18: 50S ribosomal protein L22

Chain CS:



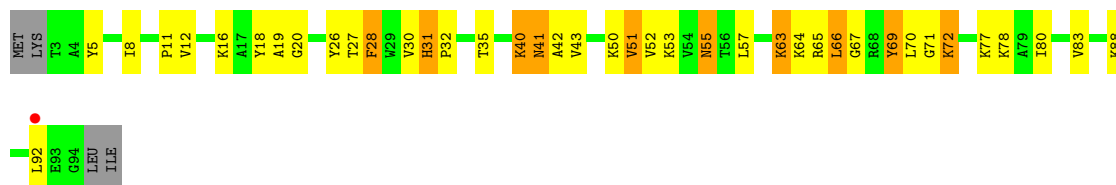
• Molecule 19: 50S ribosomal protein L23

Chain AT:



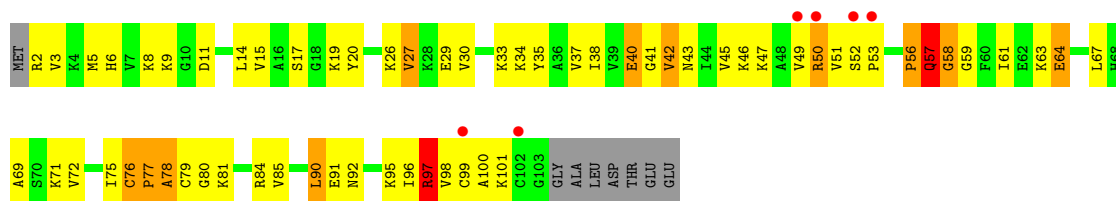
• Molecule 19: 50S ribosomal protein L23

Chain CT:



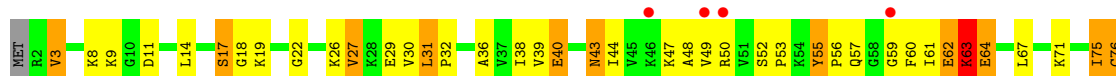
• Molecule 20: 50S ribosomal protein L24

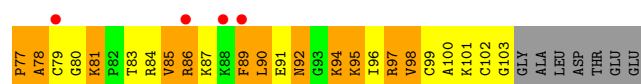
Chain AU:



• Molecule 20: 50S ribosomal protein L24

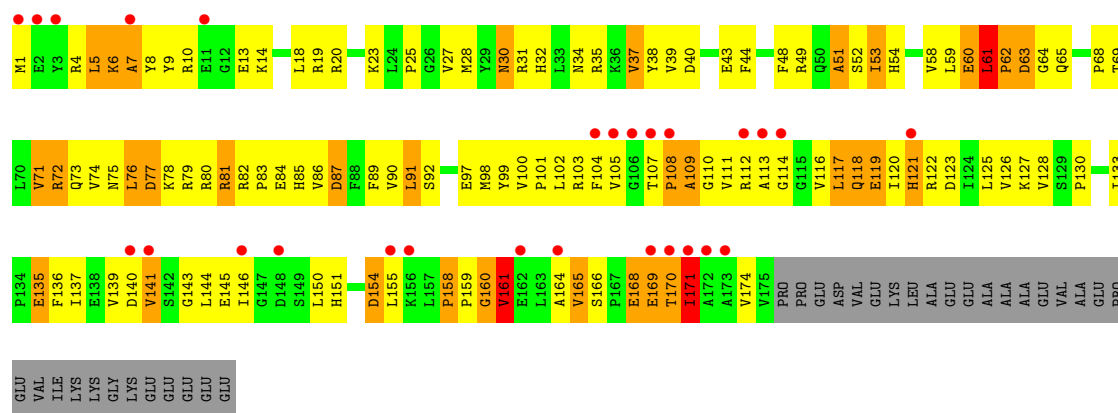
Chain CU:





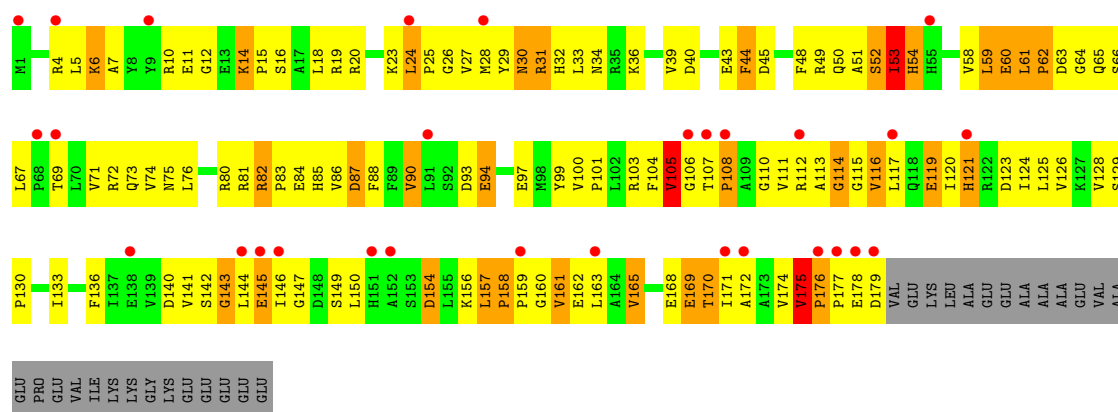
• Molecule 21: 50S ribosomal protein L25

Chain AV:



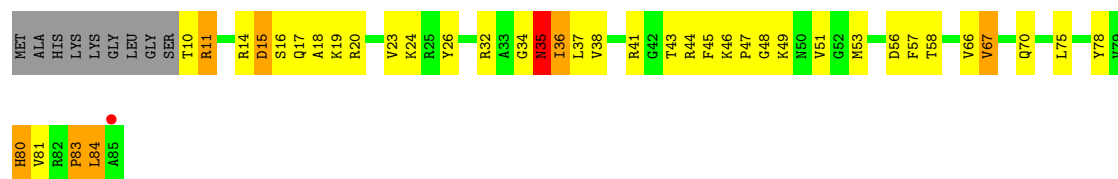
• Molecule 21: 50S ribosomal protein L25

Chain CV:



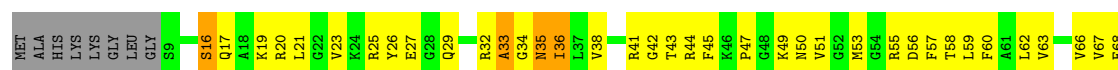
• Molecule 22: 50S ribosomal protein L27

Chain A3:



• Molecule 22: 50S ribosomal protein L27

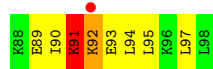
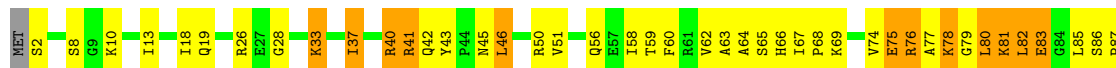
Chain C3:





- Molecule 23: 50S ribosomal protein L28

Chain AZ:



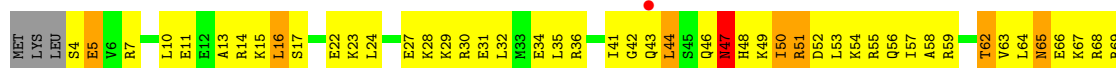
- Molecule 23: 50S ribosomal protein L28

Chain CZ:



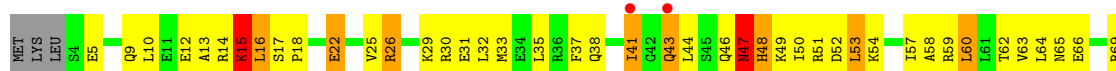
- Molecule 24: 50S ribosomal protein L29

Chain AW:



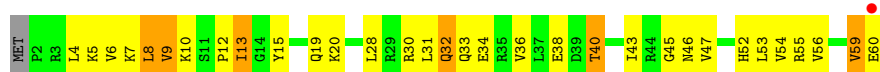
- Molecule 24: 50S ribosomal protein L29

Chain CW:



- Molecule 25: 50S ribosomal protein L30

Chain AX:



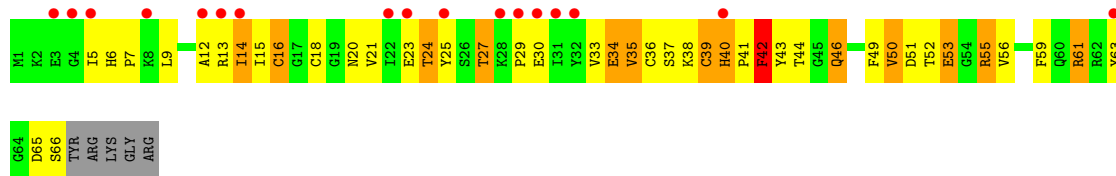
- Molecule 25: 50S ribosomal protein L30

Chain CX:



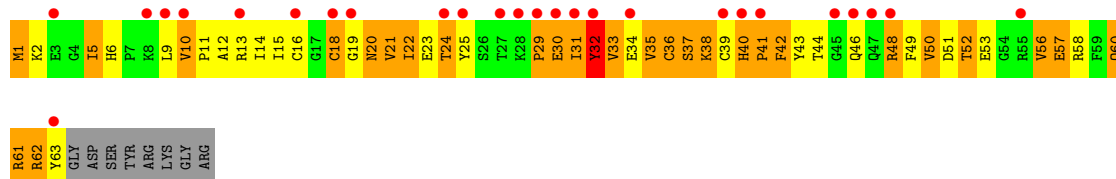
- Molecule 26: 50S ribosomal protein L31

Chain A4:



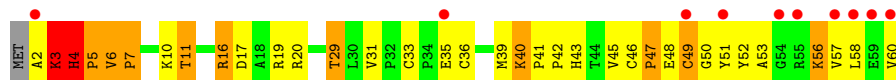
- Molecule 26: 50S ribosomal protein L31

Chain C4:



- Molecule 27: 50S ribosomal protein L32

Chain A5:



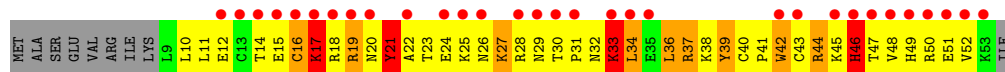
- Molecule 27: 50S ribosomal protein L32

Chain C5:



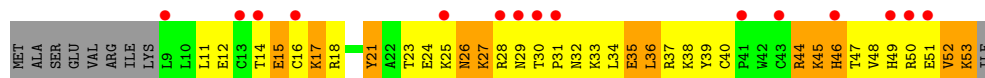
- Molecule 28: 50S ribosomal protein L33

Chain A6:



- Molecule 28: 50S ribosomal protein L33

Chain C6:



- Molecule 29: 50S ribosomal protein L34

Chain A7:



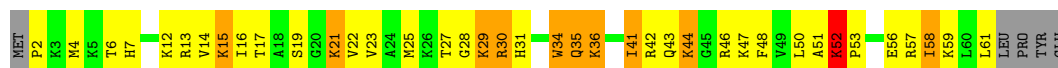
- Molecule 29: 50S ribosomal protein L34

Chain C7:



- Molecule 30: 50S ribosomal protein L35

Chain A8:



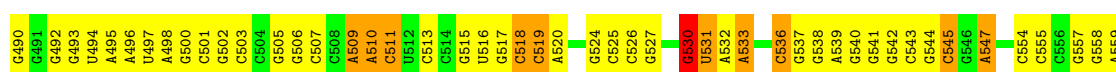
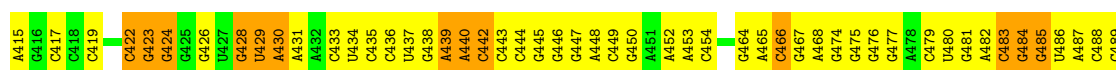
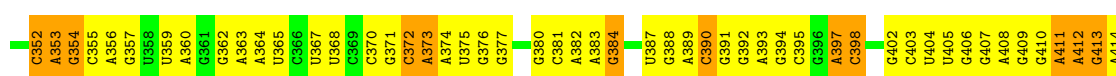
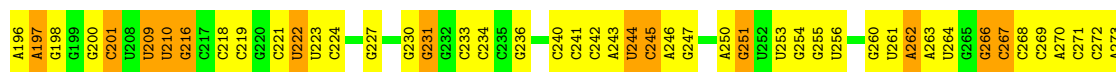
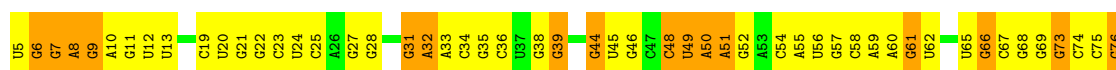
- Molecule 30: 50S ribosomal protein L35

Chain C8:



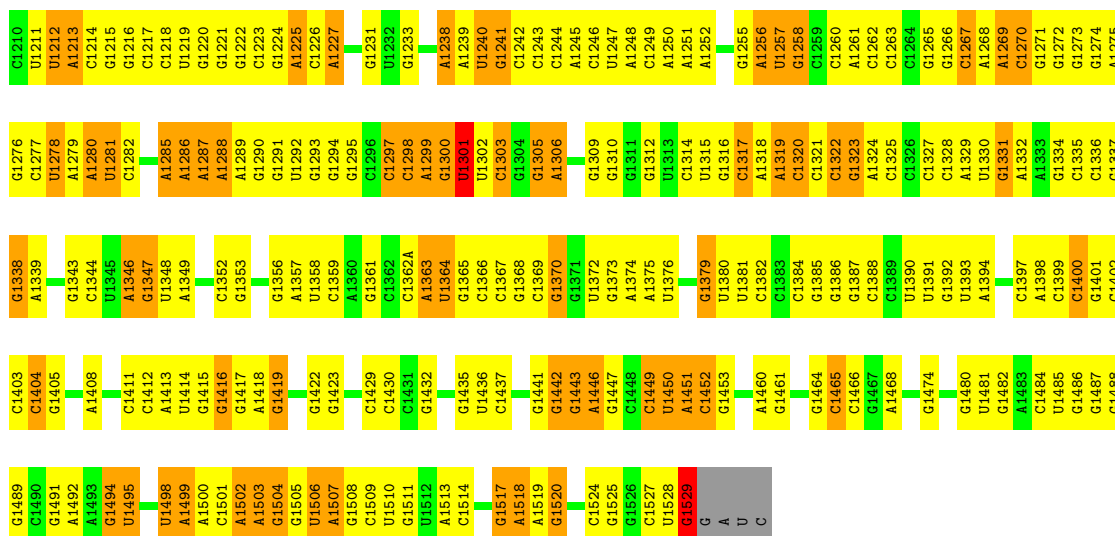
- Molecule 31: 16S ribosomal RNA

Chain BA:



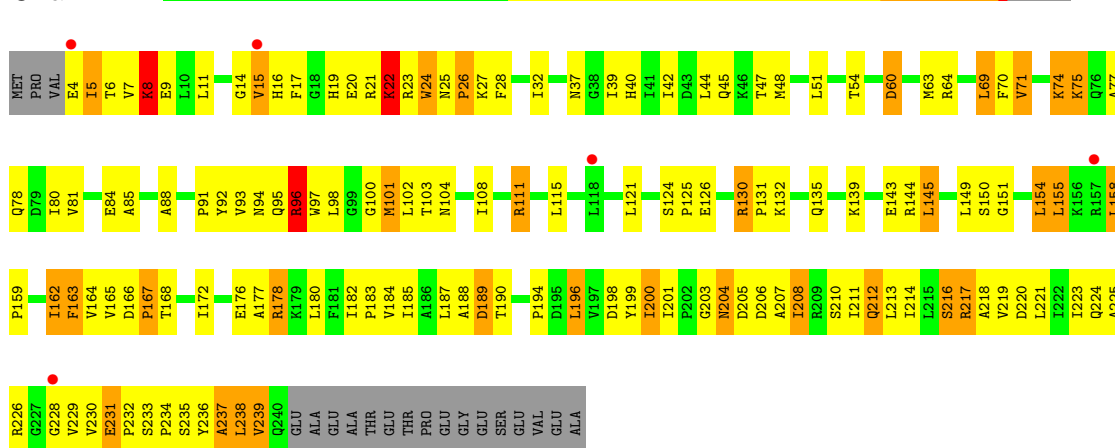


C1145	A1080	G1022	U961	G886	C808	U740	G674	C601	A533	A452	G302	C221	G153	G81
A1146	G1081	G1023	C962	G887	C812	G741	U677	G604	U534	A453	A303	U222	C154	U82
U1147	U1082	U1024	G963	G890	U813	G742	U678	U605	A535	C454	U304	U223	C155	U84
U1148	U1083	U1025	A964	U891	U814	U743	U679	U606	C536	C455	G305	G306	G156	U85
C1149	G1084	G1026	A965	U892	A815	C744	C680	A607	G537	C456	G306	C224	G157	U86
U1150	U1085	C1027	G966	C893	A816	C745	C681		G538	C457	C312	C225	A160	A87
A1151	U1086	C1028	C967		C817	G746	G682	C615	A539	C458	A313	G226	A161	C88
A1152	G1087	G1029	A968	C897	C818	G747	G683	G616	G540	A464	G316	G230	A161	U89
C1153		C1028B	A969	C898	A819	G750	G684	G617	G541	A465	G316	G231	C165	C90
G1154	A1092	G1029	C970	C899	A820	U751	A684	U618	G542	C466	A389	G231	G166	G92
C1155	A1093	C1030	G971	G899	G752	U752	G685	C624	C543	C467	C390	G232	G167	U93
U1156	G1094	G1031	C972	A901	A753	G753	A686	U619	G544	A468	G391	C235	G168	G95
A1157	U1095	A1032	G973	A901	C754	G754	A687	C620	C545	G474	G392	C236	C169	G96
C1158	C1096	G1032A	A974	G902	G755	G755	G688	A621	G546	G475		C237	U170	U97
U1159	C1097	G1032B	A975		C756	C756	G689	A622	A547	G476	A397			
G1160	G1098	G1033	C976	A907	U827	U757	G690	C623	G548	G477	C398	A243	U173	A101
C1161	C1099	G1034	A977	A908	A828	U758	G691	C624	C549	A478	C399	U244	C174	G102
C1162	G1100	A1035	A978	A909	U833	G759	U692	G625	G550	C479	C328	A246	C175	C103
C1163	A1101	G1036	C979	C910	C834	G760	G693	U626	U551	U480	A329	G247	G176	
C1164	A1102	C1037	C980		U835		A694	G627	U552					G108
		C1038	U981	A913	G836	G763	A695	G628	A553	G484	G177	A250	C177	A109
		C1039	U982	A914	G837	C764	A696	G629	C554	G485	A178	G332	A178	C110
		U1040	A983	A915	G838	G765	U697	G630	C555	U486	G179	G331	A179	G111
		A1041	C984		U841		G698	G631	G557	G491	G337	G255	G181	G112
		C1042	C985	A918	C842	G769	C699	A632	C557	G492	A388		U182	G113
		C1043	A986	A919	U843			G633	G558	G493	C339	G259	G183	U114
		A1044	G987	U920	C848	G773	A702	C634	A559	G494	A411	G260	C186	
		C1045	U921	U921	C849	G774	G703	C635	U561	G495	A412	G261	C187	G127
		A1046	C989	G922	U850	G775	A704	U636	U561	A496	A413	U261	U188	G128
		G1047	C990	A923	G851	G776	U705	C637	C562	U497	A414	A262	U189	U129
		A1048	U991	C924	G852	A777	A706		A563	G498	A415	U263	G190	G129A
		U1049	U992	G925	G853	G778	C707	C643	C564	G500	G425	U264	G191	A130
		G1050	G993	G926	G854	G779	C708	C644	G570	C501	G426	G265	G191B	C131
		C1051	A994	G927	G855	U780	G709	U646	U571	G502	U427	G267	G191C	C132
		U1052	C995		G855	A781	G710	C647	A573	C503	U428	C268	U191D	U133
		G1053		C934	G858	A782	C720	A655	A509	A510	U429	C269	G191E	A134
		C1054	G938	A935	A859	A783	G721	C656	U580	C511	A430	C277	U191F	C135
		A1055			A860	C784	A715	G657	G581		A431	G278	G191	C136
		U1056	G939	G945	G861	G785	A716	U652	A574		A432	A279	C137	
		G1057	C940	G945	C862	G786	C717	A653	G575		A433	G280	U192	
		U1058	G941	G947	C862	G787	G718	G654	G576		C434	C281	C193	G138
		C1059	G942	G947	U871	A787	C719	A655	A509		C435	A282	C194	G139
		C1060	U943	U943	A865	U788	C720	A655	A510		A436	C283	A195	A140
			A1004	G944	G867	U789	G721	C656	C511		U437	G284	A196	A141
		G1064	C1005	G944	G867	A790		G657			U438	G285	A197	G142
		U1065	C1006	G945	C868	G791	G724	G658	U582		A439		G198	A143
		C1066	C1007	G945	G869	A792	G725	U659	A583	U516	C372	G289	G199	A144
		G1067	C1008	G947	U870	U793	C726	U660	G584	G517	A373	U296	G200	G145
		A1067	G1009	G948	U871	A794	G727	G661	G585	C518	A374	G297	C201	G146
		G1068	G1010	A949	A872	C795	A728	G662	C586	A520	A375	A298	U208	G148
		C1069	G1011	U950	A873	G796	A729	A663	G587	G521	U437	G299	U209	G149
		U1070	U1012	G951	G874	C797	G730	G664	G588	C522	G438	G300	U210	A149
		C1071	G1013	U952	C875	G798	G731	A665	G592	A523	A439	A300	G216	
		G1072	A1014	G953	C879	G799	C732	G666	G593	C526	A440	G377	C217	
		U1073	A1015	G954	C879	G800	A733	G667	G594	G527	A441			
		G1074	A1016	U955	C880	G735	G734	U668	G595	C528	A442			
		C1075	G1017	U956	G881	C736	G735	U669	G597	C529	G447			
		G1076	G1018	U957	C882	U804	C736	G670	G598	G529	A448			
		U1077	C1019	A958	C883	C805	A737	G671	U598	G530	G449			
		U1078	U1020	A959	U884	C806	A738	U672	C599	U531	G377			
		G1079	G1021	U960	G885	A807	C739	G673	C600	A532	A451			



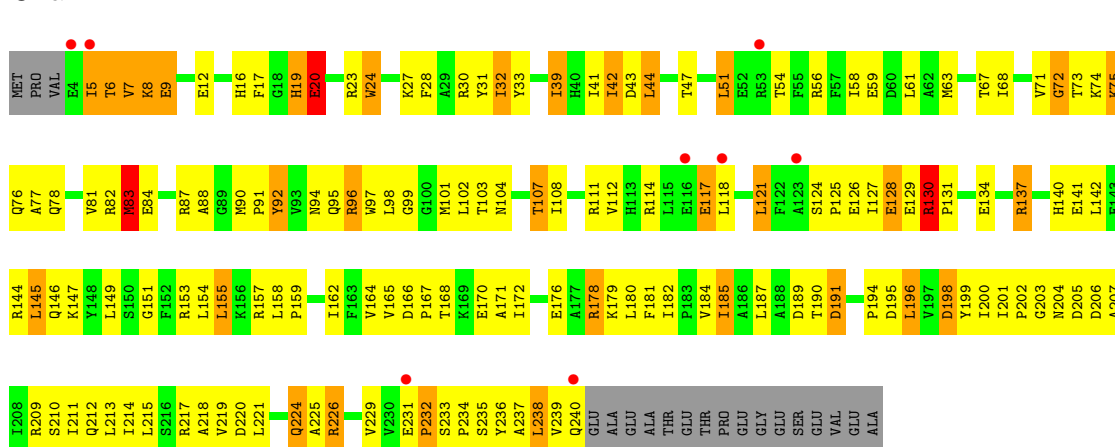
• Molecule 32: 30S RIBOSOMAL PROTEIN S2

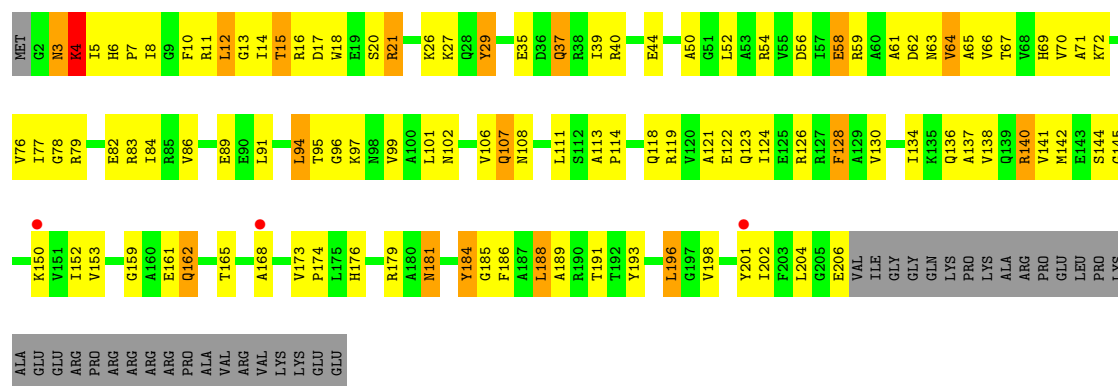
Chain BE:



• Molecule 32: 30S RIBOSOMAL PROTEIN S2

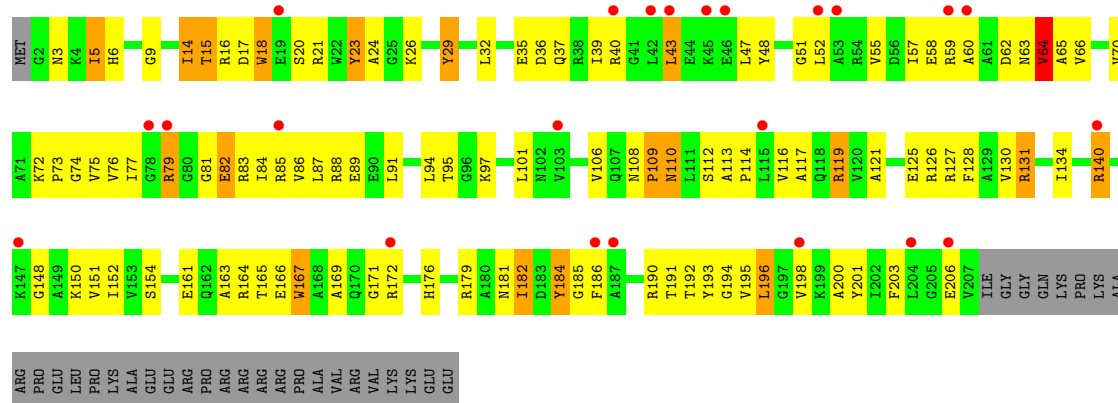
Chain DE:





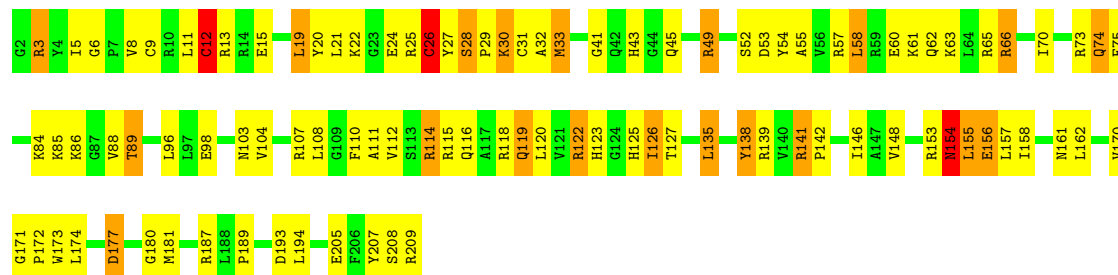
• Molecule 33: 30S RIBOSOMAL PROTEIN S3

Chain DF:



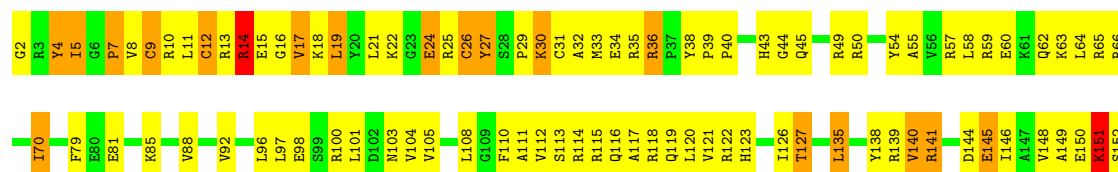
• Molecule 34: 30S RIBOSOMAL PROTEIN S4

Chain BG:



• Molecule 34: 30S RIBOSOMAL PROTEIN S4

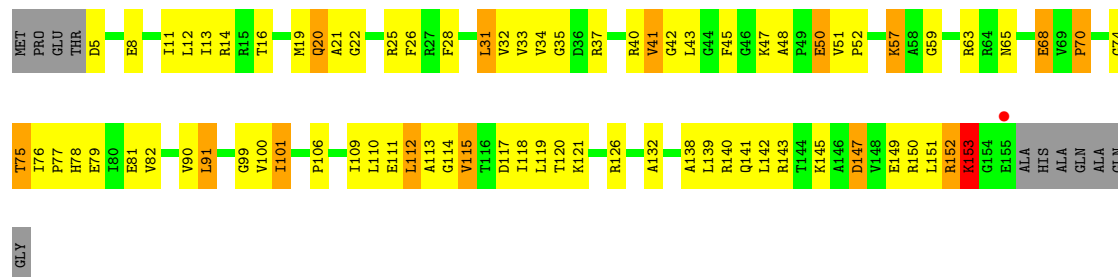
Chain DG:





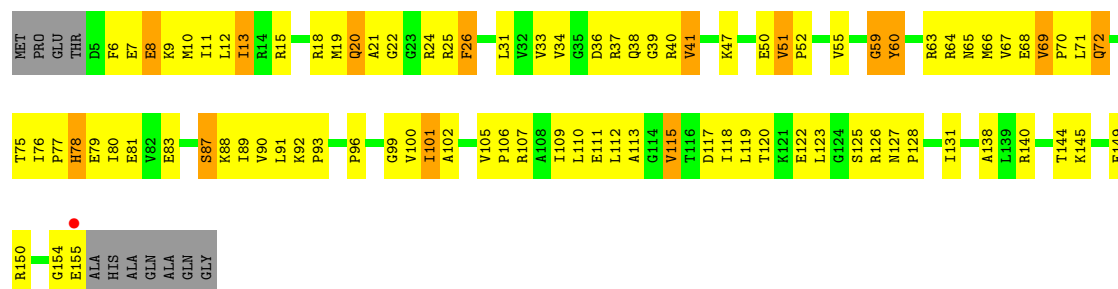
• Molecule 35: 30S RIBOSOMAL PROTEIN S5

Chain BH:



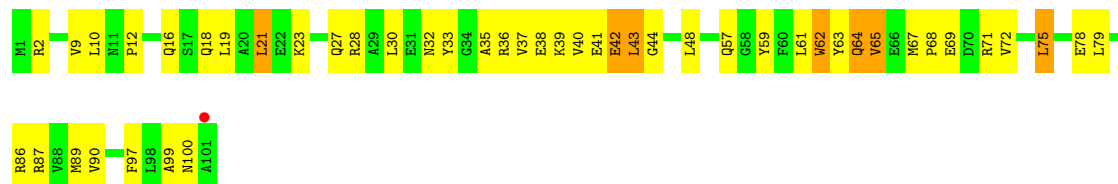
• Molecule 35: 30S RIBOSOMAL PROTEIN S5

Chain DH:



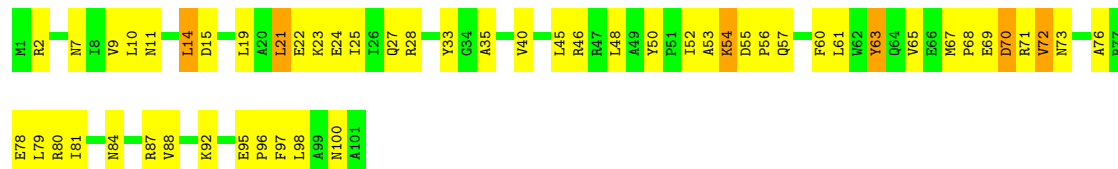
• Molecule 36: 30S RIBOSOMAL PROTEIN S6

Chain BI:



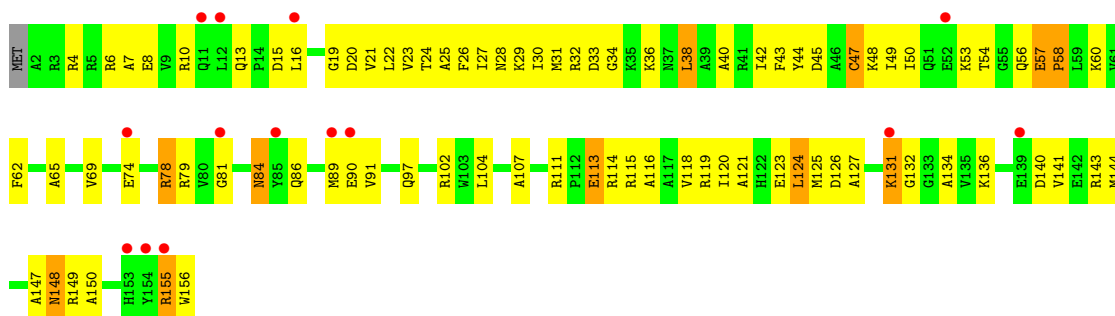
• Molecule 36: 30S RIBOSOMAL PROTEIN S6

Chain DI:



• Molecule 37: 30S RIBOSOMAL PROTEIN S7

Chain BJ:





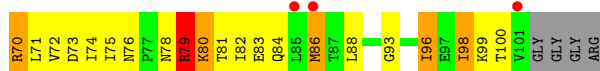
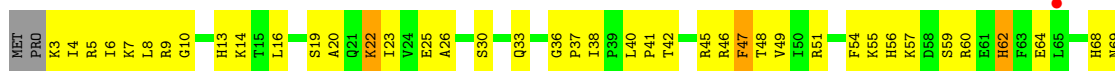
• Molecule 40: 30S RIBOSOMAL PROTEIN S10

Chain BM:



• Molecule 40: 30S RIBOSOMAL PROTEIN S10

Chain DM:



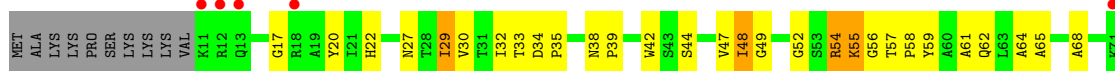
• Molecule 41: 30S RIBOSOMAL PROTEIN S11

Chain BN:



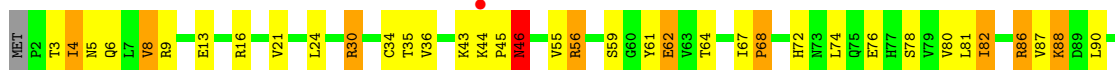
• Molecule 41: 30S RIBOSOMAL PROTEIN S11

Chain DN:



• Molecule 42: 30S RIBOSOMAL PROTEIN S12

Chain BO:





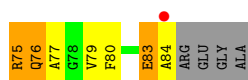
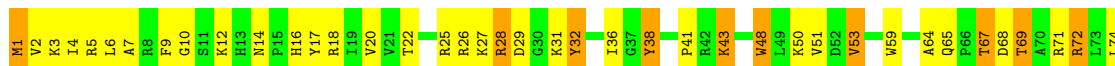
- Molecule 45: 30S RIBOSOMAL PROTEIN S15

Chain DR:



- Molecule 46: 30S RIBOSOMAL PROTEIN S16

Chain BS:



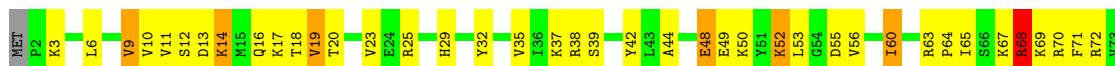
- Molecule 46: 30S RIBOSOMAL PROTEIN S16

Chain DS:



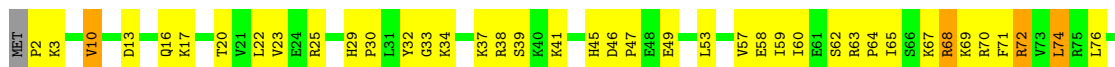
- Molecule 47: 30S RIBOSOMAL PROTEIN S17

Chain BT:



- Molecule 47: 30S RIBOSOMAL PROTEIN S17

Chain DT:



- Molecule 48: 30S RIBOSOMAL PROTEIN S18

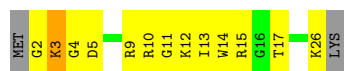
Chain BU:





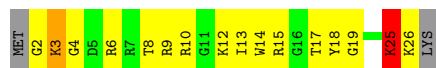
- Molecule 51: 30S RIBOSOMAL PROTEIN THX

Chain BX:



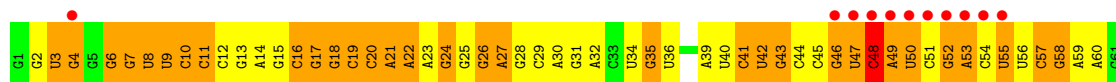
- Molecule 51: 30S RIBOSOMAL PROTEIN THX

Chain DX:



- Molecule 52: tRNA-TYR

Chain BB:



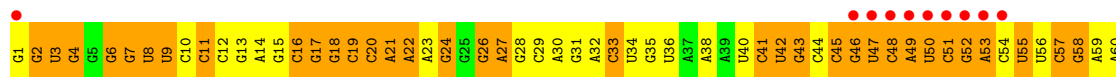
- Molecule 52: tRNA-Tyr

Chain BD:



- Molecule 52: tRNA-TYR

Chain DB:



- Molecule 52: tRNA-TYR

Chain DD:





- Molecule 53: TRNA-FMET

Chain BC:



- Molecule 53: TRNA-FMET

Chain DC:



- Molecule 54: MRNA

Chain B1:



- Molecule 54: MRNA

Chain D1:



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	210.25Å 450.87Å 622.66Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	256.19 – 3.30 256.19 – 3.20	Depositor EDS
% Data completeness (in resolution range)	100.0 (256.19-3.30) 92.8 (256.19-3.20)	Depositor EDS
R_{merge}	0.30	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.27 (at 3.19Å)	Xtriage
Refinement program	PHENIX (phenix.refine: dev_810)	Depositor
R, R_{free}	0.206 , 0.259 0.258 , 0.298	Depositor DCC
R_{free} test set	888 reflections (0.10%)	DCC
Wilson B-factor (Å ²)	90.6	Xtriage
Anisotropy	0.322	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.26 , 61.0	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning	$\langle L \rangle = 0.45$, $\langle L^2 \rangle = 0.28$	Xtriage
Outliers	0 of 962434 reflections	Xtriage
F_o, F_c correlation	0.94	EDS
Total number of atoms	303952	wwPDB-VP
Average B, all atoms (Å ²)	109.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.42% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

5 Model quality ⓘ

5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: MIA, ZN, OHX, 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	0.34	0/70233	0.73	38/109643 (0.0%)
1	CA	0.30	1/70122 (0.0%)	0.70	35/109469 (0.0%)
2	AB	0.32	0/2928	0.79	11/4568 (0.2%)
2	CB	0.27	0/2928	0.70	1/4568 (0.0%)
3	AD	0.30	0/2165	0.56	0/2919
3	CD	0.28	0/2165	0.50	0/2919
4	AE	0.27	0/1601	0.53	0/2160
4	CE	0.26	0/1601	0.51	0/2160
5	AF	0.27	0/1620	0.49	0/2194
5	CF	0.25	0/1662	0.54	0/2249
6	AG	0.23	0/1499	0.45	0/2016
6	CG	0.21	0/1499	0.42	0/2016
7	AH	0.27	0/1332	0.51	0/1802
7	CH	0.23	0/1332	0.47	0/1802
8	AK	0.24	0/1151	0.50	0/1558
8	CK	0.22	0/1151	0.50	0/1558
9	AM	0.26	0/1131	0.48	0/1525
9	CM	0.23	0/1131	0.45	0/1525
10	AN	0.26	0/943	0.47	0/1269
10	CN	0.25	0/943	0.45	0/1269
11	AO	0.27	0/1162	0.60	1/1544 (0.1%)
11	CO	0.24	0/1162	0.47	0/1544
12	AP	0.27	0/1143	0.45	0/1527
12	CP	0.23	0/1143	0.43	0/1527
13	A0	0.25	0/982	0.48	0/1312
13	C0	0.24	0/974	0.44	0/1302
14	AQ	0.25	0/892	0.47	0/1187
14	CQ	0.24	0/892	0.47	0/1187
15	AR	0.27	0/1155	0.50	0/1542
15	CR	0.24	0/1155	0.44	0/1542
16	A1	0.27	0/982	0.50	0/1306
16	C1	0.24	0/982	0.41	0/1306

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	A2	0.26	0/790	0.50	0/1057
17	C2	0.26	0/790	0.53	0/1057
18	AS	0.26	0/911	0.46	0/1220
18	CS	0.25	0/911	0.46	0/1220
19	AT	0.31	0/739	0.49	0/993
19	CT	0.28	0/739	0.47	0/993
20	AU	0.27	0/798	0.49	0/1064
20	CU	0.25	0/798	0.48	0/1064
21	AV	0.25	0/1427	0.50	1/1935 (0.1%)
21	CV	0.22	0/1460	0.45	0/1982
22	A3	0.27	0/615	0.50	0/819
22	C3	0.25	0/621	0.48	0/827
23	AZ	0.26	0/770	0.50	0/1022
23	CZ	0.26	0/770	0.51	0/1022
24	AW	0.29	0/560	0.54	0/741
24	CW	0.24	0/560	0.45	0/741
25	AX	0.24	0/474	0.40	0/635
25	CX	0.21	0/474	0.40	0/635
26	A4	0.25	0/545	0.58	0/733
26	C4	0.26	0/527	0.55	0/709
27	A5	0.24	0/473	0.49	0/639
27	C5	0.25	0/473	0.51	0/639
28	A6	0.28	0/396	0.54	0/529
28	C6	0.25	0/396	0.58	0/529
29	A7	0.31	0/399	0.48	0/526
29	C7	0.25	0/399	0.45	0/526
30	A8	0.34	0/486	0.61	0/638
30	C8	0.27	0/486	0.51	0/638
31	BA	0.28	0/36139	0.68	22/56406 (0.0%)
31	DA	0.26	0/36142	0.65	20/56410 (0.0%)
32	BE	0.22	0/1959	0.43	0/2642
32	DE	0.22	0/1959	0.43	0/2642
33	BF	0.23	0/1629	0.41	0/2195
33	DF	0.21	0/1636	0.40	0/2205
34	BG	0.26	0/1733	0.45	0/2318
34	DG	0.24	0/1733	0.45	0/2318
35	BH	0.24	0/1171	0.44	0/1576
35	DH	0.22	0/1171	0.43	0/1576
36	BI	0.24	0/856	0.43	0/1154
36	DI	0.23	0/856	0.44	0/1154
37	BJ	0.23	0/1276	0.38	0/1709
37	DJ	0.21	0/1276	0.37	0/1709
38	BK	0.23	0/1136	0.47	0/1527

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	DK	0.21	0/1136	0.42	0/1527
39	BL	0.22	0/1029	0.41	0/1379
39	DL	0.23	0/1029	0.44	0/1379
40	BM	0.22	0/814	0.45	0/1095
40	DM	0.21	0/814	0.44	0/1095
41	BN	0.24	0/900	0.47	0/1213
41	DN	0.23	0/900	0.45	0/1213
42	BO	0.26	0/991	0.47	0/1327
42	DO	0.24	0/991	0.47	0/1327
43	BP	0.22	0/938	0.47	0/1258
43	DP	0.21	0/943	0.43	0/1265
44	BQ	0.26	0/485	0.45	0/643
44	DQ	0.23	0/485	0.46	0/643
45	BR	0.24	0/745	0.41	0/992
45	DR	0.22	0/745	0.40	0/992
46	BS	0.22	0/721	0.43	0/970
46	DS	0.22	0/721	0.43	0/970
47	BT	0.24	0/847	0.41	0/1131
47	DT	0.23	0/847	0.40	0/1131
48	BU	0.24	0/596	0.45	0/790
48	DU	0.24	0/596	0.43	0/790
49	BV	0.22	0/638	0.44	0/860
49	DV	0.23	0/638	0.46	0/860
50	BW	0.22	0/765	0.42	0/1007
50	DW	0.23	0/765	0.47	0/1007
51	BX	0.22	0/221	0.39	0/288
51	DX	0.21	0/221	0.41	0/288
52	BB	0.35	0/1992	0.71	2/3099 (0.1%)
52	BD	0.32	0/1992	0.66	2/3099 (0.1%)
52	DB	0.35	0/1992	0.68	1/3099 (0.0%)
52	DD	0.32	0/1992	0.64	2/3099 (0.1%)
53	BC	0.26	0/1835	0.61	0/2859
53	DC	0.24	0/1835	0.56	0/2859
54	B1	0.33	0/390	0.59	1/606 (0.2%)
54	D1	0.34	0/390	0.63	1/606 (0.2%)
All	All	0.29	1/324159 (0.0%)	0.65	138/485455 (0.0%)

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	CA	2884	A	N7-C5	-5.57	1.35	1.39

All (138) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BA	1495	U	N1-C2-O2	9.65	129.55	122.80
1	AA	673	C	C2-N3-C4	-8.89	115.45	119.90
2	AB	81	G	C5-C6-O6	-8.73	123.36	128.60
1	CA	979	A	C4-N9-C1'	8.38	141.38	126.30
1	CA	1922	G	N3-C4-N9	-8.15	121.11	126.00
31	DA	1025	U	C5-C4-O4	-7.91	121.16	125.90
1	CA	979	A	C8-N9-C1'	-7.87	113.54	127.70
1	CA	979	A	C6-C5-N7	-7.86	126.80	132.30
1	CA	2734	U	C2-N3-C4	-7.69	122.38	127.00
31	DA	1495	U	N1-C2-O2	7.65	128.16	122.80
2	AB	95	U	C5-C4-O4	7.60	130.46	125.90
1	AA	807	U	C2-N3-C4	-7.52	122.49	127.00
1	AA	783	A	C5-N7-C8	-7.51	100.14	103.90
1	CA	721	C	C2-N3-C4	-7.49	116.16	119.90
1	CA	1922	G	C4-N9-C1'	-7.48	116.77	126.50
1	CA	1922	G	C8-N9-C1'	7.47	136.72	127.00
31	BA	690	G	C4-N9-C1'	7.47	136.21	126.50
1	CA	855	U	C2-N3-C4	-7.42	122.55	127.00
2	AB	81	G	C6-C5-N7	-7.42	125.95	130.40
31	DA	1529	G	C4-N9-C1'	7.39	136.11	126.50
2	AB	81	G	C4-N9-C1'	7.36	136.07	126.50
1	CA	2460	G	C6-N1-C2	-7.27	120.74	125.10
1	AA	250	G	N3-C2-N2	7.27	124.99	119.90
1	CA	240	G	N3-C2-N2	7.22	124.95	119.90
2	AB	81	G	N3-C4-N9	7.14	130.29	126.00
52	DD	55	U	C2-N1-C1'	7.14	126.26	117.70
31	BA	530	G	C4-N9-C1'	7.13	135.77	126.50
1	AA	2447	G	C6-N1-C2	-7.12	120.83	125.10
31	BA	1436	U	C2-N3-C4	-7.06	122.76	127.00
31	BA	1465	C	C2-N3-C4	-7.04	116.38	119.90
31	DA	1036	G	C5-C6-O6	7.04	132.83	128.60
1	CA	2391	A	N1-C6-N6	6.98	122.79	118.60
1	AA	103	A	N1-C6-N6	6.89	122.73	118.60
52	BD	55	U	C2-N1-C1'	6.88	125.96	117.70
1	AA	1899	G	N3-C4-N9	-6.84	121.90	126.00
31	BA	690	G	C8-N9-C1'	-6.81	118.15	127.00
1	AA	783	A	C4-C5-N7	6.79	114.10	110.70
31	BA	1495	U	C2-N1-C1'	6.77	125.83	117.70
1	AA	906	G	C5-C6-O6	6.72	132.63	128.60
2	AB	81	G	C8-N9-C1'	-6.72	118.27	127.00
1	CA	2460	G	C5-C6-O6	-6.71	124.58	128.60
1	AA	633	A	N1-C6-N6	6.69	122.61	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	2598	A	N1-C6-N6	6.65	122.59	118.60
1	CA	2884	A	N1-C6-N6	6.63	122.58	118.60
1	CA	1922	G	N3-C4-C5	6.58	131.89	128.60
31	BA	1054	C	C2-N1-C1'	6.50	125.95	118.80
31	BA	530	G	C8-N9-C1'	-6.46	118.60	127.00
1	AA	250	G	N3-C4-N9	6.41	129.85	126.00
1	AA	1141	U	N1-C2-O2	-6.39	118.33	122.80
31	BA	1036	G	C5-C6-O6	6.32	132.39	128.60
1	CA	953	G	C5-C6-O6	6.31	132.39	128.60
1	AA	2447	G	C5-C6-N1	6.29	114.64	111.50
1	CA	979	A	C4-C5-C6	6.23	120.12	117.00
1	CA	2611	A	N1-C6-N6	6.20	122.32	118.60
52	DD	55	U	C6-N1-C1'	-6.17	112.57	121.20
31	BA	1495	U	N3-C2-O2	-6.15	117.89	122.20
1	CA	240	G	N3-C4-N9	6.15	129.69	126.00
1	AA	103	A	C4-C5-C6	6.10	120.05	117.00
2	AB	81	G	C4-C5-N7	6.08	113.23	110.80
1	AA	2401	U	N1-C2-O2	6.07	127.05	122.80
1	AA	1899	G	N3-C4-C5	6.06	131.63	128.60
31	BA	1025	U	C5-C4-O4	-6.04	122.28	125.90
52	BD	55	U	C6-N1-C1'	-5.98	112.83	121.20
31	BA	1036	G	N1-C6-O6	-5.93	116.34	119.90
31	DA	1036	G	N1-C6-O6	-5.93	116.34	119.90
1	CA	979	A	N3-C4-N9	5.92	132.14	127.40
2	AB	81	G	N1-C6-O6	5.91	123.45	119.90
31	DA	1529	G	C8-N9-C1'	-5.91	119.32	127.00
11	AO	59	LEU	N-CA-C	-5.89	95.10	111.00
2	CB	98	U	C5-C4-O4	5.87	129.42	125.90
1	AA	1141	U	C2-N3-C4	-5.81	123.51	127.00
1	CA	979	A	N9-C4-C5	-5.77	103.49	105.80
31	DA	64	G	C4-N9-C1'	5.76	133.99	126.50
21	AV	61	LEU	CA-CB-CG	5.74	128.50	115.30
1	CA	2464	A	C5-N7-C8	-5.73	101.03	103.90
1	CA	831	A	C5-N7-C8	-5.66	101.07	103.90
1	CA	101	A	N1-C6-N6	5.65	121.99	118.60
2	AB	44	G	C4-N9-C1'	-5.65	119.16	126.50
1	AA	633	A	C4-C5-C6	5.61	119.80	117.00
31	BA	1301	U	C2-N1-C1'	5.60	124.42	117.70
1	AA	140	A	N7-C8-N9	5.54	116.57	113.80
1	CA	1454	C	C2-N1-C1'	5.54	124.89	118.80
31	BA	690	G	C6-C5-N7	-5.53	127.08	130.40
1	AA	676	A	N7-C8-N9	5.50	116.55	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	CA	1649	U	C2-N3-C4	-5.49	123.70	127.00
31	DA	1495	U	C2-N1-C1'	5.49	124.29	117.70
31	DA	1036	G	C4-C5-N7	-5.49	108.61	110.80
31	BA	1053	G	C4-N9-C1'	-5.46	119.41	126.50
1	CA	979	A	N7-C8-N9	5.46	116.53	113.80
1	AA	120	U	C2-N1-C1'	5.44	124.23	117.70
31	DA	1036	G	N9-C4-C5	5.43	107.57	105.40
31	DA	1529	G	N3-C4-C5	-5.41	125.89	128.60
31	DA	1465	C	C2-N3-C4	-5.41	117.20	119.90
1	AA	250	G	C6-C5-N7	-5.39	127.17	130.40
1	AA	2475	C	C2-N1-C1'	5.38	124.71	118.80
31	DA	1036	G	C8-N9-C1'	5.35	133.95	127.00
1	CA	724	A	N7-C8-N9	5.33	116.46	113.80
1	AA	1899	G	C2-N3-C4	-5.31	109.25	111.90
1	AA	103	A	C8-N9-C1'	-5.29	118.17	127.70
1	AA	1021	A	C5-N7-C8	-5.27	101.26	103.90
31	BA	1036	G	C4-C5-N7	-5.26	108.69	110.80
2	AB	44	G	C8-N9-C1'	5.25	133.82	127.00
1	CA	2460	G	N3-C4-N9	5.24	129.14	126.00
2	AB	59	A	C6-N1-C2	-5.23	115.46	118.60
52	BB	78	C	C3'-C2'-C1'	5.23	105.68	101.50
31	DA	270	A	N1-C6-N6	5.22	121.73	118.60
31	DA	1200	C	C2-N1-C1'	5.21	124.53	118.80
31	BA	1406	U	C2-N3-C4	-5.20	123.88	127.00
31	DA	64	G	C8-N9-C1'	-5.20	120.25	127.00
31	BA	560	U	C3'-C2'-C1'	5.19	105.65	101.50
1	CA	411	U	N1-C2-O2	5.18	126.43	122.80
1	AA	250	G	N9-C4-C5	-5.18	103.33	105.40
1	CA	2884	A	C5-C6-N1	-5.18	115.11	117.70
1	AA	103	A	C6-C5-N7	-5.17	128.68	132.30
1	AA	201	C	C2-N3-C4	-5.17	117.32	119.90
1	AA	1950	G	C4-N9-C1'	5.17	133.22	126.50
1	CA	953	G	N3-C4-N9	-5.16	122.90	126.00
31	BA	1036	G	N9-C4-C5	5.16	107.46	105.40
1	AA	807	U	C5-C4-O4	-5.15	122.81	125.90
1	CA	2734	U	C5-C4-O4	-5.13	122.82	125.90
31	DA	1301	U	C2-N1-C1'	5.12	123.84	117.70
52	DB	78	C	C3'-C2'-C1'	5.11	105.59	101.50
54	B1	11	U	C3'-C2'-C1'	5.10	105.58	101.50
1	AA	774	A	C2-N3-C4	-5.10	108.05	110.60
52	BB	48	C	C2-N1-C1'	5.09	124.40	118.80
31	DA	1529	G	N3-C4-N9	5.09	129.05	126.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	DA	560	U	C2-N1-C1'	5.09	123.81	117.70
31	DA	1267	C	C2-N1-C1'	5.08	124.39	118.80
1	CA	659	A	N1-C6-N6	5.08	121.65	118.60
1	AA	893	C	C2-N1-C1'	5.07	124.38	118.80
1	AA	630	G	C2-N3-C4	-5.06	109.37	111.90
31	BA	1158	C	C2-N1-C1'	5.05	124.36	118.80
54	D1	11	U	C3'-C2'-C1'	5.05	105.54	101.50
1	AA	633	A	C6-C5-N7	-5.04	128.78	132.30
31	BA	1053	G	C8-N9-C1'	5.04	133.54	127.00
1	AA	250	G	C4-N9-C1'	5.03	133.04	126.50
1	AA	2501	C	C2-N1-C1'	-5.03	113.27	118.80
1	CA	2391	A	C4-C5-C6	5.02	119.51	117.00

There are no chirality outliers.

There are no planarity outliers.

5.2 Close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	62707	0	31613	2349	0
1	CA	62607	0	31564	2395	0
2	AB	2617	0	1328	88	0
2	CB	2617	0	1328	126	0
3	AD	2115	0	2195	232	0
3	CD	2115	0	2195	198	0
4	AE	1568	0	1634	155	0
4	CE	1568	0	1634	162	0
5	AF	1585	0	1632	122	0
5	CF	1627	0	1680	182	0
6	AG	1474	0	1535	112	0
6	CG	1474	0	1535	112	0
7	AH	1307	0	1382	129	0
7	CH	1307	0	1382	110	1
8	AK	1136	0	1223	92	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
8	CK	1136	0	1223	77	0
9	AM	1104	0	1180	81	0
9	CM	1104	0	1180	64	0
10	AN	933	0	996	64	0
10	CN	933	0	996	53	0
11	AO	1145	0	1228	178	0
11	CO	1145	0	1228	265	0
12	AP	1122	0	1179	168	0
12	CP	1122	0	1179	189	0
13	A0	968	0	1033	74	0
13	C0	960	0	1021	70	0
14	AQ	882	0	943	83	0
14	CQ	882	0	943	89	0
15	AR	1141	0	1202	107	0
15	CR	1141	0	1202	94	0
16	A1	964	0	1022	87	0
16	C1	964	0	1022	83	0
17	A2	779	0	852	63	0
17	C2	779	0	852	99	0
18	AS	900	0	964	55	0
18	CS	900	0	964	54	0
19	AT	725	0	778	43	0
19	CT	725	0	778	39	0
20	AU	785	0	878	75	0
20	CU	785	0	878	80	0
21	AV	1397	0	1430	140	0
21	CV	1428	0	1454	149	0
22	A3	607	0	628	42	0
22	C3	613	0	633	47	0
23	AZ	763	0	848	49	0
23	CZ	763	0	848	44	0
24	AW	558	0	610	45	0
24	CW	558	0	610	51	0
25	AX	469	0	518	28	0
25	CX	469	0	518	27	0
26	A4	533	0	522	72	0
26	C4	515	0	510	96	0
27	A5	459	0	480	88	0
27	C5	459	0	478	33	0
28	A6	389	0	404	59	0
28	C6	389	0	404	51	0
29	A7	391	0	432	21	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
29	C7	391	0	432	33	0
30	A8	480	0	549	67	0
30	C8	480	0	549	114	0
31	BA	32284	0	16296	1465	1
31	DA	32287	0	16295	1435	0
32	BE	1924	0	1975	137	0
32	DE	1924	0	1975	162	0
33	BF	1605	0	1668	95	0
33	DF	1612	0	1677	110	0
34	BG	1703	0	1763	120	0
34	DG	1703	0	1763	129	0
35	BH	1155	0	1213	71	0
35	DH	1155	0	1213	79	0
36	BI	843	0	857	36	0
36	DI	843	0	857	46	0
37	BJ	1257	0	1296	70	0
37	DJ	1257	0	1296	91	0
38	BK	1116	0	1177	83	0
38	DK	1116	0	1177	56	0
39	BL	1010	0	1037	72	0
39	DL	1010	0	1037	112	0
40	BM	801	0	849	79	0
40	DM	801	0	849	87	0
41	BN	885	0	904	54	0
41	DN	885	0	904	58	0
42	BO	975	0	1062	53	0
42	DO	975	0	1062	89	0
43	BP	928	0	987	74	0
43	DP	933	0	992	81	0
44	BQ	476	0	511	43	0
44	DQ	476	0	511	53	0
45	BR	734	0	771	34	0
45	DR	734	0	771	38	0
46	BS	705	0	725	54	0
46	DS	705	0	725	35	0
47	BT	834	0	904	53	0
47	DT	834	0	904	41	0
48	BU	591	0	662	38	0
48	DU	591	0	662	40	0
49	BV	624	0	636	50	0
49	DV	624	0	636	77	0
50	BW	763	0	861	59	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
50	DW	763	0	861	48	0
51	BX	217	0	234	12	0
51	DX	217	0	234	21	0
52	BB	1814	0	932	159	0
52	BD	1814	0	932	154	0
52	DB	1814	0	932	174	0
52	DD	1814	0	932	173	0
53	BC	1643	0	837	47	0
53	DC	1643	0	837	51	0
54	B1	347	0	174	24	0
54	D1	347	0	174	25	0
55	A0	1	0	0	0	0
55	A1	1	0	0	0	0
55	A3	1	0	0	0	0
55	A5	1	0	0	0	0
55	AA	331	0	0	0	0
55	AB	6	0	0	0	0
55	AE	3	0	0	0	0
55	AF	2	0	0	0	0
55	AO	3	0	0	0	0
55	B1	1	0	0	0	0
55	BA	115	0	0	0	0
55	BB	5	0	0	0	0
55	BC	5	0	0	0	0
55	BD	1	0	0	0	0
55	BN	1	0	0	0	0
55	BQ	1	0	0	0	0
55	BS	1	0	0	0	0
55	C0	1	0	0	0	0
55	C5	1	0	0	0	0
55	C7	1	0	0	0	0
55	CA	274	0	0	0	0
55	CB	7	0	0	0	0
55	CE	1	0	0	0	0
55	D1	1	0	0	0	0
55	DA	119	0	0	0	0
55	DB	2	0	0	0	0
55	DC	6	0	0	0	0
55	DL	1	0	0	0	0
55	DN	1	0	0	0	0
56	A1	14	0	0	0	0
56	A3	7	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	A6	7	0	0	3	0
56	AA	1666	0	0	98	0
56	AB	91	0	0	4	0
56	AE	7	0	0	0	0
56	AF	7	0	0	1	0
56	AO	14	0	0	1	0
56	AW	7	0	0	0	0
56	BA	707	0	0	51	0
56	BB	14	0	0	1	0
56	BC	14	0	0	2	0
56	BD	21	0	0	1	0
56	BG	7	0	0	2	0
56	BR	7	0	0	0	0
56	C1	7	0	0	0	0
56	C3	7	0	0	0	0
56	C5	7	0	0	1	0
56	C6	7	0	0	4	0
56	CA	1526	0	0	72	0
56	CB	91	0	0	4	0
56	CF	7	0	0	0	0
56	CO	7	0	0	0	0
56	DA	651	0	0	55	0
56	DB	21	0	0	1	0
56	DC	28	0	0	10	0
56	DD	7	0	0	1	0
56	DG	7	0	0	2	0
56	DK	7	0	0	1	0
56	DR	7	0	0	0	0
56	DV	7	0	0	1	0
57	BG	1	0	0	0	0
57	BQ	1	0	0	0	0
57	DG	1	0	0	0	0
57	DQ	1	0	0	0	0
All	All	303952	0	200977	14995	1

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 30.

All (14995) close contacts within the same asymmetric unit are listed below.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:2320:G:C8	1:CA:2324:A:C2	1.85	1.64
1:CA:216:G:N2	1:CA:218:A:H61	1.09	1.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:2308:G:N1	1:AA:2311:A:N1	1.63	1.43
1:CA:216:G:H21	1:CA:218:A:N6	0.92	1.42
1:AA:2308:G:N2	1:AA:2311:A:H2	1.02	1.42
1:CA:2320:G:C8	1:CA:2324:A:H2	1.24	1.40
11:AO:19:VAL:HG23	11:AO:27:HIS:CB	1.51	1.39
11:AO:19:VAL:CG2	11:AO:27:HIS:HB3	1.52	1.37
1:AA:2255:G:N2	12:AP:85:LYS:HE2	1.40	1.35
1:AA:2015:A:C1'	27:A5:2:ALA:HA	1.56	1.35
1:CA:2431:A:OP2	30:C8:29:LYS:NZ	1.63	1.32
27:A5:4:HIS:HB3	27:A5:5:PRO:CD	1.60	1.32
12:AP:17:LEU:HD23	12:AP:96:VAL:CG1	1.58	1.31
12:AP:17:LEU:CD2	12:AP:96:VAL:HG13	1.60	1.30
12:AP:24:GLY:HA3	12:AP:25:ASP:CB	1.43	1.30
1:CA:2320:G:C4	1:CA:2324:A:N1	2.00	1.30
12:AP:77:LYS:NZ	12:AP:83:MET:HA	1.47	1.29
1:AA:883:G:H1	1:AA:893:C:N4	1.30	1.27
1:AA:1056:G:H21	1:AA:1103:A:N6	1.29	1.27
12:CP:24:GLY:HA3	12:CP:25:ASP:CB	1.52	1.26
1:AA:2136:C:N4	1:AA:2155:G:H1	1.30	1.25
11:CO:64:LYS:HD3	30:C8:25:MET:SD	1.75	1.25
11:CO:71:VAL:CG1	11:CO:72:PRO:HD3	1.65	1.25
1:CA:2694:C:C5	1:CA:2739:A:N6	2.06	1.24
53:BC:48:U:O2'	53:BC:49:C:OP2	1.57	1.22
1:CA:933:C:N4	1:CA:938:A:H62	1.36	1.22
1:CA:933:C:C4	1:CA:938:A:N6	2.08	1.21
1:CA:895:U:C4	1:CA:979:A:N6	2.09	1.19
53:DC:48:U:O2'	53:DC:49:C:OP2	1.58	1.18
53:DC:17:C:H3'	53:DC:18:C:C5'	1.70	1.18
12:CP:3:MET:SD	12:CP:93:TYR:HE1	1.65	1.18
8:AK:131:LYS:HB3	8:AK:132:PRO:HA	1.25	1.17
12:CP:24:GLY:HA3	12:CP:25:ASP:HB2	1.20	1.17
30:C8:37:SER:O	30:C8:39:LYS:N	1.76	1.17
1:AA:2016:U:H1'	27:A5:6:VAL:HG13	1.21	1.17
30:C8:32:LEU:CD1	30:C8:32:LEU:H	1.54	1.16
11:CO:101:VAL:HG21	11:CO:108:LYS:HG2	1.19	1.16
30:C8:29:LYS:O	30:C8:29:LYS:HG3	1.44	1.16
1:CA:2288:C:O2'	12:CP:84:GLY:HA3	1.45	1.16
1:AA:1056:G:N2	1:AA:1103:A:H62	1.43	1.16
11:AO:15:ARG:HH11	11:AO:15:ARG:HG2	1.10	1.16
12:CP:3:MET:SD	12:CP:93:TYR:CE1	2.38	1.16
1:CA:2320:G:N9	1:CA:2324:A:C2	2.12	1.15
1:CA:1101:A:N6	1:CA:1152:U:H3	1.43	1.15

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CP:134:ARG:HG2	12:CP:134:ARG:HH11	1.09	1.15
52:BD:17:G:O2'	52:BD:66:G:N2	1.77	1.15
31:BA:788:U:C2'	31:BA:789:U:H5'	1.77	1.15
52:BD:48:C:H3'	52:BD:49:A:C8	1.82	1.14
30:C8:32:LEU:N	30:C8:32:LEU:HD13	1.56	1.14
52:DD:48:C:H3'	52:DD:49:A:C8	1.82	1.14
53:DC:18:C:O2'	56:DC:110:OHX:N3	1.80	1.14
11:CO:80:TYR:CE1	11:CO:111:ARG:HG2	1.82	1.14
12:AP:19:GLY:HA3	12:AP:98:LYS:HZ2	1.10	1.13
11:CO:52:GLU:HG3	11:CO:57:THR:HA	1.26	1.13
1:AA:2015:A:H1'	27:A5:2:ALA:CA	1.79	1.13
1:CA:2791:G:H5''	1:CA:2792:A:H5'	1.22	1.12
11:CO:64:LYS:HB2	30:C8:25:MET:HG3	1.24	1.12
11:AO:65:ARG:HH11	11:AO:65:ARG:HG3	0.98	1.12
1:CA:2325:U:H2'	1:CA:2326:C:H5'	1.32	1.12
1:AA:889:C:H3'	1:AA:890:A:H4'	1.24	1.12
34:DG:14:ARG:HH11	34:DG:14:ARG:HG3	1.01	1.12
1:CA:933:C:N4	1:CA:938:A:N6	1.94	1.12
1:AA:654(D):G:H1	1:AA:654(Q):C:N4	1.46	1.11
11:CO:62:LEU:HG	30:C8:25:MET:HB2	1.14	1.11
11:CO:46:LYS:HD3	11:CO:51:PHE:CZ	1.85	1.11
52:BB:48:C:N4	52:BB:52:G:H1	1.47	1.11
1:CA:2405:A:OP2	30:C8:31:HIS:CD2	2.03	1.11
31:DA:1176:A:H2'	31:DA:1177:G:H5'	1.20	1.11
1:AA:1061:U:H4'	1:AA:1070:A:H1'	1.19	1.11
1:AA:2467:C:H4'	12:AP:123:HIS:ND1	1.64	1.11
24:CW:17:SER:HB2	24:CW:18:PRO:HA	1.19	1.11
11:CO:19:VAL:HG23	11:CO:27:HIS:CB	1.80	1.11
12:AP:24:GLY:CA	12:AP:25:ASP:HB3	1.78	1.10
11:CO:61:ARG:C	11:CO:62:LEU:HD22	1.71	1.10
1:CA:2405:A:OP2	30:C8:31:HIS:HD2	1.33	1.10
11:CO:61:ARG:CB	11:CO:61:ARG:HH21	1.63	1.10
1:CA:1090:C:N4	1:CA:1159:G:H1	1.48	1.10
11:CO:71:VAL:HG13	11:CO:72:PRO:CD	1.79	1.10
1:CA:2405:A:H8	11:CO:60:MET:HB2	1.11	1.10
3:AD:28:GLU:HB3	3:AD:29:PRO:HD2	1.10	1.09
1:AA:1533:C:H3'	1:AA:1534:G:H5''	1.28	1.09
12:AP:79:LEU:O	12:AP:80:GLU:HB2	1.52	1.09
1:AA:2308:G:N2	1:AA:2311:A:C2	1.87	1.09
52:BD:47:U:H2'	52:BD:48:C:C6	1.86	1.09
52:BD:48:C:H3'	52:BD:49:A:H8	1.10	1.09
11:CO:97:PRO:CG	11:CO:112:LEU:HD12	1.81	1.09

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1053:G:H5'	31:BA:1054:C:H5'	1.29	1.09
52:DD:48:C:H3'	52:DD:49:A:H8	1.07	1.08
31:BA:1299:A:H2'	31:BA:1301:U:H1'	1.34	1.08
27:A5:3:LYS:HE3	27:A5:3:LYS:HA	1.35	1.08
27:A5:4:HIS:CB	27:A5:5:PRO:CD	2.29	1.08
1:CA:417:G:H1	11:CO:71:VAL:HG12	1.16	1.08
12:AP:75:THR:HB	12:AP:88:GLY:HA3	1.17	1.08
37:DJ:113:GLU:HB2	37:DJ:119:ARG:HG2	1.35	1.08
17:C2:85:LYS:HG3	17:C2:87:HIS:H	1.16	1.08
31:BA:1160:G:O6	31:BA:1181:G:O6	1.69	1.08
1:CA:1379:G:N2	1:CA:1656:A:O2'	1.85	1.08
11:CO:15:ARG:HH11	11:CO:15:ARG:CG	1.67	1.08
1:CA:2431:A:P	30:C8:29:LYS:NZ	2.25	1.07
12:AP:24:GLY:HA3	12:AP:25:ASP:HB3	1.08	1.07
11:CO:61:ARG:HH21	11:CO:61:ARG:CG	1.66	1.07
31:BA:73:G:O6	31:BA:97:U:O2	1.70	1.07
31:BA:1003:G:H2'	31:BA:1004:A:H5'	1.30	1.07
1:AA:2689:U:H4'	1:AA:2690:C:H5'	1.34	1.07
3:CD:60:ARG:HD3	3:CD:86:PRO:HB2	1.33	1.07
31:DA:1443:G:H3'	31:DA:1446:A:H5''	1.29	1.07
12:AP:24:GLY:CA	12:AP:25:ASP:CB	2.31	1.07
52:BD:18:G:H1'	52:BD:19:C:OP2	1.54	1.07
31:BA:1271:G:H2'	31:BA:1272:G:H5''	1.28	1.07
26:C4:61:ARG:HH11	26:C4:61:ARG:HG3	1.15	1.07
21:AV:7:ALA:HB3	21:AV:61:LEU:HB3	1.33	1.07
1:CA:2289:G:OP1	12:CP:84:GLY:HA2	1.55	1.06
11:CO:106:LEU:O	11:CO:107:LYS:HB2	1.55	1.06
42:DO:44:LYS:HB3	42:DO:45:PRO:HD2	1.37	1.06
1:CA:2431:A:P	30:C8:29:LYS:HZ1	1.79	1.06
12:AP:24:GLY:HA3	12:AP:25:ASP:HB2	1.35	1.06
5:AF:101:LEU:HD13	5:AF:102:PRO:HD2	1.38	1.06
27:C5:4:HIS:HB3	27:C5:5:PRO:HD3	1.33	1.06
34:DG:22:LYS:HB2	34:DG:26:CYS:HB2	1.32	1.06
33:BF:70:VAL:HG12	33:BF:72:LYS:H	1.20	1.06
1:AA:2015:A:O4'	27:A5:2:ALA:CB	2.04	1.05
1:AA:882:G:N2	1:AA:894:C:N3	2.04	1.05
11:AO:15:ARG:CG	11:AO:15:ARG:HH11	1.67	1.05
3:AD:28:GLU:HB3	3:AD:29:PRO:CD	1.86	1.05
11:CO:65:ARG:HH11	11:CO:65:ARG:HG3	0.98	1.05
52:BB:46:G:O2'	52:BB:47:U:H5'	1.56	1.05
11:AO:9:ASN:HB3	11:AO:10:PRO:HD2	1.38	1.05
31:BA:156:G:H1	31:BA:165:C:N4	1.55	1.05

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:2320:G:N7	1:CA:2324:A:C2	2.24	1.05
1:AA:873:G:H1	1:AA:904:C:N4	1.55	1.05
1:CA:417:G:N1	11:CO:71:VAL:HG12	1.70	1.05
11:CO:15:ARG:HH11	11:CO:15:ARG:HG2	1.10	1.05
41:DN:54:ARG:HG2	41:DN:54:ARG:HH11	1.17	1.05
1:AA:67:U:N3	1:AA:74:A:C2	2.25	1.05
12:CP:75:THR:CB	12:CP:88:GLY:HA3	1.87	1.05
1:CA:2714:C:H3'	1:CA:2715:U:H5''	1.38	1.04
1:AA:593:G:H4'	30:A8:61:LEU:HD13	1.33	1.04
27:A5:4:HIS:CB	27:A5:5:PRO:HD2	1.85	1.04
31:BA:1004:A:H5''	31:BA:1025:U:O4	1.57	1.04
52:DB:46:G:O2'	52:DB:47:U:H5'	1.56	1.04
11:CO:97:PRO:HG3	11:CO:112:LEU:CD1	1.87	1.04
1:CA:89:U:H2'	1:CA:90:A:H5''	1.30	1.04
1:CA:216:G:N2	1:CA:218:A:N6	1.75	1.04
1:AA:882:G:H1	1:AA:894:C:N4	1.56	1.04
6:CG:104:GLU:HG2	26:C4:23:GLU:HG2	1.37	1.04
52:DD:18:G:H1'	52:DD:19:C:OP2	1.57	1.04
15:AR:105:LEU:O	15:AR:107:ASP:N	1.90	1.04
52:DD:17:G:O2'	52:DD:66:G:N2	1.91	1.03
12:CP:75:THR:HB	12:CP:88:GLY:CA	1.87	1.03
31:BA:791:G:H3'	31:BA:792:A:C5'	1.86	1.03
5:AF:46:ARG:HG2	5:AF:46:ARG:HH11	1.20	1.03
32:DE:185:ILE:HG22	32:DE:199:TYR:HB2	1.40	1.03
20:AU:42:VAL:HB	20:AU:67:LEU:HD11	1.34	1.03
1:AA:880:G:H1	1:AA:897:C:N4	1.57	1.03
1:CA:2268:G:N2	12:CP:85:LYS:HE2	1.73	1.03
1:CA:2166:C:N4	1:CA:2171:G:H1	1.57	1.03
1:CA:295:C:N4	1:CA:391:G:H1	1.57	1.03
1:CA:930:G:H1	1:CA:941:C:N4	1.56	1.03
1:AA:2210:G:H3'	1:AA:2211:G:C8	1.93	1.02
1:CA:2405:A:C8	11:CO:60:MET:HB2	1.95	1.02
1:AA:1332:G:N2	1:AA:1609:A:O2'	1.91	1.02
1:CA:1135:A:H4'	1:CA:1136:G:H8	1.25	1.02
1:AA:1899:G:H22	1:AA:1902:C:N4	1.57	1.02
11:CO:9:ASN:HB3	11:CO:10:PRO:HD2	1.40	1.02
1:AA:880:G:N2	1:AA:897:C:N3	2.05	1.02
3:CD:255:LYS:HE3	3:CD:255:LYS:H	1.25	1.02
53:DC:48:U:HO2'	53:DC:49:C:P	1.83	1.02
11:CO:52:GLU:HG3	11:CO:57:THR:CA	1.90	1.02
12:AP:75:THR:CB	12:AP:88:GLY:HA3	1.90	1.02
31:DA:1503:A:O2'	31:DA:1504:G:O5'	1.78	1.02

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:BD:67:A:H4'	52:BD:68:A:OP1	1.54	1.02
1:CA:2159:C:N4	1:CA:2178:G:N1	2.06	1.02
14:CQ:109:GLY:O	14:CQ:111:GLU:N	1.91	1.02
12:AP:51:ARG:HH11	12:AP:51:ARG:HG2	1.21	1.02
2:AB:6:C:H2'	2:AB:7:G:H5''	1.42	1.02
1:AA:2015:A:O4'	27:A5:2:ALA:HB2	1.57	1.01
11:CO:97:PRO:HG3	11:CO:112:LEU:HD12	1.07	1.01
35:BH:78:HIS:HE1	35:BH:143:ARG:H	1.08	1.01
1:AA:49:A:N7	1:AA:120:U:C4	2.27	1.01
3:AD:27:THR:HG21	3:AD:83:GLU:HB3	1.37	1.01
5:CF:18:ARG:HG2	5:CF:19:GLU:H	1.19	1.01
1:AA:2014:A:HO2'	27:A5:2:ALA:N	1.58	1.01
12:CP:28:ALA:O	12:CP:105:GLU:OE1	1.77	1.01
31:BA:1175:G:H2'	31:BA:1176:A:C8	1.95	1.01
1:AA:847:U:O4	1:AA:933:A:N1	1.93	1.01
31:BA:791:G:H3'	31:BA:792:A:H5''	1.03	1.01
3:AD:43:ARG:NH1	3:AD:44:ASN:OD1	1.92	1.01
1:AA:2308:G:C2	1:AA:2311:A:C2	2.49	1.01
1:CA:2809:G:H3'	1:CA:2810:U:H5''	1.43	1.01
1:CA:2325:U:C2'	1:CA:2326:C:H5'	1.91	1.00
52:DD:11:C:H2'	52:DD:12:C:H5'	1.40	1.00
1:AA:881:G:O6	1:AA:895:U:O2	1.78	1.00
1:AA:1689:A:H62	1:AA:1698:A:H2	1.06	1.00
1:AA:2131:G:H5'	1:AA:2132:U:H5''	1.43	1.00
45:DR:39:LEU:HD11	45:DR:56:LEU:HB2	1.43	1.00
6:AG:161:THR:HG22	6:AG:163:ALA:H	1.25	1.00
1:CA:2324:A:H4'	1:CA:2324:A:OP1	1.61	1.00
1:CA:2161:C:H42	1:CA:2176:G:H1	1.08	1.00
45:DR:68:ARG:HH11	45:DR:68:ARG:HG3	1.25	1.00
1:AA:2016:U:H1'	27:A5:6:VAL:CG1	1.90	1.00
12:CP:24:GLY:HA3	12:CP:25:ASP:HB3	1.40	1.00
52:BD:47:U:H2'	52:BD:48:C:H6	1.23	1.00
1:AA:49:A:N7	1:AA:120:U:O4	1.95	1.00
12:CP:24:GLY:CA	12:CP:25:ASP:CB	2.39	1.00
34:BG:114:ARG:HG3	34:BG:114:ARG:HH11	1.19	1.00
31:BA:789:U:H5	31:BA:792:A:O5'	1.41	1.00
31:BA:77:C:H2'	31:BA:78:G:H5''	1.43	0.99
1:CA:2130:C:H42	1:CA:2205:G:H1	1.10	0.99
12:CP:19:GLY:H	12:CP:98:LYS:HZ3	1.01	0.99
31:DA:81:G:N2	31:DA:88:C:N3	2.10	0.99
31:DA:632:A:H1'	31:DA:633:G:OP2	1.62	0.99
5:CF:63:LYS:HE2	5:CF:67:GLN:HB2	1.43	0.99

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:2130:C:N3	1:CA:2205:G:N2	2.09	0.99
30:A8:52:LYS:H	30:A8:53:PRO:HD2	1.25	0.99
1:CA:657:A:OP1	11:CO:64:LYS:HE2	1.63	0.99
1:AA:654(D):G:N2	1:AA:654(Q):C:N3	2.10	0.99
52:DD:14:A:H3'	52:DD:15:G:H5''	1.43	0.99
1:AA:2610:C:H4'	1:AA:2611:U:OP2	1.53	0.99
1:AA:2438:U:O3'	1:AA:2439:A:H3'	1.61	0.99
53:DC:17:C:H3'	53:DC:18:C:H5''	1.40	0.99
31:DA:1160:G:O6	31:DA:1181:G:O6	1.79	0.99
3:AD:35:LYS:HD2	3:AD:104:TYR:CD1	1.97	0.99
52:BD:11:C:H2'	52:BD:12:C:H5'	1.40	0.99
12:AP:78:PRO:HG2	12:AP:81:VAL:HG11	1.44	0.99
12:CP:78:PRO:O	12:CP:79:LEU:HD12	1.62	0.99
1:CA:1089:G:H1	1:CA:1160:U:H3	1.06	0.99
34:DG:139:ARG:HH11	34:DG:139:ARG:HG3	1.25	0.99
53:BC:48:U:HO2'	53:BC:49:C:P	1.85	0.98
12:AP:19:GLY:HA3	12:AP:98:LYS:NZ	1.77	0.98
1:CA:2451:U:O3'	1:CA:2452:A:H3'	1.62	0.98
52:BD:14:A:H3'	52:BD:15:G:H5''	1.45	0.98
33:BF:181:ASN:HD21	33:BF:204:LEU:HB2	1.27	0.98
52:DD:67:A:H4'	52:DD:68:A:OP1	1.59	0.98
52:BD:12:C:O2	52:BD:24:G:N2	1.96	0.98
1:AA:2346:A:H4'	1:AA:2347:C:OP2	1.63	0.98
31:BA:1065:U:O2'	31:BA:1066:C:OP2	1.80	0.98
31:DA:82:U:H3	31:DA:87:A:N6	1.62	0.98
52:BB:3:U:HO2'	52:BB:4:G:H8	1.01	0.98
38:BK:60:ARG:HH11	38:BK:60:ARG:HG3	1.22	0.98
11:CO:64:LYS:CB	30:C8:25:MET:HG3	1.93	0.98
1:CA:895:U:N3	1:CA:979:A:N6	2.06	0.98
5:CF:25:PRO:HB2	5:CF:27:GLU:H	1.28	0.98
42:BO:45:PRO:O	42:BO:46:ASN:ND2	1.97	0.98
31:BA:792:A:O2'	31:BA:794:A:N7	1.96	0.98
31:BA:1028:C:H42	31:BA:1033:G:H1	1.06	0.98
52:DB:48:C:N4	52:DB:52:G:H1	1.62	0.98
33:BF:20:SER:HB2	33:BF:40:ARG:HH22	1.23	0.98
31:DA:82:U:H3	31:DA:87:A:H61	1.11	0.98
1:AA:1014:U:H2'	1:AA:1015:G:H5''	1.45	0.98
31:DA:975:A:H4'	31:DA:976:G:H5''	1.46	0.97
52:DB:75:C:O2'	52:DB:76:C:OP1	1.81	0.97
5:CF:46:ARG:HG2	5:CF:46:ARG:HH11	1.26	0.97
3:CD:35:LYS:HG2	3:CD:64:ILE:H	1.30	0.97
31:BA:788:U:H2'	31:BA:789:U:H5'	1.43	0.97

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:AV:27:VAL:HG12	21:AV:87:ASP:HB3	1.47	0.97
1:AA:2136:C:N3	1:AA:2155:G:N2	2.11	0.97
1:CA:1090:C:N3	1:CA:1159:G:N2	2.12	0.97
1:CA:9:U:N3	1:CA:2642:A:N6	2.11	0.97
52:BB:75:C:O2'	52:BB:76:C:OP1	1.82	0.97
1:AA:880:G:H1	1:AA:897:C:H42	1.08	0.97
1:CA:933:C:C4	1:CA:938:A:C6	2.51	0.97
7:AH:4:ILE:HG13	7:AH:6:ARG:CZ	1.94	0.97
11:CO:80:TYR:CD1	11:CO:111:ARG:HB3	2.00	0.97
1:AA:1332:G:N2	1:AA:1609:A:HO2'	1.58	0.97
31:DA:652:U:H1'	31:DA:653:A:H2	1.30	0.97
5:CF:188:ARG:HA	11:CO:3:LEU:HD11	1.45	0.97
1:AA:882:G:N1	1:AA:894:C:N4	2.13	0.97
1:AA:2251:G:OP1	12:AP:82:ARG:NH1	1.98	0.97
1:AA:780:G:N2	1:AA:783:A:H62	1.60	0.97
1:CA:2320:G:N9	1:CA:2324:A:N1	2.11	0.96
31:DA:81:G:H1	31:DA:88:C:N4	1.62	0.96
33:DF:60:ALA:HA	40:DM:93:GLY:HA2	1.45	0.96
1:AA:2701:C:H3'	1:AA:2702:U:H5''	1.43	0.96
31:DA:987:G:H1	31:DA:1218:C:H42	1.04	0.96
1:CA:2166:C:H42	1:CA:2171:G:H1	1.10	0.96
31:DA:989:C:H42	31:DA:1216:G:H1	1.09	0.96
1:CA:66:U:N3	1:CA:73:A:C2	2.34	0.96
15:AR:36:GLU:HG3	15:AR:41:ARG:HD3	1.46	0.96
31:DA:1346:A:H1'	31:DA:1347:G:OP2	1.65	0.96
1:CA:1066:U:H2'	1:CA:1067:A:H8	1.31	0.96
1:AA:2068:U:H3	1:AA:2430:A:H2	1.08	0.96
12:AP:66:ILE:HG13	12:AP:67:ARG:H	1.30	0.96
31:DA:328:C:H1'	31:DA:329:A:OP2	1.66	0.95
31:BA:1162:C:N4	31:BA:1174:G:H1	1.64	0.95
11:CO:62:LEU:N	11:CO:62:LEU:HD22	1.81	0.95
1:AA:1678:G:N2	1:AA:1989:G:H22	1.65	0.95
27:A5:4:HIS:CG	27:A5:5:PRO:HD3	2.00	0.95
31:DA:1176:A:C2'	31:DA:1177:G:H5'	1.96	0.95
43:BP:4:ILE:HG22	43:BP:5:ALA:H	1.30	0.95
1:CA:2405:A:H8	11:CO:60:MET:CB	1.80	0.95
11:CO:65:ARG:NH1	11:CO:65:ARG:HG3	1.72	0.95
53:DC:17:C:C3'	53:DC:18:C:H5''	1.96	0.95
31:BA:1305:G:H22	31:BA:1331:G:H2'	1.28	0.95
1:AA:2210:G:H3'	1:AA:2211:G:H8	1.23	0.95
11:AO:50:ARG:HG3	11:AO:50:ARG:HH21	1.27	0.95
31:DA:266:G:H1	31:DA:270:A:H62	0.95	0.95

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:330:A:H2	1:AA:1210:A:HO2'	1.02	0.95
11:AO:114:ILE:HD11	11:AO:130:PHE:HD1	1.32	0.95
32:DE:75:LYS:HA	32:DE:78:GLN:HB2	1.48	0.95
1:AA:864:G:N7	12:AP:22:LYS:NZ	2.14	0.95
26:A4:16:CYS:HB2	26:A4:36:CYS:H	1.31	0.95
33:DF:14:ILE:HG12	33:DF:15:THR:H	1.29	0.95
3:AD:30:GLU:HG3	3:AD:63:ARG:HH21	1.30	0.95
15:AR:55:ASN:H	15:AR:59:THR:HG22	1.31	0.95
12:CP:79:LEU:O	12:CP:79:LEU:HD12	1.67	0.95
19:CT:11:PRO:HA	19:CT:28:PHE:HB3	1.45	0.95
31:BA:1028(B):C:N3	31:BA:1032(A):G:N2	2.14	0.95
1:AA:1778:U:H2'	1:AA:1784:A:N6	1.81	0.95
1:AA:2583:G:H21	52:BB:85:A:H8	1.11	0.95
1:AA:2032:G:H21	4:AE:146:THR:HG23	1.32	0.95
1:CA:2623:C:H4'	1:CA:2624:U:OP2	1.67	0.95
1:CA:2319:C:H3'	1:CA:2320:G:H5''	1.46	0.94
31:BA:1139:G:H1	31:BA:1144:G:H22	1.02	0.94
1:CA:2810:U:H2'	1:CA:2811:C:H5'	1.48	0.94
52:BD:17:G:H1'	52:BD:18:G:OP1	1.67	0.94
1:AA:883:G:N2	1:AA:893:C:N3	2.14	0.94
1:CA:2166:C:N3	1:CA:2171:G:N2	2.15	0.94
1:CA:2715:U:H2'	1:CA:2716:C:H5	1.32	0.94
26:C4:22:ILE:HG12	26:C4:23:GLU:H	1.32	0.94
31:DA:266:G:H1	31:DA:270:A:N6	1.64	0.94
1:CA:1737:A:N6	1:CA:1746:A:H2	1.65	0.94
20:AU:76:CYS:SG	20:AU:77:PRO:HD2	2.08	0.94
3:AD:30:GLU:HG3	3:AD:63:ARG:NH2	1.81	0.94
5:CF:68:LYS:HB3	5:CF:69:HIS:HD2	1.33	0.94
7:AH:86:GLU:HG3	7:AH:165:ALA:HB3	1.47	0.94
5:CF:132:VAL:HG22	5:CF:133:ASN:H	1.33	0.94
1:AA:2317:C:H2'	1:AA:2318:G:H5'	1.49	0.94
50:BW:26:ASN:HB2	50:BW:71:THR:HG23	1.46	0.94
1:AA:1055:G:N2	1:AA:1104:C:N3	2.16	0.94
1:AA:1081:U:O2'	1:AA:1082:U:OP1	1.84	0.94
1:CA:2438:A:H5'	1:CA:2440:C:O4'	1.67	0.94
52:BB:52:G:H2'	52:BB:53:A:C8	2.01	0.94
1:AA:2210:G:H5'	1:AA:2211:G:N7	1.83	0.94
1:CA:2883:G:C5	1:CA:2884:A:N1	2.36	0.94
17:A2:44:LYS:O	17:A2:46:VAL:N	2.00	0.94
49:BV:65:ASN:HD22	49:BV:65:ASN:H	1.15	0.94
52:BB:78:C:O2'	52:BB:79:A:O5'	1.86	0.94
1:AA:1055:G:H1	1:AA:1104:C:N4	1.64	0.94

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:2287:A:H62	1:AA:2344:U:H3	1.06	0.94
21:CV:128:VAL:HG22	21:CV:129:SER:H	1.33	0.93
1:CA:1135:A:H5'	1:CA:1136:G:H5'	1.48	0.93
34:DG:14:ARG:NH1	34:DG:14:ARG:HG3	1.80	0.93
31:DA:1160:G:H1	31:DA:1177:G:N2	1.66	0.93
12:AP:75:THR:HB	12:AP:88:GLY:CA	1.98	0.93
34:BG:19:LEU:HD22	34:BG:19:LEU:H	1.30	0.93
33:DF:58:GLU:HB2	33:DF:65:ALA:HB3	1.49	0.93
28:A6:15:GLU:HA	28:A6:49:HIS:HA	1.49	0.93
11:CO:80:TYR:HE1	11:CO:111:ARG:HG2	1.32	0.93
27:C5:57:VAL:HG12	27:C5:58:LEU:H	1.33	0.93
1:CA:1388:U:H3'	1:CA:1389:A:H2	1.33	0.93
31:DA:989:C:N4	31:DA:1216:G:H1	1.64	0.93
15:AR:41:ARG:HH11	15:AR:41:ARG:HG2	1.34	0.93
1:CA:2433:C:P	30:C8:33:ASN:H	1.91	0.93
1:CA:2288:C:O2'	12:CP:84:GLY:CA	2.15	0.93
31:DA:992:U:H3	31:DA:1044:A:H62	1.13	0.93
5:CF:119:ARG:HG2	5:CF:119:ARG:HH11	1.32	0.93
1:AA:2255:G:H22	12:AP:85:LYS:HE2	1.21	0.93
1:CA:66:U:N3	1:CA:73:A:H2	1.65	0.93
3:AD:25:THR:HG23	3:AD:26:LYS:HD2	1.51	0.93
52:DB:16:C:H2'	52:DB:18:G:OP2	1.68	0.93
1:CA:295:C:H42	1:CA:391:G:H1	1.02	0.93
1:AA:1899:G:H22	1:AA:1902:C:H41	1.08	0.93
16:A1:92:ARG:O	16:A1:94:ASN:N	2.02	0.93
1:CA:2714:C:H3'	1:CA:2715:U:C5'	1.98	0.92
11:CO:62:LEU:N	11:CO:62:LEU:CD2	2.30	0.92
1:AA:2599:G:C8	3:AD:236:GLY:HA2	2.05	0.92
1:CA:1922:G:O2'	1:CA:1923:A:H5''	1.68	0.92
1:AA:2016:U:C1'	27:A5:6:VAL:CG1	2.47	0.92
11:CO:52:GLU:CG	11:CO:57:THR:HA	1.99	0.92
1:AA:2466:C:C2'	1:AA:2467:C:H5'	1.99	0.92
1:CA:1737:A:H62	1:CA:1746:A:H2	0.95	0.92
2:CB:16:U:O2'	2:CB:110:U:O2'	1.86	0.92
31:DA:1145:C:H4'	31:DA:1146:A:OP1	1.68	0.92
42:BO:43:LYS:HG2	42:BO:45:PRO:HD2	1.49	0.92
39:BL:48:GLU:H	39:BL:49:PRO:HD2	1.34	0.92
1:CA:2740:U:HO2'	1:CA:2741:G:H8	1.11	0.92
20:CU:17:SER:HB3	20:CU:71:LYS:HB3	1.52	0.92
31:BA:60:A:H4'	31:BA:61:G:H5'	1.52	0.92
31:BA:210:U:HO2'	31:BA:216:G:H8	1.15	0.92
11:AO:15:ARG:NH1	11:AO:15:ARG:HG2	1.77	0.92

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:2394:C:OP1	11:AO:63:PRO:HD2	1.69	0.92
3:CD:35:LYS:HG2	3:CD:64:ILE:N	1.84	0.92
1:AA:154:G:H2'	1:AA:155:C:H5''	1.52	0.92
1:CA:1020:G:O2'	1:CA:1022:G:N7	2.01	0.92
1:AA:602:G:N2	1:AA:655:A:N7	2.16	0.92
1:CA:598:C:N3	4:CE:145:LYS:NZ	2.16	0.92
1:CA:1059:U:O4	9:CM:25:ARG:HA	1.70	0.92
52:DD:47:U:H2'	52:DD:48:C:C6	2.05	0.92
31:DA:1157:A:H1'	31:DA:1158:C:N3	1.85	0.92
11:CO:15:ARG:NH1	11:CO:15:ARG:HG2	1.76	0.92
52:DD:12:C:H2'	52:DD:13:G:O4'	1.70	0.92
31:BA:791:G:C3'	31:BA:792:A:H5''	1.97	0.91
31:BA:1006:C:H42	31:BA:1023:G:H1	0.95	0.91
1:AA:780:G:H21	1:AA:783:A:H62	0.96	0.91
31:BA:254:G:H21	47:BT:16:GLN:HE21	1.18	0.91
31:DA:1305:G:HO2'	31:DA:1306:A:H8	0.95	0.91
31:BA:444:C:H42	31:BA:490:G:H1	1.08	0.91
11:AO:64:LYS:O	11:AO:66:GLY:N	2.04	0.91
31:BA:1008:C:H42	31:BA:1021:G:H1	1.10	0.91
1:CA:1135:A:H4'	1:CA:1136:G:C8	2.05	0.91
1:CA:1068:A:H61	1:CA:1189:A:H61	0.99	0.91
12:AP:77:LYS:HZ1	12:AP:83:MET:HA	1.02	0.91
30:C8:32:LEU:H	30:C8:32:LEU:HD13	0.75	0.91
31:DA:519:C:O2	56:DA:1724:OHX:N4	2.03	0.91
31:DA:559:A:H4'	31:DA:560:U:H3'	1.52	0.91
1:AA:527:C:OP2	1:AA:2779:U:H5	1.52	0.91
1:AA:67:U:N3	1:AA:74:A:H2	1.65	0.91
3:CD:65:ILE:HD11	3:CD:67:PHE:CZ	2.06	0.91
31:DA:993:G:H2'	31:DA:995:C:H41	1.32	0.91
1:CA:1700:A:H62	13:C0:11:ASN:HD21	1.05	0.91
1:AA:2133:G:H1'	1:AA:2158:A:H61	1.34	0.91
1:AA:1899:G:N2	1:AA:1902:C:H41	1.68	0.91
52:DB:83:C:H2'	52:DB:84:C:H5'	1.52	0.91
31:DA:736:C:H2'	31:DA:737:A:H8	1.32	0.91
21:CV:6:LYS:HG3	21:CV:7:ALA:H	1.35	0.91
1:CA:2433:C:OP2	30:C8:33:ASN:N	2.03	0.91
16:C1:92:ARG:HH22	17:C2:10:LYS:HA	1.35	0.91
31:DA:820:U:H4'	31:DA:821:G:OP2	1.69	0.91
31:DA:1026:G:N7	31:DA:1036:G:N2	2.19	0.91
1:AA:1069:A:H4'	1:AA:1070:A:H5''	1.51	0.91
11:CO:51:PHE:O	11:CO:52:GLU:HG2	1.70	0.91
52:BB:52:G:H2'	52:BB:53:A:H8	1.34	0.91

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1006:C:N4	31:BA:1023:G:H1	1.68	0.91
24:AW:4:SER:HB3	24:AW:5:GLU:OE2	1.71	0.91
3:CD:35:LYS:HE3	3:CD:64:ILE:C	1.91	0.90
52:BB:51:C:H3'	52:BB:52:G:C8	2.06	0.90
1:AA:141:A:H8	1:AA:1595:G:H21	1.13	0.90
41:DN:100:ALA:O	41:DN:102:GLY:N	2.04	0.90
32:BE:69:LEU:HB3	32:BE:162:ILE:HG22	1.53	0.90
1:AA:1026:U:H1'	1:AA:1027:A:O5'	1.71	0.90
31:BA:81:G:H1	31:BA:88:C:N4	1.68	0.90
1:AA:2466:C:H2'	1:AA:2467:C:H5'	1.52	0.90
1:AA:780:G:H21	1:AA:783:A:N6	1.69	0.90
1:CA:2146:G:H1	1:CA:2198:C:H42	1.06	0.90
25:CX:59:VAL:HG12	25:CX:60:GLU:H	1.35	0.90
4:AE:78:LEU:O	4:AE:79:ARG:HB2	1.70	0.90
1:AA:1071:G:O6	1:AA:1091:G:O6	1.90	0.90
13:A0:3:HIS:O	13:A0:5:LYS:N	2.02	0.90
5:AF:29:ASN:H	5:AF:112:MET:HE2	1.37	0.90
1:AA:676:A:H8	1:AA:2069:G:H21	0.91	0.90
1:AA:2308:G:N1	1:AA:2311:A:C2	2.38	0.90
11:CO:80:TYR:CD1	11:CO:111:ARG:CB	2.55	0.90
12:CP:11:LYS:HD3	12:CP:87:LYS:HG2	1.51	0.90
31:DA:976:G:H5'	31:DA:1358:U:O2'	1.71	0.90
1:CA:622:G:C1'	11:CO:12:ALA:HB2	2.01	0.90
23:CZ:86:SER:N	23:CZ:87:PRO:HD2	1.85	0.90
11:CO:61:ARG:CB	11:CO:61:ARG:NH2	2.34	0.90
1:AA:847:U:C4	1:AA:933:A:N1	2.40	0.90
50:BW:71:THR:HG22	50:BW:72:LEU:H	1.37	0.90
7:AH:153:LYS:HB3	7:AH:154:PRO:CD	2.01	0.90
1:CA:139:A:H8	1:CA:1455:C:HO2'	0.99	0.90
52:DB:52:G:H2'	52:DB:53:A:C8	2.06	0.89
27:A5:4:HIS:HB3	27:A5:5:PRO:HD2	0.92	0.89
11:CO:71:VAL:HG13	11:CO:72:PRO:HD3	0.92	0.89
1:AA:1535:U:H3'	1:AA:1536:A:H5''	1.54	0.89
31:BA:1028(B):C:N4	31:BA:1032(A):G:N1	2.19	0.89
1:AA:1496:A:H8	1:AA:1577:C:O2'	1.56	0.89
1:AA:1109:C:HO2'	1:AA:1110:G:C4'	1.84	0.89
11:AO:65:ARG:NH1	11:AO:65:ARG:HG3	1.77	0.89
1:CA:355:A:H2	1:CA:1256:A:HO2'	0.94	0.89
1:AA:1359:A:N1	1:AA:1372:U:N3	2.18	0.89
1:CA:2702:U:H4'	1:CA:2703:C:H5'	1.53	0.89
31:BA:156:G:H1	31:BA:165:C:H42	1.04	0.89
4:AE:77:ILE:O	4:AE:79:ARG:N	2.06	0.89

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CG:64:THR:HG23	6:CG:66:GLN:H	1.37	0.89
1:CA:2159:C:N3	1:CA:2178:G:N2	2.19	0.89
6:CG:125:PHE:HB3	6:CG:166:ASP:HB2	1.53	0.89
1:AA:1062:G:H2'	1:AA:1063:G:C8	2.07	0.89
32:DE:7:VAL:HG13	32:DE:8:LYS:HD3	1.53	0.89
32:DE:7:VAL:HG22	32:DE:8:LYS:H	1.35	0.89
1:CA:1822:C:H5''	1:CA:1823:A:OP1	1.72	0.89
52:BB:57:C:O2'	52:BB:68:A:H4'	1.71	0.89
31:BA:81:G:N2	31:BA:88:C:C2	2.40	0.89
1:AA:1887:C:H2'	1:AA:1888:G:H5''	1.54	0.89
20:CU:97:ARG:HH21	20:CU:98:VAL:HB	1.38	0.89
30:A8:34:TRP:CD2	30:A8:35:GLN:HB2	2.08	0.89
31:BA:559:A:OP2	35:BH:126:ARG:NH2	2.05	0.89
11:CO:61:ARG:HH21	11:CO:61:ARG:HG2	1.37	0.89
26:C4:22:ILE:HG12	26:C4:23:GLU:N	1.88	0.89
31:BA:136:C:H42	31:BA:227:G:H1	1.14	0.89
1:CA:2150:G:H1	1:CA:2184:C:H42	1.15	0.88
28:C6:25:LYS:HD2	30:C8:34:TRP:HZ3	1.38	0.88
1:CA:5:A:H61	1:CA:2908:U:H3	1.18	0.88
1:AA:2015:A:C1'	27:A5:2:ALA:CA	2.43	0.88
12:AP:78:PRO:O	12:AP:81:VAL:HG13	1.71	0.88
1:CA:895:U:C4	1:CA:979:A:C6	2.61	0.88
12:CP:75:THR:HB	12:CP:88:GLY:HA3	0.93	0.88
34:BG:28:SER:HB2	34:BG:29:PRO:HD2	1.55	0.88
12:CP:26:TYR:HD1	12:CP:139:GLU:CG	1.86	0.88
8:AK:133:HIS:HB2	8:AK:134:PRO:HD2	1.53	0.88
31:DA:1443:G:H3'	31:DA:1446:A:C5'	2.02	0.88
31:BA:611:A:H61	31:BA:629:G:H1	1.20	0.88
11:CO:62:LEU:CG	30:C8:25:MET:HB2	2.03	0.88
17:C2:71:LEU:H	17:C2:86:GLY:HA2	1.36	0.88
1:AA:2212:A:H1'	1:AA:2215:G:C5	2.09	0.88
1:CA:2320:G:C5	1:CA:2324:A:C2	2.60	0.88
1:AA:140:A:H8	1:AA:1408:C:HO2'	0.91	0.88
11:AO:105:LEU:O	11:AO:106:LEU:HB2	1.70	0.88
28:A6:16:CYS:O	28:A6:17:LYS:HB2	1.70	0.88
7:AH:152:ARG:HG3	7:AH:153:LYS:H	1.39	0.88
18:CS:25:ARG:NH2	18:CS:74:ALA:O	2.06	0.88
1:AA:2308:G:C2	1:AA:2311:A:N1	2.42	0.88
42:BO:43:LYS:CG	42:BO:44:LYS:H	1.87	0.88
22:A3:35:ASN:H	22:A3:35:ASN:HD22	1.20	0.88
12:AP:17:LEU:HD23	12:AP:96:VAL:HG11	1.53	0.88
30:C8:31:HIS:HE1	52:DD:85:A:H2	1.20	0.88

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:BD:61:G:H1	52:BD:71:C:H42	1.21	0.88
3:AD:35:LYS:HG2	3:AD:64:ILE:N	1.88	0.88
12:AP:25:ASP:H	12:AP:102:VAL:CG2	1.87	0.88
52:DB:57:C:O2'	52:DB:68:A:H4'	1.72	0.88
52:BD:12:C:H2'	52:BD:13:G:O4'	1.74	0.88
31:BA:991:U:O4	31:BA:1212:U:O2'	1.91	0.88
12:AP:17:LEU:CD2	12:AP:96:VAL:CG1	2.32	0.87
1:CA:2288:C:HO2'	12:CP:84:GLY:HA3	1.32	0.87
52:BB:10:C:H42	52:BB:26:G:H1	1.20	0.87
31:BA:1162:C:H42	31:BA:1174:G:H1	0.92	0.87
31:DA:690:G:H22	41:DN:55:LYS:HE2	1.39	0.87
3:AD:44:ASN:HB3	3:AD:49:ILE:HA	1.53	0.87
31:DA:736:C:H2'	31:DA:737:A:C8	2.10	0.87
20:AU:79:CYS:SG	20:AU:80:GLY:N	2.46	0.87
1:AA:1019:U:HO2'	1:AA:1021:A:H2	0.87	0.87
1:AA:1077:A:H3'	1:AA:1078:U:C5'	2.05	0.87
31:BA:1003:G:C2'	31:BA:1004:A:H5'	2.04	0.87
30:C8:33:ASN:OD1	30:C8:41:ILE:HD11	1.74	0.87
30:C8:35:GLN:NE2	30:C8:36:LYS:H	1.71	0.87
35:DH:83:GLU:HB3	35:DH:88:LYS:HG2	1.57	0.87
54:B1:13:A:O2'	54:B1:14:A:OP1	1.93	0.87
9:AM:62:VAL:HG22	9:AM:66:LYS:HD2	1.57	0.87
14:CQ:17:ARG:HH11	14:CQ:17:ARG:CG	1.86	0.87
1:AA:2562:U:H1'	10:AN:23:ARG:HH11	1.37	0.87
52:DB:51:C:H3'	52:DB:52:G:C8	2.08	0.87
5:CF:27:GLU:O	5:CF:28:ILE:HG12	1.73	0.87
26:A4:16:CYS:SG	26:A4:18:CYS:N	2.46	0.87
1:AA:270(O):U:H4'	1:AA:270(P):C:OP2	1.71	0.87
12:AP:25:ASP:N	12:AP:102:VAL:CG2	2.38	0.87
11:CO:19:VAL:CG2	11:CO:27:HIS:CB	2.52	0.87
39:BL:48:GLU:N	39:BL:49:PRO:HD2	1.89	0.87
1:AA:1026:U:H4'	1:AA:1027:A:OP1	1.74	0.87
1:AA:1109:C:O2'	1:AA:1110:G:O4'	1.92	0.87
53:DC:17:C:H3'	53:DC:18:C:H5'	1.54	0.87
31:DA:1305:G:H22	31:DA:1331:G:H2'	1.37	0.87
1:AA:2276:G:P	12:AP:84:GLY:HA2	2.15	0.87
28:C6:52:VAL:HG22	28:C6:53:LYS:H	1.40	0.87
31:BA:1006:C:N3	31:BA:1023:G:N2	2.21	0.87
1:CA:1066:U:H2'	1:CA:1067:A:C8	2.08	0.87
30:A8:34:TRP:CG	30:A8:35:GLN:HB2	2.08	0.87
31:BA:1226:C:O2'	43:BP:111:LYS:NZ	2.07	0.87
1:AA:1102:C:H2'	1:AA:1103:A:C8	2.10	0.87

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DK:12:ARG:NH1	38:DK:27:PRO:HD3	1.88	0.87
1:AA:774:A:H2	1:AA:787:U:HO2'	0.90	0.87
1:CA:855:U:H2'	1:CA:856:G:H8	1.38	0.87
38:DK:103:VAL:HG21	38:DK:110:ALA:HB2	1.57	0.87
20:CU:47:LYS:HA	20:CU:60:PHE:HB3	1.55	0.87
1:CA:348:G:H5'	5:CF:169:ASN:HD21	1.38	0.87
30:C8:31:HIS:CE1	52:DD:85:A:H2	1.93	0.87
1:CA:1379:G:N2	1:CA:1656:A:HO2'	1.72	0.87
31:DA:409:G:OP1	34:DG:24:GLU:HG2	1.75	0.87
11:AO:114:ILE:HD11	11:AO:130:PHE:CD1	2.09	0.87
31:BA:1139:G:H22	31:BA:1144:G:H1	1.21	0.87
1:AA:70:G:H4'	1:AA:71:A:OP1	1.71	0.87
34:DG:62:GLN:HE22	34:DG:65:ARG:HE	1.22	0.87
1:CA:1579:C:H42	1:CA:1586:G:H1	1.20	0.87
31:DA:1003:G:H1	31:DA:1037:C:N4	1.73	0.86
18:CS:73:ALA:HB3	18:CS:106:ILE:HD11	1.57	0.86
49:DV:49:ILE:HG13	49:DV:62:ILE:HD11	1.57	0.86
11:CO:19:VAL:HG23	11:CO:27:HIS:HB2	1.56	0.86
1:CA:1272:G:H5'	17:C2:85:LYS:H	1.41	0.86
35:BH:8:GLU:OE1	35:BH:63:ARG:NH2	2.08	0.86
11:CO:64:LYS:CD	30:C8:25:MET:SD	2.62	0.86
31:BA:1002:G:H2'	31:BA:1003:G:H8	1.37	0.86
31:BA:1004:A:H2'	31:BA:1005:A:O4'	1.73	0.86
1:CA:2658:G:H3'	1:CA:2659:C:H5'	1.56	0.86
1:AA:880:G:O2'	1:AA:881:G:OP1	1.92	0.86
1:CA:2596:G:H21	52:DB:85:A:H8	1.18	0.86
16:A1:8:VAL:HG23	16:A1:11:ARG:HH21	1.38	0.86
30:C8:49:VAL:O	30:C8:50:LEU:HB2	1.75	0.86
41:BN:57:THR:HG22	41:BN:60:ALA:H	1.39	0.86
27:A5:3:LYS:HA	27:A5:3:LYS:CE	2.00	0.86
52:DB:53:A:H2'	52:DB:54:C:O4'	1.75	0.86
30:C8:33:ASN:O	30:C8:34:TRP:CD1	2.29	0.86
31:DA:1305:G:O2'	31:DA:1306:A:O5'	1.92	0.86
1:CA:1508:A:H4'	1:CA:1509:G:OP2	1.75	0.86
21:AV:61:LEU:HB2	21:AV:62:PRO:HD2	1.58	0.86
1:AA:330:A:O2'	1:AA:331:A:H8	1.59	0.86
1:AA:620:G:H4'	1:AA:621:A:H5''	1.56	0.86
31:BA:1503:A:O2'	31:BA:1504:G:O5'	1.93	0.86
11:CO:86:LYS:HB3	11:CO:118:GLY:HA3	1.58	0.86
1:AA:681:G:N7	56:AA:3438:OHX:N1	2.23	0.86
1:AA:517:C:OP1	27:A5:16:ARG:NH2	2.07	0.86
11:AO:64:LYS:C	11:AO:66:GLY:H	1.79	0.86

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1104:A:N1	1:CA:1128:U:O4	2.09	0.86
31:BA:1374:A:H2'	31:BA:1375:A:H5'	1.57	0.86
1:AA:674:G:H1'	5:AF:74:ARG:HD3	1.58	0.86
4:CE:8:LYS:HE3	4:CE:188:VAL:HG13	1.56	0.86
1:CA:1389:A:N6	1:CA:1649:U:C2	2.44	0.86
21:CV:59:LEU:O	21:CV:60:GLU:HB3	1.74	0.86
30:C8:34:TRP:CG	30:C8:35:GLN:N	2.44	0.86
18:CS:92:ARG:NH1	18:CS:94:ASP:OD2	2.09	0.86
12:AP:77:LYS:HD2	12:AP:81:VAL:CG2	2.06	0.85
31:BA:1176:A:H2'	31:BA:1177:G:H5''	1.56	0.85
31:BA:79:G:N2	31:BA:90:C:N3	2.24	0.85
31:BA:468:A:H2'	31:BA:474:G:H5'	1.58	0.85
31:BA:1346:A:H5''	39:BL:120:ARG:HH12	1.41	0.85
52:BB:16:C:H2'	52:BB:18:G:OP2	1.75	0.85
24:CW:17:SER:HB2	24:CW:18:PRO:CA	2.06	0.85
1:CA:2883:G:C4	1:CA:2884:A:N1	2.44	0.85
1:CA:486:U:H5''	29:C7:40:TRP:CD2	2.10	0.85
11:CO:80:TYR:CE1	11:CO:111:ARG:CG	2.59	0.85
1:CA:2715:U:H2'	1:CA:2716:C:C5	2.11	0.85
24:CW:46:GLN:H	24:CW:49:LYS:NZ	1.73	0.85
1:CA:1137:U:O4	1:CA:1148:U:O2	1.92	0.85
1:AA:1210:A:H8	1:AA:1210:A:H5'	1.37	0.85
1:CA:354:G:O6	20:CU:19:LYS:HG2	1.76	0.85
1:CA:724:A:H8	1:CA:2092:G:H21	0.89	0.85
16:A1:27:LEU:HD13	16:A1:31:SER:HB3	1.56	0.85
16:C1:88:ILE:HG22	17:C2:49:THR:HA	1.58	0.85
1:CA:2396:G:OP2	30:C8:37:SER:HB2	1.76	0.85
1:AA:249:C:O2	30:A8:12:LYS:NZ	2.08	0.85
1:AA:1900:A:H5'	1:AA:1900:A:H8	1.39	0.85
13:A0:105:ARG:HG3	13:A0:105:ARG:O	1.76	0.85
2:AB:44:G:H1'	2:AB:47:C:H42	1.40	0.85
11:CO:101:VAL:HG21	11:CO:108:LYS:CG	2.04	0.85
11:CO:79:ARG:HD3	11:CO:110:TYR:CE1	2.11	0.85
11:CO:19:VAL:CG2	11:CO:27:HIS:HB3	2.06	0.85
3:AD:35:LYS:NZ	3:AD:104:TYR:HB2	1.90	0.85
27:C5:4:HIS:HB3	27:C5:5:PRO:CD	2.07	0.85
12:AP:51:ARG:CG	12:AP:51:ARG:HH11	1.89	0.85
31:DA:1129:C:H4'	31:DA:1130:A:H5'	1.56	0.85
2:CB:46:G:H5''	2:CB:47:A:OP1	1.75	0.85
31:DA:1449:C:O3'	31:DA:1450:U:H4'	1.74	0.85
28:A6:34:LEU:HB2	28:A6:36:LEU:HD22	1.56	0.85
1:AA:1021:A:H61	1:AA:1142(A):A:H61	1.23	0.85

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CG:47:LYS:HD3	6:CG:81:LYS:HG3	1.58	0.85
18:AS:9:TYR:H	18:AS:102:HIS:HD2	1.24	0.85
31:DA:503:C:OP2	42:DO:113:SER:HB3	1.77	0.85
1:CA:98:U:H4'	1:CA:100:G:H1'	1.58	0.85
12:AP:77:LYS:HZ1	12:AP:83:MET:CA	1.88	0.85
12:CP:134:ARG:CG	12:CP:134:ARG:HH11	1.87	0.85
31:BA:631:G:O2'	31:BA:632:A:O4'	1.94	0.85
52:DB:78:C:O2'	52:DB:79:A:O5'	1.94	0.85
15:CR:77:PRO:HG2	15:CR:80:SER:HB2	1.59	0.85
3:CD:25:THR:O	3:CD:27:THR:N	2.09	0.85
30:A8:52:LYS:H	30:A8:53:PRO:CD	1.89	0.85
52:BB:83:C:H2'	52:BB:84:C:H5'	1.58	0.85
26:A4:63:TYR:HE2	49:BV:42:PRO:HD3	1.42	0.85
2:CB:17:A:H3'	2:CB:18:G:H5'	1.58	0.85
30:A8:34:TRP:N	30:A8:35:GLN:HB3	1.90	0.85
1:CA:1003:A:H4'	12:CP:74:TYR:OH	1.77	0.85
21:CV:14:LYS:HZ3	21:CV:14:LYS:H	1.20	0.85
31:BA:1004:A:H5''	31:BA:1025:U:C4	2.11	0.84
4:CE:24:THR:HG23	4:CE:186:GLY:HA2	1.58	0.84
2:AB:15:A:H5'	2:AB:16:G:C8	2.12	0.84
7:AH:20:ALA:HB1	7:AH:21:PRO:HD2	1.59	0.84
1:CA:2320:G:C5	1:CA:2324:A:N1	2.46	0.84
31:BA:789:U:C5	31:BA:792:A:O5'	2.29	0.84
52:DD:61:G:H1	52:DD:71:C:H42	1.23	0.84
17:C2:80:GLN:HE21	17:C2:80:GLN:HA	1.39	0.84
12:AP:92:GLY:O	12:AP:93:TYR:CD1	2.30	0.84
1:AA:2276:G:OP2	12:AP:84:GLY:HA2	1.76	0.84
11:CO:65:ARG:HH11	11:CO:65:ARG:CG	1.87	0.84
53:DC:17:C:C3'	53:DC:18:C:C5'	2.52	0.84
8:AK:131:LYS:HB3	8:AK:132:PRO:CA	2.06	0.84
52:DD:12:C:O2	52:DD:24:G:N2	2.10	0.84
39:DL:95:LYS:HZ1	39:DL:96:LEU:HD13	1.40	0.84
5:AF:29:ASN:H	5:AF:112:MET:CE	1.91	0.84
1:AA:2321:G:H5''	1:AA:2322:A:OP2	1.78	0.84
15:CR:50:ILE:HD11	15:CR:102:ILE:HD11	1.60	0.84
15:AR:51:ARG:HB2	15:AR:98:LYS:HD3	1.57	0.84
12:AP:23:GLY:HA2	12:AP:25:ASP:CB	2.08	0.84
31:BA:788:U:O2'	31:BA:789:U:H5'	1.75	0.84
24:CW:29:LYS:HE3	24:CW:57:ILE:HG21	1.59	0.84
1:AA:1434:A:H61	1:AA:1558:A:N6	1.75	0.84
43:BP:108:ARG:H	43:BP:108:ARG:HD2	1.41	0.84
1:AA:1882:C:H3'	1:AA:1883:G:H8	1.41	0.84

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:CF:203:GLN:HA	5:CF:203:GLN:HE21	1.42	0.84
5:AF:66:PRO:O	5:AF:67:GLN:HB3	1.75	0.84
12:CP:26:TYR:CD1	12:CP:139:GLU:HG2	2.11	0.84
40:BM:34:VAL:HG22	40:BM:74:ILE:HG22	1.57	0.84
16:C1:65:ILE:HD11	16:C1:96:ALA:HB1	1.57	0.84
1:CA:2854:G:H2'	1:CA:2855:G:H5''	1.58	0.84
1:AA:1790:C:H5''	1:AA:1791:A:OP1	1.76	0.84
31:BA:1271:G:C2'	31:BA:1272:G:H5''	2.05	0.84
1:CA:1388:U:H3'	1:CA:1389:A:C2	2.12	0.84
13:A0:10:LEU:O	13:A0:12:ARG:HG2	1.77	0.84
1:AA:910:A:N7	12:AP:13:GLN:HG3	1.93	0.84
1:CA:1218:G:H1'	1:CA:1219:G:O4'	1.77	0.84
1:CA:2535:U:H2'	1:CA:2536:G:H5''	1.60	0.84
52:DD:50:U:H2'	52:DD:51:C:C6	2.12	0.84
34:BG:114:ARG:CG	34:BG:114:ARG:HH11	1.90	0.84
31:BA:748:C:H1'	31:BA:749:C:OP2	1.76	0.84
34:BG:139:ARG:HH11	34:BG:139:ARG:HG3	1.41	0.84
27:A5:40:LYS:NZ	27:A5:46:CYS:HB3	1.93	0.84
4:CE:38:THR:HG23	4:CE:40:GLU:H	1.42	0.84
10:AN:48:PRO:HB3	31:BA:1422:G:H5''	1.59	0.84
52:DD:48:C:C3'	52:DD:49:A:H8	1.90	0.84
11:CO:52:GLU:HG3	11:CO:57:THR:CB	2.07	0.84
31:DA:1175:G:H2'	31:DA:1176:A:C8	2.13	0.84
31:BA:530:G:H4'	31:BA:531:U:OP2	1.77	0.84
31:BA:992:U:H1'	31:BA:993:G:OP2	1.77	0.84
1:AA:2346:A:O3'	28:A6:39:TYR:OH	1.94	0.84
5:CF:89:VAL:HG12	5:CF:90:PHE:H	1.41	0.84
28:C6:12:GLU:HB3	28:C6:23:THR:HG22	1.57	0.84
29:A7:8:ASN:HD22	29:A7:11:LYS:H	1.25	0.84
6:AG:21:ARG:HH11	6:AG:21:ARG:HG2	1.42	0.84
1:AA:2255:G:N2	12:AP:85:LYS:CE	2.33	0.83
1:CA:89:U:C2'	1:CA:90:A:H5''	2.08	0.83
1:AA:2347:C:H4'	28:A6:39:TYR:HE2	1.43	0.83
1:CA:98:U:H1'	1:CA:100:G:N3	1.92	0.83
1:CA:1426:A:H4'	1:CA:1427:G:OP2	1.77	0.83
40:DM:78:ASN:HD22	40:DM:80:LYS:HB3	1.43	0.83
1:AA:907:U:H5'	12:AP:23:GLY:O	1.78	0.83
11:CO:97:PRO:O	11:CO:98:GLU:HB3	1.77	0.83
1:AA:602:G:HO2'	1:AA:604:G:HO2'	1.14	0.83
1:AA:1952:A:N1	10:AN:22:ILE:HD11	1.94	0.83
1:CA:822:A:H2	1:CA:835:U:HO2'	1.26	0.83
31:DA:1162:C:H42	31:DA:1174:G:H1	1.26	0.83

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:BV:41:VAL:HB	49:BV:42:PRO:HA	1.59	0.83
1:CA:1922:G:H22	1:CA:1925:C:N4	1.76	0.83
32:BE:185:ILE:HG22	32:BE:199:TYR:HB2	1.60	0.83
31:BA:81:G:N2	31:BA:88:C:N3	2.26	0.83
1:AA:2645:G:H3'	1:AA:2646:C:H5'	1.59	0.83
49:BV:30:LEU:HD13	49:BV:30:LEU:H	1.43	0.83
12:CP:134:ARG:NH1	12:CP:134:ARG:HG2	1.88	0.83
11:CO:9:ASN:HB3	11:CO:10:PRO:CD	2.08	0.83
1:CA:70:A:OP2	1:CA:70:A:H3'	1.75	0.83
1:AA:1870:C:O2	1:AA:1870:C:H2'	1.76	0.83
1:CA:295:C:N3	1:CA:391:G:N2	2.25	0.83
31:DA:1002:G:H1	31:DA:1038:C:H42	1.27	0.83
35:BH:8:GLU:HG2	35:BH:34:VAL:HG22	1.60	0.83
1:AA:1952:A:C6	10:AN:22:ILE:HD11	2.14	0.83
12:CP:26:TYR:HD1	12:CP:139:GLU:HG2	1.42	0.83
1:CA:2150:G:H1	1:CA:2184:C:N4	1.74	0.83
11:CO:80:TYR:HD1	11:CO:111:ARG:HB3	1.43	0.83
31:DA:987:G:H1	31:DA:1218:C:N4	1.76	0.83
31:BA:1128:C:O2'	31:BA:1130:A:C8	2.31	0.83
31:DA:1322:C:O2'	31:DA:1323:G:H5'	1.79	0.83
11:AO:112:LEU:H	11:AO:128:HIS:CD2	1.96	0.83
31:DA:79:G:H1	31:DA:90:C:H42	1.24	0.83
1:CA:2803:C:H3'	1:CA:2804:A:H5''	1.60	0.83
31:BA:251:G:O6	31:BA:271:C:N4	2.12	0.83
1:CA:2348:A:O2'	1:CA:2349:A:H2'	1.78	0.83
52:BB:57:C:C2	52:BB:68:A:H1'	2.13	0.83
31:BA:624:C:O3'	46:BS:10:GLY:HA2	1.78	0.83
31:BA:1285:A:H4'	31:BA:1286:A:O5'	1.77	0.83
31:BA:1077:G:N2	31:BA:1080:A:OP2	2.12	0.83
31:DA:421:U:H5''	31:DA:422:C:OP2	1.79	0.83
4:AE:13:ARG:HD3	4:AE:21:VAL:HG12	1.60	0.83
1:CA:1101:A:H61	1:CA:1152:U:H3	0.84	0.83
1:AA:885:C:N3	1:AA:890:A:N7	2.27	0.83
5:CF:63:LYS:HE2	5:CF:67:GLN:CB	2.09	0.83
1:CA:2642:A:N3	1:CA:2642:A:H5''	1.92	0.83
1:CA:622:G:H1'	11:CO:12:ALA:HB2	1.61	0.83
2:CB:54:A:O2'	2:CB:55:A:N7	2.11	0.83
1:AA:2135:A:O2'	1:AA:2136:C:OP1	1.96	0.82
31:BA:156:G:N2	31:BA:165:C:N3	2.25	0.82
26:C4:30:GLU:O	26:C4:31:ILE:HG13	1.79	0.82
35:BH:78:HIS:CE1	35:BH:143:ARG:H	1.96	0.82
52:BB:78:C:H2'	52:BB:79:A:H8	1.44	0.82

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1300:G:O2'	31:DA:1301:U:O5'	1.96	0.82
31:BA:31:G:O2'	31:BA:48:C:N4	2.12	0.82
8:AK:104:GLN:O	8:AK:105:HIS:HB2	1.76	0.82
2:CB:89:G:N2	2:CB:92:A:OP2	2.12	0.82
20:AU:91:GLU:HG3	20:AU:92:ASN:H	1.45	0.82
31:BA:1364:U:O2'	31:BA:1365:G:OP1	1.97	0.82
17:C2:71:LEU:HA	17:C2:86:GLY:HA2	1.60	0.82
17:C2:71:LEU:N	17:C2:86:GLY:HA2	1.94	0.82
17:C2:85:LYS:HD2	17:C2:86:GLY:H	1.42	0.82
52:DD:23:A:H3'	52:DD:24:G:H8	1.45	0.82
16:C1:92:ARG:NH2	17:C2:10:LYS:HA	1.95	0.82
31:BA:484:G:O2'	31:BA:485:G:OP2	1.95	0.82
8:AK:67:ARG:HH21	8:AK:68:LEU:HB2	1.44	0.82
32:BE:124:SER:HB2	32:BE:125:PRO:HD2	1.61	0.82
32:DE:172:ILE:HD12	32:DE:172:ILE:H	1.43	0.82
52:BD:19:C:H2'	52:BD:20:C:H4'	1.62	0.82
1:CA:66:U:H3	1:CA:73:A:H2	0.91	0.82
1:AA:2317:C:C2'	1:AA:2318:G:H5'	2.09	0.82
1:AA:917:A:H2'	1:AA:918:A:H5'	1.61	0.82
31:BA:49:U:O2'	31:BA:50:A:H3'	1.79	0.82
42:BO:3:THR:H	42:BO:6:GLN:HE21	1.26	0.82
1:AA:2016:U:O4'	27:A5:6:VAL:HG11	1.79	0.82
17:A2:15:GLU:HG3	17:A2:16:PRO:HD2	1.62	0.82
31:BA:652:U:H1'	31:BA:653:A:C2	2.15	0.82
1:AA:2015:A:H1'	27:A5:2:ALA:HA	0.83	0.82
1:AA:2599:G:H8	3:AD:236:GLY:HA2	1.41	0.82
1:CA:2800:U:H4'	4:CE:65:GLY:N	1.94	0.82
33:BF:27:LYS:HA	33:BF:27:LYS:HE2	1.61	0.82
8:CK:131:LYS:HB3	8:CK:132:PRO:HA	1.61	0.82
12:AP:21:THR:HG22	21:AV:78:LYS:HD2	1.60	0.82
31:BA:792:A:C2	31:BA:794:A:N6	2.48	0.82
28:C6:25:LYS:HD2	30:C8:34:TRP:CZ3	2.14	0.82
1:AA:1364:G:N7	23:AZ:2:SER:HB3	1.94	0.82
30:A8:29:LYS:HB3	30:A8:44:LYS:HG2	1.61	0.82
15:AR:77:PRO:HG2	15:AR:80:SER:HB2	1.60	0.82
31:BA:736:C:H2'	31:BA:737:A:C8	2.14	0.82
31:DA:1286:A:H3'	31:DA:1287:A:H5''	1.62	0.82
52:BB:23:A:H2'	52:BB:24:G:H5''	1.58	0.82
21:AV:10:ARG:HD3	21:AV:38:TYR:HB3	1.59	0.82
5:CF:53:THR:HG22	5:CF:56:GLU:HG3	1.62	0.82
1:AA:1416:G:O2'	1:AA:1417:C:O5'	1.97	0.82
15:CR:3:ARG:HE	15:CR:6:LEU:HD13	1.45	0.82

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:2689:U:C4'	1:AA:2690:C:H5'	2.08	0.81
31:DA:80:G:H1	31:DA:89:U:H3	1.25	0.81
15:AR:2:ASN:O	15:AR:3:ARG:HG2	1.81	0.81
8:AK:129:THR:HA	8:AK:137:PRO:HA	1.62	0.81
20:AU:52:SER:HB2	20:AU:53:PRO:HD3	1.60	0.81
1:AA:1250:G:N7	11:AO:18:ARG:NH2	2.28	0.81
8:CK:77:LEU:HD13	8:CK:141:LYS:HD2	1.59	0.81
1:AA:895:U:H4'	1:AA:896:A:OP2	1.80	0.81
34:DG:19:LEU:HB2	34:DG:21:LEU:HD11	1.60	0.81
3:AD:35:LYS:NZ	3:AD:64:ILE:O	2.12	0.81
26:C4:61:ARG:CG	26:C4:61:ARG:HH11	1.91	0.81
52:BD:14:A:H3'	52:BD:15:G:C5'	2.10	0.81
31:DA:1356:G:H2'	31:DA:1357:A:C8	2.16	0.81
1:CA:2803:C:C3'	1:CA:2804:A:H5''	2.10	0.81
5:CF:68:LYS:HB3	5:CF:69:HIS:CD2	2.14	0.81
1:AA:1871:A:H2'	1:AA:1872:A:C8	2.15	0.81
31:BA:387:U:OP1	56:BA:1760:OHX:N1	2.13	0.81
23:CZ:82:LEU:H	23:CZ:82:LEU:HD23	1.44	0.81
1:AA:631:A:OP2	30:A8:46:ARG:NH2	2.13	0.81
31:DA:870:U:H4'	31:DA:871:U:H5'	1.62	0.81
12:CP:26:TYR:CD1	12:CP:139:GLU:CG	2.64	0.81
1:CA:2130:C:N4	1:CA:2205:G:H1	1.78	0.81
31:DA:1199:U:H4'	40:DM:54:PHE:CE1	2.15	0.81
34:BG:126:ILE:HD13	34:BG:127:THR:H	1.45	0.81
45:DR:16:ALA:HB1	45:DR:21:ASP:HB3	1.61	0.81
45:DR:87:ILE:HG22	45:DR:88:ARG:H	1.45	0.81
31:DA:1392:G:H21	31:DA:1502:A:H8	1.25	0.81
1:AA:1689:A:N6	1:AA:1698:A:H2	1.76	0.81
31:DA:653:A:C8	38:DK:56:LYS:HE3	2.14	0.81
1:AA:676:A:H8	1:AA:2069:G:N2	1.77	0.81
1:CA:957:A:H62	12:CP:12:GLN:HA	1.45	0.81
27:A5:56:LYS:H	27:A5:56:LYS:HD2	1.45	0.81
12:CP:12:GLN:HE21	12:CP:73:PRO:HD2	1.45	0.81
1:CA:1512:C:HO2'	1:CA:1575:A:H8	1.26	0.81
52:DB:3:U:HO2'	52:DB:4:G:H8	1.28	0.81
31:DA:652:U:H1'	31:DA:653:A:C2	2.16	0.81
29:A7:8:ASN:ND2	29:A7:11:LYS:H	1.79	0.81
31:BA:820:U:H4'	31:BA:821:G:OP2	1.81	0.81
31:BA:1190:G:OP1	33:BF:4:LYS:HA	1.81	0.81
34:BG:25:ARG:O	34:BG:27:TYR:N	2.14	0.81
1:CA:1297:G:N7	11:CO:18:ARG:NH2	2.29	0.81
1:AA:968:G:O6	56:AA:3568:OHX:N1	2.13	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:CB:5:C:H42	2:CB:120:G:H1	1.26	0.81
1:CA:933:C:C5	1:CA:938:A:N6	2.48	0.81
31:BA:411:A:H62	31:BA:413:G:H21	1.29	0.81
31:DA:1129:C:H4'	31:DA:1130:A:C5'	2.10	0.81
39:DL:112:LYS:HA	39:DL:119:ALA:HB2	1.62	0.81
42:DO:31:ARG:HG3	42:DO:32:GLY:N	1.96	0.81
21:AV:120:ILE:HG21	21:AV:170:THR:HB	1.62	0.81
31:BA:1322:C:O2'	31:BA:1323:G:O5'	1.97	0.81
4:CE:33:VAL:HG21	4:CE:36:ARG:HE	1.46	0.81
26:C4:34:GLU:HG2	26:C4:35:VAL:H	1.44	0.81
31:DA:1157:A:O2'	31:DA:1158:C:O5'	1.99	0.81
1:AA:2068:U:N3	1:AA:2430:A:H2	1.78	0.81
31:DA:1022:G:H2'	31:DA:1023:G:O4'	1.80	0.81
30:C8:49:VAL:HG12	30:C8:50:LEU:N	1.96	0.81
31:DA:1297:C:H1'	31:DA:1298:C:OP2	1.80	0.81
9:AM:4:TYR:OH	9:AM:7:LYS:NZ	2.14	0.81
31:DA:812:C:H1'	31:DA:813:U:OP2	1.80	0.81
31:DA:1325:C:H4'	51:DX:17:THR:HG21	1.60	0.81
1:AA:2016:U:C1'	27:A5:6:VAL:HG13	2.05	0.81
12:CP:3:MET:HB2	12:CP:93:TYR:CD1	2.15	0.81
52:DD:19:C:H2'	52:DD:20:C:H4'	1.63	0.81
12:CP:19:GLY:N	12:CP:98:LYS:HZ3	1.79	0.81
11:CO:85:LEU:HB3	11:CO:114:ILE:HD11	1.62	0.81
38:BK:7:ALA:HB2	38:BK:85:ARG:HD2	1.61	0.81
31:DA:1318:A:O2'	49:DV:37:ARG:HB3	1.81	0.81
31:DA:382:A:H2'	31:DA:383:A:C8	2.15	0.81
11:AO:75:ILE:HD13	11:AO:75:ILE:H	1.44	0.81
14:CQ:24:LEU:HB2	14:CQ:85:VAL:HG12	1.61	0.80
33:BF:91:LEU:HB2	33:BF:99:VAL:HG21	1.63	0.80
15:CR:61:PHE:HD2	15:CR:61:PHE:H	1.29	0.80
7:AH:13:LYS:HA	7:AH:13:LYS:HE2	1.63	0.80
1:AA:2016:U:C1'	27:A5:6:VAL:HG11	2.10	0.80
20:AU:35:TYR:CE1	20:AU:69:ALA:HB3	2.16	0.80
37:DJ:44:TYR:HA	37:DJ:47:CYS:HB3	1.62	0.80
53:DC:1:C:O2	53:DC:1:C:H2'	1.80	0.80
1:AA:1055:G:N1	1:AA:1104:C:N4	2.25	0.80
1:AA:2163:C:H5''	1:AA:2172:U:OP2	1.80	0.80
31:BA:1004:A:C5'	31:BA:1025:U:H3	1.92	0.80
12:CP:79:LEU:C	12:CP:79:LEU:HD12	2.02	0.80
18:AS:9:TYR:H	18:AS:102:HIS:CD2	1.98	0.80
31:BA:1452:C:O2'	31:BA:1453:G:OP2	1.98	0.80
11:CO:62:LEU:HD11	30:C8:25:MET:C	2.02	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:C6:28:ARG:HD2	28:C6:31:PRO:HD2	1.64	0.80
52:DD:14:A:H3'	52:DD:15:G:C5'	2.11	0.80
20:AU:97:ARG:HH21	20:AU:98:VAL:HB	1.46	0.80
16:C1:98:LEU:C	16:C1:100:VAL:H	1.83	0.80
1:AA:2733:A:H2'	1:AA:2734:A:H5''	1.64	0.80
31:BA:382:A:H2'	31:BA:383:A:H8	1.47	0.80
4:AE:41:LYS:HE2	4:AE:41:LYS:HA	1.61	0.80
47:BT:86:GLU:HA	47:BT:89:LEU:HB2	1.63	0.80
11:CO:61:ARG:NH2	11:CO:61:ARG:CG	2.39	0.80
7:CH:3:ARG:HG3	7:CH:4:ILE:H	1.45	0.80
1:AA:2427:C:H5''	1:AA:2428:G:OP1	1.81	0.80
7:CH:19:VAL:HG12	7:CH:20:ALA:H	1.47	0.80
31:BA:1086:U:H3	31:BA:1099:G:H22	1.26	0.80
52:DB:23:A:H2'	52:DB:24:G:H5''	1.63	0.80
1:CA:1674:G:OP2	56:CA:3327:OHX:N5	2.14	0.80
12:CP:26:TYR:CE1	12:CP:139:GLU:HB2	2.16	0.80
1:CA:932:C:H42	1:CA:939:G:H1	1.30	0.80
32:BE:162:ILE:HD11	32:BE:184:VAL:HG22	1.62	0.80
31:BA:88:C:O2	31:BA:88:C:H2'	1.82	0.80
7:AH:3:ARG:NE	7:AH:3:ARG:HA	1.97	0.80
27:A5:33:CYS:HB2	27:A5:40:LYS:HD3	1.61	0.80
1:AA:917:A:H2'	1:AA:918:A:C5'	2.11	0.80
15:CR:3:ARG:HG2	15:CR:6:LEU:HB2	1.61	0.80
37:BJ:111:ARG:HD2	37:BJ:123:GLU:HB2	1.62	0.80
21:CV:115:GLY:HA3	21:CV:174:VAL:HG13	1.64	0.80
31:DA:542:G:OP1	34:DG:10:ARG:NH2	2.13	0.80
42:DO:44:LYS:CB	42:DO:45:PRO:HD2	2.12	0.80
1:AA:2394:C:H2'	1:AA:2395:C:H5'	1.63	0.80
1:CA:724:A:H8	1:CA:2092:G:N2	1.75	0.80
5:AF:64:ILE:HG23	5:AF:65:TRP:CD1	2.16	0.80
15:AR:84:GLN:HG2	15:AR:85:LYS:HG2	1.62	0.80
15:CR:64:ARG:HB2	15:CR:73:GLU:HG2	1.63	0.80
17:C2:85:LYS:HG3	17:C2:87:HIS:N	1.94	0.80
31:BA:93:U:H2'	31:BA:95:G:O4'	1.81	0.80
11:AO:9:ASN:HB3	11:AO:10:PRO:CD	2.11	0.80
4:CE:101:ARG:HG3	4:CE:203:LYS:HE3	1.64	0.80
21:CV:174:VAL:O	21:CV:175:VAL:HB	1.81	0.80
40:BM:8:LEU:HD12	40:BM:20:ALA:HB2	1.62	0.80
49:DV:66:MET:HA	49:DV:67:VAL:O	1.82	0.80
7:AH:77:LYS:HE2	7:AH:138:LYS:HD2	1.62	0.80
14:CQ:11:LYS:HG3	14:CQ:91:PRO:HD3	1.63	0.80
1:AA:2307:G:C8	1:AA:2311:A:C2	2.70	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AP:79:LEU:N	12:AP:79:LEU:HD12	1.96	0.80
1:CA:1218:G:H4'	1:CA:1219:G:OP1	1.78	0.80
1:CA:2831:A:O2'	1:CA:2832:A:OP1	2.00	0.80
1:AA:2327:A:H2'	1:AA:2328:A:C8	2.17	0.80
1:CA:550:U:H2'	1:CA:551:U:H6	1.46	0.80
17:A2:47:VAL:HG22	17:A2:48:GLY:N	1.95	0.80
15:CR:24:PRO:HA	15:CR:49:VAL:HG23	1.63	0.80
1:AA:222:A:H3'	1:AA:421:U:H5'	1.63	0.80
31:BA:881:G:P	42:BO:9:ARG:HH22	2.04	0.80
53:DC:16:C:O2'	53:DC:62:C:OP1	1.99	0.80
1:AA:2164:C:H2'	1:AA:2165:G:O4'	1.82	0.80
31:BA:789:U:C6	31:BA:792:A:H5'	2.16	0.80
31:BA:1028:C:N4	31:BA:1033:G:H1	1.78	0.80
31:BA:737:A:H2'	31:BA:738:C:C6	2.17	0.80
6:AG:13:GLU:O	6:AG:14:GLU:HB3	1.81	0.80
1:CA:2844:G:H8	1:CA:2844:G:OP1	1.63	0.80
1:AA:287:C:H2'	1:AA:288:C:H6	1.46	0.80
52:BB:53:A:H2'	52:BB:54:C:O4'	1.82	0.79
42:BO:44:LYS:HB3	42:BO:45:PRO:HD3	1.61	0.79
12:AP:21:THR:CG2	12:AP:21:THR:O	2.30	0.79
17:C2:71:LEU:H	17:C2:86:GLY:CA	1.94	0.79
12:CP:21:THR:CG2	12:CP:21:THR:O	2.30	0.79
1:AA:2636:U:OP1	4:AE:79:ARG:HA	1.81	0.79
46:BS:50:LYS:HD3	46:BS:51:VAL:H	1.45	0.79
1:CA:1606:A:H1'	1:CA:1607:G:OP2	1.82	0.79
31:DA:64:G:H4'	31:DA:65:U:O5'	1.81	0.79
10:CN:47:ILE:HG13	10:CN:48:PRO:HD2	1.64	0.79
1:AA:1430:C:H2'	1:AA:1431:U:C6	2.17	0.79
7:AH:10:PRO:O	7:AH:11:VAL:HG13	1.82	0.79
1:CA:2417:C:H1'	11:CO:67:MET:CE	2.13	0.79
52:BD:62:G:H1	52:BD:70:C:H42	1.29	0.79
31:DA:82:U:O2	31:DA:87:A:N1	2.15	0.79
49:BV:39:THR:HG22	49:BV:40:ILE:H	1.45	0.79
31:DA:870:U:H4'	31:DA:871:U:C5'	2.12	0.79
1:CA:2480:C:H4'	12:CP:123:HIS:CD2	2.17	0.79
52:DB:31:G:H1	52:DB:41:C:H42	1.28	0.79
1:AA:1798:U:H5''	3:AD:259:THR:HG22	1.63	0.79
38:BK:91:ARG:HH11	38:BK:91:ARG:CG	1.94	0.79
11:CO:62:LEU:HD11	30:C8:25:MET:O	1.83	0.79
52:BD:48:C:C3'	52:BD:49:A:H8	1.92	0.79
54:D1:13:A:O2'	54:D1:14:A:OP1	2.01	0.79
1:AA:1378:A:O2'	1:AA:1380:G:N7	2.14	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:671:C:H2'	1:CA:671:C:O2	1.80	0.79
11:CO:79:ARG:HB3	11:CO:110:TYR:CD1	2.17	0.79
1:AA:607:U:H3	1:AA:621:A:H2	1.27	0.79
17:A2:16:PRO:HA	17:A2:96:ILE:HG22	1.63	0.79
1:AA:1071:G:N1	1:AA:1091:G:N7	2.29	0.79
11:CO:79:ARG:O	11:CO:111:ARG:HB2	1.83	0.79
1:AA:1507:A:H3'	1:AA:1508:A:H5''	1.65	0.79
2:AB:43:C:P	6:AG:67:LYS:HZ2	2.04	0.79
12:AP:77:LYS:NZ	12:AP:83:MET:CA	2.39	0.79
12:AP:19:GLY:O	12:AP:98:LYS:HD3	1.81	0.79
31:BA:1008:C:N4	31:BA:1021:G:H1	1.81	0.79
17:A2:35:LEU:O	17:A2:37:VAL:N	2.14	0.79
31:BA:135:C:H2'	31:BA:136:C:H5'	1.63	0.79
22:C3:66:VAL:HG12	22:C3:67:VAL:H	1.48	0.79
32:BE:74:LYS:HD2	32:BE:74:LYS:H	1.48	0.79
9:CM:128:HIS:HB2	9:CM:129:PRO:HD2	1.65	0.79
25:CX:19:GLN:HE22	25:CX:52:HIS:HE1	1.30	0.79
4:AE:181:LEU:HD21	15:AR:7:ILE:HG23	1.65	0.79
10:CN:14:THR:HG21	10:CN:86:ILE:HD12	1.65	0.79
1:AA:2167:U:O2'	1:AA:2168:G:OP1	1.99	0.79
52:BD:20:C:H5'	52:BD:68:A:H62	1.48	0.79
1:CA:2791:G:C5'	1:CA:2792:A:H5'	2.11	0.79
5:CF:4:VAL:HA	5:CF:19:GLU:HB3	1.65	0.79
31:BA:382:A:H2'	31:BA:383:A:C8	2.17	0.79
1:AA:945:A:H1'	1:AA:946:G:OP1	1.82	0.79
31:DA:887:G:O6	56:DA:1787:OHX:N5	2.16	0.79
9:AM:65:LYS:HB3	9:AM:69:GLN:HG3	1.64	0.79
1:AA:882:G:H2'	1:AA:883:G:C8	2.18	0.79
1:CA:954:U:H5'	12:CP:23:GLY:O	1.82	0.79
54:D1:11:U:H2'	54:D1:12:A:C5	2.18	0.79
11:AO:60:MET:O	11:AO:60:MET:HG3	1.83	0.79
31:BA:1492:A:OP1	42:BO:44:LYS:N	2.16	0.79
31:DA:1285:A:H1'	31:DA:1286:A:OP2	1.82	0.79
38:BK:88:LYS:HB3	38:BK:89:PRO:HD2	1.65	0.79
33:DF:113:ALA:HB3	33:DF:114:PRO:HD3	1.65	0.79
8:AK:110:ASP:HB2	8:AK:112:LYS:N	1.98	0.79
34:BG:153:ARG:NH2	34:BG:181:MET:HB2	1.98	0.79
1:CA:2193:A:H5''	1:CA:2194:A:OP2	1.82	0.79
31:BA:664:G:H22	31:BA:741:G:H1	1.30	0.79
21:CV:11:GLU:CG	21:CV:12:GLY:H	1.94	0.79
9:AM:22:THR:HG22	9:AM:23:LEU:N	1.97	0.79
13:C0:34:ILE:HG22	13:C0:114:VAL:HB	1.64	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CP:28:ALA:O	12:CP:29:PHE:HB2	1.83	0.78
52:BD:48:C:H42	52:BD:52:G:H1	1.29	0.78
31:BA:789:U:C5	31:BA:792:A:C5'	2.66	0.78
11:CO:105:LEU:O	11:CO:106:LEU:CB	2.31	0.78
3:AD:35:LYS:HD2	3:AD:104:TYR:CE1	2.18	0.78
1:CA:930:G:N2	1:CA:941:C:N3	2.28	0.78
39:DL:17:VAL:HA	39:DL:63:ILE:HG12	1.63	0.78
1:CA:2615:A:H4'	1:CA:2616:G:O5'	1.83	0.78
1:AA:164:U:H5''	1:AA:165:U:OP2	1.84	0.78
20:CU:43:ASN:H	20:CU:43:ASN:HD22	1.31	0.78
12:AP:25:ASP:N	12:AP:102:VAL:HG22	1.97	0.78
49:DV:78:ARG:HD3	49:DV:78:ARG:H	1.47	0.78
31:DA:250:A:H1'	31:DA:251:G:OP2	1.82	0.78
31:BA:444:C:N4	31:BA:490:G:H1	1.80	0.78
31:DA:574:A:H5''	31:DA:575:G:OP2	1.83	0.78
12:CP:34:LEU:HD11	12:CP:129:THR:HB	1.66	0.78
1:AA:1509:C:H3'	1:AA:1510:A:H5''	1.65	0.78
1:CA:2131:C:H42	1:CA:2204:G:H1	1.32	0.78
7:AH:83:TYR:HD1	7:AH:134:SER:HB3	1.48	0.78
1:AA:2167:U:HO2'	1:AA:2168:G:P	2.07	0.78
1:AA:1533:C:H3'	1:AA:1534:G:C5'	2.13	0.78
28:C6:24:GLU:HG3	28:C6:25:LYS:H	1.48	0.78
1:CA:1726:G:N2	1:CA:2012:G:H22	1.82	0.78
5:AF:136:THR:HG22	5:AF:166:ALA:O	1.83	0.78
52:DD:17:G:H1'	52:DD:18:G:OP1	1.82	0.78
1:CA:1118:G:H5''	1:CA:1119:C:OP2	1.83	0.78
1:AA:2287:A:N6	1:AA:2344:U:H3	1.82	0.78
1:AA:2343:C:HO2'	1:AA:2373:G:HO2'	1.24	0.78
1:CA:1693:G:H5''	1:CA:1694:C:H5'	1.63	0.78
1:AA:1055:G:H1	1:AA:1104:C:H42	0.81	0.78
1:CA:2428:G:H4'	11:CO:67:MET:H	1.46	0.78
1:CA:2694:C:H5	1:CA:2739:A:N6	1.80	0.78
31:BA:1162:C:N3	31:BA:1174:G:N2	2.29	0.78
34:DG:31:CYS:C	34:DG:33:MET:H	1.87	0.78
30:A8:52:LYS:N	30:A8:53:PRO:HD2	1.98	0.78
20:AU:81:LYS:HD2	20:AU:96:ILE:HD12	1.66	0.78
31:DA:1129:C:N4	31:DA:1142:G:O6	2.15	0.78
31:BA:737:A:H2'	31:BA:738:C:H6	1.48	0.78
3:AD:28:GLU:O	3:AD:29:PRO:C	2.22	0.78
1:AA:1568:G:H5'	3:AD:60:ARG:HA	1.65	0.78
12:AP:11:LYS:HD3	12:AP:87:LYS:HG2	1.66	0.78
1:AA:1899:G:N2	1:AA:1902:C:C5	2.51	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:987:G:N2	31:DA:1218:C:N3	2.31	0.78
1:CA:140:A:C8	1:CA:1455:C:H1'	2.18	0.78
21:CV:158:PRO:HB2	21:CV:159:PRO:HD2	1.64	0.78
12:CP:24:GLY:CA	12:CP:25:ASP:HB3	2.09	0.78
1:CA:2159:C:N4	1:CA:2178:G:H1	1.77	0.78
31:BA:1331:G:HO2'	31:BA:1332:A:H8	1.31	0.78
43:BP:3:ARG:HG2	43:BP:9:ILE:HD11	1.65	0.78
1:AA:2467:C:C4'	12:AP:123:HIS:ND1	2.47	0.78
15:AR:24:PRO:HA	15:AR:49:VAL:HG22	1.64	0.78
1:CA:155:C:N3	1:CA:161:G:N2	2.32	0.78
1:CA:105:C:H2'	1:CA:106:U:H6	1.49	0.78
52:DB:29:C:H2'	52:DB:30:A:C8	2.19	0.78
20:CU:39:VAL:O	20:CU:40:GLU:HB2	1.84	0.78
21:AV:76:LEU:H	21:AV:76:LEU:HD22	1.47	0.78
1:AA:1427:A:H4'	1:AA:1428:C:O5'	1.81	0.78
11:CO:64:LYS:HG3	11:CO:65:ARG:N	1.96	0.78
1:CA:710:G:H5''	11:CO:16:ARG:HG2	1.66	0.78
41:DN:54:ARG:CG	41:DN:54:ARG:HH11	1.95	0.78
30:C8:34:TRP:CE2	30:C8:35:GLN:HB2	2.19	0.78
1:AA:910:A:C5	12:AP:13:GLN:HG3	2.19	0.78
1:CA:1216:G:H2'	1:CA:1217:G:O4'	1.83	0.78
2:AB:73:A:H2'	2:AB:74:U:H5'	1.66	0.78
21:AV:9:TYR:HE1	21:AV:35:ARG:HD3	1.49	0.78
1:CA:827:U:OP1	3:CD:49:ILE:HG22	1.84	0.78
1:CA:543:C:OP1	27:C5:16:ARG:NH2	2.16	0.78
1:AA:2475:C:O2	1:AA:2475:C:H2'	1.84	0.78
11:CO:106:LEU:HD11	11:CO:111:ARG:O	1.84	0.77
31:BA:77:C:C2'	31:BA:78:G:H5''	2.15	0.77
12:CP:90:VAL:O	12:CP:90:VAL:CG1	2.32	0.77
1:AA:2392:A:H8	11:AO:60:MET:HB2	1.48	0.77
4:CE:25:VAL:HG12	4:CE:26:ILE:H	1.49	0.77
1:CA:155:C:H42	1:CA:161:G:H1	1.32	0.77
4:CE:89:ASP:O	4:CE:90:THR:HG22	1.84	0.77
31:DA:485:G:H1'	31:DA:486:U:H5	1.48	0.77
32:BE:204:ASN:HD22	32:BE:206:ASP:H	1.31	0.77
32:BE:80:ILE:HD11	32:BE:208:ILE:HG23	1.65	0.77
11:CO:101:VAL:CG2	11:CO:108:LYS:HG2	2.08	0.77
52:DD:48:C:H42	52:DD:52:G:H1	1.27	0.77
11:AO:65:ARG:HH11	11:AO:65:ARG:CG	1.87	0.77
17:C2:71:LEU:CA	17:C2:86:GLY:HA2	2.14	0.77
1:AA:873:G:H1	1:AA:904:C:H42	0.81	0.77
1:AA:49:A:C8	1:AA:120:U:C5	2.72	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:2130:C:N4	1:CA:2205:G:N1	2.27	0.77
34:BG:19:LEU:HD23	34:BG:21:LEU:HG	1.66	0.77
30:C8:49:VAL:HG12	30:C8:50:LEU:H	1.49	0.77
15:AR:118:ARG:HE	15:AR:118:ARG:HA	1.49	0.77
30:A8:48:PHE:HE2	30:A8:50:LEU:HD13	1.49	0.77
28:A6:15:GLU:OE1	28:A6:44:ARG:NH2	2.17	0.77
1:CA:355:A:H2	1:CA:1256:A:O2'	1.67	0.77
31:DA:1331:G:H4'	31:DA:1331:G:OP1	1.84	0.77
14:CQ:29:PHE:HD2	14:CQ:30:ARG:N	1.81	0.77
1:CA:2014:U:H2'	1:CA:2015:G:H5''	1.66	0.77
37:BJ:120:ILE:O	37:BJ:124:LEU:HB2	1.84	0.77
3:CD:183:ARG:HG3	3:CD:270:ILE:HG23	1.67	0.77
1:AA:1448:G:O2'	1:AA:1529:A:N1	2.16	0.77
11:CO:64:LYS:HB2	30:C8:25:MET:CG	2.13	0.77
52:BD:67:A:C4'	52:BD:68:A:OP1	2.31	0.77
31:BA:78:G:H1	31:BA:91:C:H42	1.30	0.77
52:BD:23:A:H3'	52:BD:24:G:H8	1.47	0.77
32:DE:74:LYS:HD2	32:DE:166:ASP:HB2	1.66	0.77
31:BA:1125:U:OP2	31:BA:1145:C:N4	2.17	0.77
7:AH:86:GLU:HG3	7:AH:165:ALA:CB	2.14	0.77
30:C8:48:PHE:CG	30:C8:49:VAL:N	2.50	0.77
23:AZ:76:ARG:H	23:AZ:76:ARG:HD3	1.48	0.77
40:DM:99:LYS:HD3	40:DM:100:THR:H	1.50	0.77
31:BA:119:A:H4'	31:BA:120:A:O5'	1.81	0.77
37:BJ:65:ALA:HB1	37:BJ:127:ALA:HB3	1.66	0.77
19:CT:57:LEU:HD21	19:CT:78:LYS:HD2	1.64	0.77
12:CP:132:VAL:HG22	12:CP:133:ARG:H	1.50	0.77
1:AA:2124:G:H1	1:AA:2174:C:H42	1.30	0.77
52:BD:48:C:C3'	52:BD:49:A:C8	2.65	0.77
5:AF:164:ARG:HG2	5:AF:164:ARG:HH11	1.49	0.77
3:CD:45:ASN:OD1	3:CD:46:GLN:N	2.17	0.77
24:CW:50:ILE:HD12	24:CW:50:ILE:H	1.48	0.77
5:AF:103:LYS:HA	5:AF:106:ARG:HG3	1.65	0.77
11:CO:16:ARG:HH11	11:CO:16:ARG:HG3	1.49	0.77
31:BA:1002:G:H2'	31:BA:1003:G:C8	2.19	0.77
1:AA:2392:A:C8	11:AO:60:MET:HB2	2.18	0.77
31:BA:736:C:H2'	31:BA:737:A:H8	1.47	0.77
16:C1:52:ARG:HH11	16:C1:52:ARG:HB3	1.46	0.77
1:AA:4:C:H2'	1:AA:5:A:H8	1.47	0.77
1:CA:2264:G:OP1	12:CP:82:ARG:NH1	2.18	0.77
31:BA:673:G:H2'	31:BA:674:G:C8	2.19	0.77
49:BV:63:THR:HG23	49:BV:65:ASN:HD21	1.48	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CE:11:MET:HA	4:CE:24:THR:HA	1.66	0.77
31:DA:1322:C:O2	31:DA:1322:C:H2'	1.84	0.77
26:A4:34:GLU:HG3	43:BP:3:ARG:HB2	1.64	0.77
1:CA:2360:C:H4'	28:C6:39:TYR:HE2	1.50	0.77
1:CA:155:C:N4	1:CA:161:G:H1	1.83	0.77
40:BM:61:GLU:OE2	44:BQ:45:ARG:NH1	2.17	0.77
11:CO:64:LYS:CB	30:C8:25:MET:CG	2.62	0.77
1:CA:2146:G:H1	1:CA:2198:C:N4	1.81	0.77
1:CA:2152:C:C2'	1:CA:2153:U:H5'	2.14	0.77
52:DD:48:C:C3'	52:DD:49:A:C8	2.65	0.77
1:CA:9:U:N3	1:CA:2642:A:C6	2.53	0.77
31:DA:989:C:N3	31:DA:1216:G:N2	2.30	0.77
1:CA:622:G:O4'	11:CO:12:ALA:HB2	1.84	0.77
27:A5:40:LYS:HG2	27:A5:47:PRO:HD2	1.64	0.77
15:CR:61:PHE:CE2	15:CR:76:PHE:HB2	2.19	0.77
1:AA:557:U:H2'	1:AA:558:G:H8	1.48	0.77
43:BP:13:LYS:O	43:BP:44:ARG:HD2	1.85	0.77
1:CA:2320:G:C4	1:CA:2324:A:C2	2.57	0.77
5:AF:46:ARG:HH11	5:AF:46:ARG:CG	1.98	0.77
3:CD:35:LYS:CG	3:CD:64:ILE:H	1.98	0.77
7:AH:153:LYS:HB3	7:AH:154:PRO:HD2	1.67	0.77
31:DA:687:A:H1'	31:DA:688:G:OP2	1.83	0.77
3:AD:13:ARG:NH1	3:AD:16:MET:SD	2.58	0.77
43:DP:39:ILE:HG22	43:DP:40:ASN:H	1.49	0.77
21:CV:33:LEU:HD23	21:CV:90:VAL:HG21	1.65	0.77
32:DE:178:ARG:HH21	38:DK:68:ARG:NH2	1.83	0.77
3:CD:218:ARG:HB3	3:CD:219:PRO:HD2	1.66	0.76
31:BA:345:C:H5'	31:BA:346:G:OP1	1.86	0.76
31:DA:1160:G:O6	31:DA:1181:G:C6	2.38	0.76
52:DB:57:C:C2	52:DB:68:A:H1'	2.20	0.76
31:DA:1002:G:H2'	31:DA:1003:G:C8	2.21	0.76
1:CA:98:U:H1'	1:CA:100:G:C2	2.20	0.76
31:DA:1053:G:O6	31:DA:1199:U:H2'	1.85	0.76
33:DF:36:ASP:HA	33:DF:39:ILE:HD12	1.66	0.76
28:A6:27:LYS:HB2	28:A6:27:LYS:HZ2	1.50	0.76
18:CS:86:LEU:HD12	18:CS:87:PRO:HD2	1.68	0.76
31:DA:81:G:N1	31:DA:88:C:N4	2.27	0.76
1:AA:1210:A:C8	1:AA:1210:A:H5'	2.19	0.76
34:BG:153:ARG:NH2	34:BG:180:GLY:O	2.18	0.76
23:CZ:92:LYS:O	23:CZ:94:LEU:N	2.18	0.76
31:DA:345:C:H1'	31:DA:346:G:C2	2.20	0.76
26:A4:14:ILE:HG23	26:A4:21:VAL:HB	1.67	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:AQ:30:ARG:HG3	14:AQ:30:ARG:HH11	1.49	0.76
31:BA:880:C:OP1	42:BO:5:ASN:ND2	2.17	0.76
1:AA:2114:A:H2'	1:AA:2168:G:H5''	1.67	0.76
1:CA:2391:A:O2'	14:CQ:21:THR:HG21	1.85	0.76
33:BF:181:ASN:ND2	33:BF:204:LEU:HB2	2.00	0.76
7:AH:124:GLU:HB3	7:AH:132:ARG:HG3	1.67	0.76
28:C6:29:ASN:HA	28:C6:32:ASN:HD22	1.50	0.76
50:DW:51:GLU:HA	50:DW:54:LYS:HB3	1.64	0.76
1:CA:1467:U:O2'	1:CA:1468:G:OP1	2.01	0.76
3:AD:155:LEU:HD23	3:AD:177:LEU:HD21	1.67	0.76
1:CA:2321:G:O2'	1:CA:2322:A:P	2.43	0.76
1:CA:896:G:H1'	1:CA:979:A:H8	1.50	0.76
52:BB:12:C:O2	52:BB:24:G:N1	2.19	0.76
39:DL:97:LYS:HB2	39:DL:102:LEU:HD12	1.68	0.76
31:BA:1322:C:H2'	31:BA:1322:C:O2	1.85	0.76
32:BE:204:ASN:ND2	32:BE:206:ASP:H	1.83	0.76
1:CA:2419:U:O4	11:CO:70:GLN:HB2	1.84	0.76
26:A4:50:VAL:HG11	43:BP:65:LYS:HB3	1.67	0.76
7:AH:153:LYS:HG2	7:AH:162:ILE:HB	1.68	0.76
1:CA:855:U:H2'	1:CA:856:G:C8	2.19	0.76
31:DA:977:A:H2'	31:DA:978:A:H5'	1.68	0.76
21:CV:11:GLU:HG3	21:CV:12:GLY:H	1.50	0.76
1:AA:2629:A:O2'	1:AA:2630:G:H5''	1.85	0.76
18:AS:53:SER:O	18:AS:57:ASN:HB2	1.85	0.76
31:DA:455:C:H42	31:DA:477:G:H1	1.33	0.76
24:AW:47:ASN:O	24:AW:49:LYS:N	2.17	0.76
45:BR:6:GLU:OE2	45:BR:6:GLU:N	2.15	0.76
31:BA:1178:G:O2'	31:BA:1179:A:OP1	2.03	0.76
31:BA:1023:G:H3'	31:BA:1024:G:H5''	1.64	0.76
24:CW:46:GLN:H	24:CW:49:LYS:HZ2	1.33	0.76
1:CA:930:G:H1	1:CA:941:C:H42	0.79	0.76
5:CF:18:ARG:HG2	5:CF:19:GLU:N	1.99	0.76
12:CP:79:LEU:CD1	12:CP:79:LEU:C	2.54	0.76
43:BP:82:MET:O	43:BP:84:ILE:N	2.19	0.76
31:DA:1278:U:H5'	31:DA:1279:A:O4'	1.84	0.76
1:AA:140:A:H8	1:AA:1408:C:O2'	1.68	0.76
33:DF:32:LEU:O	33:DF:36:ASP:HB2	1.86	0.76
1:AA:547:A:H2'	1:AA:548:A:C8	2.21	0.76
30:C8:29:LYS:O	30:C8:29:LYS:CG	2.30	0.76
12:AP:23:GLY:HA2	12:AP:25:ASP:HB2	1.66	0.76
1:CA:1158:A:H5'	7:CH:3:ARG:HH11	1.51	0.76
1:AA:1535:U:H3'	1:AA:1536:A:C5'	2.15	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:AO:58:THR:CG2	11:AO:61:ARG:HG3	2.15	0.76
2:CB:17:A:H1'	2:CB:112:G:C5	2.20	0.76
1:CA:1249:G:H3'	1:CA:1250:A:H5''	1.68	0.76
52:DB:10:C:H42	52:DB:26:G:H1	1.32	0.76
11:AO:38:GLN:HG2	11:AO:45:LEU:HD13	1.65	0.76
2:AB:30:C:H2'	2:AB:31:C:H5'	1.68	0.76
4:AE:61:ARG:HB2	4:AE:62:PRO:HD3	1.67	0.76
34:DG:127:THR:HG21	34:DG:149:ALA:HB2	1.68	0.76
17:C2:37:VAL:HG21	17:C2:57:VAL:HG12	1.67	0.76
31:DA:1049:U:H4'	31:DA:1050:G:C5'	2.16	0.76
31:BA:881:G:OP2	42:BO:9:ARG:NH2	2.18	0.76
1:AA:2580:U:H4'	4:AE:130:GLY:HA3	1.67	0.76
1:CA:479:G:H5'	5:CF:59:TYR:HE2	1.49	0.76
11:CO:64:LYS:CG	11:CO:65:ARG:N	2.48	0.76
24:CW:17:SER:CB	24:CW:18:PRO:HA	2.06	0.76
3:AD:35:LYS:HB3	3:AD:63:ARG:HA	1.67	0.76
5:AF:101:LEU:HD13	5:AF:102:PRO:CD	2.16	0.76
1:AA:482:A:H4'	20:AU:47:LYS:HD3	1.68	0.76
50:BW:100:ILE:HG13	50:BW:102:GLY:H	1.51	0.76
31:DA:6:G:H4'	31:DA:298:A:H4'	1.68	0.76
21:CV:80:ARG:HD3	21:CV:82:ARG:HH21	1.51	0.75
1:AA:654(E):C:H42	1:AA:654(P):G:H1	1.34	0.75
31:BA:73:G:O6	31:BA:97:U:C2	2.39	0.75
1:CA:1068:A:N6	1:CA:1189:A:H61	1.81	0.75
1:CA:1922:G:N2	1:CA:1925:C:C5	2.54	0.75
16:C1:100:VAL:O	16:C1:101:ARG:HG2	1.87	0.75
1:AA:2636:U:P	4:AE:79:ARG:HA	2.25	0.75
39:BL:114:TYR:H	39:BL:114:TYR:HD2	1.31	0.75
24:AW:32:LEU:HD11	24:AW:54:LYS:HG2	1.69	0.75
1:AA:889:C:H3'	1:AA:890:A:C4'	2.11	0.75
31:DA:1346:A:C1'	31:DA:1347:G:OP2	2.33	0.75
1:CA:1071:G:H3'	1:CA:1072:G:H5''	1.68	0.75
2:CB:44:C:O2	6:CG:93:THR:N	2.17	0.75
1:CA:2570:G:H2'	1:CA:2571:C:C6	2.22	0.75
1:AA:302:C:H2'	1:AA:303:U:H6	1.51	0.75
7:CH:125:VAL:HG23	7:CH:126:PRO:HB3	1.65	0.75
31:BA:406:G:H2'	31:BA:407:G:H8	1.51	0.75
7:AH:4:ILE:HG13	7:AH:6:ARG:NE	2.00	0.75
21:CV:52:SER:O	21:CV:54:HIS:N	2.19	0.75
31:DA:1056:U:H2'	31:DA:1056:U:O2	1.86	0.75
14:CQ:10:ARG:HH21	14:CQ:91:PRO:HB2	1.51	0.75
20:CU:43:ASN:N	20:CU:43:ASN:HD22	1.84	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DN:57:THR:HG22	41:DN:59:TYR:H	1.52	0.75
11:CO:46:LYS:HB2	11:CO:51:PHE:CD2	2.21	0.75
31:DA:1128:C:O2'	31:DA:1129:C:OP1	2.04	0.75
2:CB:54:A:O2'	2:CB:55:A:C8	2.39	0.75
31:DA:1321:C:H3'	31:DA:1322:C:H5''	1.68	0.75
31:DA:973:G:H1'	40:DM:55:LYS:CE	2.15	0.75
21:CV:10:ARG:HG2	21:CV:11:GLU:H	1.52	0.75
7:AH:83:TYR:HD2	7:AH:83:TYR:H	1.32	0.75
22:A3:36:ILE:O	22:A3:36:ILE:HD13	1.86	0.75
19:CT:43:VAL:HG23	19:CT:51:VAL:HG21	1.68	0.75
11:AO:16:ARG:HH11	11:AO:16:ARG:HG3	1.49	0.75
1:CA:2809:G:H3'	1:CA:2810:U:C5'	2.14	0.75
31:BA:1139:G:N2	31:BA:1143:G:O6	2.19	0.75
16:A1:90:VAL:O	16:A1:92:ARG:N	2.19	0.75
1:CA:1813:C:O2'	56:CA:3272:OHX:N6	2.20	0.75
32:DE:42:ILE:HG21	32:DE:203:GLY:HA2	1.68	0.75
39:BL:42:ARG:HH11	39:BL:71:SER:HB3	1.50	0.75
38:BK:86:ILE:HG22	38:BK:87:SER:H	1.52	0.75
1:AA:1313:U:H2'	1:AA:1610:A:C2	2.21	0.75
31:DA:414:A:OP2	31:DA:428:G:N2	2.20	0.75
31:DA:56:U:H2'	31:DA:57:G:C8	2.22	0.75
1:AA:1075:C:H2'	1:AA:1076:C:O4'	1.86	0.75
1:CA:896:G:H1'	1:CA:979:A:C8	2.22	0.75
31:BA:789:U:H2'	31:BA:791:G:OP2	1.85	0.75
1:CA:1654:C:H4'	1:CA:1655:A:O5'	1.85	0.75
1:AA:1014:U:C2'	1:AA:1015:G:H5''	2.17	0.75
31:BA:411:A:C5	31:BA:413:G:H1'	2.22	0.75
49:DV:78:ARG:HH11	49:DV:79:THR:H	1.33	0.75
41:BN:99:GLN:HG2	41:BN:105:VAL:HG21	1.68	0.75
32:BE:77:ALA:HB2	32:BE:211:ILE:HD13	1.68	0.75
5:CF:164:ARG:CB	5:CF:164:ARG:HH11	2.00	0.75
40:BM:48:THR:HA	40:BM:62:HIS:HB3	1.69	0.75
1:CA:2176:G:H2'	1:CA:2177:G:C8	2.22	0.75
1:AA:1535:U:N3	1:AA:1536:A:H3'	2.02	0.75
52:DB:48:C:H42	52:DB:52:G:H1	0.81	0.75
11:AO:50:ARG:CG	11:AO:50:ARG:HH21	1.98	0.75
1:AA:527:C:OP2	1:AA:2779:U:C5	2.39	0.75
26:C4:1:MET:N	26:C4:1:MET:SD	2.59	0.75
8:AK:25:TYR:CE2	8:AK:29:TYR:HD2	2.05	0.75
1:AA:524:U:H2'	1:AA:525:U:C6	2.22	0.75
8:AK:7:GLU:HA	8:AK:15:VAL:HG22	1.67	0.75
31:BA:937:A:H1'	31:BA:1379:G:H22	1.52	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:2795:G:H3'	1:AA:2797:U:C5'	2.17	0.75
31:BA:7:G:H5'	31:BA:298:A:O4'	1.86	0.75
32:BE:111:ARG:HH11	32:BE:111:ARG:HG2	1.52	0.75
31:BA:422:C:O2'	31:BA:423:G:N3	2.19	0.75
31:BA:149:A:H2'	31:BA:150:C:C6	2.21	0.75
1:CA:933:C:H41	1:CA:938:A:H62	1.33	0.75
52:DD:52:G:H2'	52:DD:53:A:C8	2.22	0.75
52:DD:67:A:C4'	52:DD:68:A:OP1	2.34	0.75
33:BF:40:ARG:O	33:BF:44:GLU:HG2	1.87	0.75
1:CA:5:A:N6	1:CA:2908:U:H3	1.83	0.75
31:BA:1346:A:H5''	39:BL:120:ARG:NH1	2.02	0.75
52:DB:6:G:O2'	52:DB:7:G:OP1	2.04	0.75
42:DO:57:LEU:HB2	42:DO:61:TYR:HB3	1.68	0.75
52:BD:61:G:H1	52:BD:71:C:N4	1.85	0.74
1:CA:2791:G:H5''	1:CA:2792:A:C5'	2.11	0.74
1:AA:2400:G:H2'	1:AA:2401:U:C6	2.22	0.74
1:CA:1271:C:O2'	17:C2:85:LYS:HB2	1.87	0.74
31:DA:1004:A:H5''	31:DA:1025:U:O4	1.87	0.74
17:C2:35:LEU:H	17:C2:35:LEU:HD23	1.52	0.74
46:BS:48:TRP:HZ2	46:BS:76:GLN:HE22	1.33	0.74
9:AM:96:GLU:C	9:AM:98:VAL:H	1.90	0.74
1:AA:620:G:H4'	1:AA:621:A:C5'	2.16	0.74
45:DR:68:ARG:NH1	45:DR:68:ARG:HG3	2.02	0.74
1:AA:330:A:O2'	1:AA:331:A:C8	2.40	0.74
31:DA:1146:A:OP1	31:DA:1146:A:H8	1.68	0.74
31:BA:81:G:N1	31:BA:88:C:N4	2.34	0.74
3:AD:155:LEU:HD23	3:AD:177:LEU:CD2	2.17	0.74
22:C3:27:GLU:HG3	22:C3:68:GLU:HA	1.69	0.74
41:BN:87:THR:HG22	41:BN:88:GLY:H	1.52	0.74
5:AF:184:TYR:O	5:AF:188:ARG:HG3	1.87	0.74
18:AS:92:ARG:NH1	18:AS:94:ASP:OD2	2.21	0.74
16:C1:74:LEU:HD13	16:C1:79:PHE:HB2	1.69	0.74
8:AK:11:ASN:O	8:AK:12:LEU:HB2	1.87	0.74
12:AP:17:LEU:HD21	12:AP:96:VAL:HG13	1.66	0.74
31:BA:1301:U:O2	31:BA:1301:U:H2'	1.86	0.74
1:CA:1270:G:N2	1:CA:1273:A:OP2	2.19	0.74
19:CT:28:PHE:N	19:CT:28:PHE:CD1	2.53	0.74
1:CA:1389:A:C6	1:CA:1444:U:C5	2.74	0.74
31:DA:1305:G:O2'	31:DA:1306:A:H8	1.67	0.74
1:AA:2216:G:O6	56:AA:3420:OHX:N3	2.20	0.74
32:BE:92:TYR:HE1	32:BE:94:ASN:HD22	1.35	0.74
18:CS:9:TYR:H	18:CS:102:HIS:CD2	2.05	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DJ:45:ASP:OD1	37:DJ:115:ARG:NH1	2.20	0.74
12:CP:78:PRO:O	12:CP:79:LEU:CD1	2.34	0.74
31:DA:1134:G:H2'	31:DA:1135:U:H5'	1.68	0.74
1:AA:1854:A:H62	1:AA:1888:G:H8	1.34	0.74
1:AA:998:C:H2'	1:AA:999:U:O5'	1.87	0.74
7:CH:27:LYS:HD3	7:CH:32:GLU:HB3	1.70	0.74
1:CA:2288:C:O2	12:CP:85:LYS:HG2	1.87	0.74
31:BA:1007:C:H2'	31:BA:1008:C:H5''	1.70	0.74
52:DD:33:C:O2'	52:DD:38:MIA:H152	1.87	0.74
1:AA:2286:A:H8	28:A6:37:ARG:HH11	1.34	0.74
31:DA:1128:C:H4'	39:DL:16:ARG:HH12	1.53	0.74
27:A5:40:LYS:HZ2	27:A5:46:CYS:HB3	1.52	0.74
3:CD:43:ARG:HH11	3:CD:49:ILE:HB	1.52	0.74
40:BM:49:VAL:HG23	44:BQ:41:ARG:HB2	1.69	0.74
1:AA:105:C:H4'	20:AU:2:ARG:HH21	1.53	0.74
31:DA:950:U:H3'	43:DP:102:ARG:NH2	2.02	0.74
26:C4:31:ILE:HG22	26:C4:32:TYR:N	2.02	0.74
34:DG:139:ARG:NH1	34:DG:139:ARG:HG3	2.03	0.74
20:AU:76:CYS:O	20:AU:78:ALA:N	2.21	0.74
10:AN:24:VAL:HA	10:AN:39:ILE:HG22	1.69	0.74
8:CK:75:LEU:HD23	8:CK:76:THR:H	1.53	0.74
1:AA:1430:C:H2'	1:AA:1431:U:H6	1.49	0.74
13:A0:24:GLN:HE22	13:A0:36:THR:HG21	1.51	0.74
13:A0:34:ILE:HG22	13:A0:114:VAL:HB	1.68	0.74
32:BE:91:PRO:HG3	32:BE:154:LEU:HB3	1.69	0.74
42:DO:54:LYS:HG3	42:DO:64:THR:HG22	1.70	0.74
37:BJ:144:MET:HE1	52:BD:31:G:H21	1.52	0.74
35:DH:101:ILE:HD11	35:DH:119:LEU:HD23	1.70	0.74
1:CA:2188:G:N7	1:CA:2189:G:N2	2.34	0.74
11:CO:19:VAL:HG23	11:CO:27:HIS:CG	2.23	0.74
1:CA:1040:G:H1'	17:C2:87:HIS:CE1	2.23	0.74
1:CA:1379:G:H21	1:CA:1657:A:H8	1.35	0.74
11:CO:15:ARG:HH11	11:CO:15:ARG:CB	2.01	0.74
14:CQ:107:GLU:H	14:CQ:110:LEU:HD11	1.51	0.74
7:AH:152:ARG:CG	7:AH:153:LYS:H	2.00	0.74
1:CA:348:G:HO2'	1:CA:1251:U:H3	1.36	0.74
1:CA:1583:A:H5''	1:CA:1584:C:OP2	1.87	0.74
4:CE:9:VAL:HG21	4:CE:25:VAL:HB	1.70	0.74
1:CA:38:A:H2'	1:CA:39:C:C6	2.23	0.74
1:AA:905:U:H2'	1:AA:906:G:H5''	1.69	0.74
1:AA:2016:U:C4'	27:A5:6:VAL:HG11	2.18	0.74
1:CA:2396:G:OP2	30:C8:37:SER:CB	2.35	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:AR:105:LEU:C	15:AR:107:ASP:H	1.89	0.74
31:DA:664:G:H22	31:DA:741:G:H1	1.36	0.74
11:AO:115:LEU:HA	11:AO:134:ALA:HB2	1.69	0.74
31:DA:1008:C:N3	31:DA:1021:G:O6	2.21	0.74
5:AF:65:TRP:CZ3	5:AF:72:ARG:HB3	2.22	0.74
40:DM:54:PHE:CD2	40:DM:55:LYS:HD3	2.21	0.74
31:BA:652:U:H1'	31:BA:653:A:H2	1.52	0.74
32:BE:88:ALA:HB2	32:BE:219:VAL:HG13	1.69	0.74
1:AA:2875:C:H4'	15:AR:5:ALA:HB2	1.68	0.74
49:BV:15:LEU:O	49:BV:19:VAL:N	2.18	0.74
31:DA:84:U:H2'	31:DA:84:U:O2	1.88	0.74
1:CA:875:U:O2'	1:CA:2091:U:C2	2.38	0.74
3:AD:34:VAL:HG21	3:AD:103:ARG:HA	1.70	0.74
21:AV:62:PRO:C	21:AV:64:GLY:HA2	2.07	0.74
31:DA:1280:A:H5'	31:DA:1281:U:OP2	1.87	0.74
38:DK:42:GLU:HG3	38:DK:109:ILE:HD12	1.70	0.74
1:AA:488:G:OP2	56:AA:3526:OHX:N4	2.21	0.74
3:AD:186:HIS:HD2	3:AD:188:GLU:H	1.36	0.74
21:AV:104:PHE:HE1	21:AV:119:GLU:HB3	1.53	0.74
35:DH:76:ILE:HG22	35:DH:78:HIS:H	1.52	0.74
31:DA:115:G:H4'	31:DA:116:A:O5'	1.86	0.74
31:BA:244:U:H4'	31:BA:245:C:C5'	2.18	0.74
52:DB:84:C:H2'	52:DB:85:A:C4	2.22	0.74
1:AA:1434:A:H61	1:AA:1558:A:H61	1.34	0.74
20:CU:9:LYS:O	20:CU:27:VAL:HG23	1.88	0.74
32:BE:165:VAL:HG23	32:BE:166:ASP:H	1.50	0.74
31:DA:950:U:H3'	43:DP:102:ARG:HH22	1.53	0.74
31:DA:116:A:OP2	31:DA:116:A:C8	2.41	0.74
12:AP:79:LEU:O	12:AP:80:GLU:CB	2.35	0.73
52:DD:47:U:H2'	52:DD:48:C:H6	1.52	0.73
3:AD:237:GLU:O	3:AD:239:ARG:N	2.21	0.73
5:CF:46:ARG:CG	5:CF:46:ARG:HH11	2.01	0.73
31:DA:983:A:H1'	31:DA:1049:U:O2	1.88	0.73
31:BA:35:G:O2'	42:BO:115:SER:O	2.06	0.73
1:AA:667:U:OP2	56:AO:205:OHX:N4	2.21	0.73
23:AZ:80:LEU:C	23:AZ:81:LYS:HE2	2.08	0.73
1:CA:556:G:O2'	1:CA:558:A:C8	2.41	0.73
1:CA:2263:G:C2	12:CP:83:MET:HB2	2.23	0.73
1:CA:1115:G:O2'	1:CA:1143:A:O2'	2.06	0.73
52:DD:11:C:H2'	52:DD:12:C:C5'	2.18	0.73
3:CD:35:LYS:HD2	3:CD:104:TYR:CD1	2.23	0.73
7:AH:83:TYR:HB2	7:AH:134:SER:HA	1.70	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:270(M):U:O2'	1:AA:270(N):G:O5'	2.05	0.73
1:CA:1474:A:H4'	1:CA:1475:C:O5'	1.86	0.73
8:CK:52:ARG:HA	8:CK:55:ALA:HB3	1.68	0.73
1:AA:873:G:N2	1:AA:904:C:N3	2.33	0.73
12:CP:90:VAL:O	12:CP:90:VAL:HG12	1.86	0.73
3:CD:64:ILE:O	3:CD:64:ILE:HG13	1.89	0.73
3:CD:182:LEU:H	3:CD:272:ALA:HB3	1.52	0.73
37:DJ:144:MET:HE1	52:DD:31:G:H21	1.53	0.73
21:AV:160:GLY:O	21:AV:161:VAL:HG13	1.88	0.73
1:CA:950:C:O2'	21:CV:168:GLU:HG2	1.85	0.73
1:CA:2228:G:H3'	1:CA:2229:G:C5	2.23	0.73
3:CD:28:GLU:H	3:CD:29:PRO:HD2	1.53	0.73
1:AA:2163:C:H2'	1:AA:2164:C:H5'	1.71	0.73
31:BA:789:U:C5	31:BA:792:A:H5'	2.23	0.73
14:CQ:17:ARG:HG3	14:CQ:17:ARG:HH11	1.49	0.73
1:CA:660:C:H2'	1:CA:661:C:C6	2.23	0.73
19:CT:51:VAL:H	19:CT:83:VAL:HG23	1.53	0.73
21:AV:128:VAL:HA	21:AV:161:VAL:HG21	1.70	0.73
31:BA:677:U:H3	31:BA:713:G:H22	1.34	0.73
1:CA:1073:U:O2	1:CA:1073:U:H2'	1.88	0.73
1:CA:1389:A:C6	1:CA:1649:U:N3	2.56	0.73
1:AA:1045:A:O2'	1:AA:1047:G:C4	2.40	0.73
31:BA:1374:A:O2'	37:BJ:28:ASN:HB3	1.88	0.73
31:BA:937:A:H1'	31:BA:1379:G:N2	2.02	0.73
31:DA:1404:C:H2'	31:DA:1405:G:C8	2.24	0.73
1:AA:55:G:H2'	1:AA:56:A:H8	1.53	0.73
42:DO:114:ARG:HB3	42:DO:119:THR:HB	1.69	0.73
1:AA:2134:A:H2'	1:AA:2135:A:H8	1.54	0.73
1:CA:2300:A:H62	1:CA:2357:U:H3	1.35	0.73
11:AO:15:ARG:CB	11:AO:15:ARG:HH11	2.01	0.73
31:DA:1159:U:H1'	31:DA:1181:G:H1	1.53	0.73
31:BA:1176:A:N6	31:BA:1177:G:C5	2.57	0.73
1:AA:49:A:N7	1:AA:120:U:C5	2.56	0.73
1:AA:2572:A:N7	4:AE:144:ARG:HD2	2.03	0.73
23:CZ:87:PRO:HA	23:CZ:90:ILE:HG22	1.71	0.73
31:BA:142:G:H1	31:BA:221:C:H42	1.36	0.73
10:CN:115:VAL:HG13	10:CN:121:VAL:HG21	1.71	0.73
20:AU:49:VAL:O	20:AU:51:VAL:N	2.21	0.73
24:AW:58:ALA:O	24:AW:62:THR:HG22	1.88	0.73
1:CA:1131:A:HO2'	1:CA:1152:U:HO2'	1.36	0.73
52:DB:52:G:H2'	52:DB:53:A:H8	1.52	0.73
52:BD:13:G:H2'	52:BD:14:A:H8	1.52	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:BB:36:U:H3	54:B1:20:G:H1	1.36	0.73
1:AA:2544:G:OP1	56:AA:3533:OHX:N2	2.21	0.73
34:BG:22:LYS:HB2	34:BG:26:CYS:HB2	1.69	0.73
1:CA:896:G:H2'	1:CA:897:A:C8	2.24	0.73
52:BB:56:U:O2	52:BB:56:U:H2'	1.89	0.73
1:CA:1105:U:H2'	1:CA:1106:G:C8	2.24	0.73
12:CP:98:LYS:HB3	12:CP:99:PRO:HD2	1.71	0.73
1:AA:2394:C:C2'	1:AA:2395:C:H5'	2.19	0.73
15:AR:56:GLY:O	15:AR:59:THR:HG23	1.88	0.73
31:BA:1124:G:H3'	31:BA:1145:C:H41	1.53	0.73
20:AU:76:CYS:HB3	20:AU:96:ILE:HD13	1.69	0.73
1:AA:674:G:C1'	5:AF:74:ARG:HD3	2.18	0.73
1:CA:1618:A:O4'	3:CD:38:LYS:HE2	1.89	0.73
34:BG:25:ARG:C	34:BG:27:TYR:H	1.89	0.73
1:AA:286:C:H2'	1:AA:287:C:C6	2.24	0.73
5:CF:164:ARG:HB3	5:CF:164:ARG:HH11	1.52	0.73
10:CN:2:ILE:HD12	10:CN:6:THR:HG21	1.71	0.73
1:AA:654(M):C:H3'	1:AA:654(N):G:H8	1.54	0.73
37:DJ:16:LEU:HD13	39:DL:45:ALA:HB2	1.70	0.73
4:AE:101:ARG:HG2	4:AE:169:ASN:OD1	1.89	0.73
1:AA:796:C:H2'	1:AA:797:C:C6	2.24	0.73
25:AX:6:VAL:HG12	25:AX:56:VAL:HG22	1.70	0.73
1:CA:2174:G:H2'	1:CA:2175:G:H8	1.54	0.73
31:DA:1157:A:H1'	31:DA:1158:C:C2	2.23	0.73
11:AO:61:ARG:CZ	11:AO:61:ARG:HB3	2.18	0.73
28:A6:43:CYS:HB3	28:A6:44:ARG:NH1	2.03	0.73
31:BA:201:C:H42	31:BA:216:G:H1	1.35	0.73
31:BA:559:A:H4'	31:BA:560:U:H3'	1.68	0.73
4:AE:20:ALA:O	4:AE:21:VAL:HG22	1.87	0.73
35:DH:101:ILE:HD13	35:DH:101:ILE:H	1.52	0.73
1:CA:631:U:H3	1:CA:647:A:H2	1.35	0.73
5:CF:102:PRO:HB2	5:CF:105:VAL:HG23	1.71	0.73
36:BI:69:GLU:O	36:BI:72:VAL:HG12	1.88	0.73
31:DA:1190:G:O6	56:DA:1760:OHX:N6	2.22	0.73
3:AD:35:LYS:HZ1	3:AD:65:ILE:HA	1.53	0.73
1:AA:654(N):G:H2'	1:AA:654(O):G:C8	2.24	0.73
31:BA:721:G:H4'	31:BA:722:A:O4'	1.89	0.73
31:BA:486:U:H2'	31:BA:487:A:C8	2.24	0.73
31:DA:913:A:H4'	31:DA:914:A:O5'	1.89	0.73
53:BC:1:C:O2	53:BC:1:C:H2'	1.88	0.73
27:A5:4:HIS:CG	27:A5:5:PRO:CD	2.68	0.72
1:AA:1088:A:H5'	1:AA:1089:G:H5'	1.71	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:BD:50:U:H2'	52:BD:51:C:C6	2.23	0.72
52:DD:51:C:H3'	52:DD:52:G:C8	2.24	0.72
31:DA:1175:G:H2'	31:DA:1176:A:H8	1.50	0.72
1:AA:2467:C:H4'	12:AP:123:HIS:CE1	2.22	0.72
1:CA:1095:A:H2	1:CA:1159:G:H21	1.34	0.72
30:A8:52:LYS:N	30:A8:53:PRO:CD	2.51	0.72
31:BA:1128:C:H5''	39:BL:16:ARG:HH22	1.54	0.72
39:DL:3:GLN:HE21	39:DL:20:ARG:NH1	1.87	0.72
31:BA:266:G:H5''	31:BA:267:C:C5	2.24	0.72
52:DB:78:C:H2'	52:DB:79:A:H8	1.54	0.72
31:BA:1321:C:H3'	31:BA:1322:C:H5''	1.71	0.72
30:C8:23:VAL:HG22	30:C8:47:LYS:HB3	1.69	0.72
31:BA:858:G:N7	56:BA:1684:OHX:N3	2.37	0.72
6:CG:161:THR:HG22	6:CG:163:ALA:H	1.53	0.72
1:AA:1076:C:C2'	1:AA:1077:A:H5''	2.19	0.72
1:CA:657:A:OP1	11:CO:64:LYS:CE	2.37	0.72
11:CO:61:ARG:HH21	11:CO:61:ARG:HB3	1.54	0.72
52:DD:17:G:H4'	52:DD:18:G:OP2	1.89	0.72
3:AD:35:LYS:HD3	3:AD:63:ARG:CB	2.19	0.72
31:BA:1053:G:O6	31:BA:1199:U:H2'	1.89	0.72
1:AA:2277:G:H5''	12:AP:87:LYS:HB3	1.69	0.72
54:D1:12:A:O2'	54:D1:13:A:P	2.46	0.72
2:AB:6:C:C2'	2:AB:7:G:H5''	2.19	0.72
6:AG:108:ASN:HA	26:A4:38:LYS:HB2	1.71	0.72
1:AA:1022:G:H22	1:AA:1142(A):A:H2	1.32	0.72
16:A1:66:ASN:HB2	16:A1:76:TYR:HB2	1.71	0.72
4:AE:3:GLY:HA3	4:AE:81:ILE:HG21	1.69	0.72
52:BB:9:U:H2'	52:BB:9:U:O2	1.87	0.72
1:AA:1900:A:H5'	1:AA:1900:A:C8	2.22	0.72
5:CF:24:LEU:HB3	5:CF:25:PRO:CD	2.19	0.72
26:A4:59:PHE:O	26:A4:63:TYR:HB3	1.90	0.72
31:BA:210:U:O2'	31:BA:216:G:H8	1.71	0.72
16:C1:90:VAL:HG22	17:C2:39:LEU:HB3	1.71	0.72
1:AA:140:A:C8	1:AA:1408:C:O2'	2.42	0.72
11:AO:112:LEU:H	11:AO:128:HIS:HD2	1.35	0.72
49:BV:51:VAL:HG12	49:BV:52:TYR:H	1.53	0.72
1:AA:1729:A:H8	1:AA:1730:U:H5	1.37	0.72
31:BA:542:G:H5'	34:BG:41:GLY:HA3	1.71	0.72
50:DW:50:GLU:HA	50:DW:100:ILE:HG21	1.70	0.72
35:DH:71:LEU:HD22	35:DH:115:VAL:HG13	1.70	0.72
31:BA:1335:C:H5'	31:BA:1336:C:OP1	1.90	0.72
1:CA:947:A:H3'	1:CA:948:A:H8	1.54	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1060:U:H3	1:AA:1088:A:H8	1.37	0.72
1:CA:953:G:OP1	12:CP:26:TYR:OH	2.07	0.72
1:AA:2402:C:H5	1:AA:2415:G:H22	1.36	0.72
5:CF:119:ARG:HH11	5:CF:119:ARG:CG	2.02	0.72
18:CS:4:LYS:HB3	18:CS:106:ILE:HG22	1.70	0.72
5:AF:67:GLN:O	5:AF:67:GLN:HG3	1.89	0.72
1:AA:945:A:C1'	1:AA:946:G:OP1	2.36	0.72
1:AA:2789:C:H1'	1:AA:2892:A:H2	1.53	0.72
18:CS:9:TYR:H	18:CS:102:HIS:HD2	1.36	0.72
2:CB:90:C:H3'	2:CB:91:G:C8	2.25	0.72
18:AS:14:PRO:HG2	18:AS:78:GLU:HB2	1.71	0.72
4:AE:105:THR:HG22	4:AE:106:GLY:H	1.53	0.72
1:CA:699:G:C4'	1:CA:700:A:OP1	2.38	0.72
1:CA:2161:C:N4	1:CA:2176:G:H1	1.83	0.72
5:CF:21:ALA:O	5:CF:23:ASP:N	2.21	0.72
31:DA:79:G:H1	31:DA:90:C:N4	1.86	0.72
28:C6:23:THR:O	56:C6:101:OHX:N4	2.21	0.72
28:C6:44:ARG:O	28:C6:45:LYS:HB2	1.88	0.72
31:BA:1504:G:OP1	31:BA:1507:A:H4'	1.90	0.72
31:BA:749:C:OP1	56:BA:1683:OHX:N3	2.22	0.72
2:AB:73:A:C2'	2:AB:74:U:H5'	2.18	0.72
5:CF:192:LEU:O	5:CF:193:VAL:HG23	1.90	0.72
11:AO:85:LEU:HA	11:AO:88:LEU:HD22	1.70	0.72
1:CA:2460:G:H1'	1:CA:2461:A:OP2	1.90	0.72
1:CA:800:A:H4'	1:CA:801:C:O5'	1.86	0.72
1:CA:672:A:H2'	1:CA:673:G:O4'	1.90	0.72
3:AD:35:LYS:HZ1	3:AD:104:TYR:HB2	1.53	0.72
37:DJ:115:ARG:HB3	37:DJ:118:VAL:HG13	1.70	0.72
1:CA:1379:G:N2	1:CA:1657:A:C8	2.57	0.72
26:C4:21:VAL:HG22	26:C4:22:ILE:H	1.55	0.72
42:BO:43:LYS:CG	42:BO:44:LYS:N	2.51	0.72
54:B1:12:A:O2'	54:B1:13:A:P	2.48	0.72
4:AE:38:THR:OG1	4:AE:39:PRO:HD2	1.88	0.72
16:A1:112:ARG:NH2	17:A2:47:VAL:HG13	2.05	0.72
21:CV:11:GLU:HG3	21:CV:12:GLY:N	2.05	0.72
1:AA:1510:A:H2'	1:AA:1510:A:N3	2.04	0.72
31:BA:244:U:H4'	31:BA:245:C:O5'	1.89	0.72
24:CW:65:ASN:HD22	24:CW:69:ARG:HH21	1.35	0.72
6:AG:37:VAL:HG22	6:AG:159:VAL:HG12	1.69	0.72
34:BG:173:TRP:CD1	34:BG:174:LEU:HG	2.23	0.72
4:CE:92:THR:O	4:CE:95:ILE:HG13	1.88	0.72
1:AA:1310:G:OP2	29:A7:9:ARG:HD2	1.90	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:498:A:H4'	31:BA:500:G:OP1	1.90	0.72
1:CA:2870:G:H4'	1:CA:2871:A:OP1	1.90	0.72
12:AP:21:THR:O	12:AP:21:THR:HG22	1.89	0.72
1:CA:897:A:OP1	56:CA:3411:OHX:N3	2.21	0.72
1:CA:9:U:H3	1:CA:2642:A:N6	1.86	0.72
11:AO:46:LYS:O	11:AO:47:ASP:HB3	1.89	0.72
31:BA:1149:C:H2'	31:BA:1150:U:H6	1.54	0.72
1:AA:1952:A:C2	10:AN:22:ILE:HD11	2.24	0.72
1:CA:1325:A:H2'	1:CA:1326:G:H8	1.55	0.72
4:CE:91:VAL:HB	4:CE:95:ILE:HD11	1.71	0.72
48:DU:22:VAL:HG22	48:DU:23:LYS:H	1.54	0.72
53:DC:24:C:H2'	53:DC:25:U:H6	1.54	0.72
1:CA:2151:C:H2'	1:CA:2152:C:C6	2.24	0.72
1:AA:1331:A:O2'	1:AA:1332:G:H8	1.72	0.72
1:AA:154:G:C2'	1:AA:155:C:H5''	2.20	0.72
4:CE:23:VAL:HA	4:CE:184:VAL:O	1.89	0.72
34:BG:24:GLU:O	34:BG:27:TYR:HB2	1.89	0.72
1:CA:1726:G:H22	1:CA:2012:G:H22	1.37	0.72
37:BJ:16:LEU:HD12	39:BL:42:ARG:HA	1.72	0.72
1:CA:800:A:H3'	29:C7:1:MET:SD	2.30	0.72
38:DK:89:PRO:HA	38:DK:92:ARG:NH1	2.04	0.72
32:BE:7:VAL:HG23	32:BE:8:LYS:HE2	1.69	0.72
34:DG:145:GLU:HB2	34:DG:184:LYS:HE3	1.72	0.72
1:CA:626:G:HO2'	1:CA:628:G:HO2'	1.38	0.72
31:DA:1374:A:O2'	37:DJ:28:ASN:HB3	1.89	0.72
31:BA:1053:G:C5'	31:BA:1054:C:H5'	2.14	0.72
1:CA:2391:A:H4'	14:CQ:23:ARG:HH11	1.54	0.72
3:CD:35:LYS:CD	3:CD:104:TYR:HD1	2.03	0.72
3:CD:35:LYS:HG2	3:CD:64:ILE:HG12	1.72	0.72
1:AA:1021:A:H61	1:AA:1142(A):A:N6	1.87	0.72
23:CZ:29:GLY:O	23:CZ:30:VAL:HG22	1.90	0.72
40:DM:84:GLN:HB3	40:DM:88:LEU:HD22	1.72	0.72
7:CH:92:ILE:HG22	7:CH:93:GLY:N	2.03	0.72
31:BA:1254:C:H42	31:BA:1283:G:H1	1.36	0.72
52:BB:6:G:O2'	52:BB:7:G:OP1	2.08	0.72
31:DA:1159:U:H1'	31:DA:1181:G:N1	2.05	0.72
31:DA:1372:U:OP1	39:DL:72:GLY:N	2.22	0.72
1:CA:1379:G:N2	1:CA:1657:A:H8	1.87	0.72
3:CD:34:VAL:C	3:CD:35:LYS:HG3	2.09	0.72
40:BM:4:ILE:HB	40:BM:74:ILE:HG13	1.71	0.72
1:CA:2230:A:H1'	1:CA:2232:G:C5	2.25	0.72
5:CF:124:LEU:HG	5:CF:126:VAL:HG13	1.72	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
40:DM:48:THR:HA	40:DM:62:HIS:HB3	1.72	0.72
24:AW:16:LEU:O	24:AW:16:LEU:HG	1.89	0.72
34:BG:98:GLU:OE2	34:BG:103:ASN:ND2	2.20	0.72
1:AA:1833:U:O2'	1:AA:1969:A:N1	2.21	0.72
1:CA:2320:G:N9	1:CA:2324:A:H2	1.65	0.71
52:DD:13:G:H2'	52:DD:14:A:H8	1.54	0.71
31:DA:266:G:O6	31:DA:270:A:N7	2.23	0.71
1:AA:1778:U:H2'	1:AA:1784:A:H62	1.53	0.71
1:CA:1887:G:N7	56:CA:3484:OHX:N1	2.38	0.71
20:CU:87:LYS:HB3	20:CU:92:ASN:HB3	1.72	0.71
32:BE:17:PHE:HB3	32:BE:44:LEU:HD21	1.71	0.71
1:AA:1171:G:N2	1:AA:1179:C:O2	2.23	0.71
12:AP:19:GLY:C	12:AP:98:LYS:HD3	2.09	0.71
52:DB:56:U:H2'	52:DB:56:U:O2	1.90	0.71
1:CA:1069:G:O2'	1:CA:1070:U:OP2	2.07	0.71
50:BW:23:ARG:HA	50:BW:26:ASN:HD21	1.54	0.71
1:CA:1256:A:H5''	1:CA:1257:U:H3'	1.71	0.71
31:BA:1348:U:H4'	39:BL:120:ARG:HD2	1.70	0.71
31:BA:625:G:H4'	46:BS:16:HIS:CD2	2.25	0.71
38:BK:91:ARG:HD2	42:BO:4:ILE:HG13	1.71	0.71
1:AA:1278:A:O2'	13:A0:34:ILE:HD11	1.90	0.71
35:DH:78:HIS:HB2	38:DK:104:ARG:HD2	1.72	0.71
1:AA:1754:C:OP1	15:AR:96:ARG:NH1	2.23	0.71
11:CO:61:ARG:NH2	11:CO:61:ARG:HG2	2.01	0.71
1:CA:2417:C:H1'	11:CO:67:MET:HE1	1.72	0.71
31:DA:1349:A:OP2	39:DL:118:LYS:NZ	2.23	0.71
3:AD:71:ASP:HB3	3:AD:103:ARG:HH22	1.55	0.71
31:BA:1028(B):C:N4	31:BA:1032(A):G:H1	1.87	0.71
2:CB:33:C:H2'	2:CB:34:C:H5'	1.72	0.71
23:AZ:92:LYS:HA	23:AZ:95:LEU:HB2	1.72	0.71
31:BA:1116:C:C2'	31:BA:1117:G:H5'	2.20	0.71
1:AA:2820:A:O2'	1:AA:2821:A:OP1	2.07	0.71
31:DA:1027:C:C2	31:DA:1035:A:N6	2.57	0.71
1:CA:1968:G:OP1	56:CA:3377:OHX:N6	2.23	0.71
42:DO:15:VAL:O	42:DO:16:ARG:HB2	1.89	0.71
31:DA:1160:G:N1	31:DA:1177:G:N2	2.36	0.71
11:CO:15:ARG:NH1	11:CO:15:ARG:CG	2.39	0.71
5:CF:21:ALA:C	5:CF:23:ASP:H	1.92	0.71
12:CP:83:MET:SD	12:CP:83:MET:N	2.63	0.71
1:CA:2246:U:H2'	1:CA:2247:G:C8	2.25	0.71
1:AA:598:G:C1'	11:AO:12:ALA:HB2	2.20	0.71
13:A0:72:ASP:OD1	13:A0:75:LEU:HB2	1.90	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:2712:U:H5'	1:AA:2712:U:O2	1.90	0.71
8:CK:101:LEU:HD23	8:CK:101:LEU:H	1.53	0.71
12:CP:19:GLY:H	12:CP:98:LYS:NZ	1.85	0.71
1:AA:996:A:H4'	16:A1:92:ARG:HE	1.54	0.71
31:DA:1126:U:O2'	31:DA:1127:G:P	2.48	0.71
13:A0:1:MET:O	13:A0:2:ARG:HB2	1.89	0.71
20:CU:81:LYS:HG2	20:CU:97:ARG:CZ	2.20	0.71
6:AG:13:GLU:O	6:AG:14:GLU:CB	2.39	0.71
22:C3:68:GLU:HG3	22:C3:80:HIS:HB2	1.73	0.71
31:BA:27:G:H4'	34:BG:209:ARG:HG3	1.71	0.71
1:CA:1705:C:H2'	1:CA:1706:C:C6	2.26	0.71
31:BA:438:G:OP1	34:BG:125:HIS:HE1	1.73	0.71
52:DB:15:G:H1'	52:DB:20:C:H5	1.55	0.71
15:AR:111:ARG:HD3	15:AR:111:ARG:H	1.55	0.71
52:DD:23:A:H2'	52:DD:24:G:O4'	1.90	0.71
49:BV:63:THR:HG23	49:BV:65:ASN:ND2	2.04	0.71
28:A6:41:PRO:HB2	28:A6:44:ARG:HH12	1.56	0.71
1:CA:2520:C:H2'	1:CA:2521:G:O4'	1.89	0.71
1:CA:1218:G:H2'	1:CA:1218:G:OP2	1.91	0.71
52:DB:3:U:H4'	52:DB:4:G:OP1	1.89	0.71
1:CA:2486:U:H2'	1:CA:2486:U:O2	1.90	0.71
1:AA:557:U:H2'	1:AA:558:G:C8	2.24	0.71
31:DA:843:U:H3'	31:DA:848:C:O4'	1.91	0.71
1:CA:1543:A:H8	1:CA:1625:C:HO2'	1.35	0.71
32:DE:233:SER:HB2	32:DE:234:PRO:HD2	1.71	0.71
12:AP:83:MET:SD	12:AP:83:MET:N	2.63	0.71
1:AA:900:A:H3'	1:AA:901:A:H8	1.56	0.71
52:BD:21:A:N1	52:BD:55:U:O4	2.24	0.71
19:CT:28:PHE:N	19:CT:28:PHE:HD1	1.89	0.71
52:DB:3:U:C4'	52:DB:4:G:OP1	2.39	0.71
1:AA:1464:C:HO2'	1:AA:1528:A:H8	1.38	0.71
56:DA:1760:OHX:N2	40:DM:59:SER:HB3	2.06	0.71
1:AA:580:C:H2'	1:AA:581:C:H6	1.55	0.71
1:AA:404:C:H1'	1:AA:405:U:OP2	1.91	0.71
21:AV:52:SER:O	21:AV:54:HIS:N	2.24	0.71
16:C1:72:HIS:HE1	16:C1:107:ALA:HA	1.54	0.71
16:C1:50:ARG:HH11	17:C2:70:ILE:HG22	1.56	0.71
42:DO:44:LYS:HB3	42:DO:45:PRO:CD	2.18	0.71
1:AA:1516:U:H2'	1:AA:1517:G:H8	1.55	0.71
1:AA:1871:A:H2'	1:AA:1872:A:H8	1.56	0.71
1:CA:1985:C:O2'	1:CA:1987:G:OP2	2.08	0.71
41:DN:116:HIS:O	41:DN:117:ASN:HB2	1.90	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:2752:A:OP2	56:CA:3321:OHX:N3	2.24	0.71
14:CQ:66:ALA:O	14:CQ:69:VAL:HG12	1.91	0.71
1:AA:2656:U:H3	1:AA:2665:A:H2	1.39	0.71
1:CA:2715:U:C2'	1:CA:2716:C:H5	2.02	0.71
20:AU:42:VAL:CB	20:AU:67:LEU:HD11	2.19	0.71
35:BH:78:HIS:HE1	35:BH:143:ARG:N	1.87	0.71
1:CA:1922:G:N2	1:CA:1925:C:H41	1.88	0.71
1:AA:2567:G:H2'	1:AA:2568:C:C6	2.25	0.71
6:AG:64:THR:HG23	6:AG:94:LEU:HD13	1.73	0.71
1:CA:1463:G:O2'	1:CA:1464:C:O5'	2.08	0.71
1:AA:229:A:H4'	1:AA:230:U:H5'	1.72	0.71
1:CA:2620:G:O6	56:CA:3462:OHX:N1	2.23	0.71
31:DA:498:A:H4'	31:DA:500:G:OP1	1.90	0.71
1:CA:2288:C:O2	12:CP:85:LYS:CG	2.39	0.71
34:DG:8:VAL:O	34:DG:11:LEU:N	2.13	0.71
52:BB:7:G:OP2	56:BB:106:OHX:N5	2.23	0.71
1:AA:1533:C:C3'	1:AA:1534:G:H5''	2.16	0.71
31:BA:266:G:H5'	31:BA:268:C:H41	1.56	0.71
1:CA:140:A:H8	1:CA:1642:G:H21	1.37	0.71
27:C5:16:ARG:NH1	27:C5:17:ASP:OD1	2.24	0.71
1:CA:2418:G:O2'	1:CA:2419:U:OP1	2.07	0.71
31:BA:1240:U:C5	37:BJ:32:ARG:HD2	2.26	0.71
50:DW:72:LEU:O	50:DW:73:HIS:HB2	1.91	0.71
52:BD:33:C:O2'	52:BD:38:MIA:H152	1.90	0.71
32:DE:236:TYR:HB2	32:DE:239:VAL:HB	1.71	0.71
1:AA:2756:U:H4'	1:AA:2757:A:OP1	1.90	0.71
1:CA:2694:C:H6	1:CA:2696:C:H41	1.38	0.70
52:BB:50:U:H2'	52:BB:51:C:O4'	1.91	0.70
33:BF:8:ILE:HG23	33:BF:16:ARG:HG2	1.73	0.70
31:BA:411:A:C4	31:BA:413:G:H1'	2.26	0.70
1:CA:1922:G:N2	1:CA:1925:C:N4	2.38	0.70
19:AT:31:HIS:ND1	19:AT:32:PRO:HD2	2.06	0.70
49:DV:18:LYS:O	49:DV:22:LEU:HB2	1.90	0.70
40:DM:6:ILE:HD11	40:DM:72:VAL:HB	1.71	0.70
32:DE:84:GLU:HG3	32:DE:215:LEU:HB3	1.72	0.70
31:DA:900:A:H2'	31:DA:901:A:C8	2.26	0.70
21:AV:92:SER:O	21:AV:130:PRO:HG2	1.90	0.70
27:A5:2:ALA:O	27:A5:3:LYS:HB2	1.89	0.70
1:AA:1076:C:H2'	1:AA:1077:A:H5''	1.73	0.70
52:DD:18:G:C1'	52:DD:19:C:OP2	2.39	0.70
1:CA:2438:A:H5''	1:CA:2439:A:H3'	1.72	0.70
31:BA:963:G:H21	40:BM:55:LYS:NZ	1.89	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:2689:U:H4'	1:AA:2690:C:C5'	2.17	0.70
1:AA:593:G:O3'	30:A8:61:LEU:HD22	1.92	0.70
52:DB:48:C:H3'	52:DB:49:A:H8	1.56	0.70
1:CA:1250:A:O2'	1:CA:1251:U:OP2	2.09	0.70
7:CH:23:ARG:HA	7:CH:36:PRO:HA	1.73	0.70
36:BI:2:ARG:HD2	36:BI:69:GLU:HB3	1.73	0.70
1:AA:559:G:H22	16:A1:49:HIS:CD2	2.08	0.70
49:DV:23:ASN:HA	49:DV:27:GLU:HG3	1.73	0.70
1:AA:1607:C:H4'	1:AA:1608:A:O5'	1.91	0.70
1:AA:879:G:H1	1:AA:898:C:N4	1.88	0.70
1:AA:1056:G:N2	1:AA:1103:A:N6	2.15	0.70
31:DA:1442:G:O2'	31:DA:1443:G:OP1	2.08	0.70
15:AR:107:ASP:O	15:AR:110:ILE:HG22	1.91	0.70
12:AP:51:ARG:NH1	12:AP:51:ARG:HG2	1.95	0.70
1:CA:1072:G:OP1	1:CA:1072:G:H8	1.74	0.70
1:CA:1444:U:O2'	1:CA:1445:C:P	2.49	0.70
13:A0:2:ARG:HG3	13:A0:5:LYS:HZ2	1.55	0.70
1:AA:1888:G:H5'	1:AA:1888:G:N3	2.07	0.70
38:DK:12:ARG:HH11	38:DK:27:PRO:HD3	1.53	0.70
1:CA:2536:G:H8	1:CA:2536:G:H5'	1.56	0.70
43:DP:3:ARG:HG2	43:DP:9:ILE:HG13	1.73	0.70
31:DA:345:C:O2'	31:DA:346:G:O5'	2.09	0.70
1:CA:2737:C:OP1	13:C0:3:HIS:HD2	1.74	0.70
9:CM:13:TRP:O	9:CM:135:PRO:HD2	1.91	0.70
15:CR:56:GLY:O	15:CR:59:THR:HG23	1.91	0.70
1:CA:1851:A:H5''	3:CD:161:THR:HG21	1.74	0.70
9:CM:137:LYS:NZ	9:CM:137:LYS:HA	2.06	0.70
20:CU:99:CYS:SG	20:CU:100:ALA:N	2.64	0.70
1:AA:2014:A:O2'	27:A5:2:ALA:HB2	1.91	0.70
11:AO:64:LYS:C	11:AO:66:GLY:N	2.39	0.70
7:CH:6:ARG:HH21	7:CH:54:ARG:HH22	1.40	0.70
31:BA:1303:C:H2'	31:BA:1304:G:H5'	1.72	0.70
31:DA:328:C:C1'	31:DA:329:A:OP2	2.37	0.70
3:CD:43:ARG:HD2	3:CD:44:ASN:OD1	1.91	0.70
31:DA:663:A:H5'	31:DA:836:G:OP1	1.90	0.70
17:C2:24:LYS:HA	17:C2:92:THR:OG1	1.90	0.70
1:CA:2533:C:H41	1:CA:2555:A:H62	1.38	0.70
1:CA:1978:U:O3'	1:CA:1979:U:H6	1.75	0.70
31:BA:963:G:H5'	56:BA:1688:OHX:N1	2.05	0.70
52:DB:55:U:C6	52:DB:56:U:H1'	2.27	0.70
31:BA:1128:C:H2'	31:BA:1139:G:O6	1.90	0.70
15:AR:24:PRO:HA	15:AR:49:VAL:CG2	2.22	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:BE:84:GLU:HB3	32:BE:219:VAL:HG21	1.72	0.70
1:AA:1423:G:H2'	1:AA:1424:G:H8	1.55	0.70
31:DA:890:G:O6	56:DA:1754:OHX:N5	2.24	0.70
35:BH:31:LEU:HD23	35:BH:45:PHE:CD1	2.26	0.70
38:BK:51:VAL:HG11	38:BK:60:ARG:HG3	1.74	0.70
31:DA:1286:A:C8	31:DA:1287:A:H4'	2.26	0.70
8:CK:76:THR:HG23	8:CK:77:LEU:H	1.54	0.70
31:DA:1363:A:H4'	31:DA:1364:U:H5''	1.74	0.70
38:DK:86:ILE:HD11	38:DK:136:GLU:HG2	1.73	0.70
34:DG:150:GLU:O	34:DG:152:SER:N	2.23	0.70
1:AA:1069:A:H4'	1:AA:1070:A:C5'	2.21	0.70
1:CA:2159:C:N4	1:CA:2178:G:C6	2.59	0.70
33:BF:70:VAL:HG12	33:BF:72:LYS:N	2.03	0.70
5:CF:3:GLU:O	5:CF:19:GLU:HB2	1.90	0.70
1:CA:140:A:H8	1:CA:1455:C:H1'	1.55	0.70
28:A6:33:LYS:HG3	28:A6:34:LEU:HD22	1.74	0.70
1:CA:1467:U:O2'	1:CA:1468:G:P	2.50	0.70
1:AA:1278:A:OP1	13:A0:36:THR:HG22	1.92	0.70
30:C8:23:VAL:CG2	30:C8:47:LYS:HB3	2.21	0.70
9:CM:15:LEU:HB2	9:CM:134:ARG:HG2	1.74	0.70
9:AM:73:THR:HB	9:AM:82:LEU:HD11	1.74	0.70
36:DI:61:LEU:HD23	36:DI:63:TYR:OH	1.92	0.70
17:A2:89:GLN:HE21	17:A2:89:GLN:HA	1.57	0.70
1:AA:880:G:O2'	1:AA:881:G:P	2.49	0.70
1:AA:1058:U:H2'	1:AA:1059:G:C8	2.27	0.70
1:CA:2145:U:H2'	1:CA:2146:G:O4'	1.92	0.70
52:DD:62:G:H1	52:DD:70:C:H42	1.39	0.70
31:DA:1347:G:C8	39:DL:107:ARG:HB3	2.27	0.70
12:CP:21:THR:HG22	12:CP:21:THR:O	1.91	0.70
31:DA:250:A:H4'	31:DA:251:G:O5'	1.92	0.70
31:DA:1206:G:H2'	31:DA:1207:G:C8	2.27	0.70
31:DA:973:G:H3'	31:DA:974:A:H5''	1.73	0.70
6:AG:114:ILE:HD11	6:AG:140:ILE:HD12	1.73	0.70
11:CO:11:GLY:C	11:CO:13:ASN:H	1.95	0.70
43:BP:19:LEU:HD11	43:BP:56:LEU:HD11	1.74	0.70
38:BK:63:LEU:HB3	38:BK:65:TYR:CE1	2.26	0.70
1:AA:1065:U:H1'	1:AA:1074:G:N2	2.07	0.70
1:CA:2694:C:C4	1:CA:2739:A:N6	2.48	0.70
52:BD:50:U:H2'	52:BD:51:C:O4'	1.92	0.70
11:CO:79:ARG:HB3	11:CO:110:TYR:HD1	1.55	0.70
38:BK:60:ARG:HH11	38:BK:60:ARG:CG	2.03	0.70
31:BA:1145:C:H5''	31:BA:1146:A:OP1	1.90	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1700:A:N6	13:C0:11:ASN:HD21	1.86	0.70
1:CA:1832:C:OP2	3:CD:266:SER:OG	2.08	0.70
1:AA:4:C:H2'	1:AA:5:A:C8	2.25	0.70
34:BG:173:TRP:HZ3	34:BG:193:ASP:HB3	1.56	0.70
31:BA:390:C:H2'	31:BA:391:G:C8	2.27	0.70
31:DA:748:C:H4'	31:DA:749:C:O5'	1.92	0.70
46:DS:70:ALA:O	46:DS:74:LEU:HD23	1.92	0.70
1:AA:747:U:C2	27:A5:2:ALA:N	2.60	0.70
52:BD:22:A:H2'	52:BD:22:A:N3	2.06	0.70
1:AA:1887:C:C2'	1:AA:1888:G:H5''	2.22	0.70
54:B1:11:U:H2'	54:B1:12:A:C5	2.26	0.70
31:BA:1392:G:O2'	31:BA:1502:A:H5''	1.92	0.70
1:AA:1882:C:H3'	1:AA:1883:G:C8	2.25	0.70
3:CD:49:ILE:HD11	3:CD:52:ARG:HA	1.72	0.70
3:AD:175:LEU:HD12	3:AD:185:VAL:HG21	1.74	0.70
31:DA:522:C:H42	31:DA:527:G:H1	1.37	0.70
17:C2:15:GLU:HG2	17:C2:16:PRO:HD2	1.74	0.70
5:AF:107:LYS:HD2	5:AF:206:ILE:HA	1.74	0.70
1:AA:2172:U:O2	1:AA:2172:U:H2'	1.92	0.69
34:DG:4:TYR:HE2	34:DG:11:LEU:HD11	1.57	0.69
3:AD:27:THR:HG21	3:AD:83:GLU:CB	2.20	0.69
1:AA:1291:C:H5'	1:AA:1536:A:H5'	1.73	0.69
1:AA:1130:U:O2'	1:AA:1131:G:O5'	2.08	0.69
31:DA:1277:C:O2'	31:DA:1279:A:H1'	1.92	0.69
16:C1:65:ILE:HD11	16:C1:96:ALA:CB	2.22	0.69
1:AA:2751:G:O2'	1:AA:2752:C:P	2.50	0.69
17:A2:47:VAL:HG22	17:A2:48:GLY:H	1.56	0.69
5:AF:185:ASP:HA	5:AF:188:ARG:HD3	1.72	0.69
1:AA:654(G):C:N3	1:AA:654(N):G:O6	2.25	0.69
31:BA:913:A:H4'	31:BA:914:A:O5'	1.91	0.69
1:AA:993:G:OP1	16:A1:50:ARG:NH2	2.24	0.69
1:CA:1736:U:O2	1:CA:1748:A:H5'	1.92	0.69
16:A1:58:ARG:HA	16:A1:61:TRP:CE3	2.27	0.69
1:AA:2631:G:H1	1:AA:2787:C:H42	1.40	0.69
21:AV:117:LEU:HD22	21:AV:118:GLN:N	2.06	0.69
1:AA:2744:G:H21	7:AH:143:GLN:HE22	1.40	0.69
1:CA:2431:A:P	30:C8:29:LYS:HZ2	2.15	0.69
52:BD:20:C:H5'	52:BD:68:A:N6	2.06	0.69
1:AA:2400:G:H2'	1:AA:2401:U:H6	1.55	0.69
1:CA:2082:A:H5'	1:CA:2083:A:OP2	1.91	0.69
31:DA:1023:G:H3'	31:DA:1024:G:H5''	1.72	0.69
38:BK:6:ILE:O	38:BK:10:LEU:HD23	1.92	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AD:10:THR:HG23	3:AD:13:ARG:HB2	1.74	0.69
8:AK:8:PRO:HG3	8:AK:14:ASP:HB2	1.74	0.69
6:AG:111:LEU:HA	6:AG:114:ILE:HD13	1.73	0.69
36:DI:35:ALA:HB1	36:DI:65:VAL:HG11	1.73	0.69
42:BO:114:ARG:NH2	42:BO:121:LYS:HB2	2.06	0.69
31:DA:509:A:O2'	31:DA:510:A:OP1	2.09	0.69
1:AA:2313:C:H2'	1:AA:2314:C:H6	1.57	0.69
1:AA:2419:U:O4	30:A8:30:ARG:CZ	2.40	0.69
33:DF:131:ARG:NH1	35:DH:50:GLU:HG3	2.07	0.69
1:CA:1581:G:H5'	1:CA:1582:U:OP2	1.92	0.69
1:CA:2196:A:C6	1:CA:2197:C:H1'	2.27	0.69
31:BA:1301:U:O4	31:BA:1303:C:H1'	1.92	0.69
31:BA:79:G:O2'	31:BA:80:G:O5'	2.10	0.69
33:BF:12:LEU:C	33:BF:14:ILE:H	1.94	0.69
3:CD:35:LYS:HE2	3:CD:104:TYR:HB2	1.73	0.69
1:CA:2432:U:H4'	28:C6:23:THR:HG21	1.74	0.69
17:C2:79:VAL:O	17:C2:80:GLN:HB2	1.92	0.69
1:AA:654(M):C:H3'	1:AA:654(N):G:C8	2.28	0.69
31:BA:685:G:O2'	31:BA:686:U:H5'	1.92	0.69
36:BI:44:GLY:HA2	36:BI:59:TYR:CZ	2.26	0.69
8:CK:3:VAL:HG12	8:CK:38:LEU:HA	1.73	0.69
3:CD:95:LEU:HD11	3:CD:105:ILE:HD12	1.73	0.69
1:CA:2325:U:O2'	6:CG:40:ASN:ND2	2.24	0.69
1:CA:2289:G:P	12:CP:84:GLY:HA2	2.32	0.69
52:BB:3:U:H4'	52:BB:4:G:OP1	1.91	0.69
31:DA:1250:A:H4'	39:DL:68:GLY:N	2.06	0.69
41:BN:22:HIS:HB3	41:BN:29:ILE:HG23	1.74	0.69
21:AV:30:ASN:HD22	21:AV:32:HIS:H	1.39	0.69
15:AR:110:ILE:HG23	15:AR:111:ARG:HD3	1.75	0.69
52:BD:13:G:H2'	52:BD:14:A:C8	2.27	0.69
1:CA:2883:G:C8	1:CA:2884:A:C2	2.81	0.69
32:DE:42:ILE:HD11	32:DE:202:PRO:HB2	1.74	0.69
42:DO:21:VAL:HG12	42:DO:23:ALA:HB2	1.75	0.69
5:CF:114:VAL:HG21	5:CF:202:PHE:CZ	2.27	0.69
31:DA:468:A:H2'	31:DA:474:G:H5'	1.73	0.69
56:BA:1675:OHX:N6	47:BT:39:SER:O	2.26	0.69
1:AA:443:A:N7	5:AF:45:ARG:HD2	2.06	0.69
12:AP:79:LEU:C	12:AP:80:GLU:OE2	2.31	0.69
8:AK:133:HIS:CB	8:AK:134:PRO:HD2	2.22	0.69
52:BD:51:C:H3'	52:BD:52:G:C8	2.28	0.69
37:DJ:113:GLU:HB2	37:DJ:119:ARG:CG	2.18	0.69
31:BA:1005:A:H5"	31:BA:1006:C:C6	2.27	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:2129:G:H2'	1:CA:2130:C:O4'	1.92	0.69
30:C8:34:TRP:CD2	30:C8:35:GLN:N	2.61	0.69
17:A2:35:LEU:C	17:A2:37:VAL:H	1.93	0.69
31:BA:81:G:N1	31:BA:88:C:C4	2.59	0.69
31:BA:1374:A:H2'	31:BA:1375:A:C5'	2.22	0.69
52:DB:44:C:H2'	52:DB:45:C:O4'	1.92	0.69
24:AW:47:ASN:C	24:AW:49:LYS:H	1.94	0.69
1:AA:479:A:H4'	1:AA:480:A:OP1	1.92	0.69
1:CA:699:G:H4'	1:CA:700:A:OP1	1.92	0.69
14:AQ:108:GLY:H	14:AQ:110:LEU:HD21	1.58	0.69
1:AA:2593:U:H2'	1:AA:2594:C:H6	1.58	0.69
1:AA:2146:C:H5''	1:AA:2147:G:OP1	1.92	0.69
5:CF:11:VAL:HG23	5:CF:12:LEU:H	1.57	0.69
1:AA:1102:C:H2'	1:AA:1103:A:H8	1.54	0.69
52:DD:22:A:N3	52:DD:22:A:H2'	2.06	0.69
52:BB:6:G:C2'	52:BB:7:G:OP1	2.41	0.69
26:C4:9:LEU:O	26:C4:10:VAL:HG12	1.93	0.69
52:DB:12:C:O2	52:DB:24:G:N1	2.24	0.69
21:CV:175:VAL:HG22	21:CV:176:PRO:HB3	1.73	0.69
31:DA:200:G:H1	31:DA:217:C:H42	1.39	0.69
31:BA:173:U:H5''	31:BA:197:A:O4'	1.93	0.69
2:AB:8:U:O3'	14:AQ:25:ARG:NH2	2.26	0.69
20:CU:89:PHE:CD1	20:CU:90:LEU:HG	2.28	0.69
31:DA:340:U:H3	31:DA:349:A:H61	1.40	0.69
27:C5:3:LYS:HA	27:C5:3:LYS:HE3	1.75	0.69
12:AP:77:LYS:HD2	12:AP:81:VAL:HG23	1.72	0.69
1:AA:1077:A:H3'	1:AA:1078:U:H5'	1.73	0.69
52:BB:48:C:H3'	52:BB:49:A:H8	1.56	0.69
3:CD:246:PRO:O	3:CD:254:THR:HG22	1.93	0.69
52:BD:29:C:C2'	52:BD:30:A:H5'	2.23	0.69
1:CA:2804:A:H1'	1:CA:2805:C:OP1	1.93	0.69
31:DA:991:U:O2'	31:DA:992:U:O5'	2.10	0.69
30:C8:33:ASN:OD1	30:C8:41:ILE:CD1	2.41	0.69
7:AH:151:ILE:O	7:AH:152:ARG:HG2	1.93	0.69
31:BA:136:C:N4	31:BA:227:G:H1	1.87	0.69
31:BA:624:C:H2'	31:BA:625:G:H8	1.56	0.69
1:CA:957:A:C5	12:CP:13:GLN:HG3	2.28	0.69
1:AA:2790:A:C2	1:AA:2894:G:H5'	2.27	0.69
31:BA:1336:C:O2'	31:BA:1337:G:N3	2.24	0.69
33:DF:47:LEU:HD23	33:DF:52:LEU:HD13	1.74	0.69
35:BH:75:THR:OG1	35:BH:76:ILE:N	2.24	0.69
18:CS:40:ASN:O	18:CS:41:LYS:HG2	1.93	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:C1:25:TRP:CD1	16:C1:25:TRP:C	2.66	0.69
31:DA:706:A:O4'	41:DN:29:ILE:HD11	1.93	0.69
21:AV:110:GLY:HA3	21:AV:145:GLU:HG2	1.73	0.69
1:AA:1081:U:O2'	1:AA:1082:U:P	2.50	0.69
53:DC:17:C:C2'	53:DC:18:C:H5''	2.22	0.69
31:BA:976:G:H5'	31:BA:1358:U:O2'	1.93	0.69
1:AA:67:U:O4	1:AA:74:A:N1	2.26	0.69
2:AB:15:A:H5'	2:AB:16:G:H8	1.57	0.69
5:AF:123:LEU:HD12	5:AF:124:LEU:H	1.58	0.69
19:AT:41:ASN:O	19:AT:45:THR:HG23	1.93	0.69
1:AA:2803:C:H2'	1:AA:2804:C:H6	1.58	0.69
1:AA:240:G:O6	56:AA:3560:OHX:N4	2.25	0.69
4:CE:111:ARG:HG2	13:C0:2:ARG:HH22	1.58	0.69
1:AA:1061:U:C4'	1:AA:1070:A:H1'	2.11	0.69
1:AA:1079:C:H5'	1:AA:1080:A:OP2	1.93	0.69
34:DG:8:VAL:HG11	34:DG:21:LEU:HB2	1.74	0.69
52:BB:55:U:C5	52:BB:56:U:H1'	2.28	0.69
31:DA:1392:G:N2	31:DA:1502:A:H8	1.89	0.69
52:DD:41:C:H2'	52:DD:42:U:H6	1.58	0.69
5:CF:25:PRO:HB2	5:CF:27:GLU:N	2.06	0.69
42:BO:43:LYS:HG3	42:BO:44:LYS:H	1.56	0.69
31:BA:412:A:H1'	31:BA:413:G:OP2	1.93	0.69
1:CA:1389:A:C2	1:CA:1444:U:C2	2.81	0.69
39:DL:4:TYR:CZ	39:DL:59:PHE:HE2	2.11	0.69
31:DA:575:G:O2'	31:DA:821:G:H5'	1.92	0.69
31:DA:1056:U:H5'	33:DF:163:ALA:HB2	1.75	0.69
1:CA:2482:A:O2'	12:CP:56:ARG:HG2	1.92	0.69
1:CA:2173:U:H2'	1:CA:2174:G:C8	2.28	0.69
36:BI:28:ARG:O	36:BI:32:ASN:ND2	2.16	0.69
1:AA:274:G:H2'	1:AA:275:G:O4'	1.92	0.69
35:BH:51:VAL:HB	35:BH:52:PRO:HD3	1.74	0.69
32:BE:100:GLY:N	32:BE:176:GLU:OE2	2.25	0.69
18:CS:2:GLU:HG2	18:CS:72:LYS:NZ	2.08	0.69
13:A0:117:VAL:O	13:A0:118:GLU:HB2	1.90	0.69
14:CQ:86:ALA:O	14:CQ:87:PHE:HB2	1.92	0.69
15:CR:27:THR:HG22	15:CR:90:GLN:HB3	1.73	0.69
1:AA:2815:C:H5'	27:A5:29:THR:HG21	1.74	0.69
52:DB:9:U:H2'	52:DB:9:U:O2	1.92	0.69
12:CP:23:GLY:HA2	12:CP:25:ASP:HB2	1.75	0.68
1:CA:417:G:N1	11:CO:71:VAL:CG1	2.53	0.68
31:BA:789:U:C6	31:BA:792:A:C5'	2.76	0.68
1:CA:2161:C:N3	1:CA:2176:G:N2	2.32	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1116:A:H4'	1:CA:1117:A:H5''	1.73	0.68
52:BB:75:C:H2'	52:BB:76:C:H6	1.58	0.68
31:DA:266:G:H4'	31:DA:267:C:O5'	1.93	0.68
1:CA:1388:U:H2'	1:CA:1444:U:O2	1.93	0.68
31:DA:1298:C:OP2	37:DJ:114:ARG:NH2	2.26	0.68
38:BK:4:ASP:OD1	38:BK:85:ARG:NH1	2.26	0.68
1:CA:2541:U:O2'	1:CA:2543:A:OP1	2.10	0.68
1:AA:34:C:O2'	1:AA:35:G:P	2.50	0.68
31:BA:1281:U:H5'	31:BA:1282:C:H5	1.58	0.68
1:CA:537:U:H5''	1:CA:538:G:OP2	1.92	0.68
4:AE:87:GLU:O	4:AE:89:ASP:N	2.26	0.68
1:CA:1955:A:OP2	56:CA:3269:OHX:N4	2.27	0.68
31:DA:1310:G:H5'	43:DP:77:ASN:HD21	1.57	0.68
11:AO:19:VAL:HG23	11:AO:27:HIS:CG	2.26	0.68
11:CO:81:GLN:OE1	11:CO:106:LEU:HA	1.94	0.68
11:CO:19:VAL:HG23	11:CO:27:HIS:HB3	1.64	0.68
1:AA:2610:C:C4'	1:AA:2611:U:OP2	2.37	0.68
3:CD:35:LYS:HB3	3:CD:63:ARG:HA	1.76	0.68
31:DA:1024:G:H2'	31:DA:1025:U:C6	2.29	0.68
52:DD:61:G:H1	52:DD:71:C:N4	1.89	0.68
31:BA:531:U:O2	56:BA:1673:OHX:N1	2.26	0.68
1:AA:2733:A:C2'	1:AA:2734:A:H5''	2.23	0.68
31:DA:411:A:C5	31:DA:413:G:H1'	2.28	0.68
1:AA:524:U:H2'	1:AA:525:U:H6	1.56	0.68
36:BI:36:ARG:NH2	36:BI:38:GLU:OE2	2.26	0.68
1:CA:2834:A:OP1	4:CE:113:PHE:HB2	1.92	0.68
32:DE:104:ASN:OD1	32:DE:107:THR:OG1	2.10	0.68
1:CA:961:C:H3'	1:CA:962:C:H5''	1.74	0.68
1:CA:195:G:H1'	1:CA:196:U:OP2	1.92	0.68
1:CA:1529:U:H5'	1:CA:1530:G:OP2	1.92	0.68
35:BH:81:GLU:HG2	35:BH:90:VAL:HG23	1.74	0.68
1:AA:1061:U:O2'	1:AA:1070:A:O4'	2.11	0.68
52:BD:18:G:C1'	52:BD:19:C:OP2	2.36	0.68
5:CF:89:VAL:O	5:CF:91:GLY:N	2.26	0.68
31:BA:989:C:H42	31:BA:1216:G:H1	1.40	0.68
1:AA:165:U:O2	1:AA:165:U:H3'	1.93	0.68
48:DU:53:ARG:HA	48:DU:56:THR:OG1	1.93	0.68
1:CA:2670:A:O2'	7:CH:160:LYS:HE3	1.93	0.68
1:AA:598:G:H1'	11:AO:12:ALA:HB2	1.76	0.68
31:DA:838:G:C6	31:DA:842:C:H1'	2.28	0.68
1:CA:2370:U:OP1	22:C3:20:ARG:NH1	2.25	0.68
31:BA:811:C:H4'	31:BA:900:A:N6	2.07	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:CN:68:GLU:OE2	10:CN:78:ARG:NH1	2.26	0.68
1:CA:757:U:H2'	1:CA:758:G:C8	2.28	0.68
21:CV:28:MET:O	21:CV:34:ASN:HA	1.94	0.68
7:CH:109:PHE:HE1	7:CH:152:ARG:HD3	1.58	0.68
1:AA:1061:U:H4'	1:AA:1070:A:C1'	2.11	0.68
1:AA:2114:A:N3	1:AA:2114:A:H2'	2.07	0.68
52:BB:10:C:N4	52:BB:26:G:H1	1.92	0.68
31:BA:1305:G:H22	31:BA:1331:G:C2'	2.04	0.68
18:CS:4:LYS:CB	18:CS:106:ILE:HG22	2.24	0.68
16:A1:8:VAL:HG23	16:A1:11:ARG:NH2	2.08	0.68
31:DA:1200:C:H5'	31:DA:1201:A:H5'	1.75	0.68
27:A5:51:TYR:H	27:A5:56:LYS:HG3	1.59	0.68
49:DV:11:VAL:HG22	49:DV:12:ASP:H	1.58	0.68
1:CA:2481:G:H3'	1:CA:2489:A:C2	2.28	0.68
49:DV:78:ARG:NH1	49:DV:79:THR:H	1.90	0.68
23:CZ:67:ILE:N	23:CZ:68:PRO:HD2	2.08	0.68
35:DH:6:PHE:HB2	35:DH:34:VAL:HG22	1.75	0.68
1:CA:2400:U:H5''	1:CA:2401:A:OP2	1.93	0.68
38:BK:129:VAL:HG23	38:BK:130:GLY:H	1.57	0.68
3:AD:96:HIS:CE1	3:AD:102:LYS:HD3	2.28	0.68
9:AM:133:GLN:H	9:AM:133:GLN:HE21	1.39	0.68
52:DD:46:G:N2	52:DD:54:C:O2	2.16	0.68
52:DD:67:A:O2'	52:DD:69:U:OP2	2.11	0.68
31:BA:1053:G:O3'	31:BA:1054:C:H4'	1.93	0.68
31:DA:1503:A:O2'	31:DA:1504:G:P	2.51	0.68
2:CB:17:A:H1'	2:CB:112:G:C8	2.29	0.68
13:A0:2:ARG:HG3	13:A0:5:LYS:NZ	2.08	0.68
31:DA:1206:G:H2'	31:DA:1207:G:H8	1.57	0.68
1:CA:1589:G:H3'	1:CA:1590:A:H5''	1.76	0.68
38:BK:10:LEU:HD13	38:BK:83:ILE:HD11	1.76	0.68
1:AA:287:C:H2'	1:AA:288:C:C6	2.29	0.68
6:AG:67:LYS:O	6:AG:67:LYS:HD2	1.93	0.68
1:AA:573:G:O2'	1:AA:574:C:H3'	1.93	0.68
1:AA:1864:U:O4	56:AA:3531:OHX:N4	2.26	0.68
1:AA:1220:A:H3'	1:AA:1221:C:H5'	1.75	0.68
1:AA:1340:U:H4'	1:AA:1341:U:OP2	1.93	0.68
31:DA:957:U:H2'	31:DA:959:A:OP2	1.93	0.68
11:CO:79:ARG:O	11:CO:111:ARG:N	2.22	0.68
11:CO:52:GLU:OE1	11:CO:55:ARG:NE	2.25	0.68
43:BP:4:ILE:HG22	43:BP:5:ALA:N	2.06	0.68
26:C4:22:ILE:CG1	26:C4:23:GLU:H	2.05	0.68
1:AA:2346:A:H5''	1:AA:2383:G:O4'	1.94	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:622:G:H1'	11:CO:12:ALA:CB	2.24	0.68
20:CU:97:ARG:NH2	20:CU:98:VAL:HB	2.06	0.68
52:DB:6:G:C2'	52:DB:7:G:OP1	2.42	0.68
34:BG:173:TRP:CZ3	34:BG:193:ASP:HB3	2.29	0.68
5:AF:197:ASP:O	5:AF:199:TRP:N	2.26	0.68
1:AA:2152:G:H2'	1:AA:2153:G:C8	2.29	0.68
1:AA:2738:A:OP2	56:AA:3431:OHX:N5	2.26	0.68
20:CU:48:ALA:HB3	20:CU:59:GLY:O	1.94	0.68
9:CM:34:LEU:O	9:CM:49:GLY:HA3	1.94	0.68
52:BD:46:G:H2'	52:BD:47:U:C6	2.29	0.68
52:BD:51:C:C5	52:BD:52:G:H1'	2.28	0.68
1:CA:2156:G:H1'	1:CA:2181:A:N6	2.08	0.68
31:BA:1054:C:H2'	31:BA:1054:C:O2	1.91	0.68
42:BO:44:LYS:HB3	42:BO:45:PRO:CD	2.24	0.68
1:AA:636:G:OP1	11:AO:132:LYS:HG2	1.94	0.68
31:BA:1129:C:H42	31:BA:1143:G:H1	1.41	0.68
31:BA:266:G:H5''	31:BA:267:C:H5	1.58	0.68
1:AA:1558:A:H1'	1:AA:1559:G:OP2	1.94	0.68
1:CA:1004:U:H5''	12:CP:14:ARG:HD3	1.74	0.68
17:A2:59:ALA:HB2	17:A2:96:ILE:HD13	1.76	0.68
31:BA:974:A:OP2	44:BQ:41:ARG:NH1	2.27	0.68
34:BG:119:GLN:HG3	34:BG:123:HIS:HD2	1.59	0.68
31:BA:13:U:OP2	56:BA:1762:OHX:N4	2.26	0.68
31:BA:39:G:N7	31:BA:547:A:H8	1.92	0.68
3:CD:239:ARG:O	3:CD:240:ALA:HB2	1.93	0.68
15:CR:107:ASP:HB2	31:DA:1432:G:OP1	1.93	0.68
1:AA:2473:U:O2	1:AA:2473:U:H2'	1.91	0.68
39:DL:47:LEU:HB2	39:DL:50:LEU:HD12	1.76	0.68
31:DA:1119:C:OP2	39:DL:9:ARG:NH2	2.27	0.68
47:DT:67:LYS:O	47:DT:68:ARG:HB3	1.93	0.68
11:AO:64:LYS:HD2	30:A8:25:MET:SD	2.34	0.68
31:DA:1129:C:H41	31:DA:1141:C:N4	1.91	0.68
47:BT:18:THR:OG1	47:BT:69:LYS:NZ	2.26	0.68
21:CV:14:LYS:H	21:CV:14:LYS:NZ	1.91	0.68
12:AP:92:GLY:O	12:AP:93:TYR:CG	2.46	0.68
1:CA:2570:G:H2'	1:CA:2571:C:H6	1.58	0.68
1:AA:1833:U:H2'	1:AA:1834:U:H6	1.58	0.68
35:DH:12:LEU:HD11	35:DH:128:PRO:HB2	1.76	0.68
26:A4:55:ARG:HG2	26:A4:56:VAL:N	2.09	0.68
3:CD:244:ARG:HB2	3:CD:245:PRO:HD2	1.76	0.68
36:BI:9:VAL:HB	36:BI:87:ARG:HB2	1.74	0.68
11:CO:58:THR:HG22	11:CO:58:THR:O	1.92	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:CO:61:ARG:CB	11:CO:62:LEU:HD22	2.24	0.68
52:BB:19:C:H4'	52:BB:20:C:OP1	1.93	0.68
52:BB:55:U:C6	52:BB:56:U:H1'	2.29	0.68
31:BA:1178:G:N2	31:BA:1181:G:C8	2.60	0.68
1:CA:1356:G:N7	56:CA:3332:OHX:N2	2.42	0.68
52:DB:46:G:O2'	52:DB:47:U:OP1	2.11	0.68
31:DA:328:C:O2'	31:DA:329:A:OP2	2.11	0.68
1:CA:2734:U:H2'	1:CA:2735:A:O4'	1.94	0.68
31:DA:1003:G:C2'	31:DA:1004:A:H5'	2.24	0.68
31:DA:1025:U:O2'	31:DA:1026:G:O5'	2.11	0.68
21:CV:39:VAL:HG21	21:CV:44:PHE:HD2	1.59	0.68
1:AA:2734:A:H5'	1:AA:2734:A:H8	1.59	0.68
1:AA:1364:G:OP2	23:AZ:2:SER:OG	2.12	0.68
1:AA:1803:A:O2'	3:AD:259:THR:HG21	1.93	0.68
50:BW:53:LEU:HD12	50:BW:102:GLY:HA3	1.74	0.68
34:BG:31:CYS:C	34:BG:33:MET:H	1.98	0.68
31:BA:723:U:O2	31:BA:723:U:H2'	1.92	0.68
1:AA:2803:C:H2'	1:AA:2804:C:C6	2.29	0.68
21:CV:27:VAL:HG12	21:CV:87:ASP:HB3	1.76	0.68
41:BN:124:LYS:HD2	41:BN:125:PHE:CE2	2.28	0.68
1:CA:2515:G:H5''	1:CA:2516:A:H5''	1.76	0.68
1:CA:2668:G:N2	1:CA:2678:A:OP2	2.27	0.68
45:BR:63:ARG:HG2	45:BR:67:LEU:HD12	1.76	0.68
4:AE:27:LEU:HD22	15:AR:1:MET:HE3	1.74	0.68
52:BD:9:U:H2'	52:BD:9:U:O2	1.94	0.68
8:AK:13:GLY:HA3	8:AK:17:GLN:OE1	1.94	0.68
1:AA:2406:U:C4	11:AO:72:PRO:HG2	2.29	0.68
1:AA:882:G:H2'	1:AA:883:G:N7	2.08	0.68
1:CA:2152:C:H2'	1:CA:2153:U:H5'	1.74	0.68
11:CO:47:ASP:OD2	11:CO:49:ARG:NE	2.20	0.68
26:C4:61:ARG:NH1	26:C4:61:ARG:HG3	1.94	0.68
31:DA:632:A:H4'	31:DA:633:G:O5'	1.94	0.68
52:BD:41:C:H2'	52:BD:42:U:C6	2.28	0.68
2:AB:44:G:H1'	2:AB:47:C:N4	2.09	0.68
17:C2:80:GLN:HE21	17:C2:80:GLN:CA	2.05	0.68
43:BP:108:ARG:HD2	43:BP:108:ARG:N	2.09	0.68
2:AB:95:U:H2'	2:AB:96:G:H8	1.59	0.68
8:CK:131:LYS:HB3	8:CK:132:PRO:CA	2.24	0.68
1:AA:322:A:H4'	1:AA:323:G:OP2	1.93	0.68
4:CE:119:ARG:HD3	4:CE:160:TYR:HB2	1.76	0.68
31:DA:601:C:H42	31:DA:637:G:H1	1.40	0.68
45:BR:26:GLU:OE2	45:BR:77:ARG:NH1	2.27	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AE:35:GLN:OE1	4:AE:37:ARG:NH2	2.26	0.68
14:AQ:89:ARG:O	14:AQ:89:ARG:HG2	1.94	0.68
36:DI:33:TYR:CE1	36:DI:78:GLU:HG3	2.28	0.68
12:AP:90:VAL:HG12	12:AP:90:VAL:O	1.93	0.67
31:BA:1157:A:N6	31:BA:1178:G:H21	1.91	0.67
5:CF:7:TYR:CD2	5:CF:18:ARG:HB2	2.30	0.67
1:AA:1654:A:OP1	13:A0:2:ARG:HD3	1.94	0.67
1:CA:1481:A:H61	1:CA:1606:A:N6	1.92	0.67
39:BL:114:TYR:HD1	40:BM:60:ARG:H	1.40	0.67
49:BV:15:LEU:HD23	49:BV:15:LEU:H	1.57	0.67
1:CA:1582:U:H2'	1:CA:1582:U:O2	1.92	0.67
35:BH:76:ILE:HB	35:BH:77:PRO:HD2	1.77	0.67
8:AK:95:LYS:HE3	8:AK:99:GLU:HG3	1.76	0.67
47:DT:57:VAL:HG12	47:DT:76:LEU:HA	1.75	0.67
1:AA:427:U:OP2	56:AA:3329:OHX:N1	2.27	0.67
1:AA:654(B):C:N3	1:AA:654(S):G:N2	2.41	0.67
44:DQ:24:CYS:SG	44:DQ:27:CYS:O	2.52	0.67
12:AP:35:VAL:HG13	12:AP:130:LYS:HB3	1.76	0.67
31:BA:56:U:H2'	31:BA:57:G:C8	2.29	0.67
1:AA:86:C:H4'	1:AA:104:U:H1'	1.75	0.67
33:DF:164:ARG:HG2	33:DF:165:THR:H	1.59	0.67
4:AE:131:ALA:HB1	4:AE:135:HIS:CE1	2.29	0.67
11:CO:61:ARG:C	11:CO:62:LEU:CD2	2.57	0.67
1:CA:2150:G:H3'	1:CA:2151:C:H5''	1.77	0.67
31:BA:95:G:H3'	31:BA:96:G:H8	1.58	0.67
31:DA:1503:A:H1'	31:DA:1504:G:OP1	1.94	0.67
31:DA:742:G:OP2	45:DR:35:ARG:NH2	2.26	0.67
31:DA:632:A:C1'	31:DA:633:G:OP2	2.41	0.67
5:CF:66:PRO:O	5:CF:67:GLN:HB3	1.93	0.67
5:CF:67:GLN:O	5:CF:67:GLN:HG3	1.93	0.67
50:BW:26:ASN:HB2	50:BW:71:THR:CG2	2.23	0.67
1:AA:1108:U:C4	1:AA:1109:C:N4	2.62	0.67
1:CA:2348:A:O2'	1:CA:2349:A:O5'	2.11	0.67
6:CG:113:ARG:HG2	26:C4:35:VAL:HG23	1.77	0.67
39:BL:114:TYR:N	39:BL:114:TYR:HD2	1.93	0.67
5:CF:122:LYS:O	5:CF:123:LEU:HB3	1.94	0.67
4:AE:120:TRP:CD2	4:AE:155:LYS:HD3	2.30	0.67
31:DA:667:G:OP2	56:DA:1755:OHX:N6	2.27	0.67
9:AM:46:VAL:CG1	9:AM:48:MET:HG3	2.24	0.67
21:AV:44:PHE:CZ	21:AV:86:VAL:HG11	2.30	0.67
31:BA:1014:A:C2	31:BA:1219:U:H1'	2.29	0.67
31:BA:1397:C:H6	31:BA:1397:C:H3'	1.59	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:799:A:H5'	18:CS:90:ARG:HA	1.76	0.67
1:AA:890:A:H5'	1:AA:892:G:OP2	1.95	0.67
12:AP:90:VAL:CG1	12:AP:90:VAL:O	2.42	0.67
52:DB:78:C:O2'	52:DB:79:A:C5'	2.43	0.67
17:A2:15:GLU:CG	17:A2:16:PRO:HD2	2.24	0.67
2:CB:9:G:H4'	14:CQ:29:PHE:CD1	2.29	0.67
53:DC:24:C:H2'	53:DC:25:U:C6	2.28	0.67
34:BG:65:ARG:NH1	34:BG:70:ILE:O	2.27	0.67
4:AE:1:MET:HG2	4:AE:83:ASP:O	1.94	0.67
11:CO:57:THR:C	11:CO:59:LEU:H	1.97	0.67
34:DG:26:CYS:HA	34:DG:31:CYS:HB2	1.75	0.67
24:CW:47:ASN:O	24:CW:49:LYS:N	2.26	0.67
1:CA:1105:U:H3	1:CA:1127:A:H61	1.42	0.67
12:CP:79:LEU:HD13	12:CP:80:GLU:HB2	1.76	0.67
7:AH:154:PRO:O	7:AH:156:ALA:N	2.28	0.67
3:CD:25:THR:C	3:CD:27:THR:H	1.98	0.67
37:BJ:113:GLU:HB2	37:BJ:119:ARG:HG2	1.77	0.67
1:AA:494:G:H21	18:AS:57:ASN:HD21	1.43	0.67
31:BA:670:G:OP2	56:BA:1800:OHX:N5	2.28	0.67
31:BA:260:G:O6	56:BA:1671:OHX:N5	2.26	0.67
31:DA:586:C:N3	31:DA:755:G:O6	2.27	0.67
31:BA:1436:U:H2'	31:BA:1437:C:O4'	1.93	0.67
31:BA:791:G:N1	31:BA:1498:U:OP1	2.27	0.67
16:C1:50:ARG:HH12	17:C2:72:VAL:HB	1.59	0.67
31:BA:1263:C:N3	31:BA:1272:G:O6	2.28	0.67
1:CA:1107:U:H5''	1:CA:1108:U:C5	2.29	0.67
1:AA:1899:G:N2	1:AA:1902:C:H5	1.89	0.67
12:CP:78:PRO:HG2	12:CP:81:VAL:HG11	1.76	0.67
1:AA:908:C:OP1	12:AP:22:LYS:HB3	1.94	0.67
26:A4:38:LYS:O	26:A4:39:CYS:HB3	1.93	0.67
17:A2:38:LEU:HD12	17:A2:57:VAL:HG12	1.77	0.67
31:BA:530:G:C4'	31:BA:531:U:OP2	2.42	0.67
30:A8:15:LYS:HB2	30:A8:46:ARG:HH12	1.58	0.67
5:AF:132:VAL:HG23	5:AF:133:ASN:N	2.09	0.67
32:DE:98:LEU:O	32:DE:101:MET:HG2	1.95	0.67
45:BR:39:LEU:HD13	45:BR:56:LEU:HB2	1.76	0.67
1:CA:2750:G:H2'	1:CA:2751:G:H8	1.58	0.67
36:BI:67:MET:HB2	36:BI:68:PRO:HD2	1.75	0.67
1:AA:588:U:H1'	5:AF:90:PHE:CD1	2.29	0.67
17:A2:60:GLU:HB2	17:A2:97:LYS:HE2	1.76	0.67
48:BU:50:ILE:HD11	48:BU:70:ILE:HG21	1.76	0.67
44:BQ:4:LYS:O	44:BQ:7:ILE:HG13	1.94	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DE:103:THR:HA	32:DE:180:LEU:HD11	1.76	0.67
1:CA:951:C:H5'	1:CA:952:U:OP2	1.93	0.67
1:CA:932:C:N4	1:CA:939:G:H1	1.91	0.67
31:DA:631:G:H3'	31:DA:632:A:C8	2.30	0.67
52:BD:44:C:H2'	52:BD:45:C:O4'	1.94	0.67
20:CU:75:ILE:HG12	20:CU:76:CYS:N	2.08	0.67
20:CU:84:ARG:NH2	20:CU:97:ARG:HB2	2.09	0.67
1:CA:83:A:N6	1:CA:100:G:O2'	2.17	0.67
52:DB:3:U:O2'	52:DB:4:G:H8	1.78	0.67
21:CV:11:GLU:CG	21:CV:12:GLY:N	2.58	0.67
1:CA:1325:A:O2'	1:CA:1326:G:H5'	1.95	0.67
32:DE:47:THR:HA	32:DE:202:PRO:HG2	1.75	0.67
32:BE:5:ILE:HG21	32:BE:221:LEU:HD23	1.77	0.67
1:CA:2827:C:O3'	13:C0:99:LYS:NZ	2.28	0.67
1:AA:879:G:H1	1:AA:898:C:H42	1.43	0.67
31:DA:1347:G:N2	31:DA:1373:G:H2'	2.09	0.67
1:CA:1090:C:H42	1:CA:1159:G:H1	0.73	0.67
12:AP:88:GLY:O	12:AP:89:ASN:HB2	1.95	0.67
1:CA:2822:G:OP1	4:CE:61:ARG:HB2	1.93	0.67
49:BV:65:ASN:HD22	49:BV:65:ASN:N	1.86	0.67
31:DA:688:G:H1	31:DA:699:C:H42	1.43	0.67
4:CE:23:VAL:O	4:CE:24:THR:OG1	2.04	0.67
14:CQ:24:LEU:O	14:CQ:85:VAL:HB	1.93	0.67
28:A6:23:THR:O	56:A6:101:OHX:N6	2.28	0.67
1:AA:76:C:O2'	24:AW:62:THR:HG21	1.95	0.67
1:AA:583:G:OP2	16:A1:10:ARG:NH1	2.27	0.67
31:BA:896:C:O3'	47:BT:101:ARG:HD3	1.94	0.67
1:CA:590:U:H5''	11:CO:29:LYS:HE3	1.76	0.67
31:BA:1000:A:H4'	1:CA:2160:C:OP1	1.94	0.67
1:AA:1063:G:H1	1:AA:1075:C:H42	1.41	0.67
1:CA:611:C:O2'	11:CO:19:VAL:HG12	1.94	0.67
31:BA:1234:C:H1'	31:BA:1364:U:O2	1.94	0.67
52:DB:51:C:C4	52:DB:52:G:H1'	2.30	0.67
1:CA:92:C:H5'	1:CA:93:G:OP2	1.94	0.67
15:AR:50:ILE:HD11	15:AR:102:ILE:HD11	1.77	0.67
16:C1:92:ARG:HD3	16:C1:94:ASN:HB3	1.77	0.67
31:BA:611:A:N6	31:BA:629:G:H1	1.90	0.67
9:AM:62:VAL:CG2	9:AM:66:LYS:HD2	2.23	0.67
4:AE:14:ILE:O	4:AE:15:PHE:HB2	1.92	0.67
1:AA:948:G:O6	56:AA:3568:OHX:N1	2.28	0.67
37:DJ:43:PHE:O	37:DJ:47:CYS:N	2.25	0.67
3:CD:69:ARG:NH2	3:CD:128:GLY:O	2.28	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:955:C:OP1	12:CP:22:LYS:CB	2.43	0.67
15:AR:136:GLN:HG3	15:AR:137:LYS:H	1.59	0.67
1:CA:935:A:H2'	1:CA:935:A:N3	2.10	0.67
1:AA:2154:G:H2'	1:AA:2155:G:H8	1.57	0.67
1:CA:936:C:H1'	1:CA:937:C:OP1	1.95	0.67
52:BB:15:G:H1'	52:BB:20:C:H5	1.58	0.67
1:AA:299:A:H5'	20:AU:84:ARG:HH21	1.60	0.67
16:A1:69:CYS:HG	16:A1:79:PHE:HD1	1.43	0.67
40:DM:78:ASN:ND2	40:DM:80:LYS:HB3	2.09	0.67
6:AG:67:LYS:HE2	26:A4:6:HIS:CE1	2.29	0.67
21:CV:158:PRO:CB	21:CV:159:PRO:HD2	2.25	0.67
40:DM:51:ARG:HB2	40:DM:60:ARG:HA	1.76	0.67
1:AA:2591:C:H2'	1:AA:2592:G:C8	2.30	0.67
4:AE:131:ALA:HB1	4:AE:135:HIS:HE1	1.59	0.67
4:CE:116:VAL:O	4:CE:117:MET:CB	2.42	0.67
31:DA:791:G:C6	31:DA:792:A:N7	2.62	0.67
1:CA:2896:C:OP2	56:CA:3333:OHX:N1	2.28	0.67
1:CA:378:G:H2'	1:CA:379:G:H5'	1.77	0.67
9:CM:57:ALA:H	9:CM:124:ALA:HA	1.58	0.67
12:AP:25:ASP:H	12:AP:102:VAL:HG21	1.59	0.67
1:CA:2761:G:O6	1:CA:2769:C:H5''	1.95	0.67
31:BA:1004:A:OP1	31:BA:1025:U:C4	2.48	0.67
31:BA:1028(A):C:N4	31:BA:1028(B):C:H41	1.92	0.67
31:BA:1034:G:H2'	31:BA:1035:A:C8	2.30	0.67
31:DA:1003:G:H2'	31:DA:1004:A:H5'	1.76	0.67
31:DA:1449:C:O2'	31:DA:1450:U:P	2.53	0.67
31:DA:1321:C:H41	31:DA:1322:C:N4	1.93	0.67
1:AA:1465:G:H5'	1:AA:1528:A:H1'	1.77	0.67
32:DE:178:ARG:HH22	32:DE:196:LEU:HA	1.58	0.67
24:AW:53:LEU:O	24:AW:57:ILE:HG13	1.95	0.67
26:A4:9:LEU:H	26:A4:27:THR:HG23	1.60	0.67
1:AA:443:A:H1'	1:AA:1201:C:O4'	1.95	0.67
1:CA:1713:A:H1'	10:CN:1:MET:HG3	1.76	0.67
1:AA:2055:C:H5'	1:AA:2056:G:OP1	1.95	0.67
42:DO:74:LEU:HD21	42:DO:104:ALA:HB2	1.77	0.67
25:AX:5:LYS:HE3	25:AX:34:GLU:OE1	1.95	0.67
3:AD:169:GLU:O	3:AD:169:GLU:HG3	1.94	0.67
31:BA:975:A:H4'	31:BA:976:G:H5''	1.77	0.66
1:CA:90:A:H2'	1:CA:91:G:H5'	1.78	0.66
1:CA:1105:U:C2	1:CA:1127:A:N1	2.63	0.66
7:AH:87:LEU:HB2	7:AH:131:VAL:HG12	1.76	0.66
49:BV:44:MET:O	49:BV:47:HIS:HB2	1.95	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1128:C:O2'	31:DA:1129:C:P	2.53	0.66
2:CB:41:A:H2'	26:C4:1:MET:CE	2.25	0.66
31:BA:575:G:OP1	56:BA:1786:OHX:N3	2.28	0.66
1:AA:320:A:H2'	5:AF:136:THR:HG21	1.76	0.66
31:DA:509:A:N3	31:DA:543:C:O2'	2.27	0.66
31:DA:1148:U:H2'	31:DA:1149:C:O4'	1.95	0.66
1:CA:2723:C:OP1	13:C0:15:SER:OG	2.12	0.66
1:AA:833:U:H2'	1:AA:834:C:C6	2.30	0.66
1:CA:1810:U:H2'	1:CA:1816:A:N6	2.10	0.66
31:DA:554:C:H2'	31:DA:555:C:H6	1.60	0.66
26:C4:18:CYS:SG	26:C4:19:GLY:HA2	2.34	0.66
26:C4:37:SER:OG	26:C4:38:LYS:N	2.25	0.66
52:BD:57:C:O2'	52:BD:68:A:H4'	1.94	0.66
31:DA:1179:A:H2'	31:DA:1180:A:O4'	1.96	0.66
52:DB:68:A:H3'	52:DB:69:U:H6	1.58	0.66
16:A1:92:ARG:HD3	16:A1:94:ASN:HB3	1.75	0.66
7:AH:150:ALA:O	7:AH:152:ARG:N	2.21	0.66
40:DM:54:PHE:CG	40:DM:55:LYS:HD3	2.29	0.66
31:DA:973:G:H1'	40:DM:55:LYS:HE3	1.77	0.66
43:DP:84:ILE:O	43:DP:86:CYS:N	2.28	0.66
1:AA:1796:U:H2'	1:AA:1797:C:C6	2.30	0.66
3:CD:45:ASN:CG	3:CD:46:GLN:H	1.98	0.66
24:AW:47:ASN:HB2	24:AW:50:ILE:HD11	1.77	0.66
5:CF:113:ALA:HB1	5:CF:186:ILE:HG21	1.77	0.66
9:AM:132:ALA:HB1	9:AM:133:GLN:HE21	1.59	0.66
26:C4:40:HIS:HA	26:C4:44:THR:HB	1.78	0.66
1:CA:1339:U:H2'	1:CA:1340:C:C6	2.31	0.66
3:AD:244:ARG:HB2	3:AD:245:PRO:HD2	1.77	0.66
35:BH:91:LEU:HD12	35:BH:120:THR:HG22	1.76	0.66
52:BD:52:G:H2'	52:BD:53:A:C8	2.30	0.66
52:BB:21:A:H2	52:BB:56:U:O2	1.77	0.66
1:AA:2277:G:OP1	12:AP:86:GLY:HA2	1.96	0.66
52:DB:52:G:O2'	52:DB:53:A:H5'	1.95	0.66
3:AD:238:GLY:C	3:AD:239:ARG:HG3	2.14	0.66
15:AR:41:ARG:HH11	15:AR:41:ARG:CG	2.07	0.66
31:DA:690:G:C2'	31:DA:691:G:H5'	2.25	0.66
31:BA:1287:A:H2	31:BA:1353:G:H1'	1.60	0.66
40:DM:84:GLN:O	40:DM:88:LEU:HB2	1.95	0.66
15:CR:55:ASN:H	15:CR:59:THR:HG22	1.59	0.66
11:AO:138:LEU:HD12	11:AO:144:GLU:HG3	1.78	0.66
29:C7:8:ASN:ND2	29:C7:11:LYS:H	1.93	0.66
15:AR:74:ARG:HD3	15:AR:76:PHE:CE2	2.31	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:C3:47:PRO:HG3	22:C3:53:MET:HB2	1.77	0.66
1:CA:2179:G:C6	1:CA:2180:G:C2	2.83	0.66
31:BA:1318:A:H1'	49:BV:37:ARG:HH21	1.59	0.66
31:BA:78:G:N2	31:BA:91:C:N3	2.43	0.66
31:BA:1028(B):C:C2	31:BA:1032(A):G:N2	2.63	0.66
12:CP:75:THR:HG22	12:CP:89:ASN:H	1.60	0.66
37:DJ:69:VAL:HG11	37:DJ:134:ALA:HB1	1.77	0.66
1:CA:1188:U:H2'	1:CA:1188:U:O2	1.94	0.66
1:AA:1264:G:H3'	1:AA:1265:A:H5''	1.78	0.66
43:DP:83:ASP:O	43:DP:84:ILE:HB	1.95	0.66
31:DA:1298:C:H4'	31:DA:1299:A:C8	2.30	0.66
1:CA:1590:A:H1'	1:CA:1592:A:H1'	1.78	0.66
14:CQ:10:ARG:NH2	14:CQ:91:PRO:HB2	2.10	0.66
52:DB:31:G:H1	52:DB:41:C:N4	1.93	0.66
1:CA:1726:G:N2	1:CA:2012:G:N2	2.43	0.66
5:CF:177:ALA:HB1	5:CF:178:PRO:HD2	1.76	0.66
33:DF:5:ILE:H	33:DF:5:ILE:HD13	1.60	0.66
39:DL:65:VAL:HG21	39:DL:73:GLN:HB3	1.77	0.66
31:DA:618:C:N3	31:DA:622:A:N6	2.44	0.66
1:CA:553:C:OP2	1:CA:2793:U:H5	1.78	0.66
31:BA:1518:A:OP1	56:BA:1783:OHX:N2	2.29	0.66
1:AA:881:G:H5'	1:AA:882:G:OP2	1.96	0.66
31:BA:789:U:C5	31:BA:791:G:H5'	2.30	0.66
52:BD:41:C:H2'	52:BD:42:U:H6	1.59	0.66
32:DE:96:ARG:HD2	32:DE:96:ARG:H	1.60	0.66
26:A4:63:TYR:OH	49:BV:41:VAL:O	2.09	0.66
52:BB:78:C:H2'	52:BB:79:A:C8	2.27	0.66
39:DL:5:TYR:HE2	39:DL:16:ARG:HG2	1.59	0.66
1:CA:2658:G:C3'	1:CA:2659:C:H5'	2.25	0.66
1:AA:163:U:H2'	1:AA:164:U:H5'	1.77	0.66
42:BO:5:ASN:O	42:BO:8:VAL:HG23	1.96	0.66
1:AA:26:G:C6	1:AA:27:G:N1	2.63	0.66
32:DE:44:LEU:HD23	32:DE:44:LEU:H	1.59	0.66
3:CD:28:GLU:H	3:CD:29:PRO:CD	2.08	0.66
1:CA:1705:C:H2'	1:CA:1706:C:H6	1.61	0.66
1:CA:955:C:OP1	12:CP:22:LYS:HB3	1.96	0.66
38:BK:116:LYS:HG3	38:BK:129:VAL:HG11	1.76	0.66
9:AM:133:GLN:H	9:AM:133:GLN:NE2	1.94	0.66
31:DA:142:G:H2'	31:DA:143:A:H8	1.61	0.66
1:CA:30:G:H2'	1:CA:31:C:H6	1.59	0.66
33:BF:119:ARG:HD3	33:BF:140:ARG:HH22	1.59	0.66
30:C8:40:GLU:HA	30:C8:43:GLN:HB2	1.78	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:218:A:H2	1:AA:235:U:H4'	1.60	0.66
1:CA:2316:G:O2'	1:CA:2317:G:H5'	1.95	0.66
21:AV:107:THR:HB	21:AV:108:PRO:HD2	1.77	0.66
3:CD:176:ARG:HH11	3:CD:176:ARG:HG2	1.60	0.66
1:CA:693:C:H3'	1:CA:694:G:C8	2.30	0.66
21:CV:104:PHE:O	21:CV:105:VAL:HB	1.96	0.66
11:CO:61:ARG:NH2	11:CO:61:ARG:HB2	2.09	0.66
53:DC:7:G:OP1	56:DC:107:OHX:N3	2.28	0.66
11:CO:19:VAL:CG2	11:CO:27:HIS:HB2	2.23	0.66
3:AD:69:ARG:NH2	3:AD:128:GLY:O	2.24	0.66
1:AA:2689:U:H4'	1:AA:2690:C:OP2	1.96	0.66
52:BB:3:U:C4'	52:BB:4:G:OP1	2.42	0.66
52:DB:75:C:H2'	52:DB:76:C:H6	1.58	0.66
1:AA:330:A:HO2'	1:AA:331:A:H8	1.37	0.66
16:A1:88:ILE:O	16:A1:90:VAL:N	2.28	0.66
26:C4:34:GLU:HG3	43:DP:3:ARG:HB2	1.78	0.66
21:CV:69:THR:HB	21:CV:88:PHE:HB3	1.78	0.66
34:BG:5:ILE:HG23	34:BG:6:GLY:N	2.11	0.66
38:BK:121:ASP:O	38:BK:125:ARG:HB2	1.96	0.66
31:BA:377:G:OP1	46:BS:3:LYS:HD2	1.96	0.66
52:BB:31:G:H1	52:BB:41:C:H42	1.43	0.66
31:BA:939:G:C6	31:BA:940:C:N4	2.64	0.66
1:AA:654(H):G:N3	1:AA:654(H):G:H2'	2.10	0.66
52:BD:49:A:H2'	52:BD:50:U:O5'	1.96	0.66
7:CH:7:LEU:N	7:CH:8:PRO:HD2	2.10	0.66
31:BA:1157:A:H1'	31:BA:1158:C:C4	2.31	0.66
1:AA:2210:G:H5'	1:AA:2211:G:C8	2.30	0.66
52:DD:11:C:H42	52:DD:25:G:H1	1.42	0.66
31:BA:1065:U:C2'	31:BA:1066:C:OP2	2.43	0.66
1:CA:10:G:C5	1:CA:2642:A:N6	2.64	0.66
31:DA:1250:A:H4'	39:DL:68:GLY:H	1.61	0.66
1:CA:2032:G:OP1	18:CS:41:LYS:HE3	1.96	0.66
31:BA:812:C:H4'	31:BA:813:U:O5'	1.95	0.66
1:CA:30:G:H2'	1:CA:31:C:C6	2.31	0.66
31:BA:627:G:H2'	31:BA:628:G:H8	1.61	0.66
1:AA:247:G:H4'	1:AA:386:G:C5	2.30	0.66
1:CA:2310:C:H2'	1:CA:2310:C:O2	1.94	0.66
1:CA:931:G:H2'	1:CA:932:C:C6	2.29	0.66
52:BD:49:A:H2	52:BD:51:C:P	2.18	0.66
31:BA:1028:C:N3	31:BA:1033:G:N2	2.43	0.66
33:BF:50:ALA:HB1	33:BF:70:VAL:HG11	1.78	0.66
52:DB:21:A:H2	52:DB:56:U:O2	1.79	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:DB:68:A:H3'	52:DB:69:U:C6	2.31	0.66
15:AR:111:ARG:O	15:AR:112:ARG:HB3	1.96	0.66
1:CA:1136:G:H4'	1:CA:1137:U:OP1	1.95	0.66
1:AA:2439:A:C8	1:AA:2439:A:H5'	2.31	0.66
1:CA:2800:U:H4'	4:CE:65:GLY:H	1.58	0.66
52:BB:78:C:O2'	52:BB:79:A:P	2.54	0.66
31:DA:560:U:H4'	31:DA:561:U:O5'	1.96	0.66
49:DV:62:ILE:HD12	49:DV:62:ILE:N	2.11	0.66
16:A1:66:ASN:HD21	16:A1:70:ARG:HE	1.41	0.66
21:AV:117:LEU:HD22	21:AV:118:GLN:H	1.59	0.66
1:CA:455:U:OP2	56:CA:3492:OHX:N1	2.29	0.66
1:CA:2333:A:H1'	1:CA:2334:G:C6	2.30	0.66
7:AH:80:SER:O	7:AH:81:GLU:HG3	1.95	0.66
36:BI:75:LEU:HD22	36:BI:79:LEU:HG	1.78	0.66
1:CA:1567:U:OP2	56:CA:3278:OHX:N6	2.29	0.66
7:AH:168:PRO:O	7:AH:169:VAL:HG12	1.95	0.66
43:BP:15:VAL:HG23	43:BP:43:THR:O	1.96	0.66
31:BA:788:U:H2'	31:BA:789:U:O2	1.96	0.66
1:AA:890:A:H8	1:AA:892:G:C8	2.14	0.66
31:BA:1028(B):C:N3	31:BA:1032(A):G:C2	2.64	0.66
21:AV:4:ARG:HG2	21:AV:58:VAL:HG21	1.78	0.66
1:AA:1971:A:C4	3:AD:241:PRO:HD3	2.31	0.66
15:AR:55:ASN:N	15:AR:59:THR:HG22	2.10	0.66
1:CA:2884:A:H2'	1:CA:2884:A:N3	2.09	0.66
21:AV:104:PHE:CE1	21:AV:119:GLU:HB3	2.30	0.66
33:DF:59:ARG:HH12	33:DF:97:LYS:HD2	1.61	0.66
9:CM:42:TRP:O	16:C1:64:ARG:NH2	2.28	0.66
1:AA:2377:A:H2'	1:AA:2378:A:C8	2.29	0.66
1:CA:2142:A:N6	1:CA:2193:A:H62	1.94	0.66
12:CP:19:GLY:HA3	12:CP:98:LYS:HZ2	1.61	0.66
1:CA:2884:A:H8	13:C0:5:LYS:HA	1.60	0.66
52:BB:78:C:O2'	52:BB:79:A:C5'	2.43	0.66
1:CA:1444:U:H1'	1:CA:1445:C:OP1	1.96	0.66
31:DA:411:A:N7	31:DA:413:G:N3	2.44	0.66
4:CE:111:ARG:HA	13:C0:2:ARG:HH12	1.60	0.66
1:AA:2233:U:H2'	1:AA:2234:G:C8	2.31	0.66
32:BE:115:LEU:HD13	32:BE:145:LEU:HB3	1.78	0.66
1:AA:2506:U:H2'	1:AA:2506:U:O2	1.95	0.66
33:DF:18:TRP:CD1	44:DQ:54:PRO:HA	2.31	0.66
50:BW:25:ARG:HG2	50:BW:29:LYS:HE3	1.78	0.66
39:BL:9:ARG:O	39:BL:104:ARG:HG3	1.96	0.66
32:DE:92:TYR:CD2	32:DE:151:GLY:HA3	2.31	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:620:C:C4	34:BG:135:LEU:HD23	2.31	0.66
31:BA:789:U:O2	31:BA:789:U:C5'	2.45	0.65
52:DD:49:A:H2	52:DD:51:C:P	2.19	0.65
15:CR:122:ASP:OD2	31:DA:1443:G:O2'	2.14	0.65
1:CA:1108:U:H5''	1:CA:1109:G:OP2	1.96	0.65
1:CA:1145:A:H2'	1:CA:1146:G:H5'	1.77	0.65
3:AD:44:ASN:HB2	3:AD:48:ARG:O	1.95	0.65
7:AH:126:PRO:O	7:AH:127:GLU:HB2	1.96	0.65
9:CM:133:GLN:HG2	9:CM:135:PRO:HD3	1.78	0.65
42:DO:67:ILE:HD13	42:DO:74:LEU:HD12	1.78	0.65
28:C6:35:GLU:O	28:C6:36:LEU:HB2	1.97	0.65
40:BM:40:LEU:HB2	40:BM:69:ASN:HB2	1.78	0.65
1:AA:2275:C:O2'	12:AP:84:GLY:HA3	1.96	0.65
1:CA:2153:U:H2'	1:CA:2181:A:N1	2.11	0.65
21:AV:62:PRO:O	21:AV:63:ASP:HB2	1.97	0.65
6:CG:4:ASP:O	6:CG:5:VAL:HB	1.95	0.65
12:AP:52:VAL:HA	12:AP:55:VAL:CG1	2.26	0.65
1:AA:307:G:H21	1:AA:330:A:H62	1.45	0.65
7:AH:126:PRO:O	7:AH:127:GLU:CB	2.44	0.65
31:DA:21:G:H2'	31:DA:22:G:C8	2.31	0.65
1:AA:1798:U:C5'	3:AD:259:THR:HG22	2.25	0.65
1:AA:320:A:O2'	1:AA:322:A:OP2	2.11	0.65
28:A6:25:LYS:HE2	28:A6:27:LYS:HD3	1.78	0.65
31:DA:1190:G:C6	56:DA:1760:OHX:N6	2.64	0.65
1:CA:700:A:H2'	1:CA:701:A:O4'	1.96	0.65
1:AA:2593:U:H2'	1:AA:2594:C:C6	2.31	0.65
29:C7:8:ASN:C	29:C7:8:ASN:HD22	1.99	0.65
1:AA:2681:C:H1'	1:AA:2682:U:OP2	1.96	0.65
1:AA:147:U:O4	56:AA:3434:OHX:N4	2.30	0.65
11:CO:125:VAL:O	11:CO:144:GLU:HB3	1.97	0.65
11:CO:97:PRO:CD	11:CO:112:LEU:HD12	2.27	0.65
52:BD:23:A:H3'	52:BD:24:G:C8	2.30	0.65
31:DA:266:G:H1'	31:DA:267:C:OP2	1.96	0.65
11:AO:131:SER:H	11:AO:134:ALA:HB3	1.61	0.65
31:BA:1145:C:H4'	31:BA:1146:A:C8	2.30	0.65
1:AA:528:A:C2	1:AA:2043:C:H4'	2.31	0.65
31:BA:560:U:H4'	31:BA:561:U:O5'	1.96	0.65
1:AA:1468:C:H2'	1:AA:1469:A:H8	1.60	0.65
1:CA:2103:G:H5'	23:CZ:35:THR:OG1	1.96	0.65
1:AA:2502:G:H5''	1:AA:2503:A:H5''	1.77	0.65
4:AE:54:GLN:O	4:AE:55:ASN:HB2	1.96	0.65
52:BD:48:C:N4	52:BD:52:G:H1	1.94	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:BD:62:G:N2	52:BD:70:C:N3	2.39	0.65
1:AA:654(D):G:H1	1:AA:654(Q):C:H42	0.69	0.65
31:BA:1331:G:O2'	31:BA:1332:A:O5'	2.13	0.65
1:CA:2810:U:H2'	1:CA:2811:C:C5'	2.23	0.65
42:BO:43:LYS:HG2	42:BO:44:LYS:H	1.60	0.65
1:CA:139:A:C8	1:CA:1455:C:O2'	2.47	0.65
31:BA:135:C:O2'	56:BA:1813:OHX:N1	2.30	0.65
1:CA:1004:U:O2	2:CB:92:A:H4'	1.95	0.65
31:DA:1244:C:OP2	51:DX:9:ARG:HG2	1.95	0.65
31:BA:222:U:H2'	31:BA:223:U:C6	2.32	0.65
41:DN:29:ILE:HG22	41:DN:44:SER:HB2	1.77	0.65
9:AM:13:TRP:O	9:AM:135:PRO:HD2	1.97	0.65
1:CA:2309:U:H4'	1:CA:2310:C:OP1	1.95	0.65
42:BO:123:LYS:HG2	42:BO:125:ALA:H	1.61	0.65
31:BA:453:A:H4'	46:BS:72:ARG:HB2	1.78	0.65
9:AM:34:LEU:HD21	9:AM:120:LEU:HB2	1.78	0.65
2:CB:81:C:H2'	2:CB:82:U:O4'	1.96	0.65
1:CA:1230:G:OP2	25:CX:30:ARG:NH2	2.27	0.65
12:CP:4:PRO:HD3	12:CP:70:PRO:O	1.97	0.65
31:DA:1158:C:C2	31:DA:1160:G:N7	2.64	0.65
3:AD:35:LYS:CD	3:AD:104:TYR:CD1	2.77	0.65
3:AD:35:LYS:HG2	3:AD:64:ILE:H	1.60	0.65
52:DB:21:A:C8	52:DB:46:G:C8	2.85	0.65
12:AP:66:ILE:HG13	12:AP:67:ARG:N	2.08	0.65
1:AA:2301:C:H2'	1:AA:2302:G:H8	1.61	0.65
43:BP:82:MET:C	43:BP:84:ILE:H	1.99	0.65
1:AA:2562:U:H1'	10:AN:23:ARG:NH1	2.10	0.65
1:AA:270(O):U:C4'	1:AA:270(P):C:OP2	2.42	0.65
1:CA:1579:C:N4	1:CA:1586:G:H1	1.92	0.65
30:C8:52:LYS:O	30:C8:54:GLU:N	2.27	0.65
25:CX:19:GLN:NE2	25:CX:52:HIS:HE1	1.94	0.65
31:BA:363:A:OP1	42:BO:30:ARG:HG3	1.95	0.65
4:CE:128:SER:OG	4:CE:129:HIS:N	2.28	0.65
7:AH:97:ARG:HG2	7:AH:98:LEU:H	1.62	0.65
1:AA:2270:G:OP2	56:AA:3458:OHX:N4	2.30	0.65
1:AA:2340:G:O2'	1:AA:2341:G:H5'	1.97	0.65
31:DA:273:A:H1'	47:DT:16:GLN:HE21	1.60	0.65
5:AF:34:TRP:NE1	11:AO:8:PRO:HD3	2.10	0.65
12:AP:78:PRO:HG2	12:AP:81:VAL:CG1	2.24	0.65
1:CA:417:G:H22	11:CO:72:PRO:CD	2.10	0.65
11:CO:107:LYS:O	11:CO:109:GLY:N	2.30	0.65
12:CP:88:GLY:O	12:CP:89:ASN:HB2	1.95	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:89:U:O2'	1:CA:90:A:C8	2.50	0.65
1:AA:2723:C:OP1	13:A0:3:HIS:HD2	1.78	0.65
31:BA:953:G:H5'	31:BA:965:A:H61	1.60	0.65
6:AG:21:ARG:NH1	6:AG:21:ARG:HG2	2.02	0.65
12:CP:56:ARG:HH11	12:CP:56:ARG:HB2	1.62	0.65
1:CA:155:C:N3	1:CA:161:G:C2	2.65	0.65
1:CA:2164:G:O6	1:CA:2173:U:O2	2.14	0.65
1:AA:2147:G:H2'	1:AA:2148:G:H4'	1.79	0.65
7:AH:80:SER:C	7:AH:81:GLU:HG3	2.17	0.65
31:DA:1411:C:H2'	31:DA:1412:C:C6	2.31	0.65
21:CV:107:THR:N	21:CV:108:PRO:HD2	2.11	0.65
1:AA:64:A:H1'	19:AT:66:LEU:HB2	1.78	0.65
1:CA:521:G:H1'	18:CS:57:ASN:ND2	2.10	0.65
7:CH:149:ARG:HD3	7:CH:164:TYR:CE1	2.30	0.65
1:AA:1065:U:H1'	1:AA:1074:G:H22	1.60	0.65
11:CO:63:PRO:O	11:CO:64:LYS:C	2.35	0.65
31:BA:1498:U:H1'	31:BA:1499:A:OP2	1.95	0.65
3:CD:35:LYS:CG	3:CD:64:ILE:N	2.58	0.65
30:C8:33:ASN:O	30:C8:35:GLN:N	2.29	0.65
23:CZ:86:SER:N	23:CZ:87:PRO:CD	2.60	0.65
1:AA:1496:A:C8	1:AA:1577:C:O2'	2.38	0.65
43:BP:108:ARG:HH11	43:BP:108:ARG:HA	1.62	0.65
50:DW:72:LEU:HD11	50:DW:80:ARG:HD2	1.77	0.65
4:AE:35:GLN:CD	4:AE:37:ARG:NH2	2.49	0.65
3:CD:231:HIS:ND1	3:CD:232:PRO:HD2	2.12	0.65
43:DP:78:ILE:HG23	43:DP:92:HIS:HD2	1.62	0.65
35:DH:51:VAL:HG23	35:DH:52:PRO:HD3	1.78	0.65
21:CV:178:GLU:O	21:CV:179:ASP:HB2	1.96	0.65
1:CA:2529:G:C6	1:CA:2530:C:N4	2.65	0.65
41:BN:78:GLN:O	41:BN:103:LEU:HA	1.97	0.65
12:AP:59:ARG:HD2	12:AP:59:ARG:H	1.61	0.65
1:CA:899:U:O2	1:CA:974:G:C2	2.50	0.65
1:AA:2747:G:O6	1:AA:2755:C:H5''	1.97	0.65
31:DA:1343:G:H1'	39:DL:121:ARG:NH1	2.11	0.65
5:CF:51:THR:HB	5:CF:88:VAL:HG11	1.79	0.65
52:DB:55:U:C5	52:DB:56:U:H1'	2.32	0.65
52:DD:41:C:H2'	52:DD:42:U:C6	2.31	0.65
1:CA:2432:U:OP2	30:C8:33:ASN:ND2	2.29	0.65
2:CB:41:A:N6	26:C4:1:MET:HB3	2.11	0.65
1:AA:2567:G:H2'	1:AA:2568:C:H6	1.58	0.65
31:DA:1056:U:O4	31:DA:1200:C:C6	2.50	0.65
2:AB:95:U:H2'	2:AB:96:G:C8	2.31	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:2811:G:OP1	4:AE:61:ARG:HG2	1.97	0.65
31:BA:178:C:H2'	31:BA:179:A:H8	1.61	0.65
1:AA:2058:A:H5''	1:AA:2059:A:OP2	1.97	0.65
11:CO:63:PRO:HA	30:C8:13:ARG:HA	1.76	0.65
1:AA:2119:A:C2	1:AA:2171:A:H1'	2.32	0.65
31:BA:73:G:H2'	31:BA:74:C:O4'	1.97	0.65
20:AU:20:TYR:CE1	20:AU:42:VAL:HA	2.32	0.65
1:AA:2211:G:H4'	1:AA:2212:A:OP2	1.97	0.65
31:DA:1003:G:N2	31:DA:1037:C:N3	2.43	0.65
31:DA:1024:G:H2'	31:DA:1025:U:H6	1.61	0.65
1:CA:1218:G:H1	1:CA:1224:C:H42	1.44	0.65
31:DA:1301:U:O2	31:DA:1301:U:H2'	1.95	0.65
8:AK:129:THR:HG22	8:AK:137:PRO:HB3	1.77	0.65
1:CA:1325:A:OP1	13:C0:36:THR:HG22	1.97	0.65
1:AA:2474:C:H2'	1:AA:2475:C:O4'	1.97	0.65
17:C2:15:GLU:CG	17:C2:16:PRO:HD2	2.26	0.65
1:AA:443:A:C5	5:AF:45:ARG:HD2	2.32	0.65
3:AD:70:TRP:CH2	3:AD:150:LYS:HA	2.32	0.65
6:AG:146:TYR:O	6:AG:149:VAL:HG22	1.96	0.65
11:CO:122:PRO:HB3	11:CO:141:ALA:HB1	1.76	0.65
18:AS:86:LEU:HD12	18:AS:87:PRO:HD2	1.77	0.65
1:CA:2850:G:H5'	13:C0:46:GLY:HA2	1.79	0.65
1:AA:2481:G:HO2'	1:AA:2482:G:P	2.20	0.65
33:BF:108:ASN:ND2	33:BF:144:SER:OG	2.29	0.65
7:CH:6:ARG:H	7:CH:6:ARG:HD3	1.62	0.65
1:CA:1360:U:H2'	1:CA:1657:A:C2	2.32	0.65
1:CA:1059:U:H3	9:CM:25:ARG:HH11	1.44	0.65
26:A4:38:LYS:NZ	26:A4:44:THR:OG1	2.30	0.65
31:DA:1256:A:N6	31:DA:1278:U:OP2	2.30	0.65
31:BA:1503:A:HO2'	31:BA:1504:G:C5'	2.10	0.65
6:CG:109:VAL:HG11	6:CG:142:PRO:HB3	1.79	0.65
31:DA:1316:G:N2	31:DA:1318:A:H3'	2.12	0.65
31:BA:1452:C:O2'	31:BA:1453:G:P	2.54	0.65
21:CV:115:GLY:HA2	21:CV:177:PRO:HG2	1.78	0.65
1:CA:13:A:H61	1:CA:551:U:H3'	1.62	0.65
1:CA:2203:U:H2'	1:CA:2204:G:O4'	1.97	0.65
1:AA:340:A:H2'	1:AA:341:G:O4'	1.96	0.65
23:AZ:76:ARG:N	23:AZ:76:ARG:HD3	2.12	0.65
38:BK:101:PRO:HG2	38:BK:133:LEU:HD11	1.78	0.65
50:DW:50:GLU:HB2	50:DW:100:ILE:HG12	1.78	0.65
31:BA:703:G:H4'	31:BA:704:A:O5'	1.96	0.65
8:CK:37:VAL:HG12	8:CK:38:LEU:H	1.62	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DE:180:LEU:O	32:DE:181:PHE:HB2	1.96	0.65
1:AA:658:C:H2'	1:AA:659:C:C6	2.31	0.65
1:AA:1113:U:H2'	1:AA:1114:G:C8	2.32	0.65
1:CA:2238:A:H4'	1:CA:2239:C:O5'	1.97	0.65
13:C0:81:ASP:O	13:C0:82:GLU:CB	2.45	0.65
1:CA:1101:A:N6	1:CA:1152:U:N3	2.19	0.64
17:C2:87:HIS:CE1	17:C2:89:GLN:HB2	2.33	0.64
52:DB:47:U:H2'	52:DB:48:C:H6	1.62	0.64
1:AA:309:G:N3	1:AA:329:G:O2'	2.29	0.64
21:CV:59:LEU:HD22	21:CV:61:LEU:HG	1.79	0.64
31:BA:674:G:O2'	31:BA:675:A:H5'	1.97	0.64
1:AA:1754:C:P	15:AR:96:ARG:HH12	2.19	0.64
32:DE:239:VAL:HG12	32:DE:240:GLN:HG3	1.77	0.64
31:BA:1014:A:H2	31:BA:1219:U:H1'	1.61	0.64
26:C4:38:LYS:HA	26:C4:44:THR:HG21	1.79	0.64
31:BA:359:U:H2'	31:BA:360:A:C8	2.33	0.64
1:CA:554:A:H2	1:CA:2066:C:H4'	1.61	0.64
15:CR:8:LYS:HB2	15:CR:8:LYS:NZ	2.12	0.64
35:DH:126:ARG:HA	35:DH:131:ILE:HD11	1.79	0.64
1:AA:2111:C:C2	1:AA:2118:U:H4'	2.32	0.64
3:CD:35:LYS:CE	3:CD:104:TYR:HD1	2.10	0.64
3:CD:64:ILE:O	3:CD:64:ILE:CG1	2.45	0.64
31:DA:1213:A:C6	31:DA:1215:G:H1'	2.32	0.64
1:CA:1737:A:N6	1:CA:1746:A:C2	2.46	0.64
1:CA:2883:G:C5	1:CA:2884:A:C2	2.85	0.64
16:A1:88:ILE:C	16:A1:90:VAL:H	2.00	0.64
31:DA:1003:G:N2	31:DA:1037:C:C2	2.61	0.64
1:CA:507:A:H1'	20:CU:44:ILE:HD13	1.79	0.64
4:CE:101:ARG:NH1	4:CE:171:GLU:HB2	2.13	0.64
21:CV:5:LEU:HD11	21:CV:44:PHE:HA	1.79	0.64
31:DA:1321:C:N4	31:DA:1322:C:H41	1.94	0.64
32:DE:17:PHE:CE2	32:DE:44:LEU:HA	2.33	0.64
31:DA:458:C:H2'	31:DA:464:G:O4'	1.97	0.64
31:BA:1281:U:H5'	31:BA:1282:C:C5	2.33	0.64
1:CA:1714:G:OP1	10:CN:66:LYS:HD3	1.96	0.64
1:CA:2275:U:O2'	1:CA:2276:C:H5'	1.96	0.64
26:A4:52:THR:OG1	26:A4:53:GLU:N	2.29	0.64
1:AA:1203:G:H3'	1:AA:1204:A:H5''	1.79	0.64
1:CA:2034:U:OP1	18:CS:42:ARG:NH1	2.30	0.64
38:BK:42:GLU:HG3	38:BK:109:ILE:HD12	1.79	0.64
31:BA:1510:U:H2'	31:BA:1511:G:C8	2.32	0.64
31:BA:240:C:H2'	31:BA:241:C:H6	1.62	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:AV:139:VAL:HG22	21:AV:155:LEU:HD22	1.79	0.64
1:AA:2015:A:O4'	27:A5:2:ALA:CA	2.44	0.64
1:CA:2769:C:HO2'	1:CA:2770:U:H6	1.45	0.64
1:AA:1534:G:N3	1:AA:1534:G:H2'	2.12	0.64
52:DD:43:G:O2'	52:DD:44:C:H5'	1.98	0.64
1:AA:633:A:H2'	1:AA:634:C:H5'	1.80	0.64
28:A6:44:ARG:HH11	28:A6:44:ARG:H	1.44	0.64
28:C6:21:TYR:N	28:C6:21:TYR:CD2	2.64	0.64
39:DL:20:ARG:O	39:DL:60:ASP:HB2	1.98	0.64
31:BA:87:A:H2'	31:BA:88:C:C6	2.32	0.64
2:CB:41:A:C6	26:C4:1:MET:HB3	2.31	0.64
37:DJ:27:ILE:HG12	37:DJ:43:PHE:HD2	1.63	0.64
52:DB:13:G:H1'	52:DB:24:G:N1	2.13	0.64
3:AD:186:HIS:CD2	3:AD:188:GLU:H	2.13	0.64
10:CN:102:VAL:HG22	10:CN:121:VAL:HG22	1.77	0.64
32:BE:98:LEU:HB2	32:BE:101:MET:HG3	1.78	0.64
13:C0:96:ARG:HH21	13:C0:117:VAL:HG23	1.62	0.64
17:C2:62:LEU:HB3	17:C2:93:GLU:O	1.97	0.64
23:AZ:58:ILE:HG21	23:AZ:87:PRO:HG3	1.78	0.64
9:AM:35:ARG:O	9:AM:42:TRP:CZ3	2.50	0.64
33:DF:182:ILE:HG22	33:DF:203:PHE:HA	1.79	0.64
13:C0:37:THR:OG1	13:C0:40:LYS:NZ	2.29	0.64
4:AE:2:LYS:NZ	4:AE:95:ILE:O	2.30	0.64
52:BB:46:G:H2'	52:BB:47:U:C6	2.33	0.64
52:BB:47:U:H2'	52:BB:48:C:O4'	1.97	0.64
1:CA:611:C:N3	11:CO:33:ARG:NH1	2.45	0.64
7:CH:4:ILE:HD11	7:CH:7:LEU:HD23	1.79	0.64
52:DB:19:C:H4'	52:DB:20:C:OP1	1.96	0.64
31:DA:1132:C:O2'	31:DA:1133:G:H5'	1.98	0.64
39:DL:99:LEU:HB3	39:DL:101:PHE:CE1	2.32	0.64
31:DA:1039:C:H3'	31:DA:1040:U:H5''	1.79	0.64
12:AP:92:GLY:C	12:AP:93:TYR:CD1	2.70	0.64
1:CA:2535:U:C2'	1:CA:2536:G:H5''	2.26	0.64
31:DA:1297:C:C1'	31:DA:1298:C:OP2	2.45	0.64
25:CX:23:LEU:HD12	25:CX:23:LEU:H	1.62	0.64
37:BJ:16:LEU:HD11	39:BL:45:ALA:HB2	1.78	0.64
5:AF:184:TYR:CE2	5:AF:188:ARG:HD2	2.32	0.64
32:DE:190:THR:O	32:DE:191:ASP:CB	2.45	0.64
31:DA:1098:C:H2'	31:DA:1099:G:O4'	1.97	0.64
31:DA:388:G:OP1	56:DA:1721:OHX:N5	2.31	0.64
52:DD:9:U:H2'	52:DD:9:U:O2	1.97	0.64
1:CA:2340:A:H2'	1:CA:2341:A:C8	2.31	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1405:G:O2'	1:CA:1406:A:H5''	1.96	0.64
52:BD:17:G:H4'	52:BD:18:G:OP2	1.96	0.64
52:DB:50:U:H2'	52:DB:51:C:O4'	1.96	0.64
31:DA:986:A:H2'	31:DA:987:G:O4'	1.97	0.64
6:CG:61:ALA:HA	6:CG:64:THR:HG22	1.79	0.64
31:BA:1503:A:N6	54:B1:12:A:C4	2.65	0.64
31:BA:1502:A:H2	31:BA:1505:G:H1	1.43	0.64
1:AA:1264:G:H5'	27:A5:11:THR:CG2	2.28	0.64
16:C1:88:ILE:HA	17:C2:49:THR:O	1.97	0.64
1:AA:1516:U:H2'	1:AA:1517:G:C8	2.32	0.64
43:DP:84:ILE:HG12	49:DV:63:THR:HG21	1.78	0.64
1:AA:631:A:P	30:A8:46:ARG:HH21	2.20	0.64
8:AK:110:ASP:HB2	8:AK:112:LYS:H	1.63	0.64
31:DA:485:G:O2'	31:DA:486:U:C6	2.51	0.64
1:AA:55:G:H2'	1:AA:56:A:C8	2.32	0.64
9:AM:35:ARG:HG3	9:AM:37:LYS:HG3	1.80	0.64
3:CD:208:LYS:HG3	3:CD:210:GLY:H	1.63	0.64
38:BK:41:ARG:NH2	38:BK:123:GLU:OE1	2.29	0.64
31:BA:1195:C:H5''	31:BA:1196:U:O5'	1.98	0.64
34:DG:85:LYS:O	56:DG:302:OHX:N2	2.29	0.64
36:DI:9:VAL:HB	36:DI:87:ARG:HB2	1.80	0.64
37:DJ:120:ILE:O	37:DJ:124:LEU:HB2	1.97	0.64
1:CA:409:G:C4	1:CA:422:A:C2	2.85	0.64
1:AA:1064:C:H41	1:AA:1070:A:P	2.20	0.64
1:CA:2300:A:H2	1:CA:2359:A:N1	1.96	0.64
52:DD:21:A:N1	52:DD:55:U:O4	2.30	0.64
11:CO:112:LEU:CB	11:CO:128:HIS:HD2	2.11	0.64
1:AA:1292:U:H2'	1:AA:1293:C:C6	2.32	0.64
1:CA:2452:A:C8	1:CA:2452:A:H5'	2.33	0.64
1:AA:2301:C:H2'	1:AA:2302:G:C8	2.31	0.64
1:AA:2712:U:OP1	1:AA:2714:G:H4'	1.96	0.64
31:BA:1000:A:H2'	31:BA:1001:G:H8	1.62	0.64
9:AM:35:ARG:HD3	9:AM:37:LYS:HD2	1.79	0.64
17:C2:67:GLY:O	17:C2:88:ARG:HD2	1.98	0.64
33:BF:95:THR:HG22	33:BF:96:GLY:H	1.61	0.64
28:A6:42:TRP:N	28:A6:42:TRP:CD1	2.63	0.64
22:C3:43:THR:O	22:C3:45:PHE:N	2.30	0.64
10:AN:88:ASN:HD21	10:AN:92:GLU:HG3	1.61	0.64
1:CA:2321:G:C2'	1:CA:2322:A:OP1	2.45	0.64
1:CA:2138:G:H1'	1:CA:2194:A:N1	2.12	0.64
52:DD:29:C:C2'	52:DD:30:A:H5'	2.28	0.64
5:CF:25:PRO:CB	5:CF:27:GLU:H	2.07	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:AV:28:MET:HB2	21:AV:37:VAL:HG11	1.80	0.64
47:BT:67:LYS:O	47:BT:68:ARG:HB3	1.98	0.64
15:AR:26:ASP:HB3	15:AR:92:GLY:H	1.62	0.64
2:AB:103:U:O2'	21:AV:72:ARG:HG2	1.97	0.64
27:C5:51:TYR:HB3	27:C5:54:GLY:H	1.63	0.64
43:DP:97:PRO:HB2	43:DP:101:GLN:HG3	1.79	0.64
1:CA:2042:A:N7	27:C5:9:LYS:HE3	2.12	0.64
10:CN:24:VAL:CG2	10:CN:33:ALA:HB2	2.28	0.64
1:CA:989:U:OP2	11:CO:36:LYS:HG3	1.98	0.64
31:BA:524:G:H2'	31:BA:525:C:C6	2.33	0.64
1:AA:882:G:H3'	1:AA:883:G:H5''	1.79	0.64
1:AA:882:G:N2	1:AA:894:C:C2	2.65	0.64
1:AA:607:U:OP1	5:AF:102:PRO:HA	1.97	0.64
52:DD:13:G:H2'	52:DD:14:A:C8	2.32	0.64
52:BD:11:C:H2'	52:BD:12:C:C5'	2.21	0.64
1:AA:2287:A:N6	1:AA:2344:U:N3	2.41	0.64
31:DA:975:A:C4'	31:DA:976:G:H5''	2.22	0.64
1:CA:2642:A:O2'	1:CA:2643:G:OP2	2.13	0.64
52:BB:75:C:H2'	52:BB:76:C:C6	2.33	0.64
31:DA:1275:A:H2'	31:DA:1276:G:O4'	1.97	0.64
1:CA:1044:G:C2'	1:CA:1045:C:H5'	2.28	0.64
31:DA:570:G:H1'	31:DA:820:U:C4	2.33	0.64
1:AA:1043:C:H42	1:AA:1112:G:H1	1.43	0.64
8:CK:104:GLN:HG2	8:CK:105:HIS:HD2	1.61	0.64
1:CA:1512:C:O2'	1:CA:1575:A:H8	1.79	0.64
26:A4:12:ALA:HB1	26:A4:29:PRO:HA	1.79	0.64
1:CA:1543:A:H8	1:CA:1625:C:O2'	1.80	0.64
47:DT:87:LYS:O	47:DT:91:ARG:HG3	1.98	0.64
34:DG:70:ILE:HD11	34:DG:100:ARG:HD2	1.79	0.64
7:CH:118:PRO:HG2	7:CH:121:ILE:HG13	1.79	0.64
28:A6:29:ASN:O	28:A6:32:ASN:HB3	1.96	0.64
7:CH:6:ARG:HB2	7:CH:66:GLY:HA2	1.80	0.64
3:AD:69:ARG:HH21	3:AD:130:ALA:H	1.46	0.64
31:DA:406:G:H5'	34:DG:5:ILE:CG2	2.28	0.64
28:C6:12:GLU:HG3	28:C6:21:TYR:HD1	1.61	0.64
31:DA:1449:C:O2'	31:DA:1450:U:OP1	2.15	0.64
1:AA:1558:A:O2'	1:AA:1559:G:OP2	2.11	0.64
7:AH:10:PRO:HG2	7:AH:50:VAL:HG13	1.80	0.64
31:BA:973:G:H3'	31:BA:974:A:H5''	1.78	0.64
1:CA:641:A:C8	5:CF:176:LEU:HD11	2.33	0.64
31:BA:422:C:O2'	31:BA:423:G:C2	2.51	0.64
1:CA:38:A:H2'	1:CA:39:C:H6	1.62	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BG:209:ARG:NE	34:BG:209:ARG:HA	2.13	0.64
50:DW:69:GLY:O	50:DW:73:HIS:CD2	2.51	0.64
14:AQ:106:ARG:HA	14:AQ:110:LEU:CD2	2.28	0.64
21:CV:29:TYR:HB3	21:CV:34:ASN:HD22	1.63	0.64
1:AA:572:A:H5''	1:AA:573:G:OP2	1.97	0.64
9:AM:43:THR:HB	9:AM:46:VAL:HG12	1.78	0.64
1:CA:2813:A:H2'	1:CA:2814:G:O4'	1.96	0.64
1:CA:561:C:O2'	1:CA:562:A:H5'	1.96	0.64
27:C5:41:PRO:HG2	27:C5:44:THR:OG1	1.98	0.64
31:BA:1074:G:O2'	31:BA:1101:A:N1	2.30	0.64
1:AA:2159:G:H2'	1:AA:2160:G:H8	1.63	0.64
49:DV:28:LYS:HD3	49:DV:29:ARG:H	1.62	0.64
1:CA:1936:A:H4'	1:CA:1937:C:H5''	1.79	0.64
1:CA:2706:A:H2'	1:CA:2707:G:H8	1.62	0.64
35:BH:20:GLN:O	35:BH:22:GLY:N	2.31	0.64
1:AA:2133:G:H1'	1:AA:2158:A:N6	2.08	0.64
52:BD:55:U:H4'	52:BD:55:U:OP1	1.98	0.64
31:BA:975:A:C4'	31:BA:976:G:H5''	2.28	0.64
1:CA:1040:G:H1'	17:C2:87:HIS:HE1	1.60	0.64
31:BA:1004:A:H2	31:BA:1024:G:C8	2.16	0.64
1:AA:2428:G:H21	11:AO:60:MET:HE2	1.61	0.64
1:CA:2642:A:H4'	1:CA:2643:G:O5'	1.98	0.64
1:CA:7:G:H1	1:CA:2906:C:H42	1.44	0.64
26:A4:63:TYR:CE2	49:BV:42:PRO:HD3	2.29	0.64
28:A6:17:LYS:HA	28:A6:17:LYS:HE2	1.80	0.64
31:DA:1305:G:H22	31:DA:1331:G:C2'	2.11	0.64
2:AB:49:C:OP1	14:AQ:97:ARG:HG2	1.97	0.64
5:CF:164:ARG:CG	5:CF:164:ARG:HH11	2.10	0.64
1:CA:2228:G:H3'	1:CA:2229:G:C4	2.32	0.64
34:BG:108:LEU:HB3	34:BG:110:PHE:CE1	2.33	0.64
1:AA:1607:C:O2	56:AA:3473:OHX:N5	2.31	0.64
35:DH:60:TYR:HD2	35:DH:64:ARG:HH21	1.46	0.64
1:AA:2151:G:H2'	1:AA:2152:G:C8	2.32	0.64
46:DS:9:PHE:HD2	46:DS:18:ARG:HG3	1.62	0.64
10:CN:119:PRO:HB2	15:CR:68:TYR:CE2	2.33	0.64
32:DE:63:MET:HG3	32:DE:225:ALA:HB1	1.80	0.64
1:AA:1525:G:H2'	1:AA:1526:G:H8	1.63	0.64
1:AA:1266:G:O2'	1:AA:2012:G:O6	2.09	0.64
35:DH:145:LYS:O	35:DH:149:GLU:HG2	1.98	0.64
18:CS:84:ARG:HG3	18:CS:98:LYS:HE3	1.80	0.64
1:CA:2415:C:H5	1:CA:2428:G:H22	1.41	0.63
1:CA:2417:C:H1'	11:CO:67:MET:HE3	1.79	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:CO:106:LEU:O	11:CO:107:LYS:CB	2.38	0.63
21:AV:60:GLU:O	21:AV:61:LEU:HD13	1.97	0.63
1:CA:470:A:H1'	1:CA:1247:C:O4'	1.97	0.63
31:BA:989:C:N4	31:BA:1216:G:H1	1.96	0.63
31:DA:961:U:OP2	31:DA:1223:C:O2'	2.12	0.63
2:CB:5:C:N4	2:CB:120:G:H1	1.95	0.63
33:DF:39:ILE:O	33:DF:43:LEU:HB2	1.97	0.63
2:CB:90:C:H3'	2:CB:91:G:H8	1.63	0.63
4:CE:119:ARG:HG2	4:CE:160:TYR:HB2	1.79	0.63
32:BE:212:GLN:HE22	32:BE:216:SER:HB2	1.63	0.63
32:BE:63:MET:HB3	32:BE:225:ALA:HB1	1.79	0.63
31:BA:526:C:OP2	42:BO:88:LYS:HE3	1.98	0.63
31:DA:15:G:H1'	35:DH:19:MET:HE3	1.79	0.63
31:DA:24:U:H2'	31:DA:25:C:H6	1.62	0.63
31:BA:957:U:H3	31:BA:960:U:H5''	1.63	0.63
21:CV:76:LEU:HD23	21:CV:76:LEU:H	1.63	0.63
1:AA:2062:A:N3	1:AA:2062:A:H2'	2.13	0.63
9:AM:67:LEU:HD23	9:AM:88:GLU:HB3	1.80	0.63
1:AA:2308:G:N1	1:AA:2311:A:C6	2.62	0.63
1:AA:1105:U:H2'	1:AA:1106:G:C8	2.33	0.63
30:C8:37:SER:O	30:C8:38:GLY:C	2.37	0.63
11:CO:146:VAL:HG22	11:CO:147:LEU:HD12	1.79	0.63
3:AD:25:THR:O	3:AD:27:THR:HB	1.98	0.63
3:AD:32:SER:HA	3:AD:36:PRO:CD	2.27	0.63
3:CD:255:LYS:HE3	3:CD:255:LYS:N	2.06	0.63
4:CE:64:LYS:HB2	4:CE:66:HIS:CD2	2.32	0.63
1:CA:1389:A:C6	1:CA:1444:U:C4	2.86	0.63
31:DA:1299:A:C6	31:DA:1301:U:C2	2.86	0.63
34:BG:126:ILE:HD13	34:BG:127:THR:N	2.11	0.63
31:BA:1224:G:C6	31:BA:1322:C:H1'	2.34	0.63
6:AG:115:ARG:NH1	43:BP:7:VAL:HB	2.14	0.63
9:CM:133:GLN:O	9:CM:134:ARG:HD3	1.99	0.63
33:DF:73:PRO:O	33:DF:76:VAL:HG22	1.96	0.63
41:DN:22:HIS:HB3	41:DN:29:ILE:HG12	1.80	0.63
1:CA:2252:G:OP2	3:CD:244:ARG:NH2	2.31	0.63
1:AA:270(F):U:H2'	1:AA:270(G):C:C6	2.33	0.63
37:BJ:15:ASP:OD1	37:BJ:44:TYR:OH	2.15	0.63
14:CQ:102:ALA:HA	14:CQ:105:ALA:HB3	1.79	0.63
1:CA:1416:G:HO2'	1:CA:1842:A:H2	1.45	0.63
1:CA:680:A:N3	1:CA:680:A:H2'	2.12	0.63
31:BA:129(A):G:N2	31:BA:188:U:O2'	2.31	0.63
1:CA:398:G:H4'	1:CA:399:A:OP2	1.97	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CD:186:HIS:CD2	3:CD:188:GLU:H	2.15	0.63
1:CA:1767:G:H8	1:CA:1770:G:H1	1.46	0.63
12:CP:102:VAL:HG12	12:CP:102:VAL:O	1.98	0.63
12:AP:21:THR:HG22	21:AV:78:LYS:CD	2.27	0.63
34:DG:31:CYS:HB3	34:DG:33:MET:HB2	1.80	0.63
1:AA:1899:G:N2	1:AA:1902:C:N4	2.35	0.63
11:AO:58:THR:HG23	11:AO:61:ARG:HG3	1.79	0.63
1:CA:2883:G:C8	1:CA:2884:A:H2	2.16	0.63
11:AO:105:LEU:O	11:AO:106:LEU:CB	2.45	0.63
1:AA:784:A:C5	3:AD:229:VAL:HG21	2.32	0.63
4:CE:25:VAL:O	4:CE:26:ILE:HG13	1.99	0.63
1:AA:2790:A:H1'	1:AA:2893:G:O2'	1.99	0.63
1:AA:998:C:C2'	1:AA:999:U:O5'	2.46	0.63
18:AS:14:PRO:CG	18:AS:78:GLU:HB2	2.28	0.63
1:AA:660:G:H21	11:AO:12:ALA:HA	1.63	0.63
11:CO:11:GLY:O	11:CO:13:ASN:N	2.30	0.63
9:AM:46:VAL:HG13	9:AM:48:MET:HG3	1.79	0.63
31:BA:376:G:H5''	46:BS:5:ARG:HD2	1.80	0.63
1:CA:554:A:C2	1:CA:2066:C:H4'	2.33	0.63
19:AT:26:TYR:CD1	19:AT:89:ILE:HD12	2.33	0.63
12:CP:111:GLU:O	12:CP:115:MET:HG2	1.98	0.63
1:AA:2602:A:C6	53:BC:77:A:H4'	2.34	0.63
31:DA:376:G:H5''	46:DS:5:ARG:HD2	1.80	0.63
1:AA:1060:U:C2	1:AA:1062:G:H5'	2.34	0.63
1:AA:2110:G:H4'	1:AA:2111:C:OP2	1.98	0.63
1:CA:2138:G:H21	1:CA:2195:U:H3	1.45	0.63
34:DG:19:LEU:HB2	34:DG:21:LEU:CD1	2.28	0.63
7:CH:3:ARG:HG3	7:CH:4:ILE:N	2.13	0.63
52:DB:48:C:H2'	52:DB:49:A:C8	2.32	0.63
52:DB:47:U:H2'	52:DB:48:C:O4'	1.98	0.63
37:DJ:84:ASN:HB2	52:DD:38:MIA:H153	1.79	0.63
1:CA:470:A:H5''	1:CA:471:C:OP1	1.98	0.63
17:A2:38:LEU:O	17:A2:51:VAL:HG13	1.97	0.63
1:AA:676:A:N1	1:AA:802:A:N1	2.46	0.63
1:CA:1590:A:H2'	1:CA:1591:C:H3'	1.79	0.63
1:CA:2844:G:OP1	1:CA:2844:G:C8	2.49	0.63
41:DN:44:SER:OG	41:DN:47:VAL:HG23	1.98	0.63
32:BE:238:LEU:H	32:BE:238:LEU:HD12	1.62	0.63
33:DF:117:ALA:HB2	33:DF:200:ALA:HB2	1.80	0.63
18:AS:70:TYR:H	18:AS:70:TYR:HD2	1.45	0.63
50:BW:31:SER:HA	50:BW:34:LYS:HE3	1.80	0.63
14:AQ:36:TYR:CD1	14:AQ:36:TYR:N	2.65	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:2431:A:OP1	30:C8:29:LYS:NZ	2.31	0.63
1:CA:2187:C:H2'	1:CA:2188:G:O4'	1.99	0.63
52:DD:57:C:O2'	52:DD:68:A:H4'	1.99	0.63
1:CA:1117:A:H5'	1:CA:1118:G:C5'	2.28	0.63
1:AA:1902:C:OP1	3:AD:242:ARG:HD2	1.99	0.63
1:CA:1071:G:H5''	1:CA:1072:G:H5''	1.80	0.63
1:AA:330:A:H2	1:AA:1210:A:O2'	1.76	0.63
7:AH:86:GLU:H	7:AH:86:GLU:CD	2.01	0.63
31:BA:990:C:H2'	31:BA:991:U:C6	2.34	0.63
10:AN:23:ARG:HG3	10:AN:24:VAL:N	2.12	0.63
31:BA:748:C:C1'	31:BA:749:C:OP2	2.46	0.63
4:AE:13:ARG:HH11	4:AE:21:VAL:CG1	2.12	0.63
1:AA:947:G:O6	56:AA:3568:OHX:N5	2.32	0.63
39:BL:114:TYR:N	39:BL:114:TYR:CD2	2.64	0.63
31:DA:1190:G:O6	56:DA:1760:OHX:N3	2.30	0.63
31:BA:1254:C:N4	31:BA:1283:G:H1	1.96	0.63
31:DA:748:C:H1'	31:DA:749:C:OP2	1.98	0.63
44:DQ:23:ARG:HD3	44:DQ:28:GLY:O	1.98	0.63
9:AM:46:VAL:O	9:AM:47:ALA:HB3	1.98	0.63
1:AA:1468:C:H2'	1:AA:1469:A:C8	2.33	0.63
1:AA:646:A:H2'	1:AA:647:G:O4'	1.98	0.63
14:AQ:24:LEU:HB3	14:AQ:85:VAL:HG12	1.81	0.63
4:AE:102:VAL:HG21	4:AE:198:VAL:HG13	1.80	0.63
2:CB:108:G:N7	56:CB:209:OHX:N5	2.46	0.63
31:DA:1077:G:N2	31:DA:1080:A:OP2	2.32	0.63
4:AE:24:THR:OG1	4:AE:186:GLY:HA2	1.99	0.63
31:DA:1194:U:H2'	31:DA:1195:C:C6	2.34	0.63
1:AA:1090:U:O4	1:AA:1101:U:O2	2.17	0.63
1:CA:2428:G:H4'	11:CO:66:GLY:HA3	1.79	0.63
1:CA:919:U:OP1	12:CP:5:ARG:HG2	1.98	0.63
1:CA:2176:G:O2'	1:CA:2177:G:O4'	2.13	0.63
52:DD:48:C:N4	52:DD:52:G:H1	1.96	0.63
31:BA:1301:U:H3'	31:BA:1302:U:H5'	1.81	0.63
31:BA:1002:G:C4	31:BA:1003:G:C8	2.86	0.63
31:DA:631:G:H1'	31:DA:632:A:OP1	1.99	0.63
4:CE:62:PRO:C	4:CE:64:LYS:H	2.02	0.63
32:DE:75:LYS:CA	32:DE:78:GLN:HB2	2.25	0.63
49:BV:40:ILE:O	49:BV:41:VAL:HG22	1.99	0.63
2:CB:112:G:H2'	2:CB:113:G:H8	1.63	0.63
31:DA:1142:G:H2'	31:DA:1143:G:O4'	1.97	0.63
12:AP:12:GLN:HG2	12:AP:73:PRO:HD2	1.80	0.63
1:CA:1325:A:H2'	1:CA:1326:G:C8	2.34	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:AQ:106:ARG:O	14:AQ:107:GLU:HB3	1.98	0.63
1:AA:2159:G:H2'	1:AA:2160:G:C8	2.32	0.63
3:AD:148:GLU:HB2	3:AD:151:LYS:HD2	1.81	0.63
15:CR:20:PRO:HD2	15:CR:86:ILE:HG23	1.81	0.63
40:DM:40:LEU:HB3	40:DM:69:ASN:HB3	1.80	0.63
17:A2:24:LYS:HB2	17:A2:92:THR:HG23	1.81	0.63
36:BI:97:PHE:HD2	48:BU:31:LEU:HD21	1.64	0.63
15:AR:53:ARG:HB3	15:AR:53:ARG:CZ	2.28	0.63
21:AV:79:ARG:HD2	21:AV:80:ARG:NH2	2.14	0.63
4:CE:51:PHE:CE2	4:CE:52:LEU:HG	2.33	0.63
12:AP:84:GLY:O	12:AP:85:LYS:HB2	1.99	0.63
1:CA:2138:G:N2	1:CA:2195:U:H3	1.96	0.63
11:AO:64:LYS:HB2	30:A8:25:MET:HG3	1.81	0.63
31:DA:1162:C:N4	31:DA:1174:G:H1	1.96	0.63
33:BF:15:THR:HG21	33:BF:181:ASN:HA	1.81	0.63
31:BA:1065:U:H1'	31:BA:1066:C:OP2	1.98	0.63
1:CA:10:G:C6	1:CA:2642:A:C6	2.87	0.63
6:AG:178:PHE:HB3	6:AG:180:PHE:HE1	1.63	0.63
31:BA:414:A:OP2	31:BA:428:G:N2	2.28	0.63
31:DA:1139:G:H22	31:DA:1143:G:H1	1.44	0.63
33:BF:150:LYS:HE2	33:BF:152:ILE:HD11	1.81	0.63
33:DF:35:GLU:O	33:DF:39:ILE:HG13	1.99	0.63
32:BE:111:ARG:NH1	32:BE:111:ARG:HG2	2.12	0.63
33:DF:70:VAL:HG12	33:DF:72:LYS:H	1.64	0.63
32:DE:82:ARG:HA	32:DE:92:TYR:HE1	1.64	0.63
21:CV:116:VAL:HG12	21:CV:117:LEU:H	1.64	0.63
4:CE:77:ILE:C	4:CE:78:LEU:HG	2.19	0.63
1:CA:305:C:H2'	1:CA:306:G:H5'	1.81	0.63
9:AM:57:ALA:O	9:AM:58:ASP:HB3	1.99	0.63
18:CS:78:GLU:OE1	18:CS:99:ARG:HD3	1.99	0.63
12:AP:77:LYS:HZ2	12:AP:83:MET:HA	1.59	0.63
52:BD:46:G:H2'	52:BD:47:U:H6	1.64	0.63
52:DD:19:C:H6	52:DD:19:C:H3'	1.64	0.63
52:DD:21:A:H4'	52:DD:22:A:OP1	1.99	0.63
3:AD:32:SER:O	3:AD:33:LEU:HB3	1.99	0.63
31:BA:96:G:C6	31:BA:97:U:C2	2.87	0.63
6:AG:173:LEU:O	6:AG:178:PHE:HB2	1.99	0.63
31:BA:1128:C:O2'	31:BA:1130:A:N7	2.25	0.63
28:C6:25:LYS:CD	30:C8:34:TRP:HZ3	2.10	0.63
31:DA:1129:C:C2	31:DA:1132:C:N4	2.66	0.63
17:C2:78:LYS:O	17:C2:79:VAL:HG13	1.99	0.63
31:BA:516:U:OP2	56:BA:1673:OHX:N3	2.31	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1832:C:OP2	3:CD:183:ARG:NH2	2.31	0.63
33:BF:184:TYR:HD1	33:BF:201:TYR:HE2	1.45	0.63
1:AA:806:C:OP2	11:AO:41:ARG:HD3	1.98	0.63
13:A0:18:LEU:HD11	13:A0:22:ARG:CZ	2.28	0.63
41:BN:85:ARG:HG2	41:BN:113:PRO:HD3	1.80	0.63
52:BB:29:C:H2'	52:BB:30:A:C8	2.33	0.63
33:BF:134:ILE:HG22	33:BF:168:ALA:HB3	1.80	0.63
40:DM:79:ARG:O	40:DM:83:GLU:HB2	1.98	0.63
47:BT:53:LEU:HD12	47:BT:53:LEU:H	1.64	0.63
31:BA:1414:U:H2'	31:BA:1415:G:H8	1.64	0.63
4:CE:37:ARG:HD3	4:CE:44:TYR:OH	1.99	0.63
12:CP:16:ARG:C	12:CP:17:LEU:HD23	2.19	0.63
4:CE:199:ARG:HB3	4:CE:200:GLU:OE1	1.99	0.63
12:CP:84:GLY:O	12:CP:85:LYS:HB2	1.98	0.63
52:DD:62:G:N2	52:DD:70:C:N3	2.44	0.63
1:CA:2714:C:C3'	1:CA:2715:U:H5''	2.23	0.63
31:DA:328:C:C2'	31:DA:329:A:OP2	2.47	0.63
16:C1:95:LEU:C	16:C1:97:ASP:H	2.01	0.63
31:DA:1022:G:N3	31:DA:1023:G:H1'	2.13	0.63
7:AH:151:ILE:HB	7:AH:153:LYS:HD3	1.81	0.63
1:AA:1042:G:H2'	1:AA:1043:C:C6	2.34	0.63
1:AA:2733:A:C3'	1:AA:2734:A:H5''	2.28	0.63
5:CF:53:THR:HG22	5:CF:56:GLU:CG	2.28	0.63
6:CG:114:ILE:HD11	6:CG:140:ILE:HD13	1.81	0.63
1:AA:509:C:OP1	56:AA:3450:OHX:N1	2.32	0.63
8:AK:21:VAL:HG21	8:AK:25:TYR:HD1	1.64	0.63
6:AG:145:THR:O	6:AG:146:TYR:HB3	1.99	0.63
43:DP:8:GLU:OE2	43:DP:22:ILE:HA	1.99	0.63
35:DH:10:MET:HG2	35:DH:11:ILE:N	2.13	0.63
8:AK:79:ILE:HB	8:AK:142:VAL:HG12	1.81	0.63
1:CA:1201:G:OP1	16:C1:58:ARG:HD2	1.99	0.63
43:DP:108:ARG:HD3	43:DP:114:ARG:HG2	1.81	0.63
1:AA:974(A):C:H4'	1:AA:975:G:O5'	1.98	0.63
27:A5:3:LYS:CA	27:A5:3:LYS:HE3	2.21	0.62
52:DD:16:C:H2'	52:DD:18:G:OP2	1.99	0.62
52:DD:52:G:H2'	52:DD:53:A:H8	1.63	0.62
52:DB:20:C:H5''	52:DB:22:A:H5'	1.81	0.62
37:DJ:143:ARG:HH11	52:DD:43:G:H5'	1.63	0.62
1:AA:634:C:H2'	1:AA:635:C:C6	2.34	0.62
1:AA:1496:A:H8	1:AA:1577:C:HO2'	0.75	0.62
54:B1:12:A:HO2'	54:B1:13:A:P	2.20	0.62
31:BA:1502:A:H4'	31:BA:1503:A:OP2	1.98	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1557:C:H5''	1:AA:1558:A:OP2	1.98	0.62
4:CE:41:LYS:HE3	4:CE:42:ASP:OD2	1.99	0.62
31:DA:1323:G:H2'	31:DA:1324:A:C8	2.34	0.62
15:AR:23:ARG:NH2	15:AR:120:ARG:HD3	2.14	0.62
43:DP:5:ALA:HB2	43:DP:22:ILE:HD13	1.81	0.62
31:DA:362:G:N7	56:DA:1795:OHX:N1	2.47	0.62
23:AZ:83:GLU:HG2	23:AZ:85:LEU:H	1.64	0.62
31:BA:113:G:H2'	31:BA:114:U:H6	1.64	0.62
23:AZ:65:SER:HB2	23:AZ:66:HIS:HD2	1.63	0.62
11:AO:15:ARG:NH1	11:AO:15:ARG:CG	2.39	0.62
52:BD:54:C:H2'	52:BD:55:U:O4'	1.98	0.62
1:CA:2790:A:OP1	1:CA:2790:A:H3'	1.99	0.62
7:CH:6:ARG:HH21	7:CH:54:ARG:NH2	1.96	0.62
34:DG:112:VAL:HG12	34:DG:116:GLN:OE1	1.99	0.62
52:DB:51:C:N3	52:DB:52:G:H1'	2.13	0.62
1:CA:1107:U:O4'	1:CA:1109:G:H5'	1.98	0.62
31:DA:1505:G:H4'	54:D1:13:A:H62	1.64	0.62
1:CA:2903:G:H4'	1:CA:2904:G:O5'	1.99	0.62
6:AG:112:PRO:HB3	26:A4:37:SER:OG	1.98	0.62
39:DL:92:TYR:HA	39:DL:95:LYS:HD2	1.81	0.62
16:C1:98:LEU:C	16:C1:100:VAL:N	2.53	0.62
2:CB:54:A:H62	14:CQ:33:LYS:HG3	1.63	0.62
1:CA:486:U:H4'	29:C7:40:TRP:CZ3	2.34	0.62
1:CA:1008:G:O2'	1:CA:1009:U:H5'	1.99	0.62
13:A0:12:ARG:CB	13:A0:16:HIS:HD2	2.12	0.62
40:DM:4:ILE:HG12	40:DM:100:THR:HG22	1.81	0.62
31:BA:344:A:O2'	31:BA:345:C:OP1	2.15	0.62
18:AS:57:ASN:O	18:AS:61:ASN:HB2	1.98	0.62
31:DA:1374:A:H2'	31:DA:1375:A:H5'	1.82	0.62
9:CM:15:LEU:HB3	9:CM:136:GLU:HA	1.80	0.62
42:DO:52:VAL:HG22	42:DO:53:ALA:H	1.64	0.62
1:CA:26:G:C6	1:CA:27:G:N1	2.68	0.62
44:DQ:25:VAL:O	44:DQ:26:ARG:CB	2.47	0.62
10:AN:88:ASN:ND2	10:AN:92:GLU:O	2.31	0.62
1:CA:2725:U:O2'	1:CA:2726:A:P	2.57	0.62
6:CG:28:VAL:O	6:CG:31:VAL:HG12	1.99	0.62
1:CA:442:C:O2	1:CA:1896:U:O2'	2.16	0.62
27:C5:49:CYS:SG	27:C5:50:GLY:N	2.72	0.62
31:BA:38:G:C2	31:BA:397:A:C2	2.86	0.62
12:CP:59:ARG:O	12:CP:60:ARG:HD2	1.99	0.62
37:BJ:50:ILE:HG21	37:BJ:58:PRO:HA	1.80	0.62
7:AH:105:LEU:H	7:AH:105:LEU:HD23	1.64	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:400:G:O2'	1:CA:401:U:OP2	2.17	0.62
5:CF:32:LEU:O	5:CF:36:VAL:HG23	1.99	0.62
1:AA:1545(A):A:H2'	1:AA:1546:C:H5'	1.81	0.62
11:CO:64:LYS:O	11:CO:65:ARG:C	2.38	0.62
1:CA:892:C:H42	1:CA:980:G:H1	1.45	0.62
12:CP:133:ARG:O	12:CP:134:ARG:HB2	1.98	0.62
52:BB:20:C:H5''	52:BB:22:A:H5'	1.81	0.62
52:DB:75:C:O2'	52:DB:76:C:P	2.57	0.62
52:BB:75:C:O2'	52:BB:76:C:P	2.57	0.62
31:BA:1132:C:O2'	31:BA:1133:G:H5'	1.98	0.62
1:CA:596:A:H5''	1:CA:597:G:OP2	1.99	0.62
15:CR:55:ASN:N	15:CR:59:THR:HG22	2.14	0.62
6:AG:135:LEU:HD23	6:AG:140:ILE:HD11	1.79	0.62
1:CA:27:G:N2	1:CA:538:G:O2'	2.30	0.62
31:DA:363:A:O2'	31:DA:364:A:H5'	1.99	0.62
1:AA:1368:G:N7	56:AA:3566:OHX:N3	2.47	0.62
1:AA:2141:G:O6	1:AA:2150:U:O2	2.17	0.62
7:CH:104:GLU:HB2	7:CH:114:VAL:HG22	1.81	0.62
21:AV:165:VAL:HB	21:AV:166:SER:HA	1.81	0.62
1:CA:2324:A:C4'	1:CA:2324:A:OP1	2.44	0.62
12:AP:19:GLY:CA	12:AP:98:LYS:NZ	2.58	0.62
1:AA:654(E):C:N4	1:AA:654(P):G:H1	1.98	0.62
1:AA:1537:C:H2'	1:AA:1538:G:O4'	1.99	0.62
43:BP:25:ILE:HD11	43:BP:66:LEU:HD11	1.81	0.62
31:BA:68:G:N2	31:BA:69:G:H1'	2.14	0.62
12:CP:87:LYS:O	12:CP:88:GLY:C	2.37	0.62
31:DA:78:G:H2'	31:DA:79:G:O4'	2.00	0.62
52:BD:11:C:C2'	52:BD:12:C:H5'	2.22	0.62
4:CE:60:ASN:O	4:CE:61:ARG:HB2	1.99	0.62
1:CA:1187:U:H4'	1:CA:1189:A:O4'	1.99	0.62
2:CB:33:C:C2'	2:CB:34:C:H5'	2.29	0.62
20:CU:81:LYS:HG2	20:CU:97:ARG:NE	2.15	0.62
31:BA:629:G:N1	31:BA:630:G:O6	2.32	0.62
1:AA:270(O):U:H2'	1:AA:270(O):U:O2	1.99	0.62
31:DA:345:C:O2	31:DA:346:G:N2	2.32	0.62
1:CA:1304:C:H4'	5:CF:83:PHE:CD2	2.33	0.62
9:CM:134:ARG:O	9:CM:134:ARG:HG2	1.98	0.62
31:BA:353:A:H2'	31:BA:354:G:OP2	1.99	0.62
43:DP:91:ARG:HB2	43:DP:98:VAL:HG12	1.82	0.62
49:DV:80:TYR:CZ	49:DV:82:GLY:HA2	2.34	0.62
31:BA:129(A):G:C2	31:BA:188:U:O2'	2.51	0.62
42:DO:29:PHE:HB3	42:DO:82:ILE:O	1.99	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:145:G:H2'	31:DA:146:G:O4'	1.99	0.62
1:CA:2233:G:O6	56:CA:3275:OHX:N6	2.32	0.62
1:AA:2837:G:H21	13:A0:45:ARG:NH2	1.97	0.62
31:BA:280:C:H3'	31:BA:281:G:H5'	1.82	0.62
21:CV:157:LEU:HA	21:CV:161:VAL:HG11	1.82	0.62
3:CD:206:LEU:HD22	3:CD:211:ARG:HG2	1.81	0.62
48:BU:54:ARG:HD2	48:BU:55:ARG:HH21	1.65	0.62
8:AK:128:LEU:O	8:AK:138:ILE:HG22	1.98	0.62
31:DA:28:G:O2'	31:DA:296:U:OP1	2.18	0.62
53:DC:48:U:H1'	53:DC:49:C:O5'	2.00	0.62
11:CO:16:ARG:NH1	11:CO:16:ARG:HG3	2.15	0.62
15:CR:118:ARG:NH1	31:DA:1446:A:N7	2.47	0.62
1:CA:1147:C:H2'	1:CA:1148:U:O4'	1.99	0.62
33:BF:12:LEU:O	33:BF:14:ILE:N	2.33	0.62
1:AA:1678:G:H22	1:AA:1989:G:H22	1.46	0.62
1:AA:1408:C:C2	1:AA:1595:G:N2	2.68	0.62
1:AA:776:G:OP1	56:AA:3438:OHX:N2	2.32	0.62
31:DA:421:U:O2	31:DA:421:U:H2'	1.99	0.62
5:AF:136:THR:O	5:AF:140:LEU:HB2	1.99	0.62
1:CA:948:A:N3	1:CA:948:A:H2'	2.14	0.62
1:AA:654(S):G:H1'	1:AA:654(T):A:N7	2.15	0.62
11:AO:147:LEU:O	11:AO:148:LEU:HG	2.00	0.62
1:AA:1593:G:H2'	1:AA:1594:G:C8	2.35	0.62
7:CH:69:ARG:NH1	7:CH:73:ALA:HB2	2.14	0.62
50:DW:44:ALA:HB3	50:DW:91:LEU:HD12	1.82	0.62
45:BR:82:ILE:O	45:BR:86:GLY:N	2.32	0.62
1:CA:67:G:H2'	1:CA:68:C:C6	2.35	0.62
31:DA:873:A:H4'	31:DA:874:G:OP2	2.00	0.62
1:CA:2141:U:C4	1:CA:2171:G:H4'	2.34	0.62
1:CA:2154:G:H5'	1:CA:2155:U:OP1	1.99	0.62
1:CA:612:U:H2'	1:CA:613:C:C6	2.34	0.62
31:BA:963:G:H21	40:BM:55:LYS:HZ1	1.45	0.62
1:CA:1071:G:C3'	1:CA:1072:G:H5''	2.29	0.62
31:BA:201:C:N3	31:BA:216:G:N2	2.46	0.62
1:AA:1045:A:H1'	1:AA:1047:G:N3	2.13	0.62
1:CA:2854:G:C2'	1:CA:2855:G:H5''	2.29	0.62
4:CE:41:LYS:HG3	4:CE:42:ASP:N	2.14	0.62
1:CA:161:G:H2'	1:CA:162:C:C6	2.34	0.62
49:BV:36:ARG:NH1	49:BV:52:TYR:O	2.32	0.62
31:BA:437:U:H2'	31:BA:438:G:O4'	1.99	0.62
50:DW:69:GLY:O	50:DW:73:HIS:HD2	1.82	0.62
1:AA:1606:G:H5''	1:AA:1607:C:OP1	1.99	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:509:A:H2'	31:DA:510:A:C8	2.34	0.62
31:BA:618:C:H5''	31:BA:619:U:H5''	1.82	0.62
1:AA:361:G:O2'	1:AA:362:U:H5'	1.99	0.62
31:DA:17:U:H2'	31:DA:18:C:C6	2.34	0.62
44:DQ:45:ARG:O	44:DQ:49:HIS:HD2	1.83	0.62
31:DA:67:C:H2'	31:DA:68:G:C8	2.35	0.62
1:CA:2407:C:OP1	11:CO:63:PRO:HD2	2.00	0.62
52:DB:49:A:C2	52:DB:50:U:H5''	2.34	0.62
31:BA:1124:G:H1	31:BA:1149:C:H42	1.47	0.62
1:AA:2316:C:H2'	1:AA:2317:C:H6	1.65	0.62
7:AH:151:ILE:O	7:AH:153:LYS:HD2	1.99	0.62
1:AA:2751:G:O2'	1:AA:2752:C:OP1	2.17	0.62
1:CA:724:A:N1	1:CA:850:A:N1	2.47	0.62
17:A2:47:VAL:O	17:A2:48:GLY:O	2.18	0.62
1:CA:2229:G:H3'	1:CA:2230:A:N3	2.13	0.62
31:BA:438:G:H2'	31:BA:494:U:O4	2.00	0.62
38:DK:64:LYS:HG2	38:DK:79:VAL:HG21	1.82	0.62
31:BA:21:G:H2'	31:BA:22:G:C8	2.35	0.62
44:BQ:59:ALA:O	44:BQ:60:SER:HB2	2.00	0.62
3:CD:71:ASP:CG	3:CD:103:ARG:HH22	2.03	0.62
1:CA:878:G:H4'	1:CA:879:G:OP2	1.99	0.62
3:AD:64:ILE:O	3:AD:64:ILE:HG12	1.99	0.62
31:BA:1022:G:H2'	31:BA:1023:G:O4'	1.99	0.62
45:DR:68:ARG:HH11	45:DR:68:ARG:CG	2.07	0.62
42:BO:44:LYS:HE3	54:B1:21:C:OP1	1.99	0.62
31:DA:1306:A:H1'	31:DA:1332:A:C2	2.34	0.62
1:AA:1050:A:H2'	1:AA:1051:G:O4'	2.00	0.62
41:BN:59:TYR:CE2	41:BN:63:LEU:HD11	2.35	0.62
31:BA:1347:G:N2	31:BA:1373:G:H2'	2.14	0.62
4:CE:41:LYS:HG3	4:CE:42:ASP:H	1.65	0.62
8:CK:77:LEU:HD12	8:CK:78:THR:H	1.64	0.62
26:C4:34:GLU:HG2	26:C4:35:VAL:N	2.14	0.62
1:CA:155:C:N4	1:CA:161:G:N1	2.43	0.62
3:CD:271:ILE:O	3:CD:272:ALA:HB2	2.00	0.62
32:DE:178:ARG:HB2	32:DE:178:ARG:HH11	1.64	0.62
1:CA:991:A:OP2	1:CA:991:A:H4'	1.98	0.62
31:DA:1033:G:H2'	31:DA:1034:G:O4'	1.99	0.62
32:DE:237:ALA:H	32:DE:239:VAL:HG23	1.63	0.62
1:AA:2638:G:P	4:AE:82:ARG:NH2	2.73	0.62
11:AO:11:GLY:C	11:AO:13:ASN:H	2.01	0.62
14:CQ:77:ALA:HB1	14:CQ:82:ILE:HD12	1.79	0.62
1:AA:306:U:O2	1:AA:312:G:N2	2.33	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:BJ:115:ARG:O	37:BJ:118:VAL:HG12	1.99	0.62
32:DE:155:LEU:HD12	32:DE:157:ARG:H	1.65	0.62
18:CS:51:LEU:HD22	18:CS:51:LEU:O	2.00	0.62
21:AV:97:GLU:HA	21:AV:126:VAL:O	1.99	0.62
21:AV:105:VAL:HG13	21:AV:140:ASP:HB3	1.81	0.62
1:CA:2320:G:O2'	1:CA:2321:G:C8	2.53	0.62
1:CA:2440:C:H5''	1:CA:2441:G:OP1	1.99	0.62
52:BB:49:A:C2	52:BB:50:U:H5''	2.34	0.62
31:BA:1296:C:H4'	31:BA:1302:U:C5	2.35	0.62
31:BA:976:G:OP1	44:BQ:32:SER:N	2.33	0.62
16:C1:91:ASP:O	16:C1:92:ARG:HG3	2.00	0.62
31:BA:87:A:H4'	31:BA:87:A:OP1	2.00	0.62
6:CG:60:LEU:HD21	6:CG:92:VAL:HG11	1.82	0.62
37:DJ:43:PHE:CD1	37:DJ:47:CYS:HB2	2.35	0.62
12:CP:56:ARG:NH2	52:DB:62:G:H4'	2.14	0.62
49:DV:78:ARG:N	49:DV:78:ARG:HD3	2.14	0.62
1:AA:1309:G:N7	56:AA:3449:OHX:N2	2.48	0.62
1:CA:2847:U:H2'	1:CA:2848:G:C8	2.34	0.62
1:AA:2857:G:N2	1:AA:2860:A:OP2	2.30	0.62
31:BA:659:U:H2'	31:BA:660:G:H8	1.64	0.62
1:CA:1890:G:N7	56:CA:3487:OHX:N4	2.48	0.62
1:AA:270(T):G:OP1	23:AZ:97:LEU:HD22	2.00	0.62
40:BM:46:ARG:HG2	40:BM:64:GLU:HB3	1.82	0.62
31:BA:147:G:C2	31:BA:176:C:O2	2.53	0.62
1:AA:1061:U:O3'	1:AA:1070:A:H4'	2.00	0.62
52:BD:21:A:H4'	52:BD:22:A:OP1	1.99	0.62
1:CA:1271:C:O3'	17:C2:85:LYS:HD3	2.00	0.62
31:BA:1026:G:C5	31:BA:1036:G:N2	2.68	0.62
52:BD:25:G:H2'	52:BD:26:G:O4'	2.00	0.62
39:DL:99:LEU:HB3	39:DL:101:PHE:HE1	1.65	0.62
1:CA:1701:G:C6	13:C0:9:LYS:HG3	2.35	0.62
6:CG:36:LYS:HD2	6:CG:95:ARG:HH12	1.65	0.62
49:DV:12:ASP:HB3	49:DV:38:SER:HB3	1.81	0.62
1:AA:1728:G:C2	1:AA:1730:U:OP2	2.53	0.62
6:AG:97:ASP:O	6:AG:100:TRP:N	2.33	0.62
48:DU:22:VAL:O	48:DU:23:LYS:HB3	1.99	0.62
3:AD:77:ALA:HB2	3:AD:97:TYR:CD2	2.35	0.62
31:DA:1226:C:H4'	49:DV:80:TYR:OH	2.00	0.62
2:CB:107:A:H2'	2:CB:108:G:O4'	2.00	0.62
33:BF:189:ALA:HB3	33:BF:196:LEU:HB2	1.80	0.62
1:AA:1579:A:H2'	1:AA:1580:A:C8	2.35	0.62
31:BA:1403:C:H1'	31:BA:1500:A:N1	2.15	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CG:128:ARG:HG3	6:CG:128:ARG:HH21	1.65	0.62
48:BU:88:LYS:HB3	48:BU:88:LYS:NZ	2.13	0.62
1:AA:2154:G:H2'	1:AA:2155:G:C8	2.34	0.61
1:CA:895:U:O4	1:CA:979:A:C6	2.53	0.61
1:CA:1132:A:C4'	1:CA:1133:A:OP1	2.48	0.61
52:DD:46:G:H2'	52:DD:47:U:C6	2.35	0.61
11:CO:105:LEU:O	11:CO:106:LEU:HB3	2.00	0.61
1:AA:1313:U:H2'	1:AA:1610:A:N1	2.14	0.61
17:C2:85:LYS:CG	17:C2:87:HIS:H	2.02	0.61
1:CA:2433:C:OP2	30:C8:33:ASN:HB2	1.99	0.61
1:CA:355:A:C2	1:CA:1256:A:O2'	2.47	0.61
2:CB:34:C:H42	2:CB:52:G:H1	1.47	0.61
1:AA:1417:C:H42	1:AA:1581:G:H1	1.48	0.61
9:AM:22:THR:HG22	9:AM:23:LEU:H	1.62	0.61
31:DA:1027:C:N3	31:DA:1035:A:N6	2.48	0.61
40:DM:37:PRO:HA	40:DM:72:VAL:HG22	1.82	0.61
35:DH:8:GLU:HG2	35:DH:34:VAL:HG23	1.82	0.61
14:AQ:37:ALA:HB2	14:AQ:101:LEU:HD21	1.82	0.61
1:AA:1858:G:O6	56:AA:3559:OHX:N6	2.33	0.61
20:CU:50:ARG:HB3	20:CU:53:PRO:HG3	1.81	0.61
10:AN:43:VAL:HG12	10:AN:54:GLU:HA	1.81	0.61
1:AA:1991:U:H2'	1:AA:1992:G:H5''	1.82	0.61
7:CH:166:GLY:O	7:CH:167:GLU:HG2	2.01	0.61
1:CA:1102:G:O6	1:CA:1151:C:N3	2.33	0.61
52:BB:23:A:H2'	52:BB:24:G:C5'	2.30	0.61
31:DA:1118:C:OP1	39:DL:104:ARG:NH1	2.33	0.61
31:BA:73:G:C6	31:BA:97:U:O2	2.53	0.61
1:CA:2358:G:N3	1:CA:2394:C:H2'	2.15	0.61
14:CQ:110:LEU:HD22	14:CQ:111:GLU:N	2.15	0.61
1:CA:2452:A:P	1:CA:2452:A:H3'	2.40	0.61
1:AA:2344:U:O2'	28:A6:37:ARG:HG2	1.99	0.61
43:BP:81:LEU:O	43:BP:84:ILE:HG22	1.99	0.61
2:CB:42:U:C6	26:C4:1:MET:HE2	2.35	0.61
31:BA:192:U:O3'	50:BW:57:ARG:HD2	2.00	0.61
31:DA:1095:U:H5''	31:DA:1109:C:O2	1.99	0.61
15:CR:107:ASP:OD2	15:CR:109:GLU:HB2	2.01	0.61
31:DA:1149:C:H2'	31:DA:1150:U:O4'	2.00	0.61
15:AR:62:THR:HG22	15:AR:75:ILE:HG12	1.82	0.61
27:C5:41:PRO:O	27:C5:44:THR:OG1	2.18	0.61
1:CA:1200:C:H2'	1:CA:1201:G:O4'	2.00	0.61
36:BI:39:LYS:HB3	36:BI:62:TRP:HZ3	1.65	0.61
1:CA:2524:U:OP1	56:CA:3399:OHX:N2	2.33	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:AE:117:MET:CE	4:AE:136:ARG:HA	2.29	0.61
5:CF:167:ALA:HB1	5:CF:173:VAL:HG11	1.82	0.61
1:AA:2124:G:H1	1:AA:2174:C:N4	1.98	0.61
52:BD:19:C:H6	52:BD:19:C:H3'	1.66	0.61
52:BD:14:A:C3'	52:BD:15:G:H5''	2.25	0.61
31:BA:1124:G:O2'	40:BM:38:ILE:HD12	1.99	0.61
20:CU:84:ARG:HH21	20:CU:97:ARG:HB2	1.65	0.61
1:CA:660:C:H2'	1:CA:661:C:H6	1.64	0.61
43:DP:3:ARG:HG2	43:DP:9:ILE:CG1	2.30	0.61
22:C3:66:VAL:HG12	22:C3:67:VAL:N	2.15	0.61
1:AA:507:A:C5'	1:AA:508:G:H5'	2.30	0.61
49:BV:51:VAL:HG12	49:BV:52:TYR:N	2.15	0.61
31:BA:1116:C:H2'	31:BA:1117:G:H5'	1.81	0.61
1:CA:1767:G:N7	1:CA:1770:G:N2	2.47	0.61
40:BM:26:ALA:O	40:BM:30:SER:OG	2.12	0.61
18:AS:28:SER:OG	18:AS:31:GLU:HG2	2.00	0.61
1:CA:2891:C:H1'	13:C0:92:GLY:HA3	1.81	0.61
9:AM:56:ASN:N	9:AM:125:GLY:O	2.30	0.61
31:DA:243:A:H1'	31:DA:244:U:OP2	2.00	0.61
18:CS:64:MET:HE3	18:CS:109:GLU:HG3	1.81	0.61
1:AA:539:G:H2'	1:AA:540:G:H5''	1.82	0.61
11:CO:61:ARG:CA	11:CO:62:LEU:HD22	2.30	0.61
1:AA:2162:G:H2'	1:AA:2163:C:O4'	2.00	0.61
11:CO:59:LEU:O	11:CO:59:LEU:HD23	1.99	0.61
52:BB:26:G:H5'	52:BB:27:A:OP2	2.00	0.61
1:AA:1291:C:C5'	1:AA:1536:A:H5'	2.31	0.61
12:AP:87:LYS:O	12:AP:88:GLY:C	2.38	0.61
31:BA:95:G:H3'	31:BA:96:G:C8	2.35	0.61
52:DB:55:U:H2'	52:DB:56:U:O4'	2.00	0.61
1:CA:1110:G:H2'	1:CA:1111:C:O4'	2.00	0.61
3:CD:31:LYS:HE2	3:CD:94:LEU:HD11	1.81	0.61
1:CA:9:U:C4	1:CA:2642:A:C6	2.88	0.61
19:CT:12:VAL:HG12	19:CT:28:PHE:HA	1.83	0.61
31:DA:7:G:H5'	31:DA:298:A:O4'	1.99	0.61
18:AS:40:ASN:O	18:AS:41:LYS:HG2	2.00	0.61
1:CA:33:U:H4'	1:CA:34:C:OP1	2.00	0.61
1:AA:1794:U:H2'	1:AA:1795:C:H6	1.63	0.61
52:BD:57:C:H4'	52:BD:58:G:O5'	1.99	0.61
34:DG:7:PRO:HB2	34:DG:10:ARG:HD2	1.82	0.61
31:DA:1446:A:OP1	31:DA:1446:A:H4'	2.00	0.61
31:DA:993:G:O6	31:DA:1045:C:N3	2.33	0.61
1:AA:2317:C:H2'	1:AA:2318:G:C5'	2.27	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:A1:69:CYS:O	16:A1:74:LEU:HD12	2.00	0.61
39:DL:28:VAL:HA	39:DL:63:ILE:O	2.01	0.61
7:AH:149:ARG:HG3	7:AH:162:ILE:O	2.01	0.61
1:AA:1496:A:H5'	1:AA:1497:U:OP1	2.00	0.61
54:B1:11:U:H2'	54:B1:12:A:C4	2.36	0.61
38:DK:109:ILE:HG12	38:DK:110:ALA:N	2.16	0.61
4:CE:9:VAL:HG23	4:CE:10:GLY:H	1.66	0.61
52:DB:23:A:H2'	52:DB:24:G:C5'	2.29	0.61
1:AA:481:G:H1'	1:AA:507:A:N1	2.14	0.61
31:BA:827:U:H5'	31:BA:828:A:OP2	2.01	0.61
32:DE:97:TRP:HZ3	32:DE:99:GLY:HA2	1.65	0.61
31:BA:377:G:H5'	46:BS:5:ARG:HH12	1.66	0.61
3:CD:186:HIS:HD2	3:CD:188:GLU:H	1.48	0.61
1:CA:2525:C:H2'	1:CA:2526:G:O4'	2.01	0.61
24:CW:16:LEU:O	24:CW:16:LEU:HD12	2.00	0.61
10:CN:35:VAL:HG11	10:CN:103:ALA:HB3	1.80	0.61
1:CA:985:G:O6	56:CA:3351:OHX:N3	2.33	0.61
1:CA:2550:U:H2'	1:CA:2551:C:C6	2.35	0.61
1:AA:2865:U:C4	1:AA:2866:U:C4	2.88	0.61
18:CS:15:ARG:O	18:CS:19:LEU:HD22	2.00	0.61
37:DJ:97:GLN:O	37:DJ:101:LEU:HG	2.01	0.61
1:AA:1932:A:OP2	56:AA:3154:OHX:N3	2.34	0.61
14:AQ:48:LEU:HD23	14:AQ:82:ILE:HD11	1.81	0.61
31:DA:1460:A:H2'	31:DA:1461:G:O4'	2.00	0.61
1:AA:896:A:O2'	1:AA:897:C:OP2	2.15	0.61
1:AA:1534:G:N2	1:AA:1537:C:H42	1.98	0.61
34:BG:19:LEU:CD2	34:BG:19:LEU:H	2.10	0.61
28:A6:47:THR:HG22	28:A6:48:VAL:H	1.66	0.61
17:A2:38:LEU:HD23	17:A2:39:LEU:N	2.15	0.61
39:DL:26:VAL:HG22	39:DL:61:ALA:HB3	1.82	0.61
1:AA:910:A:C8	12:AP:13:GLN:HG3	2.35	0.61
21:CV:11:GLU:CD	21:CV:12:GLY:H	2.04	0.61
15:AR:27:THR:HG23	15:AR:90:GLN:HB3	1.81	0.61
33:BF:184:TYR:HD1	33:BF:201:TYR:CE2	2.18	0.61
34:DG:126:ILE:HG22	34:DG:127:THR:N	2.15	0.61
31:BA:405:U:H3'	31:BA:406:G:H5'	1.83	0.61
31:DA:838:G:N1	31:DA:842:C:H1'	2.15	0.61
31:DA:1310:G:H5'	43:DP:77:ASN:ND2	2.14	0.61
1:AA:654(R):C:N4	1:AA:654(S):G:O6	2.34	0.61
7:CH:15:VAL:HG12	7:CH:29:PRO:HD2	1.81	0.61
18:CS:12:ILE:HD13	18:CS:17:VAL:HG23	1.81	0.61
31:DA:656:C:H42	31:DA:750:G:H1	1.47	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CG:119:GLY:HA3	6:CG:180:PHE:C	2.21	0.61
37:BJ:56:GLN:HE21	37:BJ:56:GLN:HA	1.65	0.61
32:DE:12:GLU:HB3	32:DE:213:LEU:HD13	1.81	0.61
1:CA:2214:G:H2'	1:CA:2215:G:O4'	2.00	0.61
20:CU:30:VAL:O	20:CU:31:LEU:HG	2.01	0.61
36:DI:45:LEU:HD21	36:DI:57:GLN:NE2	2.15	0.61
6:CG:18:GLU:O	6:CG:22:ARG:HG2	2.01	0.61
1:CA:2415:C:H41	1:CA:2429:C:H1'	1.65	0.61
53:BC:47:G:H5''	53:BC:48:U:OP1	2.00	0.61
1:AA:654(D):G:N1	1:AA:654(Q):C:N4	2.23	0.61
1:CA:2765:G:H5'	1:CA:2766:C:OP2	2.01	0.61
31:BA:1306:A:N6	31:BA:1331:G:H1'	2.16	0.61
31:BA:1023:G:H3'	31:BA:1024:G:C5'	2.30	0.61
21:AV:7:ALA:HB2	21:AV:59:LEU:HD22	1.83	0.61
1:AA:1899:G:H21	1:AA:1902:C:H5	1.46	0.61
1:AA:2701:C:C3'	1:AA:2702:U:H5''	2.27	0.61
49:DV:66:MET:N	49:DV:67:VAL:HB	2.15	0.61
34:DG:150:GLU:C	34:DG:152:SER:H	2.04	0.61
1:CA:2085:A:C6	1:CA:2516:A:N6	2.67	0.61
43:DP:92:HIS:CE1	43:DP:98:VAL:HG11	2.34	0.61
32:DE:190:THR:O	32:DE:191:ASP:HB3	2.00	0.61
31:BA:960:U:O2	31:BA:960:U:H2'	1.99	0.61
31:DA:827:U:H3	31:DA:872:A:H62	1.49	0.61
1:CA:514:C:C2'	1:CA:515:G:H5'	2.31	0.61
40:BM:9:ARG:NH2	40:BM:97:GLU:HG3	2.16	0.61
1:CA:616:G:H21	30:C8:4:MET:HE1	1.65	0.61
1:AA:592:G:H21	30:A8:4:MET:HE1	1.64	0.61
1:AA:205:G:O2'	1:AA:206:U:OP2	2.17	0.61
1:CA:299:G:H2'	1:CA:300:G:C8	2.35	0.61
37:BJ:150:ALA:HB2	41:BN:50:TYR:HE1	1.65	0.61
1:AA:15:G:O2'	1:AA:16:G:H5'	2.00	0.61
1:AA:2015:A:C4'	27:A5:2:ALA:CB	2.78	0.61
1:AA:1057:A:H2'	1:AA:1058:U:C6	2.36	0.61
11:CO:71:VAL:CG1	11:CO:72:PRO:CD	2.57	0.61
53:BC:48:U:H1'	53:BC:49:C:O5'	2.00	0.61
53:DC:16:C:O2	53:DC:61:U:H4'	2.00	0.61
1:AA:2126:A:N6	1:AA:2163:C:O2'	2.34	0.61
52:DD:57:C:H4'	52:DD:58:G:O5'	1.99	0.61
31:DA:1004:A:C2	31:DA:1024:G:C8	2.89	0.61
1:AA:546:C:H5'	1:AA:547:A:OP2	2.01	0.61
1:AA:2875:C:O2'	15:AR:5:ALA:HB3	2.01	0.61
1:AA:414:C:H1'	1:AA:1864:U:H1'	1.83	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:2140:C:N4	1:AA:2151:G:H1	1.98	0.61
9:AM:47:ALA:HB2	9:AM:112:LEU:HD11	1.83	0.61
33:BF:95:THR:HG22	33:BF:97:LYS:H	1.65	0.61
33:BF:130:VAL:O	33:BF:134:ILE:HG12	2.01	0.61
1:AA:121:G:N7	56:AA:3513:OHX:N3	2.49	0.61
8:CK:5:LEU:HD21	8:CK:12:LEU:HD23	1.82	0.61
31:DA:177:C:H2'	31:DA:178:C:H6	1.64	0.61
38:BK:102:ARG:O	38:BK:102:ARG:HG2	2.00	0.61
1:AA:513:A:OP1	56:AA:3430:OHX:N4	2.33	0.61
1:AA:2292:C:O2'	1:AA:2293:C:H5'	2.01	0.61
31:BA:510:A:OP2	34:BG:49:ARG:NH2	2.33	0.61
1:AA:1060:U:H5'	1:AA:1061:U:H5	1.64	0.61
1:AA:2168:G:N2	1:AA:2170:A:N6	2.48	0.61
52:BD:51:C:C4	52:BD:52:G:H1'	2.36	0.61
1:CA:2166:C:N4	1:CA:2171:G:N1	2.23	0.61
1:AA:2402:C:OP1	1:AA:2402:C:H4'	2.01	0.61
31:DA:1160:G:H1	31:DA:1177:G:H21	1.45	0.61
1:AA:2688:U:H5	1:AA:2720:U:OP2	1.82	0.61
1:CA:470:A:OP2	1:CA:640:G:N2	2.30	0.61
50:BW:26:ASN:N	50:BW:26:ASN:HD22	1.98	0.61
1:CA:1389:A:N6	1:CA:1649:U:N3	2.48	0.61
1:CA:347:A:OP2	5:CF:169:ASN:HB2	2.00	0.61
1:CA:722:G:P	5:CF:54:ARG:HH22	2.22	0.61
1:AA:1478:G:H2'	1:AA:1479:G:H8	1.66	0.61
23:CZ:91:LYS:O	23:CZ:93:GLU:HG2	2.01	0.61
1:AA:302:C:H2'	1:AA:303:U:C6	2.34	0.61
21:AV:127:LYS:O	21:AV:161:VAL:HG21	1.99	0.61
31:DA:913:A:H1'	31:DA:914:A:OP2	2.00	0.61
9:CM:35:ARG:HB2	9:CM:42:TRP:CH2	2.36	0.61
52:BD:1:G:C2	52:BD:82:A:C2	2.88	0.61
1:AA:1382:G:C2'	1:AA:1383:C:H5'	2.31	0.61
24:AW:22:GLU:OE2	24:AW:68:ARG:NH2	2.34	0.61
31:DA:359:U:H2'	31:DA:360:A:C8	2.35	0.61
31:DA:186(E):C:H42	31:DA:191(B):G:H1	1.47	0.61
21:CV:16:SER:O	21:CV:20:ARG:HG3	2.01	0.61
31:BA:950:U:H2'	31:BA:951:G:H8	1.66	0.61
1:CA:218:A:H2'	1:CA:220:U:O4'	2.01	0.61
31:BA:792:A:N3	31:BA:794:A:N6	2.48	0.61
1:CA:2152:C:C4	1:CA:2153:U:C4	2.88	0.61
31:BA:1364:U:HO2'	31:BA:1365:G:P	2.23	0.61
3:CD:65:ILE:HD11	3:CD:67:PHE:CE2	2.35	0.61
1:CA:10:G:C6	1:CA:2642:A:N6	2.69	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:AO:50:ARG:HD3	30:A8:7:HIS:CD2	2.36	0.61
1:AA:637:A:H4'	1:AA:638:G:O5'	1.99	0.61
19:CT:12:VAL:CG1	19:CT:28:PHE:HA	2.31	0.61
31:BA:1149:C:H2'	31:BA:1150:U:C6	2.35	0.61
15:CR:60:THR:HG22	15:CR:77:PRO:HA	1.83	0.61
47:DT:68:ARG:H	47:DT:70:ARG:HH11	1.48	0.61
1:CA:2103:G:O2'	1:CA:2104:C:H5'	2.01	0.61
4:CE:197:ILE:HD11	4:CE:199:ARG:HG3	1.81	0.61
1:AA:1545(A):A:H2'	1:AA:1546:C:C5'	2.31	0.61
31:DA:861:G:H2'	31:DA:862:C:H6	1.66	0.61
10:AN:87:ILE:HD12	10:AN:91:LEU:HA	1.83	0.61
1:CA:729:G:OP2	56:CA:3300:OHX:N5	2.33	0.61
1:AA:989:G:N7	25:AX:13:ILE:HD11	2.16	0.61
11:AO:19:VAL:HG23	11:AO:27:HIS:HB3	0.69	0.60
39:DL:43:ALA:HA	39:DL:74:ILE:HG21	1.82	0.60
31:DA:77:C:H2'	31:DA:78:G:H5'	1.83	0.60
12:CP:78:PRO:O	12:CP:79:LEU:O	2.19	0.60
31:BA:411:A:C6	31:BA:429:U:C4	2.88	0.60
1:CA:992:G:O2'	1:CA:993:G:H5'	2.00	0.60
30:C8:14:VAL:HG12	30:C8:15:LYS:N	2.16	0.60
1:AA:558:G:OP1	9:AM:111:PRO:HD2	2.00	0.60
31:DA:455:C:N4	31:DA:477:G:H1	1.99	0.60
1:CA:1339:U:H2'	1:CA:1340:C:H6	1.66	0.60
33:BF:35:GLU:O	33:BF:39:ILE:HG13	2.01	0.60
1:AA:2680:C:H5'	4:AE:189:PRO:HA	1.83	0.60
2:AB:50:G:OP1	14:AQ:63:THR:HG23	2.02	0.60
37:BJ:107:ALA:HB3	37:BJ:134:ALA:HB2	1.82	0.60
1:AA:2788:C:O2'	1:AA:2809:A:N3	2.32	0.60
31:DA:129(A):G:C6	31:DA:188:U:H4'	2.36	0.60
1:AA:2199:A:H3'	1:AA:2205:C:H6	1.64	0.60
31:DA:1499:A:H1'	31:DA:1520:G:H5'	1.83	0.60
31:BA:615:C:C2	31:BA:616:G:C8	2.89	0.60
1:AA:1084:A:H8	1:AA:1105:U:O2'	1.83	0.60
1:CA:1132:A:H4'	1:CA:1133:A:OP1	2.01	0.60
1:CA:1089:G:H2'	1:CA:1090:C:C6	2.36	0.60
31:BA:978:A:OP2	31:BA:1362(A):C:N4	2.32	0.60
31:BA:1004:A:C5'	31:BA:1025:U:N3	2.62	0.60
52:DB:46:G:C2'	52:DB:47:U:H5'	2.31	0.60
26:C4:22:ILE:H	26:C4:22:ILE:HD13	1.67	0.60
31:DA:1503:A:N6	54:D1:12:A:C4	2.69	0.60
12:AP:51:ARG:O	12:AP:55:VAL:HG12	2.01	0.60
3:CD:30:GLU:HG3	3:CD:63:ARG:CZ	2.32	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:BW:26:ASN:H	50:BW:26:ASN:HD22	1.49	0.60
1:AA:1026:U:C4'	1:AA:1027:A:OP1	2.49	0.60
20:CU:76:CYS:CB	20:CU:96:ILE:HD11	2.30	0.60
1:CA:656:G:OP2	30:C8:15:LYS:NZ	2.29	0.60
27:A5:58:LEU:HD22	27:A5:60:VAL:HG12	1.82	0.60
31:DA:384:G:H2'	31:DA:385:C:C6	2.35	0.60
38:BK:87:SER:HB2	38:BK:93:VAL:HB	1.83	0.60
1:AA:2199:A:H5'	23:AZ:50:ARG:HH21	1.65	0.60
1:AA:1474:C:H2'	1:AA:1475:G:H8	1.66	0.60
21:CV:94:GLU:O	21:CV:130:PRO:HD3	2.01	0.60
1:CA:908:U:H2'	1:CA:909:A:H8	1.65	0.60
42:DO:79:VAL:HB	42:DO:102:TYR:HB3	1.83	0.60
1:AA:943:U:OP2	11:AO:36:LYS:HG3	2.00	0.60
7:AH:25:LYS:HG2	7:AH:34:GLU:HG2	1.82	0.60
31:BA:792:A:H2'	31:BA:792:A:N3	2.16	0.60
1:AA:1312:U:H1'	1:AA:1313:U:OP2	2.00	0.60
52:DD:23:A:H3'	52:DD:24:G:C8	2.31	0.60
1:AA:1043:C:H2'	1:AA:1044:G:H5'	1.83	0.60
1:AA:1111:A:H4'	7:AH:3:ARG:HH11	1.66	0.60
31:DA:1240:U:O2'	31:DA:1241:G:OP1	2.14	0.60
21:AV:9:TYR:CE1	21:AV:35:ARG:HD3	2.36	0.60
39:BL:59:PHE:HZ	39:BL:88:TYR:HE1	1.49	0.60
31:DA:1064:G:N2	31:DA:1190:G:H2'	2.17	0.60
1:CA:1626:U:H2'	1:CA:1627:A:H5'	1.82	0.60
13:C0:13:HIS:CE1	13:C0:15:SER:HB3	2.35	0.60
21:CV:107:THR:H	21:CV:108:PRO:HD2	1.67	0.60
1:AA:271(B):G:H4'	1:AA:271(C):U:C5'	2.32	0.60
31:DA:972:C:H4'	40:DM:57:LYS:HB2	1.83	0.60
42:DO:38:ARG:HH12	42:DO:40:VAL:HG22	1.67	0.60
1:AA:654:A:N3	1:AA:654:A:H2'	2.16	0.60
31:DA:1337:G:H5''	31:DA:1338:G:OP1	2.01	0.60
13:C0:21:TYR:CZ	13:C0:43:GLU:HG2	2.36	0.60
20:CU:14:LEU:HD11	20:CU:22:GLY:HA2	1.82	0.60
1:AA:1945:G:OP1	56:AA:3368:OHX:N2	2.34	0.60
8:AK:78:THR:HG22	8:AK:141:LYS:HB3	1.82	0.60
1:CA:2872:G:N7	56:CA:3236:OHX:N6	2.49	0.60
1:CA:1107:U:C2	1:CA:1135:A:H8	2.20	0.60
3:CD:35:LYS:HE3	3:CD:64:ILE:O	2.00	0.60
1:CA:2701:U:H3'	1:CA:2701:U:O2	2.00	0.60
16:A1:92:ARG:HB3	17:A2:11:GLN:NE2	2.16	0.60
2:CB:15:A:H5''	2:CB:17:A:N6	2.16	0.60
31:DA:575:G:HO2'	31:DA:821:G:H5'	1.66	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1003:G:H1	31:DA:1037:C:H42	1.48	0.60
1:AA:1359:A:C2	1:AA:1372:U:O4	2.55	0.60
2:CB:42:U:H1'	2:CB:47:A:N6	2.17	0.60
41:DN:93:GLN:HE21	41:DN:93:GLN:HA	1.66	0.60
31:BA:1281:U:H4'	31:BA:1282:C:OP2	2.02	0.60
44:DQ:21:TYR:HE2	44:DQ:23:ARG:HH21	1.49	0.60
12:AP:37:LEU:HD21	12:AP:130:LYS:HE3	1.82	0.60
41:BN:91:ARG:NH2	48:BU:88:LYS:HE3	2.17	0.60
33:DF:130:VAL:O	33:DF:134:ILE:HG12	2.01	0.60
1:AA:2257:U:O2'	1:AA:2258:C:H5'	2.02	0.60
1:CA:2787:C:OP1	4:CE:166:THR:OG1	2.20	0.60
53:BC:54:G:H2'	53:BC:55:U:H6	1.66	0.60
1:CA:2251:G:N3	1:CA:2251:G:H2'	2.16	0.60
1:AA:1060:U:H5'	1:AA:1061:U:C5	2.37	0.60
52:BD:47:U:C2	52:BD:48:C:C5	2.90	0.60
1:CA:2765:G:C6	7:CH:2:SER:HB3	2.35	0.60
1:AA:1210:A:H4'	1:AA:1211:U:O5'	2.01	0.60
1:AA:628:G:H2'	1:AA:629:G:H8	1.66	0.60
15:AR:54:ARG:HA	15:AR:59:THR:HG22	1.83	0.60
31:BA:324:G:N7	56:BA:1795:OHX:N3	2.49	0.60
32:BE:163:PHE:CD2	32:BE:185:ILE:HG13	2.36	0.60
31:DA:502:G:OP1	42:DO:115:SER:HB3	2.02	0.60
31:DA:1054:C:O2'	31:DA:1055:A:O5'	2.14	0.60
31:BA:871:U:H1'	31:BA:872:A:OP1	2.01	0.60
31:DA:836:G:C6	31:DA:851:G:C6	2.90	0.60
5:AF:123:LEU:HD12	5:AF:124:LEU:N	2.15	0.60
1:CA:2402:G:H5''	1:CA:2403:U:H5'	1.82	0.60
31:DA:1411:C:H2'	31:DA:1412:C:H6	1.64	0.60
1:CA:2725:U:H1'	1:CA:2726:A:C8	2.35	0.60
18:CS:59:VAL:HG23	18:CS:65:LEU:H	1.66	0.60
26:C4:53:GLU:CD	26:C4:58:ARG:HB2	2.22	0.60
1:CA:1173:A:OP1	1:CA:1173:A:H8	1.83	0.60
31:DA:781:A:C3'	31:DA:782:A:H5'	2.31	0.60
31:DA:1151:A:H5'	40:DM:41:PRO:HA	1.83	0.60
40:DM:38:ILE:HB	40:DM:71:LEU:O	2.01	0.60
3:AD:6:PHE:HE1	3:AD:18:VAL:HG23	1.67	0.60
31:DA:577:G:C8	31:DA:816:A:C6	2.90	0.60
41:BN:21:ILE:HG12	41:BN:30:VAL:HG12	1.82	0.60
36:DI:76:ALA:HB1	36:DI:80:ARG:HH21	1.65	0.60
46:BS:38:TYR:CD2	46:BS:38:TYR:N	2.69	0.60
31:DA:128:G:H4'	47:DT:3:LYS:HG2	1.83	0.60
31:BA:983:A:H5''	31:BA:984:C:OP2	2.01	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:AO:66:GLY:HA2	11:AO:68:GLN:HE22	1.65	0.60
1:CA:2762:A:N7	1:CA:2768:U:O4	2.34	0.60
21:AV:6:LYS:O	21:AV:7:ALA:HB2	2.01	0.60
15:AR:102:ILE:HB	15:AR:110:ILE:HD13	1.82	0.60
15:AR:108:ARG:HA	15:AR:111:ARG:HE	1.67	0.60
42:BO:43:LYS:HG2	42:BO:44:LYS:N	2.14	0.60
3:CD:35:LYS:CD	3:CD:104:TYR:CD1	2.80	0.60
50:BW:22:ARG:O	50:BW:26:ASN:ND2	2.34	0.60
30:C8:35:GLN:HE21	30:C8:36:LYS:H	1.48	0.60
1:AA:528:A:H2	1:AA:2043:C:H4'	1.66	0.60
32:BE:185:ILE:CG2	32:BE:199:TYR:HB2	2.30	0.60
31:BA:991:U:O2	31:BA:991:U:H2'	2.01	0.60
31:BA:966:G:O2'	39:BL:127:LYS:O	2.18	0.60
8:CK:75:LEU:HD23	8:CK:76:THR:N	2.17	0.60
1:AA:2629:A:N6	1:AA:2895:U:C2	2.69	0.60
32:DE:28:PHE:CZ	32:DE:189:ASP:HA	2.36	0.60
32:DE:17:PHE:HZ	32:DE:47:THR:HG21	1.67	0.60
31:DA:31:G:H1'	31:DA:32:A:OP1	2.02	0.60
6:AG:99:MET:HG3	6:AG:100:TRP:N	2.16	0.60
33:BF:95:THR:HG22	33:BF:96:GLY:N	2.16	0.60
31:BA:22:G:H2'	31:BA:23:C:C6	2.37	0.60
43:BP:105:THR:OG1	43:BP:106:ASN:N	2.32	0.60
31:DA:793:U:H5'	31:DA:794:A:O5'	2.01	0.60
12:CP:116:GLU:O	12:CP:117:ALA:CB	2.50	0.60
32:BE:233:SER:OG	32:BE:234:PRO:HD2	2.02	0.60
31:DA:539:A:H2'	31:DA:540:G:C8	2.36	0.60
32:BE:32:ILE:HD11	32:BE:40:HIS:CG	2.37	0.60
11:CO:57:THR:O	11:CO:59:LEU:N	2.34	0.60
1:CA:1123:C:H2'	1:CA:1124:A:H5'	1.83	0.60
54:D1:13:A:C2'	54:D1:14:A:OP1	2.49	0.60
1:CA:2452:A:O2'	1:CA:2453:C:OP2	2.17	0.60
3:CD:35:LYS:CG	3:CD:64:ILE:HG12	2.31	0.60
7:AH:86:GLU:O	7:AH:87:LEU:HB2	2.00	0.60
31:DA:1129:C:H4'	31:DA:1130:A:O5'	2.00	0.60
32:DE:7:VAL:O	32:DE:8:LYS:HB2	2.01	0.60
31:DA:1316:G:H22	31:DA:1319:A:P	2.25	0.60
1:CA:15:G:H1	1:CA:551:U:H3	1.49	0.60
1:AA:222:A:H1'	1:AA:223:A:OP1	2.02	0.60
28:A6:23:THR:O	56:A6:101:OHX:N3	2.35	0.60
2:AB:29:A:OP2	14:AQ:32:LEU:HD12	2.01	0.60
31:BA:35:G:H2'	31:BA:36:C:C6	2.36	0.60
3:AD:31:LYS:HE2	3:AD:102:LYS:HD2	1.81	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CD:236:GLY:O	3:CD:237:GLU:C	2.40	0.60
44:BQ:23:ARG:NH1	44:BQ:30:ALA:HB2	2.17	0.60
37:BJ:44:TYR:HA	37:BJ:47:CYS:HB2	1.82	0.60
27:C5:36:CYS:SG	27:C5:49:CYS:HB3	2.42	0.60
3:CD:130:ALA:C	3:CD:131:LEU:HD12	2.21	0.60
15:CR:34:VAL:HG12	15:CR:36:GLU:H	1.67	0.60
7:AH:92:ILE:HG22	7:AH:93:GLY:N	2.16	0.60
1:CA:1640:G:H2'	1:CA:1641:G:C8	2.37	0.60
1:AA:304:G:H2'	1:AA:305:U:C6	2.37	0.60
31:DA:1488:G:H2'	31:DA:1489:G:C8	2.37	0.60
31:DA:182:U:O4	31:DA:223:U:H1'	2.01	0.60
41:BN:34:ASP:HB2	41:BN:35:PRO:HD2	1.82	0.60
48:DU:29:PHE:HD1	48:DU:39:VAL:HG11	1.67	0.60
11:CO:105:LEU:O	11:CO:106:LEU:HB2	2.02	0.60
1:AA:885:C:C2	1:AA:890:A:N6	2.67	0.60
52:BB:23:A:C6	52:BB:24:G:N7	2.70	0.60
20:AU:95:LYS:HE2	20:AU:96:ILE:O	2.02	0.60
50:BW:71:THR:HG22	50:BW:72:LEU:N	2.14	0.60
1:CA:2734:U:N3	1:CA:2884:A:C6	2.69	0.60
16:C1:92:ARG:HD2	16:C1:95:LEU:HD12	1.83	0.60
31:DA:1002:G:H1	31:DA:1038:C:N4	1.97	0.60
1:AA:2636:U:OP1	4:AE:79:ARG:HG3	2.02	0.60
6:CG:99:MET:O	6:CG:103:LEU:HB2	2.02	0.60
22:A3:35:ASN:H	22:A3:35:ASN:ND2	1.97	0.60
1:AA:1264:G:H5'	27:A5:11:THR:HG21	1.83	0.60
4:CE:169:ASN:OD1	4:CE:203:LYS:HB3	2.01	0.60
9:AM:22:THR:CG2	9:AM:23:LEU:N	2.65	0.60
40:DM:99:LYS:HD3	40:DM:100:THR:N	2.15	0.60
3:AD:12:SER:O	3:AD:16:MET:HB2	2.01	0.60
8:AK:33:ARG:HB3	8:AK:35:LEU:HD22	1.81	0.60
37:BJ:84:ASN:O	52:BD:38:MIA:H151	2.01	0.60
15:CR:27:THR:CG2	15:CR:90:GLN:HB3	2.32	0.60
1:CA:1528:G:C2	1:CA:1529:U:O2	2.54	0.60
1:AA:2272:U:H5'	1:AA:2273:A:OP1	2.02	0.60
31:BA:1402:C:H2'	31:BA:1403:C:O4'	2.00	0.60
1:CA:604:C:H2'	1:CA:605:C:H6	1.67	0.60
40:BM:90:LEU:N	40:BM:91:PRO:HD3	2.16	0.60
32:BE:229:VAL:HG12	32:BE:230:VAL:N	2.17	0.60
1:CA:715:U:O2	30:C8:2:PRO:HD2	2.02	0.60
33:BF:83:ARG:O	33:BF:86:VAL:HG22	2.02	0.60
53:BC:24:C:H2'	53:BC:25:U:H6	1.67	0.60
39:BL:50:LEU:HB3	39:BL:55:ALA:O	2.02	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:482:C:N3	1:CA:499:A:H2'	2.16	0.60
31:BA:316:G:C2	31:BA:338:A:C2	2.89	0.60
1:AA:227:A:H5'	11:AO:76:LYS:HE2	1.82	0.60
1:CA:2323:A:N6	6:CG:80:PHE:CE2	2.70	0.60
1:CA:2168:C:H2'	1:CA:2170:G:N2	2.17	0.60
1:CA:2176:G:H2'	1:CA:2177:G:H8	1.67	0.60
31:DA:1178:G:C8	31:DA:1180:A:OP2	2.55	0.60
31:BA:1199:U:H5''	31:BA:1200:C:OP2	2.02	0.60
54:D1:11:U:H2'	54:D1:12:A:C4	2.36	0.60
3:CD:32:SER:HA	3:CD:36:PRO:HD2	1.84	0.60
1:CA:73:A:H5'	1:CA:74:G:O4'	2.01	0.60
52:BB:83:C:H2'	52:BB:84:C:C5'	2.30	0.60
28:A6:41:PRO:HB2	28:A6:44:ARG:NH1	2.16	0.60
18:CS:92:ARG:O	18:CS:93:ALA:HB3	2.02	0.60
4:AE:13:ARG:HH11	4:AE:21:VAL:HG11	1.65	0.60
31:BA:51:A:OP2	31:BA:52:G:H8	1.85	0.60
39:DL:119:ALA:O	39:DL:120:ARG:HB2	2.01	0.60
39:BL:59:PHE:HZ	39:BL:88:TYR:CE1	2.19	0.60
5:CF:178:PRO:HB2	5:CF:201:VAL:HG11	1.84	0.60
1:CA:558:A:O2'	1:CA:559:G:OP1	2.19	0.60
31:DA:1226:C:H4'	49:DV:80:TYR:CZ	2.37	0.60
2:CB:61:A:H2'	2:CB:62:C:O4'	2.02	0.60
31:DA:337:C:H2'	31:DA:338:A:H8	1.66	0.60
31:DA:1518:A:OP1	56:DA:1751:OHX:N2	2.34	0.60
43:DP:94:ARG:O	43:DP:96:LEU:N	2.35	0.60
34:DG:59:ARG:HH22	34:DG:66:ARG:NH1	2.00	0.60
21:CV:99:TYR:HD1	21:CV:123:ASP:HB3	1.65	0.60
42:DO:99:ARG:HB3	42:DO:106:GLY:HA2	1.84	0.60
32:BE:75:LYS:HE3	32:BE:75:LYS:O	2.02	0.60
35:BH:50:GLU:OE2	35:BH:50:GLU:HA	2.02	0.60
31:BA:1513:A:H2'	31:BA:1514:C:C6	2.37	0.60
34:DG:101:LEU:HB2	34:DG:138:TYR:HB3	1.82	0.60
22:A3:49:LYS:N	22:A3:80:HIS:HB3	2.17	0.60
1:CA:790:G:H2'	1:CA:791:G:H8	1.66	0.60
3:AD:145:VAL:HG12	3:AD:146:GLU:O	2.02	0.60
31:BA:963:G:N3	40:BM:55:LYS:NZ	2.49	0.60
31:BA:1160:G:O6	31:BA:1181:G:C6	2.52	0.60
31:BA:1007:C:C2'	31:BA:1008:C:H5''	2.31	0.60
37:DJ:69:VAL:HG22	37:DJ:135:VAL:HG23	1.83	0.60
52:BD:30:A:H61	52:BD:42:U:H3	1.48	0.60
1:AA:529:A:H8	1:AA:530:G:C6	2.20	0.60
1:CA:1584:C:H2'	1:CA:1585:G:C8	2.36	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:C8:22:VAL:H	30:C8:50:LEU:HD13	1.67	0.60
2:AB:43:C:OP1	6:AG:67:LYS:NZ	2.35	0.60
2:AB:104:A:H5'	21:AV:72:ARG:HD3	1.82	0.60
31:BA:142:G:H2'	31:BA:143:A:C8	2.37	0.60
31:BA:173:U:H4'	31:BA:174:C:OP2	2.02	0.60
37:DJ:16:LEU:HD12	39:DL:42:ARG:HA	1.83	0.60
31:DA:1028:C:N3	31:DA:1034:G:N2	2.50	0.60
1:AA:2712:U:O2'	1:AA:2712(A):A:P	2.60	0.60
1:AA:2219:G:H2'	1:AA:2224:G:H5'	1.84	0.60
21:AV:117:LEU:HD13	21:AV:117:LEU:H	1.67	0.60
1:AA:1093:G:H5'	7:AH:170:ARG:HH21	1.67	0.60
1:AA:2468:G:N7	1:AA:2481:G:N3	2.49	0.60
1:AA:2348:U:H4'	28:A6:42:TRP:CD1	2.36	0.60
21:CV:120:ILE:HG13	21:CV:170:THR:HG23	1.84	0.60
1:AA:1385:G:H4'	1:AA:1386:C:OP1	2.01	0.60
5:CF:79:GLY:HA2	5:CF:86:GLY:HA2	1.83	0.60
3:AD:127:VAL:HA	3:AD:193:VAL:HG23	1.83	0.60
1:AA:2016:U:OP1	56:AA:3452:OHX:N5	2.35	0.59
1:CA:954:U:O2'	12:CP:101:ARG:NH2	2.35	0.59
30:C8:28:GLY:O	30:C8:30:ARG:N	2.30	0.59
11:AO:16:ARG:HG3	11:AO:16:ARG:NH1	2.15	0.59
52:BD:69:U:O2'	52:BD:70:C:H5'	2.02	0.59
1:CA:611:C:H4'	1:CA:612:U:O5'	2.02	0.59
1:CA:1158:A:H5'	7:CH:3:ARG:NH1	2.17	0.59
1:CA:491:U:H4'	29:C7:5:TRP:CZ3	2.36	0.59
27:C5:4:HIS:CB	27:C5:5:PRO:HD3	2.21	0.59
52:DB:67:A:N6	52:DB:70:C:H1'	2.17	0.59
31:DA:1503:A:N6	54:D1:12:A:C5	2.70	0.59
16:A1:69:CYS:SG	16:A1:79:PHE:HD1	2.25	0.59
2:CB:17:A:H1'	2:CB:112:G:N7	2.16	0.59
39:DL:5:TYR:HA	39:DL:17:VAL:O	2.02	0.59
31:BA:652:U:C4	31:BA:752:G:N3	2.69	0.59
42:DO:24:LEU:HD21	42:DO:57:LEU:HG	1.84	0.59
31:DA:116:A:H61	31:DA:313:A:H1'	1.67	0.59
1:AA:1178:C:O2'	1:AA:1179:C:C6	2.52	0.59
1:AA:2756:U:H1'	1:AA:2757:A:H5''	1.84	0.59
31:BA:687:A:H1'	31:BA:688:G:OP2	2.02	0.59
1:AA:2480:C:H2'	1:AA:2481:G:H5'	1.83	0.59
18:AS:13:SER:HB3	18:AS:16:LYS:HD2	1.84	0.59
32:BE:16:HIS:CE1	32:BE:213:LEU:HD22	2.37	0.59
21:AV:151:HIS:HD2	21:AV:168:GLU:HA	1.66	0.59
9:CM:95:PRO:O	9:CM:98:VAL:HG22	2.02	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:2110:G:O2'	1:CA:2111:G:H5'	2.02	0.59
35:BH:113:ALA:O	35:BH:115:VAL:HG23	2.01	0.59
1:CA:1365:C:C3'	1:CA:1366:G:H5''	2.32	0.59
41:DN:61:ALA:CB	41:DN:90:GLY:HA3	2.32	0.59
21:CV:15:PRO:HB2	21:CV:19:ARG:NH2	2.17	0.59
1:AA:1959:G:OP1	56:AA:3292:OHX:N5	2.35	0.59
35:BH:147:ASP:HA	35:BH:150:ARG:NH1	2.17	0.59
33:DF:119:ARG:HH22	33:DF:140:ARG:HG2	1.67	0.59
8:CK:72:LEU:O	8:CK:74:ASN:N	2.35	0.59
31:BA:518:C:H4'	31:BA:519:C:O5'	2.02	0.59
1:AA:2105:C:H2'	1:AA:2106:G:H8	1.66	0.59
1:CA:895:U:C2	1:CA:979:A:N6	2.70	0.59
52:DD:69:U:O2'	52:DD:70:C:H5'	2.02	0.59
34:DG:19:LEU:N	34:DG:19:LEU:HD12	2.16	0.59
52:BB:21:A:C8	52:BB:46:G:C8	2.90	0.59
31:DA:1182:G:H4'	31:DA:1183:A:H5''	1.84	0.59
3:AD:69:ARG:HH11	3:AD:105:ILE:HG12	1.67	0.59
3:AD:35:LYS:CG	3:AD:64:ILE:N	2.62	0.59
11:AO:58:THR:HG22	11:AO:61:ARG:HG3	1.83	0.59
3:CD:35:LYS:HD3	3:CD:63:ARG:CB	2.32	0.59
31:DA:993:G:H2'	31:DA:995:C:N4	2.09	0.59
26:A4:38:LYS:N	26:A4:38:LYS:HD2	2.16	0.59
20:AU:78:ALA:HB3	20:AU:81:LYS:NZ	2.17	0.59
1:AA:2371:G:H21	28:A6:46:HIS:HE1	1.48	0.59
31:DA:1305:G:N2	31:DA:1331:G:H2'	2.15	0.59
14:CQ:17:ARG:HG2	14:CQ:17:ARG:HH11	1.65	0.59
1:AA:270(P):C:H2'	1:AA:270(Q):C:C6	2.37	0.59
15:CR:3:ARG:NE	15:CR:6:LEU:HD13	2.16	0.59
31:DA:485:G:N7	56:DA:1731:OHX:N1	2.49	0.59
1:CA:2174:G:H2'	1:CA:2175:G:C8	2.37	0.59
35:BH:12:LEU:HB3	35:BH:31:LEU:HB2	1.84	0.59
31:BA:703:G:H1'	31:BA:704:A:OP2	2.02	0.59
42:DO:5:ASN:HD22	47:DT:34:LYS:HE2	1.67	0.59
1:AA:2468:G:C8	1:AA:2469:A:C2	2.90	0.59
31:DA:182:U:C5	31:DA:183:G:H1'	2.37	0.59
33:BF:113:ALA:HB3	33:BF:114:PRO:HD3	1.83	0.59
50:BW:43:LEU:HD13	50:BW:51:GLU:HB3	1.82	0.59
1:AA:755:C:H2'	1:AA:756:C:C6	2.37	0.59
40:DM:47:PHE:CZ	44:DQ:37:PHE:HE2	2.20	0.59
1:AA:951:C:O2'	1:AA:952:G:H5'	2.01	0.59
1:CA:2368:C:H5'	22:C3:36:ILE:HD11	1.83	0.59
1:CA:1761:U:O2'	1:CA:1762:G:H5'	2.02	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
44:BQ:15:LYS:HG2	44:BQ:16:PHE:CD2	2.37	0.59
31:DA:1474:G:O6	56:DA:1762:OHX:N1	2.35	0.59
1:AA:880:G:N1	1:AA:897:C:N4	2.25	0.59
1:CA:952:U:H2'	1:CA:953:G:H5'	1.84	0.59
30:C8:31:HIS:O	30:C8:32:LEU:C	2.40	0.59
52:DD:54:C:H2'	52:DD:55:U:O4'	2.02	0.59
31:DA:1160:G:N3	31:DA:1160:G:H2'	2.18	0.59
12:CP:19:GLY:HA3	12:CP:98:LYS:NZ	2.17	0.59
1:CA:1068:A:H61	1:CA:1189:A:N6	1.84	0.59
1:CA:1044:G:O2'	1:CA:1045:C:H5'	2.02	0.59
1:CA:1043:A:H61	1:CA:1206:U:H3	1.49	0.59
4:AE:119:ARG:HG2	4:AE:160:TYR:HB2	1.85	0.59
31:DA:468:A:H5''	46:DS:80:PHE:HB3	1.84	0.59
1:AA:2140:C:N3	1:AA:2151:G:N2	2.51	0.59
47:DT:67:LYS:HA	47:DT:70:ARG:HH12	1.66	0.59
31:BA:240:C:H2'	31:BA:241:C:C6	2.37	0.59
38:BK:102:ARG:HE	38:BK:102:ARG:H	1.50	0.59
1:CA:2699:G:C2	1:CA:2738:C:O2	2.55	0.59
1:CA:303:A:C4'	1:CA:304:C:OP1	2.50	0.59
1:CA:272:U:O2'	1:CA:273:U:OP1	2.20	0.59
50:DW:26:ASN:CB	50:DW:71:THR:HG23	2.32	0.59
42:DO:56:ARG:HH11	42:DO:60:GLY:HA2	1.67	0.59
31:DA:1267:C:H2'	31:DA:1267:C:O2	2.03	0.59
10:AN:8:LEU:HD23	10:AN:8:LEU:N	2.17	0.59
1:CA:1875:C:H5'	3:CD:253:GLN:NE2	2.18	0.59
40:DM:5:ARG:HG3	40:DM:73:ASP:OD2	2.02	0.59
33:DF:23:TYR:CD1	40:DM:10:GLY:HA2	2.38	0.59
30:C8:31:HIS:HE1	52:DD:85:A:C2	2.11	0.59
1:CA:2148:G:H22	1:CA:2195:U:P	2.25	0.59
1:AA:2415:G:H4'	11:AO:66:GLY:C	2.21	0.59
1:CA:2290:G:OP1	12:CP:86:GLY:HA2	2.03	0.59
54:D1:11:U:H2'	54:D1:12:A:C6	2.36	0.59
52:BD:28:G:H2'	52:BD:29:C:C6	2.38	0.59
3:CD:35:LYS:HE2	3:CD:104:TYR:HD1	1.67	0.59
1:CA:1069:G:H1'	1:CA:1070:U:OP2	2.02	0.59
31:DA:266:G:H5''	31:DA:267:C:C5	2.38	0.59
1:CA:2734:U:C2	1:CA:2884:A:C2	2.90	0.59
31:DA:1004:A:H2	31:DA:1024:G:C8	2.20	0.59
1:AA:58:G:N2	1:AA:70:G:C4	2.70	0.59
31:BA:531:U:O2	56:BA:1673:OHX:N4	2.36	0.59
1:CA:722:G:OP1	5:CF:54:ARG:NH2	2.31	0.59
40:BM:49:VAL:CG2	44:BQ:41:ARG:HB2	2.32	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:AX:54:VAL:HG22	25:AX:55:ARG:H	1.68	0.59
35:BH:43:LEU:HD21	35:BH:132:ALA:HB1	1.84	0.59
1:AA:2681:C:C1'	1:AA:2682:U:OP2	2.50	0.59
1:AA:2340:G:C2'	1:AA:2341:G:H5'	2.31	0.59
37:BJ:26:PHE:CE2	37:BJ:30:ILE:HD11	2.36	0.59
1:CA:1525:A:H2'	1:CA:1526:G:O4'	2.02	0.59
3:CD:121:PRO:HB3	3:CD:135:PHE:CE1	2.38	0.59
1:CA:387:U:H5'	1:CA:388:G:OP2	2.03	0.59
31:BA:589:C:H2'	31:BA:590:C:H6	1.67	0.59
3:AD:112:GLN:N	3:AD:115:GLN:OE1	2.28	0.59
1:CA:1096:C:H42	7:CH:2:SER:HB2	1.67	0.59
31:BA:1004:A:H8	31:BA:1036:G:N2	2.00	0.59
1:CA:2883:G:C4	1:CA:2884:A:C2	2.91	0.59
1:CA:1444:U:O2'	1:CA:1445:C:OP1	2.19	0.59
7:AH:153:LYS:CB	7:AH:154:PRO:HD2	2.32	0.59
54:B1:12:A:O2'	54:B1:13:A:OP1	2.20	0.59
1:AA:910:A:C4	12:AP:13:GLN:NE2	2.66	0.59
1:CA:1512:C:O2'	1:CA:1575:A:C8	2.55	0.59
38:BK:91:ARG:HH11	38:BK:91:ARG:HG2	1.64	0.59
34:BG:153:ARG:HB3	34:BG:181:MET:SD	2.43	0.59
3:CD:270:ILE:C	3:CD:271:ILE:HG13	2.21	0.59
32:DE:47:THR:O	32:DE:51:LEU:HB2	2.03	0.59
42:DO:23:ALA:O	42:DO:24:LEU:HD22	2.02	0.59
1:AA:1729:A:H8	1:AA:1730:U:C5	2.17	0.59
1:CA:1816:A:H4'	1:CA:1817:A:O5'	2.03	0.59
1:CA:514:C:H2'	1:CA:515:G:H5'	1.84	0.59
1:AA:244:A:H4'	11:AO:74:GLU:HB2	1.85	0.59
2:AB:71:C:C4	2:AB:72:G:N7	2.70	0.59
31:DA:1399:C:H4'	31:DA:1400:C:O5'	2.02	0.59
1:AA:1095:A:H2'	1:AA:1095:A:N3	2.17	0.59
1:AA:654(I):C:H3'	1:AA:654(I):C:O2	2.02	0.59
1:CA:2192:A:N3	1:CA:2192:A:H3'	2.18	0.59
11:CO:97:PRO:HG3	11:CO:112:LEU:CG	2.33	0.59
43:BP:70:LEU:O	43:BP:74:VAL:HG23	2.02	0.59
31:DA:1442:G:N7	31:DA:1446:A:N1	2.50	0.59
1:CA:1118:G:H1'	1:CA:1136:G:H3'	1.84	0.59
38:BK:60:ARG:NH1	38:BK:60:ARG:HG3	2.02	0.59
31:BA:990:C:H2'	31:BA:991:U:H6	1.67	0.59
54:B1:11:U:H2'	54:B1:12:A:C6	2.38	0.59
31:BA:877:C:OP1	38:BK:88:LYS:NZ	2.28	0.59
31:DA:383:A:O5'	31:DA:383:A:H8	1.84	0.59
31:DA:447:G:O6	31:DA:485:G:C8	2.55	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:412:A:H1'	31:DA:413:G:OP2	2.01	0.59
5:AF:185:ASP:OD1	5:AF:188:ARG:NH1	2.31	0.59
1:AA:654(G):C:C2	1:AA:654(N):G:N1	2.66	0.59
1:CA:646:G:H4'	1:CA:647:A:H5''	1.83	0.59
31:BA:942:G:OP2	56:BA:1775:OHX:N3	2.35	0.59
1:AA:443:A:H3'	5:AF:45:ARG:NH1	2.18	0.59
9:AM:128:HIS:NE2	9:AM:134:ARG:HD2	2.17	0.59
44:DQ:24:CYS:SG	44:DQ:29:ARG:HG3	2.42	0.59
31:BA:999:U:O2'	1:CA:2160:C:H5'	2.01	0.59
1:AA:1113:U:H2'	1:AA:1114:G:H8	1.67	0.59
1:CA:2214:G:O2'	1:CA:2215:G:P	2.61	0.59
4:CE:81:ILE:O	4:CE:82:ARG:HB2	2.02	0.59
14:CQ:54:LEU:O	14:CQ:55:ALA:HB2	2.02	0.59
1:CA:1939:A:OP2	56:CA:3293:OHX:N3	2.35	0.59
1:CA:683:G:H1	1:CA:698:C:H42	1.49	0.59
1:AA:2191:G:H2'	1:AA:2192:G:H5''	1.84	0.59
10:AN:71:ARG:HH21	10:AN:77:ILE:HG21	1.67	0.59
11:AO:78:PRO:HB3	11:AO:111:ARG:HH21	1.68	0.59
1:AA:2310:A:C5'	1:AA:2311:A:OP2	2.50	0.59
31:BA:963:G:N2	40:BM:55:LYS:HZ1	2.00	0.59
52:DB:73:U:C2'	52:DB:74:C:H5'	2.32	0.59
1:AA:50:U:H3'	1:AA:51:G:H5'	1.83	0.59
3:CD:94:LEU:HG	3:CD:104:TYR:CE2	2.38	0.59
31:BA:1148:U:H2'	31:BA:1149:C:O4'	2.02	0.59
39:DL:4:TYR:O	39:DL:18:PHE:HA	2.03	0.59
39:DL:26:VAL:HG13	39:DL:61:ALA:HB3	1.82	0.59
31:DA:1306:A:N6	31:DA:1331:G:O2'	2.36	0.59
31:BA:1211:U:H4'	31:BA:1212:U:O5'	2.02	0.59
1:AA:1022:G:H4'	1:AA:1023:U:O5'	2.03	0.59
16:A1:34:LYS:HE3	16:A1:34:LYS:HA	1.85	0.59
31:DA:1239:A:O2'	31:DA:1298:C:N4	2.34	0.59
45:DR:82:ILE:HG12	45:DR:87:ILE:HB	1.83	0.59
31:DA:485:G:N7	56:DA:1731:OHX:N6	2.50	0.59
24:AW:50:ILE:HD12	24:AW:51:ARG:H	1.67	0.59
32:DE:233:SER:HB2	32:DE:234:PRO:CD	2.33	0.59
9:CM:137:LYS:HZ2	9:CM:137:LYS:HA	1.66	0.59
31:BA:57:G:H2'	31:BA:58:C:C6	2.37	0.59
31:DA:1072:G:H2'	31:DA:1073:U:O4'	2.03	0.59
11:AO:98:GLU:O	11:AO:101:VAL:HG12	2.03	0.59
53:BC:24:C:H2'	53:BC:25:U:C6	2.37	0.59
1:CA:682:C:H2'	1:CA:683:G:C8	2.37	0.59
37:BJ:20:ASP:HB3	37:BJ:23:VAL:HG23	1.84	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:404:U:H2'	31:DA:405:U:H6	1.68	0.59
42:DO:48:ALA:O	42:DO:49:LEU:HD23	2.02	0.59
2:CB:26:G:OP2	2:CB:26:G:H8	1.86	0.59
1:AA:2537:U:H2'	1:AA:2538:C:C6	2.38	0.59
1:CA:1492:A:N3	1:CA:1492:A:H2'	2.17	0.59
34:DG:156:GLU:HA	34:DG:159:ARG:HD2	1.83	0.59
1:AA:1056:G:H21	1:AA:1103:A:H62	0.67	0.59
1:AA:1084:A:N6	1:AA:1085:A:H62	2.00	0.59
3:AD:34:VAL:C	3:AD:35:LYS:HG3	2.22	0.59
11:CO:15:ARG:O	11:CO:16:ARG:O	2.21	0.59
1:AA:2689:U:C4'	1:AA:2690:C:OP2	2.51	0.59
54:D1:11:U:H4'	54:D1:12:A:OP2	2.03	0.59
5:CF:174:VAL:HG11	5:CF:188:ARG:HH22	1.67	0.59
31:DA:1330:U:H4'	43:DP:23:TYR:CE2	2.38	0.59
16:C1:92:ARG:O	16:C1:94:ASN:N	2.35	0.59
30:C8:52:LYS:HD2	30:C8:52:LYS:N	2.18	0.59
10:AN:47:ILE:CG1	10:AN:48:PRO:HD2	2.33	0.59
31:DA:1206:G:O2'	33:DF:193:TYR:HA	2.03	0.59
46:BS:50:LYS:HD3	46:BS:51:VAL:N	2.17	0.59
24:AW:50:ILE:HD12	24:AW:51:ARG:N	2.17	0.59
31:BA:284:G:H2'	31:BA:285:G:H8	1.67	0.59
31:DA:1190:G:H5'	33:DF:176:HIS:NE2	2.18	0.59
35:DH:91:LEU:HG	35:DH:118:ILE:HD11	1.84	0.59
11:AO:144:GLU:N	11:AO:144:GLU:OE2	2.33	0.59
35:DH:122:GLU:HB3	35:DH:126:ARG:HG2	1.85	0.59
32:DE:87:ARG:NH1	32:DE:220:ASP:OD1	2.35	0.59
21:AV:143:GLY:HA2	21:AV:144:LEU:O	2.02	0.59
20:CU:52:SER:N	20:CU:53:PRO:HD3	2.18	0.59
42:DO:79:VAL:HG23	42:DO:103:ASP:OD1	2.02	0.59
41:BN:34:ASP:HB2	41:BN:35:PRO:CD	2.32	0.59
48:DU:29:PHE:HD2	48:DU:29:PHE:N	2.01	0.59
1:AA:2397:G:H5''	23:AZ:28:GLY:HA2	1.85	0.59
36:BI:41:GLU:O	36:BI:43:LEU:N	2.35	0.59
3:AD:182:LEU:H	3:AD:272:ALA:HB3	1.68	0.59
1:CA:1944:G:N7	56:CA:3234:OHX:N2	2.51	0.59
1:AA:845:G:H8	1:AA:845:G:OP2	1.85	0.59
31:BA:328:C:H4'	31:BA:329:A:H5'	1.84	0.59
10:CN:49:ARG:NH1	31:DA:1422:G:O3'	2.35	0.59
1:CA:237:G:H4'	1:CA:414:G:C5	2.38	0.59
37:DJ:50:ILE:HB	37:DJ:58:PRO:HG3	1.82	0.59
1:CA:612:U:H1'	5:CF:90:PHE:HB3	1.84	0.59
3:AD:33:LEU:HD13	3:AD:34:VAL:N	2.16	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:AV:37:VAL:HG23	21:AV:38:TYR:N	2.18	0.59
1:CA:1737:A:N7	1:CA:1746:A:N1	2.51	0.59
49:BV:40:ILE:HG12	49:BV:41:VAL:N	2.18	0.59
1:CA:1389:A:C8	1:CA:1392:C:C4	2.91	0.59
31:DA:1133:G:H2'	31:DA:1134:G:H8	1.68	0.59
39:DL:4:TYR:HB2	39:DL:19:LEU:O	2.02	0.59
4:AE:119:ARG:HH11	4:AE:119:ARG:CG	2.16	0.59
4:CE:9:VAL:CG2	4:CE:25:VAL:HB	2.32	0.59
13:A0:12:ARG:HB3	13:A0:16:HIS:HD2	1.67	0.59
1:AA:918:A:N3	2:AB:80:U:O2'	2.32	0.59
1:AA:654(G):C:O2	1:AA:654(N):G:N1	2.23	0.59
1:AA:274:G:H2'	1:AA:275:G:C1'	2.33	0.59
1:CA:314:A:H5'	1:CA:315:G:OP2	2.02	0.59
31:DA:554:C:H2'	31:DA:555:C:C6	2.37	0.59
1:CA:2529:G:O6	1:CA:2530:C:N4	2.35	0.59
30:A8:41:ILE:HG13	30:A8:42:ARG:N	2.17	0.59
31:DA:1125:U:O4	40:DM:5:ARG:NH1	2.36	0.59
1:CA:336:A:C6	1:CA:353:U:C4	2.91	0.59
9:AM:15:LEU:HD12	9:AM:136:GLU:HG2	1.84	0.59
31:DA:1435:G:H2'	31:DA:1436:U:C6	2.38	0.59
1:CA:1826:U:H2'	1:CA:1827:C:H6	1.67	0.59
43:BP:97:PRO:HB3	43:BP:101:GLN:NE2	2.17	0.59
1:AA:2849:U:H4'	1:AA:2868:A:C2	2.38	0.59
1:CA:560:U:O2'	16:C1:49:HIS:HD2	1.86	0.59
18:AS:82:LEU:HB2	18:AS:98:LYS:HB2	1.84	0.59
1:AA:2086:U:H2'	1:AA:2087:G:C8	2.38	0.59
31:BA:233:C:H2'	31:BA:234:C:H6	1.68	0.59
40:BM:32:ALA:CB	40:BM:76:ASN:HB2	2.33	0.59
1:AA:883:G:N2	1:AA:894:C:N3	2.50	0.59
12:AP:19:GLY:CA	12:AP:98:LYS:HD3	2.32	0.59
31:BA:1005:A:H3'	31:BA:1006:C:C5'	2.33	0.59
34:DG:22:LYS:O	34:DG:113:SER:HB3	2.03	0.59
32:DE:96:ARG:N	32:DE:96:ARG:HD2	2.18	0.59
28:C6:24:GLU:HA	56:C6:101:OHX:N6	2.18	0.59
6:CG:96:ARG:O	6:CG:98:ARG:N	2.30	0.59
30:C8:49:VAL:CG1	30:C8:50:LEU:H	2.15	0.59
15:CR:80:SER:HB3	15:CR:83:ILE:HG13	1.84	0.59
23:CZ:91:LYS:CG	23:CZ:92:LYS:H	2.16	0.59
5:CF:202:PHE:O	5:CF:205:ARG:HB3	2.03	0.59
1:AA:185:U:H4'	1:AA:218:A:H4'	1.85	0.59
1:CA:965:A:N3	2:CB:82:U:O2'	2.35	0.59
21:CV:15:PRO:HB2	21:CV:19:ARG:HH21	1.68	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BO:55:VAL:O	42:BO:62:GLU:HA	2.02	0.59
1:AA:1024:G:H3'	1:AA:1025:G:H5''	1.84	0.59
5:AF:9:ILE:HG22	5:AF:20:LEU:O	2.03	0.59
38:BK:104:ARG:O	38:BK:107:LEU:HB2	2.02	0.59
5:CF:2:LYS:HD3	5:CF:2:LYS:H	1.67	0.59
27:A5:45:VAL:HG13	27:A5:50:GLY:HA3	1.85	0.59
1:AA:2014:A:O2'	27:A5:2:ALA:N	2.33	0.58
1:CA:2147:G:H2'	1:CA:2148:G:H5'	1.84	0.58
7:CH:7:LEU:N	7:CH:8:PRO:CD	2.66	0.58
31:BA:1305:G:OP2	31:BA:1305:G:C8	2.56	0.58
52:DB:16:C:H5'	52:DB:17:G:OP2	2.03	0.58
26:C4:21:VAL:HG22	26:C4:22:ILE:HD13	1.83	0.58
1:CA:1111:C:H42	1:CA:1121:G:H1	1.51	0.58
52:BD:43:G:O2'	52:BD:44:C:H5'	2.03	0.58
31:DA:1015:A:N3	31:DA:1218:C:O2'	2.36	0.58
6:AG:178:PHE:HB3	6:AG:180:PHE:CE1	2.38	0.58
1:AA:2507:C:H5'	1:AA:2573:C:N4	2.18	0.58
34:BG:28:SER:HB2	34:BG:29:PRO:CD	2.31	0.58
31:BA:1225:A:N3	31:BA:1225:A:H2'	2.17	0.58
1:AA:1728:G:N1	1:AA:1730:U:OP2	2.36	0.58
50:DW:48:LYS:O	50:DW:50:GLU:N	2.36	0.58
1:AA:385:C:O2	11:AO:71:VAL:HG21	2.02	0.58
31:DA:619:U:C2	34:DG:135:LEU:HD22	2.38	0.58
23:AZ:86:SER:N	23:AZ:87:PRO:HD2	2.18	0.58
3:CD:102:LYS:C	3:CD:103:ARG:HG2	2.23	0.58
41:BN:21:ILE:HD12	41:BN:84:VAL:HG12	1.85	0.58
1:CA:1826:U:O2'	1:CA:1827:C:H5'	2.02	0.58
23:AZ:90:ILE:HA	23:AZ:94:LEU:HD12	1.83	0.58
31:BA:402:G:OP1	34:BG:74:GLN:NE2	2.35	0.58
5:AF:157:VAL:HB	5:AF:194:MET:HG2	1.85	0.58
9:CM:17:ASP:O	9:CM:18:ALA:HB3	2.03	0.58
13:C0:45:ARG:HA	13:C0:95:THR:HG21	1.83	0.58
24:AW:15:LYS:HD3	24:AW:67:LYS:HZ3	1.67	0.58
3:CD:166:GLN:HE21	3:CD:166:GLN:HA	1.67	0.58
4:AE:75:VAL:HB	4:AE:76:ARG:HD2	1.84	0.58
11:AO:21:ARG:O	11:AO:28:GLY:HA2	2.02	0.58
1:AA:881:G:O6	1:AA:895:U:C2	2.55	0.58
1:CA:2404:G:O6	1:CA:2438:A:H8	1.86	0.58
1:AA:1291:C:H2'	1:AA:1292:U:C6	2.37	0.58
31:BA:1331:G:O2'	31:BA:1332:A:H8	1.85	0.58
31:BA:254:G:H21	47:BT:16:GLN:NE2	1.96	0.58
1:AA:1359:A:H2'	1:AA:1360:A:H5'	1.83	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:686:U:H1'	41:DN:42:TRP:HE1	1.68	0.58
51:DX:9:ARG:HG3	51:DX:10:ARG:H	1.67	0.58
5:CF:164:ARG:HG3	5:CF:175:THR:OG1	2.03	0.58
1:AA:1220:A:C3'	1:AA:1221:C:H5'	2.32	0.58
11:AO:96:THR:HG22	11:AO:126:VAL:HG21	1.83	0.58
40:BM:78:ASN:HB2	40:BM:81:THR:HG23	1.85	0.58
35:BH:110:LEU:HD13	35:BH:118:ILE:HG12	1.85	0.58
10:CN:63:VAL:HG12	10:CN:106:LEU:HD11	1.85	0.58
44:DQ:12:ARG:HB3	44:DQ:14:PRO:HD3	1.85	0.58
50:BW:96:GLY:O	50:BW:97:ALA:HB3	2.04	0.58
14:CQ:3:ARG:HG3	14:CQ:4:LEU:N	2.17	0.58
1:CA:1912:A:H2'	1:CA:1913:A:C8	2.38	0.58
2:AB:77:U:OP1	21:AV:19:ARG:NH2	2.35	0.58
1:AA:2356:C:O3'	22:A3:20:ARG:HD3	2.03	0.58
17:C2:7:THR:HG23	17:C2:22:VAL:HG21	1.84	0.58
6:AG:104:GLU:OE1	26:A4:23:GLU:HG3	2.02	0.58
12:AP:76:LYS:HD3	12:AP:77:LYS:O	2.03	0.58
1:AA:2168:G:N2	1:AA:2170:A:H62	2.01	0.58
34:DG:8:VAL:O	34:DG:10:ARG:N	2.37	0.58
52:BB:44:C:H2'	52:BB:45:C:O4'	2.02	0.58
31:BA:1160:G:N1	31:BA:1177:G:C2	2.71	0.58
31:DA:409:G:H5''	34:DG:24:GLU:HG3	1.84	0.58
1:CA:1501:A:C6	1:CA:2715:U:H1'	2.38	0.58
1:AA:1689:A:N6	1:AA:1698:A:C2	2.55	0.58
3:CD:35:LYS:HD3	3:CD:63:ARG:CA	2.33	0.58
1:AA:780:G:N2	1:AA:783:A:N6	2.37	0.58
1:AA:2702:U:OP1	1:AA:2702:U:C6	2.57	0.58
1:CA:1187:U:H1'	1:CA:1189:A:C6	2.37	0.58
1:AA:252:G:OP2	11:AO:50:ARG:NH1	2.30	0.58
31:DA:255:G:O6	31:DA:270:A:N6	2.36	0.58
28:A6:17:LYS:HA	28:A6:17:LYS:CE	2.33	0.58
31:DA:1129:C:C4	31:DA:1142:G:O6	2.56	0.58
20:CU:83:THR:HG22	20:CU:85:VAL:HG23	1.83	0.58
1:AA:1021:A:H62	1:AA:1141:U:H3	1.50	0.58
34:BG:139:ARG:NH1	34:BG:139:ARG:HG3	2.17	0.58
1:CA:2488:C:H5'	1:CA:2489:A:OP2	2.02	0.58
1:AA:821:A:O2'	1:AA:945:A:H3'	2.03	0.58
23:CZ:6:GLU:O	23:CZ:91:LYS:HE3	2.03	0.58
1:AA:507:A:H5''	1:AA:508:G:H5'	1.84	0.58
31:DA:56:U:H2'	31:DA:57:G:H8	1.65	0.58
9:AM:96:GLU:C	9:AM:98:VAL:N	2.56	0.58
36:BI:69:GLU:OE1	36:BI:69:GLU:N	2.36	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:509:A:O2'	31:BA:510:A:OP1	2.18	0.58
31:DA:182:U:H5	31:DA:183:G:H1'	1.68	0.58
35:BH:101:ILE:HG13	35:BH:119:LEU:HD23	1.84	0.58
1:CA:2367:G:O2'	22:C3:36:ILE:HD12	2.03	0.58
31:DA:426:G:P	34:DG:36:ARG:HH21	2.26	0.58
31:DA:1528:U:H4'	31:DA:1529:G:N2	2.17	0.58
1:CA:1729:G:N2	56:CA:3435:OHX:N5	2.50	0.58
17:C2:1:MET:SD	17:C2:43:GLU:HG2	2.44	0.58
32:BE:178:ARG:HH21	38:BK:74:PRO:HB3	1.68	0.58
42:DO:86:ARG:HG2	42:DO:87:VAL:N	2.18	0.58
31:DA:920:U:H2'	31:DA:921:U:C6	2.37	0.58
11:CO:64:LYS:CG	11:CO:65:ARG:H	2.15	0.58
12:CP:3:MET:SD	12:CP:93:TYR:CD1	2.96	0.58
11:AO:15:ARG:O	11:AO:16:ARG:O	2.21	0.58
52:DD:50:U:H2'	52:DD:51:C:O4'	2.03	0.58
1:CA:1271:C:H4'	17:C2:85:LYS:HD3	1.85	0.58
31:BA:1034:G:N2	31:BA:1035:A:C6	2.71	0.58
1:AA:2688:U:C5	1:AA:2720:U:OP2	2.56	0.58
31:DA:1211:U:H1'	31:DA:1213:A:C2	2.39	0.58
31:BA:1139:G:H1	31:BA:1144:G:N2	1.86	0.58
1:CA:1922:G:N2	1:CA:1925:C:C4	2.70	0.58
1:CA:508:G:OP2	20:CU:47:LYS:HB2	2.03	0.58
31:DA:961:U:O2	31:DA:1201:A:N1	2.36	0.58
31:DA:1300:G:O2'	31:DA:1301:U:P	2.62	0.58
1:CA:1513:G:H5'	1:CA:1575:A:H1'	1.84	0.58
1:AA:286:C:H2'	1:AA:287:C:H6	1.69	0.58
1:AA:2475:C:H3'	1:AA:2476:A:H5''	1.84	0.58
16:C1:48:ALA:O	16:C1:52:ARG:HG3	2.03	0.58
23:CZ:91:LYS:HG2	23:CZ:92:LYS:H	1.67	0.58
26:A4:49:PHE:O	26:A4:50:VAL:HB	2.02	0.58
40:BM:48:THR:HA	40:BM:62:HIS:CB	2.32	0.58
32:BE:8:LYS:H	32:BE:8:LYS:CD	2.15	0.58
1:AA:2378:A:H4'	14:AQ:23:ARG:HH11	1.68	0.58
23:AZ:86:SER:N	23:AZ:87:PRO:CD	2.66	0.58
1:CA:1768:A:C6	1:CA:1770:G:N7	2.71	0.58
1:AA:1932:A:H2'	1:AA:1933:G:O4'	2.04	0.58
1:AA:1025:G:OP1	1:AA:1025:G:H8	1.85	0.58
1:AA:1551:C:H2'	1:AA:1552:G:H5'	1.86	0.58
9:CM:126:PRO:O	9:CM:127:ASP:HB2	2.03	0.58
31:DA:260:G:O6	56:DA:1767:OHX:N6	2.36	0.58
1:CA:1180:U:O2	1:CA:1183:G:H5'	2.02	0.58
18:AS:18:ARG:HD3	18:AS:76:VAL:HG13	1.85	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:756:C:H2'	31:BA:757:U:O4'	2.03	0.58
1:AA:2077:A:H2'	1:AA:2078:C:H6	1.68	0.58
31:BA:1325:C:H4'	51:BX:17:THR:HG21	1.84	0.58
31:DA:942:G:H21	39:DL:124:GLN:NE2	2.02	0.58
31:BA:1023:G:C3'	31:BA:1024:G:H5''	2.33	0.58
31:BA:1032:A:H3'	31:BA:1032(A):G:C5'	2.33	0.58
27:C5:6:VAL:HG13	27:C5:7:PRO:HD2	1.86	0.58
52:DB:47:U:O2'	52:DB:48:C:O4'	2.21	0.58
1:CA:1146:G:H2'	1:CA:1147:C:C6	2.39	0.58
2:AB:7:G:H1	2:AB:113:C:H42	1.51	0.58
52:DD:14:A:C3'	52:DD:15:G:H5''	2.24	0.58
4:CE:68:ALA:C	4:CE:70:ALA:H	2.06	0.58
31:DA:1025:U:HO2'	31:DA:1026:G:P	2.26	0.58
1:AA:2353:G:O2'	22:A3:35:ASN:ND2	2.37	0.58
1:AA:945:A:N3	1:AA:945:A:H2'	2.18	0.58
1:AA:1510:A:O2'	1:AA:1511:A:N7	2.37	0.58
1:AA:524:U:H4'	1:AA:554:U:H4'	1.85	0.58
31:BA:438:G:OP1	34:BG:125:HIS:CE1	2.56	0.58
50:DW:72:LEU:O	50:DW:73:HIS:CB	2.51	0.58
35:BH:45:PHE:CE2	35:BH:47:LYS:HD2	2.39	0.58
44:DQ:45:ARG:O	44:DQ:49:HIS:CD2	2.57	0.58
3:AD:6:PHE:CE1	3:AD:18:VAL:HG23	2.38	0.58
33:BF:18:TRP:CZ2	44:BQ:55:GLY:HA2	2.38	0.58
6:CG:55:LYS:HD2	6:CG:58:GLN:NE2	2.18	0.58
40:DM:33:GLN:O	40:DM:75:ILE:HG12	2.04	0.58
1:CA:642:G:OP1	5:CF:40:GLN:HG3	2.04	0.58
45:DR:11:VAL:HG21	45:DR:34:LEU:HD22	1.85	0.58
31:BA:1015:A:H2'	31:BA:1016:A:C8	2.38	0.58
6:CG:126:ASP:OD2	6:CG:130:ASN:HB2	2.04	0.58
31:BA:671:G:N2	31:BA:672:U:H1'	2.18	0.58
2:CB:68:A:C2	2:CB:111:C:C4	2.92	0.58
8:CK:54:GLN:HE21	8:CK:57:ARG:HH22	1.50	0.58
1:CA:186:A:H2'	1:CA:186:A:N3	2.19	0.58
1:CA:63:A:C4	19:CT:66:LEU:HD12	2.38	0.58
1:CA:485:G:O2'	29:C7:39:ARG:HD3	2.03	0.58
10:AN:122:LEU:HD13	15:AR:72:VAL:HG11	1.86	0.58
1:AA:1081:U:HO2'	1:AA:1082:U:P	2.18	0.58
30:C8:31:HIS:CE1	52:DD:85:A:C2	2.83	0.58
1:AA:2114:A:C6	1:AA:2115:G:C6	2.91	0.58
52:DB:47:U:C2'	52:DB:48:C:O4'	2.52	0.58
5:CF:24:LEU:HB3	5:CF:25:PRO:HD2	1.84	0.58
31:BA:1128:C:H5'	39:BL:16:ARG:HH12	1.68	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:AU:101:LYS:NZ	20:AU:101:LYS:HB3	2.19	0.58
20:AU:78:ALA:HB3	20:AU:81:LYS:HZ1	1.69	0.58
31:DA:1129:C:H5	31:DA:1141:C:H42	1.52	0.58
31:DA:1141:C:O2'	31:DA:1142:G:H5'	2.03	0.58
31:DA:1305:G:H5'	51:DX:4:GLY:HA3	1.86	0.58
7:AH:152:ARG:HG3	7:AH:153:LYS:N	2.14	0.58
1:AA:1870:C:O2	1:AA:1870:C:C2'	2.47	0.58
43:DP:84:ILE:C	43:DP:86:CYS:H	2.07	0.58
31:BA:1453:G:H8	50:BW:39:LYS:HE2	1.69	0.58
4:AE:38:THR:CG2	4:AE:41:LYS:H	2.16	0.58
49:DV:66:MET:HA	49:DV:67:VAL:C	2.22	0.58
1:CA:2014:U:C2'	1:CA:2015:G:H5''	2.33	0.58
1:AA:481:G:H4'	1:AA:482:A:O5'	2.04	0.58
5:CF:178:PRO:HG2	5:CF:179:GLU:OE1	2.04	0.58
31:BA:677:U:OP1	56:BA:1661:OHX:N3	2.37	0.58
31:DA:979:C:H3'	31:DA:980:C:H5''	1.83	0.58
32:DE:82:ARG:HA	32:DE:92:TYR:CE1	2.38	0.58
4:CE:52:LEU:HB3	4:CE:75:VAL:HG23	1.86	0.58
35:BH:41:VAL:HG13	35:BH:113:ALA:HB2	1.86	0.58
5:AF:129:PHE:O	5:AF:130:ALA:HB3	2.04	0.58
20:AU:15:VAL:HA	20:AU:72:VAL:HG12	1.84	0.58
38:BK:16:ALA:HB2	38:BK:24:THR:HG21	1.86	0.58
31:BA:501:C:H2'	31:BA:502:G:C8	2.37	0.58
9:CM:19:GLU:HA	9:CM:59:LYS:O	2.04	0.58
19:AT:53:LYS:NZ	19:AT:55:ASN:HD21	2.02	0.58
22:C3:21:LEU:HD21	22:C3:41:ARG:NH1	2.19	0.58
1:CA:1871:G:C8	1:CA:1950:A:H1'	2.39	0.58
53:DC:54:G:H2'	53:DC:55:U:H6	1.69	0.58
12:CP:132:VAL:HG21	21:CV:81:ARG:HH12	1.68	0.58
1:CA:2039:U:O2	27:C5:7:PRO:HG2	2.03	0.58
31:DA:408:A:H2'	31:DA:409:G:O4'	2.04	0.58
52:DB:47:U:H2'	52:DB:48:C:C6	2.38	0.58
1:CA:1144:U:H2'	1:CA:1145:A:O4'	2.03	0.58
1:AA:1793:C:O2	1:AA:1900:A:H2	1.86	0.58
1:AA:1900:A:O2'	1:AA:1901:A:OP1	2.20	0.58
52:DD:44:C:H2'	52:DD:45:C:O4'	2.04	0.58
31:DA:266:G:H5'	31:DA:268:C:H41	1.68	0.58
1:AA:2298:A:H2'	1:AA:2299:G:O4'	2.04	0.58
21:CV:53:ILE:HG22	21:CV:71:VAL:O	2.04	0.58
1:AA:860:U:C5	1:AA:917:A:C2	2.92	0.58
1:CA:1590:A:H1'	1:CA:1592:A:C1'	2.34	0.58
40:BM:8:LEU:HD22	40:BM:96:ILE:HG22	1.85	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:BK:91:ARG:HH11	38:BK:91:ARG:HG3	1.69	0.58
1:AA:2875:C:C4'	15:AR:5:ALA:HB2	2.34	0.58
25:AX:9:VAL:HG21	25:AX:55:ARG:HB2	1.86	0.58
31:BA:826:C:H2'	31:BA:827:U:O2	2.03	0.58
31:DA:890:G:O2'	31:DA:891:U:OP2	2.21	0.58
4:CE:116:VAL:O	4:CE:117:MET:HB3	2.03	0.58
42:DO:80:VAL:HG12	42:DO:81:LEU:N	2.19	0.58
31:BA:939:G:H5''	37:BJ:102:ARG:NH2	2.18	0.58
31:BA:359:U:OP1	8:CK:87:LYS:HD2	2.04	0.58
42:BO:87:VAL:O	42:BO:88:LYS:HB3	2.03	0.58
40:DM:69:ASN:O	40:DM:70:ARG:HG3	2.04	0.58
21:AV:150:LEU:HD21	21:AV:154:ASP:HB2	1.86	0.58
1:AA:1441:G:H2'	1:AA:1442:G:H8	1.68	0.58
4:CE:7:VAL:HG21	15:CR:1:MET:CE	2.33	0.58
5:AF:152:GLU:OE1	5:AF:191:ARG:HD2	2.04	0.58
34:DG:39:PRO:O	34:DG:44:GLY:HA3	2.04	0.58
1:AA:344:G:O6	56:AA:3447:OHX:N5	2.37	0.58
31:DA:278:G:OP2	47:DT:41:LYS:NZ	2.29	0.58
28:A6:51:GLU:HG2	28:A6:52:VAL:N	2.18	0.58
4:CE:32:PRO:O	4:CE:49:LEU:HA	2.04	0.58
7:CH:136:ILE:H	7:CH:136:ILE:HD12	1.69	0.58
1:CA:2826:C:H5'	27:C5:29:THR:HG21	1.86	0.58
1:CA:793:G:H2'	1:CA:794:A:H5'	1.86	0.58
5:CF:89:VAL:HG12	5:CF:90:PHE:N	2.16	0.58
31:BA:1305:G:OP2	31:BA:1305:G:H8	1.87	0.58
17:C2:85:LYS:HD2	17:C2:86:GLY:N	2.17	0.58
31:DA:1442:G:HO2'	31:DA:1443:G:P	2.26	0.58
52:DB:75:C:H2'	52:DB:76:C:C6	2.38	0.58
3:CD:35:LYS:CE	3:CD:104:TYR:HB2	2.33	0.58
1:CA:9:U:C2	1:CA:2642:A:N6	2.72	0.58
1:AA:2032:G:N2	4:AE:146:THR:HG23	2.12	0.58
1:AA:996:A:OP2	16:A1:92:ARG:NH2	2.35	0.58
1:CA:2030:C:H2'	1:CA:2031:C:H6	1.67	0.58
1:AA:2635:C:H5''	4:AE:78:LEU:HA	1.86	0.58
54:B1:13:A:C2'	54:B1:14:A:OP1	2.52	0.58
16:A1:66:ASN:ND2	16:A1:70:ARG:HE	2.00	0.58
1:CA:2229:G:H3'	1:CA:2230:A:C2	2.38	0.58
50:DW:100:ILE:H	50:DW:100:ILE:HD12	1.68	0.58
5:CF:8:GLN:HG3	5:CF:126:VAL:HG12	1.86	0.58
7:AH:67:LEU:O	7:AH:71:LEU:HB2	2.03	0.58
35:BH:152:ARG:HA	38:BK:64:LYS:HZ3	1.69	0.58
15:CR:21:GLU:O	15:CR:91:ARG:NH2	2.36	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:2333:A:C6	1:CA:2346:A:C8	2.92	0.58
1:AA:2378:A:H5''	14:AQ:23:ARG:NH1	2.18	0.58
3:AD:146:GLU:HB2	3:AD:189:CYS:HB3	1.86	0.58
31:DA:97:U:C2'	31:DA:99:C:H5'	2.34	0.58
12:CP:43:THR:HB	12:CP:45:GLN:HE21	1.68	0.58
1:AA:1918:A:O2'	1:AA:1920:C:N4	2.36	0.58
32:DE:54:THR:O	32:DE:58:ILE:HG12	2.02	0.58
31:DA:1106:G:H5''	33:DF:172:ARG:HG2	1.85	0.58
31:DA:191:G:H1'	50:DW:104:LEU:O	2.02	0.58
31:BA:28:G:O2'	31:BA:296:U:OP1	2.22	0.58
31:BA:663:A:H5''	48:BU:61:LYS:NZ	2.19	0.58
1:AA:1695:G:N7	3:AD:14:ARG:NH2	2.52	0.58
1:CA:1557:A:OP2	1:CA:1557:A:H8	1.86	0.58
15:AR:29:ARG:NH1	15:AR:46:GLU:OE1	2.36	0.58
31:DA:673:G:H2'	31:DA:674:G:C8	2.38	0.58
31:BA:433:C:H2'	31:BA:434:U:C6	2.39	0.58
1:AA:2134:A:N6	1:AA:2157:G:H1'	2.19	0.58
1:AA:2168:G:O2'	1:AA:2169:A:H5'	2.04	0.58
52:DD:55:U:OP1	52:DD:55:U:H4'	2.03	0.58
31:BA:975:A:H5'	31:BA:1363:A:N6	2.18	0.58
52:DB:46:G:H2'	52:DB:47:U:C6	2.39	0.58
54:D1:12:A:O2'	54:D1:13:A:O5'	2.22	0.58
52:BB:75:C:HO2'	52:BB:76:C:P	2.22	0.58
31:DA:1129:C:N4	31:DA:1139:G:N2	2.52	0.58
30:C8:50:LEU:O	30:C8:51:ALA:HB3	2.04	0.58
1:AA:917:A:H2'	1:AA:918:A:O5'	2.04	0.58
31:BA:49:U:H1'	31:BA:50:A:OP1	2.03	0.58
26:C4:63:TYR:HB3	49:DV:42:PRO:HD2	1.86	0.58
32:DE:178:ARG:HH21	38:DK:68:ARG:HH22	1.52	0.58
1:AA:2284:C:H41	28:A6:25:LYS:HZ1	1.52	0.58
31:BA:871:U:C1'	31:BA:872:A:OP1	2.52	0.58
31:BA:870:U:H4'	31:BA:871:U:H3'	1.84	0.58
3:AD:31:LYS:O	3:AD:31:LYS:HG3	2.03	0.58
47:DT:67:LYS:O	47:DT:68:ARG:CB	2.52	0.58
18:CS:38:TYR:CE1	27:C5:41:PRO:HD3	2.38	0.58
15:CR:19:LEU:HD23	15:CR:86:ILE:HG21	1.86	0.58
1:AA:271(B):G:H4'	1:AA:271(C):U:O5'	2.04	0.58
1:CA:604:C:H2'	1:CA:605:C:C6	2.38	0.58
33:BF:78:GLY:HA3	33:BF:83:ARG:HB3	1.85	0.58
33:BF:122:GLU:O	33:BF:126:ARG:HG3	2.03	0.58
18:AS:7:ALA:HB2	18:AS:50:VAL:HG22	1.86	0.58
31:BA:1465:C:H2'	31:BA:1466:C:O4'	2.03	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AK:126:TYR:HB2	8:AK:140:LEU:HD21	1.86	0.58
1:AA:1394:U:C4	1:AA:1395:A:C6	2.92	0.58
19:AT:57:LEU:HD11	19:AT:78:LYS:NZ	2.19	0.58
33:DF:125:GLU:HG2	33:DF:190:ARG:H	1.69	0.58
38:BK:122:ARG:NH1	38:BK:122:ARG:HB2	2.18	0.58
15:CR:11:GLU:OE1	15:CR:11:GLU:N	2.32	0.58
3:AD:134:ARG:HG3	3:AD:135:PHE:CD2	2.39	0.58
11:CO:66:GLY:O	11:CO:67:MET:C	2.40	0.58
52:BD:53:A:C2'	52:BD:54:C:H5'	2.34	0.58
1:CA:1094:G:H2'	1:CA:1157:G:H1	1.69	0.58
3:AD:35:LYS:HD3	3:AD:63:ARG:CA	2.32	0.58
31:BA:1363:A:H1'	31:BA:1365:G:N7	2.19	0.58
38:BK:25:ASP:OD2	38:BK:60:ARG:HG2	2.04	0.58
31:BA:1128:C:C5'	39:BL:16:ARG:HH22	2.17	0.58
16:C1:90:VAL:HG11	17:C2:40:LEU:HD13	1.84	0.58
1:AA:1126:A:H4'	1:AA:1127:A:O5'	2.04	0.58
18:CS:73:ALA:O	18:CS:106:ILE:HG12	2.04	0.58
30:C8:50:LEU:O	30:C8:51:ALA:CB	2.51	0.58
1:CA:1006:A:H5''	1:CA:1007:C:OP1	2.04	0.58
31:DA:1203:C:H2'	31:DA:1204:A:O4'	2.04	0.58
31:BA:1288:A:H1'	31:BA:1352:C:O2'	2.03	0.58
2:AB:75:G:N7	56:AB:217:OHX:N3	2.52	0.58
17:C2:37:VAL:HG21	17:C2:57:VAL:CG1	2.33	0.58
1:AA:2469:A:H61	1:AA:2481:G:H1'	1.69	0.58
4:CE:52:LEU:O	4:CE:74:PRO:HA	2.04	0.58
4:AE:116:VAL:HG13	4:AE:122:PHE:HB2	1.85	0.58
1:AA:2186:G:H2'	1:AA:2187:G:H8	1.69	0.58
14:AQ:59:LYS:HG2	14:AQ:60:GLY:N	2.19	0.58
13:A0:37:THR:OG1	13:A0:40:LYS:HG3	2.03	0.58
6:AG:83:ARG:HB2	6:AG:86:MET:CE	2.34	0.58
39:BL:22:GLY:HA3	39:BL:60:ASP:OD2	2.04	0.58
38:BK:39:LEU:HB3	38:BK:45:ILE:HD11	1.86	0.58
46:BS:1:MET:HG3	46:BS:65:GLN:HG3	1.86	0.58
1:CA:1371:G:C5	1:CA:1375:G:O6	2.56	0.58
1:CA:1286:G:H2'	1:CA:1287:U:O4'	2.03	0.58
1:AA:1317:A:H2'	1:AA:1318:C:C6	2.38	0.58
32:BE:25:ASN:O	32:BE:27:LYS:N	2.37	0.58
25:AX:4:LEU:O	25:AX:36:VAL:HA	2.04	0.58
5:AF:192:LEU:HD23	5:AF:193:VAL:N	2.17	0.58
32:BE:22:LYS:HA	32:BE:22:LYS:NZ	2.18	0.58
1:CA:859:U:C4	11:CO:21:ARG:NH2	2.72	0.58
47:DT:63:ARG:HG2	47:DT:64:PRO:HD2	1.85	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1028(A):C:N4	31:BA:1028(B):C:N4	2.51	0.57
52:DB:57:C:H4'	52:DB:58:G:O5'	2.03	0.57
3:CD:34:VAL:HG13	3:CD:34:VAL:O	2.04	0.57
1:CA:2804:A:H4'	1:CA:2805:C:OP2	2.04	0.57
32:DE:71:VAL:HG12	32:DE:72:GLY:N	2.19	0.57
20:AU:81:LYS:HB3	20:AU:97:ARG:HD3	1.85	0.57
16:A1:92:ARG:HD2	17:A2:11:GLN:HB2	1.86	0.57
31:DA:1004:A:OP1	31:DA:1025:U:O4	2.22	0.57
52:DB:78:C:H2'	52:DB:79:A:C8	2.36	0.57
52:DB:78:C:O2'	52:DB:79:A:P	2.62	0.57
30:A8:43:GLN:C	30:A8:44:LYS:HD2	2.25	0.57
4:AE:38:THR:HG23	4:AE:40:GLU:H	1.69	0.57
14:CQ:29:PHE:O	14:CQ:35:ILE:HD12	2.04	0.57
16:C1:52:ARG:NH1	16:C1:52:ARG:HB3	2.18	0.57
39:BL:24:GLY:HA2	39:BL:59:PHE:O	2.03	0.57
24:AW:59:ARG:O	24:AW:62:THR:HG23	2.04	0.57
1:AA:1178:C:O2'	1:AA:1179:C:O5'	2.22	0.57
3:CD:125:ILE:CG1	36:DI:81:ILE:HD11	2.34	0.57
31:BA:1047:G:H5"	44:BQ:4:LYS:NZ	2.19	0.57
31:DA:750:G:OP2	56:DA:1800:OHX:N5	2.37	0.57
1:CA:905:C:N4	1:CA:906:U:O4	2.37	0.57
1:AA:1276:A:OP2	56:AA:3538:OHX:N3	2.37	0.57
2:AB:41:U:O4	6:AG:70:VAL:O	2.22	0.57
31:BA:1386:G:N2	31:BA:1387:G:C4	2.72	0.57
1:AA:857:C:H4'	22:A3:23:VAL:HG21	1.86	0.57
7:CH:102:ALA:HB1	7:CH:115:VAL:O	2.04	0.57
1:CA:2208:C:H2'	1:CA:2209:G:H8	1.69	0.57
31:BA:105:G:H2'	31:BA:106:C:C6	2.40	0.57
1:AA:2351:G:H1'	1:AA:2366:A:H61	1.68	0.57
2:AB:89(A):A:H8	2:AB:89(A):A:O5'	1.87	0.57
1:AA:971:C:H2'	1:AA:972:G:H5'	1.86	0.57
15:AR:20:PRO:HD2	15:AR:86:ILE:HG23	1.85	0.57
39:DL:48:GLU:N	39:DL:49:PRO:HD2	2.18	0.57
1:CA:1879:A:H3'	1:CA:1880:A:H5'	1.85	0.57
41:BN:116:HIS:O	41:BN:117:ASN:HB2	2.04	0.57
1:AA:1069:A:H5"	1:AA:1070:A:O5'	2.03	0.57
52:BB:51:C:OP2	52:BB:51:C:H6	1.87	0.57
16:C1:50:ARG:HH11	17:C2:70:ILE:CG2	2.17	0.57
1:CA:1272:G:H5'	17:C2:85:LYS:N	2.16	0.57
31:BA:75:C:N3	31:BA:95:G:O6	2.37	0.57
1:CA:295:C:N4	1:CA:391:G:N1	2.23	0.57
28:A6:15:GLU:O	28:A6:16:CYS:HB2	2.04	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1327:C:H2'	31:DA:1328:C:C6	2.39	0.57
1:AA:1359:A:H2	1:AA:1372:U:O4	1.87	0.57
31:BA:1211:U:H5''	31:BA:1212:U:OP1	2.04	0.57
3:CD:25:THR:HG23	3:CD:26:LYS:N	2.19	0.57
1:CA:1618:A:C4'	3:CD:38:LYS:HE2	2.34	0.57
40:DM:30:SER:OG	40:DM:81:THR:HG22	2.03	0.57
24:AW:32:LEU:HD12	24:AW:57:ILE:HD12	1.85	0.57
5:CF:59:TYR:N	5:CF:59:TYR:CD2	2.69	0.57
8:AK:10:GLU:O	8:AK:11:ASN:HB3	2.04	0.57
3:CD:28:GLU:N	3:CD:29:PRO:HD2	2.18	0.57
1:CA:249:G:H21	1:CA:647:A:H8	1.51	0.57
31:BA:1240:U:O2'	37:BJ:38:LEU:HG	2.03	0.57
31:DA:466:C:H5''	31:DA:467:G:OP2	2.04	0.57
3:AD:77:ALA:HB1	3:AD:96:HIS:O	2.04	0.57
1:CA:378:G:C2'	1:CA:379:G:H5'	2.34	0.57
1:AA:2349:G:OP2	30:A8:42:ARG:HD3	2.03	0.57
1:CA:1890:G:O2'	1:CA:1907:A:N6	2.36	0.57
31:DA:656:C:N4	31:DA:750:G:H1	2.02	0.57
36:DI:45:LEU:HD21	36:DI:57:GLN:HB3	1.85	0.57
48:DU:29:PHE:CD2	48:DU:29:PHE:N	2.72	0.57
31:DA:520:A:N1	31:DA:536:C:H1'	2.19	0.57
51:DX:25:LYS:O	51:DX:26:LYS:HB2	2.04	0.57
43:DP:16:ASP:OD1	43:DP:31:LYS:HE2	2.04	0.57
31:DA:134:A:H61	46:DS:25:ARG:NH1	2.02	0.57
1:AA:1373:A:H2'	1:AA:1374:G:O4'	2.03	0.57
1:AA:1188:U:H4'	17:A2:79:VAL:HG22	1.86	0.57
31:BA:1090:U:H2'	31:BA:1091:U:H6	1.69	0.57
31:BA:186:C:H2'	31:BA:186(A):C:H6	1.69	0.57
36:DI:15:ASP:O	36:DI:19:LEU:HB2	2.03	0.57
1:CA:920:A:H2'	1:CA:921:G:C8	2.39	0.57
1:AA:1082:U:C4	1:AA:1083:U:C2	2.93	0.57
1:AA:1062:G:H1'	1:AA:1088:A:C5	2.39	0.57
1:AA:2118:U:H5''	1:AA:2119:A:OP1	2.04	0.57
1:CA:2192:A:H2'	1:CA:2193:A:H5'	1.86	0.57
1:AA:1331:A:HO2'	1:AA:1332:G:H8	1.51	0.57
1:CA:91:G:H2'	1:CA:92:C:O4'	2.03	0.57
1:AA:51:G:O6	56:AA:3567:OHX:N3	2.37	0.57
50:DW:10:LEU:HD13	50:DW:12:ALA:H	1.68	0.57
5:CF:132:VAL:HG22	5:CF:133:ASN:N	2.13	0.57
39:DL:17:VAL:HG13	39:DL:63:ILE:HD11	1.86	0.57
31:BA:254:G:OP1	47:BT:67:LYS:O	2.22	0.57
1:CA:486:U:H5''	29:C7:40:TRP:CE2	2.38	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:DD:60:A:H2'	52:DD:61:G:O4'	2.02	0.57
31:DA:1298:C:C5	37:DJ:114:ARG:HD2	2.39	0.57
1:CA:2482:A:H4'	1:CA:2482:A:OP1	2.04	0.57
1:AA:10:G:H2'	1:AA:11:G:C8	2.40	0.57
1:AA:805:G:O4'	11:AO:38:GLN:NE2	2.37	0.57
34:BG:107:ARG:NH2	34:BG:194:LEU:HD11	2.19	0.57
1:CA:2208:C:H2'	1:CA:2209:G:C8	2.38	0.57
1:AA:270(Y):G:C2	1:AA:270(Z):U:O4	2.57	0.57
31:BA:538:G:OP2	42:BO:112:LYS:HG3	2.04	0.57
1:AA:836:G:H2'	1:AA:837:C:C6	2.38	0.57
31:BA:8:A:N6	34:BG:205:GLU:O	2.37	0.57
3:CD:145:VAL:HG13	3:CD:191:ALA:HB2	1.86	0.57
1:CA:2861:A:C2	1:CA:2862:A:C4	2.93	0.57
1:AA:84:A:N1	1:AA:98:G:O2'	2.31	0.57
1:CA:842:G:H2'	1:CA:843:C:H6	1.69	0.57
15:AR:11:GLU:N	15:AR:11:GLU:OE1	2.37	0.57
31:DA:952:U:H2'	31:DA:953:G:H8	1.68	0.57
1:AA:883:G:N1	1:AA:893:C:N4	2.09	0.57
52:BD:21:A:H1'	52:BD:22:A:O5'	2.04	0.57
52:BB:12:C:N3	52:BB:24:G:O6	2.37	0.57
52:BB:46:G:H4'	52:BB:47:U:OP1	2.04	0.57
52:BB:48:C:H2'	52:BB:49:A:C8	2.39	0.57
31:BA:1178:G:H8	39:BL:97:LYS:HZ1	1.46	0.57
3:CD:60:ARG:CD	3:CD:86:PRO:HB2	2.21	0.57
31:DA:1502:A:H2	31:DA:1505:G:H1	1.52	0.57
31:DA:652:U:O2'	31:DA:653:A:N3	2.28	0.57
31:DA:1219:U:O2'	49:DV:34:TRP:HB3	2.05	0.57
1:CA:2623:C:C4'	1:CA:2624:U:OP2	2.47	0.57
39:DL:24:GLY:HA2	39:DL:59:PHE:O	2.04	0.57
21:CV:59:LEU:O	21:CV:60:GLU:CB	2.50	0.57
40:DM:78:ASN:HD21	40:DM:81:THR:HG23	1.70	0.57
40:DM:80:LYS:NZ	40:DM:80:LYS:HB2	2.19	0.57
31:DA:200:G:H1	31:DA:217:C:N4	2.02	0.57
10:CN:47:ILE:CG1	10:CN:48:PRO:HD2	2.34	0.57
22:C3:49:LYS:HG3	22:C3:80:HIS:ND1	2.19	0.57
5:CF:124:LEU:HG	5:CF:126:VAL:CG1	2.34	0.57
34:DG:152:SER:O	34:DG:154:ASN:N	2.38	0.57
42:DO:97:ILE:HG22	42:DO:98:VAL:N	2.19	0.57
26:C4:36:CYS:HB3	26:C4:41:PRO:HG3	1.85	0.57
1:CA:2529:G:C6	1:CA:2530:C:C4	2.92	0.57
6:CG:32:PRO:HB2	6:CG:172:LEU:HD22	1.87	0.57
14:CQ:54:LEU:O	14:CQ:55:ALA:CB	2.51	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1058:G:H2'	1:CA:1060:C:O4'	2.04	0.57
1:AA:851:U:O2'	25:AX:45:GLY:HA3	2.04	0.57
6:AG:72:ARG:HH21	6:AG:87:PRO:HG3	1.70	0.57
41:DN:101:SER:HB2	41:DN:103:LEU:HD23	1.85	0.57
1:AA:752:A:H4'	1:AA:753:C:H5'	1.87	0.57
6:CG:124:SER:HB2	6:CG:131:TYR:CE1	2.40	0.57
1:CA:851:U:H2'	1:CA:852:A:H5'	1.86	0.57
37:DJ:57:GLU:H	37:DJ:57:GLU:CD	2.07	0.57
7:AH:28:GLY:HA3	7:AH:79:VAL:HB	1.86	0.57
1:AA:2308:G:O6	1:AA:2311:A:N6	2.38	0.57
1:CA:2180:G:H2'	1:CA:2181:A:H8	1.68	0.57
11:CO:46:LYS:HD3	11:CO:51:PHE:CE1	2.36	0.57
52:BB:55:U:H2'	52:BB:56:U:O4'	2.05	0.57
31:BA:1305:G:N2	31:BA:1331:G:H2'	2.10	0.57
37:DJ:69:VAL:O	37:DJ:69:VAL:HG12	2.04	0.57
31:DA:992:U:H3	31:DA:1044:A:N6	1.95	0.57
2:CB:17:A:C3'	2:CB:18:G:H5'	2.29	0.57
31:DA:1129:C:C4	31:DA:1139:G:N1	2.72	0.57
39:DL:53:VAL:O	39:DL:55:ALA:N	2.38	0.57
31:BA:209:U:H5'	31:BA:210:U:OP2	2.05	0.57
31:DA:1004:A:C5'	31:DA:1025:U:O4	2.52	0.57
20:AU:91:GLU:HG3	20:AU:92:ASN:N	2.16	0.57
1:AA:2472:G:O6	1:AA:2476:A:H4'	2.04	0.57
31:DA:485:G:O2'	31:DA:486:U:H6	1.85	0.57
23:CZ:60:PHE:HE2	23:CZ:91:LYS:HZ1	1.52	0.57
32:BE:5:ILE:HG13	32:BE:6:THR:N	2.20	0.57
1:AA:2419:U:O4	30:A8:30:ARG:NH2	2.37	0.57
31:DA:277:C:H5'	47:DT:68:ARG:HH12	1.69	0.57
36:DI:33:TYR:HE1	36:DI:78:GLU:HG3	1.67	0.57
4:AE:82:ARG:O	4:AE:84:PHE:N	2.37	0.57
31:BA:939:G:H5''	37:BJ:102:ARG:CZ	2.34	0.57
31:BA:626:U:H2'	31:BA:627:G:C8	2.39	0.57
1:AA:1525:G:H2'	1:AA:1526:G:C8	2.39	0.57
17:A2:24:LYS:HA	17:A2:92:THR:OG1	2.04	0.57
35:DH:11:ILE:HD12	35:DH:31:LEU:HD12	1.86	0.57
1:AA:2837:G:H21	13:A0:45:ARG:HH21	1.50	0.57
1:AA:1385:G:H1'	1:AA:1386:C:C6	2.40	0.57
31:DA:940:C:H2'	31:DA:941:G:H8	1.68	0.57
53:DC:54:G:H2'	53:DC:55:U:C6	2.40	0.57
39:BL:99:LEU:HB3	39:BL:101:PHE:CE1	2.39	0.57
32:BE:71:VAL:HG12	32:BE:93:VAL:HB	1.87	0.57
21:CV:100:VAL:O	21:CV:124:ILE:HG22	2.04	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DG:29:PRO:HD2	34:DG:30:LYS:HD2	1.87	0.57
1:AA:297:C:H5''	20:AU:85:VAL:HG21	1.85	0.57
1:AA:1018:C:O2	1:AA:1018:C:H2'	2.03	0.57
32:DE:16:HIS:NE2	32:DE:209:ARG:HG2	2.20	0.57
2:AB:1:U:H2'	2:AB:2:C:C6	2.40	0.57
31:DA:1269:A:H5''	31:DA:1270:C:OP2	2.03	0.57
32:DE:231:GLU:HB3	32:DE:232:PRO:HD2	1.87	0.57
1:AA:1985:G:OP2	56:AA:3299:OHX:N2	2.38	0.57
4:AE:51:PHE:CD1	4:AE:52:LEU:HG	2.39	0.57
26:A4:61:ARG:HE	26:A4:61:ARG:HA	1.68	0.57
10:AN:98:VAL:HG13	10:AN:117:LEU:HB3	1.87	0.57
37:DJ:73:MET:HG2	37:DJ:90:GLU:HA	1.86	0.57
52:BD:17:G:C1'	52:BD:18:G:OP1	2.48	0.57
52:DD:51:C:C5	52:DD:52:G:H1'	2.40	0.57
31:BA:97:U:H2'	31:BA:99:C:C6	2.40	0.57
31:BA:1004:A:H5''	31:BA:1025:U:N3	2.20	0.57
5:AF:39:TRP:HB2	5:AF:101:LEU:HD23	1.86	0.57
52:DB:17:G:C6	52:DB:67:A:C6	2.93	0.57
3:CD:33:LEU:HD23	3:CD:34:VAL:N	2.19	0.57
4:CE:66:HIS:C	4:CE:68:ALA:H	2.07	0.57
31:BA:429:U:H1'	31:BA:430:A:H5''	1.87	0.57
52:DB:83:C:H2'	52:DB:84:C:C5'	2.31	0.57
11:CO:85:LEU:HA	11:CO:88:LEU:HB3	1.86	0.57
1:CA:486:U:H4'	29:C7:40:TRP:CH2	2.39	0.57
2:AB:13:A:O2'	2:AB:15:A:O5'	2.23	0.57
31:DA:963:G:N2	40:DM:55:LYS:HG2	2.20	0.57
17:A2:47:VAL:CG2	17:A2:48:GLY:N	2.66	0.57
31:BA:345:C:O2'	31:BA:346:G:N2	2.37	0.57
30:C8:8:LYS:HB3	30:C8:12:LYS:HE3	1.85	0.57
31:BA:827:U:C5	31:BA:870:U:C4	2.93	0.57
31:BA:688:G:H2'	31:BA:689:C:H6	1.69	0.57
31:DA:1250:A:H5'	39:DL:67:GLY:HA2	1.87	0.57
1:AA:273(F):C:H3'	1:AA:274:G:H5''	1.87	0.57
31:DA:15:G:H1'	35:DH:19:MET:CE	2.35	0.57
31:BA:191(A):G:OP2	56:BA:1798:OHX:N6	2.38	0.57
1:CA:1074:A:N6	1:CA:1173:A:C4	2.72	0.57
3:CD:166:GLN:CA	3:CD:166:GLN:HE21	2.18	0.57
7:AH:116:GLU:HG3	7:AH:117:PRO:HD2	1.87	0.57
6:CG:102:PHE:HE2	6:CG:141:PHE:HE1	1.52	0.57
37:BJ:49:ILE:O	37:BJ:53:LYS:HB2	2.05	0.57
4:AE:12:THR:O	4:AE:23:VAL:HG22	2.04	0.57
31:DA:179:A:H2'	31:DA:180:U:H6	1.69	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:56:C:H2'	1:CA:57:G:O4'	2.04	0.57
1:AA:438:G:H2'	1:AA:439:G:H8	1.70	0.57
15:AR:81:PRO:HG2	15:AR:82:LEU:HD12	1.87	0.57
1:AA:907:U:O2'	12:AP:101:ARG:NH2	2.36	0.57
30:C8:30:ARG:HH11	30:C8:30:ARG:HG2	1.69	0.57
11:AO:66:GLY:O	11:AO:67:MET:CB	2.52	0.57
31:DA:1157:A:O2'	31:DA:1158:C:P	2.62	0.57
31:BA:963:G:H21	40:BM:55:LYS:CE	2.17	0.57
12:CP:79:LEU:CD1	12:CP:80:GLU:HB2	2.35	0.57
20:AU:95:LYS:HG3	20:AU:95:LYS:O	2.05	0.57
16:A1:79:PHE:HE1	16:A1:106:PHE:CZ	2.22	0.57
31:DA:1131:G:H2'	31:DA:1132:C:C6	2.39	0.57
31:DA:1277:C:HO2'	31:DA:1279:A:H1'	1.69	0.57
31:BA:149:A:C2	31:BA:150:C:N3	2.72	0.57
1:AA:795:C:H2'	1:AA:796:C:H6	1.68	0.57
35:BH:12:LEU:HD23	35:BH:13:ILE:N	2.20	0.57
46:DS:18:ARG:HD2	46:DS:35:LYS:HD2	1.86	0.57
1:CA:1767:G:C5	1:CA:1769:U:OP2	2.58	0.57
4:CE:51:PHE:CD2	4:CE:52:LEU:HG	2.39	0.57
31:DA:97:U:O2'	31:DA:99:C:H5'	2.05	0.57
53:DC:65:G:H2'	53:DC:66:C:O4'	2.05	0.57
40:BM:58:ASP:O	40:BM:59:SER:HB3	2.04	0.57
1:CA:1637:U:H2'	1:CA:1638:G:H8	1.69	0.57
8:AK:101:LEU:HD21	8:AK:107:VAL:HB	1.85	0.57
3:CD:242:ARG:N	3:CD:242:ARG:HD3	2.18	0.57
1:CA:2069:G:H5'	27:C5:19:ARG:HG3	1.86	0.57
31:DA:191(E):G:H2'	31:DA:191(F):U:C6	2.40	0.57
22:A3:53:MET:HA	22:A3:58:THR:O	2.04	0.57
41:BN:126:ARG:HG3	41:BN:126:ARG:HH11	1.70	0.57
4:AE:64:LYS:O	4:AE:70:ALA:HB2	2.05	0.57
11:CO:107:LYS:HB3	11:CO:110:TYR:HD2	1.70	0.57
31:BA:1004:A:O4'	31:BA:1036:G:C6	2.58	0.57
52:DB:51:C:C6	52:DB:51:C:OP2	2.57	0.57
1:AA:864:G:C6	1:AA:865:C:N4	2.73	0.57
1:CA:332:G:H21	1:CA:355:A:H62	1.51	0.57
47:BT:67:LYS:O	47:BT:68:ARG:CB	2.52	0.57
31:DA:1010:G:H2'	31:DA:1011:G:O4'	2.05	0.57
1:CA:506:A:H4'	1:CA:507:A:OP1	2.02	0.57
21:CV:52:SER:C	21:CV:54:HIS:H	2.07	0.57
1:CA:83:A:H61	1:CA:100:G:C2'	2.16	0.57
31:DA:1198:G:H2'	31:DA:1199:U:C6	2.40	0.57
34:BG:25:ARG:C	34:BG:27:TYR:N	2.55	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1528:A:N1	1:AA:1543:A:N1	2.53	0.57
31:BA:160:A:H2'	31:BA:161:A:O4'	2.04	0.57
42:DO:55:VAL:O	42:DO:62:GLU:HA	2.03	0.57
1:AA:2219:G:C2'	1:AA:2224:G:H5'	2.34	0.57
1:AA:2140:C:C2	1:AA:2151:G:N2	2.72	0.57
1:CA:693:C:O2'	1:CA:694:G:OP1	2.22	0.57
17:A2:64:HIS:ND1	17:A2:92:THR:HG22	2.20	0.57
31:DA:243:A:H2	31:DA:245:C:H2'	1.69	0.57
31:DA:1513:A:H2'	31:DA:1514:C:C6	2.39	0.57
47:BT:11:VAL:HG23	47:BT:20:THR:HB	1.86	0.57
1:CA:1347:U:C2	1:CA:1673:G:C6	2.92	0.57
31:BA:5:U:O2'	31:BA:6:G:C4	2.56	0.57
31:BA:131:C:O2	31:BA:131:C:H2'	2.04	0.57
1:CA:2794:G:H3'	1:CA:2795:A:H5'	1.87	0.57
41:BN:127:LYS:NZ	41:BN:127:LYS:HA	2.20	0.57
1:CA:1847:A:H8	1:CA:1847:A:OP1	1.88	0.57
1:AA:1652:A:OP1	13:A0:8:ARG:NH1	2.38	0.57
31:BA:1525:G:OP1	41:BN:120:ARG:NH2	2.38	0.57
1:CA:2405:A:H2	1:CA:2437:C:H42	1.51	0.57
12:CP:3:MET:CB	12:CP:93:TYR:CD1	2.87	0.57
11:CO:52:GLU:HG3	11:CO:57:THR:CG2	2.34	0.57
1:AA:890:A:H3'	1:AA:892:G:H8	1.68	0.57
52:DB:70:C:O2	52:DB:70:C:H2'	2.04	0.57
52:BD:23:A:H2'	52:BD:24:G:O4'	2.05	0.57
31:BA:1129:C:N3	31:BA:1143:G:N2	2.44	0.57
31:DA:1023:G:C6	31:DA:1024:G:N7	2.73	0.57
2:CB:46:G:C2	2:CB:50:A:C2	2.93	0.57
11:AO:100:LEU:HB3	11:AO:106:LEU:HD12	1.86	0.57
41:BN:59:TYR:CZ	41:BN:63:LEU:HD11	2.40	0.57
4:CE:12:THR:O	4:CE:23:VAL:HG22	2.04	0.57
31:DA:1049:U:H4'	31:DA:1050:G:H5''	1.85	0.57
1:AA:2898:U:H2'	1:AA:2899:G:C8	2.39	0.57
8:AK:25:TYR:CE2	8:AK:29:TYR:CD2	2.91	0.57
3:CD:28:GLU:N	3:CD:29:PRO:CD	2.68	0.57
31:BA:827:U:C5	31:BA:870:U:C5	2.92	0.57
1:AA:654(B):C:H42	1:AA:654(S):G:H1	1.51	0.57
1:CA:520:G:H21	18:CS:57:ASN:HD21	1.51	0.57
21:AV:141:VAL:O	21:AV:144:LEU:HD12	2.04	0.57
1:CA:1526:G:H2'	1:CA:1527:G:H8	1.70	0.57
1:AA:1188:U:O2'	1:AA:1189:A:H5'	2.04	0.57
31:DA:925:G:O6	56:DA:1783:OHX:N3	2.38	0.57
1:AA:2498:C:O2'	1:AA:2499:C:H5'	2.05	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:A0:38:VAL:HB	13:A0:39:PRO:HD3	1.85	0.57
1:AA:2861:G:N7	56:AA:3294:OHX:N3	2.53	0.57
2:CB:10:U:O2'	14:CQ:40:ILE:HD13	2.05	0.57
31:BA:1112:C:O2	33:BF:179:ARG:HG2	2.04	0.57
20:AU:90:LEU:HD12	20:AU:90:LEU:N	2.19	0.57
33:BF:94:LEU:H	33:BF:94:LEU:HD23	1.70	0.57
20:CU:62:GLU:CD	20:CU:63:LYS:H	2.08	0.57
10:CN:45:GLU:HA	10:CN:54:GLU:HG2	1.87	0.57
7:AH:9:ILE:HB	7:AH:49:VAL:HB	1.85	0.57
1:AA:2015:A:C1'	27:A5:2:ALA:CB	2.81	0.57
8:AK:133:HIS:O	8:AK:134:PRO:C	2.42	0.57
11:CO:52:GLU:HG3	11:CO:57:THR:HG22	1.87	0.57
1:AA:1291:C:H2'	1:AA:1292:U:H6	1.70	0.57
31:BA:1004:A:O4'	31:BA:1036:G:O6	2.22	0.57
24:CW:48:HIS:CD2	24:CW:48:HIS:C	2.78	0.57
2:AB:7:G:H4'	14:AQ:29:PHE:HD1	1.69	0.57
52:DD:11:C:C2'	52:DD:12:C:H5'	2.26	0.57
37:DJ:69:VAL:HG12	37:DJ:103:TRP:HE3	1.69	0.57
1:AA:2286:A:H4'	1:AA:2287:A:O4'	2.04	0.57
11:AO:47:ASP:OD2	11:AO:49:ARG:HG2	2.04	0.57
30:C8:24:ALA:H	30:C8:49:VAL:HG23	1.68	0.57
45:DR:78:TYR:O	45:DR:82:ILE:HG22	2.04	0.57
49:BV:18:LYS:O	49:BV:22:LEU:HD13	2.05	0.57
1:AA:1175:U:O3'	1:AA:1176:G:H4'	2.04	0.57
31:BA:438:G:H4'	34:BG:123:HIS:ND1	2.19	0.57
32:DE:83:MET:SD	32:DE:234:PRO:HB2	2.45	0.57
1:AA:581:C:H2'	1:AA:582:G:C8	2.40	0.57
1:AA:229:A:C4'	1:AA:230:U:OP2	2.53	0.57
1:AA:566:U:O4	17:A2:78:LYS:HD3	2.05	0.57
31:BA:39:G:N7	31:BA:547:A:C8	2.72	0.57
1:CA:2316:G:C2'	1:CA:2317:G:H5'	2.35	0.57
13:C0:21:TYR:OH	13:C0:43:GLU:HG2	2.05	0.57
9:CM:98:VAL:HG23	9:CM:99:LEU:H	1.69	0.57
26:C4:49:PHE:C	26:C4:51:ASP:H	2.08	0.57
1:AA:1983:C:O2'	1:AA:1984:G:H5'	2.05	0.57
31:BA:1169:A:N6	31:BA:1170:A:N1	2.53	0.57
12:AP:32:TYR:CE1	12:AP:133:ARG:HG3	2.40	0.57
8:CK:60:GLU:HG3	8:CK:61:ARG:N	2.19	0.57
1:AA:850:C:O2'	25:AX:46:ASN:ND2	2.37	0.57
1:AA:748:G:OP2	18:AS:88:ARG:HG3	2.05	0.57
8:CK:114:LEU:O	8:CK:115:ALA:HB3	2.05	0.57
8:CK:143:SER:O	8:CK:144:VAL:HB	2.05	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:2016:U:O2'	27:A5:6:VAL:CG1	2.52	0.56
1:AA:900:A:H5'	1:AA:901:A:OP2	2.05	0.56
12:CP:26:TYR:HE1	12:CP:139:GLU:HB2	1.67	0.56
1:CA:2428:G:H4'	11:CO:67:MET:N	2.18	0.56
1:CA:895:U:C5	1:CA:979:A:N6	2.70	0.56
1:CA:1102:G:N1	1:CA:1151:C:O2	2.34	0.56
11:AO:68:GLN:HG2	30:A8:12:LYS:HD3	1.87	0.56
31:DA:1178:G:N2	31:DA:1181:G:N7	2.53	0.56
1:AA:1536:A:H2'	1:AA:1537:C:OP1	2.04	0.56
1:AA:1332:G:H21	1:AA:1610:A:H8	1.52	0.56
31:BA:1159:U:O4'	31:BA:1182:G:N2	2.38	0.56
1:CA:2883:G:C2	1:CA:2884:A:N6	2.73	0.56
1:CA:1256:A:H4'	1:CA:1257:U:O5'	2.04	0.56
30:A8:34:TRP:CE3	30:A8:35:GLN:HB2	2.40	0.56
31:BA:1227:A:OP2	43:BP:111:LYS:HE3	2.05	0.56
31:DA:963:G:H21	40:DM:55:LYS:HE2	1.70	0.56
1:AA:1582:C:HO2'	1:AA:1586:A:H8	1.52	0.56
23:CZ:82:LEU:H	23:CZ:82:LEU:CD2	2.16	0.56
26:C4:34:GLU:H	26:C4:34:GLU:CD	2.08	0.56
28:A6:24:GLU:HA	56:A6:101:OHX:N3	2.20	0.56
31:BA:192:U:H2'	31:BA:193:C:C6	2.40	0.56
5:CF:161:GLU:HG2	5:CF:164:ARG:HH12	1.70	0.56
31:BA:243:A:H4'	31:BA:244:U:H3'	1.87	0.56
31:BA:439:A:OP2	31:BA:493:G:N2	2.37	0.56
31:BA:353:A:C2'	31:BA:354:G:OP2	2.52	0.56
4:AE:37:ARG:NH1	4:AE:42:ASP:OD2	2.38	0.56
39:BL:9:ARG:HB3	39:BL:14:VAL:HG22	1.87	0.56
1:AA:2481:G:O2'	1:AA:2482:G:P	2.63	0.56
37:BJ:15:ASP:O	37:BJ:19:GLY:HA2	2.05	0.56
1:AA:974(A):C:H4'	1:AA:975:G:C5'	2.35	0.56
14:CQ:34:HIS:CG	14:CQ:54:LEU:HB2	2.40	0.56
31:DA:186(C):G:H1	31:DA:191(D):U:H3	1.53	0.56
5:CF:157:VAL:O	5:CF:194:MET:HA	2.05	0.56
31:DA:13:U:OP2	56:DA:1730:OHX:N3	2.37	0.56
51:BX:5:ASP:O	51:BX:11:GLY:HA3	2.05	0.56
9:AM:94:HIS:CG	9:AM:97:ARG:HH21	2.23	0.56
51:DX:6:ARG:HG2	51:DX:15:ARG:HH21	1.67	0.56
1:CA:853:G:O4'	11:CO:38:GLN:NE2	2.38	0.56
11:CO:55:ARG:O	11:CO:57:THR:N	2.38	0.56
42:DO:44:LYS:CB	42:DO:45:PRO:CD	2.80	0.56
45:DR:39:LEU:HD22	45:DR:39:LEU:O	2.05	0.56
34:BG:9:CYS:O	34:BG:13:ARG:HG2	2.05	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:DL:17:VAL:HG21	39:DL:80:GLY:CA	2.36	0.56
1:AA:602:G:N2	1:AA:655:A:C8	2.72	0.56
2:CB:45:C:OP1	26:C4:6:HIS:CE1	2.59	0.56
1:CA:659:A:H8	1:CA:659:A:O5'	1.87	0.56
52:DB:77:C:C4	52:DB:78:C:N4	2.73	0.56
31:DA:1321:C:N4	31:DA:1322:C:N4	2.53	0.56
1:CA:2831:A:C5	13:C0:4:LEU:HD11	2.40	0.56
38:BK:87:SER:HA	38:BK:93:VAL:HG23	1.86	0.56
31:BA:145:G:N7	56:BA:1812:OHX:N1	2.53	0.56
1:CA:646:G:H4'	1:CA:647:A:C5'	2.36	0.56
1:CA:29:U:H2'	1:CA:30:G:C8	2.40	0.56
28:C6:34:LEU:HD23	28:C6:34:LEU:H	1.70	0.56
4:AE:117:MET:O	4:AE:118:LYS:CB	2.52	0.56
31:BA:950:U:H2'	31:BA:951:G:C8	2.41	0.56
1:AA:1550:C:H2'	1:AA:1551:C:H6	1.69	0.56
1:AA:458:G:O2'	1:AA:469:G:O6	2.19	0.56
39:BL:3:GLN:HB3	39:BL:20:ARG:NH1	2.20	0.56
1:CA:1587:G:H2'	1:CA:1588:U:O4'	2.05	0.56
1:CA:2191:G:N3	1:CA:2191:G:H2'	2.19	0.56
1:AA:265:A:H1'	1:AA:266:G:O4'	2.05	0.56
8:AK:93:THR:HG22	8:AK:119:PRO:HB3	1.88	0.56
1:AA:1057:A:N7	1:AA:1086:A:C4	2.73	0.56
12:CP:26:TYR:HD1	12:CP:139:GLU:HG3	1.69	0.56
52:BD:18:G:H4'	52:BD:19:C:O5'	2.05	0.56
7:CH:7:LEU:HD12	7:CH:8:PRO:N	2.20	0.56
31:BA:79:G:H1	31:BA:90:C:H42	1.52	0.56
1:CA:2390:A:H4'	14:CQ:111:GLU:O	2.04	0.56
1:AA:2393:A:H2'	1:AA:2394:C:O4'	2.05	0.56
1:AA:2428:G:H21	11:AO:60:MET:CE	2.17	0.56
31:DA:1213:A:N6	31:DA:1215:G:N3	2.53	0.56
1:AA:1678:G:N2	1:AA:1989:G:N2	2.44	0.56
31:BA:1130:A:C2	31:BA:1146:A:C4	2.94	0.56
16:A1:79:PHE:C	16:A1:79:PHE:HD2	2.08	0.56
41:BN:54:ARG:NH1	52:BD:40:U:O3'	2.38	0.56
30:C8:51:ALA:HB1	30:C8:52:LYS:HD2	1.86	0.56
27:A5:40:LYS:CG	27:A5:47:PRO:HD2	2.35	0.56
1:CA:70:A:H5''	1:CA:72:A:C8	2.39	0.56
1:AA:860:U:C5	1:AA:917:A:H2	2.23	0.56
38:BK:82:HIS:C	38:BK:82:HIS:CD2	2.78	0.56
1:AA:1798:U:H5''	3:AD:259:THR:CG2	2.35	0.56
1:CA:2131:C:N4	1:CA:2204:G:H1	2.01	0.56
1:CA:105:C:H2'	1:CA:106:U:C6	2.35	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:AR:26:ASP:HB2	15:AR:90:GLN:O	2.06	0.56
14:CQ:29:PHE:CD2	14:CQ:30:ARG:N	2.70	0.56
5:CF:161:GLU:HA	5:CF:164:ARG:NH1	2.19	0.56
1:CA:646:G:H5'	1:CA:646:G:N3	2.20	0.56
31:DA:1190:G:OP1	33:DF:5:ILE:HG23	2.03	0.56
34:BG:108:LEU:HB3	34:BG:110:PHE:HE1	1.68	0.56
31:DA:838:G:N2	31:DA:849:C:C2	2.74	0.56
1:AA:229:A:C1'	1:AA:230:U:OP2	2.53	0.56
1:AA:2802:G:OP2	1:AA:2802:G:H8	1.88	0.56
31:DA:600:C:H2'	31:DA:601:C:H6	1.71	0.56
1:AA:587:C:H4'	1:AA:588:U:O5'	2.04	0.56
31:BA:939:G:H2'	31:BA:940:C:C6	2.40	0.56
35:DH:51:VAL:O	35:DH:55:VAL:HG23	2.05	0.56
4:AE:116:VAL:O	4:AE:117:MET:CB	2.52	0.56
24:CW:12:GLU:O	24:CW:16:LEU:HD23	2.06	0.56
32:BE:32:ILE:HD11	32:BE:40:HIS:HB3	1.86	0.56
1:AA:2105:C:H2'	1:AA:2106:G:C8	2.40	0.56
37:BJ:23:VAL:O	37:BJ:27:ILE:HG13	2.04	0.56
2:AB:77:U:P	21:AV:19:ARG:HH22	2.28	0.56
32:BE:71:VAL:HG23	32:BE:164:VAL:HA	1.86	0.56
33:BF:58:GLU:HB2	33:BF:65:ALA:HB3	1.86	0.56
49:DV:7:LYS:HG2	49:DV:8:GLY:H	1.69	0.56
1:CA:898:C:O2'	25:CX:46:ASN:ND2	2.38	0.56
23:CZ:53:VAL:HG22	23:CZ:74:VAL:HG22	1.86	0.56
37:BJ:126:ASP:HB3	37:BJ:132:GLY:HA2	1.86	0.56
40:DM:13:HIS:CE1	40:DM:14:LYS:HG3	2.40	0.56
15:CR:16:ARG:HB3	15:CR:18:ASP:OD1	2.05	0.56
1:AA:1786:A:H1'	1:AA:1938:A:N6	2.19	0.56
32:DE:187:LEU:HA	32:DE:201:ILE:HB	1.87	0.56
21:AV:23:LYS:HD3	21:AV:40:ASP:HA	1.86	0.56
17:C2:14:VAL:HB	17:C2:96:ILE:HG13	1.87	0.56
30:C8:60:LEU:C	30:C8:61:LEU:HG	2.24	0.56
31:BA:84:U:H2'	31:BA:84:U:O2	2.05	0.56
1:AA:2553:G:H5''	1:AA:2554:U:OP2	2.04	0.56
18:CS:95:ILE:HD13	18:CS:95:ILE:H	1.69	0.56
1:CA:2675:A:O5'	1:CA:2675:A:H8	1.89	0.56
53:BC:6:G:H1	53:BC:68:C:H42	1.54	0.56
31:DA:719:C:O2'	48:DU:49:LYS:HB3	2.06	0.56
9:CM:7:LYS:O	9:CM:9:VAL:HG13	2.05	0.56
10:CN:22:ILE:HG12	10:CN:41:ALA:HA	1.87	0.56
11:AO:19:VAL:CG2	11:AO:27:HIS:CB	2.39	0.56
1:CA:2694:C:N4	1:CA:2739:A:H62	2.00	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:BD:16:C:H2'	52:BD:18:G:OP2	2.05	0.56
52:BD:49:A:HO2'	52:BD:50:U:H5	1.52	0.56
52:BB:51:C:OP2	52:BB:51:C:C6	2.59	0.56
31:DA:1177:G:H2'	31:DA:1178:G:C5	2.41	0.56
42:DO:44:LYS:O	42:DO:46:ASN:N	2.39	0.56
30:A8:61:LEU:HD12	30:A8:61:LEU:O	2.05	0.56
52:DB:50:U:H2'	52:DB:51:C:C6	2.40	0.56
1:CA:66:U:O4	1:CA:73:A:N1	2.38	0.56
50:BW:76:ALA:O	50:BW:80:ARG:HG2	2.05	0.56
1:CA:2432:U:P	30:C8:33:ASN:ND2	2.79	0.56
1:AA:527:C:H4'	1:AA:528:A:H5'	1.86	0.56
2:CB:41:A:H2'	26:C4:1:MET:HE3	1.85	0.56
20:CU:76:CYS:HB3	20:CU:96:ILE:HD11	1.86	0.56
1:AA:1021:A:H3'	1:AA:1022:G:H5''	1.87	0.56
1:AA:1275:A:C4	13:A0:16:HIS:ND1	2.73	0.56
27:A5:33:CYS:HB2	27:A5:40:LYS:CD	2.32	0.56
43:DP:76:ALA:O	43:DP:80:ARG:HG3	2.06	0.56
1:AA:2284:C:H41	28:A6:25:LYS:NZ	2.03	0.56
1:AA:494:G:H4'	18:AS:6:ILE:HB	1.87	0.56
17:C2:35:LEU:O	17:C2:37:VAL:HG22	2.06	0.56
8:AK:7:GLU:O	8:AK:9:LEU:HD13	2.05	0.56
31:DA:458:C:H2'	31:DA:464:G:H8	1.69	0.56
31:BA:659:U:H2'	31:BA:660:G:C8	2.39	0.56
35:BH:147:ASP:OD2	35:BH:147:ASP:N	2.35	0.56
31:BA:745:C:OP1	31:BA:851:G:O2'	2.22	0.56
31:BA:105:G:H2'	31:BA:106:C:H6	1.71	0.56
12:CP:31:ASP:H	12:CP:107:ALA:HB2	1.70	0.56
31:DA:882:C:H41	42:DO:2:PRO:HB3	1.71	0.56
3:AD:264:LYS:HG2	3:AD:266:SER:HB3	1.87	0.56
50:DW:58:LYS:HD2	50:DW:62:LEU:HD12	1.86	0.56
1:CA:1829:C:H4'	3:CD:257:LEU:O	2.06	0.56
47:DT:29:HIS:CD2	47:DT:30:PRO:HD2	2.39	0.56
1:CA:172:A:N6	1:CA:204:G:O6	2.38	0.56
1:CA:1410:C:H2'	1:CA:1411:G:H8	1.69	0.56
7:CH:16:SER:O	7:CH:17:VAL:HG23	2.05	0.56
1:CA:1730:G:H4'	1:CA:1794:A:C2	2.40	0.56
1:AA:2163:C:C2'	1:AA:2164:C:H5'	2.34	0.56
1:CA:2189:G:N2	1:CA:2194:A:N7	2.54	0.56
1:AA:654(P):G:H2'	1:AA:654(Q):C:C6	2.39	0.56
31:DA:1343:G:H1'	39:DL:121:ARG:HH11	1.69	0.56
31:BA:1026:G:N7	31:BA:1036:G:N2	2.54	0.56
31:DA:1392:G:N2	31:DA:1502:A:C8	2.71	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:2205:G:H2'	1:CA:2206:C:C6	2.41	0.56
33:BF:12:LEU:C	33:BF:14:ILE:N	2.59	0.56
5:CF:25:PRO:CB	5:CF:28:ILE:HG23	2.36	0.56
16:A1:79:PHE:CD2	16:A1:79:PHE:C	2.79	0.56
39:BL:48:GLU:N	39:BL:49:PRO:CD	2.63	0.56
16:C1:92:ARG:C	16:C1:94:ASN:H	2.07	0.56
1:AA:1952:A:C6	1:AA:1953:A:C6	2.93	0.56
6:CG:114:ILE:HG22	6:CG:117:PHE:HB2	1.86	0.56
13:C0:34:ILE:CG2	13:C0:114:VAL:HB	2.33	0.56
1:CA:1304:C:H4'	5:CF:83:PHE:CE2	2.41	0.56
31:BA:299:G:H2'	31:BA:300:A:C8	2.40	0.56
1:CA:553:C:H5	56:CA:3331:OHX:N5	2.03	0.56
31:DA:1269:A:H2	31:DA:1312:G:N3	2.03	0.56
41:DN:111:ASP:OD1	48:DU:84:LYS:HD3	2.05	0.56
1:CA:1908:A:H3'	1:CA:1909:C:H6	1.71	0.56
21:CV:146:ILE:HG13	21:CV:147:GLY:H	1.69	0.56
25:AX:12:PRO:HB2	25:AX:20:LYS:HG2	1.86	0.56
1:CA:1294:A:O2'	1:CA:1295:G:H5''	2.05	0.56
24:AW:42:GLY:O	24:AW:44:LEU:N	2.39	0.56
31:DA:743:U:H2'	31:DA:744:C:H6	1.70	0.56
19:AT:15:GLU:CD	19:AT:15:GLU:H	2.08	0.56
31:DA:1381:U:O2	31:DA:1381:U:H2'	2.05	0.56
1:AA:618(A):C:H2'	1:AA:618(A):C:O2	2.03	0.56
31:BA:655:A:H61	31:BA:751:U:H3	1.54	0.56
52:BD:21:A:C1'	52:BD:22:A:O5'	2.53	0.56
1:AA:2690:C:OP2	1:AA:2690:C:H6	1.89	0.56
1:AA:49:A:C8	1:AA:120:U:H5	2.23	0.56
31:BA:415:A:OP2	56:BA:1666:OHX:N5	2.38	0.56
54:B1:11:U:H4'	54:B1:12:A:OP2	2.06	0.56
52:DB:78:C:O2'	52:DB:79:A:O4'	2.21	0.56
31:DA:1049:U:H4'	31:DA:1050:G:O5'	2.03	0.56
31:DA:1200:C:H5'	31:DA:1201:A:C5'	2.35	0.56
4:AE:13:ARG:HB2	4:AE:21:VAL:HG12	1.88	0.56
23:CZ:92:LYS:HB2	23:CZ:93:GLU:OE1	2.06	0.56
24:AW:29:LYS:HG2	24:AW:57:ILE:HD13	1.88	0.56
4:AE:105:THR:O	4:AE:196:VAL:HB	2.06	0.56
20:CU:95:LYS:HB2	20:CU:95:LYS:NZ	2.19	0.56
15:CR:107:ASP:H	15:CR:110:ILE:HG12	1.69	0.56
1:CA:2669:U:H3	1:CA:2678:A:H2	1.54	0.56
9:AM:47:ALA:HB2	9:AM:112:LEU:CD1	2.36	0.56
43:DP:6:GLY:O	43:DP:7:VAL:HG13	2.05	0.56
3:CD:71:ASP:OD2	3:CD:103:ARG:NH2	2.39	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:340:G:H2'	1:CA:341:C:C6	2.41	0.56
1:AA:1159:U:P	25:AX:30:ARG:HH12	2.29	0.56
1:CA:1163:C:H2'	1:CA:1164:G:H8	1.70	0.56
22:A3:14:ARG:O	22:A3:15:ASP:HB2	2.06	0.56
3:AD:137:PRO:O	3:AD:140:THR:OG1	2.22	0.56
1:AA:2119:A:H62	1:AA:2168:G:N2	2.03	0.56
31:BA:1025:U:O2'	31:BA:1026:G:O5'	2.20	0.56
34:DG:26:CYS:HA	34:DG:31:CYS:CB	2.35	0.56
52:DD:13:G:H1'	52:DD:23:A:H61	1.70	0.56
1:CA:723:A:OP1	5:CF:63:LYS:NZ	2.31	0.56
1:CA:2800:U:H4'	4:CE:64:LYS:C	2.26	0.56
31:DA:559:A:C4'	31:DA:560:U:H3'	2.33	0.56
20:CU:97:ARG:HD3	20:CU:97:ARG:H	1.70	0.56
28:A6:36:LEU:HB3	28:A6:50:ARG:HG2	1.87	0.56
3:CD:26:LYS:HD2	3:CD:26:LYS:H	1.70	0.56
52:DB:12:C:N3	52:DB:24:G:O6	2.39	0.56
1:AA:286:C:O2	1:AA:356:G:C2	2.59	0.56
33:BF:6:HIS:HD2	33:BF:7:PRO:HD2	1.71	0.56
26:A4:50:VAL:CG1	43:BP:65:LYS:HB3	2.35	0.56
5:AF:40:GLN:OE1	5:AF:184:TYR:HB3	2.06	0.56
31:BA:142:G:H2'	31:BA:143:A:H8	1.71	0.56
36:DI:100:ASN:H	48:DU:23:LYS:NZ	2.03	0.56
1:CA:17:G:H2'	1:CA:18:C:H6	1.71	0.56
1:CA:918:A:C2	1:CA:955:C:C2	2.94	0.56
32:DE:92:TYR:CE2	32:DE:151:GLY:HA3	2.41	0.56
32:BE:212:GLN:NE2	32:BE:216:SER:HB2	2.20	0.56
42:DO:30:ARG:H	42:DO:82:ILE:HG22	1.69	0.56
13:A0:44:LEU:O	13:A0:45:ARG:C	2.43	0.56
31:DA:750:G:N3	45:DR:23:GLY:HA3	2.20	0.56
37:BJ:24:THR:HA	37:BJ:27:ILE:HD12	1.88	0.56
1:AA:1551:C:H2'	1:AA:1552:G:C5'	2.36	0.56
2:AB:0:A:C2'	2:AB:1:U:H5'	2.36	0.56
29:A7:43:THR:HG23	29:A7:44:PRO:HD2	1.88	0.56
4:CE:107:THR:O	4:CE:190:GLY:HA2	2.05	0.56
26:C4:56:VAL:O	26:C4:57:GLU:HB2	2.05	0.56
1:AA:370:G:H4'	1:AA:371:A:OP2	2.04	0.56
31:BA:909:A:H2'	31:BA:910:C:O4'	2.05	0.56
31:BA:313:A:H2'	31:BA:314:C:C6	2.41	0.56
1:AA:673:C:H5''	5:AF:81:PRO:HD2	1.87	0.56
52:BB:59:A:C6	52:BB:60:A:C5	2.93	0.56
17:A2:65:GLY:HA3	17:A2:91:TYR:CZ	2.40	0.56
31:DA:1387:G:H2'	31:DA:1388:C:C6	2.41	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:BB:73:U:C2'	52:BB:74:C:H5'	2.36	0.56
5:CF:37:VAL:HG13	5:CF:184:TYR:HD1	1.70	0.56
1:AA:2310:A:H5'	1:AA:2311:A:OP2	2.04	0.56
27:A5:4:HIS:CD2	27:A5:5:PRO:HD3	2.38	0.56
1:AA:880:G:OP1	1:AA:880:G:H4'	2.06	0.56
52:BD:60:A:H2'	52:BD:61:G:O4'	2.06	0.56
31:BA:792:A:H4'	31:BA:792:A:OP1	2.06	0.56
1:CA:2156:G:H2'	1:CA:2180:G:H22	1.69	0.56
1:AA:621:A:H2'	1:AA:622:G:H5'	1.88	0.56
34:DG:31:CYS:C	34:DG:33:MET:N	2.54	0.56
1:CA:90:A:C2'	1:CA:91:G:H5'	2.35	0.56
52:DD:30:A:H61	52:DD:42:U:H3	1.53	0.56
31:DA:1024:G:H3'	31:DA:1024:G:N3	2.21	0.56
31:BA:632:A:C8	31:BA:633:G:C8	2.94	0.56
31:DA:1298:C:O2'	31:DA:1299:A:C2	2.59	0.56
31:DA:1240:U:H1'	37:DJ:38:LEU:HD21	1.87	0.56
30:A8:29:LYS:NZ	30:A8:44:LYS:HB2	2.21	0.56
2:CB:9:G:H4'	14:CQ:29:PHE:HD1	1.71	0.56
1:AA:1448:G:N3	1:AA:1529:A:H2	2.04	0.56
31:BA:880:C:P	42:BO:5:ASN:HD22	2.29	0.56
1:AA:905:U:C2'	1:AA:906:G:H5''	2.35	0.56
31:DA:116:A:OP2	31:DA:116:A:H8	1.87	0.56
31:DA:1190:G:H8	31:DA:1190:G:H3'	1.71	0.56
31:DA:585:G:H4'	42:DO:5:ASN:HD21	1.70	0.56
46:BS:5:ARG:HE	46:BS:22:THR:HG21	1.71	0.56
1:AA:2267:A:OP2	56:AA:3458:OHX:N5	2.39	0.56
1:CA:554:A:H2	1:CA:2066:C:C5'	2.18	0.56
11:AO:97:PRO:HD3	11:AO:126:VAL:O	2.06	0.56
44:BQ:15:LYS:HG2	44:BQ:16:PHE:CE2	2.41	0.56
1:CA:842:G:H2'	1:CA:843:C:C6	2.41	0.56
1:CA:844:C:H2'	1:CA:845:C:C6	2.41	0.56
4:AE:152:LYS:HG2	9:AM:78:TYR:CE1	2.41	0.56
3:CD:109:ASP:HB2	3:CD:197:GLY:HA2	1.87	0.56
28:C6:27:LYS:NZ	28:C6:27:LYS:HB2	2.21	0.56
1:AA:1420:U:O2'	1:AA:1421:G:OP1	2.20	0.56
1:AA:899:A:OP2	1:AA:899:A:H8	1.89	0.56
3:AD:36:PRO:HB3	3:AD:61:LEU:HB3	1.88	0.56
31:BA:1299:A:H5'	31:BA:1300:G:OP1	2.06	0.56
31:BA:1178:G:H22	31:BA:1181:G:H8	1.49	0.56
31:BA:1010:G:N2	31:BA:1020:U:H1'	2.21	0.56
41:DN:54:ARG:HG2	41:DN:54:ARG:NH1	1.98	0.56
6:CG:104:GLU:HG2	26:C4:23:GLU:CG	2.24	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:AB:7:G:H4'	14:AQ:29:PHE:CD1	2.40	0.56
5:CF:18:ARG:NH2	5:CF:20:LEU:HD12	2.20	0.56
1:CA:469:G:C6	1:CA:471:C:N4	2.74	0.56
32:DE:77:ALA:HB2	32:DE:211:ILE:HD13	1.86	0.56
23:CZ:86:SER:H	23:CZ:87:PRO:HD2	1.65	0.56
30:A8:34:TRP:C	30:A8:34:TRP:CD1	2.80	0.56
1:AA:1869:G:H5'	1:AA:1870:C:OP2	2.05	0.56
31:BA:1322:C:HO2'	31:BA:1323:G:C5'	2.15	0.56
21:CV:115:GLY:CA	21:CV:177:PRO:HG2	2.36	0.56
42:BO:4:ILE:CD1	47:BT:32:TYR:HB3	2.36	0.56
1:AA:165:U:H2'	1:AA:171:G:O4'	2.05	0.56
1:CA:479:G:H5'	5:CF:59:TYR:CE2	2.37	0.56
31:BA:284:G:H2'	31:BA:285:G:C8	2.41	0.56
35:BH:31:LEU:HD23	35:BH:45:PHE:HD1	1.68	0.56
41:BN:29:ILE:HG13	41:BN:44:SER:HB3	1.88	0.56
31:BA:129(A):G:C2	31:BA:191(A):G:C8	2.93	0.56
12:CP:116:GLU:O	12:CP:117:ALA:HB2	2.06	0.56
31:DA:404:U:H2'	31:DA:405:U:C6	2.41	0.56
46:BS:1:MET:O	46:BS:1:MET:HG2	2.06	0.56
34:DG:30:LYS:O	34:DG:30:LYS:HG2	2.05	0.56
1:AA:2197:U:OP2	56:AA:3419:OHX:N4	2.39	0.56
34:BG:53:ASP:OD2	34:BG:57:ARG:NH2	2.39	0.56
34:DG:64:LEU:HD13	34:DG:198:VAL:HG21	1.87	0.56
8:AK:76:THR:HG23	8:AK:139:GLN:O	2.05	0.56
1:AA:1813:G:H1'	3:AD:50:THR:OG1	2.06	0.56
31:DA:1255:G:OP1	40:DM:45:ARG:NH1	2.36	0.56
8:AK:94:ALA:O	8:AK:111:PRO:HG3	2.05	0.56
1:CA:218:A:H3'	1:CA:218:A:H8	1.71	0.56
1:AA:956:G:H5''	12:AP:77:LYS:HE2	1.88	0.56
1:AA:883:G:H2'	1:AA:884:C:C4'	2.35	0.56
1:AA:2135:A:N6	1:AA:2156:G:O2'	2.39	0.56
31:BA:792:A:O2'	31:BA:794:A:C8	2.58	0.56
11:AO:9:ASN:O	11:AO:10:PRO:C	2.43	0.56
5:CF:18:ARG:HH21	5:CF:20:LEU:HD12	1.71	0.56
1:AA:2346:A:H5''	1:AA:2383:G:C1'	2.36	0.56
1:CA:1059:U:O2	1:CA:1059:U:H2'	2.06	0.56
1:CA:1926:G:OP1	3:CD:241:PRO:HB2	2.06	0.56
39:DL:17:VAL:HG21	39:DL:80:GLY:HA3	1.87	0.56
20:CU:84:ARG:O	20:CU:85:VAL:HB	2.06	0.56
31:BA:1346:A:C5	37:BJ:10:ARG:NH1	2.74	0.56
31:DA:1056:U:C2'	31:DA:1056:U:O2	2.53	0.56
51:DX:9:ARG:HG3	51:DX:10:ARG:N	2.21	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:A5:51:TYR:C	27:A5:56:LYS:HE2	2.26	0.56
15:AR:26:ASP:O	15:AR:49:VAL:HG13	2.05	0.56
37:BJ:62:PHE:HA	37:BJ:124:LEU:HD21	1.87	0.56
20:AU:56:PRO:C	20:AU:57:GLN:HG3	2.26	0.56
1:CA:1851:A:H4'	1:CA:1852:U:O5'	2.06	0.56
1:AA:1889:A:N1	1:AA:2234:G:H1'	2.21	0.56
40:DM:79:ARG:H	40:DM:79:ARG:HD3	1.71	0.56
2:CB:26:G:H4'	2:CB:27:A:C8	2.40	0.56
43:DP:14:ARG:HD2	43:DP:42:ALA:HA	1.88	0.56
31:BA:8:A:H4'	31:BA:9:G:OP1	2.06	0.56
1:AA:297:C:H5''	20:AU:85:VAL:CG2	2.36	0.56
1:AA:1786:A:C2	1:AA:2606:C:H1'	2.40	0.56
1:AA:1420:U:HO2'	1:AA:1421:G:P	2.29	0.56
1:AA:2024:G:H2'	1:AA:2025:C:H6	1.71	0.56
1:CA:1516:C:H2'	1:CA:1517:A:H8	1.70	0.56
34:BG:85:LYS:O	56:BG:302:OHX:N2	2.39	0.56
1:AA:2823:A:OP1	4:AE:113:PHE:HB2	2.06	0.56
31:DA:909:A:H2'	31:DA:910:C:O4'	2.06	0.56
15:AR:121:ILE:O	15:AR:124:ASP:HB2	2.05	0.56
1:AA:409:C:OP2	56:AA:3312:OHX:N1	2.39	0.56
35:DH:99:GLY:O	35:DH:117:ASP:HA	2.05	0.56
1:AA:1236:G:O6	56:AA:3499:OHX:N4	2.38	0.56
19:CT:5:TYR:HB3	24:CW:33:MET:HB2	1.88	0.56
1:CA:1959:A:C8	1:CA:1963:U:O2	2.59	0.56
1:AA:2010:G:N7	56:AA:3557:OHX:N1	2.54	0.56
1:AA:1540:G:H2'	1:AA:1541:U:O4'	2.06	0.56
12:CP:4:PRO:CG	12:CP:71:ASP:HA	2.36	0.55
52:BD:67:A:O2'	52:BD:69:U:OP2	2.23	0.55
1:CA:873:C:O2'	1:CA:874:U:H5'	2.06	0.55
16:C1:50:ARG:NH2	17:C2:72:VAL:HG21	2.20	0.55
31:DA:1502:A:H4'	31:DA:1503:A:OP2	2.06	0.55
14:CQ:110:LEU:HD23	14:CQ:112:PHE:CE1	2.42	0.55
1:AA:1130:U:HO2'	1:AA:1131:G:P	2.29	0.55
1:CA:1389:A:N1	1:CA:1444:U:C4	2.75	0.55
31:DA:1145:C:C4'	31:DA:1146:A:OP1	2.49	0.55
31:BA:444:C:N3	31:BA:490:G:N2	2.42	0.55
31:BA:88:C:C2'	31:BA:88:C:O2	2.54	0.55
21:CV:48:PHE:CE2	21:CV:52:SER:HA	2.41	0.55
16:A1:27:LEU:CD1	16:A1:31:SER:HB3	2.34	0.55
1:CA:1218:G:H1	1:CA:1224:C:N4	2.04	0.55
1:AA:2564:A:C2	1:AA:2647:U:H4'	2.42	0.55
1:AA:1364:G:C8	23:AZ:2:SER:HB3	2.41	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AK:69:LYS:HG3	8:AK:73:GLU:OE2	2.06	0.55
1:AA:222:A:C1'	1:AA:223:A:OP1	2.54	0.55
31:BA:345:C:HO2'	31:BA:346:G:N2	2.04	0.55
23:CZ:91:LYS:HZ3	23:CZ:91:LYS:HB2	1.71	0.55
17:C2:64:HIS:CD2	17:C2:92:THR:HG23	2.41	0.55
11:CO:11:GLY:C	11:CO:13:ASN:N	2.60	0.55
31:DA:235:C:H5'	47:DT:70:ARG:HG2	1.87	0.55
21:AV:5:LEU:HD21	21:AV:44:PHE:HA	1.87	0.55
11:AO:138:LEU:CD1	11:AO:144:GLU:HG3	2.35	0.55
50:BW:29:LYS:O	50:BW:33:ILE:HG12	2.05	0.55
1:AA:64:A:C4	19:AT:66:LEU:HD23	2.40	0.55
28:A6:30:THR:HA	28:A6:31:PRO:C	2.26	0.55
31:BA:977:A:C8	31:BA:1223:C:C4	2.94	0.55
13:A0:42:LYS:O	13:A0:45:ARG:HD3	2.06	0.55
1:AA:1858:G:H1'	1:AA:1884:A:N6	2.21	0.55
1:AA:755:C:H2'	1:AA:756:C:H6	1.71	0.55
1:CA:495:G:N7	29:C7:39:ARG:NH2	2.50	0.55
4:AE:68:ALA:C	4:AE:70:ALA:H	2.09	0.55
46:DS:58:TYR:O	46:DS:61:SER:N	2.39	0.55
2:CB:96:C:O2'	2:CB:97:C:H5'	2.06	0.55
3:CD:137:PRO:O	3:CD:140:THR:HG23	2.05	0.55
31:BA:665:A:H2'	31:BA:732:C:O2	2.07	0.55
31:BA:450:G:N7	31:BA:481:G:C6	2.74	0.55
1:AA:2818:G:O2'	1:AA:2819:G:H5'	2.05	0.55
14:AQ:111:GLU:O	14:AQ:112:PHE:HB3	2.06	0.55
1:AA:880:G:HO2'	1:AA:881:G:P	2.24	0.55
1:CA:2406:A:OP1	30:C8:30:ARG:HB2	2.05	0.55
7:CH:6:ARG:CZ	7:CH:54:ARG:HH12	2.19	0.55
1:CA:1653:G:H5''	1:CA:1654:C:OP1	2.06	0.55
15:AR:50:ILE:O	15:AR:99:LEU:HD12	2.06	0.55
31:DA:993:G:C5	31:DA:1046:A:C2	2.95	0.55
31:BA:1132:C:H42	31:BA:1143:G:H21	1.54	0.55
16:A1:90:VAL:HA	17:A2:39:LEU:HD23	1.89	0.55
31:BA:954:G:O6	31:BA:1225:A:N6	2.40	0.55
30:C8:49:VAL:CG1	30:C8:50:LEU:N	2.65	0.55
30:C8:20:GLY:O	30:C8:57:ARG:HD3	2.06	0.55
31:DA:1052:U:H6	31:DA:1052:U:O5'	1.89	0.55
16:A1:108:GLU:OE2	16:A1:112:ARG:NH1	2.38	0.55
1:AA:26:G:H1'	1:AA:514:A:N6	2.21	0.55
1:AA:2797:U:H2'	1:AA:2797:U:O2	2.06	0.55
31:BA:221:C:C2'	31:BA:222:U:H5'	2.36	0.55
31:BA:390:C:O3'	46:BS:28:ARG:NH2	2.37	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:AQ:108:GLY:N	14:AQ:110:LEU:HD21	2.20	0.55
31:DA:586:C:O2	31:DA:755:G:N1	2.34	0.55
1:AA:2378:A:O5'	1:AA:2378:A:H8	1.89	0.55
33:DF:17:ASP:OD2	33:DF:18:TRP:N	2.38	0.55
21:AV:98:MET:O	21:AV:125:LEU:HD12	2.06	0.55
21:CV:157:LEU:CA	21:CV:161:VAL:HG11	2.35	0.55
31:BA:1325:C:C2'	31:BA:1326:C:H5'	2.35	0.55
8:CK:144:VAL:O	8:CK:145:VAL:HG22	2.07	0.55
31:DA:1384:C:H2'	31:DA:1385:G:C8	2.42	0.55
1:CA:2271:C:H4'	1:CA:2272:G:OP2	2.06	0.55
1:AA:2881:C:C2	1:AA:2882:A:C8	2.93	0.55
31:BA:380:G:N2	31:BA:384:G:C4	2.75	0.55
32:DE:137:ARG:NH2	32:DE:140:HIS:HB3	2.20	0.55
31:BA:719:C:O2'	48:BU:49:LYS:HB3	2.06	0.55
18:CS:47:VAL:O	18:CS:50:VAL:HG12	2.06	0.55
3:CD:24:ILE:CD1	3:CD:84:TYR:HB2	2.36	0.55
31:DA:197:A:H1'	31:DA:198:G:OP2	2.06	0.55
37:BJ:69:VAL:O	37:BJ:69:VAL:HG12	2.07	0.55
1:AA:172:C:H2'	1:AA:173:G:C8	2.42	0.55
7:CH:11:VAL:HB	7:CH:13:LYS:HD2	1.89	0.55
39:BL:53:VAL:HG21	39:BL:92:TYR:CG	2.41	0.55
1:AA:2135:A:HO2'	1:AA:2136:C:P	2.28	0.55
8:AK:131:LYS:N	8:AK:131:LYS:HD2	2.22	0.55
1:CA:2359:A:H5''	1:CA:2396:G:H1'	1.87	0.55
1:AA:2116:G:OP1	1:AA:2165:G:N2	2.34	0.55
52:BB:16:C:H5'	52:BB:17:G:OP2	2.06	0.55
52:BB:13:G:H1'	52:BB:24:G:N1	2.21	0.55
31:DA:1161:C:O2'	31:DA:1162:C:H5'	2.06	0.55
3:AD:35:LYS:HE3	3:AD:63:ARG:C	2.26	0.55
1:AA:1899:G:O2'	1:AA:1900:A:OP2	2.16	0.55
52:BD:43:G:H2'	52:BD:44:C:C6	2.42	0.55
31:DA:266:G:N1	31:DA:270:A:N6	2.34	0.55
39:DL:95:LYS:HD3	39:DL:96:LEU:H	1.70	0.55
1:CA:1018:G:H3'	1:CA:1019:A:H2'	1.88	0.55
2:CB:42:U:O2'	2:CB:47:A:N6	2.38	0.55
49:DV:31:ILE:HG23	49:DV:49:ILE:HG23	1.87	0.55
31:DA:1206:G:H4'	33:DF:192:THR:C	2.26	0.55
31:BA:1285:A:H1'	31:BA:1286:A:OP2	2.06	0.55
40:DM:48:THR:HA	40:DM:62:HIS:CB	2.36	0.55
1:AA:1165:U:H2'	1:AA:1166:C:C6	2.41	0.55
14:AQ:27:SER:HA	14:AQ:88:ASP:CB	2.36	0.55
52:BB:31:G:H1	52:BB:41:C:N4	2.03	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:AM:57:ALA:O	9:AM:58:ASP:CB	2.54	0.55
21:CV:18:LEU:HB3	21:CV:23:LYS:O	2.06	0.55
6:CG:101:ILE:HD12	6:CG:102:PHE:N	2.22	0.55
31:DA:1042:G:H2'	31:DA:1043:C:O4'	2.07	0.55
45:BR:11:VAL:HG21	45:BR:34:LEU:HD22	1.87	0.55
5:AF:93:LYS:HB3	5:AF:94:PRO:HD2	1.88	0.55
5:CF:64:ILE:HG13	5:CF:65:TRP:CD1	2.41	0.55
31:BA:595:G:H22	31:BA:643:C:H41	1.52	0.55
10:AN:7:TYR:CZ	10:AN:44:LYS:HG3	2.41	0.55
46:DS:22:THR:HA	46:DS:33:ILE:HG12	1.88	0.55
32:DE:142:LEU:O	32:DE:146:GLN:HB2	2.06	0.55
7:CH:83:TYR:O	7:CH:84:SER:OG	2.18	0.55
11:CO:64:LYS:HB3	30:C8:25:MET:CG	2.34	0.55
52:BD:48:C:N3	52:BD:52:G:N2	2.44	0.55
52:BB:68:A:H3'	52:BB:69:U:H6	1.71	0.55
3:AD:34:VAL:O	3:AD:34:VAL:HG13	2.07	0.55
1:AA:1971:A:N3	3:AD:241:PRO:HD3	2.21	0.55
31:DA:89:U:HO2'	31:DA:90:C:H6	1.55	0.55
33:BF:11:ARG:HB3	33:BF:15:THR:HB	1.86	0.55
1:CA:2643:G:H1'	1:CA:2904:G:C8	2.41	0.55
1:CA:2883:G:C6	1:CA:2884:A:N1	2.74	0.55
17:A2:35:LEU:HD21	17:A2:57:VAL:HG13	1.88	0.55
1:AA:1019:U:O2	1:AA:1144:G:N2	2.40	0.55
31:BA:1226:C:H4'	49:BV:80:TYR:OH	2.05	0.55
41:BN:57:THR:CG2	41:BN:60:ALA:H	2.17	0.55
17:C2:80:GLN:NE2	17:C2:80:GLN:HA	2.17	0.55
31:BA:992:U:H4'	31:BA:993:G:O5'	2.07	0.55
4:AE:21:VAL:HG23	4:AE:22:PRO:CD	2.37	0.55
31:BA:1453:G:C8	50:BW:39:LYS:HE2	2.42	0.55
1:AA:1379:A:H1'	1:AA:1380:G:OP1	2.07	0.55
30:A8:48:PHE:CE2	30:A8:50:LEU:HD13	2.36	0.55
1:CA:2360:C:H4'	28:C6:39:TYR:CE2	2.37	0.55
5:CF:164:ARG:HH21	5:CF:177:ALA:HB2	1.71	0.55
31:DA:601:C:N4	31:DA:637:G:H1	2.04	0.55
28:C6:34:LEU:O	28:C6:36:LEU:HG	2.06	0.55
4:CE:51:PHE:O	4:CE:52:LEU:HB2	2.04	0.55
31:DA:1436:U:H2'	31:DA:1437:C:C6	2.41	0.55
1:CA:843:C:O2'	1:CA:844:C:H5'	2.07	0.55
12:AP:133:ARG:O	12:AP:134:ARG:HB2	2.06	0.55
1:AA:474:G:O6	56:AA:3518:OHX:N1	2.39	0.55
1:CA:2496:C:H5'	1:CA:2497:G:OP2	2.06	0.55
6:AG:10:LYS:HD3	6:AG:15:VAL:HG23	1.88	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:C0:33:ARG:HG3	13:C0:115:GLU:HG3	1.89	0.55
15:AR:37:GLY:O	15:AR:38:ASN:HB2	2.06	0.55
1:AA:2661:G:OP2	1:AA:2661:G:H8	1.90	0.55
1:AA:2490:G:N2	56:AA:3421:OHX:N3	2.54	0.55
1:CA:2694:C:O2	1:CA:2694:C:H2'	2.07	0.55
31:BA:791:G:O6	31:BA:792:A:N6	2.39	0.55
1:CA:2141:U:H3	1:CA:2170:G:HO2'	1.54	0.55
52:BD:13:G:H1'	52:BD:23:A:H61	1.71	0.55
31:DA:989:C:HO2'	31:DA:1017:G:HO2'	1.46	0.55
31:DA:818:G:O2'	31:DA:819:A:H5'	2.07	0.55
4:AE:78:LEU:O	4:AE:79:ARG:CB	2.49	0.55
2:CB:52:G:OP1	14:CQ:63:THR:HG23	2.06	0.55
13:A0:12:ARG:HE	13:A0:16:HIS:CD2	2.24	0.55
40:DM:78:ASN:ND2	40:DM:81:THR:HG23	2.22	0.55
31:DA:1207:G:O2'	31:DA:1208:C:H5'	2.06	0.55
43:DP:83:ASP:OD2	43:DP:83:ASP:N	2.38	0.55
24:AW:32:LEU:HA	24:AW:35:LEU:HD23	1.89	0.55
48:DU:22:VAL:HG22	48:DU:23:LYS:N	2.21	0.55
1:AA:580:C:H2'	1:AA:581:C:C6	2.41	0.55
14:CQ:86:ALA:O	14:CQ:87:PHE:CB	2.54	0.55
1:CA:2850:G:C5'	13:C0:46:GLY:HA2	2.36	0.55
1:AA:1206:G:C6	1:AA:1207:C:C4	2.94	0.55
32:DE:20:GLU:HG3	32:DE:190:THR:O	2.06	0.55
6:CG:55:LYS:NZ	6:CG:58:GLN:HE22	2.05	0.55
2:CB:85:G:H1	2:CB:96:C:H42	1.54	0.55
1:AA:1955:U:O3'	1:AA:1956:U:H6	1.89	0.55
31:BA:1120:G:N7	56:BA:1768:OHX:N1	2.55	0.55
1:AA:1817:G:H2'	1:AA:1818:U:H5'	1.88	0.55
36:DI:2:ARG:HH11	36:DI:92:LYS:NZ	2.05	0.55
1:CA:937:C:H2'	1:CA:938:A:H4'	1.89	0.55
12:CP:132:VAL:HG22	12:CP:133:ARG:N	2.19	0.55
3:AD:69:ARG:HH21	3:AD:130:ALA:N	2.04	0.55
1:CA:2039:U:C2'	1:CA:2040:U:O5'	2.55	0.55
1:CA:1108:U:H4'	1:CA:1117:A:H1'	1.88	0.55
1:CA:1145:A:C2'	1:CA:1146:G:H5'	2.36	0.55
5:CF:4:VAL:HA	5:CF:19:GLU:CB	2.34	0.55
52:DD:25:G:H2'	52:DD:26:G:O4'	2.06	0.55
31:DA:998:G:N2	31:DA:1044:A:H1'	2.21	0.55
5:CF:132:VAL:HG13	5:CF:133:ASN:OD1	2.07	0.55
1:CA:2734:U:H2'	1:CA:2735:A:C8	2.42	0.55
1:AA:2371:G:H4'	28:A6:45:LYS:HG3	1.88	0.55
21:CV:6:LYS:HG3	21:CV:7:ALA:N	2.14	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1026:U:O2	1:AA:1027:A:H3'	2.06	0.55
31:BA:630:G:H2'	31:BA:631:G:O4'	2.06	0.55
1:CA:2659:C:H2'	1:CA:2660:U:O4'	2.06	0.55
31:DA:1298:C:H5	37:DJ:114:ARG:HD2	1.72	0.55
31:DA:1286:A:H3'	31:DA:1287:A:C5'	2.35	0.55
31:DA:1352:C:P	51:DX:3:LYS:HZ1	2.30	0.55
8:CK:77:LEU:HG	8:CK:78:THR:N	2.21	0.55
31:DA:833:U:O2'	31:DA:834:C:H5'	2.05	0.55
31:DA:272:C:H2'	31:DA:273:A:H8	1.72	0.55
7:CH:149:ARG:HD3	7:CH:164:TYR:HE1	1.71	0.55
31:BA:1387:G:H2'	31:BA:1388:C:C6	2.42	0.55
31:DA:952:U:H2'	31:DA:953:G:C8	2.42	0.55
31:DA:197:A:OP2	31:DA:197:A:H3'	2.05	0.55
47:BT:6:LEU:HD22	47:BT:23:VAL:HG11	1.87	0.55
1:CA:533:A:H5''	1:CA:534:G:H2'	1.88	0.55
53:BC:14:A:C2	53:BC:15:G:H1'	2.42	0.55
32:BE:231:GLU:HG2	32:BE:232:PRO:N	2.21	0.55
1:CA:1036:G:O6	56:CA:3274:OHX:N3	2.40	0.55
35:DH:41:VAL:HG13	35:DH:113:ALA:HA	1.88	0.55
1:AA:1324:G:C4	1:AA:1328:G:O6	2.60	0.55
32:BE:200:ILE:H	32:BE:200:ILE:HD12	1.72	0.55
35:DH:67:VAL:HG21	35:DH:140:ARG:HA	1.89	0.55
22:C3:51:VAL:N	22:C3:62:LEU:HD12	2.22	0.55
1:AA:1547:C:H2'	1:AA:1548:C:C6	2.42	0.55
1:CA:2323:A:N6	6:CG:80:PHE:HE2	2.04	0.55
1:AA:2458:G:OP2	56:AA:3421:OHX:N4	2.40	0.55
1:AA:1053:C:H42	1:AA:1106:G:H1	1.54	0.55
21:CV:80:ARG:HD3	21:CV:82:ARG:NH2	2.19	0.55
1:CA:2177:G:H2'	1:CA:2178:G:H8	1.72	0.55
52:BB:51:C:N3	52:BB:52:G:H1'	2.22	0.55
43:BP:23:TYR:HD1	43:BP:67:GLU:HA	1.71	0.55
31:BA:156:G:N1	31:BA:165:C:N4	2.36	0.55
26:C4:15:ILE:O	26:C4:33:VAL:HG13	2.07	0.55
52:DB:75:C:HO2'	52:DB:76:C:P	2.29	0.55
32:DE:74:LYS:O	32:DE:75:LYS:HB2	2.06	0.55
1:AA:996:A:H4'	16:A1:92:ARG:NE	2.20	0.55
39:DL:18:PHE:O	39:DL:62:TYR:N	2.36	0.55
31:BA:209:U:O2'	31:BA:216:G:C4	2.60	0.55
4:CE:26:ILE:HG22	4:CE:27:LEU:N	2.22	0.55
17:C2:79:VAL:O	17:C2:80:GLN:CB	2.54	0.55
8:AK:73:GLU:CD	8:AK:137:PRO:HD2	2.26	0.55
15:CR:24:PRO:HD3	15:CR:52:ILE:HD12	1.89	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:DB:31:G:H2'	52:DB:32:A:O4'	2.07	0.55
1:CA:1325:A:H4'	13:C0:34:ILE:HD11	1.89	0.55
1:AA:321:G:H4'	5:AF:165:ARG:O	2.06	0.55
32:BE:94:ASN:OD1	32:BE:95:GLN:HG2	2.07	0.55
31:BA:723:U:O2	31:BA:723:U:C2'	2.55	0.55
1:CA:2870:G:HO2'	1:CA:2871:A:C5'	2.19	0.55
7:CH:92:ILE:H	7:CH:92:ILE:HD12	1.72	0.55
31:BA:439:A:H2'	31:BA:440:A:O5'	2.07	0.55
1:AA:443:A:H3'	5:AF:45:ARG:HH12	1.71	0.55
21:CV:104:PHE:O	21:CV:105:VAL:CB	2.55	0.55
31:DA:5:U:H1'	56:DG:302:OHX:N1	2.21	0.55
52:BD:1:G:H1	52:BD:81:C:H42	1.54	0.55
1:AA:271(B):G:H4'	1:AA:271(C):U:H5'	1.89	0.55
10:CN:4:PRO:O	10:CN:5:GLN:HB2	2.05	0.55
38:DK:14:ARG:O	38:DK:18:ARG:HD3	2.06	0.55
31:DA:1510:U:H2'	31:DA:1511:G:C8	2.41	0.55
31:BA:1151:A:N6	31:BA:1152:A:N6	2.54	0.55
1:AA:2766:G:N3	1:AA:2766:G:H2'	2.22	0.55
34:BG:141:ARG:HB3	34:BG:142:PRO:HD2	1.89	0.55
41:DN:105:VAL:O	41:DN:105:VAL:HG22	2.07	0.55
41:DN:34:ASP:OD1	41:DN:38:ASN:HB2	2.06	0.55
1:AA:957:A:H5'	12:AP:76:LYS:HG2	1.88	0.55
1:AA:882:G:C2	1:AA:894:C:N3	2.74	0.55
12:CP:2:LEU:O	12:CP:70:PRO:HG3	2.07	0.55
1:AA:2115:G:O6	1:AA:2117:A:H3'	2.04	0.55
31:BA:790:A:H2'	31:BA:791:G:O4'	2.06	0.55
3:AD:25:THR:O	3:AD:26:LYS:C	2.45	0.55
3:AD:36:PRO:HA	3:AD:62:TYR:O	2.07	0.55
52:DB:51:C:H6	52:DB:51:C:OP2	1.88	0.55
3:CD:35:LYS:CE	3:CD:104:TYR:CD1	2.89	0.55
34:BG:9:CYS:HA	34:BG:12:CYS:HB2	1.88	0.55
31:DA:1134:G:C2'	31:DA:1135:U:H5'	2.37	0.55
32:DE:6:THR:O	32:DE:7:VAL:HB	2.06	0.55
1:AA:954:G:H5''	12:AP:13:GLN:OE1	2.06	0.55
1:CA:1217:G:N3	1:CA:1217:G:H2'	2.20	0.55
27:A5:40:LYS:HZ3	27:A5:46:CYS:HB3	1.69	0.55
31:BA:530:G:H3'	31:BA:530:G:P	2.47	0.55
1:CA:1514:G:H5'	1:CA:1515:C:OP1	2.07	0.55
21:CV:69:THR:HG22	21:CV:90:VAL:HA	1.89	0.55
32:DE:178:ARG:HH11	32:DE:178:ARG:CG	2.20	0.55
39:BL:4:TYR:CD1	39:BL:88:TYR:HB2	2.41	0.55
1:AA:598:G:H1'	11:AO:12:ALA:CB	2.36	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1101:A:N6	32:DE:176:GLU:OE2	2.39	0.55
1:AA:2055:C:H5'	1:AA:2056:G:H5''	1.89	0.55
26:C4:39:CYS:O	26:C4:40:HIS:HB2	2.06	0.55
31:DA:1226:C:N4	43:DP:104:ARG:HD2	2.22	0.55
40:DM:46:ARG:HG2	40:DM:47:PHE:N	2.21	0.55
44:DQ:37:PHE:HE1	44:DQ:53:LEU:HD22	1.71	0.55
31:BA:8:A:H62	34:BG:208:SER:HB2	1.72	0.55
8:AK:93:THR:O	8:AK:97:ILE:HG12	2.06	0.55
18:CS:47:VAL:HA	18:CS:50:VAL:HG12	1.87	0.55
41:DN:33:THR:HG22	41:DN:39:PRO:HA	1.89	0.55
11:CO:37:GLY:O	11:CO:40:SER:N	2.31	0.55
43:BP:48:LEU:HD11	43:BP:53:VAL:HG22	1.89	0.55
1:CA:19:C:H2'	1:CA:20:C:C6	2.42	0.55
45:DR:28:GLN:O	45:DR:32:LEU:HG	2.06	0.55
17:A2:29:PRO:HA	17:A2:61:VAL:HG23	1.89	0.55
1:AA:2334:G:H5'	14:AQ:9:ARG:HG2	1.88	0.55
1:AA:85:G:OP2	20:AU:9:LYS:HB2	2.06	0.55
31:DA:1096:C:H2'	31:DA:1097:C:H6	1.71	0.55
33:DF:152:ILE:HG23	33:DF:167:TRP:HB2	1.87	0.55
31:DA:947:G:H2'	31:DA:948:C:C6	2.41	0.55
12:AP:137:TYR:CE2	21:AV:83:PRO:HG3	2.42	0.55
1:CA:405:C:H2'	1:CA:406:C:H6	1.72	0.55
11:CO:62:LEU:HD21	30:C8:25:MET:O	2.07	0.55
52:BB:52:G:C2	52:BB:53:A:C5	2.95	0.55
31:DA:1346:A:C5	37:DJ:10:ARG:NH2	2.75	0.55
1:CA:1108:U:H4'	1:CA:1117:A:C1'	2.37	0.55
1:CA:1137:U:O4	1:CA:1148:U:C2	2.59	0.55
3:CD:246:PRO:HG2	3:CD:255:LYS:CG	2.37	0.55
14:CQ:110:LEU:HB2	14:CQ:112:PHE:CE1	2.42	0.55
31:DA:79:G:N2	31:DA:90:C:N3	2.49	0.55
5:CF:63:LYS:CE	5:CF:67:GLN:HB2	2.28	0.55
1:AA:2439:A:P	1:AA:2439:A:H3'	2.47	0.55
7:AH:127:GLU:HG2	7:AH:128:PRO:HD2	1.89	0.55
2:CB:17:A:OP2	2:CB:110:U:O2'	2.25	0.55
1:CA:2079:G:H2'	1:CA:2079:G:N3	2.21	0.55
31:DA:1332:A:O5'	31:DA:1332:A:H8	1.90	0.55
31:DA:688:G:H2'	31:DA:689:C:H6	1.71	0.55
43:BP:108:ARG:NH1	43:BP:112:GLY:O	2.39	0.55
31:DA:962:C:H42	31:DA:973:G:H1	1.55	0.55
15:CR:6:LEU:HD12	15:CR:9:LEU:HD12	1.89	0.55
1:CA:2481:G:H3'	1:CA:2489:A:N1	2.21	0.55
1:AA:322:A:H5'	1:AA:340:A:O4'	2.06	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:A4:14:ILE:CG2	26:A4:21:VAL:HB	2.36	0.55
1:AA:511:U:C5	1:AA:512:G:C5	2.94	0.55
31:BA:404:U:H2'	31:BA:405:U:C6	2.42	0.55
31:BA:406:G:H2'	31:BA:407:G:C8	2.38	0.55
31:DA:1109:C:OP2	33:DF:176:HIS:ND1	2.38	0.55
31:BA:942:G:H21	39:BL:124:GLN:NE2	2.04	0.55
5:CF:118:ALA:HB2	5:CF:123:LEU:HD23	1.89	0.55
1:AA:2712:U:O2'	1:AA:2712(A):A:OP2	2.22	0.55
1:AA:2480:C:C2'	1:AA:2481:G:H5'	2.36	0.55
31:DA:1072:G:O6	31:DA:1102:A:N6	2.40	0.55
33:DF:23:TYR:C	33:DF:23:TYR:CD2	2.80	0.55
37:BJ:13:GLN:O	37:BJ:24:THR:HG21	2.07	0.55
31:DA:940:C:H2'	31:DA:941:G:C8	2.42	0.55
32:BE:22:LYS:HZ3	32:BE:22:LYS:HA	1.72	0.55
43:BP:57:ARG:HH11	43:BP:57:ARG:HB2	1.72	0.55
1:CA:717:G:O2'	1:CA:718:A:P	2.65	0.55
31:BA:829:G:H2'	31:BA:830:G:H8	1.72	0.55
13:A0:107:ASP:OD2	13:A0:108:GLY:N	2.40	0.55
1:AA:2246:G:H2'	1:AA:2247:A:C8	2.41	0.55
10:AN:35:VAL:HG21	10:AN:69:ILE:HG12	1.89	0.55
32:BE:20:GLU:HB2	32:BE:190:THR:OG1	2.07	0.55
1:CA:1803:C:O2'	1:CA:1818:A:H8	1.89	0.55
1:CA:2544:A:H4'	7:CH:157:TYR:CE2	2.42	0.55
10:AN:64:ARG:HG2	10:AN:79:PHE:CG	2.42	0.55
47:BT:91:ARG:NH1	47:BT:92:ARG:HH21	2.05	0.55
27:A5:4:HIS:O	27:A5:5:PRO:C	2.43	0.55
30:C8:28:GLY:C	30:C8:30:ARG:H	2.10	0.55
52:BB:56:U:O2	52:BB:56:U:C2'	2.53	0.55
52:BB:57:C:H4'	52:BB:58:G:O5'	2.07	0.55
31:BA:1034:G:H2'	31:BA:1035:A:H8	1.72	0.55
52:DB:55:U:C2	52:DB:56:U:C6	2.95	0.55
1:AA:2212:A:H1'	1:AA:2215:G:C4	2.42	0.55
52:DD:42:U:H2'	52:DD:43:G:H8	1.71	0.55
1:AA:1210:A:H5''	1:AA:1212:G:H5'	1.89	0.55
1:AA:628:G:H2'	1:AA:629:G:C8	2.42	0.55
52:BB:77:C:C4	52:BB:78:C:N4	2.75	0.55
30:C8:36:LYS:HB2	30:C8:41:ILE:HG13	1.89	0.55
2:CB:17:A:C2'	2:CB:18:G:OP1	2.55	0.55
2:CB:17:A:H5''	2:CB:18:G:C8	2.42	0.55
1:CA:1044:G:H2'	1:CA:1045:C:H6	1.72	0.55
34:BG:155:LEU:HD12	34:BG:158:ILE:HD11	1.89	0.55
31:BA:148:G:O2'	31:BA:149:A:H5'	2.07	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:270(M):U:HO2'	1:AA:270(N):G:P	2.30	0.55
31:BA:724:G:C2	31:BA:725:G:C8	2.94	0.55
31:BA:868:C:H2'	31:BA:869:G:O4'	2.06	0.55
1:AA:1164:G:H2'	1:AA:1165:U:H6	1.72	0.55
8:CK:38:LEU:HD12	8:CK:38:LEU:H	1.72	0.55
44:DQ:27:CYS:O	44:DQ:28:GLY:C	2.46	0.55
1:CA:2705:C:C2	1:CA:2706:A:C8	2.95	0.55
1:CA:1048:A:C8	1:CA:1049:G:C8	2.94	0.55
1:CA:64:C:H4'	19:CT:69:TYR:HD1	1.72	0.55
15:AR:20:PRO:HG2	15:AR:86:ILE:O	2.07	0.55
1:AA:2881:C:N3	1:AA:2882:A:C5	2.75	0.55
8:AK:31:LEU:HB2	8:AK:32:PRO:HD3	1.88	0.55
33:DF:20:SER:HB2	33:DF:40:ARG:HH22	1.71	0.55
3:CD:149:PRO:O	3:CD:150:LYS:HB2	2.07	0.55
1:AA:59:U:O2'	1:AA:73:A:H2'	2.08	0.55
1:CA:116:A:OP2	1:CA:117:A:H2'	2.07	0.55
12:AP:138:ASP:OD1	12:AP:138:ASP:N	2.39	0.55
1:CA:2351:G:N7	56:CA:3468:OHX:N6	2.55	0.55
1:CA:2407:C:N3	52:DD:85:A:O2'	2.34	0.54
12:CP:27:VAL:CG2	12:CP:132:VAL:HG11	2.37	0.54
52:BB:46:G:O2'	52:BB:47:U:OP1	2.22	0.54
1:CA:2762:A:H2'	1:CA:2763:A:H8	1.72	0.54
31:BA:1315:U:H2'	31:BA:1316:G:O4'	2.07	0.54
9:CM:28:THR:HA	9:CM:106:MET:CE	2.37	0.54
11:AO:49:ARG:HD2	30:A8:58:ILE:CG2	2.37	0.54
1:AA:2846:G:P	15:AR:54:ARG:HB2	2.48	0.54
21:CV:128:VAL:HG22	21:CV:129:SER:N	2.14	0.54
16:A1:83:LEU:HG	16:A1:88:ILE:HB	1.89	0.54
31:DA:1126:U:O2'	31:DA:1127:G:OP2	2.21	0.54
20:CU:17:SER:HB2	20:CU:71:LYS:HD2	1.89	0.54
31:DA:918:A:H2'	31:DA:919:A:O4'	2.07	0.54
31:BA:1501:C:OP2	31:BA:1504:G:H2'	2.06	0.54
4:CE:8:LYS:HB3	4:CE:193:GLY:H	1.70	0.54
7:CH:22:GLY:O	7:CH:37:VAL:HG12	2.07	0.54
52:DB:23:A:C6	52:DB:24:G:N7	2.75	0.54
1:AA:2475:C:H5'	1:AA:2476:A:OP2	2.07	0.54
31:BA:192:U:C4'	50:BW:103:GLY:HA2	2.37	0.54
31:BA:35:G:H2'	31:BA:36:C:H6	1.71	0.54
4:AE:26:ILE:HD12	4:AE:196:VAL:CG2	2.37	0.54
1:AA:1606:G:C5'	1:AA:1607:C:OP1	2.55	0.54
38:DK:86:ILE:HG12	38:DK:135:CYS:HA	1.88	0.54
31:BA:690:G:H22	41:BN:55:LYS:HE2	1.73	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:273(D):C:H2'	1:AA:273(E):U:C6	2.42	0.54
1:CA:961:C:C3'	1:CA:962:C:H5''	2.36	0.54
31:BA:56:U:H2'	31:BA:57:G:H8	1.69	0.54
31:BA:377:G:H5'	46:BS:5:ARG:NH1	2.22	0.54
1:AA:1204:A:C8	56:AA:3325:OHX:N2	2.75	0.54
1:CA:303:A:HO2'	1:CA:304:C:H6	1.54	0.54
17:C2:3:ALA:O	17:C2:14:VAL:HG22	2.08	0.54
53:BC:67:C:H2'	53:BC:68:C:O4'	2.07	0.54
1:CA:1908:A:H3'	1:CA:1909:C:C6	2.42	0.54
49:DV:32:LYS:HG2	49:DV:50:ALA:HB3	1.89	0.54
34:DG:176:LEU:HG	34:DG:178:VAL:HG22	1.88	0.54
21:AV:116:VAL:O	21:AV:174:VAL:HG22	2.06	0.54
1:AA:1486:A:H2'	1:AA:1487:G:H8	1.72	0.54
31:DA:353:A:H2'	31:DA:354:G:OP2	2.07	0.54
41:DN:20:TYR:CZ	41:DN:83:ILE:HD12	2.43	0.54
47:BT:64:PRO:HB3	47:BT:70:ARG:NH1	2.22	0.54
1:CA:1451:C:O2	1:CA:1451:C:H2'	2.06	0.54
56:AA:3305:OHX:N1	3:AD:202:LYS:O	2.40	0.54
1:CA:2323:A:N3	1:CA:2323:A:H3'	2.22	0.54
1:AA:1060:U:H1'	1:AA:1061:U:OP2	2.06	0.54
1:CA:1152:U:H2'	1:CA:1153:G:H8	1.72	0.54
1:AA:2168:G:OP1	1:AA:2168:G:H4'	2.07	0.54
31:BA:793:U:H3'	31:BA:794:A:H5''	1.90	0.54
52:BB:24:G:H5'	52:BB:24:G:H8	1.72	0.54
1:CA:1105:U:H2'	1:CA:1106:G:H8	1.70	0.54
32:DE:19:HIS:CE1	32:DE:204:ASN:HB3	2.42	0.54
32:DE:77:ALA:O	32:DE:81:VAL:HG23	2.08	0.54
33:DF:14:ILE:HG12	33:DF:15:THR:N	2.09	0.54
31:BA:1132:C:H2'	31:BA:1133:G:H8	1.72	0.54
31:DA:1145:C:O2	31:DA:1145:C:H2'	2.07	0.54
38:DK:109:ILE:HG12	38:DK:110:ALA:H	1.70	0.54
1:CA:1250:A:HO2'	1:CA:1251:U:P	2.29	0.54
49:DV:47:HIS:O	49:DV:62:ILE:HD13	2.08	0.54
30:C8:52:LYS:H	30:C8:52:LYS:HD2	1.73	0.54
52:BD:39:A:H2'	52:BD:40:U:O4'	2.08	0.54
27:A5:39:MET:C	27:A5:40:LYS:HD2	2.27	0.54
1:AA:1416:G:HO2'	1:AA:1417:C:H6	1.54	0.54
31:DA:382:A:H2'	31:DA:383:A:H8	1.72	0.54
1:CA:1726:G:H22	1:CA:2012:G:N2	2.05	0.54
32:BE:19:HIS:CE1	32:BE:206:ASP:HB2	2.43	0.54
11:AO:38:GLN:HG2	11:AO:45:LEU:CD1	2.34	0.54
32:BE:165:VAL:HG23	32:BE:166:ASP:N	2.20	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:999:U:C5	1:AA:1154:G:C5	2.94	0.54
31:BA:282:A:H2'	31:BA:282:A:N3	2.21	0.54
25:AX:7:LYS:HE2	25:AX:32:GLN:HG3	1.90	0.54
31:BA:438:G:N2	31:BA:495:A:C8	2.75	0.54
31:BA:356:A:H1'	31:BA:368:U:O2'	2.08	0.54
3:CD:69:ARG:NE	3:CD:105:ILE:HD11	2.23	0.54
33:DF:52:LEU:HD12	33:DF:55:VAL:HG22	1.88	0.54
9:AM:133:GLN:O	9:AM:134:ARG:HG3	2.07	0.54
31:DA:142:G:H2'	31:DA:143:A:C8	2.41	0.54
1:CA:2316:G:O2'	6:CG:132:ASN:HB2	2.08	0.54
1:CA:2529:G:C5	1:CA:2530:C:C4	2.95	0.54
26:A4:52:THR:O	26:A4:53:GLU:HB2	2.07	0.54
32:BE:212:GLN:CD	32:BE:235:SER:HB2	2.27	0.54
35:BH:35:GLY:HA3	35:BH:112:LEU:O	2.07	0.54
32:BE:178:ARG:HH22	32:BE:196:LEU:HA	1.73	0.54
31:BA:433:C:H2'	31:BA:434:U:H6	1.73	0.54
53:DC:67:C:H2'	53:DC:68:C:O4'	2.07	0.54
52:BB:73:U:O2'	52:BB:74:C:H5'	2.07	0.54
1:CA:1803:C:HO2'	1:CA:1818:A:C1'	2.19	0.54
18:AS:29:LEU:O	18:AS:33:ARG:HG3	2.06	0.54
1:AA:216:A:OP2	56:AA:3426:OHX:N1	2.41	0.54
31:BA:814:A:N7	31:BA:816:A:C4	2.75	0.54
31:BA:1368:G:OP2	39:BL:112:LYS:HD2	2.07	0.54
1:CA:916:U:N3	1:CA:917:G:N7	2.55	0.54
6:CG:75:LYS:HE3	6:CG:77:ILE:HD11	1.89	0.54
31:DA:1366:C:H2'	31:DA:1367:C:H6	1.72	0.54
1:CA:126:C:H2'	1:CA:127:C:H6	1.72	0.54
19:AT:84:ALA:HB3	19:AT:87:GLN:NE2	2.23	0.54
1:AA:2320:A:H2'	1:AA:2320:A:N3	2.21	0.54
25:CX:12:PRO:HB2	25:CX:20:LYS:HG2	1.88	0.54
9:AM:137:LYS:HD2	9:AM:138:LEU:H	1.72	0.54
31:DA:1028(B):C:N3	31:DA:1032(A):G:N2	2.55	0.54
1:AA:2015:A:C4'	27:A5:2:ALA:HB1	2.37	0.54
1:AA:1071:G:H8	1:AA:1071:G:O5'	1.90	0.54
1:AA:1101:U:OP2	56:AA:3491:OHX:N1	2.40	0.54
52:DD:49:A:H2'	52:DD:50:U:O5'	2.08	0.54
12:AP:19:GLY:H	12:AP:98:LYS:HZ3	1.55	0.54
52:BB:49:A:H2	52:BB:51:C:H5	1.54	0.54
31:BA:78:G:N1	31:BA:91:C:N4	2.45	0.54
31:BA:1035:A:C6	31:BA:1036:G:H1'	2.42	0.54
12:CP:75:THR:CG2	12:CP:89:ASN:H	2.20	0.54
52:DB:49:A:C2	52:DB:50:U:H3'	2.43	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1107:U:C1'	1:CA:1109:G:H5'	2.38	0.54
4:CE:60:ASN:O	4:CE:62:PRO:HD2	2.07	0.54
4:CE:66:HIS:C	4:CE:68:ALA:N	2.61	0.54
11:AO:50:ARG:NH2	11:AO:50:ARG:HG3	2.08	0.54
31:BA:410:G:H5'	31:BA:411:A:OP1	2.07	0.54
31:BA:426:G:O6	56:BA:1666:OHX:N4	2.41	0.54
31:BA:210:U:C2'	31:BA:216:G:OP2	2.56	0.54
20:CU:96:ILE:HG12	20:CU:101:LYS:HD3	1.89	0.54
31:BA:953:G:H2'	31:BA:954:G:O4'	2.08	0.54
31:BA:466:C:H5''	31:BA:467:G:OP2	2.07	0.54
31:BA:1366:C:H2'	31:BA:1367:C:H6	1.71	0.54
43:BP:13:LYS:HA	43:BP:13:LYS:NZ	2.21	0.54
41:DN:57:THR:HG23	41:DN:58:PRO:HD2	1.89	0.54
5:CF:161:GLU:O	5:CF:165:ARG:N	2.41	0.54
40:DM:26:ALA:O	40:DM:84:GLN:NE2	2.39	0.54
21:AV:30:ASN:OD1	21:AV:90:VAL:HB	2.08	0.54
21:CV:29:TYR:CE2	21:CV:87:ASP:HB2	2.42	0.54
26:A4:55:ARG:HG2	26:A4:56:VAL:H	1.70	0.54
1:CA:312:C:N3	1:CA:379:G:O6	2.40	0.54
32:DE:224:GLN:HG3	32:DE:225:ALA:N	2.23	0.54
1:CA:67:G:H2'	1:CA:68:C:H6	1.71	0.54
32:BE:16:HIS:CD2	32:BE:210:SER:HA	2.42	0.54
35:BH:106:PRO:O	35:BH:110:LEU:HG	2.07	0.54
17:A2:61:VAL:O	17:A2:61:VAL:HG23	2.08	0.54
1:AA:831:G:N2	11:AO:53:GLY:O	2.40	0.54
9:AM:17:ASP:O	9:AM:18:ALA:HB3	2.07	0.54
1:CA:1632:C:O2	1:CA:1632:C:H3'	2.08	0.54
33:BF:153:VAL:HG22	33:BF:198:VAL:HG22	1.88	0.54
31:DA:452:A:O2'	31:DA:453:A:O5'	2.25	0.54
1:AA:1781:C:O2'	56:AA:3425:OHX:N3	2.40	0.54
1:CA:2236:G:H2'	1:CA:2237:G:H5'	1.90	0.54
13:C0:103:ARG:HD2	13:C0:108:GLY:O	2.07	0.54
1:CA:767:C:C2'	1:CA:768:C:H5'	2.38	0.54
1:AA:1519:G:O2'	1:AA:1520:U:H5'	2.07	0.54
9:AM:71:ILE:HD13	9:AM:86:PRO:HA	1.88	0.54
35:DH:90:VAL:O	35:DH:120:THR:HA	2.07	0.54
1:AA:1169:G:H2'	1:AA:1170:G:H5''	1.89	0.54
4:AE:47:VAL:O	4:AE:80:GLU:HA	2.07	0.54
1:CA:933:C:N3	1:CA:938:A:C6	2.76	0.54
30:C8:37:SER:O	30:C8:39:LYS:O	2.25	0.54
1:AA:2162:G:H4'	1:AA:2173:A:OP2	2.08	0.54
31:BA:1298:C:H4'	31:BA:1299:A:O4'	2.07	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:DB:73:U:O2'	52:DB:74:C:H5'	2.07	0.54
1:AA:50:U:H3'	1:AA:51:G:C5'	2.38	0.54
31:DA:606:G:N7	56:DA:1775:OHX:N5	2.56	0.54
42:BO:45:PRO:O	42:BO:46:ASN:CG	2.46	0.54
33:BF:20:SER:HB2	33:BF:40:ARG:NH2	2.08	0.54
1:CA:1072:G:C4	1:CA:1181:C:H1'	2.42	0.54
31:BA:430:A:OP1	34:BG:9:CYS:HB2	2.07	0.54
34:BG:19:LEU:N	34:BG:19:LEU:HD22	2.11	0.54
28:A6:40:CYS:HB2	28:A6:46:HIS:CE1	2.42	0.54
31:DA:1143:G:H2'	31:DA:1144:G:C8	2.43	0.54
16:C1:91:ASP:OD2	16:C1:96:ALA:HB2	2.08	0.54
2:CB:46:G:H1'	2:CB:49:C:N4	2.22	0.54
6:CG:125:PHE:CB	6:CG:166:ASP:HB2	2.33	0.54
30:A8:23:VAL:CG1	30:A8:46:ARG:HB3	2.38	0.54
1:AA:2893:G:H4'	1:AA:2894:G:H5''	1.90	0.54
2:AB:29:A:P	14:AQ:32:LEU:HD12	2.48	0.54
16:A1:66:ASN:HD21	16:A1:70:ARG:NE	2.06	0.54
1:AA:1728:G:C6	1:AA:1730:U:OP2	2.60	0.54
32:BE:212:GLN:CG	32:BE:235:SER:HB2	2.37	0.54
1:AA:2022:U:O2'	1:AA:2617:C:H5'	2.07	0.54
33:BF:121:ALA:HB1	33:BF:188:LEU:O	2.07	0.54
52:DD:1:G:H1	52:DD:81:C:H42	1.55	0.54
31:DA:1184:G:O2'	31:DA:1185:G:H5'	2.07	0.54
7:CH:117:PRO:HB3	7:CH:123:PHE:CZ	2.43	0.54
36:BI:12:PRO:HG3	36:BI:57:GLN:O	2.07	0.54
37:DJ:81:GLY:C	37:DJ:83:ALA:H	2.11	0.54
27:A5:6:VAL:O	27:A5:6:VAL:HG12	2.07	0.54
1:AA:1084:A:C8	1:AA:1105:U:O2'	2.60	0.54
11:CO:65:ARG:NH1	11:CO:65:ARG:CG	2.53	0.54
53:DC:47:G:H5''	53:DC:48:U:OP1	2.07	0.54
39:DL:104:ARG:HG2	39:DL:104:ARG:O	2.08	0.54
52:DD:12:C:C2'	52:DD:13:G:O4'	2.52	0.54
52:DD:28:G:H2'	52:DD:29:C:C6	2.43	0.54
32:DE:75:LYS:HA	32:DE:78:GLN:CB	2.31	0.54
39:DL:4:TYR:HB2	39:DL:19:LEU:HB2	1.89	0.54
1:AA:1049:C:H2'	1:AA:1050:A:C5'	2.38	0.54
31:BA:1399:C:H4'	31:BA:1400:C:O5'	2.08	0.54
31:DA:1220:G:H2'	31:DA:1221:G:H8	1.72	0.54
31:BA:624:C:H2'	31:BA:625:G:C8	2.39	0.54
52:DB:28:G:N2	52:DB:45:C:H1'	2.23	0.54
31:BA:192:U:H2'	31:BA:193:C:H6	1.72	0.54
31:BA:181:G:N2	31:BA:195:A:C4	2.75	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:2856:G:H5''	15:CR:54:ARG:O	2.08	0.54
1:CA:1580:C:H3'	1:CA:1581:G:O4'	2.08	0.54
35:DH:59:GLY:O	35:DH:63:ARG:HG2	2.07	0.54
35:DH:8:GLU:OE2	35:DH:63:ARG:NH2	2.40	0.54
1:CA:312:C:H2'	1:CA:313:C:C6	2.43	0.54
1:CA:312:C:H2'	1:CA:313:C:H6	1.71	0.54
31:BA:376:G:OP1	46:BS:5:ARG:HB2	2.08	0.54
31:BA:1194:U:H2'	31:BA:1195:C:C6	2.43	0.54
43:DP:97:PRO:HA	43:DP:110:ARG:HD3	1.89	0.54
1:AA:1578:U:H2'	1:AA:1579:A:H5'	1.90	0.54
31:DA:1399:C:C2	31:DA:1401:G:C5	2.96	0.54
53:BC:50:G:N2	53:BC:67:C:C2	2.76	0.54
31:BA:544:G:C6	31:BA:545:C:C4	2.95	0.54
31:BA:186(E):C:N4	31:BA:191(B):G:H1	2.05	0.54
32:DE:128:GLU:HG3	32:DE:129:GLU:CD	2.28	0.54
7:CH:89:ILE:H	7:CH:89:ILE:HD13	1.73	0.54
19:CT:31:HIS:ND1	19:CT:32:PRO:HD2	2.22	0.54
1:CA:1772:G:C2'	1:CA:1773:C:H5'	2.38	0.54
39:BL:8:GLY:HA2	39:BL:79:LEU:HD12	1.88	0.54
1:AA:600:G:N2	1:AA:605:C:O3'	2.41	0.54
12:CP:2:LEU:O	12:CP:70:PRO:CG	2.55	0.54
52:BB:70:C:O2	52:BB:70:C:H2'	2.06	0.54
1:AA:1312:U:H4'	1:AA:1313:U:O5'	2.08	0.54
31:BA:1024:G:H2'	31:BA:1025:U:C6	2.43	0.54
31:BA:1028:C:C2	31:BA:1034:G:N3	2.76	0.54
1:CA:2040:U:H5''	1:CA:2041:G:OP2	2.07	0.54
31:DA:406:G:N3	31:DA:407:G:C8	2.75	0.54
31:DA:410:G:OP2	34:DG:25:ARG:HG2	2.08	0.54
31:DA:1361:G:OP1	56:DA:1768:OHX:N3	2.41	0.54
32:DE:7:VAL:HG22	32:DE:8:LYS:N	2.15	0.54
31:BA:1374:A:C2'	31:BA:1375:A:H5'	2.34	0.54
4:CE:33:VAL:CG2	4:CE:36:ARG:HE	2.18	0.54
2:AB:75:G:H21	21:AV:85:HIS:CE1	2.26	0.54
1:AA:2892:A:H2'	1:AA:2893:G:O4'	2.07	0.54
31:BA:1378:C:O2	31:BA:1378:C:C2'	2.55	0.54
31:BA:1104:G:H4'	32:BE:111:ARG:NH1	2.22	0.54
9:AM:96:GLU:O	9:AM:98:VAL:N	2.37	0.54
31:BA:1336:C:O2	31:BA:1336:C:H2'	2.06	0.54
1:CA:1987:G:H4'	1:CA:1988:C:OP2	2.07	0.54
9:CM:134:ARG:CG	9:CM:134:ARG:O	2.54	0.54
31:BA:390:C:H2'	31:BA:391:G:H8	1.73	0.54
1:AA:654(B):C:N4	1:AA:654(S):G:N1	2.49	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:2054:A:H5''	1:AA:2055:C:O5'	2.06	0.54
1:CA:1518:G:O2'	1:CA:1569:G:O6	2.21	0.54
22:C3:23:VAL:HG12	22:C3:25:ARG:O	2.08	0.54
17:C2:44:LYS:O	17:C2:46:VAL:N	2.30	0.54
6:CG:55:LYS:HZ2	6:CG:58:GLN:HE22	1.56	0.54
31:DA:1106:G:H4'	33:DF:171:GLY:O	2.08	0.54
31:BA:1092:A:C2	31:BA:1183:A:C2	2.96	0.54
35:DH:81:GLU:HG2	35:DH:90:VAL:HG22	1.90	0.54
1:CA:2539:G:H2'	1:CA:2540:C:O4'	2.07	0.54
1:AA:2584:U:H2'	1:AA:2585:U:H2'	1.89	0.54
31:DA:102:G:C6	31:DA:103:C:C4	2.96	0.54
16:C1:59:ARG:O	16:C1:63:VAL:HG23	2.07	0.54
36:DI:67:MET:HB2	36:DI:68:PRO:HD2	1.89	0.54
14:CQ:99:LYS:HG2	14:CQ:103:GLU:HG3	1.89	0.54
35:BH:139:LEU:O	35:BH:142:LEU:N	2.35	0.54
9:CM:45:ASN:H	9:CM:45:ASN:HD22	1.54	0.54
9:CM:65:LYS:O	9:CM:69:GLN:HB3	2.07	0.54
52:BB:48:C:C4	52:BB:49:A:C5	2.95	0.54
31:DA:1158:C:N3	31:DA:1160:G:N7	2.55	0.54
21:AV:62:PRO:O	21:AV:63:ASP:CB	2.55	0.54
52:DB:55:U:C2	52:DB:56:U:H6	2.24	0.54
1:AA:2346:A:C4'	1:AA:2347:C:OP2	2.46	0.54
42:BO:45:PRO:O	42:BO:46:ASN:CB	2.56	0.54
31:DA:1014:A:H2'	31:DA:1015:A:C8	2.42	0.54
20:AU:81:LYS:HD3	20:AU:97:ARG:NE	2.22	0.54
39:DL:3:GLN:HG2	39:DL:20:ARG:HD2	1.90	0.54
6:CG:34:LEU:O	6:CG:35:GLU:HB3	2.08	0.54
1:AA:2564:A:OP1	1:AA:2648:C:H4'	2.08	0.54
31:DA:1321:C:H4'	43:DP:87:TYR:CZ	2.43	0.54
1:AA:1586:A:H3'	1:AA:1587:A:C8	2.43	0.54
31:BA:344:A:H4'	31:BA:345:C:OP2	2.06	0.54
48:DU:26:LEU:HD13	48:DU:26:LEU:N	2.22	0.54
34:BG:119:GLN:HG3	34:BG:123:HIS:CD2	2.42	0.54
31:DA:522:C:OP2	42:DO:66:TYR:OH	2.25	0.54
1:CA:955:C:OP1	12:CP:22:LYS:HB2	2.08	0.54
31:BA:812:C:H1'	31:BA:813:U:OP2	2.08	0.54
1:CA:2678:A:H2'	1:CA:2679:C:O4'	2.08	0.54
33:DF:26:LYS:HA	44:DQ:36:PHE:HE2	1.73	0.54
12:AP:59:ARG:O	12:AP:61:GLY:N	2.41	0.54
13:C0:96:ARG:NH2	13:C0:117:VAL:HG23	2.23	0.54
46:DS:9:PHE:CD2	46:DS:18:ARG:HG3	2.41	0.54
1:AA:1525:G:O2'	1:AA:1526:G:O5'	2.22	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1034:G:O2'	1:CA:1047:A:N3	2.37	0.54
4:AE:116:VAL:O	4:AE:117:MET:HB2	2.07	0.54
1:AA:2808:U:H5	1:AA:2891:G:C5	2.25	0.54
31:DA:129(A):G:C2	31:DA:191(A):G:C8	2.96	0.54
1:CA:1075:A:N6	1:CA:1172:G:H2'	2.23	0.54
1:AA:645:C:H2'	1:AA:645:C:O2	2.07	0.54
29:C7:12:ARG:HH21	29:C7:44:PRO:HB3	1.73	0.54
1:CA:2124:G:H2'	1:CA:2125:U:O4'	2.07	0.54
20:AU:29:GLU:HB3	20:AU:38:ILE:CG2	2.38	0.54
34:DG:11:LEU:C	34:DG:13:ARG:N	2.58	0.54
3:AD:32:SER:HA	3:AD:35:LYS:O	2.08	0.54
3:AD:35:LYS:HA	3:AD:36:PRO:O	2.07	0.54
3:AD:35:LYS:NZ	3:AD:65:ILE:HA	2.20	0.54
31:BA:1028:C:N4	31:BA:1028(A):C:N4	2.56	0.54
21:AV:63:ASP:N	21:AV:64:GLY:HA2	2.21	0.54
52:DB:56:U:C2'	52:DB:56:U:O2	2.56	0.54
1:AA:2211:G:H1'	1:AA:2212:A:OP1	2.08	0.54
5:CF:25:PRO:HB3	5:CF:28:ILE:HG23	1.90	0.54
3:CD:34:VAL:CG1	3:CD:34:VAL:O	2.56	0.54
31:DA:1137:C:H4'	31:DA:1138:G:C5	2.43	0.54
36:DI:69:GLU:O	36:DI:72:VAL:HG12	2.08	0.54
4:CE:203:LYS:O	4:CE:204:ALA:CB	2.55	0.54
31:BA:515:G:N2	31:BA:537:G:C4	2.76	0.54
31:BA:1288:A:H2'	31:BA:1289:A:C8	2.42	0.54
31:DA:1300:G:HO2'	31:DA:1301:U:P	2.31	0.54
34:BG:126:ILE:HD11	34:BG:146:ILE:HG22	1.90	0.54
1:AA:2897:U:H2'	1:AA:2898:U:O4'	2.07	0.54
1:AA:7:G:H2'	1:AA:8:A:O4'	2.08	0.54
11:AO:88:LEU:HD12	11:AO:95:VAL:HG11	1.89	0.54
6:AG:97:ASP:H	6:AG:100:TRP:HD1	1.56	0.54
20:CU:95:LYS:NZ	20:CU:99:CYS:O	2.31	0.54
31:DA:1498:U:H1'	31:DA:1499:A:OP2	2.08	0.54
31:DA:1153:C:H2'	31:DA:1154:G:O4'	2.08	0.54
22:C3:36:ILE:HD13	22:C3:36:ILE:O	2.08	0.54
1:CA:1526:G:N7	56:CA:3350:OHX:N3	2.56	0.54
45:BR:18:PHE:CE1	45:BR:21:ASP:HB2	2.43	0.54
1:AA:337:C:H2'	1:AA:338:G:O5'	2.08	0.54
41:DN:48:ILE:HD11	41:DN:64:ALA:HA	1.88	0.54
18:AS:110:LYS:HE3	18:AS:111:HIS:CE1	2.42	0.54
12:CP:126:PRO:O	12:CP:127:ILE:HG23	2.07	0.54
3:AD:3:VAL:HG13	3:AD:17:THR:HG23	1.90	0.54
34:DG:111:ALA:HB2	34:DG:120:LEU:HD12	1.90	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:AQ:80:LEU:O	14:AQ:80:LEU:HD13	2.08	0.54
12:CP:63:LYS:HB2	12:CP:63:LYS:NZ	2.22	0.54
13:C0:72:ASP:OD1	13:C0:75:LEU:HB2	2.08	0.54
1:CA:2153:U:H2'	1:CA:2181:A:C2	2.42	0.54
1:CA:2157:A:C2	1:CA:2182:G:H1'	2.42	0.54
11:CO:81:GLN:CD	11:CO:106:LEU:O	2.46	0.54
1:AA:2068:U:N3	1:AA:2430:A:C2	2.59	0.54
2:CB:17:A:H1'	2:CB:112:G:C4	2.42	0.54
20:CU:19:LYS:HE3	20:CU:71:LYS:HE2	1.90	0.54
31:BA:210:U:H2'	31:BA:216:G:OP2	2.08	0.54
31:DA:690:G:N2	41:DN:55:LYS:HE2	2.17	0.54
4:CE:12:THR:HG22	15:CR:58:ASN:HD21	1.73	0.54
21:CV:44:PHE:CE1	21:CV:48:PHE:HB2	2.43	0.54
18:AS:37:ARG:HD3	18:AS:38:TYR:CE2	2.43	0.54
30:A8:23:VAL:HG12	30:A8:46:ARG:HB3	1.90	0.54
49:DV:9:VAL:HG13	49:DV:10:PHE:H	1.72	0.54
2:AB:42:C:O2'	6:AG:67:LYS:HE3	2.07	0.54
7:AH:83:TYR:CB	7:AH:135:GLY:H	2.21	0.54
15:AR:120:ARG:HA	15:AR:123:GLN:HG2	1.88	0.54
14:AQ:30:ARG:HG3	14:AQ:30:ARG:NH1	2.20	0.54
31:BA:422:C:O2'	31:BA:423:G:C4	2.61	0.54
31:BA:181:G:O2'	31:BA:182:U:O5'	2.26	0.54
1:CA:2668:G:H1'	1:CA:2669:U:H5	1.72	0.54
1:AA:389:G:H22	11:AO:72:PRO:HG3	1.73	0.54
14:AQ:88:ASP:O	14:AQ:89:ARG:HB3	2.08	0.54
1:AA:2056:G:N3	1:AA:2056:G:H2'	2.22	0.54
1:AA:2481:G:O2'	1:AA:2482:G:O5'	2.26	0.54
1:CA:1890:G:C6	1:CA:1906:G:C6	2.96	0.54
1:AA:304:G:H2'	1:AA:305:U:H6	1.72	0.54
5:AF:129:PHE:O	5:AF:130:ALA:CB	2.55	0.54
12:AP:32:TYR:HD1	12:AP:133:ARG:HA	1.73	0.54
31:DA:882:C:N4	42:DO:2:PRO:HB3	2.23	0.54
39:BL:79:LEU:O	39:BL:83:ARG:HG3	2.08	0.54
31:BA:886:G:OP2	56:BA:1805:OHX:N2	2.41	0.54
1:AA:1912:A:OP2	56:AA:3362:OHX:N1	2.41	0.54
41:BN:41:THR:HG21	41:BN:71:LYS:HD3	1.90	0.54
6:AG:16:ARG:N	6:AG:17:PRO:HD2	2.22	0.54
1:CA:1538:G:O4'	3:CD:99:ASP:HB3	2.08	0.54
39:DL:33:PHE:CE1	39:DL:37:PHE:HD1	2.25	0.54
4:AE:36:ARG:NH1	4:AE:85:ASN:OD1	2.41	0.54
1:AA:2345:G:N3	1:AA:2381:C:H2'	2.23	0.54
1:AA:1348:G:H2'	1:AA:1349:A:H5''	1.89	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CK:68:LEU:HA	8:CK:71:ILE:HG22	1.88	0.54
22:A3:83:PRO:O	22:A3:84:LEU:CB	2.55	0.54
39:DL:54:ASP:C	39:DL:56:LEU:H	2.10	0.54
1:CA:936:C:H4'	1:CA:937:C:OP2	2.08	0.54
1:CA:1100:C:H3'	1:CA:1101:A:H5''	1.90	0.54
3:AD:130:ALA:C	3:AD:131:LEU:HD12	2.29	0.54
1:CA:1138:G:C6	1:CA:1139:C:N4	2.76	0.54
33:BF:15:THR:CG2	33:BF:181:ASN:HA	2.38	0.54
31:DA:992:U:H1'	31:DA:993:G:OP2	2.08	0.54
49:BV:40:ILE:HA	49:BV:44:MET:SD	2.48	0.54
31:DA:1012:U:H2'	31:DA:1013:G:C8	2.43	0.54
35:DH:88:LYS:HB2	35:DH:123:LEU:HB2	1.90	0.54
54:B1:11:U:O2'	54:B1:12:A:C4	2.61	0.54
4:CE:38:THR:CG2	4:CE:40:GLU:H	2.16	0.54
1:CA:822:A:H2	1:CA:835:U:O2'	1.88	0.54
31:DA:870:U:H4'	31:DA:871:U:H5''	1.87	0.54
1:CA:2481:G:H5''	1:CA:2482:A:OP2	2.07	0.54
1:CA:2486:U:O2	1:CA:2486:U:C2'	2.55	0.54
13:C0:97:VAL:HA	13:C0:113:LEU:O	2.08	0.54
1:AA:2474:C:H3'	1:AA:2475:C:H6	1.72	0.54
33:BF:150:LYS:HB3	33:BF:201:TYR:HB2	1.88	0.54
23:CZ:60:PHE:HE2	23:CZ:91:LYS:NZ	2.05	0.54
8:AK:35:LEU:O	8:AK:36:ALA:HB2	2.07	0.54
31:BA:355:C:C4	31:BA:356:A:N7	2.76	0.54
31:DA:468:A:C2'	31:DA:474:G:H5'	2.37	0.54
1:CA:1561:U:O2'	1:CA:1562:C:H5'	2.08	0.54
4:AE:82:ARG:O	4:AE:83:ASP:C	2.46	0.54
48:BU:70:ILE:O	48:BU:74:ARG:HG3	2.08	0.54
31:BA:452:A:O2'	31:BA:453:A:O5'	2.25	0.54
31:DA:536:C:O2	31:DA:536:C:H2'	2.07	0.54
21:AV:75:ASN:O	21:AV:84:GLU:HG2	2.07	0.54
1:CA:2496:C:O2	1:CA:2496:C:H2'	2.08	0.54
10:AN:35:VAL:CG2	10:AN:69:ILE:HG12	2.37	0.54
1:CA:516:G:C2	1:CA:517:G:H1'	2.43	0.54
31:DA:109:A:H5'	31:DA:110:C:C5	2.43	0.54
1:AA:1138:G:H21	9:AM:106:MET:HE3	1.73	0.54
3:AD:79:VAL:HG21	3:AD:111:LEU:HD11	1.89	0.54
1:CA:2857:G:H2'	1:CA:2858:U:O4'	2.08	0.54
43:BP:20:THR:C	43:BP:22:ILE:H	2.12	0.54
8:AK:74:ASN:OD1	8:AK:75:LEU:HD13	2.08	0.54
49:DV:17:GLU:O	49:DV:21:GLU:HG2	2.08	0.54
34:DG:146:ILE:HD12	34:DG:146:ILE:N	2.23	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:CR:78:LEU:HD23	15:CR:78:LEU:O	2.07	0.54
1:CA:2320:G:C4	1:CA:2324:A:C6	2.92	0.53
11:CO:57:THR:C	11:CO:59:LEU:N	2.61	0.53
52:BB:67:A:N6	52:BB:70:C:H1'	2.23	0.53
1:CA:2290:G:H5''	12:CP:87:LYS:HB3	1.91	0.53
3:CD:35:LYS:NZ	3:CD:104:TYR:HB2	2.24	0.53
31:DA:1015:A:C5	31:DA:1016:A:C5	2.95	0.53
31:DA:1133:G:H2'	31:DA:1134:G:C8	2.42	0.53
31:DA:865:A:H1'	31:DA:918:A:O2'	2.07	0.53
1:AA:2067:G:O2'	1:AA:2069:G:H5''	2.08	0.53
1:CA:2702:U:P	1:CA:2733:G:H22	2.31	0.53
35:DH:87:SER:HB3	35:DH:125:SER:O	2.07	0.53
28:A6:36:LEU:HD23	28:A6:36:LEU:H	1.73	0.53
42:BO:3:THR:H	42:BO:6:GLN:NE2	2.02	0.53
7:AH:137:ASP:HB3	7:AH:140:LYS:HB3	1.89	0.53
7:AH:10:PRO:HD2	7:AH:50:VAL:H	1.73	0.53
9:AM:22:THR:O	9:AM:23:LEU:HB2	2.08	0.53
6:AG:139:LEU:HD13	43:BP:3:ARG:HH12	1.74	0.53
9:AM:127:ASP:O	9:AM:128:HIS:HB3	2.08	0.53
1:CA:2634:A:P	4:CE:119:ARG:HH22	2.31	0.53
1:AA:654(B):C:N4	1:AA:654(S):G:H1	2.06	0.53
44:DQ:24:CYS:SG	44:DQ:40:CYS:HB3	2.48	0.53
11:CO:121:LYS:HG3	11:CO:122:PRO:HD2	1.89	0.53
1:AA:2469:A:H2	1:AA:2481:G:H21	1.53	0.53
1:AA:15:G:C2'	1:AA:16:G:H5'	2.38	0.53
37:DJ:50:ILE:HG21	37:DJ:58:PRO:HA	1.91	0.53
46:DS:55:ARG:HH21	46:DS:58:TYR:HD1	1.56	0.53
1:AA:1458:C:H4'	1:AA:1459:G:O4'	2.09	0.53
37:DJ:126:ASP:HB3	37:DJ:131:LYS:O	2.07	0.53
37:DJ:131:LYS:O	37:DJ:131:LYS:HD2	2.08	0.53
1:CA:1719:U:H2'	1:CA:1721:U:OP2	2.08	0.53
1:CA:2597:U:H5'	1:CA:2598:U:OP2	2.08	0.53
1:AA:2686:G:C2	1:AA:2724:C:O2	2.61	0.53
47:DT:53:LEU:H	47:DT:53:LEU:HD12	1.72	0.53
2:AB:1(M):A:N3	2:AB:1(M):A:H2'	2.22	0.53
31:BA:435:C:H2'	31:BA:436:C:H6	1.73	0.53
1:AA:542:C:H42	1:AA:551:G:H1	1.56	0.53
1:CA:2319:C:H3'	1:CA:2320:G:C5'	2.29	0.53
1:AA:2015:A:C4	27:A5:6:VAL:HG22	2.43	0.53
1:CA:2136:U:C5	1:CA:2137:A:H1'	2.43	0.53
52:BB:48:C:C4	52:BB:49:A:C6	2.95	0.53
1:AA:1314:C:OP1	1:AA:1332:G:H5''	2.08	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1332:G:N2	1:AA:1610:A:C8	2.77	0.53
16:C1:47:TYR:HD1	17:C2:72:VAL:HG11	1.73	0.53
31:BA:1031:G:O6	31:BA:1032:A:N6	2.42	0.53
52:DB:55:U:N3	52:DB:56:U:C6	2.77	0.53
26:C4:10:VAL:HG13	26:C4:10:VAL:O	2.08	0.53
1:CA:1116:A:H5'	1:CA:1143:A:O2'	2.08	0.53
21:AV:27:VAL:HG22	21:AV:28:MET:H	1.73	0.53
1:CA:66:U:C2	1:CA:73:A:H2	2.24	0.53
15:AR:55:ASN:O	15:AR:57:PHE:O	2.26	0.53
1:AA:2303:G:O2'	6:AG:132:ASN:HB2	2.09	0.53
30:A8:34:TRP:CB	30:A8:35:GLN:HB2	2.37	0.53
1:CA:1507:G:C6	1:CA:1509:G:C5	2.96	0.53
1:CA:1005:A:C6	1:CA:1006:A:N1	2.77	0.53
1:AA:860:U:H5	1:AA:917:A:C2	2.26	0.53
6:CG:113:ARG:HD3	6:CG:140:ILE:O	2.08	0.53
31:DA:1319:A:P	49:DV:10:PHE:HB3	2.48	0.53
1:AA:322:A:P	5:AF:168:ARG:HH21	2.31	0.53
1:CA:235:G:O6	30:C8:8:LYS:HE3	2.09	0.53
31:BA:723:U:H5'	31:BA:724:G:OP2	2.07	0.53
1:AA:1754:C:H5	15:AR:96:ARG:NH2	2.06	0.53
31:DA:848:C:H2'	31:DA:849:C:C6	2.43	0.53
31:DA:510:A:H5''	31:DA:511:C:OP2	2.08	0.53
4:AE:67:PHE:O	4:AE:69:LYS:N	2.35	0.53
1:CA:757:U:H2'	1:CA:758:G:H8	1.73	0.53
45:BR:56:LEU:O	45:BR:60:VAL:HG23	2.08	0.53
4:CE:197:ILE:CD1	4:CE:199:ARG:HG3	2.38	0.53
43:DP:4:ILE:HG23	43:DP:5:ALA:H	1.74	0.53
31:BA:397:A:H5'	31:BA:398:C:OP1	2.08	0.53
1:AA:811:U:C4	11:AO:21:ARG:NH2	2.76	0.53
31:DA:1270:C:H2'	31:DA:1271:G:H8	1.73	0.53
8:AK:71:ILE:HG12	8:AK:72:LEU:HD12	1.90	0.53
10:AN:35:VAL:HG11	10:AN:103:ALA:HB3	1.88	0.53
31:DA:1116:C:H42	31:DA:1184:G:H1	1.56	0.53
41:BN:17:GLY:HA3	41:BN:77:MET:SD	2.47	0.53
50:DW:40:ALA:HB2	50:DW:55:ILE:HG22	1.89	0.53
1:AA:2692:C:H2'	1:AA:2693:A:H8	1.73	0.53
1:AA:1544:C:O2	1:AA:1544:C:H2'	2.07	0.53
18:AS:24:ILE:HD12	18:AS:24:ILE:O	2.08	0.53
36:BI:23:LYS:O	36:BI:27:GLN:HG3	2.07	0.53
1:AA:1076:C:C3'	1:AA:1077:A:H5''	2.38	0.53
1:CA:2185:G:H2'	1:CA:2186:C:H6	1.73	0.53
11:CO:112:LEU:HB3	11:CO:128:HIS:HD2	1.73	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AD:35:LYS:HD3	3:AD:63:ARG:HB3	1.89	0.53
1:CA:1356:G:H4'	29:C7:7:PRO:HB2	1.90	0.53
1:CA:2205:G:C2	1:CA:2206:C:C4	2.97	0.53
20:AU:77:PRO:O	20:AU:78:ALA:HB2	2.09	0.53
49:BV:41:VAL:HG21	49:BV:67:VAL:HG13	1.90	0.53
27:C5:57:VAL:HG12	27:C5:58:LEU:N	2.14	0.53
31:DA:1128:C:N4	31:DA:1139:G:C2	2.76	0.53
32:DE:8:LYS:HE2	32:DE:217:ARG:HE	1.73	0.53
1:CA:99:G:H2'	1:CA:100:G:OP1	2.08	0.53
31:BA:515:G:H1	31:BA:536:C:H42	1.57	0.53
27:A5:49:CYS:SG	27:A5:60:VAL:HB	2.48	0.53
49:DV:9:VAL:CG1	49:DV:10:PHE:N	2.71	0.53
31:DA:384:G:H2'	31:DA:385:C:H6	1.73	0.53
31:BA:1450:U:O2	31:BA:1452:C:H5''	2.08	0.53
28:A6:25:LYS:HE2	28:A6:27:LYS:HE2	1.89	0.53
1:AA:494:G:H21	18:AS:57:ASN:ND2	2.04	0.53
31:BA:148:G:C2	31:BA:149:A:C8	2.96	0.53
46:BS:43:LYS:HA	46:BS:48:TRP:HB2	1.90	0.53
4:AE:101:ARG:CZ	4:AE:171:GLU:HB3	2.37	0.53
4:AE:69:LYS:HD3	4:AE:89:ASP:OD2	2.08	0.53
1:AA:654(A):A:H2	1:AA:654(T):A:H61	1.54	0.53
28:A6:30:THR:HA	28:A6:32:ASN:N	2.23	0.53
31:BA:22:G:H2'	31:BA:23:C:H6	1.70	0.53
35:BH:145:LYS:O	35:BH:149:GLU:HB2	2.09	0.53
31:DA:1106:G:H2'	31:DA:1107:C:H6	1.74	0.53
1:AA:2351:G:H1'	1:AA:2366:A:N6	2.24	0.53
46:DS:1:MET:HE1	46:DS:65:GLN:HB2	1.90	0.53
1:CA:1883:U:H4'	52:DD:80:C:H4'	1.91	0.53
1:AA:2319:G:N7	14:AQ:3:ARG:HD3	2.24	0.53
1:AA:2035:G:H4'	1:AA:2036:C:OP2	2.07	0.53
12:CP:110:THR:OG1	12:CP:113:GLN:HG2	2.08	0.53
1:CA:744:G:H2'	1:CA:745:C:H6	1.73	0.53
1:CA:782:A:O2'	1:CA:1683:G:H5'	2.09	0.53
1:CA:1031:A:OP1	56:CA:3270:OHX:N6	2.42	0.53
6:AG:84:LYS:HG2	6:AG:84:LYS:O	2.09	0.53
47:BT:55:ASP:HA	47:BT:79:SER:HA	1.89	0.53
1:AA:2746:U:OP2	56:AA:3311:OHX:N1	2.42	0.53
11:CO:61:ARG:HB3	11:CO:62:LEU:HD22	1.91	0.53
1:CA:895:U:O4	1:CA:979:A:N1	2.42	0.53
12:CP:135:ASP:O	12:CP:137:TYR:N	2.41	0.53
1:AA:2113:U:H5	1:AA:2167:U:O2	1.90	0.53
11:CO:107:LYS:C	11:CO:109:GLY:N	2.61	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:BB:13:G:N2	52:BB:23:A:C6	2.76	0.53
31:BA:1053:G:N7	31:BA:1199:U:H3'	2.23	0.53
31:BA:1199:U:H4'	40:BM:54:PHE:CE2	2.44	0.53
3:CD:255:LYS:CE	3:CD:255:LYS:H	2.10	0.53
52:DD:43:G:H2'	52:DD:44:C:C6	2.43	0.53
1:CA:8:A:H2'	1:CA:9:U:H6	1.73	0.53
31:DA:328:C:O2'	31:DA:329:A:P	2.67	0.53
31:DA:270:A:C5	31:DA:271:C:C4	2.96	0.53
1:AA:2572:A:N7	4:AE:145:LYS:HB2	2.22	0.53
31:BA:201:C:N4	31:BA:216:G:H1	2.04	0.53
5:AF:29:ASN:N	5:AF:112:MET:CE	2.67	0.53
11:CO:86:LYS:HG3	11:CO:87:ASP:H	1.71	0.53
1:AA:163:U:C2'	1:AA:164:U:H5'	2.37	0.53
15:AR:118:ARG:NH1	31:BA:1446:A:C6	2.77	0.53
1:AA:548:A:C2	1:AA:549:G:H1'	2.44	0.53
8:AK:35:LEU:H	8:AK:35:LEU:HD23	1.72	0.53
1:AA:1177:A:H4'	1:AA:1178:C:H5''	1.90	0.53
1:AA:1423:G:H2'	1:AA:1424:G:C8	2.40	0.53
1:CA:2847:U:C4	1:CA:2894:A:N6	2.77	0.53
9:AM:120:LEU:HD22	9:AM:121:LYS:N	2.23	0.53
26:A4:52:THR:O	26:A4:53:GLU:CB	2.56	0.53
34:DG:29:PRO:HD2	34:DG:30:LYS:CD	2.38	0.53
26:C4:49:PHE:CD1	26:C4:50:VAL:HG22	2.43	0.53
53:BC:65:G:H2'	53:BC:66:C:O4'	2.09	0.53
1:CA:1086:G:H1	1:CA:1163:C:H42	1.57	0.53
1:CA:1894:G:H2'	1:CA:1895:G:H8	1.73	0.53
6:AG:121:ASN:HD21	6:AG:123:ASN:HB2	1.73	0.53
31:BA:1433:A:C4	31:BA:1468:A:C2	2.97	0.53
1:CA:2503:G:N1	56:CA:3279:OHX:N4	2.56	0.53
34:BG:84:LYS:N	34:BG:84:LYS:HD2	2.23	0.53
32:DE:238:LEU:O	32:DE:238:LEU:HD12	2.09	0.53
47:DT:59:ILE:HG22	47:DT:71:PHE:CD1	2.43	0.53
19:CT:65:ARG:HB3	19:CT:70:LEU:HA	1.90	0.53
1:AA:901:A:H2'	1:AA:901:A:N3	2.23	0.53
31:BA:78:G:H1	31:BA:91:C:N4	2.02	0.53
31:BA:99:C:H2'	31:BA:101:A:C8	2.43	0.53
31:BA:1028(B):C:N4	31:BA:1032(A):G:C6	2.75	0.53
26:C4:62:ARG:N	26:C4:62:ARG:HD2	2.22	0.53
1:AA:2212:A:N3	1:AA:2215:G:N1	2.56	0.53
1:AA:49:A:C5	1:AA:120:U:O4	2.61	0.53
31:DA:631:G:H3'	31:DA:632:A:N7	2.23	0.53
39:DL:3:GLN:HE21	39:DL:20:ARG:HH11	1.56	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:255:G:P	47:BT:69:LYS:HZ1	2.32	0.53
2:AB:48:A:H4'	14:AQ:95:HIS:HD2	1.73	0.53
43:BP:108:ARG:HH11	43:BP:108:ARG:HG3	1.74	0.53
31:BA:1224:G:N1	31:BA:1322:C:H1'	2.23	0.53
38:BK:83:ILE:HG13	38:BK:137:VAL:HG22	1.89	0.53
21:CV:115:GLY:H	21:CV:177:PRO:HG2	1.73	0.53
40:BM:8:LEU:HB3	40:BM:16:LEU:HD21	1.90	0.53
9:CM:128:HIS:HB2	9:CM:129:PRO:CD	2.38	0.53
25:AX:54:VAL:HG22	25:AX:55:ARG:N	2.23	0.53
40:DM:6:ILE:O	40:DM:6:ILE:HD12	2.09	0.53
31:DA:468:A:H2'	31:DA:474:G:C5'	2.38	0.53
1:CA:17:G:H4'	16:C1:25:TRP:CZ3	2.44	0.53
5:AF:10:PRO:O	5:AF:124:LEU:HD12	2.09	0.53
13:A0:87:TYR:HE1	13:A0:117:VAL:HG12	1.73	0.53
14:AQ:14:VAL:O	14:AQ:18:ILE:HG13	2.08	0.53
44:DQ:24:CYS:SG	44:DQ:24:CYS:O	2.67	0.53
21:CV:121:HIS:HB2	21:CV:169:GLU:OE2	2.09	0.53
1:CA:1162:G:C6	1:CA:1163:C:C4	2.96	0.53
1:CA:1425:A:OP1	29:C7:10:ARG:NH2	2.42	0.53
31:DA:892:A:O2'	31:DA:1415:G:H4'	2.08	0.53
43:DP:28:ALA:O	43:DP:30:ALA:N	2.41	0.53
56:BA:1782:OHX:N4	49:BV:17:GLU:OE2	2.42	0.53
34:DG:98:GLU:OE2	34:DG:103:ASN:ND2	2.41	0.53
1:CA:2864:C:H2'	1:CA:2865:G:H8	1.72	0.53
1:CA:2122:U:O2	1:CA:2122:U:H2'	2.08	0.53
1:AA:2490:G:H2'	1:AA:2490:G:N3	2.23	0.53
1:AA:1064:C:H42	1:AA:1074:G:H1	1.57	0.53
1:AA:1101:U:H2'	1:AA:1102:C:O4'	2.08	0.53
52:BD:19:C:C2'	52:BD:20:C:H4'	2.36	0.53
11:CO:52:GLU:HB3	11:CO:55:ARG:HG3	1.90	0.53
1:CA:2790:A:H1'	1:CA:2791:G:OP2	2.08	0.53
52:BB:51:C:C5	52:BB:52:G:N3	2.76	0.53
1:CA:2760:U:H2'	1:CA:2761:G:H5'	1.90	0.53
1:AA:1568:G:P	3:AD:63:ARG:HH12	2.31	0.53
31:BA:1330:U:O4	31:BA:1331:G:N1	2.41	0.53
21:AV:4:ARG:HA	21:AV:58:VAL:HG22	1.90	0.53
1:AA:1971:A:C2	3:AD:241:PRO:HD3	2.44	0.53
3:AD:238:GLY:O	3:AD:239:ARG:HG3	2.09	0.53
31:DA:75:C:H2'	31:DA:76:G:O4'	2.09	0.53
1:AA:2315:G:H2'	1:AA:2316:C:C6	2.43	0.53
30:A8:35:GLN:HA	30:A8:35:GLN:OE1	2.07	0.53
1:CA:4:C:H42	1:CA:2909:G:H1	1.57	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:784:A:C8	1:AA:792:G:C5	2.96	0.53
15:CR:50:ILE:HD11	15:CR:102:ILE:CD1	2.35	0.53
31:DA:1287:A:H2'	31:DA:1288:A:C8	2.43	0.53
1:CA:2480:C:H2'	1:CA:2481:G:O4'	2.09	0.53
1:CA:2480:C:N4	1:CA:2481:G:C2	2.76	0.53
23:AZ:75:GLU:O	23:AZ:76:ARG:C	2.46	0.53
39:BL:43:ALA:HA	39:BL:74:ILE:HD13	1.91	0.53
5:CF:186:ILE:HD13	5:CF:192:LEU:HD21	1.91	0.53
39:DL:114:TYR:HD1	40:DM:60:ARG:HG2	1.74	0.53
1:AA:581:C:OP1	16:A1:33:ARG:HG3	2.09	0.53
46:BS:28:ARG:HG3	46:BS:29:ASP:OD2	2.08	0.53
5:AF:195:ASP:O	5:AF:197:ASP:O	2.27	0.53
1:AA:273(E):U:C2'	1:AA:273(F):C:H5'	2.38	0.53
7:CH:109:PHE:CE1	7:CH:152:ARG:HD3	2.42	0.53
31:DA:1074:G:O3'	32:DE:103:THR:HG22	2.08	0.53
31:DA:337:C:H2'	31:DA:338:A:C8	2.42	0.53
1:CA:1058:G:N2	1:CA:1198:G:C4	2.77	0.53
1:AA:2554:U:H2'	1:AA:2555:U:C6	2.44	0.53
31:DA:946:A:C6	31:DA:947:G:C6	2.97	0.53
6:AG:77:ILE:O	6:AG:81:LYS:O	2.26	0.53
31:DA:1019:C:H2'	31:DA:1020:U:O4'	2.09	0.53
6:AG:35:GLU:OE1	6:AG:36:LYS:N	2.42	0.53
3:AD:132:PRO:HD3	3:AD:190:TYR:CE2	2.44	0.53
45:BR:17:ARG:HG3	45:BR:17:ARG:HH11	1.73	0.53
1:AA:997:G:OP1	16:A1:93:LYS:HG3	2.09	0.53
19:CT:26:TYR:OH	19:CT:88:LYS:HB2	2.08	0.53
1:AA:725:G:C6	1:AA:726:G:N1	2.76	0.53
12:CP:27:VAL:HG21	12:CP:132:VAL:HG11	1.89	0.53
52:DD:20:C:H5'	52:DD:68:A:H62	1.73	0.53
31:DA:1163:C:H2'	31:DA:1164:G:C8	2.44	0.53
1:AA:1537:C:H2'	1:AA:1538:G:O5'	2.08	0.53
43:BP:4:ILE:CG2	43:BP:5:ALA:H	2.12	0.53
31:BA:1028:C:C6	31:BA:1034:G:N2	2.77	0.53
1:CA:795:U:C2	27:C5:2:ALA:N	2.76	0.53
34:DG:18:LYS:HE3	34:DG:33:MET:HB2	1.88	0.53
31:DA:605:U:H3	31:DA:633:G:H1	1.57	0.53
34:DG:139:ARG:CG	34:DG:139:ARG:HH11	2.08	0.53
1:CA:354:G:C6	20:CU:19:LYS:HG2	2.44	0.53
1:AA:1027:A:C2	1:AA:2488:A:H5'	2.44	0.53
4:AE:119:ARG:NH1	4:AE:119:ARG:HG3	2.24	0.53
1:CA:1005:A:N1	1:CA:1006:A:C2	2.77	0.53
40:DM:54:PHE:CE2	40:DM:55:LYS:HD3	2.43	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1288:A:H2'	31:BA:1289:A:H8	1.74	0.53
31:BA:31:G:H1'	31:BA:32:A:OP1	2.08	0.53
1:CA:2887:G:H1'	15:CR:3:ARG:NH1	2.24	0.53
8:CK:77:LEU:CD1	8:CK:78:THR:H	2.21	0.53
1:CA:1575:A:C2	1:CA:1590:A:H2	2.27	0.53
52:DB:40:U:H2'	52:DB:41:C:O4'	2.09	0.53
31:BA:973:G:O6	31:BA:974:A:N6	2.42	0.53
4:AE:61:ARG:O	4:AE:63:LEU:HD22	2.09	0.53
39:BL:26:VAL:HG13	39:BL:61:ALA:HB3	1.90	0.53
31:DA:1190:G:C6	56:DA:1760:OHX:N3	2.77	0.53
31:BA:486:U:H2'	31:BA:487:A:H8	1.72	0.53
1:CA:29:U:H2'	1:CA:30:G:H8	1.74	0.53
21:CV:103:ARG:O	21:CV:104:PHE:HB2	2.09	0.53
1:AA:2468:G:C5	1:AA:2481:G:C2	2.97	0.53
8:AK:86:THR:HA	8:AK:123:LEU:HD13	1.89	0.53
31:DA:552:U:H1'	42:DO:29:PHE:CE1	2.43	0.53
1:CA:905:C:H4'	22:C3:23:VAL:HG21	1.89	0.53
1:AA:649:G:O6	56:AA:3485:OHX:N1	2.41	0.53
2:AB:37:C:H2'	2:AB:38:C:H5'	1.91	0.53
5:CF:112:MET:O	5:CF:115:ALA:HB3	2.08	0.53
8:AK:41:GLU:O	8:AK:45:LYS:HG3	2.08	0.53
31:BA:1246:C:H42	31:BA:1291:G:H1	1.56	0.53
35:DH:9:LYS:HB2	35:DH:112:LEU:HD11	1.91	0.53
1:CA:2328:G:H2'	1:CA:2329:C:H6	1.73	0.53
39:DL:113:LYS:N	39:DL:113:LYS:HD2	2.23	0.53
1:AA:355:G:N7	56:AA:3508:OHX:N1	2.57	0.53
1:AA:957:A:N1	1:AA:2458:G:H4'	2.24	0.53
11:CO:61:ARG:HB3	11:CO:62:LEU:CD2	2.39	0.53
12:CP:132:VAL:HG21	21:CV:81:ARG:HH22	1.72	0.53
1:AA:2127:G:H3'	1:AA:2128:C:H5''	1.91	0.53
52:BB:15:G:O2'	52:BB:20:C:N4	2.42	0.53
31:DA:1177:G:O2'	31:DA:1178:G:C4	2.58	0.53
1:CA:2765:G:H4'	1:CA:2766:C:OP1	2.07	0.53
31:BA:95:G:H5'	31:BA:96:G:OP2	2.08	0.53
1:CA:1181:C:O2	56:CA:3415:OHX:N6	2.42	0.53
11:AO:114:ILE:HD12	11:AO:114:ILE:C	2.29	0.53
39:DL:97:LYS:HE2	39:DL:97:LYS:O	2.08	0.53
30:C8:49:VAL:O	30:C8:50:LEU:CB	2.55	0.53
1:AA:1288:U:C2	1:AA:1327:C:O2	2.62	0.53
1:CA:1400:A:H5''	3:CD:38:LYS:HE3	1.89	0.53
1:CA:2485:G:H5''	1:CA:2486:U:H5''	1.91	0.53
1:AA:1509:C:H2'	1:AA:1511:A:C8	2.43	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:AH:83:TYR:O	7:AH:84:SER:OG	2.25	0.53
31:BA:1367:C:H5'	40:BM:60:ARG:NH2	2.23	0.53
38:BK:86:ILE:HG22	38:BK:87:SER:N	2.23	0.53
25:AX:10:LYS:HD3	25:AX:53:LEU:HD23	1.91	0.53
6:AG:2:PRO:HB3	26:A4:25:TYR:CZ	2.43	0.53
34:BG:98:GLU:OE1	34:BG:194:LEU:HD21	2.08	0.53
1:CA:2532:U:H4'	1:CA:2533:C:OP1	2.08	0.53
1:AA:389:G:H22	11:AO:72:PRO:HD3	1.73	0.53
21:CV:105:VAL:HG22	21:CV:106:GLY:H	1.73	0.53
33:DF:59:ARG:HH12	33:DF:97:LYS:CD	2.21	0.53
34:DG:70:ILE:HD11	34:DG:100:ARG:NH1	2.23	0.53
36:BI:97:PHE:O	48:BU:31:LEU:HD23	2.09	0.53
31:DA:362:G:H4'	42:DO:30:ARG:HH21	1.74	0.53
1:CA:2524:U:O4	1:CA:2588:C:N3	2.41	0.53
31:DA:1267:C:O2	31:DA:1267:C:C2'	2.57	0.53
5:AF:191:ARG:HB3	5:AF:191:ARG:NH1	2.24	0.53
4:CE:31:CYS:HB3	4:CE:49:LEU:HB3	1.90	0.53
43:DP:16:ASP:HB2	43:DP:31:LYS:HG2	1.90	0.53
1:CA:851:U:C2'	1:CA:852:A:H5'	2.39	0.53
26:C4:49:PHE:CG	26:C4:50:VAL:N	2.75	0.53
1:AA:469:G:C2'	1:AA:470:A:H5''	2.39	0.53
3:CD:70:TRP:CZ3	3:CD:146:GLU:OE2	2.62	0.53
12:CP:109:VAL:HB	12:CP:113:GLN:CB	2.38	0.53
1:CA:2328:G:H2'	1:CA:2329:C:C6	2.44	0.53
6:CG:56:ALA:HB2	6:CG:153:ARG:HE	1.74	0.53
31:BA:567:G:H2'	31:BA:568:G:O4'	2.09	0.53
1:AA:1812:A:O2'	3:AD:45:ASN:HB2	2.08	0.53
1:AA:1401:G:H2'	1:AA:1402:C:C6	2.44	0.53
31:BA:320:C:H2'	31:BA:321:A:C8	2.43	0.53
31:BA:352:C:O2	31:BA:352:C:H2'	2.09	0.53
6:CG:13:GLU:O	6:CG:14:GLU:HB2	2.09	0.53
31:BA:692:U:H2'	31:BA:694:A:OP2	2.09	0.53
12:AP:23:GLY:HA2	12:AP:25:ASP:HB3	1.85	0.53
52:BD:22:A:C5	52:BD:57:C:N4	2.77	0.53
31:BA:1004:A:C4	31:BA:1025:U:C2	2.96	0.53
20:AU:42:VAL:HB	20:AU:67:LEU:CD1	2.25	0.53
3:CD:35:LYS:HZ1	3:CD:104:TYR:H	1.56	0.53
4:CE:61:ARG:C	4:CE:63:LEU:H	2.12	0.53
15:AR:34:VAL:HG23	15:AR:41:ARG:HB2	1.89	0.53
32:DE:78:GLN:O	32:DE:81:VAL:HB	2.09	0.53
4:AE:144:ARG:HH11	4:AE:144:ARG:HG3	1.74	0.53
16:A1:91:ASP:O	16:A1:92:ARG:C	2.47	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:AH:151:ILE:O	7:AH:153:LYS:CD	2.57	0.53
7:AH:153:LYS:N	7:AH:153:LYS:HD2	2.23	0.53
11:CO:86:LYS:HG3	11:CO:87:ASP:N	2.24	0.53
40:DM:55:LYS:O	40:DM:56:HIS:CG	2.62	0.53
42:BO:3:THR:N	42:BO:6:GLN:HE21	2.02	0.53
8:CK:131:LYS:N	8:CK:131:LYS:HD2	2.24	0.53
4:AE:60:ASN:OD1	4:AE:62:PRO:HD2	2.09	0.53
32:DE:17:PHE:HE2	32:DE:44:LEU:HA	1.74	0.53
1:CA:2230:A:H4'	1:CA:2231:U:C4	2.44	0.53
24:AW:16:LEU:O	24:AW:16:LEU:CG	2.57	0.53
31:DA:718:G:H5'	41:DN:117:ASN:ND2	2.23	0.53
31:DA:600:C:H2'	31:DA:601:C:C6	2.44	0.53
47:BT:100:LYS:O	47:BT:101:ARG:HG3	2.09	0.53
31:DA:387:U:OP1	56:DA:1721:OHX:N1	2.42	0.53
4:CE:29:GLY:HA2	4:CE:180:ASN:HB3	1.91	0.53
32:DE:67:THR:HG21	32:DE:155:LEU:HG	1.89	0.53
1:AA:592:G:N2	30:A8:4:MET:HE1	2.24	0.53
1:AA:205:G:HO2'	1:AA:206:U:P	2.31	0.53
1:CA:2651:G:OP1	4:CE:82:ARG:NH2	2.42	0.53
42:BO:59:SER:HB2	42:BO:61:TYR:CD1	2.43	0.53
40:DM:33:GLN:HB3	40:DM:75:ILE:HD11	1.91	0.53
4:AE:70:ALA:O	4:AE:71:GLY:C	2.47	0.53
53:BC:14:A:H2'	53:BC:15:G:O4'	2.09	0.53
46:BS:20:VAL:HG13	46:BS:32:TYR:CB	2.39	0.53
1:AA:1668:A:H4'	1:AA:1669:A:O5'	2.08	0.53
1:CA:1302:U:H5''	1:CA:1303:G:H5''	1.91	0.53
32:DE:124:SER:O	32:DE:126:GLU:N	2.35	0.53
23:AZ:91:LYS:O	23:AZ:93:GLU:N	2.41	0.53
1:AA:1329:U:H5''	1:AA:1330:C:H5	1.74	0.53
1:AA:991:C:H2'	1:AA:992:C:H6	1.74	0.53
1:AA:2367:G:H2'	1:AA:2368:C:H6	1.73	0.53
1:CA:2156:G:H1'	1:CA:2181:A:H62	1.71	0.53
1:AA:2402:C:OP1	1:AA:2402:C:C4'	2.57	0.53
31:DA:406:G:C2	31:DA:407:G:C8	2.97	0.53
31:DA:77:C:C2'	31:DA:78:G:H5'	2.39	0.53
31:DA:606:G:N2	31:DA:631:G:O2'	2.41	0.53
31:DA:250:A:C4'	31:DA:251:G:O5'	2.57	0.53
32:DE:74:LYS:HE2	32:DE:76:GLN:HB2	1.90	0.53
19:CT:28:PHE:HD1	19:CT:28:PHE:H	1.58	0.53
31:BA:1133:G:H1	31:BA:1141:C:H42	1.57	0.53
1:CA:1994:A:C4	3:CD:241:PRO:HD3	2.44	0.53
1:CA:2030:C:H2'	1:CA:2031:C:C6	2.44	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:71:A:H4'	1:AA:72:U:H5''	1.90	0.53
1:CA:1003:A:N6	1:CA:1005:A:C2	2.77	0.53
40:DM:78:ASN:C	40:DM:80:LYS:H	2.12	0.53
1:CA:70:A:H4'	1:CA:71:U:O5'	2.08	0.53
1:AA:1581:G:H2'	1:AA:1582:C:O4'	2.10	0.53
31:DA:381:C:H2'	31:DA:382:A:O4'	2.09	0.53
1:CA:821:U:H4'	3:CD:47:GLY:HA3	1.91	0.53
32:BE:166:ASP:O	32:BE:168:THR:N	2.40	0.53
31:BA:149:A:C2	31:BA:150:C:C4	2.97	0.53
23:AZ:82:LEU:N	23:AZ:82:LEU:HD22	2.24	0.53
10:CN:2:ILE:HG13	10:CN:8:LEU:HD11	1.90	0.53
53:BC:1:C:C2'	53:BC:2:G:H5'	2.39	0.53
1:AA:1607:C:H4'	1:AA:1608:A:C5'	2.39	0.53
33:DF:164:ARG:HG2	33:DF:165:THR:N	2.24	0.53
1:CA:2705:C:O2'	1:CA:2706:A:H5'	2.09	0.53
48:BU:88:LYS:HB3	48:BU:88:LYS:HZ3	1.72	0.53
1:CA:2342:G:H2'	1:CA:2343:G:C8	2.44	0.53
1:CA:844:C:H2'	1:CA:845:C:H6	1.75	0.53
31:BA:116:A:H61	31:BA:313:A:H1'	1.74	0.53
1:AA:2745:C:C4	1:AA:2746:U:C4	2.96	0.53
17:A2:18:LEU:HD22	17:A2:19:LYS:N	2.24	0.53
31:DA:1417:G:C6	31:DA:1482:G:C6	2.97	0.53
31:DA:537:G:H5''	42:DO:110:ARG:NH1	2.24	0.53
1:CA:653:A:H4'	1:CA:654:G:OP1	2.08	0.53
1:AA:1705:G:C6	1:AA:1706:U:C4	2.97	0.53
38:BK:69:ARG:HD3	38:BK:75:ARG:O	2.09	0.53
8:CK:112:LYS:O	8:CK:113:ARG:HG2	2.09	0.53
5:CF:74:ARG:HG2	5:CF:74:ARG:O	2.09	0.53
45:DR:75:PRO:O	45:DR:79:ARG:HG3	2.09	0.53
1:AA:444:C:H4'	5:AF:49:ALA:HB2	1.91	0.53
32:BE:60:ASP:HB3	32:BE:64:ARG:HH12	1.73	0.53
12:AP:27:VAL:HG23	12:AP:102:VAL:HG11	1.90	0.52
1:CA:2166:C:H2'	1:CA:2167:U:O4'	2.09	0.52
1:CA:2150:G:N2	1:CA:2184:C:N3	2.45	0.52
1:CA:873:C:C2'	1:CA:874:U:H5'	2.39	0.52
52:BB:51:C:C4	52:BB:52:G:H1'	2.44	0.52
3:AD:30:GLU:CG	3:AD:63:ARG:HH21	2.14	0.52
52:DB:21:A:N7	52:DB:46:G:C8	2.78	0.52
6:CG:104:GLU:CG	26:C4:23:GLU:HG2	2.26	0.52
5:CF:116:ASP:OD1	11:CO:1:MET:N	2.32	0.52
32:DE:71:VAL:HG12	32:DE:72:GLY:H	1.75	0.52
47:BT:12:SER:O	47:BT:19:VAL:HA	2.08	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:C1:90:VAL:O	16:C1:92:ARG:N	2.42	0.52
1:CA:1206:U:O2'	1:CA:1207:G:H5'	2.09	0.52
2:CB:34:C:N4	2:CB:52:G:H1	2.05	0.52
31:DA:687:A:C1'	31:DA:688:G:OP2	2.56	0.52
43:DP:80:ARG:O	43:DP:83:ASP:O	2.27	0.52
37:DJ:43:PHE:CD1	37:DJ:43:PHE:C	2.82	0.52
31:BA:1452:C:C2'	31:BA:1453:G:OP2	2.57	0.52
5:AF:172:TRP:CE3	5:AF:173:VAL:HG23	2.43	0.52
15:AR:88:ILE:O	15:AR:88:ILE:HG13	2.09	0.52
9:AM:95:PRO:O	9:AM:96:GLU:CG	2.57	0.52
13:A0:28:LEU:HD21	13:A0:114:VAL:O	2.09	0.52
25:AX:6:VAL:HB	25:AX:54:VAL:HG21	1.91	0.52
39:DL:114:TYR:CD1	40:DM:60:ARG:HG2	2.44	0.52
31:DA:1027:C:O2'	31:DA:1027:C:O2	2.27	0.52
1:AA:229:A:H1'	1:AA:230:U:OP2	2.09	0.52
21:AV:30:ASN:ND2	21:AV:32:HIS:H	2.05	0.52
15:CR:91:ARG:O	15:CR:116:ALA:HA	2.09	0.52
47:DT:67:LYS:HA	47:DT:70:ARG:NH1	2.25	0.52
52:BD:9:U:C2'	52:BD:9:U:O2	2.57	0.52
48:BU:70:ILE:HG23	48:BU:79:LEU:HD13	1.91	0.52
31:BA:998:G:O2'	31:BA:998(A):C:H5'	2.09	0.52
1:CA:1054:C:H5''	9:CM:35:ARG:HH11	1.75	0.52
14:AQ:36:TYR:N	14:AQ:36:TYR:HD1	2.04	0.52
11:AO:11:GLY:O	11:AO:13:ASN:N	2.42	0.52
1:CA:2651:G:HO2'	1:CA:2652:A:H8	1.55	0.52
1:CA:823:G:C5	1:CA:842:G:C8	2.97	0.52
20:CU:61:ILE:HG22	20:CU:62:GLU:N	2.23	0.52
33:DF:150:LYS:HE3	33:DF:152:ILE:HD11	1.90	0.52
31:DA:109:A:C6	31:DA:326:G:C6	2.97	0.52
31:DA:922:G:O2'	31:DA:1398:A:N1	2.31	0.52
1:CA:1623:C:H2'	1:CA:1624:U:H6	1.73	0.52
1:CA:178:G:OP2	56:CA:3403:OHX:N1	2.42	0.52
31:DA:707:C:H2'	31:DA:708:C:H6	1.74	0.52
31:DA:677:U:H1'	41:DN:119:CYS:SG	2.50	0.52
1:AA:2060:A:H1'	1:AA:2061:G:OP2	2.08	0.52
1:CA:287:C:O2	1:CA:287:C:H2'	2.08	0.52
36:DI:48:LEU:HD13	36:DI:52:ILE:HG13	1.89	0.52
1:CA:1577:G:H2'	1:CA:1578:C:C6	2.44	0.52
46:BS:36:ILE:O	46:BS:36:ILE:HG13	2.09	0.52
10:AN:112:MET:O	10:AN:115:VAL:HG22	2.09	0.52
1:CA:1310:U:H1'	27:C5:10:LYS:HG3	1.89	0.52
1:CA:1225:C:H2'	1:CA:1226:C:C6	2.44	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1754:U:O2	1:CA:1789:U:H5'	2.09	0.52
6:CG:173:LEU:O	6:CG:178:PHE:HB2	2.09	0.52
1:CA:1236:G:H2'	1:CA:1237:G:H8	1.74	0.52
1:CA:146:G:H2'	1:CA:147:U:O4'	2.09	0.52
1:CA:2146:G:N2	1:CA:2198:C:N3	2.53	0.52
1:CA:610:A:H5'	5:CF:89:VAL:HG21	1.91	0.52
31:BA:1009:G:C2	31:BA:1010:G:C8	2.97	0.52
31:BA:1132:C:H2'	31:BA:1133:G:C8	2.44	0.52
40:BM:35:SER:OG	40:BM:73:ASP:HB2	2.09	0.52
28:A6:17:LYS:O	28:A6:44:ARG:NH2	2.31	0.52
1:CA:1256:A:H5'	1:CA:1258:G:O4'	2.10	0.52
1:AA:1019:U:O2'	1:AA:1021:A:H2	1.70	0.52
54:B1:11:U:C2'	54:B1:12:A:C4	2.93	0.52
31:BA:1505:G:H4'	54:B1:13:A:N6	2.23	0.52
31:BA:531:U:C2	56:BA:1673:OHX:N1	2.78	0.52
52:DB:13:G:H1'	52:DB:24:G:H1	1.73	0.52
1:CA:671:C:C2'	1:CA:671:C:O2	2.53	0.52
38:DK:82:HIS:CD2	38:DK:138:TRP:CE2	2.97	0.52
31:BA:243:A:H5''	31:BA:244:U:H3'	1.91	0.52
4:AE:101:ARG:NE	4:AE:171:GLU:HB3	2.24	0.52
35:DH:110:LEU:HD13	35:DH:118:ILE:HD13	1.91	0.52
34:BG:110:PHE:CE2	34:BG:148:VAL:HG23	2.44	0.52
1:AA:581:C:H2'	1:AA:582:G:H8	1.74	0.52
1:CA:1816:A:H4'	1:CA:1817:A:C5'	2.39	0.52
31:BA:359:U:H2'	31:BA:360:A:H8	1.73	0.52
1:AA:1317:A:H2'	1:AA:1318:C:H6	1.74	0.52
31:DA:757:U:H2'	31:DA:758:G:O4'	2.10	0.52
1:AA:1133:U:O4	1:AA:2026:C:H1'	2.10	0.52
31:DA:875:C:O2'	38:DK:14:ARG:HD2	2.09	0.52
1:CA:286:U:H1'	1:CA:287:C:H5	1.74	0.52
1:CA:2378:G:H2'	1:CA:2379:A:C8	2.45	0.52
1:CA:2335:A:H2'	1:CA:2336:G:O4'	2.10	0.52
33:BF:138:VAL:O	33:BF:142:MET:HG2	2.08	0.52
38:DK:13:ILE:O	38:DK:17:THR:OG1	2.26	0.52
38:DK:20:TYR:HA	38:DK:65:TYR:CZ	2.43	0.52
17:A2:3:ALA:HA	17:A2:40:LEU:O	2.10	0.52
45:DR:55:GLY:O	45:DR:59:MET:HG3	2.09	0.52
31:BA:128:G:H4'	47:BT:3:LYS:HG2	1.91	0.52
1:CA:2413:G:H2'	1:CA:2414:U:C6	2.44	0.52
31:BA:1277:C:HO2'	31:BA:1279:A:C1'	2.22	0.52
24:CW:43:GLN:HG2	24:CW:43:GLN:O	2.08	0.52
12:AP:43:THR:HB	12:AP:45:GLN:HG2	1.91	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1080:A:H2'	1:AA:1081:U:C1'	2.38	0.52
11:CO:62:LEU:HD23	11:CO:62:LEU:N	2.19	0.52
11:CO:64:LYS:O	11:CO:66:GLY:N	2.42	0.52
52:BB:23:A:C2'	52:BB:24:G:H5''	2.33	0.52
3:AD:25:THR:O	3:AD:27:THR:N	2.43	0.52
3:AD:65:ILE:HD11	3:AD:67:PHE:CE2	2.44	0.52
52:DB:59:A:C6	52:DB:60:A:C5	2.98	0.52
5:AF:46:ARG:HG2	5:AF:46:ARG:NH1	2.01	0.52
3:AD:241:PRO:O	3:AD:242:ARG:C	2.48	0.52
5:CF:25:PRO:O	5:CF:26:ALA:HB3	2.09	0.52
1:CA:65:C:H2'	1:CA:66:U:O4'	2.09	0.52
49:BV:63:THR:CG2	49:BV:65:ASN:HD21	2.20	0.52
28:A6:38:LYS:HE2	28:A6:46:HIS:CD2	2.44	0.52
1:CA:354:G:H4'	1:CA:355:A:OP2	2.09	0.52
31:DA:23:C:H5	31:DA:561:U:O4	1.92	0.52
7:AH:151:ILE:HG22	7:AH:151:ILE:O	2.09	0.52
43:BP:108:ARG:NH1	43:BP:108:ARG:HG3	2.24	0.52
1:AA:2733:A:H3'	1:AA:2734:A:H5''	1.91	0.52
31:BA:1287:A:C2	31:BA:1353:G:H1'	2.41	0.52
14:CQ:88:ASP:O	14:CQ:89:ARG:HB3	2.09	0.52
1:CA:551:U:H2'	1:CA:551:U:O2	2.07	0.52
2:AB:74:U:H2'	2:AB:75:G:O4'	2.09	0.52
2:AB:73:A:C3'	2:AB:74:U:H5'	2.39	0.52
31:BA:1378:C:O2	31:BA:1379:G:O4'	2.27	0.52
31:DA:1190:G:N1	56:DA:1760:OHX:N3	2.57	0.52
5:CF:143:ALA:O	5:CF:148:LEU:HB2	2.10	0.52
1:AA:1833:U:H2'	1:AA:1834:U:C6	2.41	0.52
20:CU:92:ASN:N	20:CU:92:ASN:OD1	2.41	0.52
47:DT:68:ARG:H	47:DT:70:ARG:NH1	2.07	0.52
1:AA:389:G:H22	11:AO:72:PRO:CD	2.22	0.52
3:CD:208:LYS:HG3	3:CD:210:GLY:N	2.23	0.52
1:CA:1333:A:H1'	1:CA:1335:U:OP2	2.09	0.52
41:BN:126:ARG:CG	41:BN:126:ARG:HH11	2.21	0.52
7:CH:16:SER:OG	7:CH:17:VAL:N	2.42	0.52
31:BA:115:G:H4'	31:BA:116:A:O5'	2.09	0.52
1:AA:531:C:OP1	1:AA:561:G:N2	2.42	0.52
1:AA:372:G:O2'	1:AA:373:U:OP2	2.27	0.52
42:BO:34:CYS:O	42:BO:76:GLU:O	2.27	0.52
31:BA:540:G:H2'	31:BA:541:G:O4'	2.09	0.52
14:AQ:39:ILE:HG13	14:AQ:73:LEU:HD11	1.90	0.52
1:AA:1662:C:OP1	56:AA:3487:OHX:N2	2.42	0.52
1:AA:1488:G:C5	1:AA:1489:U:C5	2.97	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DS:14:ASN:N	46:DS:15:PRO:HD3	2.24	0.52
6:CG:111:LEU:HB2	6:CG:112:PRO:HD3	1.90	0.52
1:CA:197:A:H2'	1:CA:198:C:O4'	2.09	0.52
24:AW:63:VAL:O	24:AW:66:GLU:HB3	2.10	0.52
21:CV:24:LEU:HD22	21:CV:83:PRO:HB2	1.89	0.52
31:BA:594:G:OP2	56:BA:1772:OHX:N1	2.42	0.52
16:A1:72:HIS:CE1	16:A1:107:ALA:HA	2.45	0.52
14:AQ:41:ASP:OD2	14:AQ:44:LYS:HD2	2.09	0.52
1:CA:2321:G:H2'	1:CA:2322:A:OP1	2.08	0.52
11:CO:62:LEU:HG	30:C8:25:MET:CB	2.09	0.52
52:DD:19:C:C2'	52:DD:20:C:H4'	2.36	0.52
31:DA:504:C:C2	31:DA:542:G:C2	2.98	0.52
1:CA:2763:A:H5''	7:CH:6:ARG:HH12	1.73	0.52
3:AD:35:LYS:HZ3	3:AD:104:TYR:HD1	1.58	0.52
31:BA:1234:C:H4'	31:BA:1364:U:O2'	2.08	0.52
1:AA:2439:A:O2'	1:AA:2440:C:OP2	2.18	0.52
1:CA:1617:A:H5'	3:CD:61:LEU:HD21	1.91	0.52
3:CD:35:LYS:CB	3:CD:63:ARG:HA	2.39	0.52
1:AA:780:G:C2	1:AA:783:A:N6	2.78	0.52
31:DA:1036:G:H5'	31:DA:1037:C:OP2	2.09	0.52
31:DA:1055:A:N7	31:DA:1206:G:C2	2.78	0.52
31:DA:1240:U:HO2'	31:DA:1241:G:P	2.31	0.52
5:AF:164:ARG:HG3	5:AF:175:THR:OG1	2.09	0.52
1:CA:235:G:O3'	11:CO:70:GLN:O	2.26	0.52
1:AA:795:C:H2'	1:AA:796:C:C6	2.45	0.52
32:BE:8:LYS:H	32:BE:8:LYS:CE	2.22	0.52
40:DM:49:VAL:O	40:DM:60:ARG:HB2	2.09	0.52
31:DA:458:C:H2'	31:DA:464:G:C8	2.45	0.52
33:DF:47:LEU:HD11	33:DF:76:VAL:HB	1.91	0.52
1:AA:273(F):C:O2	1:AA:273(F):C:H2'	2.08	0.52
4:AE:120:TRP:CD1	4:AE:155:LYS:HB3	2.44	0.52
1:AA:588:U:C2	5:AF:90:PHE:CE1	2.97	0.52
31:BA:1000:A:H2'	31:BA:1001:G:C8	2.45	0.52
34:DG:70:ILE:HD11	34:DG:100:ARG:CD	2.38	0.52
43:DP:22:ILE:HB	43:DP:25:ILE:HG13	1.92	0.52
31:BA:280:C:O2	47:BT:38:ARG:HG3	2.10	0.52
1:CA:985:G:C2'	1:CA:986:G:H5'	2.39	0.52
31:BA:509:A:H2'	31:BA:510:A:C8	2.44	0.52
33:BF:114:PRO:O	33:BF:118:GLN:HG3	2.10	0.52
5:AF:122:LYS:HD2	5:AF:191:ARG:HG2	1.91	0.52
7:AH:102:ALA:HA	7:AH:117:PRO:HD3	1.90	0.52
1:CA:717:G:O2'	1:CA:718:A:C8	2.60	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:A2:72:VAL:HG13	17:A2:85:LYS:HG2	1.92	0.52
42:BO:72:HIS:HD2	42:BO:74:LEU:H	1.57	0.52
1:CA:234:A:C2	1:CA:245:A:C4	2.96	0.52
1:AA:568:U:O2	1:AA:570:G:C8	2.61	0.52
1:CA:1493:C:OP2	1:CA:1494:C:OP2	2.27	0.52
31:DA:1261:A:H2'	31:DA:1262:C:H5'	1.91	0.52
5:CF:39:TRP:O	5:CF:43:LYS:HG2	2.10	0.52
6:AG:171:ALA:O	6:AG:175:LEU:HG	2.10	0.52
18:AS:84:ARG:HB2	18:AS:96:ILE:HD11	1.91	0.52
38:DK:38:ILE:HD12	38:DK:118:VAL:HG12	1.92	0.52
1:CA:942:U:O2'	1:CA:943:A:H5''	2.10	0.52
25:AX:59:VAL:CG1	25:AX:60:GLU:N	2.72	0.52
7:CH:12:PRO:HD2	7:CH:48:GLY:O	2.09	0.52
12:CP:67:ARG:HD2	12:CP:105:GLU:OE1	2.09	0.52
52:DD:52:G:H2'	52:DD:53:A:O4'	2.10	0.52
52:BB:46:G:C2'	52:BB:47:U:H5'	2.39	0.52
33:DF:15:THR:HG22	33:DF:16:ARG:NH1	2.24	0.52
1:AA:2846:G:OP2	15:AR:54:ARG:HB2	2.08	0.52
1:AA:1021:A:H8	1:AA:1022:G:H5''	1.75	0.52
52:DB:10:C:N4	52:DB:26:G:H1	2.03	0.52
1:CA:550:U:H2'	1:CA:551:U:C6	2.36	0.52
1:AA:1797:C:C2'	1:AA:1798:U:H5'	2.40	0.52
1:CA:16:G:H5''	27:C5:17:ASP:HB2	1.91	0.52
1:AA:2476:A:N3	1:AA:2476:A:H2'	2.25	0.52
32:BE:187:LEU:HD11	32:BE:204:ASN:O	2.08	0.52
1:AA:479:A:O2'	1:AA:481:G:H2'	2.09	0.52
35:DH:76:ILE:O	35:DH:93:PRO:HB3	2.10	0.52
7:CH:92:ILE:HD13	7:CH:160:LYS:HG3	1.91	0.52
31:DA:851:G:H2'	31:DA:852:G:C8	2.45	0.52
4:CE:111:ARG:CG	13:C0:2:ARG:HH22	2.20	0.52
31:BA:811:C:H4'	31:BA:900:A:H61	1.72	0.52
1:CA:2252:G:P	3:CD:244:ARG:HH22	2.32	0.52
28:C6:35:GLU:O	28:C6:36:LEU:CB	2.58	0.52
1:CA:561:C:C2'	1:CA:562:A:H5'	2.38	0.52
31:DA:363:A:C2	42:DO:28:PRO:HG2	2.45	0.52
5:AF:128:ALA:O	5:AF:129:PHE:HB2	2.10	0.52
31:DA:134:A:N6	46:DS:25:ARG:NH1	2.58	0.52
1:AA:973:A:O4'	1:AA:1188:U:C6	2.63	0.52
31:BA:186:C:H2'	31:BA:186(A):C:C6	2.44	0.52
1:AA:438:G:H2'	1:AA:439:G:C8	2.45	0.52
26:C4:48:ARG:NH1	26:C4:51:ASP:HA	2.25	0.52
1:CA:1086:G:H1	1:CA:1163:C:N4	2.06	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:C4:56:VAL:HA	26:C4:60:GLN:NE2	2.25	0.52
31:DA:946:A:H2'	31:DA:947:G:C8	2.45	0.52
46:BS:12:LYS:C	46:BS:14:ASN:H	2.13	0.52
31:DA:350:G:H5'	31:DA:351:G:OP2	2.09	0.52
31:BA:539:A:OP1	42:BO:111:LYS:HE2	2.09	0.52
31:DA:324:G:N7	56:DA:1764:OHX:N4	2.57	0.52
31:BA:1460:A:H2'	31:BA:1461:G:O4'	2.10	0.52
31:DA:1272:G:H2'	31:DA:1273:G:O4'	2.10	0.52
35:DH:7:GLU:OE1	35:DH:37:ARG:NE	2.42	0.52
21:AV:68:PRO:O	21:AV:91:LEU:HB2	2.09	0.52
5:AF:8:GLN:H	5:AF:8:GLN:CD	2.12	0.52
16:C1:11:ARG:HH11	16:C1:11:ARG:HG3	1.75	0.52
1:AA:1625:C:H2'	1:AA:1626:G:O4'	2.09	0.52
1:AA:2294:C:C4	1:AA:2295:C:C5	2.98	0.52
6:AG:61:ALA:O	26:A4:7:PRO:HG3	2.09	0.52
8:CK:128:LEU:O	8:CK:138:ILE:HG22	2.10	0.52
1:AA:880:G:N2	1:AA:898:C:C2	2.78	0.52
53:DC:17:C:OP1	53:DC:62:C:H5'	2.10	0.52
31:BA:1029:G:O2'	31:BA:1032(A):G:N2	2.42	0.52
31:DA:534:U:H5'	31:DA:535:A:OP2	2.10	0.52
12:CP:75:THR:HA	12:CP:90:VAL:H	1.75	0.52
54:D1:12:A:O2'	54:D1:13:A:OP1	2.17	0.52
31:DA:1394:A:C6	31:DA:1501:C:H4'	2.44	0.52
52:DD:42:U:H2'	52:DD:43:G:C8	2.44	0.52
30:A8:14:VAL:HG13	30:A8:22:VAL:HG13	1.91	0.52
52:BD:8:U:H3	52:BD:14:A:H62	1.58	0.52
1:CA:2800:U:H4'	4:CE:64:LYS:HA	1.91	0.52
26:A4:43:TYR:CD1	26:A4:44:THR:N	2.78	0.52
31:BA:1124:G:H1	31:BA:1149:C:N4	2.08	0.52
31:DA:1124:G:O2'	31:DA:1145:C:C4	2.63	0.52
1:CA:1701:G:H1'	1:CA:1702:A:OP2	2.10	0.52
7:AH:89:ILE:CG2	7:AH:162:ILE:HG12	2.40	0.52
31:BA:954:G:H21	31:BA:1227:A:H62	1.55	0.52
31:DA:1224:G:C2	31:DA:1322:C:H4'	2.45	0.52
1:CA:739:C:C1'	3:CD:43:ARG:HH21	2.22	0.52
3:CD:44:ASN:OD1	3:CD:44:ASN:N	2.42	0.52
1:CA:1468:G:C2	1:CA:1469:G:C8	2.98	0.52
1:AA:2789:C:H3'	1:AA:2790:A:H5''	1.92	0.52
4:AE:105:THR:HG22	4:AE:106:GLY:N	2.22	0.52
1:AA:1171:G:C6	1:AA:1174:A:N6	2.77	0.52
31:DA:509:A:O2'	31:DA:510:A:P	2.68	0.52
1:AA:588:U:H2'	1:AA:589:C:C6	2.45	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:606:U:H4'	1:AA:658:C:H4'	1.91	0.52
1:CA:2275:U:OP2	22:C3:19:LYS:NZ	2.28	0.52
1:CA:2706:A:H2'	1:CA:2707:G:C8	2.43	0.52
47:BT:52:LYS:HG2	47:BT:53:LEU:N	2.25	0.52
31:DA:552:U:O2'	42:DO:83:ARG:O	2.26	0.52
8:CK:72:LEU:C	8:CK:74:ASN:H	2.12	0.52
4:CE:81:ILE:O	4:CE:82:ARG:CB	2.58	0.52
40:BM:32:ALA:HB2	40:BM:76:ASN:HB2	1.90	0.52
6:CG:130:ASN:OD1	6:CG:160:VAL:HA	2.09	0.52
1:AA:1694:C:H4'	1:AA:1695:G:O5'	2.10	0.52
24:AW:42:GLY:C	24:AW:44:LEU:H	2.13	0.52
36:BI:27:GLN:HA	36:BI:30:LEU:HD12	1.90	0.52
1:AA:354:G:H2'	1:AA:355:G:O4'	2.09	0.52
1:AA:278:A:H2'	1:AA:279:C:C6	2.45	0.52
12:AP:109:VAL:HG22	12:AP:110:THR:N	2.24	0.52
1:CA:2661:C:H2'	1:CA:2662:U:C6	2.45	0.52
1:CA:728:G:C4	1:CA:846:G:N2	2.78	0.52
14:CQ:52:SER:O	14:CQ:56:LEU:HG	2.10	0.52
48:BU:36:ASN:HD22	48:BU:39:VAL:HG21	1.74	0.52
31:BA:678:U:H2'	31:BA:679:C:C6	2.44	0.52
1:CA:1299:G:N3	16:C1:33:ARG:HD2	2.25	0.52
43:BP:26:GLY:O	43:BP:28:ALA:N	2.43	0.52
6:CG:171:ALA:O	6:CG:175:LEU:HG	2.09	0.52
1:AA:2309:A:H2'	1:AA:2310:A:O4'	2.10	0.52
1:CA:2428:G:OP1	56:CA:3490:OHX:N5	2.43	0.52
52:BD:52:G:H2'	52:BD:53:A:O4'	2.09	0.52
52:BB:11:C:H2'	52:BB:12:C:H6	1.75	0.52
52:BB:21:A:OP2	52:BB:56:U:O4	2.28	0.52
5:CF:88:VAL:HG22	5:CF:89:VAL:O	2.10	0.52
3:AD:236:GLY:O	3:AD:237:GLU:HB2	2.09	0.52
33:BF:15:THR:HG23	33:BF:181:ASN:HB2	1.92	0.52
38:BK:51:VAL:HG11	38:BK:60:ARG:HH11	1.75	0.52
1:CA:2903:G:H8	1:CA:2903:G:OP2	1.93	0.52
9:CM:28:THR:HA	9:CM:106:MET:HE2	1.90	0.52
40:BM:34:VAL:HG13	40:BM:73:ASP:O	2.09	0.52
1:AA:1109:C:O2'	1:AA:1110:G:C4'	2.56	0.52
11:CO:85:LEU:HD23	11:CO:86:LYS:N	2.24	0.52
5:AF:65:TRP:HB3	5:AF:66:PRO:HD2	1.90	0.52
33:DF:154:SER:O	33:DF:196:LEU:HD13	2.09	0.52
31:BA:877:C:H5''	38:BK:88:LYS:HD3	1.92	0.52
31:BA:1099:G:H2'	31:BA:1100:C:O4'	2.10	0.52
7:AH:50:VAL:O	7:AH:50:VAL:HG22	2.10	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
37:DJ:75:VAL:HG21	37:DJ:144:MET:HB2	1.91	0.52
5:CF:124:LEU:O	5:CF:125:LEU:C	2.47	0.52
24:CW:65:ASN:HD22	24:CW:69:ARG:NH2	2.06	0.52
32:BE:8:LYS:HE3	32:BE:11:LEU:HB2	1.92	0.52
14:AQ:106:ARG:HB2	14:AQ:106:ARG:NH1	2.25	0.52
1:AA:2145:C:H2'	1:AA:2147:G:N1	2.24	0.52
5:AF:133:ASN:HA	5:AF:162:LEU:HD22	1.91	0.52
44:BQ:22:THR:O	44:BQ:23:ARG:HD2	2.10	0.52
9:CM:35:ARG:O	9:CM:37:LYS:N	2.34	0.52
32:DE:92:TYR:HD2	32:DE:151:GLY:HA3	1.74	0.52
11:CO:121:LYS:HA	11:CO:121:LYS:HE3	1.92	0.52
4:CE:54:GLN:O	4:CE:75:VAL:HG22	2.09	0.52
1:AA:270(X):G:OP2	56:AA:3424:OHX:N1	2.43	0.52
31:DA:66:G:C6	31:DA:67:C:C5	2.97	0.52
31:BA:509:A:O2'	31:BA:510:A:P	2.68	0.52
1:CA:908:U:C2	1:CA:2281:A:C8	2.97	0.52
21:CV:15:PRO:HA	21:CV:18:LEU:HD23	1.90	0.52
21:CV:75:ASN:O	21:CV:84:GLU:HG2	2.10	0.52
1:AA:811:U:OP2	11:AO:21:ARG:O	2.27	0.52
34:BG:89:THR:OG1	56:BG:302:OHX:N6	2.42	0.52
5:CF:9:ILE:HG12	5:CF:13:SER:O	2.09	0.52
1:CA:1432:G:H4'	1:CA:1433:C:OP1	2.08	0.52
31:BA:183:G:H2'	31:BA:184:G:C8	2.44	0.52
1:CA:2748:A:H2'	1:CA:2749:G:O4'	2.10	0.52
3:CD:120:GLY:HA2	3:CD:190:TYR:OH	2.09	0.52
1:CA:372:A:H2'	1:CA:373:G:C8	2.45	0.52
31:BA:587:G:N2	31:BA:755:G:C5	2.78	0.52
19:AT:67:GLY:O	19:AT:68:ARG:HB3	2.10	0.52
45:BR:25:THR:HG21	45:BR:70:LEU:HD22	1.91	0.52
19:AT:65:ARG:HB2	19:AT:70:LEU:HB3	1.91	0.52
15:CR:98:LYS:HB3	15:CR:100:TYR:CE1	2.45	0.52
38:BK:17:THR:HG21	38:BK:80:ILE:HD11	1.90	0.52
1:CA:1057:A:H5'	16:C1:62:ILE:HG21	1.91	0.52
1:AA:1086:A:H4'	1:AA:1103:A:C2	2.44	0.52
31:BA:791:G:H5'	31:BA:792:A:O5'	2.09	0.52
1:CA:2180:G:H2'	1:CA:2181:A:C8	2.44	0.52
1:CA:2152:C:N3	1:CA:2182:G:O6	2.42	0.52
1:CA:2148:G:N2	1:CA:2195:U:O5'	2.42	0.52
11:CO:97:PRO:O	11:CO:98:GLU:CB	2.53	0.52
52:BB:15:G:H21	52:BB:20:C:H6	1.58	0.52
31:BA:1002:G:N3	31:BA:1003:G:C8	2.78	0.52
34:DG:22:LYS:HD2	34:DG:26:CYS:SG	2.50	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:67:U:C4	1:AA:74:A:N1	2.77	0.52
31:DA:89:U:O2'	31:DA:90:C:H6	1.93	0.52
31:BA:1145:C:H4'	31:BA:1146:A:H8	1.75	0.52
20:AU:96:ILE:HG23	20:AU:101:LYS:HG2	1.92	0.52
1:CA:1256:A:C5'	1:CA:1257:U:H3'	2.40	0.52
31:DA:422:C:O2'	31:DA:423:G:C2	2.56	0.52
4:AE:38:THR:HG23	4:AE:41:LYS:H	1.74	0.52
52:DB:26:G:H5'	52:DB:27:A:OP2	2.10	0.52
1:AA:1570:A:H2'	1:AA:1571:A:C8	2.45	0.52
2:CB:9:G:O5'	14:CQ:29:PHE:CE1	2.63	0.52
44:BQ:45:ARG:NH1	44:BQ:49:HIS:HE1	2.08	0.52
32:DE:200:ILE:N	32:DE:200:ILE:HD12	2.25	0.52
1:CA:947:A:N3	1:CA:947:A:H2'	2.23	0.52
36:DI:100:ASN:H	48:DU:23:LYS:HZ2	1.57	0.52
1:CA:1463:G:O6	56:CA:3428:OHX:N1	2.42	0.52
32:DE:214:ILE:HG22	32:DE:215:LEU:HD22	1.92	0.52
1:CA:959:C:H2'	1:CA:959:C:O2	2.08	0.52
4:AE:37:ARG:HA	4:AE:37:ARG:HH11	1.74	0.52
42:DO:5:ASN:ND2	47:DT:34:LYS:HE2	2.25	0.52
10:AN:76:ALA:HB3	15:AR:75:ILE:HD12	1.92	0.52
31:BA:940:C:H2'	31:BA:941:G:H8	1.74	0.52
13:C0:118:GLU:OE1	13:C0:118:GLU:HA	2.09	0.52
1:AA:1593:G:H2'	1:AA:1594:G:H8	1.73	0.52
1:CA:2213:G:H2'	1:CA:2214:G:H5''	1.92	0.52
1:AA:315:G:H2'	1:AA:316:C:C6	2.45	0.52
31:BA:782:A:H4'	31:BA:1514:C:O2'	2.10	0.52
32:BE:210:SER:O	32:BE:214:ILE:HG12	2.09	0.52
19:AT:55:ASN:HB2	19:AT:80:ILE:HG13	1.92	0.52
31:BA:836:G:OP1	48:BU:61:LYS:NZ	2.41	0.52
50:DW:33:ILE:HD13	50:DW:63:ILE:HA	1.91	0.52
29:A7:16:HIS:HB2	29:A7:44:PRO:HG2	1.92	0.52
48:DU:67:ALA:O	48:DU:71:LYS:HG3	2.09	0.52
4:CE:112:GLY:O	4:CE:159:HIS:HA	2.10	0.52
1:CA:1177:U:O2	4:CE:149:ARG:NH2	2.43	0.52
1:CA:21:A:O2'	1:CA:22:C:H5'	2.09	0.52
31:DA:804:U:H5''	31:DA:805:C:OP2	2.10	0.52
14:CQ:60:GLY:O	14:CQ:61:ASN:HB2	2.09	0.52
6:AG:127:GLY:HA2	6:AG:166:ASP:OD1	2.08	0.52
17:A2:98:GLU:OE2	17:A2:100:ARG:NH1	2.43	0.52
1:AA:2651:C:O2'	1:AA:2652:C:H5'	2.10	0.52
1:CA:2323:A:N3	1:CA:2323:A:C5'	2.73	0.52
1:AA:2015:A:C4'	27:A5:2:ALA:HB2	2.40	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1071:G:N2	1:AA:1090:U:C5	2.77	0.52
11:CO:52:GLU:CD	11:CO:57:THR:HA	2.28	0.52
1:CA:2762:A:C8	1:CA:2768:U:O4	2.63	0.52
39:BL:97:LYS:HA	39:BL:102:LEU:HD12	1.91	0.52
31:BA:1034:G:N2	31:BA:1035:A:N6	2.58	0.52
52:DB:51:C:C5	52:DB:52:G:N3	2.78	0.52
1:CA:1104:A:N1	1:CA:1128:U:C4	2.77	0.52
12:CP:19:GLY:CA	12:CP:98:LYS:HD3	2.40	0.52
12:CP:21:THR:HB	12:CP:99:PRO:O	2.10	0.52
11:AO:62:LEU:O	11:AO:62:LEU:HG	2.08	0.52
1:AA:2700:C:O2'	1:AA:2701:C:H5'	2.10	0.52
31:DA:1128:C:C4	31:DA:1139:G:C2	2.98	0.52
1:CA:992:G:O6	1:CA:1018:G:N2	2.43	0.52
31:DA:559:A:H5''	31:DA:560:U:H3'	1.92	0.52
1:AA:2645:G:C3'	1:AA:2646:C:H5'	2.36	0.52
31:DA:973:G:H1'	40:DM:55:LYS:NZ	2.25	0.52
4:AE:14:ILE:O	4:AE:15:PHE:CB	2.57	0.52
31:BA:878:G:H5'	38:BK:89:PRO:HG2	1.91	0.52
52:DB:11:C:H2'	52:DB:12:C:H6	1.74	0.52
43:BP:8:GLU:O	43:BP:10:PRO:HD3	2.10	0.52
5:CF:83:PHE:O	5:CF:84:VAL:HB	2.10	0.52
31:DA:412:A:H4'	31:DA:413:G:H5'	1.92	0.52
35:DH:79:GLU:HG2	35:DH:92:LYS:HG2	1.90	0.52
31:DA:32:A:C2	31:DA:33:A:C4	2.98	0.52
13:A0:72:ASP:O	13:A0:76:VAL:HG23	2.10	0.52
31:BA:437:U:O3'	34:BG:125:HIS:NE2	2.41	0.52
31:DA:748:C:C1'	31:DA:749:C:OP2	2.57	0.52
1:CA:562:A:H2'	1:CA:563:C:O4'	2.09	0.52
35:DH:11:ILE:HG21	35:DH:105:VAL:HG22	1.92	0.52
31:DA:363:A:OP1	42:DO:30:ARG:HG3	2.10	0.52
1:CA:605:C:OP1	16:C1:31:SER:HB2	2.09	0.52
35:BH:150:ARG:O	35:BH:150:ARG:HG2	2.10	0.52
31:DA:743:U:H2'	31:DA:744:C:C6	2.45	0.52
10:CN:4:PRO:O	10:CN:5:GLN:CB	2.58	0.52
1:CA:1803:C:H1'	1:CA:1818:A:C8	2.45	0.52
31:DA:1028(B):C:H3'	31:DA:1029:G:H5''	1.91	0.52
1:CA:2857:G:H2'	1:CA:2858:U:H6	1.75	0.52
1:CA:2864:C:H2'	1:CA:2865:G:C8	2.45	0.52
31:BA:153:C:H42	31:BA:168:G:H1	1.58	0.52
1:CA:1869:C:OP1	31:DA:784:C:H4'	2.09	0.52
27:C5:24:ALA:O	56:C5:102:OHX:N5	2.43	0.52
1:AA:1406:U:H2'	1:AA:1407:C:C6	2.44	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1139:G:O2'	1:AA:1143:A:N1	2.41	0.52
10:AN:4:PRO:O	10:AN:5:GLN:CB	2.57	0.52
50:BW:13:LEU:HD12	50:BW:13:LEU:C	2.30	0.52
50:DW:23:ARG:O	50:DW:27:LYS:HB2	2.09	0.52
3:CD:5:LYS:HG2	3:CD:6:PHE:H	1.75	0.52
31:BA:1521:G:H2'	31:BA:1522:U:C6	2.45	0.52
1:CA:1132:A:H1'	1:CA:1133:A:O5'	2.10	0.52
52:DD:18:G:N2	52:DD:65:C:N3	2.56	0.52
31:BA:1239:A:H62	31:BA:1299:A:H62	1.56	0.52
1:AA:2690:C:H5''	1:AA:2872:G:H21	1.74	0.52
1:AA:607:U:N3	1:AA:621:A:C2	2.75	0.52
5:AF:46:ARG:CG	5:AF:46:ARG:NH1	2.65	0.52
1:AA:49:A:C8	1:AA:51:G:C2	2.98	0.52
12:CP:19:GLY:N	12:CP:98:LYS:NZ	2.53	0.52
15:AR:34:VAL:CG2	15:AR:41:ARG:HB2	2.39	0.52
10:AN:104:ARG:HD3	15:AR:36:GLU:OE2	2.10	0.52
31:BA:1129:C:H4'	31:BA:1130:A:H5'	1.92	0.52
5:CF:119:ARG:NH1	5:CF:119:ARG:CG	2.67	0.52
16:A1:92:ARG:NH1	17:A2:11:GLN:O	2.42	0.52
31:DA:1306:A:H61	31:DA:1331:G:H1'	1.74	0.52
7:AH:129:THR:O	7:AH:129:THR:OG1	2.28	0.52
31:BA:605:U:C2	31:BA:606:G:C8	2.98	0.52
18:CS:73:ALA:HB3	18:CS:106:ILE:CD1	2.33	0.52
5:AF:63:LYS:CE	5:AF:67:GLN:HB2	2.40	0.52
31:BA:516:U:C4	31:BA:517:G:C6	2.97	0.52
6:CG:135:LEU:O	6:CG:154:GLY:HA3	2.10	0.52
37:DJ:43:PHE:CE1	37:DJ:47:CYS:HB2	2.45	0.52
21:CV:115:GLY:HA2	21:CV:177:PRO:CG	2.40	0.52
9:AM:65:LYS:HB3	9:AM:69:GLN:CG	2.38	0.52
5:CF:78:ILE:HA	5:CF:83:PHE:CD1	2.45	0.52
22:A3:24:LYS:HG3	22:A3:36:ILE:HD11	1.92	0.52
22:C3:68:GLU:CG	22:C3:80:HIS:HB2	2.39	0.52
31:BA:196:A:H5''	31:BA:197:A:OP1	2.09	0.52
31:DA:1190:G:P	33:DF:5:ILE:HG23	2.49	0.52
5:CF:123:LEU:O	5:CF:125:LEU:N	2.41	0.52
1:AA:2631:G:H1	1:AA:2787:C:N4	2.06	0.52
31:DA:340:U:H3	31:DA:349:A:N6	2.05	0.52
31:BA:1397:C:C6	31:BA:1397:C:H3'	2.41	0.52
32:BE:217:ARG:HA	32:BE:220:ASP:OD2	2.10	0.52
33:DF:23:TYR:C	33:DF:23:TYR:HD2	2.13	0.52
1:CA:2794:G:C3'	1:CA:2795:A:H5'	2.39	0.52
31:BA:1525:G:P	41:BN:120:ARG:HH22	2.32	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1805:U:O2	3:AD:50:THR:HB	2.10	0.52
1:CA:1434:C:H5'	1:CA:1517:A:H4'	1.91	0.52
46:DS:58:TYR:O	46:DS:61:SER:OG	2.19	0.52
39:BL:53:VAL:HG21	39:BL:92:TYR:CD1	2.45	0.52
1:AA:1519:G:C2'	1:AA:1520:U:H5'	2.40	0.52
1:CA:1391:G:O2'	1:CA:1432:G:H2'	2.10	0.52
1:CA:510:A:H4'	20:CU:49:VAL:HA	1.92	0.52
52:DD:7:G:OP1	56:DD:101:OHX:N2	2.43	0.52
1:AA:1198:U:H3	1:AA:1247:A:H61	1.57	0.52
1:CA:433:U:O2	1:CA:433:U:H3'	2.10	0.52
28:C6:48:VAL:HG21	28:C6:50:ARG:NH2	2.25	0.52
34:DG:115:ARG:O	34:DG:118:ARG:HG2	2.10	0.52
1:CA:393:U:H5'	1:CA:394:A:OP2	2.09	0.52
53:BC:18:C:O2	56:BC:106:OHX:N1	2.42	0.52
22:A3:56:ASP:O	22:A3:57:PHE:HB2	2.10	0.52
44:BQ:12:ARG:C	44:BQ:14:PRO:HD2	2.31	0.52
31:DA:60:A:H4'	31:DA:61:G:O5'	2.10	0.52
1:CA:865:C:C5	1:CA:866:G:N7	2.78	0.52
11:AO:19:VAL:CG2	11:AO:27:HIS:CA	2.88	0.51
1:AA:878:A:N1	1:AA:879:G:C2	2.78	0.51
1:AA:883:G:C6	1:AA:884:C:O2	2.63	0.51
1:AA:1062:G:OP1	1:AA:1070:A:H4'	2.10	0.51
1:AA:1068:G:O2'	1:AA:1069:A:H5'	2.10	0.51
52:BB:21:A:O4'	52:BB:22:A:C8	2.63	0.51
1:AA:1332:G:N2	1:AA:1610:A:H8	2.08	0.51
1:CA:1378:A:O2'	1:CA:1379:G:H8	1.92	0.51
31:BA:91:C:H2'	31:BA:92:G:O4'	2.09	0.51
1:CA:1122:C:H2'	1:CA:1123:C:C6	2.45	0.51
37:DJ:84:ASN:HB2	52:DD:38:MIA:C15	2.39	0.51
45:DR:68:ARG:NH1	45:DR:68:ARG:CG	2.70	0.51
26:A4:37:SER:OG	26:A4:42:PHE:CD1	2.61	0.51
28:C6:15:GLU:HG2	28:C6:47:THR:HG21	1.92	0.51
1:CA:1579:C:N3	1:CA:1586:G:N2	2.53	0.51
4:CE:204:ALA:O	4:CE:205:ALA:HB3	2.10	0.51
34:BG:138:TYR:C	34:BG:138:TYR:CD2	2.83	0.51
43:DP:86:CYS:O	43:DP:89:GLY:N	2.34	0.51
15:AR:60:THR:HG22	15:AR:77:PRO:HA	1.91	0.51
1:CA:1590:A:OP1	1:CA:1590:A:C4'	2.58	0.51
33:BF:91:LEU:CB	33:BF:99:VAL:HG21	2.39	0.51
12:CP:56:ARG:NH1	12:CP:56:ARG:HB2	2.25	0.51
50:DW:100:ILE:HD12	50:DW:100:ILE:N	2.25	0.51
50:DW:50:GLU:CB	50:DW:100:ILE:HG12	2.39	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:DU:23:LYS:H	48:DU:26:LEU:HD11	1.74	0.51
32:BE:6:THR:OG1	32:BE:7:VAL:N	2.43	0.51
1:AA:2313:C:H2'	1:AA:2314:C:C6	2.44	0.51
21:CV:87:ASP:OD2	21:CV:87:ASP:N	2.43	0.51
32:DE:167:PRO:O	32:DE:171:ALA:N	2.43	0.51
6:CG:102:PHE:HE2	6:CG:141:PHE:CE1	2.28	0.51
20:AU:90:LEU:HD12	20:AU:90:LEU:H	1.74	0.51
10:AN:7:TYR:CD1	10:AN:20:MET:HG3	2.46	0.51
18:AS:29:LEU:HD22	18:AS:69:LEU:HD11	1.92	0.51
1:AA:1735:C:H2'	1:AA:1741:C:O4'	2.10	0.51
3:CD:9:TYR:CD2	3:CD:10:THR:HG23	2.45	0.51
33:DF:126:ARG:HB2	33:DF:128:PHE:CE1	2.46	0.51
47:BT:76:LEU:HD12	47:BT:77:VAL:H	1.74	0.51
1:AA:1637:A:H4'	1:AA:2711:A:O2'	2.10	0.51
50:BW:38:LYS:O	50:BW:41:ILE:HG13	2.10	0.51
1:AA:1615:C:C6	1:AA:1617:C:C5	2.99	0.51
12:AP:79:LEU:N	12:AP:79:LEU:CD1	2.67	0.51
11:CO:41:ARG:HD2	11:CO:41:ARG:H	1.75	0.51
7:CH:67:LEU:O	7:CH:71:LEU:HB2	2.10	0.51
3:AD:35:LYS:HG2	3:AD:64:ILE:CG2	2.40	0.51
1:CA:1118:G:H22	1:CA:1137:U:H5	1.56	0.51
1:AA:2599:G:OP2	3:AD:236:GLY:N	2.43	0.51
3:CD:255:LYS:HD2	3:CD:255:LYS:O	2.10	0.51
19:CT:11:PRO:HB3	19:CT:92:LEU:HD21	1.91	0.51
1:AA:2572:A:C4	4:AE:144:ARG:NH1	2.79	0.51
31:DA:1137:C:H4'	31:DA:1138:G:C4	2.45	0.51
1:CA:1017:C:OP1	1:CA:1020:G:C8	2.63	0.51
1:CA:869:A:H2'	1:CA:992:G:H5''	1.90	0.51
31:BA:605:U:C2	31:BA:606:G:H8	2.27	0.51
44:DQ:41:ARG:HG3	44:DQ:42:ILE:HD13	1.91	0.51
1:AA:1586:A:H3'	1:AA:1587:A:H8	1.74	0.51
37:DJ:44:TYR:O	37:DJ:48:LYS:N	2.43	0.51
7:AH:137:ASP:O	7:AH:138:LYS:HB2	2.10	0.51
6:AG:67:LYS:CE	26:A4:6:HIS:CE1	2.93	0.51
20:CU:11:ASP:O	20:CU:27:VAL:HG22	2.10	0.51
1:AA:10:G:C2	1:AA:2629:A:C2	2.99	0.51
38:BK:86:ILE:O	38:BK:87:SER:C	2.49	0.51
1:CA:2229:G:H1'	1:CA:2230:A:P	2.50	0.51
4:AE:105:THR:HG21	4:AE:164:ARG:HE	1.75	0.51
31:BA:389:A:H2'	31:BA:390:C:H5'	1.92	0.51
42:DO:52:VAL:HG23	42:DO:66:TYR:HA	1.92	0.51
15:CR:91:ARG:HD2	15:CR:124:ASP:OD1	2.10	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:622:A:C8	31:DA:623:C:C6	2.99	0.51
46:BS:72:ARG:O	46:BS:75:ARG:HB3	2.10	0.51
13:C0:81:ASP:O	13:C0:82:GLU:HB3	2.09	0.51
33:BF:62:ASP:HA	33:BF:97:LYS:HD2	1.91	0.51
50:DW:45:GLN:HB2	50:DW:91:LEU:HD13	1.92	0.51
18:CS:59:VAL:HG23	18:CS:64:MET:H	1.75	0.51
1:AA:1474:C:H2'	1:AA:1475:G:C8	2.45	0.51
28:A6:11:LEU:HD11	28:A6:51:GLU:HG3	1.90	0.51
1:AA:1799:G:H5'	1:AA:1819:A:N6	2.25	0.51
1:AA:2661:G:H2'	1:AA:2662:A:O4'	2.10	0.51
20:AU:38:ILE:HD11	20:AU:64:GLU:HG3	1.92	0.51
31:DA:108:G:H5'	31:DA:109:A:H5''	1.92	0.51
46:DS:56:ALA:O	46:DS:60:LEU:HG	2.10	0.51
1:CA:1429:G:C2'	1:CA:1430:C:H5'	2.40	0.51
1:AA:2848:G:H1'	1:AA:2867:G:N2	2.25	0.51
1:CA:1055:C:N4	1:CA:1182:G:C6	2.78	0.51
1:AA:2331:G:O3'	22:A3:43:THR:HG22	2.09	0.51
5:CF:128:ALA:C	5:CF:142:TRP:HE1	2.14	0.51
3:AD:218:ARG:HB3	3:AD:219:PRO:HD2	1.92	0.51
11:AO:119:GLU:OE2	11:AO:119:GLU:HA	2.10	0.51
21:AV:100:VAL:HG11	21:AV:137:ILE:HG13	1.92	0.51
1:AA:2577:A:H5''	1:AA:2578:G:H5'	1.92	0.51
1:AA:762:U:O4	56:AA:3446:OHX:N2	2.44	0.51
1:AA:1066:U:H3'	1:AA:1066:U:O2	2.11	0.51
28:C6:52:VAL:HG22	28:C6:53:LYS:N	2.18	0.51
1:AA:2113:U:H3	1:AA:2168:G:H8	1.57	0.51
1:CA:2159:C:C4	1:CA:2178:G:N1	2.75	0.51
1:CA:2762:A:O2'	7:CH:66:GLY:HA3	2.10	0.51
3:AD:35:LYS:HZ2	3:AD:64:ILE:C	2.07	0.51
3:AD:39:LYS:HB2	3:AD:62:TYR:HB2	1.93	0.51
43:BP:66:LEU:O	43:BP:70:LEU:HB2	2.10	0.51
15:CR:119:LYS:HB2	31:DA:1443:G:N2	2.26	0.51
1:AA:259:G:H21	1:AA:621:A:H8	1.57	0.51
1:AA:847:U:O4	1:AA:933:A:C6	2.63	0.51
52:BB:84:C:H2'	52:BB:85:A:C4	2.46	0.51
31:BA:1128:C:H1'	31:BA:1146:A:H61	1.75	0.51
1:AA:2302:G:O2'	1:AA:2303:G:H5'	2.10	0.51
34:BG:19:LEU:CD2	34:BG:21:LEU:HG	2.39	0.51
1:CA:354:G:OP2	20:CU:71:LYS:HD3	2.10	0.51
1:AA:2779:U:OP1	56:AA:3318:OHX:N5	2.43	0.51
32:DE:217:ARG:NH1	32:DE:217:ARG:HB2	2.26	0.51
1:CA:1584:C:H2'	1:CA:1585:G:H8	1.74	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:C2:80:GLN:NE2	17:C2:80:GLN:CA	2.74	0.51
1:AA:917:A:H8	2:AB:97:G:H21	1.58	0.51
2:CB:6:C:H42	2:CB:119:G:H1	1.57	0.51
53:DC:1:C:O2	53:DC:1:C:C2'	2.54	0.51
1:AA:1379:A:C1'	1:AA:1380:G:OP1	2.58	0.51
6:AG:131:TYR:HB3	6:AG:159:VAL:HG23	1.92	0.51
34:BG:108:LEU:CD1	34:BG:174:LEU:HD13	2.39	0.51
21:AV:52:SER:C	21:AV:54:HIS:H	2.12	0.51
1:AA:2591:C:H2'	1:AA:2592:G:H8	1.74	0.51
14:AQ:25:ARG:NH1	14:AQ:42:ASP:OD2	2.43	0.51
44:DQ:27:CYS:SG	44:DQ:27:CYS:O	2.68	0.51
31:BA:1014:A:H4'	49:BV:14:HIS:CG	2.45	0.51
26:C4:37:SER:C	26:C4:39:CYS:H	2.14	0.51
21:CV:105:VAL:HG12	21:CV:140:ASP:OD2	2.11	0.51
1:CA:1516:C:H2'	1:CA:1517:A:C8	2.44	0.51
1:CA:1035:A:OP2	25:CX:11:SER:OG	2.28	0.51
25:CX:15:TYR:O	25:CX:20:LYS:HE3	2.11	0.51
31:DA:1028(B):C:C2	31:DA:1032(A):G:N2	2.79	0.51
18:AS:111:HIS:O	18:AS:113:LYS:N	2.43	0.51
32:DE:27:LYS:HD3	32:DE:195:ASP:OD1	2.10	0.51
1:CA:2054:A:C6	1:CA:2511:C:H1'	2.45	0.51
1:CA:2374:A:OP1	30:C8:27:THR:HG23	2.10	0.51
25:AX:8:LEU:HB2	25:AX:28:LEU:HD22	1.92	0.51
7:CH:26:VAL:HG13	7:CH:79:VAL:HG11	1.92	0.51
35:DH:102:ALA:HB1	35:DH:106:PRO:HG2	1.93	0.51
32:DE:145:LEU:O	32:DE:145:LEU:HD13	2.10	0.51
1:AA:1919:A:H2'	1:AA:1919:A:N3	2.25	0.51
1:CA:2321:G:HO2'	1:CA:2322:A:P	2.33	0.51
1:CA:2323:A:C6	6:CG:80:PHE:CE2	2.98	0.51
12:AP:77:LYS:CD	12:AP:81:VAL:CG2	2.85	0.51
1:AA:1088:A:O2'	56:AA:3556:OHX:N3	2.44	0.51
31:BA:1498:U:C1'	31:BA:1499:A:OP2	2.59	0.51
31:DA:407:G:H2'	31:DA:408:A:C8	2.46	0.51
52:DB:17:G:H4'	52:DB:18:G:OP1	2.09	0.51
1:CA:89:U:H3'	1:CA:89:U:O2	2.11	0.51
3:CD:36:PRO:HA	3:CD:62:TYR:O	2.11	0.51
3:CD:35:LYS:HD3	3:CD:63:ARG:HB3	1.92	0.51
1:CA:7:G:H2'	1:CA:8:A:O4'	2.09	0.51
31:DA:1044:A:C6	31:DA:1045:C:H1'	2.46	0.51
26:A4:18:CYS:HB3	26:A4:41:PRO:HD3	1.93	0.51
15:AR:57:PHE:CD2	15:AR:58:ASN:N	2.76	0.51
1:CA:1444:U:O2'	1:CA:1445:C:O5'	2.27	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:DL:102:LEU:O	39:DL:103:THR:OG1	2.25	0.51
39:DL:97:LYS:HB3	39:DL:98:PRO:HD3	1.92	0.51
1:AA:192:C:O2'	1:AA:802:A:N3	2.43	0.51
31:BA:1503:A:O2'	54:B1:13:A:N1	2.44	0.51
31:BA:530:G:OP1	31:BA:530:G:H3'	2.10	0.51
31:DA:1297:C:H4'	31:DA:1298:C:O5'	2.10	0.51
43:DP:54:VAL:O	43:DP:58:GLU:HG2	2.09	0.51
1:AA:2262:U:H4'	1:AA:2328:A:C2	2.45	0.51
11:AO:39:LYS:HG3	11:AO:45:LEU:HD22	1.93	0.51
8:AK:8:PRO:HG3	8:AK:14:ASP:CB	2.39	0.51
31:DA:662:G:H2'	31:DA:663:A:C8	2.45	0.51
21:AV:117:LEU:H	21:AV:117:LEU:CD1	2.24	0.51
21:CV:29:TYR:HB3	21:CV:34:ASN:ND2	2.24	0.51
31:DA:979:C:C5	31:DA:980:C:C6	2.99	0.51
31:DA:625:G:C4	31:DA:626:U:C5	2.99	0.51
52:BB:40:U:H2'	52:BB:41:C:C6	2.45	0.51
31:DA:1226:C:H42	43:DP:104:ARG:HD2	1.76	0.51
1:AA:1205:U:H4'	1:AA:1206:G:OP2	2.10	0.51
4:AE:117:MET:HE1	4:AE:136:ARG:HA	1.91	0.51
31:BA:1325:C:O2'	31:BA:1326:C:H5'	2.10	0.51
6:AG:83:ARG:HB2	6:AG:86:MET:HE1	1.91	0.51
1:AA:958:U:O2	2:AB:89(A):A:H4'	2.10	0.51
1:AA:2881:C:N3	1:AA:2882:A:N7	2.59	0.51
32:DE:118:LEU:HB2	32:DE:142:LEU:HD12	1.92	0.51
3:CD:5:LYS:NZ	3:CD:5:LYS:HB2	2.25	0.51
14:AQ:28:VAL:HG11	14:AQ:98:VAL:HG13	1.93	0.51
29:C7:24:THR:O	29:C7:28:ARG:HG3	2.11	0.51
31:DA:160:A:H1'	31:DA:344:A:C5	2.45	0.51
31:BA:1292:U:H2'	31:BA:1293:G:O4'	2.11	0.51
1:CA:2772:A:C2	1:CA:2773:G:H1'	2.46	0.51
31:DA:1465:C:H2'	31:DA:1466:C:O4'	2.11	0.51
5:AF:36:VAL:HG11	5:AF:183:VAL:HG11	1.92	0.51
3:AD:122:ASP:CG	3:AD:123:ALA:H	2.12	0.51
1:AA:143:C:H4'	19:AT:38:GLU:OE2	2.09	0.51
1:CA:54:G:C2	1:CA:114:C:C2	2.99	0.51
3:AD:176:ARG:HG2	3:AD:176:ARG:HH11	1.76	0.51
3:CD:106:ILE:O	3:CD:108:PRO:HD3	2.11	0.51
1:AA:1071:G:C2	1:AA:1091:G:N7	2.77	0.51
52:BD:20:C:O2'	52:BD:21:A:OP2	2.27	0.51
31:BA:789:U:H5	31:BA:792:A:C5'	2.08	0.51
52:DD:48:C:H2'	52:DD:49:A:C1'	2.40	0.51
31:BA:76:G:C4	31:BA:95:G:C2	2.98	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:2690:C:OP2	1:AA:2690:C:C6	2.62	0.51
31:DA:529:G:O2'	31:DA:533:A:C6	2.62	0.51
37:DJ:147:ALA:HB1	52:DD:41:C:O3'	2.11	0.51
52:BD:29:C:O2'	52:BD:30:A:H5'	2.09	0.51
31:DA:86:U:C2'	31:DA:87:A:OP1	2.58	0.51
1:CA:73:A:H4'	1:CA:74:G:O5'	2.11	0.51
31:DA:328:C:O2	31:DA:328:C:C2'	2.58	0.51
1:AA:2583:G:N2	52:BB:85:A:C8	2.66	0.51
34:BG:11:LEU:C	34:BG:13:ARG:N	2.61	0.51
17:A2:38:LEU:H	17:A2:51:VAL:HG13	1.75	0.51
39:DL:3:GLN:HA	39:DL:20:ARG:HG3	1.93	0.51
1:AA:602:G:O2'	1:AA:604:G:O2'	1.93	0.51
31:BA:255:G:O6	31:BA:271:C:N3	2.43	0.51
23:CZ:87:PRO:O	23:CZ:89:GLU:N	2.44	0.51
7:AH:152:ARG:CG	7:AH:153:LYS:N	2.71	0.51
2:CB:50:A:H4'	14:CQ:95:HIS:CD2	2.45	0.51
31:DA:690:G:O2'	31:DA:691:G:H5'	2.10	0.51
1:AA:1264:G:OP1	27:A5:19:ARG:NH2	2.38	0.51
7:AH:20:ALA:HB3	7:AH:23:ARG:O	2.11	0.51
34:BG:138:TYR:C	34:BG:138:TYR:HD2	2.14	0.51
1:CA:1004:U:OP2	12:CP:14:ARG:NH1	2.43	0.51
15:AR:123:GLN:O	15:AR:127:ALA:HB3	2.10	0.51
15:AR:125:ARG:O	15:AR:128:GLU:N	2.39	0.51
1:AA:2795:G:H3'	1:AA:2797:U:H5''	1.90	0.51
31:DA:8:A:H8	35:DH:101:ILE:HB	1.75	0.51
20:AU:51:VAL:HA	20:AU:56:PRO:HA	1.93	0.51
5:CF:102:PRO:O	5:CF:105:VAL:N	2.44	0.51
33:DF:5:ILE:H	33:DF:5:ILE:CD1	2.23	0.51
1:AA:1164:G:H2'	1:AA:1165:U:C6	2.45	0.51
1:AA:2744:G:N2	7:AH:143:GLN:HE22	2.08	0.51
5:AF:123:LEU:HD21	5:AF:199:TRP:CZ3	2.46	0.51
15:CR:26:ASP:HB3	15:CR:90:GLN:O	2.11	0.51
31:DA:1120:G:N7	56:DA:1733:OHX:N6	2.58	0.51
33:DF:18:TRP:H	33:DF:18:TRP:HE3	1.58	0.51
21:CV:178:GLU:O	21:CV:179:ASP:CB	2.58	0.51
42:BO:86:ARG:HD3	42:BO:88:LYS:HB2	1.93	0.51
1:CA:1047:A:C6	1:CA:1048:A:N1	2.78	0.51
3:CD:16:MET:HG3	3:CD:206:LEU:O	2.10	0.51
53:BC:54:G:H2'	53:BC:55:U:C6	2.45	0.51
31:DA:544:G:C5	31:DA:545:C:C5	2.99	0.51
31:DA:939:G:C6	31:DA:940:C:N4	2.79	0.51
19:AT:53:LYS:HZ2	19:AT:55:ASN:HD21	1.58	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1368:A:H2'	1:CA:1369:A:O4'	2.11	0.51
1:CA:2236:G:C2'	1:CA:2237:G:H5'	2.39	0.51
3:AD:132:PRO:HD3	3:AD:190:TYR:CZ	2.46	0.51
25:AX:59:VAL:HG13	25:AX:60:GLU:N	2.25	0.51
12:AP:109:VAL:HG13	12:AP:114:ALA:HB2	1.92	0.51
7:AH:58:GLU:O	7:AH:59:ARG:C	2.49	0.51
2:AB:25:A:C2'	2:AB:26:A:H5'	2.40	0.51
1:AA:40:C:OP1	56:AA:3338:OHX:N5	2.43	0.51
31:DA:1247:U:H2'	31:DA:1248:A:O4'	2.11	0.51
4:CE:176:ILE:HB	4:CE:181:LEU:HB2	1.92	0.51
1:AA:1480:G:C6	1:AA:1482:U:N3	2.79	0.51
3:CD:127:VAL:HA	3:CD:193:VAL:HG23	1.92	0.51
1:AA:1319:G:O2'	1:AA:1320:C:H5'	2.11	0.51
7:CH:130:ARG:O	7:CH:131:VAL:HG23	2.10	0.51
46:DS:36:ILE:O	46:DS:36:ILE:HD12	2.11	0.51
31:BA:408:A:O2'	31:BA:409:G:H5'	2.11	0.51
31:BA:1333:A:H2'	31:BA:1334:G:O4'	2.10	0.51
31:BA:1069:C:H2'	31:BA:1070:U:O5'	2.10	0.51
1:AA:2308:G:N3	1:AA:2308:G:H2'	2.26	0.51
1:AA:1079:C:H3'	1:AA:1080:A:C8	2.45	0.51
1:AA:2110:G:C2	1:AA:2120:G:H1'	2.46	0.51
1:CA:1108:U:H5'	1:CA:1117:A:O2'	2.10	0.51
14:CQ:110:LEU:HD23	14:CQ:112:PHE:CZ	2.46	0.51
31:DA:86:U:H2'	31:DA:87:A:OP1	2.11	0.51
31:DA:1213:A:N1	31:DA:1215:G:H1'	2.25	0.51
1:AA:1130:U:H1'	1:AA:1131:G:OP1	2.10	0.51
28:C6:16:CYS:O	28:C6:17:LYS:CB	2.58	0.51
51:DX:2:GLY:O	51:DX:4:GLY:N	2.44	0.51
1:CA:2595:G:C2'	1:CA:2596:G:H5'	2.40	0.51
1:AA:139:G:N3	1:AA:141:A:N1	2.59	0.51
49:DV:61:TYR:CE2	49:DV:63:THR:HA	2.46	0.51
31:DA:1285:A:C1'	31:DA:1286:A:OP2	2.57	0.51
8:CK:76:THR:HG23	8:CK:77:LEU:N	2.24	0.51
1:AA:320:A:H2'	5:AF:136:THR:CG2	2.40	0.51
1:CA:2419:U:N3	11:CO:73:GLY:O	2.31	0.51
31:BA:198:G:OP1	56:BA:1812:OHX:N2	2.43	0.51
53:BC:73:A:C6	53:BC:74:A:C6	2.98	0.51
9:AM:43:THR:HB	9:AM:46:VAL:CG1	2.41	0.51
32:DE:82:ARG:HD2	32:DE:92:TYR:CE1	2.46	0.51
31:DA:872:A:C4	31:DA:874:G:C8	2.99	0.51
37:BJ:56:GLN:HA	37:BJ:56:GLN:NE2	2.25	0.51
1:AA:943:U:OP2	11:AO:36:LYS:CG	2.58	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:CP:57:HIS:CD2	12:CP:117:ALA:HB2	2.45	0.51
35:BH:33:VAL:HG11	35:BH:109:ILE:HA	1.93	0.51
1:CA:303:A:H4'	1:CA:304:C:OP1	2.09	0.51
31:BA:1245:A:C2	31:BA:1293:G:C2	2.99	0.51
7:AH:7:LEU:N	7:AH:8:PRO:HD3	2.26	0.51
38:BK:8:ASP:O	38:BK:12:ARG:HG3	2.10	0.51
37:DJ:146:GLU:O	37:DJ:149:ARG:HB2	2.11	0.51
1:CA:1900:A:H5'	1:CA:1901:G:OP2	2.11	0.51
37:DJ:26:PHE:O	37:DJ:30:ILE:HG13	2.11	0.51
7:CH:70:THR:HG22	7:CH:74:ASN:HD21	1.76	0.51
31:DA:1000:A:O2'	31:DA:1001:G:H5'	2.10	0.51
19:CT:80:ILE:HG13	19:CT:80:ILE:O	2.09	0.51
37:DJ:53:LYS:NZ	37:DJ:53:LYS:HB3	2.25	0.51
1:CA:1519:A:H2'	1:CA:1519:A:N3	2.26	0.51
53:DC:16:C:N4	56:DC:107:OHX:N3	2.58	0.51
1:CA:2287:A:C2	1:CA:2289:G:H1'	2.45	0.51
52:BD:18:G:N2	52:BD:65:C:N3	2.57	0.51
1:CA:1089:G:N2	1:CA:1160:U:O2	2.39	0.51
31:BA:1316:G:N2	31:BA:1318:A:H3'	2.26	0.51
1:CA:1358:G:O6	56:CA:3332:OHX:N5	2.44	0.51
1:AA:442:G:O4'	5:AF:46:ARG:HD3	2.10	0.51
3:CD:62:TYR:CE1	3:CD:64:ILE:HG22	2.45	0.51
21:AV:27:VAL:HG12	21:AV:87:ASP:CB	2.30	0.51
39:DL:96:LEU:HG	39:DL:101:PHE:HB2	1.92	0.51
6:AG:21:ARG:HH11	6:AG:21:ARG:CG	2.17	0.51
2:AB:81:G:O6	2:AB:95:U:C2	2.64	0.51
31:DA:1286:A:H8	31:DA:1287:A:H5''	1.76	0.51
1:CA:2482:A:N7	1:CA:2495:G:C4	2.79	0.51
34:BG:158:ILE:HG22	34:BG:162:LEU:CD1	2.41	0.51
23:AZ:82:LEU:H	23:AZ:82:LEU:HD22	1.75	0.51
4:AE:120:TRP:CE3	4:AE:155:LYS:HD3	2.46	0.51
52:BB:40:U:H2'	52:BB:41:C:O4'	2.11	0.51
46:BS:71:ARG:O	46:BS:75:ARG:N	2.44	0.51
31:BA:960:U:C2'	31:BA:960:U:O2	2.58	0.51
1:AA:1932:A:OP2	56:AA:3154:OHX:N1	2.44	0.51
1:AA:314:A:H2'	1:AA:315:G:H8	1.75	0.51
10:CN:49:ARG:HH12	31:DA:1423:G:H5'	1.76	0.51
31:DA:880:C:H2'	31:DA:881:G:H8	1.76	0.51
15:AR:91:ARG:HB2	15:AR:121:ILE:CG1	2.41	0.51
1:CA:2272:G:C2	1:CA:2295:G:N1	2.78	0.51
31:DA:1413:A:H2'	31:DA:1414:U:O4'	2.11	0.51
31:BA:1329:A:P	43:BP:28:ALA:HB3	2.50	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:AH:43:VAL:HG12	7:AH:52:VAL:HG22	1.93	0.51
1:CA:518:A:C2'	1:CA:519:G:H5'	2.41	0.51
6:AG:78:SER:O	6:AG:80:PHE:N	2.43	0.51
8:AK:144:VAL:HG22	8:AK:145:VAL:HG13	1.93	0.51
1:AA:2884:U:H2'	1:AA:2885:C:H5'	1.92	0.51
1:CA:796:G:C8	18:CS:89:ALA:HB1	2.46	0.51
1:CA:2257:U:H2'	1:CA:2258:U:O4'	2.10	0.51
24:CW:25:VAL:HG12	24:CW:60:LEU:HD23	1.92	0.51
31:BA:791:G:C3'	31:BA:792:A:C5'	2.68	0.51
1:CA:2150:G:O2'	1:CA:2196:A:N6	2.43	0.51
52:DD:21:A:C1'	52:DD:22:A:O5'	2.58	0.51
5:CF:89:VAL:O	5:CF:90:PHE:C	2.48	0.51
31:BA:1362(A):C:H5'	31:BA:1363:A:O5'	2.10	0.51
31:BA:76:G:C6	31:BA:77:C:C2	2.99	0.51
31:BA:75:C:H2'	31:BA:76:G:O4'	2.10	0.51
31:DA:1441:G:H4'	31:DA:1442:G:C5	2.45	0.51
24:CW:46:GLN:H	24:CW:49:LYS:HZ1	1.51	0.51
26:C4:15:ILE:N	26:C4:15:ILE:HD12	2.26	0.51
1:CA:1112:U:C2	1:CA:1121:G:N2	2.78	0.51
1:AA:1903:G:OP1	3:AD:241:PRO:HB2	2.09	0.51
1:CA:2806:G:O6	1:CA:2816:C:N3	2.44	0.51
31:BA:1149:C:O2'	31:BA:1150:U:H5'	2.10	0.51
1:CA:1922:G:N2	1:CA:1925:C:H5	2.08	0.51
2:CB:112:G:H2'	2:CB:113:G:C8	2.45	0.51
47:BT:65:ILE:HG21	47:BT:69:LYS:HE3	1.93	0.51
1:CA:708:G:N2	11:CO:12:ALA:HA	2.26	0.51
1:AA:1107:G:H2'	1:AA:1108:U:H6	1.76	0.51
31:BA:606:G:N2	31:BA:631:G:C8	2.79	0.51
27:A5:16:ARG:O	27:A5:20:ARG:HG3	2.11	0.51
5:AF:63:LYS:NZ	5:AF:67:GLN:HE21	2.09	0.51
31:BA:447:G:C6	31:BA:485:G:H1'	2.45	0.51
33:BF:150:LYS:HD3	33:BF:201:TYR:HD1	1.75	0.51
1:AA:1153:C:N4	1:AA:1154:G:C6	2.79	0.51
1:AA:654(G):C:N3	1:AA:654(N):G:C6	2.79	0.51
34:BG:173:TRP:HB3	34:BG:187:ARG:HG2	1.92	0.51
32:DE:214:ILE:O	32:DE:218:ALA:HB2	2.10	0.51
36:DI:35:ALA:HB1	36:DI:65:VAL:CG1	2.41	0.51
32:BE:102:LEU:HB3	32:BE:180:LEU:HD12	1.93	0.51
1:CA:1561:U:C2'	1:CA:1562:C:H5'	2.41	0.51
31:BA:58:C:O2'	31:BA:59:A:H5'	2.11	0.51
10:CN:1:MET:H1	10:CN:67:LYS:HB3	1.76	0.51
42:DO:67:ILE:HG12	42:DO:97:ILE:HG13	1.93	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:AF:34:TRP:CE2	11:AO:8:PRO:HD3	2.45	0.51
33:DF:9:GLY:HA3	44:DQ:49:HIS:HA	1.93	0.51
21:CV:120:ILE:HB	21:CV:169:GLU:OE2	2.11	0.51
1:CA:2110:G:C2'	1:CA:2111:G:H5'	2.41	0.51
1:CA:1365:C:H2'	1:CA:1366:G:H5''	1.91	0.51
39:BL:19:LEU:HD23	39:BL:60:ASP:O	2.10	0.51
1:CA:1371:G:C4	1:CA:1375:G:O6	2.64	0.51
1:CA:1163:C:H2'	1:CA:1164:G:C8	2.46	0.51
1:AA:1419:A:H4'	1:AA:1420:U:OP1	2.09	0.51
1:CA:116:A:H5'	1:CA:117:A:H8	1.76	0.51
1:CA:2632:C:OP1	4:CE:152:LYS:HE2	2.11	0.51
1:AA:151:C:H2'	1:AA:152:G:H8	1.76	0.51
31:BA:726:C:O2'	31:BA:727:G:H5'	2.11	0.51
32:BE:131:PRO:O	32:BE:135:GLN:HG3	2.11	0.51
13:A0:55:ALA:HA	13:A0:80:PHE:CZ	2.46	0.51
16:C1:19:LYS:HA	16:C1:22:LYS:HG3	1.93	0.51
33:DF:79:ARG:NE	33:DF:79:ARG:H	2.09	0.51
1:CA:2226:U:O2'	1:CA:2227:C:H5'	2.11	0.51
7:CH:86:GLU:H	7:CH:86:GLU:CD	2.14	0.51
1:AA:1973:G:H2'	1:AA:1974:C:C6	2.46	0.51
1:AA:2157:G:O2'	1:AA:2158:A:O5'	2.29	0.51
1:CA:896:G:C1'	1:CA:979:A:C8	2.94	0.51
1:CA:1100:C:H2'	1:CA:1101:A:O4'	2.11	0.51
1:CA:2154:G:O4'	1:CA:2181:A:N1	2.43	0.51
11:CO:107:LYS:C	11:CO:109:GLY:H	2.13	0.51
52:BB:26:G:N3	52:BB:26:G:H2'	2.26	0.51
1:CA:1158:A:O3'	7:CH:3:ARG:HB3	2.11	0.51
3:AD:32:SER:HA	3:AD:36:PRO:HD2	1.92	0.51
3:AD:35:LYS:CB	3:AD:63:ARG:HA	2.39	0.51
1:CA:1272:G:C6	1:CA:1273:A:N6	2.79	0.51
31:BA:79:G:C2	31:BA:90:C:N3	2.78	0.51
31:BA:1028(B):C:C4	31:BA:1032(A):G:N1	2.77	0.51
1:AA:67:U:H1'	1:AA:88:G:N2	2.26	0.51
6:CG:7:LEU:HD22	6:CG:100:TRP:HE3	1.76	0.51
6:CG:7:LEU:HD12	6:CG:104:GLU:HB2	1.91	0.51
54:D1:11:U:C2'	54:D1:12:A:C4	2.94	0.51
31:DA:1394:A:C5	31:DA:1501:C:H4'	2.46	0.51
12:AP:52:VAL:HA	12:AP:55:VAL:HG13	1.92	0.51
30:A8:51:ALA:O	30:A8:52:LYS:HB3	2.10	0.51
1:AA:2699:C:H2'	1:AA:2700:C:O4'	2.10	0.51
1:AA:637:A:O5'	11:AO:116:GLY:HA3	2.10	0.51
31:DA:1004:A:O4'	31:DA:1036:G:C6	2.64	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:CR:58:ASN:N	15:CR:58:ASN:OD1	2.44	0.51
1:CA:71:U:N3	24:CW:62:THR:HG22	2.26	0.51
31:DA:1293:G:H2'	31:DA:1294:G:O4'	2.11	0.51
31:BA:664:G:N2	31:BA:741:G:H1	2.04	0.51
3:AD:10:THR:HG23	3:AD:13:ARG:CB	2.40	0.51
32:BE:77:ALA:HB1	32:BE:165:VAL:HG11	1.93	0.51
32:BE:8:LYS:H	32:BE:8:LYS:HE2	1.74	0.51
1:AA:1930:G:H22	1:AA:1969:A:H5''	1.76	0.51
1:AA:1174:A:H2'	1:AA:1176:G:OP1	2.11	0.51
32:DE:84:GLU:O	32:DE:219:VAL:HG21	2.10	0.51
38:DK:136:GLU:HG3	38:DK:136:GLU:O	2.11	0.51
38:BK:63:LEU:HD23	38:BK:65:TYR:OH	2.10	0.51
31:DA:1149:C:OP1	39:DL:9:ARG:HD3	2.10	0.51
1:AA:1207:C:H2'	1:AA:1208:C:H6	1.76	0.51
9:AM:6:PRO:HG3	9:AM:41:ASP:HB2	1.91	0.51
35:BH:74:GLY:O	35:BH:115:VAL:HA	2.10	0.51
21:CV:19:ARG:NH1	21:CV:84:GLU:HB2	2.26	0.51
11:AO:78:PRO:HB2	11:AO:111:ARG:HD2	1.93	0.51
31:BA:1170:A:H2'	31:BA:1171:G:O4'	2.11	0.51
12:AP:32:TYR:CD1	12:AP:133:ARG:HA	2.46	0.51
24:CW:33:MET:O	24:CW:37:PHE:HD1	1.94	0.51
31:BA:1152:A:C6	31:BA:1153:C:C4	2.98	0.51
1:CA:663:A:H2'	11:CO:117:GLU:OE2	2.10	0.51
1:CA:1899:A:H2'	1:CA:1900:A:C8	2.46	0.51
12:AP:57:HIS:NE2	12:AP:116:GLU:HG3	2.26	0.51
31:DA:969:A:H2'	31:DA:970:C:O4'	2.11	0.51
16:A1:44:ASN:HD21	17:A2:75:PHE:H	1.58	0.51
8:CK:1:MET:N	8:CK:20:ASP:OD1	2.40	0.51
4:AE:167:VAL:HG11	4:AE:187:ALA:O	2.10	0.51
1:CA:1741:U:H4'	1:CA:1742:C:OP2	2.11	0.51
1:CA:2786:C:H5'	4:CE:168:MET:HE3	1.93	0.51
1:AA:2031:A:O2'	1:AA:2454:G:N2	2.44	0.51
52:DB:34:U:H2'	52:DB:36:U:OP2	2.11	0.51
31:BA:1108:G:H5'	33:BF:176:HIS:CD2	2.46	0.51
22:A3:41:ARG:HE	22:A3:41:ARG:HA	1.76	0.51
31:BA:191:G:C4	50:BW:105:SER:HB2	2.46	0.51
1:AA:2275:C:O2	12:AP:85:LYS:CG	2.59	0.51
1:CA:978:G:H4'	1:CA:979:A:O5'	2.11	0.51
52:DD:19:C:H3'	52:DD:19:C:C6	2.44	0.51
21:AV:62:PRO:O	21:AV:64:GLY:HA2	2.10	0.51
15:AR:108:ARG:HD3	31:BA:1464:G:OP1	2.11	0.51
52:DD:24:G:C2	52:DD:25:G:C5	2.98	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:631:G:OP1	31:DA:632:A:N6	2.39	0.51
1:AA:2698:U:H2'	1:AA:2699:C:C6	2.45	0.51
1:AA:635:C:H2'	1:AA:636:G:O4'	2.10	0.51
28:C6:16:CYS:O	28:C6:17:LYS:HB2	2.11	0.51
2:CB:41:A:C2	26:C4:1:MET:SD	3.04	0.51
2:CB:41:A:C2	2:CB:46:G:C2	2.99	0.51
15:CR:3:ARG:HG2	15:CR:6:LEU:H	1.76	0.51
27:A5:56:LYS:H	27:A5:56:LYS:CD	2.21	0.51
1:CA:1591:C:O2	1:CA:1591:C:H2'	2.11	0.51
31:DA:1316:G:H4'	44:DQ:18:VAL:HG11	1.93	0.51
49:DV:9:VAL:HG13	49:DV:10:PHE:N	2.26	0.51
1:AA:2579:C:H2'	1:AA:2580:U:O4'	2.11	0.51
1:CA:1073:U:O2	1:CA:1073:U:C2'	2.56	0.51
1:CA:631:U:OP1	5:CF:102:PRO:HA	2.11	0.51
31:DA:1094:G:C2'	31:DA:1095:U:OP2	2.59	0.51
6:AG:131:TYR:HB3	6:AG:159:VAL:CG2	2.41	0.51
1:AA:1930:G:O2'	1:AA:1968:G:O6	2.22	0.51
1:CA:1626:U:C2'	1:CA:1627:A:H5'	2.41	0.51
35:BH:31:LEU:HD13	35:BH:43:LEU:HD11	1.92	0.51
14:AQ:42:ASP:O	14:AQ:43:GLU:HB2	2.10	0.51
42:DO:80:VAL:HG11	42:DO:97:ILE:HD12	1.93	0.51
1:CA:2312:G:N1	1:CA:2331:G:H8	2.09	0.51
1:CA:2103:G:H5'	23:CZ:35:THR:HG1	1.75	0.51
52:DD:9:U:C2'	52:DD:9:U:O2	2.59	0.51
31:DA:24:U:H2'	31:DA:25:C:C6	2.44	0.51
31:DA:1194:U:H4'	35:DH:22:GLY:O	2.10	0.51
1:CA:1046:U:H3'	1:CA:1201:G:O6	2.11	0.51
37:BJ:23:VAL:HG12	37:BJ:27:ILE:HD11	1.93	0.51
31:DA:402:G:C6	31:DA:403:C:C4	2.99	0.51
31:DA:1105:A:H2'	31:DA:1106:G:H8	1.75	0.51
8:AK:140:LEU:HD23	8:AK:140:LEU:H	1.75	0.51
1:AA:2376:A:C2	14:AQ:112:PHE:HB2	2.46	0.51
39:BL:118:LYS:O	39:BL:119:ALA:HB3	2.11	0.51
14:CQ:100:ALA:HA	14:CQ:103:GLU:HB2	1.92	0.51
1:CA:1024:G:C4	1:CA:1025:G:C8	2.99	0.51
8:CK:110:ASP:O	8:CK:111:PRO:O	2.29	0.51
31:BA:678:U:H2'	31:BA:679:C:H6	1.76	0.51
19:AT:67:GLY:C	19:AT:69:TYR:H	2.13	0.51
14:CQ:59:LYS:HD2	14:CQ:60:GLY:H	1.76	0.51
31:DA:139:G:H2'	31:DA:140:A:H8	1.75	0.51
32:BE:139:LYS:O	32:BE:143:GLU:HG3	2.11	0.51
18:CS:26:GLY:HA2	18:CS:71:VAL:O	2.11	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:903:G:H2'	1:CA:904:C:H6	1.76	0.51
31:BA:750:G:N3	45:BR:23:GLY:HA3	2.25	0.51
32:DE:131:PRO:HG2	32:DE:134:GLU:HB2	1.93	0.51
34:DG:79:PHE:HE1	34:DG:204:ILE:HD13	1.75	0.51
27:A5:42:PRO:HB2	27:A5:43:HIS:HD2	1.74	0.51
36:DI:53:ALA:O	36:DI:54:LYS:HB2	2.10	0.51
52:DB:33:C:O2'	52:DB:38:MIA:H152	2.11	0.51
1:AA:886:C:H2'	1:AA:887:A:O4'	2.11	0.51
45:BR:3:ILE:O	45:BR:3:ILE:HG13	2.11	0.51
48:BU:25:THR:O	48:BU:25:THR:HG22	2.11	0.51
1:AA:749:C:C4	1:AA:1618:A:C2	2.99	0.51
14:CQ:41:ASP:OD2	14:CQ:44:LYS:HE3	2.10	0.51
19:AT:11:PRO:HB3	19:AT:92:LEU:HD21	1.92	0.51
52:BD:17:G:C6	52:BD:67:A:N6	2.78	0.50
34:DG:14:ARG:HH11	34:DG:14:ARG:CG	1.93	0.50
31:DA:1348:U:H5	31:DA:1373:G:N2	2.10	0.50
51:BX:2:GLY:O	51:BX:4:GLY:N	2.44	0.50
31:BA:1160:G:O5'	31:BA:1160:G:H8	1.93	0.50
31:BA:1033:G:OP2	31:BA:1033:G:H8	1.94	0.50
31:DA:741:G:H2'	31:DA:742:G:O4'	2.11	0.50
42:BO:45:PRO:C	42:BO:46:ASN:HD22	2.15	0.50
12:AP:65:PHE:O	12:AP:67:ARG:N	2.43	0.50
31:BA:606:G:H2'	31:BA:606:G:N3	2.24	0.50
41:BN:54:ARG:O	41:BN:57:THR:HB	2.11	0.50
16:A1:27:LEU:HD12	16:A1:34:LYS:HG3	1.93	0.50
31:BA:992:U:C1'	31:BA:993:G:OP2	2.56	0.50
45:DR:82:ILE:HD13	45:DR:82:ILE:C	2.32	0.50
5:AF:164:ARG:HG2	5:AF:164:ARG:NH1	2.21	0.50
40:BM:61:GLU:OE1	44:BQ:58:LYS:HD2	2.12	0.50
5:CF:57:VAL:HG12	5:CF:59:TYR:H	1.76	0.50
37:DJ:16:LEU:CD1	39:DL:45:ALA:HB2	2.40	0.50
1:AA:2219:G:OP1	3:AD:172:TYR:OH	2.28	0.50
31:BA:56:U:H4'	8:CK:82:ARG:HH21	1.75	0.50
44:BQ:4:LYS:C	44:BQ:6:LEU:H	2.14	0.50
39:DL:14:VAL:O	39:DL:65:VAL:HG23	2.11	0.50
1:CA:2334:G:N3	1:CA:2334:G:H2'	2.26	0.50
9:AM:41:ASP:C	16:A1:64:ARG:HD2	2.31	0.50
1:CA:988:G:C6	1:CA:989:U:N3	2.79	0.50
5:CF:172:TRP:CE3	5:CF:173:VAL:HG23	2.47	0.50
40:BM:81:THR:O	40:BM:85:LEU:HG	2.11	0.50
32:DE:12:GLU:HB3	32:DE:213:LEU:CD1	2.40	0.50
44:DQ:52:GLN:O	44:DQ:53:LEU:HD23	2.12	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DP:14:ARG:HB3	43:DP:16:ASP:OD2	2.11	0.50
31:BA:1091:U:H2'	31:BA:1093:A:OP2	2.09	0.50
1:AA:2880:C:H2'	1:AA:2881:C:H6	1.76	0.50
1:CA:126:C:O2'	1:CA:127:C:P	2.69	0.50
31:BA:693:G:C6	31:BA:694:A:C6	2.98	0.50
1:AA:30:G:H2'	1:AA:31:C:C6	2.46	0.50
1:CA:124:A:O5'	29:C7:19:ARG:HG3	2.10	0.50
1:CA:2730:U:O2'	1:CA:2731:G:H5'	2.10	0.50
1:AA:81:G:HO2'	1:AA:295:G:HO2'	1.58	0.50
9:AM:25:ARG:O	9:AM:29:LYS:HE2	2.11	0.50
24:AW:10:LEU:HD22	24:AW:14:ARG:NH2	2.27	0.50
1:CA:1953:G:O2'	1:CA:1954:U:OP2	2.27	0.50
4:AE:30:PRO:HD3	4:AE:180:ASN:ND2	2.25	0.50
1:CA:650:C:C2'	1:CA:651:G:H5'	2.42	0.50
31:DA:1191:A:OP2	31:DA:1191:A:H8	1.93	0.50
1:CA:1765:G:H2'	1:CA:1766:U:C6	2.46	0.50
31:DA:763:G:H2'	31:DA:764:C:H6	1.75	0.50
1:CA:967:G:H2'	1:CA:968:G:H8	1.76	0.50
23:AZ:41:ARG:HG3	23:AZ:43:TYR:CE2	2.45	0.50
1:AA:1079:C:H5	1:AA:1088:A:P	2.34	0.50
1:AA:2135:A:H2'	1:AA:2135:A:N3	2.26	0.50
21:CV:80:ARG:O	21:CV:81:ARG:HB3	2.11	0.50
31:BA:789:U:C6	31:BA:791:G:C5'	2.94	0.50
11:CO:81:GLN:NE2	11:CO:106:LEU:O	2.44	0.50
31:BA:1296:C:H4'	31:BA:1302:U:H5	1.74	0.50
31:BA:1029:G:HO2'	31:BA:1032(A):G:N2	2.09	0.50
52:DB:19:C:O2'	52:DB:20:C:OP1	2.26	0.50
1:AA:442:G:H1'	5:AF:48:THR:HG21	1.93	0.50
1:CA:1109:G:C8	1:CA:1135:A:H2'	2.46	0.50
1:AA:847:U:C5	1:AA:933:A:C2	3.00	0.50
31:DA:664:G:H2'	31:DA:666:G:OP1	2.11	0.50
38:BK:60:ARG:NH1	38:BK:60:ARG:CG	2.68	0.50
26:A4:37:SER:O	26:A4:40:HIS:N	2.35	0.50
4:AE:147:PRO:HB2	4:AE:149:ARG:HG2	1.93	0.50
31:BA:324:G:N7	56:BA:1795:OHX:N5	2.59	0.50
31:BA:411:A:N7	31:BA:413:G:N3	2.58	0.50
16:C1:95:LEU:C	16:C1:97:ASP:N	2.64	0.50
1:AA:1049:C:H2'	1:AA:1050:A:H5''	1.93	0.50
32:DE:6:THR:OG1	32:DE:7:VAL:N	2.42	0.50
20:CU:76:CYS:HB2	20:CU:96:ILE:HD11	1.93	0.50
1:CA:2658:G:O6	56:CA:3384:OHX:N3	2.45	0.50
30:C8:22:VAL:O	30:C8:49:VAL:HB	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:C8:22:VAL:H	30:C8:50:LEU:CD1	2.23	0.50
4:CE:101:ARG:O	4:CE:201:THR:OG1	2.28	0.50
5:AF:66:PRO:O	5:AF:67:GLN:CB	2.53	0.50
1:AA:911:A:H2'	12:AP:9:TYR:OH	2.10	0.50
31:DA:1320:C:O2	49:DV:72:GLY:HA3	2.10	0.50
7:CH:19:VAL:HG12	7:CH:20:ALA:N	2.19	0.50
15:AR:88:ILE:HD12	15:AR:90:GLN:N	2.25	0.50
52:DB:42:U:H2'	52:DB:42:U:O2	2.11	0.50
37:DJ:75:VAL:CG2	37:DJ:144:MET:HB2	2.42	0.50
1:CA:947:A:H3'	1:CA:948:A:C8	2.40	0.50
1:AA:1607:C:C2	56:AA:3473:OHX:N5	2.80	0.50
4:CE:119:ARG:HG2	4:CE:160:TYR:CB	2.42	0.50
34:DG:70:ILE:HD11	34:DG:100:ARG:CZ	2.42	0.50
6:CG:115:ARG:NH1	43:DP:7:VAL:HG21	2.26	0.50
33:DF:134:ILE:HG23	33:DF:151:VAL:HB	1.92	0.50
12:CP:54:MET:HG2	12:CP:117:ALA:O	2.12	0.50
1:CA:1364:A:H2'	1:CA:1365:C:C6	2.47	0.50
1:CA:1794:A:H4'	1:CA:1795:G:OP2	2.11	0.50
52:BB:59:A:N6	52:BB:60:A:C6	2.80	0.50
22:C3:50:ASN:O	22:C3:62:LEU:HB2	2.12	0.50
34:BG:141:ARG:NH1	34:BG:141:ARG:HB2	2.25	0.50
44:BQ:13:THR:N	44:BQ:14:PRO:HD2	2.26	0.50
47:BT:56:VAL:O	47:BT:77:VAL:HB	2.12	0.50
1:AA:142:G:H1'	19:AT:37:THR:HG21	1.93	0.50
45:DR:8:LYS:O	45:DR:12:ILE:HG13	2.11	0.50
14:AQ:83:LYS:C	14:AQ:109:GLY:HA2	2.32	0.50
1:AA:1675:C:H2'	1:AA:1676:A:O4'	2.10	0.50
52:BB:80:C:H2'	52:BB:81:C:O4'	2.12	0.50
1:CA:1488:G:H2'	1:CA:1489:G:C8	2.46	0.50
31:DA:807:A:C5	31:DA:808:C:C4	2.99	0.50
1:AA:896:A:HO2'	1:AA:897:C:P	2.34	0.50
1:AA:1080:A:H2'	1:AA:1081:U:O4'	2.12	0.50
1:CA:2138:G:H2'	1:CA:2139:G:N7	2.26	0.50
52:DD:51:C:C4	52:DD:52:G:H1'	2.46	0.50
34:DG:4:TYR:CE2	34:DG:11:LEU:HD11	2.43	0.50
52:BB:49:A:H2'	52:BB:49:A:N3	2.24	0.50
31:DA:1159:U:O2'	31:DA:1160:G:C5	2.64	0.50
3:AD:119:ALA:HA	3:AD:130:ALA:O	2.11	0.50
31:BA:1199:U:H5'	40:BM:54:PHE:CE2	2.46	0.50
16:C1:50:ARG:HH22	17:C2:72:VAL:HG21	1.76	0.50
52:DB:48:C:C2'	52:DB:49:A:C8	2.93	0.50
6:CG:7:LEU:HD22	6:CG:100:TRP:CE3	2.46	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BL:16:ARG:O	39:BL:63:ILE:HG23	2.10	0.50
1:CA:1234:U:O2'	1:CA:1235:A:H5'	2.12	0.50
6:CG:37:VAL:O	6:CG:94:LEU:HD23	2.10	0.50
31:DA:1052:U:H5''	31:DA:1053:G:OP2	2.12	0.50
31:BA:1252:A:H61	31:BA:1285:A:H61	1.59	0.50
31:DA:421:U:C2'	31:DA:421:U:O2	2.59	0.50
6:AG:9:ARG:O	6:AG:13:GLU:HG2	2.12	0.50
20:CU:43:ASN:HA	20:CU:64:GLU:HA	1.92	0.50
2:CB:9:G:O5'	14:CQ:29:PHE:HE1	1.94	0.50
32:DE:178:ARG:CB	32:DE:178:ARG:HH11	2.23	0.50
38:BK:86:ILE:HG22	38:BK:93:VAL:HG21	1.92	0.50
32:BE:166:ASP:C	32:BE:168:THR:H	2.14	0.50
42:DO:21:VAL:C	42:DO:23:ALA:H	2.14	0.50
31:DA:1190:G:C8	31:DA:1190:G:H3'	2.45	0.50
4:CE:2:LYS:HD3	4:CE:95:ILE:HG22	1.93	0.50
7:CH:149:ARG:HA	7:CH:162:ILE:HG21	1.94	0.50
9:AM:32:THR:HG23	9:AM:37:LYS:HB2	1.94	0.50
1:CA:605:C:H2'	1:CA:606:G:H8	1.77	0.50
19:CT:5:TYR:CE2	24:CW:30:ARG:HG3	2.46	0.50
29:C7:43:THR:HG23	29:C7:44:PRO:HD2	1.93	0.50
1:AA:2312:U:H6	1:AA:2312:U:O5'	1.93	0.50
31:DA:1524:C:H2'	31:DA:1525:G:C8	2.46	0.50
31:DA:571:U:H5''	31:DA:572:A:OP2	2.12	0.50
13:C0:28:LEU:O	13:C0:28:LEU:HD22	2.10	0.50
1:AA:1685:C:H2'	1:AA:1686:C:H6	1.76	0.50
1:AA:1921:G:N7	56:AA:3291:OHX:N2	2.59	0.50
31:DA:547:A:H4'	31:DA:548:G:O5'	2.11	0.50
40:BM:6:ILE:O	40:BM:6:ILE:HG13	2.10	0.50
13:A0:91:GLN:H	13:A0:91:GLN:CD	2.15	0.50
31:DA:127:G:O3'	47:DT:2:PRO:HD2	2.11	0.50
3:AD:228:PRO:HG3	3:AD:234:GLY:O	2.10	0.50
1:CA:2300:A:C2	1:CA:2359:A:N1	2.77	0.50
11:CO:127:ALA:O	11:CO:147:LEU:N	2.44	0.50
31:DA:1161:C:N3	31:DA:1176:A:N6	2.59	0.50
1:CA:1094:G:H2'	1:CA:1157:G:N1	2.26	0.50
31:BA:1306:A:H61	31:BA:1331:G:H1'	1.77	0.50
52:DD:24:G:C2	52:DD:25:G:N7	2.79	0.50
20:AU:97:ARG:NH2	20:AU:98:VAL:HB	2.21	0.50
31:BA:413:G:C2'	31:BA:414:A:OP2	2.59	0.50
16:A1:88:ILE:C	16:A1:90:VAL:N	2.63	0.50
2:CB:109:G:H2'	2:CB:110:U:H5'	1.94	0.50
43:DP:23:TYR:HB3	43:DP:67:GLU:OE2	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:2702:U:C4'	1:CA:2703:C:OP2	2.59	0.50
31:DA:686:U:O4	31:DA:703:G:H1'	2.10	0.50
31:DA:978:A:O2'	31:DA:1322:C:C4	2.64	0.50
4:CE:33:VAL:HG11	4:CE:88:GLY:CA	2.41	0.50
26:C4:34:GLU:CG	26:C4:35:VAL:H	2.19	0.50
31:DA:812:C:C1'	31:DA:813:U:OP2	2.55	0.50
1:CA:2831:A:O5'	13:C0:4:LEU:HD23	2.11	0.50
1:CA:821:U:O2'	3:CD:48:ARG:HD3	2.12	0.50
31:BA:192:U:O4'	50:BW:103:GLY:HA2	2.11	0.50
49:BV:15:LEU:O	49:BV:18:LYS:N	2.45	0.50
1:CA:2229:G:O2'	1:CA:2230:A:OP1	2.28	0.50
31:BA:869:G:N7	56:BA:1684:OHX:N5	2.60	0.50
31:BA:1336:C:O2	56:BA:1775:OHX:N4	2.44	0.50
6:AG:99:MET:HG3	6:AG:100:TRP:H	1.76	0.50
31:DA:1060:C:H5''	40:DM:51:ARG:HG2	1.93	0.50
32:DE:84:GLU:HB3	32:DE:219:VAL:HG11	1.93	0.50
1:AA:2406:U:H2'	1:AA:2406:U:OP2	2.10	0.50
31:DA:585:G:H4'	42:DO:5:ASN:ND2	2.27	0.50
1:CA:2312:G:N1	1:CA:2331:G:C8	2.80	0.50
1:AA:2481:G:C2'	1:AA:2482:G:OP2	2.58	0.50
1:CA:1050:G:N2	1:CA:1200:C:C2	2.80	0.50
35:BH:147:ASP:HA	35:BH:150:ARG:HH12	1.74	0.50
40:DM:16:LEU:O	40:DM:20:ALA:HB3	2.12	0.50
31:DA:191(F):U:H3	50:DW:105:SER:HB2	1.77	0.50
31:BA:236:G:H5''	47:BT:42:TYR:OH	2.12	0.50
1:AA:1547:C:H2'	1:AA:1548:C:H6	1.75	0.50
31:DA:109:A:H2'	31:DA:326:G:N2	2.27	0.50
6:AG:73:ALA:HB2	6:AG:82:LEU:HD21	1.93	0.50
22:A3:43:THR:O	22:A3:45:PHE:N	2.44	0.50
31:BA:171:A:H2'	31:BA:172:A:H8	1.75	0.50
11:CO:82:GLY:HA2	11:CO:113:LYS:O	2.11	0.50
36:DI:23:LYS:O	36:DI:27:GLN:HB2	2.10	0.50
1:AA:492:A:H8	1:AA:492:A:O5'	1.94	0.50
31:DA:262:A:C6	31:DA:263:A:C6	3.00	0.50
13:A0:100:LEU:HD13	13:A0:100:LEU:N	2.26	0.50
1:CA:2210:G:H2'	1:CA:2211:C:O4'	2.11	0.50
1:CA:775:A:C6	1:CA:776:G:C6	3.00	0.50
42:DO:92:GLY:O	42:DO:93:VAL:C	2.50	0.50
7:CH:103:LEU:N	7:CH:103:LEU:HD23	2.26	0.50
1:AA:250:G:C6	1:AA:251:A:C6	3.00	0.50
38:DK:26:VAL:HG22	38:DK:59:LEU:O	2.12	0.50
8:CK:107:VAL:HG12	8:CK:108:THR:N	2.26	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1154:G:O2'	31:BA:1155:G:H5'	2.11	0.50
4:CE:79:ARG:HD2	4:CE:79:ARG:N	2.26	0.50
11:CO:64:LYS:HB3	30:C8:25:MET:HG2	1.94	0.50
11:CO:71:VAL:N	11:CO:72:PRO:CD	2.74	0.50
12:CP:4:PRO:HG3	12:CP:71:ASP:HA	1.93	0.50
1:CA:2288:C:O2	12:CP:85:LYS:HG3	2.11	0.50
1:AA:2124:G:H2'	1:AA:2125:G:H5'	1.93	0.50
52:BD:47:U:C2'	52:BD:48:C:H6	2.08	0.50
52:DD:21:A:H1'	52:DD:22:A:O5'	2.11	0.50
52:BB:10:C:H2'	52:BB:11:C:C6	2.47	0.50
5:CF:21:ALA:C	5:CF:23:ASP:N	2.60	0.50
52:BD:12:C:C2'	52:BD:13:G:O4'	2.55	0.50
31:BA:1065:U:C1'	31:BA:1066:C:OP2	2.59	0.50
31:DA:995:C:H1'	44:DQ:4:LYS:HE3	1.93	0.50
31:DA:1306:A:N6	31:DA:1331:G:H1'	2.27	0.50
27:A5:16:ARG:HG3	27:A5:17:ASP:N	2.26	0.50
28:A6:34:LEU:HD22	28:A6:34:LEU:H	1.76	0.50
1:AA:2566:A:H1'	1:AA:2567:G:OP2	2.11	0.50
31:DA:1286:A:H2	51:DX:18:TYR:OH	1.94	0.50
1:AA:5:A:H61	1:AA:2898:U:H3	1.59	0.50
1:AA:2712(A):A:H5''	1:AA:2713:A:OP2	2.11	0.50
20:CU:86:ARG:HB2	20:CU:95:LYS:HD2	1.92	0.50
5:AF:125:LEU:HD21	5:AF:199:TRP:CE3	2.46	0.50
1:CA:2402:G:H5''	1:CA:2403:U:C5'	2.41	0.50
31:DA:980:C:H3'	31:DA:981:U:C6	2.47	0.50
44:BQ:23:ARG:HG3	44:BQ:29:ARG:O	2.11	0.50
21:AV:107:THR:C	21:AV:109:ALA:N	2.65	0.50
31:BA:376:G:H2'	31:BA:377:G:H8	1.76	0.50
31:BA:620:C:C5	34:BG:135:LEU:HD23	2.46	0.50
37:BJ:150:ALA:HB2	41:BN:50:TYR:CE1	2.46	0.50
1:CA:1762:G:H2'	1:CA:1763:G:O4'	2.12	0.50
1:AA:1394:U:C5	1:AA:1395:A:C5	3.00	0.50
39:DL:78:LYS:NZ	39:DL:78:LYS:HB2	2.27	0.50
1:CA:2472:A:H2'	1:CA:2472:A:N3	2.26	0.50
1:CA:1635:C:H2'	1:CA:1635:C:O2	2.10	0.50
1:AA:760:G:H2'	1:AA:761:A:O4'	2.10	0.50
1:AA:678:C:H2'	1:AA:679:C:C6	2.47	0.50
1:CA:2133:G:H2'	1:CA:2143:G:OP1	2.11	0.50
38:DK:35:ILE:O	38:DK:39:LEU:HB2	2.12	0.50
22:C3:35:ASN:OD1	22:C3:35:ASN:N	2.45	0.50
25:AX:40:THR:HG23	25:AX:43:ILE:HD12	1.93	0.50
1:CA:2779:A:N3	1:CA:2779:A:H3'	2.27	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:209:U:H1'	31:DA:210:U:P	2.52	0.50
31:BA:598:U:H4'	38:BK:94:TYR:CD2	2.46	0.50
43:BP:34:LEU:HD12	43:BP:41:PRO:HG3	1.93	0.50
12:CP:2:LEU:HD11	12:CP:69:PHE:HE1	1.76	0.50
1:CA:2142:A:N6	1:CA:2193:A:N6	2.60	0.50
52:DD:17:G:C6	52:DD:67:A:N6	2.80	0.50
3:AD:71:ASP:CB	3:AD:103:ARG:HH22	2.25	0.50
31:BA:1331:G:OP2	43:BP:23:TYR:HD2	1.94	0.50
26:C4:12:ALA:O	26:C4:24:THR:OG1	2.28	0.50
31:DA:1508:G:H2'	31:DA:1509:C:O4'	2.12	0.50
1:AA:2427:C:C5'	1:AA:2428:G:OP1	2.55	0.50
52:BD:43:G:H2'	52:BD:44:C:H6	1.76	0.50
1:CA:2905:U:H2'	1:CA:2906:C:O4'	2.12	0.50
31:DA:1014:A:H4'	49:DV:14:HIS:CE1	2.47	0.50
1:CA:1187:U:H1'	1:CA:1189:A:C5	2.46	0.50
4:CE:13:ARG:HH21	15:CR:77:PRO:HB3	1.75	0.50
1:AA:1514:U:H2'	1:AA:1515:C:C6	2.47	0.50
1:AA:910:A:H62	12:AP:12:GLN:HA	1.77	0.50
31:DA:1055:A:N7	31:DA:1206:G:N1	2.60	0.50
31:DA:1320:C:H2'	31:DA:1321:C:C6	2.47	0.50
52:DB:23:A:C2'	52:DB:24:G:H5"	2.39	0.50
1:AA:321:G:C4	5:AF:165:ARG:NH1	2.80	0.50
42:DO:57:LEU:H	42:DO:62:GLU:H	1.59	0.50
1:AA:796:C:H2'	1:AA:797:C:H6	1.75	0.50
6:CG:129:GLY:HA3	6:CG:163:ALA:O	2.12	0.50
1:CA:2246:U:H2'	1:CA:2247:G:H8	1.76	0.50
1:AA:2712:U:H1'	1:AA:2712(A):A:C8	2.47	0.50
1:CA:1958:G:OP1	56:CA:3233:OHX:N2	2.45	0.50
1:CA:194:A:O2'	1:CA:195:G:OP2	2.24	0.50
1:CA:553:C:OP2	1:CA:2793:U:C5	2.62	0.50
1:AA:2470:G:H5'	12:AP:56:ARG:NH2	2.26	0.50
49:DV:28:LYS:HD3	49:DV:29:ARG:N	2.27	0.50
32:BE:237:ALA:O	32:BE:238:LEU:C	2.50	0.50
4:AE:24:THR:HG21	4:AE:188:VAL:HG13	1.94	0.50
1:CA:1309:A:OP1	18:CS:99:ARG:NH1	2.43	0.50
44:DQ:53:LEU:HB3	44:DQ:56:VAL:HG21	1.93	0.50
9:CM:18:ALA:HA	9:CM:21:LYS:HG3	1.94	0.50
31:BA:502:G:H2'	31:BA:503:C:O4'	2.11	0.50
22:A3:23:VAL:HG13	22:A3:38:VAL:HG23	1.93	0.50
31:BA:1493:A:H5"	31:BA:1494:G:OP2	2.12	0.50
31:DA:892:A:C2	31:DA:907:A:C4	2.99	0.50
16:A1:72:HIS:HE1	16:A1:107:ALA:HA	1.77	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:2651:C:H42	1:AA:2669:G:H1	1.60	0.50
31:BA:1245:A:OP2	51:BX:9:ARG:NH2	2.45	0.50
1:CA:2829:G:O2'	1:CA:2830:G:H5'	2.11	0.50
1:CA:435:G:H2'	1:CA:436:G:C8	2.46	0.50
1:AA:663:G:H2'	1:AA:664:C:O4'	2.11	0.50
4:CE:84:PHE:CZ	4:CE:86:PRO:HG3	2.47	0.50
42:BO:90:LEU:HB2	42:BO:93:VAL:CG1	2.41	0.50
43:DP:90:LEU:HD21	43:DP:93:ARG:HH21	1.75	0.50
1:CA:2580:G:H2'	1:CA:2581:C:C6	2.47	0.50
1:CA:1014:G:H2'	1:CA:1015:U:O4'	2.12	0.50
42:DO:20:LYS:H	42:DO:20:LYS:CD	2.24	0.50
39:BL:95:LYS:O	39:BL:95:LYS:HD3	2.11	0.50
21:AV:135:GLU:O	21:AV:136:PHE:HB3	2.11	0.50
11:AO:31:ALA:O	11:AO:32:THR:HG22	2.11	0.50
1:AA:900:A:H3'	1:AA:901:A:C8	2.42	0.50
1:AA:1060:U:C4'	1:AA:1061:U:O5'	2.59	0.50
1:AA:1063:G:H1	1:AA:1075:C:N4	2.09	0.50
12:CP:134:ARG:O	12:CP:135:ASP:C	2.50	0.50
1:CA:2153:U:O2'	1:CA:2157:A:C8	2.63	0.50
11:CO:50:ARG:O	11:CO:51:PHE:O	2.30	0.50
52:BB:66:G:H2'	52:BB:67:A:H5'	1.92	0.50
3:AD:35:LYS:CE	3:AD:104:TYR:HB2	2.41	0.50
1:CA:1271:C:C4'	17:C2:85:LYS:HD3	2.42	0.50
31:BA:1178:G:O2'	31:BA:1179:A:P	2.69	0.50
1:CA:94:G:O2'	24:CW:48:HIS:HB3	2.12	0.50
52:DD:27:A:H2'	52:DD:28:G:H8	1.77	0.50
45:DR:53:HIS:O	45:DR:56:LEU:HB3	2.11	0.50
1:AA:746:A:C5	1:AA:2611:U:H5''	2.46	0.50
52:BD:30:A:N6	52:BD:42:U:H3	2.09	0.50
49:BV:40:ILE:HD11	49:BV:62:ILE:HG23	1.94	0.50
31:BA:428:G:O4'	31:BA:430:A:C8	2.65	0.50
31:DA:1139:G:N2	31:DA:1143:G:H1	2.09	0.50
39:DL:53:VAL:C	39:DL:55:ALA:H	2.14	0.50
20:CU:19:LYS:HD2	20:CU:67:LEU:HD11	1.92	0.50
31:BA:266:G:H4'	31:BA:267:C:O5'	2.12	0.50
31:BA:489:C:H2'	31:BA:490:G:C8	2.47	0.50
1:AA:2751:G:O2'	1:AA:2752:C:O5'	2.29	0.50
20:CU:76:CYS:CB	20:CU:77:PRO:HD2	2.42	0.50
31:DA:1289:A:H5''	51:DX:10:ARG:NH2	2.26	0.50
8:CK:104:GLN:HG2	8:CK:105:HIS:CD2	2.44	0.50
7:CH:92:ILE:N	7:CH:92:ILE:HD12	2.27	0.50
33:DF:70:VAL:HG12	33:DF:72:LYS:N	2.26	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:618:C:H5'	31:DA:619:U:H5''	1.93	0.50
33:DF:18:TRP:HE1	44:DQ:55:GLY:N	2.10	0.50
10:CN:24:VAL:HG23	10:CN:33:ALA:HB2	1.92	0.50
31:DA:781:A:H5'	31:DA:782:A:OP2	2.11	0.50
35:BH:41:VAL:HG13	35:BH:112:LEU:O	2.12	0.50
33:DF:23:TYR:CD2	33:DF:24:ALA:N	2.79	0.50
1:CA:190:U:OP1	56:CA:3481:OHX:N4	2.44	0.50
31:DA:260:G:O6	56:DA:1767:OHX:N3	2.45	0.50
1:AA:2543:G:H1'	1:AA:2766:G:H5'	1.93	0.50
1:AA:729:G:O2'	1:AA:763:G:H4'	2.12	0.50
7:CH:26:VAL:CG1	7:CH:33:LEU:HB2	2.42	0.50
13:C0:28:LEU:HD12	13:C0:48:VAL:HG21	1.92	0.50
31:BA:171:A:H2'	31:BA:172:A:C8	2.47	0.50
1:AA:1657:C:H2'	1:AA:1658:C:C6	2.47	0.50
6:CG:50:ALA:HA	6:CG:53:LEU:HD22	1.92	0.50
31:DA:799:G:O6	31:DA:800:G:C2	2.65	0.50
1:AA:1680:U:O2	1:AA:1763:G:H3'	2.11	0.50
32:DE:68:ILE:O	32:DE:90:MET:HB2	2.12	0.50
20:AU:40:GLU:OE1	20:AU:40:GLU:HA	2.11	0.50
7:CH:105:LEU:H	7:CH:105:LEU:HD23	1.77	0.50
31:BA:134:A:H61	46:BS:25:ARG:NH1	2.09	0.50
31:BA:10:A:H2'	31:BA:11:G:H8	1.76	0.50
1:AA:2307:G:H1'	1:AA:2308:G:N2	2.26	0.50
39:DL:70:LYS:O	39:DL:74:ILE:HG13	2.11	0.50
31:BA:1034:G:C2	31:BA:1035:A:N6	2.79	0.50
52:DD:30:A:N6	52:DD:42:U:H3	2.10	0.50
1:AA:2439:A:H4'	1:AA:2440:C:O5'	2.12	0.50
1:CA:2800:U:H4'	4:CE:64:LYS:CA	2.42	0.50
32:DE:74:LYS:NZ	32:DE:205:ASP:O	2.44	0.50
26:A4:43:TYR:HD1	26:A4:44:THR:N	2.10	0.50
31:BA:60:A:N6	31:BA:110:C:N3	2.60	0.50
31:DA:1305:G:O2'	31:DA:1306:A:P	2.70	0.50
25:CX:59:VAL:HG12	25:CX:60:GLU:N	2.15	0.50
20:CU:76:CYS:O	20:CU:78:ALA:N	2.44	0.50
21:CV:158:PRO:HB2	21:CV:159:PRO:CD	2.38	0.50
31:DA:485:G:O2'	31:DA:486:U:O5'	2.29	0.50
32:BE:187:LEU:HD23	32:BE:201:ILE:HG22	1.93	0.50
24:AW:47:ASN:C	24:AW:49:LYS:N	2.60	0.50
31:DA:914:A:C2'	31:DA:915:A:H5'	2.41	0.50
21:AV:130:PRO:HA	21:AV:133:ILE:HD11	1.94	0.50
1:CA:1209:G:O3'	17:C2:24:LYS:NZ	2.45	0.50
31:BA:695:A:H2'	31:BA:696:A:C8	2.46	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1528:G:N2	1:CA:1561:U:C2	2.79	0.50
7:CH:153:LYS:N	7:CH:154:PRO:HD3	2.26	0.50
4:AE:27:LEU:O	4:AE:27:LEU:HD23	2.12	0.50
26:C4:40:HIS:N	26:C4:41:PRO:HD3	2.27	0.50
52:BB:42:U:H2'	52:BB:42:U:O2	2.12	0.50
1:CA:2344:G:H4'	22:C3:43:THR:H	1.75	0.50
31:BA:1101:A:H4'	31:BA:1102:A:O5'	2.11	0.50
1:AA:2208:U:H4'	3:AD:151:LYS:HG2	1.92	0.50
1:AA:2836:U:H2'	1:AA:2837:G:C8	2.47	0.50
41:BN:110:ASP:HB2	48:BU:88:LYS:HD2	1.94	0.50
1:AA:2098:U:H3	1:AA:2191:G:H1	1.60	0.50
4:AE:29:GLY:H	4:AE:51:PHE:HE2	1.60	0.50
31:DA:1097:C:O2	31:DA:1097:C:H2'	2.12	0.50
1:CA:2857:G:H2'	1:CA:2858:U:C6	2.47	0.50
31:DA:677:U:OP1	56:DA:1808:OHX:N3	2.45	0.50
25:AX:43:ILE:O	25:AX:47:VAL:HG23	2.12	0.50
37:BJ:22:LEU:HG	37:BJ:97:GLN:HE22	1.77	0.50
1:AA:18:C:H2'	1:AA:19:C:C6	2.47	0.50
31:BA:1186:G:H21	44:BQ:61:TRP:C	2.15	0.50
1:CA:1903:C:O2'	1:CA:1904:C:H5'	2.11	0.50
1:AA:200:U:OP1	56:AA:3461:OHX:N2	2.45	0.50
16:C1:26:GLY:O	16:C1:30:LYS:HG2	2.12	0.50
32:DE:112:VAL:HG22	32:DE:149:LEU:HD13	1.94	0.50
53:DC:19:G:H4'	53:DC:20:G:OP1	2.12	0.50
8:CK:7:GLU:HG3	8:CK:8:PRO:HD2	1.93	0.50
37:BJ:155:ARG:HD3	37:BJ:155:ARG:O	2.12	0.50
39:DL:79:LEU:O	39:DL:79:LEU:HD13	2.11	0.50
31:DA:858:G:O6	31:DA:869:G:H3'	2.12	0.50
50:BW:89:ARG:HH21	50:BW:104:LEU:HD11	1.76	0.50
31:BA:968:A:H4'	31:BA:969:A:OP2	2.11	0.50
31:BA:892:A:H2'	31:BA:893:C:C6	2.46	0.50
34:DG:161:ASN:O	34:DG:165:MET:HB2	2.11	0.50
1:AA:1055:G:C2	1:AA:1104:C:N3	2.80	0.50
53:DC:14:A:H2'	53:DC:15:G:O4'	2.12	0.50
1:AA:2124:G:N2	1:AA:2174:C:N3	2.50	0.50
31:BA:789:U:C6	31:BA:791:G:H5''	2.47	0.50
31:BA:789:U:O2	31:BA:789:U:O5'	2.30	0.50
1:CA:2134:C:C2	1:CA:2141:U:O2'	2.64	0.50
11:CO:112:LEU:HD13	11:CO:127:ALA:CB	2.42	0.50
1:CA:875:U:O2	1:CA:2259:G:H4'	2.12	0.50
34:BG:11:LEU:O	34:BG:13:ARG:N	2.45	0.50
16:A1:79:PHE:O	16:A1:79:PHE:HD2	1.95	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1017:C:H2'	1:CA:1018:G:O4'	2.12	0.50
1:CA:659:A:H2'	1:CA:660:C:H5'	1.94	0.50
1:CA:1005:A:C6	1:CA:1006:A:C2	3.00	0.50
52:DD:61:G:N2	52:DD:71:C:N3	2.47	0.50
31:DA:1055:A:C8	31:DA:1206:G:C2	3.00	0.50
31:DA:984:C:H2'	31:DA:985:C:C6	2.47	0.50
49:DV:51:VAL:HG12	49:DV:52:TYR:H	1.76	0.50
31:BA:1286:A:C8	31:BA:1287:A:H4'	2.47	0.50
12:CP:12:GLN:NE2	12:CP:73:PRO:HD2	2.21	0.50
31:DA:382:A:C6	31:DA:383:A:C6	3.00	0.50
17:A2:48:GLY:O	17:A2:49:THR:O	2.30	0.50
20:CU:43:ASN:HB3	20:CU:64:GLU:HA	1.92	0.50
32:DE:42:ILE:HD13	32:DE:43:ASP:N	2.27	0.50
31:BA:1378:C:O2	31:BA:1378:C:H2'	2.11	0.50
31:BA:936:C:H2'	31:BA:937:A:O4'	2.11	0.50
31:BA:174:C:H2'	31:BA:175:C:H6	1.77	0.50
1:AA:1728:G:H5'	1:AA:1729:A:OP2	2.12	0.50
50:DW:100:ILE:CG2	50:DW:101:GLY:N	2.74	0.50
2:AB:45:A:N3	2:AB:45:A:H2'	2.26	0.50
14:CQ:66:ALA:HA	14:CQ:69:VAL:HG12	1.92	0.50
15:CR:92:GLY:HA2	15:CR:116:ALA:HA	1.93	0.50
36:BI:36:ARG:HH21	36:BI:38:GLU:HG2	1.76	0.50
32:DE:224:GLN:HA	32:DE:229:VAL:HG22	1.94	0.50
1:CA:1172:G:C6	1:CA:1173:A:N6	2.80	0.50
1:CA:1365:C:H3'	1:CA:1366:G:H5''	1.93	0.50
1:CA:859:U:OP2	11:CO:21:ARG:O	2.30	0.50
1:AA:1786:A:H2	1:AA:2606:C:H1'	1.77	0.50
1:CA:717:G:O2'	1:CA:718:A:O5'	2.28	0.50
37:DJ:76:ARG:O	37:DJ:87:VAL:HG12	2.10	0.50
1:CA:1791:A:H4'	1:CA:2729:C:O4'	2.12	0.50
31:BA:1084:G:C5	31:BA:1085:U:C4	3.00	0.50
1:AA:46:C:OP2	1:AA:215:G:H2'	2.11	0.50
47:DT:86:GLU:O	47:DT:90:ILE:HG12	2.11	0.50
1:AA:207:A:H2'	1:AA:208:C:O4'	2.11	0.50
33:DF:63:ASN:O	33:DF:64:VAL:HG23	2.11	0.50
5:CF:80:ALA:O	5:CF:82:ILE:N	2.45	0.50
1:AA:2600:A:H2'	1:AA:2601:C:C6	2.47	0.50
31:DA:1268:A:O2'	51:DX:19:GLY:HA2	2.12	0.50
40:BM:39:PRO:HB3	40:BM:70:ARG:NH1	2.26	0.50
47:DT:22:LEU:HD11	47:DT:39:SER:HB2	1.94	0.50
22:C3:55:ARG:O	22:C3:55:ARG:HG2	2.12	0.50
31:BA:776:G:O6	56:BA:1797:OHX:N6	2.45	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:21:A:O2'	1:AA:22:C:H5'	2.12	0.50
1:CA:2353:G:O2'	1:CA:2354:G:H5'	2.12	0.50
17:C2:31:ALA:O	17:C2:61:VAL:HG23	2.12	0.50
12:AP:78:PRO:O	12:AP:79:LEU:C	2.50	0.49
1:AA:881:G:N7	1:AA:882:G:C4	2.80	0.49
1:AA:1081:U:C2'	1:AA:1082:U:OP1	2.59	0.49
52:BB:52:G:O2'	52:BB:53:A:O5'	2.12	0.49
1:CA:2769:C:O2'	1:CA:2770:U:H6	1.95	0.49
31:BA:1061:G:H1'	40:BM:56:HIS:CE1	2.46	0.49
27:C5:4:HIS:O	27:C5:6:VAL:HG23	2.12	0.49
1:CA:1118:G:P	1:CA:1144:U:H5'	2.52	0.49
3:AD:239:ARG:O	3:AD:240:ALA:HB2	2.11	0.49
34:BG:114:ARG:CG	34:BG:114:ARG:NH1	2.59	0.49
21:AV:8:TYR:HB2	21:AV:38:TYR:CE2	2.47	0.49
1:CA:1066:U:O2'	1:CA:1068:A:C2	2.58	0.49
31:BA:1125:U:P	31:BA:1145:C:N4	2.84	0.49
31:DA:1256:A:N6	31:DA:1277:C:H3'	2.27	0.49
31:DA:1331:G:C4'	31:DA:1331:G:OP1	2.59	0.49
36:DI:69:GLU:H	36:DI:69:GLU:CD	2.16	0.49
31:DA:963:G:N2	40:DM:55:LYS:HE2	2.27	0.49
31:BA:32:A:H2'	31:BA:33:A:C8	2.47	0.49
1:CA:1590:A:H4'	1:CA:1590:A:OP1	2.12	0.49
2:CB:7:C:O2'	2:CB:29:C:O2	2.29	0.49
6:CG:114:ILE:HD13	6:CG:140:ILE:HG21	1.93	0.49
14:CQ:88:ASP:OD2	14:CQ:90:GLY:N	2.33	0.49
14:AQ:30:ARG:O	14:AQ:30:ARG:HG3	2.12	0.49
5:CF:59:TYR:HD1	5:CF:78:ILE:HG13	1.76	0.49
16:A1:76:TYR:CZ	16:A1:80:ILE:HG13	2.47	0.49
53:BC:2:G:C6	53:BC:3:C:C4	3.00	0.49
4:AE:81:ILE:O	4:AE:81:ILE:HG22	2.12	0.49
31:BA:1336:C:O2'	31:BA:1337:G:C4	2.61	0.49
1:CA:925:U:O4	1:CA:946:A:N6	2.45	0.49
31:BA:439:A:OP2	31:BA:493:G:N1	2.42	0.49
42:DO:52:VAL:HG22	42:DO:53:ALA:N	2.26	0.49
4:CE:111:ARG:HG2	13:C0:2:ARG:NH2	2.27	0.49
10:CN:68:GLU:HB3	10:CN:78:ARG:NH1	2.27	0.49
21:CV:161:VAL:HG23	21:CV:162:GLU:N	2.27	0.49
3:CD:102:LYS:O	3:CD:103:ARG:HG2	2.11	0.49
11:AO:11:GLY:C	11:AO:13:ASN:N	2.66	0.49
21:AV:143:GLY:HA2	21:AV:144:LEU:C	2.30	0.49
36:BI:39:LYS:HB2	36:BI:64:GLN:HB2	1.93	0.49
31:DA:243:A:H4'	31:DA:244:U:O5'	2.11	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:2214:G:H2'	1:CA:2215:G:H8	1.75	0.49
8:AK:102:SER:HA	8:AK:107:VAL:O	2.12	0.49
34:DG:63:LYS:HD2	34:DG:198:VAL:HG12	1.93	0.49
1:AA:2881:C:H42	1:AA:2882:A:N6	2.10	0.49
11:CO:37:GLY:O	11:CO:39:LYS:N	2.44	0.49
11:CO:39:LYS:HA	11:CO:45:LEU:HD13	1.94	0.49
14:CQ:42:ASP:C	14:CQ:44:LYS:H	2.15	0.49
53:DC:19:G:C4'	53:DC:20:G:OP1	2.59	0.49
2:AB:116:G:H5''	14:AQ:55:ALA:HB2	1.93	0.49
10:AN:93:PRO:HG3	10:AN:114:ILE:HG12	1.94	0.49
44:DQ:15:LYS:HG3	44:DQ:16:PHE:CD2	2.46	0.49
1:CA:176:G:H2'	1:CA:177:G:H8	1.76	0.49
19:AT:5:TYR:CE2	24:AW:30:ARG:HG3	2.47	0.49
1:AA:2431:U:O2	1:AA:2433:A:C8	2.64	0.49
9:CM:39:ARG:C	9:CM:41:ASP:H	2.14	0.49
1:CA:1142:A:N3	1:CA:1142:A:H2'	2.27	0.49
1:CA:1220:A:C6	1:CA:1221:U:O2'	2.65	0.49
1:CA:136:G:H2'	1:CA:138:G:N7	2.28	0.49
1:CA:2135:G:O2'	1:CA:2136:U:H5''	2.12	0.49
34:DG:11:LEU:O	34:DG:12:CYS:C	2.49	0.49
52:BB:19:C:OP2	52:BB:19:C:H3'	2.12	0.49
52:BB:68:A:H3'	52:BB:69:U:C6	2.47	0.49
12:CP:11:LYS:HD3	12:CP:87:LYS:CG	2.35	0.49
26:C4:21:VAL:HG22	26:C4:22:ILE:N	2.24	0.49
21:AV:28:MET:O	21:AV:34:ASN:HA	2.13	0.49
1:CA:2819:U:H5'	1:CA:2901:G:O6	2.12	0.49
1:CA:1059:U:H5	9:CM:28:THR:HG21	1.77	0.49
1:AA:529:A:C8	1:AA:530:G:C6	2.99	0.49
31:BA:81:G:N2	31:BA:88:C:C4	2.77	0.49
4:CE:23:VAL:HG23	4:CE:24:THR:H	1.77	0.49
31:BA:533:A:C2	31:BA:536:C:C5	3.00	0.49
1:CA:71:U:H3	24:CW:62:THR:HG22	1.77	0.49
49:DV:60:VAL:HG21	49:DV:74:PHE:HB3	1.92	0.49
1:CA:2348:A:HO2'	1:CA:2349:A:P	2.32	0.49
31:DA:1302:U:C5	43:DP:17:VAL:HG21	2.47	0.49
8:CK:77:LEU:CG	8:CK:78:THR:N	2.75	0.49
34:BG:146:ILE:H	34:BG:146:ILE:HD12	1.77	0.49
1:CA:1496:G:H1'	1:CA:1575:A:H62	1.77	0.49
21:CV:145:GLU:HA	21:CV:174:VAL:CG1	2.42	0.49
1:CA:1605:C:H5''	1:CA:1606:A:OP2	2.12	0.49
31:DA:200:G:OP1	56:DA:1770:OHX:N4	2.45	0.49
1:AA:2475:C:O2	1:AA:2475:C:C2'	2.59	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:AD:11:PRO:O	3:AD:12:SER:OG	2.22	0.49
3:AD:147:LEU:HD13	3:AD:155:LEU:HD21	1.95	0.49
1:AA:270(M):U:O2'	1:AA:270(N):G:P	2.69	0.49
31:BA:142:G:H1	31:BA:221:C:N4	2.06	0.49
53:BC:1:C:H2'	53:BC:2:G:H5'	1.94	0.49
49:BV:51:VAL:O	49:BV:57:HIS:HA	2.12	0.49
2:CB:90:C:H4'	2:CB:91:G:OP1	2.12	0.49
31:DA:625:G:H2'	31:DA:626:U:H6	1.76	0.49
1:CA:2725:U:O2'	1:CA:2726:A:OP2	2.25	0.49
11:AO:96:THR:C	11:AO:98:GLU:H	2.16	0.49
10:AN:90:GLN:O	10:AN:91:LEU:HB2	2.10	0.49
1:CA:790:G:H2'	1:CA:791:G:C8	2.47	0.49
1:AA:857:C:H1'	22:A3:26:TYR:CE2	2.47	0.49
1:CA:1879:A:C3'	1:CA:1880:A:H5'	2.41	0.49
1:AA:270(Z):U:O3'	1:AA:271(A):C:H6	1.95	0.49
1:AA:1771:C:H1'	1:AA:1786:A:C8	2.47	0.49
1:CA:1410:C:H2'	1:CA:1411:G:C8	2.47	0.49
29:A7:43:THR:HG22	29:A7:44:PRO:O	2.12	0.49
31:DA:1255:G:H2'	31:DA:1258:G:H21	1.76	0.49
6:AG:11:TYR:HA	6:AG:15:VAL:HB	1.94	0.49
43:BP:57:ARG:O	43:BP:61:GLU:HB2	2.12	0.49
39:BL:7:THR:O	39:BL:83:ARG:HD3	2.12	0.49
3:AD:17:THR:HG21	3:AD:204:ILE:HA	1.94	0.49
8:AK:74:ASN:N	8:AK:74:ASN:HD22	2.08	0.49
31:DA:892:A:H2'	31:DA:893:C:C6	2.46	0.49
2:AB:116:G:C5'	14:AQ:55:ALA:HB2	2.41	0.49
47:BT:60:ILE:HG21	47:BT:74:LEU:HD23	1.93	0.49
1:CA:77:A:H2'	1:CA:78:G:H8	1.77	0.49
6:AG:66:GLN:OE1	6:AG:98:ARG:NH1	2.45	0.49
1:AA:198:C:H4'	1:AA:2243:U:O2'	2.12	0.49
1:AA:785:G:C5	1:AA:786:C:C5	3.00	0.49
18:CS:110:LYS:HG3	18:CS:111:HIS:CD2	2.47	0.49
32:DE:147:LYS:HB2	32:DE:147:LYS:NZ	2.27	0.49
31:DA:495:A:H4'	31:DA:496:A:OP1	2.10	0.49
41:BN:83:ILE:HG12	41:BN:109:VAL:CG2	2.43	0.49
10:CN:25:LEU:O	10:CN:26:LYS:HG3	2.12	0.49
6:CG:23:PHE:HB2	6:CG:25:TYR:CE2	2.46	0.49
41:DN:30:VAL:HG21	41:DN:65:ALA:HA	1.93	0.49
5:CF:153:SER:HB2	5:CF:190:GLU:N	2.27	0.49
1:AA:2250:G:C2	12:AP:83:MET:HB2	2.48	0.49
12:CP:26:TYR:HE2	12:CP:28:ALA:HB2	1.77	0.49
1:CA:980:G:H2'	1:CA:981:C:C6	2.47	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:DC:16:C:N4	56:DC:107:OHX:N5	2.56	0.49
1:AA:2119:A:N6	1:AA:2168:G:N2	2.60	0.49
52:BD:19:C:H3'	52:BD:19:C:C6	2.46	0.49
52:BD:49:A:C2'	52:BD:50:U:O5'	2.58	0.49
1:CA:2178:G:C5	1:CA:2179:G:C5	3.00	0.49
1:CA:875:U:H2'	1:CA:2443:A:C2	2.48	0.49
11:CO:52:GLU:CG	11:CO:57:THR:HG22	2.42	0.49
1:CA:611:C:C2	11:CO:33:ARG:NH1	2.81	0.49
1:CA:1098:G:N3	1:CA:1098:G:H2'	2.26	0.49
1:CA:1097:A:H2'	1:CA:1098:G:O4'	2.12	0.49
1:AA:2688:U:H1'	1:AA:2721:A:H61	1.76	0.49
26:C4:31:ILE:CG2	26:C4:32:TYR:N	2.72	0.49
20:AU:42:VAL:O	20:AU:42:VAL:HG12	2.12	0.49
1:AA:2212:A:O2'	1:AA:2215:G:C8	2.58	0.49
1:AA:2287:A:N1	1:AA:2346:A:C2	2.80	0.49
3:CD:35:LYS:HE2	3:CD:104:TYR:CD1	2.45	0.49
3:CD:35:LYS:HG2	3:CD:64:ILE:CA	2.41	0.49
31:DA:993:G:C2'	31:DA:995:C:H41	2.15	0.49
1:AA:1212:G:O2'	1:AA:1213:A:OP2	2.29	0.49
31:BA:1128:C:N3	31:BA:1144:G:N2	2.61	0.49
1:CA:333:G:C8	1:CA:527:A:H1'	2.48	0.49
6:CG:61:ALA:HB2	6:CG:68:PRO:HD3	1.94	0.49
31:DA:691:G:O6	41:DN:52:GLY:HA2	2.12	0.49
31:BA:1503:A:H61	54:B1:12:A:C2'	2.25	0.49
34:BG:96:LEU:HD12	34:BG:139:ARG:CZ	2.43	0.49
31:DA:974:A:OP2	44:DQ:41:ARG:NH1	2.46	0.49
7:CH:20:ALA:O	7:CH:22:GLY:N	2.41	0.49
17:A2:49:THR:HB	17:A2:50:PRO:HD2	1.95	0.49
21:CV:10:ARG:HH21	21:CV:26:GLY:H	1.60	0.49
35:DH:101:ILE:CD1	35:DH:101:ILE:H	2.24	0.49
36:BI:72:VAL:CG2	36:BI:90:VAL:HG11	2.42	0.49
11:AO:94:GLU:O	11:AO:95:VAL:HB	2.12	0.49
6:AG:94:LEU:N	6:AG:94:LEU:HD23	2.27	0.49
1:AA:405:U:O2	1:AA:405:U:H2'	2.10	0.49
31:BA:690:G:N2	41:BN:55:LYS:HE2	2.26	0.49
31:BA:547:A:OP1	34:BG:73:ARG:NH2	2.42	0.49
3:CD:236:GLY:O	3:CD:237:GLU:O	2.30	0.49
21:AV:107:THR:HB	21:AV:108:PRO:CD	2.42	0.49
1:CA:210:G:H2'	1:CA:455:U:O4	2.12	0.49
7:AH:98:LEU:HD13	7:AH:125:VAL:CG2	2.43	0.49
37:BJ:44:TYR:O	37:BJ:48:LYS:N	2.44	0.49
1:AA:1991:U:C2'	1:AA:1992:G:H5''	2.43	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:DP:94:ARG:O	43:DP:95:GLY:C	2.51	0.49
1:CA:1826:U:H2'	1:CA:1827:C:C6	2.47	0.49
1:AA:2086:U:H2'	1:AA:2087:G:H8	1.78	0.49
31:DA:1227:A:O3'	43:DP:115:LYS:HE2	2.12	0.49
26:C4:49:PHE:CE2	43:DP:62:ASN:O	2.64	0.49
12:AP:137:TYR:HE1	21:AV:49:ARG:HE	1.59	0.49
19:CT:32:PRO:HA	19:CT:77:LYS:HB2	1.94	0.49
5:CF:39:TRP:HD1	5:CF:99:TYR:CE2	2.29	0.49
48:DU:73:ALA:HB1	48:DU:79:LEU:HG	1.94	0.49
31:DA:436:C:H2'	31:DA:437:U:H6	1.76	0.49
53:BC:26:C:H2'	53:BC:27:G:O4'	2.11	0.49
8:CK:66:GLU:HA	8:CK:69:LYS:HB2	1.94	0.49
1:CA:185:A:H61	1:CA:188:C:H3'	1.78	0.49
31:DA:175:C:H4'	50:DW:25:ARG:NH1	2.27	0.49
2:CB:31:A:H2'	2:CB:32:C:O4'	2.12	0.49
5:AF:6:VAL:HG21	5:AF:119:ARG:HB2	1.94	0.49
5:AF:114:VAL:HG21	5:AF:202:PHE:CE1	2.47	0.49
10:AN:105:GLU:O	10:AN:109:LYS:HG2	2.12	0.49
11:AO:24:GLY:O	11:AO:25:SER:CB	2.59	0.49
1:CA:931:G:H2'	1:CA:932:C:C5	2.47	0.49
31:DA:1347:G:H8	39:DL:107:ARG:HB3	1.76	0.49
7:CH:54:ARG:HB2	7:CH:55:PRO:HD2	1.94	0.49
1:AA:1292:U:H2'	1:AA:1293:C:H6	1.75	0.49
31:BA:1054:C:H42	52:BB:35:G:H1'	1.77	0.49
31:BA:79:G:N1	31:BA:90:C:N4	2.51	0.49
1:CA:2628:U:C2	27:C5:7:PRO:HA	2.47	0.49
41:DN:54:ARG:CG	41:DN:54:ARG:NH1	2.62	0.49
1:CA:2356:C:HO2'	1:CA:2386:G:HO2'	1.54	0.49
1:CA:7:G:H1	1:CA:2906:C:N4	2.08	0.49
31:DA:1218:C:H2'	31:DA:1219:U:C6	2.47	0.49
20:AU:76:CYS:CB	20:AU:96:ILE:HD13	2.41	0.49
31:DA:1278:U:H2'	31:DA:1278:U:O2	2.11	0.49
39:DL:92:TYR:CA	39:DL:95:LYS:HD2	2.42	0.49
16:C1:105:VAL:HG23	16:C1:106:PHE:H	1.76	0.49
17:C2:39:LEU:O	17:C2:40:LEU:HD12	2.12	0.49
31:DA:819:A:H4'	31:DA:820:U:OP2	2.11	0.49
31:DA:1009:G:C2	31:DA:1010:G:C8	3.00	0.49
1:AA:1026:U:C1'	1:AA:1027:A:O5'	2.55	0.49
20:AU:75:ILE:HG22	20:AU:80:GLY:HA2	1.94	0.49
31:BA:924:C:O2'	31:BA:1502:A:N6	2.45	0.49
1:AA:270(O):U:C2'	1:AA:270(O):U:O2	2.60	0.49
31:BA:533:A:C2	31:BA:536:C:C6	3.01	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1055:A:C6	31:DA:1056:U:C6	3.01	0.49
31:DA:984:C:H2'	31:DA:985:C:H6	1.77	0.49
52:DB:10:C:H2'	52:DB:11:C:C6	2.48	0.49
49:DV:66:MET:H	49:DV:67:VAL:HB	1.78	0.49
31:DA:115:G:C2	31:DA:289:G:N7	2.80	0.49
31:DA:31:G:C1'	31:DA:32:A:OP1	2.60	0.49
32:BE:44:LEU:O	32:BE:47:THR:HB	2.13	0.49
1:AA:2712:U:O2'	1:AA:2713:A:H5'	2.12	0.49
13:A0:118:GLU:HA	13:A0:118:GLU:OE1	2.12	0.49
1:CA:912:G:C6	1:CA:913:C:N4	2.80	0.49
21:CV:29:TYR:CB	21:CV:34:ASN:HD22	2.25	0.49
38:BK:116:LYS:CG	38:BK:129:VAL:HG11	2.41	0.49
48:BU:74:ARG:HA	48:BU:79:LEU:O	2.12	0.49
31:DA:620:C:H2'	31:DA:621:A:O4'	2.13	0.49
31:BA:453:A:C6	31:BA:454:C:C4	3.01	0.49
1:AA:2468:G:H8	1:AA:2469:A:C2	2.28	0.49
4:CE:197:ILE:HD11	4:CE:199:ARG:CZ	2.41	0.49
9:CM:98:VAL:HG23	9:CM:99:LEU:N	2.26	0.49
1:AA:1442:G:C2	1:AA:1550:C:O2	2.65	0.49
25:CX:12:PRO:O	25:CX:15:TYR:HB2	2.12	0.49
6:AG:16:ARG:HH11	6:AG:16:ARG:HG3	1.76	0.49
1:AA:531:C:H4'	1:AA:532:A:H5''	1.95	0.49
54:D1:20:G:C5	54:D1:21:C:C5	3.01	0.49
1:AA:835:A:OP2	56:AA:3320:OHX:N6	2.45	0.49
1:CA:674:G:C2'	1:CA:675:G:H5'	2.42	0.49
1:AA:1710:C:H42	1:AA:1748:G:H1	1.58	0.49
33:DF:87:LEU:O	33:DF:91:LEU:HG	2.13	0.49
15:CR:131:ALA:O	15:CR:133:GLU:N	2.45	0.49
1:AA:2065:C:H2'	1:AA:2066:C:C6	2.47	0.49
50:DW:97:ALA:O	50:DW:99:LEU:HD12	2.13	0.49
31:DA:659:U:C2'	31:DA:660:G:H5'	2.42	0.49
25:CX:35:ARG:HB3	25:CX:37:LEU:HD21	1.95	0.49
50:DW:32:ALA:O	50:DW:36:LEU:HD23	2.12	0.49
1:CA:2321:G:O2'	1:CA:2322:A:OP1	2.30	0.49
27:A5:6:VAL:O	27:A5:7:PRO:C	2.51	0.49
12:CP:66:ILE:HG13	12:CP:67:ARG:N	2.28	0.49
1:CA:2405:A:C8	11:CO:60:MET:CB	2.71	0.49
1:AA:2114:A:N1	1:AA:2168:G:N2	2.60	0.49
7:CH:4:ILE:HB	7:CH:6:ARG:CD	2.42	0.49
3:AD:35:LYS:HG2	3:AD:64:ILE:HG23	1.95	0.49
1:AA:1536:A:C2'	1:AA:1537:C:OP1	2.61	0.49
31:BA:1234:C:O2'	31:BA:1235:U:H5'	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1442:G:O2'	31:DA:1443:G:P	2.69	0.49
15:AR:113:LYS:O	15:AR:114:LEU:HD23	2.12	0.49
1:CA:1137:U:C5	1:CA:1138:G:C5	3.01	0.49
1:AA:1678:G:H21	1:AA:1989:G:H22	1.55	0.49
11:AO:114:ILE:O	11:AO:114:ILE:HD12	2.11	0.49
1:AA:1130:U:O2'	1:AA:1131:G:P	2.69	0.49
31:BA:253:U:H2'	31:BA:254:G:H8	1.77	0.49
31:BA:464:G:O6	31:BA:466:C:H5'	2.12	0.49
24:CW:32:LEU:HA	24:CW:53:LEU:HD13	1.94	0.49
29:A7:8:ASN:HD22	29:A7:11:LYS:N	2.03	0.49
31:DA:973:G:C1'	40:DM:55:LYS:HE3	2.41	0.49
31:DA:1301:U:O4	31:DA:1303:C:H1'	2.13	0.49
1:AA:1582:C:O2'	1:AA:1586:A:H8	1.95	0.49
31:DA:65:U:OP2	56:DA:1770:OHX:N2	2.46	0.49
52:DB:40:U:C4	52:DB:41:C:C4	3.00	0.49
41:BN:99:GLN:HA	41:BN:105:VAL:HG11	1.94	0.49
1:CA:946:A:H5'	1:CA:947:A:OP2	2.12	0.49
21:AV:52:SER:C	21:AV:54:HIS:N	2.66	0.49
35:BH:32:VAL:O	35:BH:43:LEU:HD12	2.13	0.49
1:CA:26:G:C6	1:CA:27:G:C6	2.99	0.49
43:DP:73:GLU:O	43:DP:77:ASN:HB2	2.11	0.49
39:DL:14:VAL:HB	39:DL:66:ARG:O	2.12	0.49
1:AA:184:C:H2'	1:AA:185:U:C6	2.47	0.49
1:CA:899:U:O2	1:CA:974:G:N2	2.45	0.49
11:AO:6:LEU:O	11:AO:7:ARG:HG2	2.12	0.49
23:AZ:58:ILE:HD12	23:AZ:58:ILE:N	2.28	0.49
11:AO:126:VAL:HG12	11:AO:147:LEU:HD21	1.94	0.49
1:CA:729:G:N7	56:CA:3300:OHX:N3	2.60	0.49
31:BA:331:G:OP1	31:BA:332:G:H8	1.96	0.49
8:CK:129:THR:HA	8:CK:137:PRO:HA	1.93	0.49
1:CA:1793:C:H5''	1:CA:1794:A:OP2	2.12	0.49
8:AK:76:THR:OG1	8:AK:139:GLN:NE2	2.45	0.49
31:BA:380:G:N1	31:BA:384:G:C6	2.81	0.49
43:DP:28:ALA:C	43:DP:30:ALA:H	2.15	0.49
32:DE:144:ARG:HG3	32:DE:145:LEU:N	2.26	0.49
14:AQ:34:HIS:CE1	14:AQ:54:LEU:HD23	2.47	0.49
1:AA:1326:U:O4	1:AA:1647:G:H1'	2.12	0.49
1:AA:839:U:H1'	1:AA:1191:G:H1'	1.93	0.49
31:BA:865:A:HO2'	31:BA:918:A:HO2'	1.59	0.49
18:AS:64:MET:O	18:AS:65:LEU:HB2	2.11	0.49
1:AA:764:A:N3	3:AD:213:ARG:HD2	2.28	0.49
1:CA:1351:C:O2	1:CA:1351:C:H2'	2.12	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1257:C:H4'	5:AF:83:PHE:CE2	2.47	0.49
1:CA:2326:C:H3'	1:CA:2326:C:H6	1.76	0.49
1:AA:1060:U:C4	1:AA:1062:G:H4'	2.48	0.49
1:AA:1063:G:N2	1:AA:1076:C:H1'	2.27	0.49
1:AA:1085:A:O2'	1:AA:1086:A:N1	2.42	0.49
12:CP:3:MET:O	12:CP:4:PRO:O	2.30	0.49
1:CA:2299:A:C8	1:CA:2300:A:C6	3.01	0.49
1:AA:2110:G:O2'	1:AA:2120:G:OP2	2.28	0.49
11:CO:46:LYS:HB2	11:CO:51:PHE:CE2	2.48	0.49
1:AA:2401:U:O2	1:AA:2402:C:C5	2.66	0.49
31:DA:1348:U:C5	31:DA:1349:A:N7	2.80	0.49
1:CA:1158:A:H5'	7:CH:3:ARG:HD3	1.94	0.49
1:CA:1360:U:H2'	1:CA:1657:A:N1	2.27	0.49
31:BA:1005:A:C2	31:BA:1006:C:C2	3.00	0.49
31:BA:1005:A:H5''	31:BA:1006:C:C5	2.47	0.49
1:CA:1117:A:H5'	1:CA:1118:G:H5''	1.94	0.49
4:CE:60:ASN:ND2	4:CE:60:ASN:H	2.09	0.49
30:C8:34:TRP:O	30:C8:35:GLN:O	2.30	0.49
1:CA:2585:A:N7	4:CE:145:LYS:HB2	2.28	0.49
32:BE:163:PHE:HD2	32:BE:185:ILE:HG13	1.76	0.49
1:AA:1019:U:H3	1:AA:1142(A):A:H62	1.59	0.49
31:DA:502:G:H2'	31:DA:503:C:O4'	2.12	0.49
1:AA:2563:U:H1'	1:AA:2566:A:N6	2.28	0.49
2:CB:92:A:C8	2:CB:93:C:H1'	2.48	0.49
49:DV:42:PRO:HA	49:DV:45:VAL:HG13	1.93	0.49
1:AA:1429:G:H2'	1:AA:1430:C:C6	2.48	0.49
1:AA:1380:G:N2	1:AA:1570:A:C2	2.81	0.49
2:AB:42:C:O2	6:AG:93:THR:N	2.29	0.49
23:CZ:95:LEU:C	23:CZ:96:LYS:HD3	2.33	0.49
1:CA:2174:G:C4	1:CA:2175:G:C8	3.01	0.49
1:AA:2533:A:H2'	1:AA:2534:A:O4'	2.13	0.49
32:DE:236:TYR:CB	32:DE:239:VAL:HB	2.41	0.49
1:CA:1528:G:C6	1:CA:1529:U:N3	2.80	0.49
31:BA:811:C:C4'	31:BA:900:A:H61	2.26	0.49
3:AD:77:ALA:O	3:AD:117:VAL:N	2.39	0.49
1:AA:654(A):A:H2	1:AA:654(T):A:N1	2.10	0.49
31:DA:623:C:C4	31:DA:624:C:C5	3.00	0.49
21:CV:103:ARG:HG3	21:CV:104:PHE:O	2.11	0.49
52:BB:42:U:H3'	52:BB:43:G:H8	1.77	0.49
21:CV:107:THR:N	21:CV:108:PRO:CD	2.76	0.49
1:AA:2807:G:H3'	1:AA:2808:U:H5''	1.95	0.49
21:CV:130:PRO:C	21:CV:133:ILE:HD11	2.33	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:AH:46:GLU:HB2	7:AH:49:VAL:HG22	1.93	0.49
31:DA:197:A:O2'	31:DA:198:G:OP2	2.25	0.49
1:CA:2597:U:H2'	1:CA:2598:U:O2	2.13	0.49
1:CA:2503:G:N2	56:CA:3279:OHX:N1	2.60	0.49
31:DA:1484:C:H2'	31:DA:1485:U:O4'	2.12	0.49
18:AS:96:ILE:H	18:AS:96:ILE:HD13	1.76	0.49
25:AX:28:LEU:HA	25:AX:33:GLN:OE1	2.11	0.49
52:BB:81:C:H6	52:BB:81:C:OP2	1.96	0.49
31:DA:397:A:N3	31:DA:397:A:H5''	2.27	0.49
1:CA:2720:G:H2'	1:CA:2721:G:H8	1.78	0.49
1:CA:2604:C:C2'	1:CA:2605:G:H5'	2.43	0.49
31:BA:262:A:H2'	31:BA:263:A:C8	2.47	0.49
31:BA:901:A:C5	31:BA:902:G:H1'	2.48	0.49
14:AQ:50:SER:O	14:AQ:76:LYS:HE2	2.13	0.49
43:BP:73:GLU:HA	43:BP:76:ALA:HB3	1.94	0.49
31:DA:1251:A:O2'	31:DA:1252:A:H5'	2.12	0.49
31:DA:167:G:O2'	31:DA:168:G:H5'	2.11	0.49
1:AA:2143:C:H2'	1:AA:2144:U:O4'	2.12	0.49
1:CA:1738:A:H2'	1:CA:1739:C:O4'	2.13	0.49
37:DJ:21:VAL:HG23	37:DJ:22:LEU:HD12	1.94	0.49
51:BX:3:LYS:HB3	51:BX:14:TRP:CD1	2.48	0.49
1:CA:773:G:C6	1:CA:774:G:N1	2.80	0.49
5:AF:198:ALA:HA	5:AF:201:VAL:HG13	1.95	0.49
31:BA:310:G:P	46:BS:27:LYS:HZ1	2.36	0.49
1:CA:690:A:N3	1:CA:690:A:H3'	2.28	0.49
1:CA:2538:G:C2	1:CA:2552:C:C2	3.01	0.49
1:CA:2694:C:N4	1:CA:2741:G:N1	2.61	0.49
1:CA:933:C:N3	1:CA:938:A:C5	2.80	0.49
52:DD:53:A:C2'	52:DD:54:C:H5'	2.43	0.49
3:AD:33:LEU:CD1	3:AD:34:VAL:H	2.25	0.49
3:AD:62:TYR:CE1	3:AD:64:ILE:HA	2.48	0.49
1:AA:1534:G:N2	1:AA:1537:C:N4	2.61	0.49
42:DO:43:LYS:NZ	42:DO:44:LYS:HE3	2.27	0.49
1:AA:67:U:C4	1:AA:74:A:C2	3.00	0.49
52:DB:48:C:C4	52:DB:49:A:C6	3.00	0.49
52:DB:49:A:N3	52:DB:49:A:H2'	2.27	0.49
31:DA:1503:A:C5	54:D1:13:A:C2	3.01	0.49
1:CA:2802:C:H5''	1:CA:2803:C:OP2	2.13	0.49
1:CA:9:U:C4	1:CA:2642:A:N6	2.80	0.49
1:AA:2700:C:C2'	1:AA:2701:C:H5'	2.43	0.49
1:CA:1069:G:C2'	1:CA:1070:U:OP2	2.60	0.49
49:BV:65:ASN:N	49:BV:65:ASN:ND2	2.59	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:DL:16:ARG:O	39:DL:63:ILE:HG23	2.12	0.49
1:CA:597:G:O2'	1:CA:598:C:H3'	2.12	0.49
13:A0:3:HIS:C	13:A0:5:LYS:H	2.08	0.49
2:CB:42:U:C2'	2:CB:43:U:OP1	2.61	0.49
1:AA:1517:G:H4'	1:AA:1556:C:O2'	2.13	0.49
8:AK:127:VAL:CG1	8:AK:137:PRO:HB2	2.42	0.49
38:BK:84:ARG:O	38:BK:135:CYS:HB2	2.12	0.49
21:CV:145:GLU:HA	21:CV:174:VAL:HG11	1.94	0.49
33:BF:6:HIS:CD2	33:BF:7:PRO:HD2	2.48	0.49
1:AA:7:G:H1	1:AA:2896:C:H42	1.61	0.49
5:CF:164:ARG:CG	5:CF:164:ARG:NH1	2.75	0.49
1:CA:556:G:H3'	1:CA:556:G:H8	1.77	0.49
31:DA:1027:C:O2'	31:DA:1028:C:O5'	2.31	0.49
50:DW:67:ALA:HA	50:DW:73:HIS:HA	1.94	0.49
40:DM:6:ILE:HG22	40:DM:98:ILE:HA	1.95	0.49
5:CF:202:PHE:CD1	5:CF:202:PHE:C	2.86	0.49
45:BR:74:ASP:CG	45:BR:77:ARG:HG2	2.33	0.49
36:DI:78:GLU:O	36:DI:81:ILE:HG22	2.13	0.49
21:CV:161:VAL:HG23	21:CV:162:GLU:H	1.78	0.49
7:CH:69:ARG:HH12	7:CH:73:ALA:HB2	1.76	0.49
31:BA:660:G:OP1	45:BR:5:LYS:HD3	2.13	0.49
1:AA:1578:U:C2'	1:AA:1579:A:H5'	2.42	0.49
1:AA:1794:U:H2'	1:AA:1795:C:C6	2.46	0.49
1:CA:2214:G:C4	1:CA:2215:G:C8	3.00	0.49
31:DA:186(F):C:H2'	31:DA:187:C:O4'	2.12	0.49
1:AA:2807:G:C3'	1:AA:2808:U:H5''	2.42	0.49
31:DA:264:U:OP1	56:DA:1767:OHX:N6	2.46	0.49
19:AT:50:LYS:HB3	19:AT:87:GLN:HE22	1.76	0.49
1:CA:2413:G:H2'	1:CA:2414:U:H6	1.77	0.49
8:CK:1:MET:HE2	8:CK:23:PRO:HA	1.95	0.49
24:AW:10:LEU:O	24:AW:14:ARG:HB2	2.13	0.49
1:AA:250:G:H2'	1:AA:251:A:C8	2.48	0.49
1:AA:1192:G:O2'	1:AA:1193:G:H5'	2.13	0.49
11:CO:2:LYS:HB2	11:CO:5:ASP:OD2	2.13	0.49
34:BG:62:GLN:O	34:BG:66:ARG:HD3	2.11	0.49
16:A1:28:ARG:HG2	16:A1:38:THR:OG1	2.12	0.49
31:BA:186(C):G:C6	31:BA:191(E):G:N1	2.81	0.49
12:CP:68:ILE:HD13	12:CP:103:MET:HB3	1.94	0.49
1:AA:83:G:O6	56:AA:3460:OHX:N5	2.46	0.49
32:BE:24:TRP:CZ3	32:BE:26:PRO:HA	2.47	0.49
14:AQ:11:LYS:HD3	14:AQ:91:PRO:HD3	1.95	0.49
1:CA:1853:A:H2'	1:CA:1854:G:H8	1.78	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:490:G:N2	1:CA:493:A:OP2	2.44	0.49
12:AP:1:MET:O	12:AP:2:LEU:HB2	2.11	0.49
31:DA:775:G:H2'	31:DA:776:G:O4'	2.13	0.49
1:AA:1063:G:H2'	1:AA:1064:C:O4'	2.13	0.49
12:CP:29:PHE:O	12:CP:30:GLY:O	2.30	0.49
52:BD:62:G:H1	52:BD:70:C:N4	2.05	0.49
31:BA:788:U:C4	31:BA:789:U:C4	3.01	0.49
52:BB:7:G:H3'	52:BB:8:U:C5'	2.42	0.49
3:AD:32:SER:C	3:AD:35:LYS:O	2.51	0.49
31:DA:926:G:C6	31:DA:1505:G:C6	3.00	0.49
12:CP:19:GLY:CA	12:CP:98:LYS:NZ	2.76	0.49
39:BL:17:VAL:HG21	39:BL:80:GLY:HA3	1.93	0.49
1:CA:2456:C:O2'	1:CA:2457:G:H5'	2.12	0.49
41:BN:59:TYR:O	41:BN:63:LEU:HD12	2.13	0.49
1:CA:2093:G:H2'	1:CA:2094:A:O4'	2.13	0.49
2:AB:48:A:H4'	14:AQ:95:HIS:CD2	2.46	0.49
31:DA:977:A:C8	31:DA:1223:C:C4	3.00	0.49
52:DB:7:G:H3'	52:DB:8:U:C5'	2.42	0.49
1:AA:240:G:O6	56:AA:3560:OHX:N6	2.46	0.49
31:DA:1310:G:C5'	43:DP:77:ASN:HD21	2.24	0.49
7:CH:107:VAL:HG23	7:CH:109:PHE:CD1	2.48	0.49
31:BA:1397:C:C6	31:BA:1397:C:C3'	2.95	0.49
32:DE:179:LYS:HD3	32:DE:180:LEU:HD23	1.94	0.49
1:AA:1204:A:O2'	1:AA:1205:U:OP2	2.30	0.49
43:DP:97:PRO:HB2	43:DP:101:GLN:CG	2.41	0.49
1:CA:989:U:OP2	11:CO:36:LYS:HE3	2.12	0.49
1:CA:2798:C:H1'	4:CE:37:ARG:NH2	2.28	0.49
1:AA:2142:C:H42	1:AA:2149:G:H1	1.59	0.49
11:AO:96:THR:HG22	11:AO:126:VAL:CG2	2.43	0.49
40:DM:20:ALA:HA	40:DM:23:ILE:HD12	1.95	0.49
1:CA:190:U:O4	1:CA:240:G:N2	2.45	0.49
10:AN:120:GLU:OE2	10:AN:122:LEU:HD21	2.12	0.49
1:CA:1803:C:O2'	1:CA:1818:A:C8	2.65	0.49
7:CH:123:PHE:CE2	7:CH:133:VAL:HG22	2.47	0.49
53:BC:17:C:O2'	53:BC:18:C:C6	2.65	0.49
52:DB:36:U:H3	54:D1:20:G:H1	1.60	0.49
31:DA:1191:A:OP2	31:DA:1191:A:C8	2.66	0.49
32:DE:68:ILE:HD12	32:DE:68:ILE:N	2.28	0.49
1:CA:176:G:N7	56:CA:3324:OHX:N1	2.60	0.49
1:AA:2064:C:H2'	1:AA:2065:C:C6	2.47	0.49
31:BA:637:G:O2'	31:BA:638:G:H5'	2.13	0.49
31:DA:438:G:H4'	34:DG:123:HIS:HD1	1.78	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CE:174:ASP:O	4:CE:183:LEU:HB2	2.12	0.49
1:CA:1317:C:H5''	1:CA:1318:G:O5'	2.13	0.49
50:DW:77:ALA:O	50:DW:81:LYS:HB2	2.12	0.49
1:AA:91:A:C4	1:AA:92:G:C8	3.01	0.49
48:BU:21:LYS:HG2	48:BU:57:GLY:HA3	1.94	0.49
1:AA:534:U:H5'	16:A1:42:ALA:HB1	1.93	0.49
1:AA:2326:C:OP1	56:AA:3407:OHX:N5	2.46	0.49
8:CK:133:HIS:ND1	8:CK:134:PRO:HD3	2.28	0.49
31:BA:1076:C:C2	31:BA:1082:G:C2	3.01	0.49
1:AA:1086:A:H4'	1:AA:1103:A:N1	2.27	0.49
31:BA:789:U:H6	31:BA:792:A:C5'	2.26	0.49
52:DD:17:G:N1	52:DD:67:A:C6	2.81	0.49
34:DG:19:LEU:H	34:DG:19:LEU:HD12	1.77	0.49
52:BB:19:C:O2'	52:BB:20:C:OP1	2.24	0.49
39:DL:118:LYS:HB3	39:DL:121:ARG:HB3	1.94	0.49
31:BA:1025:U:O2'	31:BA:1026:G:O4'	2.30	0.49
3:CD:31:LYS:CE	3:CD:94:LEU:HD11	2.42	0.49
31:DA:652:U:O2'	31:DA:653:A:H5''	2.12	0.49
31:BA:1143:G:N1	31:BA:1144:G:N2	2.61	0.49
5:CF:132:VAL:C	5:CF:134:GLY:H	2.17	0.49
31:DA:423:G:N2	31:DA:424:G:C8	2.81	0.49
1:CA:1004:U:C5'	12:CP:14:ARG:HD3	2.41	0.49
1:CA:1575:A:C2	1:CA:1589:G:C2	3.01	0.49
1:AA:164:U:O2	1:AA:164:U:H2'	2.13	0.49
49:DV:78:ARG:O	49:DV:79:THR:OG1	2.25	0.49
1:CA:2015:G:C1'	1:CA:2016:U:OP2	2.60	0.49
28:A6:25:LYS:HE2	28:A6:27:LYS:CE	2.43	0.49
5:CF:175:THR:O	5:CF:176:LEU:HB2	2.13	0.49
31:BA:149:A:C2	31:BA:150:C:C2	3.01	0.49
1:CA:801:C:H2'	1:CA:802:C:H6	1.78	0.49
1:AA:1173:G:H4'	1:AA:1174:A:C2	2.48	0.49
31:DA:522:C:N4	31:DA:527:G:H1	2.06	0.49
1:CA:1562:C:H2'	1:CA:1563:U:C6	2.47	0.49
3:CD:238:GLY:O	3:CD:239:ARG:O	2.30	0.49
3:CD:231:HIS:CG	3:CD:232:PRO:HD2	2.47	0.49
9:CM:111:PRO:HA	9:CM:114:ARG:CZ	2.42	0.49
14:AQ:101:LEU:HD12	14:AQ:101:LEU:O	2.13	0.49
1:CA:905:C:C4	1:CA:906:U:O4	2.66	0.49
31:DA:793:U:O4	31:DA:1517:G:H8	1.95	0.49
1:AA:1394:U:C4	1:AA:1395:A:C5	3.01	0.49
1:CA:1828:U:H2'	1:CA:1829:C:C6	2.47	0.49
32:BE:60:ASP:OD1	32:BE:64:ARG:NH2	2.43	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:922:G:H4'	35:DH:20:GLN:HA	1.94	0.49
1:AA:664:C:H4'	1:AA:941:A:OP1	2.13	0.49
1:AA:1657:C:O2'	1:AA:1658:C:H5'	2.13	0.49
1:AA:363(B):G:H2'	1:AA:363(C):G:H8	1.77	0.49
1:CA:1599:C:H2'	1:CA:1600:G:O4'	2.13	0.49
18:AS:45:TYR:CZ	18:AS:49:LYS:HD2	2.48	0.49
31:BA:818:G:O2'	31:BA:819:A:H5'	2.13	0.49
12:CP:8:LYS:O	12:CP:9:TYR:CD1	2.66	0.49
53:BC:20:G:H4'	53:BC:21:U:OP2	2.12	0.49
31:DA:1170:A:H8	31:DA:1170:A:O5'	1.94	0.49
1:AA:2886:G:H2'	1:AA:2887:U:H6	1.78	0.49
1:AA:225:A:H2'	1:AA:226:G:H5'	1.94	0.49
31:BA:1038:C:C2'	31:BA:1039:C:H5'	2.42	0.49
31:DA:562:C:H4'	31:DA:563:A:O5'	2.13	0.49
13:C0:104:ARG:HD2	13:C0:111:LEU:HD21	1.94	0.49
31:BA:1165:C:H2'	31:BA:1166:G:C8	2.47	0.49
31:BA:1258:G:O2'	31:BA:1259:C:H5'	2.13	0.49
1:CA:2324:A:OP2	1:CA:2325:U:OP2	2.30	0.49
1:AA:1062:G:P	1:AA:1070:A:H4'	2.53	0.49
1:CA:952:U:C2'	1:CA:953:G:H5'	2.42	0.49
1:CA:2154:G:OP1	1:CA:2156:G:H4'	2.13	0.49
52:DD:21:A:C5	52:DD:46:G:C8	3.01	0.49
1:CA:2192:A:N7	52:DD:65:C:C6	2.81	0.49
52:DD:65:C:H2'	52:DD:66:G:H5'	1.95	0.49
3:AD:33:LEU:HD13	3:AD:34:VAL:H	1.77	0.49
31:BA:1299:A:H2'	31:BA:1301:U:C1'	2.24	0.49
29:C7:5:TRP:NE1	29:C7:7:PRO:HG3	2.28	0.49
31:BA:95:G:C6	31:BA:96:G:C6	3.01	0.49
31:BA:1026:G:C6	31:BA:1036:G:N2	2.81	0.49
12:CP:87:LYS:O	12:CP:88:GLY:O	2.30	0.49
52:DB:48:C:C3'	52:DB:49:A:H8	2.25	0.49
15:AR:108:ARG:HA	15:AR:111:ARG:NE	2.27	0.49
20:AU:41:GLY:O	20:AU:42:VAL:C	2.51	0.49
34:BG:114:ARG:NH1	34:BG:114:ARG:HG3	2.00	0.49
1:AA:2287:A:C2	1:AA:2346:A:N1	2.81	0.49
4:CE:62:PRO:C	4:CE:64:LYS:N	2.66	0.49
26:A4:38:LYS:H	26:A4:38:LYS:HD2	1.78	0.49
1:AA:996:A:H4'	16:A1:92:ARG:CG	2.42	0.49
31:BA:255:G:N1	31:BA:271:C:O2	2.41	0.49
1:AA:676:A:C2	1:AA:677:A:C8	3.01	0.49
23:CZ:87:PRO:O	23:CZ:88:LYS:C	2.51	0.49
2:CB:50:A:H2'	2:CB:51:C:C6	2.48	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1213:A:C5	31:BA:1215:G:C4	3.00	0.49
35:DH:83:GLU:HA	35:DH:87:SER:O	2.13	0.49
31:DA:854:G:H5''	31:DA:871:U:H3	1.77	0.49
26:C4:63:TYR:OH	49:DV:11:VAL:HB	2.12	0.49
26:C4:63:TYR:CD2	49:DV:41:VAL:HG22	2.48	0.49
11:AO:75:ILE:HG13	11:AO:77:ARG:NH1	2.28	0.49
15:CR:24:PRO:HA	15:CR:49:VAL:CG2	2.38	0.49
1:AA:546:C:H3'	1:AA:547:A:C8	2.48	0.49
3:CD:125:ILE:HG12	36:DI:81:ILE:HD11	1.95	0.49
1:AA:654(T):A:H2'	1:AA:654(U):A:O4'	2.13	0.49
10:CN:1:MET:HB2	10:CN:32:TYR:HD2	1.78	0.49
1:CA:2238:A:OP1	56:CA:3304:OHX:N1	2.46	0.49
42:BO:87:VAL:O	42:BO:88:LYS:CB	2.61	0.49
5:CF:36:VAL:HG11	5:CF:183:VAL:HG11	1.95	0.49
6:CG:128:ARG:CG	6:CG:128:ARG:HH21	2.26	0.49
35:BH:33:VAL:HB	35:BH:112:LEU:HD12	1.93	0.49
50:DW:29:LYS:HG3	50:DW:71:THR:HG21	1.95	0.49
1:CA:682:C:H2'	1:CA:683:G:H8	1.77	0.49
31:BA:501:C:H2'	31:BA:502:G:H8	1.76	0.49
1:CA:1061:U:H2'	1:CA:1062:G:O4'	2.13	0.49
31:DA:179:A:H2'	31:DA:180:U:C6	2.46	0.49
31:DA:1384:C:H2'	31:DA:1385:G:H8	1.75	0.49
32:BE:200:ILE:N	32:BE:200:ILE:HD12	2.28	0.49
1:AA:830:G:H4'	1:AA:831:G:OP2	2.13	0.49
33:BF:124:ILE:HD11	33:BF:153:VAL:HG21	1.95	0.49
1:CA:887:U:H2'	1:CA:888:C:C6	2.48	0.49
7:CH:30:LYS:HB3	7:CH:79:VAL:C	2.33	0.49
5:AF:198:ALA:O	5:AF:201:VAL:HG13	2.13	0.49
31:BA:190:G:O6	31:BA:264:U:H5''	2.12	0.49
1:AA:468:G:N7	29:A7:39:ARG:NH2	2.59	0.49
1:CA:2758:G:N2	7:CH:143:GLN:OE1	2.45	0.49
1:CA:620:G:C5	1:CA:621:U:C5	3.01	0.49
35:BH:42:GLY:HA3	35:BH:65:ASN:O	2.13	0.49
34:DG:88:VAL:O	34:DG:92:VAL:HG23	2.11	0.49
19:AT:3:THR:HG22	19:AT:6:ASP:OD2	2.13	0.49
31:DA:668:G:O2'	31:DA:669:U:H5'	2.13	0.49
1:AA:186:G:N7	56:AA:3456:OHX:N1	2.61	0.49
34:DG:60:GLU:HG2	34:DG:202:LEU:HB2	1.95	0.49
45:DR:4:THR:HB	45:DR:7:GLU:H	1.77	0.49
1:AA:2556:C:H2'	1:AA:2557:G:O4'	2.13	0.49
1:CA:337:G:OP2	1:CA:337:G:C8	2.66	0.49
31:DA:1114:C:H2'	31:DA:1115:C:H6	1.76	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:300:A:H2'	31:DA:301:G:O4'	2.12	0.49
12:AP:21:THR:CG2	21:AV:78:LYS:CD	2.91	0.48
1:AA:881:G:O6	1:AA:882:G:C2	2.66	0.48
31:BA:792:A:O2'	31:BA:793:U:OP2	2.31	0.48
11:AO:65:ARG:O	11:AO:66:GLY:C	2.51	0.48
31:DA:1159:U:C4	31:DA:1182:G:C6	3.00	0.48
31:BA:1176:A:N6	31:BA:1177:G:N7	2.61	0.48
14:AQ:29:PHE:C	14:AQ:29:PHE:CD2	2.83	0.48
1:AA:2287:A:C4	1:AA:2289:G:C8	3.01	0.48
3:CD:63:ARG:HD3	3:CD:63:ARG:N	2.28	0.48
1:CA:1068:A:C2	1:CA:1070:U:C2	3.01	0.48
6:AG:107:LEU:HD21	6:AG:178:PHE:CD1	2.48	0.48
31:DA:1127:G:C2	31:DA:1145:C:C2	3.01	0.48
39:DL:22:GLY:HA3	39:DL:60:ASP:OD2	2.13	0.48
1:CA:1699:G:C2	1:CA:2030:C:C2	3.01	0.48
31:BA:135:C:H2'	31:BA:136:C:C5'	2.40	0.48
31:BA:1346:A:OP1	39:BL:120:ARG:NH1	2.46	0.48
8:AK:73:GLU:HB2	8:AK:136:VAL:HG23	1.95	0.48
20:AU:35:TYR:CD1	20:AU:69:ALA:HB3	2.48	0.48
40:BM:50:ILE:HB	44:BQ:41:ARG:HE	1.78	0.48
28:A6:25:LYS:HE2	28:A6:27:LYS:CD	2.41	0.48
31:BA:1103:C:H2'	31:BA:1104:G:O4'	2.12	0.48
35:DH:100:VAL:O	35:DH:100:VAL:HG13	2.12	0.48
1:CA:627:A:H1'	1:CA:628:G:O4'	2.12	0.48
40:DM:48:THR:CG2	40:DM:60:ARG:HD2	2.42	0.48
31:BA:438:G:OP2	56:BA:1804:OHX:N4	2.46	0.48
31:DA:706:A:C4'	41:DN:29:ILE:HD11	2.43	0.48
1:AA:273(E):U:H2'	1:AA:273(F):C:H5'	1.95	0.48
1:CA:2085:A:C5	1:CA:2516:A:N6	2.75	0.48
4:CE:119:ARG:CG	4:CE:160:TYR:HB2	2.43	0.48
42:DO:25:LYS:HE3	42:DO:30:ARG:HH12	1.77	0.48
20:CU:31:LEU:HD12	20:CU:31:LEU:O	2.12	0.48
1:AA:204:A:H4'	1:AA:205:G:OP1	2.12	0.48
1:CA:304:C:N4	1:CA:386:G:H1	2.10	0.48
2:CB:25:G:C2	2:CB:26:G:O6	2.66	0.48
35:BH:145:LYS:HA	38:BK:107:LEU:HD21	1.95	0.48
11:AO:22:GLY:O	11:AO:23:PRO:O	2.31	0.48
6:AG:70:VAL:O	6:AG:70:VAL:HG22	2.13	0.48
39:BL:3:GLN:HB3	39:BL:20:ARG:HH11	1.77	0.48
31:DA:173:U:H5''	31:DA:197:A:O4'	2.13	0.48
1:CA:126:C:H4'	1:CA:127:C:OP1	2.13	0.48
12:AP:43:THR:HA	12:AP:94:VAL:HG12	1.94	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:142:G:H1'	19:AT:37:THR:CG2	2.42	0.48
50:DW:39:LYS:O	50:DW:43:LEU:HG	2.13	0.48
31:DA:93:U:H2'	31:DA:95:G:O4'	2.12	0.48
25:CX:9:VAL:HG22	25:CX:53:LEU:O	2.13	0.48
1:CA:211:A:C8	1:CA:256:G:C6	3.01	0.48
17:C2:99:ILE:HG22	17:C2:99:ILE:O	2.11	0.48
1:AA:2613:U:H1'	1:AA:2614:A:OP1	2.12	0.48
13:A0:78:LYS:O	13:A0:83:ILE:HG13	2.13	0.48
15:CR:123:GLN:O	15:CR:127:ALA:N	2.43	0.48
1:AA:2461:C:H2'	1:AA:2462:U:C6	2.48	0.48
22:C3:74:ARG:NH1	22:C3:74:ARG:HB2	2.28	0.48
1:CA:1081:G:OP1	1:CA:1081:G:H8	1.95	0.48
19:CT:63:LYS:HA	19:CT:72:LYS:HA	1.94	0.48
13:C0:88:ARG:HD2	13:C0:89:ASP:OD2	2.13	0.48
8:CK:109:ILE:HD13	8:CK:109:ILE:H	1.77	0.48
1:AA:899:A:O2'	1:AA:900:A:H5''	2.13	0.48
1:CA:1102:G:C6	1:CA:1151:C:N3	2.82	0.48
52:DD:22:A:C5	52:DD:57:C:N4	2.81	0.48
31:DA:1178:G:N2	31:DA:1181:G:C8	2.81	0.48
31:BA:532:A:N6	31:BA:1206:G:O2'	2.46	0.48
12:AP:87:LYS:O	12:AP:88:GLY:O	2.30	0.48
1:CA:2038:A:H1'	27:C5:2:ALA:HA	1.95	0.48
1:CA:795:U:O2	1:CA:2037:A:H1'	2.13	0.48
52:DB:52:G:H8	52:DB:52:G:OP2	1.97	0.48
37:DJ:139:GLU:HB3	37:DJ:143:ARG:NH2	2.28	0.48
26:A4:16:CYS:HB2	26:A4:36:CYS:N	2.12	0.48
1:CA:1922:G:N2	1:CA:1924:A:C6	2.81	0.48
31:DA:1124:G:O2'	31:DA:1145:C:C2	2.66	0.48
31:DA:737:A:O2'	36:DI:73:ASN:ND2	2.46	0.48
2:CB:42:U:O4	2:CB:45:C:OP1	2.31	0.48
31:DA:687:A:H4'	31:DA:688:G:O5'	2.13	0.48
21:CV:52:SER:O	21:CV:53:ILE:HG13	2.12	0.48
2:AB:15:A:H1'	2:AB:109:G:C4	2.49	0.48
31:DA:973:G:C6	31:DA:974:A:N6	2.81	0.48
1:CA:1513:G:C5'	1:CA:1575:A:H1'	2.43	0.48
8:AK:8:PRO:HD3	8:AK:15:VAL:HG23	1.94	0.48
25:AX:9:VAL:HG23	25:AX:53:LEU:O	2.12	0.48
31:BA:1336:C:O2	31:BA:1336:C:C2'	2.60	0.48
53:DC:24:C:C2	53:DC:25:U:C5	3.01	0.48
31:DA:1028:C:C2	31:DA:1034:G:N2	2.81	0.48
31:DA:960:U:C2'	31:DA:960:U:O2	2.60	0.48
9:AM:35:ARG:O	9:AM:42:TRP:HZ3	1.91	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:AV:164:ALA:O	21:AV:165:VAL:HG22	2.13	0.48
31:DA:145:G:N7	56:DA:1779:OHX:N1	2.61	0.48
33:BF:114:PRO:HA	33:BF:185:GLY:HA3	1.94	0.48
1:CA:560:U:O2'	16:C1:49:HIS:CD2	2.65	0.48
10:CN:11:ALA:HB1	10:CN:99:PHE:O	2.13	0.48
2:CB:85:G:H1	2:CB:96:C:N4	2.11	0.48
1:AA:39:C:H2'	1:AA:40:C:C6	2.48	0.48
1:AA:174:C:H2'	1:AA:175:G:O4'	2.13	0.48
2:CB:58:G:H4'	2:CB:59:A:C8	2.49	0.48
10:AN:96:THR:O	10:AN:97:ARG:O	2.30	0.48
23:AZ:64:ALA:HA	23:AZ:67:ILE:HG13	1.95	0.48
1:CA:1168:C:H2'	1:CA:1169:G:O4'	2.13	0.48
1:AA:1298:C:H5''	1:AA:1299:G:OP2	2.13	0.48
1:AA:938:G:O6	56:AA:3475:OHX:N5	2.46	0.48
31:DA:1243:C:OP1	51:DX:8:THR:HG21	2.13	0.48
1:CA:1278:G:H2'	1:CA:1279:G:C8	2.48	0.48
4:AE:182:LEU:HD12	4:AE:183:LEU:N	2.27	0.48
1:CA:923:G:H2'	1:CA:924:C:O4'	2.13	0.48
38:DK:23:SER:OG	38:DK:24:THR:N	2.46	0.48
1:CA:1687:U:C2'	1:CA:1688:C:H5'	2.43	0.48
1:AA:613:U:O2	1:AA:613:U:O4'	2.29	0.48
1:AA:1999:C:O2'	1:AA:2000:G:H5'	2.13	0.48
1:CA:1935:A:N3	31:DA:1494:G:N2	2.61	0.48
1:AA:2015:A:H4'	27:A5:2:ALA:HB1	1.96	0.48
1:AA:1081:U:O3'	1:AA:1082:U:O4'	2.31	0.48
53:DC:18:C:O2	56:DC:110:OHX:N5	2.46	0.48
11:CO:56:SER:O	11:CO:57:THR:O	2.30	0.48
52:BB:49:A:C2	52:BB:52:G:C2	3.02	0.48
7:CH:6:ARG:H	7:CH:6:ARG:CD	2.26	0.48
1:CA:1109:G:C5	1:CA:1110:G:N7	2.81	0.48
12:CP:79:LEU:HD13	12:CP:80:GLU:OE2	2.13	0.48
43:BP:82:MET:C	43:BP:84:ILE:N	2.66	0.48
17:A2:35:LEU:HD22	17:A2:35:LEU:H	1.78	0.48
16:C1:94:ASN:C	16:C1:96:ALA:H	2.16	0.48
31:BA:87:A:C4	31:BA:88:C:H5	2.31	0.48
7:AH:153:LYS:O	7:AH:154:PRO:C	2.51	0.48
30:A8:34:TRP:CA	30:A8:35:GLN:CB	2.92	0.48
43:BP:108:ARG:HH11	43:BP:108:ARG:CG	2.27	0.48
31:BA:1285:A:C4'	31:BA:1286:A:O5'	2.54	0.48
31:BA:388:G:OP1	56:BA:1760:OHX:N6	2.46	0.48
45:DR:82:ILE:HD11	45:DR:87:ILE:O	2.14	0.48
27:A5:58:LEU:HD22	27:A5:60:VAL:CG1	2.42	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:DB:42:U:H3'	52:DB:43:G:H8	1.77	0.48
1:CA:2229:G:H2'	1:CA:2229:G:N3	2.28	0.48
1:AA:55:G:O2'	1:AA:127:A:N1	2.38	0.48
31:BA:197:A:H4'	31:BA:198:G:O5'	2.13	0.48
5:CF:125:LEU:HG	5:CF:125:LEU:O	2.13	0.48
1:CA:914:A:C6	1:CA:961:C:N3	2.81	0.48
31:BA:58:C:H2'	31:BA:59:A:H8	1.77	0.48
44:BQ:4:LYS:C	44:BQ:6:LEU:N	2.66	0.48
1:CA:2827:C:O2	1:CA:2894:A:O2'	2.31	0.48
1:CA:314:A:H3'	1:CA:315:G:H8	1.78	0.48
1:CA:1370:U:H2'	1:CA:1371:G:H5'	1.95	0.48
11:CO:21:ARG:HE	11:CO:21:ARG:HA	1.79	0.48
1:CA:1728:U:O2'	1:CA:1795:G:N7	2.36	0.48
38:DK:11:THR:HA	38:DK:14:ARG:NH1	2.29	0.48
42:DO:20:LYS:H	42:DO:20:LYS:HD3	1.78	0.48
31:DA:799:G:C6	31:DA:800:G:C4	3.01	0.48
1:AA:18:C:H5''	16:A1:24:TYR:O	2.12	0.48
31:DA:438:G:O2'	31:DA:494:U:O4	2.24	0.48
1:CA:337:G:N3	1:CA:337:G:H2'	2.28	0.48
1:CA:1079:A:N1	1:CA:1169:G:O6	2.46	0.48
1:AA:612:G:H2'	1:AA:613:U:O2	2.13	0.48
40:BM:29:ARG:HH22	40:BM:84:GLN:NE2	2.12	0.48
14:CQ:28:VAL:HG11	14:CQ:98:VAL:HG13	1.94	0.48
1:CA:2565:U:C2	1:CA:2567:U:H5'	2.48	0.48
1:CA:1535:G:H5'	1:CA:1536:U:OP2	2.14	0.48
1:CA:2384:G:O2'	28:C6:46:HIS:HD2	1.96	0.48
1:CA:175:U:H4'	1:CA:208:A:H4'	1.94	0.48
1:AA:2261:C:C5	22:A3:16:SER:HB3	2.48	0.48
35:BH:37:ARG:HA	35:BH:114:GLY:H	1.78	0.48
31:BA:1476:G:H2'	31:BA:1477:C:C6	2.48	0.48
1:CA:463:C:H2'	1:CA:464:C:H5'	1.95	0.48
34:DG:108:LEU:HB3	34:DG:110:PHE:CD1	2.48	0.48
41:DN:108:ILE:O	48:DU:87:ARG:N	2.41	0.48
38:DK:19:VAL:HG23	38:DK:21:LYS:HB2	1.94	0.48
1:AA:2729:G:H2'	1:AA:2730:C:C6	2.48	0.48
1:CA:2074:A:H5'	1:CA:2591:G:O4'	2.13	0.48
4:CE:120:TRP:O	4:CE:121:ASN:HB2	2.13	0.48
6:CG:146:TYR:O	6:CG:149:VAL:HG22	2.13	0.48
1:AA:1345:C:H2'	1:AA:1346:G:H8	1.78	0.48
2:CB:94:C:OP2	56:CB:217:OHX:N6	2.47	0.48
50:BW:59:ALA:HA	50:BW:62:LEU:HD12	1.94	0.48
3:AD:231:HIS:HD2	3:AD:249:PRO:HG3	1.79	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:BI:18:GLN:O	36:BI:21:LEU:HB2	2.13	0.48
1:AA:2135:A:N6	1:AA:2156:G:H1'	2.29	0.48
52:BD:61:G:N2	52:BD:71:C:N3	2.49	0.48
11:CO:55:ARG:O	11:CO:56:SER:C	2.51	0.48
3:AD:71:ASP:HB3	3:AD:103:ARG:NH2	2.26	0.48
31:BA:1199:U:H4'	40:BM:54:PHE:CZ	2.49	0.48
21:AV:59:LEU:O	21:AV:60:GLU:CB	2.62	0.48
31:DA:433:C:H2'	31:DA:434:U:H6	1.77	0.48
52:DB:46:G:C5	52:DB:47:U:C4	3.01	0.48
1:CA:2304:U:OP1	1:CA:2394:C:H5'	2.13	0.48
37:DJ:65:ALA:O	37:DJ:69:VAL:HG23	2.13	0.48
7:AH:4:ILE:N	7:AH:4:ILE:HD13	2.28	0.48
40:BM:24:VAL:HG23	40:BM:34:VAL:HG11	1.94	0.48
31:DA:1132:C:C2'	31:DA:1133:G:H5'	2.43	0.48
4:AE:119:ARG:HH11	4:AE:119:ARG:HG3	1.75	0.48
1:AA:1047:G:C8	1:AA:1110:G:O6	2.67	0.48
31:BA:1213:A:C6	31:BA:1215:G:H1'	2.49	0.48
31:DA:686:U:HO2'	31:DA:687:A:C5'	2.26	0.48
1:CA:1585:G:H2'	1:CA:1586:G:H8	1.79	0.48
1:AA:1263:U:O2'	27:A5:11:THR:HG23	2.13	0.48
4:CE:103:ASP:OD1	4:CE:201:THR:HG23	2.13	0.48
31:DA:1321:C:H41	31:DA:1322:C:H41	1.54	0.48
31:DA:973:G:C6	31:DA:974:A:C6	3.01	0.48
47:BT:86:GLU:O	47:BT:90:ILE:HG12	2.14	0.48
1:CA:2482:A:H2	1:CA:2494:G:N2	2.11	0.48
32:BE:78:GLN:O	32:BE:81:VAL:HG12	2.13	0.48
4:AE:63:LEU:O	4:AE:63:LEU:HD23	2.12	0.48
31:BA:7:G:H4'	31:BA:298:A:OP1	2.13	0.48
1:CA:2164:G:O2'	1:CA:2165:C:H5'	2.14	0.48
1:CA:2460:G:C1'	1:CA:2461:A:OP2	2.59	0.48
1:AA:1171:G:C2	1:AA:1179:C:O2	2.66	0.48
31:BA:1349:A:C2'	31:BA:1350:A:O5'	2.62	0.48
1:CA:2022:C:H4'	1:CA:2737:C:O2	2.14	0.48
1:CA:955:C:OP2	12:CP:22:LYS:HD3	2.13	0.48
1:AA:2138:C:H42	1:AA:2153:G:H1	1.62	0.48
45:BR:74:ASP:OD1	45:BR:77:ARG:HG2	2.13	0.48
44:DQ:25:VAL:O	44:DQ:26:ARG:HB3	2.13	0.48
44:DQ:28:GLY:O	44:DQ:29:ARG:HB2	2.13	0.48
44:BQ:6:LEU:HB3	44:BQ:23:ARG:NH2	2.28	0.48
29:C7:8:ASN:HB3	29:C7:11:LYS:HB3	1.94	0.48
1:CA:965:A:H1'	2:CB:82:U:O2'	2.13	0.48
1:CA:400:G:O2'	1:CA:401:U:P	2.72	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:297:U:O2'	1:CA:298:C:H5'	2.13	0.48
31:DA:186(E):C:C2	31:DA:191(C):G:N2	2.82	0.48
1:CA:303:A:H1'	1:CA:304:C:O5'	2.13	0.48
1:AA:1188:U:C2'	1:AA:1189:A:H5'	2.44	0.48
6:CG:131:TYR:HB3	6:CG:159:VAL:CG2	2.43	0.48
8:CK:115:ALA:HB3	8:CK:129:THR:O	2.13	0.48
11:CO:39:LYS:HD2	11:CO:45:LEU:HD22	1.94	0.48
18:AS:29:LEU:HD21	18:AS:33:ARG:NH2	2.28	0.48
3:CD:106:ILE:O	3:CD:106:ILE:HG23	2.14	0.48
1:CA:518:A:H2'	1:CA:519:G:H5'	1.94	0.48
31:DA:209:U:H1'	31:DA:210:U:OP1	2.13	0.48
1:AA:817:C:O2'	1:AA:839:U:H5''	2.14	0.48
1:CA:1720:C:H5''	1:CA:2567:U:OP1	2.13	0.48
1:CA:2742:U:O2'	1:CA:2743:G:H5'	2.13	0.48
1:CA:2008:G:OP2	56:CA:3240:OHX:N2	2.47	0.48
35:BH:68:GLU:HG3	35:BH:70:PRO:HD3	1.95	0.48
1:CA:2898:U:O2'	1:CA:2899:C:H5'	2.14	0.48
31:BA:762:C:H2'	31:BA:763:G:H8	1.79	0.48
1:AA:2121:G:O6	1:AA:2176:A:N6	2.47	0.48
38:BK:126:LYS:HB3	38:BK:126:LYS:NZ	2.28	0.48
32:DE:102:LEU:H	32:DE:102:LEU:HD12	1.78	0.48
1:AA:1055:G:N7	1:AA:1056:G:C5	2.82	0.48
1:CA:2415:C:N4	1:CA:2429:C:H1'	2.28	0.48
1:CA:2405:A:C8	11:CO:60:MET:SD	3.06	0.48
52:BD:21:A:C5	52:BD:46:G:C8	3.02	0.48
1:CA:2180:G:C2'	1:CA:2181:A:H8	2.27	0.48
1:AA:2400:G:O2'	1:AA:2401:U:H5'	2.13	0.48
52:BB:48:C:C2'	52:BB:49:A:C8	2.96	0.48
52:DB:22:A:C5	52:DB:57:C:C4	3.01	0.48
31:DA:89:U:C1'	31:DA:90:C:OP1	2.62	0.48
52:BD:27:A:H2'	52:BD:28:G:C8	2.48	0.48
1:AA:299:A:H5'	1:AA:300:A:OP2	2.14	0.48
31:BA:323:U:H5'	50:BW:23:ARG:HB2	1.95	0.48
1:CA:2883:G:N7	1:CA:2884:A:C2	2.82	0.48
31:DA:1022:G:C2	31:DA:1023:G:H1'	2.48	0.48
31:BA:1504:G:C4'	31:BA:1505:G:OP2	2.62	0.48
31:DA:826:C:H5'	38:DK:12:ARG:HH21	1.77	0.48
30:C8:21:LYS:HA	30:C8:50:LEU:HD11	1.96	0.48
30:C8:54:GLU:HG3	30:C8:57:ARG:HE	1.78	0.48
31:DA:1053:G:C6	31:DA:1199:U:C2	3.01	0.48
31:DA:1240:U:H1'	37:DJ:38:LEU:CD2	2.43	0.48
32:DE:172:ILE:H	32:DE:172:ILE:CD1	2.19	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:AR:5:ALA:HA	15:AR:8:LYS:HG2	1.95	0.48
1:CA:646:G:H2'	1:CA:646:G:N3	2.28	0.48
24:CW:65:ASN:ND2	24:CW:69:ARG:HE	2.11	0.48
1:CA:1958:G:H1'	1:CA:1987:G:N2	2.29	0.48
31:BA:687:A:N3	31:BA:688:G:H1'	2.28	0.48
1:CA:2331:G:H5'	1:CA:2332:G:OP2	2.14	0.48
20:CU:52:SER:HB2	20:CU:56:PRO:HA	1.95	0.48
1:CA:1364:A:H2'	1:CA:1365:C:H6	1.78	0.48
40:DM:46:ARG:CZ	44:DQ:61:TRP:CH2	2.95	0.48
31:BA:328:C:H4'	31:BA:329:A:C5'	2.43	0.48
40:DM:3:LYS:HG3	40:DM:75:ILE:O	2.13	0.48
8:CK:143:SER:OG	8:CK:144:VAL:N	2.46	0.48
1:AA:1786:A:H4'	1:AA:1787:A:OP2	2.14	0.48
18:CS:95:ILE:O	18:CS:95:ILE:HG12	2.13	0.48
35:DH:96:PRO:HA	35:DH:117:ASP:OD2	2.13	0.48
31:DA:949:A:C4	31:DA:1233:G:C2	3.02	0.48
1:AA:1912:A:O2'	31:BA:1494:G:O2'	2.31	0.48
18:AS:24:ILE:HG21	18:AS:36:LEU:HD21	1.95	0.48
22:A3:41:ARG:HA	22:A3:41:ARG:NE	2.27	0.48
31:BA:191:G:N3	50:BW:105:SER:HB2	2.28	0.48
8:CK:109:ILE:HB	8:CK:130:TYR:OH	2.13	0.48
4:CE:120:TRP:HB3	4:CE:155:LYS:HD3	1.95	0.48
1:AA:1181:C:O2'	1:AA:1182:A:H5'	2.13	0.48
31:DA:516:U:C4	31:DA:517:G:C6	3.02	0.48
53:BC:16:C:O2'	53:BC:62:C:OP1	2.31	0.48
1:AA:99:U:OP1	1:AA:102:G:H5'	2.13	0.48
45:BR:36:ILE:HA	45:BR:59:MET:HE1	1.96	0.48
1:CA:2575:U:H1'	10:CN:23:ARG:NH1	2.27	0.48
10:AN:25:LEU:HB2	10:AN:38:VAL:HG13	1.95	0.48
31:BA:580:U:P	56:BA:1755:OHX:N4	2.86	0.48
18:CS:44:ALA:O	18:CS:45:TYR:C	2.51	0.48
9:CM:71:ILE:O	9:CM:71:ILE:HD12	2.13	0.48
34:BG:88:VAL:O	34:BG:88:VAL:HG12	2.13	0.48
31:BA:1110:A:H8	31:BA:1110:A:O5'	1.97	0.48
1:CA:2196:A:N3	1:CA:2196:A:H2'	2.27	0.48
52:DD:17:G:C1'	52:DD:18:G:OP1	2.57	0.48
52:DD:21:A:C4'	52:DD:22:A:O5'	2.62	0.48
31:BA:1157:A:H62	31:BA:1178:G:H21	1.61	0.48
1:AA:607:U:O2	1:AA:621:A:N1	2.46	0.48
52:DB:15:G:O2'	52:DB:20:C:N4	2.46	0.48
31:DA:1391:U:H2'	31:DA:1392:G:C8	2.47	0.48
45:DR:39:LEU:C	45:DR:39:LEU:HD13	2.34	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1015:A:N6	31:DA:1016:A:C6	2.82	0.48
6:AG:107:LEU:HD11	6:AG:178:PHE:CE1	2.48	0.48
1:AA:2316:C:H2'	1:AA:2317:C:C6	2.46	0.48
7:AH:151:ILE:C	7:AH:153:LYS:HD2	2.33	0.48
7:AH:154:PRO:O	7:AH:155:SER:C	2.51	0.48
14:CQ:17:ARG:HG3	14:CQ:17:ARG:NH1	2.22	0.48
1:AA:2566:A:H4'	1:AA:2567:G:O5'	2.13	0.48
31:DA:424:G:H2'	31:DA:425:G:H8	1.78	0.48
31:DA:1238:A:H62	31:DA:1301:U:H3	1.62	0.48
2:AB:80:U:O2'	2:AB:81:G:H5'	2.14	0.48
31:BA:49:U:C4	31:BA:364:A:C6	3.02	0.48
8:CK:139:GLN:O	8:CK:140:LEU:HB2	2.14	0.48
2:CB:5:C:N3	2:CB:120:G:N2	2.52	0.48
31:DA:765:G:N2	31:DA:813:U:OP2	2.43	0.48
1:AA:270(S):G:OP1	23:AZ:76:ARG:NH1	2.47	0.48
31:BA:1379:G:O2'	31:BA:1380:U:H5'	2.13	0.48
8:CK:47:LEU:O	8:CK:51:ILE:HG13	2.14	0.48
1:AA:484:C:H2'	1:AA:485:C:C6	2.49	0.48
31:BA:872:A:C4	31:BA:874:G:N7	2.81	0.48
11:AO:91:PHE:HD1	11:AO:99:LEU:HD21	1.77	0.48
48:DU:22:VAL:HG12	48:DU:56:THR:HA	1.94	0.48
31:BA:439:A:H2'	31:BA:440:A:C5'	2.44	0.48
1:CA:911:A:O2'	1:CA:912:G:H5'	2.14	0.48
15:CR:106:SER:HA	15:CR:110:ILE:HD11	1.94	0.48
11:AO:71:VAL:N	11:AO:72:PRO:HD2	2.28	0.48
32:DE:82:ARG:HD2	32:DE:92:TYR:HE1	1.78	0.48
33:DF:184:TYR:HA	33:DF:200:ALA:O	2.13	0.48
11:AO:96:THR:O	11:AO:98:GLU:N	2.44	0.48
36:BI:39:LYS:HB3	36:BI:62:TRP:CZ3	2.45	0.48
1:AA:654:A:C2'	1:AA:654:A:N3	2.77	0.48
21:CV:121:HIS:HB3	21:CV:123:ASP:O	2.14	0.48
1:AA:971:C:H2'	1:AA:972:G:C5'	2.43	0.48
14:CQ:38:GLN:HG2	14:CQ:40:ILE:HG12	1.94	0.48
26:C4:56:VAL:HG23	26:C4:60:GLN:OE1	2.13	0.48
1:AA:2692:C:H2'	1:AA:2693:A:C8	2.49	0.48
45:BR:70:LEU:HB3	45:BR:78:TYR:HB2	1.96	0.48
7:AH:7:LEU:N	7:AH:8:PRO:CD	2.76	0.48
1:CA:518:A:H2'	1:CA:519:G:O4'	2.13	0.48
16:A1:24:TYR:HB2	16:A1:29:SER:HB3	1.95	0.48
31:DA:224:C:H2'	31:DA:225:C:H6	1.77	0.48
31:DA:137:C:H42	31:DA:226:G:H1	1.59	0.48
31:BA:446:G:H1	31:BA:488:C:H42	1.60	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:732:C:C2'	1:AA:733:G:H5'	2.44	0.48
31:BA:177:C:OP1	50:BW:65:LYS:NZ	2.37	0.48
40:DM:64:GLU:HG2	44:DQ:59:ALA:HB2	1.96	0.48
1:AA:2033:A:H4'	1:AA:2034:U:OP1	2.13	0.48
42:BO:24:LEU:HD21	42:BO:82:ILE:HG22	1.96	0.48
20:AU:30:VAL:HG22	20:AU:37:VAL:HG12	1.96	0.48
1:CA:900:G:H2'	1:CA:901:G:C8	2.48	0.48
8:AK:54:GLN:O	8:AK:58:LEU:HB2	2.13	0.48
36:BI:63:TYR:HB3	36:BI:65:VAL:HG12	1.95	0.48
1:CA:2117:G:H5'	8:CK:25:TYR:CD2	2.48	0.48
31:DA:730:G:OP1	56:DA:1752:OHX:N5	2.46	0.48
31:DA:85:U:O2	31:DA:85:U:O4'	2.30	0.48
21:CV:45:ASP:O	21:CV:49:ARG:HG2	2.14	0.48
37:BJ:147:ALA:C	37:BJ:149:ARG:H	2.17	0.48
31:DA:678:U:H2'	31:DA:679:C:C6	2.49	0.48
8:CK:123:LEU:HA	8:CK:142:VAL:HG13	1.96	0.48
31:DA:123:C:OP1	31:DA:312:C:H5'	2.14	0.48
1:CA:892:C:N4	1:CA:980:G:H1	2.12	0.48
28:C6:26:ASN:O	28:C6:28:ARG:HG2	2.14	0.48
52:BD:22:A:N7	52:BD:57:C:N4	2.62	0.48
1:CA:2178:G:C6	1:CA:2179:G:C4	3.01	0.48
1:CA:874:U:OP1	1:CA:2441:G:H3'	2.14	0.48
52:BB:47:U:C2'	52:BB:48:C:O4'	2.62	0.48
1:CA:1654:C:H1'	56:CA:3425:OHX:N5	2.28	0.48
1:AA:2689:U:C5'	1:AA:2690:C:H5'	2.43	0.48
31:DA:82:U:N3	31:DA:87:A:N6	2.46	0.48
3:CD:35:LYS:NZ	3:CD:104:TYR:H	2.12	0.48
1:CA:2804:A:H1'	1:CA:2805:C:P	2.54	0.48
1:CA:2802:C:O2'	1:CA:2820:A:N3	2.46	0.48
4:CE:64:LYS:C	4:CE:66:HIS:H	2.16	0.48
6:AG:112:PRO:HB3	26:A4:37:SER:CB	2.42	0.48
1:AA:2845:G:O2'	1:AA:2846:G:H5'	2.14	0.48
31:DA:1278:U:O2	31:DA:1278:U:C2'	2.61	0.48
32:BE:162:ILE:N	32:BE:162:ILE:HD13	2.29	0.48
7:AH:153:LYS:HA	7:AH:153:LYS:NZ	2.29	0.48
2:CB:42:U:C5	26:C4:1:MET:HE2	2.47	0.48
2:CB:42:U:H1'	2:CB:47:A:H61	1.78	0.48
21:CV:54:HIS:HB3	21:CV:101:PRO:HG3	1.96	0.48
31:DA:1054:C:N4	52:DB:35:G:N9	2.62	0.48
31:DA:1352:C:OP1	51:DX:3:LYS:NZ	2.36	0.48
43:DP:54:VAL:O	43:DP:57:ARG:HB3	2.14	0.48
40:BM:96:ILE:N	40:BM:96:ILE:HD13	2.29	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:CX:23:LEU:HB3	25:CX:28:LEU:HB2	1.96	0.48
7:AH:83:TYR:HD1	7:AH:134:SER:CB	2.24	0.48
23:CZ:92:LYS:O	23:CZ:95:LEU:N	2.39	0.48
35:DH:76:ILE:HG23	35:DH:77:PRO:HD2	1.95	0.48
1:AA:573:G:OP2	17:A2:78:LYS:NZ	2.47	0.48
48:BU:48:GLY:O	48:BU:74:ARG:NH2	2.47	0.48
1:CA:305:C:C2'	1:CA:306:G:H5'	2.43	0.48
1:CA:300:G:OP2	1:CA:300:G:C8	2.66	0.48
31:DA:177:C:H2'	31:DA:178:C:C6	2.46	0.48
42:DO:38:ARG:HB3	42:DO:38:ARG:HH11	1.78	0.48
39:DL:48:GLU:HA	39:DL:51:ARG:HH11	1.79	0.48
1:AA:1651:G:N2	1:AA:2007:C:C2	2.82	0.48
1:AA:1771:C:O2'	1:AA:1786:A:H8	1.97	0.48
1:AA:673:C:OP1	5:AF:54:ARG:NH1	2.42	0.48
14:CQ:99:LYS:HG2	14:CQ:103:GLU:CG	2.43	0.48
3:AD:2:ALA:O	3:AD:3:VAL:HB	2.12	0.48
6:CG:56:ALA:HB2	6:CG:153:ARG:NE	2.28	0.48
1:CA:1299:G:O2'	1:CA:1300:A:C8	2.67	0.48
10:AN:4:PRO:O	10:AN:5:GLN:HB2	2.13	0.48
1:CA:958:A:H2'	12:CP:9:TYR:OH	2.13	0.48
31:DA:300:A:O5'	31:DA:300:A:H8	1.96	0.48
23:AZ:60:PHE:HB3	23:AZ:62:VAL:HG13	1.96	0.48
4:CE:131:ALA:O	4:CE:132:HIS:HB3	2.14	0.48
37:DJ:15:ASP:O	37:DJ:19:GLY:HA2	2.14	0.48
10:CN:88:ASN:HB3	10:CN:94:ARG:HD3	1.95	0.48
31:DA:532:A:H5'	33:DF:161:GLU:OE2	2.14	0.48
31:BA:753:A:H4'	31:BA:754:C:O5'	2.14	0.48
47:DT:37:LYS:O	47:DT:38:ARG:NE	2.41	0.48
53:DC:29:C:H2'	53:DC:30:G:H8	1.79	0.48
5:CF:197:ASP:OD1	5:CF:197:ASP:C	2.52	0.48
1:CA:2029:C:H6	1:CA:2029:C:O5'	1.97	0.48
19:CT:41:ASN:ND2	19:CT:41:ASN:H	2.10	0.48
1:CA:224:C:H2'	1:CA:225:U:H6	1.78	0.48
1:CA:884:G:C5	1:CA:885:C:C4	3.02	0.48
1:CA:218:A:C8	1:CA:218:A:H3'	2.48	0.48
1:AA:2133:G:C1'	1:AA:2158:A:H61	2.16	0.48
1:CA:2428:G:H4'	11:CO:66:GLY:CA	2.44	0.48
1:CA:2694:C:C5	1:CA:2741:G:C2	3.01	0.48
52:BD:17:G:N1	52:BD:67:A:C6	2.81	0.48
1:CA:2150:G:O2'	1:CA:2196:A:C6	2.64	0.48
1:CA:875:U:H2'	1:CA:2443:A:H2	1.79	0.48
1:AA:2466:C:O2'	1:AA:2467:C:H5'	2.12	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:CO:19:VAL:HG22	11:CO:20:GLY:H	1.78	0.48
7:CH:3:ARG:CG	7:CH:4:ILE:H	2.12	0.48
31:DA:1503:A:C4	54:D1:13:A:C2	3.02	0.48
31:DA:1502:A:H5''	31:DA:1504:G:N7	2.28	0.48
21:AV:37:VAL:CG2	21:AV:38:TYR:N	2.76	0.48
20:AU:76:CYS:CB	20:AU:77:PRO:HD2	2.42	0.48
49:BV:40:ILE:HG23	49:BV:41:VAL:HG13	1.96	0.48
31:BA:87:A:C4	31:BA:88:C:C5	3.02	0.48
2:CB:42:U:N3	26:C4:1:MET:SD	2.87	0.48
31:BA:1211:U:H1'	31:BA:1213:A:C2	2.49	0.48
17:C2:76:LYS:HD2	17:C2:80:GLN:O	2.14	0.48
34:BG:139:ARG:HH11	34:BG:139:ARG:CG	2.18	0.48
15:CR:64:ARG:HA	15:CR:72:VAL:O	2.14	0.48
1:AA:2472:G:C4	1:AA:2475:C:N4	2.81	0.48
31:BA:1442:G:C6	31:BA:1446:A:N6	2.81	0.48
1:AA:27:G:O6	56:AA:3450:OHX:N4	2.46	0.48
1:AA:2355:C:O4'	22:A3:36:ILE:HD12	2.13	0.48
8:AK:21:VAL:HG22	8:AK:22:LYS:N	2.28	0.48
20:AU:49:VAL:HB	20:AU:50:ARG:NH2	2.28	0.48
34:BG:31:CYS:C	34:BG:33:MET:N	2.67	0.48
31:BA:827:U:C4	31:BA:870:U:C4	3.02	0.48
50:DW:100:ILE:HG22	50:DW:101:GLY:N	2.29	0.48
5:CF:124:LEU:C	5:CF:125:LEU:HD23	2.33	0.48
1:CA:1463:G:H2'	1:CA:1464:C:C6	2.49	0.48
14:AQ:74:ALA:HB1	14:AQ:107:GLU:O	2.14	0.48
33:DF:51:GLY:O	33:DF:70:VAL:HG13	2.14	0.48
1:AA:33:U:H4'	1:AA:34:C:OP1	2.14	0.48
1:AA:2473:U:C2'	1:AA:2473:U:O2	2.59	0.48
42:BO:123:LYS:HG3	42:BO:124:GLU:N	2.29	0.48
1:CA:974:G:H2'	1:CA:975:G:O4'	2.14	0.48
1:CA:1937:C:O4'	1:CA:1937:C:O2	2.31	0.48
1:AA:1459:G:C2'	1:AA:1460:A:H5'	2.43	0.48
14:AQ:3:ARG:HG2	14:AQ:4:LEU:H	1.78	0.48
46:DS:14:ASN:OD1	46:DS:16:HIS:CE1	2.67	0.48
1:CA:1488:G:H2'	1:CA:1489:G:H8	1.78	0.48
31:DA:38:G:C2	31:DA:397:A:C2	3.02	0.48
31:DA:967:C:H5''	31:DA:968:A:OP2	2.14	0.48
1:AA:1914:C:H2'	1:AA:1915:U:O4'	2.14	0.48
35:BH:48:ALA:HB2	35:BH:57:LYS:HD3	1.96	0.48
1:CA:2025:G:O6	56:CA:3305:OHX:N4	2.47	0.48
1:AA:1294:U:O2	13:A0:23:ASN:ND2	2.46	0.48
32:BE:236:TYR:HA	32:BE:239:VAL:HG21	1.94	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DE:121:LEU:HD22	32:DE:127:ILE:HD13	1.94	0.48
31:BA:370:C:C2	31:BA:392:G:N2	2.81	0.48
47:BT:48:GLU:O	47:BT:50:LYS:N	2.47	0.48
31:DA:1369:C:H2'	31:DA:1370:G:O4'	2.13	0.48
1:CA:756:C:H42	1:CA:771:G:H1	1.61	0.48
1:CA:1573:G:C6	1:CA:1574:G:C2	3.02	0.48
34:DG:141:ARG:N	34:DG:144:ASP:OD2	2.38	0.48
1:AA:893:C:N4	1:AA:894:C:N4	2.62	0.48
30:C8:31:HIS:O	30:C8:32:LEU:O	2.31	0.48
1:CA:896:G:H2'	1:CA:897:A:H8	1.77	0.48
52:BB:48:C:H42	52:BB:52:G:H1	0.66	0.48
31:BA:1238:A:N7	31:BA:1301:U:O4	2.47	0.48
31:BA:1181:G:O2'	31:BA:1184:G:H5'	2.13	0.48
26:C4:61:ARG:C	26:C4:62:ARG:HD2	2.35	0.48
1:CA:93:G:H2'	1:CA:94:G:O4'	2.13	0.48
31:DA:1505:G:H4'	54:D1:13:A:N6	2.27	0.48
1:CA:2387:C:H2'	1:CA:2388:G:H5'	1.96	0.48
52:DD:28:G:H2'	52:DD:29:C:H6	1.77	0.48
52:BB:78:C:O2'	52:BB:79:A:O4'	2.25	0.48
31:BA:271:C:H2'	31:BA:272:C:C6	2.49	0.48
4:AE:111:ARG:HB3	13:A0:1:MET:SD	2.53	0.48
1:AA:1047:G:O2'	1:AA:1111:A:N6	2.47	0.48
31:BA:1346:A:N1	37:BJ:10:ARG:HD3	2.29	0.48
1:CA:1216:G:H2'	1:CA:1217:G:C1'	2.43	0.48
24:CW:58:ALA:O	24:CW:62:THR:HG23	2.13	0.48
4:CE:33:VAL:HG11	4:CE:88:GLY:HA3	1.96	0.48
26:A4:5:ILE:O	26:A4:5:ILE:HG22	2.14	0.48
21:CV:10:ARG:HG2	21:CV:11:GLU:N	2.23	0.48
1:CA:2202:C:O2'	1:CA:2203:U:H5'	2.14	0.48
7:AH:135:GLY:HA3	7:AH:141:VAL:HG22	1.94	0.48
14:CQ:29:PHE:C	14:CQ:29:PHE:CD2	2.86	0.48
1:AA:544:C:H42	1:AA:549:G:H1	1.61	0.48
2:AB:30:C:H2'	2:AB:31:C:C5'	2.41	0.48
31:DA:1374:A:H2'	31:DA:1375:A:C5'	2.43	0.48
35:BH:151:LEU:O	38:BK:64:LYS:HE2	2.14	0.48
36:BI:19:LEU:HD11	36:BI:59:TYR:CD1	2.48	0.48
1:AA:1580:A:OP2	1:AA:1580:A:H8	1.96	0.48
41:BN:91:ARG:HH21	48:BU:88:LYS:HZ1	1.62	0.48
1:AA:1667:G:O2'	1:AA:1991:U:O4	2.31	0.48
9:CM:99:LEU:O	9:CM:103:VAL:HG23	2.13	0.48
1:AA:2024:G:H2'	1:AA:2025:C:C6	2.48	0.48
9:CM:45:ASN:H	9:CM:45:ASN:ND2	2.12	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:C0:70:LEU:HD13	13:C0:75:LEU:HD12	1.95	0.48
2:AB:37:C:C2'	2:AB:38:C:H5'	2.44	0.48
14:AQ:39:ILE:HG22	14:AQ:39:ILE:O	2.12	0.48
1:CA:394:A:H1'	1:CA:395:C:H5	1.79	0.48
1:AA:1425:G:H2'	1:AA:1426:G:C8	2.49	0.48
3:CD:79:VAL:CG1	3:CD:113:VAL:HA	2.44	0.48
5:CF:16:GLY:O	5:CF:17:ARG:C	2.52	0.48
8:AK:1:MET:O	8:AK:20:ASP:HA	2.14	0.48
1:AA:1641:A:H2'	1:AA:1642:G:O4'	2.13	0.48
15:CR:33:LYS:NZ	15:CR:84:GLN:HG3	2.29	0.48
1:AA:2511:U:O4	1:AA:2575:C:N3	2.47	0.48
8:AK:88:ILE:HD11	8:AK:122:GLU:O	2.14	0.48
33:BF:3:ASN:N	33:BF:3:ASN:OD1	2.46	0.48
23:CZ:12:PRO:HG3	23:CZ:43:TYR:HD2	1.79	0.48
11:AO:19:VAL:HG21	11:AO:32:THR:HB	1.95	0.48
1:AA:2134:A:C4	1:AA:2158:A:H2	2.32	0.48
28:C6:31:PRO:C	28:C6:33:LYS:H	2.17	0.48
52:DD:21:A:H4'	52:DD:21:A:OP2	2.14	0.48
52:BB:28:G:N2	52:BB:45:C:H1'	2.29	0.48
3:AD:34:VAL:HG22	3:AD:35:LYS:HG3	1.96	0.48
31:DA:410:G:C2	31:DA:429:U:C2	3.02	0.48
52:DB:48:C:C4	52:DB:49:A:C5	3.02	0.48
52:DD:27:A:H2'	52:DD:28:G:C8	2.49	0.48
52:DD:8:U:H3	52:DD:14:A:H62	1.61	0.48
1:AA:307:G:N2	1:AA:309:G:H3'	2.29	0.48
26:A4:37:SER:HB3	26:A4:42:PHE:HD1	1.78	0.48
6:AG:107:LEU:HD21	6:AG:178:PHE:CE1	2.49	0.48
7:AH:86:GLU:O	7:AH:87:LEU:CB	2.62	0.48
1:CA:1922:G:H21	1:CA:1925:C:H5	1.60	0.48
39:DL:5:TYR:CE2	39:DL:16:ARG:HG2	2.46	0.48
1:AA:155:C:C5'	1:AA:155:C:H6	2.27	0.48
31:BA:253:U:H2'	31:BA:254:G:C8	2.48	0.48
31:DA:1004:A:H5''	31:DA:1025:U:C4	2.47	0.48
31:DA:1004:A:H1'	31:DA:1036:G:C6	2.49	0.48
1:AA:2723:C:H5''	13:A0:1:MET:HG2	1.96	0.48
1:CA:734:G:H21	1:CA:836:A:H61	1.60	0.48
1:CA:155:C:C2	1:CA:161:G:N2	2.82	0.48
2:CB:8:C:HO2'	14:CQ:29:PHE:HE1	1.60	0.48
1:AA:27:G:C4	1:AA:512:G:N2	2.82	0.48
32:DE:32:ILE:HD12	32:DE:41:ILE:O	2.13	0.48
1:CA:626:G:H8	1:CA:626:G:OP2	1.97	0.48
34:DG:148:VAL:HG12	34:DG:152:SER:HB2	1.96	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:CR:91:ARG:HD3	15:CR:120:ARG:NH1	2.29	0.48
1:AA:654(S):G:H1'	1:AA:654(T):A:C8	2.49	0.48
1:AA:654(S):G:H4'	1:AA:654(T):A:OP1	2.10	0.48
44:DQ:23:ARG:HD3	44:DQ:29:ARG:O	2.14	0.48
7:AH:167:GLU:HA	7:AH:168:PRO:HD3	1.62	0.48
35:BH:20:GLN:HE21	35:BH:20:GLN:HB3	1.52	0.48
1:CA:1049:G:C2	1:CA:1050:G:H1'	2.49	0.48
1:CA:2725:U:OP1	1:CA:2728:G:H4'	2.14	0.48
14:CQ:39:ILE:HG21	14:CQ:82:ILE:HD13	1.95	0.48
37:BJ:43:PHE:CD1	37:BJ:43:PHE:C	2.86	0.48
1:CA:1557:A:C8	1:CA:1557:A:OP2	2.66	0.48
1:CA:1193:C:O2'	1:CA:1194:C:H5'	2.14	0.48
1:AA:752:A:H3'	29:A7:1:MET:SD	2.54	0.48
20:CU:61:ILE:CG2	20:CU:62:GLU:N	2.77	0.48
31:BA:1169:A:C6	31:BA:1170:A:C2	3.01	0.48
1:AA:1771:C:HO2'	1:AA:1786:A:H8	1.60	0.48
10:AN:64:ARG:HG2	10:AN:79:PHE:CD2	2.49	0.48
19:AT:24:GLY:O	19:AT:83:VAL:HG22	2.14	0.48
1:AA:531:C:C5	1:AA:2035:G:C2	3.02	0.48
1:CA:1025:G:O6	56:CA:3270:OHX:N3	2.46	0.48
12:AP:116:GLU:O	12:AP:120:ILE:HG12	2.13	0.48
9:CM:38:HIS:CE1	9:CM:39:ARG:HG3	2.49	0.48
31:DA:436:C:H2'	31:DA:437:U:C6	2.48	0.48
33:DF:91:LEU:HD11	33:DF:101:LEU:HD12	1.96	0.48
16:A1:25:TRP:O	16:A1:28:ARG:HB2	2.13	0.48
33:BF:67:THR:HG23	33:BF:102:ASN:HB2	1.95	0.48
4:AE:92:THR:HG22	4:AE:93:VAL:N	2.28	0.48
24:CW:63:VAL:O	24:CW:66:GLU:HG2	2.14	0.48
31:DA:982:U:O2	31:DA:1222:G:N2	2.41	0.48
1:CA:1532:G:H2'	1:CA:1533:A:H8	1.79	0.48
1:AA:483:A:O2'	20:AU:59:GLY:HA2	2.14	0.48
31:DA:1081:G:N7	35:DH:47:LYS:HE3	2.28	0.48
31:BA:585:G:O6	56:BA:1774:OHX:N5	2.47	0.48
1:AA:1230:C:H2'	1:AA:1231:G:C8	2.49	0.48
1:CA:1596:C:H2'	1:CA:1597:C:H6	1.78	0.48
6:AG:46:ALA:HB1	6:AG:49:ASP:O	2.14	0.48
23:CZ:85:LEU:O	23:CZ:85:LEU:HD12	2.14	0.48
31:DA:588:G:H1	31:DA:651:C:H42	1.62	0.48
31:DA:599:C:OP1	56:DK:201:OHX:N4	2.47	0.48
11:AO:19:VAL:HG23	11:AO:27:HIS:CA	2.35	0.47
1:AA:881:G:H3'	1:AA:882:G:O4'	2.14	0.47
1:CA:937:C:C5	1:CA:938:A:H1'	2.49	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:979:A:N7	1:CA:980:G:H1'	2.29	0.47
28:C6:26:ASN:O	28:C6:28:ARG:NH1	2.47	0.47
1:CA:2185:G:O2'	1:CA:2196:A:OP2	2.24	0.47
31:BA:1027:C:O2'	31:BA:1028:C:H3'	2.13	0.47
1:CA:2715:U:H3'	1:CA:2715:U:O2	2.14	0.47
5:CF:31:HIS:HB2	11:CO:9:ASN:ND2	2.28	0.47
3:AD:44:ASN:CB	3:AD:49:ILE:HA	2.35	0.47
12:CP:21:THR:HG23	12:CP:21:THR:O	2.10	0.47
31:DA:991:U:O2	31:DA:993:G:H8	1.97	0.47
1:AA:633:A:C8	1:AA:633:A:H3'	2.49	0.47
39:DL:19:LEU:HA	39:DL:61:ALA:HA	1.95	0.47
31:BA:209:U:O2	31:BA:209:U:H2'	2.14	0.47
25:CX:5:LYS:HE3	25:CX:59:VAL:HG21	1.96	0.47
32:DE:8:LYS:O	32:DE:9:GLU:HB3	2.14	0.47
22:A3:34:GLY:O	22:A3:35:ASN:C	2.52	0.47
31:BA:1505:G:H4'	54:B1:13:A:H62	1.77	0.47
31:BA:1394:A:C5	31:BA:1501:C:H4'	2.49	0.47
30:C8:21:LYS:HG2	30:C8:50:LEU:HD21	1.96	0.47
4:CE:170:LEU:HD12	4:CE:185:LYS:H	1.78	0.47
31:DA:1320:C:C4	31:DA:1321:C:N4	2.82	0.47
52:DB:26:G:N3	52:DB:26:G:H2'	2.29	0.47
1:CA:162:C:H2'	1:CA:163:G:C8	2.49	0.47
23:CZ:95:LEU:O	23:CZ:97:LEU:N	2.47	0.47
1:AA:511:U:O4	1:AA:512:G:N1	2.46	0.47
35:DH:101:ILE:HD11	35:DH:119:LEU:HA	1.95	0.47
1:CA:38:A:H1'	5:CF:48:THR:HB	1.96	0.47
1:CA:2228:G:C4'	1:CA:2229:G:OP2	2.62	0.47
48:DU:22:VAL:CG1	48:DU:56:THR:HA	2.44	0.47
7:CH:92:ILE:HD13	7:CH:160:LYS:CG	2.44	0.47
20:CU:95:LYS:HB2	20:CU:95:LYS:HZ2	1.79	0.47
1:CA:2400:U:C5'	1:CA:2401:A:OP2	2.62	0.47
15:AR:74:ARG:HB3	15:AR:76:PHE:CZ	2.49	0.47
46:BS:5:ARG:NE	46:BS:22:THR:HG21	2.28	0.47
3:AD:70:TRP:CD1	3:AD:70:TRP:C	2.87	0.47
10:AN:88:ASN:HD22	10:AN:88:ASN:H	1.60	0.47
48:BU:29:PHE:CE1	48:BU:31:LEU:HB3	2.49	0.47
1:AA:2141:G:H2'	1:AA:2142:C:O4'	2.13	0.47
31:BA:511:C:O3'	34:BG:43:HIS:CE1	2.66	0.47
40:DM:47:PHE:CZ	44:DQ:37:PHE:CE2	3.01	0.47
34:DG:155:LEU:O	34:DG:159:ARG:HG3	2.14	0.47
1:AA:2396:G:C2'	1:AA:2397:G:H5'	2.44	0.47
31:DA:751:U:H4'	45:DR:24:SER:HA	1.95	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1803:C:C1'	1:CA:1818:A:C8	2.97	0.47
1:CA:126:C:O2'	1:CA:127:C:O5'	2.29	0.47
39:DL:33:PHE:HE1	39:DL:37:PHE:HD1	1.61	0.47
31:DA:325:A:H2'	31:DA:326:G:O4'	2.13	0.47
7:CH:26:VAL:HG22	7:CH:26:VAL:O	2.14	0.47
31:DA:773:G:C2	31:DA:807:A:C2	3.02	0.47
31:DA:789:U:O4	56:DA:1792:OHX:N6	2.47	0.47
45:BR:42:HIS:CD2	45:BR:43:LEU:HD23	2.49	0.47
1:AA:2694:G:C5	1:AA:2695:C:C5	3.02	0.47
31:BA:842:C:H4'	31:BA:843:U:OP1	2.12	0.47
11:CO:90:ARG:HG3	11:CO:91:PHE:H	1.78	0.47
33:DF:127:ARG:HH21	33:DF:191:THR:HG22	1.79	0.47
1:AA:2360:A:H2'	1:AA:2361:A:O4'	2.14	0.47
1:CA:502:U:OP1	56:CA:3383:OHX:N6	2.47	0.47
32:DE:30:ARG:HH21	32:DE:194:PRO:HG2	1.79	0.47
1:AA:813:U:H2'	1:AA:814:C:C6	2.49	0.47
1:AA:2014:A:O2'	27:A5:2:ALA:CB	2.60	0.47
12:CP:24:GLY:CA	12:CP:25:ASP:HB2	2.14	0.47
11:AO:15:ARG:O	11:AO:16:ARG:C	2.53	0.47
1:CA:1103:G:H4'	1:CA:1133:A:H1'	1.95	0.47
12:AP:87:LYS:HG3	12:AP:88:GLY:N	2.28	0.47
11:CO:15:ARG:O	11:CO:16:ARG:C	2.53	0.47
15:AR:109:GLU:O	15:AR:113:LYS:HB2	2.13	0.47
11:CO:9:ASN:O	11:CO:10:PRO:C	2.52	0.47
52:DD:27:A:C4	52:DD:28:G:C8	3.02	0.47
31:DA:81:G:N2	31:DA:88:C:C2	2.76	0.47
52:BD:28:G:H2'	52:BD:29:C:H6	1.79	0.47
4:CE:65:GLY:O	4:CE:66:HIS:C	2.52	0.47
5:CF:187:VAL:HG12	11:CO:3:LEU:HG	1.96	0.47
31:DA:1213:A:C5	31:DA:1215:G:C4	3.02	0.47
1:CA:1187:U:C2'	1:CA:1188:U:OP2	2.62	0.47
11:AO:49:ARG:HG3	30:A8:59:LYS:HD3	1.95	0.47
1:AA:635:C:O2'	1:AA:639:U:OP1	2.32	0.47
28:C6:44:ARG:O	28:C6:45:LYS:CB	2.58	0.47
31:DA:1004:A:H2	31:DA:1024:G:N7	2.11	0.47
1:CA:999:A:H2'	1:CA:1000:G:H8	1.79	0.47
21:CV:14:LYS:HZ2	21:CV:14:LYS:HB3	1.78	0.47
1:AA:1477:A:H2	1:AA:1557:C:O2'	1.97	0.47
29:A7:8:ASN:HD22	29:A7:11:LYS:CB	2.27	0.47
31:DA:962:C:N4	31:DA:974:A:H61	2.12	0.47
31:DA:422:C:O2'	31:DA:423:G:N3	2.41	0.47
38:BK:6:ILE:HB	38:BK:85:ARG:HH12	1.79	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:C4:63:TYR:HB3	49:DV:41:VAL:HG13	1.95	0.47
4:AE:38:THR:HG23	4:AE:40:GLU:N	2.28	0.47
1:AA:1528:A:C2	1:AA:1542:G:C2	3.02	0.47
31:BA:1366:C:H2'	31:BA:1367:C:C6	2.48	0.47
1:AA:546:C:H3'	1:AA:547:A:H8	1.77	0.47
8:AK:21:VAL:HG21	8:AK:25:TYR:CD1	2.45	0.47
31:DA:950:U:H3	31:DA:1231:G:H1	1.61	0.47
5:CF:123:LEU:HA	5:CF:192:LEU:HB2	1.95	0.47
6:AG:101:ILE:HD11	26:A4:9:LEU:HD11	1.96	0.47
31:BA:1350:A:C6	31:BA:1351:U:N3	2.82	0.47
10:AN:75:SER:CB	15:AR:74:ARG:HH12	2.27	0.47
1:CA:2311:A:N3	1:CA:2334:G:C2	2.82	0.47
9:CM:31:ALA:O	9:CM:35:ARG:HG2	2.14	0.47
7:AH:98:LEU:HD12	7:AH:103:LEU:HA	1.96	0.47
1:AA:2469:A:O2'	12:AP:56:ARG:HG2	2.14	0.47
8:AK:123:LEU:HA	8:AK:142:VAL:HG23	1.95	0.47
32:BE:229:VAL:HG12	32:BE:230:VAL:H	1.77	0.47
37:DJ:73:MET:HA	37:DJ:91:VAL:HG23	1.96	0.47
1:AA:460:A:C2	1:AA:470:A:C4	3.02	0.47
35:DH:41:VAL:O	35:DH:66:MET:HA	2.14	0.47
35:BH:139:LEU:O	35:BH:141:GLN:N	2.47	0.47
31:DA:868:C:H2'	31:DA:869:G:O4'	2.13	0.47
40:BM:29:ARG:HH12	40:BM:84:GLN:HE22	1.62	0.47
1:AA:1181:C:H2'	1:AA:1182:A:C8	2.48	0.47
19:CT:41:ASN:ND2	19:CT:41:ASN:N	2.60	0.47
1:CA:1532:G:H1	1:CA:1551:C:N4	2.12	0.47
1:AA:270(A):A:N3	1:AA:365:C:O2'	2.43	0.47
21:CV:97:GLU:HB3	21:CV:125:LEU:HD11	1.94	0.47
31:DA:157:G:C2	31:DA:165:C:C2	3.01	0.47
23:CZ:65:SER:OG	23:CZ:66:HIS:HD2	1.97	0.47
1:AA:1687:G:O2'	1:AA:1688:U:H5'	2.14	0.47
1:AA:2477:C:O2	56:AA:3370:OHX:N3	2.47	0.47
2:AB:88:C:H2'	2:AB:89:G:O4'	2.14	0.47
31:BA:1290:G:N3	31:BA:1290:G:H2'	2.29	0.47
1:CA:2075:G:C8	4:CE:141:ILE:HD11	2.48	0.47
31:BA:1429:C:H2'	31:BA:1430:C:C6	2.49	0.47
53:DC:52:C:H2'	53:DC:53:G:O4'	2.14	0.47
31:DA:597:G:H2'	31:DA:598:U:H5'	1.96	0.47
12:CP:66:ILE:HG13	12:CP:67:ARG:H	1.80	0.47
52:BD:51:C:C6	52:BD:52:G:H1'	2.48	0.47
11:CO:146:VAL:HG13	11:CO:147:LEU:HD13	1.97	0.47
1:CA:2091:U:H3	1:CA:2443:A:H2	1.62	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1535:U:C2	1:AA:1536:A:H3'	2.50	0.47
31:BA:1020:U:H2'	31:BA:1021:G:C8	2.49	0.47
42:DO:43:LYS:HZ3	42:DO:44:LYS:HE3	1.78	0.47
26:C4:14:ILE:HB	26:C4:24:THR:HG23	1.97	0.47
14:CQ:106:ARG:O	14:CQ:107:GLU:HB2	2.14	0.47
1:CA:2805:C:H2'	1:CA:2806:G:C8	2.49	0.47
7:AH:4:ILE:O	7:AH:6:ARG:N	2.47	0.47
31:DA:332:G:C2	31:DA:333:G:C8	3.02	0.47
7:AH:131:VAL:HG13	7:AH:132:ARG:N	2.28	0.47
34:BG:11:LEU:C	34:BG:13:ARG:H	2.17	0.47
2:CB:112:G:C4	2:CB:113:G:C8	3.02	0.47
1:AA:527:C:H4'	1:AA:528:A:C5'	2.43	0.47
20:CU:76:CYS:O	20:CU:77:PRO:C	2.52	0.47
31:BA:1375:A:H2'	31:BA:1376:U:O4'	2.14	0.47
2:AB:15:A:O2'	2:AB:109:G:C8	2.56	0.47
31:DA:1196:U:O2	54:D1:23:A:N7	2.47	0.47
8:CK:77:LEU:CG	8:CK:78:THR:H	2.27	0.47
1:CA:1589:G:H3'	1:CA:1590:A:C5'	2.42	0.47
32:BE:187:LEU:HD13	32:BE:187:LEU:O	2.13	0.47
1:AA:270(R):G:H2'	1:AA:270(S):G:C8	2.48	0.47
32:DE:178:ARG:HH22	32:DE:196:LEU:CA	2.26	0.47
1:AA:270(M):U:H1'	1:AA:270(N):G:N7	2.29	0.47
1:CA:2230:A:H4'	1:CA:2231:U:C5	2.49	0.47
25:AX:7:LYS:O	25:AX:9:VAL:HG22	2.13	0.47
31:BA:438:G:O6	31:BA:494:U:OP2	2.32	0.47
31:DA:848:C:H2'	31:DA:849:C:H6	1.79	0.47
31:DA:464:G:C5	31:DA:466:C:OP2	2.67	0.47
1:CA:27:G:O2'	1:CA:28:A:OP2	2.28	0.47
22:C3:53:MET:HG3	22:C3:59:LEU:HD23	1.96	0.47
33:DF:148:GLY:O	33:DF:203:PHE:HB3	2.14	0.47
31:DA:1084:G:H5'	31:DA:1102:A:OP2	2.13	0.47
1:CA:1406:A:H2'	1:CA:1407:A:H5'	1.96	0.47
48:BU:31:LEU:HD23	48:BU:31:LEU:H	1.78	0.47
13:A0:44:LEU:CD2	13:A0:48:VAL:HG13	2.44	0.47
1:AA:1024:G:C3'	1:AA:1025:G:H5''	2.44	0.47
39:DL:48:GLU:HA	39:DL:51:ARG:NH1	2.28	0.47
31:DA:954:G:H21	31:DA:1227:A:N6	2.12	0.47
29:A7:1:MET:SD	29:A7:1:MET:N	2.83	0.47
35:DH:40:ARG:NH2	35:DH:66:MET:HG2	2.30	0.47
13:A0:104:ARG:HB3	13:A0:107:ASP:OD2	2.14	0.47
34:DG:178:VAL:C	34:DG:180:GLY:H	2.18	0.47
1:AA:1820:U:C2	3:AD:202:LYS:HB3	2.49	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
53:BC:18:C:O2	56:BC:106:OHX:N4	2.48	0.47
7:CH:76:VAL:O	7:CH:79:VAL:HG22	2.14	0.47
1:CA:255:A:C6	1:CA:456:A:C4	3.02	0.47
31:BA:152:A:N6	31:BA:170:U:C2	2.81	0.47
33:BF:77:ILE:HA	33:BF:84:ILE:HB	1.96	0.47
1:CA:166:G:O2'	1:CA:167:G:H5'	2.15	0.47
3:AD:74:GLY:O	3:AD:76:PRO:HD3	2.15	0.47
35:DH:24:ARG:HG3	35:DH:26:PHE:CZ	2.49	0.47
7:AH:130:ARG:HH11	7:AH:130:ARG:HB3	1.78	0.47
1:CA:2061:G:H2'	1:CA:2062:C:C6	2.50	0.47
1:CA:1948:C:C2'	1:CA:1949:U:H5'	2.44	0.47
31:BA:475:G:H2'	31:BA:476:G:O4'	2.15	0.47
31:BA:475:G:N7	56:BA:1672:OHX:N3	2.61	0.47
1:CA:1734:C:H2'	1:CA:1735:G:O4'	2.15	0.47
1:AA:773:U:H5'	3:AD:47:GLY:HA2	1.96	0.47
1:CA:380:G:C6	1:CA:381:G:C5	3.02	0.47
11:AO:2:LYS:HE3	11:AO:4:SER:OG	2.13	0.47
1:AA:671:C:OP1	11:AO:42:SER:O	2.31	0.47
1:CA:402:A:C2	1:CA:429:A:C4	3.02	0.47
1:AA:2250:G:N1	12:AP:83:MET:HB2	2.30	0.47
11:CO:77:ARG:HB2	11:CO:78:PRO:HD2	1.96	0.47
1:CA:894:C:C2	1:CA:895:U:C5	3.02	0.47
52:BD:50:U:H6	52:BD:50:U:O5'	1.97	0.47
52:DD:53:A:O2'	52:DD:54:C:H5'	2.13	0.47
1:AA:2415:G:H4'	11:AO:67:MET:N	2.30	0.47
31:BA:1162:C:C2	31:BA:1175:G:N2	2.82	0.47
11:AO:9:ASN:CB	11:AO:10:PRO:CD	2.83	0.47
52:DB:21:A:C2	52:DB:56:U:C2	3.03	0.47
11:CO:9:ASN:CB	11:CO:10:PRO:CD	2.81	0.47
31:DA:1358:U:H3'	31:DA:1359:C:C6	2.48	0.47
1:AA:638:G:H2'	1:AA:639:U:O4'	2.15	0.47
32:DE:95:GLN:O	32:DE:96:ARG:C	2.53	0.47
28:C6:18:ARG:CB	28:C6:44:ARG:HH22	2.27	0.47
4:CE:23:VAL:HG23	4:CE:24:THR:N	2.29	0.47
21:CV:4:ARG:HG2	21:CV:58:VAL:HG11	1.96	0.47
4:CE:38:THR:HG22	4:CE:41:LYS:HG2	1.97	0.47
31:DA:1206:G:C6	31:DA:1207:G:C6	3.02	0.47
26:C4:34:GLU:HG3	43:DP:3:ARG:CB	2.44	0.47
22:C3:29:GLN:O	22:C3:67:VAL:HG23	2.14	0.47
1:AA:945:A:O4'	1:AA:946:G:OP1	2.32	0.47
3:CD:172:TYR:CZ	3:CD:269:PHE:HE2	2.32	0.47
1:AA:1153:C:C4	1:AA:1154:G:C6	3.03	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CK:47:LEU:HA	8:CK:50:ARG:HG2	1.96	0.47
9:CM:16:ILE:HB	9:CM:54:VAL:HG22	1.96	0.47
20:CU:89:PHE:O	20:CU:90:LEU:C	2.52	0.47
40:DM:9:ARG:HG2	40:DM:69:ASN:OD1	2.14	0.47
1:AA:1992:G:C1'	1:AA:1993:U:OP2	2.63	0.47
1:AA:1396:U:O2	1:AA:1396:U:H2'	2.13	0.47
31:BA:519:C:N4	31:BA:520:A:C6	2.82	0.47
3:AD:182:LEU:N	3:AD:272:ALA:HB3	2.28	0.47
32:BE:178:ARG:O	38:BK:71:GLY:HA2	2.13	0.47
40:DM:75:ILE:HG13	40:DM:76:ASN:N	2.30	0.47
33:DF:121:ALA:O	33:DF:125:GLU:HG3	2.14	0.47
43:DP:60:VAL:HG13	43:DP:64:TRP:HE1	1.79	0.47
19:AT:49:VAL:HG13	19:AT:50:LYS:N	2.29	0.47
31:DA:103:C:P	50:DW:17:ARG:HH21	2.38	0.47
34:DG:191:ARG:HD2	34:DG:200:GLU:OE1	2.15	0.47
53:BC:20:G:C2	53:BC:58:A:N3	2.82	0.47
23:AZ:67:ILE:N	23:AZ:68:PRO:CD	2.78	0.47
31:DA:415:A:H2'	31:DA:416:G:O4'	2.14	0.47
1:AA:670:A:O2'	56:AA:3514:OHX:N3	2.48	0.47
1:CA:367:G:O2'	1:CA:368:C:H5'	2.14	0.47
1:CA:1824:G:H2'	1:CA:1825:C:H6	1.79	0.47
33:DF:108:ASN:C	33:DF:110:ASN:H	2.18	0.47
1:CA:1558:A:H2'	1:CA:1559:G:H8	1.79	0.47
1:AA:995:C:C2	16:A1:57:PHE:CE2	3.03	0.47
1:CA:831:A:H2'	1:CA:832:A:O3'	2.14	0.47
33:DF:77:ILE:O	33:DF:83:ARG:HB3	2.14	0.47
8:CK:41:GLU:O	8:CK:45:LYS:HG2	2.14	0.47
1:CA:577:G:H2'	1:CA:578:U:H6	1.79	0.47
4:AE:59:VAL:HG22	4:AE:59:VAL:O	2.14	0.47
18:CS:96:ILE:O	18:CS:96:ILE:HD13	2.15	0.47
31:BA:798:G:H2'	31:BA:799:G:O5'	2.14	0.47
1:AA:2432:A:C5	23:AZ:33:LYS:HG2	2.49	0.47
1:AA:2364:C:O2'	1:AA:2365:G:H5'	2.14	0.47
1:AA:1057:A:C8	1:AA:1086:A:H2'	2.50	0.47
1:AA:1091:G:N2	1:AA:1101:U:H1'	2.29	0.47
8:AK:131:LYS:CB	8:AK:132:PRO:HA	2.19	0.47
11:CO:147:LEU:HD22	11:CO:148:LEU:N	2.29	0.47
52:BB:17:G:N3	52:BB:66:G:C2	2.83	0.47
52:BB:68:A:H2'	52:BB:68:A:N3	2.29	0.47
31:DA:1118:C:OP1	39:DL:104:ARG:HD2	2.14	0.47
1:AA:1331:A:OP1	56:AA:3536:OHX:N2	2.47	0.47
12:AP:75:THR:HG22	12:AP:90:VAL:H	1.79	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1027:C:C4'	31:BA:1028:C:OP1	2.62	0.47
15:CR:125:ARG:HB3	15:CR:129:ARG:CZ	2.44	0.47
21:AV:4:ARG:HG2	21:AV:58:VAL:CG2	2.44	0.47
34:DG:31:CYS:O	34:DG:32:ALA:HB3	2.13	0.47
31:DA:1507:A:C2	31:DA:1508:G:C4	3.03	0.47
6:AG:161:THR:HG22	6:AG:163:ALA:N	2.09	0.47
31:DA:994:A:N7	31:DA:1216:G:H4'	2.28	0.47
31:BA:1133:G:C6	31:BA:1142:G:C6	3.03	0.47
17:A2:44:LYS:C	17:A2:46:VAL:H	2.15	0.47
31:BA:429:U:H4'	31:BA:430:A:OP1	2.12	0.47
1:CA:1041:C:H1'	17:C2:10:LYS:HE2	1.95	0.47
1:AA:1887:C:C3'	1:AA:1888:G:H5''	2.44	0.47
31:BA:1373:G:H5'	37:BJ:36:LYS:HB2	1.97	0.47
21:CV:65:GLN:HE22	21:CV:67:LEU:HD21	1.79	0.47
31:BA:1346:A:C6	37:BJ:10:ARG:HD3	2.49	0.47
2:AB:15:A:H1'	2:AB:109:G:N9	2.29	0.47
31:DA:977:A:N3	31:DA:977:A:H3'	2.30	0.47
1:AA:969:U:O4	56:AA:3568:OHX:N1	2.47	0.47
14:CQ:14:VAL:HG21	14:CQ:89:ARG:HG2	1.97	0.47
3:CD:44:ASN:HB3	3:CD:48:ARG:O	2.13	0.47
21:CV:30:ASN:O	21:CV:31:ARG:C	2.53	0.47
17:C2:35:LEU:O	17:C2:37:VAL:HG13	2.14	0.47
1:AA:480:A:H2'	1:AA:481:G:OP1	2.14	0.47
31:BA:181:G:O2'	31:BA:182:U:C6	2.67	0.47
31:BA:722:A:C6	31:BA:724:G:C5	3.02	0.47
1:AA:1729:A:N6	1:AA:1731:G:C2	2.82	0.47
11:AO:91:PHE:HZ	11:AO:103:ALA:CB	2.27	0.47
35:BH:45:PHE:CD2	35:BH:47:LYS:HD2	2.49	0.47
9:AM:73:THR:HG22	9:AM:84:LYS:HG2	1.96	0.47
1:AA:1162:G:O4'	17:A2:23:GLU:HG3	2.14	0.47
35:DH:60:TYR:HA	35:DH:63:ARG:CG	2.45	0.47
21:AV:74:VAL:HG22	21:AV:86:VAL:HG12	1.97	0.47
31:BA:1014:A:H4'	49:BV:14:HIS:CD2	2.49	0.47
1:CA:679:A:H5''	1:CA:680:A:OP2	2.14	0.47
21:CV:116:VAL:HG12	21:CV:117:LEU:N	2.29	0.47
1:CA:2726:A:H5''	1:CA:2727:A:OP2	2.14	0.47
31:DA:66:G:C5	31:DA:67:C:C5	3.02	0.47
31:DA:246:A:C4	31:DA:279:A:N6	2.83	0.47
18:CS:12:ILE:HD13	18:CS:17:VAL:CG2	2.44	0.47
1:CA:2214:G:O2'	1:CA:2215:G:O5'	2.30	0.47
21:CV:149:SER:HA	21:CV:172:ALA:O	2.14	0.47
1:CA:1365:C:C2'	1:CA:1366:G:H5''	2.44	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DF:23:TYR:HD2	33:DF:24:ALA:N	2.13	0.47
1:CA:637:G:C2	1:CA:642:G:C6	3.03	0.47
1:AA:1159:U:O2'	1:AA:1160:G:H5'	2.15	0.47
52:DD:80:C:H2'	52:DD:81:C:C6	2.49	0.47
7:CH:117:PRO:HB3	7:CH:123:PHE:HZ	1.79	0.47
19:CT:55:ASN:HB2	19:CT:80:ILE:HG12	1.97	0.47
1:CA:1633:A:H3'	1:CA:1634:A:H8	1.78	0.47
21:AV:103:ARG:HG3	21:AV:136:PHE:CD1	2.50	0.47
1:CA:675:G:C5	1:CA:676:C:C4	3.02	0.47
1:CA:1572:G:N2	1:CA:1573:G:H1'	2.29	0.47
11:CO:90:ARG:HG3	11:CO:91:PHE:N	2.29	0.47
47:DT:62:SER:OG	47:DT:72:ARG:HB2	2.14	0.47
1:AA:1280:G:O2'	1:AA:1281:G:H5'	2.14	0.47
49:DV:69:HIS:HB3	49:DV:73:GLU:OE1	2.14	0.47
1:AA:2404:C:C2'	1:AA:2405:G:H5'	2.44	0.47
1:CA:2010:G:OP2	56:CA:3232:OHX:N6	2.48	0.47
31:DA:526:C:OP2	42:DO:88:LYS:HE2	2.14	0.47
1:CA:1554:A:C2	1:CA:1555:A:H1'	2.50	0.47
31:BA:109:A:C6	31:BA:326:G:C6	3.03	0.47
31:DA:724:G:O2'	31:DA:725:G:H5'	2.14	0.47
31:DA:740:U:H4'	45:DR:42:HIS:CD2	2.50	0.47
46:DS:45:THR:OG1	46:DS:47:ASP:OD1	2.31	0.47
21:AV:113:ALA:N	21:AV:114:GLY:HA2	2.29	0.47
23:AZ:18:ILE:HG12	23:AZ:37:ILE:HG23	1.96	0.47
31:BA:1137:C:O2'	31:BA:1138:G:C2	2.67	0.47
43:BP:27:LYS:HA	43:BP:31:LYS:HE3	1.96	0.47
1:AA:1627:G:OP1	56:AA:3455:OHX:N5	2.47	0.47
1:CA:2694:C:N4	1:CA:2741:G:C6	2.83	0.47
1:CA:853:G:N2	1:CA:877:A:OP1	2.45	0.47
31:BA:1176:A:H8	31:BA:1176:A:O5'	1.97	0.47
5:AF:102:PRO:HB2	5:AF:105:VAL:HG23	1.97	0.47
6:CG:5:VAL:HG13	26:C4:23:GLU:OE1	2.15	0.47
1:AA:2211:G:C4'	1:AA:2212:A:OP2	2.62	0.47
14:CQ:106:ARG:O	14:CQ:106:ARG:NH1	2.48	0.47
1:CA:9:U:O4	1:CA:2642:A:C6	2.68	0.47
7:AH:124:GLU:C	7:AH:126:PRO:HD3	2.35	0.47
1:CA:1922:G:C2'	1:CA:1923:A:OP2	2.62	0.47
31:DA:1274:G:N2	31:DA:1275:A:H62	2.12	0.47
21:CV:6:LYS:O	21:CV:7:ALA:HB3	2.14	0.47
20:CU:96:ILE:HG22	20:CU:97:ARG:H	1.79	0.47
14:CQ:17:ARG:NH1	14:CQ:17:ARG:CG	2.57	0.47
4:AE:21:VAL:HB	4:AE:22:PRO:HB3	1.95	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:C4:34:GLU:HG2	26:C4:35:VAL:HG22	1.96	0.47
8:AK:114:LEU:HD13	8:AK:130:TYR:HD1	1.79	0.47
15:AR:23:ARG:HB3	15:AR:24:PRO:HD2	1.96	0.47
21:AV:25:PRO:O	21:AV:85:HIS:HA	2.14	0.47
19:CT:57:LEU:HD23	19:CT:57:LEU:N	2.29	0.47
17:C2:5:VAL:HB	17:C2:37:VAL:HB	1.97	0.47
31:BA:243:A:C5'	31:BA:244:U:H3'	2.44	0.47
31:BA:243:A:H4'	31:BA:244:U:C5'	2.44	0.47
11:AO:95:VAL:HA	11:AO:99:LEU:HD23	1.97	0.47
15:CR:91:ARG:HD3	15:CR:120:ARG:HH11	1.80	0.47
4:CE:119:ARG:CD	4:CE:160:TYR:HB2	2.42	0.47
1:AA:833:U:H2'	1:AA:834:C:H6	1.78	0.47
31:BA:1516:G:H2'	31:BA:1518:A:OP2	2.15	0.47
33:DF:18:TRP:HB2	33:DF:21:ARG:HG2	1.96	0.47
1:AA:1204:A:C2	1:AA:1241:A:N1	2.83	0.47
17:C2:62:LEU:HD22	17:C2:95:LEU:HB2	1.96	0.47
33:DF:184:TYR:HD1	33:DF:201:TYR:CE2	2.32	0.47
21:AV:140:ASP:CG	21:AV:141:VAL:H	2.17	0.47
2:CB:26:G:N2	2:CB:30:C:C2	2.83	0.47
1:AA:2077:A:H2'	1:AA:2078:C:C6	2.50	0.47
8:AK:72:LEU:HD11	8:AK:107:VAL:HG11	1.96	0.47
1:CA:1858:G:H4'	3:CD:242:ARG:NH2	2.29	0.47
31:BA:751:U:H4'	45:BR:24:SER:HA	1.97	0.47
10:AN:64:ARG:O	10:AN:82:ASN:HA	2.14	0.47
1:AA:1486:A:H2'	1:AA:1487:G:C8	2.49	0.47
1:AA:1169:G:H1	1:AA:1180:C:H42	1.62	0.47
8:AK:74:ASN:N	8:AK:74:ASN:ND2	2.63	0.47
31:BA:1277:C:O2'	31:BA:1279:A:C8	2.65	0.47
1:CA:435:G:H2'	1:CA:436:G:H8	1.79	0.47
1:AA:2695:C:H2'	1:AA:2696:U:C6	2.50	0.47
1:AA:2364:C:H2'	1:AA:2365:G:O4'	2.14	0.47
1:AA:376:C:H2'	1:AA:377:C:C6	2.50	0.47
17:C2:75:PHE:CE2	17:C2:81:TYR:CE1	3.03	0.47
46:BS:26:ARG:HH21	46:BS:31:LYS:HD3	1.80	0.47
36:DI:22:GLU:OE1	36:DI:84:ASN:ND2	2.41	0.47
1:CA:1315:A:H2'	1:CA:1316:A:O4'	2.14	0.47
1:CA:2592:C:H4'	4:CE:134:ILE:HG12	1.96	0.47
1:CA:2589:G:O2'	1:CA:2592:C:OP2	2.23	0.47
27:A5:36:CYS:SG	27:A5:48:GLU:O	2.71	0.47
50:DW:87:LYS:HA	50:DW:87:LYS:HD2	1.71	0.47
37:DJ:63:LYS:HG3	37:DJ:64:GLN:N	2.29	0.47
12:AP:77:LYS:HD2	12:AP:81:VAL:HG21	1.94	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:879:G:C8	1:AA:879:G:OP2	2.68	0.47
12:CP:23:GLY:HA2	12:CP:24:GLY:HA3	1.69	0.47
1:AA:2157:G:H2'	1:AA:2158:A:OP2	2.15	0.47
1:CA:2741:G:H4'	10:CN:70:LYS:HE3	1.97	0.47
1:CA:932:C:H41	1:CA:933:C:N4	2.11	0.47
52:DD:54:C:OP2	52:DD:54:C:C6	2.67	0.47
1:CA:2134:C:H2'	1:CA:2141:U:H4'	1.97	0.47
52:DD:50:U:H2'	52:DD:51:C:H6	1.73	0.47
11:CO:97:PRO:HD3	11:CO:126:VAL:O	2.15	0.47
1:CA:2639:C:H42	1:CA:2791:G:H1	1.63	0.47
11:AO:66:GLY:HA2	11:AO:68:GLN:NE2	2.28	0.47
31:DA:1158:C:C4	31:DA:1160:G:C5	3.03	0.47
31:DA:1160:G:C6	31:DA:1181:G:O6	2.64	0.47
1:CA:611:C:O2	11:CO:33:ARG:NH1	2.48	0.47
1:CA:2769:C:O2	1:CA:2769:C:H2'	2.15	0.47
1:AA:1331:A:O2'	1:AA:1332:G:C8	2.61	0.47
31:BA:1316:G:H22	31:BA:1319:A:P	2.38	0.47
31:BA:1118:C:H1'	31:BA:1179:A:C4	2.50	0.47
31:BA:89:U:C2	31:BA:90:C:C2	3.03	0.47
31:BA:1019:C:H2'	31:BA:1020:U:O4'	2.15	0.47
31:BA:1020:U:H2'	31:BA:1021:G:H8	1.79	0.47
15:CR:122:ASP:O	15:CR:126:ALA:HB3	2.15	0.47
52:DB:49:A:H2	52:DB:51:C:H5	1.63	0.47
26:C4:32:TYR:HB3	26:C4:33:VAL:H	1.44	0.47
1:CA:2355:C:O2'	1:CA:2387:C:H5''	2.15	0.47
1:CA:763:G:C2	45:DR:56:LEU:HD21	2.50	0.47
15:AR:36:GLU:CG	15:AR:41:ARG:HD3	2.32	0.47
26:A4:43:TYR:O	26:A4:46:GLN:HA	2.14	0.47
6:AG:178:PHE:CB	6:AG:180:PHE:HE1	2.27	0.47
39:BL:17:VAL:HG11	39:BL:81:ILE:HD13	1.97	0.47
1:CA:2083:A:OP1	5:CF:68:LYS:O	2.33	0.47
1:CA:2883:G:N7	1:CA:2884:A:H2	2.12	0.47
1:AA:2371:G:C4'	28:A6:45:LYS:HG3	2.44	0.47
28:C6:14:THR:HB	28:C6:21:TYR:CD2	2.48	0.47
28:C6:45:LYS:HA	28:C6:45:LYS:HD2	1.72	0.47
39:DL:94:ALA:O	39:DL:98:PRO:HG2	2.14	0.47
1:CA:1234:U:H2'	1:CA:1235:A:H8	1.80	0.47
31:BA:272:C:H2'	31:BA:273:A:H8	1.79	0.47
17:C2:38:LEU:HD23	17:C2:40:LEU:O	2.14	0.47
1:AA:1654:A:OP1	13:A0:1:MET:O	2.32	0.47
1:AA:2723:C:H4'	13:A0:1:MET:HE3	1.97	0.47
2:CB:45:C:OP1	26:C4:6:HIS:HE1	1.95	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CG:47:LYS:HD3	6:CG:81:LYS:CG	2.36	0.47
18:AS:8:ARG:O	18:AS:9:TYR:HB2	2.15	0.47
34:BG:138:TYR:HD2	34:BG:139:ARG:N	2.12	0.47
31:BA:31:G:C1'	31:BA:32:A:OP1	2.62	0.47
32:DE:172:ILE:HD12	32:DE:172:ILE:N	2.20	0.47
31:DA:1286:A:H2	51:DX:18:TYR:HH	1.63	0.47
1:AA:1417:C:N4	1:AA:1581:G:H1	2.12	0.47
56:AA:3478:OHX:N3	56:AA:3568:OHX:N5	2.63	0.47
31:BA:1322:C:C2'	31:BA:1322:C:O2	2.61	0.47
15:CR:63:VAL:O	15:CR:73:GLU:HA	2.14	0.47
15:CR:64:ARG:CB	15:CR:73:GLU:HG2	2.41	0.47
14:CQ:14:VAL:O	14:CQ:18:ILE:HG13	2.15	0.47
31:DA:886:G:O6	56:DA:1787:OHX:N4	2.47	0.47
1:CA:2615:A:H4'	1:CA:2616:G:C5'	2.44	0.47
1:CA:2131:C:N3	1:CA:2204:G:N2	2.51	0.47
20:CU:39:VAL:O	20:CU:40:GLU:CB	2.59	0.47
2:AB:73:A:C4	2:AB:104:A:C2	3.03	0.47
4:CE:89:ASP:O	4:CE:90:THR:CG2	2.61	0.47
14:CQ:29:PHE:HD2	14:CQ:30:ARG:H	1.57	0.47
39:BL:43:ALA:O	39:BL:45:ALA:N	2.48	0.47
8:AK:33:ARG:CB	8:AK:35:LEU:HD22	2.45	0.47
1:CA:558:A:C8	1:CA:2044:C:C5	3.03	0.47
37:DJ:144:MET:CE	52:DD:31:G:H21	2.22	0.47
1:CA:2228:G:H2'	1:CA:2228:G:N3	2.30	0.47
1:CA:2228:G:H4'	1:CA:2229:G:OP2	2.15	0.47
20:AU:49:VAL:C	20:AU:51:VAL:H	2.13	0.47
1:AA:654(J):A:C2	1:AA:654(K):C:H5	2.33	0.47
31:BA:857:C:OP2	56:BA:1684:OHX:N4	2.48	0.47
31:BA:945:G:C2	31:BA:1337:G:C2	3.02	0.47
6:AG:95:ARG:O	6:AG:96:ARG:O	2.32	0.47
44:DQ:40:CYS:O	44:DQ:44:LEU:HB3	2.15	0.47
1:CA:2828:G:OP1	13:C0:99:LYS:NZ	2.47	0.47
9:CM:35:ARG:HB2	9:CM:42:TRP:CZ3	2.49	0.47
39:BL:9:ARG:HB2	39:BL:104:ARG:NH1	2.30	0.47
1:CA:520:G:N2	18:CS:57:ASN:HD21	2.13	0.47
1:CA:554:A:H2	1:CA:2066:C:C4'	2.28	0.47
13:C0:37:THR:OG1	13:C0:40:LYS:HB2	2.15	0.47
49:DV:28:LYS:CD	49:DV:29:ARG:H	2.27	0.47
5:CF:36:VAL:CG1	5:CF:183:VAL:HG11	2.45	0.47
21:AV:143:GLY:HA2	21:AV:144:LEU:CB	2.45	0.47
41:BN:108:ILE:HG22	48:BU:88:LYS:HB2	1.97	0.47
1:AA:1858:G:H1'	1:AA:1884:A:H61	1.79	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:2863:C:O2'	1:AA:2864:G:H5'	2.15	0.47
31:DA:540:G:H2'	31:DA:541:G:O4'	2.15	0.47
6:AG:6:ALA:HB3	26:A4:23:GLU:HB2	1.97	0.47
5:CF:40:GLN:NE2	5:CF:182:ASN:HB2	2.29	0.47
31:BA:1386:G:O2'	31:BA:1387:G:H5'	2.15	0.47
1:AA:819:A:C4	1:AA:1189:A:C2	3.03	0.47
39:BL:99:LEU:HB3	39:BL:101:PHE:HE1	1.79	0.47
36:BI:48:LEU:HG	36:BI:57:GLN:HA	1.96	0.47
29:C7:43:THR:HG22	29:C7:44:PRO:O	2.15	0.47
37:DJ:131:LYS:HB3	37:DJ:131:LYS:NZ	2.30	0.47
5:AF:183:VAL:O	5:AF:187:VAL:HG23	2.13	0.47
1:CA:114:C:H2'	1:CA:115:G:O4'	2.14	0.47
31:DA:397:A:H5'	31:DA:398:C:OP1	2.15	0.47
13:A0:100:LEU:HD11	13:A0:113:LEU:CD1	2.45	0.47
38:DK:39:LEU:HB3	38:DK:45:ILE:HD11	1.95	0.47
32:DE:91:PRO:HA	32:DE:154:LEU:HD12	1.97	0.47
1:AA:1681:G:OP1	56:AA:3300:OHX:N4	2.47	0.47
7:CH:105:LEU:HD23	7:CH:105:LEU:N	2.30	0.47
3:AD:223:GLY:O	3:AD:226:MET:N	2.45	0.47
1:CA:47:G:N2	1:CA:167:G:H21	2.12	0.47
7:AH:44:VAL:HG22	7:AH:51:ARG:HG3	1.95	0.47
31:DA:1048:G:H1	31:DA:1209:C:H42	1.63	0.47
31:DA:785:G:H2'	31:DA:786:G:H8	1.79	0.47
1:AA:984:A:H5''	1:AA:985:C:H5	1.78	0.47
38:DK:112:LEU:HB3	38:DK:133:LEU:HA	1.96	0.47
31:DA:966:G:O2'	39:DL:127:LYS:O	2.33	0.47
45:DR:18:PHE:HB2	45:DR:19:PRO:HD2	1.97	0.47
1:CA:1815:A:C2	1:CA:2600:A:C4	3.02	0.47
45:BR:66:LEU:O	45:BR:69:TYR:HB3	2.15	0.47
33:DF:112:SER:O	33:DF:116:VAL:HG23	2.15	0.47
1:CA:1646:C:H5''	19:CT:35:THR:HG22	1.96	0.47
1:CA:2055:G:H21	4:CE:146:THR:HG23	1.80	0.47
1:AA:1774:C:H6	1:AA:1774:C:O5'	1.98	0.47
10:AN:31:LYS:HB3	10:AN:32:TYR:CD1	2.49	0.47
42:DO:123:LYS:HG2	42:DO:124:GLU:N	2.29	0.47
26:A4:15:ILE:HG22	26:A4:20:ASN:OD1	2.14	0.47
50:BW:84:LEU:HD23	50:BW:84:LEU:C	2.35	0.47
1:CA:328:U:H2'	1:CA:329:G:O4'	2.15	0.47
10:CN:104:ARG:O	10:CN:108:GLU:HG3	2.14	0.47
34:DG:173:TRP:HB3	34:DG:187:ARG:HH11	1.80	0.47
1:AA:1005:C:O2'	9:AM:28:THR:HG21	2.15	0.47
4:AE:17:ASP:C	4:AE:19:ARG:H	2.18	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:557:G:H2'	31:DA:558:G:O4'	2.15	0.47
16:A1:75:ASN:HB2	16:A1:78:THR:OG1	2.15	0.47
1:CA:2780:G:H2'	1:CA:2780:G:N3	2.29	0.47
39:DL:29:ASN:ND2	39:DL:29:ASN:O	2.47	0.47
50:BW:36:LEU:HD12	50:BW:55:ILE:HG23	1.97	0.47
5:AF:60:SER:OG	5:AF:61:GLY:N	2.46	0.47
31:BA:138:G:H2'	31:BA:139:G:O4'	2.15	0.47
25:CX:7:LYS:HE2	25:CX:32:GLN:HA	1.96	0.47
1:CA:2320:G:C1'	1:CA:2324:A:C2	2.96	0.47
1:AA:882:G:C2'	1:AA:883:G:C8	2.94	0.47
30:C8:32:LEU:CD1	30:C8:32:LEU:N	2.30	0.47
53:DC:14:A:C2	53:DC:15:G:H1'	2.50	0.47
52:DD:20:C:H5'	52:DD:68:A:N6	2.30	0.47
52:BB:21:A:H2	52:BB:56:U:C2	2.32	0.47
31:DA:1343:G:H4'	39:DL:122:ALA:HB3	1.97	0.47
17:C2:89:GLN:HA	17:C2:90:PRO:HD3	1.81	0.47
31:BA:1160:G:C6	31:BA:1181:G:O6	2.61	0.47
1:AA:2688:U:O2	1:AA:2688:U:O5'	2.32	0.47
31:BA:1262:C:H2'	31:BA:1263:C:C6	2.49	0.47
31:DA:528:C:H41	42:DO:46:ASN:ND2	2.12	0.47
52:DB:21:A:OP2	52:DB:56:U:O4	2.33	0.47
1:AA:2285:C:OP1	28:A6:28:ARG:HD3	2.15	0.47
31:DA:992:U:C4'	31:DA:993:G:O5'	2.62	0.47
32:DE:74:LYS:O	32:DE:75:LYS:CB	2.62	0.47
1:CA:2734:U:N3	1:CA:2735:A:C5	2.83	0.47
16:A1:88:ILE:O	16:A1:88:ILE:HG22	2.15	0.47
31:BA:489:C:H2'	31:BA:490:G:H8	1.79	0.47
31:DA:1025:U:O2'	31:DA:1026:G:H8	1.98	0.47
32:DE:7:VAL:CG2	32:DE:8:LYS:H	2.16	0.47
1:AA:69:C:H2'	1:AA:70:G:C8	2.50	0.47
1:CA:1006:A:N7	1:CA:1008:G:C4	2.83	0.47
27:A5:56:LYS:HD2	27:A5:56:LYS:N	2.21	0.47
31:BA:1324:A:O4'	31:BA:1362:C:H4'	2.15	0.47
6:CG:110:ALA:HA	6:CG:140:ILE:O	2.15	0.47
49:DV:66:MET:CA	49:DV:67:VAL:HB	2.45	0.47
1:AA:1796:U:H2'	1:AA:1797:C:H6	1.76	0.47
31:BA:974:A:OP1	44:BQ:31:ARG:HD3	2.14	0.47
23:CZ:92:LYS:NZ	23:CZ:92:LYS:HB3	2.29	0.47
39:BL:46:ALA:HB3	39:BL:47:LEU:HD13	1.97	0.47
31:DA:306:G:H8	31:DA:306:G:O5'	1.97	0.47
31:BA:142:G:C2	31:BA:143:A:C5	3.03	0.47
1:CA:925:U:H4'	1:CA:926:A:OP2	2.12	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:2870:G:O2'	1:CA:2871:A:O5'	2.31	0.47
16:C1:72:HIS:CE1	16:C1:107:ALA:HA	2.42	0.47
1:AA:229:A:O4'	1:AA:230:U:OP2	2.32	0.47
31:DA:890:G:HO2'	31:DA:891:U:P	2.37	0.47
31:DA:510:A:H5''	31:DA:511:C:P	2.54	0.47
34:BG:65:ARG:NH1	34:BG:65:ARG:HG2	2.29	0.47
33:BF:137:ALA:HA	33:BF:140:ARG:HD2	1.96	0.47
9:AM:38:HIS:CD2	9:AM:39:ARG:HG3	2.49	0.47
14:CQ:67:ARG:HG3	14:CQ:104:GLY:HA3	1.97	0.47
41:BN:18:ARG:NH2	41:BN:35:PRO:O	2.47	0.47
21:AV:150:LEU:CD2	21:AV:154:ASP:HB2	2.45	0.47
1:CA:303:A:O2'	1:CA:304:C:H6	1.97	0.47
31:DA:1403:C:H1'	31:DA:1500:A:N1	2.30	0.47
37:DJ:50:ILE:HG22	37:DJ:50:ILE:O	2.15	0.47
27:A5:45:VAL:CG1	27:A5:57:VAL:HG12	2.45	0.47
17:C2:43:GLU:C	17:C2:44:LYS:HD3	2.36	0.47
40:DM:33:GLN:HB3	40:DM:75:ILE:CD1	2.43	0.47
34:DG:30:LYS:HB2	34:DG:35:ARG:HD2	1.97	0.47
8:CK:111:PRO:O	8:CK:112:LYS:C	2.54	0.47
14:AQ:83:LYS:O	14:AQ:109:GLY:HA2	2.15	0.47
13:A0:91:GLN:H	13:A0:91:GLN:NE2	2.13	0.47
31:BA:637:G:C6	31:BA:638:G:C5	3.03	0.47
21:AV:113:ALA:N	21:AV:114:GLY:CA	2.78	0.47
43:BP:27:LYS:O	43:BP:31:LYS:HG3	2.15	0.47
43:BP:49:THR:C	43:BP:51:ALA:H	2.17	0.47
34:DG:162:LEU:HD13	34:DG:181:MET:HG2	1.97	0.47
1:AA:106:C:H2'	1:AA:107:C:C6	2.50	0.47
45:BR:4:THR:OG1	45:BR:7:GLU:HB2	2.15	0.47
1:CA:1459:A:H2'	1:CA:1460:G:C8	2.50	0.47
1:AA:213:A:H2'	1:AA:214:G:O4'	2.14	0.47
1:CA:867:A:OP2	1:CA:1233:G:N2	2.40	0.47
31:DA:564:C:O2'	38:DK:91:ARG:NH2	2.48	0.47
31:DA:54:C:C5	31:DA:352:C:C5	3.02	0.47
52:DD:34:U:H2'	52:DD:36:U:OP2	2.15	0.47
1:CA:1208:C:H1'	17:C2:8:GLY:O	2.14	0.47
1:CA:2337:C:O2'	1:CA:2350:G:H5'	2.14	0.47
1:AA:2184:G:C6	1:AA:2185:C:N4	2.83	0.47
1:AA:1077:A:N3	1:AA:1077:A:H2'	2.29	0.47
53:BC:48:U:OP2	53:BC:48:U:H6	1.98	0.47
11:CO:128:HIS:HA	11:CO:147:LEU:HA	1.96	0.47
11:CO:55:ARG:HG3	11:CO:55:ARG:O	2.13	0.47
34:DG:38:TYR:CG	34:DG:45:GLN:HB3	2.49	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1175:G:N1	31:DA:1176:A:N6	2.62	0.47
1:AA:2688:U:H1'	1:AA:2721:A:N6	2.30	0.47
1:CA:2304:U:H2'	1:CA:2305:C:C6	2.50	0.47
1:CA:2817:G:H2'	1:CA:2818:G:C8	2.50	0.47
1:CA:2822:G:N2	1:CA:2901:G:H1'	2.30	0.47
1:AA:627:A:H4'	1:AA:628:G:H5'	1.97	0.47
32:DE:72:GLY:C	32:DE:74:LYS:H	2.18	0.47
1:AA:1130:U:O2	4:AE:149:ARG:NH2	2.30	0.47
20:AU:76:CYS:O	20:AU:77:PRO:C	2.52	0.47
16:A1:69:CYS:HB2	16:A1:74:LEU:CD1	2.45	0.47
1:CA:993:G:H2'	1:CA:994:G:C8	2.50	0.47
31:DA:518:C:C5	31:DA:530:G:C8	3.02	0.47
31:DA:1024:G:N3	31:DA:1025:U:H5	2.12	0.47
31:BA:87:A:C5	31:BA:88:C:H5	2.32	0.47
14:CQ:93:LYS:NZ	14:CQ:93:LYS:HB2	2.29	0.47
1:AA:1144:G:C6	1:AA:1145:C:C4	3.03	0.47
41:BN:57:THR:HG23	41:BN:59:TYR:H	1.79	0.47
31:DA:833:U:H2'	31:DA:834:C:H6	1.80	0.47
1:CA:1513:G:C4	1:CA:1514:G:C8	3.03	0.47
31:BA:1452:C:O2'	31:BA:1453:G:H4'	2.14	0.47
13:C0:97:VAL:HG12	13:C0:114:VAL:HG22	1.96	0.47
3:AD:177:LEU:HB3	3:AD:178:PRO:HD2	1.96	0.47
1:AA:10:G:H2'	1:AA:11:G:H8	1.78	0.47
17:C2:37:VAL:CG2	17:C2:57:VAL:HG12	2.42	0.47
1:AA:2094:G:OP1	8:AK:22:LYS:HG3	2.13	0.47
1:AA:999:U:C5	1:AA:1154:G:C6	3.03	0.47
31:BA:942:G:C2	31:BA:943:U:C6	3.03	0.47
31:BA:1240:U:P	37:BJ:116:ALA:HB2	2.54	0.47
9:CM:15:LEU:HD13	9:CM:16:ILE:N	2.30	0.47
3:AD:172:TYR:HD1	3:AD:185:VAL:C	2.19	0.47
31:BA:689:C:C2'	31:BA:690:G:H5'	2.45	0.47
1:AA:2147:G:N7	1:AA:2148:G:H1'	2.30	0.47
1:AA:273(D):C:H2'	1:AA:273(E):U:H6	1.80	0.47
31:BA:811:C:N4	31:BA:812:C:H42	2.13	0.47
34:BG:65:ARG:HH11	34:BG:65:ARG:HG2	1.80	0.47
26:C4:18:CYS:SG	26:C4:20:ASN:ND2	2.88	0.47
31:BA:1196:U:N3	54:B1:23:A:C8	2.83	0.47
1:CA:2648:C:H5''	4:CE:77:ILE:O	2.15	0.47
37:BJ:50:ILE:O	37:BJ:50:ILE:HG22	2.15	0.47
31:DA:1401:G:C2	31:DA:1402:C:H1'	2.50	0.47
15:AR:94:ALA:O	15:AR:95:ARG:CB	2.63	0.47
50:BW:96:GLY:O	50:BW:97:ALA:CB	2.63	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1527:C:O2'	31:DA:1528:U:H5'	2.15	0.47
40:DM:3:LYS:N	40:DM:74:ILE:O	2.48	0.47
8:CK:54:GLN:NE2	8:CK:57:ARG:HH22	2.13	0.47
31:BA:663:A:H5'	31:BA:836:G:OP1	2.15	0.47
1:AA:265:A:C2	1:AA:428:A:C2	3.03	0.47
6:AG:16:ARG:HH22	6:AG:31:VAL:HG13	1.79	0.47
42:BO:67:ILE:CD1	42:BO:74:LEU:HD12	2.45	0.47
1:AA:2295:C:O2'	1:AA:2296:U:H5'	2.15	0.47
1:AA:1198:U:H2'	1:AA:1199:U:C6	2.50	0.47
1:AA:1319:G:C6	1:AA:1320:C:N4	2.83	0.47
1:AA:764:A:O4'	3:AD:213:ARG:HD3	2.15	0.47
33:DF:77:ILE:HG23	33:DF:84:ILE:HG21	1.97	0.47
1:CA:2362:G:OP2	30:C8:42:ARG:NE	2.36	0.47
31:BA:709:G:H2'	31:BA:710:G:H8	1.80	0.47
25:CX:10:LYS:O	25:CX:31:LEU:HD11	2.15	0.47
1:CA:1446:C:O2'	1:CA:1447:G:H5'	2.15	0.47
34:DG:189:PRO:HB2	34:DG:194:LEU:HD21	1.96	0.47
34:DG:57:ARG:NH2	35:DH:107:ARG:HD3	2.30	0.47
6:CG:121:ASN:HD22	6:CG:181:ARG:HH21	1.63	0.47
16:C1:14:HIS:HA	16:C1:32:PHE:CE2	2.50	0.47
1:AA:2:G:O2'	1:AA:3:U:H5'	2.15	0.47
1:CA:1933:G:H1	1:CA:1943:C:H42	1.62	0.47
1:AA:2181:G:H2'	1:AA:2182:G:H8	1.80	0.47
1:CA:2428:G:O3'	11:CO:66:GLY:HA3	2.16	0.47
53:BC:48:U:C2'	53:BC:49:C:OP2	2.56	0.47
12:CP:2:LEU:CD1	12:CP:69:PHE:HE1	2.29	0.47
52:BD:21:A:OP2	52:BD:21:A:H4'	2.15	0.47
52:BD:21:A:C6	52:BD:55:U:O4	2.67	0.47
1:CA:2146:G:N2	1:CA:2147:G:H1'	2.30	0.47
52:DD:68:A:H5''	52:DD:69:U:OP2	2.15	0.47
1:CA:2763:A:H5''	7:CH:6:ARG:NH1	2.30	0.47
31:BA:1054:C:N4	52:BB:35:G:H1'	2.30	0.47
34:DG:24:GLU:OE1	34:DG:112:VAL:HG21	2.14	0.47
1:AA:1689:A:N7	1:AA:1698:A:N1	2.63	0.47
31:DA:631:G:H3'	31:DA:632:A:C5	2.50	0.47
31:DA:82:U:C2	31:DA:87:A:N1	2.82	0.47
5:CF:46:ARG:HG2	5:CF:46:ARG:NH1	2.06	0.47
7:AH:4:ILE:HG13	7:AH:6:ARG:NH1	2.27	0.47
11:AO:131:SER:N	11:AO:134:ALA:HB3	2.28	0.47
1:AA:1778:U:C4	1:AA:1784:A:C4	3.02	0.47
39:BL:5:TYR:HA	39:BL:17:VAL:O	2.14	0.47
1:AA:333:G:C4	1:AA:334:C:C5	3.03	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:AU:95:LYS:HB2	20:AU:100:ALA:HA	1.97	0.47
20:AU:96:ILE:N	20:AU:99:CYS:O	2.47	0.47
1:AA:2298:A:H62	1:AA:2318:G:H8	1.63	0.47
49:BV:41:VAL:CB	49:BV:42:PRO:HA	2.35	0.47
49:BV:63:THR:OG1	49:BV:64:GLU:N	2.48	0.47
28:A6:44:ARG:O	28:A6:45:LYS:HG2	2.15	0.47
1:CA:1022:G:H1'	1:CA:1037:A:C2	2.50	0.47
31:BA:254:G:N2	47:BT:16:GLN:HE21	1.98	0.47
31:DA:1002:G:C2'	31:DA:1003:G:C8	2.96	0.47
1:CA:6:A:N3	9:CM:131:GLN:HG3	2.30	0.47
17:C2:76:LYS:HB2	17:C2:79:VAL:HG23	1.96	0.47
13:A0:13:HIS:CE1	13:A0:16:HIS:HB2	2.50	0.47
43:DP:84:ILE:HG23	49:DV:74:PHE:CE2	2.50	0.47
31:DA:1319:A:P	49:DV:10:PHE:CB	3.02	0.47
21:CV:115:GLY:N	21:CV:177:PRO:HG2	2.29	0.47
1:AA:1509:C:H3'	1:AA:1510:A:C5'	2.40	0.47
21:CV:30:ASN:N	21:CV:33:LEU:O	2.49	0.47
31:BA:160:A:H61	31:BA:347:G:H1'	1.80	0.47
31:DA:412:A:O2'	31:DA:413:G:OP2	2.24	0.47
31:DA:950:U:H1'	31:DA:971:G:N7	2.30	0.47
38:DK:82:HIS:CD2	38:DK:82:HIS:C	2.88	0.47
1:CA:631:U:OP1	5:CF:103:LYS:N	2.42	0.47
6:AG:2:PRO:HB3	26:A4:25:TYR:CE1	2.50	0.47
36:DI:100:ASN:N	48:DU:23:LYS:HZ2	2.12	0.47
48:DU:58:LEU:H	48:DU:58:LEU:HD12	1.78	0.47
32:DE:97:TRP:HH2	32:DE:176:GLU:CD	2.19	0.47
44:BQ:6:LEU:HB3	44:BQ:23:ARG:HH21	1.79	0.47
43:DP:22:ILE:HB	43:DP:25:ILE:CG1	2.44	0.47
40:DM:10:GLY:N	40:DM:16:LEU:HD11	2.30	0.47
4:CE:7:VAL:HG21	15:CR:1:MET:HE3	1.96	0.47
25:AX:36:VAL:HG23	25:AX:36:VAL:O	2.15	0.47
1:AA:848:G:H2'	1:AA:849:A:C8	2.50	0.47
1:AA:469:G:H2'	1:AA:470:A:H5''	1.96	0.47
22:C3:50:ASN:HB3	22:C3:63:VAL:HG22	1.97	0.47
10:AN:69:ILE:HD12	10:AN:69:ILE:N	2.30	0.47
32:BE:28:PHE:CD1	32:BE:190:THR:HA	2.50	0.47
10:AN:66:LYS:HA	10:AN:79:PHE:O	2.15	0.47
1:AA:642:G:N2	1:AA:645:C:OP2	2.48	0.47
6:AG:16:ARG:HG3	6:AG:16:ARG:NH1	2.30	0.47
31:BA:1277:C:O2'	31:BA:1279:A:H1'	2.14	0.47
1:AA:372:G:OP2	23:AZ:69:LYS:HE3	2.14	0.47
1:CA:1433:C:OP2	1:CA:1443:U:H5	1.98	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CH:129:THR:HG22	7:CH:130:ARG:N	2.30	0.47
31:DA:763:G:H2'	31:DA:764:C:C6	2.49	0.47
52:BB:81:C:O2	52:BB:81:C:H2'	2.13	0.47
1:CA:255:A:H1'	1:CA:256:G:O4'	2.15	0.47
42:BO:21:VAL:HB	42:BO:24:LEU:HD12	1.97	0.47
49:DV:40:ILE:HG13	49:DV:69:HIS:O	2.14	0.47
1:CA:1232:G:H2'	1:CA:1233:G:O4'	2.15	0.47
1:AA:245:G:H2'	1:AA:246:C:H6	1.79	0.47
31:BA:1297:C:H1'	37:BJ:114:ARG:NH1	2.30	0.47
15:CR:134:GLU:O	15:CR:136:GLN:N	2.48	0.47
6:CG:83:ARG:HB2	6:CG:86:MET:HE2	1.97	0.47
1:CA:838:C:H1'	1:CA:839:C:OP1	2.14	0.47
19:CT:40:LYS:O	19:CT:42:ALA:N	2.44	0.47
31:BA:1278:U:H3'	31:BA:1278:U:H6	1.80	0.47
5:AF:28:ILE:HD12	5:AF:28:ILE:H	1.79	0.47
31:BA:784:C:H2'	31:BA:785:G:H8	1.80	0.47
53:DC:51:U:O4	56:DC:109:OHX:N6	2.48	0.47
1:AA:2173:A:N3	1:AA:2173:A:H2'	2.31	0.46
52:BD:48:C:H2'	52:BD:49:A:C1'	2.45	0.46
1:CA:854:C:OP2	11:CO:41:ARG:HD3	2.16	0.46
26:C4:12:ALA:HB1	26:C4:29:PRO:O	2.15	0.46
6:CG:7:LEU:HD12	6:CG:104:GLU:CA	2.45	0.46
1:CA:2391:A:H8	1:CA:2391:A:O5'	1.99	0.46
11:AO:62:LEU:O	30:A8:13:ARG:HB3	2.15	0.46
1:AA:2287:A:H2	1:AA:2346:A:N1	2.13	0.46
31:DA:1359:C:O2'	31:DA:1361:G:N7	2.49	0.46
3:CD:37:LEU:HG	3:CD:64:ILE:CG2	2.44	0.46
1:AA:299:A:C5'	1:AA:300:A:OP2	2.63	0.46
50:BW:72:LEU:HD23	50:BW:73:HIS:N	2.31	0.46
31:DA:1128:C:H4'	39:DL:16:ARG:NH1	2.27	0.46
1:CA:1044:G:C2	1:CA:1206:U:C2	3.03	0.46
32:BE:69:LEU:HD12	32:BE:70:PHE:N	2.30	0.46
4:AE:114:ALA:HB3	4:AE:160:TYR:HB3	1.95	0.46
4:CE:25:VAL:HG12	4:CE:26:ILE:N	2.25	0.46
14:AQ:93:LYS:O	14:AQ:95:HIS:N	2.47	0.46
1:AA:1556:C:H2'	1:AA:1557:C:H6	1.79	0.46
31:BA:49:U:O2'	31:BA:50:A:C3'	2.56	0.46
31:DA:834:C:H2'	31:DA:835:U:O4'	2.15	0.46
34:BG:155:LEU:O	34:BG:156:GLU:C	2.53	0.46
1:AA:547:A:H2'	1:AA:548:A:H8	1.72	0.46
31:BA:243:A:C2	31:BA:246:A:C8	3.02	0.46
1:CA:2263:G:N1	12:CP:83:MET:HB2	2.31	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:2284:G:H5''	22:C3:20:ARG:NE	2.30	0.46
21:AV:74:VAL:HG13	21:AV:86:VAL:HG12	1.97	0.46
26:C4:38:LYS:CA	26:C4:44:THR:HG21	2.45	0.46
21:CV:110:GLY:HA2	21:CV:143:GLY:HA2	1.97	0.46
14:CQ:102:ALA:C	14:CQ:104:GLY:N	2.68	0.46
3:CD:186:HIS:HD2	3:CD:188:GLU:HB2	1.80	0.46
37:BJ:57:GLU:HA	37:BJ:58:PRO:HD2	1.78	0.46
31:BA:1401:G:C2	31:BA:1402:C:H1'	2.50	0.46
31:DA:186(F):C:N3	31:DA:191(B):G:C2	2.83	0.46
43:DP:116:THR:HG22	43:DP:116:THR:O	2.16	0.46
41:BN:126:ARG:NH1	41:BN:126:ARG:CG	2.78	0.46
31:BA:131:C:H2'	31:BA:132:C:C6	2.50	0.46
1:AA:849:A:C8	1:AA:850:C:C5	3.03	0.46
47:DT:29:HIS:CG	47:DT:30:PRO:HD2	2.50	0.46
1:CA:767:C:O2'	1:CA:768:C:H5'	2.15	0.46
1:AA:130:C:O3'	1:AA:1349:A:H1'	2.15	0.46
31:DA:323:U:H2'	31:DA:324:G:O4'	2.15	0.46
45:BR:70:LEU:HD13	45:BR:70:LEU:HA	1.80	0.46
31:BA:310:G:P	46:BS:27:LYS:NZ	2.88	0.46
1:CA:2565:U:O2	1:CA:2567:U:H5'	2.14	0.46
1:CA:2045:U:O2'	1:CA:2630:C:H5'	2.15	0.46
41:DN:32:ILE:CD1	41:DN:68:ALA:HB1	2.45	0.46
22:A3:17:GLN:O	22:A3:19:LYS:HE3	2.15	0.46
50:DW:88:VAL:O	50:DW:92:LEU:HG	2.15	0.46
12:CP:42:ILE:HD13	12:CP:97:VAL:CG2	2.45	0.46
13:C0:54:LEU:HG	13:C0:62:ALA:HB1	1.97	0.46
4:AE:110:GLY:HA3	4:AE:162:ALA:HB2	1.97	0.46
1:CA:638:U:O4'	1:CA:638:U:O2	2.32	0.46
48:DU:25:THR:HG22	48:DU:25:THR:O	2.14	0.46
16:A1:97:ASP:OD1	16:A1:98:LEU:N	2.47	0.46
2:CB:114:U:O4	56:CB:211:OHX:N3	2.49	0.46
3:CD:2:ALA:O	3:CD:3:VAL:HB	2.15	0.46
27:A5:4:HIS:O	27:A5:5:PRO:O	2.32	0.46
8:AK:132:PRO:O	8:AK:133:HIS:ND1	2.48	0.46
12:CP:27:VAL:O	12:CP:27:VAL:HG12	2.15	0.46
1:AA:2113:U:N3	1:AA:2168:G:C8	2.83	0.46
52:BD:52:G:H2'	52:BD:53:A:H8	1.78	0.46
31:BA:788:U:O2'	31:BA:789:U:C5'	2.55	0.46
1:CA:2135:G:C1'	52:DD:18:G:O2'	2.63	0.46
1:CA:2134:C:H41	1:CA:2170:G:N2	2.13	0.46
52:DD:20:C:O2'	52:DD:21:A:OP2	2.32	0.46
1:CA:2639:C:H2'	1:CA:2640:G:O4'	2.15	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1176:A:N6	31:DA:1177:G:C6	2.83	0.46
31:BA:1055:A:O2'	33:BF:161:GLU:OE2	2.24	0.46
31:BA:1302:U:H3'	31:BA:1303:C:H5'	1.96	0.46
31:BA:74:C:H2'	31:BA:75:C:O4'	2.15	0.46
31:BA:1026:G:C6	31:BA:1027:C:O2	2.69	0.46
12:CP:87:LYS:HG3	12:CP:88:GLY:N	2.27	0.46
15:AR:107:ASP:O	15:AR:108:ARG:C	2.52	0.46
12:CP:19:GLY:HA3	12:CP:98:LYS:CD	2.46	0.46
52:BD:11:C:H42	52:BD:25:G:H1	1.62	0.46
4:CE:64:LYS:HB2	4:CE:66:HIS:HD2	1.79	0.46
1:CA:66:U:C4	1:CA:73:A:N1	2.84	0.46
1:AA:864:G:OP2	12:AP:22:LYS:HG2	2.16	0.46
31:BA:1125:U:H5	40:BM:73:ASP:OD1	1.97	0.46
39:DL:95:LYS:C	39:DL:98:PRO:HD2	2.36	0.46
1:CA:2595:G:H2'	1:CA:2596:G:H5'	1.97	0.46
16:C1:100:VAL:C	16:C1:102:GLU:H	2.19	0.46
23:CZ:87:PRO:C	23:CZ:89:GLU:N	2.67	0.46
1:AA:1575:C:H2'	1:AA:1576:U:C6	2.50	0.46
2:CB:51:C:H2'	2:CB:52:G:C8	2.50	0.46
31:DA:689:C:OP1	41:DN:27:ASN:ND2	2.47	0.46
31:DA:690:G:H2'	31:DA:691:G:O4'	2.16	0.46
4:CE:8:LYS:O	4:CE:9:VAL:CG2	2.63	0.46
5:AF:64:ILE:HG23	5:AF:65:TRP:NE1	2.30	0.46
31:DA:1301:U:O2'	31:DA:1302:U:OP1	2.33	0.46
31:DA:1240:U:O3'	37:DJ:38:LEU:HD21	2.15	0.46
1:AA:2418:A:OP2	30:A8:29:LYS:HE3	2.16	0.46
28:A6:27:LYS:CB	28:A6:27:LYS:HZ2	2.25	0.46
23:CZ:91:LYS:CG	23:CZ:92:LYS:N	2.77	0.46
15:CR:41:ARG:HD2	31:DA:345:C:OP2	2.15	0.46
5:CF:59:TYR:N	5:CF:59:TYR:HD2	2.11	0.46
1:AA:26:G:H1'	1:AA:514:A:H61	1.80	0.46
7:CH:125:VAL:CG2	7:CH:126:PRO:HB3	2.40	0.46
8:AK:29:TYR:HD1	8:AK:33:ARG:HE	1.61	0.46
5:AF:185:ASP:OD1	5:AF:188:ARG:HD3	2.15	0.46
16:A1:66:ASN:CB	16:A1:76:TYR:HB2	2.43	0.46
1:CA:645:G:H5''	1:CA:646:G:OP2	2.14	0.46
11:AO:85:LEU:HA	11:AO:88:LEU:CD2	2.41	0.46
1:AA:1163:G:O2'	1:AA:1164:G:H5'	2.15	0.46
1:AA:2146:C:H4'	1:AA:2147:G:N7	2.30	0.46
5:AF:123:LEU:HD21	5:AF:199:TRP:HZ3	1.79	0.46
31:DA:1119:C:H2'	31:DA:1120:G:C8	2.50	0.46
31:DA:980:C:O2	44:DQ:21:TYR:HD1	1.98	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:57:G:C5	31:BA:58:C:C4	3.03	0.46
31:BA:999:U:H2'	31:BA:1000:A:C8	2.51	0.46
33:DF:62:ASP:O	33:DF:97:LYS:HB2	2.15	0.46
31:BA:1222:G:O2'	31:BA:1223:C:H5'	2.15	0.46
31:BA:189:U:C2	47:BT:72:ARG:NH1	2.84	0.46
4:CE:44:TYR:O	4:CE:45:THR:HB	2.15	0.46
1:AA:2292:C:C2'	1:AA:2293:C:H5'	2.45	0.46
1:AA:1387:C:H2'	1:AA:1388:G:C8	2.50	0.46
32:BE:214:ILE:O	32:BE:218:ALA:HB2	2.15	0.46
1:CA:1363:U:H2'	1:CA:1364:A:C8	2.50	0.46
33:DF:119:ARG:NH2	33:DF:140:ARG:HG2	2.29	0.46
10:CN:64:ARG:NH2	10:CN:99:PHE:O	2.49	0.46
31:DA:941:G:N2	31:DA:942:G:H1'	2.31	0.46
9:CM:59:LYS:HB3	9:CM:59:LYS:HE3	1.82	0.46
31:DA:1385:G:C2	31:DA:1386:G:C8	3.03	0.46
15:AR:117:ASP:O	15:AR:121:ILE:HG13	2.15	0.46
39:BL:85:LEU:HB3	39:BL:92:TYR:HD1	1.80	0.46
1:CA:532:G:O3'	1:CA:533:A:H8	1.98	0.46
45:DR:29:VAL:O	45:DR:32:LEU:N	2.48	0.46
1:AA:1675:C:C4	1:AA:1676:A:C5	3.03	0.46
45:BR:42:HIS:HD2	45:BR:43:LEU:HD23	1.81	0.46
4:CE:134:ILE:HD12	4:CE:134:ILE:O	2.15	0.46
31:DA:1418:A:H5''	31:DA:1419:G:OP2	2.16	0.46
1:CA:1345:C:H5''	1:CA:1346:G:OP2	2.15	0.46
31:DA:715:A:H2'	31:DA:716:A:C8	2.50	0.46
50:BW:10:LEU:HD21	50:BW:12:ALA:HB3	1.95	0.46
31:DA:629:G:H2'	31:DA:630:G:C8	2.51	0.46
6:AG:165:THR:OG1	6:AG:168:GLU:HG3	2.15	0.46
1:AA:960:A:C8	1:AA:962:G:C8	3.03	0.46
12:AP:26:TYR:C	12:AP:26:TYR:CD2	2.88	0.46
3:CD:58:HIS:HD2	3:CD:59:LYS:O	1.98	0.46
31:BA:986:A:H2'	31:BA:987:G:C8	2.50	0.46
1:CA:2140:A:N6	1:CA:2195:U:O4	2.48	0.46
1:CA:2186:C:H5''	1:CA:2195:U:OP2	2.14	0.46
11:CO:109:GLY:O	11:CO:110:TYR:CD2	2.69	0.46
1:CA:1158:A:C5'	7:CH:3:ARG:HD3	2.46	0.46
31:BA:1265:G:C2	31:BA:1271:G:C2	3.04	0.46
31:DA:528:C:H4'	31:DA:535:A:C5	2.50	0.46
26:C4:10:VAL:HA	26:C4:11:PRO:HD2	1.78	0.46
54:D1:11:U:O2'	54:D1:12:A:C4	2.68	0.46
37:DJ:79:ARG:HA	37:DJ:84:ASN:HA	1.96	0.46
26:A4:37:SER:HB3	26:A4:42:PHE:CD1	2.50	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DE:8:LYS:HB2	32:DE:217:ARG:HE	1.80	0.46
21:CV:14:LYS:O	21:CV:14:LYS:HG2	2.15	0.46
1:CA:734:G:N2	1:CA:836:A:H61	2.12	0.46
1:AA:2646:C:H2'	1:AA:2647:U:O4'	2.16	0.46
1:AA:2733:A:H3'	1:AA:2734:A:C5'	2.45	0.46
40:DM:54:PHE:CE1	40:DM:55:LYS:NZ	2.80	0.46
43:DP:80:ARG:CZ	43:DP:80:ARG:HB3	2.45	0.46
1:CA:860:C:H5''	1:CA:1297:G:O2'	2.14	0.46
49:DV:41:VAL:HG12	49:DV:43:GLU:H	1.80	0.46
6:AG:115:ARG:HH12	43:BP:7:VAL:HB	1.79	0.46
20:CU:27:VAL:HG12	20:CU:39:VAL:HG12	1.97	0.46
43:DP:39:ILE:HG22	43:DP:40:ASN:N	2.23	0.46
31:BA:343:U:O2	31:BA:347:G:C2	2.68	0.46
1:AA:475:U:C4	1:AA:481:G:O6	2.69	0.46
32:DE:17:PHE:CZ	32:DE:47:THR:HG21	2.48	0.46
13:A0:28:LEU:C	13:A0:30:THR:H	2.18	0.46
31:BA:142:G:N3	31:BA:142:G:H2'	2.30	0.46
20:AU:56:PRO:O	20:AU:58:GLY:N	2.47	0.46
31:DA:1190:G:C8	33:DF:3:ASN:ND2	2.83	0.46
53:BC:73:A:N6	53:BC:74:A:C6	2.83	0.46
1:AA:1175:U:O2	1:AA:1175:U:C2'	2.62	0.46
1:AA:2533:A:OP1	1:AA:2665:A:H1'	2.16	0.46
40:DM:6:ILE:HG13	40:DM:72:VAL:O	2.14	0.46
3:CD:177:LEU:HB3	3:CD:178:PRO:HD2	1.97	0.46
31:BA:689:C:P	41:BN:46:GLY:HA3	2.54	0.46
1:AA:34:C:O2'	1:AA:35:G:OP2	2.23	0.46
3:AD:77:ALA:O	3:AD:116:GLN:HA	2.15	0.46
44:BQ:29:ARG:HG2	44:BQ:30:ALA:H	1.79	0.46
1:CA:2274:C:O2'	1:CA:2275:U:H5'	2.15	0.46
1:CA:812:A:N1	1:CA:1821:A:O2'	2.45	0.46
34:DG:97:LEU:O	34:DG:100:ARG:HB2	2.15	0.46
1:AA:2602:A:N6	53:BC:77:A:H4'	2.30	0.46
3:CD:211:ARG:O	3:CD:215:LEU:HG	2.15	0.46
45:BR:8:LYS:O	45:BR:12:ILE:HG12	2.16	0.46
1:AA:1858:G:O2'	1:AA:1884:A:N6	2.48	0.46
1:AA:1344:G:O2'	1:AA:1385:G:H2'	2.14	0.46
1:AA:2396:G:O2'	1:AA:2397:G:H5'	2.15	0.46
1:CA:642:G:H5'	5:CF:40:GLN:HE21	1.80	0.46
1:AA:2102:U:H3	1:AA:2187:G:H1	1.63	0.46
1:AA:1799:G:H3'	1:AA:1799:G:P	2.55	0.46
31:BA:654:G:H2'	31:BA:655:A:H5'	1.97	0.46
34:DG:15:GLU:HG3	34:DG:63:LYS:HE2	1.98	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:2882:A:OP1	13:A0:96:ARG:NH1	2.42	0.46
31:BA:544:G:C5	31:BA:545:C:C5	3.03	0.46
15:CR:51:ARG:HB3	15:CR:62:THR:HG23	1.98	0.46
31:BA:1333:A:C8	31:BA:1334:G:C8	3.03	0.46
33:DF:85:ARG:HG3	33:DF:88:ARG:HH21	1.80	0.46
1:CA:77:A:H2'	1:CA:78:G:C8	2.50	0.46
31:DA:1169:A:H2'	31:DA:1170:A:C8	2.49	0.46
6:CG:145:THR:O	6:CG:146:TYR:HB3	2.15	0.46
31:DA:54:C:C4	31:DA:352:C:C5	3.03	0.46
1:CA:1615:A:H5'	3:CD:58:HIS:CD2	2.50	0.46
31:BA:807:A:H2'	31:BA:808:C:C6	2.49	0.46
1:AA:194:G:H2'	1:AA:195:A:O4'	2.14	0.46
39:DL:77:ILE:O	39:DL:81:ILE:HG12	2.15	0.46
1:AA:2038:G:H2'	1:AA:2039:C:C6	2.50	0.46
1:AA:1001:A:OP2	56:AA:3480:OHX:N1	2.48	0.46
43:DP:46:LYS:HG2	43:DP:47:ASP:N	2.30	0.46
1:CA:1929:G:C8	1:CA:1952:G:H2'	2.50	0.46
1:CA:232:G:C8	30:C8:5:LYS:HG2	2.51	0.46
1:AA:1878:G:H2'	1:AA:1879:C:C6	2.50	0.46
31:BA:1307:U:H2'	31:BA:1308:U:O4'	2.15	0.46
33:BF:29:TYR:OH	44:BQ:54:PRO:HD2	2.14	0.46
16:A1:104:GLN:H	16:A1:104:GLN:CD	2.19	0.46
12:AP:141:GLN:HA	21:AV:99:TYR:OH	2.16	0.46
1:AA:798:G:OP1	56:AF:303:OHX:N2	2.48	0.46
1:AA:2016:U:O2'	27:A5:6:VAL:HG12	2.15	0.46
1:AA:1053:C:N4	1:AA:1106:G:H1	2.13	0.46
1:CA:2435:A:N6	30:C8:31:HIS:HE2	2.13	0.46
1:AA:2111:C:O3'	1:AA:2112:G:C8	2.69	0.46
52:BD:53:A:O2'	52:BD:54:C:H5'	2.15	0.46
52:BD:18:G:H1	52:BD:65:C:H42	1.62	0.46
31:BA:789:U:O2	31:BA:789:U:C4'	2.63	0.46
1:CA:2179:G:H2'	1:CA:2180:G:O4'	2.15	0.46
52:DD:51:C:H2'	52:DD:52:G:O4'	2.15	0.46
1:CA:873:C:O2	11:CO:55:ARG:NH2	2.48	0.46
31:BA:1054:C:O2	31:BA:1054:C:C2'	2.61	0.46
40:BM:54:PHE:CZ	40:BM:55:LYS:NZ	2.78	0.46
31:BA:93:U:H2'	31:BA:95:G:C4'	2.44	0.46
31:BA:1032:A:H3'	31:BA:1032(A):G:H5''	1.98	0.46
31:DA:409:G:C2'	31:DA:410:G:H5'	2.45	0.46
33:BF:50:ALA:O	33:BF:72:LYS:HB2	2.15	0.46
52:DB:46:G:H4'	52:DB:47:U:OP1	2.15	0.46
52:DD:15:G:OP1	52:DD:15:G:H4'	2.14	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DE:77:ALA:HB2	32:DE:211:ILE:CD1	2.46	0.46
1:AA:908:C:OP1	12:AP:22:LYS:CB	2.63	0.46
20:AU:96:ILE:C	20:AU:98:VAL:H	2.18	0.46
17:A2:44:LYS:HB3	17:A2:45:THR:H	1.42	0.46
31:BA:270:A:C5	31:BA:271:C:C4	3.04	0.46
31:DA:1329:A:C2'	31:DA:1330:U:H5'	2.45	0.46
1:CA:348:G:O2'	1:CA:1251:U:N3	2.38	0.46
1:CA:1585:G:O2'	1:CA:1586:G:H5'	2.16	0.46
1:CA:1005:A:N6	1:CA:1006:A:N1	2.63	0.46
31:DA:1055:A:C5	31:DA:1056:U:H6	2.33	0.46
5:CF:53:THR:O	5:CF:56:GLU:N	2.37	0.46
10:CN:80:ASP:OD1	15:CR:64:ARG:NH2	2.48	0.46
3:CD:267:SER:O	3:CD:269:PHE:HD1	1.98	0.46
3:AD:9:TYR:CD2	3:AD:10:THR:HG22	2.51	0.46
23:CZ:92:LYS:O	23:CZ:93:GLU:C	2.53	0.46
41:DN:59:TYR:O	41:DN:62:GLN:HB3	2.16	0.46
25:AX:10:LYS:HB3	25:AX:53:LEU:HD23	1.97	0.46
1:CA:248:G:H2'	1:CA:249:G:H8	1.80	0.46
6:AG:96:ARG:O	6:AG:97:ASP:HB2	2.16	0.46
6:AG:37:VAL:HG23	6:AG:99:MET:HE3	1.97	0.46
1:CA:1562:C:H2'	1:CA:1563:U:H6	1.81	0.46
32:DE:97:TRP:CE2	32:DE:101:MET:HG3	2.50	0.46
31:BA:376:G:H2'	31:BA:377:G:C8	2.50	0.46
31:BA:376:G:H5''	46:BS:5:ARG:HB2	1.98	0.46
31:BA:377:G:P	46:BS:5:ARG:HH11	2.37	0.46
12:AP:59:ARG:C	12:AP:61:GLY:H	2.19	0.46
16:A1:59:ARG:O	16:A1:63:VAL:HG23	2.16	0.46
37:BJ:56:GLN:OE1	37:BJ:60:LYS:HD3	2.16	0.46
1:CA:2215:G:C2	1:CA:2216:G:C8	3.03	0.46
21:CV:93:ASP:N	21:CV:130:PRO:HG2	2.30	0.46
22:A3:51:VAL:HG21	22:A3:80:HIS:HA	1.97	0.46
1:AA:2849:U:OP2	15:AR:95:ARG:NH1	2.48	0.46
4:AE:7:VAL:HG13	4:AE:51:PHE:HE1	1.80	0.46
1:CA:1465:G:OP1	1:CA:1635:C:O2'	2.34	0.46
14:AQ:54:LEU:O	14:AQ:57:LYS:HD3	2.16	0.46
1:AA:1219:G:OP2	16:A1:19:LYS:NZ	2.43	0.46
1:AA:463:G:N2	1:AA:466:A:OP2	2.41	0.46
1:CA:1229:G:N7	56:CA:3362:OHX:N4	2.63	0.46
36:DI:11:ASN:O	36:DI:14:LEU:HD22	2.15	0.46
47:DT:94:ASN:O	47:DT:98:LEU:HG	2.15	0.46
31:BA:375:U:OP1	46:BS:69:THR:HG21	2.15	0.46
1:CA:1184:G:H5''	1:CA:1185:G:OP2	2.16	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:C1:16:LYS:O	16:C1:20:LEU:HD23	2.14	0.46
24:AW:23:LYS:O	24:AW:27:GLU:HG3	2.15	0.46
31:DA:449:C:O4'	31:DA:449:C:O2	2.33	0.46
1:AA:125:G:H4'	1:AA:126:A:OP2	2.15	0.46
10:AN:2:ILE:N	10:AN:2:ILE:HD13	2.30	0.46
31:DA:828:A:H4'	31:DA:828:A:OP1	2.16	0.46
5:AF:196:LEU:HD23	5:AF:196:LEU:HA	1.72	0.46
1:AA:440:G:H2'	1:AA:441:U:C6	2.49	0.46
1:AA:2749:A:C4	1:AA:2750:A:N7	2.83	0.46
1:AA:1092:C:N4	1:AA:1100:C:N3	2.63	0.46
1:AA:2157:G:HO2'	1:AA:2158:A:P	2.38	0.46
11:AO:15:ARG:NH1	11:AO:15:ARG:CB	2.75	0.46
1:CA:2156:G:HO2'	1:CA:2157:A:H8	1.61	0.46
52:DD:16:C:H2'	52:DD:17:G:H4'	1.97	0.46
1:CA:2192:A:N6	52:DD:65:C:C4	2.81	0.46
1:CA:714:G:H5''	11:CO:47:ASP:O	2.15	0.46
1:AA:889:C:H5''	1:AA:890:A:OP2	2.16	0.46
52:BB:21:A:C2	52:BB:56:U:C2	3.03	0.46
31:BA:1007:C:C3'	31:BA:1008:C:H5''	2.45	0.46
21:AV:6:LYS:N	21:AV:59:LEU:O	2.49	0.46
26:C4:24:THR:O	26:C4:25:TYR:HB2	2.16	0.46
26:C4:13:ARG:O	26:C4:30:GLU:HB3	2.16	0.46
14:CQ:109:GLY:O	14:CQ:110:LEU:HD13	2.15	0.46
52:DD:29:C:O2'	52:DD:30:A:H5'	2.16	0.46
1:AA:745:G:H2'	1:AA:746:A:H5'	1.97	0.46
1:CA:2646:G:H1'	4:CE:62:PRO:HG2	1.96	0.46
31:DA:1015:A:H2'	31:DA:1016:A:C8	2.51	0.46
31:DA:1212:U:O2'	31:DA:1213:A:C8	2.68	0.46
1:CA:1069:G:C6	1:CA:1186:C:C4	3.04	0.46
31:DA:266:G:C1'	31:DA:267:C:OP2	2.62	0.46
1:AA:2572:A:C8	4:AE:144:ARG:HD2	2.50	0.46
28:A6:44:ARG:HD3	28:A6:44:ARG:N	2.31	0.46
31:DA:1127:G:N2	31:DA:1144:G:H22	2.13	0.46
39:DL:95:LYS:HZ3	39:DL:96:LEU:HB2	1.80	0.46
47:BT:63:ARG:O	47:BT:65:ILE:HD12	2.14	0.46
31:DA:738:C:H5''	36:DI:69:GLU:HB2	1.98	0.46
31:DA:1025:U:H2'	31:DA:1025:U:O2	2.16	0.46
18:AS:38:TYR:OH	27:A5:47:PRO:HG3	2.16	0.46
49:DV:51:VAL:HG12	49:DV:52:TYR:N	2.30	0.46
21:AV:120:ILE:O	21:AV:120:ILE:HG22	2.15	0.46
26:C4:34:GLU:O	43:DP:57:ARG:NH1	2.48	0.46
6:CG:114:ILE:CG2	6:CG:117:PHE:HB2	2.45	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
49:DV:11:VAL:HG22	49:DV:12:ASP:N	2.29	0.46
7:AH:12:PRO:O	7:AH:13:LYS:HB2	2.16	0.46
31:DA:485:G:C8	56:DA:1731:OHX:N4	2.83	0.46
32:BE:187:LEU:CD1	32:BE:205:ASP:HA	2.45	0.46
1:CA:1467:U:HO2'	1:CA:1468:G:P	2.31	0.46
1:AA:2895:U:H2'	1:AA:2896:C:O4'	2.15	0.46
24:AW:31:GLU:O	24:AW:35:LEU:HD22	2.15	0.46
1:CA:476:A:OP1	5:CF:84:VAL:O	2.34	0.46
1:CA:949:C:O2'	1:CA:950:C:H5'	2.15	0.46
1:CA:1968:G:P	56:CA:3377:OHX:N6	2.88	0.46
31:BA:686:U:O2'	31:BA:687:A:OP2	2.28	0.46
31:DA:467:G:N2	46:DS:82:GLN:OE1	2.48	0.46
33:DF:37:GLN:HE21	44:DQ:26:ARG:HH11	1.63	0.46
31:BA:1405:G:O4'	31:BA:1519:A:H4'	2.15	0.46
1:AA:2266:A:H4'	1:AA:2267:A:N3	2.31	0.46
31:BA:958:A:C6	31:BA:959:A:C6	3.04	0.46
1:CA:298:C:H3'	1:CA:299:G:H5''	1.97	0.46
40:DM:7:LYS:NZ	40:DM:71:LEU:HD13	2.31	0.46
1:CA:1640:G:H2'	1:CA:1641:G:H8	1.81	0.46
22:A3:70:GLN:NE2	22:A3:80:HIS:CE1	2.83	0.46
29:C7:34:ARG:NH1	29:C7:39:ARG:HG3	2.31	0.46
31:BA:836:G:C6	31:BA:851:G:C6	3.03	0.46
2:AB:0:A:H2'	2:AB:1:U:O4'	2.14	0.46
32:BE:20:GLU:HG2	32:BE:189:ASP:OD2	2.15	0.46
31:BA:1447:G:N2	31:BA:1460:A:H1'	2.30	0.46
1:CA:1299:G:N2	16:C1:37:GLU:OE2	2.41	0.46
31:DA:224:C:H2'	31:DA:225:C:C6	2.51	0.46
33:DF:83:ARG:O	33:DF:86:VAL:HG22	2.16	0.46
24:CW:51:ARG:HG3	24:CW:52:ASP:N	2.31	0.46
1:AA:1980:G:O2'	1:AA:1982:C:OP2	2.25	0.46
1:CA:349:A:H2'	1:CA:350:G:O4'	2.15	0.46
1:AA:292:C:H2'	1:AA:293:U:C6	2.51	0.46
34:BG:170:VAL:HG22	34:BG:171:GLY:H	1.80	0.46
1:CA:278:G:H2'	1:CA:279:G:H8	1.79	0.46
1:AA:1038:C:O2'	1:AA:1039:G:H5'	2.15	0.46
34:DG:54:TYR:CE1	34:DG:206:PHE:HE1	2.32	0.46
1:CA:2365:A:C2	22:C3:33:ALA:O	2.68	0.46
7:CH:158:HIS:ND1	7:CH:158:HIS:N	2.62	0.46
1:CA:364:U:O5'	1:CA:364:U:H6	1.99	0.46
1:CA:2711:U:H2'	1:CA:2712:C:C6	2.50	0.46
1:AA:1964:G:H4'	1:AA:1965:C:OP2	2.16	0.46
1:CA:1974:U:H2'	1:CA:1976:A:OP2	2.15	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:A5:3:LYS:O	27:A5:4:HIS:CB	2.64	0.46
1:AA:1064:C:C4	1:AA:1065:U:C2	3.03	0.46
52:BD:51:C:H2'	52:BD:52:G:O4'	2.15	0.46
3:AD:39:LYS:NZ	3:AD:60:ARG:HD3	2.30	0.46
31:BA:1176:A:N1	31:BA:1177:G:C4	2.84	0.46
1:AA:2721:A:H2'	1:AA:2722:G:O4'	2.15	0.46
1:AA:2394:C:N3	52:BD:85:A:O2'	2.39	0.46
1:AA:2286:A:OP1	28:A6:28:ARG:HG3	2.15	0.46
31:DA:82:U:O2	31:DA:87:A:C2	2.68	0.46
31:DA:976:G:H8	31:DA:1358:U:H2'	1.79	0.46
30:A8:7:HIS:CB	30:A8:59:LYS:HE2	2.45	0.46
31:BA:1128:C:N3	31:BA:1144:G:C2	2.84	0.46
27:C5:57:VAL:CG1	27:C5:58:LEU:H	2.14	0.46
39:DL:5:TYR:CD2	39:DL:18:PHE:CE2	3.04	0.46
20:CU:17:SER:CB	20:CU:71:LYS:HD2	2.46	0.46
1:CA:1017:C:H2'	1:CA:1018:G:C5'	2.45	0.46
1:AA:69:C:H2'	1:AA:70:G:H8	1.80	0.46
31:DA:1051:C:C4	31:DA:1052:U:C4	3.03	0.46
31:BA:49:U:C1'	31:BA:50:A:OP1	2.63	0.46
32:BE:81:VAL:O	32:BE:85:ALA:HB2	2.16	0.46
1:AA:547:A:H2'	1:AA:548:A:O4'	2.15	0.46
31:BA:192:U:H4'	50:BW:103:GLY:HA2	1.97	0.46
31:BA:246:A:C2	31:BA:282:A:C5	3.03	0.46
31:BA:869:G:C8	56:BA:1684:OHX:N5	2.84	0.46
1:CA:1757:U:O2'	1:CA:2870:G:H1'	2.15	0.46
32:BE:5:ILE:HG13	32:BE:6:THR:H	1.79	0.46
31:BA:368:U:P	8:CK:91:SER:OG	2.74	0.46
31:DA:511:C:O3'	34:DG:43:HIS:CE1	2.69	0.46
1:AA:1864:U:H5''	1:AA:2410:G:O2'	2.16	0.46
21:AV:44:PHE:CE2	21:AV:86:VAL:HG21	2.51	0.46
31:DA:273:A:H1'	47:DT:16:GLN:NE2	2.29	0.46
49:DV:80:TYR:CE1	49:DV:82:GLY:HA2	2.51	0.46
1:CA:1313:G:O2'	1:CA:2035:G:O6	2.24	0.46
4:AE:102:VAL:N	4:AE:170:LEU:O	2.46	0.46
23:AZ:45:ASN:O	23:AZ:63:ALA:HA	2.16	0.46
1:AA:2808:U:O2'	1:AA:2809:A:H5'	2.16	0.46
1:AA:2205:C:O2	1:AA:2205:C:H2'	2.15	0.46
35:BH:111:GLU:C	35:BH:113:ALA:H	2.19	0.46
1:AA:2099:U:O2	1:AA:2190:G:O6	2.34	0.46
31:DA:520:A:OP1	42:DO:49:LEU:HB2	2.16	0.46
19:AT:29:TRP:CE3	19:AT:78:LYS:HB3	2.51	0.46
31:BA:1152:A:OP1	40:BM:13:HIS:HB2	2.15	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BP:47:ASP:O	43:BP:48:LEU:HB3	2.15	0.46
1:AA:827:U:O2	1:AA:2246:G:H4'	2.16	0.46
50:BW:37:SER:O	50:BW:41:ILE:HG12	2.16	0.46
1:AA:18:C:O3'	16:A1:23:GLY:HA2	2.16	0.46
53:DC:20:G:H4'	53:DC:21:U:OP2	2.15	0.46
1:CA:2566:G:H3'	1:CA:2567:U:H5''	1.97	0.46
31:DA:147:G:O2'	31:DA:148:G:H5'	2.16	0.46
5:AF:149:ASP:OD2	5:AF:151:SER:HB3	2.16	0.46
43:BP:89:GLY:O	43:BP:92:HIS:HB2	2.14	0.46
1:CA:2115:U:H4'	1:CA:2116:G:O5'	2.16	0.46
33:BF:21:ARG:HD3	33:BF:21:ARG:N	2.30	0.46
1:AA:2283:C:C2	1:AA:2389:G:C2	3.03	0.46
29:A7:23:ARG:O	29:A7:28:ARG:NH1	2.39	0.46
31:DA:1495:U:O4	56:DA:1737:OHX:N2	2.49	0.46
9:CM:104:LYS:HA	9:CM:107:LEU:HD12	1.96	0.46
7:AH:27:LYS:O	7:AH:27:LYS:HG3	2.15	0.46
1:AA:2157:G:C2'	1:AA:2158:A:OP2	2.63	0.46
1:CA:874:U:H2'	1:CA:876:U:O4'	2.16	0.46
11:CO:46:LYS:HD3	11:CO:51:PHE:CE2	2.46	0.46
34:DG:21:LEU:N	34:DG:21:LEU:HD12	2.31	0.46
52:DD:11:C:C4	52:DD:12:C:C5	3.04	0.46
1:CA:2452:A:H8	1:CA:2452:A:H5'	1.78	0.46
32:DE:72:GLY:HA3	32:DE:165:VAL:HG22	1.98	0.46
4:AE:146:THR:HA	4:AE:147:PRO:C	2.36	0.46
31:BA:1132:C:H42	31:BA:1143:G:N2	2.14	0.46
2:CB:17:A:H2'	2:CB:18:G:OP1	2.16	0.46
1:CA:1455:C:C2	1:CA:1642:G:N2	2.84	0.46
16:C1:83:LEU:HG	16:C1:88:ILE:HD11	1.97	0.46
31:DA:1053:G:N7	31:DA:1199:U:H3'	2.30	0.46
49:DV:61:TYR:CZ	49:DV:63:THR:HA	2.51	0.46
15:AR:3:ARG:HB2	15:AR:6:LEU:HB3	1.98	0.46
8:CK:78:THR:HB	8:CK:104:GLN:HE22	1.80	0.46
1:AA:1483:G:C2	1:AA:1507:A:C8	3.03	0.46
34:BG:157:LEU:O	34:BG:161:ASN:ND2	2.49	0.46
23:CZ:91:LYS:O	23:CZ:92:LYS:C	2.54	0.46
52:DB:7:G:H3'	52:DB:8:U:H5'	1.97	0.46
31:BA:142:G:N2	31:BA:221:C:N3	2.58	0.46
53:BC:1:C:O2	53:BC:1:C:C2'	2.61	0.46
26:A4:12:ALA:N	26:A4:24:THR:OG1	2.40	0.46
1:CA:1965:C:OP2	1:CA:1966:U:O2'	2.25	0.46
17:C2:24:LYS:NZ	17:C2:24:LYS:HB3	2.31	0.46
14:AQ:106:ARG:H	14:AQ:106:ARG:HG3	1.45	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:DF:72:LYS:NZ	33:DF:74:GLY:HA3	2.31	0.46
1:AA:2815:C:H2'	1:AA:2816:C:O4'	2.15	0.46
52:BB:41:C:H2'	52:BB:41:C:O2	2.16	0.46
13:C0:37:THR:HB	13:C0:39:PRO:HD2	1.98	0.46
31:BA:1195:C:H2'	31:BA:1197:G:O4'	2.16	0.46
14:AQ:48:LEU:CD2	14:AQ:82:ILE:HD11	2.46	0.46
20:CU:30:VAL:O	20:CU:36:ALA:O	2.34	0.46
31:BA:510:A:N3	31:BA:543:C:H1'	2.31	0.46
1:AA:952:G:C6	1:AA:953:A:N7	2.84	0.46
21:AV:19:ARG:NH1	21:AV:84:GLU:O	2.48	0.46
17:C2:7:THR:CG2	17:C2:22:VAL:HG21	2.45	0.46
47:DT:10:VAL:HA	47:DT:20:THR:O	2.15	0.46
1:CA:1035:A:C6	25:CX:13:ILE:HG21	2.50	0.46
1:CA:50:G:N3	1:CA:117:A:C2	2.84	0.46
1:AA:1820:U:O2	3:AD:202:LYS:HB3	2.16	0.46
14:CQ:99:LYS:O	14:CQ:103:GLU:HG2	2.16	0.46
29:C7:19:ARG:HH11	29:C7:19:ARG:HG2	1.80	0.46
31:BA:1083:U:C5	31:BA:1084:G:C6	3.03	0.46
6:CG:23:PHE:HB2	6:CG:25:TYR:CZ	2.49	0.46
50:DW:36:LEU:HD13	50:DW:39:LYS:HE2	1.98	0.46
1:AA:1257:C:H4'	5:AF:83:PHE:CD2	2.51	0.46
1:AA:2887:U:H2'	1:AA:2888:C:O4'	2.16	0.46
1:AA:1299:G:H3'	1:AA:1639:U:O4	2.15	0.46
31:BA:475:G:C4	31:BA:476:G:C8	3.04	0.46
31:DA:1209:C:O2	31:DA:1209:C:H2'	2.14	0.46
1:CA:1811:U:C6	1:CA:1815:A:N7	2.83	0.46
31:DA:148:G:O6	56:DA:1759:OHX:N4	2.48	0.46
40:BM:53:PRO:HA	44:BQ:42:ILE:HD12	1.96	0.46
1:CA:1865:U:O2'	1:CA:1992:A:N1	2.31	0.46
1:CA:1996:G:H2'	1:CA:1997:C:C6	2.50	0.46
1:CA:1178:G:O6	1:CA:2063:C:H1'	2.15	0.46
13:C0:10:LEU:O	13:C0:12:ARG:HG3	2.15	0.46
1:CA:274:G:O2'	1:CA:276:C:H5'	2.16	0.46
1:AA:1761:C:H42	1:AA:1762:A:H62	1.62	0.46
31:BA:557:G:N1	31:BA:558:G:C2	2.84	0.46
1:AA:1214:A:H61	1:AA:1235:G:H1'	1.80	0.46
5:AF:177:ALA:HB1	5:AF:178:PRO:HD2	1.98	0.46
9:CM:56:ASN:N	9:CM:125:GLY:H	2.14	0.46
29:A7:35:ARG:HG3	29:A7:42:LEU:HD11	1.98	0.46
1:CA:1977:G:N2	1:CA:2564:C:H5''	2.30	0.46
1:CA:142:G:H2'	1:CA:143:C:C6	2.50	0.46
11:CO:61:ARG:CB	11:CO:62:LEU:CD2	2.93	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:AO:66:GLY:O	11:AO:67:MET:HB3	2.16	0.46
52:BB:55:U:C2	52:BB:56:U:C6	3.04	0.46
31:BA:1158:C:H3'	31:BA:1158:C:O2	2.15	0.46
31:BA:1176:A:C2'	31:BA:1177:G:H5''	2.35	0.46
1:CA:1355:A:OP2	56:CA:3332:OHX:N6	2.48	0.46
52:DB:46:G:C2	52:DB:55:U:C4	3.04	0.46
52:DB:68:A:H2'	52:DB:68:A:N3	2.30	0.46
31:DA:89:U:O2'	31:DA:90:C:H5''	2.16	0.46
40:BM:5:ARG:HB2	40:BM:73:ASP:OD2	2.16	0.46
1:CA:2456:C:OP1	5:CF:68:LYS:HG3	2.15	0.46
28:A6:40:CYS:HA	28:A6:46:HIS:HA	1.97	0.46
28:C6:21:TYR:HD2	28:C6:21:TYR:N	2.08	0.46
31:BA:267:C:OP2	31:BA:268:C:OP2	2.34	0.46
16:C1:95:LEU:HD21	17:C2:12:TYR:C	2.36	0.46
31:BA:1213:A:N1	31:BA:1215:G:H1'	2.31	0.46
31:BA:1226:C:H4'	49:BV:80:TYR:CZ	2.51	0.46
1:CA:1249:G:H3'	1:CA:1250:A:C5'	2.42	0.46
11:CO:114:ILE:HD12	11:CO:115:LEU:N	2.31	0.46
31:BA:516:U:C5	31:BA:517:G:C6	3.03	0.46
31:DA:1200:C:C2'	31:DA:1200:C:O2	2.63	0.46
2:AB:80:U:OP2	56:AB:219:OHX:N4	2.49	0.46
31:DA:1292:U:H2'	31:DA:1293:G:H8	1.81	0.46
9:AM:7:LYS:HD2	9:AM:7:LYS:H	1.81	0.46
31:DA:1325:C:C4'	51:DX:17:THR:HG21	2.39	0.46
43:BP:3:ARG:HG2	43:BP:9:ILE:CD1	2.42	0.46
31:DA:346:G:N2	31:DA:347:G:C8	2.84	0.46
13:A0:28:LEU:HD11	13:A0:114:VAL:HG12	1.98	0.46
1:CA:2043:A:O2'	1:CA:2044:C:H5'	2.15	0.46
26:A4:12:ALA:C	26:A4:24:THR:HG21	2.37	0.46
31:BA:1253:G:O2'	31:BA:1254:C:H5'	2.15	0.46
31:DA:1034:G:O5'	31:DA:1034:G:H8	1.99	0.46
33:DF:52:LEU:H	33:DF:52:LEU:HD23	1.81	0.46
7:CH:151:ILE:HG22	7:CH:151:ILE:O	2.15	0.46
1:AA:2502:G:H5''	1:AA:2503:A:C5'	2.45	0.46
3:AD:149:PRO:O	3:AD:150:LYS:HB2	2.16	0.46
31:BA:187:C:O2	31:BA:191(A):G:C6	2.69	0.46
40:DM:83:GLU:O	40:DM:86:MET:HB2	2.15	0.46
43:DP:25:ILE:O	43:DP:29:ARG:HB2	2.16	0.46
1:CA:1047:A:N6	1:CA:1048:A:N1	2.63	0.46
31:BA:510:A:H5''	31:BA:511:C:P	2.56	0.46
22:C3:36:ILE:HD13	22:C3:36:ILE:N	2.31	0.46
31:DA:1402:C:H2'	31:DA:1403:C:H6	1.79	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:792:G:H2'	1:CA:793:G:O4'	2.16	0.46
19:AT:57:LEU:HD11	19:AT:78:LYS:HZ2	1.78	0.46
31:DA:881:G:C2	31:DA:882:C:C2	3.04	0.46
1:AA:2543:G:H5''	1:AA:2543:G:H8	1.81	0.46
1:CA:1818:A:C2	1:CA:2619:C:H1'	2.51	0.46
31:DA:353:A:C2'	31:DA:354:G:OP2	2.62	0.46
46:BS:18:ARG:NH1	46:BS:32:TYR:OH	2.49	0.46
2:CB:31:A:C2	2:CB:58:G:C2	3.03	0.46
32:BE:24:TRP:CE3	32:BE:26:PRO:HA	2.50	0.46
31:BA:799:G:H2'	31:BA:800:G:H5'	1.97	0.46
1:AA:1038:C:H2'	1:AA:1039:G:O4'	2.15	0.46
31:BA:1267:C:C5	31:BA:1268:A:C5	3.04	0.46
5:AF:11:VAL:HB	5:AF:18:ARG:O	2.15	0.46
1:AA:868:U:O2'	12:AP:8:LYS:HE2	2.16	0.46
1:AA:1591:G:H2'	1:AA:1592:C:C6	2.51	0.46
35:BH:99:GLY:O	35:BH:117:ASP:HA	2.16	0.46
1:AA:471:A:OP2	1:AA:471:A:H8	1.99	0.46
45:DR:3:ILE:HD13	45:DR:3:ILE:H	1.80	0.46
5:CF:34:TRP:CE3	11:CO:8:PRO:HB3	2.51	0.46
12:AP:104:PHE:O	12:AP:105:GLU:HB2	2.15	0.46
1:CA:417:G:H22	11:CO:72:PRO:CG	2.28	0.46
52:BD:21:A:C4'	52:BD:22:A:O5'	2.64	0.46
1:CA:881:U:H1'	11:CO:55:ARG:NH1	2.31	0.46
31:DA:1372:U:H5''	39:DL:71:SER:HB2	1.98	0.46
31:BA:1272:G:H2'	31:BA:1273:G:O4'	2.16	0.46
5:AF:32:LEU:HD21	5:AF:105:VAL:HG13	1.98	0.46
1:CA:1135:A:N3	1:CA:1135:A:H3'	2.31	0.46
1:AA:2287:A:N6	1:AA:2344:U:C2	2.84	0.46
3:CD:61:LEU:HA	3:CD:61:LEU:HD13	1.68	0.46
40:BM:24:VAL:HG21	40:BM:37:PRO:HD3	1.97	0.46
50:BW:73:HIS:HB3	50:BW:74:LYS:HG3	1.98	0.46
2:CB:109:G:C2'	2:CB:110:U:H5'	2.45	0.46
16:C1:105:VAL:HG23	16:C1:106:PHE:N	2.31	0.46
1:AA:2667:C:H1'	7:AH:109:PHE:CD2	2.51	0.46
7:AH:154:PRO:HB3	7:AH:163:TYR:CE2	2.51	0.46
1:AA:1110:G:H2'	1:AA:1111:A:C8	2.51	0.46
1:AA:1556:C:H2'	1:AA:1557:C:C6	2.51	0.46
31:DA:962:C:N4	31:DA:974:A:N6	2.64	0.46
14:CQ:24:LEU:HD22	14:CQ:24:LEU:H	1.81	0.46
37:DJ:43:PHE:C	37:DJ:43:PHE:HD1	2.17	0.46
5:AF:165:ARG:HA	5:AF:168:ARG:HB2	1.98	0.46
15:AR:27:THR:CG2	15:AR:90:GLN:HB3	2.46	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:BL:26:VAL:O	39:BL:33:PHE:HB2	2.16	0.46
31:DA:115:G:C2	31:DA:289:G:C5	3.04	0.46
5:CF:148:LEU:HD21	5:CF:191:ARG:NH1	2.31	0.46
1:AA:660:G:N2	11:AO:12:ALA:HA	2.28	0.46
1:CA:1542:A:O2'	1:CA:1543:A:H5'	2.15	0.46
21:AV:48:PHE:HA	21:AV:51:ALA:HB3	1.98	0.46
12:AP:136:ALA:CB	21:AV:52:SER:HB2	2.46	0.46
6:AG:116:ASP:HB3	6:AG:117:PHE:H	1.49	0.46
38:BK:64:LYS:C	38:BK:65:TYR:HD1	2.19	0.46
11:AO:29:LYS:HG2	11:AO:30:THR:N	2.31	0.46
33:DF:37:GLN:HE21	44:DQ:26:ARG:NH1	2.14	0.46
26:C4:38:LYS:HB2	26:C4:38:LYS:NZ	2.31	0.46
11:AO:126:VAL:HG12	11:AO:147:LEU:CD2	2.45	0.46
31:DA:860:A:H2'	31:DA:861:G:O4'	2.16	0.46
31:DA:281:G:OP2	31:DA:281:G:H8	1.99	0.46
10:CN:35:VAL:HA	10:CN:62:VAL:HB	1.96	0.46
1:CA:606:G:H2'	1:CA:607:G:C8	2.51	0.46
1:CA:606:G:H2'	1:CA:607:G:H8	1.81	0.46
1:AA:754:C:H2'	1:AA:755:C:C6	2.51	0.46
42:BO:61:TYR:O	42:BO:62:GLU:HB3	2.16	0.46
17:C2:41:GLY:HA3	17:C2:46:VAL:CG1	2.46	0.46
2:AB:89(A):A:C5	2:AB:90:C:H1'	2.51	0.46
46:DS:1:MET:CE	46:DS:65:GLN:HB2	2.46	0.46
1:CA:1035:A:N6	25:CX:13:ILE:HG21	2.31	0.46
41:DN:95:ILE:O	41:DN:99:GLN:HG3	2.15	0.46
31:DA:948:C:O2'	31:DA:949:A:H5'	2.15	0.46
8:AK:26:ALA:O	8:AK:31:LEU:HD13	2.16	0.46
18:AS:68:ARG:O	18:AS:110:LYS:N	2.37	0.46
3:AD:3:VAL:HG13	3:AD:17:THR:CG2	2.45	0.46
1:AA:2294:C:C5	1:AA:2295:C:H5	2.34	0.46
1:AA:1407:C:C2	1:AA:1596:A:C2	3.04	0.46
1:CA:510:A:H5'	20:CU:49:VAL:HG22	1.98	0.46
31:DA:160:A:H2'	31:DA:161:A:O4'	2.16	0.46
1:CA:902:G:H2'	1:CA:903:G:H8	1.81	0.46
13:A0:100:LEU:HD11	13:A0:113:LEU:HD13	1.98	0.46
19:CT:63:LYS:O	19:CT:64:LYS:HD3	2.15	0.46
10:AN:31:LYS:HB3	10:AN:32:TYR:CE1	2.51	0.46
1:AA:106:C:H2'	1:AA:107:C:H6	1.81	0.46
1:CA:1422:C:H2'	1:CA:1423:C:H6	1.79	0.46
31:BA:19:C:H2'	31:BA:20:U:H6	1.81	0.46
6:AG:126:ASP:OD2	6:AG:130:ASN:HB2	2.16	0.46
7:CH:35:VAL:HG21	7:CH:75:ALA:HB2	1.96	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:CH:77:LYS:HE2	7:CH:81:GLU:HB3	1.97	0.46
4:CE:14:ILE:HB	15:CR:14:TYR:CZ	2.51	0.46
6:CG:165:THR:OG1	6:CG:168:GLU:HG3	2.16	0.46
53:DC:41:C:O2'	53:DC:42:C:H5'	2.15	0.46
23:CZ:4:VAL:HG12	23:CZ:11:ARG:CB	2.46	0.46
1:AA:2114:A:C6	1:AA:2168:G:C2	3.04	0.46
1:CA:2152:C:C5	1:CA:2153:U:C4	3.04	0.46
11:CO:112:LEU:HB2	11:CO:128:HIS:HD2	1.78	0.46
31:DA:1176:A:N6	31:DA:1177:G:C5	2.84	0.46
1:CA:2766:C:OP2	1:CA:2766:C:O4'	2.34	0.46
3:AD:35:LYS:CE	3:AD:104:TYR:CD1	2.99	0.46
12:AP:86:GLY:N	22:A3:10:THR:HB	2.31	0.46
31:BA:1157:A:O2'	31:BA:1158:C:O4'	2.34	0.46
31:BA:1263:C:H2'	31:BA:1264:C:C6	2.51	0.46
14:CQ:109:GLY:C	14:CQ:110:LEU:HD13	2.36	0.46
26:A4:36:CYS:O	26:A4:41:PRO:HD2	2.16	0.46
1:AA:2846:G:H2'	1:AA:2847:U:C6	2.51	0.46
31:BA:1139:G:N2	31:BA:1144:G:H1	2.00	0.46
49:BV:42:PRO:O	49:BV:45:VAL:HG22	2.15	0.46
31:BA:412:A:H4'	31:BA:413:G:O5'	2.16	0.46
28:C6:16:CYS:O	28:C6:17:LYS:HG3	2.16	0.46
31:DA:1124:G:O2'	31:DA:1145:C:N3	2.49	0.46
31:DA:1127:G:N2	31:DA:1145:C:C2	2.83	0.46
31:DA:1145:C:O2'	31:DA:1146:A:N7	2.33	0.46
1:CA:1018:G:H2'	1:CA:1019:A:C8	2.51	0.46
31:DA:1327:C:H2'	31:DA:1328:C:H6	1.81	0.46
1:AA:529:A:H4'	1:AA:530:G:H5'	1.98	0.46
16:C1:99:ALA:HB2	16:C1:106:PHE:CD1	2.51	0.46
16:C1:92:ARG:HG2	17:C2:11:GLN:NE2	2.30	0.46
31:DA:1011:G:C6	31:DA:1012:U:C4	3.03	0.46
31:BA:1211:U:C5'	31:BA:1212:U:OP1	2.64	0.46
27:A5:33:CYS:CB	27:A5:40:LYS:HD3	2.41	0.46
31:BA:1352:C:H2'	31:BA:1353:G:C8	2.51	0.46
31:DA:1285:A:H4'	31:DA:1286:A:O5'	2.15	0.46
1:AA:1416:G:H1	1:AA:1582:C:H42	1.63	0.46
1:AA:1530:G:C5	1:AA:1531:C:C4	3.03	0.46
1:AA:1154:G:O5'	1:AA:1154:G:H8	1.99	0.46
31:BA:872:A:C5	31:BA:874:G:C8	3.04	0.46
35:BH:31:LEU:HD22	35:BH:31:LEU:HA	1.81	0.46
35:DH:60:TYR:HA	35:DH:63:ARG:HB2	1.98	0.46
31:BA:56:U:H4'	8:CK:82:ARG:NH2	2.31	0.46
44:BQ:4:LYS:O	44:BQ:6:LEU:N	2.49	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:999:U:H2'	31:BA:1000:A:H8	1.80	0.46
1:AA:1239:G:H2'	1:AA:1240:U:O4'	2.16	0.46
31:BA:960:U:O2'	31:BA:1223:C:H4'	2.16	0.46
31:BA:187:C:H2'	31:BA:188:U:O4'	2.15	0.46
1:AA:1494:A:C2'	1:AA:1495:A:H5'	2.44	0.46
1:CA:2526:G:N2	4:CE:143:ASN:HD21	2.14	0.46
31:BA:982:U:H4'	31:BA:983:A:OP1	2.15	0.46
35:BH:110:LEU:HB3	35:BH:115:VAL:HG11	1.98	0.46
17:C2:22:VAL:HG22	17:C2:23:GLU:N	2.32	0.46
31:DA:259:G:C6	31:DA:260:G:C5	3.04	0.46
1:CA:637:G:N2	1:CA:642:G:C5	2.83	0.46
2:AB:1:U:H2'	2:AB:2:C:H6	1.78	0.46
53:DC:65:G:C2	53:DC:66:C:C2	3.03	0.46
31:DA:186(C):G:C2	31:DA:191(E):G:C2	3.04	0.46
46:DS:55:ARG:NH2	46:DS:58:TYR:HD1	2.14	0.46
31:DA:452:A:H2'	31:DA:453:A:C8	2.50	0.46
1:CA:866:G:H4'	1:CA:886:C:O3'	2.15	0.46
1:CA:1853:A:H2'	1:CA:1854:G:C8	2.51	0.46
31:BA:1076:C:C2	31:BA:1082:G:N2	2.83	0.46
1:AA:1426:G:H8	1:AA:1426:G:O5'	1.99	0.46
52:DD:36:U:H2'	52:DD:37:A:O4'	2.16	0.46
1:AA:2104:G:H1	1:AA:2185:C:H42	1.64	0.46
1:AA:1825:A:O4'	3:AD:254:THR:HG21	2.16	0.46
31:DA:152:A:C8	31:DA:153:C:C5	3.03	0.46
4:AE:66:HIS:C	4:AE:66:HIS:ND1	2.68	0.46
13:A0:99:LYS:HA	13:A0:112:ALA:HB2	1.97	0.46
18:CS:56:ALA:O	18:CS:60:ASN:HB2	2.16	0.46
1:AA:1491:G:H5'	3:AD:99:ASP:OD1	2.16	0.46
31:BA:230:G:H2'	31:BA:231:G:O4'	2.16	0.46
23:AZ:40:ARG:HG3	23:AZ:40:ARG:O	2.15	0.46
32:DE:182:ILE:HD12	32:DE:182:ILE:H	1.81	0.46
1:CA:2667:A:OP1	1:CA:2667:A:H8	1.98	0.46
1:CA:2265:G:H2'	1:CA:2266:G:O4'	2.16	0.46
36:DI:96:PRO:HB3	48:DU:30:ASP:OD1	2.15	0.46
1:AA:2307:G:H1'	1:AA:2308:G:C2	2.51	0.45
27:A5:2:ALA:O	27:A5:3:LYS:CB	2.59	0.45
1:AA:1063:G:C6	1:AA:1064:C:C4	3.04	0.45
12:CP:24:GLY:O	12:CP:67:ARG:NH2	2.50	0.45
52:BD:46:G:C2	52:BD:55:U:C4	3.03	0.45
52:DD:17:G:N2	52:DD:66:G:H2'	2.31	0.45
52:BB:55:U:C2	52:BB:56:U:H6	2.33	0.45
31:BA:1238:A:H62	31:BA:1299:A:N6	2.14	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:408:A:H2	31:DA:434:U:H3	1.60	0.45
33:BF:52:LEU:HA	33:BF:70:VAL:HG22	1.97	0.45
41:DN:54:ARG:O	41:DN:56:GLY:N	2.49	0.45
3:AD:43:ARG:HD2	3:AD:44:ASN:OD1	2.15	0.45
11:AO:50:ARG:CG	11:AO:50:ARG:NH2	2.67	0.45
1:AA:1210:A:H5'	1:AA:1212:G:O4'	2.16	0.45
1:CA:2080:A:H2'	1:CA:2081:A:O4'	2.16	0.45
31:DA:1309:G:O6	31:DA:1329:A:C6	2.70	0.45
1:CA:1041:C:OP1	16:C1:53:ARG:NH2	2.50	0.45
31:DA:1004:A:C1'	31:DA:1036:G:C6	2.99	0.45
1:AA:2667:C:H2'	1:AA:2668:G:O4'	2.16	0.45
7:AH:89:ILE:HG13	7:AH:129:THR:HA	1.98	0.45
32:DE:8:LYS:HB3	32:DE:9:GLU:H	1.57	0.45
4:CE:11:MET:SD	4:CE:24:THR:HG22	2.56	0.45
6:CG:135:LEU:HD23	6:CG:140:ILE:HD11	1.97	0.45
52:DB:24:G:H5'	52:DB:24:G:H8	1.80	0.45
34:BG:177:ASP:O	34:BG:181:MET:N	2.49	0.45
1:AA:1530:G:H2'	1:AA:1531:C:C6	2.50	0.45
3:AD:11:PRO:C	3:AD:13:ARG:H	2.18	0.45
3:AD:206:LEU:HA	3:AD:211:ARG:NH1	2.31	0.45
1:AA:480:A:C2'	1:AA:481:G:OP1	2.65	0.45
1:AA:301:G:C6	1:AA:317:G:C6	3.04	0.45
31:DA:115:G:OP2	56:DA:1734:OHX:N5	2.49	0.45
1:CA:559:G:H5'	16:C1:24:TYR:CD2	2.51	0.45
31:BA:857:C:C5	56:BA:1684:OHX:N1	2.84	0.45
31:DA:1028:C:C4	31:DA:1034:G:N2	2.84	0.45
15:CR:54:ARG:HA	15:CR:59:THR:HG22	1.96	0.45
9:AM:46:VAL:O	9:AM:47:ALA:CB	2.63	0.45
48:BU:73:ALA:HB3	48:BU:79:LEU:HD12	1.97	0.45
34:BG:5:ILE:CG2	34:BG:6:GLY:N	2.79	0.45
52:BB:42:U:H3'	52:BB:43:G:C8	2.51	0.45
1:CA:2333:A:C6	1:CA:2346:A:N7	2.85	0.45
43:DP:97:PRO:CB	43:DP:101:GLN:HG3	2.44	0.45
1:AA:1266:G:O6	18:AS:13:SER:OG	2.16	0.45
31:DA:861:G:C4	31:DA:862:C:C5	3.04	0.45
31:DA:279:A:OP1	31:DA:280:C:O2'	2.22	0.45
24:CW:15:LYS:O	24:CW:16:LEU:HB3	2.15	0.45
22:C3:36:ILE:CD1	22:C3:36:ILE:N	2.79	0.45
12:CP:43:THR:OG1	12:CP:45:GLN:HG2	2.17	0.45
32:DE:16:HIS:HE2	32:DE:209:ARG:HG2	1.79	0.45
1:AA:1799:G:H5'	1:AA:1819:A:H61	1.81	0.45
1:CA:1227:C:O2'	1:CA:1228:A:H5'	2.17	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:2242:G:H2'	1:AA:2243:U:O5'	2.16	0.45
4:CE:120:TRP:CE3	4:CE:155:LYS:HD3	2.51	0.45
3:AD:223:GLY:HA3	3:AD:231:HIS:CE1	2.50	0.45
1:AA:2432:A:N9	23:AZ:33:LYS:HD3	2.30	0.45
37:DJ:63:LYS:NZ	37:DJ:64:GLN:OE1	2.49	0.45
41:DN:32:ILE:HD13	41:DN:68:ALA:O	2.17	0.45
1:AA:1152:C:H4'	16:A1:77:SER:HA	1.98	0.45
42:BO:107:VAL:CG2	42:BO:117:TYR:HB3	2.45	0.45
31:BA:1087:G:H2'	31:BA:1088:G:C8	2.51	0.45
1:AA:1987:G:H2'	1:AA:1988:C:H6	1.80	0.45
15:CR:85:LYS:HD2	15:CR:87:ASP:OD2	2.16	0.45
40:DM:42:THR:HG23	40:DM:68:HIS:HA	1.98	0.45
43:DP:49:THR:HG22	43:DP:51:ALA:H	1.81	0.45
31:DA:365:U:H5'	31:DA:366:C:OP1	2.16	0.45
37:BJ:148:ASN:HD22	37:BJ:148:ASN:N	2.13	0.45
31:DA:927:G:H4'	31:DA:927:G:OP2	2.15	0.45
31:DA:389:A:N3	31:DA:389:A:H2'	2.29	0.45
16:C1:70:ARG:NH2	16:C1:75:ASN:HB3	2.31	0.45
1:CA:325:A:H2'	1:CA:359:C:O2'	2.17	0.45
1:AA:2015:A:H2'	27:A5:6:VAL:HG21	1.96	0.45
1:CA:936:C:C4'	1:CA:937:C:OP2	2.63	0.45
1:CA:1101:A:H2'	1:CA:1102:G:O4'	2.16	0.45
1:CA:2182:G:OP2	1:CA:2182:G:H8	1.99	0.45
31:BA:1174:G:H2'	31:BA:1175:G:C8	2.52	0.45
31:BA:1004:A:H2'	31:BA:1005:A:C4'	2.45	0.45
1:CA:2040:U:H5''	1:CA:2041:G:P	2.56	0.45
52:DD:43:G:C2'	52:DD:44:C:H5'	2.46	0.45
5:CF:22:ALA:C	5:CF:24:LEU:N	2.70	0.45
3:CD:83:GLU:OE1	3:CD:104:TYR:OH	2.26	0.45
1:CA:2642:A:O2'	1:CA:2905:U:H5	1.99	0.45
10:AN:104:ARG:HD3	15:AR:36:GLU:OE1	2.16	0.45
1:CA:1187:U:OP2	9:CM:63:THR:OG1	2.22	0.45
7:AH:127:GLU:CG	7:AH:128:PRO:HD2	2.46	0.45
1:CA:1444:U:C2'	1:CA:1445:C:OP1	2.64	0.45
38:DK:83:ILE:HG13	38:DK:137:VAL:HG22	1.98	0.45
52:DB:77:C:H2'	52:DB:78:C:C6	2.52	0.45
1:CA:721:C:OP1	5:CF:54:ARG:NH1	2.46	0.45
2:CB:119:G:H2'	2:CB:120:G:O4'	2.15	0.45
4:AE:39:PRO:HA	4:AE:43:GLY:CA	2.47	0.45
1:AA:163:U:H2'	1:AA:164:U:C5'	2.46	0.45
1:CA:826:G:C5	1:CA:827:U:C4	3.04	0.45
31:DA:485:G:N7	56:DA:1731:OHX:N4	2.65	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:AW:35:LEU:H	24:AW:35:LEU:HD22	1.80	0.45
53:BC:2:G:C5	53:BC:3:C:C5	3.05	0.45
6:AG:95:ARG:O	6:AG:96:ARG:C	2.54	0.45
32:BE:8:LYS:HE3	32:BE:11:LEU:HD13	1.98	0.45
1:CA:912:G:N2	1:CA:914:A:H61	2.15	0.45
31:DA:624:C:O3'	46:DS:10:GLY:HA2	2.16	0.45
1:AA:2341:G:H2'	1:AA:2342:C:C6	2.51	0.45
31:DA:1099:G:C6	31:DA:1100:C:N3	2.85	0.45
31:BA:1196:U:N3	54:B1:23:A:N7	2.64	0.45
1:CA:989:U:OP2	11:CO:36:LYS:CE	2.65	0.45
45:BR:9:GLN:O	45:BR:12:ILE:HG13	2.16	0.45
31:BA:782:A:O3'	31:BA:1515:C:H4'	2.16	0.45
47:BT:20:THR:HA	47:BT:42:TYR:O	2.15	0.45
1:AA:1800:C:OP1	3:AD:264:LYS:NZ	2.49	0.45
31:DA:197:A:H1'	31:DA:198:G:P	2.57	0.45
41:DN:34:ASP:HB2	41:DN:35:PRO:HD2	1.98	0.45
31:BA:1468:A:H2'	31:BA:1469:G:O4'	2.16	0.45
1:CA:198:C:H2'	1:CA:199:C:C6	2.52	0.45
37:DJ:26:PHE:CD2	37:DJ:30:ILE:HD11	2.51	0.45
13:A0:52:ILE:O	13:A0:55:ALA:N	2.48	0.45
1:CA:1265:G:OP2	16:C1:19:LYS:HE2	2.16	0.45
31:DA:562:C:O4'	31:DA:563:A:C2	2.68	0.45
50:BW:56:MET:HG3	50:BW:88:VAL:HG21	1.98	0.45
1:CA:1459:A:H2'	1:CA:1460:G:H8	1.81	0.45
31:BA:373:A:H2'	31:BA:374:A:H8	1.81	0.45
1:CA:511:C:H2'	1:CA:512:C:H6	1.80	0.45
52:DB:81:C:H6	52:DB:81:C:OP2	1.98	0.45
37:BJ:25:ALA:O	37:BJ:29:LYS:HG2	2.16	0.45
2:AB:66:A:H61	2:AB:107:U:H2'	1.81	0.45
2:AB:60:C:C2	2:AB:61:G:C8	3.04	0.45
31:BA:583:A:H61	31:BA:758:G:H1'	1.80	0.45
43:DP:69:GLU:O	43:DP:72:ALA:HB3	2.16	0.45
21:AV:101:PRO:O	21:AV:102:LEU:HD23	2.16	0.45
1:AA:2685:G:O2'	1:AA:2726:U:H5	1.98	0.45
4:AE:197:ILE:HD11	4:AE:199:ARG:HD3	1.98	0.45
1:AA:1776:G:N3	1:AA:1776:G:H2'	2.32	0.45
37:BJ:140:ASP:HA	37:BJ:143:ARG:NH1	2.31	0.45
31:DA:113:G:H2'	31:DA:114:U:C6	2.50	0.45
1:AA:1066:U:C6	1:AA:1069:A:OP2	2.69	0.45
1:CA:2299:A:H4'	1:CA:2300:A:O4'	2.16	0.45
1:AA:2112:G:N2	52:BD:18:G:C2	2.84	0.45
34:DG:9:CYS:HA	34:DG:12:CYS:CB	2.45	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:963:G:N2	40:BM:55:LYS:NZ	2.58	0.45
1:CA:1271:C:H4'	17:C2:85:LYS:CD	2.46	0.45
1:CA:1104:A:OP2	1:CA:1136:G:N2	2.49	0.45
1:CA:1110:G:C2	1:CA:1123:C:C2	3.04	0.45
1:AA:2392:A:H2	1:AA:2424:C:N4	2.14	0.45
1:AA:2701:C:H3'	1:AA:2702:U:C5'	2.30	0.45
1:AA:2068:U:C2	1:AA:2430:A:H2	2.33	0.45
31:BA:1130:A:O5'	31:BA:1131:G:P	2.74	0.45
28:C6:38:LYS:HG3	28:C6:47:THR:O	2.16	0.45
31:DA:1129:C:H5	31:DA:1141:C:N4	2.14	0.45
1:CA:708:G:H21	11:CO:12:ALA:HA	1.81	0.45
1:AA:1050:A:C8	1:AA:2751:G:N7	2.84	0.45
31:BA:1392:G:H21	31:BA:1502:A:H8	1.59	0.45
31:BA:517:G:N1	31:BA:533:A:OP2	2.41	0.45
1:AA:917:A:C2'	1:AA:918:A:H5'	2.40	0.45
1:CA:2886:C:O2'	15:CR:3:ARG:HG3	2.16	0.45
27:A5:51:TYR:HB3	27:A5:52:TYR:H	1.45	0.45
49:DV:42:PRO:O	49:DV:45:VAL:HG22	2.17	0.45
1:CA:827:U:P	3:CD:49:ILE:HG22	2.56	0.45
31:DA:485:G:H1'	31:DA:486:U:C5	2.39	0.45
31:BA:972:C:OP2	40:BM:57:LYS:HG2	2.16	0.45
1:AA:558:G:P	9:AM:111:PRO:HD2	2.57	0.45
32:DE:178:ARG:NH1	32:DE:178:ARG:CG	2.79	0.45
23:CZ:93:GLU:HA	23:CZ:97:LEU:HB3	1.98	0.45
31:BA:407:G:O2'	34:BG:116:GLN:HG3	2.16	0.45
31:BA:222:U:C2	31:BA:223:U:C5	3.04	0.45
31:DA:1190:G:OP1	33:DF:5:ILE:HD12	2.16	0.45
52:BB:9:U:O2	52:BB:9:U:C2'	2.61	0.45
5:CF:148:LEU:HD21	5:CF:191:ARG:HH11	1.80	0.45
1:AA:1309:G:OP1	29:A7:9:ARG:HB2	2.16	0.45
1:AA:1174:A:C5	1:AA:1178:C:N4	2.85	0.45
31:BA:439:A:C2'	31:BA:440:A:O5'	2.64	0.45
35:BH:152:ARG:HG2	35:BH:152:ARG:H	1.58	0.45
35:BH:153:LYS:N	38:BK:64:LYS:HZ3	2.15	0.45
31:BA:389:A:H2'	31:BA:390:C:C5'	2.46	0.45
21:AV:117:LEU:HD13	21:AV:117:LEU:N	2.31	0.45
31:DA:464:G:C6	31:DA:466:C:H5'	2.52	0.45
1:AA:32:C:O2'	1:AA:33:U:H5'	2.16	0.45
1:AA:654(B):C:H2'	1:AA:654(C):G:O4'	2.17	0.45
33:DF:18:TRP:HE1	44:DQ:55:GLY:H	1.61	0.45
22:C3:43:THR:C	22:C3:45:PHE:N	2.69	0.45
4:AE:188:VAL:HA	4:AE:189:PRO:HD3	1.67	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:AV:81:ARG:HG3	21:AV:81:ARG:O	2.16	0.45
31:DA:861:G:H2'	31:DA:862:C:C6	2.49	0.45
32:BE:75:LYS:HE3	32:BE:75:LYS:C	2.36	0.45
47:DT:20:THR:HG21	47:DT:41:LYS:HD2	1.97	0.45
31:BA:8:A:OP1	56:BA:1778:OHX:N6	2.50	0.45
53:DC:66:C:O2'	53:DC:67:C:H5'	2.16	0.45
1:AA:2861:G:O6	56:AA:3294:OHX:N3	2.49	0.45
1:AA:469:G:O6	29:A7:37:LYS:HE2	2.16	0.45
31:DA:757:U:O2'	31:DA:879:C:H1'	2.15	0.45
1:CA:1434:C:H2'	1:CA:1435:G:C8	2.51	0.45
3:CD:24:ILE:HD13	3:CD:84:TYR:HB2	1.99	0.45
45:DR:24:SER:O	45:DR:28:GLN:HG3	2.16	0.45
19:AT:49:VAL:HG11	19:AT:83:VAL:HG12	1.97	0.45
14:AQ:3:ARG:HG2	14:AQ:4:LEU:N	2.31	0.45
11:CO:84:ASN:ND2	11:CO:117:GLU:HB3	2.30	0.45
1:CA:1577:G:H2'	1:CA:1578:C:H6	1.81	0.45
7:CH:12:PRO:HD2	7:CH:48:GLY:C	2.37	0.45
12:AP:110:THR:HG23	12:AP:113:GLN:OE1	2.17	0.45
1:CA:577:G:H2'	1:CA:578:U:C6	2.51	0.45
4:AE:57:LYS:HD3	4:AE:59:VAL:HG12	1.97	0.45
34:DG:194:LEU:HD22	34:DG:194:LEU:N	2.32	0.45
1:AA:41:C:H2'	1:AA:43:G:O4'	2.16	0.45
1:AA:1831:G:H2'	1:AA:1832:C:C6	2.52	0.45
31:BA:739:C:C4	31:BA:740:U:C5	3.04	0.45
31:DA:186:C:H2'	50:DW:85:MET:SD	2.56	0.45
10:AN:49:ARG:NH2	31:BA:1423:G:OP1	2.49	0.45
53:BC:52:C:H2'	53:BC:53:G:O4'	2.16	0.45
24:AW:52:ASP:O	24:AW:56:GLN:HB2	2.17	0.45
34:DG:104:VAL:HG21	34:DG:140:VAL:HG11	1.99	0.45
1:AA:1711:C:H2'	1:AA:1712:C:H6	1.81	0.45
1:AA:2136:C:N4	1:AA:2155:G:N1	2.13	0.45
1:CA:896:G:C4	1:CA:979:A:C8	3.04	0.45
52:BB:47:U:H2'	52:BB:48:C:H6	1.82	0.45
3:AD:32:SER:O	3:AD:33:LEU:CB	2.64	0.45
31:BA:1331:G:OP2	43:BP:23:TYR:CD2	2.68	0.45
11:CO:15:ARG:CB	11:CO:15:ARG:NH1	2.75	0.45
1:AA:2690:C:H4'	1:AA:2872:G:N2	2.31	0.45
1:AA:2872:G:C2	1:AA:2873:A:N6	2.84	0.45
31:DA:407:G:H2'	31:DA:408:A:H8	1.79	0.45
1:CA:2455:C:H2'	1:CA:2456:C:H6	1.82	0.45
7:AH:86:GLU:CD	7:AH:86:GLU:N	2.67	0.45
1:CA:1017:C:C2'	1:CA:1018:G:H5'	2.46	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1043:A:H1'	16:C1:92:ARG:NH2	2.31	0.45
2:CB:44:C:O2	6:CG:92:VAL:HA	2.16	0.45
6:CG:37:VAL:HG23	6:CG:99:MET:CE	2.47	0.45
32:DE:5:ILE:O	32:DE:6:THR:C	2.55	0.45
31:DA:691:G:H1'	31:DA:696:A:N6	2.31	0.45
21:CV:58:VAL:O	21:CV:67:LEU:O	2.33	0.45
1:AA:1869:G:N2	1:AA:1872:A:C8	2.85	0.45
4:AE:21:VAL:HG23	4:AE:22:PRO:CG	2.46	0.45
31:DA:1238:A:N7	31:DA:1301:U:O4	2.50	0.45
31:BA:33:A:H2'	31:BA:34:C:C6	2.51	0.45
31:DA:1245:A:C6	31:DA:1293:G:C6	3.04	0.45
8:CK:77:LEU:HA	8:CK:141:LYS:HB3	1.98	0.45
1:CA:2831:A:C6	13:C0:4:LEU:HD11	2.51	0.45
1:CA:14:A:N7	1:CA:15:G:C8	2.85	0.45
31:BA:575:G:C4	31:BA:881:G:C2	3.04	0.45
1:AA:1798:U:HO2'	1:AA:1802:A:HO2'	1.62	0.45
52:DB:29:C:O2	52:DB:43:G:N1	2.48	0.45
31:DA:447:G:C6	31:DA:485:G:C8	3.04	0.45
15:AR:118:ARG:HE	15:AR:118:ARG:CA	2.18	0.45
40:BM:49:VAL:HG12	40:BM:61:GLU:O	2.16	0.45
17:C2:35:LEU:N	17:C2:35:LEU:HD23	2.27	0.45
38:DK:82:HIS:O	38:DK:82:HIS:CD2	2.69	0.45
34:BG:26:CYS:HA	34:BG:31:CYS:HB2	1.97	0.45
9:AM:134:ARG:N	9:AM:135:PRO:HD3	2.32	0.45
1:CA:2084:G:H5''	1:CA:2516:A:C2	2.51	0.45
38:BK:103:VAL:CG2	38:BK:110:ALA:HB2	2.47	0.45
1:CA:561:C:O2	1:CA:583:G:C2	2.70	0.45
31:BA:957:U:H2'	31:BA:959:A:OP2	2.17	0.45
34:DG:55:ALA:O	34:DG:59:ARG:HG2	2.16	0.45
17:C2:1:MET:HG2	17:C2:42:GLY:HA3	1.98	0.45
1:AA:1017:G:C5	1:AA:1018:C:C5	3.04	0.45
1:CA:1730:G:H4'	1:CA:1794:A:N3	2.32	0.45
1:AA:2376:A:H2	14:AQ:112:PHE:HB2	1.80	0.45
14:CQ:41:ASP:OD2	14:CQ:44:LYS:HB2	2.17	0.45
31:DA:1114:C:H2'	31:DA:1115:C:C6	2.51	0.45
31:DA:299:G:H2'	31:DA:300:A:C8	2.51	0.45
31:BA:392:G:H2'	31:BA:393:A:C8	2.52	0.45
22:C3:32:ARG:HB3	22:C3:33:ALA:H	1.59	0.45
31:BA:804:U:H5''	31:BA:805:C:OP2	2.16	0.45
4:CE:67:PHE:CE2	4:CE:69:LYS:HB2	2.51	0.45
1:CA:1703:A:C6	1:CA:1704:C:C2	3.04	0.45
31:DA:1069:C:O2'	31:DA:1192:C:H1'	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:365:A:H2'	1:CA:366:G:O4'	2.16	0.45
1:AA:765:G:H2'	1:AA:766:C:C6	2.51	0.45
31:BA:1396:A:H2	35:BH:19:MET:HG3	1.81	0.45
1:CA:291:G:H2'	1:CA:292:G:O4'	2.16	0.45
31:BA:730:G:O2'	31:BA:766:A:H5'	2.17	0.45
1:CA:1946:U:O2'	53:DC:12:G:H1'	2.16	0.45
2:CB:80:A:C2	2:CB:102:A:C4	3.04	0.45
49:BV:7:LYS:HG2	49:BV:7:LYS:O	2.17	0.45
15:AR:42:ILE:HD12	15:AR:42:ILE:O	2.15	0.45
1:CA:79:G:C2'	1:CA:80:G:H5'	2.47	0.45
31:DA:684:A:N6	31:DA:685:G:C6	2.84	0.45
1:AA:2108:C:H2'	1:AA:2109:U:O4'	2.16	0.45
31:BA:789:U:C6	31:BA:791:G:H5'	2.51	0.45
52:BB:7:G:H3'	52:BB:8:U:H5'	1.97	0.45
31:BA:1238:A:C8	31:BA:1301:U:O4	2.69	0.45
31:BA:1303:C:C2'	31:BA:1304:G:H5'	2.44	0.45
43:BP:23:TYR:CD1	43:BP:67:GLU:HA	2.50	0.45
1:AA:619:G:H5''	1:AA:620:G:OP2	2.17	0.45
1:CA:1501:A:N6	1:CA:2715:U:H1'	2.32	0.45
1:CA:2305:C:H4'	1:CA:2388:G:H4'	1.98	0.45
31:DA:89:U:H1'	31:DA:90:C:OP1	2.17	0.45
1:CA:2820:A:N6	1:CA:2901:G:H2'	2.31	0.45
1:CA:1070:U:OP2	1:CA:1071:G:N7	2.49	0.45
1:AA:633:A:H8	1:AA:633:A:O5'	2.00	0.45
31:DA:1281:U:H3'	31:DA:1282:C:C5	2.52	0.45
47:BT:16:GLN:O	47:BT:17:LYS:HB2	2.16	0.45
31:DA:570:G:O6	31:DA:865:A:N6	2.49	0.45
31:BA:1213:A:N7	31:BA:1215:G:C5	2.85	0.45
35:BH:59:GLY:O	35:BH:63:ARG:HG2	2.16	0.45
30:C8:14:VAL:CG1	30:C8:15:LYS:N	2.79	0.45
31:BA:1346:A:C4	37:BJ:10:ARG:NH1	2.85	0.45
49:DV:12:ASP:O	49:DV:16:LEU:HD13	2.16	0.45
52:DB:13:G:N2	52:DB:23:A:N1	2.63	0.45
1:CA:2307:C:H2'	1:CA:2308:C:H6	1.80	0.45
47:BT:29:HIS:CE1	47:BT:32:TYR:HD1	2.35	0.45
34:BG:153:ARG:HH22	34:BG:180:GLY:C	2.16	0.45
9:AM:22:THR:O	9:AM:61:ARG:O	2.34	0.45
14:CQ:35:ILE:HG12	14:CQ:101:LEU:HD23	1.99	0.45
26:A4:13:ARG:O	26:A4:14:ILE:HB	2.15	0.45
24:AW:28:LYS:O	24:AW:31:GLU:HB3	2.16	0.45
34:DG:126:ILE:HG22	34:DG:127:THR:H	1.80	0.45
5:CF:78:ILE:HG22	5:CF:83:PHE:CD1	2.51	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:413:G:O2'	31:DA:428:G:N2	2.50	0.45
18:AS:92:ARG:CZ	18:AS:94:ASP:OD2	2.64	0.45
31:DA:31:G:O2'	31:DA:48:C:N4	2.50	0.45
1:CA:556:G:H3'	1:CA:556:G:C8	2.51	0.45
21:AV:128:VAL:HA	21:AV:161:VAL:CG2	2.43	0.45
20:AU:49:VAL:O	20:AU:51:VAL:HG12	2.16	0.45
50:DW:100:ILE:H	50:DW:100:ILE:CD1	2.30	0.45
1:AA:566:U:H5''	11:AO:29:LYS:HE3	1.97	0.45
52:BB:41:C:C4	52:BB:42:U:C5	3.05	0.45
7:AH:30:LYS:NZ	7:AH:81:GLU:HA	2.32	0.45
1:CA:1841:A:N6	1:CA:1842:A:N1	2.65	0.45
1:CA:1767:G:C6	1:CA:1769:U:OP2	2.69	0.45
4:CE:6:GLY:HA2	4:CE:51:PHE:CZ	2.51	0.45
31:BA:113:G:H2'	31:BA:114:U:C6	2.48	0.45
52:BD:81:C:H2'	52:BD:82:A:O4'	2.16	0.45
31:DA:129(A):G:O6	31:DA:188:U:H4'	2.17	0.45
1:AA:1388:G:H2'	1:AA:1389:G:C8	2.51	0.45
34:DG:30:LYS:HD3	34:DG:30:LYS:N	2.32	0.45
1:CA:1295:G:N7	5:CF:92:PRO:HG3	2.31	0.45
1:AA:2880:C:H1'	13:A0:92:GLY:O	2.17	0.45
1:AA:1817:G:C2'	1:AA:1818:U:H5'	2.46	0.45
17:A2:31:ALA:O	17:A2:61:VAL:HG22	2.15	0.45
39:DL:33:PHE:HD1	39:DL:33:PHE:O	2.00	0.45
1:CA:2864:C:O2'	1:CA:2865:G:H5'	2.17	0.45
1:AA:2295:C:H2'	1:AA:2295:C:O2	2.16	0.45
1:AA:152:G:C4	1:AA:175:G:N2	2.84	0.45
47:DT:23:VAL:O	47:DT:39:SER:HA	2.17	0.45
53:BC:19:G:C4'	53:BC:20:G:OP1	2.63	0.45
4:CE:120:TRP:CG	4:CE:155:LYS:HB3	2.52	0.45
8:CK:124:GLY:H	8:CK:142:VAL:CG1	2.29	0.45
31:BA:19:C:H2'	31:BA:20:U:C6	2.52	0.45
31:BA:24:U:H2'	31:BA:25:C:C6	2.51	0.45
1:CA:1268:C:C2	1:CA:1276:G:C2	3.03	0.45
31:DA:646:U:H2'	31:DA:647:C:C6	2.51	0.45
1:AA:311:A:C6	1:AA:328:U:C4	3.05	0.45
31:BA:701:C:OP1	31:BA:702:A:O2'	2.24	0.45
1:AA:2092:U:O2	56:AA:3322:OHX:N1	2.49	0.45
1:CA:2325:U:H3'	1:CA:2325:U:H6	1.81	0.45
1:CA:417:G:H22	11:CO:72:PRO:HD3	1.80	0.45
1:CA:894:C:C2	1:CA:895:U:C4	3.05	0.45
52:BD:68:A:H5''	52:BD:69:U:OP2	2.17	0.45
52:BB:22:A:C5	52:BB:57:C:C4	3.05	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:2760:U:OP2	56:CA:3365:OHX:N1	2.50	0.45
31:BA:1198:G:HO2'	40:BM:54:PHE:HD2	1.64	0.45
31:BA:976:G:P	44:BQ:32:SER:H	2.39	0.45
31:BA:1004:A:OP1	31:BA:1025:U:N3	2.50	0.45
1:CA:1122:C:C4	1:CA:1123:C:N4	2.84	0.45
1:CA:2387:C:C2'	1:CA:2388:G:H5'	2.46	0.45
52:DD:40:U:C2'	52:DD:41:C:H5'	2.47	0.45
1:AA:633:A:C8	1:AA:633:A:C3'	2.99	0.45
31:BA:1133:G:C4	31:BA:1134:G:C8	3.04	0.45
39:DL:4:TYR:CB	39:DL:19:LEU:HB2	2.46	0.45
1:AA:529:A:C8	1:AA:530:G:O6	2.70	0.45
31:DA:1008:C:H2'	31:DA:1009:G:O4'	2.16	0.45
1:AA:1043:C:C2'	1:AA:1044:G:H5'	2.46	0.45
1:AA:1855:G:H1	1:AA:1887:C:H42	1.65	0.45
30:C8:48:PHE:CD2	30:C8:49:VAL:N	2.73	0.45
31:BA:468:A:C8	31:BA:474:G:C8	3.05	0.45
1:CA:595:A:O2'	17:C2:78:LYS:NZ	2.49	0.45
31:BA:515:G:C2	31:BA:537:G:C2	3.05	0.45
8:AK:135:GLU:HB2	8:AK:136:VAL:H	1.53	0.45
1:AA:967:C:C2	1:AA:968:G:C8	3.04	0.45
52:DB:24:G:H3'	52:DB:24:G:C8	2.52	0.45
1:AA:2895:U:H2'	1:AA:2896:C:H6	1.82	0.45
5:CF:57:VAL:CG1	5:CF:58:ALA:N	2.79	0.45
35:DH:101:ILE:HG12	35:DH:101:ILE:O	2.16	0.45
35:DH:79:GLU:HG3	35:DH:93:PRO:HD2	1.98	0.45
31:BA:197:A:N7	31:BA:221:C:H4'	2.31	0.45
48:DU:22:VAL:HG12	48:DU:55:ARG:O	2.16	0.45
38:BK:21:LYS:O	38:BK:65:TYR:OH	2.08	0.45
35:BH:28:PHE:CD2	35:BH:51:VAL:HG22	2.51	0.45
26:C4:40:HIS:N	26:C4:41:PRO:CD	2.79	0.45
15:AR:74:ARG:HD3	15:AR:76:PHE:HE2	1.81	0.45
3:CD:176:ARG:HH11	3:CD:176:ARG:CG	2.28	0.45
31:DA:1100:C:HO2'	31:DA:1102:A:P	2.39	0.45
33:BF:162:GLN:NE2	54:B1:23:A:H8	2.15	0.45
1:AA:1545(A):A:C2'	1:AA:1546:C:H5'	2.45	0.45
36:DI:76:ALA:O	36:DI:80:ARG:HG3	2.17	0.45
1:CA:684:G:H1	1:CA:697:C:N4	2.14	0.45
1:CA:1369:A:C5	1:CA:1370:U:C5	3.04	0.45
41:BN:127:LYS:HZ2	41:BN:127:LYS:HA	1.81	0.45
31:BA:1524:C:OP1	41:BN:120:ARG:NH1	2.49	0.45
1:AA:848:G:O6	1:AA:929:G:H2'	2.17	0.45
1:AA:1771:C:C1'	1:AA:1786:A:C8	2.99	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:DN:84:VAL:CG1	41:DN:95:ILE:HD11	2.46	0.45
33:DF:150:LYS:HD2	33:DF:167:TRP:HD1	1.80	0.45
1:CA:126:C:H2'	1:CA:127:C:C6	2.51	0.45
31:DA:658:G:H2'	31:DA:659:U:C6	2.51	0.45
31:DA:1243:C:O2	31:DA:1295:G:C2	2.70	0.45
1:CA:1815:A:C2	1:CA:2600:A:C5	3.04	0.45
1:AA:960:A:O3'	1:AA:961:C:H3'	2.17	0.45
1:AA:1878:G:H2'	1:AA:1879:C:H6	1.82	0.45
16:A1:19:LYS:O	16:A1:22:LYS:HB2	2.17	0.45
1:AA:1824:G:H1'	3:AD:254:THR:OG1	2.16	0.45
52:DB:1:G:H2'	52:DB:2:G:C8	2.52	0.45
1:AA:2853:C:H2'	1:AA:2854:G:C8	2.52	0.45
21:AV:158:PRO:HB3	21:AV:159:PRO:HD2	1.97	0.45
34:BG:60:GLU:O	34:BG:63:LYS:HB3	2.17	0.45
47:DT:45:HIS:CD2	47:DT:47:PRO:HD3	2.51	0.45
5:AF:7:TYR:O	5:AF:21:ALA:HA	2.16	0.45
31:DA:35:G:N2	31:DA:550:G:H1'	2.32	0.45
2:AB:78:A:C2	2:AB:99:A:C4	3.04	0.45
1:AA:705:A:C2	1:AA:727:A:H1'	2.52	0.45
1:CA:2487:C:O2	1:CA:2487:C:H2'	2.15	0.45
10:CN:38:VAL:HA	10:CN:60:ALA:O	2.16	0.45
49:BV:49:ILE:O	49:BV:60:VAL:HG12	2.16	0.45
2:CB:74:G:OP1	56:CB:212:OHX:N2	2.49	0.45
14:AQ:38:GLN:HG3	14:AQ:47:THR:HG21	1.99	0.45
1:AA:2016:U:H4'	27:A5:6:VAL:HG11	1.95	0.45
12:AP:77:LYS:CD	12:AP:81:VAL:HG21	2.47	0.45
1:AA:1067:A:C8	1:AA:1068:G:C5	3.05	0.45
52:BD:19:C:C3'	52:BD:19:C:C6	2.99	0.45
11:CO:97:PRO:HD3	11:CO:112:LEU:HD12	1.97	0.45
11:CO:47:ASP:OD1	11:CO:50:ARG:CZ	2.64	0.45
11:CO:52:GLU:HB2	11:CO:57:THR:HG22	1.98	0.45
3:AD:35:LYS:HG2	3:AD:64:ILE:CA	2.46	0.45
3:AD:65:ILE:HG12	3:AD:67:PHE:CE1	2.52	0.45
21:AV:61:LEU:HB2	21:AV:62:PRO:CD	2.40	0.45
52:DB:20:C:O2	52:DB:20:C:H2'	2.17	0.45
3:CD:35:LYS:HZ1	3:CD:104:TYR:HB2	1.81	0.45
1:CA:2805:C:C2	1:CA:2903:G:C6	3.05	0.45
1:CA:1186:C:O4'	1:CA:1190:A:C2	2.70	0.45
31:DA:270:A:C6	31:DA:271:C:C4	3.05	0.45
1:AA:2302:G:C6	1:AA:2315:G:C6	3.04	0.45
49:BV:40:ILE:HG12	49:BV:41:VAL:H	1.81	0.45
28:A6:40:CYS:HB2	28:A6:46:HIS:ND1	2.31	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
39:DL:55:ALA:HB1	39:DL:59:PHE:CD1	2.51	0.45
1:CA:1700:A:N7	1:CA:1701:G:C6	2.85	0.45
16:C1:94:ASN:C	16:C1:96:ALA:N	2.70	0.45
31:DA:1008:C:O2	31:DA:1021:G:N1	2.38	0.45
2:CB:42:U:C4	26:C4:1:MET:SD	3.10	0.45
30:A8:34:TRP:N	30:A8:35:GLN:CB	2.72	0.45
43:DP:84:ILE:HG23	49:DV:74:PHE:CZ	2.51	0.45
49:DV:36:ARG:NH2	49:DV:72:GLY:HA3	2.32	0.45
31:DA:1300:G:C6	31:DA:1334:G:C5	3.05	0.45
37:DJ:38:LEU:O	37:DJ:42:ILE:HG13	2.17	0.45
27:A5:51:TYR:H	27:A5:56:LYS:CG	2.28	0.45
33:BF:184:TYR:CD1	33:BF:201:TYR:HE2	2.31	0.45
31:BA:1366:C:O2'	40:BM:60:ARG:NH2	2.49	0.45
1:AA:2894:G:H2'	1:AA:2895:U:OP2	2.17	0.45
1:AA:484:C:OP1	20:AU:51:VAL:HG11	2.17	0.45
18:AS:14:PRO:HG2	18:AS:78:GLU:CB	2.44	0.45
1:CA:801:C:H6	1:CA:801:C:O5'	1.99	0.45
1:AA:404:C:C1'	1:AA:405:U:OP2	2.63	0.45
35:BH:43:LEU:CD2	35:BH:132:ALA:HB1	2.46	0.45
31:DA:340:U:H2'	31:DA:341:C:C6	2.51	0.45
32:BE:100:GLY:O	32:BE:101:MET:C	2.54	0.45
1:AA:2638:G:P	4:AE:82:ARG:HH21	2.36	0.45
1:AA:218:A:C2	1:AA:235:U:H4'	2.47	0.45
52:BB:31:G:H2'	52:BB:32:A:O4'	2.16	0.45
1:AA:1093:G:H4'	7:AH:170:ARG:HH21	1.82	0.45
1:AA:64:A:C4	19:AT:66:LEU:CD2	3.00	0.45
1:AA:1240:U:O2'	1:AA:1241:A:H5'	2.17	0.45
31:DA:362:G:O2'	42:DO:30:ARG:NH2	2.50	0.45
1:CA:1363:U:O2'	1:CA:1364:A:H5'	2.17	0.45
40:BM:75:ILE:O	40:BM:77:PRO:HD3	2.17	0.45
31:BA:1386:G:C2	31:BA:1387:G:C5	3.04	0.45
43:DP:116:THR:O	43:DP:117:VAL:C	2.53	0.45
1:CA:1196:G:C2	1:CA:1197:C:C2	3.05	0.45
34:DG:15:GLU:HB2	34:DG:63:LYS:HE2	1.99	0.45
47:BT:6:LEU:CD2	47:BT:23:VAL:HG11	2.47	0.45
41:DN:105:VAL:O	41:DN:105:VAL:CG2	2.65	0.45
1:CA:663:A:OP1	11:CO:133:SER:HB2	2.16	0.45
31:BA:1329:A:OP1	43:BP:28:ALA:HB3	2.16	0.45
31:BA:134:A:H61	46:BS:25:ARG:HH12	1.63	0.45
31:BA:919:A:C5	31:BA:920:U:C5	3.05	0.45
41:DN:108:ILE:HB	48:DU:87:ARG:HD2	1.98	0.45
1:AA:2749:A:N1	1:AA:2750:A:N6	2.64	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:230:G:H2'	31:DA:231:G:O4'	2.16	0.45
34:BG:111:ALA:HB2	34:BG:120:LEU:CD1	2.46	0.45
1:AA:394:A:C2'	1:AA:395:U:H5'	2.47	0.45
16:C1:8:VAL:O	16:C1:12:ARG:HG2	2.17	0.45
1:CA:2657:G:OP2	56:CA:3418:OHX:N1	2.49	0.45
4:AE:31:CYS:HB2	4:AE:91:VAL:HG23	1.99	0.45
9:CM:48:MET:O	9:CM:48:MET:SD	2.75	0.45
2:CB:116:C:H2'	2:CB:117:G:C8	2.51	0.45
7:AH:95:ARG:HB3	7:AH:95:ARG:NH1	2.31	0.45
1:AA:231:C:O2	1:AA:231:C:H2'	2.17	0.45
1:AA:1063:G:C5	1:AA:1064:C:C5	3.05	0.45
52:BD:48:C:H2'	52:BD:49:A:O4'	2.16	0.45
52:DD:19:C:C3'	52:DD:19:C:C6	2.99	0.45
52:DD:48:C:C2'	52:DD:49:A:C8	3.00	0.45
31:DA:1178:G:H2'	31:DA:1179:A:O5'	2.16	0.45
1:CA:719:C:OP1	11:CO:42:SER:O	2.35	0.45
1:CA:1158:A:O3'	1:CA:1159:G:H4'	2.16	0.45
31:BA:1234:C:C4'	31:BA:1364:U:O2'	2.64	0.45
51:BX:2:GLY:C	51:BX:4:GLY:H	2.20	0.45
1:AA:2277:G:OP1	12:AP:86:GLY:CA	2.63	0.45
31:BA:1004:A:C5'	31:BA:1025:U:C4	2.92	0.45
52:DB:49:A:C2	52:DB:52:G:C2	3.04	0.45
11:AO:61:ARG:O	11:AO:62:LEU:HD23	2.16	0.45
52:BD:11:C:C4	52:BD:12:C:C5	3.05	0.45
31:BA:1124:G:C8	31:BA:1145:C:C5	3.05	0.45
31:BA:428:G:H4'	31:BA:429:U:OP1	2.17	0.45
34:BG:12:CYS:HA	34:BG:19:LEU:CD2	2.47	0.45
22:A3:32:ARG:HB2	22:A3:35:ASN:HD21	1.82	0.45
41:DN:27:ASN:ND2	41:DN:55:LYS:HD2	2.32	0.45
10:AN:47:ILE:HG12	10:AN:48:PRO:HD2	1.98	0.45
37:DJ:23:VAL:HG13	37:DJ:43:PHE:HE2	1.82	0.45
1:CA:14:A:C8	1:CA:15:G:C8	3.05	0.45
5:AF:167:ALA:HB1	5:AF:173:VAL:HG11	1.99	0.45
39:BL:47:LEU:HD13	39:BL:47:LEU:N	2.31	0.45
32:BE:95:GLN:O	32:BE:96:ARG:O	2.34	0.45
18:CS:9:TYR:HA	18:CS:100:THR:CG2	2.46	0.45
1:AA:105:C:C4'	20:AU:2:ARG:HH21	2.27	0.45
35:DH:78:HIS:CG	38:DK:104:ARG:HE	2.34	0.45
31:DA:48:C:OP1	56:DA:1734:OHX:N2	2.50	0.45
1:CA:2230:A:H1'	1:CA:2232:G:C4	2.52	0.45
10:CN:107:ARG:NH1	10:CN:115:VAL:HG11	2.32	0.45
31:BA:492:G:OP2	56:BA:1804:OHX:N3	2.50	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:2533:C:H2'	1:CA:2534:C:H6	1.82	0.45
1:CA:1978:U:H4'	1:CA:1979:U:OP2	2.14	0.45
7:CH:152:ARG:C	7:CH:154:PRO:HD3	2.37	0.45
4:CE:114:ALA:HB3	4:CE:160:TYR:HB3	1.99	0.45
14:AQ:10:ARG:O	14:AQ:14:VAL:HG12	2.17	0.45
42:DO:72:HIS:CD2	42:DO:74:LEU:H	2.35	0.45
7:AH:98:LEU:HD13	7:AH:125:VAL:HG21	1.99	0.45
12:AP:59:ARG:HD2	12:AP:59:ARG:N	2.30	0.45
15:CR:8:LYS:HB2	15:CR:8:LYS:HZ2	1.81	0.45
1:AA:1266:G:O5'	18:AS:15:ARG:NH2	2.49	0.45
31:DA:1194:U:H2'	31:DA:1195:C:H6	1.79	0.45
1:AA:653:A:H3'	1:AA:654:A:C5'	2.47	0.45
22:A3:18:ALA:O	22:A3:20:ARG:NH1	2.49	0.45
51:BX:12:LYS:HG3	51:BX:17:THR:O	2.16	0.45
1:CA:1871:G:H2'	1:CA:1871:G:N3	2.31	0.45
12:CP:43:THR:OG1	12:CP:46:GLN:HG3	2.17	0.45
1:CA:1858:G:H4'	3:CD:242:ARG:NE	2.31	0.45
31:DA:1386:G:H2'	31:DA:1387:G:H8	1.81	0.45
22:C3:50:ASN:C	22:C3:62:LEU:HD12	2.37	0.45
47:DT:59:ILE:CG2	47:DT:71:PHE:HB3	2.47	0.45
43:DP:28:ALA:C	43:DP:30:ALA:N	2.70	0.45
12:AP:106:VAL:HG21	12:AP:114:ALA:HB1	1.98	0.45
15:CR:51:ARG:HE	15:CR:62:THR:CG2	2.30	0.45
1:AA:141(A):C:H2'	1:AA:142:G:O4'	2.16	0.45
1:AA:208:C:H2'	1:AA:209:C:C6	2.52	0.45
1:AA:2461:C:H2'	1:AA:2462:U:H6	1.82	0.45
1:AA:611:C:C2	1:AA:612:G:C8	3.04	0.45
31:DA:157:G:O6	56:DA:1740:OHX:N5	2.49	0.45
13:C0:54:LEU:O	13:C0:57:ARG:HB2	2.17	0.45
31:BA:371:G:O2'	31:BA:373:A:N7	2.49	0.45
6:CG:165:THR:C	6:CG:167:GLU:H	2.20	0.45
31:BA:442:C:H2'	31:BA:443:C:H6	1.80	0.45
1:CA:1436:G:C2	1:CA:1437:U:C2	3.04	0.45
1:CA:265:G:H2'	1:CA:266:U:C6	2.52	0.45
1:CA:180:A:OP2	23:CZ:39:LYS:NZ	2.46	0.45
11:CO:124:LYS:HA	11:CO:143:GLY:O	2.17	0.45
31:DA:440:A:OP2	31:DA:440:A:H8	2.00	0.45
7:CH:59:ARG:HA	7:CH:62:LYS:HE3	1.99	0.45
31:BA:1486:G:H2'	31:BA:1487:G:O4'	2.17	0.45
12:CP:10:ARG:HA	12:CP:10:ARG:HE	1.82	0.45
48:BU:46:GLU:HG3	48:BU:46:GLU:O	2.17	0.45
8:AK:92:VAL:HG13	8:AK:120:ILE:HG23	1.99	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:24:G:H1'	18:AS:77:ASP:HB3	1.99	0.45
1:AA:883:G:H2'	1:AA:884:C:H4'	1.98	0.45
1:CA:2434:G:C6	52:DD:85:A:C2	3.05	0.45
1:AA:2168:G:H22	1:AA:2170:A:N6	2.12	0.45
1:AA:2112:G:H2'	1:AA:2168:G:O6	2.17	0.45
1:CA:876:U:O5'	1:CA:876:U:O2	2.35	0.45
1:AA:2415:G:H2'	1:AA:2416:C:C6	2.52	0.45
1:CA:1157:G:O2'	1:CA:1158:A:O4'	2.11	0.45
31:BA:1305:G:C2	31:BA:1331:G:N3	2.84	0.45
52:DB:51:C:C2	52:DB:52:G:H1'	2.51	0.45
1:CA:2804:A:C4'	1:CA:2805:C:OP2	2.64	0.45
4:CE:58:ARG:O	4:CE:60:ASN:N	2.50	0.45
2:CB:17:A:H5''	2:CB:18:G:H8	1.81	0.45
31:BA:266:G:N2	31:BA:269:C:C5	2.85	0.45
1:CA:2520:C:O2'	52:DB:83:C:N4	2.50	0.45
1:CA:1043:A:N6	1:CA:1206:U:H3	2.13	0.45
32:DE:7:VAL:CG1	32:DE:8:LYS:HD3	2.36	0.45
31:BA:632:A:H8	31:BA:633:G:C8	2.35	0.45
31:BA:1213:A:N6	31:BA:1215:G:N3	2.65	0.45
1:AA:776:G:C8	1:AA:793:A:C2	3.05	0.45
2:AB:44:G:C2	2:AB:48:A:C2	3.05	0.45
1:AA:1558:A:H1'	1:AA:1559:G:P	2.57	0.45
1:AA:1558:A:C2'	1:AA:1559:G:OP2	2.65	0.45
10:AN:47:ILE:HG13	10:AN:48:PRO:HD2	1.99	0.45
31:DA:1200:C:O2	31:DA:1200:C:H2'	2.17	0.45
31:DA:1321:C:H4'	43:DP:87:TYR:CE2	2.51	0.45
1:AA:917:A:C2'	1:AA:918:A:O5'	2.65	0.45
1:AA:1416:G:H2'	1:AA:1417:C:C6	2.52	0.45
31:BA:1323:G:H2'	31:BA:1324:A:C8	2.52	0.45
31:DA:383:A:H2'	31:DA:384:G:H5'	1.99	0.45
1:AA:1378:A:OP1	29:A7:10:ARG:NH2	2.45	0.45
1:AA:1479:G:N7	1:AA:1510:A:N6	2.63	0.45
39:BL:46:ALA:HB2	39:BL:74:ILE:HG23	1.97	0.45
31:DA:57:G:C5	31:DA:58:C:C4	3.05	0.45
31:DA:57:G:H2'	31:DA:58:C:C6	2.52	0.45
38:DK:104:ARG:NH1	38:DK:138:TRP:CE2	2.85	0.45
31:DA:467:G:C6	31:DA:468:A:C6	3.05	0.45
1:CA:1697:G:C6	1:CA:2032:G:O6	2.70	0.45
35:BH:90:VAL:HG12	35:BH:121:LYS:O	2.17	0.45
11:CO:58:THR:CG2	11:CO:58:THR:O	2.62	0.45
5:AF:132:VAL:CG2	5:AF:133:ASN:N	2.77	0.45
32:DE:97:TRP:CZ3	32:DE:99:GLY:HA2	2.49	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
48:BU:50:ILE:N	48:BU:50:ILE:HD13	2.32	0.45
3:AD:70:TRP:CZ3	3:AD:150:LYS:HA	2.51	0.45
11:AO:3:LEU:HD23	11:AO:6:LEU:HD23	1.98	0.45
31:DA:1086:U:H2'	31:DA:1087:G:H8	1.80	0.45
28:A6:42:TRP:N	28:A6:42:TRP:HD1	2.15	0.45
35:BH:20:GLN:C	35:BH:22:GLY:H	2.20	0.45
35:BH:20:GLN:C	35:BH:22:GLY:N	2.69	0.45
19:AT:21:PHE:CE2	19:AT:26:TYR:HD2	2.35	0.45
43:DP:5:ALA:HB2	43:DP:22:ILE:CD1	2.47	0.45
31:DA:243:A:C1'	31:DA:244:U:OP2	2.64	0.45
31:DA:280:C:H4'	31:DA:281:G:OP2	2.16	0.45
31:DA:1338:G:C6	31:DA:1339:A:C6	3.05	0.45
31:DA:539:A:OP2	42:DO:112:LYS:NZ	2.48	0.45
32:BE:32:ILE:HD11	32:BE:40:HIS:CB	2.46	0.45
1:CA:2342:G:H21	22:C3:41:ARG:HB3	1.82	0.45
31:DA:953:G:C6	31:DA:954:G:C5	3.05	0.45
1:CA:1858:G:H4'	3:CD:242:ARG:HH21	1.82	0.45
20:CU:63:LYS:HA	20:CU:63:LYS:NZ	2.32	0.45
49:DV:7:LYS:HG2	49:DV:8:GLY:N	2.31	0.45
32:DE:137:ARG:C	32:DE:137:ARG:HD3	2.37	0.45
13:A0:104:ARG:HD2	13:A0:107:ASP:OD1	2.16	0.45
19:CT:53:LYS:NZ	19:CT:55:ASN:HD21	2.15	0.45
31:BA:776:G:N7	56:BA:1797:OHX:N6	2.64	0.45
1:AA:225:A:C2'	1:AA:226:G:H5'	2.47	0.45
12:AP:26:TYR:C	12:AP:26:TYR:HD2	2.20	0.45
5:AF:7:TYR:CE2	5:AF:23:ASP:HA	2.52	0.45
1:AA:1650:G:N7	56:AA:3429:OHX:N1	2.65	0.45
31:BA:1455:G:H5''	50:BW:32:ALA:HB2	1.99	0.45
6:CG:6:ALA:O	6:CG:9:ARG:N	2.49	0.45
8:AK:49:ALA:O	8:AK:52:ARG:N	2.50	0.45
1:AA:2877:G:O6	56:AA:3313:OHX:N5	2.50	0.45
15:AR:78:LEU:O	15:AR:78:LEU:HD22	2.16	0.45
1:CA:1647:C:O2'	1:CA:1648:G:H5'	2.16	0.45
31:BA:932:C:OP1	37:BJ:4:ARG:HG3	2.15	0.45
9:AM:19:GLU:HA	9:AM:59:LYS:HB2	1.99	0.45
1:CA:600:U:O5'	1:CA:600:U:H6	2.00	0.45
31:BA:1381:U:H3'	31:BA:1381:U:O2	2.17	0.45
19:CT:8:ILE:H	19:CT:8:ILE:HD12	1.82	0.45
38:DK:100:ILE:HA	38:DK:101:PRO:HD3	1.74	0.45
1:CA:969:U:H2'	1:CA:970:C:C6	2.51	0.45
12:CP:132:VAL:HG21	21:CV:81:ARG:NH1	2.31	0.45
31:BA:69:G:C2'	31:BA:73:G:H5'	2.46	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1004:A:C8	31:BA:1036:G:N2	2.82	0.45
1:AA:607:U:H5	1:AA:619:G:C5	2.35	0.45
52:DB:17:G:N3	52:DB:66:G:C2	2.85	0.45
15:AR:108:ARG:HG3	15:AR:112:ARG:HD2	1.99	0.45
20:AU:20:TYR:CZ	20:AU:42:VAL:HA	2.52	0.45
15:AR:36:GLU:N	15:AR:36:GLU:OE2	2.50	0.45
1:AA:2053:G:H5'	4:AE:144:ARG:O	2.17	0.45
49:BV:65:ASN:H	49:BV:65:ASN:ND2	1.97	0.45
21:CV:128:VAL:CG2	21:CV:129:SER:H	2.15	0.45
28:C6:14:THR:OG1	28:C6:15:GLU:N	2.50	0.45
17:A2:35:LEU:HD23	17:A2:35:LEU:O	2.16	0.45
1:CA:1037:A:OP2	1:CA:1038:C:OP2	2.35	0.45
1:AA:1050:A:C8	1:AA:2751:G:C5	3.05	0.45
31:BA:926:G:C6	31:BA:1505:G:C6	3.05	0.45
21:CV:60:GLU:O	21:CV:65:GLN:O	2.35	0.45
15:AR:51:ARG:HB2	15:AR:98:LYS:CD	2.39	0.45
31:DA:1298:C:H41	37:DJ:114:ARG:HB3	1.81	0.45
34:BG:146:ILE:HD12	34:BG:146:ILE:N	2.32	0.45
2:CB:6:C:H2'	2:CB:7:C:O4'	2.17	0.45
53:DC:1:C:C2'	53:DC:2:G:H5'	2.47	0.45
7:AH:74:ASN:HA	7:AH:77:LYS:HD3	1.98	0.45
1:CA:2308:C:OP2	14:CQ:10:ARG:HD3	2.16	0.45
6:AG:38:VAL:HG22	6:AG:93:THR:HG23	1.99	0.45
7:AH:83:TYR:HB2	7:AH:134:SER:CA	2.43	0.45
40:DM:4:ILE:HG12	40:DM:100:THR:CG2	2.46	0.45
31:BA:972:C:H4'	40:BM:57:LYS:HB2	1.97	0.45
24:AW:47:ASN:O	24:AW:49:LYS:HG3	2.17	0.45
11:AO:38:GLN:O	11:AO:41:ARG:HB2	2.17	0.45
1:AA:2811:G:H8	1:AA:2811:G:OP2	1.99	0.45
31:DA:32:A:C2	31:DA:33:A:C5	3.05	0.45
1:CA:556:G:HO2'	1:CA:558:A:H8	1.43	0.45
1:AA:654(J):A:N3	1:AA:654(J):A:H3'	2.32	0.45
31:BA:827:U:H6	31:BA:859:A:H61	1.65	0.45
35:DH:39:GLY:O	35:DH:69:VAL:HG23	2.17	0.45
1:CA:1968:G:C4	1:CA:1969:U:C5	3.05	0.45
12:AP:136:ALA:HB2	21:AV:52:SER:HB2	1.99	0.45
1:AA:2656:U:O2	1:AA:2656:U:H2'	2.17	0.45
35:BH:153:LYS:H	38:BK:64:LYS:HZ3	1.64	0.45
21:AV:69:THR:HG22	21:AV:90:VAL:HA	1.98	0.45
1:AA:654(S):G:C4'	1:AA:654(T):A:OP1	2.65	0.45
1:CA:313:C:H3'	1:CA:314:A:H8	1.81	0.45
1:AA:2272:U:C5'	1:AA:2273:A:OP1	2.65	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:CV:178:GLU:HG3	21:CV:179:ASP:N	2.32	0.45
1:CA:680:A:N3	1:CA:680:A:C2'	2.80	0.45
4:CE:179:GLU:O	4:CE:180:ASN:HB2	2.17	0.45
4:CE:197:ILE:HG13	4:CE:197:ILE:O	2.16	0.45
11:AO:96:THR:HB	11:AO:97:PRO:HD2	1.98	0.45
21:CV:99:TYR:CD1	21:CV:123:ASP:HB3	2.48	0.45
44:DQ:53:LEU:HB3	44:DQ:56:VAL:CG2	2.47	0.45
1:CA:684:G:H1	1:CA:697:C:H42	1.65	0.45
1:CA:352:G:H1	1:CA:360:C:H42	1.65	0.45
6:AG:83:ARG:HH22	53:BC:57:C:N4	2.14	0.45
1:CA:56:C:H2'	1:CA:57:G:O5'	2.17	0.45
31:DA:197:A:C6	31:DA:221:C:H4'	2.52	0.45
1:CA:1716:A:C8	1:CA:1722:G:C6	3.05	0.45
1:CA:48:A:H5''	1:CA:50:G:O4'	2.17	0.45
1:CA:2577:A:OP1	1:CA:2661:C:H4'	2.17	0.45
1:AA:143:C:H2'	1:AA:144:C:C6	2.52	0.45
7:AH:7:LEU:HD12	7:AH:7:LEU:H	1.81	0.45
31:DA:1317:C:N1	44:DQ:16:PHE:HE1	2.15	0.45
47:BT:74:LEU:CD1	47:BT:75:ARG:HG2	2.47	0.45
3:AD:231:HIS:CG	3:AD:232:PRO:HD2	2.52	0.45
16:C1:14:HIS:ND1	16:C1:32:PHE:CG	2.85	0.45
1:AA:2038:G:H2'	1:AA:2039:C:O4'	2.16	0.45
1:AA:466:A:OP1	29:A7:34:ARG:NH1	2.50	0.45
52:DB:80:C:H2'	52:DB:81:C:O4'	2.17	0.45
1:AA:24:G:H2'	1:AA:25:U:O4'	2.17	0.45
35:DH:150:ARG:O	35:DH:154:GLY:HA3	2.16	0.45
38:BK:38:ILE:HG21	38:BK:120:THR:HG22	1.97	0.45
32:DE:114:ARG:HA	32:DE:117:GLU:HB2	1.99	0.45
1:CA:1731:C:H2'	1:CA:1732:C:C6	2.52	0.45
31:DA:728:A:H2'	31:DA:729:A:C8	2.52	0.45
1:AA:1506:C:O2	1:AA:1506:C:H2'	2.16	0.45
31:BA:777:A:C2'	31:BA:778:G:O5'	2.65	0.45
23:AZ:8:SER:OG	23:AZ:10:LYS:HG3	2.17	0.45
36:BI:16:GLN:CD	36:BI:16:GLN:H	2.20	0.45
31:BA:1044:A:H2'	31:BA:1045:C:O4'	2.17	0.45
38:BK:97:VAL:HG13	38:BK:98:LYS:N	2.32	0.45
1:CA:413:C:O2'	1:CA:418:A:N1	2.43	0.45
21:CV:62:PRO:C	21:CV:64:GLY:H	2.20	0.45
27:A5:3:LYS:O	27:A5:4:HIS:HB2	2.17	0.44
12:AP:78:PRO:O	12:AP:81:VAL:CG1	2.56	0.44
1:AA:882:G:N1	1:AA:894:C:C4	2.81	0.44
1:AA:1060:U:H4'	1:AA:1061:U:O5'	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:2115:G:N2	1:AA:2172:U:C2	2.81	0.44
52:DD:65:C:C2'	52:DD:66:G:H5'	2.48	0.44
1:AA:889:C:H5''	1:AA:890:A:P	2.57	0.44
3:AD:118:VAL:HG22	3:AD:119:ALA:N	2.32	0.44
3:AD:69:ARG:C	3:AD:71:ASP:N	2.71	0.44
40:BM:54:PHE:CE1	40:BM:55:LYS:HE3	2.52	0.44
31:BA:1007:C:H42	31:BA:1022:G:H1	1.64	0.44
31:DA:1504:G:OP1	31:DA:1507:A:H4'	2.17	0.44
31:DA:1505:G:H5''	31:DA:1506:U:O5'	2.17	0.44
1:AA:2393:A:H2'	1:AA:2394:C:C6	2.53	0.44
10:AN:107:ARG:HH11	15:AR:36:GLU:HA	1.81	0.44
32:DE:78:GLN:NE2	32:DE:95:GLN:OE1	2.50	0.44
6:AG:107:LEU:HD11	6:AG:178:PHE:CD1	2.52	0.44
1:CA:1444:U:C1'	1:CA:1445:C:OP1	2.63	0.44
39:DL:4:TYR:HB2	39:DL:19:LEU:CB	2.47	0.44
39:DL:28:VAL:HG22	39:DL:63:ILE:HB	1.99	0.44
39:DL:3:GLN:O	39:DL:88:TYR:CE1	2.70	0.44
31:BA:276:G:O3'	47:BT:68:ARG:NH1	2.49	0.44
31:DA:1003:G:N1	31:DA:1037:C:N4	2.54	0.44
21:CV:4:ARG:HA	21:CV:58:VAL:HB	1.97	0.44
1:CA:75:C:H1'	24:CW:62:THR:HG21	1.99	0.44
8:AK:63:ALA:O	8:AK:67:ARG:HB3	2.17	0.44
38:BK:4:ASP:HB2	38:BK:89:PRO:HG3	1.97	0.44
1:AA:165:U:O2	1:AA:165:U:C3'	2.64	0.44
1:AA:322:A:H3'	5:AF:169:ASN:ND2	2.31	0.44
1:CA:826:G:C6	1:CA:827:U:N3	2.86	0.44
1:AA:1528:A:H2'	1:AA:1529:A:O4'	2.17	0.44
31:DA:6:G:O2'	31:DA:7:G:O5'	2.34	0.44
31:DA:431:A:H2'	31:DA:432:A:O4'	2.17	0.44
1:AA:998:C:H2'	1:AA:999:U:O4'	2.17	0.44
1:CA:646:G:H4'	1:CA:647:A:O5'	2.17	0.44
31:BA:857:C:H2'	31:BA:858:G:O4'	2.17	0.44
2:CB:90:C:C3'	2:CB:91:G:H8	2.29	0.44
1:AA:1905:C:OP2	56:AA:3399:OHX:N2	2.50	0.44
15:CR:88:ILE:HD12	15:CR:89:VAL:N	2.32	0.44
1:CA:1955:A:H2'	1:CA:1956:G:O4'	2.17	0.44
1:AA:654(S):G:N3	1:AA:654(T):A:N7	2.66	0.44
44:DQ:23:ARG:O	44:DQ:25:VAL:N	2.51	0.44
1:CA:313:C:H2'	1:CA:314:A:C8	2.51	0.44
42:DO:72:HIS:HD2	42:DO:74:LEU:H	1.65	0.44
1:CA:1936:A:H4'	1:CA:1937:C:C5'	2.46	0.44
1:CA:1937:C:H2'	1:CA:1938:U:O4'	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:2214:G:H2'	1:CA:2215:G:C8	2.52	0.44
1:CA:2214:G:O2'	1:CA:2215:G:OP1	2.35	0.44
1:CA:906:U:O2	1:CA:2281:A:H2'	2.17	0.44
31:DA:769:G:H4'	31:DA:1513:A:H4'	1.99	0.44
31:DA:814:A:H2'	31:DA:816:A:H5''	1.99	0.44
1:CA:603:G:H2'	1:CA:604:C:C6	2.53	0.44
1:AA:1983:C:C2'	1:AA:1984:G:H5'	2.47	0.44
1:CA:1035:A:C2'	1:CA:1036:G:O5'	2.65	0.44
20:AU:43:ASN:HB2	20:AU:63:LYS:O	2.17	0.44
31:DA:316:G:OP2	31:DA:351:G:O2'	2.31	0.44
38:BK:8:ASP:OD2	38:BK:12:ARG:HD2	2.17	0.44
2:AB:116:G:H4'	14:AQ:54:LEU:HD13	1.99	0.44
34:DG:92:VAL:O	34:DG:96:LEU:HD23	2.17	0.44
1:AA:2695:C:H2'	1:AA:2696:U:H6	1.81	0.44
31:BA:373:A:C2	31:BA:482:A:C6	3.05	0.44
34:DG:140:VAL:HG11	34:DG:185:PHE:CD1	2.52	0.44
34:BG:54:TYR:CE2	34:BG:58:LEU:HD12	2.52	0.44
43:DP:79:LYS:O	43:DP:82:MET:HB3	2.17	0.44
35:DH:72:GLN:O	35:DH:75:THR:HG22	2.16	0.44
7:AH:60:ARG:CZ	7:AH:60:ARG:HB3	2.46	0.44
19:AT:59:VAL:O	19:AT:59:VAL:HG12	2.18	0.44
1:CA:2708:C:H2'	1:CA:2709:U:H6	1.82	0.44
39:BL:125:TYR:HD2	39:BL:126:SER:N	2.15	0.44
13:C0:84:ALA:N	13:C0:85:PRO:CD	2.80	0.44
1:AA:882:G:C6	1:AA:894:C:N4	2.83	0.44
1:CA:979:A:C6	1:CA:980:G:C4	3.06	0.44
1:CA:2268:G:C2	12:CP:85:LYS:HE2	2.46	0.44
1:AA:2114:A:C5	1:AA:2168:G:N1	2.85	0.44
52:DD:51:C:OP2	52:DD:52:G:C2	2.70	0.44
31:DA:1343:G:H2'	31:DA:1344:C:C6	2.52	0.44
31:BA:78:G:O6	31:BA:90:C:N4	2.50	0.44
45:DR:35:ARG:O	45:DR:39:LEU:HB3	2.17	0.44
31:DA:89:U:C4'	31:DA:90:C:OP1	2.65	0.44
1:AA:2392:A:H2	1:AA:2424:C:H42	1.64	0.44
5:CF:46:ARG:CG	5:CF:46:ARG:NH1	2.68	0.44
3:CD:35:LYS:HE2	3:CD:65:ILE:HG22	2.00	0.44
31:DA:989:C:O2'	31:DA:1017:G:O2'	2.18	0.44
1:AA:1677:A:H2'	1:AA:1678:G:C8	2.51	0.44
31:BA:1130:A:C5	31:BA:1131:G:O6	2.70	0.44
31:DA:1277:C:H1'	31:DA:1282:C:O2	2.18	0.44
31:DA:1128:C:H5'	39:DL:16:ARG:HH22	1.82	0.44
31:BA:272:C:H2'	31:BA:273:A:C8	2.52	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:C1:94:ASN:O	16:C1:96:ALA:N	2.50	0.44
1:CA:1584:C:O2'	1:CA:1585:G:O4'	2.33	0.44
2:AB:81:G:O6	2:AB:95:U:O2	2.35	0.44
12:CP:34:LEU:HB2	12:CP:118:LEU:HD22	1.99	0.44
32:BE:204:ASN:HD22	32:BE:206:ASP:N	2.05	0.44
32:BE:204:ASN:ND2	32:BE:206:ASP:O	2.50	0.44
1:AA:495:G:H1'	18:AS:57:ASN:HD21	1.81	0.44
1:AA:196:A:C4	1:AA:805:G:C6	3.05	0.44
31:BA:223:U:H2'	31:BA:224:C:H6	1.81	0.44
10:CN:115:VAL:CG1	10:CN:121:VAL:HG21	2.44	0.44
56:AA:3330:OHX:N5	56:AA:3533:OHX:N5	2.65	0.44
31:DA:1190:G:C8	31:DA:1190:G:C3'	3.00	0.44
42:DO:15:VAL:HG23	42:DO:16:ARG:N	2.32	0.44
1:AA:1162:G:H21	17:A2:89:GLN:HE22	1.64	0.44
31:DA:465:A:N6	31:DA:467:G:N1	2.65	0.44
1:AA:2594:C:H2'	1:AA:2595:G:C8	2.52	0.44
35:DH:60:TYR:HD2	35:DH:64:ARG:NH2	2.14	0.44
3:AD:96:HIS:ND1	3:AD:102:LYS:HD3	2.32	0.44
1:CA:2516:A:O2'	1:CA:2518:G:OP2	2.27	0.44
1:AA:2784:C:O2'	4:AE:37:ARG:NH2	2.49	0.44
31:BA:1435:G:H2'	31:BA:1436:U:C6	2.53	0.44
21:AV:108:PRO:HB2	21:AV:112:ARG:HA	1.99	0.44
42:BO:123:LYS:HG3	42:BO:124:GLU:H	1.82	0.44
49:DV:30:LEU:O	49:DV:30:LEU:HD13	2.17	0.44
36:BI:61:LEU:O	36:BI:62:TRP:HB2	2.17	0.44
31:BA:510:A:H5''	31:BA:511:C:OP2	2.16	0.44
1:CA:729:G:H2'	1:CA:730:G:O4'	2.16	0.44
1:AA:1473:G:C2'	1:AA:1474:C:H5'	2.47	0.44
3:AD:19:ALA:HB3	3:AD:21:PHE:CZ	2.51	0.44
1:AA:304:G:C4	1:AA:314:A:C2	3.06	0.44
26:A4:61:ARG:NE	26:A4:61:ARG:HA	2.31	0.44
1:CA:1717:A:O4'	10:CN:5:GLN:OE1	2.36	0.44
31:DA:1028(B):C:N4	31:DA:1032(A):G:N1	2.65	0.44
3:AD:3:VAL:HG12	3:AD:3:VAL:O	2.18	0.44
1:AA:1669:A:N3	1:AA:1669:A:H2'	2.32	0.44
31:BA:1329:A:OP1	43:BP:26:GLY:O	2.36	0.44
1:CA:510:A:C5'	20:CU:49:VAL:HG22	2.48	0.44
19:AT:34:ALA:HA	19:AT:38:GLU:OE1	2.17	0.44
24:CW:22:GLU:O	24:CW:25:VAL:HG22	2.17	0.44
32:BE:132:LYS:O	32:BE:135:GLN:HB2	2.17	0.44
31:DA:262:A:N6	31:DA:263:A:N6	2.65	0.44
38:BK:94:TYR:HE1	38:BK:132:GLU:HB2	1.82	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CG:53:LEU:O	6:CG:57:ALA:HB2	2.16	0.44
37:BJ:22:LEU:HG	37:BJ:97:GLN:NE2	2.32	0.44
31:BA:186(C):G:H2'	31:BA:186(D):C:C6	2.52	0.44
48:DU:87:ARG:O	48:DU:88:LYS:HG3	2.17	0.44
1:CA:1573:G:H2'	1:CA:1574:G:O4'	2.17	0.44
1:AA:1642:G:C2'	1:AA:1643:G:H5'	2.47	0.44
7:AH:88:LEU:HB3	7:AH:130:ARG:HG2	1.97	0.44
1:CA:1558:A:H2'	1:CA:1559:G:C8	2.52	0.44
1:CA:838:C:C1'	1:CA:839:C:OP1	2.66	0.44
10:AN:2:ILE:HG22	10:AN:3:GLN:N	2.31	0.44
1:AA:1848:A:C6	31:BA:702:A:C6	3.05	0.44
13:C0:84:ALA:HB3	13:C0:85:PRO:HD3	1.99	0.44
14:AQ:87:PHE:CZ	14:AQ:102:ALA:HB2	2.52	0.44
53:DC:69:C:O2'	53:DC:70:C:H5'	2.17	0.44
31:DA:787:A:C2	31:DA:795:C:N4	2.85	0.44
13:C0:14:SER:HA	13:C0:17:ARG:NH1	2.32	0.44
1:AA:577:G:C6	1:AA:578:A:N6	2.86	0.44
31:DA:1480:G:C5	31:DA:1481:U:C5	3.05	0.44
1:CA:376:G:O6	56:CA:3316:OHX:N2	2.50	0.44
3:AD:142:VAL:CG2	3:AD:191:ALA:HB1	2.47	0.44
46:BS:59:TRP:HB3	46:BS:64:ALA:HB2	1.99	0.44
1:AA:2615:U:H2'	1:AA:2616:C:H6	1.82	0.44
31:BA:683:G:N2	31:BA:708:C:C2	2.85	0.44
46:DS:48:TRP:CE3	46:DS:49:LEU:HB2	2.52	0.44
43:BP:16:ASP:OD2	43:BP:16:ASP:N	2.50	0.44
1:CA:1783:C:H2'	1:CA:1784:C:C6	2.52	0.44
1:CA:2590:A:H2'	1:CA:2627:A:N6	2.32	0.44
12:AP:103:MET:O	12:AP:104:PHE:HB2	2.18	0.44
12:AP:21:THR:HG23	12:AP:21:THR:O	2.12	0.44
1:CA:2148:G:N1	1:CA:2195:U:OP1	2.46	0.44
1:CA:2091:U:N3	1:CA:2443:A:H2	2.15	0.44
1:CA:1090:C:H2'	1:CA:1091:G:H5'	1.99	0.44
3:AD:30:GLU:OE1	3:AD:83:GLU:HB2	2.17	0.44
31:BA:963:G:H21	40:BM:55:LYS:HE2	1.82	0.44
26:C4:15:ILE:O	26:C4:15:ILE:HG22	2.17	0.44
1:CA:1111:C:N4	1:CA:1121:G:H1	2.15	0.44
1:CA:2386:G:H2'	1:CA:2387:C:C6	2.52	0.44
11:AO:61:ARG:HH12	30:A8:14:VAL:HG23	1.82	0.44
5:CF:24:LEU:CD1	5:CF:25:PRO:HD3	2.48	0.44
5:CF:27:GLU:O	5:CF:28:ILE:CG1	2.56	0.44
31:BA:1140:C:H2'	31:BA:1141:C:H6	1.81	0.44
20:AU:97:ARG:HH21	20:AU:98:VAL:CB	2.22	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:428:G:C5	31:BA:430:A:C6	3.05	0.44
17:A2:35:LEU:HD22	17:A2:57:VAL:O	2.16	0.44
1:CA:1256:A:H5'	1:CA:1258:G:C5'	2.47	0.44
31:BA:444:C:H2'	31:BA:445:G:H8	1.82	0.44
31:DA:865:A:H2'	31:DA:866:C:O4'	2.18	0.44
31:DA:1004:A:H2'	31:DA:1005:A:O4'	2.16	0.44
31:DA:1024:G:C4	31:DA:1025:U:H5	2.36	0.44
1:AA:1653:G:H1'	1:AA:1654:A:OP2	2.18	0.44
1:CA:707:C:H2'	1:CA:708:G:H8	1.82	0.44
1:AA:1576:U:N3	1:AA:1577:C:C5	2.85	0.44
7:AH:3:ARG:HE	7:AH:3:ARG:HA	1.79	0.44
6:CG:95:ARG:O	6:CG:99:MET:N	2.45	0.44
4:CE:9:VAL:HG23	4:CE:10:GLY:N	2.33	0.44
21:CV:54:HIS:CD2	21:CV:101:PRO:HB3	2.53	0.44
21:CV:60:GLU:HA	21:CV:66:SER:HA	1.98	0.44
1:CA:99:G:C2'	1:CA:100:G:OP1	2.65	0.44
31:DA:1056:U:H5'	33:DF:163:ALA:CB	2.45	0.44
31:DA:1057:G:H2'	31:DA:1058:G:O4'	2.18	0.44
31:BA:1286:A:H5"	51:BX:26:LYS:HD3	1.99	0.44
21:CV:115:GLY:CA	21:CV:174:VAL:HG13	2.41	0.44
1:AA:553:U:O2'	1:AA:554:U:H5'	2.17	0.44
31:BA:242:C:H2'	31:BA:243:A:H5'	1.99	0.44
1:CA:2229:G:N3	1:CA:2229:G:C2'	2.80	0.44
31:BA:942:G:C2	31:BA:1342:C:C2	3.06	0.44
32:BE:4:GLU:HG2	32:BE:5:ILE:HG12	2.00	0.44
1:AA:1930:G:N2	1:AA:1968:G:H2'	2.33	0.44
1:CA:1542:A:C2'	1:CA:1543:A:H5'	2.47	0.44
31:DA:718:G:N2	48:DU:82:THR:HG22	2.31	0.44
40:DM:98:ILE:HD12	40:DM:98:ILE:N	2.32	0.44
1:CA:2737:C:OP1	13:C0:3:HIS:CD2	2.62	0.44
6:AG:114:ILE:CD1	6:AG:140:ILE:HD12	2.45	0.44
33:DF:70:VAL:HG21	33:DF:76:VAL:HG11	1.99	0.44
1:CA:2389:A:N1	14:CQ:87:PHE:HD2	2.15	0.44
3:AD:31:LYS:NZ	3:AD:31:LYS:HB2	2.33	0.44
9:AM:128:HIS:NE2	9:AM:134:ARG:CD	2.80	0.44
25:AX:5:LYS:HE3	25:AX:34:GLU:CD	2.37	0.44
31:BA:1516:G:N1	31:BA:1519:A:OP2	2.50	0.44
1:AA:234:C:H2'	1:AA:235:U:C6	2.52	0.44
21:CV:105:VAL:HG13	21:CV:106:GLY:N	2.32	0.44
1:AA:2270:G:C2'	1:AA:2271:G:H5'	2.47	0.44
21:CV:142:SER:O	21:CV:143:GLY:C	2.54	0.44
49:DV:29:ARG:O	49:DV:30:LEU:HB3	2.18	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:A0:18:LEU:HD13	13:A0:18:LEU:C	2.38	0.44
1:CA:1046:U:O2	1:CA:1046:U:H2'	2.17	0.44
1:AA:1578:U:O2	1:AA:1578:U:H2'	2.18	0.44
35:BH:118:ILE:HG13	35:BH:119:LEU:N	2.32	0.44
40:DM:19:SER:O	40:DM:23:ILE:HG13	2.17	0.44
31:DA:1403:C:H1'	31:DA:1500:A:C2	2.52	0.44
1:AA:811:U:H3'	11:AO:22:GLY:CA	2.48	0.44
31:BA:1090:U:H2'	31:BA:1091:U:C6	2.50	0.44
1:CA:1062:G:C6	1:CA:1063:G:C5	3.05	0.44
9:AM:97:ARG:H	9:AM:100:GLU:HG3	1.82	0.44
53:BC:50:G:C2	53:BC:67:C:C2	3.05	0.44
53:BC:14:A:C6	53:BC:23:G:C5	3.05	0.44
1:CA:19:C:H2'	1:CA:20:C:H6	1.81	0.44
1:AA:2023:G:H5'	1:AA:2617:C:H4'	2.00	0.44
1:CA:2858:U:C2'	1:CA:2859:G:H5'	2.48	0.44
1:AA:729:G:O5'	3:AD:208:LYS:NZ	2.43	0.44
1:CA:1953:G:HO2'	1:CA:1954:U:P	2.38	0.44
31:DA:547:A:OP2	34:DG:2:GLY:N	2.50	0.44
41:BN:109:VAL:HG12	48:BU:86:VAL:HA	1.99	0.44
1:CA:2720:G:H2'	1:CA:2721:G:C8	2.52	0.44
1:AA:1168:G:C2	1:AA:1182:A:C2	3.05	0.44
1:AA:765:G:H2'	1:AA:766:C:H6	1.83	0.44
47:DT:45:HIS:HB2	47:DT:69:LYS:HE2	1.99	0.44
20:AU:17:SER:OG	20:AU:71:LYS:HD3	2.17	0.44
50:BW:82:SER:O	50:BW:86:ARG:HB2	2.16	0.44
2:AB:110:G:H2'	2:AB:111:U:H6	1.82	0.44
31:BA:946:A:C6	31:BA:947:G:C6	3.05	0.44
52:BD:34:U:H2'	52:BD:36:U:OP2	2.17	0.44
31:DA:284:G:H2'	31:DA:285:G:H8	1.83	0.44
31:DA:1379:G:C6	31:DA:1380:U:C4	3.05	0.44
1:AA:2100:G:H2'	1:AA:2100:G:N3	2.31	0.44
1:CA:1328:G:H2'	1:CA:1329:U:O4'	2.17	0.44
1:AA:2017:U:O2	27:A5:10:LYS:HB2	2.17	0.44
52:BD:79:A:O2'	52:BD:80:C:H5'	2.17	0.44
1:AA:1064:C:H3'	1:AA:1065:U:C6	2.52	0.44
1:AA:1071:G:C8	1:AA:1089:G:N7	2.85	0.44
1:CA:932:C:N4	1:CA:933:C:C4	2.85	0.44
1:CA:2138:G:O6	1:CA:2141:U:OP2	2.36	0.44
52:DD:46:G:H2'	52:DD:47:U:H6	1.83	0.44
39:DL:105:ASP:OD2	39:DL:107:ARG:HD3	2.17	0.44
1:AA:1538:G:H2'	1:AA:1539:G:H8	1.82	0.44
31:BA:978:A:C6	31:BA:1318:A:C6	3.06	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:69:G:H2'	31:BA:73:G:H5'	2.00	0.44
15:CR:126:ALA:HB2	15:CR:129:ARG:HH21	1.83	0.44
21:AV:60:GLU:O	21:AV:61:LEU:HD22	2.18	0.44
1:CA:795:U:C4	1:CA:2626:U:C4	3.05	0.44
14:CQ:111:GLU:O	14:CQ:112:PHE:HB3	2.17	0.44
1:AA:2428:G:N2	11:AO:60:MET:CE	2.80	0.44
52:BD:29:C:H2'	52:BD:30:A:H5'	1.99	0.44
31:BA:1065:U:O2'	31:BA:1066:C:P	2.73	0.44
1:CA:1389:A:N1	1:CA:1444:U:N3	2.66	0.44
1:AA:603:A:C5	1:AA:655:A:C2	3.05	0.44
31:DA:737:A:H2'	31:DA:738:C:C6	2.52	0.44
16:C1:98:LEU:O	16:C1:99:ALA:HB3	2.18	0.44
1:AA:1359:A:C2	1:AA:1360:A:C8	3.06	0.44
2:CB:34:C:H2'	2:CB:35:G:O5'	2.17	0.44
31:DA:688:G:H1	31:DA:699:C:N4	2.12	0.44
35:DH:83:GLU:HB3	35:DH:88:LYS:CG	2.37	0.44
3:CD:25:THR:C	3:CD:27:THR:N	2.64	0.44
1:AA:1871:A:O2'	1:AA:1872:A:H5'	2.17	0.44
45:DR:87:ILE:HG22	45:DR:88:ARG:N	2.24	0.44
15:CR:61:PHE:CD2	15:CR:61:PHE:N	2.76	0.44
1:CA:1481:A:H61	1:CA:1606:A:H61	1.61	0.44
7:AH:83:TYR:N	7:AH:83:TYR:HD2	2.05	0.44
1:AA:2895:U:H2'	1:AA:2896:C:C6	2.52	0.44
1:AA:547:A:C2'	1:AA:548:A:C8	2.99	0.44
11:AO:37:GLY:O	11:AO:38:GLN:C	2.55	0.44
1:AA:481:G:C4	1:AA:507:A:C2	3.05	0.44
32:BE:111:ARG:HH11	32:BE:111:ARG:CG	2.25	0.44
31:BA:245:C:C2	31:BA:284:G:C2	3.05	0.44
31:BA:722:A:O2'	31:BA:723:U:C2	2.71	0.44
1:AA:1968:G:H2'	1:AA:1969:A:H5''	1.99	0.44
1:AA:2145:C:H2'	1:AA:2147:G:C2	2.52	0.44
26:A4:55:ARG:CG	26:A4:56:VAL:N	2.80	0.44
31:BA:377:G:C5'	46:BS:5:ARG:HH12	2.30	0.44
1:AA:248:G:H5''	1:AA:386:G:N2	2.31	0.44
32:BE:144:ARG:HG3	32:BE:145:LEU:N	2.31	0.44
4:CE:29:GLY:H	4:CE:51:PHE:HE1	1.66	0.44
21:AV:165:VAL:HB	21:AV:166:SER:CA	2.46	0.44
1:CA:68:C:O2'	1:CA:69:G:H5'	2.17	0.44
31:DA:245:C:O2	31:DA:283:C:N3	2.50	0.44
42:BO:56:ARG:HA	42:BO:62:GLU:HA	1.99	0.44
1:CA:2342:G:N2	22:C3:41:ARG:HD3	2.31	0.44
31:DA:134:A:H61	46:DS:25:ARG:HH12	1.64	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:2605:U:H2'	1:AA:2606:C:C6	2.53	0.44
31:BA:595:G:N2	31:BA:643:C:H41	2.15	0.44
41:DN:91:ARG:O	41:DN:95:ILE:HG12	2.17	0.44
31:DA:1414:U:H2'	31:DA:1415:G:C8	2.53	0.44
31:DA:397:A:N6	31:DA:548:G:C8	2.85	0.44
1:CA:2143:G:C2	1:CA:2144:G:N7	2.85	0.44
31:BA:581:G:N2	31:BA:760:G:N7	2.65	0.44
26:A4:15:ILE:O	26:A4:33:VAL:HB	2.17	0.44
1:CA:2708:C:H2'	1:CA:2709:U:C6	2.53	0.44
32:BE:48:MET:HA	32:BE:51:LEU:HB2	1.99	0.44
1:AA:1433:U:O2	1:AA:1561:G:C2	2.70	0.44
34:BG:118:ARG:HE	34:BG:118:ARG:HB3	1.66	0.44
7:CH:9:ILE:HD12	7:CH:49:VAL:CG1	2.47	0.44
1:AA:2337:G:N3	1:AA:2337:G:H2'	2.33	0.44
33:BF:173:VAL:N	33:BF:174:PRO:HD3	2.32	0.44
6:AG:27:ASN:HB3	6:AG:30:GLU:HG3	1.98	0.44
39:DL:23:ASN:HD22	39:DL:23:ASN:H	1.66	0.44
20:CU:102:CYS:HB3	20:CU:103:GLY:H	1.66	0.44
46:DS:53:VAL:HG13	46:DS:79:VAL:HG22	2.00	0.44
1:AA:1094:U:O2	1:AA:1096:A:H5'	2.17	0.44
1:CA:953:G:OP1	12:CP:141:GLN:NE2	2.51	0.44
31:BA:788:U:C3'	31:BA:789:U:H5'	2.43	0.44
12:AP:19:GLY:HA3	12:AP:98:LYS:CD	2.48	0.44
34:DG:21:LEU:H	34:DG:21:LEU:HD12	1.83	0.44
1:AA:2465:C:H2'	1:AA:2466:C:H6	1.81	0.44
31:BA:1178:G:HO2'	31:BA:1179:A:P	2.40	0.44
31:BA:1022:G:C4	31:BA:1023:G:C8	3.05	0.44
52:DB:21:A:O4'	52:DB:22:A:C8	2.70	0.44
1:CA:1109:G:C4	1:CA:1110:G:C8	3.06	0.44
1:CA:1117:A:H5''	1:CA:1118:G:OP1	2.18	0.44
14:CQ:110:LEU:HD23	14:CQ:112:PHE:CD1	2.53	0.44
10:AN:104:ARG:HG3	10:AN:121:VAL:HG12	1.98	0.44
1:AA:1210:A:H5''	1:AA:1212:G:C5'	2.47	0.44
39:BL:17:VAL:HA	39:BL:63:ILE:HG12	1.98	0.44
24:AW:5:GLU:CD	24:AW:5:GLU:H	2.20	0.44
31:DA:686:U:O2'	31:DA:687:A:O5'	2.35	0.44
31:BA:468:A:H2'	31:BA:474:G:C5'	2.38	0.44
1:CA:1589:G:C6	1:CA:1590:A:N1	2.85	0.44
1:CA:2482:A:H2	1:CA:2494:G:H21	1.65	0.44
1:AA:1379:A:C4'	1:AA:1380:G:OP1	2.65	0.44
2:AB:42:C:O2	6:AG:92:VAL:HA	2.18	0.44
1:AA:2373:G:H1	1:AA:2380:C:H42	1.65	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CD:267:SER:C	3:CD:269:PHE:H	2.21	0.44
31:BA:1366:C:O3'	40:BM:60:ARG:NH2	2.50	0.44
1:AA:2790:A:H2	1:AA:2894:G:H5'	1.82	0.44
32:DE:32:ILE:HG13	32:DE:33:TYR:N	2.33	0.44
38:BK:100:ILE:HA	38:BK:101:PRO:HD3	1.75	0.44
31:DA:971:G:N2	31:DA:1363:A:OP2	2.49	0.44
31:DA:8:A:OP2	56:DA:1745:OHX:N4	2.51	0.44
31:DA:1109:C:H2'	31:DA:1110:A:O4'	2.18	0.44
35:DH:69:VAL:O	35:DH:71:LEU:N	2.51	0.44
31:BA:684:A:N6	31:BA:685:G:C6	2.86	0.44
41:BN:52:GLY:H	41:BN:55:LYS:HG3	1.82	0.44
14:AQ:106:ARG:HH11	14:AQ:106:ARG:HB2	1.81	0.44
21:CV:27:VAL:HG23	21:CV:36:LYS:HA	1.98	0.44
7:CH:151:ILE:O	7:CH:152:ARG:HB2	2.17	0.44
44:BQ:23:ARG:HH12	44:BQ:30:ALA:HB2	1.83	0.44
23:AZ:83:GLU:C	23:AZ:85:LEU:H	2.20	0.44
1:CA:1889:G:N1	1:CA:1890:G:C2	2.85	0.44
10:CN:103:ALA:C	10:CN:105:GLU:H	2.20	0.44
1:CA:683:G:H2'	1:CA:684:G:C8	2.52	0.44
22:C3:21:LEU:HD21	22:C3:41:ARG:HH12	1.83	0.44
1:AA:1188:U:C4'	17:A2:79:VAL:HG22	2.48	0.44
6:CG:131:TYR:HB3	6:CG:159:VAL:HG23	2.00	0.44
31:DA:881:G:H2'	31:DA:882:C:O4'	2.18	0.44
24:AW:41:ILE:O	24:AW:41:ILE:HG12	2.17	0.44
24:AW:42:GLY:C	24:AW:44:LEU:N	2.71	0.44
1:AA:1348:G:C2'	1:AA:1349:A:H5''	2.48	0.44
1:AA:1192:G:C2'	1:AA:1193:G:H5'	2.47	0.44
41:DN:82:VAL:HG12	41:DN:107:SER:O	2.18	0.44
1:CA:47:G:N2	1:CA:167:G:N2	2.65	0.44
1:AA:1591:G:H2'	1:AA:1592:C:H6	1.83	0.44
1:AA:643:A:N1	1:AA:2369:A:O2'	2.49	0.44
47:DT:17:LYS:HA	47:DT:46:ASP:O	2.17	0.44
34:BG:8:VAL:HG21	34:BG:115:ARG:CZ	2.48	0.44
22:A3:66:VAL:O	22:A3:81:VAL:HA	2.16	0.44
42:DO:76:GLU:HG3	42:DO:77:HIS:CG	2.52	0.44
1:CA:1927:G:H2'	1:CA:1928:C:O4'	2.17	0.44
5:CF:149:ASP:OD2	5:CF:151:SER:OG	2.36	0.44
2:AB:105:G:N7	56:AB:212:OHX:N5	2.65	0.44
1:AA:1700:A:H5'	1:AA:1701:A:OP2	2.17	0.44
31:DA:52:G:H2'	31:DA:53:A:O4'	2.17	0.44
1:CA:568:C:H2'	1:CA:568:C:O2	2.16	0.44
1:CA:1417:C:OP1	56:CA:3354:OHX:N4	2.51	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:2014:A:H2'	1:AA:2015:A:C8	2.53	0.44
1:AA:880:G:C2	1:AA:881:G:C8	3.05	0.44
1:CA:936:C:H1'	1:CA:937:C:P	2.57	0.44
1:CA:877:A:N7	1:CA:2261:C:H5'	2.33	0.44
39:DL:104:ARG:O	39:DL:105:ASP:CB	2.65	0.44
1:CA:1096:C:H2'	1:CA:1097:A:H5'	1.99	0.44
3:AD:35:LYS:HE3	3:AD:64:ILE:C	2.38	0.44
31:BA:1305:G:N2	31:BA:1331:G:N3	2.66	0.44
16:C1:47:TYR:HB2	17:C2:72:VAL:CG1	2.48	0.44
31:BA:1157:A:N6	31:BA:1180:A:C5	2.86	0.44
31:BA:1028:C:C4	31:BA:1028(A):C:C4	3.05	0.44
31:BA:1032(B):G:H2'	31:BA:1033:G:C1'	2.48	0.44
31:DA:528:C:H41	42:DO:46:ASN:CG	2.21	0.44
1:CA:2392:G:H2'	1:CA:2393:C:C6	2.53	0.44
37:DJ:69:VAL:CG1	37:DJ:134:ALA:HB1	2.45	0.44
12:CP:76:LYS:O	12:CP:77:LYS:O	2.35	0.44
33:BF:181:ASN:O	33:BF:181:ASN:CG	2.56	0.44
31:BA:323:U:H2'	31:BA:324:G:O4'	2.18	0.44
28:A6:18:ARG:HG3	28:A6:43:CYS:SG	2.58	0.44
1:AA:1047:G:C6	1:AA:1110:G:N7	2.85	0.44
1:AA:1043:C:N4	1:AA:1112:G:H1	2.12	0.44
2:CB:42:U:C4	2:CB:45:C:P	3.10	0.44
20:CU:80:GLY:O	20:CU:81:LYS:HD2	2.17	0.44
31:BA:1507:A:C2	31:BA:1508:G:C4	3.06	0.44
18:CS:4:LYS:HB2	18:CS:106:ILE:HG22	1.98	0.44
31:BA:483:C:OP2	31:BA:484:G:O2'	2.35	0.44
8:AK:67:ARG:NH2	8:AK:68:LEU:HB2	2.22	0.44
31:BA:1454:G:OP1	50:BW:39:LYS:HD2	2.17	0.44
7:AH:10:PRO:CD	7:AH:50:VAL:H	2.30	0.44
5:CF:59:TYR:CD1	5:CF:78:ILE:HG13	2.53	0.44
2:AB:40:U:C2'	2:AB:45:A:H61	2.30	0.44
1:AA:1310:G:OP2	29:A7:9:ARG:NH1	2.37	0.44
24:AW:13:ALA:HA	24:AW:16:LEU:HD23	2.00	0.44
36:DI:61:LEU:HB3	36:DI:63:TYR:HE2	1.83	0.44
6:AG:114:ILE:CG2	6:AG:117:PHE:HB2	2.47	0.44
1:AA:2378:A:H4'	14:AQ:23:ARG:NH1	2.31	0.44
31:DA:1071:C:O2'	31:DA:1072:G:H5'	2.18	0.44
31:DA:1072:G:C6	31:DA:1073:U:N3	2.85	0.44
36:DI:45:LEU:HD23	36:DI:46:ARG:N	2.33	0.44
1:AA:205:G:O2'	1:AA:206:U:P	2.76	0.44
31:DA:1151:A:C2'	31:DA:1152:A:O5'	2.65	0.44
3:AD:270:ILE:C	3:AD:271:ILE:HG12	2.37	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:CM:17:ASP:O	9:CM:18:ALA:CB	2.66	0.44
1:AA:1693:U:O2'	3:AD:14:ARG:NH2	2.51	0.44
1:AA:1316:U:H2'	1:AA:1317:A:C8	2.52	0.44
1:AA:971:C:C2'	1:AA:972:G:H5'	2.47	0.44
1:CA:2794:G:H4'	1:CA:2795:A:OP2	2.17	0.44
31:DA:1028(B):C:H3'	31:DA:1029:G:C5'	2.46	0.44
31:DA:110:C:H2'	31:DA:111:G:O4'	2.18	0.44
6:AG:77:ILE:HD12	6:AG:77:ILE:HA	1.93	0.44
1:AA:444:C:C4'	5:AF:49:ALA:HB2	2.48	0.44
1:CA:1623:C:H2'	1:CA:1624:U:C6	2.53	0.44
46:BS:12:LYS:C	46:BS:14:ASN:N	2.71	0.44
54:D1:20:G:C6	54:D1:21:C:C4	3.05	0.44
1:CA:650:C:H2'	1:CA:651:G:H5'	1.99	0.44
50:DW:97:ALA:HA	50:DW:98:PRO:HD3	1.80	0.44
31:DA:658:G:H2'	31:DA:659:U:H6	1.82	0.44
31:BA:186(B):C:H2'	31:BA:186(C):G:H8	1.82	0.44
31:BA:1164:G:C6	31:BA:1165:C:N4	2.86	0.44
1:CA:1532:G:N2	1:CA:1552:C:C2	2.86	0.44
52:DB:81:C:O2	52:DB:81:C:H2'	2.17	0.44
1:AA:2017:U:H5''	1:AA:2018:G:P	2.57	0.44
1:CA:2423:G:C2	1:CA:2424:A:H1'	2.52	0.44
36:BI:99:ALA:O	36:BI:100:ASN:HB2	2.17	0.44
10:AN:36:GLY:HA2	10:AN:106:LEU:HD23	2.00	0.44
53:BC:44:A:H2'	53:BC:45:A:C8	2.52	0.44
9:AM:12:ARG:HD3	9:AM:50:ASP:CG	2.37	0.44
1:CA:1758:C:O2'	1:CA:1759:C:H5'	2.17	0.44
1:CA:572:A:H3'	1:CA:573:A:C8	2.53	0.44
41:BN:51:LYS:O	41:BN:51:LYS:HG2	2.13	0.44
35:BH:26:PHE:N	35:BH:26:PHE:CD1	2.86	0.44
1:CA:1348:A:N3	1:CA:1348:A:H2'	2.33	0.44
3:AD:273:ARG:O	3:AD:273:ARG:HG3	2.18	0.44
22:C3:42:GLY:O	22:C3:57:PHE:HB3	2.18	0.44
5:CF:155:LEU:HB2	5:CF:189:THR:OG1	2.17	0.44
1:CA:2086:C:C5	1:CA:2087:C:C5	3.06	0.44
1:AA:1074:G:C6	1:AA:1075:C:N4	2.86	0.44
1:AA:2156:G:C5	1:AA:2157:G:N2	2.86	0.44
1:CA:934:C:H2'	1:CA:936:C:N3	2.32	0.44
1:CA:977:G:C6	1:CA:979:A:C2	3.06	0.44
28:C6:51:GLU:HG2	28:C6:52:VAL:H	1.82	0.44
12:CP:133:ARG:O	12:CP:134:ARG:CB	2.62	0.44
52:DD:54:C:OP2	52:DD:54:C:H6	2.01	0.44
52:DD:21:A:C6	52:DD:55:U:O4	2.70	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:881:U:C4	1:CA:882:C:N4	2.86	0.44
34:DG:13:ARG:O	34:DG:14:ARG:HB3	2.18	0.44
52:BB:48:C:C3'	52:BB:49:A:H8	2.27	0.44
52:BB:51:C:C2	52:BB:52:G:H1'	2.52	0.44
3:AD:27:THR:CG2	3:AD:83:GLU:HB3	2.28	0.44
1:AA:1536:A:C2	56:AA:3536:OHX:N1	2.85	0.44
1:AA:2278:A:OP1	12:AP:11:LYS:HD2	2.18	0.44
1:CA:1271:C:HO2'	17:C2:85:LYS:HB2	1.82	0.44
1:CA:1357:G:OP2	29:C7:9:ARG:NH1	2.51	0.44
31:BA:1025:U:O2'	31:BA:1026:G:C5'	2.66	0.44
1:AA:621:A:H2'	1:AA:622:G:C5'	2.48	0.44
1:CA:2038:A:H2'	1:CA:2039:U:H5'	1.98	0.44
52:DB:53:A:OP2	52:DB:53:A:H8	2.00	0.44
1:CA:1118:G:H2'	1:CA:1118:G:N3	2.33	0.44
1:AA:1903:G:OP2	3:AD:241:PRO:HB3	2.18	0.44
1:CA:2391:A:C4'	14:CQ:23:ARG:HH11	2.26	0.44
30:A8:22:VAL:HB	30:A8:53:PRO:CB	2.48	0.44
12:CP:76:LYS:CG	12:CP:76:LYS:O	2.65	0.44
31:BA:1133:G:H2'	31:BA:1134:G:O4'	2.17	0.44
2:CB:16:U:O2'	2:CB:17:A:OP2	2.34	0.44
31:DA:1138:G:N3	31:DA:1138:G:H3'	2.33	0.44
31:DA:1305:G:O2'	31:DA:1306:A:C8	2.53	0.44
31:DA:1329:A:H2'	31:DA:1330:U:O4'	2.17	0.44
1:AA:1108:U:O4	1:AA:1109:C:N4	2.50	0.44
1:CA:506:A:HO2'	1:CA:508:G:H8	1.65	0.44
21:CV:59:LEU:HB3	21:CV:60:GLU:H	1.65	0.44
37:DJ:114:ARG:HG2	37:DJ:114:ARG:H	1.63	0.44
1:CA:1856:G:OP1	3:CD:52:ARG:NH1	2.49	0.44
14:CQ:29:PHE:HD2	14:CQ:29:PHE:C	2.21	0.44
1:CA:2015:G:H1'	1:CA:2016:U:OP2	2.18	0.44
31:BA:342:C:H2'	31:BA:343:U:C6	2.52	0.44
8:AK:11:ASN:O	8:AK:12:LEU:CB	2.62	0.44
37:BJ:144:MET:CE	52:BD:31:G:H21	2.27	0.44
1:AA:872:A:C5	1:AA:906:G:C2	3.06	0.44
31:BA:355:C:H5'	31:BA:389:A:OP2	2.18	0.44
5:AF:107:LYS:HE3	5:AF:207:GLY:H	1.83	0.44
15:CR:27:THR:O	15:CR:89:VAL:HG13	2.17	0.44
36:BI:86:ARG:O	36:BI:87:ARG:HG2	2.17	0.44
1:CA:2750:G:H2'	1:CA:2751:G:C8	2.47	0.44
39:BL:9:ARG:HA	39:BL:13:ALA:O	2.17	0.44
7:CH:149:ARG:HG3	7:CH:162:ILE:O	2.17	0.44
1:AA:1266:G:O4'	18:AS:15:ARG:NH2	2.50	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:270(E):G:C6	1:AA:270(F):U:C4	3.06	0.44
31:DA:243:A:C8	31:DA:281:G:N2	2.86	0.44
31:DA:750:G:O5'	31:DA:750:G:H8	2.01	0.44
1:CA:299:G:O4'	1:CA:299:G:OP1	2.35	0.44
1:AA:2199:A:C5'	23:AZ:50:ARG:HH21	2.28	0.44
1:AA:2199:A:H3'	1:AA:2205:C:C6	2.48	0.44
1:AA:1473:G:O2'	1:AA:1474:C:H5'	2.17	0.44
1:CA:605:C:H2'	1:CA:606:G:C8	2.52	0.44
27:A5:45:VAL:HG11	27:A5:57:VAL:HG12	1.98	0.44
27:A5:57:VAL:O	27:A5:57:VAL:HG13	2.17	0.44
26:C4:49:PHE:HZ	43:DP:64:TRP:HA	1.82	0.44
8:CK:143:SER:O	8:CK:144:VAL:CB	2.65	0.44
31:DA:1387:G:H2'	31:DA:1388:C:H6	1.81	0.44
1:AA:1006:C:O2	9:AM:106:MET:HG2	2.18	0.44
46:DS:13:HIS:C	46:DS:15:PRO:HD3	2.38	0.44
1:AA:2331:G:H4'	22:A3:43:THR:H	1.82	0.44
1:AA:17:G:H2'	1:AA:18:C:C6	2.53	0.44
29:A7:25:PRO:HA	29:A7:28:ARG:CZ	2.47	0.44
31:BA:730:G:C5	31:BA:731:G:H1'	2.53	0.44
8:AK:92:VAL:HG22	8:AK:120:ILE:HG22	1.99	0.44
1:AA:2018:G:H2'	1:AA:2019:A:O4'	2.18	0.44
1:AA:2678:C:H2'	1:AA:2679:A:O4'	2.18	0.44
31:DA:236:G:H2'	31:DA:237:C:O4'	2.18	0.44
4:AE:115:GLY:HA2	4:AE:157:ALA:CB	2.48	0.44
37:BJ:31:MET:SD	37:BJ:34:GLY:HA2	2.58	0.44
1:AA:1296:G:H2'	1:AA:1297:C:H6	1.82	0.44
3:CD:228:PRO:HD3	3:CD:234:GLY:C	2.38	0.44
10:CN:120:GLU:OE1	10:CN:122:LEU:HD21	2.18	0.44
1:CA:1386:G:H5''	19:CT:16:LYS:HD3	1.99	0.44
32:DE:212:GLN:HG3	32:DE:235:SER:HB2	1.99	0.44
37:DJ:32:ARG:O	37:DJ:34:GLY:N	2.51	0.44
18:CS:70:TYR:HD2	18:CS:108:GLY:O	2.00	0.44
37:BJ:131:LYS:HB2	37:BJ:131:LYS:NZ	2.33	0.44
1:AA:267:C:O2'	1:AA:268:C:H5'	2.18	0.44
1:CA:321:C:H2'	1:CA:322:C:H6	1.83	0.44
31:DA:595:G:H22	31:DA:643:C:H41	1.66	0.44
1:AA:1451:C:H4'	1:AA:1453:A:C8	2.53	0.44
34:DG:13:ARG:NH1	34:DG:38:TYR:O	2.49	0.44
52:BB:48:C:N4	52:BB:49:A:C6	2.86	0.44
39:DL:118:LYS:HG2	39:DL:118:LYS:O	2.18	0.44
31:BA:1053:G:C6	31:BA:1199:U:C2	3.06	0.44
31:BA:1028(B):C:C4	31:BA:1032(A):G:N2	2.85	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:2001:A:H4'	1:AA:2689:U:H2'	1.99	0.44
34:DG:25:ARG:O	34:DG:27:TYR:N	2.48	0.44
26:C4:11:PRO:HA	26:C4:25:TYR:CD1	2.52	0.44
15:AR:105:LEU:C	15:AR:107:ASP:N	2.57	0.44
3:CD:37:LEU:O	3:CD:61:LEU:HD12	2.18	0.44
15:AR:41:ARG:CG	15:AR:41:ARG:NH1	2.73	0.44
11:AO:46:LYS:O	11:AO:47:ASP:CB	2.64	0.44
26:A4:16:CYS:C	26:A4:18:CYS:N	2.69	0.44
4:AE:144:ARG:NH1	4:AE:144:ARG:HG3	2.33	0.44
1:CA:1925:C:N4	1:CA:1926:G:C4	2.86	0.44
31:DA:1133:G:C4	31:DA:1134:G:C8	3.06	0.44
31:BA:1210:C:O2'	31:BA:1213:A:O2'	2.34	0.44
1:AA:1515:C:H2'	1:AA:1516:U:C6	2.53	0.44
31:DA:1224:G:C6	31:DA:1322:C:H1'	2.52	0.44
2:CB:92:A:N7	2:CB:93:C:H1'	2.32	0.44
32:BE:126:GLU:O	32:BE:126:GLU:HG2	2.18	0.44
1:CA:1513:G:C2	1:CA:1514:G:C4	3.06	0.44
33:DF:113:ALA:HB1	33:DF:185:GLY:N	2.33	0.44
8:AK:110:ASP:OD1	8:AK:130:TYR:OH	2.36	0.44
1:AA:2475:C:H3'	1:AA:2476:A:C5'	2.48	0.44
31:DA:485:G:O2'	31:DA:486:U:P	2.75	0.44
38:BK:86:ILE:HG21	38:BK:133:LEU:HD13	2.00	0.44
48:DU:22:VAL:C	48:DU:24:ALA:H	2.20	0.44
1:CA:1543:A:C8	1:CA:1625:C:O2'	2.63	0.44
1:CA:536:C:H2'	1:CA:537:U:O4'	2.17	0.44
1:CA:2680:C:HO2'	7:CH:109:PHE:HE2	1.65	0.44
35:DH:33:VAL:HG12	35:DH:34:VAL:N	2.33	0.44
21:AV:107:THR:O	21:AV:109:ALA:N	2.50	0.44
1:AA:2480:C:C3'	1:AA:2481:G:H5'	2.47	0.44
1:AA:1204:A:C8	1:AA:1206:G:C6	3.06	0.44
1:AA:1526:G:C6	1:AA:1527:G:C2	3.05	0.44
24:CW:14:ARG:O	24:CW:15:LYS:HB3	2.18	0.44
31:DA:360:A:C6	31:DA:361:G:C6	3.06	0.44
1:AA:2257:U:C4	1:AA:2258:C:N4	2.86	0.44
37:BJ:23:VAL:CG1	37:BJ:43:PHE:HE2	2.31	0.44
42:DO:47:SER:O	42:DO:48:ALA:HB2	2.17	0.44
1:CA:2342:G:N2	22:C3:41:ARG:HB3	2.33	0.44
1:AA:1771:C:HO2'	1:AA:1786:A:C1'	2.30	0.44
5:CF:41:LEU:HD21	5:CF:184:TYR:CE1	2.52	0.44
3:CD:146:GLU:HG2	3:CD:152:GLY:C	2.39	0.44
7:CH:123:PHE:CD2	7:CH:133:VAL:HG22	2.53	0.44
9:CM:43:THR:HG22	9:CM:45:ASN:ND2	2.33	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:CR:51:ARG:NH1	15:CR:100:TYR:OH	2.51	0.44
45:DR:12:ILE:HG12	45:DR:31:LEU:HD11	1.99	0.44
1:CA:2472:A:C4	1:CA:2473:U:C6	3.06	0.44
31:BA:11:G:C6	31:BA:12:U:C4	3.05	0.44
4:CE:98:PRO:HG3	4:CE:174:ASP:HA	2.00	0.44
11:AO:42:SER:O	11:AO:43:GLY:C	2.56	0.44
22:C3:32:ARG:O	22:C3:34:GLY:N	2.45	0.44
21:CV:113:ALA:O	21:CV:114:GLY:C	2.56	0.44
27:C5:42:PRO:HB2	27:C5:43:HIS:HD2	1.83	0.44
1:CA:1709:G:C6	1:CA:2023:G:C6	3.06	0.44
1:AA:95:G:N7	56:AA:3333:OHX:N6	2.66	0.44
31:DA:1155:G:OP2	56:DA:1756:OHX:N6	2.51	0.44
48:BU:18:ARG:N	48:BU:18:ARG:HD2	2.33	0.44
46:BS:7:ALA:O	46:BS:9:PHE:HD2	2.01	0.44
31:DA:1187:G:H3'	31:DA:1188:A:H8	1.82	0.44
31:DA:391:G:C6	31:DA:392:G:C5	3.06	0.44
1:CA:1930:G:O2'	1:CA:1931:C:H5'	2.17	0.44
10:AN:113:LYS:HD3	10:AN:113:LYS:O	2.18	0.44
11:CO:102:ARG:HD2	11:CO:102:ARG:O	2.18	0.44
31:BA:1243:C:H2'	31:BA:1244:C:O4'	2.17	0.44
1:CA:2323:A:C6	6:CG:80:PHE:CZ	3.06	0.44
12:AP:27:VAL:HG13	12:AP:105:GLU:OE2	2.17	0.44
1:AA:907:U:C5'	12:AP:23:GLY:O	2.59	0.44
1:AA:2490:G:N2	56:AA:3421:OHX:N6	2.64	0.44
1:AA:1069:A:C5	1:AA:1073:A:N7	2.86	0.44
12:CP:69:PHE:CD1	12:CP:70:PRO:HD2	2.52	0.44
12:CP:134:ARG:O	12:CP:136:ALA:N	2.51	0.44
1:CA:2146:G:C2	1:CA:2199:A:C6	3.05	0.44
31:DA:1158:C:H3'	31:DA:1158:C:O2	2.18	0.44
31:BA:1238:A:N6	31:BA:1299:A:N6	2.66	0.44
37:DJ:113:GLU:CB	37:DJ:119:ARG:HG2	2.26	0.44
31:BA:1004:A:O5'	31:BA:1025:U:N3	2.49	0.44
52:DB:57:C:O2'	52:DB:68:A:C4'	2.56	0.44
52:DB:59:A:N6	52:DB:60:A:C6	2.85	0.44
26:C4:29:PRO:C	26:C4:30:GLU:HG3	2.38	0.44
15:AR:107:ASP:OD2	15:AR:109:GLU:HG2	2.17	0.44
1:CA:1110:G:C2	1:CA:1111:C:C2	3.06	0.44
30:A8:22:VAL:CG2	30:A8:53:PRO:HB2	2.48	0.44
52:BD:30:A:C6	52:BD:43:G:C6	3.06	0.44
1:CA:8:A:C5	1:CA:9:U:C5	3.05	0.44
31:DA:332:G:OP2	50:DW:10:LEU:HD12	2.18	0.44
1:AA:329:G:H4'	1:AA:330:A:OP2	2.18	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
32:DE:19:HIS:NE2	32:DE:206:ASP:HB2	2.33	0.44
32:DE:204:ASN:HB2	32:DE:210:SER:CB	2.48	0.44
50:BW:23:ARG:HA	50:BW:26:ASN:ND2	2.29	0.44
2:CB:16:U:H5'	2:CB:73:C:H1'	2.00	0.44
31:DA:1129:C:C5	31:DA:1133:G:O6	2.71	0.44
39:DL:3:GLN:O	39:DL:88:TYR:HE1	2.00	0.44
39:BL:49:PRO:HA	39:BL:52:ALA:HB3	2.00	0.44
1:CA:1018:G:C6	1:CA:1019:A:C6	3.05	0.44
1:CA:1701:G:C1'	1:CA:1702:A:OP2	2.65	0.44
31:DA:1008:C:H1'	31:DA:1022:G:N2	2.32	0.44
1:AA:1022:G:H1'	1:AA:1023:U:OP2	2.17	0.44
4:CE:170:LEU:HA	4:CE:170:LEU:HD13	1.82	0.44
31:BA:50:A:H4'	31:BA:51:A:O5'	2.17	0.44
6:CG:109:VAL:O	6:CG:113:ARG:HG3	2.18	0.44
31:DA:1314:C:O2'	31:DA:1315:U:H5'	2.18	0.44
7:CH:20:ALA:C	7:CH:22:GLY:H	2.21	0.44
7:AH:10:PRO:CG	7:AH:50:VAL:HG13	2.48	0.44
9:AM:95:PRO:O	9:AM:96:GLU:HG2	2.18	0.44
35:DH:110:LEU:O	35:DH:115:VAL:HG23	2.17	0.44
1:AA:1423:G:N3	1:AA:1424:G:C8	2.86	0.44
18:CS:2:GLU:HG2	18:CS:72:LYS:HZ1	1.80	0.44
52:DB:9:U:O2	52:DB:9:U:C2'	2.65	0.44
31:BA:811:C:C5	31:BA:812:C:N4	2.86	0.44
1:AA:566:U:H2'	1:AA:567:A:O4'	2.18	0.44
1:CA:1713:A:H2'	1:CA:1714:G:O4'	2.17	0.44
7:AH:169:VAL:HG13	7:AH:170:ARG:N	2.31	0.44
1:AA:2270:G:H2'	1:AA:2271:G:H5'	2.00	0.44
31:DA:1100:C:H2'	31:DA:1102:A:O5'	2.18	0.44
1:CA:1767:G:N1	1:CA:1769:U:OP1	2.51	0.44
31:DA:374:A:C6	31:DA:375:U:C4	3.05	0.44
4:AE:170:LEU:HD22	4:AE:185:LYS:H	1.83	0.44
14:CQ:39:ILE:HG12	14:CQ:73:LEU:HD11	2.00	0.44
41:BN:108:ILE:CG2	48:BU:88:LYS:HB2	2.47	0.44
31:BA:509:A:HO2'	31:BA:510:A:P	2.38	0.44
12:CP:57:HIS:CD2	12:CP:116:GLU:O	2.71	0.44
4:CE:3:GLY:HA3	4:CE:81:ILE:HD12	1.99	0.44
1:AA:1024:G:O5'	1:AA:1024:G:H8	2.01	0.44
31:DA:1528:U:H4'	31:DA:1529:G:C2	2.52	0.44
31:DA:1106:G:H2'	31:DA:1107:C:C6	2.51	0.44
1:AA:753:C:C6	1:AA:753:C:OP2	2.71	0.44
1:CA:851:U:H2'	1:CA:852:A:C5'	2.47	0.44
1:AA:296:C:H2'	1:AA:297:C:H6	1.81	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
47:BT:11:VAL:HG12	47:BT:85:VAL:HG13	2.00	0.44
8:CK:114:LEU:O	8:CK:114:LEU:HD13	2.18	0.44
26:A4:35:VAL:HG23	43:BP:57:ARG:HE	1.83	0.44
21:AV:82:ARG:HG3	21:AV:83:PRO:HD2	2.00	0.44
1:CA:717:G:OP1	1:CA:717:G:H2'	2.18	0.44
1:AA:456:C:C5	19:AT:69:TYR:CE1	3.06	0.44
19:AT:65:ARG:HB3	19:AT:65:ARG:NH1	2.33	0.44
14:CQ:59:LYS:CD	14:CQ:60:GLY:H	2.30	0.44
37:DJ:26:PHE:CE2	37:DJ:30:ILE:HD11	2.53	0.44
4:CE:5:LEU:HD11	4:CE:79:ARG:HB2	2.00	0.44
8:CK:133:HIS:CD2	8:CK:133:HIS:C	2.91	0.44
1:AA:2461:C:H42	1:AA:2489:G:H1	1.64	0.44
1:AA:99:U:O4	20:AU:8:LYS:NZ	2.48	0.44
1:CA:1949:U:H2'	1:CA:1951:A:OP2	2.18	0.44
31:BA:371:G:H2'	31:BA:372:C:O4'	2.17	0.44
31:BA:374:A:C6	31:BA:375:U:C4	3.06	0.44
1:AA:868:U:C4	1:AA:869:G:N7	2.86	0.44
5:AF:24:LEU:HA	5:AF:25:PRO:HD2	1.64	0.44
1:CA:2746:G:H3'	1:CA:2747:A:O4'	2.18	0.44
1:CA:1332:G:O6	56:CA:3310:OHX:N6	2.51	0.44
1:CA:2576:U:H4'	10:CN:28:SER:HA	2.00	0.44
1:AA:1301:A:H2'	1:AA:1301:A:N3	2.33	0.44
34:DG:117:ALA:O	34:DG:121:VAL:HG23	2.18	0.44
1:CA:478:C:N4	1:CA:481:A:H5'	2.33	0.44
31:DA:945:G:H2'	31:DA:945:G:N3	2.33	0.44
11:CO:6:LEU:HD13	11:CO:6:LEU:HA	1.78	0.44
1:AA:1931:U:O4'	1:AA:1931:U:O2	2.35	0.44
43:DP:52:GLU:CD	43:DP:52:GLU:H	2.21	0.44
8:AK:121:LYS:HG3	8:AK:121:LYS:O	2.18	0.44
31:BA:1051:C:O2'	31:BA:1052:U:H5'	2.17	0.44
9:CM:29:LYS:H	9:CM:29:LYS:HG2	1.60	0.44
17:C2:51:VAL:HG12	17:C2:52:VAL:N	2.31	0.44
1:AA:1629:U:H2'	1:AA:1630:G:O4'	2.18	0.44
31:DA:592:G:N7	56:DA:1727:OHX:N5	2.66	0.44
36:DI:97:PHE:O	48:DU:31:LEU:HD23	2.17	0.44
1:AA:2134:A:N6	1:AA:2157:G:C1'	2.81	0.43
1:CA:2286:A:H2'	1:CA:2287:A:C8	2.53	0.43
21:AV:60:GLU:C	21:AV:61:LEU:HD13	2.38	0.43
31:DA:409:G:H2'	31:DA:410:G:H5'	1.99	0.43
52:DB:21:A:P	52:DB:56:U:O4	2.76	0.43
52:DB:59:A:C2	52:DB:74:C:C2	3.06	0.43
15:AR:99:LEU:H	15:AR:99:LEU:HD12	1.83	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1105:U:H3	1:CA:1127:A:N6	2.11	0.43
3:AD:240:ALA:O	3:AD:241:PRO:C	2.57	0.43
12:CP:79:LEU:O	12:CP:81:VAL:HG13	2.18	0.43
31:DA:1014:A:H5'	49:DV:14:HIS:CD2	2.53	0.43
31:DA:994:A:C2	44:DQ:5:ALA:HB2	2.53	0.43
1:AA:908:C:O2'	1:AA:909:A:H5'	2.18	0.43
39:DL:92:TYR:HB3	39:DL:95:LYS:NZ	2.33	0.43
39:DL:53:VAL:HG13	39:DL:95:LYS:HE3	2.00	0.43
2:CB:42:U:H2'	2:CB:43:U:OP1	2.18	0.43
1:CA:5:A:C2	1:CA:2909:G:C2	3.06	0.43
1:CA:2090:G:O2'	1:CA:2092:G:H5''	2.18	0.43
37:DJ:23:VAL:HG13	37:DJ:43:PHE:CE2	2.53	0.43
37:DJ:40:ALA:O	37:DJ:44:TYR:HD1	2.00	0.43
20:CU:8:LYS:O	20:CU:27:VAL:HG21	2.18	0.43
23:AZ:75:GLU:O	23:AZ:77:ALA:N	2.51	0.43
31:BA:343:U:H2'	31:BA:345:C:O2	2.18	0.43
32:DE:39:ILE:O	32:DE:41:ILE:HD12	2.18	0.43
31:BA:945:G:N1	31:BA:1337:G:C2	2.86	0.43
24:CW:65:ASN:HD22	24:CW:69:ARG:HE	1.66	0.43
37:BJ:32:ARG:HG2	37:BJ:33:ASP:OD2	2.18	0.43
4:AE:67:PHE:C	4:AE:69:LYS:H	2.21	0.43
31:BA:812:C:C1'	31:BA:813:U:OP2	2.66	0.43
9:AM:133:GLN:HG2	9:AM:134:ARG:H	1.83	0.43
1:CA:1518:G:OP2	56:CA:3278:OHX:N5	2.51	0.43
1:CA:1405:G:N2	1:CA:1419:U:C5	2.86	0.43
18:AS:107:LEU:HD12	18:AS:107:LEU:HA	1.72	0.43
45:BR:9:GLN:HA	45:BR:12:ILE:HG13	2.00	0.43
1:AA:2512:C:H4'	4:AE:122:PHE:CE2	2.53	0.43
24:CW:10:LEU:O	24:CW:14:ARG:HB2	2.18	0.43
31:DA:545:C:H2'	31:DA:545:C:O2	2.18	0.43
21:CV:170:THR:O	21:CV:172:ALA:N	2.49	0.43
13:C0:44:LEU:O	13:C0:45:ARG:C	2.56	0.43
33:BF:18:TRP:HZ2	44:BQ:57:ARG:HD3	1.83	0.43
17:A2:76:LYS:O	17:A2:79:VAL:HG12	2.18	0.43
1:CA:1637:U:H2'	1:CA:1638:G:C8	2.51	0.43
39:BL:53:VAL:HG21	39:BL:92:TYR:CD2	2.53	0.43
31:BA:1152:A:H5'	40:BM:13:HIS:ND1	2.32	0.43
43:BP:53:VAL:HG12	43:BP:57:ARG:NH1	2.33	0.43
52:DD:1:G:C2	52:DD:82:A:C2	3.06	0.43
1:CA:2377:C:H4'	22:C3:56:ASP:OD2	2.18	0.43
1:AA:2867:G:OP2	15:AR:119:LYS:HE3	2.18	0.43
31:DA:160:A:O2'	31:DA:344:A:N6	2.51	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:DG:200:GLU:O	34:DG:204:ILE:HG12	2.18	0.43
1:AA:2312:U:O2'	6:AG:40:ASN:ND2	2.42	0.43
21:AV:103:ARG:HG3	21:AV:136:PHE:CE1	2.53	0.43
2:CB:58:G:H4'	2:CB:59:A:H8	1.83	0.43
31:DA:659:U:O2'	31:DA:660:G:H5'	2.18	0.43
50:BW:61:SER:O	50:BW:65:LYS:HB2	2.17	0.43
1:CA:1554:A:N3	1:CA:1555:A:H1'	2.33	0.43
41:DN:32:ILE:HD12	41:DN:68:ALA:HB1	1.99	0.43
1:AA:466:A:N3	1:AA:683:C:H1'	2.33	0.43
1:AA:463:G:N1	1:AA:467:G:C6	2.86	0.43
31:DA:683:G:H2'	31:DA:684:A:C8	2.53	0.43
1:CA:411:U:H2'	1:CA:413:C:H5	1.82	0.43
1:AA:270(J):G:H2'	1:AA:270(K):C:O4'	2.18	0.43
31:DA:692:U:O2	31:DA:694:A:C8	2.70	0.43
3:CD:76:PRO:HB2	3:CD:116:GLN:OE1	2.18	0.43
36:BI:33:TYR:HE1	36:BI:78:GLU:HG2	1.83	0.43
31:BA:46:G:O2'	31:BA:365:U:H1'	2.18	0.43
1:AA:455:C:N3	1:AA:473:G:H5'	2.33	0.43
39:DL:86:VAL:HG13	39:DL:87:GLN:N	2.33	0.43
1:CA:1260:A:OP2	56:CA:3416:OHX:N5	2.51	0.43
1:CA:1452:U:H2'	1:CA:1453:U:C6	2.53	0.43
1:CA:747:A:H2'	1:CA:748:G:O4'	2.18	0.43
48:BU:52:PRO:O	48:BU:56:THR:HG23	2.18	0.43
1:CA:1723:C:O5'	1:CA:1723:C:H6	2.01	0.43
30:A8:19:SER:OG	30:A8:21:LYS:HD2	2.18	0.43
1:AA:2275:C:O2	12:AP:85:LYS:CE	2.66	0.43
1:AA:900:A:N3	1:AA:900:A:H2'	2.33	0.43
16:C1:50:ARG:HH12	17:C2:72:VAL:CB	2.28	0.43
21:AV:58:VAL:O	21:AV:60:GLU:N	2.50	0.43
1:AA:66:C:H2'	1:AA:67:U:H6	1.83	0.43
52:DB:19:C:H3'	52:DB:19:C:OP2	2.19	0.43
1:AA:120:U:C5	1:AA:149:A:N6	2.86	0.43
37:DJ:143:ARG:NH1	52:DD:43:G:H5'	2.31	0.43
3:CD:35:LYS:HD3	3:CD:63:ARG:HA	1.98	0.43
1:CA:1066:U:H3	1:CA:1189:A:H62	1.64	0.43
1:AA:633:A:H2'	1:AA:634:C:C5'	2.46	0.43
6:AG:107:LEU:O	26:A4:38:LYS:HD3	2.18	0.43
31:BA:1129:C:C4	31:BA:1139:G:C6	3.05	0.43
49:BV:39:THR:HG22	49:BV:40:ILE:N	2.23	0.43
1:CA:1389:A:H8	1:CA:1392:C:C4	2.34	0.43
16:A1:79:PHE:CE2	16:A1:83:LEU:HD22	2.52	0.43
31:DA:1127:G:H22	31:DA:1144:G:N2	2.16	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1019:A:H8	1:CA:1019:A:OP1	2.00	0.43
1:CA:2079:G:C2	1:CA:2080:A:C8	3.06	0.43
32:DE:5:ILE:HG12	32:DE:5:ILE:O	2.18	0.43
13:A0:105:ARG:O	13:A0:105:ARG:CG	2.57	0.43
14:AQ:95:HIS:ND1	14:AQ:96:GLY:N	2.65	0.43
13:A0:12:ARG:HB2	13:A0:16:HIS:HD2	1.82	0.43
49:DV:36:ARG:HD2	49:DV:52:TYR:O	2.18	0.43
31:DA:1239:A:H4'	31:DA:1240:U:H5'	1.99	0.43
8:AK:104:GLN:O	8:AK:105:HIS:CB	2.55	0.43
1:AA:1586:A:C2	1:AA:1587:A:C5	3.05	0.43
7:AH:13:LYS:HA	7:AH:13:LYS:CE	2.43	0.43
1:AA:2262:U:H4'	1:AA:2328:A:H2	1.83	0.43
52:DB:31:G:H2'	52:DB:32:A:C8	2.53	0.43
6:AG:67:LYS:HG2	26:A4:5:ILE:O	2.18	0.43
1:AA:1509:C:H2'	1:AA:1510:A:OP1	2.18	0.43
20:CU:27:VAL:CG1	20:CU:39:VAL:HG12	2.48	0.43
33:BF:150:LYS:HD3	33:BF:201:TYR:CD1	2.53	0.43
3:AD:154:LYS:C	3:AD:155:LEU:HD12	2.38	0.43
1:AA:2789:C:C3'	1:AA:2790:A:H5''	2.48	0.43
24:AW:32:LEU:HG	24:AW:53:LEU:HD12	2.01	0.43
32:DE:28:PHE:CE1	32:DE:31:TYR:HB2	2.52	0.43
31:BA:1379:G:C5	31:BA:1380:U:C5	3.06	0.43
10:CN:107:ARG:CZ	10:CN:115:VAL:HG11	2.48	0.43
1:CA:1625:C:H2'	1:CA:1626:U:O4'	2.18	0.43
37:BJ:84:ASN:HB3	52:BD:38:MIA:C15	2.47	0.43
38:BK:65:TYR:CD1	38:BK:65:TYR:N	2.86	0.43
14:AQ:89:ARG:O	14:AQ:90:GLY:C	2.56	0.43
44:DQ:24:CYS:HB2	44:DQ:39:LEU:C	2.39	0.43
1:CA:799:A:C5'	18:CS:90:ARG:HA	2.45	0.43
1:CA:1714:G:N2	1:CA:2018:U:C2	2.85	0.43
41:BN:102:GLY:O	41:BN:103:LEU:C	2.55	0.43
27:C5:51:TYR:HB3	27:C5:54:GLY:N	2.30	0.43
15:CR:19:LEU:HA	15:CR:20:PRO:HD3	1.86	0.43
21:AV:79:ARG:HD2	21:AV:80:ARG:HH22	1.81	0.43
35:DH:10:MET:HG2	35:DH:11:ILE:H	1.80	0.43
24:CW:10:LEU:HD13	24:CW:59:ARG:HD2	1.99	0.43
1:CA:2213:G:C3'	1:CA:2214:G:H5''	2.48	0.43
40:DM:7:LYS:HZ3	40:DM:71:LEU:HD13	1.83	0.43
24:AW:15:LYS:HA	24:AW:67:LYS:HZ1	1.83	0.43
31:DA:135:C:H2'	31:DA:136:C:H5'	2.00	0.43
52:DD:79:A:O2'	52:DD:80:C:H5'	2.18	0.43
31:BA:186(F):C:N3	31:BA:191(B):G:C2	2.86	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:AU:46:LYS:HE3	20:AU:63:LYS:HB3	2.00	0.43
1:CA:654:G:C6	1:CA:655:G:C6	3.06	0.43
1:CA:728:G:C2	1:CA:846:G:N3	2.86	0.43
33:DF:81:GLY:O	33:DF:82:GLU:HB2	2.19	0.43
31:DA:209:U:C1'	31:DA:210:U:P	3.06	0.43
48:DU:37:VAL:HB	48:DU:79:LEU:HD21	2.00	0.43
32:BE:24:TRP:O	32:BE:26:PRO:HD3	2.18	0.43
41:DN:82:VAL:CG1	41:DN:108:ILE:HG12	2.48	0.43
31:BA:392:G:H2'	31:BA:393:A:O4'	2.18	0.43
16:C1:66:ASN:O	16:C1:70:ARG:HG3	2.18	0.43
31:BA:1448:C:H42	31:BA:1455:G:H1	1.66	0.43
3:CD:202:LYS:HG3	3:CD:203:ASN:OD1	2.17	0.43
22:C3:72:ARG:HB2	22:C3:75:LEU:HB2	2.00	0.43
38:DK:97:VAL:O	38:DK:99:GLU:N	2.51	0.43
31:DA:897:C:C4	31:DA:898:G:N7	2.86	0.43
1:CA:467:G:H2'	1:CA:468:U:C6	2.53	0.43
1:CA:487:A:H5''	1:CA:488:C:OP2	2.19	0.43
16:A1:5:LYS:H	16:A1:5:LYS:HG3	1.52	0.43
21:AV:111:VAL:HG21	21:AV:146:ILE:HD11	2.00	0.43
1:CA:218:A:C3'	1:CA:218:A:C8	3.01	0.43
12:CP:132:VAL:CG2	21:CV:81:ARG:HH12	2.31	0.43
1:AA:2119:A:H2	1:AA:2171:A:H1'	1.81	0.43
1:CA:2178:G:C6	1:CA:2179:G:C5	3.06	0.43
52:DD:46:G:C2	52:DD:47:U:C2	3.07	0.43
52:DD:48:C:H2'	52:DD:49:A:O4'	2.17	0.43
11:CO:80:TYR:CD1	11:CO:111:ARG:HB2	2.49	0.43
52:BB:12:C:H1'	52:BB:25:G:N2	2.33	0.43
31:DA:1347:G:H22	31:DA:1373:G:H2'	1.81	0.43
31:DA:406:G:H2'	31:DA:407:G:H8	1.82	0.43
31:DA:408:A:N1	31:DA:434:U:O4	2.51	0.43
34:DG:22:LYS:HD3	34:DG:25:ARG:HB2	2.01	0.43
52:DB:53:A:OP2	52:DB:53:A:C8	2.70	0.43
1:CA:1148:U:C4	1:CA:1149:C:N4	2.86	0.43
3:CD:35:LYS:CB	3:CD:36:PRO:HA	2.48	0.43
3:CD:35:LYS:HB3	3:CD:36:PRO:HA	1.99	0.43
11:AO:49:ARG:HG3	30:A8:59:LYS:CD	2.49	0.43
11:AO:49:ARG:NE	30:A8:59:LYS:HG2	2.33	0.43
26:A4:63:TYR:HE2	49:BV:42:PRO:CD	2.22	0.43
2:CB:15:A:H5''	2:CB:17:A:C6	2.53	0.43
31:DA:1129:C:C4'	31:DA:1130:A:H5'	2.40	0.43
1:CA:1017:C:O2'	1:CA:1018:G:H5'	2.17	0.43
1:CA:1018:G:OP2	1:CA:1019:A:O2'	2.30	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:250:A:H4'	31:BA:251:G:C5'	2.48	0.43
31:DA:1330:U:O4	31:DA:1331:G:C2	2.71	0.43
51:DX:2:GLY:C	51:DX:4:GLY:H	2.22	0.43
31:BA:444:C:H2'	31:BA:445:G:C8	2.54	0.43
25:CX:59:VAL:CG1	25:CX:60:GLU:H	2.16	0.43
31:BA:1226:C:O2	49:BV:83:HIS:HE1	2.00	0.43
49:DV:62:ILE:N	49:DV:62:ILE:CD1	2.81	0.43
30:C8:14:VAL:CG1	30:C8:22:VAL:HG13	2.48	0.43
1:AA:1515:C:H2'	1:AA:1516:U:H6	1.83	0.43
31:DA:1052:U:C4	31:DA:1200:C:N3	2.86	0.43
31:DA:973:G:O6	31:DA:974:A:N6	2.52	0.43
21:CV:158:PRO:CB	21:CV:159:PRO:CD	2.95	0.43
23:CZ:91:LYS:HG2	23:CZ:92:LYS:N	2.30	0.43
37:DJ:75:VAL:HG21	37:DJ:144:MET:CB	2.48	0.43
31:BA:827:U:C5'	31:BA:828:A:OP2	2.65	0.43
31:BA:872:A:H2'	31:BA:872:A:N3	2.33	0.43
31:BA:874:G:C6	31:BA:875:C:C4	3.06	0.43
5:CF:10:PRO:HB3	5:CF:127:GLU:HG2	2.00	0.43
6:AG:99:MET:HE3	6:AG:99:MET:HB2	1.94	0.43
34:BG:110:PHE:HE2	34:BG:148:VAL:HG23	1.83	0.43
1:CA:2409:G:H4'	23:CZ:30:VAL:H	1.82	0.43
31:BA:685:G:C2	31:BA:686:U:C4	3.06	0.43
15:CR:91:ARG:HH11	15:CR:124:ASP:CG	2.22	0.43
1:AA:1098:A:H8	1:AA:1098:A:O5'	2.02	0.43
33:BF:162:GLN:HB3	54:B1:24:A:H1'	2.00	0.43
14:CQ:102:ALA:O	14:CQ:105:ALA:N	2.51	0.43
1:CA:679:A:H4'	1:CA:680:A:OP1	2.18	0.43
12:CP:17:LEU:HD23	12:CP:17:LEU:N	2.33	0.43
1:AA:2807:G:H2'	1:AA:2808:U:H5''	1.99	0.43
31:DA:539:A:H2'	31:DA:540:G:H8	1.83	0.43
1:AA:951:C:C2'	1:AA:952:G:H5'	2.48	0.43
31:DA:403:C:O2'	31:DA:404:U:H5'	2.19	0.43
1:CA:496:G:C6	29:C7:39:ARG:NH1	2.87	0.43
7:CH:136:ILE:HG22	7:CH:136:ILE:O	2.18	0.43
1:CA:792:G:OP2	56:CA:3283:OHX:N6	2.51	0.43
31:BA:1167:A:H2'	31:BA:1169:A:O4'	2.19	0.43
15:AR:91:ARG:HB2	15:AR:121:ILE:HG12	2.00	0.43
13:A0:92:GLY:N	13:A0:94:TYR:CE2	2.86	0.43
36:DI:2:ARG:HH11	36:DI:92:LYS:HZ1	1.65	0.43
41:DN:38:ASN:HA	41:DN:39:PRO:HD3	1.84	0.43
45:DR:29:VAL:O	45:DR:30:ALA:C	2.57	0.43
33:BF:186:PHE:CD1	33:BF:198:VAL:O	2.71	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:AU:43:ASN:CB	20:AU:64:GLU:HA	2.47	0.43
1:CA:1683:G:C2	1:CA:1684:C:C2	3.06	0.43
3:AD:45:ASN:HB2	3:AD:46:GLN:OE1	2.18	0.43
17:A2:19:LYS:HG3	17:A2:95:LEU:HD23	1.99	0.43
1:AA:372:G:O2'	1:AA:400:G:O6	2.36	0.43
31:DA:324:G:N7	56:DA:1764:OHX:N6	2.65	0.43
1:CA:887:U:H2'	1:CA:888:C:H6	1.82	0.43
1:CA:1429:G:OP1	56:CA:3375:OHX:N2	2.51	0.43
13:A0:55:ALA:HB2	13:A0:79:LEU:HD13	2.00	0.43
31:DA:668:G:C2'	31:DA:669:U:H5'	2.48	0.43
34:DG:108:LEU:HD23	34:DG:110:PHE:CE1	2.52	0.43
4:CE:130:GLY:O	4:CE:131:ALA:C	2.57	0.43
23:CZ:4:VAL:HG12	23:CZ:11:ARG:HB3	1.99	0.43
4:AE:199:ARG:HH12	4:AE:202:LYS:NZ	2.16	0.43
31:DA:35:G:H2'	31:DA:36:C:C6	2.53	0.43
31:DA:440:A:C8	31:DA:442:C:C6	3.06	0.43
1:AA:181:A:C2	1:AA:435:C:C5	3.06	0.43
6:CG:42:GLY:O	6:CG:43:LEU:HD13	2.18	0.43
21:AV:13:GLU:O	21:AV:14:LYS:C	2.57	0.43
1:AA:2780:G:H4'	1:AA:2781:A:OP2	2.17	0.43
19:AT:8:ILE:O	24:AW:36:ARG:NH2	2.50	0.43
41:DN:124:LYS:H	41:DN:124:LYS:HG3	1.54	0.43
8:AK:62:LYS:O	8:AK:66:GLU:HG2	2.17	0.43
31:BA:1480:G:C6	31:BA:1481:U:N3	2.87	0.43
13:C0:35:THR:HG23	13:C0:112:ALA:O	2.17	0.43
31:BA:854:G:C6	31:BA:855:G:N7	2.87	0.43
1:AA:2075:U:C4	1:AA:2238:G:C6	3.05	0.43
1:CA:55:A:C2	1:CA:113:C:O2	2.72	0.43
31:DA:837:G:C2	31:DA:850:U:O2	2.70	0.43
47:DT:65:ILE:N	47:DT:65:ILE:HD12	2.34	0.43
33:DF:75:VAL:HG12	33:DF:75:VAL:O	2.18	0.43
51:BX:10:ARG:HG2	51:BX:10:ARG:H	1.65	0.43
31:BA:599:C:H2'	31:BA:600:C:H6	1.83	0.43
1:AA:1085:A:C4'	1:AA:1086:A:OP1	2.66	0.43
1:AA:1102:C:C2'	1:AA:1103:A:H8	2.27	0.43
1:CA:417:G:H1	11:CO:71:VAL:CG1	2.07	0.43
31:BA:791:G:O6	31:BA:792:A:C6	2.71	0.43
1:CA:2138:G:N2	1:CA:2142:A:C5	2.86	0.43
52:DD:50:U:C2'	52:DD:51:C:O4'	2.66	0.43
1:CA:876:U:C5	1:CA:877:A:N6	2.86	0.43
11:CO:47:ASP:HB3	11:CO:49:ARG:N	2.33	0.43
1:AA:888:C:O2'	1:AA:889:C:H5'	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:889:C:C3'	1:AA:890:A:H4'	2.18	0.43
52:BB:53:A:H2'	52:BB:54:C:C6	2.53	0.43
1:CA:1089:G:H2'	1:CA:1090:C:H6	1.83	0.43
31:BA:1357:A:HO2'	44:BQ:34:TYR:HE2	1.64	0.43
31:BA:1009:G:O2'	31:BA:1010:G:H5'	2.18	0.43
52:DB:57:C:C4'	52:DB:58:G:OP2	2.67	0.43
1:AA:2383:G:O2'	1:AA:2384:G:H5'	2.18	0.43
31:BA:1492:A:H1'	54:B1:20:G:O2'	2.19	0.43
1:AA:2847:U:OP2	1:AA:2847:U:H6	2.01	0.43
31:BA:1134:G:H2'	31:BA:1134:G:N3	2.33	0.43
40:BM:38:ILE:HG23	40:BM:71:LEU:HB3	2.00	0.43
16:A1:92:ARG:HH11	16:A1:95:LEU:HD11	1.83	0.43
16:A1:90:VAL:HG22	17:A2:39:LEU:HB3	1.99	0.43
24:AW:4:SER:HB3	24:AW:5:GLU:H	1.64	0.43
1:AA:139:G:N2	1:AA:141:A:N1	2.60	0.43
32:BE:70:PHE:CE2	32:BE:163:PHE:HD1	2.36	0.43
7:AH:153:LYS:HZ3	7:AH:153:LYS:H	1.64	0.43
31:BA:604:G:H2'	31:BA:605:U:O4'	2.19	0.43
52:DB:77:C:N3	52:DB:78:C:N4	2.66	0.43
31:DA:1292:U:H2'	31:DA:1293:G:C8	2.53	0.43
6:CG:114:ILE:CD1	6:CG:140:ILE:HG21	2.49	0.43
38:BK:7:ALA:HB2	38:BK:85:ARG:HH11	1.84	0.43
1:CA:549:C:O2'	1:CA:550:U:H5'	2.17	0.43
1:AA:1797:C:H2'	1:AA:1798:U:H5'	2.00	0.43
1:AA:478:A:N6	1:AA:480:A:C6	2.86	0.43
1:AA:2355:C:H4'	22:A3:36:ILE:HD11	2.00	0.43
39:BL:47:LEU:HD22	39:BL:47:LEU:H	1.83	0.43
31:BA:174:C:H2'	31:BA:175:C:C6	2.52	0.43
31:DA:1094:G:H2'	31:DA:1095:U:OP2	2.19	0.43
5:CF:123:LEU:O	5:CF:193:VAL:HA	2.18	0.43
6:AG:97:ASP:O	6:AG:101:ILE:HG23	2.17	0.43
31:BA:438:G:H5'	34:BG:123:HIS:HB3	2.00	0.43
31:DA:718:G:O6	48:DU:74:ARG:NH1	2.50	0.43
31:BA:686:U:O4	31:BA:703:G:H1'	2.18	0.43
1:CA:27:G:N1	1:CA:538:G:O2'	2.50	0.43
1:CA:911:A:H2'	1:CA:912:G:C8	2.54	0.43
23:CZ:67:ILE:N	23:CZ:68:PRO:CD	2.79	0.43
1:AA:389:G:H22	11:AO:72:PRO:CG	2.31	0.43
44:DQ:33:VAL:HA	44:DQ:39:LEU:O	2.17	0.43
44:BQ:21:TYR:HE2	44:BQ:23:ARG:CZ	2.31	0.43
1:AA:2505:G:O2'	1:AA:2506:U:H5'	2.19	0.43
31:BA:977:A:C8	31:BA:1223:C:N3	2.86	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:AT:21:PHE:CD2	19:AT:26:TYR:CD2	3.06	0.43
20:CU:52:SER:CB	20:CU:56:PRO:HA	2.49	0.43
32:BE:217:ARG:HE	32:BE:217:ARG:HB2	1.43	0.43
4:CE:3:GLY:O	4:CE:4:ILE:HG23	2.19	0.43
31:BA:403:C:H4'	34:BG:122:ARG:HH11	1.82	0.43
10:CN:64:ARG:NH1	10:CN:83:ALA:HB2	2.33	0.43
17:C2:46:VAL:O	17:C2:46:VAL:HG13	2.18	0.43
1:AA:2078:C:H1'	1:AA:2434:A:H1'	2.00	0.43
1:CA:1631:A:H5'	1:CA:1632:C:O5'	2.18	0.43
22:C3:56:ASP:CG	22:C3:58:THR:HG1	2.22	0.43
38:DK:17:THR:HG22	38:DK:78:GLN:NE2	2.33	0.43
38:DK:20:TYR:HA	38:DK:65:TYR:CE2	2.52	0.43
5:CF:128:ALA:O	5:CF:130:ALA:N	2.51	0.43
1:CA:1489:G:C2	1:CA:1598:C:O2	2.72	0.43
39:DL:75:ASP:O	39:DL:78:LYS:HB3	2.17	0.43
37:DJ:87:VAL:HG22	37:DJ:88:PRO:HD2	2.01	0.43
31:BA:580:U:H2'	31:BA:581:G:O4'	2.18	0.43
1:AA:1773:A:H2'	1:AA:1774:C:H5'	2.01	0.43
1:AA:2182:G:H2'	1:AA:2183:C:C6	2.53	0.43
1:AA:2852:G:C6	1:AA:2853:C:C4	3.06	0.43
1:AA:2615:U:H2'	1:AA:2616:C:C6	2.53	0.43
1:CA:1431:A:N3	1:CA:1452:U:H1'	2.33	0.43
46:BS:17:TYR:HE1	46:BS:41:PRO:HG3	1.83	0.43
32:DE:59:GLU:HB2	32:DE:221:LEU:HD21	2.00	0.43
1:AA:117:G:C6	1:AA:119:A:C6	3.07	0.43
2:CB:3:U:H2'	2:CB:4:C:C6	2.53	0.43
14:AQ:69:VAL:O	14:AQ:69:VAL:HG22	2.18	0.43
2:CB:76:U:H2'	2:CB:77:G:H5''	1.99	0.43
31:BA:419:C:H42	31:BA:424:G:H1	1.66	0.43
31:BA:613:C:H2'	31:BA:614:A:O4'	2.18	0.43
11:AO:25:SER:O	11:AO:27:HIS:CD2	2.72	0.43
52:BD:48:C:C2'	52:BD:49:A:C8	3.01	0.43
31:BA:1498:U:C2'	31:BA:1499:A:OP2	2.66	0.43
52:DD:57:C:N3	52:DD:68:A:H1'	2.33	0.43
52:DD:65:C:C4	52:DD:66:G:N7	2.86	0.43
31:BA:1199:U:C4'	40:BM:54:PHE:CE2	3.01	0.43
31:BA:1179:A:C6	31:BA:1180:A:C2	3.06	0.43
52:BD:12:C:H2'	52:BD:13:G:C1'	2.49	0.43
31:DA:976:G:H5'	31:DA:1358:U:HO2'	1.79	0.43
31:DA:1015:A:C6	31:DA:1016:A:C6	3.06	0.43
1:AA:870:A:OP1	12:AP:6:ARG:CZ	2.67	0.43
26:A4:39:CYS:SG	26:A4:41:PRO:HD3	2.59	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:C8:33:ASN:O	30:C8:34:TRP:CG	2.70	0.43
31:DA:1274:G:O2'	31:DA:1275:A:H5'	2.18	0.43
1:CA:992:G:H2'	1:CA:993:G:H8	1.84	0.43
31:DA:820:U:C4'	31:DA:821:G:OP2	2.53	0.43
31:DA:1011:G:C5	31:DA:1012:U:C4	3.06	0.43
31:DA:1023:G:H2'	31:DA:1023:G:N3	2.34	0.43
1:AA:1021:A:C6	1:AA:1023:U:C4	3.06	0.43
30:C8:52:LYS:C	30:C8:54:GLU:H	2.17	0.43
31:BA:467:G:N1	31:BA:468:A:C2	2.86	0.43
16:C1:86:ALA:O	17:C2:49:THR:HG22	2.19	0.43
5:CF:203:GLN:CA	5:CF:203:GLN:HE21	2.18	0.43
11:AO:112:LEU:HD22	11:AO:113:LYS:N	2.34	0.43
31:DA:1288:A:O2'	31:DA:1289:A:H5'	2.18	0.43
51:DX:9:ARG:O	51:DX:13:ILE:HG13	2.18	0.43
27:A5:56:LYS:O	27:A5:58:LEU:HG	2.19	0.43
38:BK:82:HIS:HE1	38:BK:84:ARG:HD3	1.84	0.43
1:CA:2831:A:HO2'	1:CA:2832:A:P	2.37	0.43
52:DB:40:U:H2'	52:DB:41:C:C1'	2.49	0.43
34:BG:154:ASN:N	34:BG:154:ASN:OD1	2.51	0.43
1:CA:2203:U:C4	1:CA:2204:G:C5	3.07	0.43
32:BE:204:ASN:C	32:BE:204:ASN:HD22	2.22	0.43
1:CA:1466:A:N6	1:CA:1468:G:C2	2.86	0.43
1:AA:2095:C:H2'	1:AA:2096:U:O4'	2.19	0.43
31:BA:1378:C:O2	31:BA:1378:C:H3'	2.18	0.43
31:BA:298:A:C6	31:BA:299:G:C2	3.06	0.43
1:CA:2263:G:N1	12:CP:83:MET:CB	2.82	0.43
34:BG:173:TRP:CB	34:BG:187:ARG:HG2	2.48	0.43
34:DG:150:GLU:C	34:DG:152:SER:N	2.71	0.43
1:AA:273(E):U:O2'	1:AA:273(F):C:H5'	2.18	0.43
14:AQ:27:SER:HA	14:AQ:88:ASP:HB2	2.00	0.43
31:BA:1046:A:H3'	31:BA:1047:G:H8	1.82	0.43
23:CZ:19:GLN:O	23:CZ:35:THR:O	2.37	0.43
11:CO:139:LYS:C	11:CO:141:ALA:H	2.22	0.43
31:DA:1086:U:H6	31:DA:1086:U:O5'	2.01	0.43
1:CA:306:G:O2'	1:CA:307:A:O4'	2.32	0.43
8:AK:86:THR:HG22	8:AK:86:THR:O	2.18	0.43
1:CA:442:C:H1'	1:CA:1896:U:O2'	2.19	0.43
1:AA:1368:G:C2	1:AA:1369:G:C8	3.06	0.43
18:CS:17:VAL:O	18:CS:20:VAL:HG22	2.18	0.43
1:AA:15:G:C2	1:AA:16:G:C8	3.06	0.43
1:CA:905:C:OP1	22:C3:77:ARG:NH2	2.49	0.43
1:AA:271(B):G:H1'	1:AA:271(C):U:OP2	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:AG:7:LEU:HB2	6:AG:104:GLU:CD	2.38	0.43
1:CA:1063:G:H2'	1:CA:1064:G:O4'	2.18	0.43
4:AE:7:VAL:HG23	4:AE:7:VAL:O	2.18	0.43
1:CA:1858:G:H4'	3:CD:242:ARG:HE	1.83	0.43
31:BA:115:G:C2	31:BA:289:G:N7	2.86	0.43
1:CA:19:C:O2'	1:CA:20:C:H5'	2.18	0.43
20:AU:63:LYS:NZ	20:AU:64:GLU:HG2	2.34	0.43
31:BA:1246:C:N4	31:BA:1291:G:H1	2.17	0.43
31:BA:1256:A:N3	31:BA:1277:C:N4	2.66	0.43
5:CF:38:ARG:HD3	5:CF:99:TYR:OH	2.18	0.43
31:BA:1165:C:N4	31:BA:1166:G:C6	2.86	0.43
3:AD:226:MET:HB3	3:AD:230:ASP:OD2	2.19	0.43
53:DC:29:C:H2'	53:DC:30:G:C8	2.53	0.43
1:CA:2024:A:H2'	1:CA:2025:G:C8	2.54	0.43
1:AA:2361:A:P	30:A8:27:THR:HG1	2.41	0.43
31:DA:12:U:O4	56:DA:1719:OHX:N2	2.52	0.43
34:DG:173:TRP:O	34:DG:186:LEU:HB2	2.17	0.43
1:CA:2712:C:H2'	1:CA:2713:C:O4'	2.18	0.43
43:BP:92:HIS:CE1	43:BP:98:VAL:HG21	2.53	0.43
34:DG:114:ARG:O	34:DG:117:ALA:HB3	2.19	0.43
11:AO:86:LYS:HB3	11:AO:118:GLY:HA2	2.00	0.43
44:BQ:51:GLY:C	44:BQ:53:LEU:H	2.22	0.43
31:DA:1429:C:H2'	31:DA:1430:C:C6	2.53	0.43
1:CA:2476:C:O2	1:CA:2501:A:C2	2.71	0.43
1:CA:1210:G:C2	1:CA:1211:G:C8	3.06	0.43
1:AA:115:C:O2'	1:AA:116:C:H5'	2.18	0.43
3:CD:158:ALA:O	3:CD:159:ALA:C	2.56	0.43
1:AA:1683:C:H2'	1:AA:1684:C:H6	1.84	0.43
31:DA:1486:G:H2'	31:DA:1487:G:O4'	2.18	0.43
31:DA:29:G:C5	31:DA:30:U:C5	3.07	0.43
30:C8:7:HIS:CD2	30:C8:59:LYS:HE2	2.54	0.43
31:BA:506:G:H2'	31:BA:507:C:O4'	2.19	0.43
5:AF:31:HIS:NE2	5:AF:35:GLU:OE2	2.52	0.43
46:BS:74:LEU:HD22	46:BS:79:VAL:HG21	2.00	0.43
31:DA:1006:C:H2'	31:DA:1007:C:C6	2.53	0.43
14:AQ:58:LEU:N	14:AQ:58:LEU:HD23	2.33	0.43
38:BK:81:HIS:HB2	38:BK:138:TRP:CZ3	2.53	0.43
31:DA:1123:A:H4'	40:DM:36:GLY:HA3	2.00	0.43
1:CA:227:C:O2'	1:CA:228:C:H5'	2.18	0.43
31:DA:303:A:H2'	31:DA:304:U:C6	2.53	0.43
10:CN:52:VAL:HG12	10:CN:53:LYS:N	2.32	0.43
1:AA:1091:G:N1	1:AA:1101:U:C2	2.87	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:657:A:N6	1:CA:658:A:N1	2.65	0.43
1:AA:2127:G:H2'	1:AA:2128:C:O4'	2.19	0.43
52:DD:62:G:H1	52:DD:70:C:N4	2.12	0.43
12:AP:19:GLY:CA	12:AP:98:LYS:CD	2.97	0.43
1:CA:876:U:H4'	1:CA:879:G:N1	2.34	0.43
31:BA:1004:A:C2	31:BA:1005:A:C2	3.06	0.43
1:AA:2001:A:H2'	1:AA:2002:G:C8	2.54	0.43
5:AF:39:TRP:CD1	5:AF:101:LEU:HB2	2.53	0.43
2:AB:7:G:H8	2:AB:7:G:C5'	2.32	0.43
52:BD:27:A:H2'	52:BD:28:G:H8	1.83	0.43
31:DA:993:G:C6	31:DA:1045:C:N3	2.86	0.43
1:CA:2883:G:N9	1:CA:2884:A:C2	2.87	0.43
1:AA:154:G:C3'	1:AA:155:C:H5''	2.49	0.43
2:CB:46:G:C2	2:CB:50:A:N3	2.87	0.43
4:CE:38:THR:HG22	4:CE:41:LYS:N	2.34	0.43
32:BE:124:SER:HB2	32:BE:125:PRO:CD	2.43	0.43
8:CK:75:LEU:HG	8:CK:139:GLN:OE1	2.18	0.43
4:AE:39:PRO:HA	4:AE:43:GLY:HA2	2.01	0.43
6:AG:13:GLU:HG3	6:AG:13:GLU:O	2.18	0.43
29:A7:10:ARG:O	29:A7:14:LYS:HB2	2.18	0.43
1:AA:821:A:O2'	1:AA:945:A:C3'	2.66	0.43
2:AB:76:G:O6	56:AB:217:OHX:N1	2.52	0.43
28:A6:24:GLU:HB3	28:A6:25:LYS:H	1.60	0.43
11:AO:37:GLY:O	11:AO:40:SER:N	2.49	0.43
31:DA:306:G:O3'	56:DA:1734:OHX:N1	2.50	0.43
31:DA:914:A:O2'	31:DA:915:A:H5'	2.18	0.43
1:AA:1728:G:O6	1:AA:1730:U:H5''	2.19	0.43
31:BA:942:G:C2	31:BA:1342:C:O2	2.72	0.43
26:A4:24:THR:OG1	26:A4:25:TYR:N	2.50	0.43
31:BA:1254:C:N3	31:BA:1283:G:N2	2.61	0.43
31:BA:914:A:O2'	31:BA:915:A:H5'	2.18	0.43
1:AA:2419:U:O4	30:A8:30:ARG:NE	2.52	0.43
1:AA:2146:C:C5'	1:AA:2147:G:OP1	2.65	0.43
31:DA:636:U:H2'	31:DA:637:G:C8	2.54	0.43
33:DF:37:GLN:OE1	33:DF:37:GLN:HA	2.19	0.43
26:C4:18:CYS:CB	26:C4:19:GLY:HA2	2.49	0.43
31:DA:620:C:C6	34:DG:135:LEU:HD23	2.53	0.43
52:BB:31:G:H2'	52:BB:32:A:C8	2.54	0.43
31:BA:626:U:H2'	31:BA:627:G:H8	1.82	0.43
1:CA:1175:A:O4'	1:CA:2529:G:O2'	2.37	0.43
1:CA:812:A:O4'	3:CD:213:ARG:HG3	2.19	0.43
21:AV:77:ASP:OD2	21:AV:80:ARG:HG2	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:CV:157:LEU:HD21	21:CV:163:LEU:HD22	2.01	0.43
1:AA:754:C:H2'	1:AA:755:C:H6	1.84	0.43
1:CA:387:U:H3'	1:CA:387:U:H6	1.84	0.43
18:AS:76:VAL:HG21	18:AS:101:SER:HB3	2.01	0.43
19:AT:12:VAL:HG13	19:AT:27:THR:O	2.19	0.43
9:AM:93:THR:HG22	9:AM:94:HIS:CE1	2.54	0.43
10:CN:22:ILE:HB	10:CN:40:VAL:HG12	2.00	0.43
1:CA:1829:C:O2'	3:CD:259:THR:OG1	2.15	0.43
1:AA:2334:G:C6	22:A3:75:LEU:HD21	2.54	0.43
1:AA:2651:C:N4	1:AA:2669:G:H1	2.15	0.43
3:CD:10:THR:OG1	3:CD:13:ARG:HB2	2.18	0.43
1:AA:18:C:H2'	1:AA:19:C:H6	1.83	0.43
31:BA:637:G:C2'	31:BA:638:G:H5'	2.49	0.43
8:CK:123:LEU:HA	8:CK:142:VAL:CG1	2.48	0.43
11:AO:2:LYS:HG2	11:AO:4:SER:H	1.83	0.43
1:CA:1315:A:C2	1:CA:2036:A:C4	3.06	0.43
1:AA:1011:G:OP1	16:A1:75:ASN:HB3	2.19	0.43
31:DA:54:C:C5	31:DA:352:C:H5	2.37	0.43
1:CA:231:A:H4'	1:CA:232:G:OP1	2.19	0.43
7:AH:26:VAL:O	7:AH:27:LYS:O	2.36	0.43
1:AA:867:C:C5	1:AA:868:U:C5	3.07	0.43
1:CA:511:C:H2'	1:CA:512:C:C6	2.54	0.43
31:BA:582:U:H2'	31:BA:583:A:O4'	2.19	0.43
7:CH:9:ILE:HG22	7:CH:51:ARG:HG2	2.00	0.43
1:CA:2458:G:C2'	1:CA:2459:G:H5'	2.48	0.43
53:DC:73:A:C6	53:DC:74:A:C6	3.07	0.43
31:BA:578:C:O2'	31:BA:728:A:N3	2.35	0.43
3:AD:248:SER:O	3:AD:250:TRP:N	2.52	0.43
1:CA:997:C:O2'	1:CA:998:G:H5'	2.17	0.43
1:CA:2654:G:O3'	9:CM:76:SER:OG	2.33	0.43
33:DF:106:VAL:O	33:DF:109:PRO:HD3	2.18	0.43
31:BA:922:G:H2'	31:BA:923:A:C8	2.53	0.43
1:CA:1306:G:H2'	1:CA:1307:G:C8	2.53	0.43
1:CA:36:G:N3	1:CA:477:G:O2'	2.50	0.43
2:CB:22:C:C2'	2:CB:23:G:H5'	2.47	0.43
1:AA:1215:G:C4	1:AA:1216:G:C8	3.06	0.43
31:DA:1186:G:N7	56:DA:1812:OHX:N1	2.67	0.43
1:AA:2252:G:H2'	1:AA:2253:G:O4'	2.18	0.43
31:BA:680:C:H2'	31:BA:681:C:H6	1.84	0.43
1:AA:978:G:C2	1:AA:986:C:C2	3.07	0.43
32:DE:158:LEU:HA	32:DE:159:PRO:HD2	1.64	0.43
4:CE:57:LYS:HD3	4:CE:57:LYS:HA	1.93	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:AZ:56:GLN:NE2	23:AZ:56:GLN:HA	2.33	0.43
4:AE:203:LYS:HE3	4:AE:204:ALA:HB2	2.01	0.43
31:DA:1030:C:N3	31:DA:1031:G:C2	2.86	0.43
33:BF:56:ASP:OD1	33:BF:69:HIS:NE2	2.52	0.43
37:DJ:125:MET:O	37:DJ:128:ALA:HB3	2.19	0.43
1:AA:2307:G:C4	1:AA:2311:A:C6	3.06	0.43
1:AA:2307:G:N9	1:AA:2311:A:N1	2.67	0.43
30:C8:37:SER:C	30:C8:39:LYS:H	2.19	0.43
1:AA:2168:G:N3	1:AA:2168:G:H3'	2.34	0.43
1:AA:1568:G:H5''	3:AD:61:LEU:HD22	2.01	0.43
3:AD:35:LYS:CG	3:AD:64:ILE:H	2.25	0.43
1:CA:1356:G:P	29:C7:9:ARG:HD2	2.59	0.43
12:CP:18:LYS:O	12:CP:19:GLY:O	2.37	0.43
31:DA:80:G:O6	31:DA:89:U:O4	2.36	0.43
1:CA:1186:C:O3'	9:CM:25:ARG:NH2	2.50	0.43
31:DA:251:G:C6	31:DA:266:G:C6	3.07	0.43
1:AA:908:C:OP2	12:AP:22:LYS:HD3	2.19	0.43
31:BA:1133:G:H2'	31:BA:1134:G:H8	1.83	0.43
20:AU:78:ALA:HB3	20:AU:81:LYS:CE	2.49	0.43
31:DA:1256:A:H4'	31:DA:1257:U:OP1	2.17	0.43
39:DL:90:PRO:C	39:DL:92:TYR:H	2.21	0.43
1:AA:1049:C:H2'	1:AA:1050:A:H5'	2.00	0.43
2:CB:42:U:C4	2:CB:45:C:OP2	2.72	0.43
31:BA:990:C:C2	31:BA:1216:G:C2	3.06	0.43
31:BA:1504:G:P	31:BA:1504:G:H3'	2.59	0.43
31:BA:1504:G:H4'	31:BA:1505:G:OP2	2.18	0.43
31:DA:501:C:H2'	31:DA:502:G:C8	2.54	0.43
1:AA:1516:U:C2	1:AA:1517:G:C8	3.06	0.43
31:DA:973:G:C4	40:DM:55:LYS:HE3	2.53	0.43
1:CA:2886:C:O2'	15:CR:5:ALA:HB3	2.19	0.43
25:CX:19:GLN:HE22	25:CX:52:HIS:CE1	2.20	0.43
25:CX:19:GLN:O	25:CX:23:LEU:HD12	2.18	0.43
1:CA:1325:A:O2'	13:C0:34:ILE:HD11	2.19	0.43
3:CD:43:ARG:NH1	3:CD:49:ILE:HB	2.27	0.43
24:AW:46:GLN:O	24:AW:47:ASN:O	2.37	0.43
1:AA:508:G:O2'	56:AA:3450:OHX:N1	2.51	0.43
39:BL:24:GLY:O	39:BL:26:VAL:HG23	2.19	0.43
1:AA:667:U:H2'	1:AA:668:G:O4'	2.19	0.43
21:AV:160:GLY:C	21:AV:161:VAL:HG22	2.39	0.43
53:BC:73:A:N6	53:BC:74:A:N6	2.67	0.43
2:CB:90:C:H5''	2:CB:91:G:N7	2.33	0.43
1:AA:2820:A:O2'	4:AE:191:PRO:HG3	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
50:DW:72:LEU:HB3	50:DW:73:HIS:H	1.62	0.43
36:DI:10:LEU:HD13	36:DI:61:LEU:HD13	2.00	0.43
38:BK:20:TYR:HA	38:BK:65:TYR:CE2	2.54	0.43
5:AF:42:ALA:O	5:AF:45:ARG:HB2	2.18	0.43
18:CS:2:GLU:HG2	18:CS:72:LYS:HZ2	1.81	0.43
31:BA:1000:A:O2'	31:BA:1001:G:H5'	2.18	0.43
38:BK:123:GLU:O	38:BK:127:LEU:HG	2.18	0.43
1:AA:1495:A:H1'	1:AA:1579:A:H5''	2.01	0.43
1:CA:985:G:H2'	1:CA:986:G:H5'	1.99	0.43
6:CG:18:GLU:O	6:CG:18:GLU:HG3	2.19	0.43
2:AB:50:G:OP2	14:AQ:62:LYS:HB2	2.19	0.43
1:AA:2259:G:C2	1:AA:2282:G:C6	3.06	0.43
1:AA:2281:C:O2'	1:AA:2282:G:H5'	2.19	0.43
1:CA:336:A:C8	1:CA:357:A:N7	2.87	0.43
31:BA:1326:C:H2'	31:BA:1327:C:C6	2.54	0.43
7:CH:136:ILE:HD12	7:CH:136:ILE:N	2.32	0.43
1:CA:1330:G:N2	1:CA:1333:A:H5'	2.33	0.43
1:CA:2069:G:O5'	27:C5:19:ARG:HA	2.19	0.43
1:AA:618(A):C:O2	1:AA:618(A):C:C2'	2.67	0.43
45:BR:21:ASP:OD1	45:BR:24:SER:HB3	2.18	0.43
1:CA:2497:G:C2	1:CA:2498:G:C8	3.07	0.43
1:AA:827:U:H5'	1:AA:828:U:O5'	2.19	0.43
31:DA:1415:G:H2'	31:DA:1416:G:O4'	2.19	0.43
31:BA:1247:U:C2	31:BA:1291:G:N2	2.87	0.43
12:AP:106:VAL:CG2	12:AP:114:ALA:HB1	2.48	0.43
1:CA:1953:G:O2'	1:CA:1954:U:P	2.77	0.43
1:AA:1680:U:C4	1:AA:1681:G:C6	3.07	0.43
31:BA:112:G:OP1	46:BS:27:LYS:HD2	2.19	0.43
48:BU:57:GLY:C	48:BU:58:LEU:HD12	2.39	0.43
31:BA:1076:C:N3	31:BA:1082:G:C2	2.87	0.43
48:DU:87:ARG:HB3	48:DU:88:LYS:H	1.53	0.43
1:CA:1531:G:C6	1:CA:1532:G:C5	3.06	0.43
1:CA:2061:G:H2'	1:CA:2062:C:O4'	2.18	0.43
31:BA:24:U:H2'	31:BA:25:C:H6	1.83	0.43
31:DA:35:G:C2	31:DA:550:G:N3	2.86	0.43
15:AR:78:LEU:HD13	15:AR:79:HIS:CD2	2.54	0.43
1:CA:411:U:O2	1:CA:413:C:N4	2.51	0.43
31:DA:392:G:P	46:DS:8:ARG:HH22	2.41	0.43
31:DA:391:G:O3'	46:DS:8:ARG:NH2	2.52	0.43
2:CB:77:G:N3	21:CV:85:HIS:CE1	2.86	0.43
1:CA:2463:A:C2	1:CA:2464:A:C4	3.07	0.43
1:CA:2279:A:H4'	1:CA:2280:A:C4	2.53	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:503:A:C5	1:AA:506:G:C6	3.06	0.43
40:DM:22:LYS:HD2	40:DM:22:LYS:O	2.18	0.43
47:DT:25:ARG:HG3	47:DT:25:ARG:O	2.18	0.43
1:AA:898:C:H5'	1:AA:899:A:OP2	2.18	0.43
1:AA:1065:U:C4	1:AA:1066:U:C6	3.07	0.43
30:C8:37:SER:O	30:C8:39:LYS:CA	2.64	0.43
52:BD:65:C:H2'	52:BD:66:G:H5'	2.01	0.43
1:CA:874:U:H4'	11:CO:55:ARG:HB3	2.01	0.43
1:AA:1534:G:H2'	1:AA:1535:U:H4'	2.01	0.43
31:BA:96:G:C6	31:BA:97:U:N3	2.87	0.43
31:DA:533:A:O2'	31:DA:534:U:H5'	2.18	0.43
31:DA:1491:G:H5''	42:DO:43:LYS:HG3	1.99	0.43
1:AA:67:U:C2	1:AA:74:A:H2	2.31	0.43
52:DB:67:A:H61	52:DB:70:C:H1'	1.82	0.43
1:CA:89:U:HO2'	1:CA:90:A:H8	1.56	0.43
6:CG:97:ASP:H	6:CG:100:TRP:HD1	1.66	0.43
1:CA:2390:A:O2'	1:CA:2391:A:H5'	2.19	0.43
52:DD:11:C:N4	52:DD:25:G:H1	2.14	0.43
3:CD:33:LEU:HD23	3:CD:34:VAL:H	1.82	0.43
7:AH:6:ARG:HH21	7:AH:54:ARG:HH22	1.67	0.43
32:DE:74:LYS:HE2	32:DE:74:LYS:HB3	1.83	0.43
26:A4:37:SER:CB	26:A4:42:PHE:CD1	3.02	0.43
20:AU:96:ILE:CG1	20:AU:99:CYS:H	2.32	0.43
43:BP:84:ILE:HD11	49:BV:66:MET:HE3	2.01	0.43
31:BA:255:G:H2'	31:BA:256:U:C6	2.54	0.43
1:AA:1027:A:N6	1:AA:1126:A:C4	2.87	0.43
20:CU:76:CYS:HB3	20:CU:77:PRO:HD2	2.00	0.43
1:AA:2562:U:C1'	10:AN:23:ARG:HH11	2.20	0.43
38:DK:109:ILE:CG2	38:DK:137:VAL:HB	2.49	0.43
1:AA:69:C:O2'	1:AA:70:G:H5'	2.19	0.43
1:AA:71:A:C2	19:AT:31:HIS:CE1	3.06	0.43
21:CV:44:PHE:C	21:CV:44:PHE:CD1	2.92	0.43
1:CA:1001:C:N4	1:CA:1002:G:C6	2.87	0.43
5:AF:65:TRP:CZ2	5:AF:72:ARG:CZ	3.02	0.43
1:CA:835:U:H5''	1:CA:836:A:H5'	2.00	0.43
49:DV:51:VAL:HG23	49:DV:60:VAL:CG1	2.49	0.43
6:AG:67:LYS:NZ	26:A4:6:HIS:CE1	2.87	0.43
34:BG:154:ASN:HB2	34:BG:155:LEU:H	1.55	0.43
1:CA:2015:G:C8	1:CA:2015:G:O5'	2.71	0.43
32:BE:92:TYR:HE1	32:BE:94:ASN:ND2	2.10	0.43
34:BG:108:LEU:HD12	34:BG:174:LEU:HD13	2.01	0.43
39:DL:114:TYR:N	39:DL:114:TYR:CD2	2.83	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
36:DI:60:PHE:O	36:DI:61:LEU:HD12	2.19	0.43
31:BA:703:G:C1'	31:BA:704:A:OP2	2.66	0.43
1:CA:195:G:C1'	1:CA:196:U:OP2	2.63	0.43
1:CA:2311:A:H61	1:CA:2331:G:C2'	2.30	0.43
21:CV:116:VAL:CG1	21:CV:117:LEU:H	2.28	0.43
37:BJ:57:GLU:N	37:BJ:57:GLU:CD	2.71	0.43
31:DA:279:A:N3	31:DA:279:A:H2'	2.34	0.43
1:AA:2258:C:H4'	1:AA:2259:G:OP2	2.19	0.43
10:AN:8:LEU:N	10:AN:8:LEU:CD2	2.82	0.43
33:DF:23:TYR:HD1	40:DM:10:GLY:HA2	1.82	0.43
1:AA:2098:U:H2'	1:AA:2099:U:O4'	2.19	0.43
13:C0:24:GLN:HB3	13:C0:44:LEU:HD11	2.01	0.43
45:BR:18:PHE:HB2	45:BR:19:PRO:HD2	2.00	0.43
22:A3:75:LEU:O	22:A3:78:TYR:HE1	2.02	0.43
1:CA:405:C:H2'	1:CA:406:C:C6	2.53	0.43
13:A0:107:ASP:C	13:A0:107:ASP:OD2	2.57	0.43
1:CA:653:A:N7	11:CO:84:ASN:ND2	2.65	0.43
1:CA:1310:U:C1'	27:C5:10:LYS:HG3	2.48	0.43
18:AS:84:ARG:CB	18:AS:96:ILE:HD11	2.48	0.43
15:CR:51:ARG:HE	15:CR:62:THR:HG21	1.83	0.43
33:DF:126:ARG:HB2	33:DF:128:PHE:HE1	1.83	0.43
32:DE:141:GLU:O	32:DE:145:LEU:HB2	2.18	0.43
51:BX:9:ARG:O	51:BX:13:ILE:HG13	2.18	0.43
31:BA:191(E):G:C6	31:BA:191(F):U:O4	2.72	0.43
1:AA:2335:A:O3'	1:AA:2336:A:H8	2.02	0.43
13:A0:26:LYS:HE2	13:A0:70:LEU:O	2.17	0.43
40:DM:8:LEU:HG	40:DM:96:ILE:HG22	2.01	0.43
1:AA:1893:C:H2'	1:AA:1894:C:O4'	2.19	0.43
1:AA:741:G:H2'	1:AA:742:G:O4'	2.19	0.43
42:BO:80:VAL:CG1	42:BO:81:LEU:N	2.81	0.43
31:BA:565:U:H3'	31:BA:566:G:H2'	1.99	0.43
41:DN:17:GLY:HA3	41:DN:77:MET:SD	2.59	0.43
1:AA:2516:G:C6	1:AA:2517:C:N4	2.87	0.43
31:BA:102:G:C6	31:BA:103:C:C4	3.06	0.43
42:DO:89:ASP:O	42:DO:90:LEU:HD23	2.19	0.43
36:DI:7:ASN:O	36:DI:88:VAL:HA	2.18	0.43
37:BJ:121:ALA:O	37:BJ:125:MET:HG3	2.18	0.43
39:DL:34:ASN:N	39:DL:34:ASN:OD1	2.52	0.43
22:A3:11:ARG:NH1	22:A3:11:ARG:HB2	2.32	0.43
1:AA:228:A:C2'	1:AA:228:A:N3	2.82	0.43
1:CA:787:G:H4'	1:CA:788:U:OP1	2.19	0.43
12:CP:2:LEU:O	12:CP:70:PRO:HG2	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:BB:57:C:O2'	52:BB:68:A:C4'	2.57	0.43
3:AD:62:TYR:HA	3:AD:87:ASN:HD21	1.83	0.43
1:CA:1655:A:H1'	1:CA:1657:A:OP2	2.19	0.43
31:BA:68:G:C2	31:BA:69:G:H1'	2.54	0.43
31:BA:90:C:H5''	31:BA:91:C:OP2	2.19	0.43
31:BA:1027:C:H1'	31:BA:1028:C:P	2.59	0.43
52:DB:17:G:C6	52:DB:67:A:C5	3.06	0.43
3:CD:30:GLU:CD	3:CD:63:ARG:NH2	2.72	0.43
31:DA:652:U:C5	31:DA:752:G:C4	3.07	0.43
32:DE:78:GLN:O	32:DE:94:ASN:ND2	2.51	0.43
1:AA:2032:G:H21	4:AE:146:THR:CG2	2.17	0.43
5:CF:132:VAL:O	5:CF:134:GLY:N	2.52	0.43
17:A2:35:LEU:HB2	17:A2:37:VAL:HG22	2.01	0.43
31:DA:1129:C:N4	31:DA:1139:G:C2	2.86	0.43
1:CA:598:C:H1'	1:CA:2078:C:C6	2.53	0.43
31:BA:277:C:P	47:BT:68:ARG:HH12	2.42	0.43
31:DA:1004:A:P	31:DA:1025:U:O4	2.76	0.43
1:CA:706:C:N4	1:CA:707:C:N4	2.67	0.43
1:AA:1109:C:HO2'	1:AA:1110:G:C1'	2.18	0.43
2:CB:46:G:N2	2:CB:50:A:C4	2.87	0.43
6:CG:37:VAL:HA	6:CG:158:ALA:O	2.18	0.43
31:BA:1399:C:C2	31:BA:1502:A:N6	2.87	0.43
4:CE:170:LEU:CD1	4:CE:185:LYS:HB2	2.49	0.43
18:AS:9:TYR:N	18:AS:102:HIS:CD2	2.79	0.43
1:AA:1952:A:N1	1:AA:1953:A:C2	2.87	0.43
31:DA:1288:A:H1'	31:DA:1352:C:O2'	2.18	0.43
27:A5:56:LYS:CD	27:A5:56:LYS:N	2.81	0.43
32:BE:74:LYS:O	32:BE:78:GLN:HB2	2.18	0.43
25:CX:19:GLN:O	25:CX:22:ALA:HB3	2.18	0.43
3:CD:271:ILE:O	3:CD:272:ALA:CB	2.65	0.43
31:BA:173:U:C4	31:BA:197:A:C2	3.07	0.43
10:CN:102:VAL:CG2	10:CN:121:VAL:HG22	2.48	0.43
6:AG:101:ILE:HD12	26:A4:25:TYR:O	2.19	0.43
32:BE:8:LYS:NZ	32:BE:11:LEU:HD22	2.34	0.43
36:DI:61:LEU:HB3	36:DI:63:TYR:CE2	2.54	0.43
31:BA:355:C:C2'	31:BA:356:A:H5'	2.48	0.43
8:CK:3:VAL:HB	8:CK:37:VAL:O	2.18	0.43
15:CR:88:ILE:HG21	15:CR:91:ARG:NH2	2.34	0.43
3:CD:239:ARG:O	3:CD:240:ALA:CB	2.59	0.43
1:AA:2784:C:O2'	4:AE:37:ARG:CZ	2.67	0.43
14:AQ:14:VAL:HG21	14:AQ:89:ARG:HD3	2.01	0.43
21:AV:39:VAL:HG21	21:AV:44:PHE:HB2	2.01	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:2828:G:P	13:C0:99:LYS:HZ1	2.41	0.43
31:BA:376:G:O3'	46:BS:5:ARG:NH1	2.48	0.43
31:BA:627:G:H2'	31:BA:628:G:C8	2.48	0.43
32:DE:168:THR:HA	32:DE:171:ALA:HB2	2.01	0.43
40:BM:9:ARG:HH22	40:BM:97:GLU:HG3	1.84	0.43
40:BM:7:LYS:HD2	40:BM:9:ARG:HH12	1.84	0.43
1:CA:299:G:C5	1:CA:300:G:C6	3.07	0.43
48:DU:29:PHE:HD1	48:DU:39:VAL:CG1	2.31	0.43
1:CA:683:G:H2'	1:CA:684:G:H8	1.84	0.43
31:DA:259:G:H2'	31:DA:260:G:O4'	2.19	0.43
3:AD:121:PRO:HB3	3:AD:135:PHE:CE1	2.54	0.43
26:C4:48:ARG:HH11	26:C4:51:ASP:HA	1.84	0.43
31:BA:115:G:H1'	31:BA:116:A:OP2	2.18	0.43
5:CF:65:TRP:CZ3	5:CF:75:HIS:HD2	2.37	0.43
39:BL:79:LEU:CD1	39:BL:83:ARG:HD2	2.48	0.43
1:AA:1460:A:H3'	1:AA:1461:G:C5'	2.49	0.43
1:AA:531:C:C5	1:AA:2035:G:N3	2.86	0.43
46:BS:20:VAL:HG13	46:BS:32:TYR:HB3	2.01	0.43
31:BA:587:G:N2	31:BA:755:G:C4	2.87	0.43
31:DA:803:G:C6	31:DA:804:U:N3	2.87	0.43
6:AG:125:PHE:HB3	6:AG:166:ASP:OD2	2.19	0.43
1:AA:1735:C:O2'	1:AA:1741:C:H5'	2.18	0.43
1:CA:1429:G:H2'	1:CA:1430:C:H5'	2.00	0.43
52:DB:38:MIA:C2	54:D1:19:U:N3	2.82	0.43
1:CA:1535:G:C6	1:CA:1536:U:N3	2.87	0.43
43:BP:49:THR:HG22	43:BP:51:ALA:H	1.84	0.43
31:BA:765:G:H5''	31:BA:766:A:OP1	2.19	0.43
1:AA:2854:G:H2'	1:AA:2855:C:C6	2.54	0.43
7:CH:9:ILE:HD12	7:CH:49:VAL:HG12	2.01	0.43
1:AA:2677:G:H2'	1:AA:2678:C:C6	2.54	0.43
31:BA:1243:C:C2	31:BA:1295:G:N2	2.87	0.43
1:AA:978:G:O6	56:AA:3418:OHX:N3	2.52	0.43
47:BT:9:VAL:HG12	47:BT:10:VAL:H	1.84	0.43
1:CA:344:C:H2'	1:CA:345:A:O4'	2.19	0.43
1:CA:863:C:OP2	17:C2:82:ARG:HD3	2.19	0.43
50:BW:42:GLN:O	50:BW:46:GLU:HG2	2.18	0.43
1:CA:2477:C:C2	1:CA:2500:G:C2	3.06	0.43
31:DA:155:C:H2'	31:DA:156:G:O4'	2.19	0.43
31:DA:655:A:C2	31:DA:754:C:N4	2.86	0.43
1:CA:545:U:H2'	1:CA:546:G:H8	1.83	0.43
1:AA:1856:G:H2'	1:AA:1857:G:O4'	2.18	0.43
21:CV:150:LEU:CD2	21:CV:154:ASP:HB2	2.48	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:AW:65:ASN:HD21	24:AW:69:ARG:HE	1.67	0.43
31:DA:192:U:H2'	31:DA:193:C:C6	2.54	0.43
1:CA:1028:A:N1	1:CA:2050:G:O2'	2.41	0.43
32:DE:24:TRP:CD1	32:DE:24:TRP:C	2.92	0.43
1:CA:403:C:H2'	1:CA:404:C:C6	2.54	0.43
1:CA:1876:C:C2	1:CA:1920:G:C2	3.07	0.43
1:AA:2532:G:O2'	1:AA:2657:A:N1	2.50	0.43
41:BN:61:ALA:O	41:BN:64:ALA:HB3	2.19	0.43
1:AA:2275:C:H6	1:AA:2275:C:H5'	1.84	0.43
1:CA:933:C:N4	1:CA:938:A:C6	2.72	0.43
8:AK:133:HIS:HB2	8:AK:134:PRO:CD	2.38	0.43
1:CA:2180:G:H8	1:CA:2180:G:O5'	2.02	0.43
1:CA:2192:A:H2	1:CA:2193:A:C8	2.37	0.43
1:AA:890:A:H3'	1:AA:892:G:C8	2.52	0.43
31:DA:1372:U:H2'	31:DA:1373:G:O4'	2.18	0.43
16:C1:50:ARG:HE	17:C2:70:ILE:HG21	1.83	0.43
34:DG:33:MET:O	34:DG:34:GLU:HB2	2.19	0.43
1:CA:1108:U:H4'	1:CA:1117:A:O4'	2.18	0.43
3:AD:242:ARG:HG2	3:AD:246:PRO:HG3	2.01	0.43
12:AP:51:ARG:CB	12:AP:51:ARG:HH11	2.32	0.43
12:CP:19:GLY:C	12:CP:98:LYS:HD3	2.40	0.43
31:DA:76:G:C6	31:DA:77:C:C4	3.06	0.43
31:DA:987:G:N2	31:DA:1219:U:N3	2.66	0.43
1:CA:1059:U:O2	1:CA:1059:U:C2'	2.67	0.43
1:AA:197:A:H62	1:AA:2430:A:H2'	1.83	0.43
31:BA:1129:C:N4	31:BA:1143:G:H1	2.14	0.43
5:CF:68:LYS:HD3	5:CF:68:LYS:HA	1.65	0.43
1:CA:1389:A:N6	1:CA:1444:U:C4	2.87	0.43
31:DA:1129:C:N3	31:DA:1132:C:N4	2.66	0.43
31:DA:518:C:H5''	31:DA:519:C:C6	2.54	0.43
31:DA:21:G:H2'	31:DA:22:G:H8	1.82	0.43
1:AA:528:A:H2	1:AA:2043:C:C5'	2.32	0.43
1:CA:1699:G:N2	1:CA:2030:C:C2	2.87	0.43
5:AF:108:LYS:O	5:AF:112:MET:HG3	2.18	0.43
3:CD:209:ALA:O	3:CD:212:SER:HB2	2.19	0.43
31:BA:1288:A:N1	31:BA:1371:G:H1'	2.34	0.43
31:BA:1288:A:H2'	31:BA:1289:A:O4'	2.19	0.43
31:DA:1244:C:O2	31:DA:1294:G:N2	2.52	0.43
40:BM:8:LEU:CD2	40:BM:96:ILE:HG22	2.48	0.43
49:DV:65:ASN:HB2	49:DV:66:MET:SD	2.59	0.43
31:DA:345:C:O2'	31:DA:346:G:P	2.76	0.43
34:DG:126:ILE:CG2	34:DG:127:THR:N	2.81	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:CT:50:LYS:O	19:CT:51:VAL:HB	2.19	0.43
39:BL:42:ARG:HE	39:BL:42:ARG:HB2	1.72	0.43
1:CA:557:C:C5	1:CA:2058:G:C2	3.07	0.43
14:AQ:106:ARG:O	14:AQ:107:GLU:CB	2.67	0.43
9:AM:126:PRO:O	9:AM:127:ASP:HB2	2.19	0.43
33:DF:164:ARG:NH1	33:DF:166:GLU:OE1	2.52	0.43
31:DA:791:G:H2'	31:DA:792:A:H5'	2.01	0.43
1:AA:654(H):G:N3	1:AA:654(H):G:C2'	2.81	0.43
1:AA:1093:G:H21	1:AA:1098:A:H62	1.67	0.43
33:DF:9:GLY:N	44:DQ:49:HIS:O	2.52	0.43
9:CM:90:MET:O	9:CM:95:PRO:HA	2.18	0.43
1:CA:1944:G:O6	56:CA:3234:OHX:N2	2.52	0.43
1:CA:237:G:H4'	1:CA:414:G:C4	2.53	0.43
1:AA:1551:C:C2'	1:AA:1552:G:H5'	2.48	0.43
1:CA:793:G:C2'	1:CA:794:A:H5'	2.48	0.43
8:AK:107:VAL:HG12	8:AK:108:THR:N	2.33	0.43
1:CA:886:C:O2'	1:CA:887:U:H5'	2.18	0.43
31:BA:1069:C:C2'	31:BA:1070:U:O5'	2.67	0.43
18:AS:64:MET:O	18:AS:65:LEU:CB	2.67	0.43
31:DA:166:G:O2'	31:DA:167:G:H5'	2.19	0.43
31:BA:186(C):G:H2'	31:BA:186(D):C:H6	1.84	0.43
1:AA:1345:C:H2'	1:AA:1346:G:C8	2.53	0.43
1:CA:2592:C:H2'	1:CA:2593:U:O4'	2.19	0.43
34:DG:173:TRP:CD1	34:DG:174:LEU:HG	2.54	0.43
22:A3:19:LYS:HA	22:A3:19:LYS:HD3	1.69	0.43
36:DI:95:GLU:HA	36:DI:96:PRO:HD3	1.92	0.43
10:CN:98:VAL:CG1	10:CN:117:LEU:HB2	2.48	0.43
1:AA:2596:U:H2'	1:AA:2597:G:O4'	2.19	0.43
33:BF:123:GLN:O	33:BF:128:PHE:HB2	2.19	0.43
31:BA:832:C:H2'	31:BA:833:U:C6	2.54	0.43
31:BA:479:C:H2'	31:BA:480:U:O4'	2.19	0.43
5:AF:13:SER:OG	5:AF:14:PRO:HD2	2.18	0.43
10:AN:63:VAL:HB	10:AN:102:VAL:HG12	2.01	0.43
1:CA:282:G:H2'	1:CA:283:G:O4'	2.19	0.43
31:DA:576:G:OP1	56:DA:1748:OHX:N4	2.51	0.43
1:CA:555:A:C2	1:CA:2046:G:C6	3.06	0.43
2:AB:83:G:H1	2:AB:93:C:H42	1.65	0.43
1:CA:1849:G:C6	1:CA:1850:U:C4	3.06	0.43
6:CG:82:LEU:HD23	6:CG:82:LEU:HA	1.77	0.43
33:BF:165:THR:HG23	33:BF:165:THR:O	2.19	0.43
4:AE:49:LEU:HA	4:AE:49:LEU:HD12	1.64	0.43
1:AA:1418:G:O5'	1:AA:1418:G:H8	2.02	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:AP:33:GLY:HA2	12:AP:105:GLU:HA	2.01	0.42
31:BA:1498:U:O2'	31:BA:1499:A:OP2	2.33	0.42
52:BB:20:C:H2'	52:BB:20:C:O2	2.19	0.42
31:BA:1314:C:O2'	31:BA:1315:U:H5'	2.19	0.42
17:C2:84:LYS:O	17:C2:85:LYS:O	2.37	0.42
31:DA:1442:G:C5	31:DA:1446:A:N1	2.87	0.42
52:DB:21:A:H2	52:DB:56:U:C2	2.36	0.42
1:CA:95:G:H4'	24:CW:48:HIS:CE1	2.54	0.42
26:C4:29:PRO:O	26:C4:30:GLU:HG3	2.19	0.42
52:DD:23:A:C5	52:DD:24:G:C4	3.08	0.42
52:BD:42:U:H2'	52:BD:43:G:C8	2.54	0.42
12:CP:76:LYS:O	12:CP:77:LYS:C	2.56	0.42
38:BK:56:LYS:O	38:BK:58:TYR:HD1	2.01	0.42
31:DA:329:A:C5	31:DA:332:G:C6	3.07	0.42
16:A1:95:LEU:HD22	17:A2:4:ILE:HD13	2.00	0.42
31:DA:1129:C:OP2	39:DL:62:TYR:OH	2.27	0.42
39:DL:18:PHE:HD1	39:DL:62:TYR:CD2	2.36	0.42
1:CA:334:G:O3'	20:CU:18:GLY:HA3	2.19	0.42
31:DA:559:A:C5'	31:DA:560:U:H3'	2.49	0.42
16:C1:92:ARG:C	16:C1:94:ASN:N	2.73	0.42
32:BE:69:LEU:HB2	32:BE:159:PRO:HG3	2.00	0.42
1:AA:1112:G:O2'	7:AH:2:SER:HB2	2.19	0.42
1:AA:1359:A:N1	1:AA:1372:U:C4	2.86	0.42
6:CG:38:VAL:HG22	6:CG:93:THR:HG23	2.01	0.42
31:BA:955:U:H1'	31:BA:1227:A:H61	1.83	0.42
1:CA:1000:G:C6	1:CA:1001:C:C4	3.06	0.42
31:BA:1080:A:H5'	35:BH:14:ARG:NH2	2.34	0.42
31:BA:448:A:O2'	31:BA:449:C:H5'	2.19	0.42
11:AO:75:ILE:HG13	11:AO:77:ARG:HH12	1.84	0.42
2:AB:42:C:O2'	6:AG:67:LYS:O	2.22	0.42
6:AG:115:ARG:CZ	43:BP:7:VAL:HB	2.49	0.42
1:CA:825:A:C2	1:CA:826:G:C4	3.07	0.42
33:BF:6:HIS:ND1	44:BQ:49:HIS:HB3	2.34	0.42
14:AQ:30:ARG:CG	14:AQ:30:ARG:NH1	2.80	0.42
38:BK:87:SER:CB	38:BK:93:VAL:H	2.32	0.42
32:BE:92:TYR:CD2	32:BE:151:GLY:HA3	2.54	0.42
13:A0:41:ALA:HB1	13:A0:114:VAL:HG22	2.01	0.42
31:DA:8:A:C5	34:DG:209:ARG:HA	2.53	0.42
35:DH:78:HIS:CD2	38:DK:104:ARG:HE	2.37	0.42
1:CA:559:G:H5'	16:C1:24:TYR:CE2	2.54	0.42
1:CA:557:C:H4'	1:CA:558:A:H5''	2.00	0.42
1:AA:654(M):C:C3'	1:AA:654(N):G:C8	3.01	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1065:U:C5	31:DA:1190:G:N3	2.87	0.42
31:DA:1375:A:C2	31:DA:1376:U:C2	3.07	0.42
1:AA:1171:G:N2	1:AA:1179:C:C2	2.87	0.42
1:AA:1174:A:N7	1:AA:1178:C:N4	2.66	0.42
1:AA:2665:A:H2'	1:AA:2666:C:O4'	2.18	0.42
36:DI:10:LEU:HD12	36:DI:10:LEU:N	2.34	0.42
1:AA:1163:G:C2	1:AA:1164:G:C8	3.07	0.42
1:AA:2592:G:C6	1:AA:2593:U:C4	3.07	0.42
35:DH:33:VAL:HG11	35:DH:109:ILE:HA	2.01	0.42
1:AA:2409:G:H2'	1:AA:2410:G:O4'	2.19	0.42
5:AF:89:VAL:HG12	5:AF:90:PHE:CD2	2.53	0.42
42:DO:72:HIS:HD2	42:DO:74:LEU:N	2.17	0.42
1:AA:247:G:H4'	1:AA:386:G:C6	2.53	0.42
9:AM:120:LEU:HD11	9:AM:122:VAL:HG23	2.00	0.42
21:CV:108:PRO:HB2	21:CV:142:SER:HA	2.01	0.42
12:CP:58:PHE:O	12:CP:59:ARG:C	2.56	0.42
37:BJ:54:THR:C	37:BJ:56:GLN:H	2.23	0.42
32:BE:213:LEU:HG	32:BE:217:ARG:NH1	2.34	0.42
2:AB:71:C:C2	2:AB:72:G:C8	3.07	0.42
38:BK:107:LEU:HD23	38:BK:107:LEU:HA	1.79	0.42
6:AG:83:ARG:HB2	6:AG:86:MET:HE3	1.99	0.42
1:CA:1194:C:H2'	1:CA:1195:A:O4'	2.19	0.42
31:BA:5:U:O2'	31:BA:6:G:N3	2.52	0.42
43:DP:62:ASN:O	43:DP:63:THR:C	2.56	0.42
34:BG:141:ARG:CZ	34:BG:141:ARG:HB2	2.48	0.42
33:DF:150:LYS:HD2	33:DF:167:TRP:CD1	2.53	0.42
32:BE:189:ASP:OD2	32:BE:190:THR:N	2.52	0.42
47:BT:91:ARG:HH12	47:BT:92:ARG:NH2	2.17	0.42
1:AA:59:U:HO2'	1:AA:73:A:H2'	1.84	0.42
18:AS:111:HIS:CD2	18:AS:112:GLY:N	2.87	0.42
6:AG:16:ARG:NH2	6:AG:31:VAL:HG13	2.34	0.42
21:CV:24:LEU:HA	21:CV:25:PRO:HD3	1.82	0.42
31:BA:310:G:OP2	46:BS:27:LYS:NZ	2.43	0.42
12:CP:103:MET:HG3	12:CP:103:MET:H	1.40	0.42
1:AA:363(A):A:O2'	1:AA:363(B):G:H5'	2.18	0.42
6:AG:49:ASP:OD1	6:AG:51:ARG:HB2	2.19	0.42
31:BA:807:A:C5	31:BA:808:C:C4	3.07	0.42
31:BA:1486:G:H2'	31:BA:1487:G:C8	2.53	0.42
1:CA:1337:C:H2'	1:CA:1338:C:H6	1.83	0.42
1:AA:1554:A:H3'	1:AA:1555:G:H8	1.84	0.42
33:BF:79:ARG:O	33:BF:82:GLU:HG3	2.18	0.42
39:DL:125:TYR:HD2	39:DL:126:SER:H	1.65	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:CV:74:VAL:HG13	21:CV:86:VAL:HG22	2.00	0.42
1:CA:1917:C:C2'	1:CA:1918:C:H5'	2.49	0.42
31:BA:1106:G:C4	31:BA:1107:C:C5	3.07	0.42
35:BH:82:VAL:HG21	35:BH:138:ALA:HA	2.01	0.42
5:CF:145:GLU:O	5:CF:146:ALA:HB2	2.19	0.42
1:CA:848:A:H4'	1:CA:849:G:O5'	2.19	0.42
31:BA:200:G:N2	31:BA:218:C:C2	2.87	0.42
1:AA:2082:A:H2'	1:AA:2083:G:O4'	2.18	0.42
41:BN:48:ILE:HD12	41:BN:48:ILE:HA	1.83	0.42
5:CF:107:LYS:HE3	5:CF:107:LYS:H	1.84	0.42
32:BE:130:ARG:H	32:BE:130:ARG:HG2	1.52	0.42
50:DW:9:ASN:HD22	50:DW:9:ASN:HA	1.60	0.42
45:DR:33:THR:HG22	45:DR:33:THR:O	2.19	0.42
13:C0:79:LEU:HA	13:C0:83:ILE:HB	2.00	0.42
1:CA:1786:C:O2'	1:CA:1787:A:H5'	2.19	0.42
31:DA:778:G:O5'	31:DA:778:G:H8	2.02	0.42
1:AA:1632:A:N6	1:AA:1633:G:N1	2.67	0.42
1:AA:1079:C:C4	1:AA:1080:A:C6	3.07	0.42
1:CA:2435:A:N7	30:C8:31:HIS:NE2	2.67	0.42
53:DC:48:U:C2'	53:DC:49:C:OP2	2.59	0.42
1:CA:919:U:H5'	12:CP:69:PHE:CE2	2.54	0.42
1:CA:2159:C:N3	1:CA:2178:G:C2	2.87	0.42
1:CA:2192:A:C2'	1:CA:2193:A:H5'	2.48	0.42
52:DD:53:A:C6	52:DD:54:C:C4	3.07	0.42
52:BB:18:G:H3'	52:BB:19:C:C2	2.54	0.42
3:AD:35:LYS:NZ	3:AD:64:ILE:C	2.69	0.42
31:BA:1331:G:O2'	31:BA:1332:A:P	2.76	0.42
31:BA:1316:G:H4'	44:BQ:18:VAL:HG11	2.00	0.42
37:DJ:115:ARG:HB3	37:DJ:118:VAL:CG1	2.46	0.42
21:AV:63:ASP:CB	21:AV:65:GLN:HG3	2.49	0.42
1:CA:391:G:O6	56:CA:3320:OHX:N5	2.53	0.42
31:DA:631:G:OP1	31:DA:632:A:N7	2.53	0.42
52:BD:15:G:H4'	52:BD:15:G:OP1	2.20	0.42
1:CA:2821:A:H61	1:CA:2901:G:C2'	2.32	0.42
31:DA:991:U:C4	31:DA:1212:U:H1'	2.53	0.42
1:CA:1066:U:OP1	1:CA:1082:U:O2'	2.20	0.42
33:DF:15:THR:HG21	33:DF:181:ASN:HA	2.00	0.42
20:AU:96:ILE:HG12	20:AU:99:CYS:O	2.19	0.42
50:BW:69:GLY:O	50:BW:73:HIS:CD2	2.71	0.42
2:CB:72:C:H2'	2:CB:73:C:H6	1.83	0.42
31:DA:1128:C:C2'	31:DA:1129:C:O5'	2.66	0.42
31:DA:1129:C:C5	31:DA:1141:C:N4	2.87	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1127:G:N2	31:DA:1144:G:N2	2.66	0.42
31:DA:1147:C:O2	39:DL:16:ARG:NH1	2.52	0.42
4:CE:10:GLY:O	4:CE:24:THR:O	2.36	0.42
21:CV:5:LEU:O	21:CV:59:LEU:O	2.37	0.42
24:CW:53:LEU:O	24:CW:57:ILE:HD12	2.19	0.42
49:DV:41:VAL:CG1	49:DV:42:PRO:HD2	2.49	0.42
1:AA:1380:G:H2'	1:AA:1380:G:N3	2.33	0.42
4:CE:90:THR:O	4:CE:90:THR:HG23	2.19	0.42
32:BE:54:THR:HG21	32:BE:201:ILE:HD11	2.01	0.42
1:AA:1464:C:O2'	1:AA:1528:A:H8	1.99	0.42
34:BG:112:VAL:HG12	34:BG:116:GLN:OE1	2.19	0.42
37:DJ:150:ALA:O	41:DN:57:THR:HG21	2.19	0.42
1:CA:249:G:N2	1:CA:647:A:H8	2.15	0.42
1:CA:699:G:H1'	1:CA:700:A:C8	2.54	0.42
5:CF:123:LEU:C	5:CF:125:LEU:H	2.21	0.42
11:AO:85:LEU:C	11:AO:87:ASP:N	2.73	0.42
34:BG:107:ARG:HH21	34:BG:194:LEU:HD11	1.83	0.42
10:AN:75:SER:HB2	15:AR:75:ILE:O	2.19	0.42
31:BA:940:C:H2'	31:BA:941:G:C8	2.54	0.42
21:CV:110:GLY:HA2	21:CV:144:LEU:H	1.84	0.42
9:AM:42:TRP:N	16:A1:64:ARG:HD2	2.34	0.42
27:C5:45:VAL:HG22	27:C5:51:TYR:CD1	2.54	0.42
1:CA:679:A:H5''	1:CA:680:A:P	2.59	0.42
5:CF:167:ALA:O	5:CF:168:ARG:C	2.58	0.42
1:CA:905:C:C4	1:CA:906:U:C4	3.07	0.42
1:CA:1912:A:C6	1:CA:1913:A:C6	3.07	0.42
20:AU:14:LEU:HD12	20:AU:15:VAL:N	2.34	0.42
50:DW:53:LEU:HD11	50:DW:104:LEU:HD11	2.01	0.42
31:BA:66:G:C5	31:BA:67:C:C5	3.07	0.42
49:DV:83:HIS:O	49:DV:83:HIS:ND1	2.52	0.42
1:AA:753:C:H6	1:AA:753:C:OP2	2.02	0.42
7:AH:101:ARG:HB3	7:AH:117:PRO:HG3	2.01	0.42
1:CA:1716:A:N3	1:CA:1718:C:C4	2.87	0.42
1:CA:2329:C:O2'	1:CA:2330:C:H5'	2.19	0.42
12:AP:43:THR:HG22	12:AP:94:VAL:HG12	2.01	0.42
14:CQ:36:TYR:CD2	14:CQ:52:SER:HB3	2.54	0.42
1:AA:2331:G:O2'	22:A3:43:THR:HG22	2.18	0.42
1:AA:143:C:H2'	1:AA:144:C:H6	1.84	0.42
1:CA:224:C:H2'	1:CA:225:U:C6	2.54	0.42
35:BH:57:LYS:H	35:BH:57:LYS:HG2	1.50	0.42
33:BF:101:LEU:HD23	33:BF:102:ASN:N	2.33	0.42
33:DF:127:ARG:N	33:DF:127:ARG:HD2	2.33	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1455:G:C5'	50:BW:32:ALA:HB2	2.50	0.42
31:BA:600:C:H2'	31:BA:600:C:O2	2.18	0.42
21:CV:111:VAL:HG22	21:CV:112:ARG:HG2	2.01	0.42
32:BE:183:PRO:HA	32:BE:198:ASP:OD1	2.19	0.42
47:BT:13:ASP:H	47:BT:14:LYS:HZ2	1.67	0.42
32:BE:223:ILE:O	32:BE:226:ARG:HG2	2.19	0.42
23:AZ:51:VAL:HG21	23:AZ:74:VAL:HG21	2.01	0.42
46:BS:67:THR:HG22	46:BS:68:ASP:H	1.84	0.42
3:CD:133:LEU:HD13	3:CD:173:VAL:HG21	2.01	0.42
37:BJ:78:ARG:HG3	37:BJ:79:ARG:N	2.34	0.42
1:CA:1026:G:H5''	1:CA:1027:A:OP2	2.19	0.42
48:DU:34:TYR:HA	48:DU:40:LEU:HD11	2.01	0.42
1:CA:1497:A:N6	1:CA:1498:G:C4	2.87	0.42
1:CA:2323:A:H5''	1:CA:2323:A:N3	2.34	0.42
12:AP:17:LEU:HD22	12:AP:96:VAL:HG13	1.82	0.42
1:AA:880:G:N1	1:AA:881:G:C5	2.87	0.42
30:C8:30:ARG:HH11	30:C8:30:ARG:CG	2.30	0.42
1:CA:2150:G:HO2'	1:CA:2196:A:N6	2.15	0.42
52:DD:17:G:C6	52:DD:67:A:C6	3.07	0.42
1:CA:2438:A:H4'	1:CA:2439:A:H5''	2.02	0.42
31:DA:1118:C:H1'	31:DA:1179:A:C4	2.54	0.42
43:BP:4:ILE:O	43:BP:5:ALA:C	2.57	0.42
43:BP:66:LEU:O	43:BP:67:GLU:C	2.58	0.42
1:CA:1272:G:C6	1:CA:1273:A:C6	3.08	0.42
1:AA:1900:A:C5'	1:AA:1900:A:C8	2.97	0.42
1:CA:2811:C:N4	1:CA:2812:A:N6	2.67	0.42
52:DD:30:A:C6	52:DD:43:G:C6	3.07	0.42
52:BD:14:A:H5''	56:BD:102:OHX:N3	2.34	0.42
12:CP:76:LYS:HG2	12:CP:76:LYS:O	2.19	0.42
26:A4:42:PHE:CD1	26:A4:42:PHE:C	2.91	0.42
31:BA:1132:C:C2'	31:BA:1133:G:H5'	2.49	0.42
16:A1:79:PHE:HE2	16:A1:83:LEU:HD22	1.84	0.42
31:BA:61:G:H2'	31:BA:62:U:C6	2.54	0.42
13:A0:3:HIS:HB3	13:A0:4:LEU:H	1.56	0.42
6:CG:37:VAL:HG23	6:CG:99:MET:HE2	2.01	0.42
6:CG:60:LEU:HD21	6:CG:92:VAL:CG1	2.48	0.42
31:BA:965:A:H4'	31:BA:966:G:OP1	2.17	0.42
1:AA:58:G:N2	1:AA:70:G:C5	2.87	0.42
1:CA:656:G:N2	1:CA:659:A:OP2	2.49	0.42
4:CE:188:VAL:HA	4:CE:189:PRO:HD3	1.95	0.42
1:AA:910:A:C6	1:AA:911:A:C6	3.08	0.42
31:BA:517:G:N7	56:BA:1673:OHX:N1	2.68	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:CK:131:LYS:N	8:CK:131:LYS:CD	2.81	0.42
1:AA:1510:A:O3'	1:AA:1510:A:OP1	2.37	0.42
5:AF:167:ALA:HA	5:AF:170:LEU:CD2	2.49	0.42
32:BE:207:ALA:O	32:BE:208:ILE:C	2.58	0.42
2:CB:8:C:H2'	2:CB:9:G:O4'	2.19	0.42
1:CA:2229:G:C1'	1:CA:2230:A:P	3.06	0.42
25:AX:10:LYS:HB3	25:AX:53:LEU:CD2	2.49	0.42
42:DO:15:VAL:HG23	42:DO:16:ARG:H	1.83	0.42
31:DA:467:G:N3	31:DA:467:G:H2'	2.34	0.42
1:CA:28:A:C5	1:CA:539:A:N7	2.87	0.42
1:CA:912:G:H21	1:CA:914:A:H61	1.66	0.42
42:DO:72:HIS:CD2	42:DO:72:HIS:C	2.92	0.42
31:DA:555:C:N3	31:DA:556:C:C4	2.87	0.42
26:C4:40:HIS:CD2	26:C4:44:THR:HG22	2.54	0.42
11:AO:144:GLU:HA	11:AO:145:PRO:HD3	1.70	0.42
1:CA:2333:A:O2'	1:CA:2334:G:C4	2.72	0.42
7:AH:169:VAL:HG22	7:AH:170:ARG:H	1.84	0.42
1:AA:2338:G:H2'	1:AA:2339:G:H8	1.83	0.42
1:AA:2482:G:H2'	1:AA:2483:C:H6	1.83	0.42
1:AA:1204:A:N1	1:AA:1241:A:C2	2.88	0.42
1:CA:2034:U:H2'	1:CA:2035:G:O4'	2.20	0.42
8:AK:123:LEU:N	8:AK:123:LEU:HD12	2.34	0.42
23:AZ:85:LEU:N	23:AZ:85:LEU:HD22	2.34	0.42
36:BI:10:LEU:HD13	36:BI:61:LEU:HD13	2.01	0.42
4:AE:117:MET:HG3	4:AE:122:PHE:O	2.20	0.42
24:CW:12:GLU:O	24:CW:13:ALA:C	2.58	0.42
10:CN:103:ALA:O	10:CN:105:GLU:N	2.52	0.42
31:DA:182:U:C5	31:DA:183:G:C1'	3.03	0.42
34:DG:59:ARG:HH22	34:DG:66:ARG:HH12	1.67	0.42
19:AT:27:THR:HB	19:AT:80:ILE:HG22	2.00	0.42
1:AA:1692:U:O2'	1:AA:1693:U:H2'	2.19	0.42
1:AA:1799:G:O2'	1:AA:1800:C:OP2	2.27	0.42
31:BA:888:G:H1'	31:BA:909:A:H61	1.84	0.42
3:CD:70:TRP:CH2	3:CD:150:LYS:HA	2.55	0.42
1:AA:337:C:C2'	1:AA:338:G:O5'	2.67	0.42
12:AP:2:LEU:HA	12:AP:2:LEU:HD12	1.74	0.42
1:CA:2117:G:P	8:CK:22:LYS:HD2	2.60	0.42
1:AA:1643:G:N2	1:AA:1644:C:H1'	2.34	0.42
1:CA:1596:C:H2'	1:CA:1597:C:C6	2.54	0.42
1:CA:329:G:H2'	1:CA:330:U:C6	2.54	0.42
1:CA:231:A:H5'	1:CA:233:U:O4'	2.19	0.42
1:AA:1825:A:H2'	1:AA:1826:G:C8	2.55	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1711:C:H2'	1:AA:1712:C:C6	2.54	0.42
14:AQ:26:LEU:HD22	14:AQ:87:PHE:CD1	2.54	0.42
46:BS:2:VAL:O	46:BS:64:ALA:HA	2.20	0.42
1:CA:478:C:H41	1:CA:481:A:H5'	1.85	0.42
6:CG:41:GLN:HB3	6:CG:43:LEU:HD21	2.01	0.42
31:DA:1066:C:H2'	31:DA:1067:A:C8	2.55	0.42
31:BA:554:C:O2'	31:BA:555:C:H5'	2.19	0.42
6:CG:71:THR:OG1	6:CG:89:GLY:HA3	2.19	0.42
15:AR:129:ARG:O	15:AR:132:LYS:HB3	2.19	0.42
1:CA:260:A:C2	1:CA:397:C:H4'	2.53	0.42
1:AA:1600:C:O2'	1:AA:1601:G:H5'	2.19	0.42
10:CN:113:LYS:HG2	10:CN:113:LYS:H	1.38	0.42
37:DJ:49:ILE:HG22	37:DJ:49:ILE:O	2.19	0.42
31:BA:1424:C:H2'	31:BA:1425:U:O4'	2.19	0.42
33:BF:59:ARG:HA	33:BF:63:ASN:O	2.20	0.42
32:BE:42:ILE:HD13	32:BE:203:GLY:HA2	2.01	0.42
1:CA:1798:U:H2'	1:CA:1799:C:H6	1.82	0.42
1:AA:1091:G:C2'	1:AA:1092:C:H5'	2.49	0.42
1:CA:933:C:C4	1:CA:938:A:C5	3.05	0.42
28:C6:52:VAL:HG13	28:C6:53:LYS:N	2.33	0.42
1:CA:2177:G:H2'	1:CA:2178:G:C8	2.54	0.42
52:BB:13:G:H1'	52:BB:24:G:H1	1.84	0.42
52:BB:57:C:C4'	52:BB:58:G:OP2	2.67	0.42
3:AD:35:LYS:HD3	3:AD:63:ARG:CG	2.49	0.42
17:C2:69:LYS:HB2	17:C2:86:GLY:HA3	2.01	0.42
1:CA:2039:U:H2'	1:CA:2040:U:O5'	2.18	0.42
3:AD:238:GLY:O	3:AD:239:ARG:O	2.37	0.42
3:CD:246:PRO:HG2	3:CD:255:LYS:CD	2.50	0.42
31:DA:1392:G:O2'	31:DA:1393:U:H5'	2.19	0.42
52:BD:43:G:C2'	52:BD:44:C:H5'	2.50	0.42
5:CF:24:LEU:CB	5:CF:25:PRO:CD	2.94	0.42
1:CA:2906:C:C4	1:CA:2907:U:C4	3.07	0.42
5:CF:174:VAL:HG11	5:CF:188:ARG:NH2	2.32	0.42
31:BA:1145:C:O2'	31:BA:1146:A:N7	2.25	0.42
31:BA:417:C:N4	56:BA:1666:OHX:N4	2.68	0.42
28:A6:14:THR:OG1	28:A6:15:GLU:N	2.45	0.42
31:DA:1131:G:H2'	31:DA:1132:C:H6	1.83	0.42
31:DA:1276:G:C6	31:DA:1277:C:C4	3.07	0.42
31:BA:209:U:O2'	31:BA:216:G:C2	2.72	0.42
21:CV:40:ASP:HB3	21:CV:43:GLU:HG3	2.00	0.42
41:DN:100:ALA:C	41:DN:102:GLY:H	2.10	0.42
6:CG:36:LYS:HD2	6:CG:95:ARG:NH1	2.33	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
38:DK:12:ARG:HH12	38:DK:27:PRO:HD3	1.74	0.42
1:CA:98:U:O5'	1:CA:99:G:H5'	2.20	0.42
31:DA:1220:G:H2'	31:DA:1221:G:C8	2.54	0.42
31:DA:983:A:H2'	31:DA:1201:A:N6	2.34	0.42
11:AO:83:VAL:HG11	11:AO:112:LEU:HD21	2.00	0.42
31:DA:1298:C:H41	37:DJ:114:ARG:HA	1.84	0.42
31:DA:833:U:O2	31:DA:854:G:C2	2.72	0.42
21:CV:175:VAL:HA	21:CV:176:PRO:HA	1.85	0.42
1:AA:222:A:H5''	1:AA:421:U:OP1	2.20	0.42
2:AB:42:C:O3'	6:AG:67:LYS:NZ	2.47	0.42
4:CE:90:THR:O	4:CE:90:THR:CG2	2.67	0.42
3:CD:45:ASN:CG	3:CD:46:GLN:N	2.66	0.42
1:CA:2360:C:H2'	1:CA:2361:U:C6	2.54	0.42
33:DF:36:ASP:OD2	33:DF:57:ILE:HD13	2.19	0.42
3:AD:177:LEU:HB3	3:AD:178:PRO:CD	2.49	0.42
17:C2:35:LEU:HA	17:C2:36:PRO:HD2	1.83	0.42
50:BW:57:ARG:NH1	50:BW:102:GLY:HA2	2.34	0.42
31:DA:1095:U:P	31:DA:1108:G:H1	2.41	0.42
31:BA:858:G:C8	56:BA:1684:OHX:N3	2.87	0.42
34:BG:187:ARG:O	34:BG:189:PRO:HD3	2.19	0.42
1:CA:1978:U:O3'	1:CA:1979:U:C6	2.65	0.42
36:DI:60:PHE:C	36:DI:61:LEU:HD12	2.39	0.42
14:AQ:107:GLU:N	14:AQ:110:LEU:HD21	2.35	0.42
1:AA:2638:G:OP2	4:AE:82:ARG:NH2	2.44	0.42
30:C8:40:GLU:H	30:C8:43:GLN:HG3	1.84	0.42
1:CA:2331:G:H22	14:CQ:2:ALA:HA	1.83	0.42
33:DF:95:THR:HG22	33:DF:97:LYS:HG2	2.01	0.42
35:DH:51:VAL:CG2	35:DH:52:PRO:HD3	2.45	0.42
1:CA:2814:G:OP2	1:CA:2814:G:H8	2.02	0.42
1:CA:1201:G:OP1	16:C1:58:ARG:NH1	2.52	0.42
1:AA:270(B):A:N7	1:AA:270(X):G:N2	2.66	0.42
1:AA:2805:G:H2'	1:AA:2807:G:C8	2.54	0.42
1:AA:2810:A:H61	1:AA:2891:G:C2'	2.32	0.42
21:CV:170:THR:C	21:CV:172:ALA:H	2.22	0.42
1:AA:1389:G:N2	1:AA:1399:C:O2	2.52	0.42
19:CT:67:GLY:O	19:CT:69:TYR:N	2.45	0.42
1:CA:496:G:O6	29:C7:37:LYS:HE3	2.20	0.42
38:BK:39:LEU:HB3	38:BK:45:ILE:CD1	2.49	0.42
53:BC:6:G:H1	53:BC:68:C:N4	2.14	0.42
1:AA:1799:G:OP1	3:AD:260:ARG:NE	2.45	0.42
50:DW:33:ILE:CD1	50:DW:63:ILE:HA	2.50	0.42
1:AA:2661:G:H2'	1:AA:2662:A:C8	2.55	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:167:G:O2'	31:BA:168:G:H5'	2.19	0.42
1:AA:762:U:H4'	1:AA:763:G:O5'	2.20	0.42
1:CA:185:A:H4'	1:CA:241:A:O2'	2.20	0.42
1:CA:184:G:H2'	1:CA:185:A:O4'	2.20	0.42
33:DF:66:VAL:HB	33:DF:101:LEU:HA	2.02	0.42
15:CR:131:ALA:C	15:CR:133:GLU:H	2.22	0.42
1:AA:2462:U:H1'	1:AA:2491:U:O4	2.19	0.42
45:BR:36:ILE:HG12	45:BR:59:MET:CE	2.49	0.42
1:CA:770:A:H3'	1:CA:771:G:H8	1.83	0.42
31:DA:588:G:H1	31:DA:651:C:N4	2.17	0.42
1:AA:2786:U:OP1	4:AE:66:HIS:CD2	2.72	0.42
1:AA:1505:C:H2'	1:AA:1506:C:O4'	2.19	0.42
31:BA:947:G:C6	31:BA:948:C:N3	2.87	0.42
46:BS:53:VAL:HG13	46:BS:79:VAL:HG22	2.02	0.42
1:CA:1601:A:N7	1:CA:1603:G:C5	2.87	0.42
33:DF:186:PHE:HA	33:DF:198:VAL:O	2.19	0.42
1:AA:919:G:N7	56:AA:3512:OHX:N5	2.66	0.42
7:CH:139:GLN:HG3	7:CH:140:LYS:N	2.34	0.42
1:AA:1471:A:H3'	1:AA:1472:A:H8	1.84	0.42
31:BA:279:A:C8	47:BT:98:LEU:HD13	2.55	0.42
37:BJ:74:GLU:HG2	37:BJ:91:VAL:HG22	2.01	0.42
31:BA:1017:G:H2'	31:BA:1018:C:C6	2.54	0.42
48:BU:53:ARG:HH21	48:BU:59:SER:HA	1.84	0.42
23:AZ:13:ILE:HD11	23:AZ:42:GLN:OE1	2.19	0.42
7:AH:33:LEU:HD23	7:AH:33:LEU:HA	1.86	0.42
31:DA:1205:U:O2'	33:DF:194:GLY:HA2	2.20	0.42
31:DA:582:U:C2	31:DA:760:G:C6	3.08	0.42
5:AF:73:ALA:HB3	5:AF:75:HIS:HE1	1.85	0.42
1:AA:1255:U:O2'	56:AA:3452:OHX:N6	2.53	0.42
1:CA:2268:G:H22	12:CP:85:LYS:HE2	1.71	0.42
1:AA:2172:U:H5'	1:AA:2173:A:OP2	2.18	0.42
11:CO:109:GLY:C	11:CO:110:TYR:CD2	2.92	0.42
1:CA:2790:A:C1'	1:CA:2791:G:OP2	2.68	0.42
34:DG:9:CYS:HA	34:DG:12:CYS:HB2	2.02	0.42
52:BB:21:A:N7	52:BB:46:G:C8	2.87	0.42
31:DA:1176:A:N6	31:DA:1177:G:C2	2.87	0.42
39:DL:71:SER:HA	39:DL:74:ILE:HD12	2.00	0.42
5:CF:51:THR:HB	5:CF:88:VAL:CG1	2.48	0.42
31:BA:1305:G:C5'	51:BX:4:GLY:HA3	2.49	0.42
1:AA:2277:G:OP1	12:AP:86:GLY:C	2.57	0.42
1:CA:1242:C:O4'	1:CA:1273:A:C2	2.72	0.42
31:BA:1118:C:H6	31:BA:1118:C:O5'	2.01	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1161:C:C2	31:BA:1177:G:N2	2.88	0.42
31:BA:1019:C:O2'	31:BA:1020:U:H5'	2.19	0.42
31:DA:409:G:H1	31:DA:433:C:N4	2.17	0.42
15:AR:111:ARG:HD3	15:AR:111:ARG:N	2.28	0.42
1:AA:2392:A:N1	1:AA:2424:C:N3	2.67	0.42
4:CE:68:ALA:C	4:CE:70:ALA:N	2.71	0.42
31:DA:652:U:C4	31:DA:752:G:N3	2.88	0.42
26:A4:39:CYS:SG	26:A4:41:PRO:CD	3.08	0.42
31:DA:1139:G:N2	31:DA:1143:G:N1	2.65	0.42
31:BA:255:G:O3'	47:BT:17:LYS:HD2	2.19	0.42
31:BA:273:A:N6	31:BA:274:A:C6	2.87	0.42
31:BA:273:A:N6	31:BA:274:A:N6	2.67	0.42
1:CA:1044:G:H2'	1:CA:1045:C:C6	2.54	0.42
31:BA:1347:G:H22	31:BA:1374:A:P	2.42	0.42
14:AQ:97:ARG:HA	14:AQ:100:ALA:HB3	2.02	0.42
1:AA:2646:C:OP1	1:AA:2733:A:OP1	2.38	0.42
31:DA:965:A:OP1	31:DA:1198:G:H5''	2.19	0.42
4:AE:14:ILE:HG22	4:AE:15:PHE:N	2.34	0.42
31:DA:1241:G:H2'	31:DA:1242:C:C6	2.54	0.42
27:A5:52:TYR:CD1	27:A5:53:ALA:N	2.87	0.42
31:DA:765:G:C6	31:DA:812:C:C2	3.07	0.42
53:DC:1:C:H2'	53:DC:2:G:H5'	2.00	0.42
7:CH:20:ALA:HB1	7:CH:21:PRO:HD2	2.01	0.42
40:BM:8:LEU:HD12	40:BM:20:ALA:CB	2.41	0.42
1:AA:6:A:O2'	1:AA:7:G:H5'	2.20	0.42
2:AB:29:A:H2'	2:AB:30:C:O4'	2.18	0.42
1:AA:905:U:C3'	1:AA:906:G:H5''	2.49	0.42
20:AU:57:GLN:O	20:AU:58:GLY:C	2.58	0.42
1:AA:1171:G:H2'	1:AA:1173:G:H5'	2.00	0.42
41:DN:29:ILE:CG2	41:DN:44:SER:HB2	2.49	0.42
1:AA:383:U:O2	1:AA:385:C:N4	2.53	0.42
1:AA:385:C:O2	1:AA:390:A:C2	2.73	0.42
31:BA:1047:G:H5''	44:BQ:4:LYS:HZ2	1.82	0.42
29:C7:8:ASN:C	29:C7:8:ASN:ND2	2.68	0.42
1:CA:1176:A:H1'	1:CA:2529:G:H1'	2.02	0.42
1:AA:1203:G:H5'	11:AO:3:LEU:HD13	2.02	0.42
31:DA:1085:U:H3'	31:DA:1086:U:C5	2.54	0.42
23:AZ:63:ALA:C	23:AZ:65:SER:N	2.73	0.42
31:DA:338:A:C6	31:DA:339:C:C4	3.07	0.42
18:AS:82:LEU:CB	18:AS:98:LYS:HB2	2.48	0.42
31:DA:260:G:O6	56:DA:1767:OHX:N2	2.52	0.42
31:BA:186:C:H5'	50:BW:78:ALA:HB1	2.01	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
46:DS:55:ARG:NH2	46:DS:58:TYR:CD1	2.87	0.42
53:BC:14:A:C4	53:BC:23:G:C2	3.07	0.42
17:A2:28:GLU:HA	17:A2:29:PRO:HD3	1.89	0.42
21:AV:82:ARG:HA	21:AV:83:PRO:HD3	1.90	0.42
49:DV:17:GLU:OE1	56:DV:101:OHX:N5	2.52	0.42
32:BE:60:ASP:HB3	32:BE:64:ARG:NH1	2.34	0.42
38:DK:17:THR:O	38:DK:78:GLN:NE2	2.52	0.42
38:DK:38:ILE:HD11	38:DK:118:VAL:O	2.20	0.42
31:BA:1328:C:H2'	31:BA:1329:A:O4'	2.18	0.42
1:CA:1432:G:H1'	1:CA:1433:C:C6	2.55	0.42
1:CA:211:A:C8	1:CA:256:G:O6	2.72	0.42
1:AA:610:C:H2'	1:AA:611:C:H6	1.85	0.42
36:BI:21:LEU:HA	36:BI:21:LEU:HD13	1.85	0.42
31:DA:122:G:C2	31:DA:123:C:C2	3.08	0.42
31:BA:1429:C:H2'	31:BA:1430:C:H6	1.84	0.42
31:DA:189:U:C4	47:DT:72:ARG:NH2	2.88	0.42
43:BP:49:THR:C	43:BP:51:ALA:N	2.72	0.42
31:BA:1390:U:O4	56:BA:1693:OHX:N2	2.52	0.42
1:CA:170:G:N2	1:CA:205:G:O6	2.53	0.42
31:BA:44:G:C6	31:BA:45:U:C2	3.08	0.42
1:AA:1913:A:C6	52:BB:39:A:H5'	2.55	0.42
31:BA:834:C:O2'	31:BA:835:U:H5'	2.19	0.42
35:DH:80:ILE:HD11	35:DH:138:ALA:HB1	2.02	0.42
16:A1:102:GLU:OE1	17:A2:13:ARG:NH2	2.45	0.42
31:DA:1451:A:H5''	31:DA:1452:C:C6	2.53	0.42
1:AA:690:G:H2'	1:AA:691:C:C6	2.54	0.42
36:DI:21:LEU:HD13	36:DI:21:LEU:C	2.40	0.42
5:AF:181:LEU:HA	5:AF:181:LEU:HD23	1.86	0.42
31:DA:580:U:P	56:DA:1718:OHX:N5	2.92	0.42
11:CO:34:GLY:O	11:CO:35:HIS:C	2.57	0.42
1:AA:2309:A:C6	1:AA:2310:A:N7	2.87	0.42
12:AP:21:THR:CG2	21:AV:78:LYS:HD3	2.50	0.42
12:AP:80:GLU:N	12:AP:80:GLU:OE2	2.51	0.42
1:CA:895:U:H5'	1:CA:896:G:OP2	2.20	0.42
12:CP:132:VAL:HG21	21:CV:81:ARG:NH2	2.34	0.42
52:BD:70:C:O2'	52:BD:71:C:H5'	2.20	0.42
1:CA:2153:U:OP1	1:CA:2155:U:C4	2.73	0.42
52:BB:22:A:O3'	52:BB:23:A:O4'	2.37	0.42
52:BB:55:U:C4	52:BB:56:U:H1'	2.54	0.42
1:CA:2768:U:H2'	1:CA:2770:U:OP1	2.20	0.42
1:CA:2771:A:N1	7:CH:67:LEU:HD22	2.34	0.42
31:BA:1235:U:H2'	31:BA:1236:A:O4'	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:C2:72:VAL:HG12	17:C2:72:VAL:O	2.19	0.42
1:CA:1360:U:C2	1:CA:1657:A:H2	2.36	0.42
21:AV:6:LYS:O	21:AV:7:ALA:CB	2.66	0.42
32:DE:185:ILE:HD13	32:DE:185:ILE:N	2.35	0.42
52:DD:12:C:O2	52:DD:24:G:C2	2.70	0.42
37:DJ:135:VAL:O	37:DJ:139:GLU:HG3	2.19	0.42
21:AV:27:VAL:HG22	21:AV:28:MET:N	2.35	0.42
1:CA:8:A:H2'	1:CA:9:U:C6	2.54	0.42
31:DA:266:G:N3	31:DA:266:G:H2'	2.34	0.42
11:AO:114:ILE:CD1	11:AO:134:ALA:HB1	2.50	0.42
1:AA:300:A:H2'	1:AA:334:C:O2'	2.19	0.42
1:CA:2735:A:H1'	1:CA:2884:A:O2'	2.20	0.42
43:BP:84:ILE:HG23	43:BP:86:CYS:H	1.84	0.42
28:C6:25:LYS:CE	30:C8:34:TRP:HZ3	2.33	0.42
1:CA:1925:C:C5	1:CA:1926:G:C8	3.08	0.42
31:DA:1138:G:C6	31:DA:1140:C:C2	3.07	0.42
39:DL:55:ALA:HA	39:DL:58:HIS:CD2	2.54	0.42
4:AE:111:ARG:HG3	4:AE:160:TYR:CD1	2.55	0.42
6:CG:35:GLU:O	6:CG:36:LYS:HB3	2.20	0.42
1:AA:792:G:H5''	1:AA:793:A:H5'	2.00	0.42
3:CD:25:THR:CG2	3:CD:81:ALA:HB1	2.50	0.42
1:AA:675:A:OP1	5:AF:63:LYS:HD2	2.19	0.42
1:CA:1618:A:H2'	1:CA:1619:A:C8	2.54	0.42
31:DA:1054:C:H5''	31:DA:1196:U:H2'	2.01	0.42
37:DJ:35:LYS:HZ1	37:DJ:38:LEU:HD22	1.84	0.42
1:AA:320:A:C8	5:AF:136:THR:OG1	2.71	0.42
1:AA:2474:C:H3'	1:AA:2475:C:C6	2.54	0.42
40:BM:57:LYS:CE	40:BM:60:ARG:HH12	2.32	0.42
31:DA:345:C:H1'	31:DA:346:G:N1	2.34	0.42
5:CF:164:ARG:HG2	5:CF:164:ARG:HH11	1.84	0.42
1:CA:641:A:H8	5:CF:176:LEU:HD11	1.81	0.42
31:DA:1363:A:H1'	31:DA:1365:G:N7	2.34	0.42
1:CA:1968:G:H2'	1:CA:1969:U:C6	2.55	0.42
31:BA:438:G:O2'	31:BA:439:A:C5'	2.67	0.42
1:AA:2757:A:N1	7:AH:67:LEU:HD22	2.35	0.42
12:AP:35:VAL:CG1	12:AP:130:LYS:HB3	2.48	0.42
31:BA:998(A):C:O2'	31:BA:999:U:H5'	2.19	0.42
31:DA:622:A:H2'	31:DA:623:C:O4'	2.19	0.42
9:AM:38:HIS:O	16:A1:67:ALA:HB1	2.20	0.42
9:AM:39:ARG:NH1	9:AM:41:ASP:OD2	2.51	0.42
1:AA:2348:U:C2'	1:AA:2349:G:H5'	2.50	0.42
31:DA:375:U:C4	31:DA:376:G:N7	2.88	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:CE:52:LEU:HD23	4:CE:52:LEU:HA	1.90	0.42
43:DP:5:ALA:O	43:DP:6:GLY:C	2.57	0.42
12:CP:59:ARG:O	12:CP:60:ARG:C	2.58	0.42
4:AE:116:VAL:HG11	4:AE:138:PRO:HB3	2.00	0.42
22:C3:23:VAL:HG13	22:C3:38:VAL:HG22	2.00	0.42
31:DA:545:C:O2'	31:DA:549:C:H5''	2.18	0.42
44:DQ:37:PHE:CE1	44:DQ:53:LEU:HD13	2.55	0.42
34:DG:39:PRO:HA	34:DG:40:PRO:HD3	1.90	0.42
50:DW:53:LEU:HD11	50:DW:104:LEU:CD1	2.50	0.42
1:CA:1335:U:C2	1:CA:1374:C:O2	2.72	0.42
1:AA:836:G:C5	1:AA:837:C:C4	3.07	0.42
26:C4:51:ASP:O	26:C4:52:THR:C	2.57	0.42
12:CP:31:ASP:N	12:CP:107:ALA:HB2	2.34	0.42
31:BA:665:A:H1'	31:BA:733:A:O4'	2.19	0.42
46:DS:21:VAL:O	46:DS:33:ILE:HG12	2.20	0.42
11:CO:84:ASN:HD22	11:CO:117:GLU:HB3	1.84	0.42
1:CA:1237:G:OP2	11:CO:32:THR:HG22	2.20	0.42
24:CW:60:LEU:HD12	24:CW:60:LEU:HA	1.80	0.42
5:AF:198:ALA:HA	5:AF:201:VAL:CG1	2.50	0.42
1:CA:1535:G:N2	1:CA:1549:C:O2	2.53	0.42
1:AA:2121:G:H1	1:AA:2177:C:H42	1.67	0.42
1:AA:1965:C:O2	56:AA:3402:OHX:N3	2.53	0.42
31:BA:1260:C:H4'	31:BA:1284:C:H5'	2.01	0.42
1:AA:2841:C:O2	1:AA:2877:G:C2	2.72	0.42
48:BU:17:SER:C	48:BU:18:ARG:HD2	2.39	0.42
12:CP:32:TYR:O	12:CP:106:VAL:N	2.49	0.42
1:CA:1439:A:N6	1:CA:1440:A:N6	2.67	0.42
45:BR:37:ASN:O	45:BR:41:GLU:HB2	2.20	0.42
1:AA:1356:G:OP1	56:AA:3489:OHX:N1	2.53	0.42
1:CA:2860:U:OP2	15:CR:95:ARG:NH1	2.52	0.42
1:CA:85:C:OP1	20:CU:32:PRO:HD2	2.19	0.42
33:BF:37:GLN:HE21	33:BF:37:GLN:HB3	1.70	0.42
1:CA:2325:U:C3'	1:CA:2326:C:H5'	2.47	0.42
1:AA:1057:A:H2'	1:AA:1058:U:C5	2.55	0.42
1:CA:1132:A:H2	1:CA:1133:A:C4	2.37	0.42
52:BD:53:A:C6	52:BD:54:C:C4	3.08	0.42
52:DD:18:G:C4	52:DD:66:G:N2	2.88	0.42
11:CO:147:LEU:CD2	11:CO:148:LEU:N	2.82	0.42
11:CO:41:ARG:N	11:CO:41:ARG:HD2	2.34	0.42
1:CA:611:C:N4	1:CA:719:C:C2	2.87	0.42
31:BA:1301:U:C3'	31:BA:1302:U:H5'	2.48	0.42
31:BA:1180:A:OP1	39:BL:103:THR:OG1	2.26	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1120:A:H2'	1:CA:1121:G:O4'	2.20	0.42
1:AA:2599:G:C8	3:AD:236:GLY:CA	2.90	0.42
52:DD:12:C:N3	52:DD:24:G:N1	2.61	0.42
1:AA:2392:A:H2'	1:AA:2393:A:O4'	2.20	0.42
12:CP:78:PRO:O	12:CP:79:LEU:CG	2.67	0.42
5:CF:25:PRO:HB2	5:CF:27:GLU:C	2.40	0.42
31:DA:988:G:C6	31:DA:989:C:C4	3.07	0.42
1:CA:1071:G:H5''	1:CA:1072:G:C5'	2.46	0.42
40:BM:21:GLN:O	40:BM:24:VAL:HG12	2.19	0.42
1:CA:1019:A:H5'	1:CA:1234:U:H1'	2.01	0.42
31:DA:865:A:H5'	31:DA:1078:U:O4	2.20	0.42
1:AA:2069:G:N2	1:AA:2070:G:H1'	2.35	0.42
14:CQ:93:LYS:HG2	14:CQ:95:HIS:HB3	2.01	0.42
31:BA:630:G:N2	31:BA:631:G:C4	2.87	0.42
1:CA:855:U:C2	1:CA:856:G:C8	3.07	0.42
1:CA:1585:G:C2'	1:CA:1586:G:H5'	2.49	0.42
24:CW:54:LYS:HA	24:CW:57:ILE:HD12	2.00	0.42
1:AA:2564:A:C6	1:AA:2565:A:C6	3.07	0.42
1:AA:2733:A:C3'	1:AA:2734:A:C5'	2.97	0.42
1:CA:2348:A:O2'	1:CA:2349:A:H8	2.02	0.42
30:A8:44:LYS:N	30:A8:44:LYS:HD2	2.34	0.42
1:CA:720:C:O2'	1:CA:721:C:H5'	2.20	0.42
34:BG:155:LEU:O	34:BG:157:LEU:N	2.53	0.42
20:CU:40:GLU:OE2	20:CU:40:GLU:N	2.53	0.42
27:C5:16:ARG:HG3	27:C5:17:ASP:N	2.34	0.42
5:CF:178:PRO:HB2	5:CF:201:VAL:CG1	2.48	0.42
40:BM:48:THR:HG23	40:BM:62:HIS:ND1	2.35	0.42
46:BS:76:GLN:HE21	46:BS:76:GLN:HB3	1.62	0.42
23:AZ:81:LYS:HE2	23:AZ:81:LYS:N	2.35	0.42
56:DA:1760:OHX:N5	40:DM:59:SER:OG	2.52	0.42
31:BA:690:G:O2'	31:BA:691:G:H5'	2.20	0.42
21:AV:69:THR:HG22	21:AV:90:VAL:HG22	2.01	0.42
32:BE:103:THR:HA	32:BE:180:LEU:HD11	2.02	0.42
1:CA:28:A:C2	1:CA:539:A:C8	3.07	0.42
1:CA:195:G:H4'	1:CA:196:U:O5'	2.20	0.42
1:CA:2515:G:H5''	1:CA:2516:A:C5'	2.48	0.42
11:AO:70:GLN:C	11:AO:72:PRO:HD2	2.40	0.42
13:C0:13:HIS:CE1	13:C0:16:HIS:HB2	2.54	0.42
33:DF:29:TYR:HD1	44:DQ:36:PHE:CZ	2.38	0.42
21:CV:110:GLY:CA	21:CV:143:GLY:HA2	2.49	0.42
9:AM:42:TRP:CD1	16:A1:63:VAL:HG11	2.55	0.42
1:CA:423:U:H2'	1:CA:424:G:N7	2.34	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1842:A:H2'	1:CA:1843:G:O4'	2.19	0.42
13:A0:44:LEU:HD21	13:A0:48:VAL:HG13	2.01	0.42
10:AN:43:VAL:HG21	10:AN:52:VAL:CG1	2.50	0.42
41:BN:18:ARG:HH21	41:BN:37:GLY:N	2.18	0.42
1:AA:1385:G:O2'	1:AA:1396:U:C6	2.66	0.42
1:CA:1939:A:H2'	1:CA:1940:U:O4'	2.19	0.42
36:BI:41:GLU:O	36:BI:42:GLU:C	2.56	0.42
1:CA:63:A:H1'	19:CT:66:LEU:HB2	2.01	0.42
19:AT:54:VAL:O	19:AT:55:ASN:ND2	2.52	0.42
11:CO:21:ARG:HB3	11:CO:22:GLY:H	1.55	0.42
4:AE:5:LEU:HB2	4:AE:51:PHE:HB2	2.00	0.42
15:AR:33:LYS:HG2	15:AR:82:LEU:O	2.20	0.42
1:AA:1651:G:H2'	1:AA:1652:A:O4'	2.20	0.42
9:AM:97:ARG:HA	9:AM:100:GLU:HB2	2.02	0.42
50:DW:33:ILE:HG12	50:DW:62:LEU:HB3	2.01	0.42
1:CA:1908:A:C5'	1:CA:1909:C:OP2	2.67	0.42
31:BA:654:G:C2'	31:BA:655:A:H5'	2.50	0.42
31:BA:115:G:O5'	31:BA:115:G:H8	2.02	0.42
1:AA:2025:C:H2'	1:AA:2026:C:C6	2.55	0.42
24:CW:37:PHE:O	24:CW:41:ILE:HG12	2.20	0.42
53:BC:15:G:N2	53:BC:22:A:N3	2.68	0.42
13:C0:103:ARG:HB3	13:C0:108:GLY:HA2	2.01	0.42
1:CA:1302:U:H5''	1:CA:1303:G:C5'	2.49	0.42
3:CD:132:PRO:HG3	3:CD:190:TYR:CE1	2.55	0.42
4:AE:167:VAL:HG21	4:AE:187:ALA:HB3	2.02	0.42
1:AA:610:C:O5'	1:AA:610:C:H6	2.02	0.42
3:AD:230:ASP:O	3:AD:231:HIS:HB2	2.18	0.42
47:DT:62:SER:CB	47:DT:72:ARG:HE	2.33	0.42
46:DS:45:THR:OG1	46:DS:46:PRO:HD2	2.20	0.42
31:DA:716:A:C6	31:DA:717:C:C4	3.07	0.42
31:DA:152:A:N6	31:DA:170:U:C2	2.88	0.42
31:DA:753:A:H4'	31:DA:754:C:C5'	2.50	0.42
7:CH:85:LYS:NZ	7:CH:142:GLY:HA2	2.35	0.42
9:CM:93:THR:O	9:CM:94:HIS:C	2.58	0.42
31:BA:394:G:H2'	31:BA:395:C:H6	1.84	0.42
1:CA:2776:G:H5'	1:CA:2777:G:OP2	2.20	0.42
1:CA:777:G:H2'	1:CA:1807:U:H1'	2.02	0.42
1:AA:162:U:H6	1:AA:162:U:OP1	2.02	0.42
3:AD:233:HIS:N	3:AD:233:HIS:CD2	2.88	0.42
8:CK:84:GLY:O	8:CK:85:GLU:HB3	2.19	0.42
1:AA:2127:G:O2'	1:AA:2173:A:N1	2.35	0.42
31:DA:1162:C:N3	31:DA:1175:G:C2	2.88	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1095:A:H5'	1:CA:1096:C:OP2	2.19	0.42
1:CA:1158:A:H4'	7:CH:3:ARG:HG2	2.00	0.42
7:CH:6:ARG:NE	7:CH:54:ARG:HH12	2.18	0.42
1:AA:1537:C:C2'	1:AA:1538:G:O5'	2.67	0.42
31:BA:978:A:C6	31:BA:1318:A:N6	2.88	0.42
31:BA:1161:C:H2'	31:BA:1162:C:C6	2.54	0.42
31:BA:1003:G:C3'	31:BA:1004:A:H5'	2.49	0.42
31:DA:409:G:C5'	34:DG:24:GLU:HG3	2.46	0.42
12:CP:75:THR:HG22	12:CP:90:VAL:N	2.35	0.42
52:DB:46:G:O2'	52:DB:47:U:P	2.77	0.42
52:DD:40:U:O2'	52:DD:41:C:H5'	2.20	0.42
52:DD:39:A:H2'	52:DD:40:U:O4'	2.19	0.42
52:BD:12:C:O2	52:BD:24:G:C2	2.69	0.42
33:BF:15:THR:HG22	33:BF:16:ARG:N	2.34	0.42
31:DA:86:U:O2'	31:DA:87:A:P	2.77	0.42
7:AH:4:ILE:HG13	7:AH:6:ARG:CD	2.50	0.42
7:AH:54:ARG:HA	7:AH:55:PRO:HD3	1.87	0.42
31:DA:652:U:C2'	31:DA:653:A:H5''	2.50	0.42
1:CA:1068:A:C6	1:CA:1070:U:C4	3.08	0.42
32:DE:207:ALA:O	32:DE:211:ILE:HG13	2.19	0.42
26:A4:39:CYS:O	26:A4:40:HIS:HB2	2.20	0.42
1:AA:2507:C:H1'	52:BB:85:A:C8	2.55	0.42
1:AA:1131:G:N2	1:AA:1132:A:N3	2.68	0.42
1:AA:299:A:N7	1:AA:300:A:N6	2.67	0.42
1:CA:2701:U:H5	1:CA:2734:U:OP2	2.03	0.42
16:A1:90:VAL:O	16:A1:91:ASP:C	2.57	0.42
2:CB:72:C:H42	2:CB:109:G:H1	1.68	0.42
31:BA:266:G:C5'	31:BA:267:C:C5	2.97	0.42
31:BA:273:A:C6	31:BA:274:A:C5	3.08	0.42
1:AA:71:A:H2	19:AT:31:HIS:CE1	2.38	0.42
49:DV:18:LYS:HG2	49:DV:31:ILE:HD13	2.02	0.42
16:C1:83:LEU:CD2	16:C1:88:ILE:HG13	2.50	0.42
1:CA:1002:G:H2'	1:CA:1003:A:H2'	2.01	0.42
31:DA:1054:C:N4	52:DB:35:G:C1'	2.83	0.42
31:DA:1200:C:H1'	31:DA:1204:A:N6	2.35	0.42
11:AO:113:LYS:HA	11:AO:129:ALA:O	2.20	0.42
31:BA:1371:G:C6	31:BA:1372:U:C4	3.08	0.42
5:CF:53:THR:O	5:CF:54:ARG:C	2.58	0.42
1:AA:1416:G:O2'	1:AA:1417:C:P	2.77	0.42
52:DB:13:G:N2	52:DB:23:A:C6	2.88	0.42
31:DA:485:G:C2'	31:DA:486:U:OP2	2.67	0.42
33:BF:6:HIS:NE2	33:BF:184:TYR:CE2	2.87	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:196:A:O2'	1:AA:805:G:O6	2.36	0.42
1:AA:2354:G:O2'	22:A3:36:ILE:HG23	2.19	0.42
46:BS:43:LYS:HG3	46:BS:48:TRP:HE3	1.85	0.42
13:A0:28:LEU:HD23	13:A0:28:LEU:HA	1.82	0.42
23:AZ:81:LYS:N	23:AZ:82:LEU:HD22	2.34	0.42
37:DJ:144:MET:HE1	52:DD:31:G:N2	2.27	0.42
34:BG:31:CYS:HB3	34:BG:33:MET:HB2	2.01	0.42
31:DA:1095:U:OP1	31:DA:1108:G:N2	2.49	0.42
50:DW:48:LYS:O	50:DW:49:ALA:C	2.57	0.42
26:A4:12:ALA:CB	26:A4:29:PRO:HA	2.46	0.42
40:DM:98:ILE:HD12	40:DM:98:ILE:H	1.83	0.42
1:AA:559:G:N2	16:A1:49:HIS:CD2	2.82	0.42
1:AA:2219:G:H2'	1:AA:2224:G:C5'	2.48	0.42
1:CA:17:G:C4	1:CA:18:C:C5	3.08	0.42
1:AA:2802:G:C6	1:AA:2803:C:C4	3.08	0.42
1:CA:1528:G:N1	1:CA:1529:U:O2	2.52	0.42
3:CD:238:GLY:O	3:CD:239:ARG:C	2.58	0.42
31:DA:625:G:C5	31:DA:626:U:C5	3.07	0.42
7:AH:170:ARG:HB3	7:AH:171:LEU:H	1.58	0.42
32:BE:145:LEU:HD12	32:BE:149:LEU:HD12	2.01	0.42
31:DA:1226:C:OP1	43:DP:91:ARG:NH1	2.44	0.42
33:BF:108:ASN:ND2	33:BF:144:SER:HG	2.16	0.42
31:DA:386:C:O2'	31:DA:387:U:H5'	2.19	0.42
10:AN:88:ASN:HD21	10:AN:92:GLU:CG	2.31	0.42
37:BJ:40:ALA:HB1	37:BJ:44:TYR:HE1	1.85	0.42
18:AS:70:TYR:O	18:AS:107:LEU:HD12	2.19	0.42
1:CA:1047:A:C6	1:CA:1048:A:C2	3.07	0.42
31:DA:363:A:O4'	42:DO:29:PHE:O	2.37	0.42
31:DA:296:U:H2'	31:DA:297:G:C8	2.54	0.42
6:CG:128:ARG:CG	6:CG:128:ARG:NH2	2.82	0.42
1:AA:271(C):U:H2'	1:AA:271:G:OP1	2.20	0.42
1:AA:653:A:H3'	1:AA:654:A:H5'	2.01	0.42
1:CA:482:C:N3	1:CA:500:G:H5'	2.35	0.42
1:CA:63:A:C6	1:CA:64:C:C4	3.07	0.42
31:BA:502:G:C5	31:BA:503:C:C5	3.08	0.42
1:CA:1880:A:C6	31:DA:702:A:C6	3.08	0.42
31:BA:1093:A:N3	31:BA:1095:U:H5'	2.34	0.42
31:DA:954:G:H2'	31:DA:955:U:C6	2.54	0.42
1:CA:1058:G:C6	1:CA:1060:C:C4	3.08	0.42
1:CA:1060:C:H2'	1:CA:1061:U:H6	1.84	0.42
1:CA:2795:A:OP2	56:CA:3396:OHX:N4	2.53	0.42
1:CA:1293:A:H2'	1:CA:1294:A:O5'	2.20	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:216:A:C4	1:AA:432:A:C2	3.08	0.42
3:AD:17:THR:CG2	3:AD:204:ILE:HA	2.50	0.42
1:CA:2315:G:N1	1:CA:2328:G:C6	2.88	0.42
3:AD:123:ALA:HA	3:AD:124:PRO:HD2	1.80	0.42
3:CD:106:ILE:CG2	3:CD:106:ILE:O	2.68	0.42
45:DR:27:VAL:O	45:DR:31:LEU:HD13	2.19	0.42
1:AA:492:A:H2'	1:AA:493:G:O4'	2.20	0.42
31:DA:1317:C:C2	44:DQ:16:PHE:HE1	2.37	0.42
7:CH:143:GLN:O	7:CH:147:ASN:HB2	2.20	0.42
1:CA:1554:A:H5''	1:CA:1555:A:OP2	2.19	0.42
1:AA:1711:C:O2'	1:AA:1712:C:H5'	2.20	0.42
1:AA:2877:G:H2'	1:AA:2878:U:O4'	2.20	0.42
52:BD:36:U:H2'	52:BD:37:A:O4'	2.20	0.42
18:CS:70:TYR:CD2	18:CS:108:GLY:O	2.73	0.42
30:A8:17:THR:OG1	30:A8:21:LYS:HB2	2.20	0.42
29:C7:26:GLY:O	29:C7:30:VAL:HG23	2.20	0.42
4:CE:137:HIS:HB3	4:CE:138:PRO:HD2	2.02	0.42
1:AA:2231:C:H2'	1:AA:2232:U:O4'	2.19	0.42
31:BA:477:G:N7	56:BA:1695:OHX:N3	2.67	0.42
35:DH:89:ILE:O	35:DH:89:ILE:HG23	2.20	0.42
31:BA:994:A:H2'	31:BA:994:A:N3	2.34	0.42
6:CG:33:ARG:HB2	6:CG:33:ARG:HE	1.67	0.42
16:A1:47:TYR:C	16:A1:47:TYR:CD2	2.93	0.42
32:DE:130:ARG:HE	32:DE:130:ARG:CA	2.32	0.42
1:AA:2291:U:O2'	1:AA:2374:C:H1'	2.20	0.42
17:C2:34:GLU:OE1	17:C2:56:SER:HB2	2.19	0.42
7:CH:97:ARG:HG2	7:CH:98:LEU:H	1.85	0.42
1:CA:1886:A:H62	1:CA:1911:G:H8	1.66	0.42
11:AO:19:VAL:HG22	11:AO:20:GLY:H	1.84	0.42
52:DD:19:C:OP1	52:DD:19:C:O4'	2.38	0.42
52:BB:17:G:H4'	52:BB:18:G:OP1	2.18	0.42
1:CA:1091:G:H1'	1:CA:1158:A:N1	2.35	0.42
1:CA:1096:C:H1'	1:CA:1160:U:O2'	2.18	0.42
1:AA:1313:U:H4'	1:AA:1332:G:H4'	2.02	0.42
31:BA:1315:U:O2	31:BA:1360:A:H2	2.02	0.42
31:BA:1315:U:O2'	31:BA:1360:A:N3	2.42	0.42
31:BA:91:C:C2'	31:BA:92:G:H5'	2.49	0.42
31:DA:429:U:H1'	31:DA:430:A:H5''	2.01	0.42
52:DB:21:A:H4'	52:DB:22:A:O5'	2.20	0.42
1:CA:1147:C:O2'	1:CA:1148:U:H5'	2.19	0.42
31:DA:631:G:H1'	31:DA:632:A:P	2.60	0.42
1:AA:2393:A:H5''	11:AO:62:LEU:HB2	2.00	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:BD:12:C:H2'	52:BD:13:G:C8	2.55	0.42
31:DA:328:C:O2	31:DA:328:C:H2'	2.20	0.42
11:AO:50:ARG:HG3	30:A8:59:LYS:HD3	2.01	0.42
32:DE:19:HIS:CD2	32:DE:205:ASP:H	2.37	0.42
26:A4:59:PHE:O	26:A4:63:TYR:CB	2.64	0.42
16:A1:90:VAL:HG12	16:A1:91:ASP:N	2.35	0.42
31:DA:1002:G:C6	31:DA:1003:G:C6	3.08	0.42
1:AA:1047:G:H2'	1:AA:1110:G:C6	2.54	0.42
2:CB:45:C:O2	6:CG:95:ARG:NH2	2.53	0.42
2:CB:45:C:OP1	6:CG:67:LYS:HE2	2.20	0.42
31:BA:990:C:N3	31:BA:1216:G:C2	2.87	0.42
31:BA:1226:C:H5'	49:BV:80:TYR:CE1	2.55	0.42
31:BA:1227:A:OP1	49:BV:80:TYR:OH	2.28	0.42
4:CE:204:ALA:O	4:CE:205:ALA:CB	2.67	0.42
1:CA:2092:G:C2'	1:CA:2093:G:H5'	2.50	0.42
5:AF:67:GLN:HE21	5:AF:67:GLN:HB2	1.56	0.42
1:CA:2536:G:C8	1:CA:2536:G:H5'	2.46	0.42
34:BG:138:TYR:CD2	34:BG:139:ARG:N	2.88	0.42
40:DM:81:THR:OG1	40:DM:82:ILE:N	2.53	0.42
31:DA:1056:U:O2	31:DA:1057:G:C8	2.73	0.42
31:DA:958:A:N3	31:DA:985:C:O2'	2.51	0.42
1:CA:1674:G:OP1	56:CA:3296:OHX:N1	2.52	0.42
1:CA:2485:G:C4	1:CA:2488:C:N4	2.88	0.42
20:CU:43:ASN:CB	20:CU:64:GLU:HA	2.49	0.42
32:DE:178:ARG:NH1	32:DE:178:ARG:HG2	2.34	0.42
1:AA:196:A:H2'	1:AA:196:A:N3	2.35	0.42
5:CF:78:ILE:HG12	5:CF:78:ILE:H	1.61	0.42
35:DH:78:HIS:ND1	38:DK:107:LEU:HD12	2.35	0.42
1:CA:2228:G:N3	1:CA:2228:G:C2'	2.82	0.42
31:BA:142:G:C2	31:BA:143:A:N7	2.88	0.42
31:BA:182:U:H2'	31:BA:182:U:O2	2.20	0.42
32:BE:5:ILE:HG23	32:BE:224:GLN:OE1	2.20	0.42
36:DI:63:TYR:CD2	36:DI:63:TYR:N	2.87	0.42
1:CA:962:C:H2'	1:CA:963:G:O5'	2.20	0.42
31:DA:957:U:H1'	31:DA:960:U:C5	2.54	0.42
1:CA:312:C:O2	1:CA:379:G:N1	2.41	0.42
7:AH:166:GLY:O	7:AH:167:GLU:O	2.37	0.42
31:DA:272:C:H2'	31:DA:273:A:C8	2.52	0.42
12:AP:58:PHE:O	12:AP:59:ARG:C	2.59	0.42
9:AM:39:ARG:HH11	9:AM:39:ARG:HB3	1.84	0.42
14:AQ:24:LEU:HD12	14:AQ:24:LEU:HA	1.71	0.42
6:CG:16:ARG:N	6:CG:17:PRO:HD2	2.35	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BN:91:ARG:HH22	48:BU:88:LYS:HE3	1.83	0.42
1:CA:2588:C:H4'	4:CE:143:ASN:O	2.20	0.42
1:CA:617:G:H1'	30:C8:4:MET:HE1	2.02	0.42
1:CA:908:U:H1'	1:CA:2281:A:H5'	2.02	0.42
1:CA:2109:U:H2'	1:CA:2110:G:C8	2.54	0.42
13:C0:44:LEU:HD23	13:C0:44:LEU:HA	1.82	0.42
14:AQ:60:GLY:O	14:AQ:65:VAL:HG23	2.20	0.42
31:BA:1092:A:C2	31:BA:1183:A:H2	2.37	0.42
1:CA:1196:G:H2'	1:CA:1197:C:C6	2.54	0.42
8:AK:93:THR:H	8:AK:96:ASP:HB2	1.85	0.42
31:DA:879:C:O2'	31:DA:880:C:H5'	2.20	0.42
39:BL:53:VAL:O	39:BL:54:ASP:CB	2.68	0.42
47:BT:91:ARG:HH12	47:BT:92:ARG:HH21	1.67	0.42
31:BA:815:A:OP2	31:BA:816:A:H5''	2.20	0.42
1:AA:1663:C:O2'	1:AA:2686:G:H4'	2.20	0.42
31:BA:128:G:O3'	47:BT:3:LYS:HE2	2.20	0.42
31:DA:350:G:C6	31:DA:351:G:O6	2.73	0.42
44:BQ:13:THR:O	44:BQ:14:PRO:O	2.38	0.42
3:CD:108:PRO:HG2	3:CD:111:LEU:HB2	2.01	0.42
1:AA:38:A:H2'	1:AA:39:C:C6	2.55	0.42
15:CR:133:GLU:O	15:CR:133:GLU:HG3	2.20	0.42
31:BA:918:A:H2'	31:BA:919:A:O4'	2.19	0.42
12:CP:103:MET:O	12:CP:104:PHE:HB2	2.20	0.42
31:BA:1038:C:H2'	31:BA:1039:C:H5'	2.00	0.42
31:BA:326:G:H2'	31:BA:327:A:H5'	2.02	0.42
42:BO:117:TYR:O	42:BO:118:GLY:C	2.58	0.42
1:CA:2576:U:O2	1:CA:2578:A:C8	2.73	0.42
1:CA:35:G:C4	1:CA:481:A:C2	3.07	0.42
1:CA:928:G:C2	1:CA:945:C:N3	2.88	0.42
1:CA:1497:A:N6	1:CA:1498:G:C2	2.88	0.42
1:CA:2545:G:H2'	1:CA:2546:A:O4'	2.19	0.42
31:DA:451:A:C2	31:DA:480:U:C4	3.08	0.42
1:CA:643:G:H2'	1:CA:644:C:O4'	2.20	0.42
1:AA:775:G:C4	1:AA:794:G:C8	3.08	0.42
1:CA:1680:A:N6	1:CA:1681:G:N1	2.67	0.42
32:BE:21:ARG:C	32:BE:23:ARG:H	2.22	0.42
1:CA:2880:G:H2'	1:CA:2881:C:O4'	2.18	0.42
8:AK:125:GLU:HA	8:AK:125:GLU:OE1	2.20	0.42
1:CA:587:G:C6	1:CA:588:C:C4	3.08	0.42
31:DA:670:G:H2'	31:DA:671:G:O4'	2.20	0.42
9:CM:1:MET:HB2	9:CM:2:LYS:H	1.45	0.42
31:BA:339:C:H2'	31:BA:340:U:C6	2.55	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:C0:74:LYS:HD2	13:C0:77:ARG:HH21	1.85	0.42
1:AA:1064:C:N4	1:AA:1070:A:P	2.92	0.42
1:CA:2299:A:C8	1:CA:2300:A:N6	2.88	0.42
1:CA:2300:A:C4	1:CA:2302:G:C8	3.08	0.42
11:AO:16:ARG:NH1	11:AO:16:ARG:CG	2.80	0.42
52:BD:16:C:H2'	52:BD:17:G:H4'	2.01	0.42
52:DD:22:A:N7	52:DD:57:C:N4	2.67	0.42
31:DA:1162:C:H2'	31:DA:1163:C:O4'	2.20	0.42
1:AA:1537:C:N4	1:AA:1538:G:C5	2.88	0.42
31:BA:1234:C:H5'	31:BA:1364:U:O2'	2.20	0.42
31:BA:1304:G:C6	31:BA:1305:G:N1	2.88	0.42
31:BA:1028(B):C:C4	31:BA:1032(A):G:C2	3.07	0.42
52:DB:18:G:H4'	52:DB:19:C:OP1	2.17	0.42
52:DB:47:U:HO2'	52:DB:48:C:C1'	2.29	0.42
1:CA:1127:A:H2'	1:CA:1128:U:C6	2.54	0.42
31:DA:742:G:P	45:DR:35:ARG:HH22	2.43	0.42
1:CA:2804:A:C1'	1:CA:2805:C:P	3.08	0.42
40:BM:5:ARG:HG2	40:BM:71:LEU:HD11	2.02	0.42
1:CA:2734:U:N3	1:CA:2884:A:C2	2.88	0.42
31:DA:1126:U:O4	31:DA:1281:U:C6	2.73	0.42
31:DA:21:G:O2'	31:DA:22:G:O4'	2.24	0.42
31:DA:686:U:C1'	41:DN:42:TRP:HE1	2.31	0.42
1:AA:1144:G:C6	1:AA:1145:C:N4	2.88	0.42
49:DV:49:ILE:HG13	49:DV:62:ILE:CD1	2.40	0.42
1:CA:999:A:C4	1:CA:1000:G:C8	3.08	0.42
31:DA:974:A:H1'	44:DQ:31:ARG:NE	2.35	0.42
17:A2:16:PRO:HA	17:A2:96:ILE:CG2	2.40	0.42
31:BA:652:U:O4	31:BA:752:G:N3	2.53	0.42
37:BJ:111:ARG:NH1	37:BJ:113:GLU:OE2	2.52	0.42
1:AA:1798:U:O2'	1:AA:1802:A:O2'	2.36	0.42
6:CG:161:THR:HG22	6:CG:162:THR:N	2.35	0.42
31:BA:1115:C:C2	31:BA:1116:C:C6	3.08	0.42
31:BA:1351:U:O4'	37:BJ:33:ASP:HB3	2.20	0.42
1:AA:1162:G:H2'	1:AA:1163:G:H8	1.85	0.42
13:A0:84:ALA:HB3	13:A0:85:PRO:HD3	2.02	0.42
26:C4:16:CYS:HB3	26:C4:19:GLY:CA	2.50	0.42
1:CA:1054:C:H5''	9:CM:35:ARG:NH1	2.34	0.42
31:BA:619:U:C2	34:BG:135:LEU:HD22	2.55	0.42
23:CZ:21:ARG:HD3	23:CZ:35:THR:HG21	2.01	0.42
1:AA:2272:U:O4	56:AA:3458:OHX:N1	2.53	0.42
3:AD:68:LYS:HB2	3:AD:70:TRP:CZ3	2.54	0.42
11:CO:120:ALA:HB2	11:CO:137:LYS:HB3	2.02	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:CR:8:LYS:HB2	15:CR:8:LYS:HZ3	1.84	0.42
1:AA:2837:G:N2	13:A0:45:ARG:HH21	2.17	0.42
21:CV:163:LEU:H	21:CV:163:LEU:CD2	2.33	0.42
31:BA:950:U:OP2	43:BP:102:ARG:HD2	2.20	0.42
21:CV:133:ILE:HD12	21:CV:133:ILE:N	2.34	0.42
1:AA:1389:G:C2	1:AA:1399:C:O2	2.72	0.42
1:AA:1388:G:H2'	1:AA:1389:G:H8	1.85	0.42
1:CA:1363:U:H2'	1:CA:1364:A:H8	1.85	0.42
1:CA:1939:A:H61	31:DA:1408:A:HO2'	1.68	0.42
1:AA:2097:C:O2'	1:AA:2098:U:H5'	2.19	0.42
31:BA:329:A:C2	31:BA:332:G:N9	2.88	0.42
23:AZ:78:LYS:NZ	23:AZ:94:LEU:HD21	2.35	0.42
34:DG:36:ARG:HD3	34:DG:36:ARG:O	2.20	0.42
11:CO:39:LYS:HD2	11:CO:45:LEU:CD2	2.50	0.42
1:AA:45:G:N7	56:AA:3426:OHX:N5	2.68	0.42
1:CA:2858:U:H2'	1:CA:2859:G:H5'	2.02	0.42
24:CW:22:GLU:O	24:CW:26:ARG:HG2	2.20	0.42
1:AA:1973:G:H2'	1:AA:1974:C:H6	1.85	0.42
19:AT:28:PHE:CZ	19:AT:92:LEU:HD11	2.54	0.42
1:AA:1921:G:O6	56:AA:3291:OHX:N2	2.53	0.42
1:CA:1081:G:C8	1:CA:1081:G:OP1	2.73	0.42
3:CD:79:VAL:HB	3:CD:114:GLY:H	1.85	0.42
31:DA:629:G:H2'	31:DA:630:G:H8	1.85	0.42
2:CB:116:C:H2'	2:CB:117:G:H8	1.85	0.42
3:AD:142:VAL:HG21	3:AD:191:ALA:HB1	2.02	0.42
1:CA:2050:G:H2'	1:CA:2051:U:O4'	2.20	0.42
2:CB:12:C:N3	2:CB:13:C:C5	2.87	0.42
46:BS:83:GLU:HB3	46:BS:84:ALA:H	1.54	0.42
1:CA:750:G:C2	1:CA:779:C:C2	3.07	0.42
32:DE:162:ILE:O	32:DE:162:ILE:HG13	2.19	0.42
38:DK:102:ARG:H	38:DK:102:ARG:HG2	1.64	0.42
8:CK:136:VAL:HG13	8:CK:136:VAL:O	2.20	0.42
1:AA:1649:G:N1	1:AA:2009:G:C6	2.88	0.42
1:CA:937:C:C4	1:CA:938:A:H1'	2.55	0.41
1:AA:2126:A:C4	1:AA:2162:G:N2	2.88	0.41
52:BD:54:C:OP2	52:BD:54:C:C6	2.73	0.41
31:DA:1176:A:C3'	31:DA:1177:G:H5'	2.50	0.41
1:AA:1312:U:C1'	1:AA:1313:U:OP2	2.67	0.41
31:BA:1055:A:C5	31:BA:1206:G:C2	3.08	0.41
43:BP:5:ALA:CB	43:BP:66:LEU:HD12	2.50	0.41
31:BA:1021:G:C2	31:BA:1022:G:C8	3.08	0.41
1:CA:2391:A:C5	1:CA:2392:G:H1'	2.55	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:637:A:OP1	11:AO:133:SER:HB3	2.19	0.41
11:AO:131:SER:O	11:AO:132:LYS:C	2.58	0.41
32:DE:204:ASN:HB2	32:DE:210:SER:OG	2.20	0.41
19:CT:12:VAL:HG13	19:CT:27:THR:O	2.20	0.41
31:BA:1143:G:N1	31:BA:1144:G:C2	2.88	0.41
50:BW:73:HIS:O	50:BW:76:ALA:HB3	2.19	0.41
1:CA:2701:U:C3'	1:CA:2701:U:O2	2.67	0.41
1:CA:1699:G:H2'	1:CA:1700:A:O4'	2.19	0.41
6:CG:67:LYS:HG3	26:C4:5:ILE:HG22	2.02	0.41
20:CU:84:ARG:CZ	20:CU:97:ARG:HB2	2.48	0.41
31:BA:136:C:N3	31:BA:227:G:N2	2.56	0.41
10:AN:24:VAL:CG2	10:AN:33:ALA:HB2	2.50	0.41
1:AA:784:A:N7	1:AA:792:G:C4	2.88	0.41
1:AA:1557:C:OP2	1:AA:1558:A:O2'	2.38	0.41
31:BA:515:G:N3	31:BA:537:G:C2	2.87	0.41
31:DA:1057:G:H4'	33:DF:196:LEU:O	2.20	0.41
31:BA:51:A:OP2	31:BA:52:G:C8	2.70	0.41
31:BA:383:A:O5'	31:BA:383:A:H8	2.03	0.41
52:DB:24:G:C8	52:DB:24:G:C3'	3.03	0.41
8:AK:114:LEU:HD13	8:AK:130:TYR:CD1	2.55	0.41
32:BE:19:HIS:O	32:BE:39:ILE:HG23	2.20	0.41
1:AA:1530:G:O6	1:AA:1542:G:N2	2.52	0.41
23:CZ:96:LYS:HG2	23:CZ:96:LYS:O	2.19	0.41
46:BS:43:LYS:HG3	46:BS:48:TRP:CE3	2.54	0.41
5:AF:37:VAL:HG12	5:AF:38:ARG:N	2.34	0.41
31:BA:858:G:O2'	31:BA:859:A:H5''	2.21	0.41
1:CA:798:A:C2	1:CA:801:C:C6	3.08	0.41
1:CA:1966:U:N3	1:CA:1968:G:O4'	2.52	0.41
31:BA:1350:A:C5	31:BA:1351:U:C4	3.08	0.41
32:BE:100:GLY:O	32:BE:104:ASN:N	2.53	0.41
1:CA:2401:A:N7	1:CA:2402:G:C6	2.88	0.41
31:DA:585:G:C6	31:DA:586:C:C4	3.08	0.41
42:DO:97:ILE:HG22	42:DO:98:VAL:H	1.85	0.41
11:CO:120:ALA:O	11:CO:121:LYS:HE3	2.20	0.41
1:CA:582:G:P	9:CM:111:PRO:HD2	2.60	0.41
21:CV:126:VAL:HA	21:CV:163:LEU:HA	2.01	0.41
1:AA:361:G:OP1	56:AA:3424:OHX:N4	2.53	0.41
44:DQ:37:PHE:CE1	44:DQ:53:LEU:HD22	2.53	0.41
31:BA:233:C:C2	31:BA:234:C:C5	3.08	0.41
1:CA:496:G:O6	29:C7:39:ARG:NH1	2.53	0.41
18:AS:46:PHE:O	18:AS:50:VAL:HG23	2.20	0.41
6:CG:39:ILE:HD11	6:CG:102:PHE:CZ	2.55	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1786:A:C1'	1:AA:1938:A:N6	2.83	0.41
31:BA:654:G:C6	31:BA:655:A:C5	3.07	0.41
32:DE:142:LEU:HD23	32:DE:142:LEU:O	2.19	0.41
1:CA:718:A:O2'	56:CA:3363:OHX:N1	2.54	0.41
1:AA:831:G:C2	1:AA:832:G:H1'	2.55	0.41
1:CA:2597:U:O2	1:CA:2597:U:O4'	2.38	0.41
6:AG:77:ILE:HG22	6:AG:82:LEU:HB3	2.00	0.41
6:AG:35:GLU:O	6:AG:36:LYS:HB3	2.20	0.41
1:AA:1812:A:O2'	3:AD:45:ASN:CB	2.68	0.41
1:AA:1198:U:O2	1:AA:1249:U:H1'	2.20	0.41
37:DJ:87:VAL:CG2	37:DJ:88:PRO:HD2	2.50	0.41
31:BA:1165:C:C4	31:BA:1166:G:C6	3.07	0.41
31:DA:730:G:O6	45:DR:51:HIS:NE2	2.40	0.41
31:BA:392:G:C4	31:BA:393:A:C8	3.07	0.41
1:AA:2:G:H1	1:AA:2901:C:H42	1.68	0.41
31:DA:153:C:H2'	31:DA:154:C:O4'	2.19	0.41
1:AA:1499:C:O2'	1:AA:1500:G:H5'	2.20	0.41
34:BG:3:ARG:HG2	34:BG:118:ARG:CZ	2.49	0.41
36:BI:100:ASN:O	48:BU:28:GLU:HG2	2.20	0.41
31:DA:643:C:H2'	31:DA:644:G:H8	1.85	0.41
37:BJ:79:ARG:C	37:BJ:79:ARG:HD3	2.41	0.41
1:AA:1185:C:H5''	1:AA:1186:G:OP1	2.20	0.41
31:DA:131:C:H2'	31:DA:132:C:C6	2.55	0.41
34:BG:61:LYS:HD2	34:BG:207:TYR:OH	2.19	0.41
1:CA:2113:G:C5	1:CA:2114:U:C4	3.08	0.41
41:DN:127:LYS:O	41:DN:128:ALA:HB3	2.20	0.41
1:AA:1963:U:OP1	1:AA:1963:U:H6	2.03	0.41
1:CA:107:G:H2'	1:CA:108:G:O4'	2.19	0.41
31:DA:457:C:N3	31:DA:476:G:C2	2.88	0.41
33:BF:107:GLN:H	33:BF:107:GLN:CD	2.22	0.41
21:CV:72:ARG:HA	21:CV:72:ARG:HD2	1.89	0.41
31:BA:1030:C:H6	31:BA:1030:C:O5'	2.02	0.41
33:BF:159:GLY:HA2	33:BF:193:TYR:CG	2.55	0.41
31:DA:943:U:C2'	31:DA:944:G:H5'	2.49	0.41
18:AS:17:VAL:O	18:AS:20:VAL:HG22	2.20	0.41
44:BQ:24:CYS:HB3	44:BQ:28:GLY:H	1.85	0.41
1:AA:1064:C:H2'	1:AA:1065:U:O4'	2.20	0.41
1:AA:1091:G:H2'	1:AA:1092:C:H5'	2.02	0.41
1:AA:2155:G:O6	1:AA:2156:G:C2	2.73	0.41
30:C8:28:GLY:C	30:C8:30:ARG:N	2.72	0.41
34:DG:8:VAL:C	34:DG:10:ARG:H	2.24	0.41
5:CF:50:SER:O	5:CF:51:THR:HG23	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1160:U:H2'	1:CA:1161:G:C8	2.55	0.41
1:CA:2762:A:H2'	1:CA:2763:A:C8	2.54	0.41
17:C2:70:ILE:N	17:C2:86:GLY:O	2.29	0.41
1:CA:94:G:O2'	24:CW:46:GLN:O	2.34	0.41
3:AD:240:ALA:O	3:AD:241:PRO:O	2.37	0.41
31:DA:1501:C:H5''	31:DA:1502:A:OP2	2.19	0.41
1:CA:2356:C:O2'	1:CA:2386:G:O2'	2.27	0.41
1:AA:847:U:C4	1:AA:933:A:C2	3.05	0.41
31:BA:1124:G:N2	31:BA:1149:C:N3	2.54	0.41
20:AU:84:ARG:HH12	20:AU:97:ARG:HB2	1.85	0.41
1:CA:2383:G:H21	28:C6:45:LYS:HE3	1.85	0.41
31:DA:1130:A:O3'	39:DL:3:GLN:NE2	2.52	0.41
31:DA:1328:C:O2'	31:DA:1329:A:H5'	2.20	0.41
16:C1:95:LEU:O	16:C1:98:LEU:HG	2.20	0.41
2:CB:45:C:H1'	6:CG:93:THR:O	2.21	0.41
20:CU:80:GLY:C	20:CU:81:LYS:HD2	2.41	0.41
31:DA:688:G:O4'	31:DA:688:G:OP2	2.38	0.41
1:CA:1508:A:HO2'	1:CA:1509:G:P	2.44	0.41
31:BA:468:A:C2'	31:BA:474:G:H5'	2.40	0.41
31:BA:468:A:H4'	46:BS:80:PHE:O	2.20	0.41
31:DA:983:A:N3	31:DA:983:A:H3'	2.35	0.41
31:DA:1298:C:N4	37:DJ:114:ARG:HA	2.35	0.41
31:DA:1286:A:C2	51:DX:18:TYR:OH	2.73	0.41
31:DA:1319:A:OP2	49:DV:10:PHE:HB3	2.21	0.41
7:AH:12:PRO:HB2	7:AH:13:LYS:H	1.58	0.41
1:AA:2629:A:O2'	1:AA:2630:G:C5'	2.62	0.41
24:AW:35:LEU:HB3	24:AW:50:ILE:HG23	2.03	0.41
38:DK:82:HIS:NE2	38:DK:138:TRP:NE1	2.68	0.41
1:AA:654(K):C:O2'	1:AA:654(L):G:H5'	2.20	0.41
1:AA:1729:A:C5	1:AA:1731:G:C5	3.08	0.41
21:CV:73:GLN:HB3	21:CV:87:ASP:OD2	2.20	0.41
33:BF:119:ARG:HD3	33:BF:140:ARG:NH2	2.32	0.41
11:CO:139:LYS:HB3	11:CO:139:LYS:HE2	1.87	0.41
1:AA:2469:A:H5''	1:AA:2469:A:N3	2.34	0.41
31:BA:977:A:H8	31:BA:1223:C:N3	2.18	0.41
18:AS:70:TYR:CD2	18:AS:70:TYR:N	2.87	0.41
6:CG:16:ARG:NH2	6:CG:28:VAL:HG12	2.34	0.41
1:CA:908:U:N3	1:CA:2281:A:C8	2.88	0.41
22:A3:48:GLY:HA3	22:A3:80:HIS:ND1	2.34	0.41
39:BL:79:LEU:HD11	39:BL:83:ARG:HD2	2.02	0.41
3:AD:132:PRO:HG3	3:AD:190:TYR:CE1	2.55	0.41
16:A1:44:ASN:HD21	17:A2:75:PHE:N	2.17	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:37:U:O2'	31:DA:38:G:H5'	2.20	0.41
1:AA:82:G:O2'	1:AA:83:G:H5'	2.19	0.41
48:BU:58:LEU:HD23	48:BU:62:GLU:HB3	2.01	0.41
13:C0:54:LEU:HA	13:C0:54:LEU:HD12	1.90	0.41
1:AA:1491:G:N2	1:AA:1500:G:H1'	2.34	0.41
1:AA:2853:C:H2'	1:AA:2854:G:H8	1.85	0.41
5:AF:23:ASP:O	5:AF:24:LEU:O	2.38	0.41
1:CA:321:C:O2'	1:CA:322:C:H5'	2.20	0.41
1:CA:474:A:C6	1:CA:481:A:C8	3.08	0.41
1:CA:466:G:H2'	1:CA:467:G:C8	2.55	0.41
31:DA:523:A:H61	42:DO:89:ASP:HB2	1.85	0.41
31:BA:261:U:OP2	50:BW:79:ARG:NH2	2.54	0.41
8:AK:40:THR:C	8:AK:42:SER:N	2.72	0.41
1:AA:486:C:H4'	18:AS:60:ASN:HD22	1.85	0.41
1:CA:813:G:H2'	1:CA:814:C:C6	2.55	0.41
4:AE:177:PRO:HD2	4:AE:178:GLU:OE1	2.20	0.41
43:DP:105:THR:O	43:DP:106:ASN:C	2.58	0.41
1:CA:565:G:C5	1:CA:566:C:C5	3.08	0.41
35:DH:13:ILE:HD12	35:DH:13:ILE:H	1.84	0.41
42:DO:51:LYS:HE3	42:DO:51:LYS:N	2.34	0.41
49:DV:35:SER:O	49:DV:71:LEU:HD12	2.21	0.41
11:AO:17:LYS:HE2	11:AO:27:HIS:CE1	2.55	0.41
12:AP:21:THR:OG1	12:AP:101:ARG:N	2.52	0.41
1:AA:899:A:O2'	1:AA:900:A:O4'	2.38	0.41
11:CO:62:LEU:HD23	11:CO:62:LEU:O	2.20	0.41
1:CA:1132:A:C2	1:CA:1133:A:C4	3.08	0.41
52:BD:21:A:C2	52:BD:56:U:C4	3.09	0.41
1:CA:2161:C:C2	1:CA:2177:G:N2	2.88	0.41
1:CA:2186:C:H5'	1:CA:2195:U:H5''	2.02	0.41
1:CA:853:G:O5'	11:CO:41:ARG:HG2	2.21	0.41
34:DG:4:TYR:C	34:DG:4:TYR:CD1	2.94	0.41
3:AD:28:GLU:CB	3:AD:29:PRO:CD	2.74	0.41
1:AA:1313:U:H5''	1:AA:1314:C:OP2	2.20	0.41
31:BA:1236:A:O2'	31:BA:1304:G:H4'	2.20	0.41
31:BA:1302:U:OP2	31:BA:1302:U:H4'	2.20	0.41
1:CA:1360:U:C2	1:CA:1657:A:C2	3.08	0.41
6:CG:5:VAL:HG22	26:C4:25:TYR:CE2	2.54	0.41
1:CA:2304:U:O2'	1:CA:2387:C:O2	2.34	0.41
14:CQ:84:GLN:HB3	14:CQ:109:GLY:HA3	2.03	0.41
52:DD:38:MIA:H2'	52:DD:39:A:O4'	2.20	0.41
5:CF:25:PRO:HG2	5:CF:26:ALA:H	1.85	0.41
1:AA:870:A:C2	1:AA:908:C:C2	3.08	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:2082:A:C5'	1:CA:2083:A:OP2	2.65	0.41
31:BA:413:G:H2'	31:BA:414:A:OP2	2.20	0.41
1:AA:996:A:H1'	17:A2:9:GLY:O	2.20	0.41
31:BA:255:G:O6	31:BA:270:A:N6	2.53	0.41
31:DA:22:G:H2'	31:DA:23:C:C6	2.55	0.41
2:CB:34:C:C2'	2:CB:35:G:O5'	2.68	0.41
2:CB:48:A:C5	2:CB:49:C:C4	3.08	0.41
6:CG:60:LEU:O	6:CG:64:THR:HG22	2.20	0.41
1:AA:1141:U:H4'	1:AA:1142(A):A:O4'	2.20	0.41
31:BA:1392:G:N2	31:BA:1502:A:C8	2.83	0.41
31:BA:1501:C:C5	31:BA:1504:G:C5	3.08	0.41
4:CE:101:ARG:CG	4:CE:203:LYS:HE3	2.44	0.41
2:AB:48:A:H2'	2:AB:49:C:C6	2.55	0.41
1:AA:1953:A:C2	1:AA:2550:G:O4'	2.74	0.41
31:DA:1291:G:H2'	31:DA:1292:U:C6	2.55	0.41
38:BK:7:ALA:H	38:BK:85:ARG:NH1	2.17	0.41
46:BS:50:LYS:O	46:BS:51:VAL:HG23	2.21	0.41
31:DA:199:G:H2'	31:DA:200:G:H8	1.85	0.41
1:AA:1464:C:O2'	1:AA:1528:A:C8	2.66	0.41
32:DE:200:ILE:HG22	32:DE:202:PRO:HD3	2.01	0.41
1:AA:1729:A:C8	1:AA:1730:U:H5	2.26	0.41
35:DH:100:VAL:HG23	35:DH:118:ILE:HG23	2.02	0.41
5:CF:122:LYS:HD2	5:CF:191:ARG:HE	1.84	0.41
42:DO:15:VAL:O	42:DO:16:ARG:CB	2.61	0.41
1:AA:404:C:O2'	1:AA:405:U:OP2	2.33	0.41
40:DM:6:ILE:CD1	40:DM:72:VAL:HB	2.46	0.41
15:CR:27:THR:HG23	15:CR:89:VAL:HG22	2.02	0.41
1:CA:1714:G:H2'	1:CA:1715:G:H5'	2.01	0.41
4:CE:37:ARG:HD2	4:CE:80:GLU:OE2	2.20	0.41
6:CG:31:VAL:HA	6:CG:32:PRO:HD3	1.94	0.41
45:BR:86:GLY:O	45:BR:87:ILE:HD13	2.20	0.41
1:AA:2864:G:O2'	1:AA:2865:U:H5'	2.20	0.41
52:BD:1:G:N3	52:BD:82:A:C2	2.88	0.41
31:DA:782:A:H4'	31:DA:1514:C:O2'	2.20	0.41
22:A3:49:LYS:O	22:A3:80:HIS:HB2	2.21	0.41
1:AA:1386:C:N4	1:AA:1387:C:N4	2.68	0.41
1:CA:303:A:O2'	1:CA:304:C:H5''	2.20	0.41
21:CV:124:ILE:HD11	21:CV:165:VAL:HG21	2.01	0.41
1:AA:2822:G:H2'	1:AA:2823:A:H5''	2.03	0.41
1:CA:1035:A:H2'	1:CA:1036:G:O5'	2.21	0.41
1:CA:48:A:C4'	1:CA:49:U:OP2	2.69	0.41
1:AA:2345:G:H1'	1:AA:2382:G:H5'	2.03	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:A3:83:PRO:O	22:A3:84:LEU:HB3	2.19	0.41
12:CP:110:THR:H	12:CP:113:GLN:HG3	1.85	0.41
1:AA:2060:A:C1'	1:AA:2061:G:OP2	2.68	0.41
1:AA:150:C:H2'	1:AA:151:C:H6	1.85	0.41
34:DG:79:PHE:CE1	34:DG:204:ILE:HD13	2.56	0.41
31:DA:807:A:H2'	31:DA:808:C:O4'	2.20	0.41
15:CR:131:ALA:C	15:CR:133:GLU:N	2.74	0.41
8:CK:133:HIS:CG	8:CK:134:PRO:HD3	2.55	0.41
50:BW:56:MET:HG2	50:BW:84:LEU:HD21	2.02	0.41
45:DR:3:ILE:N	45:DR:3:ILE:HD13	2.35	0.41
1:AA:1504:C:O2'	1:AA:1505:C:H5'	2.20	0.41
31:DA:1187:G:N3	31:DA:1187:G:H2'	2.35	0.41
43:DP:52:GLU:N	43:DP:52:GLU:OE1	2.49	0.41
41:DN:124:LYS:HB2	41:DN:124:LYS:HE3	1.77	0.41
25:CX:6:VAL:HG12	25:CX:56:VAL:HB	2.01	0.41
33:BF:71:ALA:HB2	33:BF:106:VAL:HB	2.01	0.41
1:AA:624:C:O2	1:AA:657:U:H4'	2.21	0.41
1:CA:2560:U:O2'	1:CA:2561:G:H5'	2.20	0.41
38:BK:9:MET:HG3	38:BK:26:VAL:HG21	2.01	0.41
1:CA:2244:C:H2'	1:CA:2245:U:O4'	2.19	0.41
18:CS:24:ILE:HA	18:CS:27:LYS:HG3	2.02	0.41
1:AA:1261:C:C2'	1:AA:1262:A:O5'	2.67	0.41
31:DA:616:G:C2	31:DA:617:G:C8	3.08	0.41
15:AR:16:ARG:NH2	15:AR:83:ILE:O	2.53	0.41
1:CA:1593:A:N7	1:CA:1594:C:O2	2.53	0.41
40:BM:98:ILE:HD12	40:BM:98:ILE:N	2.35	0.41
7:AH:136:ILE:HD12	7:AH:136:ILE:N	2.35	0.41
31:BA:890:G:N2	31:BA:906:G:H2'	2.35	0.41
1:CA:2417:C:O3'	11:CO:77:ARG:NH2	2.53	0.41
1:CA:979:A:N7	1:CA:980:G:C1'	2.84	0.41
1:AA:2167:U:O2'	1:AA:2168:G:P	2.67	0.41
52:BD:21:A:O4'	52:BD:22:A:O5'	2.38	0.41
1:CA:2091:U:N3	1:CA:2443:A:C2	2.83	0.41
31:BA:1158:C:N4	31:BA:1160:G:C4	2.89	0.41
1:AA:607:U:O4	1:AA:619:G:H2'	2.20	0.41
24:CW:47:ASN:C	24:CW:49:LYS:H	2.20	0.41
26:C4:9:LEU:HD22	26:C4:9:LEU:H	1.85	0.41
37:DJ:99:LEU:HD22	37:DJ:103:TRP:CZ2	2.56	0.41
30:A8:22:VAL:HB	30:A8:53:PRO:HB2	2.02	0.41
33:BF:8:ILE:C	33:BF:10:PHE:N	2.74	0.41
1:CA:2817:G:O2'	1:CA:2818:G:O4'	2.37	0.41
1:CA:1071:G:OP2	1:CA:1072:G:H3'	2.19	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1130:U:C1'	1:AA:1131:G:OP1	2.68	0.41
39:BL:5:TYR:CG	39:BL:6:GLY:N	2.87	0.41
5:CF:132:VAL:CG2	5:CF:133:ASN:H	2.14	0.41
31:BA:412:A:C1'	31:BA:413:G:OP2	2.65	0.41
47:BT:18:THR:HG22	47:BT:19:VAL:N	2.35	0.41
31:DA:865:A:C2	31:DA:918:A:H4'	2.56	0.41
1:CA:140:A:H1'	1:CA:1455:C:O4'	2.20	0.41
4:CE:171:GLU:O	4:CE:184:VAL:HA	2.21	0.41
21:AV:120:ILE:O	21:AV:121:HIS:CG	2.73	0.41
38:BK:10:LEU:HD11	38:BK:135:CYS:SG	2.61	0.41
5:AF:167:ALA:O	5:AF:169:ASN:N	2.53	0.41
3:CD:267:SER:HA	3:CD:270:ILE:HD11	2.02	0.41
1:AA:548:A:H2'	1:AA:549:G:O4'	2.20	0.41
39:BL:33:PHE:CZ	39:BL:47:LEU:HD11	2.56	0.41
42:DO:59:SER:O	42:DO:61:TYR:N	2.54	0.41
1:CA:2163:C:C2	1:CA:2175:G:C2	3.09	0.41
53:BC:1:C:N4	53:BC:74:A:C2	2.88	0.41
11:AO:91:PHE:N	11:AO:91:PHE:CD2	2.88	0.41
21:AV:53:ILE:HG22	21:AV:71:VAL:HG13	2.03	0.41
21:AV:54:HIS:CE1	21:AV:123:ASP:OD2	2.73	0.41
37:BJ:38:LEU:O	37:BJ:42:ILE:HG13	2.20	0.41
1:CA:1851:A:H2'	3:CD:178:PRO:HB2	2.02	0.41
1:AA:2224:G:OP1	3:AD:268:ARG:HD2	2.20	0.41
1:CA:2033:G:P	18:CS:41:LYS:HD3	2.60	0.41
15:CR:23:ARG:HD3	15:CR:120:ARG:CD	2.50	0.41
42:DO:80:VAL:CG1	42:DO:81:LEU:N	2.81	0.41
1:CA:422:A:C2	1:CA:423:U:O2	2.73	0.41
1:CA:1415:G:C2	1:CA:1416:G:C8	3.09	0.41
21:CV:156:LYS:O	21:CV:157:LEU:HB2	2.20	0.41
1:AA:1992:G:H1'	1:AA:1993:U:OP2	2.20	0.41
1:CA:300:G:OP2	1:CA:300:G:H8	2.03	0.41
32:BE:229:VAL:CG1	32:BE:230:VAL:N	2.81	0.41
9:CM:99:LEU:HA	9:CM:99:LEU:HD23	1.85	0.41
1:CA:1871:G:N7	1:CA:1950:A:H1'	2.35	0.41
1:AA:1170:G:N2	1:AA:1180:C:C2	2.89	0.41
14:CQ:99:LYS:HE2	14:CQ:103:GLU:OE2	2.19	0.41
12:CP:112:GLU:HG2	12:CP:113:GLN:N	2.34	0.41
47:DT:58:GLU:O	47:DT:59:ILE:HD13	2.20	0.41
31:DA:1415:G:C2'	31:DA:1416:G:H5'	2.50	0.41
1:AA:39:C:H2'	1:AA:40:C:H6	1.84	0.41
1:CA:1900:A:H3'	1:CA:1901:G:O4'	2.20	0.41
7:CH:86:GLU:O	7:CH:87:LEU:HD23	2.21	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:39:G:N7	31:DA:547:A:C8	2.89	0.41
1:CA:1634:A:H3'	1:CA:1635:C:H6	1.84	0.41
31:BA:901:A:H8	31:BA:901:A:O5'	2.02	0.41
1:CA:255:A:N6	1:CA:456:A:H1'	2.35	0.41
4:CE:122:PHE:HZ	4:CE:155:LYS:HB2	1.85	0.41
10:AN:49:ARG:HH22	31:BA:1423:G:P	2.43	0.41
1:CA:79:G:N2	1:CA:80:G:H1'	2.34	0.41
1:AA:577:G:C6	1:AA:578:A:C6	3.08	0.41
1:AA:2335:A:C8	1:AA:2337:G:C5	3.08	0.41
31:DA:52:G:C6	31:DA:53:A:C5	3.09	0.41
38:DK:72:PRO:O	38:DK:73:ASP:HB3	2.21	0.41
18:AS:75:TYR:CZ	18:AS:104:THR:HG21	2.55	0.41
36:DI:70:ASP:OD1	36:DI:71:ARG:HG3	2.20	0.41
31:BA:591:U:H2'	31:BA:592:G:H8	1.85	0.41
29:C7:36:GLN:HB3	29:C7:36:GLN:HE21	1.53	0.41
46:BS:6:LEU:N	46:BS:6:LEU:HD12	2.34	0.41
24:CW:31:GLU:O	24:CW:35:LEU:HD23	2.20	0.41
2:AB:91:C:H2'	2:AB:92:G:H8	1.85	0.41
41:BN:79:SER:HB2	41:BN:106:LYS:HD2	2.02	0.41
31:BA:1338:G:C6	31:BA:1339:A:C6	3.09	0.41
25:CX:4:LEU:O	25:CX:36:VAL:HA	2.19	0.41
1:CA:2406:A:H2'	1:CA:2407:C:O4'	2.20	0.41
12:CP:27:VAL:HG21	12:CP:132:VAL:CG1	2.49	0.41
52:BD:50:U:C2'	52:BD:51:C:O4'	2.64	0.41
52:BB:17:G:C6	52:BB:67:A:C6	3.08	0.41
5:CF:89:VAL:CG1	5:CF:90:PHE:H	2.23	0.41
3:AD:35:LYS:HA	3:AD:36:PRO:C	2.41	0.41
31:BA:1206:G:C6	31:BA:1207:G:C5	3.08	0.41
40:BM:55:LYS:O	40:BM:56:HIS:CG	2.73	0.41
52:DD:35:G:C2	54:D1:14:A:C2	3.08	0.41
30:A8:14:VAL:CG1	30:A8:22:VAL:HG13	2.50	0.41
1:AA:2392:A:H8	11:AO:60:MET:CB	2.24	0.41
1:CA:2799:C:C2'	1:CA:2800:U:H5'	2.50	0.41
1:AA:2032:G:O2'	4:AE:145:LYS:NZ	2.54	0.41
50:BW:30:LYS:HE2	50:BW:72:LEU:HD12	2.01	0.41
1:CA:2884:A:C2'	1:CA:2884:A:N3	2.81	0.41
1:CA:332:G:N2	1:CA:334:G:H3'	2.35	0.41
1:CA:2078:C:H5'	1:CA:2079:G:O5'	2.21	0.41
31:BA:255:G:H5'	47:BT:16:GLN:O	2.20	0.41
31:DA:1329:A:O2'	31:DA:1330:U:H5'	2.19	0.41
1:CA:1822:C:O2'	3:CD:209:ALA:HB2	2.21	0.41
31:BA:954:G:H21	31:BA:1227:A:N6	2.16	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1450:U:O2'	31:BA:1451:A:H3'	2.20	0.41
4:AE:41:LYS:CE	4:AE:41:LYS:HA	2.35	0.41
1:AA:1803:A:H4'	3:AD:259:THR:HG23	2.03	0.41
9:CM:123:TYR:CZ	9:CM:129:PRO:HD3	2.56	0.41
25:CX:19:GLN:NE2	25:CX:52:HIS:CE1	2.80	0.41
34:BG:162:LEU:HD13	34:BG:181:MET:HG2	2.01	0.41
1:AA:1509:C:C2'	1:AA:1510:A:OP1	2.69	0.41
43:BP:13:LYS:HA	43:BP:13:LYS:HZ2	1.85	0.41
3:AD:155:LEU:HD23	3:AD:177:LEU:HD22	1.96	0.41
26:A4:50:VAL:O	26:A4:50:VAL:CG1	2.69	0.41
31:DA:411:A:C2	31:DA:431:A:N6	2.89	0.41
1:AA:1153:C:H5'	16:A1:76:TYR:HE2	1.85	0.41
1:AA:1153:C:C4	1:AA:1154:G:C5	3.09	0.41
1:CA:2230:A:O2'	1:CA:2232:G:C8	2.68	0.41
1:CA:631:U:N3	1:CA:647:A:C2	2.86	0.41
7:AH:71:LEU:HA	7:AH:71:LEU:HD12	1.97	0.41
1:CA:955:C:O2'	1:CA:956:A:H5'	2.21	0.41
31:DA:601:C:N3	31:DA:637:G:N2	2.62	0.41
34:BG:70:ILE:HG23	34:BG:75:PHE:HB2	2.02	0.41
1:AA:2339:G:H2'	1:AA:2340:G:C8	2.54	0.41
1:CA:2274:C:C2	1:CA:2293:G:C2	3.08	0.41
1:CA:409:G:C5	1:CA:422:A:N1	2.88	0.41
33:DF:184:TYR:CD1	33:DF:201:TYR:CE2	3.08	0.41
50:BW:34:LYS:HB2	50:BW:34:LYS:HE3	1.81	0.41
12:CP:16:ARG:O	12:CP:17:LEU:HD23	2.20	0.41
21:AV:125:LEU:HG	21:AV:164:ALA:CB	2.51	0.41
31:DA:360:A:N6	31:DA:361:G:C6	2.89	0.41
34:DG:159:ARG:H	34:DG:159:ARG:HG3	1.49	0.41
1:CA:584:C:O2	16:C1:49:HIS:CE1	2.74	0.41
1:AA:1551:C:H2'	1:AA:1552:G:O5'	2.20	0.41
31:DA:247:G:C6	31:DA:278:G:C2	3.08	0.41
1:CA:1858:G:H2'	1:CA:1859:C:O4'	2.21	0.41
24:AW:41:ILE:HD13	24:AW:44:LEU:HG	2.02	0.41
41:DN:99:GLN:HA	41:DN:105:VAL:HG11	2.03	0.41
1:CA:1803:C:O2'	1:CA:1818:A:O4'	2.34	0.41
1:CA:916:U:C2	1:CA:917:G:C8	3.09	0.41
31:DA:1116:C:N4	31:DA:1184:G:H1	2.19	0.41
43:BP:20:THR:O	43:BP:22:ILE:N	2.52	0.41
47:DT:58:GLU:HB2	47:DT:74:LEU:HB3	2.03	0.41
31:BA:1256:A:OP2	33:BF:26:LYS:HE2	2.20	0.41
45:BR:78:TYR:CD2	45:BR:79:ARG:N	2.88	0.41
1:CA:796:G:H5'	1:CA:2625:C:N4	2.34	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:A5:41:PRO:HA	27:A5:42:PRO:HD3	1.90	0.41
31:DA:39:G:N7	31:DA:547:A:H8	2.18	0.41
48:DU:37:VAL:HB	48:DU:79:LEU:CD2	2.50	0.41
1:CA:1233:G:H8	1:CA:1233:G:O5'	2.04	0.41
31:BA:297:G:H4'	31:BA:557:G:H4'	2.01	0.41
8:AK:92:VAL:O	8:AK:120:ILE:HG22	2.20	0.41
1:AA:576:U:H2'	1:AA:577:G:C8	2.55	0.41
1:AA:577:G:O6	1:AA:578:A:N6	2.53	0.41
1:CA:2477:C:C2	1:CA:2500:G:N2	2.88	0.41
1:CA:403:C:H6	1:CA:403:C:O5'	2.04	0.41
31:BA:200:G:N2	31:BA:218:C:N3	2.69	0.41
1:CA:45:C:OP2	1:CA:205:G:H2'	2.21	0.41
1:CA:1439:A:C6	1:CA:1440:A:C6	3.08	0.41
6:CG:76:SER:OG	6:CG:84:LYS:N	2.54	0.41
16:A1:115:ALA:O	16:A1:116:ALA:HB2	2.20	0.41
31:DA:377:G:O2'	31:DA:378:G:H5'	2.21	0.41
1:AA:2626:C:H2'	1:AA:2627:G:O4'	2.21	0.41
6:AG:172:LEU:O	6:AG:176:LEU:HB2	2.20	0.41
45:BR:57:LEU:HA	45:BR:57:LEU:HD23	1.86	0.41
1:CA:2249:C:H2'	1:CA:2250:G:H5'	2.02	0.41
1:CA:135:C:OP2	56:CA:3326:OHX:N2	2.54	0.41
6:AG:105:LYS:O	6:AG:109:VAL:HB	2.20	0.41
31:DA:681:C:C2	31:DA:710:G:N2	2.88	0.41
1:AA:1068:G:H1'	1:AA:1096:A:N3	2.35	0.41
1:CA:657:A:H2'	1:CA:658:A:O4'	2.20	0.41
11:CO:61:ARG:NH2	11:CO:61:ARG:HB3	2.24	0.41
53:BC:49:C:C2	53:BC:60:A:H1'	2.56	0.41
53:DC:18:C:O2'	53:DC:18:C:O2	2.31	0.41
28:C6:26:ASN:ND2	28:C6:51:GLU:OE2	2.54	0.41
1:AA:654(D):G:C6	1:AA:654(E):C:N4	2.89	0.41
52:BB:18:G:H3'	52:BB:19:C:N3	2.36	0.41
3:AD:65:ILE:CG1	3:AD:67:PHE:CE1	3.03	0.41
31:BA:1055:A:H2'	31:BA:1056:U:O5'	2.20	0.41
31:BA:1234:C:C1'	31:BA:1364:U:O2	2.67	0.41
31:BA:79:G:N2	31:BA:90:C:C2	2.86	0.41
31:DA:1502:A:C2'	31:DA:1502:A:N3	2.84	0.41
12:CP:77:LYS:C	12:CP:79:LEU:H	2.24	0.41
38:BK:58:TYR:O	38:BK:59:LEU:HD23	2.21	0.41
31:DA:1357:A:N7	31:DA:1358:U:C4	2.88	0.41
1:CA:2803:C:C2'	1:CA:2804:A:H5''	2.50	0.41
1:CA:2805:C:H2'	1:CA:2806:G:H8	1.85	0.41
1:CA:1069:G:C6	1:CA:1186:C:N3	2.88	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1125:U:H2'	31:BA:1125:U:O2	2.19	0.41
17:A2:46:VAL:HG13	17:A2:46:VAL:O	2.21	0.41
1:CA:1444:U:O2'	1:CA:1445:C:H6	2.04	0.41
17:A2:35:LEU:CD2	17:A2:35:LEU:H	2.33	0.41
16:C1:98:LEU:HD13	16:C1:106:PHE:HB2	2.03	0.41
20:CU:81:LYS:HZ2	20:CU:97:ARG:NH2	2.18	0.41
1:AA:57:C:H2'	1:AA:58:G:O4'	2.21	0.41
31:DA:501:C:H2'	31:DA:502:G:H8	1.85	0.41
24:CW:32:LEU:HD22	24:CW:57:ILE:CD1	2.50	0.41
1:CA:75:C:O2'	24:CW:62:THR:HG21	2.21	0.41
31:DA:1058:G:C6	31:DA:1059:C:N3	2.89	0.41
31:BA:49:U:H3	31:BA:362:G:H1'	1.85	0.41
1:AA:812:C:H5''	1:AA:1250:G:O2'	2.20	0.41
7:CH:20:ALA:HB3	7:CH:23:ARG:HG3	2.02	0.41
14:CQ:10:ARG:O	14:CQ:14:VAL:CG1	2.68	0.41
14:CQ:88:ASP:O	14:CQ:89:ARG:CB	2.68	0.41
2:AB:43:C:P	6:AG:67:LYS:NZ	2.86	0.41
52:DB:42:U:H2'	52:DB:43:G:C8	2.55	0.41
2:AB:30:C:C2'	2:AB:31:C:H5'	2.43	0.41
17:C2:5:VAL:HB	17:C2:37:VAL:CG1	2.50	0.41
1:AA:301:G:H1'	1:AA:302:C:C6	2.55	0.41
1:CA:2263:G:O2'	1:CA:2509:C:OP1	2.23	0.41
21:AV:128:VAL:CA	21:AV:161:VAL:HG21	2.46	0.41
1:CA:2230:A:H1'	1:CA:2232:G:C6	2.55	0.41
34:DG:205:GLU:OE1	35:DH:100:VAL:HG12	2.20	0.41
31:BA:1115:C:N3	31:BA:1116:C:C5	2.89	0.41
1:CA:539:A:C2	1:CA:540:A:C4	3.08	0.41
1:CA:956:A:C4	1:CA:959:C:C5	3.08	0.41
3:CD:237:GLU:CG	3:CD:238:GLY:H	2.33	0.41
47:DT:32:TYR:O	47:DT:34:LYS:N	2.51	0.41
1:CA:2312:G:C6	1:CA:2331:G:C8	3.09	0.41
32:DE:164:VAL:HG11	32:DE:167:PRO:HA	2.02	0.41
3:CD:210:GLY:O	3:CD:213:ARG:N	2.52	0.41
33:BF:35:GLU:OE1	33:BF:95:THR:HG23	2.20	0.41
30:A8:41:ILE:HD12	30:A8:41:ILE:C	2.41	0.41
32:DE:63:MET:CG	32:DE:225:ALA:HB1	2.48	0.41
21:CV:161:VAL:CG2	21:CV:162:GLU:H	2.33	0.41
1:CA:2366:G:H2'	1:CA:2367:G:O4'	2.21	0.41
40:BM:75:ILE:HG13	40:BM:76:ASN:H	1.84	0.41
4:AE:76:ARG:N	4:AE:76:ARG:HD2	2.35	0.41
31:BA:663:A:H5''	48:BU:61:LYS:HZ2	1.84	0.41
11:CO:23:PRO:C	11:CO:25:SER:H	2.23	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:136:C:O2'	46:DS:65:GLN:NE2	2.52	0.41
1:CA:1063:G:C2	1:CA:1194:C:C2	3.09	0.41
1:CA:1195:A:N6	1:CA:1196:G:O6	2.54	0.41
1:AA:2861:G:C4	1:AA:2862:G:C8	3.08	0.41
12:AP:31:ASP:O	12:AP:133:ARG:O	2.39	0.41
31:BA:568:G:N3	31:BA:568:G:H2'	2.36	0.41
6:CG:173:LEU:HD13	6:CG:178:PHE:CE1	2.56	0.41
31:BA:172:A:N3	31:BA:172:A:H2'	2.35	0.41
1:AA:662:G:O2'	1:AA:663:G:H5'	2.20	0.41
31:BA:638:G:H2'	31:BA:639:G:O5'	2.20	0.41
48:BU:21:LYS:O	48:BU:22:VAL:HB	2.20	0.41
36:BI:18:GLN:O	36:BI:21:LEU:N	2.54	0.41
1:AA:1230:C:H2'	1:AA:1231:G:H8	1.85	0.41
7:AH:26:VAL:HG21	7:AH:75:ALA:HB1	2.02	0.41
39:BL:125:TYR:HD2	39:BL:126:SER:H	1.66	0.41
1:AA:2781:A:OP2	56:AA:3534:OHX:N3	2.54	0.41
19:AT:8:ILE:HD12	19:AT:8:ILE:N	2.35	0.41
32:BE:223:ILE:HG22	32:BE:228:GLY:O	2.21	0.41
1:CA:2250:G:O6	56:CA:3486:OHX:N5	2.53	0.41
9:CM:47:ALA:HB2	9:CM:112:LEU:HD21	2.02	0.41
1:CA:2269:G:O2'	1:CA:2270:U:H5'	2.21	0.41
1:AA:1156:A:C8	16:A1:51:LYS:HD3	2.56	0.41
42:DO:4:ILE:O	42:DO:7:LEU:HB2	2.21	0.41
1:CA:2339:C:OP1	56:DC:108:OHX:N5	2.53	0.41
13:C0:25:ALA:O	13:C0:27:SER:N	2.53	0.41
1:AA:586:A:N1	1:AA:809:G:O2'	2.43	0.41
1:CA:192:U:H2'	1:CA:193:C:O4'	2.21	0.41
1:CA:2866:C:H2'	1:CA:2867:C:C6	2.56	0.41
35:DH:15:ARG:NH1	54:D1:25:A:H8	2.19	0.41
2:CB:11:G:C6	2:CB:115:G:C6	3.08	0.41
40:BM:63:PHE:CD2	40:BM:63:PHE:N	2.88	0.41
37:DJ:72:ARG:HD2	37:DJ:72:ARG:HA	1.88	0.41
22:C3:60:PHE:CD2	22:C3:60:PHE:N	2.88	0.41
31:DA:491:G:O2'	31:DA:492:G:H5'	2.19	0.41
31:BA:1060:C:H5''	40:BM:51:ARG:HG2	2.02	0.41
7:AH:40:GLU:O	7:AH:41:MET:HB2	2.20	0.41
14:AQ:49:VAL:HG21	14:AQ:77:ALA:HA	2.03	0.41
1:CA:2321:G:C8	1:CA:2323:A:C2	3.09	0.41
11:AO:24:GLY:O	11:AO:25:SER:HB3	2.19	0.41
1:AA:1084:A:C5	1:AA:1085:A:N7	2.89	0.41
1:AA:2157:G:O2'	1:AA:2158:A:P	2.78	0.41
53:DC:16:C:C5	56:DC:107:OHX:N5	2.89	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:CO:144:GLU:HA	11:CO:145:PRO:HD3	1.89	0.41
1:CA:2441:G:H5''	1:CA:2442:G:O5'	2.20	0.41
1:CA:2404:G:N2	1:CA:2442:G:O4'	2.54	0.41
52:BB:50:U:C5	52:BB:51:C:C4	3.09	0.41
31:BA:92:G:H3'	31:BA:93:U:C6	2.55	0.41
31:BA:96:G:N1	31:BA:97:U:C2	2.89	0.41
1:AA:2720:U:H2'	1:AA:2721:A:H8	1.86	0.41
26:C4:14:ILE:HG12	26:C4:33:VAL:HG11	2.03	0.41
6:CG:7:LEU:HD23	6:CG:7:LEU:O	2.20	0.41
1:CA:940:C:C4'	1:CA:941:C:OP1	2.66	0.41
1:CA:1108:U:C4'	1:CA:1117:A:H1'	2.50	0.41
52:DD:26:G:H2'	52:DD:27:A:O4'	2.20	0.41
3:CD:35:LYS:CB	3:CD:64:ILE:H	2.34	0.41
10:AN:104:ARG:HD3	15:AR:36:GLU:CD	2.41	0.41
1:CA:1069:G:C1'	1:CA:1070:U:OP2	2.67	0.41
1:CA:1072:G:OP1	1:CA:1072:G:C8	2.63	0.41
1:CA:1188:U:C2'	1:CA:1188:U:O2	2.65	0.41
31:BA:1141:C:O2'	31:BA:1142:G:H5'	2.21	0.41
31:BA:1124:G:H5'	40:BM:35:SER:HB2	2.02	0.41
28:A6:48:VAL:O	28:A6:49:HIS:HB2	2.21	0.41
1:CA:1924:A:N3	1:CA:1924:A:H2'	2.36	0.41
2:CB:17:A:H3'	2:CB:18:G:C5'	2.40	0.41
1:CA:622:G:C6	1:CA:623:G:C5	3.08	0.41
26:C4:2:LYS:HD2	26:C4:6:HIS:CG	2.56	0.41
31:BA:629:G:C2	31:BA:630:G:C6	3.09	0.41
31:BA:989:C:N3	31:BA:1216:G:N2	2.59	0.41
1:AA:1287:A:OP1	13:A0:105:ARG:O	2.39	0.41
31:DA:1221:G:OP1	31:DA:1321:C:N4	2.48	0.41
15:CR:6:LEU:CD1	15:CR:9:LEU:HD12	2.50	0.41
31:DA:1315:U:H2'	31:DA:1316:G:O4'	2.21	0.41
52:DB:40:U:H2'	52:DB:41:C:C6	2.56	0.41
43:BP:7:VAL:O	43:BP:8:GLU:C	2.59	0.41
50:BW:98:PRO:C	50:BW:100:ILE:H	2.24	0.41
16:A1:66:ASN:HB2	16:A1:76:TYR:CB	2.47	0.41
5:CF:126:VAL:HB	5:CF:127:GLU:H	1.60	0.41
2:AB:45:A:OP1	6:AG:96:ARG:HD2	2.21	0.41
34:BG:172:PRO:C	34:BG:174:LEU:H	2.24	0.41
42:DO:14:LYS:O	42:DO:15:VAL:C	2.58	0.41
21:AV:51:ALA:O	21:AV:52:SER:HB3	2.19	0.41
50:DW:72:LEU:HD11	50:DW:80:ARG:CD	2.48	0.41
1:AA:1166:C:O5'	1:AA:1166:C:H6	2.04	0.41
1:AA:2594:C:H2'	1:AA:2595:G:H8	1.86	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:AK:95:LYS:O	8:AK:95:LYS:HD2	2.21	0.41
9:AM:48:MET:O	9:AM:48:MET:SD	2.79	0.41
4:AE:1:MET:HB2	4:AE:200:GLU:OE1	2.21	0.41
26:C4:16:CYS:O	26:C4:19:GLY:HA3	2.20	0.41
52:BB:41:C:C4	52:BB:42:U:C4	3.09	0.41
1:CA:1054:C:OP1	9:CM:37:LYS:NZ	2.45	0.41
23:AZ:86:SER:O	23:AZ:89:GLU:N	2.50	0.41
9:AM:39:ARG:HB3	9:AM:41:ASP:OD1	2.20	0.41
43:DP:97:PRO:CA	43:DP:110:ARG:HD3	2.50	0.41
1:AA:2837:G:C5	1:AA:2838:G:N7	2.88	0.41
1:CA:2549:G:C5	1:CA:2550:U:C5	3.09	0.41
3:AD:18:VAL:HG12	3:AD:19:ALA:N	2.36	0.41
1:CA:1366:G:C6	1:CA:1367:C:N4	2.89	0.41
2:CB:26:G:N2	2:CB:30:C:O2	2.53	0.41
1:CA:1944:G:C5	56:CA:3234:OHX:N2	2.89	0.41
44:DQ:12:ARG:C	44:DQ:14:PRO:HD3	2.41	0.41
8:CK:54:GLN:HE21	8:CK:54:GLN:HB2	1.56	0.41
1:CA:63:A:O3'	19:CT:71:GLY:HA3	2.20	0.41
3:AD:134:ARG:HG3	3:AD:135:PHE:CE2	2.55	0.41
7:CH:89:ILE:O	7:CH:90:LYS:C	2.59	0.41
29:C7:12:ARG:NH2	29:C7:44:PRO:HB3	2.36	0.41
31:DA:109:A:C4	31:DA:327:A:C2	3.08	0.41
1:CA:2373:A:H2'	1:CA:2374:A:O4'	2.20	0.41
4:AE:167:VAL:HG21	4:AE:187:ALA:CB	2.50	0.41
14:CQ:19:LYS:HE3	14:CQ:42:ASP:OD2	2.21	0.41
34:BG:62:GLN:HB3	34:BG:66:ARG:NH1	2.36	0.41
1:CA:493:A:H5'	29:C7:21:ARG:NH2	2.35	0.41
17:C2:98:GLU:O	17:C2:99:ILE:HB	2.20	0.41
1:CA:831:A:C4	1:CA:833:G:H1'	2.55	0.41
31:DA:682:G:O2'	31:DA:683:G:H5'	2.21	0.41
1:AA:1471:A:N3	1:AA:1471:A:H2'	2.34	0.41
48:DU:63:GLN:O	48:DU:66:LEU:HB3	2.21	0.41
43:DP:13:LYS:NZ	43:DP:21:TYR:OH	2.54	0.41
7:AH:111:HIS:HB2	7:AH:112:PRO:HD2	2.03	0.41
29:C7:29:LYS:O	29:C7:33:ARG:HG2	2.21	0.41
37:DJ:102:ARG:O	37:DJ:106:GLN:HG3	2.20	0.41
31:BA:317:G:C6	31:BA:318:G:C5	3.09	0.41
31:DA:1265:G:H2'	31:DA:1266:G:O4'	2.21	0.41
25:AX:19:GLN:NE2	25:AX:52:HIS:HE1	2.18	0.41
43:DP:66:LEU:HA	43:DP:70:LEU:HB2	2.03	0.41
16:C1:112:ARG:HH11	17:C2:47:VAL:CG1	2.34	0.41
1:AA:1567:A:C5'	3:AD:58:HIS:CD2	3.04	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:A6:19:ARG:HG3	28:A6:21:TYR:CE2	2.56	0.41
31:BA:1050:G:H2'	31:BA:1050:G:N3	2.35	0.41
30:A8:31:HIS:CD2	30:A8:31:HIS:O	2.74	0.41
1:AA:731:C:H2'	1:AA:731:C:O2	2.21	0.41
47:BT:37:LYS:HE3	47:BT:37:LYS:HB2	1.87	0.41
32:BE:158:LEU:HD12	32:BE:158:LEU:H	1.85	0.41
30:A8:28:GLY:O	30:A8:36:LYS:NZ	2.53	0.41
2:AB:11:C:OP2	2:AB:12:C:H5	2.04	0.41
1:CA:2325:U:C3'	1:CA:2325:U:C6	3.04	0.41
1:AA:1060:U:H1'	1:AA:1061:U:P	2.60	0.41
1:AA:1079:C:N4	1:AA:1080:A:N6	2.69	0.41
1:CA:936:C:C1'	1:CA:937:C:P	3.09	0.41
11:CO:109:GLY:O	11:CO:110:TYR:CG	2.73	0.41
11:CO:126:VAL:HG22	11:CO:145:PRO:HG2	2.03	0.41
31:DA:1159:U:C4'	31:DA:1181:G:H22	2.33	0.41
1:CA:1097:A:C6	1:CA:2765:G:C6	3.08	0.41
3:AD:35:LYS:HD3	3:AD:63:ARG:HG3	2.02	0.41
33:BF:161:GLU:CD	33:BF:161:GLU:C	2.80	0.41
31:BA:1318:A:H5''	49:BV:10:PHE:CD2	2.55	0.41
31:BA:1118:C:O2'	31:BA:1119:C:H5'	2.20	0.41
31:BA:95:G:N3	31:BA:95:G:H2'	2.36	0.41
12:CP:11:LYS:HE2	12:CP:89:ASN:HA	2.02	0.41
52:DB:15:G:OP2	56:DB:103:OHX:N2	2.54	0.41
52:DB:17:G:H1'	52:DB:66:G:H22	1.86	0.41
52:DB:66:G:H2'	52:DB:67:A:H5'	2.02	0.41
15:AR:106:SER:O	15:AR:111:ARG:NH1	2.54	0.41
1:CA:390:G:O2'	1:CA:391:G:H5'	2.21	0.41
1:CA:2451:U:H5''	1:CA:2613:A:OP1	2.21	0.41
11:AO:50:ARG:HD3	30:A8:7:HIS:NE2	2.35	0.41
1:AA:628:G:C6	1:AA:636:G:C2	3.09	0.41
1:AA:1784:A:H4'	1:AA:1785:A:O5'	2.21	0.41
1:AA:2302:G:C2	1:AA:2303:G:C8	3.09	0.41
28:A6:38:LYS:HG2	28:A6:46:HIS:HD2	1.85	0.41
17:C2:38:LEU:HD13	17:C2:55:ALA:C	2.40	0.41
1:AA:2751:G:H3'	1:AA:2752:C:C6	2.56	0.41
30:A8:34:TRP:CA	30:A8:35:GLN:HB3	2.51	0.41
49:BV:30:LEU:H	49:BV:30:LEU:CD1	2.18	0.41
31:BA:448:A:OP2	31:BA:485:G:N2	2.46	0.41
32:BE:125:PRO:O	32:BE:126:GLU:HB3	2.21	0.41
15:CR:24:PRO:HB2	15:CR:99:LEU:HD11	2.03	0.41
1:CA:2481:G:C6	1:CA:2494:G:C4	3.09	0.41
2:AB:102:G:O2'	2:AB:103:U:H5'	2.21	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:CD:43:ARG:CD	3:CD:44:ASN:OD1	2.65	0.41
15:AR:125:ARG:HH12	31:BA:1446:A:H1'	1.85	0.41
41:DN:58:PRO:HB2	41:DN:93:GLN:HG3	2.03	0.41
32:DE:31:TYR:O	32:DE:32:ILE:HB	2.21	0.41
50:DW:50:GLU:CA	50:DW:100:ILE:HG12	2.50	0.41
1:CA:1667:G:O4'	29:C7:1:MET:N	2.49	0.41
1:CA:1736:U:H1'	1:CA:1749:A:C6	2.55	0.41
14:AQ:106:ARG:HA	14:AQ:110:LEU:HD22	2.03	0.41
1:CA:911:A:H2'	1:CA:912:G:H8	1.85	0.41
1:AA:2059:A:H4'	5:AF:69:HIS:HA	2.03	0.41
1:CA:554:A:H3'	1:CA:554:A:H8	1.86	0.41
1:AA:1382:G:O2'	1:AA:1383:C:H5'	2.20	0.41
42:DO:78:SER:HB3	42:DO:103:ASP:HB2	2.01	0.41
34:DG:59:ARG:HA	34:DG:59:ARG:NE	2.35	0.41
10:CN:63:VAL:HG23	10:CN:64:ARG:HG3	2.03	0.41
10:AN:120:GLU:HG2	10:AN:122:LEU:HG	2.02	0.41
31:BA:104:G:C2	31:BA:105:G:C8	3.09	0.41
31:BA:1091:U:H1'	31:BA:1095:U:O2	2.20	0.41
8:AK:71:ILE:HG23	8:AK:72:LEU:HD13	2.03	0.41
31:BA:84:U:H2'	31:BA:85:U:OP1	2.20	0.41
14:AQ:111:GLU:O	14:AQ:112:PHE:CB	2.69	0.41
1:AA:723:G:H2'	1:AA:724:U:O4'	2.20	0.41
46:BS:4:ILE:HA	46:BS:20:VAL:O	2.20	0.41
1:CA:653:A:C6	1:CA:663:A:C8	3.09	0.41
44:BQ:12:ARG:HG3	44:BQ:12:ARG:O	2.19	0.41
3:AD:54:ARG:C	3:AD:218:ARG:HG3	2.41	0.41
42:DO:20:LYS:N	42:DO:20:LYS:HE2	2.35	0.41
21:AV:136:PHE:C	21:AV:136:PHE:CD1	2.94	0.41
1:AA:1679:U:C5	1:AA:1680:U:C5	3.09	0.41
1:CA:675:G:H2'	1:CA:676:C:C6	2.55	0.41
19:CT:63:LYS:O	19:CT:63:LYS:HD2	2.20	0.41
25:CX:7:LYS:CE	25:CX:32:GLN:HG3	2.51	0.41
50:BW:10:LEU:O	50:BW:10:LEU:HD23	2.20	0.41
1:CA:143:C:H2'	1:CA:144:C:H6	1.86	0.41
2:AB:59:A:H2'	2:AB:60:C:O4'	2.20	0.41
46:DS:43:LYS:HG3	46:DS:48:TRP:CG	2.56	0.41
1:CA:1502:U:OP1	13:C0:77:ARG:HD3	2.20	0.41
1:AA:1962:C:H4'	1:AA:1963:U:C5	2.56	0.41
1:AA:1197:G:N7	56:AA:3562:OHX:N2	2.68	0.41
1:AA:1749:A:H2'	1:AA:1750:G:O4'	2.20	0.41
31:BA:645:C:H2'	31:BA:646:U:O4'	2.21	0.41
5:AF:158:THR:OG1	5:AF:159:GLY:N	2.54	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
42:BO:35:THR:HG22	42:BO:36:VAL:HG23	2.03	0.41
1:AA:994:C:OP1	16:A1:53:ARG:NH2	2.53	0.41
1:CA:2220:U:H1'	1:CA:2221:A:C8	2.55	0.41
1:AA:237:C:C2	1:AA:261:G:N2	2.89	0.41
1:CA:206:A:OP2	56:CA:3276:OHX:N1	2.53	0.41
13:A0:65:LEU:HD12	13:A0:65:LEU:HA	1.85	0.41
4:AE:195:LEU:C	4:AE:195:LEU:HD23	2.40	0.41
4:AE:48:GLN:HB3	4:AE:48:GLN:HE21	1.62	0.41
31:BA:1067:A:H4'	31:BA:1068:G:O5'	2.21	0.41
1:AA:1079:C:H5	1:AA:1088:A:OP1	2.02	0.41
1:AA:882:G:N2	1:AA:895:U:C2	2.89	0.41
1:AA:897:C:H2'	1:AA:898:C:O4'	2.21	0.41
12:CP:35:VAL:HA	12:CP:101:ARG:O	2.21	0.41
53:DC:16:C:C5	56:DC:107:OHX:N2	2.89	0.41
1:CA:2299:A:OP2	28:C6:28:ARG:NH1	2.54	0.41
1:CA:2288:C:O2'	12:CP:84:GLY:HA2	2.15	0.41
52:BD:51:C:OP2	52:BD:52:G:C2	2.73	0.41
1:CA:2138:G:H2'	1:CA:2139:G:C8	2.56	0.41
1:CA:2138:G:C6	1:CA:2140:A:C8	3.09	0.41
1:CA:2135:G:C1'	52:DD:18:G:HO2'	2.34	0.41
52:DD:21:A:O4'	52:DD:22:A:O5'	2.39	0.41
52:BB:10:C:N3	52:BB:26:G:N2	2.57	0.41
31:DA:1177:G:H2'	31:DA:1178:G:C4	2.56	0.41
24:CW:17:SER:CB	24:CW:18:PRO:CA	2.78	0.41
1:CA:1089:G:H2'	1:CA:1090:C:O4'	2.20	0.41
3:AD:32:SER:CA	3:AD:35:LYS:O	2.69	0.41
43:BP:66:LEU:HD23	43:BP:66:LEU:HA	1.92	0.41
31:BA:971:G:N2	31:BA:1363:A:OP2	2.48	0.41
37:DJ:113:GLU:HB3	37:DJ:118:VAL:CG2	2.50	0.41
31:BA:96:G:N1	31:BA:97:U:O2	2.53	0.41
31:BA:1024:G:H4'	31:BA:1024:G:OP1	2.21	0.41
1:AA:2721:A:H1'	1:AA:2873:A:O2'	2.20	0.41
52:DB:21:A:H4'	52:DB:22:A:H8	1.85	0.41
52:DB:58:G:C2	52:DB:59:A:C8	3.08	0.41
1:AA:2212:A:C4	1:AA:2215:G:C6	3.09	0.41
1:CA:1123:C:C2'	1:CA:1124:A:H5'	2.51	0.41
1:CA:1148:U:N3	1:CA:1149:C:C4	2.89	0.41
5:CF:20:LEU:O	5:CF:21:ALA:O	2.39	0.41
52:DD:23:A:C5	52:DD:24:G:C5	3.09	0.41
52:DD:26:G:C2	52:DD:27:A:H1'	2.56	0.41
31:DA:604:G:C6	31:DA:635:G:C6	3.09	0.41
11:AO:63:PRO:HB3	30:A8:13:ARG:HG2	2.03	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:BF:8:ILE:O	33:BF:10:PHE:N	2.54	0.41
42:BO:44:LYS:N	42:BO:45:PRO:HD2	2.36	0.41
5:CF:187:VAL:HG13	11:CO:1:MET:O	2.20	0.41
44:DQ:4:LYS:HB3	44:DQ:5:ALA:H	1.73	0.41
50:BW:20:LEU:O	50:BW:23:ARG:HB3	2.21	0.41
49:BV:62:ILE:HA	49:BV:66:MET:SD	2.61	0.41
43:BP:84:ILE:HD13	49:BV:65:ASN:OD1	2.21	0.41
28:C6:15:GLU:HB3	28:C6:16:CYS:H	1.62	0.41
30:C8:35:GLN:NE2	30:C8:36:LYS:N	2.54	0.41
30:C8:34:TRP:CZ2	30:C8:35:GLN:HB2	2.55	0.41
1:AA:996:A:C4'	16:A1:92:ARG:HE	2.28	0.41
31:DA:1002:G:C2	31:DA:1003:G:C4	3.09	0.41
7:AH:109:PHE:CZ	7:AH:152:ARG:NH1	2.87	0.41
7:AH:153:LYS:HB3	7:AH:154:PRO:HD3	1.96	0.41
1:AA:2751:G:C4	7:AH:3:ARG:O	2.74	0.41
1:AA:1042:G:H2'	1:AA:1043:C:H6	1.84	0.41
1:AA:1854:A:N6	1:AA:1888:G:C8	2.80	0.41
1:AA:1888:G:C5'	1:AA:1888:G:N3	2.81	0.41
1:CA:5:A:N6	1:CA:6:A:C6	2.89	0.41
4:CE:170:LEU:HG	4:CE:184:VAL:HB	2.02	0.41
31:DA:983:A:H2	31:DA:984:C:C6	2.39	0.41
4:AE:13:ARG:CB	4:AE:21:VAL:HG12	2.51	0.41
1:AA:1365:A:OP2	23:AZ:2:SER:N	2.53	0.41
15:AR:6:LEU:O	15:AR:10:VAL:HG23	2.20	0.41
1:CA:957:A:H2	1:CA:2277:C:O2	2.04	0.41
43:DP:57:ARG:O	43:DP:61:GLU:HB2	2.21	0.41
31:DA:812:C:H4'	31:DA:813:U:O5'	2.20	0.41
26:C4:63:TYR:OH	49:DV:9:VAL:HG13	2.21	0.41
1:CA:2481:G:H3'	1:CA:2489:A:H2	1.78	0.41
20:CU:43:ASN:ND2	20:CU:43:ASN:N	2.54	0.41
1:AA:1510:A:OP1	1:AA:1511:A:H8	2.04	0.41
26:A4:34:GLU:OE2	43:BP:7:VAL:HA	2.21	0.41
40:BM:50:ILE:HD13	40:BM:60:ARG:HD3	2.02	0.41
31:BA:344:A:HO2'	31:BA:345:C:P	2.40	0.41
31:BA:342:C:C2	31:BA:348:G:C2	3.09	0.41
31:DA:345:C:HO2'	31:DA:346:G:P	2.42	0.41
1:CA:1467:U:O2	1:CA:1467:U:O5'	2.39	0.41
1:AA:546:C:C5	1:AA:547:A:C5	3.08	0.41
1:AA:2355:C:H4'	22:A3:36:ILE:CD1	2.50	0.41
31:DA:411:A:C2	31:DA:413:G:O2'	2.72	0.41
1:CA:2164:G:C6	1:CA:2173:U:O2	2.74	0.41
1:AA:654(J):A:C2	1:AA:654(M):C:N4	2.89	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:991:A:C4	1:CA:2461:A:C2	3.08	0.41
48:DU:56:THR:O	48:DU:58:LEU:HG	2.21	0.41
53:DC:25:U:C4	53:DC:26:C:C4	3.09	0.41
1:AA:1968:G:C2'	1:AA:1969:A:H5''	2.50	0.41
1:AA:1930:G:O6	56:AA:3399:OHX:N2	2.54	0.41
31:BA:1117:G:OP1	56:BA:1670:OHX:N1	2.54	0.41
42:DO:14:LYS:HA	42:DO:14:LYS:HD2	1.94	0.41
32:BE:100:GLY:O	32:BE:102:LEU:N	2.54	0.41
1:AA:35:G:H1'	1:AA:454:A:C4	2.55	0.41
1:CA:912:G:OP2	12:CP:22:LYS:HE2	2.21	0.41
1:CA:1529:U:H5'	1:CA:1530:G:P	2.60	0.41
31:BA:811:C:N4	31:BA:812:C:N4	2.69	0.41
31:DA:956:U:H2'	31:DA:957:U:O4'	2.20	0.41
26:A4:55:ARG:CG	26:A4:56:VAL:H	2.34	0.41
4:AE:37:ARG:HH11	4:AE:42:ASP:CG	2.24	0.41
11:AO:144:GLU:N	11:AO:144:GLU:CD	2.73	0.41
31:DA:624:C:H2'	31:DA:625:G:C8	2.56	0.41
21:AV:107:THR:C	21:AV:109:ALA:H	2.24	0.41
1:CA:2333:A:H4'	1:CA:2334:G:N7	2.35	0.41
35:DH:51:VAL:CB	35:DH:52:PRO:HD3	2.50	0.41
31:DA:1086:U:H3	31:DA:1099:G:H22	1.68	0.41
37:BJ:40:ALA:HB1	37:BJ:44:TYR:CE1	2.56	0.41
31:BA:1414:U:H2'	31:BA:1415:G:C8	2.52	0.41
1:AA:1992:G:C2'	1:AA:1993:U:OP2	2.68	0.41
18:CS:59:VAL:HA	18:CS:64:MET:H	1.86	0.41
31:DA:1152:A:H2'	31:DA:1153:C:O4'	2.21	0.41
41:BN:21:ILE:HB	41:BN:84:VAL:HA	2.03	0.41
31:DA:544:G:OP1	34:DG:59:ARG:NH1	2.50	0.41
42:DO:106:GLY:HA3	42:DO:118:GLY:O	2.20	0.41
1:AA:1344:G:C6	1:AA:1404:C:N3	2.89	0.41
32:BE:15:VAL:HG23	32:BE:16:HIS:CD2	2.56	0.41
1:CA:1362:C:O2'	1:CA:1363:U:H5'	2.21	0.41
35:BH:110:LEU:O	35:BH:115:VAL:HB	2.21	0.41
31:DA:1401:G:N2	31:DA:1402:C:H1'	2.35	0.41
3:AD:182:LEU:HD23	3:AD:182:LEU:HA	1.86	0.41
31:BA:331:G:OP1	31:BA:332:G:C8	2.74	0.41
1:CA:239:C:H4'	1:CA:240:G:O5'	2.21	0.41
8:CK:56:LYS:HG3	8:CK:57:ARG:N	2.36	0.41
31:BA:671:G:C2	31:BA:672:U:H1'	2.56	0.41
1:AA:1694:C:H1'	1:AA:1695:G:OP2	2.21	0.41
1:CA:1374:C:H2'	1:CA:1375:G:O4'	2.21	0.41
31:DA:134:A:C5	31:DA:135:C:C4	3.09	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:1092:A:C6	31:BA:1093:A:C6	3.09	0.41
43:DP:115:LYS:O	43:DP:117:VAL:N	2.54	0.41
31:DA:583:A:H2'	31:DA:584:G:O4'	2.21	0.41
24:CW:38:GLN:O	24:CW:44:LEU:HB2	2.21	0.41
31:DA:197:A:H8	31:DA:198:G:N9	2.19	0.41
1:AA:1818:U:H4'	1:AA:1821:A:H1'	2.02	0.41
35:DH:40:ARG:HG2	35:DH:40:ARG:HH11	1.85	0.41
20:AU:9:LYS:O	20:AU:27:VAL:HG22	2.21	0.41
49:DV:32:LYS:HB3	49:DV:57:HIS:ND1	2.36	0.41
1:AA:1812:A:HO2'	3:AD:45:ASN:HB2	1.86	0.41
11:CO:31:ALA:O	11:CO:32:THR:OG1	2.35	0.41
1:CA:2377:C:C2'	1:CA:2378:G:H5'	2.51	0.41
38:DK:37:ARG:HH21	38:DK:38:ILE:HG13	1.85	0.41
3:CD:107:ALA:HA	3:CD:108:PRO:HD2	1.89	0.41
31:DA:1248:A:C6	31:DA:1249:C:C4	3.09	0.41
8:AK:144:VAL:HG22	8:AK:145:VAL:N	2.36	0.41
33:DF:79:ARG:C	33:DF:81:GLY:H	2.24	0.41
34:DG:199:ASN:O	34:DG:200:GLU:HG2	2.21	0.41
1:AA:2243:U:H2'	1:AA:2244:U:C6	2.56	0.41
1:CA:1317:C:O2'	1:CA:1372:G:H2'	2.21	0.41
53:BC:19:G:C6	53:BC:59:A:C6	3.09	0.41
1:AA:2612:C:H2'	1:AA:2613:U:O5'	2.19	0.41
1:AA:1299:G:H5''	1:AA:1300:U:P	2.61	0.41
34:DG:105:VAL:HG13	34:DG:110:PHE:HB2	2.03	0.41
1:CA:380:G:C6	1:CA:381:G:C6	3.08	0.41
31:DA:12:U:H4'	31:DA:526:C:H4'	2.03	0.41
31:BA:108:G:H5'	31:BA:109:A:H5''	2.02	0.41
1:CA:1616:G:H4'	3:CD:59:LYS:HD2	2.03	0.41
31:DA:628:G:O2'	31:DA:629:G:H5'	2.20	0.41
1:CA:274:G:H1'	1:CA:276:C:O4'	2.21	0.41
1:CA:325:A:H2'	1:CA:359:C:H1'	2.03	0.41
1:CA:79:G:O2'	1:CA:80:G:H5'	2.21	0.41
1:CA:1783:C:H2'	1:CA:1784:C:H6	1.86	0.41
31:BA:948:C:H2'	31:BA:949:A:H8	1.86	0.41
1:AA:1701:A:H2'	1:AA:1702:G:H5'	2.03	0.41
37:DJ:32:ARG:HB3	37:DJ:32:ARG:HH11	1.85	0.41
1:CA:998:G:C6	1:CA:1012:G:C6	3.09	0.41
10:CN:117:LEU:N	10:CN:117:LEU:CD1	2.84	0.41
31:DA:778:G:H2'	31:DA:779:C:O4'	2.21	0.41
31:BA:218:C:C2'	31:BA:219:C:H5'	2.51	0.41
1:AA:579:G:N2	1:AA:1262:A:C4	2.89	0.41
1:CA:2556:G:H2'	1:CA:2557:G:C8	2.56	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
41:BN:31:THR:HA	41:BN:42:TRP:HA	2.01	0.41
1:CA:259:U:OP1	56:CA:3281:OHX:N6	2.54	0.41
1:CA:472:C:OP1	16:C1:2:PRO:HA	2.21	0.41
1:AA:751:A:C6	1:AA:789:A:C5	3.09	0.41
31:BA:746:A:C2'	31:BA:747:C:H5'	2.50	0.41
7:CH:99:VAL:HG13	7:CH:100:GLY:N	2.36	0.41
54:D1:16:A:C2	54:D1:17:U:C2	3.09	0.41
4:AE:108:SER:HA	4:AE:190:GLY:H	1.86	0.41
1:CA:1774:C:H2'	1:CA:1775:C:H5'	2.03	0.41
1:AA:2736:G:H2'	1:AA:2737:G:H8	1.86	0.41
22:C3:16:SER:O	22:C3:17:GLN:C	2.58	0.41
31:BA:1126:U:O2'	31:BA:1127:G:OP1	2.28	0.41
1:AA:2358:G:H2'	1:AA:2359:C:O5'	2.21	0.41
31:DA:1336:C:O2	56:DA:1742:OHX:N2	2.54	0.41
11:AO:81:GLN:HE21	11:AO:81:GLN:HB2	1.65	0.41
8:AK:38:LEU:HG	8:AK:38:LEU:H	1.72	0.41
1:CA:270:G:N3	1:CA:270:G:H2'	2.36	0.41
1:CA:2490:C:O2	1:CA:2490:C:O4'	2.38	0.41
31:BA:1249:C:H4'	39:BL:36:TYR:OH	2.21	0.41
31:BA:1250:A:H2'	31:BA:1251:A:O4'	2.21	0.41
26:C4:42:PHE:O	26:C4:43:TYR:HB3	2.21	0.41
1:AA:2399:G:H1	1:AA:2417:C:H42	1.68	0.41
31:BA:1440:C:H2'	31:BA:1441:G:O4'	2.21	0.41
1:CA:2609:U:H2'	1:CA:2610:G:O4'	2.21	0.41
30:A8:56:GLU:O	30:A8:57:ARG:C	2.58	0.41
6:AG:142:PRO:HG2	6:AG:143:GLU:OE2	2.21	0.41
1:CA:361:C:O2'	1:CA:362:C:H5'	2.20	0.41
31:BA:1472:U:O2'	31:BA:1473:A:H5'	2.21	0.41
31:BA:55:A:OP2	56:BA:1678:OHX:N6	2.54	0.41
5:AF:160:ASN:OD1	5:AF:163:VAL:HG23	2.21	0.41
40:DM:25:GLU:HA	40:DM:25:GLU:OE1	2.21	0.41
48:DU:44:LEU:HD12	48:DU:44:LEU:HA	1.89	0.41
20:CU:94:LYS:HB3	20:CU:94:LYS:HE3	1.85	0.41
5:CF:117:ARG:HA	5:CF:117:ARG:HD2	1.81	0.41
31:DA:1111:A:C8	31:DA:1112:C:C5	3.09	0.41
31:DA:1111:A:H2'	31:DA:1112:C:C6	2.56	0.41
1:CA:1837:U:O2	3:CD:50:THR:HB	2.20	0.41
1:AA:1336:A:C2	1:AA:1337:G:C4	3.09	0.41
1:AA:2255:G:H21	12:AP:85:LYS:HE2	1.62	0.41
1:AA:2125:G:O2'	1:AA:2173:A:N6	2.54	0.41
1:CA:2156:G:H2'	1:CA:2157:A:OP2	2.21	0.41
1:CA:2790:A:H4'	1:CA:2791:G:O5'	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
52:BB:46:G:C5	52:BB:47:U:C4	3.08	0.41
31:DA:1175:G:C2	31:DA:1176:A:C6	3.08	0.41
1:CA:2770:U:H4'	1:CA:2771:A:OP1	2.21	0.41
3:AD:35:LYS:HD3	3:AD:63:ARG:HA	2.02	0.41
52:DB:47:U:C2	52:DB:48:C:C5	3.09	0.41
52:DB:48:C:H3'	52:DB:49:A:C8	2.47	0.41
1:CA:469:G:O4'	5:CF:46:ARG:HD3	2.21	0.41
4:CE:60:ASN:HB2	4:CE:61:ARG:H	1.64	0.41
20:AU:81:LYS:HB3	20:AU:97:ARG:CD	2.51	0.41
31:DA:1127:G:O2'	31:DA:1128:C:H5'	2.21	0.41
31:DA:1135:U:H2'	31:DA:1137:C:O2	2.21	0.41
1:AA:1575:C:H2'	1:AA:1576:U:H6	1.86	0.41
1:AA:1044:G:H2'	1:AA:1045:A:O5'	2.21	0.41
31:DA:1054:C:N4	52:DB:35:G:C4	2.89	0.41
38:BK:6:ILE:HG22	38:BK:7:ALA:N	2.36	0.41
1:AA:223:A:O4'	1:AA:422:A:H5'	2.21	0.41
1:CA:2481:G:C5	1:CA:2494:G:C2	3.09	0.41
21:AV:72:ARG:NH1	21:AV:72:ARG:HG3	2.35	0.41
31:BA:1446:A:OP1	31:BA:1446:A:H4'	2.21	0.41
19:CT:57:LEU:H	19:CT:57:LEU:HD23	1.86	0.41
31:BA:674:G:C2'	31:BA:675:A:H5'	2.49	0.41
3:AD:147:LEU:HD13	3:AD:155:LEU:HD11	2.03	0.41
1:AA:481:G:OP2	20:AU:47:LYS:HD2	2.20	0.41
1:AA:2095:C:C4	1:AA:2096:U:C5	3.09	0.41
31:BA:180:U:O2'	31:BA:181:G:H5'	2.21	0.41
10:CN:8:LEU:HD22	10:CN:8:LEU:N	2.36	0.41
25:AX:15:TYR:CE1	25:AX:53:LEU:HD21	2.56	0.41
31:BA:825:G:H2'	31:BA:826:C:O4'	2.20	0.41
38:DK:88:LYS:HB3	38:DK:89:PRO:HD2	2.02	0.41
21:AV:48:PHE:CE2	21:AV:71:VAL:HG11	2.56	0.41
9:AM:73:THR:HA	9:AM:83:LYS:O	2.20	0.41
19:AT:41:ASN:HD22	19:AT:41:ASN:N	2.17	0.41
1:AA:1863:G:O6	56:AA:3531:OHX:N5	2.53	0.41
4:AE:1:MET:CB	4:AE:200:GLU:OE1	2.70	0.41
26:C4:16:CYS:HB3	26:C4:19:GLY:HA2	2.02	0.41
31:BA:627:G:C4	31:BA:628:G:C8	3.09	0.41
1:CA:2333:A:C5	1:CA:2346:A:N7	2.89	0.41
31:DA:1225:A:H5''	31:DA:1226:C:OP2	2.21	0.41
33:BF:162:GLN:CB	54:B1:24:A:H1'	2.51	0.41
37:DJ:62:PHE:HA	37:DJ:124:LEU:CD2	2.51	0.41
1:CA:408:U:H2'	1:CA:409:G:H8	1.86	0.41
21:CV:76:LEU:CD2	21:CV:76:LEU:H	2.33	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:270(G):C:H2'	1:AA:270(H):C:O4'	2.21	0.41
4:CE:51:PHE:C	4:CE:74:PRO:HB3	2.41	0.41
1:CA:1202:A:O2'	1:CA:1203:A:H2'	2.20	0.41
21:CV:161:VAL:O	21:CV:162:GLU:HB2	2.21	0.41
1:CA:905:C:O2'	1:CA:906:U:H5'	2.21	0.41
31:DA:972:C:O3'	40:DM:57:LYS:CG	2.69	0.41
22:A3:47:PRO:HB2	22:A3:51:VAL:O	2.21	0.41
24:AW:17:SER:CB	24:AW:67:LYS:HE3	2.51	0.41
1:AA:2078:C:H2'	1:AA:2079:U:C6	2.56	0.41
11:CO:22:GLY:HA2	11:CO:23:PRO:HD3	1.95	0.41
26:C4:56:VAL:HG22	26:C4:57:GLU:N	2.36	0.41
33:DF:150:LYS:HG3	33:DF:169:ALA:HB2	2.03	0.41
31:DA:1416:G:C2	31:DA:1485:U:O2	2.74	0.41
31:DA:707:C:O2'	31:DA:708:C:H5'	2.21	0.41
38:DK:118:VAL:O	38:DK:119:LEU:HD23	2.21	0.41
31:BA:153:C:N4	31:BA:168:G:H1	2.18	0.41
8:AK:144:VAL:CG2	8:AK:145:VAL:N	2.83	0.41
1:AA:150:C:H2'	1:AA:151:C:C6	2.56	0.41
1:AA:2029:G:H2'	1:AA:2031:A:OP1	2.21	0.41
31:BA:1154:G:C4	31:BA:1155:G:C8	3.09	0.41
1:AA:2613:U:C1'	1:AA:2614:A:OP1	2.68	0.41
31:DA:1222:G:OP1	49:DV:77:THR:OG1	2.39	0.41
31:DA:448:A:H2'	31:DA:449:C:O2	2.20	0.41
31:BA:583:A:N6	31:BA:758:G:H1'	2.36	0.41
31:BA:758:G:H2'	31:BA:759:A:OP2	2.21	0.41
1:AA:2835:A:C5	1:AA:2878:U:C5	3.09	0.41
1:CA:1876:C:C2	1:CA:1920:G:N2	2.89	0.41
15:CR:95:ARG:HA	15:CR:95:ARG:HD2	1.92	0.41
1:CA:2249:C:OP2	56:CA:3486:OHX:N4	2.53	0.41
13:C0:25:ALA:C	13:C0:27:SER:N	2.75	0.41
34:BG:52:SER:O	34:BG:55:ALA:HB3	2.20	0.41
31:DA:697:U:H2'	31:DA:698:G:H5'	2.02	0.41
8:CK:14:ASP:OD1	8:CK:15:VAL:N	2.53	0.41
31:BA:562:C:H4'	31:BA:563:A:O5'	2.21	0.41
15:CR:45:PHE:CE1	15:CR:74:ARG:HD3	2.56	0.41
1:AA:1036:G:H2'	1:AA:1037:G:O4'	2.21	0.41
1:CA:1753:G:O6	56:CA:3244:OHX:N5	2.54	0.41
1:CA:2120:C:H2'	1:CA:2121:U:O4'	2.20	0.41
1:CA:384:A:H2'	1:CA:385:G:O4'	2.21	0.41
23:CZ:25:LYS:HE2	23:CZ:25:LYS:HB3	1.80	0.41
1:AA:1048:A:H2'	1:AA:1048:A:N3	2.36	0.41
16:A1:96:ALA:O	16:A1:100:VAL:HG23	2.21	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
34:BG:30:LYS:C	34:BG:32:ALA:H	2.23	0.41
38:DK:114:THR:HB	38:DK:130:GLY:O	2.21	0.41
1:AA:2015:A:C4	27:A5:6:VAL:CG2	3.04	0.40
1:AA:883:G:H2'	1:AA:884:C:O4'	2.21	0.40
53:DC:14:A:OP2	56:DC:107:OHX:N1	2.54	0.40
28:C6:51:GLU:HG2	28:C6:52:VAL:N	2.35	0.40
52:BD:67:A:H2	52:BD:69:U:HO2'	1.68	0.40
31:BA:788:U:H2'	31:BA:789:U:C5'	2.31	0.40
1:CA:875:U:H4'	1:CA:876:U:O2	2.20	0.40
1:AA:654(E):C:N3	1:AA:654(P):G:N2	2.60	0.40
31:DA:1176:A:N6	31:DA:1177:G:C4	2.89	0.40
1:CA:2768:U:H5'	1:CA:2769:C:OP2	2.21	0.40
3:AD:28:GLU:O	3:AD:30:GLU:N	2.54	0.40
3:AD:34:VAL:O	3:AD:35:LYS:HG3	2.21	0.40
3:AD:34:VAL:C	3:AD:35:LYS:O	2.60	0.40
51:BX:2:GLY:C	51:BX:4:GLY:N	2.74	0.40
31:BA:1262:C:H2'	31:BA:1263:C:H6	1.86	0.40
52:DB:15:G:H1'	52:DB:20:C:C5	2.45	0.40
1:CA:1121:G:H2'	1:CA:1122:C:C6	2.56	0.40
1:CA:1136:G:C4'	1:CA:1137:U:OP1	2.68	0.40
1:AA:846:C:C2	1:AA:847:U:O4	2.74	0.40
5:CF:22:ALA:C	5:CF:24:LEU:H	2.23	0.40
5:CF:25:PRO:HB3	5:CF:28:ILE:CG2	2.50	0.40
31:DA:1014:A:H2'	31:DA:1015:A:N9	2.36	0.40
31:DA:1216:G:H2'	31:DA:1217:C:C6	2.56	0.40
31:BA:1130:A:C2	31:BA:1146:A:C5	3.09	0.40
1:AA:2318:G:H1	14:AQ:2:ALA:HA	1.86	0.40
31:BA:411:A:C2	31:BA:413:G:O2'	2.74	0.40
1:CA:1387:U:H4'	1:CA:1388:U:OP2	2.21	0.40
28:C6:15:GLU:OE1	28:C6:44:ARG:NE	2.45	0.40
28:C6:23:THR:O	56:C6:101:OHX:N6	2.54	0.40
56:C6:101:OHX:N3	30:C8:34:TRP:O	2.54	0.40
1:CA:1037:A:H5'	1:CA:1037:A:H8	1.87	0.40
1:AA:528:A:O2'	1:AA:529:A:H5'	2.21	0.40
21:CV:6:LYS:HE3	21:CV:43:GLU:HG3	2.03	0.40
1:AA:1125:G:C6	1:AA:1126:A:N6	2.89	0.40
11:AO:100:LEU:HD12	11:AO:100:LEU:HA	1.72	0.40
31:BA:1211:U:H1'	31:BA:1213:A:N3	2.35	0.40
35:BH:63:ARG:HG2	35:BH:63:ARG:H	1.53	0.40
28:A6:33:LYS:HG3	28:A6:34:LEU:H	1.86	0.40
1:AA:1516:U:O2'	1:AA:1517:G:H5'	2.21	0.40
31:DA:1203:C:H2'	31:DA:1204:A:H8	1.85	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1207:G:H2'	31:DA:1208:C:C6	2.56	0.40
4:AE:15:PHE:HA	4:AE:20:ALA:HA	2.03	0.40
31:BA:447:G:N1	31:BA:485:G:H1'	2.35	0.40
1:AA:1364:G:C8	23:AZ:2:SER:CB	3.04	0.40
31:DA:854:G:C6	31:DA:855:G:N7	2.89	0.40
31:DA:381:C:N4	31:DA:382:A:C6	2.89	0.40
7:CH:20:ALA:HB1	7:CH:21:PRO:CD	2.51	0.40
1:CA:1693:G:C5'	1:CA:1694:C:H5'	2.43	0.40
26:A4:34:GLU:CG	43:BP:3:ARG:HB2	2.43	0.40
1:AA:1530:G:C6	1:AA:1531:C:C4	3.09	0.40
1:AA:805:G:OP2	11:AO:41:ARG:HG2	2.21	0.40
4:AE:61:ARG:CB	4:AE:62:PRO:HD3	2.43	0.40
32:DE:189:ASP:HB3	32:DE:203:GLY:O	2.20	0.40
3:AD:186:HIS:CD2	3:AD:187:GLY:N	2.89	0.40
31:BA:195:A:N7	31:BA:196:A:C6	2.89	0.40
31:DA:1064:G:H21	31:DA:1190:G:H2'	1.84	0.40
1:CA:681:A:C2	1:CA:701:A:N3	2.89	0.40
1:CA:699:G:O4'	1:CA:700:A:OP1	2.39	0.40
1:CA:627:A:N3	1:CA:627:A:H2'	2.36	0.40
9:CM:137:LYS:HZ3	9:CM:137:LYS:HA	1.85	0.40
1:CA:590:U:OP1	11:CO:29:LYS:HD2	2.22	0.40
3:CD:176:ARG:HG2	3:CD:176:ARG:NH1	2.33	0.40
38:BK:110:ALA:HB3	38:BK:121:ASP:HB3	2.04	0.40
1:AA:247:G:H4'	1:AA:386:G:C4	2.56	0.40
1:AA:2011:U:H2'	1:AA:2012:G:O4'	2.21	0.40
4:CE:30:PRO:HD3	4:CE:180:ASN:ND2	2.35	0.40
47:BT:53:LEU:CD1	47:BT:53:LEU:H	2.32	0.40
31:DA:862:C:H1'	31:DA:874:G:H5''	2.04	0.40
45:BR:5:LYS:O	45:BR:9:GLN:HG2	2.20	0.40
5:CF:166:ALA:O	5:CF:167:ALA:C	2.59	0.40
1:CA:605:C:O2'	1:CA:606:G:H5'	2.21	0.40
2:AB:14:U:H5'	2:AB:71:C:O4'	2.22	0.40
3:AD:182:LEU:O	3:AD:271:ILE:N	2.53	0.40
17:C2:44:LYS:HG2	17:C2:45:THR:OG1	2.21	0.40
33:BF:18:TRP:CH2	44:BQ:55:GLY:HA2	2.55	0.40
1:AA:857:C:N4	1:AA:858:U:O4	2.55	0.40
31:BA:66:G:C2	31:BA:104:G:H1'	2.55	0.40
1:CA:1060:C:H2'	1:CA:1061:U:C6	2.56	0.40
4:AE:68:ALA:C	4:AE:70:ALA:N	2.74	0.40
31:DA:1390:U:O4	56:DA:1783:OHX:N1	2.54	0.40
1:AA:460:A:OP1	29:A7:41:ARG:NH2	2.53	0.40
21:AV:23:LYS:HA	21:AV:23:LYS:HD3	1.96	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:CA:1908:A:H5'	1:CA:1909:C:OP2	2.20	0.40
1:CA:1086:G:C6	1:CA:1087:C:N4	2.89	0.40
1:CA:1716:A:H4'	1:CA:1717:A:O5'	2.21	0.40
1:CA:1226:C:O2'	1:CA:1227:C:H5'	2.21	0.40
1:CA:433:U:C2'	1:CA:434:G:OP1	2.69	0.40
31:DA:1246:C:O2'	31:DA:1247:U:H5'	2.21	0.40
33:DF:82:GLU:O	33:DF:85:ARG:N	2.54	0.40
1:CA:996:G:C2	1:CA:1014:G:C2	3.09	0.40
1:CA:185:A:C2	1:CA:191:C:N4	2.89	0.40
1:AA:610:C:H2'	1:AA:611:C:C6	2.55	0.40
34:DG:108:LEU:HD12	34:DG:108:LEU:HA	1.87	0.40
31:BA:108:G:C5'	31:BA:109:A:H5''	2.51	0.40
1:AA:1001:A:H2'	1:AA:1002:G:O4'	2.21	0.40
31:BA:1202:G:C2	44:BQ:42:ILE:HG21	2.56	0.40
1:AA:1826:G:H2'	1:AA:1827:C:O4'	2.22	0.40
31:DA:1480:G:C6	31:DA:1481:U:C4	3.09	0.40
34:DG:16:GLY:O	34:DG:17:VAL:C	2.59	0.40
1:CA:152:G:C6	1:CA:153:C:N4	2.89	0.40
31:DA:923:A:OP1	35:DH:21:ALA:HB2	2.21	0.40
1:CA:2380:G:H2'	1:CA:2381:C:H6	1.86	0.40
10:AN:12:ASP:CG	10:AN:14:THR:HG23	2.41	0.40
1:CA:1472:G:H2'	1:CA:1473:G:C8	2.56	0.40
31:BA:862:C:C2'	31:BA:863:U:H5'	2.51	0.40
18:CS:88:ARG:HD2	18:CS:88:ARG:HA	1.89	0.40
40:BM:80:LYS:HA	40:BM:80:LYS:HZ2	1.86	0.40
33:BF:141:VAL:O	33:BF:141:VAL:HG12	2.21	0.40
20:CU:26:LYS:HE3	20:CU:26:LYS:HB2	1.94	0.40
3:CD:263:ARG:HB2	3:CD:263:ARG:CZ	2.49	0.40
19:AT:88:LYS:HB3	19:AT:88:LYS:NZ	2.36	0.40
12:CP:35:VAL:CG1	12:CP:36:ALA:N	2.83	0.40
12:CP:135:ASP:O	12:CP:136:ALA:C	2.59	0.40
52:DD:16:C:C2'	52:DD:18:G:OP2	2.68	0.40
11:CO:47:ASP:OD1	11:CO:50:ARG:HG2	2.21	0.40
52:BB:21:A:H4'	52:BB:22:A:H8	1.86	0.40
52:BB:52:G:N1	52:BB:53:A:C6	2.89	0.40
52:BB:8:U:H5'	52:BB:58:G:H5'	2.03	0.40
31:DA:1158:C:C4	31:DA:1160:G:N7	2.88	0.40
31:DA:1346:A:C2'	31:DA:1347:G:OP2	2.69	0.40
1:CA:1097:A:C5	1:CA:2765:G:N1	2.89	0.40
1:CA:1355:A:N6	1:CA:1653:G:H1'	2.37	0.40
1:AA:2002:G:H2'	1:AA:2003:G:H8	1.86	0.40
1:CA:93:G:N3	24:CW:47:ASN:OD1	2.55	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:DA:1501:C:N4	31:DA:1504:G:C2	2.89	0.40
5:CF:6:VAL:O	5:CF:7:TYR:C	2.58	0.40
31:DA:1382:C:H1'	37:DJ:79:ARG:NE	2.37	0.40
52:DD:12:C:H2'	52:DD:13:G:C1'	2.48	0.40
31:DA:993:G:C6	31:DA:1046:A:C4	3.08	0.40
1:CA:1071:G:C6	1:CA:1072:G:C6	3.09	0.40
1:AA:331:A:N3	1:AA:1209:G:C6	2.89	0.40
1:AA:333:G:C5	1:AA:334:C:C5	3.09	0.40
17:A2:44:LYS:HE2	17:A2:44:LYS:HB3	1.92	0.40
2:CB:18:G:H2'	2:CB:19:C:H6	1.86	0.40
1:AA:603:A:H4'	1:AA:604:G:O5'	2.21	0.40
1:CA:1043:A:H4'	16:C1:92:ARG:CZ	2.51	0.40
31:BA:81:G:C2	31:BA:88:C:C4	3.09	0.40
1:AA:270(P):C:H2'	1:AA:270(Q):C:H6	1.84	0.40
38:DK:83:ILE:HG23	38:DK:83:ILE:O	2.20	0.40
4:CE:8:LYS:O	4:CE:9:VAL:HG22	2.21	0.40
16:C1:88:ILE:O	16:C1:88:ILE:HG13	2.21	0.40
12:AP:72:LYS:HA	12:AP:73:PRO:HD3	1.77	0.40
31:BA:1288:A:O4'	31:BA:1353:G:H4'	2.21	0.40
15:AR:77:PRO:HG2	15:AR:80:SER:CB	2.42	0.40
21:AV:169:GLU:OE1	21:AV:170:THR:N	2.55	0.40
1:CA:2480:C:C4	1:CA:2481:G:C2	3.09	0.40
20:CU:43:ASN:CA	20:CU:64:GLU:HA	2.51	0.40
3:AD:11:PRO:O	3:AD:13:ARG:N	2.49	0.40
5:AF:37:VAL:HG22	5:AF:184:TYR:HD1	1.86	0.40
8:CK:51:ILE:HG22	8:CK:52:ARG:N	2.37	0.40
31:BA:869:G:N7	56:BA:1684:OHX:N3	2.69	0.40
2:CB:91:G:OP2	2:CB:91:G:C8	2.74	0.40
6:AG:114:ILE:HG22	6:AG:117:PHE:HB2	2.04	0.40
15:AR:1:MET:SD	15:AR:1:MET:O	2.79	0.40
44:DQ:23:ARG:HD3	44:DQ:28:GLY:C	2.41	0.40
33:BF:108:ASN:HB3	33:BF:111:LEU:HG	2.03	0.40
23:AZ:58:ILE:HG22	23:AZ:59:THR:N	2.36	0.40
13:C0:38:VAL:N	13:C0:39:PRO:CD	2.83	0.40
37:DJ:62:PHE:HA	37:DJ:124:LEU:HD21	2.04	0.40
1:AA:270(E):G:C5	1:AA:270(F):U:C4	3.09	0.40
31:DA:375:U:OP1	46:DS:69:THR:HG21	2.21	0.40
4:CE:52:LEU:O	4:CE:74:PRO:CA	2.70	0.40
1:CA:307:A:C6	1:CA:309:U:C2	3.09	0.40
47:BT:52:LYS:HB3	47:BT:52:LYS:HE3	1.90	0.40
21:CV:163:LEU:HD23	21:CV:163:LEU:H	1.86	0.40
14:CQ:53:SER:OG	14:CQ:54:LEU:N	2.54	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
43:BP:101:GLN:HB2	43:BP:101:GLN:HE21	1.77	0.40
42:DO:86:ARG:CG	42:DO:87:VAL:N	2.84	0.40
1:CA:63:A:C5	19:CT:66:LEU:HD12	2.56	0.40
4:CE:7:VAL:HA	4:CE:194:GLY:O	2.21	0.40
32:BE:25:ASN:C	32:BE:27:LYS:H	2.24	0.40
1:AA:296:C:O2'	1:AA:297:C:H5'	2.21	0.40
8:CK:80:PRO:HA	8:CK:143:SER:HA	2.03	0.40
31:DA:758:G:H2'	31:DA:759:A:OP2	2.21	0.40
1:AA:618:G:H2'	1:AA:618(A):C:O4'	2.21	0.40
13:A0:94:TYR:N	13:A0:94:TYR:CD2	2.87	0.40
3:CD:70:TRP:HZ3	3:CD:146:GLU:OE2	2.02	0.40
1:AA:1138:G:H21	9:AM:106:MET:CE	2.33	0.40
3:CD:132:PRO:HD3	3:CD:190:TYR:CZ	2.57	0.40
5:AF:36:VAL:HG11	5:AF:183:VAL:CG1	2.51	0.40
1:AA:1012:U:O4	9:AM:25:ARG:HA	2.20	0.40
1:CA:2472:A:C5	1:CA:2473:U:C5	3.09	0.40
1:CA:675:G:C6	1:CA:676:C:C4	3.09	0.40
1:AA:1299:G:H5''	1:AA:1300:U:OP1	2.21	0.40
31:DA:678:U:H1'	31:DA:777:A:O2'	2.21	0.40
15:CR:33:LYS:HZ1	15:CR:84:GLN:HG3	1.86	0.40
1:AA:2364:C:C2'	1:AA:2365:G:H5'	2.51	0.40
1:CA:1815:A:H5'	1:CA:2621:G:H4'	2.02	0.40
1:AA:465:G:C6	1:AA:466:A:N6	2.89	0.40
1:AA:1214:A:N6	1:AA:1235:G:H1'	2.36	0.40
1:AA:1553:A:C6	1:AA:1555:G:H1'	2.56	0.40
1:CA:1601:A:C8	1:CA:1603:G:C6	3.09	0.40
1:CA:152:G:H2'	1:CA:153:C:C6	2.56	0.40
1:CA:1155:U:C4	1:CA:1156:C:N3	2.89	0.40
3:CD:78:LYS:HA	3:CD:115:GLN:O	2.21	0.40
1:AA:2493:U:C4	1:AA:2494:G:C8	3.09	0.40
1:AA:2452:C:OP1	56:AA:3373:OHX:N1	2.54	0.40
1:CA:280:G:C6	1:CA:281:C:C4	3.10	0.40
7:CH:111:HIS:HA	7:CH:112:PRO:HD2	1.79	0.40
17:C2:28:GLU:HA	17:C2:29:PRO:HD3	1.93	0.40
36:DI:55:ASP:HA	36:DI:56:PRO:HD3	1.77	0.40
46:DS:6:LEU:N	46:DS:6:LEU:HD12	2.35	0.40
37:DJ:104:LEU:HA	37:DJ:104:LEU:HD13	1.87	0.40
31:BA:1420:C:O5'	31:BA:1420:C:H6	2.04	0.40
21:AV:171:ILE:HA	21:AV:171:ILE:HD13	1.92	0.40
21:AV:31:ARG:HE	21:AV:31:ARG:HB2	1.76	0.40
31:DA:1362(A):C:H3'	31:DA:1362(A):C:H6	1.87	0.40
31:DA:1468:A:O5'	31:DA:1468:A:H8	2.04	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:2308:G:C6	1:AA:2311:A:N1	2.71	0.40
12:AP:25:ASP:CA	12:AP:102:VAL:HG22	2.51	0.40
12:AP:104:PHE:CE1	12:AP:125:LEU:HD11	2.56	0.40
1:AA:881:G:C8	1:AA:882:G:C8	3.09	0.40
1:CA:896:G:N9	1:CA:979:A:C8	2.90	0.40
28:C6:30:THR:HA	28:C6:31:PRO:C	2.42	0.40
52:BD:49:A:H2	52:BD:51:C:OP1	2.05	0.40
52:BB:51:C:H2'	52:BB:52:G:O4'	2.22	0.40
52:BB:52:G:OP2	52:BB:52:G:H8	2.04	0.40
1:AA:1533:C:H5''	1:AA:1534:G:P	2.62	0.40
1:CA:2039:U:H2'	1:CA:2040:U:C6	2.56	0.40
12:CP:11:LYS:HG2	12:CP:75:THR:CG2	2.51	0.40
1:AA:2212:A:H1'	1:AA:2215:G:C6	2.55	0.40
1:CA:1108:U:H2'	1:CA:1108:U:O2	2.21	0.40
14:CQ:84:GLN:HA	14:CQ:110:LEU:H	1.86	0.40
31:DA:604:G:C5	31:DA:605:U:C5	3.09	0.40
33:BF:14:ILE:O	33:BF:15:THR:HB	2.20	0.40
52:BB:34:U:H2'	52:BB:36:U:H5	1.85	0.40
50:BW:26:ASN:ND2	50:BW:26:ASN:N	2.68	0.40
31:BA:429:U:P	34:BG:13:ARG:HH21	2.44	0.40
1:CA:1256:A:N6	1:CA:1284:A:C4	2.89	0.40
1:CA:2079:G:N2	1:CA:2080:A:C1'	2.84	0.40
31:BA:273:A:O2'	31:BA:274:A:H5'	2.20	0.40
1:AA:2751:G:H3'	1:AA:2752:C:C5	2.55	0.40
1:AA:1021:A:N6	1:AA:1142(A):A:H61	2.04	0.40
1:CA:2092:G:H2'	1:CA:2093:G:H5'	2.04	0.40
1:CA:1216:G:C4	1:CA:1217:G:H1'	2.57	0.40
1:AA:2563:U:H2'	1:AA:2565:A:OP2	2.20	0.40
31:DA:1207:G:H2'	31:DA:1208:C:H6	1.86	0.40
31:BA:1080:A:C5'	35:BH:16:THR:HG21	2.52	0.40
31:DA:1238:A:H62	31:DA:1299:A:N6	2.19	0.40
30:A8:29:LYS:HZ2	30:A8:44:LYS:HB2	1.84	0.40
31:DA:835:U:OP1	48:DU:61:LYS:HB2	2.21	0.40
1:CA:1514:G:C5'	1:CA:1515:C:OP1	2.68	0.40
9:AM:7:LYS:O	9:AM:8:GLN:C	2.58	0.40
1:CA:2493:C:H2'	1:CA:2494:G:H5'	2.04	0.40
3:AD:16:MET:HE2	3:AD:211:ARG:HD3	2.03	0.40
3:AD:155:LEU:N	3:AD:155:LEU:HD12	2.37	0.40
1:AA:2789:C:H1'	1:AA:2892:A:C2	2.44	0.40
8:AK:25:TYR:CZ	8:AK:29:TYR:HD2	2.39	0.40
6:AG:37:VAL:O	6:AG:94:LEU:HD23	2.21	0.40
38:DK:4:ASP:HB2	38:DK:89:PRO:HG3	2.03	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:1178:C:C4'	1:AA:1179:C:OP1	2.69	0.40
21:AV:53:ILE:HA	21:AV:71:VAL:HG13	2.04	0.40
1:CA:1749:A:OP2	56:CA:3247:OHX:N4	2.55	0.40
31:BA:691:G:H1'	31:BA:696:A:N6	2.37	0.40
31:DA:474:G:N1	31:DA:475:G:C5	2.89	0.40
1:CA:194:A:H1'	1:CA:195:G:OP2	2.21	0.40
1:CA:2828:G:P	13:C0:99:LYS:NZ	2.94	0.40
33:DF:21:ARG:HB3	33:DF:21:ARG:NH1	2.36	0.40
13:C0:117:VAL:HG22	13:C0:118:GLU:N	2.36	0.40
1:CA:562:A:C2	1:CA:582:G:C2	3.09	0.40
42:BO:86:ARG:HH11	42:BO:86:ARG:CG	2.34	0.40
31:BA:188:U:C2'	31:BA:189:U:H5'	2.52	0.40
21:AV:80:ARG:O	21:AV:81:ARG:C	2.59	0.40
1:CA:309:U:O2'	1:CA:310:C:H5'	2.21	0.40
31:DA:68:G:H22	31:DA:101:A:H2	1.67	0.40
1:AA:2512:C:H2'	1:AA:2513:G:O4'	2.22	0.40
40:BM:30:SER:OG	40:BM:81:THR:HG22	2.21	0.40
10:CN:103:ALA:C	10:CN:105:GLU:N	2.75	0.40
1:CA:905:C:H1'	22:C3:26:TYR:HE2	1.87	0.40
1:CA:905:C:H1'	22:C3:26:TYR:CE2	2.57	0.40
1:AA:1387:C:H2'	1:AA:1388:G:H8	1.85	0.40
28:A6:11:LEU:HD22	28:A6:26:ASN:HD22	1.86	0.40
31:BA:295:C:H2'	31:BA:296:U:C6	2.56	0.40
1:AA:752:A:C4'	1:AA:753:C:OP2	2.69	0.40
53:BC:66:C:O2'	53:BC:67:C:H5'	2.21	0.40
1:AA:1324:G:C5	1:AA:1328:G:O6	2.74	0.40
31:BA:1152:A:O3'	40:BM:13:HIS:HE1	2.04	0.40
10:AN:65:THR:OG1	10:AN:69:ILE:HD11	2.21	0.40
36:BI:30:LEU:HB3	36:BI:35:ALA:HB3	2.03	0.40
1:AA:724:U:H2'	1:AA:725:G:O4'	2.21	0.40
31:DA:1464:G:O2'	31:DA:1465:C:H5'	2.21	0.40
1:AA:30:G:C5	1:AA:31:C:C4	3.09	0.40
1:AA:1680:U:H2'	1:AA:1681:G:O4'	2.21	0.40
44:DQ:15:LYS:HG3	44:DQ:16:PHE:HD2	1.85	0.40
48:BU:58:LEU:HB3	48:BU:62:GLU:HB3	2.03	0.40
36:BI:63:TYR:CD2	36:BI:63:TYR:N	2.90	0.40
13:C0:57:ARG:HH21	13:C0:62:ALA:HB2	1.86	0.40
1:AA:1002:G:H2'	1:AA:1003:G:O4'	2.22	0.40
1:CA:268:C:H42	1:CA:278:G:H1	1.70	0.40
31:DA:148:G:H2'	31:DA:149:A:H8	1.86	0.40
31:BA:683:G:C2	31:BA:708:C:N3	2.89	0.40
1:AA:2019:A:H2'	1:AA:2020:A:O5'	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:CG:41:GLN:N	6:CG:90:LEU:O	2.37	0.40
1:AA:2781:A:H5''	1:AA:2782:G:H5'	2.04	0.40
1:CA:344:C:O2'	1:CA:345:A:H5'	2.21	0.40
6:AG:110:ALA:O	6:AG:113:ARG:N	2.49	0.40
31:DA:883:C:N4	31:DA:884:U:O4	2.55	0.40
1:CA:1809:U:H3	1:CA:1819:A:H61	1.69	0.40
31:BA:1462:G:C6	31:BA:1463:C:C4	3.10	0.40
19:CT:18:TYR:O	19:CT:20:GLY:N	2.54	0.40
1:AA:2413:G:H2'	1:AA:2414:G:O4'	2.21	0.40
32:DE:88:ALA:O	32:DE:226:ARG:NH1	2.53	0.40
1:AA:862:G:H2'	1:AA:863:A:O4'	2.20	0.40
30:A8:16:ILE:O	30:A8:16:ILE:HG23	2.21	0.40
4:AE:34:VAL:O	4:AE:34:VAL:HG23	2.21	0.40
4:CE:16:ARG:O	4:CE:16:ARG:HD2	2.22	0.40
1:CA:216:G:H21	1:CA:218:A:H61	0.48	0.40
1:AA:1104:C:H2'	1:AA:1104:C:O2	2.21	0.40
1:AA:2134:A:H2'	1:AA:2135:A:C8	2.45	0.40
1:AA:2133:G:C5	1:AA:2157:G:O6	2.74	0.40
1:CA:1102:G:O2'	1:CA:1132:A:N1	2.39	0.40
1:CA:2185:G:H5''	1:CA:2195:U:H5	1.87	0.40
11:CO:104:GLY:C	11:CO:105:LEU:HG	2.42	0.40
11:CO:107:LYS:O	11:CO:110:TYR:N	2.54	0.40
11:CO:111:ARG:HB3	11:CO:112:LEU:H	1.67	0.40
3:AD:35:LYS:N	3:AD:64:ILE:CG2	2.85	0.40
31:BA:1029:G:H1'	31:BA:1032(A):G:H1	1.85	0.40
34:DG:25:ARG:NH1	34:DG:25:ARG:HB3	2.36	0.40
1:CA:2803:C:H3'	1:CA:2804:A:C5'	2.42	0.40
1:AA:864:G:O2'	1:AA:865:C:H5'	2.21	0.40
31:DA:1038:C:O2'	31:DA:1039:C:H5'	2.22	0.40
7:AH:150:ALA:C	7:AH:152:ARG:N	2.72	0.40
31:BA:125:U:O3'	31:BA:633:G:N2	2.55	0.40
31:DA:502:G:OP1	42:DO:113:SER:HA	2.22	0.40
24:CW:32:LEU:HD22	24:CW:57:ILE:HD13	2.03	0.40
1:AA:1558:A:C1'	1:AA:1559:G:OP2	2.65	0.40
31:DA:1207:G:C6	31:DA:1208:C:C4	3.09	0.40
31:DA:963:G:N2	40:DM:55:LYS:CE	2.84	0.40
31:DA:1220:G:O3'	49:DV:36:ARG:HD3	2.21	0.40
31:BA:1287:A:C6	31:BA:1288:A:C6	3.09	0.40
31:BA:1080:A:H5''	31:BA:1081:G:OP2	2.22	0.40
31:BA:1321:C:C3'	31:BA:1322:C:H5''	2.47	0.40
1:AA:2474:C:C2	1:AA:2475:C:H1'	2.56	0.40
32:BE:204:ASN:ND2	32:BE:206:ASP:N	2.61	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:C6:29:ASN:C	28:C6:32:ASN:HB2	2.42	0.40
13:A0:24:GLN:NE2	13:A0:36:THR:HG21	2.28	0.40
31:BA:142:G:N3	31:BA:143:A:C8	2.89	0.40
1:CA:101:A:H2'	1:CA:102:U:O4'	2.21	0.40
31:DA:718:G:C8	41:DN:116:HIS:HB3	2.55	0.40
1:CA:1209:G:N7	56:CA:3432:OHX:N3	2.69	0.40
1:AA:1423:G:N7	56:AA:3433:OHX:N3	2.69	0.40
31:DA:890:G:O2'	31:DA:891:U:P	2.78	0.40
31:BA:354:G:C2	31:BA:355:C:C5	3.10	0.40
31:DA:1075:C:H5'	32:DE:103:THR:HG21	2.04	0.40
1:CA:314:A:N3	1:CA:314:A:H2'	2.36	0.40
1:AA:2233:U:OP1	56:AA:3510:OHX:N1	2.55	0.40
33:DF:29:TYR:OH	44:DQ:54:PRO:HD2	2.22	0.40
15:CR:8:LYS:C	15:CR:10:VAL:N	2.74	0.40
32:DE:168:THR:HG21	32:DE:191:ASP:O	2.21	0.40
32:DE:220:ASP:O	32:DE:224:GLN:HB3	2.22	0.40
1:CA:1047:A:C2	1:CA:1202:A:C4	3.09	0.40
1:CA:1049:G:N7	56:CA:3376:OHX:N1	2.69	0.40
31:BA:328:C:H2'	31:BA:328:C:O2	2.22	0.40
31:BA:402:G:C6	31:BA:403:C:C4	3.09	0.40
32:BE:178:ARG:NH1	32:BE:196:LEU:O	2.21	0.40
18:AS:18:ARG:NH1	18:AS:76:VAL:O	2.50	0.40
2:CB:66:C:N4	2:CB:111:C:O2'	2.54	0.40
31:DA:955:U:O2'	49:DV:83:HIS:HD2	2.05	0.40
8:CK:145:VAL:HG23	8:CK:146:ALA:N	2.36	0.40
31:DA:583:A:H61	31:DA:758:G:H1'	1.86	0.40
1:AA:1323:U:H2'	1:AA:1324:G:H5'	2.04	0.40
13:A0:107:ASP:OD2	13:A0:109:ALA:N	2.40	0.40
39:BL:112:LYS:HA	39:BL:119:ALA:HB2	2.03	0.40
1:CA:916:U:N3	1:CA:917:G:C5	2.89	0.40
1:AA:338:G:N2	1:AA:339:U:H1'	2.36	0.40
1:CA:2502:G:C2'	1:CA:2503:G:H5'	2.51	0.40
38:DK:9:MET:O	38:DK:13:ILE:HG13	2.22	0.40
1:AA:277:C:H3'	1:AA:278:A:C4'	2.52	0.40
50:BW:38:LYS:HE2	50:BW:38:LYS:HB3	1.86	0.40
16:A1:44:ASN:HD21	17:A2:74:LYS:HA	1.86	0.40
1:AA:678:C:H2'	1:AA:679:C:H6	1.85	0.40
32:DE:61:LEU:HD21	32:DE:68:ILE:HD11	2.02	0.40
32:DE:90:MET:HA	32:DE:91:PRO:HD3	1.87	0.40
31:BA:12:U:O4	56:BA:1756:OHX:N4	2.54	0.40
31:DA:776:G:O6	56:DA:1749:OHX:N6	2.55	0.40
1:AA:1298:C:N4	1:AA:1299:G:C6	2.90	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:102:G:OP1	24:AW:7:ARG:NH2	2.47	0.40
1:CA:755:G:H2'	1:CA:756:C:O4'	2.22	0.40
1:CA:832:A:C8	1:CA:840:G:C5	3.10	0.40
1:AA:1591:G:C6	1:AA:1592:C:C4	3.09	0.40
7:CH:47:GLU:O	7:CH:49:VAL:HG22	2.22	0.40
1:AA:1296:G:O2'	1:AA:1297:C:H5'	2.21	0.40
31:DA:1155:G:C6	31:DA:1156:G:C6	3.09	0.40
1:AA:1301:A:C8	1:AA:1303:G:C8	3.10	0.40
31:BA:218:C:O2'	31:BA:219:C:H5'	2.21	0.40
1:AA:1403:C:C5'	1:AA:1471:A:H1'	2.52	0.40
33:BF:64:VAL:HG12	33:BF:66:VAL:HG23	2.03	0.40
32:DE:184:VAL:O	32:DE:198:ASP:HB2	2.22	0.40
1:AA:980:A:C6	1:AA:981:A:C2	3.10	0.40
50:BW:87:LYS:O	50:BW:91:LEU:HG	2.21	0.40
22:A3:37:LEU:HD22	22:A3:67:VAL:HG11	2.03	0.40
8:CK:59:ALA:HA	8:CK:62:LYS:HB3	2.03	0.40
35:DH:36:ASP:OD1	35:DH:38:GLN:HB2	2.21	0.40
38:DK:29:SER:HB3	38:DK:32:LYS:CG	2.52	0.40
36:DI:50:TYR:CE1	48:DU:77:GLY:HA2	2.57	0.40
32:BE:167:PRO:HG3	32:BE:188:ALA:HB2	2.04	0.40
48:DU:76:LEU:HD23	48:DU:76:LEU:HA	1.89	0.40
1:AA:28:A:C5	1:AA:29:U:C5	3.09	0.40
1:CA:2300:A:N6	1:CA:2357:U:C2	2.88	0.40
1:CA:2285:U:H5''	1:CA:2286:A:OP1	2.22	0.40
52:BD:22:A:C2'	52:BD:22:A:N3	2.82	0.40
1:CA:2180:G:O2'	1:CA:2181:A:O4'	2.29	0.40
52:BB:52:G:C6	52:BB:53:A:N6	2.88	0.40
31:BA:1357:A:N7	31:BA:1358:U:C4	2.89	0.40
15:CR:118:ARG:HH22	31:DA:1446:A:N6	2.19	0.40
21:AV:6:LYS:NZ	21:AV:43:GLU:HG3	2.36	0.40
20:AU:19:LYS:HZ3	20:AU:20:TYR:HE1	1.61	0.40
1:CA:1106:G:H2'	1:CA:1107:U:C5	2.56	0.40
3:AD:238:GLY:C	3:AD:239:ARG:CG	2.88	0.40
52:BD:26:G:C5	52:BD:27:A:C8	3.09	0.40
38:BK:25:ASP:HA	38:BK:59:LEU:O	2.22	0.40
3:CD:35:LYS:HE3	3:CD:65:ILE:N	2.36	0.40
3:CD:35:LYS:HG2	3:CD:64:ILE:CG1	2.48	0.40
1:AA:783:A:H3'	1:AA:783:A:C8	2.57	0.40
31:BA:1129:C:H4'	31:BA:1130:A:C5'	2.51	0.40
1:CA:2734:U:C4	1:CA:2735:A:C5	3.10	0.40
7:AH:153:LYS:CG	7:AH:162:ILE:HB	2.45	0.40
2:CB:47:A:OP2	6:CG:96:ARG:NH1	2.54	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:A5:16:ARG:O	27:A5:19:ARG:HB3	2.21	0.40
1:AA:1287:A:C5	1:AA:1288:U:C4	3.10	0.40
12:AP:92:GLY:C	12:AP:93:TYR:CG	2.95	0.40
1:CA:732:G:C6	1:CA:822:A:C4	3.09	0.40
31:DA:1054:C:C5	31:DA:1196:U:C4	3.10	0.40
51:DX:3:LYS:O	51:DX:14:TRP:CE3	2.75	0.40
8:CK:77:LEU:HD13	8:CK:141:LYS:CD	2.42	0.40
51:DX:12:LYS:HD2	51:DX:17:THR:O	2.20	0.40
1:CA:1606:A:C1'	1:CA:1607:G:OP2	2.60	0.40
1:CA:2482:A:O5'	1:CA:2489:A:H2	2.04	0.40
8:AK:109:ILE:HB	8:AK:130:TYR:CZ	2.56	0.40
14:CQ:35:ILE:O	14:CQ:35:ILE:HG23	2.21	0.40
28:C6:39:TYR:CG	28:C6:40:CYS:N	2.89	0.40
1:AA:2094:G:C2'	1:AA:2095:C:H5'	2.51	0.40
42:DO:22:PRO:O	42:DO:23:ALA:O	2.40	0.40
16:C1:74:LEU:HB2	16:C1:78:THR:OG1	2.21	0.40
1:AA:667:U:O2	30:A8:2:PRO:HD2	2.22	0.40
13:A0:85:PRO:O	13:A0:87:TYR:N	2.54	0.40
1:CA:2878:G:C5	15:CR:23:ARG:NH2	2.89	0.40
4:AE:37:ARG:NH1	4:AE:42:ASP:CG	2.74	0.40
14:AQ:27:SER:HA	14:AQ:88:ASP:HB3	2.01	0.40
31:BA:1434:A:H2'	31:BA:1435:G:O4'	2.20	0.40
17:A2:60:GLU:O	17:A2:62:LEU:HD13	2.20	0.40
9:AM:34:LEU:HA	9:AM:34:LEU:HD12	1.72	0.40
1:CA:582:G:H2'	1:CA:583:G:H8	1.86	0.40
4:CE:47:VAL:O	4:CE:80:GLU:HA	2.22	0.40
20:CU:52:SER:HA	20:CU:55:TYR:O	2.22	0.40
4:AE:116:VAL:HG13	4:AE:122:PHE:CB	2.52	0.40
1:AA:652:C:N4	1:AA:653:A:N6	2.70	0.40
21:AV:150:LEU:HD23	21:AV:151:HIS:N	2.36	0.40
35:BH:100:VAL:HG13	35:BH:118:ILE:CG2	2.51	0.40
35:BH:35:GLY:HA2	35:BH:40:ARG:O	2.21	0.40
1:CA:352:G:H2'	1:CA:353:U:O4'	2.22	0.40
31:BA:1387:G:C6	31:BA:1388:C:N4	2.89	0.40
34:BG:20:TYR:CZ	36:DI:15:ASP:HB3	2.56	0.40
1:CA:56:C:C2'	1:CA:57:G:O5'	2.70	0.40
24:CW:41:ILE:CD1	24:CW:44:LEU:HD12	2.51	0.40
1:AA:172:C:H2'	1:AA:173:G:H8	1.86	0.40
31:BA:1152:A:N6	31:BA:1153:C:N4	2.68	0.40
1:CA:717:G:C1'	1:CA:718:A:OP1	2.70	0.40
31:DA:1028(B):C:N3	31:DA:1032(A):G:C2	2.90	0.40
52:DD:81:C:H2'	52:DD:82:A:O4'	2.20	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:AA:648:G:H2'	1:AA:649:G:H8	1.85	0.40
1:AA:1329:U:H3'	1:AA:1330:C:H6	1.87	0.40
1:AA:990:A:OP2	1:AA:991:C:OP2	2.40	0.40
42:BO:67:ILE:HA	42:BO:68:PRO:HD3	1.89	0.40
14:AQ:92:TYR:HB3	14:AQ:98:VAL:HG21	2.02	0.40
13:A0:77:ARG:C	13:A0:79:LEU:N	2.72	0.40
31:DA:397:A:N6	31:DA:548:G:C5	2.90	0.40
1:AA:198:C:O2'	1:AA:199:A:H5'	2.21	0.40
31:BA:602:A:C2	31:BA:637:G:C4	3.09	0.40
1:CA:255:A:H61	1:CA:456:A:H1'	1.87	0.40
31:BA:392:G:H2'	31:BA:393:A:H8	1.86	0.40
1:CA:1551:C:O2'	1:CA:1552:C:H5'	2.21	0.40
1:CA:1824:G:H2'	1:CA:1825:C:C6	2.57	0.40
31:BA:1138:G:N3	31:BA:1138:G:H3'	2.37	0.40
1:AA:471:A:OP2	1:AA:471:A:C8	2.75	0.40
31:BA:707:C:O2'	31:BA:708:C:H5'	2.22	0.40
31:DA:797:C:OP1	41:DN:124:LYS:HD2	2.21	0.40
31:DA:1031:G:C6	31:DA:1032:A:N6	2.90	0.40
13:C0:78:LYS:HE2	13:C0:83:ILE:HD11	2.03	0.40
4:AE:94:GLU:OE2	4:AE:177:PRO:HB3	2.22	0.40
18:CS:24:ILE:C	18:CS:27:LYS:HG3	2.42	0.40
1:CA:152:G:H1	1:CA:164:C:H42	1.69	0.40
1:CA:2380:G:H2'	1:CA:2381:C:C6	2.57	0.40
9:CM:67:LEU:O	9:CM:88:GLU:HG3	2.21	0.40
1:CA:664:G:C5	1:CA:677:G:C2	3.10	0.40
33:DF:179:ARG:HG3	33:DF:206:GLU:OE2	2.21	0.40
32:BE:177:ALA:HB1	32:BE:182:ILE:HB	2.04	0.40
31:BA:771:G:O2'	31:BA:772:U:H5'	2.20	0.40
18:CS:66:GLU:HA	18:CS:69:LEU:HG	2.04	0.40
1:AA:2459:A:C6	1:AA:2460:U:C2	3.10	0.40
47:BT:44:ALA:HA	47:BT:71:PHE:O	2.20	0.40
6:AG:34:LEU:HD23	6:AG:34:LEU:HA	1.89	0.40
34:DG:151:LYS:HE2	34:DG:151:LYS:HB3	1.85	0.40
23:AZ:46:LEU:HA	23:AZ:46:LEU:HD12	1.84	0.40
10:CN:69:ILE:HD12	10:CN:69:ILE:H	1.86	0.40
31:BA:927:G:H4'	31:BA:927:G:OP2	2.20	0.40
12:CP:72:LYS:HB2	12:CP:72:LYS:NZ	2.37	0.40
1:CA:1836:C:O5'	1:CA:1836:C:H6	2.04	0.40
53:DC:28:U:O2	53:DC:45:A:C2	2.75	0.40
1:AA:536:A:H2'	1:AA:537:C:C6	2.57	0.40
1:AA:1268:A:C2'	1:AA:1269:A:O5'	2.70	0.40

All (1) symmetry-related close contacts are listed below. The label for Atom-2 includes the sym-

metry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:BA:85:U:O2'	7:CH:100:GLY:O[3_555]	1.93	0.27

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	
3	AD	270/276 (98%)	218 (81%)	35 (13%)	17 (6%)	2	20
3	CD	270/276 (98%)	218 (81%)	40 (15%)	12 (4%)	4	32
4	AE	203/206 (98%)	141 (70%)	39 (19%)	23 (11%)	1	5
4	CE	203/206 (98%)	131 (64%)	46 (23%)	26 (13%)	0	3
5	AF	200/210 (95%)	168 (84%)	23 (12%)	9 (4%)	4	32
5	CF	206/210 (98%)	144 (70%)	35 (17%)	27 (13%)	0	3
6	AG	179/182 (98%)	147 (82%)	25 (14%)	7 (4%)	5	37
6	CG	179/182 (98%)	144 (80%)	27 (15%)	8 (4%)	4	32
7	AH	168/180 (93%)	123 (73%)	20 (12%)	25 (15%)	0	2
7	CH	168/180 (93%)	111 (66%)	41 (24%)	16 (10%)	1	9
8	AK	144/148 (97%)	99 (69%)	31 (22%)	14 (10%)	1	8
8	CK	144/148 (97%)	104 (72%)	32 (22%)	8 (6%)	3	25
9	AM	136/140 (97%)	108 (79%)	17 (12%)	11 (8%)	1	13
9	CM	136/140 (97%)	106 (78%)	23 (17%)	7 (5%)	3	28
10	AN	120/122 (98%)	108 (90%)	10 (8%)	2 (2%)	14	62
10	CN	120/122 (98%)	107 (89%)	9 (8%)	4 (3%)	6	43
11	AO	148/150 (99%)	93 (63%)	35 (24%)	20 (14%)	0	3
11	CO	148/150 (99%)	91 (62%)	32 (22%)	25 (17%)	0	1
12	AP	139/141 (99%)	101 (73%)	21 (15%)	17 (12%)	1	4
12	CP	139/141 (99%)	95 (68%)	24 (17%)	20 (14%)	0	2

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
13	A0	116/118 (98%)	96 (83%)	15 (13%)	5 (4%)	4	34
13	C0	115/118 (98%)	97 (84%)	12 (10%)	6 (5%)	3	27
14	AQ	109/112 (97%)	86 (79%)	14 (13%)	9 (8%)	1	12
14	CQ	109/112 (97%)	72 (66%)	24 (22%)	13 (12%)	1	4
15	AR	135/146 (92%)	107 (79%)	22 (16%)	6 (4%)	4	32
15	CR	135/146 (92%)	112 (83%)	15 (11%)	8 (6%)	2	23
16	A1	115/118 (98%)	96 (84%)	13 (11%)	6 (5%)	3	27
16	C1	115/118 (98%)	89 (77%)	16 (14%)	10 (9%)	1	11
17	A2	99/101 (98%)	85 (86%)	9 (9%)	5 (5%)	3	28
17	C2	99/101 (98%)	73 (74%)	14 (14%)	12 (12%)	1	4
18	AS	111/113 (98%)	97 (87%)	13 (12%)	1 (1%)	25	76
18	CS	111/113 (98%)	99 (89%)	9 (8%)	3 (3%)	8	49
19	AT	90/96 (94%)	84 (93%)	5 (6%)	1 (1%)	21	73
19	CT	90/96 (94%)	73 (81%)	14 (16%)	3 (3%)	6	43
20	AU	100/110 (91%)	76 (76%)	13 (13%)	11 (11%)	1	6
20	CU	100/110 (91%)	62 (62%)	27 (27%)	11 (11%)	1	6
21	AV	173/206 (84%)	113 (65%)	40 (23%)	20 (12%)	1	5
21	CV	177/206 (86%)	112 (63%)	40 (23%)	25 (14%)	0	2
22	A3	74/85 (87%)	62 (84%)	7 (10%)	5 (7%)	2	18
22	C3	75/85 (88%)	59 (79%)	13 (17%)	3 (4%)	5	36
23	AZ	95/98 (97%)	76 (80%)	13 (14%)	6 (6%)	2	20
23	CZ	95/98 (97%)	76 (80%)	9 (10%)	10 (10%)	1	6
24	AW	64/72 (89%)	57 (89%)	4 (6%)	3 (5%)	4	30
24	CW	64/72 (89%)	52 (81%)	7 (11%)	5 (8%)	1	14
25	AX	57/60 (95%)	52 (91%)	5 (9%)	0	100	100
25	CX	57/60 (95%)	52 (91%)	5 (9%)	0	100	100
26	A4	64/71 (90%)	39 (61%)	13 (20%)	12 (19%)	0	1
26	C4	61/71 (86%)	23 (38%)	20 (33%)	18 (30%)	0	0
27	A5	57/60 (95%)	42 (74%)	9 (16%)	6 (10%)	1	6
27	C5	57/60 (95%)	47 (82%)	8 (14%)	2 (4%)	6	41
28	A6	43/54 (80%)	23 (54%)	13 (30%)	7 (16%)	0	1

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
28	C6	43/54 (80%)	23 (54%)	11 (26%)	9 (21%)	0	1
29	A7	43/49 (88%)	41 (95%)	2 (5%)	0	100	100
29	C7	43/49 (88%)	40 (93%)	3 (7%)	0	100	100
30	A8	58/65 (89%)	47 (81%)	8 (14%)	3 (5%)	3	27
30	C8	58/65 (89%)	41 (71%)	6 (10%)	11 (19%)	0	1
32	BE	235/256 (92%)	181 (77%)	38 (16%)	16 (7%)	2	18
32	DE	235/256 (92%)	177 (75%)	40 (17%)	18 (8%)	1	14
33	BF	203/239 (85%)	161 (79%)	36 (18%)	6 (3%)	7	46
33	DF	204/239 (85%)	163 (80%)	35 (17%)	6 (3%)	7	47
34	BG	206/208 (99%)	179 (87%)	19 (9%)	8 (4%)	5	37
34	DG	206/208 (99%)	159 (77%)	35 (17%)	12 (6%)	3	23
35	BH	149/162 (92%)	127 (85%)	16 (11%)	6 (4%)	5	36
35	DH	149/162 (92%)	132 (89%)	15 (10%)	2 (1%)	18	69
36	BI	99/101 (98%)	89 (90%)	7 (7%)	3 (3%)	7	46
36	DI	99/101 (98%)	89 (90%)	8 (8%)	2 (2%)	11	58
37	BJ	153/156 (98%)	128 (84%)	21 (14%)	4 (3%)	8	50
37	DJ	153/156 (98%)	135 (88%)	16 (10%)	2 (1%)	18	69
38	BK	136/138 (99%)	116 (85%)	16 (12%)	4 (3%)	7	47
38	DK	136/138 (99%)	116 (85%)	15 (11%)	5 (4%)	5	39
39	BL	125/128 (98%)	95 (76%)	25 (20%)	5 (4%)	5	36
39	DL	125/128 (98%)	97 (78%)	21 (17%)	7 (6%)	3	25
40	BM	97/105 (92%)	83 (86%)	13 (13%)	1 (1%)	22	74
40	DM	97/105 (92%)	82 (84%)	14 (14%)	1 (1%)	22	74
41	BN	117/129 (91%)	99 (85%)	12 (10%)	6 (5%)	3	28
41	DN	117/129 (91%)	103 (88%)	8 (7%)	6 (5%)	3	28
42	BO	123/132 (93%)	100 (81%)	17 (14%)	6 (5%)	3	29
42	DO	123/132 (93%)	94 (76%)	17 (14%)	12 (10%)	1	8
43	BP	114/126 (90%)	82 (72%)	22 (19%)	10 (9%)	1	11
43	DP	115/126 (91%)	85 (74%)	18 (16%)	12 (10%)	1	7
44	BQ	56/61 (92%)	40 (71%)	10 (18%)	6 (11%)	1	6
44	DQ	56/61 (92%)	41 (73%)	8 (14%)	7 (12%)	1	4

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
45	BR	86/89 (97%)	76 (88%)	8 (9%)	2 (2%)	10	54
45	DR	86/89 (97%)	77 (90%)	8 (9%)	1 (1%)	19	71
46	BS	82/88 (93%)	60 (73%)	20 (24%)	2 (2%)	9	53
46	DS	82/88 (93%)	70 (85%)	11 (13%)	1 (1%)	19	71
47	BT	98/105 (93%)	82 (84%)	13 (13%)	3 (3%)	7	45
47	DT	98/105 (93%)	91 (93%)	5 (5%)	2 (2%)	11	58
48	BU	70/88 (80%)	59 (84%)	10 (14%)	1 (1%)	16	67
48	DU	70/88 (80%)	57 (81%)	12 (17%)	1 (1%)	16	67
49	BV	76/93 (82%)	59 (78%)	14 (18%)	3 (4%)	5	37
49	DV	76/93 (82%)	55 (72%)	17 (22%)	4 (5%)	3	26
50	BW	97/106 (92%)	78 (80%)	16 (16%)	3 (3%)	7	45
50	DW	97/106 (92%)	82 (84%)	9 (9%)	6 (6%)	2	21
51	BX	23/27 (85%)	19 (83%)	3 (13%)	1 (4%)	4	34
51	DX	23/27 (85%)	21 (91%)	0	2 (9%)	1	11
All	All	11319/12052 (94%)	8877 (78%)	1684 (15%)	758 (7%)	2	18

All (758) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	AD	28	GLU
3	AD	32	SER
3	AD	122	ASP
3	AD	123	ALA
3	AD	238	GLY
4	AE	2	LYS
4	AE	78	LEU
4	AE	79	ARG
4	AE	83	ASP
4	AE	90	THR
4	AE	118	LYS
5	AF	24	LEU
5	AF	134	GLY
6	AG	96	ARG
7	AH	10	PRO
7	AH	12	PRO
7	AH	27	LYS
7	AH	84	SER

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Mol	Chain	Res	Type
7	AH	137	ASP
7	AH	151	ILE
7	AH	153	LYS
7	AH	154	PRO
7	AH	155	SER
7	AH	159	GLU
7	AH	167	GLU
7	AH	169	VAL
8	AK	134	PRO
8	AK	145	VAL
9	AM	22	THR
9	AM	23	LEU
9	AM	58	ASP
10	AN	97	ARG
11	AO	6	LEU
11	AO	16	ARG
11	AO	23	PRO
11	AO	25	SER
11	AO	42	SER
11	AO	65	ARG
11	AO	67	MET
12	AP	25	ASP
12	AP	28	ALA
12	AP	66	ILE
12	AP	80	GLU
12	AP	89	ASN
13	A0	4	LEU
13	A0	45	ARG
15	AR	106	SER
15	AR	112	ARG
16	A1	89	GLU
16	A1	91	ASP
16	A1	93	LYS
17	A2	36	PRO
17	A2	45	THR
17	A2	48	GLY
17	A2	49	THR
18	AS	112	GLY
20	AU	42	VAL
20	AU	50	ARG
20	AU	77	PRO
20	AU	78	ALA

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Mol	Chain	Res	Type
21	AV	6	LYS
21	AV	51	ALA
21	AV	60	GLU
21	AV	63	ASP
21	AV	109	ALA
21	AV	161	VAL
21	AV	165	VAL
22	A3	44	ARG
22	A3	84	LEU
23	AZ	76	ARG
24	AW	43	GLN
24	AW	47	ASN
24	AW	48	HIS
26	A4	40	HIS
26	A4	50	VAL
26	A4	53	GLU
27	A5	3	LYS
27	A5	4	HIS
28	A6	16	CYS
28	A6	17	LYS
30	A8	52	LYS
32	BE	96	ARG
32	BE	239	VAL
33	BF	4	LYS
34	BG	26	CYS
34	BG	155	LEU
35	BH	21	ALA
36	BI	40	VAL
36	BI	42	GLU
38	BK	2	LEU
38	BK	86	ILE
39	BL	111	ARG
41	BN	82	VAL
41	BN	103	LEU
42	BO	13	GLU
43	BP	27	LYS
43	BP	83	ASP
44	BQ	14	PRO
3	CD	26	LYS
3	CD	237	GLU
3	CD	239	ARG
3	CD	271	ILE

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Mol	Chain	Res	Type
4	CE	25	VAL
4	CE	26	ILE
4	CE	60	ASN
4	CE	61	ARG
4	CE	78	LEU
4	CE	82	ARG
4	CE	204	ALA
5	CF	21	ALA
5	CF	22	ALA
5	CF	25	PRO
5	CF	28	ILE
5	CF	90	PHE
5	CF	129	PHE
5	CF	167	ALA
5	CF	168	ARG
6	CG	35	GLU
7	CH	126	PRO
7	CH	131	VAL
7	CH	168	PRO
8	CK	73	GLU
8	CK	111	PRO
8	CK	113	ARG
8	CK	117	GLU
8	CK	119	PRO
9	CM	23	LEU
11	CO	6	LEU
11	CO	16	ARG
11	CO	35	HIS
11	CO	51	PHE
11	CO	56	SER
11	CO	57	THR
11	CO	58	THR
11	CO	64	LYS
11	CO	65	ARG
11	CO	106	LEU
11	CO	111	ARG
11	CO	147	LEU
12	CP	13	GLN
12	CP	25	ASP
12	CP	79	LEU
12	CP	89	ASN
12	CP	117	ALA

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Mol	Chain	Res	Type
12	CP	134	ARG
12	CP	135	ASP
12	CP	136	ALA
13	C0	107	ASP
14	CQ	55	ALA
14	CQ	87	PHE
14	CQ	89	ARG
14	CQ	110	LEU
15	CR	107	ASP
17	C2	44	LYS
17	C2	79	VAL
17	C2	85	LYS
18	CS	63	ASP
20	CU	3	VAL
20	CU	17	SER
20	CU	77	PRO
21	CV	6	LYS
21	CV	53	ILE
21	CV	105	VAL
21	CV	114	GLY
21	CV	175	VAL
22	C3	44	ARG
23	CZ	36	GLY
23	CZ	93	GLU
23	CZ	96	LYS
24	CW	47	ASN
26	C4	5	ILE
26	C4	29	PRO
26	C4	31	ILE
26	C4	32	TYR
26	C4	36	CYS
26	C4	37	SER
27	C5	4	HIS
27	C5	57	VAL
28	C6	17	LYS
28	C6	45	LYS
28	C6	52	VAL
30	C8	34	TRP
30	C8	35	GLN
30	C8	38	GLY
30	C8	49	VAL
30	C8	50	LEU

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Mol	Chain	Res	Type
30	C8	51	ALA
32	DE	6	THR
32	DE	7	VAL
32	DE	191	ASP
34	DG	153	ARG
39	DL	54	ASP
39	DL	111	ARG
39	DL	118	LYS
41	DN	100	ALA
42	DO	15	VAL
42	DO	16	ARG
42	DO	23	ALA
42	DO	93	VAL
43	DP	7	VAL
43	DP	95	GLY
44	DQ	24	CYS
44	DQ	28	GLY
49	DV	9	VAL
49	DV	11	VAL
50	DW	49	ALA
50	DW	71	THR
50	DW	73	HIS
3	AD	26	LYS
3	AD	33	LEU
3	AD	46	GLN
3	AD	196	VAL
3	AD	239	ARG
4	AE	54	GLN
4	AE	60	ASN
4	AE	71	GLY
4	AE	88	GLY
4	AE	132	HIS
5	AF	168	ARG
6	AG	14	GLU
6	AG	79	ASN
7	AH	3	ARG
7	AH	81	GLU
7	AH	85	LYS
7	AH	87	LEU
7	AH	127	GLU
7	AH	138	LYS
8	AK	10	GLU

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Mol	Chain	Res	Type
8	AK	133	HIS
9	AM	47	ALA
9	AM	76	SER
11	AO	24	GLY
11	AO	66	GLY
11	AO	106	LEU
11	AO	148	LEU
12	AP	2	LEU
12	AP	6	ARG
12	AP	27	VAL
12	AP	59	ARG
12	AP	88	GLY
12	AP	104	PHE
13	A0	3	HIS
14	AQ	4	LEU
14	AQ	88	ASP
14	AQ	94	TYR
15	AR	2	ASN
15	AR	37	GLY
16	A1	90	VAL
16	A1	116	ALA
17	A2	47	VAL
19	AT	40	LYS
20	AU	57	GLN
20	AU	58	GLY
21	AV	53	ILE
21	AV	81	ARG
21	AV	160	GLY
22	A3	83	PRO
23	AZ	75	GLU
23	AZ	79	GLY
23	AZ	92	LYS
26	A4	14	ILE
26	A4	30	GLU
26	A4	34	GLU
26	A4	39	CYS
26	A4	42	PHE
26	A4	46	GLN
26	A4	51	ASP
27	A5	5	PRO
28	A6	33	LYS
28	A6	46	HIS

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Mol	Chain	Res	Type
30	A8	35	GLN
32	BE	155	LEU
32	BE	208	ILE
32	BE	216	SER
32	BE	237	ALA
33	BF	12	LEU
33	BF	13	GLY
34	BG	12	CYS
34	BG	154	ASN
35	BH	140	ARG
36	BI	62	TRP
37	BJ	7	ALA
38	BK	87	SER
39	BL	96	LEU
41	BN	91	ARG
41	BN	107	SER
42	BO	16	ARG
42	BO	46	ASN
42	BO	88	LYS
43	BP	108	ARG
44	BQ	29	ARG
44	BQ	60	SER
45	BR	86	GLY
47	BT	49	GLU
47	BT	68	ARG
50	BW	96	GLY
3	CD	267	SER
4	CE	2	LYS
4	CE	74	PRO
4	CE	117	MET
5	CF	17	ARG
5	CF	62	ARG
5	CF	73	ALA
5	CF	125	LEU
5	CF	146	ALA
5	CF	166	ALA
5	CF	193	VAL
6	CG	14	GLU
6	CG	47	LYS
7	CH	17	VAL
7	CH	92	ILE
7	CH	160	LYS

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Mol	Chain	Res	Type
7	CH	169	VAL
8	CK	115	ALA
8	CK	144	VAL
8	CK	145	VAL
9	CM	56	ASN
11	CO	10	PRO
11	CO	12	ALA
11	CO	34	GLY
11	CO	66	GLY
11	CO	67	MET
11	CO	98	GLU
11	CO	107	LYS
11	CO	108	LYS
12	CP	4	PRO
12	CP	7	MET
12	CP	19	GLY
12	CP	29	PHE
12	CP	30	GLY
12	CP	88	GLY
13	C0	3	HIS
13	C0	82	GLU
14	CQ	13	ARG
14	CQ	19	LYS
14	CQ	57	LYS
14	CQ	107	GLU
14	CQ	111	GLU
15	CR	86	ILE
15	CR	135	ALA
16	C1	90	VAL
16	C1	91	ASP
16	C1	93	LYS
16	C1	95	LEU
17	C2	49	THR
17	C2	72	VAL
17	C2	80	GLN
19	CT	40	LYS
20	CU	29	GLU
20	CU	63	LYS
20	CU	90	LEU
21	CV	108	PRO
21	CV	143	GLY
21	CV	145	GLU

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Mol	Chain	Res	Type
21	CV	171	ILE
23	CZ	28	GLY
23	CZ	84	GLY
24	CW	16	LEU
24	CW	41	ILE
26	C4	33	VAL
26	C4	50	VAL
28	C6	35	GLU
28	C6	46	HIS
30	C8	29	LYS
30	C8	32	LEU
30	C8	36	LYS
32	DE	8	LYS
32	DE	20	GLU
32	DE	32	ILE
32	DE	75	LYS
32	DE	96	ARG
32	DE	226	ARG
34	DG	9	CYS
34	DG	26	CYS
34	DG	151	LYS
34	DG	178	VAL
41	DN	55	LYS
41	DN	101	SER
41	DN	117	ASN
42	DO	44	LYS
42	DO	58	THR
42	DO	60	GLY
42	DO	62	GLU
43	DP	85	GLY
43	DP	106	ASN
43	DP	117	VAL
44	DQ	26	ARG
50	DW	10	LEU
50	DW	102	GLY
3	AD	29	PRO
3	AD	241	PRO
4	AE	56	PRO
5	AF	25	PRO
5	AF	73	ALA
5	AF	129	PHE
5	AF	198	ALA

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Mol	Chain	Res	Type
6	AG	24	GLY
7	AH	5	GLY
7	AH	83	TYR
7	AH	152	ARG
7	AH	168	PRO
9	AM	8	GLN
11	AO	10	PRO
11	AO	12	ALA
11	AO	59	LEU
12	AP	60	ARG
12	AP	134	ARG
12	AP	139	GLU
13	A0	86	ARG
14	AQ	13	ARG
14	AQ	107	GLU
14	AQ	110	LEU
20	AU	11	ASP
20	AU	40	GLU
20	AU	97	ARG
21	AV	7	ALA
21	AV	118	GLN
22	A3	15	ASP
23	AZ	91	LYS
28	A6	19	ARG
28	A6	21	TYR
32	BE	8	LYS
32	BE	26	PRO
32	BE	101	MET
32	BE	238	LEU
34	BG	30	LYS
34	BG	89	THR
37	BJ	148	ASN
43	BP	5	ALA
43	BP	21	TYR
43	BP	67	GLU
44	BQ	5	ALA
44	BQ	16	PHE
46	BS	77	ALA
48	BU	87	ARG
51	BX	3	LYS
3	CD	240	ALA
3	CD	272	ALA

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Mol	Chain	Res	Type
4	CE	54	GLN
4	CE	66	HIS
4	CE	200	GLU
5	CF	127	GLU
6	CG	5	VAL
6	CG	96	ARG
7	CH	5	GLY
7	CH	83	TYR
9	CM	133	GLN
10	CN	5	GLN
10	CN	48	PRO
11	CO	38	GLN
11	CO	52	GLU
13	C0	45	ARG
14	CQ	4	LEU
14	CQ	97	ARG
15	CR	117	ASP
15	CR	132	LYS
17	C2	84	LYS
17	C2	87	HIS
18	CS	44	ALA
18	CS	58	ALA
20	CU	89	PHE
20	CU	94	LYS
21	CV	60	GLU
21	CV	61	LEU
21	CV	116	VAL
21	CV	119	GLU
21	CV	158	PRO
21	CV	161	VAL
21	CV	169	GLU
22	C3	33	ALA
26	C4	20	ASN
26	C4	42	PHE
26	C4	48	ARG
26	C4	52	THR
26	C4	57	GLU
28	C6	36	LEU
28	C6	49	HIS
30	C8	48	PHE
32	DE	83	MET
33	DF	15	THR

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Mol	Chain	Res	Type
33	DF	48	TYR
34	DG	14	ARG
34	DG	171	GLY
35	DH	59	GLY
36	DI	79	LEU
38	DK	2	LEU
38	DK	100	ILE
39	DL	119	ALA
40	DM	79	ARG
42	DO	76	GLU
43	DP	5	ALA
43	DP	29	ARG
43	DP	63	THR
43	DP	82	MET
44	DQ	15	LYS
44	DQ	30	ALA
46	DS	83	GLU
47	DT	68	ARG
48	DU	36	ASN
51	DX	3	LYS
51	DX	25	LYS
3	AD	224	ALA
4	AE	18	ASP
4	AE	22	PRO
4	AE	55	ASN
4	AE	69	LYS
4	AE	72	VAL
4	AE	117	MET
5	AF	67	GLN
6	AG	5	VAL
6	AG	97	ASP
6	AG	116	ASP
8	AK	36	ALA
8	AK	82	ARG
8	AK	83	ALA
8	AK	105	HIS
8	AK	131	LYS
9	AM	128	HIS
11	AO	29	LYS
11	AO	47	ASP
11	AO	90	ARG
12	AP	11	LYS

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Mol	Chain	Res	Type
13	A0	2	ARG
14	AQ	57	LYS
14	AQ	61	ASN
15	AR	38	ASN
15	AR	136	GLN
21	AV	62	PRO
21	AV	141	VAL
23	AZ	40	ARG
26	A4	24	THR
27	A5	49	CYS
28	A6	22	ALA
30	A8	36	LYS
32	BE	22	LYS
32	BE	194	PRO
33	BF	15	THR
33	BF	61	ALA
34	BG	156	GLU
41	BN	117	ASN
43	BP	8	GLU
43	BP	106	ASN
46	BS	43	LYS
47	BT	99	SER
3	CD	31	LYS
4	CE	9	VAL
4	CE	51	PHE
4	CE	63	LEU
4	CE	81	ILE
4	CE	131	ALA
5	CF	3	GLU
5	CF	19	GLU
5	CF	27	GLU
5	CF	61	GLY
6	CG	81	LYS
7	CH	8	PRO
7	CH	84	SER
7	CH	167	GLU
9	CM	36	GLY
9	CM	130	HIS
11	CO	47	ASP
12	CP	27	VAL
12	CP	59	ARG
12	CP	110	THR

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Mol	Chain	Res	Type
15	CR	116	ALA
16	C1	33	ARG
17	C2	62	LEU
17	C2	71	LEU
17	C2	99	ILE
19	CT	19	ALA
20	CU	78	ALA
21	CV	31	ARG
21	CV	51	ALA
21	CV	141	VAL
21	CV	176	PRO
22	C3	84	LEU
23	CZ	30	VAL
23	CZ	88	LYS
24	CW	15	LYS
24	CW	43	GLN
26	C4	21	VAL
26	C4	56	VAL
30	C8	53	PRO
32	DE	128	GLU
34	DG	12	CYS
34	DG	17	VAL
34	DG	27	TYR
34	DG	154	ASN
35	DH	70	PRO
37	DJ	33	ASP
38	DK	73	ASP
41	DN	49	GLY
43	DP	57	ARG
44	DQ	16	PHE
3	AD	3	VAL
4	AE	15	PHE
4	AE	21	VAL
5	AF	130	ALA
7	AH	13	LYS
8	AK	11	ASN
9	AM	18	ALA
9	AM	56	ASN
10	AN	5	GLN
11	AO	95	VAL
12	AP	90	VAL
20	AU	3	VAL

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Mol	Chain	Res	Type
21	AV	121	HIS
21	AV	168	GLU
21	AV	171	ILE
22	A3	35	ASN
32	BE	150	SER
35	BH	70	PRO
35	BH	153	LYS
37	BJ	58	PRO
39	BL	70	LYS
42	BO	62	GLU
43	BP	28	ALA
43	BP	68	GLY
3	CD	159	ALA
4	CE	37	ARG
4	CE	52	LEU
4	CE	57	LYS
4	CE	187	ALA
5	CF	24	LEU
5	CF	54	ARG
5	CF	81	PRO
5	CF	124	LEU
6	CG	110	ALA
6	CG	116	ASP
7	CH	99	VAL
7	CH	118	PRO
9	CM	18	ALA
10	CN	104	ARG
12	CP	90	VAL
13	C0	26	LYS
13	C0	42	LYS
14	CQ	61	ASN
15	CR	113	LYS
16	C1	9	VAL
16	C1	22	LYS
16	C1	98	LEU
16	C1	101	ARG
19	CT	51	VAL
20	CU	85	VAL
21	CV	52	SER
23	CZ	79	GLY
23	CZ	87	PRO
26	C4	10	VAL

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Mol	Chain	Res	Type
26	C4	40	HIS
28	C6	44	ARG
32	DE	9	GLU
32	DE	39	ILE
32	DE	130	ARG
32	DE	232	PRO
33	DF	82	GLU
38	DK	98	LYS
39	DL	55	ALA
41	DN	48	ILE
43	DP	116	THR
44	DQ	14	PRO
47	DT	33	GLY
49	DV	66	MET
8	AK	12	LEU
8	AK	118	LYS
11	AO	7	ARG
11	AO	62	LEU
12	AP	105	GLU
16	A1	88	ILE
27	A5	7	PRO
32	BE	14	GLY
35	BH	112	LEU
39	BL	56	LEU
40	BM	36	GLY
41	BN	101	SER
42	BO	118	GLY
49	BV	8	GLY
49	BV	41	VAL
3	CD	3	VAL
4	CE	90	THR
7	CH	152	ARG
9	CM	128	HIS
12	CP	77	LYS
17	C2	36	PRO
21	CV	62	PRO
26	C4	41	PRO
28	C6	15	GLU
32	DE	72	GLY
32	DE	73	THR
34	DG	7	PRO
42	DO	28	PRO

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Mol	Chain	Res	Type
42	DO	45	PRO
49	DV	67	VAL
3	AD	35	LYS
21	AV	158	PRO
32	BE	5	ILE
34	BG	28	SER
35	BH	115	VAL
3	CD	35	LYS
4	CE	77	ILE
4	CE	186	GLY
12	CP	55	VAL
33	DF	14	ILE
37	DJ	82	GLY
43	DP	84	ILE
50	DW	101	GLY
3	AD	114	GLY
3	AD	271	ILE
4	AE	33	VAL
9	AM	60	ILE
14	AQ	90	GLY
21	AV	61	LEU
21	AV	108	PRO
27	A5	47	PRO
33	BF	145	GLY
4	CE	59	VAL
5	CF	126	VAL
5	CF	132	VAL
11	CO	62	LEU
15	CR	20	PRO
16	C1	73	GLY
20	CU	31	LEU
21	CV	157	LEU
23	CZ	55	GLY
39	DL	108	VAL
4	AE	4	ILE
7	AH	92	ILE
8	AK	15	VAL
9	AM	64	GLY
20	AU	56	PRO
26	A4	35	VAL
37	BJ	81	GLY
50	BW	63	ILE

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Mol	Chain	Res	Type
50	BW	97	ALA
3	CD	28	GLU
5	CF	89	VAL
7	CH	4	ILE
10	CN	115	VAL
14	CQ	96	GLY
21	CV	160	GLY
42	DO	52	VAL
45	DR	86	GLY
4	AE	62	PRO
7	AH	21	PRO
38	BK	129	VAL
39	BL	44	VAL
44	BQ	13	THR
45	BR	87	ILE
49	BV	9	VAL
21	CV	165	VAL
32	DE	125	PRO
33	DF	64	VAL
36	DI	40	VAL
39	DL	109	VAL
8	AK	13	GLY
32	BE	167	PRO
11	CO	11	GLY
33	DF	109	PRO
38	DK	134	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	
3	AD	214/218 (98%)	172 (80%)	42 (20%)	2	9
3	CD	214/218 (98%)	187 (87%)	27 (13%)	7	31
4	AE	165/166 (99%)	137 (83%)	28 (17%)	3	15
4	CE	165/166 (99%)	125 (76%)	40 (24%)	1	4
5	AF	161/166 (97%)	137 (85%)	24 (15%)	4	21

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
5	CF	165/166 (99%)	137 (83%)	28 (17%)	3	15
6	AG	155/156 (99%)	136 (88%)	19 (12%)	7	32
6	CG	155/156 (99%)	139 (90%)	16 (10%)	10	41
7	AH	142/148 (96%)	112 (79%)	30 (21%)	1	7
7	CH	142/148 (96%)	123 (87%)	19 (13%)	6	27
8	AK	122/124 (98%)	98 (80%)	24 (20%)	2	9
8	CK	122/124 (98%)	104 (85%)	18 (15%)	4	21
9	AM	117/119 (98%)	98 (84%)	19 (16%)	3	17
9	CM	117/119 (98%)	95 (81%)	22 (19%)	2	11
10	AN	100/100 (100%)	92 (92%)	8 (8%)	17	58
10	CN	100/100 (100%)	88 (88%)	12 (12%)	7	33
11	AO	116/116 (100%)	84 (72%)	32 (28%)	0	2
11	CO	116/116 (100%)	84 (72%)	32 (28%)	0	2
12	AP	111/111 (100%)	91 (82%)	20 (18%)	2	13
12	CP	111/111 (100%)	88 (79%)	23 (21%)	2	8
13	A0	101/101 (100%)	83 (82%)	18 (18%)	2	13
13	C0	100/101 (99%)	84 (84%)	16 (16%)	3	18
14	AQ	87/88 (99%)	70 (80%)	17 (20%)	2	9
14	CQ	87/88 (99%)	72 (83%)	15 (17%)	3	15
15	AR	120/127 (94%)	103 (86%)	17 (14%)	5	24
15	CR	120/127 (94%)	105 (88%)	15 (12%)	7	31
16	A1	93/94 (99%)	79 (85%)	14 (15%)	4	21
16	C1	93/94 (99%)	80 (86%)	13 (14%)	5	25
17	A2	82/82 (100%)	69 (84%)	13 (16%)	4	18
17	C2	82/82 (100%)	62 (76%)	20 (24%)	1	3
18	AS	92/92 (100%)	73 (79%)	19 (21%)	2	8
18	CS	92/92 (100%)	80 (87%)	12 (13%)	6	29
19	AT	74/78 (95%)	65 (88%)	9 (12%)	7	32
19	CT	74/78 (95%)	64 (86%)	10 (14%)	6	27
20	AU	85/91 (93%)	72 (85%)	13 (15%)	4	20
20	CU	85/91 (93%)	65 (76%)	20 (24%)	1	4

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
21	AV	154/179 (86%)	130 (84%)	24 (16%)	4	19
21	CV	158/179 (88%)	137 (87%)	21 (13%)	6	27
22	A3	61/67 (91%)	55 (90%)	6 (10%)	12	45
22	C3	62/67 (92%)	58 (94%)	4 (6%)	24	69
23	AZ	82/83 (99%)	70 (85%)	12 (15%)	5	23
23	CZ	82/83 (99%)	73 (89%)	9 (11%)	9	38
24	AW	62/67 (92%)	49 (79%)	13 (21%)	1	8
24	CW	62/67 (92%)	52 (84%)	10 (16%)	3	17
25	AX	51/52 (98%)	43 (84%)	8 (16%)	4	19
25	CX	51/52 (98%)	46 (90%)	5 (10%)	12	45
26	A4	59/63 (94%)	52 (88%)	7 (12%)	8	34
26	C4	57/63 (90%)	45 (79%)	12 (21%)	1	7
27	A5	51/52 (98%)	41 (80%)	10 (20%)	2	9
27	C5	51/52 (98%)	44 (86%)	7 (14%)	5	26
28	A6	44/52 (85%)	30 (68%)	14 (32%)	0	1
28	C6	44/52 (85%)	38 (86%)	6 (14%)	5	26
29	A7	38/42 (90%)	33 (87%)	5 (13%)	6	28
29	C7	38/42 (90%)	31 (82%)	7 (18%)	2	12
30	A8	50/55 (91%)	39 (78%)	11 (22%)	1	6
30	C8	50/55 (91%)	37 (74%)	13 (26%)	1	2
32	BE	205/220 (93%)	172 (84%)	33 (16%)	3	17
32	DE	205/220 (93%)	177 (86%)	28 (14%)	5	26
33	BF	159/188 (85%)	134 (84%)	25 (16%)	4	19
33	DF	160/188 (85%)	141 (88%)	19 (12%)	8	34
34	BG	180/180 (100%)	158 (88%)	22 (12%)	7	32
34	DG	180/180 (100%)	156 (87%)	24 (13%)	6	27
35	BH	116/123 (94%)	100 (86%)	16 (14%)	5	25
35	DH	116/123 (94%)	95 (82%)	21 (18%)	2	12
36	BI	90/90 (100%)	82 (91%)	8 (9%)	14	51
36	DI	90/90 (100%)	80 (89%)	10 (11%)	9	37
37	BJ	126/127 (99%)	106 (84%)	20 (16%)	4	18

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
37	DJ	126/127 (99%)	109 (86%)	17 (14%)	6	27
38	BK	119/119 (100%)	99 (83%)	20 (17%)	3	16
38	DK	119/119 (100%)	105 (88%)	14 (12%)	8	34
39	BL	98/99 (99%)	85 (87%)	13 (13%)	6	27
39	DL	98/99 (99%)	82 (84%)	16 (16%)	3	17
40	BM	89/92 (97%)	76 (85%)	13 (15%)	5	23
40	DM	89/92 (97%)	80 (90%)	9 (10%)	11	42
41	BN	90/99 (91%)	78 (87%)	12 (13%)	6	27
41	DN	90/99 (91%)	83 (92%)	7 (8%)	18	60
42	BO	104/109 (95%)	92 (88%)	12 (12%)	8	35
42	DO	104/109 (95%)	85 (82%)	19 (18%)	2	12
43	BP	94/101 (93%)	80 (85%)	14 (15%)	4	21
43	DP	94/101 (93%)	82 (87%)	12 (13%)	6	29
44	BQ	48/50 (96%)	42 (88%)	6 (12%)	7	31
44	DQ	48/50 (96%)	44 (92%)	4 (8%)	16	56
45	BR	79/80 (99%)	74 (94%)	5 (6%)	25	70
45	DR	79/80 (99%)	72 (91%)	7 (9%)	14	51
46	BS	72/74 (97%)	60 (83%)	12 (17%)	3	16
46	DS	72/74 (97%)	66 (92%)	6 (8%)	16	56
47	BT	95/97 (98%)	84 (88%)	11 (12%)	8	35
47	DT	95/97 (98%)	88 (93%)	7 (7%)	20	63
48	BU	63/77 (82%)	61 (97%)	2 (3%)	51	88
48	DU	63/77 (82%)	54 (86%)	9 (14%)	5	23
49	BV	67/80 (84%)	55 (82%)	12 (18%)	2	13
49	DV	67/80 (84%)	55 (82%)	12 (18%)	2	13
50	BW	76/82 (93%)	68 (90%)	8 (10%)	10	40
50	DW	76/82 (93%)	68 (90%)	8 (10%)	10	40
51	BX	20/22 (91%)	19 (95%)	1 (5%)	34	78
51	DX	20/22 (91%)	19 (95%)	1 (5%)	34	78
All	All	9565/9996 (96%)	8122 (85%)	1443 (15%)	4	21

All (1443) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	AD	10	THR
3	AD	13	ARG
3	AD	17	THR
3	AD	25	THR
3	AD	26	LYS
3	AD	27	THR
3	AD	28	GLU
3	AD	31	LYS
3	AD	35	LYS
3	AD	37	LEU
3	AD	38	LYS
3	AD	43	ARG
3	AD	44	ASN
3	AD	60	ARG
3	AD	61	LEU
3	AD	64	ILE
3	AD	65	ILE
3	AD	71	ASP
3	AD	73	VAL
3	AD	91	ARG
3	AD	94	LEU
3	AD	99	ASP
3	AD	103	ARG
3	AD	105	ILE
3	AD	106	ILE
3	AD	112	GLN
3	AD	116	GLN
3	AD	140	THR
3	AD	162	SER
3	AD	169	GLU
3	AD	192	THR
3	AD	204	ILE
3	AD	212	SER
3	AD	217	ARG
3	AD	233	HIS
3	AD	239	ARG
3	AD	242	ARG
3	AD	259	THR
3	AD	262	ARG
3	AD	266	SER
3	AD	268	ARG
3	AD	271	ILE
4	AE	13	ARG

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Mol	Chain	Res	Type
4	AE	16	ARG
4	AE	26	ILE
4	AE	37	ARG
4	AE	41	LYS
4	AE	47	VAL
4	AE	49	LEU
4	AE	63	LEU
4	AE	66	HIS
4	AE	67	PHE
4	AE	91	VAL
4	AE	101	ARG
4	AE	102	VAL
4	AE	111	ARG
4	AE	113	PHE
4	AE	119	ARG
4	AE	127	ASP
4	AE	140	SER
4	AE	144	ARG
4	AE	146	THR
4	AE	167	VAL
4	AE	171	GLU
4	AE	181	LEU
4	AE	188	VAL
4	AE	197	ILE
4	AE	200	GLU
4	AE	202	LYS
4	AE	203	LYS
5	AF	8	GLN
5	AF	28	ILE
5	AF	32	LEU
5	AF	37	VAL
5	AF	38	ARG
5	AF	45	ARG
5	AF	46	ARG
5	AF	57	VAL
5	AF	64	ILE
5	AF	65	TRP
5	AF	67	GLN
5	AF	70	THR
5	AF	72	ARG
5	AF	82	ILE
5	AF	101	LEU

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Mol	Chain	Res	Type
5	AF	127	GLU
5	AF	132	VAL
5	AF	158	THR
5	AF	161	GLU
5	AF	164	ARG
5	AF	176	LEU
5	AF	183	VAL
5	AF	201	VAL
5	AF	206	ILE
6	AG	31	VAL
6	AG	33	ARG
6	AG	43	LEU
6	AG	45	GLU
6	AG	66	GLN
6	AG	67	LYS
6	AG	72	ARG
6	AG	76	SER
6	AG	80	PHE
6	AG	82	LEU
6	AG	86	MET
6	AG	90	LEU
6	AG	94	LEU
6	AG	101	ILE
6	AG	116	ASP
6	AG	118	ARG
6	AG	133	LEU
6	AG	139	LEU
6	AG	165	THR
7	AH	3	ARG
7	AH	4	ILE
7	AH	7	LEU
7	AH	11	VAL
7	AH	24	VAL
7	AH	27	LYS
7	AH	41	MET
7	AH	44	VAL
7	AH	49	VAL
7	AH	50	VAL
7	AH	67	LEU
7	AH	77	LYS
7	AH	81	GLU
7	AH	83	TYR

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Mol	Chain	Res	Type
7	AH	86	GLU
7	AH	88	LEU
7	AH	89	ILE
7	AH	95	ARG
7	AH	107	VAL
7	AH	116	GLU
7	AH	122	THR
7	AH	129	THR
7	AH	131	VAL
7	AH	132	ARG
7	AH	134	SER
7	AH	139	GLN
7	AH	149	ARG
7	AH	153	LYS
7	AH	158	HIS
7	AH	169	VAL
8	AK	2	LYS
8	AK	9	LEU
8	AK	11	ASN
8	AK	20	ASP
8	AK	25	TYR
8	AK	33	ARG
8	AK	38	LEU
8	AK	41	GLU
8	AK	44	LEU
8	AK	57	ARG
8	AK	67	ARG
8	AK	71	ILE
8	AK	74	ASN
8	AK	77	LEU
8	AK	82	ARG
8	AK	85	GLU
8	AK	92	VAL
8	AK	95	LYS
8	AK	110	ASP
8	AK	122	GLU
8	AK	126	TYR
8	AK	131	LYS
8	AK	135	GLU
8	AK	139	GLN
9	AM	7	LYS
9	AM	10	GLU

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Mol	Chain	Res	Type
9	AM	22	THR
9	AM	34	LEU
9	AM	39	ARG
9	AM	43	THR
9	AM	45	ASN
9	AM	48	MET
9	AM	55	VAL
9	AM	60	ILE
9	AM	67	LEU
9	AM	87	LEU
9	AM	90	MET
9	AM	96	GLU
9	AM	99	LEU
9	AM	103	VAL
9	AM	120	LEU
9	AM	131	GLN
9	AM	133	GLN
10	AN	8	LEU
10	AN	20	MET
10	AN	22	ILE
10	AN	23	ARG
10	AN	35	VAL
10	AN	66	LYS
10	AN	88	ASN
10	AN	94	ARG
11	AO	3	LEU
11	AO	4	SER
11	AO	14	LYS
11	AO	15	ARG
11	AO	16	ARG
11	AO	21	ARG
11	AO	30	THR
11	AO	32	THR
11	AO	36	LYS
11	AO	41	ARG
11	AO	45	LEU
11	AO	49	ARG
11	AO	50	ARG
11	AO	59	LEU
11	AO	61	ARG
11	AO	62	LEU
11	AO	65	ARG

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Mol	Chain	Res	Type
11	AO	68	GLN
11	AO	75	ILE
11	AO	79	ARG
11	AO	81	GLN
11	AO	88	LEU
11	AO	100	LEU
11	AO	105	LEU
11	AO	106	LEU
11	AO	108	LYS
11	AO	112	LEU
11	AO	115	LEU
11	AO	126	VAL
11	AO	135	LEU
11	AO	138	LEU
11	AO	144	GLU
12	AP	3	MET
12	AP	10	ARG
12	AP	17	LEU
12	AP	18	LYS
12	AP	21	THR
12	AP	25	ASP
12	AP	26	TYR
12	AP	45	GLN
12	AP	51	ARG
12	AP	55	VAL
12	AP	72	LYS
12	AP	79	LEU
12	AP	82	ARG
12	AP	83	MET
12	AP	87	LYS
12	AP	90	VAL
12	AP	102	VAL
12	AP	110	THR
12	AP	112	GLU
12	AP	138	ASP
13	A0	9	LYS
13	A0	28	LEU
13	A0	29	LEU
13	A0	36	THR
13	A0	44	LEU
13	A0	57	ARG
13	A0	59	ASP

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Mol	Chain	Res	Type
13	A0	65	LEU
13	A0	75	LEU
13	A0	79	LEU
13	A0	88	ARG
13	A0	100	LEU
13	A0	104	ARG
13	A0	105	ARG
13	A0	111	LEU
13	A0	113	LEU
13	A0	117	VAL
13	A0	118	GLU
14	AQ	3	ARG
14	AQ	12	PHE
14	AQ	24	LEU
14	AQ	29	PHE
14	AQ	32	LEU
14	AQ	36	TYR
14	AQ	42	ASP
14	AQ	43	GLU
14	AQ	50	SER
14	AQ	54	LEU
14	AQ	73	LEU
14	AQ	80	LEU
14	AQ	83	LYS
14	AQ	89	ARG
14	AQ	97	ARG
14	AQ	101	LEU
14	AQ	106	ARG
15	AR	3	ARG
15	AR	11	GLU
15	AR	16	ARG
15	AR	27	THR
15	AR	30	VAL
15	AR	36	GLU
15	AR	38	ASN
15	AR	41	ARG
15	AR	74	ARG
15	AR	78	LEU
15	AR	88	ILE
15	AR	99	LEU
15	AR	105	LEU
15	AR	108	ARG

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Mol	Chain	Res	Type
15	AR	111	ARG
15	AR	118	ARG
15	AR	128	GLU
16	A1	5	LYS
16	A1	17	ILE
16	A1	27	LEU
16	A1	28	ARG
16	A1	31	SER
16	A1	34	LYS
16	A1	58	ARG
16	A1	64	ARG
16	A1	74	LEU
16	A1	79	PHE
16	A1	92	ARG
16	A1	104	GLN
16	A1	108	GLU
16	A1	111	GLU
17	A2	1	MET
17	A2	14	VAL
17	A2	21	ARG
17	A2	24	LYS
17	A2	35	LEU
17	A2	40	LEU
17	A2	45	THR
17	A2	47	VAL
17	A2	57	VAL
17	A2	72	VAL
17	A2	73	SER
17	A2	85	LYS
17	A2	89	GLN
18	AS	11	ARG
18	AS	15	ARG
18	AS	51	LEU
18	AS	52	GLU
18	AS	57	ASN
18	AS	65	LEU
18	AS	67	ASP
18	AS	68	ARG
18	AS	69	LEU
18	AS	70	TYR
18	AS	76	VAL
18	AS	78	GLU

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Mol	Chain	Res	Type
18	AS	82	LEU
18	AS	83	LYS
18	AS	88	ARG
18	AS	92	ARG
18	AS	96	ILE
18	AS	100	THR
18	AS	107	LEU
19	AT	12	VAL
19	AT	15	GLU
19	AT	27	THR
19	AT	45	THR
19	AT	49	VAL
19	AT	53	LYS
19	AT	76	ARG
19	AT	80	ILE
19	AT	88	LYS
20	AU	5	MET
20	AU	6	HIS
20	AU	26	LYS
20	AU	27	VAL
20	AU	33	LYS
20	AU	34	LYS
20	AU	45	VAL
20	AU	57	GLN
20	AU	61	ILE
20	AU	64	GLU
20	AU	76	CYS
20	AU	90	LEU
20	AU	97	ARG
21	AV	1	MET
21	AV	5	LEU
21	AV	18	LEU
21	AV	20	ARG
21	AV	30	ASN
21	AV	37	VAL
21	AV	61	LEU
21	AV	71	VAL
21	AV	72	ARG
21	AV	73	GLN
21	AV	76	LEU
21	AV	77	ASP
21	AV	87	ASP

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Mol	Chain	Res	Type
21	AV	89	PHE
21	AV	91	LEU
21	AV	117	LEU
21	AV	119	GLU
21	AV	122	ARG
21	AV	135	GLU
21	AV	154	ASP
21	AV	161	VAL
21	AV	169	GLU
21	AV	170	THR
21	AV	171	ILE
22	A3	11	ARG
22	A3	35	ASN
22	A3	36	ILE
22	A3	46	LYS
22	A3	67	VAL
22	A3	80	HIS
23	AZ	19	GLN
23	AZ	26	ARG
23	AZ	33	LYS
23	AZ	37	ILE
23	AZ	41	ARG
23	AZ	46	LEU
23	AZ	78	LYS
23	AZ	80	LEU
23	AZ	81	LYS
23	AZ	82	LEU
23	AZ	83	GLU
23	AZ	91	LYS
24	AW	5	GLU
24	AW	11	GLU
24	AW	16	LEU
24	AW	24	LEU
24	AW	34	GLU
24	AW	44	LEU
24	AW	47	ASN
24	AW	50	ILE
24	AW	51	ARG
24	AW	55	ARG
24	AW	62	THR
24	AW	64	LEU
24	AW	65	ASN

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Mol	Chain	Res	Type
25	AX	8	LEU
25	AX	9	VAL
25	AX	13	ILE
25	AX	31	LEU
25	AX	32	GLN
25	AX	38	GLU
25	AX	40	THR
25	AX	59	VAL
26	A4	16	CYS
26	A4	27	THR
26	A4	42	PHE
26	A4	55	ARG
26	A4	61	ARG
26	A4	65	ASP
26	A4	66	SER
27	A5	3	LYS
27	A5	4	HIS
27	A5	6	VAL
27	A5	11	THR
27	A5	16	ARG
27	A5	29	THR
27	A5	31	VAL
27	A5	35	GLU
27	A5	40	LYS
27	A5	56	LYS
28	A6	10	LEU
28	A6	12	GLU
28	A6	17	LYS
28	A6	20	ASN
28	A6	21	TYR
28	A6	27	LYS
28	A6	33	LYS
28	A6	34	LEU
28	A6	36	LEU
28	A6	37	ARG
28	A6	39	TYR
28	A6	42	TRP
28	A6	44	ARG
28	A6	46	HIS
29	A7	1	MET
29	A7	4	THR
29	A7	14	LYS

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Mol	Chain	Res	Type
29	A7	23	ARG
29	A7	43	THR
30	A8	6	THR
30	A8	15	LYS
30	A8	21	LYS
30	A8	29	LYS
30	A8	30	ARG
30	A8	34	TRP
30	A8	41	ILE
30	A8	44	LYS
30	A8	47	LYS
30	A8	52	LYS
30	A8	58	ILE
32	BE	8	LYS
32	BE	9	GLU
32	BE	15	VAL
32	BE	22	LYS
32	BE	24	TRP
32	BE	37	ASN
32	BE	45	GLN
32	BE	60	ASP
32	BE	69	LEU
32	BE	71	VAL
32	BE	74	LYS
32	BE	75	LYS
32	BE	96	ARG
32	BE	97	TRP
32	BE	108	ILE
32	BE	111	ARG
32	BE	121	LEU
32	BE	130	ARG
32	BE	145	LEU
32	BE	154	LEU
32	BE	155	LEU
32	BE	158	LEU
32	BE	162	ILE
32	BE	163	PHE
32	BE	172	ILE
32	BE	178	ARG
32	BE	189	ASP
32	BE	196	LEU
32	BE	200	ILE

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Mol	Chain	Res	Type
32	BE	204	ASN
32	BE	212	GLN
32	BE	217	ARG
32	BE	231	GLU
33	BF	3	ASN
33	BF	4	LYS
33	BF	5	ILE
33	BF	17	ASP
33	BF	21	ARG
33	BF	29	TYR
33	BF	37	GLN
33	BF	54	ARG
33	BF	58	GLU
33	BF	64	VAL
33	BF	76	VAL
33	BF	89	GLU
33	BF	94	LEU
33	BF	107	GLN
33	BF	128	PHE
33	BF	136	GLN
33	BF	140	ARG
33	BF	162	GLN
33	BF	181	ASN
33	BF	184	TYR
33	BF	188	LEU
33	BF	191	THR
33	BF	196	LEU
33	BF	202	ILE
33	BF	206	GLU
34	BG	3	ARG
34	BG	12	CYS
34	BG	15	GLU
34	BG	19	LEU
34	BG	26	CYS
34	BG	33	MET
34	BG	45	GLN
34	BG	49	ARG
34	BG	58	LEU
34	BG	66	ARG
34	BG	74	GLN
34	BG	86	LYS
34	BG	104	VAL

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Mol	Chain	Res	Type
34	BG	114	ARG
34	BG	119	GLN
34	BG	122	ARG
34	BG	126	ILE
34	BG	135	LEU
34	BG	138	TYR
34	BG	141	ARG
34	BG	154	ASN
34	BG	177	ASP
35	BH	5	ASP
35	BH	11	ILE
35	BH	20	GLN
35	BH	25	ARG
35	BH	31	LEU
35	BH	41	VAL
35	BH	50	GLU
35	BH	57	LYS
35	BH	68	GLU
35	BH	75	THR
35	BH	79	GLU
35	BH	91	LEU
35	BH	101	ILE
35	BH	147	ASP
35	BH	152	ARG
35	BH	153	LYS
36	BI	21	LEU
36	BI	37	VAL
36	BI	43	LEU
36	BI	64	GLN
36	BI	65	VAL
36	BI	71	ARG
36	BI	75	LEU
36	BI	89	MET
37	BJ	6	ARG
37	BJ	8	GLU
37	BJ	21	VAL
37	BJ	38	LEU
37	BJ	45	ASP
37	BJ	47	CYS
37	BJ	57	GLU
37	BJ	78	ARG
37	BJ	84	ASN

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Mol	Chain	Res	Type
37	BJ	86	GLN
37	BJ	89	MET
37	BJ	90	GLU
37	BJ	104	LEU
37	BJ	113	GLU
37	BJ	124	LEU
37	BJ	131	LYS
37	BJ	136	LYS
37	BJ	141	VAL
37	BJ	155	ARG
37	BJ	156	TRP
38	BK	10	LEU
38	BK	19	VAL
38	BK	24	THR
38	BK	26	VAL
38	BK	39	LEU
38	BK	41	ARG
38	BK	49	GLU
38	BK	52	ASP
38	BK	60	ARG
38	BK	63	LEU
38	BK	68	ARG
38	BK	77	GLU
38	BK	80	ILE
38	BK	82	HIS
38	BK	91	ARG
38	BK	95	VAL
38	BK	102	ARG
38	BK	105	ARG
38	BK	109	ILE
38	BK	133	LEU
39	BL	9	ARG
39	BL	10	ARG
39	BL	41	VAL
39	BL	44	VAL
39	BL	47	LEU
39	BL	58	HIS
39	BL	65	VAL
39	BL	79	LEU
39	BL	89	ASN
39	BL	95	LYS
39	BL	114	TYR

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Mol	Chain	Res	Type
39	BL	121	ARG
39	BL	124	GLN
40	BM	5	ARG
40	BM	16	LEU
40	BM	17	ASP
40	BM	38	ILE
40	BM	60	ARG
40	BM	62	HIS
40	BM	63	PHE
40	BM	66	ARG
40	BM	80	LYS
40	BM	84	GLN
40	BM	92	THR
40	BM	96	ILE
40	BM	100	THR
41	BN	14	VAL
41	BN	48	ILE
41	BN	51	LYS
41	BN	57	THR
41	BN	85	ARG
41	BN	92	GLU
41	BN	93	GLN
41	BN	96	ARG
41	BN	114	VAL
41	BN	116	HIS
41	BN	126	ARG
41	BN	127	LYS
42	BO	4	ILE
42	BO	8	VAL
42	BO	30	ARG
42	BO	46	ASN
42	BO	56	ARG
42	BO	64	THR
42	BO	68	PRO
42	BO	78	SER
42	BO	82	ILE
42	BO	86	ARG
42	BO	93	VAL
42	BO	96	HIS
43	BP	13	LYS
43	BP	32	GLU
43	BP	34	LEU

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Mol	Chain	Res	Type
43	BP	48	LEU
43	BP	57	ARG
43	BP	64	TRP
43	BP	70	LEU
43	BP	83	ASP
43	BP	88	ARG
43	BP	102	ARG
43	BP	105	THR
43	BP	106	ASN
43	BP	108	ARG
43	BP	114	ARG
44	BQ	23	ARG
44	BQ	27	CYS
44	BQ	31	ARG
44	BQ	33	VAL
44	BQ	43	CYS
44	BQ	58	LYS
45	BR	12	ILE
45	BR	39	LEU
45	BR	47	LYS
45	BR	70	LEU
45	BR	76	GLU
46	BS	1	MET
46	BS	28	ARG
46	BS	32	TYR
46	BS	38	TYR
46	BS	48	TRP
46	BS	53	VAL
46	BS	67	THR
46	BS	69	THR
46	BS	72	ARG
46	BS	75	ARG
46	BS	76	GLN
46	BS	83	GLU
47	BT	9	VAL
47	BT	14	LYS
47	BT	19	VAL
47	BT	25	ARG
47	BT	35	VAL
47	BT	48	GLU
47	BT	52	LYS
47	BT	60	ILE

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Mol	Chain	Res	Type
47	BT	68	ARG
47	BT	79	SER
47	BT	89	LEU
48	BU	32	ARG
48	BU	47	THR
49	BV	7	LYS
49	BV	11	VAL
49	BV	28	LYS
49	BV	29	ARG
49	BV	30	LEU
49	BV	37	ARG
49	BV	58	VAL
49	BV	61	TYR
49	BV	63	THR
49	BV	65	ASN
49	BV	78	ARG
49	BV	83	HIS
50	BW	10	LEU
50	BW	18	GLN
50	BW	24	LEU
50	BW	26	ASN
50	BW	36	LEU
50	BW	42	GLN
50	BW	56	MET
50	BW	62	LEU
51	BX	15	ARG
3	CD	18	VAL
3	CD	25	THR
3	CD	26	LYS
3	CD	35	LYS
3	CD	44	ASN
3	CD	61	LEU
3	CD	94	LEU
3	CD	103	ARG
3	CD	105	ILE
3	CD	106	ILE
3	CD	111	LEU
3	CD	112	GLN
3	CD	116	GLN
3	CD	147	LEU
3	CD	155	LEU
3	CD	157	ARG

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Mol	Chain	Res	Type
3	CD	166	GLN
3	CD	192	THR
3	CD	200	ASP
3	CD	211	ARG
3	CD	237	GLU
3	CD	244	ARG
3	CD	255	LYS
3	CD	257	LEU
3	CD	259	THR
3	CD	270	ILE
3	CD	271	ILE
4	CE	4	ILE
4	CE	7	VAL
4	CE	12	THR
4	CE	36	ARG
4	CE	37	ARG
4	CE	38	THR
4	CE	42	ASP
4	CE	48	GLN
4	CE	55	ASN
4	CE	58	ARG
4	CE	60	ASN
4	CE	66	HIS
4	CE	72	VAL
4	CE	75	VAL
4	CE	76	ARG
4	CE	78	LEU
4	CE	79	ARG
4	CE	82	ARG
4	CE	90	THR
4	CE	107	THR
4	CE	113	PHE
4	CE	116	VAL
4	CE	119	ARG
4	CE	144	ARG
4	CE	146	THR
4	CE	154	LYS
4	CE	168	MET
4	CE	169	ASN
4	CE	170	LEU
4	CE	174	ASP
4	CE	175	VAL

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Mol	Chain	Res	Type
4	CE	179	GLU
4	CE	181	LEU
4	CE	185	LYS
4	CE	188	VAL
4	CE	197	ILE
4	CE	199	ARG
4	CE	200	GLU
4	CE	201	THR
4	CE	203	LYS
5	CF	2	LYS
5	CF	7	TYR
5	CF	17	ARG
5	CF	20	LEU
5	CF	33	LEU
5	CF	40	GLN
5	CF	46	ARG
5	CF	59	TYR
5	CF	62	ARG
5	CF	67	GLN
5	CF	74	ARG
5	CF	78	ILE
5	CF	82	ILE
5	CF	83	PHE
5	CF	88	VAL
5	CF	99	TYR
5	CF	100	THR
5	CF	107	LYS
5	CF	119	ARG
5	CF	153	SER
5	CF	158	THR
5	CF	164	ARG
5	CF	181	LEU
5	CF	183	VAL
5	CF	196	LEU
5	CF	201	VAL
5	CF	202	PHE
5	CF	203	GLN
6	CG	28	VAL
6	CG	33	ARG
6	CG	45	GLU
6	CG	52	ILE
6	CG	53	LEU

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Mol	Chain	Res	Type
6	CG	67	LYS
6	CG	74	LYS
6	CG	80	PHE
6	CG	91	ARG
6	CG	103	LEU
6	CG	118	ARG
6	CG	138	GLN
6	CG	147	ASP
6	CG	162	THR
6	CG	167	GLU
6	CG	173	LEU
7	CH	6	ARG
7	CH	17	VAL
7	CH	32	GLU
7	CH	41	MET
7	CH	59	ARG
7	CH	85	LYS
7	CH	86	GLU
7	CH	89	ILE
7	CH	101	ARG
7	CH	103	LEU
7	CH	105	LEU
7	CH	116	GLU
7	CH	123	PHE
7	CH	131	VAL
7	CH	137	ASP
7	CH	139	GLN
7	CH	143	GLN
7	CH	147	ASN
7	CH	158	HIS
8	CK	1	MET
8	CK	6	LEU
8	CK	9	LEU
8	CK	12	LEU
8	CK	52	ARG
8	CK	54	GLN
8	CK	56	LYS
8	CK	60	GLU
8	CK	69	LYS
8	CK	75	LEU
8	CK	76	THR
8	CK	82	ARG

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Mol	Chain	Res	Type
8	CK	95	LYS
8	CK	109	ILE
8	CK	117	GLU
8	CK	125	GLU
8	CK	131	LYS
8	CK	133	HIS
9	CM	1	MET
9	CM	23	LEU
9	CM	29	LYS
9	CM	32	THR
9	CM	34	LEU
9	CM	38	HIS
9	CM	45	ASN
9	CM	48	MET
9	CM	60	ILE
9	CM	69	GLN
9	CM	85	ILE
9	CM	93	THR
9	CM	94	HIS
9	CM	96	GLU
9	CM	97	ARG
9	CM	99	LEU
9	CM	106	MET
9	CM	120	LEU
9	CM	130	HIS
9	CM	131	GLN
9	CM	134	ARG
9	CM	137	LYS
10	CN	1	MET
10	CN	5	GLN
10	CN	24	VAL
10	CN	47	ILE
10	CN	49	ARG
10	CN	53	LYS
10	CN	62	VAL
10	CN	82	ASN
10	CN	87	ILE
10	CN	98	VAL
10	CN	113	LYS
10	CN	117	LEU
11	CO	14	LYS
11	CO	15	ARG

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Mol	Chain	Res	Type
11	CO	16	ARG
11	CO	21	ARG
11	CO	30	THR
11	CO	36	LYS
11	CO	41	ARG
11	CO	45	LEU
11	CO	49	ARG
11	CO	50	ARG
11	CO	51	PHE
11	CO	61	ARG
11	CO	62	LEU
11	CO	65	ARG
11	CO	68	GLN
11	CO	71	VAL
11	CO	75	ILE
11	CO	83	VAL
11	CO	85	LEU
11	CO	86	LYS
11	CO	87	ASP
11	CO	98	GLU
11	CO	105	LEU
11	CO	108	LYS
11	CO	111	ARG
11	CO	112	LEU
11	CO	114	ILE
11	CO	121	LYS
11	CO	124	LYS
11	CO	144	GLU
11	CO	147	LEU
11	CO	148	LEU
12	CP	21	THR
12	CP	25	ASP
12	CP	26	TYR
12	CP	45	GLN
12	CP	52	VAL
12	CP	56	ARG
12	CP	58	PHE
12	CP	63	LYS
12	CP	76	LYS
12	CP	79	LEU
12	CP	80	GLU
12	CP	82	ARG

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Mol	Chain	Res	Type
12	CP	83	MET
12	CP	87	LYS
12	CP	90	VAL
12	CP	103	MET
12	CP	106	VAL
12	CP	109	VAL
12	CP	112	GLU
12	CP	133	ARG
12	CP	134	ARG
12	CP	135	ASP
12	CP	141	GLN
13	C0	3	HIS
13	C0	6	SER
13	C0	18	LEU
13	C0	28	LEU
13	C0	29	LEU
13	C0	40	LYS
13	C0	44	LEU
13	C0	48	VAL
13	C0	57	ARG
13	C0	65	LEU
13	C0	73	VAL
13	C0	79	LEU
13	C0	81	ASP
13	C0	97	VAL
13	C0	104	ARG
13	C0	105	ARG
14	CQ	14	VAL
14	CQ	17	ARG
14	CQ	21	THR
14	CQ	29	PHE
14	CQ	50	SER
14	CQ	52	SER
14	CQ	61	ASN
14	CQ	78	LEU
14	CQ	80	LEU
14	CQ	93	LYS
14	CQ	98	VAL
14	CQ	101	LEU
14	CQ	106	ARG
14	CQ	107	GLU
14	CQ	110	LEU

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Mol	Chain	Res	Type
15	CR	8	LYS
15	CR	23	ARG
15	CR	29	ARG
15	CR	38	ASN
15	CR	41	ARG
15	CR	58	ASN
15	CR	61	PHE
15	CR	62	THR
15	CR	64	ARG
15	CR	88	ILE
15	CR	89	VAL
15	CR	91	ARG
15	CR	93	ARG
15	CR	112	ARG
15	CR	136	GLN
16	C1	5	LYS
16	C1	16	LYS
16	C1	25	TRP
16	C1	52	ARG
16	C1	55	ARG
16	C1	56	ASP
16	C1	64	ARG
16	C1	74	LEU
16	C1	75	ASN
16	C1	78	THR
16	C1	92	ARG
16	C1	95	LEU
16	C1	97	ASP
17	C2	7	THR
17	C2	19	LYS
17	C2	24	LYS
17	C2	35	LEU
17	C2	38	LEU
17	C2	39	LEU
17	C2	40	LEU
17	C2	44	LYS
17	C2	49	THR
17	C2	56	SER
17	C2	66	ARG
17	C2	70	ILE
17	C2	72	VAL
17	C2	79	VAL

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Mol	Chain	Res	Type
17	C2	80	GLN
17	C2	81	TYR
17	C2	84	LYS
17	C2	91	TYR
17	C2	95	LEU
17	C2	99	ILE
18	CS	11	ARG
18	CS	19	LEU
18	CS	37	ARG
18	CS	39	THR
18	CS	51	LEU
18	CS	59	VAL
18	CS	60	ASN
18	CS	68	ARG
18	CS	70	TYR
18	CS	95	ILE
18	CS	96	ILE
18	CS	107	LEU
19	CT	28	PHE
19	CT	30	VAL
19	CT	31	HIS
19	CT	41	ASN
19	CT	52	VAL
19	CT	55	ASN
19	CT	63	LYS
19	CT	66	LEU
19	CT	69	TYR
19	CT	72	LYS
20	CU	3	VAL
20	CU	27	VAL
20	CU	38	ILE
20	CU	40	GLU
20	CU	43	ASN
20	CU	55	TYR
20	CU	57	GLN
20	CU	62	GLU
20	CU	63	LYS
20	CU	64	GLU
20	CU	75	ILE
20	CU	76	CYS
20	CU	79	CYS
20	CU	81	LYS

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Mol	Chain	Res	Type
20	CU	86	ARG
20	CU	91	GLU
20	CU	92	ASN
20	CU	95	LYS
20	CU	97	ARG
20	CU	98	VAL
21	CV	14	LYS
21	CV	24	LEU
21	CV	30	ASN
21	CV	32	HIS
21	CV	44	PHE
21	CV	50	GLN
21	CV	53	ILE
21	CV	54	HIS
21	CV	59	LEU
21	CV	63	ASP
21	CV	82	ARG
21	CV	87	ASP
21	CV	90	VAL
21	CV	94	GLU
21	CV	105	VAL
21	CV	119	GLU
21	CV	121	HIS
21	CV	136	PHE
21	CV	154	ASP
21	CV	170	THR
21	CV	175	VAL
22	C3	16	SER
22	C3	35	ASN
22	C3	36	ILE
22	C3	74	ARG
23	CZ	35	THR
23	CZ	56	GLN
23	CZ	59	THR
23	CZ	76	ARG
23	CZ	78	LYS
23	CZ	82	LEU
23	CZ	83	GLU
23	CZ	91	LYS
23	CZ	96	LYS
24	CW	5	GLU
24	CW	9	GLN

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Mol	Chain	Res	Type
24	CW	15	LYS
24	CW	22	GLU
24	CW	26	ARG
24	CW	47	ASN
24	CW	48	HIS
24	CW	53	LEU
24	CW	60	LEU
24	CW	64	LEU
25	CX	8	LEU
25	CX	18	ASP
25	CX	32	GLN
25	CX	37	LEU
25	CX	38	GLU
26	C4	1	MET
26	C4	18	CYS
26	C4	22	ILE
26	C4	24	THR
26	C4	30	GLU
26	C4	32	TYR
26	C4	35	VAL
26	C4	38	LYS
26	C4	46	GLN
26	C4	60	GLN
26	C4	61	ARG
26	C4	62	ARG
27	C5	3	LYS
27	C5	4	HIS
27	C5	9	LYS
27	C5	29	THR
27	C5	35	GLU
27	C5	51	TYR
27	C5	55	ARG
28	C6	11	LEU
28	C6	21	TYR
28	C6	26	ASN
28	C6	27	LYS
28	C6	37	ARG
28	C6	53	LYS
29	C7	1	MET
29	C7	4	THR
29	C7	8	ASN
29	C7	9	ARG

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Mol	Chain	Res	Type
29	C7	36	GLN
29	C7	41	ARG
29	C7	43	THR
30	C8	22	VAL
30	C8	29	LYS
30	C8	30	ARG
30	C8	31	HIS
30	C8	32	LEU
30	C8	33	ASN
30	C8	35	GLN
30	C8	36	LYS
30	C8	40	GLU
30	C8	41	ILE
30	C8	46	ARG
30	C8	58	ILE
30	C8	61	LEU
32	DE	5	ILE
32	DE	19	HIS
32	DE	20	GLU
32	DE	23	ARG
32	DE	24	TRP
32	DE	42	ILE
32	DE	44	LEU
32	DE	51	LEU
32	DE	56	ARG
32	DE	83	MET
32	DE	92	TYR
32	DE	107	THR
32	DE	108	ILE
32	DE	111	ARG
32	DE	117	GLU
32	DE	121	LEU
32	DE	130	ARG
32	DE	137	ARG
32	DE	145	LEU
32	DE	153	ARG
32	DE	155	LEU
32	DE	170	GLU
32	DE	178	ARG
32	DE	185	ILE
32	DE	196	LEU
32	DE	198	ASP

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Mol	Chain	Res	Type
32	DE	224	GLN
32	DE	238	LEU
33	DF	5	ILE
33	DF	6	HIS
33	DF	18	TRP
33	DF	23	TYR
33	DF	29	TYR
33	DF	43	LEU
33	DF	64	VAL
33	DF	79	ARG
33	DF	89	GLU
33	DF	94	LEU
33	DF	110	ASN
33	DF	119	ARG
33	DF	131	ARG
33	DF	140	ARG
33	DF	167	TRP
33	DF	182	ILE
33	DF	184	TYR
33	DF	195	VAL
33	DF	196	LEU
34	DG	4	TYR
34	DG	5	ILE
34	DG	14	ARG
34	DG	19	LEU
34	DG	24	GLU
34	DG	30	LYS
34	DG	36	ARG
34	DG	49	ARG
34	DG	50	ARG
34	DG	58	LEU
34	DG	70	ILE
34	DG	81	GLU
34	DG	119	GLN
34	DG	122	ARG
34	DG	127	THR
34	DG	135	LEU
34	DG	140	VAL
34	DG	141	ARG
34	DG	145	GLU
34	DG	151	LYS
34	DG	159	ARG

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Mol	Chain	Res	Type
34	DG	187	ARG
34	DG	191	ARG
34	DG	200	GLU
35	DH	8	GLU
35	DH	13	ILE
35	DH	18	ARG
35	DH	20	GLN
35	DH	25	ARG
35	DH	26	PHE
35	DH	41	VAL
35	DH	51	VAL
35	DH	60	TYR
35	DH	65	ASN
35	DH	68	GLU
35	DH	69	VAL
35	DH	72	GLN
35	DH	78	HIS
35	DH	87	SER
35	DH	101	ILE
35	DH	111	GLU
35	DH	115	VAL
35	DH	127	ASN
35	DH	144	THR
35	DH	155	GLU
36	DI	14	LEU
36	DI	21	LEU
36	DI	24	GLU
36	DI	25	ILE
36	DI	28	ARG
36	DI	54	LYS
36	DI	63	TYR
36	DI	70	ASP
36	DI	72	VAL
36	DI	98	LEU
37	DJ	8	GLU
37	DJ	27	ILE
37	DJ	37	ASN
37	DJ	43	PHE
37	DJ	57	GLU
37	DJ	60	LYS
37	DJ	63	LYS
37	DJ	75	VAL

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Mol	Chain	Res	Type
37	DJ	78	ARG
37	DJ	84	ASN
37	DJ	89	MET
37	DJ	104	LEU
37	DJ	114	ARG
37	DJ	118	VAL
37	DJ	124	LEU
37	DJ	131	LYS
37	DJ	153	HIS
38	DK	1	MET
38	DK	17	THR
38	DK	24	THR
38	DK	25	ASP
38	DK	39	LEU
38	DK	53	VAL
38	DK	54	ASP
38	DK	63	LEU
38	DK	82	HIS
38	DK	85	ARG
38	DK	112	LEU
38	DK	114	THR
38	DK	120	THR
38	DK	133	LEU
39	DL	10	ARG
39	DL	23	ASN
39	DL	33	PHE
39	DL	34	ASN
39	DL	47	LEU
39	DL	75	ASP
39	DL	78	LYS
39	DL	79	LEU
39	DL	88	TYR
39	DL	95	LYS
39	DL	97	LYS
39	DL	99	LEU
39	DL	113	LYS
39	DL	114	TYR
39	DL	125	TYR
39	DL	128	ARG
40	DM	22	LYS
40	DM	47	PHE
40	DM	62	HIS

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Mol	Chain	Res	Type
40	DM	70	ARG
40	DM	79	ARG
40	DM	80	LYS
40	DM	86	MET
40	DM	96	ILE
40	DM	98	ILE
41	DN	29	ILE
41	DN	54	ARG
41	DN	80	VAL
41	DN	93	GLN
41	DN	98	LEU
41	DN	105	VAL
41	DN	124	LYS
42	DO	3	THR
42	DO	16	ARG
42	DO	20	LYS
42	DO	29	PHE
42	DO	30	ARG
42	DO	31	ARG
42	DO	34	CYS
42	DO	35	THR
42	DO	38	ARG
42	DO	41	THR
42	DO	43	LYS
42	DO	44	LYS
42	DO	51	LYS
42	DO	54	LYS
42	DO	57	LEU
42	DO	61	TYR
42	DO	81	LEU
42	DO	101	VAL
42	DO	109	ASP
43	DP	7	VAL
43	DP	32	GLU
43	DP	64	TRP
43	DP	66	LEU
43	DP	67	GLU
43	DP	70	LEU
43	DP	82	MET
43	DP	83	ASP
43	DP	92	HIS
43	DP	94	ARG

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Mol	Chain	Res	Type
43	DP	101	GLN
43	DP	108	ARG
44	DQ	7	ILE
44	DQ	15	LYS
44	DQ	23	ARG
44	DQ	24	CYS
45	DR	3	ILE
45	DR	4	THR
45	DR	39	LEU
45	DR	41	GLU
45	DR	68	ARG
45	DR	82	ILE
45	DR	88	ARG
46	DS	2	VAL
46	DS	16	HIS
46	DS	21	VAL
46	DS	45	THR
46	DS	65	GLN
46	DS	76	GLN
47	DT	10	VAL
47	DT	13	ASP
47	DT	49	GLU
47	DT	60	ILE
47	DT	72	ARG
47	DT	74	LEU
47	DT	79	SER
48	DU	26	LEU
48	DU	29	PHE
48	DU	37	VAL
48	DU	44	LEU
48	DU	47	THR
48	DU	58	LEU
48	DU	84	LYS
48	DU	86	VAL
48	DU	87	ARG
49	DV	9	VAL
49	DV	22	LEU
49	DV	23	ASN
49	DV	25	LYS
49	DV	28	LYS
49	DV	33	THR
49	DV	60	VAL

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Mol	Chain	Res	Type
49	DV	63	THR
49	DV	66	MET
49	DV	78	ARG
49	DV	81	ARG
49	DV	83	HIS
50	DW	8	ARG
50	DW	9	ASN
50	DW	26	ASN
50	DW	60	GLU
50	DW	62	LEU
50	DW	74	LYS
50	DW	84	LEU
50	DW	93	GLU
51	DX	25	LYS

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (281) such sidechains are listed below:

Mol	Chain	Res	Type
3	AD	58	HIS
3	AD	112	GLN
3	AD	116	GLN
3	AD	166	GLN
3	AD	186	HIS
3	AD	198	ASN
3	AD	227	ASN
4	AE	54	GLN
4	AE	180	ASN
4	AE	192	ASN
5	AF	67	GLN
5	AF	69	HIS
5	AF	169	ASN
5	AF	203	GLN
6	AG	40	ASN
6	AG	121	ASN
7	AH	143	GLN
7	AH	147	ASN
8	AK	74	ASN
8	AK	104	GLN
8	AK	139	GLN
9	AM	38	HIS
9	AM	45	ASN
9	AM	56	ASN

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Mol	Chain	Res	Type
9	AM	131	GLN
9	AM	133	GLN
10	AN	82	ASN
10	AN	88	ASN
11	AO	9	ASN
11	AO	27	HIS
11	AO	68	GLN
11	AO	81	GLN
11	AO	128	HIS
13	A0	3	HIS
13	A0	13	HIS
13	A0	23	ASN
13	A0	24	GLN
13	A0	71	GLN
13	A0	91	GLN
14	AQ	68	GLN
15	AR	43	GLN
15	AR	58	ASN
15	AR	79	HIS
15	AR	136	GLN
16	A1	44	ASN
16	A1	49	HIS
16	A1	71	GLN
16	A1	72	HIS
16	A1	81	HIS
16	A1	94	ASN
17	A2	11	GLN
17	A2	89	GLN
18	AS	34	ASN
18	AS	102	HIS
18	AS	111	HIS
19	AT	41	ASN
19	AT	55	ASN
19	AT	87	GLN
21	AV	30	ASN
21	AV	75	ASN
21	AV	85	HIS
21	AV	151	HIS
22	A3	17	GLN
22	A3	35	ASN
22	A3	70	GLN
23	AZ	19	GLN

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Mol	Chain	Res	Type
23	AZ	56	GLN
23	AZ	66	HIS
24	AW	56	GLN
25	AX	19	GLN
25	AX	32	GLN
25	AX	46	ASN
25	AX	52	HIS
26	A4	47	GLN
27	A5	4	HIS
27	A5	22	HIS
27	A5	23	HIS
27	A5	43	HIS
28	A6	32	ASN
28	A6	46	HIS
29	A7	8	ASN
29	A7	36	GLN
30	A8	43	GLN
32	BE	40	HIS
32	BE	45	GLN
32	BE	76	GLN
32	BE	78	GLN
32	BE	95	GLN
32	BE	146	GLN
32	BE	204	ASN
32	BE	212	GLN
33	BF	28	GLN
33	BF	37	GLN
33	BF	136	GLN
33	BF	162	GLN
33	BF	170	GLN
33	BF	176	HIS
33	BF	181	ASN
34	BG	42	GLN
34	BG	43	HIS
34	BG	74	GLN
34	BG	160	GLN
34	BG	161	ASN
34	BG	201	GLN
35	BH	20	GLN
35	BH	78	HIS
36	BI	18	GLN
36	BI	27	GLN

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Mol	Chain	Res	Type
36	BI	57	GLN
36	BI	73	ASN
36	BI	100	ASN
37	BJ	13	GLN
37	BJ	37	ASN
37	BJ	56	GLN
37	BJ	86	GLN
37	BJ	106	GLN
37	BJ	148	ASN
38	BK	82	HIS
39	BL	23	ASN
39	BL	124	GLN
40	BM	33	GLN
40	BM	56	HIS
40	BM	84	GLN
41	BN	26	ASN
41	BN	38	ASN
41	BN	93	GLN
42	BO	5	ASN
42	BO	6	GLN
42	BO	72	HIS
43	BP	62	ASN
43	BP	101	GLN
45	BR	37	ASN
45	BR	46	HIS
46	BS	76	GLN
46	BS	82	GLN
47	BT	16	GLN
47	BT	94	ASN
49	BV	14	HIS
49	BV	65	ASN
49	BV	83	HIS
50	BW	9	ASN
50	BW	26	ASN
50	BW	42	GLN
3	CD	58	HIS
3	CD	96	HIS
3	CD	112	GLN
3	CD	143	HIS
3	CD	166	GLN
3	CD	186	HIS
3	CD	198	ASN

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Mol	Chain	Res	Type
4	CE	48	GLN
4	CE	60	ASN
4	CE	66	HIS
4	CE	159	HIS
4	CE	192	ASN
5	CF	8	GLN
5	CF	75	HIS
5	CF	169	ASN
5	CF	203	GLN
6	CG	40	ASN
6	CG	41	GLN
6	CG	58	GLN
7	CH	74	ASN
7	CH	147	ASN
8	CK	54	GLN
8	CK	104	GLN
8	CK	105	HIS
9	CM	45	ASN
9	CM	131	GLN
10	CN	82	ASN
11	CO	9	ASN
11	CO	84	ASN
11	CO	128	HIS
12	CP	12	GLN
12	CP	45	GLN
12	CP	57	HIS
12	CP	123	HIS
13	C0	3	HIS
13	C0	11	ASN
13	C0	23	ASN
13	C0	53	HIS
13	C0	61	HIS
14	CQ	68	GLN
15	CR	38	ASN
15	CR	43	GLN
15	CR	136	GLN
16	C1	49	HIS
16	C1	72	HIS
16	C1	75	ASN
16	C1	81	HIS
16	C1	104	GLN
16	C1	117	GLN

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Mol	Chain	Res	Type
17	C2	11	GLN
17	C2	64	HIS
17	C2	80	GLN
17	C2	87	HIS
18	CS	57	ASN
18	CS	102	HIS
18	CS	111	HIS
19	CT	55	ASN
19	CT	87	GLN
20	CU	43	ASN
20	CU	57	GLN
21	CV	34	ASN
21	CV	50	GLN
21	CV	65	GLN
22	C3	70	GLN
23	CZ	56	GLN
23	CZ	66	HIS
24	CW	48	HIS
24	CW	65	ASN
25	CX	19	GLN
25	CX	46	ASN
25	CX	52	HIS
26	C4	6	HIS
26	C4	40	HIS
26	C4	46	GLN
26	C4	47	GLN
26	C4	60	GLN
27	C5	4	HIS
27	C5	22	HIS
27	C5	43	HIS
28	C6	32	ASN
28	C6	46	HIS
29	C7	8	ASN
29	C7	36	GLN
30	C8	7	HIS
30	C8	31	HIS
30	C8	35	GLN
32	DE	40	HIS
32	DE	135	GLN
33	DF	28	GLN
33	DF	37	GLN
33	DF	98	ASN

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Mol	Chain	Res	Type
33	DF	123	GLN
33	DF	139	GLN
33	DF	170	GLN
34	DG	62	GLN
34	DG	119	GLN
35	DH	20	GLN
35	DH	141	GLN
36	DI	57	GLN
36	DI	73	ASN
36	DI	94	GLN
37	DJ	13	GLN
37	DJ	37	ASN
38	DK	82	HIS
39	DL	3	GLN
39	DL	23	ASN
39	DL	29	ASN
39	DL	73	GLN
39	DL	89	ASN
39	DL	117	HIS
39	DL	124	GLN
40	DM	13	HIS
40	DM	56	HIS
40	DM	78	ASN
41	DN	22	HIS
41	DN	26	ASN
41	DN	93	GLN
41	DN	99	GLN
41	DN	117	ASN
42	DO	5	ASN
42	DO	72	HIS
43	DP	62	ASN
43	DP	77	ASN
43	DP	92	HIS
43	DP	106	ASN
44	DQ	49	HIS
45	DR	37	ASN
45	DR	53	HIS
46	DS	13	HIS
46	DS	16	HIS
46	DS	65	GLN
46	DS	76	GLN
47	DT	16	GLN

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Mol	Chain	Res	Type
47	DT	26	GLN
49	DV	14	HIS
49	DV	83	HIS
50	DW	9	ASN
50	DW	26	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	2911/2912 (99%)	616 (21%)	54 (1%)
1	CA	2905/2912 (99%)	632 (21%)	51 (1%)
2	AB	121/122 (99%)	16 (13%)	0
2	CB	121/122 (99%)	29 (23%)	2 (1%)
31	BA	1501/1506 (99%)	318 (21%)	42 (2%)
31	DA	1501/1506 (99%)	325 (21%)	46 (3%)
52	BB	83/85 (97%)	47 (56%)	10 (12%)
52	BD	83/85 (97%)	32 (38%)	5 (6%)
52	DB	83/85 (97%)	49 (59%)	9 (10%)
52	DD	83/85 (97%)	31 (37%)	5 (6%)
53	BC	76/77 (98%)	16 (21%)	2 (2%)
53	DC	76/77 (98%)	15 (19%)	2 (2%)
54	B1	15/16 (93%)	5 (33%)	3 (20%)
54	D1	15/16 (93%)	5 (33%)	3 (20%)
All	All	9574/9606 (99%)	2136 (22%)	234 (2%)

All (2136) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	9	U
1	AA	12	U
1	AA	17	G
1	AA	18	C
1	AA	27	G
1	AA	34	C
1	AA	35	G
1	AA	46	C
1	AA	51	G
1	AA	56	A
1	AA	63	U
1	AA	71	A
1	AA	72	U

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Mol	Chain	Res	Type
1	AA	74	A
1	AA	75	G
1	AA	85	G
1	AA	93	C
1	AA	95	G
1	AA	102	G
1	AA	118	A
1	AA	119	A
1	AA	120	U
1	AA	121	G
1	AA	125	G
1	AA	131	G
1	AA	135	G
1	AA	155	C
1	AA	163	U
1	AA	165	U
1	AA	181	A
1	AA	188	G
1	AA	196	A
1	AA	199	A
1	AA	215	G
1	AA	216	A
1	AA	218	A
1	AA	222	A
1	AA	223	A
1	AA	227	A
1	AA	228	A
1	AA	229	A
1	AA	230	U
1	AA	233	A
1	AA	248	G
1	AA	249	C
1	AA	252	G
1	AA	269	U
1	AA	270(I)	G
1	AA	270(L)	U
1	AA	270(M)	U
1	AA	270(N)	G
1	AA	270(O)	U
1	AA	270(P)	C
1	AA	271(C)	U
1	AA	271	G

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Mol	Chain	Res	Type
1	AA	273(A)	G
1	AA	274	G
1	AA	275	G
1	AA	278	A
1	AA	279	C
1	AA	299	A
1	AA	311	A
1	AA	322	A
1	AA	323	G
1	AA	324	A
1	AA	329	G
1	AA	330	A
1	AA	338	G
1	AA	352	G
1	AA	356	G
1	AA	362	U
1	AA	364	C
1	AA	372	G
1	AA	386	G
1	AA	388	G
1	AA	396	G
1	AA	405	U
1	AA	406	G
1	AA	411	G
1	AA	412	A
1	AA	421	U
1	AA	428	A
1	AA	444	C
1	AA	448	U
1	AA	457	A
1	AA	463	G
1	AA	470	A
1	AA	471	A
1	AA	480	A
1	AA	481	G
1	AA	482	A
1	AA	505	A
1	AA	509	C
1	AA	529	A
1	AA	530	G
1	AA	531	C
1	AA	532	A

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Mol	Chain	Res	Type
1	AA	533	G
1	AA	540	G
1	AA	546	C
1	AA	550	G
1	AA	556	G
1	AA	563	G
1	AA	565	C
1	AA	573	G
1	AA	575	A
1	AA	586	A
1	AA	587	C
1	AA	588	U
1	AA	603	A
1	AA	607	U
1	AA	614	U
1	AA	617	G
1	AA	618	G
1	AA	622	G
1	AA	627	A
1	AA	628	G
1	AA	629	G
1	AA	634	C
1	AA	637	A
1	AA	646	A
1	AA	647	G
1	AA	653	A
1	AA	654(A)	A
1	AA	654(G)	C
1	AA	654(I)	C
1	AA	654(J)	A
1	AA	654(K)	C
1	AA	654(M)	C
1	AA	654(T)	A
1	AA	686	G
1	AA	717	G
1	AA	730	C
1	AA	731	C
1	AA	753	C
1	AA	765	G
1	AA	775	G
1	AA	776	G
1	AA	782	A

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Mol	Chain	Res	Type
1	AA	784	A
1	AA	785	G
1	AA	789	A
1	AA	790	C
1	AA	792	G
1	AA	802	A
1	AA	805	G
1	AA	812	C
1	AA	819	A
1	AA	820	A
1	AA	827	U
1	AA	828	U
1	AA	829	A
1	AA	831	G
1	AA	845	G
1	AA	859	G
1	AA	866	A
1	AA	869	G
1	AA	877	U
1	AA	879	G
1	AA	880	G
1	AA	881	G
1	AA	882	G
1	AA	883	G
1	AA	884	C
1	AA	885	C
1	AA	886	C
1	AA	887	A
1	AA	888	C
1	AA	890	A
1	AA	893	C
1	AA	894	C
1	AA	895	U
1	AA	896	A
1	AA	897	C
1	AA	898	C
1	AA	899	A
1	AA	900	A
1	AA	901	A
1	AA	902	C
1	AA	904	C
1	AA	906	G

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Mol	Chain	Res	Type
1	AA	910	A
1	AA	917	A
1	AA	918	A
1	AA	919	G
1	AA	928	G
1	AA	932	G
1	AA	938	G
1	AA	941	A
1	AA	945	A
1	AA	946	G
1	AA	961	C
1	AA	962	G
1	AA	974	G
1	AA	974(A)	C
1	AA	975	G
1	AA	983	A
1	AA	995	C
1	AA	996	A
1	AA	999	U
1	AA	1003	G
1	AA	1005	C
1	AA	1011	G
1	AA	1012	U
1	AA	1013	C
1	AA	1015	G
1	AA	1023	U
1	AA	1025	G
1	AA	1026	U
1	AA	1027	A
1	AA	1033	U
1	AA	1037	G
1	AA	1044	G
1	AA	1045	A
1	AA	1046	A
1	AA	1047	G
1	AA	1050	A
1	AA	1060	U
1	AA	1061	U
1	AA	1062	G
1	AA	1065	U
1	AA	1066	U
1	AA	1067	A

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Mol	Chain	Res	Type
1	AA	1068	G
1	AA	1070	A
1	AA	1071	G
1	AA	1076	C
1	AA	1077	A
1	AA	1078	U
1	AA	1079	C
1	AA	1081	U
1	AA	1082	U
1	AA	1083	U
1	AA	1084	A
1	AA	1085	A
1	AA	1086	A
1	AA	1087	G
1	AA	1088	A
1	AA	1089	G
1	AA	1090	U
1	AA	1092	C
1	AA	1093	G
1	AA	1095	A
1	AA	1096	A
1	AA	1097	U
1	AA	1110	G
1	AA	1111	A
1	AA	1112	G
1	AA	1122	G
1	AA	1130	U
1	AA	1131	G
1	AA	1135	C
1	AA	1136	G
1	AA	1139	G
1	AA	1142	U
1	AA	1142(A)	A
1	AA	1149	G
1	AA	1155	A
1	AA	1156	A
1	AA	1170	G
1	AA	1175	U
1	AA	1176	G
1	AA	1178	C
1	AA	1179	C
1	AA	1182	A

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Mol	Chain	Res	Type
1	AA	1195	G
1	AA	1204	A
1	AA	1205	U
1	AA	1211	U
1	AA	1220	A
1	AA	1221	C
1	AA	1222	C
1	AA	1230	C
1	AA	1236	G
1	AA	1241	A
1	AA	1244	G
1	AA	1248	G
1	AA	1250	G
1	AA	1253	A
1	AA	1256	G
1	AA	1265	A
1	AA	1269	A
1	AA	1271	G
1	AA	1272	A
1	AA	1273	U
1	AA	1298	C
1	AA	1300	U
1	AA	1301	A
1	AA	1302	A
1	AA	1313	U
1	AA	1314	C
1	AA	1329	U
1	AA	1332	G
1	AA	1338	G
1	AA	1345	C
1	AA	1349	A
1	AA	1352	U
1	AA	1359	A
1	AA	1360	A
1	AA	1365	A
1	AA	1368	G
1	AA	1378	A
1	AA	1380	G
1	AA	1383	C
1	AA	1384	A
1	AA	1385	G
1	AA	1386	C

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Mol	Chain	Res	Type
1	AA	1395	A
1	AA	1416	G
1	AA	1417	C
1	AA	1420	U
1	AA	1421	G
1	AA	1424	G
1	AA	1428	C
1	AA	1444(A)	A
1	AA	1449	A
1	AA	1449(A)	G
1	AA	1455	G
1	AA	1458	C
1	AA	1459	G
1	AA	1460	A
1	AA	1461	G
1	AA	1467	C
1	AA	1471	A
1	AA	1473	G
1	AA	1483	G
1	AA	1493	C
1	AA	1495	A
1	AA	1497	U
1	AA	1508	A
1	AA	1509	C
1	AA	1510	A
1	AA	1511	A
1	AA	1526	G
1	AA	1533	C
1	AA	1534	G
1	AA	1535	U
1	AA	1536	A
1	AA	1537	C
1	AA	1538	G
1	AA	1543	A
1	AA	1545	A
1	AA	1545(A)	A
1	AA	1546	C
1	AA	1548	C
1	AA	1554	A
1	AA	1558	A
1	AA	1559	G
1	AA	1560	G

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Mol	Chain	Res	Type
1	AA	1566	A
1	AA	1569	A
1	AA	1578	U
1	AA	1579	A
1	AA	1585	C
1	AA	1586	A
1	AA	1587	A
1	AA	1605	C
1	AA	1606	G
1	AA	1608	A
1	AA	1609	A
1	AA	1617	C
1	AA	1618	A
1	AA	1631	A
1	AA	1632	A
1	AA	1639	U
1	AA	1648	C
1	AA	1651	G
1	AA	1654	A
1	AA	1663	C
1	AA	1674	G
1	AA	1675	C
1	AA	1678	G
1	AA	1695	G
1	AA	1729	A
1	AA	1731	G
1	AA	1734	C
1	AA	1743	G
1	AA	1756	G
1	AA	1763	G
1	AA	1764	G
1	AA	1769	G
1	AA	1773	A
1	AA	1780	A
1	AA	1782	C
1	AA	1787	A
1	AA	1791	A
1	AA	1798	U
1	AA	1799	G
1	AA	1800	C
1	AA	1801	G
1	AA	1816	G

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Mol	Chain	Res	Type
1	AA	1819	A
1	AA	1829	A
1	AA	1835	G
1	AA	1836	C
1	AA	1847	A
1	AA	1858	G
1	AA	1860	G
1	AA	1869	G
1	AA	1870	C
1	AA	1878	G
1	AA	1881	C
1	AA	1882	C
1	AA	1888	G
1	AA	1889	A
1	AA	1896	G
1	AA	1900	A
1	AA	1901	A
1	AA	1903	G
1	AA	1906	G
1	AA	1913	A
1	AA	1914	C
1	AA	1929	G
1	AA	1930	G
1	AA	1931	U
1	AA	1932	A
1	AA	1937	A
1	AA	1938	A
1	AA	1955	U
1	AA	1956	U
1	AA	1963	U
1	AA	1967	C
1	AA	1969	A
1	AA	1970	A
1	AA	1971	A
1	AA	1972	A
1	AA	1982	C
1	AA	1985	G
1	AA	1993	U
1	AA	2020	A
1	AA	2023	G
1	AA	2031	A
1	AA	2032	G

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Mol	Chain	Res	Type
1	AA	2033	A
1	AA	2043	C
1	AA	2054	A
1	AA	2055	C
1	AA	2056	G
1	AA	2060	A
1	AA	2061	G
1	AA	2063	C
1	AA	2069	G
1	AA	2070	G
1	AA	2080	G
1	AA	2111	C
1	AA	2112	G
1	AA	2113	U
1	AA	2114	A
1	AA	2115	G
1	AA	2122	U
1	AA	2126	A
1	AA	2128	C
1	AA	2132	U
1	AA	2133	G
1	AA	2136	C
1	AA	2138	C
1	AA	2139	C
1	AA	2146	C
1	AA	2147	G
1	AA	2148	G
1	AA	2157	G
1	AA	2158	A
1	AA	2164	C
1	AA	2166	G
1	AA	2167	U
1	AA	2168	G
1	AA	2170	A
1	AA	2171	A
1	AA	2173	A
1	AA	2181	G
1	AA	2190	G
1	AA	2192	G
1	AA	2194	G
1	AA	2198	A
1	AA	2199	A

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Mol	Chain	Res	Type
1	AA	2205	C
1	AA	2206	C
1	AA	2210	G
1	AA	2211	G
1	AA	2212	A
1	AA	2215	G
1	AA	2225	A
1	AA	2226	C
1	AA	2238	G
1	AA	2239	G
1	AA	2243	U
1	AA	2272	U
1	AA	2273	A
1	AA	2275	C
1	AA	2283	C
1	AA	2287	A
1	AA	2307	G
1	AA	2308	G
1	AA	2310	A
1	AA	2311	A
1	AA	2314	C
1	AA	2319	G
1	AA	2320	A
1	AA	2321	G
1	AA	2325	G
1	AA	2336	A
1	AA	2341	G
1	AA	2346	A
1	AA	2347	C
1	AA	2350	C
1	AA	2352	A
1	AA	2383	G
1	AA	2385	C
1	AA	2392	A
1	AA	2393	A
1	AA	2394	C
1	AA	2395	C
1	AA	2396	G
1	AA	2402	C
1	AA	2403	C
1	AA	2405	G
1	AA	2406	U

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Mol	Chain	Res	Type
1	AA	2410	G
1	AA	2424	C
1	AA	2425	A
1	AA	2428	G
1	AA	2429	G
1	AA	2430	A
1	AA	2434	A
1	AA	2435	A
1	AA	2439	A
1	AA	2440	C
1	AA	2441	C
1	AA	2448	A
1	AA	2467	C
1	AA	2469	A
1	AA	2474	C
1	AA	2476	A
1	AA	2478	A
1	AA	2481	G
1	AA	2482	G
1	AA	2487	G
1	AA	2491	U
1	AA	2494	G
1	AA	2499	C
1	AA	2502	G
1	AA	2504	U
1	AA	2505	G
1	AA	2506	U
1	AA	2507	C
1	AA	2518	A
1	AA	2529	G
1	AA	2553	G
1	AA	2554	U
1	AA	2566	A
1	AA	2567	G
1	AA	2568	C
1	AA	2573	C
1	AA	2601	C
1	AA	2602	A
1	AA	2609	U
1	AA	2611	U
1	AA	2612	C
1	AA	2613	U

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Mol	Chain	Res	Type
1	AA	2614	A
1	AA	2629	A
1	AA	2632	A
1	AA	2646	C
1	AA	2661	G
1	AA	2663	G
1	AA	2665	A
1	AA	2673	G
1	AA	2679	A
1	AA	2682	U
1	AA	2683	C
1	AA	2689	U
1	AA	2690	C
1	AA	2691	C
1	AA	2702	U
1	AA	2707	G
1	AA	2712	U
1	AA	2712(A)	A
1	AA	2713	A
1	AA	2714	G
1	AA	2726	U
1	AA	2733	A
1	AA	2734	A
1	AA	2739	U
1	AA	2748	A
1	AA	2752	C
1	AA	2757	A
1	AA	2758	A
1	AA	2764	A
1	AA	2765	A
1	AA	2766	G
1	AA	2778	A
1	AA	2779	U
1	AA	2787	C
1	AA	2789	C
1	AA	2791	C
1	AA	2793	G
1	AA	2797	U
1	AA	2798	C
1	AA	2799	A
1	AA	2801	A
1	AA	2807	G

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Mol	Chain	Res	Type
1	AA	2808	U
1	AA	2813	A
1	AA	2818	G
1	AA	2820	A
1	AA	2821	A
1	AA	2823	A
1	AA	2830	G
1	AA	2833	G
1	AA	2834	G
1	AA	2835	A
1	AA	2836	U
1	AA	2872	G
1	AA	2891	G
1	AA	2892	A
1	AA	2894	G
2	AB	1	U
2	AB	7	G
2	AB	12	C
2	AB	13	A
2	AB	15	A
2	AB	40	U
2	AB	41	U
2	AB	45	A
2	AB	52	A
2	AB	56	G
2	AB	58	A
2	AB	73	A
2	AB	74	U
2	AB	81	G
2	AB	85	G
2	AB	109	G
31	BA	6	G
31	BA	7	G
31	BA	8	A
31	BA	9	G
31	BA	32	A
31	BA	39	G
31	BA	44	G
31	BA	48	C
31	BA	49	U
31	BA	50	A
31	BA	51	A

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Mol	Chain	Res	Type
31	BA	54	C
31	BA	61	G
31	BA	65	U
31	BA	66	G
31	BA	73	G
31	BA	76	G
31	BA	78	G
31	BA	80	G
31	BA	81	G
31	BA	84	U
31	BA	85	U
31	BA	86	U
31	BA	87	A
31	BA	89	U
31	BA	90	C
31	BA	91	C
31	BA	95	G
31	BA	99	C
31	BA	108	G
31	BA	116	A
31	BA	120	A
31	BA	121	C
31	BA	131	C
31	BA	137	C
31	BA	144	G
31	BA	157	G
31	BA	161	A
31	BA	163	C
31	BA	171	A
31	BA	172	A
31	BA	173	U
31	BA	174	C
31	BA	180	U
31	BA	182	U
31	BA	189	U
31	BA	190	G
31	BA	195	A
31	BA	197	A
31	BA	201	C
31	BA	209	U
31	BA	210	U
31	BA	216	G

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Mol	Chain	Res	Type
31	BA	222	U
31	BA	231	G
31	BA	245	C
31	BA	247	G
31	BA	251	G
31	BA	262	A
31	BA	267	C
31	BA	281	G
31	BA	289	G
31	BA	306	G
31	BA	308	C
31	BA	321	A
31	BA	328	C
31	BA	332	G
31	BA	344	A
31	BA	345	C
31	BA	346	G
31	BA	352	C
31	BA	353	A
31	BA	354	G
31	BA	357	G
31	BA	367	U
31	BA	372	C
31	BA	373	A
31	BA	381	C
31	BA	384	G
31	BA	390	C
31	BA	397	A
31	BA	398	C
31	BA	411	A
31	BA	412	A
31	BA	413	G
31	BA	422	C
31	BA	423	G
31	BA	424	G
31	BA	429	U
31	BA	430	A
31	BA	431	A
31	BA	439	A
31	BA	440	A
31	BA	442	C
31	BA	465	A

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Mol	Chain	Res	Type
31	BA	466	C
31	BA	483	C
31	BA	485	G
31	BA	496	A
31	BA	497	U
31	BA	505	G
31	BA	509	A
31	BA	510	A
31	BA	511	C
31	BA	513	C
31	BA	518	C
31	BA	519	C
31	BA	527	G
31	BA	530	G
31	BA	531	U
31	BA	533	A
31	BA	536	C
31	BA	545	C
31	BA	547	A
31	BA	560	U
31	BA	561	U
31	BA	564	C
31	BA	572	A
31	BA	573	A
31	BA	576	G
31	BA	577	G
31	BA	630	G
31	BA	631	G
31	BA	632	A
31	BA	642	A
31	BA	650	G
31	BA	653	A
31	BA	659	U
31	BA	665	A
31	BA	675	A
31	BA	687	A
31	BA	688	G
31	BA	701	C
31	BA	704	A
31	BA	723	U
31	BA	724	G
31	BA	749	C

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Mol	Chain	Res	Type
31	BA	755	G
31	BA	759	A
31	BA	766	A
31	BA	767	A
31	BA	774	G
31	BA	776	G
31	BA	777	A
31	BA	778	G
31	BA	789	U
31	BA	790	A
31	BA	791	G
31	BA	792	A
31	BA	793	U
31	BA	794	A
31	BA	798	G
31	BA	813	U
31	BA	815	A
31	BA	817	C
31	BA	820	U
31	BA	821	G
31	BA	828	A
31	BA	841	U
31	BA	843	U
31	BA	848	C
31	BA	859	A
31	BA	872	A
31	BA	873	A
31	BA	876	G
31	BA	902	G
31	BA	914	A
31	BA	922	G
31	BA	926	G
31	BA	927	G
31	BA	934	C
31	BA	935	A
31	BA	942	G
31	BA	960	U
31	BA	966	G
31	BA	968	A
31	BA	969	A
31	BA	971	G
31	BA	972	C

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Mol	Chain	Res	Type
31	BA	974	A
31	BA	976	G
31	BA	977	A
31	BA	978	A
31	BA	982	U
31	BA	983	A
31	BA	991	U
31	BA	992	U
31	BA	993	G
31	BA	1004	A
31	BA	1006	C
31	BA	1008	C
31	BA	1021	G
31	BA	1024	G
31	BA	1025	U
31	BA	1026	G
31	BA	1027	C
31	BA	1028	C
31	BA	1029	G
31	BA	1032(A)	G
31	BA	1033	G
31	BA	1036	G
31	BA	1054	C
31	BA	1055	A
31	BA	1056	U
31	BA	1066	C
31	BA	1070	U
31	BA	1081	G
31	BA	1094	G
31	BA	1095	U
31	BA	1101	A
31	BA	1108	G
31	BA	1117	G
31	BA	1124	G
31	BA	1125	U
31	BA	1126	U
31	BA	1127	G
31	BA	1129	C
31	BA	1130	A
31	BA	1131	G
31	BA	1133	G
31	BA	1136	U

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Mol	Chain	Res	Type
31	BA	1137	C
31	BA	1138	G
31	BA	1139	G
31	BA	1140	C
31	BA	1146	A
31	BA	1151	A
31	BA	1157	A
31	BA	1158	C
31	BA	1159	U
31	BA	1160	G
31	BA	1171	G
31	BA	1177	G
31	BA	1178	G
31	BA	1179	A
31	BA	1181	G
31	BA	1182	G
31	BA	1187	G
31	BA	1193	G
31	BA	1195	C
31	BA	1196	U
31	BA	1197	G
31	BA	1200	C
31	BA	1201	A
31	BA	1202	G
31	BA	1211	U
31	BA	1212	U
31	BA	1218	C
31	BA	1225	A
31	BA	1226	C
31	BA	1227	A
31	BA	1228	C
31	BA	1238	A
31	BA	1240	U
31	BA	1241	G
31	BA	1253	G
31	BA	1256	A
31	BA	1257	U
31	BA	1258	G
31	BA	1270	C
31	BA	1272	G
31	BA	1278	U
31	BA	1280	A

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Mol	Chain	Res	Type
31	BA	1281	U
31	BA	1282	C
31	BA	1286	A
31	BA	1287	A
31	BA	1290	G
31	BA	1291	G
31	BA	1294	G
31	BA	1300	G
31	BA	1301	U
31	BA	1302	U
31	BA	1303	C
31	BA	1320	C
31	BA	1322	C
31	BA	1323	G
31	BA	1326	C
31	BA	1331	G
31	BA	1332	A
31	BA	1335	C
31	BA	1336	C
31	BA	1337	G
31	BA	1338	G
31	BA	1346	A
31	BA	1347	G
31	BA	1350	A
31	BA	1353	G
31	BA	1362(A)	C
31	BA	1363	A
31	BA	1364	U
31	BA	1365	G
31	BA	1370	G
31	BA	1373	G
31	BA	1375	A
31	BA	1397	C
31	BA	1401	G
31	BA	1406	U
31	BA	1419	G
31	BA	1442	G
31	BA	1443	G
31	BA	1446	A
31	BA	1451	A
31	BA	1452	C
31	BA	1453	G

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Mol	Chain	Res	Type
31	BA	1487	G
31	BA	1492	A
31	BA	1494	G
31	BA	1497	G
31	BA	1499	A
31	BA	1502	A
31	BA	1503	A
31	BA	1504	G
31	BA	1505	G
31	BA	1506	U
31	BA	1507	A
31	BA	1517	G
31	BA	1529	G
52	BB	2	G
52	BB	4	G
52	BB	7	G
52	BB	8	U
52	BB	9	U
52	BB	10	C
52	BB	11	C
52	BB	14	A
52	BB	16	C
52	BB	17	G
52	BB	18	G
52	BB	19	C
52	BB	20	C
52	BB	21	A
52	BB	22	A
52	BB	24	G
52	BB	26	G
52	BB	27	A
52	BB	35	G
52	BB	41	C
52	BB	42	U
52	BB	43	G
52	BB	46	G
52	BB	47	U
52	BB	48	C
52	BB	49	A
52	BB	50	U
52	BB	52	G
52	BB	53	A

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Mol	Chain	Res	Type
52	BB	55	U
52	BB	57	C
52	BB	58	G
52	BB	62	G
52	BB	68	A
52	BB	69	U
52	BB	70	C
52	BB	72	U
52	BB	74	C
52	BB	75	C
52	BB	76	C
52	BB	78	C
52	BB	79	A
52	BB	80	C
52	BB	81	C
52	BB	82	A
52	BB	83	C
52	BB	84	C
53	BC	2	G
53	BC	9	G
53	BC	16	C
53	BC	17	C
53	BC	18	C
53	BC	19	G
53	BC	20	G
53	BC	21	U
53	BC	22	A
53	BC	32	G
53	BC	48	U
53	BC	49	C
53	BC	50	G
53	BC	51	U
53	BC	53	G
53	BC	68	C
52	BD	6	G
52	BD	8	U
52	BD	9	U
52	BD	10	C
52	BD	12	C
52	BD	14	A
52	BD	15	G
52	BD	16	C

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Mol	Chain	Res	Type
52	BD	17	G
52	BD	18	G
52	BD	19	C
52	BD	20	C
52	BD	21	A
52	BD	22	A
52	BD	23	A
52	BD	30	A
52	BD	44	C
52	BD	46	G
52	BD	48	C
52	BD	50	U
52	BD	52	G
52	BD	54	C
52	BD	55	U
52	BD	56	U
52	BD	57	C
52	BD	58	G
52	BD	64	U
52	BD	67	A
52	BD	68	A
52	BD	69	U
52	BD	70	C
52	BD	85	A
54	B1	11	U
54	B1	12	A
54	B1	13	A
54	B1	14	A
54	B1	23	A
1	CA	5	A
1	CA	10	G
1	CA	34	C
1	CA	36	G
1	CA	41	C
1	CA	45	C
1	CA	49	U
1	CA	50	G
1	CA	54	G
1	CA	57	G
1	CA	59	G
1	CA	60	G
1	CA	70	A

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Mol	Chain	Res	Type
1	CA	71	U
1	CA	73	A
1	CA	74	G
1	CA	81	G
1	CA	89	U
1	CA	90	A
1	CA	92	C
1	CA	94	G
1	CA	98	U
1	CA	100	G
1	CA	116	A
1	CA	117	A
1	CA	118	U
1	CA	119	G
1	CA	127	C
1	CA	137	G
1	CA	138	G
1	CA	140	A
1	CA	151	C
1	CA	153	C
1	CA	154	G
1	CA	155	C
1	CA	162	C
1	CA	163	G
1	CA	164	C
1	CA	165	G
1	CA	172	A
1	CA	186	A
1	CA	189	A
1	CA	195	G
1	CA	196	U
1	CA	204	G
1	CA	205	G
1	CA	206	A
1	CA	211	A
1	CA	212	A
1	CA	218	A
1	CA	219	A
1	CA	223	A
1	CA	238	G
1	CA	239	C
1	CA	242	G

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Mol	Chain	Res	Type
1	CA	254	C
1	CA	271	C
1	CA	272	U
1	CA	273	U
1	CA	275	U
1	CA	290	G
1	CA	296	C
1	CA	299	G
1	CA	300	G
1	CA	301	A
1	CA	303	A
1	CA	304	C
1	CA	308	A
1	CA	312	C
1	CA	314	A
1	CA	336	A
1	CA	337	G
1	CA	349	A
1	CA	354	G
1	CA	355	A
1	CA	357	A
1	CA	358	G
1	CA	377	G
1	CA	379	G
1	CA	381	G
1	CA	382	A
1	CA	388	G
1	CA	393	U
1	CA	394	A
1	CA	395	C
1	CA	400	G
1	CA	413	C
1	CA	414	G
1	CA	416	G
1	CA	423	U
1	CA	433	U
1	CA	434	G
1	CA	439	G
1	CA	440	A
1	CA	441	C
1	CA	456	A
1	CA	470	A

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Mol	Chain	Res	Type
1	CA	471	C
1	CA	475	U
1	CA	481	A
1	CA	484	A
1	CA	486	U
1	CA	487	A
1	CA	497	A
1	CA	498	A
1	CA	508	G
1	CA	509	A
1	CA	515	G
1	CA	516	G
1	CA	531	A
1	CA	534	G
1	CA	535	C
1	CA	538	G
1	CA	540	A
1	CA	553	C
1	CA	556	G
1	CA	557	C
1	CA	558	A
1	CA	559	G
1	CA	572	A
1	CA	580	G
1	CA	587	G
1	CA	597	G
1	CA	599	A
1	CA	612	U
1	CA	617	G
1	CA	627	A
1	CA	628	G
1	CA	631	U
1	CA	634	G
1	CA	639	U
1	CA	640	G
1	CA	642	G
1	CA	645	G
1	CA	647	A
1	CA	648	G
1	CA	653	A
1	CA	663	A
1	CA	671	C

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Mol	Chain	Res	Type
1	CA	672	A
1	CA	675	G
1	CA	677	G
1	CA	680	A
1	CA	681	A
1	CA	687	C
1	CA	689	C
1	CA	691	C
1	CA	692	G
1	CA	694	G
1	CA	700	A
1	CA	716	G
1	CA	717	G
1	CA	718	A
1	CA	730	G
1	CA	734	G
1	CA	763	G
1	CA	768	C
1	CA	770	A
1	CA	778	C
1	CA	796	G
1	CA	801	C
1	CA	810	U
1	CA	812	A
1	CA	823	G
1	CA	824	G
1	CA	825	A
1	CA	827	U
1	CA	830	A
1	CA	832	A
1	CA	833	G
1	CA	837	A
1	CA	839	C
1	CA	840	G
1	CA	841	A
1	CA	845	C
1	CA	849	G
1	CA	853	G
1	CA	860	C
1	CA	867	A
1	CA	875	U
1	CA	880	G

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Mol	Chain	Res	Type
1	CA	894	C
1	CA	907	G
1	CA	926	A
1	CA	928	G
1	CA	929	G
1	CA	934	C
1	CA	935	A
1	CA	936	C
1	CA	937	C
1	CA	938	A
1	CA	941	C
1	CA	943	A
1	CA	944	C
1	CA	946	A
1	CA	947	A
1	CA	948	A
1	CA	949	C
1	CA	951	C
1	CA	953	G
1	CA	957	A
1	CA	962	C
1	CA	963	G
1	CA	964	A
1	CA	971	C
1	CA	973	A
1	CA	978	G
1	CA	979	A
1	CA	980	G
1	CA	981	C
1	CA	984	G
1	CA	987	A
1	CA	990	G
1	CA	991	A
1	CA	992	G
1	CA	1004	U
1	CA	1005	A
1	CA	1007	C
1	CA	1014	G
1	CA	1020	G
1	CA	1027	A
1	CA	1030	A
1	CA	1037	A

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Mol	Chain	Res	Type
1	CA	1038	C
1	CA	1043	A
1	CA	1044	G
1	CA	1045	C
1	CA	1046	U
1	CA	1052	C
1	CA	1059	U
1	CA	1060	C
1	CA	1063	G
1	CA	1069	G
1	CA	1070	U
1	CA	1071	G
1	CA	1072	G
1	CA	1073	U
1	CA	1075	A
1	CA	1076	A
1	CA	1091	G
1	CA	1092	A
1	CA	1095	A
1	CA	1098	G
1	CA	1101	A
1	CA	1108	U
1	CA	1114	A
1	CA	1115	G
1	CA	1117	A
1	CA	1118	G
1	CA	1123	C
1	CA	1132	A
1	CA	1133	A
1	CA	1134	G
1	CA	1135	A
1	CA	1136	G
1	CA	1137	U
1	CA	1138	G
1	CA	1142	A
1	CA	1143	A
1	CA	1144	U
1	CA	1146	G
1	CA	1158	A
1	CA	1159	G
1	CA	1169	G
1	CA	1175	A

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Mol	Chain	Res	Type
1	CA	1176	A
1	CA	1177	U
1	CA	1181	C
1	CA	1182	G
1	CA	1183	G
1	CA	1185	G
1	CA	1188	U
1	CA	1189	A
1	CA	1190	A
1	CA	1195	A
1	CA	1217	G
1	CA	1218	G
1	CA	1219	G
1	CA	1221	U
1	CA	1222	G
1	CA	1223	A
1	CA	1224	C
1	CA	1243	G
1	CA	1250	A
1	CA	1251	U
1	CA	1257	U
1	CA	1266	A
1	CA	1277	C
1	CA	1281	U
1	CA	1283	G
1	CA	1295	G
1	CA	1297	G
1	CA	1299	G
1	CA	1300	A
1	CA	1302	U
1	CA	1303	G
1	CA	1318	G
1	CA	1319	A
1	CA	1320	U
1	CA	1333	A
1	CA	1345	C
1	CA	1347	U
1	CA	1348	A
1	CA	1361	C
1	CA	1365	C
1	CA	1366	G
1	CA	1372	G

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Mol	Chain	Res	Type
1	CA	1376	U
1	CA	1379	G
1	CA	1392	C
1	CA	1396	A
1	CA	1399	U
1	CA	1406	A
1	CA	1407	A
1	CA	1412	A
1	CA	1415	G
1	CA	1427	G
1	CA	1431	A
1	CA	1432	G
1	CA	1433	C
1	CA	1445	C
1	CA	1451	C
1	CA	1452	U
1	CA	1454	C
1	CA	1463	G
1	CA	1464	C
1	CA	1466	A
1	CA	1467	U
1	CA	1468	G
1	CA	1474	A
1	CA	1475	C
1	CA	1484	C
1	CA	1490	G
1	CA	1492	A
1	CA	1493	C
1	CA	1497	A
1	CA	1498	G
1	CA	1500	C
1	CA	1503	G
1	CA	1506	C
1	CA	1508	A
1	CA	1509	G
1	CA	1515	C
1	CA	1519	A
1	CA	1523	G
1	CA	1529	U
1	CA	1530	G
1	CA	1535	G
1	CA	1537	A

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Mol	Chain	Res	Type
1	CA	1540	C
1	CA	1543	A
1	CA	1555	A
1	CA	1556	C
1	CA	1557	A
1	CA	1562	C
1	CA	1563	U
1	CA	1575	A
1	CA	1581	G
1	CA	1582	U
1	CA	1586	G
1	CA	1590	A
1	CA	1591	C
1	CA	1595	C
1	CA	1602	A
1	CA	1606	A
1	CA	1607	G
1	CA	1614	A
1	CA	1617	A
1	CA	1626	U
1	CA	1627	A
1	CA	1632	C
1	CA	1633	A
1	CA	1635	C
1	CA	1645	C
1	CA	1646	C
1	CA	1655	A
1	CA	1656	A
1	CA	1657	A
1	CA	1663	A
1	CA	1665	A
1	CA	1672	C
1	CA	1683	G
1	CA	1687	U
1	CA	1688	C
1	CA	1696	C
1	CA	1699	G
1	CA	1702	A
1	CA	1712	A
1	CA	1722	G
1	CA	1744	G
1	CA	1748	A

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Mol	Chain	Res	Type
1	CA	1749	A
1	CA	1768	A
1	CA	1770	G
1	CA	1771	A
1	CA	1773	C
1	CA	1788	G
1	CA	1790	G
1	CA	1794	A
1	CA	1795	G
1	CA	1796	G
1	CA	1805	A
1	CA	1812	A
1	CA	1814	C
1	CA	1819	A
1	CA	1823	A
1	CA	1832	C
1	CA	1833	G
1	CA	1834	A
1	CA	1848	G
1	CA	1852	U
1	CA	1861	A
1	CA	1867	G
1	CA	1871	G
1	CA	1879	A
1	CA	1880	A
1	CA	1890	G
1	CA	1896	U
1	CA	1899	A
1	CA	1901	G
1	CA	1906	G
1	CA	1911	G
1	CA	1918	C
1	CA	1923	A
1	CA	1929	G
1	CA	1936	A
1	CA	1952	G
1	CA	1953	G
1	CA	1959	A
1	CA	1960	A
1	CA	1978	U
1	CA	1979	U
1	CA	1986	U

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Mol	Chain	Res	Type
1	CA	1990	C
1	CA	1993	A
1	CA	1994	A
1	CA	1995	A
1	CA	2014	U
1	CA	2015	G
1	CA	2016	U
1	CA	2019	C
1	CA	2040	U
1	CA	2043	A
1	CA	2046	G
1	CA	2054	A
1	CA	2056	A
1	CA	2062	C
1	CA	2066	C
1	CA	2078	C
1	CA	2079	G
1	CA	2082	A
1	CA	2083	A
1	CA	2084	G
1	CA	2085	A
1	CA	2092	G
1	CA	2123	G
1	CA	2130	C
1	CA	2131	C
1	CA	2134	C
1	CA	2135	G
1	CA	2136	U
1	CA	2137	A
1	CA	2138	G
1	CA	2143	G
1	CA	2149	A
1	CA	2150	G
1	CA	2151	C
1	CA	2153	U
1	CA	2155	U
1	CA	2156	G
1	CA	2159	C
1	CA	2168	C
1	CA	2169	C
1	CA	2170	G
1	CA	2171	G

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Mol	Chain	Res	Type
1	CA	2174	G
1	CA	2182	G
1	CA	2187	C
1	CA	2189	G
1	CA	2194	A
1	CA	2195	U
1	CA	2196	A
1	CA	2197	C
1	CA	2214	G
1	CA	2215	G
1	CA	2221	A
1	CA	2222	A
1	CA	2228	G
1	CA	2229	G
1	CA	2230	A
1	CA	2231	U
1	CA	2232	G
1	CA	2238	A
1	CA	2239	C
1	CA	2252	G
1	CA	2271	C
1	CA	2288	C
1	CA	2289	G
1	CA	2293	G
1	CA	2296	C
1	CA	2300	A
1	CA	2301	A
1	CA	2302	G
1	CA	2316	G
1	CA	2320	G
1	CA	2321	G
1	CA	2322	A
1	CA	2323	A
1	CA	2324	A
1	CA	2326	C
1	CA	2332	G
1	CA	2334	G
1	CA	2338	G
1	CA	2346	A
1	CA	2347	G
1	CA	2348	A
1	CA	2356	C

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Mol	Chain	Res	Type
1	CA	2359	A
1	CA	2360	C
1	CA	2363	C
1	CA	2379	A
1	CA	2396	G
1	CA	2398	C
1	CA	2400	U
1	CA	2401	A
1	CA	2402	G
1	CA	2403	U
1	CA	2405	A
1	CA	2407	C
1	CA	2409	G
1	CA	2411	U
1	CA	2415	C
1	CA	2419	U
1	CA	2427	G
1	CA	2429	C
1	CA	2435	A
1	CA	2436	U
1	CA	2438	A
1	CA	2441	G
1	CA	2442	G
1	CA	2443	A
1	CA	2448	A
1	CA	2452	A
1	CA	2453	C
1	CA	2454	C
1	CA	2461	A
1	CA	2478	C
1	CA	2481	G
1	CA	2482	A
1	CA	2483	G
1	CA	2485	G
1	CA	2489	A
1	CA	2496	C
1	CA	2497	G
1	CA	2507	G
1	CA	2515	G
1	CA	2518	G
1	CA	2519	U
1	CA	2520	C

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Mol	Chain	Res	Type
1	CA	2531	A
1	CA	2536	G
1	CA	2542	G
1	CA	2555	A
1	CA	2556	G
1	CA	2567	U
1	CA	2579	A
1	CA	2580	G
1	CA	2582	G
1	CA	2598	U
1	CA	2605	G
1	CA	2615	A
1	CA	2616	G
1	CA	2622	U
1	CA	2624	U
1	CA	2625	C
1	CA	2642	A
1	CA	2643	G
1	CA	2649	U
1	CA	2659	C
1	CA	2678	A
1	CA	2682	G
1	CA	2686	G
1	CA	2702	U
1	CA	2703	C
1	CA	2715	U
1	CA	2716	C
1	CA	2720	G
1	CA	2726	A
1	CA	2727	A
1	CA	2728	G
1	CA	2740	U
1	CA	2746	G
1	CA	2747	A
1	CA	2758	G
1	CA	2764	A
1	CA	2765	G
1	CA	2766	C
1	CA	2771	A
1	CA	2772	A
1	CA	2775	G
1	CA	2776	G

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Mol	Chain	Res	Type
1	CA	2777	G
1	CA	2780	G
1	CA	2783	C
1	CA	2791	G
1	CA	2792	A
1	CA	2793	U
1	CA	2794	G
1	CA	2795	A
1	CA	2803	C
1	CA	2804	A
1	CA	2805	C
1	CA	2810	U
1	CA	2811	C
1	CA	2812	A
1	CA	2813	A
1	CA	2819	U
1	CA	2831	A
1	CA	2832	A
1	CA	2844	G
1	CA	2845	G
1	CA	2846	A
1	CA	2855	G
1	CA	2860	U
1	CA	2871	A
1	CA	2883	G
1	CA	2884	A
1	CA	2902	A
1	CA	2903	G
1	CA	2904	G
1	CA	2906	C
1	CA	2907	U
2	CB	2	A
2	CB	10	U
2	CB	15	A
2	CB	17	A
2	CB	18	G
2	CB	26	G
2	CB	27	A
2	CB	29	C
2	CB	30	C
2	CB	33	C
2	CB	34	C

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Mol	Chain	Res	Type
2	CB	42	U
2	CB	43	U
2	CB	44	C
2	CB	47	A
2	CB	49	C
2	CB	55	A
2	CB	75	A
2	CB	77	G
2	CB	78	G
2	CB	82	U
2	CB	83	G
2	CB	84	G
2	CB	90	C
2	CB	91	G
2	CB	92	A
2	CB	108	G
2	CB	112	G
2	CB	113	G
31	DA	7	G
31	DA	9	G
31	DA	32	A
31	DA	39	G
31	DA	48	C
31	DA	50	A
31	DA	51	A
31	DA	53	A
31	DA	65	U
31	DA	76	G
31	DA	78	G
31	DA	81	G
31	DA	84	U
31	DA	85	U
31	DA	86	U
31	DA	87	A
31	DA	90	C
31	DA	91	C
31	DA	95	G
31	DA	99	C
31	DA	116	A
31	DA	121	C
31	DA	131	C
31	DA	146	G

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Mol	Chain	Res	Type
31	DA	154	C
31	DA	174	C
31	DA	182	U
31	DA	186(E)	C
31	DA	188	U
31	DA	189	U
31	DA	190	G
31	DA	191(D)	U
31	DA	195	A
31	DA	197	A
31	DA	198	G
31	DA	208	U
31	DA	209	U
31	DA	210	U
31	DA	216	G
31	DA	231	G
31	DA	244	U
31	DA	247	G
31	DA	251	G
31	DA	266	G
31	DA	267	C
31	DA	268	C
31	DA	280	C
31	DA	281	G
31	DA	289	G
31	DA	321	A
31	DA	328	C
31	DA	329	A
31	DA	332	G
31	DA	345	C
31	DA	346	G
31	DA	350	G
31	DA	351	G
31	DA	352	C
31	DA	353	A
31	DA	354	G
31	DA	355	C
31	DA	367	U
31	DA	372	C
31	DA	373	A
31	DA	397	A
31	DA	398	C

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Mol	Chain	Res	Type
31	DA	406	G
31	DA	411	A
31	DA	412	A
31	DA	413	G
31	DA	421	U
31	DA	422	C
31	DA	423	G
31	DA	429	U
31	DA	430	A
31	DA	435	C
31	DA	439	A
31	DA	442	C
31	DA	452	A
31	DA	458	C
31	DA	466	C
31	DA	467	G
31	DA	478	A
31	DA	484	G
31	DA	485	G
31	DA	486	U
31	DA	493	G
31	DA	496	A
31	DA	497	U
31	DA	505	G
31	DA	508	C
31	DA	509	A
31	DA	510	A
31	DA	511	C
31	DA	517	G
31	DA	519	C
31	DA	521	G
31	DA	527	G
31	DA	530	G
31	DA	531	U
31	DA	532	A
31	DA	533	A
31	DA	544	G
31	DA	547	A
31	DA	559	A
31	DA	561	U
31	DA	562	C
31	DA	564	C

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Mol	Chain	Res	Type
31	DA	572	A
31	DA	573	A
31	DA	575	G
31	DA	576	G
31	DA	577	G
31	DA	607	A
31	DA	615	C
31	DA	618	C
31	DA	629	G
31	DA	632	A
31	DA	633	G
31	DA	653	A
31	DA	665	A
31	DA	688	G
31	DA	691	G
31	DA	692	U
31	DA	704	A
31	DA	721	G
31	DA	725	G
31	DA	726	C
31	DA	731	G
31	DA	733	A
31	DA	734	G
31	DA	749	C
31	DA	755	G
31	DA	776	G
31	DA	777	A
31	DA	782	A
31	DA	792	A
31	DA	794	A
31	DA	812	C
31	DA	813	U
31	DA	816	A
31	DA	817	C
31	DA	818	G
31	DA	828	A
31	DA	842	C
31	DA	843	U
31	DA	848	C
31	DA	854	G
31	DA	855	G
31	DA	859	A

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Mol	Chain	Res	Type
31	DA	871	U
31	DA	874	G
31	DA	885	G
31	DA	902	G
31	DA	913	A
31	DA	914	A
31	DA	919	A
31	DA	926	G
31	DA	927	G
31	DA	934	C
31	DA	935	A
31	DA	951	G
31	DA	958	A
31	DA	960	U
31	DA	961	U
31	DA	962	C
31	DA	966	G
31	DA	968	A
31	DA	969	A
31	DA	974	A
31	DA	975	A
31	DA	976	G
31	DA	977	A
31	DA	978	A
31	DA	980	C
31	DA	982	U
31	DA	983	A
31	DA	991	U
31	DA	992	U
31	DA	993	G
31	DA	994	A
31	DA	995	C
31	DA	1004	A
31	DA	1006	C
31	DA	1009	G
31	DA	1016	A
31	DA	1020	U
31	DA	1021	G
31	DA	1023	G
31	DA	1024	G
31	DA	1025	U
31	DA	1026	G

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Mol	Chain	Res	Type
31	DA	1027	C
31	DA	1028	C
31	DA	1029	G
31	DA	1030	C
31	DA	1033	G
31	DA	1035	A
31	DA	1036	G
31	DA	1037	C
31	DA	1040	U
31	DA	1045	C
31	DA	1050	G
31	DA	1053	G
31	DA	1054	C
31	DA	1055	A
31	DA	1056	U
31	DA	1066	C
31	DA	1067	A
31	DA	1073	U
31	DA	1081	G
31	DA	1082	G
31	DA	1086	U
31	DA	1087	G
31	DA	1092	A
31	DA	1094	G
31	DA	1095	U
31	DA	1097	C
31	DA	1101	A
31	DA	1110	A
31	DA	1113	C
31	DA	1117	G
31	DA	1124	G
31	DA	1125	U
31	DA	1127	G
31	DA	1129	C
31	DA	1130	A
31	DA	1131	G
31	DA	1136	U
31	DA	1137	C
31	DA	1138	G
31	DA	1139	G
31	DA	1140	C
31	DA	1146	A

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Mol	Chain	Res	Type
31	DA	1157	A
31	DA	1158	C
31	DA	1159	U
31	DA	1160	G
31	DA	1178	G
31	DA	1179	A
31	DA	1181	G
31	DA	1182	G
31	DA	1183	A
31	DA	1184	G
31	DA	1187	G
31	DA	1190	G
31	DA	1191	A
31	DA	1196	U
31	DA	1197	G
31	DA	1198	G
31	DA	1200	C
31	DA	1201	A
31	DA	1202	G
31	DA	1212	U
31	DA	1213	A
31	DA	1214	C
31	DA	1225	A
31	DA	1227	A
31	DA	1238	A
31	DA	1240	U
31	DA	1241	G
31	DA	1256	A
31	DA	1257	U
31	DA	1258	G
31	DA	1260	C
31	DA	1263	C
31	DA	1269	A
31	DA	1270	C
31	DA	1278	U
31	DA	1280	A
31	DA	1281	U
31	DA	1286	A
31	DA	1287	A
31	DA	1288	A
31	DA	1290	G
31	DA	1297	C

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Mol	Chain	Res	Type
31	DA	1298	C
31	DA	1299	A
31	DA	1300	G
31	DA	1301	U
31	DA	1303	C
31	DA	1305	G
31	DA	1306	A
31	DA	1317	C
31	DA	1319	A
31	DA	1320	C
31	DA	1322	C
31	DA	1323	G
31	DA	1331	G
31	DA	1335	C
31	DA	1338	G
31	DA	1346	A
31	DA	1347	G
31	DA	1353	G
31	DA	1363	A
31	DA	1364	U
31	DA	1368	G
31	DA	1370	G
31	DA	1379	G
31	DA	1397	C
31	DA	1400	C
31	DA	1404	C
31	DA	1416	G
31	DA	1419	G
31	DA	1442	G
31	DA	1443	G
31	DA	1446	A
31	DA	1447	G
31	DA	1450	U
31	DA	1451	A
31	DA	1452	C
31	DA	1453	G
31	DA	1492	A
31	DA	1494	G
31	DA	1499	A
31	DA	1502	A
31	DA	1503	A
31	DA	1504	G

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Mol	Chain	Res	Type
31	DA	1506	U
31	DA	1507	A
31	DA	1517	G
31	DA	1518	A
31	DA	1519	A
31	DA	1520	G
31	DA	1529	G
52	DB	2	G
52	DB	4	G
52	DB	6	G
52	DB	7	G
52	DB	8	U
52	DB	9	U
52	DB	11	C
52	DB	14	A
52	DB	16	C
52	DB	17	G
52	DB	18	G
52	DB	19	C
52	DB	20	C
52	DB	21	A
52	DB	22	A
52	DB	24	G
52	DB	26	G
52	DB	27	A
52	DB	33	C
52	DB	41	C
52	DB	42	U
52	DB	43	G
52	DB	45	C
52	DB	46	G
52	DB	47	U
52	DB	48	C
52	DB	49	A
52	DB	50	U
52	DB	51	C
52	DB	52	G
52	DB	53	A
52	DB	55	U
52	DB	57	C
52	DB	58	G
52	DB	62	G

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Mol	Chain	Res	Type
52	DB	68	A
52	DB	69	U
52	DB	70	C
52	DB	72	U
52	DB	74	C
52	DB	75	C
52	DB	76	C
52	DB	78	C
52	DB	79	A
52	DB	80	C
52	DB	81	C
52	DB	82	A
52	DB	83	C
52	DB	84	C
53	DC	2	G
53	DC	9	G
53	DC	16	C
53	DC	17	C
53	DC	18	C
53	DC	19	G
53	DC	20	G
53	DC	21	U
53	DC	32	G
53	DC	48	U
53	DC	49	C
53	DC	50	G
53	DC	51	U
53	DC	53	G
53	DC	68	C
52	DD	6	G
52	DD	8	U
52	DD	9	U
52	DD	10	C
52	DD	12	C
52	DD	14	A
52	DD	15	G
52	DD	16	C
52	DD	17	G
52	DD	18	G
52	DD	19	C
52	DD	20	C
52	DD	21	A

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Mol	Chain	Res	Type
52	DD	22	A
52	DD	23	A
52	DD	30	A
52	DD	44	C
52	DD	46	G
52	DD	48	C
52	DD	50	U
52	DD	52	G
52	DD	54	C
52	DD	55	U
52	DD	56	U
52	DD	58	G
52	DD	64	U
52	DD	67	A
52	DD	68	A
52	DD	69	U
52	DD	70	C
52	DD	85	A
54	D1	11	U
54	D1	12	A
54	D1	13	A
54	D1	14	A
54	D1	23	A

All (234) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	196	A
1	AA	222	A
1	AA	229	A
1	AA	270(M)	U
1	AA	270(O)	U
1	AA	271(B)	G
1	AA	322	A
1	AA	404	C
1	AA	481	G
1	AA	587	C
1	AA	654(S)	G
1	AA	752	A
1	AA	880	G
1	AA	945	A
1	AA	974(A)	C

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Mol	Chain	Res	Type
1	AA	998	C
1	AA	1022	G
1	AA	1026	U
1	AA	1060	U
1	AA	1081	U
1	AA	1085	A
1	AA	1130	U
1	AA	1178	C
1	AA	1210	A
1	AA	1312	U
1	AA	1379	A
1	AA	1416	G
1	AA	1420	U
1	AA	1427	A
1	AA	1558	A
1	AA	1653	G
1	AA	1694	C
1	AA	1786	A
1	AA	1799	G
1	AA	1955	U
1	AA	1992	G
1	AA	2060	A
1	AA	2110	G
1	AA	2135	A
1	AA	2157	G
1	AA	2167	U
1	AA	2211	G
1	AA	2346	A
1	AA	2351	G
1	AA	2439	A
1	AA	2481	G
1	AA	2490	G
1	AA	2566	A
1	AA	2610	C
1	AA	2613	U
1	AA	2681	C
1	AA	2689	U
1	AA	2751	G
1	AA	2756	U
31	BA	31	G
31	BA	49	U
31	BA	50	A

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Mol	Chain	Res	Type
31	BA	79	G
31	BA	115	G
31	BA	119	A
31	BA	173	U
31	BA	181	G
31	BA	210	U
31	BA	244	U
31	BA	266	G
31	BA	344	A
31	BA	353	A
31	BA	412	A
31	BA	428	G
31	BA	429	U
31	BA	484	G
31	BA	509	A
31	BA	530	G
31	BA	560	U
31	BA	687	A
31	BA	703	G
31	BA	748	C
31	BA	758	G
31	BA	812	C
31	BA	820	U
31	BA	871	U
31	BA	913	A
31	BA	992	U
31	BA	1025	U
31	BA	1027	C
31	BA	1065	U
31	BA	1126	U
31	BA	1178	G
31	BA	1211	U
31	BA	1285	A
31	BA	1331	G
31	BA	1364	U
31	BA	1452	C
31	BA	1498	U
31	BA	1502	A
31	BA	1504	G
52	BB	3	U
52	BB	6	G
52	BB	17	G

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Mol	Chain	Res	Type
52	BB	18	G
52	BB	19	C
52	BB	46	G
52	BB	52	G
52	BB	57	C
52	BB	75	C
52	BB	78	C
53	BC	19	G
53	BC	48	U
52	BD	17	G
52	BD	18	G
52	BD	21	A
52	BD	57	C
52	BD	67	A
54	B1	11	U
54	B1	12	A
54	B1	13	A
1	CA	48	A
1	CA	70	A
1	CA	126	C
1	CA	194	A
1	CA	195	G
1	CA	303	A
1	CA	611	C
1	CA	679	A
1	CA	699	G
1	CA	717	G
1	CA	800	A
1	CA	838	C
1	CA	848	A
1	CA	925	U
1	CA	936	C
1	CA	940	C
1	CA	1069	G
1	CA	1132	A
1	CA	1136	G
1	CA	1218	G
1	CA	1256	A
1	CA	1426	A
1	CA	1444	U
1	CA	1463	G
1	CA	1467	U

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Mol	Chain	Res	Type
1	CA	1474	A
1	CA	1508	A
1	CA	1606	A
1	CA	1701	G
1	CA	1851	A
1	CA	1978	U
1	CA	2015	G
1	CA	2158	A
1	CA	2214	G
1	CA	2228	G
1	CA	2229	G
1	CA	2238	A
1	CA	2288	C
1	CA	2321	G
1	CA	2452	A
1	CA	2460	G
1	CA	2615	A
1	CA	2623	C
1	CA	2642	A
1	CA	2702	U
1	CA	2765	G
1	CA	2770	U
1	CA	2790	A
1	CA	2804	A
1	CA	2870	G
1	CA	2903	G
2	CB	16	U
2	CB	90	C
31	DA	31	G
31	DA	64	G
31	DA	86	U
31	DA	89	U
31	DA	115	G
31	DA	197	A
31	DA	201	C
31	DA	209	U
31	DA	243	A
31	DA	250	A
31	DA	266	G
31	DA	328	C
31	DA	345	C
31	DA	353	A

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Mol	Chain	Res	Type
31	DA	412	A
31	DA	429	U
31	DA	485	G
31	DA	509	A
31	DA	560	U
31	DA	631	G
31	DA	632	A
31	DA	687	A
31	DA	748	C
31	DA	812	C
31	DA	873	A
31	DA	913	A
31	DA	982	U
31	DA	991	U
31	DA	992	U
31	DA	1025	U
31	DA	1049	U
31	DA	1054	C
31	DA	1126	U
31	DA	1128	C
31	DA	1145	C
31	DA	1157	A
31	DA	1177	G
31	DA	1285	A
31	DA	1297	C
31	DA	1300	G
31	DA	1305	G
31	DA	1346	A
31	DA	1442	G
31	DA	1449	C
31	DA	1498	U
31	DA	1503	A
52	DB	3	U
52	DB	6	G
52	DB	17	G
52	DB	18	G
52	DB	19	C
52	DB	46	G
52	DB	57	C
52	DB	75	C
52	DB	78	C
53	DC	19	G

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Mol	Chain	Res	Type
53	DC	48	U
52	DD	17	G
52	DD	18	G
52	DD	21	A
52	DD	57	C
52	DD	67	A
54	D1	11	U
54	D1	12	A
54	D1	13	A

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

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

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the chemical component dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# $ Z > 2$	Counts	RMSZ	# $ Z > 2$
52	MIA	BB	38	52	29,31,32	1.67	3 (10%)	41,44,47	2.01	10 (24%)
52	MIA	BD	38	52	29,31,32	1.65	3 (10%)	41,44,47	2.36	9 (21%)
52	MIA	DB	38	52	29,31,32	1.74	3 (10%)	41,44,47	2.25	10 (24%)
52	MIA	DD	38	52	29,31,32	1.68	3 (10%)	41,44,47	2.11	10 (24%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
52	MIA	BB	38	52	-	0/16/33/34	0/3/3/3
52	MIA	BD	38	52	-	1/16/33/34	0/3/3/3
52	MIA	DB	38	52	-	0/16/33/34	0/3/3/3
52	MIA	DD	38	52	-	1/16/33/34	0/3/3/3

All (12) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
52	DB	38	MIA	C6-N6	6.64	1.46	1.34
52	BB	38	MIA	C6-N6	6.39	1.46	1.34
52	DD	38	MIA	C6-N6	6.35	1.45	1.34
52	BD	38	MIA	C6-N6	6.23	1.45	1.34
52	DB	38	MIA	P-OP1	4.62	1.52	1.46
52	BB	38	MIA	P-OP1	4.37	1.51	1.46
52	DD	38	MIA	P-OP1	4.19	1.51	1.46
52	BD	38	MIA	P-OP1	4.17	1.51	1.46
52	DD	38	MIA	C6-C5	-3.39	1.39	1.44
52	BD	38	MIA	C6-C5	-3.37	1.39	1.44
52	BB	38	MIA	C6-C5	-3.14	1.39	1.44
52	DB	38	MIA	C6-C5	-2.98	1.39	1.44

All (39) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
52	BD	38	MIA	C11-S10-C2	9.89	109.41	102.23
52	DB	38	MIA	C11-S10-C2	9.39	109.06	102.23
52	DD	38	MIA	C11-S10-C2	7.66	107.80	102.23
52	BB	38	MIA	C11-S10-C2	6.46	106.93	102.23
52	BB	38	MIA	C5-C4-N3	-6.06	119.09	126.07
52	BD	38	MIA	C5-C4-N3	-5.96	119.20	126.07
52	DB	38	MIA	C5-C4-N3	-5.85	119.33	126.07
52	DD	38	MIA	C5-C4-N3	-5.75	119.44	126.07
52	BD	38	MIA	C12-N6-C6	-4.85	117.02	123.33
52	DD	38	MIA	C12-N6-C6	-4.27	117.76	123.33
52	BD	38	MIA	N3-C4-N9	4.17	133.03	126.91
52	DD	38	MIA	N3-C4-N9	4.06	132.86	126.91
52	BB	38	MIA	N3-C4-N9	3.79	132.47	126.91
52	BB	38	MIA	C12-N6-C6	-3.71	118.49	123.33
52	DB	38	MIA	N3-C4-N9	3.67	132.29	126.91
52	DB	38	MIA	C2-N3-C4	3.26	119.81	115.22
52	BB	38	MIA	C4-C5-N7	-3.23	106.29	109.41
52	DB	38	MIA	C4-C5-N7	-3.19	106.33	109.41
52	BD	38	MIA	C2-N3-C4	3.10	119.59	115.22
52	BB	38	MIA	C2-N3-C4	2.87	119.27	115.22
52	DD	38	MIA	C2-N3-C4	2.83	119.21	115.22
52	DB	38	MIA	N3-C2-N1	-2.83	121.76	126.87
52	BD	38	MIA	N3-C2-N1	-2.65	122.08	126.87
52	BD	38	MIA	C4-C5-N7	-2.60	106.90	109.41
52	DB	38	MIA	C2-N1-C6	2.59	120.99	113.31
52	DD	38	MIA	N3-C2-N1	-2.57	122.24	126.87
52	DD	38	MIA	C4-C5-N7	-2.53	106.97	109.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
52	DD	38	MIA	C2-N1-C6	2.51	120.77	113.31
52	BD	38	MIA	C2-N1-C6	2.47	120.63	113.31
52	BB	38	MIA	C2-N1-C6	2.45	120.58	113.31
52	BB	38	MIA	C6-C5-C4	2.43	120.24	117.48
52	DB	38	MIA	C12-N6-C6	-2.43	120.17	123.33
52	BB	38	MIA	N3-C2-N1	-2.39	122.57	126.87
52	DB	38	MIA	C6-C5-C4	2.27	120.06	117.48
52	DB	38	MIA	C5-C6-N1	-2.27	118.05	120.46
52	DD	38	MIA	C6-C5-C4	2.25	120.04	117.48
52	BD	38	MIA	C6-C5-C4	2.09	119.86	117.48
52	BB	38	MIA	C5-C6-N1	-2.06	118.26	120.46
52	DD	38	MIA	C5-C6-N1	-2.03	118.30	120.46

There are no chirality outliers.

All (2) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
52	DD	38	MIA	OP2-P-O5'-C5'
52	BD	38	MIA	OP2-P-O5'-C5'

There are no ring outliers.

5.5 Carbohydrates ⓘ

There are no carbohydrates in this entry.

5.6 Ligand geometry ⓘ

Of 1610 ligands modelled in this entry, 898 are monoatomic - leaving 712 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the chemical component dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
56	OHX	A1	202	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
56	OHX	A1	203	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	A3	102	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	A6	101	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3138	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3147	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3154	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3160	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3263	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3287	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3288	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3289	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3290	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3291	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3292	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3293	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3294	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3295	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3296	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3297	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3298	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3299	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3300	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3301	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3302	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3303	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3304	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3305	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3306	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3307	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3308	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3309	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3310	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3311	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3312	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3313	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3314	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3315	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3316	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3317	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3318	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3319	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3320	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3321	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
56	OHX	AA	3322	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3323	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3324	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3325	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3326	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3327	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3328	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3329	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3330	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3331	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3332	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3333	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3334	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3335	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3336	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3337	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3338	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3339	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3340	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3341	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3342	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3359	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3360	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3361	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3362	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3363	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3364	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3365	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3366	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3367	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3368	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3369	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3370	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3371	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3372	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3373	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3399	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3400	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3401	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3402	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3403	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3404	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3405	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
56	OHX	AA	3406	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3407	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3417	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3418	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3419	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3420	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3421	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3422	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3423	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3424	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3425	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3426	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3427	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3428	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3429	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3430	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3431	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3432	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3433	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3434	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3435	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3436	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3437	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3438	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3439	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3440	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3441	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3442	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3443	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3444	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3445	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3446	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3447	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3448	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3449	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3450	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3451	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3452	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3453	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3454	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3455	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3456	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3457	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
56	OHX	AA	3458	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3459	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3460	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3461	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3462	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3463	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3464	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3465	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3466	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3467	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3468	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3469	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3470	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3471	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3472	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3473	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3474	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3475	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3476	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3477	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3478	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3479	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3480	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3481	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3482	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3483	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3484	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3485	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3486	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3487	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3488	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3489	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3490	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3491	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3492	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3493	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3494	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3495	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3496	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3497	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3498	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3499	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3500	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
56	OHX	AA	3501	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3502	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3503	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3504	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3505	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3506	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3507	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3508	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3509	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3510	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3511	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3512	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3513	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3514	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3515	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3516	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3517	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3518	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3519	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3520	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3521	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3522	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3523	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3524	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3525	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3526	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3527	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3528	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3529	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3530	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3531	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3532	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3533	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3534	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3535	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3536	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3537	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3538	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3539	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3540	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3541	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3542	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3543	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
56	OHX	AA	3544	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3545	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3546	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3547	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3548	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3549	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3550	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3551	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3552	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3553	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3554	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3555	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3556	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3557	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3558	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3559	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3560	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3561	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3562	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3563	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3564	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3565	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3566	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3567	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3568	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AA	3569	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AB	207	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AB	208	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AB	209	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AB	210	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AB	211	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AB	212	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AB	213	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AB	214	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AB	215	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AB	216	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AB	217	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AB	218	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AB	219	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AE	304	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AF	303	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AO	204	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	AO	205	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
56	OHX	AW	101	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1656	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1657	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1659	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1661	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1662	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1663	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1664	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1665	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1666	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1667	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1668	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1669	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1670	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1671	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1672	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1673	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1674	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1675	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1676	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1677	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1678	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1679	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1680	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1681	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1682	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1683	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1684	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1685	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1686	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1687	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1688	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1689	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1690	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1691	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1692	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1693	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1694	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1695	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1696	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1755	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1756	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1757	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
56	OHX	BA	1758	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1759	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1760	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1761	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1762	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1763	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1764	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1765	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1766	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1767	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1768	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1769	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1770	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1771	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1772	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1773	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1774	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1775	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1776	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1777	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1778	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1779	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1780	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1781	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1782	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1783	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1784	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1785	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1786	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1787	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1788	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1789	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1790	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1791	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1792	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1793	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1794	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1795	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1796	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1797	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1798	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1799	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1800	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
56	OHX	BA	1801	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1802	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1803	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1804	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1805	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1806	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1807	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1808	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1809	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1810	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1811	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1812	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1813	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1814	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1815	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BA	1816	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BB	106	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BB	107	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BC	106	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BC	107	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BD	102	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BD	103	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BD	104	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BG	302	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	BR	101	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	C1	201	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	C3	101	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	C5	102	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	C6	101	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3232	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3233	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3234	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3235	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3236	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3237	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3238	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3239	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3240	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3241	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3242	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3243	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3244	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3245	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
56	OHX	CA	3246	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3247	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3248	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3249	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3250	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3251	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3252	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3253	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3254	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3255	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3256	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3269	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3270	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3271	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3272	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3273	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3274	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3275	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3276	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3277	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3278	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3279	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3280	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3281	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3282	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3283	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3284	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3285	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3286	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3287	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3288	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3289	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3290	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3291	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3292	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3293	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3294	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3295	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3296	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3297	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3298	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3299	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3300	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
56	OHX	CA	3301	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3302	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3303	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3304	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3305	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3306	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3307	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3308	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3309	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3310	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3311	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3312	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3313	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3314	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3315	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3316	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3317	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3318	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3319	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3320	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3321	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3322	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3323	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3324	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3325	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3326	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3327	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3328	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3329	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3330	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3331	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3332	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3333	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3334	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3335	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3336	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3337	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3338	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3339	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3340	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3341	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3342	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3343	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
56	OHX	CA	3344	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3345	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3346	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3347	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3348	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3349	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3350	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3351	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3352	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3353	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3354	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3355	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3356	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3357	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3358	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3359	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3360	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3361	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3362	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3363	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3364	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3365	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3366	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3367	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3368	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3369	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3370	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3371	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3372	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3373	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3374	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3375	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3376	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3377	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3378	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3379	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3380	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3381	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3382	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3383	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3384	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3385	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3386	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
56	OHX	CA	3387	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3388	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3389	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3390	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3391	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3392	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3393	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3394	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3395	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3396	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3397	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3398	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3399	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3400	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3401	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3402	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3403	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3404	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3405	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3406	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3407	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3408	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3409	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3410	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3411	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3412	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3413	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3414	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3415	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3416	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3417	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3418	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3419	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3420	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3421	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3422	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3423	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3424	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3425	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3426	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3427	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3428	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3429	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
56	OHX	CA	3430	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3431	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3432	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3433	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3434	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3435	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3436	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3437	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3438	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3450	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3461	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3462	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3463	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3464	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3465	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3466	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3467	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3468	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3469	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3470	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3481	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3482	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3483	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3484	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3485	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3486	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3487	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3488	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3489	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3490	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3491	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CA	3492	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CB	208	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CB	209	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CB	210	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CB	211	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CB	212	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CB	213	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CB	214	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CB	215	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CB	216	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CB	217	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CB	218	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
56	OHX	CB	219	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CB	220	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CF	301	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	CO	201	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1718	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1719	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1721	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1722	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1723	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1724	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1726	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1727	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1728	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1729	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1730	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1731	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1732	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1733	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1734	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1735	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1736	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1737	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1738	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1739	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1740	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1741	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1742	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1743	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1744	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1745	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1746	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1747	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1748	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1749	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1750	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1751	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1752	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1753	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1754	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1755	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1756	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1757	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1758	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
56	OHX	DA	1759	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1760	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1761	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1762	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1763	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1764	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1765	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1766	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1767	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1768	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1769	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1770	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1771	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1772	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1773	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1774	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1775	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1776	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1777	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1778	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1779	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1780	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1781	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1782	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1783	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1784	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1785	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1786	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1787	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1788	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1789	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1790	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1791	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1792	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1793	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1794	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1795	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1796	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1797	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1798	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1799	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1800	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1801	-	0,6,6	0.00	-	0,15,15	0.00	-

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
56	OHX	DA	1802	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1803	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1804	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1805	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1806	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1807	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1808	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1809	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1810	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1811	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DA	1812	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DB	103	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DB	104	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DB	105	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DC	107	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DC	108	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DC	109	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DC	110	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DD	101	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DG	302	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DK	201	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DR	101	-	0,6,6	0.00	-	0,15,15	0.00	-
56	OHX	DV	101	-	0,6,6	0.00	-	0,15,15	0.00	-

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
56	OHX	A1	202	-	-	0/0/0/0	0/0/0/0
56	OHX	A1	203	-	-	0/0/0/0	0/0/0/0
56	OHX	A3	102	-	-	0/0/0/0	0/0/0/0
56	OHX	A6	101	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3138	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3147	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3154	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3160	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3263	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3287	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3288	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3289	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3290	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
56	OHX	AA	3291	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3292	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3293	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3294	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3295	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3296	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3297	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3298	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3299	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3300	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3301	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3302	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3303	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3304	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3305	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3306	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3307	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3308	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3309	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3310	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3311	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3312	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3313	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3314	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3315	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3316	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3317	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3318	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3319	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3320	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3321	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3322	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3323	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3324	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3325	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3326	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3327	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3328	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3329	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3330	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3331	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3332	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
56	OHX	AA	3333	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3334	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3335	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3336	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3337	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3338	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3339	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3340	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3341	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3342	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3359	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3360	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3361	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3362	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3363	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3364	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3365	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3366	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3367	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3368	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3369	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3370	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3371	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3372	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3373	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3399	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3400	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3401	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3402	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3403	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3404	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3405	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3406	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3407	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3417	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3418	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3419	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3420	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3421	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3422	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3423	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3424	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
56	OHX	AA	3425	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3426	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3427	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3428	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3429	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3430	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3431	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3432	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3433	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3434	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3435	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3436	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3437	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3438	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3439	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3440	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3441	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3442	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3443	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3444	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3445	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3446	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3447	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3448	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3449	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3450	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3451	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3452	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3453	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3454	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3455	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3456	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3457	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3458	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3459	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3460	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3461	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3462	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3463	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3464	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3465	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3466	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
56	OHX	AA	3467	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3468	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3469	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3470	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3471	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3472	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3473	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3474	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3475	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3476	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3477	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3478	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3479	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3480	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3481	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3482	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3483	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3484	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3485	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3486	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3487	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3488	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3489	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3490	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3491	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3492	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3493	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3494	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3495	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3496	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3497	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3498	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3499	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3500	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3501	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3502	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3503	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3504	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3505	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3506	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3507	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3508	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
56	OHX	AA	3509	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3510	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3511	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3512	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3513	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3514	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3515	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3516	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3517	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3518	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3519	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3520	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3521	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3522	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3523	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3524	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3525	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3526	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3527	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3528	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3529	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3530	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3531	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3532	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3533	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3534	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3535	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3536	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3537	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3538	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3539	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3540	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3541	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3542	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3543	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3544	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3545	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3546	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3547	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3548	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3549	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3550	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
56	OHX	AA	3551	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3552	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3553	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3554	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3555	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3556	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3557	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3558	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3559	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3560	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3561	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3562	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3563	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3564	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3565	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3566	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3567	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3568	-	-	0/0/0/0	0/0/0/0
56	OHX	AA	3569	-	-	0/0/0/0	0/0/0/0
56	OHX	AB	207	-	-	0/0/0/0	0/0/0/0
56	OHX	AB	208	-	-	0/0/0/0	0/0/0/0
56	OHX	AB	209	-	-	0/0/0/0	0/0/0/0
56	OHX	AB	210	-	-	0/0/0/0	0/0/0/0
56	OHX	AB	211	-	-	0/0/0/0	0/0/0/0
56	OHX	AB	212	-	-	0/0/0/0	0/0/0/0
56	OHX	AB	213	-	-	0/0/0/0	0/0/0/0
56	OHX	AB	214	-	-	0/0/0/0	0/0/0/0
56	OHX	AB	215	-	-	0/0/0/0	0/0/0/0
56	OHX	AB	216	-	-	0/0/0/0	0/0/0/0
56	OHX	AB	217	-	-	0/0/0/0	0/0/0/0
56	OHX	AB	218	-	-	0/0/0/0	0/0/0/0
56	OHX	AB	219	-	-	0/0/0/0	0/0/0/0
56	OHX	AE	304	-	-	0/0/0/0	0/0/0/0
56	OHX	AF	303	-	-	0/0/0/0	0/0/0/0
56	OHX	AO	204	-	-	0/0/0/0	0/0/0/0
56	OHX	AO	205	-	-	0/0/0/0	0/0/0/0
56	OHX	AW	101	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1656	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1657	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1659	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1661	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1662	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
56	OHX	BA	1663	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1664	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1665	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1666	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1667	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1668	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1669	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1670	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1671	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1672	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1673	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1674	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1675	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1676	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1677	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1678	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1679	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1680	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1681	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1682	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1683	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1684	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1685	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1686	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1687	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1688	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1689	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1690	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1691	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1692	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1693	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1694	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1695	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1696	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1755	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1756	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1757	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1758	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1759	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1760	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1761	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1762	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
56	OHX	BA	1763	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1764	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1765	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1766	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1767	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1768	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1769	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1770	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1771	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1772	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1773	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1774	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1775	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1776	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1777	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1778	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1779	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1780	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1781	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1782	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1783	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1784	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1785	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1786	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1787	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1788	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1789	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1790	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1791	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1792	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1793	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1794	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1795	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1796	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1797	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1798	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1799	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1800	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1801	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1802	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1803	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1804	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
56	OHX	BA	1805	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1806	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1807	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1808	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1809	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1810	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1811	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1812	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1813	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1814	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1815	-	-	0/0/0/0	0/0/0/0
56	OHX	BA	1816	-	-	0/0/0/0	0/0/0/0
56	OHX	BB	106	-	-	0/0/0/0	0/0/0/0
56	OHX	BB	107	-	-	0/0/0/0	0/0/0/0
56	OHX	BC	106	-	-	0/0/0/0	0/0/0/0
56	OHX	BC	107	-	-	0/0/0/0	0/0/0/0
56	OHX	BD	102	-	-	0/0/0/0	0/0/0/0
56	OHX	BD	103	-	-	0/0/0/0	0/0/0/0
56	OHX	BD	104	-	-	0/0/0/0	0/0/0/0
56	OHX	BG	302	-	-	0/0/0/0	0/0/0/0
56	OHX	BR	101	-	-	0/0/0/0	0/0/0/0
56	OHX	C1	201	-	-	0/0/0/0	0/0/0/0
56	OHX	C3	101	-	-	0/0/0/0	0/0/0/0
56	OHX	C5	102	-	-	0/0/0/0	0/0/0/0
56	OHX	C6	101	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3232	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3233	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3234	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3235	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3236	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3237	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3238	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3239	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3240	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3241	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3242	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3243	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3244	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3245	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3246	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3247	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3248	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
56	OHX	CA	3249	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3250	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3251	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3252	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3253	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3254	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3255	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3256	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3269	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3270	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3271	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3272	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3273	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3274	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3275	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3276	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3277	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3278	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3279	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3280	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3281	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3282	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3283	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3284	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3285	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3286	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3287	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3288	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3289	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3290	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3291	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3292	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3293	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3294	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3295	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3296	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3297	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3298	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3299	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3300	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3301	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3302	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
56	OHX	CA	3303	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3304	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3305	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3306	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3307	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3308	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3309	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3310	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3311	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3312	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3313	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3314	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3315	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3316	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3317	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3318	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3319	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3320	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3321	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3322	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3323	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3324	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3325	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3326	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3327	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3328	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3329	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3330	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3331	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3332	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3333	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3334	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3335	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3336	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3337	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3338	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3339	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3340	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3341	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3342	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3343	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3344	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
56	OHX	CA	3345	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3346	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3347	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3348	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3349	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3350	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3351	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3352	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3353	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3354	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3355	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3356	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3357	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3358	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3359	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3360	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3361	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3362	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3363	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3364	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3365	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3366	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3367	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3368	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3369	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3370	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3371	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3372	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3373	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3374	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3375	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3376	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3377	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3378	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3379	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3380	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3381	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3382	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3383	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3384	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3385	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3386	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
56	OHX	CA	3387	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3388	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3389	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3390	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3391	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3392	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3393	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3394	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3395	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3396	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3397	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3398	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3399	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3400	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3401	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3402	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3403	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3404	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3405	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3406	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3407	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3408	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3409	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3410	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3411	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3412	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3413	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3414	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3415	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3416	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3417	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3418	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3419	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3420	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3421	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3422	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3423	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3424	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3425	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3426	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3427	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3428	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
56	OHX	CA	3429	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3430	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3431	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3432	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3433	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3434	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3435	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3436	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3437	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3438	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3450	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3461	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3462	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3463	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3464	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3465	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3466	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3467	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3468	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3469	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3470	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3481	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3482	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3483	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3484	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3485	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3486	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3487	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3488	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3489	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3490	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3491	-	-	0/0/0/0	0/0/0/0
56	OHX	CA	3492	-	-	0/0/0/0	0/0/0/0
56	OHX	CB	208	-	-	0/0/0/0	0/0/0/0
56	OHX	CB	209	-	-	0/0/0/0	0/0/0/0
56	OHX	CB	210	-	-	0/0/0/0	0/0/0/0
56	OHX	CB	211	-	-	0/0/0/0	0/0/0/0
56	OHX	CB	212	-	-	0/0/0/0	0/0/0/0
56	OHX	CB	213	-	-	0/0/0/0	0/0/0/0
56	OHX	CB	214	-	-	0/0/0/0	0/0/0/0
56	OHX	CB	215	-	-	0/0/0/0	0/0/0/0
56	OHX	CB	216	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
56	OHX	CB	217	-	-	0/0/0/0	0/0/0/0
56	OHX	CB	218	-	-	0/0/0/0	0/0/0/0
56	OHX	CB	219	-	-	0/0/0/0	0/0/0/0
56	OHX	CB	220	-	-	0/0/0/0	0/0/0/0
56	OHX	CF	301	-	-	0/0/0/0	0/0/0/0
56	OHX	CO	201	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1718	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1719	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1721	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1722	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1723	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1724	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1726	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1727	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1728	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1729	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1730	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1731	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1732	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1733	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1734	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1735	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1736	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1737	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1738	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1739	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1740	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1741	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1742	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1743	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1744	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1745	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1746	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1747	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1748	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1749	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1750	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1751	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1752	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1753	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1754	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1755	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
56	OHX	DA	1756	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1757	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1758	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1759	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1760	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1761	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1762	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1763	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1764	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1765	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1766	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1767	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1768	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1769	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1770	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1771	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1772	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1773	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1774	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1775	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1776	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1777	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1778	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1779	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1780	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1781	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1782	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1783	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1784	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1785	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1786	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1787	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1788	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1789	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1790	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1791	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1792	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1793	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1794	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1795	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1796	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1797	-	-	0/0/0/0	0/0/0/0

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
56	OHX	DA	1798	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1799	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1800	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1801	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1802	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1803	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1804	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1805	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1806	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1807	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1808	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1809	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1810	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1811	-	-	0/0/0/0	0/0/0/0
56	OHX	DA	1812	-	-	0/0/0/0	0/0/0/0
56	OHX	DB	103	-	-	0/0/0/0	0/0/0/0
56	OHX	DB	104	-	-	0/0/0/0	0/0/0/0
56	OHX	DB	105	-	-	0/0/0/0	0/0/0/0
56	OHX	DC	107	-	-	0/0/0/0	0/0/0/0
56	OHX	DC	108	-	-	0/0/0/0	0/0/0/0
56	OHX	DC	109	-	-	0/0/0/0	0/0/0/0
56	OHX	DC	110	-	-	0/0/0/0	0/0/0/0
56	OHX	DD	101	-	-	0/0/0/0	0/0/0/0
56	OHX	DG	302	-	-	0/0/0/0	0/0/0/0
56	OHX	DK	201	-	-	0/0/0/0	0/0/0/0
56	OHX	DR	101	-	-	0/0/0/0	0/0/0/0
56	OHX	DV	101	-	-	0/0/0/0	0/0/0/0

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	AA	2912/2912 (100%)	-0.29	45 (1%) 70 24	45, 76, 209, 243	0
1	CA	2907/2912 (99%)	-0.43	39 (1%) 74 27	58, 92, 230, 245	0
2	AB	122/122 (100%)	-0.40	3 (2%) 54 14	73, 95, 116, 177	0
2	CB	122/122 (100%)	-0.61	1 (0%) 83 39	92, 127, 146, 198	0
3	AD	272/276 (98%)	-0.00	1 (0%) 90 57	39, 66, 84, 105	0
3	CD	272/276 (98%)	0.26	2 (0%) 84 42	55, 78, 96, 128	0
4	AE	205/206 (99%)	0.45	12 (5%) 22 5	51, 86, 130, 142	0
4	CE	205/206 (99%)	0.28	6 (2%) 49 12	64, 100, 148, 165	0
5	AF	202/210 (96%)	-0.10	0 100 100	47, 81, 118, 130	0
5	CF	208/210 (99%)	0.35	9 (4%) 34 8	62, 106, 160, 184	0
6	AG	181/182 (99%)	0.42	7 (3%) 37 8	84, 107, 138, 149	0
6	CG	181/182 (99%)	0.50	8 (4%) 33 7	120, 141, 164, 171	0
7	AH	170/180 (94%)	0.16	3 (1%) 65 20	86, 112, 130, 157	0
7	CH	170/180 (94%)	1.97	69 (40%) 1 0	155, 198, 220, 229	0
8	AK	146/148 (98%)	0.37	4 (2%) 52 13	79, 131, 147, 150	0
8	CK	146/148 (98%)	0.42	1 (0%) 84 42	84, 130, 152, 158	0
9	AM	138/140 (98%)	0.31	2 (1%) 72 25	66, 87, 124, 136	0
9	CM	138/140 (98%)	0.74	11 (7%) 12 4	83, 114, 140, 156	0
10	AN	122/122 (100%)	0.17	0 100 100	57, 78, 93, 101	0
10	CN	122/122 (100%)	0.20	0 100 100	75, 95, 111, 124	0
11	AO	150/150 (100%)	-0.05	1 (0%) 84 42	48, 88, 117, 160	0
11	CO	150/150 (100%)	0.69	13 (8%) 10 3	45, 108, 146, 178	0
12	AP	141/141 (100%)	0.32	1 (0%) 84 42	58, 83, 105, 127	0
12	CP	141/141 (100%)	0.49	8 (5%) 23 5	58, 109, 140, 159	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	A0	118/118 (100%)	0.28	1 (0%) 83 39	61, 81, 103, 113	0
13	C0	117/118 (99%)	-0.11	0 100 100	69, 87, 106, 121	0
14	AQ	111/112 (99%)	0.20	1 (0%) 81 37	70, 92, 117, 131	0
14	CQ	111/112 (99%)	-0.15	1 (0%) 81 37	86, 123, 147, 162	0
15	AR	137/146 (93%)	0.50	5 (3%) 41 9	73, 93, 143, 170	0
15	CR	137/146 (93%)	0.12	3 (2%) 59 16	84, 104, 163, 183	0
16	A1	117/118 (99%)	-0.01	0 100 100	52, 75, 108, 139	0
16	C1	117/118 (99%)	0.52	5 (4%) 34 8	67, 106, 143, 162	0
17	A2	101/101 (100%)	0.62	8 (7%) 13 4	53, 98, 122, 141	0
17	C2	101/101 (100%)	1.10	19 (18%) 2 1	67, 129, 142, 151	0
18	AS	113/113 (100%)	0.31	3 (2%) 52 13	54, 73, 104, 156	0
18	CS	113/113 (100%)	0.13	2 (1%) 65 20	64, 80, 114, 158	0
19	AT	92/96 (95%)	0.06	1 (1%) 77 30	57, 71, 95, 107	0
19	CT	92/96 (95%)	0.22	1 (1%) 77 30	74, 88, 113, 127	0
20	AU	102/110 (92%)	0.54	6 (5%) 22 5	74, 101, 152, 162	0
20	CU	102/110 (92%)	0.44	8 (7%) 13 4	95, 118, 166, 181	0
21	AV	175/206 (84%)	1.10	27 (15%) 3 1	87, 126, 188, 191	0
21	CV	179/206 (86%)	1.16	29 (16%) 2 1	122, 160, 208, 216	0
22	A3	76/85 (89%)	0.07	1 (1%) 74 27	59, 77, 91, 132	0
22	C3	77/85 (90%)	-0.05	0 100 100	83, 95, 117, 147	0
23	AZ	97/98 (98%)	0.03	1 (1%) 79 33	58, 78, 126, 156	0
23	CZ	97/98 (98%)	0.28	2 (2%) 60 17	68, 86, 132, 155	0
24	AW	66/72 (91%)	0.22	1 (1%) 70 24	63, 84, 98, 125	0
24	CW	66/72 (91%)	0.22	2 (3%) 48 11	84, 107, 130, 139	0
25	AX	59/60 (98%)	0.11	1 (1%) 67 21	63, 83, 112, 130	0
25	CX	59/60 (98%)	0.48	0 100 100	80, 110, 141, 162	0
26	A4	66/71 (92%)	1.33	17 (25%) 1 1	120, 156, 173, 179	0
26	C4	63/71 (88%)	2.02	26 (41%) 1 0	146, 185, 194, 199	0
27	A5	59/60 (98%)	0.85	10 (16%) 2 1	49, 88, 168, 171	0
27	C5	59/60 (98%)	0.39	6 (10%) 7 2	65, 92, 173, 187	0
28	A6	45/54 (83%)	2.85	31 (68%) 0 0	124, 151, 168, 177	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
28	C6	45/54 (83%)	1.88	15 (33%) 1 0	141, 169, 183, 186	0
29	A7	45/49 (91%)	-0.21	0 100 100	47, 55, 69, 78	0
29	C7	45/49 (91%)	-0.16	0 100 100	56, 66, 77, 100	0
30	A8	60/65 (92%)	0.06	0 100 100	55, 73, 90, 114	0
30	C8	60/65 (92%)	0.36	0 100 100	78, 90, 112, 137	0
31	BA	1502/1506 (99%)	-0.50	8 (0%) 88 51	58, 107, 187, 244	0
31	DA	1502/1506 (99%)	-0.62	10 (0%) 84 42	71, 119, 189, 244	0
32	BE	237/256 (92%)	0.35	5 (2%) 60 17	111, 144, 182, 193	0
32	DE	237/256 (92%)	0.23	8 (3%) 43 10	126, 161, 196, 211	0
33	BF	205/239 (85%)	0.41	3 (1%) 70 24	96, 119, 152, 160	0
33	DF	206/239 (86%)	0.85	23 (11%) 6 2	127, 147, 175, 180	0
34	BG	208/208 (100%)	-0.02	0 100 100	92, 116, 136, 147	0
34	DG	208/208 (100%)	-0.07	0 100 100	93, 111, 132, 145	0
35	BH	151/162 (93%)	0.16	1 (0%) 84 42	81, 105, 127, 161	0
35	DH	151/162 (93%)	-0.05	1 (0%) 84 42	104, 121, 142, 165	0
36	BI	101/101 (100%)	-0.04	1 (0%) 79 33	81, 108, 122, 145	0
36	DI	101/101 (100%)	0.36	0 100 100	81, 106, 124, 149	0
37	BJ	155/156 (99%)	0.59	14 (9%) 10 3	106, 121, 149, 158	0
37	DJ	155/156 (99%)	0.14	0 100 100	113, 131, 153, 164	0
38	BK	138/138 (100%)	-0.09	0 100 100	89, 110, 123, 129	0
38	DK	138/138 (100%)	-0.16	0 100 100	104, 125, 136, 146	0
39	BL	127/128 (99%)	0.10	1 (0%) 83 39	87, 142, 160, 169	0
39	DL	127/128 (99%)	-0.03	0 100 100	117, 155, 168, 174	0
40	BM	99/105 (94%)	0.15	1 (1%) 79 33	91, 142, 170, 174	0
40	DM	99/105 (94%)	0.20	4 (4%) 36 8	124, 159, 175, 179	0
41	BN	119/129 (92%)	0.61	7 (5%) 22 5	72, 104, 133, 161	0
41	DN	119/129 (92%)	0.48	5 (4%) 35 8	91, 112, 139, 167	0
42	BO	125/132 (94%)	0.34	4 (3%) 45 11	69, 83, 112, 158	0
42	DO	125/132 (94%)	0.47	6 (4%) 29 7	93, 110, 134, 166	0
43	BP	116/126 (92%)	0.09	1 (0%) 81 37	92, 128, 145, 153	0
43	DP	117/126 (92%)	0.03	3 (2%) 53 13	106, 156, 169, 171	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	BQ	58/61 (95%)	-0.12	0 100 100	91, 108, 122, 129	0
44	DQ	58/61 (95%)	0.40	2 (3%) 43 10	126, 140, 157, 160	0
45	BR	88/89 (98%)	-0.26	0 100 100	80, 100, 121, 125	0
45	DR	88/89 (98%)	-0.06	0 100 100	85, 112, 133, 140	0
46	BS	84/88 (95%)	-0.11	1 (1%) 75 29	100, 118, 139, 175	0
46	DS	84/88 (95%)	-0.15	0 100 100	96, 107, 127, 158	0
47	BT	100/105 (95%)	-0.17	0 100 100	93, 112, 125, 133	0
47	DT	100/105 (95%)	-0.06	0 100 100	94, 114, 135, 143	0
48	BU	72/88 (81%)	0.14	3 (4%) 35 8	88, 106, 139, 164	0
48	DU	72/88 (81%)	0.32	2 (2%) 50 12	97, 114, 155, 169	0
49	BV	78/93 (83%)	0.17	2 (2%) 53 13	109, 130, 147, 152	0
49	DV	78/93 (83%)	0.03	1 (1%) 74 27	145, 163, 182, 185	0
50	BW	99/106 (93%)	0.05	1 (1%) 79 33	105, 124, 155, 160	0
50	DW	99/106 (93%)	-0.02	1 (1%) 79 33	95, 117, 153, 163	0
51	BX	25/27 (92%)	-0.46	0 100 100	102, 117, 137, 154	0
51	DX	25/27 (92%)	-0.46	0 100 100	122, 143, 158, 168	0
52	BB	84/85 (98%)	0.76	15 (17%) 2 1	82, 123, 154, 169	0
52	BD	84/85 (98%)	-0.23	5 (5%) 21 5	75, 137, 217, 227	0
52	DB	84/85 (98%)	0.84	14 (16%) 2 1	93, 128, 156, 171	0
52	DD	84/85 (98%)	-0.46	2 (2%) 56 15	84, 137, 217, 225	0
53	BC	77/77 (100%)	-0.33	0 100 100	77, 114, 139, 153	0
53	DC	77/77 (100%)	-0.63	1 (1%) 74 27	88, 122, 150, 157	0
54	B1	16/16 (100%)	0.14	1 (6%) 19 5	76, 104, 156, 163	0
54	D1	16/16 (100%)	-0.38	0 100 100	85, 109, 157, 165	0
All	All	21100/21658 (97%)	-0.01	636 (3%) 48 11	39, 105, 182, 245	0

All (636) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	CA	691	C	11.4
1	CA	2911	C	11.4
1	CA	690	A	11.3
1	CA	689	C	10.4
1	AA	654(K)	C	9.2

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Mol	Chain	Res	Type	RSRZ
52	DB	52	G	9.1
1	AA	654(J)	A	9.0
7	CH	99	VAL	9.0
42	BO	126	ALA	8.9
52	DB	51	C	8.4
7	CH	32	GLU	8.0
1	CA	2909	G	7.7
1	CA	2910	A	7.5
21	AV	113	ALA	7.4
5	CF	1	MET	7.2
11	CO	149	GLU	7.1
28	A6	13	CYS	7.0
21	CV	107	THR	7.0
1	AA	2901	C	6.9
52	DB	53	A	6.8
52	DB	50	U	6.8
41	BN	12	ARG	6.6
1	AA	2797	U	6.6
1	AA	654(L)	G	6.4
17	A2	36	PRO	6.3
52	DB	49	A	6.3
20	AU	102	CYS	6.2
42	BO	125	ALA	6.1
27	A5	59	GLU	6.1
21	CV	112	ARG	6.1
5	CF	2	LYS	6.1
52	DB	48	C	6.1
7	CH	97	ARG	6.0
7	CH	47	GLU	6.0
26	C4	40	HIS	5.9
28	C6	50	ARG	5.9
27	A5	55	ARG	5.8
15	AR	134	GLU	5.7
15	AR	1	MET	5.7
1	AA	2799	A	5.7
4	CE	69	LYS	5.6
41	DN	12	ARG	5.6
7	CH	33	LEU	5.6
31	BA	86	U	5.6
1	AA	1536	A	5.6
24	CW	43	GLN	5.6
26	C4	30	GLU	5.6

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Mol	Chain	Res	Type	RSRZ
20	AU	50	ARG	5.6
28	C6	43	CYS	5.5
35	BH	155	GLU	5.5
41	BN	11	LYS	5.5
1	AA	2798	C	5.5
4	CE	205	ALA	5.4
28	C6	13	CYS	5.3
17	C2	45	THR	5.3
14	AQ	111	GLU	5.2
1	AA	2902	C	5.2
1	CA	1141	U	5.2
24	AW	43	GLN	5.2
7	CH	39	PRO	5.1
7	CH	34	GLU	5.1
18	CS	113	LYS	5.1
21	AV	106	GLY	5.0
1	CA	2912	C	5.0
18	AS	113	LYS	5.0
1	CA	4	C	5.0
28	A6	51	GLU	5.0
25	AX	60	GLU	5.0
28	A6	19	ARG	4.9
28	A6	29	ASN	4.9
28	A6	28	ARG	4.8
28	A6	18	ARG	4.8
52	DB	47	U	4.8
22	A3	85	ALA	4.8
26	C4	13	ARG	4.8
1	CA	692	G	4.8
9	CM	1	MET	4.7
1	AA	654(S)	G	4.7
52	BB	51	C	4.7
52	BB	47	U	4.7
52	BB	52	G	4.7
52	BB	53	A	4.6
1	CA	1556	C	4.6
21	CV	179	ASP	4.6
26	C4	29	PRO	4.6
20	AU	52	SER	4.6
28	A6	49	HIS	4.6
7	CH	25	LYS	4.6
27	C5	58	LEU	4.6

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Mol	Chain	Res	Type	RSRZ
41	DN	13	GLN	4.6
26	A4	3	GLU	4.6
7	CH	48	GLY	4.5
1	CA	1223	A	4.5
7	CH	43	VAL	4.5
52	BB	48	C	4.3
26	C4	31	ILE	4.3
7	CH	18	GLU	4.3
52	DB	79	A	4.3
32	DE	4	GLU	4.3
21	AV	107	THR	4.3
28	A6	34	LEU	4.3
7	CH	81	GLU	4.2
17	A2	98	GLU	4.2
27	A5	54	GLY	4.2
21	AV	114	GLY	4.2
7	CH	27	LYS	4.1
7	CH	94	TYR	4.1
7	CH	101	ARG	4.1
1	AA	1534	G	4.1
17	C2	36	PRO	4.1
2	AB	1(M)	A	4.1
7	CH	55	PRO	4.0
21	AV	105	VAL	4.0
1	AA	1	G	4.0
21	CV	178	GLU	4.0
7	CH	24	VAL	4.0
28	C6	31	PRO	4.0
1	AA	2795	G	4.0
17	A2	101	GLY	4.0
32	BE	228	GLY	4.0
6	CG	152	LEU	4.0
18	AS	111	HIS	3.9
27	A5	2	ALA	3.9
11	CO	148	LEU	3.9
27	A5	60	VAL	3.9
52	BB	50	U	3.9
21	AV	2	GLU	3.9
1	CA	1114	A	3.9
26	C4	28	LYS	3.9
28	A6	30	THR	3.9
21	AV	1	MET	3.9

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Mol	Chain	Res	Type	RSRZ
7	CH	26	VAL	3.8
6	AG	2	PRO	3.8
11	CO	150	ALA	3.8
28	A6	16	CYS	3.8
6	CG	2	PRO	3.8
28	A6	43	CYS	3.8
31	BA	84	U	3.8
1	AA	654(P)	G	3.8
28	A6	25	LYS	3.8
28	C6	25	LYS	3.8
17	A2	45	THR	3.8
7	CH	29	PRO	3.8
26	A4	31	ILE	3.8
42	DO	125	ALA	3.7
1	AA	163	U	3.7
21	AV	108	PRO	3.7
26	A4	5	ILE	3.7
1	AA	654(N)	G	3.7
27	A5	51	TYR	3.7
27	C5	59	GLU	3.7
7	CH	40	GLU	3.6
1	AA	2794	C	3.6
52	DB	80	C	3.6
1	CA	1222	G	3.6
52	DB	54	C	3.6
37	BJ	154	TYR	3.6
1	AA	2803	C	3.6
7	CH	96	ALA	3.6
52	BD	51	C	3.6
1	CA	688	G	3.6
21	AV	162	GLU	3.6
31	BA	1032	A	3.6
1	CA	1	G	3.6
26	C4	18	CYS	3.5
1	CA	2169	C	3.5
21	CV	1	MET	3.5
28	C6	9	LEU	3.5
31	BA	85	U	3.5
15	AR	137	LYS	3.5
3	CD	26	LYS	3.5
32	BE	4	GLU	3.5
52	DD	52	G	3.5

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Mol	Chain	Res	Type	RSRZ
24	CW	41	ILE	3.5
7	CH	44	VAL	3.5
1	CA	2	G	3.5
42	DO	124	GLU	3.5
1	AA	654(I)	C	3.5
1	AA	888	C	3.5
4	CE	54	GLN	3.4
52	BB	80	C	3.4
7	CH	98	LEU	3.4
4	AE	54	GLN	3.4
17	C2	91	TYR	3.4
7	CH	12	PRO	3.4
52	BB	54	C	3.4
48	BU	88	LYS	3.4
26	C4	63	TYR	3.4
40	DM	86	MET	3.4
7	CH	57	ASP	3.4
4	CE	204	ALA	3.4
11	CO	108	LYS	3.4
26	A4	13	ARG	3.4
8	CK	146	ALA	3.3
1	CA	2908	U	3.3
7	CH	53	GLU	3.3
4	AE	69	LYS	3.3
1	CA	2179	G	3.3
11	AO	149	GLU	3.3
37	BJ	74	GLU	3.3
7	CH	128	PRO	3.3
1	CA	2162	C	3.3
28	A6	50	ARG	3.2
33	DF	46	GLU	3.2
28	A6	31	PRO	3.2
5	CF	208	GLY	3.2
11	CO	119	GLU	3.2
33	DF	53	ALA	3.2
1	AA	2899	G	3.2
7	CH	46	GLU	3.2
28	A6	45	LYS	3.2
42	DO	61	TYR	3.2
26	C4	24	THR	3.2
1	AA	2139	C	3.2
7	CH	116	GLU	3.2

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Mol	Chain	Res	Type	RSRZ
20	CU	46	LYS	3.2
1	CA	3	U	3.2
21	CV	145	GLU	3.2
28	C6	16	CYS	3.2
1	AA	1095	A	3.1
8	AK	66	GLU	3.1
21	CV	108	PRO	3.1
35	DH	155	GLU	3.1
21	CV	176	PRO	3.1
8	AK	65	ALA	3.1
43	DP	4	ILE	3.1
20	CU	88	LYS	3.1
21	AV	156	LYS	3.1
1	CA	1142	A	3.1
32	BE	118	LEU	3.1
41	BN	129	SER	3.1
28	A6	35	GLU	3.1
7	CH	51	ARG	3.1
26	C4	32	TYR	3.1
28	A6	12	GLU	3.1
12	CP	33	GLY	3.1
17	C2	12	TYR	3.1
17	C2	38	LEU	3.1
48	DU	19	LYS	3.1
17	C2	1	MET	3.1
21	CV	152	ALA	3.1
44	DQ	39	LEU	3.1
28	A6	52	VAL	3.1
32	DE	116	GLU	3.1
31	DA	1029	G	3.0
7	CH	100	GLY	3.0
13	A0	33	ARG	3.0
52	BB	49	A	3.0
7	CH	45	VAL	3.0
1	CA	935	A	3.0
52	BD	53	A	3.0
11	CO	61	ARG	3.0
26	C4	47	GLN	3.0
7	CH	159	GLU	3.0
28	C6	30	THR	3.0
1	CA	639	U	3.0
41	DN	11	LYS	3.0

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Mol	Chain	Res	Type	RSRZ
26	C4	45	GLY	3.0
26	C4	55	ARG	3.0
26	A4	32	TYR	3.0
1	AA	2140	C	3.0
15	AR	21	GLU	3.0
21	CV	177	PRO	3.0
33	DF	206	GLU	3.0
28	A6	42	TRP	3.0
37	BJ	81	GLY	3.0
11	CO	106	LEU	2.9
23	AZ	92	LYS	2.9
28	A6	48	VAL	2.9
28	A6	53	LYS	2.9
11	CO	79	ARG	2.9
21	CV	163	LEU	2.9
33	DF	42	LEU	2.9
9	CM	8	GLN	2.9
21	AV	173	ALA	2.9
6	AG	137	GLU	2.9
7	CH	13	LYS	2.9
41	BN	13	GLN	2.9
1	AA	2167	U	2.9
28	A6	47	THR	2.9
31	DA	1032(A)	G	2.9
1	AA	654(F)	C	2.9
33	DF	103	VAL	2.9
26	A4	29	PRO	2.9
28	A6	14	THR	2.9
1	CA	695	G	2.9
26	C4	8	LYS	2.9
12	CP	37	LEU	2.9
11	CO	147	LEU	2.9
1	AA	654(O)	G	2.8
4	AE	79	ARG	2.8
41	DN	71	LYS	2.8
31	DA	1028(B)	C	2.8
40	DM	101	VAL	2.8
27	A5	49	CYS	2.8
17	C2	40	LEU	2.8
1	AA	887	A	2.8
1	CA	936	C	2.8
26	C4	10	VAL	2.8

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Mol	Chain	Res	Type	RSRZ
26	C4	27	THR	2.8
26	A4	30	GLU	2.8
21	CV	106	GLY	2.8
52	BD	52	G	2.8
37	BJ	12	LEU	2.8
1	AA	1096	A	2.8
7	CH	125	VAL	2.8
1	CA	1146	G	2.8
8	AK	113	ARG	2.8
7	CH	170	ARG	2.8
17	C2	3	ALA	2.8
33	DF	79	ARG	2.8
21	CV	171	ILE	2.8
1	CA	2190	U	2.8
12	CP	34	LEU	2.8
1	CA	1140	G	2.8
4	AE	74	PRO	2.8
7	CH	23	ARG	2.8
31	BA	87	A	2.8
37	BJ	11	GLN	2.8
5	CF	3	GLU	2.8
33	DF	60	ALA	2.8
26	C4	46	GLN	2.7
7	CH	95	ARG	2.7
1	AA	654(E)	C	2.7
31	DA	1031	G	2.7
5	CF	146	ALA	2.7
27	C5	2	ALA	2.7
7	CH	89	ILE	2.7
12	CP	1	MET	2.7
28	A6	33	LYS	2.7
7	CH	11	VAL	2.7
37	BJ	16	LEU	2.7
28	C6	28	ARG	2.7
32	BE	15	VAL	2.7
48	DU	88	LYS	2.7
52	BB	79	A	2.7
15	CR	1	MET	2.7
7	CH	30	LYS	2.7
31	DA	1032	A	2.7
1	AA	2141	G	2.7
7	CH	88	LEU	2.7

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Mol	Chain	Res	Type	RSRZ
19	CT	92	LEU	2.7
21	AV	169	GLU	2.7
17	A2	97	LYS	2.7
7	AH	3	ARG	2.7
26	C4	9	LEU	2.7
17	C2	34	GLU	2.7
21	AV	11	GLU	2.7
31	DA	1027	C	2.6
21	CV	138	GLU	2.6
1	CA	2812	A	2.6
5	CF	133	ASN	2.6
33	DF	115	LEU	2.6
28	C6	49	HIS	2.6
6	AG	182	LYS	2.6
21	AV	104	PHE	2.6
16	C1	117	GLN	2.6
48	BU	19	LYS	2.6
12	CP	104	PHE	2.6
26	A4	40	HIS	2.6
26	C4	3	GLU	2.6
7	CH	106	THR	2.6
16	C1	108	GLU	2.6
21	AV	171	ILE	2.6
11	CO	144	GLU	2.6
26	C4	34	GLU	2.6
52	DB	78	C	2.6
26	C4	19	GLY	2.6
52	DB	46	G	2.6
7	CH	77	LYS	2.6
1	AA	2801	A	2.6
6	CG	34	LEU	2.6
28	A6	20	ASN	2.6
43	DP	5	ALA	2.6
6	CG	182	LYS	2.6
37	BJ	89	MET	2.6
21	AV	140	ASP	2.6
1	AA	654(Q)	C	2.6
32	DE	240	GLN	2.6
40	BM	99	LYS	2.6
21	AV	141	VAL	2.6
33	DF	198	VAL	2.6
21	CV	159	PRO	2.6

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Mol	Chain	Res	Type	RSRZ
21	CV	144	LEU	2.6
52	DB	81	C	2.6
32	DE	231	GLU	2.6
7	CH	117	PRO	2.5
1	AA	2142	C	2.5
26	A4	28	LYS	2.5
18	CS	112	GLY	2.5
28	C6	14	THR	2.5
31	DA	412	A	2.5
54	B1	25	A	2.5
1	AA	4	C	2.5
28	A6	24	GLU	2.5
21	CV	117	LEU	2.5
52	BD	50	U	2.5
7	CH	144	VAL	2.5
21	AV	172	ALA	2.5
21	AV	148	ASP	2.5
9	AM	15	LEU	2.5
52	DD	50	U	2.5
5	CF	20	LEU	2.5
11	CO	94	GLU	2.5
53	DC	1	C	2.5
20	CU	86	ARG	2.5
37	BJ	131	LYS	2.5
4	AE	72	VAL	2.5
7	CH	124	GLU	2.5
7	CH	105	LEU	2.5
26	A4	14	ILE	2.5
26	C4	25	TYR	2.5
33	DF	40	ARG	2.5
7	CH	164	TYR	2.5
21	AV	3	TYR	2.5
7	CH	28	GLY	2.5
7	CH	49	VAL	2.5
32	DE	123	ALA	2.5
42	BO	124	GLU	2.5
7	AH	42	ARG	2.5
17	C2	14	VAL	2.5
42	BO	44	LYS	2.5
21	CV	4	ARG	2.5
1	AA	2900	A	2.5
21	AV	146	ILE	2.5

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Mol	Chain	Res	Type	RSRZ
9	CM	48	MET	2.4
17	A2	99	ILE	2.4
7	CH	87	LEU	2.4
7	CH	85	LYS	2.4
37	BJ	139	GLU	2.4
4	AE	205	ALA	2.4
16	C1	72	HIS	2.4
33	DF	45	LYS	2.4
39	BL	94	ALA	2.4
31	BA	1031	G	2.4
52	BB	4	G	2.4
7	CH	145	ALA	2.4
7	CH	126	PRO	2.4
17	A2	60	GLU	2.4
1	CA	686	C	2.4
1	CA	2809	G	2.4
19	AT	92	LEU	2.4
20	CU	79	CYS	2.4
26	A4	8	LYS	2.4
5	CF	14	PRO	2.4
26	C4	48	ARG	2.4
32	BE	157	ARG	2.4
41	DN	18	ARG	2.4
7	CH	158	HIS	2.4
26	A4	63	TYR	2.4
2	AB	119	A	2.4
32	DE	5	ILE	2.4
42	DO	126	ALA	2.4
33	DF	147	LYS	2.4
5	CF	12	LEU	2.4
7	AH	155	SER	2.4
9	CM	10	GLU	2.4
1	AA	654(H)	G	2.4
21	CV	91	LEU	2.4
9	CM	9	VAL	2.4
4	CE	87	GLU	2.4
28	A6	15	GLU	2.4
1	CA	693	C	2.3
17	C2	35	LEU	2.3
6	CG	39	ILE	2.3
20	CU	59	GLY	2.3
4	AE	55	ASN	2.3

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Mol	Chain	Res	Type	RSRZ
15	AR	3	ARG	2.3
52	BB	46	G	2.3
7	CH	20	ALA	2.3
21	AV	155	LEU	2.3
7	CH	131	VAL	2.3
2	CB	1	A	2.3
52	BD	49	A	2.3
21	CV	146	ILE	2.3
1	CA	1115	G	2.3
26	A4	22	ILE	2.3
28	A6	46	HIS	2.3
33	DF	19	GLU	2.3
11	CO	91	PHE	2.3
17	A2	94	LEU	2.3
36	BI	101	ALA	2.3
9	CM	138	LEU	2.3
4	CE	59	VAL	2.3
4	AE	53	PRO	2.3
27	C5	55	ARG	2.3
52	BB	82	A	2.3
6	AG	75	LYS	2.3
26	C4	16	CYS	2.3
33	DF	78	GLY	2.3
28	C6	29	ASN	2.3
50	DW	106	ALA	2.3
52	DB	1	G	2.3
9	AM	134	ARG	2.3
4	AE	51	PHE	2.3
37	BJ	90	GLU	2.3
15	CR	2	ASN	2.3
20	CU	49	VAL	2.3
1	AA	2898	U	2.3
42	DO	36	VAL	2.3
12	CP	130	LYS	2.2
14	CQ	60	GLY	2.2
21	AV	164	ALA	2.2
7	CH	21	PRO	2.2
33	BF	168	ALA	2.2
21	CV	121	HIS	2.2
17	C2	93	GLU	2.2
17	C2	73	SER	2.2
31	BA	82	U	2.2

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Mol	Chain	Res	Type	RSRZ
31	DA	1030	C	2.2
7	CH	92	ILE	2.2
28	A6	26	ASN	2.2
17	C2	27	ALA	2.2
23	CZ	96	LYS	2.2
28	A6	22	ALA	2.2
37	BJ	52	GLU	2.2
49	BV	71	LEU	2.2
20	AU	53	PRO	2.2
9	CM	133	GLN	2.2
41	BN	108	ILE	2.2
7	CH	74	ASN	2.2
33	DF	186	PHE	2.2
48	BU	18	ARG	2.2
1	AA	654(R)	C	2.2
52	BB	81	C	2.2
6	AG	136	ARG	2.2
17	C2	64	HIS	2.2
21	AV	121	HIS	2.2
33	DF	85	ARG	2.2
3	CD	270	ILE	2.2
20	AU	49	VAL	2.2
21	AV	7	ALA	2.2
8	AK	77	LEU	2.2
21	CV	28	MET	2.2
21	CV	151	HIS	2.2
27	A5	57	VAL	2.2
49	DV	29	ARG	2.2
1	AA	2146	C	2.2
17	C2	101	GLY	2.2
7	CH	153	LYS	2.2
21	AV	112	ARG	2.2
33	DF	52	LEU	2.2
1	AA	2	G	2.2
20	AU	99	CYS	2.2
21	CV	55	HIS	2.2
33	BF	201	TYR	2.2
46	BS	84	ALA	2.2
6	AG	135	LEU	2.2
28	A6	17	LYS	2.2
33	DF	172	ARG	2.2
7	CH	41	MET	2.2

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Mol	Chain	Res	Type	RSRZ
26	A4	4	GLY	2.2
33	DF	187	ALA	2.2
37	BJ	155	ARG	2.2
28	C6	41	PRO	2.2
17	C2	44	LYS	2.2
28	C6	46	HIS	2.2
42	DO	123	LYS	2.2
31	DA	1032(B)	G	2.2
9	CM	69	GLN	2.2
32	DE	53	ARG	2.2
1	AA	654(G)	C	2.1
9	CM	136	GLU	2.1
26	A4	23	GLU	2.1
1	AA	1066	U	2.1
2	AB	0	A	2.1
11	CO	92	GLU	2.1
16	C1	106	PHE	2.1
50	BW	101	GLY	2.1
7	CH	35	VAL	2.1
21	CV	9	TYR	2.1
18	AS	30	GLU	2.1
21	CV	69	THR	2.1
23	CZ	93	GLU	2.1
27	A5	35	GLU	2.1
41	BN	83	ILE	2.1
12	CP	63	LYS	2.1
20	CU	89	PHE	2.1
41	BN	14	VAL	2.1
21	CV	172	ALA	2.1
43	BP	5	ALA	2.1
1	AA	654(D)	G	2.1
12	CP	68	ILE	2.1
32	DE	118	LEU	2.1
44	DQ	10	ALA	2.1
27	C5	51	TYR	2.1
1	CA	2811	C	2.1
33	BF	150	LYS	2.1
26	A4	25	TYR	2.1
43	DP	6	GLY	2.1
7	CH	90	LYS	2.1
7	CH	115	VAL	2.1
1	AA	5	A	2.1

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Mol	Chain	Res	Type	RSRZ
9	CM	70	LYS	2.1
26	C4	39	CYS	2.1
7	CH	52	VAL	2.1
9	CM	47	ALA	2.1
27	A5	58	LEU	2.1
6	CG	10	LYS	2.1
4	AE	28	ALA	2.1
17	C2	18	LEU	2.1
40	DM	65	LEU	2.1
4	AE	204	ALA	2.1
26	A4	12	ALA	2.1
37	BJ	85	TYR	2.1
28	C6	51	GLU	2.1
6	CG	94	LEU	2.1
6	AG	164	GLU	2.1
31	BA	81	G	2.1
33	DF	140	ARG	2.1
40	DM	85	LEU	2.1
52	BB	55	U	2.1
26	C4	41	PRO	2.1
17	C2	11	GLN	2.0
15	CR	130	ALA	2.0
49	BV	61	TYR	2.0
1	CA	2808	C	2.0
37	BJ	153	HIS	2.0
7	CH	15	VAL	2.0
16	C1	112	ARG	2.0
21	CV	68	PRO	2.0
1	CA	696	G	2.0
27	C5	60	VAL	2.0
33	DF	204	LEU	2.0
7	CH	150	ALA	2.0
6	CG	142	PRO	2.0
12	AP	17	LEU	2.0
21	CV	24	LEU	2.0
33	DF	59	ARG	2.0
1	CA	2810	U	2.0
31	DA	1026	G	2.0
3	AD	26	LYS	2.0
20	CU	50	ARG	2.0
21	AV	170	THR	2.0
4	AE	52	LEU	2.0

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Mol	Chain	Res	Type	RSRZ
33	DF	43	LEU	2.0

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

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
52	MIA	DB	38	29/30	0.23	-	84,93,111,126	0
52	MIA	BB	38	29/30	0.20	-	68,83,97,106	0
52	MIA	BD	38	29/30	0.24	-	116,135,182,198	0
52	MIA	DD	38	29/30	0.19	-	120,140,186,205	0

6.3 Carbohydrates ⓘ

There are no carbohydrates in this entry.

6.4 Ligands ⓘ

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	OHX	AA	3556	7/7	0.09	-	212,217,223,266	1
56	OHX	AB	214	7/7	0.15	-	110,118,132,162	1
56	OHX	CA	3382	7/7	0.09	-	129,131,148,199	1
55	MG	CA	3023	1/1	0.28	-	85,85,85,85	0
56	OHX	AA	3503	7/7	0.12	-	99,121,138,179	1
56	OHX	CB	214	7/7	0.12	-	129,139,146,186	1
56	OHX	DA	1794	7/7	0.14	-	124,130,139,205	1
55	MG	AA	3221	1/1	0.27	-	68,68,68,68	0
56	OHX	CA	3429	7/7	0.14	-	127,129,142,209	1
55	MG	CA	3197	1/1	0.40	-	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	OHX	CA	3306	7/7	0.13	-	98,106,119,148	1
55	MG	AA	3223	1/1	0.38	-	56,56,56,56	0
56	OHX	AA	3361	7/7	0.19	-	51,71,83,107	0
55	MG	CA	3074	1/1	0.31	-	64,64,64,64	0
55	MG	AA	3037	1/1	0.48	-	63,63,63,63	0
56	OHX	CA	3383	7/7	0.14	-	111,116,132,194	1
55	MG	BA	1620	1/1	0.46	-	70,70,70,70	0
56	OHX	CA	3338	7/7	0.17	-	95,103,117,121	1
56	OHX	DA	1786	7/7	0.15	-	143,151,161,223	1
55	MG	AA	3098	1/1	0.32	-	77,77,77,77	0
55	MG	BA	1613	1/1	0.32	-	65,65,65,65	0
56	OHX	BA	1795	7/7	0.12	-	109,127,134,173	1
56	OHX	DA	1737	7/7	0.13	-	87,110,131,158	1
56	OHX	CA	3430	7/7	0.11	-	96,106,114,197	1
55	MG	BA	1712	1/1	0.57	-	95,95,95,95	0
55	MG	CA	3205	1/1	0.31	-	63,63,63,63	0
56	OHX	DA	1739	7/7	0.12	-	98,110,124,155	1
55	MG	BA	1649	1/1	0.30	-	74,74,74,74	0
55	MG	CA	3025	1/1	0.18	-	83,83,83,83	0
55	MG	AA	3008	1/1	0.40	-	42,42,42,42	0
56	OHX	CA	3403	7/7	0.14	-	88,108,114,167	1
56	OHX	CB	211	7/7	0.10	-	122,128,152,168	1
55	MG	DA	1693	1/1	0.53	-	54,54,54,54	0
56	OHX	AA	3457	7/7	0.15	-	73,83,101,131	1
55	MG	AA	3275	1/1	0.43	-	64,64,64,64	0
55	MG	CA	3457	1/1	0.32	-	66,66,66,66	0
56	OHX	BA	1765	7/7	0.12	-	111,119,130,164	0
55	MG	DA	1631	1/1	0.52	-	111,111,111,111	0
56	OHX	CA	3363	7/7	0.11	-	94,99,114,167	1
55	MG	DA	1662	1/1	0.35	-	73,73,73,73	0
56	OHX	CA	3417	7/7	0.09	-	151,167,187,222	1
55	MG	AA	3028	1/1	0.40	-	66,66,66,66	0
55	MG	CA	3028	1/1	0.17	-	73,73,73,73	0
56	OHX	AB	208	7/7	0.16	-	113,119,131,170	1
55	MG	BA	1735	1/1	0.20	-	48,48,48,48	0
55	MG	AA	3114	1/1	0.39	-	47,47,47,47	0
55	MG	CA	3447	1/1	0.46	-	58,58,58,58	0
56	OHX	BA	1762	7/7	0.15	-	72,94,107,136	0
56	OHX	AA	3502	7/7	0.11	-	97,102,112,146	1
56	OHX	AA	3329	7/7	0.12	-	85,90,103,133	1
55	MG	CA	3072	1/1	0.32	-	43,43,43,43	0
55	MG	BA	1718	1/1	0.28	-	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
55	MG	BA	1746	1/1	0.41	-	82,82,82,82	0
55	MG	BA	1626	1/1	0.16	-	81,81,81,81	0
55	MG	AA	3237	1/1	0.35	-	45,45,45,45	0
56	OHX	AA	3548	7/7	0.12	-	113,118,133,172	1
55	MG	AA	3103	1/1	0.11	-	97,97,97,97	0
55	MG	BA	1730	1/1	0.56	-	73,73,73,73	0
55	MG	BA	1748	1/1	0.27	-	66,66,66,66	0
55	MG	CA	3229	1/1	0.41	-	80,80,80,80	0
56	OHX	DA	1773	7/7	0.10	-	122,126,137,197	1
55	MG	BA	1738	1/1	0.16	-	41,41,41,41	0
55	MG	AA	3187	1/1	0.57	-	86,86,86,86	0
56	OHX	AO	204	7/7	0.15	-	83,94,106,121	1
55	MG	AA	3171	1/1	0.25	-	48,48,48,48	0
55	MG	BA	1725	1/1	0.47	-	69,69,69,69	0
55	MG	AA	3002	1/1	0.44	-	41,41,41,41	0
55	MG	CA	3170	1/1	0.21	-	65,65,65,65	0
56	OHX	DA	1788	7/7	0.12	-	96,113,128,168	1
56	OHX	AA	3314	7/7	0.14	-	81,93,123,149	1
56	OHX	AA	3263	7/7	0.15	-	76,102,114,143	1
55	MG	DA	1687	1/1	0.18	-	63,63,63,63	0
55	MG	CA	3207	1/1	0.32	-	68,68,68,68	0
55	MG	DA	1637	1/1	0.56	-	106,106,106,106	0
55	MG	DA	1710	1/1	0.25	-	103,103,103,103	0
55	MG	CA	3259	1/1	0.25	-	65,65,65,65	0
56	OHX	CA	3436	7/7	0.14	-	115,121,137,192	1
55	MG	CA	3182	1/1	0.45	-	59,59,59,59	0
56	OHX	CA	3289	7/7	0.14	-	69,83,106,125	0
55	MG	AA	3067	1/1	0.20	-	97,97,97,97	0
56	OHX	DA	1722	7/7	0.15	-	84,90,106,116	0
56	OHX	AA	3444	7/7	0.15	-	80,103,116,131	1
55	MG	AA	3075	1/1	0.50	-	44,44,44,44	0
56	OHX	CA	3333	7/7	0.10	-	104,127,133,184	1
55	MG	BA	1641	1/1	0.39	-	85,85,85,85	0
55	MG	AA	3173	1/1	0.33	-	52,52,52,52	0
56	OHX	DA	1733	7/7	0.15	-	146,151,163,202	0
55	MG	BA	1605	1/1	0.22	-	104,104,104,104	0
56	OHX	AA	3470	7/7	0.15	-	107,109,130,160	1
55	MG	CA	3440	1/1	0.34	-	54,54,54,54	0
56	OHX	AA	3458	7/7	0.22	-	34,48,113,148	3
55	MG	AA	3269	1/1	0.42	-	72,72,72,72	0
55	MG	CA	3053	1/1	0.18	-	99,99,99,99	0
56	OHX	AA	3407	7/7	0.15	-	108,117,126,165	1

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
55	MG	AA	3162	1/1	0.55	-	38,38,38,38	0
55	MG	AA	3273	1/1	0.58	-	66,66,66,66	0
56	OHX	AA	3522	7/7	0.17	-	118,131,145,201	1
56	OHX	DA	1730	7/7	0.14	-	102,111,123,157	0
56	OHX	AA	3449	7/7	0.17	-	64,74,89,112	2
56	OHX	CA	3402	7/7	0.10	-	159,162,170,218	1
56	OHX	BA	1657	7/7	0.19	-	116,125,141,215	1
55	MG	CA	3225	1/1	0.28	-	48,48,48,48	0
55	MG	DA	1613	1/1	0.27	-	87,87,87,87	0
56	OHX	CA	3374	7/7	0.11	-	106,124,128,169	1
55	MG	DA	1629	1/1	0.25	-	93,93,93,93	0
55	MG	CA	3168	1/1	0.43	-	72,72,72,72	0
55	MG	AA	3057	1/1	0.47	-	72,72,72,72	0
56	OHX	BA	1798	7/7	0.12	-	140,143,151,221	1
56	OHX	CA	3364	7/7	0.10	-	117,120,133,182	1
55	MG	AA	3270	1/1	0.13	-	94,94,94,94	0
55	MG	AB	206	1/1	0.57	-	83,83,83,83	0
56	OHX	BA	1680	7/7	0.12	-	120,125,145,238	1
55	MG	AA	3074	1/1	0.38	-	73,73,73,73	0
55	MG	CA	3004	1/1	0.26	-	49,49,49,49	0
55	MG	CA	3054	1/1	0.34	-	54,54,54,54	0
56	OHX	BA	1789	7/7	0.18	-	108,112,133,182	1
55	MG	BA	1709	1/1	0.35	-	100,100,100,100	0
55	MG	CA	3150	1/1	0.36	-	55,55,55,55	0
55	MG	DA	1630	1/1	0.39	-	95,95,95,95	0
56	OHX	AA	3339	7/7	0.11	-	151,155,164,211	1
55	MG	BA	1717	1/1	0.47	-	51,51,51,51	0
56	OHX	BA	1810	7/7	0.13	-	106,108,121,152	1
55	MG	CA	3179	1/1	0.13	-	73,73,73,73	0
56	OHX	AA	3424	7/7	0.17	-	92,97,108,112	0
56	OHX	BA	1792	7/7	0.09	-	150,163,168,209	1
56	OHX	BA	1667	7/7	0.18	-	118,130,146,200	1
56	OHX	AA	3290	7/7	0.17	-	10,72,91,128	0
56	OHX	BA	1671	7/7	0.08	-	127,131,133,210	1
55	MG	CA	3260	1/1	0.26	-	71,71,71,71	0
55	MG	AA	3261	1/1	0.41	-	64,64,64,64	0
55	MG	BB	101	1/1	0.49	-	70,70,70,70	0
56	OHX	CA	3411	7/7	0.10	-	117,123,138,184	1
55	MG	CA	3044	1/1	0.18	-	74,74,74,74	0
55	MG	DA	1639	1/1	0.49	-	70,70,70,70	0
56	OHX	CA	3358	7/7	0.11	-	128,130,147,230	1
55	MG	CA	3202	1/1	0.49	-	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
55	MG	BA	1753	1/1	0.48	-	67,67,67,67	0
55	MG	CA	3126	1/1	0.30	-	54,54,54,54	0
55	MG	CA	3118	1/1	0.39	-	69,69,69,69	0
57	ZN	BG	301	1/1	0.30	-	79,79,79,79	0
55	MG	BC	104	1/1	0.51	-	57,57,57,57	0
55	MG	AA	3410	1/1	0.47	-	61,61,61,61	0
55	MG	CA	3132	1/1	0.24	-	80,80,80,80	0
56	OHX	CA	3485	7/7	0.15	-	88,102,109,144	1
56	OHX	DB	103	7/7	0.12	-	166,171,179,191	1
56	OHX	CA	3351	7/7	0.12	-	102,107,134,173	1
55	MG	BA	1719	1/1	0.43	-	51,51,51,51	0
56	OHX	DA	1748	7/7	0.11	-	95,111,122,149	1
56	OHX	CA	3396	7/7	0.13	-	135,136,150,198	1
56	OHX	BA	1661	7/7	0.13	-	108,124,128,170	1
55	MG	BA	1634	1/1	0.19	-	74,74,74,74	0
55	MG	BA	1601	1/1	0.23	-	81,81,81,81	0
55	MG	AA	3076	1/1	0.39	-	72,72,72,72	0
55	MG	DA	1716	1/1	0.34	-	85,85,85,85	0
56	OHX	CA	3438	7/7	0.11	-	97,104,116,167	1
55	MG	CA	3177	1/1	0.29	-	57,57,57,57	0
56	OHX	BA	1670	7/7	0.10	-	135,143,147,201	1
55	MG	BA	1706	1/1	0.42	-	79,79,79,79	0
56	OHX	CA	3283	7/7	0.16	-	81,83,86,120	1
56	OHX	BA	1800	7/7	0.13	-	106,107,118,143	1
56	OHX	BA	1756	7/7	0.20	-	59,79,107,108	0
55	MG	CB	205	1/1	0.43	-	74,74,74,74	0
56	OHX	DA	1811	7/7	0.07	-	137,141,149,222	1
55	MG	DA	1601	1/1	0.24	-	87,87,87,87	0
55	MG	BC	103	1/1	0.44	-	62,62,62,62	0
55	MG	AA	3105	1/1	0.48	-	124,124,124,124	0
56	OHX	AA	3292	7/7	0.17	-	50,75,88,112	0
56	OHX	CA	3302	7/7	0.18	-	79,86,104,139	1
56	OHX	CA	3277	7/7	0.17	-	73,81,99,107	1
55	MG	BA	1622	1/1	0.16	-	123,123,123,123	0
56	OHX	DA	1771	7/7	0.11	-	97,105,129,152	1
55	MG	CA	3010	1/1	0.22	-	47,47,47,47	0
55	MG	CA	3022	1/1	0.17	-	55,55,55,55	0
56	OHX	AA	3287	7/7	0.14	-	75,88,103,129	2
56	OHX	AA	3307	7/7	0.15	-	85,90,103,127	1
56	OHX	CF	301	7/7	0.17	-	54,58,79,92	0
55	MG	CA	3039	1/1	0.39	-	65,65,65,65	0
56	OHX	CB	218	7/7	0.12	-	141,159,166,235	1

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	OHX	CA	3343	7/7	0.16	-	109,118,132,184	1
55	MG	DA	1611	1/1	0.29	-	92,92,92,92	0
55	MG	AA	3241	1/1	0.36	-	60,60,60,60	0
55	MG	AA	3101	1/1	0.46	-	63,63,63,63	0
56	OHX	CA	3482	7/7	0.12	-	84,120,131,181	0
56	OHX	AA	3328	7/7	0.11	-	89,97,114,142	1
56	OHX	CA	3323	7/7	0.13	-	107,111,118,169	0
55	MG	AA	3158	1/1	0.43	-	50,50,50,50	0
55	MG	CA	3454	1/1	0.30	-	51,51,51,51	0
55	MG	CA	3125	1/1	0.21	-	52,52,52,52	0
56	OHX	CA	3340	7/7	0.12	-	115,122,140,168	1
55	MG	AA	3106	1/1	0.45	-	70,70,70,70	0
55	MG	AA	3180	1/1	0.32	-	65,65,65,65	0
55	MG	AA	3017	1/1	0.54	-	100,100,100,100	0
55	MG	DA	1713	1/1	0.45	-	79,79,79,79	0
55	MG	DA	1654	1/1	0.36	-	61,61,61,61	0
56	OHX	AA	3367	7/7	0.14	-	121,129,147,173	1
56	OHX	CA	3274	7/7	0.15	-	67,83,114,118	0
55	MG	AA	3023	1/1	0.53	-	52,52,52,52	0
56	OHX	BA	1755	7/7	0.18	-	72,74,97,109	0
56	OHX	BA	1785	7/7	0.14	-	109,122,129,170	1
56	OHX	CA	3251	7/7	0.12	-	88,107,125,141	1
55	MG	AA	3344	1/1	0.38	-	48,48,48,48	0
55	MG	CA	3478	1/1	0.50	-	82,82,82,82	0
55	MG	CA	3144	1/1	0.34	-	54,54,54,54	0
56	OHX	AA	3514	7/7	0.19	-	84,93,104,149	1
56	OHX	AA	3456	7/7	0.20	-	59,75,90,132	2
55	MG	CA	3017	1/1	0.24	-	92,92,92,92	0
55	MG	DA	1636	1/1	0.37	-	75,75,75,75	0
56	OHX	AA	3400	7/7	0.18	-	69,80,83,116	1
56	OHX	A6	101	7/7	0.13	-	113,122,137,155	1
55	MG	AO	203	1/1	0.28	-	56,56,56,56	0
56	OHX	AA	3431	7/7	0.16	-	74,81,100,115	0
56	OHX	DB	105	7/7	0.20	-	88,91,103,175	5
55	MG	AO	201	1/1	0.41	-	80,80,80,80	0
56	OHX	AA	3473	7/7	0.16	-	66,95,102,124	1
56	OHX	DA	1760	7/7	0.11	-	142,145,152,204	1
56	OHX	BA	1683	7/7	0.10	-	124,130,146,183	1
55	MG	AA	3240	1/1	0.33	-	43,43,43,43	0
55	MG	AA	3148	1/1	0.38	-	65,65,65,65	0
55	MG	DA	1652	1/1	0.44	-	52,52,52,52	0
56	OHX	AA	3537	7/7	0.10	-	171,189,202,242	1

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
55	MG	AA	3051	1/1	0.35	-	49,49,49,49	0
56	OHX	CA	3342	7/7	0.14	-	116,123,130,201	1
55	MG	AE	301	1/1	0.32	-	52,52,52,52	0
56	OHX	BA	1781	7/7	0.13	-	91,111,121,156	1
56	OHX	CA	3316	7/7	0.09	-	119,122,129,158	0
55	MG	DA	1725	1/1	0.40	-	87,87,87,87	0
55	MG	AA	3392	1/1	0.61	-	64,64,64,64	0
55	MG	AA	3049	1/1	0.42	-	64,64,64,64	0
56	OHX	AA	3369	7/7	0.18	-	80,102,119,165	1
56	OHX	AA	3334	7/7	0.17	-	66,79,94,105	1
56	OHX	CA	3294	7/7	0.14	-	91,93,107,125	1
55	MG	CA	3011	1/1	0.36	-	46,46,46,46	0
55	MG	BA	1699	1/1	0.42	-	79,79,79,79	0
56	OHX	CA	3321	7/7	0.13	-	111,119,144,156	0
55	MG	CA	3016	1/1	0.24	-	55,55,55,55	0
55	MG	CA	3473	1/1	0.30	-	50,50,50,50	0
56	OHX	BA	1688	7/7	0.13	-	107,112,123,154	1
56	OHX	DR	101	7/7	0.15	-	135,141,146,189	1
56	OHX	BA	1774	7/7	0.15	-	80,98,111,147	1
55	MG	AA	3226	1/1	0.49	-	42,42,42,42	0
55	MG	CA	3085	1/1	0.38	-	102,102,102,102	0
56	OHX	CA	3293	7/7	0.16	-	100,117,128,163	0
55	MG	BB	102	1/1	0.28	-	85,85,85,85	0
56	OHX	AA	3402	7/7	0.20	-	87,110,129,141	3
56	OHX	AA	3399	7/7	0.20	-	42,51,73,98	0
56	OHX	CA	3240	7/7	0.12	-	96,99,103,148	1
55	MG	CA	3041	1/1	0.25	-	73,73,73,73	0
55	MG	AA	3388	1/1	0.42	-	41,41,41,41	0
55	MG	BA	1737	1/1	0.25	-	46,46,46,46	0
55	MG	AA	3010	1/1	0.27	-	40,40,40,40	0
56	OHX	DA	1772	7/7	0.09	-	131,135,143,214	1
55	MG	CA	3140	1/1	0.39	-	59,59,59,59	0
55	MG	AA	3065	1/1	0.39	-	49,49,49,49	0
55	MG	AA	3207	1/1	0.47	-	57,57,57,57	0
56	OHX	AA	3430	7/7	0.17	-	63,78,92,111	1
56	OHX	AA	3509	7/7	0.13	-	92,96,122,175	1
56	OHX	AA	3494	7/7	0.16	-	59,86,128,185	1
55	MG	CA	3073	1/1	0.17	-	54,54,54,54	0
55	MG	CA	3068	1/1	0.33	-	44,44,44,44	0
55	MG	AA	3212	1/1	0.39	-	35,35,35,35	0
56	OHX	AA	3529	7/7	0.16	-	90,106,115,167	1
55	MG	AA	3355	1/1	0.47	-	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
55	MG	AA	3015	1/1	0.45	-	76,76,76,76	0
55	MG	CA	3163	1/1	0.39	-	80,80,80,80	0
55	MG	DA	1689	1/1	0.41	-	87,87,87,87	0
56	OHX	AA	3439	7/7	0.15	-	69,82,92,115	1
55	MG	AA	3395	1/1	0.20	-	40,40,40,40	0
55	MG	CA	3139	1/1	0.31	-	56,56,56,56	0
56	OHX	AA	3366	7/7	0.20	-	85,90,106,173	1
55	MG	CA	3086	1/1	0.38	-	68,68,68,68	0
56	OHX	AA	3498	7/7	0.16	-	92,94,127,136	1
56	OHX	DA	1804	7/7	0.16	-	107,115,128,173	1
56	OHX	AA	3552	7/7	0.18	-	105,122,135,199	1
56	OHX	DA	1734	7/7	0.10	-	102,105,122,149	1
56	OHX	CA	3248	7/7	0.10	-	116,128,134,203	1
56	OHX	AA	3521	7/7	0.13	-	87,94,107,160	1
55	MG	A5	101	1/1	0.24	-	41,41,41,41	0
56	OHX	AA	3508	7/7	0.11	-	122,129,136,204	1
55	MG	BA	1655	1/1	0.23	-	60,60,60,60	0
55	MG	BA	1651	1/1	0.11	-	90,90,90,90	0
55	MG	AA	3032	1/1	0.30	-	41,41,41,41	0
56	OHX	CA	3372	7/7	0.12	-	112,137,145,182	0
55	MG	AA	3046	1/1	0.53	-	68,68,68,68	0
55	MG	DA	1605	1/1	0.26	-	63,63,63,63	0
55	MG	DA	1676	1/1	0.43	-	83,83,83,83	0
56	OHX	CA	3276	7/7	0.16	-	81,100,117,133	0
56	OHX	DB	104	7/7	0.15	-	129,133,143,205	2
55	MG	BA	1726	1/1	0.34	-	61,61,61,61	0
55	MG	DA	1686	1/1	0.26	-	73,73,73,73	0
56	OHX	CA	3419	7/7	0.13	-	153,156,164,238	1
56	OHX	CA	3386	7/7	0.14	-	110,116,134,181	1
56	OHX	CA	3330	7/7	0.10	-	102,106,115,169	0
55	MG	BA	1714	1/1	0.27	-	56,56,56,56	0
55	MG	DA	1706	1/1	0.19	-	100,100,100,100	0
55	MG	AA	3384	1/1	0.44	-	59,59,59,59	0
55	MG	DA	1664	1/1	0.48	-	31,31,31,31	0
56	OHX	AW	101	7/7	0.14	-	103,112,128,156	1
55	MG	DA	1608	1/1	0.25	-	78,78,78,78	0
55	MG	CB	203	1/1	0.13	-	111,111,111,111	0
55	MG	AA	3193	1/1	0.21	-	58,58,58,58	0
56	OHX	CB	212	7/7	0.15	-	101,120,135,155	1
55	MG	AA	3050	1/1	0.37	-	60,60,60,60	0
55	MG	BA	1731	1/1	0.40	-	57,57,57,57	0
56	OHX	CA	3483	7/7	0.14	-	84,93,103,136	1

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	OHX	BA	1809	7/7	0.10	-	141,153,160,232	0
55	MG	AA	3196	1/1	0.40	-	36,36,36,36	0
56	OHX	BA	1695	7/7	0.09	-	129,147,158,217	1
56	OHX	BR	101	7/7	0.10	-	117,129,143,169	1
56	OHX	CA	3487	7/7	0.08	-	135,139,147,210	1
56	OHX	CA	3489	7/7	0.14	-	91,101,112,140	1
55	MG	AA	3089	1/1	0.53	-	84,84,84,84	0
56	OHX	CA	3300	7/7	0.15	-	66,75,91,101	1
55	MG	CA	3064	1/1	0.21	-	89,89,89,89	0
56	OHX	CA	3301	7/7	0.14	-	55,85,123,136	3
56	OHX	AA	3568	7/7	0.14	-	78,93,100,118	1
56	OHX	CA	3407	7/7	0.12	-	142,149,155,227	1
55	MG	AA	3272	1/1	0.50	-	50,50,50,50	0
56	OHX	CA	3313	7/7	0.12	-	103,112,124,157	0
55	MG	CA	3208	1/1	0.35	-	70,70,70,70	0
55	MG	AA	3206	1/1	0.51	-	64,64,64,64	0
56	OHX	AA	3304	7/7	0.13	-	109,115,135,200	1
56	OHX	BA	1675	7/7	0.08	-	120,128,140,197	1
56	OHX	BA	1778	7/7	0.13	-	99,120,131,182	0
55	MG	DA	1681	1/1	0.34	-	100,100,100,100	0
55	MG	CA	3142	1/1	0.35	-	71,71,71,71	0
56	OHX	AA	3333	7/7	0.20	-	91,114,128,179	2
56	OHX	DA	1778	7/7	0.15	-	142,148,154,267	0
56	OHX	CA	3367	7/7	0.09	-	129,137,147,194	1
56	OHX	AA	3520	7/7	0.11	-	127,132,145,185	1
56	OHX	AB	218	7/7	0.17	-	128,132,146,199	1
56	OHX	BA	1786	7/7	0.10	-	93,97,101,149	1
55	MG	AA	3178	1/1	0.45	-	39,39,39,39	0
55	MG	CA	3265	1/1	0.22	-	55,55,55,55	0
55	MG	AA	3210	1/1	0.49	-	41,41,41,41	0
55	MG	AA	3198	1/1	0.30	-	54,54,54,54	0
55	MG	CA	3099	1/1	0.34	-	51,51,51,51	0
55	MG	AA	3230	1/1	0.26	-	66,66,66,66	0
55	MG	AA	3346	1/1	0.26	-	42,42,42,42	0
55	MG	CA	3217	1/1	0.37	-	58,58,58,58	0
55	MG	DA	1617	1/1	0.30	-	115,115,115,115	0
56	OHX	AA	3427	7/7	0.18	-	29,70,88,108	0
56	OHX	CA	3334	7/7	0.11	-	110,115,136,183	0
55	MG	AE	302	1/1	0.21	-	71,71,71,71	0
56	OHX	CA	3236	7/7	0.20	-	81,104,120,146	0
55	MG	DA	1671	1/1	0.25	-	64,64,64,64	0
56	OHX	AA	3372	7/7	0.12	-	93,103,121,167	1

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
55	MG	CA	3100	1/1	0.44	-	63,63,63,63	0
56	OHX	AA	3551	7/7	0.10	-	141,143,149,194	1
56	OHX	CA	3281	7/7	0.19	-	101,105,126,132	0
56	OHX	AA	3481	7/7	0.16	-	95,108,126,156	2
55	MG	AA	3104	1/1	0.53	-	68,68,68,68	0
56	OHX	AB	210	7/7	0.21	-	83,107,129,146	3
55	MG	CA	3220	1/1	0.34	-	85,85,85,85	0
55	MG	CA	3033	1/1	0.27	-	71,71,71,71	0
56	OHX	CA	3410	7/7	0.12	-	114,125,132,190	1
55	MG	AA	3172	1/1	0.44	-	38,38,38,38	0
56	OHX	CA	3405	7/7	0.10	-	112,116,119,187	1
56	OHX	CA	3433	7/7	0.19	-	121,129,144,183	1
55	MG	AA	3169	1/1	0.52	-	76,76,76,76	0
55	MG	AA	3279	1/1	0.42	-	81,81,81,81	0
55	MG	DA	1646	1/1	0.26	-	64,64,64,64	0
55	MG	AA	3152	1/1	0.35	-	56,56,56,56	0
56	OHX	BA	1790	7/7	0.22	-	96,123,133,185	1
55	MG	DA	1673	1/1	0.36	-	80,80,80,80	0
56	OHX	AA	3468	7/7	0.14	-	99,111,119,167	1
55	MG	DL	201	1/1	0.49	-	92,92,92,92	0
55	MG	BA	1732	1/1	0.46	-	52,52,52,52	0
55	MG	BD	101	1/1	0.30	-	93,93,93,93	0
56	OHX	DA	1782	7/7	0.14	-	117,128,138,207	1
56	OHX	AA	3567	7/7	0.15	-	103,106,118,172	1
56	OHX	BA	1676	7/7	0.10	-	143,151,156,210	1
55	MG	CA	3459	1/1	0.29	-	56,56,56,56	0
55	MG	DA	1622	1/1	0.27	-	122,122,122,122	0
56	OHX	CA	3359	7/7	0.14	-	115,123,136,171	2
55	MG	CA	3203	1/1	0.40	-	47,47,47,47	0
55	MG	AA	3004	1/1	0.45	-	37,37,37,37	0
55	MG	DA	1642	1/1	0.48	-	112,112,112,112	0
56	OHX	CA	3308	7/7	0.16	-	88,90,121,161	0
56	OHX	AA	3526	7/7	0.18	-	120,129,136,176	1
56	OHX	AB	212	7/7	0.17	-	81,99,131,153	1
55	MG	CA	3257	1/1	0.31	-	60,60,60,60	0
56	OHX	AA	3517	7/7	0.17	-	88,111,115,145	1
56	OHX	AA	3491	7/7	0.15	-	162,182,190,220	1
55	MG	CA	3175	1/1	0.37	-	64,64,64,64	0
55	MG	A0	201	1/1	0.20	-	48,48,48,48	0
55	MG	AA	3134	1/1	0.21	-	82,82,82,82	0
55	MG	BA	1606	1/1	0.45	-	92,92,92,92	0
55	MG	BA	1621	1/1	0.43	-	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
55	MG	AA	3174	1/1	0.47	-	76,76,76,76	0
56	OHX	AA	3302	7/7	0.13	-	88,114,124,193	1
55	MG	CA	3071	1/1	0.26	-	51,51,51,51	0
56	OHX	CA	3385	7/7	0.10	-	115,124,135,193	1
55	MG	BA	1705	1/1	0.31	-	63,63,63,63	0
56	OHX	CA	3282	7/7	0.15	-	79,83,97,109	0
55	MG	CA	3095	1/1	0.28	-	54,54,54,54	0
56	OHX	DA	1783	7/7	0.12	-	123,123,145,185	1
55	MG	AA	3119	1/1	0.36	-	64,64,64,64	0
56	OHX	AA	3298	7/7	0.20	-	71,88,99,110	1
55	MG	DA	1659	1/1	0.27	-	89,89,89,89	0
56	OHX	AA	3368	7/7	0.18	-	76,83,98,126	1
56	OHX	AA	3306	7/7	0.12	-	134,139,151,214	1
55	MG	AA	3204	1/1	0.18	-	61,61,61,61	0
55	MG	BA	1729	1/1	0.54	-	73,73,73,73	0
55	MG	CA	3472	1/1	0.19	-	59,59,59,59	0
56	OHX	CA	3397	7/7	0.11	-	128,138,154,219	1
56	OHX	CA	3271	7/7	0.22	-	67,82,101,115	0
56	OHX	DA	1758	7/7	0.08	-	132,137,143,204	0
55	MG	AA	3142	1/1	0.56	-	45,45,45,45	0
56	OHX	DA	1809	7/7	0.08	-	124,126,139,221	1
55	MG	CA	3264	1/1	0.35	-	49,49,49,49	0
55	MG	AA	3047	1/1	0.39	-	54,54,54,54	0
56	OHX	AA	3497	7/7	0.14	-	94,106,111,138	2
56	OHX	CA	3466	7/7	0.14	-	96,98,116,157	1
56	OHX	CA	3388	7/7	0.12	-	112,116,127,180	1
55	MG	DA	1632	1/1	0.30	-	83,83,83,83	0
55	MG	BA	1609	1/1	0.34	-	73,73,73,73	0
55	MG	CA	3445	1/1	0.22	-	38,38,38,38	0
55	MG	AA	3398	1/1	0.41	-	51,51,51,51	0
55	MG	CA	3167	1/1	0.48	-	75,75,75,75	0
55	MG	CA	3442	1/1	0.21	-	61,61,61,61	0
56	OHX	DA	1791	7/7	0.15	-	103,104,121,153	1
55	MG	DA	1690	1/1	0.44	-	63,63,63,63	0
55	MG	AA	3170	1/1	0.22	-	50,50,50,50	0
56	OHX	CA	3368	7/7	0.14	-	108,126,135,177	1
55	MG	BA	1604	1/1	0.44	-	72,72,72,72	0
55	MG	AA	3250	1/1	0.37	-	56,56,56,56	0
55	MG	CA	3005	1/1	0.21	-	48,48,48,48	0
56	OHX	AA	3446	7/7	0.15	-	68,90,101,115	2
55	MG	AA	3084	1/1	0.35	-	58,58,58,58	0
55	MG	AA	3132	1/1	0.51	-	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
55	MG	AA	3157	1/1	0.48	-	49,49,49,49	0
55	MG	AA	3149	1/1	0.31	-	74,74,74,74	0
56	OHX	DA	1768	7/7	0.10	-	121,132,163,218	0
56	OHX	DA	1746	7/7	0.08	-	126,134,146,189	1
55	MG	AA	3112	1/1	0.26	-	47,47,47,47	0
55	MG	AA	3161	1/1	0.33	-	50,50,50,50	0
55	MG	CA	3084	1/1	0.38	-	60,60,60,60	0
56	OHX	CA	3399	7/7	0.19	-	97,104,115,165	2
56	OHX	DA	1781	7/7	0.13	-	107,126,135,195	1
55	MG	DA	1615	1/1	0.28	-	98,98,98,98	0
55	MG	AA	3041	1/1	0.25	-	49,49,49,49	0
55	MG	DA	1625	1/1	0.10	-	97,97,97,97	0
56	OHX	AA	3320	7/7	0.18	-	69,81,96,121	1
56	OHX	DA	1726	7/7	0.17	-	87,101,123,159	0
56	OHX	DA	1780	7/7	0.10	-	127,131,138,167	1
55	MG	CA	3149	1/1	0.35	-	55,55,55,55	0
55	MG	CA	3015	1/1	0.28	-	54,54,54,54	0
55	MG	AA	3409	1/1	0.47	-	56,56,56,56	0
55	MG	BA	1603	1/1	0.35	-	63,63,63,63	0
56	OHX	CA	3365	7/7	0.08	-	164,171,176,213	1
55	MG	AA	3096	1/1	0.34	-	71,71,71,71	0
56	OHX	CA	3373	7/7	0.16	-	113,122,129,160	1
56	OHX	DA	1796	7/7	0.11	-	134,139,149,195	1
56	OHX	AA	3480	7/7	0.18	-	90,100,124,135	1
55	MG	CA	3120	1/1	0.35	-	48,48,48,48	0
56	OHX	AA	3558	7/7	0.12	-	95,121,125,156	1
55	MG	DA	1626	1/1	0.54	-	84,84,84,84	0
55	MG	AA	3093	1/1	0.47	-	91,91,91,91	0
56	OHX	AB	219	7/7	0.15	-	104,111,125,162	1
56	OHX	AA	3342	7/7	0.17	-	78,85,104,123	1
55	MG	BA	1751	1/1	0.50	-	95,95,95,95	0
55	MG	AA	3228	1/1	0.26	-	67,67,67,67	0
55	MG	CA	3092	1/1	0.56	-	52,52,52,52	0
55	MG	BA	1715	1/1	0.35	-	74,74,74,74	0
55	MG	CA	3267	1/1	0.16	-	65,65,65,65	0
56	OHX	DA	1736	7/7	0.12	-	130,135,157,193	0
55	MG	AA	3252	1/1	0.39	-	47,47,47,47	0
56	OHX	BA	1669	7/7	0.18	-	124,127,142,200	1
55	MG	AA	3267	1/1	0.45	-	80,80,80,80	0
56	OHX	DA	1806	7/7	0.07	-	142,150,160,228	1
55	MG	AA	3116	1/1	0.31	-	45,45,45,45	0
56	OHX	DA	1751	7/7	0.18	-	66,109,137,183	2

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
55	MG	BB	104	1/1	0.50	-	87,87,87,87	0
56	OHX	AA	3452	7/7	0.21	-	61,75,91,137	2
55	MG	CA	3065	1/1	0.35	-	55,55,55,55	0
55	MG	CA	3449	1/1	0.46	-	54,54,54,54	0
55	MG	CA	3046	1/1	0.29	-	76,76,76,76	0
55	MG	CA	3102	1/1	0.45	-	67,67,67,67	0
56	OHX	DA	1767	7/7	0.09	-	120,124,135,184	1
55	MG	CA	3134	1/1	0.36	-	65,65,65,65	0
55	MG	AA	3249	1/1	0.43	-	58,58,58,58	0
55	MG	CA	3212	1/1	0.47	-	75,75,75,75	0
55	MG	AA	3094	1/1	0.56	-	39,39,39,39	0
56	OHX	CA	3253	7/7	0.16	-	107,120,133,155	1
55	MG	BA	1648	1/1	0.51	-	99,99,99,99	0
56	OHX	CA	3422	7/7	0.11	-	126,137,143,193	1
55	MG	CA	3195	1/1	0.29	-	68,68,68,68	0
55	MG	DA	1620	1/1	0.52	-	79,79,79,79	0
56	OHX	CA	3418	7/7	0.12	-	115,119,129,166	1
56	OHX	CA	3348	7/7	0.23	-	104,111,132,178	1
56	OHX	DA	1784	7/7	0.09	-	150,153,166,225	1
55	MG	AO	202	1/1	0.29	-	55,55,55,55	0
55	MG	DA	1696	1/1	0.26	-	112,112,112,112	0
55	MG	D1	101	1/1	0.36	-	78,78,78,78	0
55	MG	BA	1615	1/1	0.26	-	113,113,113,113	0
56	OHX	CA	3329	7/7	0.11	-	102,103,123,146	1
55	MG	AE	303	1/1	0.29	-	32,32,32,32	0
55	MG	AA	3102	1/1	0.42	-	79,79,79,79	0
55	MG	AA	3227	1/1	0.41	-	63,63,63,63	0
55	MG	AA	3277	1/1	0.50	-	46,46,46,46	0
55	MG	CA	3098	1/1	0.17	-	63,63,63,63	0
55	MG	DA	1705	1/1	0.49	-	108,108,108,108	0
55	MG	CA	3047	1/1	0.38	-	41,41,41,41	0
56	OHX	CA	3304	7/7	0.14	-	113,122,141,181	2
56	OHX	CA	3424	7/7	0.08	-	141,145,151,214	1
55	MG	BA	1654	1/1	0.35	-	47,47,47,47	0
55	MG	CA	3109	1/1	0.29	-	56,56,56,56	0
55	MG	AA	3259	1/1	0.35	-	35,35,35,35	0
55	MG	CA	3081	1/1	0.31	-	63,63,63,63	0
55	MG	AA	3058	1/1	0.35	-	73,73,73,73	0
56	OHX	AA	3518	7/7	0.16	-	67,73,103,130	1
56	OHX	CA	3426	7/7	0.10	-	142,146,155,215	1
56	OHX	CA	3243	7/7	0.12	-	121,128,140,172	0
56	OHX	CA	3346	7/7	0.13	-	99,104,119,151	1

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	OHX	DA	1724	7/7	0.13	-	84,106,133,148	1
56	OHX	DA	1740	7/7	0.12	-	139,153,162,184	0
55	MG	CA	3115	1/1	0.35	-	63,63,63,63	0
56	OHX	BA	1799	7/7	0.11	-	158,163,176,213	1
55	MG	BA	1637	1/1	0.08	-	83,83,83,83	0
55	MG	DA	1643	1/1	0.39	-	136,136,136,136	0
56	OHX	C5	102	7/7	0.15	-	114,118,133,165	1
56	OHX	AA	3448	7/7	0.14	-	87,90,112,131	1
55	MG	CA	3201	1/1	0.51	-	79,79,79,79	0
55	MG	DA	1672	1/1	0.32	-	83,83,83,83	0
55	MG	AA	3257	1/1	0.42	-	57,57,57,57	0
55	MG	CA	3121	1/1	0.34	-	55,55,55,55	0
56	OHX	AA	3557	7/7	0.15	-	75,87,101,114	1
56	OHX	AA	3475	7/7	0.17	-	67,93,111,167	1
56	OHX	AA	3547	7/7	0.16	-	69,84,101,157	2
56	OHX	AA	3305	7/7	0.17	-	83,97,103,135	1
56	OHX	DC	110	7/7	0.13	-	78,91,106,144	4
56	OHX	CA	3317	7/7	0.10	-	116,126,142,180	1
55	MG	AA	3229	1/1	0.52	-	59,59,59,59	0
56	OHX	CB	210	7/7	0.14	-	104,124,140,171	1
55	MG	AA	3068	1/1	0.29	-	61,61,61,61	0
55	MG	BA	1630	1/1	0.19	-	90,90,90,90	0
56	OHX	CA	3249	7/7	0.15	-	86,90,104,128	1
56	OHX	BD	104	7/7	0.26	-	82,85,90,147	2
55	MG	DC	105	1/1	0.50	-	54,54,54,54	0
55	MG	AA	3244	1/1	0.22	-	49,49,49,49	0
55	MG	BA	1727	1/1	0.43	-	70,70,70,70	0
56	OHX	DA	1800	7/7	0.08	-	137,140,150,220	1
56	OHX	AB	207	7/7	0.15	-	89,99,126,152	1
55	MG	CA	3045	1/1	0.60	-	91,91,91,91	0
56	OHX	AA	3490	7/7	0.16	-	94,113,129,158	1
56	OHX	AA	3501	7/7	0.16	-	101,109,129,149	1
56	OHX	AA	3469	7/7	0.12	-	79,91,98,161	1
55	MG	CA	3158	1/1	0.41	-	56,56,56,56	0
55	MG	CA	3206	1/1	0.47	-	90,90,90,90	0
55	MG	CA	3059	1/1	0.41	-	63,63,63,63	0
56	OHX	BA	1757	7/7	0.18	-	57,66,87,98	2
55	MG	CA	3194	1/1	0.25	-	63,63,63,63	0
56	OHX	CA	3326	7/7	0.11	-	97,110,130,136	2
55	MG	AA	3016	1/1	0.36	-	39,39,39,39	0
56	OHX	CA	3465	7/7	0.10	-	131,136,147,181	1
56	OHX	CA	3337	7/7	0.13	-	109,124,136,185	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	OHX	AA	3478	7/7	0.17	-	77,90,100,131	1
55	MG	AA	3014	1/1	0.46	-	44,44,44,44	0
55	MG	AA	3260	1/1	0.53	-	58,58,58,58	0
56	OHX	C1	201	7/7	0.14	-	102,111,123,165	1
55	MG	BA	1708	1/1	0.42	-	77,77,77,77	0
56	OHX	DA	1802	7/7	0.12	-	120,122,140,196	1
55	MG	BA	1747	1/1	0.41	-	74,74,74,74	0
56	OHX	AA	3160	7/7	0.11	-	116,121,130,182	1
55	MG	AA	3195	1/1	0.38	-	43,43,43,43	0
55	MG	AA	3118	1/1	0.31	-	53,53,53,53	0
56	OHX	CA	3356	7/7	0.13	-	96,109,118,157	1
56	OHX	BA	1775	7/7	0.09	-	111,114,129,169	1
56	OHX	AA	3417	7/7	0.21	-	68,72,82,103	0
55	MG	BA	1645	1/1	0.38	-	51,51,51,51	0
55	MG	C7	101	1/1	0.38	-	54,54,54,54	0
55	MG	AA	3218	1/1	0.40	-	82,82,82,82	0
55	MG	AA	3211	1/1	0.51	-	62,62,62,62	0
56	OHX	BA	1773	7/7	0.10	-	101,102,110,142	1
55	MG	BA	1643	1/1	0.11	-	78,78,78,78	0
56	OHX	AA	3486	7/7	0.16	-	127,135,138,199	1
56	OHX	CA	3255	7/7	0.12	-	103,107,122,145	1
56	OHX	AA	3426	7/7	0.20	-	70,84,89,118	0
56	OHX	CA	3318	7/7	0.18	-	34,112,130,183	1
55	MG	CA	3185	1/1	0.46	-	75,75,75,75	0
56	OHX	CA	3427	7/7	0.10	-	114,126,136,203	1
56	OHX	CA	3404	7/7	0.10	-	149,155,166,217	1
55	MG	AA	3003	1/1	0.35	-	39,39,39,39	0
55	MG	AA	3107	1/1	0.43	-	79,79,79,79	0
55	MG	AA	3081	1/1	0.43	-	56,56,56,56	0
55	MG	DC	106	1/1	0.55	-	91,91,91,91	0
55	MG	AA	3351	1/1	0.40	-	53,53,53,53	0
55	MG	DA	1715	1/1	0.30	-	89,89,89,89	0
55	MG	BA	1635	1/1	0.25	-	96,96,96,96	0
56	OHX	AA	3360	7/7	0.17	-	58,67,70,97	1
55	MG	CA	3133	1/1	0.36	-	48,48,48,48	0
56	OHX	C6	101	7/7	0.11	-	132,145,157,184	1
56	OHX	AA	3550	7/7	0.17	-	111,121,131,187	1
56	OHX	AA	3338	7/7	0.13	-	82,93,108,126	1
55	MG	CA	3221	1/1	0.47	-	69,69,69,69	0
56	OHX	DA	1810	7/7	0.11	-	134,135,143,197	1
55	MG	AA	3214	1/1	0.34	-	46,46,46,46	0
56	OHX	AA	3442	7/7	0.17	-	70,87,119,140	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
55	MG	CA	3031	1/1	0.10	-	53,53,53,53	0
55	MG	BA	1653	1/1	0.34	-	63,63,63,63	0
55	MG	AA	3070	1/1	0.20	-	52,52,52,52	0
55	MG	CA	3119	1/1	0.28	-	61,61,61,61	0
55	MG	AA	3150	1/1	0.45	-	68,68,68,68	0
56	OHX	AA	3528	7/7	0.14	-	112,118,137,160	2
55	MG	CA	3110	1/1	0.38	-	85,85,85,85	0
55	MG	CA	3228	1/1	0.12	-	65,65,65,65	0
56	OHX	AA	3322	7/7	0.12	-	89,98,107,146	1
56	OHX	CA	3490	7/7	0.12	-	102,105,118,156	1
56	OHX	CA	3470	7/7	0.14	-	113,126,137,181	1
55	MG	BA	1744	1/1	0.14	-	90,90,90,90	0
56	OHX	AA	3560	7/7	0.15	-	102,104,127,184	1
55	MG	DA	1624	1/1	0.10	-	73,73,73,73	0
55	MG	DA	1700	1/1	0.48	-	70,70,70,70	0
56	OHX	DA	1803	7/7	0.09	-	135,141,144,207	1
55	MG	DA	1704	1/1	0.42	-	73,73,73,73	0
55	MG	AA	3159	1/1	0.29	-	65,65,65,65	0
56	OHX	CA	3233	7/7	0.15	-	74,85,95,121	0
56	OHX	DA	1769	7/7	0.11	-	133,140,147,188	1
56	OHX	BA	1766	7/7	0.16	-	89,96,106,129	1
55	MG	A1	201	1/1	0.30	-	71,71,71,71	0
55	MG	CA	3027	1/1	0.40	-	81,81,81,81	0
56	OHX	AA	3471	7/7	0.16	-	98,107,114,163	1
55	MG	AA	3113	1/1	0.39	-	32,32,32,32	0
55	MG	DA	1661	1/1	0.42	-	76,76,76,76	0
55	MG	AA	3111	1/1	0.36	-	35,35,35,35	0
56	OHX	DA	1745	7/7	0.13	-	115,123,143,223	0
55	MG	AA	3413	1/1	0.31	-	57,57,57,57	0
56	OHX	AA	3516	7/7	0.13	-	101,109,121,183	1
56	OHX	AA	3450	7/7	0.18	-	65,94,112,113	3
56	OHX	AA	3312	7/7	0.17	-	64,87,123,173	1
55	MG	AB	201	1/1	0.41	-	73,73,73,73	0
56	OHX	AA	3461	7/7	0.17	-	60,78,98,143	1
56	OHX	CA	3278	7/7	0.15	-	81,96,114,120	0
56	OHX	AA	3496	7/7	0.15	-	117,124,142,215	0
56	OHX	DC	108	7/7	0.10	-	120,132,142,180	1
56	OHX	CA	3390	7/7	0.10	-	117,128,152,209	1
55	MG	AA	3353	1/1	0.24	-	39,39,39,39	0
56	OHX	CB	216	7/7	0.13	-	117,132,146,206	1
55	MG	CA	3069	1/1	0.26	-	69,69,69,69	0
56	OHX	CA	3375	7/7	0.14	-	103,118,131,145	1

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
55	MG	AA	3080	1/1	0.42	-	55,55,55,55	0
55	MG	AA	3286	1/1	0.54	-	68,68,68,68	0
55	MG	CA	3161	1/1	0.27	-	71,71,71,71	0
55	MG	BB	105	1/1	0.51	-	63,63,63,63	0
56	OHX	DA	1744	7/7	0.13	-	103,108,120,148	1
56	OHX	AA	3534	7/7	0.13	-	136,141,145,222	1
55	MG	DA	1607	1/1	0.36	-	82,82,82,82	0
56	OHX	AA	3294	7/7	0.12	-	94,100,117,120	0
55	MG	AA	3045	1/1	0.43	-	65,65,65,65	0
55	MG	CA	3173	1/1	0.31	-	53,53,53,53	0
56	OHX	A1	202	7/7	0.16	-	85,95,114,146	1
55	MG	AA	3083	1/1	0.34	-	88,88,88,88	0
55	MG	AA	3143	1/1	0.42	-	46,46,46,46	0
56	OHX	BA	1681	7/7	0.11	-	153,163,173,229	1
56	OHX	AA	3331	7/7	0.27	-	72,87,130,163	3
55	MG	CA	3171	1/1	0.34	-	82,82,82,82	0
56	OHX	CA	3398	7/7	0.10	-	129,132,142,192	1
56	OHX	CA	3246	7/7	0.16	-	113,116,120,151	1
55	MG	AA	3066	1/1	0.39	-	83,83,83,83	0
56	OHX	DA	1749	7/7	0.15	-	91,120,126,173	1
56	OHX	DA	1801	7/7	0.12	-	141,143,154,216	1
56	OHX	AA	3325	7/7	0.11	-	91,103,115,154	1
56	OHX	AA	3405	7/7	0.11	-	103,111,138,161	1
55	MG	CA	3475	1/1	0.21	-	55,55,55,55	0
56	OHX	AA	3336	7/7	0.11	-	146,153,168,218	0
56	OHX	AA	3311	7/7	0.15	-	97,106,117,155	1
55	MG	CA	3444	1/1	0.26	-	52,52,52,52	0
56	OHX	AA	3432	7/7	0.15	-	72,98,103,107	0
56	OHX	CA	3285	7/7	0.12	-	94,107,126,147	1
56	OHX	CA	3254	7/7	0.08	-	167,174,181,211	0
55	MG	AA	3348	1/1	0.43	-	46,46,46,46	0
55	MG	AA	3100	1/1	0.38	-	108,108,108,108	0
56	OHX	BA	1764	7/7	0.17	-	88,94,120,157	0
56	OHX	CA	3250	7/7	0.18	-	106,109,126,164	1
55	MG	CA	3200	1/1	0.37	-	56,56,56,56	0
55	MG	CA	3067	1/1	0.29	-	49,49,49,49	0
56	OHX	AA	3319	7/7	0.15	-	87,95,122,151	1
55	MG	AA	3040	1/1	0.48	-	47,47,47,47	0
55	MG	AA	3085	1/1	0.12	-	58,58,58,58	0
55	MG	BA	1652	1/1	0.34	-	63,63,63,63	0
55	MG	BA	1740	1/1	0.45	-	61,61,61,61	0
55	MG	CA	3030	1/1	0.37	-	89,89,89,89	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	OHX	CA	3413	7/7	0.14	-	121,130,144,215	1
56	OHX	CA	3486	7/7	0.16	-	87,109,129,181	2
55	MG	CA	3230	1/1	0.50	-	79,79,79,79	0
55	MG	CA	3147	1/1	0.35	-	51,51,51,51	0
55	MG	CA	3263	1/1	0.29	-	69,69,69,69	0
56	OHX	DA	1812	7/7	0.14	-	149,158,168,252	1
55	MG	DA	1616	1/1	0.40	-	88,88,88,88	0
56	OHX	DA	1787	7/7	0.13	-	95,113,121,162	2
55	MG	AA	3224	1/1	0.55	-	68,68,68,68	0
56	OHX	CA	3311	7/7	0.16	-	79,95,105,127	1
56	OHX	AA	3443	7/7	0.15	-	69,76,84,127	1
56	OHX	DA	1732	7/7	0.17	-	134,143,157,195	0
56	OHX	CA	3401	7/7	0.09	-	136,149,158,185	1
56	OHX	DA	1775	7/7	0.11	-	133,145,148,215	1
56	OHX	CA	3270	7/7	0.15	-	73,87,105,117	0
55	MG	BQ	101	1/1	0.58	-	96,96,96,96	0
56	OHX	DG	302	7/7	0.10	-	133,142,147,197	1
55	MG	CA	3188	1/1	0.46	-	60,60,60,60	0
56	OHX	CA	3290	7/7	0.13	-	94,101,123,130	0
56	OHX	DA	1763	7/7	0.11	-	154,159,173,250	0
55	MG	AA	3145	1/1	0.45	-	56,56,56,56	0
56	OHX	CA	3360	7/7	0.10	-	116,124,135,193	1
56	OHX	CA	3273	7/7	0.20	-	58,69,86,110	0
55	MG	CA	3080	1/1	0.09	-	57,57,57,57	0
55	MG	CA	3009	1/1	0.33	-	39,39,39,39	0
55	MG	AA	3378	1/1	0.34	-	47,47,47,47	0
55	MG	BA	1646	1/1	0.43	-	95,95,95,95	0
55	MG	AA	3166	1/1	0.48	-	66,66,66,66	0
55	MG	CA	3181	1/1	0.37	-	62,62,62,62	0
55	MG	AA	3059	1/1	0.59	-	85,85,85,85	0
55	MG	AA	3376	1/1	0.34	-	33,33,33,33	0
56	OHX	CA	3288	7/7	0.15	-	87,95,104,133	0
55	MG	CB	204	1/1	0.40	-	73,73,73,73	0
55	MG	CA	3024	1/1	0.18	-	48,48,48,48	0
55	MG	BC	102	1/1	0.21	-	68,68,68,68	0
55	MG	AA	3219	1/1	0.35	-	48,48,48,48	0
56	OHX	CA	3319	7/7	0.15	-	87,97,106,138	1
55	MG	AA	3038	1/1	0.25	-	46,46,46,46	0
55	MG	AA	3146	1/1	0.34	-	41,41,41,41	0
56	OHX	CA	3392	7/7	0.11	-	126,132,142,192	1
56	OHX	DA	1747	7/7	0.14	-	109,122,155,200	1
56	OHX	AA	3460	7/7	0.14	-	87,98,107,140	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	OHX	CA	3395	7/7	0.16	-	106,111,125,156	1
55	MG	DA	1656	1/1	0.35	-	68,68,68,68	0
55	MG	CA	3441	1/1	0.36	-	99,99,99,99	0
55	MG	CA	3196	1/1	0.54	-	92,92,92,92	0
55	MG	CA	3455	1/1	0.41	-	97,97,97,97	0
56	OHX	DC	109	7/7	0.14	-	88,92,104,159	3
55	MG	AA	3087	1/1	0.54	-	83,83,83,83	0
56	OHX	AA	3531	7/7	0.12	-	119,124,135,185	1
55	MG	CA	3152	1/1	0.37	-	54,54,54,54	0
55	MG	AA	3126	1/1	0.35	-	85,85,85,85	0
56	OHX	DA	1793	7/7	0.09	-	146,150,161,207	1
56	OHX	AA	3441	7/7	0.17	-	84,93,115,140	0
55	MG	BA	1629	1/1	0.28	-	112,112,112,112	0
55	MG	AA	3375	1/1	0.38	-	31,31,31,31	0
55	MG	AA	3201	1/1	0.33	-	45,45,45,45	0
56	OHX	BA	1802	7/7	0.14	-	107,121,133,185	1
55	MG	AA	3177	1/1	0.43	-	37,37,37,37	0
55	MG	BA	1616	1/1	0.28	-	61,61,61,61	0
55	MG	CA	3021	1/1	0.18	-	60,60,60,60	0
55	MG	BA	1754	1/1	0.40	-	61,61,61,61	0
55	MG	DA	1647	1/1	0.44	-	90,90,90,90	0
55	MG	BA	1745	1/1	0.55	-	83,83,83,83	0
55	MG	CA	3211	1/1	0.17	-	116,116,116,116	0
55	MG	DA	1614	1/1	0.22	-	91,91,91,91	0
56	OHX	DA	1723	7/7	0.15	-	107,111,116,151	0
56	OHX	AA	3313	7/7	0.16	-	96,112,122,174	0
55	MG	CA	3032	1/1	0.30	-	70,70,70,70	0
55	MG	AA	3258	1/1	0.46	-	65,65,65,65	0
55	MG	CA	3002	1/1	0.33	-	50,50,50,50	0
55	MG	AA	3412	1/1	0.42	-	39,39,39,39	0
55	MG	BA	1700	1/1	0.41	-	61,61,61,61	0
55	MG	CA	3012	1/1	0.26	-	53,53,53,53	0
55	MG	BA	1633	1/1	0.15	-	59,59,59,59	0
55	MG	AA	3035	1/1	0.57	-	64,64,64,64	0
56	OHX	BA	1682	7/7	0.11	-	119,124,130,186	1
56	OHX	AA	3453	7/7	0.12	-	95,106,114,148	0
56	OHX	AA	3326	7/7	0.15	-	83,94,100,118	1
56	OHX	CB	213	7/7	0.11	-	131,144,166,188	1
55	MG	AA	3283	1/1	0.33	-	55,55,55,55	0
56	OHX	CA	3435	7/7	0.17	-	105,108,131,192	1
55	MG	DA	1612	1/1	0.43	-	86,86,86,86	0
55	MG	DA	1627	1/1	0.53	-	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
55	MG	AA	3054	1/1	0.34	-	49,49,49,49	0
55	MG	BA	1711	1/1	0.51	-	94,94,94,94	0
55	MG	AA	3121	1/1	0.46	-	53,53,53,53	0
55	MG	DA	1691	1/1	0.39	-	54,54,54,54	0
56	OHX	CA	3280	7/7	0.18	-	82,87,100,129	0
55	MG	AA	3018	1/1	0.40	-	43,43,43,43	0
56	OHX	BA	1772	7/7	0.14	-	106,118,144,175	0
56	OHX	BA	1664	7/7	0.14	-	108,126,142,197	1
55	MG	AA	3061	1/1	0.41	-	49,49,49,49	0
56	OHX	BA	1813	7/7	0.13	-	128,130,137,174	1
56	OHX	CA	3377	7/7	0.14	-	90,95,111,135	2
55	MG	AA	3095	1/1	0.43	-	89,89,89,89	0
56	OHX	CA	3416	7/7	0.17	-	114,117,128,182	1
55	MG	CA	3131	1/1	0.33	-	65,65,65,65	0
56	OHX	AA	3492	7/7	0.17	-	79,89,95,107	3
55	MG	BA	1647	1/1	0.21	-	112,112,112,112	0
56	OHX	CA	3354	7/7	0.13	-	78,88,98,105	1
55	MG	AA	3053	1/1	0.51	-	60,60,60,60	0
55	MG	BA	1703	1/1	0.51	-	108,108,108,108	0
55	MG	AA	3231	1/1	0.50	-	66,66,66,66	0
55	MG	AA	3216	1/1	0.44	-	71,71,71,71	0
56	OHX	AF	303	7/7	0.20	-	45,52,58,77	0
56	OHX	CA	3241	7/7	0.13	-	90,96,101,122	1
55	MG	AA	3151	1/1	0.36	-	62,62,62,62	0
55	MG	AA	3256	1/1	0.55	-	53,53,53,53	0
55	MG	CA	3066	1/1	0.38	-	56,56,56,56	0
56	OHX	AA	3546	7/7	0.17	-	98,103,119,179	1
55	MG	DA	1609	1/1	0.38	-	91,91,91,91	0
55	MG	AA	3239	1/1	0.27	-	44,44,44,44	0
56	OHX	CA	3425	7/7	0.12	-	101,110,125,187	1
55	MG	DA	1602	1/1	0.41	-	68,68,68,68	0
56	OHX	CA	3415	7/7	0.13	-	134,135,143,187	1
56	OHX	AA	3359	7/7	0.17	-	61,75,93,113	0
56	OHX	CA	3370	7/7	0.13	-	116,120,142,180	1
55	MG	DC	101	1/1	0.27	-	85,85,85,85	0
55	MG	AA	3060	1/1	0.27	-	70,70,70,70	0
56	OHX	BB	107	7/7	0.23	-	71,92,103,147	3
56	OHX	DA	1759	7/7	0.11	-	120,137,147,190	0
56	OHX	BA	1687	7/7	0.16	-	94,99,108,140	1
55	MG	AA	3029	1/1	0.28	-	38,38,38,38	0
56	OHX	DA	1797	7/7	0.06	-	149,152,159,218	1
56	OHX	BA	1770	7/7	0.15	-	102,113,126,149	1

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
55	MG	AA	3243	1/1	0.40	-	51,51,51,51	0
56	OHX	AA	3459	7/7	0.14	-	71,92,105,129	1
56	OHX	CA	3468	7/7	0.11	-	115,126,133,180	1
55	MG	AA	3217	1/1	0.44	-	60,60,60,60	0
55	MG	CA	3137	1/1	0.47	-	74,74,74,74	0
56	OHX	CA	3353	7/7	0.15	-	81,96,110,140	1
55	MG	AA	3042	1/1	0.28	-	43,43,43,43	0
55	MG	BA	1623	1/1	0.31	-	67,67,67,67	0
57	ZN	BQ	102	1/1	0.10	-	130,130,130,130	0
55	MG	AA	3389	1/1	0.39	-	44,44,44,44	0
56	OHX	CA	3287	7/7	0.17	-	69,74,104,109	3
56	OHX	BA	1812	7/7	0.13	-	151,164,170,231	1
56	OHX	AA	3438	7/7	0.17	-	51,64,72,96	2
56	OHX	AA	3484	7/7	0.19	-	76,100,111,147	2
55	MG	DA	1660	1/1	0.51	-	88,88,88,88	0
56	OHX	DA	1719	7/7	0.15	-	79,99,112,124	0
56	OHX	CA	3467	7/7	0.12	-	131,146,152,199	1
56	OHX	CA	3357	7/7	0.15	-	86,98,106,151	1
56	OHX	CA	3297	7/7	0.13	-	84,94,129,142	1
56	OHX	DA	1731	7/7	0.10	-	129,139,145,172	1
55	MG	CA	3103	1/1	0.27	-	70,70,70,70	0
55	MG	DA	1674	1/1	0.32	-	99,99,99,99	0
55	MG	DA	1712	1/1	0.32	-	98,98,98,98	0
56	OHX	BA	1797	7/7	0.21	-	71,104,132,136	3
55	MG	CA	3176	1/1	0.33	-	67,67,67,67	0
55	MG	AA	3246	1/1	0.39	-	36,36,36,36	0
55	MG	AA	3236	1/1	0.41	-	40,40,40,40	0
55	MG	CA	3231	1/1	0.34	-	89,89,89,89	0
56	OHX	CA	3272	7/7	0.18	-	54,70,84,85	1
56	OHX	AA	3303	7/7	0.12	-	93,102,117,145	1
55	MG	DA	1603	1/1	0.42	-	71,71,71,71	0
56	OHX	BA	1691	7/7	0.10	-	148,150,156,215	1
55	MG	DA	1641	1/1	0.45	-	130,130,130,130	0
55	MG	BA	1722	1/1	0.52	-	91,91,91,91	0
55	MG	AA	3163	1/1	0.39	-	61,61,61,61	0
56	OHX	BA	1674	7/7	0.17	-	117,122,137,199	1
56	OHX	BA	1807	7/7	0.09	-	135,141,150,224	0
55	MG	CA	3204	1/1	0.41	-	73,73,73,73	0
56	OHX	AA	3364	7/7	0.15	-	92,103,108,119	1
56	OHX	AA	3406	7/7	0.23	-	84,92,109,162	1
55	MG	AF	302	1/1	0.37	-	81,81,81,81	0
55	MG	CA	3130	1/1	0.44	-	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	OHX	BA	1787	7/7	0.14	-	107,117,138,149	2
56	OHX	AA	3337	7/7	0.14	-	97,106,127,177	1
56	OHX	C3	101	7/7	0.16	-	119,129,151,179	2
55	MG	CA	3261	1/1	0.40	-	48,48,48,48	0
55	MG	DA	1682	1/1	0.58	-	87,87,87,87	0
56	OHX	BA	1689	7/7	0.13	-	113,130,139,190	1
56	OHX	BA	1692	7/7	0.13	-	126,131,140,209	1
56	OHX	CA	3295	7/7	0.14	-	102,105,117,137	1
56	OHX	AA	3500	7/7	0.14	-	94,114,122,159	1
56	OHX	CA	3275	7/7	0.14	-	56,80,112,114	1
55	MG	BA	1639	1/1	0.14	-	102,102,102,102	0
55	MG	AA	3176	1/1	0.22	-	60,60,60,60	0
55	MG	AA	3062	1/1	0.39	-	73,73,73,73	0
55	MG	AA	3127	1/1	0.40	-	57,57,57,57	0
55	MG	BA	1631	1/1	0.33	-	78,78,78,78	0
56	OHX	CA	3387	7/7	0.16	-	111,127,150,170	2
56	OHX	CO	201	7/7	0.13	-	104,109,121,141	1
55	MG	AA	3188	1/1	0.29	-	40,40,40,40	0
55	MG	AB	203	1/1	0.48	-	71,71,71,71	0
56	OHX	AA	3310	7/7	0.12	-	94,104,125,156	0
55	MG	AA	3078	1/1	0.33	-	59,59,59,59	0
55	MG	CA	3160	1/1	0.42	-	49,49,49,49	0
55	MG	DA	1679	1/1	0.30	-	69,69,69,69	0
55	MG	BA	1650	1/1	0.56	-	72,72,72,72	0
55	MG	CA	3079	1/1	0.28	-	73,73,73,73	0
56	OHX	CA	3239	7/7	0.15	-	66,92,107,113	1
55	MG	DA	1606	1/1	0.20	-	84,84,84,84	0
56	OHX	CA	3325	7/7	0.14	-	108,122,148,156	1
55	MG	AA	3194	1/1	0.11	-	26,26,26,26	0
56	OHX	AA	3566	7/7	0.18	-	92,97,126,175	2
55	MG	DA	1635	1/1	0.43	-	96,96,96,96	0
56	OHX	AA	3447	7/7	0.15	-	91,102,120,163	1
55	MG	AA	3073	1/1	0.36	-	69,69,69,69	0
56	OHX	AA	3317	7/7	0.17	-	79,88,118,156	1
55	MG	AA	3182	1/1	0.56	-	45,45,45,45	0
56	OHX	BA	1805	7/7	0.17	-	90,105,122,143	3
56	OHX	AA	3371	7/7	0.15	-	93,107,117,177	1
55	MG	CA	3218	1/1	0.29	-	83,83,83,83	0
56	OHX	DA	1798	7/7	0.09	-	128,133,140,212	1
56	OHX	AA	3511	7/7	0.12	-	133,145,154,207	0
55	MG	AA	3030	1/1	0.34	-	44,44,44,44	0
55	MG	DA	1694	1/1	0.40	-	104,104,104,104	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
55	MG	DA	1669	1/1	0.38	-	64,64,64,64	0
56	OHX	CA	3238	7/7	0.15	-	80,102,103,125	1
55	MG	AA	3009	1/1	0.46	-	89,89,89,89	0
56	OHX	DA	1729	7/7	0.14	-	104,108,118,152	1
55	MG	AA	3086	1/1	0.41	-	95,95,95,95	0
55	MG	AA	3278	1/1	0.43	-	35,35,35,35	0
56	OHX	BA	1771	7/7	0.19	-	77,100,122,150	1
55	MG	DA	1670	1/1	0.43	-	64,64,64,64	0
55	MG	CE	301	1/1	0.36	-	56,56,56,56	0
55	MG	DA	1685	1/1	0.18	-	59,59,59,59	0
56	OHX	BA	1814	7/7	0.10	-	101,109,125,174	1
56	OHX	CA	3406	7/7	0.08	-	151,161,169,211	1
55	MG	CA	3003	1/1	0.36	-	51,51,51,51	0
56	OHX	DA	1721	7/7	0.14	-	94,108,116,135	0
55	MG	AA	3264	1/1	0.42	-	76,76,76,76	0
55	MG	CA	3474	1/1	0.14	-	70,70,70,70	0
55	MG	CA	3063	1/1	0.26	-	70,70,70,70	0
55	MG	CA	3458	1/1	0.24	-	82,82,82,82	0
55	MG	CA	3154	1/1	0.32	-	46,46,46,46	0
56	OHX	CA	3245	7/7	0.12	-	99,120,129,189	1
56	OHX	DA	1741	7/7	0.14	-	97,116,128,170	1
56	OHX	BA	1808	7/7	0.16	-	84,90,96,110	2
56	OHX	AA	3418	7/7	0.20	-	39,61,82,95	0
56	OHX	AA	3545	7/7	0.21	-	90,96,105,167	2
55	MG	CA	3056	1/1	0.49	-	79,79,79,79	0
55	MG	AA	3167	1/1	0.54	-	53,53,53,53	0
55	MG	AA	3092	1/1	0.15	-	73,73,73,73	0
56	OHX	BA	1666	7/7	0.17	-	117,122,134,158	2
55	MG	AA	3117	1/1	0.34	-	48,48,48,48	0
55	MG	CA	3070	1/1	0.24	-	44,44,44,44	0
55	MG	BB	103	1/1	0.36	-	91,91,91,91	0
55	MG	CA	3453	1/1	0.30	-	58,58,58,58	0
55	MG	AA	3386	1/1	0.25	-	42,42,42,42	0
56	OHX	BA	1776	7/7	0.12	-	102,114,119,153	1
55	MG	AA	3192	1/1	0.38	-	48,48,48,48	0
55	MG	AA	3144	1/1	0.54	-	71,71,71,71	0
55	MG	AA	3128	1/1	0.40	-	54,54,54,54	0
55	MG	AA	3254	1/1	0.35	-	42,42,42,42	0
55	MG	AA	3136	1/1	0.28	-	57,57,57,57	0
56	OHX	AA	3373	7/7	0.16	-	75,103,110,155	1
56	OHX	AA	3324	7/7	0.15	-	92,110,118,165	1
55	MG	AA	3357	1/1	0.39	-	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
55	MG	CA	3145	1/1	0.44	-	74,74,74,74	0
55	MG	AA	3048	1/1	0.61	-	94,94,94,94	0
56	OHX	AA	3535	7/7	0.14	-	104,112,123,191	1
55	MG	AA	3281	1/1	0.54	-	70,70,70,70	0
55	MG	AA	3024	1/1	0.39	-	63,63,63,63	0
56	OHX	DA	1738	7/7	0.09	-	115,122,137,171	1
56	OHX	CA	3462	7/7	0.16	-	71,82,94,110	1
55	MG	DC	103	1/1	0.31	-	96,96,96,96	0
55	MG	CA	3097	1/1	0.37	-	67,67,67,67	0
55	MG	DA	1618	1/1	0.28	-	105,105,105,105	0
56	OHX	AA	3401	7/7	0.12	-	93,112,116,173	1
56	OHX	AA	3318	7/7	0.15	-	92,102,113,133	1
55	MG	CA	3122	1/1	0.32	-	40,40,40,40	0
56	OHX	DA	1792	7/7	0.10	-	110,118,129,172	1
55	MG	AA	3039	1/1	0.34	-	40,40,40,40	0
56	OHX	AA	3138	7/7	0.14	-	88,92,127,173	1
55	MG	AA	3191	1/1	0.31	-	45,45,45,45	0
55	MG	BA	1607	1/1	0.38	-	93,93,93,93	0
55	MG	CA	3199	1/1	0.37	-	62,62,62,62	0
55	MG	B1	101	1/1	0.49	-	26,26,26,26	0
55	MG	CA	3157	1/1	0.30	-	76,76,76,76	0
55	MG	AA	3377	1/1	0.32	-	51,51,51,51	0
55	MG	AA	3069	1/1	0.44	-	62,62,62,62	0
55	MG	BA	1702	1/1	0.30	-	62,62,62,62	0
56	OHX	CB	217	7/7	0.22	-	128,135,146,182	1
55	MG	CA	3219	1/1	0.53	-	79,79,79,79	0
57	ZN	DQ	101	1/1	0.14	-	123,123,123,123	0
56	OHX	BA	1793	7/7	0.09	-	95,105,117,163	1
55	MG	AA	3242	1/1	0.38	-	37,37,37,37	0
56	OHX	CA	3298	7/7	0.14	-	90,98,134,148	0
55	MG	AA	3345	1/1	0.42	-	47,47,47,47	0
56	OHX	DA	1808	7/7	0.14	-	119,124,131,178	1
56	OHX	CA	3347	7/7	0.13	-	86,102,110,148	1
56	OHX	AA	3440	7/7	0.17	-	59,88,102,124	0
56	OHX	AA	3297	7/7	0.15	-	87,98,102,106	1
55	MG	AA	3397	1/1	0.21	-	80,80,80,80	0
55	MG	CA	3018	1/1	0.33	-	55,55,55,55	0
56	OHX	BA	1806	7/7	0.19	-	97,127,142,180	2
56	OHX	AA	3420	7/7	0.21	-	63,69,102,115	0
55	MG	AA	3253	1/1	0.40	-	53,53,53,53	0
55	MG	CA	3112	1/1	0.37	-	41,41,41,41	0
55	MG	AA	3248	1/1	0.39	-	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
55	MG	AA	3181	1/1	0.46	-	61,61,61,61	0
55	MG	AA	3131	1/1	0.34	-	94,94,94,94	0
56	OHX	AA	3428	7/7	0.19	-	67,79,86,113	0
56	OHX	DD	101	7/7	0.14	-	155,165,187,227	0
55	MG	CA	3104	1/1	0.42	-	41,41,41,41	0
56	OHX	CA	3428	7/7	0.13	-	123,134,138,182	1
56	OHX	AA	3154	7/7	0.17	-	76,89,110,133	1
56	OHX	BA	1782	7/7	0.14	-	133,144,159,198	0
56	OHX	CA	3408	7/7	0.09	-	136,139,143,209	1
55	MG	CA	3189	1/1	0.42	-	67,67,67,67	0
56	OHX	CA	3320	7/7	0.13	-	140,142,153,174	0
56	OHX	AB	213	7/7	0.18	-	85,93,130,132	3
55	MG	BA	1612	1/1	0.42	-	81,81,81,81	0
56	OHX	CA	3237	7/7	0.15	-	109,109,122,166	0
55	MG	CA	3187	1/1	0.42	-	86,86,86,86	0
56	OHX	BD	103	7/7	0.13	-	86,95,103,174	1
56	OHX	CA	3284	7/7	0.13	-	136,147,155,216	1
55	MG	CA	3180	1/1	0.34	-	75,75,75,75	0
56	OHX	AA	3536	7/7	0.24	-	116,124,157,192	1
56	OHX	CA	3269	7/7	0.17	-	98,100,123,153	2
55	MG	DC	102	1/1	0.38	-	69,69,69,69	0
55	MG	AA	3408	1/1	0.45	-	47,47,47,47	0
55	MG	CA	3460	1/1	0.26	-	72,72,72,72	0
55	MG	AA	3391	1/1	0.30	-	59,59,59,59	0
56	OHX	BA	1693	7/7	0.14	-	112,112,134,152	1
56	OHX	BA	1804	7/7	0.17	-	134,142,150,227	1
55	MG	BN	201	1/1	0.13	-	80,80,80,80	0
56	OHX	BA	1663	7/7	0.09	-	132,137,143,190	1
56	OHX	BA	1672	7/7	0.11	-	156,159,170,224	1
55	MG	CA	3226	1/1	0.45	-	65,65,65,65	0
55	MG	BC	105	1/1	0.48	-	87,87,87,87	0
56	OHX	BA	1668	7/7	0.10	-	116,121,137,182	1
55	MG	CA	3216	1/1	0.44	-	91,91,91,91	0
55	MG	CA	3036	1/1	0.26	-	87,87,87,87	0
56	OHX	DA	1757	7/7	0.12	-	123,127,134,157	1
56	OHX	CA	3256	7/7	0.15	-	88,101,112,126	1
55	MG	CA	3127	1/1	0.29	-	53,53,53,53	0
55	MG	CA	3043	1/1	0.13	-	82,82,82,82	0
56	OHX	AA	3462	7/7	0.14	-	75,85,103,106	1
55	MG	CA	3129	1/1	0.60	-	81,81,81,81	0
56	OHX	CA	3412	7/7	0.14	-	99,116,129,164	2
55	MG	AA	3383	1/1	0.32	-	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	OHX	AA	3504	7/7	0.12	-	112,118,129,179	1
55	MG	BA	1734	1/1	0.42	-	70,70,70,70	0
55	MG	AA	3139	1/1	0.40	-	48,48,48,48	0
56	OHX	BA	1791	7/7	0.15	-	82,106,122,150	2
55	MG	DA	1633	1/1	0.53	-	74,74,74,74	0
56	OHX	CA	3247	7/7	0.17	-	95,104,117,152	1
56	OHX	DA	1805	7/7	0.09	-	155,158,165,245	1
56	OHX	CA	3391	7/7	0.10	-	140,144,157,182	1
56	OHX	CB	215	7/7	0.13	-	108,133,144,220	1
55	MG	AA	3411	1/1	0.33	-	63,63,63,63	0
56	OHX	AE	304	7/7	0.15	-	74,87,107,110	1
56	OHX	DA	1742	7/7	0.10	-	117,127,141,176	1
56	OHX	CA	3461	7/7	0.19	-	38,55,94,109	0
56	OHX	DA	1777	7/7	0.09	-	150,152,155,232	1
55	MG	AA	3156	1/1	0.47	-	45,45,45,45	0
55	MG	CA	3156	1/1	0.36	-	84,84,84,84	0
56	OHX	BA	1768	7/7	0.12	-	128,139,147,175	0
56	OHX	AA	3488	7/7	0.18	-	86,101,105,150	1
55	MG	DA	1668	1/1	0.25	-	86,86,86,86	0
55	MG	CA	3088	1/1	0.40	-	86,86,86,86	0
55	MG	CB	206	1/1	0.34	-	83,83,83,83	0
55	MG	BA	1741	1/1	0.50	-	73,73,73,73	0
56	OHX	CA	3307	7/7	0.12	-	92,104,131,164	0
55	MG	CA	3184	1/1	0.41	-	60,60,60,60	0
55	MG	CA	3448	1/1	0.15	-	63,63,63,63	0
55	MG	DN	201	1/1	0.13	-	80,80,80,80	0
55	MG	CA	3038	1/1	0.19	-	74,74,74,74	0
56	OHX	BA	1783	7/7	0.19	-	77,87,125,141	2
55	MG	DA	1665	1/1	0.49	-	70,70,70,70	0
55	MG	AA	3122	1/1	0.46	-	62,62,62,62	0
56	OHX	DA	1770	7/7	0.11	-	136,142,156,217	1
55	MG	DA	1663	1/1	0.28	-	66,66,66,66	0
55	MG	DB	101	1/1	0.43	-	78,78,78,78	0
55	MG	BA	1710	1/1	0.55	-	97,97,97,97	0
55	MG	AA	3019	1/1	0.50	-	72,72,72,72	0
55	MG	BA	1624	1/1	0.27	-	70,70,70,70	0
55	MG	BA	1752	1/1	0.47	-	53,53,53,53	0
55	MG	AA	3123	1/1	0.26	-	72,72,72,72	0
56	OHX	DA	1765	7/7	0.21	-	117,133,141,227	1
55	MG	DA	1648	1/1	0.11	-	91,91,91,91	0
56	OHX	BA	1796	7/7	0.12	-	143,156,164,225	0
55	MG	BA	1750	1/1	0.43	-	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
55	MG	CA	3076	1/1	0.40	-	64,64,64,64	0
55	MG	DC	104	1/1	0.41	-	77,77,77,77	0
56	OHX	BA	1763	7/7	0.15	-	94,115,123,136	0
56	OHX	AA	3445	7/7	0.14	-	75,87,109,120	1
55	MG	DA	1610	1/1	0.25	-	96,96,96,96	0
56	OHX	CA	3314	7/7	0.14	-	84,93,97,114	1
56	OHX	CA	3484	7/7	0.12	-	104,113,129,146	1
56	OHX	CA	3292	7/7	0.19	-	69,105,113,146	0
55	MG	AA	3390	1/1	0.23	-	46,46,46,46	0
56	OHX	AA	3483	7/7	0.14	-	124,141,146,196	1
55	MG	AA	3021	1/1	0.52	-	80,80,80,80	0
55	MG	AA	3280	1/1	0.40	-	77,77,77,77	0
56	OHX	AA	3301	7/7	0.14	-	88,89,93,110	1
56	OHX	BC	106	7/7	0.14	-	110,133,144,147	1
55	MG	CA	3006	1/1	0.19	-	47,47,47,47	0
55	MG	CA	3159	1/1	0.38	-	75,75,75,75	0
56	OHX	DA	1743	7/7	0.14	-	109,113,118,148	1
55	MG	BA	1716	1/1	0.35	-	55,55,55,55	0
56	OHX	AA	3562	7/7	0.16	-	98,105,127,189	1
56	OHX	AA	3466	7/7	0.15	-	89,94,108,128	1
55	MG	AA	3120	1/1	0.28	-	71,71,71,71	0
55	MG	AA	3012	1/1	0.33	-	46,46,46,46	0
56	OHX	CA	3362	7/7	0.08	-	129,136,141,186	1
55	MG	AA	3155	1/1	0.14	-	85,85,85,85	0
56	OHX	CA	3344	7/7	0.16	-	96,110,117,162	1
55	MG	AA	3097	1/1	0.23	-	59,59,59,59	0
55	MG	CA	3008	1/1	0.21	-	52,52,52,52	0
55	MG	CA	3477	1/1	0.44	-	60,60,60,60	0
56	OHX	AA	3533	7/7	0.15	-	98,103,114,150	2
55	MG	BA	1743	1/1	0.40	-	69,69,69,69	0
56	OHX	AA	3464	7/7	0.14	-	117,125,139,188	0
56	OHX	DA	1756	7/7	0.11	-	145,145,160,212	1
56	OHX	AA	3429	7/7	0.14	-	69,73,84,102	1
56	OHX	AA	3472	7/7	0.12	-	120,126,137,153	1
55	MG	AA	3285	1/1	0.50	-	80,80,80,80	0
55	MG	BA	1632	1/1	0.31	-	108,108,108,108	0
56	OHX	CB	219	7/7	0.10	-	145,151,161,232	1
55	MG	AA	3005	1/1	0.41	-	43,43,43,43	0
55	MG	AA	3247	1/1	0.34	-	81,81,81,81	0
56	OHX	AA	3288	7/7	0.18	-	76,85,101,127	1
56	OHX	AA	3482	7/7	0.12	-	105,118,127,177	1
56	OHX	AA	3467	7/7	0.13	-	100,105,117,133	1

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	OHX	AA	3335	7/7	0.12	-	94,101,113,136	1
55	MG	AA	3007	1/1	0.26	-	31,31,31,31	0
55	MG	BA	1720	1/1	0.52	-	58,58,58,58	0
56	OHX	AA	3515	7/7	0.13	-	100,121,139,211	1
56	OHX	AA	3479	7/7	0.16	-	106,122,142,174	1
56	OHX	AA	3330	7/7	0.13	-	102,112,122,166	1
55	MG	DA	1619	1/1	0.40	-	98,98,98,98	0
55	MG	CB	201	1/1	0.24	-	77,77,77,77	0
56	OHX	AO	205	7/7	0.18	-	83,89,107,180	1
56	OHX	CA	3339	7/7	0.12	-	100,105,127,171	1
56	OHX	CA	3437	7/7	0.13	-	98,105,117,166	2
55	MG	DA	1650	1/1	0.23	-	67,67,67,67	0
55	MG	CA	3061	1/1	0.26	-	64,64,64,64	0
55	MG	AA	3115	1/1	0.38	-	51,51,51,51	0
55	MG	AA	3141	1/1	0.55	-	44,44,44,44	0
56	OHX	AA	3454	7/7	0.17	-	68,93,112,112	1
56	OHX	A3	102	7/7	0.13	-	90,98,113,134	2
55	MG	BA	1638	1/1	0.33	-	57,57,57,57	0
55	MG	CA	3266	1/1	0.33	-	64,64,64,64	0
56	OHX	AA	3340	7/7	0.10	-	159,167,171,209	0
55	MG	CA	3198	1/1	0.32	-	118,118,118,118	0
56	OHX	BA	1662	7/7	0.12	-	105,117,141,193	1
55	MG	BA	1713	1/1	0.29	-	59,59,59,59	0
55	MG	BA	1618	1/1	0.40	-	63,63,63,63	0
56	OHX	DA	1789	7/7	0.06	-	176,179,184,242	1
55	MG	DA	1651	1/1	0.45	-	62,62,62,62	0
56	OHX	CA	3434	7/7	0.13	-	96,110,126,177	1
56	OHX	BA	1686	7/7	0.17	-	141,143,153,230	1
55	MG	AA	3225	1/1	0.29	-	63,63,63,63	0
56	OHX	BA	1684	7/7	0.11	-	109,118,126,149	1
55	MG	CA	3116	1/1	0.39	-	69,69,69,69	0
56	OHX	CA	3450	7/7	0.12	-	112,125,137,206	0
56	OHX	DA	1754	7/7	0.12	-	98,102,118,156	1
55	MG	AA	3125	1/1	0.39	-	92,92,92,92	0
56	OHX	DK	201	7/7	0.09	-	137,138,149,200	1
56	OHX	AA	3465	7/7	0.13	-	85,99,124,159	1
56	OHX	CA	3394	7/7	0.12	-	97,100,116,155	1
56	OHX	AA	3315	7/7	0.12	-	89,99,111,137	1
56	OHX	DA	1776	7/7	0.10	-	114,116,125,160	1
56	OHX	CA	3244	7/7	0.16	-	94,113,121,172	1
55	MG	CA	3057	1/1	0.39	-	95,95,95,95	0
56	OHX	CA	3379	7/7	0.12	-	134,137,155,207	1

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
55	MG	AA	3033	1/1	0.37	-	48,48,48,48	0
56	OHX	AA	3544	7/7	0.17	-	103,105,124,176	1
56	OHX	AA	3289	7/7	0.18	-	53,58,81,93	0
56	OHX	AB	215	7/7	0.18	-	105,114,120,153	1
55	MG	C0	201	1/1	0.18	-	61,61,61,61	0
55	MG	CA	3090	1/1	0.33	-	55,55,55,55	0
56	OHX	AA	3455	7/7	0.16	-	56,75,100,119	2
55	MG	BA	1658	1/1	0.44	-	71,71,71,71	0
55	MG	DA	1703	1/1	0.48	-	73,73,73,73	0
55	MG	AA	3071	1/1	0.61	-	68,68,68,68	0
55	MG	DA	1649	1/1	0.29	-	87,87,87,87	0
56	OHX	AA	3316	7/7	0.14	-	80,95,97,136	0
55	MG	BA	1721	1/1	0.39	-	70,70,70,70	0
55	MG	DA	1717	1/1	0.26	-	100,100,100,100	0
55	MG	DB	102	1/1	0.24	-	102,102,102,102	0
56	OHX	CA	3369	7/7	0.13	-	97,113,121,158	1
55	MG	AA	3129	1/1	0.34	-	83,83,83,83	0
55	MG	BA	1619	1/1	0.27	-	50,50,50,50	0
56	OHX	CA	3312	7/7	0.14	-	85,101,114,134	1
55	MG	DA	1644	1/1	0.18	-	149,149,149,149	0
56	OHX	BB	106	7/7	0.12	-	164,167,173,198	1
55	MG	DA	1666	1/1	0.44	-	62,62,62,62	0
56	OHX	CA	3400	7/7	0.12	-	116,133,145,220	1
55	MG	CB	202	1/1	0.18	-	99,99,99,99	0
56	OHX	BA	1803	7/7	0.15	-	101,126,136,190	1
55	MG	AA	3203	1/1	0.33	-	50,50,50,50	0
56	OHX	CA	3371	7/7	0.15	-	67,90,123,162	1
56	OHX	AB	216	7/7	0.19	-	88,124,141,184	1
56	OHX	BA	1659	7/7	0.15	-	114,130,135,179	1
55	MG	CA	3471	1/1	0.34	-	57,57,57,57	0
55	MG	AA	3215	1/1	0.53	-	50,50,50,50	0
56	OHX	BA	1777	7/7	0.13	-	114,118,140,171	1
55	MG	AA	3130	1/1	0.33	-	75,75,75,75	0
55	MG	DA	1634	1/1	0.15	-	118,118,118,118	0
56	OHX	DA	1807	7/7	0.09	-	117,126,135,195	1
55	MG	CA	3111	1/1	0.41	-	30,30,30,30	0
55	MG	AA	3374	1/1	0.34	-	29,29,29,29	0
56	OHX	AA	3507	7/7	0.12	-	101,111,128,158	1
55	MG	CA	3479	1/1	0.48	-	64,64,64,64	0
55	MG	CA	3013	1/1	0.20	-	47,47,47,47	0
55	MG	CA	3034	1/1	0.40	-	91,91,91,91	0
55	MG	BA	1617	1/1	0.51	-	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
55	MG	CA	3214	1/1	0.26	-	65,65,65,65	0
55	MG	CA	3083	1/1	0.35	-	44,44,44,44	0
55	MG	AA	3099	1/1	0.34	-	65,65,65,65	0
56	OHX	AA	3293	7/7	0.15	-	54,82,88,102	2
57	ZN	DG	301	1/1	0.27	-	122,122,122,122	0
55	MG	CA	3106	1/1	0.26	-	61,61,61,61	0
55	MG	CA	3077	1/1	0.24	-	57,57,57,57	0
55	MG	BA	1707	1/1	0.31	-	70,70,70,70	0
55	MG	AB	205	1/1	0.33	-	50,50,50,50	0
56	OHX	CA	3305	7/7	0.15	-	70,83,99,129	1
56	OHX	CA	3310	7/7	0.14	-	74,88,107,129	1
56	OHX	AA	3512	7/7	0.18	-	99,114,126,166	2
55	MG	AA	3387	1/1	0.35	-	42,42,42,42	0
55	MG	BA	1614	1/1	0.36	-	73,73,73,73	0
55	MG	AB	202	1/1	0.23	-	72,72,72,72	0
55	MG	CA	3051	1/1	0.34	-	69,69,69,69	0
55	MG	AA	3238	1/1	0.53	-	50,50,50,50	0
56	OHX	CA	3423	7/7	0.08	-	123,126,136,189	1
55	MG	CA	3113	1/1	0.30	-	61,61,61,61	0
56	OHX	CB	209	7/7	0.16	-	117,133,147,190	1
56	OHX	DA	1766	7/7	0.10	-	118,124,133,175	1
56	OHX	AA	3327	7/7	0.13	-	107,115,135,188	1
55	MG	CA	3035	1/1	0.27	-	92,92,92,92	0
55	MG	DA	1711	1/1	0.27	-	107,107,107,107	0
55	MG	CA	3178	1/1	0.27	-	52,52,52,52	0
56	OHX	CA	3324	7/7	0.18	-	65,83,94,110	2
55	MG	CA	3166	1/1	0.54	-	58,58,58,58	0
55	MG	CA	3143	1/1	0.38	-	60,60,60,60	0
55	MG	CA	3055	1/1	0.29	-	66,66,66,66	0
55	MG	CA	3052	1/1	0.38	-	66,66,66,66	0
56	OHX	AA	3363	7/7	0.13	-	90,99,133,145	1
56	OHX	BD	102	7/7	0.10	-	153,174,197,228	0
55	MG	BA	1642	1/1	0.21	-	102,102,102,102	0
56	OHX	AA	3332	7/7	0.15	-	77,106,123,134	1
55	MG	AA	3140	1/1	0.24	-	41,41,41,41	0
55	MG	CA	3174	1/1	0.47	-	52,52,52,52	0
56	OHX	DC	107	7/7	0.12	-	131,132,141,177	1
56	OHX	CA	3242	7/7	0.12	-	95,107,117,129	1
56	OHX	CA	3299	7/7	0.14	-	99,105,124,141	1
55	MG	AA	3091	1/1	0.24	-	77,77,77,77	0
55	MG	CA	3014	1/1	0.31	-	76,76,76,76	0
55	MG	CA	3215	1/1	0.26	-	137,137,137,137	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	OHX	AA	3538	7/7	0.12	-	88,94,114,159	1
55	MG	AA	3013	1/1	0.44	-	41,41,41,41	0
56	OHX	CA	3352	7/7	0.08	-	133,145,147,191	1
56	OHX	CA	3420	7/7	0.13	-	131,141,152,216	1
56	OHX	BA	1677	7/7	0.13	-	141,145,154,220	1
55	MG	CA	3148	1/1	0.27	-	57,57,57,57	0
55	MG	AA	3079	1/1	0.42	-	88,88,88,88	0
55	MG	CA	3258	1/1	0.34	-	56,56,56,56	0
56	OHX	CA	3235	7/7	0.15	-	43,79,99,118	0
55	MG	DA	1697	1/1	0.46	-	72,72,72,72	0
56	OHX	DA	1727	7/7	0.16	-	114,126,131,160	0
55	MG	DA	1640	1/1	0.38	-	83,83,83,83	0
55	MG	CA	3105	1/1	0.48	-	68,68,68,68	0
55	MG	AA	3056	1/1	0.22	-	36,36,36,36	0
55	MG	AA	3416	1/1	0.38	-	74,74,74,74	0
55	MG	AA	3251	1/1	0.38	-	49,49,49,49	0
56	OHX	BA	1760	7/7	0.15	-	71,106,126,148	0
56	OHX	AA	3403	7/7	0.18	-	109,110,128,178	1
56	OHX	AA	3563	7/7	0.09	-	124,125,134,183	1
55	MG	AA	3414	1/1	0.32	-	57,57,57,57	0
56	OHX	AA	3435	7/7	0.18	-	61,70,93,100	3
55	MG	CA	3087	1/1	0.12	-	70,70,70,70	0
55	MG	CA	3128	1/1	0.16	-	72,72,72,72	0
56	OHX	AA	3299	7/7	0.17	-	54,81,94,118	1
56	OHX	AA	3404	7/7	0.21	-	74,98,116,164	1
56	OHX	CA	3389	7/7	0.11	-	101,110,123,155	1
55	MG	CA	3451	1/1	0.32	-	46,46,46,46	0
56	OHX	CA	3349	7/7	0.12	-	115,117,131,178	1
56	OHX	CA	3409	7/7	0.16	-	97,100,119,183	1
55	MG	CA	3107	1/1	0.25	-	82,82,82,82	0
55	MG	CA	3060	1/1	0.25	-	75,75,75,75	0
56	OHX	DA	1785	7/7	0.13	-	110,114,129,164	1
56	OHX	AB	211	7/7	0.14	-	74,85,113,121	0
55	MG	DA	1707	1/1	0.47	-	85,85,85,85	0
55	MG	AA	3183	1/1	0.45	-	88,88,88,88	0
56	OHX	CA	3355	7/7	0.11	-	108,110,119,149	1
55	MG	BA	1704	1/1	0.24	-	88,88,88,88	0
55	MG	DA	1695	1/1	0.53	-	76,76,76,76	0
55	MG	AF	301	1/1	0.32	-	83,83,83,83	0
56	OHX	AA	3539	7/7	0.13	-	116,125,136,193	1
55	MG	DA	1621	1/1	0.35	-	98,98,98,98	0
56	OHX	AA	3527	7/7	0.10	-	130,134,147,188	1

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	OHX	AB	217	7/7	0.16	-	85,105,116,146	1
55	MG	CA	3193	1/1	0.36	-	80,80,80,80	0
55	MG	BA	1698	1/1	0.48	-	62,62,62,62	0
55	MG	CA	3183	1/1	0.39	-	93,93,93,93	0
55	MG	CA	3029	1/1	0.28	-	76,76,76,76	0
55	MG	CA	3452	1/1	0.16	-	51,51,51,51	0
56	OHX	AA	3542	7/7	0.13	-	118,127,135,189	1
56	OHX	BA	1815	7/7	0.14	-	110,125,133,172	1
56	OHX	DA	1752	7/7	0.12	-	107,121,128,186	1
55	MG	CA	3151	1/1	0.36	-	76,76,76,76	0
55	MG	DA	1684	1/1	0.54	-	79,79,79,79	0
55	MG	CA	3040	1/1	0.44	-	70,70,70,70	0
56	OHX	BA	1673	7/7	0.12	-	117,123,127,191	1
56	OHX	BA	1784	7/7	0.13	-	122,129,148,203	0
55	MG	DA	1657	1/1	0.43	-	70,70,70,70	0
56	OHX	CA	3381	7/7	0.10	-	102,112,121,159	1
56	OHX	AA	3296	7/7	0.12	-	115,120,123,158	0
55	MG	CA	3049	1/1	0.34	-	62,62,62,62	0
55	MG	CA	3192	1/1	0.29	-	87,87,87,87	0
55	MG	CA	3062	1/1	0.17	-	78,78,78,78	0
56	OHX	CA	3327	7/7	0.14	-	76,83,103,129	1
56	OHX	CA	3328	7/7	0.15	-	50,117,131,206	0
55	MG	BA	1723	1/1	0.27	-	82,82,82,82	0
56	OHX	BA	1816	7/7	0.14	-	127,130,142,194	1
55	MG	AA	3245	1/1	0.27	-	68,68,68,68	0
56	OHX	AA	3362	7/7	0.20	-	40,81,119,136	1
56	OHX	CA	3361	7/7	0.10	-	113,119,132,166	1
55	MG	CA	3439	1/1	0.32	-	63,63,63,63	0
55	MG	CA	3082	1/1	0.42	-	62,62,62,62	0
56	OHX	CA	3345	7/7	0.13	-	91,108,114,146	1
55	MG	DA	1698	1/1	0.51	-	95,95,95,95	0
55	MG	CA	3213	1/1	0.26	-	121,121,121,121	0
55	MG	BA	1742	1/1	0.47	-	86,86,86,86	0
55	MG	DA	1667	1/1	0.45	-	68,68,68,68	0
55	MG	AA	3137	1/1	0.50	-	51,51,51,51	0
55	MG	CA	3186	1/1	0.22	-	75,75,75,75	0
56	OHX	BA	1759	7/7	0.19	-	78,93,120,156	0
55	MG	BA	1736	1/1	0.50	-	64,64,64,64	0
55	MG	BA	1627	1/1	0.41	-	80,80,80,80	0
55	MG	DA	1692	1/1	0.49	-	70,70,70,70	0
55	MG	DA	1702	1/1	0.24	-	122,122,122,122	0
55	MG	AA	3026	1/1	0.46	-	92,92,92,92	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
55	MG	AA	3006	1/1	0.47	-	45,45,45,45	0
56	OHX	BA	1665	7/7	0.14	-	82,92,111,128	1
56	OHX	CA	3309	7/7	0.17	-	92,108,125,150	1
56	OHX	CA	3252	7/7	0.17	-	108,118,136,203	1
56	OHX	AA	3451	7/7	0.18	-	75,85,92,125	1
56	OHX	CA	3463	7/7	0.14	-	107,129,139,156	1
55	MG	AA	3354	1/1	0.38	-	57,57,57,57	0
55	MG	AA	3043	1/1	0.41	-	46,46,46,46	0
56	OHX	AA	3433	7/7	0.17	-	63,65,104,122	1
55	MG	AA	3396	1/1	0.47	-	71,71,71,71	0
55	MG	CA	3224	1/1	0.28	-	77,77,77,77	0
56	OHX	CA	3481	7/7	0.14	-	35,87,114,138	2
56	OHX	CA	3492	7/7	0.14	-	97,102,115,126	1
55	MG	AA	3077	1/1	0.30	-	73,73,73,73	0
55	MG	BA	1640	1/1	0.36	-	73,73,73,73	0
56	OHX	AA	3309	7/7	0.16	-	64,84,90,112	1
56	OHX	A1	203	7/7	0.19	-	100,107,140,182	3
56	OHX	CA	3491	7/7	0.13	-	92,108,117,175	1
55	MG	CA	3172	1/1	0.31	-	86,86,86,86	0
56	OHX	BA	1761	7/7	0.15	-	102,104,115,161	0
55	MG	AA	3022	1/1	0.34	-	15,15,15,15	0
56	OHX	BA	1685	7/7	0.13	-	198,199,207,267	1
55	MG	BS	101	1/1	0.33	-	93,93,93,93	0
56	OHX	BA	1767	7/7	0.17	-	92,119,140,142	0
55	MG	BA	1739	1/1	0.44	-	70,70,70,70	0
56	OHX	AA	3300	7/7	0.14	-	67,91,120,167	1
55	MG	AA	3209	1/1	0.35	-	57,57,57,57	0
56	OHX	AA	3559	7/7	0.10	-	124,133,143,186	1
56	OHX	AA	3476	7/7	0.14	-	102,122,137,175	1
56	OHX	AA	3489	7/7	0.14	-	72,78,92,128	1
55	MG	AA	3185	1/1	0.46	-	36,36,36,36	0
55	MG	CA	3164	1/1	0.48	-	97,97,97,97	0
55	MG	AA	3356	1/1	0.57	-	58,58,58,58	0
56	OHX	CA	3488	7/7	0.07	-	113,123,127,179	1
56	OHX	CA	3421	7/7	0.14	-	113,126,135,198	1
55	MG	AA	3175	1/1	0.36	-	39,39,39,39	0
56	OHX	AA	3561	7/7	0.08	-	152,158,173,226	1
56	OHX	AA	3506	7/7	0.13	-	97,110,123,157	1
56	OHX	DA	1755	7/7	0.16	-	103,120,143,191	1
56	OHX	CA	3332	7/7	0.15	-	70,82,93,103	1
55	MG	CA	3124	1/1	0.31	-	44,44,44,44	0
55	MG	AA	3186	1/1	0.38	-	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
55	MG	AA	3381	1/1	0.31	-	59,59,59,59	0
55	MG	AA	3284	1/1	0.38	-	66,66,66,66	0
55	MG	AA	3063	1/1	0.32	-	76,76,76,76	0
55	MG	CA	3138	1/1	0.47	-	53,53,53,53	0
55	MG	AA	3110	1/1	0.51	-	48,48,48,48	0
56	OHX	CA	3366	7/7	0.10	-	140,148,168,207	0
56	OHX	CA	3341	7/7	0.13	-	74,100,107,145	2
55	MG	BA	1733	1/1	0.50	-	60,60,60,60	0
56	OHX	AA	3554	7/7	0.14	-	116,128,150,205	1
56	OHX	DA	1753	7/7	0.17	-	120,124,134,196	1
55	MG	CA	3093	1/1	0.36	-	81,81,81,81	0
55	MG	AA	3197	1/1	0.34	-	50,50,50,50	0
56	OHX	CA	3393	7/7	0.13	-	93,114,121,181	1
55	MG	AA	3164	1/1	0.29	-	70,70,70,70	0
55	MG	CA	3223	1/1	0.41	-	88,88,88,88	0
55	MG	AA	3232	1/1	0.45	-	75,75,75,75	0
56	OHX	CA	3414	7/7	0.10	-	155,156,163,215	1
56	OHX	DA	1795	7/7	0.11	-	112,118,132,167	1
55	MG	AA	3222	1/1	0.52	-	64,64,64,64	0
56	OHX	DA	1750	7/7	0.13	-	127,137,146,202	1
55	MG	BA	1728	1/1	0.47	-	90,90,90,90	0
55	MG	AA	3124	1/1	0.43	-	70,70,70,70	0
55	MG	AA	3168	1/1	0.34	-	89,89,89,89	0
56	OHX	DA	1799	7/7	0.15	-	122,127,139,209	1
55	MG	BA	1749	1/1	0.50	-	88,88,88,88	0
56	OHX	DA	1735	7/7	0.10	-	110,115,118,170	1
55	MG	AA	3271	1/1	0.16	-	39,39,39,39	0
56	OHX	AA	3365	7/7	0.22	-	90,106,114,161	2
55	MG	DA	1604	1/1	0.46	-	82,82,82,82	0
55	MG	AA	3208	1/1	0.38	-	65,65,65,65	0
56	OHX	BA	1801	7/7	0.09	-	118,138,142,207	1
55	MG	BA	1636	1/1	0.27	-	61,61,61,61	0
56	OHX	AA	3477	7/7	0.15	-	108,119,125,208	1
56	OHX	CA	3384	7/7	0.11	-	118,124,135,184	1
55	MG	AA	3034	1/1	0.46	-	56,56,56,56	0
56	OHX	AA	3422	7/7	0.17	-	74,81,107,116	0
55	MG	AA	3282	1/1	0.37	-	69,69,69,69	0
55	MG	AA	3213	1/1	0.21	-	49,49,49,49	0
56	OHX	AA	3499	7/7	0.13	-	101,113,131,183	1
55	MG	AA	3001	1/1	0.41	-	28,28,28,28	0
55	MG	AA	3179	1/1	0.52	-	60,60,60,60	0
56	OHX	BA	1696	7/7	0.15	-	47,75,99,113	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	OHX	CA	3331	7/7	0.14	-	101,112,120,147	1
56	OHX	AA	3423	7/7	0.21	-	44,66,84,86	1
55	MG	BA	1625	1/1	0.46	-	65,65,65,65	0
55	MG	AA	3189	1/1	0.39	-	42,42,42,42	0
55	MG	BA	1724	1/1	0.37	-	59,59,59,59	0
56	OHX	DA	1762	7/7	0.15	-	107,112,122,180	1
55	MG	AA	3235	1/1	0.34	-	50,50,50,50	0
55	MG	CA	3191	1/1	0.47	-	72,72,72,72	0
55	MG	CA	3091	1/1	0.46	-	74,74,74,74	0
55	MG	CA	3123	1/1	0.28	-	36,36,36,36	0
55	MG	CA	3007	1/1	0.25	-	45,45,45,45	0
55	MG	AA	3276	1/1	0.44	-	69,69,69,69	0
55	MG	AA	3394	1/1	0.47	-	43,43,43,43	0
55	MG	CA	3446	1/1	0.27	-	47,47,47,47	0
56	OHX	AA	3425	7/7	0.18	-	45,61,75,79	0
55	MG	AA	3274	1/1	0.58	-	89,89,89,89	0
55	MG	CB	207	1/1	0.47	-	76,76,76,76	0
55	MG	CA	3136	1/1	0.42	-	91,91,91,91	0
56	OHX	AA	3436	7/7	0.11	-	78,91,117,117	0
56	OHX	AA	3519	7/7	0.11	-	140,146,150,214	1
55	MG	AA	3031	1/1	0.23	-	35,35,35,35	0
55	MG	AA	3190	1/1	0.40	-	69,69,69,69	0
55	MG	AA	3108	1/1	0.36	-	82,82,82,82	0
56	OHX	BA	1690	7/7	0.13	-	118,127,134,188	1
56	OHX	AA	3540	7/7	0.13	-	109,134,164,188	2
56	OHX	CA	3279	7/7	0.13	-	80,89,109,118	0
55	MG	DA	1658	1/1	0.48	-	64,64,64,64	0
56	OHX	BA	1678	7/7	0.14	-	115,118,134,165	1
55	MG	CA	3050	1/1	0.28	-	65,65,65,65	0
56	OHX	BA	1656	7/7	0.10	-	160,162,176,267	0
55	MG	AA	3199	1/1	0.64	-	76,76,76,76	0
56	OHX	AA	3147	7/7	0.19	-	89,98,103,163	1
55	MG	DA	1701	1/1	0.43	-	90,90,90,90	0
56	OHX	CA	3315	7/7	0.15	-	90,101,110,160	1
55	MG	CA	3146	1/1	0.37	-	77,77,77,77	0
56	OHX	AA	3505	7/7	0.18	-	86,108,110,156	1
55	MG	AA	3379	1/1	0.45	-	55,55,55,55	0
55	MG	DA	1645	1/1	0.50	-	91,91,91,91	0
56	OHX	AA	3437	7/7	0.13	-	81,95,107,131	0
55	MG	AA	3265	1/1	0.29	-	85,85,85,85	0
56	OHX	DA	1779	7/7	0.09	-	144,146,155,215	1
55	MG	CA	3141	1/1	0.46	-	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	OHX	AA	3513	7/7	0.16	-	80,88,116,153	1
56	OHX	CA	3291	7/7	0.12	-	86,105,118,139	0
55	MG	BC	101	1/1	0.52	-	69,69,69,69	0
55	MG	AA	3233	1/1	0.19	-	59,59,59,59	0
55	MG	CA	3078	1/1	0.36	-	76,76,76,76	0
55	MG	BA	1697	1/1	0.40	-	37,37,37,37	0
56	OHX	BA	1788	7/7	0.14	-	118,118,132,157	1
55	MG	AA	3234	1/1	0.20	-	56,56,56,56	0
55	MG	AA	3220	1/1	0.50	-	64,64,64,64	0
55	MG	BA	1644	1/1	0.51	-	94,94,94,94	0
55	MG	CA	3153	1/1	0.22	-	56,56,56,56	0
56	OHX	CA	3232	7/7	0.20	-	72,77,83,137	0
55	MG	DA	1638	1/1	0.20	-	89,89,89,89	0
55	MG	AA	3165	1/1	0.58	-	84,84,84,84	0
55	MG	AA	3135	1/1	0.30	-	67,67,67,67	0
56	OHX	AA	3541	7/7	0.22	-	102,114,134,158	2
55	MG	AA	3109	1/1	0.48	-	47,47,47,47	0
56	OHX	CA	3380	7/7	0.09	-	106,119,130,170	1
56	OHX	AA	3474	7/7	0.18	-	51,85,127,151	2
55	MG	AA	3072	1/1	0.27	-	65,65,65,65	0
55	MG	AA	3350	1/1	0.45	-	80,80,80,80	0
56	OHX	CA	3350	7/7	0.15	-	112,134,144,175	1
56	OHX	AA	3553	7/7	0.12	-	113,118,133,183	1
55	MG	CA	3094	1/1	0.57	-	79,79,79,79	0
56	OHX	BA	1679	7/7	0.12	-	116,125,129,189	1
56	OHX	BC	107	7/7	0.14	-	105,124,134,145	1
55	MG	DA	1677	1/1	0.36	-	76,76,76,76	0
55	MG	AA	3343	1/1	0.42	-	34,34,34,34	0
55	MG	DA	1709	1/1	0.54	-	80,80,80,80	0
55	MG	AA	3415	1/1	0.26	-	52,52,52,52	0
55	MG	CA	3020	1/1	0.31	-	70,70,70,70	0
55	MG	DA	1675	1/1	0.42	-	92,92,92,92	0
56	OHX	AA	3555	7/7	0.16	-	112,114,124,192	1
56	OHX	AA	3323	7/7	0.15	-	72,87,96,117	1
55	MG	CA	3135	1/1	0.43	-	45,45,45,45	0
55	MG	AA	3349	1/1	0.45	-	61,61,61,61	0
56	OHX	DV	101	7/7	0.10	-	162,169,185,231	1
55	MG	DA	1683	1/1	0.48	-	71,71,71,71	0
55	MG	BA	1610	1/1	0.32	-	92,92,92,92	0
56	OHX	AA	3549	7/7	0.12	-	97,102,111,165	1
56	OHX	BA	1794	7/7	0.11	-	118,138,149,184	1
55	MG	AA	3347	1/1	0.47	-	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
55	MG	CA	3001	1/1	0.24	-	46,46,46,46	0
56	OHX	AA	3569	7/7	0.14	-	116,117,125,191	1
55	MG	DA	1720	1/1	0.50	-	105,105,105,105	0
55	MG	CA	3026	1/1	0.10	-	58,58,58,58	0
56	OHX	AA	3487	7/7	0.12	-	95,110,116,167	1
55	MG	AA	3088	1/1	0.17	-	60,60,60,60	0
55	MG	DA	1708	1/1	0.48	-	87,87,87,87	0
55	MG	BA	1628	1/1	0.37	-	80,80,80,80	0
55	MG	CA	3268	1/1	0.14	-	52,52,52,52	0
56	OHX	AA	3524	7/7	0.12	-	111,120,128,172	1
55	MG	A3	101	1/1	0.46	-	60,60,60,60	0
55	MG	CA	3210	1/1	0.57	-	74,74,74,74	0
55	MG	CA	3075	1/1	0.19	-	45,45,45,45	0
55	MG	CA	3165	1/1	0.46	-	57,57,57,57	0
55	MG	BA	1608	1/1	0.25	-	55,55,55,55	0
56	OHX	CB	208	7/7	0.13	-	105,109,142,147	0
55	MG	DA	1655	1/1	0.12	-	78,78,78,78	0
55	MG	CA	3209	1/1	0.36	-	85,85,85,85	0
55	MG	CA	3162	1/1	0.47	-	65,65,65,65	0
56	OHX	AA	3523	7/7	0.16	-	109,114,123,180	1
56	OHX	AA	3295	7/7	0.14	-	84,98,116,152	0
55	MG	CA	3117	1/1	0.20	-	69,69,69,69	0
55	MG	AA	3352	1/1	0.21	-	41,41,41,41	0
56	OHX	AA	3525	7/7	0.13	-	100,109,122,187	1
55	MG	CA	3089	1/1	0.30	-	60,60,60,60	0
56	OHX	AA	3495	7/7	0.18	-	86,93,120,158	1
56	OHX	AA	3543	7/7	0.11	-	113,117,131,189	1
56	OHX	DA	1718	7/7	0.19	-	73,98,100,135	0
55	MG	AA	3184	1/1	0.34	-	38,38,38,38	0
55	MG	AA	3027	1/1	0.38	-	42,42,42,42	0
56	OHX	BA	1779	7/7	0.12	-	102,112,125,152	1
55	MG	BA	1602	1/1	0.47	-	75,75,75,75	0
56	OHX	CA	3286	7/7	0.14	-	87,94,108,115	0
55	MG	CA	3096	1/1	0.39	-	64,64,64,64	0
56	OHX	CA	3303	7/7	0.12	-	92,96,123,138	0
56	OHX	AA	3434	7/7	0.17	-	62,71,94,101	1
56	OHX	CA	3464	7/7	0.16	-	78,109,122,137	3
55	MG	CA	3058	1/1	0.40	-	50,50,50,50	0
55	MG	BA	1701	1/1	0.32	-	57,57,57,57	0
56	OHX	BA	1811	7/7	0.13	-	88,104,115,154	1
55	MG	CA	3476	1/1	0.34	-	52,52,52,52	0
56	OHX	DA	1764	7/7	0.09	-	115,121,127,171	1

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å ²)	Q<0.9
56	OHX	AA	3341	7/7	0.13	-	75,103,114,126	1
55	MG	CA	3227	1/1	0.34	-	79,79,79,79	0
55	MG	AA	3090	1/1	0.21	-	85,85,85,85	0
55	MG	CA	3101	1/1	0.39	-	59,59,59,59	0
55	MG	AA	3385	1/1	0.46	-	34,34,34,34	0
55	MG	AA	3153	1/1	0.68	-	64,64,64,64	0
55	MG	AA	3255	1/1	0.22	-	64,64,64,64	0
55	MG	C5	101	1/1	0.22	-	50,50,50,50	0
55	MG	CA	3114	1/1	0.45	-	57,57,57,57	0
55	MG	BA	1660	1/1	0.27	-	97,97,97,97	0
55	MG	AA	3052	1/1	0.49	-	85,85,85,85	0
55	MG	DA	1688	1/1	0.36	-	101,101,101,101	0
55	MG	CA	3480	1/1	0.20	-	72,72,72,72	0
56	OHX	AA	3565	7/7	0.20	-	117,122,134,195	1
56	OHX	CA	3335	7/7	0.16	-	96,110,125,200	0
56	OHX	BA	1694	7/7	0.08	-	159,161,173,226	1
55	MG	BA	1611	1/1	0.40	-	84,84,84,84	0
56	OHX	CA	3469	7/7	0.09	-	89,110,121,162	1
55	MG	DA	1678	1/1	0.15	-	118,118,118,118	0
56	OHX	AA	3485	7/7	0.14	-	104,114,127,171	1
56	OHX	CA	3296	7/7	0.14	-	65,90,108,135	2
55	MG	AA	3055	1/1	0.42	-	65,65,65,65	0
55	MG	AA	3205	1/1	0.17	-	40,40,40,40	0
55	MG	CA	3456	1/1	0.21	-	66,66,66,66	0
56	OHX	BA	1758	7/7	0.16	-	69,88,100,119	0
55	MG	AA	3025	1/1	0.30	-	59,59,59,59	0
55	MG	CA	3042	1/1	0.30	-	67,67,67,67	0
55	MG	DA	1714	1/1	0.33	-	97,97,97,97	0
55	MG	DA	1699	1/1	0.38	-	78,78,78,78	0
55	MG	CA	3169	1/1	0.26	-	71,71,71,71	0
56	OHX	AA	3530	7/7	0.17	-	101,121,143,206	1
55	MG	AA	3266	1/1	0.28	-	78,78,78,78	0
56	OHX	BA	1769	7/7	0.15	-	102,107,127,145	0
56	OHX	AA	3291	7/7	0.15	-	68,75,102,108	3
55	MG	CA	3190	1/1	0.17	-	60,60,60,60	0
55	MG	AA	3268	1/1	0.46	-	73,73,73,73	0
55	MG	AA	3064	1/1	0.25	-	66,66,66,66	0
55	MG	DA	1623	1/1	0.49	-	124,124,124,124	0
55	MG	DA	1628	1/1	0.48	-	78,78,78,78	0
55	MG	AA	3082	1/1	0.21	-	50,50,50,50	0
55	MG	CA	3048	1/1	0.33	-	44,44,44,44	0
55	MG	AA	3393	1/1	0.22	-	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
56	OHX	BA	1780	7/7	0.15	-	94,102,115,117	1
55	MG	CA	3019	1/1	0.20	-	46,46,46,46	0
55	MG	AB	204	1/1	0.61	-	68,68,68,68	0
55	MG	CA	3037	1/1	0.38	-	89,89,89,89	0
55	MG	CA	3108	1/1	0.31	-	52,52,52,52	0
56	OHX	CA	3378	7/7	0.12	-	128,141,148,178	1
55	MG	DA	1680	1/1	0.29	-	72,72,72,72	0
55	MG	AA	3382	1/1	0.43	-	36,36,36,36	0
56	OHX	CB	220	7/7	0.13	-	133,142,154,201	0
55	MG	AA	3358	1/1	0.32	-	51,51,51,51	0
56	OHX	AA	3463	7/7	0.14	-	77,89,96,134	1
56	OHX	CA	3322	7/7	0.12	-	104,117,127,154	1
56	OHX	AA	3321	7/7	0.11	-	97,109,121,173	1
56	OHX	AA	3419	7/7	0.17	-	67,75,91,95	0
56	OHX	AA	3308	7/7	0.17	-	66,73,104,120	2
56	OHX	CA	3431	7/7	0.13	-	105,117,132,179	1
55	MG	AA	3036	1/1	0.38	-	36,36,36,36	0
56	OHX	BG	302	7/7	0.07	-	128,137,145,186	1
56	OHX	CA	3336	7/7	0.14	-	114,127,138,191	0
56	OHX	AB	209	7/7	0.19	-	63,88,125,152	2
56	OHX	DA	1774	7/7	0.15	-	131,135,155,208	1
55	MG	AA	3044	1/1	0.53	-	72,72,72,72	0
55	MG	CA	3155	1/1	0.18	-	58,58,58,58	0
56	OHX	CA	3376	7/7	0.14	-	113,130,136,172	1
56	OHX	AA	3532	7/7	0.18	-	89,105,116,172	1
55	MG	AA	3202	1/1	0.39	-	45,45,45,45	0
56	OHX	DA	1761	7/7	0.11	-	130,132,145,205	0
56	OHX	CA	3432	7/7	0.12	-	119,135,143,173	1
55	MG	CA	3262	1/1	0.43	-	74,74,74,74	0
55	MG	DA	1653	1/1	0.50	-	73,73,73,73	0
55	MG	AA	3380	1/1	0.27	-	66,66,66,66	0
56	OHX	DA	1728	7/7	0.17	-	78,116,123,162	0
56	OHX	AA	3564	7/7	0.16	-	102,105,128,167	1
55	MG	CA	3443	1/1	0.39	-	49,49,49,49	0
56	OHX	AA	3510	7/7	0.18	-	92,103,113,152	2
55	MG	AA	3133	1/1	0.23	-	54,54,54,54	0
55	MG	AA	3011	1/1	0.38	-	49,49,49,49	0
56	OHX	AA	3370	7/7	0.20	-	115,126,140,200	1
55	MG	AA	3200	1/1	0.44	-	45,45,45,45	0
56	OHX	AA	3421	7/7	0.19	-	50,71,87,114	0
56	OHX	DA	1790	7/7	0.11	-	135,136,148,199	1
56	OHX	AA	3493	7/7	0.15	-	109,111,123,166	1

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
55	MG	AA	3262	1/1	0.41	-	52,52,52,52	0
55	MG	CA	3222	1/1	0.23	-	81,81,81,81	0
56	OHX	CA	3234	7/7	0.15	-	77,91,119,122	2
55	MG	AA	3020	1/1	0.38	-	44,44,44,44	0

6.5 Other polymers

There are no such residues in this entry.