



Full wwPDB EM Validation Report ⓘ

Mar 8, 2026 – 08:03 AM UTC

PDB ID : 7PIO / pdb_00007pio
EMDB ID : EMD-13445
Title : 70S ribosome with P-site tRNA in pseudouridimycin-treated *Mycoplasma pneumoniae* cells
Authors : Xue, L.; Lenz, S.; Rappsilber, J.; Mahamid, J.
Deposited on : 2021-08-23
Resolution : 9.50 Å (reported)
Based on initial models : 7OOC, 4V7C, 7OOD

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

We welcome your comments at 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.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

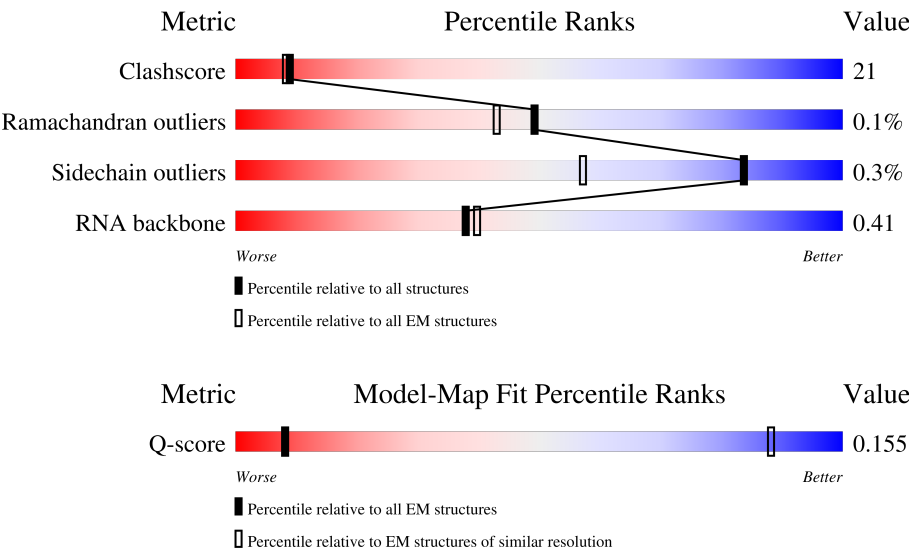
EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDb archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 9.50 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)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
RNA backbone	8273	3508	-
Q-score	-	25397	234 (9.00 - 10.00)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. 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 $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion $< 40\%$). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	0	48	
2	1	59	
3	2	37	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
4	A	294	
5	B	273	
6	C	205	
7	D	219	
8	E	215	
9	F	155	
10	G	142	
11	H	132	
12	I	108	
13	J	121	
14	K	139	
15	L	124	
16	M	61	
17	N	86	
18	O	94	
19	P	85	
20	Q	104	
21	R	87	
22	S	87	
23	T	60	
24	a	287	
25	b	287	
26	c	212	
27	d	180	
28	e	184	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
29	f	149	
30	g	161	
31	h	137	
32	i	146	
33	j	122	
34	k	151	
35	l	139	
36	m	124	
37	n	116	
38	o	119	
39	p	127	
40	q	100	
41	r	159	
42	s	237	
43	t	111	
44	u	104	
45	v	65	
46	w	111	
47	x	97	
48	y	57	
49	z	53	
50	3	2907	
51	4	108	
52	5	1520	
53	7	76	

2 Entry composition

There are 53 unique types of molecules in this entry. The entry contains 144502 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 protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	0	47	Total	C	N	O	S	0	0
			380	236	81	61	2		

- Molecule 2 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	1	59	Total	C	N	O	S	0	0
			477	300	99	77	1		

- Molecule 3 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	2	37	Total	C	N	O	S	0	0
			304	189	65	46	4		

- Molecule 4 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	A	240	Total	C	N	O	S	0	0
			1921	1226	334	352	9		

- Molecule 5 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	B	215	Total	C	N	O	S	0	0
			1698	1073	313	307	5		

- Molecule 6 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	C	203	Total	C	N	O	S	0	0
			1660	1051	314	290	5		

- Molecule 7 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	D	153	Total	C	N	O	S	0	0
			1173	742	226	202	3		

- Molecule 8 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	E	167	Total	C	N	O	S	0	0
			1362	857	240	263	2		

- Molecule 9 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	F	154	Total	C	N	O	S	0	0
			1246	785	239	216	6		

- Molecule 10 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	G	141	Total	C	N	O	S	0	0
			1110	723	193	192	2		

- Molecule 11 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	H	128	Total	C	N	O	S	0	0
			1028	655	191	181	1		

- Molecule 12 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	I	101	Total	C	N	O	S	0	0
			809	523	142	143	1		

- Molecule 13 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	J	114	Total	C	N	O	S	0	0
			829	514	153	156	6		

- Molecule 14 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	K	136	Total	C	N	O	S	0	0
			1076	680	213	181	2		

- Molecule 15 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	L	118	Total	C	N	O		0	0
			951	594	191	166			

- Molecule 16 is a protein called 30S ribosomal protein S14 type Z.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	M	60	Total	C	N	O	S	0	0
			474	302	96	72	4		

- Molecule 17 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	N	83	Total	C	N	O		0	0
			673	428	125	120			

- Molecule 18 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	O	80	Total	C	N	O	S	0	0
			646	414	119	111	2		

- Molecule 19 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	P	83	Total	C	N	O		0	0
			675	425	135	115			

- Molecule 20 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	Q	65	Total	C	N	O	S	0	0
			535	342	103	86	4		

- Molecule 21 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	R	84	Total	C	N	O	S	0	0
			682	435	127	118	2		

- Molecule 22 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	S	77	Total	C	N	O	S	0	0
			629	383	135	111			

- Molecule 23 is a protein called 30S ribosomal protein S21.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	T	53	Total	C	N	O	S	0	0
			471	295	103	72	1		

- Molecule 24 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	a	285	Total	C	N	O	S	0	0
			2225	1385	437	397	6		

- Molecule 25 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	b	229	Total	C	N	O	S	0	0
			1762	1119	318	318	7		

- Molecule 26 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	c	210	Total	C	N	O	S	0	0
			1644	1047	297	297	3		

- Molecule 27 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	d	175	Total	C	N	O	S	0	0
			1388	893	245	246	4		

- Molecule 28 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms				AltConf	Trace
28	e	176	Total	C	N	O		
			1396	899	247	250	0	0

- Molecule 29 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms				AltConf	Trace
29	f	145	Total	C	N	O	S	
			1160	746	204	207	3	0

- Molecule 30 is a protein called 50S ribosomal protein L10.

Mol	Chain	Residues	Atoms				AltConf	Trace
30	g	126	Total	C	N	O	S	
			960	612	167	178	3	0

- Molecule 31 is a protein called 50S ribosomal protein L11.

Mol	Chain	Residues	Atoms				AltConf	Trace
31	h	128	Total	C	N	O	S	
			959	616	160	177	6	0

- Molecule 32 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms				AltConf	Trace
32	i	144	Total	C	N	O	S	
			1164	737	213	209	5	0

- Molecule 33 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms				AltConf	Trace
33	j	122	Total	C	N	O	S	
			944	595	178	167	4	0

- Molecule 34 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms				AltConf	Trace
34	k	148	Total	C	N	O		
			1153	731	226	196	0	0

- Molecule 35 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	l	136	Total	C	N	O	S	0	0
			1079	694	196	182	7		

- Molecule 36 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	m	119	Total	C	N	O	S	0	0
			958	609	175	171	3		

- Molecule 37 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	n	112	Total	C	N	O	S	0	0
			889	557	175	155	2		

- Molecule 38 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	o	115	Total	C	N	O	S	0	0
			938	592	180	165	1		

- Molecule 39 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	p	114	Total	C	N	O	S	0	0
			947	603	188	154	2		

- Molecule 40 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					AltConf	Trace
40	q	99	Total	C	N	O	S	0	0
			811	525	148	134	4		

- Molecule 41 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	r	139	Total	C	N	O	S	0	0
			1068	663	207	191	7		

- Molecule 42 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	s	92	Total	C	N	O	S	0	0
			720	475	122	122	1		

- Molecule 43 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	t	111	Total	C	N	O	S	0	0
			872	550	166	153	3		

- Molecule 44 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	u	86	Total	C	N	O	S	0	0
			657	409	130	117	1		

- Molecule 45 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	v	63	Total	C	N	O	S	0	0
			513	317	108	87	1		

- Molecule 46 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms				AltConf	Trace
46	w	100	Total	C	N	O	0	0
			818	517	153	148		

- Molecule 47 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	x	44	Total	C	N	O	S	0	0
			344	221	55	64	4		

- Molecule 48 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					AltConf	Trace
48	y	56	Total	C	N	O	S	0	0
			452	274	98	75	5		

- Molecule 49 is a protein called 50S ribosomal protein L33 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	z	50	Total	C	N	O	S	0	0
			408	255	81	68	4		

- Molecule 50 is a RNA chain called 23S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	3	2878	Total	C	N	O	P	0	0
			61664	27558	11236	19995	2875		

- Molecule 51 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	4	105	Total	C	N	O	P	0	0
			2239	1003	409	724	103		

- Molecule 52 is a RNA chain called 16S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	5	1493	Total	C	N	O	P	0	0
			31943	14279	5792	10382	1490		

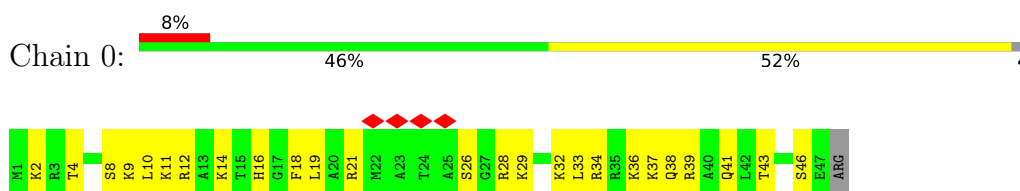
- Molecule 53 is a RNA chain called tRNA-Phe.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	7	76	Total	C	N	O	P	0	0
			1618	723	289	531	75		

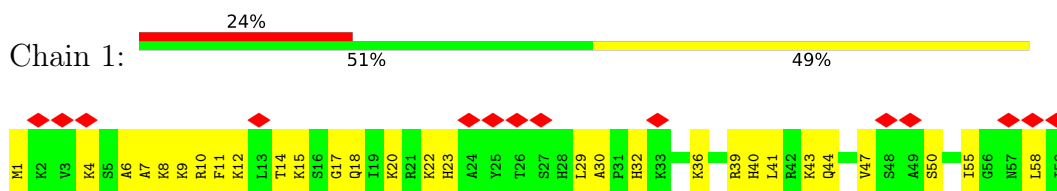
3 Residue-property plots [i](#)

These plots are drawn for all protein, RNA, DNA and oligosaccharide 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 and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). 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.

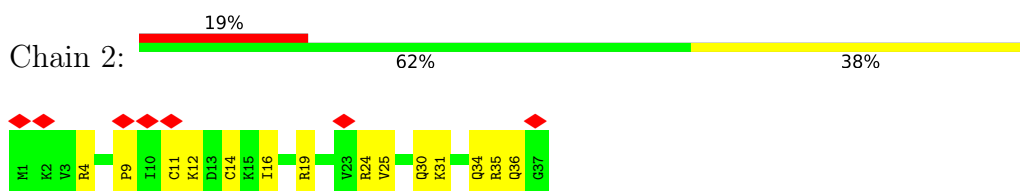
- Molecule 1: 50S ribosomal protein L34



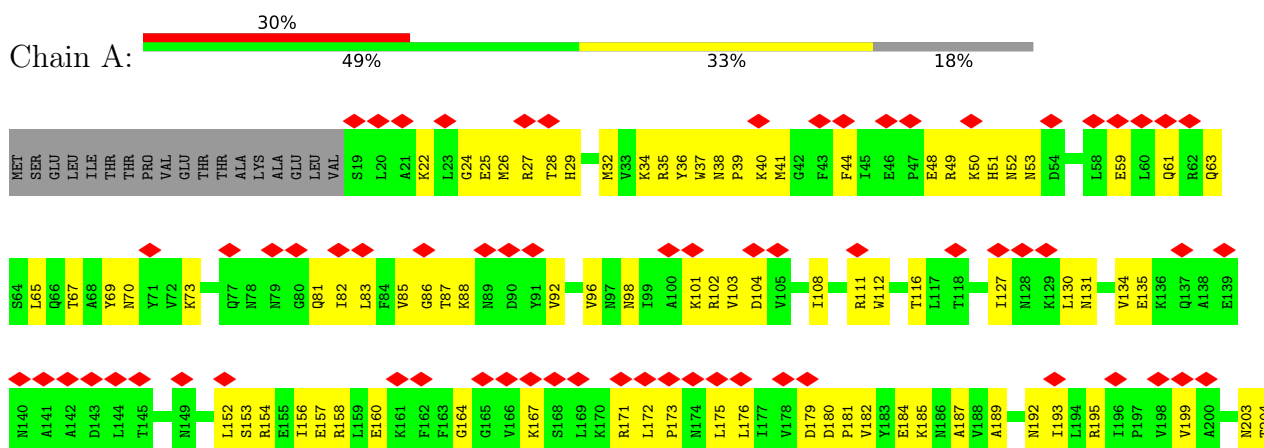
- Molecule 2: 50S ribosomal protein L35



- Molecule 3: 50S ribosomal protein L36

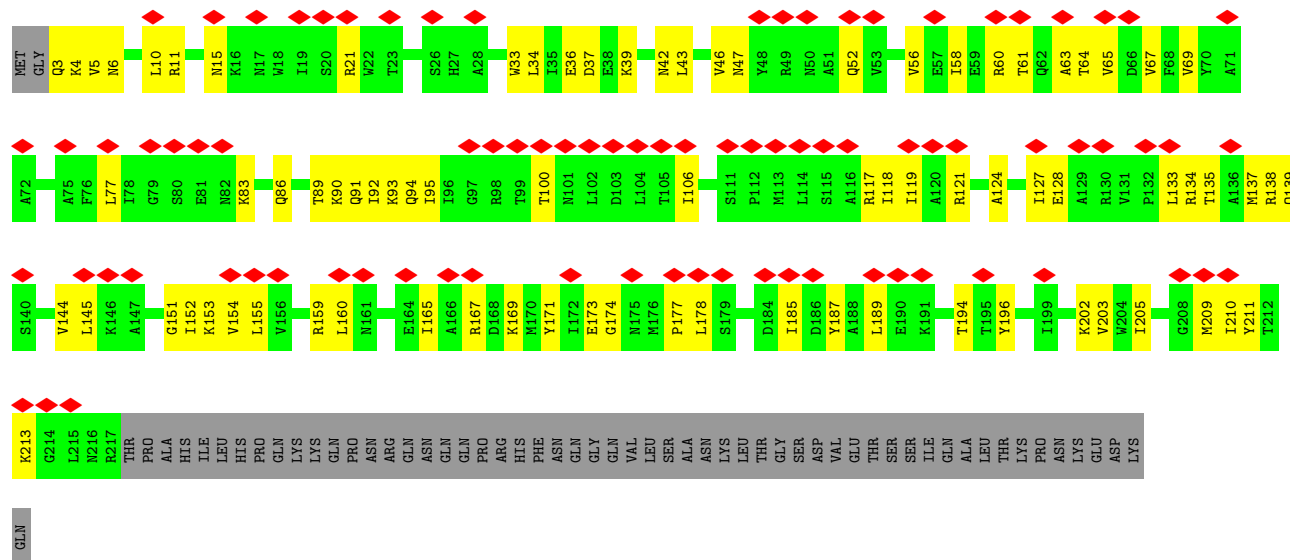


- Molecule 4: 30S ribosomal protein S2

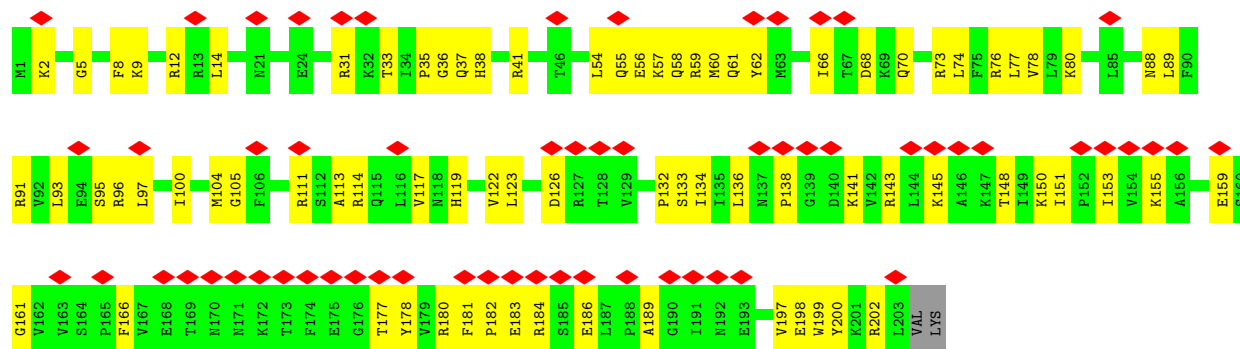




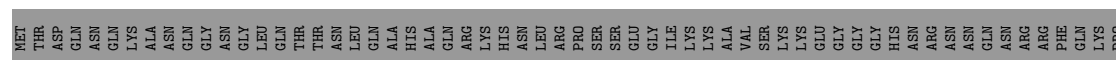
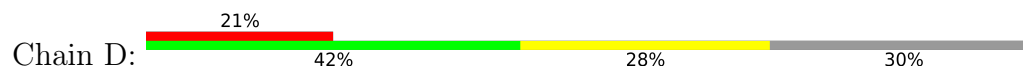
• Molecule 5: 30S ribosomal protein S3

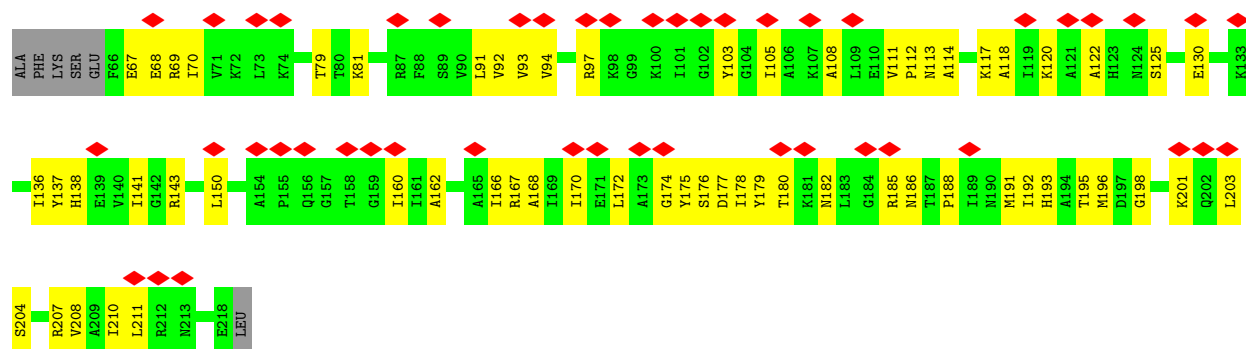


• Molecule 6: 30S ribosomal protein S4

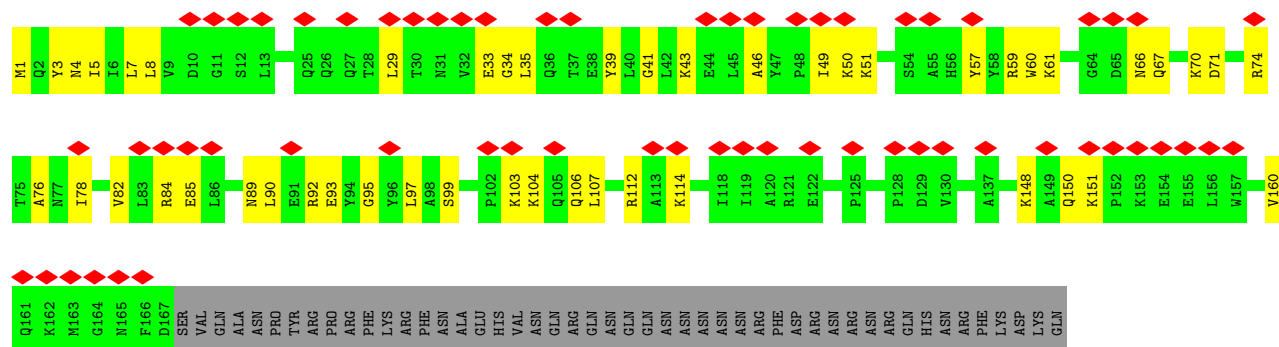


• Molecule 7: 30S ribosomal protein S5

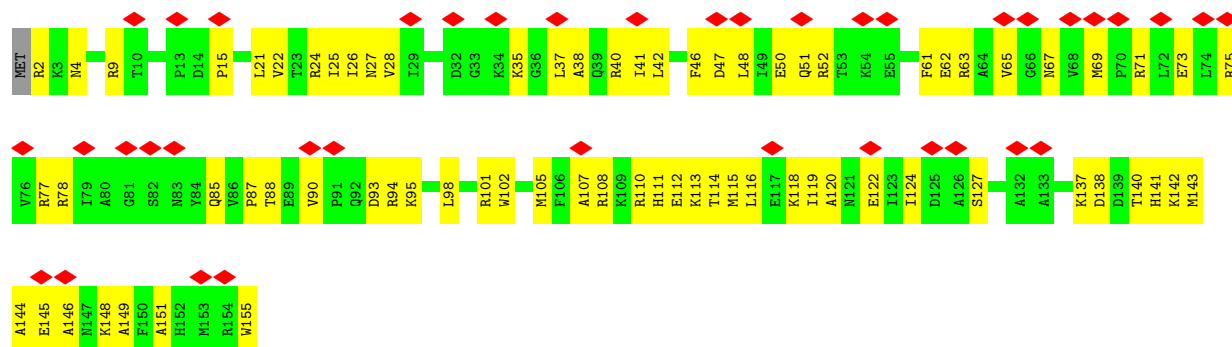




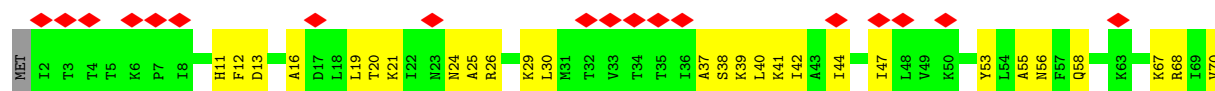
• Molecule 8: 30S ribosomal protein S6

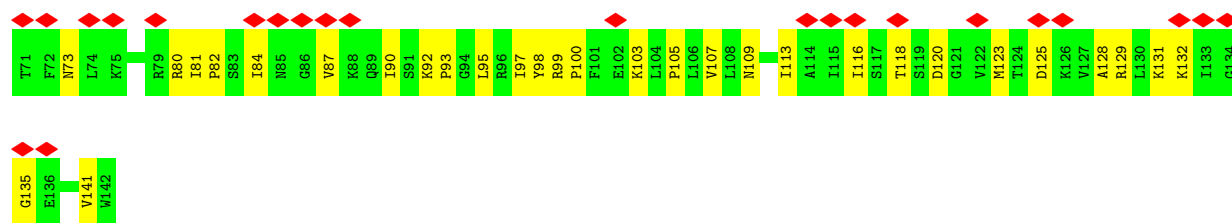


• Molecule 9: 30S ribosomal protein S7

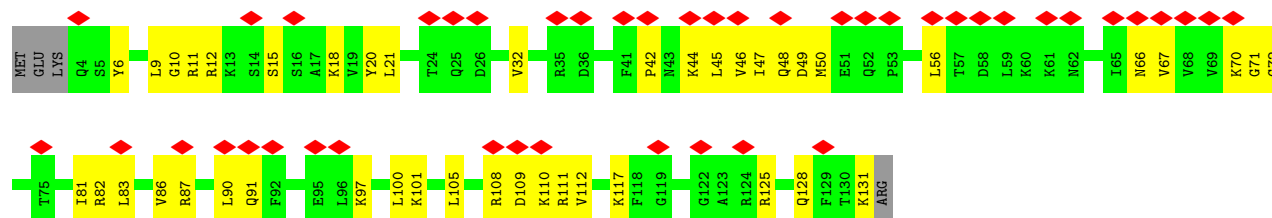


• Molecule 10: 30S ribosomal protein S8

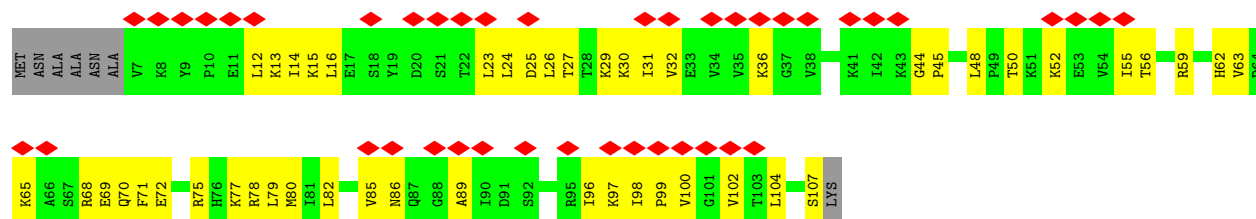
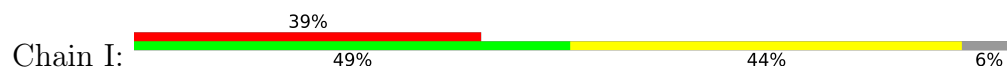




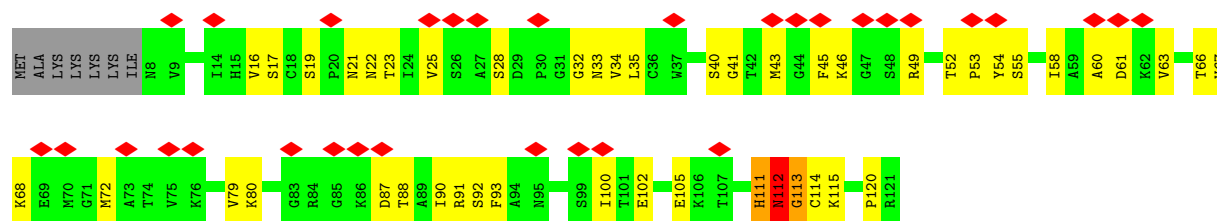
- Molecule 11: 30S ribosomal protein S9



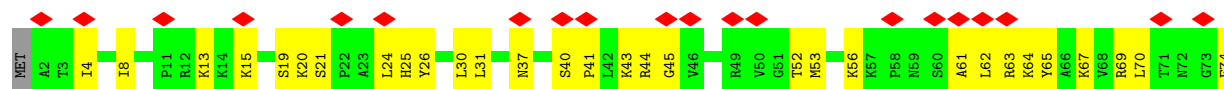
- Molecule 12: 30S ribosomal protein S10

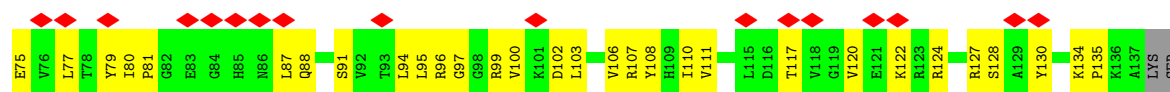


- Molecule 13: 30S ribosomal protein S11

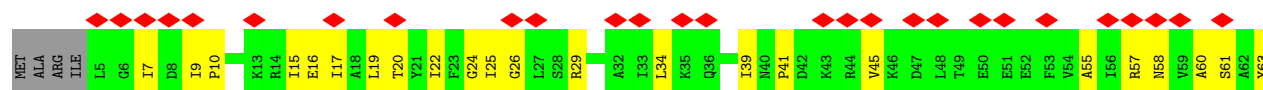


- Molecule 14: 30S ribosomal protein S12

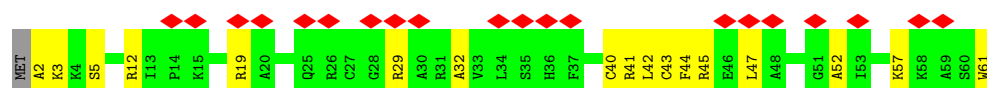




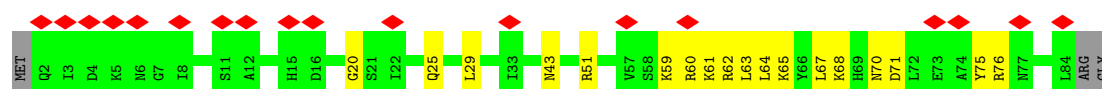
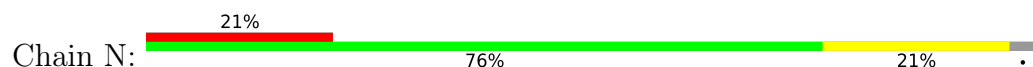
- Molecule 15: 30S ribosomal protein S13



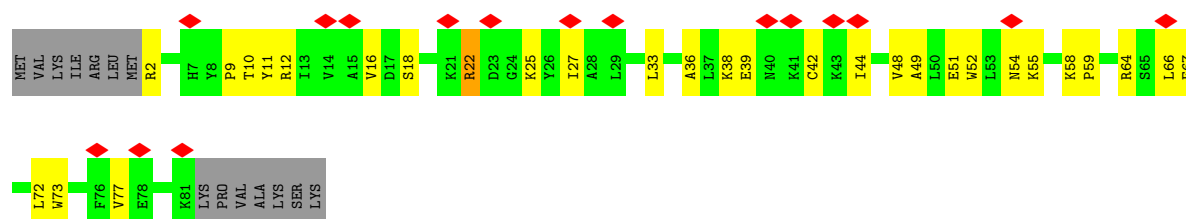
- Molecule 16: 30S ribosomal protein S14 type Z



- Molecule 17: 30S ribosomal protein S15



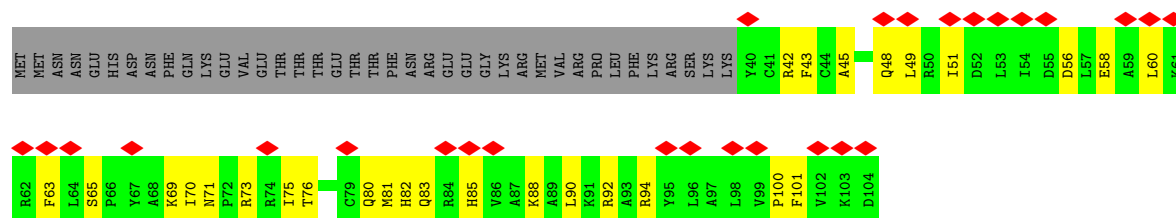
- Molecule 18: 30S ribosomal protein S16



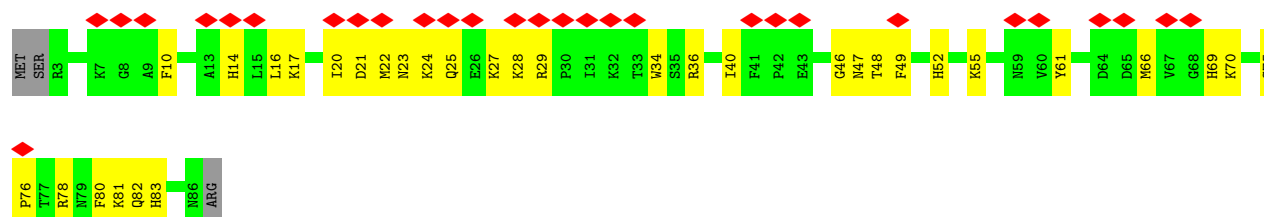
- Molecule 19: 30S ribosomal protein S17



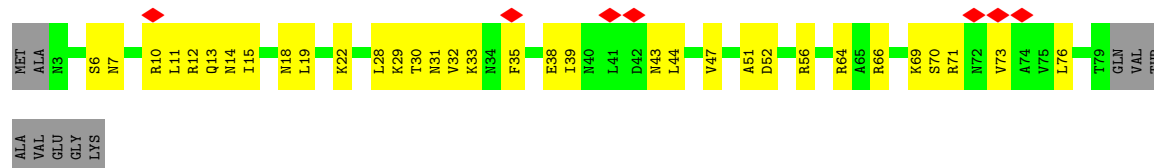
- Molecule 20: 30S ribosomal protein S18



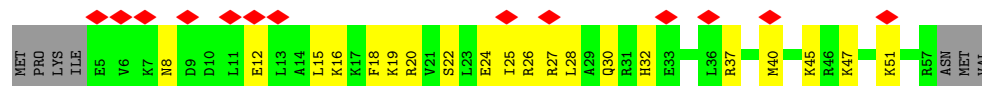
- Molecule 21: 30S ribosomal protein S19



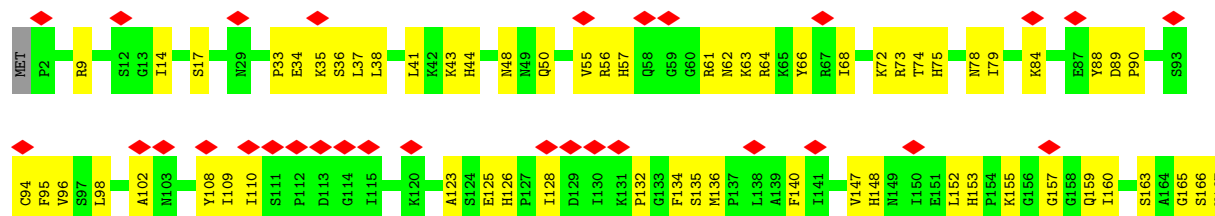
- Molecule 22: 30S ribosomal protein S20

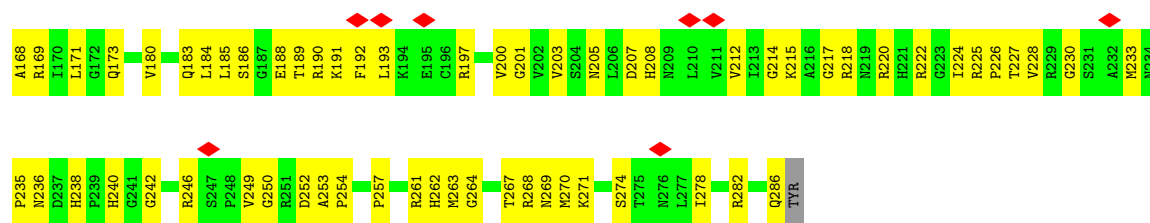


- Molecule 23: 30S ribosomal protein S21

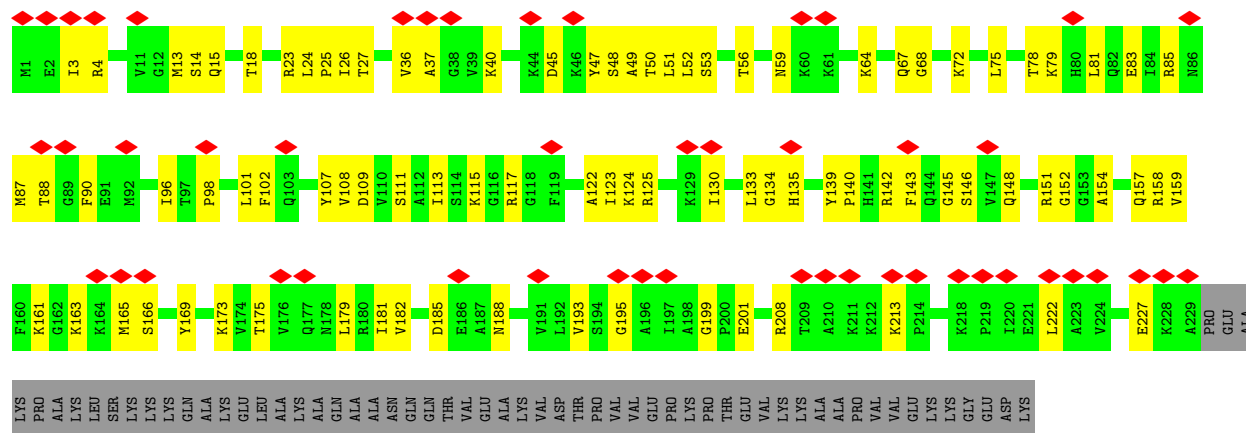


- Molecule 24: 50S ribosomal protein L2

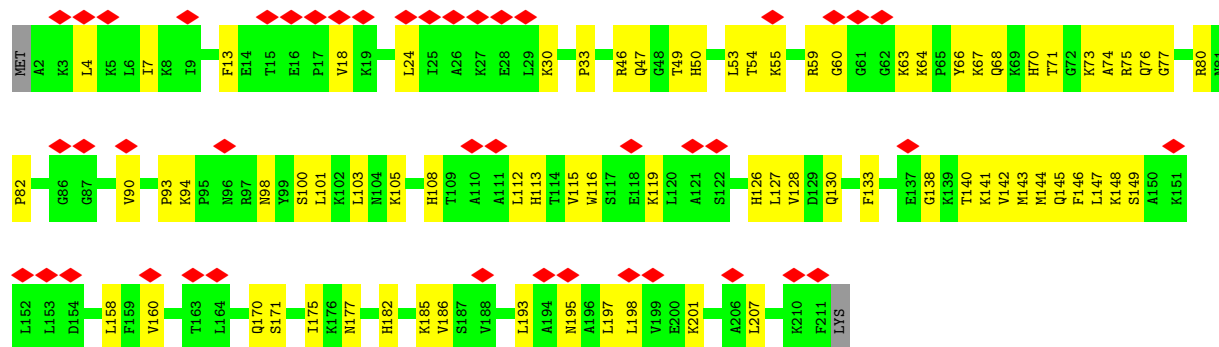




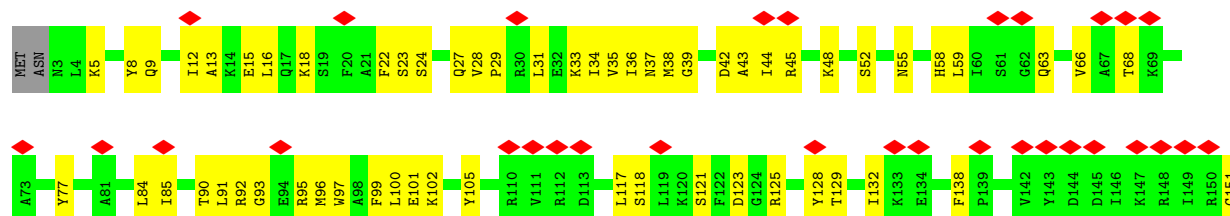
• Molecule 25: 50S ribosomal protein L3

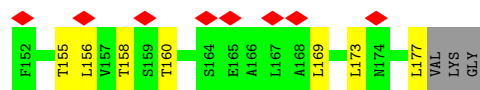


• Molecule 26: 50S ribosomal protein L4

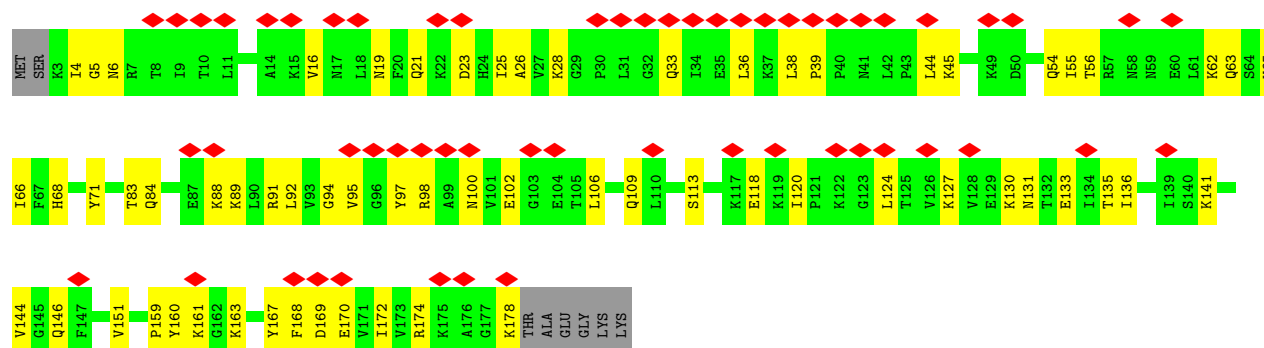


• Molecule 27: 50S ribosomal protein L5

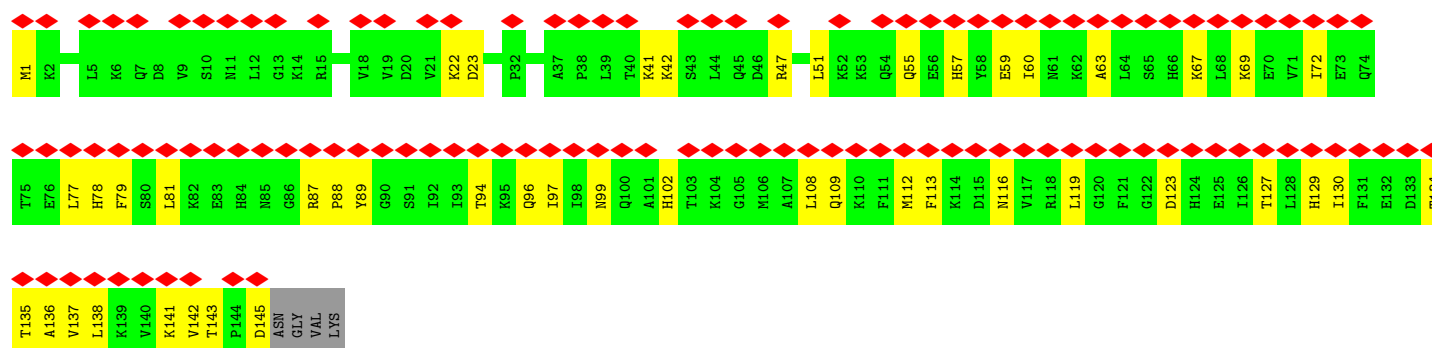
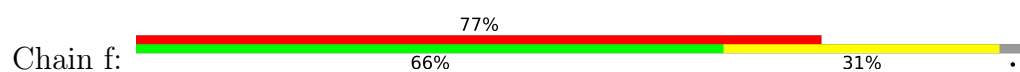




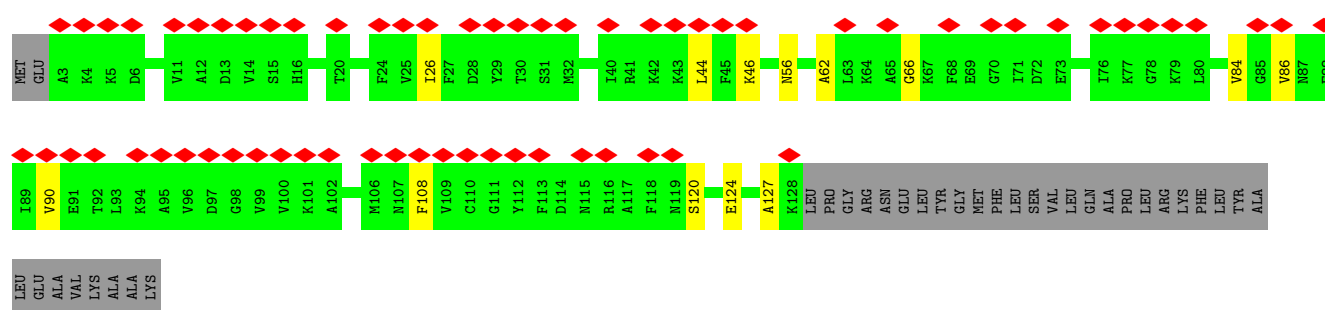
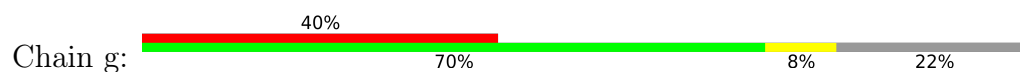
• Molecule 28: 50S ribosomal protein L6



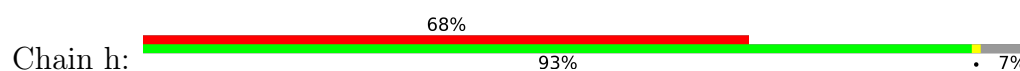
• Molecule 29: 50S ribosomal protein L9

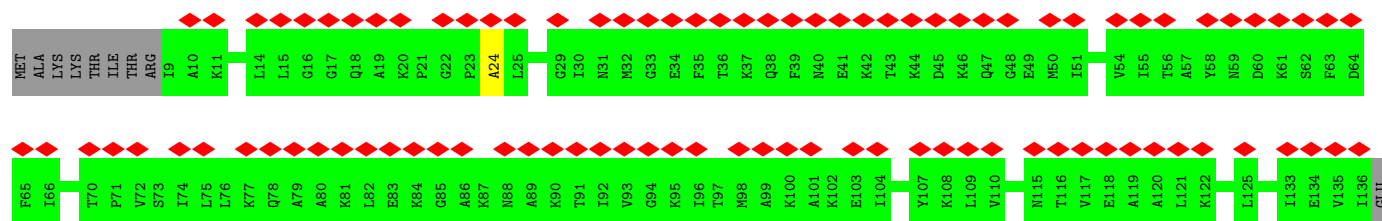


• Molecule 30: 50S ribosomal protein L10

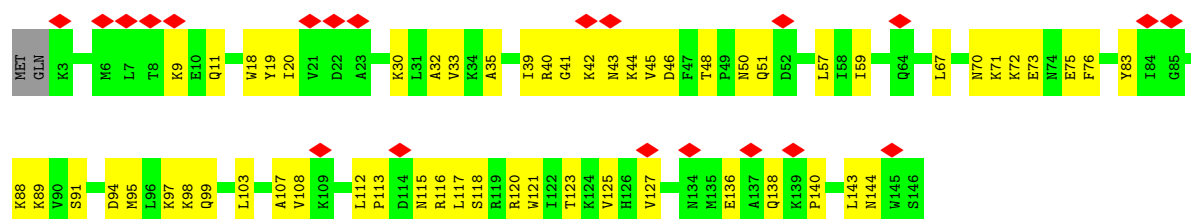


• Molecule 31: 50S ribosomal protein L11

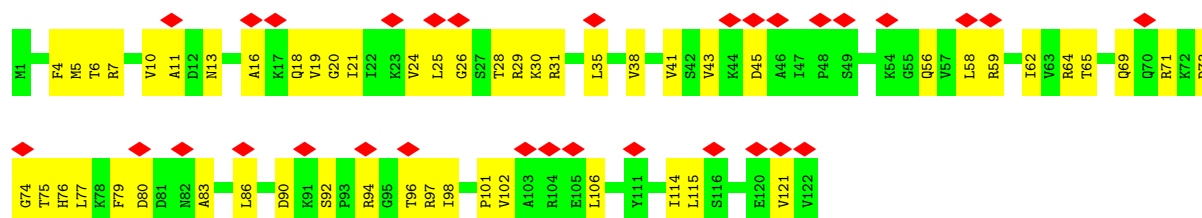




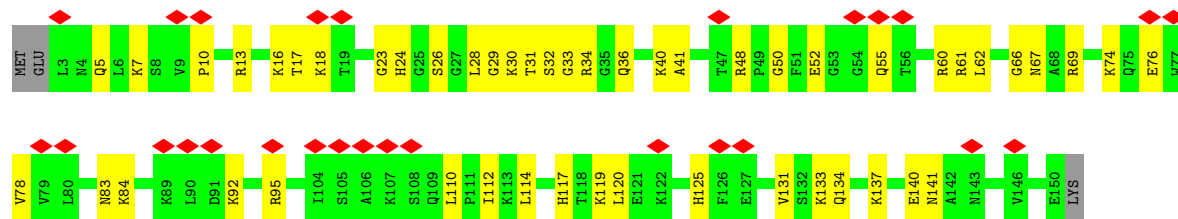
• Molecule 32: 50S ribosomal protein L13



• Molecule 33: 50S ribosomal protein L14

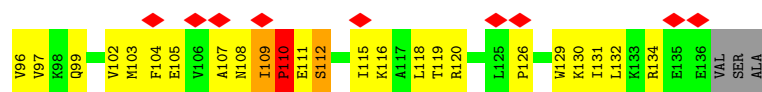


• Molecule 34: 50S ribosomal protein L15

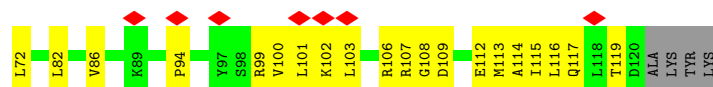


• Molecule 35: 50S ribosomal protein L16

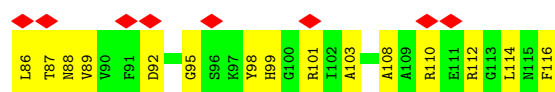
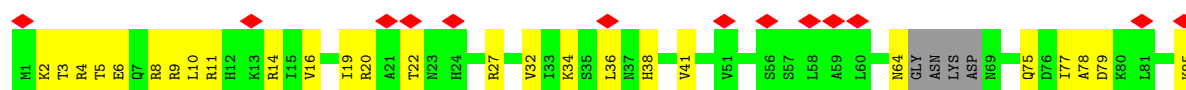




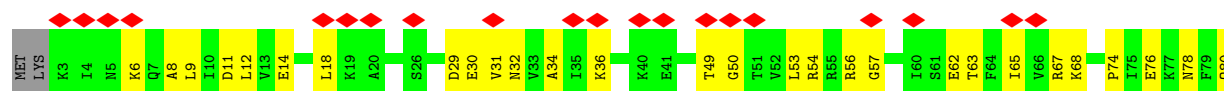
• Molecule 36: 50S ribosomal protein L17



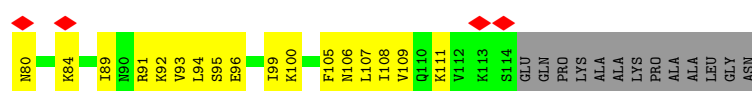
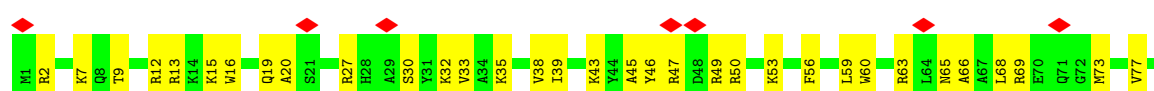
• Molecule 37: 50S ribosomal protein L18



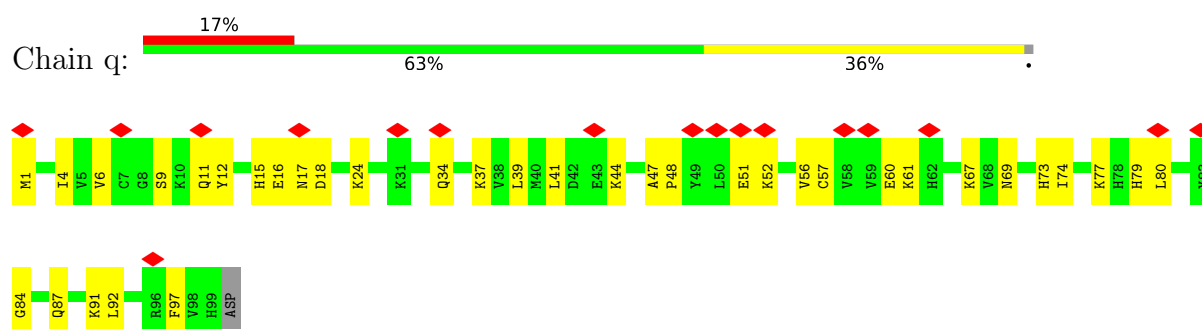
• Molecule 38: 50S ribosomal protein L19



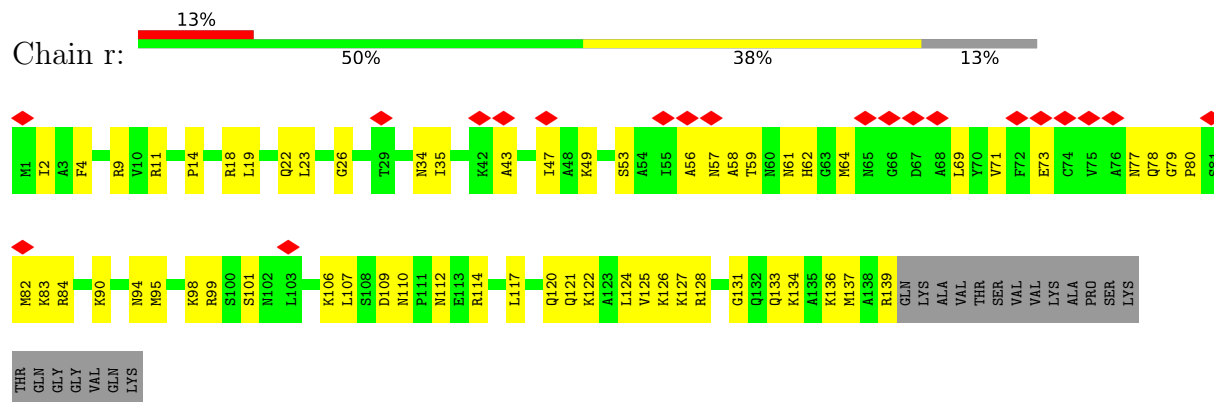
• Molecule 39: 50S ribosomal protein L20



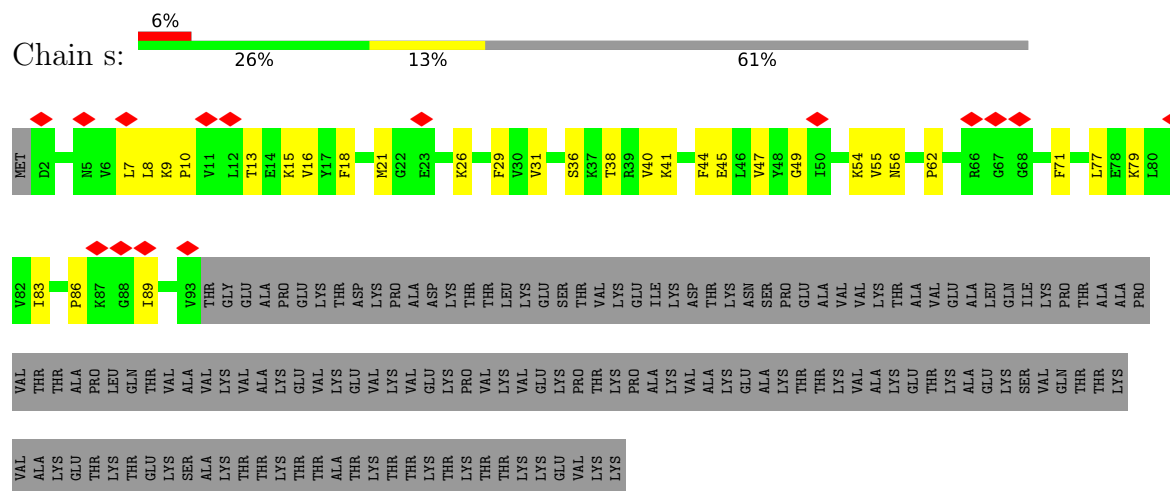
• Molecule 40: 50S ribosomal protein L21



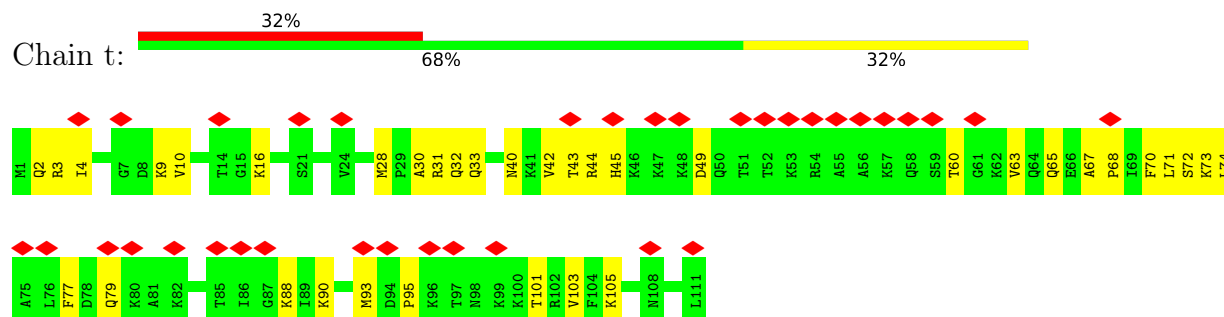
• Molecule 41: 50S ribosomal protein L22



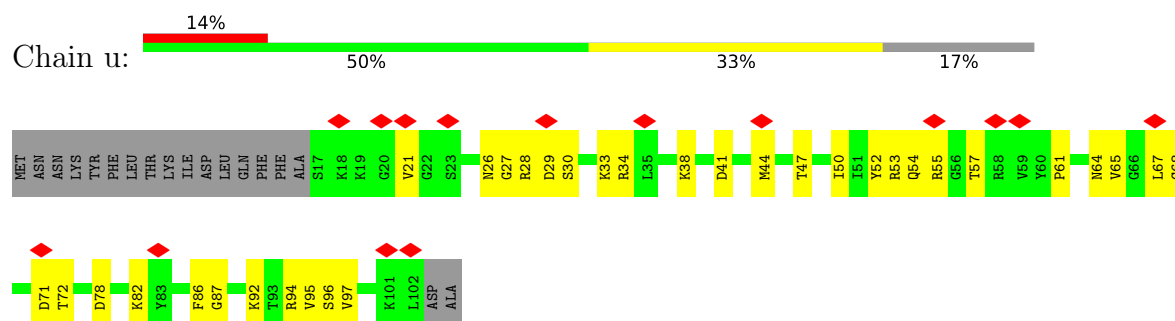
• Molecule 42: 50S ribosomal protein L23



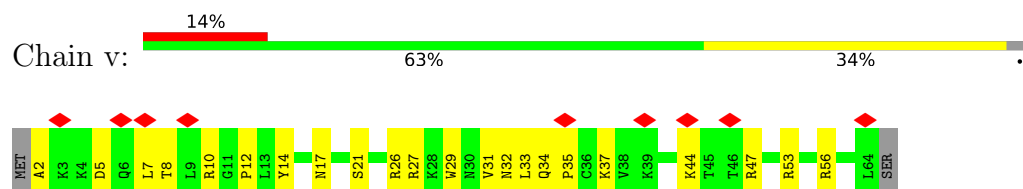
• Molecule 43: 50S ribosomal protein L24



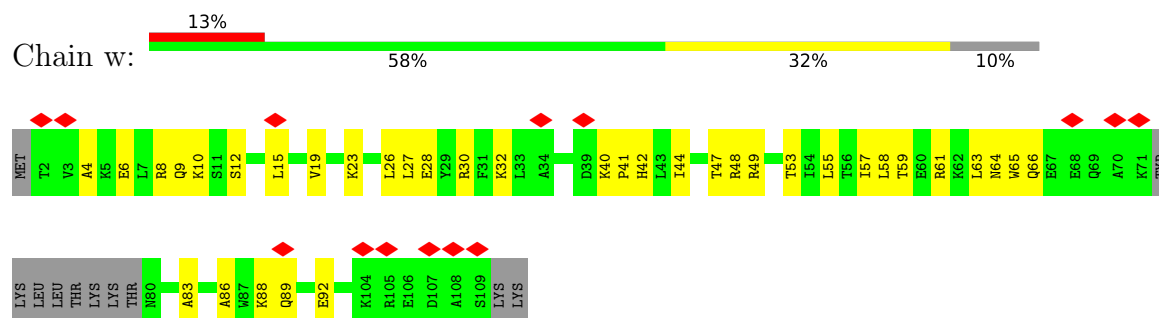
- Molecule 44: 50S ribosomal protein L27



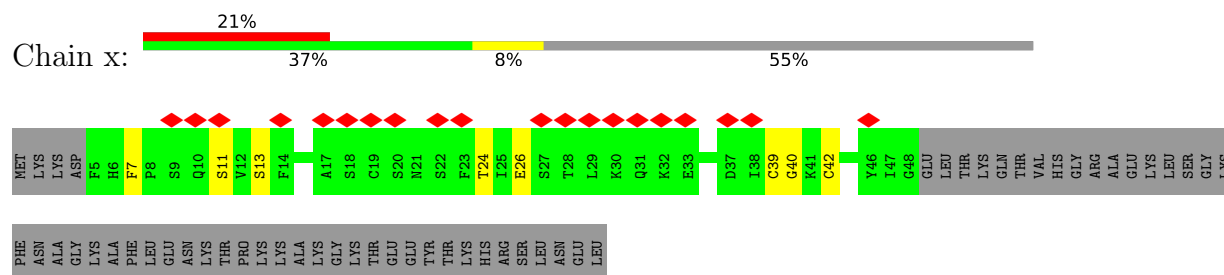
- Molecule 45: 50S ribosomal protein L28



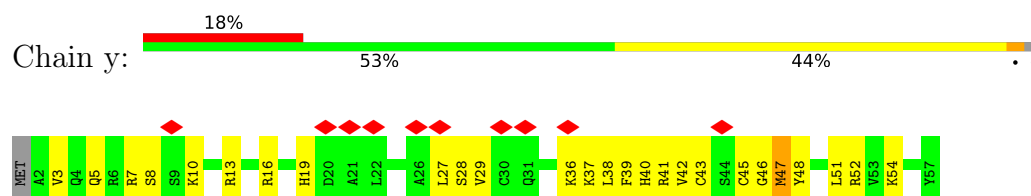
- Molecule 46: 50S ribosomal protein L29



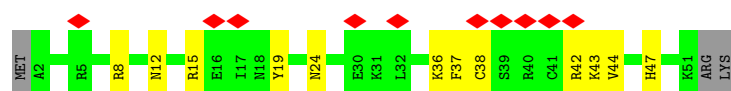
- Molecule 47: 50S ribosomal protein L31



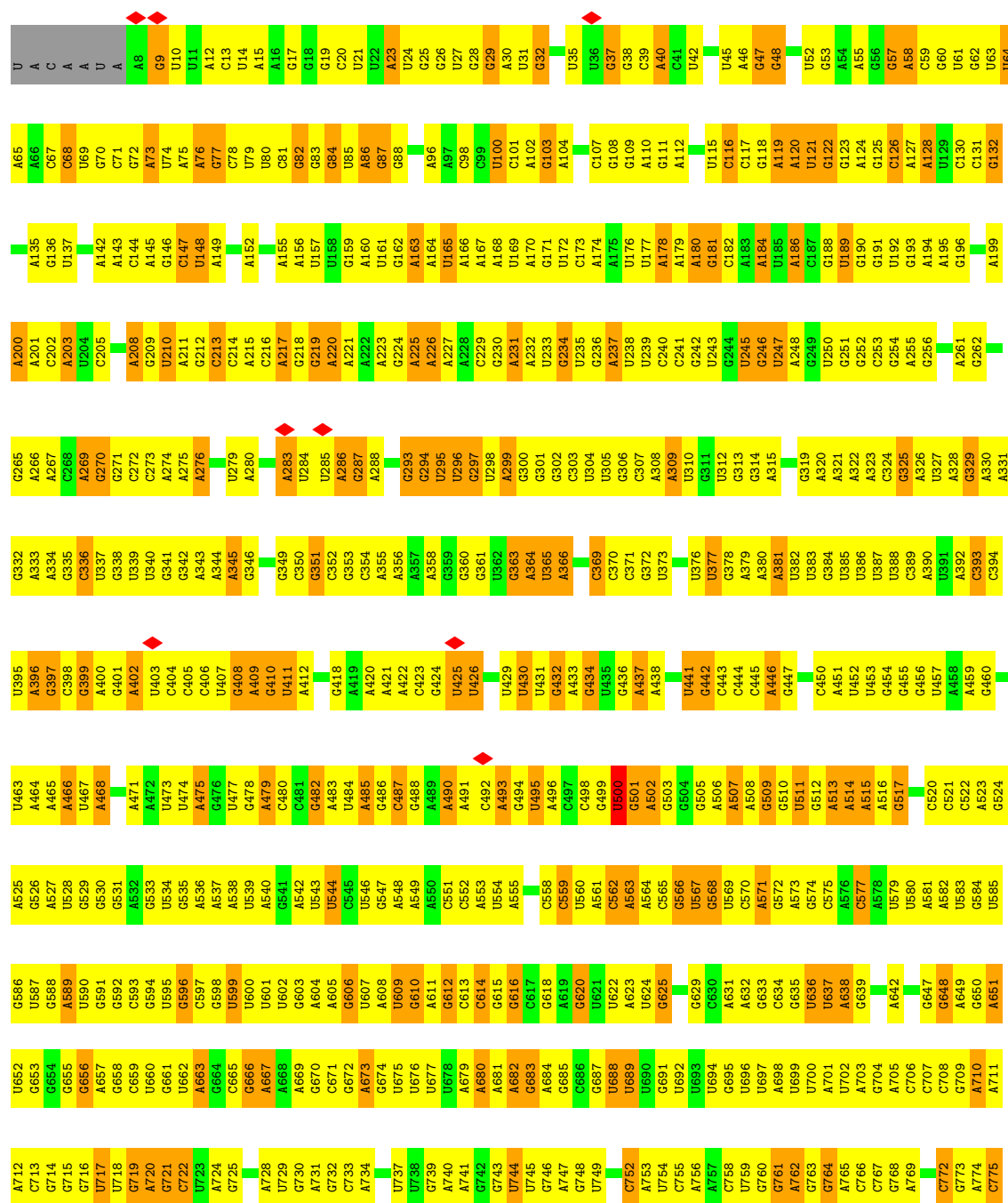
- Molecule 48: 50S ribosomal protein L32



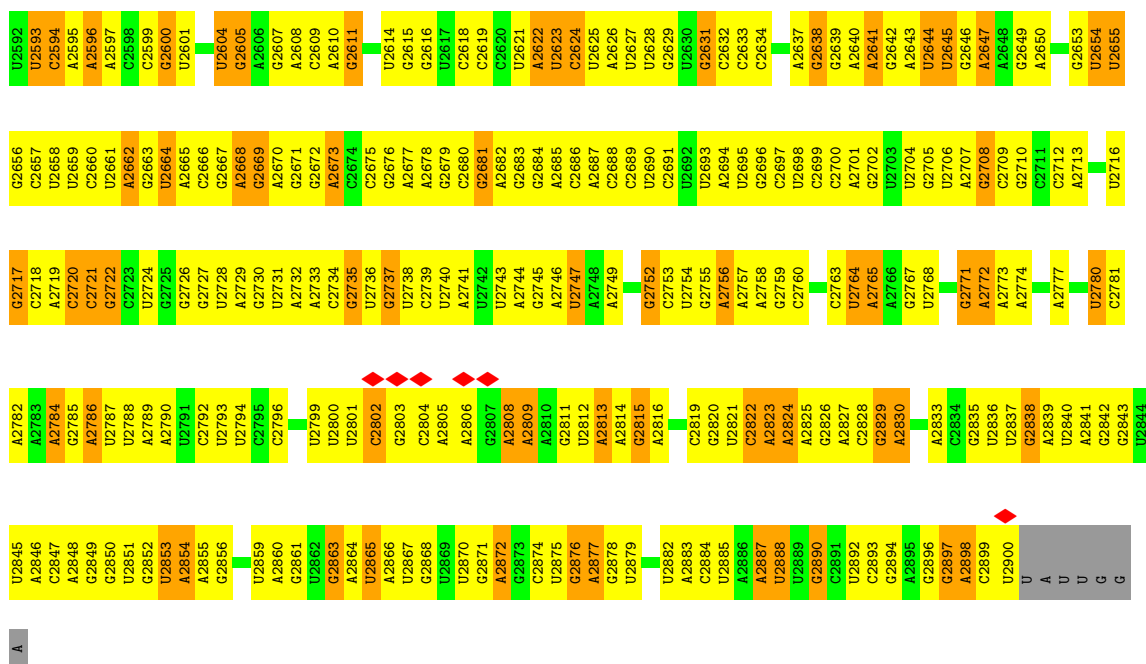
- Molecule 49: 50S ribosomal protein L33 1



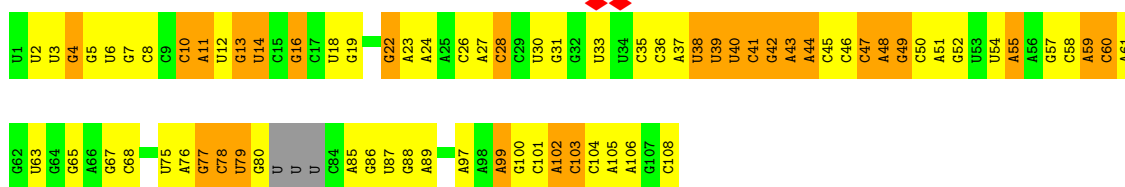
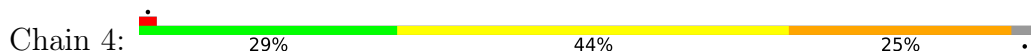
Chain 3: 21% 57% 21%



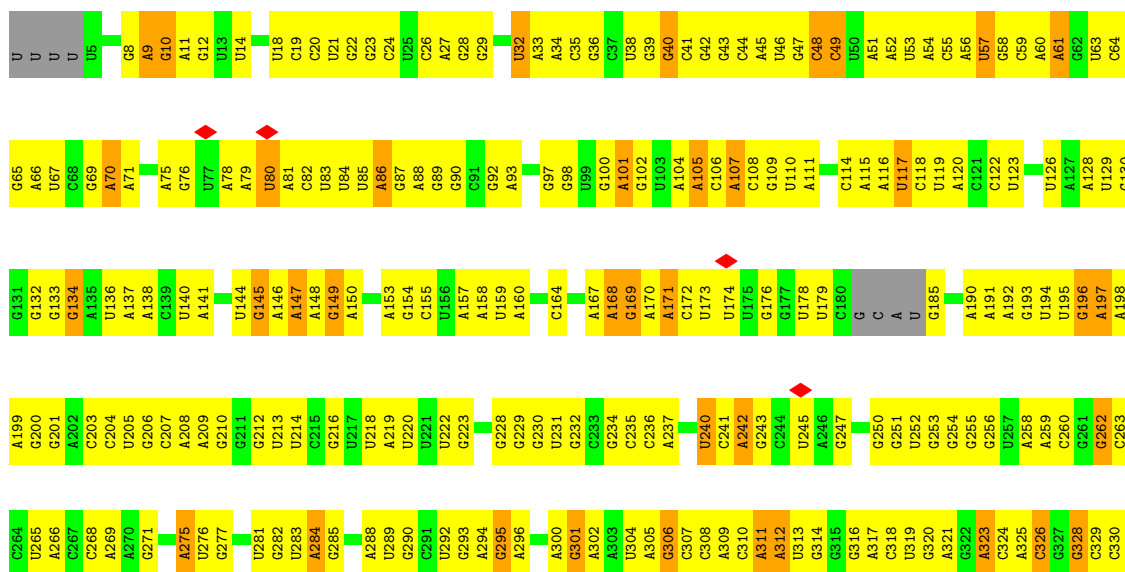
A2526	G2461	U2398	A2335	G2211	G2147	G2087	G2027	A1960	A1892	U1829	G1768	G1700
U2527	G2462	G2399	A2336	U2212	U2148	U2088	G2028	A1961		G1830	A1769	G1701
C2528	G2463	A2400	U2337	A2213	U2149	A2089	U2029	U1962	G1895	G1831	A1770	G1702
C2529	C2464	G2401	G2338	A2214	A2277	G2090	A2030	U1963	A1896	G1832	C1771	
G2530	U2465	G2402	G2339	G2215	C2150	G2091	C2031		A1897	G1833	G1772	G1708
G2531	U2466	C2403	U2340	U2216	G2151	U2092	G2032	C1970	A1898	U1834	A1773	G1709
G2532	G2467	G2404	G2341	G2217	C2152	U2093	G2033	G1971	C1899	G1835	G1774	G1710
A2533	U2468	G2405	U2342	U2218	U2153	A2094	G2034	U1972		A1836	G1775	A1711
G2534	A2469	G2406	A2343	U2219	G2154	A2095	U2035	C1973	A1903	G1837	G1776	A1712
C2535	G2470	A2407	A2344	A2220	G2155	U2096	G2036	U1974	G1904	C1837	G1777	A1713
U2536	C2471	G2408	G2345	U2221	G2156	U2097	A2037	U1975	U1905	A1838	G1778	U1714
G2537	G2472	U2409	G2346	C2222	G2157	U2098	A2038	A1976	G1906	C1840	G1779	U1715
A2538	C2473	C2410	G2347	C2223	C2158	U2099	G2039	U1977	A1907	U1841	A1780	A1716
A2539	C2474	G2411	U2348	A2224	U2159	G2100	A2040	U1978	A1908	G1842		
G2540	C2475	A2412	G2349	C2225	U2160	U2101	C2041	G1979		G1843	G1783	C1719
C2541	A2476	G2413	C2350	U2228	U2161	U2102	A2042	G1980		C1844	U1784	C1720
A2542		U2414	U2351	C2229	G2162	C2103	C2043	U1981	G1911	G1845	U1785	G1721
G2543		A2415	U2352	A2230	U2163	C2104	C2044	G1982	G1912	A1846	U1786	U1722
G2544		U2416	G2353	A2231	U2164	G2105	C2045		G1913	A1847	A1787	A1723
U2545			A2354	A2232	G2165	U2106	G2046	C1986	C1915	U1848	A1788	A1724
			A2355	G2232	U2166	A2107	U2047	C1987	G1916	U1849	C1789	G1725
G2548	C2483	A2419	A2356	A2233	A2165	C2108	U2048	A1988	G1917	C1850	U1790	U1726
A2549	A2484	A2420	U2357	A2234	U2166	A2109	A2049	U1989	U1918	U1851	A1791	U1727
G2550	A2485	U2421	G2357	C2234	G2167	U2110	G2050	C1990	A1919	G1852	A1792	
G2551	A2486	G2422	U2358	A2235	C2168	U2111	G2051	U1991	A1920	G1853	A1793	C1730
G2552	U2487	G2423	G2359	A2236	C2169	A2112	C2052	C1992	C1921	A1854	A1794	G1731
G2553	C2488	C2424		U2237	G2170	U2113	G2053	U1993	U1922	A1855	A1795	A1732
U2554	A2489	C2425	C2363	G2238	A2170	C2114	C2054	U1994	A1923	G1856	G1796	G1733
G2555	A2490	U2426	A2364	U2239	A2171	C2115	A2055	G1995	U1924	C1857	C1797	A1734
C2556	C2491	U2427	U2365	U2240	A2172	U2116	A2056	A1996	U1925	U1858	A1798	A1735
G2557	G2492		A2366	A2241	A2173	U2117	C2057	C1997		U1859	A1799	G1736
G2558	C2493	C2430	G2367	G2242	G2173	G2118	G2058	U1998	U1930	A1860	G1800	G1737
G2559	U2494	U2431	A2368	G2243	U2174	U2118	G2059	G1999	C1931	A1861	U1801	G1738
C2560	A2495	C2432	G2369	G2244	U2175	A2119	G2060	U2000	C1932	A1862	C1802	G1739
U2561		A2433	U2370	G2246	G2176	A2120	A2061	C2001	U1933	G1863	U1803	U1740
U2562		G2434	G2371	G2247	A2179	G2122	C2062	U2002	A1934		A1804	G1741
		U2435	C2372	C2248	U2180	A2123	G2063	C2003	A1935	G1866	U1805	C1742
G2567	U2501	G2436	G2373	A2249	A2181	A2124	G2064	G2004	G1936	G1867	G1806	U1743
G2568	G2502	G2437	A2374	G2250	C2182	U2125	A2065	G2005	U1937	A1868	C1807	
G2569	U2503	A2438	C2375	U2251		A2126	A2066	G2006	G1938	G1869	C1808	G1747
A2569	C2504	U2439	G2376	U2252	C2186	G2127	A2067	C2007	U1939	U1870	A1809	U1748
U2570	A2505	A2440	U2377	U2253	C2187	U2128	G2068	A2008	G1940	G1871	A1810	A1749
U2571	C2506	G2441	G2378	G2254	U2188	U2129	A2069	U2009	C1941	U1872	A1811	A1750
A2572	C2507	A2442	A2379	A2255	U2189	A2130	C2070	A2010	G1942	A1873	C1812	A1751
A2573	U2508	U2443	U2380	A2256	U2190	U2131	C2071	G2011		G1874	C1813	A1752
A2574	C2509	G2444	G2381	G2258	G2191	G2132	C2072	A2012	A1945	C1875	G1814	A1753
G2575	G2510		A2382	G2259	G2192	A2133	G2073	C2013	U1946	G1876	U1815	U1754
A2576	U2512	C2447	G2383	G2260	U2193	G2134	G2074	U2014	U1947	A1755	A1816	A1756
	G2513	U2448		G2261	U2194	G2135	U2075	C2015	C1948	G1877	A1817	A1757
A2580	G2516	U2449	A2386	G2262	U2195	G2136	G2076	G2016	U1949		G1818	G1757
C2581	A2517	C2450	U2387	G2263	U2196	A2137	A2077	G2017	U1950	G1880	G1819	C1758
G2582	C2518	C2451	C2388	G2264	U2197	A2138	A2078	G2018	U1951	C1881	U1820	C1759
U2583	U2519	G2452	A2389	U2265	U2198	G2139	G2079	G2019	G1952	G1882	G1821	G1760
G2584	U2520	C2453	G2390	C2266	U2199	U2140	C2080	A2020	U1953	C1883	A1822	C1761
A2585	G2521	G2454	C2391	G2267	G2199	C2139	U2081	A2021	G1954	C1884	U1823	U1762
G2586	U2522	U2455	U2392	C2268	U2200	G2140	U2082	A2022	G1955	C1885	G1824	G1763
U2587	A2523	A2456	C2393	C2269	G2201	G2141	U2083	U2023	G1956	U1887	U1825	U1764
U2588	U2524	U2457	A2394	C2270	U2202	A2141	A2084	C2024	U1957	U1888	A1826	G1765
G2589	C2525	A2458	U2395	C2271	U2203	G2142	C2085	C2025	U1958	G1889	U1827	A1766
U2590	U2526	G2459	A2396	C2272	C2204	G2143	U2086	C2026	U1959	A1890	A1828	A1767
G2591	G2525	G2397	G2397	U2273	A2205	C2144		A2026		A1891		
					A2206	A2145		A2146				
					U2207							



• Molecule 51: 5S ribosomal RNA

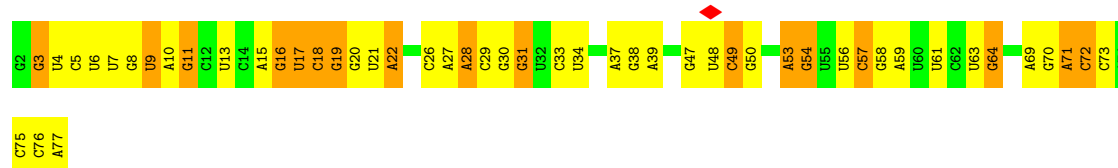


• Molecule 52: 16S ribosomal RNA





- Molecule 53: tRNA-Phe



4 Experimental information

Property	Value	Source
EM reconstruction method	SUBTOMOGRAM AVERAGING	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of subtomograms used	1457	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	3.2	Depositor
Minimum defocus (nm)	1500	Depositor
Maximum defocus (nm)	3750	Depositor
Magnification	81000	Depositor
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	1.466	Depositor
Minimum map value	-0.600	Depositor
Average map value	0.020	Depositor
Map value standard deviation	0.108	Depositor
Recommended contour level	0.4	Depositor
Map size (Å)	435.328, 435.328, 435.328	wwPDB
Map dimensions	256, 256, 256	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.7005, 1.7005, 1.7005	Depositor

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	0	0.24	0/383	0.60	0/504
2	1	0.20	0/484	0.52	0/637
3	2	0.11	0/306	0.43	0/401
4	A	0.17	0/1954	0.50	0/2642
5	B	0.17	0/1721	0.53	0/2323
6	C	0.15	0/1691	0.41	0/2267
7	D	0.17	0/1188	0.50	0/1593
8	E	0.14	0/1384	0.42	0/1867
9	F	0.21	0/1266	0.64	0/1700
10	G	0.20	0/1126	0.51	0/1517
11	H	0.16	0/1044	0.46	0/1395
12	I	0.17	0/820	0.51	0/1103
13	J	0.27	0/844	0.66	2/1136 (0.2%)
14	K	0.28	0/1094	0.58	0/1468
15	L	0.18	0/962	0.51	0/1289
16	M	0.16	0/483	0.47	0/643
17	N	0.13	0/679	0.38	0/907
18	O	0.17	0/659	0.54	2/885 (0.2%)
19	P	0.13	0/684	0.39	0/913
20	Q	0.16	0/545	0.48	0/730
21	R	0.16	0/698	0.49	0/936
22	S	0.12	0/631	0.36	0/838
23	T	0.17	0/475	0.44	0/621
24	a	0.15	0/2267	0.44	0/3044
25	b	0.16	0/1795	0.46	0/2412
26	c	0.16	0/1671	0.45	0/2246
27	d	0.18	0/1409	0.52	0/1894
28	e	0.17	0/1420	0.51	2/1912 (0.1%)
29	f	0.15	0/1183	0.48	0/1587
30	g	0.41	0/969	0.67	0/1295
31	h	0.15	0/968	0.44	0/1298
32	i	0.16	0/1186	0.43	0/1592
33	j	0.15	0/953	0.46	0/1275
34	k	0.13	0/1170	0.40	0/1559

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
35	l	0.27	0/1104	0.58	2/1481 (0.1%)
36	m	0.14	0/973	0.47	0/1309
37	n	0.17	0/897	0.49	2/1198 (0.2%)
38	o	0.17	0/948	0.44	0/1262
39	p	0.15	0/961	0.45	0/1278
40	q	0.15	0/828	0.44	0/1111
41	r	0.15	0/1077	0.42	0/1441
42	s	0.13	0/732	0.38	0/988
43	t	0.18	0/879	0.43	0/1165
44	u	0.16	0/665	0.50	0/884
45	v	0.18	0/519	0.51	0/695
46	w	0.15	0/826	0.43	0/1104
47	x	0.17	0/353	0.48	0/474
48	y	0.32	0/457	0.59	0/601
49	z	0.15	0/412	0.44	0/547
50	3	0.10	0/69073	0.25	1/107710 (0.0%)
51	4	0.10	0/2505	0.29	0/3902
52	5	0.09	0/35768	0.24	0/55764
53	7	0.10	0/1808	0.27	0/2817
All	All	0.13	0/156897	0.33	11/234160 (0.0%)

There are no bond length outliers.

All (11) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	l	110	PRO	N-CA-C	6.79	126.47	112.47
13	J	111	HIS	N-CA-C	-6.40	105.42	112.72
28	e	168	PHE	CA-C-N	6.18	133.35	121.54
28	e	168	PHE	C-N-CA	6.18	133.35	121.54
13	J	112	ASN	CB-CA-C	6.06	122.48	110.42
18	O	22	ARG	CA-C-N	5.51	131.20	122.61
18	O	22	ARG	C-N-CA	5.51	131.20	122.61
37	n	110	ARG	CA-C-N	-5.21	111.42	121.58
37	n	110	ARG	C-N-CA	-5.21	111.42	121.58
35	l	109	ILE	N-CA-CB	5.19	118.48	111.21
50	3	500	U	C2'-C3'-O3'	5.03	117.05	109.50

There are no chirality outliers.

There are no planarity outliers.

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	0	380	0	429	24	0
2	1	477	0	530	24	0
3	2	304	0	350	11	0
4	A	1921	0	1973	77	0
5	B	1698	0	1768	62	0
6	C	1660	0	1719	71	0
7	D	1173	0	1267	51	0
8	E	1362	0	1377	40	0
9	F	1246	0	1308	60	0
10	G	1110	0	1226	54	0
11	H	1028	0	1094	41	0
12	I	809	0	894	45	0
13	J	829	0	855	47	0
14	K	1076	0	1170	62	0
15	L	951	0	1014	47	0
16	M	474	0	509	19	0
17	N	673	0	730	17	0
18	O	646	0	677	26	0
19	P	675	0	728	15	0
20	Q	535	0	562	29	0
21	R	682	0	691	30	0
22	S	629	0	681	29	0
23	T	471	0	522	18	0
24	a	2225	0	2301	123	0
25	b	1762	0	1808	78	0
26	c	1644	0	1731	64	0
27	d	1388	0	1469	63	0
28	e	1396	0	1481	48	0
29	f	1160	0	1172	30	0
30	g	960	0	1014	4	0
31	h	959	0	1039	1	0
32	i	1164	0	1192	50	0
33	j	944	0	1019	42	0
34	k	1153	0	1256	51	0
35	l	1079	0	1134	55	0
36	m	958	0	1011	44	0
37	n	889	0	952	36	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
38	o	938	0	1008	40	0
39	p	947	0	1028	46	0
40	q	811	0	858	28	0
41	r	1068	0	1150	50	0
42	s	720	0	803	23	0
43	t	872	0	972	34	0
44	u	657	0	695	37	0
45	v	513	0	560	23	0
46	w	818	0	870	30	0
47	x	344	0	333	5	0
48	y	452	0	472	25	0
49	z	408	0	440	11	0
50	3	61664	0	30954	2138	0
51	4	2239	0	1137	63	0
52	5	31943	0	16058	1111	0
53	7	1618	0	821	37	0
All	All	144502	0	98812	4704	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 21.

All (4704) 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)
50:3:900:G:N2	50:3:903:A:H61	1.43	1.17
50:3:341:G:N2	50:3:364:A:H61	1.43	1.16
50:3:341:G:H21	50:3:364:A:N6	1.46	1.12
50:3:900:G:H21	50:3:903:A:N6	1.51	1.08
50:3:29:G:H1	50:3:547:G:HO2'	1.07	1.01
52:5:612:G:H1	52:5:624:U:H3	1.05	0.99
50:3:2483:C:H42	50:3:2537:G:N2	1.60	0.99
50:3:1071:G:H1	50:3:1154:U:H3	1.10	0.98
50:3:1385:U:H3	50:3:1402:G:H1	1.01	0.98
52:5:245:U:H3	52:5:271:G:H1	1.12	0.98
50:3:250:U:H3	50:3:256:G:H1	1.08	0.97
50:3:535:G:N2	50:3:540:A:N6	2.14	0.95
52:5:660:A:H61	52:5:739:G:H1	1.06	0.95
52:5:1325:U:H3	52:5:1346:G:H1	1.15	0.94
50:3:989:G:H1	50:3:1000:U:H3	0.96	0.94
50:3:990:G:H1	50:3:999:U:H3	1.00	0.94
50:3:1803:U:H3	50:3:1830:G:H1	1.15	0.94

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2303:U:H3	50:3:2345:G:H1	1.10	0.94
11:H:9:LEU:O	11:H:87:ARG:NH2	2.01	0.94
50:3:1858:U:H3	50:3:1898:G:H1	1.12	0.94
50:3:2409:U:H3	50:3:2423:G:H1	0.97	0.94
52:5:134:G:H1	52:5:160:A:H61	1.13	0.94
50:3:418:G:H1	50:3:430:U:H3	1.08	0.93
52:5:590:G:H1	52:5:644:U:H3	1.17	0.93
52:5:1138:U:H3	52:5:1149:G:H1	1.16	0.92
52:5:1065:G:H1	52:5:1074:U:H3	0.95	0.92
52:5:885:U:C2	52:5:901:A:N7	2.37	0.92
50:3:675:U:H3	50:3:685:G:H1	0.96	0.92
52:5:134:G:H1	52:5:160:A:N6	1.66	0.91
27:d:132:ILE:O	27:d:151:GLY:HA3	1.71	0.91
50:3:1310:U:H3	50:3:1314:A:H62	1.06	0.91
50:3:2334:U:H3	50:3:2397:G:H1	1.16	0.90
50:3:1027:U:H3	50:3:1198:G:H1	1.17	0.90
52:5:136:U:H3	52:5:157:A:H62	0.93	0.90
52:5:499:U:H3	52:5:542:G:H1	1.11	0.90
50:3:1501:U:H3	50:3:1542:G:H1	1.20	0.90
52:5:1406:U:H3	52:5:1444:G:H1	1.19	0.90
50:3:725:G:H1	50:3:807:U:H3	0.95	0.89
52:5:1119:C:HO2'	52:5:1124:U:H3	1.17	0.89
52:5:1280:A:C8	52:5:1305:G:N2	2.41	0.89
50:3:629:G:H1	50:3:696:U:H3	0.89	0.88
52:5:880:G:H1	52:5:905:U:H3	0.92	0.88
50:3:2088:U:H3	50:3:2247:G:H1	0.89	0.88
52:5:455:U:H3	52:5:472:G:H1	1.19	0.87
24:a:159:GLN:NE2	50:3:1825:U:H3	1.72	0.87
52:5:885:U:N3	52:5:901:A:C8	2.42	0.87
50:3:137:U:H3	50:3:146:G:H1	1.20	0.87
50:3:2483:C:N4	50:3:2537:G:H22	1.73	0.86
50:3:1504:G:H1	50:3:1539:U:H3	1.19	0.85
2:1:1:MET:SD	50:3:625:G:N2	2.49	0.85
52:5:1237:G:H1	52:5:1248:U:H3	1.22	0.85
10:G:68:ARG:NH1	52:5:650:A:N1	2.25	0.85
42:s:26:LYS:HA	42:s:83:ILE:O	1.77	0.84
9:F:73:GLU:HB3	9:F:88:THR:O	1.77	0.84
50:3:1775:G:H1	50:3:1991:U:H3	1.26	0.84
50:3:577:C:O2	50:3:584:G:N2	2.11	0.83
50:3:1715:A:HO2'	50:3:1769:A:HO2'	1.22	0.83
52:5:1215:U:H3'	52:5:1216:G:H8	1.44	0.83

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:535:G:N2	50:3:540:A:C6	2.47	0.83
50:3:221:A:N6	50:3:467:U:C2	2.47	0.83
50:3:535:G:C2	50:3:540:A:N6	2.46	0.82
25:b:48:SER:HG	25:b:88:THR:HG1	1.26	0.82
41:r:9:ARG:NH1	41:r:82:MET:SD	2.53	0.82
52:5:1280:A:N7	52:5:1305:G:C2	2.47	0.82
50:3:577:C:N3	50:3:584:G:N1	2.28	0.82
27:d:31:LEU:HA	27:d:158:THR:HA	1.62	0.81
52:5:253:G:H1	52:5:265:U:H3	1.26	0.81
50:3:901:C:N4	50:3:946:A:N7	2.28	0.81
50:3:1777:G:H22	50:3:1989:U:H3	1.28	0.81
52:5:831:C:H2'	52:5:832:G:C8	2.14	0.81
13:J:32:GLY:O	52:5:680:G:N2	2.13	0.81
25:b:115:LYS:HB3	25:b:117:ARG:HH11	1.45	0.81
50:3:855:A:N6	50:3:1009:A:OP1	2.14	0.81
50:3:192:U:H3	50:3:212:G:H1	1.26	0.81
41:r:83:LYS:NZ	41:r:95:MET:SD	2.54	0.80
50:3:1937:G:HO2'	50:3:1975:G:H1	1.25	0.80
50:3:383:U:H2'	50:3:384:G:H8	1.47	0.80
50:3:2106:G:H1	50:3:2198:G:H22	1.28	0.80
52:5:318:C:H42	52:5:325:A:H62	1.29	0.80
50:3:569:U:H3	50:3:592:G:H1	1.28	0.80
11:H:71:GLY:HA2	52:5:1225:A:H4'	1.62	0.80
52:5:591:A:H2'	52:5:592:A:H8	1.46	0.80
20:Q:80:GLN:HG2	52:5:831:C:H4'	1.62	0.79
50:3:2062:C:H5'	50:3:2063:G:H5''	1.65	0.79
50:3:275:A:H62	50:3:294:G:N2	1.79	0.79
52:5:1068:G:N2	52:5:1071:A:OP2	2.15	0.79
50:3:513:A:N6	50:3:536:A:OP1	2.15	0.79
50:3:2483:C:N4	50:3:2537:G:N2	2.28	0.79
13:J:113:GLY:HA2	52:5:713:A:H1'	1.65	0.79
21:R:34:TRP:HB2	21:R:52:HIS:HB2	1.65	0.79
27:d:48:LYS:HD2	27:d:52:SER:HB3	1.65	0.79
52:5:1135:U:H4'	52:5:1136:G:H5'	1.66	0.78
50:3:1297:U:O2	50:3:2021:A:N6	2.16	0.78
52:5:675:U:H1'	52:5:774:A:H4'	1.66	0.78
52:5:660:A:N6	52:5:739:G:H1	1.80	0.78
9:F:69:MET:HE3	9:F:95:LYS:HG2	1.64	0.77
21:R:80:PHE:HB2	21:R:82:GLN:HE22	1.50	0.77
50:3:2140:G:O2'	50:3:2165:A:N6	2.16	0.77
52:5:807:C:O2'	52:5:894:A:N6	2.17	0.77

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:885:U:O2	52:5:901:A:C5	2.38	0.77
43:t:2:GLN:HE22	50:3:86:A:H4'	1.49	0.77
7:D:160:ILE:HB	7:D:177:ASP:HA	1.65	0.77
50:3:2063:G:H2'	50:3:2064:G:H8	1.50	0.77
50:3:1089:A:H2'	50:3:1090:G:H8	1.49	0.77
50:3:2653:G:OP2	50:3:2653:G:N2	2.17	0.77
38:o:80:GLN:HB2	38:o:83:ASN:HB2	1.66	0.77
51:4:79:U:H1'	51:4:85:A:H61	1.49	0.77
52:5:1217:G:H1	52:5:1269:U:H3	1.32	0.77
9:F:138:ASP:HB3	9:F:142:LYS:HZ1	1.48	0.77
18:O:2:ARG:NH1	52:5:386:U:O2'	2.18	0.77
25:b:51:LEU:HD21	25:b:81:LEU:HB3	1.67	0.77
52:5:63:U:H3	52:5:90:G:H1	1.32	0.76
10:G:93:PRO:HB3	52:5:585:G:H5'	1.67	0.76
50:3:1467:U:O2	50:3:1588:A:N6	2.17	0.76
26:c:76:GLN:HE22	50:3:708:C:H4'	1.49	0.76
44:u:41:ASP:HB2	50:3:891:G:H21	1.50	0.76
50:3:2400:A:N6	50:3:2432:C:O2	2.18	0.76
52:5:1321:G:HO2'	52:5:1348:G:H1	1.31	0.76
8:E:50:LYS:HD3	8:E:51:LYS:HG2	1.68	0.76
50:3:276:A:N6	50:3:293:G:O2'	2.18	0.76
50:3:474:U:H2'	50:3:475:A:H8	1.51	0.76
7:D:182:ASN:ND2	7:D:191:MET:SD	2.57	0.76
34:k:16:LYS:NZ	50:3:1224:G:N7	2.34	0.76
34:k:34:ARG:HD2	50:3:620:G:H22	1.51	0.76
45:v:37:LYS:HG2	45:v:47:ARG:HG3	1.66	0.76
50:3:1252:C:N3	50:3:1257:G:N1	2.31	0.76
52:5:196:G:N2	52:5:219:A:O2'	2.19	0.76
36:m:5:ASN:ND2	50:3:2010:A:O2'	2.19	0.75
50:3:603:G:O4'	50:3:1019:A:N6	2.20	0.75
52:5:136:U:H3	52:5:157:A:N6	1.78	0.75
50:3:193:G:H1	50:3:209:G:HO2'	1.34	0.75
50:3:1919:A:OP2	50:3:1925:A:N6	2.20	0.75
50:3:561:A:O2'	50:3:2050:G:N3	2.18	0.75
50:3:2081:U:O2	50:3:2605:G:N2	2.20	0.75
50:3:1010:G:OP1	50:3:1217:G:N2	2.19	0.75
13:J:28:SER:HA	13:J:34:VAL:HA	1.69	0.74
50:3:2310:C:N3	50:3:2322:G:N1	2.34	0.74
52:5:455:U:O4	52:5:472:G:O6	2.05	0.74
4:A:182:VAL:HG23	4:A:206:THR:HG22	1.69	0.74
21:R:14:HIS:HB2	52:5:1010:A:H4'	1.69	0.74

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:331:C:O2'	52:5:1408:A:N3	2.21	0.74
37:n:5:THR:HG21	51:4:27:A:H5'	1.69	0.74
11:H:6:TYR:HB2	11:H:21:LEU:HB2	1.70	0.74
50:3:64:U:O2'	50:3:65:A:N7	2.21	0.74
9:F:67:ASN:ND2	9:F:127:SER:O	2.20	0.74
42:s:7:LEU:HA	42:s:31:VAL:HG12	1.69	0.74
44:u:29:ASP:OD2	50:3:2272:C:N4	2.20	0.74
20:Q:73:ARG:HH21	20:Q:83:GLN:HB3	1.53	0.74
4:A:184:GLU:HB3	4:A:187:ALA:HB3	1.68	0.74
52:5:1370:C:H5'	52:5:1376:G:H21	1.51	0.74
9:F:138:ASP:HB3	9:F:142:LYS:NZ	2.03	0.73
50:3:983:A:N1	50:3:1007:C:N4	2.36	0.73
50:3:1772:G:H1	50:3:1994:U:H3	1.36	0.73
5:B:135:THR:O	5:B:139:GLN:NE2	2.20	0.73
8:E:5:ILE:HB	8:E:60:TRP:HB2	1.69	0.73
25:b:79:LYS:HE2	50:3:2833:A:H5''	1.70	0.73
28:e:141:LYS:HE2	50:3:2754:U:H5''	1.70	0.73
50:3:1869:G:N2	50:3:1887:U:O2	2.19	0.73
8:E:1:MET:HG3	8:E:90:LEU:HB2	1.70	0.73
51:4:75:U:H2'	51:4:76:A:H8	1.53	0.73
50:3:2310:C:O2	50:3:2322:G:N2	2.18	0.73
52:5:976:U:H3'	52:5:977:U:H2'	1.68	0.73
50:3:300:G:H2'	50:3:301:G:H8	1.53	0.73
50:3:431:U:O2'	50:3:432:G:N7	2.22	0.73
24:a:17:SER:HB2	24:a:214:GLY:HA3	1.70	0.73
43:t:49:ASP:HB2	43:t:60:THR:H	1.53	0.73
50:3:511:U:O2	50:3:515:A:N7	2.21	0.73
50:3:1070:U:H3	50:3:1155:G:H1	1.34	0.73
50:3:2407:G:H2'	50:3:2408:G:C8	2.24	0.73
24:a:98:LEU:HD13	24:a:108:TYR:HE1	1.54	0.73
50:3:1089:A:H2'	50:3:1090:G:C8	2.24	0.73
52:5:684:A:H62	52:5:700:G:H21	1.34	0.73
3:2:16:ILE:HG22	3:2:25:VAL:HG12	1.70	0.72
10:G:55:ALA:HB3	10:G:73:ASN:HB2	1.70	0.72
38:o:62:GLU:HB3	38:o:81:ILE:HD12	1.69	0.72
50:3:2527:U:O2	50:3:2529:C:N4	2.22	0.72
1:0:21:ARG:HH22	1:0:28:ARG:HA	1.54	0.72
25:b:64:LYS:HD3	50:3:2814:A:H5''	1.70	0.72
50:3:409:A:H61	50:3:437:A:H3'	1.52	0.72
50:3:1919:A:O2'	52:5:1469:G:N3	2.22	0.72
52:5:1051:U:H2'	52:5:1052:G:H8	1.54	0.72

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:1330:A:H2'	52:5:1331:A:H8	1.55	0.72
45:v:35:PRO:HB2	45:v:47:ARG:HH12	1.53	0.72
50:3:1252:C:O2	50:3:1257:G:N2	2.19	0.72
50:3:2155:G:H2'	50:3:2156:G:H8	1.55	0.72
48:y:42:VAL:HG22	48:y:48:TYR:HB2	1.70	0.72
50:3:580:U:OP1	50:3:1249:A:O2'	2.07	0.72
50:3:729:U:H3	50:3:803:G:H1	1.36	0.72
50:3:1736:G:H4'	52:5:1448:A:H4'	1.69	0.72
52:5:446:A:H4'	52:5:449:A:H62	1.54	0.72
10:G:99:ARG:HH11	10:G:103:LYS:HE2	1.55	0.72
50:3:2516:G:H1	50:3:2588:U:H3	1.38	0.72
6:C:60:MET:HE2	6:C:93:LEU:HD21	1.71	0.72
25:b:163:LYS:HB3	25:b:165:MET:HE1	1.71	0.72
16:M:19:ARG:HH11	52:5:975:C:H5'	1.54	0.72
47:x:39:CYS:H	47:x:42:CYS:HB3	1.55	0.72
9:F:73:GLU:HB2	9:F:90:VAL:HB	1.70	0.72
50:3:1495:A:OP2	50:3:1548:A:N6	2.22	0.71
50:3:2847:C:H2'	50:3:2848:A:H8	1.54	0.71
52:5:544:A:H4'	52:5:546:G:H4'	1.71	0.71
52:5:670:G:H2'	52:5:671:G:C8	2.24	0.71
52:5:1059:G:OP1	52:5:1362:G:O2'	2.06	0.71
50:3:498:C:N4	50:3:499:G:O6	2.23	0.71
50:3:1453:U:H3	50:3:1607:G:H1	1.37	0.71
50:3:2291:U:O2	50:3:2333:G:O6	2.07	0.71
13:J:34:VAL:O	52:5:681:U:O2'	2.08	0.71
45:v:56:ARG:NH2	50:3:436:G:OP2	2.23	0.71
50:3:82:G:N2	50:3:328:A:O2'	2.23	0.71
50:3:1408:G:H2'	50:3:1409:G:H8	1.54	0.71
4:A:181:PRO:HD2	4:A:206:THR:HG21	1.71	0.71
24:a:125:GLU:OE2	24:a:197:ARG:NH1	2.23	0.71
34:k:48:ARG:HG2	34:k:50:GLY:H	1.53	0.71
41:r:18:ARG:O	41:r:22:GLN:NE2	2.24	0.71
50:3:2696:G:OP1	50:3:2721:C:N4	2.23	0.71
24:a:208:HIS:HB2	50:3:1827:U:H1'	1.72	0.71
50:3:2253:U:H5''	50:3:2254:G:H5''	1.72	0.71
52:5:749:G:H1'	52:5:751:C:H41	1.55	0.71
15:L:29:ARG:HH11	15:L:63:TYR:HB3	1.56	0.71
49:z:8:ARG:NH2	50:3:2426:A:O2'	2.20	0.71
50:3:909:U:H2'	50:3:910:G:H8	1.55	0.71
52:5:1390:G:H1	52:5:1460:U:H3	1.35	0.71
7:D:186:ASN:ND2	52:5:11:A:OP2	2.23	0.71

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:1337:G:H22	50:3:1642:G:H22	1.37	0.71
52:5:57:U:H2'	52:5:58:G:C5	2.26	0.71
50:3:221:A:N6	50:3:467:U:N3	2.37	0.71
50:3:554:U:H2'	50:3:555:A:H8	1.55	0.71
50:3:596:G:H1	50:3:611:A:N6	1.88	0.71
50:3:2305:C:H3'	50:3:2326:G:H22	1.56	0.71
20:Q:43:PHE:HD2	20:Q:48:GLN:HE22	1.37	0.70
50:3:2127:G:O6	50:3:2187:C:N4	2.23	0.70
52:5:40:G:N2	52:5:399:C:O2	2.17	0.70
52:5:1046:A:N6	52:5:1175:C:O2	2.23	0.70
48:y:10:LYS:HD3	48:y:13:ARG:HH11	1.55	0.70
50:3:561:A:H1'	50:3:2050:G:H21	1.56	0.70
50:3:2589:G:OP2	50:3:2589:G:N2	2.21	0.70
52:5:603:U:O2	52:5:630:G:N2	2.23	0.70
52:5:661:G:O6	52:5:738:A:N1	2.24	0.70
52:5:1261:A:H2'	52:5:1262:A:C8	2.27	0.70
12:I:59:ARG:HB3	52:5:1051:U:H4'	1.73	0.70
24:a:55:VAL:HG21	50:3:1821:G:H5'	1.71	0.70
43:t:93:MET:SD	43:t:101:THR:OG1	2.48	0.70
50:3:1475:C:O2'	50:3:1577:A:N3	2.24	0.70
52:5:1295:U:H3'	52:5:1296:C:H2'	1.71	0.70
52:5:376:G:O2'	52:5:378:A:N6	2.23	0.70
5:B:134:ARG:HA	5:B:137:MET:HE2	1.73	0.70
6:C:95:SER:HG	6:C:136:LEU:H	1.39	0.70
11:H:47:ILE:HA	11:H:50:MET:HE2	1.71	0.70
26:c:105:LYS:NZ	50:3:655:G:O6	2.24	0.70
50:3:327:U:OP2	50:3:379:A:N6	2.25	0.70
50:3:2552:G:H1'	50:3:2654:U:H4'	1.73	0.70
8:E:92:ARG:NH1	8:E:93:GLU:OE1	2.24	0.70
29:f:47:ARG:HH22	29:f:51:LEU:HD22	1.57	0.70
51:4:5:G:OP1	51:4:26:C:O2'	2.10	0.70
1:0:32:LYS:HG2	1:0:36:LYS:HE2	1.73	0.70
52:5:1150:G:H2'	52:5:1151:A:H8	1.55	0.70
2:1:30:ALA:HB2	50:3:2427:U:H5''	1.73	0.70
29:f:69:LYS:HG2	29:f:136:ALA:HB2	1.73	0.70
52:5:70:A:H2'	52:5:71:A:C8	2.27	0.70
40:q:9:SER:HB2	50:3:1195:A:H1'	1.74	0.70
52:5:136:U:O4	52:5:157:A:N7	2.24	0.70
4:A:102:ARG:HH11	4:A:233:ALA:HB1	1.57	0.69
10:G:92:LYS:HD2	52:5:871:U:H5''	1.74	0.69
40:q:16:GLU:HG3	40:q:17:ASN:HD22	1.55	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2084:A:N3	50:3:2442:A:O2'	2.25	0.69
34:k:28:LEU:HD13	34:k:30:LYS:HE2	1.74	0.69
50:3:196:G:H21	50:3:837:A:H4'	1.57	0.69
50:3:1166:G:O2'	50:3:2032:G:O2'	2.10	0.69
50:3:1508:G:H21	50:3:1535:A:N6	1.89	0.69
51:4:11:A:N6	51:4:67:G:O2'	2.25	0.69
14:K:97:GLY:H	52:5:550:U:H4'	1.55	0.69
50:3:2820:G:N3	50:3:2887:A:O2'	2.26	0.69
52:5:830:U:H2'	52:5:831:C:C6	2.27	0.69
52:5:933:A:N3	52:5:1351:U:O2'	2.25	0.69
52:5:953:A:H2'	52:5:954:A:C8	2.27	0.69
52:5:61:A:O2'	52:5:92:G:N2	2.26	0.69
24:a:14:ILE:O	50:3:1780:A:N6	2.22	0.69
24:a:34:GLU:OE1	24:a:36:SER:N	2.26	0.69
50:3:421:A:H2'	50:3:423:C:H41	1.58	0.69
15:L:34:LEU:HD12	15:L:39:ILE:HB	1.75	0.69
33:j:64:ARG:NH1	33:j:101:PRO:O	2.24	0.69
4:A:59:GLU:O	4:A:63:GLN:NE2	2.26	0.69
11:H:108:ARG:HD2	52:5:1108:A:H4'	1.75	0.69
25:b:173:LYS:NZ	50:3:2781:C:OP1	2.24	0.69
50:3:633:G:H1	50:3:692:U:H3	1.40	0.69
50:3:1451:A:H2'	50:3:1452:G:H8	1.56	0.69
50:3:1776:G:H2'	50:3:1777:G:H8	1.57	0.69
34:k:34:ARG:HB3	34:k:41:ALA:HB2	1.74	0.69
44:u:94:ARG:HH11	44:u:96:SER:HG	1.37	0.69
50:3:602:U:O2'	50:3:982:G:N2	2.24	0.69
50:3:1054:U:O2'	50:3:1056:A:N7	2.26	0.69
52:5:621:C:H2'	52:5:622:A:H8	1.57	0.69
8:E:70:LYS:HB3	8:E:74:ARG:HH21	1.58	0.69
9:F:62:GLU:HA	9:F:65:VAL:HG22	1.74	0.69
12:I:48:LEU:HD11	12:I:79:LEU:HD23	1.75	0.69
50:3:227:A:H2'	50:3:456:G:H21	1.58	0.69
41:r:77:ASN:OD1	50:3:25:G:N2	2.23	0.68
50:3:1837:C:H2'	50:3:1838:A:H8	1.56	0.68
9:F:87:PRO:HD2	9:F:151:ALA:HB2	1.75	0.68
13:J:102:GLU:HA	23:T:8:ASN:HB3	1.74	0.68
43:t:44:ARG:NH2	50:3:516:A:OP2	2.27	0.68
35:l:19:GLY:O	35:l:99:GLN:NE2	2.25	0.68
41:r:69:LEU:HA	41:r:109:ASP:HA	1.74	0.68
44:u:86:PHE:O	44:u:92:LYS:HB2	1.93	0.68
50:3:343:A:N3	50:3:363:G:O2'	2.26	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2138:U:H5''	50:3:2139:C:H5'	1.75	0.68
50:3:2551:G:H2'	50:3:2552:G:C8	2.29	0.68
52:5:92:G:OP1	52:5:321:A:N6	2.27	0.68
10:G:92:LYS:HB2	10:G:95:LEU:HB2	1.75	0.68
50:3:334:A:O2'	50:3:352:C:O2	2.11	0.68
50:3:509:G:H2'	50:3:510:G:C8	2.28	0.68
50:3:665:C:O2'	50:3:675:U:O2	2.11	0.68
50:3:2117:G:O2'	50:3:2127:G:OP1	2.12	0.68
50:3:2646:G:O2'	50:3:2647:A:N7	2.25	0.68
52:5:460:A:N1	52:5:467:G:O6	2.26	0.68
20:Q:88:LYS:HE3	20:Q:92:ARG:HH12	1.58	0.68
24:a:136:MET:HE1	24:a:140:PHE:HB2	1.74	0.68
52:5:1226:A:H2'	52:5:1227:A:C8	2.28	0.68
24:a:153:HIS:NE2	50:3:1808:C:OP2	2.26	0.68
50:3:2655:U:O2	50:3:2681:G:O6	2.12	0.68
52:5:1213:A:H2'	52:5:1214:A:H8	1.58	0.68
2:1:4:LYS:HE2	2:1:6:ALA:HB3	1.74	0.68
18:O:10:THR:HG21	52:5:623:G:H4'	1.75	0.68
32:i:71:LYS:NZ	50:3:1057:G:O6	2.27	0.68
35:l:31:GLU:H	35:l:107:ALA:HB2	1.59	0.68
23:T:16:LYS:O	23:T:20:ARG:NH1	2.27	0.68
50:3:816:A:H2'	50:3:1784:U:H1'	1.74	0.68
50:3:1092:A:OP2	50:3:1124:G:N1	2.27	0.68
52:5:1133:A:N1	52:5:1152:G:N2	2.41	0.68
8:E:150:GLN:O	10:G:56:ASN:ND2	2.27	0.68
18:O:38:LYS:HE2	52:5:447:G:H5''	1.76	0.68
26:c:64:LYS:NZ	50:3:710:A:OP1	2.27	0.68
50:3:1672:C:O2	50:3:2706:U:O2'	2.11	0.68
50:3:1858:U:O4	50:3:1898:G:O6	2.11	0.68
52:5:1384:A:H2'	52:5:1385:A:C8	2.29	0.68
50:3:2575:G:H2'	50:3:2576:A:C8	2.28	0.68
2:1:22:LYS:HD3	2:1:44:GLN:HE22	1.59	0.67
27:d:29:PRO:HB2	27:d:169:LEU:HD22	1.76	0.67
34:k:61:ARG:NH1	50:3:2368:A:O2'	2.26	0.67
50:3:1789:C:O2	50:3:2594:C:N4	2.27	0.67
50:3:2190:G:H2'	50:3:2191:G:H8	1.59	0.67
27:d:151:GLY:H	50:3:2313:U:H3	1.43	0.67
40:q:69:ASN:HA	40:q:84:GLY:HA2	1.77	0.67
48:y:27:LEU:HA	48:y:38:LEU:HA	1.76	0.67
50:3:266:A:C2	50:3:466:A:H1'	2.29	0.67
50:3:2409:U:O4	50:3:2423:G:O6	2.12	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:S:31:ASN:HB3	22:S:47:VAL:HG22	1.76	0.67
32:i:59:ILE:HB	32:i:127:VAL:HA	1.75	0.67
37:n:2:LYS:HG3	37:n:6:GLU:HB3	1.77	0.67
38:o:91:LYS:O	38:o:92:ARG:HG3	1.94	0.67
39:p:49:ARG:HD2	50:3:1029:A:H5''	1.77	0.67
50:3:513:A:H2'	50:3:514:A:C8	2.28	0.67
16:M:29:ARG:NH2	52:5:969:A:N7	2.42	0.67
50:3:62:G:O6	50:3:67:C:N4	2.27	0.67
50:3:177:U:H2'	50:3:178:A:C8	2.30	0.67
50:3:1582:G:H2'	50:3:1583:G:C8	2.29	0.67
50:3:2684:G:H2'	50:3:2685:A:C8	2.29	0.67
52:5:70:A:H2'	52:5:71:A:H8	1.59	0.67
4:A:98:ASN:HA	4:A:101:LYS:HG2	1.75	0.67
6:C:2:LYS:NZ	52:5:400:G:N7	2.37	0.67
41:r:18:ARG:HG2	41:r:22:GLN:HE22	1.59	0.67
41:r:73:GLU:OE2	41:r:114:ARG:NH2	2.24	0.67
4:A:209:GLU:OE1	10:G:80:ARG:NH2	2.28	0.67
6:C:100:ILE:HG13	6:C:136:LEU:HD12	1.76	0.67
25:b:133:LEU:HB2	50:3:2000:U:H5''	1.77	0.67
34:k:67:ASN:ND2	34:k:69:ARG:O	2.28	0.67
50:3:984:C:O2	50:3:1020:G:O2'	2.11	0.67
50:3:1860:A:N6	50:3:1895:G:O2'	2.24	0.67
50:3:666:G:OP1	50:3:685:G:N2	2.27	0.67
5:B:177:PRO:HD2	5:B:185:ILE:HD11	1.75	0.67
50:3:433:A:O2'	50:3:2238:G:N2	2.28	0.67
50:3:1445:U:H3	50:3:1614:G:H1	1.42	0.67
50:3:1762:A:N1	50:3:2724:U:O2'	2.28	0.67
50:3:2299:U:H3	50:3:2349:G:H1	1.42	0.67
50:3:2380:U:H2'	50:3:2381:G:H8	1.59	0.67
50:3:2843:G:H1	50:3:2882:U:H3	1.43	0.67
12:I:72:GLU:HB3	16:M:57:LYS:HB2	1.77	0.67
50:3:566:G:OP1	50:3:594:G:N2	2.28	0.67
52:5:288:A:O2'	52:5:607:A:N6	2.28	0.67
24:a:250:GLY:O	50:3:2604:U:O2'	2.11	0.66
32:i:40:ARG:HH21	32:i:113:PRO:HD2	1.59	0.66
41:r:78:GLN:OE1	50:3:26:G:N2	2.26	0.66
8:E:49:ILE:HG13	8:E:50:LYS:H	1.60	0.66
16:M:5:SER:HB3	52:5:1191:U:H5''	1.76	0.66
26:c:7:ILE:HA	26:c:13:PHE:HA	1.77	0.66
50:3:173:C:H2'	50:3:174:A:C8	2.31	0.66
50:3:2504:C:OP2	50:3:2505:A:N6	2.28	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:587:A:H2'	52:5:588:U:C6	2.30	0.66
10:G:92:LYS:HE2	10:G:95:LEU:HD22	1.77	0.66
50:3:173:C:H2'	50:3:174:A:H8	1.60	0.66
50:3:596:G:H1	50:3:611:A:H61	1.43	0.66
50:3:2695:U:O2	50:3:2730:G:N2	2.27	0.66
50:3:2839:A:H4'	50:3:2840:U:H5'	1.77	0.66
50:3:2861:G:O2'	50:3:2863:G:N7	2.27	0.66
52:5:38:U:O2	52:5:546:G:N2	2.25	0.66
52:5:1354:G:N2	52:5:1356:U:O4	2.26	0.66
18:O:9:PRO:HD2	18:O:36:ALA:HB2	1.78	0.66
25:b:51:LEU:HA	25:b:83:GLU:HA	1.76	0.66
50:3:730:G:H2'	50:3:731:A:H8	1.60	0.66
52:5:320:G:N2	52:5:323:A:OP2	2.26	0.66
52:5:884:G:N2	52:5:885:U:O4	2.27	0.66
13:J:111:HIS:CE1	52:5:672:A:H1'	2.30	0.66
41:r:82:MET:HB2	41:r:98:LYS:HB2	1.77	0.66
45:v:37:LYS:NZ	50:3:2208:U:OP2	2.29	0.66
50:3:1331:G:H5'	50:3:1676:G:H21	1.60	0.66
50:3:2653:G:H5''	50:3:2654:U:H5''	1.78	0.66
52:5:318:C:N4	52:5:325:A:H62	1.94	0.66
6:C:54:LEU:O	6:C:58:GLN:NE2	2.28	0.66
25:b:111:SER:OG	25:b:208:ARG:NH2	2.28	0.66
50:3:1994:U:H2'	50:3:1995:G:H8	1.59	0.66
50:3:2216:U:H2'	50:3:2217:G:C8	2.31	0.66
52:5:1290:G:H4'	52:5:1334:A:H1'	1.77	0.66
25:b:13:MET:HG2	25:b:27:THR:HG22	1.78	0.66
52:5:1197:G:OP2	52:5:1296:C:N4	2.29	0.66
53:7:9:U:O2'	53:7:22:A:N1	2.28	0.66
10:G:118:THR:HA	10:G:135:GLY:HA3	1.78	0.66
14:K:124:ARG:O	14:K:127:ARG:NH1	2.29	0.66
48:y:16:ARG:HH12	50:3:1294:G:H5''	1.60	0.66
50:3:1245:G:H22	50:3:1264:U:H3	1.42	0.66
50:3:1428:U:H2'	50:3:1429:G:C8	2.31	0.66
50:3:1508:G:OP2	50:3:1508:G:H4'	1.94	0.66
52:5:1039:G:H2'	52:5:1041:G:H8	1.60	0.66
5:B:86:GLN:HA	5:B:89:THR:HG22	1.78	0.66
28:e:62:LYS:NZ	50:3:1070:U:O2'	2.29	0.66
50:3:450:C:H2'	50:3:451:A:H8	1.61	0.66
50:3:574:G:H1	50:3:587:U:H3	1.44	0.66
50:3:697:U:H2'	50:3:698:A:H8	1.61	0.66
50:3:714:G:H2'	50:3:715:G:H8	1.61	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2380:U:H2'	50:3:2381:G:C8	2.31	0.66
52:5:213:U:OP1	52:5:461:G:N2	2.29	0.66
29:f:141:LYS:NZ	29:f:143:THR:OG1	2.29	0.66
35:l:24:ASN:HA	35:l:67:ARG:HH11	1.60	0.66
36:m:100:VAL:HG22	36:m:116:LEU:HG	1.77	0.66
50:3:900:G:H21	50:3:903:A:H61	0.72	0.66
50:3:2736:U:HO2'	50:3:2737:G:H8	1.43	0.66
52:5:786:U:N3	52:5:789:A:OP2	2.29	0.66
52:5:885:U:O2	52:5:901:A:N7	2.29	0.66
53:7:10:A:H5'	53:7:22:A:H61	1.59	0.66
53:7:16:G:H22	53:7:49:C:H42	1.42	0.66
8:E:114:LYS:HZ2	20:Q:42:ARG:HH12	1.44	0.65
26:c:60:GLY:HA3	26:c:80:ARG:HE	1.60	0.65
37:n:34:LYS:HD2	37:n:101:ARG:HH11	1.62	0.65
50:3:2175:U:O2	50:3:2179:A:N7	2.29	0.65
50:3:2176:G:N2	50:3:2179:A:O5'	2.28	0.65
52:5:312:A:OP2	52:5:347:G:O2'	2.13	0.65
52:5:394:U:H2'	52:5:395:G:H8	1.61	0.65
25:b:201:GLU:HB3	50:3:2824:A:H5'	1.76	0.65
27:d:23:SER:OG	27:d:27:GLN:NE2	2.28	0.65
50:3:1327:G:O2'	50:3:1674:A:N6	2.28	0.65
50:3:2088:U:O2	50:3:2247:G:N2	2.24	0.65
50:3:2460:C:N3	50:3:2512:U:O4	2.29	0.65
9:F:94:ARG:HH22	52:5:1351:U:H5''	1.61	0.65
25:b:142:ARG:NH2	50:3:2005:G:OP1	2.28	0.65
41:r:128:ARG:HH12	50:3:1248:A:H1'	1.61	0.65
50:3:2217:G:C6	50:3:2224:A:N1	2.65	0.65
50:3:2405:G:N2	50:3:2427:U:O2	2.29	0.65
52:5:146:A:N6	52:5:340:A:N7	2.43	0.65
52:5:1051:U:H2'	52:5:1052:G:C8	2.30	0.65
15:L:110:LYS:O	15:L:114:LYS:NZ	2.29	0.65
41:r:34:ASN:HD22	48:y:36:LYS:HG2	1.60	0.65
50:3:606:G:O2'	50:3:608:A:OP1	2.13	0.65
50:3:2074:G:O2'	50:3:2076:G:O4'	2.14	0.65
50:3:2229:C:H2'	50:3:2230:A:H8	1.61	0.65
50:3:2266:C:O2'	50:3:2435:C:OP2	2.12	0.65
50:3:2336:A:H2'	50:3:2337:U:C6	2.32	0.65
22:S:7:ASN:ND2	52:5:328:G:OP1	2.30	0.65
23:T:22:SER:HA	23:T:25:ILE:HG12	1.77	0.65
24:a:282:ARG:NH2	50:3:1826:A:N1	2.45	0.65
7:D:143:ARG:NH1	52:5:858:A:OP2	2.30	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2521:A:H2'	50:3:2522:U:C6	2.31	0.65
52:5:779:A:OP1	52:5:1496:G:N2	2.28	0.65
5:B:69:VAL:HB	5:B:106:ILE:HG12	1.79	0.65
13:J:113:GLY:HA3	52:5:712:A:H2	1.61	0.65
46:w:53:THR:HG22	50:3:79:U:H5'	1.78	0.65
50:3:61:U:H3	50:3:70:G:H1	1.45	0.65
50:3:1942:G:N2	50:3:1971:G:O5'	2.30	0.65
52:5:583:G:N2	52:5:872:C:O2'	2.30	0.65
52:5:621:C:H2'	52:5:622:A:C8	2.32	0.65
7:D:167:ARG:HA	7:D:170:ILE:HG22	1.79	0.65
39:p:47:ARG:NH1	50:3:593:C:O2'	2.30	0.65
49:z:8:ARG:HH22	50:3:2426:A:HO2'	1.43	0.65
50:3:841:C:O2	50:3:2452:G:O2'	2.15	0.65
50:3:1759:C:H2'	50:3:1760:G:C8	2.32	0.65
26:c:68:GLN:NE2	50:3:2451:C:OP1	2.30	0.64
44:u:34:ARG:HA	50:3:2279:G:H5'	1.79	0.64
50:3:313:G:N1	50:3:394:C:O2	2.30	0.64
50:3:1015:G:H21	50:3:1018:G:H8	1.45	0.64
50:3:1310:U:H3	50:3:1314:A:N6	1.89	0.64
50:3:1716:A:OP2	50:3:1733:G:N2	2.29	0.64
50:3:1845:C:N4	50:3:1906:G:O4'	2.30	0.64
50:3:2094:A:H2'	50:3:2095:A:H8	1.62	0.64
50:3:2704:U:H2'	50:3:2705:G:C8	2.32	0.64
52:5:592:A:H61	52:5:642:A:H61	1.45	0.64
34:k:13:ARG:NH1	50:3:695:G:N3	2.45	0.64
46:w:57:ILE:HG22	46:w:61:ARG:HH22	1.61	0.64
50:3:585:U:H2'	50:3:586:G:H8	1.61	0.64
50:3:2522:U:H2'	50:3:2523:C:H6	1.62	0.64
52:5:855:G:H21	52:5:868:G:H5'	1.62	0.64
11:H:20:TYR:HB2	11:H:66:ASN:HB3	1.79	0.64
33:j:11:ALA:HB2	33:j:83:ALA:HB1	1.79	0.64
50:3:650:G:H2'	50:3:651:A:C8	2.31	0.64
50:3:997:G:OP1	50:3:2464:C:O2'	2.15	0.64
50:3:1194:U:H2'	50:3:1195:A:H8	1.62	0.64
51:4:104:C:H2'	51:4:105:A:H8	1.60	0.64
52:5:400:G:O2'	52:5:496:A:N6	2.30	0.64
52:5:767:U:H1'	52:5:894:A:H2	1.63	0.64
53:7:17:U:H2'	53:7:18:C:H2'	1.79	0.64
11:H:42:PRO:HB2	11:H:44:LYS:HG3	1.78	0.64
11:H:97:LYS:HE3	11:H:101:LYS:HD3	1.80	0.64
27:d:91:LEU:HA	27:d:95:ARG:HH21	1.62	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:l:118:LEU:HD13	35:l:131:ILE:HD12	1.80	0.64
50:3:31:U:H2'	50:3:32:G:C8	2.32	0.64
50:3:221:A:N7	50:3:467:U:O4	2.30	0.64
50:3:562:C:N4	50:3:2787:U:OP2	2.30	0.64
50:3:1930:U:O2'	53:7:13:U:O2	2.13	0.64
52:5:571:A:N7	52:5:877:C:O2'	2.31	0.64
24:a:159:GLN:NE2	50:3:1825:U:N3	2.39	0.64
29:f:102:HIS:HB3	50:3:166:A:C8	2.32	0.64
50:3:703:A:H2'	50:3:705:A:H62	1.63	0.64
50:3:748:G:N2	50:3:754:U:O4	2.30	0.64
50:3:2400:A:N7	50:3:2432:C:N3	2.46	0.64
52:5:940:G:N2	52:5:1308:G:O2'	2.31	0.64
24:a:169:ARG:HB2	24:a:183:GLN:HB3	1.78	0.64
50:3:1754:U:H2'	50:3:1755:A:H8	1.63	0.64
50:3:1837:C:H2'	50:3:1838:A:C8	2.33	0.64
50:3:2699:C:H4'	50:3:2875:U:H4'	1.80	0.64
50:3:648:G:OP1	50:3:648:G:N2	2.30	0.64
50:3:2575:G:H2'	50:3:2576:A:H8	1.61	0.64
52:5:818:A:H2'	52:5:819:G:H8	1.61	0.64
52:5:1226:A:N3	52:5:1344:C:O2'	2.28	0.64
53:7:8:G:O2'	53:7:50:G:O4'	2.15	0.64
4:A:36:TYR:O	4:A:204:THR:OG1	2.11	0.64
7:D:117:LYS:HZ1	52:5:1063:G:H5''	1.63	0.64
44:u:38:LYS:HD2	50:3:2363:C:H4'	1.80	0.64
50:3:1754:U:H2'	50:3:1755:A:C8	2.33	0.64
52:5:453:C:H2'	52:5:454:U:C6	2.33	0.64
4:A:48:GLU:HG2	4:A:52:ASN:HA	1.80	0.64
12:I:15:LYS:HD2	12:I:77:LYS:HD3	1.80	0.64
14:K:15:LYS:NZ	52:5:560:U:OP2	2.31	0.64
14:K:19:SER:OG	14:K:25:HIS:NE2	2.27	0.64
28:e:91:ARG:NH2	28:e:92:LEU:O	2.31	0.64
50:3:746:G:H2'	50:3:747:A:H8	1.63	0.64
50:3:1227:C:H2'	50:3:1228:G:H8	1.61	0.64
50:3:1776:G:H2'	50:3:1777:G:C8	2.33	0.64
50:3:2663:G:N2	50:3:2673:A:OP2	2.31	0.64
52:5:684:A:H62	52:5:700:G:N2	1.94	0.64
8:E:8:LEU:HB2	8:E:84:ARG:HB2	1.79	0.64
35:l:11:LYS:O	50:3:947:A:N6	2.30	0.64
50:3:31:U:H2'	50:3:32:G:H8	1.63	0.64
50:3:2716:U:H2'	50:3:2717:G:H8	1.61	0.64
53:7:29:C:H2'	53:7:30:G:H8	1.62	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:H:6:TYR:HB3	11:H:91:GLN:HE22	1.62	0.63
26:c:24:LEU:HD21	26:c:207:LEU:HG	1.79	0.63
34:k:55:GLN:OE1	50:3:867:G:N2	2.31	0.63
50:3:332:G:N1	50:3:373:U:OP2	2.30	0.63
50:3:1063:A:OP2	50:3:1161:A:N6	2.30	0.63
50:3:1253:G:N2	50:3:1256:A:OP2	2.27	0.63
50:3:2796:C:O2'	50:3:2812:U:O2	2.13	0.63
34:k:31:THR:HB	34:k:34:ARG:HB2	1.78	0.63
50:3:2063:G:H2'	50:3:2064:G:C8	2.34	0.63
50:3:2845:U:H2'	50:3:2846:A:C8	2.33	0.63
52:5:1113:U:H2'	52:5:1114:A:C8	2.34	0.63
44:u:94:ARG:NH1	44:u:96:SER:OG	2.28	0.63
50:3:2589:G:O2'	50:3:2591:G:O6	2.16	0.63
52:5:451:G:H2'	52:5:452:A:H8	1.62	0.63
52:5:631:C:H2'	52:5:632:A:H8	1.63	0.63
5:B:3:GLN:OE1	52:5:1054:C:N4	2.31	0.63
5:B:77:LEU:HD13	5:B:106:ILE:HD13	1.78	0.63
5:B:160:LEU:HD11	5:B:167:ARG:HH11	1.62	0.63
24:a:41:LEU:O	24:a:61:ARG:NH1	2.29	0.63
25:b:15:GLN:OE1	25:b:23:ARG:NH2	2.31	0.63
25:b:173:LYS:NZ	25:b:175:THR:OG1	2.30	0.63
26:c:119:LYS:NZ	26:c:195:ASN:OD1	2.31	0.63
27:d:34:ILE:HG12	27:d:156:LEU:HD13	1.78	0.63
43:t:45:HIS:N	50:3:517:G:OP2	2.32	0.63
50:3:827:G:N3	50:3:2079:G:O2'	2.31	0.63
50:3:2337:U:H2'	50:3:2338:G:C8	2.33	0.63
50:3:2425:C:H2'	50:3:2426:A:H8	1.62	0.63
50:3:2567:C:H2'	50:3:2568:G:H8	1.64	0.63
52:5:716:C:OP2	52:5:717:C:N4	2.30	0.63
52:5:946:G:N3	52:5:965:C:O2'	2.27	0.63
50:3:164:A:O2'	50:3:2215:C:O2	2.16	0.63
50:3:1806:G:N1	50:3:1826:A:OP2	2.31	0.63
52:5:537:A:H2'	52:5:538:G:C8	2.32	0.63
9:F:35:LYS:HD3	52:5:1348:G:H5''	1.80	0.63
14:K:41:PRO:HB3	52:5:551:A:C8	2.32	0.63
15:L:15:ILE:HD11	15:L:45:VAL:HB	1.81	0.63
12:I:50:THR:HA	12:I:75:ARG:O	1.99	0.63
22:S:29:LYS:NZ	52:5:1414:U:OP1	2.31	0.63
50:3:782:U:H3	50:3:2021:A:H1'	1.64	0.63
50:3:1849:G:H1	50:3:1905:U:H3	1.42	0.63
50:3:2032:G:H2'	50:3:2033:G:H8	1.64	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2706:U:H3	50:3:2717:G:H1	1.45	0.63
50:3:2812:U:H1'	50:3:2813:A:H2'	1.80	0.63
52:5:600:G:O6	52:5:633:U:O2	2.17	0.63
52:5:778:A:OP1	52:5:1497:U:O2'	2.16	0.63
52:5:1227:A:H2	52:5:1329:G:H1'	1.63	0.63
9:F:24:ARG:HH11	9:F:27:ASN:HD22	1.46	0.63
12:I:27:THR:HG22	12:I:99:PRO:HD2	1.80	0.63
23:T:28:LEU:O	23:T:32:HIS:ND1	2.32	0.63
24:a:62:ASN:ND2	50:3:1600:A:N3	2.47	0.63
43:t:4:ILE:HD12	43:t:71:LEU:HG	1.81	0.63
50:3:2552:G:H2'	50:3:2553:G:C8	2.34	0.63
52:5:1453:C:H2'	52:5:1454:G:H8	1.64	0.63
6:C:12:ARG:NH2	6:C:33:THR:O	2.32	0.62
50:3:341:G:N1	50:3:344:A:OP2	2.30	0.62
50:3:995:A:H2'	50:3:996:A:C8	2.34	0.62
50:3:1766:A:O2'	50:3:2720:C:OP1	2.17	0.62
50:3:2353:G:H1'	50:3:2390:G:H5'	1.81	0.62
50:3:2376:C:H2'	50:3:2377:A:H8	1.63	0.62
4:A:158:ARG:HH12	52:5:1088:C:H5''	1.64	0.62
15:L:68:ASP:O	15:L:71:ARG:HG3	1.99	0.62
34:k:18:LYS:HD3	50:3:698:A:H4'	1.81	0.62
44:u:28:ARG:NH2	50:3:2288:G:N7	2.46	0.62
50:3:144:C:H2'	50:3:145:A:H8	1.64	0.62
50:3:503:G:O2'	50:3:832:C:OP1	2.17	0.62
50:3:1819:G:OP2	50:3:2211:G:N2	2.32	0.62
50:3:2094:A:H2'	50:3:2095:A:C8	2.34	0.62
52:5:451:G:O6	52:5:476:U:O2	2.16	0.62
9:F:15:PRO:HD2	11:H:45:LEU:HD11	1.80	0.62
11:H:108:ARG:HD3	11:H:110:LYS:H	1.63	0.62
14:K:25:HIS:HE1	52:5:551:A:H4'	1.63	0.62
23:T:16:LYS:HA	23:T:19:LYS:NZ	2.14	0.62
29:f:88:PRO:HB2	29:f:119:LEU:HD12	1.81	0.62
38:o:94:GLY:HA2	38:o:115:LYS:HA	1.80	0.62
50:3:1296:G:H1'	50:3:1297:U:H5	1.64	0.62
50:3:1793:A:OP2	50:3:1794:A:N6	2.28	0.62
50:3:2335:A:H2'	50:3:2336:A:C8	2.35	0.62
52:5:762:G:H3'	52:5:809:G:H21	1.65	0.62
52:5:896:G:H2'	52:5:897:A:H8	1.65	0.62
52:5:1313:A:OP2	52:5:1314:A:N6	2.32	0.62
15:L:95:LEU:HD12	15:L:102:THR:HG21	1.81	0.62
25:b:37:ALA:HB2	25:b:53:SER:HB3	1.81	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:785:A:O2'	50:3:787:C:OP1	2.16	0.62
50:3:1903:A:H2'	50:3:1904:G:C8	2.35	0.62
50:3:2321:C:H2'	50:3:2322:G:C8	2.34	0.62
52:5:105:A:O2'	52:5:107:A:N7	2.32	0.62
52:5:145:G:O2'	52:5:147:A:N7	2.31	0.62
6:C:57:LYS:HD2	6:C:199:TRP:HZ3	1.65	0.62
6:C:111:ARG:NE	52:5:403:A:OP1	2.28	0.62
12:I:45:PRO:HB2	12:I:78:ARG:HH11	1.64	0.62
33:j:98:ILE:HG13	33:j:114:ILE:HG23	1.81	0.62
52:5:97:G:H21	52:5:350:G:H5''	1.64	0.62
50:3:274:A:OP2	50:3:294:G:N1	2.31	0.62
50:3:918:G:N2	50:3:933:A:N1	2.45	0.62
50:3:992:G:O2'	50:3:995:A:N6	2.28	0.62
52:5:1245:A:H2'	52:5:1246:A:H8	1.63	0.62
39:p:63:ARG:NH2	39:p:96:GLU:OE2	2.32	0.62
50:3:305:U:O2	50:3:399:G:O6	2.16	0.62
50:3:352:C:H2'	50:3:353:G:C8	2.35	0.62
52:5:133:G:H2'	52:5:134:G:C8	2.34	0.62
52:5:305:A:O2'	52:5:605:A:N1	2.31	0.62
52:5:590:G:H2'	52:5:591:A:H8	1.64	0.62
9:F:114:THR:HG22	9:F:116:LEU:H	1.65	0.62
15:L:104:THR:HG21	52:5:1205:C:H41	1.65	0.62
27:d:33:LYS:HD3	27:d:35:VAL:HG13	1.81	0.62
29:f:69:LYS:HA	29:f:72:ILE:HD12	1.82	0.62
38:o:107:ARG:HH22	50:3:1761:C:H4'	1.65	0.62
50:3:1027:U:O4	50:3:1198:G:O6	2.17	0.62
50:3:1243:A:H2'	50:3:1244:A:H8	1.64	0.62
52:5:1262:A:H2'	52:5:1263:A:C8	2.35	0.62
10:G:37:ALA:HB2	10:G:70:VAL:HB	1.81	0.62
35:l:1:MET:HG2	35:l:44:ALA:HB1	1.82	0.62
50:3:615:G:H2'	50:3:616:G:H8	1.65	0.62
50:3:802:U:H2'	50:3:803:G:H8	1.65	0.62
50:3:2551:G:H2'	50:3:2552:G:H8	1.63	0.62
50:3:2764:U:H1'	50:3:2765:A:H5''	1.81	0.62
52:5:1245:A:H2'	52:5:1246:A:C8	2.35	0.62
19:P:43:LYS:HE2	52:5:232:G:H5''	1.81	0.62
33:j:7:ARG:NH2	33:j:20:GLY:HA3	2.15	0.62
38:o:53:LEU:HB2	38:o:65:ILE:HG13	1.80	0.62
41:r:62:HIS:HB2	41:r:64:MET:HE1	1.82	0.62
50:3:194:A:N6	50:3:834:G:O2'	2.32	0.62
50:3:1789:C:H42	50:3:2595:A:H2	1.47	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2254:G:H2'	50:3:2255:A:C8	2.35	0.62
50:3:2407:G:O6	50:3:2426:A:N6	2.33	0.62
5:B:155:LEU:HD23	5:B:202:LYS:HD2	1.81	0.61
6:C:14:LEU:O	6:C:55:GLN:NE2	2.32	0.61
28:e:63:GLN:HA	28:e:66:ILE:HG12	1.81	0.61
32:i:117:LEU:O	32:i:121:TRP:N	2.31	0.61
50:3:1119:A:H2'	50:3:1120:A:C8	2.35	0.61
50:3:1642:G:O2'	50:3:1644:A:OP1	2.17	0.61
50:3:2713:A:O2'	50:3:2856:G:OP1	2.18	0.61
50:3:2849:G:H2'	50:3:2850:G:H8	1.65	0.61
52:5:331:C:H2'	52:5:332:A:C8	2.34	0.61
52:5:712:A:H2'	52:5:713:A:C8	2.35	0.61
52:5:1153:G:N1	52:5:1156:G:OP2	2.32	0.61
9:F:78:ARG:NH1	52:5:1357:C:O2'	2.20	0.61
18:O:59:PRO:HG2	18:O:64:ARG:HH11	1.64	0.61
26:c:66:TYR:OH	26:c:73:LYS:N	2.32	0.61
50:3:142:A:H2'	50:3:143:A:C8	2.34	0.61
50:3:558:C:O2'	50:3:587:U:O2	2.15	0.61
50:3:2717:G:H2'	50:3:2718:C:C6	2.35	0.61
52:5:201:G:H1	52:5:214:U:H3	1.47	0.61
52:5:354:U:H2'	52:5:355:A:H8	1.65	0.61
6:C:114:ARG:NH2	52:5:400:G:OP2	2.33	0.61
33:j:80:ASP:OD2	38:o:67:ARG:NH2	2.34	0.61
42:s:13:THR:HB	50:3:1366:G:H5''	1.82	0.61
43:t:77:PHE:O	43:t:79:GLN:NE2	2.33	0.61
52:5:1119:C:O2'	52:5:1124:U:N3	2.23	0.61
15:L:24:GLY:O	15:L:29:ARG:NH2	2.33	0.61
35:l:57:CYS:SG	35:l:120:ARG:NH1	2.73	0.61
38:o:36:LYS:HE2	38:o:85:ASN:HA	1.82	0.61
50:3:455:G:H2'	50:3:456:G:C8	2.34	0.61
50:3:2802:C:H2'	50:3:2803:G:C4	2.35	0.61
52:5:1184:C:H2'	52:5:1185:C:C6	2.35	0.61
52:5:1379:C:O2	52:5:1494:A:O2'	2.17	0.61
5:B:159:ARG:HH11	52:5:1046:A:H1'	1.65	0.61
20:Q:80:GLN:NE2	20:Q:81:MET:SD	2.73	0.61
50:3:666:G:N1	50:3:669:A:OP2	2.25	0.61
50:3:1845:C:O2	50:3:1908:A:N6	2.34	0.61
50:3:2328:A:N6	50:3:2341:G:O2'	2.33	0.61
4:A:26:MET:CG	4:A:29:HIS:HE1	2.13	0.61
4:A:34:LYS:HG3	4:A:35:ARG:HG2	1.82	0.61
35:l:31:GLU:HA	35:l:134:ARG:HB2	1.83	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:q:34:GLN:HE22	40:q:56:VAL:HG22	1.65	0.61
50:3:474:U:H2'	50:3:475:A:C8	2.33	0.61
50:3:711:A:O2'	50:3:2450:C:O2	2.18	0.61
50:3:1721:G:N1	50:3:1734:A:OP1	2.26	0.61
52:5:332:A:H5'	52:5:1408:A:H1'	1.82	0.61
52:5:1089:C:H2'	52:5:1090:G:C8	2.36	0.61
52:5:1397:G:H2'	52:5:1398:G:C8	2.35	0.61
15:L:94:ASN:HA	15:L:109:ARG:HH11	1.64	0.61
41:r:57:ASN:ND2	41:r:61:ASN:OD1	2.29	0.61
50:3:1896:A:H2'	50:3:1897:A:C8	2.35	0.61
50:3:2004:G:H2'	50:3:2005:G:C8	2.35	0.61
50:3:2193:U:H2'	50:3:2194:G:C8	2.35	0.61
52:5:639:A:H2'	52:5:640:C:C6	2.35	0.61
2:1:8:LYS:O	2:1:12:LYS:NZ	2.34	0.61
6:C:88:ASN:OD1	6:C:91:ARG:NH1	2.33	0.61
12:I:55:ILE:HB	12:I:71:PHE:HB2	1.82	0.61
25:b:14:SER:O	25:b:26:ILE:N	2.28	0.61
41:r:90:LYS:NZ	50:3:781:U:O2'	2.34	0.61
50:3:214:C:H2'	50:3:215:A:C8	2.35	0.61
50:3:554:U:H2'	50:3:555:A:C8	2.34	0.61
50:3:900:G:N2	50:3:950:U:O2	2.33	0.61
50:3:2229:C:H2'	50:3:2230:A:C8	2.34	0.61
50:3:2826:G:H2'	50:3:2827:A:H5''	1.83	0.61
9:F:4:ASN:ND2	52:5:928:G:OP1	2.34	0.61
14:K:99:ARG:NH1	52:5:522:G:O2'	2.33	0.61
36:m:56:ASN:OD1	36:m:59:ASN:N	2.32	0.61
37:n:27:ARG:NH2	37:n:89:VAL:O	2.34	0.61
39:p:50:ARG:HD3	50:3:1191:A:C4	2.35	0.61
50:3:1262:G:H2'	50:3:1263:G:C8	2.36	0.61
8:E:160:VAL:O	10:G:80:ARG:NH1	2.33	0.61
24:a:57:HIS:HB3	24:a:227:THR:HB	1.83	0.61
39:p:20:ALA:HB2	39:p:38:VAL:HG23	1.83	0.61
50:3:1299:A:H61	50:3:2018:U:H3	1.49	0.61
36:m:14:ARG:NH1	50:3:2009:U:OP1	2.32	0.60
50:3:2054:C:O2'	50:3:2827:A:N1	2.33	0.60
52:5:858:A:H2'	52:5:859:A:C8	2.36	0.60
52:5:1108:A:N1	52:5:1159:A:N6	2.49	0.60
4:A:39:PRO:HG3	52:5:826:G:H4'	1.83	0.60
21:R:36:ARG:NH2	21:R:75:SER:OG	2.34	0.60
29:f:94:THR:HA	29:f:97:ILE:HD13	1.83	0.60
38:o:30:GLU:OE1	38:o:92:ARG:HD2	2.01	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:406:C:H2'	50:3:407:U:C6	2.35	0.60
50:3:1507:G:O2'	50:3:1508:G:OP1	2.17	0.60
11:H:83:LEU:HA	11:H:86:VAL:HG22	1.82	0.60
15:L:34:LEU:HD21	15:L:41:PRO:HG3	1.83	0.60
50:3:17:G:O6	50:3:560:U:O2	2.20	0.60
50:3:162:G:N1	50:3:169:U:OP2	2.33	0.60
50:3:1088:A:H2'	50:3:1089:A:O4'	2.01	0.60
52:5:41:C:H2'	52:5:42:G:H8	1.66	0.60
52:5:1230:G:H2'	52:5:1233:G:H21	1.65	0.60
32:i:107:ALA:O	50:3:1173:G:O2'	2.19	0.60
50:3:2144:C:H2'	50:3:2145:A:C8	2.37	0.60
50:3:2170:A:OP2	50:3:2174:G:N2	2.33	0.60
52:5:316:G:H2'	52:5:317:A:C8	2.36	0.60
5:B:5:VAL:HG11	5:B:10:LEU:HD13	1.82	0.60
11:H:111:ARG:HG2	52:5:1321:G:C8	2.36	0.60
13:J:88:THR:HA	13:J:91:ARG:CD	2.31	0.60
22:S:12:ARG:NH2	52:5:88:A:OP1	2.34	0.60
41:r:69:LEU:HD21	41:r:107:LEU:HB3	1.83	0.60
50:3:855:A:H1'	50:3:979:U:H1'	1.83	0.60
52:5:664:A:H2'	52:5:665:G:C8	2.37	0.60
52:5:885:U:C2	52:5:901:A:C8	2.86	0.60
9:F:149:ALA:HB1	13:J:52:THR:HG21	1.82	0.60
32:i:45:VAL:HG11	39:p:99:ILE:HG21	1.83	0.60
49:z:12:ASN:O	49:z:15:ARG:NH2	2.34	0.60
50:3:300:G:H2'	50:3:301:G:C8	2.34	0.60
50:3:341:G:H21	50:3:364:A:H61	0.71	0.60
50:3:2031:C:H2'	50:3:2032:G:H8	1.67	0.60
52:5:134:G:N2	52:5:160:A:N1	2.47	0.60
52:5:1225:A:H2'	52:5:1226:A:C8	2.37	0.60
9:F:113:LYS:HE2	52:5:1272:C:C2	2.37	0.60
14:K:63:ARG:NH2	52:5:519:G:N7	2.49	0.60
36:m:107:ARG:HE	50:3:1314:A:H4'	1.67	0.60
50:3:985:A:H2'	50:3:986:G:H8	1.66	0.60
50:3:1239:G:H4'	50:3:1242:G:H4'	1.82	0.60
50:3:1350:A:N1	50:3:1361:U:O2'	2.35	0.60
52:5:382:U:H2'	52:5:383:U:C6	2.35	0.60
52:5:612:G:O6	52:5:624:U:O4	2.19	0.60
39:p:12:ARG:HA	39:p:15:LYS:HE3	1.84	0.60
42:s:7:LEU:O	46:w:30:ARG:NH2	2.35	0.60
50:3:880:C:H4'	50:3:881:A:H5'	1.83	0.60
52:5:412:G:H2'	52:5:413:G:H8	1.67	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:943:C:H2'	52:5:944:A:H8	1.65	0.60
14:K:13:LYS:O	52:5:560:U:O2'	2.20	0.60
16:M:41:ARG:NH1	52:5:968:G:O2'	2.35	0.60
27:d:31:LEU:HD11	27:d:156:LEU:HB3	1.83	0.60
50:3:192:U:O2'	50:3:1393:A:N6	2.35	0.60
52:5:60:A:H5''	52:5:383:U:H4'	1.84	0.60
28:e:124:LEU:HB3	28:e:136:ILE:HD11	1.84	0.60
41:r:78:GLN:NE2	50:3:1292:A:OP1	2.35	0.60
50:3:853:G:N1	50:3:1219:U:OP2	2.23	0.60
50:3:984:C:H2'	50:3:985:A:C8	2.37	0.60
50:3:1310:U:O4	50:3:1314:A:N7	2.35	0.60
50:3:2077:A:H2'	50:3:2078:A:H8	1.65	0.60
50:3:2082:U:H4'	50:3:2604:U:H3	1.66	0.60
50:3:2336:A:H2'	50:3:2337:U:H6	1.67	0.60
52:5:314:G:N3	52:5:1443:A:O2'	2.33	0.60
52:5:1138:U:O4	52:5:1139:A:N6	2.33	0.60
14:K:127:ARG:N	52:5:500:G:OP1	2.30	0.59
24:a:37:LEU:HA	24:a:68:ILE:HD12	1.84	0.59
26:c:77:GLY:H	50:3:709:G:H4'	1.67	0.59
50:3:241:C:H2'	50:3:242:G:H8	1.66	0.59
50:3:859:G:H21	50:3:2366:A:N6	1.99	0.59
50:3:1496:A:N6	50:3:1547:G:O2'	2.35	0.59
50:3:1809:A:H2'	50:3:1810:A:C8	2.37	0.59
50:3:2736:U:O2'	50:3:2737:G:H8	1.84	0.59
15:L:103:ARG:HH11	52:5:1201:C:H41	1.48	0.59
19:P:52:GLU:OE2	52:5:185:G:N2	2.32	0.59
25:b:142:ARG:HG2	50:3:1690:C:H5''	1.84	0.59
36:m:51:LEU:HD21	36:m:62:GLN:HG3	1.85	0.59
44:u:28:ARG:NH1	50:3:2288:G:O6	2.36	0.59
50:3:501:G:H21	50:3:719:G:H4'	1.67	0.59
50:3:1699:A:H2'	50:3:1700:G:H8	1.67	0.59
50:3:1755:A:H2'	50:3:1756:A:H8	1.67	0.59
50:3:2700:C:H2'	50:3:2701:A:H8	1.67	0.59
50:3:2808:A:O2'	50:3:2809:A:O5'	2.20	0.59
52:5:475:U:H3'	52:5:476:U:H5''	1.84	0.59
52:5:1402:U:H2'	52:5:1403:A:H8	1.67	0.59
8:E:112:ARG:O	8:E:112:ARG:NH1	2.32	0.59
14:K:43:LYS:NZ	52:5:359:A:N7	2.49	0.59
22:S:13:GLN:NE2	52:5:90:G:OP2	2.29	0.59
25:b:47:TYR:OH	50:3:2644:U:O2'	2.19	0.59
36:m:61:ARG:NH1	50:3:2855:A:O2'	2.35	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:u:50:ILE:HD12	44:u:53:ARG:NH1	2.17	0.59
50:3:214:C:H2'	50:3:215:A:H8	1.67	0.59
50:3:730:G:H2'	50:3:731:A:C8	2.37	0.59
50:3:1960:A:O2'	50:3:2567:C:O2	2.21	0.59
50:3:2609:C:H2'	50:3:2611:G:H8	1.67	0.59
52:5:1498:G:H2'	52:5:1499:G:H8	1.67	0.59
5:B:4:LYS:NZ	52:5:1166:A:OP1	2.34	0.59
6:C:202:ARG:HG3	52:5:28:G:H4'	1.84	0.59
24:a:190:ARG:NH1	24:a:274:SER:O	2.33	0.59
25:b:26:ILE:HD12	25:b:182:VAL:HG21	1.84	0.59
34:k:23:GLY:N	50:3:846:U:OP2	2.36	0.59
50:3:679:A:N1	50:3:2377:A:O2'	2.34	0.59
50:3:2531:C:H2'	50:3:2532:G:C8	2.38	0.59
51:4:38:U:N3	51:4:42:G:OP2	2.34	0.59
52:5:409:G:O3'	52:5:425:G:N2	2.36	0.59
33:j:71:ARG:NH2	33:j:75:THR:OG1	2.35	0.59
50:3:1443:A:O2'	50:3:1445:U:OP2	2.20	0.59
50:3:1645:C:H2'	50:3:1646:G:C8	2.37	0.59
52:5:116:A:N6	52:5:229:G:N3	2.50	0.59
52:5:197:A:O2'	52:5:198:A:O4'	2.20	0.59
52:5:318:C:H42	52:5:325:A:N6	2.00	0.59
52:5:1009:G:H21	52:5:1012:A:H2	1.49	0.59
13:J:63:VAL:HA	13:J:66:THR:HG22	1.85	0.59
19:P:12:ILE:N	19:P:25:GLN:O	2.36	0.59
28:e:55:ILE:O	28:e:68:HIS:NE2	2.35	0.59
34:k:133:LYS:HG2	50:3:672:G:H5''	1.85	0.59
42:s:71:PHE:HB3	50:3:67:C:H4'	1.84	0.59
50:3:713:C:H2'	50:3:714:G:H8	1.68	0.59
50:3:774:A:N3	50:3:775:C:N4	2.48	0.59
50:3:1494:U:O4	50:3:1550:G:O6	2.20	0.59
50:3:2144:C:H2'	50:3:2145:A:H8	1.68	0.59
50:3:2259:G:H2'	50:3:2260:G:C8	2.37	0.59
52:5:611:A:H2'	52:5:612:G:H8	1.67	0.59
11:H:72:GLY:O	52:5:1224:C:O2'	2.17	0.59
37:n:20:ARG:NH1	51:4:8:C:OP1	2.31	0.59
50:3:1071:G:O6	50:3:1154:U:O4	2.21	0.59
50:3:1446:G:O2'	50:3:1613:A:N6	2.35	0.59
50:3:2667:G:N2	50:3:2670:A:OP2	2.25	0.59
17:N:70:ASN:OD1	17:N:71:ASP:N	2.36	0.59
26:c:63:LYS:NZ	26:c:64:LYS:O	2.34	0.59
29:f:81:LEU:O	29:f:145:ASP:N	2.36	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:q:1:MET:HE3	40:q:15:HIS:HB3	1.84	0.59
50:3:610:G:H2'	50:3:611:A:C8	2.38	0.59
50:3:1647:A:N6	50:3:1649:C:O2'	2.36	0.59
50:3:2015:C:H2'	50:3:2016:G:H8	1.68	0.59
52:5:63:U:O2'	52:5:375:C:O2	2.21	0.59
52:5:711:G:H2'	52:5:712:A:C8	2.38	0.59
5:B:151:GLY:HA3	5:B:174:GLY:HA3	1.85	0.59
11:H:10:GLY:HA2	11:H:87:ARG:HH22	1.68	0.59
48:y:37:LYS:NZ	50:3:2888:U:O4	2.35	0.59
50:3:1337:G:H21	50:3:1645:C:H5'	1.68	0.59
50:3:2272:C:H2'	50:3:2273:U:O4'	2.03	0.59
50:3:2747:U:O2	50:3:2772:A:N7	2.36	0.59
50:3:2789:A:H5''	50:3:2790:A:H5'	1.85	0.59
52:5:265:U:H2'	52:5:266:A:C8	2.38	0.59
8:E:3:TYR:OH	52:5:735:C:OP1	2.20	0.59
22:S:29:LYS:HZ1	52:5:1414:U:P	2.26	0.59
24:a:212:VAL:HG13	50:3:1799:A:H5'	1.83	0.59
38:o:9:LEU:HD12	38:o:12:LEU:HB2	1.84	0.59
44:u:55:ARG:HH22	50:3:2337:U:H1'	1.68	0.59
45:v:32:ASN:HB2	50:3:433:A:H5''	1.85	0.59
50:3:345:A:N6	50:3:363:G:OP1	2.31	0.59
50:3:939:U:H2'	50:3:940:A:C8	2.38	0.59
50:3:1335:A:OP2	50:3:1640:G:N2	2.36	0.59
51:4:42:G:N3	51:4:45:C:N4	2.38	0.59
52:5:335:C:H2'	52:5:336:U:C6	2.38	0.59
52:5:550:U:H2'	52:5:551:A:H8	1.67	0.59
52:5:1088:C:C4	52:5:1089:C:N4	2.71	0.59
6:C:36:GLY:H	52:5:423:U:H4'	1.67	0.58
20:Q:73:ARG:NH2	20:Q:83:GLN:HB3	2.18	0.58
25:b:159:VAL:O	50:3:2626:A:O2'	2.21	0.58
50:3:142:A:H2	50:3:1628:G:H21	1.50	0.58
50:3:1661:A:H2'	50:3:1662:G:C8	2.38	0.58
50:3:2213:A:H2'	50:3:2214:A:H8	1.68	0.58
52:5:138:A:N6	52:5:155:C:N3	2.51	0.58
52:5:1049:G:O6	52:5:1174:U:O2	2.21	0.58
52:5:1351:U:H2'	52:5:1352:A:H8	1.67	0.58
27:d:91:LEU:HB2	27:d:95:ARG:HE	1.69	0.58
45:v:14:TYR:O	45:v:26:ARG:NH1	2.35	0.58
50:3:601:U:H2'	50:3:603:G:N7	2.18	0.58
50:3:2096:U:H2'	50:3:2097:A:C8	2.37	0.58
50:3:2693:U:O2'	50:3:2734:C:N4	2.35	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:331:C:H2'	52:5:332:A:H8	1.66	0.58
52:5:381:C:H2'	52:5:382:U:C6	2.38	0.58
52:5:1462:G:H2'	52:5:1463:A:H8	1.68	0.58
53:7:22:A:N6	53:7:47:G:O2'	2.33	0.58
12:I:56:THR:HG22	12:I:70:GLN:HG2	1.85	0.58
15:L:106:ALA:O	15:L:110:LYS:NZ	2.36	0.58
41:r:84:ARG:NH2	50:3:1350:A:O3'	2.36	0.58
42:s:55:VAL:HG22	42:s:83:ILE:HG22	1.86	0.58
50:3:629:G:O6	50:3:696:U:O4	2.22	0.58
50:3:1849:G:N1	50:3:1905:U:N3	2.45	0.58
52:5:10:G:H2'	52:5:11:A:C8	2.38	0.58
52:5:591:A:H2'	52:5:592:A:C8	2.34	0.58
52:5:931:C:O2'	52:5:1357:C:N3	2.32	0.58
52:5:1074:U:O2'	52:5:1092:A:O3'	2.21	0.58
14:K:56:LYS:NZ	52:5:907:A:OP1	2.35	0.58
34:k:52:GLU:O	34:k:55:GLN:NE2	2.36	0.58
50:3:1116:U:H2'	50:3:1117:U:C5	2.38	0.58
50:3:1463:G:H2'	50:3:1464:G:C8	2.38	0.58
50:3:2081:U:O2'	50:3:2605:G:N3	2.30	0.58
50:3:2609:C:H2'	50:3:2611:G:C8	2.37	0.58
52:5:333:U:H2'	52:5:334:A:H8	1.67	0.58
52:5:680:G:O6	52:5:705:A:N6	2.37	0.58
4:A:207:ASN:HD22	4:A:210:LEU:HG	1.69	0.58
6:C:12:ARG:HH11	6:C:31:ARG:HH11	1.51	0.58
8:E:148:LYS:O	10:G:58:GLN:NE2	2.37	0.58
9:F:107:ALA:HB1	9:F:119:ILE:HG22	1.85	0.58
12:I:25:ASP:OD2	52:5:1128:G:O2'	2.17	0.58
50:3:528:U:H2'	50:3:529:G:C8	2.38	0.58
50:3:797:U:H3	50:3:1459:A:H5''	1.68	0.58
50:3:828:A:OP1	50:3:2078:A:O2'	2.22	0.58
50:3:1306:G:H2'	50:3:1307:G:C8	2.38	0.58
50:3:1463:G:H2'	50:3:1464:G:H8	1.68	0.58
50:3:1536:C:H2'	50:3:1537:A:C8	2.39	0.58
50:3:2305:C:H41	50:3:2326:G:H2'	1.69	0.58
50:3:2310:C:H2'	50:3:2311:G:C8	2.39	0.58
51:4:4:G:OP1	51:4:22:G:N2	2.37	0.58
52:5:80:U:H2'	52:5:81:A:H8	1.68	0.58
52:5:412:G:H1	52:5:424:U:H3	1.51	0.58
52:5:590:G:O6	52:5:645:A:N6	2.36	0.58
35:l:6:ARG:HH12	50:3:906:G:H4'	1.68	0.58
36:m:82:LEU:HD13	36:m:86:VAL:HB	1.85	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:500:U:O2'	50:3:501:G:OP1	2.18	0.58
50:3:902:U:N3	50:3:940:A:OP2	2.30	0.58
50:3:916:U:O4	50:3:936:G:N2	2.37	0.58
50:3:1237:G:H2'	50:3:1238:A:H8	1.68	0.58
52:5:945:U:H2'	52:5:946:G:C8	2.39	0.58
52:5:1178:C:H2'	52:5:1179:A:C8	2.39	0.58
52:5:1384:A:H2'	52:5:1385:A:H8	1.67	0.58
12:I:69:GLU:HG2	16:M:45:ARG:HE	1.69	0.58
24:a:90:PRO:HG3	50:3:1601:A:H2'	1.84	0.58
25:b:13:MET:HE1	50:3:2688:C:H4'	1.86	0.58
32:i:40:ARG:NH2	32:i:112:LEU:HD22	2.18	0.58
34:k:137:LYS:HE3	34:k:141:ASN:HD21	1.68	0.58
50:3:601:U:N3	50:3:604:A:OP2	2.31	0.58
50:3:675:U:O4	50:3:685:G:O6	2.20	0.58
50:3:1387:A:OP2	50:3:1399:G:N2	2.36	0.58
50:3:1454:G:H3'	50:3:1455:A:H2'	1.86	0.58
50:3:1787:A:H3'	50:3:1788:A:H2'	1.86	0.58
36:m:17:THR:HG21	36:m:37:LYS:HE2	1.86	0.58
49:z:43:LYS:NZ	49:z:44:VAL:O	2.36	0.58
50:3:450:C:O2'	50:3:1871:U:O2	2.22	0.58
50:3:1455:A:H5''	50:3:1593:U:H3	1.68	0.58
50:3:2480:G:H2'	50:3:2486:A:H61	1.67	0.58
50:3:2835:G:H5'	50:3:2836:U:H5'	1.85	0.58
52:5:336:U:H2'	52:5:337:C:C6	2.39	0.58
52:5:352:A:N3	52:5:364:U:O2'	2.37	0.58
52:5:683:G:H21	52:5:701:A:H62	1.50	0.58
2:1:14:THR:OG1	2:1:17:GLY:O	2.22	0.58
2:1:50:SER:OG	50:3:870:A:OP1	2.21	0.58
5:B:92:ILE:HA	5:B:95:ILE:HG12	1.85	0.58
6:C:76:ARG:O	6:C:76:ARG:NH2	2.36	0.58
9:F:93:ASP:OD1	9:F:94:ARG:N	2.37	0.58
50:3:188:G:O2'	50:3:221:A:N3	2.37	0.58
50:3:495:U:H2'	50:3:496:A:H8	1.68	0.58
50:3:1932:C:O2	50:3:1936:G:N2	2.30	0.58
50:3:2002:U:H3'	50:3:2003:C:H2'	1.85	0.58
50:3:2305:C:N4	50:3:2327:U:O4'	2.37	0.58
52:5:451:G:O6	52:5:476:U:C2	2.56	0.58
52:5:920:G:H1	52:5:1366:U:H3	1.52	0.58
52:5:973:A:O2'	52:5:1296:C:O2	2.14	0.58
52:5:1065:G:N2	52:5:1074:U:O2	2.24	0.58
52:5:1198:C:H5''	52:5:1199:U:H5''	1.86	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:E:66:ASN:ND2	52:5:736:U:OP1	2.37	0.58
10:G:11:HIS:NE2	52:5:821:U:O2	2.27	0.58
10:G:24:ASN:OD1	52:5:868:G:N2	2.36	0.58
50:3:1543:U:H2'	50:3:1544:G:H8	1.68	0.58
50:3:1767:A:H2'	50:3:1768:G:C8	2.38	0.58
50:3:2015:C:H2'	50:3:2016:G:C8	2.39	0.58
7:D:182:ASN:ND2	7:D:186:ASN:OD1	2.37	0.57
13:J:113:GLY:HA3	52:5:712:A:C2	2.38	0.57
14:K:103:LEU:HB3	14:K:106:VAL:HG21	1.85	0.57
23:T:15:LEU:HA	23:T:18:PHE:HB3	1.86	0.57
37:n:75:GLN:HG3	37:n:112:ARG:HD3	1.86	0.57
45:v:2:ALA:N	50:3:1392:G:N7	2.51	0.57
50:3:632:A:H2'	50:3:633:G:H8	1.70	0.57
50:3:1070:U:O4	50:3:1155:G:O6	2.21	0.57
50:3:1121:A:O2'	50:3:1122:G:N7	2.37	0.57
50:3:1243:A:H2'	50:3:1244:A:C8	2.38	0.57
50:3:2220:A:N3	50:3:2222:C:N4	2.52	0.57
50:3:2455:G:N2	50:3:2458:A:OP2	2.37	0.57
52:5:561:A:O2'	52:5:564:G:O2'	2.21	0.57
52:5:944:A:H4'	52:5:1337:U:H2'	1.85	0.57
52:5:1263:A:H2	52:5:1346:G:H21	1.52	0.57
7:D:136:ILE:H	7:D:178:ILE:HD11	1.69	0.57
9:F:112:GLU:HG3	9:F:118:LYS:HB3	1.85	0.57
13:J:41:GLY:N	52:5:686:C:OP1	2.33	0.57
13:J:79:VAL:HG13	13:J:105:GLU:HG2	1.86	0.57
18:O:38:LYS:HB3	52:5:449:A:H2'	1.86	0.57
25:b:135:HIS:HE1	50:3:2000:U:H1'	1.69	0.57
50:3:2104:A:H2'	50:3:2105:G:C8	2.39	0.57
50:3:2376:C:H2'	50:3:2377:A:C8	2.39	0.57
52:5:356:G:H2'	52:5:357:G:C8	2.39	0.57
52:5:999:C:O2	52:5:1000:A:O2'	2.22	0.57
52:5:1094:C:H2'	52:5:1095:G:C8	2.39	0.57
30:g:62:ALA:O	30:g:66:GLY:N	2.37	0.57
33:j:5:MET:HA	33:j:21:ILE:O	2.04	0.57
38:o:57:GLY:HA3	38:o:62:GLU:HA	1.85	0.57
50:3:62:G:N3	50:3:64:U:N3	2.51	0.57
50:3:296:U:O2	50:3:300:G:O2'	2.21	0.57
50:3:339:U:H2'	50:3:340:U:C6	2.39	0.57
52:5:1161:G:H2'	52:5:1162:G:C8	2.39	0.57
53:7:38:G:H3'	53:7:39:A:H8	1.69	0.57
7:D:97:ARG:HE	7:D:174:GLY:HA2	1.68	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:K:127:ARG:NH2	52:5:500:G:OP2	2.37	0.57
22:S:64:ARG:HH22	52:5:256:G:H5''	1.69	0.57
33:j:28:THR:OG1	50:3:2681:G:N2	2.37	0.57
36:m:69:ASN:HD21	50:3:1322:A:H4'	1.70	0.57
50:3:511:U:C2	50:3:515:A:N7	2.73	0.57
50:3:697:U:H2'	50:3:698:A:C8	2.37	0.57
50:3:890:U:H2'	50:3:891:G:C8	2.39	0.57
50:3:1414:C:H2'	50:3:1415:A:C8	2.39	0.57
50:3:2382:A:H2'	50:3:2383:G:C8	2.40	0.57
4:A:49:ARG:HG2	4:A:50:LYS:N	2.19	0.57
7:D:185:ARG:NH2	52:5:21:U:H3'	2.19	0.57
13:J:115:LYS:O	52:5:775:G:O2'	2.20	0.57
29:f:1:MET:HG2	29:f:23:ASP:H	1.69	0.57
29:f:96:GLN:HA	29:f:99:ASN:HD22	1.69	0.57
32:i:120:ARG:HA	32:i:123:THR:HG22	1.86	0.57
35:l:14:ASN:HD21	35:l:41:TRP:HH2	1.50	0.57
35:l:62:GLY:HA2	35:l:108:ASN:O	2.05	0.57
38:o:30:GLU:HB3	38:o:92:ARG:HB2	1.84	0.57
50:3:883:A:H61	50:3:967:U:H3	1.51	0.57
50:3:2646:G:H1'	50:3:2786:A:N6	2.20	0.57
50:3:2796:C:O2'	50:3:2813:A:O2'	2.21	0.57
51:4:16:G:O6	51:4:63:U:O2	2.22	0.57
52:5:242:A:N6	52:5:275:A:O4'	2.37	0.57
52:5:936:G:H22	52:5:1316:C:H42	1.52	0.57
4:A:199:VAL:HG12	4:A:213:PHE:HB2	1.86	0.57
12:I:65:LYS:HD3	52:5:1341:U:H4'	1.86	0.57
50:3:711:A:O2'	50:3:2076:G:N2	2.37	0.57
50:3:1248:A:O2'	50:3:1249:A:O4'	2.21	0.57
50:3:2217:G:N1	50:3:2224:A:C2	2.72	0.57
50:3:2413:G:O2'	50:3:2419:A:N6	2.38	0.57
52:5:228:G:O2'	52:5:258:A:N6	2.38	0.57
6:C:119:HIS:HB3	52:5:435:U:H4'	1.86	0.57
9:F:51:GLN:NE2	9:F:52:ARG:HD2	2.20	0.57
24:a:215:LYS:HG3	24:a:218:ARG:H	1.69	0.57
25:b:122:ALA:HA	25:b:125:ARG:HB3	1.85	0.57
27:d:66:VAL:HB	51:4:40:U:H5'	1.86	0.57
50:3:2122:G:N1	50:3:2126:A:OP2	2.31	0.57
10:G:21:LYS:HD3	52:5:823:C:H4'	1.86	0.57
15:L:89:LEU:HD21	21:R:76:PRO:HG3	1.87	0.57
26:c:182:HIS:HB3	26:c:185:LYS:HG2	1.87	0.57
27:d:22:PHE:HB3	27:d:27:GLN:HB2	1.85	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:o:93:ARG:NH2	38:o:116:GLU:O	2.38	0.57
50:3:569:U:O4	50:3:592:G:O6	2.21	0.57
52:5:140:U:H2'	52:5:141:A:C8	2.40	0.57
52:5:711:G:H2'	52:5:712:A:H8	1.70	0.57
52:5:1078:G:OP1	52:5:1363:U:O2'	2.22	0.57
2:1:10:ARG:NH1	34:k:62:LEU:O	2.38	0.57
4:A:207:ASN:HD21	4:A:209:GLU:HB2	1.69	0.57
6:C:96:ARG:NE	6:C:132:PRO:O	2.38	0.57
7:D:150:LEU:HD23	52:5:8:G:H22	1.70	0.57
10:G:113:ILE:HB	10:G:141:VAL:HB	1.87	0.57
33:j:25:LEU:HD13	33:j:59:ARG:HH12	1.70	0.57
46:w:26:LEU:O	46:w:30:ARG:HG3	2.05	0.57
50:3:663:A:O2'	50:3:672:G:N2	2.26	0.57
50:3:855:A:N3	50:3:979:U:O2'	2.30	0.57
50:3:1319:C:H2'	50:3:1320:C:C6	2.38	0.57
50:3:1639:C:O2	50:3:1642:G:N2	2.37	0.57
50:3:1671:C:H2'	50:3:1672:C:C6	2.40	0.57
52:5:348:C:O2'	52:5:351:C:OP2	2.23	0.57
52:5:799:A:H3'	52:5:800:G:H8	1.69	0.57
52:5:887:C:H2'	52:5:888:A:H8	1.69	0.57
52:5:946:G:H4'	52:5:967:C:H5	1.69	0.57
52:5:1089:C:O2'	52:5:1143:C:N4	2.37	0.57
5:B:61:THR:OG1	5:B:64:THR:O	2.22	0.57
14:K:81:PRO:HD3	14:K:110:ILE:HB	1.87	0.57
37:n:99:HIS:HD2	51:4:46:C:H4'	1.69	0.57
50:3:932:U:O2'	50:3:934:C:N4	2.37	0.57
50:3:2321:C:H2'	50:3:2322:G:H8	1.69	0.57
52:5:573:G:H4'	52:5:574:C:H5''	1.86	0.57
52:5:1094:C:H2'	52:5:1095:G:H8	1.70	0.57
52:5:1210:U:O2'	52:5:1279:G:OP1	2.20	0.57
9:F:48:LEU:HA	9:F:51:GLN:HG3	1.87	0.56
34:k:61:ARG:O	50:3:2400:A:O2'	2.23	0.56
44:u:50:ILE:HD12	44:u:53:ARG:HH12	1.70	0.56
44:u:61:PRO:HG3	44:u:67:LEU:HD11	1.87	0.56
50:3:535:G:N1	50:3:538:A:OP2	2.35	0.56
50:3:1337:G:H2'	50:3:1338:G:H8	1.70	0.56
50:3:1370:A:O2'	50:3:1372:U:OP1	2.22	0.56
50:3:1490:G:H2'	50:3:1491:G:H8	1.69	0.56
50:3:2151:G:H1'	50:3:2154:A:H61	1.70	0.56
50:3:2299:U:OP1	50:3:2388:C:O2'	2.23	0.56
50:3:2522:U:H2'	50:3:2523:C:C6	2.39	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:709:A:H2'	52:5:710:G:C8	2.40	0.56
52:5:1344:C:H2'	52:5:1345:G:C8	2.40	0.56
4:A:40:LYS:NZ	4:A:41:MET:SD	2.70	0.56
12:I:13:LYS:HB3	12:I:107:SER:HB2	1.85	0.56
25:b:59:ASN:O	25:b:67:GLN:NE2	2.38	0.56
50:3:443:C:H2'	50:3:444:C:C6	2.40	0.56
50:3:558:C:O2	50:3:587:U:O2'	2.23	0.56
50:3:613:C:H2'	50:3:614:C:H6	1.70	0.56
50:3:1495:A:H2'	50:3:1496:A:H8	1.69	0.56
52:5:378:A:O2'	52:5:379:A:O4'	2.15	0.56
15:L:119:LYS:NZ	15:L:120:LYS:O	2.39	0.56
35:l:41:TRP:CD1	35:l:96:VAL:HG22	2.41	0.56
41:r:2:ILE:HG21	41:r:106:LYS:HD3	1.88	0.56
42:s:18:PHE:HA	42:s:21:MET:HE3	1.87	0.56
45:v:17:ASN:HB2	45:v:27:ARG:HB2	1.86	0.56
50:3:24:U:H2'	50:3:25:G:H8	1.70	0.56
50:3:230:G:H5'	50:3:261:A:H4'	1.85	0.56
50:3:1091:G:N1	50:3:1137:C:OP2	2.37	0.56
50:3:1476:C:H2'	50:3:1477:A:C8	2.41	0.56
50:3:1494:U:N3	50:3:1550:G:N1	2.52	0.56
50:3:1699:A:H2'	50:3:1700:G:C8	2.39	0.56
50:3:1700:G:N1	50:3:2002:U:O4	2.38	0.56
50:3:1803:U:H2'	50:3:1804:A:C8	2.40	0.56
50:3:2348:U:H2'	50:3:2349:G:H8	1.70	0.56
50:3:2471:U:H2'	50:3:2472:G:C8	2.40	0.56
52:5:882:U:H3'	52:5:883:A:H8	1.69	0.56
24:a:9:ARG:NH2	50:3:740:A:N3	2.54	0.56
24:a:220:ARG:HE	24:a:226:PRO:HD2	1.71	0.56
28:e:161:LYS:HZ3	50:3:2666:C:H5''	1.69	0.56
42:s:13:THR:H	42:s:16:VAL:HB	1.71	0.56
50:3:725:G:O6	50:3:807:U:O4	2.24	0.56
50:3:1734:A:H3'	50:3:1735:A:H8	1.70	0.56
50:3:2419:A:H2'	50:3:2420:A:C8	2.40	0.56
4:A:214:ILE:HG22	4:A:216:PRO:HD3	1.87	0.56
11:H:128:GLN:HA	52:5:1316:C:H1'	1.88	0.56
22:S:10:ARG:NH2	52:5:92:G:O6	2.39	0.56
24:a:35:LYS:NZ	50:3:1454:G:N7	2.44	0.56
25:b:40:LYS:HE2	25:b:45:ASP:HB3	1.86	0.56
27:d:125:ARG:NH2	50:3:2323:U:O2	2.39	0.56
36:m:36:LYS:O	36:m:39:LYS:NZ	2.36	0.56
36:m:51:LEU:HG	36:m:62:GLN:HE21	1.71	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:m:58:ASN:HA	36:m:61:ARG:HD2	1.87	0.56
46:w:10:LYS:NZ	46:w:12:SER:OG	2.38	0.56
50:3:201:A:O2'	50:3:2076:G:OP2	2.18	0.56
50:3:450:C:H1'	50:3:1871:U:H1'	1.87	0.56
50:3:499:G:N2	50:3:501:G:H3'	2.21	0.56
50:3:865:A:H61	50:3:2454:G:H1'	1.71	0.56
50:3:1140:U:H2'	50:3:1141:U:C6	2.40	0.56
50:3:2433:A:OP2	50:3:2434:A:O2'	2.23	0.56
50:3:2757:A:OP2	50:3:2758:A:O2'	2.21	0.56
50:3:2829:G:H3'	50:3:2830:A:H8	1.68	0.56
52:5:316:G:O2'	52:5:1410:A:N3	2.37	0.56
52:5:832:G:H2'	52:5:833:G:C8	2.41	0.56
52:5:892:G:N2	52:5:895:A:OP2	2.37	0.56
52:5:1072:G:H2'	52:5:1073:A:H8	1.69	0.56
52:5:1231:U:O2'	52:5:1253:A:N6	2.38	0.56
1:0:18:PHE:HA	1:0:21:ARG:HB3	1.86	0.56
9:F:105:MET:HA	9:F:108:ARG:HG2	1.87	0.56
25:b:151:ARG:N	50:3:2580:A:OP2	2.37	0.56
43:t:3:ARG:HD2	43:t:4:ILE:HG13	1.87	0.56
50:3:2031:C:H2'	50:3:2032:G:C8	2.40	0.56
50:3:2242:G:H2'	50:3:2243:G:C8	2.41	0.56
50:3:2453:G:N2	50:3:2457:U:O4	2.38	0.56
50:3:2744:A:H2'	50:3:2745:G:H8	1.71	0.56
50:3:2819:C:H2'	50:3:2820:G:H8	1.69	0.56
50:3:2845:U:H2'	50:3:2846:A:H8	1.69	0.56
50:3:2853:U:H4'	50:3:2854:A:H5'	1.86	0.56
52:5:579:G:N1	52:5:756:A:OP2	2.33	0.56
52:5:1212:C:O2'	52:5:1274:G:N2	2.34	0.56
52:5:1244:A:O2'	52:5:1299:C:O2	2.24	0.56
17:N:65:LYS:NZ	52:5:580:C:O3'	2.38	0.56
44:u:34:ARG:HB2	50:3:2364:A:H4'	1.86	0.56
50:3:9:G:H2'	50:3:10:U:C6	2.41	0.56
50:3:1093:U:O4	50:3:1115:G:O6	2.24	0.56
50:3:2032:G:H2'	50:3:2033:G:C8	2.40	0.56
50:3:2133:A:N3	50:3:2171:A:O2'	2.38	0.56
52:5:920:G:O2'	52:5:922:G:OP1	2.22	0.56
39:p:94:LEU:HD23	40:q:4:ILE:HD12	1.87	0.56
50:3:442:G:N2	50:3:457:U:O2'	2.30	0.56
50:3:752:C:H3'	50:3:753:A:H8	1.70	0.56
50:3:1630:A:H2'	50:3:1631:A:C8	2.41	0.56
50:3:1814:G:H2'	50:3:1815:U:H2'	1.88	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2359:G:H22	50:3:2373:G:H2'	1.71	0.56
50:3:2372:C:H2'	50:3:2373:G:O4'	2.06	0.56
50:3:2631:G:O5'	50:3:2830:A:O2'	2.23	0.56
50:3:2689:C:O2	50:3:2733:A:N6	2.38	0.56
50:3:2849:G:H2'	50:3:2850:G:C8	2.41	0.56
51:4:38:U:H3'	51:4:39:U:H4'	1.88	0.56
52:5:365:U:H3	52:5:388:G:H1	1.52	0.56
52:5:919:C:N4	52:5:920:G:O6	2.39	0.56
10:G:105:PRO:O	10:G:129:ARG:NH1	2.39	0.56
36:m:47:LYS:NZ	50:3:2843:G:OP1	2.39	0.56
36:m:70:THR:HG23	36:m:72:LEU:H	1.69	0.56
46:w:58:LEU:HD21	46:w:64:ASN:HB3	1.86	0.56
50:3:299:A:H2'	50:3:300:G:C8	2.41	0.56
50:3:694:U:H2'	50:3:695:G:H8	1.70	0.56
50:3:758:C:H2'	50:3:759:U:C6	2.41	0.56
50:3:2451:C:H2'	50:3:2452:G:C8	2.40	0.56
52:5:316:G:H1'	52:5:1409:A:H2	1.70	0.56
52:5:376:G:N2	52:5:379:A:OP2	2.38	0.56
52:5:536:U:H2'	52:5:537:A:C8	2.41	0.56
52:5:834:G:H2'	52:5:835:G:C8	2.40	0.56
52:5:1295:U:H2'	52:5:1296:C:C2	2.40	0.56
15:L:86:TRP:HD1	21:R:76:PRO:HB3	1.71	0.56
50:3:652:U:H2'	50:3:653:G:H8	1.71	0.56
50:3:2865:U:H2'	50:3:2866:A:H8	1.71	0.56
52:5:1196:G:H3'	52:5:1296:C:H42	1.71	0.56
5:B:167:ARG:HH22	5:B:169:LYS:HB2	1.71	0.55
6:C:78:VAL:HG21	6:C:89:LEU:HD13	1.88	0.55
24:a:246:ARG:O	50:3:1978:U:O2'	2.24	0.55
26:c:145:GLN:HA	26:c:148:LYS:HG2	1.87	0.55
35:l:34:LEU:HD11	35:l:129:TRP:HB2	1.88	0.55
50:3:370:C:H2'	50:3:371:C:C6	2.41	0.55
50:3:409:A:N6	50:3:438:A:OP2	2.39	0.55
50:3:733:C:O2'	50:3:769:A:N6	2.33	0.55
50:3:1326:C:H1'	50:3:1330:U:H2'	1.88	0.55
50:3:2023:U:H5'	50:3:2065:A:OP1	2.05	0.55
1:O:8:SER:OG	50:3:721:G:N2	2.39	0.55
8:E:95:GLY:HA3	20:Q:49:LEU:HG	1.89	0.55
11:H:70:LYS:NZ	52:5:1119:C:OP1	2.39	0.55
25:b:36:VAL:HG12	25:b:52:LEU:HG	1.87	0.55
50:3:746:G:H2'	50:3:747:A:C8	2.41	0.55
50:3:865:A:N6	50:3:2457:U:O4	2.38	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:1473:C:O2	50:3:1580:G:N2	2.40	0.55
50:3:2334:U:O4	50:3:2397:G:O6	2.24	0.55
50:3:2337:U:H2'	50:3:2338:G:H8	1.71	0.55
52:5:251:G:O6	52:5:262:G:O6	2.24	0.55
52:5:1475:A:H5''	52:5:1483:C:H5''	1.88	0.55
52:5:1505:G:H2'	52:5:1506:A:H8	1.71	0.55
2:1:23:HIS:HB3	2:1:41:LEU:HD12	1.86	0.55
3:2:19:ARG:HD2	3:2:24:ARG:HH12	1.70	0.55
5:B:83:LYS:HA	5:B:86:GLN:NE2	2.21	0.55
12:I:14:ILE:HD11	12:I:104:LEU:HD13	1.88	0.55
20:Q:45:ALA:O	52:5:838:A:O2'	2.24	0.55
24:a:253:ALA:HB3	24:a:261:ARG:HH21	1.71	0.55
29:f:77:LEU:HD12	29:f:78:HIS:H	1.72	0.55
50:3:2011:G:H3'	50:3:2012:A:H8	1.72	0.55
50:3:2439:U:N3	50:3:2442:A:OP2	2.26	0.55
51:4:38:U:H1'	51:4:43:A:N6	2.21	0.55
52:5:393:A:O2'	52:5:395:G:OP2	2.24	0.55
52:5:1432:A:H2'	52:5:1433:G:C8	2.41	0.55
7:D:208:VAL:HA	7:D:211:LEU:HG	1.89	0.55
21:R:40:ILE:HG21	21:R:49:PHE:HE2	1.72	0.55
33:j:19:VAL:HG22	33:j:43:VAL:HG12	1.87	0.55
37:n:79:ASP:OD1	37:n:112:ARG:NH1	2.39	0.55
43:t:77:PHE:HD2	43:t:79:GLN:HE21	1.54	0.55
50:3:410:G:H4'	50:3:411:U:O5'	2.05	0.55
50:3:989:G:O6	50:3:1000:U:O4	2.24	0.55
50:3:2058:G:N2	50:3:2059:G:N7	2.54	0.55
50:3:2888:U:O2'	50:3:2890:G:OP2	2.25	0.55
4:A:32:MET:HE2	4:A:204:THR:HG21	1.89	0.55
25:b:185:ASP:OD2	25:b:188:ASN:ND2	2.39	0.55
27:d:117:LEU:O	27:d:128:TYR:OH	2.20	0.55
50:3:77:G:H22	50:3:112:A:H2	1.55	0.55
50:3:714:G:H2'	50:3:715:G:C8	2.41	0.55
50:3:1002:A:O4'	50:3:2275:A:N6	2.39	0.55
50:3:1345:G:H2'	50:3:1346:G:H8	1.72	0.55
50:3:1798:A:H2'	50:3:1799:A:O4'	2.06	0.55
50:3:1809:A:H2'	50:3:1810:A:H8	1.71	0.55
50:3:2405:G:H1	50:3:2427:U:H3	1.55	0.55
52:5:356:G:H2'	52:5:357:G:H8	1.71	0.55
52:5:625:U:H2'	52:5:626:G:C8	2.41	0.55
52:5:1154:A:H2'	52:5:1155:A:C8	2.42	0.55
52:5:1407:A:O2'	52:5:1442:A:N1	2.35	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:L:115:THR:OG1	52:5:1204:A:OP1	2.21	0.55
39:p:39:ILE:HG22	39:p:43:LYS:HD2	1.89	0.55
46:w:27:LEU:HG	46:w:30:ARG:HH21	1.72	0.55
48:y:7:ARG:HE	50:3:1292:A:H2	1.53	0.55
51:4:12:U:OP2	51:4:68:C:O2'	2.21	0.55
52:5:18:U:O2'	52:5:1070:G:O2'	2.25	0.55
52:5:885:U:H2'	52:5:886:A:C8	2.41	0.55
1:0:19:LEU:N	50:3:127:A:OP2	2.35	0.55
4:A:87:THR:HG21	4:A:111:ARG:HA	1.88	0.55
22:S:56:ARG:NH2	52:5:218:U:O3'	2.40	0.55
22:S:71:ARG:NH1	52:5:256:G:N7	2.54	0.55
27:d:63:GLN:HE21	51:4:40:U:H1'	1.72	0.55
50:3:100:U:H1'	50:3:104:A:H1'	1.89	0.55
50:3:615:G:H2'	50:3:616:G:C8	2.42	0.55
50:3:1508:G:H21	50:3:1535:A:H61	1.55	0.55
50:3:1916:C:H2'	50:3:1917:G:C8	2.42	0.55
50:3:2534:G:H1	50:3:2545:U:H3	1.54	0.55
52:5:677:C:H2'	52:5:678:A:H8	1.72	0.55
52:5:1472:G:N2	52:5:1494:A:N3	2.47	0.55
4:A:26:MET:HG2	4:A:29:HIS:HE1	1.72	0.55
25:b:4:ARG:HB3	25:b:101:LEU:HD22	1.89	0.55
27:d:8:TYR:HA	27:d:12:ILE:HD13	1.87	0.55
35:l:12:PRO:HA	50:3:947:A:H62	1.72	0.55
36:m:60:ARG:HA	36:m:63:VAL:HG22	1.89	0.55
39:p:30:SER:HB3	39:p:33:VAL:HG22	1.89	0.55
50:3:611:A:O2'	50:3:613:C:OP2	2.22	0.55
50:3:2071:C:H2'	50:3:2072:C:C6	2.41	0.55
52:5:1194:A:H2'	52:5:1195:G:H8	1.71	0.55
52:5:1402:U:H2'	52:5:1403:A:C8	2.41	0.55
52:5:1408:A:H2'	52:5:1409:A:H8	1.71	0.55
52:5:1463:A:H2'	52:5:1464:G:C8	2.41	0.55
5:B:93:LYS:NZ	5:B:100:THR:O	2.35	0.55
14:K:95:LEU:HD13	14:K:108:TYR:HB3	1.89	0.55
29:f:63:ALA:O	29:f:67:LYS:HG2	2.07	0.55
38:o:54:ARG:NH1	38:o:63:THR:OG1	2.40	0.55
50:3:224:G:N2	50:3:465:A:H61	2.05	0.55
53:7:3:G:O6	53:7:72:C:N4	2.40	0.55
40:q:79:HIS:CD2	50:3:1218:G:H5''	2.42	0.55
46:w:86:ALA:O	46:w:89:GLN:HG2	2.07	0.55
50:3:1501:U:O2	50:3:1542:G:N2	2.38	0.55
50:3:2048:U:H2'	50:3:2049:A:H8	1.70	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2300:A:N6	50:3:2349:G:O6	2.39	0.55
50:3:2701:A:H2'	50:3:2702:G:C8	2.42	0.55
51:4:35:C:N3	51:4:46:C:O2'	2.35	0.55
8:E:92:ARG:HH11	8:E:93:GLU:HB2	1.72	0.54
22:S:30:THR:OG1	52:5:1432:A:OP1	2.24	0.54
27:d:121:SER:HB2	27:d:128:TYR:CE1	2.42	0.54
36:m:14:ARG:NH2	50:3:1687:G:O6	2.40	0.54
50:3:533:G:H2'	50:3:534:U:C6	2.43	0.54
50:3:563:A:H62	50:3:2049:A:H3'	1.72	0.54
50:3:1119:A:N3	50:3:1140:U:O2'	2.29	0.54
50:3:1873:A:H2'	50:3:1874:G:O4'	2.07	0.54
51:4:38:U:H1'	51:4:43:A:H61	1.71	0.54
52:5:1114:A:N6	52:5:1127:A:H61	2.05	0.54
52:5:1211:A:O2'	52:5:1308:G:N2	2.40	0.54
5:B:128:GLU:HA	5:B:194:THR:HG22	1.88	0.54
13:J:34:VAL:HG22	52:5:681:U:O2	2.08	0.54
14:K:20:LYS:HZ1	14:K:97:GLY:HA2	1.72	0.54
32:i:76:PHE:CE1	32:i:91:SER:HB3	2.42	0.54
38:o:67:ARG:HG3	38:o:76:GLU:HB3	1.89	0.54
42:s:54:LYS:NZ	42:s:56:ASN:OD1	2.40	0.54
50:3:226:A:H61	50:3:236:G:H1'	1.70	0.54
50:3:710:A:N7	50:3:838:U:O2	2.39	0.54
50:3:1331:G:H2'	50:3:1332:A:H8	1.72	0.54
52:5:292:U:H2'	52:5:293:G:C8	2.42	0.54
52:5:369:A:H61	52:5:387:G:H1'	1.71	0.54
52:5:412:G:H2'	52:5:413:G:C8	2.41	0.54
52:5:817:U:O2'	52:5:867:A:OP1	2.25	0.54
9:F:37:LEU:HD21	52:5:1215:U:H4'	1.89	0.54
19:P:9:LEU:HD21	19:P:45:TYR:HE2	1.72	0.54
25:b:123:ILE:HD13	25:b:130:ILE:HG12	1.90	0.54
38:o:50:GLY:HA2	38:o:68:LYS:HE2	1.89	0.54
39:p:27:ARG:HH22	50:3:567:U:H2'	1.73	0.54
50:3:779:C:H3'	50:3:780:G:H8	1.72	0.54
50:3:1803:U:H2'	50:3:1804:A:H8	1.73	0.54
51:4:42:G:O5'	51:4:44:A:N6	2.41	0.54
52:5:722:G:H2'	52:5:723:C:C6	2.42	0.54
24:a:132:PRO:HA	24:a:200:VAL:HG23	1.89	0.54
33:j:65:THR:O	33:j:79:PHE:HB2	2.07	0.54
44:u:26:ASN:HD21	50:3:2286:A:H8	1.53	0.54
50:3:143:A:H3'	50:3:144:C:H6	1.73	0.54
50:3:389:C:H2'	50:3:390:A:C8	2.42	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:1016:A:H1'	50:3:2044:C:H1'	1.90	0.54
50:3:2701:A:H2'	50:3:2702:G:H8	1.71	0.54
51:4:78:C:N4	51:4:87:U:H3	2.05	0.54
52:5:556:G:H3'	52:5:557:A:H2'	1.89	0.54
5:B:86:GLN:O	5:B:90:LYS:HG2	2.08	0.54
13:J:114:CYS:HB2	52:5:775:G:H1'	1.88	0.54
14:K:20:LYS:NZ	14:K:107:ARG:O	2.39	0.54
50:3:24:U:H2'	50:3:25:G:C8	2.42	0.54
50:3:218:G:H2'	50:3:219:G:C8	2.42	0.54
50:3:312:U:H2'	50:3:313:G:C8	2.42	0.54
50:3:495:U:H2'	50:3:496:A:C8	2.41	0.54
50:3:614:C:H2'	50:3:615:G:C8	2.41	0.54
50:3:987:U:H2'	50:3:988:G:C8	2.43	0.54
50:3:1227:C:H2'	50:3:1228:G:C8	2.42	0.54
50:3:1645:C:H2'	50:3:1646:G:H8	1.72	0.54
50:3:2038:A:O2'	50:3:2462:G:N2	2.36	0.54
52:5:684:A:N6	52:5:700:G:H21	2.04	0.54
14:K:79:TYR:OH	52:5:520:C:OP2	2.17	0.54
27:d:44:ILE:HG13	27:d:45:ARG:H	1.72	0.54
33:j:73:ASP:OD1	33:j:74:GLY:N	2.41	0.54
50:3:596:G:H2'	50:3:597:C:C6	2.42	0.54
50:3:680:A:H2'	50:3:682:A:C8	2.43	0.54
50:3:1451:A:H2'	50:3:1452:G:C8	2.41	0.54
50:3:1691:U:H2'	50:3:1692:A:H8	1.73	0.54
50:3:1849:G:O6	50:3:1905:U:O4	2.25	0.54
50:3:2197:U:H2'	50:3:2198:G:C8	2.43	0.54
50:3:2310:C:H2'	50:3:2311:G:H8	1.72	0.54
50:3:2531:C:H2'	50:3:2532:G:H8	1.71	0.54
52:5:536:U:H2'	52:5:537:A:H8	1.73	0.54
52:5:683:G:O2'	52:5:700:G:N2	2.39	0.54
52:5:818:A:H2'	52:5:819:G:C8	2.41	0.54
14:K:63:ARG:NH1	52:5:519:G:O6	2.41	0.54
21:R:81:LYS:HZ2	21:R:83:HIS:HA	1.73	0.54
24:a:78:ASN:N	24:a:123:ALA:O	2.41	0.54
24:a:190:ARG:HE	24:a:192:PHE:HE1	1.54	0.54
26:c:101:LEU:HB3	50:3:695:G:H5''	1.90	0.54
32:i:32:ALA:HB1	32:i:108:VAL:HG12	1.89	0.54
50:3:35:U:O4	50:3:482:G:O2'	2.16	0.54
50:3:201:A:N6	50:3:2438:A:O2'	2.41	0.54
50:3:221:A:C6	50:3:467:U:N3	2.76	0.54
50:3:1832:G:H2'	50:3:1833:G:H8	1.72	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2078:A:H2'	50:3:2079:G:H8	1.72	0.54
16:M:61:TRP:C	52:5:1161:G:H21	2.16	0.54
25:b:117:ARG:HB2	25:b:169:TYR:HB3	1.89	0.54
26:c:140:THR:HG23	50:3:355:A:OP2	2.08	0.54
27:d:15:GLU:HA	27:d:18:LYS:HG2	1.88	0.54
39:p:106:ASN:O	39:p:109:VAL:HG12	2.08	0.54
45:v:35:PRO:HB2	45:v:47:ARG:NH1	2.22	0.54
50:3:110:A:H2'	50:3:111:G:H8	1.72	0.54
50:3:874:U:O2'	50:3:1222:A:O2'	2.18	0.54
50:3:1422:U:H4'	50:3:1637:A:H4'	1.89	0.54
50:3:1427:C:H2'	50:3:1428:U:C6	2.43	0.54
52:5:140:U:H2'	52:5:141:A:H8	1.72	0.54
52:5:631:C:H2'	52:5:632:A:C8	2.41	0.54
52:5:760:U:H2'	52:5:761:U:C6	2.42	0.54
52:5:1194:A:H2'	52:5:1195:G:C8	2.43	0.54
12:I:23:LEU:HD21	12:I:99:PRO:HB2	1.89	0.54
14:K:19:SER:HG	14:K:25:HIS:HE2	1.54	0.54
15:L:26:GLY:H	52:5:1303:A:H5''	1.72	0.54
34:k:40:LYS:NZ	50:3:867:G:OP1	2.40	0.54
34:k:48:ARG:HH12	50:3:199:A:H4'	1.72	0.54
43:t:33:GLN:HB3	43:t:68:PRO:HB2	1.90	0.54
44:u:29:ASP:OD1	44:u:30:SER:N	2.41	0.54
50:3:577:C:N4	50:3:584:G:O6	2.30	0.54
50:3:818:A:H4'	50:3:2596:A:H4'	1.90	0.54
50:3:1311:G:H21	50:3:1357:U:H3	1.56	0.54
50:3:1446:G:O2'	50:3:1447:A:O5'	2.18	0.54
50:3:2077:A:H2'	50:3:2078:A:C8	2.42	0.54
50:3:2700:C:H2'	50:3:2701:A:C8	2.42	0.54
52:5:1286:G:H2'	52:5:1287:G:C8	2.43	0.54
6:C:41:ARG:HH12	52:5:422:A:H1'	1.72	0.54
28:e:124:LEU:HD21	28:e:144:VAL:HA	1.89	0.54
33:j:71:ARG:NH2	33:j:73:ASP:OD2	2.39	0.54
40:q:41:LEU:HD21	40:q:97:PHE:HD2	1.73	0.54
44:u:21:VAL:HG13	53:7:3:G:H4'	1.90	0.54
50:3:47:G:C2	50:3:184:A:N6	2.76	0.54
50:3:293:G:H2'	50:3:294:G:C4	2.43	0.54
50:3:2219:U:O2'	50:3:2220:A:H5'	2.08	0.54
50:3:2593:U:H5'	53:7:77:A:H2'	1.90	0.54
50:3:2693:U:H2'	50:3:2694:A:H8	1.73	0.54
52:5:213:U:H5''	52:5:461:G:H1	1.73	0.54
52:5:669:U:H2'	52:5:670:G:C8	2.43	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:1448:A:H2'	52:5:1449:G:C8	2.43	0.54
52:5:1490:G:H2'	52:5:1491:A:H8	1.73	0.54
3:2:4:ARG:NE	50:3:2474:C:OP1	2.25	0.53
10:G:41:LYS:HA	10:G:44:ILE:HG22	1.89	0.53
11:H:83:LEU:O	11:H:87:ARG:HG3	2.08	0.53
12:I:30:LYS:HE3	12:I:98:ILE:HG22	1.89	0.53
21:R:78:ARG:HH22	52:5:1295:U:H4'	1.73	0.53
22:S:22:LYS:NZ	52:5:1434:C:OP1	2.41	0.53
25:b:124:LYS:HE2	50:3:2005:G:H5'	1.91	0.53
50:3:123:G:H2'	50:3:124:A:H8	1.72	0.53
50:3:241:C:H2'	50:3:242:G:C8	2.43	0.53
50:3:745:U:H2'	50:3:746:G:H8	1.71	0.53
50:3:993:A:N1	50:3:2466:G:H4'	2.23	0.53
50:3:1520:A:H2'	50:3:1521:A:C8	2.43	0.53
50:3:1710:A:C4	50:3:1711:A:C8	2.96	0.53
50:3:1930:U:H2'	50:3:1931:C:H6	1.73	0.53
50:3:2078:A:H2'	50:3:2079:G:C8	2.43	0.53
50:3:2297:G:H1	50:3:2351:U:H3	1.54	0.53
50:3:2684:G:H2'	50:3:2685:A:H8	1.72	0.53
50:3:2706:U:O4	50:3:2707:A:N6	2.40	0.53
52:5:589:U:H2'	52:5:590:G:H8	1.73	0.53
5:B:187:TYR:HE1	5:B:202:LYS:HB2	1.72	0.53
9:F:22:VAL:HB	9:F:42:LEU:HD21	1.91	0.53
12:I:52:LYS:HG2	12:I:72:GLU:OE2	2.09	0.53
15:L:17:ILE:O	15:L:20:THR:OG1	2.26	0.53
32:i:9:LYS:HD3	50:3:573:A:H5'	1.90	0.53
35:l:73:SER:HA	35:l:93:TRP:HA	1.89	0.53
35:l:116:LYS:HG3	35:l:120:ARG:CZ	2.38	0.53
38:o:56:ARG:HD2	50:3:2850:G:H5''	1.89	0.53
50:3:1113:U:O2'	50:3:1123:A:OP1	2.27	0.53
50:3:1428:U:H2'	50:3:1429:G:H8	1.72	0.53
50:3:2254:G:H2'	50:3:2255:A:H8	1.70	0.53
6:C:8:PHE:CD2	52:5:426:U:H5'	2.43	0.53
21:R:66:MET:HE3	21:R:69:HIS:HB2	1.90	0.53
25:b:134:GLY:H	50:3:2000:U:H4'	1.73	0.53
45:v:53:ARG:NH2	50:3:434:G:N7	2.56	0.53
50:3:117:C:H2'	50:3:118:G:O4'	2.08	0.53
52:5:499:U:H2'	52:5:500:G:C8	2.43	0.53
52:5:831:C:H2'	52:5:832:G:H8	1.67	0.53
4:A:61:GLN:NE2	4:A:216:PRO:O	2.41	0.53
5:B:56:VAL:HG12	5:B:69:VAL:HA	1.90	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:I:44:GLY:H	52:5:1114:A:H4'	1.73	0.53
24:a:184:LEU:HB2	24:a:188:GLU:HB2	1.89	0.53
38:o:62:GLU:OE2	38:o:82:HIS:NE2	2.40	0.53
40:q:60:GLU:HB2	40:q:91:LYS:HG2	1.91	0.53
50:3:450:C:H2'	50:3:451:A:C8	2.43	0.53
50:3:823:A:H5''	50:3:825:U:C5	2.43	0.53
50:3:1437:A:H2'	50:3:1438:G:H8	1.73	0.53
52:5:164:C:N4	52:5:198:A:OP2	2.42	0.53
52:5:253:G:H2'	52:5:254:G:H8	1.73	0.53
52:5:294:A:H2'	52:5:295:G:C4	2.43	0.53
52:5:813:A:OP1	52:5:1501:G:O2'	2.26	0.53
52:5:1139:A:H2'	52:5:1140:A:H8	1.73	0.53
22:S:18:ASN:CG	52:5:318:C:H4'	2.34	0.53
24:a:64:ARG:NE	50:3:1601:A:OP1	2.37	0.53
29:f:1:MET:HE2	29:f:22:LYS:HA	1.91	0.53
50:3:148:U:H2'	50:3:149:A:C8	2.43	0.53
50:3:176:U:H2'	50:3:177:U:C6	2.43	0.53
50:3:517:G:O6	50:3:544:U:O4	2.26	0.53
50:3:1321:C:H2'	50:3:1322:A:C8	2.43	0.53
52:5:1137:C:H2'	52:5:1138:U:C6	2.44	0.53
52:5:1217:G:H2'	52:5:1218:C:C6	2.43	0.53
52:5:1250:A:H3'	52:5:1251:G:H8	1.73	0.53
23:T:16:LYS:HA	23:T:19:LYS:HZ3	1.72	0.53
24:a:267:THR:OG1	50:3:1810:A:O2'	2.26	0.53
27:d:93:GLY:O	27:d:96:MET:HG2	2.09	0.53
29:f:109:GLN:N	29:f:112:MET:SD	2.80	0.53
50:3:47:G:N2	50:3:184:A:N6	2.56	0.53
50:3:360:G:H2'	50:3:361:G:C8	2.43	0.53
50:3:522:C:H2'	50:3:523:A:C8	2.43	0.53
50:3:898:A:O3'	51:4:76:A:O2'	2.26	0.53
50:3:1587:U:O2'	50:3:1588:A:OP1	2.24	0.53
50:3:1848:U:H2'	50:3:1849:G:H8	1.72	0.53
52:5:863:A:O2'	52:5:866:A:N7	2.35	0.53
52:5:1300:C:H2'	52:5:1301:U:H6	1.73	0.53
10:G:87:VAL:HG23	10:G:141:VAL:HG22	1.90	0.53
11:H:50:MET:SD	11:H:81:ILE:HD11	2.49	0.53
12:I:85:VAL:HG23	12:I:86:ASN:H	1.74	0.53
15:L:72:GLU:HA	15:L:75:LEU:HG	1.91	0.53
24:a:173:GLN:HG2	24:a:180:VAL:HG23	1.91	0.53
33:j:21:ILE:HG13	33:j:41:VAL:HG12	1.91	0.53
50:3:293:G:H8	50:3:293:G:OP2	1.91	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:534:U:H2'	50:3:535:G:O4'	2.08	0.53
50:3:1324:A:H2	50:3:1679:U:H3	1.57	0.53
50:3:2425:C:H2'	50:3:2426:A:C8	2.43	0.53
52:5:403:A:H2'	52:5:404:A:C8	2.44	0.53
52:5:580:C:O2	52:5:756:A:N6	2.40	0.53
52:5:662:G:H1'	52:5:730:G:H5'	1.90	0.53
52:5:880:G:O6	52:5:905:U:O4	2.25	0.53
52:5:1008:G:O6	52:5:1014:A:N6	2.40	0.53
52:5:1213:A:H2'	52:5:1214:A:C8	2.42	0.53
52:5:1432:A:H2'	52:5:1433:G:H8	1.74	0.53
7:D:193:HIS:HA	7:D:196:MET:HE3	1.91	0.53
18:O:48:VAL:O	18:O:51:GLU:HG3	2.09	0.53
24:a:9:ARG:HD2	50:3:762:A:H2	1.74	0.53
33:j:35:LEU:HA	33:j:62:ILE:HG23	1.91	0.53
46:w:49:ARG:O	46:w:53:THR:HG23	2.08	0.53
50:3:144:C:H2'	50:3:145:A:C8	2.43	0.53
50:3:322:A:H2'	50:3:323:A:C8	2.43	0.53
50:3:816:A:H5''	50:3:817:A:C8	2.43	0.53
52:5:153:A:H2'	52:5:154:G:C8	2.43	0.53
52:5:397:C:H2'	52:5:398:G:C8	2.44	0.53
52:5:601:U:H2'	52:5:602:G:C8	2.42	0.53
52:5:678:A:H2'	52:5:679:U:C6	2.44	0.53
52:5:1297:G:H2'	52:5:1298:U:C6	2.44	0.53
5:B:137:MET:HE1	5:B:169:LYS:HG2	1.89	0.53
6:C:97:LEU:HD21	6:C:122:VAL:HG11	1.91	0.53
50:3:26:G:H2'	50:3:27:U:H6	1.74	0.53
50:3:226:A:N6	50:3:236:G:H1'	2.24	0.53
50:3:688:U:O2'	50:3:689:U:OP2	2.22	0.53
50:3:1055:A:N1	50:3:1176:U:O2'	2.42	0.53
50:3:1239:G:O2'	50:3:1267:A:N1	2.37	0.53
50:3:2822:C:H2'	50:3:2823:A:C8	2.44	0.53
52:5:435:U:O2'	52:5:437:U:O4	2.25	0.53
52:5:451:G:C6	52:5:476:U:O2	2.62	0.53
52:5:499:U:O4	52:5:542:G:O6	2.27	0.53
52:5:662:G:O6	52:5:721:G:O6	2.26	0.53
52:5:777:A:H2	52:5:800:G:N1	2.07	0.53
52:5:953:A:N3	52:5:980:C:O2'	2.35	0.53
52:5:1178:C:H2'	52:5:1179:A:H8	1.72	0.53
4:A:49:ARG:HG2	4:A:50:LYS:H	1.74	0.53
9:F:63:ARG:NE	9:F:127:SER:HB3	2.24	0.53
10:G:100:PRO:HD2	10:G:103:LYS:HD3	1.90	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:n:101:ARG:NH1	51:4:47:C:OP2	2.42	0.53
50:3:989:G:N2	50:3:1000:U:O2	2.35	0.53
50:3:1252:C:N4	50:3:1257:G:O6	2.29	0.53
50:3:1851:U:H2'	50:3:1852:G:C8	2.43	0.53
50:3:2058:G:O2'	50:3:2622:A:N6	2.42	0.53
50:3:2599:C:H2'	50:3:2600:G:C8	2.44	0.53
50:3:2638:G:H2'	50:3:2639:G:C8	2.44	0.53
52:5:24:C:OP2	52:5:559:U:N3	2.38	0.53
52:5:640:C:H2'	52:5:641:U:C6	2.44	0.53
52:5:721:G:H2'	52:5:722:G:H8	1.74	0.53
52:5:1321:G:H1'	52:5:1322:U:H5	1.74	0.53
52:5:1390:G:H2'	52:5:1391:A:H8	1.74	0.53
4:A:85:VAL:HG23	4:A:176:LEU:HD11	1.92	0.52
12:I:27:THR:HG21	12:I:102:VAL:HG21	1.91	0.52
21:R:80:PHE:HB2	21:R:82:GLN:NE2	2.21	0.52
32:i:136:GLU:HA	32:i:140:PRO:HG3	1.91	0.52
50:3:234:G:H2'	50:3:235:U:H6	1.75	0.52
50:3:1132:C:H3'	50:3:1133:A:H8	1.74	0.52
50:3:1320:C:H2'	50:3:1321:C:C6	2.43	0.52
50:3:2475:C:H42	50:3:2491:C:H42	1.57	0.52
52:5:312:A:H2'	52:5:313:U:C6	2.44	0.52
52:5:317:A:H2'	52:5:318:C:H6	1.74	0.52
2:1:7:ALA:HA	2:1:11:PHE:HD2	1.73	0.52
9:F:107:ALA:HA	9:F:122:GLU:HG3	1.91	0.52
24:a:225:ARG:HH12	50:3:725:G:H4'	1.73	0.52
28:e:25:ILE:HB	28:e:36:LEU:HB2	1.92	0.52
48:y:19:HIS:CE1	50:3:2052:C:H1'	2.44	0.52
50:3:303:C:N3	50:3:402:A:N6	2.57	0.52
50:3:710:A:N3	50:3:2451:C:O2'	2.37	0.52
50:3:981:A:H2	50:3:2456:A:H5'	1.73	0.52
50:3:1599:C:O2'	50:3:1600:A:O5'	2.27	0.52
50:3:1860:A:H8	50:3:1895:G:H21	1.56	0.52
51:4:26:C:H2'	51:4:57:G:H22	1.72	0.52
52:5:63:U:O2	52:5:375:C:O2'	2.23	0.52
52:5:149:G:H2'	52:5:150:A:C8	2.43	0.52
52:5:206:G:N2	52:5:209:A:OP2	2.42	0.52
1:0:10:LEU:HB3	1:0:14:LYS:NZ	2.25	0.52
5:B:36:GLU:HA	5:B:39:LYS:NZ	2.24	0.52
7:D:130:GLU:O	7:D:175:TYR:OH	2.22	0.52
24:a:84:LYS:HB2	24:a:98:LEU:HG	1.91	0.52
34:k:119:LYS:NZ	34:k:120:LEU:O	2.39	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:o:91:LYS:O	38:o:92:ARG:CG	2.57	0.52
50:3:501:G:H2'	50:3:502:A:C4	2.45	0.52
50:3:597:C:H2'	50:3:598:G:C8	2.45	0.52
50:3:852:C:H2'	50:3:853:G:O4'	2.10	0.52
50:3:1445:U:H2'	50:3:1446:G:O4'	2.10	0.52
50:3:1459:A:H2'	50:3:1460:G:C8	2.44	0.52
50:3:2330:A:H2'	50:3:2331:G:C8	2.44	0.52
51:4:18:U:H2'	51:4:19:G:C8	2.44	0.52
52:5:58:G:H2'	52:5:59:C:C6	2.44	0.52
52:5:265:U:H2'	52:5:266:A:H8	1.74	0.52
52:5:403:A:H2'	52:5:404:A:H8	1.73	0.52
52:5:1046:A:N7	52:5:1175:C:N3	2.57	0.52
52:5:1098:C:N4	52:5:1099:G:O6	2.42	0.52
17:N:51:ARG:HD2	52:5:725:A:H62	1.73	0.52
24:a:132:PRO:HB3	24:a:201:GLY:HA3	1.92	0.52
37:n:75:GLN:HE22	37:n:108:ALA:HB1	1.74	0.52
41:r:128:ARG:O	50:3:1261:U:O2'	2.28	0.52
46:w:63:LEU:O	46:w:66:GLN:NE2	2.42	0.52
50:3:107:C:H2'	50:3:108:G:C8	2.44	0.52
50:3:585:U:H2'	50:3:586:G:C8	2.44	0.52
50:3:1394:A:H3'	50:3:1395:A:H8	1.75	0.52
50:3:1777:G:H2'	50:3:1778:G:C8	2.44	0.52
50:3:1851:U:H2'	50:3:1852:G:H8	1.75	0.52
50:3:2154:A:H2'	50:3:2155:G:C8	2.45	0.52
50:3:2424:C:H2'	50:3:2425:C:C6	2.44	0.52
52:5:48:C:O2	52:5:358:G:N2	2.42	0.52
52:5:550:U:H2'	52:5:551:A:C8	2.44	0.52
17:N:75:TYR:HD2	17:N:76:ARG:HH21	1.57	0.52
27:d:158:THR:HG23	27:d:160:THR:H	1.75	0.52
28:e:45:LYS:HE3	28:e:56:THR:HG22	1.91	0.52
29:f:41:LYS:HG3	29:f:42:LYS:HD2	1.92	0.52
46:w:40:LYS:HD2	46:w:42:HIS:HE1	1.74	0.52
50:3:130:C:H2'	50:3:131:C:C6	2.45	0.52
50:3:397:G:H2'	50:3:398:C:C6	2.45	0.52
50:3:1860:A:O2'	50:3:1861:A:O4'	2.19	0.52
50:3:2452:G:H2'	50:3:2453:G:O4'	2.09	0.52
50:3:2538:A:O2'	50:3:2542:A:N1	2.42	0.52
50:3:2551:G:N2	50:3:2655:U:OP2	2.39	0.52
50:3:2743:U:H2'	50:3:2744:A:C8	2.45	0.52
50:3:2897:G:O2'	50:3:2898:A:OP2	2.24	0.52
52:5:649:U:H1'	52:5:650:A:C8	2.45	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:869:U:H2'	52:5:870:A:O4'	2.09	0.52
52:5:1186:U:O2'	52:5:1187:U:H5''	2.09	0.52
2:1:43:LYS:NZ	50:3:2358:U:OP1	2.34	0.52
11:H:18:LYS:NZ	52:5:1124:U:O2	2.41	0.52
24:a:9:ARG:NH2	50:3:762:A:N3	2.58	0.52
24:a:190:ARG:HG2	24:a:191:LYS:H	1.75	0.52
39:p:91:ARG:HB2	39:p:94:LEU:HB2	1.91	0.52
43:t:16:LYS:NZ	50:3:342:G:O2'	2.35	0.52
50:3:2217:G:C2	50:3:2224:A:C2	2.98	0.52
52:5:611:A:H2'	52:5:612:G:C8	2.45	0.52
52:5:687:G:O2'	52:5:795:U:OP1	2.28	0.52
6:C:58:GLN:HG3	6:C:62:TYR:HE2	1.75	0.52
10:G:113:ILE:N	10:G:141:VAL:O	2.36	0.52
13:J:88:THR:HA	13:J:91:ARG:HD2	1.90	0.52
15:L:90:ARG:NE	15:L:96:PRO:O	2.42	0.52
24:a:220:ARG:HH11	50:3:799:A:H1'	1.75	0.52
35:l:39:GLY:HA2	35:l:97:VAL:HG13	1.90	0.52
41:r:122:LYS:HE2	41:r:126:LYS:HE2	1.91	0.52
44:u:65:VAL:HG21	44:u:95:VAL:HG13	1.92	0.52
50:3:537:A:H2'	50:3:540:A:N7	2.24	0.52
50:3:1385:U:O4	50:3:1402:G:O6	2.27	0.52
50:3:1713:U:O4	50:3:1996:A:H2	1.92	0.52
50:3:1790:U:O2	50:3:2595:A:N6	2.41	0.52
50:3:2189:U:H2'	50:3:2190:G:C8	2.45	0.52
50:3:2645:U:H2'	50:3:2646:G:O4'	2.10	0.52
52:5:783:G:H2'	52:5:784:A:H8	1.74	0.52
52:5:1086:U:H2'	52:5:1087:C:O4'	2.10	0.52
52:5:1133:A:N7	52:5:1155:A:N6	2.57	0.52
1:0:43:THR:HG23	1:0:46:SER:H	1.75	0.52
6:C:150:LYS:HE3	52:5:434:U:H5''	1.91	0.52
8:E:67:GLN:HA	8:E:70:LYS:HZ3	1.74	0.52
15:L:98:ARG:NH1	52:5:1283:G:N7	2.58	0.52
33:j:29:ARG:O	33:j:31:ARG:NH1	2.43	0.52
34:k:23:GLY:O	34:k:29:GLY:N	2.43	0.52
46:w:88:LYS:HE3	46:w:92:GLU:HG2	1.91	0.52
49:z:19:TYR:OH	49:z:37:PHE:O	2.25	0.52
50:3:632:A:H2'	50:3:633:G:C8	2.44	0.52
50:3:1406:A:O2'	50:3:1408:G:OP2	2.28	0.52
50:3:1512:A:H2'	50:3:1513:A:C8	2.45	0.52
50:3:1772:G:H2'	50:3:1773:A:C8	2.45	0.52
50:3:2840:U:H2'	50:3:2841:A:H8	1.75	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:38:U:H2'	52:5:39:G:H8	1.75	0.52
52:5:336:U:H2'	52:5:337:C:H6	1.75	0.52
52:5:1222:U:O2	52:5:1264:G:O6	2.28	0.52
52:5:1387:U:H2'	52:5:1388:A:C8	2.45	0.52
52:5:1405:U:H3	52:5:1445:G:H1	1.56	0.52
53:7:34:U:N3	53:7:37:A:OP2	2.40	0.52
9:F:40:ARG:NH2	52:5:1266:U:OP2	2.41	0.52
13:J:87:ASP:O	13:J:90:ILE:HG22	2.10	0.52
15:L:68:ASP:OD1	15:L:71:ARG:NE	2.43	0.52
24:a:33:PRO:HB2	24:a:38:LEU:HD11	1.90	0.52
24:a:148:HIS:ND1	24:a:201:GLY:O	2.31	0.52
24:a:271:LYS:HZ1	50:3:2235:A:H5'	1.74	0.52
25:b:53:SER:HB2	25:b:78:THR:OG1	2.09	0.52
40:q:34:GLN:NE2	40:q:56:VAL:HG22	2.25	0.52
50:3:1440:U:H2'	50:3:1441:A:H8	1.74	0.52
50:3:2308:U:H2'	50:3:2309:A:H8	1.74	0.52
50:3:2475:C:H42	50:3:2491:C:N4	2.07	0.52
50:3:2552:G:H2'	50:3:2553:G:H8	1.74	0.52
52:5:454:U:H2'	52:5:455:U:C6	2.44	0.52
52:5:599:G:N2	52:5:634:U:O2	2.35	0.52
52:5:1436:C:H2'	52:5:1437:A:C8	2.45	0.52
52:5:1487:U:H2'	52:5:1488:A:C8	2.44	0.52
1:0:34:ARG:NH2	1:0:41:GLN:O	2.41	0.52
8:E:97:LEU:HG	8:E:99:SER:H	1.73	0.52
15:L:67:GLY:HA2	15:L:70:ARG:HD2	1.93	0.52
25:b:143:PHE:HD1	25:b:145:GLY:H	1.57	0.52
50:3:772:C:H2'	50:3:773:G:C8	2.45	0.52
50:3:2339:G:H2'	50:3:2340:U:C6	2.45	0.52
50:3:2488:C:H2'	50:3:2489:G:O4'	2.09	0.52
50:3:2657:C:H2'	50:3:2658:U:C6	2.44	0.52
50:3:2745:G:H2'	50:3:2746:A:C8	2.45	0.52
51:4:11:A:H1'	51:4:13:G:H2'	1.91	0.52
52:5:887:C:H2'	52:5:888:A:C8	2.45	0.52
52:5:1009:G:N2	52:5:1012:A:OP2	2.43	0.52
4:A:127:ILE:HD12	4:A:130:LEU:HD13	1.91	0.51
8:E:29:LEU:HD11	8:E:60:TRP:HZ3	1.76	0.51
26:c:4:LEU:HD23	26:c:126:HIS:HA	1.91	0.51
29:f:112:MET:HE2	29:f:113:PHE:CZ	2.45	0.51
34:k:33:GLY:HA2	50:3:1221:G:H5''	1.90	0.51
44:u:55:ARG:HG3	50:3:2395:U:H1'	1.92	0.51
50:3:164:A:C8	50:3:165:U:H2'	2.45	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:217:A:H2'	50:3:218:G:C8	2.45	0.51
50:3:250:U:O2'	50:3:423:C:O2'	2.24	0.51
50:3:900:G:N2	50:3:903:A:N6	2.29	0.51
50:3:1860:A:O2'	50:3:2241:A:O2'	2.28	0.51
50:3:2843:G:O6	50:3:2882:U:O4	2.28	0.51
51:4:47:C:O2'	51:4:48:A:H5'	2.10	0.51
52:5:153:A:H2'	52:5:154:G:H8	1.75	0.51
52:5:576:A:N3	52:5:725:A:H2	2.08	0.51
52:5:601:U:H2'	52:5:602:G:H8	1.75	0.51
40:q:24:LYS:NZ	50:3:1198:G:OP1	2.37	0.51
46:w:55:LEU:O	46:w:59:THR:HG23	2.10	0.51
50:3:61:U:O4	50:3:70:G:O6	2.28	0.51
50:3:684:A:H2'	50:3:685:G:H8	1.75	0.51
50:3:1691:U:H2'	50:3:1692:A:C8	2.45	0.51
50:3:1778:G:H2'	50:3:1779:G:C8	2.45	0.51
50:3:2867:U:H2'	50:3:2868:G:C8	2.45	0.51
52:5:441:U:H2'	52:5:442:G:C8	2.46	0.51
52:5:458:G:N1	52:5:470:U:N3	2.59	0.51
52:5:820:A:N1	52:5:872:C:N4	2.58	0.51
52:5:851:U:H2'	52:5:852:G:C8	2.46	0.51
52:5:879:G:H2'	52:5:880:G:H8	1.75	0.51
52:5:1216:G:H2'	52:5:1217:G:C8	2.45	0.51
52:5:1345:G:H2'	52:5:1346:G:H8	1.75	0.51
6:C:5:GLY:O	6:C:111:ARG:NH2	2.42	0.51
10:G:26:ARG:NH2	10:G:84:ILE:O	2.42	0.51
22:S:39:ILE:HG22	22:S:76:LEU:HD13	1.91	0.51
24:a:41:LEU:HD12	24:a:66:TYR:HB2	1.92	0.51
24:a:155:LYS:HD2	50:3:2213:A:H4'	1.92	0.51
50:3:124:A:H3'	50:3:125:G:H8	1.75	0.51
50:3:219:G:H1'	50:3:220:A:H4'	1.93	0.51
50:3:740:A:H2'	50:3:741:A:C8	2.45	0.51
50:3:745:U:H2'	50:3:746:G:C8	2.46	0.51
50:3:779:C:H3'	50:3:780:G:C8	2.45	0.51
50:3:1758:C:H2'	50:3:1759:C:H6	1.75	0.51
50:3:1758:C:H2'	50:3:1759:C:C6	2.44	0.51
50:3:1798:A:N6	50:3:1835:G:H1'	2.26	0.51
50:3:2105:G:H2'	50:3:2106:G:C8	2.44	0.51
50:3:2799:U:OP2	50:3:2896:G:N2	2.30	0.51
50:3:2840:U:H2'	50:3:2841:A:C8	2.45	0.51
52:5:311:A:O2'	52:5:326:C:O2'	2.21	0.51
52:5:902:A:H2'	52:5:903:A:H8	1.75	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:971:A:H2	52:5:1338:A:H5''	1.75	0.51
52:5:1223:A:H2'	52:5:1224:C:C6	2.45	0.51
13:J:33:ASN:HA	52:5:680:G:H21	1.76	0.51
14:K:64:LYS:HB2	14:K:80:ILE:HD12	1.93	0.51
14:K:100:VAL:HG23	14:K:103:LEU:HB2	1.93	0.51
14:K:124:ARG:HB3	14:K:135:PRO:HD3	1.92	0.51
26:c:55:LYS:NZ	26:c:80:ARG:O	2.29	0.51
32:i:99:GLN:O	32:i:99:GLN:HG2	2.10	0.51
41:r:136:LYS:O	41:r:139:ARG:NH1	2.43	0.51
43:t:30:ALA:O	43:t:31:ARG:HD3	2.11	0.51
50:3:86:A:N6	50:3:101:C:O4'	2.41	0.51
50:3:1111:C:H2'	50:3:1112:A:C8	2.45	0.51
50:3:1306:G:H2'	50:3:1307:G:H8	1.75	0.51
51:4:36:C:H2'	51:4:37:A:C8	2.45	0.51
52:5:782:G:H2'	52:5:783:G:H8	1.75	0.51
52:5:973:A:H4'	52:5:1296:C:C2	2.45	0.51
52:5:1261:A:H2	52:5:1345:G:H21	1.59	0.51
4:A:160:GLU:OE2	4:A:167:LYS:NZ	2.26	0.51
6:C:151:ILE:HG22	6:C:153:ILE:H	1.74	0.51
24:a:282:ARG:NH1	50:3:1805:U:OP2	2.42	0.51
26:c:141:LYS:HA	26:c:144:MET:HE3	1.91	0.51
27:d:77:TYR:O	53:7:57:C:O2'	2.29	0.51
33:j:56:GLN:HE21	33:j:58:LEU:HD21	1.74	0.51
50:3:383:U:H2'	50:3:384:G:C8	2.36	0.51
50:3:713:C:H2'	50:3:714:G:C8	2.45	0.51
50:3:998:C:H2'	50:3:999:U:C6	2.45	0.51
50:3:2213:A:H2'	50:3:2214:A:C8	2.46	0.51
50:3:2699:C:H2'	50:3:2700:C:H6	1.74	0.51
52:5:732:A:H2'	52:5:733:A:C8	2.46	0.51
52:5:1225:A:H2	52:5:1345:G:H1'	1.76	0.51
52:5:1503:U:H4'	52:5:1504:G:H5'	1.93	0.51
10:G:68:ARG:HH11	52:5:650:A:N6	2.09	0.51
13:J:43:MET:HE1	13:J:55:SER:O	2.11	0.51
24:a:128:ILE:HD12	24:a:134:PHE:HD2	1.75	0.51
26:c:55:LYS:HE2	26:c:82:PRO:HD3	1.91	0.51
32:i:20:ILE:HD11	32:i:140:PRO:HG2	1.91	0.51
48:y:29:VAL:HG22	48:y:36:LYS:HE3	1.92	0.51
50:3:674:G:H2'	50:3:675:U:H6	1.76	0.51
50:3:688:U:H5''	50:3:689:U:H5'	1.93	0.51
50:3:860:C:H4'	50:3:2436:G:C5	2.46	0.51
50:3:1237:G:H2'	50:3:1238:A:C8	2.46	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:1299:A:H2'	50:3:1300:C:O4'	2.11	0.51
50:3:1772:G:O6	50:3:1994:U:O4	2.28	0.51
50:3:1963:U:H5''	50:3:2560:U:H5'	1.92	0.51
50:3:2026:A:H61	50:3:2042:A:H61	1.58	0.51
52:5:649:U:H3	52:5:750:A:H62	1.58	0.51
4:A:154:ARG:NH2	4:A:158:ARG:CZ	2.74	0.51
5:B:178:LEU:O	52:5:1164:U:O2'	2.29	0.51
7:D:92:VAL:HG22	7:D:118:ALA:HB1	1.91	0.51
9:F:113:LYS:HD3	52:5:1272:C:C4	2.46	0.51
10:G:67:LYS:HG2	52:5:650:A:N7	2.26	0.51
10:G:123:MET:HE1	10:G:128:ALA:HA	1.92	0.51
14:K:25:HIS:CE1	52:5:551:A:H4'	2.44	0.51
19:P:9:LEU:H	19:P:62:GLN:HE21	1.58	0.51
21:R:55:LYS:O	52:5:981:U:O2'	2.28	0.51
50:3:297:G:H5'	50:3:298:U:H5	1.76	0.51
50:3:989:G:H2'	50:3:990:G:H8	1.75	0.51
50:3:2471:U:H2'	50:3:2472:G:H8	1.75	0.51
50:3:2638:G:H2'	50:3:2639:G:H8	1.76	0.51
52:5:921:G:H2'	52:5:1480:G:H21	1.76	0.51
6:C:166:PHE:CD2	6:C:182:PRO:HG3	2.46	0.51
7:D:176:SER:OG	7:D:177:ASP:N	2.43	0.51
16:M:29:ARG:HG2	16:M:41:ARG:HG2	1.92	0.51
24:a:89:ASP:HB2	24:a:96:VAL:HG13	1.93	0.51
33:j:106:LEU:HD11	33:j:115:LEU:HD11	1.92	0.51
35:l:73:SER:HB2	35:l:93:TRP:CD2	2.45	0.51
40:q:4:ILE:HB	40:q:39:LEU:O	2.10	0.51
50:3:515:A:H1'	50:3:517:G:H5''	1.92	0.51
50:3:674:G:H2'	50:3:675:U:C6	2.46	0.51
50:3:683:G:C4	50:3:684:A:C8	2.99	0.51
50:3:1654:G:H2'	50:3:1655:U:C6	2.46	0.51
50:3:2260:G:H2'	50:3:2261:G:H8	1.76	0.51
50:3:2268:C:H2'	50:3:2269:C:C6	2.46	0.51
50:3:2408:G:H2'	50:3:2409:U:H6	1.76	0.51
50:3:2568:G:H2'	50:3:2569:A:C8	2.46	0.51
50:3:2747:U:H3'	50:3:2771:G:H1	1.76	0.51
52:5:10:G:H2'	52:5:11:A:H8	1.74	0.51
52:5:684:A:N6	52:5:698:U:O4'	2.44	0.51
52:5:754:U:O2'	52:5:873:U:O2'	2.29	0.51
52:5:1425:A:O2'	52:5:1428:A:N6	2.43	0.51
9:F:141:HIS:O	9:F:145:GLU:HG2	2.11	0.51
13:J:120:PRO:HA	52:5:793:C:H5''	1.93	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:L:104:THR:OG1	52:5:945:U:O4	2.29	0.51
22:S:52:ASP:OD2	52:5:195:U:O2'	2.29	0.51
24:a:94:CYS:SG	24:a:95:PHE:N	2.84	0.51
24:a:159:GLN:O	50:3:1825:U:O2'	2.23	0.51
25:b:40:LYS:NZ	25:b:47:TYR:O	2.43	0.51
27:d:118:SER:HB2	27:d:177:LEU:HA	1.93	0.51
37:n:38:HIS:HA	37:n:64:ASN:HB2	1.92	0.51
42:s:45:GLU:O	42:s:49:GLY:N	2.41	0.51
50:3:188:G:H2'	50:3:189:U:C6	2.46	0.51
50:3:227:A:H1'	50:3:457:U:H1'	1.92	0.51
50:3:353:G:H2'	50:3:354:C:C6	2.44	0.51
50:3:369:C:H2'	50:3:370:C:C6	2.45	0.51
50:3:602:U:H1'	50:3:982:G:H21	1.76	0.51
50:3:947:A:H2'	50:3:948:A:C8	2.46	0.51
50:3:1829:U:H2'	50:3:1830:G:H8	1.76	0.51
50:3:1881:C:H2'	50:3:1882:G:O4'	2.11	0.51
50:3:2451:C:H2'	50:3:2452:G:H8	1.75	0.51
50:3:2567:C:H2'	50:3:2568:G:C8	2.46	0.51
50:3:2685:A:H2'	50:3:2686:C:C6	2.46	0.51
52:5:710:G:H2'	52:5:711:G:C8	2.46	0.51
52:5:798:U:H2'	52:5:799:A:H8	1.76	0.51
52:5:936:G:H1	52:5:1316:C:H42	1.57	0.51
52:5:1062:C:H2'	52:5:1063:G:C8	2.46	0.51
52:5:1299:C:H2'	52:5:1300:C:C6	2.46	0.51
4:A:223:GLN:HE22	4:A:255:GLN:H	1.57	0.51
6:C:184:ARG:HH12	6:C:189:ALA:HA	1.76	0.51
8:E:103:LYS:HD2	8:E:106:GLN:HG3	1.93	0.51
24:a:72:LYS:HA	24:a:157:GLY:HA2	1.93	0.51
32:i:43:ASN:C	39:p:66:ALA:HB1	2.35	0.51
34:k:76:GLU:HB3	34:k:110:LEU:HD11	1.93	0.51
35:l:1:MET:SD	35:l:2:LEU:N	2.81	0.51
42:s:10:PRO:HA	42:s:29:PHE:HA	1.92	0.51
48:y:8:SER:OG	50:3:1293:U:O3'	2.28	0.51
50:3:192:U:H2'	50:3:193:G:O4'	2.10	0.51
50:3:477:U:H2'	50:3:478:G:C8	2.46	0.51
50:3:515:A:H4'	50:3:516:A:H5'	1.93	0.51
50:3:1016:A:N1	50:3:1171:G:H4'	2.26	0.51
50:3:1228:G:H1	50:3:1279:U:H3	1.59	0.51
50:3:1711:A:H2'	50:3:1712:A:C8	2.46	0.51
50:3:1814:G:N2	50:3:1817:A:OP2	2.44	0.51
50:3:1849:G:N2	50:3:1905:U:O2	2.42	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2111:U:H5''	50:3:2112:A:H8	1.76	0.51
50:3:2691:C:N3	50:3:2735:G:O2'	2.37	0.51
52:5:83:U:H2'	52:5:84:U:C6	2.46	0.51
52:5:988:G:H21	52:5:991:A:N6	2.09	0.51
52:5:1146:A:H2'	52:5:1147:U:C6	2.46	0.51
52:5:1197:G:H2'	52:5:1198:C:C6	2.46	0.51
53:7:16:G:O6	53:7:49:C:O2	2.28	0.51
4:A:41:MET:HG3	4:A:44:PHE:HD2	1.75	0.50
8:E:160:VAL:HB	10:G:80:ARG:HH11	1.76	0.50
22:S:66:ARG:HG3	22:S:69:LYS:HE2	1.93	0.50
26:c:144:MET:HE1	50:3:354:C:C5	2.46	0.50
48:y:27:LEU:HD11	48:y:36:LYS:HG3	1.93	0.50
50:3:322:A:H2'	50:3:323:A:H8	1.76	0.50
50:3:453:U:H2'	50:3:454:G:C8	2.46	0.50
50:3:603:G:H21	50:3:2037:A:H5''	1.76	0.50
50:3:613:C:H2'	50:3:614:C:C6	2.46	0.50
50:3:1536:C:H2'	50:3:1537:A:H8	1.76	0.50
50:3:2335:A:N7	50:3:2396:A:N6	2.60	0.50
50:3:2504:C:O2'	50:3:2505:A:OP1	2.20	0.50
52:5:281:U:H2'	52:5:282:G:C8	2.46	0.50
52:5:314:G:O6	52:5:332:A:N6	2.43	0.50
52:5:641:U:H2'	52:5:642:A:H8	1.74	0.50
52:5:1267:G:H2'	52:5:1268:G:H8	1.75	0.50
2:1:9:LYS:NZ	50:3:253:C:O2	2.44	0.50
2:1:36:LYS:HA	2:1:39:ARG:NE	2.26	0.50
7:D:141:ILE:HD12	7:D:150:LEU:HD13	1.92	0.50
20:Q:82:HIS:HA	20:Q:85:HIS:HB2	1.92	0.50
24:a:56:ARG:NE	24:a:227:THR:OG1	2.43	0.50
40:q:6:VAL:HG23	40:q:37:LYS:HD2	1.92	0.50
50:3:340:U:H2'	50:3:341:G:O4'	2.11	0.50
50:3:631:A:H2'	50:3:632:A:H8	1.76	0.50
50:3:694:U:H2'	50:3:695:G:C8	2.47	0.50
50:3:1141:U:H2'	50:3:1142:G:C8	2.46	0.50
50:3:1437:A:H2'	50:3:1438:G:C8	2.45	0.50
50:3:1470:C:H2'	50:3:1471:A:C8	2.47	0.50
50:3:1896:A:H2'	50:3:1897:A:H8	1.74	0.50
50:3:2646:G:H1'	50:3:2786:A:H61	1.76	0.50
50:3:2716:U:H2'	50:3:2717:G:C8	2.46	0.50
50:3:2867:U:H2'	50:3:2868:G:H8	1.75	0.50
52:5:336:U:O2	52:5:346:G:N2	2.44	0.50
52:5:507:A:N7	52:5:541:C:O2'	2.44	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:590:G:H2'	52:5:591:A:C8	2.45	0.50
52:5:1266:U:H2'	52:5:1267:G:C8	2.46	0.50
6:C:123:LEU:HD21	6:C:126:ASP:HA	1.94	0.50
7:D:179:TYR:HB3	52:5:8:G:C8	2.45	0.50
12:I:26:LEU:O	12:I:29:LYS:HG3	2.12	0.50
17:N:60:ARG:HD2	17:N:64:LEU:HD23	1.92	0.50
26:c:50:HIS:HD2	26:c:93:PRO:HB2	1.77	0.50
32:i:88:LYS:NZ	50:3:2650:A:OP1	2.40	0.50
39:p:84:LYS:NZ	50:3:1185:U:O3'	2.43	0.50
44:u:44:MET:N	44:u:44:MET:SD	2.84	0.50
50:3:358:A:N6	50:3:373:U:O4'	2.44	0.50
50:3:420:A:H62	50:3:425:U:H3	1.59	0.50
50:3:812:G:H2'	50:3:813:G:H8	1.76	0.50
50:3:1320:C:H2'	50:3:1321:C:H6	1.76	0.50
50:3:2137:A:O2'	50:3:2165:A:N6	2.45	0.50
50:3:2781:C:H2'	50:3:2782:A:C8	2.46	0.50
52:5:120:A:OP2	52:5:122:C:N4	2.43	0.50
52:5:664:A:H2'	52:5:665:G:H8	1.76	0.50
52:5:939:G:OP2	52:5:941:A:N6	2.40	0.50
4:A:83:LEU:HD21	4:A:108:ILE:HD11	1.93	0.50
14:K:94:LEU:HB2	14:K:111:VAL:HG21	1.93	0.50
20:Q:94:ARG:HD3	20:Q:101:PHE:CD1	2.46	0.50
25:b:179:LEU:HD12	25:b:195:GLY:HA3	1.93	0.50
32:i:48:THR:HB	32:i:51:GLN:HB2	1.93	0.50
32:i:116:ARG:HB2	50:3:590:U:H5''	1.93	0.50
34:k:74:LYS:NZ	50:3:666:G:O6	2.34	0.50
50:3:59:C:H2'	50:3:60:G:C8	2.46	0.50
50:3:567:U:H4'	50:3:568:G:C8	2.47	0.50
50:3:1083:A:H2	50:3:1148:U:H1'	1.76	0.50
50:3:1125:U:H2'	50:3:1126:G:O4'	2.11	0.50
50:3:1176:U:O2	50:3:1177:A:N6	2.44	0.50
50:3:1196:U:H2'	50:3:1197:G:C8	2.45	0.50
50:3:1344:U:H2'	50:3:1345:G:C8	2.47	0.50
50:3:1408:G:H2'	50:3:1409:G:C8	2.42	0.50
50:3:2306:A:H3'	50:3:2307:G:H8	1.76	0.50
52:5:674:U:H3	52:5:710:G:H1	1.58	0.50
52:5:935:U:H1'	52:5:1349:A:H2	1.77	0.50
52:5:1063:G:H2'	52:5:1064:U:C6	2.47	0.50
5:B:154:VAL:HG12	5:B:171:TYR:HB2	1.94	0.50
10:G:40:LEU:HD22	52:5:640:C:H5''	1.93	0.50
14:K:20:LYS:HD3	14:K:21:SER:HB3	1.93	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:L:55:ALA:O	15:L:58:ASN:HB2	2.11	0.50
50:3:283:A:H61	50:3:285:U:H5	1.58	0.50
50:3:725:G:N2	50:3:807:U:O2	2.31	0.50
50:3:2555:U:OP2	50:3:2574:A:O2'	2.28	0.50
52:5:117:U:H2'	52:5:118:C:C6	2.46	0.50
52:5:448:A:H61	52:5:478:G:H5'	1.77	0.50
52:5:538:G:H2'	52:5:539:G:C8	2.47	0.50
52:5:776:C:H2'	52:5:777:A:C4	2.47	0.50
52:5:985:C:H2'	52:5:986:U:C6	2.47	0.50
52:5:1230:G:H3'	52:5:1254:A:H61	1.77	0.50
1:0:43:THR:HB	50:3:127:A:H62	1.77	0.50
5:B:117:ARG:NH2	5:B:121:ARG:HB2	2.26	0.50
9:F:102:TRP:HA	9:F:105:MET:SD	2.52	0.50
17:N:43:ASN:HD21	52:5:666:U:H5'	1.77	0.50
21:R:81:LYS:NZ	21:R:83:HIS:HA	2.26	0.50
50:3:704:G:N2	50:3:707:C:OP1	2.44	0.50
50:3:1159:C:H2'	50:3:1160:G:O4'	2.12	0.50
50:3:2670:A:H3'	50:3:2671:G:H8	1.77	0.50
52:5:38:U:H2'	52:5:39:G:C8	2.47	0.50
52:5:168:A:H3'	52:5:169:G:H8	1.76	0.50
52:5:229:G:H2'	52:5:230:G:C8	2.47	0.50
52:5:731:A:H2'	52:5:732:A:H8	1.76	0.50
52:5:1062:C:H2'	52:5:1063:G:H8	1.76	0.50
4:A:67:THR:HA	4:A:70:ASN:HD21	1.76	0.50
4:A:192:ASN:O	4:A:195:ARG:NH1	2.39	0.50
32:i:95:MET:SD	32:i:98:LYS:HE2	2.52	0.50
35:l:54:ILE:O	35:l:58:LEU:N	2.45	0.50
50:3:805:G:H2'	50:3:806:A:H8	1.75	0.50
50:3:1278:G:H3'	50:3:1279:U:H5''	1.94	0.50
50:3:2403:C:H2'	50:3:2404:G:C8	2.46	0.50
50:3:2533:A:H2'	50:3:2534:G:H8	1.77	0.50
52:5:358:G:N2	52:5:361:U:OP2	2.41	0.50
52:5:732:A:H2'	52:5:733:A:H8	1.76	0.50
52:5:975:C:H3'	52:5:976:U:C5	2.47	0.50
52:5:1266:U:H2'	52:5:1267:G:H8	1.77	0.50
50:3:23:A:OP1	50:3:1248:A:H4'	2.11	0.50
50:3:194:A:H62	50:3:211:A:H1'	1.77	0.50
50:3:392:A:H3'	50:3:393:C:H6	1.77	0.50
50:3:962:U:H2'	50:3:963:U:C6	2.47	0.50
50:3:1162:A:H2'	50:3:2526:A:C2	2.47	0.50
50:3:1229:U:H2'	50:3:1230:U:C6	2.47	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2764:U:H4'	50:3:2765:A:OP1	2.12	0.50
51:4:2:U:H2'	51:4:3:U:C6	2.46	0.50
52:5:317:A:N1	52:5:328:G:O6	2.44	0.50
52:5:714:C:H2'	52:5:731:A:H8	1.77	0.50
52:5:1214:A:N6	52:5:1273:A:H62	2.10	0.50
6:C:56:GLU:OE2	6:C:59:ARG:NH1	2.45	0.50
10:G:90:ILE:HG22	10:G:97:ILE:HG21	1.93	0.50
15:L:89:LEU:HA	15:L:92:ARG:HE	1.77	0.50
18:O:73:TRP:O	18:O:77:VAL:HG12	2.11	0.50
19:P:25:GLN:HE21	19:P:42:HIS:HB2	1.76	0.50
25:b:166:SER:O	50:3:2628:U:O2'	2.29	0.50
34:k:10:PRO:HD3	50:3:1274:A:H4'	1.94	0.50
35:l:70:PRO:HB3	35:l:95:ALA:HB2	1.94	0.50
36:m:71:ASN:ND2	50:3:1320:C:O2	2.45	0.50
38:o:93:ARG:NH2	38:o:115:LYS:HB3	2.27	0.50
41:r:127:LYS:HG3	50:3:1262:G:H4'	1.92	0.50
43:t:16:LYS:N	50:3:363:G:O6	2.39	0.50
50:3:658:G:H2'	50:3:659:C:C6	2.47	0.50
50:3:1154:U:H2'	50:3:1155:G:C8	2.47	0.50
50:3:1335:A:H3'	50:3:1336:A:H8	1.77	0.50
50:3:1396:A:H2'	50:3:1397:G:C8	2.46	0.50
50:3:1479:A:N3	50:3:1480:A:N6	2.60	0.50
50:3:2297:G:H2'	50:3:2298:G:C8	2.46	0.50
50:3:2297:G:H2'	50:3:2298:G:H8	1.77	0.50
50:3:2657:C:H2'	50:3:2658:U:H6	1.77	0.50
52:5:300:A:H2'	52:5:301:G:O4'	2.12	0.50
52:5:698:U:OP1	52:5:699:A:O2'	2.26	0.50
52:5:1182:C:H2'	52:5:1183:C:H6	1.77	0.50
52:5:1204:A:H2'	52:5:1205:C:C6	2.46	0.50
52:5:1385:A:H2'	52:5:1386:C:C6	2.47	0.50
52:5:1444:G:H2'	52:5:1445:G:H8	1.75	0.50
2:1:36:LYS:O	2:1:40:HIS:ND1	2.45	0.49
5:B:6:ASN:O	5:B:10:LEU:N	2.45	0.49
11:H:45:LEU:HD12	11:H:48:GLN:NE2	2.27	0.49
12:I:75:ARG:HD3	12:I:77:LYS:HE2	1.93	0.49
15:L:113:ARG:NE	52:5:1204:A:OP1	2.45	0.49
16:M:41:ARG:HG3	16:M:42:LEU:HD12	1.94	0.49
39:p:92:LYS:NZ	50:3:1033:A:OP1	2.44	0.49
39:p:107:LEU:O	39:p:111:LYS:HB2	2.12	0.49
41:r:11:ARG:NH1	41:r:99:ARG:O	2.45	0.49
50:3:119:A:H5'	50:3:120:A:H5''	1.93	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:450:C:O3'	50:3:1885:G:N2	2.43	0.49
50:3:1213:U:H2'	50:3:1214:U:C6	2.47	0.49
50:3:1263:G:C2	50:3:1264:U:C5	2.99	0.49
50:3:2364:A:H2'	50:3:2365:U:C6	2.47	0.49
50:3:2436:G:H5''	50:3:2437:G:H5'	1.94	0.49
50:3:2530:U:H3	50:3:2551:G:H1	1.58	0.49
52:5:149:G:H2'	52:5:150:A:H8	1.77	0.49
52:5:524:C:C4	52:5:525:G:H1'	2.47	0.49
52:5:1139:A:H2'	52:5:1140:A:C8	2.47	0.49
52:5:1214:A:H62	52:5:1273:A:H62	1.59	0.49
52:5:1215:U:H3'	52:5:1216:G:C8	2.35	0.49
52:5:1216:G:H2'	52:5:1217:G:H8	1.77	0.49
52:5:1285:G:H2'	52:5:1286:G:C8	2.45	0.49
52:5:1489:C:H2'	52:5:1490:G:C8	2.47	0.49
2:1:14:THR:OG1	2:1:18:GLN:O	2.30	0.49
7:D:191:MET:O	7:D:195:THR:HG23	2.12	0.49
10:G:81:ILE:HD12	10:G:82:PRO:HD2	1.93	0.49
14:K:128:SER:O	52:5:548:G:N2	2.45	0.49
15:L:119:LYS:HB3	52:5:949:G:H4'	1.94	0.49
17:N:43:ASN:ND2	52:5:665:G:O2'	2.45	0.49
33:j:56:GLN:NE2	33:j:58:LEU:HD21	2.27	0.49
50:3:80:U:O2	50:3:109:G:O6	2.30	0.49
50:3:135:A:H2'	50:3:136:G:H8	1.77	0.49
50:3:186:A:H2	50:3:468:A:H2	1.60	0.49
50:3:684:A:H2'	50:3:685:G:C8	2.48	0.49
50:3:759:U:H2'	50:3:760:G:O4'	2.12	0.49
50:3:1176:U:H4'	50:3:1177:A:O4'	2.11	0.49
50:3:1327:G:H1	50:3:1673:U:H3'	1.76	0.49
50:3:1461:A:H2'	50:3:1462:A:C8	2.47	0.49
50:3:2744:A:H2'	50:3:2745:G:C8	2.47	0.49
50:3:2755:G:O6	50:3:2763:C:H5''	2.12	0.49
52:5:637:A:H2'	52:5:638:A:C4	2.47	0.49
52:5:1125:C:H2'	52:5:1126:U:C2	2.47	0.49
52:5:1188:A:O2'	52:5:1190:G:N7	2.41	0.49
52:5:1390:G:H2'	52:5:1391:A:C8	2.48	0.49
6:C:57:LYS:HE2	6:C:61:GLN:HE22	1.78	0.49
6:C:123:LEU:HD22	6:C:143:ARG:HB2	1.93	0.49
42:s:36:SER:O	42:s:40:VAL:HG13	2.13	0.49
50:3:1063:A:N6	50:3:1160:G:H2'	2.27	0.49
50:3:1960:A:H1'	50:3:2557:G:H21	1.76	0.49
50:3:2825:A:H2'	50:3:2826:G:O4'	2.12	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:56:A:H3'	52:5:57:U:C5	2.48	0.49
52:5:253:G:H2'	52:5:254:G:C8	2.47	0.49
52:5:686:C:H2'	52:5:687:G:H8	1.77	0.49
52:5:777:A:N6	52:5:798:U:OP2	2.45	0.49
52:5:849:A:N6	52:5:850:G:O6	2.44	0.49
52:5:1133:A:C2	52:5:1153:G:N2	2.80	0.49
9:F:48:LEU:O	9:F:52:ARG:HD3	2.12	0.49
27:d:123:ASP:HB3	50:3:2322:G:H21	1.78	0.49
42:s:89:ILE:HG21	46:w:83:ALA:HA	1.95	0.49
44:u:57:THR:HG21	50:3:2344:A:H61	1.77	0.49
45:v:12:PRO:HB2	45:v:14:TYR:HE1	1.76	0.49
50:3:598:G:O6	50:3:610:G:N1	2.45	0.49
50:3:911:U:H2'	50:3:912:A:H8	1.77	0.49
50:3:1363:C:H2'	50:3:1364:A:C8	2.48	0.49
50:3:1419:U:H3	50:3:1422:U:H5	1.60	0.49
50:3:1609:U:H2'	50:3:1610:U:O4'	2.13	0.49
50:3:1868:A:H2'	50:3:1869:G:H8	1.77	0.49
50:3:2037:A:N3	50:3:2507:C:H4'	2.26	0.49
50:3:2118:U:OP2	50:3:2152:C:N4	2.45	0.49
50:3:2447:A:N6	53:7:77:A:O2'	2.45	0.49
50:3:2737:G:H2'	50:3:2738:U:C6	2.47	0.49
52:5:170:A:H61	52:5:195:U:H3	1.60	0.49
52:5:546:G:H2'	52:5:547:C:C6	2.47	0.49
6:C:9:LYS:NZ	52:5:540:U:OP1	2.31	0.49
6:C:111:ARG:HG2	52:5:403:A:H5''	1.94	0.49
24:a:246:ARG:NH2	50:3:1835:G:OP2	2.45	0.49
33:j:21:ILE:HA	33:j:41:VAL:HG12	1.93	0.49
33:j:38:VAL:HG22	33:j:59:ARG:HH11	1.76	0.49
37:n:16:VAL:HA	37:n:19:ILE:HG12	1.95	0.49
50:3:116:C:H2'	50:3:117:C:C6	2.48	0.49
50:3:123:G:H2'	50:3:124:A:C8	2.47	0.49
50:3:379:A:H1'	50:3:381:A:N6	2.26	0.49
50:3:676:U:H2'	50:3:677:U:C6	2.48	0.49
50:3:1092:A:H62	50:3:1121:A:H3'	1.77	0.49
50:3:1311:G:N1	50:3:1314:A:OP2	2.45	0.49
50:3:1838:A:H2'	50:3:1839:C:C6	2.48	0.49
50:3:2073:C:N4	50:3:2074:G:O6	2.45	0.49
50:3:2093:U:H2'	50:3:2094:A:C8	2.47	0.49
50:3:2521:A:H2'	50:3:2522:U:H6	1.78	0.49
52:5:18:U:H2'	52:5:19:C:C6	2.48	0.49
52:5:22:G:H2'	52:5:23:G:C8	2.47	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:222:U:H2'	52:5:223:G:O4'	2.13	0.49
52:5:922:G:H4'	52:5:1478:A:C8	2.48	0.49
52:5:1244:A:H1'	52:5:1286:G:H21	1.78	0.49
52:5:1408:A:H2'	52:5:1409:A:C8	2.48	0.49
52:5:1490:G:H2'	52:5:1491:A:C8	2.47	0.49
1:0:16:HIS:NE2	50:3:500:U:O2	2.44	0.49
8:E:46:ALA:HB1	20:Q:100:PRO:HD3	1.93	0.49
24:a:147:VAL:O	24:a:168:ALA:N	2.45	0.49
26:c:112:LEU:HA	26:c:115:VAL:HG12	1.95	0.49
49:z:36:LYS:HB2	49:z:47:HIS:CD2	2.48	0.49
50:3:494:G:N2	50:3:506:A:OP2	2.44	0.49
50:3:767:C:H2'	50:3:768:G:O4'	2.12	0.49
50:3:900:G:H2'	50:3:901:C:C6	2.47	0.49
50:3:1183:A:H2'	50:3:1184:U:C6	2.48	0.49
50:3:1490:G:H2'	50:3:1491:G:C8	2.47	0.49
50:3:1611:C:H2'	50:3:1612:U:C6	2.48	0.49
50:3:1976:A:H2'	50:3:1979:G:H21	1.77	0.49
50:3:2195:U:H2'	50:3:2196:G:H8	1.78	0.49
50:3:2196:G:H2'	50:3:2197:U:C6	2.47	0.49
50:3:2332:U:O2'	50:3:2393:C:N4	2.46	0.49
52:5:767:U:H1'	52:5:894:A:C2	2.45	0.49
52:5:1166:A:H2'	52:5:1167:C:C6	2.48	0.49
52:5:1225:A:C2	52:5:1345:G:H1'	2.48	0.49
53:7:6:U:H2'	53:7:7:U:H6	1.78	0.49
53:7:53:A:H2'	53:7:54:G:C8	2.46	0.49
5:B:117:ARG:HH22	5:B:121:ARG:HB2	1.78	0.49
24:a:226:PRO:HB3	50:3:1797:C:H5'	1.95	0.49
28:e:16:VAL:HA	28:e:28:LYS:O	2.12	0.49
32:i:35:ALA:O	32:i:39:ILE:HG12	2.12	0.49
32:i:117:LEU:HB2	32:i:121:TRP:CE2	2.47	0.49
43:t:44:ARG:H	43:t:63:VAL:HB	1.77	0.49
49:z:42:ARG:HH12	50:3:2377:A:H2	1.61	0.49
50:3:346:G:H4'	50:3:365:U:C2	2.47	0.49
50:3:442:G:H2'	50:3:443:C:C6	2.47	0.49
50:3:622:U:H2'	50:3:623:A:C8	2.48	0.49
50:3:1129:U:C2	50:3:1131:A:H5''	2.48	0.49
50:3:1694:A:H2'	50:3:1695:G:C8	2.47	0.49
50:3:1954:C:O2	52:5:1458:A:O2'	2.30	0.49
50:3:2088:U:H2'	50:3:2089:A:H8	1.77	0.49
50:3:2159:U:H2'	50:3:2160:U:C6	2.48	0.49
50:3:2594:C:H3'	50:3:2616:G:H22	1.78	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2787:U:H5'	50:3:2789:A:C8	2.47	0.49
52:5:1213:A:N6	52:5:1275:U:O2'	2.45	0.49
4:A:189:ALA:O	4:A:193:ILE:HG12	2.12	0.49
12:I:45:PRO:HB2	12:I:78:ARG:NH1	2.27	0.49
14:K:62:LEU:N	52:5:518:A:OP2	2.46	0.49
18:O:44:ILE:HG21	18:O:66:LEU:HD21	1.94	0.49
25:b:98:PRO:O	25:b:102:PHE:N	2.43	0.49
27:d:33:LYS:HB2	27:d:92:ARG:CZ	2.42	0.49
29:f:127:THR:HG23	29:f:137:VAL:HG22	1.95	0.49
34:k:66:GLY:HA3	50:3:2423:G:H4'	1.95	0.49
50:3:442:G:N1	50:3:457:U:C2	2.80	0.49
52:5:366:C:H2'	52:5:367:A:C8	2.47	0.49
52:5:370:A:O2'	52:5:448:A:OP2	2.27	0.49
7:D:160:ILE:HD12	7:D:170:ILE:HD13	1.95	0.49
8:E:59:ARG:NH2	8:E:61:LYS:HG2	2.27	0.49
23:T:12:GLU:O	23:T:16:LYS:N	2.45	0.49
25:b:18:THR:HG22	25:b:222:LEU:HD13	1.95	0.49
25:b:37:ALA:HA	25:b:75:LEU:HD11	1.95	0.49
29:f:129:HIS:HA	29:f:135:THR:HA	1.93	0.49
33:j:86:LEU:HB3	33:j:94:ARG:HH11	1.78	0.49
37:n:85:LYS:O	37:n:85:LYS:HD2	2.13	0.49
50:3:208:A:H4'	50:3:209:G:H4'	1.95	0.49
50:3:253:C:OP2	50:3:2402:C:O2'	2.22	0.49
50:3:596:G:H2'	50:3:597:C:H6	1.78	0.49
50:3:1589:A:H2'	50:3:1590:U:C6	2.48	0.49
50:3:1819:G:H2'	50:3:1820:U:H6	1.78	0.49
50:3:2274:A:N6	50:3:2281:A:OP2	2.46	0.49
52:5:1214:A:H1'	52:5:1216:G:C5	2.48	0.49
5:B:154:VAL:HG23	5:B:203:VAL:HG22	1.95	0.49
25:b:123:ILE:HG21	25:b:130:ILE:HG13	1.94	0.49
34:k:33:GLY:N	50:3:1221:G:OP1	2.45	0.49
38:o:32:ASN:HA	38:o:49:THR:HA	1.95	0.49
50:3:69:U:H2'	50:3:70:G:C8	2.48	0.49
50:3:148:U:H2'	50:3:149:A:H8	1.78	0.49
50:3:914:G:H2'	50:3:915:A:H8	1.78	0.49
50:3:961:U:N3	50:3:962:U:O4	2.46	0.49
50:3:1328:A:N7	50:3:1660:A:O2'	2.46	0.49
50:3:1394:A:H3'	50:3:1395:A:C8	2.48	0.49
50:3:1414:C:H2'	50:3:1415:A:H8	1.75	0.49
50:3:1633:C:H2'	50:3:1634:A:C8	2.47	0.49
50:3:1819:G:H2'	50:3:1820:U:C6	2.48	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2224:A:H2'	50:3:2225:G:H8	1.78	0.49
50:3:2892:U:H2'	50:3:2893:C:C6	2.48	0.49
52:5:172:C:H2'	52:5:173:U:C6	2.48	0.49
52:5:620:A:C5	52:5:621:C:H1'	2.48	0.49
52:5:680:G:H2'	52:5:681:U:C6	2.47	0.49
52:5:844:U:H2'	52:5:845:C:C6	2.48	0.49
52:5:934:G:H2'	52:5:935:U:C6	2.48	0.49
52:5:1406:U:H2'	52:5:1407:A:C8	2.48	0.49
1:0:21:ARG:HH12	1:0:28:ARG:HD3	1.77	0.48
10:G:68:ARG:HH11	52:5:650:A:H61	1.60	0.48
13:J:45:PHE:HB2	13:J:49:ARG:HD3	1.94	0.48
15:L:22:ILE:HG13	15:L:25:ILE:HB	1.95	0.48
26:c:140:THR:O	26:c:144:MET:HG2	2.13	0.48
36:m:22:VAL:HA	36:m:25:VAL:HG12	1.95	0.48
38:o:31:VAL:HB	38:o:88:ILE:HD11	1.95	0.48
46:w:41:PRO:HG2	50:3:63:U:C2	2.48	0.48
50:3:371:C:H2'	50:3:372:G:O4'	2.12	0.48
50:3:1670:U:H2'	50:3:1671:C:C6	2.47	0.48
50:3:2047:U:H2'	50:3:2048:U:C6	2.48	0.48
50:3:2175:U:C2	50:3:2179:A:N7	2.82	0.48
52:5:372:G:H2'	52:5:373:A:C8	2.48	0.48
52:5:407:A:H61	52:5:427:A:H62	1.59	0.48
52:5:879:G:H2'	52:5:880:G:C8	2.48	0.48
52:5:1286:G:H2'	52:5:1287:G:H8	1.77	0.48
53:7:19:G:H22	53:7:56:U:H1'	1.76	0.48
3:2:11:CYS:SG	3:2:12:LYS:N	2.86	0.48
10:G:125:ASP:OD1	10:G:125:ASP:N	2.46	0.48
26:c:142:VAL:HG23	26:c:143:MET:SD	2.53	0.48
27:d:39:GLY:HA3	50:3:2320:U:H1'	1.95	0.48
44:u:33:LYS:NZ	50:3:2269:C:OP1	2.37	0.48
45:v:5:ASP:OD1	45:v:5:ASP:N	2.46	0.48
50:3:202:C:O2'	50:3:203:A:H5'	2.12	0.48
50:3:425:U:H4'	50:3:426:U:OP2	2.14	0.48
50:3:429:U:H2'	50:3:430:U:C5	2.48	0.48
50:3:698:A:H2'	50:3:699:U:C6	2.48	0.48
50:3:773:G:N1	50:3:794:G:C6	2.81	0.48
50:3:805:G:H2'	50:3:806:A:C8	2.48	0.48
50:3:1331:G:H2'	50:3:1332:A:C8	2.48	0.48
50:3:1454:G:OP2	50:3:1455:A:O2'	2.24	0.48
50:3:2473:C:H2'	50:3:2474:C:C6	2.48	0.48
50:3:2658:U:H2'	50:3:2659:U:H6	1.78	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:4:47:C:H2'	51:4:48:A:C8	2.48	0.48
52:5:376:G:N1	52:5:380:G:O6	2.46	0.48
52:5:427:A:H2'	52:5:428:A:H5'	1.95	0.48
52:5:475:U:H3'	52:5:476:U:C5'	2.43	0.48
52:5:498:G:H2'	52:5:499:U:H6	1.78	0.48
2:1:12:LYS:O	2:1:20:LYS:N	2.41	0.48
14:K:88:GLN:OE1	14:K:91:SER:OG	2.19	0.48
14:K:94:LEU:O	14:K:111:VAL:HG22	2.13	0.48
15:L:68:ASP:O	15:L:72:GLU:OE1	2.30	0.48
24:a:148:HIS:HB3	24:a:167:TYR:HA	1.95	0.48
25:b:139:TYR:CG	25:b:140:PRO:HD3	2.48	0.48
26:c:54:THR:OG1	50:3:836:G:N1	2.44	0.48
26:c:127:LEU:HD21	26:c:201:LYS:HD2	1.95	0.48
28:e:44:LEU:HD11	28:e:68:HIS:CD2	2.47	0.48
28:e:88:LYS:HD2	28:e:89:LYS:H	1.78	0.48
35:l:35:VAL:HG22	35:l:102:VAL:HG22	1.95	0.48
37:n:87:THR:HA	37:n:114:LEU:HD13	1.95	0.48
42:s:86:PRO:HB2	46:w:86:ALA:HB1	1.96	0.48
43:t:88:LYS:HD2	43:t:105:LYS:HE3	1.96	0.48
50:3:32:G:O2'	50:3:1244:A:N3	2.44	0.48
50:3:107:C:H2'	50:3:108:G:H8	1.77	0.48
50:3:194:A:N6	50:3:211:A:H1'	2.28	0.48
50:3:223:A:H2'	50:3:224:G:C8	2.48	0.48
50:3:224:G:H1	50:3:463:U:H2'	1.78	0.48
50:3:485:A:H61	50:3:490:A:H62	1.61	0.48
50:3:495:U:O2	50:3:507:A:N6	2.44	0.48
50:3:499:G:N2	50:3:502:A:OP2	2.36	0.48
50:3:571:A:H2'	50:3:572:G:O4'	2.12	0.48
50:3:586:G:H2'	50:3:587:U:H6	1.78	0.48
50:3:1094:G:H2'	50:3:1095:U:C5	2.49	0.48
50:3:2025:C:H2'	50:3:2026:A:C8	2.48	0.48
50:3:2029:U:O2'	50:3:2624:C:O2'	2.25	0.48
50:3:2644:U:H2'	50:3:2645:U:C6	2.49	0.48
52:5:455:U:H3'	52:5:456:U:H6	1.78	0.48
52:5:498:G:H2'	52:5:499:U:C6	2.48	0.48
52:5:677:C:H2'	52:5:678:A:C8	2.48	0.48
52:5:707:G:H2'	52:5:708:A:H8	1.79	0.48
52:5:1248:U:H2'	52:5:1249:G:O4'	2.14	0.48
6:C:31:ARG:NH1	52:5:424:U:OP2	2.46	0.48
10:G:38:SER:HB2	52:5:587:A:H5''	1.95	0.48
12:I:12:LEU:HB2	12:I:82:LEU:HB2	1.95	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:J:17:SER:HB3	13:J:80:LYS:HE2	1.94	0.48
13:J:88:THR:O	13:J:91:ARG:HD3	2.12	0.48
14:K:44:ARG:HA	14:K:94:LEU:HA	1.94	0.48
14:K:53:MET:HB3	14:K:65:TYR:CE2	2.48	0.48
18:O:2:ARG:HH12	52:5:386:U:HO2'	1.61	0.48
20:Q:73:ARG:NH2	20:Q:80:GLN:O	2.46	0.48
24:a:230:GLY:HA2	24:a:233:MET:HE1	1.94	0.48
26:c:75:ARG:NH2	50:3:708:C:O2	2.46	0.48
28:e:6:ASN:HB3	50:3:1146:A:H5''	1.95	0.48
36:m:102:LYS:NZ	48:y:40:HIS:O	2.31	0.48
38:o:92:ARG:HB3	38:o:115:LYS:HD2	1.95	0.48
42:s:31:VAL:HG23	42:s:79:LYS:HB3	1.95	0.48
44:u:26:ASN:ND2	50:3:2286:A:H8	2.11	0.48
50:3:608:A:H2'	50:3:609:U:C6	2.48	0.48
50:3:902:U:H3	50:3:940:A:P	2.36	0.48
50:3:990:G:O6	50:3:999:U:O4	2.30	0.48
50:3:1037:A:H3'	50:3:1038:G:H8	1.79	0.48
50:3:1296:G:O2'	50:3:2019:G:O6	2.28	0.48
50:3:1297:U:O2'	50:3:1298:A:OP1	2.24	0.48
50:3:1507:G:HO2'	50:3:1508:G:P	2.35	0.48
50:3:1694:A:H2'	50:3:1695:G:H8	1.78	0.48
50:3:2643:A:H2'	50:3:2644:U:O4'	2.13	0.48
52:5:551:A:H2'	52:5:552:U:C6	2.49	0.48
52:5:592:A:H3'	52:5:593:A:H8	1.79	0.48
52:5:1061:U:H2'	52:5:1062:C:C6	2.49	0.48
52:5:1075:G:H2'	52:5:1076:U:C6	2.48	0.48
5:B:165:ILE:HD12	5:B:165:ILE:H	1.77	0.48
7:D:108:ALA:HB3	7:D:114:ALA:HB2	1.96	0.48
9:F:9:ARG:HH21	11:H:111:ARG:HH12	1.62	0.48
20:Q:70:ILE:HG12	20:Q:90:LEU:HD11	1.95	0.48
22:S:70:SER:HA	22:S:73:VAL:HG22	1.94	0.48
24:a:73:ARG:NH1	24:a:135:SER:OG	2.46	0.48
28:e:19:ASN:OD1	28:e:26:ALA:HB3	2.14	0.48
38:o:6:LYS:HG3	38:o:8:ALA:H	1.79	0.48
50:3:80:U:H2'	50:3:81:C:C6	2.48	0.48
50:3:172:U:H2'	50:3:173:C:C6	2.49	0.48
50:3:210:U:H2'	50:3:211:A:H8	1.77	0.48
50:3:234:G:H2'	50:3:235:U:C6	2.48	0.48
50:3:338:G:H2'	50:3:339:U:C6	2.48	0.48
50:3:370:C:H2'	50:3:371:C:H6	1.78	0.48
50:3:1231:G:H2'	50:3:1232:U:C6	2.49	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:1507:G:H1'	50:3:1508:G:OP2	2.13	0.48
50:3:1551:U:H2'	50:3:1552:C:O4'	2.13	0.48
50:3:1934:A:H2'	50:3:1935:A:C8	2.49	0.48
50:3:1993:U:H2'	50:3:1994:U:C6	2.49	0.48
50:3:2084:A:H2'	50:3:2085:C:H6	1.79	0.48
50:3:2087:G:C6	50:3:2249:A:N6	2.82	0.48
50:3:2583:U:O2'	50:3:2584:G:OP1	2.32	0.48
52:5:641:U:H2'	52:5:642:A:C8	2.49	0.48
52:5:917:G:H2'	52:5:918:A:C8	2.48	0.48
53:7:26:C:H2'	53:7:27:A:H8	1.78	0.48
11:H:42:PRO:HG3	52:5:1264:G:H21	1.78	0.48
14:K:127:ARG:HH11	14:K:134:LYS:HA	1.77	0.48
17:N:76:ARG:HA	17:N:76:ARG:NE	2.28	0.48
27:d:42:ASP:OD1	27:d:43:ALA:N	2.46	0.48
39:p:46:TYR:OH	50:3:1028:C:OP1	2.32	0.48
40:q:67:LYS:HE3	50:3:1253:G:C8	2.48	0.48
43:t:90:LYS:HB2	43:t:103:VAL:HG13	1.94	0.48
50:3:62:G:H1'	50:3:64:U:C4	2.49	0.48
50:3:411:U:OP2	50:3:436:G:N2	2.46	0.48
50:3:762:A:H2'	50:3:763:G:C8	2.49	0.48
50:3:778:U:H2'	50:3:779:C:C6	2.49	0.48
50:3:911:U:C2	50:3:912:A:C8	3.02	0.48
50:3:1033:A:H2'	50:3:1034:A:C8	2.49	0.48
50:3:1946:U:O4'	50:3:2599:C:O2'	2.30	0.48
52:5:192:A:H2'	52:5:193:G:H8	1.79	0.48
52:5:503:G:H2'	52:5:504:A:C8	2.49	0.48
52:5:1139:A:N6	52:5:1149:G:O6	2.47	0.48
52:5:1196:G:H3'	52:5:1296:C:N4	2.29	0.48
52:5:1330:A:H2'	52:5:1331:A:C8	2.43	0.48
8:E:43:LYS:HB2	8:E:57:TYR:HE2	1.79	0.48
9:F:42:LEU:HG	9:F:46:PHE:CE2	2.49	0.48
9:F:73:GLU:OE2	9:F:75:ARG:NE	2.41	0.48
11:H:6:TYR:HB3	11:H:91:GLN:NE2	2.28	0.48
24:a:61:ARG:HD2	24:a:64:ARG:HD2	1.95	0.48
26:c:30:LYS:HB3	26:c:33:PRO:HD2	1.96	0.48
32:i:19:TYR:HB3	32:i:143:LEU:HD22	1.96	0.48
34:k:13:ARG:NH2	50:3:631:A:N3	2.62	0.48
39:p:27:ARG:NE	50:3:2026:A:O2'	2.35	0.48
43:t:43:THR:HG23	43:t:63:VAL:H	1.77	0.48
48:y:46:GLY:HA2	48:y:54:LYS:HE2	1.95	0.48
50:3:124:A:H2'	50:3:125:G:O4'	2.14	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:382:U:H2'	50:3:383:U:C6	2.49	0.48
50:3:1285:U:OP1	50:3:1286:G:H4'	2.14	0.48
50:3:1792:A:H2'	50:3:1794:A:N7	2.27	0.48
50:3:1841:U:O2'	50:3:1977:A:OP2	2.32	0.48
50:3:2709:C:O5'	50:3:2710:G:H5''	2.13	0.48
52:5:176:G:O6	52:5:190:A:N6	2.46	0.48
52:5:563:U:OP2	52:5:564:G:O2'	2.30	0.48
52:5:707:G:H2'	52:5:708:A:C8	2.49	0.48
53:7:7:U:H2'	53:7:8:G:C8	2.48	0.48
18:O:48:VAL:HG13	18:O:52:TRP:CZ3	2.48	0.48
21:R:17:LYS:HD3	21:R:20:ILE:HD11	1.96	0.48
25:b:227:GLU:O	25:b:227:GLU:HG2	2.14	0.48
38:o:83:ASN:HB3	38:o:86:ILE:HG13	1.94	0.48
49:z:24:ASN:ND2	50:3:2293:C:OP1	2.47	0.48
50:3:122:G:H2'	50:3:123:G:C8	2.49	0.48
50:3:159:G:H2'	50:3:160:A:C8	2.48	0.48
50:3:496:A:H1'	50:3:506:A:N6	2.29	0.48
50:3:659:C:H2'	50:3:660:U:O4'	2.14	0.48
50:3:1302:C:H2'	50:3:1680:A:N6	2.29	0.48
50:3:1447:A:O2'	50:3:1448:U:H5''	2.14	0.48
50:3:1647:A:H5'	50:3:1648:A:H5''	1.94	0.48
50:3:2084:A:H2'	50:3:2085:C:C6	2.49	0.48
50:3:2308:U:H2'	50:3:2309:A:C8	2.49	0.48
50:3:2625:U:H2'	50:3:2626:A:H8	1.78	0.48
52:5:1072:G:H2'	52:5:1073:A:C8	2.49	0.48
4:A:102:ARG:NH2	4:A:103:VAL:HB	2.29	0.48
4:A:102:ARG:HH21	4:A:103:VAL:H	1.62	0.48
11:H:12:ARG:O	11:H:15:SER:HB3	2.13	0.48
13:J:105:GLU:HG3	23:T:18:PHE:HE1	1.79	0.48
27:d:35:VAL:HG12	27:d:90:THR:HG22	1.96	0.48
33:j:29:ARG:HD2	50:3:2574:A:N1	2.28	0.48
33:j:76:HIS:HB3	38:o:78:ASN:HB3	1.95	0.48
39:p:9:THR:HG22	50:3:1281:A:H5''	1.96	0.48
39:p:50:ARG:O	39:p:53:LYS:NZ	2.44	0.48
50:3:251:G:N2	50:3:254:G:H3'	2.29	0.48
50:3:297:G:N2	50:3:442:G:O6	2.46	0.48
50:3:452:U:H3	50:3:2415:A:H61	1.60	0.48
50:3:896:U:C2	50:3:897:A:C8	3.02	0.48
50:3:1106:G:H1'	50:3:1124:G:N7	2.29	0.48
50:3:1219:U:C2	50:3:1220:A:C8	3.02	0.48
50:3:1296:G:N2	50:3:1297:U:O4	2.44	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:1396:A:H2'	50:3:1397:G:H8	1.78	0.48
50:3:1487:U:O2'	50:3:2710:G:N2	2.46	0.48
50:3:1543:U:H2'	50:3:1544:G:C8	2.47	0.48
50:3:2588:U:H3'	50:3:2589:G:N2	2.28	0.48
50:3:2718:C:H2'	50:3:2719:A:O4'	2.13	0.48
10:G:26:ARG:O	10:G:29:LYS:NZ	2.32	0.48
13:J:112:ASN:HD21	52:5:714:C:H4'	1.79	0.48
14:K:41:PRO:O	52:5:550:U:O2'	2.31	0.48
24:a:236:ASN:HB2	50:3:2080:C:H5''	1.96	0.48
36:m:103:LEU:HD11	36:m:115:ILE:HB	1.96	0.48
37:n:34:LYS:HG3	37:n:101:ARG:HD2	1.96	0.48
40:q:16:GLU:OE2	40:q:17:ASN:ND2	2.46	0.48
43:t:42:VAL:HG23	43:t:65:GLN:HG3	1.95	0.48
48:y:43:CYS:SG	48:y:45:CYS:HB2	2.54	0.48
50:3:25:G:H2'	50:3:26:G:H8	1.78	0.48
50:3:243:U:H3	50:3:262:G:H1	1.62	0.48
50:3:401:G:O2'	50:3:402:A:OP1	2.30	0.48
50:3:600:U:H2'	50:3:601:U:C6	2.49	0.48
50:3:987:U:H2'	50:3:988:G:H8	1.78	0.48
50:3:1343:C:H2'	50:3:1344:U:C6	2.49	0.48
50:3:1714:U:H2'	50:3:1715:A:C2	2.48	0.48
50:3:1730:C:H2'	50:3:1731:G:O4'	2.14	0.48
50:3:1767:A:H2'	50:3:1768:G:C5	2.48	0.48
50:3:2374:A:H3'	50:3:2375:A:H8	1.78	0.48
50:3:2381:G:H2'	50:3:2382:A:C8	2.49	0.48
52:5:988:G:H1	52:5:1036:C:H42	1.62	0.48
52:5:1193:U:H2'	52:5:1194:A:C8	2.49	0.48
52:5:1212:C:H5'	52:5:1277:C:O2	2.13	0.48
52:5:1227:A:C2	52:5:1329:G:H1'	2.48	0.48
52:5:1417:U:H2'	52:5:1418:G:C8	2.49	0.48
8:E:33:GLU:HG3	8:E:34:GLY:H	1.79	0.47
18:O:39:GLU:HB2	52:5:449:A:C2	2.49	0.47
20:Q:56:ASP:O	20:Q:60:LEU:N	2.45	0.47
27:d:95:ARG:NH2	51:4:41:C:O2'	2.43	0.47
33:j:6:THR:HB	33:j:21:ILE:HD13	1.96	0.47
41:r:117:LEU:O	41:r:120:GLN:HG3	2.14	0.47
43:t:28:MET:HE1	43:t:31:ARG:HB2	1.96	0.47
44:u:53:ARG:NH2	44:u:72:THR:HB	2.29	0.47
44:u:82:LYS:HA	44:u:82:LYS:HD2	1.71	0.47
50:3:870:A:N6	50:3:871:G:O6	2.47	0.47
50:3:1556:U:H3	50:3:1574:G:H1	1.62	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:1572:U:H2'	50:3:1573:A:H8	1.79	0.47
50:3:1640:G:H4'	50:3:1642:G:N3	2.28	0.47
50:3:2536:U:H3	50:3:2543:G:H1	1.60	0.47
50:3:2645:U:H3'	50:3:2646:G:C8	2.49	0.47
52:5:656:U:H2'	52:5:657:G:C8	2.49	0.47
52:5:968:G:H2'	52:5:969:A:N7	2.29	0.47
52:5:1214:A:H62	52:5:1273:A:N6	2.12	0.47
53:7:21:U:H2'	53:7:22:A:H4'	1.95	0.47
53:7:59:A:H1'	53:7:61:U:OP2	2.13	0.47
7:D:180:THR:O	52:5:8:G:O2'	2.23	0.47
10:G:116:ILE:HD11	10:G:135:GLY:H	1.79	0.47
12:I:55:ILE:HG21	16:M:44:PHE:HE2	1.79	0.47
21:R:25:GLN:HB2	21:R:28:LYS:NZ	2.28	0.47
34:k:95:ARG:HD2	34:k:95:ARG:O	2.13	0.47
50:3:779:C:H4'	50:3:1692:A:H4'	1.94	0.47
50:3:1174:G:H8	50:3:1174:G:OP2	1.97	0.47
50:3:2020:A:H2'	50:3:2021:A:C8	2.50	0.47
50:3:2699:C:H2'	50:3:2700:C:C6	2.49	0.47
52:5:29:G:H21	52:5:292:U:H4'	1.79	0.47
52:5:789:A:O2'	52:5:791:A:N7	2.44	0.47
52:5:832:G:H2'	52:5:833:G:H8	1.77	0.47
52:5:1067:C:H2'	52:5:1068:G:H8	1.79	0.47
6:C:89:LEU:O	6:C:93:LEU:N	2.46	0.47
6:C:145:LYS:HB2	6:C:148:THR:HG22	1.95	0.47
7:D:117:LYS:NZ	52:5:1063:G:H5''	2.30	0.47
7:D:203:LEU:HD12	7:D:208:VAL:HG11	1.96	0.47
12:I:50:THR:HG22	12:I:77:LYS:H	1.79	0.47
14:K:4:ILE:O	14:K:8:ILE:HG12	2.14	0.47
14:K:25:HIS:HB3	14:K:37:ASN:OD1	2.14	0.47
18:O:54:ASN:O	52:5:123:U:O2'	2.32	0.47
32:i:40:ARG:NH2	32:i:113:PRO:HD2	2.27	0.47
35:l:82:ARG:NH1	50:3:2258:G:O2'	2.47	0.47
39:p:50:ARG:NH1	50:3:1029:A:OP2	2.33	0.47
50:3:61:U:H2'	50:3:76:A:H2	1.79	0.47
50:3:161:U:H3	50:3:171:G:H1	1.62	0.47
50:3:192:U:O2	50:3:212:G:N2	2.35	0.47
50:3:584:G:H2'	50:3:585:U:H6	1.79	0.47
50:3:1045:A:H2'	50:3:1046:A:C8	2.50	0.47
50:3:1070:U:H2'	50:3:1071:G:C8	2.49	0.47
50:3:1829:U:H2'	50:3:1830:G:C8	2.49	0.47
50:3:2658:U:H2'	50:3:2659:U:C6	2.49	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2677:A:H2'	50:3:2678:A:C8	2.50	0.47
50:3:2745:G:H2'	50:3:2746:A:H8	1.78	0.47
50:3:2859:U:H2'	50:3:2860:A:C8	2.48	0.47
52:5:11:A:H2'	52:5:12:G:C8	2.49	0.47
52:5:178:U:H2'	52:5:179:U:C5	2.50	0.47
52:5:254:G:H2'	52:5:255:G:C8	2.49	0.47
52:5:308:C:H2'	52:5:309:A:C8	2.49	0.47
52:5:1075:G:O3'	52:5:1076:U:H2'	2.14	0.47
53:7:19:G:N2	53:7:59:A:OP2	2.47	0.47
53:7:70:G:H2'	53:7:71:A:C8	2.50	0.47
1:0:9:LYS:HG3	1:0:10:LEU:HD22	1.95	0.47
5:B:152:ILE:H	5:B:173:GLU:HB2	1.79	0.47
13:J:87:ASP:HA	13:J:90:ILE:HG22	1.96	0.47
16:M:47:LEU:HD21	16:M:52:ALA:HB3	1.96	0.47
23:T:20:ARG:O	23:T:24:GLU:HG2	2.13	0.47
25:b:148:GLN:NE2	50:3:2059:G:O3'	2.47	0.47
28:e:28:LYS:HB2	28:e:33:GLN:NE2	2.30	0.47
39:p:56:PHE:HD1	39:p:59:LEU:HD12	1.80	0.47
45:v:32:ASN:N	50:3:433:A:OP1	2.38	0.47
50:3:70:G:N2	50:3:76:A:O4'	2.47	0.47
50:3:155:A:C2	50:3:178:A:N1	2.83	0.47
50:3:652:U:H2'	50:3:653:G:C8	2.50	0.47
50:3:919:C:H2'	50:3:920:G:H8	1.80	0.47
50:3:947:A:N3	50:3:2272:C:O2'	2.37	0.47
50:3:1010:G:H22	50:3:1025:G:H1'	1.80	0.47
50:3:1165:U:O2	50:3:2032:G:H5''	2.14	0.47
50:3:1354:U:OP2	50:3:1355:C:N4	2.48	0.47
50:3:2068:G:H1'	50:3:2069:A:H2'	1.96	0.47
50:3:2097:A:H2'	50:3:2098:U:O4'	2.15	0.47
50:3:2121:A:H61	50:3:2126:A:H8	1.63	0.47
50:3:2589:G:H8	50:3:2590:G:O6	1.98	0.47
50:3:2676:G:H2'	50:3:2677:A:H8	1.78	0.47
51:4:44:A:H2'	51:4:45:C:H6	1.79	0.47
52:5:599:G:H1	52:5:634:U:H3	1.62	0.47
52:5:1161:G:H2'	52:5:1162:G:H8	1.79	0.47
11:H:90:LEU:HD21	11:H:100:LEU:HD12	1.97	0.47
14:K:61:ALA:HA	52:5:517:C:H5''	1.96	0.47
21:R:29:ARG:HD2	21:R:47:ASN:HA	1.95	0.47
23:T:26:ARG:O	23:T:30:GLN:HG2	2.14	0.47
24:a:34:GLU:HG2	24:a:108:TYR:OH	2.14	0.47
27:d:95:ARG:O	27:d:99:PHE:HD1	1.96	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:181:G:H2'	50:3:182:C:H6	1.79	0.47
50:3:220:A:H2'	50:3:221:A:O4'	2.14	0.47
50:3:612:G:H2'	50:3:613:C:C6	2.50	0.47
50:3:680:A:N1	50:3:2377:A:H1'	2.29	0.47
50:3:983:A:H2'	50:3:984:C:C6	2.50	0.47
50:3:1091:G:H5''	50:3:1092:A:O4'	2.14	0.47
50:3:2072:C:H2'	50:3:2073:C:C6	2.50	0.47
50:3:2664:U:H2'	50:3:2665:A:H8	1.80	0.47
52:5:360:A:O2'	52:5:361:U:O4'	2.29	0.47
52:5:375:C:H2'	52:5:376:G:C8	2.50	0.47
52:5:441:U:H2'	52:5:442:G:H8	1.78	0.47
52:5:1471:C:H2'	52:5:1472:G:C8	2.49	0.47
53:7:53:A:H2'	53:7:54:G:H8	1.79	0.47
5:B:154:VAL:CG1	5:B:171:TYR:HB2	2.44	0.47
9:F:115:MET:HA	9:F:118:LYS:HG2	1.95	0.47
11:H:100:LEU:HD22	11:H:105:LEU:HD12	1.97	0.47
12:I:16:LEU:HD12	12:I:102:VAL:HG11	1.96	0.47
14:K:96:ARG:HH11	52:5:550:U:H5'	1.80	0.47
17:N:20:GLY:O	17:N:25:GLN:NE2	2.48	0.47
26:c:66:TYR:CE2	26:c:74:ALA:HA	2.49	0.47
38:o:11:ASP:OD1	38:o:12:LEU:N	2.47	0.47
46:w:26:LEU:HD21	46:w:47:THR:HG21	1.97	0.47
50:3:675:U:H2'	50:3:676:U:C6	2.48	0.47
50:3:1337:G:N2	50:3:1642:G:H1	2.13	0.47
50:3:1572:U:H2'	50:3:1573:A:C8	2.50	0.47
50:3:2071:C:H2'	50:3:2072:C:H6	1.79	0.47
52:5:83:U:H2'	52:5:84:U:H6	1.79	0.47
52:5:433:C:H2'	52:5:434:U:C6	2.48	0.47
52:5:587:A:O2'	52:5:588:U:H5'	2.15	0.47
52:5:1065:G:O2'	52:5:1092:A:N6	2.42	0.47
52:5:1497:U:H2'	52:5:1498:G:C8	2.49	0.47
4:A:32:MET:SD	4:A:203:ASN:ND2	2.88	0.47
4:A:40:LYS:HG3	4:A:41:MET:SD	2.55	0.47
6:C:68:ASP:HB2	52:5:543:C:H5'	1.97	0.47
6:C:199:TRP:O	6:C:202:ARG:NH1	2.47	0.47
11:H:49:ASP:O	11:H:82:ARG:NE	2.35	0.47
18:O:22:ARG:NH1	52:5:371:U:O2	2.48	0.47
21:R:16:LEU:O	21:R:20:ILE:HG12	2.15	0.47
24:a:44:HIS:ND1	50:3:1823:U:OP2	2.46	0.47
24:a:152:LEU:HD23	24:a:152:LEU:H	1.80	0.47
25:b:181:ILE:HD13	25:b:193:VAL:HG13	1.95	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:e:39:PRO:HG2	28:e:71:TYR:OH	2.15	0.47
36:m:11:SER:HA	36:m:14:ARG:HD2	1.95	0.47
37:n:86:LEU:O	37:n:88:ASN:ND2	2.47	0.47
50:3:59:C:H2'	50:3:60:G:H8	1.80	0.47
50:3:87:G:H2'	50:3:88:G:C8	2.50	0.47
50:3:121:U:H5''	50:3:123:G:OP2	2.15	0.47
50:3:135:A:H2'	50:3:136:G:C8	2.49	0.47
50:3:331:A:H2'	50:3:332:G:O4'	2.15	0.47
50:3:333:A:N3	50:3:353:G:O2'	2.43	0.47
50:3:500:U:O4	50:3:823:A:N6	2.47	0.47
50:3:525:A:H2'	50:3:526:G:C8	2.49	0.47
50:3:776:U:H2'	50:3:777:C:C6	2.49	0.47
50:3:849:C:O2'	50:3:1255:G:N2	2.32	0.47
50:3:898:A:H3'	50:3:899:A:C8	2.50	0.47
50:3:1198:G:H2'	50:3:1199:A:H8	1.79	0.47
50:3:1308:A:H2'	50:3:1309:G:H8	1.80	0.47
50:3:1814:G:O2'	50:3:1816:A:N6	2.47	0.47
50:3:1841:U:H5''	50:3:1842:G:H5'	1.96	0.47
50:3:1992:C:H2'	50:3:1993:U:C6	2.49	0.47
50:3:2098:U:O2	50:3:2236:G:O6	2.33	0.47
50:3:2126:A:H2	50:3:2179:A:H5'	1.79	0.47
50:3:2347:G:H2'	50:3:2348:U:C6	2.50	0.47
50:3:2363:C:H2'	50:3:2364:A:C4	2.50	0.47
50:3:2596:A:H2'	50:3:2597:A:C8	2.49	0.47
50:3:2607:G:O6	50:3:2608:A:N6	2.48	0.47
50:3:2670:A:H8	50:3:2671:G:C8	2.33	0.47
50:3:2693:U:H2'	50:3:2694:A:C8	2.50	0.47
50:3:2815:G:H2'	50:3:2816:A:H8	1.80	0.47
52:5:40:G:H2'	52:5:41:C:H6	1.80	0.47
52:5:87:G:H2'	52:5:88:A:C8	2.50	0.47
52:5:136:U:H2'	52:5:137:A:H8	1.79	0.47
52:5:304:U:H2'	52:5:305:A:C8	2.50	0.47
52:5:567:C:H2'	52:5:573:G:C8	2.49	0.47
52:5:571:A:C6	52:5:878:U:H5'	2.50	0.47
52:5:587:A:H2'	52:5:588:U:H6	1.78	0.47
52:5:597:C:H2'	52:5:598:U:C6	2.49	0.47
52:5:634:U:H2'	52:5:635:G:C8	2.49	0.47
52:5:767:U:H2'	52:5:768:G:H8	1.80	0.47
52:5:891:C:H2'	52:5:892:G:H8	1.80	0.47
52:5:1393:A:N6	52:5:1457:G:O2'	2.48	0.47
53:7:11:G:N2	53:7:27:A:H1'	2.29	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:7:28:A:H2'	53:7:29:C:C6	2.50	0.47
4:A:82:ILE:HD12	4:A:175:LEU:HB3	1.97	0.47
7:D:198:GLY:HA2	7:D:201:LYS:HG2	1.96	0.47
14:K:77:LEU:HD22	14:K:106:VAL:HG22	1.96	0.47
21:R:55:LYS:HB2	52:5:953:A:C5	2.50	0.47
24:a:63:LYS:HZ3	50:3:1602:G:H5''	1.79	0.47
28:e:178:LYS:HA	50:3:2539:A:C8	2.50	0.47
50:3:163:A:N6	50:3:170:A:H1'	2.30	0.47
50:3:559:C:H2'	50:3:560:U:O4'	2.15	0.47
50:3:1248:A:O2'	50:3:1249:A:O5'	2.30	0.47
50:3:1265:G:H2'	50:3:1266:G:C4	2.49	0.47
50:3:1999:G:H1	50:3:2003:C:H1'	1.79	0.47
50:3:2038:A:N3	50:3:2463:G:O2'	2.44	0.47
50:3:2705:G:H2'	50:3:2706:U:C6	2.50	0.47
50:3:2756:A:N6	50:3:2765:A:N7	2.62	0.47
52:5:230:G:H2'	52:5:231:U:C6	2.50	0.47
52:5:304:U:H2'	52:5:305:A:H8	1.79	0.47
52:5:712:A:H5''	52:5:802:C:O2'	2.15	0.47
52:5:783:G:H2'	52:5:784:A:C8	2.50	0.47
52:5:883:A:H62	52:5:902:A:H62	1.63	0.47
52:5:1267:G:H2'	52:5:1268:G:C8	2.50	0.47
7:D:179:TYR:HB3	52:5:8:G:N7	2.30	0.47
15:L:90:ARG:HG2	15:L:97:VAL:HA	1.96	0.47
16:M:12:ARG:NE	16:M:12:ARG:HA	2.30	0.47
25:b:56:THR:HA	25:b:78:THR:HA	1.97	0.47
27:d:125:ARG:NE	50:3:2323:U:O2'	2.43	0.47
28:e:97:TYR:HE2	28:e:163:LYS:HE3	1.80	0.47
38:o:34:ALA:HB3	38:o:87:SER:OG	2.15	0.47
38:o:90:LEU:HD21	38:o:93:ARG:HB3	1.96	0.47
39:p:68:LEU:HD22	39:p:73:MET:SD	2.55	0.47
43:t:9:LYS:HB2	43:t:79:GLN:NE2	2.30	0.47
43:t:88:LYS:HB3	43:t:105:LYS:HB2	1.96	0.47
50:3:527:A:H2'	50:3:528:U:O4'	2.15	0.47
50:3:638:A:H2'	50:3:639:G:O4'	2.15	0.47
50:3:1530:G:H2'	50:3:1531:C:C6	2.50	0.47
50:3:1673:U:O2'	50:3:2707:A:H4'	2.15	0.47
50:3:2103:C:H2'	50:3:2104:A:C8	2.50	0.47
51:4:80:G:OP2	51:4:80:G:N2	2.45	0.47
52:5:212:G:H2'	52:5:213:U:C6	2.50	0.47
52:5:366:C:H2'	52:5:367:A:H8	1.80	0.47
52:5:675:U:H2'	52:5:676:U:C6	2.50	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:731:A:H2'	52:5:732:A:C8	2.48	0.47
52:5:821:U:H2'	52:5:822:A:C8	2.49	0.47
52:5:1285:G:H2'	52:5:1286:G:H8	1.80	0.47
6:C:105:GLY:HA3	6:C:161:GLY:HA2	1.96	0.47
7:D:91:LEU:HD13	7:D:105:ILE:HG12	1.96	0.47
26:c:47:GLN:HG3	26:c:49:THR:HG23	1.97	0.47
27:d:24:SER:OG	27:d:27:GLN:HG3	2.15	0.47
32:i:41:GLY:O	32:i:44:LYS:HG2	2.15	0.47
35:l:73:SER:OG	35:l:91:GLU:O	2.23	0.47
45:v:14:TYR:CD2	50:3:192:U:H5''	2.49	0.47
50:3:79:U:H2'	50:3:80:U:O4'	2.14	0.47
50:3:127:A:H2'	50:3:128:A:C4	2.50	0.47
50:3:1005:G:H2'	50:3:1006:U:C6	2.49	0.47
50:3:1007:C:H3'	50:3:1008:A:C8	2.49	0.47
50:3:1849:G:H2'	50:3:1850:C:C6	2.49	0.47
50:3:1903:A:H2'	50:3:1904:G:H8	1.77	0.47
50:3:2353:G:H4'	50:3:2354:A:H3'	1.97	0.47
50:3:2560:U:H2'	50:3:2562:U:H5	1.80	0.47
50:3:2642:G:H2'	50:3:2643:A:C8	2.50	0.47
50:3:2666:C:N4	50:3:2667:G:O6	2.48	0.47
52:5:193:G:H2'	52:5:194:U:C6	2.50	0.47
52:5:305:A:H2'	52:5:306:G:C8	2.50	0.47
52:5:589:U:H2'	52:5:590:G:C8	2.50	0.47
1:0:26:SER:HA	1:0:29:LYS:HD3	1.97	0.46
1:0:37:LYS:HZ1	1:0:39:ARG:HD3	1.79	0.46
7:D:185:ARG:NH2	52:5:22:G:OP2	2.47	0.46
9:F:63:ARG:HE	9:F:127:SER:HB3	1.79	0.46
14:K:19:SER:OG	14:K:20:LYS:N	2.47	0.46
20:Q:69:LYS:HD2	52:5:716:C:H1'	1.96	0.46
24:a:271:LYS:NZ	50:3:2235:A:H5'	2.30	0.46
26:c:76:GLN:NE2	50:3:708:C:H4'	2.25	0.46
27:d:55:ASN:O	27:d:59:LEU:HG	2.14	0.46
29:f:112:MET:HE3	29:f:130:ILE:O	2.16	0.46
33:j:7:ARG:HG2	50:3:1701:G:OP1	2.15	0.46
33:j:102:VAL:HB	33:j:121:VAL:HG22	1.97	0.46
35:l:14:ASN:HB3	50:3:990:G:OP1	2.15	0.46
36:m:101:LEU:HG	36:m:117:GLN:HE22	1.80	0.46
36:m:106:ARG:HG2	36:m:108:GLY:H	1.80	0.46
39:p:105:PHE:HA	39:p:108:ILE:HD12	1.98	0.46
50:3:601:U:H4'	50:3:981:A:C6	2.50	0.46
50:3:1048:A:H2'	50:3:1049:U:C6	2.50	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:1692:A:H2'	50:3:1693:U:C6	2.50	0.46
50:3:2267:G:H5'	50:3:2435:C:H3'	1.96	0.46
50:3:2408:G:H2'	50:3:2409:U:C6	2.49	0.46
52:5:87:G:H2'	52:5:88:A:H8	1.80	0.46
3:2:9:PRO:HB3	3:2:14:CYS:HB3	1.97	0.46
7:D:162:ALA:HB1	7:D:166:ILE:HB	1.97	0.46
13:J:60:ALA:HB1	13:J:93:PHE:CE1	2.50	0.46
15:L:57:ARG:O	15:L:60:ALA:HB3	2.15	0.46
23:T:24:GLU:O	23:T:27:ARG:HG3	2.14	0.46
24:a:217:GLY:HA3	50:3:799:A:H5''	1.97	0.46
25:b:111:SER:HB3	25:b:173:LYS:HE2	1.97	0.46
25:b:152:GLY:C	25:b:157:GLN:HG3	2.41	0.46
26:c:170:GLN:HG2	50:3:355:A:H5'	1.97	0.46
37:n:10:LEU:HD11	50:3:2342:U:H2'	1.96	0.46
37:n:101:ARG:HG2	51:4:47:C:OP1	2.15	0.46
39:p:12:ARG:O	39:p:16:TRP:HD1	1.97	0.46
40:q:41:LEU:HB3	40:q:44:LYS:HZ2	1.80	0.46
41:r:56:ALA:HA	41:r:59:THR:HG22	1.97	0.46
50:3:270:G:H2'	50:3:271:G:C8	2.50	0.46
50:3:614:C:H2'	50:3:615:G:H8	1.80	0.46
50:3:954:A:H2'	50:3:955:A:C8	2.50	0.46
50:3:1262:G:H2'	50:3:1263:G:H8	1.79	0.46
50:3:1343:C:O2'	50:3:1420:A:H1'	2.15	0.46
50:3:1507:G:O2'	50:3:1508:G:P	2.72	0.46
50:3:2035:U:O2	50:3:2040:A:N7	2.47	0.46
52:5:45:A:H2'	52:5:46:U:C6	2.50	0.46
52:5:191:A:H2'	52:5:192:A:H8	1.80	0.46
52:5:1379:C:H2'	52:5:1380:G:C8	2.51	0.46
5:B:34:LEU:O	5:B:37:ASP:N	2.46	0.46
6:C:141:LYS:HD2	6:C:177:THR:HG22	1.97	0.46
9:F:52:ARG:NH1	9:F:120:ALA:HB1	2.30	0.46
20:Q:92:ARG:HG2	52:5:732:A:H4'	1.95	0.46
33:j:13:ASN:OD1	33:j:97:ARG:NH1	2.48	0.46
37:n:34:LYS:HD2	37:n:101:ARG:NH1	2.29	0.46
41:r:34:ASN:HB3	48:y:36:LYS:HB3	1.98	0.46
50:3:250:U:O4	50:3:256:G:O6	2.34	0.46
50:3:667:A:N6	50:3:2423:G:H21	2.14	0.46
50:3:1187:C:H2'	50:3:1188:C:H6	1.79	0.46
50:3:1462:A:O2'	50:3:1463:G:O5'	2.23	0.46
50:3:2145:A:H2'	50:3:2146:A:C8	2.50	0.46
50:3:2473:C:H2'	50:3:2474:C:H6	1.81	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:4:18:U:H2'	51:4:19:G:H8	1.79	0.46
52:5:57:U:H2'	52:5:58:G:C4	2.49	0.46
52:5:192:A:H2'	52:5:193:G:C8	2.51	0.46
52:5:1417:U:H2'	52:5:1418:G:H8	1.79	0.46
2:1:47:VAL:HG21	2:1:55:ILE:HG13	1.96	0.46
8:E:70:LYS:HB3	8:E:74:ARG:NH2	2.29	0.46
9:F:37:LEU:O	9:F:40:ARG:HG2	2.15	0.46
9:F:137:LYS:HD3	9:F:141:HIS:CE1	2.51	0.46
9:F:140:THR:HA	9:F:143:MET:HE3	1.96	0.46
13:J:100:ILE:HG13	13:J:102:GLU:H	1.80	0.46
14:K:52:THR:HA	14:K:64:LYS:HA	1.96	0.46
20:Q:71:ASN:HB3	20:Q:75:ILE:HB	1.98	0.46
21:R:10:PHE:CG	52:5:1292:A:H4'	2.50	0.46
24:a:235:PRO:HD3	24:a:242:GLY:HA2	1.97	0.46
25:b:158:ARG:NH2	50:3:1165:U:O2	2.47	0.46
26:c:67:LYS:O	26:c:71:THR:OG1	2.32	0.46
26:c:138:GLY:O	26:c:171:SER:OG	2.33	0.46
27:d:99:PHE:HA	27:d:102:LYS:HG2	1.97	0.46
32:i:71:LYS:HB3	32:i:75:GLU:HB2	1.98	0.46
33:j:10:VAL:HG11	33:j:16:ALA:HB3	1.96	0.46
34:k:36:GLN:N	50:3:979:U:OP1	2.47	0.46
42:s:38:THR:HA	42:s:41:LYS:HG2	1.97	0.46
50:3:337:U:H2'	50:3:338:G:C8	2.51	0.46
50:3:429:U:N3	50:3:430:U:O4	2.48	0.46
50:3:610:G:O3'	50:3:1285:U:O2'	2.26	0.46
50:3:1768:G:H2'	50:3:1769:A:N9	2.30	0.46
50:3:2500:U:H2'	50:3:2501:U:H6	1.81	0.46
50:3:2639:G:H2'	50:3:2640:A:C8	2.49	0.46
50:3:2667:G:H2'	50:3:2668:A:H2'	1.96	0.46
52:5:1067:C:H2'	52:5:1068:G:C8	2.50	0.46
52:5:1197:G:O2'	52:5:1198:C:O4'	2.28	0.46
6:C:38:HIS:CG	52:5:510:U:H4'	2.51	0.46
6:C:74:LEU:O	6:C:78:VAL:HG23	2.16	0.46
6:C:97:LEU:HB2	6:C:134:ILE:HB	1.96	0.46
9:F:113:LYS:HE2	52:5:1272:C:N3	2.30	0.46
16:M:3:LYS:HB3	52:5:1039:G:H5''	1.97	0.46
24:a:270:MET:N	24:a:270:MET:SD	2.88	0.46
25:b:115:LYS:NZ	50:3:2731:U:OP1	2.38	0.46
26:c:46:ARG:HD3	50:3:479:A:C8	2.51	0.46
28:e:161:LYS:HG2	28:e:163:LYS:HD3	1.98	0.46
28:e:167:TYR:HB2	28:e:170:GLU:HB2	1.97	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:g:108:PHE:HB3	30:g:120:SER:HA	1.98	0.46
33:j:21:ILE:HD12	33:j:21:ILE:H	1.80	0.46
41:r:124:LEU:O	41:r:127:LYS:HG2	2.16	0.46
42:s:89:ILE:HG23	46:w:86:ALA:HB2	1.97	0.46
50:3:47:G:H4'	50:3:48:G:O5'	2.14	0.46
50:3:487:C:N4	50:3:490:A:OP2	2.27	0.46
50:3:512:G:N2	50:3:514:A:H3'	2.31	0.46
50:3:680:A:H61	50:3:2357:G:H21	1.63	0.46
50:3:1008:A:C8	50:3:1009:A:H2'	2.50	0.46
50:3:1828:A:H2'	50:3:1829:U:C6	2.50	0.46
50:3:1942:G:N2	50:3:1947:U:O4	2.48	0.46
50:3:2092:U:H2'	50:3:2093:U:C6	2.51	0.46
50:3:2315:G:H5'	50:3:2316:G:C5	2.50	0.46
50:3:2568:G:H2'	50:3:2569:A:H8	1.79	0.46
50:3:2793:U:H2'	50:3:2794:U:C6	2.51	0.46
50:3:2865:U:H2'	50:3:2866:A:C8	2.51	0.46
52:5:85:U:O2'	52:5:87:G:N7	2.48	0.46
52:5:98:G:N2	52:5:311:A:N1	2.63	0.46
52:5:309:A:H2'	52:5:310:C:C6	2.50	0.46
52:5:443:G:H22	52:5:485:C:H42	1.63	0.46
52:5:602:G:O6	52:5:632:A:N6	2.48	0.46
52:5:681:U:H3'	52:5:682:G:C5	2.51	0.46
52:5:856:U:H1'	52:5:868:G:H5''	1.97	0.46
52:5:1086:U:OP1	52:5:1099:G:N2	2.30	0.46
52:5:1360:G:H2'	52:5:1361:G:C8	2.50	0.46
4:A:130:LEU:O	4:A:134:VAL:HG23	2.16	0.46
14:K:69:ARG:HB2	14:K:75:GLU:OE2	2.16	0.46
14:K:99:ARG:CZ	52:5:522:G:H4'	2.45	0.46
28:e:172:ILE:HG13	28:e:174:ARG:HH12	1.79	0.46
32:i:83:TYR:CD2	50:3:2650:A:H5'	2.50	0.46
32:i:94:ASP:HA	32:i:97:LYS:HE2	1.97	0.46
34:k:84:LYS:NZ	50:3:662:U:O2'	2.37	0.46
35:l:2:LEU:HB3	35:l:69:PHE:HE1	1.80	0.46
36:m:99:ARG:HH12	36:m:119:THR:HG22	1.80	0.46
39:p:32:LYS:HB3	50:3:1282:G:N2	2.31	0.46
50:3:101:C:H5'	50:3:103:G:O4'	2.15	0.46
50:3:121:U:O2	50:3:152:A:N6	2.49	0.46
50:3:189:U:H2'	50:3:190:G:H8	1.81	0.46
50:3:547:G:OP1	50:3:1264:U:O2'	2.23	0.46
50:3:633:G:O6	50:3:692:U:O4	2.32	0.46
50:3:2190:G:H2'	50:3:2191:G:C8	2.46	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2338:G:O6	50:3:2394:A:N6	2.48	0.46
51:4:78:C:H41	51:4:87:U:H3	1.64	0.46
51:4:78:C:H5	51:4:86:G:H1	1.63	0.46
52:5:283:U:H2'	52:5:284:A:H8	1.80	0.46
52:5:357:G:H2'	52:5:358:G:C8	2.51	0.46
52:5:954:A:H2	52:5:1196:G:H21	1.64	0.46
52:5:1141:U:O2'	52:5:1142:G:H8	1.98	0.46
52:5:1246:A:H5'	52:5:1288:C:H5''	1.97	0.46
1:0:19:LEU:HD13	50:3:125:G:H2'	1.97	0.46
4:A:131:ASN:O	4:A:135:GLU:OE1	2.34	0.46
7:D:136:ILE:N	7:D:178:ILE:HD11	2.31	0.46
8:E:76:ALA:HB1	8:E:85:GLU:HG2	1.96	0.46
10:G:24:ASN:ND2	52:5:823:C:O2	2.49	0.46
10:G:44:ILE:HA	10:G:47:ILE:HG22	1.97	0.46
17:N:59:LYS:O	17:N:63:LEU:HG	2.16	0.46
24:a:165:GLY:HA3	50:3:1827:U:C4	2.50	0.46
26:c:142:VAL:HA	26:c:145:GLN:HG3	1.98	0.46
27:d:58:HIS:NE2	47:x:7:PHE:HB2	2.29	0.46
33:j:6:THR:HG23	50:3:1700:G:H5''	1.98	0.46
33:j:13:ASN:O	33:j:96:THR:OG1	2.20	0.46
35:l:39:GLY:CA	35:l:97:VAL:O	2.64	0.46
38:o:56:ARG:NH1	50:3:2727:G:H5''	2.31	0.46
50:3:408:G:O2'	50:3:459:A:H3'	2.15	0.46
50:3:512:G:H2'	50:3:513:A:H3'	1.96	0.46
50:3:635:G:H2'	50:3:636:U:C4	2.50	0.46
50:3:720:A:C2	50:3:822:C:H1'	2.51	0.46
50:3:766:C:H2'	50:3:767:C:H6	1.81	0.46
50:3:1064:A:H3'	50:3:1065:G:H8	1.81	0.46
50:3:1073:A:H2'	50:3:1074:A:C8	2.51	0.46
50:3:1526:U:H2'	50:3:1527:U:C6	2.51	0.46
50:3:1553:G:N2	50:3:1577:A:OP2	2.40	0.46
50:3:1930:U:H2'	50:3:1931:C:C6	2.50	0.46
50:3:1941:C:H2'	50:3:1942:G:C8	2.50	0.46
50:3:2111:U:H5'	50:3:2112:A:H5''	1.98	0.46
50:3:2526:A:H2'	50:3:2526:A:N3	2.30	0.46
50:3:2712:C:H3'	50:3:2713:A:H8	1.80	0.46
51:4:59:A:H2'	51:4:60:C:C5	2.51	0.46
52:5:32:U:N3	52:5:49:C:O4'	2.48	0.46
52:5:1226:A:H2'	52:5:1227:A:H8	1.75	0.46
52:5:1415:G:H2'	52:5:1416:U:C6	2.51	0.46
4:A:25:GLU:OE1	4:A:25:GLU:N	2.49	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:167:ARG:HH12	5:B:169:LYS:HB2	1.81	0.46
6:C:66:ILE:HG23	6:C:70:GLN:HG2	1.98	0.46
10:G:11:HIS:CD2	10:G:12:PHE:H	2.33	0.46
14:K:127:ARG:HE	14:K:134:LYS:HB2	1.80	0.46
34:k:95:ARG:HD2	34:k:95:ARG:C	2.41	0.46
39:p:35:LYS:O	39:p:39:ILE:HG12	2.16	0.46
40:q:73:HIS:HD2	40:q:80:LEU:HD11	1.80	0.46
41:r:133:GLN:HG2	41:r:137:MET:HE1	1.96	0.46
48:y:28:SER:HB2	48:y:39:PHE:HA	1.98	0.46
50:3:404:C:H2'	50:3:405:C:C6	2.51	0.46
50:3:618:G:O5'	50:3:1281:A:N6	2.49	0.46
50:3:998:C:H2'	50:3:999:U:H6	1.81	0.46
50:3:1464:G:H2'	50:3:1465:U:C6	2.50	0.46
50:3:1473:C:H2'	50:3:1474:C:H6	1.81	0.46
50:3:1653:C:H2'	50:3:1654:G:C8	2.50	0.46
50:3:2660:C:H2'	50:3:2661:U:O4'	2.16	0.46
52:5:205:U:H3	52:5:210:G:H1	1.63	0.46
52:5:245:U:O4	52:5:271:G:O6	2.33	0.46
52:5:442:G:H2'	52:5:443:G:O4'	2.16	0.46
52:5:733:A:H2'	52:5:734:A:C8	2.50	0.46
52:5:1001:A:OP2	52:5:1019:G:N1	2.48	0.46
52:5:1409:A:H2'	52:5:1410:A:H8	1.80	0.46
14:K:128:SER:HA	52:5:36:G:N3	2.30	0.46
15:L:93:LYS:HE2	15:L:95:LEU:HD21	1.97	0.46
28:e:100:ASN:OD1	28:e:131:ASN:ND2	2.49	0.46
35:l:35:VAL:HG21	35:l:132:LEU:HD12	1.98	0.46
39:p:80:ASN:ND2	50:3:1186:A:O2'	2.49	0.46
50:3:200:A:H61	50:3:866:G:N2	2.14	0.46
50:3:246:G:H1'	50:3:247:U:H5	1.81	0.46
50:3:675:U:O2	50:3:685:G:N2	2.38	0.46
50:3:799:A:N7	50:3:1783:G:H1'	2.30	0.46
50:3:820:U:H2'	50:3:821:C:C6	2.51	0.46
50:3:1019:A:H2'	50:3:1020:G:C5	2.51	0.46
50:3:1174:G:H21	50:3:1178:A:H2	1.63	0.46
50:3:1544:G:C2	50:3:1545:A:C5	3.04	0.46
50:3:1670:U:H2'	50:3:1671:C:C5	2.50	0.46
50:3:1934:A:H2'	50:3:1935:A:H8	1.81	0.46
50:3:2013:C:H2'	50:3:2014:U:C6	2.50	0.46
50:3:2122:G:H2'	50:3:2124:A:H62	1.81	0.46
50:3:2548:G:H2'	50:3:2549:A:O4'	2.16	0.46
50:3:2679:G:H2'	50:3:2680:C:C6	2.51	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:434:U:H2'	52:5:435:U:C6	2.51	0.46
52:5:721:G:H2'	52:5:722:G:C8	2.50	0.46
52:5:1380:G:H1'	52:5:1494:A:H4'	1.97	0.46
3:2:25:VAL:HG22	3:2:34:GLN:HB2	1.97	0.46
5:B:36:GLU:HA	5:B:39:LYS:HZ3	1.79	0.46
6:C:78:VAL:HG11	6:C:89:LEU:HB2	1.97	0.46
6:C:183:GLU:HB2	6:C:186:GLU:HG3	1.98	0.46
15:L:19:LEU:O	15:L:22:ILE:HG12	2.15	0.46
16:M:40:CYS:HB3	16:M:43:CYS:HB3	1.97	0.46
23:T:37:ARG:NH1	23:T:40:MET:SD	2.89	0.46
25:b:40:LYS:HD3	25:b:49:ALA:HB3	1.98	0.46
26:c:127:LEU:HD11	26:c:201:LYS:HD3	1.98	0.46
28:e:102:GLU:OE1	28:e:102:GLU:N	2.49	0.46
29:f:116:ASN:ND2	50:3:2228:U:OP1	2.49	0.46
32:i:108:VAL:O	32:i:112:LEU:HG	2.15	0.46
37:n:19:ILE:HA	37:n:22:THR:HG22	1.98	0.46
40:q:15:HIS:HB2	40:q:18:ASP:OD2	2.16	0.46
41:r:131:GLY:HA2	41:r:134:LYS:HG2	1.98	0.46
44:u:27:GLY:HA2	50:3:2284:G:N7	2.30	0.46
50:3:122:G:H2'	50:3:123:G:H8	1.81	0.46
50:3:1460:G:H2'	50:3:1461:A:C8	2.51	0.46
50:3:1544:G:H2'	50:3:1545:A:H8	1.79	0.46
50:3:1725:G:O6	50:3:1731:G:N2	2.49	0.46
50:3:1789:C:O2	50:3:2616:G:O2'	2.34	0.46
50:3:2348:U:H2'	50:3:2349:G:C8	2.51	0.46
50:3:2664:U:H2'	50:3:2665:A:C8	2.51	0.46
52:5:55:C:OP1	52:5:347:G:N2	2.43	0.46
52:5:84:U:H2'	52:5:85:U:C6	2.51	0.46
52:5:228:G:H2'	52:5:229:G:H8	1.81	0.46
52:5:329:C:H2'	52:5:330:C:C6	2.51	0.46
52:5:350:G:H2'	52:5:351:C:C6	2.51	0.46
52:5:580:C:N3	52:5:756:A:N7	2.64	0.46
52:5:1061:U:H2'	52:5:1062:C:H6	1.81	0.46
52:5:1269:U:H2'	52:5:1270:C:C6	2.51	0.46
52:5:1281:U:H2'	52:5:1282:U:O4'	2.15	0.46
52:5:1304:U:H2'	52:5:1305:G:C8	2.51	0.46
4:A:98:ASN:OD1	4:A:101:LYS:NZ	2.49	0.45
25:b:24:LEU:HD12	25:b:25:PRO:HD2	1.98	0.45
25:b:108:VAL:HG21	25:b:181:ILE:HD11	1.99	0.45
32:i:18:TRP:CZ3	32:i:138:GLN:HB2	2.52	0.45
32:i:89:LYS:HZ2	32:i:89:LYS:HG3	1.56	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:r:4:PHE:CE2	50:3:530:G:H5''	2.51	0.45
50:3:60:G:H2'	50:3:61:U:C6	2.51	0.45
50:3:189:U:H2'	50:3:190:G:C8	2.52	0.45
50:3:717:U:H2'	50:3:718:U:C6	2.51	0.45
50:3:1309:G:H2'	50:3:1310:U:H6	1.81	0.45
50:3:1712:A:C2	50:3:1713:U:C5	3.04	0.45
50:3:1798:A:H61	50:3:1835:G:H1'	1.79	0.45
50:3:2249:A:H2'	50:3:2250:G:C8	2.50	0.45
52:5:63:U:H1'	52:5:375:C:H1'	1.97	0.45
52:5:474:G:H2'	52:5:475:U:C6	2.51	0.45
52:5:577:G:H1'	52:5:725:A:C2	2.51	0.45
5:B:153:LYS:NZ	5:B:155:LEU:HB2	2.31	0.45
7:D:70:ILE:HG22	7:D:92:VAL:HG12	1.98	0.45
26:c:128:VAL:HB	26:c:198:LEU:HD12	1.97	0.45
32:i:71:LYS:NZ	50:3:1176:U:OP2	2.43	0.45
50:3:190:G:H2'	50:3:191:G:C8	2.51	0.45
50:3:488:G:H21	50:3:493:A:H1'	1.81	0.45
50:3:648:G:H21	50:3:648:G:P	2.39	0.45
50:3:660:U:H2'	50:3:661:G:C8	2.50	0.45
50:3:716:G:H2'	50:3:717:U:C6	2.51	0.45
50:3:802:U:H2'	50:3:803:G:C8	2.50	0.45
50:3:1101:U:O2	50:3:1104:A:N6	2.49	0.45
50:3:1174:G:O2'	50:3:1178:A:N6	2.49	0.45
50:3:1868:A:H2'	50:3:1869:G:C8	2.51	0.45
50:3:1950:U:H4'	50:3:1951:A:H3'	1.98	0.45
50:3:2021:A:H2'	50:3:2022:A:C4	2.51	0.45
50:3:2640:A:O2'	50:3:2641:A:H5'	2.16	0.45
50:3:2682:A:H2'	50:3:2683:G:C8	2.51	0.45
51:4:46:C:C2	51:4:47:C:C5	3.05	0.45
52:5:146:A:H2'	52:5:147:A:N3	2.31	0.45
52:5:755:U:O2'	52:5:756:A:H5''	2.16	0.45
52:5:834:G:C6	52:5:835:G:O6	2.70	0.45
52:5:1055:G:H1'	52:5:1165:G:H21	1.81	0.45
52:5:1377:C:H2'	52:5:1378:C:O4'	2.16	0.45
53:7:6:U:H2'	53:7:7:U:C6	2.51	0.45
4:A:112:TRP:CE2	4:A:187:ALA:HA	2.51	0.45
4:A:158:ARG:NH1	52:5:1088:C:H5''	2.29	0.45
4:A:234:ASP:OD2	4:A:246:PHE:N	2.46	0.45
6:C:57:LYS:HE2	6:C:61:GLN:NE2	2.31	0.45
7:D:69:ARG:NH2	7:D:172:LEU:HD11	2.31	0.45
7:D:97:ARG:NE	7:D:174:GLY:HA2	2.32	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:111:VAL:HB	7:D:112:PRO:HD3	1.98	0.45
19:P:25:GLN:HE22	19:P:27:GLU:HG2	1.80	0.45
34:k:26:SER:N	50:3:848:U:OP2	2.49	0.45
38:o:101:ILE:HG22	38:o:103:TYR:CE2	2.51	0.45
42:s:26:LYS:HE2	50:3:1426:C:H4'	1.98	0.45
43:t:70:PHE:H	43:t:73:LYS:HD2	1.81	0.45
44:u:26:ASN:HD22	50:3:2285:G:H3'	1.80	0.45
50:3:82:G:H2'	50:3:83:G:H8	1.82	0.45
50:3:87:G:O2'	50:3:104:A:N1	2.42	0.45
50:3:1345:G:H2'	50:3:1346:G:C8	2.51	0.45
50:3:1438:G:H2'	50:3:1439:U:C6	2.52	0.45
50:3:1595:C:H2'	50:3:1596:U:C6	2.52	0.45
50:3:1912:C:H1'	50:3:1935:A:H2	1.82	0.45
50:3:2399:G:N2	50:3:2437:G:N3	2.64	0.45
50:3:2422:G:H2'	50:3:2422:G:N3	2.31	0.45
50:3:2639:G:H2'	50:3:2640:A:H8	1.82	0.45
52:5:108:C:OP1	52:5:307:C:O2'	2.30	0.45
52:5:108:C:H2'	52:5:109:G:C8	2.52	0.45
52:5:567:C:H2'	52:5:573:G:H8	1.80	0.45
52:5:931:C:H2'	52:5:932:A:O4'	2.17	0.45
52:5:1136:G:H1	52:5:1151:A:N6	2.14	0.45
53:7:72:C:H2'	53:7:73:C:C6	2.51	0.45
1:0:19:LEU:HD12	50:3:126:C:H3'	1.99	0.45
6:C:9:LYS:HE3	6:C:35:PRO:HG2	1.99	0.45
7:D:204:SER:HB3	7:D:207:ARG:HB2	1.99	0.45
9:F:25:ILE:HA	9:F:28:VAL:HG12	1.98	0.45
15:L:58:ASN:O	15:L:61:SER:OG	2.33	0.45
22:S:15:ILE:O	22:S:19:LEU:HG	2.17	0.45
26:c:46:ARG:NE	50:3:480:C:OP1	2.42	0.45
26:c:103:LEU:HD21	26:c:108:HIS:CD2	2.51	0.45
26:c:130:GLN:HA	26:c:133:PHE:HB2	1.97	0.45
32:i:115:ASN:O	32:i:118:SER:OG	2.28	0.45
35:l:14:ASN:OD1	35:l:15:VAL:N	2.49	0.45
35:l:24:ASN:ND2	50:3:944:U:O2'	2.49	0.45
36:m:10:THR:HG23	36:m:13:TRP:H	1.82	0.45
41:r:43:ALA:HB1	41:r:47:ILE:HD13	1.98	0.45
42:s:8:LEU:C	42:s:9:LYS:HD3	2.42	0.45
43:t:88:LYS:NZ	50:3:335:G:OP2	2.50	0.45
50:3:37:G:H1'	50:3:490:A:C4	2.51	0.45
50:3:159:G:H2'	50:3:160:A:H8	1.80	0.45
50:3:195:A:O2'	50:3:713:C:O2	2.32	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:513:A:O2'	50:3:514:A:OP1	2.35	0.45
50:3:720:A:H1'	50:3:724:A:N6	2.32	0.45
50:3:1069:G:H2'	50:3:1070:U:C6	2.51	0.45
50:3:1318:U:H2'	50:3:1319:C:C6	2.51	0.45
50:3:1738:G:H2'	50:3:1739:G:C8	2.51	0.45
50:3:1772:G:H2'	50:3:1773:A:H8	1.81	0.45
50:3:2072:C:H2'	50:3:2073:C:H6	1.81	0.45
50:3:2267:G:H2'	50:3:2268:C:C6	2.52	0.45
50:3:2290:G:H5''	50:3:2397:G:H1'	1.99	0.45
50:3:2294:A:N7	50:3:2352:U:O2'	2.38	0.45
50:3:2682:A:H2'	50:3:2683:G:H8	1.81	0.45
52:5:678:A:H2'	52:5:679:U:H6	1.81	0.45
4:A:154:ARG:NH2	4:A:158:ARG:NH1	2.64	0.45
4:A:154:ARG:HH21	4:A:158:ARG:NH2	2.15	0.45
5:B:91:GLN:O	5:B:94:GLN:HG2	2.15	0.45
12:I:27:THR:O	12:I:31:ILE:HG12	2.17	0.45
14:K:96:ARG:HD3	14:K:130:TYR:CE1	2.52	0.45
15:L:90:ARG:NH2	52:5:1201:C:OP1	2.49	0.45
22:S:22:LYS:HE3	52:5:1433:G:H5''	1.99	0.45
23:T:37:ARG:NH2	52:5:1501:G:OP2	2.40	0.45
24:a:262:HIS:NE2	24:a:263:MET:HE2	2.32	0.45
28:e:98:ARG:HB2	28:e:131:ASN:HB3	1.98	0.45
37:n:89:VAL:HG23	37:n:116:PHE:HB3	1.99	0.45
41:r:19:LEU:O	41:r:23:LEU:HG	2.16	0.45
50:3:60:G:H2'	50:3:61:U:H6	1.82	0.45
50:3:269:A:H2'	50:3:464:A:H61	1.80	0.45
50:3:338:G:H2'	50:3:339:U:H6	1.81	0.45
50:3:609:U:H4'	50:3:2510:G:H2'	1.98	0.45
50:3:1091:G:H21	50:3:1139:C:N4	2.14	0.45
50:3:1129:U:N3	50:3:1132:C:OP2	2.33	0.45
50:3:1141:U:H2'	50:3:1142:G:H8	1.82	0.45
50:3:1327:G:N2	50:3:1674:A:OP2	2.48	0.45
50:3:1755:A:H2'	50:3:1756:A:C8	2.49	0.45
50:3:1757:G:H21	50:3:2864:A:H1'	1.82	0.45
50:3:1848:U:H2'	50:3:1849:G:C8	2.50	0.45
50:3:1960:A:H1'	50:3:2557:G:N2	2.31	0.45
50:3:2642:G:H2'	50:3:2643:A:H8	1.81	0.45
50:3:2780:U:H2'	50:3:2781:C:C6	2.52	0.45
52:5:14:U:N3	52:5:909:A:N7	2.64	0.45
52:5:452:A:H2'	52:5:452:A:N3	2.31	0.45
52:5:500:G:H2'	52:5:501:A:H8	1.81	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:737:U:H2'	52:5:738:A:C8	2.51	0.45
52:5:934:G:H2'	52:5:935:U:H6	1.81	0.45
52:5:1274:G:H4'	52:5:1275:U:H5'	1.98	0.45
53:7:63:U:H2'	53:7:64:G:C8	2.52	0.45
4:A:51:HIS:NE2	4:A:53:ASN:OD1	2.49	0.45
8:E:39:TYR:HD2	8:E:41:GLY:H	1.64	0.45
9:F:110:ARG:HG2	9:F:111:HIS:N	2.32	0.45
15:L:86:TRP:CZ2	15:L:90:ARG:HD3	2.51	0.45
20:Q:69:LYS:HD3	20:Q:69:LYS:HA	1.72	0.45
35:l:5:LYS:HB3	35:l:5:LYS:HE2	1.70	0.45
45:v:44:LYS:HD2	45:v:44:LYS:O	2.16	0.45
50:3:45:U:H3'	50:3:46:A:C8	2.52	0.45
50:3:170:A:C2	50:3:171:G:H1'	2.52	0.45
50:3:345:A:H5''	50:3:366:A:N3	2.31	0.45
50:3:823:A:H5''	50:3:825:U:H5	1.80	0.45
50:3:1001:C:N4	50:3:1002:A:H62	2.15	0.45
50:3:1506:U:H2'	50:3:1507:G:C8	2.52	0.45
50:3:2466:G:O2'	50:3:2468:U:O4	2.32	0.45
50:3:2739:C:H2'	50:3:2740:U:C6	2.52	0.45
5:B:144:VAL:HG13	5:B:145:LEU:HD22	1.98	0.45
10:G:19:LEU:HD22	10:G:87:VAL:HG11	1.99	0.45
13:J:19:SER:C	13:J:21:ASN:H	2.23	0.45
16:M:32:ALA:H	52:5:971:A:P	2.39	0.45
19:P:37:LYS:NZ	19:P:38:SER:O	2.49	0.45
27:d:129:THR:OG1	50:3:2311:G:O2'	2.16	0.45
40:q:74:ILE:HG22	40:q:79:HIS:HB3	1.99	0.45
50:3:61:U:H1'	50:3:75:A:H2'	1.99	0.45
50:3:279:U:H2'	50:3:280:A:H8	1.82	0.45
50:3:766:C:H2'	50:3:767:C:C6	2.52	0.45
50:3:1009:A:H5'	50:3:1219:U:N1	2.32	0.45
50:3:1069:G:H2'	50:3:1070:U:H6	1.82	0.45
50:3:1577:A:H2'	50:3:1578:A:C8	2.52	0.45
50:3:1866:G:N1	50:3:1891:A:N7	2.65	0.45
50:3:2097:A:N6	50:3:2238:G:O6	2.50	0.45
51:4:43:A:C5	51:4:44:A:C8	3.04	0.45
52:5:19:C:H1'	52:5:1070:G:H21	1.82	0.45
52:5:56:A:H2'	52:5:56:A:N3	2.31	0.45
52:5:200:G:H2'	52:5:201:G:H8	1.82	0.45
52:5:268:C:H2'	52:5:269:A:H8	1.80	0.45
52:5:515:G:N2	52:5:531:A:OP2	2.32	0.45
1:0:8:SER:O	1:0:12:ARG:HG2	2.15	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:E:104:LYS:HA	8:E:107:LEU:HG	1.98	0.45
10:G:39:LYS:HG2	52:5:588:U:OP1	2.16	0.45
14:K:63:ARG:NH1	14:K:102:ASP:OD2	2.50	0.45
15:L:7:ILE:HB	15:L:22:ILE:HG22	1.99	0.45
18:O:2:ARG:HG3	18:O:11:TYR:HB2	1.99	0.45
18:O:58:LYS:HA	18:O:58:LYS:HD3	1.77	0.45
20:Q:65:SER:OG	20:Q:69:LYS:N	2.46	0.45
22:S:29:LYS:O	22:S:33:LYS:HG2	2.17	0.45
24:a:190:ARG:HG3	24:a:278:ILE:HA	1.98	0.45
27:d:102:LYS:HE2	27:d:138:PHE:CD1	2.51	0.45
33:j:18:GLN:HB3	33:j:45:ASP:HB3	1.99	0.45
33:j:69:GLN:O	33:j:77:LEU:HB3	2.17	0.45
36:m:61:ARG:O	36:m:64:LYS:HG2	2.17	0.45
37:n:89:VAL:HG13	37:n:114:LEU:HD12	1.99	0.45
50:3:1192:U:H2'	50:3:1193:U:C6	2.51	0.45
50:3:1659:C:H3'	50:3:1660:A:H8	1.82	0.45
50:3:2143:G:N1	50:3:2162:U:N3	2.64	0.45
50:3:2176:G:H22	50:3:2179:A:P	2.40	0.45
50:3:2706:U:H2'	50:3:2707:A:C8	2.52	0.45
50:3:2812:U:O2'	50:3:2894:G:N2	2.49	0.45
52:5:28:G:H2'	52:5:29:G:C8	2.52	0.45
52:5:75:A:N1	52:5:81:A:N6	2.65	0.45
52:5:234:G:H2'	52:5:235:C:C6	2.52	0.45
52:5:462:G:H2'	52:5:463:U:O4'	2.16	0.45
52:5:891:C:H2'	52:5:892:G:C8	2.52	0.45
52:5:1108:A:C4	52:5:1154:A:H2	2.35	0.45
52:5:1288:C:H2'	52:5:1289:U:C6	2.52	0.45
11:H:15:SER:HB2	11:H:72:GLY:HA3	1.98	0.45
13:J:53:PRO:O	13:J:88:THR:HG21	2.17	0.45
23:T:37:ARG:HB3	52:5:1501:G:OP2	2.17	0.45
25:b:161:LYS:HA	50:3:2627:U:H5''	1.98	0.45
27:d:8:TYR:CD2	27:d:97:TRP:HH2	2.35	0.45
36:m:12:ALA:O	36:m:16:MET:HG2	2.17	0.45
36:m:54:VAL:HB	36:m:59:ASN:HD21	1.81	0.45
37:n:11:ARG:NH2	50:3:2302:C:OP2	2.50	0.45
41:r:58:ALA:HB1	41:r:64:MET:HE2	1.98	0.45
41:r:79:GLY:H	41:r:101:SER:HA	1.81	0.45
50:3:276:A:H61	50:3:293:G:HO2'	1.63	0.45
50:3:485:A:H2'	50:3:486:G:O4'	2.17	0.45
50:3:623:A:H2'	50:3:624:U:C6	2.51	0.45
50:3:724:A:H2'	50:3:725:G:H8	1.82	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:816:A:O2'	50:3:1795:C:O2	2.32	0.45
50:3:1154:U:H2'	50:3:1155:G:H8	1.82	0.45
50:3:1220:A:H3'	50:3:1221:G:H8	1.82	0.45
50:3:1339:U:H1'	50:3:1341:U:O4	2.16	0.45
50:3:1622:C:H2'	50:3:1623:U:H6	1.82	0.45
50:3:1716:A:P	50:3:1733:G:H1	2.39	0.45
50:3:1780:A:C8	50:3:1836:A:H1'	2.52	0.45
50:3:2035:U:C2	50:3:2040:A:N7	2.85	0.45
50:3:2143:G:H1	50:3:2162:U:H3	1.64	0.45
50:3:2371:U:H2'	50:3:2372:C:C6	2.52	0.45
50:3:2614:U:H2'	50:3:2615:G:C8	2.51	0.45
52:5:404:A:H2'	52:5:405:C:C6	2.52	0.45
52:5:458:G:C2	52:5:470:U:O2	2.69	0.45
52:5:675:U:H2'	52:5:676:U:H6	1.82	0.45
52:5:775:G:H2'	52:5:776:C:O4'	2.17	0.45
52:5:848:U:H3'	52:5:849:A:H5''	1.99	0.45
52:5:935:U:H1'	52:5:1349:A:C2	2.52	0.45
4:A:88:LYS:HB2	4:A:92:VAL:HB	1.98	0.45
5:B:21:ARG:NH2	12:I:100:VAL:HG22	2.32	0.45
12:I:24:LEU:HD21	12:I:78:ARG:HG2	1.99	0.45
21:R:40:ILE:HG21	21:R:49:PHE:CE2	2.52	0.45
24:a:171:LEU:HD11	24:a:183:GLN:HB2	1.98	0.45
25:b:146:SER:O	50:3:2520:C:H1'	2.16	0.45
26:c:112:LEU:HB3	26:c:116:TRP:CZ3	2.52	0.45
41:r:126:LYS:NZ	50:3:579:U:OP2	2.49	0.45
50:3:267:A:H4'	50:3:466:A:H5''	1.99	0.45
50:3:286:A:H4'	50:3:287:G:C8	2.51	0.45
50:3:502:A:H8	50:3:503:G:C8	2.35	0.45
50:3:517:G:C6	50:3:542:A:H1'	2.52	0.45
50:3:711:A:H62	50:3:837:A:H2	1.64	0.45
50:3:857:U:H2'	50:3:858:A:C8	2.51	0.45
50:3:2206:A:O2'	50:3:2233:A:N6	2.50	0.45
50:3:2332:U:H5''	50:3:2333:G:H4'	1.99	0.45
50:3:2784:A:HO2'	50:3:2789:A:HO2'	1.58	0.45
52:5:218:U:H2'	52:5:219:A:C8	2.52	0.45
52:5:371:U:H2'	52:5:372:G:O4'	2.17	0.45
52:5:397:C:O2'	52:5:619:A:N3	2.43	0.45
52:5:510:U:H2'	52:5:511:A:H8	1.82	0.45
52:5:703:A:H2'	52:5:704:U:O4'	2.17	0.45
52:5:774:A:H2'	52:5:775:G:C8	2.52	0.45
52:5:1088:C:N4	52:5:1089:C:N4	2.64	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:1112:U:N3	52:5:1113:U:O4	2.50	0.45
1:0:33:LEU:HD13	1:0:36:LYS:HD2	1.98	0.44
4:A:154:ARG:HH22	4:A:158:ARG:NH1	2.14	0.44
4:A:171:ARG:HG2	4:A:172:LEU:H	1.82	0.44
5:B:11:ARG:HB3	5:B:15:ASN:HB2	2.00	0.44
6:C:100:ILE:O	6:C:104:MET:HG2	2.17	0.44
9:F:35:LYS:O	9:F:38:ALA:N	2.49	0.44
19:P:73:LYS:HZ1	52:5:250:G:H5''	1.83	0.44
24:a:228:VAL:HG21	50:3:817:A:C8	2.51	0.44
28:e:130:LYS:NZ	28:e:131:ASN:OD1	2.46	0.44
34:k:48:ARG:HG2	34:k:50:GLY:N	2.28	0.44
35:l:111:GLU:O	35:l:112:SER:C	2.59	0.44
44:u:30:SER:HB3	50:3:2270:U:H5	1.82	0.44
46:w:65:TRP:CD1	50:3:147:C:HO2'	2.34	0.44
50:3:190:G:H2'	50:3:191:G:H8	1.81	0.44
50:3:227:A:O2'	50:3:456:G:N3	2.47	0.44
50:3:229:C:H3'	50:3:230:G:H8	1.82	0.44
50:3:254:G:H2'	50:3:255:A:C8	2.52	0.44
50:3:293:G:H2'	50:3:294:G:C5	2.52	0.44
50:3:325:G:H2'	50:3:326:A:C8	2.52	0.44
50:3:985:A:C6	50:3:1005:G:N1	2.86	0.44
50:3:1228:G:N2	50:3:1279:U:O2	2.47	0.44
50:3:1355:C:H2'	50:3:1356:G:O4'	2.17	0.44
50:3:1880:G:H2'	50:3:1881:C:H6	1.82	0.44
50:3:2324:A:H2'	50:3:2325:U:C6	2.52	0.44
51:4:103:C:H2'	51:4:104:C:C6	2.51	0.44
52:5:397:C:H2'	52:5:398:G:H8	1.80	0.44
52:5:555:G:N3	52:5:555:G:H2'	2.32	0.44
52:5:557:A:H5''	52:5:558:U:H3'	1.99	0.44
52:5:655:G:H1	52:5:744:U:H2'	1.82	0.44
52:5:1182:C:H2'	52:5:1183:C:C6	2.52	0.44
12:I:62:HIS:CG	12:I:63:VAL:H	2.35	0.44
12:I:96:ILE:HG13	12:I:97:LYS:H	1.81	0.44
19:P:25:GLN:NE2	19:P:27:GLU:OE2	2.50	0.44
28:e:160:TYR:CG	50:3:2539:A:H4'	2.52	0.44
40:q:57:CYS:HB3	40:q:92:LEU:HD12	1.98	0.44
50:3:213:C:H2'	50:3:214:C:H6	1.83	0.44
50:3:780:G:O2'	50:3:783:G:H1'	2.17	0.44
50:3:1012:G:H21	50:3:1190:A:H1'	1.82	0.44
50:3:1048:A:H4'	50:3:1049:U:OP1	2.17	0.44
50:3:1775:G:O6	50:3:1991:U:O4	2.34	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:1801:U:H2'	50:3:1802:C:C6	2.52	0.44
50:3:2231:A:H3'	50:3:2232:G:H8	1.82	0.44
50:3:2600:G:H2'	50:3:2601:U:C6	2.52	0.44
50:3:2623:U:H2'	50:3:2624:C:C6	2.52	0.44
50:3:2633:C:H2'	50:3:2634:C:C6	2.52	0.44
50:3:2870:U:C2	50:3:2872:A:H1'	2.52	0.44
52:5:144:U:H2'	52:5:145:G:C8	2.53	0.44
52:5:714:C:H2'	52:5:731:A:C8	2.51	0.44
52:5:979:C:H2'	52:5:980:C:H6	1.82	0.44
52:5:1125:C:H2'	52:5:1126:U:N1	2.32	0.44
52:5:1212:C:H3'	52:5:1213:A:H5'	1.98	0.44
52:5:1282:U:H2'	52:5:1283:G:H8	1.82	0.44
52:5:1344:C:H2'	52:5:1345:G:H8	1.79	0.44
4:A:73:LYS:HE3	4:A:238:GLU:HG3	1.99	0.44
4:A:154:ARG:NH2	4:A:158:ARG:NH2	2.66	0.44
8:E:89:ASN:CG	8:E:90:LEU:H	2.26	0.44
25:b:173:LYS:NZ	25:b:175:THR:HG1	2.13	0.44
26:c:50:HIS:CD2	26:c:93:PRO:HB2	2.53	0.44
26:c:144:MET:C	26:c:148:LYS:HZ2	2.26	0.44
28:e:44:LEU:HD12	28:e:55:ILE:HB	1.98	0.44
28:e:141:LYS:HE2	28:e:141:LYS:HB3	1.81	0.44
29:f:81:LEU:HD21	29:f:88:PRO:HB3	2.00	0.44
33:j:97:ARG:NH1	52:5:334:A:H5''	2.32	0.44
35:l:2:LEU:HB3	35:l:69:PHE:CE1	2.52	0.44
35:l:30:GLY:HA3	35:l:105:GLU:HB2	1.99	0.44
44:u:64:ASN:HB2	44:u:97:VAL:HB	1.99	0.44
50:3:83:G:H3'	50:3:84:G:H8	1.82	0.44
50:3:1638:C:H2'	50:3:1639:C:C6	2.52	0.44
50:3:1924:U:H2'	50:3:1925:A:C8	2.52	0.44
50:3:2325:U:H2'	50:3:2326:G:O4'	2.18	0.44
51:4:11:A:O2'	51:4:13:G:H5'	2.17	0.44
52:5:129:U:H3	52:5:216:G:H1	1.64	0.44
52:5:237:A:N1	52:5:282:G:C6	2.85	0.44
52:5:880:G:H2'	52:5:881:G:C8	2.53	0.44
52:5:1063:G:H2'	52:5:1064:U:H6	1.83	0.44
52:5:1083:A:H61	52:5:1101:A:H5'	1.82	0.44
52:5:1138:U:O2	52:5:1149:G:N2	2.43	0.44
52:5:1289:U:H2'	52:5:1290:G:O4'	2.18	0.44
52:5:1366:U:H2'	52:5:1367:G:C8	2.52	0.44
53:7:33:C:H2'	53:7:34:U:C6	2.53	0.44
11:H:131:LYS:NZ	53:7:34:U:OP2	2.42	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:N:61:LYS:HD3	17:N:64:LEU:HD11	2.00	0.44
20:Q:51:ILE:HG13	20:Q:85:HIS:CG	2.52	0.44
24:a:72:LYS:HB2	24:a:75:HIS:CE1	2.53	0.44
24:a:135:SER:OG	24:a:197:ARG:NH2	2.51	0.44
24:a:160:ILE:HG23	50:3:1806:G:C2	2.52	0.44
25:b:152:GLY:HA3	50:3:2580:A:C8	2.52	0.44
27:d:132:ILE:O	27:d:151:GLY:CA	2.55	0.44
34:k:114:LEU:HD23	34:k:131:VAL:HG12	2.00	0.44
39:p:13:ARG:HD3	50:3:615:G:OP1	2.18	0.44
50:3:166:A:H2'	50:3:167:A:O4'	2.17	0.44
50:3:230:G:N2	50:3:454:G:H21	2.16	0.44
50:3:589:A:H2'	50:3:590:U:O4'	2.17	0.44
50:3:761:G:O3'	50:3:762:A:H8	2.00	0.44
50:3:1508:G:N2	50:3:1535:A:H61	2.16	0.44
50:3:1639:C:H2'	50:3:1642:G:H21	1.83	0.44
50:3:1981:U:H2'	50:3:1982:G:C8	2.53	0.44
50:3:2169:G:H1'	50:3:2173:G:C6	2.53	0.44
50:3:2305:C:N4	50:3:2326:G:H2'	2.30	0.44
50:3:2438:A:H2'	50:3:2438:A:N3	2.32	0.44
50:3:2644:U:H2'	50:3:2645:U:H6	1.81	0.44
50:3:2815:G:H2'	50:3:2816:A:C8	2.53	0.44
51:4:11:A:H2'	51:4:12:U:H5''	1.99	0.44
52:5:289:U:H2'	52:5:290:G:C8	2.53	0.44
52:5:421:G:H2'	52:5:422:A:H8	1.82	0.44
52:5:501:A:H2'	52:5:502:C:C6	2.52	0.44
52:5:711:G:H1'	52:5:774:A:N7	2.33	0.44
4:A:104:ASP:OD1	4:A:104:ASP:N	2.49	0.44
12:I:85:VAL:HG23	12:I:86:ASN:N	2.31	0.44
13:J:54:TYR:CZ	13:J:58:ILE:HD11	2.52	0.44
19:P:13:VAL:HG21	19:P:56:LYS:O	2.18	0.44
23:T:47:LYS:O	23:T:51:LYS:HG2	2.17	0.44
25:b:15:GLN:HA	25:b:25:PRO:HA	2.00	0.44
25:b:68:GLY:O	25:b:72:LYS:HG3	2.18	0.44
25:b:113:ILE:O	25:b:199:GLY:HA2	2.17	0.44
26:c:185:LYS:NZ	50:3:647:G:O3'	2.50	0.44
38:o:67:ARG:HD3	38:o:104:MET:HG2	1.99	0.44
39:p:7:LYS:NZ	50:3:1245:G:H4'	2.33	0.44
40:q:87:GLN:NE2	50:3:1197:G:N3	2.65	0.44
41:r:122:LYS:HA	41:r:125:VAL:HG12	1.99	0.44
50:3:172:U:H2'	50:3:173:C:H6	1.82	0.44
50:3:642:A:OP2	50:3:655:G:N1	2.44	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:748:G:H2'	50:3:749:U:C6	2.51	0.44
50:3:827:G:H4'	50:3:828:A:O4'	2.18	0.44
50:3:1070:U:H2'	50:3:1071:G:H8	1.81	0.44
50:3:1246:U:H2'	50:3:1247:C:C6	2.52	0.44
50:3:1627:U:H2'	50:3:1628:G:C8	2.52	0.44
50:3:1738:G:C6	50:3:1739:G:C6	3.05	0.44
50:3:1796:A:H2'	50:3:1797:C:O4'	2.17	0.44
50:3:1845:C:O4'	50:3:1906:G:N1	2.50	0.44
50:3:1959:A:H61	50:3:2568:G:H21	1.66	0.44
50:3:2397:G:H5''	50:3:2398:U:O4'	2.16	0.44
52:5:59:C:N4	52:5:350:G:O6	2.51	0.44
52:5:76:G:N2	52:5:78:A:H3'	2.33	0.44
52:5:205:U:H2'	52:5:206:G:O4'	2.18	0.44
52:5:598:U:H2'	52:5:599:G:H8	1.82	0.44
52:5:739:G:H2'	52:5:740:G:H8	1.82	0.44
4:A:40:LYS:NZ	4:A:206:THR:O	2.48	0.44
4:A:40:LYS:HZ1	4:A:206:THR:C	2.24	0.44
4:A:86:GLY:HA3	4:A:96:VAL:HG11	1.98	0.44
11:H:32:VAL:HG23	11:H:67:VAL:HG13	1.99	0.44
17:N:29:LEU:HD13	17:N:60:ARG:HB2	1.99	0.44
36:m:33:THR:OG1	36:m:34:THR:N	2.51	0.44
38:o:14:GLU:O	38:o:18:LEU:HG	2.17	0.44
39:p:60:TRP:CD2	39:p:93:VAL:HB	2.52	0.44
39:p:91:ARG:HG3	40:q:11:GLN:HB3	1.99	0.44
43:t:32:GLN:O	43:t:70:PHE:HA	2.18	0.44
46:w:40:LYS:HA	46:w:40:LYS:HD3	1.78	0.44
50:3:238:U:C2	50:3:466:A:N6	2.85	0.44
50:3:335:G:C6	50:3:351:G:C6	3.05	0.44
50:3:651:A:H2'	50:3:652:U:O4'	2.18	0.44
50:3:656:G:O2'	50:3:658:G:N7	2.50	0.44
50:3:1007:C:O2'	50:3:1019:A:N3	2.39	0.44
50:3:1193:U:H2'	50:3:1194:U:C6	2.53	0.44
50:3:1860:A:H2'	50:3:1861:A:C8	2.52	0.44
50:3:2195:U:H2'	50:3:2196:G:C8	2.53	0.44
52:5:82:C:C2	52:5:83:U:C5	3.05	0.44
52:5:421:G:H2'	52:5:422:A:C8	2.52	0.44
52:5:606:A:H3'	52:5:607:A:H8	1.82	0.44
52:5:812:A:O2'	52:5:1501:G:N2	2.49	0.44
52:5:1316:C:H2'	52:5:1317:A:C8	2.52	0.44
9:F:98:LEU:HA	9:F:101:ARG:HD2	2.00	0.44
12:I:36:LYS:HA	12:I:36:LYS:HD2	1.74	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:N:59:LYS:HA	17:N:62:ARG:HE	1.83	0.44
24:a:236:ASN:ND2	50:3:2080:C:OP1	2.51	0.44
45:v:32:ASN:OD1	45:v:34:GLN:NE2	2.51	0.44
50:3:195:A:H2'	50:3:196:G:C8	2.52	0.44
50:3:215:A:H2'	50:3:216:C:C6	2.52	0.44
50:3:696:U:H2'	50:3:697:U:C6	2.53	0.44
50:3:988:G:O6	50:3:1002:A:N6	2.50	0.44
50:3:1188:C:H2'	50:3:1189:G:C8	2.52	0.44
50:3:1547:G:H3'	50:3:1548:A:H8	1.82	0.44
50:3:2516:G:H2'	50:3:2517:A:C8	2.52	0.44
52:5:64:C:H4'	52:5:376:G:H1'	2.00	0.44
52:5:204:C:H2'	52:5:205:U:H6	1.81	0.44
52:5:739:G:H2'	52:5:740:G:C8	2.52	0.44
52:5:761:U:H2'	52:5:762:G:O4'	2.17	0.44
52:5:974:C:O2	52:5:974:C:H2'	2.18	0.44
52:5:1039:G:O2'	52:5:1041:G:O5'	2.34	0.44
52:5:1058:A:N6	52:5:1099:G:O2'	2.49	0.44
52:5:1507:U:H2'	52:5:1508:C:O4'	2.18	0.44
2:1:15:LYS:HZ1	50:3:673:A:H61	1.66	0.44
21:R:27:LYS:HG2	21:R:29:ARG:HD3	1.99	0.44
22:S:28:LEU:HD13	22:S:51:ALA:HB2	1.99	0.44
24:a:41:LEU:HG	50:3:1823:U:H5''	1.98	0.44
24:a:126:HIS:CD2	29:f:87:ARG:HH11	2.36	0.44
25:b:109:ASP:OD1	25:b:208:ARG:HG3	2.17	0.44
26:c:175:ILE:HD12	26:c:177:ASN:HB2	2.00	0.44
28:e:89:LYS:HE2	28:e:133:GLU:HB2	2.00	0.44
34:k:66:GLY:O	50:3:667:A:O2'	2.22	0.44
35:l:129:TRP:CD1	35:l:129:TRP:H	2.34	0.44
49:z:42:ARG:HH11	50:3:2378:G:H1'	1.82	0.44
50:3:58:A:H2'	50:3:59:C:H6	1.82	0.44
50:3:213:C:H2'	50:3:214:C:C6	2.53	0.44
50:3:239:U:H2'	50:3:240:C:C6	2.53	0.44
50:3:450:C:OP1	50:3:1886:C:O2'	2.36	0.44
50:3:682:A:C4	50:3:683:G:C8	3.05	0.44
50:3:701:A:H2'	50:3:702:U:C6	2.53	0.44
50:3:863:U:H4'	50:3:866:G:C6	2.53	0.44
50:3:1048:A:O2'	50:3:1049:U:O5'	2.31	0.44
50:3:1326:C:H3'	50:3:1327:G:H8	1.83	0.44
50:3:1473:C:H2'	50:3:1474:C:C6	2.53	0.44
50:3:1546:U:H3'	50:3:1547:G:C8	2.52	0.44
50:3:1810:A:H2'	50:3:1811:A:O4'	2.17	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:1854:A:H2'	50:3:1855:A:H8	1.82	0.44
50:3:2379:G:H2'	50:3:2380:U:O4'	2.18	0.44
50:3:2583:U:H2'	50:3:2586:G:O6	2.18	0.44
52:5:173:U:H2'	52:5:174:U:C6	2.53	0.44
52:5:203:C:H2'	52:5:204:C:H6	1.82	0.44
52:5:510:U:H2'	52:5:511:A:C8	2.52	0.44
52:5:664:A:OP1	52:5:729:C:O2'	2.27	0.44
52:5:688:G:H4'	52:5:794:C:H4'	1.99	0.44
52:5:861:A:O2'	52:5:867:A:N1	2.39	0.44
52:5:955:U:C6	52:5:1197:G:H4'	2.53	0.44
52:5:1113:U:H2'	52:5:1114:A:H8	1.81	0.44
52:5:1390:G:C6	52:5:1461:G:C6	3.06	0.44
3:2:31:LYS:NZ	50:3:2536:U:H4'	2.33	0.44
4:A:26:MET:CG	4:A:29:HIS:CE1	2.98	0.44
4:A:67:THR:HA	4:A:70:ASN:ND2	2.33	0.44
4:A:179:ASP:OD1	4:A:180:ASP:N	2.49	0.44
5:B:127:ILE:HG12	5:B:133:LEU:HD13	1.99	0.44
6:C:12:ARG:HD3	6:C:35:PRO:HG3	2.00	0.44
11:H:44:LYS:HB2	11:H:46:VAL:HG12	2.00	0.44
13:J:35:LEU:HD11	13:J:67:VAL:HG12	2.00	0.44
21:R:21:ASP:HA	21:R:24:LYS:HD3	2.00	0.44
24:a:185:LEU:HB3	50:3:1806:G:O6	2.18	0.44
36:m:112:GLU:OE2	36:m:114:ALA:HB2	2.18	0.44
43:t:90:LYS:HG3	43:t:105:LYS:HA	2.00	0.44
44:u:47:THR:N	44:u:78:ASP:OD1	2.51	0.44
50:3:279:U:H2'	50:3:280:A:C8	2.52	0.44
50:3:548:A:H2'	50:3:549:A:O4'	2.18	0.44
50:3:917:G:H2'	50:3:918:G:H8	1.83	0.44
50:3:1860:A:N1	50:3:2094:A:H1'	2.32	0.44
50:3:2007:U:H2'	50:3:2008:A:C8	2.53	0.44
50:3:2042:A:H5''	50:3:2043:C:H5	1.83	0.44
50:3:2415:A:H2'	50:3:2416:U:C6	2.53	0.44
52:5:26:C:N4	52:5:556:G:O2'	2.51	0.44
52:5:83:U:C2	52:5:84:U:C5	3.06	0.44
52:5:110:U:H2'	52:5:111:A:C8	2.53	0.44
52:5:395:G:H2'	52:5:396:C:C6	2.53	0.44
52:5:407:A:N6	52:5:427:A:H62	2.16	0.44
52:5:409:G:H4'	52:5:410:A:H5'	2.00	0.44
52:5:726:A:H2'	52:5:727:G:C8	2.53	0.44
52:5:884:G:H22	52:5:901:A:P	2.41	0.44
52:5:1116:U:O2'	52:5:1117:U:H2'	2.18	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:1347:U:H2'	52:5:1348:G:O4'	2.18	0.44
4:A:131:ASN:O	4:A:134:VAL:HB	2.18	0.43
6:C:133:SER:O	6:C:133:SER:OG	2.29	0.43
10:G:98:TYR:O	10:G:99:ARG:NH2	2.51	0.43
14:K:127:ARG:HD2	52:5:499:U:H5''	2.00	0.43
19:P:67:ARG:NH2	52:5:260:C:O2'	2.45	0.43
24:a:262:HIS:HE2	24:a:263:MET:HE2	1.83	0.43
26:c:160:VAL:HG22	26:c:186:VAL:HG11	1.99	0.43
45:v:5:ASP:OD2	45:v:10:ARG:NH2	2.51	0.43
50:3:328:A:C8	50:3:379:A:C6	3.06	0.43
50:3:604:A:N1	50:3:2507:C:O2'	2.50	0.43
50:3:650:G:P	50:3:650:G:H8	2.42	0.43
50:3:670:G:H2'	50:3:671:C:C6	2.54	0.43
50:3:696:U:H2'	50:3:697:U:H6	1.82	0.43
50:3:1041:C:H2'	50:3:1042:C:C6	2.53	0.43
50:3:1820:U:H3'	50:3:1821:G:C8	2.53	0.43
50:3:2264:G:H2'	50:3:2265:U:C6	2.53	0.43
51:4:43:A:C4	51:4:44:A:C8	3.06	0.43
52:5:54:A:N1	52:5:355:A:C6	2.86	0.43
52:5:423:U:H2'	52:5:424:U:C6	2.53	0.43
52:5:976:U:H6	52:5:976:U:O5'	2.00	0.43
52:5:1133:A:N1	52:5:1153:G:C2	2.86	0.43
2:1:1:MET:H1	50:3:625:G:H21	1.66	0.43
7:D:192:ILE:HG22	7:D:196:MET:HE2	2.00	0.43
22:S:6:SER:OG	52:5:92:G:N1	2.42	0.43
28:e:94:GLY:HA3	28:e:97:TYR:CD2	2.53	0.43
36:m:42:GLN:NE2	36:m:46:ASP:OD2	2.51	0.43
45:v:7:LEU:HD23	45:v:8:THR:HG23	1.99	0.43
50:3:634:C:H2'	50:3:635:G:O4'	2.18	0.43
50:3:1139:C:H2'	50:3:1140:U:C6	2.53	0.43
50:3:1289:G:H2'	50:3:1290:G:C8	2.52	0.43
50:3:1456:C:O2'	50:3:1603:A:OP2	2.29	0.43
50:3:1662:G:H2'	50:3:1663:G:C8	2.53	0.43
50:3:1917:G:H2'	50:3:1918:U:O4'	2.18	0.43
50:3:2242:G:H2'	50:3:2243:G:H8	1.81	0.43
50:3:2528:C:H2'	50:3:2529:C:C6	2.53	0.43
52:5:405:C:H2'	52:5:406:G:O4'	2.18	0.43
52:5:829:G:C5	52:5:849:A:C6	3.06	0.43
52:5:862:C:H2'	52:5:863:A:O4'	2.18	0.43
52:5:986:U:H1'	52:5:988:G:H8	1.82	0.43
52:5:1197:G:OP2	52:5:1197:G:H8	2.01	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:38:GLN:O	50:3:494:G:H5''	2.18	0.43
5:B:58:ILE:HG13	5:B:67:VAL:HG23	2.00	0.43
6:C:151:ILE:HG12	52:5:433:C:O2'	2.18	0.43
8:E:67:GLN:HA	8:E:70:LYS:NZ	2.34	0.43
8:E:71:ASP:HA	8:E:74:ARG:NE	2.33	0.43
15:L:15:ILE:HD13	15:L:41:PRO:HA	1.99	0.43
22:S:11:LEU:HA	22:S:14:ASN:ND2	2.33	0.43
24:a:268:ARG:NH1	24:a:269:ASN:O	2.50	0.43
25:b:90:PHE:CD2	25:b:96:ILE:HG12	2.54	0.43
27:d:35:VAL:HG22	27:d:155:THR:OG1	2.17	0.43
28:e:4:ILE:HD12	28:e:4:ILE:H	1.83	0.43
32:i:30:LYS:HA	32:i:33:VAL:HG22	1.99	0.43
36:m:94:PRO:O	50:3:2843:G:N2	2.42	0.43
36:m:99:ARG:HD2	50:3:2885:U:H4'	2.00	0.43
37:n:9:ARG:NH1	51:4:7:G:OP2	2.40	0.43
37:n:11:ARG:NH1	37:n:11:ARG:HA	2.33	0.43
39:p:65:ASN:HA	39:p:68:LEU:HD12	1.99	0.43
46:w:6:GLU:HA	46:w:9:GLN:CD	2.43	0.43
48:y:16:ARG:HA	50:3:2053:G:O5'	2.18	0.43
50:3:62:G:O6	50:3:68:C:N4	2.52	0.43
50:3:71:C:H4'	50:3:77:G:C8	2.53	0.43
50:3:161:U:H2'	50:3:162:G:O4'	2.18	0.43
50:3:392:A:H3'	50:3:393:C:C6	2.54	0.43
50:3:1201:A:H2'	50:3:1202:A:H8	1.83	0.43
50:3:1587:U:H2'	50:3:1588:A:N7	2.33	0.43
50:3:2141:A:H1'	50:3:2166:U:H1'	2.00	0.43
50:3:2278:G:H3'	50:3:2279:G:H8	1.84	0.43
50:3:2784:A:C4	50:3:2786:A:C8	3.07	0.43
50:3:2819:C:C2	50:3:2820:G:C8	3.07	0.43
52:5:780:U:H2'	52:5:781:A:H8	1.82	0.43
52:5:1099:G:H5'	52:5:1166:A:H5'	1.99	0.43
52:5:1137:C:H2'	52:5:1138:U:H6	1.81	0.43
52:5:1282:U:H2'	52:5:1283:G:C8	2.53	0.43
52:5:1359:C:N4	52:5:1360:G:O6	2.51	0.43
4:A:38:ASN:HB3	4:A:41:MET:HE1	1.99	0.43
9:F:145:GLU:HA	9:F:148:LYS:HE3	1.99	0.43
12:I:72:GLU:O	16:M:57:LYS:N	2.50	0.43
24:a:136:MET:CE	24:a:140:PHE:HB2	2.44	0.43
24:a:238:HIS:HE2	24:a:257:PRO:HD3	1.83	0.43
35:l:40:ASN:H	35:l:97:VAL:HG13	1.84	0.43
44:u:38:LYS:NZ	44:u:53:ARG:HG2	2.34	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:y:47:MET:HB2	48:y:47:MET:HE2	1.65	0.43
50:3:83:G:H3'	50:3:84:G:C8	2.54	0.43
50:3:618:G:H21	50:3:1284:A:H62	1.66	0.43
50:3:658:G:H2'	50:3:659:C:H6	1.83	0.43
50:3:816:A:H5''	50:3:817:A:H8	1.83	0.43
50:3:1172:G:H2'	50:3:1173:G:C8	2.53	0.43
50:3:1230:U:H2'	50:3:1231:G:C8	2.53	0.43
50:3:1379:C:H4'	50:3:1606:A:H4'	2.01	0.43
50:3:1483:G:H1'	50:3:2856:G:H4'	1.98	0.43
50:3:1858:U:N3	50:3:1898:G:N1	2.39	0.43
50:3:1886:C:H2'	50:3:1887:U:C6	2.53	0.43
50:3:2278:G:H2'	50:3:2279:G:O4'	2.19	0.43
52:5:500:G:H2'	52:5:501:A:C8	2.54	0.43
52:5:815:G:O2'	52:5:817:U:OP2	2.33	0.43
52:5:840:C:H2'	52:5:841:C:O4'	2.19	0.43
52:5:846:G:O2'	52:5:847:G:H5'	2.19	0.43
52:5:1206:G:H2'	52:5:1207:U:C6	2.53	0.43
52:5:1250:A:H3'	52:5:1251:G:C8	2.53	0.43
11:H:12:ARG:NH2	11:H:109:ASP:OD1	2.51	0.43
11:H:125:ARG:NH2	52:5:1317:A:N3	2.67	0.43
20:Q:45:ALA:HA	52:5:839:U:H5'	2.01	0.43
24:a:109:ILE:HG22	24:a:110:ILE:H	1.83	0.43
24:a:278:ILE:O	24:a:286:GLN:NE2	2.52	0.43
27:d:92:ARG:HA	27:d:96:MET:SD	2.58	0.43
33:j:30:LYS:HD3	50:3:2682:A:H4'	2.00	0.43
35:l:111:GLU:O	35:l:115:ILE:HG12	2.19	0.43
42:s:38:THR:HG23	50:3:1632:C:H5'	2.00	0.43
50:3:82:G:H2'	50:3:83:G:C8	2.53	0.43
50:3:156:A:H2'	50:3:157:U:O4'	2.19	0.43
50:3:349:G:H2'	50:3:350:C:C6	2.53	0.43
50:3:715:G:H2'	50:3:716:G:C8	2.52	0.43
50:3:747:A:H2'	50:3:748:G:O4'	2.19	0.43
50:3:790:U:H2'	50:3:791:A:C8	2.53	0.43
50:3:1084:C:H2'	50:3:1085:A:H8	1.83	0.43
50:3:1294:G:N1	50:3:2021:A:OP2	2.52	0.43
50:3:1364:A:H2'	50:3:1365:G:C8	2.53	0.43
50:3:1385:U:H2'	50:3:1386:G:O4'	2.18	0.43
50:3:1446:G:H2'	50:3:1612:U:O4	2.18	0.43
50:3:1501:U:C2	50:3:1502:A:H1'	2.52	0.43
50:3:1507:G:O6	50:3:1537:A:N6	2.50	0.43
50:3:2248:C:H2'	50:3:2249:A:H8	1.84	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2572:A:C2	50:3:2656:G:H5'	2.54	0.43
50:3:2733:A:C4	50:3:2735:G:N7	2.87	0.43
50:3:2802:C:H2'	50:3:2803:G:C5	2.54	0.43
50:3:2819:C:H2'	50:3:2820:G:C8	2.51	0.43
50:3:2850:G:H2'	50:3:2851:U:O4'	2.18	0.43
50:3:2893:C:H2'	50:3:2894:G:O4'	2.19	0.43
52:5:46:U:H2'	52:5:47:G:O4'	2.18	0.43
52:5:309:A:H2'	52:5:310:C:H6	1.83	0.43
52:5:429:A:C4	52:5:430:G:C8	3.07	0.43
52:5:660:A:H2'	52:5:661:G:O4'	2.19	0.43
52:5:923:G:H2'	52:5:924:A:H8	1.83	0.43
5:B:137:MET:HG3	5:B:171:TYR:HE2	1.82	0.43
6:C:14:LEU:HD13	6:C:59:ARG:HG3	2.00	0.43
7:D:136:ILE:HG12	7:D:178:ILE:HD12	2.01	0.43
9:F:47:ASP:HA	9:F:50:GLU:OE1	2.18	0.43
10:G:116:ILE:HD11	10:G:135:GLY:N	2.33	0.43
19:P:57:ASP:OD1	19:P:58:GLY:N	2.51	0.43
24:a:222:ARG:NH1	50:3:1600:A:O4'	2.52	0.43
27:d:44:ILE:HG13	27:d:45:ARG:N	2.32	0.43
28:e:25:ILE:HD12	28:e:38:LEU:HD21	1.99	0.43
28:e:106:LEU:HD23	28:e:120:ILE:HD11	2.01	0.43
29:f:130:ILE:N	29:f:134:THR:O	2.27	0.43
32:i:76:PHE:CD1	32:i:89:LYS:HG2	2.53	0.43
33:j:77:LEU:HD21	33:j:79:PHE:CZ	2.53	0.43
41:r:34:ASN:OD1	41:r:35:ILE:N	2.51	0.43
43:t:10:VAL:HG22	43:t:74:LEU:HD12	1.99	0.43
45:v:31:VAL:HG23	45:v:33:LEU:HG	1.99	0.43
50:3:120:A:H4'	50:3:121:U:O5'	2.19	0.43
50:3:445:C:H2'	50:3:446:A:C8	2.53	0.43
50:3:454:G:H2'	50:3:455:G:H8	1.84	0.43
50:3:984:C:H2'	50:3:985:A:H8	1.80	0.43
50:3:1317:C:H4'	50:3:1358:C:H4'	2.00	0.43
50:3:1329:U:H5	50:3:1675:A:H61	1.65	0.43
50:3:1974:U:H2'	50:3:1975:G:O4'	2.17	0.43
50:3:2203:U:H2'	50:3:2204:C:H6	1.84	0.43
50:3:2476:A:O2'	50:3:2489:G:N2	2.47	0.43
50:3:2838:G:H1'	50:3:2887:A:H61	1.84	0.43
52:5:207:C:H3'	52:5:208:A:H8	1.84	0.43
52:5:592:A:H2'	52:5:593:A:O4'	2.19	0.43
52:5:612:G:N2	52:5:624:U:O2	2.37	0.43
52:5:753:C:H2'	52:5:754:U:O4'	2.18	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:1182:C:C2	52:5:1183:C:C5	3.06	0.43
52:5:1325:U:H2'	52:5:1326:C:C6	2.53	0.43
52:5:1359:C:H2'	52:5:1360:G:C8	2.53	0.43
53:7:16:G:H22	53:7:49:C:N4	2.11	0.43
53:7:19:G:N3	53:7:58:G:H2'	2.33	0.43
6:C:199:TRP:HA	52:5:9:A:H61	1.83	0.43
11:H:66:ASN:OD1	52:5:1121:U:N3	2.52	0.43
12:I:23:LEU:O	12:I:26:LEU:HG	2.19	0.43
16:M:2:ALA:N	52:5:1039:G:H4'	2.34	0.43
17:N:51:ARG:CD	52:5:725:A:H62	2.31	0.43
24:a:147:VAL:HG23	24:a:200:VAL:HA	2.00	0.43
32:i:40:ARG:CZ	32:i:112:LEU:HD22	2.48	0.43
34:k:30:LYS:HA	50:3:845:U:C4	2.53	0.43
35:l:31:GLU:O	35:l:134:ARG:N	2.52	0.43
35:l:83:MET:HE1	50:3:996:A:H61	1.84	0.43
36:m:102:LYS:NZ	48:y:40:HIS:HB3	2.33	0.43
37:n:3:THR:HG23	37:n:4:ARG:H	1.83	0.43
37:n:98:TYR:CE1	37:n:103:ALA:HA	2.54	0.43
38:o:113:LYS:HD2	38:o:113:LYS:HA	1.89	0.43
48:y:10:LYS:HD2	50:3:552:C:OP1	2.19	0.43
50:3:178:A:C5	50:3:179:A:N1	2.87	0.43
50:3:307:C:H2'	50:3:308:A:C8	2.54	0.43
50:3:572:G:N2	50:3:590:U:O4	2.51	0.43
50:3:869:U:H2'	50:3:870:A:H8	1.84	0.43
50:3:1187:C:H2'	50:3:1188:C:C6	2.54	0.43
50:3:1409:G:H1'	50:3:1605:A:H61	1.84	0.43
50:3:1456:C:O2'	50:3:1457:A:H5'	2.19	0.43
50:3:1986:C:H2'	50:3:1987:C:C6	2.53	0.43
50:3:2409:U:O2	50:3:2423:G:N2	2.40	0.43
50:3:2516:G:H2'	50:3:2517:A:H8	1.83	0.43
52:5:56:A:OP2	52:5:348:C:N4	2.51	0.43
52:5:396:C:O2	52:5:620:A:O2'	2.32	0.43
52:5:478:G:H1'	52:5:480:C:N4	2.34	0.43
52:5:578:C:H2'	52:5:579:G:O4'	2.18	0.43
52:5:955:U:O2'	52:5:1198:C:H5'	2.18	0.43
52:5:1075:G:H3'	52:5:1075:G:OP2	2.19	0.43
52:5:1227:A:H2'	52:5:1228:C:O4'	2.18	0.43
5:B:42:ASN:O	5:B:46:VAL:HG22	2.19	0.43
7:D:117:LYS:HA	7:D:120:LYS:HD3	2.00	0.43
18:O:12:ARG:HH11	52:5:623:G:H5''	1.83	0.43
26:c:90:VAL:HG21	50:3:707:C:H5''	2.00	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:d:34:ILE:O	27:d:91:LEU:HD23	2.18	0.43
27:d:85:ILE:HD11	50:3:2320:U:H5'	2.01	0.43
28:e:5:GLY:O	28:e:54:GLN:NE2	2.51	0.43
43:t:2:GLN:N	43:t:2:GLN:OE1	2.52	0.43
44:u:52:TYR:HE2	44:u:54:GLN:HB3	1.84	0.43
47:x:11:SER:HA	47:x:26:GLU:HA	2.01	0.43
50:3:58:A:H2'	50:3:59:C:C6	2.53	0.43
50:3:275:A:N6	50:3:294:G:C2	2.86	0.43
50:3:365:U:OP1	50:3:1267:A:O2'	2.32	0.43
50:3:411:U:H2'	50:3:412:A:O4'	2.19	0.43
50:3:612:G:C6	50:3:1292:A:C6	3.07	0.43
50:3:983:A:H2'	50:3:984:C:H6	1.84	0.43
50:3:1019:A:H2'	50:3:1020:G:C8	2.53	0.43
50:3:1088:A:N6	50:3:1142:G:C6	2.87	0.43
50:3:1117:U:H2'	50:3:1118:U:C6	2.53	0.43
50:3:1244:A:H3'	50:3:1245:G:H8	1.83	0.43
50:3:1316:U:H5	50:3:1354:U:H3	1.66	0.43
50:3:1384:C:H2'	50:3:1385:U:H6	1.84	0.43
50:3:1658:U:H2'	50:3:1659:C:H6	1.82	0.43
50:3:1766:A:O2'	50:3:2719:A:H2'	2.18	0.43
50:3:2267:G:H2'	50:3:2268:C:H6	1.84	0.43
50:3:2309:A:H2'	50:3:2310:C:H6	1.84	0.43
50:3:2469:A:H2'	50:3:2470:C:C6	2.54	0.43
50:3:2523:C:H2'	50:3:2524:U:C6	2.54	0.43
50:3:2707:A:H2'	50:3:2708:G:O4'	2.19	0.43
50:3:2874:C:H2'	50:3:2875:U:O4'	2.19	0.43
50:3:2876:G:H2'	50:3:2877:A:C8	2.54	0.43
52:5:486:C:H2'	52:5:487:A:C8	2.54	0.43
52:5:518:A:N6	52:5:527:G:C2	2.86	0.43
52:5:889:U:H2'	52:5:890:U:C6	2.54	0.43
52:5:974:C:N3	52:5:975:C:C5	2.87	0.43
4:A:237:ALA:HB1	4:A:242:MET:HB2	2.00	0.43
6:C:80:LYS:NZ	52:5:611:A:OP2	2.33	0.43
7:D:79:THR:O	52:5:916:U:O2'	2.28	0.43
8:E:59:ARG:NH2	8:E:60:TRP:O	2.52	0.43
9:F:85:GLN:HE22	9:F:87:PRO:HG3	1.84	0.43
13:J:111:HIS:CE1	20:Q:101:PHE:HD2	2.36	0.43
14:K:79:TYR:HD1	14:K:103:LEU:HD22	1.84	0.43
27:d:91:LEU:HD12	27:d:95:ARG:HB3	2.00	0.43
34:k:7:LYS:HA	50:3:1273:U:H1'	2.00	0.43
41:r:18:ARG:CG	41:r:22:GLN:HE22	2.29	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:t:93:MET:HE1	43:t:95:PRO:HG3	2.00	0.43
50:3:176:U:H2'	50:3:177:U:H6	1.83	0.43
50:3:499:G:H21	50:3:501:G:H8	1.66	0.43
50:3:525:A:H8	50:3:525:A:OP1	2.00	0.43
50:3:803:G:H2'	50:3:804:U:C6	2.53	0.43
50:3:876:A:H2'	50:3:877:G:C8	2.54	0.43
50:3:898:A:H2'	50:3:899:A:O4'	2.18	0.43
50:3:1017:A:H62	50:3:1018:G:N2	2.17	0.43
50:3:1623:U:C2	50:3:1624:A:C8	3.06	0.43
50:3:2006:C:H5''	50:3:2731:U:O2'	2.18	0.43
50:3:2462:G:C4	50:3:2463:G:C8	3.07	0.43
50:3:2484:A:O2'	50:3:2488:C:N4	2.51	0.43
52:5:69:G:H2'	52:5:70:A:O4'	2.19	0.43
52:5:157:A:H2'	52:5:158:A:C8	2.54	0.43
52:5:458:G:N1	52:5:470:U:C2	2.87	0.43
52:5:619:A:H3'	52:5:620:A:H8	1.82	0.43
52:5:655:G:O6	52:5:744:U:C2	2.72	0.43
52:5:868:G:H2'	52:5:869:U:C6	2.53	0.43
52:5:1043:U:H2'	52:5:1175:C:N4	2.34	0.43
52:5:1214:A:N3	52:5:1216:G:N1	2.67	0.43
2:1:15:LYS:NZ	50:3:673:A:H61	2.17	0.43
6:C:119:HIS:ND1	52:5:434:U:O2'	2.46	0.43
8:E:74:ARG:O	8:E:78:ILE:HG12	2.19	0.43
9:F:26:ILE:HG13	9:F:42:LEU:HD22	2.01	0.43
13:J:22:ASN:ND2	52:5:686:C:O3'	2.52	0.43
22:S:38:GLU:OE1	22:S:43:ASN:ND2	2.52	0.43
28:e:21:GLN:C	28:e:23:ASP:H	2.27	0.43
29:f:108:LEU:HD23	29:f:113:PHE:HZ	1.83	0.43
34:k:17:THR:HG22	50:3:697:U:H5''	2.00	0.43
35:l:116:LYS:O	35:l:119:THR:OG1	2.31	0.43
37:n:4:ARG:HD2	51:4:28:C:P	2.59	0.43
37:n:32:VAL:HG12	37:n:92:ASP:O	2.19	0.43
41:r:80:PRO:HD3	50:3:27:U:H4'	1.99	0.43
45:v:34:GLN:OE1	50:3:2098:U:O2'	2.32	0.43
48:y:38:LEU:HG	48:y:41:ARG:HD3	2.01	0.43
50:3:180:A:H3'	50:3:181:G:H8	1.84	0.43
50:3:221:A:N7	50:3:467:U:C4	2.87	0.43
50:3:272:C:N4	50:3:295:U:O2'	2.52	0.43
50:3:336:C:H2'	50:3:337:U:C6	2.54	0.43
50:3:452:U:H3	50:3:2415:A:N6	2.17	0.43
50:3:563:A:H2'	50:3:2049:A:N6	2.33	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:591:G:H2'	50:3:592:G:H8	1.84	0.43
50:3:648:G:N2	50:3:650:G:O6	2.51	0.43
50:3:848:U:O2'	50:3:1255:G:O2'	2.24	0.43
50:3:956:U:H3'	50:3:957:G:H8	1.84	0.43
50:3:992:G:H1	50:3:994:U:HO2'	1.66	0.43
50:3:1006:U:H2'	50:3:1007:C:C6	2.53	0.43
50:3:1505:G:H2'	50:3:1506:U:H6	1.84	0.43
50:3:1821:G:OP2	50:3:1822:A:H3'	2.19	0.43
50:3:2572:A:H2'	50:3:2573:A:C4	2.54	0.43
50:3:2671:G:H3'	50:3:2672:G:H8	1.83	0.43
50:3:2690:U:O2	50:3:2690:U:H2'	2.19	0.43
50:3:2781:C:H2'	50:3:2782:A:H8	1.83	0.43
52:5:310:C:H2'	52:5:311:A:C8	2.54	0.43
52:5:379:A:C8	52:5:380:G:C8	3.07	0.43
52:5:630:G:H2'	52:5:631:C:C6	2.53	0.43
52:5:1351:U:H2'	52:5:1352:A:C8	2.52	0.43
52:5:1380:G:N2	52:5:1493:A:N3	2.67	0.43
8:E:4:ASN:CG	8:E:59:ARG:HH12	2.27	0.42
12:I:86:ASN:O	12:I:89:ALA:N	2.47	0.42
13:J:68:LYS:HA	13:J:68:LYS:HD2	1.79	0.42
15:L:16:GLU:HG3	15:L:34:LEU:HD22	2.01	0.42
22:S:35:PHE:HE2	22:S:44:LEU:HB2	1.84	0.42
22:S:71:ARG:NH2	52:5:255:G:OP2	2.51	0.42
27:d:16:LEU:HD23	27:d:16:LEU:HA	1.83	0.42
28:e:172:ILE:O	28:e:174:ARG:NH2	2.52	0.42
29:f:57:HIS:HA	29:f:60:ILE:HG12	2.00	0.42
29:f:138:LEU:HD23	29:f:138:LEU:H	1.84	0.42
32:i:20:ILE:HG13	32:i:140:PRO:HB2	2.00	0.42
32:i:67:LEU:HD21	32:i:72:LYS:HE3	2.01	0.42
36:m:99:ARG:NH1	36:m:119:THR:HG22	2.34	0.42
37:n:3:THR:HG23	37:n:4:ARG:N	2.34	0.42
40:q:61:LYS:HB2	40:q:61:LYS:HE3	1.73	0.42
41:r:9:ARG:HG3	41:r:80:PRO:HD2	2.00	0.42
50:3:163:A:H2'	50:3:164:A:O4'	2.19	0.42
50:3:558:C:OP1	50:3:575:C:O2'	2.37	0.42
50:3:889:G:H1	50:3:961:U:H3	1.67	0.42
50:3:1622:C:H2'	50:3:1623:U:C6	2.54	0.42
50:3:1623:U:H2'	50:3:1624:A:H8	1.84	0.42
50:3:1830:G:H2'	50:3:1831:G:C8	2.54	0.42
50:3:1939:A:H2'	50:3:1940:G:O4'	2.18	0.42
50:3:2072:C:O2'	50:3:2457:U:O2	2.30	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:2484:A:H2'	50:3:2485:U:C6	2.54	0.42
50:3:2608:A:H2'	50:3:2609:C:C6	2.54	0.42
50:3:2615:G:H2'	50:3:2616:G:C8	2.54	0.42
50:3:2717:G:H2'	50:3:2718:C:H6	1.79	0.42
52:5:369:A:O2'	52:5:448:A:N6	2.38	0.42
52:5:798:U:H2'	52:5:799:A:C8	2.53	0.42
52:5:1147:U:H2'	52:5:1148:U:C6	2.54	0.42
2:1:8:LYS:NZ	50:3:248:A:OP2	2.36	0.42
5:B:118:ILE:HG13	5:B:119:ILE:N	2.34	0.42
13:J:61:ASP:HB2	13:J:92:SER:HB2	2.00	0.42
14:K:96:ARG:HD3	14:K:130:TYR:HE1	1.83	0.42
17:N:67:LEU:HA	17:N:70:ASN:HD21	1.83	0.42
24:a:72:LYS:HB3	24:a:74:THR:HG22	2.01	0.42
24:a:267:THR:O	50:3:1810:A:H4'	2.19	0.42
27:d:91:LEU:HD23	27:d:91:LEU:H	1.85	0.42
29:f:123:ASP:HB2	29:f:141:LYS:HD3	2.00	0.42
31:h:24:ALA:HA	50:3:1131:A:H2	1.84	0.42
35:l:110:PRO:O	35:l:111:GLU:C	2.61	0.42
41:r:14:PRO:HB3	41:r:101:SER:HB3	2.01	0.42
41:r:127:LYS:HE2	50:3:1262:G:H4'	2.01	0.42
46:w:4:ALA:O	46:w:8:ARG:NH1	2.51	0.42
48:y:5:GLN:HE22	50:3:2061:A:H2'	1.84	0.42
50:3:25:G:C6	50:3:553:A:C6	3.07	0.42
50:3:85:U:H2'	50:3:86:A:O4'	2.19	0.42
50:3:238:U:N3	50:3:466:A:C6	2.87	0.42
50:3:1083:A:H2'	50:3:1084:C:C6	2.54	0.42
50:3:1088:A:N6	50:3:1142:G:O6	2.52	0.42
50:3:1198:G:H2'	50:3:1199:A:C8	2.54	0.42
50:3:1308:A:H2'	50:3:1309:G:C8	2.54	0.42
50:3:1862:A:H2'	50:3:1863:G:C8	2.55	0.42
50:3:2223:C:H2'	50:3:2224:A:C8	2.54	0.42
50:3:2878:G:H2'	50:3:2879:U:C6	2.54	0.42
51:4:14:U:O4	51:4:67:G:N2	2.52	0.42
52:5:373:A:H2'	52:5:374:G:H8	1.83	0.42
52:5:428:A:C4	52:5:429:A:C8	3.07	0.42
52:5:711:G:H1'	52:5:774:A:C8	2.54	0.42
52:5:782:G:H2'	52:5:783:G:C8	2.54	0.42
52:5:918:A:N6	52:5:1367:G:O6	2.51	0.42
52:5:989:A:H2'	52:5:990:C:O4'	2.20	0.42
52:5:1217:G:N2	52:5:1269:U:O2	2.44	0.42
52:5:1474:A:H1'	52:5:1494:A:H2'	2.01	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:22:LYS:HG3	4:A:24:GLY:H	1.83	0.42
5:B:209:MET:HG3	5:B:211:TYR:HD1	1.84	0.42
6:C:60:MET:O	6:C:60:MET:HE3	2.19	0.42
6:C:96:ARG:NH1	6:C:114:ARG:HH11	2.17	0.42
7:D:81:LYS:NZ	52:5:917:G:H5'	2.34	0.42
11:H:86:VAL:O	11:H:90:LEU:HD23	2.19	0.42
18:O:49:ALA:HA	18:O:52:TRP:HE3	1.84	0.42
24:a:98:LEU:CD1	24:a:108:TYR:HE1	2.28	0.42
25:b:85:ARG:CZ	50:3:2645:U:H5''	2.49	0.42
36:m:49:ILE:O	36:m:53:LYS:HG3	2.19	0.42
36:m:103:LEU:N	36:m:113:MET:O	2.47	0.42
45:v:21:SER:HA	50:3:2440:A:H61	1.84	0.42
50:3:386:U:H2'	50:3:387:U:C6	2.55	0.42
50:3:387:U:H2'	50:3:388:U:C6	2.54	0.42
50:3:442:G:O6	50:3:457:U:C4	2.73	0.42
50:3:511:U:H2'	50:3:512:G:C8	2.55	0.42
50:3:523:A:H2'	50:3:524:G:O4'	2.18	0.42
50:3:586:G:H2'	50:3:587:U:C6	2.54	0.42
50:3:897:A:O2'	51:4:77:G:H4'	2.20	0.42
50:3:1778:G:H1'	50:3:1793:A:C4	2.54	0.42
50:3:2011:G:C5	50:3:2012:A:C8	3.07	0.42
50:3:2048:U:H2'	50:3:2049:A:C8	2.52	0.42
50:3:2088:U:O4	50:3:2247:G:O6	2.36	0.42
50:3:2233:A:H4'	50:3:2234:C:H6	1.84	0.42
50:3:2655:U:H2'	50:3:2656:G:C8	2.54	0.42
51:4:12:U:O3'	51:4:97:A:O2'	2.32	0.42
51:4:59:A:H2'	51:4:60:C:C6	2.54	0.42
52:5:20:C:O2'	52:5:570:A:N1	2.46	0.42
52:5:295:G:H2'	52:5:296:A:C4	2.54	0.42
52:5:356:G:C2	52:5:357:G:C5	3.06	0.42
52:5:513:G:H2'	52:5:514:U:H6	1.84	0.42
52:5:576:A:H2'	52:5:577:G:C8	2.54	0.42
52:5:799:A:H3'	52:5:800:G:C8	2.52	0.42
52:5:829:G:C6	52:5:849:A:C6	3.07	0.42
52:5:1267:G:C2	52:5:1268:G:C5	3.07	0.42
52:5:1433:G:H2'	52:5:1434:C:C6	2.54	0.42
52:5:1478:A:C8	52:5:1506:A:H1'	2.54	0.42
52:5:1489:C:H2'	52:5:1490:G:H8	1.84	0.42
4:A:81:GLN:HG2	4:A:173:PRO:HA	2.02	0.42
4:A:102:ARG:NH1	4:A:233:ALA:HB1	2.29	0.42
4:A:152:LEU:O	4:A:156:ILE:HG12	2.20	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:152:ILE:HG22	5:B:205:ILE:HD12	2.01	0.42
10:G:25:ALA:HB1	10:G:30:LEU:HB2	2.01	0.42
13:J:16:VAL:HG23	13:J:25:VAL:HG12	2.01	0.42
14:K:100:VAL:HB	52:5:521:A:C6	2.54	0.42
20:Q:56:ASP:O	20:Q:60:LEU:HG	2.20	0.42
21:R:23:ASN:ND2	21:R:27:LYS:HG3	2.35	0.42
21:R:70:LYS:HB2	52:5:1294:U:O4	2.20	0.42
21:R:80:PHE:HD2	21:R:82:GLN:OE1	2.01	0.42
24:a:57:HIS:HD2	24:a:224:ILE:HG23	1.84	0.42
28:e:97:TYR:HA	28:e:109:GLN:O	2.19	0.42
39:p:77:VAL:HA	39:p:80:ASN:HD22	1.84	0.42
43:t:32:GLN:HG2	43:t:71:LEU:H	1.83	0.42
50:3:137:U:O2	50:3:146:G:N2	2.47	0.42
50:3:441:U:H3'	50:3:442:G:C8	2.55	0.42
50:3:566:G:H5''	50:3:2042:A:N3	2.35	0.42
50:3:610:G:O2'	50:3:611:A:O4'	2.36	0.42
50:3:947:A:OP2	50:3:949:C:N4	2.49	0.42
50:3:1346:G:H2'	50:3:1347:A:C8	2.54	0.42
50:3:1504:G:H2'	50:3:1505:G:H8	1.85	0.42
50:3:2089:A:H3'	50:3:2090:G:H8	1.85	0.42
50:3:2551:G:H1'	50:3:2654:U:OP1	2.19	0.42
50:3:2659:U:H2'	50:3:2660:C:C6	2.54	0.42
50:3:2676:G:H2'	50:3:2677:A:C8	2.55	0.42
51:4:100:G:H2'	51:4:101:C:O4'	2.19	0.42
52:5:126:U:H1'	52:5:168:A:N6	2.34	0.42
52:5:200:G:C2	52:5:201:G:N7	2.88	0.42
52:5:251:G:H2'	52:5:252:U:C6	2.53	0.42
52:5:590:G:N2	52:5:644:U:O2	2.34	0.42
52:5:774:A:H2'	52:5:775:G:H8	1.85	0.42
52:5:885:U:H2'	52:5:886:A:H8	1.82	0.42
13:J:41:GLY:HA2	13:J:46:LYS:HG3	2.01	0.42
13:J:72:MET:HA	13:J:72:MET:HE2	2.01	0.42
18:O:52:TRP:CD1	18:O:55:LYS:HZ1	2.37	0.42
18:O:67:PHE:CD1	18:O:72:LEU:HD13	2.55	0.42
20:Q:94:ARG:HD3	20:Q:101:PHE:HD1	1.84	0.42
21:R:27:LYS:NZ	21:R:46:GLY:HA3	2.34	0.42
25:b:3:ILE:HD11	25:b:208:ARG:HD2	2.01	0.42
25:b:152:GLY:HA3	50:3:2580:A:N7	2.34	0.42
27:d:8:TYR:HA	27:d:12:ILE:CD1	2.50	0.42
30:g:56:ASN:HB3	50:3:1142:G:H5''	2.01	0.42
35:l:63:LYS:H	35:l:108:ASN:HB2	1.85	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:r:53:SER:HA	50:3:523:A:H1'	2.00	0.42
43:t:72:SER:OG	50:3:369:C:O2	2.26	0.42
50:3:255:A:C5	50:3:256:G:H1'	2.55	0.42
50:3:755:C:H2'	50:3:756:A:C8	2.55	0.42
50:3:955:A:H2'	50:3:956:U:O4'	2.20	0.42
50:3:1108:A:H8	50:3:1109:G:C8	2.36	0.42
50:3:1110:C:H2'	50:3:1111:C:C5	2.55	0.42
50:3:1317:C:H2'	50:3:1318:U:C6	2.55	0.42
50:3:1337:G:H2'	50:3:1338:G:C8	2.53	0.42
50:3:1356:G:H2'	50:3:1358:C:C2	2.55	0.42
50:3:1495:A:N6	50:3:1548:A:OP1	2.53	0.42
50:3:1666:A:H2'	50:3:1667:G:C8	2.54	0.42
50:3:1695:G:H5''	50:3:2720:C:C2	2.54	0.42
50:3:1757:G:N2	50:3:2864:A:H1'	2.35	0.42
50:3:1767:A:H8	50:3:1767:A:OP2	2.02	0.42
50:3:1880:G:H2'	50:3:1881:C:C6	2.54	0.42
50:3:1947:U:H1'	50:3:1949:C:N4	2.34	0.42
50:3:2134:G:H2'	50:3:2135:C:O4'	2.19	0.42
50:3:2299:U:H2'	50:3:2300:A:C8	2.54	0.42
50:3:2767:G:H2'	50:3:2768:U:O4'	2.20	0.42
52:5:375:C:N4	52:5:376:G:O6	2.52	0.42
52:5:992:U:H2'	52:5:993:C:C6	2.54	0.42
52:5:1091:C:N4	52:5:1094:C:OP1	2.53	0.42
52:5:1183:C:C2	52:5:1184:C:C5	3.07	0.42
52:5:1426:U:O2'	52:5:1427:U:O4'	2.31	0.42
1:0:2:LYS:NZ	50:3:722:C:O5'	2.53	0.42
6:C:68:ASP:CB	52:5:543:C:H5'	2.50	0.42
7:D:69:ARG:HH12	7:D:168:ALA:HB1	1.85	0.42
10:G:13:ASP:OD1	10:G:16:ALA:HB3	2.20	0.42
12:I:29:LYS:HA	12:I:32:VAL:HG22	2.00	0.42
18:O:16:VAL:HA	18:O:27:ILE:HD13	2.01	0.42
25:b:4:ARG:HH11	25:b:90:PHE:HE1	1.67	0.42
34:k:24:HIS:HA	34:k:28:LEU:HA	2.00	0.42
36:m:109:ASP:OD1	50:3:2016:G:N2	2.52	0.42
45:v:29:TRP:CD1	50:3:432:G:H1'	2.55	0.42
50:3:117:C:H1'	50:3:128:A:N3	2.35	0.42
50:3:225:A:O4'	50:3:237:A:O2'	2.37	0.42
50:3:231:A:OP2	50:3:446:A:O2'	2.37	0.42
50:3:551:C:O2'	50:3:1291:C:O3'	2.37	0.42
50:3:804:U:H2'	50:3:805:G:C8	2.54	0.42
50:3:975:G:H2'	50:3:976:C:C6	2.54	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:1036:A:OP2	50:3:1189:G:N1	2.46	0.42
50:3:1477:A:H2'	50:3:1478:U:O4'	2.20	0.42
50:3:1554:A:C4	50:3:1577:A:N6	2.88	0.42
50:3:1711:A:N3	50:3:1712:A:N7	2.67	0.42
50:3:1719:C:H2'	50:3:1720:C:O4'	2.20	0.42
50:3:1742:C:H2'	50:3:1743:U:C6	2.55	0.42
50:3:1846:A:H2'	50:3:1847:G:C8	2.54	0.42
50:3:1854:A:H2'	50:3:1855:A:H5''	2.01	0.42
50:3:1942:G:H22	50:3:1971:G:P	2.42	0.42
50:3:2002:U:H2'	50:3:2003:C:C5	2.54	0.42
50:3:2115:A:C2'	50:3:2116:U:H5'	2.49	0.42
50:3:2157:A:H2'	50:3:2158:C:C6	2.55	0.42
50:3:2203:U:H2'	50:3:2204:C:C6	2.54	0.42
52:5:85:U:O2'	52:5:86:A:N7	2.53	0.42
52:5:89:G:H4'	52:5:160:A:H4'	2.01	0.42
52:5:209:A:H2'	52:5:210:G:O4'	2.20	0.42
52:5:721:G:C2	52:5:722:G:C5	3.08	0.42
4:A:38:ASN:ND2	4:A:40:LYS:HE3	2.35	0.42
4:A:164:GLY:HA2	4:A:167:LYS:NZ	2.34	0.42
5:B:60:ARG:HA	5:B:65:VAL:HG22	2.02	0.42
6:C:76:ARG:HD2	6:C:76:ARG:HA	1.86	0.42
9:F:2:ARG:N	52:5:927:C:OP2	2.53	0.42
9:F:111:HIS:O	9:F:112:GLU:HG2	2.20	0.42
10:G:120:ASP:OD1	52:5:637:A:O2'	2.38	0.42
10:G:131:LYS:O	10:G:132:LYS:HG2	2.20	0.42
14:K:20:LYS:O	14:K:107:ARG:HD3	2.19	0.42
28:e:159:PRO:HA	28:e:172:ILE:HD12	2.02	0.42
34:k:83:ASN:OD1	34:k:84:LYS:N	2.53	0.42
35:l:29:PHE:N	35:l:105:GLU:OE1	2.45	0.42
36:m:36:LYS:HG3	50:3:1685:G:H4'	2.01	0.42
37:n:11:ARG:HH12	37:n:14:ARG:HB3	1.85	0.42
39:p:69:ARG:HD3	39:p:69:ARG:HA	1.79	0.42
39:p:96:GLU:HA	39:p:99:ILE:HD12	2.02	0.42
48:y:3:VAL:CG1	50:3:2064:G:H1'	2.49	0.42
50:3:200:A:H2'	50:3:2075:U:C5	2.55	0.42
50:3:395:U:H2'	50:3:396:A:C5	2.54	0.42
50:3:743:G:H2'	50:3:744:U:C6	2.54	0.42
50:3:988:G:C6	50:3:1002:A:N6	2.88	0.42
50:3:1092:A:N7	50:3:1121:A:H2'	2.34	0.42
50:3:1415:A:H2'	50:3:1416:G:C8	2.54	0.42
50:3:1440:U:H2'	50:3:1441:A:C8	2.55	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:1534:A:O2'	50:3:1535:A:H5''	2.20	0.42
50:3:2334:U:O2	50:3:2397:G:N2	2.41	0.42
50:3:2757:A:H3'	50:3:2758:A:H2'	2.00	0.42
50:3:2808:A:HO2'	50:3:2809:A:P	2.41	0.42
52:5:671:G:H2'	52:5:672:A:C8	2.54	0.42
52:5:681:U:H2'	52:5:682:G:C4	2.55	0.42
52:5:957:C:H2'	52:5:958:G:C8	2.55	0.42
1:0:37:LYS:NZ	1:0:39:ARG:HD3	2.35	0.42
5:B:124:ALA:HA	5:B:127:ILE:HD12	2.02	0.42
9:F:21:LEU:HB3	9:F:61:PHE:HE2	1.84	0.42
9:F:110:ARG:NH1	9:F:122:GLU:OE2	2.53	0.42
10:G:38:SER:O	10:G:42:ILE:HG12	2.20	0.42
12:I:55:ILE:O	12:I:71:PHE:N	2.49	0.42
14:K:24:LEU:O	14:K:40:SER:HB2	2.18	0.42
26:c:70:HIS:HA	50:3:2066:A:H4'	2.02	0.42
27:d:101:GLU:HB2	27:d:105:TYR:HD2	1.84	0.42
27:d:169:LEU:O	27:d:173:LEU:HG	2.20	0.42
33:j:26:GLY:HA3	33:j:30:LYS:HB3	2.01	0.42
35:l:67:ARG:N	35:l:103:MET:O	2.53	0.42
37:n:75:GLN:O	37:n:78:ALA:HB3	2.20	0.42
39:p:95:SER:O	39:p:99:ILE:HG13	2.20	0.42
50:3:39:C:H2'	50:3:40:A:C8	2.55	0.42
50:3:167:A:H3'	50:3:168:A:H8	1.85	0.42
50:3:168:A:H2'	50:3:169:U:C6	2.55	0.42
50:3:325:G:C6	50:3:384:G:C6	3.08	0.42
50:3:341:G:N2	50:3:343:A:H3'	2.35	0.42
50:3:1079:U:H2'	50:3:1080:A:H5''	2.02	0.42
50:3:1509:U:H1'	50:3:1535:A:N1	2.34	0.42
50:3:1659:C:O2	50:3:1659:C:H2'	2.19	0.42
50:3:1711:A:N1	50:3:1712:A:N6	2.68	0.42
50:3:2099:U:H4'	50:3:2100:G:H5''	2.02	0.42
50:3:2111:U:H5''	50:3:2112:A:C8	2.52	0.42
50:3:2299:U:O2'	50:3:2382:A:H1'	2.20	0.42
50:3:2753:C:H2'	50:3:2754:U:C6	2.55	0.42
52:5:568:G:H2'	52:5:569:U:C5	2.55	0.42
52:5:911:G:H2'	52:5:912:G:H8	1.85	0.42
52:5:995:U:H2'	52:5:996:U:O4'	2.19	0.42
52:5:1014:A:H2'	52:5:1015:U:O4'	2.20	0.42
52:5:1314:A:H2'	52:5:1315:U:C6	2.55	0.42
4:A:112:TRP:CZ2	4:A:116:THR:HB	2.55	0.42
5:B:155:LEU:HB3	5:B:202:LYS:HG3	2.01	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:187:TYR:OH	5:B:189:LEU:HD12	2.20	0.42
7:D:210:ILE:HD13	7:D:210:ILE:HA	1.94	0.42
9:F:120:ALA:O	9:F:124:ILE:HG12	2.20	0.42
14:K:26:TYR:HB2	14:K:74:PHE:HE2	1.85	0.42
15:L:109:ARG:HD2	52:5:1281:U:O2'	2.20	0.42
24:a:50:GLN:HE22	50:3:1813:C:H1'	1.84	0.42
24:a:215:LYS:NZ	50:3:764:G:O4'	2.43	0.42
26:c:142:VAL:O	26:c:145:GLN:HG3	2.20	0.42
28:e:45:LYS:HE3	28:e:56:THR:CG2	2.50	0.42
34:k:30:LYS:HG3	34:k:32:SER:H	1.85	0.42
37:n:41:VAL:HG13	37:n:77:ILE:HD13	2.02	0.42
38:o:96:VAL:HG22	38:o:98:ARG:H	1.85	0.42
41:r:49:LYS:HG3	50:3:524:G:H4'	2.01	0.42
41:r:94:ASN:O	41:r:95:MET:HE2	2.20	0.42
46:w:23:LYS:HE3	46:w:23:LYS:HB3	1.87	0.42
50:3:26:G:C2	50:3:27:U:C5	3.08	0.42
50:3:177:U:H2'	50:3:178:A:N7	2.34	0.42
50:3:323:A:H2'	50:3:324:C:C6	2.55	0.42
50:3:376:U:H2'	50:3:377:U:C6	2.55	0.42
50:3:666:G:P	50:3:685:G:H21	2.42	0.42
50:3:869:U:H2'	50:3:870:A:C8	2.55	0.42
50:3:892:G:H2'	50:3:893:A:C8	2.54	0.42
50:3:954:A:H5''	50:3:2276:A:H61	1.85	0.42
50:3:1541:A:H4'	50:3:1590:U:O2'	2.20	0.42
50:3:1554:A:C4	50:3:1555:G:H1'	2.55	0.42
50:3:1850:C:H2'	50:3:1851:U:C6	2.55	0.42
50:3:1914:G:O6	50:3:1931:C:N4	2.53	0.42
50:3:1996:A:H2'	50:3:1997:C:O4'	2.20	0.42
50:3:2005:G:H2'	50:3:2006:C:C6	2.55	0.42
50:3:2088:U:H2'	50:3:2089:A:C8	2.53	0.42
50:3:2320:U:H2'	50:3:2321:C:H6	1.85	0.42
50:3:2468:U:C2	50:3:2469:A:C8	3.08	0.42
50:3:2483:C:N3	50:3:2537:G:N1	2.67	0.42
51:4:11:A:O2'	51:4:13:G:N3	2.51	0.42
52:5:329:C:H2'	52:5:330:C:H6	1.85	0.42
52:5:513:G:C6	52:5:535:A:C6	3.07	0.42
52:5:552:U:H2'	52:5:553:C:C6	2.55	0.42
52:5:1119:C:H3'	52:5:1120:A:C8	2.55	0.42
52:5:1437:A:H2'	52:5:1438:U:O4'	2.19	0.42
52:5:1501:G:H2'	52:5:1502:G:H8	1.85	0.42
6:C:166:PHE:CG	6:C:182:PRO:HG3	2.54	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:D:69:ARG:H	7:D:69:ARG:HD3	1.83	0.42
7:D:188:PRO:O	7:D:192:ILE:HG12	2.20	0.42
18:O:67:PHE:CE1	18:O:72:LEU:HD13	2.55	0.42
19:P:20:LYS:HB2	19:P:49:ASN:O	2.20	0.42
25:b:107:TYR:HD2	25:b:213:LYS:HB2	1.85	0.42
26:c:93:PRO:HD3	50:3:1278:G:H5'	2.02	0.42
26:c:94:LYS:HA	26:c:94:LYS:HD2	1.84	0.42
26:c:146:PHE:O	26:c:149:SER:OG	2.27	0.42
27:d:16:LEU:HD13	27:d:29:PRO:HD2	2.02	0.42
34:k:92:LYS:HG3	34:k:125:HIS:CE1	2.55	0.42
39:p:45:ALA:HB1	39:p:49:ARG:HH12	1.84	0.42
43:t:88:LYS:C	43:t:105:LYS:HG3	2.45	0.42
50:3:181:G:H2'	50:3:182:C:C6	2.54	0.42
50:3:380:A:H3'	50:3:381:A:H8	1.85	0.42
50:3:528:U:H2'	50:3:529:G:H8	1.81	0.42
50:3:563:A:N6	50:3:2049:A:H3'	2.34	0.42
50:3:1053:C:H2'	50:3:1054:U:C6	2.55	0.42
50:3:1228:G:H1'	50:3:1257:G:OP1	2.20	0.42
50:3:1509:U:H4'	50:3:1536:C:H1'	2.01	0.42
50:3:1544:G:H2'	50:3:1545:A:C8	2.55	0.42
50:3:1619:A:H2'	50:3:1620:A:H8	1.85	0.42
50:3:1633:C:H2'	50:3:1634:A:H8	1.84	0.42
50:3:1776:G:C6	50:3:1777:G:O6	2.73	0.42
50:3:1954:C:O2'	52:5:1458:A:H4'	2.20	0.42
50:3:2353:G:C5	50:3:2355:C:C5	3.08	0.42
50:3:2594:C:H3'	50:3:2616:G:N2	2.35	0.42
52:5:21:U:H2'	52:5:22:G:O4'	2.20	0.42
52:5:63:U:O4	52:5:90:G:O6	2.37	0.42
52:5:171:A:H2'	52:5:172:C:C6	2.55	0.42
52:5:648:C:H2'	52:5:649:U:C6	2.54	0.42
52:5:715:A:H5''	52:5:716:C:C5	2.55	0.42
52:5:821:U:H2'	52:5:822:A:H8	1.85	0.42
52:5:958:G:C2	52:5:968:G:C2	3.08	0.42
52:5:1204:A:O2'	53:7:31:G:OP1	2.21	0.42
52:5:1233:G:H2'	52:5:1234:C:C6	2.55	0.42
52:5:1329:G:C4	52:5:1330:A:C8	3.07	0.42
1:0:10:LEU:HB3	1:0:14:LYS:HZ1	1.84	0.41
4:A:27:ARG:HG3	4:A:28:THR:HG22	2.01	0.41
7:D:113:ASN:O	7:D:117:LYS:HG3	2.20	0.41
8:E:7:LEU:HD12	8:E:82:VAL:HG11	2.01	0.41
24:a:252:ASP:OD1	24:a:252:ASP:N	2.49	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:a:271:LYS:HD2	24:a:271:LYS:HA	1.72	0.41
26:c:128:VAL:HB	26:c:198:LEU:HB3	2.01	0.41
27:d:96:MET:O	27:d:100:LEU:HG	2.20	0.41
32:i:11:GLN:HB3	50:3:574:G:OP1	2.20	0.41
32:i:50:ASN:HD22	50:3:571:A:H2	1.67	0.41
32:i:57:LEU:HB2	32:i:125:VAL:HG12	2.01	0.41
32:i:143:LEU:HG	32:i:144:ASN:O	2.20	0.41
34:k:134:GLN:NE2	50:3:674:G:O5'	2.53	0.41
41:r:128:ARG:NH1	50:3:1248:A:N3	2.67	0.41
50:3:243:U:O2	50:3:262:G:N2	2.40	0.41
50:3:371:C:H3'	50:3:372:G:H8	1.85	0.41
50:3:513:A:O2'	50:3:514:A:P	2.78	0.41
50:3:1092:A:N6	50:3:1121:A:N3	2.68	0.41
50:3:1327:G:O6	50:3:1673:U:H5''	2.20	0.41
50:3:1956:G:H3'	50:3:1957:G:H8	1.85	0.41
50:3:2017:G:H2'	50:3:2018:U:C6	2.54	0.41
50:3:2062:C:N4	50:3:2512:U:OP2	2.53	0.41
50:3:2080:C:H2'	50:3:2081:U:C6	2.55	0.41
50:3:2309:A:H2'	50:3:2310:C:C6	2.55	0.41
50:3:2521:A:N6	50:3:2582:G:O6	2.53	0.41
50:3:2738:U:H2'	50:3:2739:C:C6	2.54	0.41
50:3:2842:G:C4	50:3:2843:G:C8	3.08	0.41
50:3:2892:U:H2'	50:3:2893:C:H6	1.84	0.41
51:4:41:C:H2'	51:4:43:A:C8	2.55	0.41
52:5:87:G:O2'	52:5:137:A:H2'	2.20	0.41
52:5:170:A:H2'	52:5:170:A:N3	2.34	0.41
52:5:204:C:H2'	52:5:205:U:C6	2.55	0.41
52:5:728:G:H2'	52:5:729:C:C6	2.55	0.41
3:2:35:ARG:HG2	3:2:36:GLN:H	1.86	0.41
7:D:137:TYR:CE2	7:D:138:HIS:ND1	2.88	0.41
8:E:35:LEU:HD22	8:E:60:TRP:CZ3	2.55	0.41
10:G:20:THR:O	10:G:24:ASN:ND2	2.53	0.41
10:G:53:TYR:O	10:G:84:ILE:HD11	2.21	0.41
12:I:50:THR:CA	12:I:75:ARG:O	2.68	0.41
13:J:45:PHE:HE2	13:J:55:SER:HB2	1.85	0.41
15:L:65:ILE:HD12	15:L:65:ILE:H	1.85	0.41
18:O:2:ARG:HH11	52:5:370:A:H2	1.68	0.41
22:S:66:ARG:HB2	22:S:66:ARG:NH2	2.34	0.41
24:a:62:ASN:HD22	50:3:1600:A:H1'	1.85	0.41
24:a:185:LEU:O	24:a:186:SER:OG	2.35	0.41
24:a:218:ARG:O	24:a:222:ARG:HG2	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:a:264:GLY:O	50:3:1850:C:O2'	2.37	0.41
26:c:158:LEU:HB3	26:c:197:LEU:HD21	2.03	0.41
32:i:42:LYS:NZ	50:3:1043:C:OP1	2.49	0.41
32:i:46:ASP:HB2	39:p:100:LYS:HE3	2.02	0.41
32:i:83:TYR:HD2	50:3:2650:A:H5'	1.84	0.41
34:k:137:LYS:O	34:k:140:GLU:HG2	2.21	0.41
35:l:84:GLY:HA3	50:3:2258:G:N2	2.35	0.41
36:m:99:ARG:HH12	36:m:119:THR:H	1.69	0.41
42:s:15:LYS:NZ	50:3:1421:A:H62	2.18	0.41
43:t:9:LYS:HD2	43:t:9:LYS:HA	1.93	0.41
46:w:28:GLU:O	46:w:32:LYS:HG2	2.20	0.41
50:3:301:G:H2'	50:3:302:G:H8	1.85	0.41
50:3:320:A:H2'	50:3:321:A:C8	2.55	0.41
50:3:680:A:H2'	50:3:682:A:H8	1.83	0.41
50:3:724:A:H2'	50:3:725:G:C8	2.55	0.41
50:3:848:U:H1'	50:3:1256:A:N3	2.35	0.41
50:3:1042:C:H2'	50:3:1043:C:C6	2.55	0.41
50:3:1324:A:H5''	50:3:2718:C:H5'	2.02	0.41
50:3:1327:G:H5'	50:3:1329:U:O4'	2.20	0.41
50:3:1341:U:H2'	50:3:1341:U:O2	2.19	0.41
50:3:1450:G:H2'	50:3:1451:A:C8	2.55	0.41
50:3:1669:A:H2'	50:3:1669:A:N3	2.35	0.41
50:3:1867:G:H2'	50:3:1868:A:C8	2.55	0.41
50:3:2205:U:O3'	50:3:2206:A:H2'	2.19	0.41
50:3:2720:C:H5'	50:3:2722:G:O3'	2.19	0.41
52:5:40:G:H2'	52:5:41:C:C6	2.55	0.41
52:5:268:C:H2'	52:5:269:A:C8	2.55	0.41
52:5:778:A:H2'	52:5:778:A:N3	2.36	0.41
52:5:864:U:H5''	52:5:865:U:H2'	2.02	0.41
52:5:946:G:H2'	52:5:947:U:C6	2.55	0.41
52:5:1218:C:H1'	52:5:1276:U:H3	1.84	0.41
52:5:1254:A:O2'	52:5:1257:C:N4	2.53	0.41
3:2:31:LYS:NZ	50:3:2486:A:O4'	2.53	0.41
4:A:38:ASN:HD22	4:A:40:LYS:HE3	1.84	0.41
4:A:182:VAL:HA	4:A:185:LYS:HE3	2.02	0.41
8:E:151:LYS:O	10:G:56:ASN:ND2	2.49	0.41
9:F:77:ARG:HD2	9:F:155:TRP:CZ2	2.56	0.41
10:G:98:TYR:OH	52:5:595:G:N2	2.50	0.41
11:H:10:GLY:HA2	11:H:87:ARG:NH2	2.32	0.41
11:H:56:LEU:HD23	11:H:56:LEU:H	1.85	0.41
13:J:28:SER:CA	13:J:34:VAL:HA	2.46	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:K:30:LEU:O	14:K:31:LEU:HG	2.20	0.41
14:K:45:GLY:HA3	14:K:70:LEU:HA	2.02	0.41
24:a:249:VAL:HG21	24:a:254:PRO:HG3	2.01	0.41
27:d:99:PHE:O	27:d:102:LYS:HB2	2.21	0.41
32:i:70:ASN:ND2	32:i:73:GLU:OE2	2.52	0.41
32:i:95:MET:HG2	32:i:103:LEU:HB2	2.03	0.41
35:l:35:VAL:HB	35:l:130:LYS:HG3	2.02	0.41
35:l:126:PRO:HG3	50:3:2493:G:H4'	2.03	0.41
36:m:18:VAL:HG13	36:m:41:THR:HG22	2.02	0.41
38:o:29:ASP:HA	38:o:94:GLY:H	1.85	0.41
40:q:47:ALA:HB3	40:q:48:PRO:HD3	2.03	0.41
41:r:26:GLY:H	41:r:71:VAL:HB	1.85	0.41
46:w:57:ILE:O	46:w:61:ARG:NH1	2.53	0.41
50:3:70:G:H2'	50:3:71:C:O4'	2.20	0.41
50:3:400:A:H2'	50:3:401:G:O4'	2.21	0.41
50:3:899:A:H2'	50:3:900:G:C8	2.56	0.41
50:3:1231:G:H2'	50:3:1232:U:H6	1.85	0.41
50:3:1491:G:H2'	50:3:1492:G:C8	2.55	0.41
50:3:1867:G:H2'	50:3:1868:A:H8	1.85	0.41
50:3:1961:A:H5''	50:3:2558:G:H21	1.86	0.41
50:3:1999:G:N1	50:3:2003:C:O2	2.53	0.41
50:3:2238:G:H2'	50:3:2239:U:C6	2.55	0.41
50:3:2735:G:C2	50:3:2736:U:C5	3.08	0.41
51:4:104:C:H2'	51:4:105:A:C8	2.49	0.41
52:5:85:U:H4'	52:5:86:A:OP1	2.19	0.41
52:5:87:G:O2'	52:5:137:A:N3	2.46	0.41
52:5:136:U:H2'	52:5:137:A:C8	2.54	0.41
52:5:612:G:N1	52:5:624:U:N3	2.37	0.41
52:5:1074:U:H2'	52:5:1093:A:C8	2.56	0.41
52:5:1088:C:H1'	52:5:1145:A:H1'	2.01	0.41
52:5:1320:A:H62	52:5:1349:A:H3'	1.85	0.41
6:C:57:LYS:HG3	6:C:200:TYR:OH	2.21	0.41
6:C:166:PHE:HB3	6:C:182:PRO:HA	2.03	0.41
7:D:93:VAL:HB	7:D:172:LEU:HD13	2.03	0.41
8:E:151:LYS:C	10:G:56:ASN:HD21	2.28	0.41
11:H:112:VAL:O	52:5:1321:G:H5''	2.20	0.41
12:I:75:ARG:HH21	12:I:77:LYS:HB3	1.84	0.41
18:O:33:LEU:HD13	18:O:42:CYS:HB2	2.02	0.41
19:P:64:VAL:HG22	19:P:78:ALA:HB2	2.00	0.41
25:b:107:TYR:CD2	25:b:213:LYS:HB2	2.56	0.41
27:d:5:LYS:O	27:d:9:GLN:HG2	2.21	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:d:102:LYS:HB3	27:d:138:PHE:CE1	2.56	0.41
33:j:71:ARG:HH11	33:j:77:LEU:HD12	1.85	0.41
34:k:78:VAL:HG23	34:k:112:ILE:HA	2.03	0.41
35:l:69:PHE:HD2	35:l:71:HIS:CE1	2.39	0.41
38:o:93:ARG:H	38:o:93:ARG:HD3	1.86	0.41
39:p:2:ARG:HA	50:3:1278:G:O2'	2.20	0.41
39:p:91:ARG:CG	40:q:11:GLN:HB3	2.51	0.41
44:u:68:GLY:O	44:u:71:ASP:N	2.53	0.41
44:u:87:GLY:O	51:4:10:C:H3'	2.21	0.41
50:3:378:G:N2	50:3:379:A:N7	2.68	0.41
50:3:381:A:H2'	50:3:382:U:C6	2.55	0.41
50:3:569:U:H2'	50:3:570:C:C6	2.56	0.41
50:3:801:U:H2'	50:3:802:U:O4'	2.21	0.41
50:3:998:C:O2'	50:3:2505:A:OP1	2.32	0.41
50:3:1201:A:H2'	50:3:1202:A:C8	2.55	0.41
50:3:1292:A:C5	50:3:1293:U:C4	3.08	0.41
50:3:1391:U:H1'	50:3:1817:A:N3	2.35	0.41
50:3:1529:U:C2	50:3:1530:G:C8	3.08	0.41
50:3:1585:A:O2'	50:3:1586:U:OP1	2.28	0.41
50:3:2032:G:C6	50:3:2046:G:N1	2.89	0.41
50:3:2120:G:H3'	50:3:2121:A:H8	1.86	0.41
50:3:2343:A:H2'	50:3:2344:A:H8	1.84	0.41
50:3:2500:U:H2'	50:3:2501:U:C6	2.55	0.41
50:3:2645:U:H3	50:3:2784:A:H62	1.69	0.41
50:3:2802:C:OP1	50:3:2802:C:H4'	2.21	0.41
50:3:2838:G:H1'	50:3:2887:A:N6	2.36	0.41
52:5:404:A:H2'	52:5:405:C:H6	1.85	0.41
52:5:765:A:H5'	52:5:1499:G:H1'	2.02	0.41
52:5:868:G:H2'	52:5:869:U:H6	1.86	0.41
52:5:1039:G:H2'	52:5:1041:G:C8	2.47	0.41
52:5:1245:A:O3'	52:5:1288:C:H4'	2.20	0.41
52:5:1279:G:C2'	52:5:1305:G:H22	2.33	0.41
53:7:38:G:H2'	53:7:38:G:N3	2.35	0.41
5:B:159:ARG:NH1	52:5:1046:A:H1'	2.34	0.41
5:B:189:LEU:HD11	52:5:1049:G:H4'	2.03	0.41
9:F:37:LEU:O	9:F:41:ILE:HG12	2.21	0.41
15:L:15:ILE:HG21	15:L:39:ILE:HG21	2.02	0.41
22:S:28:LEU:O	22:S:32:VAL:HG23	2.20	0.41
25:b:152:GLY:O	25:b:157:GLN:HG3	2.21	0.41
26:c:53:LEU:HD13	26:c:59:ARG:HH12	1.85	0.41
29:f:79:PHE:HB2	29:f:142:VAL:HG22	2.02	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:o:91:LYS:C	38:o:92:ARG:HG3	2.45	0.41
40:q:51:GLU:HG3	40:q:52:LYS:H	1.84	0.41
50:3:55:A:H62	50:3:118:G:H21	1.67	0.41
50:3:546:U:H2'	50:3:547:G:O4'	2.20	0.41
50:3:894:G:O2'	50:3:2276:A:H1'	2.20	0.41
50:3:1702:A:N7	50:3:1998:U:N3	2.68	0.41
50:3:1756:A:H2'	50:3:1757:G:H8	1.86	0.41
50:3:2194:G:H8	50:3:2194:G:OP2	2.03	0.41
50:3:2381:G:O2'	50:3:2382:A:H5'	2.20	0.41
50:3:2480:G:N2	50:3:2487:U:O4	2.54	0.41
52:5:41:C:H2'	52:5:42:G:C8	2.50	0.41
52:5:76:G:N2	52:5:79:A:OP2	2.33	0.41
52:5:171:A:H2'	52:5:172:C:H6	1.86	0.41
52:5:240:U:O4	52:5:887:C:N3	2.53	0.41
52:5:436:U:H2'	52:5:437:U:O4'	2.20	0.41
52:5:878:U:H4'	52:5:879:G:H5''	2.02	0.41
52:5:958:G:H2'	52:5:959:A:C8	2.55	0.41
52:5:1191:U:H2'	52:5:1192:C:C6	2.56	0.41
5:B:33:TRP:C	5:B:60:ARG:HH12	2.29	0.41
6:C:37:GLN:HG2	52:5:415:C:O2	2.20	0.41
6:C:155:LYS:O	6:C:159:GLU:HG2	2.20	0.41
11:H:11:ARG:NH1	52:5:1109:U:OP2	2.42	0.41
12:I:78:ARG:HA	12:I:78:ARG:HD2	1.92	0.41
14:K:87:LEU:HD23	14:K:87:LEU:H	1.84	0.41
20:Q:58:GLU:H	20:Q:58:GLU:CD	2.29	0.41
21:R:20:ILE:O	21:R:24:LYS:HB3	2.21	0.41
23:T:45:LYS:HA	23:T:45:LYS:HD3	1.86	0.41
24:a:147:VAL:HA	24:a:200:VAL:HA	2.02	0.41
24:a:166:SER:O	24:a:203:VAL:HG23	2.20	0.41
24:a:205:ASN:C	24:a:207:ASP:H	2.28	0.41
25:b:50:THR:HB	25:b:87:MET:SD	2.61	0.41
26:c:80:ARG:NH2	50:3:505:G:OP1	2.54	0.41
28:e:95:VAL:HG11	50:3:2665:A:O3'	2.19	0.41
32:i:9:LYS:NZ	50:3:573:A:O4'	2.54	0.41
35:l:116:LYS:HD3	35:l:116:LYS:HA	1.73	0.41
36:m:2:SER:N	50:3:1692:A:N3	2.68	0.41
43:t:40:ASN:HB3	43:t:67:ALA:HB3	2.01	0.41
50:3:520:C:H2'	50:3:521:C:C6	2.55	0.41
50:3:570:C:H2'	50:3:571:A:O4'	2.20	0.41
50:3:633:G:H2'	50:3:634:C:C6	2.55	0.41
50:3:637:U:H4'	50:3:638:A:H5''	2.03	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:728:A:H1'	50:3:1382:A:H1'	2.02	0.41
50:3:732:G:H2'	50:3:733:C:C6	2.56	0.41
50:3:772:C:N4	50:3:773:G:O6	2.54	0.41
50:3:877:G:H2'	50:3:878:A:C8	2.56	0.41
50:3:911:U:H2'	50:3:912:A:C8	2.55	0.41
50:3:1324:A:H2'	50:3:1325:C:O4'	2.21	0.41
50:3:1539:U:H2'	50:3:1540:G:C8	2.55	0.41
50:3:1546:U:H3'	50:3:1547:G:H8	1.86	0.41
50:3:1552:C:O2	50:3:1579:G:N2	2.53	0.41
50:3:1723:A:H2'	50:3:1724:A:C8	2.55	0.41
50:3:2148:U:OP1	50:3:2150:C:N4	2.54	0.41
50:3:2263:G:C6	50:3:2264:G:C5	3.09	0.41
52:5:317:A:H2'	52:5:318:C:C6	2.52	0.41
52:5:337:C:H2'	52:5:338:C:C6	2.55	0.41
52:5:807:C:H2'	52:5:808:C:O4'	2.21	0.41
52:5:831:C:O2'	52:5:832:G:H5'	2.19	0.41
52:5:1108:A:N6	52:5:1132:G:H22	2.18	0.41
52:5:1127:A:O2'	52:5:1128:G:H8	2.03	0.41
52:5:1213:A:N7	52:5:1275:U:O2	2.54	0.41
52:5:1225:A:C5	52:5:1261:A:C5	3.09	0.41
52:5:1361:G:H2'	52:5:1362:G:H8	1.84	0.41
52:5:1469:G:H2'	52:5:1470:U:C6	2.55	0.41
52:5:1488:A:H2'	52:5:1489:C:C6	2.55	0.41
52:5:1505:G:H2'	52:5:1506:A:C8	2.53	0.41
3:2:30:GLN:HB3	50:3:2535:C:H5''	2.02	0.41
6:C:14:LEU:HD23	6:C:14:LEU:HA	1.94	0.41
6:C:138:PRO:HA	6:C:178:TYR:HD1	1.85	0.41
7:D:69:ARG:HH22	7:D:172:LEU:HD11	1.86	0.41
12:I:48:LEU:O	12:I:50:THR:HG23	2.21	0.41
13:J:19:SER:O	13:J:21:ASN:N	2.54	0.41
14:K:53:MET:HB3	14:K:65:TYR:HE2	1.83	0.41
17:N:68:LYS:HG2	17:N:75:TYR:CZ	2.55	0.41
18:O:18:SER:N	18:O:58:LYS:O	2.54	0.41
18:O:25:LYS:HB2	18:O:25:LYS:HE3	1.86	0.41
21:R:48:THR:HG22	21:R:61:TYR:HB2	2.03	0.41
24:a:186:SER:HB3	50:3:1826:A:O2'	2.21	0.41
26:c:193:LEU:HG	34:k:5:GLN:NE2	2.35	0.41
27:d:121:SER:HB2	27:d:128:TYR:CZ	2.56	0.41
30:g:124:GLU:HA	30:g:127:ALA:HB3	2.02	0.41
35:l:107:ALA:O	35:l:108:ASN:HB2	2.20	0.41
46:w:15:LEU:O	46:w:19:VAL:HG23	2.21	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:w:64:ASN:OD1	46:w:64:ASN:N	2.54	0.41
49:z:8:ARG:NH2	50:3:2426:A:HO2'	2.09	0.41
50:3:42:U:H4'	50:3:649:A:C4	2.56	0.41
50:3:72:G:N2	50:3:73:A:N1	2.65	0.41
50:3:223:A:H2'	50:3:224:G:H8	1.86	0.41
50:3:298:U:N3	50:3:300:G:H5'	2.36	0.41
50:3:306:G:C6	50:3:399:G:C5	3.09	0.41
50:3:329:G:N2	50:3:377:U:O2	2.47	0.41
50:3:584:G:H2'	50:3:585:U:C6	2.56	0.41
50:3:683:G:H2'	50:3:684:A:H8	1.85	0.41
50:3:1001:C:H2'	50:3:1002:A:C8	2.56	0.41
50:3:1012:G:H4'	50:3:1191:A:N7	2.35	0.41
50:3:1158:C:H2'	50:3:1159:C:H6	1.85	0.41
50:3:1337:G:H22	50:3:1642:G:N2	2.11	0.41
50:3:1512:A:N6	50:3:1528:G:C6	2.88	0.41
50:3:1750:A:C6	50:3:1751:A:H1'	2.56	0.41
50:3:2179:A:H1'	50:3:2180:U:C6	2.55	0.41
50:3:2309:A:O2'	50:3:2310:C:H5'	2.20	0.41
50:3:2320:U:H2'	50:3:2321:C:C6	2.56	0.41
50:3:2661:U:H3'	50:3:2662:A:H8	1.85	0.41
50:3:2897:G:H4'	50:3:2898:A:O5'	2.20	0.41
51:4:60:C:H2'	51:4:61:A:C8	2.56	0.41
52:5:27:A:H62	52:5:555:G:N2	2.19	0.41
52:5:253:G:O6	52:5:266:A:N6	2.53	0.41
52:5:379:A:H8	52:5:380:G:C8	2.38	0.41
52:5:649:U:H1'	52:5:650:A:H8	1.85	0.41
52:5:984:A:H2'	52:5:985:C:C6	2.55	0.41
52:5:1159:A:C2	52:5:1160:G:N7	2.88	0.41
52:5:1409:A:H2'	52:5:1410:A:C8	2.56	0.41
5:B:187:TYR:CE1	5:B:202:LYS:HB2	2.54	0.41
12:I:56:THR:OG1	12:I:68:ARG:NH1	2.48	0.41
15:L:78:LYS:HA	15:L:78:LYS:HD3	1.78	0.41
20:Q:56:ASP:OD1	20:Q:56:ASP:N	2.53	0.41
22:S:56:ARG:HG3	52:5:219:A:OP1	2.20	0.41
25:b:122:ALA:HB2	25:b:166:SER:N	2.36	0.41
26:c:113:HIS:HA	26:c:116:TRP:HE3	1.85	0.41
27:d:37:ASN:OD1	27:d:37:ASN:N	2.54	0.41
34:k:134:GLN:HB2	50:3:673:A:OP1	2.20	0.41
35:l:40:ASN:H	35:l:97:VAL:CG1	2.34	0.41
35:l:58:LEU:HG	35:l:62:GLY:HA3	2.03	0.41
35:l:103:MET:N	35:l:103:MET:SD	2.93	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:n:4:ARG:HB2	51:4:28:C:OP1	2.21	0.41
37:n:8:ARG:HG2	37:n:95:GLY:HA3	2.03	0.41
41:r:110:ASN:HD22	41:r:112:ASN:HB3	1.86	0.41
50:3:710:A:N7	50:3:838:U:C2	2.89	0.41
50:3:842:U:H2'	50:3:843:G:O4'	2.21	0.41
50:3:1047:A:C6	50:3:1048:A:N6	2.89	0.41
50:3:1336:A:H2'	50:3:1337:G:C8	2.56	0.41
50:3:1505:G:H2'	50:3:1506:U:C6	2.55	0.41
50:3:1596:U:H2'	50:3:1597:U:C6	2.55	0.41
50:3:1770:A:H8	50:3:1771:C:H4'	1.85	0.41
50:3:1911:G:H2'	50:3:1912:C:O4'	2.20	0.41
50:3:2100:G:N7	50:3:2233:A:H2'	2.36	0.41
50:3:2664:U:C2	50:3:2665:A:C8	3.08	0.41
51:4:30:U:C2	51:4:49:G:N1	2.89	0.41
51:4:99:A:H2'	51:4:100:G:C8	2.56	0.41
52:5:42:G:H2'	52:5:43:G:H8	1.85	0.41
52:5:590:G:C6	52:5:645:A:C6	3.09	0.41
52:5:852:G:O6	52:5:863:A:H3'	2.21	0.41
52:5:1297:G:H2'	52:5:1298:U:H6	1.84	0.41
4:A:65:LEU:O	4:A:69:TYR:HB2	2.21	0.41
4:A:153:SER:O	4:A:157:GLU:OE1	2.39	0.41
5:B:159:ARG:NH2	5:B:196:TYR:HB3	2.36	0.41
6:C:180:ARG:NH2	6:C:181:PHE:O	2.54	0.41
10:G:93:PRO:HB2	52:5:872:C:H5'	2.03	0.41
11:H:117:LYS:HE2	11:H:117:LYS:HB2	1.90	0.41
13:J:41:GLY:C	52:5:685:G:H5'	2.46	0.41
14:K:88:GLN:HB2	14:K:91:SER:HB3	2.03	0.41
14:K:124:ARG:NE	52:5:537:A:OP1	2.54	0.41
17:N:62:ARG:NH1	52:5:579:G:OP1	2.54	0.41
21:R:22:MET:O	21:R:28:LYS:HE2	2.21	0.41
24:a:79:ILE:HD11	24:a:102:ALA:HB3	2.01	0.41
24:a:169:ARG:HD2	24:a:169:ARG:HA	1.72	0.41
24:a:235:PRO:HB2	50:3:2081:U:H5'	2.03	0.41
24:a:240:HIS:CE1	50:3:1832:G:H4'	2.56	0.41
25:b:161:LYS:HE2	50:3:2627:U:H5''	2.01	0.41
26:c:98:ASN:ND2	26:c:100:SER:H	2.19	0.41
27:d:68:THR:O	27:d:84:LEU:HB2	2.20	0.41
28:e:4:ILE:HD11	50:3:2759:G:O3'	2.20	0.41
28:e:113:SER:OG	50:3:2675:C:N3	2.41	0.41
32:i:45:VAL:HG11	39:p:99:ILE:HD13	2.02	0.41
33:j:6:THR:HA	50:3:1700:G:O3'	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:k:60:ARG:O	50:3:2401:U:H1'	2.21	0.41
35:l:66:ILE:HG12	35:l:104:PHE:CE1	2.55	0.41
40:q:74:ILE:HG23	40:q:77:LYS:HB2	2.02	0.41
46:w:44:ILE:O	46:w:48:ARG:HG3	2.21	0.41
46:w:49:ARG:NH1	50:3:78:C:OP1	2.54	0.41
50:3:116:C:H2'	50:3:117:C:H6	1.85	0.41
50:3:200:A:N6	50:3:866:G:N2	2.69	0.41
50:3:200:A:N6	50:3:866:G:C2	2.88	0.41
50:3:245:U:O3'	50:3:246:G:H4'	2.21	0.41
50:3:522:C:H2'	50:3:523:A:H8	1.83	0.41
50:3:625:G:H1	50:3:700:U:H3	1.68	0.41
50:3:671:C:H2'	50:3:672:G:C8	2.56	0.41
50:3:708:C:H2'	50:3:709:G:C8	2.56	0.41
50:3:1008:A:H8	50:3:1008:A:OP2	2.03	0.41
50:3:1010:G:N2	50:3:1025:G:H1'	2.36	0.41
50:3:1047:A:N6	50:3:1186:A:C6	2.89	0.41
50:3:1067:A:H2'	50:3:1069:G:OP2	2.21	0.41
50:3:1093:U:H3	50:3:1115:G:H1	1.68	0.41
50:3:1097:G:O6	50:3:1112:A:N6	2.54	0.41
50:3:1160:G:H3'	50:3:1161:A:H8	1.85	0.41
50:3:1254:U:H2'	50:3:1255:G:C4	2.55	0.41
50:3:1418:U:H2'	50:3:1419:U:C6	2.55	0.41
50:3:1429:G:H2'	50:3:1430:U:O4'	2.21	0.41
50:3:1509:U:O3'	50:3:1536:C:O2'	2.36	0.41
50:3:1538:U:H2'	50:3:1539:U:C6	2.56	0.41
50:3:1709:C:C2	50:3:1710:A:C8	3.09	0.41
50:3:1780:A:N9	50:3:1836:A:H1'	2.35	0.41
50:3:1785:U:O2'	50:3:1786:U:OP1	2.33	0.41
50:3:1820:U:O2'	50:3:1821:G:OP1	2.37	0.41
50:3:1972:C:H5''	50:3:1973:U:H2'	2.03	0.41
50:3:1987:C:H3'	50:3:1988:A:H5''	2.02	0.41
50:3:2085:C:H2'	50:3:2086:U:C6	2.56	0.41
50:3:2668:A:O2'	50:3:2669:G:C8	2.68	0.41
50:3:2728:U:H2'	50:3:2729:A:C8	2.56	0.41
51:4:6:U:H3	51:4:102:A:H61	1.68	0.41
52:5:44:C:H2'	52:5:45:A:H8	1.85	0.41
52:5:104:A:H4'	52:5:105:A:C8	2.56	0.41
52:5:413:G:H2'	52:5:414:U:O4'	2.21	0.41
52:5:503:G:H2'	52:5:504:A:H8	1.85	0.41
52:5:649:U:O4	52:5:750:A:N7	2.54	0.41
52:5:660:A:N1	52:5:739:G:N2	2.55	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:722:G:H2'	52:5:723:C:H6	1.82	0.41
52:5:984:A:H2'	52:5:985:C:H6	1.85	0.41
52:5:1410:A:H2'	52:5:1411:A:C8	2.56	0.41
2:1:23:HIS:HB2	2:1:41:LEU:O	2.21	0.41
2:1:29:LEU:HB3	2:1:32:HIS:ND1	2.35	0.41
3:2:35:ARG:HH12	50:3:2749:A:H5''	1.86	0.41
6:C:73:ARG:O	6:C:77:LEU:HG	2.20	0.41
7:D:67:GLU:HG2	7:D:68:GLU:N	2.36	0.41
7:D:94:VAL:HG12	7:D:122:ALA:HB1	2.03	0.41
7:D:103:TYR:N	7:D:125:SER:OG	2.51	0.41
14:K:67:LYS:HE3	14:K:75:GLU:HG3	2.02	0.41
16:M:2:ALA:N	52:5:1041:G:OP1	2.53	0.41
24:a:88:TYR:HA	24:a:95:PHE:CG	2.56	0.41
24:a:215:LYS:HD3	50:3:764:G:C8	2.55	0.41
37:n:36:LEU:HD12	51:4:27:A:H8	1.86	0.41
39:p:89:ILE:HD11	39:p:91:ARG:HH22	1.85	0.41
46:w:4:ALA:HB1	46:w:8:ARG:HH12	1.85	0.41
47:x:13:SER:HA	47:x:24:THR:HA	2.03	0.41
50:3:144:C:C2	50:3:145:A:N7	2.89	0.41
50:3:146:G:N3	50:3:146:G:H2'	2.36	0.41
50:3:164:A:C2	50:3:2225:G:H1'	2.55	0.41
50:3:205:C:O2'	50:3:255:A:N1	2.41	0.41
50:3:341:G:H2'	50:3:343:A:N7	2.35	0.41
50:3:897:A:C4	50:3:898:A:C8	3.09	0.41
50:3:1085:A:H3'	50:3:1086:G:H8	1.86	0.41
50:3:1107:C:N4	50:3:1127:C:H41	2.19	0.41
50:3:1177:A:O2'	50:3:1178:A:H3'	2.21	0.41
50:3:1834:U:H2'	50:3:1835:G:O4'	2.21	0.41
50:3:1836:A:H2'	50:3:1836:A:N3	2.36	0.41
50:3:1922:U:H3'	50:3:1923:A:H8	1.85	0.41
50:3:2383:G:N2	50:3:2386:A:OP2	2.43	0.41
50:3:2631:G:H2'	50:3:2632:C:C6	2.56	0.41
50:3:2677:A:H2'	50:3:2678:A:H8	1.86	0.41
50:3:2852:G:H1'	50:3:2872:A:H61	1.85	0.41
52:5:20:C:H4'	52:5:858:A:O4'	2.21	0.41
52:5:101:A:H2'	52:5:102:G:O4'	2.21	0.41
52:5:251:G:O6	52:5:262:G:C6	2.74	0.41
52:5:455:U:C4	52:5:472:G:O6	2.73	0.41
52:5:714:C:H3'	52:5:731:A:OP2	2.20	0.41
52:5:786:U:H3	52:5:788:G:H3'	1.87	0.41
52:5:944:A:O2'	52:5:966:A:N6	2.54	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:5:1010:A:H2	52:5:1194:A:H1'	1.86	0.41
52:5:1134:C:C5	52:5:1136:G:H1'	2.56	0.41
52:5:1179:A:H2'	52:5:1180:U:O4'	2.21	0.41
9:F:69:MET:O	9:F:71:ARG:NH2	2.54	0.40
12:I:45:PRO:HA	12:I:80:MET:HE1	2.02	0.40
24:a:184:LEU:N	24:a:188:GLU:O	2.54	0.40
26:c:141:LYS:HB2	50:3:354:C:OP2	2.21	0.40
27:d:13:ALA:HA	27:d:28:VAL:HG21	2.02	0.40
28:e:127:LYS:HB3	28:e:135:THR:OG1	2.21	0.40
28:e:146:GLN:CD	50:3:2752:G:H21	2.29	0.40
33:j:90:ASP:OD1	33:j:92:SER:OG	2.33	0.40
34:k:16:LYS:O	50:3:697:U:O2'	2.35	0.40
35:l:12:PRO:CA	50:3:947:A:H62	2.34	0.40
39:p:15:LYS:O	39:p:19:GLN:HG2	2.20	0.40
50:3:122:G:C6	50:3:132:G:C5	3.10	0.40
50:3:199:A:H61	50:3:202:C:H3'	1.86	0.40
50:3:598:G:C2'	50:3:599:U:H5'	2.51	0.40
50:3:1228:G:H2'	50:3:1229:U:C6	2.56	0.40
50:3:1610:U:H2'	50:3:1611:C:C5	2.56	0.40
50:3:1761:C:H2'	50:3:1762:A:C8	2.56	0.40
50:3:1816:A:O2'	50:3:1817:A:O4'	2.28	0.40
50:3:1845:C:O2'	50:3:1905:U:O4	2.29	0.40
50:3:2143:G:O6	50:3:2162:U:C4	2.73	0.40
50:3:2506:C:H4'	50:3:2507:C:OP1	2.19	0.40
50:3:2539:A:C4	50:3:2540:G:C8	3.09	0.40
50:3:2792:C:H2'	50:3:2793:U:C6	2.56	0.40
50:3:2842:G:H2'	50:3:2843:G:H8	1.86	0.40
51:4:78:C:H3'	51:4:79:U:O2	2.22	0.40
52:5:8:G:C4	52:5:294:A:N1	2.89	0.40
52:5:34:A:H2'	52:5:35:C:O4'	2.21	0.40
52:5:551:A:H2'	52:5:552:U:H6	1.87	0.40
52:5:961:G:H3'	52:5:962:G:C8	2.56	0.40
52:5:979:C:C2	52:5:1197:G:N2	2.89	0.40
52:5:1010:A:H8	52:5:1010:A:OP1	2.04	0.40
52:5:1075:G:OP2	52:5:1075:G:H8	2.05	0.40
52:5:1093:A:H2'	52:5:1094:C:C6	2.56	0.40
52:5:1309:U:P	52:5:1311:G:H21	2.43	0.40
52:5:1341:U:H2'	52:5:1342:C:H6	1.86	0.40
52:5:1400:A:H3'	52:5:1401:A:H8	1.86	0.40
5:B:43:LEU:HG	5:B:47:ASN:OD1	2.21	0.40
5:B:134:ARG:NH2	5:B:138:ARG:HG3	2.36	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:210:ILE:HG13	5:B:213:LYS:HB2	2.03	0.40
6:C:197:VAL:HG23	6:C:198:GLU:OE2	2.20	0.40
8:E:114:LYS:HD3	8:E:114:LYS:HA	1.89	0.40
13:J:115:LYS:HB2	52:5:775:G:H21	1.86	0.40
16:M:32:ALA:HB2	52:5:969:A:H5'	2.03	0.40
20:Q:63:PHE:HE2	20:Q:76:THR:HB	1.86	0.40
21:R:55:LYS:HD2	52:5:953:A:C8	2.57	0.40
24:a:163:SER:O	24:a:166:SER:OG	2.25	0.40
24:a:190:ARG:HH11	24:a:278:ILE:HG12	1.85	0.40
24:a:267:THR:OG1	24:a:267:THR:O	2.35	0.40
25:b:75:LEU:HD23	25:b:75:LEU:HA	1.94	0.40
25:b:88:THR:HG22	25:b:88:THR:O	2.20	0.40
25:b:152:GLY:C	25:b:154:ALA:H	2.30	0.40
26:c:18:VAL:HG11	26:c:127:LEU:HD22	2.04	0.40
26:c:108:HIS:CE1	26:c:112:LEU:HD11	2.57	0.40
27:d:105:TYR:HD1	47:x:40:GLY:HA3	1.86	0.40
29:f:55:GLN:O	29:f:59:GLU:HG2	2.22	0.40
42:s:62:PRO:HD3	42:s:77:LEU:HD13	2.03	0.40
43:t:16:LYS:HE2	43:t:16:LYS:HB2	1.87	0.40
44:u:57:THR:O	50:3:2338:G:O2'	2.38	0.40
50:3:20:C:H2'	50:3:21:U:O4'	2.22	0.40
50:3:330:A:H2'	50:3:331:A:C8	2.56	0.40
50:3:1035:U:H3'	50:3:1189:G:O6	2.21	0.40
50:3:1251:G:C6	50:3:1259:A:N6	2.89	0.40
50:3:2058:G:H3'	50:3:2586:G:O5'	2.20	0.40
50:3:2664:U:O2	50:3:2665:A:C8	2.75	0.40
50:3:2784:A:O2'	50:3:2789:A:O2'	2.27	0.40
52:5:569:U:H5'	52:5:816:A:C5	2.56	0.40
52:5:576:A:H2'	52:5:577:G:H8	1.86	0.40
52:5:583:G:H21	52:5:872:C:HO2'	1.61	0.40
52:5:762:G:H3'	52:5:809:G:N2	2.32	0.40
52:5:1082:U:N3	52:5:1085:G:OP2	2.37	0.40
52:5:1395:C:H2'	52:5:1396:U:O4'	2.21	0.40
1:0:4:THR:HA	50:3:722:C:H5''	2.02	0.40
2:1:4:LYS:HD3	2:1:58:LEU:HD13	2.02	0.40
4:A:37:TRP:CZ3	4:A:39:PRO:HA	2.56	0.40
6:C:113:ALA:O	6:C:117:VAL:HG23	2.21	0.40
13:J:23:THR:HG22	13:J:40:SER:HB3	2.03	0.40
24:a:43:LYS:NZ	50:3:728:A:OP2	2.54	0.40
24:a:48:ASN:HD22	24:a:50:GLN:HE22	1.69	0.40
24:a:125:GLU:HB2	29:f:89:TYR:HE1	1.86	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:a:183:GLN:OE1	24:a:189:THR:OG1	2.35	0.40
24:a:220:ARG:HH12	50:3:816:A:N6	2.19	0.40
25:b:51:LEU:HD11	50:3:2643:A:H4'	2.03	0.40
27:d:27:GLN:HE21	51:4:55:A:H1'	1.86	0.40
32:i:39:ILE:HD13	32:i:39:ILE:HA	1.87	0.40
32:i:118:SER:HA	32:i:121:TRP:CE3	2.56	0.40
33:j:4:PHE:HB3	33:j:24:VAL:HG22	2.03	0.40
38:o:67:ARG:HE	38:o:74:PRO:HB2	1.87	0.40
41:r:77:ASN:HB3	50:3:26:G:H1'	2.03	0.40
41:r:120:GLN:NE2	41:r:121:GLN:HG3	2.35	0.40
42:s:44:PHE:HA	42:s:47:VAL:HG22	2.03	0.40
44:u:50:ILE:HD11	50:3:2363:C:O4'	2.21	0.40
45:v:31:VAL:HG12	50:3:432:G:H5''	2.02	0.40
49:z:38:CYS:SG	49:z:47:HIS:NE2	2.92	0.40
50:3:304:U:H2'	50:3:305:U:O4'	2.21	0.40
50:3:379:A:H1'	50:3:381:A:H62	1.86	0.40
50:3:500:U:O2'	50:3:501:G:P	2.79	0.40
50:3:587:U:C4	50:3:588:G:C5	3.09	0.40
50:3:728:A:H2'	50:3:729:U:C6	2.56	0.40
50:3:1075:G:H2'	50:3:1076:U:O4'	2.21	0.40
50:3:1174:G:H2'	50:3:1175:C:C6	2.55	0.40
50:3:1292:A:H2'	50:3:1293:U:C6	2.57	0.40
50:3:1631:A:H5''	50:3:1632:C:O5'	2.21	0.40
50:3:1688:A:C4	50:3:1689:A:C8	3.09	0.40
50:3:1702:A:OP2	50:3:1997:C:N4	2.55	0.40
50:3:1714:U:O2'	50:3:1770:A:N6	2.55	0.40
50:3:1751:A:H2'	50:3:1752:A:H8	1.86	0.40
50:3:1767:A:H2'	50:3:1768:G:N7	2.35	0.40
50:3:1777:G:N2	50:3:1793:A:N7	2.66	0.40
50:3:1828:A:H2'	50:3:1829:U:H6	1.85	0.40
50:3:2132:G:H2'	50:3:2133:A:C5	2.57	0.40
50:3:2224:A:H2'	50:3:2225:G:C8	2.56	0.40
50:3:2423:G:C6	50:3:2424:C:N4	2.89	0.40
52:5:680:G:C6	52:5:705:A:C6	3.10	0.40
52:5:1183:C:H2'	52:5:1184:C:C6	2.57	0.40
52:5:1226:A:H2	52:5:1344:C:H1'	1.86	0.40
52:5:1242:U:O4	52:5:1301:U:O2'	2.38	0.40
1:0:8:SER:OG	1:0:11:LYS:HB3	2.22	0.40
9:F:90:VAL:HG13	9:F:95:LYS:HB2	2.03	0.40
9:F:144:ALA:C	9:F:146:ALA:H	2.28	0.40
13:J:111:HIS:ND1	20:Q:101:PHE:HD2	2.20	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:L:25:ILE:HG23	15:L:29:ARG:HB2	2.04	0.40
15:L:107:ARG:HB3	15:L:112:PRO:HA	2.03	0.40
24:a:35:LYS:HE3	50:3:1455:A:C2	2.56	0.40
24:a:193:LEU:HD23	24:a:193:LEU:HA	1.92	0.40
28:e:65:LYS:HE2	50:3:2757:A:H4'	2.04	0.40
28:e:83:THR:HG23	28:e:84:GLN:OE1	2.22	0.40
28:e:118:GLU:OE1	28:e:151:VAL:HG22	2.21	0.40
34:k:117:HIS:CE1	50:3:673:A:H3'	2.57	0.40
38:o:56:ARG:NH1	50:3:2727:G:OP1	2.42	0.40
48:y:38:LEU:HD23	48:y:38:LEU:H	1.86	0.40
50:3:47:G:H2'	50:3:219:G:C5	2.56	0.40
50:3:520:C:H2'	50:3:521:C:H6	1.86	0.40
50:3:1006:U:H2'	50:3:1007:C:C5	2.57	0.40
50:3:1013:G:H2'	50:3:1014:G:H8	1.86	0.40
50:3:1235:U:N3	50:3:1236:G:N7	2.69	0.40
50:3:1604:A:H2'	50:3:1605:A:C8	2.57	0.40
50:3:2430:C:H2'	50:3:2432:C:C6	2.56	0.40
50:3:2668:A:HO2'	50:3:2669:G:H8	1.64	0.40
52:5:346:G:H2'	52:5:347:G:C4	2.55	0.40
52:5:1295:U:OP2	52:5:1296:C:H3'	2.21	0.40
52:5:1380:G:H21	52:5:1493:A:H1'	1.87	0.40
5:B:52:GLN:OE1	5:B:118:ILE:HB	2.21	0.40
5:B:63:ALA:C	5:B:100:THR:HG23	2.46	0.40
10:G:11:HIS:HD2	52:5:821:U:O2'	2.05	0.40
15:L:9:ILE:HA	15:L:10:PRO:HD3	1.96	0.40
23:T:37:ARG:NE	23:T:40:MET:HE1	2.36	0.40
26:c:143:MET:O	26:c:147:LEU:HD23	2.22	0.40
27:d:36:ILE:HG22	27:d:38:MET:HE1	2.04	0.40
36:m:17:THR:O	36:m:21:GLN:HG2	2.22	0.40
39:p:94:LEU:HD21	40:q:12:TYR:C	2.47	0.40
44:u:52:TYR:O	44:u:53:ARG:NH2	2.55	0.40
48:y:43:CYS:HG	48:y:45:CYS:HB2	1.86	0.40
50:3:19:G:H2'	50:3:20:C:C6	2.56	0.40
50:3:57:G:H2'	50:3:58:A:C8	2.57	0.40
50:3:308:A:H2'	50:3:309:A:H5''	2.02	0.40
50:3:601:U:N3	50:3:603:G:H3'	2.37	0.40
50:3:663:A:OP2	50:3:663:A:H8	2.04	0.40
50:3:1036:A:H2'	50:3:1037:A:C8	2.56	0.40
50:3:1111:C:H2'	50:3:1112:A:H8	1.84	0.40
50:3:1259:A:H2'	50:3:1260:U:C6	2.57	0.40
50:3:1298:A:H2'	50:3:1299:A:O4'	2.22	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:3:1613:A:H3'	50:3:1614:G:H8	1.86	0.40
50:3:1710:A:C5	50:3:1711:A:N7	2.90	0.40
50:3:1751:A:H2'	50:3:1752:A:C8	2.56	0.40
50:3:2062:C:N3	50:3:2508:U:O2'	2.46	0.40
50:3:2109:A:N6	50:3:2196:G:O6	2.54	0.40
50:3:2387:U:H2'	50:3:2388:C:C6	2.56	0.40
50:3:2479:A:H2'	50:3:2480:G:O4'	2.22	0.40
50:3:2543:G:C2	50:3:2544:G:C5	3.10	0.40
50:3:2754:U:H2'	50:3:2755:G:O4'	2.21	0.40
52:5:689:U:H1'	52:5:692:A:H62	1.87	0.40
52:5:803:C:O2	52:5:804:A:C8	2.74	0.40
52:5:975:C:H3'	52:5:976:U:C6	2.56	0.40
52:5:994:C:H2'	52:5:995:U:C6	2.57	0.40

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all 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	
1	0	45/48 (94%)	42 (93%)	3 (7%)	0	100	100
2	1	57/59 (97%)	49 (86%)	8 (14%)	0	100	100
3	2	35/37 (95%)	34 (97%)	1 (3%)	0	100	100
4	A	238/294 (81%)	209 (88%)	29 (12%)	0	100	100
5	B	213/273 (78%)	201 (94%)	12 (6%)	0	100	100
6	C	201/205 (98%)	193 (96%)	8 (4%)	0	100	100
7	D	151/219 (69%)	143 (95%)	8 (5%)	0	100	100
8	E	165/215 (77%)	148 (90%)	17 (10%)	0	100	100
9	F	152/155 (98%)	138 (91%)	14 (9%)	0	100	100
10	G	139/142 (98%)	128 (92%)	11 (8%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
11	H	126/132 (96%)	120 (95%)	6 (5%)	0	100	100
12	I	99/108 (92%)	91 (92%)	8 (8%)	0	100	100
13	J	112/121 (93%)	106 (95%)	5 (4%)	1 (1%)	14	51
14	K	134/139 (96%)	116 (87%)	18 (13%)	0	100	100
15	L	116/124 (94%)	107 (92%)	9 (8%)	0	100	100
16	M	58/61 (95%)	58 (100%)	0	0	100	100
17	N	81/86 (94%)	79 (98%)	2 (2%)	0	100	100
18	O	78/94 (83%)	70 (90%)	8 (10%)	0	100	100
19	P	81/85 (95%)	78 (96%)	3 (4%)	0	100	100
20	Q	63/104 (61%)	56 (89%)	7 (11%)	0	100	100
21	R	82/87 (94%)	70 (85%)	12 (15%)	0	100	100
22	S	75/87 (86%)	74 (99%)	1 (1%)	0	100	100
23	T	51/60 (85%)	48 (94%)	3 (6%)	0	100	100
24	a	283/287 (99%)	263 (93%)	20 (7%)	0	100	100
25	b	227/287 (79%)	213 (94%)	14 (6%)	0	100	100
26	c	208/212 (98%)	192 (92%)	16 (8%)	0	100	100
27	d	173/180 (96%)	158 (91%)	15 (9%)	0	100	100
28	e	174/184 (95%)	159 (91%)	14 (8%)	1 (1%)	21	59
29	f	143/149 (96%)	128 (90%)	15 (10%)	0	100	100
30	g	124/161 (77%)	111 (90%)	13 (10%)	0	100	100
31	h	126/137 (92%)	107 (85%)	19 (15%)	0	100	100
32	i	142/146 (97%)	133 (94%)	9 (6%)	0	100	100
33	j	120/122 (98%)	115 (96%)	5 (4%)	0	100	100
34	k	146/151 (97%)	136 (93%)	10 (7%)	0	100	100
35	l	134/139 (96%)	125 (93%)	6 (4%)	3 (2%)	5	29
36	m	117/124 (94%)	108 (92%)	9 (8%)	0	100	100
37	n	108/116 (93%)	101 (94%)	7 (6%)	0	100	100
38	o	113/119 (95%)	109 (96%)	4 (4%)	0	100	100
39	p	112/127 (88%)	110 (98%)	2 (2%)	0	100	100
40	q	97/100 (97%)	87 (90%)	10 (10%)	0	100	100
41	r	137/159 (86%)	130 (95%)	7 (5%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
42	s	90/237 (38%)	85 (94%)	5 (6%)	0	100	100
43	t	109/111 (98%)	103 (94%)	6 (6%)	0	100	100
44	u	84/104 (81%)	80 (95%)	4 (5%)	0	100	100
45	v	61/65 (94%)	57 (93%)	4 (7%)	0	100	100
46	w	96/111 (86%)	87 (91%)	9 (9%)	0	100	100
47	x	42/97 (43%)	36 (86%)	6 (14%)	0	100	100
48	y	54/57 (95%)	52 (96%)	2 (4%)	0	100	100
49	z	48/53 (91%)	47 (98%)	1 (2%)	0	100	100
All	All	5820/6670 (87%)	5390 (93%)	425 (7%)	5 (0%)	49	83

All (5) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
35	l	109	ILE
35	l	112	SER
28	e	169	ASP
35	l	110	PRO
13	J	113	GLY

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	
1	0	40/41 (98%)	40 (100%)	0	100	100
2	1	51/51 (100%)	51 (100%)	0	100	100
3	2	35/35 (100%)	35 (100%)	0	100	100
4	A	212/262 (81%)	212 (100%)	0	100	100
5	B	180/232 (78%)	180 (100%)	0	100	100
6	C	181/183 (99%)	181 (100%)	0	100	100
7	D	123/178 (69%)	123 (100%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
8	E	150/196 (76%)	150 (100%)	0	100	100
9	F	131/132 (99%)	131 (100%)	0	100	100
10	G	123/124 (99%)	121 (98%)	2 (2%)	55	70
11	H	111/115 (96%)	111 (100%)	0	100	100
12	I	95/99 (96%)	95 (100%)	0	100	100
13	J	91/97 (94%)	90 (99%)	1 (1%)	65	76
14	K	117/120 (98%)	114 (97%)	3 (3%)	40	62
15	L	100/105 (95%)	100 (100%)	0	100	100
16	M	47/48 (98%)	47 (100%)	0	100	100
17	N	76/78 (97%)	76 (100%)	0	100	100
18	O	69/82 (84%)	69 (100%)	0	100	100
19	P	73/75 (97%)	73 (100%)	0	100	100
20	Q	56/94 (60%)	56 (100%)	0	100	100
21	R	74/77 (96%)	74 (100%)	0	100	100
22	S	70/77 (91%)	70 (100%)	0	100	100
23	T	49/56 (88%)	49 (100%)	0	100	100
24	a	241/243 (99%)	241 (100%)	0	100	100
25	b	186/233 (80%)	186 (100%)	0	100	100
26	c	182/184 (99%)	182 (100%)	0	100	100
27	d	150/154 (97%)	150 (100%)	0	100	100
28	e	153/159 (96%)	153 (100%)	0	100	100
29	f	123/134 (92%)	123 (100%)	0	100	100
30	g	101/129 (78%)	95 (94%)	6 (6%)	18	39
31	h	102/110 (93%)	102 (100%)	0	100	100
32	i	126/128 (98%)	126 (100%)	0	100	100
33	j	103/103 (100%)	103 (100%)	0	100	100
34	k	123/126 (98%)	123 (100%)	0	100	100
35	l	113/115 (98%)	113 (100%)	0	100	100
36	m	105/109 (96%)	105 (100%)	0	100	100
37	n	96/99 (97%)	96 (100%)	0	100	100
38	o	101/105 (96%)	101 (100%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
39	p	100/108 (93%)	100 (100%)	0	100	100
40	q	90/91 (99%)	90 (100%)	0	100	100
41	r	116/132 (88%)	116 (100%)	0	100	100
42	s	82/208 (39%)	82 (100%)	0	100	100
43	t	96/96 (100%)	96 (100%)	0	100	100
44	u	69/85 (81%)	69 (100%)	0	100	100
45	v	58/60 (97%)	58 (100%)	0	100	100
46	w	87/98 (89%)	87 (100%)	0	100	100
47	x	41/86 (48%)	41 (100%)	0	100	100
48	y	48/49 (98%)	45 (94%)	3 (6%)	16	37
49	z	47/50 (94%)	47 (100%)	0	100	100
All	All	5093/5751 (89%)	5078 (100%)	15 (0%)	84	86

All (15) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
10	G	107	VAL
10	G	109	ASN
13	J	112	ASN
14	K	117	THR
14	K	120	VAL
14	K	122	LYS
30	g	26	ILE
30	g	44	LEU
30	g	46	LYS
30	g	84	VAL
30	g	86	VAL
30	g	90	VAL
48	y	47	MET
48	y	51	LEU
48	y	52	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (71) such sidechains are listed below:

Mol	Chain	Res	Type
3	2	21	GLN
3	2	34	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	2	36	GLN
4	A	29	HIS
4	A	70	ASN
4	A	207	ASN
4	A	219	ASN
4	A	230	ASN
5	B	107	ASN
5	B	150	ASN
6	C	61	GLN
7	D	182	ASN
8	E	26	GLN
8	E	89	ASN
9	F	4	ASN
9	F	67	ASN
11	H	91	GLN
13	J	21	ASN
14	K	59	ASN
14	K	86	ASN
15	L	58	ASN
17	N	35	GLN
17	N	43	ASN
19	P	25	GLN
19	P	36	HIS
19	P	62	GLN
21	R	25	GLN
22	S	7	ASN
22	S	36	HIS
23	T	30	GLN
24	a	11	ASN
24	a	57	HIS
24	a	209	ASN
25	b	148	GLN
25	b	188	ASN
26	c	42	GLN
26	c	70	HIS
26	c	83	HIS
26	c	113	HIS
26	c	134	ASN
26	c	167	ASN
27	d	27	GLN
27	d	127	ASN
28	e	21	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
28	e	24	HIS
28	e	77	ASN
28	e	109	GLN
29	f	57	HIS
29	f	78	HIS
29	f	116	ASN
32	i	79	HIS
32	i	138	GLN
32	i	144	ASN
33	j	18	GLN
35	l	71	HIS
36	m	5	ASN
37	n	42	GLN
37	n	99	HIS
38	o	7	GLN
39	p	36	GLN
39	p	40	GLN
40	q	17	ASN
40	q	34	GLN
40	q	78	HIS
41	r	22	GLN
41	r	120	GLN
42	s	19	ASN
43	t	64	GLN
43	t	79	GLN
45	v	16	ASN
45	v	61	HIS

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
50	3	2875/2907 (98%)	849 (29%)	38 (1%)
51	4	103/108 (95%)	39 (37%)	5 (4%)
52	5	1490/1520 (98%)	385 (25%)	2 (0%)
53	7	75/76 (98%)	24 (32%)	1 (1%)
All	All	4543/4611 (98%)	1297 (28%)	46 (1%)

All (1297) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
50	3	9	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	12	A
50	3	13	C
50	3	14	U
50	3	15	A
50	3	23	A
50	3	28	G
50	3	29	G
50	3	30	A
50	3	32	G
50	3	37	G
50	3	38	G
50	3	40	A
50	3	48	G
50	3	52	U
50	3	53	G
50	3	57	G
50	3	58	A
50	3	64	U
50	3	68	C
50	3	73	A
50	3	74	U
50	3	76	A
50	3	77	G
50	3	82	G
50	3	84	G
50	3	86	A
50	3	87	G
50	3	96	A
50	3	98	C
50	3	100	U
50	3	102	A
50	3	103	G
50	3	115	U
50	3	116	C
50	3	119	A
50	3	120	A
50	3	121	U
50	3	122	G
50	3	126	C
50	3	128	A
50	3	132	G
50	3	147	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	148	U
50	3	163	A
50	3	165	U
50	3	178	A
50	3	180	A
50	3	181	G
50	3	184	A
50	3	186	A
50	3	189	U
50	3	200	A
50	3	203	A
50	3	208	A
50	3	210	U
50	3	213	C
50	3	217	A
50	3	219	G
50	3	220	A
50	3	225	A
50	3	226	A
50	3	231	A
50	3	232	A
50	3	233	U
50	3	234	G
50	3	237	A
50	3	245	U
50	3	246	G
50	3	247	U
50	3	252	G
50	3	265	G
50	3	269	A
50	3	270	G
50	3	273	C
50	3	276	A
50	3	283	A
50	3	284	U
50	3	286	A
50	3	287	G
50	3	288	A
50	3	293	G
50	3	294	G
50	3	295	U
50	3	296	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	297	G
50	3	299	A
50	3	309	A
50	3	310	U
50	3	314	G
50	3	315	A
50	3	319	G
50	3	325	G
50	3	329	G
50	3	336	C
50	3	345	A
50	3	351	G
50	3	356	A
50	3	363	G
50	3	364	A
50	3	366	A
50	3	369	C
50	3	377	U
50	3	381	A
50	3	385	U
50	3	393	C
50	3	396	A
50	3	397	G
50	3	399	G
50	3	402	A
50	3	403	U
50	3	408	G
50	3	409	A
50	3	410	G
50	3	411	U
50	3	422	A
50	3	424	G
50	3	425	U
50	3	426	U
50	3	430	U
50	3	432	G
50	3	434	G
50	3	437	A
50	3	441	U
50	3	442	G
50	3	446	A
50	3	447	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	460	G
50	3	466	A
50	3	468	A
50	3	471	A
50	3	473	U
50	3	475	A
50	3	479	A
50	3	482	G
50	3	483	A
50	3	484	U
50	3	485	A
50	3	487	C
50	3	490	A
50	3	491	A
50	3	492	C
50	3	493	A
50	3	495	U
50	3	501	G
50	3	502	A
50	3	507	A
50	3	509	G
50	3	511	U
50	3	513	A
50	3	514	A
50	3	515	A
50	3	517	G
50	3	531	G
50	3	539	U
50	3	543	U
50	3	544	U
50	3	559	C
50	3	562	C
50	3	563	A
50	3	564	A
50	3	565	C
50	3	566	G
50	3	567	U
50	3	568	G
50	3	571	A
50	3	577	C
50	3	581	A
50	3	582	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	583	U
50	3	589	A
50	3	595	U
50	3	596	G
50	3	599	U
50	3	606	G
50	3	607	U
50	3	609	U
50	3	610	G
50	3	612	G
50	3	614	C
50	3	616	G
50	3	620	G
50	3	625	G
50	3	636	U
50	3	637	U
50	3	638	A
50	3	648	G
50	3	651	A
50	3	656	G
50	3	657	A
50	3	663	A
50	3	666	G
50	3	667	A
50	3	673	A
50	3	680	A
50	3	681	A
50	3	682	A
50	3	683	G
50	3	687	G
50	3	689	U
50	3	691	G
50	3	706	C
50	3	710	A
50	3	712	A
50	3	717	U
50	3	719	G
50	3	720	A
50	3	721	G
50	3	722	C
50	3	734	A
50	3	737	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	739	G
50	3	744	U
50	3	752	C
50	3	761	G
50	3	762	A
50	3	764	G
50	3	765	A
50	3	772	C
50	3	775	C
50	3	782	U
50	3	787	C
50	3	789	A
50	3	792	G
50	3	793	C
50	3	794	G
50	3	810	G
50	3	817	A
50	3	819	U
50	3	825	U
50	3	827	G
50	3	828	A
50	3	829	A
50	3	835	U
50	3	837	A
50	3	840	G
50	3	842	U
50	3	846	U
50	3	847	C
50	3	851	U
50	3	854	A
50	3	862	U
50	3	863	U
50	3	873	G
50	3	881	A
50	3	882	C
50	3	883	A
50	3	885	A
50	3	894	G
50	3	902	U
50	3	903	A
50	3	904	C
50	3	906	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	908	A
50	3	911	U
50	3	914	G
50	3	915	A
50	3	917	G
50	3	932	U
50	3	933	A
50	3	934	C
50	3	936	G
50	3	942	A
50	3	944	U
50	3	947	A
50	3	949	C
50	3	953	G
50	3	968	U
50	3	977	A
50	3	981	A
50	3	982	G
50	3	987	U
50	3	990	G
50	3	994	U
50	3	995	A
50	3	997	G
50	3	1005	G
50	3	1008	A
50	3	1009	A
50	3	1010	G
50	3	1011	A
50	3	1015	G
50	3	1019	A
50	3	1020	G
50	3	1021	C
50	3	1026	A
50	3	1027	U
50	3	1032	A
50	3	1033	A
50	3	1035	U
50	3	1041	C
50	3	1045	A
50	3	1047	A
50	3	1049	U
50	3	1052	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	1055	A
50	3	1061	A
50	3	1068	U
50	3	1075	G
50	3	1080	A
50	3	1081	A
50	3	1082	A
50	3	1089	A
50	3	1095	U
50	3	1096	U
50	3	1097	G
50	3	1102	A
50	3	1105	A
50	3	1112	A
50	3	1113	U
50	3	1119	A
50	3	1121	A
50	3	1122	G
50	3	1124	G
50	3	1125	U
50	3	1130	A
50	3	1131	A
50	3	1132	C
50	3	1140	U
50	3	1147	G
50	3	1148	U
50	3	1150	U
50	3	1151	U
50	3	1154	U
50	3	1162	A
50	3	1165	U
50	3	1167	U
50	3	1168	A
50	3	1170	C
50	3	1174	G
50	3	1176	U
50	3	1177	A
50	3	1178	A
50	3	1179	G
50	3	1186	A
50	3	1191	A
50	3	1193	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	1195	A
50	3	1203	G
50	3	1208	A
50	3	1210	A
50	3	1212	C
50	3	1213	U
50	3	1215	G
50	3	1217	G
50	3	1234	U
50	3	1235	U
50	3	1236	G
50	3	1242	G
50	3	1243	A
50	3	1249	A
50	3	1250	A
50	3	1251	G
50	3	1253	G
50	3	1256	A
50	3	1257	G
50	3	1265	G
50	3	1266	G
50	3	1267	A
50	3	1268	U
50	3	1277	A
50	3	1278	G
50	3	1279	U
50	3	1281	A
50	3	1282	G
50	3	1283	A
50	3	1284	A
50	3	1285	U
50	3	1286	G
50	3	1292	A
50	3	1297	U
50	3	1298	A
50	3	1301	G
50	3	1314	A
50	3	1319	C
50	3	1322	A
50	3	1324	A
50	3	1328	A
50	3	1329	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	1330	U
50	3	1338	G
50	3	1340	U
50	3	1342	C
50	3	1353	G
50	3	1354	U
50	3	1357	U
50	3	1360	U
50	3	1368	U
50	3	1369	U
50	3	1371	G
50	3	1380	U
50	3	1393	A
50	3	1405	G
50	3	1406	A
50	3	1407	U
50	3	1408	G
50	3	1420	A
50	3	1421	A
50	3	1422	U
50	3	1423	A
50	3	1424	U
50	3	1431	A
50	3	1435	A
50	3	1440	U
50	3	1444	C
50	3	1445	U
50	3	1447	A
50	3	1448	U
50	3	1456	C
50	3	1463	G
50	3	1464	G
50	3	1466	U
50	3	1467	U
50	3	1479	A
50	3	1480	A
50	3	1481	U
50	3	1482	U
50	3	1483	G
50	3	1485	A
50	3	1486	U
50	3	1487	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	1494	U
50	3	1502	A
50	3	1507	G
50	3	1508	G
50	3	1515	A
50	3	1518	C
50	3	1519	A
50	3	1523	C
50	3	1533	U
50	3	1534	A
50	3	1536	C
50	3	1541	A
50	3	1542	G
50	3	1546	U
50	3	1549	U
50	3	1550	G
50	3	1553	G
50	3	1571	G
50	3	1577	A
50	3	1581	U
50	3	1582	G
50	3	1584	U
50	3	1585	A
50	3	1586	U
50	3	1588	A
50	3	1589	A
50	3	1593	U
50	3	1594	G
50	3	1600	A
50	3	1601	A
50	3	1603	A
50	3	1612	U
50	3	1615	G
50	3	1618	U
50	3	1619	A
50	3	1632	C
50	3	1636	U
50	3	1640	G
50	3	1641	A
50	3	1642	G
50	3	1643	A
50	3	1644	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	1645	C
50	3	1647	A
50	3	1648	A
50	3	1651	C
50	3	1652	A
50	3	1653	C
50	3	1656	A
50	3	1660	A
50	3	1662	G
50	3	1663	G
50	3	1668	G
50	3	1673	U
50	3	1679	U
50	3	1680	A
50	3	1681	G
50	3	1682	C
50	3	1692	A
50	3	1695	G
50	3	1697	C
50	3	1698	A
50	3	1699	A
50	3	1708	G
50	3	1709	C
50	3	1713	U
50	3	1715	A
50	3	1716	A
50	3	1720	C
50	3	1727	U
50	3	1733	G
50	3	1741	G
50	3	1747	G
50	3	1748	U
50	3	1751	A
50	3	1761	C
50	3	1762	A
50	3	1763	G
50	3	1764	U
50	3	1766	A
50	3	1767	A
50	3	1768	G
50	3	1769	A
50	3	1770	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	1771	C
50	3	1778	G
50	3	1780	A
50	3	1783	G
50	3	1784	U
50	3	1785	U
50	3	1786	U
50	3	1787	A
50	3	1788	A
50	3	1789	C
50	3	1791	A
50	3	1792	A
50	3	1794	A
50	3	1807	C
50	3	1808	C
50	3	1809	A
50	3	1810	A
50	3	1815	U
50	3	1821	G
50	3	1822	A
50	3	1823	U
50	3	1836	A
50	3	1842	G
50	3	1843	C
50	3	1846	A
50	3	1850	C
50	3	1855	A
50	3	1857	G
50	3	1863	G
50	3	1866	G
50	3	1871	U
50	3	1872	U
50	3	1873	A
50	3	1876	G
50	3	1889	U
50	3	1891	A
50	3	1892	A
50	3	1896	A
50	3	1899	C
50	3	1906	G
50	3	1907	A
50	3	1908	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	1913	G
50	3	1920	A
50	3	1921	C
50	3	1934	A
50	3	1937	G
50	3	1938	U
50	3	1945	A
50	3	1952	G
50	3	1953	U
50	3	1961	A
50	3	1962	U
50	3	1963	U
50	3	1970	C
50	3	1971	G
50	3	1972	C
50	3	1977	A
50	3	1978	U
50	3	1979	G
50	3	1982	G
50	3	1992	C
50	3	1998	U
50	3	1999	G
50	3	2000	U
50	3	2001	C
50	3	2002	U
50	3	2003	C
50	3	2004	G
50	3	2007	U
50	3	2009	U
50	3	2012	A
50	3	2013	C
50	3	2022	A
50	3	2027	G
50	3	2028	G
50	3	2030	A
50	3	2037	A
50	3	2038	A
50	3	2039	G
50	3	2040	A
50	3	2041	C
50	3	2050	G
50	3	2056	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	2058	G
50	3	2059	G
50	3	2062	C
50	3	2065	A
50	3	2067	A
50	3	2068	G
50	3	2069	A
50	3	2070	C
50	3	2071	C
50	3	2076	G
50	3	2084	A
50	3	2099	U
50	3	2100	G
50	3	2101	A
50	3	2106	G
50	3	2107	A
50	3	2110	U
50	3	2111	U
50	3	2112	A
50	3	2114	C
50	3	2115	A
50	3	2116	U
50	3	2117	G
50	3	2119	A
50	3	2121	A
50	3	2123	A
50	3	2124	A
50	3	2127	G
50	3	2130	A
50	3	2138	U
50	3	2139	C
50	3	2140	G
50	3	2146	A
50	3	2151	G
50	3	2164	G
50	3	2166	U
50	3	2169	G
50	3	2171	A
50	3	2179	A
50	3	2180	U
50	3	2181	A
50	3	2182	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	2186	C
50	3	2188	U
50	3	2189	U
50	3	2193	U
50	3	2194	G
50	3	2195	U
50	3	2198	G
50	3	2199	C
50	3	2200	U
50	3	2202	U
50	3	2206	A
50	3	2211	G
50	3	2212	U
50	3	2219	U
50	3	2220	A
50	3	2221	U
50	3	2222	C
50	3	2231	A
50	3	2233	A
50	3	2234	C
50	3	2246	G
50	3	2247	G
50	3	2251	U
50	3	2254	G
50	3	2258	G
50	3	2259	G
50	3	2262	C
50	3	2267	G
50	3	2269	C
50	3	2274	A
50	3	2275	A
50	3	2276	A
50	3	2277	A
50	3	2280	U
50	3	2281	A
50	3	2290	G
50	3	2291	U
50	3	2294	A
50	3	2295	A
50	3	2296	A
50	3	2305	C
50	3	2310	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	2312	G
50	3	2313	U
50	3	2315	G
50	3	2316	G
50	3	2317	A
50	3	2318	A
50	3	2319	A
50	3	2330	A
50	3	2331	G
50	3	2333	G
50	3	2338	G
50	3	2341	G
50	3	2342	U
50	3	2343	A
50	3	2344	A
50	3	2345	G
50	3	2353	G
50	3	2355	C
50	3	2358	U
50	3	2359	G
50	3	2365	U
50	3	2366	A
50	3	2369	G
50	3	2380	U
50	3	2382	A
50	3	2391	G
50	3	2393	C
50	3	2397	G
50	3	2398	U
50	3	2400	A
50	3	2410	C
50	3	2411	C
50	3	2412	A
50	3	2413	G
50	3	2414	U
50	3	2415	A
50	3	2422	G
50	3	2424	C
50	3	2431	U
50	3	2433	A
50	3	2436	G
50	3	2437	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	2438	A
50	3	2443	A
50	3	2444	G
50	3	2449	U
50	3	2453	G
50	3	2455	G
50	3	2456	A
50	3	2460	C
50	3	2484	A
50	3	2486	A
50	3	2488	C
50	3	2492	G
50	3	2495	A
50	3	2499	U
50	3	2502	G
50	3	2505	A
50	3	2507	C
50	3	2509	C
50	3	2513	G
50	3	2519	U
50	3	2521	A
50	3	2524	U
50	3	2526	A
50	3	2527	U
50	3	2528	C
50	3	2529	C
50	3	2531	C
50	3	2539	A
50	3	2541	C
50	3	2544	G
50	3	2551	G
50	3	2555	U
50	3	2570	U
50	3	2571	U
50	3	2573	A
50	3	2574	A
50	3	2575	G
50	3	2581	C
50	3	2584	G
50	3	2591	G
50	3	2593	U
50	3	2594	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	2596	A
50	3	2600	G
50	3	2604	U
50	3	2605	G
50	3	2610	A
50	3	2611	G
50	3	2618	C
50	3	2619	C
50	3	2621	U
50	3	2622	A
50	3	2623	U
50	3	2624	C
50	3	2629	G
50	3	2631	G
50	3	2637	A
50	3	2638	G
50	3	2641	A
50	3	2644	U
50	3	2645	U
50	3	2647	A
50	3	2649	G
50	3	2654	U
50	3	2655	U
50	3	2662	A
50	3	2664	U
50	3	2668	A
50	3	2669	G
50	3	2673	A
50	3	2681	G
50	3	2687	A
50	3	2697	C
50	3	2698	U
50	3	2708	G
50	3	2717	G
50	3	2720	C
50	3	2721	C
50	3	2722	G
50	3	2726	G
50	3	2732	A
50	3	2735	G
50	3	2737	G
50	3	2741	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	2747	U
50	3	2752	G
50	3	2756	A
50	3	2760	C
50	3	2765	A
50	3	2771	G
50	3	2772	A
50	3	2773	A
50	3	2774	A
50	3	2777	A
50	3	2780	U
50	3	2784	A
50	3	2785	G
50	3	2786	A
50	3	2788	U
50	3	2801	U
50	3	2802	C
50	3	2804	C
50	3	2805	A
50	3	2806	A
50	3	2808	A
50	3	2809	A
50	3	2811	G
50	3	2813	A
50	3	2815	G
50	3	2821	U
50	3	2822	C
50	3	2824	A
50	3	2828	C
50	3	2829	G
50	3	2830	A
50	3	2837	U
50	3	2838	G
50	3	2853	U
50	3	2854	A
50	3	2863	G
50	3	2865	U
50	3	2871	G
50	3	2872	A
50	3	2876	G
50	3	2877	A
50	3	2883	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	2884	C
50	3	2887	A
50	3	2888	U
50	3	2890	G
50	3	2897	G
50	3	2898	A
50	3	2899	C
50	3	2900	U
51	4	4	G
51	4	10	C
51	4	11	A
51	4	13	G
51	4	14	U
51	4	16	G
51	4	22	G
51	4	23	A
51	4	24	A
51	4	28	C
51	4	31	G
51	4	33	U
51	4	38	U
51	4	39	U
51	4	40	U
51	4	41	C
51	4	42	G
51	4	43	A
51	4	44	A
51	4	47	C
51	4	48	A
51	4	49	G
51	4	51	A
51	4	52	G
51	4	54	U
51	4	55	A
51	4	58	C
51	4	60	C
51	4	65	G
51	4	77	G
51	4	78	C
51	4	79	U
51	4	88	G
51	4	89	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
51	4	99	A
51	4	102	A
51	4	103	C
51	4	106	A
51	4	108	C
52	5	9	A
52	5	10	G
52	5	32	U
52	5	33	A
52	5	40	G
52	5	48	C
52	5	49	C
52	5	51	A
52	5	52	A
52	5	53	U
52	5	57	U
52	5	61	A
52	5	65	G
52	5	66	A
52	5	67	U
52	5	70	A
52	5	80	U
52	5	86	A
52	5	93	A
52	5	100	G
52	5	101	A
52	5	105	A
52	5	106	C
52	5	107	A
52	5	114	C
52	5	115	A
52	5	117	U
52	5	119	U
52	5	128	A
52	5	130	G
52	5	132	G
52	5	134	G
52	5	145	G
52	5	147	A
52	5	148	A
52	5	149	G
52	5	159	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
52	5	167	A
52	5	168	A
52	5	169	G
52	5	171	A
52	5	196	G
52	5	197	A
52	5	199	A
52	5	220	U
52	5	236	C
52	5	240	U
52	5	241	C
52	5	242	A
52	5	243	G
52	5	247	G
52	5	259	A
52	5	262	G
52	5	263	C
52	5	275	A
52	5	276	U
52	5	277	G
52	5	284	A
52	5	285	G
52	5	295	G
52	5	301	G
52	5	302	A
52	5	306	G
52	5	311	A
52	5	312	A
52	5	319	U
52	5	323	A
52	5	324	C
52	5	326	C
52	5	328	G
52	5	335	C
52	5	341	C
52	5	346	G
52	5	347	G
52	5	348	C
52	5	349	A
52	5	350	G
52	5	359	A
52	5	363	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
52	5	364	U
52	5	368	C
52	5	373	A
52	5	377	A
52	5	378	A
52	5	394	U
52	5	396	C
52	5	400	G
52	5	402	G
52	5	407	A
52	5	408	U
52	5	409	G
52	5	410	A
52	5	417	U
52	5	418	U
52	5	419	A
52	5	420	A
52	5	423	U
52	5	425	G
52	5	426	U
52	5	430	G
52	5	432	U
52	5	436	U
52	5	440	U
52	5	445	A
52	5	446	A
52	5	448	A
52	5	449	A
52	5	450	U
52	5	452	A
52	5	453	C
52	5	455	U
52	5	456	U
52	5	458	G
52	5	461	G
52	5	463	U
52	5	465	A
52	5	471	A
52	5	473	A
52	5	476	U
52	5	477	U
52	5	478	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
52	5	483	U
52	5	488	U
52	5	489	U
52	5	493	A
52	5	494	A
52	5	497	A
52	5	503	G
52	5	507	A
52	5	508	A
52	5	509	C
52	5	515	G
52	5	516	C
52	5	517	C
52	5	522	G
52	5	524	C
52	5	525	G
52	5	527	G
52	5	528	G
52	5	530	A
52	5	531	A
52	5	532	U
52	5	545	A
52	5	546	G
52	5	548	G
52	5	553	C
52	5	556	G
52	5	557	A
52	5	559	U
52	5	560	U
52	5	561	A
52	5	562	U
52	5	565	G
52	5	568	G
52	5	569	U
52	5	570	A
52	5	574	C
52	5	575	A
52	5	586	G
52	5	588	U
52	5	590	G
52	5	594	A
52	5	595	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
52	5	596	U
52	5	606	A
52	5	616	C
52	5	617	U
52	5	619	A
52	5	620	A
52	5	621	C
52	5	628	A
52	5	629	U
52	5	630	G
52	5	637	A
52	5	638	A
52	5	639	A
52	5	647	U
52	5	650	A
52	5	651	G
52	5	653	G
52	5	662	G
52	5	672	A
52	5	682	G
52	5	684	A
52	5	693	A
52	5	699	A
52	5	700	G
52	5	715	A
52	5	717	C
52	5	719	G
52	5	721	G
52	5	724	G
52	5	725	A
52	5	729	C
52	5	736	U
52	5	742	C
52	5	745	U
52	5	746	A
52	5	752	G
52	5	754	U
52	5	756	A
52	5	773	G
52	5	777	A
52	5	784	A
52	5	790	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
52	5	796	A
52	5	802	C
52	5	813	A
52	5	814	C
52	5	815	G
52	5	816	A
52	5	817	U
52	5	818	A
52	5	825	A
52	5	826	G
52	5	829	G
52	5	832	G
52	5	838	A
52	5	846	G
52	5	849	A
52	5	870	A
52	5	872	C
52	5	878	U
52	5	883	A
52	5	884	G
52	5	885	U
52	5	897	A
52	5	908	A
52	5	909	A
52	5	910	C
52	5	911	G
52	5	920	G
52	5	921	G
52	5	922	G
52	5	923	G
52	5	929	C
52	5	930	A
52	5	937	G
52	5	940	G
52	5	953	A
52	5	955	U
52	5	964	A
52	5	966	A
52	5	969	A
52	5	970	A
52	5	971	A
52	5	972	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
52	5	974	C
52	5	977	U
52	5	987	U
52	5	988	G
52	5	989	A
52	5	997	G
52	5	1000	A
52	5	1002	A
52	5	1003	G
52	5	1004	U
52	5	1006	A
52	5	1008	G
52	5	1013	C
52	5	1014	A
52	5	1015	U
52	5	1034	G
52	5	1037	A
52	5	1038	G
52	5	1044	G
52	5	1045	C
52	5	1047	U
52	5	1053	U
52	5	1055	G
52	5	1056	U
52	5	1058	A
52	5	1064	U
52	5	1069	U
52	5	1070	G
52	5	1071	A
52	5	1075	G
52	5	1076	U
52	5	1079	G
52	5	1085	G
52	5	1086	U
52	5	1089	C
52	5	1092	A
52	5	1101	A
52	5	1102	A
52	5	1105	C
52	5	1113	U
52	5	1118	A
52	5	1119	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
52	5	1120	A
52	5	1121	U
52	5	1122	U
52	5	1123	G
52	5	1128	G
52	5	1134	C
52	5	1135	U
52	5	1136	G
52	5	1141	U
52	5	1142	G
52	5	1144	A
52	5	1154	A
52	5	1159	A
52	5	1165	G
52	5	1166	A
52	5	1168	G
52	5	1169	U
52	5	1171	A
52	5	1172	A
52	5	1173	A
52	5	1175	C
52	5	1176	A
52	5	1185	C
52	5	1187	U
52	5	1188	A
52	5	1190	G
52	5	1197	G
52	5	1199	U
52	5	1200	G
52	5	1201	C
52	5	1203	A
52	5	1211	A
52	5	1215	U
52	5	1216	G
52	5	1225	A
52	5	1232	C
52	5	1233	G
52	5	1235	C
52	5	1243	A
52	5	1255	A
52	5	1257	C
52	5	1260	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
52	5	1271	U
52	5	1272	C
52	5	1273	A
52	5	1274	G
52	5	1275	U
52	5	1276	U
52	5	1277	C
52	5	1278	G
52	5	1279	G
52	5	1286	G
52	5	1294	U
52	5	1295	U
52	5	1296	C
52	5	1304	U
52	5	1309	U
52	5	1310	C
52	5	1320	A
52	5	1321	G
52	5	1327	G
52	5	1334	A
52	5	1335	G
52	5	1337	U
52	5	1338	A
52	5	1354	G
52	5	1356	U
52	5	1373	A
52	5	1374	C
52	5	1376	G
52	5	1381	U
52	5	1397	G
52	5	1400	A
52	5	1407	A
52	5	1408	A
52	5	1411	A
52	5	1417	U
52	5	1421	A
52	5	1422	A
52	5	1423	C
52	5	1426	U
52	5	1427	U
52	5	1429	G
52	5	1441	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
52	5	1442	A
52	5	1448	A
52	5	1466	U
52	5	1467	A
52	5	1471	C
52	5	1478	A
52	5	1481	U
52	5	1488	A
52	5	1492	G
52	5	1495	C
52	5	1504	G
52	5	1505	G
53	7	3	G
53	7	4	U
53	7	5	C
53	7	9	U
53	7	11	G
53	7	15	A
53	7	17	U
53	7	18	C
53	7	19	G
53	7	20	G
53	7	22	A
53	7	28	A
53	7	31	G
53	7	48	U
53	7	49	C
53	7	53	A
53	7	54	G
53	7	57	C
53	7	64	G
53	7	69	A
53	7	71	A
53	7	72	C
53	7	75	C
53	7	76	C

All (46) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
50	3	47	G
50	3	365	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
50	3	410	G
50	3	425	U
50	3	500	U
50	3	508	A
50	3	513	A
50	3	605	A
50	3	688	U
50	3	952	U
50	3	996	A
50	3	1048	A
50	3	1104	A
50	3	1124	G
50	3	1209	U
50	3	1211	U
50	3	1248	A
50	3	1297	U
50	3	1446	G
50	3	1507	G
50	3	1583	G
50	3	1585	A
50	3	1587	U
50	3	1588	A
50	3	1600	A
50	3	1618	U
50	3	1785	U
50	3	1820	U
50	3	2220	A
50	3	2504	C
50	3	2506	C
50	3	2583	U
50	3	2668	A
50	3	2764	U
50	3	2800	U
50	3	2808	A
50	3	2823	A
50	3	2897	G
51	4	42	G
51	4	50	C
51	4	54	U
51	4	59	A
51	4	88	G
52	5	1075	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
52	5	1133	A
53	7	16	G

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

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

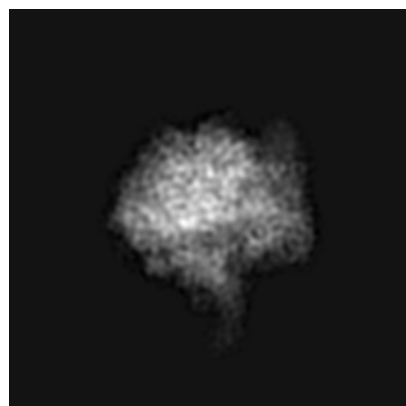
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-13445. These allow visual inspection of the internal detail of the map and identification of artifacts.

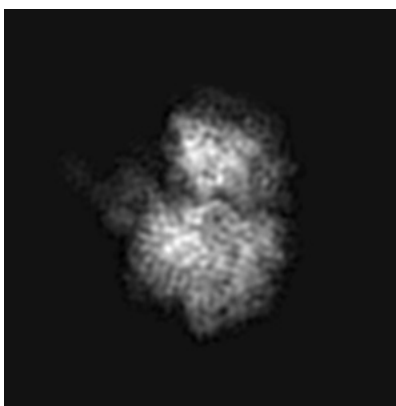
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

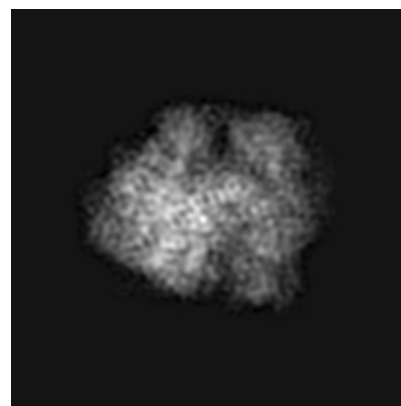
6.1.1 Primary map



X

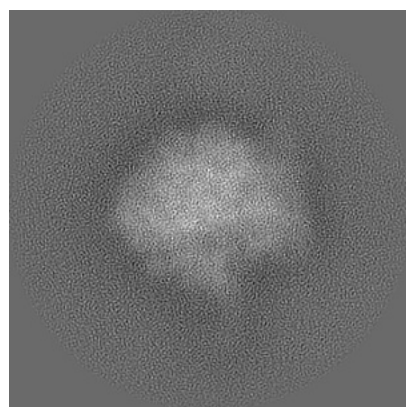


Y

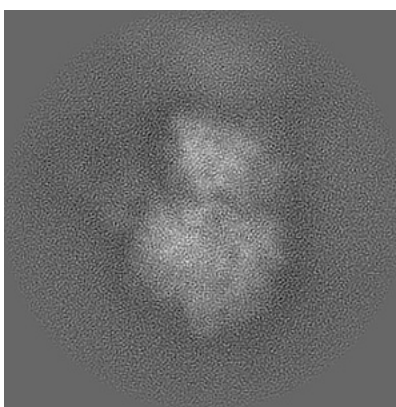


Z

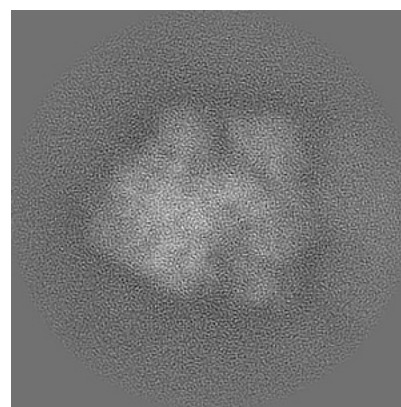
6.1.2 Raw map



X



Y

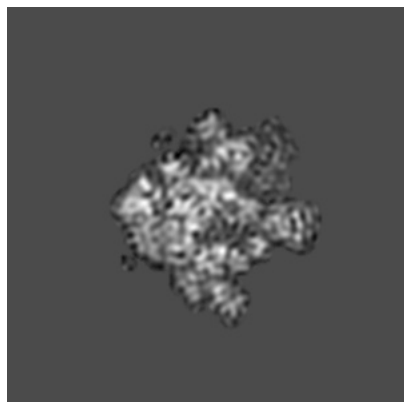


Z

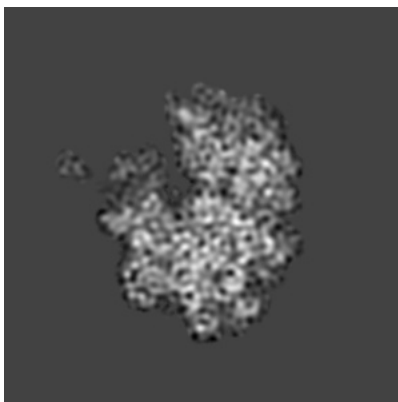
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

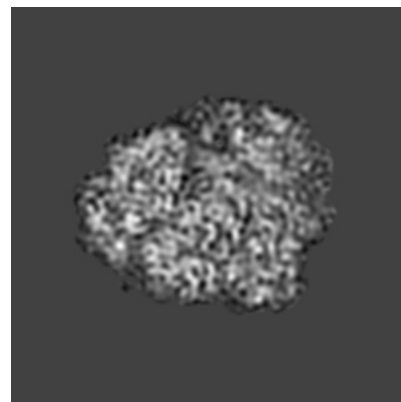
6.2.1 Primary map



X Index: 128

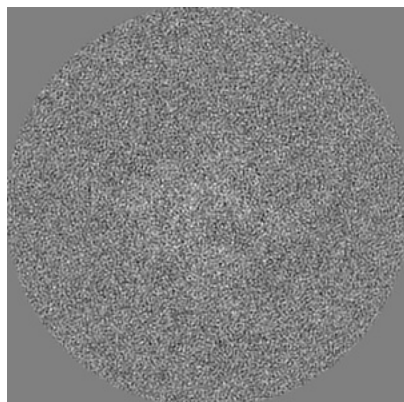


Y Index: 128

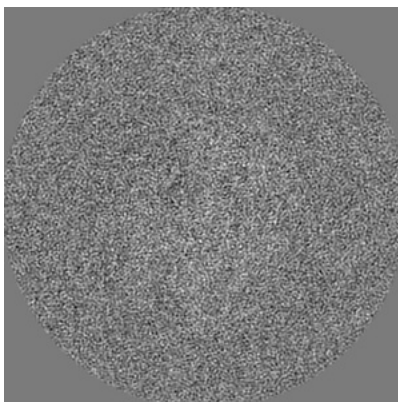


Z Index: 128

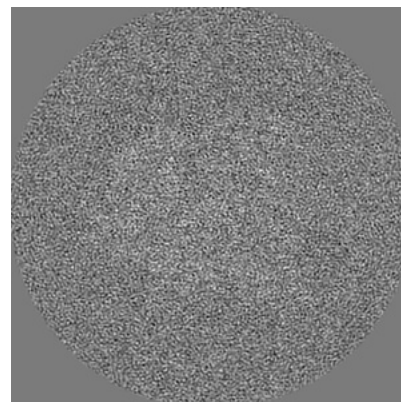
6.2.2 Raw map



X Index: 128



Y Index: 128

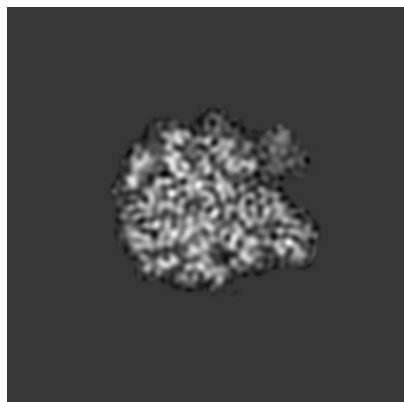


Z Index: 128

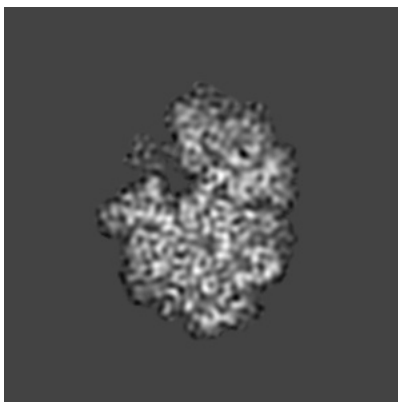
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

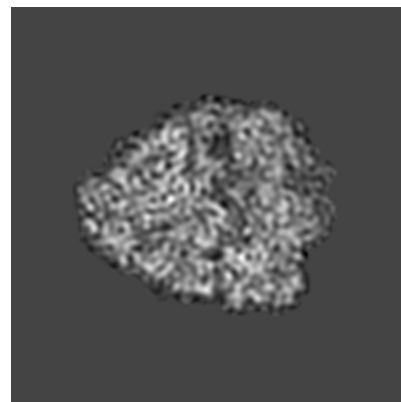
6.3.1 Primary map



X Index: 103

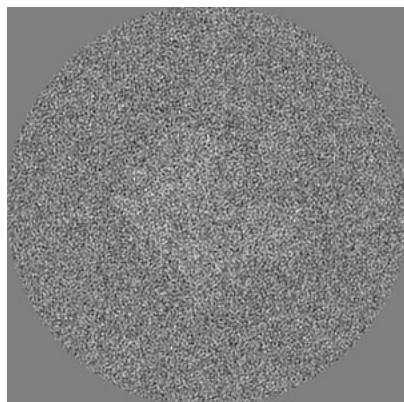


Y Index: 121

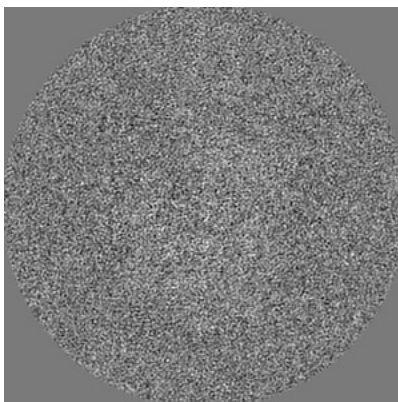


Z Index: 124

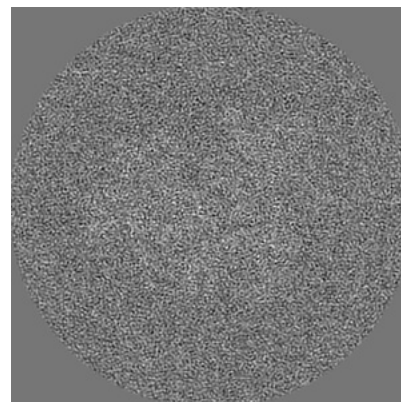
6.3.2 Raw map



X Index: 118



Y Index: 126

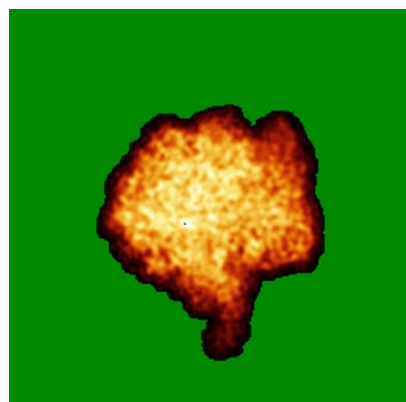


Z Index: 132

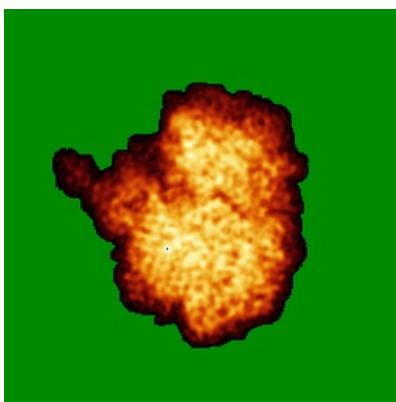
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) [i](#)

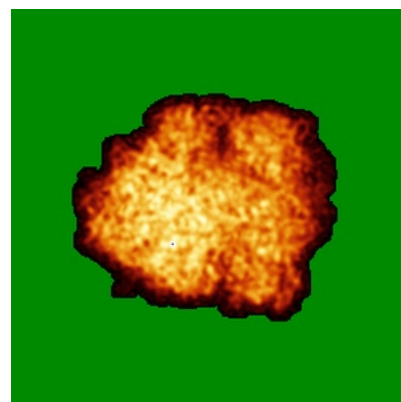
6.4.1 Primary map



X

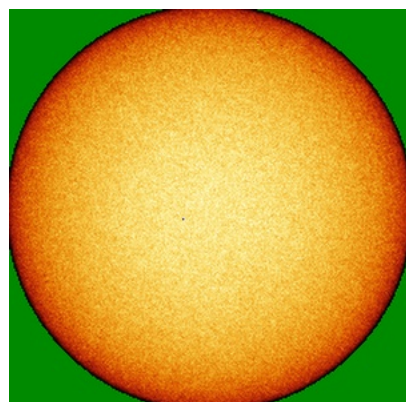


Y

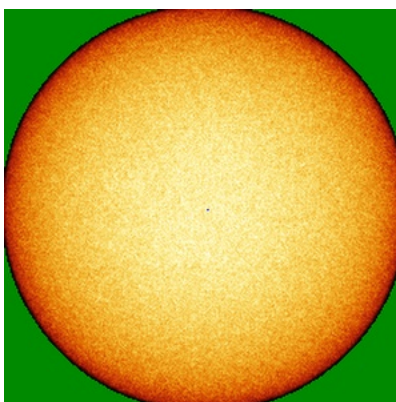


Z

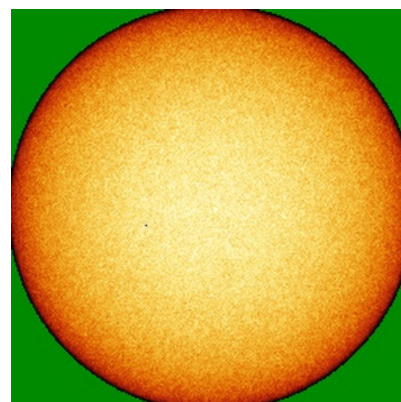
6.4.2 Raw map



X



Y



Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

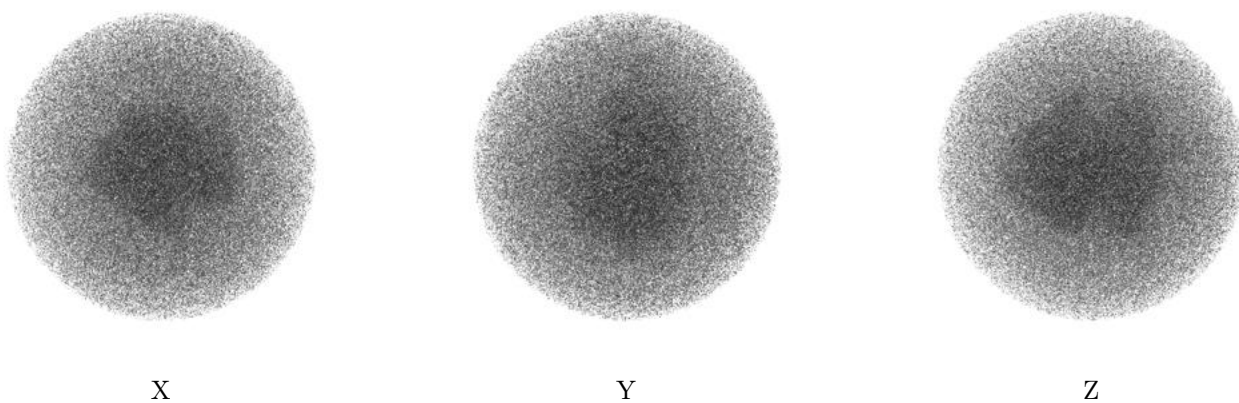
6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.4. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.5.2 Raw map



These images show the 3D surface of the raw map. The raw map's contour level was selected so that its surface encloses the same volume as the primary map does at its recommended contour level.

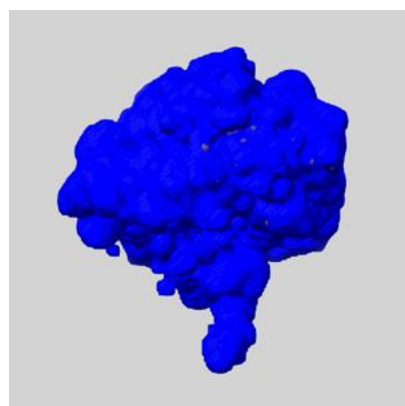
6.6 Mask visualisation [i](#)

This section shows the 3D surface view of the primary map at 50% transparency overlaid with the specified mask at 0% transparency

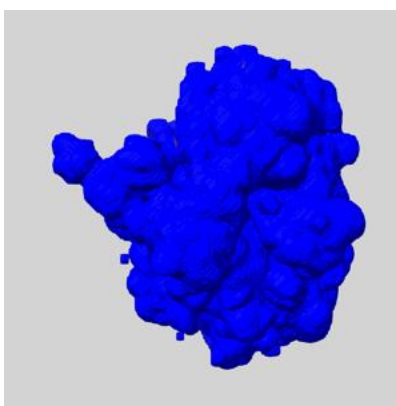
A mask typically either:

- Encompasses the whole structure
- Separates out a domain, a functional unit, a monomer or an area of interest from a larger structure

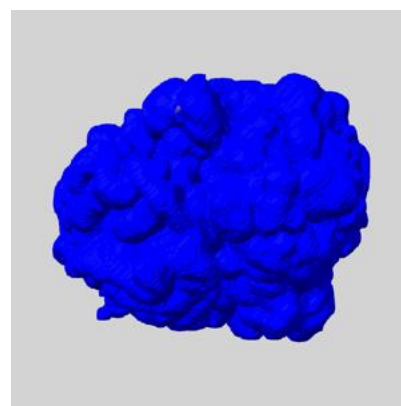
6.6.1 emd_13445_msk_1.map [i](#)



X



Y

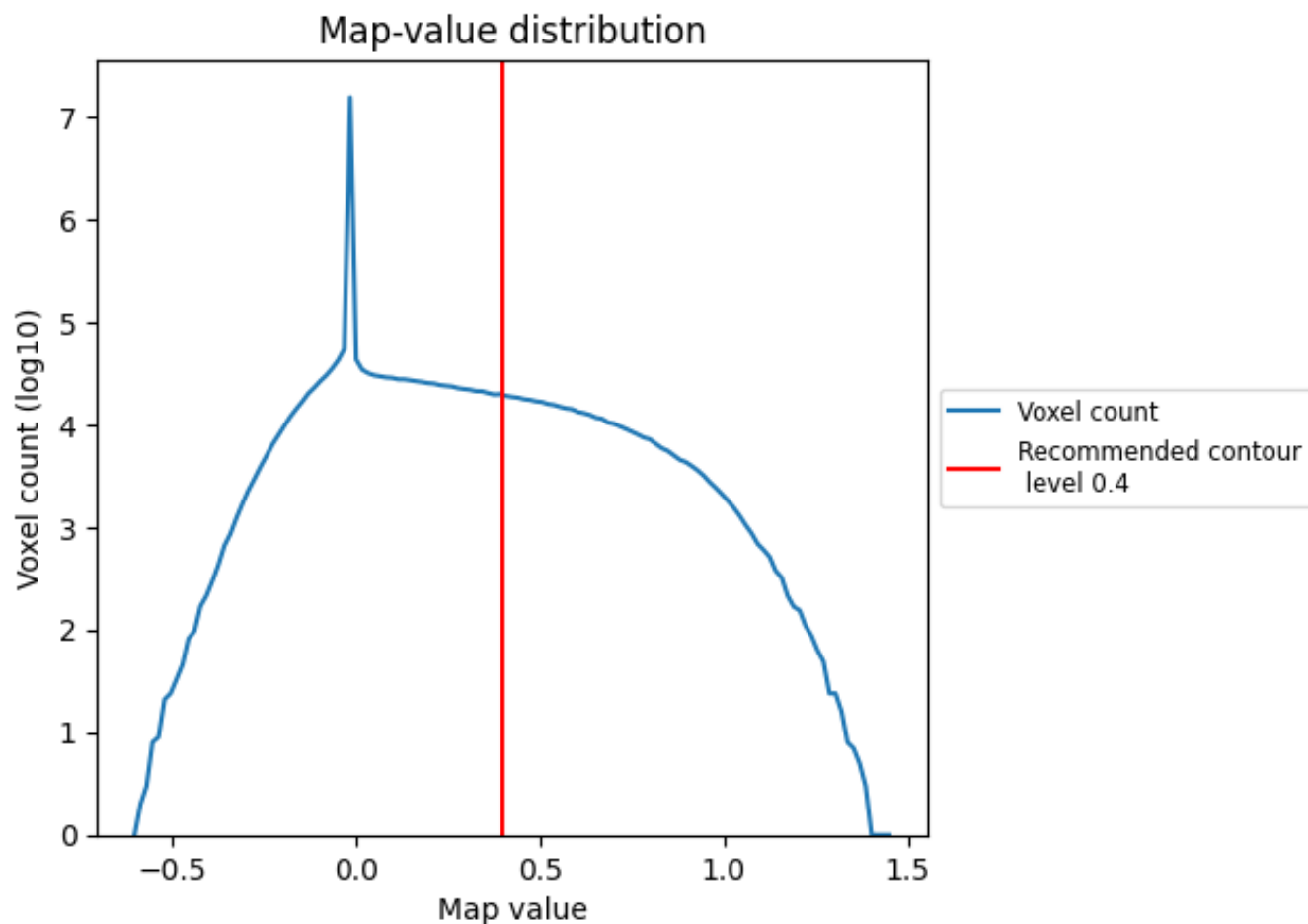


Z

7 Map analysis [i](#)

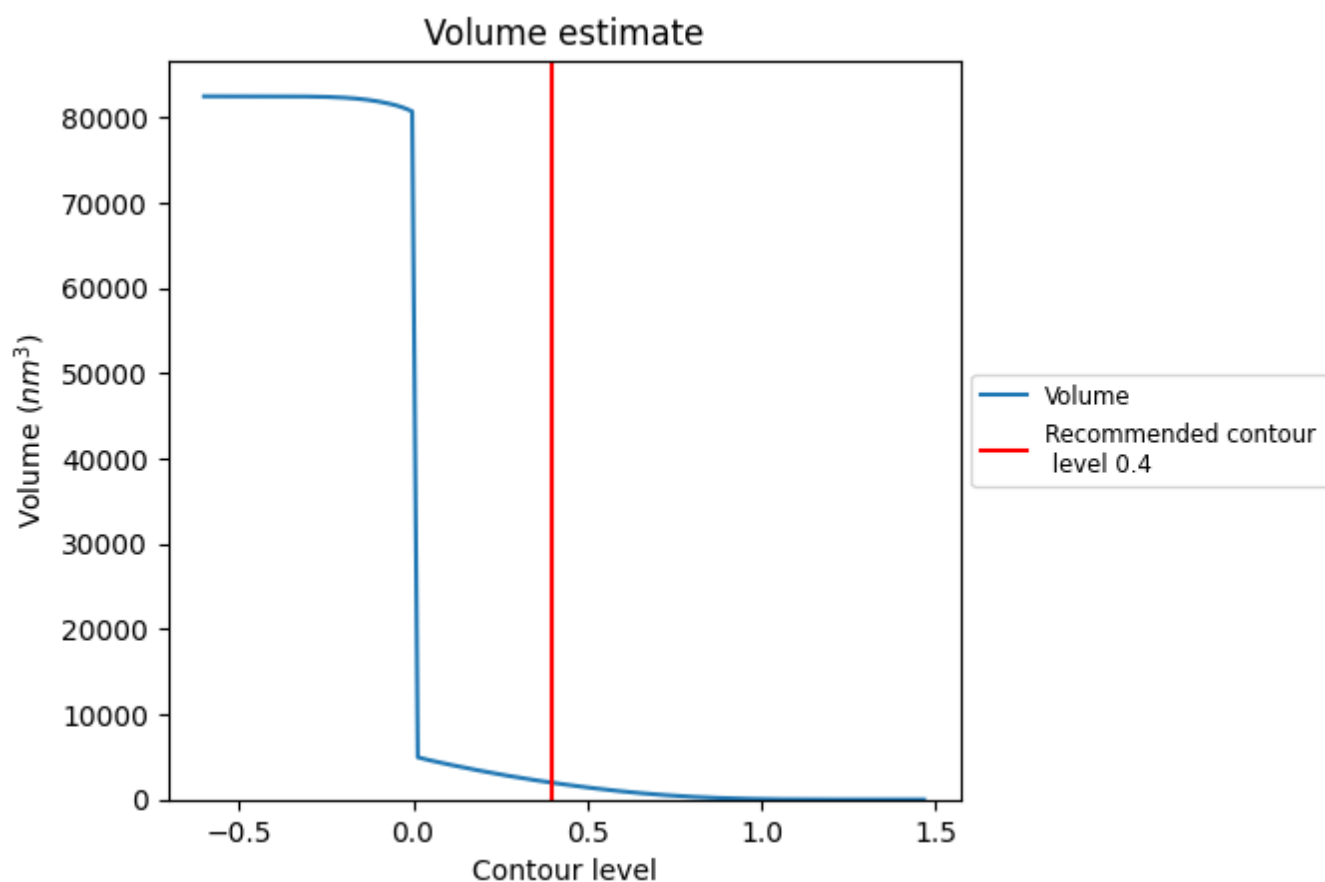
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

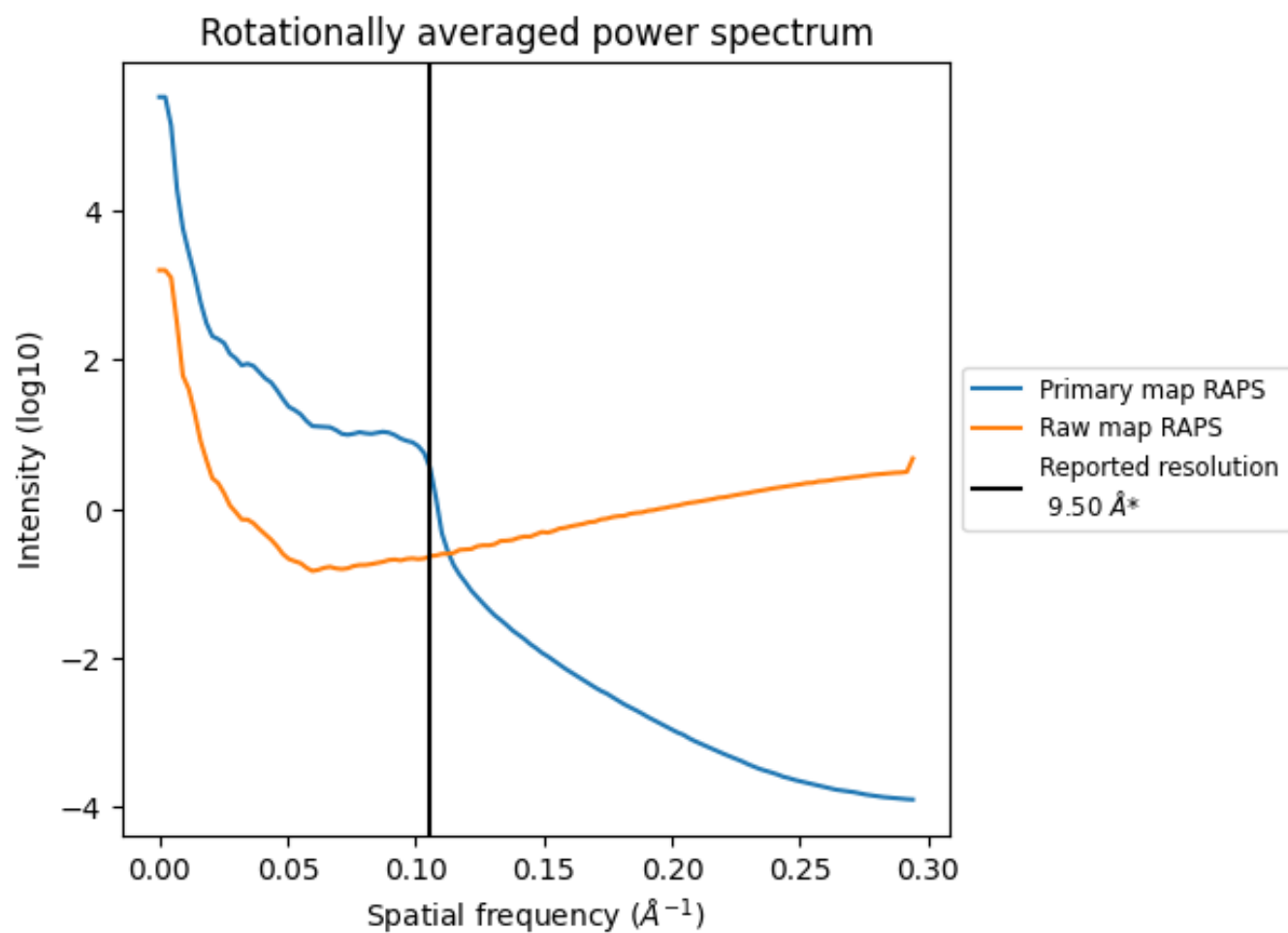
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 1971 nm³; this corresponds to an approximate mass of 1780 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum ⓘ

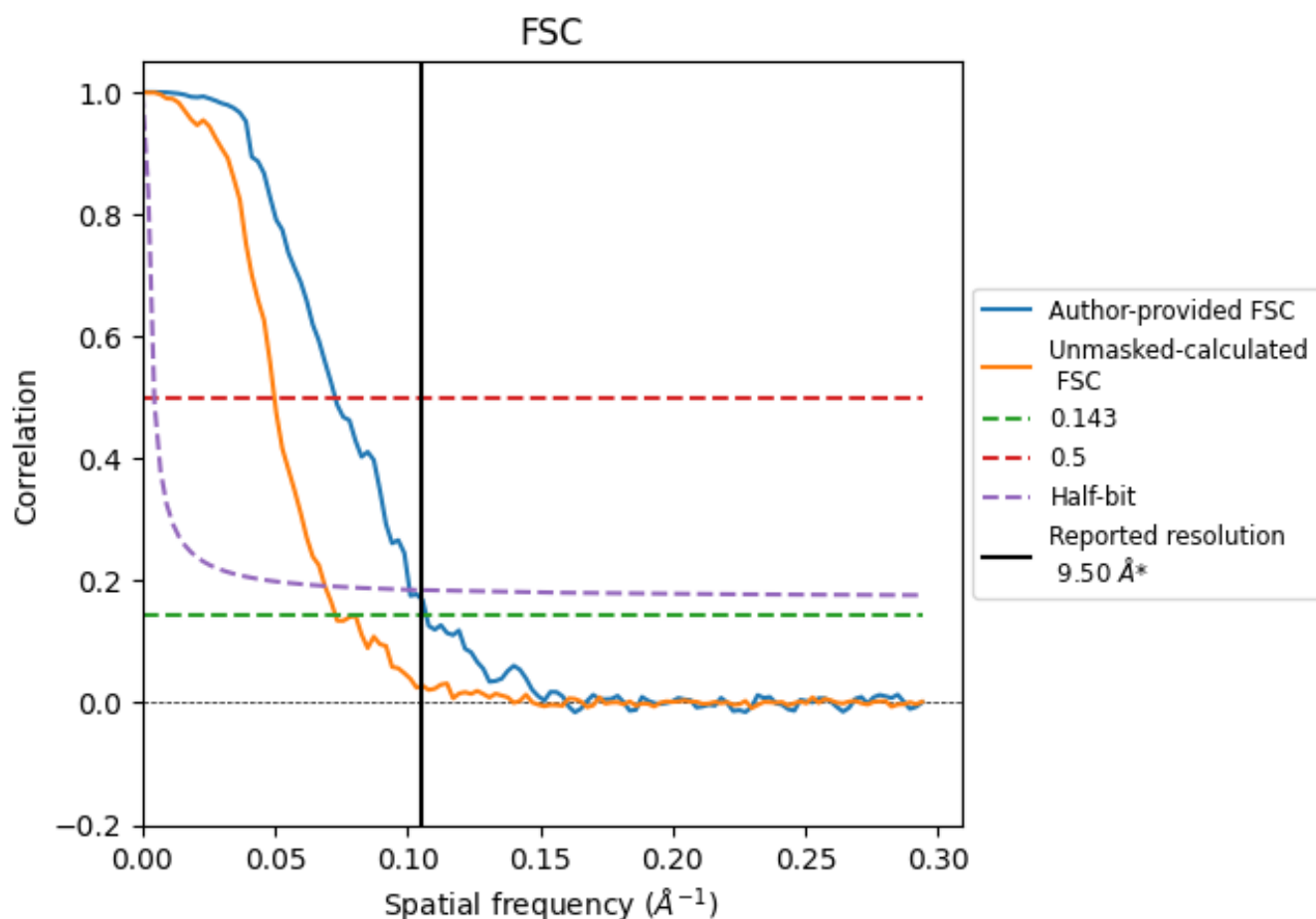


*Reported resolution corresponds to spatial frequency of 0.105 $\text{\AA}^{-1}$

8 Fourier-Shell correlation [i](#)

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.105 $\text{\AA}^{-1}$

8.2 Resolution estimates [i](#)

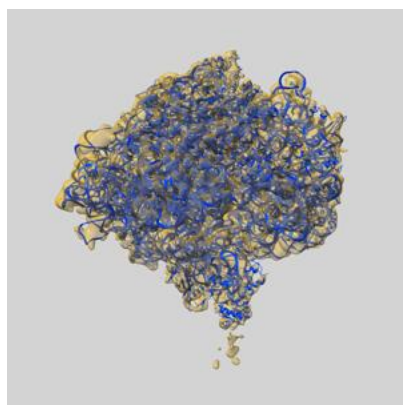
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	9.50	-	-
Author-provided FSC curve	9.35	13.76	9.92
Unmasked-calculated*	13.72	20.08	14.51

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 13.72 differs from the reported value 9.5 by more than 10 %

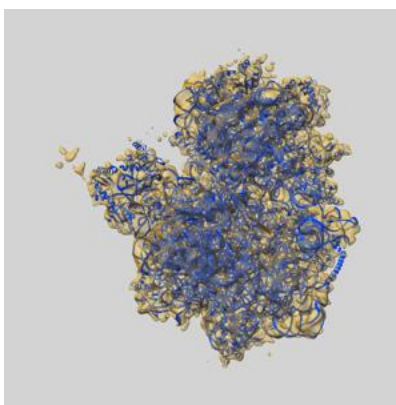
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-13445 and PDB model 7PIO. Per-residue inclusion information can be found in [section 3](#) on [page 13](#).

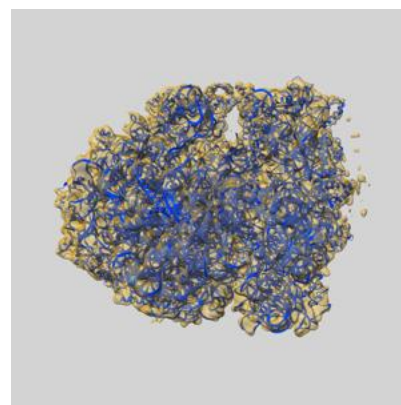
9.1 Map-model overlay [i](#)



X



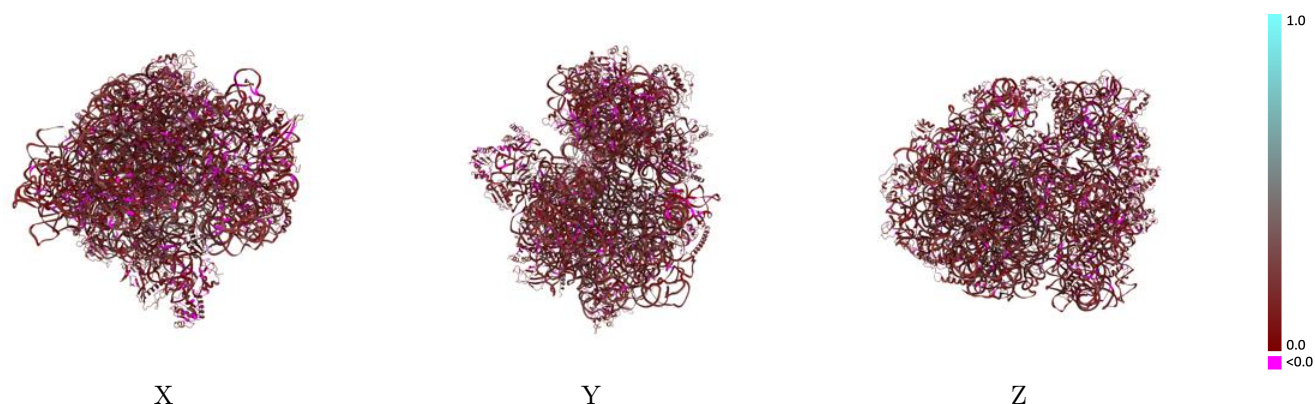
Y



Z

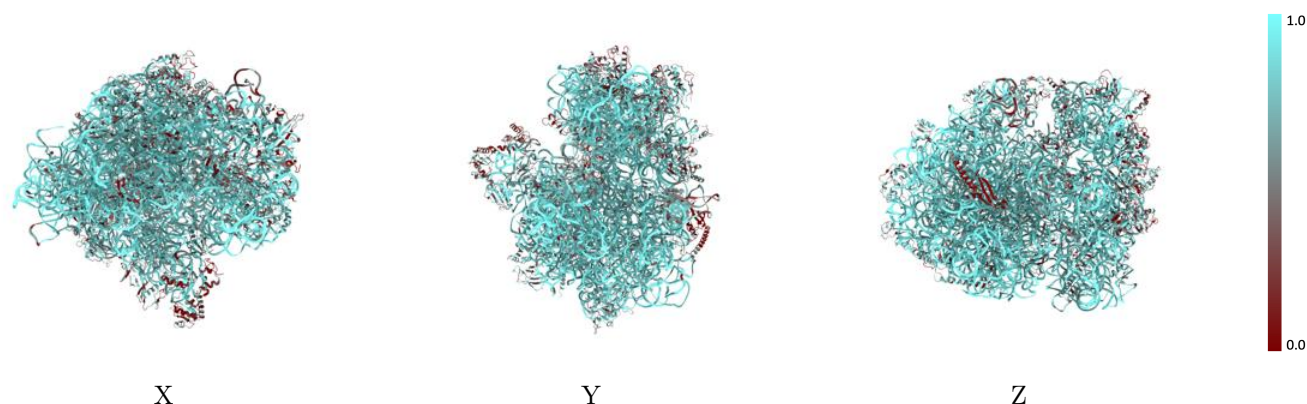
The images above show the 3D surface view of the map at the recommended contour level 0.4 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model [i](#)



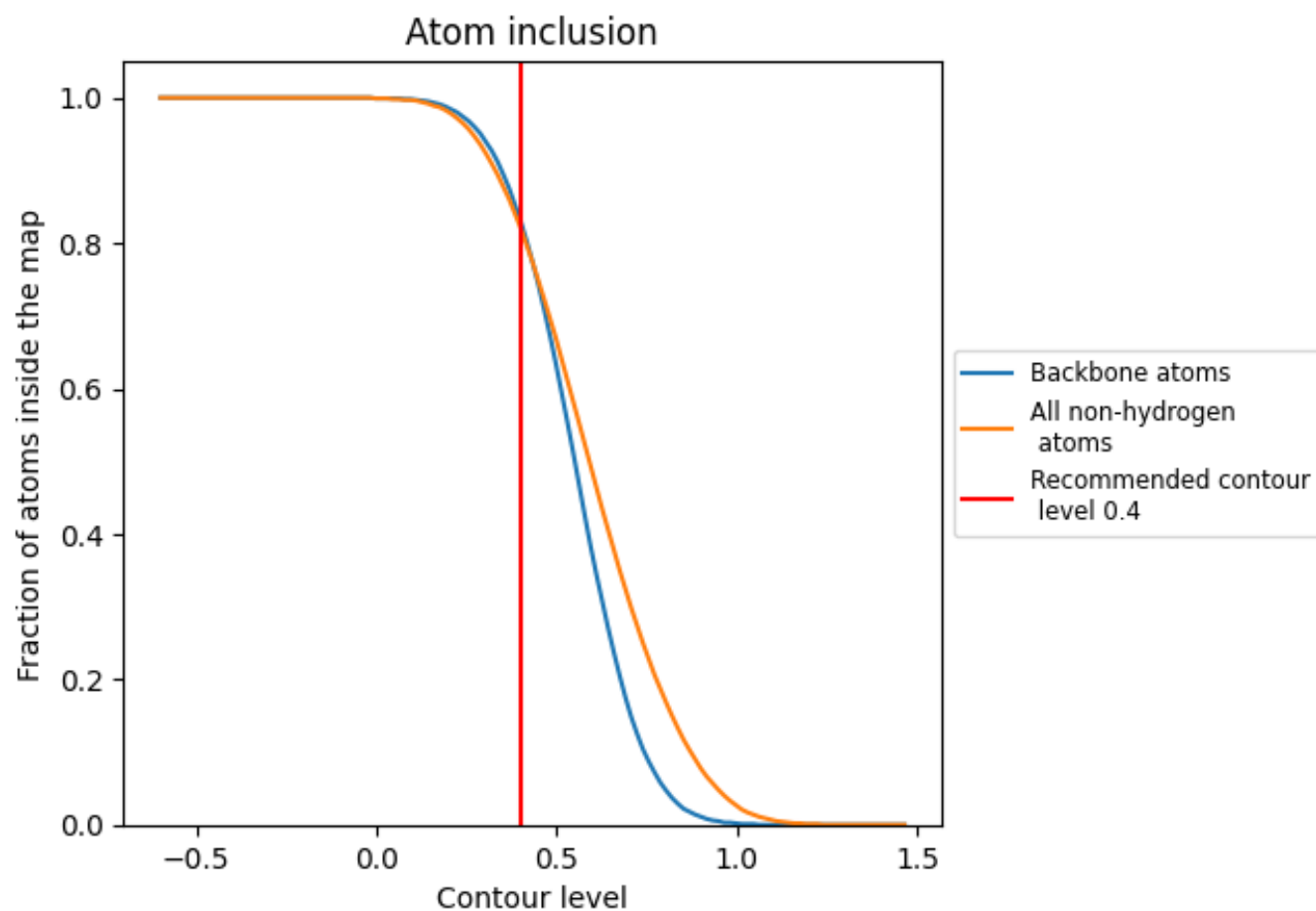
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

9.3 Atom inclusion mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.4).

9.4 Atom inclusion [i](#)



At the recommended contour level, 83% of all backbone atoms, 82% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (0.4) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.8210	 0.1550
0	 0.8110	 0.1480
1	 0.6460	 0.1130
2	 0.7130	 0.0970
3	 0.9270	 0.1650
4	 0.9400	 0.1820
5	 0.9180	 0.1580
7	 0.8690	 0.1760
A	 0.5250	 0.1680
B	 0.5240	 0.1400
C	 0.5790	 0.1290
D	 0.5810	 0.1360
E	 0.5080	 0.1630
F	 0.5840	 0.1510
G	 0.5950	 0.1360
H	 0.5540	 0.1010
I	 0.5110	 0.1320
J	 0.6080	 0.1210
K	 0.6270	 0.1240
L	 0.5730	 0.1380
M	 0.5800	 0.1120
N	 0.6570	 0.1710
O	 0.6710	 0.1300
P	 0.6150	 0.1090
Q	 0.5370	 0.1180
R	 0.5600	 0.0880
S	 0.7380	 0.1530
T	 0.6270	 0.1720
a	 0.7150	 0.1300
b	 0.6730	 0.1190
c	 0.6720	 0.1530
d	 0.6350	 0.1390
e	 0.5590	 0.1500
f	 0.1940	 0.1330
g	 0.3970	 0.1230



Continued on next page...

Continued from previous page...

Chain	Atom inclusion	Q-score
h	 0.2460	 0.0890
i	 0.6920	 0.1400
j	 0.5840	 0.1360
k	 0.6880	 0.1340
l	 0.7170	 0.1360
m	 0.6960	 0.1250
n	 0.6590	 0.1500
o	 0.6100	 0.1440
p	 0.7430	 0.1310
q	 0.6610	 0.1490
r	 0.6940	 0.1440
s	 0.7040	 0.1670
t	 0.5730	 0.1510
u	 0.6770	 0.1060
v	 0.6710	 0.1310
w	 0.6890	 0.1830
x	 0.4930	 0.1750
y	 0.6940	 0.1110
z	 0.6930	 0.1410