



# Full wwPDB/EMDatabank EM Map/Model Validation Report ⓘ

Dec 11, 2019 – 10:16 PM EST

PDB ID : 4V6T  
EMDB ID: : EMD-5386  
Title : Structure of the bacterial ribosome complexed by tmRNA-SmpB and EF-G during translocation and MLD-loading  
Authors : Ramrath, D.J.F.; Yamamoto, H.; Rother, K.; Wittek, D.; Pech, M.; Mielke, T.; Loerke, J.; Scheerer, P.; Ivanov, P.; Teraoka, Y.; Shpanchenko, O.; Nierhaus, K.H.; Spahn, C.M.T.  
Deposited on : 2012-01-27  
Resolution : 8.30 Å(reported)

This is a Full wwPDB/EMDatabank EM Map/Model Validation Report  
for a publicly released PDB/EMDB entry.

We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>  
with specific help available everywhere you see the ⓘ symbol.

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MolProbity : 4.02b-467  
Mogul : 1.8.0 (224370), CSD as540be (2019)  
Percentile statistics : 20171227.v01 (using entries in the PDB archive December 27th 2017)  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.4

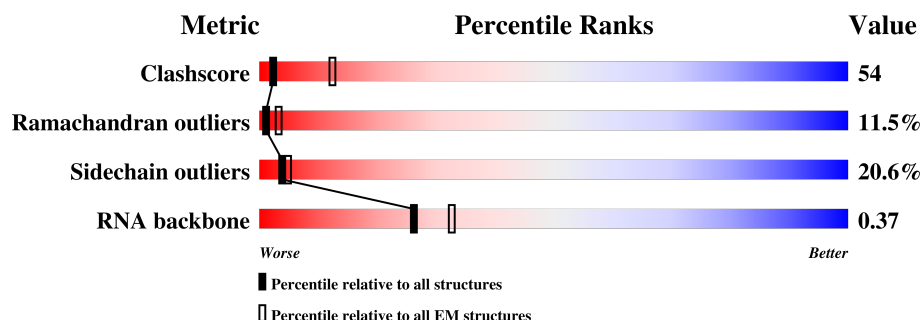
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 8.30 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.




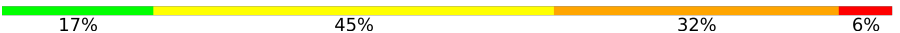
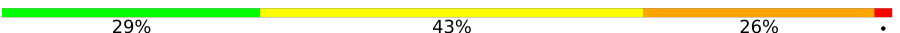

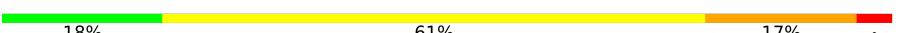
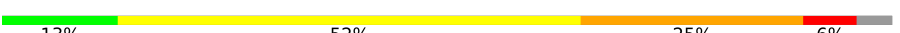
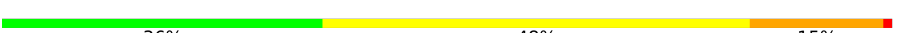




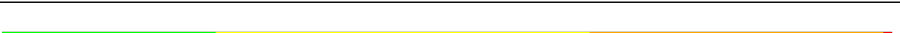





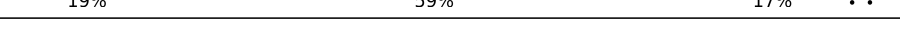




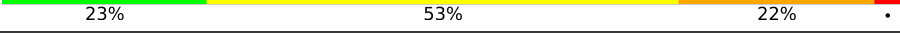

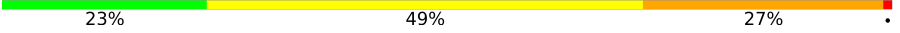
Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	136327	1886
Ramachandran outliers	132723	1663
Sidechain outliers	132532	1531
RNA backbone	3747	458

The table below summarises the geometric issues observed across the polymeric chains. The red, orange, yellow and green segments on the bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions  $\leq 5\%$ .

Mol	Chain	Length	Quality of chain
1	AA	1539	13% 54% 29% .
2	AB	218	10% 46% 35% 9%
3	AC	206	20% 53% 21% 5%
4	AD	205	21% 45% 31% .
5	AE	150	17% 55% 23% 5%
6	AF	100	20% 50% 25% 5%
7	AG	151	27% 48% 23% .
8	AH	129	21% 58% 19% .


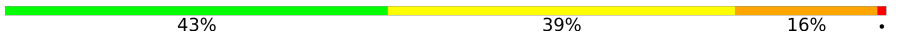



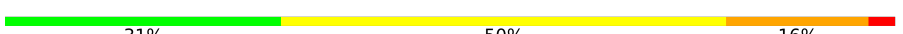
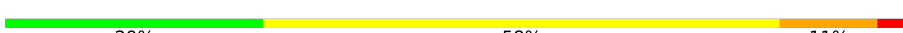




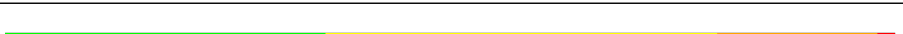




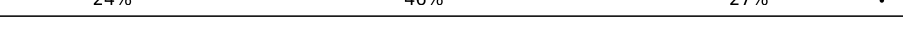
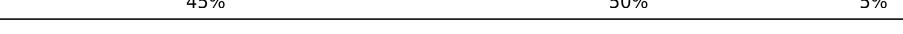





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Mol	Chain	Length	Quality of chain
9	AI	127	
10	AJ	98	
11	AK	117	
12	AL	123	
13	AM	114	
14	AN	100	
15	AO	88	
16	AP	82	
17	AQ	80	
18	AR	55	
19	AS	79	
20	AT	85	
21	AU	51	
22	AV	363	
23	AW	123	
24	AX	77	
25	AY	691	
26	BA	2903	
27	BC	271	
28	BD	209	
29	BE	201	
30	BF	177	
31	BG	176	
32	BH	149	
33	BI	141	

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Mol	Chain	Length	Quality of chain
34	BJ	142	 56% 33% 10% .
35	BK	122	 43% 39% 16% .
36	BL	143	 34% 46% 17% .
37	BM	136	 43% 40% 16% .
38	BN	120	 38% 49% 12% .
39	BO	116	 31% 50% 16% .
40	BP	114	 29% 58% 11% .
41	BQ	117	 47% 44% 8% .
42	BR	103	 45% 37% 17% .
43	BS	110	 56% 34% 9% .
44	BT	93	 34% 52% 13% .
45	BU	102	 36% 44% 18% .
46	BV	94	 46% 44% 11% .
47	BW	76	 54% 38% 8% .
48	BX	77	 40% 49% 10% .
49	BY	63	 24% 46% 27% .
50	BZ	58	 45% 50% 5% .
51	B0	56	 48% 38% 14% .
52	B1	50	 30% 54% 14% .
53	B2	46	 46% 46% 7% .
54	B3	64	 45% 52% .
55	B4	38	 32% 58% 8% .
56	BB	119	 18% 51% 28% .

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
22	PSU	AV	347	-	-	X	-

## 2 Entry composition

There are 56 unique types of molecules in this entry. The entry contains 157519 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

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

Mol	Chain	Residues	Atoms					AltConf	Trace
1	AA	1538	Total	C	N	O	P	0	0
			32995	14716	6050	10691	1538		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
2	AB	218	Total	C	N	O	S	0	0
			1705	1081	305	312	7		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
3	AC	206	Total	C	N	O	S	0	0
			1625	1028	305	289	3		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
4	AD	205	Total	C	N	O	S	0	0
			1643	1026	315	298	4		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
5	AE	150	Total	C	N	O	S	0	0
			1106	687	211	202	6		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
6	AF	100	Total	C	N	O	S	0	0
			818	515	148	149	6		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
7	AG	151	Total	C	N	O	S	0	0
			1182	735	227	216	4		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
8	AH	129	Total	C	N	O	S	0	0
			979	616	173	184	6		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
9	AI	127	Total	C	N	O	S	0	0
			1022	634	206	179	3		

- Molecule 10 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	AJ	98	Total	C	N	O	S	0	0
			787	493	150	143	1		

- Molecule 11 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	AK	117	Total	C	N	O	S	0	0
			877	540	174	160	3		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
12	AL	123	Total	C	N	O	S	0	0
			955	590	196	165	4		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
13	AM	114	Total	C	N	O	S	0	0
			884	546	178	157	3		

- Molecule 14 is a protein called 30S ribosomal protein S14.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	AN	96	Total	C	N	O	S	0	0
			774	483	160	128	3		

- Molecule 15 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	AO	88	Total	C	N	O	S	0	0
			714	439	144	130	1		

- Molecule 16 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	AP	82	Total	C	N	O	S	0	0
			649	406	128	114	1		

- Molecule 17 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	AQ	80	Total	C	N	O	S	0	0
			649	411	121	114	3		

- Molecule 18 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms				AltConf	Trace
18	AR	55	Total	C	N	O	0	0
			456	288	86	82		

- Molecule 19 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	AS	79	Total	C	N	O	S	0	0
			638	408	120	108	2		

- Molecule 20 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	AT	85	Total	C	N	O	S	0	0
			665	411	137	114	3		

- Molecule 21 is a protein called 30S ribosomal protein S21.



Mol	Chain	Residues	Atoms					AltConf	Trace
21	AU	51	Total	C	N	O	S	0	0
			426	265	86	74	1		

- Molecule 22 is a RNA chain called full length transfer messenger RNA (tmRNA).

Mol	Chain	Residues	Atoms					AltConf	Trace
22	AV	334	Total	C	N	O	P	0	0
			7135	3185	1286	2330	334		

- Molecule 23 is a protein called SsrA-binding protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	AW	122	Total	C	N	O		0	0
			993	637	181	175			

- Molecule 24 is a RNA chain called formyl-methionine specific initiator transfer RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	AX	77	Total	C	N	O	P	0	0
			1640	732	297	535	76		

- Molecule 25 is a protein called elongation factor G.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	AY	667	Total	C	N	O	S	0	1
			5215	3316	893	988	18		

- Molecule 26 is a RNA chain called 23S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	BA	2903	Total	C	N	O	P	0	0
			62319	27801	11467	20149	2902		

- Molecule 27 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	BC	271	Total	C	N	O	S	0	0
			2083	1288	423	365	7		

- Molecule 28 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	BD	209	Total	C	N	O	S	0	0
			1565	979	288	294	4		

- Molecule 29 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	BE	201	Total	C	N	O	S	0	0
			1552	974	283	290	5		

- Molecule 30 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	BF	177	Total	C	N	O	S	0	0
			1411	899	249	257	6		

- Molecule 31 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	BG	176	Total	C	N	O	S	0	0
			1323	832	243	246	2		

- Molecule 32 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	BH	149	Total	C	N	O	S	0	0
			1110	699	197	213	1		

- Molecule 33 is a protein called 50S ribosomal protein L11.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	BI	141	Total	C	N	O	S	0	0
			1032	651	179	196	6		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
34	BJ	142	Total	C	N	O	S	0	0
			1129	714	212	199	4		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
35	BK	122	Total	C	N	O	S	0	0
			939	587	180	166	6		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
36	BL	143	Total	C	N	O	S	0	0
			1045	649	206	189	1		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
37	BM	136	Total	C	N	O	S	0	0
			1074	686	205	177	6		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
38	BN	120	Total	C	N	O	S	0	0
			961	593	196	167	5		

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

Mol	Chain	Residues	Atoms				AltConf	Trace
39	BO	116	Total	C	N	O	0	0
			892	552	178	162		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
40	BP	114	Total	C	N	O	S	0	0
			917	574	179	163	1		

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

Mol	Chain	Residues	Atoms				AltConf	Trace
41	BQ	117	Total	C	N	O	0	0
			947	604	192	151		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
42	BR	103	Total	C	N	O	S	0	0
			816	516	153	145	2		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
43	BS	110	Total	C	N	O	S	0	0
			857	532	166	156	3		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
44	BT	93	Total	C	N	O	S	0	0
			739	466	139	132	2		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
45	BU	102	Total	C	N	O	S	0	0
			780	492	146	142			

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

Mol	Chain	Residues	Atoms					AltConf	Trace
46	BV	94	Total	C	N	O	S	0	0
			753	479	137	134	3		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
47	BW	76	Total	C	N	O	S	0	0
			575	356	117	101	1		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
48	BX	77	Total	C	N	O	S	0	0
			625	388	129	106	2		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
49	BY	63	Total	C	N	O	S	0	0
			509	313	99	95	2		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
50	BZ	58	Total	C	N	O	S	0	0
			449	281	87	79	2		

- Molecule 51 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	B0	56	Total	C	N	O	S	0	0
			444	269	94	80	1		

- Molecule 52 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	B1	50	Total	C	N	O	S	0	0
			410	263	75	72			

- Molecule 53 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	B2	46	Total	C	N	O	S	0	0
			377	228	90	57	2		

- Molecule 54 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	B3	64	Total	C	N	O	S	0	0
			504	323	105	74	2		

- Molecule 55 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	B4	38	Total	C	N	O	S	0	0
			302	185	65	48	4		

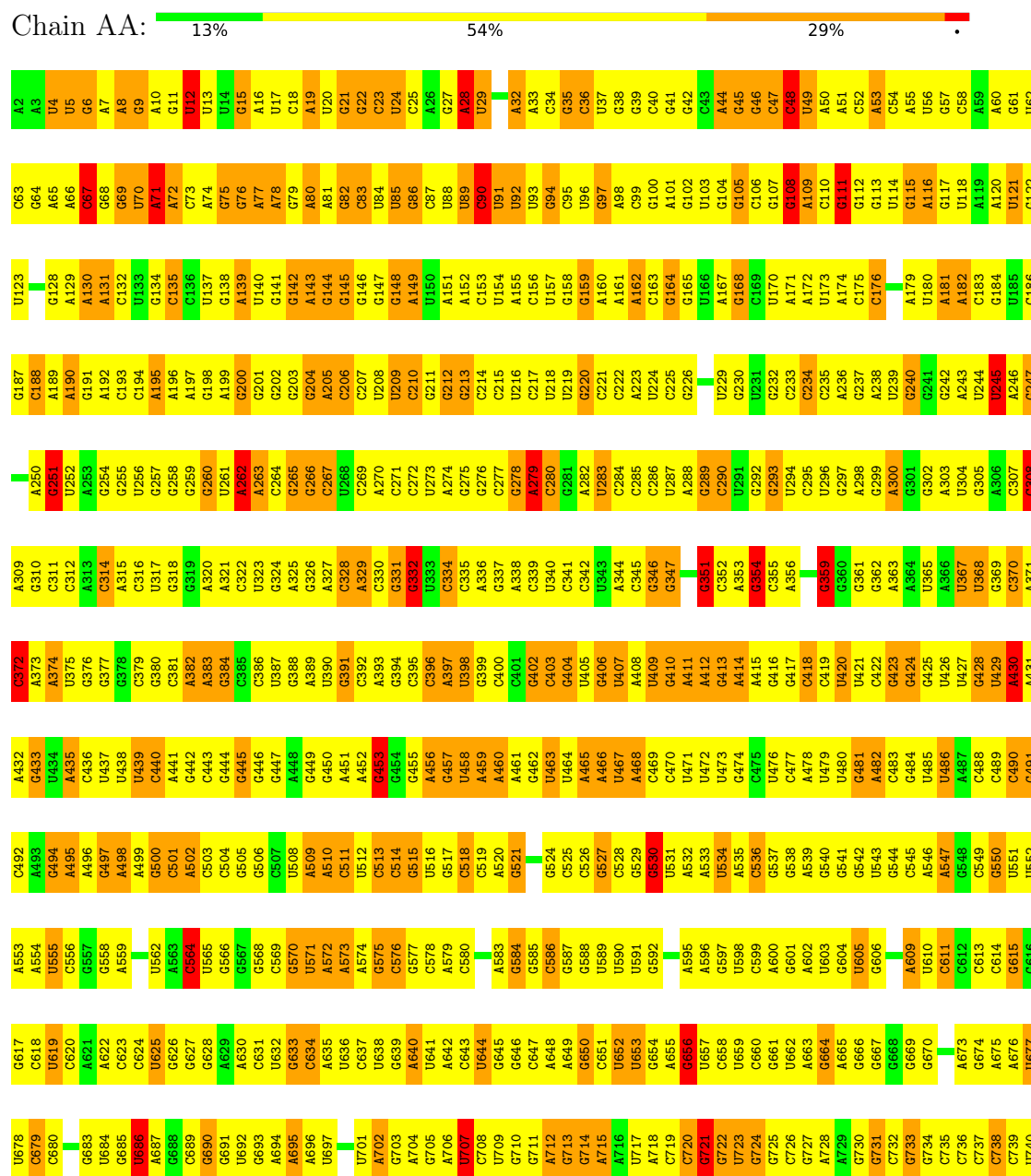
- Molecule 56 is a RNA chain called 5S ribosomal RNA.

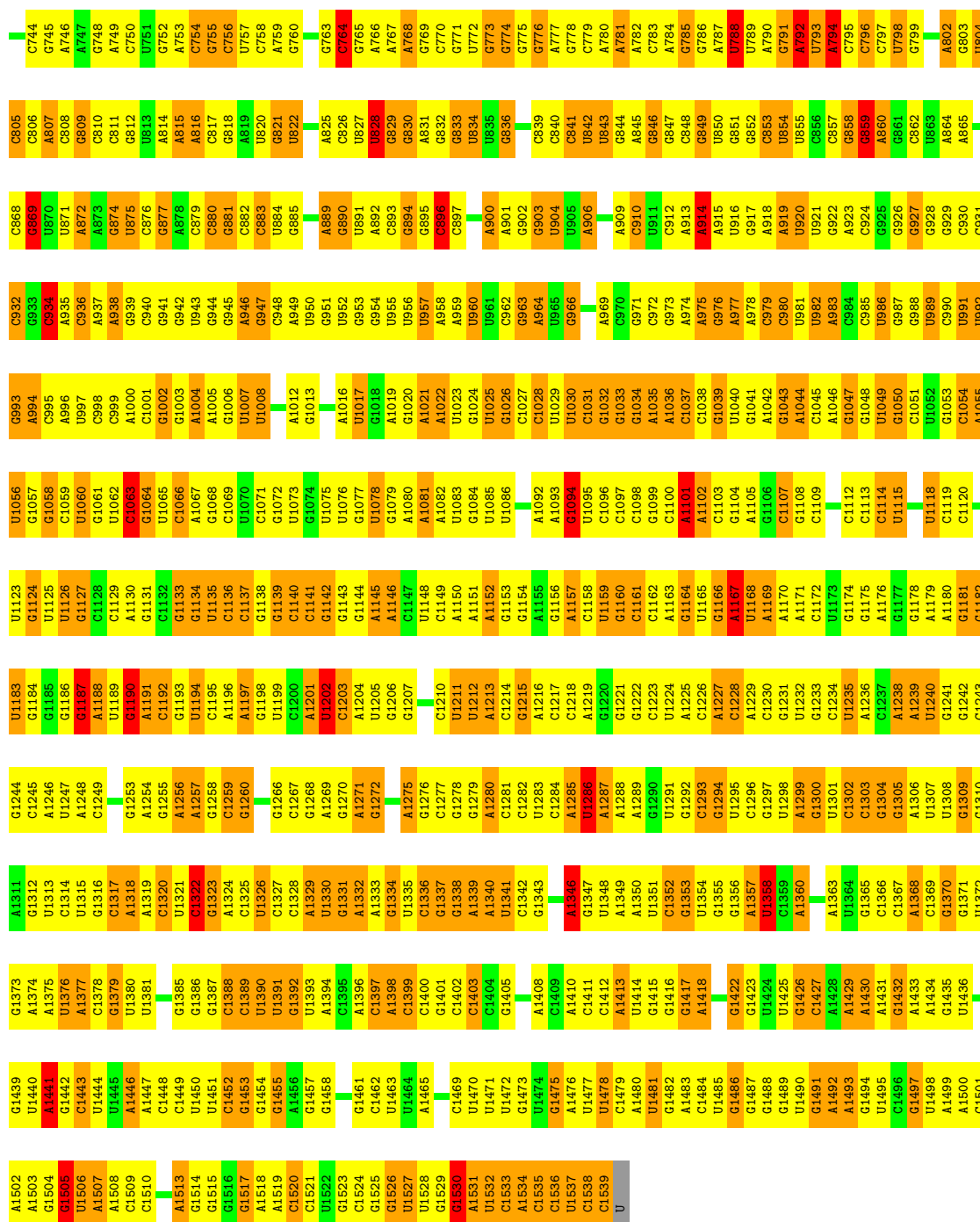
Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
56	BB	119	2548	1135	466	829	118	0	0

### 3 Residue-property plots

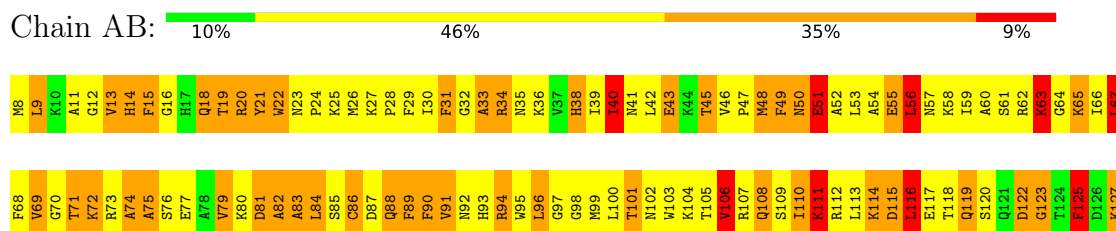
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry. Residues are color-coded according 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. Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

#### • Molecule 1: 16S ribosomal RNA

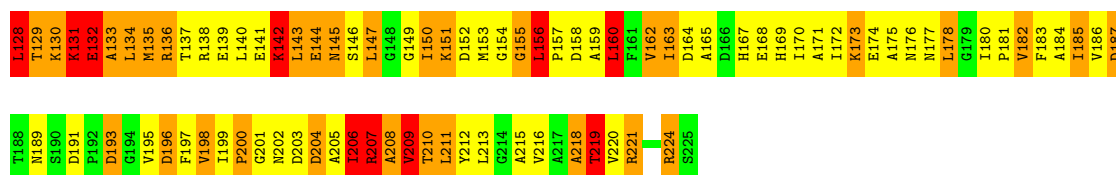




### • Molecule 2: 30S ribosomal protein S2

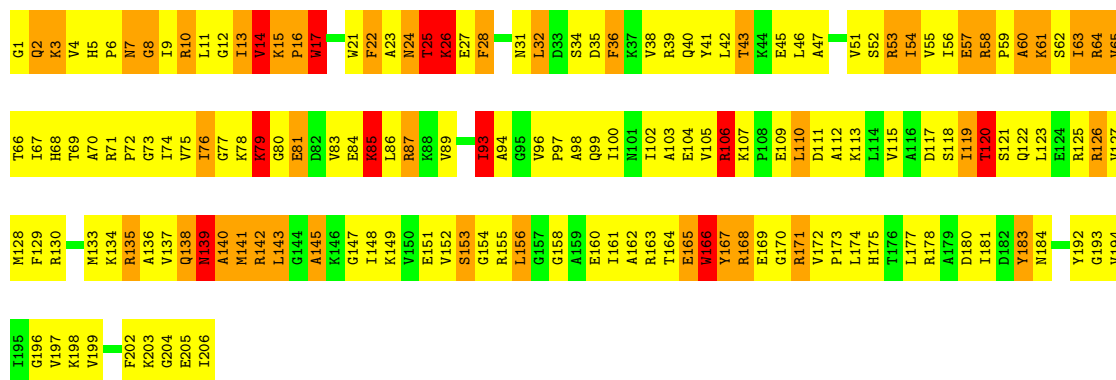






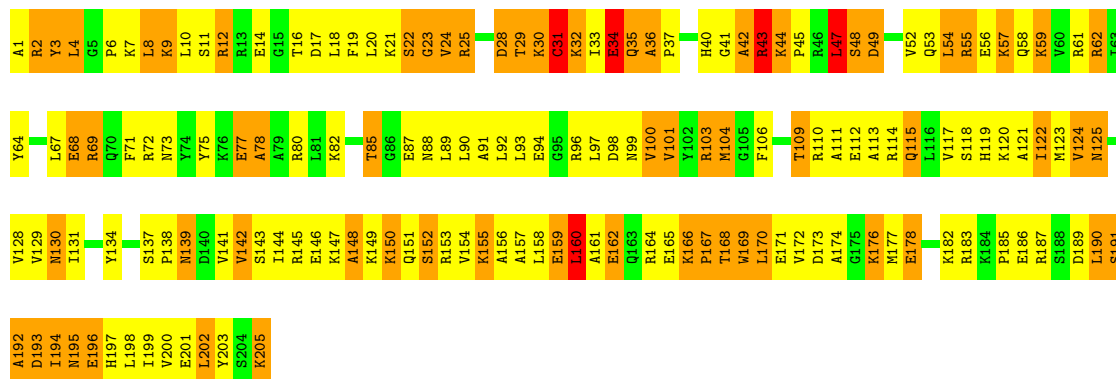
• Molecule 3: 30S ribosomal protein S3

Chain AC: 20% 53% 21% 5%



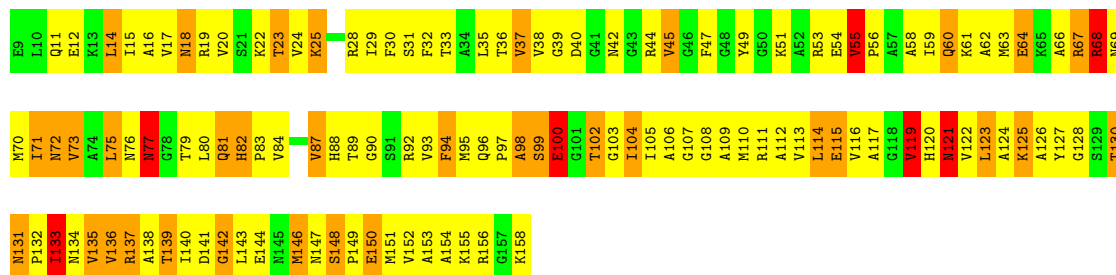
• Molecule 4: 30S ribosomal protein S4

Chain AD: 21% 45% 31% .



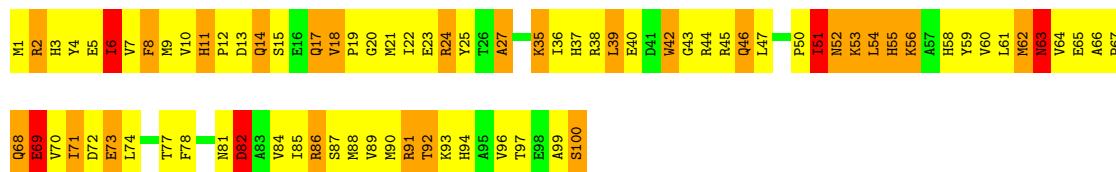
• Molecule 5: 30S ribosomal protein S5

Chain AE: 17% 55% 23% 5%



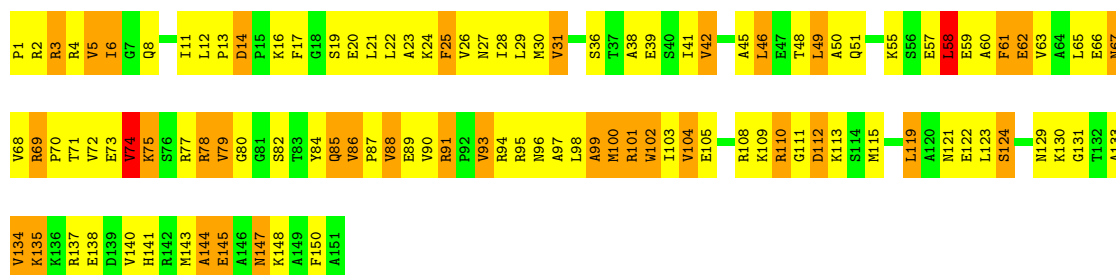
• Molecule 6: 30S ribosomal protein S6

Chain AF: 



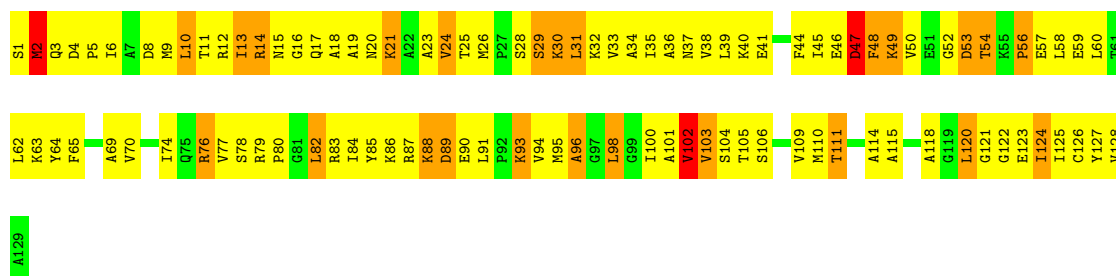
• Molecule 7: 30S ribosomal protein S7

Chain AG: 

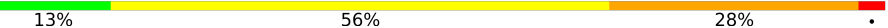


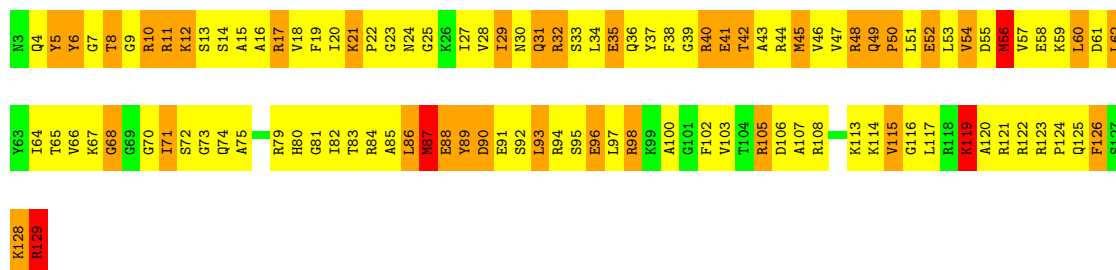
• Molecule 8: 30S ribosomal protein S8

Chain AH: 

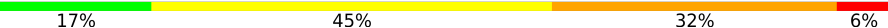


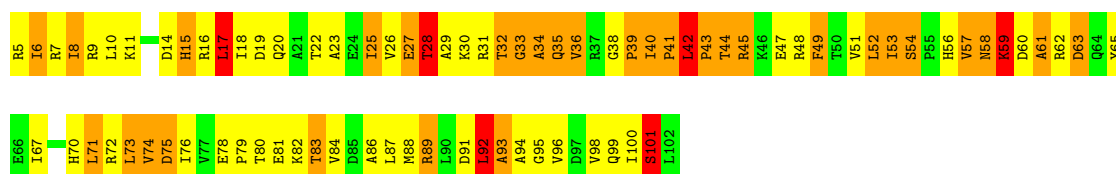
• Molecule 9: 30S ribosomal protein S9

Chain AI: 



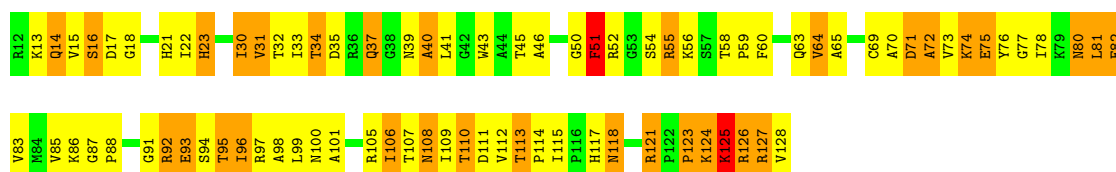
• Molecule 10: 30S ribosomal protein S10

Chain AJ: 



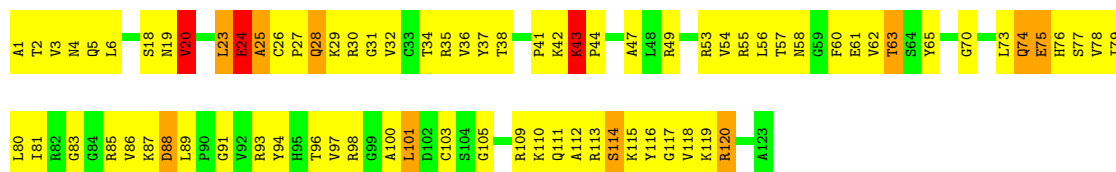
• Molecule 11: 30S ribosomal protein S11

Chain AK: 29% 43% 26% .



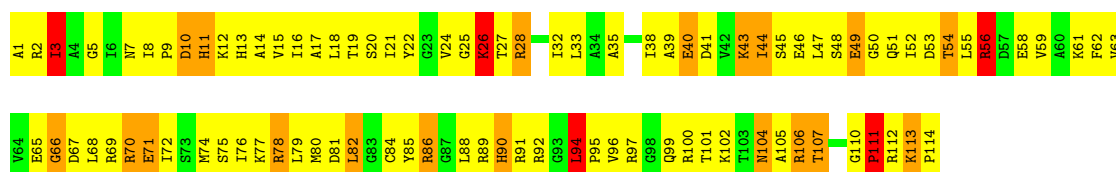
• Molecule 12: 30S ribosomal protein S12

Chain AL: 36% 54% 8% .



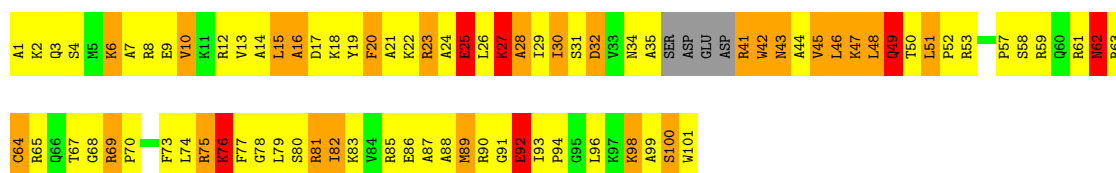
• Molecule 13: 30S ribosomal protein S13

Chain AM: 18% 61% 17% .



• Molecule 14: 30S ribosomal protein S14

Chain AN: 13% 52% 25% 6% .



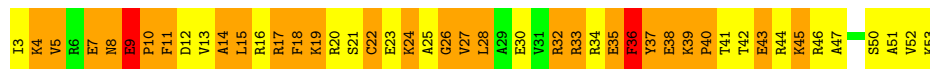
• Molecule 15: 30S ribosomal protein S15

Chain AO: 36% 48% 15% .



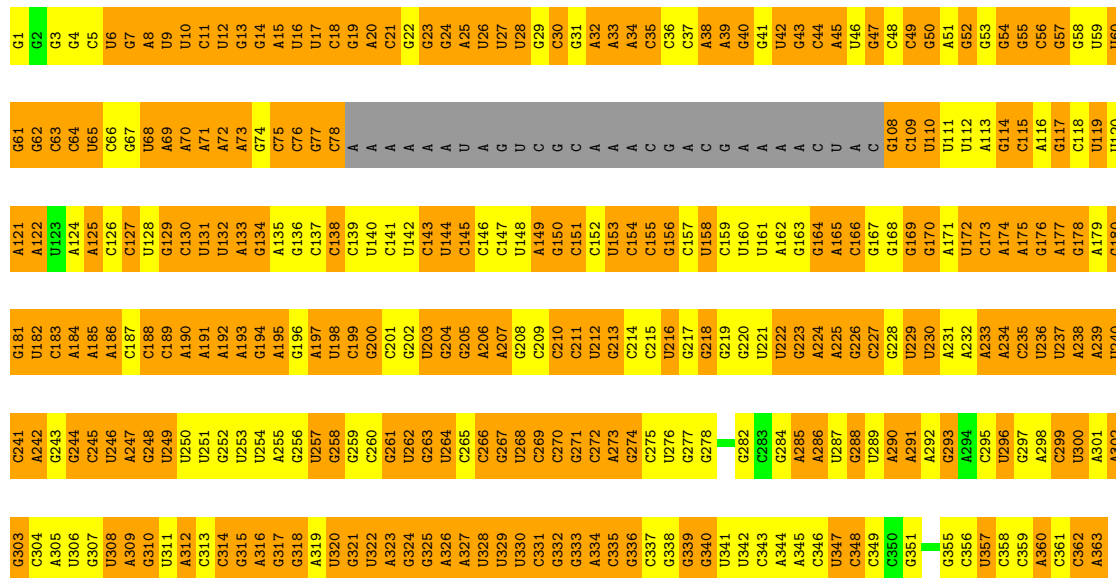
- Molecule 21: 30S ribosomal protein S21

Chain AU:  10% 37% 49%




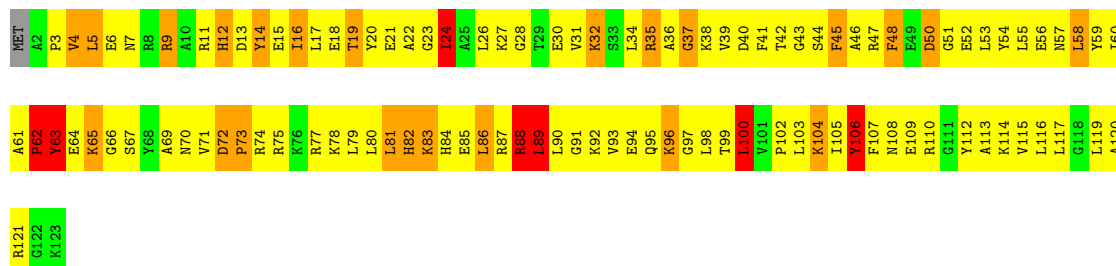
- Molecule 22: full length transfer messenger RNA (tmRNA)

Chain AV:  30% 59% 8%



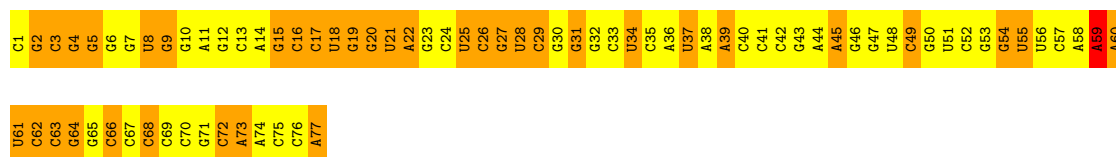
- Molecule 23: SsrA-binding protein

Chain AW:  11% 63% 19% 6%



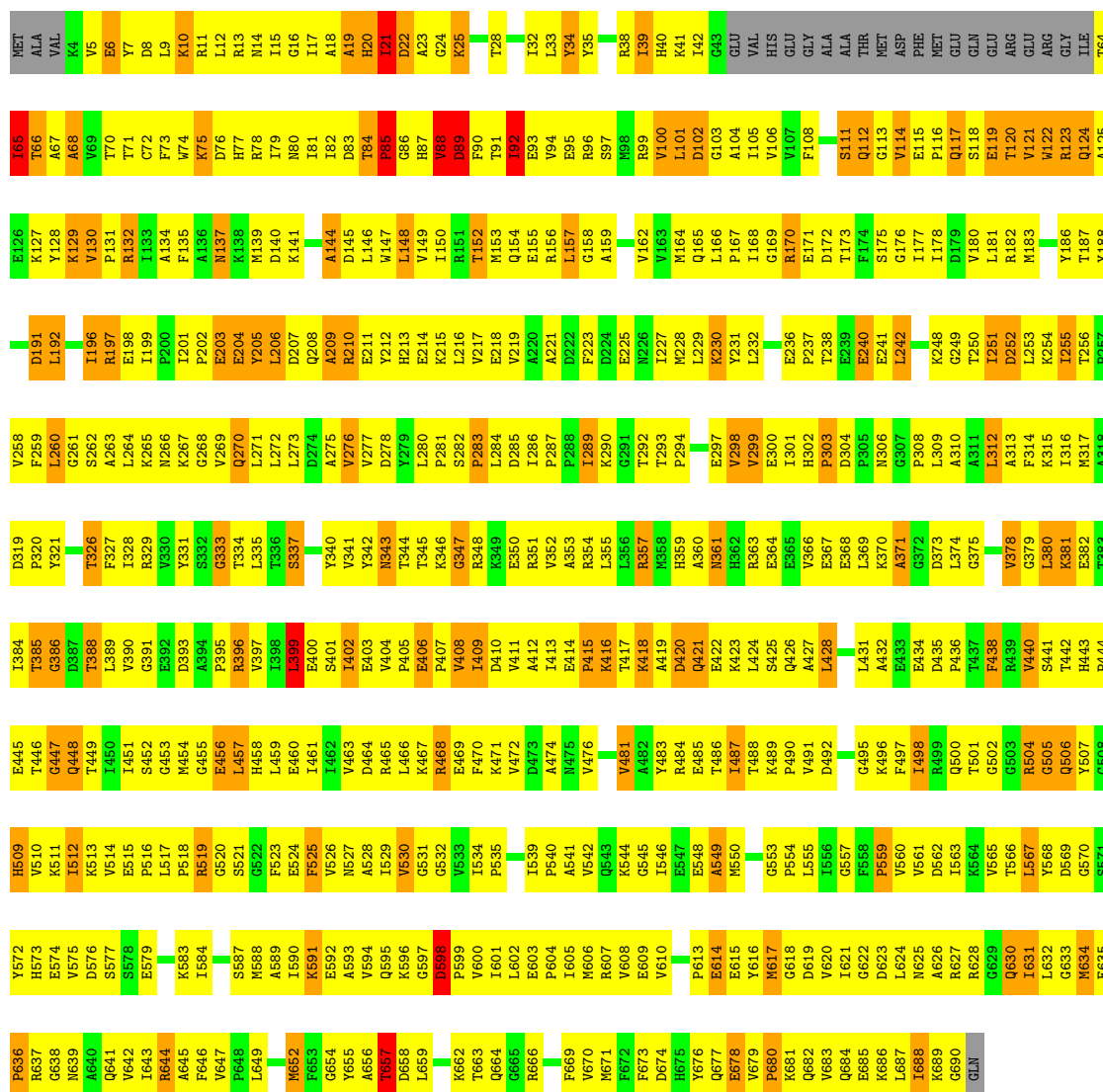
- Molecule 24: formyl-methionine specific initiator transfer RNA

Chain AX:  51% 48%




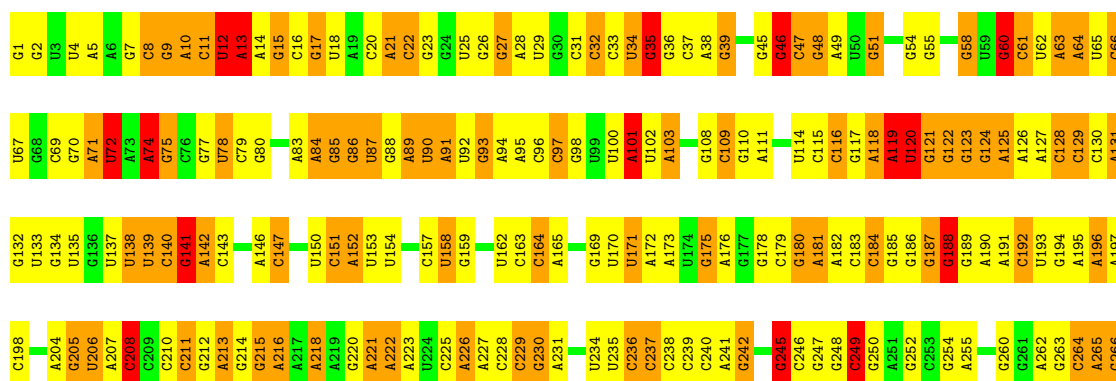
- Molecule 25: elongation factor G

Chain AY:  19% 59% 17% ..



• Molecule 26: 23S ribosomal RNA

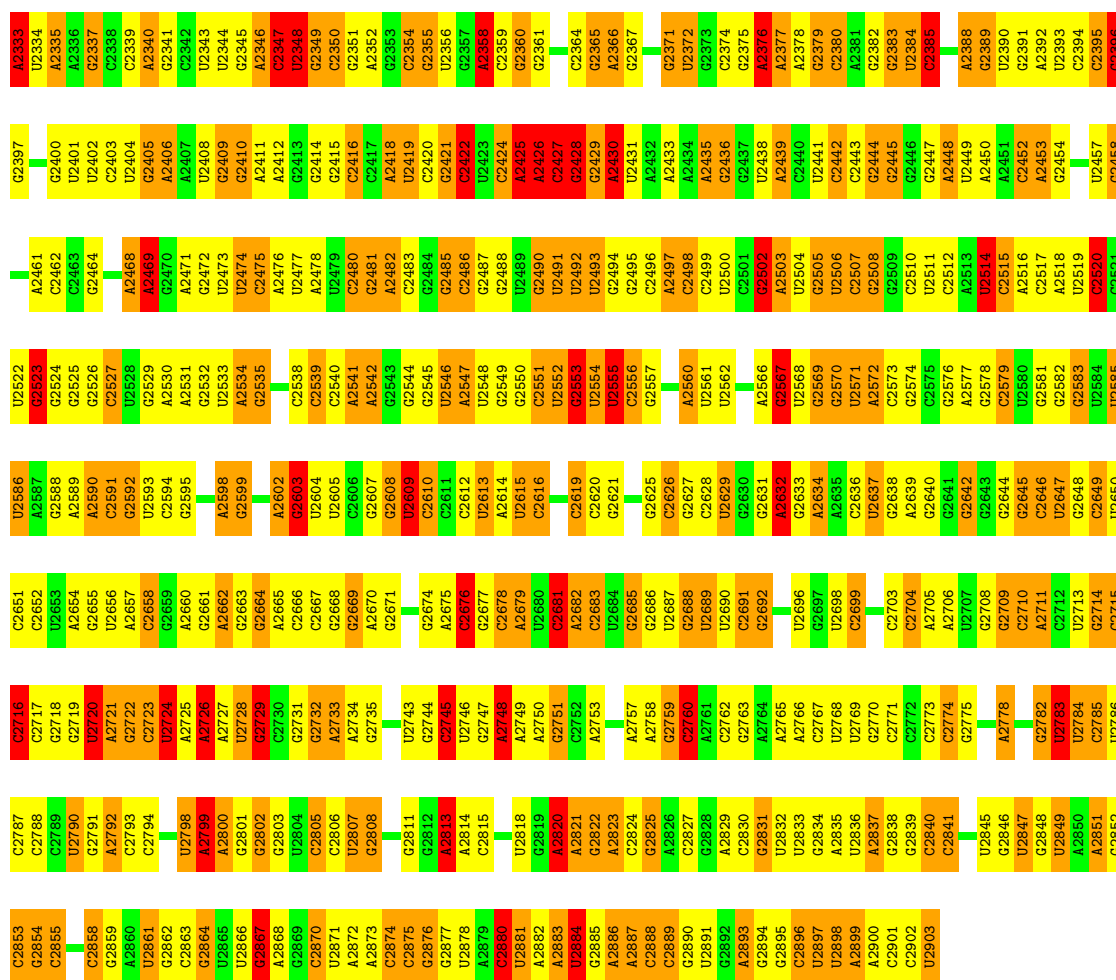
Chain BA:  18% 43% 32% 7%



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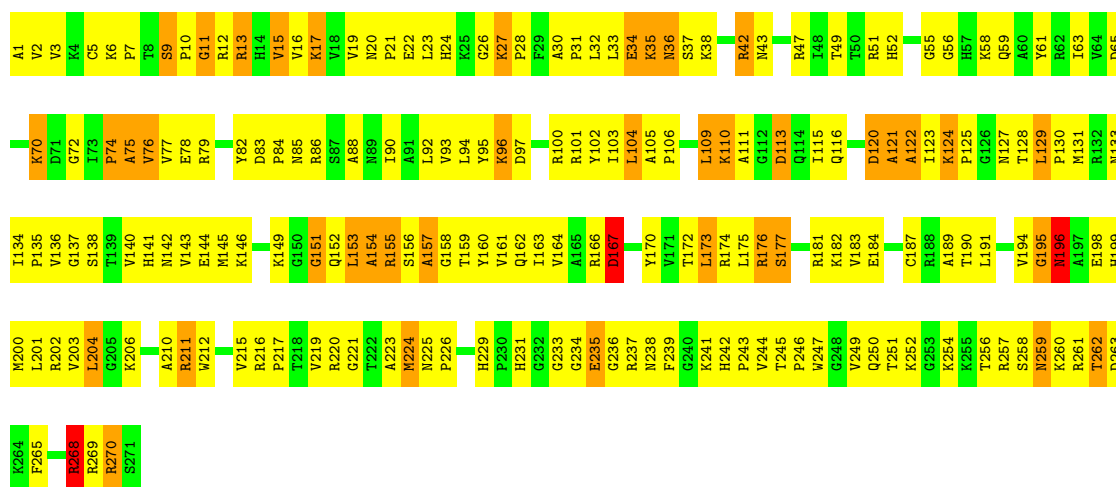
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G2290	G2107	G2168	U1982	C2044	G1983	U1915	A1854	A1787	C1727	G1663	U1602	G1537	U1474	A1353	
U2291	A2108	A2169	G1983	C2045	U1983	U1916	U1854	C1788	C1728	A1664	A1603	G1538	G1475	A1354	
U2292	U2109	C2170	G1984	G2046	U1984	U1917	U1855	A1789	U1729	A1665	C1604		U1476	G1416	
G2293	G2110	A2171	C1985	U2047	U1985	A1918	U1856	C1790	G1730	G1666	C1605	U1542	A1477	C1355	
G2294	U2111	C2048		G2048	U1986	A1919	G1857	A1791	G1731	G1667	C1606	G1418	G1478	C1357	
C2295	G2112	A2173	G1988	G2049	U1988	C1920	U1858	G1792	G1732	A1668	C1607	G1543	G1479	A1419	
U2296	U2113	C2174	G1989	C2050	G1989	U1921	U1859	C1793	G1733	A1669	A1608	A1420	G1480	A1358	
A2297	A2114	C2175	C1990	A2051	C1990	G1922	G1860	A1794	G1734	C1670	A1605	G1546	U1481	G1360	
A2298	G2115	A2176	U1991	A2052	U1991	U1923	G1861	C1795	A1735	A1671	A1610	C1547	G1482	G1361	
U2299	C2116	G2237	G1992	A2053	C1992	C1924	U1862	U1796	G1736	A1672	C1611	G1548	G1483	G1362	
C2300	C2117	C2238	U1993	A2054	U1993	C1925	G1863	G1797	G1737	A1673	C1612	A1542	U1484	C1363	
C2301	U2118	C2179	C1994	C2055	C1994	U1926	U1864	U1798	G1738	G1674	G1613	A1552	U1485	G1364	
U2302	A2119	U2180	G2056	G2056	C1995	A1927	U1865	G1799	A1739	A1675	A1614	A1553	U1486	A1365	
G2303	G2120	U2181	C2057	G2057	C1997	U1928	A1866	G1800	G1740	A1676	C1615	A1422	U1487	A1366	
C2304	C2121	A2182	A2058	A2058	U1998	G1929	G1867	A1801	C1741	A1677	A1616	G1555		A1367	
U2305	U2122	A2183	A2059	A2060	C1999	U1930	C1868	A1802	U1742	A1678	C1617	C1556	A1490	G1368	
C2306	G2123	U2124	A2060	G2061	C2000	U1931	G1869	A1803	G1743	A1679	A1618	C1557	G1491	G1369	
G2307	U2125	U2185	G2061	G2061	C2001	A1932	C1870	C1804	A1744	U1680	G1619	G1558	G1492	C1370	
G2308	G2126	G2186	G2062	C2063	G2002	G1933	A1871	A1805	A1745	G1681	G1620	U1559	C1493	G1371	
A2309	A2126	U2187	C2064	C2064	A2003		A1872	C1806	A1746	C1682	U1621	G1560	A1494	U1372	
C2310	G2127	U2188	C2065	C2065	G2004	A1936	C1873	G1807	U1747	U1683	G1622	C1561	A1434	A1373	
A2311	G2128	U2189	A2065	A2065	A2005	A1937	C1874	A1808	C1748	G1684	G1623	U1562	A1435	G1374	
G2312	C2129	U2190	C2066	C2066	C2006	A1938	G1875	A1809	A1749	C1685	U1624	U1563	G1436	U1375	
C2313	U2130	A2191	U2067	U2067	U2007	U1939	A1876	A1810	G1750	C1686	C1625	C1564	C1437	C1376	
G2314	U2131	U2192	C2068	C2068	C2008		A1877	G1811	U1751	G1687	A1626	G1565	C1499	G1377	
G2315	G2132	G2193	G2069	G2069	A2009	U1943	G1878	C1816	C1752	U1688	G1627	A1566	U1438	A1378	
C2316	U2133	U2194	A2070	A2070	G2010	U1944	C1879	C1817	G1753	A1689	G1628	U1501	U1440	G1379	
A2317	A2134	G2195	A2071	C2072	U2011	G1945	U1880	A1754	A1754	A1690	U1629	A1503	G1441	U1380	
G2318	C2135	U2196	G2012	C2072	C2012	U1946	C1881	U1818	A1755	C1691	A1630	A1569	A1504	G1381	
C2319	U2197	U2197	A2013	C2072	A2013	C1947	U1882	A1819	G1756	U1692	G1631	A1570	A1505	G1382	
U2320	G2136		A2014	C2072	U1883	G1948	U1883	U1820	A1757	A1571	A1632	U1444	U1506	A1383	
G2321	U2075	U2139	A2015	C2076	A2015	G1949	G1884		U1758	C1694	G1633	A1572	C1507	A1384	
C2322	A2076	G2140	U2016	A2077	U2016	U1950	A1885	G1824	A1759	G1685	A1634	G1573	A1508	A1385	
G2323	C2077	G2141	U2017	C2078	U2017	U1951	C1886	U1825	C1760		A1635	C1574	A1509	C1386	
C2324	U2079	A2142	G2018	U2079	A1952	U1952	G1888	G1826	G1699	U1700	U1636	C1575	A1509	C1387	
U2325	C2143	C2143	A2080	A2080	A1953	A1953	A1889	U1827	A1761	G1705	A1637	U1576	G1510	G1388	
A2326	G2144	U2081	A2020	U2081	G1954	G1954	A1890	A1701	A1762	A1701	C1638	G1511	G1511	G1389	
C2327	C2145	A2082	C2021	U2082	U1955	U1955	G1891	A1828	G1763	G1702	C1639	U1577	C1512	G1450	
U2328	C2146	G2083	U2022	G2083	U1956	U1956	C1892	C1830	U1765	G1703	A1640	A1578	G1514	U1391	
A2329	A2147	C2084	C2023	U2084	C1957	C1957	C1893	G1831	G1766	C1704	A1641	A1580	A1515	G1451	
G2330	G2148	U2085	G2024	U2085	C1958	C1958	C1894	G1767	G1767		G1642	G1581		A1392	
C2332	U2149	G2209	C2025	U2086	C2025	G1959	C1895	C1833	C1768	G1707	G1642	C1582		A1393	
														A1394	





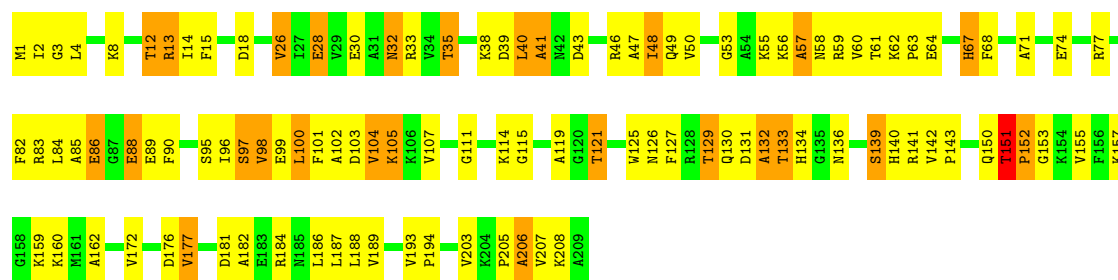
• Molecule 27: 50S ribosomal protein L2

Chain BC: 29% 55% 15%



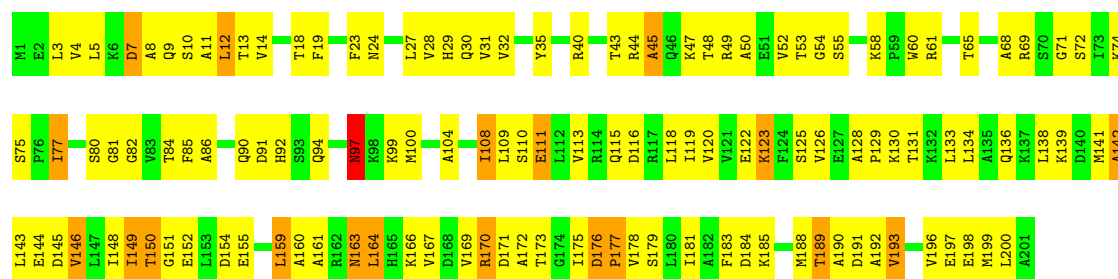
• Molecule 28: 50S ribosomal protein L3

Chain BD: 48% 39% 12%



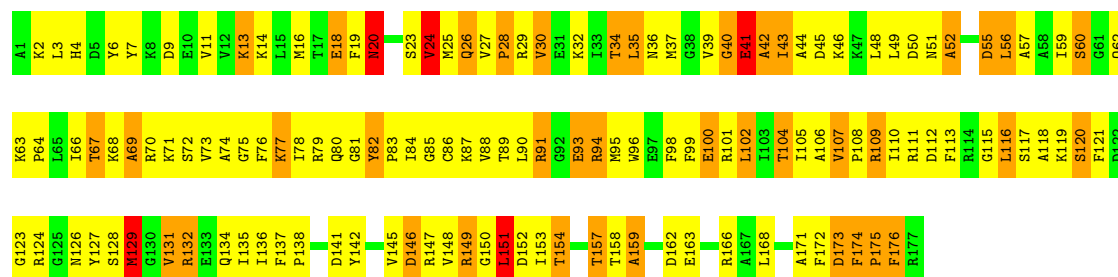
• Molecule 29: 50S ribosomal protein L4

Chain BE: 37% 53% 9%



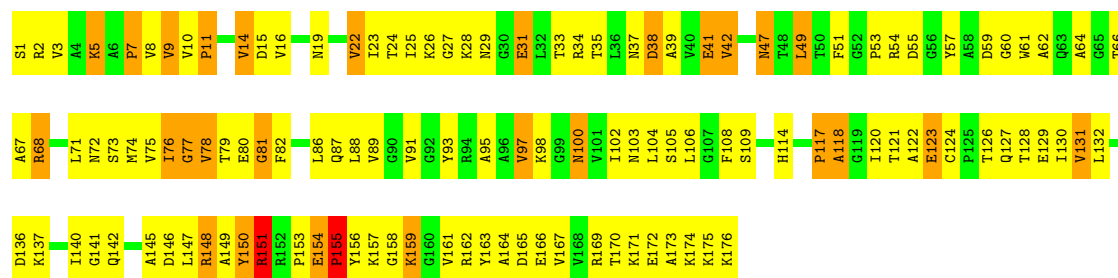
• Molecule 30: 50S ribosomal protein L5

Chain BF: 23% 53% 22%



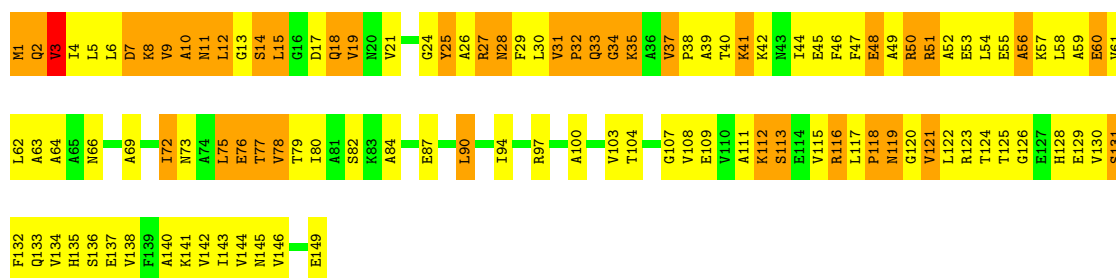
• Molecule 31: 50S ribosomal protein L6

Chain BG: 30% 53% 15%



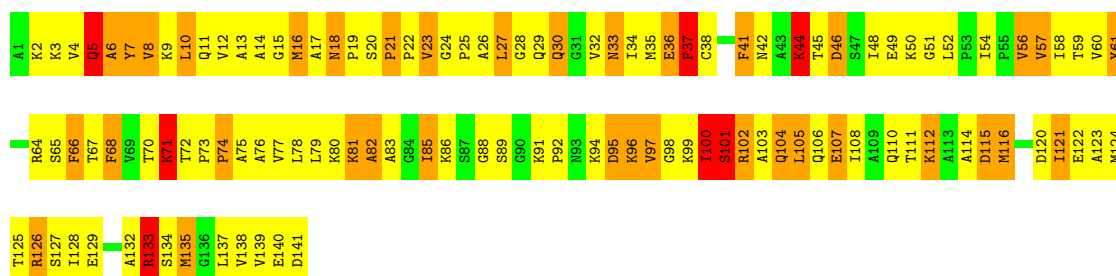
• Molecule 32: 50S ribosomal protein L9

Chain BH: 23% 49% 27%



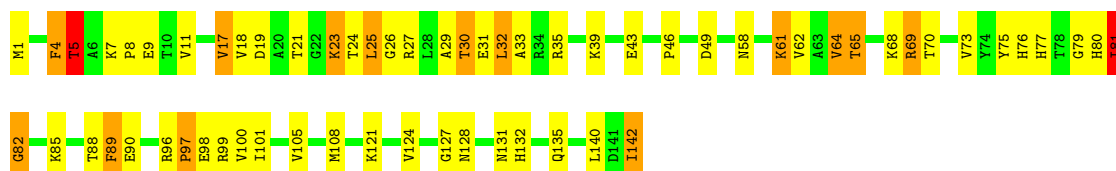
• Molecule 33: 50S ribosomal protein L11

Chain BI: 16% 53% 26% 5%



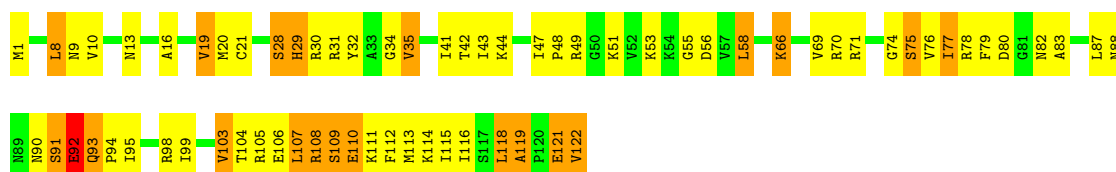
• Molecule 34: 50S ribosomal protein L13

Chain BJ: 56% 33% 10%



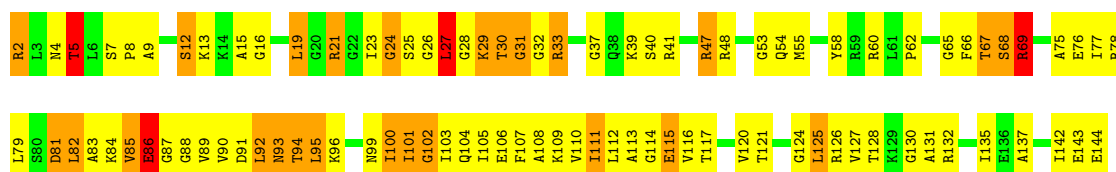
• Molecule 35: 50S ribosomal protein L14

Chain BK: 43% 39% 16%

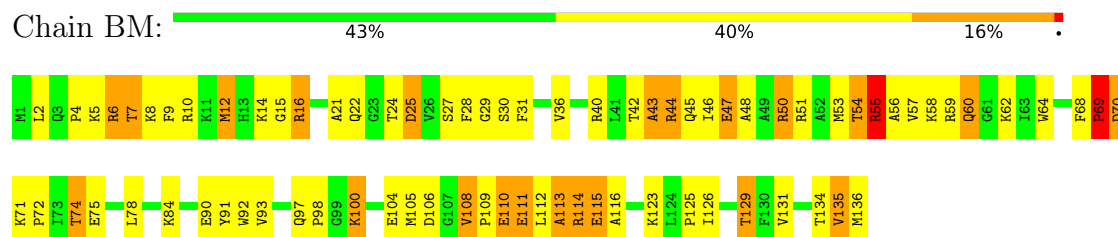


• Molecule 36: 50S ribosomal protein L15

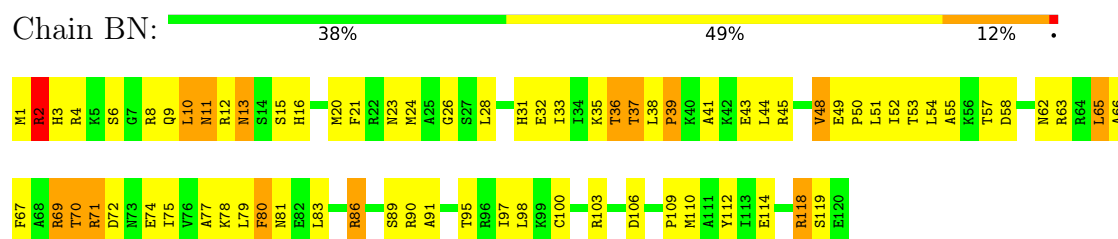
Chain BL: 34% 46% 17%



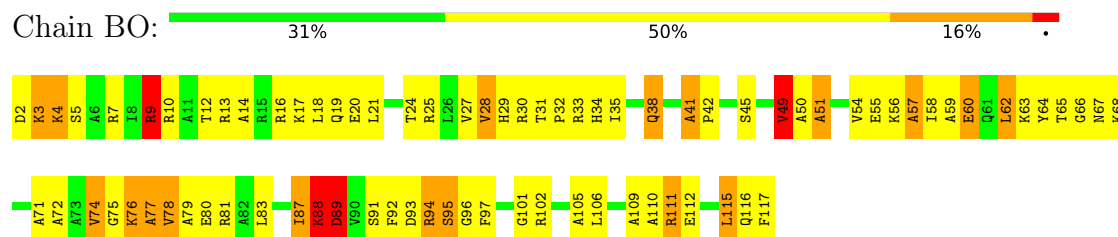
- Molecule 37: 50S ribosomal protein L16



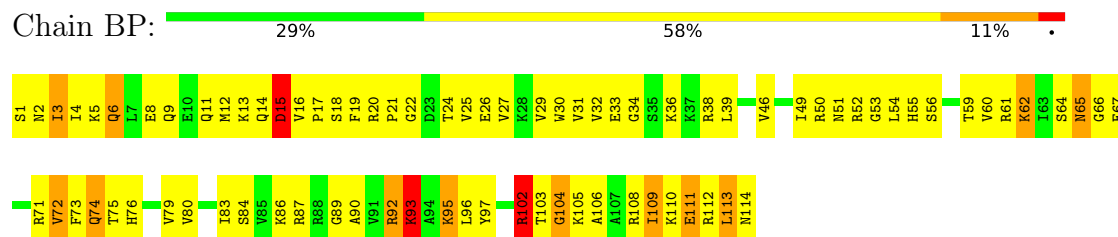
- Molecule 38: 50S ribosomal protein L17



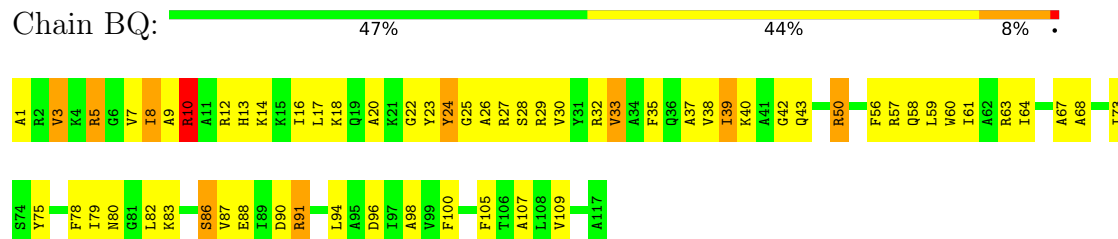
- Molecule 39: 50S ribosomal protein L18



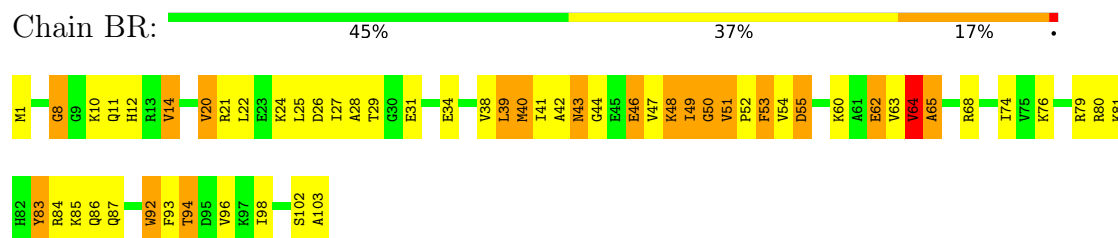
- Molecule 40: 50S ribosomal protein L19



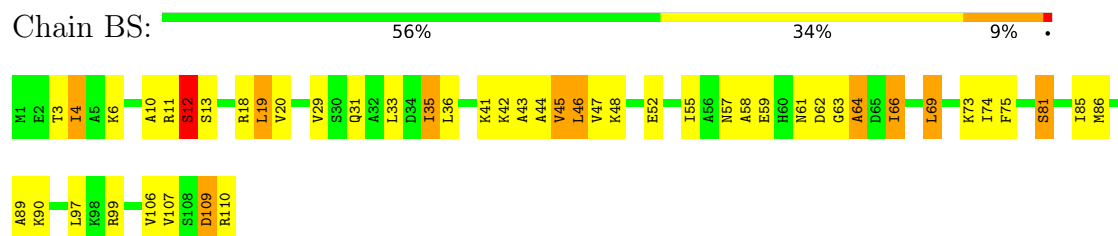
- Molecule 41: 50S ribosomal protein L20



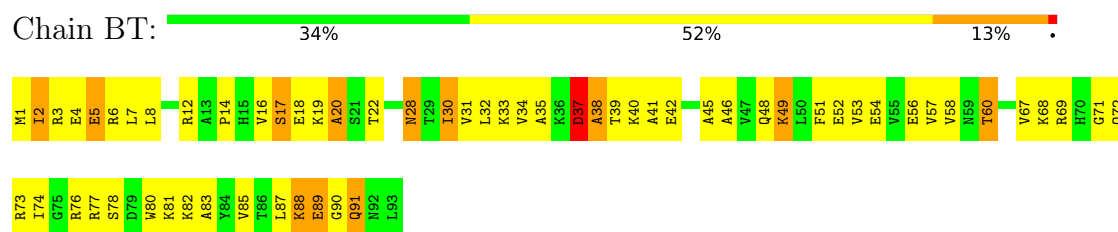
- Molecule 42: 50S ribosomal protein L21



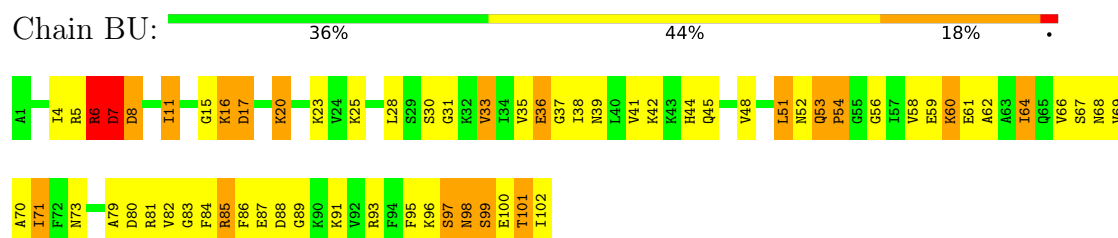
- Molecule 43: 50S ribosomal protein L22



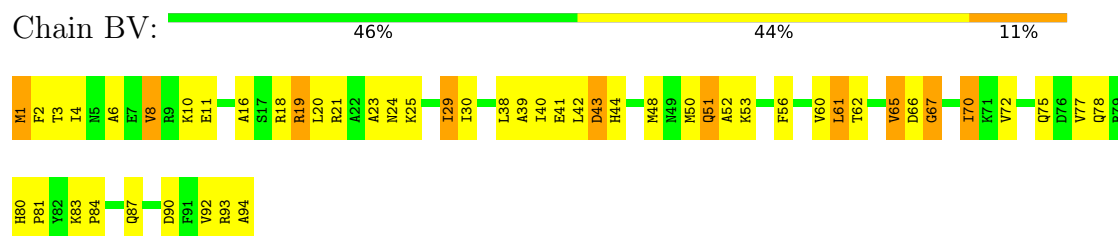
- Molecule 44: 50S ribosomal protein L23



- Molecule 45: 50S ribosomal protein L24

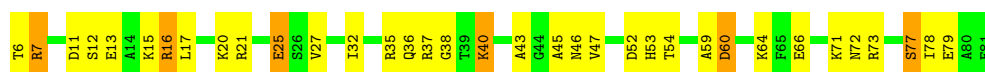


- Molecule 46: 50S ribosomal protein L25



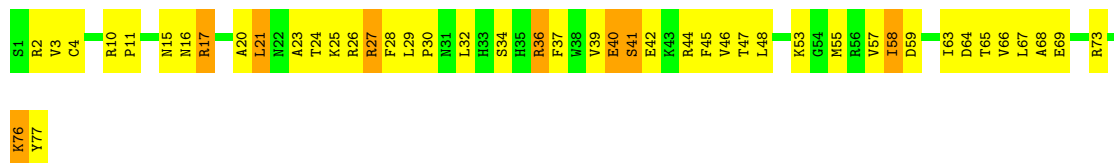
- Molecule 47: 50S ribosomal protein L27





- Molecule 48: 50S ribosomal protein L28

Chain BX: 40% 49% 10%



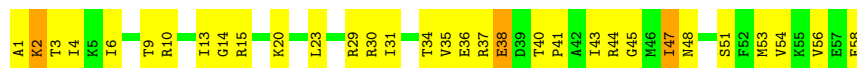
- Molecule 49: 50S ribosomal protein L29

Chain BY: 24% 46% 27%



- Molecule 50: 50S ribosomal protein L30

Chain BZ: 45% 50% 5%



- Molecule 51: 50S ribosomal protein L32

Chain B0: 48% 38% 14%



- Molecule 52: 50S ribosomal protein L33

Chain B1: 30% 54% 14%



- Molecule 53: 50S ribosomal protein L34

Chain B2: 46% 46% 7%



- Molecule 54: 50S ribosomal protein L35

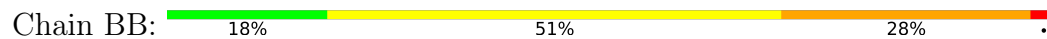
Chain B3: 45% 52% 3%



- Molecule 55: 50S ribosomal protein L36



- Molecule 56: 5S ribosomal RNA



## 4 Experimental information

Property	Value	Source
Reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	68843	Depositor
Resolution determination method	Not provided	Depositor
CTF correction method	The volumes were CTF-corrected in defocus groups, with an average of approximately 215 individual images per group	Depositor
Microscope	FEI POLARA 300	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	20	Depositor
Minimum defocus (nm)	2500	Depositor
Maximum defocus (nm)	5000	Depositor
Magnification	39000	Depositor
Image detector	KODAK SO-163 FILM	Depositor



## 5 Model quality ⓘ

### 5.1 Standard geometry ⓘ

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

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	$\# Z  > 2$	RMSZ	$\# Z  > 2$
1	AA	0.85	5/36944 (0.0%)	1.26	314/57632 (0.5%)
10	AJ	0.57	0/797	0.74	0/1077
11	AK	0.67	0/893	0.82	0/1205
12	AL	0.61	0/969	0.81	0/1300
13	AM	0.52	0/893	0.74	0/1193
14	AN	0.55	0/785	0.76	0/1043
15	AO	0.55	0/722	0.73	0/964
16	AP	0.54	0/659	0.82	1/884 (0.1%)
17	AQ	0.57	0/658	0.74	0/881
18	AR	0.61	0/463	0.70	0/621
19	AS	0.48	0/653	0.73	0/877
2	AB	0.60	0/1736	0.79	0/2338
20	AT	0.54	0/671	0.69	0/888
21	AU	0.93	0/431	0.97	0/570
22	AV	0.56	13/7912 (0.2%)	0.91	43/12332 (0.3%)
23	AW	0.79	1/1011 (0.1%)	0.96	1/1354 (0.1%)
24	AX	0.65	0/1832	0.81	0/2855
25	AY	0.40	0/5313	0.69	0/7195
26	BA	1.60	611/69795 (0.9%)	1.67	2068/108884 (1.9%)
27	BC	0.80	0/2122	0.90	1/2852 (0.0%)
28	BD	0.96	0/1586	0.92	1/2134 (0.0%)
29	BE	0.91	0/1571	0.89	1/2113 (0.0%)
3	AC	0.56	0/1652	0.71	0/2225
30	BF	0.65	0/1435	0.74	0/1926
31	BG	0.75	0/1343	0.85	1/1816 (0.1%)
32	BH	0.68	1/1121 (0.1%)	0.77	0/1515
33	BI	0.72	0/1046	0.74	0/1410
34	BJ	1.01	0/1152	0.84	1/1551 (0.1%)
35	BK	0.92	2/948 (0.2%)	0.94	1/1268 (0.1%)
36	BL	0.94	0/1054	1.01	0/1403
37	BM	0.94	0/1093	0.96	0/1460
38	BN	0.91	0/974	0.96	1/1301 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >2	RMSZ	# Z  >2
39	BO	0.76	0/902	0.87	1/1209 (0.1%)
4	AD	0.59	0/1665	0.74	1/2227 (0.0%)
40	BP	0.89	0/929	0.88	1/1242 (0.1%)
41	BQ	1.14	0/960	0.96	1/1278 (0.1%)
42	BR	1.01	1/829 (0.1%)	0.98	0/1107
43	BS	1.08	1/864 (0.1%)	0.97	1/1156 (0.1%)
44	BT	0.82	0/745	0.86	0/994
45	BU	0.91	0/788	0.90	0/1051
46	BV	0.79	0/766	0.81	0/1025
47	BW	1.02	0/582	0.97	0/769
48	BX	0.79	0/635	0.84	0/848
49	BY	0.76	0/510	0.96	1/677 (0.1%)
5	AE	0.62	0/1119	0.85	0/1504
50	BZ	1.04	0/453	0.95	0/605
51	B0	0.96	0/450	0.98	2/599 (0.3%)
52	B1	0.75	0/417	0.76	0/554
53	B2	1.03	0/380	0.99	2/498 (0.4%)
54	B3	0.94	0/513	0.85	0/676
55	B4	0.92	0/303	0.99	0/397
56	BB	1.33	4/2847 (0.1%)	1.58	79/4440 (1.8%)
6	AF	0.65	0/836	0.82	1/1128 (0.1%)
7	AG	0.50	0/1196	0.67	0/1602
8	AH	0.60	0/989	0.78	0/1326
9	AI	0.52	1/1034 (0.1%)	0.71	0/1375
All	All	1.19	640/170946 (0.4%)	1.35	2524/255354 (1.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
11	AK	0	1
13	AM	0	1
14	AN	0	1
21	AU	0	2
23	AW	0	1
24	AX	0	4
27	BC	0	1
28	BD	0	2
33	BI	0	1
4	AD	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
42	BR	0	1
45	BU	0	1
5	AE	0	1
50	BZ	0	1
9	AI	0	1
All	All	0	20

All (640) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BA	1142	A	N9-C4	-18.15	1.26	1.37
26	BA	984	A	N9-C4	-13.41	1.29	1.37
26	BA	984	A	C5-C6	-10.40	1.31	1.41
26	BA	528	A	N7-C5	-10.33	1.33	1.39
26	BA	2250	G	N9-C4	-10.21	1.29	1.38
26	BA	672	C	N1-C6	-9.53	1.31	1.37
26	BA	1452	G	N9-C4	-9.48	1.30	1.38
26	BA	783	A	N9-C4	-9.10	1.32	1.37
26	BA	1999	C	N1-C6	-8.98	1.31	1.37
26	BA	1322	A	N9-C4	-8.81	1.32	1.37
26	BA	2711	A	N9-C4	-8.63	1.32	1.37
26	BA	1779	U	C2-N3	-8.62	1.31	1.37
26	BA	814	C	N1-C6	-8.60	1.31	1.37
26	BA	752	A	N7-C5	-8.59	1.34	1.39
26	BA	1779	U	N3-C4	-8.56	1.30	1.38
26	BA	974	G	N9-C8	8.50	1.43	1.37
26	BA	1322	A	N3-C4	-8.32	1.29	1.34
26	BA	1452	G	N3-C4	-8.28	1.29	1.35
26	BA	1452	G	C5-C6	-8.27	1.34	1.42
26	BA	473	G	C6-N1	-8.26	1.33	1.39
26	BA	1677	A	N9-C4	-8.15	1.32	1.37
26	BA	668	A	N7-C5	-8.13	1.34	1.39
26	BA	2286	G	N9-C4	-8.11	1.31	1.38
26	BA	2241	A	N9-C4	-8.05	1.33	1.37
26	BA	64	A	N3-C4	-8.03	1.30	1.34
26	BA	2725	A	N9-C4	-8.02	1.33	1.37
26	BA	690	G	C5-C4	-8.00	1.32	1.38
26	BA	1307	A	N3-C4	-8.00	1.30	1.34
26	BA	371	A	N9-C4	-7.91	1.33	1.37
26	BA	2071	A	N9-C4	-7.90	1.33	1.37
26	BA	1646	C	N1-C6	-7.89	1.32	1.37
26	BA	940	G	N7-C5	-7.83	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BA	1999	C	N1-C2	-7.82	1.32	1.40
26	BA	16	C	N1-C6	-7.80	1.32	1.37
26	BA	752	A	C5-C6	-7.77	1.34	1.41
26	BA	2270	A	N3-C4	-7.75	1.30	1.34
26	BA	668	A	N9-C4	-7.72	1.33	1.37
26	BA	513	A	N7-C5	-7.72	1.34	1.39
26	BA	690	G	N9-C4	-7.70	1.31	1.38
26	BA	1936	A	N9-C4	-7.65	1.33	1.37
26	BA	21	A	N9-C4	-7.54	1.33	1.37
26	BA	221	A	N9-C4	-7.53	1.33	1.37
26	BA	2426	A	N7-C5	-7.41	1.34	1.39
26	BA	1242	U	N1-C2	-7.40	1.31	1.38
26	BA	1294	U	C2-N3	-7.35	1.32	1.37
26	BA	1226	A	C5-C4	-7.35	1.33	1.38
26	BA	856	G	N3-C4	-7.32	1.30	1.35
26	BA	206	U	C2-N3	-7.29	1.32	1.37
26	BA	2267	A	N3-C4	-7.28	1.30	1.34
26	BA	2616	C	N1-C6	-7.28	1.32	1.37
32	BH	149	GLU	CD-OE2	7.28	1.33	1.25
26	BA	974	G	N9-C4	-7.26	1.32	1.38
26	BA	819	A	N9-C4	-7.25	1.33	1.37
26	BA	1936	A	N3-C4	-7.21	1.30	1.34
26	BA	813	U	N1-C2	-7.19	1.32	1.38
26	BA	492	A	N3-C4	-7.17	1.30	1.34
26	BA	204	A	C6-N1	-7.13	1.30	1.35
26	BA	2388	A	C5-C4	-7.08	1.33	1.38
26	BA	1657	U	N1-C2	-7.08	1.32	1.38
26	BA	241	A	N9-C4	-7.07	1.33	1.37
26	BA	439	A	N9-C4	-7.03	1.33	1.37
26	BA	1142	A	N3-C4	-7.02	1.30	1.34
26	BA	668	A	N3-C4	-7.01	1.30	1.34
26	BA	1231	U	N1-C2	-7.01	1.32	1.38
22	AV	110	U	C1'-N1	7.00	1.59	1.48
26	BA	960	A	N3-C4	-6.99	1.30	1.34
26	BA	1393	A	N3-C4	-6.97	1.30	1.34
26	BA	1029	A	N7-C5	-6.94	1.35	1.39
22	AV	26	U	C1'-N1	6.93	1.59	1.48
26	BA	1396	U	C2-N3	-6.93	1.32	1.37
26	BA	870	U	C1'-N1	6.92	1.59	1.48
26	BA	871	U	C1'-N1	6.92	1.59	1.48
22	AV	27	U	C1'-N1	6.91	1.59	1.48
26	BA	1311	G	N9-C4	-6.91	1.32	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BA	2009	A	C6-N1	-6.90	1.30	1.35
26	BA	832	U	N1-C2	-6.89	1.32	1.38
26	BA	1270	C	N1-C6	-6.89	1.33	1.37
22	AV	328	U	C1'-N1	6.89	1.59	1.48
26	BA	1278	C	N1-C6	-6.89	1.33	1.37
26	BA	478	A	N9-C4	-6.88	1.33	1.37
22	AV	42	U	C1'-N1	6.88	1.59	1.48
26	BA	964	C	N1-C6	-6.87	1.33	1.37
26	BA	218	A	N9-C4	-6.86	1.33	1.37
26	BA	614	A	N9-C4	-6.83	1.33	1.37
26	BA	786	C	N1-C6	-6.83	1.33	1.37
26	BA	832	U	C2-N3	-6.80	1.32	1.37
26	BA	2017	U	C2-N3	-6.79	1.32	1.37
26	BA	802	A	N7-C5	-6.78	1.35	1.39
26	BA	1901	A	N9-C4	-6.78	1.33	1.37
26	BA	1255	U	C4-C5	-6.76	1.37	1.43
26	BA	323	C	N1-C6	-6.75	1.33	1.37
26	BA	1242	U	C2-O2	-6.75	1.16	1.22
26	BA	536	G	C5-C4	-6.74	1.33	1.38
26	BA	2721	A	N7-C5	-6.74	1.35	1.39
26	BA	580	U	N1-C2	-6.73	1.32	1.38
26	BA	204	A	N3-C4	-6.72	1.30	1.34
26	BA	1278	C	N1-C2	-6.70	1.33	1.40
26	BA	477	A	N3-C4	-6.70	1.30	1.34
26	BA	2625	G	N7-C5	-6.70	1.35	1.39
26	BA	800	A	N7-C5	-6.67	1.35	1.39
26	BA	1833	C	N1-C6	-6.67	1.33	1.37
26	BA	16	C	N3-C4	-6.66	1.29	1.33
26	BA	974	G	C5-C6	-6.65	1.35	1.42
26	BA	1354	A	N9-C4	-6.64	1.33	1.37
26	BA	1572	A	N3-C4	-6.63	1.30	1.34
26	BA	2595	G	C6-N1	-6.63	1.34	1.39
26	BA	1638	C	N1-C6	-6.61	1.33	1.37
26	BA	856	G	C5-C4	-6.57	1.33	1.38
26	BA	1269	A	N3-C4	-6.56	1.30	1.34
26	BA	1674	G	N7-C5	-6.56	1.35	1.39
26	BA	478	A	N3-C4	-6.55	1.30	1.34
26	BA	744	U	C2-N3	-6.55	1.33	1.37
26	BA	735	A	N9-C4	-6.54	1.33	1.37
26	BA	1031	G	C5-C4	-6.54	1.33	1.38
26	BA	2240	U	C2-N3	-6.53	1.33	1.37
26	BA	2679	A	N9-C4	-6.51	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BA	2068	U	N1-C2	-6.50	1.32	1.38
26	BA	2732	G	N3-C4	-6.50	1.30	1.35
26	BA	2725	A	N3-C4	-6.50	1.30	1.34
26	BA	2059	A	C5-C6	-6.49	1.35	1.41
26	BA	235	U	C2-N3	-6.49	1.33	1.37
26	BA	526	A	N3-C4	-6.49	1.30	1.34
26	BA	829	A	N9-C4	-6.47	1.33	1.37
26	BA	526	A	C6-N1	-6.47	1.31	1.35
26	BA	2067	G	C5-C6	-6.45	1.35	1.42
26	BA	1133	A	N3-C4	-6.45	1.30	1.34
9	AI	129	ARG	C-OXT	6.43	1.35	1.23
26	BA	1395	A	N9-C4	-6.41	1.34	1.37
26	BA	2388	A	N3-C4	-6.41	1.31	1.34
22	AV	109	C	C1'-N1	6.39	1.58	1.48
22	AV	76	C	C1'-N1	6.38	1.58	1.48
26	BA	2377	A	N9-C4	-6.38	1.34	1.37
26	BA	1667	G	C6-N1	-6.37	1.35	1.39
26	BA	2364	C	N1-C6	-6.37	1.33	1.37
22	AV	78	C	C1'-N1	6.37	1.58	1.48
26	BA	585	G	N7-C5	-6.36	1.35	1.39
22	AV	75	C	C1'-N1	6.35	1.58	1.48
26	BA	824	U	N1-C2	-6.34	1.32	1.38
22	AV	331	C	C1'-N1	6.34	1.58	1.48
26	BA	1255	U	C4-O4	-6.34	1.18	1.23
26	BA	657	U	C2-N3	-6.33	1.33	1.37
26	BA	2250	G	N3-C4	-6.33	1.31	1.35
26	BA	204	A	C5-C6	-6.33	1.35	1.41
26	BA	2725	A	P-O5'	-6.33	1.53	1.59
26	BA	908	C	C1'-N1	6.32	1.58	1.48
26	BA	533	G	N7-C5	-6.32	1.35	1.39
26	BA	757	G	N9-C4	-6.31	1.32	1.38
26	BA	2686	G	N7-C5	-6.31	1.35	1.39
26	BA	2498	C	N3-C4	-6.29	1.29	1.33
26	BA	1008	A	N3-C4	-6.28	1.31	1.34
26	BA	2689	U	C2-N3	-6.28	1.33	1.37
26	BA	1246	A	N9-C4	-6.27	1.34	1.37
26	BA	690	G	N9-C8	-6.26	1.33	1.37
26	BA	1133	A	N9-C4	-6.25	1.34	1.37
26	BA	2376	A	N3-C4	-6.25	1.31	1.34
26	BA	2388	A	N9-C4	-6.25	1.34	1.37
26	BA	1013	C	N1-C6	-6.24	1.33	1.37
26	BA	1282	U	N1-C2	-6.24	1.32	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BA	523	C	N1-C6	-6.24	1.33	1.37
26	BA	13	A	N3-C4	-6.20	1.31	1.34
26	BA	1126	A	N7-C5	-6.20	1.35	1.39
26	BA	2286	G	N3-C4	-6.19	1.31	1.35
26	BA	1638	C	N1-C2	-6.19	1.33	1.40
26	BA	2749	A	N9-C4	-6.18	1.34	1.37
26	BA	2626	C	N1-C6	-6.18	1.33	1.37
26	BA	575	A	N7-C5	-6.17	1.35	1.39
26	BA	752	A	N9-C4	-6.16	1.34	1.37
26	BA	394	C	N1-C6	-6.16	1.33	1.37
26	BA	817	C	N1-C2	-6.16	1.33	1.40
26	BA	943	A	N7-C5	-6.15	1.35	1.39
26	BA	1143	A	N7-C5	-6.15	1.35	1.39
26	BA	14	A	N3-C4	-6.15	1.31	1.34
26	BA	568	U	C2-N3	-6.14	1.33	1.37
26	BA	667	U	C2-N3	-6.14	1.33	1.37
26	BA	1677	A	N3-C4	-6.14	1.31	1.34
26	BA	1640	A	N7-C5	-6.14	1.35	1.39
26	BA	2348	U	C2-N3	-6.13	1.33	1.37
26	BA	2820	A	N3-C4	6.13	1.38	1.34
1	AA	1346	A	N9-C4	-6.12	1.34	1.37
26	BA	1951	U	N1-C2	-6.12	1.33	1.38
26	BA	1977	A	N9-C4	-6.12	1.34	1.37
26	BA	2551	C	N1-C6	-6.12	1.33	1.37
26	BA	461	C	N3-C4	-6.11	1.29	1.33
26	BA	1687	G	C6-N1	-6.11	1.35	1.39
26	BA	984	A	N3-C4	-6.10	1.31	1.34
26	BA	823	C	N1-C6	-6.08	1.33	1.37
26	BA	745	G	N1-C2	-6.08	1.32	1.37
26	BA	2838	G	N9-C8	-6.08	1.33	1.37
26	BA	1528	A	N3-C4	-6.08	1.31	1.34
26	BA	1960	A	N9-C4	-6.07	1.34	1.37
26	BA	2053	G	N7-C5	-6.04	1.35	1.39
26	BA	922	C	N1-C6	-6.03	1.33	1.37
26	BA	2270	A	N9-C4	-6.03	1.34	1.37
26	BA	1608	A	N9-C4	-6.02	1.34	1.37
26	BA	814	C	N3-C4	-6.02	1.29	1.33
26	BA	470	A	N9-C4	-6.02	1.34	1.37
26	BA	2542	A	N9-C4	-6.01	1.34	1.37
26	BA	802	A	N3-C4	-6.01	1.31	1.34
26	BA	2511	U	N1-C2	-6.01	1.33	1.38
26	BA	423	A	N9-C4	-6.01	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BA	2389	G	N9-C4	-6.01	1.33	1.38
26	BA	384	A	N9-C4	-6.00	1.34	1.37
26	BA	2515	C	N1-C6	-5.99	1.33	1.37
26	BA	451	U	C2-N3	-5.99	1.33	1.37
26	BA	683	U	N1-C2	-5.99	1.33	1.38
26	BA	975	A	N3-C4	-5.99	1.31	1.34
26	BA	693	A	N3-C4	-5.99	1.31	1.34
26	BA	752	A	N3-C4	-5.98	1.31	1.34
26	BA	1345	C	N1-C6	-5.98	1.33	1.37
26	BA	2510	C	C2-N3	-5.98	1.30	1.35
26	BA	525	U	N1-C2	-5.98	1.33	1.38
26	BA	2691	C	N1-C6	-5.98	1.33	1.37
26	BA	474	G	C5-C4	-5.98	1.34	1.38
26	BA	564	C	N3-C4	-5.97	1.29	1.33
26	BA	575	A	C6-N1	-5.96	1.31	1.35
26	BA	1028	A	N3-C4	-5.96	1.31	1.34
26	BA	2620	C	N3-C4	-5.96	1.29	1.33
26	BA	663	G	N9-C8	-5.96	1.33	1.37
43	BS	73	LYS	CD-CE	5.95	1.66	1.51
26	BA	768	G	C5-C4	-5.95	1.34	1.38
26	BA	1251	C	N1-C6	-5.94	1.33	1.37
26	BA	2496	C	N1-C6	-5.94	1.33	1.37
26	BA	2002	G	C5-C4	-5.93	1.34	1.38
26	BA	598	U	N1-C2	-5.92	1.33	1.38
26	BA	1994	C	N1-C6	-5.92	1.33	1.37
26	BA	2083	G	N9-C4	-5.92	1.33	1.38
26	BA	2259	U	N1-C6	-5.89	1.32	1.38
26	BA	2749	A	N3-C4	-5.89	1.31	1.34
26	BA	999	U	N1-C2	-5.88	1.33	1.38
26	BA	1971	U	N3-C4	5.88	1.43	1.38
26	BA	2004	G	C6-N1	-5.88	1.35	1.39
26	BA	2389	G	N9-C8	-5.88	1.33	1.37
26	BA	674	G	N9-C8	-5.88	1.33	1.37
26	BA	2250	G	C5-C6	-5.87	1.36	1.42
26	BA	2005	A	N9-C4	-5.87	1.34	1.37
26	BA	1791	A	N3-C4	-5.86	1.31	1.34
26	BA	1602	U	C2-N3	-5.86	1.33	1.37
26	BA	1769	U	N1-C2	-5.85	1.33	1.38
26	BA	120	U	C2-N3	-5.84	1.33	1.37
26	BA	2792	A	N7-C5	-5.84	1.35	1.39
26	BA	528	A	N9-C4	-5.84	1.34	1.37
26	BA	964	C	N3-C4	-5.83	1.29	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BA	754	U	N3-C4	-5.83	1.33	1.38
26	BA	2628	C	N1-C6	-5.83	1.33	1.37
26	BA	1309	G	N1-C2	-5.83	1.33	1.37
26	BA	2418	A	N7-C5	-5.83	1.35	1.39
26	BA	2615	U	C2-N3	-5.83	1.33	1.37
26	BA	346	A	N3-C4	-5.83	1.31	1.34
26	BA	2898	U	C2-N3	-5.82	1.33	1.37
26	BA	2275	C	N3-C4	-5.82	1.29	1.33
1	AA	781	A	N3-C4	-5.82	1.31	1.34
26	BA	2576	G	N3-C4	-5.82	1.31	1.35
26	BA	2264	C	N3-C4	-5.81	1.29	1.33
26	BA	2579	C	N3-C4	-5.81	1.29	1.33
26	BA	2894	G	N9-C8	-5.81	1.33	1.37
26	BA	1218	G	N7-C5	-5.81	1.35	1.39
26	BA	527	C	N1-C6	-5.80	1.33	1.37
26	BA	819	A	N3-C4	-5.80	1.31	1.34
26	BA	2358	A	N9-C4	-5.80	1.34	1.37
26	BA	1353	A	C6-N1	-5.80	1.31	1.35
26	BA	821	A	N9-C4	-5.80	1.34	1.37
26	BA	1011	G	N3-C4	-5.79	1.31	1.35
26	BA	1641	A	N7-C5	-5.79	1.35	1.39
26	BA	1002	G	N1-C2	-5.78	1.33	1.37
26	BA	2562	U	C2-N3	-5.77	1.33	1.37
26	BA	14	A	N9-C4	-5.77	1.34	1.37
26	BA	528	A	C5-C6	-5.77	1.35	1.41
26	BA	1393	A	N9-C4	-5.75	1.34	1.37
26	BA	977	G	N9-C8	-5.75	1.33	1.37
26	BA	1009	A	N9-C4	-5.75	1.34	1.37
26	BA	1245	G	C6-N1	-5.75	1.35	1.39
35	BK	92	GLU	CG-CD	5.75	1.60	1.51
22	AV	329	U	C1'-N1	5.75	1.57	1.48
26	BA	554	U	N1-C2	-5.75	1.33	1.38
26	BA	819	A	N7-C5	-5.75	1.35	1.39
26	BA	111	A	N9-C4	-5.74	1.34	1.37
26	BA	513	A	C5-C6	-5.74	1.35	1.41
26	BA	2060	A	N3-C4	-5.74	1.31	1.34
26	BA	1677	A	C6-N1	-5.73	1.31	1.35
26	BA	2681	C	N1-C6	-5.73	1.33	1.37
26	BA	2067	G	N7-C5	-5.73	1.35	1.39
26	BA	443	A	N9-C4	-5.73	1.34	1.37
26	BA	1316	U	C2-N3	-5.73	1.33	1.37
26	BA	2061	G	N7-C5	-5.73	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	AV	330	U	C1'-N1	5.73	1.57	1.48
26	BA	1936	A	N9-C8	5.73	1.42	1.37
26	BA	2591	C	N1-C6	-5.73	1.33	1.37
26	BA	946	C	N3-C4	-5.72	1.29	1.33
26	BA	516	C	N3-C4	-5.72	1.29	1.33
26	BA	706	A	N3-C4	-5.72	1.31	1.34
26	BA	1290	C	N1-C6	-5.72	1.33	1.37
26	BA	993	G	C6-N1	-5.71	1.35	1.39
26	BA	1282	U	C2-N3	-5.70	1.33	1.37
26	BA	17	G	N9-C8	-5.70	1.33	1.37
26	BA	830	G	C6-N1	-5.69	1.35	1.39
26	BA	1254	A	N3-C4	-5.69	1.31	1.34
26	BA	1528	A	N9-C4	-5.69	1.34	1.37
26	BA	482	A	N9-C4	-5.68	1.34	1.37
26	BA	1993	U	C2-N3	-5.68	1.33	1.37
26	BA	946	C	C4-N4	-5.68	1.28	1.33
26	BA	2625	G	N9-C8	-5.67	1.33	1.37
26	BA	204	A	N9-C4	-5.67	1.34	1.37
26	BA	1993	U	N1-C2	-5.67	1.33	1.38
26	BA	2753	A	N9-C4	-5.67	1.34	1.37
26	BA	980	A	N3-C4	-5.66	1.31	1.34
26	BA	1452	G	N7-C5	-5.66	1.35	1.39
26	BA	1123	C	N3-C4	-5.65	1.29	1.33
26	BA	2012	G	N9-C8	-5.65	1.33	1.37
26	BA	1249	U	P-O5'	-5.65	1.54	1.59
26	BA	2067	G	C5-C4	-5.65	1.34	1.38
26	BA	1216	G	C6-N1	-5.65	1.35	1.39
26	BA	1658	C	N1-C6	-5.64	1.33	1.37
42	BR	92	TRP	CB-CG	-5.63	1.40	1.50
26	BA	970	U	N1-C2	-5.63	1.33	1.38
26	BA	1396	U	N3-C4	-5.63	1.33	1.38
26	BA	572	A	C6-N1	-5.63	1.31	1.35
26	BA	555	G	C8-N7	-5.62	1.27	1.30
26	BA	2051	A	N3-C4	-5.62	1.31	1.34
26	BA	832	U	C2-O2	-5.62	1.17	1.22
26	BA	1311	G	N1-C2	5.62	1.42	1.37
26	BA	2478	A	N9-C4	-5.61	1.34	1.37
26	BA	1658	C	N3-C4	-5.61	1.30	1.33
26	BA	2523	G	N7-C5	-5.61	1.35	1.39
26	BA	2567	G	C5-C4	-5.60	1.34	1.38
26	BA	1999	C	N3-C4	-5.60	1.30	1.33
26	BA	1787	A	N3-C4	-5.60	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BA	2012	G	C5-C4	-5.60	1.34	1.38
26	BA	2628	C	N3-C4	-5.60	1.30	1.33
26	BA	1614	A	N9-C4	-5.59	1.34	1.37
26	BA	2724	U	C2-N3	-5.59	1.33	1.37
56	BB	78	A	N9-C4	-5.59	1.34	1.37
26	BA	985	C	C2-N3	-5.59	1.31	1.35
26	BA	533	G	N9-C8	-5.59	1.33	1.37
26	BA	959	A	N3-C4	-5.58	1.31	1.34
26	BA	750	A	N9-C4	-5.58	1.34	1.37
26	BA	1219	U	C2-N3	-5.57	1.33	1.37
26	BA	2614	A	N3-C4	-5.57	1.31	1.34
26	BA	1046	A	N7-C5	-5.57	1.35	1.39
26	BA	589	U	C2-N3	-5.57	1.33	1.37
26	BA	1286	A	N7-C5	-5.57	1.35	1.39
26	BA	1672	A	N7-C5	-5.56	1.35	1.39
26	BA	1354	A	N3-C4	-5.56	1.31	1.34
26	BA	2866	U	C2-N3	-5.56	1.33	1.37
26	BA	777	G	N9-C8	-5.56	1.33	1.37
26	BA	1284	A	N9-C4	-5.56	1.34	1.37
26	BA	1667	G	N1-C2	-5.56	1.33	1.37
26	BA	2053	G	C8-N7	-5.56	1.27	1.30
26	BA	1766	G	N9-C4	-5.55	1.33	1.38
26	BA	2049	G	C6-N1	-5.54	1.35	1.39
26	BA	518	G	N9-C8	-5.54	1.33	1.37
26	BA	2510	C	N1-C6	-5.54	1.33	1.37
26	BA	528	A	N3-C4	-5.54	1.31	1.34
26	BA	776	G	C8-N7	-5.54	1.27	1.30
26	BA	2225	A	C5-C6	-5.53	1.36	1.41
26	BA	536	G	N9-C4	-5.53	1.33	1.38
26	BA	2351	G	N7-C5	-5.53	1.35	1.39
26	BA	17	G	C5-C4	-5.52	1.34	1.38
26	BA	453	A	N7-C5	-5.52	1.35	1.39
26	BA	2008	C	N1-C6	-5.52	1.33	1.37
26	BA	656	G	N9-C4	-5.52	1.33	1.38
56	BB	78	A	N7-C5	-5.51	1.35	1.39
26	BA	1929	G	P-O5'	-5.51	1.54	1.59
26	BA	2633	G	N3-C4	-5.51	1.31	1.35
26	BA	1250	G	N9-C8	-5.51	1.33	1.37
26	BA	2435	A	N9-C4	-5.50	1.34	1.37
26	BA	579	G	N9-C8	-5.50	1.33	1.37
26	BA	1818	U	C2-N3	-5.50	1.33	1.37
26	BA	2691	C	C2-N3	-5.50	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BA	474	G	N7-C5	-5.50	1.35	1.39
26	BA	1250	G	N7-C5	-5.50	1.35	1.39
26	BA	2245	U	C2-N3	-5.49	1.33	1.37
26	BA	817	C	C2-O2	-5.49	1.19	1.24
26	BA	188	G	C6-N1	-5.49	1.35	1.39
26	BA	672	C	N1-C2	-5.49	1.34	1.40
26	BA	675	A	C6-N1	-5.49	1.31	1.35
26	BA	501	A	C6-N1	-5.48	1.31	1.35
26	BA	2330	G	N3-C4	-5.48	1.31	1.35
26	BA	2394	C	N1-C2	-5.48	1.34	1.40
26	BA	1620	G	N3-C4	-5.47	1.31	1.35
26	BA	735	A	N3-C4	-5.47	1.31	1.34
26	BA	2616	C	N1-C2	-5.47	1.34	1.40
26	BA	670	A	N9-C4	-5.46	1.34	1.37
26	BA	824	U	C2-N3	-5.46	1.33	1.37
26	BA	384	A	C6-N6	-5.46	1.29	1.33
26	BA	952	G	N9-C8	-5.46	1.34	1.37
26	BA	1766	G	C5-C4	-5.46	1.34	1.38
26	BA	945	A	C5-C4	-5.45	1.34	1.38
26	BA	2066	C	N1-C6	-5.45	1.33	1.37
26	BA	2376	A	C6-N1	-5.45	1.31	1.35
26	BA	2728	U	C2-N3	-5.44	1.33	1.37
26	BA	1187	G	N7-C5	-5.44	1.35	1.39
26	BA	2616	C	N3-C4	-5.44	1.30	1.33
26	BA	1319	C	N1-C2	-5.43	1.34	1.40
26	BA	1360	G	C6-N1	-5.43	1.35	1.39
26	BA	2485	G	C2-N3	-5.43	1.28	1.32
26	BA	971	G	N9-C8	-5.43	1.34	1.37
26	BA	2364	C	C2-N3	-5.43	1.31	1.35
26	BA	567	U	N1-C2	-5.43	1.33	1.38
26	BA	1997	C	N1-C6	-5.43	1.33	1.37
26	BA	536	G	C2-N3	-5.42	1.28	1.32
26	BA	1196	C	N3-C4	-5.42	1.30	1.33
26	BA	1312	U	C2-N3	-5.42	1.33	1.37
26	BA	2590	A	N3-C4	-5.42	1.31	1.34
26	BA	2351	G	C5-C6	-5.42	1.36	1.42
26	BA	2841	C	N1-C6	-5.42	1.33	1.37
26	BA	768	G	N7-C5	-5.41	1.36	1.39
26	BA	620	G	N9-C4	-5.41	1.33	1.38
26	BA	1198	U	N1-C2	-5.41	1.33	1.38
26	BA	618	G	C2-N3	-5.40	1.28	1.32
26	BA	1301	A	N9-C4	-5.39	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BA	2010	G	N3-C4	-5.39	1.31	1.35
26	BA	825	A	N9-C4	-5.39	1.34	1.37
1	AA	1408	A	N9-C4	-5.39	1.34	1.37
56	BB	99	A	N7-C5	-5.39	1.36	1.39
26	BA	1247	A	N9-C4	-5.38	1.34	1.37
26	BA	2003	A	N7-C5	-5.38	1.36	1.39
26	BA	1791	A	C5-C6	-5.37	1.36	1.41
26	BA	2496	C	N3-C4	-5.37	1.30	1.33
26	BA	961	C	N1-C6	-5.37	1.33	1.37
26	BA	863	A	N3-C4	-5.37	1.31	1.34
22	AV	50	G	C1'-N9	-5.37	1.39	1.46
26	BA	515	A	N7-C5	-5.37	1.36	1.39
26	BA	1470	A	N3-C4	-5.36	1.31	1.34
26	BA	2046	G	C5-C6	-5.36	1.36	1.42
26	BA	2277	G	C6-N1	-5.36	1.35	1.39
26	BA	2497	A	C8-N7	-5.36	1.27	1.31
26	BA	1826	G	N9-C8	-5.35	1.34	1.37
26	BA	2500	U	N1-C2	-5.35	1.33	1.38
26	BA	586	A	C6-N1	-5.35	1.31	1.35
26	BA	640	C	N1-C6	-5.35	1.33	1.37
26	BA	1226	A	N9-C8	-5.35	1.33	1.37
26	BA	2453	A	N3-C4	-5.35	1.31	1.34
26	BA	2071	A	N3-C4	-5.35	1.31	1.34
26	BA	384	A	C5-C6	-5.34	1.36	1.41
26	BA	482	A	N7-C5	-5.34	1.36	1.39
26	BA	733	G	C5-C6	-5.34	1.37	1.42
26	BA	2728	U	N3-C4	-5.34	1.33	1.38
26	BA	2057	G	N1-C2	-5.34	1.33	1.37
26	BA	856	G	C2-N3	-5.34	1.28	1.32
26	BA	1255	U	N1-C2	-5.34	1.33	1.38
26	BA	1654	A	N9-C4	-5.34	1.34	1.37
26	BA	2482	A	N9-C4	-5.34	1.34	1.37
26	BA	1265	A	C6-N1	-5.34	1.31	1.35
26	BA	384	A	C6-N1	-5.33	1.31	1.35
26	BA	1790	C	N1-C6	-5.33	1.33	1.37
26	BA	959	A	C6-N1	-5.33	1.31	1.35
26	BA	997	G	N3-C4	-5.33	1.31	1.35
26	BA	956	G	N9-C8	-5.33	1.34	1.37
26	BA	2788	C	N3-C4	-5.33	1.30	1.33
26	BA	2711	A	N3-C4	-5.33	1.31	1.34
26	BA	760	G	C5-C4	-5.32	1.34	1.38
26	BA	1654	A	N7-C5	-5.32	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BA	997	G	N9-C4	-5.32	1.33	1.38
26	BA	2211	A	N9-C4	5.31	1.41	1.37
26	BA	852	U	N1-C2	-5.31	1.33	1.38
26	BA	2349	G	C6-N1	-5.31	1.35	1.39
26	BA	2052	A	N3-C4	-5.31	1.31	1.34
26	BA	2012	G	N3-C4	-5.30	1.31	1.35
26	BA	1672	A	P-O5'	-5.29	1.54	1.59
26	BA	2579	C	C2-N3	-5.29	1.31	1.35
26	BA	1125	G	N7-C5	-5.29	1.36	1.39
26	BA	2722	G	N9-C4	-5.28	1.33	1.38
26	BA	482	A	C5-C6	-5.28	1.36	1.41
26	BA	2790	U	N1-C2	5.27	1.43	1.38
26	BA	21	A	N3-C4	-5.27	1.31	1.34
26	BA	827	U	N1-C2	-5.27	1.33	1.38
26	BA	1148	U	C2-N3	-5.27	1.34	1.37
26	BA	917	A	N7-C5	-5.27	1.36	1.39
26	BA	1155	A	C5-C4	-5.27	1.35	1.38
26	BA	2495	G	C6-N1	-5.26	1.35	1.39
26	BA	745	G	C6-N1	-5.26	1.35	1.39
26	BA	472	A	N9-C8	-5.26	1.33	1.37
26	BA	1769	U	C2-N3	-5.26	1.34	1.37
26	BA	1774	C	C4-C5	-5.26	1.38	1.43
26	BA	78	U	C2-N3	-5.25	1.34	1.37
26	BA	95	A	N3-C4	-5.25	1.31	1.34
26	BA	770	G	N3-C4	-5.25	1.31	1.35
26	BA	825	A	N9-C8	-5.24	1.33	1.37
26	BA	971	G	C5-C4	-5.24	1.34	1.38
26	BA	754	U	C2-N3	-5.24	1.34	1.37
26	BA	32	C	N1-C6	-5.24	1.34	1.37
26	BA	735	A	N9-C8	-5.24	1.33	1.37
26	BA	739	A	N3-C4	-5.24	1.31	1.34
26	BA	1656	C	C2-O2	-5.24	1.19	1.24
26	BA	89	A	C6-N1	-5.23	1.31	1.35
26	BA	236	C	N1-C6	-5.23	1.34	1.37
26	BA	1332	G	C6-N1	-5.23	1.35	1.39
26	BA	2503	A	N7-C5	-5.23	1.36	1.39
26	BA	2685	G	P-O5'	-5.23	1.54	1.59
26	BA	2277	G	N1-C2	-5.23	1.33	1.37
26	BA	2553	G	N7-C5	-5.23	1.36	1.39
26	BA	1265	A	C5-C4	-5.23	1.35	1.38
26	BA	522	A	N9-C8	-5.22	1.33	1.37
26	BA	1163	G	N3-C4	-5.22	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BA	1278	C	C4-C5	-5.22	1.38	1.43
26	BA	2397	G	C5-C4	-5.22	1.34	1.38
26	BA	533	G	C6-N1	-5.22	1.35	1.39
26	BA	13	A	C6-N1	-5.22	1.31	1.35
26	BA	971	G	C8-N7	-5.22	1.27	1.30
26	BA	2598	A	N9-C4	-5.22	1.34	1.37
26	BA	1332	G	C5-C4	-5.22	1.34	1.38
26	BA	2286	G	C5-C6	-5.22	1.37	1.42
26	BA	960	A	C5-C4	-5.21	1.35	1.38
26	BA	1656	C	C2-N3	-5.21	1.31	1.35
26	BA	2005	A	N7-C5	-5.21	1.36	1.39
26	BA	743	A	N3-C4	-5.21	1.31	1.34
26	BA	764	A	N3-C4	-5.21	1.31	1.34
26	BA	814	C	C4-C5	-5.21	1.38	1.43
26	BA	2838	G	N9-C4	-5.21	1.33	1.38
26	BA	2010	G	C5-C4	-5.21	1.34	1.38
26	BA	993	G	N1-C2	-5.20	1.33	1.37
26	BA	1944	U	C2-N3	-5.20	1.34	1.37
26	BA	2020	A	N3-C4	-5.20	1.31	1.34
26	BA	1260	A	N9-C4	-5.19	1.34	1.37
56	BB	50	A	N9-C4	-5.19	1.34	1.37
26	BA	806	C	N3-C4	-5.19	1.30	1.33
26	BA	2815	C	N3-C4	-5.19	1.30	1.33
26	BA	2589	A	C5-C6	-5.19	1.36	1.41
26	BA	2751	G	N3-C4	-5.18	1.31	1.35
26	BA	564	C	N1-C6	-5.18	1.34	1.37
26	BA	1661	G	C6-N1	-5.18	1.35	1.39
26	BA	590	A	N3-C4	-5.18	1.31	1.34
26	BA	1630	A	N3-C4	-5.18	1.31	1.34
26	BA	450	G	N9-C8	-5.17	1.34	1.37
26	BA	784	G	N7-C5	-5.17	1.36	1.39
26	BA	1315	C	N1-C6	-5.17	1.34	1.37
26	BA	2851	A	N9-C4	5.17	1.41	1.37
26	BA	1257	C	N1-C6	-5.17	1.34	1.37
26	BA	590	A	N9-C4	-5.17	1.34	1.37
26	BA	1784	A	C5-C6	-5.17	1.36	1.41
26	BA	679	C	N3-C4	-5.16	1.30	1.33
26	BA	2574	G	N7-C5	-5.16	1.36	1.39
26	BA	1226	A	N3-C4	-5.16	1.31	1.34
1	AA	896	C	N1-C6	-5.16	1.34	1.37
26	BA	1031	G	N1-C2	-5.15	1.33	1.37
26	BA	122	G	C5-C4	-5.15	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BA	245	G	C6-N1	-5.15	1.35	1.39
26	BA	2571	U	N1-C2	-5.15	1.33	1.38
26	BA	2457	U	P-O5'	-5.15	1.54	1.59
26	BA	1167	C	N3-C4	-5.15	1.30	1.33
26	BA	1641	A	N3-C4	-5.15	1.31	1.34
26	BA	2802	G	N3-C4	-5.14	1.31	1.35
35	BK	122	VAL	CA-CB	5.14	1.65	1.54
26	BA	941	A	C5-C6	-5.14	1.36	1.41
26	BA	1142	A	C5-C6	-5.14	1.36	1.41
26	BA	2709	G	C6-N1	-5.14	1.35	1.39
26	BA	749	A	N9-C4	-5.14	1.34	1.37
26	BA	2271	G	N1-C2	-5.13	1.33	1.37
26	BA	2530	A	C5-C6	-5.13	1.36	1.41
26	BA	1809	A	N9-C4	-5.13	1.34	1.37
26	BA	2716	C	N3-C4	-5.13	1.30	1.33
26	BA	1661	G	N1-C2	-5.12	1.33	1.37
26	BA	1677	A	C5-C4	-5.12	1.35	1.38
26	BA	1770	G	N9-C8	-5.12	1.34	1.37
26	BA	2241	A	N3-C4	-5.12	1.31	1.34
26	BA	2823	A	N3-C4	-5.12	1.31	1.34
26	BA	598	U	C2-N3	-5.11	1.34	1.37
26	BA	1213	A	N3-C4	-5.11	1.31	1.34
26	BA	679	C	N1-C6	-5.11	1.34	1.37
26	BA	2021	C	P-O5'	-5.11	1.54	1.59
26	BA	809	G	C6-N1	-5.11	1.35	1.39
26	BA	2376	A	N9-C4	-5.11	1.34	1.37
26	BA	2595	G	N3-C4	-5.11	1.31	1.35
26	BA	2047	C	C2-O2	-5.10	1.19	1.24
26	BA	2060	A	N9-C4	-5.10	1.34	1.37
26	BA	1980	G	C6-O6	-5.10	1.19	1.24
26	BA	2448	A	N3-C4	-5.10	1.31	1.34
26	BA	1331	G	N9-C4	-5.10	1.33	1.38
26	BA	1336	A	N9-C8	-5.10	1.33	1.37
26	BA	735	A	C6-N1	-5.09	1.31	1.35
26	BA	1632	A	N9-C4	-5.09	1.34	1.37
26	BA	2560	A	N3-C4	-5.09	1.31	1.34
26	BA	690	G	N3-C4	-5.09	1.31	1.35
26	BA	825	A	N3-C4	-5.09	1.31	1.34
26	BA	111	A	C5-C6	-5.08	1.36	1.41
26	BA	1192	G	N7-C5	-5.08	1.36	1.39
26	BA	2599	G	N7-C5	-5.08	1.36	1.39
26	BA	781	A	N7-C5	-5.08	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BA	1767	G	C2-N3	-5.08	1.28	1.32
26	BA	2311	A	N9-C4	5.08	1.40	1.37
26	BA	2592	G	C6-N1	-5.08	1.35	1.39
26	BA	1570	A	N3-C4	-5.07	1.31	1.34
26	BA	1301	A	N7-C5	-5.07	1.36	1.39
26	BA	1980	G	C6-N1	-5.07	1.36	1.39
26	BA	689	A	C6-N1	-5.06	1.32	1.35
26	BA	2508	G	C6-N1	-5.06	1.36	1.39
26	BA	1950	G	C5-C4	-5.06	1.34	1.38
26	BA	575	A	C5-C4	-5.06	1.35	1.38
26	BA	2825	G	C8-N7	-5.06	1.27	1.30
26	BA	751	A	N7-C5	-5.06	1.36	1.39
26	BA	1245	G	N1-C2	-5.05	1.33	1.37
26	BA	1288	G	N9-C8	-5.05	1.34	1.37
26	BA	1399	C	N1-C6	-5.05	1.34	1.37
26	BA	552	U	N1-C2	-5.05	1.34	1.38
26	BA	1732	C	N3-C4	-5.05	1.30	1.33
26	BA	222	A	N3-C4	-5.05	1.31	1.34
26	BA	856	G	N9-C4	-5.05	1.33	1.38
26	BA	575	A	C6-N6	-5.04	1.29	1.33
26	BA	620	G	N3-C4	-5.04	1.31	1.35
26	BA	1217	U	N1-C2	-5.04	1.34	1.38
26	BA	1271	G	N9-C8	-5.04	1.34	1.37
26	BA	409	G	C6-N1	-5.04	1.36	1.39
26	BA	1795	C	N1-C6	-5.04	1.34	1.37
26	BA	2259	U	C4-C5	-5.04	1.39	1.43
26	BA	2512	C	N1-C6	-5.04	1.34	1.37
26	BA	780	G	C6-N1	-5.04	1.36	1.39
26	BA	2637	U	N3-C4	-5.04	1.33	1.38
26	BA	2723	C	N3-C4	-5.04	1.30	1.33
26	BA	409	G	N3-C4	-5.04	1.31	1.35
26	BA	825	A	C5-C4	-5.04	1.35	1.38
26	BA	2347	C	N3-C4	-5.04	1.30	1.33
26	BA	2598	A	N3-C4	-5.04	1.31	1.34
1	AA	1101	A	N9-C4	5.03	1.40	1.37
26	BA	974	G	N3-C4	-5.03	1.31	1.35
26	BA	1624	U	C2-N3	-5.03	1.34	1.37
26	BA	2732	G	N9-C4	-5.03	1.33	1.38
26	BA	977	G	N7-C5	-5.03	1.36	1.39
26	BA	1791	A	N9-C4	-5.03	1.34	1.37
26	BA	2283	C	N1-C6	-5.03	1.34	1.37
26	BA	777	G	N7-C5	-5.03	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	AW	24	ILE	CA-CB	5.02	1.66	1.54
26	BA	704	G	N9-C8	-5.02	1.34	1.37
26	BA	742	A	N9-C4	-5.02	1.34	1.37
26	BA	1755	A	C6-N1	-5.02	1.32	1.35
26	BA	2607	G	C6-N1	-5.02	1.36	1.39
26	BA	2728	U	C4-O4	-5.02	1.19	1.23
26	BA	2864	G	N1-C2	-5.02	1.33	1.37
26	BA	2454	G	N9-C8	-5.02	1.34	1.37
26	BA	2070	A	N7-C5	-5.02	1.36	1.39
26	BA	2822	G	N3-C4	-5.02	1.31	1.35
26	BA	2837	A	C5-C4	-5.02	1.35	1.38
26	BA	1163	G	C5-C4	-5.01	1.34	1.38
26	BA	1278	C	N3-C4	-5.01	1.30	1.33
26	BA	2722	G	C6-N1	-5.01	1.36	1.39
26	BA	978	G	N9-C8	-5.01	1.34	1.37
26	BA	2045	C	C2-N3	-5.01	1.31	1.35
26	BA	2626	C	N1-C2	-5.00	1.35	1.40
26	BA	784	G	P-O5'	-5.00	1.54	1.59
26	BA	1009	A	N7-C5	-5.00	1.36	1.39
26	BA	2056	G	C5-C4	-5.00	1.34	1.38

All (2524) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	984	A	C2-N3-C4	-18.77	101.21	110.60
26	BA	2250	G	N3-C4-C5	17.36	137.28	128.60
26	BA	1638	C	N1-C2-O2	-16.58	108.95	118.90
26	BA	1142	A	C2-N3-C4	-16.57	102.31	110.60
26	BA	1142	A	N3-C4-C5	16.05	138.03	126.80
26	BA	984	A	N1-C6-N6	15.74	128.04	118.60
26	BA	1452	G	C4-C5-N7	15.41	116.97	110.80
26	BA	974	G	C5-N7-C8	-15.29	96.65	104.30
26	BA	974	G	C4-C5-N7	15.16	116.86	110.80
26	BA	752	A	C6-C5-N7	-15.13	121.71	132.30
26	BA	2250	G	C2-N3-C4	-15.11	104.35	111.90
26	BA	1452	G	N1-C6-O6	15.08	128.95	119.90
26	BA	984	A	N3-C4-C5	14.94	137.25	126.80
26	BA	752	A	N1-C6-N6	14.64	127.38	118.60
26	BA	1142	A	N3-C4-N9	-14.44	115.84	127.40
26	BA	974	G	N3-C4-C5	13.83	135.52	128.60
26	BA	1452	G	C5-N7-C8	-13.48	97.56	104.30
26	BA	1452	G	C6-C5-N7	-13.41	122.35	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	1452	G	C2-N3-C4	-13.19	105.31	111.90
26	BA	2250	G	N3-C4-N9	-13.12	118.12	126.00
26	BA	2250	G	C5-N7-C8	-12.88	97.86	104.30
26	BA	752	A	C5-N7-C8	-12.77	97.52	103.90
28	BD	151	THR	C-N-CD	-12.61	92.86	120.60
26	BA	528	A	C6-C5-N7	-12.42	123.61	132.30
26	BA	752	A	C4-C5-N7	12.20	116.80	110.70
26	BA	2250	G	C4-C5-N7	12.19	115.68	110.80
26	BA	783	A	C5-N7-C8	-12.18	97.81	103.90
26	BA	528	A	N7-C8-N9	12.06	119.83	113.80
26	BA	1779	U	C5-C4-O4	12.02	133.11	125.90
26	BA	337	C	C6-N1-C2	11.88	125.05	120.30
26	BA	1396	U	N3-C4-O4	-11.71	111.21	119.40
26	BA	783	A	C4-C5-N7	11.66	116.53	110.70
26	BA	1547	C	N1-C2-O2	-11.63	111.92	118.90
26	BA	1452	G	N3-C4-C5	11.44	134.32	128.60
26	BA	2830	C	N1-C2-O2	-11.42	112.05	118.90
26	BA	2364	C	C6-N1-C2	11.29	124.82	120.30
26	BA	528	A	C8-N9-C4	-11.18	101.33	105.80
26	BA	974	G	N3-C4-N9	-11.11	119.33	126.00
26	BA	528	A	N1-C6-N6	11.06	125.24	118.60
56	BB	19	C	C6-N1-C2	11.04	124.72	120.30
26	BA	1936	A	C2-N3-C4	-11.01	105.10	110.60
26	BA	1319	C	C6-N1-C2	10.98	124.69	120.30
26	BA	1989	G	C5-C6-O6	-10.92	122.05	128.60
26	BA	783	A	N1-C6-N6	10.91	125.14	118.60
26	BA	1779	U	N3-C4-O4	-10.85	111.80	119.40
26	BA	1547	C	N3-C2-O2	10.76	129.43	121.90
26	BA	2286	G	C4-C5-N7	10.69	115.08	110.80
26	BA	2866	U	N3-C2-O2	-10.68	114.72	122.20
26	BA	342	A	N1-C6-N6	10.68	125.01	118.60
26	BA	528	A	C5-N7-C8	-10.65	98.57	103.90
26	BA	984	A	C4-C5-N7	10.57	115.98	110.70
1	AA	245	U	C2-N1-C1'	-10.56	105.03	117.70
26	BA	1936	A	C5-N7-C8	-10.55	98.62	103.90
26	BA	984	A	C5-C6-N1	-10.51	112.44	117.70
26	BA	1463	C	N1-C2-O2	-10.51	112.59	118.90
26	BA	1142	A	C5-N7-C8	-10.46	98.67	103.90
26	BA	2689	U	N3-C2-O2	-10.46	114.88	122.20
26	BA	1311	G	N3-C4-C5	10.42	133.81	128.60
26	BA	974	G	N7-C8-N9	10.42	118.31	113.10
26	BA	1779	U	N1-C2-N3	10.42	121.15	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	752	A	C5-C6-N6	-10.37	115.41	123.70
26	BA	444	C	N1-C2-O2	-10.36	112.69	118.90
26	BA	332	A	N1-C6-N6	-10.33	112.40	118.60
26	BA	2286	G	C2-N3-C4	-10.32	106.74	111.90
26	BA	2286	G	N3-C4-C5	10.31	133.76	128.60
26	BA	2275	C	C6-N1-C2	-10.28	116.19	120.30
1	AA	1524	C	N1-C2-O2	-10.28	112.73	118.90
26	BA	672	C	N3-C4-C5	-10.27	117.79	121.90
26	BA	752	A	N7-C8-N9	10.24	118.92	113.80
26	BA	984	A	C5-N7-C8	-10.24	98.78	103.90
26	BA	2820	A	C8-N9-C4	10.18	109.87	105.80
26	BA	446	G	C5-C6-O6	-10.12	122.53	128.60
26	BA	2286	G	C5-N7-C8	-10.07	99.27	104.30
26	BA	993	G	N1-C6-O6	-10.01	113.90	119.90
26	BA	528	A	C4-C5-C6	9.99	122.00	117.00
26	BA	984	A	N3-C4-N9	-9.99	119.41	127.40
26	BA	483	A	C8-N9-C4	9.98	109.79	105.80
26	BA	1212	G	C8-N9-C4	9.96	110.39	106.40
26	BA	752	A	C4-N9-C1'	9.96	144.22	126.30
26	BA	1351	C	N1-C2-O2	-9.94	112.93	118.90
26	BA	1990	C	C6-N1-C2	-9.95	116.32	120.30
26	BA	528	A	N1-C2-N3	9.92	134.26	129.30
26	BA	2232	C	N1-C2-O2	-9.88	112.97	118.90
26	BA	550	C	C2-N1-C1'	9.88	129.66	118.80
56	BB	114	C	C6-N1-C2	9.87	124.25	120.30
26	BA	1756	G	C5-C6-O6	-9.84	122.69	128.60
26	BA	784	G	C4-N9-C1'	9.81	139.26	126.50
26	BA	979	A	N1-C6-N6	9.80	124.48	118.60
26	BA	2031	A	C8-N9-C4	-9.79	101.88	105.80
26	BA	784	G	C8-N9-C1'	-9.74	114.34	127.00
26	BA	1971	U	C5-C4-O4	-9.74	120.06	125.90
26	BA	2840	C	N3-C4-C5	9.70	125.78	121.90
26	BA	974	G	C2-N3-C4	-9.69	107.06	111.90
26	BA	1301	A	N1-C6-N6	9.68	124.41	118.60
26	BA	2254	C	N1-C2-O2	-9.68	113.09	118.90
26	BA	555	G	C8-N9-C1'	-9.68	114.42	127.00
26	BA	1988	G	N1-C6-O6	9.62	125.67	119.90
26	BA	726	G	C6-C5-N7	-9.61	124.63	130.40
26	BA	1289	C	N3-C4-C5	9.56	125.73	121.90
26	BA	817	C	N1-C2-O2	-9.56	113.17	118.90
26	BA	690	G	C8-N9-C4	9.48	110.19	106.40
26	BA	1311	G	C5-N7-C8	-9.42	99.59	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	2762	C	C6-N1-C2	9.39	124.06	120.30
26	BA	1220	G	C5-C6-O6	9.38	134.23	128.60
1	AA	283	U	C2-N1-C1'	9.38	128.95	117.70
1	AA	1513	A	C8-N9-C4	9.35	109.54	105.80
22	AV	52	G	N7-C8-N9	9.34	117.77	113.10
26	BA	2820	A	N9-C4-C5	-9.29	102.08	105.80
1	AA	332	G	C8-N9-C4	9.29	110.12	106.40
1	AA	794	A	N1-C6-N6	-9.27	113.04	118.60
26	BA	733	G	C5-C6-O6	-9.27	123.04	128.60
26	BA	2771	C	N1-C2-O2	-9.22	113.37	118.90
26	BA	1315	C	N1-C2-O2	-9.16	113.40	118.90
26	BA	482	A	N1-C6-N6	9.15	124.09	118.60
26	BA	2689	U	N3-C4-O4	-9.15	112.99	119.40
26	BA	1572	A	N9-C4-C5	9.13	109.45	105.80
26	BA	1936	A	C5-C6-N1	-9.10	113.15	117.70
26	BA	528	A	C2-N3-C4	-9.09	106.05	110.60
26	BA	1837	C	N1-C2-O2	-9.07	113.46	118.90
26	BA	2295	C	N1-C2-O2	-9.04	113.47	118.90
26	BA	1779	U	C5-C6-N1	-9.04	118.18	122.70
26	BA	567	U	N1-C2-O2	-9.03	116.48	122.80
26	BA	821	A	C8-N9-C4	9.00	109.40	105.80
26	BA	2820	A	N1-C6-N6	8.99	124.00	118.60
26	BA	752	A	C4-C5-C6	8.99	121.49	117.00
26	BA	1612	C	N1-C2-O2	-8.99	113.51	118.90
26	BA	1249	U	N1-C2-O2	-8.98	116.51	122.80
26	BA	1396	U	C5-C4-O4	8.96	131.28	125.90
26	BA	598	U	C2-N1-C1'	-8.95	106.96	117.70
26	BA	1224	U	C2-N1-C1'	-8.95	106.96	117.70
26	BA	1311	G	N1-C6-O6	8.92	125.25	119.90
26	BA	992	C	N1-C2-O2	-8.91	113.56	118.90
26	BA	1756	G	N1-C6-O6	8.89	125.24	119.90
26	BA	2621	G	N9-C4-C5	8.89	108.96	105.40
26	BA	1936	A	N1-C6-N6	8.85	123.91	118.60
26	BA	807	U	C5-C4-O4	-8.85	120.59	125.90
1	AA	1457	G	C8-N9-C4	8.85	109.94	106.40
26	BA	2838	G	C8-N9-C4	8.83	109.93	106.40
26	BA	1452	G	C5-C6-O6	-8.82	123.31	128.60
26	BA	1985	C	N1-C2-O2	-8.80	113.62	118.90
1	AA	713	G	N1-C6-O6	-8.79	114.62	119.90
26	BA	1319	C	N3-C2-O2	8.79	128.05	121.90
26	BA	1612	C	N3-C2-O2	8.79	128.05	121.90
26	BA	1793	C	C6-N1-C2	8.79	123.81	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	1638	C	N3-C2-O2	8.76	128.03	121.90
26	BA	2462	C	N1-C2-O2	-8.75	113.65	118.90
26	BA	237	C	N1-C2-O2	-8.74	113.65	118.90
26	BA	555	G	N3-C4-N9	8.74	131.24	126.00
26	BA	63	A	N1-C6-N6	-8.71	113.37	118.60
26	BA	1808	A	N1-C6-N6	8.69	123.81	118.60
26	BA	456	C	N1-C2-O2	-8.69	113.69	118.90
26	BA	332	A	N9-C4-C5	8.68	109.27	105.80
26	BA	2293	G	N1-C6-O6	-8.68	114.69	119.90
26	BA	1660	G	C4-C5-N7	-8.68	107.33	110.80
26	BA	2067	G	C5-C6-O6	-8.68	123.39	128.60
26	BA	1804	C	N3-C4-C5	8.67	125.37	121.90
26	BA	675	A	C8-N9-C4	-8.66	102.33	105.80
1	AA	796	C	N1-C2-O2	8.64	124.08	118.90
26	BA	1573	G	N1-C6-O6	8.64	125.08	119.90
26	BA	812	C	N1-C2-O2	-8.61	113.73	118.90
26	BA	221	A	C2-N3-C4	-8.60	106.30	110.60
26	BA	2090	A	N1-C6-N6	-8.59	113.45	118.60
26	BA	2598	A	N9-C4-C5	8.55	109.22	105.80
56	BB	61	G	C8-N9-C4	8.54	109.81	106.40
26	BA	1122	G	C5-C6-O6	8.53	133.72	128.60
26	BA	2351	G	C6-C5-N7	-8.50	125.30	130.40
26	BA	974	G	C8-N9-C4	-8.49	103.00	106.40
26	BA	555	G	N9-C4-C5	-8.47	102.01	105.40
26	BA	1556	C	N1-C2-O2	-8.47	113.82	118.90
56	BB	8	C	C6-N1-C2	8.47	123.69	120.30
26	BA	208	C	C6-N1-C2	8.44	123.68	120.30
26	BA	501	A	C2-N3-C4	-8.44	106.38	110.60
26	BA	2551	C	N1-C2-O2	-8.42	113.85	118.90
26	BA	425	G	C5-C6-O6	-8.41	123.56	128.60
26	BA	1936	A	C8-N9-C4	-8.41	102.44	105.80
26	BA	446	G	N1-C6-O6	8.40	124.94	119.90
26	BA	1779	U	N3-C2-O2	-8.40	116.32	122.20
26	BA	2059	A	N1-C6-N6	8.40	123.64	118.60
26	BA	1311	G	C2-N3-C4	-8.39	107.71	111.90
26	BA	1437	C	N1-C2-O2	-8.39	113.87	118.90
26	BA	8	C	N1-C2-O2	-8.38	113.87	118.90
26	BA	1335	C	N1-C2-O2	-8.37	113.88	118.90
26	BA	2553	G	N3-C4-N9	8.35	131.01	126.00
26	BA	1311	G	C4-C5-N7	8.35	114.14	110.80
26	BA	2820	A	C2-N3-C4	-8.31	106.45	110.60
26	BA	2081	U	N1-C2-O2	-8.30	116.99	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	1142	A	C5-C6-N1	-8.30	113.55	117.70
26	BA	2416	C	C6-N1-C2	-8.28	116.99	120.30
26	BA	90	U	N3-C2-O2	-8.26	116.42	122.20
26	BA	1564	C	N1-C2-O2	-8.24	113.96	118.90
26	BA	2277	G	N1-C6-O6	-8.24	114.96	119.90
26	BA	752	A	C8-N9-C1'	-8.22	112.90	127.70
26	BA	1936	A	N7-C8-N9	8.21	117.91	113.80
26	BA	1617	C	C6-N1-C2	8.20	123.58	120.30
26	BA	2745	C	C6-N1-C2	8.20	123.58	120.30
26	BA	223	A	N9-C4-C5	8.20	109.08	105.80
26	BA	2512	C	N1-C2-O2	-8.19	113.98	118.90
26	BA	1340	U	C5-C4-O4	8.18	130.81	125.90
22	AV	52	G	C8-N9-C4	-8.16	103.13	106.40
26	BA	2616	C	C6-N1-C2	8.14	123.56	120.30
26	BA	935	C	N1-C2-O2	-8.13	114.02	118.90
26	BA	2699	C	C6-N1-C2	8.11	123.54	120.30
26	BA	2147	A	N1-C6-N6	8.11	123.46	118.60
26	BA	2069	G	N3-C4-C5	8.08	132.64	128.60
26	BA	508	A	C8-N9-C4	8.08	109.03	105.80
26	BA	647	G	C8-N9-C4	8.07	109.63	106.40
26	BA	997	G	N3-C4-N9	-8.06	121.16	126.00
26	BA	239	C	C6-N1-C2	8.06	123.52	120.30
26	BA	552	U	N1-C2-O2	-8.05	117.17	122.80
26	BA	516	C	N1-C2-O2	-8.04	114.08	118.90
26	BA	1378	A	N1-C6-N6	-8.04	113.78	118.60
26	BA	1892	C	N1-C2-O2	-8.03	114.08	118.90
26	BA	1519	G	C4-C5-N7	-8.02	107.59	110.80
26	BA	1685	C	C6-N1-C2	8.02	123.51	120.30
26	BA	2896	C	N3-C2-O2	-8.02	116.28	121.90
26	BA	371	A	C8-N9-C4	8.02	109.01	105.80
56	BB	15	A	C2-N3-C4	-8.02	106.59	110.60
26	BA	988	A	C5-C6-N1	-8.00	113.70	117.70
26	BA	1595	C	C6-N1-C2	7.99	123.50	120.30
26	BA	2523	G	N9-C4-C5	-7.99	102.20	105.40
26	BA	1437	C	N3-C2-O2	7.99	127.49	121.90
26	BA	942	G	C5-C6-O6	7.98	133.39	128.60
1	AA	71	A	N1-C6-N6	7.98	123.39	118.60
26	BA	2745	C	N3-C4-C5	7.98	125.09	121.90
56	BB	47	C	N1-C2-O2	-7.96	114.12	118.90
26	BA	801	G	N9-C4-C5	7.96	108.58	105.40
26	BA	748	G	C4-C5-N7	-7.94	107.62	110.80
26	BA	2422	C	N1-C2-O2	-7.94	114.14	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	676	A	N1-C6-N6	-7.93	113.84	118.60
26	BA	2896	C	C2-N1-C1'	7.93	127.52	118.80
26	BA	2278	A	N1-C6-N6	7.93	123.36	118.60
26	BA	1357	C	N3-C4-C5	7.92	125.07	121.90
26	BA	1013	C	N1-C2-O2	-7.92	114.15	118.90
26	BA	2032	G	C8-N9-C4	7.91	109.56	106.40
26	BA	1325	U	C5-C4-O4	7.90	130.64	125.90
26	BA	1436	G	N1-C6-O6	-7.89	115.17	119.90
26	BA	919	U	N1-C2-O2	7.88	128.32	122.80
26	BA	1804	C	C6-N1-C2	7.88	123.45	120.30
26	BA	1022	G	N3-C4-N9	-7.87	121.28	126.00
26	BA	984	A	C6-N1-C2	7.87	123.32	118.60
26	BA	2177	C	N3-C2-O2	-7.87	116.39	121.90
26	BA	2286	G	C6-C5-N7	-7.86	125.68	130.40
26	BA	1936	A	N3-C4-N9	-7.86	121.11	127.40
26	BA	2031	A	N9-C4-C5	7.86	108.94	105.80
26	BA	2699	C	C2-N1-C1'	-7.86	110.16	118.80
1	AA	1484	C	N1-C2-O2	-7.86	114.19	118.90
26	BA	930	G	C4-C5-N7	-7.85	107.66	110.80
26	BA	2853	C	N1-C2-O2	-7.85	114.19	118.90
26	BA	1265	A	C6-N1-C2	-7.84	113.89	118.60
26	BA	1389	G	C5-C6-O6	-7.84	123.90	128.60
56	BB	47	C	N3-C2-O2	7.84	127.39	121.90
26	BA	2177	C	N1-C2-O2	7.83	123.60	118.90
26	BA	2447	G	N9-C4-C5	-7.83	102.27	105.40
26	BA	1328	A	C2-N3-C4	-7.82	106.69	110.60
26	BA	1660	G	N9-C4-C5	7.82	108.53	105.40
26	BA	2121	G	N3-C4-C5	-7.82	124.69	128.60
26	BA	2621	G	C5-C6-O6	7.82	133.29	128.60
26	BA	2571	U	N1-C2-O2	-7.80	117.34	122.80
26	BA	2760	C	C2-N1-C1'	-7.80	110.22	118.80
26	BA	2320	U	C5-C4-O4	7.79	130.57	125.90
26	BA	1220	G	N1-C6-O6	-7.79	115.23	119.90
26	BA	1231	U	N3-C2-O2	7.77	127.64	122.20
26	BA	2688	G	N3-C4-N9	-7.77	121.34	126.00
56	BB	75	G	N1-C6-O6	-7.77	115.24	119.90
26	BA	1133	A	C2-N3-C4	-7.77	106.72	110.60
26	BA	2067	G	C6-C5-N7	-7.76	125.74	130.40
26	BA	2289	G	N1-C6-O6	-7.75	115.25	119.90
26	BA	626	A	N1-C6-N6	7.75	123.25	118.60
16	AP	51	ARG	NE-CZ-NH1	7.75	124.17	120.30
26	BA	726	G	N1-C6-O6	7.74	124.54	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1422	G	C6-C5-N7	-7.73	125.76	130.40
26	BA	2691	C	N3-C4-C5	7.73	124.99	121.90
26	BA	205	G	N1-C6-O6	-7.73	115.26	119.90
26	BA	2067	G	C4-C5-N7	7.73	113.89	110.80
26	BA	223	A	N1-C6-N6	-7.72	113.97	118.60
1	AA	880	C	N1-C2-O2	-7.72	114.27	118.90
26	BA	341	C	C6-N1-C2	7.72	123.39	120.30
26	BA	1711	A	N1-C6-N6	-7.72	113.97	118.60
26	BA	11	C	N1-C2-O2	-7.72	114.27	118.90
26	BA	2799	A	N1-C6-N6	7.72	123.23	118.60
26	BA	1989	G	N1-C6-O6	7.72	124.53	119.90
26	BA	1212	G	N9-C4-C5	-7.71	102.32	105.40
26	BA	634	C	C5-C4-N4	-7.70	114.81	120.20
26	BA	783	A	N7-C8-N9	7.70	117.65	113.80
26	BA	2523	G	C6-C5-N7	-7.69	125.78	130.40
26	BA	2762	C	C5-C6-N1	-7.69	117.15	121.00
26	BA	1792	G	C8-N9-C4	7.69	109.47	106.40
26	BA	2721	A	C5-C6-N6	-7.69	117.55	123.70
26	BA	1336	A	N1-C6-N6	-7.68	113.99	118.60
26	BA	2682	A	N1-C6-N6	7.68	123.21	118.60
26	BA	1325	U	N3-C4-O4	-7.68	114.03	119.40
26	BA	2658	C	C2-N1-C1'	-7.67	110.36	118.80
26	BA	754	U	C5-C4-O4	7.67	130.50	125.90
26	BA	783	A	C5-C6-N6	-7.67	117.56	123.70
26	BA	2289	G	C5-C6-O6	7.67	133.20	128.60
26	BA	1663	G	C8-N9-C4	7.66	109.47	106.40
26	BA	2500	U	N1-C2-O2	-7.66	117.44	122.80
26	BA	1394	U	N1-C2-N3	7.66	119.49	114.90
26	BA	2468	A	N1-C6-N6	7.64	123.19	118.60
26	BA	1519	G	N1-C6-O6	-7.64	115.31	119.90
26	BA	2227	A	N1-C6-N6	-7.64	114.02	118.60
1	AA	1063	C	N1-C2-O2	-7.63	114.32	118.90
26	BA	1780	A	N1-C6-N6	7.63	123.18	118.60
26	BA	2447	G	N1-C6-O6	7.63	124.48	119.90
26	BA	1757	A	C8-N9-C4	7.62	108.85	105.80
26	BA	2331	G	N3-C4-N9	7.62	130.57	126.00
26	BA	1683	U	N1-C2-O2	-7.62	117.47	122.80
26	BA	1913	A	N1-C6-N6	7.61	123.17	118.60
26	BA	210	C	C6-N1-C2	7.61	123.34	120.30
26	BA	124	G	C8-N9-C4	7.59	109.44	106.40
26	BA	315	G	N1-C6-O6	7.58	124.45	119.90
26	BA	458	G	N1-C6-O6	-7.58	115.35	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	679	C	N1-C2-O2	7.57	123.44	118.90
26	BA	2840	C	C6-N1-C2	7.57	123.33	120.30
26	BA	1362	C	N1-C2-O2	-7.57	114.36	118.90
26	BA	1142	A	C6-N1-C2	7.56	123.14	118.60
26	BA	2271	G	N3-C4-N9	7.56	130.53	126.00
26	BA	2447	G	C8-N9-C4	7.56	109.42	106.40
26	BA	336	C	N3-C2-O2	7.55	127.19	121.90
26	BA	208	C	C2-N1-C1'	-7.55	110.50	118.80
26	BA	1064	C	C6-N1-C2	-7.54	117.28	120.30
26	BA	2541	A	C8-N9-C4	7.54	108.81	105.80
26	BA	311	A	N1-C6-N6	7.53	123.12	118.60
26	BA	1426	G	C5-C6-O6	-7.53	124.08	128.60
26	BA	111	A	C2-N3-C4	-7.53	106.84	110.60
26	BA	1452	G	C5-C6-N1	-7.51	107.75	111.50
26	BA	2071	A	C2-N3-C4	-7.51	106.85	110.60
26	BA	2803	G	N1-C6-O6	-7.50	115.40	119.90
26	BA	1876	A	N1-C6-N6	-7.50	114.10	118.60
26	BA	2884	U	C5-C4-O4	7.50	130.40	125.90
26	BA	1563	U	C2-N1-C1'	-7.50	108.70	117.70
26	BA	2351	G	N1-C6-O6	7.50	124.40	119.90
26	BA	1758	U	N1-C2-N3	7.49	119.39	114.90
26	BA	2534	A	N1-C6-N6	7.49	123.09	118.60
26	BA	1045	C	N1-C2-O2	-7.49	114.41	118.90
26	BA	1209	U	N1-C2-O2	-7.49	117.56	122.80
26	BA	1779	U	C2-N1-C1'	-7.47	108.73	117.70
26	BA	2068	U	N1-C2-O2	-7.47	117.57	122.80
1	AA	1475	G	N1-C6-O6	7.47	124.38	119.90
26	BA	624	C	N1-C2-O2	-7.47	114.42	118.90
26	BA	2067	G	N1-C6-O6	7.46	124.38	119.90
26	BA	1780	A	C5-C6-N6	-7.46	117.74	123.70
26	BA	584	C	C6-N1-C2	7.45	123.28	120.30
26	BA	311	A	N9-C4-C5	-7.45	102.82	105.80
26	BA	348	A	C8-N9-C4	7.44	108.78	105.80
26	BA	2022	U	C5-C4-O4	-7.43	121.44	125.90
1	AA	971	G	N3-C4-N9	-7.42	121.55	126.00
1	AA	792	A	C8-N9-C4	7.42	108.77	105.80
26	BA	1989	G	N9-C4-C5	-7.41	102.44	105.40
26	BA	2893	A	N1-C2-N3	7.41	133.00	129.30
26	BA	334	C	N1-C2-O2	-7.41	114.46	118.90
26	BA	2598	A	N1-C6-N6	-7.40	114.16	118.60
26	BA	2896	C	C6-N1-C2	-7.40	117.34	120.30
26	BA	555	G	N3-C2-N2	7.40	125.08	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	93	G	C4-C5-N7	-7.40	107.84	110.80
26	BA	528	A	C4-C5-N7	7.39	114.40	110.70
26	BA	2591	C	N1-C2-O2	-7.39	114.47	118.90
26	BA	208	C	N1-C2-O2	-7.39	114.47	118.90
26	BA	1727	C	C6-N1-C2	-7.39	117.34	120.30
26	BA	1950	G	C5-C6-O6	-7.38	124.17	128.60
26	BA	2534	A	N9-C4-C5	-7.38	102.85	105.80
26	BA	1426	G	C6-C5-N7	-7.38	125.97	130.40
26	BA	1640	A	C8-N9-C4	-7.38	102.85	105.80
26	BA	555	G	C4-N9-C1'	7.38	136.09	126.50
26	BA	2678	C	C6-N1-C2	7.37	123.25	120.30
26	BA	97	C	N1-C2-O2	-7.37	114.48	118.90
26	BA	213	A	C8-N9-C4	7.36	108.74	105.80
26	BA	971	G	C2-N3-C4	7.36	115.58	111.90
26	BA	2866	U	C5-C4-O4	7.36	130.31	125.90
26	BA	1043	C	C6-N1-C2	7.34	123.23	120.30
26	BA	1835	G	C5-C6-O6	-7.33	124.20	128.60
26	BA	473	G	N1-C6-O6	-7.33	115.50	119.90
26	BA	974	G	C6-C5-N7	-7.33	126.00	130.40
26	BA	1691	C	N1-C2-O2	-7.33	114.50	118.90
26	BA	2155	U	N3-C2-O2	-7.33	117.07	122.20
1	AA	1422	G	C4-C5-N7	7.32	113.73	110.80
26	BA	1315	C	C2-N3-C4	-7.32	116.24	119.90
26	BA	2626	C	N1-C2-O2	-7.32	114.51	118.90
26	BA	979	A	C5-C6-N6	-7.32	117.85	123.70
26	BA	2266	A	C8-N9-C4	-7.32	102.87	105.80
26	BA	2375	G	C8-N9-C1'	7.32	136.51	127.00
26	BA	2375	G	C5-C6-O6	-7.31	124.22	128.60
26	BA	2347	C	C2-N1-C1'	-7.31	110.76	118.80
26	BA	264	C	N1-C2-O2	7.31	123.28	118.90
26	BA	752	A	C8-N9-C4	-7.30	102.88	105.80
1	AA	971	G	C8-N9-C1'	7.30	136.49	127.00
26	BA	382	A	N1-C6-N6	7.29	122.98	118.60
26	BA	1007	C	N3-C2-O2	7.28	127.00	121.90
26	BA	2067	G	N9-C4-C5	-7.28	102.49	105.40
26	BA	1704	C	C6-N1-C2	7.28	123.21	120.30
26	BA	1117	C	C6-N1-C2	7.27	123.21	120.30
26	BA	1108	U	N1-C2-O2	-7.27	117.71	122.80
26	BA	2367	G	C6-C5-N7	7.26	134.76	130.40
26	BA	1623	G	C4-C5-N7	7.26	113.70	110.80
1	AA	1481	U	C5-C4-O4	7.26	130.26	125.90
26	BA	2426	A	C8-N9-C4	-7.26	102.90	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	108	G	C8-N9-C4	-7.26	103.50	106.40
1	AA	90	C	N3-C2-O2	-7.26	116.82	121.90
1	AA	90	C	N1-C2-O2	7.26	123.25	118.90
26	BA	425	G	N1-C6-O6	7.26	124.25	119.90
26	BA	1779	U	C6-N1-C1'	7.26	131.36	121.20
26	BA	1835	G	C2-N3-C4	7.25	115.53	111.90
26	BA	1226	A	C2-N3-C4	7.24	114.22	110.60
1	AA	297	G	N3-C4-N9	-7.24	121.66	126.00
1	AA	677	U	N3-C2-O2	-7.24	117.13	122.20
26	BA	2813	A	C8-N9-C4	7.24	108.70	105.80
26	BA	1833	C	N1-C2-O2	-7.24	114.56	118.90
22	AV	57	G	OP2-P-O3'	7.23	121.11	105.20
22	AV	134	G	OP2-P-O3'	7.23	121.11	105.20
26	BA	870	U	OP2-P-O3'	7.23	121.11	105.20
26	BA	371	A	N1-C6-N6	-7.23	114.26	118.60
26	BA	2831	G	N3-C4-C5	-7.23	124.98	128.60
26	BA	1142	A	C4-C5-C6	-7.23	113.39	117.00
26	BA	1955	U	C2-N1-C1'	-7.23	109.03	117.70
26	BA	1608	A	N1-C6-N6	7.23	122.94	118.60
26	BA	1904	G	N1-C6-O6	-7.22	115.56	119.90
26	BA	2551	C	N3-C2-O2	7.22	126.96	121.90
22	AV	26	U	OP2-P-O3'	7.22	121.09	105.20
26	BA	907	G	OP2-P-O3'	7.22	121.09	105.20
26	BA	2439	A	C8-N9-C4	7.22	108.69	105.80
26	BA	470	A	C2-N3-C4	-7.22	106.99	110.60
26	BA	129	C	N1-C2-O2	-7.22	114.57	118.90
26	BA	908	C	OP2-P-O3'	7.22	121.08	105.20
22	AV	77	G	OP2-P-O3'	7.22	121.08	105.20
26	BA	1595	C	N1-C2-O2	-7.22	114.57	118.90
22	AV	108	G	OP2-P-O3'	7.21	121.07	105.20
22	AV	177	A	OP2-P-O3'	7.21	121.07	105.20
22	AV	23	G	OP2-P-O3'	7.21	121.07	105.20
22	AV	25	A	OP2-P-O3'	7.21	121.07	105.20
22	AV	109	C	OP2-P-O3'	7.21	121.06	105.20
1	AA	1408	A	C2-N3-C4	-7.21	107.00	110.60
26	BA	801	G	C4-C5-N7	-7.21	107.92	110.80
22	AV	24	G	OP2-P-O3'	7.21	121.05	105.20
22	AV	178	G	OP2-P-O3'	7.21	121.05	105.20
22	AV	330	U	OP2-P-O3'	7.20	121.05	105.20
22	AV	327	A	OP2-P-O3'	7.20	121.04	105.20
22	AV	328	U	OP2-P-O3'	7.20	121.04	105.20
22	AV	329	U	OP2-P-O3'	7.20	121.04	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	AV	75	C	OP2-P-O3'	7.20	121.03	105.20
26	BA	2866	U	N1-C2-O2	7.20	127.84	122.80
26	BA	2688	G	N9-C4-C5	7.19	108.28	105.40
26	BA	409	G	C2-N3-C4	-7.19	108.30	111.90
26	BA	72	U	C2-N1-C1'	-7.19	109.07	117.70
26	BA	1158	C	C6-N1-C2	-7.19	117.42	120.30
26	BA	1819	A	N1-C6-N6	-7.19	114.29	118.60
1	AA	245	U	C6-N1-C1'	7.19	131.26	121.20
56	BB	8	C	N1-C2-O2	-7.19	114.59	118.90
22	AV	326	A	OP2-P-O3'	7.18	121.00	105.20
26	BA	1360	G	C5-C6-O6	7.18	132.91	128.60
26	BA	758	C	C6-N1-C2	-7.16	117.44	120.30
22	AV	76	C	OP2-P-O3'	7.16	120.95	105.20
26	BA	1780	A	C4-C5-N7	7.16	114.28	110.70
26	BA	1017	G	C8-N9-C4	-7.15	103.54	106.40
26	BA	2506	U	N3-C2-O2	-7.15	117.19	122.20
26	BA	2375	G	C4-N9-C1'	-7.15	117.21	126.50
1	AA	760	G	N1-C2-N2	-7.15	109.77	116.20
26	BA	624	C	C2-N1-C1'	-7.15	110.94	118.80
26	BA	783	A	N9-C4-C5	-7.14	102.94	105.80
26	BA	2351	G	C4-C5-N7	7.14	113.66	110.80
56	BB	15	A	N1-C6-N6	7.14	122.89	118.60
51	B0	19	ASP	CB-CG-OD2	7.14	124.73	118.30
26	BA	1936	A	N3-C4-C5	7.14	131.79	126.80
26	BA	2721	A	N1-C6-N6	7.13	122.88	118.60
1	AA	734	G	C6-C5-N7	-7.13	126.12	130.40
26	BA	2359	C	N1-C2-O2	-7.13	114.62	118.90
26	BA	1351	C	C2-N1-C1'	-7.12	110.97	118.80
26	BA	2055	C	C6-N1-C2	7.12	123.15	120.30
1	AA	1527	U	N1-C2-N3	7.11	119.17	114.90
26	BA	1245	G	N1-C6-O6	-7.11	115.64	119.90
56	BB	96	G	N1-C6-O6	-7.11	115.64	119.90
26	BA	1600	C	C6-N1-C2	7.10	123.14	120.30
1	AA	713	G	C6-C5-N7	7.10	134.66	130.40
26	BA	264	C	N3-C2-O2	-7.10	116.93	121.90
26	BA	2689	U	C2-N3-C4	-7.10	122.74	127.00
26	BA	2204	G	C6-C5-N7	-7.09	126.15	130.40
26	BA	2551	C	C6-N1-C2	7.09	123.14	120.30
26	BA	428	A	C8-N9-C4	7.09	108.64	105.80
26	BA	2658	C	C6-N1-C2	7.08	123.13	120.30
26	BA	982	C	C2-N3-C4	-7.08	116.36	119.90
26	BA	2872	A	N9-C4-C5	7.08	108.63	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	2275	C	N1-C2-N3	7.08	124.15	119.20
26	BA	1793	C	C5-C6-N1	-7.08	117.46	121.00
26	BA	1977	A	C2-N3-C4	-7.08	107.06	110.60
26	BA	786	C	C2-N1-C1'	-7.07	111.02	118.80
26	BA	854	C	C5-C4-N4	-7.07	115.25	120.20
56	BB	19	C	C5-C6-N1	-7.07	117.46	121.00
26	BA	922	C	N1-C2-O2	-7.07	114.66	118.90
26	BA	1340	U	C2-N1-C1'	-7.07	109.22	117.70
26	BA	1519	G	N9-C4-C5	7.07	108.23	105.40
26	BA	1521	G	N3-C4-N9	7.07	130.24	126.00
26	BA	1661	G	N1-C6-O6	-7.07	115.66	119.90
26	BA	813	U	N1-C2-O2	-7.06	117.86	122.80
1	AA	807	A	N1-C6-N6	-7.06	114.36	118.60
26	BA	152	A	C8-N9-C4	7.06	108.62	105.80
26	BA	993	G	C5-C6-N1	7.06	115.03	111.50
56	BB	51	G	C4-C5-N7	7.06	113.62	110.80
26	BA	2820	A	N3-C4-C5	7.06	131.74	126.80
1	AA	555	U	N1-C2-O2	-7.06	117.86	122.80
26	BA	1393	A	N9-C4-C5	7.06	108.62	105.80
26	BA	483	A	N7-C8-N9	-7.05	110.27	113.80
26	BA	116	C	N1-C2-O2	-7.05	114.67	118.90
26	BA	2760	C	C5-C6-N1	-7.05	117.47	121.00
1	AA	334	C	C6-N1-C2	7.05	123.12	120.30
26	BA	1405	U	N3-C2-O2	-7.04	117.27	122.20
26	BA	509	C	C2-N3-C4	-7.04	116.38	119.90
26	BA	1465	G	N1-C6-O6	-7.03	115.68	119.90
26	BA	389	G	C8-N9-C4	7.03	109.21	106.40
26	BA	1577	C	N1-C2-O2	-7.03	114.68	118.90
26	BA	2068	U	N3-C2-O2	7.03	127.12	122.20
26	BA	2720	U	C6-N1-C2	-7.03	116.78	121.00
26	BA	2629	U	C5-C4-O4	-7.03	121.68	125.90
26	BA	655	A	N9-C4-C5	7.03	108.61	105.80
26	BA	942	G	N1-C6-O6	-7.03	115.68	119.90
26	BA	1344	U	N3-C2-O2	-7.02	117.28	122.20
26	BA	564	C	N3-C2-O2	-7.02	116.98	121.90
26	BA	2037	A	N1-C6-N6	-7.02	114.39	118.60
26	BA	1018	U	N3-C2-O2	7.02	127.11	122.20
26	BA	1971	U	N3-C4-O4	7.01	124.31	119.40
1	AA	48	C	C6-N1-C2	7.01	123.11	120.30
1	AA	71	A	C5-C6-N6	-7.01	118.09	123.70
26	BA	2069	G	N3-C4-N9	-7.01	121.79	126.00
26	BA	2394	C	N1-C2-O2	-7.01	114.69	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	583	G	C8-N9-C4	7.01	109.20	106.40
56	BB	71	C	N1-C2-O2	-7.01	114.70	118.90
26	BA	2021	C	N1-C2-O2	-7.00	114.70	118.90
26	BA	2385	C	C5-C4-N4	-7.00	115.30	120.20
1	AA	283	U	N3-C2-O2	-7.00	117.30	122.20
26	BA	1231	U	C6-N1-C2	7.00	125.20	121.00
26	BA	2090	A	C2-N3-C4	7.00	114.10	110.60
26	BA	208	C	C5-C6-N1	-7.00	117.50	121.00
26	BA	74	A	C8-N9-C4	-6.99	103.00	105.80
26	BA	473	G	C5-C6-O6	6.98	132.79	128.60
26	BA	1475	G	N3-C4-N9	-6.98	121.81	126.00
26	BA	567	U	N1-C2-N3	6.97	119.08	114.90
26	BA	1989	G	N3-C4-N9	6.97	130.18	126.00
26	BA	2320	U	C2-N1-C1'	-6.97	109.33	117.70
26	BA	1971	U	N3-C2-O2	6.97	127.08	122.20
26	BA	315	G	N9-C4-C5	-6.96	102.61	105.40
26	BA	2803	G	C4-C5-N7	-6.96	108.01	110.80
26	BA	2745	C	C2-N3-C4	-6.96	116.42	119.90
26	BA	806	C	N1-C2-O2	6.96	123.08	118.90
26	BA	578	G	C5-C6-N1	6.96	114.98	111.50
26	BA	1404	C	C6-N1-C2	6.96	123.08	120.30
26	BA	2084	C	C2-N3-C4	-6.95	116.42	119.90
26	BA	2505	G	N3-C4-N9	-6.95	121.83	126.00
26	BA	974	G	N1-C6-O6	6.95	124.07	119.90
26	BA	332	A	C5-C6-N6	6.95	129.26	123.70
26	BA	2251	G	C5-C6-O6	-6.95	124.43	128.60
26	BA	1252	G	N3-C2-N2	-6.94	115.04	119.90
26	BA	2347	C	C6-N1-C1'	6.94	129.13	120.80
26	BA	13	A	C4-C5-C6	6.93	120.47	117.00
26	BA	1340	U	N1-C2-O2	-6.93	117.95	122.80
1	AA	1422	G	N1-C6-O6	6.92	124.06	119.90
26	BA	1205	A	N1-C6-N6	6.92	122.75	118.60
1	AA	869	G	N1-C6-O6	6.92	124.05	119.90
26	BA	2286	G	N1-C6-O6	6.92	124.05	119.90
26	BA	1030	C	C6-N1-C2	6.92	123.07	120.30
26	BA	1572	A	C8-N9-C4	-6.91	103.04	105.80
26	BA	315	G	C4-C5-N7	6.91	113.56	110.80
26	BA	1762	A	N1-C6-N6	6.90	122.74	118.60
26	BA	2141	G	N3-C4-C5	-6.90	125.15	128.60
26	BA	550	C	C6-N1-C1'	-6.90	112.52	120.80
26	BA	2553	G	N3-C2-N2	6.90	124.73	119.90
26	BA	1040	A	C8-N9-C4	6.89	108.56	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	2458	G	C8-N9-C4	-6.89	103.64	106.40
26	BA	2121	G	N3-C4-N9	6.88	130.13	126.00
26	BA	818	G	C6-C5-N7	-6.88	126.28	130.40
26	BA	1892	C	N3-C2-O2	6.88	126.71	121.90
26	BA	666	A	N1-C6-N6	-6.87	114.48	118.60
26	BA	2448	A	N1-C6-N6	6.87	122.72	118.60
26	BA	823	C	N1-C2-O2	-6.86	114.78	118.90
26	BA	578	G	C8-N9-C4	6.86	109.14	106.40
26	BA	1051	G	C4-N9-C1'	6.85	135.41	126.50
26	BA	1587	G	N3-C4-C5	-6.85	125.17	128.60
26	BA	2091	C	N1-C2-O2	-6.85	114.79	118.90
26	BA	226	A	N1-C6-N6	6.84	122.70	118.60
26	BA	1521	G	C8-N9-C1'	-6.84	118.11	127.00
1	AA	713	G	C4-C5-N7	-6.84	108.07	110.80
26	BA	830	G	N1-C6-O6	-6.84	115.80	119.90
26	BA	1817	G	N1-C6-O6	-6.83	115.80	119.90
1	AA	707	U	C5-C4-O4	-6.83	121.80	125.90
1	AA	1469	C	C6-N1-C2	6.83	123.03	120.30
26	BA	2135	A	N1-C6-N6	6.83	122.70	118.60
26	BA	550	C	C5-C6-N1	6.83	124.41	121.00
26	BA	774	G	N1-C6-O6	-6.83	115.80	119.90
26	BA	1758	U	C5-C6-N1	-6.83	119.29	122.70
26	BA	2320	U	N3-C4-O4	-6.82	114.63	119.40
26	BA	2367	G	N1-C6-O6	-6.82	115.81	119.90
26	BA	2087	G	C5-C6-O6	-6.82	124.51	128.60
26	BA	2751	G	N9-C4-C5	6.81	108.13	105.40
26	BA	960	A	N9-C4-C5	6.81	108.53	105.80
26	BA	2649	C	N1-C2-O2	-6.81	114.81	118.90
23	AW	100	LEU	CA-CB-CG	6.81	130.97	115.30
1	AA	768	A	C8-N9-C4	6.81	108.52	105.80
26	BA	1307	A	C8-N9-C4	-6.81	103.08	105.80
26	BA	1501	G	N3-C4-C5	6.81	132.00	128.60
26	BA	2059	A	N9-C4-C5	-6.81	103.08	105.80
26	BA	1463	C	N3-C2-O2	6.81	126.67	121.90
22	AV	109	C	O3'-P-O5'	-6.81	91.07	104.00
1	AA	351	G	N7-C8-N9	6.80	116.50	113.10
26	BA	315	G	C6-C5-N7	-6.80	126.32	130.40
26	BA	923	G	C2-N3-C4	-6.80	108.50	111.90
26	BA	2265	U	N1-C2-O2	-6.80	118.04	122.80
26	BA	784	G	N3-C4-C5	-6.80	125.20	128.60
26	BA	1301	A	C5-C6-N6	-6.80	118.26	123.70
26	BA	2471	A	C8-N9-C4	6.80	108.52	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	2523	G	N1-C6-O6	6.80	123.98	119.90
26	BA	2706	A	C5-C6-N1	-6.80	114.30	117.70
22	AV	26	U	O3'-P-O5'	-6.80	91.08	104.00
26	BA	2725	A	C2-N3-C4	-6.79	107.20	110.60
1	AA	453	G	N3-C4-N9	6.79	130.08	126.00
22	AV	23	G	O3'-P-O5'	-6.79	91.09	104.00
26	BA	2462	C	N3-C2-O2	6.79	126.66	121.90
26	BA	2790	U	N3-C2-O2	-6.79	117.44	122.20
22	AV	77	G	O3'-P-O5'	-6.79	91.09	104.00
26	BA	1988	G	C6-C5-N7	-6.79	126.33	130.40
22	AV	57	G	O3'-P-O5'	-6.79	91.10	104.00
26	BA	1769	U	C2-N1-C1'	-6.79	109.55	117.70
22	AV	25	A	O3'-P-O5'	-6.78	91.11	104.00
22	AV	328	U	O3'-P-O5'	-6.78	91.11	104.00
26	BA	908	C	O3'-P-O5'	-6.78	91.11	104.00
22	AV	327	A	O3'-P-O5'	-6.78	91.12	104.00
26	BA	2598	A	N3-C4-N9	-6.78	121.97	127.40
26	BA	790	U	N1-C2-O2	-6.78	118.06	122.80
26	BA	870	U	O3'-P-O5'	-6.78	91.12	104.00
26	BA	2888	C	C2-N1-C1'	6.78	126.25	118.80
22	AV	177	A	O3'-P-O5'	-6.78	91.13	104.00
26	BA	1001	A	C8-N9-C4	6.78	108.51	105.80
26	BA	2847	U	C5-C4-O4	6.78	129.97	125.90
22	AV	329	U	O3'-P-O5'	-6.77	91.13	104.00
22	AV	108	G	O3'-P-O5'	-6.77	91.13	104.00
22	AV	75	C	O3'-P-O5'	-6.77	91.14	104.00
26	BA	655	A	N1-C6-N6	-6.77	114.54	118.60
22	AV	330	U	O3'-P-O5'	-6.77	91.14	104.00
26	BA	1307	A	N9-C4-C5	6.77	108.51	105.80
26	BA	210	C	N1-C2-O2	-6.76	114.84	118.90
26	BA	51	G	N1-C6-O6	-6.76	115.84	119.90
26	BA	249	C	N3-C2-O2	6.76	126.63	121.90
1	AA	575	G	C4-C5-N7	-6.76	108.10	110.80
22	AV	326	A	O3'-P-O5'	-6.76	91.16	104.00
22	AV	24	G	O3'-P-O5'	-6.76	91.16	104.00
26	BA	1064	C	C2-N1-C1'	6.76	126.23	118.80
26	BA	907	G	O3'-P-O5'	-6.75	91.17	104.00
22	AV	178	G	O3'-P-O5'	-6.75	91.18	104.00
26	BA	1819	A	N9-C4-C5	6.75	108.50	105.80
26	BA	2711	A	C8-N9-C4	6.74	108.50	105.80
26	BA	1209	U	C2-N1-C1'	-6.74	109.61	117.70
26	BA	982	C	N3-C4-C5	6.74	124.59	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	1051	G	C8-N9-C1'	-6.74	118.24	127.00
26	BA	1319	C	N1-C2-O2	-6.74	114.86	118.90
1	AA	686	U	C2-N1-C1'	-6.73	109.62	117.70
22	AV	76	C	O3'-P-O5'	-6.73	91.21	104.00
26	BA	978	G	C8-N9-C4	6.73	109.09	106.40
26	BA	1767	G	C8-N9-C4	6.73	109.09	106.40
22	AV	134	G	O3'-P-O5'	-6.73	91.22	104.00
1	AA	90	C	C6-N1-C2	-6.73	117.61	120.30
26	BA	1323	C	C6-N1-C2	6.72	122.99	120.30
26	BA	1404	C	C2-N1-C1'	-6.72	111.40	118.80
26	BA	1842	G	C6-C5-N7	-6.72	126.36	130.40
1	AA	690	G	C4-C5-N7	6.72	113.49	110.80
1	AA	859	G	N3-C4-N9	6.72	130.03	126.00
26	BA	2642	G	N1-C6-O6	-6.72	115.87	119.90
26	BA	1295	C	N1-C2-O2	-6.72	114.87	118.90
26	BA	2696	U	N1-C2-O2	6.71	127.50	122.80
26	BA	1136	G	C8-N9-C4	6.71	109.08	106.40
26	BA	2534	A	C8-N9-C4	6.71	108.48	105.80
26	BA	456	C	C2-N3-C4	-6.70	116.55	119.90
26	BA	2523	G	C4-C5-N7	6.70	113.48	110.80
26	BA	77	G	N9-C4-C5	6.70	108.08	105.40
1	AA	12	U	N1-C2-N3	6.70	118.92	114.90
26	BA	273	G	C4-N9-C1'	-6.70	117.80	126.50
26	BA	705	A	C8-N9-C4	-6.69	103.12	105.80
26	BA	2232	C	N3-C2-O2	6.69	126.58	121.90
26	BA	2691	C	C6-N1-C2	6.69	122.98	120.30
26	BA	2621	G	C8-N9-C4	-6.69	103.72	106.40
26	BA	1612	C	N3-C4-N4	6.69	122.68	118.00
26	BA	1046	A	N1-C6-N6	6.69	122.61	118.60
26	BA	1650	A	N1-C6-N6	6.69	122.61	118.60
26	BA	829	A	C8-N9-C4	6.68	108.47	105.80
26	BA	1519	G	C6-C5-N7	6.68	134.41	130.40
26	BA	175	G	C8-N9-C4	6.68	109.07	106.40
26	BA	2155	U	N1-C2-O2	6.67	127.47	122.80
1	AA	8	A	C8-N9-C4	6.67	108.47	105.80
26	BA	1006	C	N1-C2-O2	-6.67	114.90	118.90
1	AA	351	G	C5-N7-C8	-6.66	100.97	104.30
26	BA	1475	G	C4-N9-C1'	-6.66	117.84	126.50
26	BA	1764	C	N1-C2-O2	-6.66	114.90	118.90
26	BA	205	G	N9-C4-C5	6.66	108.06	105.40
26	BA	1249	U	N3-C2-O2	6.66	126.86	122.20
26	BA	194	G	C8-N9-C4	6.66	109.06	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	1797	G	C2-N3-C4	-6.66	108.57	111.90
26	BA	2511	U	N1-C2-O2	-6.66	118.14	122.80
1	AA	686	U	C6-N1-C1'	6.65	130.51	121.20
26	BA	2770	G	C8-N9-C4	6.65	109.06	106.40
26	BA	2225	A	C2-N3-C4	-6.65	107.27	110.60
26	BA	305	C	C6-N1-C2	6.65	122.96	120.30
26	BA	2621	G	C4-C5-N7	-6.65	108.14	110.80
26	BA	2760	C	C6-N1-C2	6.65	122.96	120.30
26	BA	393	C	C6-N1-C2	-6.64	117.64	120.30
26	BA	1985	C	N1-C2-N3	6.64	123.85	119.20
26	BA	223	A	C5-C6-N6	6.64	129.01	123.70
26	BA	154	U	N1-C2-O2	6.63	127.44	122.80
26	BA	2733	A	N9-C4-C5	6.63	108.45	105.80
26	BA	2553	G	N3-C4-C5	-6.62	125.29	128.60
26	BA	1273	U	N1-C2-N3	6.62	118.87	114.90
26	BA	83	A	C4-C5-N7	-6.62	107.39	110.70
26	BA	1122	G	C4-C5-N7	-6.62	108.15	110.80
26	BA	1125	G	N3-C4-C5	-6.62	125.29	128.60
26	BA	1452	G	N7-C8-N9	6.62	116.41	113.10
1	AA	90	C	C2-N1-C1'	6.61	126.07	118.80
26	BA	1425	G	C8-N9-C4	6.61	109.05	106.40
26	BA	2785	C	N1-C2-O2	-6.61	114.93	118.90
1	AA	859	G	C8-N9-C1'	-6.61	118.41	127.00
26	BA	192	C	C6-N1-C2	-6.61	117.66	120.30
26	BA	1220	G	N1-C2-N2	-6.61	110.25	116.20
26	BA	2682	A	C5-C6-N6	-6.61	118.41	123.70
26	BA	429	A	N1-C6-N6	6.60	122.56	118.60
26	BA	1378	A	C5-C6-N6	6.60	128.98	123.70
26	BA	690	G	N7-C8-N9	-6.60	109.80	113.10
26	BA	1026	G	N3-C4-C5	-6.60	125.30	128.60
26	BA	2222	C	N1-C2-O2	-6.60	114.94	118.90
26	BA	90	U	C5-C4-O4	6.60	129.86	125.90
26	BA	1793	C	C2-N3-C4	-6.60	116.60	119.90
26	BA	2841	C	C6-N1-C2	-6.60	117.66	120.30
26	BA	176	A	C8-N9-C4	6.59	108.44	105.80
26	BA	1382	G	N1-C6-O6	-6.59	115.94	119.90
26	BA	2824	C	N3-C4-N4	6.59	122.61	118.00
1	AA	788	U	N1-C2-O2	-6.59	118.19	122.80
26	BA	1158	C	N1-C2-N3	6.59	123.81	119.20
26	BA	431	U	C6-N1-C2	6.59	124.95	121.00
1	AA	760	G	N3-C2-N2	6.58	124.51	119.90
26	BA	807	U	N3-C4-O4	6.58	124.01	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	2225	A	N1-C6-N6	6.58	122.55	118.60
26	BA	782	A	N1-C6-N6	6.58	122.55	118.60
26	BA	1426	G	N3-C4-N9	6.58	129.95	126.00
1	AA	1094	G	N1-C6-O6	6.58	123.84	119.90
26	BA	235	U	N3-C4-O4	-6.58	114.80	119.40
26	BA	783	A	N3-C4-C5	6.57	131.40	126.80
26	BA	2824	C	N3-C4-C5	-6.57	119.27	121.90
26	BA	2503	A	N1-C6-N6	6.57	122.54	118.60
26	BA	1958	C	C6-N1-C2	-6.57	117.67	120.30
1	AA	1417	G	N3-C2-N2	6.56	124.49	119.90
26	BA	930	G	C4-N9-C1'	-6.56	117.97	126.50
26	BA	37	C	C6-N1-C2	6.55	122.92	120.30
26	BA	2320	U	C6-N1-C1'	6.55	130.38	121.20
56	BB	92	C	N1-C2-O2	-6.55	114.97	118.90
26	BA	754	U	N3-C2-O2	-6.55	117.61	122.20
26	BA	1602	U	N3-C4-C5	6.55	118.53	114.60
26	BA	2547	A	C8-N9-C4	6.55	108.42	105.80
26	BA	439	A	C8-N9-C4	6.55	108.42	105.80
26	BA	461	C	C6-N1-C2	-6.55	117.68	120.30
56	BB	13	G	C8-N9-C4	6.55	109.02	106.40
26	BA	994	C	N1-C2-O2	-6.54	114.97	118.90
26	BA	1219	U	N3-C4-O4	-6.54	114.82	119.40
26	BA	210	C	N3-C2-O2	6.54	126.48	121.90
26	BA	332	A	C6-C5-N7	6.54	136.88	132.30
26	BA	1662	U	N3-C4-O4	-6.53	114.83	119.40
26	BA	470	A	C5-N7-C8	-6.53	100.63	103.90
26	BA	667	U	N3-C4-C5	6.53	118.52	114.60
26	BA	919	U	N3-C2-O2	-6.53	117.63	122.20
26	BA	27	G	C5-C6-N1	6.53	114.77	111.50
26	BA	1475	G	N3-C4-C5	6.53	131.86	128.60
26	BA	2469	A	C8-N9-C4	6.53	108.41	105.80
26	BA	2677	G	N1-C6-O6	6.53	123.82	119.90
26	BA	997	G	N3-C2-N2	-6.53	115.33	119.90
26	BA	1852	U	N3-C2-O2	-6.53	117.63	122.20
1	AA	1520	C	C5-C4-N4	-6.52	115.63	120.20
26	BA	2069	G	C4-C5-C6	-6.52	114.89	118.80
26	BA	930	G	C6-C5-N7	6.52	134.31	130.40
26	BA	975	A	N1-C6-N6	-6.52	114.69	118.60
26	BA	1985	C	C6-N1-C1'	6.52	128.63	120.80
26	BA	1278	C	N1-C2-O2	-6.52	114.99	118.90
26	BA	1256	G	C8-N9-C4	6.51	109.00	106.40
1	AA	111	G	C4-N9-C1'	-6.51	118.04	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	804	A	C8-N9-C4	-6.51	103.20	105.80
1	AA	351	G	C8-N9-C4	-6.51	103.80	106.40
26	BA	622	G	C5-C6-O6	-6.51	124.70	128.60
26	BA	497	A	N1-C6-N6	6.50	122.50	118.60
1	AA	881	G	C8-N9-C4	6.50	109.00	106.40
1	AA	297	G	N3-C4-C5	6.50	131.85	128.60
26	BA	758	C	N1-C2-N3	6.50	123.75	119.20
26	BA	1526	C	C6-N1-C2	6.50	122.90	120.30
26	BA	2428	G	C5-C6-O6	-6.50	124.70	128.60
26	BA	184	C	N3-C4-C5	-6.49	119.30	121.90
26	BA	1759	A	C8-N9-C4	-6.49	103.20	105.80
26	BA	2633	G	N3-C4-N9	-6.49	122.11	126.00
26	BA	74	A	N9-C4-C5	6.49	108.39	105.80
26	BA	46	G	N9-C4-C5	6.49	107.99	105.40
26	BA	2692	G	C8-N9-C4	6.49	108.99	106.40
26	BA	1757	A	N9-C4-C5	-6.48	103.21	105.80
26	BA	446	G	C4-C5-N7	6.48	113.39	110.80
26	BA	1946	U	C5-C4-O4	6.48	129.79	125.90
26	BA	735	A	C8-N9-C4	6.48	108.39	105.80
26	BA	784	G	C6-C5-N7	-6.48	126.51	130.40
26	BA	997	G	N9-C4-C5	6.48	107.99	105.40
1	AA	1101	A	N3-C4-C5	-6.48	122.27	126.80
26	BA	382	A	C4-C5-N7	6.47	113.94	110.70
26	BA	2371	G	N9-C4-C5	6.47	107.99	105.40
26	BA	2715	C	N3-C4-C5	-6.47	119.31	121.90
1	AA	1530	G	C5-C6-N1	6.47	114.73	111.50
26	BA	62	U	N1-C2-O2	-6.47	118.27	122.80
26	BA	1277	G	N1-C6-O6	-6.47	116.02	119.90
26	BA	2802	G	N1-C2-N3	6.46	127.78	123.90
26	BA	1663	G	C2-N3-C4	-6.46	108.67	111.90
26	BA	2139	U	N1-C2-O2	6.46	127.32	122.80
26	BA	302	C	C2-N1-C1'	-6.46	111.70	118.80
26	BA	1168	G	C4-C5-N7	6.46	113.38	110.80
26	BA	2430	A	C8-N9-C4	6.46	108.38	105.80
26	BA	787	C	C6-N1-C2	-6.45	117.72	120.30
26	BA	1142	A	C4-C5-N7	6.45	113.93	110.70
26	BA	2010	G	N1-C6-O6	-6.45	116.03	119.90
26	BA	1646	C	N1-C2-O2	-6.45	115.03	118.90
56	BB	8	C	C5-C6-N1	-6.45	117.77	121.00
26	BA	380	G	N3-C2-N2	-6.45	115.39	119.90
26	BA	1002	G	N1-C6-O6	-6.45	116.03	119.90
26	BA	2295	C	N3-C2-O2	6.45	126.41	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	1555	G	N1-C2-N3	6.45	127.77	123.90
26	BA	1808	A	N9-C4-C5	-6.45	103.22	105.80
26	BA	1889	A	N1-C6-N6	-6.45	114.73	118.60
26	BA	2030	A	C5-C6-N6	6.45	128.86	123.70
26	BA	2331	G	C6-C5-N7	-6.45	126.53	130.40
1	AA	1505	G	N1-C6-O6	6.44	123.77	119.90
1	AA	738	C	N1-C2-O2	-6.44	115.04	118.90
1	AA	342	C	C6-N1-C2	6.43	122.87	120.30
26	BA	1443	U	N3-C2-O2	-6.43	117.70	122.20
26	BA	1242	U	N1-C2-N3	6.43	118.76	114.90
26	BA	342	A	C5-C6-N6	-6.43	118.56	123.70
26	BA	514	A	C8-N9-C4	6.42	108.37	105.80
26	BA	1769	U	N1-C2-O2	-6.42	118.31	122.80
1	AA	153	C	C6-N1-C2	6.42	122.87	120.30
26	BA	1341	G	C5-C6-O6	-6.41	124.75	128.60
1	AA	914	A	C8-N9-C4	-6.41	103.23	105.80
26	BA	453	A	C5-C6-N1	-6.41	114.49	117.70
26	BA	990	A	N1-C6-N6	-6.41	114.75	118.60
26	BA	2379	G	C8-N9-C4	6.41	108.96	106.40
26	BA	1357	C	N1-C2-O2	-6.41	115.06	118.90
26	BA	2426	A	N7-C8-N9	6.40	117.00	113.80
26	BA	1835	G	C5-C6-N1	6.40	114.70	111.50
26	BA	598	U	C6-N1-C2	6.40	124.84	121.00
26	BA	1351	C	N3-C2-O2	6.40	126.38	121.90
26	BA	2331	G	C4-N9-C1'	6.40	134.82	126.50
26	BA	2436	G	N1-C2-N3	6.40	127.74	123.90
26	BA	1766	G	C8-N9-C4	6.40	108.96	106.40
1	AA	330	C	N1-C2-O2	6.39	122.74	118.90
26	BA	1672	A	C6-C5-N7	-6.39	127.82	132.30
26	BA	2253	G	N3-C2-N2	-6.39	115.42	119.90
26	BA	2820	A	C6-N1-C2	6.39	122.44	118.60
26	BA	1378	A	N9-C4-C5	6.39	108.36	105.80
26	BA	2802	G	C2-N3-C4	-6.39	108.70	111.90
26	BA	2331	G	C4-C5-N7	6.39	113.36	110.80
26	BA	2717	C	N1-C2-N3	6.39	123.67	119.20
26	BA	1232	G	N1-C6-O6	-6.39	116.07	119.90
26	BA	727	A	N1-C6-N6	6.38	122.43	118.60
26	BA	2260	C	N3-C4-C5	6.38	124.45	121.90
26	BA	1902	C	C6-N1-C2	6.38	122.85	120.30
26	BA	2530	A	N1-C6-N6	6.38	122.43	118.60
26	BA	221	A	N3-C4-C5	6.38	131.26	126.80
26	BA	1007	C	N1-C2-O2	-6.38	115.08	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	2696	U	N3-C2-O2	-6.38	117.74	122.20
26	BA	1936	A	C4-C5-N7	6.38	113.89	110.70
26	BA	1679	A	N1-C6-N6	6.37	122.42	118.60
1	AA	734	G	C4-C5-N7	6.37	113.35	110.80
26	BA	1466	U	C6-N1-C2	6.37	124.82	121.00
26	BA	1521	G	C4-N9-C1'	6.37	134.78	126.50
26	BA	2890	G	C6-C5-N7	-6.37	126.58	130.40
1	AA	1520	C	N3-C4-C5	6.37	124.45	121.90
26	BA	1138	G	N1-C6-O6	6.37	123.72	119.90
26	BA	1256	G	N9-C4-C5	-6.37	102.85	105.40
56	BB	71	C	N3-C2-O2	6.37	126.36	121.90
1	AA	351	G	C4-C5-N7	6.36	113.35	110.80
26	BA	513	A	C6-C5-N7	-6.36	127.85	132.30
29	BE	146	VAL	CB-CA-C	-6.36	99.31	111.40
26	BA	2278	A	C5-C6-N6	-6.36	118.61	123.70
1	AA	1064	G	N1-C6-O6	-6.36	116.09	119.90
26	BA	1521	G	C6-C5-N7	-6.36	126.59	130.40
26	BA	1595	C	C2-N1-C1'	-6.36	111.81	118.80
26	BA	129	C	N3-C2-O2	6.36	126.35	121.90
26	BA	1770	G	N3-C4-C5	-6.36	125.42	128.60
26	BA	942	G	C4-C5-N7	-6.35	108.26	110.80
26	BA	1499	C	N1-C2-O2	-6.35	115.09	118.90
26	BA	821	A	N3-C4-C5	6.35	131.25	126.80
1	AA	914	A	N9-C4-C5	6.35	108.34	105.80
26	BA	792	A	C8-N9-C4	-6.34	103.26	105.80
26	BA	1816	C	N3-C2-O2	6.34	126.34	121.90
26	BA	2829	A	C2-N3-C4	-6.34	107.43	110.60
1	AA	279	A	N1-C6-N6	6.34	122.40	118.60
26	BA	743	A	N1-C6-N6	6.34	122.40	118.60
26	BA	1325	U	C2-N1-C1'	-6.34	110.09	117.70
26	BA	51	G	C8-N9-C4	-6.34	103.87	106.40
26	BA	550	C	C6-N1-C2	-6.33	117.77	120.30
26	BA	754	U	N3-C4-O4	-6.33	114.97	119.40
1	AA	1060	U	N1-C2-O2	-6.33	118.37	122.80
26	BA	101	A	C4-C5-C6	6.33	120.17	117.00
26	BA	1164	C	N1-C2-O2	-6.33	115.10	118.90
26	BA	2271	G	C4-C5-N7	6.33	113.33	110.80
26	BA	2716	C	N1-C2-O2	-6.33	115.10	118.90
26	BA	324	A	C8-N9-C4	6.33	108.33	105.80
26	BA	2647	U	C5-C6-N1	-6.33	119.54	122.70
26	BA	2689	U	C5-C6-N1	-6.32	119.54	122.70
26	BA	2724	U	N3-C4-O4	-6.32	114.97	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	518	G	N3-C2-N2	-6.32	115.47	119.90
26	BA	2271	G	C4-N9-C1'	6.32	134.72	126.50
26	BA	1757	A	N1-C6-N6	6.32	122.39	118.60
1	AA	1478	U	C5-C4-O4	6.32	129.69	125.90
26	BA	1500	G	C5-C6-O6	-6.31	124.81	128.60
26	BA	2677	G	C5-C6-O6	-6.31	124.81	128.60
26	BA	316	C	C6-N1-C2	6.31	122.83	120.30
26	BA	171	U	C5-C4-O4	6.31	129.69	125.90
26	BA	315	G	C8-N9-C4	6.31	108.92	106.40
26	BA	2250	G	N7-C8-N9	6.30	116.25	113.10
56	BB	12	C	C2-N3-C4	-6.30	116.75	119.90
1	AA	351	G	C6-C5-N7	-6.30	126.62	130.40
26	BA	1679	A	C8-N9-C4	6.30	108.32	105.80
26	BA	2688	G	N1-C6-O6	-6.30	116.12	119.90
26	BA	459	U	N3-C4-C5	6.29	118.38	114.60
26	BA	942	G	N9-C4-C5	6.29	107.92	105.40
26	BA	995	C	C6-N1-C2	-6.29	117.78	120.30
56	BB	58	A	C5-C6-N1	6.29	120.84	117.70
26	BA	1674	G	C4-N9-C1'	6.29	134.67	126.50
26	BA	2282	G	N3-C4-C5	-6.29	125.46	128.60
26	BA	473	G	N9-C4-C5	6.28	107.91	105.40
26	BA	832	U	N1-C2-O2	-6.28	118.40	122.80
26	BA	772	C	N1-C2-O2	-6.28	115.13	118.90
26	BA	1989	G	C6-C5-N7	-6.28	126.63	130.40
26	BA	1574	C	C5-C4-N4	-6.28	115.81	120.20
26	BA	1819	A	C5-C6-N6	6.28	128.72	123.70
26	BA	187	G	C5-C6-O6	-6.27	124.84	128.60
26	BA	626	A	C6-C5-N7	-6.27	127.91	132.30
26	BA	640	C	N3-C2-O2	6.27	126.29	121.90
26	BA	748	G	N9-C4-C5	6.27	107.91	105.40
26	BA	1138	G	C5-C6-O6	-6.27	124.84	128.60
26	BA	2621	G	N3-C4-N9	-6.27	122.24	126.00
1	AA	822	U	N3-C2-O2	6.26	126.58	122.20
26	BA	2830	C	N3-C2-O2	6.26	126.28	121.90
26	BA	25	U	N3-C4-O4	6.26	123.78	119.40
26	BA	618	G	C5-C6-O6	6.26	132.36	128.60
26	BA	1543	G	C4-C5-N7	-6.26	108.30	110.80
26	BA	1801	A	C2-N3-C4	-6.26	107.47	110.60
26	BA	2000	C	N3-C4-C5	6.26	124.40	121.90
26	BA	2031	A	C2-N3-C4	6.26	113.73	110.60
26	BA	2540	C	N1-C2-O2	-6.26	115.14	118.90
26	BA	2375	G	N3-C2-N2	-6.26	115.52	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	984	A	N9-C4-C5	-6.25	103.30	105.80
26	BA	2045	C	N3-C4-C5	6.25	124.40	121.90
26	BA	585	G	C8-N9-C4	-6.25	103.90	106.40
26	BA	1695	G	C6-C5-N7	-6.25	126.65	130.40
26	BA	1446	C	N1-C2-O2	-6.25	115.15	118.90
1	AA	404	G	N3-C2-N2	6.24	124.27	119.90
26	BA	1791	A	C2-N3-C4	-6.24	107.48	110.60
26	BA	2289	G	N3-C4-N9	-6.24	122.25	126.00
26	BA	727	A	N9-C4-C5	-6.24	103.30	105.80
26	BA	2469	A	N7-C8-N9	-6.24	110.68	113.80
1	AA	904	U	N3-C2-O2	6.24	126.57	122.20
26	BA	1311	G	C5-C6-O6	-6.24	124.86	128.60
26	BA	2782	G	C8-N9-C4	6.24	108.90	106.40
56	BB	43	C	C6-N1-C2	-6.24	117.80	120.30
26	BA	488	G	N3-C4-C5	-6.24	125.48	128.60
26	BA	2147	A	C5-C6-N6	-6.24	118.71	123.70
26	BA	2877	G	N1-C6-O6	6.24	123.64	119.90
26	BA	222	A	N1-C2-N3	6.24	132.42	129.30
26	BA	616	A	C2-N3-C4	-6.24	107.48	110.60
26	BA	2313	C	C6-N1-C2	-6.24	117.81	120.30
26	BA	2838	G	N7-C8-N9	-6.24	109.98	113.10
26	BA	1602	U	C6-N1-C2	6.23	124.74	121.00
26	BA	171	U	N3-C4-O4	-6.23	115.04	119.40
26	BA	471	A	N1-C6-N6	6.23	122.34	118.60
26	BA	683	U	N1-C2-O2	-6.23	118.44	122.80
26	BA	2307	G	N3-C2-N2	-6.23	115.54	119.90
26	BA	2364	C	C5-C6-N1	-6.23	117.89	121.00
26	BA	398	C	C2-N1-C1'	-6.22	111.95	118.80
26	BA	2269	G	C8-N9-C4	-6.22	103.91	106.40
26	BA	2890	G	N1-C6-O6	6.22	123.64	119.90
26	BA	812	C	N3-C2-O2	6.22	126.26	121.90
26	BA	122	G	N1-C6-O6	6.22	123.63	119.90
26	BA	2689	U	N1-C2-O2	6.22	127.15	122.80
26	BA	2683	C	N3-C2-O2	-6.21	117.55	121.90
56	BB	8	C	N3-C2-O2	6.21	126.25	121.90
26	BA	91	A	C8-N9-C4	6.21	108.28	105.80
1	AA	536	C	C6-N1-C2	6.21	122.78	120.30
26	BA	1456	G	N3-C4-C5	6.21	131.71	128.60
26	BA	2626	C	N3-C2-O2	6.21	126.25	121.90
26	BA	1897	G	C4-N9-C1'	6.21	134.57	126.50
26	BA	2009	A	N1-C6-N6	-6.20	114.88	118.60
26	BA	417	C	C6-N1-C2	-6.20	117.82	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	2492	U	C5-C4-O4	6.20	129.62	125.90
26	BA	2897	U	C2-N3-C4	-6.19	123.28	127.00
26	BA	2354	C	C5-C6-N1	-6.19	117.91	121.00
26	BA	2598	A	C8-N9-C4	-6.19	103.32	105.80
26	BA	1519	G	C5-C6-O6	6.19	132.31	128.60
26	BA	939	G	C5-C6-O6	-6.19	124.89	128.60
1	AA	351	G	N1-C6-O6	6.19	123.61	119.90
26	BA	840	C	N1-C2-O2	6.18	122.61	118.90
26	BA	555	G	C6-C5-N7	-6.18	126.69	130.40
26	BA	1617	C	C5-C6-N1	-6.18	117.91	121.00
26	BA	1808	A	C8-N9-C4	6.18	108.27	105.80
26	BA	1758	U	C5-C4-O4	6.18	129.61	125.90
56	BB	86	G	C8-N9-C4	6.18	108.87	106.40
26	BA	1939	U	C4-C5-C6	-6.18	115.99	119.70
26	BA	2400	G	C5-C6-N1	6.18	114.59	111.50
26	BA	1394	U	C6-N1-C1'	6.17	129.84	121.20
26	BA	1573	G	C5-C6-O6	-6.17	124.90	128.60
56	BB	61	G	N3-C4-C5	6.17	131.69	128.60
26	BA	208	C	C2-N3-C4	-6.17	116.81	119.90
26	BA	708	G	C4-N9-C1'	-6.17	118.48	126.50
26	BA	1939	U	N3-C2-O2	6.17	126.52	122.20
26	BA	2726	A	C2-N3-C4	6.17	113.69	110.60
26	BA	2855	C	N1-C2-O2	-6.17	115.20	118.90
26	BA	292	U	C5-C6-N1	-6.17	119.62	122.70
26	BA	1402	U	C5-C6-N1	-6.17	119.62	122.70
26	BA	2583	G	N3-C2-N2	-6.16	115.59	119.90
26	BA	1108	U	N3-C2-O2	6.16	126.51	122.20
26	BA	1500	G	N1-C6-O6	6.16	123.60	119.90
1	AA	1481	U	C6-N1-C1'	6.16	129.82	121.20
26	BA	66	C	C4-C5-C6	6.16	120.48	117.40
26	BA	509	C	C5-C6-N1	-6.16	117.92	121.00
26	BA	2468	A	C6-C5-N7	-6.16	127.99	132.30
26	BA	371	A	N7-C8-N9	-6.16	110.72	113.80
1	AA	677	U	C2-N1-C1'	6.15	125.08	117.70
26	BA	489	G	N3-C2-N2	-6.15	115.59	119.90
1	AA	35	G	N1-C6-O6	-6.15	116.21	119.90
26	BA	1827	U	N1-C2-N3	6.15	118.59	114.90
56	BB	55	U	C6-N1-C2	-6.15	117.31	121.00
26	BA	2271	G	N3-C2-N2	6.15	124.20	119.90
1	AA	664	G	C5-C6-O6	6.15	132.29	128.60
26	BA	116	C	C2-N1-C1'	-6.15	112.04	118.80
26	BA	534	U	N3-C2-O2	6.15	126.50	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	642	U	N1-C2-O2	-6.15	118.50	122.80
26	BA	1005	C	N1-C2-O2	-6.14	115.22	118.90
26	BA	1426	G	N1-C6-O6	6.14	123.58	119.90
26	BA	2360	G	N1-C6-O6	6.14	123.58	119.90
26	BA	1294	U	C5-C6-N1	-6.14	119.63	122.70
1	AA	1094	G	N9-C4-C5	-6.14	102.94	105.40
26	BA	859	G	N1-C6-O6	-6.14	116.22	119.90
26	BA	1955	U	C5-C4-O4	6.14	129.58	125.90
26	BA	481	G	N1-C6-O6	6.13	123.58	119.90
26	BA	1795	C	N1-C2-O2	-6.13	115.22	118.90
26	BA	1436	G	C5-C6-O6	6.13	132.28	128.60
26	BA	1981	A	N1-C6-N6	-6.13	114.92	118.60
26	BA	2619	C	N3-C4-C5	6.13	124.35	121.90
26	BA	2396	G	N1-C6-O6	-6.13	116.22	119.90
26	BA	83	A	C6-N1-C2	-6.13	114.92	118.60
1	AA	791	G	C5-C6-O6	-6.12	124.92	128.60
26	BA	1977	A	C8-N9-C4	6.12	108.25	105.80
26	BA	23	G	C8-N9-C4	6.12	108.85	106.40
26	BA	538	A	N9-C4-C5	6.12	108.25	105.80
26	BA	1842	G	N1-C6-O6	6.12	123.58	119.90
26	BA	2490	G	C8-N9-C4	6.12	108.85	106.40
26	BA	2699	C	N3-C4-C5	6.12	124.35	121.90
26	BA	1827	U	C6-N1-C2	-6.12	117.33	121.00
26	BA	2354	C	C2-N3-C4	-6.12	116.84	119.90
26	BA	2782	G	C5-C6-N1	6.12	114.56	111.50
27	BC	268	ARG	NE-CZ-NH1	6.12	123.36	120.30
26	BA	1639	C	C6-N1-C2	-6.12	117.85	120.30
1	AA	734	G	N3-C4-N9	6.11	129.67	126.00
26	BA	489	G	N3-C4-N9	-6.11	122.33	126.00
26	BA	1255	U	N3-C2-O2	6.11	126.48	122.20
26	BA	1784	A	N1-C6-N6	6.11	122.27	118.60
26	BA	2271	G	C6-C5-N7	-6.11	126.73	130.40
1	AA	664	G	C4-C5-N7	-6.11	108.36	110.80
26	BA	1680	U	N3-C2-O2	-6.11	117.92	122.20
26	BA	2289	G	N3-C4-C5	6.11	131.65	128.60
1	AA	36	C	N3-C4-C5	-6.10	119.46	121.90
26	BA	74	A	N1-C6-N6	-6.10	114.94	118.60
26	BA	1817	G	C5-C6-O6	6.10	132.26	128.60
26	BA	2808	G	N3-C2-N2	6.10	124.17	119.90
26	BA	121	G	N1-C6-O6	6.10	123.56	119.90
26	BA	1770	G	N3-C4-N9	6.10	129.66	126.00
1	AA	816	A	C8-N9-C4	6.10	108.24	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	971	G	N9-C4-C5	6.10	107.84	105.40
26	BA	1200	C	N1-C2-O2	-6.10	115.24	118.90
26	BA	1357	C	C2-N3-C4	-6.10	116.85	119.90
26	BA	2223	G	N1-C6-O6	6.10	123.56	119.90
26	BA	1528	A	C2-N3-C4	-6.09	107.55	110.60
1	AA	521	G	C8-N9-C4	6.09	108.84	106.40
26	BA	2364	C	N1-C2-O2	-6.09	115.25	118.90
56	BB	51	G	C5-C6-O6	-6.09	124.95	128.60
26	BA	533	G	C8-N9-C1'	-6.09	119.09	127.00
26	BA	2688	G	C5-C6-O6	6.09	132.25	128.60
1	AA	190	A	N1-C6-N6	6.08	122.25	118.60
26	BA	175	G	C4-N9-C1'	-6.08	118.59	126.50
26	BA	748	G	C5-C6-O6	6.08	132.25	128.60
26	BA	2884	U	N3-C4-O4	-6.08	115.14	119.40
1	AA	877	G	N1-C6-O6	-6.08	116.25	119.90
26	BA	2155	U	C2-N1-C1'	6.08	125.00	117.70
26	BA	349	U	C6-N1-C2	6.08	124.65	121.00
26	BA	1767	G	N3-C4-C5	6.08	131.64	128.60
26	BA	1389	G	N1-C6-O6	6.08	123.55	119.90
26	BA	1646	C	C2-N3-C4	-6.08	116.86	119.90
26	BA	2045	C	C2-N3-C4	-6.08	116.86	119.90
1	AA	530	G	C6-C5-N7	-6.07	126.76	130.40
26	BA	1470	A	N9-C4-C5	6.07	108.23	105.80
1	AA	12	U	C5-C4-O4	6.07	129.54	125.90
26	BA	1022	G	N3-C4-C5	6.07	131.63	128.60
26	BA	1127	A	C2-N3-C4	6.07	113.63	110.60
26	BA	1842	G	N3-C4-N9	6.07	129.64	126.00
26	BA	2209	G	N1-C6-O6	6.07	123.54	119.90
26	BA	748	G	C5-N7-C8	6.07	107.33	104.30
26	BA	1513	U	C2-N1-C1'	-6.06	110.42	117.70
26	BA	468	G	N3-C4-C5	-6.06	125.57	128.60
26	BA	840	C	N3-C4-C5	6.06	124.32	121.90
1	AA	365	U	N3-C4-O4	-6.06	115.16	119.40
26	BA	11	C	N3-C2-O2	6.06	126.14	121.90
26	BA	499	U	N1-C2-N3	6.06	118.53	114.90
26	BA	786	C	C6-N1-C2	6.06	122.72	120.30
26	BA	1450	G	C4-N9-C1'	-6.06	118.62	126.50
56	BB	80	U	N1-C2-O2	-6.06	118.56	122.80
26	BA	2351	G	C5-C6-O6	-6.06	124.97	128.60
26	BA	2053	G	C6-C5-N7	-6.05	126.77	130.40
1	AA	1441	A	N1-C6-N6	-6.05	114.97	118.60
26	BA	555	G	C4-C5-N7	6.05	113.22	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	2535	G	C8-N9-C4	6.05	108.82	106.40
26	BA	404	A	N1-C6-N6	6.05	122.23	118.60
26	BA	1452	G	N3-C4-N9	-6.05	122.37	126.00
56	BB	90	C	N1-C2-O2	-6.05	115.27	118.90
26	BA	331	C	N1-C2-O2	-6.05	115.27	118.90
1	AA	53	A	N1-C6-N6	6.05	122.23	118.60
1	AA	555	U	N3-C2-O2	6.05	126.43	122.20
26	BA	1989	G	C4-C5-N7	6.05	113.22	110.80
26	BA	2553	G	N1-C2-N2	-6.05	110.76	116.20
26	BA	1587	G	C4-N9-C1'	6.04	134.36	126.50
26	BA	1225	G	C4-C5-N7	6.04	113.22	110.80
26	BA	1158	C	N1-C2-O2	-6.04	115.28	118.90
26	BA	2720	U	N3-C2-O2	-6.04	117.97	122.20
1	AA	1174	G	C4-N9-C1'	-6.04	118.65	126.50
26	BA	1623	G	N1-C6-O6	6.04	123.52	119.90
26	BA	2226	C	C2-N3-C4	-6.04	116.88	119.90
26	BA	979	A	C6-C5-N7	-6.04	128.07	132.30
26	BA	1980	G	C5-C6-N1	6.03	114.52	111.50
26	BA	215	G	N9-C4-C5	-6.03	102.99	105.40
26	BA	1554	U	C5-C6-N1	-6.03	119.68	122.70
1	AA	1524	C	N3-C2-O2	6.03	126.12	121.90
26	BA	526	A	N9-C4-C5	6.03	108.21	105.80
1	AA	1457	G	N3-C4-C5	6.02	131.61	128.60
26	BA	1336	A	C4-C5-N7	-6.02	107.69	110.70
26	BA	990	A	C2-N3-C4	-6.02	107.59	110.60
26	BA	2834	G	N3-C2-N2	6.02	124.11	119.90
26	BA	2056	G	N1-C6-O6	6.02	123.51	119.90
26	BA	2331	G	C8-N9-C1'	-6.02	119.17	127.00
26	BA	1961	C	N3-C4-C5	6.02	124.31	121.90
26	BA	2204	G	N1-C6-O6	6.02	123.51	119.90
26	BA	989	G	C5-C6-O6	-6.02	124.99	128.60
26	BA	793	A	C5-C6-N6	6.01	128.51	123.70
26	BA	1764	C	N3-C2-O2	6.01	126.11	121.90
26	BA	1341	G	C8-N9-C4	6.01	108.80	106.40
26	BA	2056	G	N1-C2-N2	6.01	121.61	116.20
1	AA	1417	G	N3-C4-N9	6.01	129.60	126.00
26	BA	2502	G	C8-N9-C4	-6.01	104.00	106.40
26	BA	1301	A	C4-C5-N7	6.00	113.70	110.70
26	BA	2232	C	C2-N1-C1'	-6.00	112.19	118.80
26	BA	1855	U	N3-C4-O4	6.00	123.60	119.40
26	BA	1695	G	N1-C6-O6	6.00	123.50	119.90
26	BA	2059	A	C8-N9-C4	6.00	108.20	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	2557	G	N1-C6-O6	6.00	123.50	119.90
26	BA	17	G	C8-N9-C4	6.00	108.80	106.40
26	BA	827	U	N3-C2-O2	6.00	126.40	122.20
26	BA	1572	A	N1-C6-N6	-6.00	115.00	118.60
26	BA	618	G	C4-C5-N7	-6.00	108.40	110.80
26	BA	2254	C	N3-C2-O2	6.00	126.10	121.90
56	BB	113	C	C5-C4-N4	-6.00	116.00	120.20
26	BA	335	C	N1-C2-O2	-5.99	115.30	118.90
26	BA	1423	G	N9-C4-C5	5.99	107.80	105.40
26	BA	1721	G	N3-C4-C5	-5.99	125.60	128.60
26	BA	1766	G	N3-C4-C5	5.99	131.60	128.60
1	AA	859	G	C4-N9-C1'	5.99	134.29	126.50
26	BA	2893	A	C4-C5-C6	5.99	120.00	117.00
26	BA	984	A	C4-N9-C1'	-5.99	115.52	126.30
26	BA	60	G	C5-C6-O6	-5.99	125.01	128.60
26	BA	1779	U	C2-N3-C4	-5.99	123.41	127.00
26	BA	784	G	C5-C6-O6	-5.98	125.01	128.60
26	BA	2495	G	C5-C6-O6	5.98	132.19	128.60
26	BA	795	C	N1-C2-O2	-5.97	115.32	118.90
26	BA	1336	A	N9-C4-C5	5.97	108.19	105.80
26	BA	2069	G	C4-C5-N7	5.97	113.19	110.80
26	BA	1966	A	N1-C6-N6	5.97	122.18	118.60
26	BA	2711	A	C2-N3-C4	-5.97	107.61	110.60
26	BA	2799	A	C5-C6-N6	-5.97	118.92	123.70
26	BA	252	G	N3-C4-C5	5.97	131.59	128.60
26	BA	450	G	N3-C4-C5	-5.97	125.61	128.60
26	BA	1660	G	N1-C6-O6	-5.97	116.32	119.90
26	BA	2538	C	N3-C4-C5	5.97	124.29	121.90
56	BB	46	A	N9-C4-C5	5.97	108.19	105.80
1	AA	903	G	N1-C6-O6	-5.96	116.32	119.90
26	BA	1038	G	N3-C4-N9	5.96	129.58	126.00
26	BA	2632	A	C8-N9-C4	-5.96	103.42	105.80
26	BA	1660	G	N3-C2-N2	-5.96	115.73	119.90
26	BA	1301	A	C6-C5-N7	-5.96	128.13	132.30
1	AA	1101	A	C4-C5-C6	5.95	119.98	117.00
26	BA	1150	C	C2-N3-C4	-5.95	116.92	119.90
26	BA	2793	C	C6-N1-C2	5.95	122.68	120.30
26	BA	46	G	C8-N9-C4	-5.95	104.02	106.40
26	BA	2011	U	C6-N1-C2	5.95	124.57	121.00
26	BA	2435	A	C5-C6-N6	-5.95	118.94	123.70
26	BA	2347	C	N1-C2-O2	-5.95	115.33	118.90
26	BA	827	U	N1-C2-O2	-5.94	118.64	122.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	1604	C	C2-N3-C4	-5.94	116.93	119.90
26	BA	2553	G	C8-N9-C1'	-5.94	119.27	127.00
26	BA	558	U	N1-C2-O2	-5.94	118.64	122.80
1	AA	1322	C	N1-C2-O2	-5.94	115.34	118.90
1	AA	1417	G	C4-C5-N7	5.94	113.18	110.80
26	BA	814	C	C2-N3-C4	-5.94	116.93	119.90
26	BA	1311	G	N3-C4-N9	-5.94	122.44	126.00
26	BA	2888	C	C6-N1-C1'	-5.94	113.67	120.80
1	AA	1513	A	N7-C8-N9	-5.94	110.83	113.80
26	BA	1165	A	C2-N3-C4	-5.94	107.63	110.60
56	BB	58	A	C6-N1-C2	-5.94	115.04	118.60
1	AA	1481	U	C2-N1-C1'	-5.94	110.58	117.70
26	BA	441	U	N3-C2-O2	-5.94	118.05	122.20
1	AA	105	G	C5-C6-O6	5.93	132.16	128.60
1	AA	283	U	N1-C2-O2	5.93	126.95	122.80
26	BA	1988	G	C5-C6-N1	-5.93	108.53	111.50
26	BA	342	A	C2-N3-C4	-5.93	107.63	110.60
26	BA	971	G	C5-C6-N1	5.93	114.47	111.50
1	AA	1524	C	C2-N1-C1'	-5.93	112.28	118.80
26	BA	746	U	N1-C2-O2	-5.93	118.65	122.80
1	AA	853	C	N1-C2-O2	-5.93	115.34	118.90
1	AA	308	C	C5-C6-N1	-5.93	118.04	121.00
26	BA	580	U	N1-C2-O2	-5.93	118.65	122.80
26	BA	1981	A	N9-C4-C5	5.93	108.17	105.80
1	AA	715	A	N1-C6-N6	5.92	122.16	118.60
26	BA	2825	G	C8-N9-C1'	-5.92	119.30	127.00
26	BA	961	C	N3-C4-C5	-5.92	119.53	121.90
26	BA	2226	C	N1-C2-N3	5.92	123.34	119.20
1	AA	297	G	C2-N3-C4	-5.92	108.94	111.90
1	AA	365	U	C2-N1-C1'	-5.92	110.60	117.70
26	BA	398	C	N1-C2-O2	-5.92	115.35	118.90
26	BA	1089	A	N1-C6-N6	-5.92	115.05	118.60
26	BA	1351	C	C6-N1-C1'	5.92	127.90	120.80
26	BA	242	G	N1-C6-O6	-5.92	116.35	119.90
26	BA	1587	G	C8-N9-C4	-5.92	104.03	106.40
26	BA	147	C	N1-C2-O2	-5.91	115.35	118.90
26	BA	311	A	C8-N9-C4	5.91	108.17	105.80
26	BA	315	G	C5-C6-O6	-5.91	125.05	128.60
26	BA	1125	G	N1-C6-O6	-5.91	116.35	119.90
26	BA	946	C	N1-C2-O2	-5.91	115.36	118.90
26	BA	1228	G	N3-C4-N9	-5.91	122.45	126.00
26	BA	1624	U	C6-N1-C2	5.91	124.55	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	2603	G	C2-N3-C4	-5.91	108.94	111.90
26	BA	486	C	N3-C2-O2	5.91	126.03	121.90
26	BA	1340	U	N3-C4-O4	-5.91	115.27	119.40
26	BA	476	G	N1-C6-O6	-5.91	116.36	119.90
26	BA	2239	G	C8-N9-C4	5.91	108.76	106.40
26	BA	2807	U	C2-N1-C1'	-5.91	110.61	117.70
26	BA	25	U	C5-C4-O4	-5.90	122.36	125.90
26	BA	310	A	C4-N9-C1'	-5.90	115.68	126.30
26	BA	1289	C	C6-N1-C2	5.90	122.66	120.30
26	BA	2553	G	C4-N9-C1'	5.90	134.17	126.50
26	BA	634	C	N3-C4-C5	5.90	124.26	121.90
26	BA	560	C	C6-N1-C2	-5.90	117.94	120.30
26	BA	1410	G	C8-N9-C4	5.89	108.76	106.40
26	BA	302	C	N3-C4-C5	5.89	124.26	121.90
26	BA	1612	C	C5-C4-N4	-5.89	116.08	120.20
26	BA	2774	C	N3-C2-O2	5.89	126.03	121.90
22	AV	51	A	O4'-C1'-N9	5.89	112.91	108.20
26	BA	1024	G	C4-C5-N7	5.89	113.16	110.80
26	BA	268	C	C6-N1-C2	5.89	122.66	120.30
26	BA	2385	C	N3-C4-C5	5.89	124.25	121.90
1	AA	67	C	C6-N1-C2	-5.88	117.95	120.30
1	AA	859	G	N9-C4-C5	-5.88	103.05	105.40
26	BA	628	G	N1-C6-O6	-5.88	116.37	119.90
26	BA	1661	G	N3-C4-C5	-5.88	125.66	128.60
26	BA	1743	G	N3-C4-N9	5.88	129.53	126.00
26	BA	2004	G	N1-C2-N3	5.88	127.43	123.90
26	BA	2032	G	N7-C8-N9	-5.88	110.16	113.10
26	BA	2031	A	N3-C4-C5	-5.88	122.68	126.80
26	BA	2546	U	C2-N1-C1'	-5.88	110.64	117.70
26	BA	1209	U	N3-C2-O2	5.88	126.32	122.20
26	BA	1623	G	C5-N7-C8	-5.88	101.36	104.30
26	BA	2271	G	N1-C2-N2	-5.88	110.91	116.20
26	BA	2609	U	C6-N1-C2	5.88	124.53	121.00
26	BA	2894	G	C8-N9-C4	5.88	108.75	106.40
26	BA	2251	G	C6-N1-C2	-5.87	121.58	125.10
26	BA	2880	C	C6-N1-C2	-5.87	117.95	120.30
26	BA	813	U	N1-C2-N3	5.87	118.42	114.90
1	AA	971	G	C4-N9-C1'	-5.87	118.87	126.50
26	BA	1208	C	C5-C6-N1	-5.87	118.07	121.00
26	BA	1360	G	N1-C6-O6	-5.87	116.38	119.90
26	BA	1255	U	N1-C2-O2	-5.87	118.69	122.80
26	BA	2332	C	C5-C6-N1	-5.87	118.07	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	2520	C	N3-C4-N4	5.87	122.11	118.00
26	BA	2447	G	C5-C6-O6	-5.86	125.08	128.60
1	AA	690	G	N9-C4-C5	-5.86	103.06	105.40
26	BA	2640	G	N1-C6-O6	-5.86	116.38	119.90
26	BA	725	G	C4-N9-C1'	5.86	134.12	126.50
26	BA	1456	G	C2-N3-C4	-5.86	108.97	111.90
26	BA	1842	G	N9-C4-C5	-5.86	103.06	105.40
26	BA	2425	A	P-O3'-C3'	5.86	126.73	119.70
26	BA	2433	A	C8-N9-C4	5.86	108.14	105.80
26	BA	2538	C	C5-C4-N4	-5.86	116.10	120.20
1	AA	809	G	C8-N9-C4	5.86	108.74	106.40
26	BA	979	A	N9-C4-C5	-5.86	103.46	105.80
26	BA	1816	C	N1-C2-O2	-5.86	115.39	118.90
26	BA	2271	G	C8-N9-C1'	-5.86	119.38	127.00
26	BA	2762	C	C2-N3-C4	-5.86	116.97	119.90
26	BA	554	U	N1-C2-O2	-5.86	118.70	122.80
26	BA	2251	G	C5-C6-N1	5.86	114.43	111.50
1	AA	872	A	C8-N9-C4	-5.86	103.46	105.80
26	BA	9	G	C6-C5-N7	-5.86	126.89	130.40
26	BA	342	A	N9-C4-C5	-5.86	103.46	105.80
26	BA	1623	G	C2-N3-C4	-5.85	108.97	111.90
26	BA	1769	U	C2-N3-C4	-5.85	123.49	127.00
26	BA	1816	C	C2-N1-C1'	-5.85	112.36	118.80
26	BA	1512	C	N1-C2-O2	-5.85	115.39	118.90
26	BA	2024	G	N3-C4-C5	-5.85	125.67	128.60
1	AA	794	A	C5-C6-N6	5.85	128.38	123.70
26	BA	2395	C	N3-C4-N4	5.85	122.09	118.00
26	BA	726	G	C4-C5-N7	5.84	113.14	110.80
26	BA	2621	G	C5-C6-N1	-5.84	108.58	111.50
56	BB	93	C	N1-C2-O2	-5.84	115.39	118.90
1	AA	1408	A	N3-C4-C5	5.84	130.89	126.80
26	BA	1920	C	C6-N1-C2	-5.84	117.96	120.30
26	BA	555	G	N1-C2-N2	-5.84	110.94	116.20
26	BA	1596	A	C8-N9-C4	5.84	108.14	105.80
26	BA	1692	U	N1-C2-O2	-5.84	118.71	122.80
26	BA	1761	C	N3-C4-N4	5.84	122.09	118.00
1	AA	734	G	N9-C4-C5	-5.84	103.06	105.40
26	BA	832	U	N1-C2-N3	5.84	118.40	114.90
26	BA	1614	A	C8-N9-C4	5.84	108.14	105.80
26	BA	2688	G	C8-N9-C4	-5.84	104.06	106.40
1	AA	822	U	N1-C2-O2	-5.84	118.72	122.80
26	BA	1122	G	N9-C4-C5	5.84	107.73	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	2840	C	C5-C4-N4	-5.83	116.12	120.20
26	BA	536	G	N3-C4-C5	5.83	131.52	128.60
26	BA	764	A	N9-C4-C5	5.83	108.13	105.80
26	BA	821	A	N7-C8-N9	-5.83	110.88	113.80
26	BA	1999	C	N1-C2-O2	-5.83	115.40	118.90
26	BA	2689	U	C5-C4-O4	5.83	129.40	125.90
26	BA	818	G	C4-N9-C1'	5.83	134.08	126.50
26	BA	2084	C	N1-C2-O2	-5.83	115.40	118.90
26	BA	2409	G	C2-N3-C4	-5.83	108.98	111.90
26	BA	342	A	C4-C5-N7	5.83	113.61	110.70
26	BA	1223	G	C8-N9-C4	5.83	108.73	106.40
26	BA	582	A	C4-C5-C6	5.83	119.91	117.00
1	AA	53	A	C5-C6-N6	-5.83	119.04	123.70
26	BA	2805	C	N1-C2-O2	-5.83	115.40	118.90
1	AA	188	C	C2-N1-C1'	5.83	125.21	118.80
26	BA	1817	G	C8-N9-C4	5.83	108.73	106.40
26	BA	2426	A	C6-C5-N7	-5.83	128.22	132.30
56	BB	4	C	C6-N1-C2	5.83	122.63	120.30
1	AA	329	A	C8-N9-C4	5.82	108.13	105.80
26	BA	624	C	C6-N1-C1'	5.82	127.79	120.80
26	BA	1608	A	C2-N3-C4	-5.82	107.69	110.60
26	BA	1674	G	N3-C4-C5	-5.82	125.69	128.60
26	BA	2286	G	N3-C4-N9	-5.82	122.51	126.00
26	BA	2751	G	C8-N9-C4	-5.82	104.07	106.40
26	BA	1024	G	C6-C5-N7	-5.82	126.91	130.40
26	BA	1036	G	C5-C6-N1	5.82	114.41	111.50
26	BA	1287	A	N1-C2-N3	5.82	132.21	129.30
26	BA	1902	C	C5-C6-N1	-5.82	118.09	121.00
26	BA	1315	C	N1-C2-N3	5.82	123.27	119.20
26	BA	1764	C	C6-N1-C2	5.82	122.63	120.30
1	AA	957	U	C6-N1-C2	-5.82	117.51	121.00
26	BA	2014	A	C8-N9-C4	-5.82	103.47	105.80
1	AA	874	G	N3-C4-C5	-5.82	125.69	128.60
26	BA	2598	A	C5-C6-N6	5.82	128.35	123.70
26	BA	221	A	C8-N9-C4	5.82	108.13	105.80
26	BA	691	C	N1-C2-O2	-5.82	115.41	118.90
26	BA	1327	A	C5-C6-N1	-5.82	114.79	117.70
26	BA	1470	A	N1-C6-N6	-5.82	115.11	118.60
26	BA	291	G	N1-C6-O6	5.81	123.39	119.90
26	BA	2025	C	N3-C2-O2	-5.81	117.83	121.90
26	BA	2248	C	C6-N1-C2	-5.81	117.97	120.30
1	AA	584	G	C8-N9-C4	5.81	108.72	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	48	G	C5-C6-O6	-5.81	125.11	128.60
26	BA	2391	G	O4'-C1'-N9	5.81	112.85	108.20
26	BA	310	A	C8-N9-C1'	5.81	138.16	127.70
26	BA	2745	C	C5-C4-N4	-5.81	116.13	120.20
56	BB	71	C	C6-N1-C2	5.81	122.62	120.30
26	BA	411	G	N1-C2-N3	5.81	127.39	123.90
26	BA	489	G	N9-C4-C5	5.81	107.72	105.40
26	BA	2820	A	C5-C6-N1	-5.81	114.80	117.70
26	BA	2803	G	C5-C6-O6	5.80	132.08	128.60
26	BA	1971	U	C6-N1-C2	5.80	124.48	121.00
26	BA	600	G	C5-C6-N1	-5.80	108.60	111.50
26	BA	1403	A	N1-C6-N6	5.80	122.08	118.60
26	BA	1893	C	N1-C2-O2	-5.80	115.42	118.90
26	BA	1981	A	C4-C5-N7	-5.80	107.80	110.70
26	BA	1318	U	C5-C4-O4	5.80	129.38	125.90
26	BA	1811	G	C5-C6-O6	-5.80	125.12	128.60
26	BA	1277	G	C5-C6-O6	5.80	132.08	128.60
26	BA	2876	G	N1-C6-O6	-5.79	116.42	119.90
26	BA	194	G	N9-C4-C5	-5.79	103.08	105.40
26	BA	1426	G	C8-N9-C1'	-5.79	119.47	127.00
26	BA	2642	G	C5-C6-N1	5.79	114.40	111.50
26	BA	1256	G	C8-N9-C1'	-5.79	119.47	127.00
26	BA	757	G	C8-N9-C4	5.79	108.72	106.40
26	BA	1443	U	C2-N1-C1'	5.79	124.64	117.70
1	AA	1286	U	C2-N1-C1'	5.79	124.64	117.70
26	BA	1040	A	N1-C6-N6	5.79	122.07	118.60
26	BA	1277	G	C4-C5-N7	-5.79	108.49	110.80
1	AA	275	G	N3-C4-N9	5.78	129.47	126.00
1	AA	283	U	C6-N1-C1'	-5.78	113.10	121.20
26	BA	1289	C	C2-N3-C4	-5.78	117.01	119.90
26	BA	392	U	C5-C4-O4	-5.78	122.43	125.90
26	BA	129	C	C6-N1-C2	5.78	122.61	120.30
26	BA	624	C	N3-C2-O2	5.78	125.95	121.90
26	BA	2832	U	N1-C2-O2	-5.78	118.75	122.80
26	BA	584	C	N3-C4-C5	5.78	124.21	121.90
26	BA	1555	G	C4-N9-C1'	5.78	134.01	126.50
26	BA	1759	A	N1-C6-N6	-5.78	115.13	118.60
26	BA	2248	C	C2-N3-C4	-5.78	117.01	119.90
26	BA	101	A	C6-C5-N7	-5.78	128.26	132.30
26	BA	382	A	C5-N7-C8	-5.78	101.01	103.90
26	BA	1913	A	N9-C4-C5	-5.78	103.49	105.80
26	BA	2475	C	N3-C2-O2	5.78	125.94	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	881	G	N1-C6-O6	5.78	123.37	119.90
26	BA	1426	G	C4-N9-C1'	5.78	134.01	126.50
26	BA	424	G	C8-N9-C4	5.77	108.71	106.40
26	BA	444	C	N3-C2-O2	5.77	125.94	121.90
26	BA	1073	A	C8-N9-C4	-5.77	103.49	105.80
26	BA	2396	G	C5-C6-O6	5.77	132.06	128.60
26	BA	686	U	C2-N1-C1'	-5.77	110.78	117.70
26	BA	783	A	C6-C5-N7	-5.77	128.26	132.30
26	BA	1359	A	C6-N1-C2	-5.77	115.14	118.60
26	BA	371	A	C2-N3-C4	-5.77	107.72	110.60
26	BA	1402	U	C6-N1-C2	5.77	124.46	121.00
26	BA	2475	C	C6-N1-C2	5.77	122.61	120.30
26	BA	184	C	C6-N1-C2	-5.76	118.00	120.30
26	BA	1110	G	N9-C4-C5	-5.76	103.09	105.40
26	BA	1318	U	N3-C4-O4	-5.76	115.36	119.40
26	BA	2306	C	C6-N1-C2	-5.76	117.99	120.30
1	AA	135	C	C6-N1-C2	5.76	122.61	120.30
26	BA	1187	G	C8-N9-C4	-5.76	104.09	106.40
26	BA	2831	G	N3-C4-N9	5.76	129.46	126.00
26	BA	77	G	N3-C2-N2	-5.76	115.87	119.90
26	BA	1050	A	C8-N9-C4	5.76	108.10	105.80
26	BA	2092	U	N3-C2-O2	-5.76	118.17	122.20
26	BA	793	A	N9-C4-C5	5.76	108.10	105.80
26	BA	1341	G	N9-C4-C5	-5.75	103.10	105.40
26	BA	2710	C	C4-C5-C6	5.75	120.28	117.40
26	BA	656	G	N3-C4-C5	5.75	131.47	128.60
26	BA	533	G	C2-N3-C4	-5.75	109.03	111.90
26	BA	317	G	C5-C6-O6	-5.74	125.15	128.60
26	BA	476	G	C4-C5-N7	-5.74	108.50	110.80
26	BA	2346	A	N1-C6-N6	-5.74	115.15	118.60
26	BA	1381	G	C5-C6-O6	5.74	132.04	128.60
26	BA	2254	C	N3-C4-N4	5.74	122.02	118.00
26	BA	2676	C	C5-C4-N4	-5.74	116.18	120.20
1	AA	785	G	C5-C6-O6	-5.74	125.16	128.60
26	BA	1767	G	C5-C6-N1	-5.74	108.63	111.50
26	BA	2803	G	C6-C5-N7	5.74	133.84	130.40
26	BA	446	G	N9-C4-C5	-5.74	103.11	105.40
26	BA	2422	C	N3-C2-O2	5.74	125.91	121.90
26	BA	440	C	N1-C2-O2	-5.73	115.46	118.90
1	AA	903	G	C5-C6-O6	5.73	132.04	128.60
26	BA	640	C	N1-C2-O2	-5.73	115.46	118.90
26	BA	522	A	C8-N9-C4	5.73	108.09	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	633	G	C8-N9-C4	-5.72	104.11	106.40
26	BA	2008	C	C6-N1-C2	5.72	122.59	120.30
1	AA	869	G	C5-C6-O6	-5.72	125.17	128.60
1	AA	1478	U	N3-C4-O4	-5.72	115.39	119.40
26	BA	735	A	N1-C2-N3	5.72	132.16	129.30
26	BA	1224	U	C6-N1-C1'	5.72	129.21	121.20
26	BA	1220	G	N3-C2-N2	5.72	123.91	119.90
26	BA	1842	G	C5-C6-O6	-5.72	125.17	128.60
26	BA	482	A	C6-C5-N7	-5.72	128.30	132.30
26	BA	733	G	C4-C5-N7	5.72	113.09	110.80
26	BA	1685	C	N3-C2-O2	5.72	125.90	121.90
26	BA	1335	C	N1-C2-N3	5.72	123.20	119.20
26	BA	1936	A	C6-C5-N7	-5.72	128.30	132.30
26	BA	1232	G	N3-C2-N2	5.72	123.90	119.90
26	BA	1113	U	N3-C2-O2	5.71	126.20	122.20
26	BA	2691	C	C5-C4-N4	-5.71	116.20	120.20
1	AA	1484	C	N3-C2-O2	5.71	125.90	121.90
26	BA	154	U	N3-C2-O2	-5.71	118.20	122.20
26	BA	1216	G	C5-C6-N1	5.71	114.36	111.50
56	BB	117	G	N3-C4-C5	5.71	131.46	128.60
26	BA	2605	U	C2-N3-C4	5.71	130.43	127.00
26	BA	1657	U	N1-C2-O2	-5.71	118.80	122.80
26	BA	2056	G	C5-C6-O6	-5.71	125.17	128.60
26	BA	60	G	P-O3'-C3'	5.71	126.55	119.70
26	BA	726	G	C4-C5-C6	5.71	122.22	118.80
1	AA	21	G	N3-C4-C5	-5.70	125.75	128.60
1	AA	738	C	N3-C2-O2	5.70	125.89	121.90
26	BA	738	G	C8-N9-C4	-5.70	104.12	106.40
56	BB	47	C	C6-N1-C2	5.70	122.58	120.30
26	BA	2380	C	C2-N3-C4	-5.70	117.05	119.90
26	BA	2867	G	C5-C6-N1	5.70	114.35	111.50
26	BA	389	G	N9-C4-C5	-5.70	103.12	105.40
26	BA	1620	G	C5-C6-O6	5.70	132.02	128.60
26	BA	2555	U	N1-C2-O2	-5.70	118.81	122.80
26	BA	2733	A	N1-C6-N6	-5.70	115.18	118.60
1	AA	359	G	C8-N9-C4	5.70	108.68	106.40
26	BA	2307	G	C6-C5-N7	5.70	133.82	130.40
1	AA	4	U	N3-C2-O2	-5.70	118.21	122.20
1	AA	957	U	N3-C2-O2	-5.70	118.21	122.20
26	BA	1327	A	C2-N3-C4	-5.70	107.75	110.60
26	BA	2571	U	N1-C2-N3	5.70	118.32	114.90
26	BA	687	C	N1-C2-O2	-5.69	115.48	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	2859	G	N9-C4-C5	5.69	107.68	105.40
26	BA	2897	U	N3-C4-C5	5.69	118.02	114.60
26	BA	482	A	C5-C6-N6	-5.69	119.15	123.70
26	BA	1608	A	C5-N7-C8	-5.69	101.05	103.90
26	BA	2076	U	N1-C2-N3	5.69	118.32	114.90
1	AA	145	G	C5-C6-O6	5.69	132.01	128.60
26	BA	765	C	N3-C4-C5	-5.69	119.62	121.90
26	BA	2365	G	C6-C5-N7	-5.69	126.99	130.40
1	AA	721	G	N9-C4-C5	5.68	107.67	105.40
26	BA	125	A	N9-C4-C5	5.68	108.07	105.80
26	BA	1126	A	C5-C6-N6	-5.68	119.15	123.70
26	BA	2802	G	C5-C6-O6	5.68	132.01	128.60
1	AA	1174	G	C8-N9-C1'	5.68	134.38	127.00
26	BA	497	A	C8-N9-C4	5.68	108.07	105.80
26	BA	926	G	C2-N3-C4	-5.68	109.06	111.90
26	BA	989	G	N3-C2-N2	-5.68	115.92	119.90
26	BA	497	A	C5-C6-N6	-5.68	119.16	123.70
26	BA	1155	A	N7-C8-N9	-5.68	110.96	113.80
56	BB	24	G	N3-C4-C5	-5.68	125.76	128.60
1	AA	337	G	C5-C6-N1	5.67	114.34	111.50
26	BA	1563	U	C5-C4-O4	5.67	129.31	125.90
26	BA	1977	A	N3-C4-C5	5.67	130.77	126.80
26	BA	2382	G	C8-N9-C4	-5.67	104.13	106.40
26	BA	2442	C	N1-C2-O2	-5.67	115.50	118.90
1	AA	1458	G	C8-N9-C4	5.67	108.67	106.40
26	BA	926	G	C5-C6-O6	5.67	132.00	128.60
26	BA	1563	U	C6-N1-C1'	5.67	129.13	121.20
26	BA	342	A	C6-C5-N7	-5.66	128.34	132.30
26	BA	1183	U	N1-C2-N3	5.66	118.30	114.90
26	BA	1396	U	N3-C2-O2	-5.66	118.24	122.20
26	BA	1842	G	C8-N9-C1'	-5.66	119.64	127.00
26	BA	1343	G	N3-C4-N9	5.66	129.40	126.00
26	BA	463	G	N3-C4-N9	-5.66	122.61	126.00
26	BA	1952	A	N1-C6-N6	-5.66	115.20	118.60
26	BA	2424	C	N3-C4-C5	-5.66	119.64	121.90
1	AA	506	G	C8-N9-C4	5.66	108.66	106.40
1	AA	78	A	C6-N1-C2	-5.66	115.21	118.60
26	BA	187	G	N1-C6-O6	5.66	123.29	119.90
26	BA	757	G	N3-C4-C5	5.66	131.43	128.60
26	BA	528	A	C5-C6-N6	-5.65	119.18	123.70
1	AA	530	G	C4-C5-N7	5.65	113.06	110.80
26	BA	1590	A	N1-C6-N6	5.65	121.99	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	2480	C	C6-N1-C2	-5.65	118.04	120.30
1	AA	312	C	C2-N3-C4	-5.65	117.08	119.90
1	AA	814	A	C6-N1-C2	-5.65	115.21	118.60
26	BA	1061	U	C2-N1-C1'	5.65	124.48	117.70
26	BA	1195	G	N1-C6-O6	-5.65	116.51	119.90
26	BA	1525	A	C2-N3-C4	-5.65	107.78	110.60
26	BA	1897	G	C8-N9-C1'	-5.65	119.66	127.00
26	BA	2230	G	C4-C5-N7	-5.65	108.54	110.80
26	BA	463	G	C5-C6-O6	5.65	131.99	128.60
26	BA	1134	A	C2-N3-C4	-5.65	107.78	110.60
40	BP	102	ARG	NE-CZ-NH1	5.65	123.12	120.30
1	AA	836	G	N1-C6-O6	5.64	123.29	119.90
26	BA	1340	U	C6-N1-C1'	5.64	129.10	121.20
26	BA	304	U	N3-C2-O2	5.64	126.15	122.20
26	BA	809	G	N1-C6-O6	-5.64	116.51	119.90
26	BA	2901	C	C6-N1-C2	-5.64	118.04	120.30
26	BA	733	G	C6-C5-N7	-5.64	127.02	130.40
26	BA	1022	G	C2-N3-C4	-5.64	109.08	111.90
26	BA	1396	U	C2-N1-C1'	-5.64	110.93	117.70
26	BA	404	A	C6-C5-N7	-5.64	128.35	132.30
26	BA	2520	C	N1-C2-O2	-5.64	115.52	118.90
26	BA	2717	C	N1-C2-O2	-5.64	115.52	118.90
26	BA	439	A	C2-N3-C4	-5.63	107.78	110.60
26	BA	958	U	C2-N1-C1'	-5.63	110.94	117.70
56	BB	98	G	C5-C6-O6	-5.63	125.22	128.60
26	BA	1954	G	N1-C6-O6	5.63	123.28	119.90
26	BA	790	U	C6-N1-C1'	5.63	129.08	121.20
26	BA	861	A	N9-C4-C5	5.63	108.05	105.80
26	BA	656	G	C2-N3-C4	-5.63	109.09	111.90
26	BA	1145	C	C2-N3-C4	-5.63	117.09	119.90
26	BA	2710	C	N1-C2-O2	-5.63	115.52	118.90
26	BA	2834	G	N3-C4-N9	5.63	129.38	126.00
26	BA	2285	C	C6-N1-C2	5.62	122.55	120.30
26	BA	516	C	N3-C2-O2	5.62	125.83	121.90
26	BA	2805	C	C2-N1-C1'	-5.62	112.62	118.80
1	AA	947	G	C8-N9-C4	5.62	108.65	106.40
26	BA	164	C	C2-N1-C1'	-5.62	112.62	118.80
26	BA	708	G	C8-N9-C1'	5.62	134.30	127.00
26	BA	1047	G	N1-C6-O6	5.62	123.27	119.90
26	BA	1552	A	N9-C4-C5	5.62	108.05	105.80
26	BA	2250	G	C5-C6-N1	-5.62	108.69	111.50
26	BA	2271	G	N3-C4-C5	-5.62	125.79	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	875	U	N3-C2-O2	-5.62	118.27	122.20
26	BA	984	A	C6-C5-N7	-5.62	128.37	132.30
26	BA	1811	G	N3-C2-N2	-5.62	115.97	119.90
26	BA	1010	A	C5-C6-N1	5.61	120.51	117.70
26	BA	1552	A	N1-C6-N6	-5.61	115.23	118.60
26	BA	241	A	C2-N3-C4	-5.61	107.80	110.60
26	BA	276	U	N1-C2-O2	5.61	126.73	122.80
26	BA	1595	C	N3-C2-O2	5.61	125.83	121.90
56	BB	72	G	C2-N3-C4	-5.61	109.09	111.90
26	BA	450	G	C2-N3-C4	5.61	114.70	111.90
26	BA	547	A	C8-N9-C4	-5.61	103.56	105.80
26	BA	1038	G	N3-C4-C5	-5.61	125.80	128.60
26	BA	930	G	C8-N9-C1'	5.60	134.28	127.00
26	BA	1266	G	C5-C6-N1	5.60	114.30	111.50
26	BA	992	C	C5-C6-N1	-5.60	118.20	121.00
26	BA	1971	U	N1-C2-N3	-5.60	111.54	114.90
26	BA	119	A	C5-C6-N1	5.60	120.50	117.70
26	BA	944	C	N1-C2-O2	-5.60	115.54	118.90
26	BA	733	G	N1-C6-O6	5.60	123.26	119.90
1	AA	656	G	N3-C4-C5	-5.60	125.80	128.60
26	BA	2621	G	N3-C2-N2	-5.60	115.98	119.90
56	BB	113	C	N1-C2-O2	-5.60	115.54	118.90
1	AA	314	C	C6-N1-C2	5.59	122.54	120.30
1	AA	894	G	C2-N3-C4	-5.59	109.10	111.90
26	BA	2410	G	N3-C4-N9	5.59	129.36	126.00
26	BA	2468	A	C5-C6-N6	-5.59	119.22	123.70
26	BA	2878	U	N1-C2-O2	-5.59	118.88	122.80
26	BA	2783	U	C5-C4-O4	5.59	129.26	125.90
26	BA	240	C	N1-C2-O2	-5.59	115.55	118.90
26	BA	1770	G	C5-C6-O6	-5.59	125.25	128.60
1	AA	212	G	N3-C4-C5	-5.59	125.81	128.60
56	BB	55	U	N1-C2-N3	5.59	118.25	114.90
1	AA	1515	G	C5-C6-O6	-5.59	125.25	128.60
26	BA	116	C	C6-N1-C1'	5.58	127.50	120.80
26	BA	2485	G	N1-C6-O6	5.58	123.25	119.90
26	BA	1662	U	C5-C4-O4	5.58	129.25	125.90
26	BA	476	G	C5-C6-O6	5.58	131.95	128.60
26	BA	793	A	N1-C6-N6	-5.58	115.25	118.60
26	BA	801	G	N3-C4-N9	-5.58	122.65	126.00
26	BA	1130	U	N1-C2-O2	5.58	126.70	122.80
26	BA	395	U	N1-C2-O2	5.58	126.70	122.80
26	BA	1988	G	C2-N3-C4	-5.58	109.11	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	974	G	C3'-C2'-C1'	-5.57	97.04	101.50
26	BA	1024	G	C5-N7-C8	-5.57	101.51	104.30
26	BA	2851	A	C4-C5-C6	5.57	119.79	117.00
26	BA	301	G	C3'-C2'-C1'	-5.57	97.04	101.50
26	BA	1525	A	N1-C6-N6	5.57	121.94	118.60
26	BA	2089	C	C2-N3-C4	-5.57	117.11	119.90
26	BA	2375	G	N1-C2-N2	5.57	121.21	116.20
26	BA	471	A	C5-C6-N6	-5.57	119.24	123.70
26	BA	2592	G	C5-C6-O6	5.57	131.94	128.60
1	AA	337	G	C6-C5-N7	5.57	133.74	130.40
26	BA	1393	A	N1-C6-N6	-5.57	115.26	118.60
26	BA	1466	U	N3-C2-O2	5.57	126.09	122.20
26	BA	2724	U	C5-C4-O4	5.57	129.24	125.90
26	BA	1296	G	N1-C6-O6	5.56	123.24	119.90
1	AA	734	G	C8-N9-C1'	-5.56	119.77	127.00
1	AA	872	A	N7-C8-N9	5.56	116.58	113.80
26	BA	589	U	N3-C4-O4	-5.56	115.51	119.40
26	BA	2833	U	N3-C2-O2	-5.56	118.31	122.20
56	BB	5	U	N1-C2-O2	5.56	126.69	122.80
26	BA	993	G	N3-C4-C5	-5.56	125.82	128.60
26	BA	1405	U	C2-N3-C4	-5.56	123.66	127.00
26	BA	1303	G	C8-N9-C4	5.56	108.62	106.40
26	BA	2376	A	N1-C6-N6	-5.56	115.27	118.60
26	BA	2794	C	C6-N1-C2	-5.56	118.08	120.30
51	B0	19	ASP	CB-CG-OD1	-5.56	113.30	118.30
26	BA	1166	G	N1-C6-O6	5.56	123.23	119.90
26	BA	2067	G	C8-N9-C4	5.56	108.62	106.40
1	AA	292	G	N3-C4-C5	-5.55	125.82	128.60
26	BA	784	G	N3-C4-N9	5.55	129.33	126.00
26	BA	1388	G	C2-N3-C4	-5.55	109.12	111.90
6	AF	86	ARG	NE-CZ-NH1	5.55	123.08	120.30
26	BA	229	C	N1-C2-O2	-5.55	115.57	118.90
26	BA	273	G	C8-N9-C1'	5.55	134.22	127.00
26	BA	634	C	N3-C2-O2	5.55	125.79	121.90
26	BA	922	C	N3-C4-N4	5.55	121.89	118.00
26	BA	2135	A	C5-C6-N6	-5.55	119.26	123.70
26	BA	2562	U	N3-C4-O4	-5.55	115.51	119.40
26	BA	2866	U	N3-C4-O4	-5.55	115.51	119.40
26	BA	856	G	C8-N9-C4	5.55	108.62	106.40
26	BA	1961	C	N1-C2-O2	5.55	122.23	118.90
26	BA	2089	C	N1-C2-N3	5.55	123.08	119.20
26	BA	1171	G	C8-N9-C4	-5.55	104.18	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
53	B2	10	LEU	CA-CB-CG	-5.55	102.54	115.30
26	BA	919	U	C2-N1-C1'	5.55	124.36	117.70
1	AA	818	G	C4-N9-C1'	-5.54	119.29	126.50
26	BA	141	G	N3-C4-C5	-5.54	125.83	128.60
1	AA	798	U	C5-C4-O4	-5.54	122.58	125.90
1	AA	828	U	N3-C2-O2	5.54	126.08	122.20
26	BA	92	U	N3-C2-O2	5.54	126.08	122.20
26	BA	302	C	C5-C6-N1	-5.54	118.23	121.00
26	BA	1955	U	C5-C6-N1	-5.54	119.93	122.70
26	BA	2085	U	C5-C6-N1	-5.54	119.93	122.70
26	BA	2158	A	C5-C6-N6	-5.54	119.27	123.70
1	AA	586	C	C6-N1-C2	5.54	122.52	120.30
26	BA	509	C	N3-C4-N4	-5.54	114.12	118.00
26	BA	1299	G	N1-C6-O6	-5.54	116.58	119.90
26	BA	2827	C	C6-N1-C2	5.54	122.52	120.30
26	BA	2283	C	N1-C2-O2	-5.54	115.58	118.90
1	AA	1403	C	C2-N3-C4	-5.54	117.13	119.90
26	BA	817	C	N3-C2-O2	5.54	125.78	121.90
26	BA	1161	C	C6-N1-C2	5.54	122.51	120.30
26	BA	1265	A	N1-C2-N3	5.54	132.07	129.30
26	BA	2030	A	C4-C5-N7	-5.54	107.93	110.70
1	AA	679	C	C2-N1-C1'	5.53	124.89	118.80
1	AA	862	C	C6-N1-C2	-5.53	118.09	120.30
26	BA	501	A	N1-C2-N3	5.53	132.07	129.30
26	BA	1208	C	C2-N3-C4	-5.53	117.13	119.90
26	BA	1273	U	N1-C2-O2	-5.53	118.93	122.80
26	BA	949	G	C5-C6-O6	5.53	131.92	128.60
26	BA	1024	G	N7-C8-N9	5.53	115.86	113.10
1	AA	686	U	N1-C2-O2	-5.53	118.93	122.80
26	BA	786	C	N1-C2-O2	-5.53	115.58	118.90
26	BA	1049	C	N1-C2-O2	-5.53	115.58	118.90
26	BA	1897	G	N3-C4-N9	5.52	129.31	126.00
26	BA	2732	G	N3-C4-N9	-5.52	122.69	126.00
26	BA	620	G	N3-C2-N2	-5.52	116.03	119.90
26	BA	2444	G	N3-C2-N2	-5.52	116.03	119.90
1	AA	372	C	C6-N1-C2	5.52	122.51	120.30
26	BA	1023	U	C2-N1-C1'	-5.52	111.08	117.70
26	BA	774	G	C5-C6-N1	5.52	114.26	111.50
26	BA	2711	A	N3-C4-C5	5.52	130.66	126.80
26	BA	2524	G	C5-C6-N1	5.52	114.26	111.50
1	AA	712	A	C6-N1-C2	-5.51	115.29	118.60
26	BA	640	C	C6-N1-C2	5.51	122.51	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	BB	24	G	N1-C6-O6	-5.51	116.59	119.90
1	AA	1190	G	C5-C6-O6	-5.51	125.29	128.60
26	BA	48	G	N3-C4-N9	5.51	129.31	126.00
26	BA	598	U	N3-C2-O2	5.51	126.06	122.20
26	BA	781	A	C4-C5-C6	5.51	119.75	117.00
26	BA	1699	G	C4-C5-N7	-5.51	108.60	110.80
26	BA	2330	G	N1-C2-N3	5.51	127.21	123.90
26	BA	1299	G	C5-C6-O6	5.51	131.91	128.60
56	BB	43	C	N1-C2-N3	5.51	123.06	119.20
26	BA	2523	G	C2-N3-C4	-5.51	109.15	111.90
26	BA	2859	G	N1-C2-N3	5.51	127.20	123.90
1	AA	21	G	N3-C4-N9	5.50	129.30	126.00
26	BA	784	G	C6-N1-C2	-5.50	121.80	125.10
26	BA	2082	A	C4-C5-C6	5.50	119.75	117.00
26	BA	235	U	N3-C2-O2	-5.50	118.35	122.20
26	BA	1223	G	N3-C4-C5	5.50	131.35	128.60
26	BA	2250	G	C6-N1-C2	5.50	128.40	125.10
26	BA	2893	A	C6-N1-C2	-5.50	115.30	118.60
35	BK	118	LEU	N-CA-C	-5.50	96.14	111.00
26	BA	1410	G	N7-C8-N9	-5.50	110.35	113.10
1	AA	145	G	C8-N9-C4	-5.50	104.20	106.40
26	BA	93	G	C5-N7-C8	5.50	107.05	104.30
26	BA	796	C	N1-C2-O2	-5.50	115.60	118.90
26	BA	1767	G	C2-N3-C4	-5.50	109.15	111.90
26	BA	2298	A	N1-C6-N6	-5.50	115.30	118.60
1	AA	1174	G	C6-C5-N7	5.50	133.70	130.40
26	BA	383	C	C2-N1-C1'	-5.50	112.75	118.80
26	BA	725	G	C8-N9-C1'	-5.50	119.86	127.00
1	AA	111	G	C8-N9-C1'	5.49	134.14	127.00
26	BA	2269	G	C6-N1-C2	-5.49	121.81	125.10
1	AA	834	U	N3-C2-O2	-5.49	118.36	122.20
1	AA	1360	A	C8-N9-C4	5.49	108.00	105.80
26	BA	404	A	N7-C8-N9	5.49	116.55	113.80
26	BA	2717	C	C6-N1-C2	-5.49	118.11	120.30
56	BB	96	G	C4-C5-N7	-5.49	108.61	110.80
26	BA	12	U	N3-C2-O2	-5.49	118.36	122.20
26	BA	2396	G	N9-C4-C5	5.49	107.59	105.40
26	BA	2495	G	N1-C6-O6	-5.49	116.61	119.90
26	BA	22	C	C2-N3-C4	-5.49	117.16	119.90
26	BA	606	U	N3-C4-O4	-5.49	115.56	119.40
26	BA	482	A	C4-C5-N7	5.48	113.44	110.70
26	BA	821	A	C2-N3-C4	-5.48	107.86	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	1125	G	C5-C6-N1	5.48	114.24	111.50
26	BA	2205	A	C5-C6-N1	-5.48	114.96	117.70
26	BA	2760	C	C2-N3-C4	-5.48	117.16	119.90
56	BB	61	G	C2-N3-C4	-5.48	109.16	111.90
26	BA	1652	A	N1-C6-N6	-5.48	115.31	118.60
26	BA	210	C	C2-N1-C1'	-5.48	112.77	118.80
26	BA	821	A	C4-C5-C6	-5.48	114.26	117.00
26	BA	1110	G	C8-N9-C4	5.48	108.59	106.40
26	BA	2448	A	C5-C6-N1	-5.48	114.96	117.70
26	BA	2626	C	N3-C4-N4	5.48	121.83	118.00
26	BA	47	C	N1-C2-O2	-5.48	115.61	118.90
26	BA	90	U	N1-C2-O2	5.48	126.63	122.80
1	AA	555	U	C2-N1-C1'	-5.47	111.13	117.70
26	BA	1038	G	N1-C2-N2	-5.47	111.27	116.20
1	AA	308	C	C6-N1-C2	5.47	122.49	120.30
26	BA	1985	C	C2-N1-C1'	-5.47	112.78	118.80
26	BA	979	A	N3-C4-N9	5.47	131.78	127.40
26	BA	2682	A	C6-C5-N7	-5.47	128.47	132.30
26	BA	239	C	N3-C2-O2	5.47	125.73	121.90
26	BA	1447	C	C4-C5-C6	5.47	120.13	117.40
26	BA	2803	G	C5-N7-C8	5.47	107.03	104.30
26	BA	218	A	N1-C6-N6	5.46	121.88	118.60
26	BA	1492	G	N1-C2-N3	5.46	127.18	123.90
26	BA	923	G	N3-C4-N9	-5.46	122.72	126.00
26	BA	1762	A	N9-C4-C5	-5.46	103.61	105.80
26	BA	2093	G	C5-C6-N1	-5.46	108.77	111.50
26	BA	2371	G	C8-N9-C4	-5.46	104.22	106.40
26	BA	2590	A	C8-N9-C4	5.46	107.98	105.80
1	AA	206	C	C6-N1-C2	-5.46	118.11	120.30
26	BA	302	C	C2-N3-C4	-5.46	117.17	119.90
26	BA	984	A	C8-N9-C4	5.46	107.98	105.80
26	BA	1122	G	N1-C6-O6	-5.46	116.62	119.90
26	BA	1151	A	C5-N7-C8	-5.46	101.17	103.90
26	BA	1228	G	C6-C5-N7	5.46	133.68	130.40
26	BA	2416	C	N1-C2-N3	5.46	123.02	119.20
26	BA	746	U	C6-N1-C2	-5.46	117.72	121.00
26	BA	1372	U	C5-C4-O4	-5.46	122.62	125.90
26	BA	1966	A	C5-C6-N6	-5.46	119.33	123.70
1	AA	234	C	C6-N1-C2	-5.46	118.12	120.30
1	AA	759	A	C8-N9-C4	5.46	107.98	105.80
1	AA	1483	A	N1-C6-N6	5.46	121.88	118.60
26	BA	446	G	C6-C5-N7	-5.46	127.12	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	1783	A	N1-C6-N6	5.46	121.88	118.60
26	BA	1958	C	N1-C2-N3	5.46	123.02	119.20
26	BA	2426	A	C4-C5-C6	5.46	119.73	117.00
26	BA	2523	G	C5-C6-O6	-5.46	125.33	128.60
26	BA	2632	A	N1-C6-N6	-5.46	115.33	118.60
26	BA	2220	U	C2-N1-C1'	-5.45	111.16	117.70
26	BA	2533	U	N3-C4-O4	-5.45	115.58	119.40
56	BB	85	G	C4-C5-N7	-5.45	108.62	110.80
1	AA	292	G	N1-C6-O6	-5.45	116.63	119.90
1	AA	721	G	N3-C4-N9	-5.45	122.73	126.00
26	BA	276	U	C2-N1-C1'	5.45	124.24	117.70
22	AV	51	A	C3'-C2'-C1'	5.45	105.86	101.50
56	BB	51	G	C5-N7-C8	-5.45	101.58	104.30
26	BA	336	C	C4-C5-C6	-5.45	114.68	117.40
26	BA	1265	A	N3-C4-C5	-5.45	122.99	126.80
26	BA	1330	C	N3-C4-C5	5.45	124.08	121.90
26	BA	2030	A	N9-C4-C5	5.45	107.98	105.80
26	BA	758	C	N1-C2-O2	-5.45	115.63	118.90
26	BA	1016	G	N1-C2-N2	5.45	121.10	116.20
26	BA	1608	A	C4-C5-N7	5.45	113.42	110.70
26	BA	2436	G	C2-N3-C4	-5.45	109.18	111.90
26	BA	2679	A	C4-C5-N7	5.45	113.42	110.70
26	BA	2771	C	N3-C2-O2	5.45	125.71	121.90
26	BA	1972	G	N3-C4-C5	-5.44	125.88	128.60
1	AA	368	U	N3-C2-O2	-5.44	118.39	122.20
1	AA	1510	C	C6-N1-C2	5.44	122.48	120.30
26	BA	169	G	N3-C4-N9	-5.44	122.73	126.00
26	BA	2280	G	N1-C6-O6	-5.44	116.63	119.90
1	AA	764	C	C6-N1-C2	-5.44	118.12	120.30
26	BA	2514	U	C6-N1-C2	5.44	124.27	121.00
26	BA	2523	G	C8-N9-C1'	-5.44	119.93	127.00
1	AA	1457	G	N7-C8-N9	-5.44	110.38	113.10
26	BA	563	A	C5-N7-C8	-5.44	101.18	103.90
26	BA	2862	G	N3-C2-N2	-5.44	116.09	119.90
26	BA	121	G	C4-C5-N7	5.44	112.97	110.80
26	BA	2692	G	N9-C4-C5	-5.44	103.22	105.40
26	BA	318	C	N1-C2-O2	-5.44	115.64	118.90
1	AA	283	U	C6-N1-C2	-5.43	117.74	121.00
26	BA	1125	G	N3-C4-N9	5.43	129.26	126.00
26	BA	1128	G	C2-N3-C4	-5.43	109.18	111.90
26	BA	226	A	C6-C5-N7	-5.43	128.50	132.30
26	BA	454	A	C5-C6-N6	-5.43	119.35	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	1638	C	N1-C2-N3	5.43	123.00	119.20
26	BA	2364	C	C2-N1-C1'	-5.43	112.83	118.80
26	BA	2534	A	C5-C6-N6	-5.43	119.35	123.70
26	BA	647	G	N7-C8-N9	-5.43	110.38	113.10
26	BA	2499	C	N3-C2-O2	5.43	125.70	121.90
26	BA	921	C	N3-C4-N4	5.43	121.80	118.00
26	BA	1189	A	C5-C6-N1	5.43	120.42	117.70
26	BA	2157	G	N3-C4-C5	5.43	131.31	128.60
26	BA	2333	A	C6-N1-C2	-5.43	115.34	118.60
49	BY	56	LEU	N-CA-C	-5.43	96.35	111.00
26	BA	534	U	N1-C2-O2	-5.42	119.00	122.80
26	BA	1224	U	C5-C6-N1	-5.42	119.99	122.70
56	BB	13	G	N9-C4-C5	-5.42	103.23	105.40
1	AA	1187	G	C4-N9-C1'	-5.42	119.46	126.50
26	BA	249	C	N3-C4-N4	5.42	121.79	118.00
26	BA	941	A	C4-C5-N7	5.42	113.41	110.70
26	BA	2770	G	N9-C4-C5	-5.42	103.23	105.40
1	AA	734	G	C4-N9-C1'	5.42	133.54	126.50
1	AA	796	C	N3-C2-O2	-5.42	118.11	121.90
26	BA	462	C	N3-C4-C5	-5.42	119.73	121.90
26	BA	35	G	C2-N3-C4	-5.41	109.19	111.90
26	BA	784	G	C8-N9-C4	-5.41	104.23	106.40
26	BA	960	A	C2-N3-C4	5.41	113.31	110.60
26	BA	2488	G	C5-C6-O6	-5.41	125.35	128.60
56	BB	88	C	N3-C4-C5	-5.41	119.73	121.90
56	BB	16	G	N9-C4-C5	5.41	107.56	105.40
1	AA	19	A	N1-C6-N6	5.41	121.85	118.60
26	BA	680	C	C2-N1-C1'	5.41	124.75	118.80
26	BA	862	G	N1-C6-O6	-5.41	116.65	119.90
26	BA	1020	A	N3-C4-C5	5.41	130.59	126.80
26	BA	1769	U	C5-C6-N1	-5.41	120.00	122.70
26	BA	2054	A	N1-C6-N6	5.41	121.85	118.60
26	BA	2427	C	N1-C2-O2	-5.41	115.65	118.90
1	AA	108	G	N9-C4-C5	5.41	107.56	105.40
1	AA	858	G	N3-C2-N2	5.41	123.69	119.90
26	BA	249	C	C5-C4-N4	-5.41	116.41	120.20
26	BA	915	C	N1-C2-O2	-5.41	115.66	118.90
26	BA	1395	A	N3-C4-N9	-5.41	123.07	127.40
26	BA	1243	C	N1-C2-O2	-5.41	115.66	118.90
26	BA	1369	G	N1-C6-O6	-5.41	116.66	119.90
26	BA	1954	G	N3-C2-N2	-5.41	116.11	119.90
26	BA	1556	C	N3-C2-O2	5.41	125.68	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	BB	11	C	C6-N1-C2	-5.41	118.14	120.30
26	BA	581	C	C6-N1-C2	-5.40	118.14	120.30
26	BA	1384	A	N1-C6-N6	-5.40	115.36	118.60
26	BA	2260	C	C2-N3-C4	-5.40	117.20	119.90
26	BA	2503	A	C5-C6-N6	-5.40	119.38	123.70
26	BA	488	G	N3-C4-N9	5.40	129.24	126.00
26	BA	1427	A	C5-C6-N1	5.40	120.40	117.70
26	BA	2030	A	C5-C6-N1	-5.40	115.00	117.70
26	BA	2409	G	C8-N9-C4	5.40	108.56	106.40
56	BB	15	A	C5-C6-N1	-5.40	115.00	117.70
1	AA	311	C	C6-N1-C2	-5.40	118.14	120.30
26	BA	856	G	N7-C8-N9	-5.40	110.40	113.10
26	BA	2265	U	N1-C2-N3	5.40	118.14	114.90
26	BA	2682	A	C4-C5-C6	5.40	119.70	117.00
26	BA	489	G	N1-C2-N2	5.40	121.06	116.20
26	BA	1475	G	C8-N9-C1'	5.40	134.01	127.00
26	BA	2749	A	C2-N3-C4	-5.40	107.90	110.60
1	AA	633	G	N9-C4-C5	5.39	107.56	105.40
26	BA	2365	G	C2-N3-C4	-5.39	109.20	111.90
1	AA	245	U	C2-N3-C4	-5.39	123.77	127.00
26	BA	240	C	C6-N1-C2	-5.39	118.14	120.30
26	BA	2416	C	N3-C2-O2	-5.39	118.13	121.90
26	BA	1743	G	N9-C4-C5	-5.39	103.25	105.40
26	BA	2056	G	C2-N3-C4	5.39	114.59	111.90
26	BA	1394	U	C5-C4-O4	5.39	129.13	125.90
1	AA	859	G	N1-C2-N2	-5.38	111.35	116.20
26	BA	38	A	C5-C6-N1	5.38	120.39	117.70
26	BA	2081	U	N1-C2-N3	5.38	118.13	114.90
26	BA	2158	A	N1-C6-N6	5.38	121.83	118.60
26	BA	1750	G	C8-N9-C4	-5.38	104.25	106.40
26	BA	2877	G	C8-N9-C4	5.38	108.55	106.40
26	BA	2897	U	C5-C6-N1	-5.38	120.01	122.70
26	BA	516	C	C2-N1-C1'	-5.38	112.89	118.80
26	BA	1035	U	C6-N1-C2	5.38	124.23	121.00
26	BA	1378	A	N3-C4-N9	-5.38	123.10	127.40
26	BA	1646	C	C6-N1-C2	5.38	122.45	120.30
56	BB	12	C	C6-N1-C2	5.38	122.45	120.30
26	BA	1245	G	C5-C6-O6	5.38	131.82	128.60
26	BA	2728	U	N3-C4-O4	-5.38	115.64	119.40
56	BB	81	G	C5-C6-N1	5.38	114.19	111.50
1	AA	897	C	C2-N3-C4	-5.37	117.21	119.90
26	BA	1040	A	N9-C4-C5	-5.37	103.65	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	1997	C	C2-N1-C1'	-5.37	112.89	118.80
26	BA	2000	C	C2-N3-C4	-5.37	117.21	119.90
1	AA	1194	U	C5-C6-N1	-5.37	120.01	122.70
26	BA	221	A	C4-N9-C1'	-5.37	116.63	126.30
1	AA	768	A	N1-C6-N6	5.37	121.82	118.60
26	BA	982	C	N3-C4-N4	-5.37	114.24	118.00
26	BA	1143	A	C8-N9-C4	-5.37	103.65	105.80
26	BA	2388	A	N7-C8-N9	-5.37	111.12	113.80
26	BA	1587	G	N3-C4-N9	5.37	129.22	126.00
26	BA	1939	U	N3-C4-C5	5.37	117.82	114.60
26	BA	2031	A	N7-C8-N9	5.37	116.48	113.80
26	BA	533	G	C4-N9-C1'	5.36	133.47	126.50
26	BA	69	C	N1-C2-O2	-5.36	115.68	118.90
1	AA	29	U	C5-C4-O4	5.36	129.12	125.90
26	BA	636	G	C5-C6-O6	5.36	131.82	128.60
26	BA	2375	G	N3-C4-N9	-5.36	122.78	126.00
26	BA	1037	G	N9-C4-C5	5.36	107.54	105.40
26	BA	2867	G	N3-C4-N9	5.36	129.21	126.00
56	BB	80	U	N3-C2-O2	5.36	125.95	122.20
1	AA	251	G	N1-C6-O6	5.36	123.11	119.90
26	BA	2447	G	C6-C5-N7	-5.36	127.19	130.40
26	BA	2688	G	C8-N9-C1'	5.36	133.96	127.00
4	AD	49	ASP	CB-CG-OD2	5.35	123.12	118.30
26	BA	1835	G	N1-C2-N2	5.35	121.02	116.20
1	AA	897	C	C6-N1-C2	5.35	122.44	120.30
26	BA	2330	G	C2-N3-C4	-5.35	109.22	111.90
26	BA	2435	A	C8-N9-C4	5.35	107.94	105.80
26	BA	317	G	N1-C6-O6	5.35	123.11	119.90
26	BA	324	A	C2-N3-C4	-5.35	107.93	110.60
26	BA	458	G	C6-C5-N7	5.35	133.61	130.40
26	BA	1405	U	N1-C2-N3	5.35	118.11	114.90
26	BA	598	U	C5-C6-N1	-5.35	120.03	122.70
26	BA	1157	G	C4-N9-C1'	5.34	133.44	126.50
26	BA	1130	U	N3-C2-O2	-5.34	118.46	122.20
26	BA	1660	G	C6-C5-N7	5.34	133.60	130.40
26	BA	2177	C	C2-N1-C1'	5.34	124.67	118.80
26	BA	2590	A	C4-C5-C6	5.34	119.67	117.00
1	AA	293	G	C8-N9-C4	5.34	108.54	106.40
26	BA	2289	G	C2-N3-C4	-5.34	109.23	111.90
26	BA	83	A	C5-N7-C8	5.34	106.57	103.90
1	AA	262	A	C8-N9-C4	5.34	107.94	105.80
26	BA	1638	C	C6-N1-C1'	5.34	127.20	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	2071	A	N1-C2-N3	5.34	131.97	129.30
26	BA	2763	G	C4-C5-C6	5.34	122.00	118.80
26	BA	475	C	N1-C2-O2	-5.33	115.70	118.90
26	BA	1522	A	C4-C5-C6	5.33	119.67	117.00
1	AA	396	C	C6-N1-C2	5.33	122.43	120.30
22	AV	50	G	O4'-C1'-N9	5.33	112.46	108.20
26	BA	205	G	C5-C6-O6	5.33	131.80	128.60
26	BA	733	G	N3-C4-N9	5.33	129.20	126.00
26	BA	2321	U	N3-C4-O4	-5.33	115.67	119.40
26	BA	2679	A	N1-C6-N6	5.33	121.80	118.60
22	AV	65	U	O4'-C1'-N1	5.33	112.46	108.20
26	BA	859	G	C5-C6-O6	5.33	131.80	128.60
26	BA	2765	A	N9-C4-C5	-5.33	103.67	105.80
26	BA	2646	C	C5-C4-N4	-5.33	116.47	120.20
26	BA	2726	A	C5-C6-N1	5.33	120.36	117.70
26	BA	301	G	C4-N9-C1'	-5.32	119.58	126.50
26	BA	971	G	N3-C4-N9	5.32	129.19	126.00
26	BA	991	C	N1-C2-O2	-5.32	115.71	118.90
26	BA	1064	C	C5-C6-N1	5.32	123.66	121.00
26	BA	2278	A	C6-C5-N7	-5.32	128.57	132.30
1	AA	245	U	N3-C4-C5	5.32	117.79	114.60
26	BA	260	G	N3-C2-N2	-5.32	116.17	119.90
26	BA	1213	A	N7-C8-N9	-5.32	111.14	113.80
26	BA	1272	A	N1-C6-N6	5.32	121.79	118.60
26	BA	2352	A	C5-N7-C8	5.32	106.56	103.90
26	BA	2452	C	N1-C2-O2	-5.32	115.71	118.90
26	BA	2790	U	N1-C2-O2	5.32	126.53	122.80
26	BA	175	G	N3-C4-C5	5.32	131.26	128.60
26	BA	310	A	C2-N3-C4	-5.32	107.94	110.60
26	BA	809	G	C5-C6-O6	5.32	131.79	128.60
26	BA	2047	C	C2-N1-C1'	5.32	124.65	118.80
56	BB	99	A	C8-N9-C4	-5.32	103.67	105.80
26	BA	337	C	N3-C4-C5	5.32	124.03	121.90
26	BA	946	C	N3-C4-C5	5.32	124.03	121.90
26	BA	2435	A	C6-N1-C2	-5.32	115.41	118.60
26	BA	2535	G	N9-C4-C5	-5.32	103.27	105.40
26	BA	576	U	N1-C2-O2	5.31	126.52	122.80
26	BA	990	A	C5-C6-N6	5.31	127.95	123.70
26	BA	2678	C	N3-C4-C5	5.31	124.02	121.90
26	BA	692	C	N1-C2-O2	-5.31	115.72	118.90
26	BA	1892	C	C6-N1-C2	5.31	122.42	120.30
26	BA	2076	U	C5-C4-O4	5.31	129.08	125.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	517	C	N3-C2-O2	5.30	125.61	121.90
26	BA	1841	U	N1-C2-O2	-5.30	119.09	122.80
26	BA	93	G	N3-C2-N2	-5.30	116.19	119.90
26	BA	1965	C	N1-C2-O2	-5.30	115.72	118.90
26	BA	1981	A	C5-C6-N6	5.30	127.94	123.70
26	BA	2762	C	N1-C2-O2	-5.30	115.72	118.90
26	BA	2089	C	N1-C2-O2	-5.30	115.72	118.90
26	BA	2510	C	C2-N1-C1'	-5.30	112.97	118.80
1	AA	502	A	N1-C6-N6	-5.30	115.42	118.60
26	BA	1492	G	C2-N3-C4	-5.30	109.25	111.90
1	AA	798	U	N1-C2-O2	-5.29	119.09	122.80
26	BA	2898	U	N1-C2-O2	5.29	126.50	122.80
26	BA	2360	G	C5-C6-O6	-5.29	125.43	128.60
26	BA	992	C	C6-N1-C2	5.29	122.42	120.30
26	BA	1604	C	N3-C2-O2	-5.29	118.20	121.90
26	BA	2046	G	C4-C5-N7	5.29	112.92	110.80
26	BA	2331	G	N3-C4-C5	-5.29	125.96	128.60
1	AA	1524	C	C6-N1-C1'	5.29	127.14	120.80
26	BA	667	U	C4-C5-C6	-5.29	116.53	119.70
26	BA	675	A	N9-C4-C5	5.29	107.91	105.80
26	BA	2642	G	N3-C2-N2	5.29	123.60	119.90
26	BA	321	U	N3-C2-O2	-5.28	118.50	122.20
26	BA	323	C	N1-C2-O2	-5.28	115.73	118.90
26	BA	835	C	N3-C4-C5	-5.28	119.79	121.90
26	BA	1407	G	N1-C6-O6	5.28	123.07	119.90
26	BA	1673	G	N3-C4-C5	5.28	131.24	128.60
56	BB	15	A	C5-N7-C8	-5.28	101.26	103.90
1	AA	869	G	C4-C5-N7	5.28	112.91	110.80
26	BA	992	C	N3-C2-O2	5.28	125.60	121.90
26	BA	760	G	N3-C2-N2	-5.28	116.20	119.90
26	BA	1519	G	C5-N7-C8	5.28	106.94	104.30
26	BA	2802	G	N3-C4-N9	-5.28	122.83	126.00
31	BG	97	VAL	CB-CA-C	-5.28	101.37	111.40
56	BB	9	G	C5-C6-N1	5.28	114.14	111.50
1	AA	818	G	C8-N9-C1'	5.28	133.86	127.00
1	AA	1167	A	N1-C6-N6	-5.28	115.43	118.60
26	BA	1555	G	C8-N9-C1'	-5.28	120.14	127.00
26	BA	2141	G	N3-C4-N9	5.28	129.17	126.00
26	BA	191	A	N1-C6-N6	-5.28	115.43	118.60
26	BA	371	A	C5-C6-N6	5.28	127.92	123.70
26	BA	1543	G	N3-C2-N2	-5.28	116.21	119.90
1	AA	859	G	C6-C5-N7	-5.28	127.23	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1051	C	N1-C2-O2	-5.28	115.73	118.90
26	BA	1169	A	C8-N9-C4	5.28	107.91	105.80
26	BA	1228	G	N9-C4-C5	5.28	107.51	105.40
26	BA	1357	C	C2-N1-C1'	-5.28	113.00	118.80
26	BA	2085	U	C6-N1-C2	5.28	124.17	121.00
26	BA	1415	U	N3-C2-O2	-5.27	118.51	122.20
26	BA	551	G	C8-N9-C4	5.27	108.51	106.40
26	BA	2355	G	C8-N9-C4	5.27	108.51	106.40
26	BA	2609	U	N1-C2-N3	-5.27	111.74	114.90
26	BA	783	A	C2-N3-C4	-5.27	107.96	110.60
26	BA	1339	G	N3-C2-N2	5.27	123.59	119.90
26	BA	1022	G	C5-C6-N1	-5.27	108.86	111.50
26	BA	1045	C	N3-C2-O2	5.27	125.59	121.90
26	BA	1721	G	N3-C4-N9	5.27	129.16	126.00
26	BA	1955	U	C6-N1-C1'	5.27	128.58	121.20
26	BA	2060	A	C2-N3-C4	-5.27	107.97	110.60
26	BA	2488	G	N1-C6-O6	5.27	123.06	119.90
26	BA	223	A	N3-C4-N9	-5.27	123.19	127.40
26	BA	431	U	N1-C2-N3	-5.27	111.74	114.90
26	BA	486	C	N3-C4-N4	5.27	121.69	118.00
26	BA	1271	G	C8-N9-C4	5.27	108.51	106.40
26	BA	1427	A	C2-N3-C4	5.27	113.23	110.60
26	BA	2275	C	N3-C2-O2	-5.27	118.21	121.90
26	BA	2464	G	C8-N9-C1'	5.27	133.85	127.00
26	BA	2512	C	C2-N1-C1'	-5.27	113.01	118.80
1	AA	586	C	N3-C4-C5	5.26	124.01	121.90
26	BA	32	C	C6-N1-C2	5.26	122.41	120.30
26	BA	93	G	N7-C8-N9	-5.26	110.47	113.10
26	BA	680	C	N3-C2-O2	-5.26	118.22	121.90
26	BA	725	G	C4-C5-C6	5.26	121.96	118.80
26	BA	528	A	C4-N9-C1'	5.26	135.77	126.30
26	BA	542	C	N1-C2-O2	-5.26	115.74	118.90
26	BA	997	G	C4-C5-N7	-5.26	108.69	110.80
26	BA	1407	G	C5-C6-O6	-5.26	125.44	128.60
26	BA	2367	G	C4-C5-C6	-5.26	115.64	118.80
56	BB	16	G	N3-C2-N2	-5.26	116.22	119.90
56	BB	19	C	C2-N1-C1'	-5.26	113.01	118.80
1	AA	332	G	N7-C8-N9	-5.26	110.47	113.10
26	BA	428	A	N7-C8-N9	-5.26	111.17	113.80
26	BA	962	G	N9-C4-C5	-5.26	103.30	105.40
26	BA	1155	A	C5-N7-C8	5.26	106.53	103.90
26	BA	1659	G	C4-N9-C1'	-5.26	119.66	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	265	G	C4-N9-C1'	-5.26	119.67	126.50
26	BA	85	G	C5-C6-N1	5.26	114.13	111.50
26	BA	778	G	C8-N9-C4	-5.26	104.30	106.40
26	BA	1219	U	C2-N1-C1'	-5.26	111.39	117.70
26	BA	2477	U	C2-N1-C1'	-5.26	111.39	117.70
26	BA	533	G	C6-C5-N7	-5.25	127.25	130.40
26	BA	2485	G	N3-C2-N2	-5.25	116.22	119.90
26	BA	1213	A	C5-N7-C8	5.25	106.53	103.90
26	BA	1404	C	N3-C2-O2	5.25	125.58	121.90
1	AA	980	C	C6-N1-C2	5.25	122.40	120.30
26	BA	945	A	C6-N1-C2	-5.25	115.45	118.60
26	BA	2439	A	N9-C4-C5	-5.25	103.70	105.80
1	AA	90	C	N3-C4-N4	-5.25	114.33	118.00
26	BA	1386	C	N1-C2-O2	-5.25	115.75	118.90
1	AA	453	G	C8-N9-C1'	-5.25	120.18	127.00
1	AA	1309	G	C8-N9-C4	5.25	108.50	106.40
26	BA	618	G	C6-C5-N7	5.25	133.55	130.40
26	BA	1743	G	C8-N9-C1'	-5.25	120.18	127.00
26	BA	2574	G	N1-C6-O6	5.25	123.05	119.90
26	BA	2831	G	C4-N9-C1'	5.25	133.32	126.50
41	BQ	10	ARG	NE-CZ-NH1	-5.25	117.68	120.30
1	AA	752	G	N1-C6-O6	-5.24	116.75	119.90
26	BA	818	G	C8-N9-C1'	-5.24	120.18	127.00
26	BA	1970	A	C5-N7-C8	-5.24	101.28	103.90
56	BB	66	A	C2-N3-C4	-5.24	107.98	110.60
1	AA	914	A	C6-N1-C2	-5.24	115.45	118.60
1	AA	337	G	C4-N9-C1'	-5.24	119.69	126.50
26	BA	187	G	N3-C4-N9	5.24	129.15	126.00
26	BA	835	C	C6-N1-C2	-5.24	118.20	120.30
26	BA	1331	G	C8-N9-C4	5.24	108.50	106.40
26	BA	2539	C	N1-C2-O2	-5.24	115.76	118.90
1	AA	1202	U	N3-C4-O4	-5.24	115.73	119.40
26	BA	2612	C	N1-C2-O2	-5.24	115.76	118.90
26	BA	984	A	C5-C6-N6	-5.24	119.51	123.70
39	BO	9	ARG	NE-CZ-NH2	-5.24	117.68	120.30
26	BA	1238	G	N3-C4-C5	-5.23	125.98	128.60
1	AA	46	G	N3-C4-C5	5.23	131.22	128.60
1	AA	1358	U	N3-C4-O4	-5.23	115.74	119.40
26	BA	195	A	C5-C6-N1	5.23	120.32	117.70
26	BA	245	G	N9-C4-C5	5.23	107.49	105.40
26	BA	509	C	N1-C2-N3	5.23	122.86	119.20
26	BA	575	A	N9-C4-C5	5.23	107.89	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	1452	G	N9-C4-C5	-5.23	103.31	105.40
26	BA	2371	G	N3-C2-N2	-5.23	116.24	119.90
26	BA	2875	C	C2-N3-C4	-5.23	117.28	119.90
1	AA	796	C	C2-N1-C1'	5.23	124.55	118.80
26	BA	275	C	C6-N1-C2	-5.23	118.21	120.30
26	BA	823	C	C2-N3-C4	-5.23	117.28	119.90
26	BA	1954	G	C5-C6-O6	-5.23	125.46	128.60
26	BA	2632	A	N9-C4-C5	5.23	107.89	105.80
26	BA	2722	G	N1-C6-O6	-5.23	116.76	119.90
26	BA	2872	A	C4-C5-N7	-5.23	108.08	110.70
1	AA	1475	G	C6-C5-N7	-5.23	127.26	130.40
26	BA	121	G	C5-N7-C8	-5.23	101.69	104.30
26	BA	971	G	N3-C4-C5	-5.23	125.99	128.60
26	BA	1623	G	N3-C4-C5	5.23	131.21	128.60
26	BA	2468	A	C4-C5-C6	5.23	119.61	117.00
26	BA	2504	U	N1-C2-O2	5.23	126.46	122.80
26	BA	481	G	N3-C2-N2	-5.23	116.24	119.90
26	BA	543	G	C8-N9-C1'	-5.23	120.21	127.00
26	BA	2107	G	C5-C6-O6	5.23	131.74	128.60
26	BA	2890	G	C4-C5-N7	5.22	112.89	110.80
26	BA	2390	U	C6-N1-C2	5.22	124.13	121.00
26	BA	499	U	N1-C2-O2	-5.22	119.15	122.80
26	BA	815	C	N3-C2-O2	5.22	125.56	121.90
26	BA	2321	U	C2-N1-C1'	-5.22	111.44	117.70
26	BA	2396	G	C4-C5-N7	-5.22	108.71	110.80
26	BA	2723	C	N3-C2-O2	-5.22	118.25	121.90
26	BA	1738	G	N3-C4-C5	-5.22	125.99	128.60
26	BA	2067	G	C8-N9-C1'	-5.22	120.21	127.00
26	BA	2337	G	N1-C6-O6	5.22	123.03	119.90
26	BA	2750	A	N9-C4-C5	5.22	107.89	105.80
26	BA	461	C	N1-C2-N3	5.22	122.85	119.20
26	BA	290	U	C5-C4-O4	5.22	129.03	125.90
26	BA	1574	C	N3-C4-C5	5.22	123.99	121.90
26	BA	1783	A	C5-C6-N6	-5.21	119.53	123.70
26	BA	2763	G	N1-C6-O6	5.21	123.03	119.90
26	BA	2367	G	C4-N9-C1'	-5.21	119.72	126.50
26	BA	2898	U	N3-C2-O2	-5.21	118.55	122.20
26	BA	832	U	C2-N1-C1'	-5.21	111.45	117.70
1	AA	105	G	C4-C5-N7	-5.21	108.72	110.80
26	BA	58	G	N1-C6-O6	-5.21	116.77	119.90
26	BA	690	G	N3-C4-C5	5.21	131.21	128.60
26	BA	1050	A	C5-C6-N6	-5.21	119.53	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	1240	U	C5-C4-O4	-5.21	122.78	125.90
26	BA	2458	G	N9-C4-C5	5.21	107.48	105.40
1	AA	802	A	N1-C6-N6	5.21	121.72	118.60
26	BA	738	G	N7-C8-N9	5.21	115.70	113.10
26	BA	1501	G	N1-C6-O6	5.21	123.02	119.90
26	BA	2547	A	N9-C4-C5	-5.21	103.72	105.80
56	BB	114	C	N3-C2-O2	5.21	125.55	121.90
1	AA	836	G	C5-C6-O6	-5.21	125.48	128.60
1	AA	212	G	N3-C4-N9	5.20	129.12	126.00
26	BA	1482	G	N3-C4-C5	5.20	131.20	128.60
1	AA	362	G	N9-C4-C5	-5.20	103.32	105.40
26	BA	1790	C	C5-C4-N4	-5.20	116.56	120.20
1	AA	754	C	N3-C4-C5	-5.20	119.82	121.90
1	AA	897	C	N1-C2-O2	-5.20	115.78	118.90
26	BA	2377	A	C8-N9-C4	5.20	107.88	105.80
26	BA	2646	C	N3-C4-N4	5.20	121.64	118.00
26	BA	9	G	C4-C5-C6	5.20	121.92	118.80
26	BA	1526	C	N3-C4-C5	5.20	123.98	121.90
1	AA	634	C	C6-N1-C2	-5.20	118.22	120.30
26	BA	724	U	C5-C4-O4	-5.20	122.78	125.90
26	BA	942	G	C6-C5-N7	5.20	133.52	130.40
26	BA	1661	G	N3-C4-N9	5.20	129.12	126.00
26	BA	2293	G	C5-C6-N1	5.20	114.10	111.50
34	BJ	5	THR	CB-CA-C	-5.20	97.57	111.60
1	AA	1060	U	N3-C2-O2	5.19	125.84	122.20
1	AA	1486	G	C5-C6-O6	-5.19	125.48	128.60
26	BA	2724	U	C2-N1-C1'	-5.19	111.47	117.70
1	AA	1408	A	C8-N9-C4	5.19	107.88	105.80
26	BA	218	A	C4-C5-N7	5.19	113.30	110.70
26	BA	645	C	N3-C2-O2	5.19	125.53	121.90
26	BA	1595	C	C5-C6-N1	-5.19	118.40	121.00
53	B2	12	ARG	NE-CZ-NH2	5.19	122.90	120.30
26	BA	293	U	C5-C6-N1	-5.19	120.11	122.70
26	BA	1008	A	C6-N1-C2	-5.19	115.49	118.60
1	AA	894	G	N1-C6-O6	5.19	123.01	119.90
26	BA	517	C	C6-N1-C2	5.19	122.38	120.30
26	BA	825	A	N1-C6-N6	-5.19	115.49	118.60
26	BA	1190	G	C4-C5-N7	-5.19	108.72	110.80
26	BA	404	A	C8-N9-C4	-5.19	103.73	105.80
26	BA	1265	A	C4-C5-C6	5.19	119.59	117.00
26	BA	2371	G	N3-C4-N9	-5.19	122.89	126.00
26	BA	1011	G	N3-C2-N2	-5.18	116.27	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	1234	U	N3-C2-O2	-5.18	118.57	122.20
26	BA	1844	C	N1-C2-O2	-5.18	115.79	118.90
26	BA	2277	G	C5-C6-N1	5.18	114.09	111.50
26	BA	2726	A	N9-C4-C5	5.18	107.87	105.80
26	BA	332	A	C4-C5-N7	-5.18	108.11	110.70
26	BA	1450	G	N3-C4-C5	5.18	131.19	128.60
26	BA	1817	G	N7-C8-N9	-5.18	110.51	113.10
26	BA	2305	U	C2-N1-C1'	-5.18	111.48	117.70
26	BA	2540	C	C2-N1-C1'	-5.18	113.10	118.80
26	BA	813	U	C6-N1-C2	-5.18	117.89	121.00
26	BA	1343	G	N1-C2-N2	-5.18	111.54	116.20
26	BA	2710	C	N1-C2-N3	5.18	122.83	119.20
26	BA	542	C	N3-C2-O2	5.18	125.52	121.90
26	BA	598	U	N3-C4-O4	-5.18	115.78	119.40
26	BA	1646	C	C5-C6-N1	-5.18	118.41	121.00
26	BA	2504	U	N3-C4-C5	5.18	117.71	114.60
26	BA	215	G	C2-N3-C4	-5.18	109.31	111.90
26	BA	1043	C	N3-C4-C5	5.18	123.97	121.90
26	BA	1711	A	C6-C5-N7	5.18	135.92	132.30
26	BA	1901	A	N1-C6-N6	-5.18	115.49	118.60
26	BA	239	C	C5-C4-N4	-5.17	116.58	120.20
26	BA	713	G	N9-C4-C5	-5.17	103.33	105.40
26	BA	522	A	C5-N7-C8	5.17	106.49	103.90
26	BA	215	G	C8-N9-C4	5.17	108.47	106.40
26	BA	477	A	C6-N1-C2	-5.17	115.50	118.60
26	BA	1016	G	N1-C2-N3	-5.17	120.80	123.90
26	BA	2055	C	N3-C4-C5	5.17	123.97	121.90
26	BA	2066	C	N3-C2-O2	-5.17	118.28	121.90
26	BA	2720	U	N1-C2-N3	5.17	118.00	114.90
26	BA	2726	A	N1-C6-N6	-5.17	115.50	118.60
26	BA	1212	G	N7-C8-N9	-5.17	110.52	113.10
26	BA	2331	G	C5-C6-O6	-5.17	125.50	128.60
26	BA	2633	G	N9-C4-C5	5.17	107.47	105.40
1	AA	679	C	C6-N1-C1'	-5.17	114.60	120.80
26	BA	530	G	C6-C5-N7	-5.17	127.30	130.40
26	BA	2326	C	C6-N1-C1'	-5.17	114.60	120.80
26	BA	2514	U	C5-C6-N1	-5.17	120.12	122.70
56	BB	51	G	C8-N9-C4	-5.17	104.33	106.40
1	AA	722	G	N1-C6-O6	5.16	123.00	119.90
26	BA	131	A	N1-C6-N6	5.16	121.70	118.60
26	BA	787	C	N1-C2-N3	5.16	122.81	119.20
26	BA	1189	A	C6-N1-C2	-5.16	115.50	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1331	G	N3-C4-N9	-5.16	122.91	126.00
26	BA	620	G	N3-C4-N9	-5.16	122.90	126.00
1	AA	796	C	C6-N1-C1'	-5.16	114.61	120.80
26	BA	109	C	C6-N1-C2	5.16	122.36	120.30
26	BA	1617	C	C2-N3-C4	-5.16	117.32	119.90
26	BA	382	A	C5-C6-N6	-5.16	119.58	123.70
26	BA	476	G	C6-C5-N7	5.16	133.49	130.40
26	BA	1638	C	C2-N1-C1'	-5.16	113.13	118.80
26	BA	2002	G	C4-C5-N7	5.16	112.86	110.80
26	BA	1569	A	C8-N9-C4	5.15	107.86	105.80
26	BA	1876	A	N9-C4-C5	5.15	107.86	105.80
26	BA	2059	A	C6-C5-N7	-5.15	128.69	132.30
1	AA	78	A	N3-C4-N9	5.15	131.52	127.40
26	BA	2059	A	C2-N3-C4	-5.15	108.02	110.60
26	BA	2412	A	N1-C6-N6	5.15	121.69	118.60
26	BA	782	A	C5-C6-N6	-5.15	119.58	123.70
26	BA	1878	G	N1-C6-O6	5.15	122.99	119.90
26	BA	2717	C	C2-N3-C4	-5.15	117.32	119.90
56	BB	51	G	C6-C5-N7	-5.15	127.31	130.40
26	BA	121	G	C2-N3-C4	-5.15	109.33	111.90
26	BA	1572	A	C5-C6-N6	5.15	127.82	123.70
26	BA	2236	U	C5-C4-O4	5.15	128.99	125.90
26	BA	2678	C	N1-C2-O2	-5.15	115.81	118.90
26	BA	2759	G	N1-C6-O6	-5.15	116.81	119.90
26	BA	946	C	C2-N3-C4	-5.15	117.33	119.90
26	BA	2679	A	C5-C6-N6	-5.15	119.58	123.70
26	BA	2733	A	C8-N9-C4	-5.15	103.74	105.80
1	AA	732	C	N1-C2-O2	-5.14	115.81	118.90
26	BA	517	C	C5-C4-N4	-5.14	116.60	120.20
26	BA	2266	A	N9-C4-C5	5.14	107.86	105.80
26	BA	2374	C	N3-C4-C5	5.14	123.96	121.90
22	AV	65	U	C3'-C2'-C1'	5.14	105.61	101.50
26	BA	1430	G	C8-N9-C4	5.14	108.46	106.40
26	BA	2395	C	C5-C4-N4	-5.14	116.60	120.20
26	BA	2235	G	C6-N1-C2	-5.14	122.02	125.10
26	BA	9	G	C4-N9-C1'	5.14	133.18	126.50
26	BA	125	A	N1-C6-N6	-5.14	115.52	118.60
26	BA	379	G	N1-C6-O6	5.14	122.98	119.90
1	AA	1417	G	C6-C5-N7	-5.14	127.32	130.40
1	AA	875	U	N1-C2-O2	5.14	126.40	122.80
26	BA	790	U	N3-C2-O2	5.14	125.80	122.20
26	BA	991	C	N3-C2-O2	5.14	125.50	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	1377	G	C8-N9-C4	5.14	108.45	106.40
26	BA	1672	A	C5-N7-C8	-5.14	101.33	103.90
26	BA	1142	A	C5-C6-N6	5.13	127.81	123.70
56	BB	117	G	N3-C4-N9	-5.13	122.92	126.00
26	BA	975	A	N9-C4-C5	5.13	107.85	105.80
26	BA	151	C	N1-C2-O2	-5.13	115.82	118.90
26	BA	737	C	C5-C4-N4	-5.13	116.61	120.20
26	BA	1240	U	N3-C2-O2	5.13	125.79	122.20
26	BA	1898	U	C2-N1-C1'	-5.13	111.54	117.70
26	BA	2743	U	C5-C6-N1	-5.13	120.13	122.70
26	BA	572	A	C5-N7-C8	-5.13	101.34	103.90
1	AA	714	G	C5-C6-N1	5.13	114.06	111.50
1	AA	1047	G	N3-C4-N9	-5.13	122.92	126.00
56	BB	15	A	C4-C5-N7	5.13	113.26	110.70
26	BA	526	A	C5-C6-N6	5.12	127.80	123.70
26	BA	1343	G	N3-C2-N2	5.12	123.49	119.90
26	BA	1837	C	N3-C2-O2	5.12	125.49	121.90
26	BA	2841	C	N1-C2-N3	5.12	122.79	119.20
1	AA	876	C	C2-N3-C4	-5.12	117.34	119.90
1	AA	966	G	C8-N9-C4	5.12	108.45	106.40
26	BA	378	C	C6-N1-C2	5.12	122.35	120.30
26	BA	1660	G	C6-N1-C2	-5.12	122.03	125.10
26	BA	2477	U	N3-C4-O4	-5.12	115.81	119.40
26	BA	2248	C	N1-C2-N3	5.12	122.79	119.20
26	BA	2337	G	C5-C6-O6	-5.12	125.53	128.60
26	BA	2523	G	N3-C4-N9	5.12	129.07	126.00
1	AA	28	A	N1-C6-N6	5.12	121.67	118.60
1	AA	430	A	N1-C6-N6	5.12	121.67	118.60
1	AA	874	G	N3-C4-N9	5.12	129.07	126.00
26	BA	141	G	C8-N9-C4	-5.12	104.35	106.40
26	BA	211	C	N3-C2-O2	-5.12	118.32	121.90
26	BA	218	A	C5-N7-C8	-5.12	101.34	103.90
26	BA	808	G	N1-C6-O6	5.12	122.97	119.90
26	BA	1336	A	C5-C6-N6	5.12	127.80	123.70
26	BA	1761	C	C5-C4-N4	-5.12	116.62	120.20
56	BB	75	G	C5-C6-O6	5.12	131.67	128.60
26	BA	453	A	C4-C5-C6	5.12	119.56	117.00
26	BA	752	A	C1'-O4'-C4'	-5.12	105.81	109.90
56	BB	24	G	C5-C6-N1	5.12	114.06	111.50
26	BA	470	A	N7-C8-N9	5.12	116.36	113.80
26	BA	1512	C	N3-C2-O2	5.12	125.48	121.90
26	BA	2570	G	N3-C4-C5	5.12	131.16	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	2679	A	N9-C4-C5	-5.12	103.75	105.80
1	AA	23	C	N1-C2-O2	-5.11	115.83	118.90
26	BA	963	U	N1-C2-O2	-5.11	119.22	122.80
26	BA	262	A	C8-N9-C4	5.11	107.84	105.80
26	BA	598	U	N1-C2-O2	-5.11	119.22	122.80
26	BA	1395	A	C4-N9-C1'	-5.11	117.10	126.30
26	BA	1086	A	N1-C6-N6	5.11	121.67	118.60
26	BA	1521	G	C4-C5-C6	5.11	121.87	118.80
26	BA	2553	G	C6-C5-N7	-5.11	127.34	130.40
26	BA	2136	G	N1-C6-O6	-5.11	116.84	119.90
26	BA	686	U	N1-C2-O2	-5.10	119.23	122.80
26	BA	2039	U	N1-C2-N3	5.10	117.96	114.90
26	BA	2621	G	N1-C2-N3	5.10	126.96	123.90
26	BA	2884	U	N3-C2-O2	-5.10	118.63	122.20
26	BA	642	U	N3-C2-O2	5.10	125.77	122.20
26	BA	668	A	C2-N3-C4	-5.10	108.05	110.60
26	BA	1216	G	N3-C4-N9	5.10	129.06	126.00
26	BA	2481	G	C8-N9-C4	-5.10	104.36	106.40
26	BA	2748	A	N1-C6-N6	-5.10	115.54	118.60
26	BA	2859	G	C8-N9-C4	-5.10	104.36	106.40
26	BA	922	C	N3-C2-O2	5.10	125.47	121.90
26	BA	1694	C	C6-N1-C2	5.10	122.34	120.30
26	BA	54	G	C5-C6-N1	5.10	114.05	111.50
26	BA	1470	A	C4-C5-N7	-5.10	108.15	110.70
26	BA	1574	C	C6-N1-C2	5.10	122.34	120.30
26	BA	2831	G	C6-C5-N7	-5.10	127.34	130.40
26	BA	2139	U	C2-N1-C1'	5.10	123.81	117.70
26	BA	2718	G	C4-C5-N7	5.09	112.84	110.80
26	BA	1766	G	N7-C8-N9	-5.09	110.55	113.10
1	AA	575	G	N9-C4-C5	5.09	107.44	105.40
26	BA	39	G	C2-N3-C4	5.09	114.45	111.90
26	BA	2276	G	N1-C2-N3	5.09	126.95	123.90
26	BA	2762	C	C2-N1-C1'	-5.09	113.20	118.80
26	BA	1001	A	N9-C4-C5	-5.09	103.76	105.80
26	BA	1232	G	C5-C6-O6	5.09	131.65	128.60
26	BA	2808	G	C6-C5-N7	-5.09	127.35	130.40
26	BA	1426	G	C4-C5-N7	5.09	112.83	110.80
56	BB	46	A	C4-C5-N7	-5.09	108.16	110.70
1	AA	815	A	N9-C4-C5	5.09	107.83	105.80
1	AA	1481	U	N1-C2-O2	-5.09	119.24	122.80
26	BA	533	G	C4-C5-C6	5.09	121.85	118.80
26	BA	561	G	N9-C4-C5	-5.09	103.36	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	1884	G	N9-C4-C5	-5.09	103.36	105.40
26	BA	1979	U	N3-C2-O2	-5.08	118.64	122.20
26	BA	989	G	N1-C2-N2	5.08	120.77	116.20
26	BA	989	G	C8-N9-C4	5.08	108.43	106.40
56	BB	61	G	N7-C8-N9	-5.08	110.56	113.10
1	AA	564	C	N3-C4-C5	-5.08	119.87	121.90
1	AA	830	G	C5-C6-O6	-5.08	125.55	128.60
1	AA	1331	G	C4-N9-C1'	-5.08	119.90	126.50
26	BA	304	U	N1-C2-O2	-5.08	119.25	122.80
1	AA	904	U	C2-N1-C1'	-5.08	111.61	117.70
26	BA	2057	G	N1-C2-N2	-5.08	111.63	116.20
56	BB	74	U	N1-C2-N3	5.08	117.95	114.90
26	BA	240	C	N3-C4-N4	5.07	121.55	118.00
26	BA	804	A	N9-C4-C5	5.07	107.83	105.80
26	BA	1181	U	N1-C2-O2	-5.07	119.25	122.80
1	AA	453	G	N9-C4-C5	-5.07	103.37	105.40
26	BA	1454	C	C6-N1-C2	5.07	122.33	120.30
26	BA	735	A	C2-N3-C4	-5.07	108.06	110.60
43	BS	73	LYS	CD-CE-NZ	5.07	123.36	111.70
1	AA	934	C	C6-N1-C2	-5.07	118.27	120.30
56	BB	51	G	N7-C8-N9	5.07	115.63	113.10
26	BA	672	C	C4-C5-C6	5.07	119.93	117.40
1	AA	265	G	C8-N9-C1'	5.07	133.58	127.00
26	BA	1238	G	C8-N9-C4	-5.07	104.37	106.40
26	BA	1521	G	N9-C4-C5	-5.06	103.38	105.40
26	BA	2569	G	N9-C4-C5	5.06	107.43	105.40
1	AA	571	U	N3-C2-O2	5.06	125.74	122.20
1	AA	906	A	C4-C5-C6	5.06	119.53	117.00
26	BA	470	A	C6-C5-N7	-5.06	128.76	132.30
26	BA	781	A	N1-C6-N6	5.06	121.64	118.60
26	BA	803	U	C2-N1-C1'	5.06	123.78	117.70
26	BA	1322	A	C2-N3-C4	-5.06	108.07	110.60
26	BA	1856	U	C5-C4-O4	5.06	128.94	125.90
26	BA	2590	A	N1-C2-N3	5.06	131.83	129.30
26	BA	2729	G	C8-N9-C1'	-5.06	120.42	127.00
1	AA	872	A	C4-C5-C6	5.06	119.53	117.00
26	BA	578	G	N1-C6-O6	-5.06	116.86	119.90
26	BA	2067	G	N3-C4-N9	5.06	129.04	126.00
1	AA	957	U	C2-N1-C1'	5.06	123.77	117.70
26	BA	295	G	N1-C6-O6	5.06	122.94	119.90
26	BA	572	A	N7-C8-N9	5.06	116.33	113.80
26	BA	941	A	C5-N7-C8	-5.06	101.37	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	BA	1319	C	C5-C4-N4	-5.06	116.66	120.20
26	BA	1640	A	N9-C4-C5	5.06	107.82	105.80
26	BA	1901	A	N9-C4-C5	5.06	107.82	105.80
26	BA	2034	U	C6-N1-C2	5.06	124.03	121.00
26	BA	2069	G	C5-N7-C8	-5.06	101.77	104.30
26	BA	2080	A	C4-C5-C6	5.06	119.53	117.00
1	AA	758	C	C6-N1-C2	5.05	122.32	120.30
26	BA	13	A	C6-C5-N7	-5.05	128.76	132.30
26	BA	645	C	C6-N1-C2	5.05	122.32	120.30
26	BA	1501	G	C8-N9-C4	5.05	108.42	106.40
26	BA	1780	A	C5-N7-C8	-5.05	101.37	103.90
26	BA	2699	C	C5-C6-N1	-5.05	118.47	121.00
26	BA	238	C	N3-C2-O2	-5.05	118.36	121.90
26	BA	380	G	N3-C4-N9	-5.05	122.97	126.00
26	BA	411	G	C8-N9-C4	-5.05	104.38	106.40
26	BA	681	G	C8-N9-C1'	-5.05	120.43	127.00
26	BA	786	C	N3-C2-O2	5.05	125.44	121.90
26	BA	1631	G	C5-C6-O6	-5.05	125.57	128.60
26	BA	1684	G	C5-C6-O6	-5.05	125.57	128.60
26	BA	2572	A	N7-C8-N9	5.05	116.33	113.80
1	AA	331	G	N3-C4-C5	5.05	131.12	128.60
26	BA	715	A	C8-N9-C4	5.05	107.82	105.80
26	BA	2004	G	C2-N3-C4	-5.05	109.38	111.90
26	BA	2546	U	N3-C2-O2	5.05	125.73	122.20
38	BN	86	ARG	NE-CZ-NH2	-5.05	117.78	120.30
26	BA	1972	G	C5-C6-N1	5.05	114.02	111.50
26	BA	2572	A	C4-C5-C6	5.05	119.52	117.00
26	BA	2608	G	C8-N9-C4	5.05	108.42	106.40
26	BA	655	A	C5-C6-N6	5.05	127.74	123.70
56	BB	81	G	N1-C6-O6	-5.05	116.87	119.90
26	BA	827	U	C5-C4-O4	-5.04	122.87	125.90
26	BA	235	U	C5-C6-N1	-5.04	120.18	122.70
26	BA	1126	A	C6-N1-C2	-5.04	115.57	118.60
26	BA	1636	U	C5-C4-O4	5.04	128.93	125.90
56	BB	46	A	C5-C6-N6	5.04	127.74	123.70
1	AA	24	U	N3-C4-O4	-5.04	115.87	119.40
1	AA	331	G	C2-N3-C4	-5.04	109.38	111.90
1	AA	609	A	N1-C6-N6	5.04	121.62	118.60
26	BA	38	A	C2-N3-C4	5.04	113.12	110.60
26	BA	853	C	N3-C4-C5	5.04	123.92	121.90
26	BA	2222	C	C2-N3-C4	-5.04	117.38	119.90
26	BA	1836	C	N3-C4-C5	5.04	123.92	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	728	A	C8-N9-C4	-5.04	103.78	105.80
1	AA	932	C	C6-N1-C2	-5.04	118.28	120.30
26	BA	101	A	C5-C6-N1	-5.04	115.18	117.70
26	BA	565	C	C2-N3-C4	-5.04	117.38	119.90
56	BB	30	C	N1-C2-O2	5.04	121.92	118.90
26	BA	518	G	C8-N9-C4	5.04	108.42	106.40
26	BA	602	A	N1-C6-N6	5.04	121.62	118.60
26	BA	775	G	C4-C5-C6	-5.04	115.78	118.80
26	BA	60	G	C8-N9-C4	-5.04	104.39	106.40
26	BA	830	G	C5-C6-N1	5.04	114.02	111.50
56	BB	43	C	N3-C4-C5	-5.04	119.89	121.90
26	BA	987	C	N1-C2-O2	-5.03	115.88	118.90
26	BA	2053	G	N9-C4-C5	-5.03	103.39	105.40
26	BA	1015	U	C5-C6-N1	-5.03	120.18	122.70
26	BA	2108	A	C8-N9-C4	-5.03	103.79	105.80
26	BA	2216	G	C2-N3-C4	-5.03	109.38	111.90
56	BB	108	A	N1-C6-N6	-5.03	115.58	118.60
1	AA	78	A	N3-C4-C5	-5.03	123.28	126.80
1	AA	397	A	C4-N9-C1'	5.03	135.35	126.30
26	BA	1038	G	N1-C6-O6	-5.03	116.88	119.90
26	BA	2332	C	C2-N3-C4	-5.03	117.38	119.90
1	AA	35	G	N1-C2-N2	-5.03	111.67	116.20
1	AA	354	G	N1-C6-O6	5.03	122.92	119.90
1	AA	679	C	N3-C2-O2	-5.03	118.38	121.90
26	BA	1114	C	N1-C2-O2	5.03	121.92	118.90
26	BA	1325	U	C6-N1-C1'	5.03	128.24	121.20
26	BA	474	G	C5-C6-O6	-5.03	125.58	128.60
26	BA	626	A	C5-C6-N1	-5.03	115.19	117.70
26	BA	1363	C	N3-C4-N4	-5.03	114.48	118.00
26	BA	1343	G	C8-N9-C1'	-5.02	120.47	127.00
26	BA	1842	G	C4-N9-C1'	5.02	133.03	126.50
26	BA	2677	G	N3-C2-N2	-5.02	116.39	119.90
1	AA	792	A	N7-C8-N9	-5.02	111.29	113.80
26	BA	1657	U	C2-N1-C1'	-5.02	111.68	117.70
26	BA	1989	G	C8-N9-C4	5.02	108.41	106.40
26	BA	988	A	C4-C5-C6	5.02	119.51	117.00
26	BA	2298	A	C5-C6-N6	5.02	127.71	123.70
26	BA	2645	G	N1-C2-N3	5.02	126.91	123.90
26	BA	2689	U	N1-C2-N3	5.02	117.91	114.90
26	BA	980	A	N1-C6-N6	5.02	121.61	118.60
26	BA	1191	G	C8-N9-C4	5.02	108.41	106.40
26	BA	2486	C	C2-N1-C1'	5.02	124.32	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	4	U	C2-N1-C1'	5.01	123.72	117.70
26	BA	774	G	N1-C2-N2	-5.01	111.69	116.20
26	BA	979	A	C4-C5-N7	5.01	113.21	110.70
26	BA	1223	G	C4-N9-C1'	-5.01	119.98	126.50
26	BA	1158	C	C2-N3-C4	-5.01	117.39	119.90
26	BA	1168	G	N9-C4-C5	-5.01	103.39	105.40
26	BA	2689	U	N3-C4-C5	5.01	117.61	114.60
26	BA	98	G	C6-C5-N7	-5.01	127.39	130.40
26	BA	1989	G	C8-N9-C1'	-5.01	120.49	127.00
26	BA	486	C	C5-C4-N4	-5.01	116.69	120.20
1	AA	857	C	N3-C2-O2	-5.01	118.39	121.90
26	BA	1680	U	N1-C2-O2	5.01	126.31	122.80
26	BA	2053	G	N3-C4-N9	5.01	129.00	126.00
26	BA	2421	G	C4-C5-N7	-5.01	108.80	110.80
26	BA	2447	G	C4-C5-N7	5.01	112.80	110.80
26	BA	2834	G	N1-C6-O6	-5.01	116.90	119.90
56	BB	14	U	N3-C2-O2	-5.01	118.70	122.20
1	AA	46	G	N3-C4-N9	-5.00	123.00	126.00
1	AA	1417	G	N9-C4-C5	-5.00	103.40	105.40
26	BA	1451	C	N1-C2-O2	-5.00	115.90	118.90
26	BA	2790	U	C2-N1-C1'	5.00	123.71	117.70
26	BA	1639	C	N1-C2-O2	-5.00	115.90	118.90
1	AA	897	C	N3-C4-C5	5.00	123.90	121.90
26	BA	190	A	N1-C6-N6	-5.00	115.60	118.60
26	BA	598	U	C6-N1-C1'	5.00	128.20	121.20
26	BA	1364	G	N7-C8-N9	-5.00	110.60	113.10
26	BA	2763	G	C6-C5-N7	-5.00	127.40	130.40
26	BA	2813	A	N9-C4-C5	-5.00	103.80	105.80

There are no chirality outliers.

All (20) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
4	AD	47	LEU	Peptide
5	AE	100	GLU	Peptide
9	AI	5	TYR	Peptide
11	AK	125	LYS	Peptide
13	AM	111	PRO	Peptide
14	AN	25	GLU	Peptide
21	AU	38	GLU	Peptide
21	AU	7	GLU	Peptide
23	AW	106	TYR	Sidechain

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Mol	Chain	Res	Type	Group
24	AX	37	U	Sidechain
24	AX	39	A	Sidechain
24	AX	59	A	Sidechain
24	AX	77	A	Sidechain
27	BC	231	HIS	Peptide
28	BD	132	ALA	Peptide
28	BD	151	THR	Peptide
33	BI	37	PHE	Peptide
42	BR	8	GLY	Peptide
45	BU	52	ASN	Peptide
50	BZ	14	GLY	Peptide

## 5.2 Too-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 hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	32995	0	16600	2522	0
2	AB	1705	0	1731	418	0
3	AC	1625	0	1695	268	0
4	AD	1643	0	1710	290	0
5	AE	1106	0	1147	238	0
6	AF	818	0	808	108	0
7	AG	1182	0	1238	130	0
8	AH	979	0	1034	159	0
9	AI	1022	0	1070	221	0
10	AJ	787	0	828	179	0
11	AK	877	0	887	162	0
12	AL	955	0	1019	110	0
13	AM	884	0	944	162	0
14	AN	774	0	827	134	0
15	AO	714	0	736	63	0
16	AP	649	0	666	105	0
17	AQ	649	0	691	118	0
18	AR	456	0	478	45	0
19	AS	638	0	665	77	0
20	AT	665	0	714	83	0
21	AU	426	0	449	138	0
22	AV	7135	0	3594	2248	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
23	AW	993	0	1030	330	0
24	AX	1640	0	835	262	0
25	AY	5215	0	5279	930	0
26	BA	62319	0	31328	3013	0
27	BC	2083	0	2157	231	0
28	BD	1565	0	1616	117	0
29	BE	1552	0	1619	139	0
30	BF	1411	0	1443	233	0
31	BG	1323	0	1374	154	0
32	BH	1110	0	1148	153	0
33	BI	1032	0	1086	289	0
34	BJ	1129	0	1162	61	0
35	BK	939	0	1012	77	0
36	BL	1045	0	1117	130	0
37	BM	1074	0	1157	125	0
38	BN	961	0	1000	90	0
39	BO	892	0	923	88	0
40	BP	917	0	965	96	0
41	BQ	947	0	1022	63	0
42	BR	816	0	839	84	0
43	BS	857	0	922	41	0
44	BT	739	0	807	70	0
45	BU	780	0	834	63	0
46	BV	753	0	780	58	0
47	BW	575	0	589	29	0
48	BX	625	0	655	38	0
49	BY	509	0	543	88	0
50	BZ	449	0	491	28	0
51	B0	444	0	461	34	0
52	B1	410	0	440	36	0
53	B2	377	0	418	26	0
54	B3	504	0	574	41	0
55	B4	302	0	343	24	0
56	BB	2548	0	1292	102	0
All	All	157519	0	106792	14112	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 54.

All (14112) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.



Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AW:38:LYS:HE2	26:BA:1910:G:P	1.23	1.71
22:AV:172:U:H2'	22:AV:173:C:C6	1.25	1.65
25:AY:633:GLY:HA2	26:BA:1068:G:C8	1.19	1.62
22:AV:323:A:H2'	22:AV:324:G:C8	1.34	1.62
22:AV:48:C:C2'	22:AV:49:C:H5''	1.25	1.62
1:AA:1389:C:H3'	1:AA:1390:U:C5	1.33	1.60
1:AA:1081:A:C5'	5:AE:22:LYS:HE2	1.18	1.60
1:AA:922:G:H22	1:AA:1398:A:C2'	1.02	1.57
22:AV:28:U:H2'	22:AV:29:G:C8	1.37	1.56
9:AI:128:LYS:CE	24:AX:35:C:H5''	1.15	1.56
25:AY:626:ALA:HB2	26:BA:2473:U:C1'	1.08	1.55
22:AV:8:A:C8	22:AV:334:A:C2'	1.83	1.55
22:AV:163:G:C2'	22:AV:164:G:H5'	1.32	1.54
26:BA:877:A:C2'	26:BA:878:A:H5'	1.35	1.53
9:AI:128:LYS:HE3	24:AX:35:C:C5'	1.12	1.52
26:BA:887:U:C1'	26:BA:888:C:H5'	1.40	1.51
22:AV:185:A:H2'	22:AV:186:A:C5	1.44	1.51
22:AV:322:U:H2'	22:AV:323:A:C8	1.45	1.50
1:AA:922:G:C2	1:AA:1398:A:N3	1.78	1.50
22:AV:158:U:C1'	22:AV:197:A:C2	1.93	1.50
26:BA:879:G:C2'	26:BA:880:G:H5'	1.38	1.49
22:AV:290:A:H4'	22:AV:291:A:C5'	1.35	1.49
22:AV:296:U:H2'	22:AV:297:G:C8	1.44	1.49
22:AV:48:C:C3'	22:AV:49:C:H5''	1.43	1.48
25:AY:636:PRO:C	33:BI:25:PRO:HD2	1.29	1.48
22:AV:8:A:C8	22:AV:334:A:H2'	1.40	1.48
22:AV:199:C:H2'	22:AV:200:G:C8	1.46	1.48
25:AY:626:ALA:CB	26:BA:2473:U:H1'	1.44	1.47
26:BA:894:U:C2'	26:BA:895:U:H5''	1.43	1.47
1:AA:55:A:C2	25:AY:321:TYR:O	1.69	1.44
22:AV:139:C:H1'	22:AV:182:U:C6	1.53	1.43
22:AV:44:C:N3	22:AV:263:G:N2	1.66	1.43
1:AA:922:G:N3	1:AA:1398:A:C2	1.84	1.43
1:AA:1531:A:C2'	1:AA:1532:U:H5'	1.45	1.43
22:AV:172:U:C2'	22:AV:173:C:H6	1.28	1.43
3:AC:79:LYS:HE2	22:AV:184:A:P	1.59	1.43
1:AA:1081:A:H5'	5:AE:22:LYS:CE	1.41	1.43
22:AV:213:G:H1	22:AV:245:C:N4	1.13	1.43
25:AY:644:ARG:HH22	26:BA:1067:A:C4'	1.26	1.42
22:AV:208:G:H1'	22:AV:223:G:N2	1.30	1.42
1:AA:1100:C:C4	2:AB:94:ARG:NE	1.81	1.41
22:AV:266:C:C2'	22:AV:267:G:H5''	1.45	1.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:48:C:H2'	22:AV:49:C:C5'	1.49	1.41
25:AY:626:ALA:CB	26:BA:2473:U:C1'	1.94	1.41
1:AA:55:A:N3	25:AY:321:TYR:HA	1.35	1.40
22:AV:8:A:N7	22:AV:334:A:H2'	1.10	1.40
22:AV:334:A:H5'	22:AV:335:C:N4	1.34	1.40
1:AA:922:G:N2	1:AA:1398:A:H2'	1.13	1.40
25:AY:633:GLY:CA	26:BA:1068:G:C8	2.04	1.39
25:AY:639:ASN:HA	33:BI:29:GLN:CG	1.46	1.39
2:AB:104:LYS:NZ	22:AV:121:A:H5''	1.32	1.39
1:AA:1100:C:N4	2:AB:94:ARG:NE	1.71	1.39
22:AV:180:G:H2'	22:AV:181:G:C1'	1.51	1.39
22:AV:158:U:O4'	22:AV:197:A:C2	1.70	1.38
26:BA:894:U:H2'	26:BA:895:U:C5'	1.54	1.38
22:AV:185:A:H2'	22:AV:186:A:C4	1.57	1.38
22:AV:239:A:H3'	22:AV:240:U:C5'	1.54	1.38
22:AV:244:G:N3	22:AV:245:C:H1'	1.38	1.37
22:AV:47:G:H2'	22:AV:48:C:C6	1.59	1.37
22:AV:204:G:OP2	22:AV:235:C:N4	1.58	1.37
22:AV:20:A:H3'	22:AV:21:C:C5	1.56	1.36
22:AV:163:G:O2'	22:AV:164:G:H5'	1.18	1.36
25:AY:636:PRO:O	33:BI:25:PRO:CD	1.74	1.35
22:AV:137:C:H3'	22:AV:138:C:C5'	1.56	1.35
1:AA:922:G:C4	1:AA:1398:A:C2	2.13	1.35
23:AW:45:PHE:HZ	25:AY:500:GLN:NE2	1.17	1.34
22:AV:20:A:N6	23:AW:80:LEU:CD2	1.68	1.34
22:AV:14:G:N1	22:AV:343:C:N4	1.76	1.34
22:AV:208:G:C1'	22:AV:223:G:H22	1.40	1.34
26:BA:2093:G:O2'	26:BA:2198:A:N1	1.58	1.34
3:AC:142:ARG:NH1	22:AV:129:G:OP1	1.61	1.34
23:AW:38:LYS:HD3	26:BA:1911:U:OP2	1.26	1.33
22:AV:13:G:H2'	22:AV:14:G:C8	1.63	1.32
22:AV:227:C:O2	22:AV:233:A:N6	1.61	1.32
22:AV:21:C:C2	23:AW:78:LYS:NZ	1.97	1.32
1:AA:1494:G:H1'	26:BA:1913:A:C2	1.66	1.31
25:AY:639:ASN:CA	33:BI:29:GLN:HG3	1.57	1.31
22:AV:210:C:H2'	22:AV:240:U:C5	1.63	1.30
22:AV:269:C:H2'	22:AV:270:C:C5'	1.61	1.30
22:AV:158:U:H1'	22:AV:197:A:C2	1.58	1.30
22:AV:210:C:C2'	22:AV:240:U:H5	1.41	1.30
22:AV:213:G:N1	22:AV:245:C:N4	1.78	1.30
25:AY:617:MET:CE	26:BA:1095:A:O2'	1.80	1.30

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:189:C:C2'	22:AV:190:A:H5''	1.62	1.30
22:AV:139:C:H1'	22:AV:182:U:C5	1.67	1.29
1:AA:921:U:N3	1:AA:1396:A:C2	2.00	1.29
26:BA:866:A:H2'	26:BA:867:C:C5'	1.59	1.29
26:BA:887:U:O2'	26:BA:888:C:H2'	1.33	1.29
24:AX:20:G:O6	26:BA:2112:G:H1'	1.30	1.29
23:AW:38:LYS:CE	26:BA:1910:G:P	2.11	1.29
22:AV:46:U:H4'	22:AV:312:A:O3'	1.32	1.28
26:BA:867:C:C2'	26:BA:868:U:H5'	1.63	1.28
22:AV:137:C:C3'	22:AV:138:C:H5''	1.63	1.28
22:AV:290:A:H1'	22:AV:291:A:C8	1.67	1.28
25:AY:636:PRO:O	33:BI:23:VAL:O	1.52	1.27
1:AA:1539:C:C5'	21:AU:17:ARG:HG3	1.62	1.27
22:AV:334:A:C5'	22:AV:335:C:H42	1.48	1.27
26:BA:883:G:C4	26:BA:884:U:C5	2.21	1.27
22:AV:245:C:H3'	22:AV:248:G:N3	1.50	1.27
26:BA:910:A:N6	37:BM:12:MET:HA	1.47	1.27
25:AY:635:GLU:CG	33:BI:22:PRO:HA	1.62	1.27
22:AV:199:C:H2'	22:AV:200:G:N7	1.49	1.27
22:AV:205:G:OP1	22:AV:225:A:C2	1.86	1.27
25:AY:626:ALA:CA	26:BA:2473:U:H1'	1.64	1.27
22:AV:8:A:H8	22:AV:334:A:O2'	1.06	1.27
22:AV:44:C:O2'	22:AV:45:A:H5'	1.24	1.27
3:AC:79:LYS:CE	22:AV:184:A:OP2	1.81	1.27
1:AA:1342:C:O2'	1:AA:1343:G:H5'	1.35	1.26
22:AV:114:G:N2	22:AV:132:U:C2	2.02	1.26
22:AV:49:C:N4	22:AV:67:G:H1	1.34	1.26
3:AC:79:LYS:HE2	22:AV:184:A:OP2	1.28	1.26
22:AV:334:A:N1	23:AW:112:TYR:CB	1.85	1.25
25:AY:634:MET:SD	26:BA:1068:G:H1'	1.75	1.25
22:AV:45:A:O2'	22:AV:46:U:H5'	1.34	1.25
22:AV:248:G:C2'	22:AV:249:U:H5'	1.66	1.25
22:AV:34:A:H1'	22:AV:322:U:O2	1.18	1.25
23:AW:38:LYS:HE2	26:BA:1910:G:OP2	1.35	1.25
26:BA:894:U:C3'	26:BA:895:U:H5''	1.66	1.25
22:AV:14:G:C2	22:AV:343:C:N4	2.02	1.25
1:AA:928:G:H5'	1:AA:1503:A:N6	1.51	1.24
23:AW:45:PHE:CZ	25:AY:500:GLN:NE2	2.04	1.24
26:BA:908:C:OP1	37:BM:22:GLN:HG3	1.37	1.24
1:AA:1411:C:O2'	1:AA:1412:C:H5'	1.35	1.24
22:AV:343:C:H4'	30:BF:78:ILE:CD1	1.65	1.24

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:142:ARG:HH12	22:AV:129:G:P	1.61	1.24
1:AA:1103:C:O3'	2:AB:96:LEU:HD13	1.05	1.23
1:AA:1389:C:H3'	1:AA:1390:U:C6	1.71	1.23
22:AV:163:G:O2'	22:AV:164:G:C5'	1.83	1.23
22:AV:303:G:H3'	22:AV:303:G:OP2	1.37	1.23
22:AV:216:U:O2'	22:AV:217:G:H5'	1.38	1.23
22:AV:40:G:C8	22:AV:317:G:H1'	1.73	1.23
22:AV:266:C:H2'	22:AV:267:G:C5'	1.68	1.23
22:AV:333:G:OP2	22:AV:335:C:N4	1.72	1.23
22:AV:44:C:C2'	22:AV:45:A:H8	1.48	1.23
22:AV:31:G:O6	22:AV:34:A:C5'	1.85	1.23
22:AV:34:A:C2'	22:AV:35:C:H5'	1.69	1.22
22:AV:40:G:C8	22:AV:317:G:C1'	2.22	1.22
22:AV:267:G:O2'	22:AV:268:U:H5'	1.35	1.22
22:AV:290:A:C4'	22:AV:291:A:H5'	1.69	1.22
24:AX:77:A:H3'	26:BA:2422:C:O2	1.40	1.22
26:BA:883:G:O2'	26:BA:884:U:H5'	1.36	1.22
2:AB:104:LYS:NZ	22:AV:121:A:C5'	2.02	1.22
22:AV:21:C:O2'	22:AV:22:G:H5'	1.40	1.22
22:AV:309:A:H4'	22:AV:310:G:O4'	1.39	1.22
22:AV:324:G:N2	22:AV:325:G:C6	2.08	1.22
22:AV:165:A:H4'	22:AV:166:C:C6	1.73	1.22
23:AW:38:LYS:CE	26:BA:1910:G:OP2	1.88	1.22
22:AV:36:C:H2'	22:AV:37:C:C6	1.75	1.22
25:AY:637:ARG:HD3	33:BI:25:PRO:CD	1.64	1.21
22:AV:61:G:H4'	22:AV:62:G:C5'	1.70	1.21
1:AA:1390:U:O2'	1:AA:1391:U:H5'	1.36	1.21
22:AV:61:G:C4'	22:AV:62:G:H5'	1.69	1.21
22:AV:14:G:N2	22:AV:343:C:N3	1.89	1.20
23:AW:38:LYS:CG	26:BA:1910:G:C3'	2.19	1.20
22:AV:31:G:C6	22:AV:34:A:H5''	1.75	1.20
26:BA:875:G:O2'	26:BA:876:C:H5'	1.38	1.20
26:BA:891:G:H2'	26:BA:892:A:C8	1.74	1.20
22:AV:194:G:O2'	22:AV:195:A:H5'	1.36	1.20
22:AV:334:A:C2	23:AW:112:TYR:HA	1.77	1.20
22:AV:158:U:O4'	22:AV:197:A:N1	1.75	1.20
26:BA:887:U:H1'	26:BA:888:C:C5'	1.71	1.20
22:AV:52:G:N2	22:AV:72:A:H61	1.40	1.20
22:AV:13:G:N2	22:AV:344:A:C6	2.10	1.19
22:AV:48:C:H2'	22:AV:49:C:C4'	1.72	1.19
22:AV:345:A:C6	22:AV:348:C:C4	2.29	1.19

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:137:C:C4	22:AV:138:C:C5	2.30	1.19
22:AV:175:A:H2'	22:AV:176:G:H5'	1.24	1.19
26:BA:878:A:O2'	26:BA:879:G:H5'	1.42	1.19
22:AV:132:U:H2'	22:AV:133:A:H5'	1.25	1.19
22:AV:14:G:N2	22:AV:343:C:N4	1.92	1.18
22:AV:163:G:N3	22:AV:164:G:C8	2.11	1.18
22:AV:343:C:C4'	30:BF:78:ILE:HD12	1.71	1.18
1:AA:918:A:H2'	1:AA:919:A:C8	1.78	1.18
26:BA:890:C:O5'	26:BA:891:G:H5'	1.37	1.18
22:AV:244:G:H2'	22:AV:245:C:O4'	1.40	1.18
22:AV:163:G:C2'	22:AV:164:G:C5'	2.22	1.18
22:AV:218:G:O2'	22:AV:219:G:H5'	1.44	1.18
22:AV:46:U:H2'	22:AV:47:G:C8	1.79	1.17
22:AV:17:U:C2	22:AV:334:A:N6	2.12	1.17
22:AV:244:G:H2'	22:AV:245:C:C4'	1.74	1.17
22:AV:310:G:O2'	22:AV:311:U:C6	1.98	1.17
22:AV:165:A:H5'	22:AV:166:C:N1	1.58	1.17
1:AA:1339:A:C2	24:AX:32:G:H4'	1.78	1.17
9:AI:129:ARG:NH1	24:AX:36:A:H5''	1.58	1.17
22:AV:165:A:C4'	22:AV:166:C:C6	2.28	1.17
22:AV:174:A:O2'	22:AV:175:A:H5'	1.41	1.17
22:AV:21:C:N4	22:AV:332:G:H1	1.41	1.17
22:AV:114:G:N2	22:AV:132:U:O2	1.75	1.17
24:AX:32:G:H1	24:AX:40:C:N4	1.43	1.17
22:AV:60:U:H2'	22:AV:62:G:C4'	1.74	1.17
22:AV:158:U:C1'	22:AV:197:A:N1	2.05	1.17
22:AV:193:A:O2'	22:AV:194:G:H5'	1.45	1.16
1:AA:922:G:N3	1:AA:1398:A:N3	1.87	1.16
22:AV:20:A:C3'	22:AV:21:C:C5	2.28	1.16
22:AV:28:U:C2'	22:AV:29:G:C8	2.28	1.16
22:AV:343:C:OP1	30:BF:79:ARG:HA	1.41	1.16
26:BA:894:U:H2'	26:BA:895:U:C4'	1.74	1.16
26:BA:866:A:C8	26:BA:914:G:C6	2.33	1.16
22:AV:20:A:O2'	22:AV:21:C:H5'	1.44	1.16
22:AV:67:G:N2	22:AV:303:G:N7	1.92	1.16
26:BA:2092:U:C4'	26:BA:2093:G:OP1	1.94	1.16
26:BA:876:C:H2'	26:BA:877:A:N7	1.60	1.16
26:BA:889:C:H2'	26:BA:891:G:C4	1.80	1.16
26:BA:889:C:H2'	26:BA:891:G:N9	1.56	1.16
24:AX:77:A:H2'	26:BA:2422:C:N3	1.60	1.16
22:AV:210:C:C2'	22:AV:240:U:C5	2.24	1.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1412:C:O2'	1:AA:1413:A:H5'	1.41	1.16
22:AV:210:C:C2	22:AV:240:U:O4	1.99	1.16
22:AV:271:G:O2'	22:AV:272:C:H5'	1.41	1.16
22:AV:183:C:H4'	22:AV:184:A:OP1	1.41	1.15
22:AV:343:C:P	30:BF:79:ARG:HA	1.86	1.15
22:AV:323:A:C2'	22:AV:324:G:H8	1.58	1.15
1:AA:1387:G:C2'	1:AA:1388:C:H5'	1.75	1.15
22:AV:229:U:H4'	22:AV:230:U:OP1	1.38	1.15
26:BA:878:A:C2'	26:BA:879:G:H5'	1.74	1.15
22:AV:38:A:H4'	22:AV:39:A:OP1	1.37	1.15
1:AA:1389:C:C3'	1:AA:1390:U:C5	2.30	1.15
22:AV:290:A:C1'	22:AV:291:A:C8	2.30	1.15
22:AV:306:U:H2'	22:AV:307:G:H8	1.01	1.15
22:AV:257:U:C2	22:AV:258:G:C2	2.34	1.15
23:AW:38:LYS:HG2	26:BA:1911:U:P	1.86	1.15
26:BA:877:A:H2'	26:BA:878:A:C5'	1.76	1.15
1:AA:1539:C:O5'	21:AU:17:ARG:CG	1.92	1.15
22:AV:16:U:O2'	22:AV:18:C:C5'	1.95	1.15
22:AV:175:A:C2'	22:AV:176:G:H5'	1.76	1.15
22:AV:14:G:N2	22:AV:343:C:C4	2.14	1.15
22:AV:311:U:O2'	22:AV:312:A:H5'	1.42	1.14
12:AL:76:HIS:CG	25:AY:421:GLN:OE1	1.99	1.14
22:AV:52:G:H21	22:AV:72:A:N6	1.44	1.14
1:AA:928:G:H5'	1:AA:1503:A:H62	1.02	1.14
25:AY:626:ALA:HB2	26:BA:2473:U:N1	1.62	1.14
22:AV:49:C:N3	22:AV:303:G:C6	2.14	1.14
22:AV:63:C:C2'	22:AV:64:C:H5'	1.75	1.14
22:AV:311:U:C2'	22:AV:312:A:H5'	1.77	1.14
26:BA:880:G:O2'	26:BA:881:G:H5'	1.48	1.14
22:AV:298:A:H2'	22:AV:299:C:O4'	1.45	1.14
26:BA:2194:U:O2'	26:BA:2195:U:H5'	1.42	1.14
22:AV:199:C:C2'	22:AV:200:G:C8	2.31	1.14
26:BA:879:G:H2'	26:BA:880:G:C5'	1.78	1.13
22:AV:210:C:O2	22:AV:240:U:C4	2.00	1.13
22:AV:48:C:C2'	22:AV:49:C:C5'	2.13	1.13
22:AV:44:C:C2'	22:AV:45:A:C8	2.31	1.13
22:AV:49:C:C2	22:AV:303:G:N1	2.15	1.13
22:AV:265:C:O2'	22:AV:266:C:H5'	1.45	1.13
22:AV:320:U:H1'	22:AV:321:G:OP1	1.49	1.13
22:AV:155:C:C2'	22:AV:156:G:H5'	1.77	1.13
23:AW:38:LYS:HG2	26:BA:1910:G:O3'	1.49	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:129:ARG:NH2	24:AX:36:A:OP1	1.82	1.13
22:AV:139:C:C1'	22:AV:182:U:C5	2.31	1.13
22:AV:59:U:O2'	22:AV:60:U:H5'	1.46	1.13
22:AV:324:G:N2	22:AV:325:G:C5	2.17	1.12
22:AV:33:A:N9	22:AV:35:C:OP1	1.81	1.12
9:AI:129:ARG:HH12	24:AX:36:A:C5'	1.62	1.12
25:AY:157:LEU:HD23	25:AY:157:LEU:H	1.12	1.12
1:AA:928:G:O2'	1:AA:1533:C:P	2.06	1.12
1:AA:1100:C:H41	2:AB:94:ARG:HD2	1.15	1.12
22:AV:131:U:H4'	22:AV:132:U:OP2	1.39	1.12
26:BA:866:A:C6	26:BA:867:C:C5	2.38	1.12
1:AA:1313:U:OP2	19:AS:5:LYS:HB3	1.49	1.12
22:AV:39:A:H2'	22:AV:40:G:H5'	1.12	1.12
1:AA:921:U:H1'	5:AE:23:THR:O	1.50	1.12
22:AV:249:U:O2'	22:AV:250:U:H5'	1.44	1.12
22:AV:256:G:C6	22:AV:273:A:N1	2.17	1.12
22:AV:285:A:C2'	22:AV:286:A:H5''	1.78	1.12
22:AV:163:G:C2	22:AV:164:G:C8	2.37	1.11
22:AV:261:G:H4'	22:AV:262:U:OP1	1.50	1.11
22:AV:14:G:N2	22:AV:343:C:H42	1.47	1.11
1:AA:1494:G:C1'	26:BA:1913:A:H2	1.63	1.11
26:BA:910:A:H62	37:BM:12:MET:CA	1.60	1.11
1:AA:1103:C:O3'	2:AB:96:LEU:CD1	1.97	1.11
22:AV:14:G:H4'	22:AV:15:A:OP1	1.43	1.11
22:AV:34:A:H2'	22:AV:35:C:H5'	1.23	1.11
23:AW:38:LYS:CD	26:BA:1911:U:OP2	1.97	1.11
22:AV:171:A:O2'	22:AV:172:U:H5'	1.48	1.11
22:AV:191:A:C3'	22:AV:192:A:H5''	1.79	1.11
22:AV:248:G:H2'	22:AV:249:U:H5'	1.32	1.11
22:AV:285:A:H2'	22:AV:286:A:C5'	1.79	1.11
22:AV:344:A:H4'	30:BF:76:PHE:N	1.66	1.11
23:AW:38:LYS:HG3	26:BA:1910:G:H3'	1.24	1.11
1:AA:928:G:O2'	1:AA:1532:U:O3'	1.69	1.11
26:BA:876:C:H2'	26:BA:877:A:C5	1.84	1.11
22:AV:174:A:H2'	22:AV:175:A:C8	1.86	1.11
22:AV:132:U:C2'	22:AV:133:A:H5'	1.80	1.11
22:AV:44:C:C4	22:AV:263:G:N2	2.19	1.11
22:AV:269:C:C2'	22:AV:270:C:H5'	1.80	1.10
22:AV:323:A:C2'	22:AV:324:G:C8	2.30	1.10
1:AA:368:U:OP1	25:AY:353:ALA:CB	1.99	1.10
24:AX:71:G:H21	26:BA:1851:U:H5'	1.04	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:67:G:N2	22:AV:303:G:C5	2.20	1.10
22:AV:303:G:H2'	22:AV:304:C:C6	1.86	1.10
25:AY:633:GLY:HA3	26:BA:1067:A:H2'	1.19	1.10
26:BA:2092:U:H4'	26:BA:2093:G:OP1	1.46	1.10
25:AY:635:GLU:HB3	33:BI:22:PRO:C	1.71	1.10
22:AV:116:A:H2'	22:AV:117:G:H5''	1.31	1.10
26:BA:875:G:H1	26:BA:902:C:N4	1.48	1.10
1:AA:1100:C:H41	2:AB:94:ARG:CD	1.63	1.10
1:AA:922:G:N2	1:AA:1398:A:C4	2.20	1.10
22:AV:142:U:O2'	22:AV:143:C:H5'	1.49	1.10
22:AV:266:C:C5	22:AV:267:G:C8	2.39	1.10
26:BA:2092:U:C3'	26:BA:2093:G:OP1	1.99	1.10
22:AV:17:U:H1'	22:AV:334:A:N6	1.67	1.10
26:BA:867:C:H2'	26:BA:868:U:H5'	1.12	1.10
25:AY:85:PRO:HA	25:AY:94:VAL:HG22	1.29	1.09
26:BA:895:U:H2'	26:BA:896:A:N7	1.66	1.09
1:AA:1531:A:H2'	1:AA:1532:U:C5'	1.81	1.09
22:AV:187:C:H2'	22:AV:188:C:H5''	1.21	1.09
22:AV:303:G:O2'	22:AV:304:C:H5'	1.49	1.09
26:BA:903:C:H2'	26:BA:904:G:C5'	1.82	1.09
1:AA:1097:C:C5'	1:AA:1170:A:H4'	1.63	1.09
1:AA:1100:C:N4	2:AB:94:ARG:CD	2.13	1.09
9:AI:129:ARG:HH12	24:AX:36:A:H5''	0.93	1.09
22:AV:163:G:H2'	22:AV:164:G:H5'	1.11	1.09
22:AV:269:C:H2'	22:AV:270:C:H5'	1.16	1.09
22:AV:68:U:O4	22:AV:303:G:N7	1.84	1.09
22:AV:63:C:C2	22:AV:73:A:C2	2.41	1.09
24:AX:77:A:H2'	26:BA:2422:C:C2	1.87	1.09
22:AV:269:C:C2'	22:AV:270:C:C5'	2.30	1.09
22:AV:15:A:O2'	22:AV:331:C:OP1	1.68	1.09
23:AW:55:LEU:HD11	23:AW:102:PRO:HG3	1.20	1.09
25:AY:281:PRO:HB2	25:AY:286:ILE:HD11	1.33	1.09
22:AV:5:C:C2'	22:AV:6:U:H5'	1.80	1.09
22:AV:60:U:C2'	22:AV:62:G:H4'	1.81	1.09
22:AV:48:C:C3'	22:AV:49:C:C5'	2.29	1.09
26:BA:2193:G:O2'	26:BA:2194:U:H5'	1.51	1.09
22:AV:155:C:H2'	22:AV:156:G:H5'	1.35	1.09
22:AV:306:U:H2'	22:AV:307:G:C8	1.87	1.09
26:BA:895:U:H2'	26:BA:896:A:C8	1.88	1.09
26:BA:871:U:O2'	37:BM:68:PHE:CD1	2.05	1.09
22:AV:139:C:C1'	22:AV:182:U:C6	2.36	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:909:A:H4'	26:BA:910:A:OP1	1.39	1.08
26:BA:2096:C:OP2	32:BH:11:ASN:ND2	1.86	1.08
26:BA:903:C:H2'	26:BA:904:G:H5'	1.28	1.08
22:AV:31:G:O6	22:AV:34:A:H5''	0.91	1.08
22:AV:45:A:O2'	22:AV:312:A:O2'	1.64	1.08
26:BA:887:U:C1'	26:BA:888:C:C5'	2.30	1.08
1:AA:921:U:O2	5:AE:23:THR:HG22	1.53	1.08
22:AV:248:G:O2'	22:AV:249:U:H5'	1.52	1.08
1:AA:917:G:C6	1:AA:918:A:C6	2.42	1.07
22:AV:61:G:H4'	22:AV:62:G:H5'	1.13	1.07
22:AV:343:C:OP1	30:BF:79:ARG:CA	2.02	1.07
24:AX:62:C:H3'	24:AX:63:C:H5''	1.15	1.07
22:AV:322:U:H2'	22:AV:323:A:N7	1.66	1.07
1:AA:1104:G:P	2:AB:96:LEU:HD13	1.95	1.07
23:AW:38:LYS:HG3	26:BA:1910:G:C3'	1.67	1.07
25:AY:490:PRO:HG3	25:AY:516:PRO:HD2	1.35	1.07
26:BA:877:A:C2'	26:BA:878:A:C5'	2.30	1.07
26:BA:880:G:C2'	26:BA:881:G:H5'	1.85	1.07
26:BA:879:G:C2'	26:BA:880:G:C5'	2.30	1.07
22:AV:205:G:P	22:AV:225:A:C2	2.48	1.07
22:AV:63:C:H2'	22:AV:64:C:H5'	1.12	1.07
26:BA:899:A:H4'	26:BA:900:A:OP1	1.53	1.07
1:AA:1103:C:H4'	2:AB:96:LEU:HB3	1.17	1.07
24:AX:71:G:N2	26:BA:1851:U:H5'	1.69	1.07
1:AA:1389:C:C3'	1:AA:1390:U:C6	2.38	1.06
22:AV:173:C:O2'	22:AV:174:A:H5'	1.55	1.06
22:AV:243:G:O2'	22:AV:244:G:H5'	1.54	1.06
22:AV:249:U:H2'	22:AV:250:U:C6	1.90	1.06
22:AV:322:U:C2'	22:AV:323:A:C8	2.37	1.06
22:AV:33:A:C8	22:AV:35:C:OP1	2.07	1.06
22:AV:44:C:H2'	22:AV:45:A:C8	1.89	1.06
22:AV:137:C:C5	22:AV:138:C:C5	2.42	1.06
22:AV:188:C:H2'	22:AV:189:C:H5'	1.30	1.06
1:AA:1539:C:H5''	21:AU:17:ARG:HG3	1.24	1.06
1:AA:1097:C:H5'	1:AA:1170:A:H4'	1.31	1.06
22:AV:13:G:C2'	22:AV:14:G:C8	2.37	1.06
22:AV:153:U:H4'	22:AV:154:C:OP2	1.56	1.06
22:AV:180:G:H2'	22:AV:181:G:H1'	1.13	1.06
26:BA:869:G:H2'	26:BA:870:U:H6	1.17	1.06
26:BA:883:G:H2'	26:BA:884:U:H6	1.19	1.06
22:AV:188:C:N3	22:AV:189:C:H5	1.54	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:344:A:C4'	30:BF:76:PHE:N	2.19	1.05
22:AV:185:A:C2'	22:AV:186:A:C5	2.38	1.05
22:AV:334:A:N1	23:AW:112:TYR:CA	2.18	1.05
22:AV:310:G:C2'	22:AV:311:U:C5	2.38	1.05
22:AV:8:A:N7	22:AV:334:A:C2'	1.98	1.05
22:AV:17:U:N1	22:AV:334:A:N6	2.03	1.05
22:AV:265:C:C2'	22:AV:266:C:H5'	1.87	1.05
22:AV:334:A:H5'	22:AV:335:C:C4	1.90	1.05
22:AV:38:A:H1'	22:AV:39:A:H8	1.15	1.05
26:BA:908:C:OP1	37:BM:22:GLN:CG	2.03	1.05
25:AY:635:GLU:HG2	33:BI:22:PRO:CA	1.84	1.05
22:AV:166:C:H2'	22:AV:167:G:H8	1.18	1.05
26:BA:892:A:O2'	26:BA:893:C:H5'	1.57	1.05
22:AV:270:C:O2'	22:AV:271:G:H5'	1.55	1.05
26:BA:883:G:N3	26:BA:884:U:C6	2.24	1.05
22:AV:256:G:H2'	22:AV:258:G:O6	1.53	1.05
25:AY:634:MET:CG	26:BA:1068:G:H1'	1.86	1.05
22:AV:345:A:N6	22:AV:348:C:N3	2.04	1.04
3:AC:142:ARG:CG	3:AC:142:ARG:HH11	1.70	1.04
22:AV:44:C:O2'	22:AV:45:A:C5'	2.05	1.04
22:AV:60:U:H2'	22:AV:62:G:H4'	1.09	1.04
22:AV:8:A:H8	22:AV:334:A:C2'	1.39	1.04
26:BA:897:C:H2'	26:BA:898:C:C6	1.92	1.04
22:AV:269:C:C4	22:AV:270:C:C5	2.44	1.04
22:AV:343:C:C5	30:BF:79:ARG:HB2	1.89	1.04
25:AY:637:ARG:CD	33:BI:25:PRO:HD3	1.87	1.04
22:AV:266:C:C3'	22:AV:267:G:H5''	1.87	1.04
1:AA:1107:C:P	3:AC:171:ARG:NH1	2.30	1.04
22:AV:315:G:C5	22:AV:316:A:N6	2.24	1.04
22:AV:14:G:H1	22:AV:343:C:N4	1.38	1.04
1:AA:1079:G:C5	1:AA:1080:A:C6	2.46	1.04
22:AV:128:U:H2'	22:AV:129:G:O4'	1.56	1.04
25:AY:626:ALA:HB2	26:BA:2473:U:O4'	1.55	1.04
26:BA:891:G:H2'	26:BA:892:A:H8	0.91	1.04
22:AV:224:A:O2'	22:AV:225:A:H8	1.40	1.04
22:AV:5:C:H2'	22:AV:6:U:H5'	1.33	1.04
26:BA:880:G:O2'	26:BA:899:A:N6	1.91	1.04
22:AV:290:A:C4'	22:AV:291:A:C5'	2.30	1.04
22:AV:38:A:H1'	22:AV:39:A:C8	1.91	1.04
22:AV:189:C:H2'	22:AV:190:A:C5'	1.87	1.04
22:AV:225:A:C2	22:AV:226:G:C5	2.46	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:345:A:OP2	30:BF:74:ALA:HB1	1.57	1.04
22:AV:56:C:H2'	22:AV:57:G:H8	1.16	1.04
26:BA:866:A:C2'	26:BA:867:C:H5'	1.87	1.04
22:AV:257:U:H4'	22:AV:258:G:OP1	1.58	1.03
22:AV:290:A:H4'	22:AV:291:A:O5'	1.53	1.03
22:AV:44:C:N4	22:AV:300:U:C5	2.25	1.03
22:AV:66:C:H1'	22:AV:70:A:C2	1.92	1.03
24:AX:52:C:H2'	24:AX:53:G:C8	1.92	1.03
1:AA:922:G:C2	1:AA:1398:A:C4	2.46	1.03
3:AC:142:ARG:HG2	3:AC:142:ARG:HH11	1.18	1.03
22:AV:180:G:C2'	22:AV:181:G:C1'	2.37	1.03
22:AV:196:G:N2	22:AV:197:A:H62	1.55	1.03
22:AV:212:U:O2'	22:AV:213:G:H3'	1.58	1.03
22:AV:35:C:O2'	22:AV:36:C:H5'	1.58	1.03
22:AV:44:C:C2	22:AV:263:G:N2	2.24	1.03
1:AA:1081:A:H5'	5:AE:22:LYS:NZ	1.72	1.03
22:AV:239:A:H3'	22:AV:240:U:H5''	1.04	1.03
22:AV:32:A:H4'	22:AV:33:A:OP1	1.59	1.03
22:AV:9:U:H4'	22:AV:10:U:OP1	1.57	1.03
22:AV:334:A:N1	23:AW:112:TYR:HB3	1.26	1.03
23:AW:85:GLU:O	23:AW:89:LEU:HD21	1.57	1.03
1:AA:55:A:N1	25:AY:321:TYR:O	1.92	1.03
22:AV:133:A:H2'	22:AV:134:G:H8	1.21	1.03
26:BA:866:A:O4'	26:BA:914:G:C2	2.12	1.03
1:AA:918:A:H2'	1:AA:919:A:H8	0.86	1.03
22:AV:17:U:C1'	22:AV:334:A:N6	2.22	1.03
24:AX:33:C:O2	24:AX:39:A:N6	1.91	1.03
22:AV:205:G:OP1	22:AV:225:A:H2	1.30	1.03
22:AV:71:A:H2'	22:AV:72:A:C8	1.94	1.03
24:AX:20:G:C6	26:BA:2112:G:H1'	1.92	1.03
22:AV:303:G:P	22:AV:303:G:H3'	1.98	1.03
22:AV:160:U:H2'	22:AV:161:U:H6	1.21	1.02
22:AV:17:U:H5'	22:AV:19:G:OP2	1.59	1.02
22:AV:39:A:H2'	22:AV:40:G:C5'	1.89	1.02
22:AV:303:G:H2'	22:AV:304:C:H6	1.12	1.02
22:AV:137:C:P	22:AV:138:C:H5'	1.98	1.02
1:AA:1096:C:O2'	1:AA:1170:A:O2'	1.76	1.02
22:AV:8:A:C8	22:AV:334:A:O2'	1.86	1.02
26:BA:911:A:C6	37:BM:9:PHE:CG	2.47	1.02
1:AA:1081:A:C5'	5:AE:22:LYS:CE	1.98	1.02
22:AV:158:U:H2'	22:AV:159:C:C6	1.95	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:AX:20:G:O6	26:BA:2112:G:C1'	2.07	1.02
25:AY:636:PRO:O	33:BI:25:PRO:HD2	0.84	1.02
22:AV:45:A:HO2'	22:AV:46:U:C5'	1.71	1.02
22:AV:16:U:O2'	22:AV:18:C:H5''	1.53	1.02
22:AV:185:A:C2'	22:AV:186:A:C4	2.43	1.02
22:AV:13:G:C2	22:AV:344:A:C6	2.48	1.02
24:AX:34:U:O2	24:AX:37:U:H5	1.43	1.02
1:AA:1387:G:H2'	1:AA:1388:C:H5'	1.38	1.02
1:AA:1494:G:C1'	26:BA:1913:A:C2	2.38	1.02
22:AV:166:C:H2'	22:AV:167:G:C8	1.95	1.02
22:AV:193:A:C2'	22:AV:194:G:H5'	1.89	1.02
22:AV:296:U:C2'	22:AV:297:G:C8	2.40	1.01
23:AW:89:LEU:H	23:AW:89:LEU:HD23	1.24	1.01
12:AL:76:HIS:NE2	25:AY:421:GLN:HG2	1.74	1.01
22:AV:136:G:O2'	22:AV:137:C:H5'	1.60	1.01
22:AV:191:A:H3'	22:AV:192:A:C5'	1.89	1.01
23:AW:5:LEU:HG	23:AW:105:ILE:HD11	1.41	1.01
26:BA:866:A:C2'	26:BA:867:C:C5'	2.37	1.01
25:AY:644:ARG:NH2	26:BA:1067:A:C4'	1.89	1.01
25:AY:423:LYS:HB3	25:AY:472:VAL:HG22	1.41	1.01
22:AV:310:G:H2'	22:AV:311:U:C5	1.94	1.01
22:AV:21:C:O2	23:AW:78:LYS:NZ	1.88	1.01
22:AV:163:G:H2'	22:AV:164:G:C5'	1.88	1.01
22:AV:187:C:C2'	22:AV:188:C:H5''	1.90	1.01
22:AV:33:A:C1'	22:AV:35:C:OP1	2.09	1.01
22:AV:210:C:O2'	22:AV:240:U:H5	1.44	1.00
22:AV:266:C:C2'	22:AV:267:G:C5'	2.31	1.00
2:AB:104:LYS:HZ3	22:AV:121:A:C5'	1.66	1.00
22:AV:17:U:O2'	23:AW:114:LYS:HE2	1.60	1.00
22:AV:174:A:H2'	22:AV:175:A:H8	1.19	1.00
22:AV:266:C:C3'	22:AV:267:G:C5'	2.39	1.00
22:AV:334:A:C2	23:AW:112:TYR:CA	2.44	1.00
1:AA:921:U:C4	1:AA:1396:A:N1	2.30	1.00
22:AV:16:U:O2'	22:AV:18:C:O5'	1.77	1.00
25:AY:409:ILE:HD11	25:AY:654:GLY:HA2	1.44	1.00
1:AA:1081:A:H5''	5:AE:22:LYS:HE2	1.41	1.00
22:AV:173:C:C2'	22:AV:174:A:H5'	1.91	1.00
22:AV:188:C:N3	22:AV:189:C:C5	2.30	1.00
22:AV:343:C:C4'	30:BF:73:VAL:H	1.72	1.00
1:AA:939:G:C5	1:AA:940:C:N4	2.30	1.00
3:AC:79:LYS:CE	22:AV:184:A:P	2.47	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:185:A:C5	22:AV:186:A:N6	2.30	1.00
24:AX:49:C:H4'	24:AX:50:G:H5''	1.43	1.00
26:BA:903:C:O2'	26:BA:904:G:H5''	1.60	1.00
1:AA:939:G:C6	1:AA:940:C:N4	2.30	1.00
1:AA:1098:C:H1'	1:AA:1169:A:H2	1.26	1.00
1:AA:922:G:C4	1:AA:1398:A:H2	1.63	1.00
25:AY:634:MET:SD	26:BA:1068:G:C1'	2.49	1.00
22:AV:345:A:C5	22:AV:348:C:C4	2.50	0.99
22:AV:62:G:N2	22:AV:64:C:C5	2.30	0.99
23:AW:38:LYS:NZ	26:BA:1910:G:OP2	1.93	0.99
25:AY:546:ILE:HG23	25:AY:590:ILE:HG13	1.40	0.99
1:AA:1531:A:C2'	1:AA:1532:U:C5'	2.38	0.99
22:AV:171:A:C2'	22:AV:172:U:H5'	1.93	0.99
22:AV:268:U:H2'	22:AV:269:C:C6	1.98	0.99
22:AV:39:A:N6	22:AV:40:G:C6	2.30	0.99
22:AV:150:G:N2	22:AV:151:C:H1'	1.76	0.99
22:AV:46:U:C4'	22:AV:312:A:O3'	2.09	0.99
25:AY:276:VAL:HA	25:AY:280:LEU:HD23	1.45	0.99
22:AV:19:G:N2	23:AW:81:LEU:HD12	1.78	0.99
12:AL:35:ARG:HH22	25:AY:418:LYS:HE3	1.27	0.99
22:AV:62:G:C2	22:AV:63:C:N4	2.30	0.99
22:AV:160:U:H2'	22:AV:161:U:C6	1.97	0.99
22:AV:62:G:N2	22:AV:64:C:C4	2.30	0.99
23:AW:45:PHE:HA	23:AW:102:PRO:HD3	1.43	0.99
1:AA:1096:C:C2'	1:AA:1170:A:HO2'	1.76	0.99
1:AA:1538:C:C2'	1:AA:1539:C:H5'	1.92	0.99
22:AV:137:C:N4	22:AV:138:C:C4	2.30	0.99
22:AV:225:A:N3	22:AV:226:G:C8	2.31	0.99
25:AY:428:LEU:HD13	25:AY:440:VAL:HG11	1.42	0.98
1:AA:918:A:C4	1:AA:919:A:N7	2.31	0.98
22:AV:243:G:C2'	22:AV:244:G:H5'	1.92	0.98
22:AV:40:G:C6	22:AV:316:A:C2	2.51	0.98
26:BA:910:A:H62	37:BM:12:MET:HA	0.95	0.98
22:AV:344:A:H4'	30:BF:75:GLY:C	1.78	0.98
22:AV:38:A:O2'	22:AV:39:A:C8	2.15	0.98
25:AY:84:THR:H	25:AY:85:PRO:HD2	1.27	0.98
25:AY:644:ARG:NH2	26:BA:1067:A:H4'	1.54	0.98
22:AV:12:U:C5	22:AV:348:C:H1'	1.99	0.98
22:AV:156:G:C6	22:AV:157:C:N4	2.31	0.98
22:AV:158:U:H2'	22:AV:159:C:H6	1.27	0.98
22:AV:264:U:O2	22:AV:298:A:C2	2.16	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:310:G:N3	22:AV:311:U:O4	1.96	0.98
22:AV:48:C:H2'	22:AV:49:C:H5''	1.01	0.98
26:BA:885:C:OP2	26:BA:886:A:C6	2.17	0.98
26:BA:889:C:O2	26:BA:889:C:H3'	1.63	0.98
42:BR:42:ALA:HA	42:BR:46:GLU:HB2	1.45	0.98
1:AA:1539:C:C5'	21:AU:17:ARG:CG	2.41	0.98
22:AV:290:A:H4'	22:AV:291:A:H5'	0.98	0.98
1:AA:55:A:C2	25:AY:321:TYR:HA	1.97	0.98
1:AA:1389:C:C2	1:AA:1390:U:N3	2.31	0.98
25:AY:617:MET:HE1	26:BA:1095:A:O2'	1.01	0.98
25:AY:658:ASP:CG	31:BG:176:LYS:HE2	1.84	0.98
22:AV:8:A:H3'	22:AV:8:A:N3	1.79	0.98
25:AY:626:ALA:CB	26:BA:2473:U:O4'	2.07	0.98
26:BA:868:U:C2'	26:BA:869:G:H5'	1.93	0.98
26:BA:894:U:H2'	26:BA:895:U:H5''	1.01	0.98
22:AV:263:G:O6	22:AV:299:C:N3	1.97	0.97
26:BA:887:U:H1'	26:BA:888:C:H5'	0.99	0.97
22:AV:144:U:H4'	22:AV:144:U:OP1	1.59	0.97
22:AV:136:G:H2'	22:AV:137:C:H6	1.23	0.97
22:AV:185:A:C3'	22:AV:186:A:C8	2.46	0.97
22:AV:28:U:H2'	22:AV:29:G:N7	1.77	0.97
26:BA:891:G:O2'	26:BA:892:A:H5'	1.64	0.97
26:BA:910:A:N7	37:BM:12:MET:HG2	1.78	0.97
32:BH:31:VAL:HB	32:BH:32:PRO:HD2	1.45	0.97
22:AV:180:G:C2'	22:AV:181:G:H1'	1.91	0.97
22:AV:63:C:N1	22:AV:73:A:C2	2.32	0.97
26:BA:416:U:C5	26:BA:417:C:C5	2.52	0.97
1:AA:918:A:C2'	1:AA:919:A:H8	1.76	0.97
22:AV:308:U:H1'	22:AV:309:A:OP2	1.64	0.97
24:AX:62:C:C3'	24:AX:63:C:H5''	1.93	0.97
22:AV:21:C:H2'	22:AV:22:G:H8	1.28	0.97
1:AA:1103:C:C4'	2:AB:96:LEU:HB3	1.95	0.97
22:AV:313:C:O2'	22:AV:314:C:H5'	1.64	0.97
22:AV:34:A:C1'	22:AV:322:U:O2	2.11	0.97
22:AV:40:G:C2	22:AV:41:G:N7	2.33	0.97
25:AY:35:TYR:OH	25:AY:266:ASN:HB3	1.64	0.97
26:BA:866:A:O4'	26:BA:914:G:N2	1.98	0.97
37:BM:57:VAL:O	37:BM:60:GLN:HG3	1.65	0.97
22:AV:155:C:O2'	22:AV:156:G:H5'	1.63	0.97
1:AA:1060:U:C4	3:AC:1:GLY:N	2.33	0.96
1:AA:921:U:O4	1:AA:1396:A:C6	2.18	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:156:G:C5	22:AV:157:C:N4	2.33	0.96
22:AV:191:A:OP1	22:AV:191:A:H4'	1.60	0.96
22:AV:272:C:H2'	22:AV:273:A:H8	1.28	0.96
26:BA:869:G:H2'	26:BA:870:U:C6	2.00	0.96
26:BA:880:G:H1	26:BA:897:C:H42	1.04	0.96
1:AA:1375:A:H2'	1:AA:1376:U:H5'	1.47	0.96
1:AA:921:U:O2	5:AE:23:THR:CG2	2.13	0.96
22:AV:225:A:C2	22:AV:226:G:C4	2.52	0.96
1:AA:1098:C:H1'	1:AA:1169:A:C2	1.99	0.96
1:AA:395:C:H5'	25:AY:340:TYR:OH	1.64	0.96
25:AY:453:GLY:HA3	25:AY:459:LEU:HD11	1.46	0.96
26:BA:2127:G:H4'	26:BA:2128:G:OP1	1.63	0.96
22:AV:245:C:H4'	22:AV:246:U:OP2	1.66	0.96
1:AA:1534:A:C5	1:AA:1535:C:C4	2.54	0.96
22:AV:39:A:C2'	22:AV:40:G:H5'	1.95	0.96
22:AV:186:A:H8	22:AV:186:A:OP2	1.47	0.96
22:AV:257:U:C1'	22:AV:258:G:C5	2.49	0.96
22:AV:34:A:O2'	22:AV:322:U:H1'	1.65	0.96
25:AY:427:ALA:HB1	25:AY:466:LEU:HD11	1.44	0.96
22:AV:263:G:H3'	22:AV:264:U:C5'	1.95	0.96
22:AV:43:G:O2'	22:AV:263:G:O2'	1.83	0.96
26:BA:2127:G:H2'	26:BA:2128:G:C8	2.00	0.96
22:AV:191:A:H3'	22:AV:192:A:H5''	0.97	0.95
22:AV:290:A:C5'	22:AV:291:A:H5'	1.95	0.95
22:AV:315:G:C6	22:AV:316:A:N6	2.34	0.95
22:AV:59:U:C2'	22:AV:60:U:H5'	1.96	0.95
26:BA:889:C:C2	26:BA:891:G:N7	2.33	0.95
22:AV:147:C:H2'	22:AV:148:U:C6	2.01	0.95
22:AV:269:C:H2'	22:AV:270:C:H5''	1.48	0.95
22:AV:49:C:C2	22:AV:303:G:C2	2.53	0.95
26:BA:1779:U:H5	26:BA:1784:A:N7	1.63	0.95
1:AA:255:G:O6	1:AA:266:G:O6	1.85	0.95
26:BA:896:A:H1'	26:BA:897:C:H5''	1.48	0.95
23:AW:98:LEU:HD21	23:AW:119:LEU:HD22	1.45	0.95
22:AV:165:A:O4'	22:AV:166:C:C5	2.18	0.95
22:AV:228:G:O2'	22:AV:232:A:H2	1.47	0.95
22:AV:335:C:O2	22:AV:335:C:H3'	1.65	0.95
22:AV:188:C:C2	22:AV:189:C:C5	2.55	0.95
22:AV:14:G:H22	22:AV:343:C:N4	1.58	0.95
1:AA:1078:U:H3'	1:AA:1079:G:C8	2.02	0.95
1:AA:923:A:H5'	5:AE:25:LYS:HE2	1.46	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:189:C:H2'	22:AV:190:A:H5''	0.96	0.95
1:AA:55:A:C2	25:AY:321:TYR:C	2.40	0.95
22:AV:163:G:C4	22:AV:164:G:C8	2.55	0.95
22:AV:244:G:C4	22:AV:245:C:H1'	2.01	0.95
1:AA:55:A:N3	25:AY:321:TYR:CA	2.28	0.95
22:AV:32:A:O2'	22:AV:35:C:OP2	1.85	0.95
22:AV:334:A:H2	23:AW:113:ALA:N	1.65	0.95
26:BA:2553:G:H5''	26:BA:2554:U:OP2	1.65	0.95
22:AV:113:A:C6	22:AV:114:G:C6	2.55	0.95
22:AV:322:U:C4	22:AV:323:A:N6	2.35	0.95
23:AW:65:LYS:HG3	23:AW:66:GLY:H	1.29	0.95
26:BA:903:C:C2'	26:BA:904:G:C5'	2.43	0.95
26:BA:911:A:N6	37:BM:9:PHE:CB	2.30	0.95
1:AA:922:G:N2	1:AA:1398:A:C2'	1.87	0.94
25:AY:616:TYR:C	26:BA:1095:A:OP1	2.04	0.94
25:AY:9:LEU:HD21	25:AY:284:LEU:HB2	1.49	0.94
22:AV:271:G:C2'	22:AV:272:C:H5'	1.97	0.94
22:AV:21:C:N4	22:AV:332:G:N1	2.15	0.94
22:AV:40:G:C2	22:AV:41:G:C8	2.54	0.94
22:AV:45:A:HO2'	22:AV:46:U:H5'	0.81	0.94
1:AA:1079:G:C2	1:AA:1080:A:C2	2.54	0.94
22:AV:150:G:N2	22:AV:151:C:C1'	2.30	0.94
1:AA:922:G:C2	1:AA:1398:A:H2'	2.03	0.94
22:AV:194:G:H2'	22:AV:195:A:H8	1.29	0.94
25:AY:633:GLY:HA2	26:BA:1068:G:N7	1.81	0.94
22:AV:284:G:H4'	22:AV:285:A:O5'	1.68	0.94
25:AY:238:THR:HG22	25:AY:241:GLU:HG2	1.50	0.94
1:AA:1341:U:H2'	1:AA:1342:C:C5	2.03	0.94
22:AV:156:G:H2'	22:AV:157:C:C6	2.03	0.94
22:AV:307:G:O2'	22:AV:311:U:H1'	1.67	0.94
22:AV:334:A:H2	23:AW:113:ALA:H	1.04	0.94
22:AV:44:C:C2	22:AV:45:A:N7	2.35	0.94
22:AV:137:C:N4	22:AV:138:C:C5	2.35	0.94
22:AV:210:C:H2'	22:AV:240:U:C4	2.02	0.94
22:AV:46:U:N3	22:AV:305:A:N1	2.15	0.94
22:AV:13:G:C2	22:AV:344:A:N1	2.35	0.94
25:AY:633:GLY:HA2	26:BA:1068:G:N9	1.83	0.94
1:AA:1342:C:C2'	1:AA:1343:G:H5'	1.98	0.94
22:AV:345:A:C6	22:AV:348:C:N3	2.36	0.94
22:AV:63:C:N3	22:AV:73:A:C6	2.36	0.94
26:BA:877:A:O2'	26:BA:878:A:H5'	1.67	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AY:638:GLY:O	33:BI:25:PRO:C	2.06	0.94
2:AB:49:PHE:HA	2:AB:52:ALA:HB3	1.49	0.94
22:AV:116:A:C2	22:AV:129:G:C2	2.56	0.94
22:AV:222:U:OP1	22:AV:236:U:N3	2.01	0.94
1:AA:1375:A:C2'	1:AA:1376:U:H5'	1.97	0.94
22:AV:64:C:O2	22:AV:72:A:N1	2.00	0.94
26:BA:876:C:C2'	26:BA:877:A:N7	2.30	0.94
1:AA:1077:G:H2'	1:AA:1079:G:N7	1.81	0.93
1:AA:1100:C:C5	2:AB:94:ARG:NE	2.33	0.93
1:AA:1142:G:C2	1:AA:1143:G:H1'	2.03	0.93
1:AA:1341:U:H2'	1:AA:1342:C:C6	2.02	0.93
1:AA:928:G:C5'	1:AA:1503:A:N6	2.30	0.93
24:AX:1:C:H6	24:AX:1:C:HO5'	1.08	0.93
22:AV:147:C:H2'	22:AV:148:U:H6	1.31	0.93
22:AV:210:C:C2	22:AV:240:U:C4	2.53	0.93
1:AA:1534:A:C6	1:AA:1535:C:N3	2.37	0.93
12:AL:32:VAL:HG21	25:AY:422:GLU:HG2	1.48	0.93
24:AX:71:G:N2	26:BA:1851:U:C5'	2.31	0.93
22:AV:12:U:H4'	22:AV:13:G:C8	2.03	0.93
22:AV:35:C:H2'	22:AV:36:C:C6	2.04	0.93
22:AV:39:A:C5	22:AV:40:G:C5	2.57	0.93
26:BA:903:C:C2'	26:BA:904:G:H5''	1.98	0.93
1:AA:1079:G:C6	1:AA:1080:A:N1	2.35	0.93
2:AB:82:ALA:HA	2:AB:85:SER:OG	1.68	0.93
22:AV:200:G:N2	22:AV:230:U:C4	2.35	0.93
22:AV:46:U:H2'	22:AV:47:G:H8	1.18	0.93
1:AA:15:G:H8	1:AA:1396:A:O2'	1.49	0.93
3:AC:142:ARG:NH1	22:AV:129:G:P	2.34	0.93
22:AV:158:U:O4'	22:AV:197:A:H2	1.33	0.93
22:AV:315:G:H1'	22:AV:316:A:C8	2.03	0.93
22:AV:56:C:O2'	22:AV:57:G:C5'	2.17	0.93
23:AW:38:LYS:CG	26:BA:1910:G:H3'	1.88	0.93
17:AQ:14:ASP:C	17:AQ:16:MET:SD	2.46	0.93
22:AV:136:G:N3	22:AV:137:C:C6	2.36	0.93
22:AV:345:A:C5	22:AV:348:C:N4	2.35	0.93
23:AW:5:LEU:O	23:AW:5:LEU:HD12	1.69	0.93
24:AX:53:G:H1	24:AX:63:C:H42	1.06	0.93
26:BA:1179:G:C5	26:BA:1180:U:H1'	2.04	0.93
26:BA:894:U:C2'	26:BA:895:U:C5'	2.26	0.93
1:AA:1124:G:H3'	1:AA:1145:A:N6	1.83	0.93
22:AV:202:G:H22	22:AV:233:A:H62	1.16	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:21:C:H42	22:AV:332:G:H1	1.01	0.93
22:AV:257:U:H1'	22:AV:258:G:C4	2.03	0.93
26:BA:1131:G:OP1	34:BJ:82:GLY:HA2	1.68	0.93
22:AV:116:A:C2'	22:AV:117:G:H5''	1.98	0.93
22:AV:62:G:N3	22:AV:63:C:C4	2.37	0.93
26:BA:867:C:H2'	26:BA:868:U:C5'	1.98	0.93
22:AV:139:C:H1'	22:AV:182:U:H6	1.17	0.93
22:AV:48:C:H3'	22:AV:49:C:H5''	1.50	0.93
24:AX:34:U:O4	24:AX:37:U:OP2	1.84	0.93
26:BA:2473:U:C5	26:BA:2474:U:C5	2.57	0.93
17:AQ:7:LEU:HD22	17:AQ:72:TRP:CZ3	2.04	0.92
22:AV:16:U:H3'	22:AV:16:U:OP1	1.69	0.92
26:BA:883:G:HO2'	26:BA:884:U:H5'	1.20	0.92
26:BA:866:A:C8	26:BA:914:G:C5	2.57	0.92
26:BA:873:C:O2'	26:BA:874:G:H5'	1.68	0.92
22:AV:154:C:O2	22:AV:154:C:H2'	1.67	0.92
23:AW:30:GLU:O	23:AW:34:LEU:HG	1.69	0.92
26:BA:893:C:H2'	26:BA:894:U:C6	2.04	0.92
22:AV:213:G:O6	22:AV:284:G:N7	2.03	0.92
22:AV:46:U:O4'	22:AV:312:A:H4'	1.70	0.92
1:AA:368:U:OP1	25:AY:353:ALA:HB3	1.70	0.92
1:AA:1279:G:H5''	10:AJ:9:ARG:NH2	1.84	0.92
22:AV:20:A:H4'	22:AV:21:C:OP1	1.70	0.92
22:AV:239:A:C3'	22:AV:240:U:C5'	2.46	0.92
22:AV:36:C:H2'	22:AV:37:C:H6	1.18	0.92
33:BI:21:PRO:HB2	33:BI:22:PRO:HD3	1.49	0.92
22:AV:269:C:C2'	22:AV:270:C:H5''	1.99	0.92
22:AV:31:G:C6	22:AV:34:A:C5'	2.47	0.92
22:AV:62:G:C2	22:AV:63:C:C4	2.58	0.92
26:BA:910:A:N6	37:BM:12:MET:CA	2.20	0.92
1:AA:1386:G:O2'	1:AA:1387:G:H5'	1.69	0.92
1:AA:598:U:H4'	8:AH:85:TYR:CD1	2.05	0.92
26:BA:883:G:N3	26:BA:884:U:C5	2.38	0.92
31:BG:8:VAL:CG1	31:BG:49:LEU:HB2	1.99	0.92
1:AA:918:A:C5	1:AA:919:A:N7	2.38	0.92
1:AA:972:C:H4'	10:AJ:59:LYS:CE	1.98	0.92
22:AV:113:A:H2'	22:AV:114:G:C8	2.05	0.92
22:AV:239:A:C3'	22:AV:240:U:H5''	1.98	0.92
22:AV:267:G:C2'	22:AV:268:U:H5'	1.99	0.92
22:AV:310:G:H2'	22:AV:311:U:H5	1.29	0.92
22:AV:40:G:N2	22:AV:41:G:C8	2.38	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:868:U:H2'	26:BA:869:G:H5'	1.48	0.92
3:AC:79:LYS:NZ	22:AV:184:A:OP2	2.03	0.92
22:AV:270:C:C2'	22:AV:271:G:H5'	2.00	0.92
22:AV:264:U:N3	22:AV:298:A:N1	2.17	0.92
26:BA:911:A:C4	37:BM:9:PHE:CZ	2.50	0.92
1:AA:1098:C:O4'	1:AA:1169:A:N3	2.03	0.92
1:AA:1387:G:C6	1:AA:1388:C:N4	2.38	0.92
1:AA:1387:G:O2'	1:AA:1388:C:H5'	1.68	0.92
21:AU:19:LYS:CE	21:AU:19:LYS:HA	1.98	0.92
22:AV:49:C:O2	22:AV:303:G:C2	2.23	0.92
25:AY:415:PRO:HA	25:AY:474:ALA:HB2	1.49	0.92
22:AV:290:A:H1'	22:AV:291:A:N7	1.84	0.91
22:AV:47:G:H2'	22:AV:48:C:H6	0.98	0.91
25:AY:355:LEU:HD12	25:AY:369:LEU:HD13	1.52	0.91
1:AA:1079:G:C5	1:AA:1080:A:N6	2.37	0.91
1:AA:1392:G:O2'	1:AA:1393:U:H5'	1.70	0.91
22:AV:121:A:N6	22:AV:124:A:N1	2.18	0.91
22:AV:218:G:C2'	22:AV:219:G:H5'	2.00	0.91
26:BA:905:A:O2'	26:BA:906:U:H5'	1.69	0.91
22:AV:199:C:C2'	22:AV:200:G:N7	2.30	0.91
23:AW:22:ALA:O	23:AW:115:VAL:HG12	1.70	0.91
24:AX:34:U:O2	24:AX:37:U:C5	2.23	0.91
24:AX:77:A:C2'	26:BA:2422:C:N3	2.33	0.91
1:AA:1096:C:C2'	1:AA:1170:A:O2'	2.18	0.91
22:AV:204:G:OP1	22:AV:234:A:C6	2.22	0.91
22:AV:20:A:H61	23:AW:80:LEU:HD21	1.33	0.91
1:AA:1338:G:O2'	1:AA:1339:A:H5'	1.68	0.91
4:AD:169:TRP:NE1	4:AD:185:PRO:HG3	1.86	0.91
22:AV:40:G:H8	22:AV:317:G:H1'	1.13	0.91
22:AV:44:C:O2'	22:AV:45:A:H8	1.51	0.91
25:AY:626:ALA:HB2	26:BA:2473:U:H1'	1.00	0.91
26:BA:2346:A:H3'	26:BA:2347:C:C5'	1.99	0.91
26:BA:887:U:O4'	26:BA:888:C:H5'	1.67	0.91
26:BA:891:G:C2'	26:BA:892:A:H8	1.82	0.91
1:AA:1101:A:H4'	1:AA:1102:A:O5'	1.69	0.91
1:AA:1538:C:O2'	1:AA:1539:C:H5'	1.71	0.91
22:AV:316:A:H2'	22:AV:317:G:H5'	1.49	0.91
22:AV:157:C:C2	22:AV:158:U:C5	2.58	0.91
26:BA:1287:A:H5'	38:BN:103:ARG:HD2	1.50	0.91
26:BA:866:A:H2'	26:BA:867:C:H5'	0.92	0.91
22:AV:247:A:H5''	22:AV:248:G:OP1	1.71	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:68:U:O4	22:AV:303:G:C8	2.23	0.91
22:AV:247:A:H4'	22:AV:248:G:O5'	1.69	0.91
24:AX:2:G:O2'	24:AX:3:C:H5''	1.71	0.91
25:AY:617:MET:CE	26:BA:1095:A:C1'	2.49	0.91
26:BA:883:G:H2'	26:BA:884:U:C6	2.05	0.91
1:AA:15:G:H8	1:AA:1396:A:HO2'	1.13	0.90
1:AA:1107:C:P	3:AC:171:ARG:HH12	1.93	0.90
22:AV:171:A:C2	22:AV:172:U:C4	2.59	0.90
9:AI:129:ARG:HH22	24:AX:36:A:P	1.94	0.90
1:AA:1339:A:N3	24:AX:32:G:H4'	1.86	0.90
22:AV:44:C:OP2	22:AV:264:U:OP1	1.88	0.90
22:AV:46:U:C4'	22:AV:313:C:H5'	2.01	0.90
22:AV:266:C:C4	22:AV:267:G:C8	2.59	0.90
22:AV:50:G:N2	22:AV:69:A:N1	2.19	0.90
22:AV:21:C:O4'	23:AW:52:GLU:OE2	1.90	0.90
23:AW:38:LYS:HG2	26:BA:1910:G:C3'	1.94	0.90
22:AV:172:U:C2'	22:AV:173:C:C6	2.17	0.90
22:AV:208:G:C1'	22:AV:223:G:N2	2.11	0.90
22:AV:229:U:H1'	22:AV:231:A:H2	1.36	0.90
22:AV:334:A:H5'	22:AV:335:C:H42	0.74	0.90
24:AX:52:C:H2'	24:AX:53:G:H8	1.30	0.90
25:AY:633:GLY:HA3	26:BA:1067:A:C2'	2.02	0.90
26:BA:1085:A:H2'	26:BA:1086:A:C2	2.07	0.90
22:AV:266:C:H2'	22:AV:267:G:H5''	0.92	0.90
22:AV:310:G:O2'	22:AV:311:U:C5	2.18	0.90
22:AV:345:A:N7	22:AV:348:C:N4	2.20	0.90
24:AX:72:C:O2'	26:BA:1851:U:H1'	1.69	0.90
26:BA:883:G:C5	26:BA:884:U:C5	2.60	0.90
22:AV:116:A:C2	22:AV:129:G:N1	2.39	0.90
25:AY:636:PRO:HB3	33:BI:26:ALA:HB3	1.50	0.90
26:BA:895:U:C2'	26:BA:896:A:N7	2.35	0.90
22:AV:34:A:O4'	22:AV:323:A:C2	2.25	0.90
26:BA:875:G:HO2'	26:BA:876:C:H5'	1.31	0.90
12:AL:76:HIS:CD2	25:AY:421:GLN:OE1	2.24	0.90
22:AV:139:C:C1'	22:AV:182:U:H5	1.79	0.90
22:AV:13:G:H8	22:AV:13:G:P	1.95	0.90
22:AV:13:G:C2'	22:AV:14:G:H8	1.82	0.90
23:AW:5:LEU:HG	23:AW:105:ILE:CD1	2.01	0.90
25:AY:513:LYS:HB2	25:AY:566:THR:HB	1.52	0.90
26:BA:865:C:O2	26:BA:869:G:O6	1.89	0.90
1:AA:1098:C:OP2	2:AB:142:LYS:NZ	2.03	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:257:U:O4	22:AV:273:A:C2	2.25	0.90
23:AW:89:LEU:O	23:AW:93:VAL:HG23	1.70	0.90
26:BA:933:A:H5'	26:BA:934:U:OP2	1.70	0.90
22:AV:13:G:N2	22:AV:344:A:N1	2.19	0.89
22:AV:17:U:C2	22:AV:334:A:C6	2.60	0.89
22:AV:188:C:C2'	22:AV:189:C:H5'	2.02	0.89
26:BA:880:G:C1'	26:BA:899:A:H61	1.83	0.89
26:BA:880:G:H2'	26:BA:881:G:H8	1.37	0.89
22:AV:28:U:H2'	22:AV:29:G:H8	1.37	0.89
25:AY:617:MET:N	26:BA:1095:A:OP1	2.05	0.89
22:AV:190:A:H3'	22:AV:191:A:H5''	1.54	0.89
24:AX:37:U:O2'	24:AX:38:A:H5'	1.71	0.89
1:AA:1410:A:H2'	1:AA:1411:C:C6	2.07	0.89
25:AY:84:THR:H	25:AY:85:PRO:CD	1.84	0.89
26:BA:881:G:O2'	26:BA:882:G:H5'	1.73	0.89
26:BA:889:C:C2	26:BA:891:G:C5	2.60	0.89
25:AY:658:ASP:OD2	31:BG:176:LYS:HE2	1.70	0.89
1:AA:1531:A:H2'	1:AA:1532:U:H5'	0.90	0.89
24:AX:77:A:C2'	26:BA:2422:C:C2	2.55	0.89
22:AV:111:U:O2'	22:AV:112:U:H5'	1.72	0.89
22:AV:16:U:C5	23:AW:110:ARG:NE	2.41	0.89
1:AA:1339:A:H2	24:AX:32:G:H4'	1.30	0.89
25:AY:626:ALA:N	26:BA:2473:U:H1'	1.86	0.89
40:BP:92:ARG:O	40:BP:93:LYS:HB2	1.71	0.89
22:AV:137:C:H3'	22:AV:138:C:H5''	0.89	0.89
22:AV:315:G:O2'	22:AV:316:A:C8	2.26	0.89
22:AV:323:A:C2	22:AV:324:G:C5	2.61	0.89
22:AV:56:C:H2'	22:AV:57:G:C8	2.07	0.89
22:AV:205:G:O5'	22:AV:225:A:C2	2.26	0.89
22:AV:225:A:H2'	22:AV:226:G:C8	2.08	0.89
22:AV:43:G:O6	22:AV:312:A:N1	2.05	0.89
25:AY:637:ARG:HD3	33:BI:25:PRO:HD3	0.91	0.89
1:AA:1534:A:C2	1:AA:1535:C:C2	2.61	0.88
22:AV:257:U:C2	22:AV:258:G:N1	2.41	0.88
23:AW:98:LEU:HD11	23:AW:119:LEU:HB3	1.55	0.88
42:BR:49:ILE:HG22	42:BR:53:PHE:N	1.87	0.88
22:AV:204:G:OP2	22:AV:235:C:C4	2.26	0.88
23:AW:93:VAL:HA	23:AW:98:LEU:HB3	1.55	0.88
12:AL:76:HIS:ND1	25:AY:421:GLN:OE1	2.05	0.88
2:AB:104:LYS:HZ1	22:AV:121:A:C5'	1.79	0.88
1:AA:1536:C:O4'	7:AG:79:VAL:HG11	1.74	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:136:G:H2'	22:AV:137:C:C6	2.07	0.88
22:AV:20:A:N6	23:AW:80:LEU:HD21	0.79	0.88
22:AV:13:G:H2'	22:AV:14:G:N7	1.87	0.88
22:AV:256:G:N3	22:AV:258:G:C6	2.41	0.88
23:AW:88:ARG:HD2	23:AW:89:LEU:N	1.89	0.88
22:AV:228:G:O2'	22:AV:232:A:C2	2.24	0.88
22:AV:311:U:H2'	22:AV:312:A:H5'	1.53	0.88
23:AW:5:LEU:HD13	23:AW:6:GLU:O	1.73	0.88
22:AV:331:C:C2'	22:AV:332:G:H5'	2.04	0.88
22:AV:8:A:C8	22:AV:334:A:C1'	2.55	0.88
23:AW:38:LYS:CG	26:BA:1911:U:OP2	2.21	0.88
24:AX:33:C:H2'	24:AX:34:U:H5'	1.56	0.88
25:AY:409:ILE:CD1	25:AY:654:GLY:HA2	2.04	0.88
1:AA:55:A:H2	25:AY:321:TYR:O	1.57	0.88
34:BJ:80:HIS:HB3	34:BJ:81:ILE:HG22	1.54	0.88
1:AA:1078:U:C5	1:AA:1079:G:C6	2.62	0.88
22:AV:45:A:C2'	22:AV:46:U:H5'	2.03	0.88
26:BA:872:U:H2'	26:BA:873:C:C6	2.08	0.88
22:AV:165:A:H5'	22:AV:166:C:C1'	2.03	0.88
22:AV:63:C:C2'	22:AV:64:C:C5'	2.51	0.88
1:AA:1104:G:P	2:AB:96:LEU:CD1	2.61	0.88
1:AA:927:G:O2'	1:AA:1503:A:N7	2.07	0.88
1:AA:938:A:N6	1:AA:939:G:C6	2.41	0.88
8:AH:74:ILE:CD1	8:AH:128:VAL:HG22	2.04	0.88
22:AV:204:G:OP1	22:AV:234:A:C5	2.27	0.88
22:AV:268:U:H2'	22:AV:269:C:H6	1.39	0.88
25:AY:170:ARG:O	25:AY:171:GLU:HG2	1.74	0.88
25:AY:468:ARG:HH11	25:AY:468:ARG:HB3	1.39	0.88
26:BA:911:A:N6	37:BM:9:PHE:CG	2.41	0.88
1:AA:923:A:C5'	5:AE:25:LYS:HE2	2.04	0.87
22:AV:257:U:H1'	22:AV:258:G:C5	2.09	0.87
25:AY:637:ARG:N	33:BI:25:PRO:HD2	1.79	0.87
11:AK:69:CYS:O	11:AK:72:ALA:HB3	1.74	0.87
22:AV:157:C:C2'	22:AV:158:U:H5'	2.05	0.87
22:AV:185:A:H2'	22:AV:186:A:N7	1.89	0.87
22:AV:239:A:H3'	22:AV:240:U:C4'	2.03	0.87
22:AV:272:C:O2'	22:AV:291:A:N6	2.06	0.87
22:AV:46:U:H4'	22:AV:313:C:H5'	1.53	0.87
1:AA:1537:U:H2'	1:AA:1538:C:C6	2.09	0.87
22:AV:172:U:C6	22:AV:173:C:H5	1.91	0.87
1:AA:55:A:C2	25:AY:321:TYR:CA	2.57	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:889:C:C2'	26:BA:891:G:C4	2.56	0.87
26:BA:889:C:H2'	26:BA:891:G:C8	2.09	0.87
43:BS:43:ALA:O	43:BS:47:VAL:HG12	1.74	0.87
22:AV:48:C:O2	22:AV:49:C:O4'	1.91	0.87
1:AA:922:G:N2	1:AA:1398:A:N9	2.22	0.87
22:AV:151:C:H2'	22:AV:152:C:C6	2.08	0.87
22:AV:157:C:O2'	22:AV:158:U:H5'	1.73	0.87
22:AV:139:C:O4'	22:AV:182:U:H5	1.57	0.87
25:AY:113:GLY:C	25:AY:115:GLU:H	1.75	0.87
24:AX:77:A:C3'	26:BA:2422:C:O2	2.23	0.87
26:BA:721:A:H2'	26:BA:722:A:C8	2.09	0.87
26:BA:866:A:C2	26:BA:867:C:C6	2.62	0.87
2:AB:207:ARG:C	2:AB:211:LEU:HD13	1.94	0.87
22:AV:7:G:C4	22:AV:336:G:N7	2.43	0.87
26:BA:404:A:H1'	26:BA:405:U:OP2	1.74	0.87
1:AA:1279:G:H5''	10:AJ:9:ARG:HH22	1.39	0.87
1:AA:1388:C:H2'	1:AA:1389:C:O4'	1.75	0.87
11:AK:51:PHE:CB	11:AK:55:ARG:HB3	2.03	0.87
22:AV:185:A:C2'	22:AV:186:A:C8	2.58	0.87
24:AX:53:G:H2'	24:AX:54:G:C8	2.10	0.87
24:AX:53:G:H1	24:AX:63:C:N4	1.73	0.87
26:BA:872:U:H2'	26:BA:873:C:H6	1.39	0.87
22:AV:17:U:H5'	22:AV:19:G:P	2.15	0.86
22:AV:323:A:C4	22:AV:324:G:N7	2.43	0.86
26:BA:278:A:C2	26:BA:362:A:C8	2.63	0.86
26:BA:887:U:HO2'	26:BA:888:C:H6	0.88	0.86
26:BA:866:A:C8	26:BA:914:G:N1	2.43	0.86
26:BA:911:A:N9	37:BM:9:PHE:CZ	2.35	0.86
22:AV:20:A:H3'	22:AV:21:C:H5	1.34	0.86
22:AV:20:A:C3'	22:AV:21:C:C6	2.57	0.86
22:AV:244:G:C2'	22:AV:245:C:H4'	2.05	0.86
22:AV:63:C:H2'	22:AV:64:C:C5'	2.02	0.86
25:AY:644:ARG:HH22	26:BA:1067:A:H4'	0.71	0.86
22:AV:181:G:H2'	22:AV:182:U:H4'	1.57	0.86
22:AV:257:U:C6	22:AV:258:G:C6	2.63	0.86
22:AV:67:G:N2	22:AV:303:G:C6	2.43	0.86
22:AV:40:G:C6	22:AV:316:A:H2	1.91	0.86
22:AV:19:G:N3	23:AW:81:LEU:HA	1.90	0.86
24:AX:49:C:C4'	24:AX:50:G:H5''	2.05	0.86
24:AX:7:G:H1	24:AX:67:C:H42	1.23	0.86
1:AA:142:G:C4	1:AA:143:A:C8	2.63	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:36:ALA:HA	4:AD:41:GLY:HA3	1.57	0.86
22:AV:137:C:H3'	22:AV:138:C:C4'	2.04	0.86
23:AW:5:LEU:CG	23:AW:105:ILE:HD11	2.06	0.86
26:BA:790:U:O2'	26:BA:791:C:OP2	1.93	0.86
26:BA:881:G:H2'	26:BA:882:G:H8	1.40	0.86
1:AA:1531:A:O2'	1:AA:1532:U:H5'	1.74	0.86
11:AK:80:ASN:HB3	11:AK:105:ARG:HB3	1.58	0.86
26:BA:883:G:C6	26:BA:884:U:C4	2.64	0.86
23:AW:92:LYS:O	23:AW:98:LEU:HD22	1.74	0.86
25:AY:488:THR:O	25:AY:516:PRO:HG3	1.74	0.86
1:AA:922:G:O2'	5:AE:25:LYS:HG2	1.76	0.86
22:AV:185:A:H2'	22:AV:186:A:C8	2.10	0.86
22:AV:257:U:C4	22:AV:273:A:N1	2.44	0.86
26:BA:1854:A:H2'	26:BA:1855:U:H5'	1.57	0.86
2:AB:104:LYS:HZ1	22:AV:121:A:P	1.98	0.86
12:AL:76:HIS:CE1	25:AY:421:GLN:HG2	2.11	0.86
22:AV:140:U:H2'	22:AV:141:C:H6	1.40	0.86
15:AO:27:GLN:O	15:AO:30:LEU:HD12	1.76	0.86
22:AV:131:U:H3'	22:AV:131:U:OP1	1.75	0.86
22:AV:195:A:N3	22:AV:196:G:C8	2.44	0.86
22:AV:66:C:H1'	22:AV:70:A:H2	1.37	0.86
23:AW:44:SER:N	23:AW:57:ASN:HD22	1.73	0.86
1:AA:1103:C:H5''	2:AB:96:LEU:HA	1.58	0.86
22:AV:111:U:H2'	22:AV:112:U:H6	1.40	0.86
22:AV:188:C:H2'	22:AV:189:C:C5'	2.05	0.86
22:AV:244:G:C2'	22:AV:245:C:C4'	2.53	0.86
22:AV:312:A:H2'	22:AV:313:C:C6	2.10	0.86
24:AX:20:G:C6	26:BA:2112:G:O2'	2.28	0.86
22:AV:142:U:H2'	22:AV:143:C:C6	2.09	0.85
22:AV:165:A:H5'	22:AV:166:C:C6	2.11	0.85
22:AV:220:G:H2'	22:AV:221:U:C6	2.11	0.85
22:AV:205:G:P	22:AV:225:A:N1	2.48	0.85
22:AV:246:U:H4'	22:AV:247:A:O5'	1.73	0.85
22:AV:285:A:H2'	22:AV:286:A:H5''	0.91	0.85
25:AY:634:MET:N	26:BA:1068:G:O4'	2.09	0.85
10:AJ:29:ALA:HA	10:AJ:32:THR:HG22	1.58	0.85
11:AK:22:ILE:HD11	11:AK:85:VAL:HG13	1.58	0.85
22:AV:132:U:C2	22:AV:133:A:N7	2.44	0.85
25:AY:634:MET:SD	26:BA:1068:G:N3	2.49	0.85
26:BA:886:A:H4'	26:BA:887:U:OP1	1.74	0.85
1:AA:1123:U:H4'	10:AJ:39:PRO:HD2	1.55	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:18:C:O4'	1:AA:1078:U:N3	2.02	0.85
22:AV:111:U:H2'	22:AV:112:U:C6	2.11	0.85
22:AV:14:G:H1	22:AV:343:C:H41	1.24	0.85
42:BR:39:LEU:HA	42:BR:49:ILE:CG2	2.06	0.85
1:AA:1535:C:H6	1:AA:1535:C:O5'	1.58	0.85
22:AV:157:C:H2'	22:AV:158:U:H6	1.41	0.85
22:AV:237:U:H2'	22:AV:237:U:O2	1.76	0.85
24:AX:18:U:O2'	24:AX:19:G:H4'	1.76	0.85
26:BA:880:G:C1'	26:BA:899:A:N6	2.40	0.85
1:AA:554:A:H5'	12:AL:25:ALA:HB1	1.58	0.85
1:AA:922:G:H22	1:AA:1398:A:C1'	1.89	0.85
22:AV:155:C:H2'	22:AV:155:C:O2	1.76	0.85
25:AY:633:GLY:CA	26:BA:1067:A:H2'	2.05	0.85
26:BA:1730:C:H4'	26:BA:1730:C:OP1	1.75	0.85
1:AA:1031:C:H4'	1:AA:1032:G:H5''	1.58	0.85
26:BA:1187:G:H5''	42:BR:83:TYR:CE2	2.10	0.85
1:AA:1411:C:C2'	1:AA:1412:C:H5'	2.06	0.85
24:AX:62:C:H3'	24:AX:63:C:C5'	2.02	0.85
26:BA:2092:U:O3'	26:BA:2093:G:OP1	1.94	0.85
26:BA:882:G:H2'	26:BA:883:G:H8	1.41	0.85
34:BJ:81:ILE:HG12	34:BJ:82:GLY:N	1.91	0.85
1:AA:1181:G:O2'	1:AA:1182:G:C8	2.29	0.85
1:AA:918:A:C4	1:AA:919:A:C8	2.64	0.85
22:AV:200:G:C8	22:AV:200:G:OP2	2.30	0.85
22:AV:344:A:C4'	30:BF:76:PHE:H	1.86	0.85
25:AY:416:LYS:CD	25:AY:417:THR:H	1.89	0.85
26:BA:2193:G:H2'	26:BA:2194:U:H6	1.39	0.85
26:BA:867:C:C3'	26:BA:868:U:H5'	2.07	0.85
1:AA:922:G:N2	1:AA:1398:A:C1'	2.40	0.85
1:AA:1539:C:O5'	21:AU:17:ARG:HG2	1.75	0.85
22:AV:323:A:C8	22:AV:323:A:OP2	2.30	0.85
1:AA:1390:U:OP2	1:AA:1390:U:C5	2.30	0.85
1:AA:554:A:H5'	12:AL:25:ALA:CB	2.07	0.85
2:AB:105:THR:O	2:AB:106:VAL:HB	1.75	0.85
22:AV:153:U:H1'	22:AV:190:A:N6	1.92	0.85
22:AV:165:A:H4'	22:AV:166:C:H6	1.37	0.85
22:AV:213:G:H1	22:AV:245:C:H41	1.21	0.85
22:AV:316:A:C2'	22:AV:317:G:H5'	2.07	0.85
22:AV:343:C:H4'	30:BF:78:ILE:HD12	0.88	0.85
26:BA:2786:U:O2'	26:BA:2787:C:H5'	1.76	0.85
26:BA:895:U:O2	26:BA:896:A:C6	2.29	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:897:C:O2	26:BA:898:C:C6	2.30	0.85
32:BH:61:VAL:O	32:BH:64:ALA:HB3	1.77	0.85
3:AC:52:SER:O	3:AC:53:ARG:HB2	1.76	0.84
1:AA:624:C:H4'	16:AP:11:ALA:HB2	1.59	0.84
22:AV:185:A:O3'	22:AV:186:A:C8	2.30	0.84
22:AV:19:G:O3'	22:AV:20:A:C8	2.30	0.84
22:AV:244:G:H2'	22:AV:245:C:H4'	1.57	0.84
22:AV:244:G:C2	22:AV:245:C:H1'	2.12	0.84
22:AV:256:G:C2	22:AV:258:G:N1	2.45	0.84
22:AV:269:C:N3	22:AV:270:C:C6	2.45	0.84
22:AV:30:C:N4	22:AV:324:G:N2	2.25	0.84
23:AW:5:LEU:C	23:AW:5:LEU:HD12	1.95	0.84
26:BA:1073:A:H3'	26:BA:1074:G:C5'	2.07	0.84
26:BA:866:A:C5	26:BA:867:C:C5	2.64	0.84
32:BH:117:LEU:HD21	32:BH:121:VAL:HA	1.58	0.84
4:AD:169:TRP:CE2	4:AD:185:PRO:HG3	2.11	0.84
22:AV:17:U:H1'	23:AW:112:TYR:CG	2.10	0.84
22:AV:264:U:H2'	22:AV:265:C:C6	2.12	0.84
22:AV:12:U:C5	22:AV:348:C:O2'	2.30	0.84
22:AV:199:C:C4	22:AV:200:G:O6	2.30	0.84
22:AV:247:A:O4'	22:AV:248:G:C8	2.30	0.84
22:AV:264:U:O2	22:AV:298:A:H2	1.58	0.84
25:AY:517:LEU:HD23	25:AY:521:SER:HB3	1.57	0.84
24:AX:77:A:C8	26:BA:2422:C:O4'	2.30	0.84
26:BA:903:C:O2	26:BA:904:G:C8	2.30	0.84
26:BA:904:G:H2'	26:BA:905:A:H8	1.41	0.84
26:BA:2193:G:H2'	26:BA:2194:U:C6	2.12	0.84
26:BA:896:A:O2'	26:BA:897:C:H5'	1.77	0.84
30:BF:118:ALA:HB1	30:BF:166:ARG:HD2	1.60	0.84
32:BH:27:ARG:O	32:BH:28:ASN:HB2	1.76	0.84
22:AV:133:A:H2'	22:AV:134:G:C8	2.12	0.84
22:AV:49:C:H1'	22:AV:303:G:N2	1.93	0.84
22:AV:320:U:O2'	22:AV:321:G:C8	2.31	0.84
25:AY:635:GLU:HB2	33:BI:21:PRO:O	1.77	0.84
26:BA:2307:G:N2	26:BA:2311:A:H2'	1.93	0.84
26:BA:877:A:H2'	26:BA:878:A:H5'	0.87	0.84
22:AV:345:A:OP2	30:BF:74:ALA:CB	2.26	0.84
1:AA:657:U:O2	15:AO:21:THR:HG23	1.78	0.84
22:AV:171:A:C6	22:AV:172:U:O4	2.31	0.84
22:AV:63:C:C2	22:AV:73:A:N1	2.45	0.84
26:BA:2757:A:N1	31:BG:66:THR:HG21	1.93	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:52:GLY:HA3	8:AH:56:PRO:HA	1.57	0.84
22:AV:114:G:O2'	22:AV:115:C:H5'	1.78	0.84
22:AV:44:C:OP2	22:AV:264:U:P	2.36	0.84
26:BA:878:A:H2'	26:BA:879:G:H5'	1.59	0.84
26:BA:896:A:C4'	26:BA:897:C:OP1	2.25	0.84
26:BA:372:G:O2'	48:BX:53:LYS:HE2	1.78	0.84
22:AV:248:G:C6	22:AV:249:U:O4	2.30	0.84
22:AV:48:C:H3'	22:AV:49:C:C5'	2.03	0.84
25:AY:555:LEU:HD21	25:AY:599:PRO:HG3	1.59	0.84
26:BA:888:C:H4'	26:BA:889:C:C5	2.13	0.84
26:BA:889:C:C5	26:BA:891:G:O6	2.30	0.84
26:BA:911:A:OP1	26:BA:912:C:C6	2.30	0.84
1:AA:368:U:OP1	25:AY:353:ALA:HB2	1.77	0.84
11:AK:16:SER:HA	11:AK:78:ILE:HA	1.58	0.84
22:AV:168:G:O2'	22:AV:169:G:H5'	1.78	0.84
22:AV:186:A:C8	22:AV:186:A:OP2	2.30	0.84
22:AV:225:A:C4	22:AV:226:G:N7	2.46	0.84
22:AV:245:C:OP1	22:AV:246:U:OP2	1.95	0.84
22:AV:309:A:H3'	22:AV:309:A:OP1	1.78	0.84
22:AV:323:A:OP2	22:AV:323:A:H8	1.60	0.84
23:AW:81:LEU:HD21	23:AW:85:GLU:HG2	1.57	0.84
26:BA:876:C:C2'	26:BA:877:A:C5	2.61	0.84
26:BA:879:G:H2'	26:BA:880:G:H5'	0.85	0.84
1:AA:1530:G:N2	1:AA:1531:A:C5	2.45	0.84
1:AA:459:A:H2'	1:AA:460:A:O4'	1.78	0.84
22:AV:245:C:H3'	22:AV:248:G:C4	2.13	0.84
22:AV:43:G:O6	22:AV:312:A:C6	2.30	0.84
51:B0:54:ILE:HG22	51:B0:55:ALA:N	1.91	0.84
33:BI:107:GLU:HA	33:BI:110:GLN:HB3	1.58	0.84
22:AV:157:C:H2'	22:AV:158:U:C6	2.13	0.83
23:AW:65:LYS:HB3	26:BA:1909:C:OP1	1.78	0.83
26:BA:1167:C:H2'	26:BA:1168:G:H5''	1.60	0.83
26:BA:901:C:H3'	26:BA:901:C:O2	1.78	0.83
22:AV:140:U:H2'	22:AV:141:C:C6	2.13	0.83
22:AV:333:G:OP2	22:AV:335:C:C4	2.30	0.83
1:AA:1390:U:C2'	1:AA:1391:U:H5'	2.08	0.83
1:AA:1397:C:O2'	1:AA:1398:A:OP1	1.96	0.83
1:AA:459:A:H2'	1:AA:460:A:C1'	2.08	0.83
22:AV:38:A:C1'	22:AV:39:A:C8	2.61	0.83
26:BA:897:C:H2'	26:BA:898:C:H6	1.42	0.83
22:AV:165:A:C5'	22:AV:166:C:C6	2.61	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:290:A:C1'	22:AV:291:A:H8	1.91	0.83
24:AX:53:G:H2'	24:AX:54:G:H8	1.40	0.83
25:AY:634:MET:H	26:BA:1068:G:C1'	1.91	0.83
52:B1:18:HIS:CD2	52:B1:40:PRO:HD2	2.13	0.83
26:BA:1060:U:C4'	26:BA:1062:G:H5'	2.07	0.83
33:BI:79:LEU:HD13	33:BI:135:MET:SD	2.19	0.83
1:AA:1081:A:H5'	5:AE:22:LYS:HE2	0.85	0.83
6:AF:5:GLU:HG2	6:AF:90:MET:HE1	1.59	0.83
22:AV:137:C:C5	22:AV:138:C:H5	1.94	0.83
25:AY:21:ILE:HD13	25:AY:21:ILE:H	1.43	0.83
1:AA:368:U:C6	25:AY:354:ARG:NH2	2.47	0.83
22:AV:205:G:OP1	22:AV:225:A:N1	2.11	0.83
22:AV:266:C:H3'	22:AV:267:G:C5'	2.08	0.83
26:BA:866:A:C5	26:BA:867:C:H5	1.95	0.83
30:BF:24:VAL:O	30:BF:27:VAL:HG12	1.79	0.83
1:AA:918:A:C6	1:AA:919:A:C6	2.67	0.83
22:AV:12:U:H5	22:AV:348:C:H1'	1.39	0.83
22:AV:257:U:N1	22:AV:258:G:C6	2.46	0.83
22:AV:305:A:H2'	22:AV:306:U:C6	2.14	0.83
22:AV:323:A:C6	22:AV:324:G:O6	2.32	0.83
23:AW:98:LEU:CD2	23:AW:119:LEU:HD22	2.08	0.83
24:AX:33:C:H2'	24:AX:34:U:C5'	2.08	0.83
25:AY:635:GLU:CB	33:BI:21:PRO:O	2.26	0.83
25:AY:639:ASN:CB	33:BI:29:GLN:HG3	2.08	0.83
1:AA:1412:C:C2	1:AA:1489:G:N2	2.46	0.83
13:AM:21:ILE:HB	13:AM:24:VAL:CG2	2.08	0.83
24:AX:28:U:H2'	24:AX:29:C:H5'	1.61	0.83
21:AU:13:VAL:HG13	21:AU:15:LEU:CD2	2.08	0.83
26:BA:883:G:C2'	26:BA:884:U:H5'	2.09	0.83
22:AV:113:A:C2	22:AV:114:G:C4	2.66	0.82
22:AV:220:G:H2'	22:AV:221:U:H6	1.42	0.82
23:AW:20:TYR:CE2	23:AW:89:LEU:HD22	2.13	0.82
25:AY:149:VAL:O	25:AY:152:THR:HG22	1.79	0.82
25:AY:635:GLU:HG2	33:BI:22:PRO:HA	0.88	0.82
26:BA:908:C:P	37:BM:22:GLN:HG3	2.19	0.82
22:AV:148:U:H2'	22:AV:149:A:C8	2.13	0.82
22:AV:151:C:H2'	22:AV:152:C:H6	1.40	0.82
22:AV:304:C:H2'	22:AV:305:A:H8	1.44	0.82
23:AW:4:VAL:HG23	23:AW:106:TYR:CD2	2.14	0.82
25:AY:329:ARG:HD3	25:AY:374:LEU:HD11	1.59	0.82
12:AL:23:LEU:O	12:AL:25:ALA:N	2.12	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:129:G:H3'	22:AV:130:C:C4'	2.09	0.82
22:AV:188:C:C2	22:AV:189:C:H5	1.91	0.82
1:AA:1097:C:H4'	1:AA:1170:A:H5'	1.60	0.82
22:AV:39:A:C5	22:AV:40:G:N7	2.46	0.82
24:AX:77:A:C3'	26:BA:2422:C:C2	2.61	0.82
26:BA:895:U:C2'	26:BA:896:A:C8	2.61	0.82
25:AY:635:GLU:HB3	33:BI:23:VAL:N	1.93	0.82
22:AV:139:C:O2'	22:AV:140:U:H5'	1.79	0.82
22:AV:13:G:H4'	22:AV:14:G:OP1	1.77	0.82
22:AV:163:G:O2'	22:AV:164:G:H5''	1.78	0.82
22:AV:198:U:OP2	22:AV:198:U:C5	2.32	0.82
26:BA:2007:U:C2'	26:BA:2008:C:H5'	2.10	0.82
26:BA:896:A:O2'	26:BA:897:C:C5'	2.27	0.82
22:AV:306:U:C2'	22:AV:307:G:H8	1.90	0.82
41:BQ:78:PHE:CZ	41:BQ:82:LEU:HD11	2.15	0.82
13:AM:19:THR:HA	13:AM:24:VAL:HG23	1.59	0.82
22:AV:263:G:H3'	22:AV:264:U:H5'	1.62	0.82
22:AV:343:C:O5'	30:BF:79:ARG:HA	1.79	0.82
24:AX:71:G:H21	26:BA:1851:U:C5'	1.86	0.82
41:BQ:23:TYR:O	41:BQ:24:TYR:CB	2.28	0.82
22:AV:257:U:C2	22:AV:259:G:N7	2.48	0.82
1:AA:368:U:C5	25:AY:354:ARG:NH2	2.47	0.82
26:BA:866:A:N7	26:BA:914:G:C6	2.47	0.82
1:AA:972:C:H4'	10:AJ:59:LYS:HE2	1.60	0.82
22:AV:145:C:H2'	22:AV:146:C:C6	2.14	0.82
22:AV:199:C:OP2	22:AV:199:C:C5	2.32	0.82
22:AV:21:C:C5	22:AV:22:G:N7	2.47	0.82
22:AV:295:C:O2'	22:AV:296:U:H5'	1.79	0.82
23:AW:26:LEU:HD13	23:AW:34:LEU:HD11	1.60	0.82
26:BA:1838:C:C2	26:BA:1898:U:C5	2.68	0.82
25:AY:635:GLU:CG	33:BI:22:PRO:CA	2.49	0.82
1:AA:921:U:C4	1:AA:1396:A:C2	2.67	0.82
22:AV:120:U:H5''	22:AV:120:U:O2	1.80	0.82
2:AB:104:LYS:CE	22:AV:121:A:OP2	2.28	0.82
22:AV:193:A:O2'	22:AV:194:G:C5'	2.28	0.82
22:AV:204:G:C8	22:AV:235:C:N4	2.48	0.82
22:AV:323:A:C2	22:AV:324:G:C6	2.68	0.82
22:AV:38:A:C2'	22:AV:39:A:C8	2.61	0.82
26:BA:804:A:H5''	26:BA:805:G:OP1	1.80	0.82
26:BA:892:A:C2'	26:BA:893:C:H5'	2.08	0.82
42:BR:49:ILE:HB	42:BR:52:PRO:HA	1.60	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:104:LYS:HZ3	22:AV:121:A:H5''	0.75	0.81
22:AV:146:C:H2'	22:AV:147:C:C6	2.14	0.81
1:AA:1083:U:H5	1:AA:1084:G:C5	1.98	0.81
1:AA:204:G:H3'	1:AA:205:A:C5'	2.10	0.81
22:AV:130:C:O2'	22:AV:131:U:P	2.37	0.81
22:AV:269:C:C3'	22:AV:270:C:H5'	2.10	0.81
22:AV:44:C:N4	22:AV:300:U:H5	1.77	0.81
24:AX:17:C:H3'	24:AX:18:U:H5'	1.62	0.81
23:AW:38:LYS:CG	26:BA:1911:U:P	2.68	0.81
2:AB:50:ASN:O	2:AB:51:GLU:HB2	1.80	0.81
22:AV:14:G:C4'	22:AV:15:A:OP1	2.28	0.81
22:AV:184:A:N7	22:AV:185:A:C6	2.48	0.81
22:AV:314:C:H1'	22:AV:315:G:O5'	1.80	0.81
26:BA:897:C:C2	26:BA:898:C:C5	2.68	0.81
26:BA:910:A:C6	37:BM:12:MET:HA	2.14	0.81
46:BV:2:PHE:HD1	46:BV:50:MET:HE3	1.44	0.81
1:AA:15:G:N1	1:AA:920:U:O2	1.87	0.81
22:AV:225:A:C6	22:AV:226:G:C6	2.68	0.81
24:AX:40:C:H2'	24:AX:41:C:H5'	1.60	0.81
24:AX:27:G:N2	24:AX:45:A:H61	1.77	0.81
26:BA:2093:G:O2'	26:BA:2198:A:C2	2.32	0.81
26:BA:2602:A:H4'	26:BA:2603:G:OP2	1.78	0.81
1:AA:917:G:C6	1:AA:918:A:N6	2.48	0.81
2:AB:146:SER:O	2:AB:147:LEU:HG	1.80	0.81
22:AV:245:C:C3'	22:AV:248:G:N3	2.40	0.81
22:AV:255:A:H2'	22:AV:256:G:C8	2.15	0.81
25:AY:555:LEU:HD21	25:AY:599:PRO:CG	2.10	0.81
2:AB:212:TYR:O	2:AB:216:VAL:HG23	1.80	0.81
22:AV:118:C:O2'	22:AV:119:U:H5'	1.80	0.81
22:AV:17:U:H4'	22:AV:18:C:OP2	1.80	0.81
24:AX:63:C:H2'	24:AX:64:G:H5''	1.62	0.81
1:AA:410:G:C5'	1:AA:411:A:OP1	2.28	0.81
1:AA:15:G:H1	1:AA:920:U:H1'	1.43	0.81
12:AL:76:HIS:CE1	25:AY:421:GLN:OE1	2.33	0.81
22:AV:129:G:H3'	22:AV:130:C:H4'	1.63	0.81
22:AV:213:G:O6	22:AV:284:G:C8	2.34	0.81
22:AV:33:A:C4'	22:AV:34:A:OP1	2.28	0.81
22:AV:44:C:HO2'	22:AV:45:A:H8	1.15	0.81
23:AW:37:GLY:O	26:BA:1910:G:H5'	1.81	0.81
24:AX:51:U:O2	24:AX:65:G:N2	2.13	0.81
25:AY:634:MET:N	26:BA:1068:G:C1'	2.43	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:AX:72:C:O2'	26:BA:1851:U:O2'	1.97	0.81
26:BA:887:U:H4'	26:BA:888:C:OP1	1.81	0.81
1:AA:1425:U:O2'	1:AA:1426:G:H5'	1.81	0.81
21:AU:36:PHE:HA	21:AU:39:LYS:CE	2.10	0.81
22:AV:171:A:C2	22:AV:172:U:N3	2.49	0.81
22:AV:235:C:H2'	22:AV:236:U:C6	2.16	0.81
22:AV:266:C:C5	22:AV:267:G:N7	2.49	0.81
22:AV:267:G:HO2'	22:AV:268:U:H5'	1.41	0.81
22:AV:7:G:C5	22:AV:336:G:N7	2.49	0.81
26:BA:2211:A:H1'	26:BA:2212:A:OP1	1.79	0.81
26:BA:1993:U:H4'	28:BD:133:THR:HG21	1.63	0.81
1:AA:1079:G:H3'	1:AA:1080:A:C8	2.16	0.81
22:AV:175:A:C2'	22:AV:176:G:C5'	2.58	0.81
22:AV:190:A:H3'	22:AV:191:A:C5'	2.11	0.81
22:AV:218:G:N3	22:AV:219:G:C8	2.49	0.81
22:AV:269:C:C3'	22:AV:270:C:C5'	2.59	0.81
22:AV:34:A:O4'	22:AV:323:A:N3	2.14	0.81
25:AY:15:ILE:HD11	25:AY:81:ILE:HG12	1.61	0.81
28:BD:181:ASP:OD2	28:BD:184:ARG:HD3	1.80	0.81
2:AB:65:LYS:N	2:AB:65:LYS:HD3	1.96	0.81
22:AV:146:C:H2'	22:AV:147:C:H6	1.44	0.81
22:AV:225:A:H2'	22:AV:226:G:H8	1.43	0.81
25:AY:157:LEU:CD2	25:AY:157:LEU:H	1.94	0.81
26:BA:876:C:O3'	26:BA:877:A:C8	2.33	0.81
26:BA:889:C:C6	26:BA:891:G:C6	2.68	0.81
27:BC:164:VAL:HG22	27:BC:172:THR:O	1.81	0.81
22:AV:136:G:C4	22:AV:137:C:C5	2.69	0.81
22:AV:256:G:C6	22:AV:273:A:C2	2.69	0.81
22:AV:257:U:C4	22:AV:259:G:C6	2.69	0.81
23:AW:38:LYS:HE2	26:BA:1910:G:OP1	1.80	0.81
26:BA:905:A:H2'	26:BA:906:U:H6	1.45	0.81
23:AW:86:LEU:HD23	23:AW:87:ARG:N	1.96	0.80
24:AX:77:A:H3'	26:BA:2422:C:C2	2.15	0.80
26:BA:894:U:H3'	26:BA:895:U:H5''	1.61	0.80
25:AY:636:PRO:C	33:BI:25:PRO:CD	2.16	0.80
2:AB:98:GLY:O	2:AB:102:ASN:HB2	1.81	0.80
22:AV:248:G:C6	22:AV:249:U:C4	2.69	0.80
22:AV:305:A:O2'	22:AV:306:U:H5'	1.81	0.80
22:AV:33:A:H1'	22:AV:35:C:OP1	1.81	0.80
24:AX:26:C:H2'	24:AX:27:G:O4'	1.81	0.80
26:BA:1854:A:C2'	26:BA:1855:U:H5'	2.11	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:890:C:P	26:BA:891:G:H5'	2.21	0.80
26:BA:903:C:C2'	26:BA:904:G:H5'	2.07	0.80
25:AY:635:GLU:CB	33:BI:22:PRO:C	2.49	0.80
1:AA:934:C:N3	1:AA:937:A:N6	2.29	0.80
14:AN:41:ARG:HB2	14:AN:42:TRP:CZ3	2.16	0.80
22:AV:305:A:H2'	22:AV:306:U:H6	1.45	0.80
23:AW:78:LYS:HG2	23:AW:79:LEU:N	1.96	0.80
24:AX:70:C:O2'	24:AX:71:G:H5''	1.81	0.80
26:BA:894:U:C3'	26:BA:895:U:C5'	2.55	0.80
1:AA:181:A:N6	1:AA:195:A:C8	2.49	0.80
10:AJ:10:LEU:HB2	10:AJ:72:ARG:HB2	1.63	0.80
22:AV:194:G:C2'	22:AV:195:A:H5'	2.10	0.80
22:AV:299:C:O2'	22:AV:300:U:H4'	1.80	0.80
26:BA:871:U:O2'	37:BM:68:PHE:CE1	2.31	0.80
2:AB:103:TRP:CZ3	2:AB:157:PRO:HD3	2.17	0.80
2:AB:216:VAL:O	2:AB:219:THR:HG23	1.82	0.80
22:AV:188:C:C2'	22:AV:189:C:C5'	2.59	0.80
22:AV:233:A:O2'	22:AV:234:A:P	2.39	0.80
22:AV:33:A:H4'	22:AV:34:A:OP1	1.78	0.80
24:AX:5:G:H2'	24:AX:6:G:C8	2.17	0.80
26:BA:901:C:H3'	26:BA:902:C:H5''	1.64	0.80
30:BF:26:GLN:NE2	56:BB:57:A:H4'	1.96	0.80
1:AA:1285:A:H4'	1:AA:1286:U:N3	1.97	0.80
1:AA:277:C:H2'	1:AA:278:G:O5'	1.82	0.80
1:AA:511:C:C2	1:AA:512:U:C5	2.68	0.80
1:AA:1313:U:OP2	19:AS:5:LYS:CB	2.29	0.80
22:AV:34:A:O2'	22:AV:35:C:C5'	2.30	0.80
22:AV:43:G:C6	22:AV:312:A:C2	2.68	0.80
26:BA:2427:C:H5''	26:BA:2428:G:OP1	1.82	0.80
37:BM:16:ARG:CG	37:BM:16:ARG:HH11	1.95	0.80
37:BM:16:ARG:HH11	37:BM:16:ARG:HG2	1.46	0.80
22:AV:13:G:O2'	22:AV:14:G:H5'	1.80	0.80
22:AV:216:U:H2'	22:AV:217:G:H8	1.46	0.80
22:AV:244:G:N3	22:AV:245:C:C1'	2.34	0.80
22:AV:256:G:C4	22:AV:258:G:O6	2.34	0.80
22:AV:256:G:H2'	22:AV:258:G:C6	2.15	0.80
22:AV:315:G:C4	22:AV:316:A:N7	2.50	0.80
22:AV:343:C:OP1	30:BF:79:ARG:CG	2.30	0.80
26:BA:892:A:C4	26:BA:893:C:C5	2.70	0.80
35:BK:118:LEU:O	35:BK:119:ALA:HB3	1.81	0.80
1:AA:1330:U:H2'	1:AA:1331:G:H5'	1.62	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1499:A:O2'	1:AA:1500:A:H5'	1.80	0.80
1:AA:918:A:N6	1:AA:919:A:N6	2.30	0.80
22:AV:132:U:C2'	22:AV:133:A:C5'	2.60	0.80
22:AV:49:C:C2	22:AV:303:G:C6	2.65	0.80
22:AV:303:G:O2'	22:AV:304:C:C5'	2.30	0.80
24:AX:5:G:H2'	24:AX:6:G:H8	1.45	0.80
25:AY:638:GLY:O	33:BI:25:PRO:O	1.98	0.80
26:BA:1179:G:N7	26:BA:1180:U:C1'	2.45	0.80
1:AA:1079:G:N1	1:AA:1080:A:N1	2.30	0.80
1:AA:206:C:H2'	1:AA:207:C:O4'	1.81	0.80
4:AD:169:TRP:HB3	4:AD:183:ARG:NH1	1.97	0.80
22:AV:155:C:O2'	22:AV:156:G:C5'	2.30	0.80
22:AV:314:C:C4'	22:AV:315:G:OP1	2.30	0.80
23:AW:27:LYS:HD3	23:AW:30:GLU:OE1	1.80	0.80
26:BA:1462:C:H2'	26:BA:1463:C:H5'	1.63	0.80
26:BA:2007:U:H2'	26:BA:2008:C:H5'	1.64	0.80
26:BA:884:U:OP2	26:BA:886:A:N1	2.15	0.80
33:BI:75:ALA:HB1	33:BI:128:ILE:CG2	2.11	0.80
2:AB:150:ILE:HG23	2:AB:151:LYS:H	1.47	0.80
5:AE:136:VAL:O	5:AE:137:ARG:CB	2.27	0.80
5:AE:89:THR:HG22	5:AE:90:GLY:N	1.95	0.80
20:AT:24:ARG:O	20:AT:28:ARG:HG3	1.82	0.80
22:AV:137:C:O5'	22:AV:138:C:C5'	2.30	0.80
22:AV:165:A:C4'	22:AV:166:C:C5	2.64	0.80
22:AV:303:G:P	22:AV:303:G:C3'	2.70	0.80
26:BA:2196:C:H2'	26:BA:2197:U:H5'	1.64	0.80
1:AA:1098:C:C1'	1:AA:1169:A:C2	2.65	0.79
22:AV:131:U:OP1	22:AV:131:U:C3'	2.30	0.79
22:AV:331:C:H2'	22:AV:332:G:H5'	1.63	0.79
26:BA:2346:A:H3'	26:BA:2347:C:H5'	1.64	0.79
33:BI:15:GLY:HA2	33:BI:50:LYS:HB3	1.64	0.79
1:AA:143:A:H2'	1:AA:143:A:N3	1.97	0.79
1:AA:17:U:H2'	1:AA:18:C:C6	2.17	0.79
1:AA:513:C:C2'	1:AA:514:C:O5'	2.30	0.79
22:AV:248:G:C2'	22:AV:249:U:C5'	2.57	0.79
22:AV:271:G:HO2'	22:AV:272:C:H5'	1.45	0.79
22:AV:55:G:C6	22:AV:56:C:N4	2.50	0.79
25:AY:633:GLY:CA	26:BA:1068:G:H8	1.93	0.79
26:BA:2152:G:C5	26:BA:2153:C:C5	2.70	0.79
1:AA:15:G:C8	1:AA:1396:A:O2'	2.27	0.79
1:AA:91:U:H2'	1:AA:92:U:O4'	1.82	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:76:HIS:CE1	25:AY:421:GLN:CG	2.66	0.79
22:AV:121:A:O2'	22:AV:122:A:C5'	2.30	0.79
22:AV:137:C:C3'	22:AV:138:C:C5'	2.34	0.79
22:AV:143:C:H2'	22:AV:144:U:O4'	1.82	0.79
22:AV:45:A:HO2'	22:AV:312:A:C2'	1.96	0.79
22:AV:144:U:C5'	22:AV:145:C:OP2	2.30	0.79
22:AV:17:U:C5'	22:AV:19:G:OP2	2.30	0.79
22:AV:139:C:C1'	22:AV:182:U:H6	1.85	0.79
22:AV:322:U:N3	22:AV:323:A:N6	2.30	0.79
22:AV:335:C:O2	22:AV:335:C:C3'	2.30	0.79
22:AV:36:C:H2'	22:AV:37:C:C5	2.17	0.79
25:AY:227:ILE:HG23	25:AY:237:PRO:HG2	1.63	0.79
26:BA:2193:G:C4	26:BA:2194:U:C5	2.70	0.79
22:AV:13:G:P	22:AV:13:G:C8	2.74	0.79
22:AV:167:G:H2'	22:AV:168:G:H8	1.48	0.79
22:AV:47:G:C2'	22:AV:48:C:H6	1.89	0.79
26:BA:868:U:O2'	26:BA:869:G:C5'	2.30	0.79
26:BA:887:U:O2'	26:BA:888:C:H6	1.66	0.79
1:AA:1388:C:H2'	1:AA:1389:C:H6	1.46	0.79
3:AC:79:LYS:HG3	22:AV:184:A:OP2	1.82	0.79
5:AE:102:THR:HG22	5:AE:103:GLY:N	1.97	0.79
13:AM:28:ARG:CZ	13:AM:62:PHE:HB2	2.12	0.79
22:AV:136:G:O2'	22:AV:137:C:C5'	2.30	0.79
22:AV:137:C:P	22:AV:138:C:C5'	2.70	0.79
25:AY:466:LEU:HA	25:AY:470:PHE:CD2	2.18	0.79
40:BP:14:GLN:O	40:BP:15:ASP:HB3	1.82	0.79
1:AA:1113:C:H2'	1:AA:1114:C:H6	1.48	0.79
1:AA:1399:C:C2	1:AA:1502:A:C6	2.71	0.79
1:AA:1107:C:OP1	3:AC:171:ARG:NH1	2.16	0.79
16:AP:19:VAL:HG13	16:AP:38:PHE:HA	1.64	0.79
22:AV:266:C:H3'	22:AV:267:G:H5'	1.63	0.79
22:AV:44:C:OP2	22:AV:263:G:O3'	2.01	0.79
22:AV:61:G:N3	22:AV:62:G:N7	2.30	0.79
22:AV:71:A:N3	22:AV:72:A:N7	2.30	0.79
22:AV:334:A:C2	23:AW:113:ALA:N	2.51	0.79
25:AY:513:LYS:CB	25:AY:566:THR:HB	2.11	0.79
25:AY:505:GLY:HA3	25:AY:576:ASP:CG	2.03	0.79
26:BA:2196:C:C2'	26:BA:2197:U:H5'	2.12	0.79
26:BA:883:G:C4	26:BA:884:U:C6	2.68	0.79
42:BR:86:GLN:HG3	42:BR:87:GLN:N	1.97	0.79
1:AA:1432:G:OP1	40:BP:105:LYS:HG2	1.82	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:481:G:C8	1:AA:481:G:H5''	2.17	0.79
2:AB:63:LYS:HE2	2:AB:63:LYS:HA	1.64	0.79
1:AA:1100:C:N4	2:AB:94:ARG:HD2	1.88	0.79
8:AH:58:LEU:HD13	8:AH:59:GLU:N	1.97	0.79
16:AP:75:ILE:O	16:AP:78:VAL:HG12	1.83	0.79
22:AV:204:G:H8	22:AV:235:C:H42	1.30	0.79
22:AV:272:C:H2'	22:AV:273:A:C8	2.17	0.79
26:BA:960:A:H5''	26:BA:961:C:OP2	1.82	0.79
26:BA:2305:U:N3	30:BF:150:GLY:HA3	1.98	0.79
1:AA:928:G:HO2'	1:AA:1533:C:P	1.98	0.79
11:AK:51:PHE:HB3	11:AK:55:ARG:HB3	1.65	0.79
22:AV:172:U:C6	22:AV:173:C:C5	2.70	0.79
27:BC:35:LYS:O	27:BC:36:ASN:CB	2.31	0.79
1:AA:1159:U:O2	1:AA:1182:G:C2	2.35	0.79
10:AJ:51:VAL:O	10:AJ:62:ARG:HA	1.83	0.79
22:AV:323:A:H2'	22:AV:324:G:N7	1.97	0.79
22:AV:44:C:O2	22:AV:45:A:N7	2.15	0.79
22:AV:47:G:C2	22:AV:48:C:C2	2.71	0.79
25:AY:427:ALA:HB1	25:AY:466:LEU:CD1	2.12	0.79
26:BA:879:G:O2'	26:BA:880:G:H5'	1.83	0.79
26:BA:889:C:C3'	26:BA:889:C:O2	2.30	0.79
1:AA:1226:C:C5	13:AM:102:LYS:HB2	2.17	0.78
1:AA:1377:A:C2	7:AG:6:ILE:HD11	2.18	0.78
1:AA:1534:A:N7	1:AA:1535:C:N4	2.31	0.78
1:AA:4:U:OP1	1:AA:5:U:O4	2.02	0.78
1:AA:917:G:O6	1:AA:918:A:N6	2.16	0.78
3:AC:76:ILE:HA	3:AC:83:VAL:HG23	1.64	0.78
22:AV:142:U:C2'	22:AV:143:C:H5'	2.12	0.78
22:AV:175:A:O2'	22:AV:176:G:C5'	2.30	0.78
22:AV:210:C:O5'	22:AV:210:C:H6	1.67	0.78
22:AV:217:G:H2'	22:AV:218:G:H8	1.47	0.78
22:AV:199:C:N4	22:AV:229:U:C4	2.52	0.78
22:AV:202:G:H22	22:AV:233:A:N6	1.80	0.78
22:AV:343:C:C5	30:BF:79:ARG:CB	2.61	0.78
23:AW:65:LYS:CB	26:BA:1909:C:OP1	2.32	0.78
25:AY:573:HIS:HD2	25:AY:576:ASP:H	1.28	0.78
52:B1:16:THR:HG21	52:B1:41:VAL:HB	1.64	0.78
26:BA:879:G:O2'	26:BA:880:G:C5'	2.31	0.78
26:BA:900:A:C5'	26:BA:901:C:OP2	2.30	0.78
4:AD:61:ARG:HG2	4:AD:71:PHE:CD2	2.18	0.78
5:AE:114:LEU:HG	5:AE:119:VAL:HG21	1.64	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:118:C:C2'	22:AV:119:U:H5'	2.13	0.78
22:AV:146:C:O2'	22:AV:147:C:H5'	1.81	0.78
22:AV:225:A:N3	22:AV:226:G:N7	2.30	0.78
22:AV:299:C:O2'	22:AV:300:U:C4'	2.30	0.78
22:AV:35:C:O2'	22:AV:36:C:C5'	2.31	0.78
22:AV:38:A:H2	22:AV:316:A:N1	1.80	0.78
25:AY:122:TRP:CE3	25:AY:132:ARG:HD2	2.17	0.78
26:BA:1074:G:H2'	26:BA:1075:C:H5'	1.65	0.78
26:BA:1203:U:O4	26:BA:1204:A:C6	2.36	0.78
26:BA:752:A:N6	26:BA:2609:U:H3	1.80	0.78
26:BA:323:C:H2'	29:BE:163:ASN:ND2	1.98	0.78
31:BG:37:ASN:O	31:BG:38:ASP:CB	2.30	0.78
42:BR:46:GLU:O	42:BR:46:GLU:OE1	2.01	0.78
1:AA:79:G:H1	1:AA:90:C:H42	1.28	0.78
3:AC:26:LYS:H	3:AC:26:LYS:HD2	1.47	0.78
11:AK:30:ILE:HB	11:AK:45:THR:HG22	1.65	0.78
12:AL:76:HIS:NE2	25:AY:421:GLN:CG	2.45	0.78
22:AV:171:A:O2'	22:AV:172:U:C5'	2.30	0.78
22:AV:240:U:H2'	22:AV:241:C:C6	2.18	0.78
22:AV:306:U:C2	22:AV:307:G:C8	2.71	0.78
22:AV:39:A:C6	22:AV:40:G:C6	2.71	0.78
26:BA:1417:C:H2'	26:BA:1418:G:O4'	1.83	0.78
26:BA:2800:A:H3'	26:BA:2801:G:C5'	2.13	0.78
26:BA:887:U:HO2'	26:BA:888:C:H2'	1.38	0.78
36:BL:110:VAL:O	36:BL:111:ILE:O	2.02	0.78
38:BN:49:GLU:OE2	38:BN:95:THR:HG22	1.83	0.78
4:AD:31:CYS:O	4:AD:32:LYS:HB2	1.83	0.78
22:AV:9:U:C4'	22:AV:10:U:OP1	2.30	0.78
22:AV:155:C:C2'	22:AV:156:G:C5'	2.60	0.78
22:AV:16:U:C5	23:AW:110:ARG:CZ	2.67	0.78
23:AW:98:LEU:HD21	23:AW:119:LEU:HD13	1.63	0.78
32:BH:125:THR:HA	32:BH:146:VAL:HB	1.63	0.78
1:AA:1530:G:N2	1:AA:1531:A:C6	2.51	0.78
2:AB:22:TRP:CZ3	2:AB:24:PRO:HA	2.19	0.78
22:AV:235:C:H2'	22:AV:236:U:C5	2.18	0.78
22:AV:257:U:O2	22:AV:258:G:C2	2.35	0.78
22:AV:68:U:H4'	22:AV:69:A:OP1	1.84	0.78
25:AY:636:PRO:CB	33:BI:26:ALA:HB3	2.12	0.78
1:AA:1338:G:C2'	1:AA:1339:A:H5'	2.14	0.78
1:AA:376:G:N3	1:AA:389:A:C2	2.52	0.78
21:AU:35:GLU:O	21:AU:36:PHE:HB2	1.83	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:121:A:O2'	22:AV:122:A:H5''	1.83	0.78
22:AV:185:A:C4	22:AV:186:A:N6	2.52	0.78
22:AV:248:G:O2'	22:AV:249:U:C5'	2.30	0.78
25:AY:91:THR:O	25:AY:93:GLU:N	2.16	0.78
26:BA:877:A:O2'	26:BA:878:A:C5'	2.30	0.78
26:BA:880:G:O2'	26:BA:881:G:C5'	2.30	0.78
2:AB:162:VAL:HG11	2:AB:182:VAL:HG13	1.63	0.78
4:AD:16:THR:HG22	4:AD:17:ASP:N	1.97	0.78
5:AE:23:THR:HA	5:AE:28:ARG:HA	1.66	0.78
8:AH:9:MET:HE1	8:AH:32:LYS:HA	1.65	0.78
22:AV:113:A:N1	22:AV:114:G:N1	2.32	0.78
22:AV:12:U:O3'	22:AV:13:G:C8	2.36	0.78
22:AV:56:C:O2'	22:AV:57:G:H5'	1.82	0.78
22:AV:71:A:C2'	22:AV:72:A:C8	2.67	0.78
26:BA:1179:G:N7	26:BA:1180:U:H1'	1.99	0.78
26:BA:891:G:O2'	26:BA:892:A:C5'	2.32	0.78
40:BP:92:ARG:O	40:BP:93:LYS:CB	2.31	0.78
22:AV:173:C:O2'	22:AV:174:A:C5'	2.30	0.78
22:AV:217:G:H2'	22:AV:218:G:C8	2.19	0.78
22:AV:314:C:H4'	22:AV:315:G:OP1	1.84	0.78
22:AV:59:U:O2'	22:AV:60:U:C5'	2.30	0.78
25:AY:380:LEU:C	25:AY:381:LYS:HD2	2.04	0.78
25:AY:634:MET:HG2	26:BA:1068:G:O2'	1.83	0.78
26:BA:1084:A:H3'	26:BA:1085:A:C8	2.18	0.78
26:BA:1779:U:C5	26:BA:1784:A:N7	2.51	0.78
32:BH:116:ARG:HD2	32:BH:133:GLN:HG2	1.64	0.78
1:AA:921:U:C2	1:AA:1396:A:C2	2.71	0.78
2:AB:46:VAL:HB	2:AB:47:PRO:HD3	1.64	0.78
4:AD:36:ALA:HA	4:AD:41:GLY:CA	2.13	0.78
22:AV:180:G:H2'	22:AV:181:G:N9	1.98	0.78
22:AV:180:G:C4	22:AV:181:G:C8	2.72	0.78
22:AV:296:U:H2'	22:AV:297:G:H8	0.96	0.78
24:AX:28:U:H2'	24:AX:29:C:C5'	2.14	0.78
24:AX:1:C:O2'	24:AX:2:G:H5'	1.83	0.78
24:AX:77:A:H2'	26:BA:2422:C:C4	2.17	0.78
26:BA:904:G:O2'	26:BA:905:A:H5'	1.83	0.78
33:BI:96:LYS:HG3	33:BI:138:VAL:HG22	1.65	0.78
1:AA:1399:C:O2	1:AA:1502:A:N6	2.17	0.78
9:AI:29:ILE:HD11	9:AI:37:TYR:CG	2.19	0.78
22:AV:18:C:OP1	22:AV:18:C:C6	2.37	0.78
22:AV:265:C:O2'	22:AV:266:C:C5'	2.30	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:323:A:N1	22:AV:324:G:C6	2.52	0.78
23:AW:81:LEU:CD2	23:AW:85:GLU:HG2	2.12	0.78
24:AX:60:A:C2'	24:AX:61:U:H5'	2.13	0.78
26:BA:2283:C:H5''	26:BA:2389:G:O2'	1.83	0.78
26:BA:1567:G:C8	27:BC:82:TYR:CE1	2.72	0.78
1:AA:1078:U:H5''	1:AA:1079:G:OP2	1.84	0.77
2:AB:34:ARG:NE	2:AB:34:ARG:HA	1.98	0.77
22:AV:194:G:H2'	22:AV:195:A:C8	2.18	0.77
22:AV:224:A:HO2'	22:AV:225:A:H8	0.79	0.77
22:AV:245:C:C4'	22:AV:246:U:OP2	2.31	0.77
22:AV:304:C:O2'	22:AV:305:A:H5'	1.83	0.77
22:AV:334:A:H5'	22:AV:335:C:N3	1.99	0.77
22:AV:39:A:C6	22:AV:40:G:C5	2.72	0.77
24:AX:5:G:H1	24:AX:69:C:H42	1.29	0.77
26:BA:1474:U:C4	26:BA:1475:G:N2	2.52	0.77
26:BA:1922:G:C5	26:BA:1923:U:C5	2.72	0.77
26:BA:896:A:H4'	26:BA:897:C:OP1	1.80	0.77
29:BE:189:THR:HG22	29:BE:192:ALA:H	1.46	0.77
22:AV:243:G:O2'	22:AV:244:G:C5'	2.30	0.77
22:AV:315:G:C4	22:AV:316:A:C5	2.72	0.77
23:AW:102:PRO:HA	23:AW:117:LEU:HD23	1.66	0.77
26:BA:2151:U:H2'	26:BA:2152:G:C8	2.20	0.77
26:BA:278:A:H2	26:BA:362:A:C8	2.02	0.77
26:BA:790:U:O2'	26:BA:791:C:P	2.42	0.77
26:BA:880:G:H1'	26:BA:899:A:N6	1.99	0.77
26:BA:887:U:O4'	26:BA:888:C:C5'	2.30	0.77
17:AQ:47:ASP:OD1	17:AQ:50:ASN:HA	1.85	0.77
22:AV:221:U:C2	22:AV:222:U:C5	2.71	0.77
26:BA:1736:U:H2'	26:BA:1737:G:O4'	1.85	0.77
26:BA:587:C:OP2	36:BL:21:ARG:NH1	2.17	0.77
1:AA:1389:C:N3	1:AA:1390:U:N3	2.32	0.77
1:AA:587:G:H4'	8:AH:3:GLN:HA	1.64	0.77
9:AI:56:MET:SD	9:AI:57:VAL:N	2.57	0.77
22:AV:173:C:H2'	22:AV:173:C:O2	1.82	0.77
25:AY:21:ILE:HG21	25:AY:88:VAL:HG13	1.67	0.77
26:BA:2277:G:H2'	26:BA:2278:A:O5'	1.85	0.77
26:BA:891:G:C2'	26:BA:892:A:C8	2.64	0.77
49:BY:56:LEU:O	49:BY:57:LEU:CB	2.32	0.77
2:AB:81:ASP:O	2:AB:84:LEU:N	2.17	0.77
22:AV:180:G:C2'	22:AV:181:G:O4'	2.33	0.77
22:AV:19:G:H4'	22:AV:20:A:OP1	1.83	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:21:C:C6	22:AV:22:G:N7	2.52	0.77
22:AV:243:G:H2'	22:AV:244:G:H8	1.49	0.77
22:AV:270:C:O2	22:AV:293:G:C6	2.37	0.77
22:AV:290:A:H5''	22:AV:291:A:H5'	1.66	0.77
26:BA:2194:U:O2'	26:BA:2195:U:C5'	2.30	0.77
1:AA:1079:G:C3'	1:AA:1080:A:C8	2.67	0.77
1:AA:1080:A:H5''	1:AA:1081:A:OP2	1.85	0.77
22:AV:173:C:C2'	22:AV:174:A:H8	1.96	0.77
22:AV:185:A:H2'	22:AV:186:A:N9	2.00	0.77
22:AV:270:C:C2	22:AV:271:G:C8	2.72	0.77
23:AW:81:LEU:HG	23:AW:85:GLU:CD	2.05	0.77
25:AY:67:ALA:HB1	25:AY:327:PHE:CZ	2.19	0.77
26:BA:1869:G:H3'	26:BA:1870:C:H5'	1.66	0.77
26:BA:2142:A:H2'	26:BA:2143:C:C6	2.19	0.77
26:BA:359:G:C6	26:BA:360:U:C5	2.73	0.77
1:AA:1032:G:C2	1:AA:1033:G:H1'	2.20	0.77
1:AA:1390:U:HO2'	1:AA:1391:U:H5'	1.49	0.77
22:AV:218:G:C2	22:AV:219:G:C8	2.72	0.77
22:AV:249:U:O2'	22:AV:250:U:C5'	2.30	0.77
25:AY:157:LEU:N	25:AY:157:LEU:HD23	1.97	0.77
26:BA:2152:G:C6	26:BA:2153:C:C4	2.73	0.77
1:AA:1387:G:C4	1:AA:1388:C:C5	2.73	0.77
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.20	0.77
1:AA:71:A:H3'	1:AA:71:A:OP2	1.85	0.77
17:AQ:15:LYS:N	17:AQ:16:MET:SD	2.58	0.77
23:AW:98:LEU:HD21	23:AW:119:LEU:CD2	2.13	0.77
25:AY:196:ILE:O	25:AY:197:ARG:HB2	1.83	0.77
53:B2:43:THR:O	53:B2:44:VAL:HB	1.84	0.77
26:BA:873:C:H2'	26:BA:874:G:H8	1.49	0.77
1:AA:1348:U:C5	1:AA:1373:G:N2	2.53	0.77
10:AJ:80:THR:HB	10:AJ:83:THR:HB	1.66	0.77
13:AM:21:ILE:HB	13:AM:24:VAL:HG21	1.66	0.77
22:AV:186:A:H8	22:AV:186:A:P	2.06	0.77
22:AV:207:A:H61	22:AV:222:U:H3	1.31	0.77
22:AV:269:C:C2	22:AV:270:C:C6	2.73	0.77
25:AY:639:ASN:HA	33:BI:29:GLN:HG3	0.80	0.77
37:BM:15:GLY:O	37:BM:16:ARG:HD2	1.85	0.77
16:AP:68:SER:HB2	16:AP:71:VAL:HB	1.67	0.77
22:AV:174:A:O2'	22:AV:175:A:C5'	2.30	0.77
22:AV:256:G:C2'	22:AV:258:G:O6	2.31	0.77
22:AV:273:A:O2'	22:AV:275:C:N4	2.16	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:290:A:O2'	22:AV:291:A:C8	2.38	0.77
22:AV:54:G:OP2	22:AV:54:G:H4'	1.84	0.77
23:AW:20:TYR:CZ	23:AW:89:LEU:HD22	2.19	0.77
25:AY:169:GLY:HA3	25:AY:173:THR:O	1.85	0.77
26:BA:2790:U:H5'	26:BA:2893:A:N7	1.99	0.77
37:BM:111:GLU:CD	37:BM:111:GLU:C	2.43	0.77
1:AA:1271:A:H5'	1:AA:1314:C:H5'	1.66	0.76
1:AA:1439:G:C5	1:AA:1440:U:C5	2.73	0.76
2:AB:49:PHE:HA	2:AB:212:TYR:OH	1.85	0.76
3:AC:139:ASN:HA	3:AC:142:ARG:HB2	1.65	0.76
3:AC:142:ARG:CG	3:AC:142:ARG:NH1	2.41	0.76
22:AV:137:C:O5'	22:AV:138:C:H5''	1.85	0.76
22:AV:145:C:H2'	22:AV:146:C:H6	1.48	0.76
22:AV:19:G:N2	23:AW:81:LEU:CD1	2.47	0.76
22:AV:320:U:C1'	22:AV:321:G:OP1	2.30	0.76
23:AW:78:LYS:CG	23:AW:79:LEU:N	2.48	0.76
26:BA:1059:G:OP2	26:BA:1060:U:O2'	2.02	0.76
26:BA:2103:C:C2'	26:BA:2104:C:H5'	2.16	0.76
44:BT:2:ILE:N	44:BT:3:ARG:HB2	2.00	0.76
1:AA:1079:G:N7	1:AA:1080:A:N6	2.33	0.76
10:AJ:57:VAL:O	10:AJ:58:ASN:HB2	1.86	0.76
13:AM:44:ILE:HG13	13:AM:47:LEU:HD13	1.67	0.76
22:AV:133:A:O2'	22:AV:134:G:C5'	2.33	0.76
22:AV:264:U:C2	22:AV:298:A:N1	2.54	0.76
22:AV:5:C:O2'	22:AV:6:U:C5'	2.33	0.76
22:AV:62:G:N3	22:AV:63:C:N4	2.33	0.76
24:AX:54:G:H4'	24:AX:55:U:OP1	1.85	0.76
12:AL:35:ARG:NH2	25:AY:418:LYS:HE3	1.98	0.76
26:BA:197:A:N6	26:BA:2430:A:H2'	2.00	0.76
26:BA:892:A:H2'	26:BA:893:C:H6	1.49	0.76
27:BC:234:GLY:O	27:BC:235:GLU:HB2	1.85	0.76
22:AV:139:C:C2	22:AV:140:U:C5	2.74	0.76
22:AV:139:C:H2'	22:AV:140:U:H6	1.50	0.76
22:AV:263:G:H3'	22:AV:264:U:H5''	1.67	0.76
22:AV:40:G:N2	22:AV:41:G:C4	2.54	0.76
22:AV:21:C:N1	23:AW:78:LYS:NZ	2.33	0.76
25:AY:633:GLY:HA3	26:BA:1068:G:C8	2.19	0.76
26:BA:892:A:C2	26:BA:893:C:C4	2.72	0.76
26:BA:905:A:C4	26:BA:906:U:C5	2.73	0.76
27:BC:42:ARG:CG	27:BC:42:ARG:HH11	1.97	0.76
32:BH:82:SER:HB2	32:BH:94:ILE:HD11	1.66	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:462:G:H3'	1:AA:463:U:H6	1.50	0.76
1:AA:1398:A:N6	5:AE:24:VAL:O	2.18	0.76
11:AK:91:GLY:O	11:AK:95:THR:HG22	1.86	0.76
22:AV:137:C:C4	22:AV:138:C:C6	2.74	0.76
22:AV:221:U:H2'	22:AV:222:U:H6	1.51	0.76
22:AV:40:G:N3	22:AV:41:G:C8	2.54	0.76
27:BC:216:ARG:HB3	27:BC:217:PRO:CD	2.15	0.76
1:AA:1032:G:H5'	1:AA:1033:G:OP2	1.85	0.76
1:AA:131:A:H2'	1:AA:132:C:C6	2.20	0.76
1:AA:1490:U:C2'	1:AA:1491:G:H5'	2.16	0.76
15:AO:72:LYS:HA	15:AO:72:LYS:HE2	1.66	0.76
22:AV:34:A:C2'	22:AV:35:C:C5'	2.57	0.76
22:AV:31:G:N7	22:AV:34:A:C8	2.53	0.76
25:AY:180:VAL:HG23	25:AY:216:LEU:HD12	1.67	0.76
25:AY:313:ALA:HA	25:AY:328:ILE:HG22	1.67	0.76
26:BA:911:A:C5	37:BM:9:PHE:CG	2.67	0.76
45:BU:6:ARG:O	45:BU:7:ASP:O	2.03	0.76
1:AA:205:A:H4'	1:AA:205:A:OP1	1.84	0.76
1:AA:209:U:C5'	1:AA:210:C:OP2	2.34	0.76
10:AJ:10:LEU:HD23	10:AJ:96:VAL:HG11	1.68	0.76
16:AP:19:VAL:CG2	16:AP:36:VAL:O	2.33	0.76
22:AV:224:A:OP2	22:AV:224:A:C8	2.39	0.76
24:AX:32:G:H1	24:AX:40:C:H42	0.79	0.76
25:AY:617:MET:HE3	26:BA:1095:A:O4'	1.84	0.76
26:BA:899:A:O2'	26:BA:900:A:H5''	1.86	0.76
8:AH:74:ILE:HD12	8:AH:127:TYR:O	1.85	0.76
21:AU:36:PHE:HA	21:AU:39:LYS:HE3	1.65	0.76
22:AV:271:G:H2'	22:AV:272:C:H6	1.50	0.76
22:AV:288:G:C2	22:AV:289:U:C5	2.74	0.76
22:AV:296:U:C2'	22:AV:297:G:H8	1.85	0.76
22:AV:299:C:O2	22:AV:299:C:H2'	1.85	0.76
22:AV:34:A:C2	22:AV:321:G:N2	2.52	0.76
25:AY:215:LYS:O	25:AY:219:VAL:HG23	1.86	0.76
26:BA:1528:A:H5''	26:BA:1529:G:OP2	1.85	0.76
26:BA:885:C:O5'	26:BA:885:C:H6	1.67	0.76
50:BZ:1:ALA:HB1	50:BZ:2:LYS:HE3	1.66	0.76
8:AH:100:ILE:HD11	8:AH:128:VAL:CG2	2.16	0.76
10:AJ:44:THR:HG22	10:AJ:70:HIS:HA	1.67	0.76
22:AV:40:G:N2	22:AV:41:G:C5	2.53	0.76
25:AY:225:GLU:HB2	25:AY:228:MET:HE1	1.68	0.76
25:AY:453:GLY:HA3	25:AY:459:LEU:CD1	2.16	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:1053:C:N3	26:BA:1054:A:C8	2.54	0.76
37:BM:51:ARG:O	37:BM:55:ARG:HB2	1.85	0.76
1:AA:1493:A:OP2	1:AA:1493:A:H8	1.67	0.76
1:AA:927:G:O2'	1:AA:1503:A:C5	2.39	0.76
22:AV:132:U:O2'	22:AV:133:A:H5''	1.86	0.76
22:AV:13:G:C2	22:AV:344:A:N6	2.54	0.76
25:AY:415:PRO:HA	25:AY:474:ALA:CB	2.14	0.76
26:BA:1071:G:H1'	26:BA:1089:A:C8	2.21	0.76
33:BI:124:MET:HA	33:BI:127:SER:HB3	1.68	0.76
36:BL:27:LEU:H	36:BL:27:LEU:HD23	1.51	0.76
1:AA:918:A:C5	1:AA:919:A:C5	2.74	0.76
3:AC:71:ARG:O	3:AC:74:ILE:HG22	1.86	0.76
19:AS:14:LEU:HD13	19:AS:32:THR:HG21	1.68	0.76
22:AV:11:C:C2'	22:AV:12:U:OP2	2.32	0.76
22:AV:139:C:H2'	22:AV:140:U:C6	2.21	0.76
22:AV:141:C:H2'	22:AV:142:U:H6	1.51	0.76
22:AV:193:A:H2'	22:AV:194:G:H8	1.51	0.76
22:AV:195:A:O2'	22:AV:196:G:O5'	2.03	0.76
22:AV:27:U:C2'	22:AV:28:U:H5'	2.16	0.76
22:AV:44:C:C1'	22:AV:45:A:C8	2.69	0.76
22:AV:68:U:C4	22:AV:303:G:C8	2.73	0.76
23:AW:88:ARG:HH12	23:AW:119:LEU:HD21	1.47	0.76
25:AY:199:ILE:O	25:AY:199:ILE:HD12	1.85	0.76
26:BA:1509:A:O2'	26:BA:1510:G:OP2	2.03	0.76
34:BJ:17:VAL:O	34:BJ:17:VAL:HG12	1.86	0.76
3:AC:21:TRP:CB	3:AC:58:ARG:HG2	2.15	0.75
22:AV:140:U:O2'	22:AV:141:C:H5'	1.85	0.75
22:AV:176:G:H2'	22:AV:177:A:H8	1.51	0.75
22:AV:200:G:P	22:AV:200:G:H8	2.09	0.75
22:AV:212:U:H4'	22:AV:213:G:OP1	1.86	0.75
22:AV:46:U:O3'	22:AV:313:C:C5'	2.33	0.75
22:AV:325:G:C2	22:AV:326:A:C8	2.73	0.75
27:BC:226:PRO:HD3	27:BC:233:GLY:HA3	1.69	0.75
30:BF:42:ALA:HB1	30:BF:45:ASP:O	1.86	0.75
40:BP:102:ARG:CG	40:BP:102:ARG:HH11	1.98	0.75
2:AB:215:ALA:O	2:AB:219:THR:HG22	1.86	0.75
21:AU:19:LYS:NZ	21:AU:19:LYS:HA	2.01	0.75
22:AV:165:A:H4'	22:AV:166:C:O5'	1.87	0.75
22:AV:267:G:N2	22:AV:268:U:C2	2.54	0.75
25:AY:201:ILE:H	25:AY:201:ILE:HD12	1.49	0.75
26:BA:1585:C:O2'	26:BA:1586:A:H5'	1.85	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:866:A:N1	26:BA:867:C:C5	2.54	0.75
1:AA:1078:U:O4	1:AA:1079:G:C2	2.39	0.75
3:AC:24:ASN:O	3:AC:26:LYS:HG2	1.86	0.75
9:AI:113:LYS:HG2	9:AI:119:LYS:HA	1.68	0.75
22:AV:132:U:O2'	22:AV:133:A:C5'	2.35	0.75
25:AY:238:THR:HG22	25:AY:241:GLU:CG	2.16	0.75
25:AY:6:GLU:O	25:AY:6:GLU:HG2	1.86	0.75
26:BA:2071:A:H2'	26:BA:2072:C:C6	2.22	0.75
22:AV:344:A:C5'	30:BF:76:PHE:H	1.99	0.75
32:BH:79:THR:HA	32:BH:145:ASN:HB2	1.68	0.75
1:AA:109:A:H2'	1:AA:326:G:N2	2.01	0.75
4:AD:190:LEU:O	4:AD:191:SER:HB2	1.86	0.75
8:AH:1:SER:C	8:AH:3:GLN:N	2.39	0.75
5:AE:152:VAL:HG11	8:AH:98:LEU:HD13	1.68	0.75
22:AV:141:C:O2'	22:AV:142:U:H5'	1.86	0.75
22:AV:204:G:H8	22:AV:235:C:N4	1.83	0.75
22:AV:44:C:O2	22:AV:307:G:N2	2.17	0.75
22:AV:63:C:C4	22:AV:73:A:C6	2.74	0.75
55:B4:18:LYS:HG3	55:B4:23:ILE:HD13	1.68	0.75
26:BA:872:U:O2'	26:BA:873:C:H5'	1.85	0.75
26:BA:882:G:C2	26:BA:895:U:C2	2.75	0.75
26:BA:903:C:C2	26:BA:904:G:C8	2.74	0.75
33:BI:33:ASN:HB2	33:BI:36:GLU:HG3	1.68	0.75
26:BA:2469:A:H4'	37:BM:55:ARG:HH12	1.51	0.75
1:AA:170:U:O2'	1:AA:171:A:H5'	1.86	0.75
1:AA:620:C:H1'	4:AD:131:ILE:CD1	2.16	0.75
1:AA:973:G:H1'	10:AJ:56:HIS:HD2	1.50	0.75
1:AA:1100:C:C5	2:AB:94:ARG:CD	2.70	0.75
3:AC:96:VAL:HB	3:AC:97:PRO:CD	2.16	0.75
10:AJ:65:TYR:HB3	14:AN:96:LEU:HD11	1.69	0.75
22:AV:175:A:O2'	22:AV:176:G:H5''	1.86	0.75
22:AV:219:G:O2'	22:AV:220:G:H5'	1.85	0.75
26:BA:2553:G:C5'	26:BA:2554:U:OP2	2.33	0.75
26:BA:898:C:H2'	26:BA:898:C:O2	1.85	0.75
1:AA:1078:U:C4	1:AA:1079:G:C2	2.74	0.75
1:AA:1279:G:C5'	10:AJ:9:ARG:NH2	2.50	0.75
22:AV:113:A:C2	22:AV:114:G:C2	2.74	0.75
22:AV:219:G:H2'	22:AV:220:G:H8	1.51	0.75
22:AV:257:U:O4	22:AV:273:A:N1	2.20	0.75
22:AV:270:C:H1'	22:AV:293:G:C2	2.20	0.75
22:AV:39:A:C8	22:AV:40:G:N7	2.55	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:128:LYS:CE	24:AX:35:C:C4'	2.64	0.75
24:AX:53:G:N2	24:AX:63:C:N3	2.34	0.75
26:BA:1869:G:C3'	26:BA:1870:C:H5'	2.16	0.75
26:BA:883:G:C2	26:BA:884:U:C5	2.75	0.75
26:BA:905:A:H2'	26:BA:906:U:C6	2.21	0.75
45:BU:11:ILE:HG21	45:BU:79:ALA:HB2	1.68	0.75
1:AA:1389:C:C2	1:AA:1390:U:C4	2.75	0.75
5:AE:81:GLN:N	5:AE:146:MET:CE	2.50	0.75
9:AI:128:LYS:HE3	24:AX:35:C:C4'	2.12	0.75
11:AK:41:LEU:HB3	11:AK:76:TYR:CE2	2.21	0.75
22:AV:187:C:O2	22:AV:188:C:C6	2.39	0.75
22:AV:361:C:O5'	26:BA:2602:A:O2'	2.02	0.75
22:AV:42:U:H2'	22:AV:43:G:H8	1.51	0.75
26:BA:1070:A:C2	26:BA:1097:U:H4'	2.22	0.75
26:BA:1462:C:C2'	26:BA:1463:C:H5'	2.15	0.75
26:BA:1494:A:H2'	26:BA:1495:A:O5'	1.86	0.75
1:AA:1100:C:C4	2:AB:94:ARG:CD	2.65	0.75
1:AA:1233:G:OP2	9:AI:125:GLN:HB2	1.86	0.75
4:AD:190:LEU:O	4:AD:191:SER:CB	2.33	0.75
22:AV:144:U:O4	22:AV:175:A:N1	2.20	0.75
25:AY:363:ARG:HH11	25:AY:363:ARG:HG3	1.51	0.75
26:BA:1494:A:C2'	26:BA:1495:A:O5'	2.34	0.75
26:BA:1530:G:O6	26:BA:1541:C:N3	2.20	0.75
26:BA:78:U:OP2	49:BY:2:LYS:HD3	1.87	0.75
26:BA:866:A:N7	26:BA:914:G:C5	2.55	0.75
46:BV:80:HIS:CE1	46:BV:81:PRO:HD2	2.20	0.75
1:AA:428:G:O4'	1:AA:430:A:C8	2.40	0.75
3:AC:41:TYR:CE2	3:AC:45:GLU:HG3	2.22	0.75
9:AI:95:SER:HA	9:AI:98:ARG:HB2	1.69	0.75
10:AJ:5:ARG:HG2	10:AJ:79:PRO:HB3	1.69	0.75
13:AM:76:ILE:CG2	13:AM:80:MET:HE1	2.17	0.75
22:AV:149:A:H1'	22:AV:150:G:N7	2.01	0.75
22:AV:156:G:H2'	22:AV:157:C:C5	2.22	0.75
22:AV:206:A:N3	22:AV:206:A:H2'	2.01	0.75
22:AV:63:C:O2'	22:AV:64:C:H5''	1.87	0.75
25:AY:423:LYS:HB3	25:AY:472:VAL:CG2	2.17	0.75
27:BC:72:GLY:HA2	27:BC:116:GLN:NE2	2.01	0.75
26:BA:2681:C:OP2	28:BD:114:LYS:HE3	1.85	0.75
37:BM:36:VAL:HG23	37:BM:129:THR:HG22	1.68	0.75
26:BA:139:U:C4	44:BT:2:ILE:HD13	2.22	0.75
1:AA:1079:G:C6	1:AA:1080:A:C6	2.75	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1291:U:OP1	7:AG:36:SER:OG	2.03	0.74
1:AA:1389:C:O2	1:AA:1390:U:C2	2.40	0.74
4:AD:16:THR:CG2	4:AD:17:ASP:N	2.50	0.74
4:AD:57:LYS:HB3	4:AD:199:ILE:HB	1.70	0.74
10:AJ:27:GLU:HA	10:AJ:30:LYS:CE	2.17	0.74
23:AW:83:LYS:HG2	23:AW:84:HIS:N	2.02	0.74
26:BA:1179:G:H3'	26:BA:1180:U:H4'	1.69	0.74
26:BA:547:A:N7	26:BA:548:G:H1'	2.01	0.74
34:BJ:30:THR:HG22	34:BJ:31:GLU:N	2.00	0.74
1:AA:711:G:O2'	1:AA:712:A:H5'	1.86	0.74
2:AB:60:ALA:HA	2:AB:64:GLY:CA	2.17	0.74
1:AA:1377:A:C2	7:AG:6:ILE:CD1	2.70	0.74
9:AI:10:ARG:HB2	9:AI:14:SER:O	1.87	0.74
1:AA:1228:C:OP2	13:AM:106:ARG:NH2	2.20	0.74
15:AO:66:LEU:HD13	15:AO:87:ARG:NH2	2.01	0.74
21:AU:40:PRO:HA	21:AU:44:ARG:NH1	2.01	0.74
22:AV:141:C:H2'	22:AV:142:U:C6	2.22	0.74
22:AV:270:C:H2'	22:AV:271:G:H5'	1.69	0.74
23:AW:47:ARG:C	23:AW:53:LEU:HD12	2.06	0.74
22:AV:267:G:H2'	22:AV:268:U:C6	2.22	0.74
22:AV:46:U:H4'	22:AV:312:A:C3'	2.15	0.74
25:AY:165:GLN:HB2	25:AY:260:LEU:HD11	1.69	0.74
25:AY:92:ILE:HG12	25:AY:405:PRO:HG2	1.69	0.74
26:BA:2800:A:H3'	26:BA:2801:G:H5'	1.69	0.74
26:BA:911:A:OP1	26:BA:912:C:H6	1.68	0.74
36:BL:111:ILE:HD12	36:BL:111:ILE:N	2.03	0.74
1:AA:1098:C:H5'	1:AA:1169:A:H1'	1.70	0.74
1:AA:1388:C:H2'	1:AA:1389:C:C6	2.23	0.74
18:AR:42:ARG:HG2	18:AR:43:ILE:HD13	1.69	0.74
3:AC:142:ARG:CZ	22:AV:129:G:OP1	2.35	0.74
22:AV:162:A:H2'	22:AV:163:G:H8	1.52	0.74
26:BA:1073:A:OP1	26:BA:1073:A:C8	2.40	0.74
26:BA:875:G:N1	26:BA:902:C:N4	2.19	0.74
31:BG:23:ILE:O	31:BG:33:THR:HA	1.87	0.74
34:BJ:81:ILE:CG1	34:BJ:82:GLY:N	2.48	0.74
26:BA:2230:G:H5''	48:BX:29:LEU:HD12	1.70	0.74
1:AA:1497:G:H2'	1:AA:1498:U:H5'	1.67	0.74
1:AA:1502:A:C8	1:AA:1504:G:C4	2.76	0.74
8:AH:1:SER:O	8:AH:3:GLN:N	2.21	0.74
22:AV:231:A:C2	22:AV:232:A:N6	2.56	0.74
22:AV:257:U:C2	22:AV:259:G:C8	2.75	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:263:G:H8	22:AV:308:U:H5	1.35	0.74
23:AW:43:GLY:C	23:AW:57:ASN:HD22	1.91	0.74
26:BA:1585:C:H2'	26:BA:1586:A:O5'	1.87	0.74
26:BA:1929:G:C5'	26:BA:1929:G:N3	2.51	0.74
44:BT:88:LYS:O	44:BT:89:GLU:HG2	1.88	0.74
1:AA:946:A:C2	1:AA:1236:A:C2	2.76	0.74
22:AV:154:C:O2	22:AV:154:C:C2'	2.35	0.74
22:AV:200:G:O5'	22:AV:200:G:H8	1.70	0.74
22:AV:34:A:O2'	22:AV:35:C:H5'	1.84	0.74
25:AY:512:ILE:HD12	25:AY:589:ALA:HB1	1.69	0.74
26:BA:1179:G:OP2	26:BA:1180:U:H5''	1.88	0.74
26:BA:2275:C:O2	37:BM:84:LYS:HD3	1.88	0.74
32:BH:76:GLU:HG2	32:BH:76:GLU:O	1.85	0.74
1:AA:447:G:N2	1:AA:486:U:C5	2.55	0.74
21:AU:9:GLU:CD	21:AU:10:PRO:HD3	2.06	0.74
22:AV:158:U:H1'	22:AV:197:A:N3	2.00	0.74
22:AV:184:A:C8	22:AV:185:A:C6	2.75	0.74
25:AY:446:THR:O	25:AY:448:GLN:HG2	1.87	0.74
26:BA:2748:A:H1'	31:BG:66:THR:HG22	1.69	0.74
27:BC:110:LYS:HE2	27:BC:113:ASP:OD1	1.87	0.74
1:AA:1043:G:H2'	1:AA:1044:A:H5''	1.69	0.74
1:AA:204:G:H2'	1:AA:205:A:O4'	1.87	0.74
1:AA:239:U:H5''	1:AA:240:G:OP2	1.88	0.74
19:AS:50:VAL:HG22	19:AS:70:LEU:CD1	2.18	0.74
22:AV:257:U:O4	22:AV:273:A:C6	2.41	0.74
22:AV:315:G:N3	22:AV:316:A:N7	2.35	0.74
22:AV:324:G:N3	22:AV:325:G:N7	2.35	0.74
22:AV:39:A:N7	22:AV:40:G:N7	2.35	0.74
22:AV:46:U:C1'	22:AV:312:A:H4'	2.17	0.74
22:AV:6:U:O2'	22:AV:7:G:H5'	1.86	0.74
23:AW:62:PRO:HB3	23:AW:70:ASN:HD22	1.52	0.74
23:AW:72:ASP:HB2	23:AW:75:ARG:HH21	1.52	0.74
24:AX:2:G:O2'	24:AX:3:C:H6	1.71	0.74
26:BA:879:G:C3'	26:BA:880:G:H5'	2.17	0.74
29:BE:18:THR:HG22	29:BE:19:PHE:CD2	2.23	0.74
32:BH:59:ALA:O	32:BH:62:LEU:HG	1.86	0.74
38:BN:24:MET:HG2	38:BN:44:LEU:HD22	1.69	0.74
9:AI:128:LYS:CE	24:AX:35:C:C5'	2.04	0.74
22:AV:145:C:O2'	22:AV:146:C:H5'	1.88	0.74
22:AV:9:U:H3'	23:AW:35:ARG:HH22	1.51	0.74
25:AY:428:LEU:CD1	25:AY:440:VAL:HG11	2.17	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:BB:33:G:O2'	56:BB:34:A:H5'	1.88	0.74
2:AB:20:ARG:O	2:AB:22:TRP:N	2.21	0.74
6:AF:18:VAL:HB	6:AF:19:PRO:CD	2.18	0.74
22:AV:192:A:O2'	22:AV:193:A:H5'	1.87	0.74
22:AV:19:G:O3'	22:AV:20:A:H8	1.71	0.74
22:AV:63:C:H1'	22:AV:73:A:C2	2.22	0.74
24:AX:49:C:H4'	24:AX:50:G:C5'	2.18	0.74
33:BI:20:SER:HA	33:BI:24:GLY:CA	2.18	0.74
42:BR:24:LYS:HA	42:BR:94:THR:HG23	1.69	0.74
5:AE:44:ARG:HG2	5:AE:72:ASN:HB3	1.69	0.73
17:AQ:59:GLU:HB3	17:AQ:75:VAL:HG23	1.69	0.73
22:AV:56:C:O2'	22:AV:57:G:O5'	2.06	0.73
22:AV:4:G:O2'	22:AV:5:C:H5'	1.86	0.73
26:BA:866:A:C1'	26:BA:914:G:N3	2.51	0.73
26:BA:883:G:N1	26:BA:884:U:C4	2.55	0.73
26:BA:899:A:C2	26:BA:900:A:N7	2.56	0.73
26:BA:1082:U:OP1	33:BI:123:ALA:HB1	1.87	0.73
1:AA:1502:A:N7	1:AA:1504:G:C2	2.56	0.73
21:AU:13:VAL:HG13	21:AU:15:LEU:HD21	1.69	0.73
22:AV:245:C:O3'	22:AV:248:G:C4	2.41	0.73
22:AV:343:C:H5	30:BF:79:ARG:HB2	1.44	0.73
25:AY:281:PRO:HB2	25:AY:286:ILE:CD1	2.15	0.73
26:BA:1085:A:C6	26:BA:1086:A:N6	2.57	0.73
24:AX:72:C:O2'	26:BA:1851:U:C1'	2.35	0.73
26:BA:880:G:H2'	26:BA:881:G:H5'	1.69	0.73
1:AA:1161:C:H2'	1:AA:1162:C:C6	2.22	0.73
1:AA:138:G:C2'	1:AA:139:A:H5'	2.18	0.73
1:AA:496:A:C2	1:AA:497:G:C5	2.75	0.73
11:AK:15:VAL:HG12	11:AK:76:TYR:HB3	1.71	0.73
22:AV:142:U:H2'	22:AV:143:C:H6	1.51	0.73
22:AV:225:A:C2	22:AV:226:G:C8	2.76	0.73
22:AV:311:U:O2'	22:AV:312:A:C5'	2.30	0.73
25:AY:514:VAL:HG21	25:AY:593:ALA:CB	2.18	0.73
26:BA:1046:A:H4'	26:BA:1046:A:OP2	1.86	0.73
26:BA:1073:A:H3'	26:BA:1074:G:H5''	1.69	0.73
42:BR:49:ILE:HB	42:BR:52:PRO:CA	2.17	0.73
22:AV:186:A:C8	22:AV:186:A:P	2.81	0.73
22:AV:213:G:N2	22:AV:245:C:H42	1.85	0.73
22:AV:315:G:C5	22:AV:316:A:C6	2.75	0.73
25:AY:180:VAL:HG23	25:AY:181:LEU:H	1.53	0.73
25:AY:530:VAL:HG13	25:AY:531:GLY:H	1.53	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AY:628:ARG:HH12	25:AY:680:PRO:HG2	1.53	0.73
26:BA:662:G:C2'	26:BA:663:G:H5'	2.18	0.73
22:AV:343:C:C4'	30:BF:78:ILE:CD1	2.44	0.73
2:AB:65:LYS:HB2	2:AB:158:ASP:OD2	1.88	0.73
22:AV:11:C:H2'	22:AV:12:U:OP2	1.88	0.73
22:AV:181:G:N3	22:AV:181:G:H2'	2.03	0.73
22:AV:29:G:H2'	22:AV:30:C:H5''	1.69	0.73
26:BA:882:G:H2'	26:BA:883:G:C8	2.23	0.73
27:BC:268:ARG:HH11	27:BC:268:ARG:HG2	1.54	0.73
25:AY:639:ASN:CA	33:BI:29:GLN:CG	2.27	0.73
38:BN:2:ARG:O	38:BN:2:ARG:HD3	1.87	0.73
46:BV:6:ALA:HB1	46:BV:40:ILE:HG23	1.70	0.73
1:AA:114:U:H2'	1:AA:115:G:C8	2.23	0.73
1:AA:1366:C:O2'	1:AA:1367:C:H5'	1.89	0.73
1:AA:142:G:H3'	1:AA:143:A:H8	1.53	0.73
1:AA:1452:C:H4'	1:AA:1453:G:H5''	1.70	0.73
4:AD:176:LYS:N	4:AD:176:LYS:HD3	2.04	0.73
8:AH:110:MET:HE2	8:AH:115:ALA:N	2.04	0.73
22:AV:168:G:H2'	22:AV:169:G:H8	1.53	0.73
22:AV:47:G:C2'	22:AV:48:C:C6	2.55	0.73
24:AX:49:C:OP1	24:AX:49:C:H6	1.72	0.73
25:AY:121:VAL:HG23	25:AY:122:TRP:H	1.54	0.73
26:BA:2193:G:O2'	26:BA:2194:U:C5'	2.34	0.73
1:AA:1138:G:H5''	1:AA:1138:G:N3	2.03	0.73
20:AT:27:MET:HG2	20:AT:31:ILE:HD11	1.70	0.73
22:AV:199:C:H5	22:AV:199:C:OP2	1.70	0.73
26:BA:2075:U:H2'	26:BA:2077:A:OP2	1.87	0.73
26:BA:901:C:O2	26:BA:902:C:H5''	1.88	0.73
26:BA:2094:A:H5''	32:BH:25:TYR:CD2	2.24	0.73
43:BS:59:GLU:HA	43:BS:64:ALA:HA	1.70	0.73
1:AA:920:U:O4	1:AA:1396:A:N7	2.12	0.73
22:AV:324:G:N2	22:AV:325:G:O6	2.21	0.73
22:AV:342:PSU:O2	22:AV:345:A:OP2	2.06	0.73
1:AA:978:A:C5	1:AA:1319:A:C2	2.77	0.73
3:AC:141:MET:HE1	3:AC:147:GLY:HA2	1.70	0.73
12:AL:20:VAL:HG23	12:AL:94:TYR:CE1	2.23	0.73
22:AV:116:A:N3	22:AV:129:G:C2	2.57	0.73
22:AV:324:G:C2	22:AV:325:G:O6	2.42	0.73
26:BA:1519:G:C5	26:BA:1520:U:C5	2.77	0.73
26:BA:416:U:C6	26:BA:417:C:C5	2.76	0.73
26:BA:479:A:N3	26:BA:481:G:H5''	2.04	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:868:U:O2'	26:BA:869:G:H5'	1.87	0.73
26:BA:889:C:C4	26:BA:891:G:O6	2.42	0.73
48:BX:40:GLU:HG3	48:BX:41:SER:N	2.04	0.73
1:AA:17:U:H4'	1:AA:1079:G:O2'	1.88	0.73
22:AV:171:A:H2'	22:AV:172:U:C6	2.24	0.73
22:AV:17:U:H1'	23:AW:112:TYR:CD2	2.23	0.73
22:AV:324:G:C2	22:AV:325:G:N7	2.56	0.73
23:AW:63:TYR:HD2	23:AW:64:GLU:N	1.86	0.73
24:AX:77:A:C4	26:BA:2421:G:H2'	2.24	0.73
26:BA:2297:A:N1	26:BA:2321:U:C5	2.57	0.73
26:BA:883:G:C6	26:BA:884:U:O4	2.42	0.73
1:AA:913:A:H4'	1:AA:914:A:OP1	1.89	0.72
9:AI:46:VAL:HG21	9:AI:75:ALA:HB1	1.71	0.72
21:AU:13:VAL:O	21:AU:15:LEU:HG	1.89	0.72
22:AV:9:U:H1'	22:AV:10:U:O5'	1.89	0.72
22:AV:139:C:C2	22:AV:182:U:H6	2.07	0.72
22:AV:20:A:C8	22:AV:21:C:N4	2.57	0.72
22:AV:20:A:H2'	22:AV:21:C:C6	2.24	0.72
22:AV:21:C:H2'	22:AV:22:G:C8	2.19	0.72
24:AX:2:G:O2'	24:AX:3:C:C6	2.40	0.72
25:AY:227:ILE:HD11	25:AY:241:GLU:O	1.88	0.72
26:BA:2127:G:N1	26:BA:2161:C:C2	2.56	0.72
26:BA:2172:U:H4'	26:BA:2173:A:H5'	1.70	0.72
33:BI:18:ASN:HB2	33:BI:37:PHE:HB3	1.70	0.72
1:AA:1389:C:H2'	1:AA:1389:C:O2	1.88	0.72
1:AA:929:G:C5'	1:AA:1533:C:H5'	2.19	0.72
1:AA:613:C:O2'	1:AA:614:C:H5'	1.89	0.72
11:AK:51:PHE:HZ	11:AK:64:VAL:HG11	1.54	0.72
22:AV:185:A:C4	22:AV:186:A:C6	2.77	0.72
22:AV:208:G:H2'	22:AV:209:C:C6	2.25	0.72
22:AV:238:A:C4	22:AV:239:A:N7	2.57	0.72
24:AX:58:A:O2'	24:AX:59:A:H5'	1.88	0.72
1:AA:1530:G:O2'	1:AA:1531:A:OP2	2.08	0.72
1:AA:1103:C:H5''	2:AB:96:LEU:CA	2.18	0.72
22:AV:272:C:HO2'	22:AV:291:A:N6	1.86	0.72
22:AV:29:G:C2'	22:AV:30:C:H5''	2.18	0.72
22:AV:46:U:O3'	22:AV:313:C:H5''	1.88	0.72
24:AX:33:C:O2'	24:AX:34:U:H5''	1.89	0.72
25:AY:128:TYR:O	25:AY:129:LYS:HB2	1.88	0.72
12:AL:76:HIS:CD2	25:AY:421:GLN:CD	2.62	0.72
26:BA:869:G:O2'	26:BA:870:U:C5'	2.37	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:878:A:O2'	26:BA:879:G:C5'	2.30	0.72
28:BD:1:MET:SD	28:BD:100:LEU:HD11	2.29	0.72
32:BH:112:LYS:HA	32:BH:115:VAL:HG23	1.69	0.72
48:BX:65:THR:O	48:BX:68:ALA:HB3	1.89	0.72
1:AA:1390:U:OP2	1:AA:1390:U:H5	1.72	0.72
1:AA:844:G:C5	1:AA:846:G:O2'	2.43	0.72
3:AC:180:ASP:OD2	3:AC:203:LYS:HB2	1.89	0.72
5:AE:81:GLN:H	5:AE:146:MET:CE	2.01	0.72
22:AV:276:U:O2'	22:AV:277:G:H5'	1.89	0.72
22:AV:276:U:H2'	22:AV:277:G:C8	2.24	0.72
22:AV:9:U:H5'	23:AW:35:ARG:NH1	2.04	0.72
24:AX:33:C:C2'	24:AX:34:U:C5'	2.68	0.72
52:B1:16:THR:HG22	52:B1:41:VAL:HG11	1.72	0.72
26:BA:1092:C:H2'	26:BA:1093:G:O4'	1.89	0.72
26:BA:4:U:O2'	26:BA:5:A:H5'	1.89	0.72
28:BD:151:THR:HG22	28:BD:152:PRO:HD2	1.70	0.72
29:BE:111:GLU:OE1	29:BE:111:GLU:HA	1.89	0.72
33:BI:6:ALA:HB2	33:BI:60:VAL:HB	1.71	0.72
1:AA:1097:C:O2'	1:AA:1169:A:C2'	2.38	0.72
1:AA:1323:G:H2'	1:AA:1324:A:C8	2.24	0.72
10:AJ:27:GLU:HA	10:AJ:30:LYS:HE2	1.68	0.72
14:AN:31:SER:O	14:AN:32:ASP:HB2	1.88	0.72
22:AV:13:G:N2	22:AV:344:A:C5	2.58	0.72
22:AV:221:U:C2	22:AV:222:U:C6	2.77	0.72
22:AV:223:G:N3	22:AV:223:G:H2'	2.04	0.72
22:AV:244:G:C2'	22:AV:245:C:O4'	2.30	0.72
22:AV:267:G:C2	22:AV:268:U:C2	2.76	0.72
22:AV:21:C:C4'	23:AW:52:GLU:OE2	2.37	0.72
25:AY:468:ARG:CB	25:AY:468:ARG:HH11	2.01	0.72
25:AY:512:ILE:H	25:AY:512:ILE:HD13	1.53	0.72
26:BA:45:G:H4'	26:BA:46:G:H5'	1.72	0.72
29:BE:118:LEU:HD12	29:BE:119:ILE:N	2.03	0.72
26:BA:2820:A:H4'	38:BN:3:HIS:CD2	2.24	0.72
42:BR:25:LEU:H	42:BR:94:THR:CG2	2.01	0.72
22:AV:266:C:C5	22:AV:267:G:H8	2.07	0.72
24:AX:17:C:H3'	24:AX:18:U:C5'	2.18	0.72
25:AY:227:ILE:HG23	25:AY:237:PRO:CG	2.20	0.72
25:AY:620:VAL:O	25:AY:624:LEU:HD13	1.89	0.72
26:BA:911:A:C6	37:BM:9:PHE:CD2	2.71	0.72
56:BB:33:G:C2'	56:BB:34:A:H5'	2.19	0.72
49:BY:46:VAL:O	49:BY:50:VAL:HG23	1.90	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1031:C:O2'	1:AA:1032:G:OP2	2.08	0.72
1:AA:1390:U:P	1:AA:1390:U:H6	2.12	0.72
1:AA:208:U:C5	1:AA:210:C:C4	2.77	0.72
1:AA:684:U:H1'	11:AK:39:ASN:O	1.90	0.72
2:AB:84:LEU:HG	2:AB:85:SER:N	2.02	0.72
22:AV:113:A:N1	22:AV:114:G:C6	2.58	0.72
22:AV:245:C:C3'	22:AV:248:G:C4	2.71	0.72
22:AV:308:U:H1'	22:AV:309:A:P	2.30	0.72
22:AV:63:C:C2	22:AV:73:A:C6	2.78	0.72
26:BA:674:G:H1'	29:BE:69:ARG:HD3	1.72	0.72
31:BG:172:GLU:OE1	31:BG:172:GLU:HA	1.88	0.72
1:AA:1375:A:C6	1:AA:1376:U:N3	2.58	0.72
1:AA:277:C:C2'	1:AA:278:G:O5'	2.38	0.72
20:AT:28:ARG:HA	20:AT:31:ILE:HD12	1.72	0.72
23:AW:55:LEU:HD11	23:AW:102:PRO:CG	2.12	0.72
26:BA:1908:C:H5''	26:BA:1909:C:OP2	1.90	0.72
26:BA:2886:A:C5	26:BA:2887:A:C8	2.78	0.72
26:BA:614:A:O2'	26:BA:615:U:OP2	2.07	0.72
33:BI:96:LYS:HB3	33:BI:138:VAL:CG2	2.20	0.72
1:AA:1053:G:C4'	1:AA:1054:C:H5'	2.20	0.72
1:AA:1446:A:O2'	1:AA:1447:A:H5'	1.90	0.72
1:AA:1538:C:H2'	1:AA:1539:C:H5'	1.70	0.72
1:AA:58:C:O2'	1:AA:388:G:N7	2.17	0.72
1:AA:439:U:C5	1:AA:440:C:C5	2.78	0.72
2:AB:56:LEU:HD22	2:AB:56:LEU:C	2.10	0.72
13:AM:14:ALA:O	13:AM:18:LEU:HD23	1.90	0.72
22:AV:131:U:C4'	22:AV:132:U:OP2	2.30	0.72
22:AV:184:A:H2'	22:AV:185:A:C4	2.25	0.72
25:AY:626:ALA:CA	26:BA:2473:U:C1'	2.48	0.72
25:AY:634:MET:HG2	26:BA:1068:G:H1'	1.71	0.72
26:BA:1171:G:C2	26:BA:1172:C:C2	2.78	0.72
26:BA:321:U:OP2	29:BE:130:LYS:HD3	1.90	0.72
2:AB:110:ILE:HD11	2:AB:147:LEU:HD22	1.71	0.72
2:AB:163:ILE:HG23	2:AB:164:ASP:H	1.55	0.72
2:AB:45:THR:HG23	2:AB:200:PRO:HB2	1.69	0.72
13:AM:71:GLU:O	13:AM:74:MET:HB3	1.90	0.72
26:BA:242:G:O5'	54:B3:2:LYS:HE2	1.90	0.72
26:BA:899:A:O2'	26:BA:900:A:C5'	2.38	0.72
26:BA:901:C:C3'	26:BA:901:C:O2	2.38	0.72
27:BC:35:LYS:O	27:BC:36:ASN:HB3	1.89	0.72
30:BF:48:LEU:HD12	30:BF:51:ASN:ND2	2.05	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BI:105:LEU:HA	33:BI:108:ILE:HB	1.70	0.72
41:BQ:40:LYS:HA	41:BQ:43:GLN:HG3	1.70	0.72
45:BU:15:GLY:O	45:BU:17:ASP:N	2.23	0.72
1:AA:1216:A:C4	1:AA:1217:C:C5	2.78	0.71
4:AD:58:GLN:O	4:AD:62:ARG:HG2	1.90	0.71
11:AK:75:GLU:N	11:AK:75:GLU:CD	2.41	0.71
12:AL:62:VAL:HG22	12:AL:63:THR:H	1.54	0.71
22:AV:247:A:C4'	22:AV:248:G:H8	2.03	0.71
22:AV:49:C:C4	22:AV:303:G:O6	2.43	0.71
22:AV:303:G:C4	22:AV:304:C:C5	2.78	0.71
1:AA:702:A:N6	26:BA:1846:G:H5''	2.04	0.71
26:BA:889:C:O2	26:BA:891:G:C8	2.43	0.71
37:BM:15:GLY:C	37:BM:16:ARG:HD3	2.10	0.71
1:AA:1168:U:H2'	1:AA:1168:U:O2	1.88	0.71
1:AA:1216:A:C6	1:AA:1217:C:N4	2.58	0.71
1:AA:1226:C:H4'	1:AA:1227:A:OP1	1.89	0.71
1:AA:1303:C:H2'	1:AA:1304:G:O5'	1.90	0.71
1:AA:649:A:H2'	1:AA:650:G:O4'	1.90	0.71
11:AK:22:ILE:HG13	11:AK:85:VAL:HA	1.72	0.71
21:AU:25:ALA:HA	21:AU:28:LEU:HB3	1.71	0.71
23:AW:3:PRO:O	23:AW:4:VAL:HB	1.89	0.71
25:AY:35:TYR:HH	25:AY:266:ASN:HB3	1.54	0.71
26:BA:271:G:H4'	26:BA:272:A:OP1	1.89	0.71
1:AA:1078:U:C5	1:AA:1079:G:C5	2.78	0.71
1:AA:590:U:O2'	1:AA:591:U:H5'	1.90	0.71
9:AI:62:LEU:HD22	9:AI:62:LEU:N	2.05	0.71
11:AK:22:ILE:HG12	11:AK:85:VAL:HG22	1.72	0.71
12:AL:24:GLU:O	12:AL:25:ALA:C	2.28	0.71
22:AV:147:C:O2'	22:AV:148:U:H5'	1.90	0.71
22:AV:296:U:C2	22:AV:297:G:C5	2.78	0.71
22:AV:39:A:H3'	22:AV:39:A:N3	2.05	0.71
22:AV:40:G:O2'	22:AV:41:G:H5'	1.90	0.71
22:AV:66:C:O2'	22:AV:67:G:H5'	1.89	0.71
25:AY:343:ASN:HD22	25:AY:344:THR:N	1.88	0.71
25:AY:641:GLN:NE2	26:BA:1095:A:O2'	2.23	0.71
26:BA:1104:C:C2	26:BA:1105:U:C5	2.78	0.71
26:BA:2152:G:C2'	26:BA:2153:C:H5'	2.20	0.71
26:BA:58:G:OP1	44:BT:78:SER:HB3	1.90	0.71
1:AA:1534:A:C5	1:AA:1535:C:N4	2.58	0.71
1:AA:409:U:OP1	4:AD:23:GLY:HA3	1.91	0.71
1:AA:622:A:C8	1:AA:623:C:C6	2.78	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:167:PRO:HG2	4:AD:170:LEU:HD11	1.71	0.71
1:AA:1202:U:C2	14:AN:82:ILE:HG21	2.26	0.71
22:AV:165:A:H5'	22:AV:166:C:C2	2.26	0.71
22:AV:244:G:H2'	22:AV:245:C:C1'	2.19	0.71
1:AA:368:U:H3'	25:AY:354:ARG:HH12	1.55	0.71
26:BA:1062:G:OP1	26:BA:1070:A:H4'	1.89	0.71
26:BA:2648:G:H2'	26:BA:2649:C:C6	2.24	0.71
27:BC:16:VAL:HB	27:BC:203:VAL:HG22	1.71	0.71
1:AA:1476:A:H2'	1:AA:1477:U:O4'	1.91	0.71
3:AC:96:VAL:HB	3:AC:97:PRO:HD2	1.72	0.71
1:AA:1060:U:H4'	10:AJ:53:ILE:HG22	1.72	0.71
22:AV:40:G:C6	22:AV:316:A:N3	2.57	0.71
23:AW:83:LYS:HA	23:AW:86:LEU:HD22	1.72	0.71
26:BA:1925:C:H4'	26:BA:1926:U:C5	2.25	0.71
26:BA:528:A:H2	26:BA:2043:C:C5'	2.03	0.71
26:BA:892:A:N3	26:BA:893:C:C5	2.58	0.71
1:AA:1079:G:C4	1:AA:1080:A:C6	2.78	0.71
1:AA:1107:C:C4	1:AA:1108:G:N7	2.59	0.71
1:AA:927:G:O2'	1:AA:1503:A:N6	2.23	0.71
1:AA:380:G:N2	1:AA:384:G:C6	2.59	0.71
1:AA:1280:A:H5''	10:AJ:42:LEU:HD21	1.72	0.71
22:AV:137:C:C5'	22:AV:138:C:H5''	2.19	0.71
22:AV:158:U:N1	22:AV:197:A:N1	2.37	0.71
22:AV:188:C:O2'	22:AV:189:C:H5''	1.91	0.71
22:AV:225:A:N1	22:AV:226:G:C5	2.58	0.71
22:AV:210:C:HO2'	22:AV:240:U:H5	1.13	0.71
22:AV:343:C:C4'	30:BF:78:ILE:CG1	2.67	0.71
22:AV:54:G:N3	22:AV:54:G:H2'	2.05	0.71
25:AY:459:LEU:HD12	25:AY:459:LEU:H	1.55	0.71
26:BA:1846:G:N2	26:BA:1895:C:C2	2.58	0.71
26:BA:897:C:C2	26:BA:898:C:C6	2.79	0.71
27:BC:104:LEU:CD1	27:BC:104:LEU:N	2.53	0.71
31:BG:25:ILE:O	31:BG:78:VAL:HG11	1.89	0.71
47:BW:37:ARG:HH11	47:BW:37:ARG:HG3	1.56	0.71
1:AA:1338:G:C6	1:AA:1339:A:C6	2.79	0.71
6:AF:53:LYS:O	6:AF:54:LEU:HB3	1.90	0.71
24:AX:17:C:C3'	24:AX:18:U:H5'	2.20	0.71
24:AX:48:U:O2	24:AX:48:U:H3'	1.91	0.71
25:AY:406:GLU:HB3	25:AY:407:PRO:HD2	1.71	0.71
26:BA:1309:G:OP1	53:B2:9:VAL:HG23	1.89	0.71
26:BA:2845:U:H5''	40:BP:51:ASN:O	1.89	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:885:C:OP2	26:BA:886:A:C5	2.43	0.71
33:BI:132:ALA:O	33:BI:133:ARG:HB2	1.89	0.71
1:AA:205:A:H2'	1:AA:205:A:N3	2.05	0.71
1:AA:657:U:O2	15:AO:21:THR:CG2	2.39	0.71
2:AB:22:TRP:CH2	2:AB:24:PRO:HA	2.25	0.71
3:AC:142:ARG:NH1	3:AC:142:ARG:HG2	1.98	0.71
4:AD:168:THR:HB	4:AD:183:ARG:HH22	1.55	0.71
19:AS:28:LYS:HB2	19:AS:29:PRO:HD2	1.73	0.71
20:AT:66:ILE:HG23	20:AT:66:ILE:O	1.91	0.71
22:AV:169:G:H2'	22:AV:170:G:H8	1.55	0.71
24:AX:56:U:C6	24:AX:58:A:OP2	2.44	0.71
25:AY:416:LYS:HD3	25:AY:417:THR:H	1.55	0.71
26:BA:1452:G:O2'	26:BA:1453:A:P	2.49	0.71
26:BA:265:A:H4'	26:BA:266:G:OP1	1.91	0.71
26:BA:675:A:OP1	29:BE:58:LYS:HE2	1.90	0.71
39:BO:4:LYS:HG3	39:BO:5:SER:N	2.04	0.71
1:AA:1053:G:H4'	1:AA:1054:C:H5'	1.72	0.71
1:AA:1413:A:C2'	1:AA:1414:U:O5'	2.39	0.71
3:AC:21:TRP:HB3	3:AC:58:ARG:HG2	1.72	0.71
8:AH:63:LYS:HB2	8:AH:70:VAL:HG21	1.73	0.71
22:AV:184:A:N7	22:AV:185:A:N1	2.39	0.71
22:AV:320:U:H1'	22:AV:321:G:P	2.30	0.71
25:AY:180:VAL:CG2	25:AY:216:LEU:HD12	2.20	0.71
1:AA:394:G:O2'	25:AY:340:TYR:OH	2.04	0.71
26:BA:31:C:O2'	26:BA:1238:G:H5'	1.91	0.71
25:AY:637:ARG:HH21	33:BI:21:PRO:HA	1.56	0.71
44:BT:58:VAL:HG22	44:BT:85:VAL:HG22	1.71	0.71
1:AA:513:C:H2'	1:AA:514:C:H6	1.54	0.71
4:AD:61:ARG:CG	4:AD:71:PHE:CD2	2.74	0.71
5:AE:140:ILE:HG22	5:AE:141:ASP:N	2.05	0.71
22:AV:180:G:H2'	22:AV:181:G:C8	2.25	0.71
24:AX:33:C:C2'	24:AX:34:U:H5''	2.21	0.71
26:BA:1929:G:H5'	26:BA:1929:G:N3	2.06	0.71
26:BA:890:C:O5'	26:BA:891:G:C5'	2.30	0.71
27:BC:34:GLU:O	27:BC:35:LYS:O	2.08	0.71
28:BD:98:VAL:HG22	28:BD:98:VAL:O	1.89	0.71
26:BA:2334:U:C4	39:BO:16:ARG:HD3	2.26	0.71
1:AA:1107:C:OP1	3:AC:171:ARG:HG2	1.90	0.70
1:AA:142:G:C5	1:AA:143:A:N7	2.59	0.70
2:AB:70:GLY:HA2	2:AB:163:ILE:HG22	1.72	0.70
7:AG:94:ARG:NH2	7:AG:98:LEU:HD21	2.06	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AU:19:LYS:CE	21:AU:19:LYS:CA	2.69	0.70
22:AV:137:C:C4'	22:AV:138:C:H5''	2.20	0.70
22:AV:163:G:C2	22:AV:164:G:N7	2.59	0.70
22:AV:249:U:HO2'	22:AV:250:U:H5'	1.56	0.70
22:AV:68:U:H5	22:AV:302:A:HO2'	1.38	0.70
22:AV:12:U:C6	22:AV:348:C:H1'	2.25	0.70
22:AV:65:U:H2'	22:AV:66:C:C6	2.26	0.70
26:BA:901:C:C2'	26:BA:901:C:O2	2.38	0.70
33:BI:17:ALA:O	33:BI:18:ASN:CB	2.38	0.70
42:BR:49:ILE:CG2	42:BR:53:PHE:N	2.53	0.70
1:AA:1330:U:C2'	1:AA:1331:G:H5'	2.20	0.70
1:AA:1339:A:C2	24:AX:32:G:C4'	2.69	0.70
1:AA:1390:U:OP2	1:AA:1390:U:C6	2.44	0.70
1:AA:889:A:H4'	1:AA:890:G:OP1	1.90	0.70
12:AL:24:GLU:O	12:AL:26:CYS:N	2.23	0.70
17:AQ:7:LEU:HB2	17:AQ:60:ILE:HG22	1.73	0.70
22:AV:159:C:O2'	22:AV:160:U:H5'	1.91	0.70
22:AV:173:C:H2'	22:AV:174:A:H8	1.55	0.70
22:AV:19:G:N1	23:AW:22:ALA:HA	2.05	0.70
22:AV:204:G:OP2	22:AV:235:C:C5	2.43	0.70
22:AV:256:G:C4	22:AV:258:G:C6	2.78	0.70
25:AY:615:GLU:HA	26:BA:1095:A:N7	2.05	0.70
26:BA:1063:G:C2	33:BI:135:MET:HA	2.25	0.70
26:BA:1372:U:H2'	26:BA:1373:A:O5'	1.91	0.70
26:BA:866:A:C1'	26:BA:914:G:C2	2.74	0.70
31:BG:24:THR:O	31:BG:25:ILE:HD13	1.90	0.70
33:BI:100:ILE:O	33:BI:140:GLU:HB2	1.91	0.70
26:BA:911:A:N6	37:BM:9:PHE:HB2	2.06	0.70
42:BR:26:ASP:O	42:BR:27:ILE:HD13	1.91	0.70
1:AA:1347:G:C8	9:AI:108:ARG:CB	2.75	0.70
1:AA:1410:A:O2'	1:AA:1411:C:H5'	1.91	0.70
1:AA:542:G:C2	1:AA:543:U:C5	2.79	0.70
4:AD:57:LYS:HB3	4:AD:199:ILE:CG2	2.21	0.70
9:AI:83:THR:HB	9:AI:97:LEU:HD21	1.74	0.70
17:AQ:44:HIS:HB2	17:AQ:69:THR:O	1.91	0.70
22:AV:213:G:H2'	22:AV:214:C:C6	2.26	0.70
22:AV:238:A:C4	22:AV:239:A:C8	2.79	0.70
22:AV:16:U:C5	23:AW:110:ARG:CD	2.75	0.70
26:BA:1056:G:H4'	26:BA:1086:A:C8	2.26	0.70
26:BA:2128:G:H2'	26:BA:2129:C:O4'	1.91	0.70
1:AA:1387:G:C6	1:AA:1388:C:C4	2.80	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:279:A:H4'	1:AA:280:C:O5'	1.90	0.70
1:AA:464:U:N3	1:AA:466:A:H5''	2.05	0.70
1:AA:997:U:H2'	1:AA:998:C:H5'	1.72	0.70
2:AB:81:ASP:O	2:AB:83:ALA:N	2.23	0.70
4:AD:122:ILE:N	4:AD:122:ILE:HD13	2.06	0.70
5:AE:33:THR:HG22	5:AE:51:LYS:HB3	1.73	0.70
22:AV:276:U:H2'	22:AV:277:G:H8	1.56	0.70
22:AV:323:A:N3	22:AV:324:G:C5	2.59	0.70
22:AV:63:C:C1'	22:AV:73:A:C2	2.74	0.70
25:AY:154:GLN:HA	25:AY:158:GLY:HA2	1.72	0.70
26:BA:1097:U:H1'	33:BI:8:VAL:HG12	1.71	0.70
26:BA:2120:G:O2'	26:BA:2121:G:H5'	1.91	0.70
26:BA:883:G:C2	26:BA:884:U:C6	2.78	0.70
26:BA:893:C:O2'	26:BA:894:U:H5'	1.91	0.70
30:BF:7:TYR:HA	30:BF:11:VAL:CG2	2.22	0.70
32:BH:72:ILE:HG22	32:BH:73:ASN:N	2.06	0.70
25:AY:637:ARG:CD	33:BI:25:PRO:CD	2.47	0.70
44:BT:71:GLY:O	44:BT:73:ARG:N	2.25	0.70
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.26	0.70
1:AA:63:C:H2'	1:AA:64:G:H5'	1.72	0.70
15:AO:6:ALA:O	15:AO:10:ILE:HD12	1.92	0.70
22:AV:214:C:O5'	22:AV:214:C:H6	1.75	0.70
22:AV:20:A:C2'	22:AV:21:C:C6	2.75	0.70
22:AV:259:G:H2'	22:AV:260:C:C6	2.26	0.70
22:AV:345:A:N6	22:AV:348:C:C4	2.52	0.70
22:AV:362:C:OP1	26:BA:2602:A:P	2.50	0.70
22:AV:49:C:N3	22:AV:303:G:O6	2.23	0.70
25:AY:431:LEU:HD22	25:AY:466:LEU:HD13	1.72	0.70
25:AY:613:PRO:O	25:AY:615:GLU:N	2.23	0.70
26:BA:1086:A:O2'	26:BA:1087:G:N7	2.24	0.70
25:AY:617:MET:CE	26:BA:1095:A:O4'	2.24	0.70
26:BA:1178:C:H2'	26:BA:1179:G:N7	2.06	0.70
26:BA:2210:U:H4'	26:BA:2211:A:H5'	1.72	0.70
26:BA:2506:U:H2'	26:BA:2507:C:H5'	1.73	0.70
26:BA:875:G:O2'	26:BA:876:C:C5'	2.30	0.70
26:BA:880:G:HO2'	26:BA:899:A:N6	1.88	0.70
26:BA:997:G:OP1	41:BQ:91:ARG:HG2	1.91	0.70
1:AA:1043:G:C2'	1:AA:1044:A:H5''	2.21	0.70
1:AA:1112:C:O2	3:AC:178:ARG:HG3	1.91	0.70
16:AP:71:VAL:O	16:AP:75:ILE:HG13	1.92	0.70
17:AQ:11:VAL:HG12	17:AQ:12:VAL:N	2.06	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:229:U:H1'	22:AV:231:A:C2	2.22	0.70
22:AV:275:C:O5'	22:AV:275:C:H6	1.73	0.70
22:AV:317:G:H2'	22:AV:318:G:O4'	1.91	0.70
22:AV:332:G:H4'	22:AV:333:G:OP1	1.91	0.70
24:AX:27:G:H22	24:AX:45:A:H61	1.35	0.70
25:AY:335:LEU:HD11	25:AY:352:VAL:HG11	1.73	0.70
26:BA:2309:A:C6	26:BA:2310:C:N4	2.59	0.70
26:BA:287:G:H2'	26:BA:288:U:C6	2.26	0.70
33:BI:100:ILE:HG21	33:BI:105:LEU:HD12	1.73	0.70
25:AY:637:ARG:NE	33:BI:20:SER:O	2.19	0.70
36:BL:109:LYS:HE2	36:BL:128:THR:HG22	1.74	0.70
26:BA:911:A:C4	37:BM:9:PHE:CE1	2.80	0.70
1:AA:1179:A:H2'	1:AA:1180:A:O4'	1.91	0.70
1:AA:1494:G:H1'	26:BA:1913:A:N3	2.06	0.70
1:AA:659:U:O2	1:AA:660:C:C6	2.44	0.70
7:AG:26:VAL:HG12	7:AG:42:VAL:HG21	1.74	0.70
11:AK:41:LEU:HD22	11:AK:76:TYR:CE2	2.26	0.70
22:AV:12:U:C4'	22:AV:13:G:C8	2.75	0.70
22:AV:257:U:C4	22:AV:273:A:C2	2.80	0.70
22:AV:44:C:N4	22:AV:300:U:C6	2.59	0.70
22:AV:324:G:C2	22:AV:325:G:C6	2.78	0.70
22:AV:341:5MU:HN3	22:AV:345:A:N6	1.90	0.70
25:AY:641:GLN:CD	26:BA:1095:A:O2'	2.30	0.70
26:BA:1026:G:H2'	26:BA:1027:A:C8	2.27	0.70
26:BA:1073:A:N7	26:BA:1074:G:H8	1.90	0.70
26:BA:2404:U:H2'	26:BA:2405:G:O5'	1.92	0.70
1:AA:147:G:H2'	1:AA:148:G:C8	2.26	0.70
9:AI:48:ARG:C	9:AI:48:ARG:HD3	2.11	0.70
16:AP:39:PHE:CD2	16:AP:74:LEU:HD11	2.27	0.70
22:AV:172:U:N1	22:AV:173:C:C5	2.60	0.70
22:AV:248:G:H2'	22:AV:249:U:C5'	2.16	0.70
24:AX:14:A:H2'	24:AX:15:G:O4'	1.90	0.70
25:AY:177:ILE:C	25:AY:178:ILE:HD12	2.11	0.70
55:B4:36:ARG:HG2	55:B4:37:GLN:H	1.56	0.70
26:BA:1462:C:O2'	26:BA:1463:C:H5''	1.92	0.70
26:BA:2305:U:O2'	30:BF:132:ARG:NE	2.24	0.70
22:AV:361:C:C5'	26:BA:2602:A:O2'	2.40	0.70
26:BA:883:G:C2	26:BA:884:U:C4	2.80	0.70
26:BA:892:A:C2	26:BA:893:C:C5	2.80	0.70
37:BM:31:PHE:CZ	37:BM:110:GLU:HA	2.27	0.70
1:AA:435:A:C6	1:AA:436:C:C4	2.80	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:872:A:C8	1:AA:874:G:C8	2.80	0.70
3:AC:137:VAL:HA	3:AC:148:ILE:HD13	1.74	0.70
1:AA:1279:G:N2	10:AJ:45:ARG:HE	1.89	0.70
11:AK:124:LYS:CG	11:AK:125:LYS:N	2.53	0.70
10:AJ:65:TYR:CB	14:AN:96:LEU:HD11	2.22	0.70
19:AS:9:PHE:CD1	19:AS:10:ILE:N	2.60	0.70
22:AV:223:G:C2'	22:AV:224:A:OP1	2.40	0.70
22:AV:262:U:O2	22:AV:262:U:H2'	1.92	0.70
22:AV:270:C:C2	22:AV:271:G:N7	2.60	0.70
22:AV:315:G:H1'	22:AV:316:A:N9	2.06	0.70
22:AV:61:G:O4'	22:AV:62:G:H5'	1.91	0.70
25:AY:84:THR:N	25:AY:85:PRO:CD	2.55	0.70
25:AY:615:GLU:CA	26:BA:1095:A:N7	2.48	0.70
26:BA:1486:U:O2'	26:BA:1487:U:H5'	1.92	0.70
26:BA:1161:C:H1'	42:BR:8:GLY:O	1.91	0.70
1:AA:1305:G:H2'	1:AA:1331:G:H22	1.56	0.70
1:AA:513:C:H2'	1:AA:514:C:C6	2.26	0.70
12:AL:76:HIS:HE2	25:AY:421:GLN:HG2	1.53	0.70
22:AV:139:C:O4'	22:AV:182:U:C5	2.40	0.70
22:AV:200:G:C8	22:AV:200:G:P	2.84	0.70
22:AV:300:U:C2	22:AV:301:A:N7	2.60	0.70
23:AW:59:TYR:CE1	23:AW:73:PRO:HB3	2.27	0.70
25:AY:252:ASP:HB2	25:AY:254:LYS:HG2	1.73	0.70
26:BA:2131:U:H5'	26:BA:2132:U:H5''	1.74	0.70
26:BA:544:C:H2'	26:BA:545:U:O4'	1.91	0.70
1:AA:1079:G:H3'	1:AA:1080:A:N7	2.07	0.69
1:AA:394:G:HO2'	25:AY:340:TYR:HH	1.35	0.69
1:AA:673:A:H2'	1:AA:674:G:C8	2.27	0.69
1:AA:792:A:H4'	1:AA:793:U:O5'	1.92	0.69
5:AE:14:LEU:HB3	5:AE:36:THR:HG22	1.73	0.69
10:AJ:9:ARG:HB2	10:AJ:99:GLN:HB2	1.74	0.69
16:AP:75:ILE:HG22	16:AP:80:LYS:HE2	1.74	0.69
22:AV:118:C:H2'	22:AV:119:U:H5'	1.73	0.69
22:AV:239:A:C3'	22:AV:240:U:C4'	2.70	0.69
24:AX:25:U:H2'	24:AX:26:C:H5'	1.74	0.69
26:BA:811:U:C4	36:BL:21:ARG:NH2	2.60	0.69
26:BA:868:U:O2'	26:BA:869:G:H5''	1.92	0.69
26:BA:899:A:C2'	26:BA:900:A:H5''	2.22	0.69
32:BH:53:GLU:O	32:BH:57:LYS:HB3	1.90	0.69
40:BP:30:TRP:CE2	40:BP:39:LEU:HD11	2.27	0.69
2:AB:195:VAL:HG11	2:AB:198:VAL:HA	1.73	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:8:A:C5	4:AD:205:LYS:HB3	2.27	0.69
9:AI:33:SER:HB3	9:AI:36:GLN:HG3	1.74	0.69
22:AV:116:A:C2	22:AV:129:G:C6	2.81	0.69
22:AV:199:C:N4	22:AV:229:U:N3	2.41	0.69
22:AV:60:U:C4	22:AV:63:C:H5	2.10	0.69
1:AA:1494:G:N9	26:BA:1913:A:C2	2.60	0.69
26:BA:978:G:C2'	26:BA:979:A:H5'	2.22	0.69
29:BE:104:ALA:O	29:BE:108:ILE:HG22	1.91	0.69
31:BG:11:PRO:HD2	31:BG:14:VAL:HG21	1.72	0.69
40:BP:1:SER:O	40:BP:5:LYS:HG2	1.92	0.69
1:AA:1539:C:H4'	21:AU:20:ARG:HB2	1.73	0.69
1:AA:499:A:H4'	1:AA:500:G:OP1	1.91	0.69
22:AV:311:U:C2'	22:AV:312:A:C5'	2.65	0.69
22:AV:38:A:C2	22:AV:316:A:N1	2.60	0.69
23:AW:17:LEU:HB2	23:AW:119:LEU:HB2	1.73	0.69
23:AW:90:LEU:HD12	23:AW:91:GLY:N	2.06	0.69
24:AX:21:U:O2'	24:AX:22:A:H4'	1.92	0.69
26:BA:2852:G:H2'	26:BA:2853:C:H6	1.57	0.69
28:BD:4:LEU:HD21	28:BD:100:LEU:HD23	1.73	0.69
30:BF:123:GLY:HA2	30:BF:162:ASP:OD1	1.92	0.69
35:BK:113:MET:O	35:BK:114:LYS:C	2.30	0.69
1:AA:1305:G:HO2'	1:AA:1306:A:H8	1.36	0.69
9:AI:25:GLY:N	9:AI:58:GLU:HA	2.08	0.69
16:AP:39:PHE:CD1	16:AP:39:PHE:C	2.64	0.69
22:AV:202:G:N2	22:AV:233:A:H62	1.88	0.69
22:AV:35:C:H2'	22:AV:36:C:C5	2.27	0.69
22:AV:55:G:OP1	22:AV:56:C:OP2	2.10	0.69
22:AV:60:U:C4	22:AV:63:C:C5	2.80	0.69
23:AW:5:LEU:C	23:AW:5:LEU:CD1	2.61	0.69
32:BH:10:ALA:O	32:BH:12:LEU:HD23	1.93	0.69
1:AA:1410:A:H2'	1:AA:1411:C:H6	1.56	0.69
1:AA:1078:U:O2'	5:AE:133:ILE:HG21	1.92	0.69
13:AM:113:LYS:CB	13:AM:114:PRO:HD3	2.23	0.69
22:AV:198:U:OP2	22:AV:198:U:C6	2.46	0.69
22:AV:247:A:H5'	22:AV:248:G:H8	1.57	0.69
22:AV:313:C:H2'	22:AV:314:C:C6	2.28	0.69
22:AV:7:G:C4	22:AV:336:G:C8	2.80	0.69
22:AV:342:PSU:N3	22:AV:345:A:OP2	2.25	0.69
25:AY:14:ASN:HB2	25:AY:102:ASP:OD1	1.91	0.69
25:AY:613:PRO:C	25:AY:615:GLU:H	1.94	0.69
26:BA:528:A:C2	26:BA:2043:C:H4'	2.27	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:2406:A:H2'	26:BA:2406:A:OP2	1.92	0.69
26:BA:2547:A:H4'	35:BK:29:HIS:CE1	2.28	0.69
26:BA:881:G:H2'	26:BA:882:G:C8	2.27	0.69
27:BC:129:LEU:HD23	27:BC:129:LEU:N	2.07	0.69
46:BV:80:HIS:CG	46:BV:81:PRO:CD	2.76	0.69
49:BY:5:GLU:HG3	49:BY:56:LEU:CD1	2.22	0.69
1:AA:245:U:H3	1:AA:283:U:H3	1.37	0.69
1:AA:613:C:C2'	1:AA:614:C:H5'	2.22	0.69
2:AB:218:ALA:O	2:AB:219:THR:HG22	1.92	0.69
8:AH:46:GLU:CB	8:AH:63:LYS:HG2	2.22	0.69
9:AI:43:ALA:CA	9:AI:45:MET:SD	2.81	0.69
19:AS:39:ILE:HG12	19:AS:70:LEU:HD23	1.72	0.69
22:AV:159:C:C2	22:AV:160:U:C5	2.80	0.69
22:AV:195:A:C2	22:AV:196:G:C8	2.80	0.69
22:AV:247:A:C4'	22:AV:248:G:C8	2.76	0.69
22:AV:265:C:H2'	22:AV:266:C:H5'	1.72	0.69
22:AV:296:U:C2	22:AV:297:G:N7	2.61	0.69
26:BA:416:U:C5	26:BA:417:C:C4	2.79	0.69
26:BA:871:U:C2	26:BA:872:U:C5	2.81	0.69
31:BG:39:ALA:HA	31:BG:57:TYR:CD1	2.28	0.69
42:BR:25:LEU:H	42:BR:94:THR:HG21	1.55	0.69
1:AA:10:A:O2'	1:AA:11:G:H5'	1.92	0.69
1:AA:414:A:H2'	1:AA:415:A:C8	2.26	0.69
1:AA:718:A:H2'	1:AA:719:C:H5'	1.75	0.69
5:AE:81:GLN:H	5:AE:146:MET:HE1	1.57	0.69
25:AY:401:SER:O	25:AY:403:GLU:HG3	1.91	0.69
26:BA:1897:G:C2	26:BA:1898:U:O2	2.45	0.69
27:BC:51:ARG:HH22	27:BC:246:PRO:HG3	1.57	0.69
31:BG:148:ARG:HH11	31:BG:148:ARG:CG	2.06	0.69
1:AA:1049:U:H4'	1:AA:1050:G:OP2	1.92	0.69
1:AA:1534:A:C5	1:AA:1535:C:N3	2.58	0.69
1:AA:414:A:H2'	1:AA:415:A:H8	1.58	0.69
1:AA:763:G:H2'	1:AA:764:C:H6	1.56	0.69
1:AA:768:A:C2'	1:AA:769:G:H5'	2.22	0.69
1:AA:929:G:H5'	1:AA:1533:C:H5'	1.74	0.69
2:AB:136:ARG:O	2:AB:139:GLU:HB3	1.91	0.69
9:AI:43:ALA:HA	9:AI:45:MET:SD	2.33	0.69
16:AP:77:GLU:C	16:AP:79:ASN:H	1.96	0.69
21:AU:39:LYS:N	21:AU:40:PRO:CD	2.55	0.69
22:AV:137:C:OP2	22:AV:138:C:H5'	1.90	0.69
22:AV:5:C:C2'	22:AV:6:U:C5'	2.66	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AY:272:LEU:O	25:AY:275:ALA:HB3	1.92	0.69
25:AY:539:ILE:HA	25:AY:542:VAL:HG12	1.74	0.69
26:BA:1589:U:H2'	26:BA:1589:U:O2	1.93	0.69
26:BA:2114:A:H2'	26:BA:2114:A:N3	2.06	0.69
38:BN:75:ILE:O	38:BN:79:LEU:HD12	1.92	0.69
1:AA:1038:C:C2'	1:AA:1039:G:H5'	2.23	0.69
1:AA:436:C:H4'	4:AD:152:SER:CB	2.23	0.69
4:AD:25:ARG:HD2	4:AD:30:LYS:HE2	1.75	0.69
11:AK:51:PHE:CZ	11:AK:64:VAL:HG11	2.28	0.69
14:AN:19:TYR:O	14:AN:20:PHE:O	2.09	0.69
22:AV:13:G:H8	22:AV:13:G:O5'	1.75	0.69
22:AV:156:G:C4	22:AV:157:C:C5	2.80	0.69
22:AV:182:U:O2	22:AV:182:U:C5'	2.41	0.69
22:AV:202:G:C6	22:AV:203:U:C4	2.80	0.69
22:AV:237:U:C2'	22:AV:237:U:O2	2.39	0.69
22:AV:315:G:C1'	22:AV:316:A:C8	2.76	0.69
22:AV:335:C:C2'	22:AV:335:C:O2	2.41	0.69
25:AY:261:GLY:HA3	25:AY:267:LYS:O	1.93	0.69
25:AY:491:VAL:HG11	25:AY:596:LYS:HD3	1.75	0.69
26:BA:1171:G:C5	26:BA:1172:C:C4	2.80	0.69
26:BA:12:U:O2	26:BA:12:U:H2'	1.92	0.69
26:BA:1799:G:OP2	27:BC:269:ARG:NH2	2.25	0.69
29:BE:12:LEU:HD23	29:BE:13:THR:N	2.07	0.69
50:BZ:1:ALA:HB1	50:BZ:2:LYS:CE	2.22	0.69
12:AL:20:VAL:HG22	12:AL:20:VAL:O	1.92	0.69
21:AU:13:VAL:CG1	21:AU:15:LEU:HD21	2.22	0.69
21:AU:13:VAL:O	21:AU:15:LEU:CD1	2.41	0.69
22:AV:228:G:C2'	22:AV:232:A:H2	2.06	0.69
23:AW:62:PRO:HB3	23:AW:70:ASN:HB2	1.75	0.69
25:AY:12:LEU:O	25:AY:283:PRO:HD3	1.92	0.69
25:AY:252:ASP:O	25:AY:254:LYS:HE3	1.93	0.69
25:AY:343:ASN:HD21	25:AY:345:THR:HB	1.58	0.69
26:BA:2881:U:O2'	26:BA:2882:A:H5'	1.93	0.69
22:AV:344:A:C8	30:BF:77:LYS:C	2.64	0.69
1:AA:108:G:C5	20:AT:9:ARG:HG2	2.28	0.69
1:AA:158:G:H2'	1:AA:159:G:H5''	1.75	0.69
1:AA:513:C:H2'	1:AA:514:C:O5'	1.93	0.69
1:AA:659:U:O2	1:AA:659:U:H2'	1.93	0.69
3:AC:166:TRP:N	3:AC:166:TRP:CE3	2.60	0.69
14:AN:26:LEU:O	14:AN:27:LYS:HB3	1.93	0.69
18:AR:60:ARG:O	18:AR:63:TYR:HB3	1.93	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AU:38:GLU:CA	21:AU:40:PRO:HD2	2.23	0.69
22:AV:151:C:O5'	22:AV:151:C:H6	1.76	0.69
22:AV:295:C:C2'	22:AV:296:U:H5'	2.22	0.69
22:AV:345:A:H2'	22:AV:347:PSU:OP2	1.93	0.69
26:BA:585:G:O2'	29:BE:77:ILE:HG22	1.93	0.69
27:BC:16:VAL:CB	27:BC:203:VAL:HG22	2.23	0.69
38:BN:103:ARG:HD3	38:BN:110:MET:CE	2.22	0.69
40:BP:71:ARG:HD3	40:BP:73:PHE:CZ	2.28	0.69
1:AA:1126:U:O4'	1:AA:1281:C:O2	2.11	0.68
1:AA:1314:C:O2	1:AA:1314:C:H2'	1.92	0.68
1:AA:1412:C:C2'	1:AA:1413:A:H5'	2.23	0.68
2:AB:95:TRP:CZ2	2:AB:99:MET:HG2	2.27	0.68
4:AD:146:GLU:O	4:AD:149:LYS:HB2	1.93	0.68
5:AE:135:VAL:O	5:AE:138:ALA:HB3	1.92	0.68
22:AV:121:A:N6	22:AV:124:A:C2	2.61	0.68
23:AW:24:ILE:HG13	23:AW:26:LEU:HD21	1.73	0.68
24:AX:63:C:C2'	24:AX:64:G:H5''	2.23	0.68
25:AY:555:LEU:HD11	25:AY:599:PRO:HB2	1.75	0.68
26:BA:2785:C:O2'	28:BD:67:HIS:HD2	1.76	0.68
26:BA:866:A:C5	26:BA:914:G:C5	2.82	0.68
29:BE:28:VAL:O	29:BE:32:VAL:HG22	1.92	0.68
30:BF:150:GLY:O	30:BF:151:LEU:HB2	1.93	0.68
33:BI:4:VAL:O	33:BI:5:GLN:CB	2.40	0.68
26:BA:911:A:C6	37:BM:9:PHE:CD1	2.80	0.68
42:BR:42:ALA:HA	42:BR:46:GLU:CB	2.22	0.68
46:BV:41:GLU:O	46:BV:41:GLU:HG3	1.92	0.68
1:AA:1032:G:H3'	1:AA:1033:G:O4'	1.93	0.68
1:AA:1303:C:C2'	1:AA:1304:G:O5'	2.42	0.68
1:AA:1390:U:H2'	1:AA:1391:U:C6	2.27	0.68
1:AA:376:G:C2	1:AA:389:A:C2	2.81	0.68
1:AA:468:A:C2	1:AA:469:C:C4	2.82	0.68
3:AC:10:ARG:HE	3:AC:177:LEU:HA	1.58	0.68
22:AV:111:U:C2	22:AV:112:U:C5	2.81	0.68
22:AV:13:G:O2'	22:AV:14:G:H8	1.76	0.68
22:AV:196:G:H22	22:AV:197:A:H62	1.42	0.68
22:AV:62:G:N2	22:AV:63:C:N3	2.41	0.68
22:AV:5:C:O2'	22:AV:6:U:H5'	1.90	0.68
25:AY:309:LEU:O	25:AY:390:VAL:HA	1.93	0.68
25:AY:71:THR:HG22	25:AY:80:ASN:OD1	1.93	0.68
26:BA:1372:U:O2'	26:BA:1373:A:H5'	1.93	0.68
26:BA:2291:U:H2'	26:BA:2292:U:C6	2.28	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:877:A:C3'	26:BA:878:A:H5'	2.22	0.68
26:BA:866:A:N9	26:BA:914:G:C4	2.61	0.68
29:BE:149:ILE:HD12	29:BE:150:THR:N	2.08	0.68
26:BA:2305:U:H1'	30:BF:132:ARG:HG2	1.75	0.68
35:BK:118:LEU:O	35:BK:119:ALA:CB	2.38	0.68
37:BM:15:GLY:O	37:BM:16:ARG:CD	2.41	0.68
49:BY:14:LEU:C	49:BY:17:GLU:HB3	2.14	0.68
1:AA:1097:C:O2'	1:AA:1169:A:C1'	2.41	0.68
8:AH:98:LEU:N	8:AH:98:LEU:HD23	2.08	0.68
10:AJ:52:LEU:HB3	14:AN:81:ARG:HE	1.58	0.68
13:AM:28:ARG:HD2	13:AM:62:PHE:CD2	2.28	0.68
22:AV:195:A:H2'	22:AV:196:G:H8	1.58	0.68
22:AV:299:C:H2'	22:AV:300:U:H5''	1.75	0.68
23:AW:98:LEU:CD1	23:AW:119:LEU:HB3	2.24	0.68
26:BA:1509:A:N3	26:BA:1510:G:C8	2.62	0.68
26:BA:662:G:H2'	26:BA:663:G:H5'	1.75	0.68
26:BA:867:C:C5	26:BA:868:U:C4	2.82	0.68
56:BB:7:G:H2'	56:BB:8:C:H5'	1.75	0.68
1:AA:1351:U:H2'	1:AA:1352:C:C6	2.29	0.68
1:AA:1399:C:C2	1:AA:1502:A:N1	2.61	0.68
22:AV:137:C:N4	22:AV:138:C:N4	2.40	0.68
22:AV:256:G:O6	22:AV:273:A:N1	2.26	0.68
22:AV:303:G:HO2'	22:AV:304:C:H5'	1.56	0.68
22:AV:42:U:H2'	22:AV:43:G:C8	2.26	0.68
36:BL:58:TYR:O	54:B3:12:ARG:NE	2.26	0.68
26:BA:1171:G:C6	26:BA:1172:C:N3	2.62	0.68
42:BR:21:ARG:NH1	42:BR:93:PHE:CE1	2.62	0.68
5:AE:93:VAL:HG21	5:AE:110:MET:SD	2.34	0.68
14:AN:10:VAL:O	14:AN:13:VAL:HG12	1.93	0.68
21:AU:38:GLU:N	21:AU:40:PRO:CD	2.57	0.68
22:AV:245:C:P	22:AV:246:U:OP2	2.51	0.68
22:AV:256:G:N2	22:AV:258:G:C2	2.61	0.68
22:AV:309:A:C4'	22:AV:310:G:O4'	2.30	0.68
22:AV:16:U:C6	23:AW:110:ARG:HD3	2.27	0.68
25:AY:121:VAL:HG23	25:AY:122:TRP:N	2.09	0.68
25:AY:658:ASP:CG	31:BG:176:LYS:CE	2.61	0.68
25:AY:72:CYS:SG	25:AY:79:ILE:HB	2.34	0.68
26:BA:1866:A:C2	26:BA:1876:A:C4	2.81	0.68
26:BA:630:G:H5''	26:BA:631:A:OP2	1.94	0.68
29:BE:189:THR:HG22	29:BE:192:ALA:N	2.08	0.68
29:BE:44:ARG:O	29:BE:45:ALA:HB2	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BI:121:ILE:HA	33:BI:124:MET:SD	2.34	0.68
49:BY:18:LEU:HD21	49:BY:22:LEU:HD22	1.74	0.68
1:AA:111:G:H5''	1:AA:112:G:OP2	1.93	0.68
1:AA:1275:A:H2'	1:AA:1276:G:O4'	1.93	0.68
12:AL:2:THR:HB	12:AL:5:GLN:HG3	1.76	0.68
22:AV:222:U:O2	22:AV:222:U:H2'	1.93	0.68
25:AY:466:LEU:HA	25:AY:470:PHE:HD2	1.58	0.68
51:B0:43:THR:HG23	51:B0:47:TYR:O	1.94	0.68
26:BA:1073:A:C3'	26:BA:1074:G:H5''	2.23	0.68
26:BA:1056:G:N2	26:BA:1104:C:N4	2.40	0.68
26:BA:1172:C:C4	26:BA:1173:U:C6	2.82	0.68
26:BA:1494:A:C2	26:BA:1495:A:C4	2.82	0.68
15:AO:88:ARG:NH2	26:BA:716:A:OP2	2.24	0.68
26:BA:870:U:H3	26:BA:907:G:H1	1.41	0.68
26:BA:887:U:C6	26:BA:888:C:C5	2.81	0.68
30:BF:157:THR:CG2	30:BF:159:ALA:HB3	2.23	0.68
1:AA:104:G:O2'	1:AA:105:G:H5'	1.93	0.68
1:AA:207:C:H2'	1:AA:208:U:C2	2.29	0.68
1:AA:223:A:H2'	1:AA:224:U:C6	2.28	0.68
11:AK:124:LYS:HG2	11:AK:125:LYS:N	2.08	0.68
13:AM:1:ALA:O	13:AM:9:PRO:HD2	1.93	0.68
22:AV:18:C:H6	22:AV:18:C:OP1	1.76	0.68
22:AV:20:A:O3'	22:AV:21:C:C6	2.47	0.68
22:AV:265:C:H6	22:AV:265:C:O5'	1.76	0.68
22:AV:29:G:H2'	22:AV:30:C:C5'	2.23	0.68
22:AV:15:A:N6	22:AV:345:A:H4'	2.08	0.68
22:AV:17:U:O2'	23:AW:114:LYS:CE	2.38	0.68
23:AW:3:PRO:O	23:AW:4:VAL:CB	2.42	0.68
1:AA:368:U:H3'	25:AY:354:ARG:NH1	2.09	0.68
26:BA:1505:A:H2'	26:BA:1506:U:O4'	1.92	0.68
26:BA:1734:G:H2'	26:BA:1735:A:H8	1.59	0.68
26:BA:247:G:C8	26:BA:249:C:C6	2.82	0.68
26:BA:2550:G:C2'	26:BA:2551:C:H5'	2.24	0.68
26:BA:381:G:OP1	48:BX:17:ARG:NH2	2.27	0.68
28:BD:12:THR:HG23	40:BP:8:GLU:OE2	1.94	0.68
45:BU:17:ASP:HB3	45:BU:20:LYS:HD3	1.76	0.68
1:AA:1333:A:H2'	1:AA:1334:G:O5'	1.94	0.68
1:AA:1390:U:P	1:AA:1390:U:C6	2.87	0.68
8:AH:48:PHE:HD1	8:AH:48:PHE:H	1.42	0.68
14:AN:61:ARG:O	14:AN:62:ASN:HB2	1.91	0.68
21:AU:19:LYS:N	21:AU:19:LYS:HE2	2.09	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:128:U:C2'	22:AV:129:G:O4'	2.39	0.68
22:AV:185:A:C3'	22:AV:186:A:N7	2.56	0.68
22:AV:221:U:O2	22:AV:222:U:C6	2.46	0.68
22:AV:256:G:O6	22:AV:273:A:C2	2.47	0.68
22:AV:16:U:C5	23:AW:110:ARG:HD3	2.29	0.68
23:AW:64:GLU:O	23:AW:65:LYS:C	2.32	0.68
25:AY:100:VAL:HG23	25:AY:329:ARG:HG2	1.76	0.68
25:AY:39:ILE:HG23	25:AY:41:LYS:HE3	1.75	0.68
25:AY:554:PRO:HG3	25:AY:594:VAL:HG12	1.74	0.68
26:BA:1060:U:O4'	26:BA:1062:G:H5'	1.94	0.68
26:BA:2425:A:H4'	26:BA:2426:A:O5'	1.94	0.68
26:BA:322:A:H5'	26:BA:340:A:H1'	1.76	0.68
32:BH:117:LEU:HD21	32:BH:121:VAL:CA	2.24	0.68
1:AA:1411:C:H2'	1:AA:1412:C:H6	1.59	0.68
1:AA:1490:U:O2'	1:AA:1491:G:H5'	1.94	0.68
1:AA:260:G:H2'	1:AA:261:U:C6	2.28	0.68
1:AA:232:G:H1'	1:AA:262:A:N1	2.08	0.68
1:AA:804:U:H5''	1:AA:805:C:OP2	1.94	0.68
7:AG:59:GLU:HA	7:AG:62:GLU:HB2	1.76	0.68
8:AH:5:PRO:O	8:AH:8:ASP:HB3	1.94	0.68
17:AQ:3:LYS:HG3	17:AQ:6:THR:HG22	1.76	0.68
17:AQ:44:HIS:ND1	17:AQ:69:THR:CG2	2.57	0.68
19:AS:4:LEU:O	19:AS:5:LYS:HG3	1.94	0.68
22:AV:133:A:O2'	22:AV:134:G:H5'	1.91	0.68
22:AV:174:A:C2'	22:AV:175:A:H8	2.03	0.68
22:AV:210:C:O2	22:AV:240:U:C5	2.46	0.68
22:AV:21:C:O2'	22:AV:22:G:C5'	2.30	0.68
22:AV:201:C:O2'	22:AV:231:A:N6	2.24	0.68
22:AV:23:G:H1	22:AV:330:U:H3	1.41	0.68
22:AV:244:G:C4	22:AV:245:C:C1'	2.77	0.68
22:AV:46:U:O4'	22:AV:312:A:C4'	2.42	0.68
23:AW:64:GLU:HG3	26:BA:1910:G:OP1	1.94	0.68
26:BA:2665:A:C2	26:BA:2666:C:C6	2.82	0.68
26:BA:883:G:C4	26:BA:884:U:H5	2.01	0.68
26:BA:895:U:O2	26:BA:896:A:C5	2.47	0.68
26:BA:1567:G:C8	27:BC:82:TYR:HE1	2.10	0.68
32:BH:13:GLY:O	32:BH:14:SER:HB3	1.92	0.68
1:AA:1083:U:H5	1:AA:1084:G:C6	2.12	0.68
1:AA:143:A:H5'	1:AA:144:G:H5'	1.75	0.68
1:AA:1534:A:C4	1:AA:1535:C:C4	2.82	0.68
2:AB:206:ILE:O	2:AB:209:VAL:HG23	1.94	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AU:3:ILE:N	21:AU:19:LYS:HE3	2.09	0.68
22:AV:137:C:C5'	22:AV:138:C:C5'	2.72	0.68
22:AV:300:U:N3	22:AV:301:A:N7	2.42	0.68
22:AV:32:A:N3	22:AV:32:A:H2'	2.09	0.68
22:AV:62:G:N3	22:AV:63:C:C5	2.62	0.68
22:AV:74:G:H2'	22:AV:75:C:H6	1.59	0.68
22:AV:9:U:H4'	22:AV:9:U:OP2	1.93	0.68
23:AW:87:ARG:HA	23:AW:90:LEU:HD21	1.76	0.68
25:AY:21:ILE:O	25:AY:22:ASP:HB2	1.92	0.68
26:BA:2258:C:H4'	26:BA:2259:U:OP2	1.91	0.68
26:BA:904:G:H2'	26:BA:905:A:C8	2.26	0.68
31:BG:140:ILE:HD12	31:BG:141:GLY:N	2.09	0.68
42:BR:49:ILE:HB	42:BR:52:PRO:C	2.15	0.68
47:BW:20:LYS:O	47:BW:21:ARG:HD3	1.94	0.68
4:AD:31:CYS:SG	4:AD:32:LYS:N	2.68	0.67
8:AH:10:LEU:H	8:AH:10:LEU:HD23	1.58	0.67
9:AI:6:TYR:HB2	9:AI:19:PHE:HA	1.76	0.67
11:AK:33:ILE:HB	11:AK:73:VAL:HG11	1.76	0.67
13:AM:40:GLU:HG3	13:AM:41:ASP:N	2.08	0.67
22:AV:196:G:O2'	22:AV:229:U:H5'	1.94	0.67
22:AV:324:G:C2	22:AV:325:G:C5	2.82	0.67
22:AV:39:A:C2'	22:AV:40:G:C5'	2.66	0.67
25:AY:276:VAL:CA	25:AY:280:LEU:HD23	2.24	0.67
26:BA:1084:A:C3'	26:BA:1085:A:C8	2.77	0.67
26:BA:457:A:H5'	26:BA:459:U:H1'	1.75	0.67
45:BU:48:VAL:O	45:BU:53:GLN:CB	2.42	0.67
1:AA:141:G:C4	1:AA:142:G:C8	2.82	0.67
2:AB:131:LYS:O	2:AB:135:MET:SD	2.51	0.67
9:AI:117:LEU:HA	9:AI:124:PRO:HD3	1.76	0.67
14:AN:47:LYS:HB3	19:AS:12:LEU:HD21	1.75	0.67
22:AV:181:G:C2'	22:AV:182:U:H4'	2.24	0.67
22:AV:44:C:C2	22:AV:263:G:C2	2.82	0.67
22:AV:30:C:N4	22:AV:324:G:C2	2.62	0.67
22:AV:68:U:N3	22:AV:303:G:H8	1.92	0.67
23:AW:112:TYR:HB2	23:AW:114:LYS:HE3	1.76	0.67
23:AW:65:LYS:HG3	23:AW:66:GLY:N	2.07	0.67
23:AW:72:ASP:CG	23:AW:75:ARG:HE	1.97	0.67
24:AX:68:C:H2'	24:AX:69:C:H6	1.59	0.67
25:AY:395:PRO:O	25:AY:397:VAL:N	2.27	0.67
26:BA:1530:G:H2'	26:BA:1530:G:N3	2.09	0.67
26:BA:995:C:C6	26:BA:995:C:H5'	2.30	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BC:120:ASP:O	27:BC:121:ALA:O	2.12	0.67
37:BM:57:VAL:O	37:BM:60:GLN:CG	2.42	0.67
1:AA:11:G:C2'	1:AA:12:U:O5'	2.42	0.67
1:AA:35:G:H2'	1:AA:36:C:H6	1.59	0.67
1:AA:663:A:O2'	1:AA:664:G:H5'	1.93	0.67
1:AA:939:G:C5	1:AA:940:C:C4	2.82	0.67
9:AI:24:ASN:HB3	9:AI:58:GLU:CD	2.15	0.67
9:AI:51:LEU:HA	9:AI:54:VAL:HG23	1.77	0.67
12:AL:113:ARG:HD2	12:AL:118:VAL:HG12	1.76	0.67
21:AU:7:GLU:HB3	21:AU:11:PHE:HZ	1.60	0.67
22:AV:247:A:C5'	22:AV:248:G:H8	2.07	0.67
24:AX:50:G:N2	24:AX:51:U:H1'	2.09	0.67
24:AX:50:G:H2'	24:AX:51:U:H6	1.60	0.67
26:BA:1180:U:H2'	26:BA:1181:U:C5'	2.25	0.67
26:BA:1860:G:C2'	26:BA:1861:G:H5'	2.24	0.67
26:BA:2887:A:H2'	26:BA:2887:A:N3	2.09	0.67
27:BC:242:HIS:O	27:BC:243:PRO:C	2.30	0.67
1:AA:1126:U:C6	1:AA:1281:C:N3	2.62	0.67
3:AC:6:PRO:HG2	3:AC:183:TYR:CG	2.30	0.67
6:AF:64:VAL:CG1	6:AF:65:GLU:N	2.56	0.67
22:AV:137:C:C5	22:AV:138:C:C6	2.81	0.67
22:AV:185:A:C2'	22:AV:186:A:N7	2.53	0.67
22:AV:243:G:H2'	22:AV:244:G:H5'	1.76	0.67
22:AV:263:G:C3'	22:AV:264:U:H5''	2.24	0.67
22:AV:71:A:C2'	22:AV:72:A:H8	2.07	0.67
26:BA:137:U:H2'	26:BA:140:C:C2	2.29	0.67
43:BS:45:VAL:O	43:BS:46:LEU:C	2.33	0.67
1:AA:1134:G:C4	1:AA:1141:C:N4	2.63	0.67
1:AA:1138:G:C8	1:AA:1140:C:H5'	2.30	0.67
1:AA:1538:C:O3'	21:AU:17:ARG:NH2	2.27	0.67
1:AA:152:A:N6	1:AA:170:U:C2	2.63	0.67
1:AA:991:U:C5	1:AA:1212:U:H1'	2.29	0.67
2:AB:53:LEU:HD12	2:AB:219:THR:HG21	1.76	0.67
3:AC:24:ASN:O	3:AC:26:LYS:N	2.27	0.67
7:AG:145:GLU:HA	7:AG:148:LYS:HB2	1.76	0.67
13:AM:33:LEU:HD22	13:AM:40:GLU:HA	1.76	0.67
18:AR:24:ASP:HB3	18:AR:27:THR:HB	1.77	0.67
22:AV:227:C:O2	22:AV:233:A:C6	2.47	0.67
23:AW:50:ASP:CG	23:AW:51:GLY:N	2.46	0.67
24:AX:50:G:H21	24:AX:51:U:H1'	1.57	0.67
26:BA:2748:A:H1'	31:BG:66:THR:CG2	2.25	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:894:U:H2'	26:BA:895:U:O4'	1.94	0.67
27:BC:38:LYS:HE2	27:BC:55:GLY:O	1.94	0.67
22:AV:343:C:C3'	30:BF:73:VAL:H	2.07	0.67
31:BG:100:ASN:HD22	31:BG:100:ASN:H	1.40	0.67
49:BY:9:LYS:HE2	49:BY:11:VAL:CG2	2.25	0.67
1:AA:1531:A:O2'	1:AA:1532:U:C5'	2.41	0.67
1:AA:972:C:H4'	10:AJ:59:LYS:HE3	1.74	0.67
2:AB:193:ASP:C	2:AB:193:ASP:OD1	2.32	0.67
4:AD:202:LEU:HD23	4:AD:203:TYR:CE2	2.30	0.67
4:AD:57:LYS:HB3	4:AD:199:ILE:CB	2.24	0.67
22:AV:146:C:C2	22:AV:147:C:C5	2.82	0.67
22:AV:185:A:H3'	22:AV:186:A:N7	2.09	0.67
24:AX:62:C:O2	24:AX:62:C:H2'	1.94	0.67
25:AY:230:LYS:HE2	25:AY:241:GLU:OE1	1.95	0.67
1:AA:702:A:H62	26:BA:1846:G:H5''	1.59	0.67
26:BA:2146:C:H5''	26:BA:2147:A:OP1	1.95	0.67
26:BA:2155:U:H2'	26:BA:2156:G:O4'	1.95	0.67
56:BB:20:G:O2'	56:BB:21:G:H5'	1.95	0.67
26:BA:2308:G:C5	30:BF:76:PHE:CZ	2.83	0.67
26:BA:2096:C:OP2	32:BH:11:ASN:CG	2.33	0.67
40:BP:29:VAL:HG13	40:BP:79:VAL:HG12	1.77	0.67
1:AA:198:G:C5	1:AA:220:G:C2	2.83	0.67
2:AB:90:PHE:H	2:AB:149:GLY:HA3	1.60	0.67
5:AE:136:VAL:O	5:AE:137:ARG:HB2	1.92	0.67
12:AL:88:ASP:HB3	12:AL:89:LEU:HD12	1.76	0.67
22:AV:195:A:C4	22:AV:196:G:C8	2.83	0.67
22:AV:21:C:N4	22:AV:332:G:C6	2.63	0.67
23:AW:27:LYS:HD3	23:AW:30:GLU:CD	2.16	0.67
24:AX:60:A:H2'	24:AX:61:U:H5'	1.76	0.67
25:AY:343:ASN:C	25:AY:343:ASN:HD22	1.95	0.67
26:BA:1519:G:C4	26:BA:1520:U:C6	2.83	0.67
26:BA:2106:U:H5''	26:BA:2107:G:OP2	1.93	0.67
26:BA:888:C:C4'	26:BA:889:C:C5	2.78	0.67
26:BA:892:A:C6	26:BA:893:C:N4	2.62	0.67
27:BC:161:VAL:HG22	27:BC:175:LEU:HA	1.76	0.67
26:BA:2094:A:H4'	32:BH:25:TYR:CZ	2.30	0.67
32:BH:31:VAL:CB	32:BH:32:PRO:HD2	2.24	0.67
37:BM:111:GLU:C	37:BM:111:GLU:OE1	2.33	0.67
1:AA:518:C:H2'	1:AA:530:G:C8	2.30	0.67
2:AB:16:GLY:HA3	2:AB:39:ILE:HA	1.77	0.67
1:AA:921:U:O2	5:AE:23:THR:O	2.11	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:66:VAL:HG22	9:AI:74:GLN:HG2	1.76	0.67
12:AL:32:VAL:HG21	25:AY:422:GLU:CG	2.23	0.67
13:AM:3:ILE:HD11	13:AM:9:PRO:CG	2.25	0.67
22:AV:31:G:H1	22:AV:324:G:H1'	1.58	0.67
22:AV:60:U:N3	22:AV:63:C:C5	2.63	0.67
23:AW:48:PHE:HZ	23:AW:93:VAL:HG11	1.59	0.67
23:AW:52:GLU:HG3	23:AW:54:TYR:HE1	1.60	0.67
26:BA:1060:U:H5'	26:BA:1062:G:C5'	2.25	0.67
26:BA:1387:A:H2'	26:BA:1388:G:O4'	1.95	0.67
26:BA:1854:A:C3'	26:BA:1855:U:H5'	2.25	0.67
56:BB:53:A:H2'	56:BB:54:G:H5'	1.76	0.67
30:BF:121:PHE:HB3	30:BF:162:ASP:OD2	1.95	0.67
33:BI:6:ALA:HB3	33:BI:60:VAL:H	1.60	0.67
1:AA:1124:G:H3'	1:AA:1145:A:H61	1.59	0.67
1:AA:1337:G:H5'	1:AA:1338:G:OP1	1.95	0.67
1:AA:459:A:C2	1:AA:460:A:C4	2.83	0.67
2:AB:104:LYS:HE2	22:AV:121:A:OP2	1.93	0.67
9:AI:18:VAL:HG11	9:AI:82:ILE:HA	1.75	0.67
16:AP:77:GLU:C	16:AP:79:ASN:N	2.48	0.67
22:AV:110:U:C2	22:AV:111:U:C5	2.82	0.67
22:AV:185:A:C2'	22:AV:186:A:N9	2.56	0.67
22:AV:259:G:H2'	22:AV:260:C:H6	1.58	0.67
22:AV:35:C:H2'	22:AV:36:C:H6	1.59	0.67
22:AV:36:C:C2'	22:AV:37:C:H6	2.03	0.67
22:AV:52:G:H21	22:AV:72:A:H61	0.71	0.67
22:AV:59:U:H2'	22:AV:60:U:H5'	1.75	0.67
22:AV:72:A:H2'	22:AV:72:A:N3	2.08	0.67
23:AW:99:THR:OG1	23:AW:120:ALA:HB3	1.95	0.67
24:AX:14:A:N3	24:AX:15:G:H1'	2.10	0.67
24:AX:52:C:C2	24:AX:53:G:N7	2.63	0.67
25:AY:367:GLU:O	25:AY:367:GLU:HG2	1.94	0.67
26:BA:1474:U:H2'	26:BA:1475:G:H5'	1.76	0.67
56:BB:7:G:C2'	56:BB:8:C:H5'	2.24	0.67
29:BE:146:VAL:CG2	29:BE:167:VAL:HG22	2.24	0.67
6:AF:42:TRP:CD1	6:AF:42:TRP:N	2.63	0.67
10:AJ:56:HIS:O	10:AJ:57:VAL:HG12	1.95	0.67
21:AU:18:PHE:O	21:AU:21:SER:CB	2.42	0.67
22:AV:144:U:H5'	22:AV:145:C:OP2	1.95	0.67
22:AV:173:C:H2'	22:AV:174:A:H5'	1.74	0.67
22:AV:267:G:C2	22:AV:268:U:N3	2.63	0.67
22:AV:8:A:C6	22:AV:346:C:N3	2.63	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AY:113:GLY:C	25:AY:115:GLU:N	2.48	0.67
54:B3:30:HIS:O	54:B3:31:ILE:C	2.33	0.67
26:BA:1179:G:N7	26:BA:1180:U:O4'	2.28	0.67
26:BA:1180:U:H2'	26:BA:1181:U:H5'	1.75	0.67
26:BA:1585:C:C2'	26:BA:1586:A:O5'	2.43	0.67
26:BA:867:C:C2'	26:BA:868:U:C5'	2.58	0.67
39:BO:54:VAL:HG22	56:BB:116:G:H4'	1.76	0.67
33:BI:71:LYS:N	33:BI:71:LYS:CD	2.58	0.67
33:BI:74:PRO:HB2	33:BI:77:VAL:HG13	1.77	0.67
42:BR:41:ILE:O	42:BR:46:GLU:HB2	1.95	0.67
1:AA:1388:C:C2'	1:AA:1389:C:O4'	2.42	0.66
19:AS:28:LYS:CB	19:AS:29:PRO:HD2	2.25	0.66
22:AV:189:C:C3'	22:AV:190:A:H5''	2.23	0.66
22:AV:24:G:H1	22:AV:329:U:H3	1.41	0.66
24:AX:18:U:H4'	24:AX:19:G:OP1	1.95	0.66
26:BA:1067:A:H2'	26:BA:1067:A:N3	2.06	0.66
25:AY:631:ILE:C	26:BA:1067:A:N6	1.93	0.66
26:BA:2105:U:H2'	26:BA:2106:U:O4'	1.95	0.66
26:BA:869:G:O2'	26:BA:870:U:H5'	1.96	0.66
26:BA:899:A:N3	26:BA:899:A:H2'	2.10	0.66
33:BI:27:LEU:HD12	33:BI:27:LEU:O	1.94	0.66
1:AA:1204:A:C5	1:AA:1205:U:C5	2.82	0.66
1:AA:959:A:C2	1:AA:1222:G:O4'	2.48	0.66
5:AE:131:ASN:C	5:AE:131:ASN:HD22	1.99	0.66
5:AE:59:ILE:HG13	5:AE:60:GLN:N	2.10	0.66
6:AF:7:VAL:HG13	6:AF:7:VAL:O	1.96	0.66
8:AH:103:VAL:O	8:AH:103:VAL:HG22	1.94	0.66
8:AH:46:GLU:CA	8:AH:63:LYS:HG2	2.25	0.66
9:AI:10:ARG:HB3	9:AI:15:ALA:HA	1.76	0.66
17:AQ:67:SER:O	17:AQ:68:LYS:C	2.33	0.66
22:AV:257:U:C4'	22:AV:258:G:OP1	2.40	0.66
26:BA:2055:C:H5'	26:BA:2056:G:H5''	1.77	0.66
26:BA:866:A:C8	26:BA:914:G:C2	2.83	0.66
28:BD:85:ALA:HB3	28:BD:88:GLU:HG3	1.76	0.66
26:BA:2304:G:H1'	30:BF:128:SER:HB3	1.78	0.66
33:BI:54:ILE:HG12	33:BI:73:PRO:CA	2.25	0.66
1:AA:1104:G:OP1	2:AB:96:LEU:CD1	2.43	0.66
1:AA:928:G:C5'	1:AA:1503:A:H61	2.07	0.66
2:AB:34:ARG:HE	2:AB:34:ARG:HA	1.59	0.66
4:AD:96:ARG:O	4:AD:100:VAL:HG23	1.95	0.66
10:AJ:40:ILE:HG22	10:AJ:73:LEU:HB2	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AU:13:VAL:HG13	21:AU:15:LEU:CG	2.25	0.66
22:AV:12:U:H3'	22:AV:12:U:P	2.35	0.66
22:AV:130:C:OP1	22:AV:130:C:H4'	1.93	0.66
22:AV:332:G:N2	22:AV:333:G:O6	2.27	0.66
22:AV:19:G:N2	23:AW:21:GLU:O	2.22	0.66
26:BA:1080:A:C2	26:BA:1081:U:C5	2.83	0.66
26:BA:2133:G:C2'	26:BA:2158:A:N6	2.59	0.66
26:BA:867:C:C5	26:BA:868:U:C5	2.83	0.66
31:BG:71:LEU:N	31:BG:71:LEU:HD12	2.09	0.66
32:BH:7:ASP:HA	32:BH:15:LEU:HD22	1.77	0.66
35:BK:8:LEU:N	35:BK:8:LEU:HD12	2.10	0.66
38:BN:57:THR:HG22	38:BN:57:THR:O	1.95	0.66
1:AA:1413:A:H2'	1:AA:1414:U:O5'	1.94	0.66
22:AV:198:U:OP2	22:AV:198:U:H5	1.77	0.66
22:AV:304:C:H2'	22:AV:305:A:C8	2.29	0.66
22:AV:8:A:N3	22:AV:8:A:C3'	2.57	0.66
26:BA:1055:G:H5''	26:BA:1056:G:OP2	1.95	0.66
1:AA:1077:G:C2'	1:AA:1079:G:N7	2.57	0.66
1:AA:943:U:H3	1:AA:1340:A:H2	1.42	0.66
2:AB:147:LEU:HD22	2:AB:150:ILE:HG21	1.78	0.66
10:AJ:49:PHE:CD1	10:AJ:49:PHE:N	2.63	0.66
12:AL:89:LEU:N	12:AL:89:LEU:HD12	2.10	0.66
17:AQ:14:ASP:CA	17:AQ:16:MET:SD	2.83	0.66
25:AY:17:ILE:O	25:AY:85:PRO:HG2	1.96	0.66
26:BA:892:A:H2'	26:BA:893:C:C6	2.29	0.66
26:BA:896:A:C1'	26:BA:897:C:H5''	2.23	0.66
30:BF:11:VAL:HG13	30:BF:171:ALA:HB1	1.76	0.66
45:BU:45:GLN:OE1	45:BU:58:VAL:HG21	1.95	0.66
45:BU:48:VAL:O	45:BU:53:GLN:HB2	1.95	0.66
1:AA:1081:A:H5'	5:AE:22:LYS:HZ1	1.56	0.66
1:AA:1387:G:O2'	1:AA:1388:C:C5'	2.44	0.66
14:AN:35:ALA:CB	14:AN:41:ARG:HB3	2.25	0.66
21:AU:28:LEU:O	21:AU:28:LEU:HD23	1.95	0.66
22:AV:159:C:H2'	22:AV:160:U:H6	1.60	0.66
22:AV:191:A:C3'	22:AV:192:A:C5'	2.61	0.66
25:AY:12:LEU:HB3	25:AY:283:PRO:HG2	1.78	0.66
25:AY:342:TYR:CE2	25:AY:396:ARG:HD2	2.31	0.66
25:AY:530:VAL:HG22	25:AY:531:GLY:N	2.11	0.66
26:BA:2297:A:N1	26:BA:2321:U:H5	1.91	0.66
26:BA:2404:U:C2'	26:BA:2405:G:O5'	2.44	0.66
29:BE:18:THR:HG21	29:BE:19:PHE:CE2	2.29	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1031:C:C2'	1:AA:1032:G:OP2	2.43	0.66
1:AA:35:G:H2'	1:AA:36:C:C6	2.31	0.66
1:AA:510:A:H5''	1:AA:511:C:OP2	1.95	0.66
1:AA:64:G:C2	1:AA:67:C:N4	2.63	0.66
3:AC:111:ASP:O	3:AC:115:VAL:HG23	1.95	0.66
3:AC:21:TRP:CG	3:AC:58:ARG:HG2	2.31	0.66
1:AA:1347:G:C8	9:AI:108:ARG:HB2	2.31	0.66
14:AN:20:PHE:C	14:AN:22:LYS:H	1.99	0.66
19:AS:28:LYS:CB	19:AS:29:PRO:CD	2.74	0.66
22:AV:113:A:N1	22:AV:114:G:C2	2.64	0.66
22:AV:49:C:N3	22:AV:303:G:N1	2.33	0.66
22:AV:40:G:N2	22:AV:41:G:N9	2.43	0.66
22:AV:48:C:C2	22:AV:49:C:O4'	2.49	0.66
25:AY:400:GLU:O	25:AY:402:ILE:HD12	1.96	0.66
25:AY:404:VAL:N	25:AY:405:PRO:HD3	2.10	0.66
25:AY:517:LEU:HB3	25:AY:521:SER:CB	2.26	0.66
26:BA:1714:U:H5''	26:BA:1715:G:C5'	2.26	0.66
26:BA:2114:A:C4	26:BA:2167:U:H5'	2.30	0.66
33:BI:83:ALA:HB2	33:BI:105:LEU:HD11	1.76	0.66
35:BK:34:GLY:O	35:BK:35:VAL:C	2.34	0.66
41:BQ:88:GLU:H	42:BR:49:ILE:HD12	1.60	0.66
1:AA:1133:G:N1	1:AA:1142:G:C6	2.64	0.66
2:AB:102:ASN:HB3	2:AB:105:THR:HB	1.77	0.66
2:AB:162:VAL:HG13	2:AB:184:ALA:HB2	1.78	0.66
21:AU:36:PHE:CD1	21:AU:39:LYS:HE3	2.31	0.66
22:AV:263:G:C3'	22:AV:264:U:C5'	2.72	0.66
22:AV:332:G:O2'	22:AV:333:G:H3'	1.95	0.66
23:AW:46:ALA:O	23:AW:100:LEU:HD23	1.96	0.66
23:AW:81:LEU:HG	23:AW:85:GLU:OE1	1.95	0.66
25:AY:424:LEU:O	25:AY:427:ALA:HB3	1.96	0.66
26:BA:1058:U:H1'	26:BA:1081:U:O2	1.96	0.66
26:BA:1789:A:OP2	27:BC:220:ARG:NH1	2.28	0.66
26:BA:2172:U:OP1	26:BA:2174:C:C5	2.48	0.66
26:BA:2203:U:H5''	26:BA:2204:G:OP1	1.95	0.66
26:BA:906:U:H2'	26:BA:907:G:H8	1.59	0.66
26:BA:973:A:OP2	42:BR:81:LYS:HE3	1.95	0.66
44:BT:1:MET:C	44:BT:3:ARG:HB2	2.16	0.66
49:BY:14:LEU:O	49:BY:17:GLU:HB3	1.96	0.66
1:AA:1057:G:H2'	1:AA:1058:G:O5'	1.95	0.66
1:AA:1341:U:H2'	1:AA:1342:C:H5	1.61	0.66
1:AA:204:G:H3'	1:AA:205:A:H5''	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:918:A:C6	1:AA:919:A:C5	2.84	0.66
3:AC:87:ARG:HG2	3:AC:98:ALA:O	1.96	0.66
9:AI:24:ASN:HB3	9:AI:58:GLU:OE1	1.95	0.66
12:AL:58:ASN:ND2	12:AL:60:PHE:CD1	2.64	0.66
21:AU:9:GLU:CG	21:AU:10:PRO:HD3	2.26	0.66
22:AV:159:C:H2'	22:AV:160:U:C6	2.31	0.66
22:AV:180:G:C3'	22:AV:181:G:O4'	2.44	0.66
22:AV:257:U:O4'	22:AV:258:G:C5	2.48	0.66
25:AY:9:LEU:CD2	25:AY:284:LEU:HB2	2.25	0.66
30:BF:157:THR:HG23	30:BF:159:ALA:H	1.59	0.66
8:AH:95:MET:HB2	8:AH:98:LEU:O	1.96	0.66
12:AL:23:LEU:O	12:AL:24:GLU:C	2.34	0.66
22:AV:167:G:H2'	22:AV:168:G:C8	2.30	0.66
22:AV:199:C:C2	22:AV:200:G:C6	2.84	0.66
22:AV:228:G:H21	22:AV:232:A:H61	1.43	0.66
22:AV:290:A:O2'	22:AV:291:A:H8	1.77	0.66
22:AV:347:PSU:H6	22:AV:347:PSU:OP2	1.78	0.66
22:AV:66:C:C1'	22:AV:70:A:H2	2.09	0.66
23:AW:11:ARG:HD3	23:AW:12:HIS:ND1	2.11	0.66
23:AW:61:ALA:HB1	23:AW:64:GLU:OE2	1.96	0.66
23:AW:62:PRO:O	23:AW:63:TYR:HB2	1.96	0.66
25:AY:20:HIS:HB2	25:AY:87:HIS:HD2	1.61	0.66
25:AY:9:LEU:C	25:AY:9:LEU:HD23	2.17	0.66
26:BA:2103:C:H2'	26:BA:2104:C:H5'	1.78	0.66
26:BA:2473:U:C5	26:BA:2474:U:H5	2.10	0.66
26:BA:408:G:C2	26:BA:420:C:O2	2.49	0.66
26:BA:880:G:C2'	26:BA:899:A:N6	2.59	0.66
34:BJ:49:ASP:OD1	34:BJ:121:LYS:HE3	1.96	0.66
49:BY:6:LEU:HD13	49:BY:56:LEU:HD22	1.76	0.66
1:AA:198:G:C4	1:AA:199:A:C8	2.85	0.65
4:AD:131:ILE:HD12	4:AD:134:TYR:N	2.11	0.65
21:AU:13:VAL:HG13	21:AU:15:LEU:HG	1.79	0.65
22:AV:195:A:C2'	22:AV:196:G:O5'	2.44	0.65
22:AV:63:C:O2'	22:AV:64:C:C5'	2.44	0.65
23:AW:11:ARG:HD3	23:AW:12:HIS:CE1	2.31	0.65
26:BA:2110:G:H2'	26:BA:2120:G:OP2	1.94	0.65
26:BA:2223:G:H2'	26:BA:2224:G:H5'	1.79	0.65
26:BA:1565:C:H3'	27:BC:17:LYS:NZ	2.10	0.65
30:BF:141:ASP:O	30:BF:145:VAL:HG13	1.96	0.65
26:BA:2334:U:O4	39:BO:16:ARG:NH2	2.29	0.65
1:AA:1341:U:H2'	1:AA:1342:C:H6	1.56	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:832:G:C2'	1:AA:833:G:H5'	2.26	0.65
3:AC:181:ILE:HD13	3:AC:202:PHE:HA	1.79	0.65
8:AH:9:MET:HG3	8:AH:26:MET:SD	2.36	0.65
17:AQ:12:VAL:CG1	17:AQ:21:VAL:HG13	2.26	0.65
18:AR:35:SER:HA	18:AR:71:ASP:OD2	1.96	0.65
22:AV:151:C:C2	22:AV:152:C:C5	2.84	0.65
25:AY:119:GLU:O	25:AY:121:VAL:HG22	1.96	0.65
1:AA:55:A:C4	25:AY:321:TYR:HA	2.25	0.65
26:BA:2221:G:O2'	26:BA:2222:C:H5'	1.95	0.65
33:BI:66:PHE:CE1	33:BI:68:PHE:CE1	2.84	0.65
39:BO:31:THR:HG22	39:BO:33:ARG:H	1.61	0.65
1:AA:1033:G:N3	1:AA:1033:G:H2'	2.10	0.65
1:AA:1278:G:H4'	1:AA:1279:G:C8	2.31	0.65
1:AA:1411:C:HO2'	1:AA:1412:C:H5'	1.57	0.65
1:AA:204:G:C8	1:AA:205:A:H5''	2.31	0.65
1:AA:542:G:N3	1:AA:543:U:C5	2.64	0.65
1:AA:874:G:C5	1:AA:875:U:C5	2.84	0.65
7:AG:119:LEU:CD2	7:AG:123:LEU:CD2	2.74	0.65
12:AL:43:LYS:HB2	12:AL:44:PRO:CD	2.26	0.65
1:AA:254:G:OP1	17:AQ:69:THR:HB	1.96	0.65
22:AV:180:G:O3'	22:AV:181:G:O4'	2.14	0.65
22:AV:215:C:O2'	22:AV:216:U:H5'	1.96	0.65
25:AY:637:ARG:HG3	25:AY:637:ARG:HH11	1.61	0.65
26:BA:26:G:C6	26:BA:27:G:N1	2.65	0.65
36:BL:92:LEU:HD12	36:BL:92:LEU:H	1.62	0.65
49:BY:9:LYS:HE2	49:BY:11:VAL:HG21	1.77	0.65
1:AA:1083:U:C5	1:AA:1084:G:C5	2.84	0.65
1:AA:1337:G:C5'	1:AA:1338:G:OP1	2.44	0.65
1:AA:37:U:O2'	1:AA:500:G:H4'	1.97	0.65
1:AA:993:G:N3	1:AA:993:G:H2'	2.11	0.65
13:AM:80:MET:HG2	13:AM:91:ARG:CZ	2.27	0.65
22:AV:113:A:C2	22:AV:114:G:N3	2.64	0.65
22:AV:150:G:C2	22:AV:151:C:N1	2.64	0.65
22:AV:47:G:O2'	22:AV:48:C:H5'	1.96	0.65
22:AV:16:U:C4	23:AW:110:ARG:CZ	2.79	0.65
23:AW:48:PHE:HE2	23:AW:93:VAL:HG21	1.61	0.65
25:AY:485:GLU:HG3	25:AY:553:GLY:HA3	1.77	0.65
26:BA:2141:G:H2'	26:BA:2142:A:H5'	1.78	0.65
26:BA:580:U:H2'	26:BA:581:C:H6	1.62	0.65
33:BI:38:CYS:HB3	33:BI:42:ASN:ND2	2.11	0.65
34:BJ:76:HIS:CE1	34:BJ:85:LYS:HB2	2.31	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:403:C:H2'	1:AA:404:G:O4'	1.96	0.65
1:AA:541:G:C4	1:AA:542:G:C8	2.85	0.65
1:AA:718:A:H5'	11:AK:118:ASN:HB2	1.78	0.65
10:AJ:63:ASP:OD1	14:AN:85:ARG:HD2	1.97	0.65
18:AR:54:LEU:CD1	18:AR:58:ILE:HD11	2.25	0.65
22:AV:213:G:C2	22:AV:245:C:N4	2.46	0.65
22:AV:218:G:H2'	22:AV:219:G:H8	1.62	0.65
22:AV:270:C:N3	22:AV:271:G:N7	2.44	0.65
22:AV:270:C:O2	22:AV:271:G:C8	2.50	0.65
22:AV:45:A:O2'	22:AV:312:A:H1'	1.96	0.65
26:BA:2119:A:C2	26:BA:2169:A:C2	2.85	0.65
26:BA:873:C:C2'	26:BA:874:G:H5'	2.27	0.65
1:AA:205:A:C2	1:AA:206:C:O4'	2.50	0.65
1:AA:376:G:H2'	1:AA:377:G:H8	1.62	0.65
1:AA:410:G:H5''	4:AD:25:ARG:NH2	2.12	0.65
1:AA:481:G:O2'	1:AA:482:A:C8	2.48	0.65
2:AB:55:GLU:HA	2:AB:58:LYS:CB	2.27	0.65
4:AD:189:ASP:O	4:AD:190:LEU:HG	1.97	0.65
22:AV:185:A:H3'	22:AV:186:A:C8	2.31	0.65
22:AV:68:U:C4	22:AV:303:G:H8	2.15	0.65
24:AX:1:C:H42	24:AX:73:A:H61	1.42	0.65
25:AY:21:ILE:HD13	25:AY:21:ILE:N	2.11	0.65
25:AY:526:VAL:HB	25:AY:566:THR:HA	1.77	0.65
26:BA:1169:A:C2	26:BA:1181:U:O2	2.49	0.65
26:BA:141:G:H3'	26:BA:142:A:C8	2.32	0.65
26:BA:2152:G:H2'	26:BA:2153:C:H5'	1.79	0.65
26:BA:594:U:H2'	26:BA:595:C:C6	2.32	0.65
26:BA:912:C:O2	26:BA:913:U:C5	2.49	0.65
27:BC:51:ARG:NH2	27:BC:246:PRO:HG3	2.11	0.65
28:BD:151:THR:HG22	28:BD:152:PRO:CD	2.27	0.65
33:BI:57:VAL:HG23	33:BI:71:LYS:NZ	2.11	0.65
49:BY:17:GLU:O	49:BY:18:LEU:C	2.35	0.65
1:AA:66:A:C2	1:AA:67:C:C6	2.84	0.65
1:AA:744:C:H2'	1:AA:745:G:C8	2.31	0.65
10:AJ:52:LEU:HD11	10:AJ:59:LYS:HA	1.79	0.65
14:AN:43:ASN:OD1	14:AN:47:LYS:HE2	1.97	0.65
22:AV:290:A:C4'	22:AV:291:A:O5'	2.34	0.65
22:AV:301:A:H3'	22:AV:302:A:H5'	1.79	0.65
22:AV:34:A:O2'	22:AV:35:C:H5''	1.95	0.65
23:AW:89:LEU:H	23:AW:89:LEU:CD2	2.03	0.65
23:AW:98:LEU:HD21	23:AW:119:LEU:CD1	2.26	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:B2:43:THR:O	53:B2:44:VAL:CB	2.44	0.65
26:BA:1098:A:C6	26:BA:1099:G:N1	2.65	0.65
26:BA:1687:G:O2'	26:BA:1688:U:H5'	1.95	0.65
26:BA:246:C:H2'	26:BA:247:G:H5'	1.78	0.65
26:BA:888:C:O4'	26:BA:889:C:N4	2.30	0.65
26:BA:895:U:O2'	26:BA:896:A:N7	2.30	0.65
27:BC:161:VAL:HG11	27:BC:173:LEU:HG	1.78	0.65
44:BT:35:ALA:O	44:BT:38:ALA:HB3	1.96	0.65
1:AA:1060:U:C5	3:AC:1:GLY:HA3	2.32	0.65
1:AA:1145:A:H2'	1:AA:1146:A:OP2	1.97	0.65
1:AA:1517:G:H1'	26:BA:1919:A:O2'	1.96	0.65
1:AA:505:G:H4'	1:AA:534:U:C5	2.31	0.65
3:AC:59:PRO:HB3	10:AJ:94:ALA:HB1	1.78	0.65
5:AE:18:ASN:O	5:AE:32:PHE:HA	1.95	0.65
9:AI:96:GLU:N	9:AI:96:GLU:OE2	2.30	0.65
11:AK:121:ARG:CZ	21:AU:35:GLU:HG3	2.26	0.65
11:AK:127:ARG:HG2	11:AK:127:ARG:HH11	1.60	0.65
11:AK:41:LEU:HD22	11:AK:76:TYR:CD2	2.31	0.65
17:AQ:15:LYS:C	17:AQ:16:MET:SD	2.75	0.65
22:AV:249:U:H2'	22:AV:250:U:H6	1.56	0.65
22:AV:38:A:O2'	22:AV:39:A:N9	2.24	0.65
23:AW:47:ARG:NH1	23:AW:48:PHE:HE1	1.95	0.65
24:AX:21:U:C2'	24:AX:22:A:H4'	2.27	0.65
24:AX:59:A:C6	24:AX:62:C:C4	2.85	0.65
25:AY:192:LEU:O	25:AY:192:LEU:HD13	1.96	0.65
26:BA:1060:U:H4'	26:BA:1061:U:H3'	1.78	0.65
26:BA:1180:U:O3'	26:BA:1180:U:OP1	2.14	0.65
26:BA:1234:U:H2'	26:BA:1235:G:O5'	1.97	0.65
26:BA:2637:U:C2'	26:BA:2638:G:H5'	2.27	0.65
27:BC:110:LYS:CE	27:BC:113:ASP:OD1	2.44	0.65
37:BM:108:VAL:HG12	37:BM:109:PRO:HD2	1.78	0.65
38:BN:103:ARG:NE	38:BN:110:MET:HE2	2.11	0.65
1:AA:802:A:H2'	1:AA:803:G:H5'	1.78	0.65
1:AA:805:C:O2'	1:AA:806:C:H5'	1.97	0.65
5:AE:81:GLN:HG2	5:AE:149:PRO:HB3	1.79	0.65
1:AA:1081:A:C5'	5:AE:22:LYS:NZ	2.45	0.65
18:AR:56:ARG:HE	18:AR:60:ARG:NH1	1.95	0.65
22:AV:13:G:N1	22:AV:344:A:N6	2.44	0.65
22:AV:238:A:H2'	22:AV:239:A:O4'	1.97	0.65
22:AV:5:C:O2'	22:AV:6:U:H5''	1.95	0.65
23:AW:82:HIS:O	23:AW:86:LEU:HB3	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:1080:A:H2'	26:BA:1080:A:N3	2.11	0.65
26:BA:881:G:H22	26:BA:895:U:H3	1.44	0.65
26:BA:905:A:N3	26:BA:906:U:C5	2.64	0.65
33:BI:83:ALA:CB	33:BI:105:LEU:HD11	2.27	0.65
25:AY:635:GLU:CB	33:BI:22:PRO:HA	2.25	0.65
46:BV:80:HIS:CG	46:BV:81:PRO:HD2	2.32	0.65
2:AB:119:GLN:N	2:AB:122:ASP:HB2	2.11	0.65
2:AB:88:GLN:CG	2:AB:220:VAL:HG11	2.26	0.65
3:AC:139:ASN:HA	3:AC:142:ARG:CB	2.27	0.65
8:AH:63:LYS:HB2	8:AH:70:VAL:CG2	2.27	0.65
11:AK:13:LYS:O	11:AK:14:GLN:CB	2.45	0.65
3:AC:36:PHE:CZ	14:AN:92:GLU:OE2	2.49	0.65
22:AV:194:G:HO2'	22:AV:195:A:H5'	1.60	0.65
22:AV:266:C:C4	22:AV:267:G:N7	2.64	0.65
22:AV:342:PSU:C2	22:AV:345:A:OP2	2.49	0.65
22:AV:39:A:N6	22:AV:40:G:N1	2.44	0.65
24:AX:50:G:N3	24:AX:51:U:C6	2.65	0.65
26:BA:1313:U:H2'	26:BA:1610:A:C2	2.31	0.65
26:BA:1467:U:C4	26:BA:1546:G:C2	2.85	0.65
26:BA:544:C:C5	26:BA:545:U:C5	2.85	0.65
26:BA:557:C:H2'	26:BA:558:U:H6	1.62	0.65
27:BC:161:VAL:CG1	27:BC:173:LEU:HB3	2.27	0.65
31:BG:123:GLU:OE1	31:BG:123:GLU:HA	1.97	0.65
31:BG:163:TYR:HB2	31:BG:166:GLU:HB2	1.79	0.65
34:BJ:64:VAL:HG13	34:BJ:68:LYS:HB2	1.78	0.65
1:AA:1314:C:O2	1:AA:1315:U:C6	2.49	0.64
1:AA:1341:U:C2	1:AA:1342:C:C5	2.85	0.64
1:AA:1402:C:O2	1:AA:1500:A:N1	2.30	0.64
1:AA:144:G:C5	1:AA:179:A:C2	2.84	0.64
1:AA:737:C:O2'	1:AA:738:C:H5'	1.97	0.64
1:AA:811:C:O2'	1:AA:901:A:N1	2.29	0.64
2:AB:40:ILE:C	2:AB:40:ILE:HD13	2.17	0.64
3:AC:147:GLY:HA3	3:AC:171:ARG:O	1.97	0.64
20:AT:80:ALA:O	20:AT:84:LYS:HG2	1.97	0.64
22:AV:171:A:N1	22:AV:172:U:O4	2.30	0.64
22:AV:199:C:N3	22:AV:200:G:C6	2.65	0.64
24:AX:75:C:H2'	24:AX:76:C:H5'	1.79	0.64
25:AY:416:LYS:HD2	25:AY:417:THR:H	1.60	0.64
26:BA:1840:G:C5	26:BA:1841:U:C5	2.85	0.64
26:BA:2193:G:HO2'	26:BA:2194:U:H5'	1.60	0.64
26:BA:2731:G:C6	26:BA:2732:G:O6	2.50	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:871:U:H4'	37:BM:68:PHE:CZ	2.32	0.64
33:BI:20:SER:HA	33:BI:24:GLY:HA2	1.79	0.64
36:BL:126:ARG:H	36:BL:126:ARG:HD3	1.62	0.64
1:AA:1077:G:N1	1:AA:1081:A:C6	2.66	0.64
1:AA:575:G:O2'	1:AA:821:G:H5'	1.97	0.64
2:AB:212:TYR:HA	2:AB:215:ALA:HB3	1.78	0.64
3:AC:166:TRP:HE3	3:AC:166:TRP:C	2.00	0.64
7:AG:38:ALA:O	7:AG:41:ILE:HB	1.97	0.64
10:AJ:59:LYS:HE3	10:AJ:59:LYS:H	1.63	0.64
22:AV:169:G:H2'	22:AV:170:G:C8	2.31	0.64
22:AV:174:A:C2'	22:AV:175:A:C8	2.75	0.64
22:AV:196:G:C2'	22:AV:229:U:H5'	2.28	0.64
22:AV:17:U:C3'	22:AV:19:G:OP2	2.45	0.64
22:AV:245:C:C5'	22:AV:248:G:C2	2.80	0.64
22:AV:320:U:C1'	22:AV:321:G:P	2.85	0.64
25:AY:434:GLU:OE1	25:AY:465:ARG:NH2	2.30	0.64
26:BA:1045:C:H3'	26:BA:1046:A:H5'	1.78	0.64
26:BA:1086:A:H5''	26:BA:1087:G:OP1	1.97	0.64
27:BC:17:LYS:HA	27:BC:17:LYS:HE3	1.79	0.64
36:BL:90:VAL:HG23	36:BL:120:VAL:HG21	1.78	0.64
1:AA:1538:C:O5'	1:AA:1538:C:H6	1.80	0.64
1:AA:844:G:C6	1:AA:846:G:O2'	2.49	0.64
1:AA:945:G:C2	1:AA:946:A:C8	2.86	0.64
22:AV:132:U:H2'	22:AV:133:A:H8	1.61	0.64
22:AV:269:C:N4	22:AV:270:C:C4	2.65	0.64
22:AV:308:U:C1'	22:AV:309:A:P	2.85	0.64
23:AW:14:TYR:HB3	23:AW:120:ALA:HB1	1.78	0.64
25:AY:553:GLY:HA2	25:AY:560:VAL:CG2	2.28	0.64
26:BA:1416:G:HO2'	26:BA:1417:C:H6	1.44	0.64
26:BA:2133:G:O2'	26:BA:2158:A:N6	2.30	0.64
26:BA:2318:G:C6	26:BA:2319:G:N1	2.65	0.64
26:BA:875:G:C2	26:BA:876:C:C4	2.86	0.64
56:BB:65:U:H2'	56:BB:108:A:N6	2.12	0.64
27:BC:120:ASP:O	27:BC:121:ALA:C	2.36	0.64
28:BD:1:MET:HG3	28:BD:205:PRO:HG2	1.79	0.64
30:BF:7:TYR:HA	30:BF:11:VAL:HG23	1.78	0.64
33:BI:17:ALA:O	33:BI:18:ASN:HB2	1.98	0.64
33:BI:42:ASN:OD1	33:BI:45:THR:HB	1.97	0.64
42:BR:50:GLY:C	42:BR:51:VAL:O	2.34	0.64
44:BT:89:GLU:O	44:BT:91:GLN:HG2	1.97	0.64
1:AA:1347:G:C8	9:AI:108:ARG:HB3	2.32	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:52:LEU:HD13	10:AJ:61:ALA:HB3	1.80	0.64
13:AM:21:ILE:HB	13:AM:24:VAL:HG22	1.77	0.64
13:AM:63:VAL:O	13:AM:68:LEU:HB2	1.97	0.64
19:AS:49:ALA:HA	19:AS:57:VAL:O	1.97	0.64
22:AV:130:C:N3	22:AV:132:U:O4	2.30	0.64
22:AV:175:A:O2'	22:AV:176:G:H5'	1.93	0.64
22:AV:223:G:H2'	22:AV:224:A:OP1	1.96	0.64
22:AV:238:A:C2	22:AV:239:A:C5	2.85	0.64
22:AV:257:U:O4'	22:AV:258:G:N7	2.31	0.64
22:AV:46:U:C5'	22:AV:313:C:H5'	2.27	0.64
25:AY:388:THR:HG21	25:AY:399:LEU:H	1.61	0.64
55:B4:36:ARG:HG2	55:B4:37:GLN:N	2.11	0.64
26:BA:1142:A:C2	26:BA:1144:A:C8	2.86	0.64
26:BA:2094:A:O4'	26:BA:2198:A:N6	2.30	0.64
26:BA:395:U:O2'	26:BA:396:G:N7	2.24	0.64
26:BA:889:C:H5''	26:BA:890:C:OP2	1.98	0.64
33:BI:33:ASN:CB	33:BI:36:GLU:CG	2.76	0.64
44:BT:16:VAL:HG23	44:BT:16:VAL:O	1.95	0.64
44:BT:38:ALA:HA	44:BT:42:GLU:OE1	1.98	0.64
1:AA:1402:C:H2'	1:AA:1403:C:O4'	1.97	0.64
1:AA:1530:G:N3	1:AA:1531:A:N7	2.46	0.64
1:AA:679:C:H2'	1:AA:680:C:O4'	1.97	0.64
1:AA:701:U:H4'	1:AA:702:A:H5''	1.79	0.64
3:AC:57:GLU:HG3	3:AC:64:ARG:HB3	1.80	0.64
7:AG:68:VAL:HG11	7:AG:133:ALA:HB3	1.78	0.64
11:AK:95:THR:O	11:AK:99:LEU:CD2	2.45	0.64
16:AP:20:VAL:CG2	16:AP:35:ARG:HA	2.27	0.64
22:AV:244:G:N2	22:AV:245:C:O2	2.30	0.64
25:AY:21:ILE:CG2	25:AY:88:VAL:HG13	2.27	0.64
25:AY:628:ARG:NH1	25:AY:680:PRO:HG2	2.12	0.64
26:BA:2328:A:H2'	26:BA:2329:U:C6	2.32	0.64
26:BA:895:U:O2	26:BA:896:A:N6	2.29	0.64
56:BB:112:G:H2'	56:BB:113:C:C6	2.33	0.64
32:BH:2:GLN:O	32:BH:3:VAL:HG22	1.97	0.64
32:BH:4:ILE:HG22	32:BH:5:LEU:N	2.13	0.64
35:BK:58:LEU:HD22	35:BK:58:LEU:N	2.13	0.64
38:BN:10:LEU:O	38:BN:12:ARG:N	2.30	0.64
1:AA:1339:A:N3	24:AX:32:G:O3'	2.30	0.64
1:AA:459:A:C2'	1:AA:460:A:O4'	2.46	0.64
1:AA:938:A:C6	1:AA:939:G:C5	2.85	0.64
7:AG:105:GLU:O	7:AG:109:LYS:HG2	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:85:TYR:HD2	8:AH:123:GLU:HA	1.63	0.64
11:AK:60:PHE:O	11:AK:64:VAL:HG12	1.98	0.64
17:AQ:68:LYS:O	17:AQ:69:THR:HB	1.98	0.64
6:AF:7:VAL:HG11	18:AR:64:LEU:HD11	1.79	0.64
21:AU:38:GLU:N	21:AU:40:PRO:HD2	2.11	0.64
22:AV:245:C:O3'	22:AV:248:G:N9	2.30	0.64
22:AV:300:U:C2	22:AV:301:A:C8	2.86	0.64
23:AW:79:LEU:CD2	23:AW:115:VAL:HG11	2.26	0.64
24:AX:15:G:H3'	24:AX:16:C:C5'	2.27	0.64
26:BA:1665:A:N3	35:BK:1:MET:HE2	2.13	0.64
32:BH:31:VAL:O	32:BH:32:PRO:C	2.31	0.64
33:BI:101:SER:HA	33:BI:140:GLU:C	2.18	0.64
33:BI:56:VAL:HA	33:BI:71:LYS:HE2	1.79	0.64
46:BV:50:MET:O	46:BV:52:ALA:N	2.30	0.64
1:AA:1213:A:C8	1:AA:1215:G:C5	2.86	0.64
1:AA:1478:U:H2'	1:AA:1479:C:C6	2.32	0.64
1:AA:542:G:N3	1:AA:543:U:C6	2.65	0.64
4:AD:2:ARG:NH2	4:AD:114:ARG:HD3	2.13	0.64
8:AH:1:SER:C	8:AH:3:GLN:H	2.01	0.64
9:AI:39:GLY:O	9:AI:40:ARG:HB2	1.96	0.64
17:AQ:56:ASP:O	17:AQ:58:VAL:HG12	1.97	0.64
22:AV:216:U:H2'	22:AV:217:G:C8	2.30	0.64
22:AV:21:C:C2'	22:AV:22:G:H5'	2.27	0.64
26:BA:1038:G:O2'	26:BA:1039:A:H5'	1.97	0.64
26:BA:1426:G:H1'	26:BA:1572:A:N6	2.13	0.64
26:BA:1501:G:O2'	26:BA:1502:A:H5'	1.98	0.64
26:BA:1536:C:H4'	26:BA:1537:G:H5''	1.80	0.64
26:BA:164:C:H2'	26:BA:165:A:H5'	1.80	0.64
26:BA:1722:A:N1	26:BA:1723:G:C2	2.66	0.64
26:BA:34:U:O2'	26:BA:35:G:OP1	2.15	0.64
26:BA:889:C:O2	26:BA:891:G:N7	2.30	0.64
26:BA:909:A:C4'	26:BA:910:A:OP1	2.29	0.64
31:BG:79:THR:HG22	31:BG:80:GLU:N	2.12	0.64
32:BH:3:VAL:HB	32:BH:37:VAL:O	1.97	0.64
34:BJ:77:HIS:CD2	34:BJ:79:GLY:H	2.16	0.64
40:BP:112:ARG:O	40:BP:113:LEU:HG	1.97	0.64
42:BR:49:ILE:HG22	42:BR:53:PHE:H	1.60	0.64
1:AA:1078:U:O4	1:AA:1079:G:N1	2.30	0.64
1:AA:1356:G:O2'	1:AA:1357:A:H5'	1.98	0.64
1:AA:636:U:H2'	1:AA:637:C:C6	2.33	0.64
1:AA:768:A:H2'	1:AA:769:G:H5'	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:922:G:O2'	5:AE:25:LYS:HA	1.97	0.64
7:AG:71:THR:HG23	7:AG:72:VAL:HG13	1.79	0.64
10:AJ:48:ARG:C	10:AJ:49:PHE:CD1	2.70	0.64
10:AJ:44:THR:CG2	10:AJ:70:HIS:HA	2.28	0.64
11:AK:13:LYS:O	11:AK:14:GLN:HB2	1.97	0.64
1:AA:1313:U:P	19:AS:5:LYS:HB3	2.38	0.64
22:AV:135:A:H2'	22:AV:136:G:H8	1.62	0.64
22:AV:185:A:C8	22:AV:185:A:OP2	2.51	0.64
22:AV:247:A:H5'	22:AV:248:G:C8	2.32	0.64
25:AY:343:ASN:ND2	25:AY:345:THR:H	1.95	0.64
26:BA:192:C:H2'	26:BA:193:U:H5'	1.79	0.64
26:BA:2092:U:O3'	26:BA:2093:G:OP2	2.16	0.64
26:BA:2202:U:H5''	26:BA:2203:U:OP1	1.96	0.64
26:BA:896:A:O2'	26:BA:897:C:H5''	1.95	0.64
26:BA:978:G:H2'	26:BA:979:A:H5'	1.79	0.64
56:BB:54:G:H2'	56:BB:55:U:H6	1.63	0.64
26:BA:1998:A:OP2	28:BD:141:ARG:NH2	2.30	0.64
29:BE:146:VAL:HG22	29:BE:167:VAL:HG22	1.79	0.64
49:BY:19:LEU:HA	49:BY:22:LEU:HB3	1.79	0.64
1:AA:1246:A:H2'	1:AA:1247:U:C6	2.33	0.64
1:AA:927:G:O2'	1:AA:1503:A:C6	2.50	0.64
4:AD:144:ILE:HG22	4:AD:145:ARG:O	1.97	0.64
4:AD:173:ASP:OD1	4:AD:176:LYS:HE2	1.98	0.64
22:AV:207:A:H2'	22:AV:208:G:H8	1.63	0.64
25:AY:227:ILE:O	25:AY:227:ILE:HG22	1.98	0.64
1:AA:368:U:H5	25:AY:354:ARG:NH2	1.95	0.64
52:B1:7:LYS:HA	52:B1:23:THR:HG22	1.79	0.64
26:BA:1746:A:C2	26:BA:1747:U:C2	2.85	0.64
26:BA:179:C:H2'	26:BA:180:G:O5'	1.98	0.64
26:BA:2161:C:H2'	26:BA:2161:C:O2	1.97	0.64
30:BF:113:PHE:CZ	30:BF:115:GLY:HA2	2.33	0.64
36:BL:19:LEU:HD22	36:BL:31:GLY:O	1.98	0.64
1:AA:1083:U:C5	1:AA:1084:G:C4	2.86	0.64
1:AA:151:A:H2'	1:AA:152:A:O4'	1.98	0.64
1:AA:271:C:H2'	1:AA:272:C:H6	1.63	0.64
3:AC:41:TYR:CE2	3:AC:45:GLU:CG	2.81	0.64
22:AV:162:A:O2'	22:AV:163:G:H5'	1.98	0.64
22:AV:21:C:HO2'	22:AV:22:G:H5'	1.60	0.64
22:AV:272:C:H4'	22:AV:291:A:N1	2.12	0.64
25:AY:334:THR:HG21	25:AY:370:LYS:HG2	1.79	0.64
26:BA:102:U:C4	49:BY:2:LYS:HD2	2.32	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:702:A:N6	26:BA:1846:G:C5'	2.61	0.64
26:BA:276:U:O2	26:BA:276:U:H2'	1.97	0.64
26:BA:615:U:C5	29:BE:35:TYR:CZ	2.86	0.64
26:BA:903:C:HO2'	26:BA:904:G:H5''	1.62	0.64
29:BE:131:THR:HG22	29:BE:160:ALA:HA	1.80	0.64
30:BF:154:THR:HG22	30:BF:154:THR:O	1.98	0.64
32:BH:27:ARG:O	32:BH:28:ASN:CB	2.46	0.64
32:BH:2:GLN:C	32:BH:3:VAL:HG13	2.17	0.64
33:BI:6:ALA:CB	33:BI:60:VAL:H	2.10	0.64
33:BI:79:LEU:HD11	33:BI:132:ALA:HB2	1.79	0.64
36:BL:2:ARG:O	36:BL:2:ARG:HG2	1.97	0.64
36:BL:76:GLU:C	36:BL:77:ILE:HD13	2.17	0.64
1:AA:976:G:C8	1:AA:1358:U:O2	2.51	0.63
1:AA:1387:G:C5	1:AA:1388:C:C5	2.86	0.63
1:AA:144:G:C4	1:AA:179:A:C2	2.86	0.63
1:AA:419:C:H2'	1:AA:420:U:O5'	1.97	0.63
1:AA:737:C:H2'	1:AA:738:C:H6	1.63	0.63
1:AA:921:U:C4	1:AA:1396:A:C6	2.82	0.63
3:AC:71:ARG:N	3:AC:72:PRO:HD3	2.13	0.63
4:AD:117:VAL:HA	4:AD:122:ILE:CD1	2.28	0.63
4:AD:3:TYR:O	4:AD:4:LEU:HB2	1.97	0.63
9:AI:113:LYS:HE2	9:AI:117:LEU:O	1.98	0.63
1:AA:1060:U:H4'	10:AJ:53:ILE:CG2	2.29	0.63
11:AK:39:ASN:O	11:AK:40:ALA:HB3	1.97	0.63
20:AT:53:MET:O	20:AT:56:ILE:CG2	2.46	0.63
22:AV:191:A:H2'	22:AV:192:A:H4'	1.80	0.63
22:AV:225:A:N1	22:AV:226:G:C6	2.66	0.63
22:AV:28:U:O2	22:AV:29:G:C5	2.52	0.63
25:AY:619:ASP:HB3	31:BG:175:LYS:HE2	1.78	0.63
26:BA:271:G:C4'	26:BA:272:A:OP1	2.47	0.63
26:BA:60:G:O2'	26:BA:61:C:O5'	2.17	0.63
26:BA:760:G:C2'	26:BA:761:A:H5'	2.27	0.63
28:BD:56:LYS:O	28:BD:57:ALA:C	2.36	0.63
26:BA:1070:A:C2	33:BI:9:LYS:HG3	2.32	0.63
36:BL:4:ASN:O	36:BL:4:ASN:ND2	2.31	0.63
36:BL:93:ASN:O	36:BL:94:THR:CB	2.46	0.63
38:BN:13:ASN:HD22	38:BN:13:ASN:C	2.00	0.63
1:AA:1412:C:H2'	1:AA:1413:A:H8	1.60	0.63
1:AA:1446:A:C2'	1:AA:1447:A:H5'	2.27	0.63
1:AA:1478:U:H2'	1:AA:1479:C:H6	1.62	0.63
1:AA:452:A:C8	1:AA:452:A:H3'	2.34	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:40:ILE:HG21	2:AB:201:GLY:HA2	1.79	0.63
2:AB:48:MET:O	2:AB:52:ALA:HB2	1.99	0.63
6:AF:3:HIS:HB2	6:AF:92:THR:HA	1.79	0.63
13:AM:76:ILE:CG2	13:AM:80:MET:CE	2.76	0.63
22:AV:184:A:H2'	22:AV:185:A:N3	2.12	0.63
22:AV:334:A:C5'	22:AV:335:C:N3	2.61	0.63
23:AW:78:LYS:CG	23:AW:79:LEU:H	2.11	0.63
26:BA:1076:C:N3	26:BA:1077:A:C6	2.66	0.63
26:BA:2174:C:O2'	26:BA:2175:C:H5'	1.98	0.63
25:AY:626:ALA:HB1	26:BA:2473:U:O4'	1.97	0.63
29:BE:18:THR:CG2	29:BE:19:PHE:CD2	2.80	0.63
1:AA:11:G:H2'	1:AA:12:U:O5'	1.98	0.63
1:AA:1497:G:C2'	1:AA:1498:U:H5'	2.28	0.63
1:AA:214:C:O2'	1:AA:215:C:H5'	1.99	0.63
1:AA:481:G:H4'	1:AA:481:G:OP1	1.98	0.63
1:AA:944:G:H2'	1:AA:1338:G:O6	1.98	0.63
3:AC:166:TRP:O	3:AC:167:TYR:CD1	2.51	0.63
5:AE:73:VAL:HG11	5:AE:143:LEU:HB3	1.80	0.63
1:AA:501:C:OP1	12:AL:113:ARG:NH2	2.32	0.63
13:AM:44:ILE:HA	13:AM:47:LEU:HB2	1.81	0.63
22:AV:148:U:H2'	22:AV:149:A:H8	1.58	0.63
22:AV:161:U:O2	22:AV:162:A:C8	2.51	0.63
22:AV:173:C:C2'	22:AV:174:A:C8	2.80	0.63
22:AV:22:G:H2'	22:AV:23:G:H8	1.61	0.63
22:AV:243:G:H2'	22:AV:244:G:C8	2.33	0.63
22:AV:307:G:O2'	22:AV:311:U:C1'	2.46	0.63
22:AV:343:C:OP1	30:BF:79:ARG:HG2	1.98	0.63
25:AY:18:ALA:O	25:AY:19:ALA:HB2	1.99	0.63
25:AY:464:ASP:O	25:AY:468:ARG:HB2	1.99	0.63
26:BA:1078:U:H1'	26:BA:1088:A:C2	2.33	0.63
26:BA:1414:C:C4	26:BA:1415:U:C5	2.86	0.63
26:BA:2311:A:N7	30:BF:76:PHE:CD2	2.66	0.63
26:BA:535:G:C2'	26:BA:536:G:H5'	2.28	0.63
27:BC:42:ARG:HG3	27:BC:42:ARG:HH11	1.63	0.63
30:BF:154:THR:O	30:BF:154:THR:CG2	2.46	0.63
31:BG:37:ASN:O	31:BG:38:ASP:HB2	1.99	0.63
40:BP:102:ARG:HH11	40:BP:102:ARG:HG2	1.64	0.63
42:BR:28:ALA:HB3	42:BR:31:GLU:HG3	1.80	0.63
1:AA:1341:U:O2	1:AA:1342:C:C5	2.51	0.63
2:AB:116:LEU:HA	2:AB:119:GLN:OE1	1.98	0.63
2:AB:64:GLY:C	2:AB:65:LYS:HD3	2.17	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:14:ASP:HB3	10:AJ:17:LEU:HD22	1.81	0.63
13:AM:19:THR:HA	13:AM:24:VAL:CG2	2.28	0.63
22:AV:116:A:H2'	22:AV:117:G:C5'	2.17	0.63
22:AV:136:G:C2	22:AV:137:C:C6	2.86	0.63
22:AV:15:A:H4'	22:AV:16:U:OP2	1.98	0.63
22:AV:256:G:C2	22:AV:258:G:C2	2.87	0.63
22:AV:40:G:O6	22:AV:316:A:H2	1.80	0.63
23:AW:108:ASN:ND2	23:AW:114:LYS:NZ	2.47	0.63
22:AV:18:C:N3	23:AW:82:HIS:CE1	2.34	0.63
25:AY:255:ILE:HG12	25:AY:256:THR:N	2.14	0.63
26:BA:2852:G:H2'	26:BA:2853:C:C6	2.33	0.63
36:BL:93:ASN:O	36:BL:94:THR:HB	1.98	0.63
38:BN:35:LYS:HB2	38:BN:112:TYR:CE1	2.33	0.63
42:BR:51:VAL:HB	42:BR:52:PRO:CD	2.28	0.63
1:AA:1103:C:H4'	2:AB:96:LEU:CB	2.12	0.63
1:AA:1108:G:H2'	1:AA:1108:G:N3	2.13	0.63
1:AA:148:G:H2'	1:AA:149:A:O5'	1.99	0.63
1:AA:368:U:H6	25:AY:354:ARG:NH2	1.95	0.63
1:AA:666:G:H5'	1:AA:726:C:H1'	1.80	0.63
2:AB:49:PHE:HA	2:AB:52:ALA:CB	2.26	0.63
2:AB:88:GLN:C	2:AB:89:PHE:CD2	2.72	0.63
2:AB:98:GLY:HA2	2:AB:101:THR:HB	1.80	0.63
8:AH:64:TYR:HD2	8:AH:69:ALA:HA	1.63	0.63
19:AS:12:LEU:O	19:AS:15:LEU:N	2.32	0.63
22:AV:163:G:C2	22:AV:164:G:N9	2.67	0.63
22:AV:199:C:N3	22:AV:200:G:O6	2.30	0.63
22:AV:208:G:C2	22:AV:209:C:C4	2.86	0.63
22:AV:208:G:H2'	22:AV:209:C:H6	1.63	0.63
22:AV:48:C:N3	22:AV:49:C:C6	2.67	0.63
22:AV:63:C:C4	22:AV:73:A:N1	2.66	0.63
25:AY:201:ILE:HD12	25:AY:201:ILE:N	2.13	0.63
12:AL:55:ARG:HG2	25:AY:422:GLU:OE2	1.98	0.63
24:AX:20:G:C6	26:BA:2112:G:C1'	2.73	0.63
26:BA:2277:G:C2'	26:BA:2278:A:O5'	2.43	0.63
24:AX:77:A:N7	26:BA:2422:C:O4'	2.30	0.63
27:BC:78:GLU:HB2	27:BC:92:LEU:O	1.98	0.63
30:BF:128:SER:O	30:BF:129:MET:HB3	1.98	0.63
33:BI:92:PRO:HA	33:BI:97:VAL:HG21	1.79	0.63
45:BU:98:ASN:O	45:BU:100:GLU:N	2.32	0.63
48:BX:10:ARG:HB2	48:BX:11:PRO:CD	2.29	0.63
1:AA:1028:C:H2'	1:AA:1028:C:O2	1.97	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:190:A:C8	1:AA:191:G:C8	2.86	0.63
1:AA:601:G:H2'	1:AA:602:A:C8	2.33	0.63
1:AA:626:G:C2'	1:AA:627:G:H5'	2.29	0.63
2:AB:105:THR:O	2:AB:106:VAL:CB	2.46	0.63
2:AB:53:LEU:HD12	2:AB:219:THR:CG2	2.29	0.63
6:AF:7:VAL:HG22	6:AF:7:VAL:O	1.99	0.63
1:AA:1298:U:O4	7:AG:113:LYS:O	2.16	0.63
11:AK:126:ARG:N	21:AU:33:ARG:CZ	2.62	0.63
12:AL:23:LEU:HB2	12:AL:58:ASN:HD22	1.63	0.63
20:AT:4:LYS:O	20:AT:6:ALA:N	2.32	0.63
22:AV:121:A:C6	22:AV:124:A:N1	2.66	0.63
22:AV:216:U:O2'	22:AV:217:G:C5'	2.31	0.63
22:AV:247:A:O4'	22:AV:248:G:N7	2.32	0.63
52:B1:33:LEU:H	52:B1:51:ALA:HB3	1.62	0.63
26:BA:1482:G:C2	26:BA:1483:G:C8	2.87	0.63
26:BA:215:G:H4'	26:BA:216:A:H4'	1.78	0.63
26:BA:2221:G:C2'	26:BA:2222:C:H5'	2.28	0.63
22:AV:361:C:P	26:BA:2602:A:O2'	2.57	0.63
26:BA:2681:C:OP2	28:BD:114:LYS:CE	2.47	0.63
32:BH:6:LEU:HD13	32:BH:37:VAL:HG12	1.81	0.63
32:BH:37:VAL:HG23	32:BH:38:PRO:HD2	1.80	0.63
33:BI:101:SER:HB3	33:BI:104:GLN:NE2	2.13	0.63
33:BI:57:VAL:HG12	33:BI:58:ILE:N	2.12	0.63
42:BR:49:ILE:CG2	42:BR:53:PHE:H	2.11	0.63
1:AA:1037:C:C2	1:AA:1038:C:C5	2.87	0.63
1:AA:943:U:H2'	1:AA:944:G:H5'	1.81	0.63
8:AH:21:LYS:HE2	8:AH:21:LYS:HA	1.79	0.63
16:AP:80:LYS:HE3	16:AP:80:LYS:HA	1.80	0.63
19:AS:12:LEU:O	19:AS:14:LEU:N	2.32	0.63
20:AT:54:GLN:HB3	20:AT:55:PRO:CD	2.29	0.63
22:AV:145:C:C2	22:AV:146:C:C5	2.87	0.63
22:AV:150:G:H21	22:AV:151:C:C1'	2.12	0.63
22:AV:196:G:C4	22:AV:230:U:OP2	2.51	0.63
22:AV:267:G:O2'	22:AV:268:U:C5'	2.30	0.63
22:AV:300:U:O2	22:AV:301:A:C8	2.51	0.63
22:AV:44:C:O2'	22:AV:45:A:O4'	2.17	0.63
22:AV:47:G:N2	22:AV:48:C:C2	2.66	0.63
23:AW:13:ASP:C	23:AW:14:TYR:HD2	2.02	0.63
25:AY:635:GLU:HG3	26:BA:1068:G:H5'	1.81	0.63
26:BA:819:A:C4	26:BA:1189:A:C2	2.87	0.63
26:BA:2332:C:H5''	26:BA:2333:A:OP1	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:374:A:C2	26:BA:401:A:C4	2.85	0.63
26:BA:47:C:H2'	26:BA:48:G:H5'	1.81	0.63
26:BA:602:A:C2	26:BA:656:G:C6	2.87	0.63
26:BA:1490:A:O2'	27:BC:97:ASP:OD2	2.16	0.63
28:BD:150:GLN:O	28:BD:153:GLY:N	2.32	0.63
31:BG:88:LEU:HD12	31:BG:88:LEU:N	2.13	0.63
33:BI:56:VAL:CG2	33:BI:70:THR:HA	2.29	0.63
50:BZ:2:LYS:CD	50:BZ:2:LYS:H	2.11	0.63
1:AA:1341:U:OP1	24:AX:34:U:OP1	2.16	0.63
1:AA:1492:A:H3'	1:AA:1493:A:C8	2.33	0.63
1:AA:214:C:H2'	1:AA:215:C:H6	1.64	0.63
1:AA:413:G:C6	4:AD:32:LYS:HD2	2.33	0.63
1:AA:880:C:OP2	12:AL:2:THR:HG21	1.99	0.63
2:AB:14:HIS:HB2	2:AB:208:ALA:HB2	1.81	0.63
3:AC:41:TYR:OH	3:AC:89:VAL:HG21	1.98	0.63
1:AA:598:U:H4'	8:AH:85:TYR:HD1	1.57	0.63
1:AA:717:U:H4'	11:AK:118:ASN:HD22	1.63	0.63
22:AV:153:U:C4'	22:AV:154:C:OP2	2.42	0.63
22:AV:343:C:OP1	30:BF:79:ARG:CB	2.46	0.63
26:BA:1420:A:N1	26:BA:2211:A:C2	2.67	0.63
26:BA:2211:A:O2'	26:BA:2212:A:OP1	2.15	0.63
26:BA:246:C:C2'	26:BA:247:G:H5'	2.29	0.63
26:BA:10:A:H2	26:BA:2800:A:HO2'	1.46	0.63
26:BA:574:A:H4'	26:BA:575:A:O5'	1.99	0.63
26:BA:846:U:O2	26:BA:846:U:H2'	1.98	0.63
26:BA:885:C:OP2	26:BA:886:A:N6	2.32	0.63
26:BA:887:U:O3'	26:BA:888:C:H3'	1.98	0.63
56:BB:48:U:O2'	56:BB:49:C:H5'	1.98	0.63
27:BC:268:ARG:HH11	27:BC:268:ARG:CG	2.11	0.63
38:BN:103:ARG:NH1	38:BN:110:MET:CE	2.62	0.63
39:BO:54:VAL:O	39:BO:54:VAL:HG22	1.98	0.63
1:AA:1101:A:C4'	1:AA:1102:A:O5'	2.45	0.63
1:AA:1194:U:H2'	1:AA:1195:C:C6	2.34	0.63
1:AA:1413:A:C5	1:AA:1414:U:C5	2.87	0.63
1:AA:1444:U:O2	1:AA:1444:U:H2'	1.98	0.63
1:AA:1480:A:C2	1:AA:1481:U:C2	2.86	0.63
1:AA:429:U:H1'	1:AA:430:A:H5''	1.81	0.63
1:AA:951:G:C6	1:AA:1231:G:C6	2.86	0.63
1:AA:997:U:C2'	1:AA:998:C:H5'	2.29	0.63
13:AM:53:ASP:HA	13:AM:56:ARG:HB2	1.80	0.63
20:AT:81:GLN:O	20:AT:84:LYS:HB2	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:156:G:C4	22:AV:157:C:C4	2.87	0.63
22:AV:173:C:H2'	22:AV:174:A:C8	2.33	0.63
22:AV:44:C:C4	22:AV:300:U:H5	2.17	0.63
22:AV:45:A:O2'	22:AV:312:A:C2'	2.45	0.63
22:AV:343:C:O3'	30:BF:78:ILE:HG13	1.79	0.63
22:AV:44:C:C1'	22:AV:45:A:H8	2.09	0.63
26:BA:1179:G:C8	26:BA:1180:U:O4'	2.52	0.63
26:BA:1621:U:H5''	26:BA:1622:G:OP1	1.99	0.63
26:BA:707:G:O6	26:BA:724:U:O2	2.16	0.63
26:BA:846:U:O2'	26:BA:847:U:C5	2.51	0.63
26:BA:883:G:C5	26:BA:884:U:C4	2.86	0.63
26:BA:887:U:N1	26:BA:888:C:C6	2.66	0.63
26:BA:888:C:P	26:BA:888:C:H3'	2.39	0.63
26:BA:898:C:H2'	26:BA:899:A:C5'	2.29	0.63
33:BI:38:CYS:HB3	33:BI:42:ASN:HD22	1.64	0.63
36:BL:96:LYS:HE2	36:BL:103:ILE:O	1.99	0.63
36:BL:91:ASP:HB3	36:BL:93:ASN:O	1.98	0.63
1:AA:1097:C:O2'	1:AA:1169:A:H2'	1.97	0.62
1:AA:1226:C:N4	13:AM:102:LYS:HG3	2.14	0.62
1:AA:395:C:H2'	1:AA:396:C:C6	2.33	0.62
1:AA:960:U:C5	1:AA:1225:A:C8	2.86	0.62
2:AB:133:ALA:O	2:AB:137:THR:HG23	1.99	0.62
2:AB:215:ALA:O	2:AB:219:THR:CG2	2.47	0.62
4:AD:78:ALA:HB1	4:AD:85:THR:O	1.98	0.62
6:AF:92:THR:HG22	6:AF:93:LYS:N	2.14	0.62
5:AE:82:HIS:CD2	8:AH:95:MET:SD	2.92	0.62
9:AI:5:TYR:HB3	9:AI:88:GLU:HG2	1.81	0.62
14:AN:12:ARG:O	14:AN:16:ALA:HB2	1.98	0.62
20:AT:33:LYS:HA	20:AT:33:LYS:CE	2.29	0.62
22:AV:184:A:C5	22:AV:185:A:N1	2.67	0.62
22:AV:249:U:H2'	22:AV:250:U:C5	2.32	0.62
22:AV:309:A:C3'	22:AV:309:A:OP1	2.47	0.62
22:AV:340:G:H3'	22:AV:341:5MU:H71	1.81	0.62
23:AW:50:ASP:CG	23:AW:51:GLY:H	2.03	0.62
23:AW:62:PRO:CB	23:AW:70:ASN:HD22	2.12	0.62
24:AX:1:C:C2'	24:AX:2:G:H5'	2.28	0.62
26:BA:1452:G:H2'	26:BA:1457:U:O4	1.99	0.62
26:BA:1482:G:N2	26:BA:1483:G:C4	2.67	0.62
26:BA:1547:C:H6	26:BA:1547:C:C5'	2.12	0.62
26:BA:179:C:C2'	26:BA:180:G:O5'	2.47	0.62
26:BA:18:U:OP1	41:BQ:29:ARG:NH2	2.31	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:BB:53:A:C2'	56:BB:54:G:H5'	2.28	0.62
45:BU:39:ASN:HB3	45:BU:62:ALA:HB3	1.81	0.62
1:AA:100:G:N7	1:AA:101:A:N7	2.47	0.62
1:AA:1004:A:C4	1:AA:1026:G:C5	2.86	0.62
1:AA:1032:G:C5'	1:AA:1033:G:OP2	2.47	0.62
1:AA:1211:U:C2'	1:AA:1212:U:OP2	2.46	0.62
1:AA:1390:U:O2'	1:AA:1391:U:C5'	2.30	0.62
1:AA:143:A:H5'	1:AA:144:G:C5'	2.29	0.62
1:AA:595:A:C6	1:AA:641:U:C5	2.87	0.62
1:AA:841:C:H5'	1:AA:843:U:OP2	1.99	0.62
2:AB:53:LEU:N	2:AB:53:LEU:HD22	2.14	0.62
4:AD:34:GLU:O	4:AD:37:PRO:HD3	1.98	0.62
9:AI:14:SER:HA	9:AI:68:GLY:O	1.99	0.62
11:AK:124:LYS:HG2	11:AK:125:LYS:H	1.64	0.62
11:AK:52:ARG:NH2	11:AK:56:LYS:HE2	2.14	0.62
16:AP:51:ARG:HH11	16:AP:51:ARG:CG	2.13	0.62
22:AV:346:C:H2'	22:AV:347:PSU:O4'	1.99	0.62
25:AY:17:ILE:HD12	25:AY:17:ILE:N	2.14	0.62
25:AY:316:ILE:HD12	25:AY:326:THR:HG22	1.80	0.62
25:AY:337:SER:HA	25:AY:355:LEU:HD23	1.80	0.62
26:BA:1420:A:C6	26:BA:2211:A:C2	2.87	0.62
26:BA:994:C:O3'	26:BA:995:C:H3'	1.98	0.62
29:BE:189:THR:CG2	29:BE:190:ALA:N	2.62	0.62
30:BF:4:HIS:O	30:BF:7:TYR:HB3	1.99	0.62
30:BF:56:LEU:HD13	30:BF:88:VAL:HG23	1.80	0.62
37:BM:135:VAL:O	37:BM:136:MET:O	2.17	0.62
39:BO:117:PHE:CD1	39:BO:117:PHE:C	2.73	0.62
40:BP:13:LYS:HE3	40:BP:75:THR:O	1.99	0.62
46:BV:29:ILE:HD13	46:BV:30:ILE:H	1.64	0.62
1:AA:1442:G:C2'	1:AA:1443:C:O5'	2.47	0.62
1:AA:1533:C:H5'	1:AA:1534:A:OP1	1.99	0.62
1:AA:189:A:N7	1:AA:190:A:C6	2.67	0.62
1:AA:609:A:H2'	1:AA:610:U:H5'	1.81	0.62
6:AF:17:GLN:O	6:AF:18:VAL:C	2.38	0.62
6:AF:47:LEU:HD13	6:AF:51:ILE:HG23	1.81	0.62
8:AH:6:ILE:O	8:AH:10:LEU:HD23	1.99	0.62
12:AL:76:HIS:NE2	25:AY:421:GLN:CD	2.52	0.62
13:AM:5:GLY:C	13:AM:7:ASN:N	2.51	0.62
16:AP:51:ARG:HH11	16:AP:51:ARG:HG2	1.64	0.62
22:AV:193:A:H2'	22:AV:194:G:H5'	1.77	0.62
22:AV:344:A:O5'	30:BF:76:PHE:N	2.29	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AY:162:VAL:O	25:AY:164:MET:HG2	1.98	0.62
26:BA:1288:G:C4	26:BA:1327:A:C2	2.87	0.62
26:BA:879:G:O2'	26:BA:880:G:H5''	1.98	0.62
27:BC:78:GLU:OE1	27:BC:100:ARG:NE	2.32	0.62
44:BT:69:ARG:HB2	44:BT:74:ILE:HG22	1.81	0.62
1:AA:209:U:C4'	1:AA:210:C:OP2	2.47	0.62
1:AA:407:U:C2	1:AA:408:A:C8	2.87	0.62
4:AD:28:ASP:C	4:AD:29:THR:O	2.31	0.62
4:AD:49:ASP:O	4:AD:53:GLN:HB2	1.98	0.62
6:AF:18:VAL:HB	6:AF:19:PRO:HD3	1.81	0.62
7:AG:3:ARG:HG3	7:AG:4:ARG:N	2.13	0.62
10:AJ:59:LYS:HD2	10:AJ:59:LYS:C	2.19	0.62
22:AV:218:G:HO2'	22:AV:219:G:H5'	1.62	0.62
22:AV:361:C:H5''	26:BA:2602:A:O2'	1.99	0.62
24:AX:32:G:N1	24:AX:40:C:N4	2.18	0.62
25:AY:165:GLN:C	25:AY:166:LEU:HD12	2.20	0.62
25:AY:655:TYR:OH	25:AY:659:LEU:HD23	1.99	0.62
26:BA:1142:A:N3	26:BA:1144:A:C8	2.67	0.62
26:BA:2318:G:O2'	26:BA:2319:G:H5'	1.98	0.62
26:BA:362:A:N3	26:BA:362:A:H2'	2.15	0.62
56:BB:42:C:C5	56:BB:43:C:C5	2.87	0.62
27:BC:170:TYR:CE2	27:BC:184:GLU:HB3	2.34	0.62
27:BC:42:ARG:HA	27:BC:47:ARG:O	1.99	0.62
32:BH:31:VAL:HB	32:BH:32:PRO:CD	2.25	0.62
41:BQ:57:ARG:HA	41:BQ:60:TRP:CE3	2.34	0.62
43:BS:29:VAL:O	43:BS:33:LEU:HD12	1.99	0.62
1:AA:1041:G:H2'	1:AA:1042:A:C8	2.35	0.62
1:AA:1080:A:P	1:AA:1080:A:H8	2.23	0.62
1:AA:1181:G:N1	1:AA:1182:G:N2	2.47	0.62
1:AA:1389:C:O3'	1:AA:1390:U:C6	2.53	0.62
1:AA:922:G:H1'	1:AA:1398:A:N1	2.13	0.62
2:AB:118:THR:O	2:AB:119:GLN:CB	2.47	0.62
3:AC:120:THR:HG22	3:AC:121:SER:N	2.14	0.62
3:AC:79:LYS:O	3:AC:81:GLU:N	2.33	0.62
4:AD:90:LEU:HD21	4:AD:194:ILE:HD11	1.79	0.62
5:AE:89:THR:HG22	5:AE:90:GLY:H	1.65	0.62
21:AU:24:LYS:CD	21:AU:25:ALA:N	2.62	0.62
22:AV:136:G:C4	22:AV:137:C:C6	2.87	0.62
22:AV:189:C:O2	22:AV:190:A:C8	2.53	0.62
22:AV:271:G:H2'	22:AV:272:C:C6	2.34	0.62
22:AV:311:U:H2'	22:AV:312:A:C5'	2.28	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:341:5MU:N3	22:AV:345:A:N6	2.47	0.62
24:AX:72:C:H3'	24:AX:73:A:H8	1.65	0.62
25:AY:485:GLU:HB2	25:AY:560:VAL:HG22	1.80	0.62
26:BA:1085:A:H2'	26:BA:1086:A:N3	2.14	0.62
26:BA:1434:A:HO2'	26:BA:1435:G:H8	1.45	0.62
26:BA:1435:G:O2'	26:BA:1436:G:H5'	1.99	0.62
26:BA:649:G:H2'	26:BA:650:C:C6	2.34	0.62
26:BA:889:C:C5	26:BA:891:G:C6	2.87	0.62
26:BA:947:A:O2'	26:BA:984:A:C2	2.51	0.62
29:BE:48:THR:HG22	29:BE:86:ALA:HB3	1.82	0.62
30:BF:104:THR:HG23	30:BF:105:ILE:HG23	1.81	0.62
31:BG:173:ALA:O	31:BG:174:LYS:HB3	1.99	0.62
33:BI:46:ASP:HA	33:BI:50:LYS:HD2	1.80	0.62
44:BT:4:GLU:HA	44:BT:7:LEU:HD12	1.81	0.62
1:AA:923:A:C2	1:AA:1399:C:OP2	2.52	0.62
1:AA:399:G:H2'	1:AA:400:C:C6	2.34	0.62
1:AA:595:A:C6	1:AA:641:U:C6	2.87	0.62
2:AB:60:ALA:HA	2:AB:64:GLY:N	2.14	0.62
3:AC:122:GLN:O	3:AC:127:VAL:HG22	2.00	0.62
3:AC:152:VAL:HG12	3:AC:197:VAL:HG22	1.81	0.62
4:AD:115:GLN:NE2	4:AD:119:HIS:CE1	2.68	0.62
14:AN:41:ARG:HG3	14:AN:42:TRP:CD2	2.34	0.62
22:AV:116:A:N3	22:AV:129:G:N1	2.46	0.62
22:AV:225:A:C2	22:AV:226:G:N7	2.66	0.62
22:AV:247:A:H4'	22:AV:248:G:C5'	2.28	0.62
25:AY:165:GLN:HB2	25:AY:260:LEU:CD1	2.29	0.62
25:AY:647:VAL:HG21	25:AY:652:MET:SD	2.39	0.62
26:BA:1372:U:C2'	26:BA:1373:A:O5'	2.48	0.62
26:BA:1988:G:C2'	26:BA:1989:G:H5'	2.29	0.62
26:BA:2192:U:O2'	26:BA:2193:G:H5'	1.99	0.62
26:BA:2888:C:H2'	26:BA:2889:C:C6	2.34	0.62
26:BA:900:A:N3	26:BA:900:A:H2'	2.13	0.62
32:BH:72:ILE:HG21	32:BH:140:ALA:HB1	1.82	0.62
34:BJ:80:HIS:O	34:BJ:82:GLY:N	2.31	0.62
1:AA:328:C:O2	1:AA:328:C:H2'	1.98	0.62
1:AA:340:U:H2'	1:AA:341:C:H6	1.65	0.62
1:AA:64:G:C8	1:AA:99:C:N4	2.68	0.62
4:AD:124:VAL:HG23	4:AD:125:ASN:N	2.14	0.62
4:AD:131:ILE:HD12	4:AD:134:TYR:H	1.64	0.62
4:AD:176:LYS:O	4:AD:177:MET:HB2	1.99	0.62
7:AG:119:LEU:HD22	7:AG:123:LEU:HD23	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:128:LYS:HE2	24:AX:35:C:H4'	1.82	0.62
22:AV:188:C:C2	22:AV:189:C:C6	2.87	0.62
23:AW:48:PHE:CE2	23:AW:93:VAL:HG21	2.35	0.62
25:AY:215:LYS:HA	25:AY:218:GLU:HB3	1.82	0.62
53:B2:12:ARG:HD2	53:B2:44:VAL:HG11	1.80	0.62
26:BA:1410:G:H2'	26:BA:1411:U:C6	2.35	0.62
26:BA:1420:A:HO2'	26:BA:1421:G:C5'	2.13	0.62
26:BA:2592:G:C2'	26:BA:2593:U:H5'	2.29	0.62
26:BA:417:C:H2'	26:BA:418:C:O5'	2.00	0.62
33:BI:19:PRO:O	33:BI:23:VAL:HG23	1.99	0.62
33:BI:4:VAL:O	33:BI:5:GLN:HB3	1.98	0.62
33:BI:76:ALA:HA	33:BI:79:LEU:HD12	1.81	0.62
26:BA:1061:U:C2	33:BI:9:LYS:HB2	2.34	0.62
38:BN:103:ARG:HD3	38:BN:110:MET:HE3	1.81	0.62
1:AA:1077:G:C6	1:AA:1081:A:C6	2.88	0.62
1:AA:1102:A:C2'	1:AA:1103:C:H5'	2.30	0.62
1:AA:1125:U:C5	1:AA:1127:G:C6	2.88	0.62
1:AA:983:A:C2'	1:AA:983:A:N3	2.63	0.62
4:AD:2:ARG:CZ	4:AD:114:ARG:HD3	2.30	0.62
1:AA:1377:A:C6	7:AG:6:ILE:HD12	2.35	0.62
13:AM:9:PRO:O	13:AM:10:ASP:CB	2.48	0.62
14:AN:20:PHE:HA	14:AN:24:ALA:HB3	1.82	0.62
15:AO:88:ARG:NH2	26:BA:714:U:C6	2.68	0.62
21:AU:36:PHE:HA	21:AU:39:LYS:HE2	1.80	0.62
22:AV:315:G:N9	22:AV:316:A:C5	2.67	0.62
24:AX:63:C:C3'	24:AX:64:G:H5''	2.29	0.62
25:AY:534:ILE:HD12	25:AY:567:LEU:HD11	1.80	0.62
25:AY:634:MET:SD	26:BA:1068:G:C4	2.92	0.62
26:BA:108:G:C2'	26:BA:109:C:H5'	2.30	0.62
26:BA:2110:G:O2'	26:BA:2120:G:H5'	1.99	0.62
26:BA:880:G:C2	26:BA:898:C:N4	2.68	0.62
26:BA:882:G:O2'	26:BA:883:G:H5'	1.99	0.62
38:BN:103:ARG:CZ	38:BN:110:MET:HE2	2.30	0.62
41:BQ:20:ALA:HB2	41:BQ:38:VAL:CG2	2.29	0.62
1:AA:429:U:H3'	4:AD:8:LEU:HD23	1.82	0.62
1:AA:16:A:H61	1:AA:919:A:H2	1.47	0.62
3:AC:152:VAL:HG23	3:AC:156:LEU:HD21	1.81	0.62
4:AD:62:ARG:HE	4:AD:62:ARG:HA	1.65	0.62
5:AE:132:PRO:O	5:AE:134:ASN:N	2.33	0.62
5:AE:45:VAL:O	5:AE:70:MET:HG3	1.99	0.62
6:AF:8:PHE:CE1	6:AF:60:VAL:HB	2.35	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:82:HIS:HD2	8:AH:95:MET:SD	2.22	0.62
22:AV:136:G:C2'	22:AV:137:C:O5'	2.47	0.62
22:AV:202:G:C5	22:AV:203:U:C4	2.88	0.62
22:AV:270:C:H1'	22:AV:293:G:N1	2.14	0.62
25:AY:491:VAL:HG12	25:AY:492:ASP:H	1.65	0.62
26:BA:1673:G:C2'	26:BA:1674:G:H5'	2.30	0.62
26:BA:2173:A:H2'	26:BA:2174:C:C6	2.35	0.62
26:BA:454:A:H4'	26:BA:455:C:OP2	2.00	0.62
26:BA:897:C:O2	26:BA:898:C:C5	2.52	0.62
33:BI:20:SER:HA	33:BI:24:GLY:HA3	1.82	0.62
38:BN:63:ARG:HG3	38:BN:80:PHE:CZ	2.35	0.62
1:AA:1210:C:O4'	1:AA:1214:C:C5	2.53	0.62
1:AA:1389:C:H3'	1:AA:1390:U:H5	1.46	0.62
1:AA:1534:A:H2'	1:AA:1535:C:C6	2.35	0.62
1:AA:1101:A:H62	2:AB:173:LYS:HE2	1.65	0.62
4:AD:168:THR:HB	4:AD:183:ARG:NH2	2.15	0.62
8:AH:85:TYR:CE2	8:AH:123:GLU:HB2	2.34	0.62
9:AI:25:GLY:CA	9:AI:58:GLU:HA	2.30	0.62
14:AN:43:ASN:HA	14:AN:45:VAL:HG22	1.82	0.62
22:AV:270:C:H2'	22:AV:271:G:H8	1.64	0.62
22:AV:317:G:C2	22:AV:318:G:C4	2.88	0.62
22:AV:63:C:C4	22:AV:73:A:N6	2.67	0.62
22:AV:7:G:C6	22:AV:336:G:C6	2.87	0.62
25:AY:168:ILE:HD11	25:AY:178:ILE:HD11	1.82	0.62
25:AY:460:GLU:O	25:AY:463:VAL:HB	2.00	0.62
26:BA:1300:G:H4'	26:BA:1301:A:H5'	1.82	0.62
1:AA:1494:G:N9	26:BA:1913:A:H2	1.94	0.62
26:BA:2902:C:C4	26:BA:2903:U:O4	2.53	0.62
30:BF:73:VAL:HG22	30:BF:78:ILE:HD11	1.82	0.62
22:AV:343:C:OP1	30:BF:80:GLN:N	2.33	0.62
33:BI:54:ILE:CG1	33:BI:73:PRO:HB3	2.30	0.62
35:BK:71:ARG:HB2	35:BK:75:SER:HB2	1.80	0.62
42:BR:39:LEU:HA	42:BR:49:ILE:HG23	1.81	0.62
1:AA:1079:G:C6	1:AA:1080:A:N6	2.68	0.61
1:AA:1213:A:C5	1:AA:1215:G:C4	2.87	0.61
1:AA:224:U:H2'	1:AA:225:C:H6	1.64	0.61
1:AA:757:U:O2'	1:AA:879:C:H1'	2.00	0.61
1:AA:842:U:H2'	1:AA:842:U:O2	1.99	0.61
5:AE:80:LEU:HD21	5:AE:122:VAL:HG12	1.82	0.61
9:AI:25:GLY:HA3	9:AI:57:VAL:O	2.00	0.61
22:AV:112:U:H2'	22:AV:113:A:C8	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:12:U:H5	22:AV:348:C:HO2'	1.39	0.61
22:AV:48:C:H2'	22:AV:49:C:H4'	1.75	0.61
23:AW:71:VAL:HG12	23:AW:72:ASP:N	2.14	0.61
25:AY:117:GLN:HE22	25:AY:120:THR:HG23	1.66	0.61
25:AY:603:GLU:O	25:AY:676:TYR:HA	2.00	0.61
26:BA:2056:G:H2'	26:BA:2056:G:N3	2.15	0.61
26:BA:897:C:H2'	26:BA:898:C:C1'	2.29	0.61
26:BA:971:G:OP1	26:BA:974:G:O2'	2.17	0.61
31:BG:108:PHE:HE2	31:BG:151:ARG:CZ	2.13	0.61
34:BJ:69:ARG:O	34:BJ:90:GLU:HB3	1.99	0.61
35:BK:13:ASN:HD22	35:BK:98:ARG:HB2	1.65	0.61
1:AA:61:G:C4	1:AA:107:G:N2	2.68	0.61
1:AA:1096:C:H2'	1:AA:1170:A:O2'	2.00	0.61
1:AA:274:A:H5'	17:AQ:15:LYS:CE	2.30	0.61
1:AA:25:C:C5	1:AA:558:G:N2	2.68	0.61
1:AA:632:U:H6	1:AA:632:U:H3'	1.63	0.61
1:AA:928:G:O2'	1:AA:1533:C:OP1	2.18	0.61
1:AA:943:U:C2'	1:AA:944:G:H5'	2.30	0.61
2:AB:63:LYS:HD3	2:AB:64:GLY:N	2.14	0.61
4:AD:138:PRO:O	4:AD:139:ASN:HB2	2.01	0.61
7:AG:21:LEU:HD11	7:AG:61:PHE:CZ	2.35	0.61
8:AH:35:ILE:HD11	8:AH:125:ILE:HG21	1.82	0.61
11:AK:85:VAL:HG12	11:AK:92:ARG:NH1	2.15	0.61
22:AV:150:G:C2	22:AV:151:C:C6	2.88	0.61
22:AV:223:G:O2'	22:AV:224:A:P	2.58	0.61
22:AV:60:U:C2'	22:AV:62:G:C4'	2.59	0.61
24:AX:7:G:H2'	24:AX:50:G:OP2	2.00	0.61
26:BA:1594:U:H2'	26:BA:1595:C:C6	2.34	0.61
26:BA:2709:G:O2'	26:BA:2710:C:H5'	2.01	0.61
33:BI:33:ASN:HB3	33:BI:36:GLU:H	1.63	0.61
35:BK:91:SER:O	35:BK:93:GLN:HG2	2.00	0.61
37:BM:31:PHE:CZ	37:BM:110:GLU:HB2	2.35	0.61
44:BT:2:ILE:CA	44:BT:3:ARG:HB2	2.30	0.61
48:BX:17:ARG:CZ	48:BX:23:ALA:HB2	2.30	0.61
49:BY:45:GLN:O	49:BY:46:VAL:HB	2.00	0.61
1:AA:1034:G:H2'	1:AA:1035:A:O4'	2.00	0.61
1:AA:1079:G:C2	1:AA:1080:A:N1	2.66	0.61
1:AA:1356:G:N2	1:AA:1357:A:N3	2.48	0.61
1:AA:402:G:C2'	1:AA:403:C:H5'	2.31	0.61
1:AA:1101:A:N6	2:AB:173:LYS:HE2	2.15	0.61
4:AD:3:TYR:CD1	4:AD:3:TYR:C	2.71	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:34:THR:HA	11:AK:40:ALA:HA	1.81	0.61
22:AV:153:U:C1'	22:AV:190:A:N6	2.63	0.61
22:AV:199:C:C6	22:AV:199:C:OP2	2.53	0.61
22:AV:238:A:C2	22:AV:239:A:N7	2.68	0.61
22:AV:269:C:C4	22:AV:270:C:C6	2.87	0.61
22:AV:7:G:C6	22:AV:336:G:C5	2.88	0.61
22:AV:56:C:C2'	22:AV:57:G:O5'	2.47	0.61
22:AV:7:G:N3	22:AV:336:G:C8	2.68	0.61
23:AW:104:LYS:HD3	23:AW:116:LEU:HD23	1.81	0.61
23:AW:43:GLY:O	23:AW:45:PHE:CE1	2.53	0.61
1:AA:1339:A:H1'	24:AX:32:G:O2'	1.99	0.61
25:AY:416:LYS:HD3	25:AY:417:THR:N	2.15	0.61
26:BA:2420:C:OP2	54:B3:32:LEU:HB2	2.00	0.61
26:BA:55:G:O2'	26:BA:127:A:N1	2.26	0.61
26:BA:1494:A:N1	26:BA:1495:A:C2	2.68	0.61
26:BA:2436:G:N3	26:BA:2598:A:H2	1.98	0.61
26:BA:274:C:H2'	26:BA:275:C:O4'	2.00	0.61
26:BA:471:A:O5'	26:BA:471:A:H8	1.83	0.61
31:BG:114:HIS:CD2	31:BG:147:LEU:HD21	2.35	0.61
34:BJ:81:ILE:HG12	34:BJ:82:GLY:CA	2.29	0.61
36:BL:90:VAL:HG23	36:BL:120:VAL:CG2	2.30	0.61
50:BZ:48:ASN:O	50:BZ:51:SER:HB3	2.00	0.61
1:AA:1077:G:C6	1:AA:1081:A:N6	2.69	0.61
1:AA:1389:C:C2	1:AA:1390:U:C2	2.88	0.61
1:AA:1506:U:H4'	11:AK:128:VAL:OXT	2.01	0.61
1:AA:258:G:N2	1:AA:259:G:H1'	2.14	0.61
1:AA:40:C:H2'	1:AA:41:G:O4'	2.00	0.61
1:AA:511:C:H1'	1:AA:512:U:H6	1.65	0.61
9:AI:128:LYS:HE2	24:AX:35:C:C4'	2.30	0.61
10:AJ:28:THR:O	10:AJ:32:THR:HG22	2.01	0.61
22:AV:13:G:N3	22:AV:344:A:N1	2.47	0.61
22:AV:141:C:C2	22:AV:142:U:C5	2.88	0.61
22:AV:155:C:H2'	22:AV:156:G:C5'	2.21	0.61
22:AV:298:A:H2'	22:AV:299:C:C1'	2.30	0.61
22:AV:345:A:C6	22:AV:348:C:N4	2.66	0.61
23:AW:57:ASN:O	23:AW:57:ASN:CG	2.39	0.61
26:BA:819:A:OP2	26:BA:1187:G:N2	2.32	0.61
1:AA:1475:G:H4'	26:BA:1689:A:H4'	1.82	0.61
26:BA:1929:G:H5''	26:BA:1929:G:N3	2.15	0.61
26:BA:2193:G:N3	26:BA:2194:U:C5	2.68	0.61
26:BA:2469:A:H4'	37:BM:55:ARG:NH1	2.15	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:2492:U:C2'	26:BA:2493:U:H5'	2.30	0.61
26:BA:2813:A:C2'	26:BA:2814:A:H5'	2.31	0.61
27:BC:167:ASP:OD2	27:BC:167:ASP:C	2.38	0.61
32:BH:34:GLY:O	32:BH:35:LYS:HG3	2.00	0.61
36:BL:2:ARG:HA	36:BL:5:THR:HG21	1.82	0.61
42:BR:24:LYS:HA	42:BR:94:THR:CG2	2.30	0.61
1:AA:121:U:H4'	1:AA:121:U:OP2	2.01	0.61
1:AA:1533:C:H4'	1:AA:1534:A:OP1	2.00	0.61
1:AA:412:A:H1'	1:AA:413:G:H5''	1.82	0.61
1:AA:542:G:C4	1:AA:543:U:C5	2.88	0.61
1:AA:983:A:H2'	1:AA:983:A:N3	2.16	0.61
2:AB:110:ILE:CG1	2:AB:150:ILE:HG12	2.30	0.61
4:AD:54:LEU:HD23	4:AD:55:ARG:N	2.15	0.61
6:AF:53:LYS:O	6:AF:54:LEU:CB	2.47	0.61
15:AO:41:HIS:CD2	15:AO:42:PHE:CE2	2.88	0.61
20:AT:70:LYS:HG3	20:AT:74:HIS:CD2	2.35	0.61
11:AK:125:LYS:C	21:AU:33:ARG:CZ	2.69	0.61
22:AV:180:G:H2'	22:AV:181:G:O4'	1.92	0.61
22:AV:63:C:O2	22:AV:73:A:C4	2.53	0.61
23:AW:20:TYR:OH	23:AW:88:ARG:NE	2.34	0.61
25:AY:111:SER:O	25:AY:113:GLY:N	2.33	0.61
25:AY:84:THR:O	25:AY:85:PRO:C	2.39	0.61
26:BA:1081:U:H2'	26:BA:1081:U:O2	2.00	0.61
26:BA:1546:G:H5''	26:BA:1547:C:H5''	1.81	0.61
26:BA:1784:A:H4'	26:BA:1785:A:O5'	2.00	0.61
26:BA:2657:A:H1'	26:BA:2665:A:N6	2.16	0.61
26:BA:866:A:C6	26:BA:867:C:H5	2.05	0.61
26:BA:866:A:C4	26:BA:914:G:C4	2.88	0.61
31:BG:95:ALA:HB2	31:BG:104:LEU:HD23	1.81	0.61
32:BH:117:LEU:HD12	32:BH:118:PRO:HD2	1.83	0.61
36:BL:81:ASP:O	36:BL:83:ALA:N	2.34	0.61
1:AA:1023:U:H2'	1:AA:1024:G:O4'	2.00	0.61
1:AA:1057:G:C2'	1:AA:1058:G:O5'	2.48	0.61
1:AA:1320:C:H2'	1:AA:1321:U:O4'	2.01	0.61
1:AA:954:G:H5''	23:AW:92:LYS:NZ	2.16	0.61
1:AA:999:C:H2'	1:AA:1000:A:C8	2.35	0.61
2:AB:88:GLN:HG2	2:AB:220:VAL:HG11	1.83	0.61
4:AD:190:LEU:O	4:AD:190:LEU:HD12	2.00	0.61
4:AD:21:LYS:O	4:AD:23:GLY:N	2.33	0.61
7:AG:46:LEU:HG	7:AG:57:GLU:HG3	1.80	0.61
16:AP:48:GLU:HG3	16:AP:49:GLY:N	2.16	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:73:ALA:O	16:AP:77:GLU:CB	2.48	0.61
19:AS:8:PRO:HB2	19:AS:40:PHE:HZ	1.65	0.61
19:AS:50:VAL:HG12	19:AS:51:HIS:O	2.00	0.61
22:AV:137:C:H41	22:AV:138:C:N4	1.97	0.61
22:AV:157:C:H6	22:AV:157:C:O5'	1.83	0.61
22:AV:173:C:HO2'	22:AV:174:A:H8	1.48	0.61
22:AV:216:U:C2'	22:AV:217:G:H5'	2.31	0.61
22:AV:323:A:C6	22:AV:324:G:C6	2.89	0.61
23:AW:63:TYR:HB3	23:AW:67:SER:HB2	1.83	0.61
25:AY:443:HIS:CE1	25:AY:445:GLU:HB2	2.36	0.61
26:BA:1462:C:O2'	26:BA:1463:C:C5'	2.48	0.61
26:BA:1475:G:O2'	26:BA:1476:U:P	2.58	0.61
26:BA:1502:A:H2'	26:BA:1503:A:O4'	2.01	0.61
26:BA:1997:C:OP2	28:BD:129:THR:HB	2.00	0.61
26:BA:460:A:H2'	26:BA:461:C:O4'	2.01	0.61
33:BI:126:ARG:HA	33:BI:129:GLU:HG3	1.82	0.61
33:BI:100:ILE:CG1	33:BI:137:LEU:HD13	2.31	0.61
33:BI:5:GLN:O	33:BI:6:ALA:HB3	2.00	0.61
49:BY:37:LEU:C	49:BY:37:LEU:HD12	2.21	0.61
1:AA:1216:A:H2'	1:AA:1217:C:H6	1.66	0.61
1:AA:1429:A:O5'	26:BA:1703:G:O2'	2.17	0.61
1:AA:1527:U:H2'	1:AA:1528:U:C6	2.35	0.61
1:AA:91:U:C2	1:AA:92:U:H1'	2.35	0.61
2:AB:63:LYS:HA	2:AB:63:LYS:CE	2.27	0.61
2:AB:63:LYS:O	2:AB:65:LYS:HE2	2.00	0.61
3:AC:152:VAL:HG23	3:AC:156:LEU:CD2	2.31	0.61
4:AD:24:VAL:HG12	4:AD:25:ARG:N	2.15	0.61
1:AA:545:C:OP1	4:AD:68:GLU:HG3	2.01	0.61
5:AE:72:ASN:HD22	5:AE:72:ASN:H	1.49	0.61
8:AH:57:GLU:HA	8:AH:57:GLU:OE2	2.01	0.61
8:AH:82:LEU:HD13	8:AH:84:ILE:HD11	1.82	0.61
15:AO:72:LYS:CE	15:AO:72:LYS:HA	2.31	0.61
22:AV:245:C:C5'	22:AV:246:U:OP2	2.49	0.61
24:AX:18:U:H1'	24:AX:19:G:O5'	2.01	0.61
9:AI:128:LYS:NZ	24:AX:35:C:OP2	2.22	0.61
51:B0:22:THR:HG23	51:B0:22:THR:O	2.01	0.61
26:BA:211:C:OP1	53:B2:25:LYS:NZ	2.34	0.61
26:BA:1731:G:C6	26:BA:1733:G:C5	2.88	0.61
26:BA:2799:A:O2'	26:BA:2800:A:H5'	2.01	0.61
26:BA:280:U:H2'	26:BA:281:C:O4'	2.01	0.61
26:BA:533:G:OP1	41:BQ:23:TYR:O	2.19	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:889:C:O2	26:BA:889:C:C2'	2.48	0.61
28:BD:1:MET:SD	28:BD:100:LEU:CD1	2.89	0.61
28:BD:4:LEU:HD23	28:BD:101:PHE:CE1	2.34	0.61
28:BD:33:ARG:NH2	28:BD:74:GLU:O	2.33	0.61
26:BA:323:C:H2'	29:BE:163:ASN:HD21	1.64	0.61
30:BF:120:SER:HB2	30:BF:127:TYR:CE1	2.34	0.61
30:BF:40:GLY:HA2	30:BF:84:ILE:CD1	2.31	0.61
42:BR:74:ILE:HD12	42:BR:74:ILE:N	2.15	0.61
1:AA:1238:A:C2	1:AA:1241:G:N3	2.69	0.61
3:AC:155:ARG:H	3:AC:162:ALA:HA	1.65	0.61
9:AI:29:ILE:HD11	9:AI:37:TYR:CD2	2.35	0.61
10:AJ:57:VAL:HG22	10:AJ:58:ASN:H	1.65	0.61
12:AL:49:ARG:CB	12:AL:89:LEU:HD21	2.29	0.61
15:AO:18:ALA:O	15:AO:19:ASN:CB	2.49	0.61
16:AP:79:ASN:HB2	16:AP:82:ALA:O	2.00	0.61
22:AV:172:U:C2	22:AV:173:C:C5	2.88	0.61
22:AV:180:G:H3'	22:AV:181:G:H8	1.64	0.61
22:AV:188:C:O2	22:AV:189:C:C6	2.53	0.61
22:AV:221:U:N3	22:AV:222:U:C5	2.68	0.61
22:AV:20:A:H2'	23:AW:78:LYS:NZ	2.15	0.61
25:AY:573:HIS:CD2	25:AY:576:ASP:H	2.15	0.61
36:BL:48:ARG:HD2	54:B3:59:ALA:O	2.01	0.61
26:BA:1060:U:C5'	26:BA:1062:G:H5'	2.30	0.61
26:BA:1403:A:C2	26:BA:1404:C:C2	2.89	0.61
26:BA:1893:C:H2'	26:BA:1894:C:H5'	1.82	0.61
26:BA:2522:U:H2'	26:BA:2523:G:H5'	1.81	0.61
26:BA:417:C:H2'	26:BA:418:C:H6	1.65	0.61
26:BA:903:C:N3	26:BA:904:G:N7	2.49	0.61
27:BC:251:THR:HG22	27:BC:252:LYS:H	1.65	0.61
28:BD:103:ASP:C	28:BD:103:ASP:OD1	2.38	0.61
40:BP:21:PRO:HD3	40:BP:49:ILE:HD12	1.82	0.61
1:AA:1031:C:C4'	1:AA:1032:G:H5''	2.31	0.61
1:AA:1057:G:H5''	3:AC:153:SER:O	2.01	0.61
1:AA:1233:G:C6	1:AA:1234:C:C4	2.88	0.61
1:AA:1271:A:H5'	1:AA:1314:C:C5'	2.31	0.61
1:AA:533:A:C2	1:AA:536:C:C6	2.89	0.61
1:AA:694:A:OP1	11:AK:54:SER:HB3	2.01	0.61
5:AE:39:GLY:HA3	5:AE:116:VAL:O	2.00	0.61
1:AA:1348:U:H4'	9:AI:121:ARG:HG3	1.82	0.61
11:AK:87:GLY:H	11:AK:113:THR:HG22	1.66	0.61
17:AQ:13:SER:CB	17:AQ:21:VAL:CG1	2.79	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:323:A:N3	22:AV:324:G:N7	2.47	0.61
22:AV:35:C:HO2'	22:AV:36:C:H5'	1.63	0.61
23:AW:108:ASN:ND2	23:AW:114:LYS:HZ1	1.98	0.61
24:AX:36:A:O2'	24:AX:37:U:H5'	2.01	0.61
25:AY:457:LEU:O	25:AY:461:ILE:HG13	2.01	0.61
26:BA:1372:U:H2'	26:BA:1373:A:C5'	2.30	0.61
22:AV:362:C:OP1	26:BA:2602:A:OP1	2.19	0.61
26:BA:304:U:O2'	26:BA:305:C:H5'	2.01	0.61
26:BA:404:A:C1'	26:BA:405:U:OP2	2.47	0.61
27:BC:159:THR:H	27:BC:194:VAL:CG1	2.13	0.61
31:BG:41:GLU:HG3	31:BG:54:ARG:HH21	1.66	0.61
33:BI:46:ASP:HA	33:BI:50:LYS:CD	2.30	0.61
33:BI:66:PHE:CD2	33:BI:66:PHE:N	2.68	0.61
36:BL:87:GLY:O	36:BL:89:VAL:HG12	2.00	0.61
37:BM:54:THR:O	37:BM:56:ALA:N	2.33	0.61
39:BO:28:VAL:HG11	39:BO:92:PHE:CZ	2.36	0.61
40:BP:62:LYS:HE3	40:BP:64:SER:HB2	1.82	0.61
1:AA:1216:A:C2	1:AA:1217:C:C5	2.89	0.61
1:AA:1386:G:H2'	1:AA:1387:G:H8	1.66	0.61
1:AA:451:A:O4'	1:AA:452:A:C2	2.53	0.61
5:AE:155:LYS:HA	8:AH:65:PHE:CD2	2.35	0.61
6:AF:46:GLN:HB2	6:AF:56:LYS:HE3	1.82	0.61
14:AN:49:GLN:OE1	14:AN:49:GLN:HA	2.01	0.61
16:AP:73:ALA:O	16:AP:77:GLU:HB3	2.01	0.61
21:AU:33:ARG:NH2	21:AU:34:ARG:HD2	2.16	0.61
24:AX:24:C:H6	24:AX:24:C:O5'	1.84	0.61
24:AX:49:C:O2'	24:AX:60:A:H1'	2.01	0.61
25:AY:491:VAL:HG12	25:AY:492:ASP:N	2.15	0.61
25:AY:634:MET:CG	26:BA:1068:G:C1'	2.73	0.61
25:AY:71:THR:HG21	25:AY:357:ARG:HD2	1.83	0.61
26:BA:1344:U:H4'	26:BA:1345:C:OP2	2.01	0.61
26:BA:2304:G:H2'	26:BA:2305:U:C5'	2.31	0.61
26:BA:2683:C:OP1	40:BP:50:ARG:NH2	2.34	0.61
26:BA:460:A:OP1	53:B2:41:ARG:NH1	2.32	0.61
26:BA:725:G:C6	26:BA:726:G:N1	2.69	0.61
26:BA:905:A:C2	26:BA:906:U:C4	2.89	0.61
27:BC:16:VAL:N	27:BC:203:VAL:HG22	2.16	0.61
33:BI:125:THR:HG22	33:BI:126:ARG:N	2.15	0.61
36:BL:2:ARG:HA	36:BL:5:THR:CG2	2.31	0.61
36:BL:85:VAL:HG11	36:BL:94:THR:HG22	1.83	0.61
26:BA:96:C:H4'	49:BY:41:HIS:CD2	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1285:A:H5'	1:AA:1286:U:O4	2.01	0.60
1:AA:1314:C:OP2	19:AS:5:LYS:NZ	2.28	0.60
1:AA:595:A:C5	1:AA:641:U:C5	2.88	0.60
1:AA:929:G:H5'	1:AA:1533:C:C5'	2.31	0.60
3:AC:54:ILE:HD12	3:AC:54:ILE:O	2.01	0.60
7:AG:39:GLU:HA	7:AG:42:VAL:HG22	1.82	0.60
10:AJ:80:THR:O	10:AJ:83:THR:HG22	2.00	0.60
14:AN:25:GLU:HB2	14:AN:28:ALA:HB2	1.83	0.60
20:AT:43:LYS:HB3	20:AT:86:ALA:HB1	1.83	0.60
11:AK:109:ILE:CG2	21:AU:16:ARG:HE	2.14	0.60
22:AV:17:U:C2'	23:AW:114:LYS:HE2	2.30	0.60
22:AV:17:U:O2	22:AV:334:A:N6	2.31	0.60
22:AV:54:G:OP2	22:AV:54:G:C4'	2.49	0.60
24:AX:34:U:C4	24:AX:37:U:OP2	2.53	0.60
26:BA:1059:G:H5''	26:BA:1060:U:H3'	1.81	0.60
26:BA:2133:G:C2'	26:BA:2158:A:H61	2.14	0.60
26:BA:2674:G:H4'	35:BK:30:ARG:HD2	1.83	0.60
26:BA:877:A:N7	26:BA:878:A:N7	2.49	0.60
26:BA:995:C:H5'	26:BA:995:C:H6	1.66	0.60
27:BC:143:VAL:HB	27:BC:153:LEU:HD12	1.82	0.60
27:BC:170:TYR:CD2	27:BC:184:GLU:HA	2.36	0.60
30:BF:107:VAL:HG12	30:BF:108:PRO:HD3	1.83	0.60
25:AY:635:GLU:HB3	33:BI:22:PRO:CA	2.31	0.60
35:BK:70:ARG:HD3	35:BK:76:VAL:HG22	1.84	0.60
40:BP:80:VAL:HG12	40:BP:80:VAL:O	1.99	0.60
43:BS:59:GLU:HG3	43:BS:66:ILE:CD1	2.31	0.60
46:BV:2:PHE:CD1	46:BV:50:MET:HE3	2.31	0.60
46:BV:48:MET:O	46:BV:51:GLN:HG3	2.01	0.60
1:AA:1134:G:C5	1:AA:1141:C:N4	2.69	0.60
1:AA:1213:A:N7	1:AA:1215:G:C5	2.70	0.60
1:AA:1341:U:C2'	1:AA:1342:C:C6	2.82	0.60
1:AA:164:G:H2'	1:AA:165:G:H5'	1.81	0.60
1:AA:468:A:H5'	1:AA:469:C:OP2	2.01	0.60
1:AA:918:A:C6	1:AA:919:A:N6	2.69	0.60
2:AB:118:THR:O	2:AB:119:GLN:HB2	2.01	0.60
5:AE:59:ILE:O	5:AE:62:ALA:HB3	2.01	0.60
6:AF:3:HIS:O	6:AF:4:TYR:CG	2.54	0.60
6:AF:92:THR:O	6:AF:93:LYS:HG2	2.00	0.60
9:AI:33:SER:CB	9:AI:36:GLN:HG3	2.30	0.60
10:AJ:52:LEU:HD22	10:AJ:62:ARG:HG2	1.83	0.60
22:AV:149:A:C1'	22:AV:150:G:N7	2.64	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:171:A:H2'	22:AV:172:U:H5'	1.82	0.60
22:AV:188:C:C2'	22:AV:189:C:H5''	2.32	0.60
22:AV:247:A:C5'	22:AV:248:G:C8	2.83	0.60
22:AV:270:C:C2'	22:AV:271:G:C5'	2.75	0.60
22:AV:269:C:N3	22:AV:270:C:C5	2.68	0.60
22:AV:271:G:C4	22:AV:272:C:C5	2.89	0.60
22:AV:67:G:H1'	22:AV:68:U:C5	2.36	0.60
23:AW:62:PRO:CG	23:AW:73:PRO:HG3	2.30	0.60
25:AY:122:TRP:C	25:AY:124:GLN:H	2.03	0.60
25:AY:238:THR:CG2	25:AY:241:GLU:H	2.14	0.60
26:BA:1856:U:C2'	26:BA:1857:G:H5'	2.31	0.60
26:BA:2102:G:N2	26:BA:2188:U:H1'	2.16	0.60
26:BA:881:G:O6	26:BA:895:U:O4	2.18	0.60
39:BO:83:LEU:HD22	39:BO:88:LYS:HB3	1.83	0.60
40:BP:80:VAL:HG11	40:BP:83:ILE:HD11	1.83	0.60
1:AA:1375:A:C5	1:AA:1376:U:C4	2.90	0.60
1:AA:1443:C:C4	1:AA:1444:U:C5	2.89	0.60
1:AA:1491:G:H2'	1:AA:1492:A:C8	2.36	0.60
1:AA:196:A:N3	1:AA:222:C:H1'	2.17	0.60
2:AB:15:PHE:O	2:AB:40:ILE:HD12	2.01	0.60
4:AD:176:LYS:H	4:AD:176:LYS:HD3	1.67	0.60
6:AF:86:ARG:HH11	6:AF:86:ARG:CG	2.13	0.60
13:AM:44:ILE:HA	13:AM:47:LEU:CB	2.31	0.60
22:AV:298:A:C4	22:AV:299:C:C6	2.89	0.60
22:AV:299:C:C2'	22:AV:300:U:H5''	2.31	0.60
22:AV:46:U:H5''	22:AV:313:C:H5'	1.83	0.60
23:AW:63:TYR:OH	23:AW:65:LYS:HE3	2.01	0.60
25:AY:389:LEU:N	25:AY:389:LEU:HD12	2.16	0.60
25:AY:617:MET:HE1	26:BA:1095:A:C1'	2.07	0.60
25:AY:630:GLN:HE22	25:AY:646:PHE:HD2	1.48	0.60
26:BA:138:U:H4'	26:BA:139:U:C5'	2.31	0.60
30:BF:116:LEU:HD23	30:BF:175:PRO:HB2	1.82	0.60
36:BL:110:VAL:N	36:BL:111:ILE:HD12	2.17	0.60
50:BZ:29:ARG:O	50:BZ:30:ARG:HB3	2.01	0.60
1:AA:1313:U:P	19:AS:5:LYS:CB	2.89	0.60
1:AA:1375:A:H2'	1:AA:1376:U:C5'	2.28	0.60
1:AA:929:G:H4'	1:AA:1533:C:H5'	1.84	0.60
3:AC:51:VAL:HG21	3:AC:67:ILE:CG2	2.31	0.60
3:AC:61:LYS:CE	3:AC:61:LYS:HA	2.30	0.60
6:AF:46:GLN:HB2	6:AF:56:LYS:CE	2.32	0.60
13:AM:18:LEU:CD1	13:AM:32:ILE:HG21	2.30	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:157:C:H2'	22:AV:158:U:H5'	1.84	0.60
22:AV:193:A:H2'	22:AV:194:G:C8	2.34	0.60
22:AV:20:A:C2'	22:AV:21:C:C5	2.84	0.60
22:AV:257:U:C6	22:AV:258:G:O6	2.54	0.60
22:AV:21:C:C1'	23:AW:78:LYS:NZ	2.65	0.60
25:AY:402:ILE:H	25:AY:402:ILE:HD12	1.65	0.60
25:AY:82:ILE:HD12	25:AY:101:LEU:CD2	2.31	0.60
26:BA:2051:A:H8	26:BA:2051:A:OP2	1.84	0.60
27:BC:104:LEU:HD12	27:BC:104:LEU:N	2.15	0.60
28:BD:55:LYS:HG2	28:BD:56:LYS:N	2.16	0.60
33:BI:66:PHE:CD1	33:BI:68:PHE:CD1	2.89	0.60
1:AA:190:A:N7	1:AA:191:G:C8	2.69	0.60
1:AA:451:A:C2	1:AA:480:U:C4	2.90	0.60
1:AA:938:A:H2'	1:AA:939:G:O5'	2.01	0.60
5:AE:102:THR:CG2	5:AE:103:GLY:N	2.65	0.60
7:AG:39:GLU:HA	7:AG:42:VAL:CG2	2.32	0.60
9:AI:105:ARG:NH1	9:AI:107:ALA:HA	2.15	0.60
13:AM:113:LYS:CB	13:AM:114:PRO:CD	2.78	0.60
20:AT:53:MET:O	20:AT:56:ILE:HG22	2.02	0.60
21:AU:35:GLU:O	21:AU:36:PHE:CB	2.50	0.60
22:AV:21:C:C6	22:AV:22:G:C8	2.89	0.60
22:AV:270:C:H2'	22:AV:271:G:C5'	2.30	0.60
22:AV:46:U:O3'	22:AV:313:C:H5'	2.00	0.60
22:AV:9:U:H3'	23:AW:35:ARG:NH2	2.16	0.60
23:AW:72:ASP:HB2	23:AW:75:ARG:NH2	2.16	0.60
51:B0:52:LYS:O	51:B0:52:LYS:CG	2.49	0.60
26:BA:1509:A:O2'	26:BA:1510:G:P	2.58	0.60
26:BA:1526:C:H2'	26:BA:1527:G:O5'	2.00	0.60
26:BA:1740:G:O2'	26:BA:1741:C:H5'	2.00	0.60
26:BA:2092:U:H4'	26:BA:2093:G:O5'	2.01	0.60
26:BA:2542:A:H5''	26:BA:2766:A:O2'	2.02	0.60
27:BC:229:HIS:CD2	27:BC:246:PRO:HB3	2.36	0.60
32:BH:11:ASN:O	32:BH:12:LEU:HB3	2.01	0.60
49:BY:56:LEU:O	49:BY:57:LEU:HB3	2.00	0.60
1:AA:1317:C:H2'	1:AA:1318:A:C5'	2.32	0.60
1:AA:1502:A:C8	1:AA:1504:G:C5	2.89	0.60
1:AA:622:A:H2'	1:AA:623:C:H5'	1.83	0.60
1:AA:868:C:C2'	1:AA:869:G:H5'	2.30	0.60
1:AA:917:G:O6	1:AA:918:A:C6	2.52	0.60
5:AE:81:GLN:OE1	5:AE:147:ASN:O	2.18	0.60
6:AF:86:ARG:HH11	6:AF:86:ARG:HG2	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:7:ARG:HB2	10:AJ:75:ASP:OD1	2.02	0.60
15:AO:34:GLN:HB3	15:AO:58:MET:CE	2.31	0.60
22:AV:207:A:N3	22:AV:208:G:C8	2.69	0.60
22:AV:245:C:H5''	22:AV:248:G:N2	2.16	0.60
22:AV:315:G:C4	22:AV:316:A:C6	2.90	0.60
25:AY:634:MET:HG2	26:BA:1068:G:C1'	2.32	0.60
25:AY:605:ILE:HG23	25:AY:646:PHE:HB3	1.82	0.60
26:BA:117:G:C6	26:BA:119:A:N6	2.70	0.60
26:BA:1243:C:H2'	26:BA:1244:A:O5'	2.01	0.60
26:BA:2075:U:C2'	26:BA:2077:A:OP2	2.49	0.60
26:BA:947:A:O2'	26:BA:984:A:H2	1.83	0.60
28:BD:26:VAL:HG12	28:BD:186:LEU:HD13	1.82	0.60
33:BI:37:PHE:CD1	33:BI:41:PHE:HB2	2.36	0.60
36:BL:75:ALA:HB2	36:BL:105:ILE:HD12	1.82	0.60
42:BR:39:LEU:CA	42:BR:49:ILE:HG23	2.31	0.60
42:BR:64:VAL:O	42:BR:65:ALA:HB2	2.02	0.60
43:BS:4:ILE:N	43:BS:4:ILE:HD12	2.17	0.60
45:BU:6:ARG:O	45:BU:7:ASP:C	2.38	0.60
49:BY:13:GLU:C	49:BY:15:ASN:H	2.05	0.60
1:AA:1080:A:O5'	1:AA:1080:A:H8	1.84	0.60
1:AA:1231:G:C5	1:AA:1232:U:C5	2.89	0.60
1:AA:1397:C:HO2'	1:AA:1398:A:P	2.24	0.60
1:AA:922:G:N9	1:AA:1398:A:C2	2.69	0.60
1:AA:1534:A:N1	1:AA:1535:C:C2	2.69	0.60
1:AA:243:A:C2	1:AA:246:A:C8	2.90	0.60
1:AA:202:G:O2'	1:AA:468:A:C8	2.48	0.60
1:AA:495:A:C2	1:AA:496:A:N6	2.69	0.60
1:AA:882:C:C2'	1:AA:883:C:O5'	2.50	0.60
1:AA:909:A:C8	1:AA:910:C:C5	2.90	0.60
2:AB:71:THR:O	2:AB:72:LYS:HB3	2.01	0.60
14:AN:51:LEU:N	14:AN:51:LEU:HD23	2.17	0.60
21:AU:10:PRO:HD2	21:AU:11:PHE:CD2	2.36	0.60
22:AV:218:G:N2	22:AV:219:G:C4	2.70	0.60
22:AV:46:U:HO2'	22:AV:313:C:P	2.25	0.60
23:AW:55:LEU:HB2	23:AW:79:LEU:HD11	1.83	0.60
24:AX:37:U:C2'	24:AX:38:A:H5'	2.31	0.60
25:AY:264:LEU:HD23	25:AY:264:LEU:O	2.01	0.60
26:BA:1064:C:H2'	26:BA:1064:C:O2	2.02	0.60
26:BA:2516:A:N6	26:BA:2517:C:N4	2.50	0.60
26:BA:47:C:C2'	26:BA:48:G:H5'	2.32	0.60
26:BA:889:C:N1	26:BA:891:G:C5	2.69	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:8:C:O2'	26:BA:9:G:H5'	2.02	0.60
26:BA:911:A:C5	37:BM:9:PHE:CE1	2.84	0.60
28:BD:39:ASP:OD2	28:BD:40:LEU:HB2	2.01	0.60
36:BL:85:VAL:HG11	36:BL:95:LEU:HD23	1.84	0.60
38:BN:103:ARG:CZ	38:BN:110:MET:CE	2.79	0.60
39:BO:76:LYS:HE3	39:BO:80:GLU:OE2	2.02	0.60
41:BQ:23:TYR:O	41:BQ:24:TYR:HB2	2.01	0.60
44:BT:1:MET:HB2	44:BT:2:ILE:HD12	1.83	0.60
1:AA:1145:A:C2'	1:AA:1146:A:OP2	2.49	0.60
1:AA:1387:G:H2'	1:AA:1388:C:H6	1.65	0.60
1:AA:930:C:C4	1:AA:931:C:C5	2.89	0.60
1:AA:93:U:H2'	1:AA:94:G:H5'	1.83	0.60
2:AB:168:GLU:OE1	2:AB:168:GLU:HA	2.00	0.60
4:AD:121:ALA:N	4:AD:122:ILE:CD1	2.64	0.60
6:AF:51:ILE:HG12	6:AF:51:ILE:O	2.02	0.60
10:AJ:63:ASP:OD1	14:AN:85:ARG:CD	2.50	0.60
16:AP:19:VAL:HG22	16:AP:36:VAL:O	2.00	0.60
11:AK:126:ARG:HB2	21:AU:33:ARG:HD2	1.84	0.60
22:AV:222:U:OP1	22:AV:236:U:C4	2.55	0.60
22:AV:308:U:C1'	22:AV:309:A:OP2	2.44	0.60
24:AX:43:G:H2'	24:AX:44:A:O4'	2.02	0.60
25:AY:201:ILE:CD1	25:AY:201:ILE:H	2.14	0.60
25:AY:634:MET:HA	25:AY:642:VAL:O	2.01	0.60
26:BA:1059:G:C6	26:BA:1080:A:C2	2.90	0.60
26:BA:1714:U:H5''	26:BA:1715:G:H5'	1.82	0.60
26:BA:1844:C:C2	26:BA:1897:G:N2	2.69	0.60
26:BA:2152:G:C5	26:BA:2153:C:C4	2.90	0.60
26:BA:2186:G:H2'	26:BA:2187:U:C6	2.37	0.60
26:BA:2211:A:C1'	26:BA:2212:A:OP1	2.48	0.60
26:BA:865:C:C2	26:BA:869:G:O6	2.54	0.60
56:BB:102:G:C2'	56:BB:103:U:H5'	2.31	0.60
36:BL:116:VAL:HG13	36:BL:116:VAL:O	2.02	0.60
40:BP:20:ARG:HB2	40:BP:21:PRO:HD2	1.83	0.60
46:BV:80:HIS:ND1	46:BV:81:PRO:HD2	2.16	0.60
1:AA:1082:A:C2	1:AA:1083:U:O2	2.55	0.60
1:AA:380:G:N2	1:AA:384:G:C5	2.70	0.60
1:AA:437:U:C2'	1:AA:438:U:H5'	2.31	0.60
2:AB:106:VAL:H	2:AB:108:GLN:HG2	1.67	0.60
11:AK:81:LEU:N	11:AK:81:LEU:CD2	2.65	0.60
14:AN:15:LEU:O	14:AN:17:ASP:N	2.35	0.60
17:AQ:12:VAL:HG13	17:AQ:21:VAL:HG13	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:45:VAL:HG11	17:AQ:60:ILE:HG13	1.82	0.60
22:AV:13:G:O2'	22:AV:14:G:C5'	2.49	0.60
22:AV:219:G:H2'	22:AV:220:G:C8	2.36	0.60
22:AV:233:A:C2'	22:AV:234:A:OP1	2.49	0.60
22:AV:49:C:C4	22:AV:303:G:C6	2.89	0.60
22:AV:62:G:N2	22:AV:63:C:C4	2.69	0.60
24:AX:54:G:H22	24:AX:62:C:H42	1.49	0.60
25:AY:97:SER:O	25:AY:100:VAL:HG13	2.02	0.60
25:AY:529:ILE:HD11	25:AY:567:LEU:HD11	1.84	0.60
52:B1:34:GLU:HG2	52:B1:49:LYS:HG3	1.84	0.60
26:BA:1069:A:H4'	26:BA:1070:A:H8	1.66	0.60
26:BA:1508:A:OP1	26:BA:1508:A:H4'	2.01	0.60
26:BA:2171:A:O2'	26:BA:2172:U:H5'	2.02	0.60
26:BA:2637:U:H2'	26:BA:2638:G:H5'	1.84	0.60
15:AO:88:ARG:NH2	26:BA:714:U:C5	2.70	0.60
26:BA:866:A:H1'	26:BA:914:G:N3	2.16	0.60
26:BA:900:A:H5'	26:BA:901:C:OP2	2.02	0.60
32:BH:10:ALA:O	32:BH:12:LEU:N	2.35	0.60
32:BH:116:ARG:HG3	32:BH:133:GLN:CD	2.21	0.60
26:BA:1007:C:OP1	34:BJ:39:LYS:HE2	2.02	0.60
26:BA:911:A:C5	37:BM:9:PHE:CD1	2.89	0.60
42:BR:51:VAL:HG23	42:BR:52:PRO:HD2	1.83	0.60
1:AA:17:U:O2'	1:AA:1078:U:C2	2.55	0.60
1:AA:1306:A:N7	1:AA:1307:U:C5	2.70	0.60
1:AA:256:U:H2'	1:AA:257:G:C8	2.37	0.60
1:AA:294:U:H2'	1:AA:295:C:C6	2.36	0.60
2:AB:125:PHE:N	2:AB:125:PHE:CD2	2.70	0.60
2:AB:70:GLY:HA2	2:AB:163:ILE:CG2	2.32	0.60
3:AC:71:ARG:N	3:AC:72:PRO:CD	2.65	0.60
6:AF:5:GLU:HB3	6:AF:90:MET:HB2	1.83	0.60
7:AG:119:LEU:CD2	7:AG:123:LEU:HD23	2.32	0.60
7:AG:145:GLU:O	7:AG:148:LYS:HB3	2.02	0.60
10:AJ:26:VAL:HG12	10:AJ:30:LYS:HD3	1.84	0.60
12:AL:2:THR:CG2	12:AL:4:ASN:HB2	2.32	0.60
1:AA:950:U:C5	13:AM:100:ARG:NH1	2.70	0.60
17:AQ:54:ILE:C	17:AQ:54:ILE:HD13	2.21	0.60
18:AR:39:VAL:HG13	18:AR:40:PRO:HD2	1.83	0.60
22:AV:156:G:H2'	22:AV:157:C:H6	1.64	0.60
22:AV:264:U:O2	22:AV:298:A:N1	2.35	0.60
22:AV:338:G:C5	22:AV:339:G:C8	2.90	0.60
22:AV:55:G:N1	22:AV:56:C:C4	2.70	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AY:206:LEU:HD11	25:AY:210:ARG:HH12	1.67	0.60
25:AY:337:SER:CA	25:AY:355:LEU:HD23	2.32	0.60
1:AA:1429:A:H4'	26:BA:1703:G:O3'	2.02	0.60
26:BA:2343:U:H2'	26:BA:2344:U:C6	2.37	0.60
26:BA:869:G:C4	26:BA:870:U:C5	2.89	0.60
56:BB:73:A:C4	56:BB:104:A:C2	2.89	0.60
36:BL:100:ILE:HG13	36:BL:101:ILE:HG23	1.83	0.60
39:BO:106:LEU:C	39:BO:106:LEU:HD23	2.23	0.60
1:AA:1097:C:H4'	1:AA:1170:A:C5'	1.91	0.59
1:AA:1286:U:C5'	1:AA:1287:A:OP2	2.49	0.59
1:AA:1333:A:C2'	1:AA:1334:G:O5'	2.50	0.59
1:AA:170:U:O2'	1:AA:171:A:C5'	2.50	0.59
1:AA:418:C:O2'	1:AA:419:C:H5'	2.02	0.59
4:AD:125:ASN:HA	4:AD:141:VAL:CG2	2.32	0.59
5:AE:150:GLU:O	5:AE:153:ALA:HB3	2.02	0.59
6:AF:10:VAL:CG1	6:AF:11:HIS:N	2.64	0.59
7:AG:14:ASP:H	7:AG:23:ALA:HB2	1.66	0.59
13:AM:3:ILE:HD11	13:AM:9:PRO:HG3	1.83	0.59
17:AQ:14:ASP:OD1	17:AQ:54:ILE:HB	2.01	0.59
22:AV:116:A:C2	22:AV:117:G:C8	2.90	0.59
22:AV:117:G:H2'	22:AV:118:C:H6	1.67	0.59
22:AV:13:G:N2	22:AV:344:A:C2	2.69	0.59
22:AV:200:G:N7	22:AV:200:G:OP2	2.35	0.59
22:AV:245:C:H5''	22:AV:248:G:C2	2.37	0.59
22:AV:285:A:C2'	22:AV:286:A:C5'	2.57	0.59
22:AV:27:U:H2'	22:AV:28:U:H5'	1.82	0.59
23:AW:43:GLY:C	23:AW:57:ASN:ND2	2.54	0.59
24:AX:33:C:H2'	24:AX:34:U:H5''	1.83	0.59
25:AY:135:PHE:CD1	25:AY:272:LEU:HD22	2.37	0.59
26:BA:1060:U:OP1	26:BA:1062:G:H4'	2.02	0.59
24:AX:20:G:N1	26:BA:2112:G:H1'	2.17	0.59
26:BA:2256:G:C2'	26:BA:2257:U:O5'	2.50	0.59
26:BA:2549:G:N2	26:BA:2560:A:C4	2.70	0.59
26:BA:887:U:H1'	26:BA:888:C:C4'	2.31	0.59
26:BA:889:C:C2'	26:BA:891:G:N9	2.49	0.59
32:BH:27:ARG:O	32:BH:27:ARG:HG2	2.01	0.59
44:BT:34:VAL:HG22	44:BT:81:LYS:HB3	1.83	0.59
1:AA:502:A:O2'	1:AA:503:C:H5'	2.02	0.59
1:AA:632:U:H2'	1:AA:633:G:OP1	2.02	0.59
1:AA:802:A:H2'	1:AA:803:G:C5'	2.32	0.59
1:AA:853:C:H2'	1:AA:854:U:H6	1.66	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:8:A:C6	4:AD:205:LYS:HB3	2.36	0.59
12:AL:43:LYS:CB	12:AL:44:PRO:CD	2.80	0.59
12:AL:75:GLU:O	12:AL:76:HIS:HB2	2.02	0.59
1:AA:1217:C:OP1	14:AN:4:SER:HB2	2.02	0.59
1:AA:274:A:C5'	17:AQ:15:LYS:HE2	2.32	0.59
22:AV:180:G:C2'	22:AV:181:G:C8	2.86	0.59
22:AV:200:G:C2	22:AV:230:U:O4	2.55	0.59
22:AV:265:C:H2'	22:AV:266:C:C6	2.38	0.59
23:AW:72:ASP:CB	23:AW:75:ARG:HE	2.15	0.59
25:AY:115:GLU:CD	25:AY:118:SER:HB3	2.22	0.59
25:AY:441:SER:O	25:AY:449:THR:HG23	2.02	0.59
25:AY:413:ILE:HG22	25:AY:449:THR:O	2.02	0.59
26:BA:125:A:OP2	53:B2:19:ARG:HD3	2.02	0.59
54:B3:44:ARG:N	54:B3:45:PRO:HD2	2.18	0.59
26:BA:1340:U:O4'	26:BA:1340:U:O2	2.13	0.59
26:BA:1415:U:O2	26:BA:1415:U:H3'	2.00	0.59
26:BA:2110:G:O2'	26:BA:2120:G:C5'	2.50	0.59
26:BA:2307:G:C2	26:BA:2311:A:H2'	2.37	0.59
26:BA:2312:U:OP1	30:BF:70:ARG:HB2	2.02	0.59
26:BA:2480:C:C2'	26:BA:2481:G:H5'	2.32	0.59
26:BA:417:C:C2'	26:BA:418:C:O5'	2.51	0.59
26:BA:869:G:C2'	26:BA:870:U:H6	2.06	0.59
26:BA:880:G:H2'	26:BA:881:G:C8	2.29	0.59
26:BA:928:A:O2'	26:BA:929:U:H5'	2.03	0.59
27:BC:158:GLY:N	27:BC:194:VAL:HG13	2.18	0.59
27:BC:156:SER:O	27:BC:194:VAL:HG11	2.02	0.59
30:BF:40:GLY:O	30:BF:43:ILE:HD13	2.02	0.59
36:BL:85:VAL:CG1	36:BL:94:THR:HG22	2.32	0.59
46:BV:23:ALA:O	46:BV:24:ASN:C	2.39	0.59
1:AA:115:G:H4'	1:AA:116:A:O5'	2.01	0.59
1:AA:175:C:O2'	1:AA:176:C:H5'	2.01	0.59
1:AA:270:A:N7	1:AA:271:C:C4	2.70	0.59
2:AB:135:MET:SD	2:AB:135:MET:N	2.75	0.59
3:AC:52:SER:O	3:AC:53:ARG:CB	2.49	0.59
4:AD:54:LEU:C	4:AD:54:LEU:HD23	2.22	0.59
18:AR:19:GLU:N	18:AR:27:THR:HG21	2.17	0.59
22:AV:117:G:C4	22:AV:118:C:C5	2.91	0.59
22:AV:290:A:C2'	22:AV:291:A:C8	2.84	0.59
22:AV:46:U:O2'	22:AV:47:G:H5'	2.03	0.59
24:AX:27:G:H22	24:AX:45:A:N6	1.98	0.59
25:AY:530:VAL:HG13	25:AY:531:GLY:N	2.16	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AY:9:LEU:C	25:AY:11:ARG:H	2.03	0.59
26:BA:1073:A:C3'	26:BA:1074:G:C5'	2.79	0.59
26:BA:197:A:H62	26:BA:2430:A:H2'	1.67	0.59
26:BA:2112:G:H2'	26:BA:2112:G:N3	2.17	0.59
26:BA:2346:A:H3'	26:BA:2347:C:H5''	1.84	0.59
22:AV:343:C:H4'	30:BF:73:VAL:H	1.61	0.59
32:BH:119:ASN:N	32:BH:120:GLY:CA	2.65	0.59
39:BO:59:ALA:HA	39:BO:62:LEU:HD12	1.84	0.59
48:BX:20:ALA:O	48:BX:21:LEU:HB2	2.03	0.59
1:AA:1040:U:H2'	1:AA:1041:G:C8	2.38	0.59
1:AA:1138:G:N7	1:AA:1140:C:O4'	2.35	0.59
1:AA:149:A:H1'	1:AA:1446:A:C2	2.37	0.59
1:AA:425:G:H2'	1:AA:426:U:O4'	2.02	0.59
1:AA:373:A:C2	1:AA:482:A:C6	2.91	0.59
1:AA:624:C:H2'	1:AA:625:U:O5'	2.02	0.59
1:AA:723:U:H5'	1:AA:724:G:O5'	2.02	0.59
1:AA:889:A:H5'	1:AA:891:U:O4'	2.02	0.59
2:AB:14:HIS:CB	2:AB:208:ALA:HB2	2.32	0.59
5:AE:80:LEU:CD2	5:AE:122:VAL:HG12	2.31	0.59
12:AL:98:ARG:HA	12:AL:103:CYS:SG	2.42	0.59
13:AM:25:GLY:O	13:AM:26:LYS:C	2.40	0.59
22:AV:156:G:C5	22:AV:157:C:C4	2.89	0.59
22:AV:244:G:O2'	22:AV:246:U:OP1	2.20	0.59
22:AV:255:A:H2'	22:AV:256:G:H8	1.65	0.59
22:AV:322:U:C2	22:AV:323:A:C6	2.91	0.59
22:AV:39:A:C2	22:AV:40:G:H3'	2.38	0.59
23:AW:14:TYR:CB	23:AW:120:ALA:HB1	2.32	0.59
23:AW:4:VAL:O	23:AW:4:VAL:HG13	2.02	0.59
23:AW:5:LEU:CD1	23:AW:105:ILE:HD11	2.32	0.59
26:BA:1046:A:OP2	26:BA:1046:A:C4'	2.50	0.59
26:BA:1055:G:N3	26:BA:1055:G:H2'	2.17	0.59
26:BA:157:C:H2'	26:BA:158:U:O4'	2.01	0.59
26:BA:2207:C:H2'	26:BA:2208:C:C6	2.37	0.59
26:BA:2314:A:H2'	26:BA:2315:G:H8	1.66	0.59
26:BA:771:G:C2'	26:BA:772:C:H5'	2.33	0.59
26:BA:868:U:H2'	26:BA:869:G:H8	1.67	0.59
26:BA:626:A:H2'	36:BL:78:ARG:NH1	2.17	0.59
42:BR:29:THR:HG22	42:BR:29:THR:O	2.02	0.59
1:AA:1293:C:H5'	1:AA:1294:G:OP2	2.03	0.59
1:AA:209:U:H5''	1:AA:210:C:OP2	2.02	0.59
1:AA:922:G:H22	1:AA:1398:A:H2'	0.42	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:160:LEU:O	2:AB:162:VAL:HG12	2.02	0.59
2:AB:185:ILE:HG13	2:AB:185:ILE:O	2.02	0.59
4:AD:156:ALA:O	4:AD:159:GLU:HB3	2.00	0.59
6:AF:70:VAL:HA	6:AF:73:GLU:HG3	1.84	0.59
10:AJ:80:THR:HG22	10:AJ:82:LYS:H	1.67	0.59
14:AN:73:PHE:CD1	14:AN:74:LEU:N	2.71	0.59
16:AP:16:PHE:CD1	16:AP:16:PHE:C	2.76	0.59
17:AQ:51:GLU:H	17:AQ:51:GLU:CD	2.05	0.59
17:AQ:62:GLU:HB2	17:AQ:72:TRP:CH2	2.37	0.59
19:AS:43:MET:HA	19:AS:46:LEU:HD12	1.84	0.59
22:AV:116:A:N1	22:AV:129:G:C6	2.70	0.59
22:AV:256:G:C6	22:AV:273:A:C6	2.89	0.59
22:AV:3:G:H2'	22:AV:4:G:C8	2.37	0.59
24:AX:28:U:O2	24:AX:28:U:H2'	2.00	0.59
54:B3:26:ALA:O	54:B3:27:ASN:HB2	2.01	0.59
26:BA:582:A:C2	26:BA:1259:G:C2	2.90	0.59
26:BA:2286:G:C8	26:BA:2286:G:H5'	2.38	0.59
26:BA:2782:G:C2'	26:BA:2783:U:H5'	2.32	0.59
28:BD:99:GLU:OE1	28:BD:99:GLU:HA	2.01	0.59
45:BU:42:LYS:HG2	45:BU:59:GLU:HB2	1.85	0.59
26:BA:102:U:C5	49:BY:2:LYS:HD2	2.38	0.59
1:AA:1060:U:C5	3:AC:1:GLY:N	2.65	0.59
1:AA:1268:G:C6	1:AA:1269:A:N6	2.71	0.59
1:AA:1391:U:O2'	1:AA:1392:G:H5'	2.02	0.59
1:AA:657:U:O2	1:AA:657:U:H2'	2.02	0.59
1:AA:921:U:H2'	1:AA:922:G:O4'	2.02	0.59
2:AB:32:GLY:HA3	2:AB:39:ILE:N	2.17	0.59
4:AD:28:ASP:O	4:AD:30:LYS:HD3	2.02	0.59
6:AF:70:VAL:HA	6:AF:73:GLU:CG	2.32	0.59
10:AJ:40:ILE:CG2	10:AJ:73:LEU:HB2	2.33	0.59
12:AL:80:LEU:HB2	12:AL:101:LEU:HD22	1.84	0.59
17:AQ:13:SER:HB2	17:AQ:21:VAL:HG11	1.84	0.59
19:AS:50:VAL:HG22	19:AS:70:LEU:HD12	1.83	0.59
22:AV:163:G:HO2'	22:AV:164:G:H5'	1.57	0.59
22:AV:19:G:H21	23:AW:81:LEU:CD1	2.14	0.59
25:AY:293:THR:HB	25:AY:294:PRO:HD2	1.84	0.59
26:BA:1589:U:H2'	26:BA:1590:A:H5'	1.84	0.59
26:BA:1591:A:H2'	26:BA:1592:C:C6	2.36	0.59
26:BA:440:C:O2'	26:BA:441:U:H5'	2.03	0.59
26:BA:866:A:C2	26:BA:867:C:C5	2.91	0.59
32:BH:32:PRO:O	32:BH:33:GLN:HB2	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BH:72:ILE:CG2	32:BH:73:ASN:N	2.65	0.59
33:BI:74:PRO:HG2	33:BI:77:VAL:CG1	2.32	0.59
41:BQ:87:VAL:HG13	42:BR:49:ILE:HD11	1.82	0.59
26:BA:58:G:OP1	44:BT:78:SER:CB	2.51	0.59
1:AA:1079:G:H8	1:AA:1079:G:O5'	1.85	0.59
1:AA:1078:U:C4	1:AA:1079:G:N1	2.70	0.59
1:AA:1202:U:C2'	1:AA:1203:C:H5'	2.32	0.59
1:AA:194:C:C2'	1:AA:195:A:H5'	2.33	0.59
1:AA:463:U:H5'	1:AA:464:U:OP2	2.03	0.59
1:AA:739:C:C4	1:AA:740:U:C5	2.91	0.59
1:AA:952:U:H2'	1:AA:953:G:C8	2.37	0.59
1:AA:955:U:C4	1:AA:956:U:C4	2.90	0.59
2:AB:110:ILE:HD11	2:AB:150:ILE:HG12	1.85	0.59
2:AB:165:ALA:HB2	2:AB:186:VAL:HG12	1.85	0.59
3:AC:205:GLU:O	3:AC:206:ILE:O	2.20	0.59
12:AL:2:THR:HG22	12:AL:4:ASN:CB	2.32	0.59
17:AQ:11:VAL:O	17:AQ:12:VAL:HG12	2.02	0.59
22:AV:150:G:N3	22:AV:151:C:C6	2.70	0.59
22:AV:181:G:H2'	22:AV:182:U:C4'	2.32	0.59
22:AV:227:C:O5'	22:AV:227:C:H6	1.84	0.59
22:AV:248:G:C5	22:AV:249:U:C4	2.89	0.59
22:AV:257:U:C4	22:AV:273:A:C6	2.91	0.59
24:AX:51:U:H2'	24:AX:52:C:C6	2.37	0.59
25:AY:108:PHE:CE1	25:AY:118:SER:HB2	2.37	0.59
25:AY:634:MET:N	26:BA:1068:G:H1'	2.17	0.59
26:BA:1120:G:C2'	26:BA:1121:C:H5'	2.33	0.59
26:BA:911:A:N6	37:BM:9:PHE:CD2	2.71	0.59
39:BO:30:ARG:HH22	56:BB:48:U:P	2.26	0.59
31:BG:126:THR:HG22	31:BG:127:GLN:N	2.18	0.59
33:BI:44:LYS:O	33:BI:48:ILE:HG12	2.03	0.59
26:BA:1287:A:C5'	38:BN:103:ARG:HD2	2.27	0.59
39:BO:75:GLY:O	39:BO:78:VAL:HG23	2.03	0.59
41:BQ:90:ASP:O	41:BQ:94:LEU:HD12	2.03	0.59
1:AA:1381:U:OP1	1:AA:1535:C:H4'	2.03	0.59
1:AA:1413:A:C4	1:AA:1414:U:C6	2.91	0.59
1:AA:601:G:H2'	1:AA:602:A:H8	1.68	0.59
1:AA:713:G:H2'	1:AA:714:G:C8	2.37	0.59
1:AA:721:G:C6	1:AA:733:G:C2	2.90	0.59
1:AA:982:U:H4'	1:AA:983:A:O5'	2.02	0.59
3:AC:6:PRO:HD2	3:AC:183:TYR:CD2	2.38	0.59
4:AD:9:LYS:HA	4:AD:12:ARG:HG3	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:620:C:H1'	4:AD:131:ILE:HD11	1.85	0.59
10:AJ:26:VAL:O	10:AJ:30:LYS:HD3	2.01	0.59
13:AM:45:SER:O	13:AM:46:GLU:HB3	2.01	0.59
17:AQ:21:VAL:HG22	17:AQ:22:VAL:N	2.18	0.59
17:AQ:3:LYS:HD2	17:AQ:3:LYS:O	2.02	0.59
22:AV:187:C:H2'	22:AV:188:C:C5'	2.15	0.59
22:AV:44:C:C2'	22:AV:45:A:H5'	2.29	0.59
24:AX:18:U:HO2'	24:AX:19:G:H4'	1.67	0.59
1:AA:55:A:C4	25:AY:320:PRO:O	2.56	0.59
26:BA:1182:G:H2'	26:BA:1183:U:O4'	2.01	0.59
26:BA:1203:U:C4	26:BA:1204:A:C5	2.90	0.59
26:BA:1306:C:O2	26:BA:1306:C:H2'	2.01	0.59
26:BA:1405:U:H2'	26:BA:1406:U:O4'	2.03	0.59
26:BA:528:A:C2	26:BA:2043:C:C5'	2.86	0.59
26:BA:2133:G:HO2'	26:BA:2158:A:N6	2.00	0.59
26:BA:279:A:H2'	26:BA:280:U:H5'	1.84	0.59
26:BA:841:G:H2'	26:BA:842:U:C6	2.38	0.59
29:BE:18:THR:CG2	29:BE:19:PHE:CE2	2.85	0.59
38:BN:21:PHE:CE2	38:BN:24:MET:CE	2.85	0.59
26:BA:1392:A:H61	44:BT:18:GLU:CD	2.06	0.59
1:AA:1158:C:N4	1:AA:1160:G:C4	2.70	0.59
1:AA:390:U:C2'	1:AA:391:G:O5'	2.51	0.59
1:AA:411:A:P	4:AD:25:ARG:HH22	2.26	0.59
1:AA:463:U:O2	1:AA:463:U:H2'	2.01	0.59
1:AA:749:A:C2	1:AA:750:C:C2	2.90	0.59
1:AA:883:C:C2'	1:AA:884:U:H5'	2.33	0.59
2:AB:18:GLN:HG2	2:AB:189:ASN:HD22	1.68	0.59
2:AB:20:ARG:O	2:AB:22:TRP:HD1	1.84	0.59
3:AC:96:VAL:CB	3:AC:97:PRO:CD	2.81	0.59
8:AH:78:SER:HA	8:AH:84:ILE:HG12	1.83	0.59
9:AI:20:ILE:HD13	9:AI:86:LEU:HD12	1.85	0.59
10:AJ:5:ARG:HG2	10:AJ:79:PRO:CB	2.32	0.59
11:AK:95:THR:O	11:AK:99:LEU:HD22	2.03	0.59
14:AN:29:ILE:O	14:AN:30:ILE:C	2.41	0.59
22:AV:13:G:C4'	22:AV:14:G:OP1	2.51	0.59
22:AV:15:A:OP2	22:AV:16:U:OP2	2.21	0.59
22:AV:213:G:O6	22:AV:284:G:C5	2.55	0.59
22:AV:225:A:C2	22:AV:226:G:N9	2.71	0.59
22:AV:259:G:C4	22:AV:260:C:C5	2.90	0.59
22:AV:266:C:H2'	22:AV:267:G:C4'	2.33	0.59
23:AW:65:LYS:HA	26:BA:1909:C:OP1	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:AX:27:G:C2'	24:AX:28:U:OP1	2.51	0.59
25:AY:196:ILE:HG13	25:AY:197:ARG:N	2.17	0.59
25:AY:315:LYS:NZ	25:AY:317:MET:HG2	2.17	0.59
25:AY:512:ILE:CD1	25:AY:512:ILE:H	2.14	0.59
26:BA:1055:G:H3'	26:BA:1056:G:C8	2.38	0.59
26:BA:1547:C:H2'	26:BA:1548:A:O4'	2.03	0.59
26:BA:1606:C:O2'	26:BA:1607:C:H5'	2.02	0.59
26:BA:1742:U:H2'	26:BA:1743:G:O5'	2.01	0.59
26:BA:2592:G:H2'	26:BA:2593:U:H5'	1.85	0.59
27:BC:142:ASN:OD1	27:BC:151:GLY:HA3	2.02	0.59
29:BE:178:VAL:HG13	29:BE:179:SER:N	2.17	0.59
42:BR:53:PHE:CD1	42:BR:53:PHE:N	2.69	0.59
1:AA:1077:G:O6	1:AA:1081:A:N6	2.36	0.59
1:AA:1141:C:C2	1:AA:1142:G:C8	2.91	0.59
1:AA:1259:C:H5''	1:AA:1260:G:OP2	2.03	0.59
1:AA:1305:G:O2'	1:AA:1306:A:C8	2.53	0.59
1:AA:327:A:O3'	1:AA:328:C:H4'	2.02	0.59
1:AA:481:G:H2'	1:AA:483:C:N4	2.18	0.59
1:AA:595:A:C4	1:AA:641:U:C4	2.91	0.59
1:AA:833:G:C5	1:AA:834:U:C5	2.91	0.59
1:AA:918:A:C8	1:AA:919:A:N7	2.71	0.59
1:AA:79:G:N2	1:AA:91:U:C4	2.71	0.59
2:AB:151:LYS:HG3	2:AB:152:ASP:O	2.02	0.59
5:AE:88:HIS:ND1	5:AE:137:ARG:HD3	2.18	0.59
8:AH:13:ILE:O	8:AH:15:ASN:N	2.36	0.59
10:AJ:52:LEU:HB3	14:AN:81:ARG:NE	2.18	0.59
15:AO:86:LEU:CD2	15:AO:86:LEU:N	2.65	0.59
16:AP:19:VAL:HG13	16:AP:38:PHE:CA	2.31	0.59
22:AV:272:C:C2'	22:AV:273:A:O5'	2.51	0.59
22:AV:315:G:O2'	22:AV:316:A:H8	1.81	0.59
22:AV:34:A:C4'	22:AV:323:A:N3	2.66	0.59
25:AY:137:ASN:ND2	25:AY:263:ALA:H	2.00	0.59
25:AY:637:ARG:N	33:BI:25:PRO:CD	2.17	0.59
26:BA:1251:C:OP2	41:BQ:5:ARG:HD2	2.02	0.59
26:BA:1420:A:O2'	26:BA:1421:G:H5'	2.03	0.59
26:BA:1589:U:C2'	26:BA:1590:A:H5'	2.33	0.59
26:BA:528:A:H2	26:BA:2043:C:H5'	1.66	0.59
26:BA:2055:C:H5'	26:BA:2056:G:OP1	2.02	0.59
26:BA:790:U:O5'	26:BA:790:U:H2'	2.03	0.59
26:BA:866:A:C8	26:BA:914:G:C4	2.90	0.59
26:BA:866:A:H8	26:BA:914:G:N1	1.99	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:888:C:O4'	26:BA:889:C:C4	2.56	0.59
26:BA:998:C:H2'	26:BA:999:U:O5'	2.03	0.59
29:BE:152:GLU:HA	29:BE:152:GLU:OE1	2.02	0.59
30:BF:118:ALA:HA	30:BF:176:PHE:CE2	2.38	0.59
37:BM:31:PHE:CE2	37:BM:110:GLU:HB2	2.38	0.59
49:BY:13:GLU:O	49:BY:15:ASN:N	2.36	0.59
1:AA:1077:G:H1'	1:AA:1080:A:N6	2.18	0.58
1:AA:1286:U:H5'	1:AA:1287:A:OP2	2.02	0.58
1:AA:1534:A:H3'	1:AA:1535:C:C5	2.37	0.58
1:AA:419:C:C2'	1:AA:420:U:O5'	2.51	0.58
1:AA:447:G:N2	1:AA:486:U:C4	2.70	0.58
3:AC:154:GLY:HA2	3:AC:163:ARG:H	1.68	0.58
8:AH:48:PHE:O	8:AH:49:LYS:CB	2.51	0.58
17:AQ:59:GLU:HG2	17:AQ:75:VAL:HG21	1.85	0.58
22:AV:305:A:C4	22:AV:306:U:C5	2.91	0.58
22:AV:31:G:N7	22:AV:34:A:N7	2.51	0.58
23:AW:98:LEU:HD21	23:AW:119:LEU:CG	2.32	0.58
23:AW:22:ALA:HB2	23:AW:81:LEU:CD1	2.34	0.58
23:AW:37:GLY:O	26:BA:1910:G:C5'	2.50	0.58
25:AY:519:ARG:NH1	25:AY:678:GLU:HB2	2.18	0.58
26:BA:1045:C:H3'	26:BA:1046:A:C5'	2.33	0.58
26:BA:1169:A:H2'	26:BA:1170:C:O4'	2.03	0.58
26:BA:1490:A:N3	26:BA:1490:A:H2'	2.18	0.58
26:BA:366:C:H2'	26:BA:367:G:O4'	2.03	0.58
27:BC:259:ASN:CG	27:BC:262:THR:HG23	2.24	0.58
26:BA:2096:C:P	32:BH:11:ASN:HD21	2.26	0.58
1:AA:1080:A:H3'	1:AA:1081:A:O4'	2.03	0.58
1:AA:1234:C:H2'	1:AA:1235:U:H6	1.68	0.58
1:AA:1411:C:O2'	1:AA:1412:C:C5'	2.30	0.58
1:AA:299:G:C6	1:AA:300:A:N1	2.71	0.58
1:AA:482:A:C2	1:AA:483:C:H1'	2.38	0.58
3:AC:166:TRP:C	3:AC:166:TRP:CE3	2.76	0.58
5:AE:108:GLY:O	5:AE:109:ALA:HB3	2.03	0.58
6:AF:60:VAL:HG12	6:AF:60:VAL:O	2.02	0.58
7:AG:121:ASN:O	7:AG:124:SER:HB3	2.02	0.58
11:AK:125:LYS:HD3	11:AK:125:LYS:N	2.18	0.58
13:AM:71:GLU:O	13:AM:74:MET:CB	2.50	0.58
19:AS:4:LEU:O	19:AS:5:LYS:CG	2.51	0.58
22:AV:12:U:O3'	22:AV:13:G:N7	2.36	0.58
22:AV:173:C:O2	22:AV:174:A:C8	2.56	0.58
22:AV:208:G:H1'	22:AV:223:G:H22	0.52	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AW:46:ALA:HA	23:AW:55:LEU:HA	1.85	0.58
25:AY:273:LEU:HA	25:AY:276:VAL:HG23	1.85	0.58
54:B3:8:GLY:O	54:B3:12:ARG:HG3	2.02	0.58
26:BA:2019:A:H2'	26:BA:2020:A:O5'	2.03	0.58
26:BA:2183:A:H2'	26:BA:2184:A:C8	2.38	0.58
26:BA:2473:U:C6	26:BA:2474:U:H5	2.21	0.58
26:BA:2550:G:H2'	26:BA:2551:C:H5'	1.84	0.58
26:BA:878:A:C2'	26:BA:879:G:C5'	2.67	0.58
28:BD:189:VAL:HG23	28:BD:189:VAL:O	2.02	0.58
30:BF:62:GLN:NE2	30:BF:94:ARG:HD3	2.19	0.58
1:AA:1101:A:H62	2:AB:173:LYS:CE	2.16	0.58
1:AA:110:C:H2'	1:AA:111:G:O4'	2.04	0.58
1:AA:208:U:H5	1:AA:210:C:C5	2.21	0.58
1:AA:708:C:H2'	1:AA:709:U:H6	1.68	0.58
1:AA:882:C:H2'	1:AA:883:C:O5'	2.04	0.58
3:AC:86:LEU:O	3:AC:87:ARG:C	2.40	0.58
4:AD:77:GLU:OE1	4:AD:77:GLU:HA	2.03	0.58
9:AI:62:LEU:CD2	9:AI:62:LEU:N	2.65	0.58
13:AM:21:ILE:CB	13:AM:24:VAL:HG22	2.33	0.58
16:AP:3:THR:HG22	16:AP:4:ILE:N	2.18	0.58
17:AQ:11:VAL:O	17:AQ:12:VAL:CB	2.51	0.58
21:AU:36:PHE:HB3	21:AU:40:PRO:HG3	1.85	0.58
21:AU:40:PRO:HA	21:AU:44:ARG:HH11	1.68	0.58
22:AV:46:U:C2'	22:AV:47:G:H8	2.06	0.58
22:AV:62:G:N2	22:AV:64:C:N4	2.51	0.58
25:AY:228:MET:O	25:AY:231:TYR:HB3	2.02	0.58
25:AY:414:GLU:O	25:AY:474:ALA:HB1	2.03	0.58
26:BA:1063:G:N3	33:BI:135:MET:HA	2.18	0.58
26:BA:1716:U:O2'	26:BA:1717:A:H5'	2.04	0.58
26:BA:735:A:C8	26:BA:736:C:C5	2.90	0.58
26:BA:868:U:C2	26:BA:869:G:N7	2.71	0.58
56:BB:45:A:C4	56:BB:46:A:C8	2.91	0.58
26:BA:1567:G:N7	27:BC:82:TYR:CE1	2.72	0.58
27:BC:96:LYS:HD2	27:BC:96:LYS:N	2.18	0.58
33:BI:70:THR:C	33:BI:71:LYS:HD2	2.24	0.58
33:BI:83:ALA:HB1	33:BI:100:ILE:HD12	1.85	0.58
26:BA:911:A:N6	37:BM:9:PHE:HB3	2.15	0.58
49:BY:28:LEU:HD23	49:BY:37:LEU:CD2	2.33	0.58
1:AA:198:G:C6	1:AA:220:G:C2	2.91	0.58
1:AA:259:G:C6	1:AA:260:G:C5	2.90	0.58
1:AA:386:C:C2'	1:AA:387:U:H5'	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:412:A:C1'	1:AA:413:G:H5''	2.34	0.58
1:AA:572:A:H5'	1:AA:573:A:OP2	2.03	0.58
1:AA:1536:C:O2'	7:AG:79:VAL:HG21	2.03	0.58
8:AH:10:LEU:N	8:AH:10:LEU:HD23	2.19	0.58
11:AK:21:HIS:CD2	11:AK:34:THR:CG2	2.86	0.58
11:AK:41:LEU:HB3	11:AK:76:TYR:HE2	1.66	0.58
13:AM:19:THR:CA	13:AM:24:VAL:HG23	2.30	0.58
14:AN:91:GLY:O	14:AN:93:ILE:N	2.37	0.58
21:AU:24:LYS:CD	21:AU:25:ALA:H	2.15	0.58
22:AV:207:A:C4	22:AV:208:G:C8	2.92	0.58
22:AV:218:G:H2'	22:AV:219:G:H5'	1.85	0.58
22:AV:240:U:H2'	22:AV:241:C:H6	1.65	0.58
22:AV:251:U:H6	22:AV:251:U:O5'	1.86	0.58
22:AV:261:G:C4'	22:AV:262:U:OP1	2.36	0.58
23:AW:19:THR:HG22	23:AW:103:LEU:HD11	1.84	0.58
1:AA:1340:A:O4'	24:AX:33:C:OP1	2.20	0.58
25:AY:431:LEU:CD2	25:AY:466:LEU:HD13	2.33	0.58
25:AY:510:VAL:HG13	25:AY:569:ASP:O	2.02	0.58
26:BA:1288:G:C5	26:BA:1327:A:C2	2.92	0.58
26:BA:1585:C:H2'	26:BA:1586:A:C5'	2.32	0.58
26:BA:2127:G:C4'	26:BA:2128:G:OP1	2.45	0.58
26:BA:2415:G:H4'	36:BL:66:PHE:HB3	1.86	0.58
56:BB:73:A:H2'	56:BB:73:A:N3	2.19	0.58
26:BA:1902:C:H4'	27:BC:241:LYS:O	2.03	0.58
28:BD:103:ASP:O	28:BD:105:LYS:N	2.36	0.58
29:BE:196:VAL:HA	29:BE:199:MET:HB2	1.85	0.58
30:BF:90:LEU:HB3	30:BF:95:MET:HA	1.85	0.58
36:BL:127:VAL:HG11	36:BL:132:ARG:HB2	1.84	0.58
1:AA:1102:A:O2'	2:AB:97:GLY:CA	2.52	0.58
1:AA:1114:C:O2	1:AA:1114:C:H2'	2.03	0.58
1:AA:1151:A:O2'	1:AA:1152:A:O5'	2.21	0.58
1:AA:1161:C:H2'	1:AA:1162:C:H6	1.67	0.58
1:AA:978:A:HO2'	1:AA:1322:C:H5	1.50	0.58
1:AA:1342:C:HO2'	1:AA:1343:G:H5'	1.59	0.58
1:AA:277:C:O2'	1:AA:278:G:H5'	2.02	0.58
1:AA:27:G:C2'	1:AA:28:A:O5'	2.51	0.58
1:AA:511:C:H1'	1:AA:512:U:C6	2.37	0.58
1:AA:868:C:H2'	1:AA:869:G:H5'	1.86	0.58
3:AC:64:ARG:O	3:AC:99:GLN:O	2.22	0.58
8:AH:74:ILE:HD11	8:AH:128:VAL:HG22	1.83	0.58
9:AI:119:LYS:O	9:AI:120:ALA:HB3	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:96:GLU:N	9:AI:96:GLU:CD	2.57	0.58
16:AP:78:VAL:O	16:AP:80:LYS:N	2.37	0.58
22:AV:132:U:N3	22:AV:133:A:N7	2.51	0.58
22:AV:267:G:N2	22:AV:268:U:O2	2.35	0.58
24:AX:28:U:C2'	24:AX:29:C:C5'	2.82	0.58
25:AY:101:LEU:HD12	25:AY:103:GLY:O	2.04	0.58
25:AY:210:ARG:O	25:AY:213:HIS:N	2.34	0.58
25:AY:248:LYS:O	25:AY:248:LYS:HG2	2.02	0.58
25:AY:544:LYS:O	25:AY:548:GLU:HB2	2.03	0.58
25:AY:606:MET:O	25:AY:646:PHE:HA	2.02	0.58
25:AY:636:PRO:HB2	33:BI:26:ALA:H	1.68	0.58
52:B1:47:ILE:HD12	52:B1:47:ILE:H	1.66	0.58
26:BA:1526:C:C2'	26:BA:1527:G:O5'	2.52	0.58
26:BA:1533:C:O2	26:BA:1533:C:H2'	2.04	0.58
26:BA:1794:A:H2'	26:BA:1795:C:H6	1.68	0.58
26:BA:1979:U:O2'	26:BA:1980:G:H5'	2.03	0.58
26:BA:2506:U:C2'	26:BA:2507:C:H5'	2.33	0.58
26:BA:876:C:C2'	26:BA:877:A:C8	2.87	0.58
56:BB:20:G:N2	56:BB:64:G:C4	2.72	0.58
26:BA:2305:U:H3	30:BF:150:GLY:HA3	1.67	0.58
30:BF:57:ALA:HB2	30:BF:64:PRO:HD3	1.86	0.58
25:AY:635:GLU:CB	33:BI:22:PRO:CA	2.81	0.58
33:BI:91:LYS:HB3	33:BI:94:LYS:CG	2.33	0.58
37:BM:27:SER:O	37:BM:28:PHE:CD2	2.56	0.58
43:BS:4:ILE:H	43:BS:4:ILE:HD12	1.68	0.58
1:AA:1211:U:O2'	1:AA:1212:U:P	2.61	0.58
1:AA:634:C:H2'	1:AA:635:A:O4'	2.03	0.58
2:AB:53:LEU:CD1	2:AB:216:VAL:HA	2.34	0.58
1:AA:553:A:O4'	12:AL:27:PRO:HA	2.04	0.58
17:AQ:13:SER:HB3	17:AQ:21:VAL:HG12	1.85	0.58
17:AQ:49:ASN:O	17:AQ:51:GLU:N	2.36	0.58
17:AQ:57:VAL:HG12	17:AQ:78:VAL:HB	1.86	0.58
22:AV:158:U:C2	22:AV:159:C:C5	2.91	0.58
22:AV:183:C:O2'	22:AV:184:A:C8	2.57	0.58
22:AV:192:A:C2'	22:AV:193:A:H5'	2.34	0.58
22:AV:211:C:O5'	22:AV:211:C:H6	1.87	0.58
1:AA:368:U:H5''	25:AY:354:ARG:HH11	1.68	0.58
25:AY:496:LYS:HE2	25:AY:498:ILE:CD1	2.33	0.58
53:B2:30:VAL:HG12	53:B2:31:LEU:N	2.19	0.58
26:BA:1141:U:H4'	26:BA:1142:A:O4'	2.03	0.58
26:BA:1185:G:H5''	26:BA:1186:G:OP1	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:1439:A:H2'	26:BA:1440:U:H5'	1.85	0.58
26:BA:656:G:C2'	26:BA:657:U:O5'	2.52	0.58
26:BA:686:U:H2'	26:BA:788:A:N1	2.19	0.58
32:BH:41:LYS:HA	32:BH:44:ILE:HG12	1.86	0.58
36:BL:67:THR:O	36:BL:67:THR:HG22	2.02	0.58
48:BX:58:ILE:HG13	48:BX:66:VAL:HG21	1.85	0.58
49:BY:23:ARG:O	49:BY:24:GLU:O	2.20	0.58
1:AA:1053:G:N7	1:AA:1199:U:H3'	2.17	0.58
1:AA:1253:G:N2	1:AA:1254:A:C4	2.72	0.58
1:AA:159:G:C5'	1:AA:159:G:H8	2.16	0.58
1:AA:222:C:O2	1:AA:222:C:H2'	2.02	0.58
1:AA:514:C:C2'	1:AA:515:G:O5'	2.52	0.58
1:AA:543:U:O2'	1:AA:544:G:H5'	2.04	0.58
1:AA:922:G:N1	1:AA:923:A:C2	2.71	0.58
5:AE:81:GLN:CG	5:AE:149:PRO:HB3	2.33	0.58
11:AK:52:ARG:O	11:AK:55:ARG:CG	2.51	0.58
1:AA:1226:C:C4	13:AM:102:LYS:HG3	2.38	0.58
13:AM:32:ILE:HD13	13:AM:58:GLU:CG	2.34	0.58
14:AN:46:LEU:O	14:AN:48:LEU:N	2.36	0.58
22:AV:168:G:C2'	22:AV:169:G:H5'	2.33	0.58
23:AW:48:PHE:N	23:AW:48:PHE:CD1	2.59	0.58
24:AX:8:U:H1'	24:AX:49:C:H1'	1.86	0.58
25:AY:176:GLY:CA	25:AY:187:THR:HA	2.32	0.58
25:AY:215:LYS:O	25:AY:219:VAL:N	2.34	0.58
25:AY:65:ILE:O	25:AY:65:ILE:HG12	2.02	0.58
53:B2:27:GLY:O	53:B2:30:VAL:HB	2.04	0.58
26:BA:1314:C:H2'	26:BA:1314:C:O2	2.02	0.58
26:BA:1501:G:H4'	27:BC:94:LEU:HD21	1.86	0.58
26:BA:1988:G:O2'	26:BA:1989:G:H5'	2.04	0.58
26:BA:580:U:H2'	26:BA:581:C:C6	2.38	0.58
26:BA:867:C:C6	26:BA:868:U:C5	2.91	0.58
26:BA:892:A:HO2'	26:BA:893:C:H5'	1.67	0.58
28:BD:96:ILE:HG22	28:BD:97:SER:N	2.19	0.58
30:BF:129:MET:O	30:BF:129:MET:HG3	2.02	0.58
31:BG:148:ARG:HH21	31:BG:166:GLU:CD	2.07	0.58
31:BG:97:VAL:O	31:BG:97:VAL:HG12	2.02	0.58
32:BH:40:THR:O	32:BH:42:LYS:N	2.37	0.58
33:BI:28:GLY:O	33:BI:34:ILE:HD11	2.03	0.58
36:BL:23:ILE:O	36:BL:25:SER:N	2.37	0.58
42:BR:102:SER:O	42:BR:103:ALA:O	2.22	0.58
49:BY:21:LEU:O	49:BY:22:LEU:O	2.22	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1356:G:N2	1:AA:1357:A:C2	2.72	0.58
1:AA:1534:A:H3'	1:AA:1535:C:H5	1.67	0.58
1:AA:208:U:C5	1:AA:210:C:C5	2.91	0.58
1:AA:502:A:H2'	1:AA:503:C:C6	2.39	0.58
1:AA:505:G:H4'	1:AA:534:U:C4	2.38	0.58
4:AD:57:LYS:HB3	4:AD:199:ILE:HG22	1.86	0.58
4:AD:52:VAL:CG2	4:AD:53:GLN:N	2.67	0.58
5:AE:108:GLY:HA2	5:AE:111:ARG:CB	2.33	0.58
8:AH:58:LEU:C	8:AH:58:LEU:HD13	2.24	0.58
13:AM:32:ILE:HG22	13:AM:33:LEU:N	2.18	0.58
22:AV:288:G:C2	22:AV:289:U:C4	2.92	0.58
22:AV:58:G:H2'	22:AV:59:U:C6	2.39	0.58
23:AW:58:LEU:HG	23:AW:58:LEU:O	2.03	0.58
23:AW:94:GLU:O	23:AW:95:GLN:C	2.41	0.58
54:B3:3:ILE:O	54:B3:63:TYR:HE2	1.86	0.58
26:BA:1073:A:C2'	26:BA:1074:G:H5''	2.33	0.58
26:BA:1474:U:C2'	26:BA:1475:G:H5'	2.34	0.58
26:BA:866:A:C2'	26:BA:867:C:H5''	2.32	0.58
26:BA:877:A:C8	26:BA:878:A:C8	2.92	0.58
26:BA:881:G:C6	26:BA:895:U:O4	2.57	0.58
27:BC:161:VAL:CG1	27:BC:162:GLN:N	2.66	0.58
29:BE:176:ASP:C	29:BE:176:ASP:OD1	2.42	0.58
30:BF:43:ILE:HG22	30:BF:82:TYR:CZ	2.39	0.58
32:BH:69:ALA:CB	32:BH:138:VAL:HG12	2.34	0.58
32:BH:3:VAL:HG12	32:BH:38:PRO:HA	1.86	0.58
35:BK:122:VAL:OXT	35:BK:122:VAL:HG12	2.03	0.58
36:BL:101:ILE:O	36:BL:105:ILE:HG13	2.03	0.58
38:BN:38:LEU:HB3	38:BN:39:PRO:CD	2.34	0.58
44:BT:48:GLN:OE1	44:BT:54:GLU:HA	2.04	0.58
45:BU:53:GLN:N	45:BU:54:PRO:CD	2.67	0.58
45:BU:96:LYS:O	45:BU:97:SER:CB	2.51	0.58
1:AA:53:A:H2'	1:AA:54:C:O4'	2.04	0.58
1:AA:602:A:O2'	1:AA:603:U:H5'	2.03	0.58
2:AB:138:ARG:HG3	2:AB:139:GLU:N	2.19	0.58
2:AB:143:LEU:H	2:AB:143:LEU:HD23	1.69	0.58
2:AB:207:ARG:O	2:AB:209:VAL:N	2.37	0.58
2:AB:56:LEU:HD21	2:AB:220:VAL:HG22	1.86	0.58
2:AB:49:PHE:CD1	2:AB:49:PHE:C	2.76	0.58
2:AB:66:ILE:HB	2:AB:88:GLN:HB3	1.85	0.58
5:AE:120:HIS:O	5:AE:121:ASN:HB3	2.04	0.58
8:AH:74:ILE:HD13	8:AH:128:VAL:HG22	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:67:HIS:HB3	20:AT:68:LYS:HE3	1.84	0.58
22:AV:271:G:H2'	22:AV:272:C:H5'	1.83	0.58
22:AV:290:A:C2'	22:AV:291:A:H8	2.17	0.58
22:AV:303:G:C2	22:AV:304:C:C4	2.92	0.58
22:AV:71:A:C4	22:AV:72:A:N7	2.72	0.58
24:AX:40:C:H2'	24:AX:40:C:O2	2.03	0.58
25:AY:82:ILE:HD12	25:AY:101:LEU:HD22	1.84	0.58
25:AY:108:PHE:HE1	25:AY:118:SER:HB2	1.67	0.58
25:AY:106:VAL:HG23	25:AY:132:ARG:HG3	1.84	0.58
25:AY:314:PHE:HD1	25:AY:315:LYS:HB2	1.68	0.58
25:AY:343:ASN:ND2	25:AY:345:THR:N	2.52	0.58
26:BA:1059:G:OP2	26:BA:1060:U:C2'	2.52	0.58
26:BA:1075:C:H2'	26:BA:1076:C:C6	2.39	0.58
26:BA:1483:G:C5	26:BA:1484:U:C5	2.92	0.58
26:BA:2128:G:O2'	26:BA:2129:C:H5'	2.04	0.58
26:BA:2698:U:H2'	26:BA:2699:C:C6	2.39	0.58
26:BA:61:C:C2	26:BA:94:A:C2	2.91	0.58
26:BA:875:G:N2	26:BA:902:C:N3	2.50	0.58
28:BD:150:GLN:O	28:BD:153:GLY:CA	2.52	0.58
29:BE:104:ALA:O	29:BE:108:ILE:CG2	2.52	0.58
30:BF:107:VAL:N	30:BF:108:PRO:CD	2.67	0.58
43:BS:63:GLY:O	43:BS:64:ALA:HB3	2.04	0.58
44:BT:42:GLU:O	44:BT:45:ALA:HB3	2.04	0.58
45:BU:71:ILE:HD13	45:BU:82:VAL:HG23	1.85	0.58
1:AA:1061:G:C5	1:AA:1197:A:C2	2.92	0.58
1:AA:1376:U:H2'	1:AA:1377:A:C8	2.39	0.58
1:AA:44:A:C2'	1:AA:45:G:H5'	2.33	0.58
1:AA:883:C:O2'	1:AA:884:U:H5'	2.04	0.58
1:AA:87:C:C2'	1:AA:88:U:H5'	2.34	0.58
2:AB:69:VAL:HG22	2:AB:91:VAL:HB	1.85	0.58
4:AD:158:LEU:O	4:AD:161:ALA:HB3	2.03	0.58
5:AE:68:ARG:HH11	5:AE:68:ARG:HG3	1.68	0.58
7:AG:14:ASP:HB2	7:AG:19:SER:HB3	1.86	0.58
9:AI:39:GLY:O	9:AI:40:ARG:CB	2.52	0.58
11:AK:15:VAL:O	11:AK:16:SER:OG	2.21	0.58
22:AV:137:C:H5''	22:AV:138:C:O5'	2.04	0.58
22:AV:199:C:O5'	22:AV:199:C:H6	1.87	0.58
22:AV:257:U:O2	22:AV:258:G:N3	2.37	0.58
22:AV:324:G:N1	22:AV:325:G:O6	2.36	0.58
23:AW:19:THR:HG22	23:AW:103:LEU:CD1	2.34	0.58
23:AW:88:ARG:NH1	23:AW:119:LEU:HD21	2.16	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AW:89:LEU:N	23:AW:89:LEU:HD23	2.07	0.58
25:AY:209:ALA:O	25:AY:210:ARG:C	2.43	0.58
25:AY:67:ALA:HB1	25:AY:327:PHE:HZ	1.66	0.58
55:B4:25:VAL:HB	55:B4:35:GLN:HB2	1.85	0.58
26:BA:108:G:H2'	26:BA:109:C:H5'	1.85	0.58
26:BA:1281:G:N2	26:BA:1290:C:C2	2.71	0.58
26:BA:215:G:C4'	26:BA:216:A:H4'	2.34	0.58
26:BA:277:G:H1'	26:BA:361:G:O6	2.03	0.58
26:BA:409:G:O2'	26:BA:410:G:H5'	2.04	0.58
29:BE:149:ILE:C	29:BE:149:ILE:HD12	2.25	0.58
30:BF:134:GLN:O	30:BF:134:GLN:HG2	2.03	0.58
33:BI:139:VAL:HG23	33:BI:141:ASP:HB2	1.86	0.58
33:BI:5:GLN:O	33:BI:6:ALA:CB	2.51	0.58
33:BI:74:PRO:HG2	33:BI:77:VAL:HG11	1.86	0.58
35:BK:114:LYS:O	35:BK:118:LEU:HG	2.04	0.58
37:BM:46:ILE:HD12	37:BM:69:PRO:HD3	1.85	0.58
38:BN:103:ARG:NH1	38:BN:110:MET:HE1	2.18	0.58
48:BX:3:VAL:HG13	48:BX:10:ARG:HB3	1.86	0.58
1:AA:1005:A:H2'	1:AA:1006:G:O4'	2.04	0.57
1:AA:1211:U:O2'	1:AA:1212:U:OP2	2.22	0.57
1:AA:1379:G:C6	1:AA:1380:U:O4	2.56	0.57
1:AA:142:G:H2'	1:AA:142:G:N3	2.18	0.57
1:AA:271:C:H2'	1:AA:272:C:C6	2.39	0.57
1:AA:718:A:C2'	1:AA:719:C:H5'	2.33	0.57
3:AC:86:LEU:O	3:AC:89:VAL:HG22	2.03	0.57
7:AG:87:PRO:HD3	7:AG:147:ASN:HB2	1.86	0.57
9:AI:20:ILE:HD13	9:AI:86:LEU:CD1	2.33	0.57
12:AL:115:LYS:O	12:AL:116:TYR:HB2	2.03	0.57
13:AM:10:ASP:O	13:AM:11:HIS:HB2	2.04	0.57
14:AN:20:PHE:CD2	14:AN:24:ALA:CB	2.87	0.57
17:AQ:80:LYS:N	17:AQ:80:LYS:HD3	2.19	0.57
22:AV:131:U:H3'	22:AV:131:U:P	2.44	0.57
22:AV:17:U:O2	22:AV:334:A:C6	2.57	0.57
22:AV:257:U:N3	22:AV:259:G:C5	2.71	0.57
22:AV:263:G:H2'	22:AV:263:G:N3	2.18	0.57
22:AV:39:A:C5	22:AV:40:G:C6	2.91	0.57
25:AY:171:GLU:HG3	25:AY:172:ASP:H	1.70	0.57
25:AY:409:ILE:HD11	25:AY:654:GLY:CA	2.27	0.57
25:AY:487:ILE:HD13	25:AY:487:ILE:H	1.68	0.57
26:BA:1061:U:O4	33:BI:10:LEU:HA	2.04	0.57
26:BA:117:G:C6	26:BA:119:A:C6	2.92	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:1873:G:H2'	26:BA:1874:C:H6	1.68	0.57
26:BA:2040:G:H2'	26:BA:2041:U:O4'	2.04	0.57
26:BA:2064:C:H2'	26:BA:2065:C:C6	2.39	0.57
29:BE:122:GLU:O	29:BE:123:LYS:HD3	2.04	0.57
30:BF:66:ILE:O	30:BF:66:ILE:HD12	2.04	0.57
37:BM:43:ALA:O	37:BM:46:ILE:N	2.36	0.57
38:BN:72:ASP:C	38:BN:72:ASP:OD2	2.42	0.57
42:BR:40:MET:CE	42:BR:48:LYS:HE2	2.34	0.57
1:AA:1183:U:C4'	1:AA:1183:U:OP2	2.52	0.57
1:AA:1337:G:C4'	1:AA:1338:G:OP1	2.52	0.57
1:AA:244:U:H4'	1:AA:245:U:C5'	2.34	0.57
1:AA:294:U:C2	1:AA:295:C:C5	2.91	0.57
1:AA:36:C:OP1	12:AL:119:LYS:HE3	2.03	0.57
1:AA:676:A:O2'	1:AA:677:U:H5'	2.04	0.57
1:AA:723:U:H5'	1:AA:724:G:P	2.44	0.57
1:AA:91:U:C4	1:AA:92:U:C2	2.92	0.57
2:AB:114:LYS:O	2:AB:116:LEU:N	2.37	0.57
1:AA:1103:C:C5'	2:AB:96:LEU:HB3	2.33	0.57
1:AA:1206:G:O4'	3:AC:193:GLY:HA2	2.04	0.57
7:AG:49:LEU:HD11	7:AG:60:ALA:HB1	1.86	0.57
8:AH:82:LEU:HD22	8:AH:83:ARG:O	2.05	0.57
12:AL:43:LYS:HB2	12:AL:44:PRO:HD3	1.86	0.57
12:AL:2:THR:HG22	12:AL:4:ASN:N	2.20	0.57
13:AM:76:ILE:HG22	13:AM:80:MET:CE	2.34	0.57
1:AA:994:A:O2'	14:AN:7:ALA:HB1	2.04	0.57
16:AP:6:LEU:HD13	16:AP:71:VAL:HG23	1.86	0.57
17:AQ:68:LYS:O	17:AQ:69:THR:CB	2.52	0.57
21:AU:24:LYS:HD3	21:AU:25:ALA:N	2.18	0.57
22:AV:197:A:H3'	22:AV:198:U:C5	2.38	0.57
22:AV:40:G:C2	22:AV:41:G:C5	2.91	0.57
25:AY:438:PHE:HB2	25:AY:452:SER:O	2.04	0.57
25:AY:630:GLN:O	25:AY:630:GLN:HG2	2.04	0.57
26:BA:1072:C:OP2	26:BA:1075:C:N4	2.37	0.57
26:BA:1416:G:O2'	26:BA:1417:C:H6	1.86	0.57
26:BA:187:G:H2'	26:BA:188:G:H5''	1.84	0.57
26:BA:2102:G:H5'	26:BA:2103:C:OP2	2.04	0.57
26:BA:225:C:C2	26:BA:231:A:C2	2.92	0.57
26:BA:535:G:O2'	26:BA:536:G:H5'	2.04	0.57
26:BA:880:G:C2'	26:BA:899:A:H61	2.16	0.57
30:BF:56:LEU:CD1	30:BF:64:PRO:HB3	2.35	0.57
35:BK:77:ILE:CD1	35:BK:77:ILE:N	2.67	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BL:87:GLY:O	36:BL:89:VAL:N	2.37	0.57
39:BO:71:ALA:HB1	39:BO:106:LEU:HB2	1.86	0.57
40:BP:30:TRP:CD2	40:BP:39:LEU:CD1	2.87	0.57
49:BY:13:GLU:C	49:BY:15:ASN:N	2.55	0.57
1:AA:299:G:C6	1:AA:300:A:C2	2.92	0.57
1:AA:625:U:O2'	1:AA:626:G:H5'	2.03	0.57
1:AA:706:A:C2'	1:AA:707:U:H5'	2.34	0.57
1:AA:89:U:O2'	1:AA:90:C:H5''	2.04	0.57
2:AB:202:ASN:OD1	2:AB:203:ASP:N	2.38	0.57
4:AD:122:ILE:CD1	4:AD:122:ILE:N	2.66	0.57
4:AD:31:CYS:SG	4:AD:33:ILE:N	2.77	0.57
8:AH:31:LEU:C	8:AH:31:LEU:CD1	2.72	0.57
9:AI:49:GLN:NE2	9:AI:79:ARG:NH1	2.52	0.57
1:AA:1525:G:OP1	11:AK:121:ARG:NH2	2.37	0.57
11:AK:123:PRO:O	11:AK:124:LYS:O	2.22	0.57
16:AP:72:ALA:HA	16:AP:75:ILE:CD1	2.35	0.57
19:AS:8:PRO:HB2	19:AS:40:PHE:CZ	2.38	0.57
21:AU:11:PHE:CD2	21:AU:11:PHE:N	2.71	0.57
21:AU:11:PHE:N	21:AU:11:PHE:HD2	2.01	0.57
22:AV:68:U:H5	22:AV:302:A:O2'	1.86	0.57
22:AV:58:G:H2'	22:AV:59:U:H6	1.68	0.57
22:AV:8:A:H8	22:AV:334:A:C1'	2.08	0.57
25:AY:605:ILE:CD1	25:AY:677:GLN:HG2	2.34	0.57
26:BA:1071:G:C1'	26:BA:1089:A:C8	2.88	0.57
26:BA:1070:A:O2'	26:BA:1097:U:OP1	2.22	0.57
26:BA:2870:C:C4	26:BA:2871:U:C5	2.92	0.57
26:BA:363:G:H2'	26:BA:364:C:C6	2.40	0.57
26:BA:834:G:N3	26:BA:2358:A:H1'	2.19	0.57
27:BC:161:VAL:HG22	27:BC:175:LEU:HD23	1.87	0.57
31:BG:37:ASN:O	31:BG:38:ASP:HB3	2.04	0.57
36:BL:85:VAL:HB	36:BL:94:THR:HG23	1.87	0.57
42:BR:39:LEU:C	42:BR:49:ILE:HG23	2.25	0.57
46:BV:25:LYS:HE2	46:BV:43:ASP:HA	1.87	0.57
48:BX:63:ILE:HD11	48:BX:67:LEU:HG	1.86	0.57
1:AA:1292:G:H2'	1:AA:1293:C:O4'	2.03	0.57
1:AA:1309:G:C6	1:AA:1329:A:C6	2.92	0.57
1:AA:1475:G:O2'	1:AA:1476:A:H5'	2.05	0.57
1:AA:304:U:O2'	1:AA:305:G:H5'	2.04	0.57
1:AA:435:A:C5	1:AA:436:C:C5	2.92	0.57
1:AA:513:C:O2'	1:AA:514:C:O5'	2.20	0.57
1:AA:514:C:H2'	1:AA:515:G:O5'	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:131:LYS:O	2:AB:133:ALA:N	2.37	0.57
4:AD:147:LYS:CD	4:AD:147:LYS:H	2.17	0.57
10:AJ:29:ALA:CA	10:AJ:32:THR:HG22	2.33	0.57
12:AL:93:ARG:C	12:AL:94:TYR:CD2	2.77	0.57
19:AS:61:VAL:HA	19:AS:65:MET:SD	2.44	0.57
22:AV:228:G:HO2'	22:AV:232:A:H2	0.73	0.57
22:AV:290:A:O4'	22:AV:291:A:C8	2.57	0.57
22:AV:40:G:C5	22:AV:316:A:C2	2.93	0.57
25:AY:35:TYR:HE1	25:AY:269:VAL:HB	1.70	0.57
25:AY:680:PRO:O	25:AY:682:GLN:N	2.33	0.57
26:BA:1066:U:O2	26:BA:1069:A:N7	2.38	0.57
26:BA:1794:A:H2'	26:BA:1795:C:C6	2.40	0.57
26:BA:2801:G:H2'	26:BA:2802:G:H8	1.68	0.57
26:BA:624:C:O2'	26:BA:657:U:OP1	2.19	0.57
26:BA:881:G:N2	26:BA:895:U:H3	2.02	0.57
26:BA:2304:G:C1'	30:BF:128:SER:HB3	2.34	0.57
31:BG:158:GLY:O	31:BG:159:LYS:C	2.43	0.57
31:BG:53:PRO:HD3	31:BG:61:TRP:CH2	2.39	0.57
33:BI:115:ASP:O	33:BI:116:MET:HG2	2.05	0.57
37:BM:90:GLU:O	37:BM:91:TYR:HB3	2.02	0.57
38:BN:2:ARG:CD	38:BN:2:ARG:O	2.52	0.57
26:BA:2720:U:OP1	40:BP:52:ARG:NH2	2.37	0.57
1:AA:1054:C:H4'	1:AA:1055:A:OP1	2.04	0.57
1:AA:1168:U:O2	1:AA:1168:U:C2'	2.53	0.57
1:AA:1183:U:O4'	1:AA:1183:U:OP2	2.22	0.57
1:AA:1337:G:H4'	1:AA:1338:G:OP1	2.04	0.57
1:AA:1533:C:C5'	1:AA:1534:A:OP1	2.52	0.57
1:AA:201:G:C2	1:AA:217:C:O2	2.58	0.57
5:AE:93:VAL:HG21	5:AE:110:MET:CE	2.34	0.57
5:AE:152:VAL:O	5:AE:155:LYS:HB2	2.05	0.57
5:AE:158:LYS:O	8:AH:63:LYS:HE3	2.04	0.57
5:AE:96:GLN:HB2	5:AE:123:LEU:CD1	2.35	0.57
6:AF:24:ARG:HG2	6:AF:24:ARG:HH11	1.69	0.57
8:AH:53:ASP:CG	8:AH:54:THR:N	2.58	0.57
11:AK:22:ILE:CG1	11:AK:85:VAL:HG22	2.35	0.57
21:AU:33:ARG:CZ	21:AU:34:ARG:HB2	2.35	0.57
22:AV:209:C:H2'	22:AV:210:C:C6	2.40	0.57
22:AV:290:A:O2'	22:AV:291:A:P	2.61	0.57
22:AV:71:A:H2'	22:AV:72:A:N7	2.19	0.57
25:AY:137:ASN:HD21	25:AY:263:ALA:CB	2.18	0.57
25:AY:225:GLU:O	25:AY:228:MET:HB3	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AY:617:MET:CA	26:BA:1095:A:OP1	2.52	0.57
26:BA:1907:G:C6	26:BA:1908:C:C4	2.93	0.57
26:BA:2327:A:H2'	26:BA:2328:A:C8	2.38	0.57
26:BA:2480:C:H2'	26:BA:2481:G:H5'	1.86	0.57
26:BA:2585:U:HO2'	26:BA:2586:U:P	2.27	0.57
33:BI:18:ASN:ND2	33:BI:27:LEU:HD21	2.20	0.57
36:BL:110:VAL:O	36:BL:111:ILE:C	2.41	0.57
37:BM:43:ALA:O	37:BM:45:GLN:N	2.37	0.57
41:BQ:23:TYR:O	41:BQ:24:TYR:HB3	2.03	0.57
26:BA:751:A:H5'	43:BS:90:LYS:HA	1.86	0.57
1:AA:104:G:C2'	1:AA:105:G:H5'	2.34	0.57
1:AA:104:G:N2	1:AA:105:G:C4	2.73	0.57
1:AA:1101:A:H1'	1:AA:1102:A:O4'	2.05	0.57
1:AA:1249:C:O2'	9:AI:74:GLN:NE2	2.37	0.57
1:AA:1298:U:H4'	1:AA:1299:A:O5'	2.03	0.57
1:AA:439:U:C6	1:AA:440:C:C5	2.93	0.57
1:AA:482:A:H2'	1:AA:483:C:O4'	2.05	0.57
2:AB:125:PHE:HD2	2:AB:125:PHE:N	2.02	0.57
2:AB:60:ALA:HA	2:AB:64:GLY:HA3	1.85	0.57
10:AJ:36:VAL:HA	10:AJ:75:ASP:O	2.04	0.57
10:AJ:9:ARG:O	10:AJ:98:VAL:HA	2.04	0.57
21:AU:19:LYS:HE2	21:AU:19:LYS:CA	2.33	0.57
21:AU:28:LEU:CD2	21:AU:28:LEU:C	2.72	0.57
22:AV:21:C:C1'	23:AW:78:LYS:HZ1	2.17	0.57
22:AV:37:C:C2'	22:AV:38:A:O5'	2.53	0.57
25:AY:381:LYS:N	25:AY:381:LYS:HD2	2.20	0.57
25:AY:388:THR:HG23	25:AY:399:LEU:HD22	1.85	0.57
25:AY:468:ARG:C	25:AY:470:PHE:H	2.07	0.57
25:AY:632:LEU:HD12	25:AY:645:ALA:HA	1.85	0.57
25:AY:604:PRO:HB2	25:AY:649:LEU:HD12	1.86	0.57
26:BA:1054:A:H2'	26:BA:1054:A:N3	2.18	0.57
26:BA:1061:U:HO2'	26:BA:1062:G:C5'	2.15	0.57
26:BA:2502:G:H5'	26:BA:2503:A:H5''	1.85	0.57
56:BB:55:U:O2	56:BB:55:U:H2'	2.05	0.57
36:BL:76:GLU:HG3	36:BL:111:ILE:HG12	1.86	0.57
38:BN:78:LYS:C	38:BN:79:LEU:O	2.40	0.57
1:AA:1287:A:N6	1:AA:1288:A:N6	2.52	0.57
1:AA:1305:G:O2'	1:AA:1306:A:H8	1.87	0.57
1:AA:1530:G:C2	1:AA:1531:A:N7	2.73	0.57
1:AA:164:G:C2'	1:AA:165:G:H5'	2.34	0.57
1:AA:707:U:H2'	1:AA:708:C:C6	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:83:C:H4'	1:AA:83:C:OP1	2.04	0.57
1:AA:956:U:H2'	1:AA:957:U:O4'	2.04	0.57
2:AB:66:ILE:HG21	2:AB:68:PHE:CE2	2.40	0.57
4:AD:94:GLU:OE2	4:AD:103:ARG:NH1	2.37	0.57
9:AI:24:ASN:C	9:AI:58:GLU:HA	2.25	0.57
12:AL:113:ARG:NH2	12:AL:120:ARG:HG2	2.20	0.57
17:AQ:74:LEU:O	17:AQ:74:LEU:HD12	2.04	0.57
2:AB:104:LYS:NZ	22:AV:121:A:P	2.76	0.57
22:AV:140:U:C2	22:AV:141:C:C5	2.92	0.57
25:AY:180:VAL:HG23	25:AY:181:LEU:N	2.17	0.57
25:AY:227:ILE:HD13	25:AY:242:LEU:HA	1.85	0.57
25:AY:438:PHE:CD2	25:AY:438:PHE:C	2.77	0.57
25:AY:463:VAL:O	25:AY:467:LYS:HB3	2.05	0.57
25:AY:652:MET:O	25:AY:652:MET:HG3	2.04	0.57
25:AY:92:ILE:HG23	25:AY:93:GLU:N	2.20	0.57
26:BA:1234:U:C2'	26:BA:1235:G:O5'	2.53	0.57
26:BA:1587:G:C5	26:BA:1588:G:C8	2.92	0.57
26:BA:2403:C:O2'	26:BA:2404:U:H5'	2.05	0.57
26:BA:2851:A:N6	26:BA:2852:G:C6	2.73	0.57
26:BA:846:U:H1'	26:BA:847:U:H5	1.69	0.57
26:BA:892:A:N1	26:BA:893:C:C4	2.73	0.57
28:BD:130:GLN:O	28:BD:131:ASP:C	2.39	0.57
29:BE:4:VAL:HA	29:BE:11:ALA:HA	1.86	0.57
30:BF:142:TYR:HA	30:BF:145:VAL:HG13	1.87	0.57
34:BJ:7:LYS:O	34:BJ:11:VAL:HG23	2.04	0.57
37:BM:113:ALA:O	37:BM:114:ARG:C	2.41	0.57
40:BP:24:THR:HG22	40:BP:25:VAL:N	2.18	0.57
1:AA:1322:C:O5'	1:AA:1322:C:O2	2.23	0.57
1:AA:693:G:C6	1:AA:694:A:C5	2.93	0.57
2:AB:40:ILE:HG21	2:AB:201:GLY:CA	2.35	0.57
2:AB:88:GLN:HE21	2:AB:220:VAL:HB	1.68	0.57
3:AC:16:PRO:O	3:AC:17:TRP:HB2	2.04	0.57
3:AC:51:VAL:HG21	3:AC:67:ILE:HG23	1.87	0.57
3:AC:77:GLY:O	3:AC:79:LYS:N	2.38	0.57
10:AJ:73:LEU:O	10:AJ:74:VAL:HB	2.04	0.57
17:AQ:54:ILE:HD13	17:AQ:55:GLY:N	2.18	0.57
19:AS:48:ILE:HD12	19:AS:48:ILE:H	1.69	0.57
20:AT:53:MET:CE	20:AT:54:GLN:HA	2.35	0.57
22:AV:182:U:O2	22:AV:182:U:H5''	2.05	0.57
22:AV:273:A:H1'	22:AV:274:G:N7	2.19	0.57
22:AV:298:A:C5	22:AV:299:C:C6	2.93	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:74:G:H2'	22:AV:75:C:C6	2.38	0.57
25:AY:13:ARG:HB2	25:AY:79:ILE:HG12	1.87	0.57
26:BA:1508:A:O2'	26:BA:1509:A:O4'	2.22	0.57
26:BA:2153:C:H2'	26:BA:2154:A:O4'	2.05	0.57
26:BA:281:C:H2'	26:BA:282:A:C8	2.40	0.57
27:BC:157:ALA:HB1	27:BC:196:ASN:O	2.04	0.57
27:BC:257:ARG:NH1	27:BC:263:ASP:OD2	2.38	0.57
31:BG:173:ALA:O	31:BG:174:LYS:CB	2.52	0.57
35:BK:113:MET:SD	35:BK:116:ILE:HD11	2.44	0.57
49:BY:18:LEU:CD2	49:BY:22:LEU:HD22	2.35	0.57
1:AA:1299:A:H2'	1:AA:1299:A:N3	2.19	0.57
1:AA:1479:C:C2	1:AA:1480:A:C8	2.93	0.57
1:AA:470:C:C2	1:AA:471:U:C5	2.93	0.57
1:AA:519:C:H2'	1:AA:520:A:C8	2.39	0.57
2:AB:81:ASP:H	2:AB:84:LEU:HB3	1.69	0.57
3:AC:171:ARG:O	3:AC:172:VAL:HG22	2.04	0.57
1:AA:413:G:C2	4:AD:32:LYS:HD3	2.39	0.57
9:AI:89:TYR:O	9:AI:90:ASP:CG	2.43	0.57
14:AN:20:PHE:CD2	14:AN:24:ALA:HB3	2.40	0.57
14:AN:4:SER:O	14:AN:8:ARG:HG3	2.03	0.57
22:AV:20:A:C4'	22:AV:21:C:OP1	2.47	0.57
22:AV:257:U:C4	22:AV:259:G:C5	2.92	0.57
24:AX:58:A:O2'	24:AX:59:A:C5'	2.53	0.57
25:AY:309:LEU:HD12	25:AY:310:ALA:N	2.20	0.57
25:AY:635:GLU:HB3	33:BI:21:PRO:O	2.02	0.57
26:BA:2786:U:C2'	26:BA:2787:C:H5'	2.34	0.57
26:BA:557:C:H2'	26:BA:558:U:C6	2.39	0.57
26:BA:1791:A:H5''	27:BC:204:LEU:HD23	1.87	0.57
29:BE:111:GLU:OE1	29:BE:111:GLU:CA	2.50	0.57
31:BG:124:CYS:HA	31:BG:129:GLU:O	2.04	0.57
31:BG:148:ARG:HG3	31:BG:148:ARG:HH11	1.70	0.57
26:BA:2880:C:H1'	38:BN:91:ALA:O	2.04	0.57
50:BZ:6:ILE:HD11	50:BZ:47:ILE:HD11	1.86	0.57
1:AA:1312:G:N2	1:AA:1326:U:C2	2.73	0.57
1:AA:921:U:C2	1:AA:1396:A:H2	2.21	0.57
1:AA:1487:G:N2	1:AA:1488:G:H1'	2.19	0.57
1:AA:244:U:H4'	1:AA:245:U:H5'	1.86	0.57
1:AA:353:A:H2'	1:AA:354:G:OP2	2.05	0.57
1:AA:500:G:C6	1:AA:546:A:C2	2.93	0.57
1:AA:769:G:O2'	1:AA:770:C:H5'	2.05	0.57
2:AB:158:ASP:O	2:AB:181:PRO:HD2	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:53:LEU:HD21	2:AB:212:TYR:CE2	2.40	0.57
5:AE:154:ALA:HB1	8:AH:65:PHE:CZ	2.40	0.57
13:AM:89:ARG:HD3	13:AM:95:PRO:O	2.05	0.57
14:AN:30:ILE:HG22	14:AN:31:SER:N	2.20	0.57
11:AK:124:LYS:C	21:AU:33:ARG:HH21	2.06	0.57
25:AY:112:GLN:O	25:AY:115:GLU:HB3	2.04	0.57
25:AY:273:LEU:O	25:AY:276:VAL:HB	2.04	0.57
25:AY:495:GLY:O	25:AY:509:HIS:HA	2.05	0.57
25:AY:99:ARG:NE	25:AY:128:TYR:HB2	2.20	0.57
26:BA:1243:C:C2'	26:BA:1244:A:O5'	2.53	0.57
26:BA:150:U:H2'	26:BA:151:C:C6	2.40	0.57
26:BA:2164:C:H3'	26:BA:2165:C:C6	2.40	0.57
26:BA:871:U:O2'	37:BM:68:PHE:CG	2.58	0.57
26:BA:901:C:H2'	26:BA:901:C:O2	2.05	0.57
30:BF:142:TYR:C	30:BF:145:VAL:HG22	2.25	0.57
30:BF:71:LYS:HD3	30:BF:72:SER:N	2.19	0.57
31:BG:15:ASP:HB2	31:BG:26:LYS:HG3	1.86	0.57
32:BH:14:SER:HB3	32:BH:17:ASP:OD2	2.05	0.57
32:BH:84:ALA:HB2	32:BH:90:LEU:HD12	1.86	0.57
26:BA:1097:U:O2'	33:BI:8:VAL:HA	2.04	0.57
35:BK:113:MET:HA	35:BK:116:ILE:HG13	1.86	0.57
1:AA:1216:A:C2	1:AA:1217:C:C4	2.93	0.56
1:AA:1366:C:H2'	1:AA:1367:C:C6	2.39	0.56
1:AA:376:G:C4	1:AA:389:A:C2	2.93	0.56
1:AA:692:U:O2'	1:AA:694:A:N7	2.32	0.56
9:AI:98:ARG:CD	9:AI:103:VAL:HG21	2.35	0.56
9:AI:43:ALA:N	9:AI:45:MET:SD	2.78	0.56
10:AJ:33:GLY:HA3	10:AJ:83:THR:HB	1.87	0.56
14:AN:35:ALA:HA	14:AN:41:ARG:HB3	1.86	0.56
17:AQ:71:SER:C	17:AQ:72:TRP:CD1	2.78	0.56
22:AV:18:C:C5	22:AV:18:C:OP1	2.58	0.56
22:AV:270:C:O2'	22:AV:271:G:C5'	2.43	0.56
22:AV:272:C:C4'	22:AV:291:A:N1	2.68	0.56
22:AV:341:5MU:HN3	22:AV:345:A:H62	1.46	0.56
26:BA:1073:A:H3'	26:BA:1074:G:H5'	1.86	0.56
26:BA:1538:G:OP2	26:BA:1538:G:H8	1.88	0.56
26:BA:2590:A:O2'	26:BA:2591:C:H5'	2.04	0.56
26:BA:528:A:H3'	26:BA:528:A:H8	1.70	0.56
26:BA:894:U:C2'	26:BA:895:U:C4'	2.66	0.56
28:BD:100:LEU:HD12	28:BD:100:LEU:O	2.04	0.56
32:BH:72:ILE:CG2	32:BH:140:ALA:HB1	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BN:48:VAL:HG12	38:BN:49:GLU:N	2.18	0.56
47:BW:37:ARG:HG3	47:BW:37:ARG:NH1	2.18	0.56
1:AA:1162:C:C2	1:AA:1175:G:C2	2.92	0.56
1:AA:1502:A:N7	1:AA:1504:G:C4	2.73	0.56
1:AA:376:G:H5''	16:AP:5:ARG:HB3	1.86	0.56
1:AA:65:A:C2	1:AA:381:C:C6	2.93	0.56
1:AA:412:A:H4'	1:AA:413:G:OP1	2.04	0.56
1:AA:437:U:C4	1:AA:438:U:C5	2.93	0.56
1:AA:55:A:C4	1:AA:56:U:C6	2.94	0.56
1:AA:696:A:O5'	1:AA:696:A:H8	1.88	0.56
2:AB:185:ILE:HA	2:AB:199:ILE:HB	1.86	0.56
2:AB:79:VAL:O	2:AB:83:ALA:HB3	2.05	0.56
7:AG:14:ASP:CB	7:AG:19:SER:HB3	2.35	0.56
9:AI:11:ARG:HH11	9:AI:11:ARG:CG	2.19	0.56
13:AM:10:ASP:OD1	13:AM:11:HIS:N	2.38	0.56
13:AM:2:ARG:HG3	13:AM:3:ILE:N	2.19	0.56
16:AP:51:ARG:NH1	16:AP:51:ARG:HB3	2.19	0.56
19:AS:73:PHE:CD1	19:AS:73:PHE:N	2.72	0.56
22:AV:139:C:N1	22:AV:182:U:H6	2.02	0.56
22:AV:16:U:C2'	22:AV:18:C:H5''	2.35	0.56
22:AV:257:U:N3	22:AV:258:G:C2	2.72	0.56
22:AV:29:G:O5'	22:AV:29:G:H8	1.89	0.56
22:AV:38:A:H2	22:AV:316:A:C2	2.23	0.56
22:AV:44:C:O2'	22:AV:45:A:C8	2.38	0.56
22:AV:68:U:N3	22:AV:303:G:C8	2.71	0.56
23:AW:63:TYR:HD2	23:AW:64:GLU:H	1.51	0.56
25:AY:343:ASN:ND2	25:AY:343:ASN:C	2.59	0.56
52:B1:28:THR:C	52:B1:29:LYS:HG2	2.25	0.56
26:BA:1071:G:C1'	26:BA:1089:A:N7	2.68	0.56
26:BA:1484:U:H2'	26:BA:1484:U:O2	2.04	0.56
26:BA:1734:G:C4	26:BA:1735:A:C8	2.93	0.56
26:BA:1919:A:H2'	26:BA:1919:A:N3	2.18	0.56
26:BA:2144:G:C2'	26:BA:2147:A:H61	2.18	0.56
26:BA:2194:U:H2'	26:BA:2195:U:C6	2.40	0.56
26:BA:2577:A:H5''	26:BA:2578:G:H5'	1.86	0.56
26:BA:273:G:N2	26:BA:365:U:O2	2.38	0.56
26:BA:876:C:H2'	26:BA:877:A:C6	2.39	0.56
26:BA:912:C:H2'	26:BA:913:U:H5'	1.86	0.56
27:BC:259:ASN:O	27:BC:260:LYS:CB	2.52	0.56
32:BH:61:VAL:O	32:BH:64:ALA:CB	2.50	0.56
38:BN:103:ARG:HD3	38:BN:110:MET:HE2	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BP:30:TRP:CE3	40:BP:39:LEU:CD1	2.88	0.56
46:BV:70:ILE:HG22	46:BV:72:VAL:CG1	2.34	0.56
49:BY:56:LEU:O	49:BY:57:LEU:HB2	2.05	0.56
1:AA:1030:U:H5'	1:AA:1031:C:O2	2.06	0.56
1:AA:1100:C:C4	2:AB:94:ARG:CZ	2.80	0.56
1:AA:1499:A:C2'	1:AA:1500:A:H5'	2.35	0.56
1:AA:1533:C:C4'	1:AA:1534:A:OP1	2.53	0.56
2:AB:110:ILE:O	2:AB:111:LYS:C	2.43	0.56
2:AB:147:LEU:CD2	2:AB:150:ILE:HG21	2.35	0.56
2:AB:39:ILE:N	2:AB:39:ILE:HD13	2.20	0.56
4:AD:7:LYS:NZ	4:AD:21:LYS:HG3	2.20	0.56
5:AE:15:ILE:HD12	5:AE:15:ILE:N	2.20	0.56
10:AJ:33:GLY:O	10:AJ:34:ALA:HB2	2.05	0.56
12:AL:76:HIS:CE1	25:AY:421:GLN:CD	2.79	0.56
13:AM:113:LYS:HB2	13:AM:114:PRO:HD3	1.87	0.56
16:AP:6:LEU:CD2	16:AP:70:ARG:HG3	2.35	0.56
20:AT:50:PHE:O	20:AT:53:MET:HG3	2.05	0.56
21:AU:13:VAL:O	21:AU:15:LEU:CG	2.53	0.56
11:AK:110:THR:HG23	21:AU:4:LYS:HB3	1.87	0.56
22:AV:257:U:C5	22:AV:259:G:O6	2.59	0.56
22:AV:327:A:H2'	22:AV:328:U:H6	1.71	0.56
22:AV:345:A:C5	22:AV:348:C:C5	2.92	0.56
22:AV:52:G:N2	22:AV:72:A:N6	2.22	0.56
23:AW:9:ARG:NH2	25:AY:500:GLN:O	2.38	0.56
25:AY:534:ILE:HD11	25:AY:570:GLY:HA3	1.88	0.56
26:BA:1181:U:H2'	26:BA:1182:G:C8	2.40	0.56
26:BA:1470:A:N6	26:BA:1521:G:H1'	2.20	0.56
26:BA:1873:G:O2'	26:BA:1874:C:H5'	2.04	0.56
26:BA:2801:G:H2'	26:BA:2802:G:C8	2.40	0.56
26:BA:611:C:H2'	26:BA:612:G:H5'	1.87	0.56
26:BA:883:G:N2	26:BA:884:U:C2	2.73	0.56
26:BA:887:U:C4'	26:BA:887:U:OP1	2.53	0.56
28:BD:40:LEU:O	28:BD:41:ALA:C	2.43	0.56
30:BF:107:VAL:HG12	30:BF:108:PRO:CD	2.36	0.56
30:BF:48:LEU:HD12	30:BF:51:ASN:HD21	1.68	0.56
32:BH:31:VAL:CB	32:BH:32:PRO:CD	2.83	0.56
33:BI:18:ASN:CB	33:BI:37:PHE:HB3	2.35	0.56
35:BK:77:ILE:HG22	35:BK:78:ARG:N	2.21	0.56
36:BL:107:PHE:CD2	36:BL:107:PHE:N	2.72	0.56
36:BL:68:SER:O	36:BL:69:ARG:CB	2.52	0.56
40:BP:72:VAL:O	40:BP:72:VAL:CG2	2.53	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1081:A:C2	1:AA:1082:A:C4	2.93	0.56
1:AA:1152:A:H5'	10:AJ:15:HIS:CD2	2.40	0.56
2:AB:113:LEU:O	2:AB:117:GLU:HG2	2.05	0.56
2:AB:86:CYS:HB2	2:AB:88:GLN:OE1	2.05	0.56
5:AE:45:VAL:HG13	5:AE:117:ALA:HB2	1.87	0.56
20:AT:35:TYR:HA	20:AT:38:ILE:HD12	1.87	0.56
22:AV:213:G:N2	22:AV:245:C:N4	2.51	0.56
22:AV:44:C:H1'	22:AV:45:A:C8	2.39	0.56
22:AV:47:G:O6	22:AV:305:A:N6	2.37	0.56
24:AX:50:G:C2	24:AX:51:U:C6	2.93	0.56
25:AY:379:GLY:O	25:AY:380:LEU:HB2	2.04	0.56
52:B1:28:THR:O	52:B1:29:LYS:HG2	2.05	0.56
26:BA:1060:U:H5'	26:BA:1062:G:H5'	1.85	0.56
26:BA:1313:U:H5''	26:BA:1314:C:OP2	2.04	0.56
26:BA:1414:C:C4	26:BA:1415:U:H5	2.22	0.56
26:BA:1494:A:C6	26:BA:1495:A:C6	2.93	0.56
26:BA:185:G:C4	26:BA:186:G:C8	2.93	0.56
26:BA:2205:A:H2'	26:BA:2206:C:C6	2.41	0.56
26:BA:2897:U:H2'	26:BA:2898:U:C6	2.41	0.56
26:BA:32:C:O2'	26:BA:33:C:H5'	2.05	0.56
26:BA:359:G:C5	26:BA:360:U:C5	2.93	0.56
26:BA:851:C:H2'	26:BA:852:U:H6	1.71	0.56
26:BA:866:A:C6	26:BA:867:C:C4	2.92	0.56
26:BA:875:G:C2'	26:BA:876:C:H5'	2.33	0.56
33:BI:21:PRO:HB2	33:BI:22:PRO:CD	2.30	0.56
26:BA:2360:G:H1'	36:BL:60:ARG:HD3	1.88	0.56
36:BL:85:VAL:O	36:BL:86:GLU:O	2.22	0.56
26:BA:2376:A:N3	39:BO:111:ARG:NH1	2.53	0.56
1:AA:1078:U:O5'	1:AA:1078:U:H6	1.88	0.56
1:AA:1181:G:O2'	1:AA:1182:G:N7	2.38	0.56
1:AA:131:A:C6	1:AA:132:C:N4	2.73	0.56
1:AA:1411:C:H2'	1:AA:1412:C:C6	2.41	0.56
1:AA:624:C:C2'	1:AA:625:U:O5'	2.52	0.56
1:AA:775:G:C2'	1:AA:776:G:H5'	2.35	0.56
2:AB:70:GLY:CA	2:AB:163:ILE:HG22	2.35	0.56
2:AB:86:CYS:HB2	2:AB:88:GLN:CD	2.26	0.56
3:AC:52:SER:HB2	3:AC:113:LYS:HB3	1.88	0.56
4:AD:48:SER:O	4:AD:52:VAL:HG13	2.05	0.56
13:AM:94:LEU:CB	13:AM:95:PRO:CD	2.83	0.56
14:AN:15:LEU:HD23	14:AN:15:LEU:N	2.21	0.56
1:AA:108:G:C6	20:AT:9:ARG:HG2	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:158:U:H2'	22:AV:159:C:C5	2.38	0.56
22:AV:163:G:C4	22:AV:164:G:H8	2.17	0.56
22:AV:192:A:H2'	22:AV:193:A:H8	1.69	0.56
22:AV:272:C:C2	22:AV:273:A:C8	2.94	0.56
22:AV:324:G:H2'	22:AV:325:G:C8	2.40	0.56
22:AV:59:U:C2'	22:AV:60:U:C5'	2.80	0.56
22:AV:75:C:C2	22:AV:76:C:C5	2.93	0.56
23:AW:31:VAL:HA	23:AW:34:LEU:HD12	1.88	0.56
24:AX:14:A:C2	24:AX:15:G:H1'	2.39	0.56
24:AX:72:C:H3'	24:AX:73:A:C8	2.40	0.56
25:AY:415:PRO:O	25:AY:420:ASP:HB2	2.05	0.56
25:AY:77:HIS:NE2	25:AY:277:VAL:HG21	2.21	0.56
26:BA:1178:C:O3'	26:BA:1179:G:C8	2.58	0.56
26:BA:1860:G:O2'	26:BA:1861:G:H5'	2.06	0.56
26:BA:1869:G:O2'	26:BA:1872:A:N6	2.38	0.56
26:BA:2325:G:H5''	26:BA:2326:C:OP2	2.06	0.56
26:BA:889:C:H2'	26:BA:891:G:C5	2.36	0.56
30:BF:151:LEU:HD12	30:BF:152:ASP:H	1.71	0.56
32:BH:34:GLY:O	32:BH:35:LYS:CB	2.53	0.56
26:BA:2722:G:H4'	38:BN:4:ARG:HB2	1.87	0.56
41:BQ:68:ALA:HB1	41:BQ:73:ILE:O	2.05	0.56
46:BV:61:LEU:HD13	46:BV:61:LEU:N	2.21	0.56
1:AA:1103:C:H5''	2:AB:96:LEU:CB	2.35	0.56
1:AA:1134:G:C2	1:AA:1135:U:H1'	2.40	0.56
1:AA:1240:U:OP1	7:AG:115:MET:CB	2.54	0.56
1:AA:1342:C:O2'	1:AA:1343:G:C5'	2.30	0.56
1:AA:22:G:C6	1:AA:23:C:N3	2.73	0.56
2:AB:23:ASN:ND2	2:AB:191:ASP:HA	2.21	0.56
8:AH:74:ILE:HD13	8:AH:128:VAL:HG13	1.87	0.56
11:AK:50:GLY:O	11:AK:51:PHE:CD2	2.58	0.56
15:AO:86:LEU:HD23	15:AO:86:LEU:N	2.20	0.56
16:AP:50:THR:O	16:AP:51:ARG:C	2.44	0.56
11:AK:93:GLU:OE2	21:AU:20:ARG:NH2	2.39	0.56
22:AV:12:U:C5	22:AV:348:C:C1'	2.81	0.56
22:AV:163:G:C2	22:AV:164:G:C5	2.94	0.56
22:AV:325:G:OP2	22:AV:325:G:C8	2.58	0.56
22:AV:46:U:C4'	22:AV:312:A:C3'	2.76	0.56
22:AV:61:G:H4'	22:AV:62:G:H5''	1.79	0.56
22:AV:63:C:N3	22:AV:73:A:N1	2.50	0.56
23:AW:62:PRO:HB3	23:AW:70:ASN:ND2	2.19	0.56
24:AX:53:G:C2'	24:AX:54:G:H8	2.16	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AY:406:GLU:HB3	25:AY:407:PRO:CD	2.35	0.56
25:AY:619:ASP:HB3	31:BG:175:LYS:CE	2.35	0.56
26:BA:1171:G:C5	26:BA:1172:C:N3	2.73	0.56
26:BA:1458:U:H4'	26:BA:1459:G:O5'	2.06	0.56
26:BA:1536:C:O4'	26:BA:1537:G:C2	2.58	0.56
26:BA:905:A:HO2'	26:BA:906:U:H5'	1.68	0.56
30:BF:13:LYS:HG3	30:BF:14:LYS:N	2.20	0.56
31:BG:80:GLU:O	31:BG:81:GLY:O	2.23	0.56
31:BG:8:VAL:HG12	31:BG:49:LEU:O	2.06	0.56
32:BH:4:ILE:HD11	32:BH:44:ILE:HA	1.87	0.56
33:BI:91:LYS:HB3	33:BI:94:LYS:HG3	1.87	0.56
36:BL:120:VAL:HG22	36:BL:121:THR:N	2.21	0.56
36:BL:30:THR:O	36:BL:33:ARG:HG2	2.05	0.56
37:BM:15:GLY:C	37:BM:16:ARG:CD	2.73	0.56
46:BV:39:ALA:O	46:BV:40:ILE:HD13	2.06	0.56
1:AA:1004:A:C2	1:AA:1026:G:C2	2.94	0.56
1:AA:18:C:C1'	1:AA:1078:U:H3	2.18	0.56
1:AA:1114:C:C2	1:AA:1115:U:C6	2.93	0.56
1:AA:1462:C:H2'	1:AA:1463:U:C6	2.41	0.56
4:AD:150:LYS:HA	4:AD:177:MET:CE	2.36	0.56
5:AE:136:VAL:O	5:AE:137:ARG:HB3	2.06	0.56
5:AE:81:GLN:CD	5:AE:149:PRO:HB3	2.26	0.56
9:AI:11:ARG:HH11	9:AI:11:ARG:HG2	1.70	0.56
9:AI:90:ASP:OD2	9:AI:93:LEU:HG	2.06	0.56
10:AJ:32:THR:HG23	10:AJ:33:GLY:N	2.21	0.56
11:AK:15:VAL:O	11:AK:16:SER:CB	2.54	0.56
22:AV:176:G:H2'	22:AV:177:A:C8	2.38	0.56
3:AC:79:LYS:CG	22:AV:184:A:OP2	2.51	0.56
22:AV:316:A:N6	22:AV:317:G:O6	2.38	0.56
22:AV:66:C:H1'	22:AV:70:A:N1	2.20	0.56
25:AY:218:GLU:O	25:AY:221:ALA:HB3	2.06	0.56
25:AY:609:GLU:HA	25:AY:643:ILE:O	2.05	0.56
25:AY:655:TYR:HD2	25:AY:669:PHE:CE2	2.24	0.56
25:AY:8:ASP:O	25:AY:9:LEU:HB3	2.06	0.56
26:BA:1495:A:C2'	26:BA:1496:A:O5'	2.53	0.56
26:BA:183:C:H2'	26:BA:184:C:H5'	1.87	0.56
26:BA:1894:C:H2'	26:BA:1895:C:C6	2.40	0.56
26:BA:207:A:H2'	26:BA:208:C:O4'	2.06	0.56
26:BA:2491:U:H5''	26:BA:2570:G:H5''	1.87	0.56
26:BA:2886:A:C2	26:BA:2887:A:H1'	2.40	0.56
26:BA:277:G:C1'	26:BA:361:G:O6	2.54	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:851:C:H2'	26:BA:852:U:C6	2.40	0.56
26:BA:870:U:H2'	26:BA:871:U:H6	1.70	0.56
26:BA:873:C:H2'	26:BA:874:G:C8	2.36	0.56
26:BA:883:G:C2	26:BA:884:U:C2	2.94	0.56
38:BN:2:ARG:O	38:BN:3:HIS:C	2.42	0.56
42:BR:39:LEU:CA	42:BR:49:ILE:CG2	2.81	0.56
41:BQ:86:SER:CB	42:BR:51:VAL:HA	2.35	0.56
45:BU:53:GLN:N	45:BU:54:PRO:HD3	2.19	0.56
46:BV:4:ILE:HD11	46:BV:56:PHE:HE1	1.71	0.56
1:AA:1096:C:O2'	1:AA:1097:C:H5'	2.05	0.56
1:AA:1493:A:OP2	1:AA:1493:A:C8	2.55	0.56
1:AA:771:G:C2'	1:AA:772:U:H5'	2.36	0.56
2:AB:55:GLU:HA	2:AB:58:LYS:HB3	1.87	0.56
3:AC:164:THR:O	3:AC:165:GLU:HB2	2.06	0.56
4:AD:147:LYS:HD3	4:AD:147:LYS:H	1.69	0.56
4:AD:8:LEU:CD2	4:AD:21:LYS:HB2	2.36	0.56
5:AE:119:VAL:HG21	5:AE:122:VAL:HG11	1.87	0.56
8:AH:93:LYS:HD3	8:AH:96:ALA:O	2.06	0.56
9:AI:46:VAL:O	9:AI:49:GLN:HB2	2.05	0.56
9:AI:5:TYR:HB3	9:AI:88:GLU:CG	2.35	0.56
9:AI:95:SER:CA	9:AI:98:ARG:HB2	2.35	0.56
11:AK:80:ASN:HB3	11:AK:105:ARG:CB	2.31	0.56
14:AN:100:SER:O	14:AN:101:TRP:HB3	2.05	0.56
14:AN:6:LYS:HD3	14:AN:6:LYS:N	2.20	0.56
22:AV:120:U:O2	22:AV:120:U:C5'	2.53	0.56
22:AV:256:G:N9	22:AV:258:G:O6	2.39	0.56
22:AV:328:U:H2'	22:AV:329:U:H6	1.71	0.56
22:AV:329:U:H2'	22:AV:330:U:H6	1.70	0.56
22:AV:36:C:C2'	22:AV:37:C:C6	2.70	0.56
22:AV:75:C:H2'	22:AV:76:C:H6	1.71	0.56
25:AY:141:LYS:O	25:AY:144:ALA:HB2	2.05	0.56
25:AY:20:HIS:O	25:AY:21:ILE:O	2.24	0.56
25:AY:526:VAL:HB	25:AY:566:THR:HG23	1.88	0.56
52:B1:50:GLU:O	52:B1:51:ALA:HB2	2.05	0.56
26:BA:1475:G:N3	26:BA:1475:G:O4'	2.34	0.56
26:BA:1731:G:N1	26:BA:1733:G:C4	2.73	0.56
26:BA:358:U:H2'	26:BA:359:G:C8	2.41	0.56
26:BA:887:U:C4'	26:BA:888:C:H5'	2.35	0.56
27:BC:161:VAL:HG12	27:BC:162:GLN:N	2.20	0.56
28:BD:101:PHE:CE2	28:BD:203:VAL:HG12	2.41	0.56
28:BD:86:GLU:CA	28:BD:86:GLU:OE1	2.54	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BF:11:VAL:HG13	30:BF:171:ALA:CB	2.35	0.56
36:BL:79:LEU:O	36:BL:82:LEU:HD22	2.05	0.56
26:BA:2091:C:O2'	48:BX:55:MET:CE	2.54	0.56
1:AA:1053:G:C3'	1:AA:1054:C:H5'	2.36	0.56
1:AA:138:G:H2'	1:AA:139:A:H5'	1.87	0.56
1:AA:410:G:C4'	1:AA:411:A:OP1	2.53	0.56
1:AA:504:C:O4'	1:AA:510:A:C2	2.59	0.56
4:AD:10:LEU:CD2	4:AD:62:ARG:HD3	2.36	0.56
4:AD:150:LYS:HA	4:AD:177:MET:HE1	1.88	0.56
4:AD:97:LEU:HD23	4:AD:117:VAL:HG11	1.87	0.56
5:AE:114:LEU:O	5:AE:119:VAL:HG22	2.05	0.56
6:AF:8:PHE:CD1	6:AF:8:PHE:C	2.78	0.56
1:AA:1298:U:OP2	7:AG:113:LYS:HE2	2.06	0.56
9:AI:98:ARG:HA	9:AI:103:VAL:CG2	2.36	0.56
22:AV:161:U:O2	22:AV:162:A:N7	2.38	0.56
22:AV:220:G:C4	22:AV:221:U:C5	2.93	0.56
22:AV:25:A:H2'	22:AV:26:U:H6	1.71	0.56
22:AV:306:U:O2	22:AV:307:G:C8	2.59	0.56
22:AV:77:G:H2'	22:AV:78:C:H6	1.71	0.56
22:AV:8:A:C8	22:AV:334:A:H1'	2.41	0.56
24:AX:18:U:C4'	24:AX:19:G:OP1	2.54	0.56
24:AX:28:U:C2'	24:AX:29:C:H5'	2.33	0.56
24:AX:41:C:H2'	24:AX:42:C:H6	1.71	0.56
25:AY:613:PRO:C	25:AY:615:GLU:N	2.59	0.56
26:BA:1130:U:C2	26:BA:2025:C:H5'	2.41	0.56
26:BA:1419:A:O2'	26:BA:1420:A:H5''	2.06	0.56
26:BA:1925:C:H4'	26:BA:1926:U:C6	2.41	0.56
26:BA:2146:C:H5'	26:BA:2147:A:C5	2.41	0.56
26:BA:2194:U:C2	26:BA:2195:U:C5	2.93	0.56
26:BA:229:C:H2'	26:BA:230:G:O5'	2.04	0.56
26:BA:415:A:C2	26:BA:416:U:O2	2.58	0.56
26:BA:866:A:O2'	26:BA:867:C:H5''	2.05	0.56
31:BG:86:LEU:HD11	31:BG:132:LEU:HD12	1.88	0.56
35:BK:121:GLU:O	35:BK:122:VAL:O	2.23	0.56
39:BO:27:VAL:HG12	39:BO:93:ASP:HB3	1.87	0.56
40:BP:52:ARG:HH11	40:BP:52:ARG:HG2	1.69	0.56
49:BY:36:GLN:O	49:BY:37:LEU:HB3	2.05	0.56
1:AA:1240:U:C2	7:AG:31:VAL:HG12	2.40	0.56
1:AA:1387:G:C2'	1:AA:1388:C:C5'	2.68	0.56
1:AA:270:A:C5	1:AA:271:C:C4	2.94	0.56
1:AA:299:G:N1	1:AA:300:A:C2	2.74	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:408:A:C2'	1:AA:409:U:H5'	2.36	0.56
1:AA:462:G:H3'	1:AA:463:U:C6	2.35	0.56
2:AB:137:THR:HA	2:AB:140:LEU:HB2	1.88	0.56
5:AE:108:GLY:HA2	5:AE:111:ARG:HB3	1.87	0.56
5:AE:132:PRO:HA	5:AE:135:VAL:CG1	2.36	0.56
13:AM:40:GLU:CG	13:AM:41:ASP:N	2.68	0.56
14:AN:15:LEU:O	14:AN:16:ALA:C	2.42	0.56
17:AQ:11:VAL:O	17:AQ:12:VAL:HB	2.04	0.56
20:AT:7:LYS:O	20:AT:10:ALA:HB3	2.06	0.56
21:AU:9:GLU:OE1	21:AU:10:PRO:HG3	2.06	0.56
22:AV:222:U:P	22:AV:236:U:H3	2.27	0.56
22:AV:263:G:C8	22:AV:308:U:H5	2.20	0.56
23:AW:45:PHE:HB3	23:AW:100:LEU:O	2.06	0.56
23:AW:63:TYR:CD2	23:AW:64:GLU:N	2.72	0.56
25:AY:105:ILE:N	25:AY:105:ILE:HD12	2.21	0.56
25:AY:395:PRO:O	25:AY:397:VAL:HG13	2.05	0.56
25:AY:622:GLY:O	25:AY:625:ASN:N	2.38	0.56
26:BA:1061:U:O2	33:BI:9:LYS:HB2	2.06	0.56
26:BA:1084:A:H5''	26:BA:1085:A:OP2	2.06	0.56
26:BA:1414:C:C5	26:BA:1415:U:C5	2.93	0.56
26:BA:1503:A:C2	26:BA:1504:A:C4	2.94	0.56
26:BA:2078:C:O2'	26:BA:2079:U:H5'	2.06	0.56
26:BA:2276:G:C2'	26:BA:2277:G:H5'	2.36	0.56
26:BA:435:C:H2'	26:BA:436:C:H5'	1.88	0.56
26:BA:911:A:C8	26:BA:911:A:OP2	2.58	0.56
28:BD:103:ASP:OD1	28:BD:104:VAL:N	2.38	0.56
30:BF:51:ASN:HB3	30:BF:146:ASP:CG	2.26	0.56
30:BF:48:LEU:O	30:BF:51:ASN:N	2.39	0.56
31:BG:148:ARG:NH1	31:BG:148:ARG:CG	2.67	0.56
31:BG:163:TYR:HB2	31:BG:166:GLU:CB	2.36	0.56
42:BR:49:ILE:C	42:BR:51:VAL:O	2.43	0.56
26:BA:1266:G:O6	43:BS:13:SER:HB3	2.06	0.56
1:AA:198:G:C5	1:AA:199:A:N7	2.74	0.56
1:AA:541:G:H2'	1:AA:542:G:O4'	2.06	0.56
1:AA:499:A:N6	1:AA:547:A:H5''	2.21	0.56
5:AE:132:PRO:C	5:AE:134:ASN:H	2.09	0.56
8:AH:4:ASP:HB2	8:AH:80:PRO:CG	2.36	0.56
9:AI:66:VAL:HG13	9:AI:66:VAL:O	2.06	0.56
1:AA:1226:C:C5	13:AM:102:LYS:CB	2.89	0.56
13:AM:113:LYS:HB3	13:AM:114:PRO:HD3	1.88	0.56
13:AM:16:ILE:O	13:AM:17:ALA:C	2.42	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AN:30:ILE:HG23	14:AN:45:VAL:HB	1.88	0.56
21:AU:38:GLU:N	21:AU:40:PRO:HD3	2.19	0.56
22:AV:142:U:C2	22:AV:143:C:C5	2.94	0.56
22:AV:21:C:N3	22:AV:332:G:N2	2.49	0.56
22:AV:239:A:C3'	22:AV:240:U:H4'	2.36	0.56
23:AW:83:LYS:CG	23:AW:84:HIS:N	2.69	0.56
24:AX:15:G:O6	24:AX:49:C:O2	2.22	0.56
25:AY:496:LYS:HE2	25:AY:498:ILE:HD13	1.87	0.56
25:AY:539:ILE:O	25:AY:542:VAL:HG12	2.06	0.56
26:BA:1178:C:C2'	26:BA:1179:G:N7	2.69	0.56
26:BA:1416:G:O2'	26:BA:1417:C:C6	2.59	0.56
26:BA:1742:U:C2'	26:BA:1743:G:O5'	2.54	0.56
26:BA:2144:G:O2'	26:BA:2147:A:N1	2.38	0.56
26:BA:2223:G:C2'	26:BA:2224:G:H5'	2.35	0.56
26:BA:2492:U:H2'	26:BA:2493:U:H5'	1.88	0.56
26:BA:2571:U:O2'	28:BD:151:THR:HG22	2.06	0.56
26:BA:2732:G:C3'	26:BA:2733:A:H5'	2.36	0.56
26:BA:543:G:H1'	26:BA:551:G:N2	2.21	0.56
31:BG:26:LYS:HB3	31:BG:31:GLU:HG3	1.88	0.56
31:BG:68:ARG:HD3	31:BG:68:ARG:O	2.06	0.56
34:BJ:29:ALA:HA	34:BJ:32:LEU:HB2	1.89	0.56
34:BJ:64:VAL:CG1	34:BJ:68:LYS:HB2	2.36	0.56
1:AA:1299:A:C2	1:AA:1301:U:N3	2.74	0.55
1:AA:1375:A:O2'	1:AA:1376:U:H5'	2.05	0.55
1:AA:1387:G:N1	1:AA:1388:C:C4	2.74	0.55
1:AA:1451:U:H5''	1:AA:1452:C:C5	2.41	0.55
1:AA:198:G:O2'	1:AA:199:A:H5'	2.06	0.55
1:AA:921:U:H6	1:AA:921:U:H3'	1.71	0.55
2:AB:150:ILE:HG13	2:AB:151:LYS:N	2.20	0.55
2:AB:81:ASP:O	2:AB:82:ALA:C	2.45	0.55
5:AE:113:VAL:HG22	5:AE:114:LEU:N	2.22	0.55
5:AE:96:GLN:HB2	5:AE:123:LEU:HD11	1.88	0.55
13:AM:106:ARG:NH1	13:AM:106:ARG:HG2	2.21	0.55
14:AN:61:ARG:O	14:AN:62:ASN:CB	2.54	0.55
16:AP:50:THR:O	16:AP:50:THR:HG22	2.06	0.55
19:AS:40:PHE:O	19:AS:43:MET:HG3	2.06	0.55
19:AS:50:VAL:CG2	19:AS:70:LEU:HD13	2.36	0.55
22:AV:231:A:N1	22:AV:232:A:N6	2.53	0.55
22:AV:266:C:N4	22:AV:267:G:N7	2.53	0.55
25:AY:601:ILE:HG21	25:AY:687:LEU:HD12	1.88	0.55
26:BA:1830:C:H6	26:BA:1830:C:O5'	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:1871:A:C8	26:BA:1872:A:N1	2.74	0.55
26:BA:1838:C:C5	26:BA:1899:A:C5	2.94	0.55
26:BA:528:A:C2	26:BA:2042:A:H2'	2.40	0.55
26:BA:2185:U:O2	26:BA:2185:U:H2'	2.06	0.55
26:BA:2314:A:H2'	26:BA:2315:G:C8	2.40	0.55
26:BA:2519:U:C5	26:BA:2541:A:C6	2.94	0.55
26:BA:2544:G:O2'	26:BA:2545:G:H5'	2.06	0.55
26:BA:2704:C:H3'	26:BA:2705:A:H8	1.71	0.55
26:BA:703:U:O4	26:BA:704:G:C6	2.59	0.55
15:AO:88:ARG:CZ	26:BA:714:U:C5	2.88	0.55
26:BA:84:A:N3	26:BA:85:G:H1'	2.22	0.55
26:BA:90:U:H2'	26:BA:91:A:C8	2.41	0.55
28:BD:39:ASP:OD1	28:BD:46:ARG:HD2	2.06	0.55
32:BH:129:GLU:HG2	32:BH:143:ILE:HG13	1.89	0.55
33:BI:24:GLY:O	33:BI:27:LEU:HD23	2.06	0.55
33:BI:6:ALA:HB1	33:BI:60:VAL:HG23	1.88	0.55
1:AA:1093:A:N3	1:AA:1109:C:O2'	2.31	0.55
1:AA:1267:C:C5	1:AA:1268:G:C5	2.94	0.55
1:AA:1294:G:C6	1:AA:1295:U:C4	2.94	0.55
1:AA:1442:G:H2'	1:AA:1443:C:O5'	2.04	0.55
1:AA:410:G:H5''	1:AA:411:A:OP1	2.06	0.55
1:AA:918:A:C2'	1:AA:919:A:C8	2.65	0.55
1:AA:918:A:N9	1:AA:919:A:N7	2.53	0.55
1:AA:91:U:C6	1:AA:92:U:C6	2.94	0.55
1:AA:939:G:C4	1:AA:940:C:C4	2.93	0.55
2:AB:73:ARG:O	2:AB:74:ALA:HB2	2.06	0.55
4:AD:169:TRP:CD1	4:AD:185:PRO:HD3	2.41	0.55
4:AD:24:VAL:O	4:AD:25:ARG:O	2.25	0.55
8:AH:31:LEU:O	8:AH:32:LYS:C	2.43	0.55
18:AR:32:ILE:HA	18:AR:39:VAL:HG23	1.89	0.55
21:AU:18:PHE:O	21:AU:21:SER:HB3	2.05	0.55
21:AU:39:LYS:N	21:AU:40:PRO:HD2	2.21	0.55
22:AV:109:C:C2	22:AV:110:U:C5	2.94	0.55
22:AV:111:U:H3	22:AV:134:G:H1	1.54	0.55
22:AV:162:A:H2'	22:AV:163:G:C8	2.36	0.55
22:AV:196:G:N2	22:AV:197:A:N6	2.39	0.55
22:AV:211:C:H2'	22:AV:212:U:C6	2.41	0.55
22:AV:273:A:N3	22:AV:274:G:O6	2.39	0.55
22:AV:288:G:N3	22:AV:289:U:C5	2.74	0.55
22:AV:289:U:O2'	22:AV:290:A:H5'	2.05	0.55
22:AV:47:G:P	22:AV:313:C:H5''	2.46	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:8:A:N6	22:AV:346:C:C4	2.75	0.55
22:AV:49:C:N4	22:AV:67:G:N1	2.14	0.55
23:AW:47:ARG:HD2	23:AW:48:PHE:CE1	2.41	0.55
23:AW:60:ILE:HG12	23:AW:77:ARG:NH2	2.22	0.55
25:AY:156:ARG:HB2	25:AY:157:LEU:HD23	1.88	0.55
25:AY:252:ASP:N	25:AY:252:ASP:OD2	2.39	0.55
25:AY:622:GLY:O	26:BA:2473:U:O2	2.23	0.55
26:BA:1248:G:OP1	41:BQ:1:ALA:N	2.39	0.55
26:BA:1507:C:N4	26:BA:1508:A:C2	2.75	0.55
26:BA:1838:C:N1	26:BA:1898:U:H5	2.05	0.55
26:BA:2219:U:H2'	26:BA:2220:U:O5'	2.06	0.55
26:BA:2331:G:N2	26:BA:2385:C:C6	2.73	0.55
26:BA:2719:G:O2'	26:BA:2720:U:H5'	2.04	0.55
26:BA:887:U:H4'	26:BA:887:U:OP1	2.06	0.55
26:BA:960:A:O3'	26:BA:961:C:H3'	2.07	0.55
27:BC:270:ARG:HH11	27:BC:270:ARG:HG2	1.71	0.55
29:BE:115:GLN:O	29:BE:116:ASP:HB2	2.04	0.55
31:BG:8:VAL:HG13	31:BG:49:LEU:HB2	1.87	0.55
33:BI:132:ALA:HB1	33:BI:137:LEU:HD12	1.88	0.55
25:AY:635:GLU:CG	33:BI:22:PRO:C	2.73	0.55
39:BO:94:ARG:O	39:BO:96:GLY:N	2.39	0.55
41:BQ:75:TYR:CZ	41:BQ:79:ILE:HG13	2.41	0.55
42:BR:51:VAL:C	42:BR:52:PRO:O	2.43	0.55
1:AA:1142:G:C2	1:AA:1143:G:C1'	2.84	0.55
1:AA:1299:A:O2'	1:AA:1300:G:H4'	2.05	0.55
1:AA:1308:U:O2'	1:AA:1309:G:H5'	2.06	0.55
1:AA:89:U:O2'	1:AA:90:C:C5'	2.54	0.55
1:AA:938:A:C2'	1:AA:939:G:O5'	2.54	0.55
5:AE:20:VAL:O	5:AE:20:VAL:CG2	2.55	0.55
8:AH:58:LEU:HD11	8:AH:60:LEU:HD21	1.88	0.55
9:AI:18:VAL:HA	9:AI:64:ILE:HG22	1.88	0.55
20:AT:53:MET:HE3	20:AT:54:GLN:HA	1.89	0.55
21:AU:13:VAL:CG1	21:AU:15:LEU:CD2	2.78	0.55
22:AV:264:U:O2'	22:AV:265:C:H5'	2.06	0.55
22:AV:26:U:C2	22:AV:27:U:C5	2.94	0.55
22:AV:301:A:H3'	22:AV:302:A:C5'	2.36	0.55
23:AW:65:LYS:CA	26:BA:1909:C:OP1	2.54	0.55
25:AY:165:GLN:HE21	25:AY:177:ILE:HG21	1.71	0.55
25:AY:550:MET:CE	25:AY:563:ILE:HD11	2.37	0.55
25:AY:610:VAL:HG12	25:AY:669:PHE:HB3	1.88	0.55
26:BA:100:U:C2	26:BA:101:A:N6	2.75	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:1327:A:H2'	26:BA:1328:A:O4'	2.06	0.55
26:BA:2182:U:H2'	26:BA:2183:A:C8	2.40	0.55
26:BA:2211:A:C2'	26:BA:2212:A:OP1	2.54	0.55
26:BA:2256:G:H2'	26:BA:2257:U:O5'	2.06	0.55
26:BA:907:G:H2'	26:BA:908:C:H6	1.71	0.55
27:BC:123:ILE:HG22	27:BC:123:ILE:O	2.06	0.55
28:BD:12:THR:HG22	28:BD:13:ARG:H	1.71	0.55
30:BF:121:PHE:CZ	30:BF:127:TYR:HB2	2.41	0.55
30:BF:96:TRP:O	30:BF:99:PHE:N	2.40	0.55
1:AA:1081:A:C2'	1:AA:1082:A:H5'	2.35	0.55
1:AA:1153:G:C6	1:AA:1154:G:N7	2.74	0.55
1:AA:113:G:C6	1:AA:315:A:N6	2.74	0.55
1:AA:376:G:H2'	1:AA:377:G:C8	2.41	0.55
1:AA:589:U:H2'	1:AA:590:U:H6	1.72	0.55
2:AB:115:ASP:O	2:AB:116:LEU:HB2	2.05	0.55
2:AB:55:GLU:HA	2:AB:58:LYS:HB2	1.88	0.55
1:AA:1190:G:H5'	3:AC:175:HIS:CE1	2.41	0.55
3:AC:59:PRO:O	3:AC:60:ALA:HB3	2.06	0.55
4:AD:94:GLU:HG2	4:AD:185:PRO:HG2	1.89	0.55
1:AA:8:A:H5'	5:AE:124:ALA:O	2.07	0.55
6:AF:20:GLY:O	6:AF:23:GLU:HB3	2.07	0.55
8:AH:33:VAL:HG12	8:AH:34:ALA:N	2.21	0.55
15:AO:7:THR:O	15:AO:11:VAL:HG23	2.07	0.55
17:AQ:57:VAL:C	17:AQ:58:VAL:HG12	2.25	0.55
19:AS:10:ILE:HG21	19:AS:40:PHE:CE2	2.41	0.55
19:AS:50:VAL:HG21	19:AS:70:LEU:O	2.06	0.55
11:AK:111:ASP:O	21:AU:3:ILE:CG2	2.55	0.55
22:AV:110:U:H2'	22:AV:111:U:H6	1.71	0.55
22:AV:114:G:O5'	22:AV:114:G:H8	1.89	0.55
22:AV:329:U:C2	22:AV:330:U:C5	2.95	0.55
22:AV:62:G:O2'	22:AV:63:C:C6	2.60	0.55
22:AV:6:U:O2'	22:AV:7:G:C5'	2.54	0.55
23:AW:63:TYR:CG	23:AW:67:SER:HA	2.42	0.55
23:AW:82:HIS:ND1	23:AW:82:HIS:N	2.53	0.55
52:B1:16:THR:CG2	52:B1:41:VAL:HG11	2.36	0.55
26:BA:1183:U:H2'	26:BA:1184:U:C6	2.41	0.55
26:BA:1291:C:C2'	26:BA:1292:G:H5'	2.36	0.55
26:BA:1694:C:H4'	26:BA:1695:G:O5'	2.05	0.55
26:BA:2334:U:H4'	26:BA:2335:A:OP2	2.07	0.55
26:BA:2747:G:O2'	31:BG:66:THR:HG22	2.07	0.55
26:BA:31:C:O3'	26:BA:1238:G:H5''	2.05	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:449:A:H2'	26:BA:450:G:H5'	1.89	0.55
26:BA:611:C:C2'	26:BA:612:G:H5'	2.36	0.55
26:BA:872:U:C2	26:BA:873:C:C5	2.94	0.55
26:BA:871:U:H2'	26:BA:872:U:C6	2.41	0.55
27:BC:196:ASN:OD1	27:BC:196:ASN:C	2.45	0.55
32:BH:14:SER:OG	32:BH:17:ASP:HB2	2.06	0.55
32:BH:59:ALA:HA	32:BH:62:LEU:CD2	2.36	0.55
38:BN:103:ARG:CD	38:BN:110:MET:HE2	2.36	0.55
39:BO:31:THR:HG22	39:BO:33:ARG:N	2.21	0.55
44:BT:7:LEU:HD22	44:BT:46:ALA:HA	1.88	0.55
49:BY:5:GLU:C	49:BY:7:ARG:N	2.56	0.55
50:BZ:34:THR:HG22	50:BZ:35:VAL:N	2.21	0.55
1:AA:1049:U:C4'	1:AA:1050:G:OP2	2.53	0.55
1:AA:18:C:C1'	1:AA:1078:U:N3	2.68	0.55
1:AA:1201:A:H1'	1:AA:1202:U:OP2	2.07	0.55
1:AA:404:G:N7	4:AD:1:ALA:N	2.54	0.55
1:AA:691:G:O6	11:AK:52:ARG:NH2	2.39	0.55
5:AE:152:VAL:HG22	5:AE:153:ALA:N	2.21	0.55
5:AE:99:SER:O	5:AE:100:GLU:C	2.44	0.55
6:AF:3:HIS:H	6:AF:92:THR:HG23	1.72	0.55
8:AH:48:PHE:O	8:AH:49:LYS:HB2	2.07	0.55
9:AI:28:VAL:HG11	9:AI:31:GLN:HA	1.87	0.55
10:AJ:5:ARG:HE	10:AJ:79:PRO:HG3	1.71	0.55
12:AL:101:LEU:HD13	12:AL:101:LEU:N	2.21	0.55
16:AP:75:ILE:O	16:AP:77:GLU:N	2.39	0.55
17:AQ:16:MET:HG2	17:AQ:19:SER:HB3	1.88	0.55
22:AV:133:A:O2'	22:AV:134:G:O5'	2.24	0.55
22:AV:135:A:H2'	22:AV:136:G:C8	2.41	0.55
22:AV:212:U:C4'	22:AV:213:G:OP1	2.55	0.55
22:AV:222:U:H5'	22:AV:236:U:C4	2.41	0.55
22:AV:269:C:H3'	22:AV:270:C:H5'	1.89	0.55
22:AV:256:G:C5	22:AV:273:A:N1	2.73	0.55
22:AV:317:G:C4	22:AV:318:G:C8	2.95	0.55
22:AV:328:U:C2	22:AV:329:U:C5	2.94	0.55
22:AV:340:G:O2'	22:AV:341:5MU:H5''	2.07	0.55
25:AY:390:VAL:HG23	25:AY:391:GLY:O	2.07	0.55
25:AY:553:GLY:HA2	25:AY:560:VAL:HG23	1.89	0.55
25:AY:624:LEU:HD11	25:AY:655:TYR:OH	2.06	0.55
51:B0:47:TYR:CE2	51:B0:52:LYS:HB2	2.42	0.55
25:AY:634:MET:SD	26:BA:1068:G:C2'	2.95	0.55
26:BA:1171:G:C2	26:BA:1172:C:O2	2.60	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:236:C:H2'	26:BA:237:C:H6	1.71	0.55
26:BA:282:A:H2'	26:BA:283:G:H8	1.72	0.55
26:BA:871:U:H2'	26:BA:872:U:H6	1.70	0.55
26:BA:894:U:O5'	26:BA:894:U:H6	1.88	0.55
26:BA:903:C:O2	26:BA:904:G:H8	1.84	0.55
56:BB:106:G:H2'	56:BB:107:G:O4'	2.06	0.55
27:BC:156:SER:O	27:BC:157:ALA:C	2.43	0.55
27:BC:182:LYS:O	27:BC:183:VAL:HG23	2.06	0.55
30:BF:42:ALA:CB	30:BF:45:ASP:O	2.54	0.55
33:BI:18:ASN:HD21	33:BI:27:LEU:HD11	1.72	0.55
40:BP:27:VAL:HG22	40:BP:83:ILE:HG13	1.88	0.55
49:BY:18:LEU:O	49:BY:22:LEU:N	2.39	0.55
1:AA:1007:U:H2'	1:AA:1008:U:H5'	1.89	0.55
1:AA:1243:C:H2'	1:AA:1244:G:C8	2.42	0.55
1:AA:1279:G:H5''	10:AJ:9:ARG:CZ	2.36	0.55
1:AA:188:C:O2	1:AA:188:C:H2'	2.06	0.55
1:AA:918:A:N6	1:AA:919:A:C6	2.74	0.55
2:AB:209:VAL:O	2:AB:211:LEU:N	2.40	0.55
4:AD:167:PRO:CG	4:AD:170:LEU:HD11	2.37	0.55
7:AG:134:VAL:CG2	7:AG:135:LYS:N	2.69	0.55
9:AI:51:LEU:HA	9:AI:54:VAL:CG2	2.36	0.55
10:AJ:33:GLY:HA3	10:AJ:83:THR:CB	2.37	0.55
15:AO:63:ARG:NH1	15:AO:87:ARG:NH2	2.55	0.55
18:AR:50:TYR:O	18:AR:54:LEU:HB2	2.06	0.55
22:AV:109:C:H2'	22:AV:110:U:H6	1.71	0.55
22:AV:113:A:C2	22:AV:114:G:C5	2.94	0.55
22:AV:181:G:O2'	22:AV:182:U:O5'	2.18	0.55
22:AV:327:A:C4	22:AV:328:U:C5	2.95	0.55
22:AV:39:A:N1	22:AV:41:G:N7	2.55	0.55
25:AY:65:ILE:HD13	25:AY:65:ILE:H	1.71	0.55
26:BA:1078:U:H5''	26:BA:1079:C:OP1	2.07	0.55
26:BA:1167:C:C2'	26:BA:1168:G:H5''	2.35	0.55
26:BA:2127:G:N2	26:BA:2161:C:O2	2.40	0.55
26:BA:2473:U:C6	26:BA:2474:U:C5	2.94	0.55
26:BA:415:A:C2	26:BA:2409:G:C2	2.95	0.55
26:BA:889:C:H2'	26:BA:891:G:C1'	2.35	0.55
26:BA:905:A:C2	26:BA:906:U:C5	2.94	0.55
26:BA:907:G:C4	26:BA:908:C:C5	2.94	0.55
27:BC:129:LEU:CD2	27:BC:129:LEU:N	2.70	0.55
27:BC:219:VAL:O	27:BC:220:ARG:C	2.45	0.55
29:BE:150:THR:HG22	29:BE:170:ARG:O	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BH:122:LEU:HD13	32:BH:128:HIS:CD2	2.42	0.55
32:BH:46:PHE:CD2	32:BH:46:PHE:C	2.80	0.55
44:BT:14:PRO:HD2	49:BY:33:ALA:HB1	1.88	0.55
1:AA:1217:C:H2'	1:AA:1218:C:H6	1.70	0.55
1:AA:1277:C:H2'	1:AA:1279:G:H8	1.71	0.55
1:AA:128:G:O2'	1:AA:129:A:H5'	2.07	0.55
1:AA:1299:A:C6	1:AA:1301:U:O2	2.60	0.55
1:AA:1503:A:C8	1:AA:1531:A:H1'	2.41	0.55
1:AA:257:G:C2	1:AA:258:G:C5	2.95	0.55
1:AA:683:G:O2'	1:AA:684:U:H5'	2.07	0.55
1:AA:714:G:H2'	1:AA:715:A:C8	2.41	0.55
1:AA:832:G:H2'	1:AA:833:G:H5'	1.88	0.55
2:AB:206:ILE:HD13	2:AB:207:ARG:H	1.72	0.55
3:AC:13:ILE:C	3:AC:14:VAL:HG13	2.27	0.55
3:AC:5:HIS:CD2	3:AC:8:GLY:H	2.25	0.55
9:AI:20:ILE:HD11	9:AI:85:ALA:HB3	1.89	0.55
9:AI:71:ILE:HG22	9:AI:72:SER:N	2.21	0.55
13:AM:28:ARG:NH1	13:AM:62:PHE:HB3	2.22	0.55
14:AN:3:GLN:HA	14:AN:6:LYS:HE2	1.88	0.55
15:AO:10:ILE:O	15:AO:14:PHE:HD1	1.89	0.55
17:AQ:58:VAL:HG22	17:AQ:60:ILE:HD13	1.89	0.55
22:AV:108:G:H2'	22:AV:109:C:H6	1.71	0.55
22:AV:77:G:C4	22:AV:78:C:C5	2.94	0.55
25:AY:359:HIS:O	25:AY:361:ASN:N	2.40	0.55
52:B1:31:GLU:O	52:B1:32:LYS:C	2.45	0.55
26:BA:1051:G:H5'	26:BA:1052:C:OP2	2.07	0.55
26:BA:1057:A:C5	26:BA:1086:A:H2'	2.41	0.55
26:BA:1071:G:H8	26:BA:1071:G:OP2	1.90	0.55
26:BA:1074:G:C2'	26:BA:1075:C:H5'	2.36	0.55
26:BA:1452:G:H5''	26:BA:1452:G:C8	2.41	0.55
26:BA:2313:C:H3'	26:BA:2313:C:H6	1.71	0.55
26:BA:2579:C:H6	26:BA:2579:C:O5'	1.88	0.55
26:BA:2661:G:C6	26:BA:2662:A:C2	2.94	0.55
26:BA:361:G:HO2'	26:BA:362:A:P	2.29	0.55
26:BA:545:U:O5'	26:BA:545:U:O2	2.25	0.55
56:BB:64:G:H2'	56:BB:65:U:C6	2.41	0.55
29:BE:118:LEU:HD11	29:BE:188:MET:HG3	1.88	0.55
30:BF:19:PHE:O	30:BF:20:ASN:C	2.44	0.55
22:AV:343:C:C5'	30:BF:79:ARG:HA	2.36	0.55
31:BG:10:VAL:O	31:BG:47:ASN:ND2	2.40	0.55
31:BG:41:GLU:HB2	31:BG:54:ARG:NH2	2.22	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BP:102:ARG:CD	40:BP:106:ALA:O	2.55	0.55
40:BP:36:LYS:HE3	40:BP:38:ARG:HE	1.72	0.55
50:BZ:9:THR:HG22	50:BZ:10:ARG:HG3	1.88	0.55
1:AA:1165:U:C2'	1:AA:1166:G:H5'	2.36	0.55
1:AA:375:U:C4	1:AA:376:G:N7	2.75	0.55
1:AA:542:G:C2	1:AA:543:U:C6	2.94	0.55
1:AA:939:G:H2'	1:AA:940:C:C6	2.41	0.55
2:AB:202:ASN:C	2:AB:202:ASN:OD1	2.45	0.55
3:AC:154:GLY:HA3	3:AC:162:ALA:HB1	1.88	0.55
3:AC:166:TRP:N	3:AC:166:TRP:CD2	2.74	0.55
3:AC:155:ARG:HD3	3:AC:192:TYR:O	2.06	0.55
4:AD:29:THR:C	4:AD:30:LYS:HD3	2.27	0.55
8:AH:28:SER:HB3	8:AH:56:PRO:HB3	1.89	0.55
1:AA:538:G:H5''	12:AL:110:LYS:HB2	1.89	0.55
13:AM:18:LEU:HD11	13:AM:32:ILE:HG21	1.89	0.55
1:AA:1308:U:OP2	13:AM:97:ARG:HG2	2.07	0.55
16:AP:67:ILE:HG13	16:AP:71:VAL:CG1	2.37	0.55
17:AQ:10:ARG:HH21	17:AQ:55:GLY:HA2	1.71	0.55
22:AV:108:G:C4	22:AV:109:C:C5	2.95	0.55
22:AV:139:C:C2	22:AV:182:U:C6	2.94	0.55
22:AV:301:A:C3'	22:AV:302:A:C5'	2.85	0.55
22:AV:9:U:H5'	23:AW:35:ARG:HH12	1.70	0.55
9:AI:128:LYS:NZ	24:AX:35:C:H5''	2.09	0.55
25:AY:534:ILE:HG13	25:AY:570:GLY:O	2.05	0.55
54:B3:16:THR:HG23	54:B3:20:GLY:O	2.06	0.55
54:B3:31:ILE:CG2	54:B3:34:LYS:HE3	2.36	0.55
26:BA:1495:A:O2'	26:BA:1496:A:H5'	2.07	0.55
26:BA:1531:C:H2'	26:BA:1532:A:C8	2.41	0.55
26:BA:1867:G:O2'	26:BA:1868:C:H5'	2.07	0.55
26:BA:213:A:C2	26:BA:214:G:C5	2.95	0.55
26:BA:2365:G:H2'	26:BA:2366:A:C8	2.42	0.55
31:BG:150:TYR:O	31:BG:151:ARG:HB2	2.07	0.55
32:BH:2:GLN:O	32:BH:19:VAL:O	2.24	0.55
33:BI:5:GLN:O	33:BI:5:GLN:HG2	2.07	0.55
34:BJ:30:THR:CG2	34:BJ:31:GLU:N	2.69	0.55
37:BM:54:THR:O	37:BM:55:ARG:C	2.46	0.55
45:BU:42:LYS:HZ3	45:BU:42:LYS:HB2	1.71	0.55
46:BV:93:ARG:O	46:BV:94:ALA:HB2	2.05	0.55
49:BY:18:LEU:O	49:BY:22:LEU:CB	2.54	0.55
1:AA:1123:U:O3'	10:AJ:38:GLY:HA3	2.07	0.55
1:AA:1244:G:O2'	1:AA:1245:C:H5'	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:293:G:C5	1:AA:294:U:C5	2.95	0.55
1:AA:452:A:C8	1:AA:452:A:C3'	2.90	0.55
1:AA:52:C:O2'	1:AA:53:A:H5'	2.06	0.55
1:AA:5:U:C2	1:AA:5:U:OP1	2.60	0.55
2:AB:138:ARG:HG3	2:AB:139:GLU:H	1.72	0.55
2:AB:116:LEU:HG	2:AB:140:LEU:CD1	2.37	0.55
2:AB:19:THR:HB	2:AB:36:LYS:O	2.06	0.55
2:AB:71:THR:O	2:AB:72:LYS:CB	2.55	0.55
2:AB:93:HIS:ND1	2:AB:145:ASN:HB2	2.22	0.55
8:AH:24:VAL:HG13	8:AH:24:VAL:O	2.07	0.55
8:AH:62:LEU:H	8:AH:62:LEU:HD22	1.72	0.55
10:AJ:7:ARG:CB	10:AJ:75:ASP:OD1	2.54	0.55
13:AM:21:ILE:HG22	13:AM:22:TYR:O	2.06	0.55
17:AQ:16:MET:HG2	17:AQ:19:SER:CB	2.36	0.55
22:AV:110:U:H2'	22:AV:111:U:C6	2.42	0.55
22:AV:155:C:C2'	22:AV:155:C:O2	2.48	0.55
22:AV:16:U:HO2'	22:AV:18:C:C5'	2.18	0.55
22:AV:209:C:H2'	22:AV:210:C:C5	2.42	0.55
22:AV:218:G:C2	22:AV:219:G:C5	2.95	0.55
22:AV:271:G:C2'	22:AV:272:C:C5'	2.81	0.55
22:AV:343:C:C3'	30:BF:73:VAL:N	2.69	0.55
23:AW:98:LEU:CD2	23:AW:119:LEU:HD13	2.35	0.55
1:AA:368:U:H5''	25:AY:354:ARG:NH1	2.22	0.55
25:AY:550:MET:HE1	25:AY:563:ILE:HD11	1.89	0.55
26:BA:1707:G:O2'	26:BA:1708:C:H5'	2.07	0.55
26:BA:2590:A:O3'	27:BC:237:ARG:NH1	2.39	0.55
26:BA:554:U:O2'	26:BA:555:G:H5'	2.06	0.55
26:BA:880:G:N3	26:BA:881:G:C8	2.75	0.55
27:BC:226:PRO:HD3	27:BC:233:GLY:CA	2.36	0.55
28:BD:2:ILE:HD13	28:BD:90:PHE:CE1	2.42	0.55
26:BA:1063:G:H4'	33:BI:76:ALA:CB	2.37	0.55
38:BN:41:ALA:HB1	38:BN:97:ILE:HD13	1.88	0.55
39:BO:24:THR:HG22	39:BO:42:PRO:CD	2.37	0.55
39:BO:31:THR:O	39:BO:102:ARG:NH1	2.37	0.55
43:BS:4:ILE:HG23	43:BS:106:VAL:HG22	1.87	0.55
1:AA:1057:G:H4'	3:AC:196:GLY:N	2.22	0.55
1:AA:1294:G:H2'	1:AA:1294:G:N3	2.21	0.55
1:AA:209:U:H4'	1:AA:210:C:OP2	2.06	0.55
1:AA:274:A:H5''	17:AQ:15:LYS:HE2	1.87	0.55
1:AA:283:U:H2'	1:AA:284:C:H6	1.72	0.55
1:AA:377:G:OP1	16:AP:5:ARG:HD3	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:373:A:C4	1:AA:482:A:N7	2.75	0.55
1:AA:647:C:O2'	1:AA:648:A:H5'	2.06	0.55
1:AA:694:A:H2'	1:AA:695:A:O5'	2.07	0.55
1:AA:769:G:H4'	1:AA:1513:A:H4'	1.88	0.55
1:AA:943:U:H2'	1:AA:944:G:C5'	2.37	0.55
4:AD:169:TRP:CD1	4:AD:185:PRO:HG3	2.41	0.55
5:AE:17:VAL:HA	5:AE:33:THR:O	2.07	0.55
5:AE:33:THR:HB	5:AE:49:TYR:CE2	2.42	0.55
6:AF:6:ILE:HA	6:AF:89:VAL:HA	1.89	0.55
8:AH:82:LEU:HD22	8:AH:82:LEU:C	2.27	0.55
11:AK:52:ARG:N	11:AK:55:ARG:HB2	2.22	0.55
14:AN:35:ALA:HB2	14:AN:41:ARG:HB3	1.88	0.55
14:AN:41:ARG:HG3	14:AN:42:TRP:CE3	2.42	0.55
22:AV:139:C:O2	22:AV:182:U:H6	1.89	0.55
22:AV:16:U:H2'	22:AV:17:U:OP2	2.07	0.55
22:AV:139:C:N1	22:AV:182:U:C6	2.75	0.55
22:AV:322:U:C2'	22:AV:323:A:N7	2.57	0.55
22:AV:330:U:H2'	22:AV:331:C:H6	1.71	0.55
25:AY:119:GLU:O	25:AY:120:THR:OG1	2.24	0.55
25:AY:250:THR:O	25:AY:252:ASP:N	2.40	0.55
26:BA:1371:G:O2'	26:BA:1372:U:H5'	2.07	0.55
26:BA:1932:A:H2'	26:BA:1933:G:O4'	2.07	0.55
26:BA:2331:G:O4'	47:BW:38:GLY:HA3	2.07	0.55
26:BA:277:G:H4'	26:BA:278:A:N6	2.22	0.55
26:BA:280:U:H2'	26:BA:281:C:C6	2.42	0.55
26:BA:2846:G:H2'	26:BA:2847:U:O4'	2.07	0.55
26:BA:660:C:OP1	29:BE:94:GLN:HB2	2.06	0.55
26:BA:870:U:C2	26:BA:871:U:C5	2.94	0.55
26:BA:898:C:H2'	26:BA:899:A:H5'	1.89	0.55
26:BA:899:A:C4'	26:BA:900:A:OP1	2.39	0.55
27:BC:265:PHE:CD1	27:BC:265:PHE:N	2.75	0.55
30:BF:62:GLN:HE22	30:BF:94:ARG:HD3	1.73	0.55
32:BH:60:GLU:O	32:BH:63:ALA:HB3	2.06	0.55
33:BI:57:VAL:O	33:BI:58:ILE:HD13	2.07	0.55
26:BA:587:C:O2'	36:BL:19:LEU:HD11	2.07	0.55
38:BN:49:GLU:N	38:BN:50:PRO:CD	2.70	0.55
1:AA:1102:A:O2'	1:AA:1103:C:H5'	2.07	0.54
1:AA:1253:G:H1'	1:AA:1355:G:O2'	2.07	0.54
1:AA:928:G:N2	1:AA:1390:U:O2	2.40	0.54
1:AA:142:G:H5'	1:AA:143:A:OP2	2.07	0.54
1:AA:1399:C:C2	1:AA:1502:A:N6	2.74	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:15:G:H1	1:AA:920:U:C1'	2.17	0.54
1:AA:410:G:H5'	1:AA:411:A:OP1	2.03	0.54
1:AA:985:C:C2	1:AA:1221:G:N2	2.75	0.54
3:AC:15:LYS:HG3	3:AC:16:PRO:CD	2.37	0.54
5:AE:81:GLN:NE2	5:AE:149:PRO:HD3	2.21	0.54
6:AF:42:TRP:CZ2	6:AF:61:LEU:HB2	2.42	0.54
7:AG:144:ALA:O	7:AG:145:GLU:CB	2.55	0.54
8:AH:13:ILE:HG22	8:AH:14:ARG:N	2.22	0.54
9:AI:33:SER:HB3	9:AI:36:GLN:CG	2.37	0.54
9:AI:44:ARG:N	9:AI:45:MET:SD	2.80	0.54
21:AU:24:LYS:O	21:AU:28:LEU:HB2	2.07	0.54
22:AV:150:G:H22	22:AV:151:C:H1'	1.68	0.54
22:AV:210:C:O2'	22:AV:240:U:C5	2.31	0.54
22:AV:297:G:H2'	22:AV:298:A:C8	2.42	0.54
22:AV:330:U:C2	22:AV:331:C:C5	2.94	0.54
22:AV:43:G:O6	22:AV:312:A:C2	2.56	0.54
22:AV:48:C:H2'	22:AV:49:C:O4'	2.07	0.54
23:AW:41:PHE:CD1	23:AW:102:PRO:HB2	2.41	0.54
25:AY:343:ASN:HD21	25:AY:345:THR:CB	2.20	0.54
25:AY:411:VAL:HG12	25:AY:412:ALA:N	2.22	0.54
25:AY:528:ALA:HB3	25:AY:567:LEU:O	2.07	0.54
52:B1:33:LEU:N	52:B1:51:ALA:HB3	2.21	0.54
26:BA:1588:G:C5	26:BA:1589:U:C5	2.95	0.54
26:BA:1762:A:H8	26:BA:1762:A:O5'	1.90	0.54
26:BA:1926:U:H2'	26:BA:1926:U:O2	2.06	0.54
27:BC:124:LYS:HB2	27:BC:125:PRO:HD2	1.89	0.54
27:BC:161:VAL:HG13	27:BC:173:LEU:HB3	1.88	0.54
29:BE:19:PHE:CE1	29:BE:109:LEU:HD23	2.42	0.54
22:AV:344:A:C5'	30:BF:76:PHE:N	2.66	0.54
31:BG:123:GLU:CD	31:BG:124:CYS:N	2.60	0.54
33:BI:46:ASP:CA	33:BI:50:LYS:HD2	2.36	0.54
26:BA:587:C:O2	36:BL:33:ARG:NH2	2.40	0.54
26:BA:581:C:OP1	41:BQ:32:ARG:HG3	2.07	0.54
45:BU:97:SER:O	45:BU:98:ASN:CB	2.54	0.54
1:AA:1013:G:N2	1:AA:1017:U:N3	2.56	0.54
1:AA:1060:U:C5	3:AC:1:GLY:CA	2.90	0.54
1:AA:108:G:N3	1:AA:108:G:C5'	2.69	0.54
1:AA:1161:C:O2	1:AA:1176:A:C2	2.60	0.54
1:AA:1349:A:OP1	9:AI:121:ARG:HB2	2.06	0.54
1:AA:1355:G:H2'	1:AA:1356:G:H8	1.72	0.54
1:AA:324:G:N2	1:AA:326:G:H3'	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:626:G:H2'	1:AA:627:G:H5'	1.88	0.54
1:AA:980:C:C5	1:AA:981:U:C4	2.95	0.54
2:AB:146:SER:O	2:AB:147:LEU:CG	2.54	0.54
2:AB:22:TRP:HA	2:AB:189:ASN:HA	1.89	0.54
4:AD:87:GLU:HG2	4:AD:187:ARG:HD3	1.89	0.54
5:AE:45:VAL:O	5:AE:70:MET:CG	2.55	0.54
13:AM:106:ARG:HH11	13:AM:106:ARG:HG2	1.71	0.54
13:AM:76:ILE:HG23	13:AM:80:MET:HE1	1.88	0.54
15:AO:23:SER:HB3	15:AO:26:VAL:CG2	2.37	0.54
22:AV:218:G:C2	22:AV:219:G:N7	2.75	0.54
22:AV:259:G:C5	22:AV:260:C:C4	2.96	0.54
25:AY:213:HIS:O	25:AY:217:VAL:HG23	2.08	0.54
25:AY:417:THR:O	25:AY:419:ALA:N	2.40	0.54
25:AY:446:THR:HG23	25:AY:448:GLN:HG2	1.88	0.54
26:BA:2086:U:H2'	26:BA:2087:G:C8	2.42	0.54
26:BA:717:C:H2'	26:BA:718:A:H5'	1.89	0.54
26:BA:894:U:N3	26:BA:895:U:C6	2.75	0.54
56:BB:43:C:H5''	56:BB:44:G:OP2	2.07	0.54
30:BF:43:ILE:HG22	30:BF:82:TYR:CE1	2.41	0.54
33:BI:101:SER:HB3	33:BI:104:GLN:CG	2.37	0.54
33:BI:73:PRO:HB2	33:BI:77:VAL:HG21	1.89	0.54
35:BK:90:ASN:O	35:BK:91:SER:HB3	2.06	0.54
37:BM:113:ALA:O	37:BM:116:ALA:N	2.41	0.54
40:BP:25:VAL:HG23	40:BP:84:SER:O	2.07	0.54
43:BS:57:ASN:O	43:BS:61:ASN:HB2	2.08	0.54
44:BT:35:ALA:O	44:BT:38:ALA:CB	2.55	0.54
49:BY:18:LEU:CD2	49:BY:22:LEU:CD2	2.85	0.54
1:AA:246:A:H4'	1:AA:247:G:OP1	2.07	0.54
1:AA:73:C:O2'	1:AA:74:A:H5''	2.08	0.54
1:AA:769:G:H2'	1:AA:770:C:O5'	2.07	0.54
1:AA:976:G:H5'	1:AA:977:A:OP1	2.07	0.54
3:AC:7:ASN:C	3:AC:7:ASN:OD1	2.46	0.54
3:AC:63:ILE:HG22	3:AC:96:VAL:CG2	2.37	0.54
6:AF:2:ARG:HG2	6:AF:92:THR:HG21	1.90	0.54
7:AG:119:LEU:HD22	7:AG:123:LEU:CD2	2.38	0.54
10:AJ:27:GLU:O	10:AJ:30:LYS:HG2	2.07	0.54
11:AK:22:ILE:HG22	11:AK:31:VAL:HG22	1.90	0.54
13:AM:80:MET:HG2	13:AM:91:ARG:NH2	2.22	0.54
19:AS:39:ILE:HD11	19:AS:70:LEU:HD22	1.89	0.54
22:AV:253:U:H3	22:AV:278:G:H1	1.55	0.54
22:AV:59:U:HO2'	22:AV:60:U:H5'	1.67	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:71:A:O2'	22:AV:72:A:H8	1.90	0.54
23:AW:24:ILE:HB	23:AW:26:LEU:HD21	1.89	0.54
25:AY:687:LEU:O	25:AY:689:LYS:N	2.40	0.54
26:BA:1045:C:O5'	26:BA:1046:A:H5'	2.07	0.54
26:BA:1073:A:N7	26:BA:1074:G:C8	2.73	0.54
26:BA:1908:C:C5'	26:BA:1909:C:OP2	2.55	0.54
26:BA:2313:C:H3'	26:BA:2313:C:C6	2.42	0.54
26:BA:2534:A:H2'	26:BA:2535:G:O5'	2.07	0.54
26:BA:2751:G:C4	31:BG:2:ARG:CD	2.90	0.54
26:BA:368:A:N7	26:BA:369:U:C5	2.75	0.54
56:BB:102:G:H2'	56:BB:103:U:H5'	1.87	0.54
27:BC:149:LYS:HD3	27:BC:152:GLN:OE1	2.08	0.54
28:BD:26:VAL:CG1	28:BD:186:LEU:HD13	2.36	0.54
31:BG:154:GLU:OE2	31:BG:157:LYS:HB2	2.06	0.54
33:BI:18:ASN:ND2	33:BI:27:LEU:CD2	2.71	0.54
36:BL:26:GLY:O	36:BL:27:LEU:C	2.46	0.54
37:BM:55:ARG:CG	37:BM:55:ARG:HH21	2.20	0.54
39:BO:78:VAL:O	39:BO:79:ALA:C	2.43	0.54
44:BT:67:VAL:HG22	44:BT:76:ARG:HG3	1.90	0.54
1:AA:1130:A:H1'	1:AA:1146:A:C2	2.42	0.54
1:AA:142:G:C5	1:AA:143:A:C8	2.96	0.54
1:AA:322:C:O3'	20:AT:17:ARG:HG3	2.07	0.54
4:AD:3:TYR:CD1	4:AD:3:TYR:O	2.60	0.54
10:AJ:28:THR:O	10:AJ:32:THR:CG2	2.55	0.54
10:AJ:61:ALA:O	10:AJ:62:ARG:HB2	2.07	0.54
10:AJ:40:ILE:HG21	10:AJ:73:LEU:HD12	1.89	0.54
15:AO:7:THR:HA	15:AO:10:ILE:HD12	1.90	0.54
16:AP:20:VAL:HG22	16:AP:35:ARG:HA	1.89	0.54
22:AV:158:U:C6	22:AV:197:A:N1	2.76	0.54
22:AV:21:C:H6	22:AV:21:C:H3'	1.73	0.54
22:AV:242:A:H2'	22:AV:243:G:C8	2.42	0.54
22:AV:298:A:C2'	22:AV:299:C:O4'	2.36	0.54
22:AV:28:U:C2	22:AV:29:G:C5	2.95	0.54
22:AV:324:G:N2	22:AV:325:G:N7	2.49	0.54
22:AV:54:G:C2'	22:AV:54:G:N3	2.70	0.54
23:AW:16:ILE:HA	23:AW:119:LEU:O	2.07	0.54
23:AW:27:LYS:N	23:AW:30:GLU:OE1	2.40	0.54
24:AX:37:U:HO2'	24:AX:38:A:H5'	1.67	0.54
25:AY:227:ILE:HD11	25:AY:241:GLU:C	2.28	0.54
52:B1:42:VAL:HG22	52:B1:44:GLN:HB2	1.90	0.54
26:BA:2392:A:H5'	54:B3:27:ASN:OD1	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:B4:37:GLN:HG2	55:B4:37:GLN:O	2.08	0.54
26:BA:1085:A:C5	26:BA:1086:A:N1	2.76	0.54
26:BA:1936:A:H3'	26:BA:1937:A:H5'	1.89	0.54
26:BA:2006:C:H6	26:BA:2006:C:O5'	1.91	0.54
26:BA:2287:A:C8	26:BA:2289:G:C8	2.96	0.54
26:BA:2888:C:H2'	26:BA:2889:C:H6	1.72	0.54
26:BA:874:G:H2'	26:BA:875:G:C8	2.42	0.54
26:BA:998:C:C2'	26:BA:999:U:O5'	2.56	0.54
29:BE:12:LEU:HD23	29:BE:12:LEU:C	2.27	0.54
33:BI:17:ALA:HA	33:BI:41:PHE:CZ	2.43	0.54
38:BN:38:LEU:HB3	38:BN:39:PRO:HD3	1.90	0.54
26:BA:2009:A:OP1	43:BS:41:LYS:HE2	2.06	0.54
1:AA:1392:G:HO2'	1:AA:1393:U:H5'	1.73	0.54
1:AA:338:A:N1	1:AA:351:G:O6	2.41	0.54
1:AA:55:A:C2	1:AA:56:U:H1'	2.42	0.54
1:AA:64:G:N2	1:AA:67:C:C4	2.75	0.54
1:AA:995:C:N3	1:AA:1046:A:O2'	2.29	0.54
2:AB:103:TRP:CZ2	2:AB:153:MET:HG2	2.42	0.54
4:AD:144:ILE:HD13	4:AD:177:MET:HB3	1.90	0.54
5:AE:120:HIS:O	5:AE:121:ASN:CB	2.54	0.54
6:AF:86:ARG:NH1	6:AF:86:ARG:CG	2.69	0.54
7:AG:91:ARG:HE	7:AG:93:VAL:CG2	2.21	0.54
8:AH:124:ILE:O	8:AH:124:ILE:CG1	2.55	0.54
8:AH:76:ARG:NE	8:AH:78:SER:O	2.41	0.54
12:AL:2:THR:CG2	12:AL:4:ASN:CB	2.86	0.54
17:AQ:40:THR:HG22	17:AQ:41:THR:N	2.23	0.54
21:AU:35:GLU:OE2	21:AU:37:TYR:HD1	1.90	0.54
22:AV:174:A:C2'	22:AV:175:A:H5'	2.34	0.54
22:AV:229:U:C4'	22:AV:230:U:OP1	2.30	0.54
22:AV:250:U:O2'	22:AV:251:U:H5'	2.07	0.54
22:AV:26:U:H2'	22:AV:27:U:H6	1.71	0.54
23:AW:55:LEU:HD23	23:AW:56:GLU:N	2.22	0.54
24:AX:32:G:C6	24:AX:33:C:N3	2.75	0.54
24:AX:72:C:HO2'	26:BA:1851:U:C2'	2.14	0.54
25:AY:137:ASN:HD21	25:AY:263:ALA:HB3	1.73	0.54
25:AY:250:THR:HA	25:AY:255:ILE:HG23	1.89	0.54
26:BA:1212:G:H1'	26:BA:1236:G:N2	2.23	0.54
26:BA:1478:G:H1	26:BA:1513:U:H3	1.55	0.54
26:BA:1486:U:O2	26:BA:1504:A:C2	2.60	0.54
26:BA:365:U:O2'	26:BA:366:C:H5'	2.08	0.54
56:BB:33:G:H2'	56:BB:34:A:H5'	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BC:42:ARG:HG2	27:BC:42:ARG:HH11	1.73	0.54
30:BF:69:ALA:HB2	30:BF:82:TYR:O	2.08	0.54
34:BJ:64:VAL:HG13	34:BJ:65:THR:N	2.22	0.54
35:BK:9:ASN:O	35:BK:83:ALA:HA	2.08	0.54
37:BM:16:ARG:CG	37:BM:16:ARG:NH1	2.65	0.54
41:BQ:26:ALA:HB1	41:BQ:33:VAL:HG21	1.88	0.54
44:BT:17:SER:O	44:BT:18:GLU:C	2.46	0.54
1:AA:1245:C:H2'	1:AA:1246:A:O4'	2.08	0.54
1:AA:224:U:H2'	1:AA:225:C:C6	2.42	0.54
1:AA:417:G:C6	1:AA:418:C:C4	2.96	0.54
1:AA:987:G:O2'	1:AA:988:G:H5'	2.07	0.54
3:AC:154:GLY:CA	3:AC:162:ALA:HB1	2.37	0.54
5:AE:64:GLU:OE2	5:AE:68:ARG:NH2	2.40	0.54
5:AE:76:ASN:O	5:AE:77:ASN:CB	2.55	0.54
6:AF:64:VAL:HG12	6:AF:65:GLU:N	2.22	0.54
8:AH:79:ARG:HB2	8:AH:80:PRO:CD	2.38	0.54
10:AJ:34:ALA:O	10:AJ:35:GLN:HB2	2.08	0.54
11:AK:114:PRO:O	11:AK:115:ILE:HD13	2.07	0.54
14:AN:3:GLN:OE1	14:AN:6:LYS:HE3	2.07	0.54
15:AO:23:SER:OG	15:AO:26:VAL:HG23	2.08	0.54
19:AS:28:LYS:HB3	19:AS:29:PRO:CD	2.38	0.54
11:AK:110:THR:HG23	21:AU:4:LYS:CB	2.38	0.54
22:AV:164:G:O5'	22:AV:165:A:OP2	2.26	0.54
22:AV:171:A:N1	22:AV:172:U:C4	2.75	0.54
22:AV:180:G:H5''	22:AV:181:G:OP2	2.07	0.54
22:AV:188:C:C4	22:AV:189:C:H5	2.25	0.54
22:AV:20:A:H2'	22:AV:21:C:N1	2.23	0.54
22:AV:233:A:HO2'	22:AV:234:A:P	2.30	0.54
22:AV:40:G:C8	22:AV:317:G:N9	2.74	0.54
23:AW:44:SER:N	23:AW:57:ASN:ND2	2.51	0.54
24:AX:25:U:C2'	24:AX:26:C:H5'	2.38	0.54
25:AY:18:ALA:HA	25:AY:85:PRO:HG2	1.88	0.54
25:AY:286:ILE:N	25:AY:286:ILE:HD12	2.23	0.54
25:AY:326:THR:O	25:AY:328:ILE:HG23	2.07	0.54
52:B1:10:LEU:HA	52:B1:49:LYS:O	2.08	0.54
26:BA:1799:G:H4'	26:BA:1800:C:O5'	2.07	0.54
26:BA:1863:G:C2	26:BA:1880:U:O2	2.60	0.54
26:BA:2019:A:C2'	26:BA:2020:A:O5'	2.56	0.54
26:BA:2139:U:H2'	26:BA:2140:G:H8	1.72	0.54
26:BA:2170:A:OP2	26:BA:2170:A:C8	2.60	0.54
26:BA:806:C:O2	26:BA:2444:G:O2'	2.25	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:2458:G:C2	26:BA:2490:G:N2	2.76	0.54
26:BA:2647:U:O2'	26:BA:2648:G:H5'	2.07	0.54
26:BA:547:A:C8	26:BA:548:G:N3	2.76	0.54
27:BC:195:GLY:O	27:BC:196:ASN:O	2.25	0.54
29:BE:108:ILE:HD12	36:BL:2:ARG:HH12	1.71	0.54
29:BE:128:ALA:HB1	29:BE:129:PRO:CD	2.38	0.54
32:BH:129:GLU:HA	32:BH:142:VAL:O	2.06	0.54
32:BH:59:ALA:HA	32:BH:62:LEU:HD23	1.89	0.54
32:BH:76:GLU:HG2	32:BH:143:ILE:HD12	1.90	0.54
33:BI:96:LYS:HE3	33:BI:96:LYS:HA	1.90	0.54
1:AA:1077:G:N1	1:AA:1081:A:C5	2.76	0.54
1:AA:374:A:O4'	1:AA:481:G:N2	2.41	0.54
1:AA:622:A:C8	1:AA:623:C:C5	2.96	0.54
1:AA:955:U:C5	1:AA:956:U:C5	2.95	0.54
2:AB:206:ILE:HG12	2:AB:207:ARG:N	2.23	0.54
4:AD:146:GLU:HA	4:AD:149:LYS:HD2	1.89	0.54
4:AD:57:LYS:HG2	4:AD:202:LEU:HD22	1.90	0.54
11:AK:30:ILE:CB	11:AK:45:THR:HG22	2.37	0.54
17:AQ:45:VAL:HG11	17:AQ:60:ILE:CG1	2.38	0.54
22:AV:133:A:C2'	22:AV:134:G:O5'	2.55	0.54
22:AV:151:C:O2'	22:AV:152:C:H5'	2.08	0.54
22:AV:220:G:O2'	22:AV:221:U:H5'	2.08	0.54
22:AV:238:A:N3	22:AV:239:A:N7	2.55	0.54
22:AV:65:U:H1'	22:AV:71:A:C2	2.42	0.54
22:AV:63:C:C2	22:AV:73:A:N3	2.76	0.54
23:AW:63:TYR:HE2	23:AW:65:LYS:HG3	1.72	0.54
25:AY:86:GLY:O	25:AY:88:VAL:N	2.37	0.54
54:B3:15:LYS:HG3	54:B3:16:THR:N	2.21	0.54
26:BA:1379:U:C6	26:BA:1379:U:OP1	2.61	0.54
26:BA:1669:A:H5''	26:BA:1670:C:OP2	2.08	0.54
26:BA:2298:A:C2'	26:BA:2299:U:H5'	2.38	0.54
26:BA:2571:U:O2'	28:BD:151:THR:CG2	2.55	0.54
26:BA:1783:A:H5'	26:BA:2608:G:H4'	1.88	0.54
26:BA:2619:C:OP1	28:BD:157:LYS:HE2	2.06	0.54
26:BA:2723:C:H2'	26:BA:2724:U:O5'	2.08	0.54
26:BA:880:G:N2	26:BA:898:C:C4	2.76	0.54
56:BB:30:C:H2'	56:BB:31:C:H5'	1.88	0.54
27:BC:72:GLY:HA2	27:BC:116:GLN:HE21	1.73	0.54
28:BD:28:GLU:OE2	28:BD:30:GLU:HG3	2.08	0.54
29:BE:108:ILE:HD12	29:BE:108:ILE:O	2.08	0.54
31:BG:8:VAL:HG12	31:BG:49:LEU:HB2	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BI:57:VAL:CG1	33:BI:58:ILE:N	2.71	0.54
33:BI:59:THR:HG22	33:BI:61:TYR:CZ	2.43	0.54
37:BM:43:ALA:O	37:BM:44:ARG:C	2.45	0.54
47:BW:37:ARG:O	47:BW:53:HIS:ND1	2.41	0.54
1:AA:109:A:C6	1:AA:326:G:C6	2.95	0.54
1:AA:1202:U:H2'	1:AA:1203:C:O4'	2.07	0.54
1:AA:1234:C:C2'	1:AA:1235:U:H5'	2.38	0.54
1:AA:1446:A:H2'	1:AA:1447:A:H5'	1.89	0.54
1:AA:160:A:H1'	1:AA:344:A:C5	2.42	0.54
1:AA:451:A:OP2	16:AP:70:ARG:NH2	2.41	0.54
1:AA:464:U:N3	1:AA:466:A:C5'	2.71	0.54
1:AA:570:G:H1'	1:AA:820:U:C4	2.42	0.54
1:AA:939:G:C6	1:AA:940:C:C4	2.96	0.54
2:AB:218:ALA:C	2:AB:219:THR:HG22	2.27	0.54
2:AB:67:LEU:HB3	2:AB:160:LEU:HD23	1.90	0.54
2:AB:90:PHE:N	2:AB:149:GLY:HA3	2.23	0.54
3:AC:72:PRO:HG3	3:AC:104:GLU:HB2	1.89	0.54
3:AC:142:ARG:HG3	3:AC:142:ARG:HH11	1.68	0.54
3:AC:21:TRP:CD1	3:AC:58:ARG:HD3	2.42	0.54
4:AD:2:ARG:NE	4:AD:114:ARG:HD3	2.23	0.54
5:AE:105:ILE:HG13	5:AE:105:ILE:O	2.08	0.54
5:AE:106:ALA:O	5:AE:111:ARG:NH2	2.41	0.54
6:AF:10:VAL:HG13	6:AF:11:HIS:N	2.23	0.54
6:AF:43:GLY:HA2	6:AF:58:HIS:NE2	2.22	0.54
7:AG:55:LYS:O	7:AG:60:ALA:HB2	2.08	0.54
8:AH:46:GLU:O	8:AH:47:ASP:CB	2.54	0.54
1:AA:193:C:O4'	20:AT:54:GLN:OE1	2.26	0.54
22:AV:186:A:H2'	22:AV:187:C:O5'	2.06	0.54
22:AV:269:C:C5	22:AV:270:C:C5	2.96	0.54
22:AV:356:C:H2'	22:AV:357:U:O4'	2.08	0.54
22:AV:38:A:C4'	22:AV:39:A:OP1	2.28	0.54
22:AV:65:U:O2'	22:AV:66:C:H5'	2.07	0.54
23:AW:14:TYR:N	23:AW:14:TYR:CD2	2.75	0.54
24:AX:3:C:C4	24:AX:4:G:N7	2.76	0.54
25:AY:150:ILE:C	25:AY:152:THR:H	2.10	0.54
25:AY:238:THR:HG23	25:AY:241:GLU:H	1.72	0.54
25:AY:87:HIS:O	25:AY:88:VAL:C	2.45	0.54
25:AY:634:MET:CG	26:BA:1068:G:O2'	2.55	0.54
26:BA:1893:C:C2'	26:BA:1894:C:H5'	2.38	0.54
26:BA:2163:A:H3'	26:BA:2164:C:H4'	1.89	0.54
26:BA:2318:G:C6	26:BA:2319:G:C6	2.95	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:31:C:C2'	26:BA:32:C:H5'	2.38	0.54
26:BA:900:A:C4'	26:BA:901:C:OP2	2.55	0.54
27:BC:24:HIS:CD2	27:BC:79:ARG:CZ	2.91	0.54
29:BE:109:LEU:O	29:BE:110:SER:C	2.47	0.54
30:BF:105:ILE:C	30:BF:108:PRO:HD2	2.27	0.54
32:BH:48:GLU:CD	32:BH:48:GLU:C	2.66	0.54
33:BI:101:SER:HB3	33:BI:104:GLN:CD	2.28	0.54
33:BI:57:VAL:HG23	33:BI:71:LYS:HZ3	1.73	0.54
26:BA:1277:G:H5'	38:BN:20:MET:CE	2.38	0.54
38:BN:2:ARG:C	38:BN:2:ARG:CD	2.75	0.54
1:AA:1077:G:C2'	1:AA:1080:A:N6	2.71	0.54
1:AA:1142:G:N2	1:AA:1143:G:H1'	2.20	0.54
1:AA:1205:U:O2	1:AA:1205:U:H2'	2.07	0.54
1:AA:1323:G:C2	1:AA:1324:A:C4	2.95	0.54
1:AA:300:A:H1'	1:AA:565:U:O2	2.08	0.54
1:AA:458:U:H2'	1:AA:459:A:C8	2.43	0.54
1:AA:542:G:C2	1:AA:543:U:C4	2.96	0.54
1:AA:93:U:H2'	1:AA:94:G:C5'	2.38	0.54
2:AB:205:ALA:O	2:AB:207:ARG:N	2.40	0.54
2:AB:65:LYS:O	2:AB:158:ASP:HB2	2.08	0.54
3:AC:70:ALA:HB2	3:AC:105:VAL:HB	1.90	0.54
5:AE:105:ILE:HD11	5:AE:123:LEU:HB3	1.89	0.54
10:AJ:42:LEU:HB3	10:AJ:71:LEU:HB3	1.90	0.54
16:AP:42:ILE:HG22	16:AP:42:ILE:O	2.08	0.54
21:AU:4:LYS:C	21:AU:4:LYS:HD2	2.28	0.54
22:AV:21:C:C2'	22:AV:22:G:C5'	2.85	0.54
22:AV:297:G:H2'	22:AV:298:A:H8	1.73	0.54
22:AV:34:A:H4'	22:AV:323:A:H1'	1.90	0.54
22:AV:41:G:H2'	22:AV:42:U:H6	1.72	0.54
24:AX:69:C:O2	24:AX:69:C:H2'	2.08	0.54
26:BA:1480:C:H2'	26:BA:1481:U:O4'	2.08	0.54
26:BA:1889:A:H1'	26:BA:2086:U:O2'	2.08	0.54
26:BA:2076:U:O4'	26:BA:2076:U:O2	2.24	0.54
26:BA:2143:C:H2'	26:BA:2144:G:C8	2.43	0.54
26:BA:2194:U:H2'	26:BA:2195:U:H6	1.72	0.54
26:BA:2276:G:H2'	26:BA:2277:G:H5'	1.89	0.54
26:BA:2660:A:N1	26:BA:2661:G:C4	2.76	0.54
26:BA:301:G:C4	26:BA:302:C:C5	2.96	0.54
26:BA:45:G:C4'	26:BA:46:G:H5'	2.36	0.54
26:BA:898:C:C2'	26:BA:898:C:O2	2.56	0.54
28:BD:38:LYS:HB3	28:BD:43:ASP:CB	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BF:69:ALA:HA	30:BF:84:ILE:HG21	1.89	0.54
26:BA:2751:G:C4	31:BG:2:ARG:HD2	2.42	0.54
34:BJ:65:THR:O	34:BJ:68:LYS:HG3	2.07	0.54
34:BJ:77:HIS:CD2	34:BJ:79:GLY:HA2	2.43	0.54
37:BM:113:ALA:O	37:BM:115:GLU:N	2.40	0.54
38:BN:13:ASN:ND2	38:BN:13:ASN:C	2.61	0.54
1:AA:1167:A:N7	1:AA:1169:A:C6	2.76	0.54
1:AA:1341:U:O2'	1:AA:1342:C:H5'	2.08	0.54
1:AA:1391:U:C2'	1:AA:1392:G:H5'	2.38	0.54
1:AA:20:U:C2'	1:AA:21:G:H5'	2.38	0.54
1:AA:382:A:H2'	1:AA:383:A:C8	2.42	0.54
1:AA:428:G:H4'	1:AA:429:U:OP1	2.07	0.54
1:AA:827:U:H5''	1:AA:828:U:OP2	2.08	0.54
2:AB:159:ALA:HA	2:AB:181:PRO:HD2	1.89	0.54
2:AB:34:ARG:NE	2:AB:34:ARG:CA	2.71	0.54
3:AC:24:ASN:O	3:AC:25:THR:C	2.46	0.54
3:AC:56:ILE:HG12	3:AC:65:VAL:HG22	1.90	0.54
6:AF:71:ILE:HG13	6:AF:72:ASP:N	2.23	0.54
8:AH:52:GLY:HA3	8:AH:56:PRO:CA	2.35	0.54
10:AJ:100:ILE:HG13	10:AJ:101:SER:N	2.22	0.54
11:AK:111:ASP:O	21:AU:3:ILE:HG22	2.07	0.54
22:AV:132:U:C2	22:AV:133:A:C8	2.95	0.54
22:AV:136:G:H2'	22:AV:137:C:O5'	2.07	0.54
22:AV:168:G:H2'	22:AV:169:G:C8	2.39	0.54
22:AV:191:A:H2'	22:AV:192:A:C4'	2.38	0.54
22:AV:25:A:C4	22:AV:26:U:C5	2.95	0.54
22:AV:68:U:C2	22:AV:303:G:H5'	2.42	0.54
24:AX:33:C:C2'	24:AX:34:U:H5'	2.32	0.54
26:BA:1452:G:O2'	26:BA:1453:A:OP1	2.25	0.54
26:BA:1626:A:H8	26:BA:1626:A:OP2	1.91	0.54
26:BA:1744:A:H3'	26:BA:1745:A:H8	1.72	0.54
26:BA:1881:C:C4	26:BA:1882:U:C5	2.95	0.54
26:BA:2145:C:H6	26:BA:2145:C:H3'	1.73	0.54
26:BA:2156:G:H3'	26:BA:2157:G:C8	2.43	0.54
26:BA:887:U:C2'	26:BA:888:C:H5'	2.28	0.54
26:BA:894:U:O2	26:BA:895:U:O4'	2.25	0.54
56:BB:39:A:C2	56:BB:44:G:C2	2.96	0.54
27:BC:166:ARG:CZ	27:BC:166:ARG:HB2	2.38	0.54
31:BG:29:ASN:CG	31:BG:29:ASN:O	2.46	0.54
32:BH:100:ALA:O	32:BH:104:THR:HG23	2.08	0.54
32:BH:120:GLY:O	32:BH:121:VAL:C	2.46	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BH:135:HIS:HD2	32:BH:138:VAL:HG23	1.73	0.54
32:BH:9:VAL:O	32:BH:10:ALA:O	2.25	0.54
39:BO:30:ARG:HG2	39:BO:31:THR:N	2.22	0.54
45:BU:35:VAL:O	45:BU:36:GLU:C	2.45	0.54
45:BU:82:VAL:HG12	45:BU:83:GLY:N	2.22	0.54
1:AA:1246:A:C2	1:AA:1247:U:C2	2.97	0.53
1:AA:1305:G:H2'	1:AA:1331:G:N2	2.23	0.53
1:AA:1430:A:C8	1:AA:1430:A:OP2	2.61	0.53
1:AA:257:G:N2	1:AA:258:G:C4	2.76	0.53
1:AA:429:U:O2	1:AA:430:A:H5''	2.07	0.53
1:AA:437:U:N3	1:AA:438:U:C5	2.76	0.53
1:AA:452:A:N6	1:AA:480:U:H3	2.05	0.53
1:AA:649:A:H2'	1:AA:650:G:H5''	1.89	0.53
2:AB:53:LEU:HD11	2:AB:216:VAL:HG22	1.90	0.53
2:AB:54:ALA:O	2:AB:58:LYS:HB2	2.07	0.53
3:AC:174:LEU:O	3:AC:174:LEU:HD12	2.08	0.53
3:AC:57:GLU:HG3	3:AC:64:ARG:CB	2.38	0.53
4:AD:16:THR:HG22	4:AD:17:ASP:O	2.07	0.53
4:AD:47:LEU:O	4:AD:47:LEU:HD23	2.08	0.53
5:AE:71:ILE:HG21	5:AE:144:GLU:HB2	1.90	0.53
10:AJ:18:ILE:HG12	10:AJ:72:ARG:HG3	1.90	0.53
12:AL:87:LYS:O	12:AL:87:LYS:HG3	2.07	0.53
14:AN:6:LYS:HD3	14:AN:6:LYS:H	1.73	0.53
15:AO:18:ALA:O	15:AO:19:ASN:HB2	2.07	0.53
19:AS:80:ARG:HE	19:AS:80:ARG:HA	1.73	0.53
20:AT:82:ILE:HG13	20:AT:83:ASN:H	1.72	0.53
22:AV:125:A:N7	22:AV:126:C:C2	2.76	0.53
22:AV:13:G:O2'	22:AV:14:G:P	2.66	0.53
22:AV:311:U:HO2'	22:AV:312:A:H5'	1.64	0.53
22:AV:63:C:C2	22:AV:73:A:C4	2.96	0.53
23:AW:62:PRO:C	23:AW:70:ASN:ND2	2.62	0.53
25:AY:238:THR:HG23	25:AY:240:GLU:H	1.73	0.53
25:AY:524:GLU:O	25:AY:565:VAL:N	2.32	0.53
25:AY:608:VAL:HG13	25:AY:670:VAL:O	2.08	0.53
26:BA:1499:C:C4	26:BA:1500:G:N7	2.77	0.53
26:BA:1595:C:O2	26:BA:1595:C:C2'	2.53	0.53
26:BA:1851:U:H2'	26:BA:1852:U:O5'	2.07	0.53
26:BA:2685:G:OP1	35:BK:78:ARG:NH2	2.41	0.53
26:BA:559:G:C2'	26:BA:560:C:H5'	2.38	0.53
26:BA:864:G:O2'	26:BA:865:C:H5'	2.08	0.53
26:BA:911:A:H2'	37:BM:9:PHE:HZ	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:995:C:O2'	26:BA:996:A:P	2.66	0.53
39:BO:3:LYS:HE3	56:BB:47:C:OP2	2.08	0.53
30:BF:69:ALA:HA	30:BF:84:ILE:CG2	2.38	0.53
40:BP:96:LEU:N	40:BP:96:LEU:HD23	2.23	0.53
41:BQ:20:ALA:HB2	41:BQ:38:VAL:HG23	1.90	0.53
1:AA:1225:A:H2'	1:AA:1226:C:C5	2.44	0.53
1:AA:1266:G:N1	1:AA:1270:G:C6	2.76	0.53
1:AA:1322:C:O4'	1:AA:1322:C:O2	2.19	0.53
1:AA:1338:G:C6	1:AA:1339:A:N6	2.77	0.53
1:AA:1392:G:O2'	1:AA:1393:U:C5'	2.52	0.53
1:AA:1400:C:H4'	1:AA:1401:G:OP2	2.09	0.53
1:AA:175:C:C2'	1:AA:176:C:H5'	2.37	0.53
1:AA:437:U:H2'	1:AA:438:U:H5'	1.89	0.53
1:AA:491:G:N3	1:AA:491:G:H2'	2.23	0.53
1:AA:505:G:H5'	1:AA:534:U:H2'	1.90	0.53
1:AA:587:G:H4'	8:AH:3:GLN:CA	2.34	0.53
1:AA:850:U:H2'	1:AA:851:G:H5''	1.90	0.53
3:AC:129:PHE:CZ	3:AC:130:ARG:HD2	2.43	0.53
4:AD:191:SER:OG	4:AD:192:ALA:N	2.42	0.53
7:AG:93:VAL:O	7:AG:96:ASN:OD1	2.26	0.53
8:AH:111:THR:O	8:AH:114:ALA:HB3	2.09	0.53
10:AJ:6:ILE:HD12	10:AJ:76:ILE:O	2.08	0.53
14:AN:87:ALA:HA	14:AN:90:ARG:HH12	1.72	0.53
16:AP:52:LEU:O	16:AP:53:ASP:C	2.44	0.53
17:AQ:51:GLU:N	17:AQ:51:GLU:OE1	2.42	0.53
19:AS:39:ILE:CD1	19:AS:70:LEU:HD22	2.38	0.53
20:AT:81:GLN:HA	20:AT:84:LYS:HG2	1.89	0.53
22:AV:143:C:H3'	22:AV:144:U:C5'	2.37	0.53
22:AV:8:A:N7	22:AV:334:A:C1'	2.68	0.53
23:AW:102:PRO:HA	23:AW:117:LEU:CD2	2.36	0.53
25:AY:122:TRP:C	25:AY:124:GLN:N	2.61	0.53
25:AY:177:ILE:O	25:AY:178:ILE:HD12	2.08	0.53
25:AY:684:GLN:O	25:AY:688:ILE:HD13	2.09	0.53
26:BA:1090:A:C6	26:BA:1091:G:N7	2.76	0.53
26:BA:1483:G:C4	26:BA:1484:U:C5	2.96	0.53
26:BA:2602:A:C4'	26:BA:2603:G:OP2	2.53	0.53
26:BA:2615:U:C2	51:B0:3:GLN:HA	2.43	0.53
26:BA:2870:C:C5	26:BA:2871:U:C5	2.96	0.53
30:BF:100:GLU:OE2	30:BF:104:THR:HG21	2.08	0.53
32:BH:62:LEU:C	32:BH:62:LEU:HD12	2.28	0.53
33:BI:33:ASN:HB2	33:BI:36:GLU:CG	2.33	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BO:24:THR:HG22	39:BO:42:PRO:HG3	1.89	0.53
1:AA:1222:G:C6	1:AA:1223:C:C4	2.95	0.53
1:AA:956:U:O2	1:AA:1225:A:C2	2.61	0.53
1:AA:1271:A:OP1	1:AA:1314:C:H4'	2.08	0.53
1:AA:1425:U:C2'	1:AA:1426:G:H5'	2.38	0.53
1:AA:85:U:H4'	1:AA:86:G:OP1	2.06	0.53
2:AB:110:ILE:HD11	2:AB:147:LEU:CD2	2.37	0.53
3:AC:109:GLU:HB2	3:AC:143:LEU:CD2	2.39	0.53
3:AC:59:PRO:CB	10:AJ:94:ALA:HB1	2.38	0.53
4:AD:159:GLU:HG2	4:AD:160:LEU:N	2.24	0.53
5:AE:71:ILE:HG23	5:AE:72:ASN:N	2.22	0.53
5:AE:75:LEU:HD21	5:AE:119:VAL:HG12	1.90	0.53
7:AG:45:ALA:HB1	7:AG:119:LEU:HB3	1.90	0.53
9:AI:46:VAL:CG2	9:AI:75:ALA:HB1	2.38	0.53
12:AL:42:LYS:O	12:AL:43:LYS:C	2.47	0.53
14:AN:73:PHE:HE1	14:AN:75:ARG:HA	1.73	0.53
14:AN:78:GLY:C	14:AN:79:LEU:HG	2.27	0.53
22:AV:163:G:N3	22:AV:164:G:H8	1.91	0.53
22:AV:175:A:H2'	22:AV:176:G:H8	1.72	0.53
3:AC:79:LYS:CD	22:AV:184:A:OP2	2.55	0.53
22:AV:245:C:H5'	22:AV:248:G:C2	2.42	0.53
22:AV:44:C:C5	22:AV:300:U:H5	2.26	0.53
22:AV:64:C:O2	22:AV:72:A:C2	2.60	0.53
22:AV:9:U:C2'	22:AV:9:U:O2	2.55	0.53
24:AX:15:G:H3'	24:AX:16:C:H5''	1.91	0.53
25:AY:373:ASP:C	25:AY:374:LEU:HD12	2.29	0.53
26:BA:1096:A:H2'	26:BA:1097:U:O4'	2.07	0.53
26:BA:1180:U:H2'	26:BA:1181:U:O5'	2.08	0.53
26:BA:2592:G:C6	26:BA:2593:U:C4	2.96	0.53
26:BA:347:A:H2'	26:BA:348:A:C8	2.43	0.53
26:BA:192:C:O2'	26:BA:802:A:N3	2.35	0.53
27:BC:22:GLU:HG3	27:BC:22:GLU:O	2.09	0.53
29:BE:190:ALA:C	29:BE:192:ALA:H	2.11	0.53
33:BI:57:VAL:C	33:BI:68:PHE:HB2	2.29	0.53
36:BL:104:GLN:OE1	36:BL:104:GLN:HA	2.09	0.53
1:AA:1160:G:O2'	1:AA:1161:C:O5'	2.23	0.53
1:AA:204:G:H1'	1:AA:465:A:C2	2.43	0.53
1:AA:240:G:OP1	1:AA:240:G:C4'	2.56	0.53
1:AA:303:A:H2'	1:AA:304:U:O4'	2.08	0.53
1:AA:589:U:H2'	1:AA:590:U:C6	2.43	0.53
1:AA:988:G:C6	1:AA:989:U:N3	2.76	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:112:ARG:O	2:AB:115:ASP:O	2.27	0.53
3:AC:168:ARG:NE	3:AC:168:ARG:O	2.41	0.53
3:AC:23:ALA:HB2	3:AC:31:ASN:ND2	2.23	0.53
3:AC:79:LYS:HE2	22:AV:184:A:O5'	2.04	0.53
1:AA:921:U:C1'	5:AE:23:THR:O	2.40	0.53
9:AI:56:MET:HA	9:AI:59:LYS:CB	2.38	0.53
22:AV:136:G:N3	22:AV:137:C:C5	2.73	0.53
22:AV:183:C:O2'	22:AV:184:A:N9	2.40	0.53
22:AV:186:A:C2'	22:AV:187:C:O5'	2.56	0.53
22:AV:206:A:O3'	22:AV:207:A:C8	2.60	0.53
22:AV:210:C:H2'	22:AV:240:U:O4	2.06	0.53
22:AV:257:U:C1'	22:AV:258:G:C6	2.87	0.53
22:AV:269:C:N4	22:AV:270:C:C5	2.74	0.53
22:AV:296:U:N3	22:AV:297:G:C6	2.76	0.53
22:AV:311:U:O5'	22:AV:311:U:H6	1.90	0.53
22:AV:65:U:O2	22:AV:71:A:N1	2.42	0.53
23:AW:64:GLU:CG	26:BA:1910:G:OP1	2.56	0.53
23:AW:78:LYS:HG3	23:AW:79:LEU:H	1.72	0.53
51:B0:54:ILE:O	51:B0:55:ALA:HB3	2.09	0.53
26:BA:1073:A:H2'	26:BA:1074:G:H5''	1.91	0.53
24:AX:71:G:H22	26:BA:1851:U:C5'	2.20	0.53
26:BA:188:G:H2'	26:BA:189:G:H5'	1.89	0.53
26:BA:250:G:OP2	54:B3:12:ARG:NH1	2.42	0.53
26:BA:285:G:C6	26:BA:286:U:C4	2.96	0.53
26:BA:2849:U:H4'	26:BA:2868:A:C2	2.43	0.53
26:BA:301:G:OP2	45:BU:81:ARG:NH1	2.41	0.53
26:BA:550:C:O2	26:BA:550:C:H2'	2.08	0.53
26:BA:64:A:H2'	26:BA:65:U:C6	2.43	0.53
30:BF:68:LYS:HE2	56:BB:41:G:C6	2.41	0.53
27:BC:3:VAL:HB	27:BC:17:LYS:HB2	1.90	0.53
28:BD:13:ARG:O	28:BD:14:ILE:HD13	2.08	0.53
28:BD:96:ILE:CG2	28:BD:97:SER:N	2.71	0.53
30:BF:7:TYR:HA	30:BF:11:VAL:HG21	1.91	0.53
37:BM:55:ARG:CG	37:BM:55:ARG:NH2	2.66	0.53
42:BR:39:LEU:O	42:BR:40:MET:CB	2.57	0.53
41:BQ:88:GLU:H	42:BR:49:ILE:CD1	2.21	0.53
44:BT:40:LYS:HE2	44:BT:60:THR:HG23	1.91	0.53
45:BU:87:GLU:O	45:BU:88:ASP:HB3	2.08	0.53
46:BV:92:VAL:O	46:BV:93:ARG:C	2.47	0.53
1:AA:1202:U:H2'	1:AA:1203:C:H5'	1.91	0.53
1:AA:1429:A:OP2	1:AA:1429:A:H8	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:386:C:O2'	1:AA:387:U:H5'	2.09	0.53
1:AA:38:G:C2	1:AA:397:A:C2	2.96	0.53
1:AA:455:G:N2	1:AA:478:A:C2	2.77	0.53
1:AA:510:A:H5''	1:AA:511:C:P	2.48	0.53
1:AA:533:A:C2	1:AA:536:C:C5	2.97	0.53
1:AA:938:A:N6	1:AA:939:G:C5	2.76	0.53
2:AB:32:GLY:O	2:AB:33:ALA:HB2	2.09	0.53
2:AB:53:LEU:CD1	2:AB:56:LEU:HD12	2.38	0.53
2:AB:89:PHE:N	2:AB:89:PHE:CD2	2.76	0.53
3:AC:64:ARG:O	3:AC:65:VAL:HB	2.07	0.53
5:AE:148:SER:O	5:AE:152:VAL:HG12	2.08	0.53
6:AF:21:MET:O	6:AF:22:ILE:C	2.47	0.53
8:AH:29:SER:O	8:AH:30:LYS:C	2.46	0.53
1:AA:1118:U:C5'	9:AI:105:ARG:HG3	2.38	0.53
9:AI:34:LEU:HD21	9:AI:47:VAL:HG21	1.91	0.53
16:AP:48:GLU:CG	16:AP:49:GLY:N	2.71	0.53
16:AP:5:ARG:HA	16:AP:68:SER:OG	2.08	0.53
19:AS:10:ILE:HG13	19:AS:37:SER:HB3	1.91	0.53
22:AV:172:U:C5	22:AV:173:C:H5	2.26	0.53
22:AV:323:A:H8	22:AV:323:A:P	2.31	0.53
25:AY:446:THR:O	25:AY:448:GLN:N	2.41	0.53
26:BA:1060:U:H5'	26:BA:1062:G:H4'	1.91	0.53
26:BA:1409:U:H2'	26:BA:1410:G:O4'	2.08	0.53
26:BA:1902:C:H5''	27:BC:239:PHE:CE1	2.44	0.53
26:BA:2383:G:O2'	26:BA:2384:U:H5'	2.08	0.53
26:BA:2474:U:H5''	26:BA:2475:C:OP2	2.08	0.53
26:BA:869:G:O2'	26:BA:870:U:O5'	2.27	0.53
31:BG:1:SER:O	31:BG:2:ARG:C	2.46	0.53
33:BI:102:ARG:N	33:BI:141:ASP:HA	2.21	0.53
34:BJ:80:HIS:HB3	34:BJ:81:ILE:CG2	2.34	0.53
37:BM:72:PRO:HB3	37:BM:92:TRP:CZ3	2.44	0.53
1:AA:1096:C:H2'	1:AA:1170:A:HO2'	1.67	0.53
1:AA:1216:A:N3	1:AA:1217:C:C5	2.77	0.53
1:AA:1239:A:H62	1:AA:1299:A:N6	2.07	0.53
1:AA:1386:G:H2'	1:AA:1387:G:C8	2.44	0.53
1:AA:142:G:H3'	1:AA:143:A:C8	2.41	0.53
1:AA:1502:A:N7	1:AA:1504:G:N3	2.57	0.53
1:AA:16:A:H2'	1:AA:17:U:H5'	1.90	0.53
1:AA:118:U:O4	1:AA:288:A:H2'	2.09	0.53
1:AA:379:C:C2'	1:AA:380:G:H5'	2.39	0.53
1:AA:805:C:C2'	1:AA:806:C:H5'	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:49:PHE:CA	2:AB:212:TYR:OH	2.56	0.53
2:AB:80:LYS:HG3	2:AB:84:LEU:HD22	1.91	0.53
2:AB:89:PHE:HB3	2:AB:149:GLY:O	2.08	0.53
4:AD:75:TYR:CG	4:AD:203:TYR:HD1	2.26	0.53
4:AD:61:ARG:HG3	4:AD:71:PHE:CD2	2.42	0.53
7:AG:25:PHE:O	7:AG:26:VAL:C	2.47	0.53
11:AK:86:LYS:HG3	11:AK:113:THR:HA	1.90	0.53
11:AK:81:LEU:N	11:AK:81:LEU:HD23	2.24	0.53
17:AQ:46:HIS:O	17:AQ:73:THR:HG23	2.08	0.53
22:AV:127:C:C2'	22:AV:128:U:H5'	2.38	0.53
22:AV:202:G:C6	22:AV:203:U:O4	2.62	0.53
22:AV:244:G:C2	22:AV:245:C:C2	2.96	0.53
22:AV:303:G:N3	22:AV:304:C:C6	2.76	0.53
23:AW:63:TYR:HB3	23:AW:67:SER:CB	2.38	0.53
23:AW:93:VAL:O	23:AW:98:LEU:CB	2.56	0.53
25:AY:164:MET:O	25:AY:165:GLN:HG2	2.09	0.53
25:AY:689:LYS:HG3	25:AY:690:GLY:N	2.23	0.53
26:BA:1246:A:C2'	26:BA:1247:A:O5'	2.57	0.53
26:BA:1558:C:H4'	26:BA:1559:U:O5'	2.08	0.53
26:BA:1563:U:H2'	26:BA:1564:C:C6	2.43	0.53
26:BA:1645:G:H5''	26:BA:1646:C:H5'	1.90	0.53
26:BA:2147:A:H2'	26:BA:2148:G:O4'	2.08	0.53
26:BA:2631:G:H2'	26:BA:2632:A:O5'	2.09	0.53
26:BA:882:G:N3	26:BA:896:A:N6	2.56	0.53
27:BC:83:ASP:C	27:BC:83:ASP:OD1	2.46	0.53
32:BH:117:LEU:HD21	32:BH:121:VAL:N	2.23	0.53
33:BI:56:VAL:HG23	33:BI:70:THR:HA	1.90	0.53
36:BL:77:ILE:HD11	36:BL:101:ILE:HG21	1.90	0.53
39:BO:12:THR:O	39:BO:13:ARG:C	2.46	0.53
40:BP:30:TRP:CZ3	40:BP:39:LEU:HD13	2.43	0.53
1:AA:1079:G:C5	1:AA:1080:A:N1	2.67	0.53
1:AA:1102:A:O2'	2:AB:97:GLY:HA3	2.09	0.53
1:AA:1321:U:H3'	1:AA:1322:C:O2	2.08	0.53
1:AA:791:G:C6	1:AA:792:A:N7	2.76	0.53
3:AC:41:TYR:CE1	3:AC:89:VAL:HG21	2.44	0.53
4:AD:154:VAL:O	4:AD:158:LEU:HG	2.08	0.53
6:AF:3:HIS:HB2	6:AF:92:THR:HG23	1.89	0.53
8:AH:100:ILE:HD11	8:AH:128:VAL:HG23	1.90	0.53
8:AH:15:ASN:O	8:AH:18:ALA:N	2.42	0.53
9:AI:126:PHE:CD2	9:AI:126:PHE:C	2.82	0.53
10:AJ:59:LYS:CE	10:AJ:59:LYS:N	2.72	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:65:TYR:HA	14:AN:98:LYS:HA	1.91	0.53
10:AJ:5:ARG:HG2	10:AJ:79:PRO:HG3	1.91	0.53
11:AK:109:ILE:HG21	21:AU:16:ARG:HE	1.74	0.53
11:AK:91:GLY:O	11:AK:95:THR:CG2	2.54	0.53
12:AL:2:THR:HG22	12:AL:4:ASN:HB2	1.90	0.53
1:AA:363:A:OP1	12:AL:30:ARG:HB3	2.09	0.53
13:AM:17:ALA:O	13:AM:20:SER:CB	2.57	0.53
13:AM:76:ILE:HG23	13:AM:80:MET:CE	2.39	0.53
16:AP:38:PHE:C	16:AP:38:PHE:CD1	2.82	0.53
22:AV:153:U:O5'	22:AV:153:U:H6	1.92	0.53
22:AV:165:A:C5'	22:AV:166:C:O4'	2.57	0.53
22:AV:45:A:O2'	22:AV:312:A:C1'	2.57	0.53
23:AW:41:PHE:HA	23:AW:44:SER:OG	2.09	0.53
24:AX:65:G:C2	24:AX:66:C:C2	2.97	0.53
25:AY:137:ASN:HD21	25:AY:263:ALA:H	1.55	0.53
25:AY:180:VAL:HG23	25:AY:216:LEU:CD1	2.37	0.53
25:AY:228:MET:HE2	25:AY:229:LEU:HG	1.91	0.53
25:AY:228:MET:O	25:AY:232:LEU:HD23	2.09	0.53
25:AY:636:PRO:HD2	33:BI:23:VAL:HA	1.90	0.53
51:B0:35:GLU:OE2	51:B0:45:ASP:HB2	2.08	0.53
26:BA:1084:A:H2'	26:BA:1085:A:C8	2.43	0.53
26:BA:1246:A:H2'	26:BA:1247:A:O5'	2.08	0.53
26:BA:1441:G:H2'	26:BA:1442:U:H6	1.72	0.53
26:BA:1445:G:H2'	26:BA:1446:C:C6	2.44	0.53
26:BA:158:U:O2	26:BA:158:U:H2'	2.07	0.53
26:BA:2141:G:C2	26:BA:2142:A:H1'	2.43	0.53
26:BA:2665:A:C2	26:BA:2666:C:C5	2.97	0.53
27:BC:124:LYS:CB	27:BC:125:PRO:HD2	2.39	0.53
27:BC:136:VAL:CG1	27:BC:137:GLY:N	2.72	0.53
27:BC:28:PRO:HG2	27:BC:33:LEU:HD11	1.91	0.53
30:BF:132:ARG:HA	30:BF:150:GLY:HA2	1.91	0.53
31:BG:75:VAL:O	31:BG:79:THR:HB	2.08	0.53
33:BI:10:LEU:HD12	33:BI:23:VAL:HG12	1.91	0.53
37:BM:12:MET:HE3	37:BM:71:LYS:HA	1.90	0.53
38:BN:74:GLU:HG2	38:BN:75:ILE:HD12	1.91	0.53
41:BQ:86:SER:HB3	42:BR:51:VAL:HA	1.91	0.53
43:BS:89:ALA:O	43:BS:90:LYS:HB2	2.09	0.53
44:BT:69:ARG:HA	44:BT:74:ILE:HA	1.91	0.53
46:BV:6:ALA:HB1	46:BV:40:ILE:CG2	2.38	0.53
1:AA:1098:C:O4'	1:AA:1169:A:C2	2.62	0.53
1:AA:1142:G:H2'	1:AA:1143:G:O4'	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1215:G:H2'	1:AA:1216:A:H5'	1.90	0.53
1:AA:978:A:C1'	1:AA:1322:C:H5	2.22	0.53
1:AA:1387:G:H2'	1:AA:1388:C:C6	2.44	0.53
1:AA:1472:U:O2'	1:AA:1473:G:H5'	2.09	0.53
1:AA:1504:G:H4'	1:AA:1505:G:C4	2.43	0.53
1:AA:424:G:O2'	1:AA:425:G:H5'	2.08	0.53
1:AA:568:G:O2'	1:AA:574:A:N1	2.28	0.53
2:AB:110:ILE:HD12	2:AB:147:LEU:HD13	1.90	0.53
2:AB:110:ILE:HG22	2:AB:111:LYS:N	2.22	0.53
2:AB:132:GLU:O	2:AB:136:ARG:HB2	2.08	0.53
2:AB:53:LEU:HD11	2:AB:216:VAL:HA	1.89	0.53
2:AB:86:CYS:HB2	2:AB:88:GLN:NE2	2.24	0.53
3:AC:35:ASP:OD1	3:AC:58:ARG:NH1	2.42	0.53
4:AD:112:GLU:O	4:AD:113:ALA:C	2.44	0.53
5:AE:102:THR:HG22	5:AE:103:GLY:H	1.74	0.53
5:AE:55:VAL:HB	5:AE:56:PRO:CD	2.39	0.53
7:AG:21:LEU:HD11	7:AG:61:PHE:HZ	1.73	0.53
7:AG:70:PRO:HG3	7:AG:102:TRP:CH2	2.43	0.53
9:AI:46:VAL:HA	9:AI:49:GLN:HG3	1.91	0.53
12:AL:19:ASN:C	12:AL:20:VAL:HG12	2.29	0.53
12:AL:32:VAL:HG12	12:AL:78:VAL:HG22	1.90	0.53
13:AM:85:TYR:HA	13:AM:88:LEU:HD12	1.91	0.53
1:AA:1203:C:H4'	14:AN:67:THR:HG22	1.91	0.53
16:AP:18:GLN:HG3	16:AP:35:ARG:HD2	1.90	0.53
22:AV:158:U:O2'	22:AV:159:C:H5'	2.09	0.53
22:AV:15:A:N1	22:AV:346:C:H5	2.06	0.53
22:AV:164:G:P	22:AV:165:A:OP2	2.66	0.53
22:AV:165:A:C5'	22:AV:166:C:C1'	2.83	0.53
22:AV:198:U:H6	22:AV:198:U:O5'	1.91	0.53
22:AV:295:C:H2'	22:AV:296:U:C6	2.43	0.53
22:AV:63:C:C6	22:AV:73:A:C2	2.97	0.53
24:AX:28:U:O4'	24:AX:28:U:OP1	2.26	0.53
24:AX:52:C:O5'	24:AX:52:C:H6	1.90	0.53
25:AY:186:TYR:HA	25:AY:198:GLU:HA	1.90	0.53
25:AY:498:ILE:HG22	25:AY:507:TYR:CD2	2.43	0.53
54:B3:31:ILE:O	54:B3:35:LYS:HE3	2.08	0.53
26:BA:120:U:H5''	26:BA:122:G:OP2	2.08	0.53
26:BA:1319:C:O2'	26:BA:1320:C:H5'	2.08	0.53
26:BA:1485:U:N3	26:BA:1505:A:C2	2.77	0.53
26:BA:178:G:C2'	26:BA:179:C:H5'	2.39	0.53
26:BA:1838:C:N4	26:BA:1899:A:C4	2.76	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:247:G:C8	26:BA:249:C:C5	2.97	0.53
26:BA:2886:A:C4	26:BA:2887:A:C8	2.97	0.53
26:BA:301:G:H1'	26:BA:302:C:C6	2.44	0.53
56:BB:102:G:O2'	56:BB:103:U:H5'	2.09	0.53
56:BB:64:G:C5	56:BB:65:U:C4	2.96	0.53
27:BC:140:VAL:HG11	27:BC:189:ALA:HB1	1.89	0.53
29:BE:23:PHE:HB2	29:BE:111:GLU:HG2	1.90	0.53
30:BF:56:LEU:HD13	30:BF:64:PRO:HB3	1.91	0.53
33:BI:121:ILE:HG23	33:BI:124:MET:SD	2.48	0.53
33:BI:59:THR:HG22	33:BI:61:TYR:OH	2.09	0.53
42:BR:42:ALA:CA	42:BR:46:GLU:HB2	2.31	0.53
1:AA:1211:U:H1'	1:AA:1213:A:C2	2.44	0.53
1:AA:259:G:N2	1:AA:260:G:H1'	2.23	0.53
1:AA:274:A:C5'	17:AQ:15:LYS:CE	2.87	0.53
1:AA:71:A:O2'	1:AA:72:A:H5''	2.09	0.53
1:AA:895:G:H2'	1:AA:896:C:C6	2.44	0.53
2:AB:20:ARG:O	2:AB:22:TRP:CD1	2.62	0.53
4:AD:151:GLN:O	4:AD:152:SER:C	2.47	0.53
6:AF:93:LYS:O	6:AF:94:HIS:HB2	2.08	0.53
8:AH:110:MET:HE1	8:AH:115:ALA:HA	1.91	0.53
11:AK:30:ILE:HD12	11:AK:31:VAL:N	2.24	0.53
13:AM:44:ILE:N	13:AM:44:ILE:CD1	2.72	0.53
20:AT:14:GLU:O	20:AT:15:LYS:C	2.46	0.53
22:AV:144:U:O4	22:AV:176:G:C6	2.61	0.53
22:AV:150:G:N2	22:AV:151:C:N1	2.57	0.53
22:AV:223:G:N3	22:AV:223:G:C2'	2.70	0.53
22:AV:225:A:C6	22:AV:226:G:C5	2.97	0.53
22:AV:332:G:O2'	22:AV:333:G:C8	2.58	0.53
22:AV:62:G:C4	22:AV:63:C:N4	2.77	0.53
22:AV:63:C:C3'	22:AV:64:C:H5'	2.38	0.53
22:AV:66:C:H6	22:AV:66:C:O5'	1.91	0.53
23:AW:13:ASP:C	23:AW:14:TYR:CD2	2.82	0.53
23:AW:98:LEU:CG	23:AW:119:LEU:HB3	2.39	0.53
25:AY:121:VAL:HA	25:AY:124:GLN:HE22	1.72	0.53
25:AY:530:VAL:HG22	25:AY:531:GLY:H	1.73	0.53
26:BA:1121:C:H2'	26:BA:1122:G:O5'	2.09	0.53
26:BA:11:C:H2'	26:BA:12:U:H5'	1.91	0.53
26:BA:2094:A:H5''	32:BH:25:TYR:CE2	2.43	0.53
26:BA:213:A:C2	26:BA:214:G:C4	2.96	0.53
26:BA:2114:A:C5	26:BA:2167:U:H5'	2.44	0.53
26:BA:2748:A:C2	26:BA:2757:A:C4	2.96	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:2870:C:C2'	26:BA:2871:U:H5'	2.39	0.53
26:BA:772:C:C2'	26:BA:773:U:O5'	2.56	0.53
26:BA:892:A:N3	26:BA:893:C:C6	2.77	0.53
26:BA:896:A:O4'	26:BA:897:C:OP1	2.27	0.53
56:BB:30:C:C2'	56:BB:31:C:H5'	2.39	0.53
26:BA:1820:U:OP1	27:BC:176:ARG:NH2	2.42	0.53
29:BE:118:LEU:C	29:BE:119:ILE:HD13	2.29	0.53
31:BG:51:PHE:CE2	31:BG:68:ARG:HA	2.44	0.53
32:BH:46:PHE:HD2	32:BH:47:PHE:N	2.07	0.53
34:BJ:88:THR:O	34:BJ:89:PHE:C	2.47	0.53
46:BV:80:HIS:CD2	46:BV:81:PRO:HD2	2.44	0.53
1:AA:103:U:C2	1:AA:104:G:C8	2.97	0.53
1:AA:9:G:O2'	1:AA:10:A:H5'	2.08	0.53
1:AA:11:G:C6	1:AA:12:U:C4	2.97	0.53
1:AA:1215:G:N2	1:AA:1216:A:C1'	2.72	0.53
1:AA:1216:A:N1	1:AA:1217:C:C4	2.77	0.53
1:AA:1247:U:O2'	1:AA:1248:A:H5'	2.08	0.53
1:AA:1338:G:C5	1:AA:1339:A:C6	2.96	0.53
1:AA:1339:A:H2	24:AX:32:G:C4'	2.11	0.53
1:AA:1380:U:O4	7:AG:2:ARG:HD3	2.09	0.53
1:AA:138:G:O2'	1:AA:139:A:H5'	2.09	0.53
1:AA:1411:C:C2'	1:AA:1412:C:C5'	2.84	0.53
1:AA:198:G:N3	1:AA:199:A:C8	2.77	0.53
1:AA:374:A:C6	1:AA:375:U:C4	2.97	0.53
1:AA:689:C:H2'	1:AA:690:G:C8	2.44	0.53
1:AA:763:G:C2'	1:AA:764:C:O5'	2.57	0.53
8:AH:46:GLU:N	8:AH:63:LYS:CG	2.72	0.53
10:AJ:16:ARG:HG3	10:AJ:16:ARG:O	2.09	0.53
16:AP:39:PHE:CG	16:AP:74:LEU:HD11	2.44	0.53
21:AU:3:ILE:HD13	21:AU:19:LYS:HE3	1.90	0.53
22:AV:44:C:N3	22:AV:263:G:H21	1.31	0.53
22:AV:39:A:N7	22:AV:40:G:C5	2.77	0.53
24:AX:50:G:N2	24:AX:51:U:C1'	2.72	0.53
25:AY:28:THR:O	25:AY:32:ILE:HG13	2.09	0.53
25:AY:411:VAL:CG1	25:AY:412:ALA:N	2.71	0.53
25:AY:486:THR:HG23	25:AY:600:VAL:CG1	2.38	0.53
54:B3:44:ARG:HG3	54:B3:44:ARG:HH11	1.74	0.53
26:BA:1078:U:H1'	26:BA:1088:A:N1	2.24	0.53
26:BA:1100:C:H2'	26:BA:1101:U:C6	2.43	0.53
26:BA:1869:G:C6	26:BA:1871:A:OP2	2.61	0.53
23:AW:38:LYS:CG	26:BA:1910:G:O3'	2.29	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:2128:G:C2'	26:BA:2129:C:H5'	2.38	0.53
26:BA:2303:G:C5	26:BA:2304:G:N7	2.76	0.53
26:BA:2784:U:H2'	26:BA:2785:C:C6	2.44	0.53
26:BA:869:G:C2'	26:BA:870:U:O5'	2.57	0.53
26:BA:882:G:C2	26:BA:895:U:O2	2.60	0.53
31:BG:130:ILE:HG22	31:BG:131:VAL:H	1.73	0.53
31:BG:130:ILE:HG22	31:BG:131:VAL:N	2.24	0.53
26:BA:1141:U:OP2	34:BJ:65:THR:HG21	2.09	0.53
41:BQ:9:ALA:O	41:BQ:10:ARG:C	2.45	0.53
41:BQ:98:ALA:HB2	41:BQ:105:PHE:CD2	2.44	0.53
26:BA:309:A:H4'	45:BU:15:GLY:HA2	1.91	0.53
1:AA:1077:G:C2'	1:AA:1080:A:H61	2.21	0.52
1:AA:1082:A:O2'	1:AA:1083:U:H5'	2.10	0.52
1:AA:1118:U:H5'	9:AI:105:ARG:HG3	1.91	0.52
1:AA:1259:C:O5'	1:AA:1259:C:H6	1.91	0.52
1:AA:1285:A:H5'	1:AA:1286:U:C4	2.44	0.52
1:AA:1399:C:O2	1:AA:1502:A:C6	2.61	0.52
1:AA:44:A:H2'	1:AA:45:G:H5'	1.91	0.52
2:AB:209:VAL:HG23	2:AB:210:THR:H	1.74	0.52
3:AC:84:GLU:HG3	3:AC:85:LYS:N	2.23	0.52
4:AD:33:ILE:HG12	4:AD:34:GLU:HB2	1.91	0.52
4:AD:61:ARG:HG2	4:AD:71:PHE:HD2	1.71	0.52
6:AF:47:LEU:HD12	6:AF:55:HIS:HA	1.90	0.52
7:AG:91:ARG:HE	7:AG:93:VAL:HG23	1.74	0.52
9:AI:20:ILE:HG21	9:AI:60:LEU:HD12	1.90	0.52
9:AI:83:THR:HB	9:AI:97:LEU:CD2	2.38	0.52
10:AJ:29:ALA:HA	10:AJ:32:THR:CG2	2.34	0.52
11:AK:15:VAL:HG22	11:AK:16:SER:N	2.24	0.52
11:AK:82:GLU:HG3	11:AK:108:ASN:ND2	2.24	0.52
12:AL:101:LEU:N	12:AL:101:LEU:CD1	2.72	0.52
17:AQ:13:SER:HB2	17:AQ:21:VAL:CG1	2.38	0.52
20:AT:65:LEU:HD12	20:AT:65:LEU:O	2.09	0.52
20:AT:77:ASN:O	20:AT:81:GLN:HG2	2.10	0.52
22:AV:19:G:H1	23:AW:22:ALA:HA	1.72	0.52
22:AV:38:A:C2	22:AV:316:A:C2	2.97	0.52
22:AV:63:C:C6	22:AV:73:A:N1	2.77	0.52
23:AW:93:VAL:O	23:AW:98:LEU:HB2	2.08	0.52
25:AY:12:LEU:HB3	25:AY:283:PRO:CG	2.39	0.52
25:AY:607:ARG:O	25:AY:671:MET:HA	2.09	0.52
26:BA:1079:C:H2'	26:BA:1080:A:H8	1.73	0.52
26:BA:1829:A:H2'	26:BA:1830:C:H5'	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:2218:G:C6	26:BA:2219:U:C4	2.96	0.52
26:BA:978:G:O2'	26:BA:979:A:H5'	2.08	0.52
27:BC:235:GLU:OE1	27:BC:235:GLU:HA	2.09	0.52
28:BD:187:LEU:C	28:BD:188:LEU:HD23	2.30	0.52
32:BH:34:GLY:O	32:BH:35:LYS:CG	2.57	0.52
33:BI:14:ALA:HB1	33:BI:45:THR:HG23	1.92	0.52
35:BK:109:SER:O	35:BK:111:LYS:N	2.42	0.52
44:BT:2:ILE:O	44:BT:2:ILE:HG22	2.10	0.52
46:BV:8:VAL:HG12	46:BV:65:VAL:HG21	1.91	0.52
1:AA:1239:A:C2	1:AA:1241:G:N1	2.77	0.52
1:AA:1341:U:C2	1:AA:1342:C:H5	2.26	0.52
1:AA:233:C:H2'	1:AA:234:C:H6	1.75	0.52
1:AA:525:C:H2'	1:AA:526:C:C6	2.44	0.52
1:AA:549:C:H2'	1:AA:550:G:O5'	2.08	0.52
1:AA:81:A:H2'	1:AA:82:G:H5'	1.90	0.52
1:AA:989:U:H2'	1:AA:990:C:H6	1.74	0.52
2:AB:122:ASP:O	2:AB:123:GLY:O	2.27	0.52
5:AE:104:ILE:HD12	5:AE:122:VAL:CG2	2.39	0.52
7:AG:110:ARG:HD2	7:AG:122:GLU:HG2	1.92	0.52
7:AG:21:LEU:C	7:AG:21:LEU:HD13	2.29	0.52
10:AJ:56:HIS:O	10:AJ:57:VAL:O	2.27	0.52
13:AM:94:LEU:HB3	13:AM:95:PRO:CD	2.38	0.52
19:AS:39:ILE:HG12	19:AS:70:LEU:CD2	2.38	0.52
22:AV:133:A:N3	22:AV:134:G:C8	2.77	0.52
22:AV:362:C:H3'	22:AV:362:C:H6	1.73	0.52
22:AV:58:G:C4	22:AV:59:U:C5	2.96	0.52
22:AV:60:U:O4	22:AV:63:C:C5	2.62	0.52
24:AX:49:C:C5'	24:AX:50:G:H5''	2.39	0.52
25:AY:90:PHE:CG	25:AY:90:PHE:O	2.62	0.52
26:BA:1372:U:C2'	26:BA:1373:A:H5'	2.39	0.52
26:BA:1673:G:H2'	26:BA:1674:G:H5'	1.90	0.52
26:BA:2287:A:H2'	26:BA:2287:A:N3	2.24	0.52
26:BA:2522:U:C2'	26:BA:2523:G:H5'	2.39	0.52
26:BA:71:A:H5''	26:BA:72:U:H2'	1.92	0.52
26:BA:887:U:C5	26:BA:888:C:C5	2.98	0.52
56:BB:34:A:O2'	56:BB:35:C:H5''	2.09	0.52
56:BB:54:G:C4	56:BB:55:U:C6	2.97	0.52
29:BE:53:THR:O	29:BE:53:THR:HG22	2.09	0.52
30:BF:142:TYR:O	30:BF:142:TYR:CG	2.63	0.52
32:BH:80:ILE:HD12	32:BH:144:VAL:CG1	2.39	0.52
33:BI:17:ALA:HB1	33:BI:41:PHE:CE2	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BI:79:LEU:HD13	33:BI:135:MET:CE	2.39	0.52
35:BK:51:LYS:HD3	35:BK:95:ILE:HG22	1.92	0.52
39:BO:24:THR:HG22	39:BO:42:PRO:HD3	1.90	0.52
41:BQ:29:ARG:NE	51:B0:9:ARG:HH11	2.07	0.52
49:BY:32:ALA:O	49:BY:33:ALA:C	2.46	0.52
1:AA:1038:C:H2'	1:AA:1039:G:H5'	1.89	0.52
1:AA:451:A:C8	1:AA:481:G:C6	2.97	0.52
1:AA:79:G:H1	1:AA:90:C:N4	2.01	0.52
1:AA:972:C:O3'	10:AJ:59:LYS:HB3	2.09	0.52
1:AA:978:A:C2'	1:AA:979:C:H5'	2.39	0.52
3:AC:58:ARG:HA	3:AC:62:SER:O	2.09	0.52
4:AD:112:GLU:O	4:AD:115:GLN:HB3	2.09	0.52
4:AD:16:THR:HG22	4:AD:17:ASP:C	2.30	0.52
4:AD:193:ASP:C	4:AD:194:ILE:HG22	2.29	0.52
4:AD:57:LYS:N	4:AD:199:ILE:HG22	2.24	0.52
5:AE:132:PRO:C	5:AE:134:ASN:N	2.62	0.52
8:AH:100:ILE:CD1	8:AH:128:VAL:HG23	2.39	0.52
8:AH:87:ARG:O	8:AH:121:GLY:HA3	2.09	0.52
11:AK:51:PHE:CA	11:AK:55:ARG:HB3	2.40	0.52
11:AK:33:ILE:HG12	11:AK:69:CYS:SG	2.49	0.52
11:AK:74:LYS:C	11:AK:75:GLU:OE1	2.47	0.52
16:AP:61:VAL:HA	16:AP:65:ALA:HB3	1.91	0.52
22:AV:303:G:N3	22:AV:304:C:C5	2.77	0.52
22:AV:47:G:N2	22:AV:48:C:O2	2.42	0.52
22:AV:68:U:H6	22:AV:68:U:O5'	1.92	0.52
23:AW:63:TYR:C	23:AW:67:SER:HB3	2.29	0.52
25:AY:170:ARG:C	25:AY:171:GLU:HG2	2.30	0.52
25:AY:176:GLY:HA3	25:AY:187:THR:HA	1.89	0.52
25:AY:12:LEU:CB	25:AY:283:PRO:HG2	2.39	0.52
25:AY:637:ARG:HG3	25:AY:637:ARG:NH1	2.23	0.52
25:AY:86:GLY:O	25:AY:88:VAL:HG22	2.09	0.52
26:BA:1171:G:H2'	26:BA:1172:C:C6	2.44	0.52
26:BA:1180:U:C2'	26:BA:1181:U:O5'	2.57	0.52
26:BA:1392:A:N6	44:BT:18:GLU:HG2	2.24	0.52
26:BA:1534:U:H5'	26:BA:1535:A:OP2	2.09	0.52
26:BA:2127:G:N1	26:BA:2161:C:O2	2.42	0.52
26:BA:887:U:C3'	26:BA:888:C:H5'	2.39	0.52
26:BA:914:G:H5'	26:BA:915:C:OP2	2.10	0.52
22:AV:343:C:C5'	30:BF:79:ARG:CA	2.86	0.52
33:BI:82:ALA:HB1	33:BI:108:ILE:HD13	1.91	0.52
42:BR:62:GLU:HG2	42:BR:62:GLU:O	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1041:G:C6	1:AA:1042:A:N6	2.77	0.52
1:AA:17:U:C4'	1:AA:1079:G:O2'	2.55	0.52
1:AA:1133:G:C5	1:AA:1134:G:N7	2.77	0.52
1:AA:1332:A:H2'	1:AA:1333:A:O5'	2.10	0.52
1:AA:477:C:H2'	1:AA:478:A:C8	2.44	0.52
2:AB:130:LYS:HA	2:AB:130:LYS:HE2	1.90	0.52
2:AB:16:GLY:HA2	2:AB:40:ILE:HG23	1.91	0.52
2:AB:48:MET:HG2	2:AB:198:VAL:O	2.10	0.52
2:AB:66:ILE:O	2:AB:67:LEU:HB2	2.08	0.52
3:AC:6:PRO:HB3	3:AC:174:LEU:HD13	1.91	0.52
4:AD:117:VAL:HA	4:AD:122:ILE:HD12	1.91	0.52
4:AD:187:ARG:NH2	4:AD:191:SER:OG	2.43	0.52
5:AE:94:PHE:CD1	5:AE:94:PHE:C	2.82	0.52
7:AG:144:ALA:O	7:AG:145:GLU:HB2	2.09	0.52
7:AG:49:LEU:HD11	7:AG:60:ALA:CB	2.38	0.52
11:AK:107:THR:CG2	11:AK:108:ASN:ND2	2.72	0.52
13:AM:28:ARG:CZ	13:AM:62:PHE:CB	2.84	0.52
17:AQ:16:MET:CB	17:AQ:19:SER:HB3	2.39	0.52
18:AR:20:ILE:HD12	18:AR:21:ASP:N	2.25	0.52
1:AA:262:A:H4'	20:AT:68:LYS:HZ1	1.75	0.52
21:AU:4:LYS:O	21:AU:4:LYS:HD2	2.09	0.52
22:AV:163:G:C4	22:AV:164:G:N7	2.76	0.52
22:AV:185:A:N7	22:AV:186:A:N6	2.57	0.52
22:AV:205:G:N2	22:AV:206:A:N6	2.56	0.52
22:AV:47:G:C2	22:AV:48:C:N3	2.77	0.52
23:AW:28:GLY:CA	23:AW:31:VAL:HG23	2.39	0.52
23:AW:3:PRO:O	23:AW:4:VAL:HG12	2.08	0.52
25:AY:205:TYR:O	25:AY:207:ASP:N	2.43	0.52
25:AY:584:ILE:O	25:AY:588:MET:HG3	2.09	0.52
25:AY:688:ILE:HG22	25:AY:688:ILE:O	2.10	0.52
26:BA:1121:C:C6	26:BA:1121:C:H3'	2.44	0.52
26:BA:2339:C:H2'	26:BA:2340:A:C8	2.44	0.52
26:BA:196:A:H2'	26:BA:805:G:O6	2.10	0.52
26:BA:900:A:N3	26:BA:901:C:H5	2.08	0.52
56:BB:20:G:C2	56:BB:64:G:C4	2.97	0.52
26:BA:1565:C:H3'	27:BC:17:LYS:HZ2	1.74	0.52
27:BC:141:HIS:CE1	27:BC:190:THR:CG2	2.92	0.52
31:BG:153:PRO:HG3	31:BG:161:VAL:O	2.10	0.52
32:BH:7:ASP:CA	32:BH:15:LEU:HD22	2.38	0.52
33:BI:100:ILE:HG21	33:BI:105:LEU:CD1	2.38	0.52
33:BI:56:VAL:CG2	33:BI:57:VAL:N	2.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BI:99:LYS:HB3	33:BI:138:VAL:HB	1.92	0.52
39:BO:66:GLY:CA	39:BO:102:ARG:NH2	2.73	0.52
46:BV:2:PHE:HB3	46:BV:50:MET:CE	2.39	0.52
47:BW:13:GLU:O	47:BW:15:LYS:HE2	2.09	0.52
49:BY:18:LEU:HG	49:BY:22:LEU:HB2	1.90	0.52
1:AA:1037:C:N3	1:AA:1038:C:C5	2.77	0.52
1:AA:1304:G:N7	1:AA:1305:G:C6	2.78	0.52
1:AA:1379:G:C6	1:AA:1380:U:C4	2.98	0.52
1:AA:1389:C:C2'	1:AA:1389:C:O2	2.58	0.52
1:AA:430:A:H2'	1:AA:430:A:N3	2.23	0.52
1:AA:452:A:C8	1:AA:453:G:O4'	2.62	0.52
1:AA:634:C:O2'	1:AA:635:A:H5'	2.10	0.52
2:AB:14:HIS:HD2	2:AB:15:PHE:N	2.08	0.52
2:AB:8:MET:HB2	2:AB:43:GLU:OE2	2.09	0.52
4:AD:117:VAL:HG12	4:AD:130:ASN:HA	1.91	0.52
8:AH:13:ILE:O	8:AH:14:ARG:C	2.48	0.52
8:AH:77:VAL:HG11	8:AH:124:ILE:HD11	1.91	0.52
11:AK:85:VAL:CG1	11:AK:92:ARG:NH1	2.73	0.52
14:AN:20:PHE:CG	14:AN:24:ALA:HB3	2.45	0.52
16:AP:20:VAL:HG23	16:AP:35:ARG:HA	1.90	0.52
22:AV:1:G:O5'	22:AV:1:G:H8	1.93	0.52
22:AV:247:A:H5'	22:AV:248:G:H5'	1.91	0.52
22:AV:323:A:C4	22:AV:324:G:C5	2.97	0.52
22:AV:345:A:C6	22:AV:348:C:C5	2.95	0.52
22:AV:3:G:H2'	22:AV:4:G:H8	1.72	0.52
22:AV:63:C:H2'	22:AV:63:C:O2	2.09	0.52
23:AW:63:TYR:CD2	23:AW:67:SER:HA	2.45	0.52
25:AY:227:ILE:HG12	25:AY:237:PRO:HB3	1.90	0.52
25:AY:331:TYR:O	25:AY:371:ALA:HB1	2.08	0.52
25:AY:385:THR:HG21	25:AY:436:PRO:HG3	1.92	0.52
52:B1:16:THR:HG21	52:B1:41:VAL:CB	2.35	0.52
26:BA:1463:C:H6	26:BA:1463:C:H5'	1.74	0.52
26:BA:2124:G:H2'	26:BA:2125:G:H5'	1.91	0.52
26:BA:2418:A:C5	26:BA:2419:U:C5	2.97	0.52
26:BA:2656:U:O2	26:BA:2656:U:H2'	2.10	0.52
26:BA:84:A:N1	26:BA:103:A:C5	2.77	0.52
26:BA:866:A:C5	26:BA:914:G:N7	2.77	0.52
28:BD:98:VAL:CG2	28:BD:98:VAL:O	2.58	0.52
30:BF:118:ALA:HB1	30:BF:166:ARG:CD	2.36	0.52
31:BG:117:PRO:O	31:BG:118:ALA:C	2.47	0.52
31:BG:95:ALA:CB	31:BG:104:LEU:HD23	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BI:32:VAL:HG21	33:BI:58:ILE:HG23	1.90	0.52
36:BL:47:ARG:NH2	36:BL:47:ARG:HG2	2.23	0.52
37:BM:55:ARG:NH2	37:BM:55:ARG:HG3	2.25	0.52
39:BO:24:THR:CG2	39:BO:42:PRO:HG3	2.40	0.52
40:BP:111:GLU:HG3	40:BP:112:ARG:N	2.23	0.52
44:BT:30:ILE:HG22	44:BT:85:VAL:O	2.09	0.52
50:BZ:43:ILE:O	50:BZ:47:ILE:HD12	2.10	0.52
1:AA:1233:G:C5	1:AA:1234:C:C5	2.98	0.52
1:AA:182:A:C8	1:AA:184:G:C5	2.98	0.52
1:AA:446:G:H2'	1:AA:447:G:O4'	2.09	0.52
1:AA:633:G:OP2	8:AH:87:ARG:NH2	2.42	0.52
1:AA:979:C:OP1	1:AA:981:U:O4	2.27	0.52
4:AD:176:LYS:CB	4:AD:178:GLU:HG2	2.39	0.52
4:AD:40:HIS:HB3	4:AD:43:ARG:HG3	1.90	0.52
4:AD:58:GLN:HA	4:AD:58:GLN:OE1	2.10	0.52
5:AE:152:VAL:CG2	5:AE:153:ALA:N	2.72	0.52
5:AE:154:ALA:O	5:AE:155:LYS:C	2.47	0.52
5:AE:82:HIS:CE1	5:AE:146:MET:HG3	2.45	0.52
5:AE:149:PRO:HA	8:AH:98:LEU:HD11	1.91	0.52
10:AJ:57:VAL:O	10:AJ:58:ASN:CB	2.56	0.52
11:AK:15:VAL:HG13	11:AK:16:SER:H	1.74	0.52
15:AO:37:HIS:C	15:AO:37:HIS:CD2	2.83	0.52
15:AO:3:SER:HB2	15:AO:6:ALA:CB	2.39	0.52
20:AT:4:LYS:CA	20:AT:4:LYS:HE2	2.40	0.52
21:AU:34:ARG:O	21:AU:36:PHE:N	2.42	0.52
22:AV:27:U:O2'	22:AV:28:U:H5'	2.10	0.52
22:AV:339:G:H1	22:AV:349:C:H42	1.55	0.52
22:AV:46:U:H4'	22:AV:313:C:C5'	2.34	0.52
24:AX:60:A:O2'	24:AX:61:U:H5'	2.08	0.52
25:AY:35:TYR:CE1	25:AY:269:VAL:HB	2.45	0.52
25:AY:413:ILE:HD11	25:AY:474:ALA:HB3	1.92	0.52
25:AY:517:LEU:HB3	25:AY:521:SER:HB2	1.91	0.52
25:AY:658:ASP:OD2	31:BG:176:LYS:CE	2.53	0.52
25:AY:66:THR:O	25:AY:67:ALA:HB3	2.10	0.52
26:BA:1917:U:O4	26:BA:1918:A:C6	2.62	0.52
26:BA:2114:A:C2	26:BA:2166:U:H2'	2.45	0.52
26:BA:2183:A:H2'	26:BA:2184:A:O4'	2.09	0.52
26:BA:638:G:C5	26:BA:639:U:C5	2.98	0.52
26:BA:720:U:O2	26:BA:720:U:H2'	2.10	0.52
26:BA:889:C:N1	26:BA:891:G:C6	2.78	0.52
56:BB:36:C:C5'	56:BB:37:C:OP2	2.58	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:2469:A:C4'	37:BM:55:ARG:HH22	2.22	0.52
41:BQ:73:ILE:HG23	41:BQ:73:ILE:O	2.09	0.52
43:BS:48:LYS:HE3	43:BS:52:GLU:OE2	2.10	0.52
1:AA:215:C:H2'	1:AA:216:U:O4'	2.09	0.52
1:AA:257:G:C2	1:AA:258:G:C8	2.98	0.52
1:AA:652:U:O2'	1:AA:653:U:P	2.68	0.52
2:AB:95:TRP:CH2	2:AB:99:MET:HG2	2.45	0.52
3:AC:105:VAL:HG12	3:AC:106:ARG:O	2.10	0.52
3:AC:172:VAL:N	3:AC:173:PRO:HD3	2.25	0.52
5:AE:15:ILE:O	5:AE:16:ALA:HB2	2.10	0.52
5:AE:93:VAL:HG12	5:AE:138:ALA:HB1	1.91	0.52
6:AF:91:ARG:O	6:AF:92:THR:OG1	2.26	0.52
10:AJ:7:ARG:O	10:AJ:100:ILE:O	2.27	0.52
10:AJ:32:THR:CG2	10:AJ:83:THR:HA	2.39	0.52
13:AM:2:ARG:HA	13:AM:8:ILE:HG12	1.91	0.52
14:AN:3:GLN:HA	14:AN:6:LYS:CE	2.40	0.52
19:AS:33:TRP:CZ2	19:AS:56:HIS:CE1	2.97	0.52
22:AV:200:G:C8	22:AV:200:G:O5'	2.58	0.52
22:AV:266:C:C6	22:AV:267:G:H8	2.28	0.52
22:AV:303:G:H2'	22:AV:304:C:C5	2.41	0.52
22:AV:44:C:O2'	22:AV:45:A:C4'	2.57	0.52
23:AW:4:VAL:HA	23:AW:106:TYR:HB3	1.92	0.52
25:AY:19:ALA:HA	25:AY:121:VAL:HG11	1.91	0.52
25:AY:165:GLN:NE2	25:AY:177:ILE:HG21	2.24	0.52
25:AY:177:ILE:HG22	25:AY:178:ILE:N	2.24	0.52
1:AA:368:U:C3'	25:AY:354:ARG:HH12	2.22	0.52
25:AY:312:LEU:HD11	25:AY:401:SER:OG	2.09	0.52
25:AY:606:MET:HE3	25:AY:671:MET:HG2	1.91	0.52
26:BA:1056:G:C2	26:BA:1102:C:C5	2.97	0.52
26:BA:1434:A:O2'	26:BA:1435:G:C8	2.56	0.52
26:BA:1462:C:C2'	26:BA:1463:C:C5'	2.86	0.52
26:BA:1678:A:H2'	26:BA:1679:A:O4'	2.10	0.52
26:BA:2473:U:C5	26:BA:2474:U:C4	2.98	0.52
26:BA:2851:A:C5	26:BA:2852:G:C5	2.98	0.52
26:BA:414:C:H2'	26:BA:415:A:C8	2.45	0.52
26:BA:65:U:H2'	26:BA:66:C:C6	2.45	0.52
26:BA:666:A:H2'	26:BA:667:U:C6	2.45	0.52
26:BA:883:G:C2'	26:BA:884:U:C5'	2.83	0.52
26:BA:89:A:O2'	26:BA:90:U:H5'	2.10	0.52
26:BA:903:C:H6	26:BA:903:C:O5'	1.93	0.52
27:BC:173:LEU:HD13	27:BC:173:LEU:N	2.23	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BD:119:ALA:O	28:BD:162:ALA:HB1	2.10	0.52
28:BD:86:GLU:HA	28:BD:86:GLU:OE1	2.08	0.52
29:BE:131:THR:HG22	29:BE:160:ALA:CA	2.39	0.52
31:BG:126:THR:CG2	31:BG:127:GLN:N	2.72	0.52
40:BP:74:GLN:HA	40:BP:74:GLN:HE21	1.75	0.52
41:BQ:40:LYS:C	41:BQ:42:GLY:N	2.59	0.52
1:AA:1367:C:OP1	9:AI:116:GLY:N	2.39	0.52
1:AA:145:G:N2	1:AA:146:G:C4	2.77	0.52
1:AA:1534:A:N1	1:AA:1535:C:N3	2.57	0.52
1:AA:237:G:H2'	1:AA:238:A:C8	2.44	0.52
1:AA:369:G:C4	1:AA:370:C:C5	2.97	0.52
1:AA:449:G:O2'	1:AA:450:G:H5'	2.10	0.52
1:AA:918:A:N9	1:AA:919:A:C8	2.77	0.52
2:AB:185:ILE:O	2:AB:185:ILE:CG1	2.57	0.52
4:AD:10:LEU:HD21	4:AD:62:ARG:HD3	1.90	0.52
4:AD:12:ARG:HD2	4:AD:33:ILE:HA	1.92	0.52
4:AD:159:GLU:O	4:AD:161:ALA:N	2.42	0.52
5:AE:37:VAL:HG23	5:AE:47:PHE:HA	1.92	0.52
6:AF:5:GLU:HG3	6:AF:5:GLU:O	2.09	0.52
6:AF:3:HIS:N	6:AF:92:THR:HG23	2.25	0.52
9:AI:105:ARG:HD2	9:AI:105:ARG:O	2.09	0.52
9:AI:42:THR:O	9:AI:43:ALA:HB3	2.09	0.52
12:AL:36:VAL:O	12:AL:36:VAL:HG12	2.09	0.52
12:AL:31:GLY:HA3	12:AL:54:VAL:CG1	2.40	0.52
14:AN:49:GLN:CA	14:AN:49:GLN:OE1	2.58	0.52
16:AP:76:LYS:O	16:AP:77:GLU:HB2	2.09	0.52
20:AT:46:ALA:O	20:AT:47:GLN:C	2.48	0.52
21:AU:25:ALA:O	21:AU:26:GLY:O	2.28	0.52
22:AV:137:C:H3'	22:AV:138:C:O4'	2.08	0.52
22:AV:181:G:C2'	22:AV:181:G:N3	2.71	0.52
22:AV:213:G:C6	22:AV:284:G:C5	2.97	0.52
22:AV:298:A:C5	22:AV:299:C:C5	2.98	0.52
22:AV:301:A:P	22:AV:302:A:OP2	2.67	0.52
25:AY:438:PHE:HD2	25:AY:438:PHE:C	2.13	0.52
25:AY:573:HIS:CD2	25:AY:575:VAL:H	2.28	0.52
25:AY:619:ASP:HB3	31:BG:175:LYS:NZ	2.25	0.52
26:BA:1660:G:N2	26:BA:2001:C:C2	2.78	0.52
26:BA:585:G:N7	41:BQ:5:ARG:NH1	2.57	0.52
26:BA:606:U:OP2	29:BE:99:LYS:HE3	2.09	0.52
26:BA:846:U:O2	26:BA:846:U:C2'	2.57	0.52
26:BA:84:A:H5''	45:BU:5:ARG:HD3	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:886:A:C4'	26:BA:887:U:OP1	2.49	0.52
29:BE:54:GLY:CA	29:BE:74:LYS:HE2	2.40	0.52
31:BG:142:GLN:O	31:BG:145:ALA:HB3	2.09	0.52
25:AY:636:PRO:HG2	33:BI:23:VAL:C	2.30	0.52
34:BJ:81:ILE:HG23	34:BJ:82:GLY:H	1.75	0.52
40:BP:52:ARG:HH11	40:BP:52:ARG:CG	2.23	0.52
50:BZ:6:ILE:CD1	50:BZ:47:ILE:HD11	2.40	0.52
1:AA:1103:C:H5'	2:AB:96:LEU:HB3	1.92	0.52
1:AA:1286:U:C6	1:AA:1286:U:OP1	2.63	0.52
1:AA:1323:G:H2'	1:AA:1324:A:H8	1.73	0.52
1:AA:106:C:O2	1:AA:379:C:H4'	2.10	0.52
1:AA:66:A:H2'	1:AA:67:C:H5'	1.91	0.52
1:AA:684:U:H2'	1:AA:685:G:O4'	2.10	0.52
1:AA:86:G:N3	1:AA:86:G:O4'	2.40	0.52
1:AA:923:A:H5'	5:AE:25:LYS:CE	2.31	0.52
3:AC:106:ARG:HD3	3:AC:106:ARG:N	2.25	0.52
3:AC:140:ALA:O	3:AC:145:ALA:HB3	2.10	0.52
5:AE:59:ILE:O	5:AE:63:MET:HG2	2.09	0.52
5:AE:81:GLN:HB2	5:AE:146:MET:HE2	1.91	0.52
8:AH:94:VAL:HG21	8:AH:100:ILE:O	2.10	0.52
9:AI:18:VAL:HG11	9:AI:82:ILE:HG12	1.92	0.52
12:AL:55:ARG:HH21	12:AL:55:ARG:HG3	1.75	0.52
12:AL:23:LEU:HB2	12:AL:58:ASN:ND2	2.25	0.52
13:AM:28:ARG:NH1	13:AM:62:PHE:CB	2.73	0.52
20:AT:47:GLN:NE2	20:AT:47:GLN:O	2.43	0.52
22:AV:121:A:O2'	22:AV:122:A:H5'	2.09	0.52
22:AV:172:U:C1'	22:AV:173:C:C6	2.93	0.52
22:AV:173:C:O2'	22:AV:174:A:H8	1.93	0.52
22:AV:265:C:N3	22:AV:266:C:N4	2.58	0.52
22:AV:270:C:C2	22:AV:293:G:C6	2.98	0.52
22:AV:331:C:O2'	22:AV:332:G:H5'	2.08	0.52
25:AY:250:THR:O	25:AY:253:LEU:N	2.35	0.52
52:B1:3:GLY:O	52:B1:4:ILE:HB	2.10	0.52
26:BA:1090:A:H2'	26:BA:1091:G:O5'	2.10	0.52
26:BA:1244:A:H5'	36:BL:8:PRO:HD2	1.92	0.52
26:BA:1265:A:O4'	26:BA:1267:U:C6	2.63	0.52
26:BA:1468:U:H5'	26:BA:1469:A:OP1	2.10	0.52
26:BA:1495:A:H2'	26:BA:1496:A:O5'	2.10	0.52
26:BA:1533:C:H5'	26:BA:1534:U:OP2	2.10	0.52
26:BA:17:G:H2'	26:BA:18:U:C6	2.45	0.52
26:BA:2330:G:O3'	47:BW:40:LYS:HE3	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:2582:G:C2	26:BA:2583:G:C8	2.98	0.52
26:BA:2626:C:H6	26:BA:2626:C:O5'	1.92	0.52
26:BA:674:G:H5''	29:BE:71:GLY:N	2.24	0.52
26:BA:876:C:O2'	26:BA:877:A:C5	2.63	0.52
26:BA:900:A:N3	26:BA:900:A:C2'	2.73	0.52
56:BB:39:A:O2'	56:BB:40:U:H5'	2.10	0.52
22:AV:344:A:O4'	30:BF:76:PHE:N	2.42	0.52
32:BH:72:ILE:HG23	32:BH:141:LYS:O	2.09	0.52
32:BH:8:LYS:NZ	32:BH:14:SER:HA	2.25	0.52
44:BT:30:ILE:HD11	44:BT:32:LEU:HD21	1.91	0.52
45:BU:6:ARG:HG3	45:BU:7:ASP:H	1.75	0.52
47:BW:6:THR:O	47:BW:7:ARG:CB	2.58	0.52
49:BY:22:LEU:O	49:BY:23:ARG:C	2.48	0.52
1:AA:1057:G:O2'	1:AA:1058:G:H5'	2.10	0.52
1:AA:1103:C:H2'	1:AA:1104:G:O5'	2.10	0.52
1:AA:1182:G:C4'	1:AA:1183:U:H5'	2.39	0.52
1:AA:1523:G:OP1	11:AK:124:LYS:HE2	2.09	0.52
1:AA:160:A:H2'	1:AA:161:A:O4'	2.09	0.52
1:AA:432:A:H2'	1:AA:433:G:O5'	2.10	0.52
1:AA:437:U:C4	1:AA:438:U:H5	2.28	0.52
1:AA:464:U:C2	1:AA:466:A:H5''	2.45	0.52
1:AA:465:A:H2'	1:AA:466:A:C8	2.45	0.52
1:AA:609:A:H2'	1:AA:610:U:C5'	2.40	0.52
1:AA:63:C:C2'	1:AA:64:G:H5'	2.40	0.52
2:AB:116:LEU:CG	2:AB:140:LEU:HD11	2.39	0.52
2:AB:139:GLU:HG2	2:AB:143:LEU:HD21	1.90	0.52
2:AB:151:LYS:HG3	2:AB:152:ASP:N	2.25	0.52
2:AB:18:GLN:HG2	2:AB:189:ASN:ND2	2.25	0.52
4:AD:129:VAL:HG11	4:AD:134:TYR:CD1	2.45	0.52
4:AD:131:ILE:CD1	4:AD:134:TYR:N	2.73	0.52
5:AE:49:TYR:CE2	5:AE:133:ILE:HD11	2.45	0.52
1:AA:1240:U:C2	7:AG:31:VAL:CG1	2.92	0.52
7:AG:59:GLU:O	7:AG:63:VAL:HG23	2.10	0.52
9:AI:98:ARG:HA	9:AI:103:VAL:HG21	1.92	0.52
9:AI:27:ILE:HG23	9:AI:62:LEU:HD23	1.92	0.52
1:AA:1280:A:C5'	10:AJ:42:LEU:HD21	2.39	0.52
12:AL:6:LEU:HB3	17:AQ:33:TYR:CE1	2.45	0.52
12:AL:49:ARG:HB2	12:AL:89:LEU:HD21	1.91	0.52
16:AP:50:THR:O	16:AP:51:ARG:O	2.28	0.52
22:AV:114:G:C2'	22:AV:115:C:H5'	2.39	0.52
22:AV:196:G:O2'	22:AV:229:U:C5'	2.57	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:313:C:H2'	22:AV:314:C:H6	1.72	0.52
22:AV:47:G:OP1	22:AV:313:C:H5''	2.10	0.52
22:AV:334:A:C2	23:AW:112:TYR:C	2.84	0.52
22:AV:341:5MU:C2	22:AV:345:A:N6	2.77	0.52
26:BA:1681:G:O2'	26:BA:1762:A:H1'	2.10	0.52
26:BA:1735:A:N3	26:BA:1736:U:C6	2.78	0.52
26:BA:1744:A:C2	26:BA:1745:A:H1'	2.45	0.52
26:BA:1838:C:C4	26:BA:1899:A:C4	2.98	0.52
26:BA:2174:C:O2	26:BA:2175:C:C6	2.63	0.52
26:BA:2194:U:O2	26:BA:2195:U:C6	2.63	0.52
26:BA:2298:A:C4	26:BA:2321:U:C5	2.98	0.52
26:BA:2578:G:OP2	26:BA:2578:G:H4'	2.10	0.52
26:BA:2851:A:N7	26:BA:2852:G:N7	2.58	0.52
26:BA:2881:U:C2'	26:BA:2882:A:O5'	2.58	0.52
26:BA:277:G:C8	26:BA:361:G:O6	2.63	0.52
26:BA:547:A:N7	26:BA:548:G:C1'	2.71	0.52
30:BF:56:LEU:HD12	30:BF:64:PRO:CB	2.39	0.52
33:BI:45:THR:HG22	33:BI:50:LYS:HG3	1.92	0.52
33:BI:46:ASP:CB	33:BI:50:LYS:HD2	2.40	0.52
34:BJ:21:THR:HA	34:BJ:61:LYS:HB3	1.92	0.52
26:BA:2091:C:O2'	48:BX:55:MET:HE3	2.10	0.52
1:AA:112:G:C2'	1:AA:113:G:H5'	2.40	0.51
1:AA:949:A:C2	1:AA:1233:G:N3	2.78	0.51
1:AA:1287:A:C6	1:AA:1288:A:C6	2.98	0.51
1:AA:1341:U:C2'	1:AA:1342:C:H6	2.20	0.51
1:AA:235:C:H2'	1:AA:236:A:C8	2.45	0.51
1:AA:298:A:N6	1:AA:299:G:N1	2.58	0.51
1:AA:513:C:O2'	1:AA:514:C:C5'	2.58	0.51
1:AA:781:A:C4	1:AA:802:A:C2	2.98	0.51
1:AA:917:G:N1	1:AA:918:A:C6	2.78	0.51
1:AA:994:A:C8	1:AA:1216:A:H4'	2.46	0.51
2:AB:221:ARG:HG2	2:AB:221:ARG:HH11	1.74	0.51
5:AE:93:VAL:CG2	5:AE:110:MET:HE1	2.40	0.51
7:AG:134:VAL:O	7:AG:138:GLU:HG2	2.10	0.51
8:AH:82:LEU:HD23	17:AQ:35:LYS:HA	1.92	0.51
11:AK:58:THR:HB	11:AK:59:PRO:HD2	1.92	0.51
12:AL:49:ARG:NH1	12:AL:88:ASP:OD1	2.41	0.51
15:AO:66:LEU:HD13	15:AO:87:ARG:HH22	1.75	0.51
1:AA:1318:A:H1'	19:AS:36:ARG:NH1	2.25	0.51
22:AV:157:C:N3	22:AV:158:U:C4	2.77	0.51
24:AX:31:G:C2'	24:AX:32:G:O5'	2.58	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AY:633:GLY:CA	26:BA:1068:G:N7	2.57	0.51
55:B4:10:LEU:N	55:B4:10:LEU:HD23	2.24	0.51
26:BA:1028:A:N6	26:BA:1125:G:H2'	2.24	0.51
26:BA:1753:G:OP1	40:BP:92:ARG:HD3	2.11	0.51
26:BA:1766:G:H2'	26:BA:1767:G:H8	1.74	0.51
26:BA:2294:G:H2'	26:BA:2295:C:H6	1.75	0.51
24:AX:77:A:C5	26:BA:2421:G:H2'	2.45	0.51
26:BA:752:A:H62	26:BA:2609:U:H3	1.54	0.51
26:BA:356:G:O2'	26:BA:357:C:H5'	2.10	0.51
26:BA:664:G:C2'	26:BA:665:U:H5'	2.39	0.51
26:BA:878:A:H2'	26:BA:879:G:C8	2.45	0.51
26:BA:881:G:H1	26:BA:895:U:H3	1.56	0.51
27:BC:176:ARG:HH21	27:BC:176:ARG:CG	2.24	0.51
27:BC:216:ARG:CB	27:BC:217:PRO:CD	2.86	0.51
29:BE:5:LEU:N	29:BE:5:LEU:HD12	2.25	0.51
30:BF:110:ILE:HG12	30:BF:136:ILE:HG21	1.92	0.51
30:BF:76:PHE:C	30:BF:77:LYS:HG3	2.30	0.51
33:BI:79:LEU:CD2	33:BI:100:ILE:HD11	2.40	0.51
35:BK:87:LEU:HD23	35:BK:94:PRO:HA	1.92	0.51
38:BN:51:LEU:O	38:BN:54:LEU:HB3	2.10	0.51
44:BT:19:LYS:O	44:BT:20:ALA:C	2.49	0.51
44:BT:2:ILE:HG12	44:BT:7:LEU:HD11	1.92	0.51
50:BZ:23:LEU:HD11	50:BZ:53:MET:CE	2.40	0.51
1:AA:1075:U:O2'	1:AA:1076:U:H5'	2.10	0.51
1:AA:1098:C:C1'	1:AA:1169:A:H2	2.03	0.51
1:AA:922:G:N9	1:AA:1398:A:H2	2.00	0.51
1:AA:1462:C:H2'	1:AA:1463:U:H6	1.75	0.51
1:AA:161:A:H2'	1:AA:162:A:C8	2.45	0.51
1:AA:284:C:H2'	1:AA:285:C:C6	2.46	0.51
1:AA:35:G:C4	1:AA:36:C:C5	2.98	0.51
1:AA:490:C:H2'	1:AA:491:G:O4'	2.10	0.51
1:AA:541:G:C2	1:AA:542:G:C4	2.98	0.51
1:AA:722:G:N3	1:AA:722:G:H3'	2.25	0.51
1:AA:917:G:H2'	1:AA:918:A:C8	2.45	0.51
3:AC:16:PRO:O	3:AC:17:TRP:CB	2.59	0.51
3:AC:39:ARG:O	3:AC:40:GLN:C	2.49	0.51
5:AE:131:ASN:HD22	5:AE:132:PRO:N	2.09	0.51
7:AG:82:SER:HB3	7:AG:84:TYR:CD2	2.45	0.51
7:AG:86:VAL:HG12	7:AG:86:VAL:O	2.09	0.51
8:AH:46:GLU:N	8:AH:63:LYS:HG3	2.25	0.51
19:AS:19:GLU:C	19:AS:21:ALA:H	2.14	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:16:ALA:O	20:AT:20:ASN:ND2	2.44	0.51
22:AV:127:C:O2'	22:AV:128:U:H5'	2.10	0.51
22:AV:257:U:N1	22:AV:258:G:N1	2.55	0.51
22:AV:49:C:N4	22:AV:303:G:O6	2.43	0.51
22:AV:32:A:HO2'	22:AV:35:C:P	2.25	0.51
25:AY:341:VAL:CG2	25:AY:350:GLU:HB2	2.39	0.51
25:AY:367:GLU:O	25:AY:368:GLU:HB3	2.10	0.51
25:AY:644:ARG:O	25:AY:645:ALA:HB2	2.10	0.51
25:AY:609:GLU:HB2	25:AY:670:VAL:HG22	1.91	0.51
25:AY:89:ASP:OD2	25:AY:89:ASP:N	2.43	0.51
26:BA:1106:G:N3	26:BA:1106:G:H2'	2.26	0.51
26:BA:1120:G:H2'	26:BA:1121:C:H5'	1.91	0.51
26:BA:1851:U:C2'	26:BA:1852:U:O5'	2.58	0.51
26:BA:2307:G:H22	26:BA:2311:A:H2'	1.75	0.51
26:BA:2346:A:C3'	26:BA:2347:C:C5'	2.81	0.51
26:BA:2805:C:C4	26:BA:2806:C:C4	2.98	0.51
27:BC:216:ARG:HB3	27:BC:217:PRO:HD2	1.91	0.51
30:BF:100:GLU:O	30:BF:101:ARG:C	2.47	0.51
30:BF:157:THR:CG2	30:BF:159:ALA:CB	2.88	0.51
30:BF:40:GLY:HA2	30:BF:84:ILE:HD11	1.91	0.51
34:BJ:27:ARG:HH11	34:BJ:27:ARG:HG2	1.74	0.51
34:BJ:97:PRO:O	34:BJ:98:GLU:C	2.46	0.51
38:BN:67:PHE:O	38:BN:71:ARG:HA	2.10	0.51
1:AA:1114:C:O2	1:AA:1114:C:C2'	2.58	0.51
1:AA:1366:C:H2'	1:AA:1367:C:H6	1.74	0.51
1:AA:441:A:H2'	1:AA:442:G:H5'	1.93	0.51
1:AA:446:G:C2	1:AA:489:C:C2	2.98	0.51
1:AA:570:G:H5''	1:AA:571:U:OP2	2.10	0.51
2:AB:131:LYS:CG	2:AB:132:GLU:N	2.71	0.51
5:AE:37:VAL:HG23	5:AE:47:PHE:CB	2.40	0.51
7:AG:66:GLU:HG3	7:AG:69:ARG:NH2	2.25	0.51
8:AH:123:GLU:HG2	8:AH:125:ILE:HD12	1.92	0.51
9:AI:56:MET:CE	9:AI:57:VAL:H	2.22	0.51
11:AK:75:GLU:OE1	11:AK:75:GLU:N	2.42	0.51
13:AM:5:GLY:C	13:AM:7:ASN:H	2.14	0.51
21:AU:24:LYS:HD2	21:AU:25:ALA:H	1.75	0.51
22:AV:147:C:C2	22:AV:148:U:C5	2.98	0.51
23:AW:88:ARG:C	23:AW:88:ARG:HD2	2.30	0.51
23:AW:92:LYS:O	23:AW:98:LEU:CD2	2.54	0.51
24:AX:27:G:H2'	24:AX:28:U:OP1	2.10	0.51
24:AX:7:G:H8	24:AX:7:G:OP2	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AY:236:GLU:HG3	25:AY:236:GLU:O	2.10	0.51
25:AY:132:ARG:O	25:AY:256:THR:HG23	2.11	0.51
25:AY:350:GLU:OE1	25:AY:350:GLU:HA	2.10	0.51
25:AY:428:LEU:N	25:AY:428:LEU:HD23	2.26	0.51
25:AY:486:THR:HG21	25:AY:602:LEU:HD11	1.92	0.51
26:BA:1547:C:H3'	26:BA:1547:C:C6	2.46	0.51
26:BA:1717:A:H2'	26:BA:1718:G:O5'	2.09	0.51
26:BA:1805:A:N3	27:BC:49:THR:HB	2.25	0.51
26:BA:181:A:C2	26:BA:182:A:C4	2.99	0.51
26:BA:1860:G:C6	26:BA:1883:U:O2	2.63	0.51
26:BA:2215:C:O2'	26:BA:2216:G:H5'	2.09	0.51
26:BA:324:A:H2'	26:BA:325:G:O5'	2.10	0.51
26:BA:479:A:H4'	26:BA:480:A:OP1	2.09	0.51
26:BA:528:A:C8	26:BA:528:A:H3'	2.46	0.51
26:BA:649:G:H2'	26:BA:650:C:H6	1.73	0.51
26:BA:873:C:HO2'	26:BA:874:G:H5'	1.72	0.51
27:BC:259:ASN:O	27:BC:260:LYS:HB2	2.10	0.51
29:BE:131:THR:HG22	29:BE:160:ALA:C	2.31	0.51
29:BE:189:THR:HG23	29:BE:190:ALA:N	2.26	0.51
31:BG:54:ARG:CD	31:BG:57:TYR:HE1	2.23	0.51
42:BR:39:LEU:O	42:BR:49:ILE:HG23	2.11	0.51
46:BV:16:ALA:N	46:BV:19:ARG:HH21	2.09	0.51
47:BW:45:ALA:O	47:BW:46:ASN:HB2	2.10	0.51
1:AA:1079:G:H2'	1:AA:1080:A:N9	2.26	0.51
1:AA:1136:C:O4'	1:AA:1136:C:O2	2.29	0.51
1:AA:1356:G:H2'	1:AA:1357:A:C8	2.45	0.51
1:AA:188:C:O2	1:AA:188:C:C2'	2.57	0.51
1:AA:29:U:H5'	1:AA:296:U:OP1	2.11	0.51
1:AA:38:G:N2	1:AA:397:A:C4	2.78	0.51
1:AA:687:A:C2	1:AA:704:A:C5	2.99	0.51
1:AA:892:A:C6	1:AA:893:C:C4	2.98	0.51
1:AA:97:G:H2'	1:AA:98:A:O5'	2.10	0.51
2:AB:59:ILE:HD12	2:AB:59:ILE:C	2.30	0.51
3:AC:156:LEU:HD12	3:AC:163:ARG:HB2	1.92	0.51
4:AD:120:LYS:C	4:AD:122:ILE:HD13	2.31	0.51
4:AD:121:ALA:N	4:AD:122:ILE:HD13	2.24	0.51
4:AD:131:ILE:O	4:AD:131:ILE:HD12	2.10	0.51
4:AD:169:TRP:HB2	4:AD:183:ARG:HG3	1.92	0.51
1:AA:413:G:N1	4:AD:32:LYS:CD	2.74	0.51
5:AE:154:ALA:HB1	8:AH:65:PHE:CE2	2.45	0.51
6:AF:43:GLY:HA2	6:AF:58:HIS:CD2	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:81:ASN:O	6:AF:84:VAL:HG12	2.11	0.51
8:AH:59:GLU:C	8:AH:59:GLU:OE2	2.49	0.51
9:AI:16:ALA:HB2	9:AI:66:VAL:HG23	1.92	0.51
16:AP:12:LYS:HG2	16:AP:13:LYS:HG2	1.92	0.51
22:AV:20:A:N7	22:AV:21:C:N4	2.59	0.51
24:AX:15:G:H5''	24:AX:16:C:H5'	1.91	0.51
25:AY:204:GLU:H	25:AY:204:GLU:CD	2.14	0.51
25:AY:181:LEU:HB2	25:AY:216:LEU:HD11	1.93	0.51
25:AY:216:LEU:C	25:AY:216:LEU:HD23	2.31	0.51
25:AY:282:SER:O	25:AY:284:LEU:N	2.43	0.51
25:AY:363:ARG:NH1	25:AY:363:ARG:HG3	2.23	0.51
25:AY:423:LYS:CB	25:AY:472:VAL:HG22	2.28	0.51
25:AY:603:GLU:HB2	25:AY:604:PRO:HD2	1.91	0.51
25:AY:519:ARG:NH1	25:AY:678:GLU:CB	2.74	0.51
26:BA:1019:U:H3	26:BA:1142:A:H62	1.58	0.51
26:BA:1176:U:H2'	26:BA:1177:G:C8	2.46	0.51
26:BA:1816:C:C5	27:BC:61:TYR:CE1	2.99	0.51
26:BA:2179:C:C4	26:BA:2180:U:C5	2.99	0.51
26:BA:2312:U:H3'	26:BA:2312:U:H6	1.74	0.51
26:BA:2371:G:O2'	52:B1:45:HIS:HD2	1.93	0.51
26:BA:2708:G:O2'	26:BA:2709:G:H5'	2.09	0.51
26:BA:284:U:H2'	26:BA:285:G:H8	1.75	0.51
28:BD:12:THR:HG21	40:BP:8:GLU:HG2	1.92	0.51
30:BF:24:VAL:O	30:BF:24:VAL:CG2	2.58	0.51
30:BF:51:ASN:HD22	30:BF:146:ASP:CB	2.24	0.51
31:BG:148:ARG:NH2	31:BG:166:GLU:OE2	2.43	0.51
32:BH:126:GLY:O	32:BH:145:ASN:HA	2.10	0.51
32:BH:24:GLY:O	32:BH:27:ARG:O	2.29	0.51
33:BI:75:ALA:CB	33:BI:128:ILE:CG2	2.87	0.51
33:BI:66:PHE:HD2	33:BI:66:PHE:N	2.08	0.51
33:BI:57:VAL:O	33:BI:68:PHE:HB2	2.11	0.51
37:BM:21:ALA:HB1	37:BM:100:LYS:HG2	1.93	0.51
38:BN:21:PHE:CD2	38:BN:24:MET:CE	2.93	0.51
1:AA:1008:U:C2	1:AA:1022:A:C2	2.99	0.51
1:AA:1077:G:C1'	1:AA:1080:A:N6	2.74	0.51
1:AA:1078:U:H5	1:AA:1079:G:C6	2.26	0.51
1:AA:1293:C:C4	1:AA:1294:G:N7	2.78	0.51
1:AA:33:A:H2'	1:AA:34:C:C6	2.46	0.51
1:AA:390:U:H2'	1:AA:391:G:H8	1.75	0.51
1:AA:497:G:H2'	1:AA:498:A:C8	2.45	0.51
1:AA:874:G:C4	1:AA:875:U:C5	2.98	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:880:C:O2'	1:AA:881:G:H5'	2.11	0.51
2:AB:75:ALA:O	2:AB:76:SER:C	2.48	0.51
3:AC:135:ARG:O	3:AC:136:ALA:C	2.48	0.51
4:AD:173:ASP:CB	4:AD:176:LYS:HB2	2.41	0.51
5:AE:81:GLN:HE22	5:AE:148:SER:HA	1.75	0.51
10:AJ:27:GLU:O	10:AJ:29:ALA:N	2.44	0.51
1:AA:1367:C:H5''	10:AJ:62:ARG:NH1	2.25	0.51
10:AJ:65:TYR:HA	14:AN:99:ALA:H	1.74	0.51
11:AK:87:GLY:O	11:AK:92:ARG:HD2	2.10	0.51
13:AM:18:LEU:HG	13:AM:33:LEU:CD1	2.41	0.51
13:AM:49:GLU:O	13:AM:50:GLY:C	2.47	0.51
15:AO:78:THR:O	15:AO:82:GLU:OE1	2.29	0.51
20:AT:35:TYR:HA	20:AT:38:ILE:CD1	2.40	0.51
3:AC:142:ARG:NH1	22:AV:128:U:O3'	2.37	0.51
22:AV:158:U:N1	22:AV:197:A:C6	2.78	0.51
22:AV:211:C:C2	22:AV:212:U:C5	2.98	0.51
22:AV:251:U:H2'	22:AV:252:G:H8	1.75	0.51
22:AV:257:U:O4	22:AV:274:G:O6	2.29	0.51
22:AV:256:G:O6	22:AV:273:A:C6	2.63	0.51
22:AV:56:C:C2'	22:AV:57:G:H8	2.04	0.51
22:AV:71:A:HO2'	22:AV:72:A:H8	1.59	0.51
22:AV:73:A:C2	22:AV:74:G:N7	2.78	0.51
23:AW:112:TYR:O	23:AW:114:LYS:HG2	2.11	0.51
23:AW:57:ASN:OD1	23:AW:74:ARG:NH2	2.38	0.51
22:AV:19:G:H1'	23:AW:82:HIS:HD1	1.76	0.51
24:AX:65:G:H2'	24:AX:66:C:O4'	2.10	0.51
25:AY:340:TYR:CE1	25:AY:351:ARG:HB2	2.45	0.51
52:B1:25:ASN:OD1	52:B1:27:ARG:HB2	2.10	0.51
54:B3:54:LEU:O	54:B3:58:ILE:HD12	2.10	0.51
26:BA:1372:U:C2'	26:BA:1373:A:C5'	2.88	0.51
26:BA:1826:G:C5	26:BA:1827:U:C5	2.99	0.51
26:BA:2304:G:H2'	26:BA:2305:U:H5''	1.93	0.51
26:BA:656:G:H2'	26:BA:657:U:O5'	2.09	0.51
26:BA:898:C:O2	26:BA:899:A:H5'	2.11	0.51
56:BB:111:U:H2'	56:BB:112:G:C8	2.46	0.51
27:BC:203:VAL:O	27:BC:203:VAL:HG23	2.09	0.51
28:BD:104:VAL:O	28:BD:105:LYS:HB2	2.11	0.51
30:BF:105:ILE:HG13	30:BF:106:ALA:N	2.25	0.51
31:BG:86:LEU:HD11	31:BG:132:LEU:CD1	2.39	0.51
32:BH:116:ARG:HD2	32:BH:133:GLN:CG	2.37	0.51
32:BH:116:ARG:HG3	32:BH:133:GLN:CG	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BH:33:GLN:O	32:BH:34:GLY:O	2.29	0.51
32:BH:72:ILE:HG22	32:BH:73:ASN:OD1	2.10	0.51
33:BI:71:LYS:N	33:BI:71:LYS:HD3	2.24	0.51
35:BK:48:PRO:O	35:BK:49:ARG:HG3	2.11	0.51
36:BL:125:LEU:N	36:BL:125:LEU:CD1	2.74	0.51
26:BA:911:A:H62	37:BM:9:PHE:HB2	1.75	0.51
38:BN:24:MET:HG2	38:BN:44:LEU:CD2	2.40	0.51
39:BO:7:ARG:HG3	39:BO:96:GLY:HA3	1.92	0.51
41:BQ:13:HIS:O	41:BQ:14:LYS:C	2.48	0.51
42:BR:21:ARG:CZ	42:BR:93:PHE:CE1	2.94	0.51
44:BT:28:ASN:HD21	44:BT:91:GLN:HB3	1.75	0.51
1:AA:1079:G:H2'	1:AA:1080:A:C8	2.46	0.51
1:AA:1151:A:HO2'	1:AA:1152:A:C5'	2.23	0.51
1:AA:1215:G:C2'	1:AA:1216:A:H5'	2.41	0.51
1:AA:1386:G:C2'	1:AA:1387:G:H5'	2.40	0.51
1:AA:109:A:C8	1:AA:326:G:H2'	2.46	0.51
1:AA:830:G:C2'	1:AA:831:A:H5'	2.41	0.51
1:AA:830:G:O2'	1:AA:831:A:H5'	2.11	0.51
2:AB:116:LEU:HB3	2:AB:140:LEU:HD11	1.93	0.51
2:AB:116:LEU:HG	2:AB:140:LEU:HD11	1.93	0.51
3:AC:117:ASP:HA	3:AC:120:THR:HB	1.91	0.51
3:AC:41:TYR:CD1	3:AC:42:LEU:CD1	2.94	0.51
3:AC:87:ARG:HG3	3:AC:100:ILE:HG22	1.91	0.51
4:AD:24:VAL:C	4:AD:25:ARG:O	2.49	0.51
4:AD:49:ASP:O	4:AD:53:GLN:CB	2.59	0.51
9:AI:56:MET:HA	9:AI:59:LYS:HB2	1.92	0.51
9:AI:6:TYR:HE2	9:AI:17:ARG:CB	2.23	0.51
22:AV:161:U:C2	22:AV:162:A:N7	2.78	0.51
22:AV:181:G:C2'	22:AV:182:U:O5'	2.59	0.51
51:B0:53:VAL:O	51:B0:54:ILE:C	2.45	0.51
26:BA:1026:G:H2'	26:BA:1027:A:H8	1.74	0.51
26:BA:1088:A:N3	26:BA:1088:A:H3'	2.25	0.51
26:BA:1094:U:O2	26:BA:1096:A:N7	2.43	0.51
26:BA:1138:G:H5''	26:BA:1139:G:OP2	2.11	0.51
26:BA:172:A:H2'	26:BA:173:A:C8	2.45	0.51
26:BA:18:U:O3'	41:BQ:22:GLY:HA2	2.11	0.51
26:BA:2096:C:H2'	26:BA:2096:C:O2	2.09	0.51
26:BA:2193:G:C4	26:BA:2194:U:H5	2.24	0.51
26:BA:247:G:N7	26:BA:249:C:C2	2.79	0.51
26:BA:2642:G:N2	26:BA:2773:C:C2	2.79	0.51
26:BA:2766:A:N3	26:BA:2766:A:H2'	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BD:57:ALA:O	28:BD:58:ASN:C	2.48	0.51
29:BE:141:MET:O	29:BE:142:ALA:HB3	2.09	0.51
30:BF:48:LEU:HA	30:BF:51:ASN:CG	2.31	0.51
26:BA:2311:A:C8	30:BF:76:PHE:CG	2.99	0.51
30:BF:91:ARG:HA	30:BF:95:MET:HE2	1.93	0.51
36:BL:127:VAL:CG1	36:BL:132:ARG:HB2	2.41	0.51
37:BM:31:PHE:CZ	37:BM:110:GLU:CA	2.93	0.51
1:AA:1140:C:O2'	1:AA:1141:C:P	2.68	0.51
1:AA:1385:G:C6	1:AA:1386:G:C5	2.99	0.51
1:AA:439:U:C6	1:AA:440:C:H5	2.28	0.51
1:AA:663:A:H5'	1:AA:836:G:OP1	2.10	0.51
1:AA:864:A:H3'	1:AA:865:A:C8	2.45	0.51
2:AB:147:LEU:C	2:AB:150:ILE:CG2	2.79	0.51
6:AF:9:MET:CE	18:AR:64:LEU:HD22	2.40	0.51
11:AK:95:THR:O	11:AK:99:LEU:HD23	2.11	0.51
13:AM:2:ARG:O	13:AM:3:ILE:O	2.28	0.51
14:AN:41:ARG:HB2	14:AN:42:TRP:CE3	2.44	0.51
16:AP:10:GLY:HA3	16:AP:15:PRO:HA	1.92	0.51
18:AR:32:ILE:O	18:AR:32:ILE:CG1	2.59	0.51
22:AV:163:G:H2'	22:AV:164:G:H8	1.76	0.51
22:AV:316:A:N1	22:AV:317:G:C6	2.79	0.51
23:AW:62:PRO:O	23:AW:70:ASN:ND2	2.43	0.51
24:AX:41:C:H2'	24:AX:42:C:C6	2.46	0.51
25:AY:512:ILE:CD1	25:AY:512:ILE:N	2.74	0.51
26:BA:1059:G:H3'	26:BA:1060:U:H6	1.76	0.51
26:BA:1172:C:N3	26:BA:1173:U:H1'	2.26	0.51
26:BA:1318:U:H2'	26:BA:1319:C:C6	2.46	0.51
26:BA:2108:A:C6	26:BA:2109:U:C2	2.99	0.51
26:BA:2120:G:C2'	26:BA:2121:G:H5'	2.41	0.51
26:BA:2139:U:O2'	26:BA:2140:G:H5'	2.11	0.51
22:AV:361:C:P	26:BA:2602:A:HO2'	2.33	0.51
26:BA:434:U:H4'	26:BA:435:C:OP1	2.11	0.51
26:BA:473:G:H2'	26:BA:474:G:O5'	2.10	0.51
26:BA:547:A:C8	26:BA:548:G:O4'	2.63	0.51
26:BA:74:A:H4'	26:BA:75:G:OP2	2.10	0.51
26:BA:908:C:OP1	37:BM:22:GLN:HG2	2.03	0.51
27:BC:93:VAL:HG11	27:BC:103:ILE:HD11	1.92	0.51
28:BD:99:GLU:HG2	28:BD:182:ALA:HB2	1.91	0.51
31:BG:126:THR:HG22	31:BG:128:THR:H	1.75	0.51
32:BH:103:VAL:HG12	32:BH:108:VAL:O	2.10	0.51
33:BI:3:LYS:CD	33:BI:4:VAL:H	2.23	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BO:54:VAL:CG2	39:BO:54:VAL:O	2.58	0.51
1:AA:108:G:N3	1:AA:108:G:H5'	2.25	0.51
1:AA:1097:C:O2'	1:AA:1169:A:H1'	2.09	0.51
1:AA:1439:G:C6	1:AA:1440:U:C4	2.99	0.51
1:AA:1535:C:C6	1:AA:1535:C:O5'	2.50	0.51
1:AA:451:A:H61	1:AA:481:G:C5'	2.23	0.51
1:AA:796:C:O2'	1:AA:797:C:H5'	2.11	0.51
1:AA:974:A:H4'	1:AA:975:A:H3'	1.92	0.51
2:AB:224:ARG:HG2	2:AB:224:ARG:O	2.10	0.51
3:AC:41:TYR:CZ	3:AC:89:VAL:HG21	2.45	0.51
4:AD:54:LEU:CD2	4:AD:55:ARG:N	2.74	0.51
8:AH:52:GLY:O	8:AH:53:ASP:HB3	2.11	0.51
10:AJ:56:HIS:O	10:AJ:57:VAL:CG1	2.59	0.51
16:AP:48:GLU:OE2	16:AP:51:ARG:HG3	2.11	0.51
20:AT:27:MET:O	20:AT:31:ILE:HD12	2.10	0.51
22:AV:116:A:N3	22:AV:129:G:N2	2.59	0.51
22:AV:16:U:C2'	22:AV:17:U:OP2	2.59	0.51
22:AV:180:G:H3'	22:AV:181:G:C8	2.45	0.51
22:AV:303:G:N2	22:AV:304:C:C2	2.79	0.51
22:AV:343:C:H5'	30:BF:79:ARG:C	2.30	0.51
25:AY:616:TYR:HB3	25:AY:662:LYS:O	2.11	0.51
25:AY:9:LEU:O	25:AY:11:ARG:N	2.44	0.51
26:BA:1079:C:C4	26:BA:1088:A:C5	2.98	0.51
26:BA:1301:A:N3	26:BA:1301:A:H2'	2.25	0.51
26:BA:1415:U:O2	26:BA:1415:U:C2'	2.59	0.51
26:BA:1585:C:C2'	26:BA:1586:A:C5'	2.89	0.51
26:BA:1730:C:O2'	26:BA:1731:G:C4	2.59	0.51
26:BA:1901:A:H2'	26:BA:1901:A:N3	2.25	0.51
26:BA:1922:G:C4	26:BA:1923:U:C6	2.99	0.51
26:BA:876:C:C3'	26:BA:877:A:N7	2.74	0.51
27:BC:24:HIS:NE2	27:BC:79:ARG:NH2	2.58	0.51
29:BE:118:LEU:CD1	29:BE:188:MET:HG3	2.41	0.51
29:BE:44:ARG:O	29:BE:45:ALA:CB	2.59	0.51
33:BI:79:LEU:HD11	33:BI:132:ALA:CB	2.41	0.51
36:BL:67:THR:O	36:BL:68:SER:O	2.29	0.51
39:BO:56:LYS:O	39:BO:58:ILE:N	2.43	0.51
42:BR:74:ILE:CD1	42:BR:74:ILE:N	2.74	0.51
46:BV:2:PHE:CD1	46:BV:50:MET:CE	2.93	0.51
26:BA:189:G:P	48:BX:25:LYS:HD2	2.50	0.51
48:BX:36:ARG:HG3	48:BX:47:THR:HB	1.92	0.51
1:AA:1269:A:C2	1:AA:1313:U:H1'	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1410:A:C4	1:AA:1491:G:N2	2.78	0.51
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.46	0.51
1:AA:257:G:N3	1:AA:258:G:C8	2.79	0.51
1:AA:439:U:H2'	1:AA:440:C:O5'	2.10	0.51
1:AA:542:G:H2'	1:AA:543:U:H6	1.75	0.51
1:AA:891:U:C5	1:AA:906:A:C2	2.98	0.51
1:AA:974:A:H4'	1:AA:975:A:O5'	2.10	0.51
2:AB:26:MET:HE2	2:AB:29:PHE:CD2	2.46	0.51
2:AB:70:GLY:CA	2:AB:163:ILE:CG2	2.89	0.51
5:AE:119:VAL:HG21	5:AE:122:VAL:CG1	2.40	0.51
5:AE:37:VAL:HG23	5:AE:47:PHE:CA	2.40	0.51
6:AF:62:MET:O	6:AF:63:ASN:HB2	2.10	0.51
7:AG:122:GLU:O	7:AG:123:LEU:C	2.48	0.51
8:AH:35:ILE:CD1	8:AH:125:ILE:HG21	2.41	0.51
10:AJ:87:LEU:C	10:AJ:87:LEU:HD13	2.32	0.51
11:AK:54:SER:O	11:AK:55:ARG:C	2.48	0.51
15:AO:42:PHE:O	15:AO:46:LYS:HG2	2.11	0.51
16:AP:22:ALA:HA	16:AP:33:ILE:HG13	1.93	0.51
18:AR:42:ARG:HG2	18:AR:43:ILE:CD1	2.39	0.51
1:AA:1321:U:O3'	19:AS:77:ARG:NH2	2.44	0.51
22:AV:130:C:C2	22:AV:132:U:C4	2.99	0.51
22:AV:130:C:OP1	22:AV:131:U:P	2.69	0.51
22:AV:256:G:H2'	22:AV:258:G:C5	2.45	0.51
22:AV:45:A:H2'	22:AV:46:U:H6	1.76	0.51
22:AV:60:U:H2'	22:AV:62:G:C3'	2.40	0.51
22:AV:20:A:H2'	23:AW:78:LYS:HZ3	1.76	0.51
25:AY:486:THR:HG23	25:AY:600:VAL:HG13	1.91	0.51
25:AY:616:TYR:CD2	25:AY:663:THR:HA	2.46	0.51
25:AY:33:LEU:HD11	25:AY:81:ILE:HD12	1.93	0.51
26:BA:1045:C:C3'	26:BA:1046:A:H5'	2.40	0.51
26:BA:1809:A:H2'	26:BA:1810:A:C8	2.45	0.51
26:BA:1856:U:O2'	26:BA:1857:G:H5'	2.11	0.51
26:BA:1917:U:C4	26:BA:1918:A:C5	2.99	0.51
26:BA:2502:G:C5'	26:BA:2503:A:H5''	2.41	0.51
26:BA:884:U:P	26:BA:886:A:N1	2.84	0.51
56:BB:20:G:H2'	56:BB:21:G:C5'	2.41	0.51
39:BO:3:LYS:CE	56:BB:47:C:OP2	2.59	0.51
27:BC:259:ASN:O	27:BC:261:ARG:N	2.43	0.51
30:BF:48:LEU:O	30:BF:51:ASN:HB2	2.11	0.51
31:BG:19:ASN:C	31:BG:22:VAL:HG23	2.31	0.51
33:BI:121:ILE:HG12	33:BI:124:MET:SD	2.51	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BJ:140:LEU:HD11	34:BJ:142:ILE:HD13	1.93	0.51
48:BX:37:PHE:CE1	48:BX:58:ILE:HG21	2.46	0.51
1:AA:1066:C:O2	1:AA:1066:C:H2'	2.10	0.51
1:AA:1492:A:H3'	1:AA:1493:A:H8	1.75	0.51
1:AA:1513:A:H2'	1:AA:1514:G:C8	2.46	0.51
1:AA:256:U:H2'	1:AA:257:G:H8	1.76	0.51
1:AA:398:U:O2'	1:AA:399:G:H5'	2.11	0.51
1:AA:495:A:O4'	1:AA:496:A:C8	2.64	0.51
1:AA:537:G:OP1	12:AL:109:ARG:NH2	2.44	0.51
3:AC:204:GLY:O	3:AC:205:GLU:HG2	2.10	0.51
3:AC:39:ARG:HG2	3:AC:54:ILE:HG12	1.93	0.51
8:AH:6:ILE:HG23	8:AH:10:LEU:HD21	1.93	0.51
9:AI:18:VAL:HG11	9:AI:82:ILE:CG1	2.41	0.51
10:AJ:52:LEU:HD21	10:AJ:59:LYS:HA	1.93	0.51
13:AM:13:HIS:CD2	13:AM:41:ASP:HB2	2.46	0.51
13:AM:89:ARG:NH2	13:AM:94:LEU:HD12	2.26	0.51
14:AN:13:VAL:O	14:AN:16:ALA:HB3	2.11	0.51
1:AA:982:U:P	14:AN:70:PRO:HG2	2.51	0.51
17:AQ:21:VAL:CG2	17:AQ:22:VAL:N	2.74	0.51
22:AV:208:G:N3	22:AV:209:C:C5	2.79	0.51
23:AW:39:VAL:HG12	23:AW:60:ILE:HA	1.92	0.51
25:AY:203:GLU:O	25:AY:204:GLU:O	2.28	0.51
25:AY:510:VAL:HG12	25:AY:511:LYS:N	2.25	0.51
55:B4:16:ILE:O	55:B4:16:ILE:HG22	2.10	0.51
26:BA:1061:U:H3'	26:BA:1062:G:H5'	1.92	0.51
26:BA:1076:C:H2'	26:BA:1077:A:N9	2.26	0.51
26:BA:1420:A:C6	26:BA:2211:A:N1	2.79	0.51
26:BA:1439:A:C2'	26:BA:1440:U:H5'	2.41	0.51
26:BA:208:C:O2	26:BA:208:C:C2'	2.54	0.51
26:BA:2155:U:H2'	26:BA:2156:G:C4'	2.41	0.51
26:BA:2820:A:H4'	38:BN:3:HIS:HD2	1.74	0.51
26:BA:782:A:H4'	26:BA:783:A:O5'	2.11	0.51
26:BA:866:A:N6	26:BA:867:C:N4	2.58	0.51
26:BA:893:C:H2'	26:BA:894:U:H6	1.65	0.51
28:BD:13:ARG:HD2	28:BD:15:PHE:CZ	2.45	0.51
28:BD:172:VAL:HG21	28:BD:194:PRO:HD3	1.92	0.51
28:BD:39:ASP:OD2	28:BD:40:LEU:N	2.44	0.51
35:BK:43:ILE:HD12	35:BK:56:ASP:HB2	1.93	0.51
38:BN:45:ARG:HG2	38:BN:95:THR:HG21	1.93	0.51
42:BR:49:ILE:HG22	42:BR:53:PHE:CA	2.41	0.51
43:BS:66:ILE:CG2	43:BS:66:ILE:O	2.59	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:2230:G:H4'	48:BX:29:LEU:HB2	1.92	0.51
49:BY:28:LEU:CD2	49:BY:37:LEU:HD21	2.40	0.51
1:AA:1103:C:O2'	2:AB:106:VAL:HG23	2.11	0.50
1:AA:1241:G:C4	1:AA:1242:G:C8	2.99	0.50
1:AA:922:G:N1	1:AA:1398:A:N3	2.48	0.50
1:AA:1461:G:H2'	1:AA:1462:C:O4'	2.11	0.50
1:AA:1533:C:H4'	1:AA:1534:A:O5'	2.06	0.50
1:AA:451:A:O4'	1:AA:452:A:N3	2.44	0.50
1:AA:77:A:H2'	1:AA:78:A:N7	2.27	0.50
1:AA:919:A:C2'	1:AA:920:U:H5''	2.41	0.50
4:AD:169:TRP:NE1	4:AD:185:PRO:CG	2.66	0.50
4:AD:53:GLN:NE2	4:AD:202:LEU:N	2.60	0.50
4:AD:57:LYS:CB	4:AD:199:ILE:HB	2.40	0.50
5:AE:14:LEU:O	5:AE:14:LEU:HD12	2.11	0.50
8:AH:50:VAL:O	8:AH:50:VAL:HG22	2.10	0.50
10:AJ:6:ILE:CD1	10:AJ:76:ILE:HB	2.41	0.50
10:AJ:33:GLY:HA3	10:AJ:83:THR:OG1	2.11	0.50
10:AJ:8:ILE:CD1	10:AJ:74:VAL:HG11	2.40	0.50
15:AO:3:SER:HB2	15:AO:6:ALA:HB2	1.92	0.50
22:AV:12:U:H5	22:AV:348:C:C1'	2.18	0.50
22:AV:45:A:C2'	22:AV:46:U:C5'	2.85	0.50
23:AW:104:LYS:CD	23:AW:116:LEU:HD23	2.41	0.50
23:AW:15:GLU:N	23:AW:121:ARG:O	2.44	0.50
24:AX:49:C:P	24:AX:49:C:H6	2.34	0.50
25:AY:113:GLY:O	25:AY:115:GLU:N	2.42	0.50
25:AY:181:LEU:CD1	25:AY:242:LEU:HD13	2.40	0.50
25:AY:623:ASP:H	31:BG:175:LYS:HZ2	1.59	0.50
25:AY:65:ILE:O	25:AY:67:ALA:N	2.44	0.50
25:AY:679:VAL:HB	25:AY:683:VAL:HB	1.94	0.50
26:BA:2539:C:H5'	55:B4:3:VAL:HG21	1.92	0.50
26:BA:1483:G:C2	26:BA:1507:C:C2	2.99	0.50
26:BA:1559:U:C3'	26:BA:1560:G:H5'	2.41	0.50
26:BA:2593:U:H2'	26:BA:2594:C:H6	1.76	0.50
26:BA:2895:G:H2'	26:BA:2896:C:C6	2.46	0.50
26:BA:630:G:C3'	26:BA:631:A:H5''	2.41	0.50
26:BA:905:A:N3	26:BA:906:U:C6	2.79	0.50
56:BB:77:U:C2'	56:BB:78:A:H5'	2.41	0.50
27:BC:199:HIS:O	27:BC:202:ARG:HD3	2.12	0.50
27:BC:200:MET:HG3	27:BC:201:LEU:HD12	1.93	0.50
22:AV:344:A:C8	30:BF:78:ILE:N	2.78	0.50
31:BG:123:GLU:OE2	31:BG:124:CYS:HB2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BH:128:HIS:O	32:BH:144:VAL:N	2.44	0.50
33:BI:98:GLY:O	33:BI:138:VAL:HG23	2.11	0.50
33:BI:7:TYR:HA	33:BI:58:ILE:HG12	1.94	0.50
35:BK:66:LYS:HD2	35:BK:79:PHE:O	2.11	0.50
37:BM:28:PHE:HB3	37:BM:64:TRP:CE2	2.46	0.50
40:BP:52:ARG:O	40:BP:53:GLY:C	2.50	0.50
50:BZ:3:THR:HG22	50:BZ:4:ILE:N	2.26	0.50
1:AA:1151:A:O2'	1:AA:1152:A:P	2.69	0.50
1:AA:1285:A:H4'	1:AA:1286:U:C2	2.45	0.50
1:AA:1304:G:C5	1:AA:1305:G:N1	2.80	0.50
1:AA:1398:A:H61	5:AE:24:VAL:C	2.13	0.50
1:AA:234:C:H2'	1:AA:235:C:C6	2.46	0.50
1:AA:429:U:OP2	4:AD:31:CYS:O	2.29	0.50
1:AA:540:G:C2'	1:AA:541:G:H5'	2.42	0.50
1:AA:302:G:N3	1:AA:556:C:H4'	2.25	0.50
1:AA:646:G:C6	1:AA:647:C:N4	2.79	0.50
1:AA:763:G:C5	1:AA:764:C:C5	2.99	0.50
1:AA:87:C:H2'	1:AA:88:U:H5'	1.92	0.50
2:AB:67:LEU:CD2	2:AB:69:VAL:HG23	2.41	0.50
5:AE:19:ARG:NH1	5:AE:30:PHE:CD2	2.79	0.50
5:AE:89:THR:CG2	5:AE:90:GLY:N	2.64	0.50
7:AG:67:ASN:O	7:AG:137:ARG:NH1	2.45	0.50
8:AH:48:PHE:O	8:AH:49:LYS:HG3	2.10	0.50
9:AI:7:GLY:HA3	9:AI:84:ARG:HB3	1.94	0.50
13:AM:82:LEU:N	13:AM:82:LEU:HD23	2.25	0.50
14:AN:43:ASN:OD1	14:AN:47:LYS:CE	2.59	0.50
22:AV:37:C:H2'	22:AV:38:A:O5'	2.12	0.50
22:AV:61:G:N2	22:AV:62:G:O6	2.43	0.50
23:AW:83:LYS:O	23:AW:86:LEU:CD2	2.59	0.50
23:AW:87:ARG:HA	23:AW:90:LEU:CD2	2.40	0.50
25:AY:223:PHE:CE2	25:AY:249:GLY:HA3	2.47	0.50
25:AY:252:ASP:HB2	25:AY:254:LYS:CG	2.40	0.50
25:AY:177:ILE:HG21	25:AY:260:LEU:HD21	1.93	0.50
25:AY:407:PRO:HB3	25:AY:452:SER:OG	2.12	0.50
25:AY:92:ILE:CG2	25:AY:93:GLU:N	2.74	0.50
26:BA:1470:A:H2'	26:BA:1471:G:O4'	2.11	0.50
26:BA:2581:G:C4	26:BA:2610:C:C5	2.99	0.50
26:BA:592:A:O2'	54:B3:2:LYS:HA	2.12	0.50
26:BA:709:U:H2'	26:BA:710:U:C6	2.45	0.50
26:BA:920:A:C2	26:BA:921:C:C2	2.99	0.50
56:BB:20:G:C2'	56:BB:21:G:H5'	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BC:128:THR:C	27:BC:129:LEU:CD2	2.79	0.50
27:BC:216:ARG:HB3	27:BC:217:PRO:HD3	1.91	0.50
28:BD:55:LYS:HD2	28:BD:60:VAL:HG22	1.93	0.50
32:BH:53:GLU:HG2	32:BH:57:LYS:HD3	1.93	0.50
33:BI:105:LEU:HD23	33:BI:108:ILE:HG21	1.93	0.50
34:BJ:31:GLU:OE2	34:BJ:35:ARG:HD2	2.10	0.50
34:BJ:4:PHE:C	34:BJ:4:PHE:CD1	2.84	0.50
39:BO:31:THR:HB	39:BO:34:HIS:H	1.75	0.50
1:AA:1304:G:C5	1:AA:1305:G:C2	2.99	0.50
1:AA:455:G:C2	1:AA:478:A:C2	3.00	0.50
1:AA:605:U:C2'	1:AA:606:G:H5'	2.42	0.50
1:AA:646:G:N1	1:AA:647:C:C4	2.80	0.50
1:AA:656:G:C5	1:AA:657:U:C5	2.99	0.50
1:AA:721:G:C6	1:AA:733:G:N2	2.80	0.50
2:AB:150:ILE:O	2:AB:151:LYS:O	2.30	0.50
3:AC:148:ILE:O	3:AC:169:GLU:O	2.30	0.50
3:AC:96:VAL:CB	3:AC:97:PRO:HD2	2.41	0.50
4:AD:195:ASN:O	4:AD:198:LEU:HB2	2.11	0.50
4:AD:35:GLN:O	4:AD:36:ALA:HB2	2.11	0.50
4:AD:77:GLU:CA	4:AD:77:GLU:OE1	2.59	0.50
5:AE:95:MET:HB3	5:AE:124:ALA:HB2	1.93	0.50
6:AF:21:MET:HA	6:AF:24:ARG:NH2	2.25	0.50
7:AG:143:MET:C	7:AG:144:ALA:O	2.48	0.50
7:AG:22:LEU:CD2	7:AG:61:PHE:CZ	2.94	0.50
10:AJ:67:ILE:HG13	14:AN:96:LEU:HD13	1.94	0.50
10:AJ:11:LYS:HA	10:AJ:70:HIS:O	2.11	0.50
1:AA:667:G:H4'	15:AO:50:HIS:ND1	2.26	0.50
6:AF:88:MET:HB2	18:AR:63:TYR:HE2	1.75	0.50
19:AS:74:ALA:N	19:AS:75:PRO:CD	2.73	0.50
22:AV:160:U:C2	22:AV:161:U:C5	2.98	0.50
22:AV:165:A:C4'	22:AV:166:C:O5'	2.57	0.50
22:AV:17:U:O2	23:AW:112:TYR:HB3	2.11	0.50
22:AV:200:G:N2	22:AV:230:U:O4	2.44	0.50
22:AV:275:C:O2'	22:AV:276:U:H5'	2.11	0.50
23:AW:105:ILE:HD12	23:AW:105:ILE:O	2.12	0.50
24:AX:38:A:C2'	24:AX:39:A:H5'	2.41	0.50
25:AY:355:LEU:HD12	25:AY:369:LEU:CD1	2.34	0.50
25:AY:634:MET:O	25:AY:634:MET:HG2	2.10	0.50
25:AY:74:TRP:CH2	25:AY:270:GLN:HG2	2.47	0.50
26:BA:1060:U:O4'	26:BA:1062:G:C5'	2.59	0.50
26:BA:1690:A:H2'	26:BA:1691:C:O4'	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:1873:G:H2'	26:BA:1874:C:C6	2.47	0.50
26:BA:752:A:H61	26:BA:2609:U:H3	1.58	0.50
26:BA:643:A:H1'	52:B1:43:ARG:NH2	2.27	0.50
26:BA:875:G:H2'	26:BA:876:C:C6	2.47	0.50
27:BC:120:ASP:N	27:BC:120:ASP:OD1	2.44	0.50
40:BP:102:ARG:HG3	40:BP:102:ARG:HH11	1.76	0.50
40:BP:17:PRO:HG3	40:BP:83:ILE:O	2.11	0.50
1:AA:1347:G:H8	9:AI:108:ARG:CB	2.21	0.50
1:AA:412:A:H1'	1:AA:413:G:C5'	2.41	0.50
1:AA:452:A:N7	1:AA:453:G:N9	2.58	0.50
1:AA:470:C:N3	1:AA:471:U:C5	2.79	0.50
1:AA:438:U:C2	1:AA:494:G:C6	2.99	0.50
1:AA:496:A:H2'	1:AA:496:A:N3	2.26	0.50
2:AB:63:LYS:NZ	2:AB:87:ASP:OD1	2.44	0.50
2:AB:81:ASP:N	2:AB:84:LEU:HB3	2.26	0.50
3:AC:54:ILE:C	3:AC:54:ILE:HD12	2.32	0.50
4:AD:125:ASN:HA	4:AD:141:VAL:HG22	1.93	0.50
9:AI:29:ILE:HA	9:AI:64:ILE:HG12	1.92	0.50
11:AK:96:ILE:HG13	11:AK:97:ARG:N	2.27	0.50
1:AA:625:U:H4'	16:AP:16:PHE:CE2	2.46	0.50
17:AQ:37:ILE:H	17:AQ:37:ILE:HD12	1.77	0.50
22:AV:171:A:H8	22:AV:171:A:O5'	1.95	0.50
22:AV:175:A:N3	22:AV:176:G:C8	2.79	0.50
22:AV:239:A:O3'	22:AV:240:U:H4'	2.11	0.50
22:AV:242:A:H2'	22:AV:243:G:H8	1.77	0.50
22:AV:46:U:H4'	22:AV:313:C:P	2.46	0.50
23:AW:3:PRO:O	23:AW:4:VAL:CG1	2.60	0.50
23:AW:4:VAL:HG23	23:AW:106:TYR:CE2	2.45	0.50
23:AW:58:LEU:HD12	23:AW:59:TYR:N	2.26	0.50
24:AX:70:C:O2'	24:AX:71:G:H8	1.95	0.50
25:AY:114:VAL:O	25:AY:116:PRO:HD3	2.11	0.50
25:AY:122:TRP:CD1	25:AY:123:ARG:N	2.79	0.50
25:AY:15:ILE:O	25:AY:15:ILE:HD12	2.11	0.50
25:AY:210:ARG:O	25:AY:214:GLU:HG2	2.12	0.50
25:AY:340:TYR:CE2	25:AY:351:ARG:HD3	2.47	0.50
25:AY:546:ILE:CG2	25:AY:590:ILE:HG13	2.27	0.50
26:BA:1124:G:H1'	55:B4:38:GLY:OXT	2.11	0.50
26:BA:2272:U:H5''	26:BA:2273:A:OP1	2.12	0.50
26:BA:2318:G:C2'	26:BA:2319:G:H5'	2.41	0.50
26:BA:2691:C:O3'	26:BA:2871:U:H4'	2.11	0.50
26:BA:305:C:H6	26:BA:305:C:O5'	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:435:C:C2'	26:BA:436:C:H5'	2.41	0.50
30:BF:105:ILE:CG1	30:BF:106:ALA:N	2.74	0.50
31:BG:108:PHE:CE2	31:BG:151:ARG:CZ	2.94	0.50
26:BA:2469:A:C4'	37:BM:55:ARG:HH12	2.23	0.50
39:BO:35:ILE:HD11	39:BO:106:LEU:HD13	1.92	0.50
44:BT:1:MET:CB	44:BT:2:ILE:HD12	2.41	0.50
49:BY:9:LYS:HB3	49:BY:12:GLU:H	1.76	0.50
1:AA:1171:A:C2	1:AA:1172:C:C2	3.00	0.50
1:AA:262:A:N6	1:AA:263:A:N6	2.60	0.50
1:AA:257:G:C2	1:AA:270:A:C2	3.00	0.50
1:AA:356:A:H2	1:AA:368:U:O2	1.94	0.50
1:AA:390:U:H2'	1:AA:391:G:O5'	2.11	0.50
1:AA:443:C:H2'	1:AA:444:G:O4'	2.10	0.50
1:AA:590:U:H2'	1:AA:591:U:C6	2.46	0.50
1:AA:5:U:H4'	1:AA:6:G:C4	2.47	0.50
1:AA:842:U:H3'	1:AA:843:U:C5'	2.41	0.50
3:AC:109:GLU:HB2	3:AC:143:LEU:HD23	1.93	0.50
3:AC:86:LEU:HA	3:AC:89:VAL:HG22	1.94	0.50
5:AE:105:ILE:CG1	5:AE:123:LEU:HB3	2.42	0.50
7:AG:20:GLU:HA	7:AG:20:GLU:OE2	2.11	0.50
9:AI:40:ARG:H	9:AI:44:ARG:CB	2.24	0.50
13:AM:10:ASP:CG	13:AM:11:HIS:N	2.65	0.50
14:AN:35:ALA:CA	14:AN:41:ARG:HB3	2.41	0.50
16:AP:51:ARG:CB	16:AP:51:ARG:HH11	2.24	0.50
17:AQ:13:SER:CB	17:AQ:16:MET:HE2	2.41	0.50
6:AF:7:VAL:HG11	18:AR:64:LEU:CD1	2.41	0.50
19:AS:52:ASN:OD1	19:AS:55:GLN:O	2.30	0.50
19:AS:70:LEU:HD13	19:AS:70:LEU:O	2.11	0.50
21:AU:27:VAL:HG12	21:AU:30:GLU:OE1	2.11	0.50
22:AV:204:G:C6	22:AV:222:U:OP2	2.64	0.50
22:AV:254:U:H3	22:AV:277:G:H1	1.60	0.50
22:AV:315:G:H1'	22:AV:316:A:C4	2.45	0.50
23:AW:60:ILE:HD11	23:AW:77:ARG:HH21	1.76	0.50
24:AX:56:U:H2'	24:AX:57:C:H3'	1.93	0.50
25:AY:18:ALA:O	25:AY:19:ALA:CB	2.59	0.50
25:AY:71:THR:HG21	25:AY:357:ARG:CD	2.41	0.50
25:AY:485:GLU:OE1	25:AY:555:LEU:HB2	2.11	0.50
25:AY:64:THR:C	25:AY:66:THR:H	2.14	0.50
26:BA:1734:G:N3	26:BA:1735:A:C8	2.80	0.50
26:BA:1869:G:C2'	26:BA:1870:C:H5'	2.41	0.50
26:BA:2127:G:C2'	26:BA:2128:G:C8	2.86	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:2248:C:H5''	26:BA:2249:U:OP2	2.11	0.50
28:BD:142:VAL:HB	28:BD:143:PRO:CD	2.42	0.50
29:BE:7:ASP:O	29:BE:9:GLN:N	2.45	0.50
30:BF:29:ARG:O	30:BF:158:THR:HG23	2.11	0.50
31:BG:127:GLN:HE21	31:BG:127:GLN:HA	1.75	0.50
31:BG:154:GLU:HG2	31:BG:155:PRO:HD2	1.93	0.50
31:BG:49:LEU:HD12	31:BG:71:LEU:HD23	1.94	0.50
32:BH:116:ARG:HG3	32:BH:133:GLN:OE1	2.11	0.50
33:BI:56:VAL:HG22	33:BI:68:PHE:HD2	1.77	0.50
34:BJ:18:VAL:HG12	34:BJ:19:ASP:N	2.26	0.50
35:BK:13:ASN:ND2	35:BK:98:ARG:HG3	2.26	0.50
36:BL:81:ASP:C	36:BL:83:ALA:H	2.14	0.50
43:BS:41:LYS:O	43:BS:42:LYS:C	2.46	0.50
1:AA:1044:A:C5	1:AA:1045:C:H1'	2.47	0.50
1:AA:148:G:C2'	1:AA:149:A:O5'	2.58	0.50
1:AA:155:A:C2	1:AA:167:A:C2	2.99	0.50
1:AA:218:U:O2'	1:AA:219:U:H5'	2.11	0.50
1:AA:383:A:H2'	1:AA:384:G:O4'	2.11	0.50
1:AA:429:U:H1'	1:AA:430:A:C5'	2.41	0.50
1:AA:802:A:C2'	1:AA:803:G:H5'	2.39	0.50
1:AA:977:A:H1'	1:AA:982:U:O4	2.11	0.50
2:AB:127:LYS:O	2:AB:128:LEU:O	2.30	0.50
2:AB:66:ILE:O	2:AB:67:LEU:CB	2.59	0.50
3:AC:109:GLU:CD	3:AC:109:GLU:H	2.15	0.50
3:AC:166:TRP:O	3:AC:167:TYR:HD1	1.94	0.50
4:AD:57:LYS:H	4:AD:199:ILE:HG22	1.76	0.50
5:AE:103:GLY:O	5:AE:104:ILE:HG22	2.12	0.50
5:AE:114:LEU:HG	5:AE:122:VAL:HG11	1.94	0.50
8:AH:104:SER:HA	8:AH:109:VAL:HA	1.94	0.50
12:AL:23:LEU:HG	12:AL:24:GLU:H	1.75	0.50
13:AM:9:PRO:O	13:AM:10:ASP:HB2	2.11	0.50
11:AK:109:ILE:HG22	21:AU:16:ARG:NE	2.27	0.50
21:AU:16:ARG:NH1	21:AU:19:LYS:CG	2.74	0.50
22:AV:189:C:C2'	22:AV:190:A:C5'	2.58	0.50
22:AV:28:U:O2	22:AV:29:G:C6	2.65	0.50
22:AV:309:A:P	22:AV:309:A:H2'	2.51	0.50
22:AV:40:G:O6	22:AV:316:A:C2	2.56	0.50
22:AV:37:C:O5'	22:AV:37:C:H6	1.93	0.50
22:AV:73:A:N3	22:AV:73:A:H2'	2.27	0.50
22:AV:74:G:C4	22:AV:75:C:C5	2.99	0.50
9:AI:128:LYS:CE	24:AX:35:C:H4'	2.36	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:AX:59:A:N1	24:AX:62:C:C5	2.80	0.50
24:AX:62:C:C5'	24:AX:63:C:OP2	2.60	0.50
24:AX:65:G:H2'	24:AX:66:C:C6	2.47	0.50
25:AY:177:ILE:HG22	25:AY:178:ILE:H	1.77	0.50
25:AY:428:LEU:HD13	25:AY:440:VAL:CG1	2.28	0.50
53:B2:12:ARG:CG	53:B2:13:ASN:N	2.75	0.50
26:BA:1106:G:N2	26:BA:1107:G:H1'	2.26	0.50
26:BA:137:U:O2'	26:BA:138:U:P	2.70	0.50
26:BA:1414:C:C5	26:BA:1415:U:C4	2.99	0.50
26:BA:1734:G:C4	26:BA:1735:A:N7	2.79	0.50
26:BA:2027:G:C5	26:BA:2028:U:C5	3.00	0.50
26:BA:923:G:H4'	47:BW:25:GLU:HG3	1.93	0.50
29:BE:181:ILE:HG23	36:BL:2:ARG:HD3	1.94	0.50
29:BE:189:THR:HG22	29:BE:191:ASP:N	2.27	0.50
32:BH:37:VAL:HG23	32:BH:38:PRO:CD	2.41	0.50
1:AA:1294:G:C5	1:AA:1295:U:C5	3.00	0.50
1:AA:1388:C:O2'	1:AA:1389:C:O4'	2.30	0.50
1:AA:1499:A:N3	1:AA:1500:A:C8	2.79	0.50
1:AA:353:A:C2'	1:AA:354:G:OP2	2.59	0.50
1:AA:373:A:C2'	1:AA:374:A:O5'	2.60	0.50
1:AA:874:G:C4	1:AA:875:U:C6	3.00	0.50
2:AB:106:VAL:HA	2:AB:109:SER:OG	2.12	0.50
2:AB:127:LYS:HG3	2:AB:128:LEU:N	2.26	0.50
3:AC:79:LYS:N	3:AC:79:LYS:HD2	2.27	0.50
4:AD:36:ALA:CA	4:AD:41:GLY:HA3	2.37	0.50
5:AE:100:GLU:OE2	5:AE:102:THR:HA	2.12	0.50
5:AE:45:VAL:HG22	5:AE:117:ALA:CB	2.42	0.50
5:AE:132:PRO:HA	5:AE:135:VAL:HG13	1.92	0.50
9:AI:87:MET:HG2	9:AI:88:GLU:N	2.27	0.50
11:AK:52:ARG:NE	11:AK:52:ARG:HA	2.25	0.50
1:AA:1360:A:OP2	14:AN:75:ARG:NH2	2.44	0.50
21:AU:11:PHE:H	21:AU:11:PHE:HD2	1.59	0.50
22:AV:130:C:O2'	22:AV:131:U:OP2	2.30	0.50
22:AV:14:G:H22	30:BF:82:TYR:HE1	1.58	0.50
22:AV:151:C:O5'	22:AV:151:C:C6	2.62	0.50
22:AV:163:G:N2	22:AV:164:G:C4	2.80	0.50
22:AV:207:A:C4	22:AV:208:G:N7	2.80	0.50
22:AV:277:G:H2'	22:AV:278:G:H8	1.76	0.50
22:AV:314:C:O4'	22:AV:315:G:OP1	2.30	0.50
22:AV:62:G:H22	22:AV:64:C:N4	2.03	0.50
25:AY:292:THR:HG23	25:AY:297:GLU:H	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AY:388:THR:CG2	25:AY:399:LEU:HD13	2.42	0.50
43:BS:19:LEU:HB3	51:B0:21:LEU:CD1	2.42	0.50
26:BA:1060:U:O4'	26:BA:1062:G:C4'	2.60	0.50
26:BA:1368:G:O2'	26:BA:1369:G:H5'	2.12	0.50
26:BA:1424:G:H2'	26:BA:1425:G:O4'	2.12	0.50
26:BA:1535:A:C5'	26:BA:1536:C:H5	2.25	0.50
26:BA:1838:C:H4'	26:BA:1839:G:H8	1.77	0.50
26:BA:1924:C:H3'	26:BA:1925:C:H5'	1.93	0.50
26:BA:2178:C:H6	26:BA:2178:C:H3'	1.77	0.50
26:BA:2283:C:H2'	26:BA:2284:A:O5'	2.12	0.50
26:BA:228:C:H4'	26:BA:229:C:H5''	1.94	0.50
26:BA:21:A:H2'	26:BA:22:C:O5'	2.11	0.50
26:BA:851:C:O2'	26:BA:852:U:H5'	2.11	0.50
26:BA:880:G:C2	26:BA:881:G:N7	2.80	0.50
27:BC:244:VAL:HG12	27:BC:250:GLN:HA	1.93	0.50
29:BE:126:VAL:HG21	29:BE:133:LEU:HB2	1.93	0.50
29:BE:176:ASP:OD1	29:BE:178:VAL:N	2.44	0.50
30:BF:55:ASP:N	30:BF:55:ASP:OD2	2.44	0.50
32:BH:31:VAL:HG12	32:BH:32:PRO:CD	2.42	0.50
33:BI:54:ILE:HG12	33:BI:73:PRO:HA	1.94	0.50
33:BI:57:VAL:HG11	33:BI:59:THR:OG1	2.11	0.50
33:BI:54:ILE:HG13	33:BI:73:PRO:HB3	1.93	0.50
34:BJ:65:THR:HG23	34:BJ:68:LYS:HZ2	1.75	0.50
44:BT:2:ILE:HG23	44:BT:7:LEU:HD12	1.92	0.50
1:AA:1306:A:C8	1:AA:1307:U:C5	2.99	0.50
1:AA:22:G:H2'	1:AA:23:C:O4'	2.11	0.50
1:AA:622:A:C2'	1:AA:623:C:H5'	2.41	0.50
1:AA:852:G:C5	1:AA:853:C:C5	2.99	0.50
1:AA:853:C:H2'	1:AA:854:U:C6	2.45	0.50
1:AA:893:C:H2'	1:AA:894:G:H8	1.75	0.50
2:AB:147:LEU:C	2:AB:150:ILE:HG22	2.32	0.50
3:AC:28:PHE:HE2	3:AC:32:LEU:HD23	1.77	0.50
4:AD:89:LEU:HD12	4:AD:89:LEU:O	2.10	0.50
5:AE:14:LEU:CD1	5:AE:14:LEU:C	2.81	0.50
6:AF:84:VAL:O	6:AF:84:VAL:HG13	2.11	0.50
1:AA:1377:A:N3	7:AG:1:PRO:HG3	2.27	0.50
8:AH:104:SER:H	8:AH:125:ILE:HD13	1.76	0.50
1:AA:643:C:C5'	8:AH:31:LEU:HD23	2.42	0.50
11:AK:111:ASP:OD1	11:AK:113:THR:HG23	2.12	0.50
17:AQ:12:VAL:HG13	17:AQ:21:VAL:CG1	2.42	0.50
1:AA:1539:C:C3'	21:AU:17:ARG:HG2	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:17:U:O3'	22:AV:19:G:OP2	2.30	0.50
22:AV:184:A:O4'	22:AV:184:A:OP1	2.30	0.50
22:AV:158:U:C4'	22:AV:197:A:H2	2.23	0.50
22:AV:212:U:O5'	22:AV:212:U:H6	1.95	0.50
22:AV:229:U:O2'	22:AV:230:U:O5'	2.30	0.50
22:AV:345:A:C2'	22:AV:347:PSU:OP2	2.60	0.50
22:AV:53:G:C2'	22:AV:54:G:OP1	2.60	0.50
22:AV:61:G:O4'	22:AV:61:G:OP2	2.30	0.50
24:AX:20:G:C6	26:BA:2112:G:C2'	2.95	0.50
24:AX:3:C:O2	26:BA:1851:U:H5''	2.12	0.50
24:AX:48:U:O2	24:AX:48:U:C3'	2.57	0.50
25:AY:16:GLY:N	25:AY:101:LEU:HD13	2.27	0.50
25:AY:264:LEU:C	25:AY:264:LEU:HD23	2.32	0.50
25:AY:282:SER:C	25:AY:284:LEU:H	2.14	0.50
25:AY:337:SER:HA	25:AY:355:LEU:CD2	2.42	0.50
25:AY:25:LYS:NZ	25:AY:86:GLY:HA2	2.27	0.50
26:BA:1535:A:H5''	26:BA:1536:C:H5	1.76	0.50
26:BA:1712:U:C4	26:BA:1713:A:C5	2.99	0.50
26:BA:2334:U:O4	39:BO:16:ARG:CZ	2.59	0.50
26:BA:587:C:C2'	36:BL:19:LEU:HD11	2.42	0.50
26:BA:627:A:C6	26:BA:637:A:C8	2.99	0.50
26:BA:899:A:H2	26:BA:900:A:N7	2.05	0.50
26:BA:900:A:O5'	26:BA:901:C:OP2	2.30	0.50
29:BE:48:THR:C	29:BE:50:ALA:H	2.15	0.50
29:BE:7:ASP:C	29:BE:9:GLN:N	2.65	0.50
30:BF:131:VAL:HG21	30:BF:136:ILE:HD11	1.94	0.50
39:BO:18:LEU:HD11	39:BO:91:SER:HB3	1.94	0.50
40:BP:80:VAL:HG11	40:BP:83:ILE:CD1	2.41	0.50
45:BU:101:THR:HG22	45:BU:102:ILE:N	2.26	0.50
45:BU:41:VAL:O	45:BU:59:GLU:HA	2.11	0.50
1:AA:1296:C:H4'	1:AA:1302:C:N4	2.27	0.50
1:AA:1314:C:C2'	1:AA:1314:C:O2	2.59	0.50
1:AA:1401:G:N2	1:AA:1402:C:H1'	2.27	0.50
1:AA:395:C:H2'	1:AA:396:C:H6	1.74	0.50
1:AA:459:A:H2'	1:AA:460:A:H1'	1.91	0.50
1:AA:472:U:C5	1:AA:473:U:C5	3.00	0.50
1:AA:744:C:H2'	1:AA:745:G:H8	1.76	0.50
2:AB:30:ILE:CD1	2:AB:38:HIS:CG	2.95	0.50
3:AC:129:PHE:CE1	3:AC:130:ARG:HD2	2.47	0.50
3:AC:59:PRO:HD2	3:AC:62:SER:O	2.12	0.50
6:AF:17:GLN:O	6:AF:17:GLN:NE2	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:11:THR:HA	8:AH:14:ARG:NH1	2.27	0.50
8:AH:46:GLU:O	8:AH:47:ASP:HB2	2.11	0.50
13:AM:33:LEU:HD23	13:AM:38:ILE:HB	1.93	0.50
15:AO:41:HIS:HD2	15:AO:42:PHE:CE2	2.29	0.50
16:AP:73:ALA:O	16:AP:77:GLU:HB2	2.11	0.50
22:AV:9:U:C1'	22:AV:10:U:O5'	2.60	0.50
22:AV:130:C:HO2'	22:AV:131:U:P	2.28	0.50
22:AV:143:C:C2'	22:AV:144:U:O4'	2.59	0.50
22:AV:14:G:O2'	22:AV:15:A:O5'	2.26	0.50
22:AV:183:C:OP1	22:AV:184:A:OP1	2.30	0.50
22:AV:184:A:C8	22:AV:185:A:N1	2.80	0.50
22:AV:17:U:C4'	22:AV:18:C:OP2	2.58	0.50
22:AV:213:G:H22	22:AV:245:C:N4	2.08	0.50
22:AV:238:A:H2'	22:AV:239:A:H8	1.76	0.50
22:AV:210:C:C1'	22:AV:240:U:C5	2.94	0.50
22:AV:345:A:C6	22:AV:348:C:C2	3.00	0.50
25:AY:232:LEU:N	25:AY:232:LEU:HD22	2.26	0.50
25:AY:303:PRO:HA	25:AY:331:TYR:O	2.12	0.50
25:AY:415:PRO:CB	25:AY:421:GLN:HA	2.41	0.50
25:AY:628:ARG:HG2	25:AY:628:ARG:HH11	1.77	0.50
51:B0:52:LYS:HE2	51:B0:55:ALA:HA	1.92	0.50
52:B1:34:GLU:CG	52:B1:49:LYS:HG3	2.42	0.50
26:BA:1414:C:N3	26:BA:1415:U:H5	2.09	0.50
26:BA:1564:C:O2'	26:BA:1565:C:H5'	2.11	0.50
26:BA:1783:A:C2	26:BA:2588:G:O4'	2.65	0.50
26:BA:2216:G:H2'	26:BA:2217:G:C8	2.46	0.50
26:BA:1128:G:O6	26:BA:2491:U:H5	1.94	0.50
26:BA:2644:G:O2'	26:BA:2645:G:H5'	2.12	0.50
26:BA:2713:U:H3'	26:BA:2714:G:H5''	1.92	0.50
26:BA:881:G:C2'	26:BA:882:G:H5'	2.42	0.50
26:BA:892:A:N1	26:BA:893:C:N4	2.60	0.50
56:BB:59:A:H2'	56:BB:60:C:O5'	2.12	0.50
27:BC:140:VAL:CG1	27:BC:189:ALA:HB1	2.42	0.50
29:BE:146:VAL:HG23	29:BE:146:VAL:O	2.12	0.50
29:BE:149:ILE:HD11	29:BE:172:ALA:N	2.27	0.50
35:BK:28:SER:C	35:BK:30:ARG:H	2.15	0.50
38:BN:1:MET:O	38:BN:2:ARG:CB	2.59	0.50
45:BU:4:ILE:HG22	45:BU:5:ARG:N	2.26	0.50
46:BV:40:ILE:HG21	46:BV:42:LEU:HD21	1.93	0.50
1:AA:1067:A:N1	1:AA:1108:G:O2'	2.31	0.49
1:AA:1079:G:H2'	1:AA:1080:A:C4	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1167:A:H5''	1:AA:1168:U:OP2	2.12	0.49
1:AA:1182:G:H4'	1:AA:1183:U:H5'	1.93	0.49
1:AA:1213:A:N1	1:AA:1215:G:H1'	2.27	0.49
1:AA:1326:U:H2'	1:AA:1327:C:C6	2.47	0.49
1:AA:1430:A:H8	1:AA:1430:A:OP2	1.95	0.49
1:AA:1470:U:O2'	1:AA:1471:U:H5'	2.11	0.49
1:AA:390:U:H2'	1:AA:391:G:C8	2.47	0.49
1:AA:41:G:O2'	1:AA:42:G:H5'	2.11	0.49
1:AA:414:A:C6	1:AA:431:A:C2	3.00	0.49
1:AA:809:G:H2'	1:AA:810:C:O5'	2.11	0.49
1:AA:828:U:H2'	1:AA:829:G:O5'	2.12	0.49
1:AA:918:A:H62	1:AA:919:A:N6	2.09	0.49
2:AB:104:LYS:NZ	22:AV:121:A:OP2	2.45	0.49
2:AB:141:GLU:O	2:AB:145:ASN:OD1	2.29	0.49
4:AD:173:ASP:OD1	4:AD:176:LYS:CE	2.60	0.49
5:AE:35:LEU:HD21	5:AE:136:VAL:HG11	1.92	0.49
7:AG:45:ALA:CB	7:AG:119:LEU:HB3	2.42	0.49
7:AG:130:LYS:N	7:AG:134:VAL:HG11	2.27	0.49
7:AG:84:TYR:CE1	7:AG:150:PHE:HE2	2.30	0.49
10:AJ:42:LEU:HD23	10:AJ:43:PRO:HD2	1.94	0.49
10:AJ:81:GLU:HA	10:AJ:84:VAL:HG12	1.94	0.49
11:AK:34:THR:OG1	11:AK:35:ASP:N	2.45	0.49
1:AA:1226:C:C4	13:AM:102:LYS:HB2	2.46	0.49
16:AP:18:GLN:HE21	16:AP:35:ARG:NE	2.10	0.49
17:AQ:71:SER:O	17:AQ:72:TRP:CD1	2.65	0.49
13:AM:84:CYS:HA	19:AS:72:GLU:O	2.12	0.49
20:AT:53:MET:O	20:AT:56:ILE:HG23	2.11	0.49
21:AU:14:ALA:O	21:AU:15:LEU:CB	2.60	0.49
22:AV:163:G:C6	22:AV:164:G:N7	2.80	0.49
22:AV:206:A:O2'	22:AV:207:A:P	2.70	0.49
22:AV:227:C:H1'	22:AV:233:A:N1	2.27	0.49
22:AV:46:U:C3'	22:AV:313:C:H5'	2.42	0.49
22:AV:334:A:OP2	22:AV:335:C:N3	2.46	0.49
22:AV:39:A:C4	22:AV:40:G:N7	2.79	0.49
23:AW:34:LEU:C	23:AW:36:ALA:H	2.15	0.49
1:AA:954:G:H5''	23:AW:92:LYS:HZ3	1.77	0.49
25:AY:139:MET:CE	25:AY:167:PRO:HG3	2.42	0.49
25:AY:293:THR:HA	25:AY:397:VAL:HG12	1.94	0.49
25:AY:616:TYR:CE2	25:AY:664:GLN:HG3	2.47	0.49
54:B3:54:LEU:O	54:B3:58:ILE:CD1	2.60	0.49
26:BA:1124:G:H2'	26:BA:1125:G:C5'	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:1267:U:H2'	26:BA:1267:U:O2	2.10	0.49
26:BA:1686:C:C2'	26:BA:1687:G:H5'	2.42	0.49
26:BA:2119:A:H61	26:BA:2167:U:H1'	1.77	0.49
26:BA:2209:G:C2	26:BA:2216:G:C2	3.00	0.49
26:BA:2247:A:H2'	26:BA:2248:C:H6	1.77	0.49
26:BA:229:C:C2'	26:BA:230:G:O5'	2.60	0.49
26:BA:246:C:H2'	26:BA:247:G:C5'	2.41	0.49
26:BA:2728:U:O2'	26:BA:2729:G:P	2.70	0.49
26:BA:282:A:H2'	26:BA:283:G:C8	2.46	0.49
26:BA:1:G:N3	26:BA:2:G:C8	2.80	0.49
26:BA:622:G:H2'	26:BA:623:C:H6	1.77	0.49
26:BA:763:G:C4	26:BA:765:C:C6	3.00	0.49
26:BA:888:C:H4'	26:BA:889:C:C6	2.47	0.49
28:BD:47:ALA:HA	28:BD:84:LEU:HG	1.94	0.49
29:BE:175:ILE:HD13	29:BE:196:VAL:HG21	1.94	0.49
33:BI:33:ASN:HB3	33:BI:36:GLU:CG	2.42	0.49
35:BK:55:GLY:O	35:BK:56:ASP:C	2.50	0.49
36:BL:77:ILE:HG23	36:BL:100:ILE:HD11	1.94	0.49
42:BR:64:VAL:HG22	42:BR:96:VAL:HA	1.93	0.49
49:BY:23:ARG:HA	49:BY:27:ASN:ND2	2.26	0.49
49:BY:45:GLN:O	49:BY:46:VAL:CB	2.57	0.49
1:AA:19:A:O2'	1:AA:20:U:H5'	2.12	0.49
1:AA:201:G:N1	1:AA:217:C:C2	2.80	0.49
1:AA:240:G:OP1	1:AA:240:G:H4'	2.11	0.49
1:AA:437:U:H4'	4:AD:153:ARG:NH2	2.27	0.49
1:AA:794:A:H2'	1:AA:795:C:C6	2.47	0.49
1:AA:947:G:H2'	1:AA:948:C:O4'	2.12	0.49
1:AA:987:G:C2	1:AA:1219:A:C2	2.99	0.49
1:AA:98:A:H2'	1:AA:99:C:C6	2.46	0.49
2:AB:160:LEU:HB3	2:AB:182:VAL:HA	1.94	0.49
2:AB:90:PHE:H	2:AB:90:PHE:HD2	1.60	0.49
3:AC:26:LYS:H	3:AC:26:LYS:CD	2.15	0.49
5:AE:148:SER:HB2	5:AE:151:MET:HB2	1.93	0.49
5:AE:22:LYS:HB3	5:AE:29:ILE:HG23	1.94	0.49
7:AG:101:ARG:O	7:AG:104:VAL:N	2.45	0.49
1:AA:1240:U:OP1	7:AG:115:MET:HB2	2.13	0.49
8:AH:4:ASP:HB2	8:AH:80:PRO:HG2	1.93	0.49
10:AJ:36:VAL:HG22	10:AJ:76:ILE:HG12	1.94	0.49
10:AJ:91:ASP:C	10:AJ:92:LEU:HG	2.33	0.49
13:AM:33:LEU:HD23	13:AM:38:ILE:CG2	2.43	0.49
17:AQ:16:MET:SD	17:AQ:16:MET:N	2.85	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AR:22:TYR:C	18:AR:22:TYR:CD1	2.86	0.49
20:AT:54:GLN:HG3	20:AT:75:LYS:NZ	2.27	0.49
22:AV:13:G:O2'	22:AV:14:G:OP1	2.29	0.49
22:AV:256:G:N1	22:AV:273:A:C2	2.80	0.49
22:AV:314:C:O2	22:AV:315:G:O4'	2.30	0.49
22:AV:15:A:N6	22:AV:345:A:O3'	2.45	0.49
23:AW:88:ARG:HD2	23:AW:89:LEU:CA	2.42	0.49
25:AY:9:LEU:C	25:AY:11:ARG:N	2.65	0.49
25:AY:121:VAL:CG2	25:AY:122:TRP:H	2.22	0.49
25:AY:252:ASP:O	25:AY:253:LEU:HB2	2.12	0.49
25:AY:481:VAL:HG23	25:AY:483:TYR:CE2	2.47	0.49
25:AY:519:ARG:HH21	25:AY:677:GLN:HB2	1.77	0.49
25:AY:15:ILE:CD1	25:AY:81:ILE:HG12	2.38	0.49
26:BA:1106:G:C6	26:BA:1107:G:C5	2.99	0.49
26:BA:1922:G:C6	26:BA:1923:U:C4	3.00	0.49
26:BA:2619:C:H5'	28:BD:155:VAL:O	2.12	0.49
26:BA:2714:G:C2'	26:BA:2715:C:H5'	2.42	0.49
26:BA:894:U:H3'	26:BA:895:U:C5'	2.36	0.49
56:BB:24:G:N2	56:BB:28:C:C2	2.80	0.49
29:BE:189:THR:HB	29:BE:192:ALA:HB2	1.94	0.49
26:BA:2308:G:C5	30:BF:76:PHE:HZ	2.29	0.49
33:BI:56:VAL:HG22	33:BI:68:PHE:CD2	2.48	0.49
26:BA:1223:G:P	42:BR:68:ARG:HH12	2.35	0.49
46:BV:80:HIS:CD2	46:BV:81:PRO:CD	2.95	0.49
47:BW:71:LYS:O	47:BW:72:ASN:HB2	2.11	0.49
1:AA:1181:G:C2	1:AA:1182:G:N2	2.80	0.49
1:AA:1501:C:C2	1:AA:1504:G:C6	3.00	0.49
1:AA:174:A:C6	1:AA:175:C:C4	3.00	0.49
1:AA:318:G:C4	1:AA:336:A:C2	3.00	0.49
1:AA:35:G:C4	1:AA:550:G:N2	2.80	0.49
1:AA:66:A:C2'	1:AA:67:C:H5'	2.42	0.49
1:AA:809:G:C2'	1:AA:810:C:O5'	2.60	0.49
1:AA:960:U:O2'	1:AA:1223:C:H4'	2.12	0.49
2:AB:63:LYS:HB3	2:AB:65:LYS:HE2	1.95	0.49
3:AC:93:ILE:HG22	3:AC:94:ALA:N	2.26	0.49
4:AD:57:LYS:HD2	4:AD:57:LYS:C	2.32	0.49
5:AE:113:VAL:CG2	5:AE:114:LEU:N	2.75	0.49
1:AA:1350:A:OP1	9:AI:122:ARG:HD3	2.12	0.49
12:AL:2:THR:HB	12:AL:5:GLN:CG	2.43	0.49
13:AM:2:ARG:CG	13:AM:3:ILE:N	2.75	0.49
14:AN:87:ALA:HB3	14:AN:93:ILE:HD11	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:28:ARG:CA	20:AT:31:ILE:HD12	2.41	0.49
22:AV:163:G:N2	22:AV:164:G:N9	2.60	0.49
22:AV:231:A:O2'	22:AV:232:A:O5'	2.30	0.49
22:AV:332:G:O2'	22:AV:333:G:O5'	2.30	0.49
24:AX:49:C:H5'	24:AX:50:G:H5''	1.95	0.49
25:AY:635:GLU:OE1	25:AY:644:ARG:HD2	2.11	0.49
53:B2:24:THR:O	53:B2:25:LYS:C	2.47	0.49
26:BA:1530:G:H5'	26:BA:1531:C:OP2	2.12	0.49
26:BA:1767:G:O2'	26:BA:1768:C:H5'	2.12	0.49
26:BA:2094:A:H5''	32:BH:25:TYR:CG	2.47	0.49
26:BA:2163:A:H3'	26:BA:2164:C:C4'	2.42	0.49
26:BA:2183:A:H2'	26:BA:2184:A:H8	1.77	0.49
25:AY:626:ALA:HA	26:BA:2473:U:C1'	2.42	0.49
26:BA:298:G:H5''	26:BA:299:A:OP1	2.11	0.49
26:BA:353:C:O2	26:BA:353:C:H2'	2.12	0.49
26:BA:878:A:H2'	26:BA:879:G:C5'	2.34	0.49
29:BE:23:PHE:CE1	29:BE:28:VAL:HG21	2.47	0.49
33:BI:114:ALA:O	33:BI:115:ASP:HB2	2.11	0.49
36:BL:77:ILE:HD13	36:BL:77:ILE:N	2.27	0.49
43:BS:35:ILE:O	43:BS:36:LEU:C	2.51	0.49
43:BS:59:GLU:HG3	43:BS:66:ILE:HD11	1.94	0.49
45:BU:101:THR:CG2	45:BU:102:ILE:N	2.75	0.49
1:AA:1255:G:O2'	1:AA:1258:G:H1'	2.11	0.49
1:AA:1300:G:C6	1:AA:1334:G:C5	3.00	0.49
1:AA:135:C:O2	16:AP:1:MET:N	2.34	0.49
1:AA:892:A:O2'	1:AA:1415:G:H4'	2.12	0.49
1:AA:233:C:C2	1:AA:234:C:C5	3.01	0.49
1:AA:369:G:C6	1:AA:370:C:N4	2.80	0.49
1:AA:406:G:C4	1:AA:407:U:C5	3.00	0.49
1:AA:541:G:N3	1:AA:542:G:C8	2.80	0.49
1:AA:564:C:H2'	1:AA:565:U:O4'	2.12	0.49
1:AA:821:G:H2'	1:AA:822:U:C6	2.48	0.49
1:AA:858:G:O2'	1:AA:859:G:H5'	2.13	0.49
1:AA:929:G:C6	1:AA:930:C:C4	3.00	0.49
2:AB:112:ARG:O	2:AB:116:LEU:HB2	2.13	0.49
2:AB:32:GLY:HA3	2:AB:38:HIS:CB	2.42	0.49
3:AC:12:GLY:C	3:AC:13:ILE:HG23	2.33	0.49
4:AD:196:GLU:N	4:AD:196:GLU:CD	2.66	0.49
5:AE:110:MET:HA	5:AE:113:VAL:HG13	1.95	0.49
6:AF:17:GLN:HE21	6:AF:17:GLN:HA	1.77	0.49
9:AI:87:MET:CG	9:AI:88:GLU:N	2.72	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:65:TYR:O	12:AL:96:THR:N	2.44	0.49
13:AM:106:ARG:CG	13:AM:106:ARG:HH11	2.25	0.49
14:AN:43:ASN:CA	14:AN:45:VAL:HG22	2.41	0.49
15:AO:15:GLY:O	15:AO:16:ARG:C	2.51	0.49
15:AO:3:SER:O	15:AO:7:THR:HG23	2.12	0.49
15:AO:80:LEU:O	15:AO:84:LEU:HB2	2.13	0.49
16:AP:80:LYS:HE3	16:AP:80:LYS:CA	2.43	0.49
17:AQ:11:VAL:O	17:AQ:12:VAL:CG1	2.60	0.49
17:AQ:15:LYS:HD2	17:AQ:15:LYS:C	2.33	0.49
1:AA:276:G:OP1	17:AQ:16:MET:HE2	2.12	0.49
18:AR:26:ALA:O	18:AR:29:LYS:HE3	2.12	0.49
22:AV:183:C:OP1	22:AV:183:C:H4'	2.12	0.49
22:AV:206:A:O4'	22:AV:206:A:OP1	2.30	0.49
22:AV:228:G:C4	22:AV:229:U:C5	3.00	0.49
22:AV:240:U:O3'	22:AV:240:U:OP1	2.30	0.49
22:AV:39:A:C4	22:AV:40:G:C8	3.00	0.49
23:AW:37:GLY:O	26:BA:1910:G:C4'	2.60	0.49
24:AX:56:U:N3	24:AX:59:A:OP2	2.45	0.49
24:AX:63:C:H3'	24:AX:64:G:H5''	1.94	0.49
25:AY:298:VAL:HG13	25:AY:299:VAL:N	2.26	0.49
25:AY:334:THR:CG2	25:AY:370:LYS:HG2	2.42	0.49
25:AY:655:TYR:CZ	25:AY:659:LEU:HD23	2.47	0.49
26:BA:1053:C:C4	26:BA:1054:A:C8	3.00	0.49
26:BA:1069:A:O2'	26:BA:1070:A:H5''	2.12	0.49
26:BA:1178:C:C5'	26:BA:1179:G:OP1	2.60	0.49
26:BA:151:C:OP1	26:BA:1359:A:O2'	2.28	0.49
26:BA:1567:G:C5	27:BC:82:TYR:CD1	3.01	0.49
26:BA:1584:U:H3'	26:BA:1584:U:O2	2.12	0.49
26:BA:2139:U:C2	26:BA:2140:G:C8	3.01	0.49
26:BA:2305:U:H2'	26:BA:2306:C:C6	2.47	0.49
26:BA:2307:G:H22	26:BA:2311:A:C2'	2.25	0.49
26:BA:2309:A:N6	26:BA:2310:C:N4	2.60	0.49
26:BA:630:G:N2	26:BA:634:C:C4	2.80	0.49
26:BA:634:C:O5'	26:BA:634:C:H6	1.96	0.49
26:BA:897:C:C2'	26:BA:898:C:O4'	2.60	0.49
26:BA:904:G:HO2'	26:BA:905:A:H5'	1.76	0.49
26:BA:989:G:C8	50:BZ:13:ILE:HD11	2.47	0.49
26:BA:996:A:C2	26:BA:997:G:C8	3.00	0.49
56:BB:103:U:O2'	56:BB:104:A:H5'	2.12	0.49
29:BE:131:THR:HA	29:BE:160:ALA:HB1	1.93	0.49
30:BF:90:LEU:C	30:BF:95:MET:HB2	2.32	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BG:154:GLU:HG2	31:BG:155:PRO:N	2.27	0.49
31:BG:16:VAL:HG22	31:BG:25:ILE:CD1	2.43	0.49
33:BI:85:ILE:CG1	33:BI:88:GLY:HA2	2.42	0.49
34:BJ:31:GLU:O	34:BJ:35:ARG:HG3	2.13	0.49
38:BN:79:LEU:HD12	38:BN:79:LEU:H	1.76	0.49
45:BU:38:ILE:HG22	45:BU:39:ASN:N	2.25	0.49
49:BY:28:LEU:O	49:BY:29:ARG:C	2.49	0.49
1:AA:194:C:H2'	1:AA:195:A:H5'	1.95	0.49
1:AA:198:G:C2	1:AA:199:A:C8	2.99	0.49
1:AA:45:G:N2	1:AA:398:U:C4	2.80	0.49
1:AA:429:U:O2	1:AA:430:A:C8	2.65	0.49
1:AA:445:G:C2'	1:AA:446:G:H5'	2.43	0.49
1:AA:488:C:H6	1:AA:488:C:O5'	1.96	0.49
1:AA:646:G:C6	1:AA:647:C:C4	3.00	0.49
1:AA:955:U:C5	1:AA:956:U:C4	3.00	0.49
2:AB:103:TRP:HZ2	2:AB:153:MET:HG2	1.77	0.49
2:AB:30:ILE:HG12	2:AB:38:HIS:HB2	1.95	0.49
2:AB:63:LYS:C	2:AB:63:LYS:HD3	2.33	0.49
2:AB:63:LYS:C	2:AB:65:LYS:HE2	2.33	0.49
1:AA:1100:C:C5	2:AB:94:ARG:HD2	2.45	0.49
4:AD:53:GLN:HE21	4:AD:202:LEU:N	2.10	0.49
4:AD:89:LEU:O	4:AD:93:LEU:HD12	2.13	0.49
5:AE:14:LEU:O	5:AE:14:LEU:CD1	2.60	0.49
5:AE:150:GLU:O	5:AE:153:ALA:CB	2.60	0.49
1:AA:1079:G:OP1	5:AE:49:TYR:CE1	2.65	0.49
13:AM:22:TYR:CD2	13:AM:68:LEU:HD23	2.48	0.49
6:AF:9:MET:HE1	18:AR:64:LEU:HD22	1.93	0.49
19:AS:80:ARG:NE	19:AS:80:ARG:HA	2.27	0.49
21:AU:25:ALA:O	21:AU:26:GLY:C	2.50	0.49
22:AV:245:C:H2'	22:AV:245:C:O2	2.11	0.49
22:AV:272:C:H2'	22:AV:273:A:O5'	2.13	0.49
22:AV:67:G:N3	22:AV:68:U:O4	2.45	0.49
23:AW:71:VAL:CG1	23:AW:72:ASP:N	2.74	0.49
25:AY:106:VAL:CG2	25:AY:132:ARG:HG3	2.43	0.49
25:AY:255:ILE:CG1	25:AY:256:THR:N	2.74	0.49
25:AY:681:LYS:HD2	25:AY:682:GLN:N	2.28	0.49
26:BA:1081:U:OP2	26:BA:1081:U:H6	1.95	0.49
26:BA:1518:C:H6	26:BA:1518:C:O5'	1.95	0.49
26:BA:1599:U:P	44:BT:40:LYS:HG3	2.53	0.49
26:BA:1856:U:H2'	26:BA:1857:G:H5'	1.93	0.49
26:BA:1875:G:C2'	26:BA:1876:A:OP2	2.60	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:20:C:O2'	26:BA:21:A:H5'	2.12	0.49
26:BA:2298:A:H2'	26:BA:2299:U:H5'	1.95	0.49
26:BA:2748:A:C2	26:BA:2757:A:C5	3.01	0.49
26:BA:2813:A:H2'	26:BA:2814:A:H5'	1.94	0.49
26:BA:702:U:H2'	26:BA:703:U:O4'	2.13	0.49
26:BA:864:G:C6	26:BA:865:C:N4	2.81	0.49
26:BA:866:A:N3	26:BA:867:C:C6	2.79	0.49
26:BA:882:G:N1	26:BA:895:U:N3	2.61	0.49
27:BC:70:LYS:HE3	27:BC:95:TYR:CD2	2.47	0.49
29:BE:178:VAL:CG1	29:BE:179:SER:N	2.75	0.49
36:BL:78:ARG:CZ	36:BL:113:ALA:HB1	2.42	0.49
37:BM:28:PHE:HB2	37:BM:104:GLU:OE2	2.12	0.49
38:BN:66:ALA:O	38:BN:69:ARG:O	2.30	0.49
1:AA:1006:G:C2	1:AA:1007:U:C2	3.01	0.49
1:AA:1072:G:H2'	1:AA:1073:U:C6	2.48	0.49
1:AA:1213:A:C2	1:AA:1215:G:H1'	2.47	0.49
1:AA:1314:C:N3	1:AA:1315:U:C5	2.80	0.49
1:AA:1499:A:H2'	1:AA:1500:A:H8	1.77	0.49
1:AA:402:G:H2'	1:AA:403:C:H5'	1.94	0.49
1:AA:600:A:C4	1:AA:639:G:N2	2.80	0.49
1:AA:774:G:N2	1:AA:806:C:C6	2.80	0.49
1:AA:803:G:C6	1:AA:804:U:N3	2.80	0.49
1:AA:22:G:O2'	1:AA:913:A:N1	2.39	0.49
1:AA:917:G:C6	1:AA:918:A:C5	2.99	0.49
5:AE:80:LEU:HD12	5:AE:146:MET:SD	2.51	0.49
6:AF:46:GLN:HA	6:AF:56:LYS:HG2	1.95	0.49
8:AH:44:PHE:HA	8:AH:70:VAL:HG11	1.95	0.49
11:AK:124:LYS:O	21:AU:33:ARG:NE	2.40	0.49
12:AL:43:LYS:CB	12:AL:44:PRO:HD3	2.42	0.49
13:AM:44:ILE:N	13:AM:44:ILE:HD12	2.27	0.49
15:AO:86:LEU:O	15:AO:87:ARG:HB3	2.13	0.49
16:AP:79:ASN:O	16:AP:80:LYS:HB2	2.12	0.49
17:AQ:13:SER:HB3	17:AQ:21:VAL:CG1	2.42	0.49
22:AV:159:C:C2'	22:AV:160:U:H5'	2.43	0.49
22:AV:300:U:O4	22:AV:301:A:N6	2.45	0.49
22:AV:63:C:N4	22:AV:73:A:N6	2.61	0.49
25:AY:20:HIS:N	25:AY:121:VAL:HG11	2.27	0.49
25:AY:121:VAL:CA	25:AY:124:GLN:HE22	2.25	0.49
25:AY:466:LEU:O	25:AY:470:PHE:HB2	2.12	0.49
25:AY:619:ASP:O	31:BG:175:LYS:NZ	2.45	0.49
26:BA:122:G:H2'	26:BA:123:G:O4'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:1434:A:O2'	26:BA:1435:G:H8	1.95	0.49
26:BA:1478:G:H2'	26:BA:1479:G:C8	2.47	0.49
26:BA:1547:C:C6	26:BA:1547:C:C3'	2.95	0.49
26:BA:2590:A:OP2	27:BC:236:GLY:HA2	2.13	0.49
26:BA:2798:U:H6	26:BA:2798:U:H5'	1.77	0.49
26:BA:1:G:H2'	26:BA:2:G:H8	1.78	0.49
26:BA:35:G:H2'	26:BA:36:G:O5'	2.13	0.49
26:BA:658:U:C2'	26:BA:659:G:O5'	2.59	0.49
26:BA:875:G:C6	26:BA:902:C:N4	2.73	0.49
26:BA:882:G:N2	26:BA:895:U:C2	2.80	0.49
27:BC:246:PRO:HG2	27:BC:247:TRP:CZ3	2.47	0.49
29:BE:27:LEU:CD1	29:BE:100:MET:HE3	2.43	0.49
31:BG:93:TYR:CD2	31:BG:106:LEU:HA	2.47	0.49
43:BS:11:ARG:O	43:BS:12:SER:CB	2.61	0.49
1:AA:100:G:C5	1:AA:101:A:N7	2.80	0.49
1:AA:996:A:C2	1:AA:1046:A:H5'	2.47	0.49
1:AA:1129:C:C5'	9:AI:17:ARG:HH22	2.26	0.49
1:AA:1233:G:C4	1:AA:1234:C:C5	3.01	0.49
1:AA:149:A:C1'	1:AA:1446:A:C2	2.96	0.49
1:AA:414:A:C5	1:AA:431:A:C2	3.01	0.49
1:AA:452:A:H8	1:AA:452:A:H3'	1.77	0.49
1:AA:675:A:O4'	11:AK:117:HIS:CD2	2.65	0.49
1:AA:735:C:O2'	1:AA:736:C:H5'	2.13	0.49
1:AA:731:G:OP1	1:AA:766:A:H1'	2.13	0.49
1:AA:570:G:H1'	1:AA:820:U:N3	2.27	0.49
3:AC:15:LYS:HG3	3:AC:16:PRO:HD2	1.93	0.49
7:AG:115:MET:O	7:AG:119:LEU:HB2	2.12	0.49
8:AH:65:PHE:CD1	8:AH:65:PHE:C	2.82	0.49
9:AI:20:ILE:CD1	9:AI:86:LEU:CD1	2.91	0.49
10:AJ:28:THR:HG22	10:AJ:86:ALA:HB1	1.94	0.49
10:AJ:49:PHE:HD1	10:AJ:49:PHE:N	2.09	0.49
14:AN:42:TRP:HE3	14:AN:42:TRP:H	1.60	0.49
17:AQ:46:HIS:O	17:AQ:73:THR:CG2	2.61	0.49
18:AR:54:LEU:HD11	18:AR:58:ILE:HD11	1.93	0.49
21:AU:44:ARG:HD2	21:AU:44:ARG:N	2.27	0.49
22:AV:245:C:C3'	22:AV:248:G:H1'	2.42	0.49
22:AV:290:A:O2'	22:AV:291:A:OP2	2.30	0.49
22:AV:299:C:HO2'	22:AV:300:U:C4'	2.21	0.49
22:AV:315:G:C4	22:AV:316:A:N6	2.77	0.49
22:AV:55:G:P	22:AV:56:C:OP2	2.70	0.49
22:AV:63:C:H1'	22:AV:73:A:H2	1.75	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AW:85:GLU:O	23:AW:89:LEU:CD2	2.46	0.49
25:AY:230:LYS:HB2	25:AY:230:LYS:HZ2	1.77	0.49
25:AY:77:HIS:CD2	25:AY:277:VAL:HG21	2.48	0.49
25:AY:420:ASP:OD2	25:AY:420:ASP:N	2.46	0.49
25:AY:539:ILE:HD12	25:AY:567:LEU:CD2	2.42	0.49
26:BA:1039:A:H2'	26:BA:1040:A:O5'	2.13	0.49
26:BA:1989:G:H2'	26:BA:1990:C:O5'	2.13	0.49
26:BA:2167:U:H2'	26:BA:2169:A:OP2	2.13	0.49
26:BA:2293:G:H2'	26:BA:2294:G:O4'	2.12	0.49
26:BA:2514:U:H2'	26:BA:2515:C:C6	2.48	0.49
26:BA:899:A:O2'	26:BA:900:A:O5'	2.30	0.49
27:BC:43:ASN:HB3	27:BC:49:THR:HG21	1.93	0.49
27:BC:76:VAL:HA	27:BC:113:ASP:O	2.12	0.49
28:BD:3:GLY:HA3	28:BD:203:VAL:O	2.12	0.49
31:BG:9:VAL:HG12	31:BG:9:VAL:O	2.13	0.49
33:BI:83:ALA:HB2	33:BI:105:LEU:HD21	1.92	0.49
33:BI:79:LEU:HA	33:BI:83:ALA:HB3	1.94	0.49
36:BL:111:ILE:CD1	36:BL:111:ILE:N	2.73	0.49
29:BE:29:HIS:CE1	36:BL:8:PRO:HD3	2.48	0.49
42:BR:62:GLU:CG	42:BR:62:GLU:O	2.61	0.49
44:BT:49:LYS:HE3	44:BT:49:LYS:CA	2.42	0.49
44:BT:87:LEU:O	44:BT:89:GLU:N	2.46	0.49
47:BW:6:THR:O	47:BW:7:ARG:HB2	2.12	0.49
49:BY:5:GLU:C	49:BY:7:ARG:H	2.16	0.49
1:AA:101:A:C6	1:AA:102:G:N7	2.80	0.49
1:AA:1061:G:C5'	1:AA:1062:U:OP2	2.60	0.49
1:AA:1288:A:H2'	1:AA:1289:A:O4'	2.13	0.49
1:AA:1330:U:H2'	1:AA:1331:G:C5'	2.37	0.49
1:AA:929:G:C4'	1:AA:1533:C:H5'	2.42	0.49
1:AA:1538:C:H2'	1:AA:1539:C:H6	1.78	0.49
1:AA:173:U:C6	1:AA:197:A:C2	3.01	0.49
1:AA:123:U:H4'	1:AA:290:C:O2	2.13	0.49
1:AA:516:U:C4	1:AA:517:G:C6	3.00	0.49
1:AA:609:A:O5'	1:AA:609:A:C8	2.66	0.49
1:AA:656:G:N3	1:AA:657:U:C6	2.81	0.49
1:AA:658:C:C4	1:AA:659:U:H5	2.29	0.49
1:AA:940:C:O5'	1:AA:940:C:H6	1.95	0.49
3:AC:54:ILE:CG1	3:AC:54:ILE:O	2.60	0.49
7:AG:22:LEU:HD21	7:AG:61:PHE:CZ	2.47	0.49
8:AH:1:SER:O	8:AH:4:ASP:N	2.44	0.49
15:AO:34:GLN:HB3	15:AO:58:MET:HE2	1.92	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:16:MET:HB2	17:AQ:19:SER:HB3	1.94	0.49
22:AV:133:A:C2	22:AV:134:G:C5	3.01	0.49
22:AV:18:C:N3	23:AW:82:HIS:HE1	1.98	0.49
22:AV:194:G:C2	22:AV:195:A:C5	3.00	0.49
22:AV:263:G:C8	22:AV:308:U:C5	3.00	0.49
22:AV:308:U:O4'	22:AV:309:A:O5'	2.30	0.49
22:AV:332:G:C4'	22:AV:333:G:OP1	2.59	0.49
24:AX:27:G:C5	24:AX:28:U:H5	2.30	0.49
25:AY:121:VAL:CA	25:AY:124:GLN:NE2	2.75	0.49
26:BA:1730:C:H1'	26:BA:1731:G:C6	2.48	0.49
26:BA:183:C:C2'	26:BA:184:C:H5'	2.42	0.49
26:BA:184:C:H2'	26:BA:185:G:C8	2.48	0.49
24:AX:77:A:N9	26:BA:2421:G:H2'	2.27	0.49
26:BA:2520:C:C6	26:BA:2567:G:H1'	2.48	0.49
26:BA:2683:C:H4'	28:BD:13:ARG:NH1	2.28	0.49
26:BA:31:C:H2'	26:BA:32:C:H5'	1.92	0.49
26:BA:593:U:H2'	26:BA:594:U:C6	2.47	0.49
26:BA:79:C:O2	26:BA:108:G:C2	2.66	0.49
27:BC:104:LEU:HD13	27:BC:104:LEU:N	2.28	0.49
27:BC:194:VAL:HG22	27:BC:195:GLY:N	2.28	0.49
28:BD:33:ARG:NH1	28:BD:53:GLY:O	2.46	0.49
29:BE:120:VAL:HA	29:BE:188:MET:O	2.12	0.49
30:BF:20:ASN:ND2	30:BF:20:ASN:O	2.45	0.49
30:BF:80:GLN:CD	30:BF:81:GLY:N	2.65	0.49
32:BH:3:VAL:HA	32:BH:39:ALA:N	2.28	0.49
33:BI:61:TYR:OH	33:BI:67:THR:OG1	2.25	0.49
34:BJ:58:ASN:N	34:BJ:127:GLY:O	2.45	0.49
37:BM:108:VAL:HG12	37:BM:109:PRO:CD	2.43	0.49
39:BO:7:ARG:HA	39:BO:10:ARG:NH2	2.28	0.49
39:BO:56:LYS:O	39:BO:57:ALA:C	2.50	0.49
41:BQ:25:GLY:O	41:BQ:26:ALA:C	2.51	0.49
26:BA:580:U:O3'	41:BQ:30:VAL:HG13	2.12	0.49
1:AA:1067:A:H3'	1:AA:1094:G:OP1	2.13	0.49
1:AA:1312:G:C2	1:AA:1326:U:C2	3.01	0.49
1:AA:1300:G:C5	1:AA:1334:G:C6	3.01	0.49
1:AA:1387:G:O6	1:AA:1388:C:N4	2.44	0.49
1:AA:923:A:H2	1:AA:1399:C:OP2	1.94	0.49
1:AA:439:U:C2'	1:AA:440:C:O5'	2.60	0.49
1:AA:928:G:O2'	1:AA:1533:C:O5'	2.31	0.49
2:AB:56:LEU:CD2	2:AB:56:LEU:C	2.80	0.49
4:AD:168:THR:CG2	4:AD:183:ARG:NH2	2.75	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:37:HIS:N	6:AF:37:HIS:CD2	2.79	0.49
8:AH:46:GLU:HB2	8:AH:63:LYS:HG2	1.93	0.49
11:AK:106:ILE:O	11:AK:106:ILE:HG23	2.13	0.49
11:AK:71:ASP:O	11:AK:72:ALA:HB2	2.12	0.49
17:AQ:60:ILE:HG23	17:AQ:72:TRP:HE3	1.78	0.49
22:AV:163:G:C2	22:AV:164:G:C4	3.01	0.49
22:AV:266:C:N4	22:AV:267:G:C5	2.81	0.49
22:AV:333:G:OP2	22:AV:334:A:OP2	2.30	0.49
22:AV:362:C:O5'	22:AV:363:A:OP2	2.30	0.49
23:AW:46:ALA:HB3	23:AW:100:LEU:HB3	1.94	0.49
23:AW:47:ARG:NH1	23:AW:48:PHE:CE1	2.78	0.49
23:AW:65:LYS:CG	23:AW:66:GLY:H	2.11	0.49
24:AX:34:U:H2'	24:AX:36:A:OP2	2.12	0.49
24:AX:50:G:H2'	24:AX:51:U:C6	2.44	0.49
25:AY:181:LEU:HD23	25:AY:182:ARG:HH12	1.77	0.49
25:AY:416:LYS:CD	25:AY:417:THR:N	2.67	0.49
51:B0:52:LYS:HE2	51:B0:55:ALA:CA	2.43	0.49
26:BA:1020:A:C2	26:BA:1141:U:C2	3.01	0.49
26:BA:1106:G:C4	26:BA:1107:G:C8	3.01	0.49
26:BA:1450:G:C6	26:BA:1451:C:N4	2.81	0.49
26:BA:1490:A:HO2'	26:BA:1491:G:H5'	1.78	0.49
26:BA:1559:U:H3'	26:BA:1560:G:H5'	1.95	0.49
26:BA:2152:G:C4	26:BA:2153:C:C6	3.00	0.49
26:BA:2181:U:O2'	26:BA:2182:U:H5'	2.12	0.49
26:BA:2221:G:H2'	26:BA:2222:C:C5'	2.42	0.49
26:BA:2469:A:H4'	37:BM:55:ARG:HH22	1.78	0.49
26:BA:284:U:H2'	26:BA:285:G:C8	2.48	0.49
26:BA:35:G:C2'	26:BA:36:G:O5'	2.60	0.49
26:BA:49:A:C8	26:BA:51:G:C2	3.01	0.49
26:BA:640:C:O2'	26:BA:641:U:H5'	2.13	0.49
26:BA:686:U:O4	53:B2:12:ARG:HB2	2.13	0.49
26:BA:880:G:C2	26:BA:881:G:C5	3.01	0.49
26:BA:887:U:C1'	26:BA:888:C:C6	2.96	0.49
26:BA:886:A:O2'	26:BA:887:U:P	2.71	0.49
27:BC:210:ALA:O	27:BC:215:VAL:HB	2.12	0.49
28:BD:32:ASN:N	28:BD:32:ASN:HD22	2.09	0.49
28:BD:47:ALA:HB1	28:BD:82:PHE:O	2.13	0.49
29:BE:3:LEU:O	29:BE:11:ALA:HA	2.13	0.49
31:BG:53:PRO:HD3	31:BG:61:TRP:CZ2	2.48	0.49
39:BO:110:ALA:HB1	39:BO:115:LEU:HD22	1.94	0.49
1:AA:1102:A:O2'	2:AB:97:GLY:N	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1158:C:N4	1:AA:1160:G:C5	2.81	0.49
1:AA:1096:C:O2'	1:AA:1170:A:O3'	2.31	0.49
1:AA:1245:C:H2'	1:AA:1246:A:C8	2.48	0.49
1:AA:1319:A:N7	1:AA:1323:G:C5	2.81	0.49
1:AA:1339:A:O2'	24:AX:33:C:C5'	2.61	0.49
1:AA:451:A:H5'	1:AA:452:A:N3	2.27	0.49
1:AA:591:U:H2'	1:AA:592:G:C8	2.48	0.49
1:AA:64:G:N7	1:AA:99:C:C4	2.80	0.49
2:AB:193:ASP:C	2:AB:195:VAL:H	2.15	0.49
3:AC:153:SER:HA	3:AC:164:THR:HA	1.95	0.49
4:AD:147:LYS:O	4:AD:148:ALA:C	2.49	0.49
5:AE:104:ILE:O	5:AE:104:ILE:HG23	2.13	0.49
5:AE:40:ASP:OD1	5:AE:40:ASP:C	2.51	0.49
10:AJ:57:VAL:HG22	10:AJ:58:ASN:N	2.26	0.49
10:AJ:5:ARG:HG2	10:AJ:79:PRO:CG	2.43	0.49
17:AQ:62:GLU:N	17:AQ:72:TRP:CE3	2.81	0.49
22:AV:118:C:C2'	22:AV:119:U:C5'	2.89	0.49
22:AV:130:C:C4	22:AV:132:U:O4	2.66	0.49
22:AV:16:U:HO2'	22:AV:17:U:P	2.36	0.49
22:AV:171:A:N3	22:AV:172:U:C4	2.81	0.49
22:AV:185:A:O2'	22:AV:186:A:C4	2.65	0.49
22:AV:257:U:O4	22:AV:273:A:C5	2.66	0.49
22:AV:316:A:C6	22:AV:317:G:O6	2.66	0.49
22:AV:32:A:O2'	22:AV:33:A:O4'	2.30	0.49
25:AY:115:GLU:HG3	25:AY:115:GLU:O	2.12	0.49
25:AY:122:TRP:CZ3	25:AY:132:ARG:HD2	2.47	0.49
25:AY:181:LEU:HD12	25:AY:242:LEU:HD13	1.94	0.49
25:AY:314:PHE:CD1	25:AY:315:LYS:HB2	2.48	0.49
25:AY:427:ALA:O	25:AY:431:LEU:HB2	2.12	0.49
26:BA:1495:A:O2'	26:BA:1496:A:C5'	2.60	0.49
26:BA:2183:A:O2'	26:BA:2184:A:H5'	2.13	0.49
26:BA:2307:G:N2	26:BA:2311:A:C2'	2.69	0.49
26:BA:2745:C:C4	26:BA:2746:U:C4	3.00	0.49
26:BA:2801:G:C2	26:BA:2802:G:C4	3.01	0.49
26:BA:592:A:C2	26:BA:666:A:C4	3.01	0.49
26:BA:880:G:N2	26:BA:898:C:N4	2.61	0.49
26:BA:901:C:C2'	26:BA:902:C:OP1	2.60	0.49
27:BC:161:VAL:CG2	27:BC:175:LEU:HD23	2.42	0.49
26:BA:2032:G:H1'	28:BD:150:GLN:OE1	2.13	0.49
29:BE:175:ILE:HD13	29:BE:196:VAL:CG2	2.43	0.49
26:BA:2531:A:H4'	31:BG:156:TYR:CD1	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BH:69:ALA:CB	32:BH:138:VAL:CG1	2.91	0.49
33:BI:115:ASP:O	33:BI:116:MET:CB	2.60	0.49
37:BM:125:PRO:C	37:BM:126:ILE:HG23	2.33	0.49
49:BY:17:GLU:OE2	49:BY:17:GLU:HA	2.13	0.49
1:AA:1306:A:C5	1:AA:1307:U:C5	3.01	0.48
1:AA:1485:U:H2'	1:AA:1486:G:C8	2.48	0.48
1:AA:1490:U:H2'	1:AA:1491:G:H5'	1.94	0.48
1:AA:258:G:C6	1:AA:259:G:C5	3.01	0.48
1:AA:294:U:H2'	1:AA:295:C:H6	1.78	0.48
1:AA:694:A:C2'	1:AA:695:A:O5'	2.60	0.48
2:AB:127:LYS:CG	2:AB:128:LEU:N	2.75	0.48
2:AB:145:ASN:O	2:AB:146:SER:CB	2.61	0.48
2:AB:81:ASP:OD1	2:AB:83:ALA:HB3	2.13	0.48
3:AC:106:ARG:O	3:AC:107:LYS:C	2.52	0.48
4:AD:156:ALA:HA	4:AD:159:GLU:HB3	1.94	0.48
4:AD:3:TYR:O	4:AD:4:LEU:CB	2.60	0.48
11:AK:22:ILE:HG22	11:AK:31:VAL:CG2	2.43	0.48
1:AA:1226:C:H2'	13:AM:101:THR:HB	1.93	0.48
15:AO:85:GLY:O	15:AO:86:LEU:HB3	2.13	0.48
17:AQ:15:LYS:N	17:AQ:16:MET:HE1	2.28	0.48
1:AA:1313:U:P	19:AS:5:LYS:HB2	2.53	0.48
22:AV:19:G:H21	23:AW:81:LEU:HG	1.77	0.48
23:AW:53:LEU:HD23	23:AW:79:LEU:HD13	1.95	0.48
25:AY:122:TRP:CZ2	25:AY:159:ALA:HB2	2.49	0.48
25:AY:413:ILE:HG23	25:AY:413:ILE:O	2.13	0.48
25:AY:445:GLU:HA	25:AY:445:GLU:OE1	2.13	0.48
25:AY:549:ALA:HB2	25:AY:587:SER:OG	2.13	0.48
25:AY:646:PHE:O	25:AY:647:VAL:HG13	2.13	0.48
25:AY:679:VAL:HG23	25:AY:684:GLN:NE2	2.28	0.48
26:BA:1056:G:C4'	26:BA:1086:A:C8	2.96	0.48
26:BA:1180:U:C2'	26:BA:1181:U:H5'	2.42	0.48
26:BA:1:G:C2	26:BA:2:G:C8	3.00	0.48
26:BA:220:G:H1'	26:BA:234:U:H1'	1.95	0.48
26:BA:2875:C:H2'	26:BA:2876:G:O5'	2.12	0.48
26:BA:348:A:H2'	26:BA:349:U:C6	2.48	0.48
26:BA:368:A:H2'	26:BA:369:U:O5'	2.12	0.48
26:BA:657:U:H2'	26:BA:658:U:C6	2.48	0.48
26:BA:897:C:H2'	26:BA:898:C:O4'	2.13	0.48
26:BA:960:A:C5'	26:BA:961:C:OP2	2.58	0.48
27:BC:16:VAL:HG23	27:BC:203:VAL:CG2	2.42	0.48
28:BD:97:SER:O	28:BD:99:GLU:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BE:171:ASP:OD1	29:BE:171:ASP:O	2.30	0.48
31:BG:5:LYS:O	31:BG:7:PRO:HD3	2.13	0.48
32:BH:5:LEU:O	32:BH:6:LEU:HD12	2.13	0.48
33:BI:32:VAL:HG21	33:BI:58:ILE:CG2	2.42	0.48
33:BI:70:THR:HA	33:BI:71:LYS:HD2	1.95	0.48
33:BI:52:LEU:HD11	33:BI:81:LYS:HE2	1.95	0.48
36:BL:110:VAL:HB	36:BL:127:VAL:HG22	1.95	0.48
38:BN:78:LYS:HG2	38:BN:78:LYS:O	2.13	0.48
38:BN:98:LEU:HD13	51:B0:54:ILE:HD11	1.94	0.48
40:BP:50:ARG:O	40:BP:56:SER:HA	2.13	0.48
41:BQ:60:TRP:O	41:BQ:61:ILE:C	2.51	0.48
43:BS:29:VAL:CG1	43:BS:55:ILE:HD11	2.43	0.48
47:BW:32:ILE:HG23	47:BW:54:THR:HG23	1.94	0.48
1:AA:276:G:C4	1:AA:277:C:C5	3.01	0.48
1:AA:423:G:H3'	1:AA:423:G:N3	2.28	0.48
1:AA:462:G:C8	1:AA:463:U:C5	3.01	0.48
1:AA:564:C:O2'	1:AA:565:U:H5'	2.13	0.48
1:AA:652:U:O2'	1:AA:653:U:OP2	2.29	0.48
1:AA:656:G:C4	1:AA:657:U:C6	3.01	0.48
1:AA:714:G:H5'	1:AA:776:G:H5''	1.95	0.48
1:AA:809:G:C6	1:AA:810:C:C5	3.01	0.48
1:AA:83:C:H2'	1:AA:85:U:OP2	2.13	0.48
2:AB:155:GLY:O	2:AB:156:LEU:O	2.31	0.48
3:AC:105:VAL:C	3:AC:106:ARG:O	2.51	0.48
3:AC:6:PRO:O	3:AC:10:ARG:HG3	2.14	0.48
3:AC:22:PHE:C	3:AC:22:PHE:CD2	2.85	0.48
3:AC:41:TYR:CD1	3:AC:42:LEU:HD12	2.49	0.48
5:AE:39:GLY:HA2	5:AE:44:ARG:O	2.13	0.48
5:AE:55:VAL:O	5:AE:58:ALA:HB3	2.13	0.48
7:AG:82:SER:CB	7:AG:84:TYR:CD2	2.96	0.48
9:AI:30:ASN:O	9:AI:32:ARG:N	2.46	0.48
10:AJ:18:ILE:CG2	10:AJ:19:ASP:N	2.75	0.48
11:AK:30:ILE:HB	11:AK:45:THR:CG2	2.41	0.48
11:AK:37:GLN:CA	11:AK:37:GLN:OE1	2.61	0.48
12:AL:56:LEU:HB3	12:AL:58:ASN:OD1	2.14	0.48
13:AM:94:LEU:N	13:AM:94:LEU:HD23	2.28	0.48
14:AN:25:GLU:C	14:AN:28:ALA:H	2.15	0.48
18:AR:25:ILE:HA	18:AR:28:LEU:HB2	1.95	0.48
20:AT:34:VAL:CG1	20:AT:78:LEU:HD22	2.42	0.48
21:AU:34:ARG:O	21:AU:35:GLU:C	2.51	0.48
22:AV:120:U:H3'	22:AV:121:A:H2'	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:12:U:OP1	22:AV:13:G:O5'	2.30	0.48
22:AV:13:G:HO2'	22:AV:14:G:H5'	1.75	0.48
22:AV:180:G:C3'	22:AV:181:G:H8	2.26	0.48
22:AV:207:A:C2	22:AV:208:G:C8	3.01	0.48
22:AV:156:G:N2	22:AV:230:U:C5	2.81	0.48
22:AV:257:U:O2	22:AV:259:G:C8	2.66	0.48
22:AV:39:A:C3'	22:AV:39:A:N3	2.74	0.48
23:AW:44:SER:O	23:AW:102:PRO:HD2	2.13	0.48
24:AX:8:U:O2	24:AX:49:C:O2	2.31	0.48
24:AX:54:G:H22	24:AX:62:C:N4	2.10	0.48
24:AX:77:A:C3'	26:BA:2422:C:N3	2.74	0.48
25:AY:636:PRO:HB2	33:BI:26:ALA:N	2.27	0.48
25:AY:610:VAL:HG23	25:AY:643:ILE:HB	1.95	0.48
25:AY:84:THR:O	25:AY:85:PRO:O	2.30	0.48
54:B3:54:LEU:O	54:B3:55:GLY:C	2.50	0.48
26:BA:1292:G:H2'	26:BA:1293:C:O5'	2.13	0.48
26:BA:1534:U:O2	26:BA:1534:U:H2'	2.14	0.48
26:BA:1613:G:C2	26:BA:1619:G:C5	3.01	0.48
26:BA:186:G:N2	26:BA:187:G:C4	2.81	0.48
26:BA:2298:A:C5	26:BA:2321:U:C5	3.02	0.48
26:BA:2371:G:N2	26:BA:2372:U:H1'	2.28	0.48
26:BA:2438:U:O2'	26:BA:2439:A:H5''	2.13	0.48
26:BA:277:G:H2'	26:BA:278:A:OP2	2.14	0.48
26:BA:679:C:C2'	26:BA:680:C:H5'	2.43	0.48
26:BA:897:C:N3	26:BA:898:C:C5	2.81	0.48
26:BA:904:G:N3	26:BA:905:A:C8	2.81	0.48
26:BA:927:A:H2'	26:BA:928:A:C8	2.48	0.48
27:BC:100:ARG:NH1	27:BC:100:ARG:HG3	2.28	0.48
27:BC:10:PRO:O	27:BC:11:GLY:C	2.52	0.48
27:BC:16:VAL:CG2	27:BC:203:VAL:HG22	2.44	0.48
28:BD:136:ASN:HD22	28:BD:140:HIS:CD2	2.31	0.48
28:BD:157:LYS:HE3	34:BJ:79:GLY:O	2.13	0.48
30:BF:59:ILE:HG23	30:BF:137:PHE:CD1	2.48	0.48
30:BF:153:ILE:N	30:BF:153:ILE:HD13	2.27	0.48
30:BF:56:LEU:HD11	30:BF:86:CYS:O	2.13	0.48
44:BT:28:ASN:ND2	44:BT:91:GLN:HB3	2.28	0.48
44:BT:69:ARG:CG	44:BT:69:ARG:O	2.60	0.48
46:BV:25:LYS:HE2	46:BV:43:ASP:CA	2.42	0.48
50:BZ:23:LEU:HD11	50:BZ:53:MET:HE1	1.95	0.48
1:AA:108:G:H5'	1:AA:109:A:H2	1.78	0.48
1:AA:1323:G:C6	1:AA:1324:A:C6	3.00	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1329:A:H2'	1:AA:1330:U:H5'	1.95	0.48
1:AA:270:A:C6	1:AA:271:C:N3	2.81	0.48
1:AA:466:A:H5'	1:AA:467:U:OP2	2.13	0.48
1:AA:572:A:C5'	1:AA:573:A:OP2	2.62	0.48
2:AB:146:SER:O	2:AB:147:LEU:CB	2.60	0.48
2:AB:62:ARG:O	2:AB:63:LYS:CB	2.60	0.48
3:AC:86:LEU:O	3:AC:89:VAL:CG2	2.61	0.48
5:AE:94:PHE:CZ	5:AE:96:GLN:HG3	2.48	0.48
6:AF:38:ARG:HG3	6:AF:39:LEU:H	1.77	0.48
7:AG:103:ILE:O	7:AG:104:VAL:C	2.51	0.48
8:AH:11:THR:HG23	8:AH:14:ARG:HH12	1.78	0.48
8:AH:48:PHE:CD1	8:AH:48:PHE:N	2.74	0.48
11:AK:70:ALA:O	11:AK:72:ALA:N	2.46	0.48
13:AM:70:ARG:HD2	13:AM:74:MET:HE3	1.94	0.48
16:AP:42:ILE:O	16:AP:44:SER:N	2.47	0.48
21:AU:14:ALA:O	21:AU:15:LEU:HD12	2.12	0.48
21:AU:16:ARG:NH1	21:AU:19:LYS:HG2	2.28	0.48
21:AU:36:PHE:O	21:AU:37:TYR:CB	2.61	0.48
22:AV:144:U:O5'	22:AV:145:C:OP2	2.30	0.48
22:AV:180:G:N9	22:AV:181:G:C8	2.81	0.48
22:AV:192:A:H2'	22:AV:193:A:C8	2.48	0.48
22:AV:219:G:C2'	22:AV:220:G:H5'	2.43	0.48
22:AV:308:U:C4'	22:AV:309:A:O5'	2.61	0.48
22:AV:308:U:O2'	22:AV:309:A:OP2	2.30	0.48
23:AW:3:PRO:C	23:AW:4:VAL:HG12	2.34	0.48
24:AX:38:A:O2'	24:AX:39:A:H5'	2.13	0.48
25:AY:198:GLU:HG3	25:AY:198:GLU:O	2.13	0.48
25:AY:230:LYS:HB2	25:AY:230:LYS:NZ	2.28	0.48
25:AY:341:VAL:HG23	25:AY:350:GLU:HB2	1.95	0.48
25:AY:518:PRO:HD2	25:AY:521:SER:OG	2.13	0.48
25:AY:85:PRO:HG3	25:AY:94:VAL:HG13	1.95	0.48
31:BG:169:ARG:HH12	55:B4:29:ALA:HA	1.78	0.48
26:BA:1098:A:C5	26:BA:1099:G:C6	3.01	0.48
26:BA:1124:G:H2'	26:BA:1125:G:H5'	1.95	0.48
26:BA:1327:A:N6	26:BA:1328:A:C2	2.80	0.48
26:BA:186:G:C2	26:BA:187:G:N7	2.81	0.48
26:BA:2161:C:O2	26:BA:2162:G:H8	1.96	0.48
26:BA:2219:U:C2'	26:BA:2220:U:O5'	2.62	0.48
26:BA:2419:U:OP1	54:B3:40:LYS:HE2	2.13	0.48
26:BA:2531:A:H4'	31:BG:156:TYR:CE1	2.48	0.48
26:BA:2639:A:C2	26:BA:2778:A:C8	3.00	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:493:G:H2'	26:BA:494:G:O4'	2.13	0.48
27:BC:124:LYS:HD3	27:BC:127:ASN:ND2	2.28	0.48
30:BF:16:MET:O	30:BF:20:ASN:HA	2.13	0.48
30:BF:173:ASP:O	30:BF:174:PHE:C	2.51	0.48
33:BI:56:VAL:HG21	33:BI:70:THR:CB	2.43	0.48
34:BJ:33:ALA:HB2	34:BJ:105:VAL:HG13	1.95	0.48
36:BL:112:LEU:HG	36:BL:112:LEU:O	2.14	0.48
1:AA:1080:A:C5'	1:AA:1081:A:OP2	2.59	0.48
1:AA:1140:C:O2	1:AA:1141:C:C5	2.66	0.48
1:AA:1061:G:C4	1:AA:1197:A:C2	3.01	0.48
1:AA:1215:G:N2	1:AA:1216:A:H1'	2.28	0.48
1:AA:1304:G:C6	1:AA:1305:G:C2	3.02	0.48
1:AA:446:G:C2'	1:AA:447:G:H5'	2.43	0.48
1:AA:520:A:N1	1:AA:536:C:H1'	2.28	0.48
1:AA:735:C:H2'	1:AA:736:C:H6	1.78	0.48
2:AB:53:LEU:CD1	2:AB:216:VAL:HG13	2.43	0.48
2:AB:95:TRP:CZ3	2:AB:174:GLU:OE2	2.66	0.48
3:AC:134:LYS:O	3:AC:138:GLN:HG3	2.13	0.48
5:AE:56:PRO:O	5:AE:60:GLN:HB2	2.14	0.48
6:AF:38:ARG:CG	6:AF:39:LEU:N	2.75	0.48
7:AG:145:GLU:HG3	7:AG:148:LYS:HE2	1.94	0.48
11:AK:124:LYS:CG	11:AK:125:LYS:H	2.23	0.48
14:AN:34:ASN:O	14:AN:41:ARG:HD3	2.14	0.48
18:AR:67:LEU:HD23	18:AR:68:PRO:HD3	1.95	0.48
20:AT:66:ILE:CG2	20:AT:66:ILE:O	2.60	0.48
21:AU:28:LEU:C	21:AU:28:LEU:HD23	2.33	0.48
22:AV:150:G:H3'	22:AV:151:C:H5	1.78	0.48
22:AV:163:G:N1	22:AV:164:G:N7	2.60	0.48
22:AV:165:A:C5'	22:AV:166:C:N1	2.47	0.48
22:AV:199:C:C2	22:AV:200:G:C5	3.02	0.48
22:AV:256:G:N7	22:AV:273:A:N6	2.61	0.48
24:AX:22:A:C5	24:AX:47:G:C6	3.01	0.48
25:AY:100:VAL:HG23	25:AY:329:ARG:CG	2.44	0.48
25:AY:122:TRP:HD1	25:AY:123:ARG:N	2.11	0.48
25:AY:196:ILE:O	25:AY:197:ARG:CB	2.56	0.48
25:AY:518:PRO:O	25:AY:520:GLY:N	2.46	0.48
25:AY:510:VAL:HG11	25:AY:567:LEU:HD13	1.95	0.48
26:BA:1090:A:C2'	26:BA:1091:G:O5'	2.61	0.48
26:BA:1180:U:HO2'	26:BA:1181:U:P	2.37	0.48
26:BA:1359:A:N7	26:BA:1373:A:C2	2.81	0.48
26:BA:1595:C:O2	26:BA:1595:C:H2'	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:152:A:C2	26:BA:175:G:C2	3.02	0.48
26:BA:2140:G:O6	26:BA:2151:U:O2	2.31	0.48
26:BA:2204:G:OP2	27:BC:146:LYS:HE3	2.13	0.48
26:BA:2305:U:OP1	26:BA:2305:U:H4'	2.14	0.48
26:BA:627:A:C5	26:BA:637:A:N7	2.80	0.48
26:BA:899:A:O2'	26:BA:900:A:P	2.72	0.48
29:BE:190:ALA:C	29:BE:192:ALA:N	2.64	0.48
30:BF:121:PHE:CE2	30:BF:127:TYR:CD1	3.01	0.48
30:BF:168:LEU:HG	30:BF:168:LEU:O	2.13	0.48
30:BF:171:ALA:C	30:BF:173:ASP:H	2.16	0.48
30:BF:71:LYS:HD3	30:BF:72:SER:H	1.78	0.48
31:BG:87:GLN:C	31:BG:88:LEU:HD12	2.33	0.48
32:BH:80:ILE:CD1	32:BH:144:VAL:CG1	2.92	0.48
35:BK:108:ARG:HH12	40:BP:34:GLY:N	2.10	0.48
36:BL:68:SER:O	36:BL:69:ARG:HB2	2.13	0.48
26:BA:2485:G:H5''	37:BM:45:GLN:HE21	1.77	0.48
48:BX:40:GLU:O	48:BX:42:GLU:N	2.46	0.48
1:AA:1057:G:H4'	3:AC:196:GLY:H	1.78	0.48
1:AA:1215:G:C2	1:AA:1216:A:C8	3.02	0.48
1:AA:951:G:C5	1:AA:1231:G:C6	3.01	0.48
1:AA:1332:A:H5'	1:AA:1332:A:N3	2.29	0.48
1:AA:922:G:C4	1:AA:1398:A:N3	2.55	0.48
1:AA:189:A:C6	1:AA:190:A:C2	3.02	0.48
1:AA:368:U:H6	25:AY:354:ARG:NH1	2.11	0.48
1:AA:409:U:C4	1:AA:410:G:C6	3.02	0.48
1:AA:417:G:C6	1:AA:418:C:N4	2.81	0.48
1:AA:595:A:C2	1:AA:641:U:C2	3.01	0.48
1:AA:634:C:C2	1:AA:635:A:C8	3.02	0.48
1:AA:725:G:C2'	1:AA:726:C:H5'	2.42	0.48
1:AA:918:A:C4	1:AA:919:A:C5	3.00	0.48
2:AB:206:ILE:O	2:AB:210:THR:HG23	2.13	0.48
2:AB:34:ARG:HE	2:AB:34:ARG:CA	2.27	0.48
2:AB:93:HIS:O	2:AB:94:ARG:C	2.52	0.48
4:AD:33:ILE:HG13	4:AD:34:GLU:N	2.28	0.48
5:AE:100:GLU:HG3	5:AE:100:GLU:O	2.12	0.48
5:AE:88:HIS:O	5:AE:89:THR:HB	2.13	0.48
6:AF:46:GLN:HA	6:AF:56:LYS:HA	1.94	0.48
6:AF:89:VAL:HG23	6:AF:90:MET:N	2.28	0.48
7:AG:99:ALA:O	7:AG:100:MET:C	2.51	0.48
10:AJ:59:LYS:N	10:AJ:59:LYS:HE3	2.26	0.48
19:AS:18:VAL:HG11	19:AS:42:ASN:OD1	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:50:VAL:CG2	19:AS:70:LEU:CD1	2.90	0.48
20:AT:4:LYS:C	20:AT:4:LYS:HE2	2.34	0.48
22:AV:113:A:H2'	22:AV:114:G:H8	1.69	0.48
22:AV:173:C:O2	22:AV:173:C:C2'	2.54	0.48
22:AV:235:C:O2	22:AV:236:U:C5	2.66	0.48
22:AV:343:C:OP1	30:BF:79:ARG:C	2.50	0.48
22:AV:47:G:C4	22:AV:48:C:C5	3.01	0.48
22:AV:16:U:C4	23:AW:110:ARG:NH2	2.81	0.48
24:AX:28:U:H2'	24:AX:29:C:H5''	1.92	0.48
25:AY:406:GLU:CB	25:AY:407:PRO:CD	2.92	0.48
25:AY:415:PRO:HG3	25:AY:421:GLN:HG2	1.94	0.48
25:AY:539:ILE:HD12	25:AY:567:LEU:HD21	1.96	0.48
25:AY:510:VAL:CG1	25:AY:567:LEU:HD13	2.42	0.48
25:AY:626:ALA:HB2	26:BA:2473:U:C6	2.43	0.48
54:B3:16:THR:HG23	54:B3:20:GLY:C	2.33	0.48
26:BA:1056:G:H4'	26:BA:1086:A:H8	1.77	0.48
26:BA:1103:A:C8	26:BA:1104:C:C5	3.01	0.48
26:BA:1417:C:C2'	26:BA:1418:G:H5'	2.43	0.48
26:BA:1925:C:C5'	26:BA:1926:U:C5	2.97	0.48
26:BA:2170:A:C2	26:BA:2171:A:C5	3.01	0.48
26:BA:2547:A:H2'	26:BA:2548:U:C6	2.49	0.48
26:BA:892:A:H2'	26:BA:893:C:H5'	1.92	0.48
26:BA:900:A:H2	26:BA:901:C:H41	1.51	0.48
33:BI:17:ALA:CB	33:BI:41:PHE:CE2	2.97	0.48
33:BI:56:VAL:O	33:BI:57:VAL:O	2.32	0.48
34:BJ:65:THR:HG23	34:BJ:68:LYS:NZ	2.28	0.48
36:BL:117:THR:HG22	36:BL:117:THR:O	2.14	0.48
37:BM:111:GLU:O	37:BM:111:GLU:OE1	2.31	0.48
39:BO:76:LYS:O	39:BO:77:ALA:C	2.52	0.48
50:BZ:15:ARG:HD3	50:BZ:15:ARG:N	2.26	0.48
50:BZ:36:GLU:O	50:BZ:37:ARG:HD3	2.14	0.48
1:AA:1020:G:H2'	1:AA:1020:G:N3	2.28	0.48
1:AA:1129:C:H5''	9:AI:17:ARG:NH1	2.28	0.48
1:AA:1296:C:H4'	1:AA:1302:C:H41	1.78	0.48
1:AA:160:A:H1'	1:AA:344:A:N7	2.29	0.48
1:AA:763:G:H2'	1:AA:764:C:O5'	2.14	0.48
1:AA:859:G:H2'	1:AA:860:A:C8	2.49	0.48
2:AB:63:LYS:O	2:AB:65:LYS:CE	2.61	0.48
3:AC:10:ARG:O	3:AC:12:GLY:N	2.46	0.48
5:AE:150:GLU:O	5:AE:153:ALA:N	2.47	0.48
6:AF:38:ARG:HB3	6:AF:63:ASN:HB2	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:29:ILE:HG22	9:AI:64:ILE:HD11	1.96	0.48
13:AM:70:ARG:HD2	13:AM:74:MET:CE	2.43	0.48
22:AV:130:C:H4'	22:AV:131:U:OP2	2.13	0.48
22:AV:20:A:H3'	22:AV:21:C:C4	2.37	0.48
22:AV:204:G:O6	22:AV:222:U:OP2	2.30	0.48
22:AV:270:C:H1'	22:AV:293:G:N2	2.29	0.48
22:AV:320:U:O2'	22:AV:321:G:OP1	2.30	0.48
22:AV:38:A:O2'	22:AV:39:A:O5'	2.32	0.48
23:AW:72:ASP:CB	23:AW:75:ARG:HH21	2.24	0.48
24:AX:54:G:N2	24:AX:62:C:H42	2.11	0.48
25:AY:289:ILE:O	25:AY:301:ILE:HG12	2.13	0.48
25:AY:315:LYS:HD2	25:AY:317:MET:HG3	1.95	0.48
25:AY:422:GLU:O	25:AY:425:SER:N	2.47	0.48
26:BA:1348:C:H2'	26:BA:1349:C:H5'	1.95	0.48
26:BA:1359:A:C8	26:BA:1373:A:N1	2.81	0.48
26:BA:1561:C:H2'	26:BA:1562:U:C6	2.48	0.48
26:BA:1838:C:H4'	26:BA:1839:G:C8	2.48	0.48
26:BA:2093:G:H1'	26:BA:2225:A:N6	2.29	0.48
26:BA:2516:A:C6	26:BA:2517:C:N4	2.82	0.48
26:BA:2660:A:C2	26:BA:2661:G:H1'	2.49	0.48
26:BA:275:C:C4	26:BA:276:U:H6	2.31	0.48
26:BA:473:G:C2'	26:BA:474:G:O5'	2.61	0.48
26:BA:565:C:H4'	26:BA:1253:A:N6	2.29	0.48
26:BA:790:U:O5'	26:BA:790:U:C2'	2.62	0.48
26:BA:874:G:O6	26:BA:904:G:O6	2.30	0.48
26:BA:886:A:O2'	26:BA:887:U:OP1	2.30	0.48
27:BC:156:SER:O	27:BC:194:VAL:CG1	2.62	0.48
27:BC:170:TYR:CD2	27:BC:184:GLU:CA	2.96	0.48
27:BC:250:GLN:HB3	27:BC:254:LYS:HB2	1.96	0.48
29:BE:84:THR:HG22	29:BE:85:PHE:CG	2.48	0.48
33:BI:100:ILE:HG22	33:BI:104:GLN:HB2	1.95	0.48
33:BI:33:ASN:C	33:BI:35:MET:H	2.16	0.48
34:BJ:73:VAL:HG12	34:BJ:75:TYR:CE2	2.48	0.48
37:BM:24:THR:CG2	37:BM:24:THR:O	2.60	0.48
39:BO:49:VAL:HG12	39:BO:49:VAL:O	2.11	0.48
44:BT:8:LEU:HD22	49:BY:22:LEU:HA	1.95	0.48
49:BY:9:LYS:H	49:BY:12:GLU:HB2	1.79	0.48
26:BA:96:C:H4'	49:BY:41:HIS:CG	2.48	0.48
1:AA:1238:A:N3	1:AA:1241:G:H1'	2.29	0.48
1:AA:1300:G:C4	1:AA:1334:G:C6	3.01	0.48
1:AA:158:G:C2'	1:AA:159:G:H5''	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:769:G:C2'	1:AA:770:C:O5'	2.62	0.48
1:AA:872:A:C4	1:AA:874:G:N7	2.82	0.48
2:AB:110:ILE:CD1	2:AB:150:ILE:HG12	2.43	0.48
3:AC:54:ILE:O	3:AC:54:ILE:CD1	2.61	0.48
6:AF:18:VAL:CB	6:AF:19:PRO:CD	2.87	0.48
6:AF:39:LEU:HD13	6:AF:40:GLU:N	2.29	0.48
8:AH:15:ASN:O	8:AH:16:GLY:C	2.52	0.48
11:AK:87:GLY:H	11:AK:113:THR:CG2	2.27	0.48
13:AM:40:GLU:HG3	13:AM:41:ASP:H	1.77	0.48
14:AN:43:ASN:OD1	14:AN:47:LYS:NZ	2.47	0.48
16:AP:10:GLY:O	16:AP:11:ALA:HB2	2.11	0.48
17:AQ:12:VAL:HG12	17:AQ:21:VAL:HG13	1.96	0.48
19:AS:11:ASP:OD1	19:AS:36:ARG:HD2	2.13	0.48
22:AV:120:U:O2	22:AV:120:U:O4'	2.30	0.48
22:AV:257:U:N3	22:AV:258:G:N1	2.60	0.48
23:AW:27:LYS:CD	23:AW:30:GLU:OE1	2.56	0.48
23:AW:83:LYS:O	23:AW:86:LEU:HD22	2.13	0.48
25:AY:451:ILE:O	25:AY:451:ILE:HG23	2.13	0.48
25:AY:451:ILE:HG23	25:AY:459:LEU:HD23	1.95	0.48
25:AY:507:TYR:CD1	25:AY:507:TYR:C	2.86	0.48
25:AY:637:ARG:O	25:AY:638:GLY:C	2.52	0.48
25:AY:73:PHE:CE2	25:AY:78:ARG:HB2	2.49	0.48
26:BA:1665:A:N3	35:BK:1:MET:CE	2.76	0.48
26:BA:1707:G:H2'	26:BA:1708:C:O4'	2.14	0.48
26:BA:1737:G:C6	26:BA:1738:G:C2	3.01	0.48
26:BA:1721:G:C6	26:BA:1738:G:C6	3.01	0.48
26:BA:1637:A:H5'	26:BA:1760:C:O2'	2.14	0.48
26:BA:2136:G:H1	26:BA:2155:U:H3	1.61	0.48
26:BA:225:C:C2'	26:BA:226:A:H5'	2.44	0.48
26:BA:2491:U:H5'	26:BA:2570:G:H5'	1.95	0.48
26:BA:2655:G:O2'	26:BA:2656:U:OP2	2.32	0.48
26:BA:734:A:C5	26:BA:735:A:C8	3.01	0.48
26:BA:876:C:C3'	26:BA:877:A:C8	2.96	0.48
56:BB:2:G:N3	56:BB:2:G:H2'	2.29	0.48
27:BC:128:THR:C	27:BC:129:LEU:HD23	2.34	0.48
28:BD:4:LEU:HD11	28:BD:96:ILE:HG22	1.95	0.48
29:BE:134:LEU:HD23	29:BE:160:ALA:O	2.13	0.48
29:BE:3:LEU:CD1	29:BE:14:VAL:HG21	2.44	0.48
30:BF:94:ARG:HB3	30:BF:94:ARG:NH1	2.29	0.48
31:BG:73:SER:HA	31:BG:76:ILE:HG12	1.95	0.48
32:BH:1:MET:SD	32:BH:3:VAL:CG1	3.02	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BI:102:ARG:HA	33:BI:141:ASP:OD2	2.14	0.48
35:BK:70:ARG:CD	35:BK:76:VAL:HG22	2.43	0.48
37:BM:36:VAL:HG23	37:BM:129:THR:CG2	2.42	0.48
42:BR:68:ARG:HG2	42:BR:92:TRP:CE3	2.49	0.48
44:BT:31:VAL:HA	44:BT:83:ALA:O	2.13	0.48
1:AA:1059:C:H2'	1:AA:1060:U:H6	1.78	0.48
1:AA:1096:C:HO2'	1:AA:1170:A:C2'	2.26	0.48
1:AA:1241:G:H2'	1:AA:1242:G:H8	1.78	0.48
1:AA:1494:G:C2	1:AA:1495:U:C6	3.01	0.48
1:AA:1519:A:C8	1:AA:1520:C:H1'	2.49	0.48
1:AA:193:C:H2'	1:AA:194:C:H6	1.78	0.48
1:AA:399:G:H2'	1:AA:400:C:H6	1.77	0.48
2:AB:129:THR:HB	2:AB:131:LYS:HB3	1.94	0.48
3:AC:51:VAL:HA	3:AC:69:THR:HA	1.95	0.48
4:AD:117:VAL:O	4:AD:130:ASN:HB2	2.14	0.48
5:AE:81:GLN:NE2	5:AE:149:PRO:CD	2.77	0.48
6:AF:3:HIS:CB	6:AF:92:THR:HG23	2.43	0.48
8:AH:24:VAL:CG1	8:AH:62:LEU:HD21	2.44	0.48
9:AI:129:ARG:HG3	9:AI:129:ARG:OXT	2.12	0.48
1:AA:972:C:C4'	10:AJ:59:LYS:HE2	2.39	0.48
11:AK:30:ILE:C	11:AK:30:ILE:HD12	2.34	0.48
13:AM:88:LEU:O	13:AM:92:ARG:HG3	2.13	0.48
10:AJ:65:TYR:HB2	14:AN:96:LEU:HD11	1.96	0.48
15:AO:45:HIS:C	15:AO:47:LYS:H	2.17	0.48
18:AR:48:ALA:O	18:AR:49:LYS:C	2.52	0.48
19:AS:5:LYS:HD2	19:AS:6:LYS:HG2	1.94	0.48
20:AT:54:GLN:HB3	20:AT:55:PRO:HD3	1.94	0.48
11:AK:125:LYS:C	21:AU:33:ARG:NH2	2.67	0.48
22:AV:162:A:C2	22:AV:163:G:C5	3.02	0.48
22:AV:175:A:C2	22:AV:176:G:N7	2.82	0.48
22:AV:247:A:C5'	22:AV:248:G:H5'	2.43	0.48
22:AV:44:C:P	22:AV:264:U:OP1	2.71	0.48
23:AW:59:TYR:HE1	23:AW:73:PRO:HB3	1.74	0.48
24:AX:11:A:H61	24:AX:25:U:H3	1.62	0.48
24:AX:48:U:N1	24:AX:51:U:OP1	2.47	0.48
25:AY:125:ALA:C	25:AY:127:LYS:H	2.17	0.48
25:AY:125:ALA:C	25:AY:127:LYS:N	2.66	0.48
25:AY:289:ILE:CD1	25:AY:331:TYR:CZ	2.97	0.48
25:AY:523:PHE:CE1	25:AY:550:MET:SD	3.07	0.48
25:AY:514:VAL:HG21	25:AY:593:ALA:HB1	1.94	0.48
26:BA:1361:G:C6	26:BA:1362:C:N4	2.81	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:1385:A:O2'	26:BA:1396:U:O2	2.31	0.48
26:BA:1599:U:H2'	26:BA:1600:C:C6	2.48	0.48
26:BA:1871:A:N7	26:BA:1872:A:N1	2.61	0.48
26:BA:1979:U:C2'	26:BA:1980:G:H5'	2.44	0.48
26:BA:2102:G:C5	26:BA:2103:C:C5	3.02	0.48
26:BA:2093:G:C2'	26:BA:2198:A:N1	2.66	0.48
26:BA:2748:A:C1'	31:BG:66:THR:HG22	2.39	0.48
26:BA:2785:C:O2'	28:BD:67:HIS:CD2	2.62	0.48
26:BA:528:A:C3'	26:BA:528:A:C8	2.97	0.48
26:BA:687:C:H1'	53:B2:4:THR:HG22	1.95	0.48
27:BC:96:LYS:HE2	27:BC:96:LYS:HA	1.95	0.48
29:BE:192:ALA:O	29:BE:193:VAL:C	2.52	0.48
30:BF:147:ARG:CG	30:BF:148:VAL:N	2.76	0.48
30:BF:48:LEU:HA	30:BF:51:ASN:ND2	2.28	0.48
39:BO:31:THR:HG23	56:BB:29:A:OP2	2.14	0.48
46:BV:4:ILE:HG13	46:BV:50:MET:HE1	1.96	0.48
48:BX:69:GLU:O	48:BX:73:ARG:HG2	2.13	0.48
1:AA:1079:G:C2'	1:AA:1080:A:C8	2.97	0.48
1:AA:1103:C:C2'	1:AA:1104:G:O5'	2.62	0.48
1:AA:1235:U:H2'	1:AA:1236:A:O5'	2.13	0.48
1:AA:1350:A:OP2	9:AI:119:LYS:HE2	2.14	0.48
1:AA:1397:C:H3'	1:AA:1398:A:H5''	1.95	0.48
1:AA:140:U:H2'	1:AA:141:G:O5'	2.13	0.48
1:AA:478:A:H2'	1:AA:479:U:O5'	2.14	0.48
1:AA:49:U:O2'	1:AA:50:A:H2'	2.14	0.48
1:AA:55:A:H2'	1:AA:56:U:O4'	2.14	0.48
1:AA:575:G:H4'	1:AA:576:C:OP1	2.14	0.48
1:AA:244:U:O2	1:AA:894:G:H1'	2.13	0.48
1:AA:915:A:H2'	1:AA:916:U:H5'	1.96	0.48
2:AB:26:MET:CE	2:AB:29:PHE:CD2	2.97	0.48
3:AC:147:GLY:CA	3:AC:171:ARG:H	2.27	0.48
3:AC:205:GLU:OE2	3:AC:205:GLU:HA	2.14	0.48
4:AD:162:GLU:HA	4:AD:166:LYS:CD	2.44	0.48
4:AD:167:PRO:HB2	4:AD:170:LEU:HD11	1.95	0.48
5:AE:32:PHE:N	5:AE:32:PHE:CD2	2.82	0.48
5:AE:37:VAL:HA	5:AE:47:PHE:HA	1.95	0.48
1:AA:1377:A:N3	7:AG:6:ILE:HD11	2.29	0.48
8:AH:88:LYS:HG3	8:AH:89:ASP:N	2.28	0.48
10:AJ:25:ILE:HG22	10:AJ:26:VAL:N	2.28	0.48
12:AL:49:ARG:HG3	12:AL:89:LEU:HD11	1.96	0.48
10:AJ:65:TYR:OH	14:AN:85:ARG:CD	2.62	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:6:LEU:HG	16:AP:17:TYR:CB	2.44	0.48
16:AP:44:SER:OG	16:AP:46:LYS:HG3	2.14	0.48
16:AP:53:ASP:O	16:AP:57:ILE:HG13	2.14	0.48
16:AP:72:ALA:HA	16:AP:75:ILE:HD11	1.95	0.48
20:AT:8:LYS:O	20:AT:9:ARG:C	2.50	0.48
21:AU:16:ARG:C	21:AU:18:PHE:H	2.15	0.48
21:AU:32:ARG:HH11	21:AU:32:ARG:HG2	1.78	0.48
22:AV:199:C:C3'	22:AV:200:G:N7	2.75	0.48
22:AV:231:A:C2	22:AV:232:A:C6	3.01	0.48
22:AV:303:G:OP2	22:AV:304:C:OP2	2.32	0.48
23:AW:26:LEU:HD13	23:AW:34:LEU:CD1	2.40	0.48
23:AW:52:GLU:CG	23:AW:54:TYR:HE1	2.25	0.48
23:AW:62:PRO:CB	23:AW:70:ASN:ND2	2.77	0.48
23:AW:93:VAL:O	23:AW:98:LEU:N	2.46	0.48
24:AX:22:A:C6	24:AX:47:G:C5	3.02	0.48
25:AY:17:ILE:CD1	25:AY:17:ILE:N	2.77	0.48
25:AY:217:VAL:HG22	25:AY:242:LEU:HD21	1.95	0.48
25:AY:652:MET:HE2	25:AY:655:TYR:HB2	1.96	0.48
26:BA:1084:A:C5	26:BA:1085:A:N6	2.82	0.48
26:BA:1319:C:C2'	26:BA:1320:C:H5'	2.44	0.48
26:BA:1880:U:H2'	26:BA:1881:C:C6	2.49	0.48
26:BA:1924:C:H3'	26:BA:1925:C:C5'	2.44	0.48
26:BA:2032:G:N1	26:BA:2572:A:C8	2.82	0.48
26:BA:2149:U:H2'	26:BA:2150:C:C6	2.49	0.48
26:BA:2415:G:H2'	26:BA:2416:C:O5'	2.14	0.48
26:BA:359:G:C6	26:BA:360:U:C6	3.01	0.48
26:BA:684:G:C6	26:BA:774:G:C4	3.02	0.48
26:BA:866:A:C4	26:BA:867:C:C5	3.01	0.48
27:BC:90:ILE:HD12	27:BC:102:TYR:CD1	2.49	0.48
28:BD:125:TRP:CD2	28:BD:160:LYS:HD2	2.48	0.48
29:BE:177:PRO:O	29:BE:178:VAL:C	2.51	0.48
32:BH:66:ASN:CG	32:BH:138:VAL:HG21	2.34	0.48
37:BM:74:THR:O	37:BM:75:GLU:HG3	2.13	0.48
38:BN:49:GLU:HB2	38:BN:50:PRO:HD3	1.96	0.48
42:BR:51:VAL:CB	42:BR:52:PRO:CD	2.92	0.48
1:AA:1057:G:O2'	3:AC:196:GLY:HA3	2.13	0.48
1:AA:1505:G:H4'	1:AA:1506:U:H5''	1.96	0.48
1:AA:212:G:H2'	1:AA:213:G:C8	2.48	0.48
1:AA:11:G:C2	1:AA:24:U:O2	2.66	0.48
1:AA:657:U:O2	1:AA:657:U:C2'	2.62	0.48
1:AA:737:C:H2'	1:AA:738:C:C6	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:859:G:C2'	1:AA:860:A:O5'	2.62	0.48
2:AB:24:PRO:C	2:AB:26:MET:H	2.16	0.48
3:AC:154:GLY:HA2	3:AC:163:ARG:N	2.29	0.48
5:AE:125:LYS:HG3	5:AE:126:ALA:N	2.29	0.48
5:AE:83:PRO:CA	5:AE:97:PRO:HD3	2.44	0.48
6:AF:40:GLU:HB2	6:AF:42:TRP:HE1	1.78	0.48
9:AI:43:ALA:C	9:AI:45:MET:H	2.17	0.48
11:AK:82:GLU:HG3	11:AK:108:ASN:HD22	1.77	0.48
11:AK:95:THR:HG23	11:AK:96:ILE:H	1.79	0.48
13:AM:18:LEU:HD12	13:AM:32:ILE:HG21	1.96	0.48
13:AM:53:ASP:HB3	13:AM:56:ARG:HH21	1.79	0.48
17:AQ:16:MET:C	17:AQ:19:SER:HB3	2.34	0.48
1:AA:130:A:N7	17:AQ:64:ARG:HB2	2.29	0.48
22:AV:113:A:C6	22:AV:114:G:O6	2.67	0.48
22:AV:40:G:C5	22:AV:316:A:N3	2.82	0.48
22:AV:63:C:C5	22:AV:73:A:N1	2.82	0.48
23:AW:28:GLY:HA2	23:AW:31:VAL:HG23	1.96	0.48
24:AX:40:C:C2'	24:AX:41:C:H5'	2.39	0.48
25:AY:282:SER:O	25:AY:286:ILE:HD13	2.14	0.48
25:AY:639:ASN:CB	33:BI:29:GLN:CG	2.83	0.48
26:BA:1056:G:HO2'	26:BA:1086:A:H8	1.61	0.48
26:BA:142:A:C8	26:BA:142:A:OP2	2.67	0.48
26:BA:1520:U:H2'	26:BA:1520:U:O2	2.13	0.48
26:BA:2207:C:H2'	26:BA:2208:C:H6	1.78	0.48
26:BA:2287:A:C4	26:BA:2289:G:N7	2.82	0.48
26:BA:371:A:H5''	26:BA:423:A:C2	2.48	0.48
26:BA:460:A:P	53:B2:41:ARG:HH12	2.37	0.48
26:BA:691:C:O2'	26:BA:692:C:H5'	2.14	0.48
26:BA:869:G:O6	26:BA:909:A:N6	2.46	0.48
26:BA:907:G:O3'	37:BM:22:GLN:CB	2.62	0.48
26:BA:967:U:H2'	26:BA:968:C:C6	2.48	0.48
30:BF:135:ILE:N	30:BF:135:ILE:HD12	2.29	0.48
30:BF:105:ILE:CD1	30:BF:138:PRO:HG3	2.44	0.48
30:BF:30:VAL:CG2	30:BF:30:VAL:O	2.62	0.48
31:BG:102:ILE:HD12	31:BG:147:LEU:HD11	1.95	0.48
35:BK:47:ILE:HB	35:BK:48:PRO:HD3	1.96	0.48
26:BA:587:C:N3	36:BL:33:ARG:NH2	2.61	0.48
38:BN:28:LEU:HD12	38:BN:28:LEU:O	2.14	0.48
38:BN:36:THR:HG23	38:BN:37:THR:N	2.29	0.48
1:AA:1432:G:P	40:BP:105:LYS:HG2	2.53	0.48
26:BA:994:C:H1'	42:BR:10:LYS:HE3	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BU:70:ALA:HB3	45:BU:79:ALA:HB1	1.95	0.48
46:BV:66:ASP:O	46:BV:67:GLY:C	2.52	0.48
1:AA:1085:U:C6	1:AA:1094:G:N1	2.80	0.47
1:AA:1160:G:O2'	1:AA:1161:C:P	2.72	0.47
1:AA:1304:G:C6	1:AA:1305:G:N2	2.82	0.47
1:AA:1352:C:H2'	1:AA:1353:G:C8	2.49	0.47
1:AA:198:G:C6	1:AA:199:A:N7	2.82	0.47
1:AA:335:C:O2'	1:AA:336:A:H5'	2.14	0.47
1:AA:439:U:C5	1:AA:440:C:H5	2.32	0.47
1:AA:503:C:H6	1:AA:503:C:O5'	1.97	0.47
1:AA:609:A:O5'	1:AA:609:A:H8	1.97	0.47
1:AA:72:A:N6	1:AA:73:C:N4	2.62	0.47
1:AA:745:G:O2'	1:AA:746:A:H5'	2.14	0.47
2:AB:9:LEU:HG	2:AB:11:ALA:H	1.78	0.47
6:AF:82:ASP:OD1	6:AF:82:ASP:N	2.47	0.47
5:AE:158:LYS:OXT	8:AH:46:GLU:OE2	2.31	0.47
9:AI:22:PRO:HA	9:AI:60:LEU:HB3	1.96	0.47
11:AK:96:ILE:HA	11:AK:99:LEU:HD23	1.96	0.47
19:AS:12:LEU:O	19:AS:13:HIS:C	2.51	0.47
22:AV:167:G:C2	22:AV:168:G:C5	3.02	0.47
22:AV:171:A:C4	22:AV:172:U:C4	3.02	0.47
22:AV:29:G:C2'	22:AV:30:C:C5'	2.86	0.47
22:AV:334:A:O3'	22:AV:335:C:N3	2.47	0.47
22:AV:344:A:O2'	30:BF:77:LYS:HG2	2.14	0.47
22:AV:60:U:N3	22:AV:63:C:H5	2.06	0.47
24:AX:40:C:C4	24:AX:41:C:C5	3.02	0.47
24:AX:51:U:H3'	24:AX:52:C:C5	2.49	0.47
25:AY:9:LEU:HD23	25:AY:10:LYS:N	2.28	0.47
25:AY:128:TYR:O	25:AY:129:LYS:CB	2.60	0.47
25:AY:99:ARG:CZ	25:AY:128:TYR:HB2	2.44	0.47
54:B3:49:VAL:HG12	54:B3:53:ASP:HB2	1.96	0.47
26:BA:1104:C:OP2	26:BA:1104:C:C6	2.67	0.47
26:BA:1281:G:C2	26:BA:1290:C:C2	3.02	0.47
26:BA:1420:A:HO2'	26:BA:1421:G:H5'	1.77	0.47
26:BA:1482:G:C2	26:BA:1483:G:C5	3.02	0.47
26:BA:1716:U:C2'	26:BA:1717:A:H5'	2.44	0.47
26:BA:1747:U:H2'	26:BA:1748:C:C6	2.48	0.47
26:BA:1872:A:H2'	26:BA:1873:G:O4'	2.13	0.47
26:BA:2196:C:O2'	26:BA:2197:U:H5'	2.14	0.47
26:BA:2221:G:H2'	26:BA:2222:C:H5'	1.95	0.47
24:AX:77:A:C5	26:BA:2421:G:C3'	2.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:2774:C:H2'	26:BA:2775:G:O4'	2.14	0.47
26:BA:278:A:H2'	26:BA:278:A:N3	2.29	0.47
26:BA:742:A:H2'	26:BA:743:A:C8	2.49	0.47
56:BB:65:U:O5'	56:BB:65:U:H6	1.97	0.47
30:BF:71:LYS:HA	30:BF:71:LYS:HE2	1.96	0.47
33:BI:15:GLY:CA	33:BI:50:LYS:HB3	2.41	0.47
36:BL:106:GLU:HB3	36:BL:107:PHE:CE2	2.48	0.47
41:BQ:56:PHE:O	41:BQ:57:ARG:C	2.52	0.47
48:BX:76:LYS:HE3	48:BX:77:TYR:H	1.79	0.47
1:AA:1259:C:N4	1:AA:1260:G:C4	2.82	0.47
1:AA:20:U:H2'	1:AA:21:G:H5'	1.95	0.47
1:AA:407:U:O2'	4:AD:112:GLU:HG3	2.13	0.47
1:AA:591:U:H2'	1:AA:592:G:H8	1.79	0.47
1:AA:623:C:H2'	1:AA:624:C:H5'	1.96	0.47
1:AA:656:G:C4	1:AA:657:U:C5	3.02	0.47
1:AA:79:G:H2'	1:AA:80:A:O4'	2.15	0.47
2:AB:193:ASP:C	2:AB:195:VAL:N	2.66	0.47
3:AC:13:ILE:HG12	3:AC:13:ILE:O	2.14	0.47
3:AC:171:ARG:C	3:AC:172:VAL:CG2	2.82	0.47
3:AC:2:GLN:C	3:AC:3:LYS:HG2	2.35	0.47
5:AE:115:GLU:C	5:AE:115:GLU:CD	2.73	0.47
9:AI:49:GLN:HE22	9:AI:79:ARG:NH1	2.12	0.47
9:AI:60:LEU:HD23	9:AI:60:LEU:N	2.28	0.47
9:AI:85:ALA:C	9:AI:87:MET:N	2.64	0.47
10:AJ:6:ILE:HD13	10:AJ:76:ILE:HB	1.96	0.47
11:AK:22:ILE:HG13	11:AK:22:ILE:O	2.14	0.47
1:AA:982:U:OP1	14:AN:70:PRO:HG2	2.15	0.47
17:AQ:20:ILE:HD13	17:AQ:47:ASP:OD1	2.14	0.47
20:AT:53:MET:HA	20:AT:56:ILE:CG2	2.44	0.47
21:AU:40:PRO:O	21:AU:44:ARG:HD3	2.13	0.47
22:AV:164:G:OP1	22:AV:165:A:OP2	2.33	0.47
22:AV:166:C:C2	22:AV:167:G:N7	2.82	0.47
22:AV:247:A:H8	22:AV:247:A:O5'	1.96	0.47
22:AV:31:G:C6	22:AV:34:A:H5'	2.43	0.47
22:AV:45:A:C2	22:AV:46:U:C5	3.02	0.47
22:AV:45:A:N3	22:AV:46:U:C6	2.83	0.47
22:AV:17:U:H1'	23:AW:112:TYR:CD1	2.48	0.47
25:AY:315:LYS:HZ3	25:AY:317:MET:HG2	1.78	0.47
25:AY:513:LYS:HB3	25:AY:566:THR:HB	1.95	0.47
26:BA:84:A:H62	26:BA:101:A:H2	1.63	0.47
25:AY:633:GLY:HA3	26:BA:1068:G:H8	1.67	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:1076:C:H2'	26:BA:1077:A:O4'	2.14	0.47
26:BA:1139:G:O3'	34:BJ:26:GLY:CA	2.62	0.47
26:BA:1547:C:C2'	26:BA:1548:A:O5'	2.62	0.47
26:BA:2303:G:C4	26:BA:2304:G:C8	3.02	0.47
26:BA:2348:U:H2'	26:BA:2349:G:O4'	2.14	0.47
26:BA:2591:C:H2'	26:BA:2592:G:C8	2.49	0.47
27:BC:159:THR:N	27:BC:194:VAL:CG1	2.77	0.47
29:BE:7:ASP:C	29:BE:9:GLN:H	2.18	0.47
30:BF:73:VAL:HG22	30:BF:78:ILE:CD1	2.44	0.47
31:BG:25:ILE:O	31:BG:78:VAL:CG1	2.62	0.47
31:BG:8:VAL:CG1	31:BG:49:LEU:CB	2.83	0.47
32:BH:57:LYS:HG2	32:BH:58:LEU:HG	1.96	0.47
32:BH:76:GLU:O	32:BH:143:ILE:HB	2.14	0.47
33:BI:71:LYS:N	33:BI:71:LYS:HD2	2.27	0.47
42:BR:51:VAL:HB	42:BR:52:PRO:HD3	1.94	0.47
44:BT:12:ARG:HH21	49:BY:29:ARG:NH2	2.12	0.47
26:BA:1392:A:N6	44:BT:18:GLU:CG	2.77	0.47
44:BT:56:GLU:HB2	44:BT:88:LYS:H	1.77	0.47
45:BU:71:ILE:O	45:BU:71:ILE:HG12	2.14	0.47
48:BX:10:ARG:HB2	48:BX:11:PRO:HD2	1.95	0.47
48:BX:17:ARG:HA	48:BX:17:ARG:HD2	1.76	0.47
49:BY:22:LEU:HG	49:BY:23:ARG:H	1.78	0.47
1:AA:1068:G:N7	1:AA:1094:G:H2'	2.29	0.47
1:AA:1175:G:O2'	1:AA:1176:A:H5'	2.14	0.47
1:AA:1230:C:H6	1:AA:1230:C:O5'	1.97	0.47
1:AA:1339:A:N3	24:AX:32:G:C4'	2.69	0.47
1:AA:146:G:C2'	1:AA:147:G:H5'	2.44	0.47
1:AA:157:U:H1'	1:AA:165:G:N2	2.29	0.47
1:AA:417:G:C2	1:AA:418:C:C2	3.02	0.47
1:AA:430:A:OP2	4:AD:7:LYS:HG2	2.14	0.47
1:AA:554:A:H2'	1:AA:555:U:C6	2.49	0.47
1:AA:69:G:H2'	1:AA:70:U:C6	2.49	0.47
1:AA:806:C:O2	1:AA:807:A:C8	2.67	0.47
1:AA:885:G:O2'	1:AA:914:A:N1	2.27	0.47
1:AA:923:A:H2'	1:AA:924:C:O4'	2.15	0.47
2:AB:134:LEU:HA	2:AB:137:THR:OG1	2.14	0.47
2:AB:49:PHE:CB	2:AB:212:TYR:OH	2.62	0.47
3:AC:166:TRP:O	3:AC:166:TRP:HE3	1.98	0.47
1:AA:1061:G:OP2	3:AC:1:GLY:O	2.32	0.47
4:AD:2:ARG:CZ	4:AD:114:ARG:CD	2.92	0.47
4:AD:169:TRP:HB3	4:AD:183:ARG:CZ	2.43	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:171:GLU:HG2	4:AD:182:LYS:NZ	2.29	0.47
4:AD:97:LEU:CD2	4:AD:117:VAL:HG11	2.44	0.47
1:AA:922:G:O2'	5:AE:25:LYS:CA	2.62	0.47
11:AK:109:ILE:HG22	21:AU:16:ARG:HE	1.79	0.47
11:AK:96:ILE:HD12	11:AK:96:ILE:C	2.35	0.47
12:AL:105:GLY:HA3	12:AL:117:GLY:O	2.14	0.47
15:AO:45:HIS:O	15:AO:47:LYS:N	2.48	0.47
15:AO:49:HIS:O	15:AO:52:ARG:HB3	2.15	0.47
16:AP:28:ARG:HG2	16:AP:29:ASN:OD1	2.14	0.47
20:AT:2:ASN:O	20:AT:3:ILE:C	2.52	0.47
22:AV:11:C:O2'	22:AV:12:U:OP2	2.33	0.47
22:AV:168:G:C2	22:AV:169:G:C5	3.02	0.47
22:AV:28:U:C2	22:AV:29:G:C6	3.02	0.47
22:AV:49:C:O2	22:AV:303:G:N3	2.48	0.47
23:AW:108:ASN:CG	23:AW:114:LYS:HZ2	2.17	0.47
25:AY:214:GLU:O	25:AY:218:GLU:N	2.42	0.47
25:AY:351:ARG:O	25:AY:351:ARG:HG3	2.13	0.47
25:AY:416:LYS:NZ	25:AY:417:THR:HG23	2.29	0.47
25:AY:89:ASP:HB2	25:AY:90:PHE:H	1.37	0.47
55:B4:36:ARG:CG	55:B4:37:GLN:H	2.26	0.47
26:BA:1079:C:C2	26:BA:1080:A:C8	3.03	0.47
26:BA:1081:U:OP2	26:BA:1081:U:C6	2.66	0.47
26:BA:1057:A:N6	26:BA:1086:A:O3'	2.47	0.47
26:BA:1234:U:H6	26:BA:1234:U:O5'	1.97	0.47
26:BA:1348:C:H2'	26:BA:1349:C:C5'	2.45	0.47
26:BA:1408:G:C2'	26:BA:1409:U:H5'	2.44	0.47
26:BA:1592:C:H2'	26:BA:1593:A:C8	2.49	0.47
26:BA:1734:G:C5	26:BA:1735:A:N7	2.82	0.47
26:BA:1871:A:C8	26:BA:1872:A:C2	3.03	0.47
26:BA:1:G:H8	26:BA:1:G:OP2	1.97	0.47
26:BA:2223:G:C3'	26:BA:2224:G:H5'	2.45	0.47
26:BA:21:A:C2'	26:BA:22:C:O5'	2.63	0.47
26:BA:361:G:O2'	26:BA:362:A:O5'	2.30	0.47
26:BA:368:A:O5'	26:BA:368:A:H8	1.97	0.47
26:BA:479:A:HO2'	26:BA:481:G:H8	1.61	0.47
26:BA:535:G:H2'	26:BA:536:G:H5'	1.94	0.47
26:BA:867:C:C4	26:BA:868:U:C4	3.01	0.47
26:BA:875:G:H8	26:BA:875:G:O5'	1.97	0.47
28:BD:12:THR:HG21	40:BP:8:GLU:CG	2.45	0.47
28:BD:85:ALA:O	28:BD:86:GLU:O	2.31	0.47
29:BE:144:GLU:OE2	29:BE:166:LYS:HD3	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BF:30:VAL:HG23	30:BF:95:MET:SD	2.55	0.47
33:BI:42:ASN:HB3	33:BI:46:ASP:OD1	2.14	0.47
35:BK:109:SER:O	35:BK:112:PHE:N	2.46	0.47
36:BL:28:GLY:C	36:BL:29:LYS:O	2.51	0.47
1:AA:1053:G:H4'	1:AA:1054:C:C5'	2.43	0.47
1:AA:1238:A:H2	1:AA:1241:G:N3	2.11	0.47
1:AA:1313:U:C2	1:AA:1314:C:C5	3.02	0.47
1:AA:1377:A:C5	7:AG:6:ILE:HD12	2.50	0.47
1:AA:1410:A:O2'	1:AA:1411:C:C5'	2.61	0.47
1:AA:143:A:H5'	1:AA:144:G:O5'	2.15	0.47
1:AA:1480:A:C4	1:AA:1481:U:C6	3.02	0.47
1:AA:1417:G:N2	1:AA:1482:G:H2'	2.29	0.47
1:AA:1507:A:C5	1:AA:1530:G:C6	3.03	0.47
1:AA:214:C:H2'	1:AA:215:C:C6	2.48	0.47
1:AA:307:C:C5	1:AA:308:C:C5	3.02	0.47
1:AA:502:A:C2	1:AA:503:C:C2	3.03	0.47
2:AB:14:HIS:O	2:AB:15:PHE:C	2.52	0.47
3:AC:183:TYR:HA	3:AC:199:VAL:O	2.14	0.47
5:AE:100:GLU:HB2	5:AE:121:ASN:HB3	1.95	0.47
5:AE:104:ILE:HA	5:AE:122:VAL:HG23	1.94	0.47
6:AF:71:ILE:HG23	6:AF:72:ASP:H	1.79	0.47
8:AH:100:ILE:HD11	8:AH:128:VAL:HB	1.96	0.47
10:AJ:27:GLU:C	10:AJ:29:ALA:H	2.17	0.47
11:AK:46:ALA:HA	11:AK:65:ALA:HB2	1.96	0.47
13:AM:44:ILE:O	13:AM:44:ILE:HG22	2.15	0.47
13:AM:65:GLU:O	13:AM:68:LEU:N	2.48	0.47
19:AS:39:ILE:CD1	19:AS:70:LEU:CD2	2.92	0.47
22:AV:118:C:H2'	22:AV:119:U:C5'	2.43	0.47
22:AV:240:U:H4'	22:AV:240:U:OP1	2.14	0.47
22:AV:247:A:C5'	22:AV:248:G:OP1	2.54	0.47
22:AV:260:C:H2'	22:AV:261:G:C8	2.50	0.47
22:AV:310:G:C2	22:AV:311:U:O4	2.64	0.47
22:AV:335:C:OP1	22:AV:335:C:C6	2.67	0.47
24:AX:49:C:P	24:AX:49:C:C6	3.08	0.47
25:AY:170:ARG:HH22	25:AY:208:GLN:HE22	1.62	0.47
25:AY:346:LYS:O	25:AY:347:GLY:C	2.52	0.47
25:AY:561:VAL:O	25:AY:562:ASP:HB2	2.13	0.47
26:BA:1023:U:H2'	26:BA:1024:G:H5'	1.96	0.47
26:BA:1075:C:H3'	26:BA:1075:C:C6	2.49	0.47
26:BA:1591:A:H2'	26:BA:1592:C:O4'	2.13	0.47
26:BA:2186:G:H2'	26:BA:2187:U:H6	1.77	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:2751:G:N3	26:BA:2751:G:H2'	2.29	0.47
26:BA:411:G:OP2	26:BA:2406:A:O2'	2.31	0.47
26:BA:572:A:H3'	26:BA:573:U:O4'	2.13	0.47
26:BA:632:A:H2'	26:BA:633:A:C8	2.49	0.47
26:BA:772:C:H2'	26:BA:773:U:H6	1.79	0.47
26:BA:880:G:C4'	26:BA:899:A:H61	2.27	0.47
26:BA:907:G:H2'	26:BA:908:C:C6	2.50	0.47
27:BC:195:GLY:O	27:BC:196:ASN:C	2.52	0.47
27:BC:63:ILE:HG22	27:BC:63:ILE:O	2.14	0.47
30:BF:101:ARG:O	30:BF:102:LEU:C	2.53	0.47
30:BF:46:LYS:C	30:BF:48:LEU:H	2.18	0.47
31:BG:89:VAL:HG21	31:BG:162:ARG:CZ	2.44	0.47
32:BH:24:GLY:O	32:BH:25:TYR:C	2.51	0.47
36:BL:106:GLU:CB	36:BL:107:PHE:CE2	2.98	0.47
26:BA:1277:G:H5'	38:BN:20:MET:HE1	1.97	0.47
39:BO:16:ARG:O	39:BO:20:GLU:HG3	2.14	0.47
49:BY:24:GLU:O	49:BY:25:GLN:C	2.52	0.47
1:AA:1213:A:C8	1:AA:1215:G:N7	2.82	0.47
1:AA:1508:A:H2'	1:AA:1509:C:C6	2.50	0.47
1:AA:16:A:C2'	1:AA:17:U:H5'	2.44	0.47
1:AA:201:G:H2'	1:AA:202:G:C8	2.49	0.47
1:AA:599:C:H4'	8:AH:121:GLY:C	2.35	0.47
1:AA:706:A:H2'	1:AA:707:U:H5'	1.95	0.47
1:AA:872:A:C5	1:AA:874:G:C8	3.02	0.47
1:AA:872:A:N7	1:AA:874:G:C8	2.83	0.47
1:AA:919:A:H2'	1:AA:919:A:N3	2.30	0.47
2:AB:56:LEU:HD13	2:AB:57:ASN:N	2.28	0.47
2:AB:61:SER:C	2:AB:63:LYS:N	2.67	0.47
2:AB:84:LEU:O	2:AB:88:GLN:O	2.33	0.47
4:AD:156:ALA:O	4:AD:160:LEU:HD13	2.14	0.47
4:AD:167:PRO:CB	4:AD:170:LEU:HD11	2.44	0.47
5:AE:19:ARG:HA	5:AE:31:SER:O	2.15	0.47
7:AG:94:ARG:CZ	7:AG:98:LEU:HD21	2.44	0.47
10:AJ:59:LYS:N	10:AJ:59:LYS:NZ	2.63	0.47
12:AL:54:VAL:HG12	12:AL:56:LEU:HD23	1.96	0.47
16:AP:52:LEU:HD23	16:AP:78:VAL:HG11	1.95	0.47
18:AR:22:TYR:CE1	18:AR:23:LYS:HG3	2.49	0.47
22:AV:185:A:C8	22:AV:186:A:N6	2.83	0.47
22:AV:153:U:H2'	22:AV:192:A:N7	2.30	0.47
22:AV:233:A:H2'	22:AV:234:A:OP1	2.15	0.47
22:AV:248:G:O6	22:AV:249:U:O4	2.32	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:263:G:C5'	22:AV:264:U:OP2	2.63	0.47
23:AW:34:LEU:C	23:AW:36:ALA:N	2.65	0.47
25:AY:176:GLY:HA2	25:AY:187:THR:HA	1.95	0.47
25:AY:210:ARG:HG2	25:AY:210:ARG:HH11	1.79	0.47
25:AY:259:PHE:CD1	25:AY:259:PHE:N	2.81	0.47
25:AY:504:ARG:O	25:AY:506:GLN:N	2.47	0.47
53:B2:30:VAL:O	53:B2:31:LEU:C	2.52	0.47
26:BA:1090:A:N1	26:BA:1091:G:N7	2.62	0.47
26:BA:1122:G:C6	26:BA:1123:C:C5	3.03	0.47
26:BA:1122:G:C2	26:BA:1123:C:C6	3.01	0.47
26:BA:1413:A:C2	26:BA:1590:A:C2	3.02	0.47
26:BA:1710:G:H4'	26:BA:2858:C:O2	2.15	0.47
26:BA:1838:C:C4	26:BA:1899:A:C5	3.03	0.47
26:BA:1840:G:C4	26:BA:1841:U:C6	3.02	0.47
23:AW:38:LYS:NZ	26:BA:1910:G:P	2.75	0.47
26:BA:2111:U:H5'	26:BA:2112:G:P	2.55	0.47
26:BA:2145:C:H3'	26:BA:2145:C:C6	2.49	0.47
26:BA:2545:G:H2'	26:BA:2546:U:O4'	2.14	0.47
26:BA:2732:G:O2'	26:BA:2733:A:H5'	2.13	0.47
26:BA:31:C:H2'	26:BA:32:C:C5'	2.45	0.47
26:BA:329:G:O4'	26:BA:477:A:H1'	2.13	0.47
26:BA:882:G:C2	26:BA:883:G:C5	3.03	0.47
27:BC:58:LYS:O	27:BC:59:GLN:HG3	2.15	0.47
28:BD:207:VAL:HG13	28:BD:208:LYS:N	2.29	0.47
30:BF:51:ASN:O	30:BF:52:ALA:C	2.53	0.47
33:BI:18:ASN:HD21	33:BI:27:LEU:HD21	1.78	0.47
36:BL:77:ILE:HD12	36:BL:100:ILE:HD11	1.96	0.47
39:BO:64:TYR:HB3	39:BO:67:ASN:ND2	2.29	0.47
39:BO:93:ASP:C	39:BO:95:SER:H	2.16	0.47
42:BR:14:VAL:HG11	42:BR:98:ILE:CD1	2.45	0.47
1:AA:1007:U:C2'	1:AA:1008:U:H5'	2.45	0.47
1:AA:1187:G:H5'	9:AI:114:LYS:HE3	1.95	0.47
1:AA:949:A:C4	1:AA:1233:G:N2	2.82	0.47
1:AA:328:C:C2'	1:AA:328:C:O2	2.62	0.47
1:AA:373:A:H2'	1:AA:374:A:H8	1.79	0.47
1:AA:675:A:H2'	1:AA:676:A:O5'	2.15	0.47
1:AA:710:G:H5''	6:AF:53:LYS:NZ	2.29	0.47
1:AA:854:U:C6	1:AA:871:U:O4	2.68	0.47
1:AA:94:G:N1	1:AA:98:A:C2	2.82	0.47
2:AB:9:LEU:HD11	2:AB:11:ALA:O	2.14	0.47
4:AD:101:VAL:HA	4:AD:104:MET:HG3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:121:ALA:N	4:AD:122:ILE:HD12	2.29	0.47
5:AE:114:LEU:HA	5:AE:114:LEU:HD12	1.74	0.47
5:AE:137:ARG:O	5:AE:138:ALA:C	2.50	0.47
1:AA:1291:U:P	7:AG:36:SER:HG	2.32	0.47
7:AG:42:VAL:O	7:AG:46:LEU:N	2.47	0.47
11:AK:52:ARG:O	11:AK:55:ARG:HB2	2.14	0.47
13:AM:53:ASP:CB	13:AM:56:ARG:HE	2.27	0.47
14:AN:73:PHE:CZ	14:AN:78:GLY:HA2	2.49	0.47
18:AR:54:LEU:O	18:AR:58:ILE:HG13	2.15	0.47
20:AT:67:HIS:HB3	20:AT:68:LYS:HG3	1.96	0.47
21:AU:7:GLU:CB	21:AU:11:PHE:HZ	2.27	0.47
22:AV:150:G:H2'	22:AV:150:G:N3	2.28	0.47
22:AV:180:G:O2'	22:AV:181:G:H1'	2.15	0.47
22:AV:17:U:C5'	22:AV:19:G:P	2.95	0.47
22:AV:46:U:H1'	22:AV:312:A:H4'	1.93	0.47
22:AV:321:G:O4'	22:AV:321:G:OP1	2.33	0.47
22:AV:334:A:N1	23:AW:112:TYR:HA	1.92	0.47
23:AW:17:LEU:CD2	23:AW:119:LEU:HD12	2.45	0.47
23:AW:7:ASN:ND2	23:AW:41:PHE:HB2	2.30	0.47
23:AW:81:LEU:HD23	23:AW:85:GLU:O	2.14	0.47
24:AX:53:G:C4	24:AX:54:G:C8	3.03	0.47
25:AY:122:TRP:C	25:AY:122:TRP:CD1	2.88	0.47
53:B2:23:ALA:C	53:B2:24:THR:CG2	2.82	0.47
26:BA:1348:C:C5	26:BA:1349:C:C5	3.02	0.47
26:BA:1532:A:H3'	26:BA:1533:C:H6	1.79	0.47
26:BA:1664:A:C2	26:BA:2726:A:C8	3.03	0.47
26:BA:178:G:O2'	26:BA:179:C:H5'	2.14	0.47
26:BA:1924:C:H2'	26:BA:1925:C:H5''	1.96	0.47
26:BA:2141:G:C2'	26:BA:2142:A:H5'	2.44	0.47
26:BA:2192:U:H2'	26:BA:2193:G:H8	1.80	0.47
26:BA:2199:A:H2'	26:BA:2200:C:H5'	1.97	0.47
26:BA:2544:G:H2'	26:BA:2545:G:O5'	2.15	0.47
26:BA:2668:G:C2'	26:BA:2669:G:O5'	2.62	0.47
26:BA:729:G:C6	27:BC:206:LYS:HB2	2.49	0.47
26:BA:875:G:C6	26:BA:876:C:N4	2.82	0.47
26:BA:896:A:H1'	26:BA:897:C:C5'	2.33	0.47
27:BC:5:CYS:SG	27:BC:15:VAL:HG12	2.55	0.47
26:BA:1820:U:O2	27:BC:200:MET:HB3	2.14	0.47
27:BC:221:GLY:O	27:BC:223:ALA:N	2.48	0.47
29:BE:4:VAL:C	29:BE:5:LEU:HD12	2.34	0.47
30:BF:148:VAL:HG23	30:BF:148:VAL:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BF:23:SER:O	30:BF:25:MET:N	2.47	0.47
30:BF:57:ALA:O	30:BF:60:SER:O	2.33	0.47
26:BA:7:G:H5'	34:BJ:132:HIS:CE1	2.49	0.47
34:BJ:23:LYS:HE3	34:BJ:142:ILE:OXT	2.13	0.47
35:BK:69:VAL:O	35:BK:76:VAL:HA	2.14	0.47
37:BM:16:ARG:NH1	37:BM:16:ARG:HG2	2.23	0.47
39:BO:31:THR:O	39:BO:32:PRO:C	2.52	0.47
39:BO:89:ASP:HA	39:BO:116:GLN:HB3	1.96	0.47
40:BP:3:ILE:N	40:BP:3:ILE:HD12	2.29	0.47
40:BP:9:GLN:C	40:BP:11:GLN:H	2.16	0.47
42:BR:49:ILE:HB	42:BR:51:VAL:O	2.14	0.47
49:BY:36:GLN:O	49:BY:37:LEU:CB	2.63	0.47
1:AA:1033:G:N3	1:AA:1033:G:C2'	2.78	0.47
1:AA:1079:G:N1	1:AA:1080:A:C2	2.76	0.47
1:AA:1100:C:N4	2:AB:94:ARG:CZ	2.66	0.47
1:AA:1141:C:O2	1:AA:1142:G:C8	2.68	0.47
1:AA:1162:C:C2	1:AA:1175:G:N2	2.83	0.47
1:AA:1181:G:C6	1:AA:1182:G:N2	2.83	0.47
1:AA:1186:G:H2'	1:AA:1187:G:O5'	2.14	0.47
1:AA:1286:U:H2'	1:AA:1286:U:O2	2.14	0.47
1:AA:1412:C:C2	1:AA:1413:A:N7	2.82	0.47
1:AA:198:G:C6	1:AA:220:G:C4	3.03	0.47
1:AA:413:G:N1	4:AD:32:LYS:HD2	2.29	0.47
1:AA:427:U:H3'	1:AA:428:G:H2'	1.96	0.47
1:AA:455:G:C2	1:AA:478:A:N1	2.83	0.47
1:AA:540:G:C4	1:AA:541:G:C8	3.03	0.47
1:AA:791:G:C5	1:AA:792:A:N7	2.83	0.47
1:AA:833:G:C4	1:AA:834:U:C6	3.03	0.47
2:AB:88:GLN:HG3	2:AB:220:VAL:HG11	1.95	0.47
3:AC:28:PHE:C	3:AC:28:PHE:CD2	2.87	0.47
4:AD:21:LYS:O	4:AD:22:SER:C	2.53	0.47
5:AE:116:VAL:HG23	5:AE:116:VAL:O	2.15	0.47
6:AF:38:ARG:HG3	6:AF:39:LEU:N	2.29	0.47
8:AH:40:LYS:N	8:AH:45:ILE:HG12	2.29	0.47
9:AI:27:ILE:HG12	9:AI:62:LEU:HD21	1.97	0.47
9:AI:48:ARG:O	9:AI:49:GLN:C	2.53	0.47
11:AK:73:VAL:C	11:AK:75:GLU:H	2.18	0.47
14:AN:57:PRO:C	14:AN:59:ARG:H	2.18	0.47
1:AA:375:U:O2'	16:AP:6:LEU:O	2.32	0.47
22:AV:361:C:H2'	22:AV:362:C:H5'	1.97	0.47
22:AV:61:G:C4'	22:AV:62:G:C5'	2.51	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:63:C:O2	22:AV:73:A:N3	2.48	0.47
23:AW:45:PHE:CD1	23:AW:45:PHE:N	2.82	0.47
1:AA:1339:A:O2'	24:AX:33:C:H5'	2.14	0.47
25:AY:182:ARG:HG3	25:AY:182:ARG:HH11	1.80	0.47
25:AY:221:ALA:C	25:AY:223:PHE:H	2.18	0.47
25:AY:632:LEU:O	26:BA:1067:A:P	2.73	0.47
26:BA:1079:C:C4	26:BA:1088:A:C6	3.02	0.47
26:BA:1292:G:O2'	26:BA:1293:C:H5'	2.15	0.47
26:BA:2091:C:O3'	48:BX:55:MET:HE1	2.14	0.47
26:BA:2128:G:H2'	26:BA:2129:C:C6	2.49	0.47
26:BA:2191:A:N3	26:BA:2191:A:H2'	2.29	0.47
26:BA:2228:G:H2'	26:BA:2229:U:C6	2.50	0.47
26:BA:490:C:H4'	26:BA:491:G:OP2	2.15	0.47
26:BA:662:G:O3'	36:BL:16:GLY:HA2	2.14	0.47
26:BA:720:U:O2	26:BA:720:U:C2'	2.61	0.47
56:BB:35:C:H2'	56:BB:36:C:O4'	2.14	0.47
56:BB:45:A:H2'	56:BB:46:A:O4'	2.15	0.47
27:BC:9:SER:O	27:BC:10:PRO:C	2.53	0.47
30:BF:30:VAL:CG2	30:BF:95:MET:SD	3.03	0.47
32:BH:72:ILE:HD12	32:BH:140:ALA:HB3	1.97	0.47
1:AA:1213:A:C4	1:AA:1215:G:C8	3.02	0.47
1:AA:1291:U:O5'	1:AA:1291:U:H6	1.97	0.47
1:AA:71:A:O2'	1:AA:72:A:P	2.72	0.47
2:AB:183:PHE:CE2	2:AB:197:PHE:CD2	3.02	0.47
2:AB:40:ILE:HG21	2:AB:201:GLY:H	1.79	0.47
4:AD:56:GLU:OE2	4:AD:194:ILE:HA	2.15	0.47
5:AE:81:GLN:N	5:AE:146:MET:HE3	2.30	0.47
1:AA:1377:A:N1	7:AG:6:ILE:CD1	2.77	0.47
13:AM:78:ARG:O	13:AM:82:LEU:HG	2.15	0.47
13:AM:80:MET:CB	13:AM:91:ARG:HH22	2.26	0.47
16:AP:39:PHE:CB	16:AP:74:LEU:HD11	2.45	0.47
22:AV:44:C:C2	22:AV:263:G:N3	2.82	0.47
22:AV:303:G:HO2'	22:AV:304:C:C5'	2.22	0.47
22:AV:77:G:H2'	22:AV:78:C:C6	2.50	0.47
25:AY:385:THR:OG1	25:AY:386:GLY:N	2.47	0.47
25:AY:525:PHE:N	25:AY:525:PHE:CD1	2.80	0.47
25:AY:603:GLU:C	25:AY:676:TYR:HD1	2.18	0.47
25:AY:658:ASP:OD1	31:BG:176:LYS:NZ	2.41	0.47
52:B1:31:GLU:HG2	52:B1:31:GLU:O	2.15	0.47
26:BA:1301:A:C2	26:BA:1303:G:C6	3.03	0.47
26:BA:141:G:H5''	26:BA:142:A:N7	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:1773:A:N7	26:BA:1829:A:H1'	2.30	0.47
26:BA:1840:G:C4	26:BA:1841:U:C5	3.02	0.47
26:BA:1888:G:H5''	26:BA:1889:A:OP1	2.15	0.47
26:BA:2146:C:C5'	26:BA:2147:A:OP1	2.62	0.47
26:BA:2210:U:O3'	26:BA:2211:A:H4'	2.14	0.47
26:BA:2317:A:N6	26:BA:2318:G:C2	2.83	0.47
26:BA:2552:U:C2	26:BA:2554:U:H5'	2.49	0.47
26:BA:2661:G:C2'	26:BA:2662:A:O5'	2.63	0.47
26:BA:359:G:C5	26:BA:360:U:C6	3.02	0.47
26:BA:790:U:O4'	26:BA:790:U:O2	2.27	0.47
27:BC:181:ARG:HH21	27:BC:181:ARG:HG2	1.79	0.47
29:BE:48:THR:C	29:BE:50:ALA:N	2.68	0.47
30:BF:43:ILE:O	30:BF:82:TYR:OH	2.33	0.47
32:BH:135:HIS:CD2	32:BH:137:GLU:HG2	2.49	0.47
34:BJ:73:VAL:HG11	34:BJ:75:TYR:CZ	2.49	0.47
38:BN:48:VAL:CG1	38:BN:49:GLU:N	2.74	0.47
26:BA:1249:U:H4'	41:BQ:3:VAL:HG11	1.96	0.47
43:BS:66:ILE:HA	43:BS:69:LEU:CD2	2.44	0.47
45:BU:15:GLY:O	45:BU:16:LYS:C	2.52	0.47
50:BZ:3:THR:CG2	50:BZ:36:GLU:HB3	2.45	0.47
1:AA:203:G:N2	1:AA:215:C:C2	2.83	0.47
1:AA:258:G:C2	1:AA:269:C:O2	2.68	0.47
1:AA:276:G:C5	1:AA:277:C:C5	3.03	0.47
1:AA:299:G:O6	1:AA:300:A:N1	2.48	0.47
1:AA:323:U:O4	1:AA:324:G:C6	2.68	0.47
1:AA:643:C:C2'	1:AA:644:U:H5'	2.44	0.47
1:AA:66:A:H2'	1:AA:66:A:N3	2.30	0.47
1:AA:708:C:H2'	1:AA:709:U:C6	2.47	0.47
1:AA:922:G:O2'	5:AE:25:LYS:CG	2.55	0.47
2:AB:53:LEU:N	2:AB:53:LEU:CD2	2.77	0.47
3:AC:52:SER:O	3:AC:52:SER:OG	2.32	0.47
3:AC:46:LEU:HD21	3:AC:86:LEU:HD11	1.97	0.47
4:AD:123:MET:HG3	4:AD:145:ARG:HG2	1.96	0.47
4:AD:134:TYR:C	4:AD:134:TYR:CD2	2.88	0.47
4:AD:162:GLU:HA	4:AD:166:LYS:HD3	1.97	0.47
4:AD:164:ARG:O	4:AD:166:LYS:N	2.47	0.47
5:AE:125:LYS:HD3	5:AE:127:TYR:CE2	2.50	0.47
8:AH:48:PHE:HB3	8:AH:60:LEU:HD23	1.97	0.47
11:AK:23:HIS:C	11:AK:23:HIS:CD2	2.88	0.47
12:AL:28:GLN:HB2	12:AL:81:ILE:O	2.14	0.47
16:AP:52:LEU:O	16:AP:54:LEU:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AP:79:ASN:CB	16:AP:82:ALA:O	2.63	0.47
22:AV:153:U:O2'	22:AV:154:C:OP1	2.30	0.47
22:AV:199:C:C5'	22:AV:199:C:H6	2.28	0.47
22:AV:244:G:C2	22:AV:245:C:C1'	2.90	0.47
22:AV:248:G:C2	22:AV:249:U:N3	2.82	0.47
22:AV:303:G:C3'	22:AV:303:G:OP2	2.33	0.47
24:AX:18:U:O2'	24:AX:19:G:C4'	2.54	0.47
24:AX:48:U:C6	24:AX:51:U:OP1	2.68	0.47
25:AY:168:ILE:HD11	25:AY:178:ILE:CD1	2.43	0.47
25:AY:17:ILE:HG22	25:AY:25:LYS:HG2	1.96	0.47
25:AY:409:ILE:HG22	25:AY:459:LEU:HD13	1.97	0.47
25:AY:618:GLY:HA3	26:BA:1094:U:H5'	1.96	0.47
25:AY:625:ASN:C	25:AY:627:ARG:H	2.18	0.47
25:AY:635:GLU:OE1	26:BA:1067:A:O2'	2.32	0.47
25:AY:8:ASP:O	25:AY:10:LYS:N	2.44	0.47
26:BA:134:G:H2'	26:BA:135:U:O5'	2.15	0.47
26:BA:1415:U:O2	26:BA:1415:U:C3'	2.63	0.47
26:BA:158:U:H2'	26:BA:159:G:H5'	1.96	0.47
26:BA:1855:U:O2'	26:BA:1856:U:H5'	2.15	0.47
26:BA:1878:G:H2'	26:BA:1879:C:O4'	2.15	0.47
26:BA:2161:C:O2	26:BA:2162:G:C8	2.66	0.47
26:BA:2105:U:O4	26:BA:2184:A:N1	2.47	0.47
26:BA:2211:A:O2'	26:BA:2212:A:P	2.72	0.47
26:BA:2516:A:C2	26:BA:2569:G:C2	3.03	0.47
26:BA:388:G:H5'	26:BA:389:G:OP2	2.15	0.47
26:BA:416:U:H6	26:BA:416:U:H3'	1.80	0.47
26:BA:417:C:C2	26:BA:418:C:C5	3.03	0.47
26:BA:601:C:O2	26:BA:605:G:H4'	2.14	0.47
29:BE:30:GLN:HG2	29:BE:30:GLN:O	2.14	0.47
29:BE:5:LEU:CD1	29:BE:5:LEU:N	2.77	0.47
30:BF:36:ASN:CG	30:BF:37:MET:N	2.68	0.47
33:BI:122:GLU:C	33:BI:125:THR:HB	2.35	0.47
33:BI:41:PHE:CE2	33:BI:42:ASN:OD1	2.67	0.47
39:BO:56:LYS:HA	39:BO:59:ALA:HB3	1.97	0.47
40:BP:30:TRP:CE3	40:BP:39:LEU:HD12	2.50	0.47
26:BA:1154:G:OP2	41:BQ:57:ARG:NH1	2.45	0.47
42:BR:43:ASN:HB3	42:BR:44:GLY:H	1.51	0.47
1:AA:1002:G:C6	1:AA:1003:G:C5	3.03	0.47
1:AA:1060:U:H2'	1:AA:1061:G:H8	1.78	0.47
1:AA:1239:A:N3	1:AA:1241:G:N1	2.63	0.47
1:AA:1367:C:OP2	9:AI:113:LYS:NZ	2.43	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1374:A:C2'	1:AA:1375:A:H5'	2.44	0.47
1:AA:154:U:O4	1:AA:167:A:N1	2.48	0.47
1:AA:277:C:H2'	1:AA:278:G:C5'	2.44	0.47
1:AA:368:U:H6	25:AY:354:ARG:CZ	2.27	0.47
1:AA:4:U:O2	1:AA:4:U:H3'	2.15	0.47
1:AA:949:A:C5	1:AA:950:U:C5	3.02	0.47
2:AB:15:PHE:HB2	2:AB:39:ILE:HG23	1.97	0.47
2:AB:30:ILE:CD1	2:AB:38:HIS:HB2	2.44	0.47
3:AC:69:THR:O	3:AC:104:GLU:HA	2.14	0.47
3:AC:158:GLY:HA2	3:AC:192:TYR:CD1	2.49	0.47
3:AC:45:GLU:C	3:AC:47:ALA:H	2.19	0.47
3:AC:39:ARG:HG2	3:AC:54:ILE:CG1	2.45	0.47
4:AD:22:SER:O	4:AD:23:GLY:C	2.52	0.47
5:AE:88:HIS:CE1	5:AE:137:ARG:HD3	2.50	0.47
6:AF:35:LYS:HE3	6:AF:65:GLU:OE2	2.15	0.47
8:AH:124:ILE:O	8:AH:124:ILE:HG13	2.13	0.47
9:AI:48:ARG:HD3	9:AI:49:GLN:N	2.30	0.47
10:AJ:63:ASP:OD2	14:AN:98:LYS:HD2	2.14	0.47
10:AJ:40:ILE:HB	10:AJ:73:LEU:CB	2.44	0.47
13:AM:76:ILE:HG22	13:AM:80:MET:HE1	1.91	0.47
14:AN:22:LYS:O	14:AN:23:ARG:C	2.52	0.47
17:AQ:34:GLY:O	17:AQ:35:LYS:C	2.53	0.47
22:AV:119:U:C2'	22:AV:120:U:O5'	2.62	0.47
22:AV:129:G:C3'	22:AV:130:C:H4'	2.39	0.47
22:AV:184:A:C8	22:AV:185:A:C5	3.03	0.47
22:AV:256:G:O2'	22:AV:258:G:N7	2.41	0.47
22:AV:316:A:C2'	22:AV:317:G:C5'	2.87	0.47
23:AW:45:PHE:CB	23:AW:100:LEU:O	2.62	0.47
23:AW:88:ARG:HH12	23:AW:119:LEU:CD2	2.23	0.47
24:AX:53:G:C2	24:AX:64:G:C4	3.03	0.47
25:AY:122:TRP:CE2	25:AY:157:LEU:HD12	2.49	0.47
25:AY:487:ILE:CD1	25:AY:487:ILE:H	2.28	0.47
25:AY:87:HIS:NE2	25:AY:120:THR:OG1	2.47	0.47
52:B1:10:LEU:N	52:B1:10:LEU:HD23	2.30	0.47
55:B4:19:ARG:O	55:B4:21:GLY:N	2.48	0.47
26:BA:1079:C:N4	26:BA:1088:A:C4	2.83	0.47
26:BA:1121:C:C6	26:BA:1121:C:C3'	2.98	0.47
26:BA:1196:C:O4'	26:BA:1226:A:C2	2.68	0.47
26:BA:1270:C:O5'	26:BA:1270:C:H6	1.98	0.47
26:BA:1441:G:H2'	26:BA:1442:U:C6	2.50	0.47
26:BA:1519:G:C4	26:BA:1520:U:C5	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:1585:C:C2'	26:BA:1586:A:H5'	2.44	0.47
26:BA:1616:A:H4'	26:BA:1617:C:OP2	2.15	0.47
26:BA:1869:G:H2'	26:BA:1870:C:H5'	1.97	0.47
26:BA:1922:G:N7	26:BA:1923:U:C5	2.82	0.47
26:BA:2046:G:C2'	26:BA:2047:C:H5'	2.45	0.47
26:BA:2102:G:C5	26:BA:2103:C:C4	3.03	0.47
26:BA:2182:U:C2	26:BA:2183:A:N7	2.83	0.47
26:BA:2429:G:OP2	26:BA:2430:A:OP2	2.32	0.47
26:BA:2472:G:H2'	26:BA:2475:C:H42	1.79	0.47
26:BA:277:G:H4'	26:BA:278:A:C6	2.50	0.47
26:BA:354:A:C5	26:BA:355:U:C5	3.03	0.47
26:BA:882:G:N1	26:BA:895:U:C2	2.83	0.47
26:BA:894:U:C2	26:BA:895:U:C6	3.02	0.47
26:BA:906:U:H2'	26:BA:907:G:C8	2.46	0.47
30:BF:135:ILE:HG22	30:BF:135:ILE:O	2.15	0.47
26:BA:2313:C:H5''	30:BF:87:LYS:HD3	1.97	0.47
33:BI:12:VAL:O	33:BI:13:ALA:HB2	2.15	0.47
33:BI:6:ALA:CB	33:BI:60:VAL:N	2.78	0.47
40:BP:102:ARG:HD2	40:BP:106:ALA:O	2.14	0.47
1:AA:1080:A:C8	1:AA:1080:A:P	3.06	0.47
1:AA:1217:C:C2	1:AA:1218:C:C5	3.03	0.47
1:AA:1258:G:H2'	1:AA:1259:C:C6	2.50	0.47
1:AA:159:G:H8	1:AA:159:G:H5''	1.80	0.47
1:AA:632:U:C6	1:AA:632:U:H3'	2.47	0.47
1:AA:985:C:H2'	1:AA:986:U:C6	2.50	0.47
1:AA:994:A:O2'	14:AN:7:ALA:CB	2.63	0.47
2:AB:207:ARG:O	2:AB:211:LEU:HD13	2.14	0.47
2:AB:216:VAL:O	2:AB:220:VAL:HG23	2.15	0.47
2:AB:30:ILE:HD13	2:AB:38:HIS:CG	2.50	0.47
2:AB:68:PHE:HE2	2:AB:88:GLN:CB	2.27	0.47
3:AC:55:VAL:HG12	3:AC:56:ILE:N	2.30	0.47
4:AD:160:LEU:HD22	4:AD:160:LEU:N	2.29	0.47
4:AD:91:ALA:O	4:AD:94:GLU:N	2.48	0.47
5:AE:90:GLY:O	5:AE:128:GLY:HA3	2.15	0.47
7:AG:30:MET:CG	7:AG:31:VAL:N	2.78	0.47
11:AK:30:ILE:HA	11:AK:45:THR:HG22	1.95	0.47
12:AL:37:TYR:O	12:AL:38:THR:CG2	2.63	0.47
14:AN:22:LYS:HA	14:AN:25:GLU:OE2	2.15	0.47
14:AN:61:ARG:HG2	14:AN:70:PRO:HB3	1.96	0.47
15:AO:34:GLN:HB3	15:AO:58:MET:HE1	1.96	0.47
17:AQ:60:ILE:HA	17:AQ:73:THR:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AU:18:PHE:C	21:AU:19:LYS:HE2	2.35	0.47
11:AK:88:PRO:HD3	21:AU:28:LEU:HD11	1.97	0.47
22:AV:16:U:C6	23:AW:110:ARG:CZ	2.98	0.47
22:AV:251:U:H2'	22:AV:252:G:C8	2.50	0.47
22:AV:257:U:C2	22:AV:258:G:C6	3.01	0.47
22:AV:257:U:C2	22:AV:258:G:N2	2.82	0.47
22:AV:8:A:C6	22:AV:346:C:C2	3.03	0.47
23:AW:48:PHE:CE2	23:AW:100:LEU:HD21	2.49	0.47
25:AY:379:GLY:O	25:AY:380:LEU:O	2.33	0.47
25:AY:601:ILE:HG22	25:AY:601:ILE:O	2.15	0.47
25:AY:605:ILE:HD11	25:AY:677:GLN:HG2	1.97	0.47
26:BA:245:G:O6	54:B3:7:ARG:HD3	2.15	0.47
26:BA:1446:C:H2'	26:BA:1447:C:C6	2.50	0.47
26:BA:1581:G:C2'	26:BA:1582:C:H5'	2.45	0.47
26:BA:1801:A:C8	26:BA:2203:U:H2'	2.51	0.47
26:BA:2799:A:O2'	26:BA:2800:A:C5'	2.63	0.47
15:AO:88:ARG:NE	26:BA:714:U:C5	2.83	0.47
26:BA:729:G:H2'	26:BA:1775:U:H1'	1.96	0.47
26:BA:877:A:O2'	26:BA:878:A:H5''	2.14	0.47
26:BA:903:C:C6	26:BA:903:C:O5'	2.69	0.47
27:BC:77:VAL:HG12	27:BC:111:ALA:HA	1.97	0.47
27:BC:121:ALA:O	27:BC:122:ALA:C	2.50	0.47
27:BC:202:ARG:O	27:BC:202:ARG:HG2	2.15	0.47
31:BG:117:PRO:HD2	31:BG:120:ILE:HB	1.96	0.47
31:BG:154:GLU:HG2	31:BG:155:PRO:CD	2.45	0.47
36:BL:127:VAL:HG13	36:BL:131:ALA:HB3	1.97	0.47
36:BL:29:LYS:HG2	36:BL:30:THR:HG23	1.97	0.47
40:BP:24:THR:HB	40:BP:87:ARG:HB3	1.97	0.47
40:BP:21:PRO:HD3	40:BP:49:ILE:CD1	2.44	0.47
42:BR:48:LYS:HE3	42:BR:48:LYS:HB3	1.52	0.47
43:BS:20:VAL:HG11	43:BS:47:VAL:HG11	1.97	0.47
46:BV:70:ILE:HG22	46:BV:72:VAL:HG13	1.96	0.47
46:BV:75:GLN:HB2	46:BV:92:VAL:HG23	1.97	0.47
26:BA:2333:A:P	47:BW:73:ARG:HH22	2.37	0.47
1:AA:1004:A:C2	1:AA:1026:G:C4	3.03	0.46
1:AA:1156:G:H5''	1:AA:1157:A:P	2.55	0.46
1:AA:1279:G:C5'	10:AJ:9:ARG:CZ	2.92	0.46
1:AA:1397:C:O2	1:AA:1397:C:O4'	2.33	0.46
1:AA:1415:G:O2'	1:AA:1416:G:H5'	2.14	0.46
1:AA:234:C:H2'	1:AA:235:C:H6	1.77	0.46
1:AA:457:G:C5	1:AA:458:U:C5	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:458:U:H2'	1:AA:458:U:O2	2.14	0.46
1:AA:685:G:O2'	1:AA:686:U:H5'	2.14	0.46
2:AB:220:VAL:O	2:AB:221:ARG:C	2.52	0.46
2:AB:69:VAL:O	2:AB:69:VAL:HG12	2.15	0.46
4:AD:149:LYS:O	4:AD:151:GLN:N	2.48	0.46
4:AD:54:LEU:HD23	4:AD:55:ARG:HA	1.96	0.46
5:AE:115:GLU:OE1	5:AE:116:VAL:HG12	2.15	0.46
8:AH:110:MET:CE	8:AH:115:ALA:N	2.74	0.46
8:AH:105:THR:HG21	8:AH:120:LEU:CD1	2.45	0.46
9:AI:93:LEU:HD12	9:AI:94:ARG:N	2.29	0.46
17:AQ:30:HIS:ND1	17:AQ:31:PRO:HD2	2.30	0.46
19:AS:43:MET:O	19:AS:44:ILE:C	2.54	0.46
20:AT:34:VAL:HG21	20:AT:53:MET:HG2	1.96	0.46
22:AV:113:A:O5'	22:AV:113:A:H8	1.99	0.46
22:AV:139:C:C2'	22:AV:140:U:H5'	2.44	0.46
22:AV:26:U:H4'	30:BF:132:ARG:NH2	2.29	0.46
22:AV:45:A:C6	22:AV:307:G:N1	2.83	0.46
22:AV:47:G:H5'	22:AV:313:C:OP1	2.15	0.46
22:AV:65:U:O2'	22:AV:66:C:C5'	2.63	0.46
23:AW:46:ALA:HB1	23:AW:53:LEU:HD21	1.96	0.46
24:AX:27:G:N2	24:AX:45:A:N6	2.55	0.46
24:AX:70:C:C2	24:AX:71:G:C8	3.03	0.46
25:AY:121:VAL:CG2	25:AY:122:TRP:N	2.77	0.46
25:AY:202:PRO:O	25:AY:203:GLU:C	2.53	0.46
25:AY:495:GLY:O	25:AY:510:VAL:N	2.43	0.46
52:B1:33:LEU:H	52:B1:51:ALA:CB	2.25	0.46
26:BA:1069:A:N1	26:BA:1074:G:C5	2.82	0.46
26:BA:1270:C:H5''	26:BA:1271:G:O5'	2.15	0.46
26:BA:132:G:H2'	26:BA:133:U:C6	2.50	0.46
26:BA:1473:G:C6	26:BA:1474:U:N3	2.83	0.46
26:BA:1482:G:N3	26:BA:1483:G:C8	2.83	0.46
26:BA:1735:A:C2	26:BA:1736:U:C2	3.03	0.46
26:BA:2123:G:O2'	26:BA:2124:G:H5'	2.16	0.46
26:BA:2383:G:C2'	26:BA:2384:U:H5'	2.45	0.46
26:BA:2388:A:H5'	26:BA:2389:G:OP2	2.15	0.46
26:BA:2593:U:H2'	26:BA:2594:C:C6	2.50	0.46
26:BA:2849:U:C6	26:BA:2867:G:N2	2.83	0.46
26:BA:2881:U:H2'	26:BA:2882:A:O5'	2.15	0.46
26:BA:396:G:H1'	48:BX:28:PHE:HB3	1.97	0.46
56:BB:36:C:H5''	56:BB:37:C:OP2	2.15	0.46
26:BA:1693:U:O2'	27:BC:13:ARG:NH2	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BH:50:ARG:O	32:BH:51:ARG:C	2.53	0.46
33:BI:18:ASN:ND2	33:BI:27:LEU:CD1	2.78	0.46
37:BM:69:PRO:O	37:BM:70:ASP:OD2	2.33	0.46
40:BP:64:SER:OG	40:BP:65:ASN:ND2	2.49	0.46
41:BQ:105:PHE:CE1	41:BQ:109:VAL:CG2	2.98	0.46
44:BT:35:ALA:HB1	44:BT:37:ASP:OD1	2.15	0.46
45:BU:37:GLY:O	45:BU:38:ILE:HD13	2.15	0.46
45:BU:86:PHE:CE1	45:BU:91:LYS:HB2	2.51	0.46
49:BY:9:LYS:O	49:BY:13:GLU:HB2	2.14	0.46
1:AA:103:U:O2'	1:AA:104:G:H5'	2.14	0.46
1:AA:17:U:O2'	1:AA:1078:U:O2	2.28	0.46
1:AA:1202:U:H1'	14:AN:69:ARG:HD2	1.97	0.46
1:AA:1338:G:C6	1:AA:1339:A:N1	2.83	0.46
1:AA:258:G:C2	1:AA:259:G:H1'	2.50	0.46
1:AA:439:U:C4	1:AA:440:C:C5	3.04	0.46
1:AA:456:A:N6	1:AA:457:G:C6	2.83	0.46
1:AA:470:C:N3	1:AA:471:U:C4	2.84	0.46
1:AA:540:G:O2'	1:AA:541:G:H5'	2.14	0.46
1:AA:579:A:H2'	1:AA:580:C:C6	2.51	0.46
1:AA:643:C:O5'	1:AA:643:C:H6	1.98	0.46
1:AA:659:U:O2'	1:AA:660:C:H5'	2.16	0.46
1:AA:68:G:C5	1:AA:69:G:H1'	2.50	0.46
1:AA:714:G:O2'	1:AA:715:A:H5'	2.14	0.46
1:AA:748:G:C4	1:AA:749:A:C8	3.03	0.46
1:AA:812:G:OP1	1:AA:903:G:H1'	2.15	0.46
2:AB:142:LYS:O	2:AB:145:ASN:OD1	2.32	0.46
2:AB:14:HIS:C	2:AB:14:HIS:CD2	2.89	0.46
2:AB:206:ILE:CG1	2:AB:207:ARG:N	2.78	0.46
3:AC:72:PRO:O	3:AC:73:GLY:C	2.54	0.46
4:AD:154:VAL:O	4:AD:157:ALA:HB3	2.15	0.46
4:AD:52:VAL:HG23	4:AD:53:GLN:N	2.30	0.46
5:AE:40:ASP:OD1	5:AE:42:ASN:N	2.49	0.46
6:AF:74:LEU:HD23	6:AF:78:PHE:CZ	2.51	0.46
7:AG:145:GLU:HA	7:AG:148:LYS:HE2	1.96	0.46
9:AI:38:PHE:CE1	9:AI:75:ALA:HB2	2.50	0.46
12:AL:1:ALA:HB3	12:AL:5:GLN:OE1	2.16	0.46
13:AM:110:GLY:O	13:AM:111:PRO:C	2.54	0.46
13:AM:53:ASP:HA	13:AM:56:ARG:HE	1.79	0.46
22:AV:171:A:C4	22:AV:172:U:C5	3.04	0.46
22:AV:218:G:C2'	22:AV:219:G:C5'	2.84	0.46
22:AV:31:G:N7	22:AV:34:A:H8	2.07	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AW:38:LYS:HG2	26:BA:1911:U:OP2	1.90	0.46
25:AY:124:GLN:O	25:AY:127:LYS:HB3	2.16	0.46
25:AY:181:LEU:HD11	25:AY:242:LEU:HD22	1.97	0.46
25:AY:259:PHE:C	25:AY:260:LEU:HD13	2.35	0.46
25:AY:302:HIS:HA	25:AY:303:PRO:HD2	1.74	0.46
25:AY:346:LYS:HE2	25:AY:384:ILE:HG12	1.97	0.46
25:AY:465:ARG:O	25:AY:470:PHE:HD2	1.99	0.46
25:AY:491:VAL:CG1	25:AY:596:LYS:HD3	2.44	0.46
25:AY:74:TRP:NE1	25:AY:273:LEU:HB3	2.30	0.46
52:B1:11:VAL:O	52:B1:12:SER:C	2.53	0.46
26:BA:1085:A:C5	26:BA:1086:A:C6	3.04	0.46
26:BA:1889:A:C2'	26:BA:1890:A:O5'	2.63	0.46
26:BA:1919:A:H5''	26:BA:1920:C:OP2	2.15	0.46
26:BA:196:A:H2'	26:BA:196:A:N3	2.31	0.46
26:BA:2199:A:C8	26:BA:2200:C:C5	3.02	0.46
26:BA:2516:A:C2	26:BA:2569:G:N3	2.83	0.46
26:BA:449:A:C2'	26:BA:450:G:H5'	2.44	0.46
26:BA:903:C:C2	26:BA:904:G:H8	2.28	0.46
26:BA:847:U:O2	26:BA:934:U:H1'	2.16	0.46
27:BC:16:VAL:HG23	27:BC:203:VAL:HG22	1.97	0.46
27:BC:96:LYS:HA	27:BC:96:LYS:CE	2.45	0.46
30:BF:35:LEU:HD11	30:BF:98:PHE:CZ	2.50	0.46
33:BI:100:ILE:HG22	33:BI:104:GLN:CB	2.46	0.46
25:AY:636:PRO:HG2	33:BI:23:VAL:CA	2.45	0.46
37:BM:97:GLN:O	37:BM:98:PRO:C	2.50	0.46
40:BP:103:THR:O	40:BP:105:LYS:N	2.48	0.46
43:BS:20:VAL:HG11	43:BS:44:ALA:HA	1.96	0.46
44:BT:30:ILE:HG12	44:BT:31:VAL:N	2.31	0.46
49:BY:20:ASN:O	49:BY:21:LEU:C	2.52	0.46
1:AA:1071:C:N3	1:AA:1105:A:C2	2.83	0.46
1:AA:1124:G:C2	1:AA:1150:A:C2	3.03	0.46
1:AA:1285:A:H4'	1:AA:1286:U:C4	2.50	0.46
1:AA:1317:C:H2'	1:AA:1318:A:O5'	2.16	0.46
1:AA:1356:G:N2	1:AA:1357:A:C4	2.83	0.46
1:AA:1367:C:C2	1:AA:1368:A:C8	3.03	0.46
1:AA:1412:C:HO2'	1:AA:1413:A:H5'	1.70	0.46
1:AA:189:A:C5	1:AA:190:A:C2	3.04	0.46
1:AA:451:A:N7	1:AA:481:G:C6	2.83	0.46
1:AA:47:C:H4'	1:AA:48:C:O5'	2.15	0.46
1:AA:620:C:H1'	4:AD:131:ILE:HD13	1.97	0.46
1:AA:636:U:H2'	1:AA:637:C:H6	1.77	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:687:A:C8	1:AA:701:U:C4	3.04	0.46
1:AA:987:G:C2'	1:AA:988:G:H5'	2.45	0.46
2:AB:9:LEU:HG	2:AB:11:ALA:N	2.30	0.46
2:AB:117:GLU:HA	2:AB:120:SER:HB2	1.96	0.46
2:AB:136:ARG:O	2:AB:139:GLU:CB	2.60	0.46
2:AB:163:ILE:HG12	2:AB:164:ASP:N	2.30	0.46
2:AB:14:HIS:HB2	2:AB:202:ASN:HB3	1.97	0.46
4:AD:164:ARG:C	4:AD:166:LYS:N	2.66	0.46
4:AD:54:LEU:HD23	4:AD:55:ARG:CA	2.46	0.46
4:AD:54:LEU:CD2	4:AD:58:GLN:HB2	2.46	0.46
7:AG:24:LYS:HB3	7:AG:100:MET:HE1	1.97	0.46
7:AG:87:PRO:C	7:AG:88:VAL:HG12	2.35	0.46
9:AI:27:ILE:CG1	9:AI:62:LEU:HD21	2.45	0.46
9:AI:16:ALA:HA	9:AI:65:THR:O	2.15	0.46
11:AK:73:VAL:O	11:AK:75:GLU:N	2.48	0.46
13:AM:2:ARG:O	13:AM:7:ASN:O	2.34	0.46
14:AN:20:PHE:C	14:AN:22:LYS:N	2.66	0.46
17:AQ:3:LYS:C	17:AQ:4:ILE:HD12	2.36	0.46
11:AK:124:LYS:HE3	21:AU:34:ARG:NH2	2.31	0.46
22:AV:21:C:C2'	22:AV:22:G:O5'	2.64	0.46
22:AV:257:U:O4	22:AV:273:A:C4	2.69	0.46
22:AV:28:U:C2'	22:AV:29:G:H8	2.05	0.46
22:AV:328:U:H2'	22:AV:329:U:C6	2.50	0.46
22:AV:331:C:H2'	22:AV:332:G:H8	1.79	0.46
22:AV:63:C:C2	22:AV:73:A:C5	3.03	0.46
24:AX:15:G:C5'	24:AX:16:C:H5'	2.46	0.46
25:AY:168:ILE:HG22	25:AY:175:SER:OG	2.16	0.46
25:AY:446:THR:O	25:AY:446:THR:HG23	2.16	0.46
25:AY:539:ILE:HA	25:AY:542:VAL:CG1	2.44	0.46
25:AY:528:ALA:O	25:AY:568:TYR:HA	2.14	0.46
25:AY:88:VAL:O	25:AY:90:PHE:N	2.49	0.46
54:B3:36:ALA:O	54:B3:40:LYS:HG3	2.16	0.46
26:BA:1004:U:C2'	26:BA:1005:C:OP2	2.63	0.46
26:BA:1060:U:O4'	26:BA:1062:G:OP2	2.34	0.46
26:BA:1475:G:HO2'	26:BA:1476:U:P	2.37	0.46
26:BA:1731:G:C2	26:BA:1733:G:C4	3.03	0.46
26:BA:1857:G:H1'	26:BA:1884:G:N2	2.29	0.46
26:BA:1853:A:C5	26:BA:1889:A:C6	3.03	0.46
26:BA:2063:C:O2	26:BA:2450:A:N1	2.48	0.46
26:BA:2171:A:H3'	26:BA:2173:A:C8	2.51	0.46
26:BA:2592:G:C5	26:BA:2593:U:C4	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:362:C:OP1	26:BA:2602:A:O5'	2.33	0.46
26:BA:362:A:C8	26:BA:362:A:OP2	2.69	0.46
26:BA:666:A:H2'	26:BA:667:U:H6	1.79	0.46
26:BA:883:G:C2	26:BA:884:U:N3	2.84	0.46
27:BC:105:ALA:O	27:BC:195:GLY:CA	2.63	0.46
27:BC:74:PRO:HB2	27:BC:96:LYS:HD3	1.97	0.46
26:BA:2831:G:OP1	28:BD:56:LYS:HE2	2.15	0.46
29:BE:145:ASP:HA	29:BE:166:LYS:O	2.14	0.46
30:BF:142:TYR:HD1	30:BF:145:VAL:HG11	1.79	0.46
32:BH:135:HIS:HB3	32:BH:138:VAL:HB	1.96	0.46
33:BI:102:ARG:HB3	33:BI:141:ASP:O	2.15	0.46
33:BI:122:GLU:O	33:BI:126:ARG:HD3	2.16	0.46
37:BM:57:VAL:O	37:BM:58:LYS:C	2.53	0.46
41:BQ:80:ASN:O	41:BQ:83:LYS:HB3	2.15	0.46
46:BV:4:ILE:HG12	46:BV:50:MET:SD	2.55	0.46
1:AA:1204:A:C4	1:AA:1205:U:C6	3.03	0.46
1:AA:1270:G:O3'	1:AA:1314:C:H5'	2.15	0.46
1:AA:22:G:C6	1:AA:23:C:C4	3.04	0.46
1:AA:374:A:C5	1:AA:375:U:C5	3.04	0.46
1:AA:373:A:C2	1:AA:482:A:N6	2.84	0.46
1:AA:614:C:H2'	1:AA:615:G:O4'	2.16	0.46
1:AA:763:G:C4	1:AA:764:C:C6	3.03	0.46
1:AA:853:C:C2	1:AA:854:U:C6	3.03	0.46
2:AB:32:GLY:HA3	2:AB:39:ILE:H	1.80	0.46
3:AC:60:ALA:O	3:AC:62:SER:N	2.49	0.46
3:AC:84:GLU:C	3:AC:86:LEU:H	2.18	0.46
4:AD:123:MET:HE2	4:AD:145:ARG:HD2	1.97	0.46
4:AD:176:LYS:HB3	4:AD:178:GLU:HG2	1.98	0.46
4:AD:53:GLN:HE21	4:AD:202:LEU:CA	2.28	0.46
1:AA:413:G:N1	4:AD:32:LYS:HD3	2.31	0.46
5:AE:56:PRO:HA	5:AE:59:ILE:HG12	1.97	0.46
7:AG:70:PRO:O	7:AG:95:ARG:HD3	2.15	0.46
13:AM:94:LEU:CB	13:AM:95:PRO:HD2	2.45	0.46
15:AO:87:ARG:O	15:AO:88:ARG:HB2	2.15	0.46
20:AT:47:GLN:HE21	20:AT:47:GLN:C	2.19	0.46
21:AU:32:ARG:HH11	21:AU:32:ARG:CG	2.28	0.46
21:AU:38:GLU:OE2	21:AU:41:THR:HG21	2.15	0.46
22:AV:130:C:OP1	22:AV:130:C:C4'	2.60	0.46
22:AV:145:C:H6	22:AV:145:C:O5'	1.98	0.46
22:AV:19:G:C6	23:AW:23:GLY:N	2.73	0.46
22:AV:233:A:O2'	22:AV:234:A:OP2	2.33	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:277:G:H2'	22:AV:278:G:C8	2.51	0.46
22:AV:333:G:OP2	22:AV:333:G:O3'	2.33	0.46
22:AV:61:G:H1'	22:AV:62:G:C8	2.51	0.46
51:B0:29:VAL:HG12	51:B0:34:GLY:HA2	1.97	0.46
52:B1:33:LEU:HB3	52:B1:51:ALA:HB2	1.96	0.46
26:BA:128:C:H2'	26:BA:129:C:H6	1.80	0.46
26:BA:1372:U:H6	26:BA:1372:U:H5'	1.81	0.46
26:BA:1413:A:C2	26:BA:1414:C:O2	2.68	0.46
26:BA:1433:A:H2'	26:BA:1434:A:O4'	2.15	0.46
26:BA:1800:C:H3'	27:BC:145:MET:HE1	1.97	0.46
26:BA:1904:G:H1'	26:BA:1927:A:N1	2.31	0.46
26:BA:1917:U:C4	26:BA:1918:A:N7	2.83	0.46
26:BA:2180:U:H3'	26:BA:2181:U:C6	2.51	0.46
26:BA:2229:U:H2'	26:BA:2230:G:C8	2.51	0.46
26:BA:2656:U:C5	26:BA:2664:G:N2	2.83	0.46
26:BA:483:A:O2'	45:BU:56:GLY:HA2	2.15	0.46
26:BA:881:G:N3	26:BA:882:G:C8	2.84	0.46
26:BA:887:U:C2	26:BA:888:C:C6	3.04	0.46
56:BB:39:A:C2	56:BB:44:G:N3	2.84	0.46
27:BC:158:GLY:H	27:BC:194:VAL:HG13	1.79	0.46
27:BC:259:ASN:OD1	27:BC:262:THR:HG23	2.15	0.46
29:BE:119:ILE:N	29:BE:119:ILE:HD13	2.30	0.46
26:BA:39:G:H1'	29:BE:43:THR:HG21	1.97	0.46
30:BF:40:GLY:HA2	30:BF:84:ILE:HD12	1.97	0.46
40:BP:1:SER:H2	40:BP:4:ILE:H	1.64	0.46
44:BT:2:ILE:HA	44:BT:3:ARG:C	2.36	0.46
46:BV:21:ARG:C	46:BV:23:ALA:H	2.18	0.46
1:AA:1098:C:C1'	1:AA:1169:A:N3	2.76	0.46
1:AA:1413:A:C4	1:AA:1414:U:C5	3.03	0.46
1:AA:1499:A:C2	1:AA:1500:A:C8	3.04	0.46
1:AA:159:G:C5'	1:AA:159:G:C8	2.97	0.46
1:AA:218:U:C2'	1:AA:219:U:H5'	2.46	0.46
1:AA:410:G:H5''	1:AA:411:A:P	2.56	0.46
1:AA:499:A:H61	1:AA:547:A:C5'	2.28	0.46
1:AA:513:C:O2'	1:AA:514:C:H5'	2.16	0.46
1:AA:702:A:N7	26:BA:1847:A:OP1	2.48	0.46
1:AA:726:C:O2'	1:AA:727:G:H5'	2.16	0.46
3:AC:35:ASP:O	3:AC:38:VAL:HG22	2.16	0.46
3:AC:41:TYR:CE1	3:AC:42:LEU:HD12	2.50	0.46
4:AD:18:LEU:C	4:AD:19:PHE:CG	2.87	0.46
8:AH:82:LEU:HD22	8:AH:83:ARG:N	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:40:GLU:CG	13:AM:41:ASP:H	2.28	0.46
13:AM:68:LEU:O	13:AM:72:ILE:HG13	2.14	0.46
16:AP:67:ILE:CG2	16:AP:67:ILE:O	2.63	0.46
17:AQ:17:GLU:O	17:AQ:18:LYS:HB2	2.15	0.46
17:AQ:13:SER:CB	17:AQ:21:VAL:HG11	2.45	0.46
19:AS:50:VAL:HG22	19:AS:70:LEU:HD13	1.92	0.46
1:AA:176:C:H5''	20:AT:23:ARG:NH1	2.31	0.46
20:AT:4:LYS:O	20:AT:5:SER:C	2.54	0.46
21:AU:38:GLU:HA	21:AU:40:PRO:HD2	1.96	0.46
22:AV:117:G:C2	22:AV:118:C:C5	3.03	0.46
22:AV:329:U:H2'	22:AV:330:U:C6	2.50	0.46
23:AW:34:LEU:O	23:AW:36:ALA:N	2.49	0.46
25:AY:139:MET:HG3	25:AY:260:LEU:HB2	1.97	0.46
25:AY:139:MET:CE	25:AY:146:LEU:HB2	2.45	0.46
25:AY:203:GLU:HA	25:AY:203:GLU:OE2	2.16	0.46
25:AY:237:PRO:HB2	25:AY:242:LEU:HG	1.97	0.46
25:AY:541:ALA:HB2	25:AY:579:GLU:HG3	1.96	0.46
25:AY:590:ILE:C	25:AY:592:GLU:H	2.18	0.46
25:AY:71:THR:HA	25:AY:79:ILE:O	2.16	0.46
55:B4:3:VAL:O	55:B4:4:ARG:HB3	2.16	0.46
26:BA:137:U:HO2'	26:BA:138:U:P	2.38	0.46
26:BA:1408:G:O2'	26:BA:1409:U:H5'	2.16	0.46
26:BA:142:A:C2	44:BT:1:MET:HE3	2.51	0.46
26:BA:1486:U:C2'	26:BA:1487:U:H5'	2.45	0.46
26:BA:1671:U:H6	26:BA:1671:U:O5'	1.98	0.46
26:BA:1776:G:N3	26:BA:1776:G:H2'	2.29	0.46
26:BA:1894:C:H2'	26:BA:1895:C:H6	1.79	0.46
26:BA:2111:U:O2	26:BA:2118:U:O2	2.33	0.46
26:BA:2124:G:H2'	26:BA:2125:G:C5'	2.46	0.46
26:BA:911:A:C2	26:BA:2277:G:N3	2.83	0.46
26:BA:2534:A:C2'	26:BA:2535:G:O5'	2.63	0.46
26:BA:371:A:N6	26:BA:402:A:OP2	2.48	0.46
26:BA:536:G:H2'	26:BA:537:G:O5'	2.16	0.46
26:BA:547:A:H8	26:BA:548:G:N3	2.13	0.46
26:BA:586:A:C2	26:BA:1254:A:C2	3.04	0.46
28:BD:136:ASN:ND2	28:BD:140:HIS:CD2	2.83	0.46
31:BG:71:LEU:N	31:BG:71:LEU:CD1	2.78	0.46
33:BI:115:ASP:O	33:BI:116:MET:CG	2.63	0.46
36:BL:106:GLU:C	36:BL:107:PHE:CD2	2.89	0.46
36:BL:132:ARG:NH1	36:BL:142:ILE:HG21	2.31	0.46
36:BL:143:GLU:O	36:BL:143:GLU:HG3	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BM:24:THR:HG22	37:BM:25:ASP:OD1	2.15	0.46
40:BP:102:ARG:HD3	40:BP:106:ALA:O	2.15	0.46
41:BQ:26:ALA:O	41:BQ:28:SER:N	2.48	0.46
49:BY:9:LYS:HB3	49:BY:12:GLU:CG	2.45	0.46
1:AA:1082:A:H2'	1:AA:1083:U:O4'	2.16	0.46
1:AA:198:G:H2'	1:AA:199:A:H8	1.79	0.46
1:AA:435:A:C6	1:AA:436:C:C5	3.04	0.46
1:AA:439:U:HO2'	1:AA:440:C:P	2.39	0.46
1:AA:748:G:H2'	1:AA:749:A:H8	1.79	0.46
1:AA:575:G:HO2'	1:AA:821:G:H5'	1.81	0.46
1:AA:841:C:C6	1:AA:843:U:OP2	2.69	0.46
1:AA:864:A:H8	1:AA:864:A:OP1	1.98	0.46
2:AB:27:LYS:N	2:AB:28:PRO:HD3	2.30	0.46
2:AB:84:LEU:HG	2:AB:85:SER:CA	2.44	0.46
3:AC:68:HIS:HA	3:AC:103:ALA:O	2.15	0.46
1:AA:619:U:H3	4:AD:130:ASN:ND2	2.14	0.46
4:AD:197:HIS:O	4:AD:201:GLU:HG3	2.16	0.46
5:AE:55:VAL:HB	5:AE:56:PRO:HD3	1.98	0.46
9:AI:98:ARG:HD3	9:AI:103:VAL:HG21	1.97	0.46
9:AI:91:GLU:C	9:AI:93:LEU:H	2.19	0.46
10:AJ:59:LYS:HZ2	10:AJ:60:ASP:H	1.61	0.46
10:AJ:92:LEU:O	10:AJ:93:ALA:HB3	2.15	0.46
12:AL:54:VAL:HG21	12:AL:79:ILE:HD11	1.98	0.46
13:AM:70:ARG:HD2	13:AM:70:ARG:O	2.15	0.46
21:AU:28:LEU:O	21:AU:28:LEU:CD2	2.63	0.46
22:AV:117:G:H2'	22:AV:118:C:C6	2.48	0.46
22:AV:184:A:O3'	22:AV:185:A:O4'	2.33	0.46
22:AV:205:G:O2'	22:AV:206:A:OP1	2.30	0.46
22:AV:263:G:H8	22:AV:308:U:C5	2.23	0.46
22:AV:55:G:O6	22:AV:56:C:N4	2.48	0.46
25:AY:139:MET:HE1	25:AY:146:LEU:HB2	1.98	0.46
25:AY:154:GLN:CA	25:AY:158:GLY:HA2	2.43	0.46
25:AY:277:VAL:HG13	25:AY:278:ASP:H	1.79	0.46
25:AY:359:HIS:C	25:AY:361:ASN:H	2.18	0.46
25:AY:689:LYS:CG	25:AY:690:GLY:N	2.78	0.46
25:AY:70:THR:O	25:AY:80:ASN:HA	2.15	0.46
55:B4:2:LYS:HB2	55:B4:2:LYS:NZ	2.31	0.46
55:B4:36:ARG:CG	55:B4:37:GLN:N	2.77	0.46
26:BA:1096:A:C5	26:BA:1097:U:C5	3.04	0.46
26:BA:1291:C:H2'	26:BA:1292:G:H5'	1.98	0.46
26:BA:1748:C:H2'	26:BA:1749:A:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:205:G:O2'	26:BA:206:U:P	2.74	0.46
26:BA:2092:U:C5'	26:BA:2093:G:OP1	2.62	0.46
26:BA:2127:G:C2	26:BA:2161:C:O2	2.68	0.46
26:BA:2332:C:H2'	26:BA:2335:A:N3	2.31	0.46
26:BA:551:G:H2'	26:BA:552:U:O4'	2.15	0.46
27:BC:161:VAL:HG11	27:BC:173:LEU:HB3	1.94	0.46
29:BE:27:LEU:HD13	29:BE:100:MET:HE3	1.97	0.46
29:BE:84:THR:HG22	29:BE:85:PHE:CD2	2.50	0.46
30:BF:28:PRO:O	30:BF:29:ARG:HG2	2.16	0.46
31:BG:9:VAL:CG1	31:BG:9:VAL:O	2.63	0.46
33:BI:101:SER:HB3	33:BI:104:GLN:HG3	1.96	0.46
33:BI:20:SER:N	33:BI:21:PRO:CD	2.79	0.46
33:BI:24:GLY:O	33:BI:34:ILE:HG23	2.15	0.46
34:BJ:96:ARG:NH2	34:BJ:99:ARG:HD3	2.30	0.46
35:BK:104:THR:HB	35:BK:106:GLU:OE1	2.15	0.46
36:BL:4:ASN:C	36:BL:5:THR:HG22	2.36	0.46
38:BN:55:ALA:HB1	38:BN:80:PHE:H	1.81	0.46
42:BR:54:VAL:O	42:BR:55:ASP:O	2.33	0.46
43:BS:109:ASP:O	43:BS:110:ARG:O	2.34	0.46
47:BW:43:ALA:HB1	47:BW:47:VAL:O	2.15	0.46
49:BY:17:GLU:HG3	49:BY:18:LEU:N	2.30	0.46
1:AA:1013:G:C8	1:AA:1013:G:H3'	2.51	0.46
1:AA:1370:G:O2'	1:AA:1371:G:H5'	2.15	0.46
1:AA:142:G:C6	1:AA:143:A:C5	3.03	0.46
1:AA:142:G:N3	1:AA:143:A:C8	2.83	0.46
1:AA:1534:A:C2	1:AA:1535:C:O2	2.67	0.46
1:AA:15:G:H4'	5:AE:28:ARG:NH1	2.31	0.46
1:AA:189:A:O2'	1:AA:190:A:H5'	2.16	0.46
1:AA:191:G:C2'	1:AA:192:A:H5'	2.45	0.46
1:AA:345:C:OP1	40:BP:36:LYS:HG3	2.16	0.46
1:AA:457:G:C6	1:AA:458:U:C4	3.04	0.46
1:AA:625:U:O2'	1:AA:626:G:C5'	2.64	0.46
1:AA:75:G:H5'	1:AA:76:G:OP2	2.15	0.46
1:AA:97:G:C2'	1:AA:98:A:O5'	2.63	0.46
2:AB:196:ASP:N	2:AB:196:ASP:OD1	2.49	0.46
2:AB:95:TRP:CZ3	2:AB:97:GLY:HA2	2.51	0.46
3:AC:54:ILE:HG13	3:AC:54:ILE:O	2.15	0.46
3:AC:84:GLU:O	3:AC:86:LEU:N	2.49	0.46
6:AF:90:MET:O	6:AF:91:ARG:O	2.34	0.46
8:AH:23:ALA:HA	8:AH:60:LEU:O	2.16	0.46
9:AI:66:VAL:HG21	9:AI:74:GLN:HB3	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:19:ASP:O	10:AJ:23:ALA:HB2	2.14	0.46
10:AJ:56:HIS:C	10:AJ:57:VAL:O	2.54	0.46
11:AK:39:ASN:O	11:AK:40:ALA:CB	2.59	0.46
14:AN:7:ALA:HA	14:AN:10:VAL:CG2	2.46	0.46
14:AN:50:THR:H	14:AN:51:LEU:HD23	1.81	0.46
15:AO:5:GLU:HG2	15:AO:6:ALA:N	2.29	0.46
16:AP:72:ALA:HA	16:AP:75:ILE:HD12	1.96	0.46
17:AQ:51:GLU:CD	17:AQ:51:GLU:N	2.67	0.46
19:AS:13:HIS:O	19:AS:17:LYS:HG3	2.15	0.46
19:AS:43:MET:CE	19:AS:48:ILE:HG12	2.45	0.46
21:AU:33:ARG:HH22	21:AU:34:ARG:HD2	1.81	0.46
22:AV:11:C:O4'	22:AV:11:C:O2	2.32	0.46
22:AV:17:U:O2	22:AV:334:A:N1	2.49	0.46
22:AV:207:A:C5	22:AV:208:G:N7	2.83	0.46
22:AV:231:A:O2'	22:AV:232:A:O4'	2.30	0.46
22:AV:23:G:H2'	22:AV:24:G:H8	1.81	0.46
22:AV:266:C:C6	22:AV:267:G:C8	2.98	0.46
22:AV:313:C:O2'	22:AV:314:C:C5'	2.52	0.46
22:AV:320:U:C2'	22:AV:321:G:OP1	2.63	0.46
22:AV:75:C:H2'	22:AV:76:C:C6	2.50	0.46
24:AX:29:C:H42	24:AX:43:G:H1	1.63	0.46
25:AY:100:VAL:HG13	25:AY:101:LEU:H	1.81	0.46
25:AY:121:VAL:HA	25:AY:124:GLN:NE2	2.31	0.46
25:AY:170:ARG:NH2	25:AY:205:TYR:HE1	2.13	0.46
25:AY:223:PHE:CZ	25:AY:249:GLY:HA3	2.51	0.46
25:AY:432:ALA:HA	25:AY:438:PHE:CZ	2.50	0.46
25:AY:562:ASP:O	25:AY:563:ILE:HG23	2.15	0.46
25:AY:76:ASP:O	25:AY:77:HIS:CG	2.68	0.46
52:B1:50:GLU:OE2	52:B1:52:LYS:HD3	2.15	0.46
26:BA:1287:A:H3'	26:BA:1288:G:N2	2.30	0.46
26:BA:1358:G:C2'	26:BA:1359:A:OP2	2.64	0.46
26:BA:1417:C:O2'	26:BA:1587:G:C2'	2.64	0.46
26:BA:1866:A:C2	26:BA:1876:A:C5	3.03	0.46
26:BA:2039:U:H2'	26:BA:2040:G:C8	2.51	0.46
26:BA:2162:G:O2'	26:BA:2163:A:N7	2.47	0.46
26:BA:807:U:H1'	26:BA:2445:G:OP1	2.16	0.46
26:BA:2571:U:C2'	26:BA:2572:A:OP1	2.64	0.46
26:BA:2585:U:O2'	26:BA:2586:U:H5'	2.16	0.46
26:BA:277:G:C2'	26:BA:361:G:O6	2.64	0.46
26:BA:547:A:C8	26:BA:548:G:C1'	2.99	0.46
26:BA:777:G:O2'	26:BA:778:G:H5'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:846:U:O2'	26:BA:847:U:C6	2.66	0.46
26:BA:875:G:N1	26:BA:876:C:N4	2.64	0.46
26:BA:900:A:N3	26:BA:901:C:C5	2.83	0.46
27:BC:17:LYS:HA	27:BC:17:LYS:CE	2.44	0.46
27:BC:83:ASP:OD1	27:BC:84:PRO:N	2.49	0.46
32:BH:72:ILE:HD11	32:BH:132:PHE:CD2	2.51	0.46
33:BI:27:LEU:HD11	33:BI:34:ILE:HA	1.96	0.46
33:BI:33:ASN:HB3	33:BI:36:GLU:CB	2.45	0.46
33:BI:72:THR:HB	33:BI:73:PRO:HD2	1.98	0.46
34:BJ:77:HIS:HD2	34:BJ:79:GLY:HA2	1.80	0.46
36:BL:2:ARG:O	36:BL:2:ARG:CG	2.62	0.46
37:BM:92:TRP:C	37:BM:93:VAL:HG13	2.35	0.46
41:BQ:23:TYR:HB3	41:BQ:27:ARG:HB3	1.96	0.46
1:AA:1061:G:C6	1:AA:1197:A:C2	3.03	0.46
1:AA:1149:C:H6	1:AA:1149:C:O5'	1.98	0.46
1:AA:1285:A:C5'	1:AA:1286:U:C4	2.98	0.46
1:AA:945:G:N1	1:AA:1337:G:C2	2.84	0.46
1:AA:1399:C:H4'	1:AA:1400:C:O5'	2.15	0.46
1:AA:147:G:H2'	1:AA:148:G:H8	1.77	0.46
1:AA:1485:U:H2'	1:AA:1486:G:H8	1.80	0.46
1:AA:1538:C:O2'	1:AA:1539:C:C5'	2.55	0.46
1:AA:374:A:C4	1:AA:375:U:C5	3.03	0.46
1:AA:501:C:O2'	1:AA:502:A:H5'	2.15	0.46
1:AA:503:C:O2'	1:AA:504:C:H5'	2.16	0.46
1:AA:511:C:C2	1:AA:512:U:C6	3.04	0.46
1:AA:525:C:C4	1:AA:526:C:N4	2.84	0.46
1:AA:610:U:H2'	1:AA:611:C:C6	2.51	0.46
1:AA:610:U:H2'	1:AA:611:C:H6	1.79	0.46
1:AA:599:C:O2	1:AA:640:A:C2	2.68	0.46
1:AA:767:A:H2'	1:AA:768:A:O4'	2.16	0.46
1:AA:794:A:C6	1:AA:795:C:N4	2.84	0.46
1:AA:91:U:H2'	1:AA:92:U:C1'	2.46	0.46
1:AA:939:G:C2	1:AA:940:C:N3	2.84	0.46
2:AB:27:LYS:N	2:AB:28:PRO:CD	2.78	0.46
4:AD:167:PRO:HB2	4:AD:170:LEU:CD1	2.46	0.46
4:AD:77:GLU:O	4:AD:80:ARG:N	2.49	0.46
5:AE:63:MET:O	5:AE:64:GLU:C	2.54	0.46
6:AF:67:PRO:O	6:AF:69:GLU:N	2.48	0.46
8:AH:5:PRO:O	8:AH:8:ASP:CB	2.64	0.46
9:AI:7:GLY:HA3	9:AI:84:ARG:C	2.36	0.46
10:AJ:40:ILE:CB	10:AJ:73:LEU:HB2	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:75:SER:O	13:AM:79:LEU:HD12	2.15	0.46
17:AQ:44:HIS:ND1	17:AQ:69:THR:HG21	2.30	0.46
20:AT:22:SER:O	20:AT:23:ARG:C	2.55	0.46
22:AV:163:G:N1	22:AV:164:G:C5	2.84	0.46
22:AV:208:G:C4	22:AV:209:C:C5	3.03	0.46
22:AV:327:A:H2'	22:AV:328:U:C6	2.50	0.46
22:AV:15:A:C2	22:AV:346:C:H5	2.33	0.46
22:AV:76:C:H2'	22:AV:77:G:H8	1.81	0.46
25:AY:251:ILE:O	25:AY:251:ILE:HG22	2.14	0.46
25:AY:555:LEU:CD1	25:AY:599:PRO:HB2	2.43	0.46
25:AY:5:VAL:O	25:AY:7:TYR:N	2.49	0.46
55:B4:3:VAL:CG1	55:B4:36:ARG:HB3	2.45	0.46
26:BA:1088:A:H5''	26:BA:1088:A:N3	2.31	0.46
26:BA:1140:C:H5'	34:BJ:26:GLY:HA3	1.97	0.46
26:BA:1244:A:OP1	36:BL:7:SER:HB2	2.16	0.46
26:BA:1291:C:O2'	26:BA:1292:G:H5'	2.15	0.46
26:BA:138:U:OP2	26:BA:139:U:H5''	2.16	0.46
26:BA:1445:G:C2	26:BA:1446:C:C2	3.03	0.46
26:BA:1533:C:N4	26:BA:1534:U:C4	2.83	0.46
26:BA:158:U:C2'	26:BA:159:G:H5'	2.46	0.46
26:BA:1607:C:H4'	26:BA:1608:A:C8	2.50	0.46
26:BA:1735:A:C4	26:BA:1736:U:C5	3.04	0.46
26:BA:1897:G:C6	26:BA:1898:U:N3	2.83	0.46
26:BA:188:G:H2'	26:BA:189:G:C5'	2.46	0.46
26:BA:2102:G:H3'	26:BA:2103:C:H6	1.80	0.46
26:BA:225:C:H2'	26:BA:226:A:H5'	1.98	0.46
26:BA:2313:C:H2'	26:BA:2314:A:H5'	1.97	0.46
26:BA:2258:C:O2'	26:BA:2426:A:H5''	2.16	0.46
26:BA:2887:A:H5'	26:BA:2888:C:OP2	2.15	0.46
26:BA:785:G:H2'	26:BA:786:C:C6	2.51	0.46
56:BB:54:G:C5	56:BB:55:U:C5	3.03	0.46
28:BD:205:PRO:O	28:BD:206:ALA:C	2.52	0.46
28:BD:62:LYS:N	28:BD:63:PRO:CD	2.79	0.46
30:BF:26:GLN:O	30:BF:27:VAL:C	2.52	0.46
32:BH:29:PHE:CD2	32:BH:30:LEU:HD23	2.50	0.46
33:BI:50:LYS:HD3	33:BI:50:LYS:N	2.31	0.46
35:BK:104:THR:O	35:BK:107:LEU:HD12	2.15	0.46
26:BA:2393:U:O3'	36:BL:62:PRO:HA	2.15	0.46
39:BO:14:ALA:O	39:BO:18:LEU:CD2	2.64	0.46
39:BO:27:VAL:HG23	39:BO:38:GLN:HG3	1.97	0.46
41:BQ:90:ASP:OD2	41:BQ:90:ASP:C	2.54	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BR:79:ARG:O	42:BR:80:ARG:HB3	2.16	0.46
46:BV:18:ARG:HG3	46:BV:18:ARG:HH11	1.80	0.46
47:BW:17:LEU:HD23	47:BW:35:ARG:HB3	1.96	0.46
1:AA:1021:A:H2'	1:AA:1022:A:O4'	2.15	0.46
1:AA:1057:G:H2'	1:AA:1058:G:C5'	2.46	0.46
1:AA:1340:A:C1'	24:AX:33:C:OP1	2.63	0.46
1:AA:276:G:C5	1:AA:277:C:H5	2.33	0.46
1:AA:322:C:O2	1:AA:332:G:N2	2.49	0.46
1:AA:632:U:C2'	1:AA:633:G:OP1	2.64	0.46
1:AA:739:C:C5	1:AA:740:U:C5	3.03	0.46
1:AA:833:G:H2'	1:AA:834:U:O4'	2.15	0.46
1:AA:92:U:H2'	1:AA:93:U:C6	2.50	0.46
1:AA:957:U:H1'	1:AA:960:U:N3	2.31	0.46
4:AD:172:VAL:HG22	4:AD:173:ASP:N	2.31	0.46
5:AE:79:THR:HG23	5:AE:80:LEU:O	2.16	0.46
7:AG:65:LEU:C	7:AG:67:ASN:N	2.68	0.46
7:AG:73:GLU:HA	7:AG:140:VAL:CG1	2.46	0.46
8:AH:77:VAL:HG11	8:AH:124:ILE:CG1	2.46	0.46
9:AI:100:ALA:O	9:AI:102:PHE:CD1	2.69	0.46
1:AA:1129:C:C5'	9:AI:17:ARG:HH12	2.29	0.46
1:AA:1152:A:OP1	10:AJ:15:HIS:HB2	2.16	0.46
10:AJ:40:ILE:HG13	10:AJ:41:PRO:HD2	1.98	0.46
10:AJ:6:ILE:HD12	10:AJ:6:ILE:H	1.81	0.46
11:AK:112:VAL:O	11:AK:113:THR:C	2.54	0.46
13:AM:32:ILE:HD13	13:AM:58:GLU:HG3	1.97	0.46
1:AA:1317:C:C4	14:AN:53:ARG:HD2	2.51	0.46
17:AQ:47:ASP:O	17:AQ:48:GLU:O	2.33	0.46
22:AV:108:G:H2'	22:AV:109:C:C6	2.50	0.46
22:AV:125:A:N7	22:AV:126:C:N3	2.63	0.46
22:AV:19:G:H21	23:AW:81:LEU:CG	2.29	0.46
22:AV:210:C:N1	22:AV:240:U:O4	2.45	0.46
22:AV:296:U:O2	22:AV:297:G:C5	2.68	0.46
22:AV:29:G:H2'	22:AV:30:C:H5'	1.96	0.46
22:AV:334:A:C5'	22:AV:335:C:N4	2.26	0.46
24:AX:49:C:OP1	24:AX:49:C:C6	2.62	0.46
25:AY:166:LEU:HD12	25:AY:166:LEU:N	2.31	0.46
26:BA:1142:A:C4	26:BA:1144:A:C8	3.04	0.46
26:BA:1534:U:H5'	26:BA:1535:A:P	2.56	0.46
26:BA:164:C:C2'	26:BA:165:A:H5'	2.46	0.46
26:BA:1681:G:N3	26:BA:1762:A:H2'	2.31	0.46
26:BA:1714:U:C5'	26:BA:1715:G:H5'	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:1724:G:H1	26:BA:1737:G:H1'	1.80	0.46
26:BA:1808:A:O2'	48:BX:2:ARG:NH1	2.49	0.46
26:BA:1908:C:C4	26:BA:1909:C:C5	3.04	0.46
26:BA:198:C:O5'	26:BA:198:C:H6	1.99	0.46
26:BA:2278:A:OP1	37:BM:10:ARG:NH2	2.48	0.46
26:BA:392:U:H2'	26:BA:393:C:H6	1.81	0.46
26:BA:60:G:O2'	26:BA:61:C:P	2.73	0.46
26:BA:823:C:C4	26:BA:824:U:C4	3.04	0.46
27:BC:10:PRO:O	27:BC:11:GLY:O	2.32	0.46
27:BC:35:LYS:O	27:BC:36:ASN:HB2	2.14	0.46
30:BF:117:SER:C	30:BF:119:LYS:H	2.20	0.46
30:BF:157:THR:HG21	30:BF:159:ALA:HB3	1.98	0.46
31:BG:82:PHE:CD2	31:BG:82:PHE:N	2.83	0.46
33:BI:100:ILE:HD11	33:BI:137:LEU:HD13	1.97	0.46
34:BJ:98:GLU:HB3	34:BJ:124:VAL:HG22	1.98	0.46
35:BK:77:ILE:HD13	35:BK:77:ILE:N	2.31	0.46
37:BM:14:LYS:HB2	37:BM:14:LYS:HE3	1.80	0.46
37:BM:42:THR:HG22	37:BM:93:VAL:HG12	1.97	0.46
44:BT:2:ILE:HG23	44:BT:7:LEU:CD1	2.46	0.46
44:BT:5:GLU:O	44:BT:6:ARG:C	2.54	0.46
45:BU:97:SER:O	45:BU:98:ASN:HB3	2.14	0.46
49:BY:22:LEU:CG	49:BY:23:ARG:H	2.28	0.46
1:AA:1020:G:C2	1:AA:1021:A:C5	3.03	0.46
1:AA:1126:U:H4'	1:AA:1127:G:OP2	2.15	0.46
1:AA:1216:A:C5	1:AA:1217:C:C5	3.04	0.46
1:AA:1439:G:N7	1:AA:1440:U:C5	2.84	0.46
1:AA:1444:U:O2	1:AA:1444:U:C2'	2.59	0.46
1:AA:1451:U:C3'	1:AA:1452:C:H5'	2.46	0.46
1:AA:1401:G:O6	1:AA:1504:G:N2	2.49	0.46
1:AA:1505:G:H4'	1:AA:1506:U:C5'	2.47	0.46
1:AA:205:A:N3	1:AA:205:A:C2'	2.78	0.46
1:AA:202:G:N2	1:AA:216:U:O2	2.49	0.46
1:AA:737:C:C2'	1:AA:738:C:O5'	2.64	0.46
1:AA:754:C:O2	1:AA:754:C:H3'	2.16	0.46
1:AA:790:A:C6	1:AA:791:G:C6	3.03	0.46
1:AA:79:G:H2'	1:AA:80:A:C8	2.51	0.46
1:AA:981:U:C2	1:AA:982:U:C5	3.04	0.46
2:AB:139:GLU:O	2:AB:143:LEU:CD2	2.64	0.46
2:AB:195:VAL:HG12	2:AB:197:PHE:C	2.37	0.46
2:AB:52:ALA:CB	2:AB:212:TYR:OH	2.64	0.46
2:AB:32:GLY:HA3	2:AB:38:HIS:CA	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:166:TRP:CA	3:AC:166:TRP:CE3	2.99	0.46
3:AC:70:ALA:C	3:AC:72:PRO:HD3	2.36	0.46
3:AC:84:GLU:HA	3:AC:87:ARG:NH2	2.31	0.46
4:AD:97:LEU:HD23	4:AD:117:VAL:CG1	2.45	0.46
4:AD:186:GLU:OE1	4:AD:186:GLU:HA	2.15	0.46
7:AG:82:SER:CB	7:AG:84:TYR:CE2	2.99	0.46
7:AG:85:GLN:HA	7:AG:85:GLN:OE1	2.15	0.46
9:AI:25:GLY:N	9:AI:58:GLU:HG2	2.31	0.46
11:AK:32:THR:OG1	11:AK:43:TRP:HB3	2.16	0.46
11:AK:94:SER:O	11:AK:97:ARG:HB2	2.16	0.46
14:AN:1:ALA:O	14:AN:2:LYS:HB3	2.16	0.46
14:AN:42:TRP:N	14:AN:42:TRP:CE3	2.84	0.46
16:AP:18:GLN:HE21	16:AP:35:ARG:HE	1.63	0.46
16:AP:72:ALA:O	16:AP:75:ILE:HD12	2.15	0.46
19:AS:4:LEU:C	19:AS:5:LYS:HG3	2.36	0.46
20:AT:76:ALA:O	20:AT:79:THR:HB	2.16	0.46
11:AK:121:ARG:NE	21:AU:35:GLU:HG3	2.31	0.46
22:AV:144:U:OP1	22:AV:145:C:OP2	2.34	0.46
22:AV:156:G:C2	22:AV:157:C:C4	3.04	0.46
22:AV:301:A:OP1	22:AV:302:A:OP2	2.34	0.46
22:AV:308:U:H4'	22:AV:309:A:C5'	2.46	0.46
22:AV:60:U:C3'	22:AV:62:G:H4'	2.44	0.46
9:AI:129:ARG:CZ	24:AX:36:A:OP1	2.59	0.46
25:AY:119:GLU:OE1	25:AY:666:ARG:HG2	2.15	0.46
25:AY:357:ARG:HH11	25:AY:373:ASP:CG	2.19	0.46
25:AY:545:GLY:CA	25:AY:583:LYS:HG2	2.46	0.46
26:BA:1121:C:C2'	26:BA:1122:G:O5'	2.63	0.46
26:BA:1293:C:H2'	26:BA:1294:U:O5'	2.16	0.46
26:BA:1601:G:C2'	26:BA:1602:U:H5'	2.46	0.46
26:BA:1339:G:N2	26:BA:1603:A:N3	2.64	0.46
26:BA:208:C:H2'	26:BA:208:C:O2	2.14	0.46
26:BA:2174:C:H2'	26:BA:2175:C:H6	1.80	0.46
26:BA:2355:G:O2'	47:BW:35:ARG:HD2	2.16	0.46
26:BA:2291:U:H5''	26:BA:2380:C:O2'	2.16	0.46
26:BA:2567:G:H2'	26:BA:2568:U:C6	2.51	0.46
26:BA:2658:C:O2	26:BA:2658:C:C2'	2.59	0.46
26:BA:368:A:H3'	26:BA:368:A:C8	2.50	0.46
26:BA:545:U:H2'	26:BA:546:U:O3'	2.16	0.46
26:BA:594:U:H2'	26:BA:595:C:H6	1.80	0.46
26:BA:622:G:H2'	26:BA:623:C:C6	2.50	0.46
26:BA:708:G:O6	26:BA:723:C:N3	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:813:U:H2'	26:BA:814:C:C6	2.51	0.46
56:BB:34:A:O2'	56:BB:35:C:C5'	2.63	0.46
56:BB:61:G:H2'	56:BB:62:C:C6	2.50	0.46
28:BD:49:GLN:OE1	28:BD:67:HIS:HE1	1.99	0.46
30:BF:129:MET:HG3	30:BF:153:ILE:HB	1.98	0.46
30:BF:32:LYS:HD3	30:BF:91:ARG:NH1	2.30	0.46
31:BG:16:VAL:HG22	31:BG:25:ILE:HD13	1.97	0.46
31:BG:64:ALA:O	31:BG:67:ALA:N	2.49	0.46
33:BI:18:ASN:ND2	33:BI:27:LEU:HD11	2.30	0.46
36:BL:19:LEU:CD2	36:BL:31:GLY:O	2.64	0.46
37:BM:42:THR:O	37:BM:46:ILE:HG13	2.16	0.46
39:BO:87:ILE:HG22	39:BO:88:LYS:N	2.30	0.46
40:BP:103:THR:O	40:BP:104:GLY:C	2.54	0.46
44:BT:30:ILE:HG23	44:BT:85:VAL:HB	1.98	0.46
49:BY:18:LEU:HD21	49:BY:22:LEU:CD2	2.45	0.46
1:AA:1000:A:C2	1:AA:1041:G:C2	3.04	0.45
1:AA:1020:G:C2	1:AA:1021:A:N7	2.84	0.45
1:AA:101:A:C5	1:AA:102:G:N7	2.83	0.45
1:AA:1032:G:N3	1:AA:1032:G:C5'	2.79	0.45
1:AA:1190:G:OP1	3:AC:4:VAL:HG12	2.16	0.45
1:AA:1271:A:H5''	1:AA:1314:C:H5''	1.98	0.45
1:AA:1304:G:C6	1:AA:1305:G:N1	2.84	0.45
1:AA:144:G:N2	1:AA:145:G:H1'	2.31	0.45
1:AA:1435:G:O6	1:AA:1465:A:N6	2.49	0.45
1:AA:299:G:C6	1:AA:300:A:C6	3.04	0.45
1:AA:414:A:C4	1:AA:415:A:C8	3.04	0.45
1:AA:451:A:C8	1:AA:481:G:N1	2.84	0.45
1:AA:539:A:H2'	1:AA:540:G:C8	2.50	0.45
1:AA:588:G:C6	1:AA:589:U:N3	2.85	0.45
1:AA:654:G:C2'	1:AA:655:A:H5'	2.46	0.45
1:AA:773:G:C2	1:AA:807:A:C2	3.03	0.45
1:AA:987:G:C2	1:AA:988:G:C4	3.04	0.45
2:AB:112:ARG:O	2:AB:116:LEU:HD23	2.15	0.45
2:AB:134:LEU:HG	2:AB:137:THR:OG1	2.16	0.45
2:AB:163:ILE:HG23	2:AB:164:ASP:N	2.28	0.45
2:AB:80:LYS:HB2	2:AB:90:PHE:HE1	1.81	0.45
3:AC:100:ILE:O	3:AC:100:ILE:HG23	2.16	0.45
3:AC:6:PRO:HG2	3:AC:183:TYR:CD1	2.52	0.45
5:AE:150:GLU:CG	5:AE:151:MET:N	2.79	0.45
5:AE:152:VAL:HG22	5:AE:153:ALA:H	1.80	0.45
7:AG:11:ILE:HD11	7:AG:23:ALA:HB3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:119:LEU:CD2	7:AG:123:LEU:HD21	2.45	0.45
8:AH:82:LEU:CD2	8:AH:82:LEU:C	2.84	0.45
9:AI:93:LEU:HA	9:AI:96:GLU:OE1	2.16	0.45
14:AN:31:SER:O	14:AN:32:ASP:CB	2.62	0.45
14:AN:44:ALA:HA	14:AN:47:LYS:HG3	1.97	0.45
16:AP:70:ARG:HB2	16:AP:70:ARG:HH11	1.81	0.45
22:AV:168:G:N3	22:AV:169:G:C8	2.84	0.45
23:AW:93:VAL:CA	23:AW:98:LEU:HB3	2.35	0.45
25:AY:498:ILE:HG22	25:AY:507:TYR:CG	2.51	0.45
51:B0:52:LYS:HE2	51:B0:55:ALA:HB2	1.97	0.45
26:BA:245:G:O6	54:B3:7:ARG:CD	2.64	0.45
26:BA:1168:G:H8	26:BA:1168:G:C5'	2.29	0.45
26:BA:116:C:O2	26:BA:116:C:C2'	2.57	0.45
26:BA:1217:U:O2	26:BA:1217:U:C2'	2.62	0.45
26:BA:1268:A:C2	26:BA:2013:A:C4	3.04	0.45
26:BA:1378:A:H4'	26:BA:1379:U:OP1	2.16	0.45
26:BA:1766:G:O2'	26:BA:1767:G:H5'	2.16	0.45
26:BA:1907:G:C5	26:BA:1908:C:C5	3.03	0.45
26:BA:2157:G:OP2	26:BA:2157:G:H8	2.00	0.45
26:BA:2189:U:H2'	26:BA:2190:G:H8	1.80	0.45
26:BA:2255:G:H2'	26:BA:2256:G:C5'	2.45	0.45
26:BA:2298:A:N3	26:BA:2298:A:H2'	2.31	0.45
26:BA:2328:A:H2'	26:BA:2329:U:H6	1.80	0.45
26:BA:1782:U:H2'	26:BA:2608:G:O2'	2.16	0.45
26:BA:887:U:C2'	26:BA:888:C:H2'	2.40	0.45
26:BA:901:C:H2'	26:BA:902:C:OP1	2.15	0.45
56:BB:38:C:H3'	56:BB:38:C:C6	2.51	0.45
28:BD:8:LYS:HE3	28:BD:193:VAL:O	2.15	0.45
29:BE:198:GLU:O	29:BE:199:MET:C	2.53	0.45
30:BF:56:LEU:HD12	30:BF:64:PRO:HB2	1.97	0.45
31:BG:34:ARG:HG2	31:BG:35:THR:H	1.81	0.45
31:BG:51:PHE:CD2	31:BG:51:PHE:N	2.84	0.45
33:BI:85:ILE:HG12	33:BI:88:GLY:HA2	1.97	0.45
33:BI:96:LYS:HG3	33:BI:138:VAL:CG2	2.42	0.45
36:BL:81:ASP:CG	36:BL:100:ILE:HD13	2.37	0.45
38:BN:75:ILE:O	38:BN:79:LEU:CD1	2.61	0.45
40:BP:80:VAL:CG1	40:BP:83:ILE:CD1	2.94	0.45
41:BQ:67:ALA:O	41:BQ:68:ALA:C	2.54	0.45
42:BR:14:VAL:HG11	42:BR:98:ILE:HD12	1.98	0.45
48:BX:26:ARG:HG3	48:BX:27:ARG:N	2.30	0.45
49:BY:17:GLU:CA	49:BY:17:GLU:OE2	2.63	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BZ:53:MET:C	50:BZ:54:VAL:HG13	2.37	0.45
1:AA:1293:C:H2'	1:AA:1293:C:O2	2.16	0.45
1:AA:1299:A:C2	1:AA:1301:U:C2	3.05	0.45
1:AA:928:G:H5''	1:AA:1503:A:H61	1.77	0.45
1:AA:259:G:C4	1:AA:260:G:C8	3.04	0.45
1:AA:379:C:H2'	1:AA:380:G:H5'	1.97	0.45
1:AA:549:C:C2'	1:AA:550:G:O5'	2.64	0.45
1:AA:71:A:H61	1:AA:99:C:C2'	2.30	0.45
2:AB:53:LEU:HD13	2:AB:56:LEU:HD12	1.98	0.45
3:AC:89:VAL:O	3:AC:93:ILE:HB	2.16	0.45
4:AD:112:GLU:O	4:AD:115:GLN:N	2.49	0.45
4:AD:146:GLU:HA	4:AD:149:LYS:CD	2.45	0.45
7:AG:73:GLU:HA	7:AG:140:VAL:HG12	1.98	0.45
8:AH:110:MET:CE	8:AH:115:ALA:HA	2.45	0.45
9:AI:38:PHE:HA	9:AI:41:GLU:CD	2.36	0.45
9:AI:90:ASP:OD2	9:AI:90:ASP:C	2.54	0.45
10:AJ:32:THR:HG23	10:AJ:83:THR:HA	1.97	0.45
10:AJ:35:GLN:HG2	10:AJ:78:GLU:N	2.31	0.45
13:AM:66:GLY:O	13:AM:70:ARG:HB3	2.15	0.45
17:AQ:15:LYS:H	17:AQ:16:MET:HE1	1.81	0.45
18:AR:33:THR:HG23	18:AR:36:GLY:H	1.81	0.45
18:AR:72:ARG:HH11	18:AR:72:ARG:HG3	1.80	0.45
22:AV:157:C:N3	22:AV:158:U:C5	2.84	0.45
22:AV:20:A:H2'	22:AV:21:C:C2	2.51	0.45
22:AV:21:C:H2'	22:AV:22:G:O5'	2.16	0.45
22:AV:325:G:H2'	22:AV:325:G:N3	2.31	0.45
22:AV:33:A:O4'	22:AV:34:A:OP1	2.34	0.45
23:AW:81:LEU:CD2	23:AW:85:GLU:O	2.64	0.45
24:AX:4:G:H2'	24:AX:5:G:C8	2.52	0.45
25:AY:124:GLN:C	25:AY:127:LYS:HB3	2.37	0.45
25:AY:406:GLU:CB	25:AY:407:PRO:HD2	2.42	0.45
51:B0:24:VAL:HG13	51:B0:25:THR:N	2.31	0.45
26:BA:1094:U:O4	26:BA:1097:U:OP2	2.34	0.45
26:BA:1449:G:C2'	26:BA:1450:G:O5'	2.64	0.45
26:BA:1520:U:O2	26:BA:1520:U:C2'	2.62	0.45
26:BA:1641:A:H2'	26:BA:1642:G:O4'	2.16	0.45
26:BA:185:G:C5	26:BA:186:G:N7	2.84	0.45
26:BA:184:C:H2'	26:BA:185:G:H8	1.81	0.45
26:BA:1983:G:C2'	26:BA:1984:G:H5'	2.46	0.45
26:BA:2023:C:O2'	26:BA:2024:G:H5'	2.16	0.45
26:BA:2172:U:OP2	26:BA:2173:A:H5''	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:2313:C:C3'	26:BA:2313:C:C6	2.98	0.45
26:BA:242:G:H5''	54:B3:63:TYR:CZ	2.50	0.45
26:BA:415:A:H8	26:BA:415:A:O5'	1.98	0.45
26:BA:717:C:C2'	26:BA:718:A:H5'	2.46	0.45
27:BC:51:ARG:O	27:BC:52:HIS:HB2	2.14	0.45
29:BE:138:LEU:CD1	29:BE:167:VAL:HG21	2.46	0.45
30:BF:107:VAL:N	30:BF:108:PRO:HD2	2.31	0.45
30:BF:110:ILE:HB	30:BF:113:PHE:HB2	1.98	0.45
31:BG:122:ALA:HB2	31:BG:132:LEU:HA	1.99	0.45
31:BG:75:VAL:C	31:BG:77:GLY:N	2.67	0.45
33:BI:37:PHE:CE1	33:BI:41:PHE:HD1	2.35	0.45
34:BJ:4:PHE:CG	34:BJ:5:THR:N	2.83	0.45
35:BK:114:LYS:HA	35:BK:114:LYS:HD2	1.82	0.45
35:BK:19:VAL:CG1	35:BK:41:ILE:HD13	2.45	0.45
35:BK:21:CYS:HA	35:BK:41:ILE:HG22	1.97	0.45
35:BK:66:LYS:HD2	35:BK:66:LYS:HA	1.78	0.45
36:BL:47:ARG:HH21	36:BL:47:ARG:HG2	1.81	0.45
26:BA:2415:G:C4'	36:BL:66:PHE:HB3	2.46	0.45
36:BL:76:GLU:O	36:BL:77:ILE:HD13	2.15	0.45
37:BM:57:VAL:HG23	37:BM:57:VAL:O	2.15	0.45
38:BN:63:ARG:HG3	38:BN:80:PHE:CE1	2.51	0.45
43:BS:11:ARG:O	43:BS:12:SER:HB3	2.14	0.45
45:BU:82:VAL:HG13	45:BU:93:ARG:HB3	1.99	0.45
49:BY:24:GLU:OE1	49:BY:24:GLU:HA	2.17	0.45
50:BZ:53:MET:O	50:BZ:54:VAL:CG1	2.65	0.45
1:AA:1309:G:OP1	13:AM:90:HIS:HE1	1.99	0.45
1:AA:978:A:C6	1:AA:1319:A:C2	3.03	0.45
1:AA:1366:C:C2'	1:AA:1367:C:H5'	2.46	0.45
1:AA:1422:G:N2	1:AA:1423:G:C4	2.85	0.45
1:AA:1537:U:C4	1:AA:1538:C:N4	2.85	0.45
1:AA:67:C:H4'	1:AA:172:A:O4'	2.17	0.45
1:AA:204:G:N3	1:AA:465:A:C2	2.84	0.45
1:AA:211:G:H3'	1:AA:211:G:N3	2.32	0.45
1:AA:452:A:N7	1:AA:453:G:C8	2.83	0.45
1:AA:54:C:H2'	1:AA:54:C:O2	2.16	0.45
1:AA:549:C:H2'	1:AA:550:G:O4'	2.17	0.45
1:AA:632:U:C6	1:AA:632:U:C3'	2.99	0.45
1:AA:646:G:C4	1:AA:647:C:C5	3.04	0.45
1:AA:794:A:C6	1:AA:795:C:C4	3.04	0.45
2:AB:46:VAL:HB	2:AB:47:PRO:CD	2.42	0.45
3:AC:7:ASN:O	3:AC:8:GLY:C	2.53	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:94:PHE:HZ	5:AE:96:GLN:HG3	1.79	0.45
8:AH:40:LYS:NZ	8:AH:47:ASP:OD2	2.49	0.45
1:AA:553:A:O2'	12:AL:25:ALA:HB1	2.17	0.45
13:AM:39:ALA:O	13:AM:41:ASP:N	2.50	0.45
15:AO:34:GLN:CB	15:AO:58:MET:HE2	2.47	0.45
16:AP:20:VAL:HG11	16:AP:32:PHE:CB	2.46	0.45
19:AS:19:GLU:C	19:AS:21:ALA:N	2.69	0.45
22:AV:161:U:O2'	22:AV:162:A:H5'	2.17	0.45
22:AV:234:A:H8	22:AV:234:A:OP1	1.99	0.45
22:AV:264:U:O2'	22:AV:265:C:C5'	2.65	0.45
22:AV:57:G:H2'	22:AV:58:G:H8	1.81	0.45
22:AV:67:G:C2	22:AV:303:G:O6	2.70	0.45
25:AY:181:LEU:CD1	25:AY:242:LEU:HD22	2.46	0.45
25:AY:277:VAL:HG13	25:AY:278:ASP:N	2.31	0.45
25:AY:334:THR:HG23	25:AY:370:LYS:HA	1.99	0.45
25:AY:673:PHE:CG	25:AY:674:ASP:N	2.84	0.45
26:BA:1076:C:H2'	26:BA:1077:A:C1'	2.46	0.45
26:BA:1217:U:O2	26:BA:1217:U:H2'	2.15	0.45
26:BA:1315:C:C2'	26:BA:1316:U:O5'	2.65	0.45
26:BA:1392:A:N6	26:BA:1393:A:N6	2.64	0.45
26:BA:1830:C:H2'	26:BA:1831:G:H8	1.80	0.45
26:BA:1833:C:C4	26:BA:1834:U:C4	3.05	0.45
26:BA:1875:G:HO2'	26:BA:1876:A:P	2.38	0.45
26:BA:2097:A:C6	26:BA:2193:G:C6	3.05	0.45
26:BA:2146:C:H4'	26:BA:2147:A:C8	2.51	0.45
26:BA:2414:G:C2'	26:BA:2415:G:H5'	2.46	0.45
26:BA:2723:C:C2'	26:BA:2724:U:O5'	2.65	0.45
26:BA:2870:C:H2'	26:BA:2871:U:H5'	1.98	0.45
26:BA:703:U:C2'	26:BA:704:G:H5'	2.46	0.45
26:BA:734:A:C4	26:BA:735:A:C8	3.04	0.45
26:BA:870:U:H2'	26:BA:871:U:C6	2.50	0.45
26:BA:895:U:O2'	26:BA:896:A:C8	2.68	0.45
28:BD:99:GLU:O	28:BD:102:ALA:N	2.49	0.45
28:BD:55:LYS:HG2	28:BD:56:LYS:H	1.80	0.45
29:BE:154:ASP:C	29:BE:154:ASP:OD2	2.55	0.45
29:BE:48:THR:CG2	29:BE:86:ALA:HB3	2.46	0.45
33:BI:33:ASN:CB	33:BI:36:GLU:HG2	2.45	0.45
33:BI:83:ALA:HB1	33:BI:100:ILE:CD1	2.46	0.45
37:BM:16:ARG:N	37:BM:16:ARG:HD3	2.31	0.45
37:BM:2:LEU:HB2	37:BM:69:PRO:HG2	1.98	0.45
40:BP:9:GLN:HA	40:BP:12:MET:HG3	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BR:51:VAL:CG2	42:BR:52:PRO:HD2	2.46	0.45
42:BR:54:VAL:O	42:BR:55:ASP:C	2.54	0.45
45:BU:4:ILE:CG2	45:BU:5:ARG:N	2.79	0.45
46:BV:21:ARG:HA	46:BV:25:LYS:O	2.17	0.45
47:BW:27:VAL:HG21	47:BW:78:ILE:HD11	1.98	0.45
48:BX:16:ASN:OD1	48:BX:26:ARG:HD2	2.16	0.45
49:BY:18:LEU:HD23	49:BY:22:LEU:HD23	1.98	0.45
1:AA:1078:U:C4	1:AA:1079:G:C6	3.03	0.45
1:AA:1241:G:N3	1:AA:1242:G:C8	2.84	0.45
1:AA:1338:G:H2'	1:AA:1339:A:C8	2.52	0.45
1:AA:1475:G:C2'	1:AA:1476:A:H5'	2.46	0.45
1:AA:1530:G:N2	1:AA:1531:A:N7	2.64	0.45
1:AA:462:G:N7	1:AA:463:U:C5	2.84	0.45
1:AA:71:A:N1	1:AA:99:C:O2'	2.48	0.45
2:AB:104:LYS:HZ2	2:AB:107:ARG:NH2	2.14	0.45
3:AC:110:LEU:HD13	3:AC:203:LYS:HE3	1.98	0.45
3:AC:84:GLU:C	3:AC:86:LEU:N	2.70	0.45
4:AD:12:ARG:HH11	4:AD:12:ARG:HB3	1.81	0.45
7:AG:61:PHE:CD1	7:AG:62:GLU:N	2.85	0.45
9:AI:123:ARG:CG	9:AI:124:PRO:HD2	2.46	0.45
9:AI:9:GLY:HA3	9:AI:80:HIS:HB3	1.98	0.45
10:AJ:59:LYS:CE	10:AJ:59:LYS:H	2.29	0.45
1:AA:552:U:H4'	12:AL:83:GLY:O	2.17	0.45
13:AM:94:LEU:HB3	13:AM:95:PRO:HD2	1.97	0.45
14:AN:90:ARG:HB3	14:AN:92:GLU:CG	2.47	0.45
10:AJ:67:ILE:HD11	14:AN:96:LEU:HB2	1.97	0.45
20:AT:27:MET:CG	20:AT:31:ILE:HD11	2.45	0.45
20:AT:68:LYS:HB2	20:AT:69:ASN:H	1.60	0.45
22:AV:163:G:C5	22:AV:164:G:N7	2.84	0.45
22:AV:166:C:N4	22:AV:167:G:O6	2.50	0.45
22:AV:200:G:C2'	22:AV:201:C:H5'	2.47	0.45
22:AV:330:U:H2'	22:AV:331:C:C6	2.50	0.45
23:AW:108:ASN:CG	23:AW:114:LYS:NZ	2.69	0.45
24:AX:62:C:H5'	24:AX:63:C:OP2	2.16	0.45
24:AX:70:C:HO2'	24:AX:71:G:H5''	1.79	0.45
25:AY:152:THR:HA	25:AY:155:GLU:HB3	1.99	0.45
25:AY:21:ILE:HG21	25:AY:88:VAL:CG1	2.44	0.45
25:AY:337:SER:HB2	25:AY:355:LEU:HD23	1.98	0.45
25:AY:334:THR:HG23	25:AY:369:LEU:O	2.16	0.45
26:BA:1172:C:C5	26:BA:1173:U:C6	3.04	0.45
26:BA:1173:U:O2	26:BA:1173:U:H2'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:1501:G:C2'	26:BA:1502:A:O5'	2.64	0.45
26:BA:1726:C:O2'	26:BA:1727:C:H5'	2.17	0.45
26:BA:1869:G:C5	26:BA:1871:A:OP2	2.70	0.45
26:BA:1936:A:H2	26:BA:1943:U:H3	1.56	0.45
26:BA:570:G:H2'	26:BA:2030:A:N7	2.32	0.45
26:BA:2800:A:H3'	26:BA:2801:G:H5''	1.95	0.45
26:BA:2852:G:C5	26:BA:2853:C:C5	3.04	0.45
26:BA:31:C:O3'	26:BA:1238:G:C5'	2.64	0.45
26:BA:545:U:H6	26:BA:548:G:P	2.39	0.45
26:BA:653:U:H2'	26:BA:654:A:OP1	2.16	0.45
26:BA:907:G:H5''	37:BM:22:GLN:HB3	1.98	0.45
26:BA:1901:A:OP2	27:BC:252:LYS:HD2	2.17	0.45
29:BE:136:GLN:HE22	29:BE:139:LYS:NZ	2.15	0.45
30:BF:41:GLU:O	30:BF:43:ILE:HG12	2.17	0.45
33:BI:126:ARG:HA	33:BI:129:GLU:CG	2.46	0.45
33:BI:18:ASN:H	33:BI:19:PRO:HD3	1.79	0.45
33:BI:57:VAL:O	33:BI:68:PHE:CB	2.64	0.45
34:BJ:58:ASN:HD21	34:BJ:128:ASN:HB2	1.82	0.45
36:BL:37:GLY:O	36:BL:41:ARG:HG3	2.16	0.45
38:BN:77:ALA:O	38:BN:79:LEU:O	2.33	0.45
41:BQ:107:ALA:HB1	42:BR:48:LYS:HZ2	1.81	0.45
45:BU:98:ASN:C	45:BU:100:GLU:N	2.70	0.45
49:BY:28:LEU:HD23	49:BY:37:LEU:HD21	1.98	0.45
1:AA:100:G:C6	1:AA:101:A:C5	3.04	0.45
1:AA:1039:G:C2'	1:AA:1040:U:O5'	2.65	0.45
1:AA:10:A:OP2	5:AE:130:THR:OG1	2.31	0.45
1:AA:490:C:H2'	1:AA:491:G:C8	2.50	0.45
1:AA:623:C:C2'	1:AA:624:C:H5'	2.46	0.45
1:AA:757:U:C5'	1:AA:822:U:O2	2.64	0.45
1:AA:781:A:C5	1:AA:802:A:C2	3.04	0.45
1:AA:858:G:O2'	1:AA:859:G:C5'	2.65	0.45
1:AA:979:C:P	1:AA:981:U:O4	2.75	0.45
1:AA:69:G:O6	1:AA:98:A:N6	2.50	0.45
2:AB:184:ALA:HB3	2:AB:195:VAL:HG22	1.98	0.45
3:AC:143:LEU:N	3:AC:143:LEU:HD13	2.31	0.45
4:AD:103:ARG:NH1	4:AD:110:ARG:HH22	2.14	0.45
4:AD:122:ILE:H	4:AD:122:ILE:HD13	1.78	0.45
4:AD:168:THR:CB	4:AD:183:ARG:HH22	2.27	0.45
5:AE:76:ASN:O	5:AE:77:ASN:HB2	2.16	0.45
8:AH:48:PHE:O	8:AH:49:LYS:CG	2.65	0.45
13:AM:79:LEU:HD23	13:AM:86:ARG:HD3	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AN:86:GLU:HB3	14:AN:90:ARG:NH2	2.32	0.45
19:AS:74:ALA:N	19:AS:75:PRO:HD2	2.32	0.45
22:AV:9:U:OP2	22:AV:10:U:OP1	2.33	0.45
22:AV:113:A:N3	22:AV:114:G:C4	2.84	0.45
22:AV:121:A:N3	22:AV:122:A:H2'	2.31	0.45
22:AV:206:A:N3	22:AV:206:A:C2'	2.75	0.45
22:AV:271:G:N3	22:AV:272:C:C6	2.85	0.45
23:AW:22:ALA:HB2	23:AW:81:LEU:HD13	1.99	0.45
23:AW:40:ASP:N	23:AW:40:ASP:OD1	2.50	0.45
24:AX:52:C:O2	24:AX:64:G:N1	2.44	0.45
24:AX:62:C:O2	24:AX:62:C:C2'	2.64	0.45
25:AY:150:ILE:C	25:AY:152:THR:N	2.69	0.45
25:AY:435:ASP:OD2	25:AY:435:ASP:C	2.55	0.45
26:BA:1098:A:H5'	26:BA:1099:G:OP2	2.17	0.45
26:BA:1174:U:O2	26:BA:1174:U:O4'	2.35	0.45
26:BA:1373:A:H2'	26:BA:1374:G:O4'	2.16	0.45
26:BA:1421:G:H2'	26:BA:1422:G:O5'	2.17	0.45
26:BA:1425:G:O2'	26:BA:1426:G:H5'	2.17	0.45
26:BA:1525:A:C2'	26:BA:1526:C:H5'	2.46	0.45
26:BA:1870:C:H5''	26:BA:1871:A:C8	2.51	0.45
26:BA:2110:G:O2'	26:BA:2120:G:H5''	2.16	0.45
26:BA:2461:A:H1'	26:BA:2492:U:C2	2.52	0.45
26:BA:2631:G:C2'	26:BA:2632:A:O5'	2.65	0.45
26:BA:829:A:H5''	26:BA:831:G:N7	2.32	0.45
26:BA:908:C:H2'	26:BA:909:A:H8	1.82	0.45
26:BA:838:C:C2	26:BA:941:A:C2	3.05	0.45
27:BC:7:PRO:HA	27:BC:13:ARG:HA	1.98	0.45
28:BD:56:LYS:O	28:BD:57:ALA:O	2.35	0.45
30:BF:174:PHE:HA	30:BF:175:PRO:HD2	1.75	0.45
32:BH:24:GLY:O	32:BH:28:ASN:HB2	2.16	0.45
36:BL:110:VAL:O	36:BL:110:VAL:CG1	2.64	0.45
26:BA:2392:A:C2	36:BL:55:MET:HE3	2.52	0.45
38:BN:10:LEU:O	38:BN:11:ASN:C	2.53	0.45
38:BN:21:PHE:CE2	38:BN:24:MET:HE3	2.51	0.45
39:BO:66:GLY:HA2	39:BO:102:ARG:NH2	2.30	0.45
40:BP:32:VAL:HG13	40:BP:36:LYS:O	2.16	0.45
45:BU:71:ILE:CD1	45:BU:82:VAL:CG2	2.95	0.45
46:BV:43:ASP:C	46:BV:43:ASP:OD1	2.54	0.45
49:BY:39:GLN:O	49:BY:40:SER:C	2.55	0.45
1:AA:103:U:H2'	1:AA:104:G:H8	1.82	0.45
1:AA:1188:A:H2'	1:AA:1189:U:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1191:A:C2'	1:AA:1192:C:H5'	2.47	0.45
1:AA:1218:C:O2'	1:AA:1219:A:H5'	2.17	0.45
1:AA:1271:A:C5'	1:AA:1314:C:C5'	2.93	0.45
1:AA:1342:C:H2'	1:AA:1343:G:H5'	1.94	0.45
1:AA:1348:U:O4	1:AA:1374:A:C8	2.70	0.45
1:AA:1391:U:H2'	1:AA:1392:G:H8	1.76	0.45
1:AA:1394:A:C5	1:AA:1501:C:H4'	2.52	0.45
1:AA:375:U:C2	1:AA:376:G:C8	3.05	0.45
1:AA:375:U:N3	1:AA:376:G:C8	2.85	0.45
1:AA:438:U:O2'	1:AA:439:U:P	2.75	0.45
1:AA:489:C:C2'	1:AA:490:C:O5'	2.65	0.45
1:AA:550:G:C6	1:AA:551:U:C4	3.04	0.45
1:AA:564:C:C4	1:AA:565:U:C4	3.04	0.45
1:AA:600:A:C4	1:AA:639:G:C2	3.04	0.45
1:AA:839:C:O5'	1:AA:839:C:H6	2.00	0.45
1:AA:944:G:O6	1:AA:1337:G:H3'	2.16	0.45
1:AA:954:G:N1	1:AA:955:U:O2	2.49	0.45
2:AB:162:VAL:O	2:AB:184:ALA:HA	2.17	0.45
2:AB:57:ASN:HA	2:AB:60:ALA:HB3	1.98	0.45
3:AC:61:LYS:HE3	3:AC:61:LYS:HA	1.97	0.45
4:AD:96:ARG:HB3	4:AD:98:ASP:OD1	2.16	0.45
5:AE:141:ASP:O	5:AE:143:LEU:N	2.50	0.45
6:AF:99:ALA:O	6:AF:100:SER:CB	2.63	0.45
7:AG:22:LEU:O	7:AG:25:PHE:HB3	2.17	0.45
8:AH:38:VAL:CG1	8:AH:111:THR:HG22	2.46	0.45
8:AH:39:LEU:HD23	8:AH:39:LEU:HA	1.79	0.45
10:AJ:58:ASN:O	10:AJ:60:ASP:N	2.49	0.45
10:AJ:67:ILE:HG22	10:AJ:67:ILE:O	2.17	0.45
11:AK:18:GLY:O	11:AK:81:LEU:HA	2.17	0.45
11:AK:75:GLU:OE1	11:AK:75:GLU:CA	2.65	0.45
13:AM:65:GLU:O	13:AM:67:ASP:N	2.50	0.45
13:AM:76:ILE:HG22	13:AM:77:LYS:N	2.32	0.45
10:AJ:49:PHE:CE2	14:AN:77:PHE:CZ	3.05	0.45
20:AT:22:SER:O	20:AT:25:SER:HB3	2.15	0.45
22:AV:156:G:C6	22:AV:157:C:C4	3.01	0.45
22:AV:210:C:O5'	22:AV:210:C:C6	2.58	0.45
22:AV:211:C:H2'	22:AV:212:U:H6	1.80	0.45
22:AV:267:G:H2'	22:AV:268:U:H6	1.80	0.45
22:AV:297:G:O2'	22:AV:298:A:H5'	2.17	0.45
22:AV:6:U:C2	22:AV:355:G:C2	3.05	0.45
23:AW:104:LYS:HD3	23:AW:116:LEU:CD2	2.45	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AW:20:TYR:O	23:AW:116:LEU:HD12	2.16	0.45
25:AY:417:THR:C	25:AY:419:ALA:N	2.70	0.45
25:AY:408:VAL:HG22	25:AY:454:MET:HA	1.98	0.45
25:AY:14:ASN:ND2	25:AY:80:ASN:HD22	2.14	0.45
26:BA:1091:G:HO2'	26:BA:1092:C:H5	1.63	0.45
26:BA:1413:A:N1	26:BA:1590:A:C2	2.84	0.45
26:BA:1536:C:H4'	26:BA:1537:G:C5'	2.45	0.45
26:BA:1724:G:C5	26:BA:1725:U:C5	3.04	0.45
26:BA:1735:A:H2'	26:BA:1736:U:H6	1.81	0.45
26:BA:2114:A:N3	26:BA:2114:A:C2'	2.79	0.45
26:BA:401:A:H2'	26:BA:402:A:O4'	2.16	0.45
26:BA:707:G:O6	26:BA:724:U:C2	2.70	0.45
27:BC:123:ILE:CD1	27:BC:129:LEU:HD11	2.47	0.45
26:BA:2204:G:O5'	27:BC:149:LYS:CE	2.65	0.45
33:BI:37:PHE:CZ	33:BI:41:PHE:HD1	2.35	0.45
33:BI:57:VAL:HB	33:BI:68:PHE:HB2	1.97	0.45
33:BI:58:ILE:HA	33:BI:68:PHE:HB3	1.99	0.45
37:BM:50:ARG:HG2	37:BM:51:ARG:N	2.31	0.45
37:BM:92:TRP:C	37:BM:93:VAL:CG1	2.85	0.45
38:BN:23:ASN:O	38:BN:24:MET:C	2.54	0.45
42:BR:40:MET:HE2	42:BR:48:LYS:HE2	1.98	0.45
44:BT:33:LYS:HG3	44:BT:80:TRP:CE3	2.52	0.45
46:BV:25:LYS:HE2	46:BV:43:ASP:HB2	1.98	0.45
49:BY:9:LYS:N	49:BY:12:GLU:HB2	2.31	0.45
1:AA:1047:G:H2'	1:AA:1048:G:H5'	1.98	0.45
1:AA:1061:G:H5'	1:AA:1062:U:OP2	2.17	0.45
1:AA:1096:C:H2'	1:AA:1097:C:C6	2.52	0.45
1:AA:1142:G:C2'	1:AA:1143:G:H5'	2.47	0.45
1:AA:1530:G:N2	1:AA:1531:A:N6	2.65	0.45
1:AA:293:G:C6	1:AA:294:U:C4	3.04	0.45
1:AA:403:C:O2'	1:AA:404:G:H5'	2.16	0.45
1:AA:418:C:H2'	1:AA:419:C:C6	2.52	0.45
1:AA:650:G:C5	1:AA:651:C:C5	3.05	0.45
1:AA:946:A:H2'	1:AA:947:G:C8	2.52	0.45
2:AB:62:ARG:O	2:AB:63:LYS:HB2	2.15	0.45
3:AC:129:PHE:O	3:AC:130:ARG:C	2.55	0.45
3:AC:22:PHE:C	3:AC:22:PHE:HD2	2.20	0.45
4:AD:16:THR:CG2	4:AD:17:ASP:H	2.30	0.45
5:AE:108:GLY:O	5:AE:109:ALA:CB	2.62	0.45
5:AE:110:MET:HE3	5:AE:139:THR:HG21	1.98	0.45
5:AE:158:LYS:O	8:AH:63:LYS:CE	2.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:98:ALA:O	5:AE:100:GLU:N	2.50	0.45
6:AF:1:MET:HG3	6:AF:66:ALA:C	2.37	0.45
8:AH:85:TYR:CD2	8:AH:123:GLU:HA	2.48	0.45
11:AK:124:LYS:HA	21:AU:34:ARG:HG3	1.97	0.45
22:AV:194:G:N3	22:AV:195:A:C8	2.84	0.45
22:AV:198:U:H6	22:AV:198:U:P	2.40	0.45
22:AV:258:G:C8	22:AV:258:G:OP1	2.69	0.45
22:AV:315:G:C8	22:AV:316:A:C6	3.05	0.45
22:AV:326:A:H2'	22:AV:327:A:H8	1.82	0.45
22:AV:360:A:H8	22:AV:360:A:O5'	2.00	0.45
23:AW:17:LEU:HD22	23:AW:119:LEU:HD12	1.99	0.45
23:AW:63:TYR:HE2	23:AW:65:LYS:CG	2.29	0.45
23:AW:85:GLU:HG2	23:AW:85:GLU:O	2.16	0.45
24:AX:50:G:C2	24:AX:51:U:N1	2.85	0.45
25:AY:526:VAL:N	25:AY:565:VAL:O	2.49	0.45
25:AY:486:THR:O	25:AY:599:PRO:HA	2.17	0.45
52:B1:16:THR:CG2	52:B1:41:VAL:CG1	2.95	0.45
52:B1:44:GLN:OE1	52:B1:44:GLN:HA	2.15	0.45
26:BA:100:U:N3	26:BA:101:A:N6	2.65	0.45
26:BA:1098:A:C6	26:BA:1099:G:C6	3.04	0.45
26:BA:1292:G:C2'	26:BA:1293:C:O5'	2.65	0.45
26:BA:1606:C:H6	26:BA:1606:C:H3'	1.82	0.45
26:BA:1928:A:C3'	26:BA:1929:G:H5''	2.46	0.45
26:BA:2154:A:C2	26:BA:2155:U:C4	3.05	0.45
26:BA:2218:G:O2'	26:BA:2219:U:H5'	2.17	0.45
26:BA:2337:G:H2'	26:BA:2337:G:N3	2.32	0.45
26:BA:2331:G:N2	26:BA:2385:C:C5	2.85	0.45
26:BA:2727:A:C2'	26:BA:2728:U:H5'	2.47	0.45
26:BA:2782:G:H2'	26:BA:2783:U:H5'	1.97	0.45
26:BA:27:G:C4	26:BA:512:G:N2	2.85	0.45
26:BA:361:G:O2'	26:BA:362:A:P	2.75	0.45
26:BA:823:C:C2'	26:BA:824:U:H5'	2.47	0.45
26:BA:887:U:C2'	26:BA:888:C:H6	2.29	0.45
56:BB:17:C:H2'	56:BB:18:G:O5'	2.17	0.45
28:BD:172:VAL:CG2	28:BD:194:PRO:HD3	2.47	0.45
29:BE:10:SER:O	29:BE:11:ALA:C	2.55	0.45
29:BE:97:ASN:HB3	29:BE:100:MET:HG3	1.98	0.45
30:BF:105:ILE:HD12	30:BF:138:PRO:HG3	1.99	0.45
30:BF:56:LEU:CD1	30:BF:86:CYS:O	2.65	0.45
32:BH:41:LYS:H	32:BH:44:ILE:HG23	1.80	0.45
32:BH:41:LYS:O	32:BH:42:LYS:C	2.55	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BI:100:ILE:HG12	33:BI:137:LEU:HD13	1.97	0.45
39:BO:94:ARG:O	39:BO:97:PHE:N	2.48	0.45
1:AA:1038:C:O2'	1:AA:1039:G:H5'	2.17	0.45
1:AA:1098:C:C4	1:AA:1099:G:N7	2.85	0.45
1:AA:1167:A:H5''	1:AA:1168:U:P	2.57	0.45
1:AA:1203:C:N4	1:AA:1204:A:N6	2.64	0.45
1:AA:1206:G:H2'	1:AA:1207:G:O4'	2.17	0.45
1:AA:1307:U:H5''	13:AM:99:GLN:NE2	2.32	0.45
1:AA:1317:C:H2'	1:AA:1318:A:H5'	1.98	0.45
1:AA:1536:C:H3'	1:AA:1537:U:C5	2.52	0.45
1:AA:213:G:H2'	1:AA:214:C:H5'	1.99	0.45
1:AA:426:U:H5''	4:AD:36:ALA:CB	2.46	0.45
1:AA:469:C:O5'	1:AA:469:C:H6	2.00	0.45
1:AA:569:C:H5''	1:AA:570:G:OP1	2.17	0.45
1:AA:622:A:N7	1:AA:623:C:C6	2.84	0.45
1:AA:626:G:H2'	1:AA:627:G:C5'	2.46	0.45
1:AA:662:U:O2'	1:AA:836:G:O5'	2.35	0.45
2:AB:101:THR:N	2:AB:174:GLU:OE1	2.49	0.45
2:AB:209:VAL:O	2:AB:210:THR:C	2.54	0.45
2:AB:216:VAL:HA	2:AB:219:THR:CG2	2.46	0.45
4:AD:143:SER:HB2	4:AD:178:GLU:HA	1.99	0.45
4:AD:157:ALA:O	4:AD:160:LEU:HD22	2.17	0.45
4:AD:53:GLN:NE2	4:AD:202:LEU:HA	2.32	0.45
4:AD:56:GLU:OE2	4:AD:59:LYS:HE3	2.16	0.45
5:AE:140:ILE:O	5:AE:143:LEU:HB2	2.17	0.45
5:AE:40:ASP:O	5:AE:42:ASN:HB2	2.16	0.45
5:AE:45:VAL:C	5:AE:70:MET:HG3	2.37	0.45
6:AF:64:VAL:HG13	6:AF:65:GLU:N	2.31	0.45
1:AA:1380:U:N3	7:AG:2:ARG:CZ	2.80	0.45
7:AG:65:LEU:O	7:AG:67:ASN:N	2.49	0.45
10:AJ:17:LEU:HA	10:AJ:20:GLN:HB2	1.99	0.45
17:AQ:15:LYS:N	17:AQ:16:MET:CE	2.80	0.45
21:AU:32:ARG:NH1	21:AU:32:ARG:HG2	2.32	0.45
22:AV:16:U:C6	23:AW:110:ARG:NH1	2.84	0.45
22:AV:238:A:H2'	22:AV:239:A:C8	2.51	0.45
22:AV:272:C:H4'	22:AV:291:A:C2	2.51	0.45
22:AV:270:C:C2	22:AV:293:G:O6	2.70	0.45
22:AV:29:G:O2'	22:AV:30:C:H5''	2.15	0.45
22:AV:334:A:OP2	22:AV:335:C:C4	2.70	0.45
22:AV:5:C:O5'	22:AV:5:C:H6	1.99	0.45
24:AX:53:G:C6	24:AX:64:G:C6	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AY:100:VAL:HG22	25:AY:101:LEU:N	2.32	0.45
25:AY:146:LEU:C	25:AY:146:LEU:HD23	2.36	0.45
25:AY:259:PHE:CE2	25:AY:275:ALA:HB2	2.51	0.45
25:AY:285:ASP:OD2	25:AY:285:ASP:N	2.48	0.45
26:BA:1059:G:O2'	33:BI:128:ILE:HA	2.16	0.45
26:BA:1075:C:C6	26:BA:1075:C:C3'	2.99	0.45
26:BA:1372:U:HO2'	26:BA:1373:A:H5'	1.81	0.45
26:BA:1482:G:C6	26:BA:1508:A:N1	2.84	0.45
26:BA:1875:G:H2'	26:BA:1876:A:OP2	2.17	0.45
26:BA:1909:C:H5'	26:BA:1910:G:OP2	2.16	0.45
26:BA:1931:U:H6	26:BA:1931:U:H5'	1.81	0.45
26:BA:2526:G:H2'	26:BA:2527:C:O5'	2.16	0.45
26:BA:263:G:H2'	26:BA:264:C:O4'	2.16	0.45
26:BA:2800:A:C3'	26:BA:2801:G:C5'	2.91	0.45
26:BA:2820:A:C2'	26:BA:2821:A:OP1	2.64	0.45
26:BA:503:A:H5'	26:BA:504:A:H3'	1.99	0.45
26:BA:588:U:H2'	26:BA:589:U:C6	2.52	0.45
26:BA:704:G:H1'	26:BA:726:G:N2	2.32	0.45
26:BA:812:C:H5''	26:BA:1250:G:O2'	2.17	0.45
56:BB:43:C:C4	56:BB:45:A:C6	3.05	0.45
30:BF:46:LYS:NZ	30:BF:83:PRO:HG2	2.32	0.45
30:BF:91:ARG:HG3	56:BB:43:C:O2'	2.16	0.45
31:BG:120:ILE:O	31:BG:121:THR:HG23	2.16	0.45
31:BG:164:ALA:C	31:BG:166:GLU:N	2.69	0.45
31:BG:72:ASN:ND2	31:BG:76:ILE:HD11	2.31	0.45
32:BH:4:ILE:CG2	32:BH:5:LEU:N	2.80	0.45
33:BI:110:GLN:O	33:BI:110:GLN:HG2	2.16	0.45
36:BL:127:VAL:CG1	36:BL:128:THR:N	2.80	0.45
39:BO:102:ARG:O	39:BO:105:ALA:HB3	2.17	0.45
35:BK:108:ARG:NH1	40:BP:34:GLY:CA	2.80	0.45
40:BP:32:VAL:HG12	40:BP:34:GLY:O	2.17	0.45
45:BU:82:VAL:CG1	45:BU:83:GLY:N	2.79	0.45
49:BY:3:ALA:C	49:BY:5:GLU:H	2.20	0.45
1:AA:102:G:C2	1:AA:103:U:C5	3.04	0.45
1:AA:1240:U:OP1	7:AG:115:MET:HB3	2.17	0.45
1:AA:170:U:HO2'	1:AA:171:A:C5'	2.30	0.45
1:AA:355:C:C4	1:AA:356:A:N7	2.84	0.45
1:AA:456:A:C6	1:AA:457:G:C5	3.04	0.45
1:AA:642:A:C6	1:AA:643:C:N3	2.85	0.45
1:AA:646:G:C2	1:AA:647:C:C5	3.05	0.45
1:AA:64:G:C2	1:AA:67:C:C4	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:675:A:C2'	1:AA:676:A:O5'	2.65	0.45
2:AB:170:ILE:O	2:AB:171:ALA:C	2.55	0.45
2:AB:81:ASP:C	2:AB:83:ALA:N	2.70	0.45
3:AC:59:PRO:O	3:AC:60:ALA:CB	2.65	0.45
3:AC:6:PRO:HA	3:AC:174:LEU:HD11	1.97	0.45
7:AG:21:LEU:CD1	7:AG:22:LEU:HD23	2.47	0.45
9:AI:23:GLY:H	9:AI:60:LEU:HA	1.81	0.45
10:AJ:53:ILE:HB	10:AJ:61:ALA:HB1	1.97	0.45
10:AJ:53:ILE:HG22	10:AJ:54:SER:N	2.31	0.45
12:AL:87:LYS:HB2	12:AL:87:LYS:HE3	1.78	0.45
14:AN:48:LEU:HD23	14:AN:51:LEU:HD21	1.99	0.45
15:AO:59:VAL:HG13	26:BA:715:A:HI'	1.98	0.45
17:AQ:13:SER:CB	17:AQ:21:VAL:HG12	2.45	0.45
22:AV:150:G:C2	22:AV:151:C:C2	3.05	0.45
22:AV:164:G:H2'	22:AV:166:C:O2	2.17	0.45
22:AV:178:G:H2'	22:AV:179:A:H8	1.82	0.45
22:AV:177:A:H2'	22:AV:178:G:H8	1.81	0.45
22:AV:227:C:H2'	22:AV:228:G:C8	2.52	0.45
22:AV:22:G:H2'	22:AV:23:G:C8	2.47	0.45
22:AV:42:U:C2	22:AV:43:G:N7	2.85	0.45
25:AY:15:ILE:C	25:AY:101:LEU:HD13	2.37	0.45
25:AY:422:GLU:O	25:AY:423:LYS:C	2.54	0.45
25:AY:510:VAL:HA	25:AY:570:GLY:HA3	1.98	0.45
26:BA:1439:A:N7	26:BA:1552:A:H2	2.15	0.45
26:BA:1979:U:H2'	26:BA:1980:G:O5'	2.16	0.45
26:BA:2070:A:C2	26:BA:2442:C:C2	3.05	0.45
26:BA:2703:C:C2	26:BA:2704:C:C5	3.05	0.45
26:BA:2768:U:H2'	26:BA:2769:U:O5'	2.17	0.45
26:BA:866:A:C4	26:BA:867:C:C6	3.04	0.45
26:BA:866:A:C4	26:BA:914:G:C5	3.05	0.45
27:BC:20:ASN:HA	27:BC:21:PRO:HD2	1.76	0.45
27:BC:251:THR:O	27:BC:252:LYS:C	2.54	0.45
29:BE:138:LEU:HD22	29:BE:143:LEU:HB2	1.98	0.45
30:BF:147:ARG:HG2	30:BF:148:VAL:N	2.32	0.45
30:BF:34:THR:HA	30:BF:88:VAL:O	2.17	0.45
32:BH:25:TYR:HE1	32:BH:29:PHE:CD2	2.35	0.45
32:BH:46:PHE:O	32:BH:49:ALA:HB3	2.16	0.45
34:BJ:24:THR:O	34:BJ:25:LEU:C	2.55	0.45
35:BK:113:MET:O	35:BK:116:ILE:N	2.50	0.45
38:BN:9:GLN:O	38:BN:10:LEU:C	2.55	0.45
38:BN:20:MET:HG2	38:BN:21:PHE:N	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BU:96:LYS:O	45:BU:97:SER:OG	2.34	0.45
49:BY:9:LYS:C	49:BY:11:VAL:H	2.20	0.45
1:AA:1097:C:O3'	1:AA:1169:A:O2'	2.30	0.45
1:AA:1144:G:C5'	1:AA:1145:A:OP2	2.65	0.45
1:AA:1154:G:N3	1:AA:1154:G:H2'	2.32	0.45
1:AA:1319:A:C8	1:AA:1323:G:C5	3.04	0.45
1:AA:1519:A:N7	1:AA:1520:C:H1'	2.31	0.45
1:AA:261:U:C5	20:AT:73:ARG:NH1	2.85	0.45
1:AA:27:G:H2'	1:AA:28:A:O5'	2.17	0.45
1:AA:309:A:C2	1:AA:310:G:C8	3.05	0.45
1:AA:61:G:C5	1:AA:107:G:C2	3.04	0.45
1:AA:696:A:H2'	1:AA:697:U:H6	1.82	0.45
1:AA:721:G:H4'	1:AA:722:G:O4'	2.17	0.45
1:AA:929:G:H4'	1:AA:1534:A:OP1	2.16	0.45
1:AA:93:U:C2'	1:AA:94:G:H5''	2.47	0.45
2:AB:199:ILE:O	2:AB:200:PRO:O	2.35	0.45
2:AB:40:ILE:HG12	2:AB:41:ASN:N	2.33	0.45
3:AC:72:PRO:HG2	3:AC:104:GLU:HG3	1.98	0.45
4:AD:25:ARG:HD2	4:AD:30:LYS:CE	2.45	0.45
9:AI:7:GLY:HA3	9:AI:84:ARG:O	2.16	0.45
11:AK:127:ARG:HH11	11:AK:127:ARG:CG	2.30	0.45
1:AA:950:U:H3'	13:AM:100:ARG:HH22	1.82	0.45
13:AM:48:SER:O	13:AM:49:GLU:C	2.56	0.45
15:AO:3:SER:HB3	15:AO:6:ALA:H	1.81	0.45
16:AP:53:ASP:C	16:AP:53:ASP:OD1	2.55	0.45
17:AQ:4:ILE:HG22	17:AQ:5:ARG:HG3	1.99	0.45
20:AT:69:ASN:N	20:AT:69:ASN:OD1	2.49	0.45
21:AU:9:GLU:CD	21:AU:10:PRO:CD	2.82	0.45
22:AV:117:G:C6	22:AV:118:C:N4	2.85	0.45
22:AV:265:C:HO2'	22:AV:266:C:H5'	1.73	0.45
22:AV:360:A:O3'	22:AV:361:C:C6	2.70	0.45
22:AV:54:G:P	22:AV:54:G:O4'	2.75	0.45
22:AV:5:C:H2'	22:AV:6:U:C6	2.51	0.45
24:AX:23:G:H2'	24:AX:23:G:N3	2.32	0.45
24:AX:37:U:C2'	24:AX:38:A:C5'	2.95	0.45
24:AX:60:A:H2'	24:AX:61:U:O4'	2.17	0.45
24:AX:62:C:C3'	24:AX:63:C:C5'	2.80	0.45
25:AY:191:ASP:OD1	25:AY:191:ASP:N	2.50	0.45
25:AY:297:GLU:O	25:AY:297:GLU:HG3	2.16	0.45
25:AY:368:GLU:C	25:AY:369:LEU:HD12	2.36	0.45
26:BA:1456:G:H2'	26:BA:1456:G:N3	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:1519:G:H2'	26:BA:1520:U:O4'	2.17	0.45
26:BA:1838:C:C5	26:BA:1899:A:C6	3.04	0.45
26:BA:1875:G:O2'	26:BA:1876:A:P	2.75	0.45
26:BA:2016:U:H1'	51:B0:2:VAL:CG2	2.46	0.45
26:BA:2124:G:H2'	26:BA:2125:G:O4'	2.16	0.45
26:BA:2181:U:C2	26:BA:2182:U:C6	3.04	0.45
26:BA:2238:G:H2'	26:BA:2238:G:N3	2.32	0.45
26:BA:277:G:H8	26:BA:361:G:O6	2.00	0.45
26:BA:72:U:O2	49:BY:51:ALA:HB1	2.17	0.45
26:BA:825:A:H2'	26:BA:826:U:O4'	2.17	0.45
56:BB:53:A:H2'	56:BB:54:G:C5'	2.43	0.45
56:BB:61:G:H2'	56:BB:62:C:H6	1.82	0.45
29:BE:189:THR:CG2	29:BE:191:ASP:N	2.80	0.45
29:BE:52:VAL:HG12	29:BE:53:THR:N	2.32	0.45
30:BF:157:THR:CG2	30:BF:159:ALA:H	2.29	0.45
36:BL:124:GLY:C	36:BL:125:LEU:HD12	2.38	0.45
26:BA:2392:A:C2	36:BL:55:MET:CE	2.99	0.45
37:BM:125:PRO:C	37:BM:126:ILE:CG2	2.86	0.45
37:BM:97:GLN:N	37:BM:97:GLN:CD	2.70	0.45
41:BQ:29:ARG:HE	51:B0:9:ARG:HH11	1.64	0.45
41:BQ:90:ASP:OD1	42:BR:11:GLN:HG3	2.16	0.45
42:BR:40:MET:HA	42:BR:54:VAL:HG21	1.99	0.45
41:BQ:86:SER:HB2	42:BR:51:VAL:HA	1.98	0.45
45:BU:84:PHE:O	45:BU:85:ARG:HB3	2.17	0.45
49:BY:9:LYS:HG2	49:BY:11:VAL:H	1.82	0.45
1:AA:1032:G:N3	1:AA:1032:G:H3'	2.32	0.44
1:AA:1277:C:H1'	1:AA:1282:C:H1'	1.99	0.44
1:AA:255:G:H5'	17:AQ:17:GLU:O	2.17	0.44
1:AA:264:C:N4	1:AA:265:G:C6	2.85	0.44
1:AA:654:G:C6	1:AA:753:A:N7	2.85	0.44
1:AA:757:U:H5''	1:AA:822:U:O2	2.17	0.44
1:AA:874:G:C6	1:AA:875:U:C4	3.05	0.44
1:AA:992:U:H4'	1:AA:993:G:O5'	2.17	0.44
2:AB:132:GLU:O	2:AB:136:ARG:N	2.51	0.44
3:AC:135:ARG:O	3:AC:138:GLN:HB2	2.16	0.44
3:AC:71:ARG:HB3	3:AC:74:ILE:CG2	2.47	0.44
1:AA:9:G:H5'	5:AE:107:GLY:HA3	1.99	0.44
6:AF:4:TYR:OH	6:AF:68:GLN:HB3	2.17	0.44
6:AF:51:ILE:CG1	6:AF:52:ASN:HB2	2.47	0.44
1:AA:1291:U:P	7:AG:36:SER:OG	2.75	0.44
7:AG:91:ARG:NE	7:AG:93:VAL:HG21	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:31:LEU:C	8:AH:31:LEU:HD13	2.37	0.44
10:AJ:10:LEU:HB2	10:AJ:72:ARG:CB	2.41	0.44
10:AJ:17:LEU:HD23	10:AJ:17:LEU:C	2.37	0.44
10:AJ:53:ILE:HD11	10:AJ:63:ASP:CG	2.38	0.44
12:AL:41:PRO:HD3	12:AL:47:ALA:O	2.17	0.44
14:AN:13:VAL:HA	14:AN:16:ALA:HB2	1.98	0.44
1:AA:452:A:H1'	16:AP:70:ARG:NH1	2.32	0.44
18:AR:44:THR:OG1	18:AR:46:THR:HB	2.17	0.44
19:AS:35:ARG:NH2	19:AS:76:THR:HG23	2.32	0.44
20:AT:78:LEU:O	20:AT:81:GLN:HB2	2.17	0.44
21:AU:13:VAL:O	21:AU:15:LEU:HD11	2.17	0.44
22:AV:134:G:H2'	22:AV:135:A:H8	1.82	0.44
22:AV:20:A:O3'	22:AV:21:C:C5	2.67	0.44
22:AV:304:C:C2'	22:AV:305:A:H5'	2.47	0.44
22:AV:44:C:C5	22:AV:300:U:C5	3.05	0.44
23:AW:88:ARG:HB3	23:AW:89:LEU:HD23	1.99	0.44
24:AX:69:C:N4	24:AX:70:C:N4	2.65	0.44
25:AY:635:GLU:CD	25:AY:635:GLU:N	2.71	0.44
26:BA:1104:C:H2'	26:BA:1105:U:C6	2.52	0.44
26:BA:1107:G:C5	26:BA:1108:U:C5	3.05	0.44
26:BA:1461:C:C2'	26:BA:1462:C:O5'	2.65	0.44
26:BA:1461:C:H2'	26:BA:1462:C:O5'	2.16	0.44
26:BA:2120:G:C8	26:BA:2120:G:H3'	2.52	0.44
26:BA:2124:G:C2'	26:BA:2125:G:H5'	2.47	0.44
26:BA:2139:U:C2'	26:BA:2140:G:H5'	2.47	0.44
26:BA:2250:G:O5'	26:BA:2250:G:H8	1.99	0.44
26:BA:2343:U:H2'	26:BA:2344:U:C5	2.51	0.44
26:BA:2651:C:O2'	26:BA:2652:C:H5'	2.17	0.44
26:BA:880:G:C4	26:BA:881:G:N7	2.85	0.44
26:BA:884:U:OP2	26:BA:886:A:C2	2.71	0.44
26:BA:891:G:HO2'	26:BA:892:A:C5'	2.30	0.44
26:BA:974:G:N3	26:BA:974:G:C2'	2.81	0.44
56:BB:30:C:C3'	56:BB:31:C:H5'	2.46	0.44
56:BB:33:G:H2'	56:BB:34:A:C5'	2.46	0.44
28:BD:107:VAL:HA	28:BD:206:ALA:H	1.82	0.44
32:BH:104:THR:HG22	32:BH:109:GLU:HA	1.98	0.44
33:BI:104:GLN:O	33:BI:105:LEU:HB2	2.17	0.44
37:BM:50:ARG:CG	37:BM:51:ARG:N	2.78	0.44
40:BP:30:TRP:CE2	40:BP:39:LEU:CD1	2.99	0.44
40:BP:30:TRP:CZ2	40:BP:39:LEU:HD11	2.53	0.44
44:BT:67:VAL:HG12	44:BT:68:LYS:N	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BU:80:ASP:OD1	45:BU:95:PHE:HD2	2.00	0.44
46:BV:78:GLN:O	46:BV:87:GLN:HB2	2.17	0.44
1:AA:1048:G:OP1	14:AN:2:LYS:HA	2.17	0.44
1:AA:1102:A:H2'	1:AA:1103:C:H5'	1.99	0.44
1:AA:1271:A:H2'	1:AA:1272:G:C8	2.52	0.44
1:AA:1388:C:H2'	1:AA:1389:C:C1'	2.48	0.44
1:AA:1441:A:H62	1:AA:1461:G:H21	1.65	0.44
1:AA:1416:G:C2	1:AA:1485:U:O2	2.70	0.44
1:AA:451:A:H5'	16:AP:70:ARG:HH22	1.82	0.44
1:AA:496:A:C2	1:AA:497:G:N7	2.85	0.44
1:AA:739:C:HO2'	15:AO:41:HIS:HD1	1.66	0.44
1:AA:953:G:C2	1:AA:1229:A:C2	3.04	0.44
2:AB:73:ARG:O	2:AB:74:ALA:CB	2.65	0.44
3:AC:71:ARG:HB3	3:AC:74:ILE:HG22	1.98	0.44
4:AD:101:VAL:CG1	4:AD:113:ALA:HB1	2.46	0.44
4:AD:198:LEU:C	4:AD:200:VAL:H	2.20	0.44
5:AE:100:GLU:CB	5:AE:121:ASN:CB	2.96	0.44
6:AF:39:LEU:CD1	6:AF:40:GLU:N	2.81	0.44
1:AA:710:G:H5''	6:AF:53:LYS:HZ1	1.82	0.44
7:AG:119:LEU:HD23	7:AG:123:LEU:CD2	2.46	0.44
8:AH:88:LYS:HG3	8:AH:89:ASP:H	1.82	0.44
9:AI:12:LYS:HG2	9:AI:12:LYS:O	2.17	0.44
9:AI:35:GLU:HA	9:AI:39:GLY:CA	2.47	0.44
13:AM:35:ALA:HB3	13:AM:58:GLU:OE1	2.17	0.44
14:AN:14:ALA:O	14:AN:18:LYS:HG3	2.18	0.44
16:AP:3:THR:HG22	16:AP:4:ILE:H	1.82	0.44
19:AS:43:MET:O	19:AS:46:LEU:HG	2.18	0.44
21:AU:9:GLU:OE2	21:AU:10:PRO:HD3	2.17	0.44
22:AV:144:U:C4'	22:AV:145:C:OP2	2.65	0.44
22:AV:223:G:HO2'	22:AV:224:A:P	2.40	0.44
22:AV:238:A:C2'	22:AV:239:A:O4'	2.65	0.44
22:AV:276:U:O5'	22:AV:276:U:H6	2.00	0.44
22:AV:295:C:H2'	22:AV:296:U:H6	1.83	0.44
22:AV:46:U:O2	22:AV:305:A:C2	2.70	0.44
22:AV:55:G:C2	22:AV:56:C:C5	3.05	0.44
25:AY:227:ILE:CD1	25:AY:242:LEU:HA	2.45	0.44
25:AY:227:ILE:O	25:AY:227:ILE:CG2	2.65	0.44
25:AY:468:ARG:HH11	25:AY:468:ARG:CG	2.30	0.44
25:AY:539:ILE:CD1	25:AY:567:LEU:HD21	2.47	0.44
26:BA:1072:C:P	26:BA:1075:C:N4	2.90	0.44
26:BA:1142:A:C2	26:BA:1144:A:N9	2.86	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:1278:C:O2'	26:BA:1279:G:H5'	2.17	0.44
26:BA:1310:G:H1'	26:BA:1611:C:H5'	1.99	0.44
26:BA:769:U:HO2'	26:BA:1379:U:H6	1.63	0.44
26:BA:1807:G:H2'	26:BA:1809:A:N7	2.32	0.44
26:BA:2145:C:C5	26:BA:2147:A:C2	3.05	0.44
26:BA:2144:G:O2'	26:BA:2145:C:H5	2.00	0.44
26:BA:2408:U:H2'	26:BA:2409:G:C8	2.52	0.44
26:BA:2571:U:H2'	26:BA:2572:A:OP1	2.17	0.44
26:BA:2585:U:O2'	26:BA:2586:U:C5'	2.66	0.44
26:BA:2874:C:C2'	26:BA:2875:C:H5'	2.47	0.44
26:BA:771:G:C6	26:BA:772:C:C4	3.04	0.44
26:BA:877:A:C8	26:BA:878:A:N7	2.86	0.44
26:BA:889:C:O4'	26:BA:889:C:OP1	2.34	0.44
26:BA:974:G:N3	26:BA:974:G:H2'	2.32	0.44
56:BB:78:A:H61	56:BB:98:G:C2'	2.30	0.44
56:BB:99:A:C6	56:BB:100:G:C4	3.05	0.44
28:BD:101:PHE:HE2	28:BD:203:VAL:HG12	1.81	0.44
28:BD:4:LEU:CD2	28:BD:101:PHE:HE1	2.31	0.44
30:BF:51:ASN:HD22	30:BF:146:ASP:HB3	1.83	0.44
26:BA:2311:A:C8	30:BF:76:PHE:CD2	3.06	0.44
30:BF:67:THR:N	30:BF:85:GLY:O	2.50	0.44
32:BH:6:LEU:CD1	32:BH:37:VAL:HG12	2.46	0.44
26:BA:1062:G:H21	33:BI:134:SER:HB3	1.83	0.44
36:BL:81:ASP:OD2	36:BL:100:ILE:HD13	2.17	0.44
37:BM:111:GLU:OE1	37:BM:112:LEU:HA	2.17	0.44
26:BA:910:A:C5	37:BM:12:MET:HA	2.50	0.44
38:BN:8:ARG:HD2	38:BN:43:GLU:CG	2.47	0.44
39:BO:74:VAL:O	39:BO:78:VAL:CG2	2.65	0.44
35:BK:77:ILE:HD12	40:BP:71:ARG:HG3	2.00	0.44
40:BP:80:VAL:CG1	40:BP:83:ILE:HD11	2.47	0.44
46:BV:24:ASN:OD1	46:BV:44:HIS:HB3	2.18	0.44
48:BX:30:PRO:HB2	48:BX:32:LEU:HG	1.98	0.44
50:BZ:41:PRO:O	50:BZ:45:GLY:N	2.49	0.44
1:AA:1055:A:C6	1:AA:1056:U:C6	3.05	0.44
1:AA:1107:C:C5	1:AA:1108:G:N7	2.86	0.44
1:AA:1387:G:H2'	1:AA:1388:C:C5'	2.28	0.44
1:AA:340:U:H2'	1:AA:341:C:C6	2.47	0.44
1:AA:496:A:N3	1:AA:497:G:N7	2.65	0.44
1:AA:550:G:C5	1:AA:551:U:C5	3.05	0.44
1:AA:57:G:H2'	1:AA:58:C:O4'	2.18	0.44
1:AA:849:G:H2'	1:AA:850:U:O5'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:133:ALA:C	2:AB:135:MET:H	2.20	0.44
2:AB:15:PHE:HD1	2:AB:16:GLY:H	1.64	0.44
2:AB:172:ILE:O	2:AB:175:ALA:HB3	2.17	0.44
3:AC:141:MET:CE	3:AC:147:GLY:HA2	2.44	0.44
3:AC:171:ARG:O	3:AC:172:VAL:CG2	2.66	0.44
3:AC:199:VAL:CG2	3:AC:199:VAL:O	2.65	0.44
5:AE:131:ASN:C	5:AE:131:ASN:ND2	2.68	0.44
6:AF:10:VAL:HG13	6:AF:11:HIS:H	1.82	0.44
9:AI:40:ARG:H	9:AI:44:ARG:HB3	1.82	0.44
12:AL:115:LYS:O	12:AL:116:TYR:CB	2.63	0.44
13:AM:8:ILE:O	13:AM:8:ILE:HG22	2.18	0.44
16:AP:51:ARG:HH11	16:AP:51:ARG:HB3	1.82	0.44
1:AA:1539:C:C4'	21:AU:17:ARG:HG3	2.39	0.44
22:AV:136:G:C2	22:AV:137:C:C5	3.05	0.44
22:AV:172:U:N1	22:AV:173:C:C6	2.85	0.44
22:AV:196:G:O2'	22:AV:197:A:OP2	2.36	0.44
22:AV:46:U:C2	22:AV:305:A:N1	2.85	0.44
22:AV:65:U:HO2'	22:AV:71:A:H2	1.58	0.44
23:AW:22:ALA:HB2	23:AW:81:LEU:HD12	1.99	0.44
25:AY:204:GLU:O	25:AY:205:TYR:C	2.56	0.44
25:AY:262:SER:OG	25:AY:265:LYS:HG3	2.17	0.44
25:AY:415:PRO:HB2	25:AY:421:GLN:HA	1.99	0.44
25:AY:681:LYS:HD2	25:AY:681:LYS:C	2.38	0.44
26:BA:100:U:H4'	26:BA:101:A:O5'	2.17	0.44
26:BA:1169:A:H8	26:BA:1169:A:O5'	2.00	0.44
26:BA:1351:C:H2'	26:BA:1352:U:O4'	2.18	0.44
26:BA:137:U:H2'	26:BA:140:C:N1	2.32	0.44
26:BA:1509:A:H1'	26:BA:1510:G:H5'	1.99	0.44
26:BA:1712:U:C4	26:BA:1713:A:C6	3.05	0.44
26:BA:2107:G:C2	26:BA:2108:A:C8	3.05	0.44
26:BA:2193:G:H2'	26:BA:2194:U:C5	2.51	0.44
26:BA:2349:G:O6	26:BA:2350:C:C4	2.70	0.44
26:BA:2544:G:C2'	26:BA:2545:G:O5'	2.65	0.44
26:BA:2644:G:C2'	26:BA:2645:G:H5'	2.47	0.44
26:BA:2658:C:H2'	26:BA:2658:C:O2	2.16	0.44
26:BA:637:A:H4'	26:BA:638:G:O5'	2.17	0.44
26:BA:889:C:N3	26:BA:891:G:N7	2.65	0.44
56:BB:102:G:H2'	56:BB:103:U:C5'	2.48	0.44
28:BD:136:ASN:HD21	28:BD:139:SER:C	2.20	0.44
28:BD:187:LEU:O	28:BD:188:LEU:HD23	2.17	0.44
29:BE:164:LEU:HD12	29:BE:164:LEU:HA	1.79	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BE:60:TRP:O	29:BE:61:ARG:C	2.56	0.44
29:BE:54:GLY:N	29:BE:74:LYS:HE2	2.32	0.44
30:BF:129:MET:HB2	30:BF:129:MET:HE3	1.87	0.44
30:BF:69:ALA:CB	30:BF:82:TYR:O	2.65	0.44
31:BG:145:ALA:O	31:BG:148:ARG:HB3	2.16	0.44
35:BK:103:VAL:O	35:BK:122:VAL:HB	2.17	0.44
39:BO:19:GLN:C	39:BO:21:LEU:H	2.20	0.44
39:BO:29:HIS:CD2	39:BO:30:ARG:H	2.36	0.44
42:BR:21:ARG:NH1	42:BR:93:PHE:CZ	2.86	0.44
44:BT:3:ARG:O	44:BT:6:ARG:HB3	2.18	0.44
26:BA:72:U:H1'	49:BY:51:ALA:CB	2.48	0.44
50:BZ:2:LYS:H	50:BZ:2:LYS:HD3	1.82	0.44
1:AA:1025:U:C6	1:AA:1025:U:OP2	2.70	0.44
1:AA:1077:G:N1	1:AA:1080:A:OP2	2.51	0.44
1:AA:1104:G:OP1	2:AB:96:LEU:HD11	2.14	0.44
1:AA:1205:U:C2'	1:AA:1205:U:O2	2.66	0.44
1:AA:1286:U:O2	1:AA:1286:U:C2'	2.65	0.44
1:AA:952:U:H4'	1:AA:964:A:H61	1.82	0.44
2:AB:19:THR:O	2:AB:20:ARG:CZ	2.65	0.44
2:AB:53:LEU:HD12	2:AB:56:LEU:HD12	1.98	0.44
2:AB:65:LYS:HE3	2:AB:158:ASP:OD2	2.17	0.44
3:AC:119:ILE:O	3:AC:121:SER:N	2.50	0.44
3:AC:119:ILE:O	3:AC:120:THR:C	2.55	0.44
4:AD:106:PHE:CG	4:AD:144:ILE:HD11	2.53	0.44
6:AF:50:PRO:O	6:AF:51:ILE:C	2.56	0.44
7:AG:25:PHE:O	7:AG:27:ASN:N	2.51	0.44
9:AI:117:LEU:HD23	9:AI:121:ARG:C	2.38	0.44
11:AK:22:ILE:CG1	11:AK:22:ILE:O	2.65	0.44
12:AL:63:THR:CG2	12:AL:91:GLY:O	2.65	0.44
13:AM:55:LEU:O	13:AM:58:GLU:N	2.50	0.44
14:AN:15:LEU:C	14:AN:17:ASP:N	2.71	0.44
15:AO:69:LEU:O	15:AO:70:LYS:C	2.54	0.44
16:AP:12:LYS:O	16:AP:13:LYS:HB2	2.17	0.44
21:AU:16:ARG:HH11	21:AU:19:LYS:HG2	1.83	0.44
22:AV:40:G:N1	22:AV:316:A:N3	2.64	0.44
22:AV:34:A:C3'	22:AV:35:C:H5'	2.43	0.44
22:AV:66:C:C2'	22:AV:67:G:O5'	2.66	0.44
22:AV:72:A:C2'	22:AV:72:A:N3	2.77	0.44
25:AY:497:PHE:O	25:AY:498:ILE:O	2.36	0.44
52:B1:21:THR:HG23	54:B3:33:THR:HG23	2.00	0.44
26:BA:1085:A:C2'	26:BA:1086:A:C2	2.91	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:1079:C:C5	26:BA:1088:A:C2	3.05	0.44
26:BA:1280:G:H2'	26:BA:1281:G:O5'	2.18	0.44
26:BA:1840:G:C6	26:BA:1841:U:C4	3.05	0.44
26:BA:1925:C:C4'	26:BA:1926:U:C5	3.00	0.44
26:BA:2058:A:H8	26:BA:2058:A:O5'	2.00	0.44
26:BA:2103:C:O2'	26:BA:2104:C:H5'	2.17	0.44
26:BA:2172:U:OP1	26:BA:2174:C:H5	1.98	0.44
26:BA:21:A:O2'	26:BA:22:C:H5'	2.17	0.44
26:BA:2585:U:O2'	26:BA:2586:U:O5'	2.33	0.44
26:BA:2591:C:OP2	27:BC:236:GLY:O	2.35	0.44
56:BB:85:G:H2'	56:BB:86:G:O5'	2.18	0.44
56:BB:94:A:C5	56:BB:95:U:C5	3.06	0.44
27:BC:234:GLY:HA2	27:BC:238:ASN:HB2	1.98	0.44
28:BD:105:LYS:HB3	28:BD:105:LYS:NZ	2.33	0.44
36:BL:53:GLY:O	36:BL:54:GLN:C	2.55	0.44
36:BL:99:ASN:ND2	36:BL:99:ASN:O	2.50	0.44
43:BS:4:ILE:N	43:BS:4:ILE:CD1	2.80	0.44
44:BT:18:GLU:O	44:BT:22:THR:HG23	2.17	0.44
45:BU:68:ASN:C	45:BU:69:VAL:HG13	2.38	0.44
1:AA:1202:U:O2	14:AN:82:ILE:HG21	2.17	0.44
1:AA:240:G:C2	1:AA:287:U:O2	2.71	0.44
1:AA:404:G:H2'	1:AA:405:U:O4'	2.18	0.44
1:AA:451:A:C8	1:AA:452:A:C2	3.06	0.44
1:AA:459:A:C2	1:AA:460:A:C5	3.05	0.44
1:AA:848:C:H2'	1:AA:849:G:O5'	2.17	0.44
1:AA:836:G:C5	1:AA:851:G:C6	3.06	0.44
1:AA:923:A:H8	1:AA:923:A:O5'	2.00	0.44
2:AB:80:LYS:CG	2:AB:84:LEU:HD22	2.47	0.44
4:AD:57:LYS:N	4:AD:199:ILE:CG2	2.80	0.44
5:AE:135:VAL:HG22	5:AE:136:VAL:N	2.32	0.44
11:AK:110:THR:HG23	21:AU:4:LYS:HA	2.00	0.44
11:AK:37:GLN:N	11:AK:37:GLN:OE1	2.50	0.44
12:AL:34:THR:O	12:AL:35:ARG:HG3	2.17	0.44
12:AL:74:GLN:O	12:AL:75:GLU:C	2.55	0.44
22:AV:24:G:H2'	22:AV:25:A:H8	1.82	0.44
22:AV:361:C:O5'	22:AV:361:C:H6	2.00	0.44
23:AW:32:LYS:HD3	23:AW:63:TYR:CE1	2.53	0.44
23:AW:81:LEU:CD2	23:AW:85:GLU:CG	2.92	0.44
25:AY:20:HIS:CD2	25:AY:117:GLN:HB3	2.53	0.44
25:AY:181:LEU:HD23	25:AY:182:ARG:NH1	2.33	0.44
26:BA:1021:A:N3	26:BA:1021:A:H3'	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:1084:A:C2'	26:BA:1085:A:C8	3.00	0.44
26:BA:1386:C:H2'	26:BA:1387:A:C8	2.52	0.44
26:BA:1414:C:H3'	26:BA:1414:C:H6	1.83	0.44
26:BA:1494:A:N1	26:BA:1495:A:C4	2.85	0.44
26:BA:1724:G:C6	26:BA:1725:U:C4	3.05	0.44
26:BA:186:G:C2	26:BA:187:G:C5	3.06	0.44
26:BA:1966:A:N3	26:BA:2592:G:O2'	2.41	0.44
26:BA:2147:A:H3'	26:BA:2147:A:C8	2.52	0.44
26:BA:2186:G:C4	26:BA:2187:U:C5	3.05	0.44
26:BA:2531:A:C2	26:BA:2532:G:N9	2.86	0.44
26:BA:272:A:C2	26:BA:366:C:O2	2.70	0.44
26:BA:272:A:H2'	26:BA:273:G:O4'	2.17	0.44
26:BA:2853:C:C2	26:BA:2854:G:C8	3.06	0.44
26:BA:825:A:C2	26:BA:833:A:C2	3.05	0.44
26:BA:897:C:C2'	26:BA:898:C:H6	2.21	0.44
26:BA:919:U:C2	26:BA:920:A:C8	3.06	0.44
26:BA:924:G:O2'	26:BA:925:A:H5'	2.17	0.44
27:BC:24:HIS:CD2	27:BC:79:ARG:NH2	2.85	0.44
27:BC:74:PRO:O	27:BC:75:ALA:HB2	2.18	0.44
28:BD:2:ILE:HG23	28:BD:88:GLU:OE2	2.18	0.44
31:BG:71:LEU:HD12	31:BG:71:LEU:H	1.79	0.44
32:BH:72:ILE:CD1	32:BH:140:ALA:O	2.65	0.44
35:BK:13:ASN:HD22	35:BK:98:ARG:CB	2.30	0.44
35:BK:41:ILE:HD12	35:BK:41:ILE:C	2.38	0.44
38:BN:32:GLU:CD	38:BN:86:ARG:HH22	2.20	0.44
45:BU:5:ARG:O	45:BU:6:ARG:O	2.36	0.44
46:BV:48:MET:HA	46:BV:51:GLN:HG2	1.99	0.44
1:AA:1036:A:H2'	1:AA:1036:A:N3	2.32	0.44
1:AA:1125:U:HO2'	1:AA:1126:U:P	2.41	0.44
1:AA:1135:U:O4'	1:AA:1135:U:OP2	2.35	0.44
1:AA:1124:G:C3'	1:AA:1145:A:N6	2.69	0.44
1:AA:66:A:O4'	1:AA:173:U:C4	2.71	0.44
1:AA:788:U:C2'	1:AA:789:U:H5'	2.47	0.44
1:AA:900:A:H2'	1:AA:901:A:C8	2.52	0.44
2:AB:134:LEU:HA	2:AB:137:THR:HG23	2.00	0.44
2:AB:63:LYS:CB	2:AB:65:LYS:HE2	2.48	0.44
4:AD:115:GLN:HA	4:AD:115:GLN:HE21	1.82	0.44
6:AF:12:PRO:O	6:AF:13:ASP:C	2.56	0.44
6:AF:39:LEU:CD1	6:AF:39:LEU:C	2.85	0.44
6:AF:62:MET:O	6:AF:63:ASN:CB	2.66	0.44
6:AF:70:VAL:HA	6:AF:73:GLU:HG2	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:83:THR:HG21	9:AI:102:PHE:CB	2.48	0.44
9:AI:11:ARG:NH1	9:AI:11:ARG:CG	2.80	0.44
9:AI:122:ARG:NH1	9:AI:123:ARG:O	2.51	0.44
9:AI:6:TYR:CE2	9:AI:17:ARG:CB	3.01	0.44
9:AI:30:ASN:O	9:AI:32:ARG:HB2	2.18	0.44
1:AA:1279:G:H22	10:AJ:45:ARG:HE	1.60	0.44
11:AK:41:LEU:CB	11:AK:76:TYR:HE2	2.29	0.44
14:AN:64:CYS:HB2	14:AN:80:SER:HB2	2.00	0.44
14:AN:82:ILE:HG22	14:AN:83:LYS:N	2.33	0.44
15:AO:52:ARG:O	15:AO:55:LEU:HB3	2.18	0.44
17:AQ:54:ILE:C	17:AQ:54:ILE:CD1	2.86	0.44
18:AR:71:ASP:OD1	18:AR:72:ARG:HG2	2.17	0.44
20:AT:73:ARG:O	20:AT:76:ALA:HB3	2.17	0.44
22:AV:12:U:H3'	22:AV:12:U:OP1	2.16	0.44
22:AV:130:C:N3	22:AV:132:U:C4	2.86	0.44
22:AV:26:U:H2'	22:AV:27:U:C6	2.50	0.44
22:AV:308:U:C1'	22:AV:309:A:O5'	2.66	0.44
22:AV:317:G:C2'	22:AV:318:G:O4'	2.63	0.44
22:AV:322:U:N3	22:AV:323:A:C6	2.84	0.44
22:AV:325:G:N2	22:AV:326:A:N9	2.66	0.44
22:AV:334:A:O3'	22:AV:335:C:C2	2.71	0.44
24:AX:59:A:C2	24:AX:62:C:C5	3.05	0.44
25:AY:238:THR:HG23	25:AY:240:GLU:HG2	2.00	0.44
25:AY:260:LEU:N	25:AY:260:LEU:HD13	2.33	0.44
25:AY:87:HIS:NE2	25:AY:120:THR:HG21	2.32	0.44
26:BA:120:U:H4'	26:BA:121:G:H5''	1.99	0.44
26:BA:1249:U:H4'	41:BQ:3:VAL:CG1	2.48	0.44
26:BA:1535:A:C5'	26:BA:1536:C:C5	3.00	0.44
26:BA:1873:G:HO2'	26:BA:1874:C:H5'	1.82	0.44
26:BA:306:U:O4	26:BA:307:G:C6	2.70	0.44
26:BA:417:C:H2'	26:BA:418:C:C6	2.49	0.44
26:BA:707:G:N2	26:BA:708:G:H1'	2.32	0.44
26:BA:760:G:H2'	26:BA:761:A:H5'	1.97	0.44
26:BA:86:G:C2	26:BA:87:U:C4	3.06	0.44
26:BA:881:G:C2	26:BA:882:G:C5	3.06	0.44
27:BC:83:ASP:OD1	27:BC:84:PRO:CD	2.66	0.44
29:BE:183:PHE:N	29:BE:183:PHE:CD1	2.85	0.44
32:BH:132:PHE:CE2	32:BH:142:VAL:HG23	2.52	0.44
32:BH:54:LEU:HD22	32:BH:54:LEU:HA	1.80	0.44
33:BI:103:ALA:O	33:BI:105:LEU:N	2.50	0.44
33:BI:29:GLN:HG2	33:BI:29:GLN:O	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BK:113:MET:C	35:BK:115:ILE:N	2.69	0.44
1:AA:100:G:C5	1:AA:101:A:C5	3.06	0.44
1:AA:1004:A:C2	1:AA:1026:G:N3	2.85	0.44
1:AA:1133:G:C4	1:AA:1134:G:C8	3.06	0.44
1:AA:1163:A:H2'	1:AA:1164:G:C8	2.52	0.44
1:AA:1212:U:O2	1:AA:1212:U:H2'	2.18	0.44
1:AA:1335:U:H5''	1:AA:1336:C:H5'	1.99	0.44
1:AA:243:A:H4'	1:AA:244:U:H5''	1.99	0.44
1:AA:436:C:H4'	4:AD:152:SER:HB2	2.00	0.44
1:AA:489:C:H2'	1:AA:490:C:O5'	2.18	0.44
1:AA:508:U:H4'	1:AA:509:A:OP1	2.17	0.44
1:AA:583:A:H2'	1:AA:584:G:H5'	1.99	0.44
1:AA:73:C:HO2'	1:AA:74:A:H5''	1.83	0.44
1:AA:854:U:H2'	1:AA:855:U:H6	1.82	0.44
5:AE:33:THR:HG21	5:AE:49:TYR:OH	2.18	0.44
6:AF:24:ARG:O	6:AF:27:ALA:HB3	2.17	0.44
7:AG:148:LYS:C	7:AG:150:PHE:N	2.69	0.44
8:AH:30:LYS:O	8:AH:31:LEU:C	2.55	0.44
8:AH:79:ARG:HB2	8:AH:80:PRO:HD2	2.00	0.44
9:AI:117:LEU:N	9:AI:117:LEU:HD12	2.33	0.44
9:AI:24:ASN:O	9:AI:60:LEU:N	2.51	0.44
9:AI:29:ILE:CD1	9:AI:38:PHE:HE2	2.30	0.44
13:AM:21:ILE:CG2	13:AM:22:TYR:O	2.65	0.44
14:AN:26:LEU:O	14:AN:27:LYS:CB	2.65	0.44
14:AN:87:ALA:HA	14:AN:90:ARG:NH1	2.33	0.44
16:AP:60:TRP:HB3	16:AP:65:ALA:HB2	2.00	0.44
17:AQ:10:ARG:HG3	17:AQ:10:ARG:HH11	1.83	0.44
17:AQ:54:ILE:HG23	17:AQ:54:ILE:O	2.17	0.44
20:AT:71:ALA:O	20:AT:74:HIS:HB2	2.18	0.44
22:AV:19:G:O6	23:AW:23:GLY:N	2.51	0.44
22:AV:208:G:N2	22:AV:209:C:C2	2.86	0.44
22:AV:269:C:O2'	22:AV:270:C:H5''	2.18	0.44
22:AV:312:A:H2'	22:AV:313:C:H6	1.75	0.44
22:AV:38:A:O2'	22:AV:39:A:O4'	2.36	0.44
22:AV:68:U:C4'	22:AV:69:A:OP1	2.61	0.44
23:AW:31:VAL:HA	23:AW:34:LEU:CD1	2.48	0.44
25:AY:162:VAL:HG23	25:AY:255:ILE:HG13	1.99	0.44
25:AY:529:ILE:HD11	25:AY:567:LEU:CD1	2.48	0.44
25:AY:519:ARG:CZ	25:AY:678:GLU:H	2.30	0.44
54:B3:3:ILE:HG21	54:B3:62:PRO:HG3	2.00	0.44
26:BA:1039:A:C2'	26:BA:1040:A:O5'	2.66	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:1082:U:H3'	26:BA:1082:U:H6	1.83	0.44
26:BA:1078:U:O2	26:BA:1088:A:C2	2.71	0.44
26:BA:141:G:C2	44:BT:1:MET:HE3	2.53	0.44
26:BA:1464:G:O2'	26:BA:1465:G:H5'	2.18	0.44
26:BA:1494:A:N1	26:BA:1495:A:N3	2.65	0.44
26:BA:1586:A:H3'	26:BA:1586:A:C8	2.52	0.44
26:BA:1693:U:O4	26:BA:1977:A:C5	2.71	0.44
26:BA:1737:G:C6	26:BA:1738:G:N2	2.86	0.44
26:BA:1744:A:H5''	26:BA:1745:A:OP2	2.18	0.44
26:BA:1915:U:H3'	26:BA:1916:A:H8	1.83	0.44
26:BA:1826:G:O2'	26:BA:1971:U:OP2	2.36	0.44
26:BA:2097:A:N1	26:BA:2193:G:C6	2.86	0.44
26:BA:2403:C:C2'	26:BA:2404:U:H5'	2.48	0.44
26:BA:2516:A:C6	26:BA:2517:C:C4	3.06	0.44
26:BA:2550:G:O2'	26:BA:2551:C:H5'	2.16	0.44
26:BA:71:A:C5'	26:BA:72:U:H3'	2.47	0.44
26:BA:67:U:O2	26:BA:88:G:C2	2.71	0.44
26:BA:896:A:C1'	26:BA:897:C:OP1	2.65	0.44
56:BB:51:G:O2'	56:BB:52:A:H5'	2.18	0.44
56:BB:78:A:C2	56:BB:99:A:C4	3.05	0.44
31:BG:59:ASP:HB2	31:BG:62:ALA:HB3	1.98	0.44
32:BH:7:ASP:C	32:BH:15:LEU:HD22	2.38	0.44
33:BI:10:LEU:O	33:BI:23:VAL:HG11	2.18	0.44
36:BL:110:VAL:HG12	36:BL:110:VAL:O	2.17	0.44
36:BL:30:THR:O	36:BL:32:GLY:N	2.50	0.44
39:BO:2:ASP:O	39:BO:4:LYS:N	2.51	0.44
40:BP:8:GLU:HB3	40:BP:54:LEU:HB2	1.98	0.44
43:BS:85:ILE:CG2	43:BS:86:MET:N	2.81	0.44
44:BT:12:ARG:HD2	44:BT:12:ARG:N	2.32	0.44
48:BX:57:VAL:HG12	48:BX:58:ILE:N	2.32	0.44
49:BY:15:ASN:O	49:BY:19:LEU:HG	2.18	0.44
1:AA:1022:A:C6	1:AA:1023:U:C4	3.06	0.44
1:AA:1368:A:OP2	9:AI:115:VAL:N	2.51	0.44
1:AA:199:A:C2	1:AA:200:G:C5	3.06	0.44
1:AA:250:A:H5'	1:AA:250:A:N3	2.33	0.44
1:AA:287:U:H2'	1:AA:288:A:C8	2.53	0.44
1:AA:27:G:O2'	1:AA:28:A:O5'	2.34	0.44
1:AA:320:A:C2	1:AA:334:C:N3	2.86	0.44
1:AA:445:G:H2'	1:AA:446:G:O4'	2.18	0.44
1:AA:654:G:C6	1:AA:753:A:C8	3.06	0.44
1:AA:674:G:C2'	1:AA:675:A:O5'	2.66	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:749:A:N1	1:AA:750:C:N3	2.66	0.44
2:AB:135:MET:CA	2:AB:138:ARG:HG2	2.48	0.44
2:AB:95:TRP:CH2	2:AB:174:GLU:CD	2.90	0.44
2:AB:47:PRO:HA	2:AB:50:ASN:ND2	2.33	0.44
3:AC:140:ALA:HB1	3:AC:148:ILE:HD12	2.00	0.44
3:AC:25:THR:HG23	14:AN:76:LYS:HZ3	1.83	0.44
4:AD:149:LYS:O	4:AD:150:LYS:C	2.56	0.44
5:AE:55:VAL:CB	5:AE:56:PRO:CD	2.94	0.44
6:AF:69:GLU:O	6:AF:72:ASP:HB3	2.18	0.44
7:AG:91:ARG:O	7:AG:95:ARG:HB2	2.17	0.44
11:AK:52:ARG:O	11:AK:55:ARG:HG3	2.18	0.44
13:AM:113:LYS:HB3	13:AM:114:PRO:CD	2.46	0.44
13:AM:65:GLU:O	13:AM:68:LEU:HB3	2.18	0.44
14:AN:7:ALA:HA	14:AN:10:VAL:HG23	1.99	0.44
21:AU:18:PHE:O	21:AU:21:SER:HB2	2.18	0.44
22:AV:109:C:H2'	22:AV:110:U:C6	2.50	0.44
22:AV:145:C:H2'	22:AV:146:C:C5	2.53	0.44
22:AV:204:G:O2'	22:AV:205:G:OP2	2.30	0.44
22:AV:259:G:C5	22:AV:260:C:C5	3.05	0.44
22:AV:346:C:H2'	22:AV:347:PSU:C1'	2.48	0.44
22:AV:39:A:C2'	22:AV:39:A:N3	2.80	0.44
22:AV:47:G:O2'	22:AV:48:C:C5'	2.65	0.44
23:AW:24:ILE:CG1	23:AW:26:LEU:HD21	2.44	0.44
25:AY:152:THR:C	25:AY:154:GLN:H	2.21	0.44
25:AY:238:THR:C	25:AY:240:GLU:H	2.21	0.44
25:AY:388:THR:HG21	25:AY:399:LEU:HD13	2.00	0.44
25:AY:539:ILE:N	25:AY:540:PRO:CD	2.81	0.44
25:AY:539:ILE:CA	25:AY:542:VAL:HG12	2.44	0.44
26:BA:1069:A:H4'	26:BA:1070:A:C8	2.50	0.44
26:BA:108:G:H2'	26:BA:109:C:C5'	2.48	0.44
26:BA:1414:C:C6	26:BA:1415:U:C5	3.06	0.44
26:BA:1956:U:H2'	26:BA:1956:U:O2	2.17	0.44
26:BA:2247:A:H2'	26:BA:2248:C:C6	2.52	0.44
26:BA:2297:A:C6	26:BA:2298:A:N7	2.85	0.44
26:BA:2415:G:C2'	26:BA:2416:C:O5'	2.65	0.44
26:BA:327:G:H2'	26:BA:328:U:O4'	2.18	0.44
26:BA:382:A:C2'	26:BA:383:C:O5'	2.65	0.44
26:BA:527:C:H4'	26:BA:528:A:O5'	2.18	0.44
26:BA:634:C:H2'	26:BA:635:C:O4'	2.17	0.44
26:BA:771:G:H2'	26:BA:772:C:H5'	1.99	0.44
26:BA:852:U:H2'	26:BA:853:C:C6	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:878:A:H2'	26:BA:879:G:H8	1.81	0.44
56:BB:20:G:C2	56:BB:64:G:N3	2.86	0.44
56:BB:33:G:C2'	56:BB:34:A:C5'	2.94	0.44
27:BC:176:ARG:HH21	27:BC:176:ARG:HG2	1.82	0.44
27:BC:30:ALA:HB3	27:BC:31:PRO:HD3	1.98	0.44
27:BC:7:PRO:CB	27:BC:13:ARG:HB2	2.47	0.44
30:BF:79:ARG:HG2	30:BF:80:GLN:H	1.83	0.44
33:BI:16:MET:CE	33:BI:16:MET:HA	2.48	0.44
36:BL:23:ILE:O	36:BL:24:GLY:C	2.55	0.44
43:BS:85:ILE:HG22	43:BS:86:MET:N	2.32	0.44
44:BT:51:PHE:N	44:BT:51:PHE:CD1	2.86	0.44
45:BU:60:LYS:HG3	45:BU:61:GLU:H	1.82	0.44
46:BV:80:HIS:CE1	46:BV:83:LYS:CE	3.01	0.44
50:BZ:34:THR:HG22	50:BZ:35:VAL:H	1.82	0.44
1:AA:1226:C:C5	13:AM:102:LYS:CA	3.01	0.44
1:AA:1375:A:C6	1:AA:1376:U:C4	3.06	0.44
1:AA:140:U:C2'	1:AA:141:G:O5'	2.66	0.44
1:AA:1426:G:C2'	1:AA:1427:C:O5'	2.66	0.44
1:AA:1481:U:C2'	1:AA:1481:U:O2	2.63	0.44
1:AA:1504:G:OP2	1:AA:1507:A:O2'	2.28	0.44
1:AA:1533:C:C6	1:AA:1533:C:OP2	2.71	0.44
1:AA:1535:C:H2'	1:AA:1536:C:C6	2.53	0.44
1:AA:190:A:C8	1:AA:190:A:H3'	2.53	0.44
1:AA:33:A:O2'	1:AA:363:A:H1'	2.18	0.44
1:AA:367:U:O2'	1:AA:368:U:H4'	2.18	0.44
1:AA:412:A:OP1	1:AA:412:A:H4'	2.18	0.44
1:AA:438:U:N3	1:AA:494:G:C6	2.86	0.44
1:AA:588:G:C6	1:AA:589:U:C2	3.05	0.44
2:AB:53:LEU:HD12	2:AB:216:VAL:HA	2.00	0.44
4:AD:3:TYR:O	4:AD:3:TYR:HD1	2.00	0.44
4:AD:55:ARG:NH2	4:AD:58:GLN:HG2	2.32	0.44
6:AF:14:GLN:OE1	6:AF:17:GLN:HB2	2.18	0.44
8:AH:46:GLU:HA	8:AH:63:LYS:HG2	1.98	0.44
10:AJ:40:ILE:HB	10:AJ:73:LEU:HB2	2.00	0.44
10:AJ:42:LEU:O	10:AJ:43:PRO:O	2.36	0.44
1:AA:636:U:H5''	17:AQ:5:ARG:HG2	1.99	0.44
19:AS:10:ILE:HG21	19:AS:40:PHE:HE2	1.81	0.44
20:AT:34:VAL:HG12	20:AT:38:ILE:HD11	1.99	0.44
22:AV:119:U:H2'	22:AV:120:U:O5'	2.17	0.44
22:AV:200:G:H2'	22:AV:201:C:H5'	1.98	0.44
22:AV:20:A:C8	22:AV:21:C:C4	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:34:A:C2	22:AV:321:G:C2	3.06	0.44
22:AV:66:C:O2'	22:AV:67:G:C5'	2.64	0.44
25:AY:219:VAL:C	25:AY:221:ALA:N	2.72	0.44
25:AY:369:LEU:N	25:AY:369:LEU:HD12	2.33	0.44
26:BA:1045:C:C3'	26:BA:1046:A:C5'	2.96	0.44
26:BA:1301:A:C4	26:BA:1303:G:N7	2.86	0.44
26:BA:1583:A:N3	26:BA:1583:A:O4'	2.49	0.44
26:BA:2107:G:N2	26:BA:2108:A:H1'	2.32	0.44
26:BA:2152:G:N7	26:BA:2153:C:C5	2.85	0.44
26:BA:2419:U:H2'	26:BA:2420:C:C6	2.53	0.44
26:BA:2568:U:H2'	26:BA:2569:G:O4'	2.18	0.44
26:BA:2650:U:H2'	26:BA:2651:C:C6	2.53	0.44
26:BA:2667:C:N3	31:BG:109:SER:OG	2.49	0.44
26:BA:528:A:C2	26:BA:2043:C:C4'	3.00	0.44
26:BA:867:C:C3'	26:BA:868:U:C5'	2.89	0.44
26:BA:96:C:O2'	26:BA:97:C:H5'	2.17	0.44
30:BF:63:LYS:HE3	56:BB:42:C:P	2.58	0.44
27:BC:32:LEU:HD23	27:BC:32:LEU:HA	1.79	0.44
27:BC:86:ARG:HG3	27:BC:88:ALA:H	1.82	0.44
29:BE:60:TRP:O	29:BE:61:ARG:O	2.35	0.44
30:BF:7:TYR:CD2	30:BF:11:VAL:HB	2.53	0.44
32:BH:135:HIS:CG	32:BH:136:SER:N	2.86	0.44
33:BI:102:ARG:HG2	33:BI:103:ALA:N	2.32	0.44
26:BA:1070:A:C6	33:BI:9:LYS:O	2.71	0.44
35:BK:99:ILE:HG21	35:BK:119:ALA:HB2	1.99	0.44
36:BL:91:ASP:OD1	36:BL:92:LEU:HD12	2.18	0.44
38:BN:21:PHE:CD2	38:BN:24:MET:HE2	2.53	0.44
40:BP:112:ARG:O	40:BP:113:LEU:CG	2.65	0.44
40:BP:30:TRP:CZ3	40:BP:39:LEU:CD1	3.00	0.44
42:BR:76:LYS:O	42:BR:84:ARG:HA	2.17	0.44
50:BZ:9:THR:HG22	50:BZ:10:ARG:CG	2.48	0.44
1:AA:1012:A:N6	1:AA:1013:G:C6	2.85	0.43
1:AA:1178:G:H2'	1:AA:1180:A:OP2	2.18	0.43
1:AA:1201:A:H4'	1:AA:1202:U:O5'	2.18	0.43
1:AA:1216:A:N1	1:AA:1217:C:N4	2.65	0.43
1:AA:1351:U:H2'	1:AA:1352:C:H6	1.80	0.43
1:AA:1454:G:C2	1:AA:1455:G:C8	3.06	0.43
1:AA:229:U:O2'	1:AA:230:G:H5'	2.17	0.43
1:AA:368:U:H6	25:AY:354:ARG:HH12	1.66	0.43
1:AA:377:G:C2	1:AA:387:U:O2	2.71	0.43
1:AA:201:G:O2'	1:AA:469:C:O2'	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:481:G:C8	1:AA:481:G:C5'	2.97	0.43
2:AB:164:ASP:O	2:AB:168:GLU:HG2	2.18	0.43
2:AB:195:VAL:CG1	2:AB:197:PHE:O	2.66	0.43
4:AD:123:MET:O	4:AD:142:VAL:HA	2.18	0.43
4:AD:57:LYS:CB	4:AD:199:ILE:CG2	2.95	0.43
5:AE:12:GLU:CB	5:AE:38:VAL:HG12	2.48	0.43
6:AF:18:VAL:O	6:AF:21:MET:N	2.51	0.43
8:AH:122:GLY:O	8:AH:123:GLU:C	2.56	0.43
8:AH:31:LEU:O	8:AH:31:LEU:HD13	2.18	0.43
9:AI:123:ARG:HG3	9:AI:124:PRO:HD2	1.99	0.43
9:AI:38:PHE:HA	9:AI:41:GLU:OE1	2.17	0.43
9:AI:6:TYR:HE2	9:AI:17:ARG:CA	2.30	0.43
10:AJ:35:GLN:OE1	10:AJ:78:GLU:CB	2.66	0.43
10:AJ:53:ILE:HB	10:AJ:62:ARG:N	2.33	0.43
12:AL:42:LYS:O	12:AL:44:PRO:N	2.50	0.43
13:AM:19:THR:C	13:AM:24:VAL:HG23	2.38	0.43
1:AA:376:G:O3'	16:AP:5:ARG:HD2	2.17	0.43
17:AQ:69:THR:O	17:AQ:69:THR:CG2	2.66	0.43
19:AS:44:ILE:CD1	19:AS:63:ASP:HA	2.47	0.43
21:AU:18:PHE:HD2	21:AU:18:PHE:O	2.01	0.43
21:AU:18:PHE:O	21:AU:21:SER:N	2.51	0.43
21:AU:3:ILE:N	21:AU:3:ILE:HD13	2.33	0.43
22:AV:215:C:C2'	22:AV:216:U:H5'	2.48	0.43
22:AV:204:G:O3'	22:AV:225:A:N1	2.51	0.43
22:AV:4:G:H2'	22:AV:5:C:C6	2.52	0.43
25:AY:681:LYS:HA	25:AY:684:GLN:HB2	2.00	0.43
51:B0:10:SER:O	51:B0:11:LYS:C	2.56	0.43
26:BA:1059:G:N2	26:BA:1080:A:H1'	2.33	0.43
26:BA:141:G:H5''	26:BA:142:A:C5	2.52	0.43
26:BA:1407:G:C2	26:BA:1596:A:C2	3.05	0.43
26:BA:1683:U:O5'	26:BA:1683:U:H6	2.01	0.43
26:BA:2008:C:C2'	26:BA:2009:A:O5'	2.66	0.43
26:BA:2849:U:N3	26:BA:2867:G:O4'	2.51	0.43
26:BA:2884:U:O2	26:BA:2884:U:O4'	2.30	0.43
26:BA:416:U:C5	26:BA:417:C:N4	2.85	0.43
26:BA:586:A:H5''	26:BA:586:A:H8	1.83	0.43
56:BB:20:G:C2'	56:BB:21:G:C5'	2.96	0.43
27:BC:16:VAL:HB	27:BC:203:VAL:HG13	1.98	0.43
29:BE:52:VAL:CG1	29:BE:53:THR:N	2.81	0.43
30:BF:127:TYR:CE2	30:BF:129:MET:HG2	2.53	0.43
26:BA:1063:G:H4'	33:BI:76:ALA:HB1	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BK:122:VAL:OXT	35:BK:122:VAL:CG1	2.64	0.43
36:BL:85:VAL:CG1	36:BL:94:THR:CG2	2.95	0.43
39:BO:24:THR:HG22	39:BO:42:PRO:CG	2.47	0.43
39:BO:66:GLY:HA2	39:BO:102:ARG:HH22	1.83	0.43
39:BO:72:ALA:HA	39:BO:109:ALA:HB2	2.00	0.43
40:BP:64:SER:O	40:BP:66:GLY:N	2.50	0.43
41:BQ:26:ALA:O	41:BQ:27:ARG:C	2.56	0.43
42:BR:49:ILE:O	42:BR:50:GLY:O	2.35	0.43
43:BS:43:ALA:O	43:BS:47:VAL:CG1	2.57	0.43
46:BV:20:LEU:O	46:BV:23:ALA:N	2.51	0.43
48:BX:34:SER:HA	48:BX:48:LEU:O	2.19	0.43
1:AA:1188:A:C2'	1:AA:1189:U:H5'	2.48	0.43
1:AA:1193:G:C2'	1:AA:1194:U:H5'	2.48	0.43
1:AA:1253:G:C2	1:AA:1254:A:C5	3.06	0.43
1:AA:1306:A:C5	1:AA:1307:U:C6	3.06	0.43
1:AA:1324:A:C2	1:AA:1325:C:C2	3.06	0.43
1:AA:1357:A:C5	1:AA:1358:U:C5	3.06	0.43
1:AA:1368:A:C2	1:AA:1369:C:C6	3.06	0.43
1:AA:1494:G:C2	1:AA:1495:U:C5	3.06	0.43
1:AA:155:A:H2'	1:AA:156:C:C6	2.53	0.43
1:AA:203:G:C2	1:AA:215:C:C2	3.06	0.43
1:AA:197:A:O2'	1:AA:221:C:H1'	2.18	0.43
1:AA:222:C:C2'	1:AA:222:C:O2	2.65	0.43
1:AA:380:G:C4	1:AA:382:A:OP2	2.71	0.43
1:AA:380:G:C8	1:AA:380:G:H3'	2.53	0.43
1:AA:408:A:H2'	1:AA:409:U:H5'	1.99	0.43
1:AA:763:G:C4	1:AA:764:C:C5	3.06	0.43
1:AA:859:G:H2'	1:AA:860:A:H8	1.83	0.43
1:AA:917:G:C5	1:AA:918:A:C5	3.06	0.43
1:AA:923:A:C5'	5:AE:25:LYS:CE	2.89	0.43
1:AA:1190:G:H5'	3:AC:175:HIS:NE2	2.32	0.43
3:AC:21:TRP:CD1	3:AC:58:ARG:CD	3.01	0.43
4:AD:193:ASP:OD2	4:AD:193:ASP:N	2.50	0.43
4:AD:54:LEU:HD23	4:AD:58:GLN:HB2	1.99	0.43
4:AD:57:LYS:HG3	4:AD:58:GLN:N	2.33	0.43
7:AG:111:GLY:O	7:AG:112:ASP:O	2.35	0.43
7:AG:65:LEU:C	7:AG:67:ASN:H	2.22	0.43
9:AI:46:VAL:HG23	9:AI:47:VAL:N	2.34	0.43
9:AI:49:GLN:O	9:AI:51:LEU:N	2.51	0.43
10:AJ:52:LEU:CD1	10:AJ:61:ALA:HB3	2.46	0.43
10:AJ:84:VAL:O	10:AJ:88:MET:HG2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:93:GLU:O	11:AK:94:SER:C	2.57	0.43
1:AA:568:G:O6	12:AL:1:ALA:HB2	2.18	0.43
13:AM:52:ILE:HG22	13:AM:56:ARG:NH2	2.33	0.43
17:AQ:11:VAL:HG12	17:AQ:12:VAL:H	1.80	0.43
20:AT:23:ARG:O	20:AT:24:ARG:C	2.55	0.43
22:AV:153:U:H1'	22:AV:190:A:H61	1.78	0.43
22:AV:20:A:P	22:AV:20:A:H8	2.41	0.43
22:AV:211:C:O2'	22:AV:212:U:H5'	2.18	0.43
22:AV:265:C:C2	22:AV:266:C:C5	3.06	0.43
22:AV:44:C:C4	22:AV:300:U:C5	2.97	0.43
23:AW:64:GLU:O	23:AW:66:GLY:N	2.51	0.43
24:AX:64:G:H2'	24:AX:65:G:O4'	2.18	0.43
24:AX:67:C:C5	24:AX:68:C:C5	3.06	0.43
25:AY:122:TRP:O	25:AY:125:ALA:N	2.30	0.43
25:AY:250:THR:C	25:AY:252:ASP:H	2.22	0.43
25:AY:90:PHE:HB2	25:AY:454:MET:CE	2.49	0.43
25:AY:456:GLU:HB2	25:AY:657:THR:HG21	2.01	0.43
26:BA:1060:U:OP2	33:BI:75:ALA:N	2.50	0.43
26:BA:1098:A:N6	26:BA:1099:G:H1	2.16	0.43
26:BA:1269:A:O5'	26:BA:1269:A:H8	2.01	0.43
26:BA:1684:G:H2'	26:BA:1685:C:C6	2.53	0.43
26:BA:1726:C:C2'	26:BA:1727:C:H5'	2.48	0.43
26:BA:2146:C:H4'	26:BA:2147:A:N7	2.33	0.43
26:BA:2723:C:N4	26:BA:2724:U:C4	2.85	0.43
26:BA:811:U:C2	26:BA:1251:C:C5	3.06	0.43
26:BA:894:U:C2	26:BA:895:U:O4'	2.70	0.43
26:BA:881:G:C6	26:BA:897:C:N4	2.86	0.43
56:BB:111:U:H2'	56:BB:112:G:H8	1.83	0.43
56:BB:78:A:H61	56:BB:98:G:H2'	1.83	0.43
27:BC:156:SER:O	27:BC:159:THR:HG23	2.18	0.43
28:BD:61:THR:OG1	28:BD:64:GLU:HG3	2.19	0.43
29:BE:125:SER:OG	29:BE:126:VAL:N	2.52	0.43
33:BI:111:THR:O	33:BI:112:LYS:C	2.56	0.43
35:BK:105:ARG:O	35:BK:106:GLU:C	2.57	0.43
35:BK:10:VAL:HB	35:BK:16:ALA:O	2.18	0.43
1:AA:1422:G:OP1	35:BK:48:PRO:HB3	2.17	0.43
36:BL:29:LYS:O	36:BL:31:GLY:N	2.51	0.43
26:BA:833:A:OP1	36:BL:39:LYS:HD3	2.18	0.43
36:BL:4:ASN:O	36:BL:4:ASN:CG	2.54	0.43
38:BN:12:ARG:NE	38:BN:20:MET:HE3	2.33	0.43
39:BO:110:ALA:O	39:BO:115:LEU:HB2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BR:20:VAL:HG13	42:BR:21:ARG:N	2.32	0.43
42:BR:34:GLU:CD	42:BR:60:LYS:HE2	2.38	0.43
37:BM:136:MET:SD	46:BV:75:GLN:O	2.76	0.43
49:BY:18:LEU:O	49:BY:22:LEU:HB2	2.18	0.43
1:AA:1029:U:O2	1:AA:1033:G:C4	2.71	0.43
1:AA:108:G:N2	1:AA:109:A:N1	2.66	0.43
1:AA:1129:C:H5'	9:AI:17:ARG:HH22	1.84	0.43
1:AA:1258:G:C2	1:AA:1259:C:C2	3.06	0.43
1:AA:1310:G:N2	1:AA:1328:C:C2	2.86	0.43
1:AA:1426:G:H2'	1:AA:1427:C:O5'	2.18	0.43
1:AA:194:C:O2'	1:AA:195:A:H5'	2.18	0.43
1:AA:200:G:C2	1:AA:218:U:O2	2.71	0.43
1:AA:346:G:N2	1:AA:347:G:C8	2.86	0.43
1:AA:542:G:H2'	1:AA:543:U:C6	2.53	0.43
1:AA:915:A:C2'	1:AA:916:U:H5'	2.48	0.43
2:AB:57:ASN:HB2	2:AB:219:THR:O	2.18	0.43
3:AC:141:MET:HE3	3:AC:145:ALA:O	2.18	0.43
3:AC:16:PRO:O	3:AC:17:TRP:CE3	2.71	0.43
1:AA:426:U:H5''	4:AD:36:ALA:HB1	2.00	0.43
4:AD:8:LEU:HA	4:AD:8:LEU:HD13	1.86	0.43
4:AD:8:LEU:O	4:AD:10:LEU:N	2.52	0.43
1:AA:1079:G:H5'	5:AE:49:TYR:HE1	1.83	0.43
1:AA:1536:C:C1'	7:AG:79:VAL:HG11	2.48	0.43
8:AH:6:ILE:N	8:AH:6:ILE:HD12	2.33	0.43
9:AI:113:LYS:HD3	9:AI:114:LYS:N	2.33	0.43
9:AI:56:MET:HA	9:AI:59:LYS:HB3	2.01	0.43
10:AJ:15:HIS:CG	10:AJ:16:ARG:N	2.86	0.43
11:AK:88:PRO:HB3	21:AU:28:LEU:HD13	2.00	0.43
13:AM:106:ARG:HH21	13:AM:112:ARG:HB3	1.82	0.43
13:AM:17:ALA:O	13:AM:20:SER:HB2	2.19	0.43
14:AN:64:CYS:HB2	14:AN:80:SER:CB	2.48	0.43
17:AQ:69:THR:O	17:AQ:69:THR:HG22	2.19	0.43
18:AR:41:SER:N	18:AR:51:GLN:NE2	2.66	0.43
22:AV:187:C:O2	22:AV:188:C:H6	1.95	0.43
22:AV:208:G:C2	22:AV:209:C:C5	3.06	0.43
22:AV:216:U:C2'	22:AV:217:G:C5'	2.96	0.43
22:AV:245:C:H2'	22:AV:248:G:H1'	1.99	0.43
22:AV:269:C:O2	22:AV:270:C:O4'	2.36	0.43
23:AW:54:TYR:CE2	23:AW:78:LYS:HB2	2.53	0.43
24:AX:27:G:C5	24:AX:28:U:C5	3.06	0.43
25:AY:146:LEU:O	25:AY:147:TRP:C	2.56	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AY:519:ARG:HH12	25:AY:678:GLU:HB3	1.82	0.43
25:AY:526:VAL:HG23	25:AY:565:VAL:O	2.19	0.43
25:AY:486:THR:HG22	25:AY:602:LEU:HG	1.99	0.43
25:AY:609:GLU:HB2	25:AY:670:VAL:CG2	2.49	0.43
25:AY:9:LEU:C	25:AY:9:LEU:CD2	2.86	0.43
53:B2:33:ARG:O	53:B2:36:ALA:HB3	2.18	0.43
26:BA:1355:G:C2'	26:BA:1356:G:O5'	2.66	0.43
26:BA:1443:U:H2'	26:BA:1444:G:O4'	2.19	0.43
26:BA:1483:G:C6	26:BA:1484:U:C4	3.05	0.43
26:BA:1502:A:C4	26:BA:1503:A:C8	3.06	0.43
26:BA:1418:G:O6	26:BA:1578:U:H3'	2.18	0.43
26:BA:1410:G:C2	26:BA:1593:A:C2	3.06	0.43
26:BA:1738:G:HO2'	26:BA:1739:A:H8	1.62	0.43
26:BA:1818:U:H2'	27:BC:155:ARG:HD2	1.99	0.43
26:BA:2078:C:C2'	26:BA:2079:U:H5'	2.48	0.43
26:BA:2108:A:C6	26:BA:2109:U:O2	2.70	0.43
26:BA:2152:G:C6	26:BA:2153:C:N3	2.85	0.43
26:BA:2190:G:H2'	26:BA:2190:G:N3	2.33	0.43
26:BA:2190:G:H3'	26:BA:2191:A:H8	1.82	0.43
26:BA:2703:C:N4	26:BA:2704:C:H41	2.16	0.43
26:BA:2822:G:H8	26:BA:2822:G:O5'	2.01	0.43
26:BA:4:U:C2'	26:BA:5:A:H5'	2.49	0.43
26:BA:634:C:H2'	26:BA:635:C:C6	2.52	0.43
26:BA:887:U:C4'	26:BA:888:C:C5'	2.95	0.43
26:BA:881:G:N2	26:BA:896:A:N1	2.65	0.43
26:BA:928:A:C2'	26:BA:929:U:H5'	2.48	0.43
27:BC:134:ILE:HG23	27:BC:135:PRO:CD	2.48	0.43
27:BC:211:ARG:HD2	27:BC:211:ARG:HA	1.55	0.43
27:BC:221:GLY:HA2	27:BC:224:MET:HE2	2.00	0.43
29:BE:145:ASP:HB3	29:BE:184:ASP:HB2	2.00	0.43
29:BE:27:LEU:CD1	29:BE:100:MET:CE	2.96	0.43
30:BF:109:ARG:HH12	30:BF:138:PRO:HA	1.83	0.43
30:BF:51:ASN:N	30:BF:51:ASN:OD1	2.51	0.43
31:BG:71:LEU:O	31:BG:72:ASN:C	2.56	0.43
32:BH:69:ALA:HB2	32:BH:134:VAL:HG11	1.99	0.43
33:BI:105:LEU:HA	33:BI:108:ILE:CB	2.43	0.43
33:BI:107:GLU:HA	33:BI:110:GLN:OE1	2.18	0.43
33:BI:57:VAL:CG1	33:BI:59:THR:OG1	2.66	0.43
37:BM:123:LYS:HD3	37:BM:123:LYS:N	2.34	0.43
38:BN:32:GLU:OE1	38:BN:118:ARG:HA	2.18	0.43
39:BO:66:GLY:C	39:BO:102:ARG:NH2	2.72	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BO:74:VAL:O	39:BO:78:VAL:HG22	2.19	0.43
42:BR:64:VAL:O	42:BR:65:ALA:CB	2.66	0.43
45:BU:53:GLN:H	45:BU:54:PRO:HD3	1.83	0.43
45:BU:88:ASP:CG	45:BU:89:GLY:H	2.22	0.43
46:BV:50:MET:C	46:BV:52:ALA:H	2.20	0.43
49:BY:61:ALA:O	49:BY:63:ALA:N	2.51	0.43
1:AA:1118:U:H1'	1:AA:1179:A:C4	2.52	0.43
1:AA:1216:A:H2'	1:AA:1217:C:C6	2.50	0.43
1:AA:1268:G:N1	1:AA:1269:A:C6	2.87	0.43
1:AA:164:G:H2'	1:AA:165:G:C5'	2.49	0.43
1:AA:427:U:C4	1:AA:428:G:C6	3.07	0.43
1:AA:45:G:C2	1:AA:398:U:N3	2.87	0.43
1:AA:645:G:C5	1:AA:646:G:N7	2.87	0.43
2:AB:175:ALA:CB	2:AB:182:VAL:CG2	2.96	0.43
2:AB:23:ASN:O	2:AB:26:MET:HB2	2.18	0.43
2:AB:29:PHE:O	2:AB:41:ASN:N	2.51	0.43
3:AC:152:VAL:CG2	3:AC:156:LEU:CD2	2.96	0.43
3:AC:39:ARG:C	3:AC:41:TYR:N	2.70	0.43
4:AD:14:GLU:HA	4:AD:14:GLU:OE1	2.17	0.43
4:AD:73:ASN:O	4:AD:77:GLU:HB2	2.18	0.43
6:AF:25:TYR:N	6:AF:25:TYR:CD2	2.84	0.43
9:AI:24:ASN:C	9:AI:58:GLU:CA	2.87	0.43
9:AI:56:MET:SD	9:AI:56:MET:N	2.91	0.43
9:AI:20:ILE:CD1	9:AI:86:LEU:HD12	2.47	0.43
20:AT:5:SER:OG	20:AT:6:ALA:N	2.51	0.43
20:AT:20:ASN:HB3	20:AT:65:LEU:HD22	1.99	0.43
21:AU:14:ALA:O	21:AU:15:LEU:HB2	2.18	0.43
22:AV:15:A:H2	22:AV:346:C:H41	1.66	0.43
22:AV:171:A:C6	22:AV:172:U:C4	3.04	0.43
22:AV:194:G:C4	22:AV:195:A:N7	2.86	0.43
22:AV:225:A:C6	22:AV:226:G:O6	2.72	0.43
22:AV:248:G:N1	22:AV:249:U:N3	2.67	0.43
22:AV:335:C:O2	22:AV:335:C:H2'	2.14	0.43
22:AV:345:A:N1	22:AV:348:C:C2	2.87	0.43
22:AV:65:U:H1'	22:AV:71:A:H2	1.82	0.43
24:AX:54:G:H5''	24:AX:55:U:OP2	2.18	0.43
25:AY:196:ILE:CG1	25:AY:197:ARG:H	2.29	0.43
25:AY:316:ILE:HD13	25:AY:316:ILE:N	2.34	0.43
25:AY:414:GLU:HA	25:AY:415:PRO:HD2	1.75	0.43
26:BA:1085:A:N6	26:BA:1086:A:H61	2.17	0.43
26:BA:1143:A:OP1	34:BJ:27:ARG:NH2	2.46	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:1406:U:H2'	26:BA:1407:G:C8	2.53	0.43
26:BA:1452:G:C8	26:BA:1457:U:N3	2.86	0.43
26:BA:1483:G:N2	26:BA:1507:C:C2	2.87	0.43
26:BA:1484:U:C2	26:BA:1485:U:C5	3.06	0.43
26:BA:1806:C:H2'	26:BA:1807:G:O5'	2.18	0.43
26:BA:1870:C:H2'	26:BA:1871:A:N3	2.34	0.43
26:BA:1872:A:H8	26:BA:1873:G:C1'	2.32	0.43
26:BA:2194:U:C2'	26:BA:2195:U:H5'	2.39	0.43
26:BA:2218:G:C2'	26:BA:2219:U:H5'	2.48	0.43
26:BA:2281:A:O2'	26:BA:2282:G:H5'	2.18	0.43
26:BA:2298:A:C6	26:BA:2321:U:C4	3.06	0.43
26:BA:2732:G:H3'	26:BA:2733:A:C5'	2.47	0.43
26:BA:2831:G:H1'	26:BA:2883:A:H2'	2.01	0.43
26:BA:2884:U:C5	51:B0:39:ARG:NH2	2.86	0.43
26:BA:404:A:C8	26:BA:406:G:C6	3.07	0.43
26:BA:528:A:C2	26:BA:2043:C:O5'	2.71	0.43
26:BA:566:U:H2'	26:BA:567:U:O4'	2.19	0.43
26:BA:969:G:H2'	26:BA:970:U:C6	2.53	0.43
26:BA:978:G:H2'	26:BA:979:A:C5'	2.46	0.43
56:BB:28:C:H2'	56:BB:29:A:O4'	2.18	0.43
56:BB:51:G:C6	56:BB:52:A:N6	2.86	0.43
27:BC:92:LEU:HD11	27:BC:100:ARG:HD3	2.00	0.43
26:BA:1818:U:OP2	27:BC:155:ARG:NH1	2.51	0.43
27:BC:1:ALA:HB3	27:BC:19:VAL:O	2.18	0.43
27:BC:221:GLY:C	27:BC:223:ALA:N	2.72	0.43
27:BC:56:GLY:HA2	27:BC:212:TRP:HA	2.00	0.43
30:BF:27:VAL:O	30:BF:27:VAL:HG13	2.18	0.43
25:AY:623:ASP:H	31:BG:175:LYS:NZ	2.15	0.43
31:BG:42:VAL:HB	31:BG:51:PHE:CD1	2.53	0.43
32:BH:97:ARG:HE	32:BH:112:LYS:NZ	2.16	0.43
33:BI:32:VAL:CG1	33:BI:33:ASN:N	2.81	0.43
33:BI:5:GLN:HG2	33:BI:60:VAL:O	2.19	0.43
35:BK:75:SER:O	35:BK:76:VAL:HG23	2.18	0.43
37:BM:50:ARG:O	37:BM:51:ARG:C	2.56	0.43
38:BN:23:ASN:O	38:BN:26:GLY:N	2.52	0.43
39:BO:55:GLU:HG3	39:BO:58:ILE:HG13	1.99	0.43
40:BP:22:GLY:O	40:BP:109:ILE:HD11	2.18	0.43
40:BP:60:VAL:HG12	40:BP:61:ARG:N	2.33	0.43
41:BQ:35:PHE:C	41:BQ:37:ALA:N	2.70	0.43
44:BT:30:ILE:CD1	44:BT:32:LEU:HD21	2.48	0.43
45:BU:5:ARG:C	45:BU:6:ARG:O	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BY:39:GLN:HB2	49:BY:41:HIS:ND1	2.33	0.43
1:AA:1004:A:H2'	1:AA:1005:A:C5'	2.49	0.43
1:AA:1034:G:H2'	1:AA:1035:A:C8	2.54	0.43
1:AA:1193:G:O2'	1:AA:1194:U:H5'	2.18	0.43
1:AA:1202:U:N3	14:AN:82:ILE:HG21	2.33	0.43
1:AA:1235:U:C2'	1:AA:1236:A:O5'	2.66	0.43
1:AA:1342:C:C2'	1:AA:1343:G:C5'	2.85	0.43
1:AA:929:G:H5'	1:AA:1533:C:O5'	2.19	0.43
1:AA:212:G:C2	1:AA:213:G:C5	3.06	0.43
1:AA:456:A:C5	1:AA:457:G:N7	2.87	0.43
1:AA:50:A:N6	1:AA:361:G:H4'	2.34	0.43
1:AA:779:C:O2'	1:AA:780:A:H5'	2.17	0.43
1:AA:943:U:O2'	1:AA:944:G:H5'	2.18	0.43
2:AB:98:GLY:N	2:AB:174:GLU:OE2	2.46	0.43
2:AB:187:ASP:OD2	2:AB:202:ASN:HA	2.19	0.43
2:AB:34:ARG:HE	2:AB:35:ASN:N	2.16	0.43
2:AB:69:VAL:O	2:AB:162:VAL:HA	2.18	0.43
2:AB:71:THR:HG22	2:AB:92:ASN:O	2.18	0.43
1:AA:1055:A:N3	3:AC:155:ARG:HD2	2.34	0.43
4:AD:117:VAL:O	4:AD:130:ASN:HA	2.19	0.43
4:AD:147:LYS:HD3	4:AD:147:LYS:N	2.33	0.43
4:AD:156:ALA:O	4:AD:160:LEU:HD22	2.19	0.43
4:AD:94:GLU:CG	4:AD:185:PRO:HG2	2.47	0.43
4:AD:194:ILE:HG13	4:AD:196:GLU:OE2	2.18	0.43
5:AE:35:LEU:HD22	5:AE:133:ILE:HA	2.00	0.43
8:AH:1:SER:HB3	8:AH:2:MET:HG3	2.00	0.43
9:AI:18:VAL:HG11	9:AI:82:ILE:CA	2.46	0.43
11:AK:107:THR:HG22	11:AK:108:ASN:ND2	2.33	0.43
14:AN:68:GLY:O	14:AN:69:ARG:O	2.37	0.43
22:AV:158:U:H1'	22:AV:197:A:C4	2.54	0.43
22:AV:20:A:O2'	22:AV:21:C:C5'	2.38	0.43
22:AV:219:G:C2	22:AV:220:G:C5	3.06	0.43
22:AV:25:A:H2'	22:AV:26:U:C6	2.50	0.43
22:AV:36:C:O5'	22:AV:36:C:H6	2.01	0.43
22:AV:40:G:O2'	22:AV:41:G:C5'	2.63	0.43
23:AW:39:VAL:CG1	23:AW:60:ILE:HA	2.48	0.43
24:AX:75:C:C2'	24:AX:76:C:H5'	2.47	0.43
25:AY:122:TRP:O	25:AY:124:GLN:N	2.51	0.43
25:AY:140:ASP:OD2	25:AY:265:LYS:HE2	2.19	0.43
25:AY:228:MET:CE	25:AY:229:LEU:HG	2.48	0.43
25:AY:230:LYS:NZ	25:AY:237:PRO:HA	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AY:289:ILE:HD12	25:AY:331:TYR:CZ	2.54	0.43
25:AY:590:ILE:HD13	25:AY:590:ILE:HA	1.91	0.43
25:AY:409:ILE:HG12	25:AY:656:ALA:CB	2.49	0.43
25:AY:679:VAL:O	25:AY:681:LYS:N	2.46	0.43
52:B1:9:LYS:O	52:B1:50:GLU:HG3	2.18	0.43
26:BA:1095:A:C6	26:BA:1096:A:N6	2.86	0.43
26:BA:1102:C:H2'	26:BA:1103:A:C8	2.53	0.43
26:BA:1306:C:C2'	26:BA:1306:C:O2	2.62	0.43
26:BA:1420:A:O2'	26:BA:1421:G:C5'	2.64	0.43
26:BA:1483:G:C2	26:BA:1507:C:O2	2.71	0.43
26:BA:118:A:N3	26:BA:178:G:H1'	2.33	0.43
26:BA:2016:U:H1'	51:B0:2:VAL:HG21	1.99	0.43
26:BA:2078:C:H2'	26:BA:2079:U:O4'	2.19	0.43
26:BA:2093:G:O2'	26:BA:2094:A:H5'	2.18	0.43
26:BA:2145:C:C3'	26:BA:2145:C:C6	3.02	0.43
26:BA:2146:C:H5'	26:BA:2147:A:N7	2.32	0.43
26:BA:2216:G:H2'	26:BA:2217:G:H8	1.82	0.43
26:BA:2304:G:C2'	26:BA:2305:U:H5''	2.47	0.43
26:BA:2486:C:H2'	26:BA:2487:G:O4'	2.18	0.43
26:BA:324:A:C2'	26:BA:325:G:O5'	2.67	0.43
26:BA:196:A:C4	26:BA:805:G:C6	3.07	0.43
28:BD:67:HIS:O	28:BD:68:PHE:C	2.57	0.43
29:BE:65:THR:O	29:BE:65:THR:HG23	2.19	0.43
31:BG:164:ALA:C	31:BG:166:GLU:H	2.21	0.43
31:BG:54:ARG:O	31:BG:55:ASP:C	2.56	0.43
32:BH:50:ARG:NH1	32:BH:50:ARG:HA	2.33	0.43
32:BH:76:GLU:CG	32:BH:76:GLU:O	2.62	0.43
33:BI:17:ALA:O	33:BI:18:ASN:HB3	2.17	0.43
33:BI:68:PHE:CG	33:BI:68:PHE:O	2.72	0.43
35:BK:109:SER:O	35:BK:110:GLU:C	2.57	0.43
26:BA:811:U:O4	36:BL:21:ARG:NH2	2.51	0.43
38:BN:33:ILE:HG23	38:BN:33:ILE:O	2.19	0.43
40:BP:30:TRP:CD2	40:BP:39:LEU:HD11	2.52	0.43
43:BS:3:THR:HG21	43:BS:58:ALA:N	2.33	0.43
46:BV:24:ASN:O	46:BV:25:LYS:HG2	2.18	0.43
1:AA:1135:U:C2	1:AA:1137:C:N3	2.87	0.43
1:AA:1205:U:O2'	3:AC:194:VAL:HG23	2.19	0.43
1:AA:1374:A:O2'	1:AA:1375:A:H5'	2.19	0.43
1:AA:1446:A:H2'	1:AA:1447:A:C5'	2.49	0.43
1:AA:1536:C:H6	1:AA:1536:C:O5'	2.01	0.43
1:AA:259:G:N1	1:AA:260:G:C4	2.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:290:C:H3'	1:AA:290:C:C6	2.53	0.43
1:AA:525:C:N4	1:AA:526:C:N4	2.66	0.43
1:AA:541:G:H2'	1:AA:542:G:H8	1.83	0.43
1:AA:689:C:H2'	1:AA:690:G:O4'	2.18	0.43
1:AA:879:C:H3'	1:AA:879:C:C6	2.53	0.43
1:AA:903:G:H2'	1:AA:904:U:C6	2.53	0.43
2:AB:20:ARG:HA	2:AB:20:ARG:HD3	1.80	0.43
3:AC:133:MET:O	3:AC:137:VAL:HG23	2.19	0.43
4:AD:159:GLU:O	4:AD:162:GLU:OE1	2.37	0.43
4:AD:186:GLU:O	4:AD:187:ARG:C	2.56	0.43
4:AD:24:VAL:HG12	4:AD:25:ARG:H	1.83	0.43
5:AE:108:GLY:HA2	5:AE:111:ARG:HB2	2.01	0.43
5:AE:104:ILE:HD12	5:AE:122:VAL:HG23	2.01	0.43
9:AI:114:LYS:O	9:AI:115:VAL:C	2.55	0.43
1:AA:1226:C:O2'	13:AM:101:THR:O	2.36	0.43
13:AM:18:LEU:O	13:AM:24:VAL:HG21	2.18	0.43
13:AM:11:HIS:C	13:AM:43:LYS:HE3	2.38	0.43
17:AQ:56:ASP:OD2	17:AQ:56:ASP:N	2.51	0.43
19:AS:4:LEU:O	19:AS:5:LYS:CD	2.66	0.43
22:AV:137:C:C5'	22:AV:138:C:O5'	2.66	0.43
22:AV:153:U:HO2'	22:AV:154:C:P	2.40	0.43
22:AV:182:U:O2	22:AV:182:U:C4'	2.66	0.43
22:AV:257:U:N3	22:AV:258:G:N2	2.66	0.43
23:AW:87:ARG:O	23:AW:90:LEU:HG	2.19	0.43
54:B3:53:ASP:O	54:B3:54:LEU:C	2.56	0.43
55:B4:9:LYS:C	55:B4:10:LEU:HD23	2.39	0.43
25:AY:617:MET:HE3	26:BA:1095:A:C1'	2.40	0.43
26:BA:1179:G:C6	26:BA:1180:U:H1'	2.52	0.43
26:BA:1180:U:C2'	26:BA:1181:U:C5'	2.95	0.43
26:BA:1535:A:H5''	26:BA:1536:C:C5	2.54	0.43
26:BA:1676:A:H2'	26:BA:1677:A:O5'	2.18	0.43
26:BA:185:G:H4'	26:BA:218:A:H4'	1.99	0.43
26:BA:2181:U:H2'	26:BA:2182:U:H6	1.83	0.43
26:BA:2547:A:C5'	35:BK:29:HIS:NE2	2.81	0.43
26:BA:275:C:C4	26:BA:276:U:C6	3.07	0.43
26:BA:408:G:O6	26:BA:409:G:C6	2.72	0.43
26:BA:671:C:H2'	26:BA:672:C:C6	2.54	0.43
26:BA:740:C:O2	26:BA:740:C:H2'	2.18	0.43
26:BA:818:G:H2'	26:BA:819:A:OP2	2.18	0.43
26:BA:834:G:H5'	54:B3:56:LEU:HD11	2.00	0.43
27:BC:17:LYS:CE	27:BC:17:LYS:CA	2.95	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BD:132:ALA:HA	28:BD:140:HIS:ND1	2.33	0.43
28:BD:97:SER:C	28:BD:99:GLU:H	2.22	0.43
30:BF:116:LEU:HD22	30:BF:116:LEU:N	2.33	0.43
30:BF:7:TYR:CA	30:BF:11:VAL:HG23	2.48	0.43
31:BG:136:ASP:O	31:BG:137:LYS:C	2.57	0.43
31:BG:25:ILE:HG21	31:BG:74:MET:O	2.19	0.43
32:BH:18:GLN:O	32:BH:19:VAL:HG13	2.18	0.43
32:BH:21:VAL:HG22	32:BH:25:TYR:HB3	2.00	0.43
33:BI:34:ILE:N	33:BI:34:ILE:HD13	2.32	0.43
35:BK:98:ARG:O	35:BK:99:ILE:HD13	2.18	0.43
36:BL:109:LYS:HE2	36:BL:128:THR:CG2	2.45	0.43
38:BN:2:ARG:C	38:BN:2:ARG:HD2	2.39	0.43
40:BP:15:ASP:O	40:BP:16:VAL:C	2.55	0.43
1:AA:100:G:C5	1:AA:101:A:C8	3.07	0.43
1:AA:1031:C:O2'	1:AA:1032:G:P	2.76	0.43
1:AA:1135:U:OP2	1:AA:1135:U:H6	2.01	0.43
1:AA:1211:U:H2'	1:AA:1212:U:OP2	2.17	0.43
1:AA:1299:A:C5	1:AA:1301:U:O2	2.72	0.43
1:AA:1371:G:O3'	9:AI:70:GLY:HA3	2.18	0.43
1:AA:1446:A:C2'	1:AA:1447:A:C5'	2.97	0.43
1:AA:171:A:C6	1:AA:172:A:C6	3.07	0.43
1:AA:285:C:C2	1:AA:286:C:C5	3.06	0.43
1:AA:429:U:C4'	1:AA:430:A:O5'	2.67	0.43
1:AA:459:A:C8	1:AA:459:A:OP2	2.72	0.43
1:AA:71:A:C3'	1:AA:71:A:OP2	2.62	0.43
1:AA:922:G:N3	1:AA:1398:A:C4	2.68	0.43
1:AA:980:C:C5	1:AA:981:U:N3	2.86	0.43
3:AC:119:ILE:HG22	3:AC:123:LEU:HD12	2.01	0.43
4:AD:152:SER:OG	4:AD:153:ARG:N	2.50	0.43
4:AD:14:GLU:HB3	4:AD:59:LYS:HG3	2.01	0.43
5:AE:105:ILE:CD1	5:AE:123:LEU:HB3	2.49	0.43
5:AE:24:VAL:O	5:AE:25:LYS:C	2.57	0.43
5:AE:72:ASN:ND2	5:AE:72:ASN:H	2.14	0.43
6:AF:4:TYR:CE2	6:AF:71:ILE:HG21	2.53	0.43
7:AG:108:ARG:HE	7:AG:108:ARG:HA	1.84	0.43
9:AI:129:ARG:OXT	9:AI:129:ARG:CG	2.66	0.43
9:AI:49:GLN:N	9:AI:50:PRO:HD2	2.34	0.43
9:AI:49:GLN:C	9:AI:51:LEU:H	2.22	0.43
10:AJ:49:PHE:CD2	14:AN:77:PHE:CE1	3.06	0.43
10:AJ:63:ASP:OD2	14:AN:98:LYS:CD	2.67	0.43
1:AA:676:A:H5''	11:AK:114:PRO:HB3	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:41:LEU:HB2	11:AK:73:VAL:CG1	2.48	0.43
12:AL:93:ARG:O	12:AL:94:TYR:CG	2.72	0.43
13:AM:38:ILE:N	13:AM:38:ILE:HD13	2.32	0.43
14:AN:1:ALA:HB3	14:AN:68:GLY:HA3	1.99	0.43
14:AN:20:PHE:O	14:AN:21:ALA:HB3	2.18	0.43
16:AP:45:GLU:HG2	16:AP:45:GLU:O	2.19	0.43
17:AQ:47:ASP:O	17:AQ:47:ASP:CG	2.57	0.43
22:AV:48:C:C2	22:AV:49:C:C6	3.06	0.43
22:AV:5:C:H2'	22:AV:6:U:H6	1.83	0.43
25:AY:442:THR:HG23	25:AY:447:GLY:O	2.19	0.43
25:AY:447:GLY:O	25:AY:448:GLN:O	2.36	0.43
25:AY:487:ILE:CD1	25:AY:487:ILE:N	2.81	0.43
25:AY:598:ASP:HA	25:AY:599:PRO:HD2	1.92	0.43
25:AY:519:ARG:HD3	25:AY:677:GLN:HA	2.01	0.43
55:B4:30:GLU:O	55:B4:33:HIS:N	2.51	0.43
26:BA:11:C:H2'	26:BA:12:U:C5'	2.49	0.43
26:BA:1726:C:C4	26:BA:1727:C:C5	3.07	0.43
26:BA:2156:G:N7	26:BA:2157:G:C6	2.87	0.43
26:BA:2096:C:H42	26:BA:2193:G:H1	1.66	0.43
26:BA:2300:C:N3	26:BA:2317:A:C2	2.87	0.43
26:BA:328:U:H2'	26:BA:329:G:OP1	2.18	0.43
26:BA:779:U:H2'	26:BA:780:G:O5'	2.19	0.43
26:BA:896:A:C2'	26:BA:897:C:H5''	2.48	0.43
26:BA:919:U:C2'	26:BA:920:A:H5'	2.48	0.43
27:BC:115:ILE:H	27:BC:115:ILE:HG13	1.74	0.43
28:BD:39:ASP:OD2	28:BD:40:LEU:CB	2.67	0.43
28:BD:4:LEU:HD11	28:BD:96:ILE:CG2	2.48	0.43
29:BE:155:GLU:HG3	29:BE:159:LEU:HD22	2.00	0.43
26:BA:2305:U:O2'	30:BF:132:ARG:CZ	2.66	0.43
30:BF:63:LYS:HA	30:BF:64:PRO:HD3	1.87	0.43
31:BG:24:THR:C	31:BG:25:ILE:HG12	2.39	0.43
33:BI:106:GLN:O	33:BI:110:GLN:N	2.52	0.43
33:BI:121:ILE:HG22	33:BI:121:ILE:O	2.19	0.43
33:BI:92:PRO:HB3	33:BI:135:MET:O	2.18	0.43
37:BM:57:VAL:C	37:BM:58:LYS:HG2	2.38	0.43
38:BN:45:ARG:HE	38:BN:45:ARG:HB2	1.61	0.43
26:BA:102:U:C6	49:BY:2:LYS:HD2	2.54	0.43
1:AA:1004:A:O2'	1:AA:1005:A:H5'	2.18	0.43
1:AA:61:G:C5	1:AA:107:G:N2	2.87	0.43
1:AA:1097:C:O4'	1:AA:1170:A:O2'	2.36	0.43
1:AA:1130:A:O2'	9:AI:4:GLN:HG3	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1254:A:H62	10:AJ:45:ARG:HH22	1.67	0.43
1:AA:1325:C:O2'	1:AA:1326:U:H5'	2.18	0.43
1:AA:1379:G:C4	1:AA:1380:U:C5	3.07	0.43
1:AA:1520:C:H2'	1:AA:1521:C:H6	1.83	0.43
1:AA:233:C:H2'	1:AA:234:C:C6	2.52	0.43
1:AA:283:U:H2'	1:AA:284:C:C6	2.53	0.43
1:AA:441:A:C2'	1:AA:442:G:H5'	2.49	0.43
1:AA:511:C:N1	1:AA:512:U:C5	2.87	0.43
1:AA:527:G:O2'	1:AA:535:A:N1	2.52	0.43
1:AA:603:U:O2'	1:AA:604:G:H5'	2.19	0.43
1:AA:650:G:C2'	1:AA:651:C:H5'	2.49	0.43
1:AA:844:G:C4	1:AA:846:G:O2'	2.72	0.43
1:AA:89:U:O2'	1:AA:90:C:H5'	2.18	0.43
2:AB:181:PRO:O	2:AB:182:VAL:C	2.56	0.43
2:AB:40:ILE:C	2:AB:40:ILE:CD1	2.85	0.43
2:AB:53:LEU:HA	2:AB:56:LEU:HB3	2.01	0.43
3:AC:72:PRO:CG	3:AC:104:GLU:HG3	2.48	0.43
3:AC:147:GLY:HA3	3:AC:171:ARG:H	1.82	0.43
4:AD:124:VAL:CG2	4:AD:125:ASN:N	2.78	0.43
8:AH:100:ILE:CD1	8:AH:128:VAL:CG2	2.92	0.43
8:AH:87:ARG:H	8:AH:90:GLU:HB2	1.83	0.43
9:AI:53:LEU:HD12	9:AI:53:LEU:N	2.34	0.43
13:AM:80:MET:O	13:AM:81:ASP:C	2.56	0.43
16:AP:36:VAL:O	16:AP:36:VAL:HG13	2.18	0.43
20:AT:26:MET:HG3	20:AT:27:MET:N	2.33	0.43
22:AV:164:G:C2'	22:AV:166:C:O2	2.67	0.43
22:AV:345:A:H2'	22:AV:347:PSU:P	2.58	0.43
22:AV:55:G:N1	22:AV:56:C:N4	2.66	0.43
23:AW:53:LEU:HD23	23:AW:79:LEU:CD1	2.49	0.43
23:AW:18:GLU:HB2	23:AW:88:ARG:HH22	1.84	0.43
24:AX:72:C:O2'	26:BA:1851:U:C2'	2.65	0.43
25:AY:170:ARG:HD2	25:AY:170:ARG:H	1.83	0.43
25:AY:187:THR:OG1	25:AY:188:TYR:N	2.52	0.43
25:AY:21:ILE:H	25:AY:21:ILE:CD1	2.20	0.43
25:AY:329:ARG:HG3	25:AY:331:TYR:CZ	2.54	0.43
25:AY:422:GLU:C	25:AY:424:LEU:N	2.68	0.43
43:BS:19:LEU:HB3	51:B0:21:LEU:HD12	2.00	0.43
52:B1:38:PHE:CE2	52:B1:40:PRO:HA	2.53	0.43
26:BA:1059:G:C4	26:BA:1060:U:C5	3.07	0.43
26:BA:1071:G:N9	26:BA:1089:A:N7	2.66	0.43
26:BA:1365:A:H2'	26:BA:1365:A:N3	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:1421:G:C2'	26:BA:1422:G:O5'	2.67	0.43
26:BA:1474:U:C5	26:BA:1475:G:N2	2.87	0.43
26:BA:1827:U:H2'	26:BA:1828:G:O5'	2.18	0.43
26:BA:192:C:C2'	26:BA:193:U:H5'	2.47	0.43
26:BA:2008:C:H2'	26:BA:2009:A:O5'	2.18	0.43
26:BA:2552:U:H2'	26:BA:2554:U:H5''	2.00	0.43
26:BA:2670:A:H2'	26:BA:2671:G:O5'	2.18	0.43
26:BA:322:A:H5'	26:BA:340:A:C1'	2.47	0.43
26:BA:514:A:H2'	26:BA:515:A:O4'	2.19	0.43
26:BA:626:A:C2	36:BL:78:ARG:HD3	2.53	0.43
26:BA:817:C:HO2'	26:BA:818:G:H5'	1.83	0.43
26:BA:90:U:H2'	26:BA:91:A:N7	2.32	0.43
27:BC:121:ALA:O	27:BC:122:ALA:O	2.37	0.43
27:BC:265:PHE:N	27:BC:265:PHE:HD1	2.16	0.43
30:BF:43:ILE:HA	30:BF:82:TYR:OH	2.19	0.43
22:AV:343:C:O2	30:BF:78:ILE:CG2	2.67	0.43
32:BH:135:HIS:CD2	32:BH:138:VAL:HG23	2.54	0.43
32:BH:14:SER:O	32:BH:15:LEU:HB2	2.19	0.43
32:BH:2:GLN:O	32:BH:3:VAL:HG13	2.18	0.43
36:BL:85:VAL:HB	36:BL:94:THR:CG2	2.48	0.43
39:BO:59:ALA:O	39:BO:60:GLU:C	2.56	0.43
39:BO:66:GLY:CA	39:BO:102:ARG:HH22	2.31	0.43
39:BO:67:ASN:O	39:BO:68:LYS:C	2.57	0.43
26:BA:1262:A:OP2	43:BS:99:ARG:NH2	2.52	0.43
26:BA:498:G:HO2'	45:BU:44:HIS:CE1	2.35	0.43
45:BU:33:VAL:O	45:BU:64:ILE:HG22	2.19	0.43
46:BV:40:ILE:HG22	46:BV:42:LEU:HD23	2.00	0.43
26:BA:2356:U:O3'	47:BW:16:ARG:HD3	2.19	0.43
1:AA:1032:G:N2	1:AA:1033:G:C8	2.86	0.43
1:AA:1267:C:H2'	1:AA:1268:G:O4'	2.19	0.43
1:AA:1278:G:C4'	1:AA:1279:G:C8	3.01	0.43
1:AA:145:G:C2'	1:AA:146:G:O5'	2.67	0.43
1:AA:1405:G:H1'	1:AA:1518:A:O2'	2.19	0.43
1:AA:257:G:C2	1:AA:258:G:N7	2.87	0.43
1:AA:316:C:C2	1:AA:317:U:C5	3.06	0.43
1:AA:386:C:H2'	1:AA:387:U:H5'	2.00	0.43
1:AA:495:A:C2	1:AA:496:A:C6	3.07	0.43
1:AA:518:C:H5''	1:AA:519:C:C6	2.54	0.43
2:AB:110:ILE:HG12	2:AB:150:ILE:CG1	2.49	0.43
3:AC:10:ARG:O	3:AC:13:ILE:HG12	2.19	0.43
3:AC:13:ILE:HG13	3:AC:14:VAL:HG13	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:35:ASP:HA	3:AC:38:VAL:HG22	2.01	0.43
4:AD:97:LEU:HD23	4:AD:117:VAL:HG21	2.01	0.43
4:AD:159:GLU:CG	4:AD:160:LEU:N	2.82	0.43
4:AD:11:SER:OG	4:AD:18:LEU:HG	2.19	0.43
5:AE:93:VAL:CG2	5:AE:110:MET:SD	3.06	0.43
5:AE:33:THR:HB	5:AE:49:TYR:CZ	2.53	0.43
7:AG:68:VAL:HG12	7:AG:134:VAL:HG12	2.01	0.43
9:AI:43:ALA:O	9:AI:46:VAL:HG22	2.19	0.43
9:AI:9:GLY:CA	9:AI:80:HIS:HB3	2.49	0.43
10:AJ:17:LEU:HD23	10:AJ:18:ILE:N	2.34	0.43
10:AJ:73:LEU:O	10:AJ:74:VAL:CB	2.65	0.43
13:AM:59:VAL:C	13:AM:61:LYS:H	2.21	0.43
15:AO:55:LEU:O	15:AO:58:MET:HB2	2.18	0.43
16:AP:15:PRO:O	16:AP:16:PHE:HB2	2.19	0.43
1:AA:663:A:H5''	18:AR:49:LYS:HD2	2.00	0.43
20:AT:57:VAL:HG12	20:AT:58:ASP:N	2.33	0.43
22:AV:12:U:H5	22:AV:348:C:O2'	1.88	0.43
22:AV:158:U:C1'	22:AV:197:A:C6	2.95	0.43
22:AV:16:U:C1'	22:AV:18:C:H5''	2.48	0.43
22:AV:235:C:C2	22:AV:236:U:C5	3.06	0.43
22:AV:238:A:C5	22:AV:239:A:N7	2.86	0.43
22:AV:45:A:H2'	22:AV:46:U:H5'	1.96	0.43
24:AX:10:G:H2'	24:AX:11:A:H8	1.82	0.43
54:B3:54:LEU:HD23	54:B3:54:LEU:HA	1.79	0.43
26:BA:1059:G:OP2	26:BA:1060:U:C3'	2.67	0.43
26:BA:1239:G:H2'	26:BA:1240:U:O4'	2.18	0.43
26:BA:1519:G:C6	26:BA:1520:U:C4	3.06	0.43
26:BA:1606:C:O2'	26:BA:1607:C:C5'	2.67	0.43
26:BA:1883:U:H2'	26:BA:1884:G:O4'	2.19	0.43
26:BA:1889:A:H2'	26:BA:1890:A:O5'	2.17	0.43
26:BA:1979:U:H2'	26:BA:1980:G:C5'	2.48	0.43
26:BA:2469:A:H4'	37:BM:55:ARG:NH2	2.34	0.43
26:BA:2648:G:H2'	26:BA:2649:C:H6	1.78	0.43
26:BA:319:G:H2'	26:BA:320:A:O4'	2.18	0.43
26:BA:380:G:H2'	26:BA:381:G:O4'	2.19	0.43
26:BA:45:G:H5'	26:BA:46:G:H5'	2.01	0.43
26:BA:643:A:H2'	26:BA:644:A:C8	2.53	0.43
26:BA:887:U:C6	26:BA:888:C:C6	3.06	0.43
26:BA:915:C:H2'	26:BA:916:G:O5'	2.18	0.43
56:BB:77:U:O2'	56:BB:78:A:H5'	2.19	0.43
27:BC:110:LYS:H	27:BC:110:LYS:HE2	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BC:134:ILE:HG23	27:BC:135:PRO:HD2	2.01	0.43
27:BC:23:LEU:HA	27:BC:23:LEU:HD12	1.82	0.43
29:BE:171:ASP:O	29:BE:172:ALA:C	2.57	0.43
30:BF:107:VAL:HG12	30:BF:108:PRO:N	2.31	0.43
32:BH:128:HIS:O	32:BH:144:VAL:HG23	2.18	0.43
32:BH:46:PHE:CD2	32:BH:47:PHE:N	2.85	0.43
35:BK:13:ASN:HD21	35:BK:98:ARG:HG3	1.83	0.43
37:BM:110:GLU:O	37:BM:111:GLU:C	2.57	0.43
40:BP:36:LYS:HE3	40:BP:38:ARG:NE	2.33	0.43
40:BP:3:ILE:N	40:BP:3:ILE:CD1	2.82	0.43
43:BS:74:ILE:O	43:BS:75:PHE:HB3	2.19	0.43
44:BT:56:GLU:HB2	44:BT:88:LYS:HA	2.01	0.43
49:BY:23:ARG:O	49:BY:24:GLU:C	2.55	0.43
1:AA:1004:A:C5	1:AA:1026:G:C8	3.06	0.43
1:AA:1033:G:N1	1:AA:1034:G:C8	2.86	0.43
1:AA:1053:G:O5'	1:AA:1054:C:H5'	2.19	0.43
1:AA:1253:G:C2	1:AA:1254:A:C4	3.06	0.43
1:AA:1271:A:C5'	1:AA:1314:C:H5''	2.49	0.43
1:AA:1285:A:C5'	1:AA:1286:U:O4	2.67	0.43
1:AA:1329:A:H2'	1:AA:1329:A:N3	2.34	0.43
1:AA:1341:U:C2'	1:AA:1342:C:C5	2.90	0.43
1:AA:1449:C:H1'	1:AA:1455:G:N2	2.34	0.43
1:AA:182:A:N7	1:AA:184:G:C5	2.87	0.43
1:AA:380:G:C2	1:AA:384:G:C6	3.07	0.43
1:AA:399:G:O2'	1:AA:400:C:H5'	2.19	0.43
1:AA:528:C:H5'	1:AA:529:G:OP2	2.19	0.43
1:AA:623:C:N4	1:AA:624:C:N4	2.67	0.43
1:AA:662:U:H2'	1:AA:663:A:C8	2.54	0.43
1:AA:687:A:C8	1:AA:701:U:O4	2.72	0.43
1:AA:893:C:H2'	1:AA:894:G:C8	2.53	0.43
2:AB:167:HIS:O	2:AB:167:HIS:ND1	2.52	0.43
2:AB:56:LEU:HB2	2:AB:183:PHE:CE1	2.54	0.43
5:AE:20:VAL:HG22	5:AE:20:VAL:O	2.19	0.43
5:AE:33:THR:HG22	5:AE:51:LYS:CB	2.45	0.43
6:AF:35:LYS:CE	6:AF:65:GLU:OE2	2.67	0.43
9:AI:100:ALA:HB1	9:AI:102:PHE:CZ	2.54	0.43
9:AI:90:ASP:OD2	9:AI:92:SER:N	2.52	0.43
10:AJ:28:THR:CG2	10:AJ:86:ALA:HB1	2.49	0.43
10:AJ:44:THR:O	10:AJ:45:ARG:C	2.57	0.43
13:AM:21:ILE:O	13:AM:24:VAL:HG22	2.19	0.43
13:AM:3:ILE:O	13:AM:3:ILE:HG12	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:89:ARG:HB3	13:AM:96:VAL:HG22	2.01	0.43
14:AN:64:CYS:CB	14:AN:80:SER:H	2.31	0.43
15:AO:78:THR:C	15:AO:82:GLU:OE1	2.57	0.43
18:AR:40:PRO:O	18:AR:44:THR:HG23	2.18	0.43
19:AS:33:TRP:CZ2	19:AS:56:HIS:HE1	2.37	0.43
19:AS:48:ILE:CD1	19:AS:48:ILE:H	2.30	0.43
22:AV:129:G:H5'	22:AV:130:C:O5'	2.18	0.43
22:AV:185:A:N9	22:AV:186:A:C6	2.87	0.43
22:AV:198:U:H2'	22:AV:199:C:C6	2.54	0.43
22:AV:238:A:N3	22:AV:239:A:C8	2.87	0.43
22:AV:262:U:O2	22:AV:262:U:C2'	2.62	0.43
22:AV:298:A:N3	22:AV:299:C:H1'	2.34	0.43
22:AV:320:U:O2'	22:AV:321:G:N9	2.52	0.43
23:AW:46:ALA:CB	23:AW:53:LEU:HD21	2.49	0.43
23:AW:22:ALA:HB1	23:AW:80:LEU:O	2.19	0.43
25:AY:182:ARG:HG3	25:AY:182:ARG:NH1	2.34	0.43
25:AY:633:GLY:HA2	26:BA:1068:G:C5	2.50	0.43
25:AY:659:LEU:O	25:AY:659:LEU:HD13	2.18	0.43
26:BA:1090:A:N1	26:BA:1091:G:C5	2.87	0.43
26:BA:1881:C:H2'	26:BA:1882:U:O4'	2.18	0.43
26:BA:1981:A:O5'	26:BA:1982:U:OP2	2.37	0.43
26:BA:2055:C:C5'	26:BA:2056:G:OP1	2.67	0.43
26:BA:2162:G:OP2	26:BA:2164:C:N4	2.52	0.43
26:BA:2733:A:H2'	26:BA:2734:A:H8	1.83	0.43
26:BA:2858:C:O5'	26:BA:2858:C:H6	2.02	0.43
26:BA:2882:A:H2'	26:BA:2883:A:O5'	2.19	0.43
26:BA:319:G:H2'	26:BA:320:A:O5'	2.18	0.43
26:BA:357:C:H2'	26:BA:358:U:C6	2.54	0.43
26:BA:751:A:C6	26:BA:789:A:C5	3.07	0.43
26:BA:697:G:C2	26:BA:766:U:O2	2.72	0.43
26:BA:848:C:H2'	26:BA:849:A:C8	2.53	0.43
26:BA:889:C:C2	26:BA:891:G:C6	3.06	0.43
26:BA:907:G:O3'	37:BM:22:GLN:HB2	2.19	0.43
26:BA:912:C:N3	26:BA:913:U:H5	2.17	0.43
27:BC:83:ASP:OD1	27:BC:85:ASN:N	2.51	0.43
32:BH:116:ARG:HB2	32:BH:131:SER:O	2.19	0.43
32:BH:45:GLU:O	32:BH:48:GLU:HB3	2.18	0.43
33:BI:57:VAL:CG1	33:BI:68:PHE:HA	2.49	0.43
33:BI:79:LEU:HD11	33:BI:132:ALA:CA	2.49	0.43
39:BO:77:ALA:O	39:BO:81:ARG:HG3	2.19	0.43
41:BQ:39:ILE:HG22	41:BQ:40:LYS:N	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BQ:91:ARG:H	41:BQ:91:ARG:HG2	1.63	0.43
46:BV:60:VAL:C	46:BV:61:LEU:HD13	2.39	0.43
26:BA:929:U:H4'	50:BZ:37:ARG:NH2	2.33	0.43
1:AA:1000:A:N3	1:AA:1041:G:N2	2.66	0.42
1:AA:1066:C:H3'	1:AA:1067:A:C8	2.54	0.42
1:AA:1182:G:H5''	1:AA:1183:U:H5'	2.01	0.42
1:AA:208:U:O4	1:AA:210:C:N3	2.52	0.42
1:AA:258:G:C2	1:AA:259:G:C1'	3.01	0.42
1:AA:432:A:C2'	1:AA:433:G:O5'	2.67	0.42
1:AA:460:A:H5''	1:AA:461:A:OP2	2.18	0.42
1:AA:66:A:C6	1:AA:67:C:C5	3.07	0.42
1:AA:669:G:O2'	1:AA:670:G:H5'	2.18	0.42
1:AA:850:U:H2'	1:AA:851:G:C5'	2.49	0.42
2:AB:101:THR:HB	2:AB:174:GLU:OE1	2.19	0.42
2:AB:116:LEU:CB	2:AB:140:LEU:HD11	2.48	0.42
2:AB:177:ASN:OD1	2:AB:178:LEU:HD23	2.19	0.42
3:AC:69:THR:HG21	3:AC:75:VAL:HG21	2.00	0.42
4:AD:109:THR:HG1	4:AD:111:ALA:HB3	1.83	0.42
1:AA:923:A:C4'	5:AE:25:LYS:HE2	2.48	0.42
5:AE:45:VAL:HG22	5:AE:117:ALA:HB1	2.01	0.42
6:AF:17:GLN:OE1	6:AF:21:MET:HG3	2.19	0.42
1:AA:674:G:OP1	6:AF:86:ARG:NH2	2.52	0.42
6:AF:4:TYR:HA	6:AF:90:MET:O	2.19	0.42
7:AG:11:ILE:CD1	7:AG:23:ALA:HB3	2.49	0.42
9:AI:35:GLU:OE2	9:AI:39:GLY:HA3	2.18	0.42
1:AA:1225:A:OP1	13:AM:100:ARG:HA	2.18	0.42
13:AM:22:TYR:CE2	13:AM:68:LEU:HD23	2.54	0.42
14:AN:41:ARG:CB	14:AN:42:TRP:CE3	3.01	0.42
17:AQ:16:MET:HB2	17:AQ:19:SER:CB	2.49	0.42
17:AQ:27:PHE:CE1	17:AQ:36:PHE:HB3	2.54	0.42
17:AQ:59:GLU:HG2	17:AQ:75:VAL:CG2	2.47	0.42
20:AT:72:ALA:O	20:AT:73:ARG:C	2.56	0.42
22:AV:147:C:H2'	22:AV:148:U:C5	2.52	0.42
22:AV:206:A:O3'	22:AV:207:A:H8	2.01	0.42
22:AV:28:U:H5''	30:BF:111:ARG:NH2	2.34	0.42
22:AV:29:G:O5'	22:AV:29:G:C8	2.71	0.42
22:AV:314:C:C1'	22:AV:315:G:P	3.07	0.42
24:AX:34:U:O2	24:AX:36:A:C8	2.72	0.42
25:AY:166:LEU:HD21	25:AY:212:TYR:CD2	2.53	0.42
25:AY:282:SER:C	25:AY:284:LEU:N	2.72	0.42
25:AY:308:PRO:O	25:AY:333:GLY:N	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AY:335:LEU:CD2	25:AY:355:LEU:HD11	2.49	0.42
25:AY:75:LYS:O	25:AY:77:HIS:CD2	2.72	0.42
54:B3:31:ILE:HG23	54:B3:34:LYS:HE3	2.01	0.42
26:BA:1060:U:H4'	26:BA:1062:G:H5'	1.95	0.42
26:BA:1631:G:N2	26:BA:1633:G:H3'	2.34	0.42
26:BA:1684:G:C6	26:BA:1685:C:N4	2.86	0.42
26:BA:178:G:O5'	26:BA:178:G:H8	2.02	0.42
26:BA:182:A:C5	26:BA:183:C:C4	3.07	0.42
26:BA:186:G:C2	26:BA:187:G:C8	3.07	0.42
26:BA:2221:G:C2'	26:BA:2222:C:C5'	2.96	0.42
26:BA:2379:G:H2'	26:BA:2380:C:C6	2.54	0.42
26:BA:2808:G:C2	26:BA:2891:U:C6	3.06	0.42
26:BA:869:G:N3	26:BA:870:U:C6	2.87	0.42
26:BA:899:A:H2'	26:BA:900:A:H5''	2.01	0.42
26:BA:1799:G:O6	27:BC:177:SER:HB3	2.18	0.42
28:BD:177:VAL:HG22	28:BD:177:VAL:O	2.19	0.42
29:BE:193:VAL:O	29:BE:197:GLU:HB2	2.19	0.42
30:BF:94:ARG:HH11	30:BF:94:ARG:HB3	1.84	0.42
33:BI:54:ILE:HG21	33:BI:71:LYS:O	2.19	0.42
34:BJ:23:LYS:CE	34:BJ:142:ILE:OXT	2.67	0.42
34:BJ:77:HIS:CD2	34:BJ:79:GLY:N	2.86	0.42
36:BL:109:LYS:CE	36:BL:128:THR:HG22	2.45	0.42
29:BE:108:ILE:CD1	36:BL:2:ARG:HH12	2.33	0.42
37:BM:50:ARG:O	37:BM:53:MET:HG2	2.19	0.42
39:BO:88:LYS:O	39:BO:89:ASP:HB2	2.18	0.42
48:BX:63:ILE:HD12	48:BX:63:ILE:O	2.19	0.42
49:BY:5:GLU:HG3	49:BY:56:LEU:HD11	1.98	0.42
49:BY:9:LYS:C	49:BY:11:VAL:N	2.72	0.42
1:AA:1032:G:C2	1:AA:1033:G:C1'	2.95	0.42
1:AA:1056:U:O2	1:AA:1057:G:C8	2.73	0.42
1:AA:1255:G:H5''	1:AA:1256:A:OP1	2.19	0.42
1:AA:1293:C:N3	1:AA:1294:G:C8	2.88	0.42
1:AA:1434:A:H8	1:AA:1434:A:O5'	2.02	0.42
1:AA:145:G:C2	1:AA:146:G:C8	3.07	0.42
1:AA:1508:A:H2'	1:AA:1509:C:O4'	2.18	0.42
1:AA:406:G:C8	1:AA:495:A:C4	3.07	0.42
1:AA:499:A:H61	1:AA:547:A:H5''	1.83	0.42
1:AA:626:G:H2'	1:AA:627:G:O4'	2.20	0.42
1:AA:723:U:C5'	1:AA:724:G:O5'	2.65	0.42
1:AA:894:G:C2	1:AA:895:G:C8	3.07	0.42
2:AB:147:LEU:HD23	2:AB:147:LEU:HA	1.89	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:831:A:OP1	2:AB:20:ARG:HG3	2.19	0.42
5:AE:149:PRO:HA	8:AH:98:LEU:CD1	2.49	0.42
7:AG:13:PRO:O	7:AG:14:ASP:O	2.37	0.42
8:AH:100:ILE:HD11	8:AH:128:VAL:CB	2.49	0.42
10:AJ:27:GLU:C	10:AJ:29:ALA:N	2.73	0.42
10:AJ:59:LYS:CD	10:AJ:59:LYS:C	2.82	0.42
11:AK:41:LEU:HB2	11:AK:73:VAL:HG12	2.01	0.42
12:AL:113:ARG:O	12:AL:115:LYS:O	2.36	0.42
12:AL:55:ARG:HD3	25:AY:422:GLU:OE1	2.19	0.42
12:AL:57:THR:CG2	12:AL:58:ASN:N	2.82	0.42
13:AM:38:ILE:HG22	13:AM:39:ALA:N	2.34	0.42
13:AM:22:TYR:CE2	13:AM:69:ARG:HG2	2.55	0.42
13:AM:78:ARG:O	13:AM:81:ASP:HB2	2.19	0.42
14:AN:7:ALA:O	14:AN:10:VAL:HB	2.18	0.42
14:AN:93:ILE:HA	14:AN:94:PRO:HD3	1.70	0.42
16:AP:39:PHE:CD1	16:AP:40:ASN:N	2.87	0.42
17:AQ:76:ARG:HH21	17:AQ:78:VAL:HG22	1.84	0.42
20:AT:34:VAL:HG11	20:AT:78:LEU:HD22	2.01	0.42
1:AA:108:G:N7	20:AT:9:ARG:HG2	2.34	0.42
11:AK:109:ILE:HB	21:AU:5:VAL:HG22	2.00	0.42
21:AU:9:GLU:CD	21:AU:10:PRO:HG3	2.40	0.42
22:AV:198:U:O4	22:AV:229:U:H3'	2.19	0.42
22:AV:199:C:C3'	22:AV:200:G:C8	2.99	0.42
22:AV:219:G:N3	22:AV:220:G:C8	2.88	0.42
22:AV:237:U:O2'	22:AV:238:A:O5'	2.30	0.42
22:AV:34:A:C2	22:AV:321:G:N3	2.87	0.42
23:AW:72:ASP:HB3	23:AW:75:ARG:HE	1.84	0.42
25:AY:555:LEU:HD21	25:AY:599:PRO:HG2	1.98	0.42
53:B2:10:LEU:HD12	53:B2:10:LEU:HA	1.82	0.42
26:BA:1416:G:O2'	26:BA:1417:C:OP2	2.37	0.42
26:BA:1419:A:N7	26:BA:1421:G:C6	2.87	0.42
26:BA:1483:G:N2	26:BA:1507:C:O2	2.52	0.42
26:BA:1530:G:C2'	26:BA:1530:G:N3	2.81	0.42
26:BA:1717:A:C2'	26:BA:1718:G:O5'	2.67	0.42
26:BA:2141:G:C2	26:BA:2142:A:C1'	3.02	0.42
26:BA:2172:U:P	26:BA:2174:C:H5	2.41	0.42
26:BA:2303:G:C4	26:BA:2304:G:N7	2.86	0.42
26:BA:2259:U:C4	26:BA:2427:C:N4	2.86	0.42
26:BA:2555:U:C5	26:BA:2556:C:C2	3.08	0.42
26:BA:2051:A:H5'	26:BA:2578:G:O4'	2.19	0.42
26:BA:2681:C:C2	26:BA:2724:U:O4	2.71	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:2727:A:H2'	26:BA:2728:U:H5'	2.01	0.42
26:BA:612:G:H2'	26:BA:614:A:C8	2.55	0.42
26:BA:684:G:C2	26:BA:794:A:C2	3.07	0.42
26:BA:904:G:C2	26:BA:905:A:C5	3.06	0.42
39:BO:3:LYS:NZ	56:BB:30:C:OP1	2.52	0.42
27:BC:221:GLY:HA2	27:BC:224:MET:HG3	2.00	0.42
27:BC:257:ARG:HG3	27:BC:258:SER:N	2.33	0.42
28:BD:111:GLY:HA3	28:BD:194:PRO:HB2	2.01	0.42
29:BE:176:ASP:OD1	29:BE:177:PRO:N	2.53	0.42
30:BF:36:ASN:ND2	30:BF:37:MET:H	2.17	0.42
30:BF:39:VAL:O	30:BF:41:GLU:N	2.51	0.42
31:BG:114:HIS:CD2	31:BG:147:LEU:CD2	2.99	0.42
31:BG:25:ILE:O	31:BG:25:ILE:HG22	2.19	0.42
33:BI:107:GLU:CA	33:BI:110:GLN:HB3	2.40	0.42
26:BA:1063:G:H4'	33:BI:76:ALA:HB3	2.00	0.42
35:BK:74:GLY:O	35:BK:75:SER:O	2.36	0.42
38:BN:13:ASN:ND2	38:BN:16:HIS:H	2.17	0.42
39:BO:2:ASP:O	39:BO:3:LYS:C	2.57	0.42
42:BR:12:HIS:CE1	42:BR:22:LEU:CD2	3.02	0.42
1:AA:1038:C:C2	1:AA:1039:G:C8	3.08	0.42
1:AA:108:G:O4'	1:AA:108:G:N3	2.52	0.42
1:AA:1097:C:H2'	1:AA:1098:C:C6	2.54	0.42
1:AA:1141:C:O2'	1:AA:1142:G:P	2.78	0.42
1:AA:1161:C:H2'	1:AA:1162:C:C5	2.52	0.42
1:AA:1257:A:H4'	1:AA:1258:G:OP2	2.19	0.42
1:AA:1431:A:C6	1:AA:1432:G:O6	2.72	0.42
1:AA:295:C:H2'	1:AA:296:U:H6	1.84	0.42
1:AA:499:A:C4'	1:AA:500:G:OP1	2.65	0.42
1:AA:538:G:OP2	12:AL:111:GLN:HG3	2.19	0.42
1:AA:613:C:C2	1:AA:628:G:N2	2.87	0.42
1:AA:737:C:H2'	1:AA:738:C:O5'	2.19	0.42
1:AA:807:A:H2'	1:AA:808:C:O4'	2.20	0.42
1:AA:825:A:C6	1:AA:826:C:C4	3.07	0.42
2:AB:21:TYR:N	2:AB:21:TYR:CD1	2.87	0.42
3:AC:81:GLU:O	3:AC:84:GLU:HB3	2.20	0.42
4:AD:106:PHE:HD1	4:AD:158:LEU:CD2	2.32	0.42
4:AD:109:THR:OG1	4:AD:111:ALA:HB3	2.19	0.42
4:AD:158:LEU:O	4:AD:159:GLU:O	2.37	0.42
5:AE:110:MET:O	5:AE:114:LEU:HB2	2.20	0.42
5:AE:148:SER:O	5:AE:152:VAL:CG1	2.67	0.42
8:AH:6:ILE:O	8:AH:10:LEU:CD2	2.65	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1129:C:H5''	9:AI:17:ARG:NH2	2.34	0.42
12:AL:42:LYS:O	12:AL:44:PRO:HD2	2.19	0.42
12:AL:55:ARG:CD	25:AY:422:GLU:OE1	2.67	0.42
17:AQ:13:SER:HB3	17:AQ:16:MET:HE2	2.01	0.42
18:AR:40:PRO:HG2	18:AR:43:ILE:HG12	2.00	0.42
19:AS:6:LYS:HE3	19:AS:6:LYS:HB3	1.86	0.42
22:AV:112:U:H2'	22:AV:113:A:H8	1.83	0.42
22:AV:114:G:N2	22:AV:132:U:N3	2.48	0.42
22:AV:187:C:N3	22:AV:188:C:C5	2.87	0.42
22:AV:213:G:N2	22:AV:214:C:C2	2.87	0.42
22:AV:14:G:C2	22:AV:343:C:C4	2.82	0.42
22:AV:344:A:H2'	22:AV:345:A:H5'	2.02	0.42
22:AV:361:C:C2'	22:AV:362:C:H5'	2.49	0.42
22:AV:37:C:O5'	22:AV:37:C:C6	2.72	0.42
22:AV:55:G:C6	22:AV:56:C:C4	3.07	0.42
22:AV:60:U:H2'	22:AV:62:G:O3'	2.19	0.42
22:AV:66:C:H2'	22:AV:67:G:O5'	2.19	0.42
22:AV:10:U:H5	23:AW:109:GLU:HB3	1.82	0.42
23:AW:47:ARG:O	23:AW:53:LEU:HD12	2.17	0.42
23:AW:44:SER:CA	23:AW:57:ASN:HD22	2.31	0.42
24:AX:4:G:H2'	24:AX:5:G:H8	1.83	0.42
25:AY:205:TYR:O	25:AY:206:LEU:C	2.57	0.42
25:AY:229:LEU:O	25:AY:231:TYR:N	2.52	0.42
25:AY:17:ILE:HG21	25:AY:25:LYS:HA	2.01	0.42
25:AY:289:ILE:HD12	25:AY:331:TYR:CE2	2.54	0.42
25:AY:34:TYR:O	25:AY:38:ARG:HB2	2.19	0.42
25:AY:485:GLU:HB2	25:AY:560:VAL:HA	1.99	0.42
25:AY:686:LYS:HD3	25:AY:686:LYS:C	2.39	0.42
25:AY:5:VAL:C	25:AY:7:TYR:H	2.22	0.42
26:BA:1056:G:O2'	26:BA:1086:A:H8	2.02	0.42
26:BA:1058:U:H2'	26:BA:1058:U:O2	2.18	0.42
26:BA:1071:G:C4	26:BA:1089:A:C5	3.07	0.42
26:BA:1467:U:C4	26:BA:1546:G:N3	2.87	0.42
26:BA:1524:G:H2'	26:BA:1525:A:O4'	2.20	0.42
26:BA:1467:U:C4	26:BA:1546:G:N2	2.87	0.42
26:BA:2111:U:C4	26:BA:2145:C:O2	2.73	0.42
26:BA:2130:U:O2	26:BA:2158:A:H2	2.02	0.42
26:BA:2183:A:C2	26:BA:2184:A:C5	3.07	0.42
26:BA:2192:U:C2'	26:BA:2193:G:H5'	2.48	0.42
26:BA:2193:G:N3	26:BA:2194:U:C6	2.87	0.42
26:BA:2592:G:H8	26:BA:2592:G:O5'	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:858:G:O2'	26:BA:2268:A:H1'	2.19	0.42
26:BA:924:G:H2'	26:BA:925:A:O4'	2.19	0.42
56:BB:55:U:C2'	56:BB:55:U:O2	2.60	0.42
28:BD:2:ILE:CD1	28:BD:90:PHE:CZ	3.02	0.42
30:BF:142:TYR:HA	30:BF:145:VAL:CG1	2.49	0.42
31:BG:163:TYR:O	31:BG:166:GLU:HB3	2.20	0.42
33:BI:75:ALA:CB	33:BI:128:ILE:HG23	2.50	0.42
34:BJ:96:ARG:HA	34:BJ:97:PRO:HD3	1.71	0.42
35:BK:91:SER:O	35:BK:92:GLU:C	2.56	0.42
36:BL:130:GLY:O	36:BL:131:ALA:C	2.57	0.42
36:BL:81:ASP:C	36:BL:83:ALA:N	2.72	0.42
37:BM:4:PRO:HG3	37:BM:70:ASP:HA	2.01	0.42
35:BK:108:ARG:HH12	40:BP:34:GLY:CA	2.32	0.42
40:BP:55:HIS:O	40:BP:56:SER:C	2.57	0.42
40:BP:59:THR:HG23	40:BP:72:VAL:HG12	2.00	0.42
42:BR:49:ILE:O	42:BR:51:VAL:O	2.37	0.42
42:BR:63:VAL:HA	42:BR:96:VAL:HG12	2.01	0.42
26:BA:1599:U:OP2	44:BT:40:LYS:HG3	2.18	0.42
44:BT:69:ARG:HG3	44:BT:69:ARG:O	2.18	0.42
45:BU:71:ILE:HD13	45:BU:82:VAL:CG2	2.49	0.42
47:BW:45:ALA:H	47:BW:77:SER:HB3	1.84	0.42
49:BY:22:LEU:CG	49:BY:23:ARG:N	2.83	0.42
1:AA:1119:C:H2'	1:AA:1120:C:C6	2.55	0.42
1:AA:1310:G:C2	1:AA:1328:C:C2	3.07	0.42
1:AA:134:G:H1'	1:AA:325:A:C5	2.54	0.42
1:AA:1367:C:N3	1:AA:1368:A:C8	2.87	0.42
1:AA:141:G:C5	1:AA:142:G:N7	2.87	0.42
1:AA:1537:U:H5''	7:AG:84:TYR:CE1	2.55	0.42
1:AA:195:A:H1'	1:AA:222:C:O2'	2.20	0.42
1:AA:262:A:C6	1:AA:263:A:C6	3.07	0.42
1:AA:93:U:C2'	1:AA:94:G:C5'	2.97	0.42
2:AB:205:ALA:C	2:AB:206:ILE:HD13	2.40	0.42
4:AD:104:MET:SD	4:AD:106:PHE:CE2	3.12	0.42
4:AD:151:GLN:O	4:AD:154:VAL:HG12	2.19	0.42
4:AD:162:GLU:HA	4:AD:166:LYS:HE2	2.01	0.42
4:AD:88:ASN:O	4:AD:92:LEU:HD23	2.20	0.42
1:AA:1367:C:P	9:AI:113:LYS:HZ1	2.42	0.42
9:AI:24:ASN:O	9:AI:60:LEU:C	2.58	0.42
9:AI:29:ILE:CG2	9:AI:34:LEU:HD12	2.49	0.42
10:AJ:47:GLU:HB2	10:AJ:49:PHE:CE1	2.55	0.42
11:AK:34:THR:HB	11:AK:40:ALA:HA	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:83:VAL:HG12	11:AK:83:VAL:O	2.18	0.42
12:AL:49:ARG:HB3	12:AL:89:LEU:HD21	1.99	0.42
15:AO:44:GLU:O	15:AO:45:HIS:HB2	2.19	0.42
15:AO:86:LEU:O	15:AO:87:ARG:CB	2.68	0.42
16:AP:7:ALA:O	16:AP:9:HIS:N	2.51	0.42
19:AS:39:ILE:HB	19:AS:65:MET:O	2.19	0.42
20:AT:23:ARG:O	20:AT:26:MET:N	2.51	0.42
23:AW:83:LYS:CA	23:AW:86:LEU:HD22	2.46	0.42
25:AY:134:ALA:HB3	25:AY:258:VAL:HG22	2.02	0.42
25:AY:252:ASP:HB3	25:AY:254:LYS:NZ	2.34	0.42
25:AY:519:ARG:HH12	25:AY:678:GLU:CB	2.32	0.42
25:AY:525:PHE:HA	25:AY:565:VAL:O	2.18	0.42
25:AY:601:ILE:O	25:AY:679:VAL:HG13	2.19	0.42
51:B0:28:SER:O	51:B0:36:LYS:HA	2.20	0.42
26:BA:1117:C:C2'	26:BA:1118:C:H5'	2.49	0.42
26:BA:1314:C:C2'	26:BA:1314:C:O2	2.61	0.42
26:BA:1689:A:C6	26:BA:1700:A:C2	3.06	0.42
26:BA:188:G:H5''	26:BA:188:G:H8	1.84	0.42
26:BA:2140:G:C2	26:BA:2141:G:C8	3.08	0.42
26:BA:2170:A:N3	26:BA:2171:A:N7	2.67	0.42
26:BA:2218:G:C4	26:BA:2219:U:C5	3.07	0.42
26:BA:2345:G:H5'	26:BA:2347:C:O4'	2.19	0.42
26:BA:1864:U:OP1	26:BA:2411:A:H5'	2.20	0.42
26:BA:2636:C:H2'	26:BA:2636:C:O2	2.18	0.42
26:BA:2875:C:C2'	26:BA:2876:G:O5'	2.68	0.42
26:BA:878:A:C2	26:BA:879:G:C4	3.07	0.42
26:BA:904:G:O2'	26:BA:905:A:C5'	2.60	0.42
56:BB:96:G:C2'	56:BB:97:C:H5'	2.49	0.42
27:BC:135:PRO:O	27:BC:136:VAL:C	2.57	0.42
27:BC:174:ARG:HG2	27:BC:174:ARG:O	2.19	0.42
28:BD:127:PHE:HZ	28:BD:160:LYS:HB2	1.85	0.42
29:BE:118:LEU:HD12	29:BE:119:ILE:H	1.81	0.42
29:BE:23:PHE:HE1	29:BE:28:VAL:HG21	1.84	0.42
33:BI:56:VAL:HA	33:BI:71:LYS:CE	2.49	0.42
33:BI:97:VAL:HG12	33:BI:98:GLY:N	2.34	0.42
36:BL:75:ALA:HB3	36:BL:108:ALA:HB2	2.01	0.42
40:BP:87:ARG:NH2	40:BP:111:GLU:HB2	2.35	0.42
41:BQ:26:ALA:HB1	41:BQ:33:VAL:CG2	2.48	0.42
41:BQ:35:PHE:C	41:BQ:37:ALA:H	2.22	0.42
46:BV:50:MET:C	46:BV:52:ALA:N	2.68	0.42
47:BW:64:LYS:HD3	47:BW:79:GLU:OE2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:189:G:OP1	48:BX:25:LYS:HD2	2.19	0.42
49:BY:59:GLU:O	49:BY:63:ALA:CB	2.68	0.42
1:AA:1031:C:C3'	1:AA:1032:G:H5''	2.50	0.42
1:AA:1260:G:H4'	1:AA:1283:U:O2'	2.19	0.42
1:AA:1246:A:C6	1:AA:1292:G:C6	3.07	0.42
1:AA:1387:G:C2	1:AA:1388:C:C4	3.07	0.42
1:AA:1480:A:C6	1:AA:1481:U:C4	3.08	0.42
1:AA:1495:U:H2'	1:AA:1495:U:O2	2.20	0.42
1:AA:164:G:N2	1:AA:165:G:H1'	2.34	0.42
1:AA:304:U:C2'	1:AA:305:G:H5'	2.49	0.42
1:AA:542:G:N1	1:AA:543:U:C4	2.88	0.42
1:AA:60:A:C2	1:AA:107:G:N3	2.88	0.42
1:AA:663:A:C2'	1:AA:664:G:H5'	2.48	0.42
1:AA:677:U:H3	1:AA:713:G:H1	1.66	0.42
1:AA:725:G:H2'	1:AA:726:C:H5'	2.02	0.42
1:AA:833:G:C6	1:AA:834:U:C4	3.06	0.42
1:AA:935:A:N1	1:AA:936:C:C4	2.87	0.42
1:AA:949:A:C6	1:AA:950:U:C4	3.07	0.42
1:AA:976:G:C8	1:AA:1358:U:C2	3.07	0.42
1:AA:96:U:O2'	1:AA:97:G:P	2.77	0.42
2:AB:130:LYS:HA	2:AB:130:LYS:CE	2.43	0.42
2:AB:137:THR:O	2:AB:141:GLU:HG3	2.19	0.42
2:AB:143:LEU:O	2:AB:147:LEU:HB2	2.20	0.42
2:AB:145:ASN:OD1	2:AB:145:ASN:N	2.52	0.42
2:AB:47:PRO:O	2:AB:50:ASN:HB2	2.19	0.42
5:AE:130:THR:O	5:AE:131:ASN:C	2.58	0.42
5:AE:82:HIS:HE1	5:AE:146:MET:CG	2.33	0.42
7:AG:69:ARG:O	7:AG:137:ARG:HD3	2.20	0.42
8:AH:21:LYS:N	8:AH:64:TYR:OH	2.52	0.42
10:AJ:83:THR:CG2	10:AJ:84:VAL:N	2.82	0.42
11:AK:125:LYS:CD	11:AK:125:LYS:N	2.82	0.42
12:AL:85:ARG:CZ	12:AL:87:LYS:HB3	2.49	0.42
3:AC:5:HIS:CB	14:AN:89:MET:HG3	2.49	0.42
16:AP:44:SER:OG	16:AP:46:LYS:HD2	2.20	0.42
19:AS:46:LEU:O	19:AS:61:VAL:HG23	2.18	0.42
22:AV:196:G:C5	22:AV:230:U:OP2	2.72	0.42
22:AV:248:G:N1	22:AV:249:U:C4	2.88	0.42
22:AV:69:A:O2'	22:AV:70:A:OP2	2.30	0.42
22:AV:8:A:O2'	23:AW:35:ARG:NE	2.52	0.42
23:AW:61:ALA:O	23:AW:63:TYR:N	2.52	0.42
23:AW:48:PHE:CZ	23:AW:93:VAL:HG11	2.46	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AY:16:GLY:N	25:AY:101:LEU:CD1	2.83	0.42
25:AY:260:LEU:O	25:AY:268:GLY:HA3	2.19	0.42
25:AY:623:ASP:HB2	25:AY:662:LYS:HE3	2.01	0.42
25:AY:634:MET:CG	26:BA:1068:G:HO2'	2.31	0.42
26:BA:1056:G:H4'	26:BA:1086:A:N7	2.34	0.42
26:BA:1078:U:C5'	26:BA:1079:C:OP1	2.67	0.42
26:BA:1084:A:C6	26:BA:1085:A:N6	2.88	0.42
26:BA:1104:C:O2	26:BA:1105:U:C5	2.72	0.42
26:BA:1315:C:H2'	26:BA:1316:U:O5'	2.19	0.42
26:BA:1407:G:C2'	26:BA:1408:G:H5'	2.49	0.42
26:BA:1434:A:O2'	26:BA:1435:G:O4'	2.37	0.42
26:BA:186:G:N2	26:BA:187:G:C5	2.88	0.42
26:BA:1914:C:C5	26:BA:1915:U:C5	3.08	0.42
26:BA:1911:U:C2	26:BA:1918:A:C2	3.08	0.42
26:BA:1770:G:C6	26:BA:1983:G:C5	3.08	0.42
26:BA:2179:C:C2'	26:BA:2180:U:H5'	2.49	0.42
26:BA:2474:U:C5'	26:BA:2475:C:OP2	2.67	0.42
26:BA:323:C:O4'	26:BA:323:C:O2	2.31	0.42
26:BA:900:A:C2	26:BA:901:C:N4	2.70	0.42
26:BA:981:A:N1	26:BA:2027:G:O2'	2.40	0.42
56:BB:8:C:H2'	56:BB:9:G:O4'	2.19	0.42
30:BF:162:ASP:O	30:BF:163:GLU:C	2.58	0.42
30:BF:6:TYR:CE2	30:BF:11:VAL:HG22	2.54	0.42
32:BH:28:ASN:H	32:BH:32:PRO:HG2	1.85	0.42
33:BI:79:LEU:HD22	33:BI:137:LEU:HD11	2.01	0.42
33:BI:28:GLY:O	33:BI:34:ILE:CD1	2.66	0.42
33:BI:56:VAL:HG21	33:BI:70:THR:CA	2.49	0.42
33:BI:57:VAL:H	33:BI:71:LYS:HE2	1.83	0.42
33:BI:5:GLN:CG	33:BI:5:GLN:O	2.67	0.42
26:BA:538:A:O2'	34:BJ:8:PRO:HD2	2.18	0.42
37:BM:47:GLU:O	37:BM:48:ALA:C	2.56	0.42
26:BA:1279:G:O4'	38:BN:31:HIS:CE1	2.72	0.42
35:BK:108:ARG:NH1	40:BP:34:GLY:HA2	2.34	0.42
41:BQ:87:VAL:CG1	42:BR:49:ILE:HD11	2.48	0.42
46:BV:29:ILE:HD13	46:BV:38:LEU:O	2.19	0.42
1:AA:1079:G:OP1	5:AE:49:TYR:CD1	2.72	0.42
1:AA:1296:C:C4'	1:AA:1302:C:N4	2.83	0.42
1:AA:944:G:C2'	1:AA:1338:G:O6	2.66	0.42
1:AA:219:U:C2	1:AA:220:G:C8	3.07	0.42
1:AA:293:G:C4	1:AA:294:U:C5	3.08	0.42
1:AA:299:G:C2'	1:AA:300:A:O5'	2.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:610:U:C2'	1:AA:611:C:O5'	2.68	0.42
1:AA:687:A:C5	1:AA:701:U:C5	3.07	0.42
1:AA:721:G:O4'	1:AA:722:G:C5	2.73	0.42
1:AA:849:G:C2'	1:AA:850:U:O5'	2.68	0.42
1:AA:980:C:H5	1:AA:981:U:C4	2.38	0.42
2:AB:150:ILE:HG23	2:AB:151:LYS:N	2.26	0.42
2:AB:14:HIS:HB3	2:AB:208:ALA:HB2	2.01	0.42
3:AC:41:TYR:CG	3:AC:42:LEU:N	2.86	0.42
4:AD:11:SER:O	4:AD:12:ARG:C	2.57	0.42
4:AD:152:SER:O	4:AD:155:LYS:HB2	2.20	0.42
5:AE:82:HIS:CE1	5:AE:146:MET:CG	3.02	0.42
7:AG:70:PRO:O	7:AG:95:ARG:CD	2.68	0.42
10:AJ:5:ARG:CG	10:AJ:79:PRO:HG3	2.50	0.42
11:AK:51:PHE:HB2	11:AK:55:ARG:HB3	1.96	0.42
15:AO:29:ALA:HA	15:AO:84:LEU:HD21	2.01	0.42
17:AQ:48:GLU:O	17:AQ:49:ASN:C	2.58	0.42
22:AV:130:C:H2'	22:AV:132:U:C5	2.54	0.42
22:AV:68:U:H3	22:AV:303:G:H8	1.57	0.42
22:AV:315:G:C2'	22:AV:316:A:C8	3.02	0.42
25:AY:207:ASP:O	25:AY:208:GLN:C	2.56	0.42
25:AY:289:ILE:HD11	25:AY:331:TYR:CZ	2.55	0.42
25:AY:370:LYS:O	25:AY:371:ALA:C	2.58	0.42
26:BA:1050:A:C2	26:BA:2751:G:C4	3.07	0.42
26:BA:1104:C:N3	26:BA:1105:U:C5	2.88	0.42
26:BA:1116:G:C6	26:BA:1117:C:C4	3.08	0.42
26:BA:1394:U:C4	26:BA:1395:A:C6	3.07	0.42
26:BA:1724:G:H2'	26:BA:1725:U:H5'	2.02	0.42
26:BA:1735:A:C2	26:BA:1736:U:N1	2.87	0.42
26:BA:2133:G:H2'	26:BA:2158:A:N6	2.32	0.42
26:BA:2452:C:C4	26:BA:2453:A:C6	3.07	0.42
26:BA:2800:A:C2	26:BA:2895:G:H1'	2.55	0.42
26:BA:551:G:H2'	26:BA:552:U:C5'	2.48	0.42
26:BA:623:C:H2'	26:BA:624:C:C6	2.54	0.42
26:BA:682:G:H5'	53:B2:26:ASN:CG	2.40	0.42
56:BB:112:G:H2'	56:BB:113:C:H6	1.80	0.42
27:BC:159:THR:O	27:BC:194:VAL:HG12	2.20	0.42
30:BF:42:ALA:HB1	30:BF:45:ASP:C	2.38	0.42
30:BF:93:GLU:O	30:BF:94:ARG:C	2.56	0.42
31:BG:123:GLU:OE1	31:BG:123:GLU:CA	2.66	0.42
25:AY:658:ASP:CG	31:BG:176:LYS:HZ1	2.23	0.42
35:BK:53:LYS:O	35:BK:56:ASP:HB2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BO:14:ALA:O	39:BO:18:LEU:HD22	2.19	0.42
40:BP:32:VAL:CG1	40:BP:34:GLY:O	2.67	0.42
47:BW:17:LEU:HD23	47:BW:35:ARG:CB	2.50	0.42
48:BX:63:ILE:CD1	48:BX:67:LEU:HG	2.49	0.42
1:AA:1008:U:N3	1:AA:1022:A:C2	2.87	0.42
1:AA:1068:G:C2'	1:AA:1069:C:H5'	2.49	0.42
1:AA:1246:A:C5	1:AA:1247:U:C4	3.07	0.42
1:AA:131:A:C2	1:AA:132:C:C4	3.08	0.42
1:AA:1411:C:H2'	1:AA:1412:C:H5'	1.96	0.42
1:AA:1416:G:C6	1:AA:1417:G:C5	3.08	0.42
1:AA:233:C:N3	1:AA:234:C:C5	2.87	0.42
1:AA:290:C:C3'	1:AA:290:C:C6	3.02	0.42
1:AA:490:C:C2	1:AA:491:G:C8	3.08	0.42
1:AA:771:G:H2'	1:AA:772:U:H5'	2.00	0.42
1:AA:782:A:H2'	1:AA:783:C:O4'	2.20	0.42
1:AA:877:G:H21	8:AH:1:SER:N	2.17	0.42
1:AA:882:C:O2'	1:AA:883:C:H5'	2.20	0.42
1:AA:918:A:N3	1:AA:919:A:C8	2.87	0.42
2:AB:110:ILE:CD1	2:AB:147:LEU:HD13	2.49	0.42
4:AD:120:LYS:HB2	4:AD:128:VAL:HG21	2.02	0.42
5:AE:93:VAL:CG2	5:AE:110:MET:CE	2.96	0.42
5:AE:131:ASN:ND2	5:AE:133:ILE:HG22	2.35	0.42
5:AE:84:VAL:HG21	5:AE:142:GLY:O	2.19	0.42
5:AE:81:GLN:CB	5:AE:146:MET:HE2	2.49	0.42
5:AE:64:GLU:OE2	5:AE:68:ARG:CZ	2.68	0.42
6:AF:51:ILE:HG13	6:AF:52:ASN:HB2	2.02	0.42
6:AF:18:VAL:HG21	6:AF:58:HIS:CE1	2.55	0.42
8:AH:36:ALA:O	8:AH:45:ILE:HD11	2.20	0.42
12:AL:37:TYR:N	12:AL:37:TYR:CD2	2.87	0.42
14:AN:13:VAL:HA	14:AN:16:ALA:CB	2.50	0.42
16:AP:20:VAL:HG11	16:AP:32:PHE:HB3	2.02	0.42
16:AP:46:LYS:HD3	16:AP:47:GLU:N	2.35	0.42
17:AQ:62:GLU:HB2	17:AQ:72:TRP:CZ3	2.55	0.42
19:AS:29:PRO:HB2	19:AS:30:LEU:H	1.71	0.42
22:AV:175:A:C2	22:AV:176:G:C5	3.08	0.42
22:AV:290:A:O4'	22:AV:291:A:O4'	2.38	0.42
22:AV:333:G:O2'	22:AV:334:A:OP1	2.30	0.42
22:AV:6:U:C2'	22:AV:7:G:H5'	2.49	0.42
23:AW:44:SER:HA	23:AW:57:ASN:HB3	2.01	0.42
23:AW:52:GLU:HG2	23:AW:52:GLU:H	1.48	0.42
24:AX:56:U:H2'	24:AX:58:A:OP2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AY:165:GLN:HA	25:AY:178:ILE:O	2.19	0.42
25:AY:191:ASP:O	25:AY:266:ASN:ND2	2.52	0.42
25:AY:286:ILE:HA	25:AY:287:PRO:HD3	1.74	0.42
25:AY:513:LYS:N	25:AY:566:THR:O	2.51	0.42
51:B0:48:TYR:O	51:B0:49:ARG:HB2	2.20	0.42
26:BA:130:C:H2'	26:BA:131:A:O5'	2.19	0.42
26:BA:1444:G:C4	26:BA:1445:G:C8	3.08	0.42
26:BA:1588:G:C4	26:BA:1589:U:C5	3.08	0.42
26:BA:1590:A:H2'	26:BA:1591:A:C8	2.55	0.42
26:BA:1925:C:H5''	26:BA:1926:U:C5	2.55	0.42
26:BA:2126:A:C8	26:BA:2162:G:C2	3.07	0.42
26:BA:2164:C:H3'	26:BA:2165:C:C5	2.55	0.42
26:BA:2174:C:C2	26:BA:2175:C:C5	3.08	0.42
26:BA:2309:A:C6	26:BA:2310:C:C4	3.08	0.42
26:BA:2555:U:C3'	26:BA:2556:C:H5'	2.49	0.42
26:BA:2555:U:C2'	26:BA:2556:C:H5'	2.50	0.42
26:BA:273:G:C2	26:BA:365:U:O2	2.73	0.42
26:BA:306:U:C4	26:BA:307:G:C5	3.07	0.42
26:BA:457:A:O4'	26:BA:459:U:C6	2.72	0.42
26:BA:876:C:N3	26:BA:902:C:N3	2.67	0.42
26:BA:911:A:H8	26:BA:911:A:OP2	2.02	0.42
56:BB:59:A:C2'	56:BB:60:C:O5'	2.67	0.42
27:BC:15:VAL:HG13	27:BC:16:VAL:N	2.34	0.42
26:BA:2599:G:N7	27:BC:235:GLU:HB2	2.35	0.42
28:BD:121:THR:HG22	28:BD:125:TRP:HD1	1.85	0.42
29:BE:109:LEU:O	29:BE:111:GLU:N	2.52	0.42
29:BE:143:LEU:HB3	29:BE:146:VAL:HG11	2.01	0.42
29:BE:24:ASN:OD1	29:BE:27:LEU:CB	2.68	0.42
29:BE:48:THR:O	29:BE:50:ALA:N	2.53	0.42
30:BF:146:ASP:HB2	30:BF:149:ARG:NH2	2.34	0.42
31:BG:140:ILE:C	31:BG:140:ILE:HD12	2.40	0.42
31:BG:148:ARG:NH1	31:BG:148:ARG:HG2	2.34	0.42
26:BA:2751:G:C5	31:BG:2:ARG:HD3	2.54	0.42
26:BA:1138:G:N3	34:BJ:108:MET:HE2	2.35	0.42
26:BA:587:C:C2	36:BL:33:ARG:NH2	2.87	0.42
40:BP:33:GLU:HB2	40:BP:36:LYS:HB2	2.01	0.42
41:BQ:96:ASP:OD1	41:BQ:100:PHE:CD1	2.73	0.42
42:BR:29:THR:CG2	42:BR:29:THR:O	2.67	0.42
42:BR:39:LEU:CD1	42:BR:39:LEU:N	2.83	0.42
44:BT:3:ARG:HD2	44:BT:3:ARG:HA	1.83	0.42
49:BY:37:LEU:C	49:BY:37:LEU:CD1	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1080:A:C3'	1:AA:1081:A:O4'	2.67	0.42
1:AA:1114:C:O2	1:AA:1115:U:C6	2.72	0.42
1:AA:113:G:C1'	1:AA:354:G:H5'	2.50	0.42
1:AA:1164:G:C2	1:AA:1165:U:C6	3.08	0.42
1:AA:1214:C:H4'	1:AA:1215:G:OP2	2.19	0.42
1:AA:1215:G:C2	1:AA:1216:A:N9	2.88	0.42
1:AA:191:G:H2'	1:AA:192:A:H5'	2.02	0.42
1:AA:246:A:N3	1:AA:279:A:N6	2.67	0.42
1:AA:298:A:N6	1:AA:299:G:C2	2.88	0.42
1:AA:456:A:C2	1:AA:477:C:O2	2.73	0.42
1:AA:446:G:N2	1:AA:489:C:C2	2.88	0.42
1:AA:503:C:OP2	12:AL:112:ALA:HB2	2.20	0.42
1:AA:57:G:H2'	1:AA:58:C:C6	2.55	0.42
1:AA:711:G:C2'	1:AA:712:A:H5'	2.49	0.42
1:AA:805:C:H2'	1:AA:806:C:H5'	2.01	0.42
1:AA:921:U:C6	1:AA:921:U:C3'	3.02	0.42
1:AA:942:G:C6	1:AA:1342:C:N4	2.88	0.42
1:AA:957:U:C2	1:AA:959:A:OP2	2.73	0.42
2:AB:159:ALA:O	2:AB:160:LEU:HB2	2.18	0.42
3:AC:112:ALA:O	3:AC:113:LYS:C	2.57	0.42
3:AC:141:MET:HE1	3:AC:170:GLY:HA3	2.01	0.42
9:AI:21:LYS:HE3	9:AI:21:LYS:HB3	1.84	0.42
9:AI:6:TYR:CE2	9:AI:17:ARG:HB2	2.55	0.42
10:AJ:16:ARG:O	10:AJ:17:LEU:CB	2.67	0.42
11:AK:96:ILE:O	11:AK:99:LEU:N	2.53	0.42
14:AN:88:ALA:CA	14:AN:93:ILE:HD12	2.50	0.42
15:AO:23:SER:O	15:AO:27:GLN:HG3	2.19	0.42
16:AP:4:ILE:HA	16:AP:20:VAL:O	2.20	0.42
16:AP:67:ILE:HG13	16:AP:71:VAL:HG11	2.01	0.42
6:AF:88:MET:HE3	18:AR:63:TYR:CD2	2.55	0.42
19:AS:12:LEU:C	19:AS:14:LEU:N	2.72	0.42
19:AS:30:LEU:HD12	19:AS:30:LEU:HA	1.86	0.42
21:AU:11:PHE:C	21:AU:12:ASP:OD2	2.58	0.42
21:AU:8:ASN:N	21:AU:8:ASN:OD1	2.53	0.42
22:AV:117:G:N3	22:AV:118:C:C5	2.88	0.42
22:AV:144:U:P	22:AV:145:C:OP2	2.78	0.42
22:AV:162:A:N3	22:AV:163:G:C8	2.88	0.42
22:AV:213:G:H2'	22:AV:214:C:H6	1.79	0.42
22:AV:21:C:H2'	22:AV:22:G:C5'	2.49	0.42
22:AV:261:G:O2'	22:AV:262:U:P	2.77	0.42
22:AV:272:C:H1'	22:AV:291:A:H61	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:313:C:C2	22:AV:314:C:C5	3.07	0.42
22:AV:338:G:C4	22:AV:339:G:C8	3.08	0.42
22:AV:345:A:C4	22:AV:348:C:C5	3.08	0.42
24:AX:50:G:H21	24:AX:51:U:C1'	2.26	0.42
25:AY:20:HIS:CG	25:AY:117:GLN:HB3	2.55	0.42
25:AY:13:ARG:O	25:AY:79:ILE:HA	2.20	0.42
25:AY:206:LEU:O	25:AY:209:ALA:HB3	2.19	0.42
25:AY:21:ILE:HG23	25:AY:86:GLY:O	2.20	0.42
25:AY:354:ARG:O	25:AY:378:VAL:HG23	2.20	0.42
25:AY:553:GLY:H	25:AY:557:GLY:C	2.23	0.42
26:BA:114:U:H2'	26:BA:115:C:C6	2.55	0.42
26:BA:1267:U:C2'	26:BA:1267:U:O2	2.68	0.42
26:BA:1445:G:C5	26:BA:1446:C:C4	3.08	0.42
26:BA:1547:C:C4'	26:BA:1547:C:C6	3.02	0.42
26:BA:1754:A:C6	26:BA:1755:A:C6	3.08	0.42
26:BA:2120:G:H2'	26:BA:2121:G:H8	1.85	0.42
26:BA:2194:U:C2'	26:BA:2195:U:C5'	2.97	0.42
26:BA:2294:G:C5	26:BA:2295:C:C5	3.07	0.42
26:BA:2301:C:C2'	26:BA:2302:U:H5'	2.50	0.42
26:BA:2469:A:N6	26:BA:2481:G:H1'	2.34	0.42
26:BA:1956:U:H1'	26:BA:2552:U:OP1	2.20	0.42
26:BA:2668:G:H2'	26:BA:2669:G:O5'	2.19	0.42
26:BA:2734:A:H2'	26:BA:2735:G:O4'	2.18	0.42
26:BA:2863:C:O2	26:BA:2863:C:H2'	2.19	0.42
26:BA:545:U:P	26:BA:545:U:O2	2.77	0.42
26:BA:587:C:O2'	36:BL:19:LEU:CD1	2.68	0.42
26:BA:874:G:O2'	26:BA:875:G:H5'	2.19	0.42
27:BC:124:LYS:CB	27:BC:125:PRO:CD	2.98	0.42
29:BE:146:VAL:HA	29:BE:185:LYS:O	2.20	0.42
29:BE:196:VAL:O	29:BE:200:LEU:HD23	2.20	0.42
30:BF:6:TYR:CD2	30:BF:6:TYR:C	2.93	0.42
31:BG:102:ILE:HG22	31:BG:103:ASN:N	2.35	0.42
33:BI:33:ASN:HB3	33:BI:36:GLU:HB2	2.01	0.42
37:BM:62:LYS:O	37:BM:105:MET:HA	2.20	0.42
37:BM:7:THR:O	37:BM:8:LYS:C	2.57	0.42
39:BO:9:ARG:O	39:BO:10:ARG:C	2.58	0.42
45:BU:39:ASN:CB	45:BU:62:ALA:O	2.68	0.42
46:BV:40:ILE:CG2	46:BV:42:LEU:CD2	2.98	0.42
49:BY:53:VAL:O	49:BY:53:VAL:CG1	2.67	0.42
1:AA:1178:G:H3'	1:AA:1178:G:C8	2.55	0.42
1:AA:429:U:H4'	1:AA:430:A:OP1	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:476:U:O2	1:AA:476:U:H2'	2.20	0.42
1:AA:646:G:C5	1:AA:647:C:C5	3.08	0.42
1:AA:696:A:H2'	1:AA:697:U:C6	2.55	0.42
1:AA:806:C:O2	1:AA:806:C:H2'	2.20	0.42
1:AA:918:A:N7	1:AA:919:A:N7	2.68	0.42
1:AA:999:C:H2'	1:AA:1000:A:H8	1.84	0.42
2:AB:110:ILE:HG12	2:AB:150:ILE:HG12	2.00	0.42
2:AB:40:ILE:HG21	2:AB:201:GLY:N	2.34	0.42
2:AB:31:PHE:CD2	2:AB:31:PHE:O	2.73	0.42
2:AB:67:LEU:HA	2:AB:89:PHE:O	2.20	0.42
2:AB:94:ARG:HH12	2:AB:96:LEU:HA	1.84	0.42
2:AB:95:TRP:O	2:AB:97:GLY:N	2.52	0.42
3:AC:122:GLN:O	3:AC:125:ARG:HB2	2.20	0.42
3:AC:57:GLU:O	3:AC:63:ILE:HA	2.20	0.42
5:AE:37:VAL:HG23	5:AE:47:PHE:HB3	2.01	0.42
1:AA:673:A:H5''	6:AF:86:ARG:NH1	2.35	0.42
9:AI:30:ASN:C	9:AI:32:ARG:N	2.73	0.42
9:AI:41:GLU:O	9:AI:44:ARG:NH1	2.52	0.42
9:AI:48:ARG:NH2	9:AI:52:GLU:HA	2.35	0.42
11:AK:113:THR:HA	11:AK:114:PRO:HD3	1.86	0.42
12:AL:56:LEU:CB	12:AL:58:ASN:OD1	2.67	0.42
13:AM:10:ASP:O	13:AM:11:HIS:CB	2.68	0.42
14:AN:27:LYS:CA	14:AN:30:ILE:HB	2.50	0.42
17:AQ:76:ARG:HB2	17:AQ:76:ARG:HE	1.76	0.42
22:AV:113:A:N6	22:AV:133:A:N6	2.68	0.42
22:AV:127:C:H2'	22:AV:128:U:H5'	2.00	0.42
22:AV:13:G:C8	22:AV:13:G:OP2	2.72	0.42
22:AV:204:G:OP1	22:AV:234:A:N6	2.49	0.42
22:AV:257:U:N1	22:AV:259:G:N7	2.68	0.42
22:AV:323:A:H2'	22:AV:324:G:H8	0.72	0.42
23:AW:48:PHE:HA	23:AW:52:GLU:O	2.20	0.42
23:AW:81:LEU:HD23	23:AW:85:GLU:C	2.40	0.42
24:AX:7:G:H1	24:AX:67:C:N4	2.04	0.42
25:AY:208:GLN:O	25:AY:209:ALA:O	2.37	0.42
25:AY:290:LYS:HD3	25:AY:298:VAL:HG21	2.02	0.42
25:AY:415:PRO:HB2	25:AY:421:GLN:N	2.34	0.42
25:AY:447:GLY:O	25:AY:448:GLN:C	2.58	0.42
25:AY:484:ARG:HD3	25:AY:484:ARG:HA	1.60	0.42
25:AY:512:ILE:CD1	25:AY:589:ALA:HB1	2.45	0.42
25:AY:590:ILE:C	25:AY:592:GLU:N	2.73	0.42
25:AY:591:LYS:HA	25:AY:591:LYS:HD3	1.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AY:605:ILE:HD13	25:AY:677:GLN:HG2	2.00	0.42
55:B4:14:CYS:HA	55:B4:26:ILE:O	2.20	0.42
26:BA:1069:A:O2'	26:BA:1070:A:H2'	2.19	0.42
26:BA:124:G:H3'	53:B2:19:ARG:HH21	1.84	0.42
26:BA:124:G:H3'	53:B2:19:ARG:NH2	2.35	0.42
26:BA:1287:A:OP2	38:BN:103:ARG:HG3	2.20	0.42
26:BA:1559:U:H4'	26:BA:1560:G:OP2	2.19	0.42
26:BA:1585:C:O2'	26:BA:1586:A:C5'	2.62	0.42
26:BA:1586:A:H8	26:BA:1586:A:O5'	2.02	0.42
26:BA:2017:U:H4'	51:B0:4:GLN:O	2.19	0.42
26:BA:2031:A:C6	26:BA:2498:C:H1'	2.55	0.42
26:BA:677:A:O3'	26:BA:2071:A:H5''	2.19	0.42
26:BA:2732:G:C3'	26:BA:2733:A:C5'	2.98	0.42
26:BA:2852:G:C4	26:BA:2853:C:C5	3.07	0.42
26:BA:837:C:H6	26:BA:837:C:O5'	2.03	0.42
26:BA:84:A:H4'	26:BA:85:G:O5'	2.20	0.42
26:BA:889:C:C2'	26:BA:891:G:C1'	2.97	0.42
26:BA:901:C:C3'	26:BA:902:C:H5''	2.44	0.42
26:BA:936:A:H2'	26:BA:937:C:C6	2.55	0.42
27:BC:142:ASN:H	27:BC:154:ALA:HB3	1.85	0.42
27:BC:166:ARG:NH2	27:BC:166:ARG:HB2	2.35	0.42
29:BE:31:VAL:HG21	29:BE:104:ALA:HB2	2.01	0.42
30:BF:172:PHE:O	30:BF:173:ASP:HB3	2.20	0.42
32:BH:78:VAL:O	32:BH:145:ASN:N	2.53	0.42
35:BK:113:MET:O	35:BK:115:ILE:N	2.52	0.42
38:BN:28:LEU:O	38:BN:32:GLU:N	2.53	0.42
39:BO:67:ASN:HA	39:BO:102:ARG:HD3	2.02	0.42
40:BP:21:PRO:HA	40:BP:46:VAL:HG12	2.01	0.42
44:BT:28:ASN:OD1	44:BT:91:GLN:HB3	2.19	0.42
45:BU:71:ILE:CD1	45:BU:82:VAL:HG23	2.49	0.42
1:AA:1060:U:C5'	10:AJ:53:ILE:HG23	2.50	0.42
1:AA:1137:C:H1'	1:AA:1138:G:N2	2.35	0.42
1:AA:1148:U:H5''	9:AI:8:THR:HG23	2.02	0.42
1:AA:946:A:O2'	1:AA:1333:A:N3	2.47	0.42
1:AA:36:C:H2'	1:AA:37:U:O4'	2.19	0.42
1:AA:382:A:N1	1:AA:383:A:C6	2.88	0.42
1:AA:300:A:H2	1:AA:566:G:O6	2.03	0.42
1:AA:617:G:N1	1:AA:618:C:C4	2.88	0.42
1:AA:979:C:O5'	1:AA:980:C:OP2	2.37	0.42
2:AB:151:LYS:CG	2:AB:152:ASP:N	2.82	0.42
4:AD:159:GLU:OE1	4:AD:160:LEU:HD13	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:100:GLU:CG	5:AE:100:GLU:O	2.67	0.42
5:AE:45:VAL:CG1	5:AE:117:ALA:HB2	2.50	0.42
8:AH:11:THR:O	8:AH:14:ARG:HB3	2.20	0.42
8:AH:21:LYS:HE2	8:AH:21:LYS:CA	2.46	0.42
5:AE:154:ALA:CB	8:AH:65:PHE:CE2	3.03	0.42
9:AI:48:ARG:C	9:AI:50:PRO:HD2	2.40	0.42
10:AJ:42:LEU:HB3	10:AJ:71:LEU:CB	2.49	0.42
18:AR:24:ASP:O	18:AR:26:ALA:N	2.53	0.42
11:AK:92:ARG:NH2	21:AU:19:LYS:HG3	2.35	0.42
11:AK:126:ARG:N	21:AU:33:ARG:NH1	2.68	0.42
22:AV:157:C:C6	22:AV:157:C:O5'	2.69	0.42
22:AV:21:C:C3'	22:AV:21:C:C6	3.03	0.42
22:AV:339:G:H1	22:AV:349:C:N4	2.17	0.42
22:AV:6:U:C2	22:AV:355:G:N2	2.87	0.42
23:AW:32:LYS:HD3	23:AW:63:TYR:HE1	1.85	0.42
23:AW:39:VAL:HB	23:AW:59:TYR:O	2.20	0.42
23:AW:73:PRO:O	23:AW:77:ARG:NH2	2.53	0.42
24:AX:24:C:C4	24:AX:25:U:C5	3.08	0.42
25:AY:238:THR:HG22	25:AY:241:GLU:CB	2.49	0.42
25:AY:357:ARG:HG3	25:AY:357:ARG:NH2	2.34	0.42
25:AY:456:GLU:O	25:AY:457:LEU:C	2.58	0.42
25:AY:484:ARG:HD2	25:AY:559:PRO:HB2	2.02	0.42
25:AY:97:SER:O	25:AY:100:VAL:CG1	2.67	0.42
51:B0:53:VAL:O	51:B0:55:ALA:N	2.52	0.42
26:BA:2286:G:OP1	52:B1:29:LYS:HE3	2.20	0.42
26:BA:1178:C:H5'	26:BA:1179:G:OP1	2.20	0.42
26:BA:1392:A:C6	26:BA:1393:A:C6	3.07	0.42
26:BA:1485:U:C2	26:BA:1505:A:C2	3.08	0.42
26:BA:1415:U:C6	26:BA:1588:G:N1	2.88	0.42
26:BA:1726:C:C2	26:BA:1727:C:C6	3.08	0.42
26:BA:2141:G:N2	26:BA:2142:A:H1'	2.35	0.42
26:BA:2179:C:N3	26:BA:2180:U:C5	2.87	0.42
26:BA:2314:A:C4	26:BA:2315:G:C8	3.07	0.42
26:BA:2331:G:C5'	26:BA:2331:G:H8	2.32	0.42
26:BA:270:A:OP1	26:BA:271:G:H2'	2.20	0.42
26:BA:5:A:C2	26:BA:2899:A:C2	3.07	0.42
26:BA:340:A:H2'	26:BA:341:C:O4'	2.20	0.42
26:BA:668:A:H2'	26:BA:670:A:H62	1.84	0.42
26:BA:713:G:H8	26:BA:713:G:O5'	2.03	0.42
26:BA:866:A:N9	26:BA:914:G:N3	2.68	0.42
26:BA:93:G:C6	26:BA:94:A:C5	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BC:106:PRO:HD2	27:BC:109:LEU:HD22	2.02	0.42
26:BA:1824:G:O2'	27:BC:245:THR:HG22	2.20	0.42
28:BD:46:ARG:HB3	28:BD:84:LEU:HB2	2.01	0.42
30:BF:105:ILE:O	30:BF:108:PRO:HD2	2.20	0.42
38:BN:103:ARG:HB3	38:BN:106:ASP:OD1	2.20	0.42
38:BN:70:THR:O	38:BN:71:ARG:C	2.58	0.42
45:BU:6:ARG:HG3	45:BU:7:ASP:N	2.35	0.42
48:BX:76:LYS:HA	48:BX:76:LYS:HD2	1.75	0.42
49:BY:9:LYS:H	49:BY:12:GLU:HG3	1.84	0.42
44:BT:8:LEU:CD2	49:BY:22:LEU:HA	2.49	0.42
49:BY:22:LEU:HD12	49:BY:23:ARG:N	2.35	0.42
49:BY:28:LEU:HB3	49:BY:43:LEU:HD21	2.01	0.42
1:AA:1001:C:H6	1:AA:1001:C:H3'	1.85	0.41
1:AA:1325:C:C2'	1:AA:1326:U:H5'	2.50	0.41
1:AA:1253:G:O2'	1:AA:1356:G:H4'	2.20	0.41
1:AA:293:G:C4	1:AA:294:U:C6	3.08	0.41
1:AA:416:G:C2'	1:AA:417:G:H5'	2.49	0.41
1:AA:736:C:H2'	1:AA:736:C:O2	2.18	0.41
1:AA:826:C:O2	1:AA:826:C:H2'	2.20	0.41
1:AA:920:U:O2'	1:AA:921:U:H5'	2.19	0.41
1:AA:986:U:O2'	1:AA:987:G:H5'	2.20	0.41
2:AB:142:LYS:C	2:AB:144:GLU:N	2.74	0.41
2:AB:174:GLU:O	2:AB:177:ASN:HB3	2.19	0.41
2:AB:12:GLY:HA3	2:AB:207:ARG:HH22	1.85	0.41
2:AB:52:ALA:HB3	2:AB:212:TYR:OH	2.19	0.41
2:AB:30:ILE:HD11	2:AB:38:HIS:CG	2.55	0.41
2:AB:93:HIS:ND1	2:AB:145:ASN:CB	2.83	0.41
3:AC:125:ARG:O	3:AC:126:ARG:CB	2.66	0.41
3:AC:163:ARG:O	3:AC:164:THR:HG23	2.20	0.41
4:AD:141:VAL:O	4:AD:141:VAL:HG23	2.20	0.41
4:AD:8:LEU:HD22	4:AD:21:LYS:HB2	2.02	0.41
5:AE:113:VAL:O	5:AE:115:GLU:N	2.52	0.41
6:AF:24:ARG:HH11	6:AF:24:ARG:CG	2.32	0.41
8:AH:102:VAL:HG21	8:AH:126:CYS:SG	2.60	0.41
9:AI:16:ALA:HB2	9:AI:66:VAL:CG2	2.50	0.41
10:AJ:59:LYS:HD2	10:AJ:60:ASP:N	2.35	0.41
11:AK:13:LYS:HB3	11:AK:14:GLN:H	1.63	0.41
11:AK:41:LEU:CD2	11:AK:76:TYR:CE2	2.99	0.41
12:AL:27:PRO:O	12:AL:28:GLN:HB3	2.20	0.41
13:AM:2:ARG:C	13:AM:3:ILE:HD13	2.40	0.41
18:AR:40:PRO:HG2	18:AR:43:ILE:CG1	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:34:VAL:O	20:AT:35:TYR:C	2.56	0.41
20:AT:63:LYS:HD3	20:AT:63:LYS:HA	1.85	0.41
21:AU:33:ARG:NE	21:AU:34:ARG:HB2	2.34	0.41
22:AV:20:A:O2'	22:AV:21:C:OP1	2.36	0.41
23:AW:46:ALA:N	23:AW:100:LEU:O	2.44	0.41
25:AY:117:GLN:OE1	25:AY:117:GLN:O	2.38	0.41
25:AY:395:PRO:HB2	25:AY:397:VAL:HG13	2.01	0.41
25:AY:402:ILE:HG22	25:AY:402:ILE:O	2.20	0.41
25:AY:455:GLY:O	25:AY:456:GLU:C	2.59	0.41
25:AY:489:LYS:HG3	25:AY:597:GLY:HA2	2.03	0.41
55:B4:2:LYS:HZ2	55:B4:2:LYS:HB2	1.84	0.41
55:B4:3:VAL:HG12	55:B4:36:ARG:HB3	2.02	0.41
26:BA:1076:C:C2'	26:BA:1077:A:O4'	2.68	0.41
26:BA:1085:A:C4	26:BA:1086:A:N1	2.88	0.41
26:BA:1165:A:O2'	26:BA:1166:G:H5'	2.20	0.41
26:BA:1166:G:N2	26:BA:1184:U:H1'	2.35	0.41
26:BA:1209:U:O2'	26:BA:1237:A:N1	2.42	0.41
26:BA:1269:A:H2'	26:BA:1270:C:C6	2.55	0.41
26:BA:1372:U:H2'	26:BA:1373:A:H5'	1.98	0.41
26:BA:2055:C:C5'	26:BA:2056:G:H5''	2.49	0.41
26:BA:2312:U:OP2	26:BA:2312:U:C5	2.73	0.41
26:BA:2332:C:H5''	26:BA:2333:A:P	2.60	0.41
26:BA:2415:G:H2'	26:BA:2416:C:H6	1.85	0.41
26:BA:2839:G:C6	26:BA:2840:C:C4	3.07	0.41
26:BA:28:A:C2'	26:BA:29:U:H5'	2.50	0.41
26:BA:556:A:H2'	26:BA:557:C:O5'	2.19	0.41
26:BA:703:U:H2'	26:BA:704:G:H5'	2.02	0.41
26:BA:890:C:P	26:BA:891:G:C5'	3.02	0.41
27:BC:110:LYS:HE2	27:BC:113:ASP:CG	2.41	0.41
28:BD:38:LYS:O	28:BD:46:ARG:HA	2.19	0.41
29:BE:145:ASP:HB3	29:BE:184:ASP:CG	2.40	0.41
33:BI:96:LYS:CG	33:BI:138:VAL:HG22	2.40	0.41
33:BI:56:VAL:HG22	33:BI:57:VAL:N	2.35	0.41
33:BI:56:VAL:CA	33:BI:71:LYS:HE2	2.50	0.41
33:BI:95:ASP:CG	33:BI:97:VAL:H	2.23	0.41
37:BM:31:PHE:CZ	37:BM:110:GLU:CB	3.03	0.41
43:BS:31:GLN:O	43:BS:35:ILE:HG12	2.19	0.41
44:BT:12:ARG:O	49:BY:29:ARG:HD2	2.18	0.41
1:AA:112:G:H2'	1:AA:113:G:H5'	2.02	0.41
1:AA:1294:G:C4	1:AA:1295:U:C5	3.09	0.41
1:AA:1405:G:O4'	1:AA:1519:A:H4'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:242:G:H2'	1:AA:243:A:H5'	2.03	0.41
1:AA:243:A:N1	1:AA:246:A:C8	2.89	0.41
1:AA:642:A:C5	1:AA:643:C:C4	3.08	0.41
1:AA:73:C:C2	1:AA:74:A:C8	3.07	0.41
1:AA:77:A:OP2	1:AA:77:A:H8	2.02	0.41
1:AA:859:G:H2'	1:AA:860:A:O5'	2.21	0.41
1:AA:96:U:C2	1:AA:97:G:C8	3.08	0.41
2:AB:110:ILE:O	2:AB:113:LEU:N	2.53	0.41
2:AB:122:ASP:O	2:AB:123:GLY:C	2.59	0.41
2:AB:56:LEU:HD13	2:AB:57:ASN:H	1.85	0.41
3:AC:39:ARG:O	3:AC:41:TYR:N	2.53	0.41
4:AD:120:LYS:HA	4:AD:122:ILE:CD1	2.50	0.41
4:AD:29:THR:O	4:AD:30:LYS:C	2.58	0.41
4:AD:61:ARG:NH2	4:AD:67:LEU:HD13	2.34	0.41
6:AF:42:TRP:HD1	6:AF:42:TRP:N	2.15	0.41
7:AG:39:GLU:C	7:AG:41:ILE:N	2.72	0.41
8:AH:2:MET:O	8:AH:5:PRO:HD3	2.20	0.41
9:AI:119:LYS:O	9:AI:120:ALA:CB	2.68	0.41
9:AI:50:PRO:HB3	9:AI:83:THR:CG2	2.50	0.41
10:AJ:17:LEU:N	10:AJ:20:GLN:HG3	2.36	0.41
10:AJ:80:THR:HB	10:AJ:83:THR:H	1.85	0.41
11:AK:23:HIS:CD2	11:AK:23:HIS:O	2.73	0.41
11:AK:52:ARG:CZ	11:AK:56:LYS:HE2	2.50	0.41
11:AK:63:GLN:O	11:AK:64:VAL:C	2.58	0.41
13:AM:105:ALA:O	13:AM:106:ARG:C	2.59	0.41
18:AR:33:THR:HG22	18:AR:37:LYS:N	2.35	0.41
22:AV:117:G:C2	22:AV:118:C:C4	3.08	0.41
22:AV:150:G:H3'	22:AV:151:C:C5	2.54	0.41
22:AV:161:U:H2'	22:AV:162:A:H8	1.85	0.41
22:AV:194:G:C2'	22:AV:195:A:C5'	2.91	0.41
22:AV:198:U:C4	22:AV:199:C:N4	2.88	0.41
22:AV:233:A:O2'	22:AV:234:A:OP1	2.31	0.41
22:AV:300:U:N3	22:AV:301:A:C5	2.88	0.41
22:AV:335:C:N1	22:AV:335:C:OP1	2.52	0.41
23:AW:107:PHE:HA	23:AW:112:TYR:O	2.20	0.41
23:AW:79:LEU:HD21	23:AW:115:VAL:HG11	2.01	0.41
23:AW:96:LYS:HB2	23:AW:96:LYS:HE3	1.79	0.41
24:AX:30:G:C2	24:AX:43:G:C2	3.07	0.41
24:AX:50:G:N2	24:AX:51:U:N1	2.68	0.41
24:AX:53:G:C2	24:AX:64:G:C5	3.09	0.41
25:AY:117:GLN:O	25:AY:118:SER:C	2.58	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AY:120:THR:O	25:AY:124:GLN:CD	2.59	0.41
25:AY:276:VAL:HG12	25:AY:277:VAL:N	2.34	0.41
25:AY:348:ARG:HG2	25:AY:382:GLU:HG3	2.01	0.41
25:AY:420:ASP:C	25:AY:422:GLU:N	2.72	0.41
25:AY:9:LEU:HA	25:AY:12:LEU:HD23	2.02	0.41
51:B0:5:ASN:O	51:B0:7:PRO:HD3	2.20	0.41
53:B2:21:ARG:O	53:B2:27:GLY:HA3	2.20	0.41
26:BA:1055:G:H3'	26:BA:1056:G:H8	1.85	0.41
26:BA:1078:U:H1'	26:BA:1088:A:H2	1.83	0.41
26:BA:1079:C:C5	26:BA:1088:A:N1	2.88	0.41
26:BA:108:G:O2'	26:BA:109:C:H5'	2.20	0.41
26:BA:1575:C:H2'	26:BA:1576:U:O5'	2.20	0.41
26:BA:163:C:H2'	26:BA:164:C:O4'	2.19	0.41
26:BA:1712:U:H2'	26:BA:1713:A:C8	2.55	0.41
26:BA:2192:U:H2'	26:BA:2193:G:C8	2.54	0.41
26:BA:2199:A:C2'	26:BA:2200:C:H5'	2.50	0.41
26:BA:162:U:O4	26:BA:2218:G:H4'	2.20	0.41
26:BA:2760:C:C2'	26:BA:2760:C:O2	2.60	0.41
26:BA:2784:U:H2'	26:BA:2785:C:H6	1.83	0.41
26:BA:679:C:O2'	26:BA:680:C:H5'	2.20	0.41
26:BA:747:U:C5	26:BA:2613:U:C5	3.08	0.41
26:BA:760:G:H2'	26:BA:761:A:O4'	2.20	0.41
26:BA:782:A:C2	27:BC:224:MET:SD	3.13	0.41
26:BA:799:G:N1	26:BA:800:A:N6	2.68	0.41
26:BA:867:C:H2'	26:BA:868:U:O4'	2.20	0.41
26:BA:888:C:OP2	26:BA:888:C:H3'	2.20	0.41
26:BA:927:A:H2'	26:BA:928:A:O5'	2.20	0.41
28:BD:62:LYS:N	28:BD:63:PRO:HD2	2.34	0.41
30:BF:175:PRO:O	30:BF:176:PHE:HB2	2.20	0.41
30:BF:68:LYS:O	30:BF:69:ALA:C	2.58	0.41
31:BG:86:LEU:H	31:BG:86:LEU:HD12	1.85	0.41
33:BI:41:PHE:CD2	33:BI:42:ASN:OD1	2.72	0.41
33:BI:66:PHE:CD1	33:BI:68:PHE:CE1	3.08	0.41
33:BI:73:PRO:HA	33:BI:74:PRO:HD2	1.89	0.41
35:BK:95:ILE:O	35:BK:95:ILE:HG22	2.19	0.41
36:BL:101:ILE:O	36:BL:102:GLY:O	2.38	0.41
45:BU:48:VAL:O	45:BU:48:VAL:HG13	2.20	0.41
49:BY:44:LYS:O	49:BY:47:ARG:HB3	2.20	0.41
1:AA:1063:C:H3'	1:AA:1064:G:H2'	2.02	0.41
1:AA:1130:A:C1'	1:AA:1146:A:C2	3.02	0.41
1:AA:1165:U:H2'	1:AA:1166:G:H5'	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1332:A:C2'	1:AA:1333:A:O5'	2.67	0.41
1:AA:1349:A:C2	1:AA:1350:A:H1'	2.56	0.41
1:AA:1451:U:H3'	1:AA:1452:C:H6	1.85	0.41
1:AA:289:G:H5''	1:AA:289:G:H8	1.85	0.41
1:AA:451:A:C2	1:AA:480:U:N3	2.88	0.41
1:AA:508:U:H1'	1:AA:509:A:N7	2.35	0.41
1:AA:53:A:N1	1:AA:359:G:C6	2.89	0.41
1:AA:585:G:C6	1:AA:586:C:C4	3.08	0.41
1:AA:623:C:N3	1:AA:624:C:C5	2.88	0.41
2:AB:115:ASP:O	2:AB:116:LEU:CB	2.69	0.41
2:AB:130:LYS:HD3	2:AB:130:LYS:HA	1.86	0.41
2:AB:140:LEU:O	2:AB:144:GLU:HB2	2.20	0.41
3:AC:135:ARG:O	3:AC:138:GLN:N	2.53	0.41
3:AC:156:LEU:C	3:AC:158:GLY:H	2.24	0.41
4:AD:150:LYS:CB	4:AD:177:MET:HE3	2.50	0.41
4:AD:64:TYR:HE2	4:AD:99:ASN:OD1	2.02	0.41
7:AG:101:ARG:O	7:AG:102:TRP:C	2.58	0.41
7:AG:91:ARG:HB2	7:AG:94:ARG:HG2	2.02	0.41
8:AH:20:ASN:HA	8:AH:64:TYR:OH	2.20	0.41
9:AI:20:ILE:CG2	9:AI:60:LEU:HD12	2.49	0.41
10:AJ:71:LEU:O	10:AJ:72:ARG:NE	2.53	0.41
13:AM:19:THR:HB	13:AM:25:GLY:HA2	2.02	0.41
14:AN:17:ASP:C	14:AN:19:TYR:N	2.71	0.41
15:AO:34:GLN:CB	15:AO:58:MET:CE	2.98	0.41
17:AQ:47:ASP:O	17:AQ:48:GLU:C	2.56	0.41
21:AU:7:GLU:HB3	21:AU:11:PHE:CZ	2.47	0.41
22:AV:187:C:N3	22:AV:188:C:H5	2.17	0.41
22:AV:209:C:O5'	22:AV:209:C:H6	2.03	0.41
22:AV:28:U:O2'	22:AV:29:G:C8	2.70	0.41
22:AV:305:A:HO2'	22:AV:306:U:H5'	1.82	0.41
22:AV:311:U:H2'	22:AV:312:A:H8	1.85	0.41
25:AY:111:SER:OG	25:AY:141:LYS:HB3	2.20	0.41
25:AY:617:MET:HE1	26:BA:1095:A:H1'	1.98	0.41
52:B1:9:LYS:C	52:B1:10:LEU:HD23	2.41	0.41
54:B3:1:PRO:O	54:B3:2:LYS:C	2.59	0.41
54:B3:6:VAL:HG21	54:B3:60:CYS:SG	2.60	0.41
26:BA:1101:U:O2	26:BA:1101:U:H2'	2.20	0.41
26:BA:123:G:H4'	26:BA:1376:C:O5'	2.20	0.41
26:BA:443:A:C2	26:BA:1245:G:N3	2.88	0.41
26:BA:1355:G:H2'	26:BA:1356:G:O5'	2.20	0.41
26:BA:1584:U:C2'	26:BA:1584:U:O2	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:1827:U:C2'	26:BA:1828:G:O5'	2.68	0.41
26:BA:1875:G:O2'	26:BA:1876:A:O5'	2.36	0.41
26:BA:2072:C:H5''	26:BA:2072:C:H6	1.86	0.41
26:BA:2243:U:O2'	26:BA:2244:U:H5'	2.20	0.41
26:BA:2560:A:H2'	26:BA:2561:U:O4'	2.21	0.41
26:BA:2881:U:O2'	26:BA:2882:A:C5'	2.66	0.41
26:BA:2886:A:C5	26:BA:2887:A:N7	2.88	0.41
26:BA:382:A:H2'	26:BA:383:C:O5'	2.21	0.41
26:BA:416:U:C4	26:BA:417:C:C4	3.08	0.41
26:BA:487:C:H6	26:BA:487:C:O5'	2.03	0.41
26:BA:70:G:H4'	26:BA:71:A:OP1	2.21	0.41
26:BA:864:G:O5'	26:BA:864:G:H8	2.03	0.41
26:BA:937:C:O5'	26:BA:937:C:H6	2.03	0.41
26:BA:1792:G:OP1	27:BC:204:LEU:HB2	2.20	0.41
29:BE:148:ILE:HB	29:BE:169:VAL:HG22	2.02	0.41
26:BA:1255:U:C5	29:BE:68:ALA:HA	2.55	0.41
29:BE:75:SER:O	29:BE:81:GLY:HA3	2.20	0.41
31:BG:10:VAL:O	31:BG:10:VAL:CG2	2.68	0.41
31:BG:146:ASP:O	31:BG:149:ALA:HB3	2.19	0.41
31:BG:11:PRO:O	31:BG:14:VAL:HG23	2.21	0.41
31:BG:59:ASP:O	31:BG:61:TRP:N	2.53	0.41
31:BG:86:LEU:HD12	31:BG:86:LEU:N	2.36	0.41
33:BI:102:ARG:HE	33:BI:103:ALA:H	1.68	0.41
35:BK:77:ILE:CG2	35:BK:78:ARG:N	2.83	0.41
39:BO:106:LEU:O	39:BO:106:LEU:HD23	2.20	0.41
39:BO:88:LYS:O	39:BO:89:ASP:CB	2.67	0.41
40:BP:90:ALA:HB2	40:BP:112:ARG:HA	2.02	0.41
40:BP:52:ARG:CG	40:BP:52:ARG:NH1	2.80	0.41
41:BQ:63:ARG:O	41:BQ:64:ILE:C	2.58	0.41
45:BU:35:VAL:HG12	45:BU:35:VAL:O	2.20	0.41
45:BU:80:ASP:C	45:BU:80:ASP:OD1	2.59	0.41
47:BW:52:ASP:O	47:BW:53:HIS:HB2	2.20	0.41
1:AA:104:G:C2	1:AA:105:G:C5	3.09	0.41
1:AA:1062:U:H5''	1:AA:1063:C:OP1	2.20	0.41
1:AA:116:A:C8	1:AA:116:A:OP2	2.73	0.41
1:AA:1350:A:OP2	9:AI:119:LYS:NZ	2.50	0.41
1:AA:190:A:H3'	1:AA:190:A:H8	1.85	0.41
1:AA:212:G:H2'	1:AA:213:G:H8	1.85	0.41
1:AA:267:C:OP1	17:AQ:68:LYS:HB2	2.20	0.41
1:AA:282:A:H5''	1:AA:283:U:OP2	2.20	0.41
1:AA:597:G:N7	1:AA:598:U:C5	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:64:G:C8	1:AA:99:C:C4	3.08	0.41
1:AA:749:A:C6	1:AA:750:C:C4	3.09	0.41
1:AA:87:C:H2'	1:AA:88:U:C4'	2.50	0.41
1:AA:978:A:C6	1:AA:1318:A:C6	3.08	0.41
2:AB:106:VAL:O	2:AB:110:ILE:HD13	2.19	0.41
4:AD:115:GLN:HE21	4:AD:115:GLN:CA	2.33	0.41
4:AD:121:ALA:O	4:AD:122:ILE:HG23	2.20	0.41
5:AE:66:ALA:O	5:AE:67:ARG:C	2.58	0.41
6:AF:45:ARG:HB3	6:AF:59:TYR:CD1	2.56	0.41
7:AG:28:ILE:HD12	7:AG:100:MET:HE2	2.01	0.41
9:AI:20:ILE:CD1	9:AI:85:ALA:CB	2.99	0.41
9:AI:89:TYR:HB3	9:AI:93:LEU:HD21	2.02	0.41
10:AJ:19:ASP:HA	10:AJ:22:THR:HB	2.03	0.41
12:AL:81:ILE:HA	12:AL:97:VAL:HG23	2.02	0.41
13:AM:65:GLU:OE1	13:AM:65:GLU:HA	2.19	0.41
14:AN:64:CYS:HB2	14:AN:80:SER:H	1.85	0.41
15:AO:24:THR:O	15:AO:25:GLU:C	2.58	0.41
16:AP:79:ASN:O	16:AP:80:LYS:HE3	2.21	0.41
19:AS:44:ILE:HG23	19:AS:62:THR:HA	2.02	0.41
22:AV:12:U:C4'	22:AV:13:G:N7	2.83	0.41
22:AV:172:U:C5	22:AV:173:C:C5	3.05	0.41
22:AV:19:G:O3'	22:AV:20:A:N7	2.52	0.41
22:AV:235:C:O2	22:AV:236:U:C4	2.73	0.41
22:AV:47:G:O2'	22:AV:48:C:O4'	2.31	0.41
22:AV:9:U:C3'	23:AW:35:ARG:HH22	2.27	0.41
23:AW:62:PRO:CD	23:AW:73:PRO:HG3	2.50	0.41
24:AX:65:G:H2'	24:AX:66:C:C1'	2.51	0.41
25:AY:229:LEU:C	25:AY:231:TYR:N	2.73	0.41
25:AY:434:GLU:O	25:AY:435:ASP:HB2	2.20	0.41
25:AY:484:ARG:CD	25:AY:559:PRO:HB2	2.50	0.41
25:AY:546:ILE:O	25:AY:550:MET:HG3	2.20	0.41
25:AY:636:PRO:CD	33:BI:23:VAL:HA	2.48	0.41
54:B3:14:LYS:HD2	54:B3:22:LYS:HE2	2.02	0.41
54:B3:56:LEU:O	54:B3:59:ALA:HB3	2.21	0.41
26:BA:1058:U:H1'	26:BA:1081:U:C2	2.55	0.41
26:BA:1060:U:H5'	26:BA:1062:G:C4'	2.50	0.41
26:BA:1066:U:H2'	26:BA:1066:U:O2	2.19	0.41
26:BA:1091:G:O2'	26:BA:1092:C:C5	2.73	0.41
26:BA:109:C:O5'	26:BA:109:C:H6	2.03	0.41
26:BA:1153:C:OP1	41:BQ:91:ARG:NH1	2.49	0.41
26:BA:1748:C:C4	26:BA:1749:A:N7	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:1880:U:H2'	26:BA:1881:C:H6	1.86	0.41
26:BA:2116:G:C5'	26:BA:2117:A:OP2	2.68	0.41
26:BA:2142:A:H2'	26:BA:2143:C:H6	1.79	0.41
26:BA:2458:G:N3	26:BA:2490:G:N2	2.69	0.41
26:BA:2654:A:O4'	26:BA:2656:U:H1'	2.20	0.41
26:BA:412:A:O5'	26:BA:412:A:H8	2.04	0.41
26:BA:712:G:O6	26:BA:719:C:N3	2.53	0.41
26:BA:905:A:N1	26:BA:906:U:C4	2.89	0.41
26:BA:912:C:C2'	26:BA:913:U:H5'	2.49	0.41
56:BB:85:G:C2'	56:BB:86:G:O5'	2.68	0.41
27:BC:163:ILE:HA	27:BC:173:LEU:HD12	2.01	0.41
27:BC:211:ARG:HH21	27:BC:211:ARG:CG	2.33	0.41
30:BF:111:ARG:HG2	30:BF:112:ASP:HB2	2.01	0.41
30:BF:88:VAL:CG1	30:BF:89:THR:N	2.83	0.41
31:BG:8:VAL:HG13	31:BG:8:VAL:O	2.19	0.41
33:BI:57:VAL:HB	33:BI:68:PHE:CA	2.50	0.41
34:BJ:61:LYS:O	34:BJ:62:VAL:C	2.58	0.41
39:BO:19:GLN:C	39:BO:21:LEU:N	2.73	0.41
39:BO:32:PRO:HB3	56:BB:51:G:O6	2.19	0.41
40:BP:6:GLN:HG2	40:BP:6:GLN:O	2.20	0.41
34:BJ:46:PRO:HD3	41:BQ:59:LEU:HD13	2.03	0.41
45:BU:42:LYS:NZ	45:BU:42:LYS:HB2	2.35	0.41
47:BW:52:ASP:N	47:BW:52:ASP:OD1	2.52	0.41
1:AA:1160:G:C6	1:AA:1181:G:O6	2.74	0.41
1:AA:1210:C:O4'	1:AA:1214:C:H5	2.00	0.41
1:AA:1505:G:H4'	1:AA:1506:U:O5'	2.21	0.41
1:AA:45:G:O2'	1:AA:46:G:H5'	2.21	0.41
1:AA:66:A:C2	1:AA:67:C:N1	2.89	0.41
1:AA:748:G:H2'	1:AA:749:A:C8	2.56	0.41
1:AA:917:G:C5	1:AA:918:A:C6	3.03	0.41
3:AC:51:VAL:CG2	3:AC:67:ILE:HG22	2.51	0.41
7:AG:28:ILE:HD12	7:AG:100:MET:CE	2.50	0.41
7:AG:75:LYS:HB3	7:AG:88:VAL:HG11	2.01	0.41
8:AH:101:ALA:O	8:AH:102:VAL:C	2.59	0.41
9:AI:18:VAL:HG22	9:AI:64:ILE:CG2	2.49	0.41
10:AJ:33:GLY:O	10:AJ:34:ALA:CB	2.68	0.41
10:AJ:41:PRO:O	10:AJ:42:LEU:CB	2.68	0.41
11:AK:106:ILE:C	11:AK:106:ILE:HD13	2.41	0.41
11:AK:52:ARG:H	11:AK:55:ARG:HG3	1.86	0.41
11:AK:52:ARG:O	11:AK:55:ARG:CB	2.69	0.41
13:AM:51:GLN:O	13:AM:54:THR:HG23	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AM:53:ASP:O	13:AM:56:ARG:CB	2.68	0.41
14:AN:23:ARG:O	14:AN:26:LEU:HB2	2.21	0.41
14:AN:64:CYS:HA	14:AN:79:LEU:HA	2.03	0.41
17:AQ:80:LYS:CD	17:AQ:80:LYS:N	2.82	0.41
18:AR:24:ASP:C	18:AR:26:ALA:N	2.72	0.41
18:AR:22:TYR:HB2	18:AR:57:ALA:O	2.20	0.41
22:AV:132:U:O2	22:AV:133:A:N7	2.54	0.41
22:AV:173:C:C2	22:AV:174:A:N7	2.89	0.41
22:AV:182:U:O2	22:AV:182:U:O4'	2.38	0.41
22:AV:245:C:H5'	22:AV:246:U:OP2	2.18	0.41
22:AV:310:G:C1'	22:AV:311:U:C5	3.03	0.41
22:AV:53:G:H1	22:AV:63:C:H42	1.68	0.41
23:AW:72:ASP:CB	23:AW:75:ARG:NE	2.83	0.41
25:AY:145:ASP:HB3	25:AY:148:LEU:HB2	2.03	0.41
25:AY:145:ASP:OD2	25:AY:148:LEU:HB2	2.21	0.41
25:AY:168:ILE:HG23	25:AY:205:TYR:CE2	2.55	0.41
25:AY:209:ALA:O	25:AY:211:GLU:N	2.54	0.41
25:AY:486:THR:CG2	25:AY:600:VAL:HG13	2.50	0.41
26:BA:242:G:P	54:B3:2:LYS:HE2	2.60	0.41
26:BA:1139:G:O3'	34:BJ:26:GLY:HA3	2.20	0.41
26:BA:1178:C:O3'	26:BA:1179:G:H8	2.02	0.41
26:BA:443:A:H2	26:BA:1245:G:N3	2.19	0.41
26:BA:13:A:N3	26:BA:15:G:C6	2.88	0.41
26:BA:1414:C:C2	26:BA:1415:U:C5	3.08	0.41
26:BA:1628:G:H2'	26:BA:1629:U:O5'	2.20	0.41
26:BA:1853:A:N6	26:BA:1889:A:C5	2.89	0.41
26:BA:2281:A:C2'	26:BA:2282:G:H5'	2.50	0.41
26:BA:2678:C:H2'	26:BA:2679:A:O4'	2.21	0.41
26:BA:2758:A:H2'	26:BA:2759:G:H5'	2.02	0.41
26:BA:359:G:C2'	26:BA:360:U:H5'	2.50	0.41
26:BA:362:A:C2	26:BA:363:G:C4	3.08	0.41
26:BA:417:C:C2	26:BA:418:C:C6	3.09	0.41
26:BA:434:U:H1'	26:BA:435:C:H5	1.85	0.41
26:BA:488:G:N2	26:BA:491:G:H5''	2.36	0.41
26:BA:623:C:H2'	26:BA:624:C:H6	1.84	0.41
26:BA:842:U:O2'	26:BA:843:G:H5'	2.21	0.41
26:BA:942:G:H8	26:BA:942:G:O5'	2.04	0.41
26:BA:1818:U:H2'	27:BC:155:ARG:CD	2.51	0.41
29:BE:12:LEU:HD23	29:BE:13:THR:O	2.21	0.41
29:BE:143:LEU:HB3	29:BE:146:VAL:CG1	2.50	0.41
30:BF:108:PRO:C	30:BF:110:ILE:H	2.24	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BF:48:LEU:O	30:BF:51:ASN:CB	2.69	0.41
31:BG:156:TYR:CE2	31:BG:171:LYS:HG3	2.55	0.41
32:BH:119:ASN:HA	32:BH:120:GLY:HA3	1.88	0.41
33:BI:18:ASN:H	33:BI:19:PRO:CD	2.33	0.41
33:BI:54:ILE:HG12	33:BI:73:PRO:HB3	2.03	0.41
33:BI:80:LYS:HE3	33:BI:80:LYS:HB2	1.92	0.41
33:BI:85:ILE:HD12	33:BI:85:ILE:N	2.35	0.41
26:BA:1063:G:N2	33:BI:89:SER:HG	2.18	0.41
37:BM:29:GLY:CA	37:BM:106:ASP:HB2	2.50	0.41
38:BN:58:ASP:C	38:BN:58:ASP:OD2	2.58	0.41
39:BO:94:ARG:O	39:BO:95:SER:C	2.59	0.41
40:BP:95:LYS:HB3	40:BP:97:TYR:CE1	2.56	0.41
43:BS:18:ARG:O	43:BS:19:LEU:C	2.58	0.41
45:BU:31:GLY:O	45:BU:66:VAL:HG12	2.20	0.41
46:BV:93:ARG:O	46:BV:94:ALA:CB	2.69	0.41
48:BX:37:PHE:O	48:BX:45:PHE:HA	2.21	0.41
1:AA:1081:A:H2'	1:AA:1082:A:H5'	2.01	0.41
1:AA:1107:C:OP1	3:AC:171:ARG:CZ	2.67	0.41
1:AA:1131:G:H22	1:AA:1144:G:H4'	1.85	0.41
1:AA:1186:G:C2'	1:AA:1187:G:O5'	2.69	0.41
1:AA:960:U:C6	1:AA:1225:A:C8	3.08	0.41
1:AA:1233:G:H2'	1:AA:1234:C:H6	1.85	0.41
1:AA:1277:C:C2'	1:AA:1279:G:H8	2.33	0.41
1:AA:1312:G:C2	1:AA:1326:U:N3	2.89	0.41
1:AA:1317:C:C2'	1:AA:1318:A:O5'	2.68	0.41
1:AA:923:A:N3	1:AA:1399:C:OP2	2.53	0.41
1:AA:257:G:H2'	1:AA:258:G:H8	1.84	0.41
1:AA:338:A:N6	1:AA:339:C:C4	2.89	0.41
1:AA:375:U:OP1	16:AP:70:ARG:NH1	2.53	0.41
1:AA:410:G:C5'	1:AA:411:A:P	3.09	0.41
1:AA:451:A:N6	1:AA:481:G:C5'	2.83	0.41
1:AA:549:C:H6	1:AA:549:C:O5'	2.04	0.41
1:AA:962:C:H2'	1:AA:963:G:O4'	2.21	0.41
2:AB:218:ALA:HB1	2:AB:221:ARG:HH21	1.85	0.41
2:AB:68:PHE:CE2	2:AB:88:GLN:CB	3.03	0.41
3:AC:134:LYS:O	3:AC:135:ARG:C	2.57	0.41
3:AC:141:MET:HE1	3:AC:147:GLY:CA	2.46	0.41
3:AC:16:PRO:CG	3:AC:53:ARG:NH2	2.83	0.41
3:AC:199:VAL:HG22	3:AC:199:VAL:O	2.21	0.41
3:AC:23:ALA:CB	3:AC:28:PHE:HA	2.51	0.41
3:AC:51:VAL:CG2	3:AC:67:ILE:CG2	2.98	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:130:ASN:CG	4:AD:130:ASN:O	2.59	0.41
4:AD:18:LEU:HD12	4:AD:20:LEU:HD11	2.02	0.41
4:AD:42:ALA:O	4:AD:43:ARG:C	2.59	0.41
5:AE:122:VAL:HG23	5:AE:122:VAL:O	2.20	0.41
6:AF:20:GLY:O	6:AF:21:MET:C	2.57	0.41
8:AH:19:ALA:O	8:AH:20:ASN:HB2	2.21	0.41
8:AH:46:GLU:CA	8:AH:63:LYS:CG	2.96	0.41
8:AH:88:LYS:HA	8:AH:91:LEU:HG	2.01	0.41
9:AI:113:LYS:CE	9:AI:117:LEU:O	2.68	0.41
9:AI:30:ASN:HB2	9:AI:37:TYR:CE1	2.56	0.41
9:AI:33:SER:HB3	9:AI:36:GLN:CB	2.50	0.41
9:AI:49:GLN:CB	9:AI:50:PRO:CD	2.98	0.41
9:AI:79:ARG:O	9:AI:83:THR:HG23	2.20	0.41
11:AK:52:ARG:N	11:AK:55:ARG:CB	2.83	0.41
12:AL:81:ILE:O	12:AL:81:ILE:HG13	2.20	0.41
1:AA:1328:C:H5'	13:AM:27:THR:HG21	2.03	0.41
15:AO:2:LEU:HA	15:AO:2:LEU:HD12	1.87	0.41
16:AP:1:MET:HE2	16:AP:1:MET:HB3	1.87	0.41
17:AQ:43:LEU:HD23	17:AQ:43:LEU:HA	1.83	0.41
20:AT:57:VAL:CG1	20:AT:71:ALA:CB	2.99	0.41
20:AT:68:LYS:HB2	20:AT:69:ASN:OD1	2.20	0.41
21:AU:36:PHE:HE2	21:AU:44:ARG:HH12	1.68	0.41
22:AV:193:A:C2	22:AV:194:G:C5	3.08	0.41
22:AV:20:A:H2'	22:AV:21:C:C5	2.50	0.41
22:AV:229:U:H2'	22:AV:229:U:O2	2.20	0.41
22:AV:7:G:C2	22:AV:336:G:C8	3.09	0.41
24:AX:50:G:O2'	24:AX:51:U:H5'	2.21	0.41
25:AY:211:GLU:O	25:AY:215:LYS:HG3	2.20	0.41
25:AY:216:LEU:C	25:AY:216:LEU:CD2	2.89	0.41
25:AY:219:VAL:C	25:AY:221:ALA:H	2.24	0.41
25:AY:238:THR:C	25:AY:240:GLU:N	2.74	0.41
25:AY:335:LEU:HD23	25:AY:355:LEU:HD11	2.03	0.41
25:AY:468:ARG:C	25:AY:470:PHE:N	2.73	0.41
54:B3:16:THR:CG2	54:B3:20:GLY:C	2.89	0.41
26:BA:1359:A:C8	26:BA:1373:A:C2	3.08	0.41
26:BA:1373:A:H2'	26:BA:1374:G:O5'	2.20	0.41
26:BA:1350:C:C2	26:BA:1382:G:C2	3.09	0.41
26:BA:1408:G:H2'	26:BA:1409:U:C5'	2.51	0.41
26:BA:1484:U:N3	26:BA:1485:U:C5	2.89	0.41
26:BA:699:A:H4'	26:BA:1634:A:N7	2.35	0.41
26:BA:1731:G:C2	26:BA:1733:G:H1'	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:1924:C:H2'	26:BA:1925:C:C5'	2.51	0.41
26:BA:1989:G:C2'	26:BA:1990:C:O5'	2.68	0.41
26:BA:2133:G:H1'	26:BA:2158:A:H61	1.86	0.41
26:BA:2312:U:C6	26:BA:2312:U:C3'	3.03	0.41
26:BA:2377:A:O2'	26:BA:2378:A:H5'	2.21	0.41
26:BA:2485:G:H5''	37:BM:45:GLN:NE2	2.35	0.41
26:BA:2634:A:H5''	26:BA:2634:A:H8	1.85	0.41
26:BA:2692:G:H4'	26:BA:2870:C:O2	2.21	0.41
26:BA:303:G:H2'	26:BA:304:U:C6	2.56	0.41
26:BA:409:G:H2'	26:BA:410:G:C8	2.54	0.41
26:BA:559:G:H2'	26:BA:560:C:H5'	2.01	0.41
26:BA:614:A:H8	26:BA:614:A:H5'	1.86	0.41
26:BA:631:A:H1'	36:BL:65:GLY:HA2	2.02	0.41
26:BA:846:U:C2'	26:BA:847:U:OP2	2.67	0.41
26:BA:913:U:H4'	26:BA:914:G:OP1	2.20	0.41
30:BF:3:LEU:HG	30:BF:100:GLU:HG3	2.01	0.41
22:AV:14:G:N2	30:BF:82:TYR:HE1	2.18	0.41
32:BH:111:ALA:C	32:BH:113:SER:H	2.22	0.41
32:BH:142:VAL:HG12	32:BH:143:ILE:H	1.83	0.41
33:BI:114:ALA:O	33:BI:115:ASP:CB	2.67	0.41
37:BM:59:ARG:O	37:BM:60:GLN:HG2	2.21	0.41
38:BN:103:ARG:CD	38:BN:110:MET:CE	2.93	0.41
38:BN:49:GLU:N	38:BN:50:PRO:HD2	2.36	0.41
43:BS:48:LYS:O	43:BS:48:LYS:CG	2.68	0.41
43:BS:59:GLU:HG3	43:BS:66:ILE:HD12	2.03	0.41
46:BV:1:MET:HG3	46:BV:2:PHE:N	2.35	0.41
47:BW:36:GLN:OE1	47:BW:40:LYS:N	2.54	0.41
48:BX:40:GLU:O	48:BX:41:SER:C	2.58	0.41
1:AA:1000:A:C2	1:AA:1041:G:N2	2.89	0.41
1:AA:1129:C:H5''	9:AI:17:ARG:CZ	2.51	0.41
1:AA:1134:G:C6	1:AA:1141:C:N4	2.89	0.41
1:AA:1329:A:C2'	1:AA:1330:U:H5'	2.51	0.41
1:AA:1372:U:OP1	9:AI:73:GLY:N	2.50	0.41
1:AA:201:G:H2'	1:AA:202:G:O4'	2.21	0.41
1:AA:22:G:C5	1:AA:23:C:C4	3.08	0.41
1:AA:237:G:H2'	1:AA:238:A:H8	1.86	0.41
1:AA:273:U:O4	1:AA:274:A:N6	2.53	0.41
1:AA:32:A:H2'	1:AA:33:A:C8	2.56	0.41
1:AA:392:C:H2'	1:AA:393:A:C8	2.55	0.41
1:AA:430:A:OP2	4:AD:7:LYS:CG	2.68	0.41
1:AA:585:G:C5	1:AA:586:C:C5	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:637:C:N3	1:AA:638:U:C5	2.88	0.41
1:AA:68:G:C6	1:AA:69:G:H1'	2.55	0.41
1:AA:71:A:H3'	1:AA:71:A:P	2.60	0.41
1:AA:91:U:C5	1:AA:92:U:C6	3.09	0.41
2:AB:129:THR:CG2	2:AB:131:LYS:HB3	2.50	0.41
2:AB:65:LYS:HB3	2:AB:155:GLY:O	2.21	0.41
2:AB:162:VAL:CG1	2:AB:182:VAL:HG13	2.44	0.41
2:AB:72:LYS:HE3	2:AB:204:ASP:HB2	2.02	0.41
3:AC:151:GLU:HG2	3:AC:198:LYS:HB2	2.02	0.41
3:AC:6:PRO:O	3:AC:9:ILE:HG22	2.21	0.41
5:AE:31:SER:C	5:AE:32:PHE:CD2	2.94	0.41
8:AH:98:LEU:HD23	8:AH:98:LEU:H	1.82	0.41
9:AI:116:GLY:O	9:AI:124:PRO:CG	2.69	0.41
10:AJ:65:TYR:CE2	14:AN:98:LYS:HG2	2.56	0.41
10:AJ:88:MET:O	10:AJ:89:ARG:CB	2.67	0.41
12:AL:55:ARG:NH2	12:AL:55:ARG:HG3	2.35	0.41
13:AM:80:MET:CA	13:AM:91:ARG:HH22	2.34	0.41
14:AN:25:GLU:O	14:AN:28:ALA:HB3	2.20	0.41
15:AO:87:ARG:HD3	15:AO:87:ARG:HA	1.91	0.41
1:AA:1312:G:N7	19:AS:2:ARG:N	2.68	0.41
21:AU:21:SER:O	21:AU:22:CYS:SG	2.78	0.41
21:AU:43:GLU:HB3	21:AU:44:ARG:NH1	2.36	0.41
22:AV:28:U:N3	22:AV:29:G:O6	2.54	0.41
22:AV:32:A:N3	22:AV:32:A:C2'	2.82	0.41
22:AV:333:G:P	22:AV:335:C:N4	2.87	0.41
23:AW:5:LEU:HD11	23:AW:105:ILE:HD11	2.02	0.41
24:AX:22:A:C6	24:AX:47:G:C4	3.08	0.41
25:AY:232:LEU:H	25:AY:232:LEU:HD22	1.84	0.41
25:AY:265:LYS:HB3	25:AY:267:LYS:HE3	2.02	0.41
25:AY:327:PHE:HA	25:AY:375:GLY:O	2.19	0.41
25:AY:590:ILE:O	25:AY:592:GLU:N	2.53	0.41
51:B0:29:VAL:CG1	51:B0:34:GLY:HA2	2.51	0.41
26:BA:1091:G:O2'	26:BA:1092:C:H5	2.04	0.41
26:BA:1293:C:C4	26:BA:1294:U:C5	3.08	0.41
26:BA:1370:C:O2'	26:BA:1811:G:O2'	2.37	0.41
26:BA:1340:U:H4'	26:BA:1394:U:C1'	2.51	0.41
26:BA:1446:C:H2'	26:BA:1447:C:H6	1.84	0.41
26:BA:1519:G:H2'	26:BA:1520:U:H6	1.86	0.41
26:BA:171:U:H2'	26:BA:172:A:C8	2.56	0.41
26:BA:1936:A:H2	26:BA:1943:U:N3	2.17	0.41
26:BA:1983:G:O2'	26:BA:1984:G:H5'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:2163:A:H5'	26:BA:2170:A:O2'	2.21	0.41
26:BA:2194:U:C2'	26:BA:2195:U:O5'	2.68	0.41
26:BA:2649:C:H6	26:BA:2649:C:O5'	2.04	0.41
26:BA:1:G:C4	26:BA:2:G:C8	3.09	0.41
26:BA:368:A:C8	26:BA:368:A:C3'	3.03	0.41
26:BA:437:U:C2'	26:BA:438:G:O5'	2.69	0.41
26:BA:545:U:H1'	26:BA:548:G:OP2	2.21	0.41
26:BA:653:U:C2'	26:BA:654:A:OP1	2.69	0.41
26:BA:665:U:H2'	26:BA:666:A:H8	1.85	0.41
26:BA:677:A:O2'	26:BA:2071:A:H5'	2.21	0.41
26:BA:842:U:C2'	26:BA:843:G:H5'	2.51	0.41
26:BA:871:U:C2'	26:BA:872:U:H5'	2.50	0.41
27:BC:104:LEU:HD13	27:BC:104:LEU:H	1.85	0.41
27:BC:245:THR:HG23	27:BC:249:VAL:O	2.21	0.41
27:BC:26:GLY:O	27:BC:27:LYS:O	2.39	0.41
26:BA:1805:A:H1'	27:BC:49:THR:O	2.21	0.41
31:BG:76:ILE:N	31:BG:76:ILE:HD13	2.35	0.41
33:BI:58:ILE:HG22	33:BI:60:VAL:HG23	2.02	0.41
34:BJ:27:ARG:HG2	34:BJ:27:ARG:NH1	2.36	0.41
36:BL:120:VAL:CG2	36:BL:121:THR:N	2.83	0.41
36:BL:127:VAL:HG11	36:BL:132:ARG:CB	2.50	0.41
36:BL:47:ARG:HH21	36:BL:47:ARG:CG	2.34	0.41
38:BN:79:LEU:O	38:BN:81:ASN:N	2.54	0.41
49:BY:16:THR:HA	49:BY:19:LEU:HD12	2.02	0.41
1:AA:1277:C:C1'	1:AA:1282:C:H1'	2.50	0.41
1:AA:1315:U:C4	1:AA:1316:G:C6	3.09	0.41
1:AA:1390:U:H2'	1:AA:1391:U:H6	1.81	0.41
1:AA:1414:U:H2'	1:AA:1414:U:O2	2.21	0.41
1:AA:255:G:H2'	1:AA:256:U:O4'	2.21	0.41
1:AA:540:G:C5	1:AA:541:G:C8	3.08	0.41
1:AA:613:C:H2'	1:AA:614:C:H5'	2.00	0.41
1:AA:678:U:O2'	1:AA:679:C:H5'	2.21	0.41
1:AA:730:G:N2	1:AA:765:G:H5''	2.35	0.41
1:AA:792:A:H4'	1:AA:793:U:C5'	2.50	0.41
1:AA:794:A:C5	1:AA:795:C:C4	3.08	0.41
1:AA:941:G:C4	1:AA:1343:G:N2	2.89	0.41
2:AB:74:ALA:O	2:AB:75:ALA:HB2	2.21	0.41
3:AC:13:ILE:O	3:AC:15:LYS:N	2.54	0.41
3:AC:140:ALA:O	3:AC:145:ALA:CB	2.68	0.41
4:AD:149:LYS:HE2	4:AD:176:LYS:O	2.20	0.41
7:AG:68:VAL:HA	7:AG:137:ARG:NE	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:94:ARG:O	7:AG:97:ALA:N	2.54	0.41
1:AA:1346:A:C5'	9:AI:121:ARG:HH12	2.33	0.41
9:AI:96:GLU:H	9:AI:96:GLU:CD	2.23	0.41
10:AJ:56:HIS:C	10:AJ:57:VAL:HG12	2.40	0.41
13:AM:44:ILE:HG13	13:AM:47:LEU:CD1	2.46	0.41
13:AM:52:ILE:CG2	13:AM:56:ARG:NH2	2.83	0.41
13:AM:35:ALA:CB	13:AM:58:GLU:OE1	2.69	0.41
14:AN:43:ASN:C	14:AN:45:VAL:HG22	2.41	0.41
20:AT:47:GLN:NE2	20:AT:47:GLN:C	2.74	0.41
21:AU:33:ARG:NH2	21:AU:34:ARG:CG	2.84	0.41
21:AU:39:LYS:O	21:AU:39:LYS:HG3	2.21	0.41
22:AV:11:C:O2'	22:AV:12:U:P	2.78	0.41
22:AV:171:A:HO2'	22:AV:172:U:H5'	1.75	0.41
22:AV:249:U:HO2'	22:AV:250:U:C5'	2.23	0.41
22:AV:7:G:C5	22:AV:336:G:C5	3.07	0.41
23:AW:18:GLU:HB2	23:AW:88:ARG:NH2	2.36	0.41
23:AW:62:PRO:HD3	23:AW:73:PRO:HG3	2.02	0.41
25:AY:380:LEU:O	25:AY:381:LYS:HD2	2.20	0.41
25:AY:505:GLY:HA3	25:AY:576:ASP:OD1	2.20	0.41
25:AY:617:MET:O	25:AY:618:GLY:C	2.57	0.41
25:AY:92:ILE:HG12	25:AY:405:PRO:CG	2.45	0.41
51:B0:33:SER:OG	51:B0:35:GLU:CG	2.68	0.41
54:B3:16:THR:CG2	54:B3:20:GLY:O	2.68	0.41
26:BA:1043:C:H2'	26:BA:1044:C:C6	2.56	0.41
26:BA:1053:C:N4	26:BA:1054:A:N7	2.69	0.41
26:BA:1103:A:N7	26:BA:1104:C:C5	2.89	0.41
26:BA:1104:C:H2'	26:BA:1105:U:H6	1.85	0.41
26:BA:1427:A:C2	26:BA:1570:A:OP2	2.74	0.41
26:BA:1535:A:H5'	26:BA:1536:C:C5	2.56	0.41
26:BA:1701:A:H2'	26:BA:1702:G:H5'	2.02	0.41
26:BA:1751:U:H2'	26:BA:1752:C:C6	2.55	0.41
26:BA:1840:G:C2'	26:BA:1841:U:H5'	2.50	0.41
26:BA:1957:C:H2'	26:BA:1958:C:C6	2.56	0.41
26:BA:2142:A:C2	26:BA:2150:C:N3	2.89	0.41
26:BA:2395:C:H2'	26:BA:2396:G:O4'	2.21	0.41
26:BA:2401:U:H6	26:BA:2401:U:O5'	2.04	0.41
26:BA:2430:A:H5'	26:BA:2431:U:OP2	2.20	0.41
26:BA:2663:G:H2'	26:BA:2664:G:O5'	2.21	0.41
26:BA:31:C:O2'	26:BA:32:C:H5'	2.19	0.41
26:BA:358:U:H2'	26:BA:359:G:H8	1.85	0.41
26:BA:483:A:C8	26:BA:484:C:C5	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:545:U:OP2	26:BA:545:U:O2	2.38	0.41
26:BA:548:G:O2'	26:BA:549:G:N1	2.53	0.41
26:BA:723:C:H2'	26:BA:724:U:O4'	2.21	0.41
26:BA:771:G:C6	26:BA:772:C:N4	2.89	0.41
26:BA:772:C:H2'	26:BA:773:U:O5'	2.20	0.41
26:BA:883:G:C2	26:BA:884:U:N1	2.88	0.41
26:BA:903:C:H2'	26:BA:904:G:H5''	1.66	0.41
26:BA:993:G:OP1	41:BQ:50:ARG:NH2	2.54	0.41
56:BB:4:C:O5'	56:BB:4:C:H6	2.04	0.41
30:BF:23:SER:HB2	56:BB:56:G:OP1	2.21	0.41
27:BC:97:ASP:OD1	27:BC:97:ASP:C	2.59	0.41
28:BD:103:ASP:C	28:BD:104:VAL:CG2	2.89	0.41
28:BD:125:TRP:O	28:BD:126:ASN:HB2	2.21	0.41
28:BD:133:THR:HG23	28:BD:134:HIS:N	2.35	0.41
28:BD:48:ILE:HG13	28:BD:50:VAL:HG13	2.02	0.41
29:BE:138:LEU:O	29:BE:139:LYS:C	2.59	0.41
30:BF:24:VAL:O	30:BF:24:VAL:HG22	2.19	0.41
30:BF:56:LEU:HD12	30:BF:64:PRO:HB3	2.00	0.41
31:BG:1:SER:C	31:BG:3:VAL:N	2.70	0.41
32:BH:66:ASN:HA	32:BH:138:VAL:HG11	2.02	0.41
32:BH:31:VAL:CG1	32:BH:32:PRO:CD	2.99	0.41
32:BH:77:THR:O	32:BH:77:THR:HG22	2.20	0.41
37:BM:110:GLU:HG3	37:BM:110:GLU:O	2.18	0.41
40:BP:86:LYS:O	40:BP:87:ARG:HB2	2.20	0.41
41:BQ:10:ARG:HD2	41:BQ:10:ARG:HA	1.63	0.41
47:BW:60:ASP:N	47:BW:60:ASP:OD2	2.53	0.41
1:AA:1077:G:N2	1:AA:1081:A:C4	2.89	0.41
1:AA:9:G:C2'	1:AA:10:A:H5'	2.51	0.41
1:AA:1226:C:C6	13:AM:102:LYS:HA	2.55	0.41
1:AA:1313:U:H2'	1:AA:1313:U:O2	2.20	0.41
1:AA:176:C:O4'	1:AA:1447:A:C2	2.74	0.41
1:AA:186:C:H2'	1:AA:187:G:O4'	2.20	0.41
1:AA:207:C:H2'	1:AA:208:U:O2	2.19	0.41
1:AA:369:G:H2'	1:AA:370:C:H6	1.86	0.41
1:AA:389:A:C3'	1:AA:390:U:H5'	2.51	0.41
1:AA:524:G:H2'	1:AA:525:C:C6	2.56	0.41
1:AA:75:G:H5'	1:AA:76:G:P	2.61	0.41
2:AB:106:VAL:O	2:AB:107:ARG:C	2.58	0.41
2:AB:206:ILE:N	2:AB:206:ILE:HD13	2.36	0.41
2:AB:68:PHE:HE2	2:AB:88:GLN:HB3	1.86	0.41
3:AC:113:LYS:O	3:AC:117:ASP:OD2	2.39	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:28:PHE:C	3:AC:28:PHE:HD2	2.23	0.41
4:AD:2:ARG:HH21	4:AD:114:ARG:HD3	1.84	0.41
1:AA:439:U:H4'	4:AD:120:LYS:HE3	2.02	0.41
8:AH:79:ARG:HG3	8:AH:82:LEU:H	1.85	0.41
9:AI:20:ILE:HG22	9:AI:21:LYS:N	2.35	0.41
9:AI:53:LEU:HD12	9:AI:53:LEU:H	1.85	0.41
12:AL:116:TYR:CD1	12:AL:116:TYR:N	2.87	0.41
13:AM:28:ARG:NH2	13:AM:62:PHE:HB2	2.35	0.41
14:AN:43:ASN:C	14:AN:45:VAL:N	2.73	0.41
17:AQ:47:ASP:HB2	17:AQ:74:LEU:HD21	2.03	0.41
1:AA:1538:C:H4'	21:AU:17:ARG:HH21	1.84	0.41
22:AV:181:G:N2	22:AV:182:U:O4'	2.54	0.41
22:AV:235:C:H6	22:AV:235:C:O5'	2.04	0.41
22:AV:257:U:C4	22:AV:259:G:O6	2.71	0.41
22:AV:270:C:O2	22:AV:293:G:O6	2.39	0.41
22:AV:257:U:C5	22:AV:273:A:C6	3.08	0.41
22:AV:345:A:O2'	22:AV:347:PSU:N1	2.54	0.41
22:AV:45:A:H2'	22:AV:46:U:C6	2.55	0.41
24:AX:11:A:C2	24:AX:12:G:H1'	2.56	0.41
24:AX:32:G:C5	24:AX:33:C:C4	3.08	0.41
25:AY:304:ASP:C	25:AY:306:ASN:H	2.24	0.41
25:AY:357:ARG:HH21	25:AY:357:ARG:HG3	1.86	0.41
25:AY:610:VAL:CG2	25:AY:643:ILE:HB	2.51	0.41
25:AY:605:ILE:CG2	25:AY:646:PHE:HB3	2.51	0.41
25:AY:684:GLN:HB2	25:AY:684:GLN:HE21	1.68	0.41
25:AY:95:GLU:OE2	25:AY:124:GLN:HB3	2.21	0.41
51:B0:52:LYS:HE2	51:B0:55:ALA:CB	2.51	0.41
52:B1:34:GLU:HA	52:B1:48:TYR:O	2.20	0.41
26:BA:1027:A:H5''	26:BA:1028:A:OP1	2.21	0.41
26:BA:1079:C:H2'	26:BA:1080:A:C8	2.54	0.41
26:BA:1340:U:H4'	26:BA:1394:U:H1'	2.03	0.41
26:BA:1353:A:O4'	26:BA:1569:A:H2	2.04	0.41
26:BA:1501:G:H2'	26:BA:1502:A:O5'	2.21	0.41
26:BA:182:A:C6	26:BA:183:C:C4	3.08	0.41
26:BA:2038:G:H2'	26:BA:2039:U:O4'	2.21	0.41
26:BA:228:C:H4'	26:BA:229:C:C5'	2.51	0.41
26:BA:2516:A:C5	26:BA:2517:C:C4	3.09	0.41
26:BA:2636:C:C2'	26:BA:2636:C:O2	2.63	0.41
26:BA:319:G:C2'	26:BA:320:A:O5'	2.69	0.41
26:BA:783:A:H8	26:BA:784:G:H4'	1.86	0.41
26:BA:828:U:O2'	26:BA:829:A:H5'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:BB:32:U:O2'	56:BB:33:G:H5'	2.21	0.41
56:BB:78:A:N6	56:BB:98:G:H2'	2.36	0.41
27:BC:51:ARG:HE	27:BC:52:HIS:CE1	2.38	0.41
27:BC:7:PRO:HB3	27:BC:13:ARG:HB2	2.03	0.41
28:BD:142:VAL:HB	28:BD:143:PRO:HD2	2.01	0.41
31:BG:130:ILE:C	31:BG:131:VAL:HG23	2.40	0.41
32:BH:129:GLU:HA	32:BH:143:ILE:HA	2.01	0.41
25:AY:636:PRO:HB2	33:BI:26:ALA:HB3	1.98	0.41
33:BI:38:CYS:HA	33:BI:41:PHE:HB3	2.03	0.41
36:BL:110:VAL:CA	36:BL:111:ILE:HD12	2.50	0.41
38:BN:79:LEU:HG	38:BN:83:LEU:HD12	2.02	0.41
39:BO:87:ILE:C	39:BO:88:LYS:O	2.59	0.41
40:BP:19:PHE:CD1	40:BP:19:PHE:C	2.94	0.41
1:AA:1033:G:C2	1:AA:1034:G:C8	3.09	0.41
1:AA:1035:A:H2'	1:AA:1036:A:C1'	2.51	0.41
1:AA:1072:G:C5	1:AA:1073:U:C4	3.08	0.41
1:AA:1092:A:N6	1:AA:1093:A:N6	2.68	0.41
1:AA:1139:G:N2	1:AA:1143:G:C6	2.89	0.41
1:AA:1210:C:C4'	1:AA:1214:C:H5	2.34	0.41
1:AA:1239:A:N3	1:AA:1241:G:C6	2.89	0.41
1:AA:1526:G:H2'	1:AA:1527:U:C6	2.55	0.41
1:AA:179:A:C2'	1:AA:180:U:H5'	2.51	0.41
1:AA:199:A:C2	1:AA:200:G:C8	3.09	0.41
1:AA:20:U:O2'	1:AA:21:G:H5'	2.21	0.41
1:AA:65:A:N1	1:AA:381:C:C2	2.89	0.41
1:AA:386:C:H2'	1:AA:387:U:C5'	2.50	0.41
1:AA:702:A:N6	26:BA:1846:G:H5'	2.36	0.41
2:AB:175:ALA:C	2:AB:177:ASN:N	2.73	0.41
2:AB:96:LEU:N	2:AB:99:MET:CE	2.84	0.41
3:AC:41:TYR:CE1	3:AC:89:VAL:CG2	3.04	0.41
4:AD:154:VAL:HA	4:AD:157:ALA:HB3	2.03	0.41
4:AD:164:ARG:C	4:AD:166:LYS:H	2.24	0.41
8:AH:28:SER:HB3	8:AH:56:PRO:CB	2.50	0.41
10:AJ:27:GLU:HA	10:AJ:30:LYS:CD	2.51	0.41
10:AJ:58:ASN:C	10:AJ:60:ASP:H	2.24	0.41
11:AK:41:LEU:CB	11:AK:73:VAL:HG12	2.50	0.41
13:AM:52:ILE:O	13:AM:55:LEU:HB2	2.21	0.41
13:AM:80:MET:HG2	13:AM:91:ARG:NH1	2.36	0.41
14:AN:20:PHE:CG	14:AN:24:ALA:CB	3.04	0.41
17:AQ:7:LEU:CB	17:AQ:60:ILE:HG22	2.46	0.41
21:AU:43:GLU:OE2	21:AU:44:ARG:NH1	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:256:G:H2'	22:AV:258:G:N7	2.35	0.41
22:AV:269:C:O5'	22:AV:269:C:H6	2.03	0.41
22:AV:272:C:O2'	22:AV:273:A:O5'	2.39	0.41
22:AV:27:U:H2'	22:AV:28:U:C6	2.56	0.41
22:AV:317:G:H2'	22:AV:318:G:C5'	2.50	0.41
22:AV:332:G:H4'	22:AV:333:G:O5'	2.15	0.41
22:AV:335:C:C2	22:AV:335:C:P	3.14	0.41
22:AV:68:U:C5	22:AV:302:A:O2'	2.61	0.41
23:AW:22:ALA:O	23:AW:115:VAL:CG1	2.57	0.41
24:AX:54:G:H2'	24:AX:54:G:N3	2.35	0.41
25:AY:104:ALA:O	25:AY:132:ARG:HB2	2.21	0.41
25:AY:111:SER:O	25:AY:112:GLN:C	2.58	0.41
25:AY:162:VAL:HG21	25:AY:255:ILE:CD1	2.51	0.41
25:AY:188:TYR:OH	25:AY:271:LEU:HD11	2.21	0.41
25:AY:350:GLU:HG3	25:AY:380:LEU:HG	2.01	0.41
25:AY:491:VAL:CG1	25:AY:492:ASP:N	2.83	0.41
25:AY:539:ILE:O	25:AY:540:PRO:C	2.58	0.41
52:B1:30:PRO:HD2	52:B1:31:GLU:OE2	2.20	0.41
26:BA:771:G:OP2	53:B2:11:LYS:HD3	2.21	0.41
55:B4:1:MET:HB3	55:B4:34:LYS:HB3	2.03	0.41
26:BA:1197:G:H2'	26:BA:1198:U:C6	2.55	0.41
26:BA:126:A:C5	53:B2:18:PHE:CD2	3.09	0.41
26:BA:135:U:O5'	26:BA:135:U:H6	2.04	0.41
26:BA:1405:U:O2'	26:BA:1406:U:H5'	2.20	0.41
26:BA:1448:G:C2'	26:BA:1449:G:H5'	2.51	0.41
26:BA:1494:A:N6	26:BA:1495:A:N1	2.68	0.41
26:BA:1606:C:H3'	26:BA:1606:C:C6	2.55	0.41
26:BA:1627:G:C2	26:BA:1628:G:C8	3.09	0.41
26:BA:1744:A:N3	26:BA:1744:A:H2'	2.35	0.41
26:BA:2006:C:O5'	26:BA:2006:C:C6	2.73	0.41
26:BA:2111:U:O4	26:BA:2145:C:O2	2.38	0.41
26:BA:2547:A:H5'	35:BK:29:HIS:NE2	2.36	0.41
26:BA:2616:C:C2'	26:BA:2616:C:O2	2.67	0.41
26:BA:2687:U:H2'	26:BA:2688:G:O4'	2.20	0.41
26:BA:279:A:N3	26:BA:279:A:H2'	2.36	0.41
26:BA:2799:A:H1'	26:BA:2800:A:H5'	2.03	0.41
26:BA:2840:C:H2'	26:BA:2841:C:C6	2.55	0.41
26:BA:2851:A:C6	26:BA:2852:G:C5	3.09	0.41
26:BA:287:G:H2'	26:BA:288:U:H6	1.83	0.41
26:BA:721:A:H2'	26:BA:722:A:H8	1.73	0.41
26:BA:757:G:N3	26:BA:757:G:H2'	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:868:U:C2'	26:BA:869:G:C5'	2.77	0.41
26:BA:893:C:O2'	26:BA:894:U:C5'	2.66	0.41
26:BA:866:A:N9	26:BA:914:G:C2	2.88	0.41
56:BB:104:A:H2'	56:BB:105:G:O4'	2.21	0.41
56:BB:68:C:H3'	56:BB:68:C:C6	2.55	0.41
56:BB:73:A:C5	56:BB:104:A:C2	3.09	0.41
27:BC:130:PRO:HB2	27:BC:133:ASN:HD22	1.86	0.41
27:BC:141:HIS:O	27:BC:142:ASN:HB3	2.21	0.41
28:BD:205:PRO:O	28:BD:206:ALA:O	2.38	0.41
28:BD:57:ALA:O	28:BD:59:ARG:N	2.54	0.41
30:BF:147:ARG:CG	30:BF:148:VAL:H	2.33	0.41
31:BG:171:LYS:HG3	31:BG:172:GLU:O	2.21	0.41
25:AY:658:ASP:CG	31:BG:176:LYS:NZ	2.75	0.41
32:BH:10:ALA:O	32:BH:11:ASN:C	2.59	0.41
32:BH:72:ILE:HD12	32:BH:140:ALA:CB	2.51	0.41
33:BI:54:ILE:HG12	33:BI:73:PRO:CB	2.50	0.41
35:BK:112:PHE:O	35:BK:115:ILE:HB	2.21	0.41
26:BA:1244:A:OP1	36:BL:7:SER:CB	2.69	0.41
38:BN:3:HIS:O	38:BN:4:ARG:HB2	2.21	0.41
38:BN:65:LEU:HD13	38:BN:65:LEU:HA	1.66	0.41
42:BR:102:SER:C	42:BR:103:ALA:O	2.59	0.41
43:BS:81:SER:HB3	43:BS:99:ARG:HA	2.03	0.41
46:BV:83:LYS:HB3	46:BV:84:PRO:HD2	2.03	0.41
48:BX:15:ASN:HA	48:BX:24:THR:O	2.21	0.41
49:BY:55:THR:C	49:BY:56:LEU:O	2.55	0.41
1:AA:114:U:H2'	1:AA:115:G:H8	1.80	0.41
1:AA:1152:A:N6	1:AA:1153:G:C6	2.89	0.41
1:AA:1226:C:C4	13:AM:102:LYS:CB	3.04	0.41
1:AA:1310:G:C2	1:AA:1328:C:O2	2.74	0.41
1:AA:1399:C:H1'	1:AA:1502:A:H61	1.86	0.41
1:AA:1413:A:H2'	1:AA:1414:U:H6	1.86	0.41
1:AA:164:G:N2	1:AA:165:G:C1'	2.84	0.41
1:AA:168:G:C5'	1:AA:168:G:H8	2.34	0.41
1:AA:274:A:H5'	17:AQ:15:LYS:HE3	2.03	0.41
1:AA:495:A:H4'	1:AA:496:A:O4'	2.20	0.41
1:AA:588:G:C4	1:AA:753:A:C2	3.09	0.41
1:AA:597:G:C2	1:AA:644:U:C2	3.09	0.41
1:AA:720:C:H3'	1:AA:721:G:C8	2.56	0.41
1:AA:840:C:N3	1:AA:846:G:O6	2.54	0.41
1:AA:847:G:C6	1:AA:848:C:C4	3.08	0.41
1:AA:977:A:C2'	1:AA:978:A:H5''	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:135:MET:HA	2:AB:138:ARG:HG2	2.03	0.41
2:AB:216:VAL:HA	2:AB:219:THR:HG23	2.03	0.41
3:AC:106:ARG:NH1	3:AC:107:LYS:O	2.54	0.41
4:AD:189:ASP:O	4:AD:190:LEU:CG	2.66	0.41
5:AE:104:ILE:CD1	5:AE:122:VAL:CG2	2.98	0.41
5:AE:80:LEU:HA	5:AE:146:MET:HE1	2.02	0.41
7:AG:102:TRP:CH2	7:AG:140:VAL:HG21	2.56	0.41
7:AG:145:GLU:CA	7:AG:148:LYS:HB2	2.49	0.41
7:AG:49:LEU:CD1	7:AG:60:ALA:CB	2.99	0.41
8:AH:100:ILE:HD12	8:AH:100:ILE:C	2.40	0.41
9:AI:11:ARG:HH22	9:AI:108:ARG:NH2	2.19	0.41
10:AJ:5:ARG:NE	10:AJ:79:PRO:HG3	2.36	0.41
11:AK:98:ALA:O	11:AK:101:ALA:HB3	2.21	0.41
11:AK:111:ASP:OD2	11:AK:113:THR:HG23	2.21	0.41
13:AM:106:ARG:O	13:AM:107:THR:C	2.60	0.41
16:AP:75:ILE:HG13	16:AP:75:ILE:H	1.74	0.41
17:AQ:78:VAL:O	17:AQ:79:GLU:HB2	2.21	0.41
18:AR:54:LEU:HD13	18:AR:54:LEU:O	2.21	0.41
19:AS:34:SER:O	19:AS:35:ARG:C	2.59	0.41
20:AT:4:LYS:HA	20:AT:4:LYS:HE2	2.03	0.41
20:AT:56:ILE:CD1	20:AT:60:GLN:HG2	2.51	0.41
20:AT:34:VAL:HG11	20:AT:78:LEU:HD13	2.02	0.41
22:AV:176:G:N3	22:AV:177:A:C8	2.89	0.41
22:AV:180:G:C3'	22:AV:181:G:C8	3.04	0.41
22:AV:298:A:C6	22:AV:299:C:C5	3.09	0.41
22:AV:314:C:O2'	22:AV:315:G:H5''	2.21	0.41
22:AV:333:G:P	22:AV:335:C:H41	2.44	0.41
22:AV:56:C:O2'	22:AV:57:G:O4'	2.33	0.41
23:AW:60:ILE:CD1	23:AW:77:ARG:NH2	2.84	0.41
24:AX:77:A:C8	26:BA:2421:G:H2'	2.56	0.41
25:AY:20:HIS:CE1	25:AY:21:ILE:HG12	2.56	0.41
25:AY:238:THR:HG22	25:AY:241:GLU:H	1.83	0.41
25:AY:137:ASN:O	25:AY:262:SER:HA	2.21	0.41
25:AY:273:LEU:HA	25:AY:276:VAL:CG2	2.50	0.41
51:B0:52:LYS:CE	51:B0:55:ALA:HB2	2.51	0.41
26:BA:1088:A:N3	26:BA:1088:A:C5'	2.83	0.41
26:BA:1114:C:O2'	26:BA:1115:G:H5'	2.20	0.41
26:BA:1282:U:H2'	26:BA:1283:G:O4'	2.21	0.41
26:BA:1299:G:H5''	26:BA:1300:G:OP1	2.21	0.41
26:BA:1613:G:N2	26:BA:1619:G:C4	2.89	0.41
26:BA:1628:G:C2'	26:BA:1629:U:O5'	2.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BA:1735:A:C2	26:BA:1736:U:C6	3.09	0.41
26:BA:1752:C:H5'	26:BA:2861:U:O3'	2.21	0.41
26:BA:1778:U:H2'	26:BA:1784:A:N6	2.36	0.41
26:BA:1909:C:C2	26:BA:1922:G:N2	2.89	0.41
26:BA:2002:G:OP1	38:BN:13:ASN:HA	2.21	0.41
26:BA:2191:A:C2	26:BA:2192:U:C6	3.09	0.41
26:BA:2193:G:C2	26:BA:2194:U:C5	3.09	0.41
26:BA:242:G:H5''	54:B3:63:TYR:CE2	2.56	0.41
26:BA:2626:C:H2'	26:BA:2627:G:O4'	2.21	0.41
26:BA:2675:A:H2'	26:BA:2676:C:O5'	2.21	0.41
26:BA:303:G:H2'	26:BA:304:U:H6	1.85	0.41
26:BA:404:A:C2'	26:BA:405:U:OP2	2.69	0.41
26:BA:574:A:C4'	26:BA:575:A:O5'	2.65	0.41
26:BA:812:C:H4'	41:BQ:12:ARG:HH22	1.85	0.41
26:BA:871:U:O2'	26:BA:872:U:H5'	2.21	0.41
26:BA:879:G:C3'	26:BA:880:G:C5'	2.88	0.41
26:BA:907:G:C6	26:BA:908:C:N4	2.89	0.41
27:BC:100:ARG:HH11	27:BC:100:ARG:HG3	1.86	0.41
32:BH:130:VAL:HG21	32:BH:144:VAL:HG21	2.01	0.41
32:BH:142:VAL:HG12	32:BH:143:ILE:N	2.36	0.41
32:BH:45:GLU:O	32:BH:46:PHE:C	2.59	0.41
33:BI:85:ILE:HD13	33:BI:88:GLY:HA2	2.03	0.41
35:BK:107:LEU:O	35:BK:112:PHE:HB2	2.21	0.41
35:BK:77:ILE:HG22	35:BK:78:ARG:H	1.85	0.41
37:BM:2:LEU:HD22	37:BM:2:LEU:H	1.86	0.41
37:BM:5:LYS:O	37:BM:6:ARG:HB2	2.20	0.41
38:BN:41:ALA:HB1	38:BN:97:ILE:CD1	2.51	0.41
39:BO:41:ALA:HB1	39:BO:42:PRO:CD	2.51	0.41
39:BO:4:LYS:CG	39:BO:5:SER:N	2.78	0.41
40:BP:105:LYS:HA	40:BP:105:LYS:HD2	1.84	0.41
46:BV:1:MET:SD	46:BV:1:MET:C	2.99	0.41
46:BV:61:LEU:CD1	46:BV:61:LEU:N	2.84	0.41
48:BX:44:ARG:CG	48:BX:45:PHE:N	2.84	0.41
1:AA:1033:G:N2	1:AA:1034:G:O4'	2.54	0.40
1:AA:1060:U:H5''	10:AJ:53:ILE:CG2	2.51	0.40
1:AA:956:U:C2	1:AA:1225:A:C2	3.08	0.40
1:AA:1300:G:C4	1:AA:1334:G:O6	2.73	0.40
1:AA:1306:A:C4	1:AA:1307:U:C6	3.08	0.40
1:AA:1379:G:N1	1:AA:1380:U:C4	2.89	0.40
1:AA:1418:A:H2	26:BA:1948:G:HO2'	1.68	0.40
1:AA:184:G:O4'	1:AA:224:U:H4'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:295:C:C2	1:AA:296:U:C6	3.09	0.40
1:AA:314:C:O2'	1:AA:315:A:H5'	2.21	0.40
1:AA:322:C:C2	1:AA:332:G:N2	2.89	0.40
1:AA:52:C:H2'	1:AA:53:A:C8	2.55	0.40
1:AA:69:G:N3	1:AA:69:G:H2'	2.36	0.40
1:AA:75:G:N3	1:AA:75:G:H2'	2.36	0.40
1:AA:948:C:C5	13:AM:104:ASN:OD1	2.74	0.40
2:AB:142:LYS:O	2:AB:144:GLU:N	2.54	0.40
2:AB:14:HIS:CD2	2:AB:15:PHE:N	2.87	0.40
2:AB:94:ARG:NH1	2:AB:96:LEU:CD2	2.85	0.40
3:AC:28:PHE:CE2	3:AC:32:LEU:HD23	2.55	0.40
4:AD:131:ILE:CD1	4:AD:134:TYR:HB2	2.51	0.40
4:AD:151:GLN:O	4:AD:152:SER:O	2.39	0.40
4:AD:53:GLN:O	4:AD:202:LEU:HD13	2.20	0.40
4:AD:8:LEU:C	4:AD:10:LEU:N	2.74	0.40
5:AE:113:VAL:O	5:AE:114:LEU:C	2.58	0.40
5:AE:68:ARG:O	5:AE:69:ASN:C	2.60	0.40
5:AE:81:GLN:N	5:AE:146:MET:HE1	2.21	0.40
7:AG:22:LEU:HD22	7:AG:25:PHE:CD2	2.56	0.40
7:AG:58:LEU:HD12	7:AG:59:GLU:HG2	2.03	0.40
7:AG:61:PHE:HD2	7:AG:123:LEU:HD11	1.86	0.40
7:AG:72:VAL:O	7:AG:140:VAL:HG12	2.21	0.40
8:AH:17:GLN:CD	8:AH:69:ALA:HB1	2.41	0.40
9:AI:88:GLU:C	9:AI:90:ASP:H	2.25	0.40
10:AJ:17:LEU:HG	10:AJ:17:LEU:O	2.21	0.40
10:AJ:36:VAL:HG23	10:AJ:76:ILE:HG23	2.04	0.40
1:AA:684:U:O2'	11:AK:39:ASN:O	2.33	0.40
12:AL:100:ALA:O	12:AL:101:LEU:C	2.58	0.40
14:AN:35:ALA:HB2	14:AN:41:ARG:NE	2.36	0.40
14:AN:53:ARG:HH11	14:AN:53:ARG:HG2	1.86	0.40
10:AJ:51:VAL:HB	14:AN:81:ARG:HB2	2.02	0.40
15:AO:23:SER:HB3	15:AO:26:VAL:HG21	2.03	0.40
15:AO:66:LEU:CD1	15:AO:87:ARG:HH22	2.35	0.40
16:AP:12:LYS:C	16:AP:14:ARG:H	2.24	0.40
16:AP:75:ILE:O	16:AP:78:VAL:CG1	2.64	0.40
16:AP:75:ILE:HA	16:AP:78:VAL:HG12	2.03	0.40
17:AQ:80:LYS:HB2	17:AQ:81:ALA:H	1.64	0.40
20:AT:68:LYS:NZ	20:AT:68:LYS:HB2	2.36	0.40
21:AU:33:ARG:HH21	21:AU:34:ARG:HG3	1.85	0.40
22:AV:212:U:H5''	22:AV:213:G:OP1	2.21	0.40
22:AV:213:G:O2'	22:AV:214:C:H5'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:223:G:O2'	22:AV:224:A:OP1	2.39	0.40
22:AV:228:G:C6	22:AV:229:U:C4	3.09	0.40
22:AV:245:C:O3'	22:AV:248:G:C1'	2.69	0.40
22:AV:249:U:C2'	22:AV:250:U:H5'	2.45	0.40
22:AV:25:A:C6	22:AV:26:U:C4	3.10	0.40
22:AV:306:U:C2'	22:AV:307:G:C8	2.78	0.40
22:AV:362:C:C6	22:AV:362:C:C3'	3.03	0.40
22:AV:36:C:C2'	22:AV:37:C:O5'	2.69	0.40
22:AV:65:U:H2'	22:AV:66:C:C5	2.55	0.40
22:AV:65:U:H2'	22:AV:66:C:H6	1.83	0.40
23:AW:28:GLY:HA2	23:AW:31:VAL:CG2	2.51	0.40
25:AY:130:VAL:HA	25:AY:131:PRO:HD3	1.75	0.40
25:AY:487:ILE:HB	25:AY:597:GLY:O	2.21	0.40
26:BA:1084:A:C5'	26:BA:1085:A:OP2	2.70	0.40
26:BA:1477:A:H2'	26:BA:1478:G:O4'	2.21	0.40
26:BA:1501:G:O2'	26:BA:1502:A:C5'	2.69	0.40
26:BA:153:U:O5'	26:BA:153:U:H6	2.04	0.40
26:BA:1831:G:H2'	26:BA:1832:C:C6	2.56	0.40
26:BA:1954:G:O2'	26:BA:1956:U:O4	2.19	0.40
26:BA:1982:U:O2	26:BA:1982:U:H2'	2.21	0.40
26:BA:2135:A:N6	26:BA:2156:G:O2'	2.54	0.40
26:BA:2173:A:C3'	26:BA:2174:C:H6	2.33	0.40
26:BA:2255:G:H2'	26:BA:2256:G:H5'	2.03	0.40
25:AY:626:ALA:CB	26:BA:2473:U:N1	2.54	0.40
26:BA:2660:A:N1	26:BA:2661:G:N3	2.69	0.40
26:BA:2716:C:H6	26:BA:2716:C:H5''	1.85	0.40
26:BA:2722:G:C2'	26:BA:2723:C:H5'	2.51	0.40
26:BA:2855:C:O2	26:BA:2855:C:H2'	2.20	0.40
26:BA:686:U:H2'	26:BA:788:A:C2	2.56	0.40
26:BA:71:A:H5''	26:BA:72:U:C2'	2.51	0.40
26:BA:838:C:O2'	26:BA:839:U:H5'	2.21	0.40
26:BA:923:G:H4'	47:BW:25:GLU:CG	2.51	0.40
39:BO:102:ARG:HG3	56:BB:49:C:OP1	2.21	0.40
27:BC:161:VAL:HG11	27:BC:173:LEU:CG	2.48	0.40
27:BC:190:THR:HG22	27:BC:191:LEU:O	2.20	0.40
32:BH:119:ASN:N	32:BH:120:GLY:HA3	2.31	0.40
33:BI:57:VAL:C	33:BI:68:PHE:CB	2.90	0.40
33:BI:78:LEU:HD23	33:BI:81:LYS:HZ1	1.86	0.40
35:BK:58:LEU:H	35:BK:58:LEU:HD22	1.84	0.40
35:BK:66:LYS:CD	35:BK:79:PHE:O	2.69	0.40
40:BP:64:SER:O	40:BP:65:ASN:C	2.60	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1056:U:O2'	1:AA:1057:G:H5'	2.21	0.40
1:AA:1113:C:C2	1:AA:1114:C:C5	3.09	0.40
1:AA:1152:A:C6	1:AA:1153:G:C6	3.09	0.40
1:AA:1231:G:C6	1:AA:1232:U:C4	3.09	0.40
1:AA:1233:G:C6	1:AA:1234:C:N4	2.89	0.40
1:AA:1309:G:C2	1:AA:1329:A:C4	3.09	0.40
1:AA:1412:C:N1	1:AA:1489:G:N2	2.69	0.40
1:AA:614:C:H2'	1:AA:615:G:O5'	2.21	0.40
1:AA:693:G:C6	1:AA:694:A:C6	3.09	0.40
1:AA:958:A:C6	1:AA:959:A:N1	2.89	0.40
1:AA:987:G:N3	1:AA:1219:A:C2	2.89	0.40
2:AB:159:ALA:O	2:AB:160:LEU:CB	2.68	0.40
2:AB:218:ALA:O	2:AB:219:THR:CG2	2.67	0.40
2:AB:87:ASP:HB2	2:AB:220:VAL:HG12	2.03	0.40
2:AB:34:ARG:HE	2:AB:35:ASN:H	1.69	0.40
3:AC:115:VAL:O	3:AC:118:SER:HB3	2.21	0.40
3:AC:13:ILE:C	3:AC:15:LYS:H	2.24	0.40
4:AD:162:GLU:O	4:AD:166:LYS:HG3	2.21	0.40
4:AD:193:ASP:O	4:AD:194:ILE:HG22	2.20	0.40
4:AD:196:GLU:C	4:AD:198:LEU:N	2.74	0.40
4:AD:54:LEU:C	4:AD:54:LEU:CD2	2.90	0.40
1:AA:430:A:OP1	4:AD:8:LEU:HB2	2.21	0.40
5:AE:131:ASN:O	5:AE:135:VAL:HG12	2.22	0.40
8:AH:5:PRO:O	8:AH:8:ASP:N	2.55	0.40
9:AI:18:VAL:O	9:AI:18:VAL:HG12	2.21	0.40
9:AI:24:ASN:HB2	9:AI:61:ASP:OD2	2.21	0.40
9:AI:9:GLY:HA3	9:AI:81:GLY:N	2.37	0.40
11:AK:124:LYS:HZ2	21:AU:34:ARG:NH2	2.20	0.40
12:AL:86:VAL:O	12:AL:88:ASP:N	2.54	0.40
20:AT:13:SER:HA	20:AT:16:ALA:HB3	2.03	0.40
20:AT:56:ILE:HD12	20:AT:56:ILE:O	2.20	0.40
11:AK:124:LYS:HE3	21:AU:34:ARG:CZ	2.51	0.40
22:AV:113:A:C4	22:AV:114:G:C5	3.10	0.40
22:AV:229:U:O2'	22:AV:230:U:C5'	2.69	0.40
22:AV:245:C:H3'	22:AV:248:G:C2	2.41	0.40
22:AV:323:A:N3	22:AV:324:G:C8	2.89	0.40
22:AV:19:G:H2'	23:AW:80:LEU:HB3	2.03	0.40
24:AX:31:G:O2'	24:AX:32:G:O5'	2.33	0.40
24:AX:9:G:C2	24:AX:47:G:C6	3.09	0.40
25:AY:147:TRP:O	25:AY:150:ILE:N	2.54	0.40
25:AY:216:LEU:O	25:AY:216:LEU:HD23	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AY:300:GLU:O	25:AY:301:ILE:HD13	2.20	0.40
25:AY:542:VAL:HG22	25:AY:542:VAL:O	2.21	0.40
26:BA:125:A:C6	53:B2:10:LEU:CD1	3.04	0.40
26:BA:1056:G:O2'	26:BA:1086:A:H1'	2.21	0.40
26:BA:1203:U:O4	26:BA:1204:A:C5	2.73	0.40
26:BA:1234:U:C6	26:BA:1234:U:H3'	2.56	0.40
26:BA:1341:G:OP2	26:BA:1397:U:C2	2.74	0.40
26:BA:1827:U:O2'	26:BA:1828:G:H5'	2.21	0.40
26:BA:2070:A:H2'	26:BA:2071:A:O4'	2.21	0.40
24:AX:57:C:H5	26:BA:2168:G:O6	2.03	0.40
26:BA:2189:U:H2'	26:BA:2190:G:C8	2.56	0.40
26:BA:2297:A:C6	26:BA:2298:A:C8	3.09	0.40
26:BA:2443:C:O2'	26:BA:2444:G:H5'	2.21	0.40
26:BA:2482:A:H2'	26:BA:2483:C:O4'	2.20	0.40
26:BA:2670:A:C2'	26:BA:2671:G:O5'	2.70	0.40
26:BA:2751:G:C4	31:BG:2:ARG:HD3	2.56	0.40
26:BA:2757:A:N1	31:BG:66:THR:CG2	2.74	0.40
26:BA:2807:U:C2'	26:BA:2808:G:H5'	2.51	0.40
26:BA:2853:C:H2'	26:BA:2854:G:H8	1.87	0.40
26:BA:495:G:H2'	26:BA:496:G:O5'	2.21	0.40
26:BA:196:A:C2'	26:BA:805:G:O6	2.69	0.40
26:BA:880:G:N3	26:BA:881:G:N7	2.69	0.40
56:BB:73:A:C8	56:BB:104:A:C6	3.09	0.40
56:BB:20:G:H3'	56:BB:20:G:C8	2.56	0.40
27:BC:131:MET:CE	27:BC:187:CYS:HB2	2.52	0.40
26:BA:729:G:C5	27:BC:206:LYS:HB2	2.56	0.40
27:BC:35:LYS:HG2	27:BC:36:ASN:N	2.36	0.40
29:BE:91:ASP:OD1	29:BE:92:HIS:N	2.54	0.40
26:BA:2304:G:H5'	30:BF:120:SER:HB3	2.03	0.40
32:BH:52:ALA:O	32:BH:56:ALA:HB3	2.21	0.40
33:BI:18:ASN:OD1	33:BI:34:ILE:O	2.39	0.40
33:BI:57:VAL:HB	33:BI:68:PHE:HA	2.04	0.40
36:BL:135:ILE:HD12	36:BL:142:ILE:HD11	2.03	0.40
37:BM:29:GLY:HA3	37:BM:106:ASP:HB2	2.03	0.40
40:BP:12:MET:HA	40:BP:76:HIS:ND1	2.36	0.40
40:BP:30:TRP:CD2	40:BP:39:LEU:HD12	2.55	0.40
46:BV:80:HIS:CE1	46:BV:83:LYS:HE2	2.57	0.40
49:BY:23:ARG:CA	49:BY:27:ASN:ND2	2.84	0.40
1:AA:1025:U:C5'	1:AA:1026:G:O5'	2.69	0.40
1:AA:1097:C:C5'	1:AA:1170:A:C4'	2.48	0.40
1:AA:1197:A:OP1	1:AA:1198:G:OP2	2.38	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:11:G:C5	1:AA:12:U:C4	3.10	0.40
1:AA:942:G:O6	1:AA:1342:C:N4	2.54	0.40
1:AA:1411:C:O5'	1:AA:1411:C:H6	2.04	0.40
1:AA:1508:A:H2'	1:AA:1509:C:H6	1.86	0.40
1:AA:372:C:H4'	1:AA:373:A:OP1	2.21	0.40
1:AA:439:U:C6	4:AD:119:HIS:CD2	3.09	0.40
1:AA:654:G:H2'	1:AA:655:A:H5'	2.03	0.40
1:AA:755:G:H2'	1:AA:756:C:H6	1.87	0.40
1:AA:697:U:O2	1:AA:798:U:H1'	2.22	0.40
1:AA:79:G:N2	1:AA:91:U:O4	2.54	0.40
2:AB:110:ILE:CG1	2:AB:150:ILE:CG1	2.97	0.40
2:AB:117:GLU:O	2:AB:120:SER:HB3	2.21	0.40
2:AB:131:LYS:O	2:AB:132:GLU:C	2.60	0.40
3:AC:125:ARG:O	3:AC:126:ARG:HB3	2.22	0.40
4:AD:68:GLU:O	4:AD:72:ARG:HG2	2.21	0.40
5:AE:104:ILE:HD12	5:AE:104:ILE:HA	1.79	0.40
8:AH:29:SER:HB3	8:AH:32:LYS:HG3	2.04	0.40
1:AA:643:C:H5'	8:AH:31:LEU:CD2	2.51	0.40
9:AI:19:PHE:O	9:AI:62:LEU:HA	2.21	0.40
9:AI:33:SER:HB3	9:AI:36:GLN:HB2	2.02	0.40
1:AA:1060:U:C5'	10:AJ:53:ILE:CG2	2.99	0.40
11:AK:110:THR:HG23	21:AU:4:LYS:CA	2.51	0.40
11:AK:87:GLY:N	11:AK:113:THR:HG22	2.36	0.40
11:AK:96:ILE:HG13	11:AK:97:ARG:H	1.86	0.40
1:AA:502:A:OP1	12:AL:114:SER:HB3	2.20	0.40
13:AM:18:LEU:HG	13:AM:33:LEU:HD11	2.03	0.40
16:AP:52:LEU:O	16:AP:52:LEU:HG	2.21	0.40
16:AP:56:ARG:HA	16:AP:56:ARG:HD2	1.88	0.40
17:AQ:16:MET:CG	17:AQ:19:SER:HB3	2.50	0.40
18:AR:51:GLN:HG3	18:AR:51:GLN:O	2.21	0.40
19:AS:79:TYR:C	19:AS:79:TYR:CD2	2.93	0.40
20:AT:71:ALA:O	20:AT:72:ALA:C	2.59	0.40
21:AU:44:ARG:O	21:AU:45:LYS:C	2.58	0.40
22:AV:159:C:HO2'	22:AV:160:U:H5'	1.82	0.40
22:AV:272:C:O4'	22:AV:291:A:N1	2.54	0.40
22:AV:315:G:N7	22:AV:316:A:C6	2.90	0.40
22:AV:327:A:C6	22:AV:328:U:C4	3.09	0.40
22:AV:40:G:C2'	22:AV:41:G:O5'	2.69	0.40
22:AV:50:G:N2	22:AV:70:A:H61	2.19	0.40
22:AV:77:G:C6	22:AV:78:C:N4	2.89	0.40
23:AW:86:LEU:HD23	23:AW:87:ARG:HG2	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AY:149:VAL:O	25:AY:152:THR:N	2.51	0.40
25:AY:170:ARG:O	25:AY:171:GLU:CG	2.59	0.40
25:AY:420:ASP:HB3	25:AY:472:VAL:HG13	2.02	0.40
25:AY:514:VAL:HG21	25:AY:593:ALA:HB3	1.98	0.40
26:BA:1044:C:H1'	26:BA:1048:A:H1'	2.02	0.40
26:BA:819:A:N3	26:BA:1189:A:C2	2.90	0.40
26:BA:1432:G:O2'	26:BA:1433:A:H5'	2.21	0.40
26:BA:1467:U:C4	26:BA:1468:U:C5	3.08	0.40
26:BA:1478:G:C6	26:BA:1514:G:C2	3.09	0.40
26:BA:1467:U:C5	26:BA:1546:G:N3	2.89	0.40
26:BA:1588:G:C6	26:BA:1589:U:C5	3.09	0.40
26:BA:2057:G:C2'	26:BA:2058:A:H5'	2.52	0.40
26:BA:212:G:H2'	26:BA:213:A:O4'	2.19	0.40
26:BA:2289:G:N3	26:BA:2289:G:H2'	2.36	0.40
26:BA:2318:G:C5	26:BA:2319:G:C6	3.09	0.40
26:BA:2392:A:C2	26:BA:2393:U:C2	3.09	0.40
26:BA:2731:G:C6	26:BA:2732:G:C6	3.09	0.40
26:BA:2884:U:C6	51:B0:39:ARG:NH2	2.90	0.40
26:BA:356:G:C2'	26:BA:357:C:H5'	2.52	0.40
26:BA:360:U:O2	26:BA:360:U:H2'	2.21	0.40
26:BA:388:G:N7	26:BA:390:U:H2'	2.36	0.40
26:BA:557:C:C2	26:BA:558:U:C5	3.09	0.40
26:BA:669:G:H2'	26:BA:670:A:N7	2.36	0.40
26:BA:80:G:N3	26:BA:294:A:C2	2.90	0.40
26:BA:919:U:H2'	26:BA:920:A:H5'	2.02	0.40
27:BC:144:GLU:HB2	27:BC:187:CYS:HB3	2.02	0.40
30:BF:14:LYS:O	30:BF:18:GLU:HG3	2.21	0.40
30:BF:91:ARG:O	30:BF:94:ARG:HG3	2.21	0.40
31:BG:77:GLY:C	31:BG:79:THR:H	2.24	0.40
32:BH:31:VAL:HG12	32:BH:32:PRO:N	2.37	0.40
33:BI:57:VAL:HG23	33:BI:71:LYS:HZ1	1.85	0.40
33:BI:54:ILE:HG12	33:BI:73:PRO:N	2.36	0.40
36:BL:127:VAL:HG11	36:BL:132:ARG:CA	2.51	0.40
37:BM:57:VAL:C	37:BM:60:GLN:HE21	2.24	0.40
38:BN:52:ILE:O	38:BN:53:THR:C	2.57	0.40
39:BO:111:ARG:HG3	39:BO:117:PHE:CZ	2.56	0.40
39:BO:50:ALA:O	39:BO:51:ALA:HB2	2.21	0.40
44:BT:51:PHE:O	44:BT:53:VAL:HG13	2.20	0.40
45:BU:39:ASN:HD22	45:BU:62:ALA:HB3	1.86	0.40
46:BV:70:ILE:HG22	46:BV:72:VAL:HG12	2.03	0.40
47:BW:11:ASP:OD2	47:BW:12:SER:N	2.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BY:19:LEU:CA	49:BY:22:LEU:HB3	2.50	0.40
50:BZ:2:LYS:CD	50:BZ:2:LYS:N	2.82	0.40
50:BZ:3:THR:HG21	50:BZ:36:GLU:HB3	2.04	0.40
26:BA:852:U:H5'	50:BZ:45:GLY:HA3	2.04	0.40
1:AA:1092:A:C6	1:AA:1183:U:C2	3.09	0.40
1:AA:1141:C:HO2'	1:AA:1142:G:P	2.44	0.40
1:AA:1149:C:H2'	1:AA:1150:A:O4'	2.22	0.40
1:AA:1355:G:C2	1:AA:1356:G:C8	3.10	0.40
1:AA:1450:U:H2'	1:AA:1452:C:C5	2.56	0.40
1:AA:1526:G:P	21:AU:38:GLU:HB3	2.61	0.40
1:AA:199:A:C2	1:AA:200:G:C4	3.09	0.40
1:AA:614:C:C4	1:AA:615:G:N7	2.90	0.40
1:AA:624:C:O2'	1:AA:625:U:H5'	2.22	0.40
1:AA:704:A:C2	1:AA:705:G:H1'	2.56	0.40
1:AA:720:C:H1'	18:AR:38:ILE:HG21	2.03	0.40
1:AA:784:A:H2'	1:AA:785:G:O4'	2.22	0.40
1:AA:864:A:H2'	1:AA:865:A:C8	2.56	0.40
1:AA:91:U:C5	1:AA:92:U:C5	3.09	0.40
1:AA:990:C:O2'	1:AA:991:U:H5'	2.21	0.40
2:AB:135:MET:C	2:AB:138:ARG:HG2	2.41	0.40
2:AB:117:GLU:HA	2:AB:140:LEU:HD21	2.03	0.40
2:AB:211:LEU:C	2:AB:213:LEU:H	2.25	0.40
3:AC:106:ARG:CD	3:AC:106:ARG:N	2.85	0.40
3:AC:142:ARG:HG3	3:AC:142:ARG:NH1	2.27	0.40
3:AC:13:ILE:CG1	3:AC:14:VAL:HG13	2.51	0.40
3:AC:27:GLU:O	3:AC:28:PHE:C	2.59	0.40
1:AA:437:U:C4'	4:AD:153:ARG:NH2	2.85	0.40
4:AD:44:LYS:HA	4:AD:45:PRO:HD3	1.94	0.40
5:AE:143:LEU:O	5:AE:144:GLU:C	2.59	0.40
5:AE:67:ARG:O	5:AE:68:ARG:O	2.39	0.40
5:AE:72:ASN:N	5:AE:72:ASN:HD22	2.13	0.40
7:AG:96:ASN:O	7:AG:100:MET:HG3	2.21	0.40
7:AG:73:GLU:O	7:AG:74:VAL:HG13	2.22	0.40
9:AI:105:ARG:CD	9:AI:105:ARG:C	2.90	0.40
14:AN:2:LYS:C	14:AN:6:LYS:HE2	2.42	0.40
16:AP:46:LYS:HE2	16:AP:47:GLU:H	1.86	0.40
16:AP:68:SER:O	16:AP:72:ALA:N	2.54	0.40
18:AR:71:ASP:O	18:AR:73:HIS:N	2.54	0.40
1:AA:1314:C:P	19:AS:5:LYS:HZ2	2.42	0.40
20:AT:14:GLU:C	20:AT:16:ALA:N	2.75	0.40
22:AV:215:C:C4	22:AV:216:U:O4	2.75	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:303:G:C2	22:AV:304:C:N3	2.90	0.40
22:AV:337:C:H2'	22:AV:338:G:C8	2.56	0.40
24:AX:40:C:O2	24:AX:40:C:C2'	2.69	0.40
24:AX:48:U:H2'	24:AX:51:U:OP1	2.22	0.40
25:AY:364:GLU:HG2	25:AY:366:VAL:HG13	2.03	0.40
25:AY:621:ILE:HG23	25:AY:631:ILE:HG12	2.02	0.40
51:B0:3:GLN:HE21	51:B0:3:GLN:HB3	1.62	0.40
26:BA:125:A:C6	53:B2:10:LEU:HD13	2.56	0.40
26:BA:1340:U:O2	26:BA:1340:U:O5'	2.39	0.40
26:BA:1445:G:C6	26:BA:1446:C:N3	2.89	0.40
26:BA:1415:U:C4	26:BA:1587:G:O6	2.74	0.40
26:BA:170:U:H2'	26:BA:171:U:H6	1.86	0.40
26:BA:1721:G:O6	26:BA:1738:G:O6	2.39	0.40
26:BA:1843:C:H2'	26:BA:1844:C:C6	2.57	0.40
26:BA:1909:C:H2'	26:BA:1909:C:O2	2.21	0.40
26:BA:2157:G:O2'	26:BA:2158:A:H8	2.04	0.40
26:BA:2170:A:H1'	26:BA:2171:A:C8	2.56	0.40
26:BA:2207:C:C2'	26:BA:2208:C:O5'	2.69	0.40
26:BA:2278:A:H8	26:BA:2278:A:H5''	1.86	0.40
26:BA:2312:U:C6	26:BA:2312:U:H3'	2.55	0.40
26:BA:2313:C:C2'	26:BA:2314:A:H5'	2.51	0.40
26:BA:2329:U:H2'	26:BA:2330:G:O4'	2.20	0.40
26:BA:2474:U:H3'	26:BA:2475:C:C6	2.56	0.40
26:BA:2757:A:OP1	55:B4:20:ASP:N	2.54	0.40
26:BA:283:G:C2'	26:BA:284:U:O5'	2.69	0.40
26:BA:328:U:C2'	26:BA:329:G:OP1	2.69	0.40
26:BA:528:A:N1	26:BA:2043:C:O5'	2.54	0.40
26:BA:766:U:H2'	26:BA:767:U:C6	2.57	0.40
26:BA:823:C:H2'	26:BA:824:U:H5'	2.03	0.40
26:BA:912:C:O2	26:BA:913:U:C6	2.73	0.40
56:BB:38:C:C3'	56:BB:38:C:C6	3.04	0.40
56:BB:86:G:N7	56:BB:88:C:C4	2.90	0.40
27:BC:6:LYS:HA	27:BC:7:PRO:HD3	1.91	0.40
28:BD:35:THR:O	28:BD:71:ALA:HB2	2.22	0.40
31:BG:23:ILE:HG23	31:BG:25:ILE:HD11	2.03	0.40
31:BG:27:GLY:O	31:BG:29:ASN:N	2.53	0.40
32:BH:75:LEU:O	32:BH:76:GLU:HB3	2.20	0.40
32:BH:76:GLU:HG2	32:BH:143:ILE:CD1	2.50	0.40
33:BI:82:ALA:HB1	33:BI:108:ILE:HG21	2.03	0.40
35:BK:44:LYS:HA	35:BK:44:LYS:HD3	1.90	0.40
36:BL:30:THR:O	36:BL:31:GLY:C	2.60	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BL:9:ALA:HB3	36:BL:12:SER:HG	1.86	0.40
37:BM:109:PRO:O	37:BM:112:LEU:N	2.54	0.40
38:BN:35:LYS:HB2	38:BN:112:TYR:HE1	1.85	0.40
40:BP:89:GLY:HA3	40:BP:109:ILE:HD11	2.03	0.40
44:BT:2:ILE:HA	44:BT:3:ARG:HB2	2.03	0.40
45:BU:11:ILE:HG21	45:BU:79:ALA:CB	2.46	0.40
1:AA:1023:U:C2'	1:AA:1024:G:O4'	2.68	0.40
1:AA:1104:G:H2'	1:AA:1105:A:O4'	2.22	0.40
1:AA:1129:C:H2'	1:AA:1129:C:H6	1.75	0.40
1:AA:1144:G:N1	1:AA:1145:A:H2	2.19	0.40
1:AA:1216:A:C6	1:AA:1217:C:C4	3.09	0.40
1:AA:1226:C:H2'	13:AM:101:THR:CB	2.51	0.40
1:AA:1233:G:OP2	9:AI:125:GLN:CB	2.63	0.40
1:AA:1234:C:H2'	1:AA:1235:U:C6	2.52	0.40
1:AA:1236:A:O2'	1:AA:1304:G:H4'	2.21	0.40
1:AA:1367:C:C5'	10:AJ:62:ARG:NH1	2.84	0.40
1:AA:173:U:H5''	1:AA:197:A:O4'	2.21	0.40
1:AA:251:G:H4'	1:AA:252:U:O5'	2.21	0.40
1:AA:36:C:C2	1:AA:37:U:C6	3.10	0.40
1:AA:408:A:N1	1:AA:409:U:C2	2.90	0.40
1:AA:458:U:H2'	1:AA:459:A:H8	1.86	0.40
1:AA:577:G:C8	1:AA:816:A:C6	3.10	0.40
1:AA:840:C:H6	1:AA:840:C:O5'	2.04	0.40
1:AA:956:U:O2'	1:AA:957:U:H5'	2.22	0.40
2:AB:119:GLN:HG2	2:AB:119:GLN:O	2.22	0.40
3:AC:43:THR:O	3:AC:47:ALA:HA	2.21	0.40
3:AC:41:TYR:CZ	3:AC:45:GLU:HG3	2.55	0.40
3:AC:54:ILE:HA	3:AC:66:THR:O	2.22	0.40
4:AD:193:ASP:C	4:AD:194:ILE:CG2	2.90	0.40
5:AE:15:ILE:HD11	5:AE:37:VAL:HB	2.03	0.40
6:AF:17:GLN:HE21	6:AF:17:GLN:CA	2.34	0.40
7:AG:21:LEU:HD11	7:AG:61:PHE:CE1	2.57	0.40
9:AI:28:VAL:CG1	9:AI:31:GLN:HA	2.51	0.40
9:AI:95:SER:C	9:AI:98:ARG:HB2	2.41	0.40
12:AL:27:PRO:HG2	12:AL:28:GLN:OE1	2.21	0.40
10:AJ:65:TYR:CD2	14:AN:98:LYS:HG2	2.57	0.40
15:AO:40:GLY:O	15:AO:43:ALA:HB3	2.22	0.40
17:AQ:60:ILE:HG23	17:AQ:72:TRP:CE3	2.55	0.40
17:AQ:67:SER:O	17:AQ:68:LYS:O	2.39	0.40
18:AR:67:LEU:HD23	18:AR:67:LEU:HA	1.84	0.40
22:AV:155:C:O2'	22:AV:156:G:H5''	2.17	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AV:238:A:C2	22:AV:239:A:C6	3.09	0.40
22:AV:245:C:C2'	22:AV:248:G:H1'	2.51	0.40
22:AV:263:G:H5'	22:AV:264:U:OP2	2.21	0.40
22:AV:333:G:OP2	22:AV:334:A:P	2.80	0.40
22:AV:45:A:C2	22:AV:46:U:C4	3.09	0.40
24:AX:3:C:H42	24:AX:71:G:H1	1.68	0.40
25:AY:238:THR:CG2	25:AY:241:GLU:HG2	2.36	0.40
25:AY:315:LYS:HZ2	25:AY:317:MET:HG2	1.85	0.40
25:AY:583:LYS:O	25:AY:587:SER:HB2	2.22	0.40
25:AY:622:GLY:O	25:AY:623:ASP:C	2.58	0.40
25:AY:628:ARG:HH12	25:AY:680:PRO:CG	2.30	0.40
25:AY:67:ALA:O	25:AY:68:ALA:C	2.60	0.40
55:B4:11:CYS:HB3	55:B4:33:HIS:HE1	1.87	0.40
26:BA:1224:U:O2	26:BA:1224:U:C2'	2.65	0.40
26:BA:1494:A:C2	26:BA:1495:A:N3	2.89	0.40
26:BA:1580:A:H2'	26:BA:1581:G:C5'	2.52	0.40
26:BA:1587:G:N7	26:BA:1588:G:C8	2.90	0.40
26:BA:1748:C:C2	26:BA:1749:A:C8	3.09	0.40
26:BA:2189:U:H2'	26:BA:2190:G:O4'	2.21	0.40
26:BA:2192:U:C2	26:BA:2193:G:N7	2.89	0.40
26:BA:2519:U:C6	26:BA:2541:A:N6	2.90	0.40
26:BA:2660:A:C2	26:BA:2661:G:C4	3.10	0.40
26:BA:2839:G:C5	26:BA:2840:C:C4	3.09	0.40
26:BA:737:C:H2'	26:BA:738:G:O4'	2.22	0.40
26:BA:896:A:N3	26:BA:897:C:O4'	2.55	0.40
26:BA:912:C:O2	26:BA:912:C:H2'	2.21	0.40
56:BB:31:C:H2'	56:BB:31:C:O2	2.21	0.40
27:BC:35:LYS:CG	27:BC:36:ASN:N	2.84	0.40
27:BC:75:ALA:HB2	27:BC:95:TYR:HA	2.03	0.40
29:BE:134:LEU:CD2	29:BE:160:ALA:O	2.69	0.40
29:BE:49:ARG:HA	29:BE:82:GLY:HA3	2.03	0.40
30:BF:126:ASN:N	30:BF:126:ASN:ND2	2.70	0.40
30:BF:51:ASN:ND2	30:BF:146:ASP:HB3	2.36	0.40
31:BG:8:VAL:HG21	31:BG:72:ASN:HA	2.04	0.40
31:BG:88:LEU:N	31:BG:88:LEU:CD1	2.80	0.40
32:BH:69:ALA:HB1	32:BH:138:VAL:HG12	2.03	0.40
32:BH:8:LYS:HD2	32:BH:15:LEU:HD23	2.03	0.40
32:BH:29:PHE:O	32:BH:33:GLN:HB3	2.21	0.40
33:BI:56:VAL:HG21	33:BI:70:THR:HB	2.02	0.40
34:BJ:140:LEU:CD1	34:BJ:142:ILE:HD13	2.51	0.40
38:BN:100:CYS:O	38:BN:100:CYS:SG	2.79	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BD:115:GLY:O	38:BN:3:HIS:CE1	2.75	0.40
39:BO:68:LYS:HE2	56:BB:49:C:O3'	2.22	0.40
28:BD:12:THR:CG2	40:BP:8:GLU:HG2	2.51	0.40
41:BQ:8:ILE:O	41:BQ:8:ILE:HG13	2.20	0.40
43:BS:58:ALA:O	43:BS:62:ASP:HB2	2.20	0.40
47:BW:20:LYS:O	47:BW:21:ARG:CD	2.65	0.40
50:BZ:38:GLU:HB2	50:BZ:40:THR:HG23	2.03	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles [i](#)

### 5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	AB	216/218 (99%)	109 (50%)	49 (23%)	58 (27%)	0	0
3	AC	204/206 (99%)	126 (62%)	48 (24%)	30 (15%)	0	4
4	AD	203/205 (99%)	123 (61%)	41 (20%)	39 (19%)	0	3
5	AE	148/150 (99%)	87 (59%)	38 (26%)	23 (16%)	0	4
6	AF	98/100 (98%)	62 (63%)	21 (21%)	15 (15%)	0	4
7	AG	149/151 (99%)	85 (57%)	42 (28%)	22 (15%)	0	4
8	AH	127/129 (98%)	79 (62%)	37 (29%)	11 (9%)	1	14
9	AI	125/127 (98%)	76 (61%)	34 (27%)	15 (12%)	0	7
10	AJ	96/98 (98%)	60 (62%)	14 (15%)	22 (23%)	0	1
11	AK	115/117 (98%)	84 (73%)	17 (15%)	14 (12%)	0	7
12	AL	121/123 (98%)	85 (70%)	29 (24%)	7 (6%)	2	23
13	AM	112/114 (98%)	78 (70%)	22 (20%)	12 (11%)	0	9
14	AN	92/100 (92%)	47 (51%)	27 (29%)	18 (20%)	0	2
15	AO	86/88 (98%)	57 (66%)	22 (26%)	7 (8%)	1	16

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
16	AP	80/82 (98%)	48 (60%)	11 (14%)	21 (26%)	0	1
17	AQ	78/80 (98%)	47 (60%)	18 (23%)	13 (17%)	0	4
18	AR	53/55 (96%)	34 (64%)	13 (24%)	6 (11%)	0	8
19	AS	77/79 (98%)	37 (48%)	28 (36%)	12 (16%)	0	4
20	AT	83/85 (98%)	37 (45%)	31 (37%)	15 (18%)	0	3
21	AU	49/51 (96%)	20 (41%)	15 (31%)	14 (29%)	0	0
23	AW	120/123 (98%)	84 (70%)	24 (20%)	12 (10%)	0	12
25	AY	663/691 (96%)	436 (66%)	136 (20%)	91 (14%)	0	5
27	BC	269/271 (99%)	217 (81%)	31 (12%)	21 (8%)	1	17
28	BD	207/209 (99%)	166 (80%)	30 (14%)	11 (5%)	2	25
29	BE	199/201 (99%)	158 (79%)	32 (16%)	9 (4%)	3	28
30	BF	175/177 (99%)	118 (67%)	38 (22%)	19 (11%)	0	9
31	BG	174/176 (99%)	129 (74%)	30 (17%)	15 (9%)	1	15
32	BH	147/149 (99%)	95 (65%)	29 (20%)	23 (16%)	0	4
33	BI	139/141 (99%)	65 (47%)	47 (34%)	27 (19%)	0	2
34	BJ	140/142 (99%)	123 (88%)	11 (8%)	6 (4%)	3	28
35	BK	120/122 (98%)	88 (73%)	24 (20%)	8 (7%)	1	20
36	BL	141/143 (99%)	99 (70%)	21 (15%)	21 (15%)	0	4
37	BM	134/136 (98%)	111 (83%)	14 (10%)	9 (7%)	1	20
38	BN	118/120 (98%)	92 (78%)	20 (17%)	6 (5%)	2	25
39	BO	114/116 (98%)	83 (73%)	17 (15%)	14 (12%)	0	6
40	BP	112/114 (98%)	96 (86%)	12 (11%)	4 (4%)	4	32
41	BQ	115/117 (98%)	100 (87%)	13 (11%)	2 (2%)	10	49
42	BR	101/103 (98%)	84 (83%)	9 (9%)	8 (8%)	1	16
43	BS	108/110 (98%)	90 (83%)	12 (11%)	6 (6%)	2	24
44	BT	91/93 (98%)	67 (74%)	13 (14%)	11 (12%)	0	7
45	BU	100/102 (98%)	75 (75%)	13 (13%)	12 (12%)	0	7
46	BV	92/94 (98%)	79 (86%)	11 (12%)	2 (2%)	7	42
47	BW	74/76 (97%)	68 (92%)	4 (5%)	2 (3%)	5	38
48	BX	75/77 (97%)	64 (85%)	9 (12%)	2 (3%)	5	38
49	BY	61/63 (97%)	34 (56%)	13 (21%)	14 (23%)	0	1

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
50	BZ	56/58 (97%)	50 (89%)	6 (11%)	0	100	100
51	B0	54/56 (96%)	44 (82%)	8 (15%)	2 (4%)	4	31
52	B1	48/50 (96%)	32 (67%)	12 (25%)	4 (8%)	1	15
53	B2	44/46 (96%)	37 (84%)	6 (14%)	1 (2%)	7	41
54	B3	62/64 (97%)	56 (90%)	6 (10%)	0	100	100
55	B4	36/38 (95%)	31 (86%)	4 (11%)	1 (3%)	5	37
All	All	6401/6536 (98%)	4452 (70%)	1212 (19%)	737 (12%)	1	7

All (737) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AB	15	PHE
2	AB	21	TYR
2	AB	33	ALA
2	AB	63	LYS
2	AB	67	LEU
2	AB	72	LYS
2	AB	74	ALA
2	AB	82	ALA
2	AB	86	CYS
2	AB	91	VAL
2	AB	94	ARG
2	AB	106	VAL
2	AB	114	LYS
2	AB	115	ASP
2	AB	116	LEU
2	AB	119	GLN
2	AB	128	LEU
2	AB	131	LYS
2	AB	132	GLU
2	AB	133	ALA
2	AB	144	GLU
2	AB	147	LEU
2	AB	151	LYS
2	AB	156	LEU
2	AB	160	LEU
2	AB	163	ILE
2	AB	182	VAL
2	AB	200	PRO
2	AB	206	ILE

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Mol	Chain	Res	Type
2	AB	208	ALA
2	AB	211	LEU
2	AB	219	THR
2	AB	221	ARG
3	AC	11	LEU
3	AC	14	VAL
3	AC	16	PRO
3	AC	17	TRP
3	AC	25	THR
3	AC	53	ARG
3	AC	78	LYS
3	AC	119	ILE
3	AC	120	THR
3	AC	138	GLN
3	AC	145	ALA
3	AC	167	TYR
4	AD	22	SER
4	AD	25	ARG
4	AD	28	ASP
4	AD	32	LYS
4	AD	34	GLU
4	AD	43	ARG
4	AD	48	SER
4	AD	150	LYS
4	AD	152	SER
4	AD	155	LYS
4	AD	159	GLU
4	AD	167	PRO
4	AD	190	LEU
4	AD	191	SER
4	AD	202	LEU
5	AE	11	GLN
5	AE	61	LYS
5	AE	68	ARG
5	AE	81	GLN
5	AE	99	SER
5	AE	104	ILE
5	AE	112	ALA
5	AE	121	ASN
5	AE	137	ARG
6	AF	6	ILE
6	AF	18	VAL

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Mol	Chain	Res	Type
6	AF	36	ILE
6	AF	63	ASN
6	AF	82	ASP
6	AF	91	ARG
6	AF	92	THR
7	AG	14	ASP
7	AG	49	LEU
7	AG	58	LEU
7	AG	93	VAL
7	AG	101	ARG
7	AG	112	ASP
7	AG	129	ASN
8	AH	2	MET
8	AH	13	ILE
8	AH	14	ARG
8	AH	49	LYS
8	AH	53	ASP
8	AH	56	PRO
8	AH	102	VAL
9	AI	40	ARG
9	AI	71	ILE
9	AI	87	MET
9	AI	90	ASP
9	AI	119	LYS
10	AJ	17	LEU
10	AJ	32	THR
10	AJ	33	GLY
10	AJ	34	ALA
10	AJ	43	PRO
10	AJ	57	VAL
10	AJ	61	ALA
10	AJ	101	SER
11	AK	14	GLN
11	AK	51	PHE
11	AK	71	ASP
11	AK	72	ALA
11	AK	74	LYS
11	AK	124	LYS
11	AK	125	LYS
12	AL	23	LEU
12	AL	24	GLU
12	AL	25	ALA

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Mol	Chain	Res	Type
12	AL	43	LYS
13	AM	3	ILE
13	AM	10	ASP
13	AM	11	HIS
13	AM	26	LYS
13	AM	40	GLU
13	AM	113	LYS
14	AN	20	PHE
14	AN	28	ALA
14	AN	30	ILE
14	AN	32	ASP
14	AN	47	LYS
14	AN	49	GLN
14	AN	52	PRO
14	AN	62	ASN
14	AN	92	GLU
15	AO	72	LYS
16	AP	11	ALA
16	AP	16	PHE
16	AP	43	ALA
16	AP	46	LYS
16	AP	51	ARG
16	AP	77	GLU
16	AP	79	ASN
17	AQ	12	VAL
17	AQ	50	ASN
19	AS	28	LYS
19	AS	64	GLU
19	AS	75	PRO
20	AT	4	LYS
20	AT	5	SER
20	AT	43	LYS
20	AT	72	ALA
20	AT	76	ALA
21	AU	10	PRO
21	AU	23	GLU
21	AU	35	GLU
21	AU	37	TYR
21	AU	39	LYS
23	AW	4	VAL
23	AW	65	LYS
25	AY	6	GLU

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Mol	Chain	Res	Type
25	AY	19	ALA
25	AY	21	ILE
25	AY	23	ALA
25	AY	66	THR
25	AY	68	ALA
25	AY	84	THR
25	AY	85	PRO
25	AY	88	VAL
25	AY	92	ILE
25	AY	119	GLU
25	AY	121	VAL
25	AY	129	LYS
25	AY	197	ARG
25	AY	203	GLU
25	AY	204	GLU
25	AY	205	TYR
25	AY	206	LEU
25	AY	209	ALA
25	AY	210	ARG
25	AY	251	ILE
25	AY	276	VAL
25	AY	360	ALA
25	AY	385	THR
25	AY	396	ARG
25	AY	402	ILE
25	AY	447	GLY
25	AY	448	GLN
25	AY	456	GLU
25	AY	498	ILE
25	AY	519	ARG
25	AY	530	VAL
25	AY	559	PRO
25	AY	614	GLU
27	BC	35	LYS
27	BC	36	ASN
27	BC	121	ALA
27	BC	122	ALA
27	BC	167	ASP
27	BC	196	ASN
27	BC	235	GLU
28	BD	41	ALA
28	BD	104	VAL

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Mol	Chain	Res	Type
28	BD	152	PRO
30	BF	175	PRO
31	BG	81	GLY
31	BG	117	PRO
31	BG	118	ALA
32	BH	2	GLN
32	BH	10	ALA
32	BH	11	ASN
32	BH	12	LEU
32	BH	14	SER
32	BH	31	VAL
32	BH	32	PRO
32	BH	33	GLN
32	BH	56	ALA
33	BI	5	GLN
33	BI	6	ALA
33	BI	18	ASN
33	BI	30	GLN
33	BI	57	VAL
33	BI	64	ARG
33	BI	65	SER
33	BI	74	PRO
33	BI	104	GLN
33	BI	105	LEU
33	BI	115	ASP
33	BI	116	MET
33	BI	133	ARG
34	BJ	81	ILE
35	BK	35	VAL
35	BK	75	SER
35	BK	91	SER
35	BK	110	GLU
36	BL	15	ALA
36	BL	29	LYS
36	BL	68	SER
36	BL	69	ARG
36	BL	86	GLU
36	BL	88	GLY
36	BL	94	THR
36	BL	111	ILE
36	BL	115	GLU
37	BM	44	ARG

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Mol	Chain	Res	Type
37	BM	55	ARG
37	BM	69	PRO
37	BM	78	LEU
38	BN	11	ASN
39	BO	49	VAL
40	BP	15	ASP
40	BP	93	LYS
40	BP	104	GLY
41	BQ	24	TYR
41	BQ	86	SER
42	BR	40	MET
42	BR	51	VAL
42	BR	55	ASP
42	BR	65	ALA
44	BT	72	GLN
44	BT	89	GLU
45	BU	6	ARG
45	BU	7	ASP
45	BU	16	LYS
45	BU	97	SER
45	BU	98	ASN
45	BU	99	SER
49	BY	17	GLU
49	BY	22	LEU
49	BY	24	GLU
49	BY	33	ALA
52	B1	16	THR
52	B1	51	ALA
53	B2	44	VAL
2	AB	13	VAL
2	AB	50	ASN
2	AB	51	GLU
2	AB	56	LEU
2	AB	75	ALA
2	AB	96	LEU
2	AB	122	ASP
2	AB	123	GLY
2	AB	127	LYS
2	AB	154	GLY
2	AB	176	ASN
2	AB	207	ARG
2	AB	209	VAL

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Mol	Chain	Res	Type
2	AB	210	THR
3	AC	61	LYS
3	AC	80	GLY
3	AC	93	ILE
3	AC	106	ARG
3	AC	126	ARG
3	AC	140	ALA
4	AD	6	PRO
4	AD	9	LYS
4	AD	23	GLY
4	AD	31	CYS
4	AD	101	VAL
4	AD	124	VAL
4	AD	165	GLU
4	AD	174	ALA
5	AE	75	LEU
5	AE	77	ASN
5	AE	87	VAL
5	AE	98	ALA
5	AE	119	VAL
5	AE	133	ILE
5	AE	146	MET
5	AE	156	ARG
6	AF	8	PHE
6	AF	51	ILE
7	AG	74	VAL
7	AG	86	VAL
7	AG	99	ALA
7	AG	102	TRP
7	AG	124	SER
7	AG	131	GLY
8	AH	24	VAL
8	AH	47	ASP
9	AI	31	GLN
9	AI	106	ASP
10	AJ	28	THR
10	AJ	35	GLN
10	AJ	41	PRO
10	AJ	59	LYS
10	AJ	74	VAL
10	AJ	93	ALA
11	AK	16	SER

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Mol	Chain	Res	Type
11	AK	77	GLY
11	AK	118	ASN
12	AL	88	ASP
13	AM	66	GLY
14	AN	16	ALA
14	AN	27	LYS
14	AN	75	ARG
16	AP	10	GLY
16	AP	15	PRO
16	AP	36	VAL
16	AP	53	ASP
16	AP	76	LYS
16	AP	78	VAL
16	AP	80	LYS
17	AQ	8	GLN
17	AQ	11	VAL
17	AQ	48	GLU
17	AQ	49	ASN
17	AQ	68	LYS
17	AQ	69	THR
18	AR	24	ASP
19	AS	8	PRO
19	AS	13	HIS
19	AS	29	PRO
20	AT	57	VAL
20	AT	73	ARG
21	AU	26	GLY
23	AW	37	GLY
23	AW	62	PRO
23	AW	63	TYR
23	AW	97	GLY
25	AY	10	LYS
25	AY	39	ILE
25	AY	112	GLN
25	AY	114	VAL
25	AY	183	MET
25	AY	196	ILE
25	AY	299	VAL
25	AY	347	GLY
25	AY	371	ALA
25	AY	380	LEU
25	AY	386	GLY

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Mol	Chain	Res	Type
25	AY	399	LEU
25	AY	416	LYS
25	AY	418	LYS
25	AY	471	LYS
25	AY	505	GLY
25	AY	657	THR
25	AY	678	GLU
27	BC	11	GLY
27	BC	12	ARG
27	BC	70	LYS
27	BC	151	GLY
27	BC	177	SER
28	BD	86	GLU
28	BD	88	GLU
28	BD	206	ALA
29	BE	45	ALA
29	BE	151	GLY
29	BE	161	ALA
30	BF	20	ASN
30	BF	40	GLY
30	BF	41	GLU
30	BF	52	ALA
30	BF	69	ALA
30	BF	151	LEU
30	BF	159	ALA
31	BG	38	ASP
31	BG	60	GLY
31	BG	151	ARG
32	BH	3	VAL
32	BH	28	ASN
32	BH	34	GLY
32	BH	35	LYS
32	BH	41	LYS
32	BH	118	PRO
32	BH	119	ASN
32	BH	121	VAL
33	BI	21	PRO
33	BI	23	VAL
33	BI	44	LYS
33	BI	71	LYS
33	BI	97	VAL
35	BK	109	SER

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Mol	Chain	Res	Type
36	BL	24	GLY
36	BL	27	LEU
36	BL	30	THR
36	BL	31	GLY
36	BL	81	ASP
36	BL	102	GLY
36	BL	114	GLY
37	BM	54	THR
38	BN	2	ARG
38	BN	10	LEU
39	BO	3	LYS
39	BO	57	ALA
39	BO	77	ALA
39	BO	87	ILE
42	BR	49	ILE
42	BR	50	GLY
42	BR	53	PHE
44	BT	38	ALA
45	BU	8	ASP
45	BU	51	LEU
45	BU	101	THR
46	BV	51	GLN
48	BX	41	SER
49	BY	14	LEU
49	BY	32	ALA
49	BY	37	LEU
49	BY	62	GLY
51	B0	54	ILE
2	AB	25	LYS
2	AB	40	ILE
2	AB	125	PHE
3	AC	65	VAL
3	AC	79	LYS
3	AC	87	ARG
3	AC	135	ARG
3	AC	139	ASN
4	AD	160	LEU
4	AD	166	LYS
4	AD	168	THR
4	AD	169	TRP
4	AD	192	ALA
5	AE	60	GLN

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Mol	Chain	Res	Type
5	AE	67	ARG
5	AE	142	GLY
5	AE	150	GLU
6	AF	56	LYS
6	AF	68	GLN
6	AF	69	GLU
7	AG	50	ALA
7	AG	100	MET
8	AH	96	ALA
9	AI	8	THR
9	AI	52	GLU
9	AI	55	ASP
10	AJ	39	PRO
10	AJ	58	ASN
10	AJ	95	GLY
13	AM	56	ARG
13	AM	104	ASN
14	AN	42	TRP
14	AN	76	LYS
15	AO	57	ARG
16	AP	49	GLY
16	AP	65	ALA
17	AQ	16	MET
17	AQ	17	GLU
19	AS	23	GLU
20	AT	3	ILE
20	AT	15	LYS
21	AU	36	PHE
21	AU	47	ALA
23	AW	89	LEU
23	AW	96	LYS
25	AY	25	LYS
25	AY	34	TYR
25	AY	42	ILE
25	AY	89	ASP
25	AY	120	THR
25	AY	144	ALA
25	AY	148	LEU
25	AY	283	PRO
25	AY	393	ASP
25	AY	458	HIS
25	AY	469	GLU

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Mol	Chain	Res	Type
25	AY	532	GLY
25	AY	535	PRO
25	AY	636	PRO
25	AY	680	PRO
27	BC	65	ASP
27	BC	74	PRO
27	BC	157	ALA
28	BD	40	LEU
29	BE	8	ALA
29	BE	142	ALA
29	BE	173	THR
30	BF	9	ASP
30	BF	24	VAL
30	BF	44	ALA
30	BF	109	ARG
30	BF	116	LEU
31	BG	28	LYS
31	BG	77	GLY
31	BG	150	TYR
32	BH	26	ALA
32	BH	107	GLY
33	BI	36	GLU
33	BI	41	PHE
33	BI	82	ALA
33	BI	100	ILE
33	BI	112	LYS
34	BJ	32	LEU
35	BK	93	GLN
35	BK	119	ALA
36	BL	137	ALA
37	BM	6	ARG
37	BM	43	ALA
37	BM	113	ALA
38	BN	80	PHE
39	BO	60	GLU
39	BO	88	LYS
39	BO	89	ASP
39	BO	95	SER
40	BP	65	ASN
43	BS	12	SER
43	BS	46	LEU
43	BS	64	ALA

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Mol	Chain	Res	Type
44	BT	20	ALA
44	BT	88	LYS
46	BV	67	GLY
49	BY	20	ASN
49	BY	57	LEU
52	B1	32	LYS
2	AB	142	LYS
3	AC	8	GLY
3	AC	60	ALA
3	AC	85	LYS
4	AD	29	THR
4	AD	35	GLN
4	AD	42	ALA
4	AD	78	ALA
4	AD	125	ASN
4	AD	148	ALA
5	AE	23	THR
6	AF	53	LYS
7	AG	16	LYS
7	AG	144	ALA
8	AH	118	ALA
9	AI	68	GLY
10	AJ	36	VAL
10	AJ	42	LEU
10	AJ	92	LEU
11	AK	40	ALA
11	AK	126	ARG
13	AM	111	PRO
14	AN	64	CYS
14	AN	69	ARG
15	AO	2	LEU
15	AO	9	LYS
15	AO	45	HIS
17	AQ	5	ARG
17	AQ	35	LYS
17	AQ	39	ARG
18	AR	26	ALA
18	AR	29	LYS
18	AR	48	ALA
18	AR	60	ARG
19	AS	4	LEU
20	AT	23	ARG

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Mol	Chain	Res	Type
20	AT	29	THR
20	AT	39	GLU
20	AT	74	HIS
21	AU	9	GLU
25	AY	230	LYS
25	AY	406	GLU
25	AY	444	PRO
25	AY	457	LEU
25	AY	502	GLY
25	AY	506	GLN
25	AY	549	ALA
27	BC	160	TYR
27	BC	204	LEU
28	BD	57	ALA
28	BD	67	HIS
28	BD	133	THR
30	BF	129	MET
31	BG	131	VAL
32	BH	8	LYS
32	BH	9	VAL
32	BH	51	ARG
34	BJ	89	PHE
39	BO	51	ALA
39	BO	76	LYS
39	BO	94	ARG
44	BT	5	GLU
44	BT	41	ALA
44	BT	52	GLU
47	BW	7	ARG
47	BW	59	ALA
48	BX	59	ASP
49	BY	10	SER
49	BY	21	LEU
51	B0	53	VAL
52	B1	50	GLU
55	B4	20	ASP
2	AB	42	LEU
2	AB	83	ALA
2	AB	111	LYS
2	AB	218	ALA
3	AC	26	LYS
3	AC	64	ARG

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Mol	Chain	Res	Type
3	AC	76	ILE
3	AC	166	TRP
4	AD	69	ARG
4	AD	139	ASN
5	AE	55	VAL
6	AF	54	LEU
7	AG	78	ARG
9	AI	56	MET
10	AJ	31	ARG
11	AK	55	ARG
11	AK	123	PRO
12	AL	20	VAL
16	AP	8	ARG
16	AP	28	ARG
16	AP	50	THR
18	AR	59	LYS
19	AS	12	LEU
19	AS	30	LEU
19	AS	74	ALA
21	AU	14	ALA
21	AU	22	CYS
21	AU	24	LYS
21	AU	51	ALA
23	AW	35	ARG
23	AW	69	ALA
25	AY	22	ASP
25	AY	65	ILE
25	AY	123	ARG
25	AY	153	MET
25	AY	303	PRO
25	AY	361	ASN
25	AY	415	PRO
25	AY	577	SER
25	AY	598	ASP
25	AY	617	MET
25	AY	652	MET
25	AY	688	ILE
27	BC	75	ALA
28	BD	98	VAL
29	BE	97	ASN
30	BF	42	ALA
30	BF	132	ARG

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Mol	Chain	Res	Type
31	BG	7	PRO
31	BG	78	VAL
31	BG	98	LYS
31	BG	155	PRO
32	BH	55	GLU
33	BI	120	ASP
34	BJ	25	LEU
35	BK	29	HIS
36	BL	5	THR
36	BL	84	LYS
36	BL	101	ILE
38	BN	118	ARG
39	BO	41	ALA
43	BS	10	ALA
44	BT	37	ASP
44	BT	90	GLY
49	BY	5	GLU
4	AD	36	ALA
6	AF	27	ALA
7	AG	17	PHE
7	AG	104	VAL
9	AI	49	GLN
9	AI	50	PRO
10	AJ	45	ARG
13	AM	49	GLU
15	AO	16	ARG
16	AP	44	SER
20	AT	54	GLN
23	AW	72	ASP
23	AW	88	ARG
25	AY	24	GLY
25	AY	75	LYS
25	AY	408	VAL
25	AY	591	LYS
27	BC	154	ALA
29	BE	177	PRO
30	BF	102	LEU
30	BF	174	PHE
33	BI	51	GLY
33	BI	101	SER
36	BL	12	SER
37	BM	114	ARG

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Mol	Chain	Res	Type
42	BR	64	VAL
43	BS	45	VAL
45	BU	36	GLU
4	AD	24	VAL
7	AG	5	VAL
9	AI	54	VAL
20	AT	66	ILE
21	AU	40	PRO
27	BC	27	LYS
29	BE	193	VAL
31	BG	11	PRO
2	AB	150	ILE
4	AD	100	VAL
7	AG	80	GLY
14	AN	10	VAL
14	AN	45	VAL
15	AO	85	GLY
19	AS	44	ILE
38	BN	109	PRO
45	BU	54	PRO
49	BY	46	VAL
2	AB	79	VAL
2	AB	155	GLY
12	AL	70	GLY
16	AP	75	ILE
27	BC	195	GLY
33	BI	121	ILE
34	BJ	82	GLY
34	BJ	97	PRO
39	BO	101	GLY
43	BS	66	ILE
13	AM	94	LEU
30	BF	28	PRO
44	BT	2	ILE
25	AY	333	GLY
45	BU	53	GLN

### 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 PDB entries followed by that with respect to all EM entries.

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	AB	180/180 (100%)	114 (63%)	66 (37%)	0	1
3	AC	170/170 (100%)	125 (74%)	45 (26%)	0	4
4	AD	172/172 (100%)	132 (77%)	40 (23%)	1	5
5	AE	113/113 (100%)	80 (71%)	33 (29%)	0	3
6	AF	87/87 (100%)	60 (69%)	27 (31%)	0	2
7	AG	124/124 (100%)	90 (73%)	34 (27%)	0	4
8	AH	104/104 (100%)	78 (75%)	26 (25%)	0	4
9	AI	105/105 (100%)	74 (70%)	31 (30%)	0	3
10	AJ	86/86 (100%)	63 (73%)	23 (27%)	0	4
11	AK	90/90 (100%)	66 (73%)	24 (27%)	0	4
12	AL	103/103 (100%)	86 (84%)	17 (16%)	2	15
13	AM	92/92 (100%)	73 (79%)	19 (21%)	1	8
14	AN	79/83 (95%)	56 (71%)	23 (29%)	0	3
15	AO	76/76 (100%)	61 (80%)	15 (20%)	1	9
16	AP	65/65 (100%)	45 (69%)	20 (31%)	0	2
17	AQ	74/74 (100%)	54 (73%)	20 (27%)	0	4
18	AR	48/48 (100%)	40 (83%)	8 (17%)	2	15
19	AS	70/70 (100%)	56 (80%)	14 (20%)	1	9
20	AT	65/65 (100%)	45 (69%)	20 (31%)	0	2
21	AU	44/44 (100%)	23 (52%)	21 (48%)	0	0
23	AW	101/102 (99%)	76 (75%)	25 (25%)	0	5
25	AY	563/582 (97%)	489 (87%)	74 (13%)	4	22
27	BC	216/216 (100%)	182 (84%)	34 (16%)	3	17
28	BD	164/164 (100%)	143 (87%)	21 (13%)	5	22
29	BE	165/165 (100%)	143 (87%)	22 (13%)	4	22
30	BF	148/148 (100%)	112 (76%)	36 (24%)	1	5
31	BG	137/137 (100%)	114 (83%)	23 (17%)	2	15
32	BH	114/114 (100%)	89 (78%)	25 (22%)	1	7
33	BI	109/109 (100%)	78 (72%)	31 (28%)	0	3
34	BJ	116/116 (100%)	97 (84%)	19 (16%)	2	15

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
35	BK	103/103 (100%)	85 (82%)	18 (18%)	2	13
36	BL	102/102 (100%)	81 (79%)	21 (21%)	1	8
37	BM	109/109 (100%)	87 (80%)	22 (20%)	1	9
38	BN	100/100 (100%)	83 (83%)	17 (17%)	2	14
39	BO	86/86 (100%)	68 (79%)	18 (21%)	1	8
40	BP	99/99 (100%)	78 (79%)	21 (21%)	1	7
41	BQ	89/89 (100%)	76 (85%)	13 (15%)	3	19
42	BR	84/84 (100%)	70 (83%)	14 (17%)	2	15
43	BS	93/93 (100%)	83 (89%)	10 (11%)	7	28
44	BT	80/80 (100%)	69 (86%)	11 (14%)	4	21
45	BU	83/83 (100%)	64 (77%)	19 (23%)	1	6
46	BV	78/78 (100%)	63 (81%)	15 (19%)	1	10
47	BW	56/58 (97%)	50 (89%)	6 (11%)	7	28
48	BX	67/67 (100%)	56 (84%)	11 (16%)	2	15
49	BY	55/55 (100%)	46 (84%)	9 (16%)	2	15
50	BZ	48/48 (100%)	40 (83%)	8 (17%)	2	15
51	B0	47/47 (100%)	41 (87%)	6 (13%)	5	22
52	B1	45/45 (100%)	38 (84%)	7 (16%)	3	17
53	B2	38/38 (100%)	32 (84%)	6 (16%)	3	17
54	B3	51/51 (100%)	48 (94%)	3 (6%)	21	52
55	B4	34/34 (100%)	28 (82%)	6 (18%)	2	13
All	All	5327/5353 (100%)	4230 (79%)	1097 (21%)	4	8

All (1097) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AB	9	LEU
2	AB	13	VAL
2	AB	14	HIS
2	AB	18	GLN
2	AB	19	THR
2	AB	20	ARG
2	AB	22	TRP
2	AB	31	PHE
2	AB	34	ARG

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Mol	Chain	Res	Type
2	AB	38	HIS
2	AB	40	ILE
2	AB	43	GLU
2	AB	45	THR
2	AB	48	MET
2	AB	49	PHE
2	AB	51	GLU
2	AB	55	GLU
2	AB	56	LEU
2	AB	63	LYS
2	AB	65	LYS
2	AB	67	LEU
2	AB	69	VAL
2	AB	71	THR
2	AB	77	GLU
2	AB	81	ASP
2	AB	84	LEU
2	AB	88	GLN
2	AB	89	PHE
2	AB	90	PHE
2	AB	100	LEU
2	AB	101	THR
2	AB	106	VAL
2	AB	108	GLN
2	AB	110	ILE
2	AB	111	LYS
2	AB	116	LEU
2	AB	125	PHE
2	AB	128	LEU
2	AB	129	THR
2	AB	130	LYS
2	AB	131	LYS
2	AB	132	GLU
2	AB	134	LEU
2	AB	135	MET
2	AB	136	ARG
2	AB	142	LYS
2	AB	143	LEU
2	AB	145	ASN
2	AB	156	LEU
2	AB	160	LEU
2	AB	162	VAL

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Mol	Chain	Res	Type
2	AB	169	HIS
2	AB	173	LYS
2	AB	178	LEU
2	AB	180	ILE
2	AB	185	ILE
2	AB	187	ASP
2	AB	193	ASP
2	AB	196	ASP
2	AB	198	VAL
2	AB	204	ASP
2	AB	206	ILE
2	AB	207	ARG
2	AB	209	VAL
2	AB	219	THR
2	AB	224	ARG
3	AC	2	GLN
3	AC	3	LYS
3	AC	7	ASN
3	AC	10	ARG
3	AC	13	ILE
3	AC	14	VAL
3	AC	15	LYS
3	AC	17	TRP
3	AC	22	PHE
3	AC	24	ASN
3	AC	25	THR
3	AC	26	LYS
3	AC	28	PHE
3	AC	32	LEU
3	AC	34	SER
3	AC	36	PHE
3	AC	43	THR
3	AC	54	ILE
3	AC	57	GLU
3	AC	58	ARG
3	AC	63	ILE
3	AC	79	LYS
3	AC	81	GLU
3	AC	85	LYS
3	AC	93	ILE
3	AC	102	ILE
3	AC	106	ARG

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Mol	Chain	Res	Type
3	AC	110	LEU
3	AC	120	THR
3	AC	128	MET
3	AC	139	ASN
3	AC	141	MET
3	AC	142	ARG
3	AC	143	LEU
3	AC	149	LYS
3	AC	153	SER
3	AC	156	LEU
3	AC	160	GLU
3	AC	161	ILE
3	AC	165	GLU
3	AC	166	TRP
3	AC	168	ARG
3	AC	171	ARG
3	AC	183	TYR
3	AC	184	ASN
4	AD	2	ARG
4	AD	3	TYR
4	AD	4	LEU
4	AD	8	LEU
4	AD	12	ARG
4	AD	30	LYS
4	AD	31	CYS
4	AD	34	GLU
4	AD	43	ARG
4	AD	44	LYS
4	AD	47	LEU
4	AD	54	LEU
4	AD	55	ARG
4	AD	57	LYS
4	AD	59	LYS
4	AD	62	ARG
4	AD	68	GLU
4	AD	69	ARG
4	AD	77	GLU
4	AD	82	LYS
4	AD	85	THR
4	AD	103	ARG
4	AD	104	MET
4	AD	109	THR

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Mol	Chain	Res	Type
4	AD	115	GLN
4	AD	118	SER
4	AD	122	ILE
4	AD	130	ASN
4	AD	137	SER
4	AD	142	VAL
4	AD	160	LEU
4	AD	162	GLU
4	AD	170	LEU
4	AD	176	LYS
4	AD	178	GLU
4	AD	193	ASP
4	AD	194	ILE
4	AD	195	ASN
4	AD	196	GLU
4	AD	205	LYS
5	AE	14	LEU
5	AE	18	ASN
5	AE	25	LYS
5	AE	37	VAL
5	AE	45	VAL
5	AE	53	ARG
5	AE	54	GLU
5	AE	55	VAL
5	AE	64	GLU
5	AE	68	ARG
5	AE	71	ILE
5	AE	72	ASN
5	AE	73	VAL
5	AE	77	ASN
5	AE	82	HIS
5	AE	87	VAL
5	AE	92	ARG
5	AE	94	PHE
5	AE	100	GLU
5	AE	102	THR
5	AE	114	LEU
5	AE	115	GLU
5	AE	119	VAL
5	AE	121	ASN
5	AE	123	LEU
5	AE	125	LYS

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Mol	Chain	Res	Type
5	AE	130	THR
5	AE	131	ASN
5	AE	133	ILE
5	AE	135	VAL
5	AE	136	VAL
5	AE	139	THR
5	AE	148	SER
6	AF	2	ARG
6	AF	6	ILE
6	AF	11	HIS
6	AF	14	GLN
6	AF	15	SER
6	AF	17	GLN
6	AF	24	ARG
6	AF	35	LYS
6	AF	39	LEU
6	AF	42	TRP
6	AF	44	ARG
6	AF	46	GLN
6	AF	51	ILE
6	AF	52	ASN
6	AF	55	HIS
6	AF	62	MET
6	AF	63	ASN
6	AF	69	GLU
6	AF	71	ILE
6	AF	73	GLU
6	AF	77	THR
6	AF	82	ASP
6	AF	85	ILE
6	AF	87	SER
6	AF	96	VAL
6	AF	97	THR
6	AF	100	SER
7	AG	3	ARG
7	AG	5	VAL
7	AG	6	ILE
7	AG	8	GLN
7	AG	12	LEU
7	AG	25	PHE
7	AG	29	LEU
7	AG	31	VAL

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Mol	Chain	Res	Type
7	AG	42	VAL
7	AG	46	LEU
7	AG	48	THR
7	AG	51	GLN
7	AG	58	LEU
7	AG	61	PHE
7	AG	62	GLU
7	AG	67	ASN
7	AG	69	ARG
7	AG	74	VAL
7	AG	75	LYS
7	AG	77	ARG
7	AG	78	ARG
7	AG	79	VAL
7	AG	85	GLN
7	AG	88	VAL
7	AG	89	GLU
7	AG	90	VAL
7	AG	91	ARG
7	AG	110	ARG
7	AG	119	LEU
7	AG	134	VAL
7	AG	135	LYS
7	AG	141	HIS
7	AG	145	GLU
7	AG	147	ASN
8	AH	2	MET
8	AH	10	LEU
8	AH	12	ARG
8	AH	21	LYS
8	AH	25	THR
8	AH	29	SER
8	AH	30	LYS
8	AH	31	LEU
8	AH	37	ASN
8	AH	41	GLU
8	AH	47	ASP
8	AH	48	PHE
8	AH	54	THR
8	AH	76	ARG
8	AH	82	LEU
8	AH	86	LYS

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Mol	Chain	Res	Type
8	AH	88	LYS
8	AH	89	ASP
8	AH	93	LYS
8	AH	98	LEU
8	AH	102	VAL
8	AH	103	VAL
8	AH	106	SER
8	AH	111	THR
8	AH	120	LEU
8	AH	124	ILE
9	AI	6	TYR
9	AI	10	ARG
9	AI	11	ARG
9	AI	12	LYS
9	AI	13	SER
9	AI	17	ARG
9	AI	21	LYS
9	AI	29	ILE
9	AI	32	ARG
9	AI	35	GLU
9	AI	41	GLU
9	AI	42	THR
9	AI	45	MET
9	AI	48	ARG
9	AI	56	MET
9	AI	60	LEU
9	AI	62	LEU
9	AI	67	LYS
9	AI	86	LEU
9	AI	87	MET
9	AI	88	GLU
9	AI	89	TYR
9	AI	93	LEU
9	AI	96	GLU
9	AI	98	ARG
9	AI	105	ARG
9	AI	115	VAL
9	AI	119	LYS
9	AI	126	PHE
9	AI	128	LYS
9	AI	129	ARG
10	AJ	6	ILE

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Mol	Chain	Res	Type
10	AJ	8	ILE
10	AJ	15	HIS
10	AJ	17	LEU
10	AJ	25	ILE
10	AJ	27	GLU
10	AJ	28	THR
10	AJ	40	ILE
10	AJ	42	LEU
10	AJ	44	THR
10	AJ	49	PHE
10	AJ	52	LEU
10	AJ	53	ILE
10	AJ	54	SER
10	AJ	59	LYS
10	AJ	63	ASP
10	AJ	71	LEU
10	AJ	73	LEU
10	AJ	75	ASP
10	AJ	83	THR
10	AJ	89	ARG
10	AJ	92	LEU
10	AJ	101	SER
11	AK	17	ASP
11	AK	23	HIS
11	AK	30	ILE
11	AK	31	VAL
11	AK	34	THR
11	AK	37	GLN
11	AK	51	PHE
11	AK	64	VAL
11	AK	75	GLU
11	AK	80	ASN
11	AK	81	LEU
11	AK	82	GLU
11	AK	92	ARG
11	AK	93	GLU
11	AK	95	THR
11	AK	96	ILE
11	AK	100	ASN
11	AK	106	ILE
11	AK	108	ASN
11	AK	110	THR

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Mol	Chain	Res	Type
11	AK	113	THR
11	AK	121	ARG
11	AK	125	LYS
11	AK	127	ARG
12	AL	3	VAL
12	AL	18	SER
12	AL	20	VAL
12	AL	24	GLU
12	AL	28	GLN
12	AL	29	LYS
12	AL	43	LYS
12	AL	53	ARG
12	AL	61	GLU
12	AL	63	THR
12	AL	73	LEU
12	AL	74	GLN
12	AL	75	GLU
12	AL	77	SER
12	AL	101	LEU
12	AL	114	SER
12	AL	120	ARG
13	AM	3	ILE
13	AM	12	LYS
13	AM	15	VAL
13	AM	26	LYS
13	AM	28	ARG
13	AM	43	LYS
13	AM	44	ILE
13	AM	54	THR
13	AM	56	ARG
13	AM	70	ARG
13	AM	71	GLU
13	AM	78	ARG
13	AM	82	LEU
13	AM	86	ARG
13	AM	90	HIS
13	AM	94	LEU
13	AM	106	ARG
13	AM	107	THR
13	AM	111	PRO
14	AN	6	LYS
14	AN	9	GLU

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Mol	Chain	Res	Type
14	AN	15	LEU
14	AN	23	ARG
14	AN	25	GLU
14	AN	27	LYS
14	AN	41	ARG
14	AN	43	ASN
14	AN	46	LEU
14	AN	48	LEU
14	AN	49	GLN
14	AN	51	LEU
14	AN	58	SER
14	AN	62	ASN
14	AN	63	ARG
14	AN	65	ARG
14	AN	76	LYS
14	AN	81	ARG
14	AN	82	ILE
14	AN	89	MET
14	AN	92	GLU
14	AN	98	LYS
14	AN	100	SER
15	AO	7	THR
15	AO	12	SER
15	AO	16	ARG
15	AO	21	THR
15	AO	23	SER
15	AO	30	LEU
15	AO	34	GLN
15	AO	38	LEU
15	AO	39	GLN
15	AO	47	LYS
15	AO	52	ARG
15	AO	56	LEU
15	AO	57	ARG
15	AO	74	VAL
15	AO	86	LEU
16	AP	1	MET
16	AP	2	VAL
16	AP	6	LEU
16	AP	9	HIS
16	AP	16	PHE
16	AP	18	GLN

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Mol	Chain	Res	Type
16	AP	19	VAL
16	AP	20	VAL
16	AP	31	ARG
16	AP	33	ILE
16	AP	34	GLU
16	AP	39	PHE
16	AP	46	LYS
16	AP	51	ARG
16	AP	67	ILE
16	AP	69	ASP
16	AP	70	ARG
16	AP	75	ILE
16	AP	76	LYS
16	AP	80	LYS
17	AQ	3	LYS
17	AQ	6	THR
17	AQ	10	ARG
17	AQ	13	SER
17	AQ	16	MET
17	AQ	20	ILE
17	AQ	22	VAL
17	AQ	27	PHE
17	AQ	28	VAL
17	AQ	37	ILE
17	AQ	50	ASN
17	AQ	51	GLU
17	AQ	54	ILE
17	AQ	58	VAL
17	AQ	60	ILE
17	AQ	73	THR
17	AQ	75	VAL
17	AQ	76	ARG
17	AQ	80	LYS
17	AQ	82	VAL
18	AR	24	ASP
18	AR	29	LYS
18	AR	35	SER
18	AR	42	ARG
18	AR	47	ARG
18	AR	60	ARG
18	AR	70	THR
18	AR	71	ASP

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Mol	Chain	Res	Type
19	AS	5	LYS
19	AS	15	LEU
19	AS	20	LYS
19	AS	26	ASP
19	AS	34	SER
19	AS	39	ILE
19	AS	48	ILE
19	AS	54	ARG
19	AS	55	GLN
19	AS	62	THR
19	AS	64	GLU
19	AS	70	LEU
19	AS	73	PHE
19	AS	78	THR
20	AT	4	LYS
20	AT	7	LYS
20	AT	9	ARG
20	AT	11	ILE
20	AT	12	GLN
20	AT	14	GLU
20	AT	22	SER
20	AT	25	SER
20	AT	26	MET
20	AT	29	THR
20	AT	33	LYS
20	AT	47	GLN
20	AT	52	GLU
20	AT	53	MET
20	AT	65	LEU
20	AT	67	HIS
20	AT	68	LYS
20	AT	69	ASN
20	AT	75	LYS
20	AT	83	ASN
21	AU	4	LYS
21	AU	5	VAL
21	AU	8	ASN
21	AU	9	GLU
21	AU	11	PHE
21	AU	15	LEU
21	AU	17	ARG
21	AU	18	PHE

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Mol	Chain	Res	Type
21	AU	19	LYS
21	AU	27	VAL
21	AU	28	LEU
21	AU	32	ARG
21	AU	33	ARG
21	AU	36	PHE
21	AU	42	THR
21	AU	43	GLU
21	AU	45	LYS
21	AU	46	ARG
21	AU	50	SER
21	AU	52	VAL
21	AU	53	LYS
23	AW	5	LEU
23	AW	9	ARG
23	AW	12	HIS
23	AW	14	TYR
23	AW	16	ILE
23	AW	19	THR
23	AW	24	ILE
23	AW	32	LYS
23	AW	42	THR
23	AW	45	PHE
23	AW	48	PHE
23	AW	50	ASP
23	AW	58	LEU
23	AW	62	PRO
23	AW	63	TYR
23	AW	73	PRO
23	AW	81	LEU
23	AW	82	HIS
23	AW	83	LYS
23	AW	86	LEU
23	AW	88	ARG
23	AW	89	LEU
23	AW	100	LEU
23	AW	104	LYS
23	AW	106	TYR
25	AY	20	HIS
25	AY	21	ILE
25	AY	40	HIS
25	AY	65	ILE

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Mol	Chain	Res	Type
25	AY	83	ASP
25	AY	85	PRO
25	AY	88	VAL
25	AY	89	ASP
25	AY	92	ILE
25	AY	96	ARG
25	AY	100	VAL
25	AY	101	LEU
25	AY	102	ASP
25	AY	111	SER
25	AY	117	GLN
25	AY	122	TRP
25	AY	124	GLN
25	AY	130	VAL
25	AY	132	ARG
25	AY	137	ASN
25	AY	152	THR
25	AY	157	LEU
25	AY	170	ARG
25	AY	191	ASP
25	AY	192	LEU
25	AY	240	GLU
25	AY	242	LEU
25	AY	252	ASP
25	AY	255	ILE
25	AY	260	LEU
25	AY	270	GLN
25	AY	289	ILE
25	AY	298	VAL
25	AY	312	LEU
25	AY	319	ASP
25	AY	326	THR
25	AY	337	SER
25	AY	343	ASN
25	AY	357	ARG
25	AY	378	VAL
25	AY	381	LYS
25	AY	388	THR
25	AY	399	LEU
25	AY	409	ILE
25	AY	410	ASP
25	AY	420	ASP

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Mol	Chain	Res	Type
25	AY	421	GLN
25	AY	426	GLN
25	AY	428	LEU
25	AY	438	PHE
25	AY	440	VAL
25	AY	468	ARG
25	AY	476	VAL
25	AY	481	VAL
25	AY	487	ILE
25	AY	501	THR
25	AY	504	ARG
25	AY	509	HIS
25	AY	512	ILE
25	AY	515	GLU
25	AY	525	PHE
25	AY	527	ASN
25	AY	567	LEU
25	AY	572	TYR
25	AY	574	GLU
25	AY	595	GLN
25	AY	598	ASP
25	AY	614	GLU
25	AY	630	GLN
25	AY	631	ILE
25	AY	634	MET
25	AY	644	ARG
25	AY	657	THR
25	AY	685	GLU
27	BC	2	VAL
27	BC	9	SER
27	BC	13	ARG
27	BC	15	VAL
27	BC	17	LYS
27	BC	34	GLU
27	BC	37	SER
27	BC	42	ARG
27	BC	76	VAL
27	BC	96	LYS
27	BC	101	ARG
27	BC	104	LEU
27	BC	109	LEU
27	BC	110	LYS

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Mol	Chain	Res	Type
27	BC	113	ASP
27	BC	120	ASP
27	BC	124	LYS
27	BC	129	LEU
27	BC	138	SER
27	BC	153	LEU
27	BC	155	ARG
27	BC	167	ASP
27	BC	173	LEU
27	BC	176	ARG
27	BC	196	ASN
27	BC	198	GLU
27	BC	211	ARG
27	BC	224	MET
27	BC	225	ASN
27	BC	256	THR
27	BC	259	ASN
27	BC	262	THR
27	BC	268	ARG
27	BC	270	ARG
28	BD	12	THR
28	BD	13	ARG
28	BD	18	ASP
28	BD	26	VAL
28	BD	28	GLU
28	BD	32	ASN
28	BD	35	THR
28	BD	48	ILE
28	BD	77	ARG
28	BD	83	ARG
28	BD	89	GLU
28	BD	95	SER
28	BD	97	SER
28	BD	100	LEU
28	BD	105	LYS
28	BD	121	THR
28	BD	129	THR
28	BD	139	SER
28	BD	159	LYS
28	BD	176	ASP
28	BD	177	VAL
29	BE	7	ASP

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Mol	Chain	Res	Type
29	BE	12	LEU
29	BE	40	ARG
29	BE	47	LYS
29	BE	55	SER
29	BE	72	SER
29	BE	77	ILE
29	BE	80	SER
29	BE	90	GLN
29	BE	97	ASN
29	BE	108	ILE
29	BE	111	GLU
29	BE	113	VAL
29	BE	123	LYS
29	BE	149	ILE
29	BE	150	THR
29	BE	159	LEU
29	BE	163	ASN
29	BE	164	LEU
29	BE	170	ARG
29	BE	176	ASP
29	BE	189	THR
30	BF	2	LYS
30	BF	13	LYS
30	BF	18	GLU
30	BF	20	ASN
30	BF	24	VAL
30	BF	26	GLN
30	BF	30	VAL
30	BF	34	THR
30	BF	35	LEU
30	BF	41	GLU
30	BF	43	ILE
30	BF	49	LEU
30	BF	50	ASP
30	BF	55	ASP
30	BF	56	LEU
30	BF	60	SER
30	BF	67	THR
30	BF	77	LYS
30	BF	82	TYR
30	BF	91	ARG
30	BF	93	GLU

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Mol	Chain	Res	Type
30	BF	94	ARG
30	BF	100	GLU
30	BF	104	THR
30	BF	107	VAL
30	BF	120	SER
30	BF	124	ARG
30	BF	129	MET
30	BF	131	VAL
30	BF	146	ASP
30	BF	149	ARG
30	BF	151	LEU
30	BF	154	THR
30	BF	157	THR
30	BF	173	ASP
30	BF	176	PHE
31	BG	5	LYS
31	BG	9	VAL
31	BG	14	VAL
31	BG	22	VAL
31	BG	31	GLU
31	BG	41	GLU
31	BG	42	VAL
31	BG	47	ASN
31	BG	49	LEU
31	BG	68	ARG
31	BG	76	ILE
31	BG	91	VAL
31	BG	100	ASN
31	BG	105	SER
31	BG	123	GLU
31	BG	148	ARG
31	BG	151	ARG
31	BG	154	GLU
31	BG	155	PRO
31	BG	159	LYS
31	BG	165	ASP
31	BG	167	VAL
31	BG	170	THR
32	BH	1	MET
32	BH	3	VAL
32	BH	7	ASP
32	BH	15	LEU

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Mol	Chain	Res	Type
32	BH	18	GLN
32	BH	19	VAL
32	BH	25	TYR
32	BH	27	ARG
32	BH	37	VAL
32	BH	48	GLU
32	BH	50	ARG
32	BH	60	GLU
32	BH	72	ILE
32	BH	75	LEU
32	BH	76	GLU
32	BH	77	THR
32	BH	78	VAL
32	BH	87	GLU
32	BH	90	LEU
32	BH	112	LYS
32	BH	113	SER
32	BH	116	ARG
32	BH	123	ARG
32	BH	124	THR
32	BH	131	SER
33	BI	2	LYS
33	BI	5	GLN
33	BI	7	TYR
33	BI	8	VAL
33	BI	10	LEU
33	BI	11	GLN
33	BI	16	MET
33	BI	27	LEU
33	BI	30	GLN
33	BI	33	ASN
33	BI	37	PHE
33	BI	44	LYS
33	BI	46	ASP
33	BI	49	GLU
33	BI	56	VAL
33	BI	61	TYR
33	BI	66	PHE
33	BI	68	PHE
33	BI	71	LYS
33	BI	81	LYS
33	BI	85	ILE

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Mol	Chain	Res	Type
33	BI	86	LYS
33	BI	95	ASP
33	BI	96	LYS
33	BI	100	ILE
33	BI	101	SER
33	BI	102	ARG
33	BI	107	GLU
33	BI	126	ARG
33	BI	133	ARG
33	BI	135	MET
34	BJ	1	MET
34	BJ	4	PHE
34	BJ	5	THR
34	BJ	9	GLU
34	BJ	17	VAL
34	BJ	23	LYS
34	BJ	30	THR
34	BJ	43	GLU
34	BJ	61	LYS
34	BJ	64	VAL
34	BJ	65	THR
34	BJ	69	ARG
34	BJ	70	THR
34	BJ	81	ILE
34	BJ	100	VAL
34	BJ	101	ILE
34	BJ	131	ASN
34	BJ	135	GLN
34	BJ	142	ILE
35	BK	8	LEU
35	BK	19	VAL
35	BK	20	MET
35	BK	28	SER
35	BK	31	ARG
35	BK	32	TYR
35	BK	42	THR
35	BK	58	LEU
35	BK	66	LYS
35	BK	77	ILE
35	BK	80	ASP
35	BK	82	ASN
35	BK	88	ASN

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Mol	Chain	Res	Type
35	BK	92	GLU
35	BK	103	VAL
35	BK	107	LEU
35	BK	108	ARG
35	BK	121	GLU
36	BL	2	ARG
36	BL	5	THR
36	BL	13	LYS
36	BL	19	LEU
36	BL	21	ARG
36	BL	27	LEU
36	BL	33	ARG
36	BL	40	SER
36	BL	47	ARG
36	BL	67	THR
36	BL	69	ARG
36	BL	82	LEU
36	BL	85	VAL
36	BL	86	GLU
36	BL	92	LEU
36	BL	93	ASN
36	BL	95	LEU
36	BL	100	ILE
36	BL	115	GLU
36	BL	125	LEU
36	BL	144	GLU
37	BM	7	THR
37	BM	12	MET
37	BM	16	ARG
37	BM	25	ASP
37	BM	30	SER
37	BM	40	ARG
37	BM	47	GLU
37	BM	50	ARG
37	BM	55	ARG
37	BM	60	GLN
37	BM	69	PRO
37	BM	70	ASP
37	BM	74	THR
37	BM	100	LYS
37	BM	108	VAL
37	BM	110	GLU

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Mol	Chain	Res	Type
37	BM	111	GLU
37	BM	115	GLU
37	BM	129	THR
37	BM	131	VAL
37	BM	134	THR
37	BM	135	VAL
38	BN	2	ARG
38	BN	6	SER
38	BN	13	ASN
38	BN	15	SER
38	BN	36	THR
38	BN	37	THR
38	BN	39	PRO
38	BN	48	VAL
38	BN	62	ASN
38	BN	65	LEU
38	BN	69	ARG
38	BN	70	THR
38	BN	71	ARG
38	BN	89	SER
38	BN	90	ARG
38	BN	114	GLU
38	BN	119	SER
39	BO	4	LYS
39	BO	9	ARG
39	BO	17	LYS
39	BO	25	ARG
39	BO	28	VAL
39	BO	38	GLN
39	BO	45	SER
39	BO	49	VAL
39	BO	62	LEU
39	BO	63	LYS
39	BO	65	THR
39	BO	74	VAL
39	BO	78	VAL
39	BO	88	LYS
39	BO	89	ASP
39	BO	111	ARG
39	BO	112	GLU
39	BO	115	LEU
40	BP	2	ASN

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Mol	Chain	Res	Type
40	BP	3	ILE
40	BP	6	GLN
40	BP	15	ASP
40	BP	18	SER
40	BP	26	GLU
40	BP	31	VAL
40	BP	62	LYS
40	BP	67	GLU
40	BP	72	VAL
40	BP	74	GLN
40	BP	92	ARG
40	BP	93	LYS
40	BP	95	LYS
40	BP	102	ARG
40	BP	108	ARG
40	BP	109	ILE
40	BP	110	LYS
40	BP	111	GLU
40	BP	113	LEU
40	BP	114	ASN
41	BQ	3	VAL
41	BQ	5	ARG
41	BQ	7	VAL
41	BQ	8	ILE
41	BQ	10	ARG
41	BQ	16	ILE
41	BQ	17	LEU
41	BQ	18	LYS
41	BQ	33	VAL
41	BQ	39	ILE
41	BQ	50	ARG
41	BQ	58	GLN
41	BQ	91	ARG
42	BR	1	MET
42	BR	14	VAL
42	BR	20	VAL
42	BR	38	VAL
42	BR	39	LEU
42	BR	43	ASN
42	BR	46	GLU
42	BR	47	VAL
42	BR	48	LYS

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Mol	Chain	Res	Type
42	BR	62	GLU
42	BR	64	VAL
42	BR	83	TYR
42	BR	85	LYS
42	BR	94	THR
43	BS	4	ILE
43	BS	6	LYS
43	BS	12	SER
43	BS	19	LEU
43	BS	35	ILE
43	BS	69	LEU
43	BS	81	SER
43	BS	97	LEU
43	BS	107	VAL
43	BS	109	ASP
44	BT	17	SER
44	BT	28	ASN
44	BT	30	ILE
44	BT	37	ASP
44	BT	39	THR
44	BT	49	LYS
44	BT	57	VAL
44	BT	60	THR
44	BT	77	ARG
44	BT	82	LYS
44	BT	91	GLN
45	BU	6	ARG
45	BU	7	ASP
45	BU	8	ASP
45	BU	11	ILE
45	BU	17	ASP
45	BU	20	LYS
45	BU	23	LYS
45	BU	25	LYS
45	BU	28	LEU
45	BU	30	SER
45	BU	33	VAL
45	BU	51	LEU
45	BU	60	LYS
45	BU	64	ILE
45	BU	67	SER
45	BU	71	ILE

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Mol	Chain	Res	Type
45	BU	73	ASN
45	BU	85	ARG
45	BU	99	SER
46	BV	1	MET
46	BV	3	THR
46	BV	8	VAL
46	BV	10	LYS
46	BV	11	GLU
46	BV	19	ARG
46	BV	29	ILE
46	BV	43	ASP
46	BV	53	LYS
46	BV	61	LEU
46	BV	62	THR
46	BV	65	VAL
46	BV	70	ILE
46	BV	77	VAL
46	BV	90	ASP
47	BW	16	ARG
47	BW	25	GLU
47	BW	40	LYS
47	BW	60	ASP
47	BW	66	GLU
47	BW	77	SER
48	BX	4	CYS
48	BX	17	ARG
48	BX	21	LEU
48	BX	27	ARG
48	BX	36	ARG
48	BX	39	VAL
48	BX	40	GLU
48	BX	46	VAL
48	BX	58	ILE
48	BX	64	ASP
48	BX	76	LYS
49	BY	2	LYS
49	BY	6	LEU
49	BY	13	GLU
49	BY	16	THR
49	BY	22	LEU
49	BY	37	LEU
49	BY	44	LYS

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Mol	Chain	Res	Type
49	BY	58	ASN
49	BY	59	GLU
50	BZ	2	LYS
50	BZ	20	LYS
50	BZ	31	ILE
50	BZ	38	GLU
50	BZ	44	ARG
50	BZ	47	ILE
50	BZ	56	VAL
50	BZ	58	GLU
51	B0	9	ARG
51	B0	10	SER
51	B0	19	ASP
51	B0	35	GLU
51	B0	39	ARG
51	B0	52	LYS
52	B1	5	ARG
52	B1	7	LYS
52	B1	9	LYS
52	B1	34	GLU
52	B1	42	VAL
52	B1	46	VAL
52	B1	50	GLU
53	B2	1	MET
53	B2	3	ARG
53	B2	12	ARG
53	B2	22	MET
53	B2	25	LYS
53	B2	42	LEU
54	B3	16	THR
54	B3	29	ARG
54	B3	30	HIS
55	B4	2	LYS
55	B4	3	VAL
55	B4	6	SER
55	B4	16	ILE
55	B4	17	VAL
55	B4	20	ASP

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (114) such sidechains are listed below:

Mol	Chain	Res	Type
2	AB	14	HIS
2	AB	50	ASN
2	AB	189	ASN
3	AC	5	HIS
3	AC	189	HIS
4	AD	53	GLN
4	AD	115	GLN
4	AD	119	HIS
4	AD	130	ASN
4	AD	163	GLN
4	AD	195	ASN
4	AD	197	HIS
5	AE	11	GLN
5	AE	72	ASN
5	AE	81	GLN
5	AE	82	HIS
5	AE	121	ASN
5	AE	131	ASN
6	AF	3	HIS
7	AG	141	HIS
9	AI	3	ASN
9	AI	24	ASN
9	AI	49	GLN
9	AI	74	GLN
10	AJ	56	HIS
11	AK	21	HIS
11	AK	23	HIS
11	AK	108	ASN
11	AK	118	ASN
13	AM	90	HIS
15	AO	37	HIS
15	AO	61	GLN
16	AP	18	GLN
17	AQ	8	GLN
18	AR	53	GLN
19	AS	56	HIS
20	AT	20	ASN
20	AT	47	GLN
20	AT	51	ASN
20	AT	74	HIS
20	AT	83	ASN
23	AW	57	ASN
23	AW	70	ASN

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Mol	Chain	Res	Type
23	AW	108	ASN
25	AY	14	ASN
25	AY	124	GLN
25	AY	137	ASN
25	AY	165	GLN
25	AY	208	GLN
25	AY	343	ASN
25	AY	458	HIS
25	AY	475	ASN
25	AY	527	ASN
25	AY	573	HIS
25	AY	630	GLN
25	AY	641	GLN
25	AY	664	GLN
27	BC	85	ASN
27	BC	133	ASN
27	BC	141	HIS
28	BD	67	HIS
28	BD	136	ASN
28	BD	140	HIS
29	BE	90	GLN
29	BE	136	GLN
29	BE	163	ASN
30	BF	4	HIS
30	BF	20	ASN
30	BF	36	ASN
30	BF	51	ASN
30	BF	62	GLN
31	BG	21	GLN
31	BG	72	ASN
31	BG	100	ASN
31	BG	114	HIS
31	BG	127	GLN
32	BH	43	ASN
32	BH	128	HIS
32	BH	135	HIS
33	BI	18	ASN
34	BJ	58	ASN
34	BJ	77	HIS
34	BJ	80	HIS
34	BJ	138	GLN
35	BK	3	GLN

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Mol	Chain	Res	Type
35	BK	5	GLN
35	BK	13	ASN
35	BK	90	ASN
37	BM	60	GLN
38	BN	13	ASN
38	BN	31	HIS
38	BN	62	ASN
39	BO	29	HIS
40	BP	2	ASN
40	BP	11	GLN
40	BP	40	GLN
40	BP	65	ASN
42	BR	12	HIS
42	BR	43	ASN
42	BR	87	GLN
42	BR	89	HIS
43	BS	9	HIS
43	BS	57	ASN
45	BU	68	ASN
45	BU	73	ASN
49	BY	25	GLN
49	BY	27	ASN
49	BY	58	ASN
51	B0	3	GLN
51	B0	41	HIS
52	B1	18	HIS
52	B1	45	HIS
54	B3	30	HIS
55	B4	33	HIS

### 5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1537/1539 (99%)	457 (29%)	27 (1%)
22	AV	332/363 (91%)	187 (56%)	32 (9%)
24	AX	76/77 (98%)	37 (48%)	3 (3%)
26	BA	2901/2903 (99%)	770 (26%)	58 (1%)
56	BB	118/119 (99%)	24 (20%)	1 (0%)
All	All	4964/5001 (99%)	1475 (29%)	121 (2%)

All (1475) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	5	U
1	AA	6	G
1	AA	7	A
1	AA	9	G
1	AA	12	U
1	AA	13	U
1	AA	15	G
1	AA	22	G
1	AA	28	A
1	AA	32	A
1	AA	39	G
1	AA	44	A
1	AA	45	G
1	AA	47	C
1	AA	48	C
1	AA	49	U
1	AA	51	A
1	AA	62	U
1	AA	67	C
1	AA	69	G
1	AA	70	U
1	AA	71	A
1	AA	72	A
1	AA	75	G
1	AA	76	G
1	AA	77	A
1	AA	80	A
1	AA	82	G
1	AA	83	C
1	AA	84	U
1	AA	85	U
1	AA	86	G
1	AA	89	U
1	AA	90	C
1	AA	91	U
1	AA	92	U
1	AA	94	G
1	AA	95	C
1	AA	97	G
1	AA	108	G
1	AA	109	A
1	AA	111	G
1	AA	116	A

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Mol	Chain	Res	Type
1	AA	117	G
1	AA	121	U
1	AA	122	G
1	AA	130	A
1	AA	131	A
1	AA	137	U
1	AA	139	A
1	AA	142	G
1	AA	143	A
1	AA	144	G
1	AA	149	A
1	AA	159	G
1	AA	162	A
1	AA	163	C
1	AA	164	G
1	AA	168	G
1	AA	176	C
1	AA	181	A
1	AA	182	A
1	AA	183	C
1	AA	195	A
1	AA	200	G
1	AA	204	G
1	AA	205	A
1	AA	209	U
1	AA	210	C
1	AA	213	G
1	AA	220	G
1	AA	226	G
1	AA	240	G
1	AA	245	U
1	AA	247	G
1	AA	251	G
1	AA	260	G
1	AA	262	A
1	AA	263	A
1	AA	266	G
1	AA	267	C
1	AA	278	G
1	AA	279	A
1	AA	280	C
1	AA	289	G

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Mol	Chain	Res	Type
1	AA	290	C
1	AA	300	A
1	AA	308	C
1	AA	321	A
1	AA	328	C
1	AA	329	A
1	AA	331	G
1	AA	332	G
1	AA	346	G
1	AA	347	G
1	AA	352	C
1	AA	354	G
1	AA	359	G
1	AA	367	U
1	AA	370	C
1	AA	371	A
1	AA	372	C
1	AA	374	A
1	AA	382	A
1	AA	383	A
1	AA	384	G
1	AA	391	G
1	AA	398	U
1	AA	402	G
1	AA	403	C
1	AA	406	G
1	AA	407	U
1	AA	409	U
1	AA	410	G
1	AA	411	A
1	AA	412	A
1	AA	413	G
1	AA	414	A
1	AA	418	C
1	AA	420	U
1	AA	421	U
1	AA	422	C
1	AA	423	G
1	AA	424	G
1	AA	429	U
1	AA	430	A
1	AA	433	G

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Mol	Chain	Res	Type
1	AA	435	A
1	AA	439	U
1	AA	440	C
1	AA	445	G
1	AA	453	G
1	AA	456	A
1	AA	457	G
1	AA	458	U
1	AA	459	A
1	AA	460	A
1	AA	463	U
1	AA	465	A
1	AA	466	A
1	AA	467	U
1	AA	468	A
1	AA	474	G
1	AA	481	G
1	AA	482	A
1	AA	484	G
1	AA	485	U
1	AA	486	U
1	AA	490	C
1	AA	491	G
1	AA	492	C
1	AA	494	G
1	AA	495	A
1	AA	497	G
1	AA	498	A
1	AA	500	G
1	AA	501	C
1	AA	509	A
1	AA	511	C
1	AA	514	C
1	AA	515	G
1	AA	518	C
1	AA	521	G
1	AA	527	G
1	AA	530	G
1	AA	531	U
1	AA	532	A
1	AA	534	U
1	AA	547	A

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Mol	Chain	Res	Type
1	AA	550	G
1	AA	559	A
1	AA	562	U
1	AA	564	C
1	AA	570	G
1	AA	572	A
1	AA	573	A
1	AA	576	C
1	AA	578	C
1	AA	596	A
1	AA	605	U
1	AA	611	C
1	AA	615	G
1	AA	619	U
1	AA	625	U
1	AA	630	A
1	AA	631	C
1	AA	640	A
1	AA	644	U
1	AA	650	G
1	AA	652	U
1	AA	653	U
1	AA	656	G
1	AA	661	G
1	AA	665	A
1	AA	686	U
1	AA	695	A
1	AA	702	A
1	AA	703	G
1	AA	707	U
1	AA	720	C
1	AA	721	G
1	AA	723	U
1	AA	724	G
1	AA	731	G
1	AA	733	G
1	AA	755	G
1	AA	756	C
1	AA	764	C
1	AA	773	G
1	AA	774	G
1	AA	776	G

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Mol	Chain	Res	Type
1	AA	777	A
1	AA	778	G
1	AA	786	G
1	AA	787	A
1	AA	788	U
1	AA	792	A
1	AA	793	U
1	AA	794	A
1	AA	799	G
1	AA	804	U
1	AA	805	C
1	AA	815	A
1	AA	817	C
1	AA	821	G
1	AA	828	U
1	AA	829	G
1	AA	833	G
1	AA	841	C
1	AA	842	U
1	AA	843	U
1	AA	845	A
1	AA	846	G
1	AA	849	G
1	AA	854	U
1	AA	859	G
1	AA	860	A
1	AA	869	G
1	AA	883	C
1	AA	890	G
1	AA	896	C
1	AA	900	A
1	AA	902	G
1	AA	910	C
1	AA	912	C
1	AA	914	A
1	AA	919	A
1	AA	920	U
1	AA	926	G
1	AA	927	G
1	AA	932	C
1	AA	934	C
1	AA	936	C

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Mol	Chain	Res	Type
1	AA	938	A
1	AA	946	A
1	AA	960	U
1	AA	963	G
1	AA	964	A
1	AA	966	G
1	AA	969	A
1	AA	975	A
1	AA	976	G
1	AA	977	A
1	AA	979	C
1	AA	982	U
1	AA	983	A
1	AA	986	U
1	AA	989	U
1	AA	991	U
1	AA	992	U
1	AA	993	G
1	AA	994	A
1	AA	1002	G
1	AA	1004	A
1	AA	1007	U
1	AA	1008	U
1	AA	1016	A
1	AA	1017	U
1	AA	1019	A
1	AA	1021	A
1	AA	1022	A
1	AA	1025	U
1	AA	1026	G
1	AA	1027	C
1	AA	1028	C
1	AA	1030	U
1	AA	1031	C
1	AA	1032	G
1	AA	1033	G
1	AA	1034	G
1	AA	1035	A
1	AA	1036	A
1	AA	1037	C
1	AA	1039	G
1	AA	1043	G

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Mol	Chain	Res	Type
1	AA	1044	A
1	AA	1049	U
1	AA	1050	G
1	AA	1054	C
1	AA	1055	A
1	AA	1056	U
1	AA	1058	G
1	AA	1063	C
1	AA	1065	U
1	AA	1066	C
1	AA	1078	U
1	AA	1081	A
1	AA	1086	U
1	AA	1094	G
1	AA	1095	U
1	AA	1101	A
1	AA	1102	A
1	AA	1107	C
1	AA	1114	C
1	AA	1115	U
1	AA	1118	U
1	AA	1124	G
1	AA	1127	G
1	AA	1133	G
1	AA	1134	G
1	AA	1135	U
1	AA	1136	C
1	AA	1137	C
1	AA	1139	G
1	AA	1140	C
1	AA	1141	C
1	AA	1142	G
1	AA	1145	A
1	AA	1146	A
1	AA	1152	A
1	AA	1157	A
1	AA	1159	U
1	AA	1160	G
1	AA	1161	C
1	AA	1164	G
1	AA	1166	G
1	AA	1167	A

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Mol	Chain	Res	Type
1	AA	1168	U
1	AA	1169	A
1	AA	1181	G
1	AA	1182	G
1	AA	1183	U
1	AA	1184	G
1	AA	1187	G
1	AA	1188	A
1	AA	1190	G
1	AA	1191	A
1	AA	1192	C
1	AA	1196	A
1	AA	1197	A
1	AA	1201	A
1	AA	1202	U
1	AA	1203	C
1	AA	1212	U
1	AA	1213	A
1	AA	1215	G
1	AA	1224	U
1	AA	1227	A
1	AA	1228	C
1	AA	1235	U
1	AA	1238	A
1	AA	1239	A
1	AA	1240	U
1	AA	1256	A
1	AA	1257	A
1	AA	1259	C
1	AA	1260	G
1	AA	1271	A
1	AA	1272	G
1	AA	1275	A
1	AA	1280	A
1	AA	1284	C
1	AA	1285	A
1	AA	1286	U
1	AA	1287	A
1	AA	1293	C
1	AA	1294	G
1	AA	1297	G
1	AA	1299	A

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Mol	Chain	Res	Type
1	AA	1300	G
1	AA	1302	C
1	AA	1303	C
1	AA	1304	G
1	AA	1305	G
1	AA	1317	C
1	AA	1318	A
1	AA	1320	C
1	AA	1322	C
1	AA	1323	G
1	AA	1326	U
1	AA	1329	A
1	AA	1330	U
1	AA	1332	A
1	AA	1334	G
1	AA	1336	C
1	AA	1337	G
1	AA	1338	G
1	AA	1339	A
1	AA	1340	A
1	AA	1341	U
1	AA	1346	A
1	AA	1352	C
1	AA	1353	G
1	AA	1354	U
1	AA	1357	A
1	AA	1358	U
1	AA	1363	A
1	AA	1365	G
1	AA	1368	A
1	AA	1370	G
1	AA	1376	U
1	AA	1377	A
1	AA	1378	C
1	AA	1379	G
1	AA	1388	C
1	AA	1389	C
1	AA	1390	U
1	AA	1391	U
1	AA	1392	G
1	AA	1397	C
1	AA	1398	A

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Mol	Chain	Res	Type
1	AA	1399	C
1	AA	1413	A
1	AA	1418	A
1	AA	1426	G
1	AA	1427	C
1	AA	1429	A
1	AA	1430	A
1	AA	1432	G
1	AA	1433	A
1	AA	1441	A
1	AA	1443	C
1	AA	1446	A
1	AA	1448	C
1	AA	1452	C
1	AA	1453	G
1	AA	1455	G
1	AA	1491	G
1	AA	1492	A
1	AA	1493	A
1	AA	1497	G
1	AA	1505	G
1	AA	1506	U
1	AA	1507	A
1	AA	1517	G
1	AA	1526	G
1	AA	1529	G
1	AA	1530	G
1	AA	1531	A
1	AA	1532	U
1	AA	1533	C
1	AA	1534	A
1	AA	1535	C
1	AA	1536	C
1	AA	1537	U
1	AA	1538	C
1	AA	1539	C
22	AV	6	U
22	AV	7	G
22	AV	8	A
22	AV	9	U
22	AV	10	U
22	AV	11	C

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Mol	Chain	Res	Type
22	AV	12	U
22	AV	13	G
22	AV	14	G
22	AV	15	A
22	AV	16	U
22	AV	17	U
22	AV	18	C
22	AV	20	A
22	AV	21	C
22	AV	28	U
22	AV	30	C
22	AV	32	A
22	AV	33	A
22	AV	34	A
22	AV	35	C
22	AV	38	A
22	AV	39	A
22	AV	40	G
22	AV	43	G
22	AV	44	C
22	AV	45	A
22	AV	47	G
22	AV	49	C
22	AV	54	G
22	AV	55	G
22	AV	56	C
22	AV	60	U
22	AV	61	G
22	AV	62	G
22	AV	63	C
22	AV	64	C
22	AV	68	U
22	AV	69	A
22	AV	70	A
22	AV	71	A
22	AV	72	A
22	AV	73	A
22	AV	114	G
22	AV	115	C
22	AV	117	G
22	AV	119	U
22	AV	121	A

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Mol	Chain	Res	Type
22	AV	122	A
22	AV	125	A
22	AV	127	C
22	AV	129	G
22	AV	130	C
22	AV	131	U
22	AV	132	U
22	AV	133	A
22	AV	138	C
22	AV	143	C
22	AV	144	U
22	AV	145	C
22	AV	149	A
22	AV	150	G
22	AV	151	C
22	AV	154	C
22	AV	155	C
22	AV	156	G
22	AV	158	U
22	AV	164	G
22	AV	165	A
22	AV	166	C
22	AV	169	G
22	AV	170	G
22	AV	172	U
22	AV	173	C
22	AV	174	A
22	AV	175	A
22	AV	176	G
22	AV	180	G
22	AV	181	G
22	AV	182	U
22	AV	183	C
22	AV	184	A
22	AV	185	A
22	AV	186	A
22	AV	188	C
22	AV	189	C
22	AV	190	A
22	AV	191	A
22	AV	192	A
22	AV	193	A

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Mol	Chain	Res	Type
22	AV	194	G
22	AV	195	A
22	AV	197	A
22	AV	198	U
22	AV	199	C
22	AV	200	G
22	AV	203	U
22	AV	204	G
22	AV	205	G
22	AV	206	A
22	AV	207	A
22	AV	210	C
22	AV	211	C
22	AV	213	G
22	AV	216	U
22	AV	218	G
22	AV	222	U
22	AV	223	G
22	AV	224	A
22	AV	225	A
22	AV	226	G
22	AV	227	C
22	AV	229	U
22	AV	230	U
22	AV	233	A
22	AV	234	A
22	AV	235	C
22	AV	236	U
22	AV	237	U
22	AV	238	A
22	AV	239	A
22	AV	240	U
22	AV	241	C
22	AV	242	A
22	AV	244	G
22	AV	245	C
22	AV	246	U
22	AV	248	G
22	AV	249	U
22	AV	257	U
22	AV	258	G
22	AV	261	G

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Mol	Chain	Res	Type
22	AV	262	U
22	AV	263	G
22	AV	264	U
22	AV	266	C
22	AV	267	G
22	AV	268	U
22	AV	269	C
22	AV	270	C
22	AV	271	G
22	AV	272	C
22	AV	273	A
22	AV	274	G
22	AV	282	G
22	AV	285	A
22	AV	286	A
22	AV	287	U
22	AV	288	G
22	AV	291	A
22	AV	292	A
22	AV	293	G
22	AV	296	U
22	AV	299	C
22	AV	300	U
22	AV	302	A
22	AV	303	G
22	AV	308	U
22	AV	309	A
22	AV	310	G
22	AV	312	A
22	AV	315	G
22	AV	316	A
22	AV	317	G
22	AV	318	G
22	AV	319	A
22	AV	321	G
22	AV	322	U
22	AV	323	A
22	AV	324	G
22	AV	325	G
22	AV	332	G
22	AV	333	G
22	AV	334	A

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Mol	Chain	Res	Type
22	AV	335	C
22	AV	336	G
22	AV	339	G
22	AV	340	G
22	AV	347	PSU
22	AV	348	C
22	AV	351	G
22	AV	357	U
22	AV	358	C
22	AV	359	C
22	AV	360	A
22	AV	362	C
22	AV	363	A
24	AX	2	G
24	AX	3	C
24	AX	4	G
24	AX	5	G
24	AX	8	U
24	AX	9	G
24	AX	13	C
24	AX	15	G
24	AX	16	C
24	AX	17	C
24	AX	18	U
24	AX	19	G
24	AX	20	G
24	AX	21	U
24	AX	22	A
24	AX	25	U
24	AX	26	C
24	AX	28	U
24	AX	29	C
24	AX	31	G
24	AX	34	U
24	AX	45	A
24	AX	46	G
24	AX	49	C
24	AX	54	G
24	AX	55	U
24	AX	59	A
24	AX	60	A
24	AX	61	U

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Mol	Chain	Res	Type
24	AX	62	C
24	AX	63	C
24	AX	64	G
24	AX	66	C
24	AX	68	C
24	AX	72	C
24	AX	73	A
24	AX	74	A
26	BA	10	A
26	BA	12	U
26	BA	13	A
26	BA	15	G
26	BA	34	U
26	BA	35	G
26	BA	46	G
26	BA	61	C
26	BA	63	A
26	BA	71	A
26	BA	72	U
26	BA	74	A
26	BA	75	G
26	BA	84	A
26	BA	86	G
26	BA	87	U
26	BA	101	A
26	BA	103	A
26	BA	110	G
26	BA	118	A
26	BA	119	A
26	BA	120	U
26	BA	123	G
26	BA	128	C
26	BA	138	U
26	BA	139	U
26	BA	140	C
26	BA	141	G
26	BA	142	A
26	BA	143	C
26	BA	146	A
26	BA	147	C
26	BA	158	U
26	BA	180	G

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Mol	Chain	Res	Type
26	BA	181	A
26	BA	188	G
26	BA	196	A
26	BA	208	C
26	BA	216	A
26	BA	221	A
26	BA	222	A
26	BA	227	A
26	BA	230	G
26	BA	245	G
26	BA	248	G
26	BA	249	C
26	BA	254	G
26	BA	255	A
26	BA	265	A
26	BA	266	G
26	BA	271	G
26	BA	272	A
26	BA	273	G
26	BA	277	G
26	BA	278	A
26	BA	279	A
26	BA	282	A
26	BA	284	U
26	BA	285	G
26	BA	293	U
26	BA	302	C
26	BA	306	U
26	BA	310	A
26	BA	311	A
26	BA	325	G
26	BA	329	G
26	BA	330	A
26	BA	331	C
26	BA	340	A
26	BA	344	A
26	BA	351	C
26	BA	353	C
26	BA	359	G
26	BA	361	G
26	BA	362	A
26	BA	370	G

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Mol	Chain	Res	Type
26	BA	371	A
26	BA	372	G
26	BA	386	G
26	BA	389	G
26	BA	396	G
26	BA	402	A
26	BA	404	A
26	BA	405	U
26	BA	406	G
26	BA	409	G
26	BA	411	G
26	BA	412	A
26	BA	414	C
26	BA	415	A
26	BA	418	C
26	BA	420	C
26	BA	424	G
26	BA	425	G
26	BA	428	A
26	BA	429	A
26	BA	438	G
26	BA	442	G
26	BA	451	U
26	BA	455	C
26	BA	456	C
26	BA	457	A
26	BA	471	A
26	BA	474	G
26	BA	480	A
26	BA	481	G
26	BA	491	G
26	BA	503	A
26	BA	504	A
26	BA	505	A
26	BA	508	A
26	BA	509	C
26	BA	510	C
26	BA	528	A
26	BA	529	A
26	BA	531	C
26	BA	532	A
26	BA	533	G

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Mol	Chain	Res	Type
26	BA	537	G
26	BA	538	A
26	BA	542	C
26	BA	543	G
26	BA	544	C
26	BA	545	U
26	BA	546	U
26	BA	547	A
26	BA	548	G
26	BA	549	G
26	BA	550	C
26	BA	551	G
26	BA	557	C
26	BA	563	A
26	BA	572	A
26	BA	573	U
26	BA	575	A
26	BA	586	A
26	BA	603	A
26	BA	613	A
26	BA	614	A
26	BA	615	U
26	BA	627	A
26	BA	631	A
26	BA	634	C
26	BA	637	A
26	BA	645	C
26	BA	646	U
26	BA	647	G
26	BA	648	G
26	BA	654	A
26	BA	655	A
26	BA	657	U
26	BA	663	G
26	BA	669	G
26	BA	680	C
26	BA	686	U
26	BA	701	G
26	BA	702	U
26	BA	711	G
26	BA	722	A
26	BA	726	G

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Mol	Chain	Res	Type
26	BA	730	A
26	BA	736	C
26	BA	738	G
26	BA	747	U
26	BA	751	A
26	BA	761	A
26	BA	762	U
26	BA	764	A
26	BA	765	C
26	BA	772	C
26	BA	773	U
26	BA	775	G
26	BA	776	G
26	BA	782	A
26	BA	784	G
26	BA	785	G
26	BA	791	C
26	BA	792	A
26	BA	805	G
26	BA	812	C
26	BA	819	A
26	BA	824	U
26	BA	827	U
26	BA	828	U
26	BA	829	A
26	BA	830	G
26	BA	835	C
26	BA	845	A
26	BA	846	U
26	BA	847	U
26	BA	848	C
26	BA	858	G
26	BA	859	G
26	BA	866	A
26	BA	867	C
26	BA	868	U
26	BA	869	G
26	BA	874	G
26	BA	876	C
26	BA	877	A
26	BA	878	A
26	BA	879	G

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Mol	Chain	Res	Type
26	BA	880	G
26	BA	881	G
26	BA	886	A
26	BA	887	U
26	BA	888	C
26	BA	889	C
26	BA	890	C
26	BA	891	G
26	BA	893	C
26	BA	895	U
26	BA	896	A
26	BA	897	C
26	BA	898	C
26	BA	899	A
26	BA	900	A
26	BA	901	C
26	BA	902	C
26	BA	903	C
26	BA	904	G
26	BA	910	A
26	BA	911	A
26	BA	912	C
26	BA	913	U
26	BA	914	G
26	BA	915	C
26	BA	916	G
26	BA	930	G
26	BA	931	U
26	BA	932	U
26	BA	941	A
26	BA	946	C
26	BA	957	C
26	BA	961	C
26	BA	971	G
26	BA	973	A
26	BA	974	G
26	BA	983	A
26	BA	984	A
26	BA	985	C
26	BA	987	C
26	BA	989	G
26	BA	995	C

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Mol	Chain	Res	Type
26	BA	996	A
26	BA	999	U
26	BA	1009	A
26	BA	1012	U
26	BA	1013	C
26	BA	1021	A
26	BA	1026	G
26	BA	1027	A
26	BA	1033	U
26	BA	1041	G
26	BA	1046	A
26	BA	1047	G
26	BA	1053	C
26	BA	1057	A
26	BA	1059	G
26	BA	1061	U
26	BA	1062	G
26	BA	1066	U
26	BA	1067	A
26	BA	1068	G
26	BA	1070	A
26	BA	1071	G
26	BA	1072	C
26	BA	1073	A
26	BA	1074	G
26	BA	1075	C
26	BA	1079	C
26	BA	1081	U
26	BA	1087	G
26	BA	1088	A
26	BA	1091	G
26	BA	1092	C
26	BA	1093	G
26	BA	1098	A
26	BA	1099	G
26	BA	1100	C
26	BA	1101	U
26	BA	1104	C
26	BA	1106	G
26	BA	1112	G
26	BA	1119	U
26	BA	1121	C

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Mol	Chain	Res	Type
26	BA	1126	A
26	BA	1130	U
26	BA	1131	G
26	BA	1132	U
26	BA	1133	A
26	BA	1135	C
26	BA	1136	G
26	BA	1138	G
26	BA	1139	G
26	BA	1141	U
26	BA	1142	A
26	BA	1155	A
26	BA	1168	G
26	BA	1170	C
26	BA	1171	G
26	BA	1172	C
26	BA	1173	U
26	BA	1174	U
26	BA	1175	A
26	BA	1176	U
26	BA	1178	C
26	BA	1179	G
26	BA	1180	U
26	BA	1181	U
26	BA	1182	G
26	BA	1214	A
26	BA	1222	U
26	BA	1235	G
26	BA	1238	G
26	BA	1239	G
26	BA	1249	U
26	BA	1253	A
26	BA	1256	G
26	BA	1258	U
26	BA	1266	G
26	BA	1271	G
26	BA	1272	A
26	BA	1273	U
26	BA	1288	G
26	BA	1294	U
26	BA	1299	G
26	BA	1300	G

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Mol	Chain	Res	Type
26	BA	1301	A
26	BA	1306	C
26	BA	1310	G
26	BA	1315	C
26	BA	1316	U
26	BA	1321	A
26	BA	1325	U
26	BA	1341	G
26	BA	1345	C
26	BA	1349	C
26	BA	1352	U
26	BA	1359	A
26	BA	1365	A
26	BA	1367	A
26	BA	1370	C
26	BA	1372	U
26	BA	1373	A
26	BA	1374	G
26	BA	1378	A
26	BA	1379	U
26	BA	1380	G
26	BA	1383	A
26	BA	1386	C
26	BA	1387	A
26	BA	1390	U
26	BA	1406	U
26	BA	1407	G
26	BA	1415	U
26	BA	1416	G
26	BA	1417	C
26	BA	1418	G
26	BA	1419	A
26	BA	1420	A
26	BA	1424	G
26	BA	1427	A
26	BA	1428	C
26	BA	1450	G
26	BA	1451	C
26	BA	1452	G
26	BA	1453	A
26	BA	1460	U
26	BA	1461	C

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Mol	Chain	Res	Type
26	BA	1462	C
26	BA	1463	C
26	BA	1472	C
26	BA	1482	G
26	BA	1485	U
26	BA	1491	G
26	BA	1493	C
26	BA	1494	A
26	BA	1495	A
26	BA	1504	A
26	BA	1505	A
26	BA	1508	A
26	BA	1509	A
26	BA	1510	G
26	BA	1515	A
26	BA	1523	U
26	BA	1526	C
26	BA	1527	G
26	BA	1528	A
26	BA	1530	G
26	BA	1532	A
26	BA	1533	C
26	BA	1534	U
26	BA	1535	A
26	BA	1536	C
26	BA	1538	G
26	BA	1547	C
26	BA	1554	U
26	BA	1555	G
26	BA	1556	C
26	BA	1560	G
26	BA	1568	G
26	BA	1569	A
26	BA	1576	U
26	BA	1578	U
26	BA	1582	C
26	BA	1583	A
26	BA	1584	U
26	BA	1585	C
26	BA	1586	A
26	BA	1590	A
26	BA	1593	A

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Mol	Chain	Res	Type
26	BA	1606	C
26	BA	1607	C
26	BA	1608	A
26	BA	1618	A
26	BA	1619	G
26	BA	1623	G
26	BA	1626	A
26	BA	1634	A
26	BA	1639	C
26	BA	1647	U
26	BA	1648	U
26	BA	1649	G
26	BA	1651	G
26	BA	1652	A
26	BA	1661	G
26	BA	1674	G
26	BA	1677	A
26	BA	1686	C
26	BA	1687	G
26	BA	1695	G
26	BA	1710	G
26	BA	1711	A
26	BA	1714	U
26	BA	1715	G
26	BA	1717	A
26	BA	1718	G
26	BA	1721	G
26	BA	1725	U
26	BA	1729	U
26	BA	1730	C
26	BA	1736	U
26	BA	1738	G
26	BA	1743	G
26	BA	1744	A
26	BA	1750	G
26	BA	1754	A
26	BA	1757	A
26	BA	1758	U
26	BA	1764	C
26	BA	1771	C
26	BA	1773	A
26	BA	1782	U

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Mol	Chain	Res	Type
26	BA	1791	A
26	BA	1800	C
26	BA	1801	A
26	BA	1802	A
26	BA	1808	A
26	BA	1809	A
26	BA	1811	G
26	BA	1816	C
26	BA	1828	G
26	BA	1829	A
26	BA	1833	C
26	BA	1835	G
26	BA	1839	G
26	BA	1841	U
26	BA	1845	G
26	BA	1848	A
26	BA	1854	A
26	BA	1855	U
26	BA	1858	A
26	BA	1861	G
26	BA	1862	G
26	BA	1866	A
26	BA	1870	C
26	BA	1871	A
26	BA	1872	A
26	BA	1873	G
26	BA	1876	A
26	BA	1884	G
26	BA	1885	A
26	BA	1889	A
26	BA	1890	A
26	BA	1902	C
26	BA	1908	C
26	BA	1909	C
26	BA	1913	A
26	BA	1914	C
26	BA	1915	U
26	BA	1925	C
26	BA	1926	U
26	BA	1927	A
26	BA	1928	A
26	BA	1929	G

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Mol	Chain	Res	Type
26	BA	1930	G
26	BA	1931	U
26	BA	1932	A
26	BA	1937	A
26	BA	1938	A
26	BA	1944	U
26	BA	1955	U
26	BA	1960	A
26	BA	1965	C
26	BA	1966	A
26	BA	1967	C
26	BA	1970	A
26	BA	1971	U
26	BA	1972	G
26	BA	1975	G
26	BA	1981	A
26	BA	1985	C
26	BA	1990	C
26	BA	1991	U
26	BA	1992	G
26	BA	1993	U
26	BA	1997	C
26	BA	2008	C
26	BA	2009	A
26	BA	2020	A
26	BA	2022	U
26	BA	2023	C
26	BA	2025	C
26	BA	2027	G
26	BA	2031	A
26	BA	2033	A
26	BA	2034	U
26	BA	2035	G
26	BA	2043	C
26	BA	2055	C
26	BA	2056	G
26	BA	2060	A
26	BA	2061	G
26	BA	2062	A
26	BA	2066	C
26	BA	2069	G
26	BA	2071	A

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Mol	Chain	Res	Type
26	BA	2072	C
26	BA	2077	A
26	BA	2078	C
26	BA	2083	G
26	BA	2096	C
26	BA	2097	A
26	BA	2101	A
26	BA	2102	G
26	BA	2104	C
26	BA	2107	G
26	BA	2109	U
26	BA	2110	G
26	BA	2111	U
26	BA	2112	G
26	BA	2113	U
26	BA	2115	G
26	BA	2116	G
26	BA	2117	A
26	BA	2118	U
26	BA	2119	A
26	BA	2120	G
26	BA	2122	U
26	BA	2123	G
26	BA	2126	A
26	BA	2128	G
26	BA	2129	C
26	BA	2130	U
26	BA	2132	U
26	BA	2133	G
26	BA	2135	A
26	BA	2136	G
26	BA	2145	C
26	BA	2146	C
26	BA	2147	A
26	BA	2152	G
26	BA	2153	C
26	BA	2155	U
26	BA	2157	G
26	BA	2158	A
26	BA	2160	C
26	BA	2162	G
26	BA	2163	A

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Mol	Chain	Res	Type
26	BA	2164	C
26	BA	2165	C
26	BA	2167	U
26	BA	2168	G
26	BA	2169	A
26	BA	2170	A
26	BA	2171	A
26	BA	2172	U
26	BA	2173	A
26	BA	2178	C
26	BA	2179	C
26	BA	2181	U
26	BA	2183	A
26	BA	2184	A
26	BA	2185	U
26	BA	2187	U
26	BA	2196	C
26	BA	2198	A
26	BA	2203	U
26	BA	2204	G
26	BA	2208	C
26	BA	2211	A
26	BA	2212	A
26	BA	2213	U
26	BA	2214	C
26	BA	2220	U
26	BA	2225	A
26	BA	2226	C
26	BA	2233	U
26	BA	2238	G
26	BA	2239	G
26	BA	2248	C
26	BA	2250	G
26	BA	2257	U
26	BA	2261	C
26	BA	2268	A
26	BA	2277	G
26	BA	2278	A
26	BA	2280	G
26	BA	2283	C
26	BA	2284	A
26	BA	2286	G

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Mol	Chain	Res	Type
26	BA	2287	A
26	BA	2288	A
26	BA	2296	U
26	BA	2302	U
26	BA	2303	G
26	BA	2305	U
26	BA	2308	G
26	BA	2309	A
26	BA	2311	A
26	BA	2312	U
26	BA	2325	G
26	BA	2326	C
26	BA	2327	A
26	BA	2329	U
26	BA	2331	G
26	BA	2332	C
26	BA	2333	A
26	BA	2335	A
26	BA	2340	A
26	BA	2341	G
26	BA	2347	C
26	BA	2348	U
26	BA	2350	C
26	BA	2354	C
26	BA	2358	A
26	BA	2361	G
26	BA	2366	A
26	BA	2372	U
26	BA	2376	A
26	BA	2383	G
26	BA	2384	U
26	BA	2385	C
26	BA	2396	G
26	BA	2402	U
26	BA	2405	G
26	BA	2406	A
26	BA	2410	G
26	BA	2419	U
26	BA	2424	C
26	BA	2425	A
26	BA	2426	A
26	BA	2427	C

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Mol	Chain	Res	Type
26	BA	2428	G
26	BA	2429	G
26	BA	2430	A
26	BA	2435	A
26	BA	2441	U
26	BA	2445	G
26	BA	2448	A
26	BA	2449	U
26	BA	2468	A
26	BA	2469	A
26	BA	2474	U
26	BA	2476	A
26	BA	2491	U
26	BA	2493	U
26	BA	2494	G
26	BA	2497	A
26	BA	2502	G
26	BA	2505	G
26	BA	2507	C
26	BA	2508	G
26	BA	2514	U
26	BA	2518	A
26	BA	2520	C
26	BA	2523	G
26	BA	2525	G
26	BA	2527	C
26	BA	2529	G
26	BA	2552	U
26	BA	2553	G
26	BA	2554	U
26	BA	2555	U
26	BA	2556	C
26	BA	2566	A
26	BA	2567	G
26	BA	2573	C
26	BA	2585	U
26	BA	2586	U
26	BA	2602	A
26	BA	2603	G
26	BA	2604	U
26	BA	2609	U
26	BA	2610	C

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Mol	Chain	Res	Type
26	BA	2613	U
26	BA	2629	U
26	BA	2632	A
26	BA	2634	A
26	BA	2646	C
26	BA	2662	A
26	BA	2664	G
26	BA	2669	G
26	BA	2676	C
26	BA	2681	C
26	BA	2682	A
26	BA	2689	U
26	BA	2690	U
26	BA	2704	C
26	BA	2711	A
26	BA	2714	G
26	BA	2716	C
26	BA	2720	U
26	BA	2721	A
26	BA	2724	U
26	BA	2726	A
26	BA	2729	G
26	BA	2744	G
26	BA	2745	C
26	BA	2748	A
26	BA	2760	C
26	BA	2767	C
26	BA	2778	A
26	BA	2783	U
26	BA	2784	U
26	BA	2791	G
26	BA	2792	A
26	BA	2798	U
26	BA	2799	A
26	BA	2800	A
26	BA	2811	G
26	BA	2813	A
26	BA	2818	U
26	BA	2820	A
26	BA	2821	A
26	BA	2823	A
26	BA	2825	G

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Mol	Chain	Res	Type
26	BA	2835	A
26	BA	2836	U
26	BA	2837	A
26	BA	2849	U
26	BA	2854	G
26	BA	2858	C
26	BA	2861	U
26	BA	2864	G
26	BA	2867	G
26	BA	2870	C
26	BA	2874	C
26	BA	2880	C
26	BA	2881	U
26	BA	2883	A
26	BA	2884	U
26	BA	2885	G
26	BA	2886	A
26	BA	2887	A
26	BA	2889	C
26	BA	2899	A
26	BA	2900	A
26	BA	2903	U
56	BB	2	G
56	BB	3	C
56	BB	8	C
56	BB	12	C
56	BB	15	A
56	BB	16	G
56	BB	35	C
56	BB	36	C
56	BB	37	C
56	BB	41	G
56	BB	44	G
56	BB	45	A
56	BB	49	C
56	BB	56	G
56	BB	57	A
56	BB	60	C
56	BB	66	A
56	BB	67	G
56	BB	89	U
56	BB	90	C

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Mol	Chain	Res	Type
56	BB	98	G
56	BB	99	A
56	BB	109	A
56	BB	119	A

All (121) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	115	G
1	AA	120	A
1	AA	148	G
1	AA	209	U
1	AA	329	A
1	AA	351	G
1	AA	410	G
1	AA	412	A
1	AA	428	G
1	AA	429	U
1	AA	439	U
1	AA	481	G
1	AA	510	A
1	AA	513	C
1	AA	653	U
1	AA	889	A
1	AA	1031	C
1	AA	1049	U
1	AA	1101	A
1	AA	1126	U
1	AA	1145	A
1	AA	1201	A
1	AA	1211	U
1	AA	1227	A
1	AA	1286	U
1	AA	1337	G
1	AA	1533	C
22	AV	9	U
22	AV	11	C
22	AV	13	G
22	AV	14	G
22	AV	15	A
22	AV	16	U
22	AV	17	U

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Mol	Chain	Res	Type
22	AV	19	G
22	AV	20	A
22	AV	32	A
22	AV	33	A
22	AV	38	A
22	AV	61	G
22	AV	68	U
22	AV	130	C
22	AV	131	U
22	AV	153	U
22	AV	183	C
22	AV	212	U
22	AV	223	G
22	AV	229	U
22	AV	233	A
22	AV	245	C
22	AV	247	A
22	AV	257	U
22	AV	261	G
22	AV	290	A
22	AV	308	U
22	AV	314	C
22	AV	320	U
22	AV	332	G
22	AV	333	G
24	AX	18	U
24	AX	27	G
24	AX	54	G
26	BA	60	G
26	BA	71	A
26	BA	74	A
26	BA	196	A
26	BA	221	A
26	BA	271	G
26	BA	301	G
26	BA	370	G
26	BA	404	A
26	BA	479	A
26	BA	503	A
26	BA	614	A
26	BA	620	G
26	BA	685	A

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Mol	Chain	Res	Type
26	BA	764	A
26	BA	776	G
26	BA	790	U
26	BA	886	A
26	BA	887	U
26	BA	896	A
26	BA	899	A
26	BA	900	A
26	BA	909	A
26	BA	960	A
26	BA	984	A
26	BA	995	C
26	BA	1046	A
26	BA	1086	A
26	BA	1133	A
26	BA	1212	G
26	BA	1234	U
26	BA	1253	A
26	BA	1286	A
26	BA	1301	A
26	BA	1344	U
26	BA	1373	A
26	BA	1378	A
26	BA	1494	A
26	BA	1606	C
26	BA	1647	U
26	BA	1674	G
26	BA	1800	C
26	BA	1875	G
26	BA	1900	A
26	BA	1929	G
26	BA	2060	A
26	BA	2127	G
26	BA	2157	G
26	BA	2211	A
26	BA	2286	G
26	BA	2326	C
26	BA	2406	A
26	BA	2422	C
26	BA	2425	A
26	BA	2602	A
26	BA	2681	C

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Mol	Chain	Res	Type
26	BA	2848	G
26	BA	2873	A
56	BB	15	A

## 5.4 Non-standard residues in protein, DNA, RNA chains [i](#)

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

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z  > 2$	Counts	RMSZ	$\# Z  > 2$
22	5MU	AV	341	22	13,22,23	1.46	1 (7%)	14,32,35	1.90	3 (21%)
22	PSU	AV	342	22	16,21,22	1.89	3 (18%)	20,30,33	5.41	7 (35%)
22	PSU	AV	347	22	16,21,22	1.68	3 (18%)	20,30,33	5.41	5 (25%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
22	5MU	AV	341	22	-	0/3/25/26	0/2/2/2
22	PSU	AV	342	22	-	1/7/25/26	0/2/2/2
22	PSU	AV	347	22	-	2/7/25/26	0/2/2/2

All (7) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	AV	342	PSU	C5-C1'	-6.06	1.47	1.52
22	AV	347	PSU	C5-C1'	-5.13	1.47	1.52
22	AV	341	5MU	C4-N3	3.94	1.39	1.33
22	AV	347	PSU	C4-N3	2.66	1.37	1.33
22	AV	347	PSU	C2-N1	2.59	1.43	1.38
22	AV	342	PSU	C4-N3	2.57	1.37	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	AV	342	PSU	C6-C5	-2.37	1.35	1.38

All (15) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	AV	347	PSU	N1-C2-N3	-17.03	114.89	128.43
22	AV	342	PSU	N1-C2-N3	-16.47	115.34	128.43
22	AV	347	PSU	C4-N3-C2	14.16	127.10	115.14
22	AV	342	PSU	C4-N3-C2	13.97	126.93	115.14
22	AV	342	PSU	C5-C4-N3	-8.72	114.12	125.36
22	AV	347	PSU	C5-C4-N3	-8.33	114.62	125.36
22	AV	341	5MU	C4-N3-C2	5.59	119.86	115.14
22	AV	342	PSU	C5-C1'-C2'	-3.35	109.34	115.32
22	AV	342	PSU	C6-N1-C2	2.80	119.78	115.32
22	AV	347	PSU	C6-N1-C2	2.63	119.51	115.32
22	AV	342	PSU	C4-C5-C1'	-2.58	116.22	121.14
22	AV	347	PSU	O2'-C2'-C1'	-2.29	106.49	111.94
22	AV	342	PSU	O4'-C4'-C3'	-2.17	100.85	105.14
22	AV	341	5MU	O4'-C1'-N1	2.01	111.99	108.06
22	AV	341	5MU	C5-C6-N1	-2.00	119.98	122.15

There are no chirality outliers.

All (3) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
22	AV	347	PSU	C4'-C5'-O5'-P
22	AV	342	PSU	O4'-C1'-C5-C4
22	AV	347	PSU	C2'-C1'-C5-C6

There are no ring outliers.

3 monomers are involved in 16 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
22	AV	341	5MU	6	0
22	AV	342	PSU	3	0
22	AV	347	PSU	7	0

## 5.5 Carbohydrates

There are no carbohydrates in this entry.

## 5.6 Ligand geometry

There are no ligands in this entry.

## 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.