



Full wwPDB EM Validation Report ⓘ

Oct 8, 2022 – 06:39 pm BST

PDB ID : 7PAT
EMDB ID : EMD-13285
Title : free 50S in untreated Mycoplasma pneumoniae cells
Authors : Xue, L.; Lenz, S.; Rappsilber, J.; Mahamid, J.
Deposited on : 2021-07-30
Resolution : 9.20 Å (reported)
Based on initial model : 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.dev43
MolProbity : 4.02b-467
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : 1.9.9
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.31.2

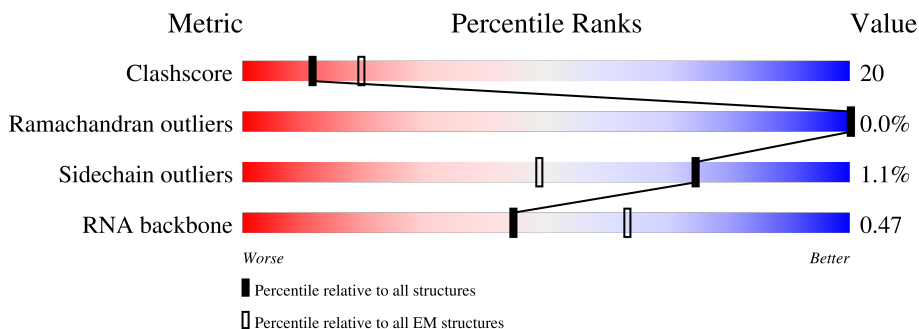
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 9.20 Å.

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



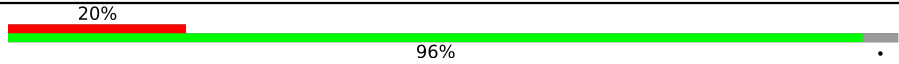
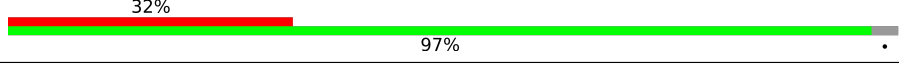
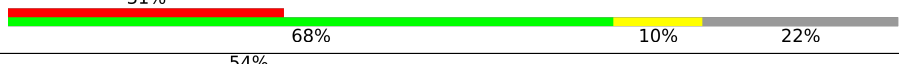
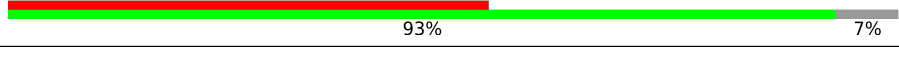
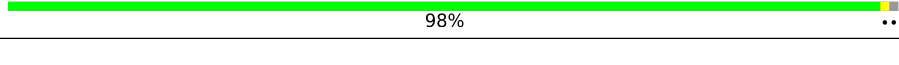
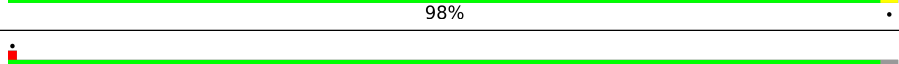
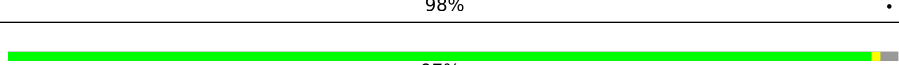
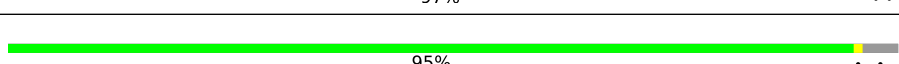
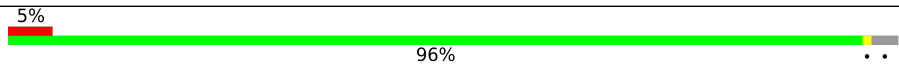
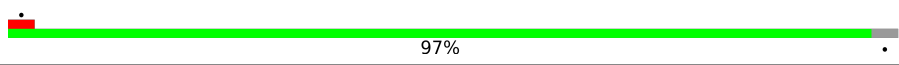
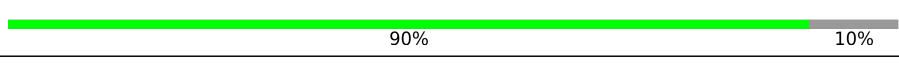
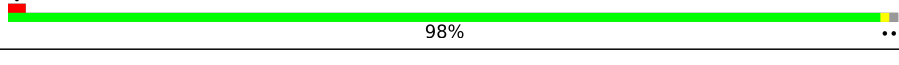
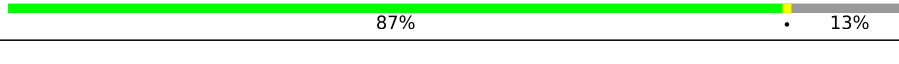

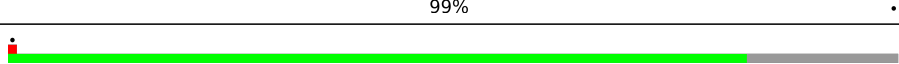
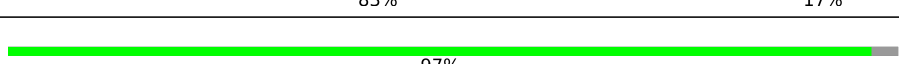
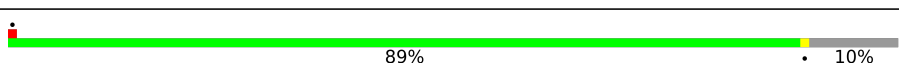

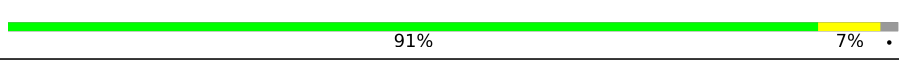
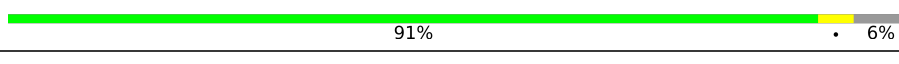
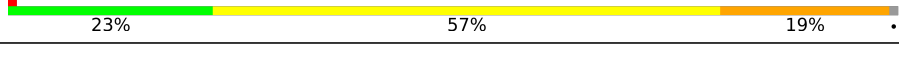
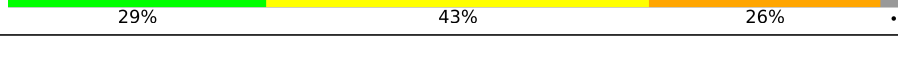


Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826
RNA backbone	4643	859

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	46% (green), 52% (yellow), 2% (grey), 0% (red)
2	1	59	54% (green), 46% (yellow), 0% (grey), 0% (red)
3	2	37	51% (green), 49% (yellow), 0% (grey), 0% (red)
4	a	287	99% (green), 1% (grey), 0% (red)
5	b	287	80% (green), 20% (grey), 0% (red)
6	c	212	99% (green), 1% (grey), 0% (red)
7	d	180	17% (red), 96% (green), 1% (yellow), 1% (grey), 0% (orange)

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
8	e	184	
9	f	149	
10	g	161	
11	h	137	
12	i	146	
13	j	122	
14	k	151	
15	l	139	
16	m	124	
17	n	116	
18	o	119	
19	p	127	
20	q	100	
21	r	159	
22	s	237	
23	t	111	
24	u	104	
25	v	65	
26	w	111	
27	x	97	
28	y	57	
29	z	53	
30	3	2907	
31	4	108	

2 Entry composition

There are 31 unique types of molecules in this entry. The entry contains 91293 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
			Total	C	N	O	S		
1	0	47	380	236	81	61	2	0	0

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

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

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

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

- Molecule 4 is a protein called 50S ribosomal protein L2.

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

- Molecule 5 is a protein called 50S ribosomal protein L3.

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

- Molecule 6 is a protein called 50S ribosomal protein L4.

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

- Molecule 7 is a protein called 50S ribosomal protein L5.

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

- Molecule 8 is a protein called 50S ribosomal protein L6.

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

- Molecule 9 is a protein called 50S ribosomal protein L9.

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

- Molecule 10 is a protein called 50S ribosomal protein L10.

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

- Molecule 11 is a protein called 50S ribosomal protein L11.

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

- Molecule 12 is a protein called 50S ribosomal protein L13.

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

- Molecule 13 is a protein called 50S ribosomal protein L14.

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

- Molecule 14 is a protein called 50S ribosomal protein L15.

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

- Molecule 15 is a protein called 50S ribosomal protein L16.

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

- Molecule 16 is a protein called 50S ribosomal protein L17.

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

- Molecule 17 is a protein called 50S ribosomal protein L18.

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

- Molecule 18 is a protein called 50S ribosomal protein L19.

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

- Molecule 19 is a protein called 50S ribosomal protein L20.

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

- Molecule 20 is a protein called 50S ribosomal protein L21.

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

- Molecule 21 is a protein called 50S ribosomal protein L22.

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

- Molecule 22 is a protein called 50S ribosomal protein L23.

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

- Molecule 23 is a protein called 50S ribosomal protein L24.

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

- Molecule 24 is a protein called 50S ribosomal protein L27.

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

- Molecule 25 is a protein called 50S ribosomal protein L28.

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

- Molecule 26 is a protein called 50S ribosomal protein L29.

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

- Molecule 27 is a protein called 50S ribosomal protein L31.

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

- Molecule 28 is a protein called 50S ribosomal protein L32.

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

- Molecule 29 is a protein called 50S ribosomal protein L33 1.

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

- Molecule 30 is a RNA chain called 23S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
30	3	2878	61664	27558	11236	19995	2875	0	0

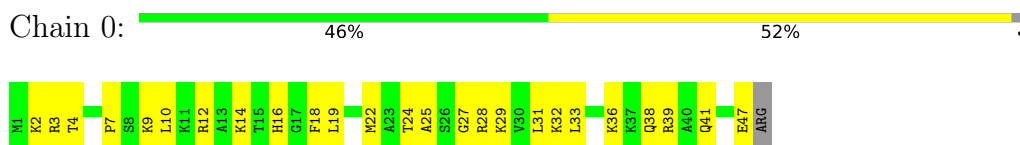
- Molecule 31 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
31	4	105	2239	1003	409	724	103	0	0

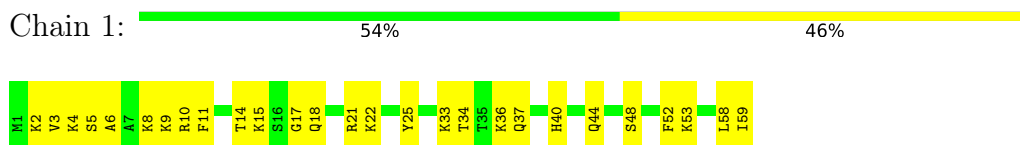
3 Residue-property plots [i](#)

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.

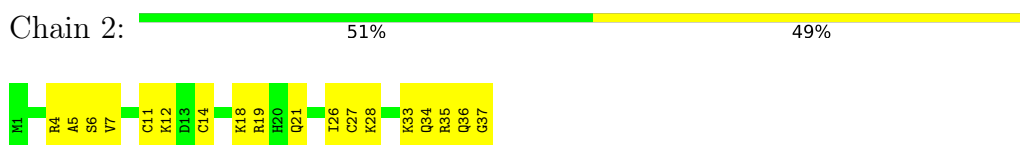
- Molecule 1: 50S ribosomal protein L34



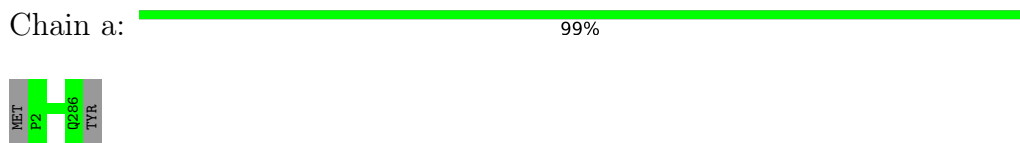
- Molecule 2: 50S ribosomal protein L35



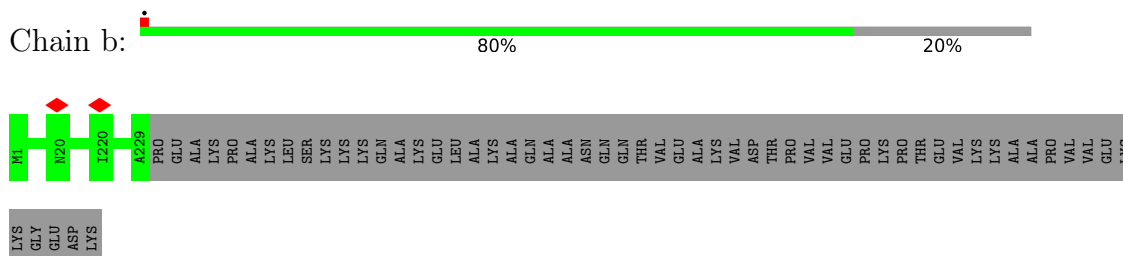
- Molecule 3: 50S ribosomal protein L36



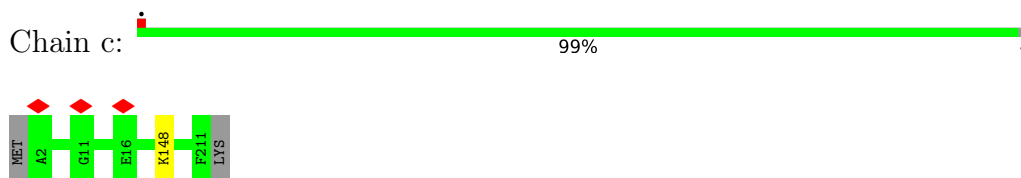
- Molecule 4: 50S ribosomal protein L2



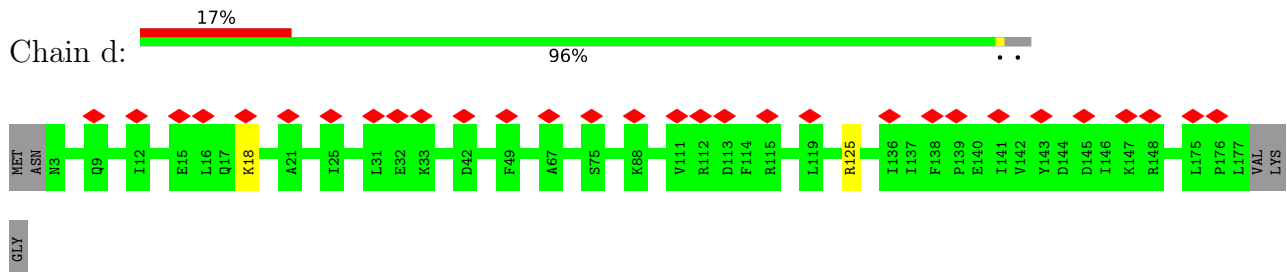
- Molecule 5: 50S ribosomal protein L3



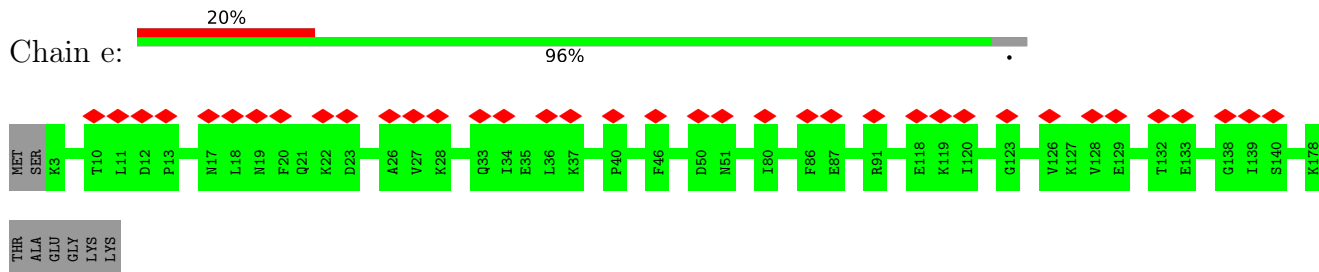
• Molecule 6: 50S ribosomal protein L4



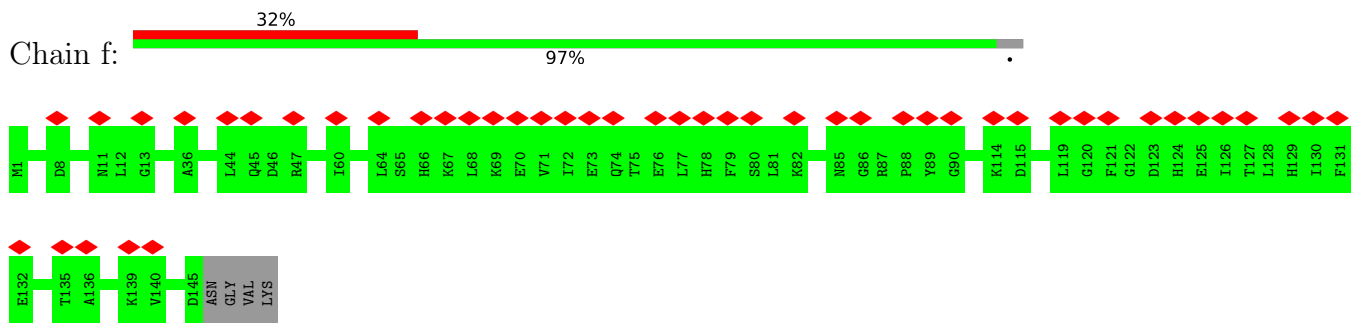
• Molecule 7: 50S ribosomal protein L5



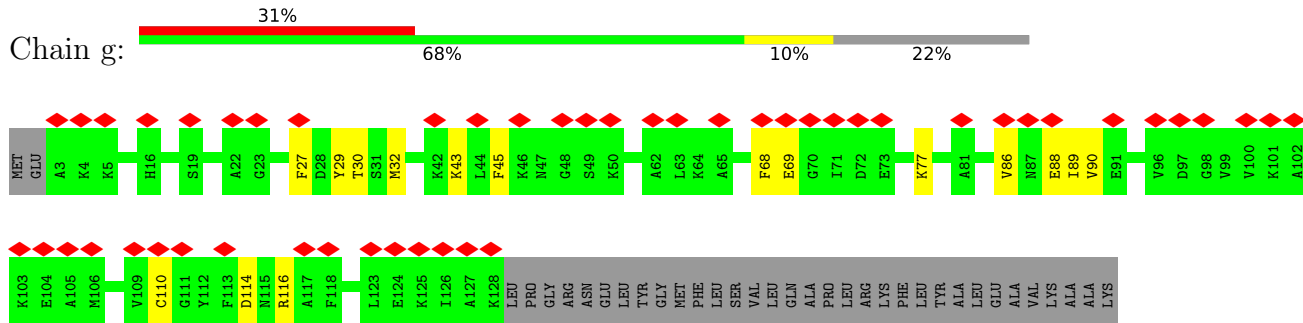
• Molecule 8: 50S ribosomal protein L6



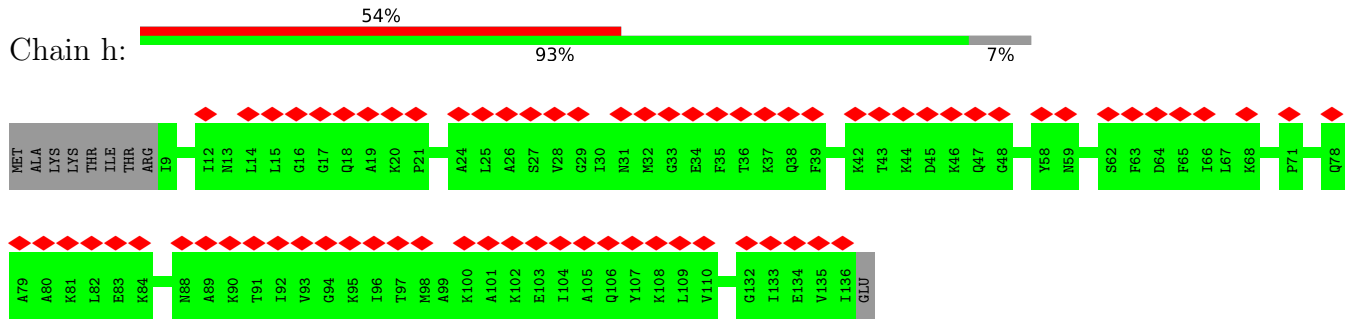
• Molecule 9: 50S ribosomal protein L9



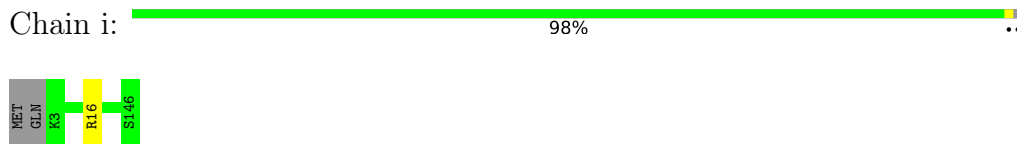
• Molecule 10: 50S ribosomal protein L10



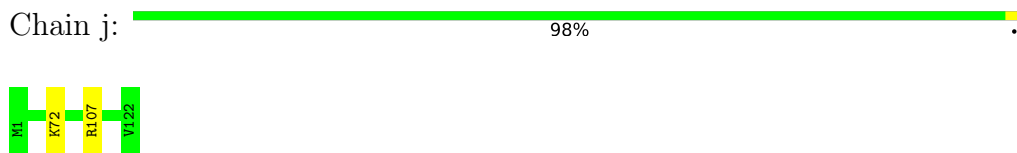
- Molecule 11: 50S ribosomal protein L11



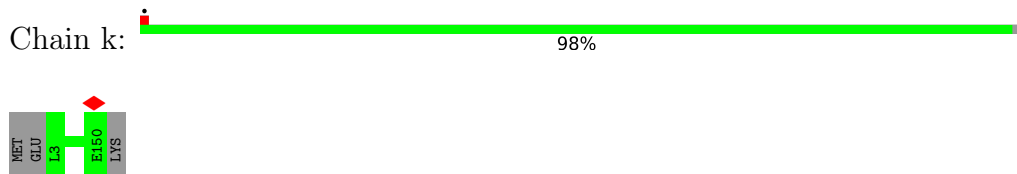
- Molecule 12: 50S ribosomal protein L13



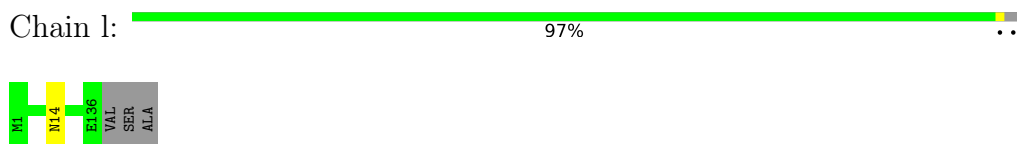
- Molecule 13: 50S ribosomal protein L14



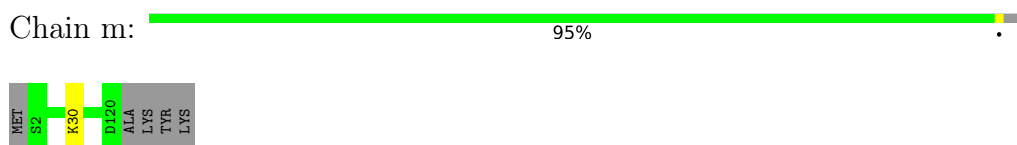
- Molecule 14: 50S ribosomal protein L15



- Molecule 15: 50S ribosomal protein L16

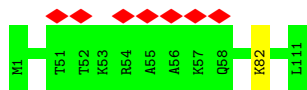


- Molecule 16: 50S ribosomal protein L17

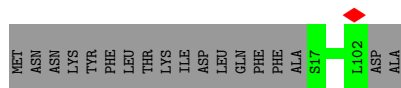
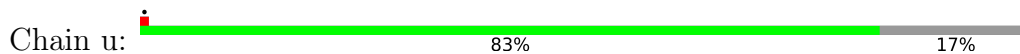


- Molecule 17: 50S ribosomal protein L18

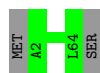




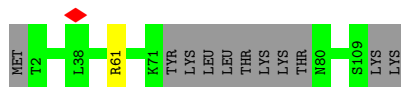
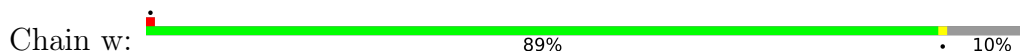
• Molecule 24: 50S ribosomal protein L27



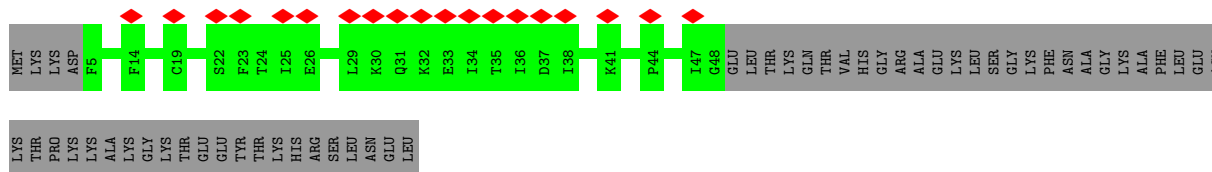
• Molecule 25: 50S ribosomal protein L28



• Molecule 26: 50S ribosomal protein L29



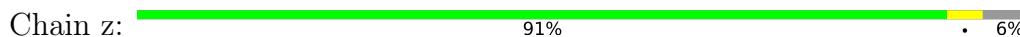
• Molecule 27: 50S ribosomal protein L31



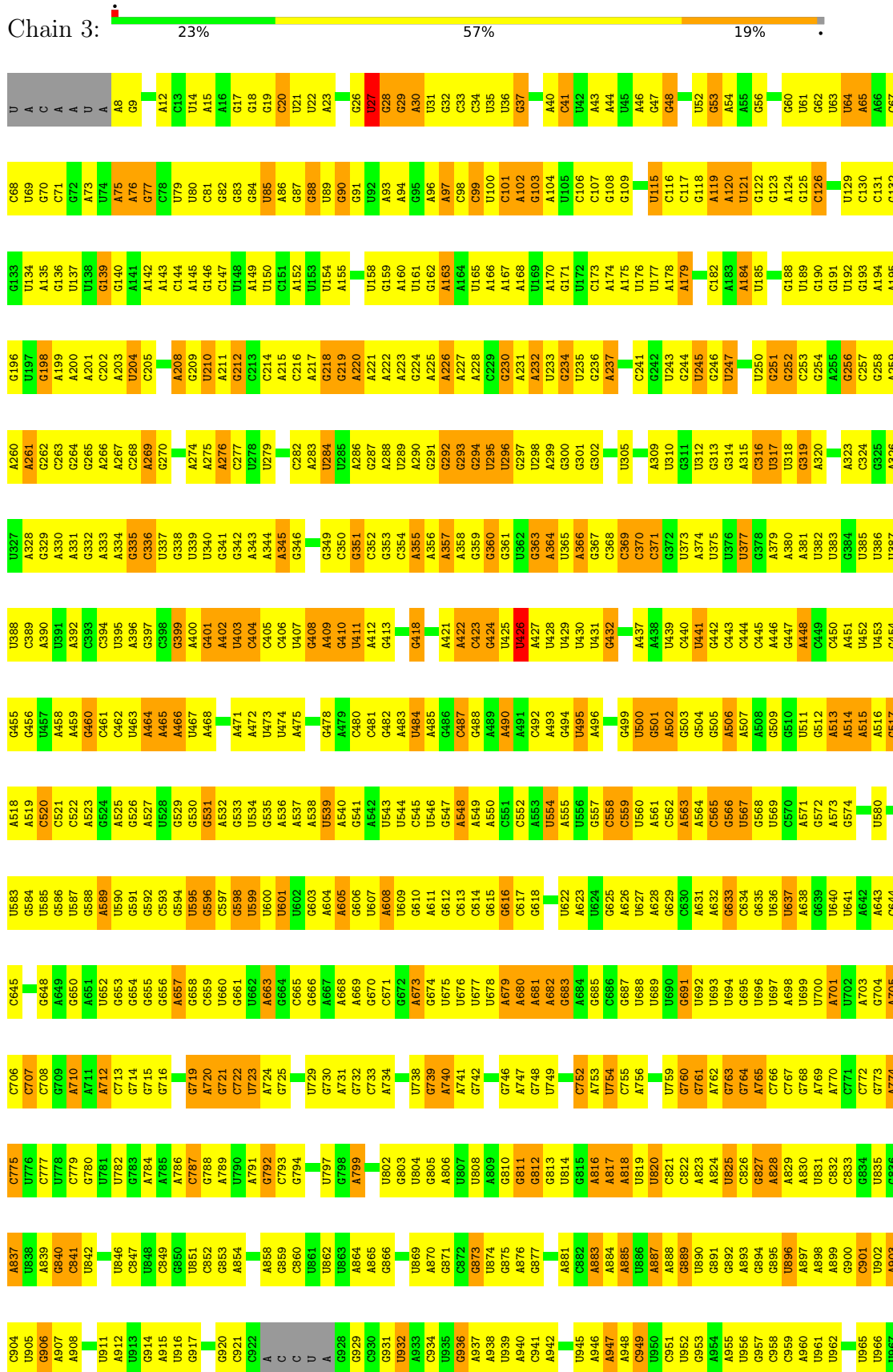
• Molecule 28: 50S ribosomal protein L32



• Molecule 29: 50S ribosomal protein L33 1



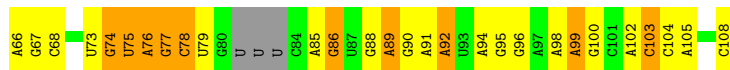
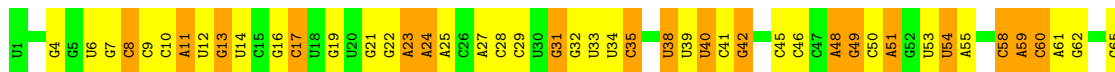
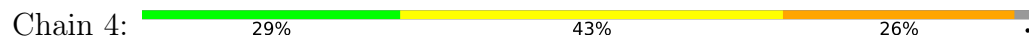
• Molecule 30: 23S ribosomal RNA



C2796	C2797	C2798	C2799	C2800	C2801	C2802	C2803	C2804	C2805	C2806	C2807	C2808	C2809	C2810	C2811	C2812	C2813	C2814	C2815	C2819	C2820	C2821	C2822	C2823	C2824	C2825	C2828	C2829	C2830	C2831	C2832	C2837	C2838	C2839	C2840	C2841	C2842	C2843	C2844	C2845	C2846	C2847	C2848	C2849	C2850	C2851	C2852	C2853	C2854	C2855	C2856	C2859	C2860	C2861	C2862	C2866			
U2731	A2732	A2733	C2734	C2735	C2736	C2737	C2738	C2739	C2740	A2741	A2742	A2743	A2744	A2745	A2746	A2747	A2748	A2749	A2750	C2751	C2752	C2753	C2754	C2755	C2756	C2757	C2758	C2759	C2760	C2763	C2764	A2765	C2769	C2770	C2771	A2772	A2773	A2774	C2775	C2776	A2777	C2780	C2781	C2782	A2783	C2784	C2785	A2786	C2787	C2788	C2789	C2790	C2791	C2792	C2793	C2794	C2795		
U2664	A2665	C2666	A2667	A2668	A2669	A2670	C2671	C2672	A2673	A2674	A2675	A2676	A2677	A2678	A2679	C2680	A2681	A2682	A2683	A2684	A2685	C2686	C2689	C2690	C2691	C2692	C2693	A2694	C2695	C2696	C2697	C2698	C2699	A2700	A2701	C2702	C2703	C2704	C2705	C2706	C2710	C2711	C2712	A2713	C2714	C2715	C2716	C2717	C2718	C2719	C2720	C2721	C2722	C2723	C2724	C2728	A2729	C2730	
C2531	C2532	A2533	A2534	C2535	C2536	C2537	A2538	A2539	C2540	C2543	C2544	C2545	C2546	C2547	C2548	C2549	C2550	C2551	C2552	C2553	C2554	C2555	C2556	C2557	C2558	C2559	C2560	C2565	C2566	C2567	C2568	A2569	C2570	C2571	C2572	A2573	A2574	C2575	C2576	C2577	A2578	C2579	A2580	C2581	C2582	C2583	C2584	C2585	C2586	C2587	C2588	C2589	C2590	C2591	C2592	C2593	C2594		
A2467	U2468	A2469	C2470	C2471	C2472	C2473	C2474	C2475	C2476	A2477	C2480	U2481	C2482	C2483	C2484	C2485	A2486	U2487	C2488	C2489	C2492	C2493	C2494	A2495	C2496	C2497	C2498	C2499	C2500	C2501	C2502	C2503	C2504	C2505	C2506	C2507	C2508	C2509	C2510	C2511	C2512	C2513	C2514	C2515	C2516	C2517	C2518	C2519	C2520	C2521	C2522	C2523	C2524	C2525	C2526	C2527	C2528	C2529	C2530
U2401	C2402	C2403	C2404	C2405	C2406	C2407	C2408	C2409	C2410	C2411	C2412	C2413	C2414	C2415	C2416	C2417	C2418	C2419	C2420	C2421	C2422	C2423	C2424	A2425	A2426	C2427	C2431	C2432	C2433	C2434	C2435	C2436	C2437	C2438	C2439	C2442	C2446	C2447	C2448	C2449	C2450	C2451	C2452	C2453	C2454	C2455	C2456	C2457	C2458	C2459	C2460	C2461	C2462	C2463	C2464	C2465	C2466		
U2334	A2335	A2336	U2337	C2338	C2339	C2340	C2341	C2342	A2343	C2344	C2345	U2348	C2349	C2350	C2351	C2352	C2353	A2354	C2355	C2356	C2357	C2358	C2359	A2362	C2365	A2366	C2371	C2372	C2373	C2374	A2375	C2376	C2377	C2378	C2379	C2380	C2381	C2382	C2383	C2384	A2385	A2386	C2387	C2388	C2389	C2390	C2391	C2392	C2393	C2394	C2395	C2396	C2397	C2398	C2399	A2400			
C2267	C2268	C2269	C2270	C2271	C2272	U2273	C2274	C2275	C2276	C2277	C2278	C2279	U2280	C2281	A2282	C2286	C2287	C2288	C2289	C2290	C2291	A2292	C2293	A2294	A2295	C2296	C2297	C2298	C2299	C2300	U2303	U2304	C2305	A2306	U2307	C2308	A2309	C2310	C2313	U2314	C2315	C2316	C2317	U2320	C2321	C2322	U2327	C2328	C2329	C2330	U2332	C2333							
G2201	U2202	U2205	A2206	C2207	U2208	U2209	C2210	C2211	U2212	C2213	A2214	C2215	U2216	C2217	C2218	U2219	C2220	U2221	C2222	C2223	C2224	C2225	C2229	A2230	C2231	C2232	C2233	C2234	A2235	U2236	U2237	C2238	U2239	U2240	A2241	C2242	C2243	C2244	C2245	C2246	A2249	C2250	C2251	C2252	C2253	C2254	C2255	C2258	C2259	C2260	C2261	C2262	C2263	C2264	U2265				
A2136	A2137	U2138	C2139	C2140	A2141	C2142	C2143	C2144	C2145	A2146	C2147	U2148	C2149	C2150	C2151	C2152	C2153	A2154	C2155	C2156	A2157	U2160	C2161	U2162	C2163	C2164	A2165	C2166	C2167	C2168	C2169	A2170	A2171	U2175	C2176	C2177	A2178	A2179	U2180	A2181	C2182	U2183	A2184	C2185	C2186	C2190	C2191	A2192	C2193	C2194	U2195	C2196	C2197	C2198	C2199	U2200			
G2074	U2075	C2076	U2077	C2078	C2079	C2080	U2081	C2082	U2083	U2084	C2085	C2086	C2087	U2088	C2089	C2090	C2091	C2092	U2093	C2094	U2095	U2096	U2097	U2098	U2099	C2100	A2101	A2104	C2105	C2106	C2107	C2108	U2109	U2110	U2111	A2112	C2113	C2114	C2117	U2118	C2119	C2120	C2121	C2122	A2123	U2124	U2125	A2126	C2127	C2128	U2129	A2130	C2131	C2132	A2133	C2134	C2135		
A2012	C2013	U2014	G2017	U2018	G2019	G2020	A2021	A2022	U2023	C2024	C2025	A2026	C2027	C2028	U2029	A2030	C2031	C2032	G2033	C2034	U2035	C2036	A2037	A2038	C2039	A2040	C2041	A2042	C2043	C2044	C2045	C2046	A2049	G2050	C2051	C2052	C2054	A2055	C2056	C2057	G2058	C2059	G2060	A2061	C2062	C2063	C2064	A2065	C2066	A2067	C2068	C2069	U2070	A2008	A2010	C2071	C2072	C2073	
A1944	A1945	U1946	U1947	C1948	C1949	U1950	A1951	C1952	C1953	U1954	C1955	C1956	C1957	U1958	A1959	U1960	A1961	U1962	U1963	C1969	C1970	C1971	C1972	U1973	U1974	C1975	A1976	A1977	U1978	C1979	C1980	U1981	C1982	C1987	A1988	U1989	C1990	U1991	U1994	C1995	A1996	C1997	U1998	A2000	C2001	U2000	C2002	C2003	A2004	C2005	C2006	C2007	U2007	A2008	U2009	A2010	C2011		



• Molecule 31: 5S ribosomal RNA



4 Experimental information

Property	Value	Source
EM reconstruction method	SUBTOMOGRAM AVERAGING	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of subtomograms used	15954	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	1.419	Depositor
Minimum map value	-0.423	Depositor
Average map value	0.016	Depositor
Map value standard deviation	0.100	Depositor
Recommended contour level	0.41	Depositor
Map size (\AA)	480.00003, 480.00003, 480.00003	wwPDB
Map dimensions	200, 200, 200	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (\AA)	2.4, 2.4, 2.4	Depositor

5 Model quality [i](#)

5.1 Standard geometry [i](#)

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	0.23	0/383	0.42	0/504
2	1	0.23	0/484	0.42	0/637
3	2	0.21	0/306	0.45	0/401
4	a	0.24	0/2267	0.46	0/3044
5	b	0.25	0/1795	0.47	0/2412
6	c	0.24	0/1671	0.43	0/2246
7	d	0.25	0/1409	0.48	0/1894
8	e	0.25	0/1420	0.48	0/1912
9	f	0.24	0/1183	0.46	0/1587
10	g	0.38	0/969	0.57	0/1295
11	h	0.25	0/968	0.47	0/1298
12	i	0.23	0/1186	0.43	0/1592
13	j	0.24	0/953	0.47	0/1275
14	k	0.24	0/1170	0.46	0/1559
15	l	0.25	0/1104	0.46	0/1481
16	m	0.23	0/973	0.43	0/1309
17	n	0.23	0/897	0.45	0/1198
18	o	0.25	0/948	0.49	0/1262
19	p	0.24	0/961	0.40	0/1278
20	q	0.25	0/828	0.49	0/1111
21	r	0.24	0/1077	0.43	0/1441
22	s	0.24	0/732	0.47	0/988
23	t	0.23	0/879	0.44	0/1165
24	u	0.25	0/665	0.49	0/884
25	v	0.22	0/519	0.50	0/695
26	w	0.23	0/826	0.43	0/1104
27	x	0.26	0/353	0.42	0/474
28	y	0.30	0/457	0.55	0/601
29	z	0.23	0/412	0.43	0/547
30	3	0.20	0/69073	0.81	56/107710 (0.1%)
31	4	0.20	0/2505	0.82	3/3902 (0.1%)
All	All	0.21	0/99373	0.74	59/148806 (0.0%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if

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

Mol	Chain	#Chirality outliers	#Planarity outliers
15	1	0	1

There are no bond length outliers.

All (59) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	3	370	C	N3-C2-O2	-10.97	114.22	121.90
30	3	559	C	N3-C2-O2	-9.31	115.38	121.90
30	3	99	C	N3-C2-O2	-9.23	115.44	121.90
30	3	371	C	N3-C2-O2	-8.74	115.78	121.90
30	3	1159	C	N3-C2-O2	-8.15	116.19	121.90
30	3	1341	U	C2-N1-C1'	7.85	127.12	117.70
30	3	545	C	N1-C2-O2	7.43	123.36	118.90
30	3	1341	U	N1-C2-O2	7.30	127.91	122.80
30	3	370	C	N1-C2-O2	7.23	123.24	118.90
30	3	98	C	N1-C2-O2	7.18	123.21	118.90
30	3	426	U	C2-N1-C1'	7.04	126.15	117.70
30	3	1697	C	N3-C2-O2	-7.04	116.97	121.90
30	3	1718	C	N3-C2-O2	-6.79	117.15	121.90
30	3	1341	U	N3-C2-O2	-6.78	117.45	122.20
30	3	1099	C	N3-C2-O2	-6.73	117.19	121.90
30	3	1099	C	N1-C2-O2	6.58	122.85	118.90
30	3	545	C	N3-C2-O2	-6.58	117.29	121.90
30	3	2739	C	N3-C2-O2	-6.47	117.37	121.90
30	3	1893	C	N1-C2-O2	6.46	122.77	118.90
30	3	99	C	N1-C2-O2	6.45	122.77	118.90
30	3	426	U	N3-C2-O2	-6.42	117.70	122.20
30	3	559	C	N1-C2-O2	6.39	122.73	118.90
30	3	2114	C	N3-C2-O2	-6.24	117.53	121.90
31	4	58	C	N3-C2-O2	-6.09	117.64	121.90
30	3	2874	C	N3-C2-O2	-5.97	117.72	121.90
30	3	426	U	N1-C2-O2	5.89	126.92	122.80
30	3	1321	C	N3-C2-O2	-5.86	117.80	121.90
30	3	98	C	N3-C2-O2	-5.83	117.82	121.90
30	3	2321	C	N3-C2-O2	-5.79	117.85	121.90
30	3	370	C	C6-N1-C2	-5.72	118.01	120.30
30	3	99	C	C6-N1-C2	-5.71	118.02	120.30
30	3	1321	C	C6-N1-C2	-5.63	118.05	120.30
30	3	371	C	C6-N1-C2	-5.61	118.05	120.30

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	3	1893	C	N3-C2-O2	-5.61	117.97	121.90
30	3	2114	C	N1-C2-O2	5.58	122.25	118.90
30	3	360	G	C5-C6-O6	5.54	131.93	128.60
30	3	2005	G	C5-C6-O6	5.52	131.91	128.60
30	3	88	G	N1-C6-O6	-5.46	116.63	119.90
30	3	2739	C	N1-C2-O2	5.42	122.16	118.90
30	3	1697	C	N1-C2-O2	5.41	122.15	118.90
31	4	58	C	N1-C2-O2	5.40	122.14	118.90
30	3	360	G	N1-C6-O6	-5.39	116.67	119.90
30	3	88	G	N1-C2-N2	-5.34	111.40	116.20
30	3	2691	C	N1-C2-O2	5.33	122.10	118.90
30	3	1718	C	C6-N1-C2	-5.31	118.18	120.30
30	3	2005	G	N1-C6-O6	-5.28	116.73	119.90
30	3	360	G	N1-C2-N2	-5.27	111.45	116.20
30	3	27	U	N1-C2-O2	5.25	126.48	122.80
30	3	1713	U	C2-N1-C1'	5.24	123.99	117.70
30	3	1159	C	C6-N1-C2	-5.20	118.22	120.30
30	3	1717	C	N1-C2-O2	5.18	122.01	118.90
30	3	88	G	C5-C6-O6	5.17	131.70	128.60
30	3	520	C	C2-N1-C1'	5.12	124.43	118.80
30	3	27	U	C2-N1-C1'	5.11	123.83	117.70
30	3	1713	U	N1-C2-O2	5.11	126.38	122.80
30	3	1341	U	C6-N1-C1'	-5.05	114.12	121.20
30	3	371	C	N1-C2-O2	5.03	121.92	118.90
31	4	78	C	O4'-C1'-N1	5.02	112.21	108.20
30	3	27	U	N3-C2-O2	-5.01	118.69	122.20

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
15	1	14	ASN	Peptide

5.2 Too-close contacts [i](#)

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	21	0
3	2	304	0	350	19	0
4	a	2225	0	2301	0	0
5	b	1762	0	1808	0	0
6	c	1644	0	1731	0	0
7	d	1388	0	1469	0	0
8	e	1396	0	1481	0	0
9	f	1160	0	1172	0	0
10	g	960	0	1014	0	0
11	h	959	0	1039	0	0
12	i	1164	0	1192	0	0
13	j	944	0	1019	0	0
14	k	1153	0	1256	0	0
15	l	1079	0	1134	0	0
16	m	958	0	1011	0	0
17	n	889	0	952	0	0
18	o	938	0	1008	0	0
19	p	947	0	1028	0	0
20	q	811	0	858	0	0
21	r	1068	0	1150	0	0
22	s	720	0	803	0	0
23	t	872	0	972	0	0
24	u	657	0	695	0	0
25	v	513	0	560	0	0
26	w	818	0	870	0	0
27	x	344	0	333	0	0
28	y	452	0	472	0	0
29	z	408	0	440	0	0
30	3	61664	0	30954	1849	0
31	4	2239	0	1137	51	0
All	All	91293	0	61168	1930	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 20.

All (1930) 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)
30:3:535:G:C2	30:3:540:A:N6	2.14	1.15
30:3:341:G:N2	30:3:364:A:H61	1.44	1.13
30:3:341:G:H21	30:3:364:A:N6	1.51	1.08

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:1807:C:H42	30:3:1824:G:N2	1.49	1.07
30:3:2108:C:N4	30:3:2109:A:N6	2.01	1.06
30:3:1807:C:N4	30:3:1824:G:H22	1.52	1.05
30:3:2534:G:H1	30:3:2545:U:H3	1.04	1.03
30:3:17:G:H1	30:3:560:U:H3	1.04	0.98
30:3:1932:C:N4	30:3:1936:G:H22	1.61	0.98
30:3:1101:U:O4	30:3:1105:A:N7	1.98	0.96
30:3:275:A:H62	30:3:294:G:H21	0.99	0.96
30:3:742:G:H1	30:3:759:U:H3	1.03	0.96
30:3:1093:U:H3	30:3:1115:G:H1	1.04	0.95
30:3:1200:U:H3	30:3:1215:G:H1	1.14	0.95
30:3:275:A:H62	30:3:294:G:N2	1.64	0.94
30:3:2143:G:H1	30:3:2162:U:H3	0.96	0.94
30:3:535:G:N2	30:3:540:A:C6	2.35	0.94
30:3:629:G:H1	30:3:696:U:H3	1.02	0.94
30:3:1762:A:H61	30:3:2702:G:H21	1.10	0.94
30:3:137:U:H3	30:3:146:G:H1	1.01	0.94
30:3:535:G:N2	30:3:540:A:N6	2.16	0.93
30:3:986:G:H1	30:3:1003:U:H3	0.97	0.92
30:3:2108:C:N4	30:3:2109:A:H62	1.65	0.91
30:3:1310:U:H3	30:3:1314:A:N6	1.68	0.91
30:3:1246:U:H3	30:3:1263:G:H1	1.08	0.91
30:3:2108:C:C4	30:3:2109:A:N6	2.35	0.91
30:3:329:G:H1	30:3:377:U:H3	0.94	0.91
30:3:730:G:H1	30:3:802:U:H3	1.14	0.91
30:3:1027:U:H3	30:3:1198:G:H1	1.10	0.91
30:3:990:G:H1	30:3:999:U:H3	0.94	0.90
30:3:1932:C:H42	30:3:1936:G:H22	1.19	0.90
30:3:2090:G:H1	30:3:2244:U:H3	1.12	0.89
30:3:250:U:H3	30:3:256:G:H1	0.93	0.89
30:3:675:U:H3	30:3:685:G:H1	1.19	0.89
30:3:1807:C:H42	30:3:1824:G:H22	0.90	0.88
30:3:534:U:H3	30:3:538:A:H62	1.16	0.88
30:3:569:U:H3	30:3:592:G:H1	1.19	0.87
30:3:89:U:H5''	30:3:90:G:H5''	1.56	0.86
30:3:1762:A:H61	30:3:2702:G:N2	1.73	0.85
30:3:1932:C:H42	30:3:1936:G:N2	1.74	0.84
30:3:2156:G:H2'	30:3:2157:A:H8	1.41	0.84
30:3:1053:C:O2'	30:3:1155:G:N2	2.11	0.83
30:3:2455:G:H1	30:3:2459:A:H62	1.26	0.83
30:3:2108:C:H42	30:3:2109:A:N6	1.71	0.83

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:1762:A:N6	30:3:2702:G:H21	1.77	0.83
30:3:2551:G:H21	30:3:2654:U:H5''	1.44	0.82
30:3:1940:G:H1	30:3:1974:U:H3	1.27	0.82
30:3:2736:U:HO2'	30:3:2737:G:H8	1.29	0.81
31:4:58:C:H2'	31:4:59:A:H8	1.45	0.81
30:3:2704:U:H2'	30:3:2705:G:C8	2.16	0.80
30:3:2539:A:H61	30:3:2670:A:H61	1.29	0.80
30:3:2828:C:H3'	30:3:2829:G:H21	1.47	0.80
30:3:2195:U:O4	30:3:2196:G:O6	2.00	0.80
3:2:14:CYS:HA	3:2:26:ILE:O	1.81	0.80
30:3:225:A:H62	30:3:463:U:H3	1.29	0.79
30:3:535:G:C2	30:3:540:A:C6	2.71	0.79
30:3:1807:C:N3	30:3:1824:G:N1	2.28	0.78
30:3:1261:U:H2'	30:3:1262:G:H8	1.48	0.78
30:3:1252:C:N3	30:3:1257:G:N1	2.32	0.77
30:3:2409:U:H3	30:3:2423:G:H1	1.33	0.77
30:3:305:U:H3	30:3:399:G:H1	1.32	0.77
30:3:2757:A:OP2	30:3:2760:C:N4	2.14	0.76
30:3:811:G:H8	30:3:2249:A:H5''	1.51	0.76
30:3:1252:C:O2	30:3:1257:G:N2	2.15	0.76
30:3:2108:C:H42	30:3:2109:A:H61	1.32	0.76
30:3:637:U:O2	30:3:661:G:N2	2.18	0.76
30:3:641:U:O2	30:3:657:A:N7	2.19	0.76
30:3:2305:C:N4	30:3:2327:U:O2	2.19	0.75
30:3:585:U:H2'	30:3:586:G:H8	1.51	0.75
30:3:2101:A:H1'	30:3:2206:A:H61	1.52	0.75
30:3:2570:U:O2	30:3:2574:A:N7	2.19	0.75
30:3:572:G:N2	30:3:588:G:O2'	2.20	0.75
30:3:47:G:N2	30:3:184:A:H61	1.85	0.74
30:3:453:U:H2'	30:3:454:G:H8	1.53	0.74
30:3:2299:U:H1'	30:3:2382:A:H1'	1.68	0.74
30:3:31:U:H2'	30:3:32:G:H8	1.52	0.74
30:3:1011:A:H62	30:3:1025:G:H21	1.34	0.74
30:3:2400:A:N6	30:3:2432:C:O2	2.19	0.74
30:3:341:G:H21	30:3:364:A:H61	0.78	0.74
30:3:2291:U:O2	30:3:2333:G:O6	2.05	0.74
30:3:1137:C:H2'	30:3:1138:A:H8	1.51	0.73
30:3:2684:G:H2'	30:3:2685:A:C8	2.24	0.73
30:3:1310:U:H3	30:3:1314:A:H62	0.83	0.73
30:3:2716:U:H2'	30:3:2717:G:H8	1.53	0.73
30:3:353:G:H22	30:3:357:A:H62	1.36	0.73

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:29:G:O2'	30:3:30:A:N7	2.21	0.72
30:3:275:A:N6	30:3:294:G:H21	1.81	0.72
30:3:2824:A:H3'	30:3:2825:A:H8	1.54	0.72
30:3:2700:C:H1'	30:3:2851:U:H1'	1.71	0.72
30:3:1114:C:N4	30:3:1123:A:OP2	2.22	0.72
30:3:1321:C:H2'	30:3:1322:A:H8	1.55	0.72
30:3:2299:U:O2'	30:3:2382:A:N3	2.21	0.72
30:3:1444:C:H5''	30:3:1619:A:H61	1.54	0.72
30:3:2603:G:N2	30:3:2606:A:OP2	2.23	0.72
2:1:36:LYS:O	2:1:40:HIS:ND1	2.22	0.71
30:3:1233:A:N6	30:3:1274:A:N1	2.33	0.71
30:3:2353:G:H4'	30:3:2354:A:H3'	1.71	0.71
30:3:2137:A:H5''	30:3:2138:U:H5'	1.71	0.71
30:3:1387:A:OP2	30:3:1399:G:N2	2.21	0.71
30:3:901:C:N4	30:3:946:A:N7	2.39	0.71
30:3:1748:U:O2	30:3:1750:A:N7	2.24	0.71
30:3:1558:A:H5''	30:3:1570:A:H61	1.54	0.70
30:3:2094:A:N6	30:3:2095:A:N6	2.39	0.70
30:3:2747:U:O2	30:3:2772:A:N7	2.24	0.70
30:3:2807:G:O2'	30:3:2809:A:N6	2.24	0.70
30:3:537:A:H3'	30:3:540:A:H62	1.57	0.70
30:3:2274:A:N6	30:3:2281:A:OP2	2.25	0.70
30:3:1418:U:H3	30:3:1423:A:H62	1.38	0.70
30:3:2129:U:H2'	30:3:2130:A:H8	1.55	0.70
30:3:2299:U:H3	30:3:2349:G:H1	1.40	0.70
30:3:2696:G:OP1	30:3:2721:C:N4	2.24	0.70
3:2:6:SER:OG	30:3:1065:G:O2'	2.07	0.70
30:3:643:A:H62	30:3:655:G:H21	1.39	0.70
30:3:2108:C:N3	30:3:2109:A:N6	2.40	0.70
30:3:2092:U:O2	30:3:2242:G:O6	2.09	0.70
30:3:2700:C:H2'	30:3:2701:A:H8	1.57	0.70
30:3:1310:U:O4	30:3:1314:A:N7	2.23	0.70
30:3:1555:G:H22	30:3:1576:G:H1'	1.56	0.70
30:3:1315:A:N6	30:3:1683:G:O2'	2.23	0.70
30:3:1841:U:H5''	30:3:1842:G:H5'	1.72	0.70
30:3:906:G:H22	30:3:945:U:H3	1.39	0.70
30:3:1067:A:N1	30:3:1157:G:O6	2.25	0.69
30:3:300:G:H2'	30:3:301:G:H8	1.56	0.69
30:3:1089:A:H2'	30:3:1090:G:C8	2.27	0.69
30:3:1027:U:O4	30:3:1198:G:O6	2.11	0.69
30:3:1023:C:O2'	30:3:1036:A:N3	2.25	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:2693:U:H2'	30:3:2694:A:H8	1.56	0.69
30:3:499:G:N2	30:3:502:A:OP2	2.25	0.69
30:3:342:G:N2	30:3:513:A:C6	2.61	0.69
30:3:1414:C:H2'	30:3:1415:A:C8	2.27	0.69
30:3:177:U:H2'	30:3:178:A:C8	2.27	0.69
30:3:220:A:N7	30:3:467:U:C2	2.62	0.68
30:3:947:A:N3	30:3:2272:C:O2'	2.26	0.68
30:3:580:U:OP1	30:3:1249:A:O2'	2.09	0.68
30:3:2175:U:O2	30:3:2179:A:N7	2.26	0.68
30:3:1011:A:H62	30:3:1025:G:N2	1.91	0.68
30:3:1305:G:H2'	30:3:1306:G:C8	2.28	0.68
30:3:1999:G:N2	30:3:2003:C:O2'	2.27	0.68
30:3:80:U:H3	30:3:109:G:H1	0.80	0.68
30:3:274:A:OP2	30:3:294:G:N1	2.27	0.68
30:3:355:A:O2'	30:3:374:A:N3	2.24	0.68
30:3:1743:U:O2'	30:3:2863:G:N3	2.25	0.68
30:3:2339:G:O2'	30:3:2344:A:N6	2.27	0.68
1:0:16:HIS:NE2	30:3:500:U:O2	2.26	0.68
30:3:47:G:H5''	30:3:48:G:H5'	1.74	0.68
30:3:513:A:N6	30:3:536:A:OP1	2.26	0.68
30:3:733:C:O2'	30:3:769:A:N6	2.26	0.68
30:3:432:G:N2	30:3:2239:U:O2'	2.25	0.68
30:3:912:A:H61	30:3:939:U:H3	1.42	0.68
30:3:2122:G:H21	30:3:2179:A:H61	1.40	0.68
31:4:12:U:OP2	31:4:68:C:O2'	2.12	0.68
30:3:411:U:O2'	30:3:458:A:N1	2.26	0.68
30:3:1061:A:H2'	30:3:1062:A:H8	1.58	0.68
30:3:703:A:H2'	30:3:705:A:H62	1.59	0.68
30:3:2521:A:H2'	30:3:2522:U:C6	2.29	0.68
30:3:595:U:H2'	30:3:605:A:H1'	1.74	0.67
2:1:22:LYS:HG2	2:1:44:GLN:HE22	1.60	0.67
30:3:1814:G:H2'	30:3:1815:U:H2'	1.76	0.67
30:3:515:A:H4'	30:3:516:A:H5'	1.77	0.67
30:3:2330:A:H2'	30:3:2331:G:C8	2.29	0.67
3:2:11:CYS:SG	3:2:28:LYS:NZ	2.68	0.67
30:3:1853:G:N2	30:3:1854:A:N1	2.42	0.67
30:3:1803:U:H2'	30:3:1804:A:C8	2.30	0.67
31:4:58:C:H2'	31:4:59:A:C8	2.28	0.67
30:3:1246:U:O2	30:3:1263:G:N2	2.27	0.66
30:3:1093:U:O2	30:3:1115:G:N2	2.23	0.66
30:3:2680:C:H2'	30:3:2681:G:H4'	1.77	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:177:U:H2'	30:3:178:A:H8	1.60	0.66
30:3:1671:C:H5'	30:3:1767:A:H1'	1.78	0.66
30:3:534:U:O4	30:3:538:A:N7	2.29	0.66
30:3:992:G:H1	30:3:994:U:HO2'	1.42	0.66
30:3:1803:U:H2'	30:3:1804:A:H8	1.60	0.66
30:3:2589:G:OP2	30:3:2589:G:N2	2.19	0.66
31:4:11:A:O3'	31:4:13:G:N2	2.29	0.66
30:3:2050:G:OP1	30:3:2785:G:O2'	2.12	0.66
30:3:2548:G:O2'	30:3:2748:A:N3	2.27	0.66
30:3:80:U:O4	30:3:109:G:O6	2.13	0.66
30:3:241:C:O2	30:3:643:A:O2'	2.13	0.66
30:3:1786:U:OP2	30:3:1791:A:N6	2.28	0.66
30:3:2638:G:H21	30:3:2895:A:H4'	1.61	0.66
3:2:11:CYS:SG	3:2:12:LYS:N	2.69	0.65
30:3:30:A:H2'	30:3:31:U:C6	2.31	0.65
30:3:300:G:H2'	30:3:301:G:C8	2.31	0.65
30:3:341:G:O2'	30:3:1240:U:O2'	2.14	0.65
30:3:345:A:H61	30:3:363:G:H5''	1.61	0.65
30:3:632:A:H2'	30:3:633:G:H8	1.61	0.65
31:4:60:C:H2'	31:4:61:A:C8	2.31	0.65
30:3:1065:G:H2'	30:3:1066:G:C8	2.32	0.65
30:3:2190:G:H2'	30:3:2191:G:C8	2.30	0.65
30:3:2758:A:O2'	30:3:2760:C:N4	2.29	0.65
30:3:1509:U:H3	30:3:1530:G:H1	1.41	0.65
30:3:421:A:N6	30:3:424:G:OP2	2.27	0.65
30:3:535:G:N1	30:3:538:A:OP2	2.28	0.65
30:3:2141:A:N6	30:3:2164:G:O2'	2.29	0.65
30:3:2169:G:H4'	30:3:2170:A:H3'	1.79	0.65
30:3:2568:G:H2'	30:3:2569:A:H8	1.61	0.65
30:3:450:C:O2'	30:3:1871:U:O2	2.15	0.65
30:3:227:A:O2'	30:3:456:G:N3	2.26	0.64
30:3:604:A:OP2	30:3:2037:A:N6	2.28	0.64
30:3:608:A:H4'	30:3:2508:U:H4'	1.80	0.64
2:1:37:GLN:NE2	30:3:2371:U:OP2	2.31	0.64
30:3:294:G:O2'	30:3:295:U:O4'	2.10	0.64
30:3:774:A:N3	30:3:775:C:N4	2.45	0.64
30:3:1813:C:N4	30:3:1814:G:O6	2.30	0.64
30:3:2849:G:H22	30:3:2875:U:H3	1.45	0.64
30:3:495:U:O2	30:3:507:A:N6	2.31	0.64
30:3:1414:C:H2'	30:3:1415:A:H8	1.62	0.64
30:3:1160:G:OP2	30:3:1161:A:O2'	2.16	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2:35:ARG:HG2	3:2:36:GLN:H	1.62	0.64
30:3:534:U:H3	30:3:538:A:N6	1.93	0.64
30:3:597:C:H2'	30:3:598:G:H8	1.62	0.64
30:3:853:G:N1	30:3:1219:U:OP2	2.24	0.64
30:3:2299:U:H2'	30:3:2300:A:C8	2.33	0.64
30:3:1164:A:N3	30:3:2577:G:N2	2.43	0.64
30:3:713:C:H2'	30:3:714:G:H8	1.63	0.64
30:3:1294:G:N2	30:3:2023:U:O4	2.31	0.64
30:3:2308:U:H2'	30:3:2309:A:H8	1.62	0.64
30:3:2849:G:H2'	30:3:2850:G:C8	2.33	0.64
30:3:597:C:H2'	30:3:598:G:C8	2.33	0.63
30:3:784:A:H61	30:3:788:G:H21	1.45	0.63
30:3:1776:G:H2'	30:3:1777:G:H8	1.63	0.63
30:3:2054:C:H2'	30:3:2055:A:H8	1.64	0.63
30:3:1120:A:O2'	30:3:1139:C:O2	2.16	0.63
30:3:1470:C:H2'	30:3:1471:A:H8	1.63	0.63
30:3:2195:U:C4	30:3:2196:G:O6	2.52	0.63
30:3:1010:G:N2	30:3:1026:A:C8	2.66	0.63
30:3:2054:C:H2'	30:3:2055:A:C8	2.34	0.63
31:4:12:U:H2'	31:4:13:G:H21	1.62	0.63
30:3:1475:C:O2'	30:3:1577:A:N3	2.30	0.63
30:3:1949:C:OP2	30:3:1950:U:O2'	2.15	0.63
30:3:2062:C:H2'	30:3:2512:U:H4'	1.79	0.63
30:3:643:A:H62	30:3:655:G:N2	1.95	0.63
31:4:60:C:H2'	31:4:61:A:H8	1.64	0.63
30:3:421:A:N6	30:3:423:C:H2'	2.13	0.63
30:3:1400:U:H2'	30:3:1401:A:H8	1.64	0.63
30:3:410:G:H4'	30:3:411:U:O5'	1.98	0.62
30:3:2745:G:H2'	30:3:2746:A:H8	1.62	0.62
30:3:276:A:N6	30:3:293:G:O2'	2.32	0.62
1:0:22:MET:O	1:0:28:ARG:NH1	2.32	0.62
1:0:7:PRO:HA	30:3:721:G:H21	1.65	0.62
30:3:1032:A:H2'	30:3:1033:A:C8	2.35	0.62
30:3:334:A:O2'	30:3:352:C:O2	2.16	0.62
30:3:519:A:OP2	30:3:520:C:N4	2.32	0.62
30:3:739:G:H22	30:3:761:G:H1'	1.65	0.62
30:3:1355:C:N4	30:3:1681:G:O2'	2.33	0.62
30:3:746:G:H2'	30:3:747:A:H8	1.65	0.62
30:3:900:G:H21	30:3:903:A:H61	1.47	0.62
30:3:252:G:H5'	30:3:254:G:N1	2.14	0.62
30:3:788:G:H2'	30:3:789:A:H8	1.65	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:2088:U:H2'	30:3:2089:A:H8	1.65	0.62
3:2:4:ARG:NE	30:3:2474:C:OP1	2.20	0.62
30:3:2669:G:H2'	30:3:2670:A:C8	2.35	0.62
30:3:915:A:OP2	30:3:936:G:N2	2.22	0.62
30:3:522:C:H2'	30:3:523:A:H8	1.63	0.61
30:3:892:G:H2'	30:3:893:A:H8	1.64	0.61
30:3:1460:G:H2'	30:3:1461:A:C8	2.34	0.61
30:3:2303:U:H3	30:3:2345:G:H1	1.46	0.61
30:3:2847:C:H2'	30:3:2848:A:H8	1.65	0.61
30:3:192:U:H3	30:3:212:G:H1	1.46	0.61
30:3:513:A:H2'	30:3:514:A:C8	2.35	0.61
30:3:632:A:H2'	30:3:633:G:C8	2.35	0.61
30:3:1240:U:N3	30:3:1267:A:N7	2.48	0.61
30:3:1715:A:H4'	30:3:1733:G:H22	1.65	0.61
30:3:293:G:H2'	30:3:294:G:C5	2.36	0.61
30:3:1629:U:H2'	30:3:1630:A:C8	2.36	0.61
30:3:2297:G:H2'	30:3:2298:G:H8	1.64	0.61
30:3:1496:A:N6	30:3:1547:G:O2'	2.33	0.61
30:3:108:G:N2	30:3:380:A:N1	2.48	0.61
30:3:876:A:H2'	30:3:877:G:H8	1.64	0.61
30:3:2383:G:N2	30:3:2385:A:H3'	2.15	0.61
30:3:2465:U:O2	30:3:2502:G:O6	2.18	0.61
30:3:2796:C:O2'	30:3:2813:A:N7	2.31	0.61
30:3:609:U:N3	30:3:610:G:O6	2.32	0.61
30:3:1389:G:O2'	30:3:2223:C:O2'	2.16	0.61
30:3:1458:A:H61	30:3:1597:U:H3	1.47	0.61
30:3:326:A:N6	30:3:383:U:O2	2.32	0.61
30:3:2828:C:OP2	30:3:2829:G:N2	2.33	0.61
30:3:988:G:O6	30:3:1002:A:N6	2.34	0.61
30:3:1748:U:C2	30:3:1750:A:N7	2.68	0.61
30:3:2684:G:H2'	30:3:2685:A:H8	1.66	0.61
30:3:535:G:N3	30:3:540:A:C6	2.68	0.61
30:3:2736:U:O2'	30:3:2737:G:H8	1.82	0.61
30:3:1056:A:H2'	30:3:1057:G:H4'	1.83	0.61
30:3:1418:U:H3	30:3:1423:A:N6	1.99	0.61
30:3:2289:C:H4'	30:3:2397:G:H21	1.66	0.61
30:3:2552:G:H2'	30:3:2553:G:C8	2.36	0.61
30:3:2789:A:H5''	30:3:2790:A:H5'	1.82	0.61
30:3:522:C:H2'	30:3:523:A:C8	2.36	0.60
30:3:677:U:H2'	30:3:678:U:C2	2.36	0.60
30:3:824:A:N6	30:3:1648:A:OP2	2.34	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:1125:U:C4	30:3:1137:C:N3	2.69	0.60
30:3:2058:G:N2	30:3:2059:G:N7	2.47	0.60
30:3:2696:G:N2	30:3:2728:U:OP2	2.32	0.60
30:3:900:G:N2	30:3:903:A:H61	1.99	0.60
30:3:2599:C:H2'	30:3:2600:G:H8	1.65	0.60
31:4:23:A:OP2	31:4:25:A:N6	2.33	0.60
30:3:2568:G:H2'	30:3:2569:A:C8	2.35	0.60
30:3:1916:C:H2'	30:3:1917:G:H8	1.65	0.60
30:3:1297:U:H2'	30:3:1298:A:C8	2.35	0.60
30:3:1511:C:H2'	30:3:1512:A:H8	1.67	0.60
30:3:2094:A:C6	30:3:2095:A:N6	2.69	0.60
30:3:2521:A:H2'	30:3:2522:U:H6	1.65	0.60
30:3:1054:U:O2'	30:3:1056:A:N7	2.29	0.60
30:3:1111:C:H2'	30:3:1112:A:C8	2.36	0.60
30:3:1125:U:N3	30:3:1137:C:C2	2.70	0.60
30:3:1807:C:O2	30:3:1824:G:O6	2.19	0.60
1:0:19:LEU:HB2	30:3:126:C:H5'	1.83	0.60
2:1:9:LYS:NZ	30:3:253:C:O2	2.34	0.60
30:3:418:G:H1	30:3:430:U:H3	1.50	0.60
30:3:1932:C:N3	30:3:1936:G:N1	2.41	0.60
30:3:334:A:N3	30:3:367:G:N2	2.49	0.60
30:3:2045:C:H2'	30:3:2046:G:H8	1.66	0.60
30:3:2376:C:H2'	30:3:2377:A:H8	1.66	0.60
30:3:2645:U:H3'	30:3:2646:G:C8	2.37	0.60
30:3:640:U:O2	30:3:658:G:O6	2.19	0.60
30:3:1723:A:OP2	30:3:1732:A:N6	2.34	0.60
30:3:1851:U:H2'	30:3:1852:G:H8	1.66	0.60
30:3:2668:A:O2'	30:3:2669:G:H8	1.85	0.60
30:3:225:A:N7	30:3:463:U:O4	2.35	0.60
30:3:1067:A:H2	30:3:1157:G:H1	1.47	0.60
30:3:1431:A:HO2'	30:3:1497:A:HO2'	1.50	0.60
30:3:474:U:H2'	30:3:475:A:C8	2.37	0.59
30:3:1240:U:O2	30:3:1267:A:N6	2.32	0.59
30:3:1866:G:N1	30:3:1891:A:N7	2.50	0.59
30:3:2083:U:OP2	30:3:2246:G:N2	2.34	0.59
30:3:1008:A:H5''	30:3:1009:A:H5''	1.83	0.59
30:3:1543:U:H2'	30:3:1544:G:H8	1.66	0.59
30:3:1932:C:N4	30:3:1936:G:N2	2.36	0.59
30:3:2400:A:N7	30:3:2432:C:N3	2.50	0.59
30:3:515:A:H1'	30:3:517:G:H5''	1.84	0.59
30:3:787:C:OP2	30:3:1788:A:N6	2.35	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:32:G:O2'	30:3:1244:A:N3	2.33	0.59
30:3:1820:U:O2'	30:3:1821:G:OP1	2.20	0.59
30:3:27:U:H3'	30:3:28:G:C8	2.37	0.59
30:3:1062:A:H2'	30:3:1063:A:H8	1.67	0.59
30:3:359:G:H2'	30:3:360:G:C8	2.36	0.59
30:3:2156:G:H2'	30:3:2157:A:C8	2.31	0.59
30:3:69:U:H2'	30:3:70:G:C8	2.37	0.59
30:3:561:A:O2'	30:3:2050:G:N3	2.30	0.59
30:3:921:C:H2'	30:3:929:G:H1	1.68	0.59
30:3:2081:U:H2'	30:3:2082:U:H6	1.68	0.59
30:3:84:G:H21	30:3:106:C:H42	1.50	0.59
30:3:341:G:N2	30:3:364:A:N6	2.26	0.59
30:3:892:G:H2'	30:3:893:A:C8	2.38	0.59
30:3:2808:A:OP2	30:3:2811:G:N1	2.35	0.59
2:1:15:LYS:HG2	30:3:687:G:H5''	1.85	0.59
30:3:849:C:O2'	30:3:1255:G:N2	2.34	0.59
30:3:1020:G:OP2	30:3:1020:G:N2	2.32	0.59
1:0:39:ARG:NH2	30:3:504:G:O6	2.35	0.59
30:3:221:A:N7	30:3:467:U:O2	2.35	0.59
30:3:369:C:H2'	30:3:370:C:C6	2.38	0.59
30:3:641:U:H3'	30:3:655:G:H1	1.67	0.59
30:3:1335:A:OP2	30:3:1640:G:N2	2.35	0.59
30:3:1790:U:O2'	30:3:2615:G:N3	2.36	0.59
30:3:2213:A:H2'	30:3:2214:A:H8	1.68	0.59
30:3:29:G:N2	30:3:548:A:OP2	2.36	0.58
30:3:595:U:H3	30:3:2040:A:H2	1.50	0.58
30:3:1766:A:N6	30:3:2704:U:O2'	2.36	0.58
30:3:2359:G:O2'	30:3:2374:A:N6	2.36	0.58
30:3:2531:C:O2	30:3:2772:A:O2'	2.21	0.58
30:3:2700:C:H2'	30:3:2701:A:C8	2.36	0.58
30:3:337:U:H2'	30:3:338:G:H8	1.68	0.58
30:3:474:U:H2'	30:3:475:A:H8	1.68	0.58
30:3:339:U:H2'	30:3:340:U:C6	2.38	0.58
30:3:564:A:H5''	30:3:2049:A:H61	1.68	0.58
31:4:48:A:HO2'	31:4:49:G:H8	1.50	0.58
31:4:59:A:O2'	31:4:60:C:OP1	2.19	0.58
30:3:1546:U:H3'	30:3:1547:G:C8	2.38	0.58
30:3:1698:A:C6	30:3:2734:C:C2	2.91	0.58
30:3:2701:A:H2'	30:3:2702:G:C8	2.39	0.58
30:3:1861:A:O2'	30:3:2240:U:O2'	2.21	0.58
31:4:104:C:H2'	31:4:105:A:C8	2.37	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:823:A:H5''	30:3:825:U:H5	1.68	0.58
30:3:1485:A:O2'	30:3:1487:U:OP2	2.20	0.58
30:3:1500:A:N6	30:3:1544:G:O6	2.37	0.58
30:3:2191:G:H2'	30:3:2192:U:O4'	2.03	0.58
30:3:2856:G:O6	30:3:2869:U:O2	2.22	0.58
1:0:9:LYS:HG2	30:3:1337:G:H5''	1.84	0.58
30:3:26:G:H2'	30:3:27:U:H6	1.69	0.58
30:3:67:C:O2'	30:3:492:C:N3	2.28	0.58
30:3:1176:U:O2	30:3:1177:A:N6	2.37	0.58
30:3:1754:U:H2'	30:3:1755:A:C8	2.39	0.58
30:3:1760:G:N2	30:3:1763:G:OP2	2.31	0.58
30:3:234:G:H2'	30:3:235:U:C6	2.38	0.58
30:3:829:A:H2'	30:3:830:A:C8	2.39	0.58
30:3:1400:U:H2'	30:3:1401:A:C8	2.39	0.58
30:3:282:C:N3	30:3:286:A:O2'	2.34	0.58
30:3:334:A:H2	30:3:353:G:H21	1.50	0.58
30:3:590:U:H2'	30:3:591:G:H8	1.67	0.58
30:3:618:G:H3'	30:3:1281:A:H61	1.67	0.58
30:3:1337:G:H21	30:3:1645:C:H5'	1.69	0.58
30:3:1501:U:H3	30:3:1542:G:H1	1.50	0.58
30:3:341:G:N1	30:3:344:A:OP2	2.35	0.58
30:3:1125:U:O4	30:3:1137:C:N3	2.36	0.58
30:3:453:U:H2'	30:3:454:G:C8	2.36	0.57
30:3:548:A:H2'	30:3:549:A:C8	2.38	0.57
30:3:2299:U:O2	30:3:2382:A:O2'	2.21	0.57
30:3:43:A:H2'	30:3:44:A:H8	1.69	0.57
30:3:159:G:H2'	30:3:160:A:C8	2.39	0.57
30:3:1592:A:H4'	30:3:1593:U:H3'	1.86	0.57
30:3:1641:A:H4'	30:3:1642:G:C8	2.40	0.57
30:3:1766:A:H2'	30:3:1767:A:C8	2.39	0.57
30:3:2239:U:C4	30:3:2240:U:O4	2.56	0.57
31:4:23:A:H3'	31:4:24:A:H8	1.69	0.57
30:3:189:U:H4'	30:3:222:A:H4'	1.85	0.57
30:3:1070:U:O2	30:3:1155:G:O6	2.21	0.57
30:3:2143:G:O6	30:3:2162:U:O4	2.20	0.57
30:3:1639:C:O2	30:3:1642:G:N2	2.37	0.57
30:3:1831:G:H2'	30:3:1832:G:H8	1.69	0.57
30:3:2145:A:H2'	30:3:2146:A:C8	2.40	0.57
30:3:2299:U:H2'	30:3:2300:A:H8	1.69	0.57
30:3:2451:C:H2'	30:3:2452:G:H8	1.70	0.57
30:3:2454:G:N2	30:3:2457:U:O2	2.30	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:2829:G:N2	30:3:2829:G:OP2	2.37	0.57
30:3:101:C:H5''	30:3:102:A:H2'	1.87	0.57
30:3:394:C:H2'	30:3:395:U:O4'	2.04	0.57
30:3:1761:C:N3	30:3:2724:U:O2'	2.34	0.57
30:3:1793:A:O2'	30:3:1945:A:N6	2.36	0.57
30:3:1932:C:H2'	30:3:1933:U:C6	2.38	0.57
30:3:2068:G:O2'	30:3:2071:C:N4	2.37	0.57
30:3:47:G:H21	30:3:184:A:N6	2.02	0.57
30:3:874:U:H2'	30:3:875:G:H8	1.70	0.57
30:3:1116:U:H2'	30:3:1117:U:C6	2.40	0.57
30:3:1495:A:OP2	30:3:1548:A:N6	2.36	0.57
30:3:1848:U:H2'	30:3:1849:G:H8	1.69	0.57
30:3:2700:C:O2'	30:3:2851:U:O2	2.16	0.57
30:3:2885:U:H2'	30:3:2886:A:C8	2.40	0.57
30:3:337:U:H2'	30:3:338:G:C8	2.40	0.57
30:3:618:G:H21	30:3:1284:A:H62	1.52	0.57
30:3:740:A:N6	30:3:760:G:O2'	2.38	0.57
30:3:1979:G:H2'	30:3:1980:G:C8	2.40	0.57
30:3:2025:C:H2'	30:3:2026:A:C8	2.40	0.57
30:3:2701:A:H2'	30:3:2702:G:H8	1.68	0.57
3:2:33:LYS:HZ3	30:3:2535:C:H5'	1.69	0.57
30:3:534:U:H2'	30:3:535:G:O4'	2.04	0.57
30:3:1097:G:H2'	30:3:1098:G:H8	1.70	0.57
30:3:2475:C:H2'	30:3:2476:A:C8	2.39	0.57
1:0:2:LYS:NZ	30:3:722:C:O3'	2.38	0.57
30:3:343:A:N3	30:3:363:G:O2'	2.37	0.57
30:3:627:U:H2'	30:3:628:A:H8	1.70	0.57
30:3:1746:U:H3	30:3:1753:G:H1	1.52	0.57
30:3:2451:C:H2'	30:3:2452:G:C8	2.40	0.57
30:3:2819:C:H2'	30:3:2820:G:H8	1.70	0.57
30:3:563:A:N6	30:3:2050:G:OP2	2.33	0.56
30:3:957:G:H21	30:3:2277:A:H8	1.52	0.56
30:3:1441:A:H2'	30:3:1442:G:C8	2.40	0.56
30:3:1504:G:H2'	30:3:1505:G:H8	1.70	0.56
30:3:1697:C:N4	30:3:1999:G:O2'	2.36	0.56
30:3:1798:A:N6	30:3:1835:G:H1'	2.20	0.56
30:3:2381:G:H2'	30:3:2382:A:H8	1.70	0.56
30:3:69:U:H2'	30:3:70:G:H8	1.69	0.56
30:3:1012:G:HO2'	30:3:1190:A:HO2'	1.52	0.56
30:3:1520:A:H2'	30:3:1521:A:C8	2.40	0.56
30:3:1698:A:C5	30:3:2734:C:N3	2.73	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:1866:G:O6	30:3:1891:A:N6	2.38	0.56
30:3:2013:C:H2'	30:3:2014:U:C6	2.40	0.56
30:3:2200:U:H2'	30:3:2201:G:H8	1.70	0.56
30:3:2522:U:H2'	30:3:2523:C:C6	2.40	0.56
30:3:87:G:H2'	30:3:88:G:C8	2.39	0.56
30:3:450:C:O3'	30:3:1885:G:N2	2.38	0.56
30:3:1356:G:N2	30:3:1681:G:O6	2.39	0.56
30:3:1691:U:H2'	30:3:1692:A:C8	2.40	0.56
30:3:2045:C:H2'	30:3:2046:G:C8	2.39	0.56
30:3:2151:G:O2'	30:3:2154:A:N1	2.34	0.56
30:3:2278:G:H3'	30:3:2279:G:H8	1.69	0.56
30:3:2522:U:H2'	30:3:2523:C:H6	1.69	0.56
30:3:2539:A:N6	30:3:2670:A:H61	2.01	0.56
30:3:2663:G:N2	30:3:2673:A:OP2	2.32	0.56
30:3:805:G:H2'	30:3:806:A:C8	2.41	0.56
30:3:1490:G:H2'	30:3:1491:G:C8	2.41	0.56
30:3:2359:G:N2	30:3:2374:A:OP2	2.38	0.56
30:3:2825:A:H2	30:3:2830:A:H61	1.53	0.56
30:3:29:G:N7	30:3:547:G:N2	2.53	0.56
30:3:1182:U:H2'	30:3:1183:A:H8	1.69	0.56
30:3:2142:U:OP2	30:3:2144:C:N4	2.38	0.56
30:3:219:G:H21	30:3:468:A:H61	1.54	0.56
30:3:1143:U:H2'	30:3:1144:C:H5	1.71	0.56
30:3:1301:G:H2'	30:3:1651:C:H4'	1.87	0.56
30:3:1954:C:H2'	30:3:1955:G:C8	2.41	0.56
30:3:2088:U:H2'	30:3:2089:A:C8	2.41	0.56
30:3:195:A:H2'	30:3:196:G:C8	2.41	0.56
30:3:1253:G:N1	30:3:1256:A:OP2	2.30	0.56
30:3:1509:U:O4	30:3:1510:A:N6	2.38	0.56
30:3:1645:C:H2'	30:3:1646:G:C8	2.40	0.56
30:3:2022:A:HO2'	30:3:2064:G:HO2'	1.45	0.56
30:3:2097:A:N6	30:3:2238:G:O6	2.39	0.56
30:3:54:A:N1	30:3:182:C:H1'	2.21	0.56
30:3:631:A:H2'	30:3:632:A:C8	2.41	0.56
30:3:881:A:N7	30:3:968:U:N3	2.53	0.56
30:3:1296:G:N2	30:3:2020:A:OP2	2.39	0.56
30:3:1699:A:H2'	30:3:1700:G:C8	2.40	0.56
30:3:2380:U:H2'	30:3:2381:G:C8	2.41	0.56
30:3:9:G:O6	30:3:2899:C:N4	2.39	0.56
30:3:788:G:H2'	30:3:789:A:C8	2.41	0.56
30:3:1345:G:H2'	30:3:1346:G:H8	1.71	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:1914:G:H1	30:3:1930:U:H3	1.53	0.56
30:3:2533:A:H2'	30:3:2534:G:H8	1.71	0.56
30:3:1321:C:H2'	30:3:1322:A:C8	2.39	0.55
30:3:1692:A:H2'	30:3:1693:U:C6	2.41	0.55
30:3:2099:U:N3	30:3:2234:C:OP2	2.39	0.55
30:3:2175:U:C2	30:3:2179:A:N7	2.74	0.55
30:3:2315:G:H5'	30:3:2316:G:C8	2.40	0.55
30:3:37:G:O2'	30:3:490:A:O5'	2.24	0.55
30:3:107:C:H2'	30:3:108:G:H8	1.71	0.55
30:3:563:A:O2'	30:3:565:C:N4	2.38	0.55
30:3:869:U:H2'	30:3:870:A:C8	2.41	0.55
30:3:1406:A:O2'	30:3:1408:G:OP2	2.24	0.55
30:3:1691:U:H2'	30:3:1692:A:H8	1.69	0.55
30:3:1979:G:H2'	30:3:1980:G:H8	1.72	0.55
31:4:12:U:H2'	31:4:13:G:N2	2.21	0.55
30:3:192:U:H1'	30:3:1393:A:N6	2.21	0.55
30:3:713:C:H2'	30:3:714:G:C8	2.42	0.55
30:3:812:G:H2'	30:3:813:G:H8	1.72	0.55
30:3:1449:G:H2'	30:3:1450:G:H8	1.72	0.55
30:3:2421:U:H2'	30:3:2422:G:H8	1.72	0.55
31:4:61:A:H2'	31:4:62:G:C8	2.40	0.55
1:0:7:PRO:HB2	1:0:9:LYS:NZ	2.21	0.55
30:3:1511:C:H2'	30:3:1512:A:C8	2.42	0.55
30:3:2308:U:H2'	30:3:2309:A:C8	2.42	0.55
30:3:2447:A:H1'	30:3:2595:A:H4'	1.87	0.55
30:3:2483:C:H42	30:3:2537:G:N2	2.04	0.55
31:4:104:C:H2'	31:4:105:A:H8	1.72	0.55
30:3:117:C:H2'	30:3:118:G:O4'	2.05	0.55
30:3:454:G:H2'	30:3:455:G:H8	1.70	0.55
30:3:768:G:N2	30:3:769:A:N7	2.55	0.55
30:3:1431:A:O2'	30:3:1497:A:O2'	2.21	0.55
30:3:2072:C:H5'	30:3:2259:G:H21	1.71	0.55
30:3:2078:A:H2'	30:3:2079:G:H8	1.72	0.55
30:3:2393:C:H2'	30:3:2394:A:C8	2.42	0.55
1:0:24:THR:HG23	1:0:27:GLY:H	1.70	0.55
30:3:47:G:H21	30:3:184:A:H61	1.54	0.55
30:3:224:G:N2	30:3:465:A:H61	2.05	0.55
30:3:764:G:H8	30:3:799:A:H5''	1.70	0.55
30:3:1182:U:H2'	30:3:1183:A:C8	2.41	0.55
30:3:1931:C:H2'	30:3:1932:C:C6	2.42	0.55
30:3:2892:U:H2'	30:3:2893:C:C6	2.42	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:1117:U:H2'	30:3:1118:U:O4'	2.06	0.55
30:3:2129:U:H2'	30:3:2130:A:C8	2.38	0.55
3:2:5:ALA:HB3	30:3:2474:C:H5'	1.88	0.55
30:3:225:A:N6	30:3:463:U:H3	2.02	0.55
30:3:422:A:OP1	30:3:423:C:N4	2.28	0.55
30:3:451:A:O2'	30:3:1873:A:OP2	2.24	0.55
30:3:700:U:H2'	30:3:701:A:C8	2.42	0.55
30:3:1687:G:N1	30:3:2009:U:OP2	2.39	0.55
30:3:1934:A:H2'	30:3:1935:A:C8	2.41	0.55
30:3:2650:A:H2'	30:3:2651:G:C8	2.41	0.55
1:0:10:LEU:HD22	30:3:805:G:H5''	1.88	0.55
30:3:730:G:H2'	30:3:731:A:C8	2.41	0.55
30:3:2693:U:H2'	30:3:2694:A:C8	2.40	0.55
30:3:2764:U:H1'	30:3:2765:A:H5''	1.87	0.55
2:1:6:ALA:O	2:1:10:ARG:NH1	2.40	0.55
30:3:134:U:H2'	30:3:135:A:H8	1.71	0.55
30:3:990:G:O6	30:3:999:U:O4	2.24	0.55
30:3:1320:C:H2'	30:3:1321:C:C6	2.42	0.55
30:3:1476:C:H2'	30:3:1477:A:C8	2.42	0.55
30:3:2483:C:N4	30:3:2537:G:N2	2.54	0.55
30:3:2572:A:C2	30:3:2656:G:H5'	2.42	0.55
30:3:2744:A:H61	30:3:2776:U:H3	1.55	0.55
30:3:533:G:H2'	30:3:534:U:H6	1.72	0.54
30:3:567:U:N3	30:3:2027:G:O2'	2.38	0.54
30:3:714:G:H2'	30:3:715:G:H8	1.72	0.54
30:3:947:A:H1'	30:3:2272:C:O2'	2.07	0.54
30:3:1213:U:H2'	30:3:1214:U:C6	2.43	0.54
30:3:2667:G:N2	30:3:2670:A:OP2	2.39	0.54
30:3:2745:G:H2'	30:3:2746:A:C8	2.41	0.54
1:0:41:GLN:HG3	1:0:47:GLU:HG2	1.89	0.54
30:3:697:U:H2'	30:3:698:A:C8	2.42	0.54
30:3:1298:A:H2'	30:3:1299:A:O4'	2.07	0.54
30:3:1334:U:H2'	30:3:1335:A:H8	1.71	0.54
30:3:2077:A:H2'	30:3:2078:A:H8	1.71	0.54
30:3:26:G:O6	30:3:552:C:N4	2.41	0.54
30:3:675:U:H2'	30:3:676:U:C5	2.42	0.54
30:3:1544:G:H2'	30:3:1545:A:H8	1.72	0.54
30:3:1778:G:H2'	30:3:1779:G:C8	2.43	0.54
30:3:2005:G:HO2'	30:3:2732:A:HO2'	1.50	0.54
30:3:2471:U:H2'	30:3:2472:G:C8	2.42	0.54
30:3:2474:C:N4	30:3:2475:C:H41	2.04	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:4:38:U:HO2'	31:4:40:U:HO2'	1.48	0.54
30:3:464:A:H5''	30:3:465:A:N7	2.22	0.54
30:3:505:G:HO2'	30:3:506:A:H8	1.55	0.54
30:3:604:A:N6	30:3:2508:U:OP1	2.40	0.54
30:3:631:A:H2'	30:3:632:A:H8	1.72	0.54
30:3:775:C:H5''	30:3:1791:A:P	2.48	0.54
30:3:1348:C:O2'	30:3:1358:C:N4	2.34	0.54
30:3:1798:A:H61	30:3:1835:G:H1'	1.73	0.54
30:3:2481:U:OP1	30:3:2483:C:N4	2.40	0.54
30:3:2504:C:OP2	30:3:2505:A:N6	2.40	0.54
30:3:17:G:O6	30:3:560:U:O4	2.26	0.54
30:3:223:A:N6	30:3:464:A:OP2	2.41	0.54
30:3:243:U:H2'	30:3:244:G:O4'	2.07	0.54
30:3:358:A:N6	30:3:373:U:O4'	2.40	0.54
30:3:465:A:H2'	30:3:466:A:C8	2.42	0.54
30:3:899:A:H2'	30:3:900:G:C4	2.42	0.54
30:3:1042:C:H2'	30:3:1043:C:C6	2.43	0.54
30:3:1588:A:H2'	30:3:1589:A:C8	2.42	0.54
30:3:2885:U:H2'	30:3:2886:A:H8	1.73	0.54
30:3:1543:U:H2'	30:3:1544:G:C8	2.42	0.54
30:3:1837:C:H2'	30:3:1838:A:C8	2.43	0.54
30:3:2436:G:H4'	30:3:2437:G:C5	2.42	0.54
30:3:772:C:H2'	30:3:773:G:C8	2.43	0.54
30:3:894:G:N3	30:3:2276:A:H2'	2.23	0.54
30:3:1063:A:OP2	30:3:1161:A:N6	2.39	0.54
30:3:2791:U:H2'	30:3:2792:C:C6	2.43	0.54
30:3:488:G:H21	30:3:493:A:H1'	1.72	0.54
30:3:1867:G:H2'	30:3:1868:A:H8	1.73	0.54
30:3:2667:G:H2'	30:3:2668:A:H2'	1.88	0.54
3:2:27:CYS:SG	3:2:28:LYS:N	2.81	0.54
30:3:1273:U:H2'	30:3:1274:A:C8	2.43	0.54
30:3:2108:C:N4	30:3:2109:A:H61	1.92	0.54
30:3:2664:U:H2'	30:3:2665:A:H8	1.73	0.54
30:3:614:C:H2'	30:3:615:G:H8	1.72	0.54
30:3:1244:A:H4'	30:3:1269:C:H4'	1.90	0.54
30:3:1549:U:H3'	30:3:1550:G:H8	1.72	0.54
30:3:2421:U:H2'	30:3:2422:G:C8	2.42	0.54
30:3:341:G:H2'	30:3:343:A:N7	2.22	0.53
30:3:590:U:H2'	30:3:591:G:C8	2.43	0.53
30:3:1200:U:H2'	30:3:1201:A:C8	2.42	0.53
30:3:1229:U:H2'	30:3:1230:U:C6	2.43	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:1473:C:O2	30:3:1580:G:N2	2.40	0.53
30:3:2146:A:H2'	30:3:2147:G:C8	2.43	0.53
31:4:11:A:OP1	31:4:13:G:N1	2.41	0.53
30:3:251:G:OP2	30:3:253:C:N4	2.42	0.53
30:3:461:C:H2'	30:3:462:C:C6	2.43	0.53
30:3:526:G:H2'	30:3:527:A:C8	2.44	0.53
30:3:612:G:H4'	30:3:2024:C:H2'	1.89	0.53
30:3:1136:U:H2'	30:3:1137:C:C6	2.43	0.53
30:3:1546:U:H3'	30:3:1547:G:H8	1.71	0.53
30:3:1723:A:H61	30:3:1731:G:H2'	1.74	0.53
30:3:1840:C:O2'	30:3:1976:A:N6	2.41	0.53
30:3:360:G:H2'	30:3:361:G:C8	2.42	0.53
30:3:587:U:H2'	30:3:588:G:C8	2.44	0.53
30:3:720:A:H1'	30:3:724:A:N6	2.22	0.53
30:3:729:U:H3	30:3:803:G:H1	1.56	0.53
30:3:811:G:C8	30:3:2249:A:H5''	2.39	0.53
30:3:1667:G:N7	30:3:1669:A:N6	2.55	0.53
30:3:1828:A:H2'	30:3:1829:U:C6	2.44	0.53
30:3:2552:G:H1'	30:3:2654:U:H4'	1.91	0.53
30:3:1065:G:O6	30:3:1160:G:N2	2.41	0.53
30:3:1415:A:H2'	30:3:1416:G:C8	2.44	0.53
30:3:1589:A:H2'	30:3:1590:U:C6	2.44	0.53
30:3:1645:C:H2'	30:3:1646:G:H8	1.72	0.53
30:3:2176:G:N1	30:3:2179:A:OP2	2.42	0.53
30:3:739:G:H21	30:3:762:A:H62	1.56	0.53
30:3:897:A:H2	31:4:76:A:H2	1.57	0.53
30:3:1659:C:H3'	30:3:1660:A:H8	1.74	0.53
30:3:535:G:N3	30:3:540:A:N1	2.57	0.53
30:3:1125:U:C4	30:3:1137:C:C2	2.95	0.53
30:3:2386:A:O2'	30:3:2387:U:OP1	2.25	0.53
30:3:454:G:H2'	30:3:455:G:C8	2.44	0.53
30:3:500:U:O4	30:3:823:A:N6	2.42	0.53
30:3:566:G:OP1	30:3:594:G:N2	2.42	0.53
30:3:1084:C:H41	30:3:1145:G:H21	1.57	0.53
30:3:1536:C:H2'	30:3:1537:A:C8	2.44	0.53
30:3:2093:U:H2'	30:3:2094:A:C8	2.44	0.53
30:3:2209:U:H2'	30:3:2210:G:C8	2.43	0.53
30:3:2382:A:H2'	30:3:2383:G:C8	2.44	0.53
30:3:2670:A:H3'	30:3:2671:G:H8	1.73	0.53
30:3:2870:U:H4'	30:3:2871:G:H4'	1.89	0.53
30:3:134:U:H2'	30:3:135:A:C8	2.44	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:535:G:N2	30:3:540:A:C5	2.75	0.53
30:3:694:U:H2'	30:3:695:G:H8	1.73	0.53
30:3:1462:A:O2'	30:3:1463:G:O5'	2.25	0.53
30:3:1097:G:C8	30:3:1123:A:C8	2.97	0.53
30:3:1239:G:H4'	30:3:1242:G:H4'	1.91	0.53
30:3:2117:G:O2'	30:3:2127:G:H5'	2.08	0.53
30:3:2146:A:H2'	30:3:2147:G:H8	1.73	0.53
30:3:85:U:O4	30:3:103:G:O2'	2.26	0.53
30:3:558:C:H2'	30:3:559:C:C6	2.43	0.53
30:3:1227:C:H2'	30:3:1228:G:C8	2.44	0.53
30:3:1288:C:H2'	30:3:1289:G:C8	2.44	0.53
30:3:2655:U:HO2'	30:3:2656:G:H8	1.57	0.53
31:4:85:A:H2'	31:4:86:G:H8	1.73	0.53
3:2:35:ARG:NH1	30:3:2750:A:OP1	2.41	0.52
30:3:338:G:H2'	30:3:339:U:C6	2.43	0.52
30:3:596:G:H2'	30:3:597:C:C6	2.43	0.52
30:3:1248:A:H2'	30:3:1249:A:C8	2.44	0.52
30:3:1381:A:OP2	30:3:1405:G:N1	2.33	0.52
30:3:2126:A:H2	30:3:2178:A:H2'	1.74	0.52
30:3:2446:U:O2'	30:3:2448:C:OP1	2.26	0.52
30:3:18:G:H2'	30:3:19:G:C8	2.44	0.52
30:3:47:G:H2'	30:3:219:G:C5	2.44	0.52
30:3:70:G:N2	30:3:76:A:O4'	2.43	0.52
30:3:840:G:OP2	30:3:841:C:N4	2.42	0.52
30:3:1007:C:H1'	30:3:1019:A:H2	1.74	0.52
30:3:1463:G:H2'	30:3:1464:G:C8	2.43	0.52
30:3:178:A:C6	30:3:179:A:C6	2.98	0.52
30:3:214:C:H2'	30:3:215:A:C8	2.45	0.52
30:3:851:U:H2'	30:3:852:C:C6	2.44	0.52
30:3:911:U:H3	30:3:940:A:H61	1.57	0.52
30:3:1036:A:H2'	30:3:1037:A:C8	2.45	0.52
30:3:1044:C:H1'	30:3:1045:A:N7	2.24	0.52
30:3:1200:U:O4	30:3:1215:G:O6	2.28	0.52
30:3:1381:A:H2'	30:3:1382:A:C5	2.44	0.52
30:3:2297:G:H2'	30:3:2298:G:C8	2.43	0.52
31:4:42:G:H1'	31:4:45:C:H42	1.74	0.52
30:3:189:U:H2'	30:3:190:G:C8	2.44	0.52
30:3:1328:A:P	30:3:1661:A:H62	2.33	0.52
30:3:2224:A:H2'	30:3:2225:G:H8	1.74	0.52
30:3:2320:U:H2'	30:3:2321:C:C6	2.44	0.52
30:3:2383:G:N2	30:3:2386:A:OP2	2.30	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:2652:U:H2'	30:3:2653:G:C4	2.44	0.52
30:3:351:G:H2'	30:3:352:C:C6	2.43	0.52
30:3:697:U:H2'	30:3:698:A:H8	1.74	0.52
30:3:1001:C:H2'	30:3:1002:A:H8	1.75	0.52
30:3:2358:U:H2'	30:3:2359:G:O4'	2.09	0.52
30:3:2713:A:H2'	30:3:2714:G:O4'	2.10	0.52
30:3:204:U:O2	30:3:424:G:N2	2.32	0.52
30:3:293:G:H2'	30:3:294:G:C6	2.45	0.52
30:3:338:G:H2'	30:3:339:U:H6	1.74	0.52
30:3:1227:C:H2'	30:3:1228:G:H8	1.73	0.52
30:3:1768:G:H2'	30:3:1769:A:C4	2.44	0.52
30:3:2738:U:O2'	30:3:2739:C:H5'	2.09	0.52
30:3:17:G:N2	30:3:560:U:O2	2.35	0.52
30:3:60:G:O2'	30:3:75:A:N1	2.36	0.52
30:3:279:U:N3	30:3:291:G:O6	2.43	0.52
30:3:342:G:C2	30:3:513:A:C6	2.98	0.52
30:3:1228:G:N2	30:3:1279:U:O2	2.35	0.52
30:3:1383:G:H2'	30:3:1384:C:H6	1.74	0.52
30:3:1385:U:H2'	30:3:1386:G:O4'	2.10	0.52
30:3:2060:G:OP2	30:3:2585:A:N6	2.43	0.52
30:3:2106:G:N2	30:3:2199:C:N3	2.57	0.52
30:3:2387:U:H2'	30:3:2388:C:H6	1.74	0.52
31:4:31:G:O6	31:4:48:A:N6	2.42	0.52
30:3:144:C:H2'	30:3:145:A:H8	1.75	0.52
30:3:389:C:H2'	30:3:390:A:C8	2.45	0.52
30:3:682:A:C2	30:3:683:G:H1'	2.44	0.52
30:3:730:G:H2'	30:3:731:A:H8	1.75	0.52
30:3:1200:U:H2'	30:3:1201:A:H8	1.73	0.52
30:3:1288:C:H2'	30:3:1289:G:H8	1.75	0.52
30:3:633:G:H1	30:3:692:U:H3	1.57	0.52
30:3:1441:A:H2'	30:3:1442:G:H8	1.74	0.52
30:3:2341:G:H5''	30:3:2343:A:N3	2.25	0.52
2:1:14:THR:OG1	2:1:17:GLY:O	2.27	0.52
30:3:517:G:O2'	30:3:518:A:OP2	2.27	0.52
30:3:585:U:H2'	30:3:586:G:C8	2.40	0.52
30:3:1801:U:H2'	30:3:1802:C:C6	2.45	0.52
30:3:1927:C:H2'	30:3:1928:G:C8	2.45	0.52
30:3:2078:A:H2'	30:3:2079:G:C8	2.45	0.52
30:3:2388:C:H2'	30:3:2389:A:H8	1.75	0.52
30:3:2475:C:N4	30:3:2492:G:O6	2.43	0.52
30:3:2651:G:N1	30:3:2780:U:C2	2.77	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:17:G:H2'	30:3:18:G:C8	2.44	0.51
30:3:201:A:H62	30:3:2438:A:H2'	1.75	0.51
30:3:666:G:N2	30:3:668:A:H3'	2.25	0.51
30:3:749:U:H1'	30:3:752:C:H5	1.75	0.51
30:3:1345:G:H2'	30:3:1346:G:C8	2.46	0.51
30:3:1995:G:H2'	30:3:1996:A:C8	2.45	0.51
30:3:2205:U:O2	30:3:2206:A:O2'	2.25	0.51
30:3:17:G:H2'	30:3:18:G:H8	1.76	0.51
30:3:293:G:H2'	30:3:294:G:C4	2.44	0.51
30:3:627:U:H2'	30:3:628:A:C8	2.46	0.51
30:3:1208:A:H2'	30:3:1209:U:H4'	1.92	0.51
30:3:1628:G:H2'	30:3:1629:U:C6	2.45	0.51
30:3:1959:A:N3	30:3:2568:G:O2'	2.38	0.51
30:3:107:C:O2	30:3:328:A:O2'	2.22	0.51
30:3:1097:G:H2'	30:3:1098:G:C8	2.44	0.51
31:4:61:A:H2'	31:4:62:G:H8	1.75	0.51
30:3:340:U:H2'	30:3:341:G:O4'	2.11	0.51
30:3:638:A:N6	30:3:661:G:O6	2.44	0.51
30:3:769:A:H3'	30:3:770:A:H8	1.75	0.51
30:3:2197:U:H2'	30:3:2198:G:C8	2.45	0.51
30:3:173:C:H2'	30:3:174:A:C8	2.46	0.51
30:3:533:G:H2'	30:3:534:U:C6	2.44	0.51
30:3:712:A:H61	30:3:835:U:H3	1.58	0.51
30:3:1087:C:H2'	30:3:1088:A:H8	1.76	0.51
30:3:1383:G:H2'	30:3:1384:C:C6	2.45	0.51
30:3:1443:A:H2'	30:3:1444:C:H3'	1.92	0.51
30:3:2121:A:H3'	30:3:2122:G:H8	1.74	0.51
30:3:2200:U:H2'	30:3:2201:G:C8	2.45	0.51
30:3:2332:U:H1'	30:3:2345:G:H5''	1.93	0.51
30:3:2614:U:H2'	30:3:2615:G:C8	2.46	0.51
30:3:2624:C:H2'	30:3:2625:U:H6	1.76	0.51
30:3:2781:C:H2'	30:3:2782:A:C8	2.46	0.51
30:3:2859:U:H2'	30:3:2860:A:C8	2.45	0.51
30:3:483:A:N1	30:3:490:A:O2'	2.31	0.51
30:3:513:A:O2'	30:3:514:A:O4'	2.28	0.51
30:3:546:U:H4'	30:3:1265:G:H4'	1.91	0.51
30:3:764:G:C8	30:3:799:A:H5''	2.45	0.51
30:3:890:U:H2'	30:3:891:G:H8	1.75	0.51
30:3:1005:G:H2'	30:3:1006:U:C6	2.46	0.51
30:3:2249:A:H2'	30:3:2250:G:C8	2.46	0.51
30:3:2555:U:OP2	30:3:2574:A:O2'	2.29	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:251:G:H2'	30:3:254:G:N7	2.26	0.51
30:3:1852:G:O6	30:3:1903:A:N6	2.43	0.51
30:3:2148:U:H2'	30:3:2149:U:H6	1.75	0.51
30:3:2213:A:H2'	30:3:2214:A:C8	2.46	0.51
30:3:2567:C:H2'	30:3:2568:G:H8	1.76	0.51
30:3:2585:A:H5'	30:3:2620:C:N4	2.25	0.51
30:3:2748:A:OP2	30:3:2771:G:N1	2.41	0.51
3:2:37:GLY:HA3	30:3:1066:G:H21	1.76	0.51
30:3:34:C:H2'	30:3:35:U:C6	2.45	0.51
30:3:263:C:H2'	30:3:264:G:H8	1.75	0.51
30:3:316:C:H1'	30:3:392:A:H61	1.74	0.51
30:3:389:C:H2'	30:3:390:A:H8	1.75	0.51
30:3:720:A:H1'	30:3:724:A:H61	1.75	0.51
30:3:1195:A:H2'	30:3:1196:U:C6	2.46	0.51
30:3:1910:G:H2'	30:3:1911:G:C8	2.45	0.51
30:3:342:G:N2	30:3:513:A:N1	2.59	0.51
30:3:517:G:N2	30:3:541:G:O4'	2.44	0.51
30:3:720:A:O2'	30:3:808:U:O4	2.24	0.51
30:3:959:C:H2'	30:3:960:A:H8	1.75	0.51
30:3:1010:G:O4'	30:3:1026:A:N6	2.44	0.51
30:3:2122:G:H21	30:3:2179:A:N6	2.08	0.51
30:3:2387:U:H2'	30:3:2388:C:C6	2.45	0.51
30:3:96:A:H3'	30:3:97:A:H8	1.76	0.51
30:3:178:A:C6	30:3:179:A:N6	2.79	0.51
30:3:530:G:H2'	30:3:531:G:C8	2.46	0.51
30:3:599:U:H2'	30:3:600:U:C6	2.45	0.51
30:3:860:C:H4'	30:3:2436:G:N7	2.26	0.51
30:3:1289:G:H2'	30:3:1290:G:C8	2.46	0.51
30:3:1446:G:H2'	30:3:1612:U:C5	2.46	0.51
30:3:1501:U:O2	30:3:1542:G:N2	2.39	0.51
30:3:1960:A:O2'	30:3:2567:C:O2	2.25	0.51
30:3:2258:G:O2'	30:3:2504:C:OP1	2.24	0.51
30:3:2309:A:H2'	30:3:2310:C:C6	2.46	0.51
30:3:2651:G:N1	30:3:2780:U:N3	2.59	0.51
30:3:2815:G:O6	30:3:2894:G:N2	2.44	0.51
30:3:2893:C:H2'	30:3:2894:G:O4'	2.10	0.51
3:2:35:ARG:HH12	30:3:2750:A:P	2.35	0.50
30:3:159:G:H2'	30:3:160:A:H8	1.74	0.50
30:3:235:U:H2'	30:3:236:G:C8	2.47	0.50
30:3:1230:U:H2'	30:3:1231:G:C8	2.46	0.50
30:3:1342:C:H5'	30:3:1644:A:N1	2.26	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:1867:G:H2'	30:3:1868:A:C8	2.46	0.50
30:3:2624:C:H2'	30:3:2625:U:C6	2.46	0.50
30:3:2796:C:H2'	30:3:2797:C:C6	2.46	0.50
30:3:178:A:N6	30:3:179:A:N6	2.60	0.50
30:3:1297:U:H2'	30:3:1298:A:H8	1.75	0.50
30:3:1627:U:H2'	30:3:1628:G:C8	2.45	0.50
30:3:1815:U:O2'	30:3:1816:A:H8	1.94	0.50
30:3:2524:U:H2'	30:3:2525:C:C6	2.45	0.50
30:3:512:G:N2	30:3:514:A:H3'	2.26	0.50
30:3:1627:U:H2'	30:3:1628:G:H8	1.76	0.50
30:3:1916:C:H2'	30:3:1917:G:C8	2.46	0.50
30:3:2828:C:H3'	30:3:2829:G:N2	2.23	0.50
30:3:90:G:H2'	30:3:91:G:H8	1.77	0.50
30:3:332:G:N2	30:3:375:U:O4	2.45	0.50
30:3:707:C:H2'	30:3:708:C:C6	2.45	0.50
30:3:1079:U:O2'	30:3:1146:A:N1	2.33	0.50
30:3:1260:U:H2'	30:3:1261:U:C6	2.47	0.50
30:3:1381:A:H2'	30:3:1382:A:C4	2.46	0.50
30:3:2148:U:H2'	30:3:2149:U:C6	2.46	0.50
30:3:2328:A:O2'	30:3:2330:A:N6	2.30	0.50
30:3:2388:C:H2'	30:3:2389:A:C8	2.46	0.50
30:3:2483:C:N4	30:3:2537:G:H22	2.09	0.50
30:3:349:G:H2'	30:3:350:C:C6	2.47	0.50
30:3:1257:G:H2'	30:3:1258:C:C6	2.46	0.50
30:3:1662:G:H2'	30:3:1663:G:H8	1.76	0.50
30:3:1722:U:O2'	30:3:1734:A:N7	2.37	0.50
30:3:2385:A:H2'	30:3:2386:A:C4	2.46	0.50
30:3:2740:U:H5''	30:3:2741:A:O4'	2.11	0.50
30:3:163:A:N3	30:3:2216:U:O2'	2.40	0.50
30:3:292:G:H3'	30:3:293:G:C8	2.47	0.50
30:3:487:C:H41	30:3:490:A:P	2.34	0.50
30:3:512:G:H2'	30:3:513:A:H3'	1.93	0.50
30:3:548:A:H2	30:3:615:G:H4'	1.74	0.50
30:3:762:A:H3'	30:3:763:G:H8	1.76	0.50
30:3:1436:C:H2'	30:3:1437:A:C8	2.47	0.50
30:3:1461:A:H2'	30:3:1462:A:C8	2.47	0.50
30:3:2806:A:OP2	30:3:2898:A:O2'	2.28	0.50
30:3:154:U:H2'	30:3:155:A:H8	1.76	0.50
30:3:500:U:O2'	30:3:501:G:OP1	2.25	0.50
30:3:852:C:H2'	30:3:853:G:O4'	2.12	0.50
30:3:897:A:O2'	31:4:77:G:H4'	2.12	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:958:C:H2'	30:3:959:C:C6	2.47	0.50
30:3:1054:U:OP1	30:3:1070:U:O2'	2.23	0.50
30:3:1137:C:H2'	30:3:1138:A:C8	2.40	0.50
30:3:1252:C:N4	30:3:1257:G:O6	2.35	0.50
30:3:2471:U:H2'	30:3:2472:G:H8	1.77	0.50
30:3:2650:A:H2'	30:3:2651:G:H8	1.76	0.50
30:3:20:C:O2'	30:3:587:U:H5''	2.11	0.50
30:3:571:A:H2'	30:3:572:G:O4'	2.12	0.50
30:3:990:G:H2'	30:3:991:G:C8	2.47	0.50
30:3:1237:G:H2'	30:3:1238:A:C8	2.47	0.50
30:3:2216:U:H2'	30:3:2217:G:C8	2.46	0.50
30:3:160:A:H2'	30:3:161:U:H6	1.77	0.50
30:3:167:A:H8	30:3:168:A:C8	2.30	0.50
30:3:791:A:H2'	30:3:792:G:O4'	2.12	0.50
30:3:1003:U:H2'	30:3:1004:U:C6	2.47	0.50
30:3:1165:U:C2	30:3:2032:G:H5''	2.46	0.50
30:3:1391:U:O2'	30:3:1816:A:N3	2.42	0.50
30:3:2065:A:H2'	30:3:2066:A:C8	2.47	0.50
30:3:2354:A:H5'	30:3:2391:G:H1'	1.94	0.50
30:3:2630:U:H2'	30:3:2631:G:C8	2.46	0.50
30:3:2802:C:O5'	30:3:2807:G:N2	2.41	0.50
30:3:40:A:H2'	30:3:41:C:O4'	2.12	0.49
30:3:140:G:N2	30:3:143:A:OP2	2.32	0.49
30:3:721:G:H3'	30:3:722:C:H5'	1.94	0.49
30:3:887:A:H2'	30:3:888:A:C8	2.47	0.49
30:3:1308:A:H2'	30:3:1309:G:H8	1.77	0.49
30:3:1315:A:O2'	30:3:1316:U:O5'	2.28	0.49
30:3:1363:C:H2'	30:3:1364:A:C8	2.47	0.49
30:3:1987:C:O2'	30:3:1989:U:OP2	2.24	0.49
30:3:2254:G:H2'	30:3:2255:A:C8	2.47	0.49
30:3:2567:C:H2'	30:3:2568:G:C8	2.46	0.49
30:3:2641:A:H2'	30:3:2642:G:C8	2.47	0.49
30:3:387:U:H2'	30:3:388:U:C6	2.47	0.49
30:3:1011:A:N6	30:3:1025:G:H21	2.08	0.49
30:3:1521:A:H2'	30:3:1523:C:N4	2.26	0.49
30:3:2038:A:O2'	30:3:2462:G:N2	2.39	0.49
30:3:2406:U:H2'	30:3:2407:G:C8	2.47	0.49
30:3:629:G:O6	30:3:696:U:O4	2.30	0.49
30:3:1261:U:H2'	30:3:1262:G:C8	2.37	0.49
30:3:1287:C:H2'	30:3:1288:C:C6	2.47	0.49
30:3:1451:A:H2'	30:3:1452:G:H8	1.76	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:1809:A:P	30:3:1822:A:H61	2.33	0.49
30:3:2852:G:O2'	30:3:2872:A:N6	2.37	0.49
30:3:990:G:H2'	30:3:991:G:H8	1.77	0.49
30:3:1008:A:C8	30:3:1009:A:H2'	2.48	0.49
30:3:1504:G:H2'	30:3:1505:G:C8	2.47	0.49
30:3:1684:A:H2'	30:3:1685:G:C8	2.47	0.49
30:3:1841:U:C2	30:3:1979:G:C2	2.99	0.49
30:3:2018:U:H2'	30:3:2019:G:O4'	2.11	0.49
30:3:2073:C:H2'	30:3:2074:G:C8	2.48	0.49
30:3:43:A:H2'	30:3:44:A:C8	2.46	0.49
30:3:408:G:O2'	30:3:459:A:H3'	2.12	0.49
30:3:580:U:H5	30:3:1249:A:H2'	1.76	0.49
30:3:1063:A:H61	30:3:1160:G:H2'	1.78	0.49
30:3:1287:C:H2'	30:3:1288:C:H6	1.77	0.49
30:3:1449:G:H2'	30:3:1450:G:C8	2.47	0.49
30:3:1524:C:H2'	30:3:1525:G:C8	2.48	0.49
30:3:2598:C:H2'	30:3:2599:C:C6	2.48	0.49
3:2:7:VAL:HG12	3:2:34:GLN:HE21	1.77	0.49
30:3:763:G:O2'	30:3:765:A:O4'	2.30	0.49
30:3:1097:G:O6	30:3:1112:A:N6	2.45	0.49
30:3:1176:U:H4'	30:3:1177:A:O4'	2.11	0.49
30:3:1672:C:O3'	30:3:2717:G:N2	2.45	0.49
30:3:2231:A:H3'	30:3:2232:G:H8	1.76	0.49
30:3:2678:A:H2'	30:3:2679:G:C8	2.48	0.49
31:4:75:U:O2	31:4:89:A:N6	2.41	0.49
30:3:116:C:H2'	30:3:117:C:C6	2.48	0.49
30:3:227:A:H1'	30:3:456:G:H21	1.78	0.49
30:3:334:A:H1'	30:3:353:G:H1'	1.95	0.49
30:3:652:U:H2'	30:3:653:G:H8	1.78	0.49
30:3:1418:U:O4	30:3:1423:A:N7	2.46	0.49
30:3:1738:G:H2'	30:3:1739:G:C8	2.47	0.49
30:3:1820:U:HO2'	30:3:1821:G:P	2.35	0.49
30:3:2090:G:O6	30:3:2244:U:O4	2.30	0.49
30:3:2378:G:H2'	30:3:2379:G:C8	2.47	0.49
30:3:2496:G:H21	30:3:2526:A:N6	2.10	0.49
30:3:2865:U:H2'	30:3:2866:A:C8	2.47	0.49
30:3:79:U:H2'	30:3:80:U:H6	1.78	0.49
30:3:612:G:H5'	30:3:2024:C:C6	2.48	0.49
30:3:755:C:H2'	30:3:756:A:H8	1.78	0.49
30:3:773:G:N1	30:3:794:G:C6	2.81	0.49
30:3:812:G:H2'	30:3:813:G:C8	2.48	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:976:C:O2'	30:3:1222:A:OP1	2.30	0.49
30:3:2464:C:H2'	30:3:2465:U:O4'	2.13	0.49
30:3:2678:A:H2'	30:3:2679:G:H8	1.78	0.49
30:3:2800:U:OP2	30:3:2896:G:N2	2.45	0.49
30:3:2831:U:H2'	30:3:2832:G:C8	2.47	0.49
30:3:130:C:H2'	30:3:131:C:C6	2.48	0.49
30:3:234:G:H2'	30:3:235:U:H6	1.77	0.49
30:3:851:U:H2'	30:3:852:C:H6	1.77	0.49
30:3:975:G:H2'	30:3:976:C:C6	2.48	0.49
30:3:1414:C:H1'	30:3:1495:A:H2	1.78	0.49
30:3:1630:A:H2'	30:3:1631:A:C8	2.47	0.49
30:3:2237:U:H2'	30:3:2238:G:C8	2.48	0.49
1:0:7:PRO:HB2	1:0:9:LYS:HZ1	1.78	0.49
30:3:161:U:H3	30:3:171:G:H1	1.61	0.49
30:3:674:G:H2'	30:3:675:U:C6	2.47	0.49
30:3:851:U:OP1	30:3:1216:U:O2'	2.30	0.49
30:3:1789:C:O2	30:3:2616:G:O2'	2.31	0.49
30:3:1851:U:H2'	30:3:1852:G:C8	2.48	0.49
30:3:1973:U:O2	30:3:2600:G:O2'	2.25	0.49
30:3:2484:A:O2'	30:3:2488:C:N4	2.46	0.49
30:3:2861:G:N1	30:3:2864:A:OP2	2.44	0.49
30:3:760:G:H2'	30:3:761:G:C2	2.48	0.48
30:3:832:C:H2'	30:3:833:C:C6	2.48	0.48
30:3:1085:A:N6	30:3:1144:C:H42	2.11	0.48
30:3:1123:A:H4'	30:3:1124:G:H8	1.77	0.48
30:3:1264:U:C4	30:3:1265:G:C6	3.00	0.48
30:3:1488:U:H2'	30:3:1489:G:C8	2.48	0.48
30:3:1588:A:O2'	30:3:1589:A:OP1	2.28	0.48
30:3:1778:G:H2'	30:3:1779:G:H8	1.78	0.48
30:3:2374:A:H3'	30:3:2375:A:H8	1.78	0.48
30:3:2523:C:H2'	30:3:2524:U:C6	2.47	0.48
30:3:107:C:H2'	30:3:108:G:C8	2.48	0.48
30:3:305:U:O4	30:3:399:G:O6	2.31	0.48
30:3:406:C:H2'	30:3:407:U:C6	2.48	0.48
30:3:546:U:H3'	30:3:547:G:C8	2.48	0.48
30:3:1080:A:H5''	30:3:1146:A:H61	1.77	0.48
30:3:1545:A:H2'	30:3:1546:U:C6	2.48	0.48
30:3:1927:C:H2'	30:3:1928:G:H8	1.76	0.48
30:3:2085:C:H2'	30:3:2086:U:C6	2.48	0.48
30:3:2229:C:H2'	30:3:2230:A:C8	2.48	0.48
30:3:2551:G:H2'	30:3:2552:G:C8	2.48	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:22:U:H2'	30:3:23:A:C8	2.48	0.48
30:3:622:U:H2'	30:3:623:A:C8	2.47	0.48
30:3:694:U:H2'	30:3:695:G:C8	2.47	0.48
31:4:76:A:C8	31:4:89:A:C8	3.01	0.48
30:3:160:A:H2'	30:3:161:U:C6	2.48	0.48
30:3:1723:A:H2'	30:3:1724:A:C8	2.49	0.48
30:3:1922:U:H3'	30:3:1923:A:H8	1.77	0.48
30:3:1954:C:H2'	30:3:1955:G:H8	1.77	0.48
30:3:2010:A:C2	30:3:2011:G:H1'	2.49	0.48
30:3:2149:U:OP2	30:3:2150:C:N4	2.45	0.48
30:3:2336:A:H2'	30:3:2337:U:C6	2.48	0.48
30:3:2376:C:H2'	30:3:2377:A:C8	2.47	0.48
30:3:2380:U:H2'	30:3:2381:G:H8	1.78	0.48
30:3:2754:U:H2'	30:3:2755:G:O4'	2.13	0.48
31:4:16:G:H2'	31:4:17:C:C6	2.48	0.48
31:4:90:G:C4	31:4:91:A:C8	3.01	0.48
30:3:90:G:H2'	30:3:91:G:C8	2.48	0.48
30:3:329:G:O6	30:3:377:U:O4	2.30	0.48
30:3:992:G:O2'	30:3:995:A:N6	2.46	0.48
30:3:1305:G:H2'	30:3:1306:G:H8	1.77	0.48
30:3:1380:U:O2	30:3:1406:A:N7	2.46	0.48
30:3:1392:G:N2	30:3:1395:A:OP2	2.28	0.48
30:3:1442:G:H1	30:3:1622:C:H42	1.61	0.48
30:3:2081:U:H2'	30:3:2082:U:C6	2.48	0.48
30:3:2505:A:H2	30:3:2506:C:H41	1.60	0.48
30:3:2753:C:H2'	30:3:2754:U:C6	2.48	0.48
31:4:22:G:N7	31:4:54:U:O2'	2.47	0.48
30:3:71:C:H4'	30:3:77:G:C5	2.49	0.48
30:3:161:U:H2'	30:3:162:G:O4'	2.13	0.48
30:3:755:C:H2'	30:3:756:A:C8	2.49	0.48
30:3:1080:A:H5''	30:3:1146:A:N6	2.28	0.48
30:3:1317:C:H2'	30:3:1318:U:C6	2.49	0.48
30:3:2556:C:H2'	30:3:2557:G:H8	1.79	0.48
30:3:84:G:H21	30:3:106:C:N4	2.11	0.48
30:3:431:U:O2'	30:3:432:G:N7	2.34	0.48
30:3:947:A:H2'	30:3:948:A:C8	2.49	0.48
30:3:1228:G:H1	30:3:1279:U:H3	1.62	0.48
30:3:1363:C:H2'	30:3:1364:A:H8	1.78	0.48
30:3:2473:C:H2'	30:3:2474:C:H6	1.78	0.48
30:3:2516:G:H2'	30:3:2517:A:H8	1.78	0.48
2:1:11:PHE:HD1	2:1:21:ARG:HB3	1.77	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:512:G:N2	30:3:514:A:H8	2.11	0.48
30:3:518:A:O2'	30:3:532:A:N1	2.47	0.48
30:3:696:U:H2'	30:3:697:U:C6	2.49	0.48
30:3:1046:A:O2'	30:3:1187:C:O2	2.25	0.48
30:3:1087:C:H2'	30:3:1088:A:C8	2.49	0.48
30:3:1125:U:H2'	30:3:1126:G:O4'	2.13	0.48
30:3:1210:A:H2'	30:3:1211:U:H6	1.78	0.48
30:3:1530:G:H2'	30:3:1531:C:C6	2.49	0.48
30:3:1555:G:N2	30:3:1576:G:H1'	2.27	0.48
30:3:2004:G:H2'	30:3:2005:G:C8	2.48	0.48
30:3:2305:C:H2'	30:3:2306:A:H8	1.79	0.48
30:3:2534:G:O6	30:3:2545:U:O4	2.32	0.48
2:1:25:TYR:CD1	30:3:2400:A:H5''	2.49	0.48
30:3:202:C:O2'	30:3:203:A:H5'	2.13	0.48
30:3:412:A:C2	30:3:413:G:H1'	2.49	0.48
30:3:462:C:H2'	30:3:463:U:C6	2.49	0.48
30:3:562:C:C4	30:3:2787:U:H2'	2.49	0.48
30:3:612:G:H2'	30:3:613:C:H6	1.79	0.48
30:3:731:A:H2'	30:3:732:G:C8	2.49	0.48
30:3:1175:C:O2'	30:3:1178:A:O2'	2.23	0.48
30:3:1947:U:H3	30:3:1971:G:H5'	1.79	0.48
30:3:1962:U:H5'	30:3:2559:C:O2'	2.14	0.48
30:3:2104:A:H2'	30:3:2105:G:C8	2.49	0.48
30:3:2336:A:H2'	30:3:2337:U:H6	1.78	0.48
30:3:2719:A:H5''	30:3:2720:C:H5''	1.94	0.48
30:3:2842:G:H2'	30:3:2843:G:H8	1.79	0.48
30:3:158:U:H2'	30:3:159:G:C8	2.49	0.48
30:3:1057:G:O2'	30:3:1059:G:O6	2.29	0.48
30:3:1572:U:H2'	30:3:1573:A:H8	1.79	0.48
30:3:1604:A:H2'	30:3:1605:A:C8	2.49	0.48
30:3:1816:A:H2'	30:3:1817:A:C8	2.49	0.48
30:3:2052:C:H2'	30:3:2053:G:O4'	2.14	0.48
30:3:2706:U:H2'	30:3:2707:A:C8	2.49	0.48
30:3:103:G:H4'	30:3:104:A:H5'	1.96	0.47
30:3:208:A:H4'	30:3:209:G:H4'	1.96	0.47
30:3:243:U:H3	30:3:262:G:H1	1.62	0.47
30:3:410:G:N2	30:3:411:U:O4	2.34	0.47
30:3:626:A:H2'	30:3:627:U:C6	2.49	0.47
30:3:1005:G:H2'	30:3:1006:U:H6	1.79	0.47
30:3:1284:A:C5	30:3:1286:G:H1'	2.49	0.47
30:3:1542:G:H2'	30:3:1543:U:C6	2.49	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:1848:U:C2	30:3:1849:G:C8	3.02	0.47
30:3:1937:G:H22	30:3:1976:A:P	2.37	0.47
30:3:2208:U:O4	30:3:2232:G:N2	2.47	0.47
30:3:2497:U:H2'	30:3:2498:G:C8	2.49	0.47
30:3:2506:C:O2'	30:3:2507:C:O5'	2.28	0.47
1:0:29:LYS:O	1:0:33:LEU:HG	2.14	0.47
30:3:31:U:H2'	30:3:32:G:C8	2.42	0.47
30:3:81:C:H2'	30:3:82:G:C8	2.49	0.47
30:3:83:G:H2'	30:3:84:G:O4'	2.14	0.47
30:3:859:G:N3	30:3:2366:A:N6	2.62	0.47
30:3:870:A:H2'	30:3:871:G:O4'	2.14	0.47
30:3:982:G:H2'	30:3:983:A:C8	2.49	0.47
30:3:1001:C:H2'	30:3:1002:A:C8	2.49	0.47
30:3:1836:A:H3'	30:3:1837:C:H6	1.80	0.47
30:3:2106:G:H22	30:3:2198:G:H1	1.61	0.47
30:3:2264:G:H2'	30:3:2265:U:C6	2.48	0.47
30:3:250:U:O2	30:3:256:G:N2	2.37	0.47
30:3:403:U:O2	30:3:441:U:N3	2.47	0.47
30:3:610:G:H2'	30:3:611:A:C8	2.49	0.47
30:3:740:A:H2'	30:3:741:A:C8	2.49	0.47
30:3:907:A:H3'	30:3:908:A:H8	1.79	0.47
30:3:1300:C:H5''	30:3:1301:G:H5'	1.96	0.47
30:3:1861:A:OP2	30:3:1895:G:N2	2.47	0.47
30:3:1995:G:H2'	30:3:1996:A:H8	1.79	0.47
31:4:29:C:H1'	31:4:51:A:H61	1.79	0.47
2:1:5:SER:HA	2:1:8:LYS:HG2	1.96	0.47
30:3:342:G:O2'	30:3:363:G:N2	2.48	0.47
30:3:840:G:N2	30:3:866:G:N3	2.63	0.47
30:3:912:A:N6	30:3:939:U:H3	2.10	0.47
30:3:1698:A:C6	30:3:2734:C:N3	2.82	0.47
30:3:2022:A:O2'	30:3:2064:G:O2'	2.17	0.47
30:3:2050:G:H2'	30:3:2051:G:C8	2.50	0.47
30:3:2651:G:C6	30:3:2780:U:N3	2.82	0.47
31:4:85:A:H2'	31:4:86:G:C8	2.49	0.47
30:3:46:A:H2'	30:3:47:G:C8	2.49	0.47
30:3:381:A:H2'	30:3:382:U:C6	2.49	0.47
30:3:426:U:O2	30:3:426:U:H2'	2.14	0.47
30:3:525:A:H2'	30:3:526:G:C8	2.50	0.47
30:3:633:G:O6	30:3:692:U:O4	2.31	0.47
30:3:883:A:H2'	30:3:884:A:C8	2.50	0.47
30:3:1604:A:H2'	30:3:1605:A:H8	1.79	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:1841:U:C2	30:3:1979:G:N1	2.82	0.47
30:3:2208:U:H2'	30:3:2209:U:C6	2.49	0.47
30:3:2528:C:H2'	30:3:2529:C:C6	2.49	0.47
30:3:2808:A:N3	30:3:2808:A:H2'	2.29	0.47
30:3:2867:U:H2'	30:3:2868:G:C8	2.50	0.47
2:1:25:TYR:HB3	2:1:33:LYS:HE3	1.96	0.47
30:3:330:A:H2'	30:3:331:A:H8	1.79	0.47
30:3:401:G:O2'	30:3:402:A:OP1	2.28	0.47
30:3:665:C:O2	30:3:675:U:O2'	2.33	0.47
30:3:1340:U:H3	30:3:1368:U:H3	1.61	0.47
30:3:1605:A:H2'	30:3:1606:A:H8	1.78	0.47
30:3:2463:G:H2'	30:3:2464:C:C6	2.50	0.47
30:3:2552:G:H2'	30:3:2553:G:H8	1.80	0.47
30:3:26:G:C2	30:3:27:U:C5	3.03	0.47
30:3:63:U:N3	30:3:97:A:N3	2.61	0.47
30:3:199:A:H2'	30:3:202:C:N4	2.29	0.47
30:3:612:G:H2'	30:3:613:C:C6	2.50	0.47
30:3:817:A:H4'	30:3:818:A:H5'	1.95	0.47
30:3:920:G:O6	30:3:931:G:N1	2.48	0.47
30:3:1126:G:C2	30:3:1136:U:C2	3.03	0.47
30:3:1192:U:H2'	30:3:1193:U:C6	2.49	0.47
30:3:1265:G:H2'	30:3:1266:G:C4	2.50	0.47
30:3:1398:C:H2'	30:3:1399:G:O4'	2.15	0.47
30:3:1747:G:N1	30:3:1751:A:H5''	2.30	0.47
30:3:2050:G:H2'	30:3:2051:G:H8	1.80	0.47
30:3:2096:U:H2'	30:3:2097:A:C8	2.50	0.47
30:3:2348:U:H2'	30:3:2349:G:H8	1.80	0.47
30:3:2379:G:H2'	30:3:2380:U:O4'	2.15	0.47
30:3:2556:C:H2'	30:3:2557:G:C8	2.48	0.47
30:3:2629:G:H2'	30:3:2630:U:O4'	2.14	0.47
30:3:2794:U:H2'	30:3:2795:C:C6	2.49	0.47
3:2:36:GLN:OE1	30:3:1159:C:O2'	2.24	0.47
30:3:282:C:H3'	30:3:284:U:H5''	1.95	0.47
30:3:452:U:H2'	30:3:453:U:O4'	2.15	0.47
30:3:716:G:O6	30:3:832:C:N4	2.47	0.47
30:3:1016:A:N1	30:3:2033:G:N2	2.63	0.47
30:3:1327:G:H1	30:3:1673:U:H3'	1.80	0.47
30:3:1455:A:N6	30:3:1605:A:OP2	2.40	0.47
30:3:1640:G:H4'	30:3:1642:G:N3	2.30	0.47
30:3:2291:U:C2	30:3:2292:A:C8	3.02	0.47
30:3:2702:G:H2'	30:3:2703:U:O4'	2.15	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:296:U:O2	30:3:300:G:O2'	2.28	0.47
30:3:450:C:H2'	30:3:451:A:H8	1.80	0.47
30:3:869:U:H2'	30:3:870:A:H8	1.78	0.47
30:3:955:A:H1'	31:4:77:G:H21	1.79	0.47
30:3:1490:G:H2'	30:3:1491:G:H8	1.78	0.47
30:3:2705:G:H2'	30:3:2706:U:O4'	2.15	0.47
30:3:386:U:H2'	30:3:387:U:C6	2.50	0.47
30:3:409:A:O2'	30:3:410:G:OP2	2.30	0.47
30:3:670:G:H2'	30:3:671:C:C6	2.50	0.47
30:3:766:C:H2'	30:3:767:C:H6	1.80	0.47
30:3:974:C:H2'	30:3:975:G:C8	2.49	0.47
30:3:1079:U:O2	30:3:1147:G:C6	2.68	0.47
30:3:1163:G:O6	30:3:2497:U:O2'	2.31	0.47
30:3:1199:A:H2'	30:3:1200:U:H6	1.80	0.47
30:3:1275:C:H2'	30:3:1276:A:C8	2.50	0.47
30:3:1469:C:H2'	30:3:1470:C:O4'	2.13	0.47
30:3:1692:A:H2'	30:3:1693:U:H6	1.80	0.47
30:3:2645:U:H3'	30:3:2646:G:H8	1.80	0.47
30:3:2870:U:H5'	30:3:2872:A:O5'	2.15	0.47
30:3:137:U:O4	30:3:146:G:O6	2.33	0.46
30:3:663:A:H61	30:3:673:A:P	2.38	0.46
30:3:1340:U:O2	30:3:1367:G:N2	2.32	0.46
30:3:1613:A:H3'	30:3:1614:G:H8	1.80	0.46
30:3:1664:A:H2'	30:3:1665:G:O4'	2.15	0.46
30:3:2175:U:N3	30:3:2179:A:C8	2.78	0.46
30:3:2636:U:H1'	30:3:2789:A:C4	2.50	0.46
30:3:196:G:O2'	30:3:837:A:N3	2.48	0.46
30:3:205:C:O2'	30:3:424:G:O6	2.24	0.46
30:3:641:U:O2	30:3:657:A:C5	2.68	0.46
30:3:668:A:H2'	30:3:669:A:C8	2.50	0.46
30:3:983:A:H2	30:3:1020:G:H8	1.63	0.46
30:3:1037:A:H3'	30:3:1038:G:H8	1.80	0.46
30:3:1537:A:H2'	30:3:1538:U:O4'	2.14	0.46
30:3:2237:U:H2'	30:3:2238:G:H8	1.80	0.46
30:3:2547:C:H2'	30:3:2548:G:C8	2.50	0.46
30:3:2643:A:H2'	30:3:2644:U:O4'	2.15	0.46
30:3:198:G:H2'	30:3:199:A:C8	2.51	0.46
30:3:484:U:N3	30:3:616:G:O2'	2.47	0.46
30:3:1152:U:H2'	30:3:1153:U:C6	2.51	0.46
30:3:1210:A:H2'	30:3:1211:U:C6	2.50	0.46
30:3:1489:G:H2'	30:3:1490:G:H8	1.80	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:1507:G:H1'	30:3:1508:G:P	2.55	0.46
30:3:2309:A:H2'	30:3:2310:C:H6	1.80	0.46
30:3:27:U:H3	30:3:550:A:N6	2.12	0.46
30:3:224:G:H1	30:3:463:U:H3'	1.81	0.46
30:3:804:U:H2'	30:3:805:G:C8	2.51	0.46
30:3:1126:G:N1	30:3:1136:U:C2	2.84	0.46
30:3:1416:G:H2'	30:3:1417:G:C8	2.50	0.46
30:3:1759:C:H2'	30:3:1760:G:C8	2.50	0.46
30:3:1761:C:H2'	30:3:1762:A:C8	2.51	0.46
30:3:1777:G:H2'	30:3:1778:G:H8	1.80	0.46
30:3:2223:C:H2'	30:3:2224:A:C8	2.49	0.46
30:3:2425:C:H2'	30:3:2426:A:C8	2.50	0.46
30:3:2851:U:N3	30:3:2873:G:C6	2.83	0.46
1:0:28:ARG:O	1:0:32:LYS:HG2	2.16	0.46
30:3:193:G:H1	30:3:209:G:HO2'	1.60	0.46
30:3:243:U:O2'	30:3:658:G:O2'	2.19	0.46
30:3:644:C:H2'	30:3:645:C:C6	2.50	0.46
30:3:748:G:N2	30:3:754:U:O4	2.49	0.46
30:3:1738:G:C6	30:3:1739:G:C6	3.03	0.46
30:3:1860:A:H61	30:3:2094:A:H1'	1.80	0.46
30:3:2229:C:H2'	30:3:2230:A:H8	1.79	0.46
31:4:6:U:H2'	31:4:7:G:H8	1.79	0.46
30:3:344:A:H4'	30:3:345:A:C8	2.50	0.46
30:3:351:G:H2'	30:3:352:C:H6	1.81	0.46
30:3:893:A:H2'	30:3:894:G:C8	2.51	0.46
30:3:989:G:O6	30:3:1001:C:N4	2.49	0.46
30:3:1323:A:H2'	30:3:1324:A:C8	2.51	0.46
30:3:1384:C:H2'	30:3:1385:U:C6	2.50	0.46
30:3:1514:U:O4	30:3:1525:G:O6	2.32	0.46
30:3:1544:G:C2	30:3:1545:A:C5	3.04	0.46
30:3:1755:A:H2'	30:3:1756:A:H8	1.80	0.46
31:4:31:G:H2'	31:4:32:G:C8	2.50	0.46
30:3:201:A:N3	30:3:2252:U:H5''	2.31	0.46
30:3:259:A:H3'	30:3:260:A:H8	1.79	0.46
30:3:365:U:OP1	30:3:1267:A:O2'	2.27	0.46
30:3:382:U:H2'	30:3:383:U:O4'	2.15	0.46
30:3:443:C:H2'	30:3:444:C:C6	2.50	0.46
30:3:669:A:O2'	30:3:2412:A:OP1	2.33	0.46
30:3:762:A:OP1	30:3:1459:A:O2'	2.29	0.46
30:3:799:A:N7	30:3:1783:G:H1'	2.31	0.46
30:3:1489:G:H2'	30:3:1490:G:C8	2.51	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:1806:G:O5'	30:3:1826:A:N6	2.49	0.46
30:3:2716:U:O2'	30:3:2717:G:H5'	2.16	0.46
1:0:12:ARG:HB2	30:3:721:G:H1	1.80	0.46
30:3:317:U:H2'	30:3:318:U:C6	2.51	0.46
30:3:342:G:N2	30:3:513:A:C2	2.84	0.46
30:3:485:A:N6	30:3:490:A:H62	2.14	0.46
30:3:786:A:N7	30:3:824:A:N6	2.63	0.46
30:3:1221:G:H2'	30:3:1222:A:H8	1.80	0.46
30:3:1344:U:H2'	30:3:1345:G:C8	2.51	0.46
30:3:1603:A:H2'	30:3:1604:A:C8	2.51	0.46
30:3:1821:G:H3'	30:3:1822:A:H8	1.81	0.46
30:3:2852:G:N3	30:3:2872:A:N6	2.63	0.46
30:3:143:A:H3'	30:3:144:C:H6	1.81	0.46
30:3:225:A:C4	30:3:237:A:H1'	2.51	0.46
30:3:318:U:H2'	30:3:319:G:C8	2.50	0.46
30:3:335:G:H2'	30:3:368:C:H2'	1.97	0.46
30:3:339:U:O4	30:3:346:G:O6	2.33	0.46
30:3:441:U:H3'	30:3:442:G:H8	1.81	0.46
30:3:625:G:O6	30:3:701:A:N6	2.49	0.46
30:3:1006:U:H2'	30:3:1007:C:C6	2.51	0.46
30:3:1815:U:O2'	30:3:1816:A:O5'	2.30	0.46
30:3:2141:A:N1	30:3:2166:U:H1'	2.30	0.46
30:3:2403:C:H2'	30:3:2404:G:C8	2.51	0.46
30:3:2549:A:H5'	30:3:2772:A:H2	1.81	0.46
30:3:2642:G:H2'	30:3:2643:A:C8	2.50	0.46
30:3:2737:G:H2'	30:3:2738:U:C6	2.51	0.46
30:3:33:C:H2'	30:3:34:C:C6	2.51	0.46
30:3:464:A:H2'	30:3:464:A:N3	2.29	0.46
30:3:1019:A:N3	30:3:1019:A:H2'	2.31	0.46
30:3:1063:A:H2'	30:3:1064:A:C8	2.51	0.46
30:3:1126:G:N1	30:3:1136:U:N3	2.63	0.46
30:3:1440:U:H2'	30:3:1441:A:C8	2.51	0.46
30:3:2160:U:H2'	30:3:2161:G:H8	1.81	0.46
30:3:2772:A:N7	30:3:2774:A:N6	2.64	0.46
30:3:2787:U:H5''	30:3:2788:U:H2'	1.97	0.46
2:1:5:SER:O	2:1:9:LYS:HG3	2.16	0.45
30:3:450:C:H2'	30:3:451:A:C8	2.50	0.45
30:3:988:G:H2'	30:3:989:G:O4'	2.16	0.45
30:3:1721:G:H21	30:3:1735:A:H62	1.64	0.45
30:3:1765:G:O2'	30:3:2722:G:N2	2.47	0.45
30:3:2750:A:H2'	30:3:2751:C:C6	2.50	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:2820:G:H2'	30:3:2821:U:C6	2.51	0.45
2:1:4:LYS:HD2	2:1:58:LEU:HG	1.98	0.45
30:3:82:G:O2'	30:3:328:A:N1	2.44	0.45
30:3:82:G:H21	30:3:328:A:H1'	1.82	0.45
30:3:253:C:OP2	30:3:2402:C:O2'	2.31	0.45
30:3:461:C:H2'	30:3:462:C:H6	1.81	0.45
30:3:680:A:H4'	30:3:681:A:C5	2.51	0.45
30:3:874:U:H2'	30:3:875:G:C8	2.49	0.45
30:3:985:A:N6	30:3:1005:G:O6	2.49	0.45
30:3:1539:U:H2'	30:3:1540:G:C8	2.52	0.45
30:3:1777:G:H1	30:3:1989:U:H3	1.64	0.45
30:3:1807:C:N4	30:3:1824:G:N2	2.28	0.45
30:3:2278:G:C2	30:3:2279:G:H1'	2.50	0.45
31:4:21:G:N7	31:4:54:U:O2'	2.45	0.45
30:3:230:G:OP1	30:3:261:A:H4'	2.16	0.45
30:3:277:C:H1'	30:3:302:G:O2'	2.17	0.45
30:3:610:G:H5''	30:3:1285:U:H1'	1.97	0.45
30:3:829:A:H2'	30:3:830:A:H8	1.79	0.45
30:3:1001:C:H1'	30:3:2281:A:C2	2.51	0.45
30:3:1142:G:H2'	30:3:1143:U:C6	2.51	0.45
30:3:1980:G:H2'	30:3:1981:U:C6	2.50	0.45
30:3:2208:U:H2'	30:3:2209:U:H6	1.80	0.45
30:3:8:A:H2'	30:3:9:G:C8	2.52	0.45
30:3:176:U:H2'	30:3:177:U:H6	1.82	0.45
30:3:188:G:H2'	30:3:189:U:H6	1.80	0.45
30:3:601:U:N3	30:3:604:A:OP2	2.28	0.45
30:3:1623:U:H2'	30:3:1624:A:C8	2.51	0.45
30:3:1723:A:H2'	30:3:1724:A:H8	1.81	0.45
30:3:1943:A:C8	30:3:1952:G:C8	3.04	0.45
30:3:1961:A:O2'	30:3:1963:U:O4	2.31	0.45
30:3:2007:U:H2'	30:3:2008:A:C8	2.51	0.45
30:3:2473:C:H2'	30:3:2474:C:C6	2.52	0.45
30:3:2689:C:N3	30:3:2733:A:N7	2.65	0.45
1:0:4:THR:HG21	30:3:824:A:H5'	1.98	0.45
30:3:28:G:H1'	30:3:549:A:N6	2.32	0.45
30:3:116:C:H2'	30:3:117:C:H6	1.81	0.45
30:3:142:A:H2'	30:3:143:A:C8	2.52	0.45
30:3:174:A:H2'	30:3:175:A:H8	1.81	0.45
30:3:562:C:N3	30:3:2787:U:H2'	2.31	0.45
30:3:658:G:H2'	30:3:659:C:C6	2.51	0.45
30:3:722:C:H2'	30:3:723:U:C6	2.50	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:1447:A:O2'	30:3:1448:U:H5''	2.16	0.45
30:3:2132:G:H21	30:3:2182:C:N4	2.14	0.45
30:3:2269:C:H2'	30:3:2270:U:H6	1.82	0.45
30:3:2403:C:H2'	30:3:2404:G:H8	1.82	0.45
30:3:2598:C:H2'	30:3:2599:C:H6	1.81	0.45
31:4:91:A:C2'	31:4:92:A:H5'	2.46	0.45
30:3:1320:C:H2'	30:3:1321:C:O4'	2.17	0.45
30:3:1338:G:OP2	30:3:1339:U:N3	2.31	0.45
30:3:2136:A:N6	30:3:2167:G:O6	2.50	0.45
30:3:2288:G:H2'	30:3:2289:C:C6	2.52	0.45
30:3:2350:C:H2'	30:3:2351:U:C6	2.51	0.45
30:3:86:A:HO2'	30:3:101:C:N4	2.15	0.45
30:3:232:A:C6	30:3:234:G:C6	3.05	0.45
30:3:496:A:N3	30:3:506:A:N6	2.65	0.45
30:3:853:G:OP2	30:3:1218:G:N1	2.38	0.45
30:3:1488:U:H2'	30:3:1489:G:H8	1.82	0.45
30:3:2498:G:O3'	30:3:2499:U:H2'	2.16	0.45
30:3:79:U:H2'	30:3:80:U:C6	2.52	0.45
30:3:292:G:H3'	30:3:293:G:N7	2.31	0.45
30:3:332:G:O2'	30:3:356:A:N1	2.48	0.45
30:3:333:A:P	30:3:333:A:H8	2.40	0.45
30:3:341:G:C2	30:3:364:A:N6	2.81	0.45
30:3:451:A:N6	30:3:2417:G:C6	2.85	0.45
30:3:612:G:C4	30:3:1292:A:C6	3.05	0.45
30:3:663:A:N6	30:3:673:A:OP2	2.50	0.45
30:3:675:U:O4	30:3:685:G:O6	2.35	0.45
30:3:714:G:H2'	30:3:715:G:C8	2.50	0.45
30:3:767:C:H2'	30:3:768:G:O4'	2.17	0.45
30:3:896:U:C2	30:3:897:A:C8	3.04	0.45
30:3:1007:C:H2'	30:3:1008:A:C8	2.52	0.45
30:3:1063:A:N6	30:3:1160:G:H2'	2.32	0.45
30:3:1094:G:C5	30:3:1095:U:C4	3.05	0.45
30:3:1246:U:H2'	30:3:1247:C:C6	2.52	0.45
30:3:1346:G:H2'	30:3:1347:A:C8	2.52	0.45
30:3:1414:C:OP2	30:3:1424:U:N3	2.49	0.45
30:3:2238:G:H2'	30:3:2239:U:C6	2.51	0.45
30:3:2639:G:H2'	30:3:2640:A:H8	1.82	0.45
30:3:2737:G:C2	30:3:2738:U:C4	3.05	0.45
30:3:318:U:H2'	30:3:319:G:H8	1.82	0.45
30:3:370:C:H2'	30:3:371:C:C6	2.52	0.45
30:3:961:U:O2	30:3:962:U:H5	1.99	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:1456:C:H41	30:3:1603:A:H3'	1.82	0.45
30:3:1628:G:H2'	30:3:1629:U:H6	1.81	0.45
30:3:1676:G:H2'	30:3:1677:G:C8	2.52	0.45
30:3:1698:A:H2'	30:3:1698:A:N3	2.31	0.45
30:3:1698:A:H3'	30:3:1699:A:H8	1.81	0.45
30:3:1836:A:H3'	30:3:1837:C:C6	2.52	0.45
30:3:1951:A:N6	30:3:2565:G:O2'	2.50	0.45
30:3:2516:G:H2'	30:3:2517:A:C8	2.52	0.45
1:0:38:GLN:HB2	30:3:494:G:H5''	1.99	0.45
30:3:67:C:H2'	30:3:68:C:C6	2.52	0.45
30:3:118:G:OP2	30:3:120:A:O2'	2.23	0.45
30:3:196:G:H4'	30:3:712:A:H2	1.81	0.45
30:3:330:A:H2'	30:3:331:A:C8	2.52	0.45
30:3:353:G:H2'	30:3:354:C:C6	2.52	0.45
30:3:408:G:C6	30:3:460:G:N7	2.85	0.45
30:3:480:C:H2'	30:3:481:C:C6	2.52	0.45
30:3:707:C:H2'	30:3:708:C:H6	1.81	0.45
30:3:986:G:O6	30:3:1003:U:O4	2.35	0.45
30:3:1258:C:H2'	30:3:1259:A:O4'	2.17	0.45
30:3:1434:U:H2'	30:3:1435:A:H8	1.82	0.45
30:3:2689:C:O2	30:3:2733:A:N6	2.50	0.45
30:3:2739:C:H2'	30:3:2740:U:C6	2.52	0.45
31:4:103:C:H2'	31:4:104:C:H6	1.82	0.45
30:3:124:A:H2'	30:3:125:G:C8	2.53	0.44
30:3:1046:A:H1'	30:3:1188:C:H1'	1.99	0.44
30:3:1239:G:O2'	30:3:1267:A:N1	2.44	0.44
30:3:1416:G:H2'	30:3:1417:G:H8	1.83	0.44
30:3:2001:C:H2'	30:3:2002:U:C6	2.53	0.44
30:3:2260:G:H2'	30:3:2261:G:C8	2.52	0.44
30:3:2694:A:H2'	30:3:2695:U:H6	1.82	0.44
31:4:53:U:H2'	31:4:54:U:C6	2.53	0.44
30:3:53:G:H1'	30:3:119:A:H61	1.82	0.44
30:3:250:U:O4	30:3:256:G:O6	2.36	0.44
30:3:739:G:HO2'	30:3:740:A:P	2.39	0.44
30:3:892:G:C2	30:3:893:A:C5	3.05	0.44
30:3:1115:G:C6	30:3:1116:U:C4	3.06	0.44
30:3:1432:C:H2'	30:3:1433:U:C6	2.52	0.44
30:3:1449:G:H1'	30:3:1519:A:N6	2.32	0.44
30:3:1526:U:H2'	30:3:1527:U:C6	2.52	0.44
30:3:1818:G:H2'	30:3:1819:G:H8	1.82	0.44
30:3:1841:U:O2	30:3:1979:G:C2	2.70	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:2021:A:H2'	30:3:2022:A:C4	2.52	0.44
30:3:2551:G:H2'	30:3:2552:G:H8	1.82	0.44
30:3:2769:G:H2'	30:3:2770:U:C6	2.52	0.44
30:3:139:G:O6	30:3:145:A:N6	2.50	0.44
30:3:622:U:H2'	30:3:623:A:H8	1.81	0.44
30:3:1290:G:H2'	30:3:1291:C:C6	2.53	0.44
30:3:1838:A:H2'	30:3:1839:C:C6	2.53	0.44
30:3:2184:A:N1	30:3:2185:C:N4	2.64	0.44
30:3:2321:C:H2'	30:3:2322:G:C8	2.53	0.44
30:3:47:G:N2	30:3:184:A:N6	2.56	0.44
30:3:82:G:N2	30:3:328:A:H1'	2.31	0.44
30:3:217:A:H2'	30:3:218:G:C8	2.52	0.44
30:3:313:G:N2	30:3:394:C:N3	2.65	0.44
30:3:1077:G:H2'	30:3:1078:C:C6	2.52	0.44
30:3:1217:G:H2'	30:3:1218:G:O4'	2.17	0.44
30:3:1248:A:H2'	30:3:1249:A:H8	1.81	0.44
30:3:1508:G:H2'	30:3:1509:U:C6	2.53	0.44
30:3:1544:G:H2'	30:3:1545:A:C8	2.51	0.44
30:3:1575:C:H2'	30:3:1576:G:O4'	2.18	0.44
30:3:1626:C:H2'	30:3:1627:U:C6	2.52	0.44
30:3:1956:G:C6	30:3:1957:G:C6	3.06	0.44
30:3:2746:A:C2	30:3:2747:U:H1'	2.52	0.44
30:3:2747:U:H3'	30:3:2771:G:H1	1.82	0.44
30:3:2796:C:H4'	30:3:2813:A:H8	1.82	0.44
30:3:86:A:O2'	30:3:101:C:N4	2.50	0.44
30:3:352:C:H2'	30:3:353:G:C8	2.52	0.44
30:3:557:G:C2'	30:3:558:C:H5'	2.48	0.44
30:3:678:U:H2'	30:3:679:A:H3'	2.00	0.44
30:3:1007:C:H1'	30:3:1019:A:C2	2.52	0.44
30:3:1069:G:C6	30:3:1157:G:C5	3.06	0.44
30:3:1104:A:H4'	30:3:1105:A:H2'	2.00	0.44
30:3:1213:U:H2'	30:3:1214:U:H6	1.81	0.44
30:3:1303:U:O4	30:3:1678:U:O2'	2.26	0.44
30:3:1691:U:O2'	30:3:1692:A:H5'	2.17	0.44
31:4:6:U:H2'	31:4:7:G:C8	2.52	0.44
30:3:167:A:C8	30:3:168:A:C8	3.05	0.44
30:3:246:G:H1'	30:3:247:U:H5	1.83	0.44
30:3:1004:U:H2'	30:3:1005:G:C8	2.53	0.44
30:3:1974:U:H2'	30:3:1975:G:O4'	2.17	0.44
30:3:2331:G:H2'	30:3:2332:U:C6	2.53	0.44
30:3:2332:U:H3'	30:3:2333:G:H5'	2.00	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:2394:A:H2'	30:3:2395:U:C6	2.53	0.44
30:3:2395:U:H3'	30:3:2396:A:H5''	2.00	0.44
30:3:2733:A:C4	30:3:2735:G:N7	2.86	0.44
31:4:21:G:O2'	31:4:22:G:O4'	2.33	0.44
1:0:10:LEU:HD23	1:0:14:LYS:HD2	1.99	0.44
2:1:5:SER:OG	30:3:251:G:O6	2.34	0.44
30:3:261:A:H3'	30:3:262:G:H8	1.83	0.44
30:3:485:A:H61	30:3:490:A:H62	1.66	0.44
30:3:992:G:H2'	30:3:993:A:H2'	1.99	0.44
30:3:1487:U:H2'	30:3:1488:U:C6	2.53	0.44
30:3:1622:C:H2'	30:3:1623:U:C6	2.53	0.44
30:3:2239:U:O4	30:3:2240:U:O4	2.36	0.44
31:4:91:A:H3'	31:4:92:A:H8	1.82	0.44
30:3:323:A:H2'	30:3:324:C:C6	2.52	0.44
30:3:659:C:H2'	30:3:660:U:C6	2.53	0.44
30:3:704:G:N3	30:3:704:G:H2'	2.33	0.44
30:3:1025:G:H5''	30:3:1192:U:H4'	1.99	0.44
30:3:1062:A:H2'	30:3:1063:A:C8	2.50	0.44
30:3:1138:A:OP2	30:3:1139:C:N4	2.46	0.44
30:3:1187:C:H2'	30:3:1188:C:H6	1.82	0.44
30:3:1308:A:H2'	30:3:1309:G:C8	2.52	0.44
30:3:1399:G:N2	30:3:1400:U:O4	2.50	0.44
30:3:1551:U:H2'	30:3:1552:C:O4'	2.18	0.44
30:3:291:G:C2	30:3:292:G:C8	3.06	0.44
30:3:822:C:H3'	30:3:826:C:N4	2.33	0.44
30:3:965:U:H2'	30:3:966:U:C6	2.53	0.44
30:3:1464:G:H2'	30:3:1465:U:C6	2.53	0.44
30:3:1684:A:H2'	30:3:1685:G:H8	1.82	0.44
30:3:1687:G:H1	30:3:2009:U:H5''	1.82	0.44
30:3:2011:G:C5	30:3:2012:A:C8	3.06	0.44
31:4:95:G:H2'	31:4:96:G:H8	1.82	0.44
30:3:99:C:H2'	30:3:100:U:O4'	2.17	0.43
30:3:166:A:H2'	30:3:167:A:C8	2.53	0.43
30:3:176:U:C2	30:3:177:U:C5	3.05	0.43
30:3:529:G:H2'	30:3:530:G:H8	1.82	0.43
30:3:1058:U:O2'	30:3:1157:G:H5'	2.18	0.43
30:3:1075:G:H2'	30:3:1076:U:O4'	2.17	0.43
30:3:1325:C:OP1	30:3:2718:C:H4'	2.18	0.43
30:3:2303:U:H2'	30:3:2304:U:H6	1.83	0.43
30:3:427:A:N3	30:3:427:A:H2'	2.32	0.43
30:3:448:A:H62	30:3:2420:A:H1'	1.83	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:569:U:O4	30:3:592:G:O6	2.35	0.43
30:3:1270:C:H2'	30:3:1271:A:H8	1.83	0.43
30:3:1944:A:H62	30:3:1947:U:H5	1.65	0.43
30:3:2044:C:H2'	30:3:2045:C:H6	1.83	0.43
30:3:2071:C:H2'	30:3:2072:C:H6	1.83	0.43
30:3:2108:C:N3	30:3:2109:A:C6	2.86	0.43
30:3:2670:A:C8	30:3:2671:G:C8	3.06	0.43
30:3:2679:G:H2'	30:3:2680:C:C6	2.53	0.43
30:3:2729:A:H2'	30:3:2730:G:O4'	2.17	0.43
31:4:66:A:H3'	31:4:67:G:H8	1.83	0.43
2:1:2:LYS:HG2	30:3:246:G:N7	2.33	0.43
30:3:143:A:H1'	30:3:1436:C:H4'	1.99	0.43
30:3:188:G:H2'	30:3:189:U:C6	2.53	0.43
30:3:245:U:H5	30:3:260:A:H62	1.66	0.43
30:3:366:A:O2'	30:3:368:C:OP1	2.27	0.43
30:3:386:U:H2'	30:3:387:U:H6	1.82	0.43
30:3:699:U:H2'	30:3:700:U:O4'	2.17	0.43
30:3:802:U:H2'	30:3:803:G:H8	1.83	0.43
30:3:900:G:H2'	30:3:901:C:C6	2.52	0.43
30:3:1057:G:H1'	30:3:1058:U:H5	1.82	0.43
30:3:1200:U:O2'	30:3:1201:A:H5'	2.19	0.43
30:3:1451:A:H2'	30:3:1452:G:C8	2.52	0.43
30:3:1826:A:H1'	30:3:1828:A:C6	2.52	0.43
30:3:1871:U:O2'	30:3:2417:G:N2	2.51	0.43
30:3:1995:G:C2	30:3:1996:A:C5	3.05	0.43
30:3:2106:G:N2	30:3:2198:G:H1	2.16	0.43
30:3:2316:G:N3	30:3:2316:G:H2'	2.34	0.43
30:3:2683:G:H2'	30:3:2684:G:C8	2.53	0.43
30:3:191:G:H21	30:3:1393:A:H61	1.67	0.43
30:3:1309:G:H2'	30:3:1310:U:H6	1.83	0.43
30:3:1641:A:H8	30:3:1655:U:H2'	1.83	0.43
30:3:1903:A:H2'	30:3:1904:G:C8	2.53	0.43
30:3:1938:U:H2'	30:3:1939:A:C8	2.53	0.43
30:3:2060:G:N7	30:3:2585:A:N6	2.65	0.43
30:3:2109:A:N1	30:3:2196:G:C6	2.86	0.43
30:3:2291:U:N3	30:3:2292:A:N7	2.66	0.43
30:3:2850:G:H2'	30:3:2851:U:C6	2.53	0.43
30:3:129:U:H2'	30:3:130:C:C6	2.54	0.43
30:3:210:U:C2	30:3:211:A:C8	3.07	0.43
30:3:274:A:C6	30:3:408:G:C6	3.06	0.43
30:3:634:C:H2'	30:3:635:G:C8	2.53	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:730:G:N2	30:3:802:U:O2	2.37	0.43
30:3:1257:G:OP1	30:3:1280:G:N2	2.49	0.43
30:3:1415:A:H2'	30:3:1416:G:H8	1.84	0.43
30:3:1476:C:H1'	30:3:1554:A:H2	1.83	0.43
30:3:1677:G:H8	30:3:1677:G:OP2	2.01	0.43
30:3:1757:G:H2'	30:3:1758:C:C6	2.53	0.43
30:3:1818:G:H2'	30:3:1819:G:C8	2.53	0.43
30:3:2076:G:H2'	30:3:2077:A:H8	1.83	0.43
30:3:2463:G:H2'	30:3:2464:C:H6	1.83	0.43
30:3:2493:G:H2'	30:3:2494:C:C6	2.54	0.43
3:2:35:ARG:HH22	30:3:2750:A:P	2.41	0.43
30:3:525:A:H2'	30:3:526:G:N9	2.33	0.43
30:3:762:A:H3'	30:3:763:G:C8	2.52	0.43
30:3:779:C:H2'	30:3:780:G:H8	1.82	0.43
30:3:1091:G:H5''	30:3:1092:A:O4'	2.18	0.43
30:3:1199:A:H2'	30:3:1200:U:C6	2.53	0.43
30:3:1235:U:H3'	30:3:1236:G:H5''	2.01	0.43
30:3:1262:G:C2	30:3:1263:G:C8	3.07	0.43
30:3:1494:U:O3'	30:3:1495:A:H8	2.02	0.43
30:3:1534:A:H1'	30:3:1535:A:C8	2.53	0.43
30:3:1947:U:H4'	30:3:1972:C:H41	1.84	0.43
30:3:176:U:H2'	30:3:177:U:C6	2.53	0.43
30:3:257:C:H2'	30:3:258:G:O4'	2.18	0.43
30:3:275:A:O2'	30:3:406:C:H4'	2.18	0.43
30:3:464:A:H3'	30:3:465:A:N7	2.34	0.43
30:3:596:G:H2'	30:3:597:C:H6	1.83	0.43
30:3:1187:C:H2'	30:3:1188:C:C6	2.53	0.43
30:3:1612:U:H2'	30:3:1613:A:H8	1.84	0.43
30:3:1815:U:O2'	30:3:1816:A:C8	2.72	0.43
30:3:2381:G:H2'	30:3:2382:A:C8	2.51	0.43
31:4:94:A:H3'	31:4:95:G:H8	1.83	0.43
2:1:14:THR:OG1	2:1:18:GLN:O	2.27	0.43
30:3:263:C:H2'	30:3:264:G:C8	2.52	0.43
30:3:816:A:H2'	30:3:1784:U:H1'	2.01	0.43
30:3:1036:A:OP2	30:3:1189:G:N1	2.44	0.43
30:3:1158:C:H2'	30:3:1159:C:C6	2.54	0.43
30:3:1307:G:H2'	30:3:1308:A:H8	1.83	0.43
30:3:1699:A:H2'	30:3:1700:G:H8	1.80	0.43
30:3:2405:G:H1	30:3:2427:U:H3	1.67	0.43
30:3:2502:G:H2'	30:3:2503:G:C8	2.54	0.43
30:3:2580:A:OP1	30:3:2582:G:O2'	2.22	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:2795:C:H2'	30:3:2796:C:C6	2.53	0.43
30:3:2869:U:H2'	30:3:2870:U:C5	2.54	0.43
30:3:291:G:C2	30:3:292:G:N7	2.86	0.43
30:3:691:G:H2'	30:3:692:U:C6	2.54	0.43
30:3:805:G:H2'	30:3:806:A:H8	1.80	0.43
30:3:905:U:C4	30:3:949:C:H1'	2.54	0.43
30:3:1010:G:N7	30:3:1217:G:N2	2.67	0.43
30:3:1119:A:N6	30:3:1120:A:N1	2.67	0.43
30:3:1273:U:H2'	30:3:1274:A:H8	1.82	0.43
30:3:1755:A:H2'	30:3:1756:A:C8	2.54	0.43
30:3:1830:G:H2'	30:3:1831:G:C8	2.53	0.43
30:3:1844:C:O2'	30:3:1934:A:H1'	2.19	0.43
30:3:1846:A:C8	30:3:1934:A:C5	3.07	0.43
30:3:2236:G:H2'	30:3:2237:U:C6	2.54	0.43
30:3:2584:G:O2'	30:3:2587:U:OP2	2.21	0.43
30:3:220:A:N7	30:3:467:U:O2	2.51	0.43
30:3:385:U:H2'	30:3:386:U:H6	1.84	0.43
30:3:495:U:H2'	30:3:496:A:C8	2.54	0.43
30:3:1033:A:H2'	30:3:1034:A:C8	2.53	0.43
30:3:1176:U:H1'	30:3:1177:A:C5	2.53	0.43
30:3:1343:C:H2'	30:3:1344:U:C6	2.54	0.43
30:3:1609:U:H2'	30:3:1610:U:C6	2.53	0.43
30:3:2840:U:H2'	30:3:2841:A:C8	2.53	0.43
30:3:2862:U:O2'	30:3:2863:G:OP1	2.33	0.43
3:2:18:LYS:O	30:3:2764:U:H5''	2.19	0.42
30:3:444:C:H2'	30:3:445:C:C6	2.54	0.42
30:3:603:G:H1	30:3:2507:C:P	2.42	0.42
30:3:615:G:H2'	30:3:616:G:C8	2.55	0.42
30:3:947:A:O2'	30:3:948:A:O4'	2.21	0.42
30:3:1473:C:H2'	30:3:1474:C:H6	1.83	0.42
30:3:1497:A:N6	30:3:1547:G:H21	2.17	0.42
30:3:1750:A:H8	30:3:1750:A:O5'	2.01	0.42
30:3:1777:G:H2'	30:3:1778:G:C8	2.53	0.42
30:3:1865:A:H2'	30:3:1866:G:O4'	2.19	0.42
30:3:2022:A:H8	30:3:2023:U:C5	2.37	0.42
30:3:2177:G:H8	30:3:2177:G:OP1	2.02	0.42
30:3:2279:G:H2'	30:3:2280:U:C6	2.54	0.42
30:3:2372:C:H2'	30:3:2373:G:O4'	2.19	0.42
30:3:2399:G:N1	30:3:2432:C:H3'	2.34	0.42
30:3:2495:A:H2'	30:3:2496:G:C8	2.54	0.42
30:3:219:G:H21	30:3:468:A:N6	2.16	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:546:U:H3'	30:3:547:G:H8	1.84	0.42
30:3:626:A:H2'	30:3:627:U:H6	1.84	0.42
30:3:793:C:H2'	30:3:794:G:C8	2.54	0.42
30:3:1305:G:C6	30:3:1322:A:C6	3.07	0.42
30:3:1445:U:H2'	30:3:1446:G:C8	2.53	0.42
30:3:1713:U:N3	30:3:1996:A:H2	2.17	0.42
30:3:1941:C:H2'	30:3:1942:G:C8	2.53	0.42
30:3:2537:G:H5''	30:3:2538:A:H5''	2.01	0.42
30:3:2803:G:H21	30:3:2804:C:H3'	1.84	0.42
30:3:101:C:H3'	30:3:102:A:H8	1.83	0.42
30:3:539:U:O2'	30:3:1265:G:OP1	2.32	0.42
30:3:761:G:H3'	30:3:1460:G:H4'	2.02	0.42
30:3:1015:G:H2'	30:3:1018:G:N7	2.35	0.42
30:3:1212:C:C2	30:3:1213:U:C5	3.07	0.42
30:3:1286:G:H2'	30:3:1286:G:N3	2.35	0.42
30:3:1856:G:H2'	30:3:1857:G:C8	2.54	0.42
30:3:2153:U:O2	30:3:2154:A:N6	2.51	0.42
30:3:2344:A:O2'	30:3:2345:G:H5'	2.19	0.42
30:3:2540:G:N2	30:3:2672:G:O4'	2.51	0.42
30:3:2685:A:H61	30:3:2739:C:H42	1.68	0.42
30:3:2880:A:H2'	30:3:2881:A:C8	2.54	0.42
31:4:73:U:H2'	31:4:74:G:C8	2.53	0.42
1:0:25:ALA:HA	1:0:28:ARG:HE	1.84	0.42
30:3:874:U:H3	30:3:975:G:H1	1.68	0.42
30:3:897:A:C4	30:3:898:A:C8	3.07	0.42
30:3:1362:C:H2'	30:3:1363:C:C6	2.55	0.42
30:3:1673:U:H1'	30:3:2707:A:H5'	2.01	0.42
30:3:1701:G:N1	30:3:1999:G:OP2	2.51	0.42
30:3:1841:U:O2'	30:3:1976:A:H3'	2.20	0.42
30:3:2177:G:H2'	30:3:2178:A:C8	2.54	0.42
30:3:2750:A:H2'	30:3:2751:C:H6	1.83	0.42
30:3:2764:U:H4'	30:3:2765:A:OP1	2.18	0.42
30:3:2839:A:H61	30:3:2882:U:H3'	1.84	0.42
30:3:65:A:H62	30:3:93:A:N6	2.17	0.42
30:3:252:G:C4	30:3:254:G:N2	2.86	0.42
30:3:379:A:H1'	30:3:381:A:H62	1.85	0.42
30:3:654:G:H2'	30:3:655:G:O4'	2.18	0.42
30:3:1445:U:H2'	30:3:1446:G:N9	2.34	0.42
30:3:1754:U:H2'	30:3:1755:A:H8	1.81	0.42
30:3:1990:C:H2'	30:3:1991:U:C6	2.55	0.42
30:3:2044:C:H2'	30:3:2045:C:C6	2.55	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:2061:A:H62	30:3:2585:A:H2	1.68	0.42
30:3:2218:U:H4'	30:3:2219:U:C6	2.53	0.42
30:3:2488:C:H2'	30:3:2489:G:O4'	2.19	0.42
30:3:2501:U:H3'	30:3:2502:G:H5''	2.01	0.42
30:3:189:U:H2'	30:3:190:G:H8	1.84	0.42
30:3:194:A:N6	30:3:211:A:H1'	2.35	0.42
30:3:487:C:N4	30:3:490:A:OP2	2.51	0.42
30:3:550:A:H2	30:3:1290:G:H21	1.66	0.42
30:3:554:U:H2'	30:3:555:A:C8	2.54	0.42
30:3:643:A:N6	30:3:655:G:H21	2.10	0.42
30:3:1100:U:H2'	30:3:1101:U:C2	2.54	0.42
30:3:1443:A:H2	30:3:1621:U:H3	1.67	0.42
30:3:1638:C:H2'	30:3:1639:C:C6	2.55	0.42
30:3:2026:A:H2'	30:3:2027:G:O4'	2.19	0.42
30:3:2110:U:H2'	30:3:2194:G:N2	2.34	0.42
30:3:2142:U:O2	30:3:2166:U:O2'	2.37	0.42
30:3:289:U:H2'	30:3:290:A:C8	2.54	0.42
30:3:613:C:H2'	30:3:614:C:H6	1.85	0.42
30:3:615:G:H2'	30:3:616:G:H8	1.85	0.42
30:3:723:U:H2'	30:3:724:A:H8	1.84	0.42
30:3:820:U:H2'	30:3:821:C:C6	2.54	0.42
30:3:1010:G:H1	30:3:1025:G:H1'	1.83	0.42
30:3:1382:A:C8	30:3:1383:G:C8	3.07	0.42
30:3:1936:G:H4'	30:3:1937:G:OP1	2.20	0.42
30:3:2455:G:H1	30:3:2459:A:N6	2.05	0.42
30:3:2468:U:H2'	30:3:2469:A:H8	1.85	0.42
1:0:18:PHE:O	1:0:22:MET:N	2.53	0.42
2:1:48:SER:O	2:1:52:PHE:N	2.40	0.42
30:3:142:A:N3	30:3:1437:A:H1'	2.34	0.42
30:3:154:U:H2'	30:3:155:A:C8	2.53	0.42
30:3:201:A:H2	30:3:2442:A:H62	1.68	0.42
30:3:402:A:HO2'	30:3:404:C:H5	1.63	0.42
30:3:512:G:H22	30:3:514:A:H3'	1.84	0.42
30:3:525:A:C6	30:3:1312:A:N1	2.88	0.42
30:3:802:U:H2'	30:3:803:G:C8	2.54	0.42
30:3:1138:A:H3'	30:3:1139:C:C6	2.55	0.42
30:3:1206:U:O2'	30:3:1208:A:N6	2.52	0.42
30:3:1249:A:O3'	30:3:1250:A:H2'	2.20	0.42
30:3:1294:G:H3'	30:3:1295:A:C8	2.54	0.42
30:3:1798:A:H2'	30:3:1799:A:O4'	2.19	0.42
30:3:1884:A:H2'	30:3:1885:G:C8	2.54	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:2160:U:H2'	30:3:2161:G:C8	2.55	0.42
30:3:2382:A:H2'	30:3:2383:G:H8	1.85	0.42
30:3:2623:U:H2'	30:3:2624:C:H6	1.84	0.42
30:3:115:U:H2'	30:3:116:C:C6	2.55	0.42
30:3:158:U:H2'	30:3:159:G:H8	1.84	0.42
30:3:295:U:H4'	30:3:296:U:OP2	2.17	0.42
30:3:895:G:H4'	30:3:896:U:H5'	2.02	0.42
30:3:1048:A:H2'	30:3:1049:U:C6	2.55	0.42
30:3:1493:A:N7	30:3:1579:G:H2'	2.35	0.42
30:3:1621:U:O2'	30:3:1622:C:H5'	2.19	0.42
30:3:1694:A:H2'	30:3:1695:G:C8	2.54	0.42
30:3:1856:G:H2'	30:3:1857:G:H8	1.85	0.42
30:3:1939:A:H2'	30:3:1940:G:O4'	2.20	0.42
30:3:2021:A:H2'	30:3:2022:A:C8	2.55	0.42
30:3:2079:G:H2'	30:3:2080:C:C6	2.55	0.42
30:3:2527:U:O4'	30:3:2550:A:N6	2.51	0.42
3:2:19:ARG:HD3	30:3:2763:C:C4	2.55	0.42
30:3:149:A:H2'	30:3:150:U:C6	2.55	0.42
30:3:217:A:H2	30:3:221:A:H4'	1.84	0.42
30:3:225:A:N3	30:3:237:A:H1'	2.34	0.42
30:3:676:U:C4	30:3:677:U:O4	2.73	0.42
30:3:897:A:C5	30:3:898:A:C8	3.08	0.42
30:3:956:U:C2	30:3:957:G:C8	3.08	0.42
30:3:1065:G:C6	30:3:1160:G:N2	2.88	0.42
30:3:1462:A:O2'	30:3:1463:G:H8	2.03	0.42
30:3:2006:C:H5''	30:3:2731:U:O2'	2.20	0.42
30:3:2100:G:N7	30:3:2233:A:H2'	2.35	0.42
30:3:2244:U:H2'	30:3:2245:G:O4'	2.20	0.42
30:3:2470:C:H2'	30:3:2471:U:C6	2.55	0.42
31:4:8:C:H2'	31:4:9:C:O4'	2.19	0.42
30:3:421:A:H62	30:3:423:C:H2'	1.82	0.41
30:3:696:U:H2'	30:3:697:U:H6	1.83	0.41
30:3:853:G:H4'	30:3:873:G:O3'	2.20	0.41
30:3:941:C:C2	30:3:942:A:C8	3.08	0.41
30:3:1521:A:H2'	30:3:1523:C:H41	1.85	0.41
30:3:1544:G:C2	30:3:1545:A:N7	2.88	0.41
30:3:2784:A:HO2'	30:3:2789:A:HO2'	1.50	0.41
30:3:231:A:H62	30:3:446:A:H1'	1.84	0.41
30:3:312:U:H2'	30:3:313:G:C8	2.55	0.41
30:3:381:A:H2'	30:3:382:U:H6	1.85	0.41
30:3:430:U:H2'	30:3:431:U:C6	2.54	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:666:G:H22	30:3:668:A:H3'	1.83	0.41
30:3:793:C:O2'	30:3:1988:A:N3	2.47	0.41
30:3:831:U:H2'	30:3:832:C:C6	2.55	0.41
30:3:899:A:H2'	30:3:900:G:C5	2.55	0.41
30:3:931:G:H2'	30:3:932:U:O4'	2.20	0.41
30:3:1041:C:H2'	30:3:1042:C:C6	2.55	0.41
30:3:1305:G:O6	30:3:1322:A:N6	2.53	0.41
30:3:1409:G:H2'	30:3:1410:A:C8	2.55	0.41
30:3:1442:G:H2'	30:3:1443:A:O4'	2.20	0.41
30:3:1748:U:O2	30:3:1750:A:C5	2.73	0.41
30:3:1958:U:O2'	30:3:1960:A:N7	2.44	0.41
30:3:2710:G:H2'	30:3:2711:C:C6	2.55	0.41
30:3:2744:A:H2'	30:3:2745:G:C8	2.55	0.41
31:4:76:A:N3	31:4:76:A:H2'	2.35	0.41
30:3:223:A:H2'	30:3:224:G:C8	2.55	0.41
30:3:267:A:H1'	30:3:466:A:N3	2.35	0.41
30:3:539:U:O2	30:3:1264:U:O2'	2.31	0.41
30:3:614:C:H2'	30:3:615:G:C8	2.54	0.41
30:3:616:G:H2'	30:3:617:C:H6	1.84	0.41
30:3:822:C:H3'	30:3:826:C:H41	1.85	0.41
30:3:1166:G:H1	30:3:2046:G:H21	1.67	0.41
30:3:1669:A:H2'	30:3:1670:U:O4'	2.19	0.41
30:3:1717:C:H2'	30:3:1718:C:C6	2.54	0.41
30:3:2076:G:H2'	30:3:2077:A:C8	2.55	0.41
30:3:2147:G:C2	30:3:2148:U:C4	3.09	0.41
30:3:2332:U:H3'	30:3:2333:G:C5'	2.50	0.41
30:3:2467:A:H2'	30:3:2468:U:O4'	2.20	0.41
30:3:961:U:O2	30:3:962:U:C5	2.73	0.41
30:3:1010:G:HO2'	30:3:1011:A:P	2.43	0.41
30:3:1284:A:OP2	30:3:1286:G:H5''	2.21	0.41
30:3:1294:G:H3'	30:3:1295:A:H8	1.85	0.41
30:3:1799:A:H2'	30:3:1800:C:H6	1.86	0.41
30:3:2055:A:C6	30:3:2056:A:C8	3.08	0.41
30:3:2514:U:OP2	30:3:2584:G:N1	2.42	0.41
30:3:2646:G:H1'	30:3:2786:A:N6	2.34	0.41
30:3:2812:U:O2'	30:3:2814:A:N7	2.46	0.41
30:3:2846:A:H2'	30:3:2847:C:H6	1.84	0.41
2:1:37:GLN:OE1	2:1:37:GLN:N	2.52	0.41
3:2:21:GLN:NE2	30:3:2765:A:OP2	2.54	0.41
30:3:225:A:N1	30:3:269:A:O2'	2.53	0.41
30:3:500:U:H3'	30:3:501:G:N7	2.35	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:937:A:H3'	30:3:938:A:H8	1.85	0.41
30:3:1054:U:C2	30:3:1179:G:N1	2.89	0.41
30:3:1227:C:C2	30:3:1228:G:C8	3.08	0.41
30:3:1444:C:O2'	30:3:1445:U:OP2	2.39	0.41
30:3:1910:G:H2'	30:3:1911:G:H8	1.84	0.41
30:3:2179:A:H1'	30:3:2180:U:C6	2.55	0.41
30:3:2685:A:H2'	30:3:2686:C:C6	2.56	0.41
30:3:34:C:H2'	30:3:35:U:H6	1.86	0.41
30:3:81:C:H2'	30:3:82:G:H8	1.85	0.41
30:3:428:U:C2	30:3:429:U:C5	3.09	0.41
30:3:625:G:H2'	30:3:626:A:H8	1.84	0.41
30:3:759:U:C2'	30:3:760:G:H5'	2.51	0.41
30:3:1475:C:H2'	30:3:1476:C:H6	1.85	0.41
30:3:1523:C:H2'	30:3:1524:C:C6	2.55	0.41
30:3:1605:A:H2'	30:3:1606:A:C8	2.54	0.41
30:3:1634:A:H2'	30:3:1635:G:C8	2.56	0.41
30:3:1776:G:H2'	30:3:1777:G:C8	2.50	0.41
30:3:1953:U:H2'	30:3:1954:C:C6	2.56	0.41
30:3:2034:G:H2'	30:3:2035:U:O4'	2.21	0.41
30:3:2087:G:C6	30:3:2249:A:N6	2.88	0.41
30:3:2274:A:H5'	30:3:2275:A:C4	2.56	0.41
30:3:2802:C:H5''	30:3:2806:A:N6	2.35	0.41
30:3:21:U:H2'	30:3:22:U:C6	2.56	0.41
30:3:245:U:H4'	30:3:246:G:H4'	2.01	0.41
30:3:573:A:H2'	30:3:574:G:O4'	2.20	0.41
30:3:670:G:H2'	30:3:671:C:H6	1.86	0.41
30:3:682:A:N3	30:3:682:A:H2'	2.36	0.41
30:3:1183:A:H2'	30:3:1184:U:C6	2.55	0.41
30:3:1943:A:OP2	30:3:1969:C:N4	2.54	0.41
30:3:2081:U:H1'	30:3:2606:A:N3	2.36	0.41
30:3:2273:U:O2'	30:3:2282:A:N6	2.54	0.41
30:3:2460:C:N4	30:3:2512:U:O4	2.52	0.41
30:3:2480:G:N2	30:3:2486:A:H62	2.18	0.41
30:3:2651:G:C5	30:3:2652:U:C4	3.09	0.41
30:3:2662:A:H4'	30:3:2663:G:H4'	2.02	0.41
30:3:2670:A:H3'	30:3:2671:G:C8	2.54	0.41
30:3:2820:G:H2'	30:3:2821:U:H6	1.86	0.41
3:2:4:ARG:H	3:2:36:GLN:HB3	1.85	0.41
30:3:216:C:H2'	30:3:217:A:O4'	2.21	0.41
30:3:220:A:C8	30:3:467:U:N3	2.89	0.41
30:3:601:U:H2'	30:3:603:G:N7	2.35	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:739:G:N2	30:3:761:G:N3	2.69	0.41
30:3:998:C:O2'	30:3:2505:A:OP1	2.22	0.41
30:3:1029:A:O2'	30:3:1030:U:H5'	2.20	0.41
30:3:1045:A:O2'	30:3:1188:C:O2'	2.36	0.41
30:3:1056:A:O2'	30:3:1058:U:O4'	2.37	0.41
30:3:1375:G:C6	30:3:1634:A:C6	3.09	0.41
30:3:1552:C:H2'	30:3:1553:G:C8	2.56	0.41
30:3:1702:A:H2	30:3:1709:C:H41	1.69	0.41
30:3:1844:C:O2'	30:3:1934:A:N3	2.45	0.41
30:3:2094:A:H2'	30:3:2095:A:C8	2.56	0.41
2:1:3:VAL:HG13	2:1:59:ILE:HG23	2.01	0.41
2:1:53:LYS:HE3	2:1:53:LYS:HB3	1.85	0.41
30:3:62:G:H1'	30:3:64:U:C4	2.55	0.41
30:3:275:A:H3'	30:3:276:A:H5''	2.03	0.41
30:3:335:G:O2'	30:3:336:C:O5'	2.35	0.41
30:3:593:C:H2'	30:3:594:G:O4'	2.20	0.41
30:3:724:A:H2	30:3:814:U:H4'	1.85	0.41
30:3:1006:U:H5'	30:3:1024:A:H61	1.86	0.41
30:3:1084:C:H41	30:3:1145:G:N2	2.17	0.41
30:3:1510:A:N6	30:3:1530:G:O6	2.53	0.41
30:3:1529:U:H2'	30:3:1530:G:C8	2.56	0.41
30:3:1613:A:H3'	30:3:1614:G:C8	2.56	0.41
30:3:1653:C:H2'	30:3:1654:G:C8	2.55	0.41
30:3:1667:G:O2'	30:3:1668:G:OP1	2.38	0.41
30:3:1682:C:N4	30:3:2017:G:O6	2.54	0.41
30:3:1744:U:H4'	30:3:2862:U:O4	2.21	0.41
30:3:1747:G:H1	30:3:1751:A:H5''	1.85	0.41
30:3:1762:A:N1	30:3:2724:U:H1'	2.36	0.41
30:3:1849:G:C2'	30:3:1850:C:H5'	2.51	0.41
30:3:1922:U:H3'	30:3:1923:A:C8	2.56	0.41
30:3:2110:U:H2'	30:3:2194:G:H21	1.86	0.41
30:3:2223:C:H2'	30:3:2224:A:H8	1.85	0.41
30:3:2359:G:N2	30:3:2373:G:H2'	2.36	0.41
30:3:2397:G:H5''	30:3:2398:U:H5'	2.03	0.41
30:3:2470:C:H1'	30:3:2499:U:H3	1.86	0.41
30:3:2652:U:H2'	30:3:2653:G:N9	2.36	0.41
30:3:2659:U:H2'	30:3:2660:C:C6	2.56	0.41
30:3:2792:C:H2'	30:3:2793:U:C6	2.56	0.41
30:3:2795:C:O2'	30:3:2814:A:H4'	2.21	0.41
30:3:2828:C:H2'	30:3:2829:G:O4'	2.20	0.41
30:3:225:A:H4'	30:3:226:A:N3	2.35	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:518:A:H1'	30:3:541:G:C6	2.56	0.41
30:3:779:C:H2'	30:3:780:G:C8	2.56	0.41
30:3:884:A:H2'	30:3:885:A:C8	2.55	0.41
30:3:889:G:H2'	30:3:890:U:H6	1.86	0.41
30:3:1481:U:H1'	30:3:1482:U:H3'	2.03	0.41
30:3:1768:G:H2'	30:3:1769:A:N9	2.36	0.41
30:3:2022:A:H3'	30:3:2023:U:C6	2.56	0.41
30:3:2062:C:O2	30:3:2580:A:N6	2.54	0.41
30:3:2190:G:C6	30:3:2191:G:C6	3.09	0.41
30:3:2355:C:OP2	30:3:2390:G:H4'	2.21	0.41
30:3:2386:A:HO2'	30:3:2387:U:P	2.42	0.41
30:3:2506:C:H4'	30:3:2507:C:OP1	2.21	0.41
30:3:2631:G:N3	30:3:2631:G:H2'	2.36	0.41
30:3:2831:U:H2'	30:3:2832:G:H8	1.85	0.41
31:4:89:A:N3	31:4:90:G:C8	2.89	0.41
30:3:484:U:H3	30:3:616:G:H1'	1.87	0.40
30:3:501:G:H21	30:3:719:G:H4'	1.85	0.40
30:3:710:A:N6	30:3:839:A:H1'	2.36	0.40
30:3:1263:G:H2'	30:3:1264:U:H6	1.85	0.40
30:3:1622:C:H2'	30:3:1623:U:H6	1.85	0.40
30:3:1701:G:O2'	30:3:1998:U:O4	2.34	0.40
30:3:1724:A:H3'	30:3:1725:G:H8	1.86	0.40
30:3:1949:C:H2'	30:3:1950:U:C5	2.56	0.40
30:3:1994:U:H2'	30:3:1995:G:C8	2.56	0.40
30:3:2260:G:H2'	30:3:2261:G:H8	1.87	0.40
30:3:2582:G:H2'	30:3:2583:U:O4'	2.21	0.40
30:3:2639:G:H2'	30:3:2640:A:C8	2.54	0.40
30:3:2770:U:H2'	30:3:2771:G:O4'	2.21	0.40
30:3:178:A:H2'	30:3:179:A:C8	2.56	0.40
30:3:246:G:H22	30:3:259:A:P	2.44	0.40
30:3:292:G:H2'	30:3:292:G:N3	2.37	0.40
30:3:353:G:H22	30:3:357:A:N6	2.12	0.40
30:3:427:A:H4'	30:3:448:A:O3'	2.22	0.40
30:3:597:C:O2'	30:3:1283:A:N1	2.38	0.40
30:3:603:G:O4'	30:3:1019:A:N6	2.54	0.40
30:3:766:C:H2'	30:3:767:C:C6	2.56	0.40
30:3:827:G:H4'	30:3:828:A:O4'	2.22	0.40
30:3:945:U:H2'	30:3:946:A:C8	2.56	0.40
30:3:1186:A:H2'	30:3:1187:C:C6	2.56	0.40
30:3:1422:U:H5''	30:3:1637:A:H4'	2.03	0.40
30:3:1520:A:H2'	30:3:1521:A:H8	1.85	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:3:1745:A:H2'	30:3:1746:U:C6	2.57	0.40
30:3:1957:G:OP2	30:3:1957:G:H8	2.04	0.40
30:3:2029:U:O2'	30:3:2624:C:O2'	2.37	0.40
30:3:2407:G:C6	30:3:2426:A:N1	2.90	0.40
1:0:3:ARG:NH2	30:3:1647:A:O2'	2.55	0.40
2:1:34:THR:HG22	2:1:36:LYS:H	1.85	0.40
30:3:121:U:H5''	30:3:123:G:OP2	2.22	0.40
30:3:1252:C:H2'	30:3:1253:G:O4'	2.21	0.40
30:3:1819:G:H2'	30:3:1820:U:H6	1.87	0.40
30:3:2098:U:H3'	30:3:2099:U:H2'	2.04	0.40
30:3:2130:A:H2'	30:3:2131:G:C8	2.57	0.40
30:3:2579:U:H5''	30:3:2580:A:H5''	2.03	0.40
31:4:99:A:H2'	31:4:100:G:O4'	2.22	0.40
31:4:103:C:H2'	31:4:104:C:C6	2.56	0.40
1:0:9:LYS:HE2	30:3:1338:G:OP1	2.21	0.40
1:0:36:LYS:HD3	30:3:185:U:C4	2.56	0.40
30:3:8:A:H2'	30:3:9:G:H8	1.84	0.40
30:3:291:G:N3	30:3:292:G:C8	2.90	0.40
30:3:343:A:H1'	30:3:363:G:N3	2.36	0.40
30:3:589:A:H2'	30:3:590:U:O4'	2.21	0.40
30:3:1364:A:H2'	30:3:1365:G:C8	2.56	0.40
30:3:2533:A:H2'	30:3:2534:G:C8	2.54	0.40
30:3:2806:A:H2'	30:3:2807:G:O4'	2.21	0.40
31:4:24:A:C2	31:4:25:A:H1'	2.56	0.40
31:4:34:U:H2'	31:4:35:C:C6	2.56	0.40
1:0:27:GLY:O	1:0:31:LEU:HD13	2.22	0.40
30:3:129:U:H2'	30:3:130:C:H6	1.85	0.40
30:3:237:A:N6	30:3:268:C:O2'	2.54	0.40
30:3:385:U:H2'	30:3:386:U:C6	2.56	0.40
30:3:598:G:H2'	30:3:599:U:C6	2.56	0.40
30:3:603:G:N2	30:3:2037:A:O4'	2.55	0.40
30:3:832:C:H2'	30:3:833:C:H6	1.86	0.40
30:3:858:A:H2'	30:3:859:G:H8	1.87	0.40
30:3:1061:A:H2'	30:3:1062:A:C8	2.46	0.40
30:3:1098:G:C6	30:3:1099:C:N4	2.90	0.40
30:3:1588:A:O2'	30:3:1589:A:P	2.79	0.40
30:3:1683:G:H2'	30:3:1684:A:C8	2.56	0.40
30:3:1821:G:OP2	30:3:1822:A:H3'	2.21	0.40
30:3:1859:U:O2	30:3:1897:A:N6	2.41	0.40
30:3:1896:A:H1'	30:3:2094:A:H4'	2.02	0.40
30:3:2824:A:H3'	30:3:2825:A:C8	2.44	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	0	45/48 (94%)	45 (100%)	0	0	100	100
2	1	57/59 (97%)	54 (95%)	3 (5%)	0	100	100
3	2	35/37 (95%)	35 (100%)	0	0	100	100
4	a	283/287 (99%)	260 (92%)	23 (8%)	0	100	100
5	b	227/287 (79%)	213 (94%)	14 (6%)	0	100	100
6	c	208/212 (98%)	199 (96%)	9 (4%)	0	100	100
7	d	173/180 (96%)	161 (93%)	12 (7%)	0	100	100
8	e	174/184 (95%)	164 (94%)	10 (6%)	0	100	100
9	f	143/149 (96%)	130 (91%)	13 (9%)	0	100	100
10	g	124/161 (77%)	114 (92%)	9 (7%)	1 (1%)	19	60
11	h	126/137 (92%)	121 (96%)	5 (4%)	0	100	100
12	i	142/146 (97%)	130 (92%)	12 (8%)	0	100	100
13	j	120/122 (98%)	117 (98%)	3 (2%)	0	100	100
14	k	146/151 (97%)	137 (94%)	9 (6%)	0	100	100
15	l	134/139 (96%)	122 (91%)	12 (9%)	0	100	100
16	m	117/124 (94%)	112 (96%)	5 (4%)	0	100	100
17	n	108/116 (93%)	102 (94%)	6 (6%)	0	100	100
18	o	113/119 (95%)	104 (92%)	9 (8%)	0	100	100
19	p	112/127 (88%)	109 (97%)	3 (3%)	0	100	100
20	q	97/100 (97%)	83 (86%)	14 (14%)	0	100	100
21	r	137/159 (86%)	128 (93%)	9 (7%)	0	100	100
22	s	90/237 (38%)	85 (94%)	5 (6%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
23	t	109/111 (98%)	102 (94%)	7 (6%)	0	100	100
24	u	84/104 (81%)	77 (92%)	7 (8%)	0	100	100
25	v	61/65 (94%)	58 (95%)	3 (5%)	0	100	100
26	w	96/111 (86%)	88 (92%)	8 (8%)	0	100	100
27	x	42/97 (43%)	38 (90%)	4 (10%)	0	100	100
28	y	54/57 (95%)	50 (93%)	4 (7%)	0	100	100
29	z	48/53 (91%)	45 (94%)	3 (6%)	0	100	100
All	All	3405/3879 (88%)	3183 (94%)	221 (6%)	1 (0%)	100	100

All (1) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
10	g	32	MET

5.3.2 Protein sidechains [i](#)

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	241/243 (99%)	241 (100%)	0	100	100
5	b	186/233 (80%)	186 (100%)	0	100	100
6	c	182/184 (99%)	181 (100%)	1 (0%)	88	93
7	d	150/154 (97%)	148 (99%)	2 (1%)	69	81
8	e	153/159 (96%)	153 (100%)	0	100	100
9	f	123/134 (92%)	123 (100%)	0	100	100
10	g	101/129 (78%)	86 (85%)	15 (15%)	3	15
11	h	102/110 (93%)	102 (100%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
12	i	126/128 (98%)	125 (99%)	1 (1%)	81	89
13	j	103/103 (100%)	101 (98%)	2 (2%)	57	75
14	k	123/126 (98%)	123 (100%)	0	100	100
15	l	113/115 (98%)	113 (100%)	0	100	100
16	m	105/109 (96%)	104 (99%)	1 (1%)	76	86
17	n	96/99 (97%)	95 (99%)	1 (1%)	76	86
18	o	101/105 (96%)	101 (100%)	0	100	100
19	p	100/108 (93%)	100 (100%)	0	100	100
20	q	90/91 (99%)	89 (99%)	1 (1%)	73	84
21	r	116/132 (88%)	115 (99%)	1 (1%)	78	87
22	s	82/208 (39%)	82 (100%)	0	100	100
23	t	96/96 (100%)	95 (99%)	1 (1%)	76	86
24	u	69/85 (81%)	69 (100%)	0	100	100
25	v	58/60 (97%)	58 (100%)	0	100	100
26	w	87/98 (89%)	86 (99%)	1 (1%)	73	84
27	x	41/86 (48%)	41 (100%)	0	100	100
28	y	48/49 (98%)	44 (92%)	4 (8%)	11	34
29	z	47/50 (94%)	45 (96%)	2 (4%)	29	53
All	All	2965/3321 (89%)	2932 (99%)	33 (1%)	74	84

All (33) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
6	c	148	LYS
7	d	18	LYS
7	d	125	ARG
10	g	27	PHE
10	g	29	TYR
10	g	30	THR
10	g	43	LYS
10	g	45	PHE
10	g	68	PHE
10	g	69	GLU
10	g	77	LYS
10	g	86	VAL
10	g	88	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
10	g	89	ILE
10	g	90	VAL
10	g	110	CYS
10	g	114	ASP
10	g	116	ARG
12	i	16	ARG
13	j	72	LYS
13	j	107	ARG
16	m	30	LYS
17	n	17	LYS
20	q	52	LYS
21	r	11	ARG
23	t	82	LYS
26	w	61	ARG
28	y	37	LYS
28	y	47	MET
28	y	51	LEU
28	y	52	ARG
29	z	8	ARG
29	z	26	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (13) such sidechains are listed below:

Mol	Chain	Res	Type
4	a	91	ASN
4	a	149	ASN
5	b	34	ASN
5	b	80	HIS
6	c	81	ASN
6	c	130	GLN
8	e	24	HIS
9	f	100	GLN
16	m	59	ASN
17	n	49	ASN
23	t	32	GLN
24	u	54	GLN
25	v	34	GLN

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
30	3	2875/2907 (98%)	844 (29%)	34 (1%)
31	4	103/108 (95%)	42 (40%)	3 (2%)
All	All	2978/3015 (98%)	886 (29%)	37 (1%)

All (886) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
30	3	12	A
30	3	14	U
30	3	15	A
30	3	20	C
30	3	27	U
30	3	28	G
30	3	29	G
30	3	30	A
30	3	36	U
30	3	37	G
30	3	41	C
30	3	48	G
30	3	52	U
30	3	53	G
30	3	56	G
30	3	61	U
30	3	64	U
30	3	65	A
30	3	73	A
30	3	75	A
30	3	76	A
30	3	77	G
30	3	85	U
30	3	90	G
30	3	94	A
30	3	97	A
30	3	101	C
30	3	102	A
30	3	103	G
30	3	115	U
30	3	119	A
30	3	120	A
30	3	121	U
30	3	122	G
30	3	126	C
30	3	132	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	3	136	G
30	3	139	G
30	3	147	C
30	3	152	A
30	3	163	A
30	3	165	U
30	3	170	A
30	3	179	A
30	3	184	A
30	3	198	G
30	3	200	A
30	3	204	U
30	3	208	A
30	3	210	U
30	3	212	G
30	3	218	G
30	3	219	G
30	3	220	A
30	3	226	A
30	3	228	A
30	3	230	G
30	3	232	A
30	3	233	U
30	3	234	G
30	3	237	A
30	3	245	U
30	3	247	U
30	3	251	G
30	3	252	G
30	3	256	G
30	3	261	A
30	3	265	G
30	3	266	A
30	3	269	A
30	3	270	G
30	3	276	A
30	3	283	A
30	3	284	U
30	3	287	G
30	3	288	A
30	3	292	G
30	3	293	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	3	294	G
30	3	295	U
30	3	296	U
30	3	297	G
30	3	298	U
30	3	299	A
30	3	309	A
30	3	310	U
30	3	314	G
30	3	315	A
30	3	316	C
30	3	317	U
30	3	319	G
30	3	320	A
30	3	335	G
30	3	336	C
30	3	345	A
30	3	351	G
30	3	355	A
30	3	357	A
30	3	363	G
30	3	364	A
30	3	366	A
30	3	369	C
30	3	377	U
30	3	396	A
30	3	397	G
30	3	399	G
30	3	400	A
30	3	401	G
30	3	402	A
30	3	403	U
30	3	404	C
30	3	405	C
30	3	408	G
30	3	409	A
30	3	410	G
30	3	411	U
30	3	418	G
30	3	422	A
30	3	423	C
30	3	424	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	3	426	U
30	3	432	G
30	3	437	A
30	3	439	U
30	3	440	C
30	3	441	U
30	3	447	G
30	3	448	A
30	3	460	G
30	3	464	A
30	3	465	A
30	3	466	A
30	3	471	A
30	3	472	A
30	3	473	U
30	3	478	G
30	3	482	G
30	3	484	U
30	3	487	C
30	3	490	A
30	3	495	U
30	3	500	U
30	3	501	G
30	3	502	A
30	3	503	G
30	3	506	A
30	3	509	G
30	3	511	U
30	3	514	A
30	3	515	A
30	3	517	G
30	3	521	C
30	3	531	G
30	3	539	U
30	3	543	U
30	3	544	U
30	3	548	A
30	3	554	U
30	3	558	C
30	3	563	A
30	3	565	C
30	3	566	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	3	567	U
30	3	568	G
30	3	583	U
30	3	584	G
30	3	589	A
30	3	595	U
30	3	596	G
30	3	598	G
30	3	599	U
30	3	601	U
30	3	605	A
30	3	606	G
30	3	607	U
30	3	608	A
30	3	616	G
30	3	633	G
30	3	636	U
30	3	637	U
30	3	648	G
30	3	650	G
30	3	656	G
30	3	657	A
30	3	663	A
30	3	673	A
30	3	679	A
30	3	680	A
30	3	681	A
30	3	682	A
30	3	683	G
30	3	689	U
30	3	691	G
30	3	693	U
30	3	701	A
30	3	705	A
30	3	706	C
30	3	707	C
30	3	710	A
30	3	712	A
30	3	719	G
30	3	720	A
30	3	721	G
30	3	722	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	3	723	U
30	3	725	G
30	3	734	A
30	3	738	U
30	3	739	G
30	3	740	A
30	3	752	C
30	3	754	U
30	3	760	G
30	3	761	G
30	3	763	G
30	3	764	G
30	3	765	A
30	3	774	A
30	3	775	C
30	3	777	C
30	3	782	U
30	3	787	C
30	3	792	G
30	3	797	U
30	3	799	A
30	3	810	G
30	3	811	G
30	3	812	G
30	3	816	A
30	3	817	A
30	3	818	A
30	3	819	U
30	3	820	U
30	3	825	U
30	3	827	G
30	3	828	A
30	3	837	A
30	3	840	G
30	3	841	C
30	3	842	U
30	3	846	U
30	3	847	C
30	3	854	A
30	3	862	U
30	3	864	A
30	3	865	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	3	873	G
30	3	883	A
30	3	885	A
30	3	887	A
30	3	889	G
30	3	896	U
30	3	902	U
30	3	903	A
30	3	904	C
30	3	906	G
30	3	914	G
30	3	916	U
30	3	917	G
30	3	932	U
30	3	934	C
30	3	936	G
30	3	947	A
30	3	949	C
30	3	951	C
30	3	952	U
30	3	953	G
30	3	968	U
30	3	971	U
30	3	977	A
30	3	981	A
30	3	982	G
30	3	989	G
30	3	991	G
30	3	993	A
30	3	994	U
30	3	997	G
30	3	1001	C
30	3	1008	A
30	3	1009	A
30	3	1010	G
30	3	1016	A
30	3	1017	A
30	3	1018	G
30	3	1019	A
30	3	1021	C
30	3	1026	A
30	3	1027	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	3	1031	U
30	3	1032	A
30	3	1035	U
30	3	1041	C
30	3	1045	A
30	3	1049	U
30	3	1055	A
30	3	1057	G
30	3	1061	A
30	3	1067	A
30	3	1068	U
30	3	1069	G
30	3	1075	G
30	3	1081	A
30	3	1082	A
30	3	1083	A
30	3	1092	A
30	3	1095	U
30	3	1096	U
30	3	1100	U
30	3	1101	U
30	3	1102	A
30	3	1103	G
30	3	1104	A
30	3	1105	A
30	3	1106	G
30	3	1107	C
30	3	1109	G
30	3	1112	A
30	3	1119	A
30	3	1122	G
30	3	1123	A
30	3	1124	G
30	3	1125	U
30	3	1130	A
30	3	1132	C
30	3	1139	C
30	3	1144	C
30	3	1145	G
30	3	1146	A
30	3	1147	G
30	3	1151	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	3	1154	U
30	3	1155	G
30	3	1162	A
30	3	1165	U
30	3	1167	U
30	3	1168	A
30	3	1170	C
30	3	1171	G
30	3	1174	G
30	3	1176	U
30	3	1177	A
30	3	1178	A
30	3	1179	G
30	3	1186	A
30	3	1189	G
30	3	1191	A
30	3	1195	A
30	3	1201	A
30	3	1207	U
30	3	1208	A
30	3	1209	U
30	3	1210	A
30	3	1212	C
30	3	1213	U
30	3	1215	G
30	3	1217	G
30	3	1226	G
30	3	1227	C
30	3	1229	U
30	3	1233	A
30	3	1235	U
30	3	1236	G
30	3	1240	U
30	3	1250	A
30	3	1251	G
30	3	1253	G
30	3	1255	G
30	3	1256	A
30	3	1257	G
30	3	1265	G
30	3	1266	G
30	3	1268	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	3	1274	A
30	3	1277	A
30	3	1278	G
30	3	1279	U
30	3	1281	A
30	3	1283	A
30	3	1286	G
30	3	1292	A
30	3	1295	A
30	3	1296	G
30	3	1297	U
30	3	1298	A
30	3	1301	G
30	3	1303	U
30	3	1314	A
30	3	1317	C
30	3	1322	A
30	3	1325	C
30	3	1328	A
30	3	1329	U
30	3	1330	U
30	3	1334	U
30	3	1340	U
30	3	1342	C
30	3	1349	C
30	3	1351	G
30	3	1353	G
30	3	1356	G
30	3	1360	U
30	3	1370	A
30	3	1371	G
30	3	1372	U
30	3	1373	C
30	3	1378	C
30	3	1393	A
30	3	1403	G
30	3	1406	A
30	3	1407	U
30	3	1408	G
30	3	1413	A
30	3	1420	A
30	3	1422	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	3	1423	A
30	3	1424	U
30	3	1428	U
30	3	1432	C
30	3	1437	A
30	3	1444	C
30	3	1447	A
30	3	1448	U
30	3	1449	G
30	3	1456	C
30	3	1457	A
30	3	1463	G
30	3	1466	U
30	3	1467	U
30	3	1479	A
30	3	1480	A
30	3	1481	U
30	3	1482	U
30	3	1483	G
30	3	1487	U
30	3	1495	A
30	3	1502	A
30	3	1503	A
30	3	1506	U
30	3	1507	G
30	3	1508	G
30	3	1510	A
30	3	1515	A
30	3	1518	C
30	3	1520	A
30	3	1528	G
30	3	1532	A
30	3	1534	A
30	3	1535	A
30	3	1541	A
30	3	1542	G
30	3	1546	U
30	3	1548	A
30	3	1550	G
30	3	1555	G
30	3	1557	G
30	3	1559	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	3	1571	G
30	3	1582	G
30	3	1584	U
30	3	1585	A
30	3	1586	U
30	3	1587	U
30	3	1588	A
30	3	1589	A
30	3	1593	U
30	3	1594	G
30	3	1600	A
30	3	1603	A
30	3	1612	U
30	3	1615	G
30	3	1618	U
30	3	1619	A
30	3	1622	C
30	3	1632	C
30	3	1636	U
30	3	1641	A
30	3	1642	G
30	3	1643	A
30	3	1644	A
30	3	1648	A
30	3	1649	C
30	3	1650	A
30	3	1651	C
30	3	1656	A
30	3	1661	A
30	3	1668	G
30	3	1677	G
30	3	1679	U
30	3	1681	G
30	3	1682	C
30	3	1683	G
30	3	1685	G
30	3	1692	A
30	3	1694	A
30	3	1697	C
30	3	1698	A
30	3	1699	A
30	3	1701	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	3	1702	A
30	3	1704	C
30	3	1706	C
30	3	1707	U
30	3	1708	G
30	3	1709	C
30	3	1710	A
30	3	1714	U
30	3	1715	A
30	3	1716	A
30	3	1727	U
30	3	1728	A
30	3	1732	A
30	3	1735	A
30	3	1747	G
30	3	1748	U
30	3	1751	A
30	3	1755	A
30	3	1758	C
30	3	1761	C
30	3	1762	A
30	3	1763	G
30	3	1764	U
30	3	1766	A
30	3	1768	G
30	3	1769	A
30	3	1770	A
30	3	1771	C
30	3	1772	G
30	3	1780	A
30	3	1784	U
30	3	1788	A
30	3	1789	C
30	3	1791	A
30	3	1792	A
30	3	1807	C
30	3	1808	C
30	3	1809	A
30	3	1812	C
30	3	1816	A
30	3	1821	G
30	3	1822	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	3	1823	U
30	3	1827	U
30	3	1828	A
30	3	1836	A
30	3	1843	C
30	3	1850	C
30	3	1858	U
30	3	1863	G
30	3	1869	G
30	3	1871	U
30	3	1873	A
30	3	1887	U
30	3	1888	U
30	3	1891	A
30	3	1892	A
30	3	1906	G
30	3	1907	A
30	3	1908	A
30	3	1910	G
30	3	1913	G
30	3	1920	A
30	3	1922	U
30	3	1923	A
30	3	1926	A
30	3	1934	A
30	3	1937	G
30	3	1938	U
30	3	1943	A
30	3	1944	A
30	3	1945	A
30	3	1950	U
30	3	1952	G
30	3	1957	G
30	3	1959	A
30	3	1961	A
30	3	1962	U
30	3	1971	G
30	3	1972	C
30	3	1974	U
30	3	1977	A
30	3	1978	U
30	3	1979	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	3	1982	G
30	3	1995	G
30	3	1997	C
30	3	1998	U
30	3	1999	G
30	3	2000	U
30	3	2009	U
30	3	2011	G
30	3	2020	A
30	3	2025	C
30	3	2028	G
30	3	2030	A
30	3	2037	A
30	3	2038	A
30	3	2040	A
30	3	2041	C
30	3	2043	C
30	3	2050	G
30	3	2053	G
30	3	2056	A
30	3	2059	G
30	3	2062	C
30	3	2063	G
30	3	2065	A
30	3	2067	A
30	3	2068	G
30	3	2069	A
30	3	2071	C
30	3	2075	U
30	3	2076	G
30	3	2083	U
30	3	2084	A
30	3	2087	G
30	3	2099	U
30	3	2100	G
30	3	2106	G
30	3	2107	A
30	3	2109	A
30	3	2111	U
30	3	2112	A
30	3	2114	C
30	3	2118	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	3	2119	A
30	3	2123	A
30	3	2124	A
30	3	2125	U
30	3	2126	A
30	3	2131	G
30	3	2133	A
30	3	2139	C
30	3	2140	G
30	3	2141	A
30	3	2143	G
30	3	2150	C
30	3	2151	G
30	3	2153	U
30	3	2166	U
30	3	2171	A
30	3	2177	G
30	3	2178	A
30	3	2179	A
30	3	2180	U
30	3	2182	C
30	3	2193	U
30	3	2194	G
30	3	2195	U
30	3	2196	G
30	3	2198	G
30	3	2202	U
30	3	2206	A
30	3	2212	U
30	3	2219	U
30	3	2220	A
30	3	2222	C
30	3	2231	A
30	3	2233	A
30	3	2234	C
30	3	2242	G
30	3	2243	G
30	3	2246	G
30	3	2252	U
30	3	2254	G
30	3	2263	G
30	3	2267	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	3	2274	A
30	3	2276	A
30	3	2277	A
30	3	2280	U
30	3	2286	A
30	3	2290	G
30	3	2291	U
30	3	2294	A
30	3	2295	A
30	3	2305	C
30	3	2309	A
30	3	2313	U
30	3	2316	G
30	3	2317	A
30	3	2327	U
30	3	2329	G
30	3	2330	A
30	3	2331	G
30	3	2333	G
30	3	2335	A
30	3	2341	G
30	3	2342	U
30	3	2343	A
30	3	2345	G
30	3	2352	U
30	3	2355	C
30	3	2358	U
30	3	2362	A
30	3	2365	U
30	3	2366	A
30	3	2380	U
30	3	2382	A
30	3	2387	U
30	3	2391	G
30	3	2393	C
30	3	2396	A
30	3	2400	A
30	3	2410	C
30	3	2414	U
30	3	2415	A
30	3	2418	G
30	3	2425	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	3	2431	U
30	3	2433	A
30	3	2436	G
30	3	2437	G
30	3	2438	A
30	3	2439	U
30	3	2449	U
30	3	2456	A
30	3	2457	U
30	3	2469	A
30	3	2477	A
30	3	2481	U
30	3	2483	C
30	3	2484	A
30	3	2486	A
30	3	2492	G
30	3	2495	A
30	3	2499	U
30	3	2502	G
30	3	2505	A
30	3	2506	C
30	3	2507	C
30	3	2509	C
30	3	2511	A
30	3	2513	G
30	3	2514	U
30	3	2521	A
30	3	2526	A
30	3	2527	U
30	3	2528	C
30	3	2538	A
30	3	2539	A
30	3	2543	G
30	3	2544	G
30	3	2545	U
30	3	2555	U
30	3	2560	U
30	3	2574	A
30	3	2575	G
30	3	2577	G
30	3	2580	A
30	3	2581	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	3	2584	G
30	3	2586	G
30	3	2590	G
30	3	2591	G
30	3	2593	U
30	3	2594	C
30	3	2596	A
30	3	2604	U
30	3	2605	G
30	3	2607	G
30	3	2610	A
30	3	2611	G
30	3	2617	U
30	3	2618	C
30	3	2619	C
30	3	2621	U
30	3	2622	A
30	3	2631	G
30	3	2637	A
30	3	2638	G
30	3	2643	A
30	3	2644	U
30	3	2647	A
30	3	2649	G
30	3	2653	G
30	3	2654	U
30	3	2664	U
30	3	2668	A
30	3	2669	G
30	3	2681	G
30	3	2695	U
30	3	2697	C
30	3	2698	U
30	3	2707	A
30	3	2710	G
30	3	2712	C
30	3	2715	C
30	3	2717	G
30	3	2722	G
30	3	2732	A
30	3	2734	C
30	3	2737	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	3	2739	C
30	3	2740	U
30	3	2741	A
30	3	2747	U
30	3	2752	G
30	3	2756	A
30	3	2759	G
30	3	2760	C
30	3	2765	A
30	3	2772	A
30	3	2773	A
30	3	2774	A
30	3	2777	A
30	3	2786	A
30	3	2788	U
30	3	2790	A
30	3	2795	C
30	3	2796	C
30	3	2799	U
30	3	2801	U
30	3	2805	A
30	3	2809	A
30	3	2811	G
30	3	2812	U
30	3	2813	A
30	3	2822	C
30	3	2823	A
30	3	2824	A
30	3	2825	A
30	3	2828	C
30	3	2837	U
30	3	2838	G
30	3	2839	A
30	3	2840	U
30	3	2844	U
30	3	2852	G
30	3	2854	A
30	3	2862	U
30	3	2863	G
30	3	2865	U
30	3	2866	A
30	3	2871	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	3	2872	A
30	3	2876	G
30	3	2883	A
30	3	2884	C
30	3	2888	U
30	3	2890	G
30	3	2897	G
30	3	2898	A
30	3	2899	C
30	3	2900	U
31	4	4	G
31	4	8	C
31	4	10	C
31	4	11	A
31	4	13	G
31	4	14	U
31	4	17	C
31	4	19	G
31	4	23	A
31	4	24	A
31	4	27	A
31	4	28	C
31	4	31	G
31	4	33	U
31	4	35	C
31	4	38	U
31	4	39	U
31	4	40	U
31	4	41	C
31	4	42	G
31	4	46	C
31	4	48	A
31	4	49	G
31	4	51	A
31	4	55	A
31	4	60	C
31	4	65	G
31	4	74	G
31	4	75	U
31	4	76	A
31	4	77	G
31	4	78	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
31	4	79	U
31	4	86	G
31	4	88	G
31	4	89	A
31	4	92	A
31	4	98	A
31	4	99	A
31	4	102	A
31	4	103	C
31	4	108	C

All (37) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
30	3	295	U
30	3	315	A
30	3	409	A
30	3	410	G
30	3	425	U
30	3	500	U
30	3	513	A
30	3	688	U
30	3	753	A
30	3	901	C
30	3	903	A
30	3	952	U
30	3	1048	A
30	3	1209	U
30	3	1211	U
30	3	1234	U
30	3	1297	U
30	3	1371	G
30	3	1507	G
30	3	1583	G
30	3	1588	A
30	3	1667	G
30	3	1820	U
30	3	1886	C
30	3	2064	G
30	3	2342	U
30	3	2386	A
30	3	2504	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
30	3	2506	C
30	3	2668	A
30	3	2764	U
30	3	2823	A
30	3	2862	U
30	3	2897	G
31	4	50	C
31	4	54	U
31	4	59	A

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 monosaccharides 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.

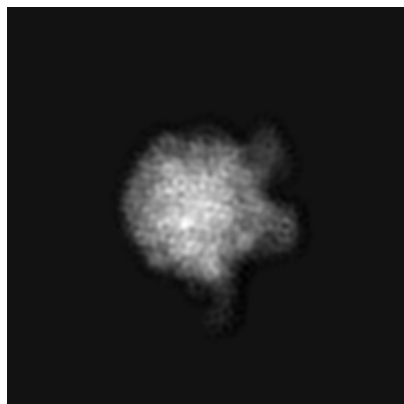
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-13285. These allow visual inspection of the internal detail of the map and identification of artifacts.

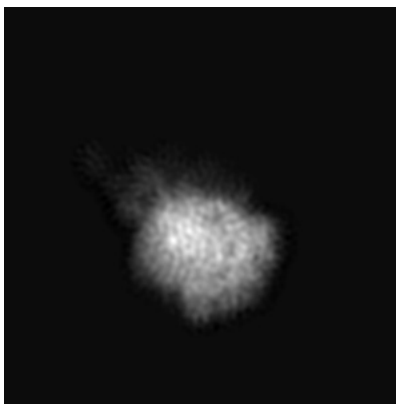
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

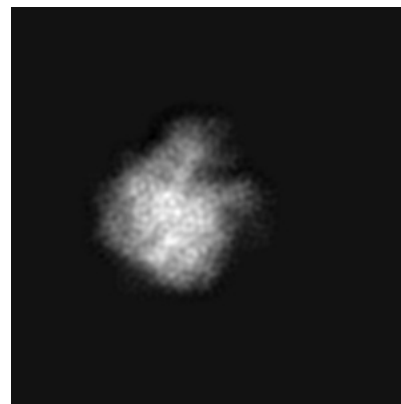
6.1.1 Primary map



X

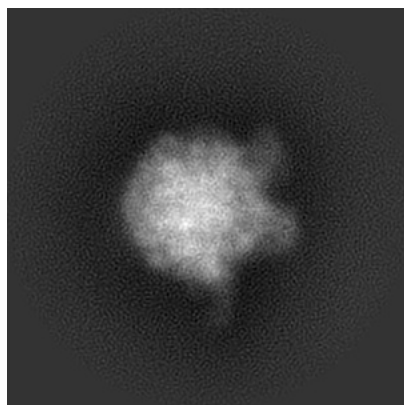


Y

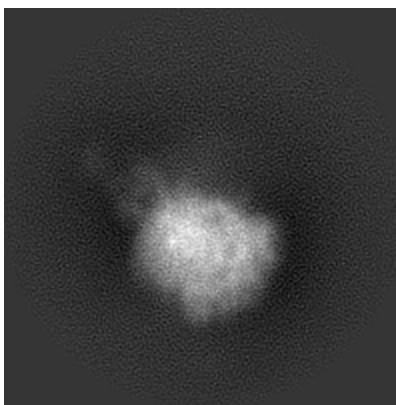


Z

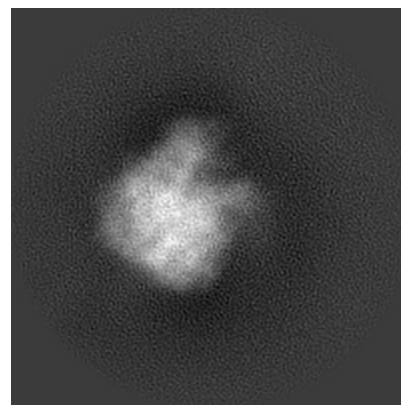
6.1.2 Raw map



X



Y

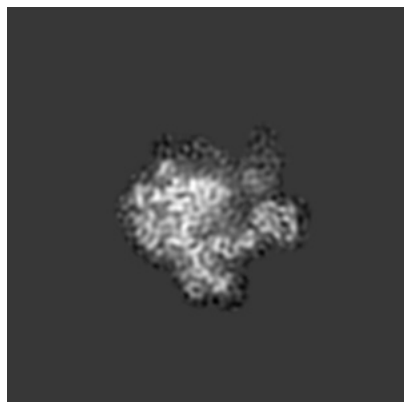


Z

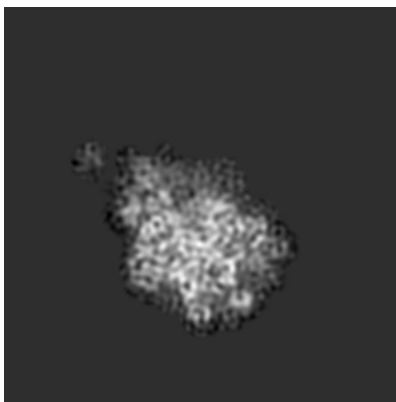
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

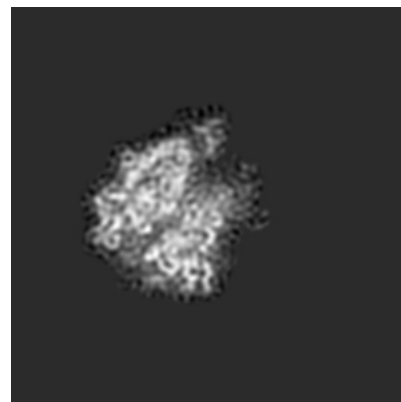
6.2.1 Primary map



X Index: 100

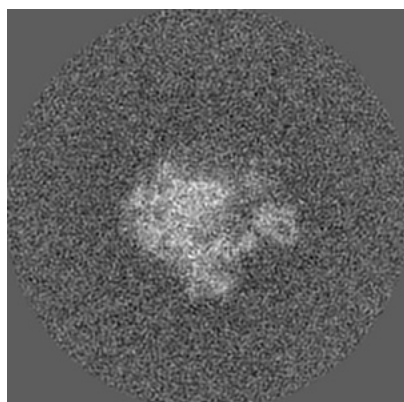


Y Index: 100

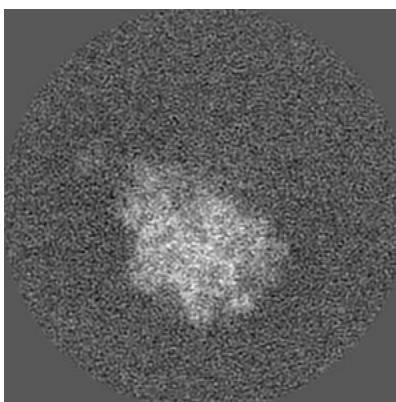


Z Index: 100

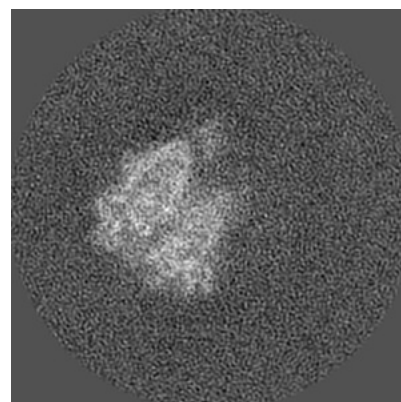
6.2.2 Raw map



X Index: 100



Y Index: 100

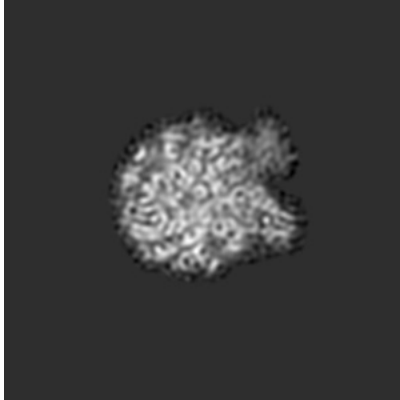


Z Index: 100

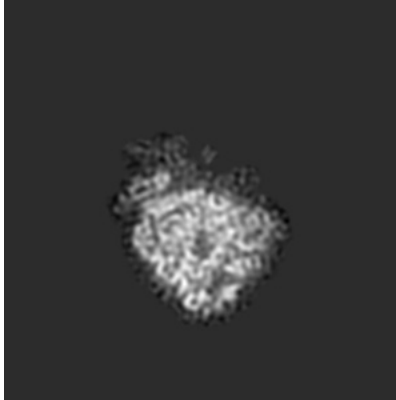
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

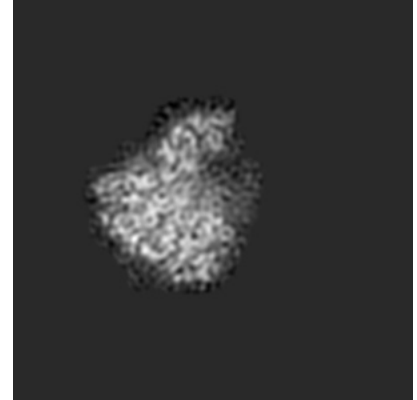
6.3.1 Primary map



X Index: 83

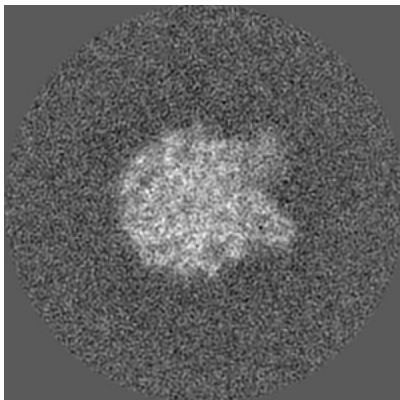


Y Index: 89

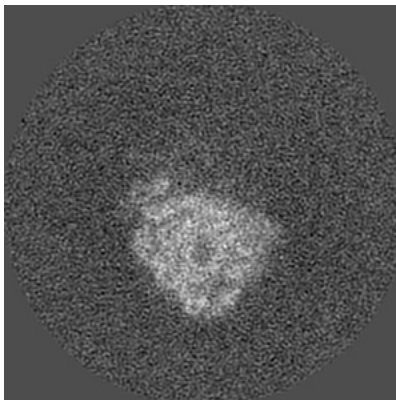


Z Index: 94

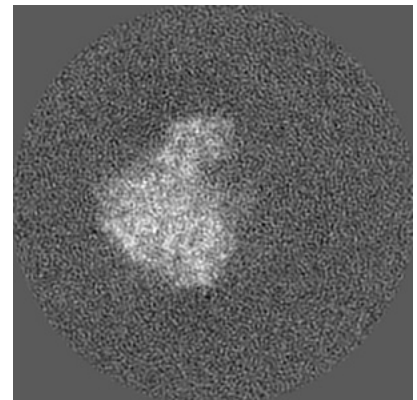
6.3.2 Raw map



X Index: 83



Y Index: 89

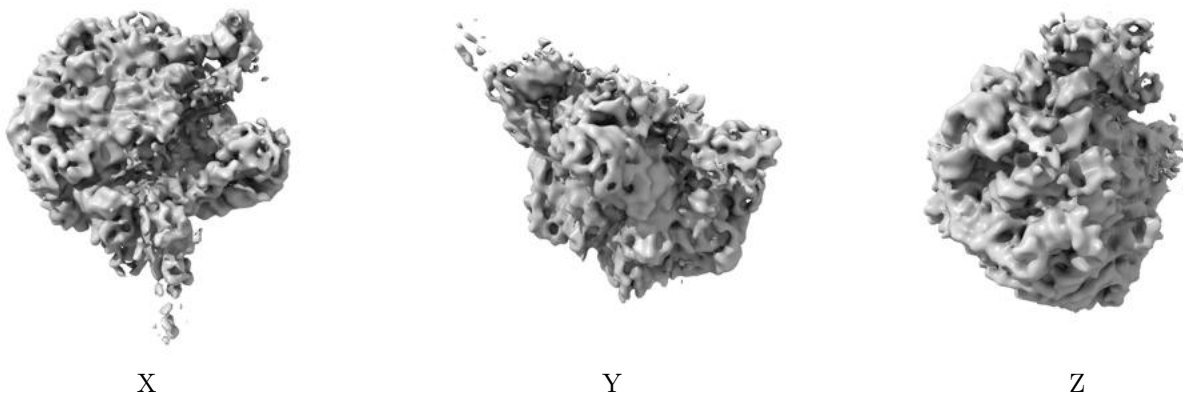


Z Index: 93

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

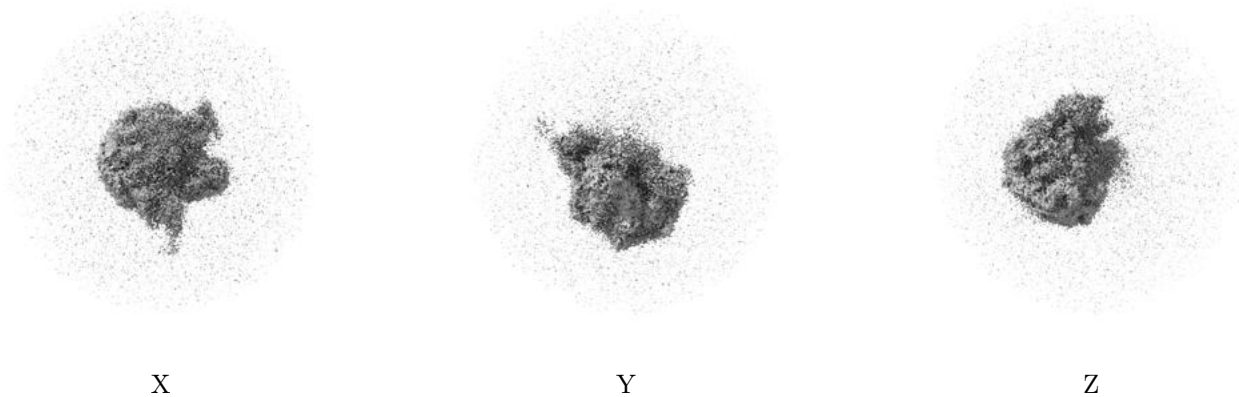
6.4 Orthogonal surface views [i](#)

6.4.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.41. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.4.2 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.

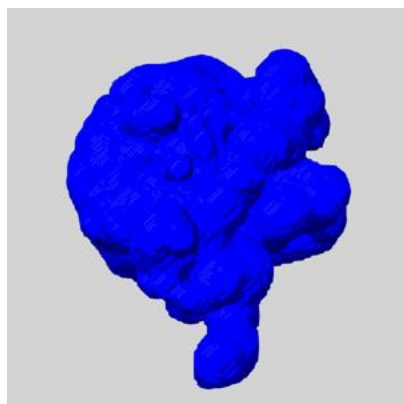
6.5 Mask visualisation [i](#)

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

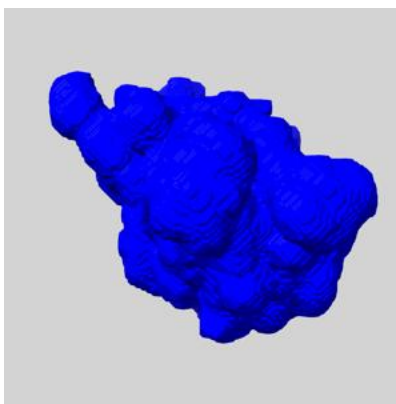
A mask typically either:

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

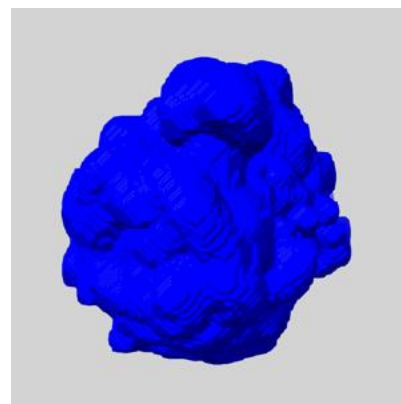
6.5.1 emd_13285_msk_1.map [i](#)



X



Y

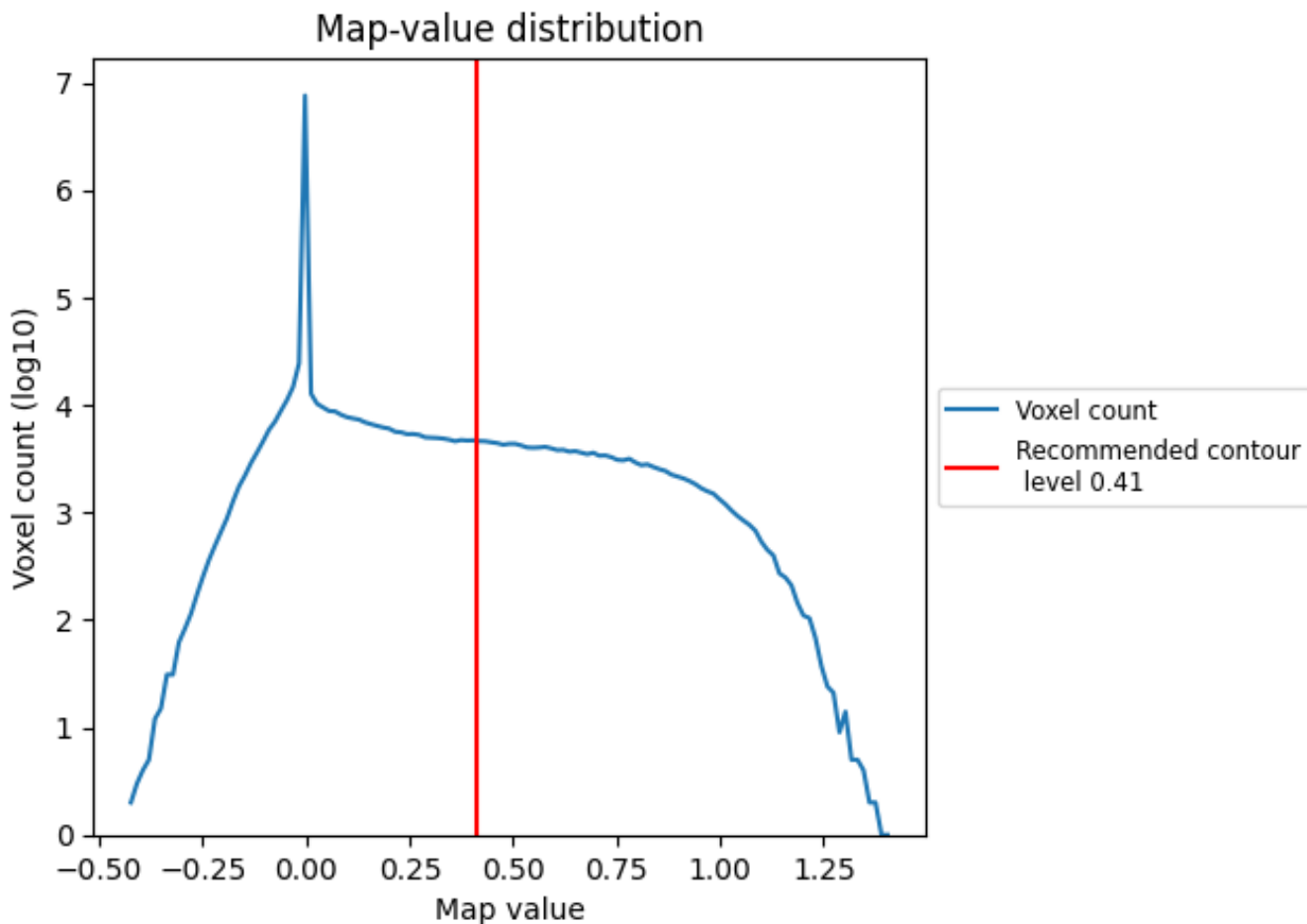


Z

7 Map analysis [i](#)

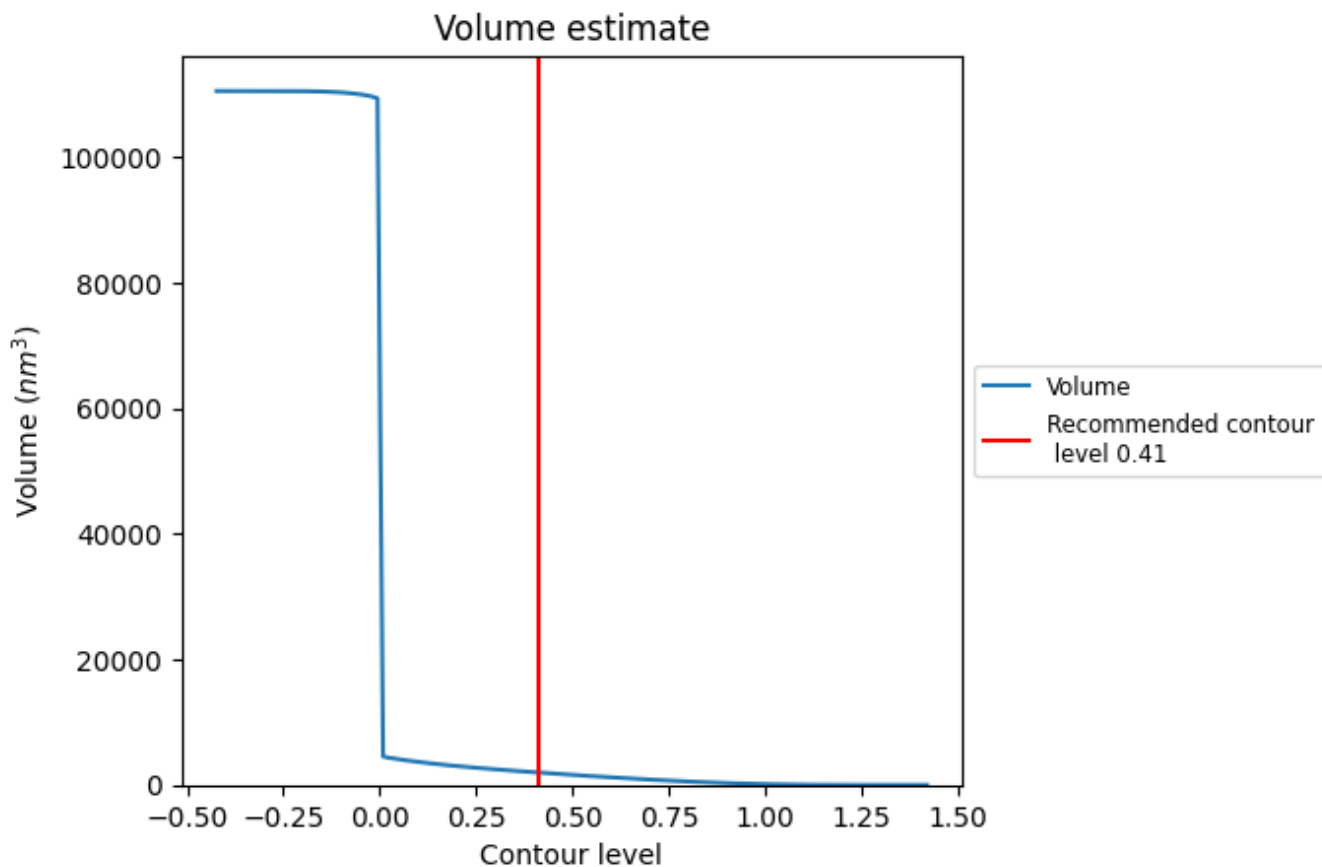
This section contains the results of statistical analysis of the map.

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.

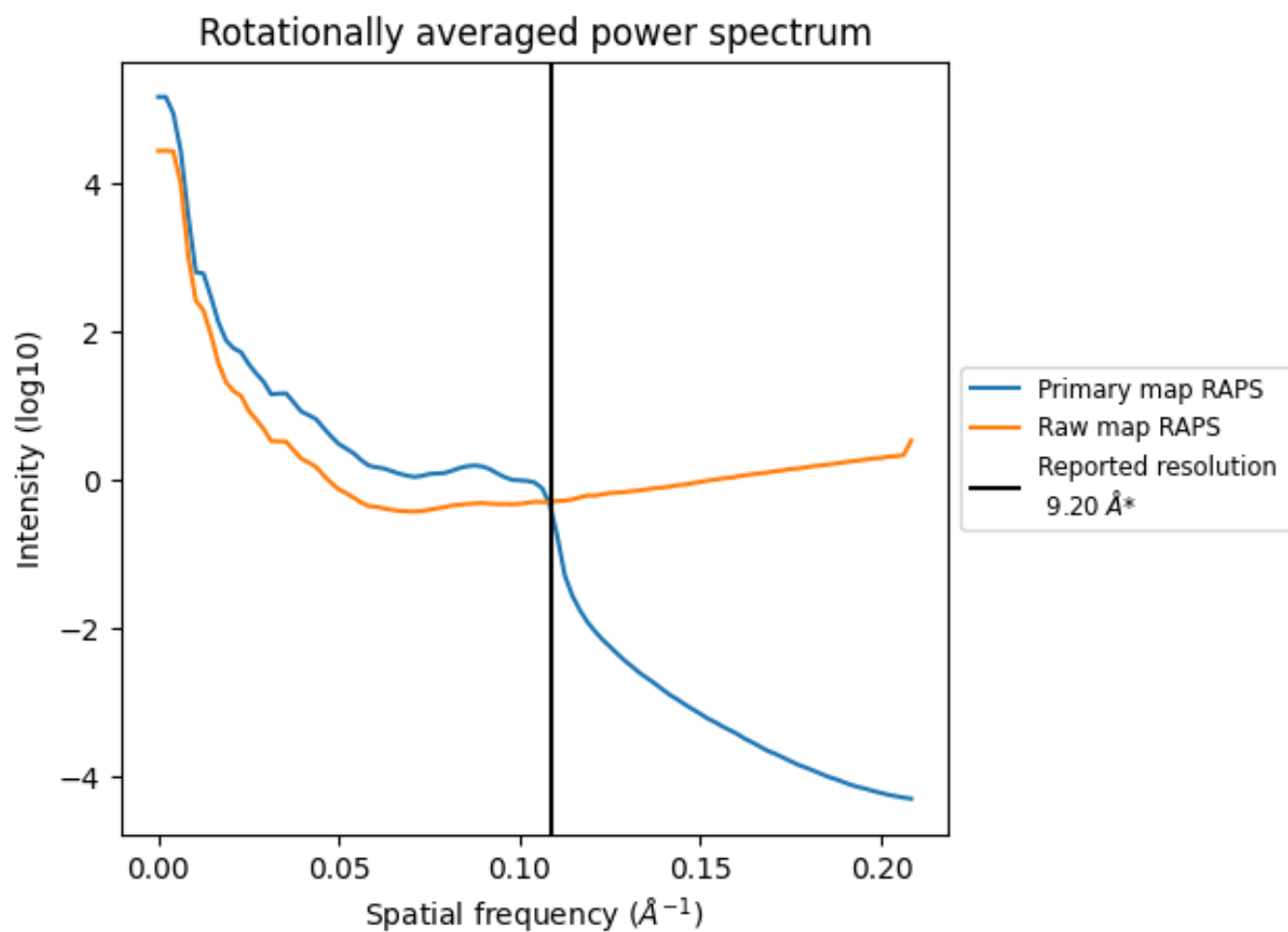
7.2 Volume estimate [\(i\)](#)



The volume at the recommended contour level is 1985 nm^3 ; this corresponds to an approximate mass of 1793 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 [i](#)

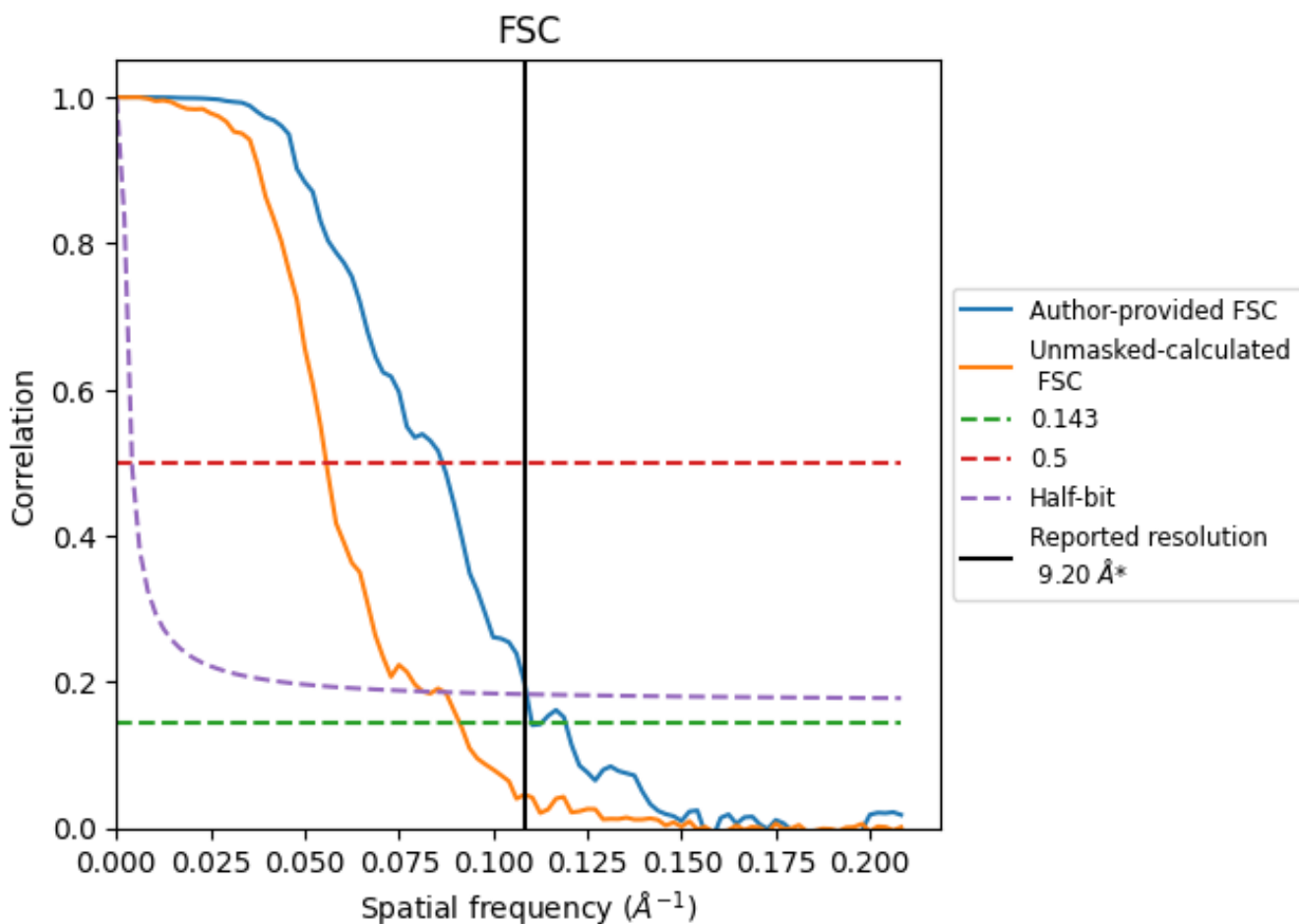


*Reported resolution corresponds to spatial frequency of 0.109 Å⁻¹

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 0.109 Å⁻¹

8.2 Resolution estimates [i](#)

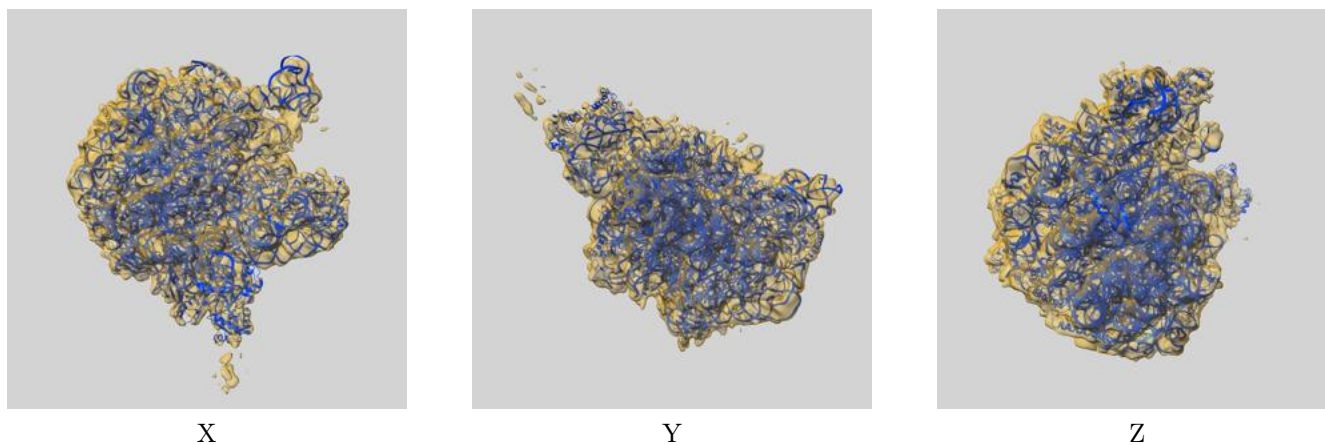
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	9.20	-	-
Author-provided FSC curve	9.07	11.56	9.18
Unmasked-calculated*	10.98	17.95	12.29

*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 10.98 differs from the reported value 9.2 by more than 10 %

9 Map-model fit [i](#)

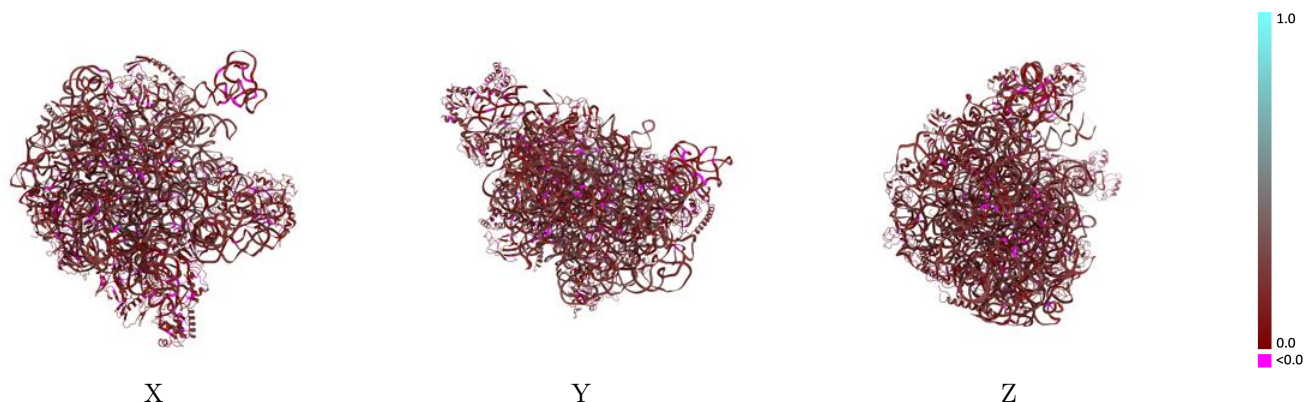
This section contains information regarding the fit between EMDB map EMD-13285 and PDB model 7PAT. Per-residue inclusion information can be found in section 3 on page 9.

9.1 Map-model overlay [i](#)



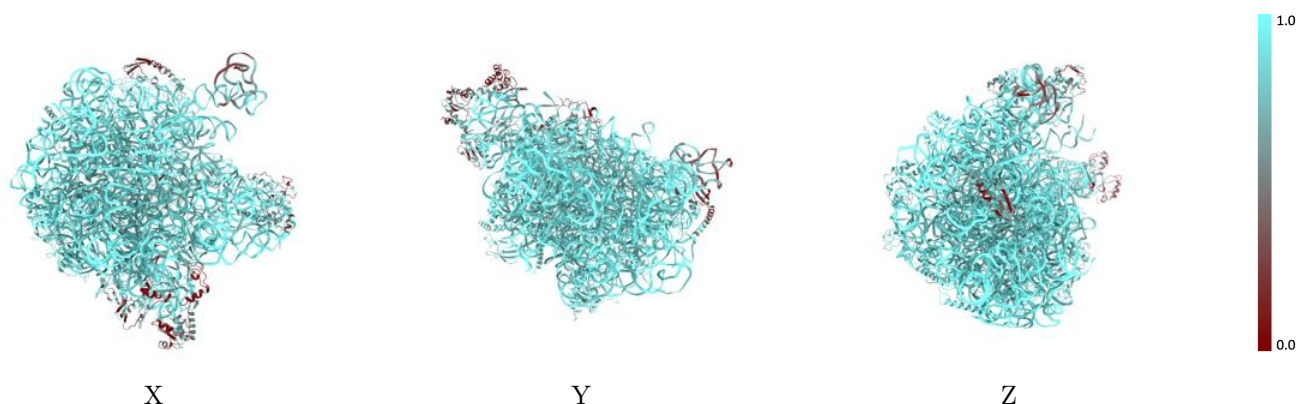
The images above show the 3D surface view of the map at the recommended contour level 0.41 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



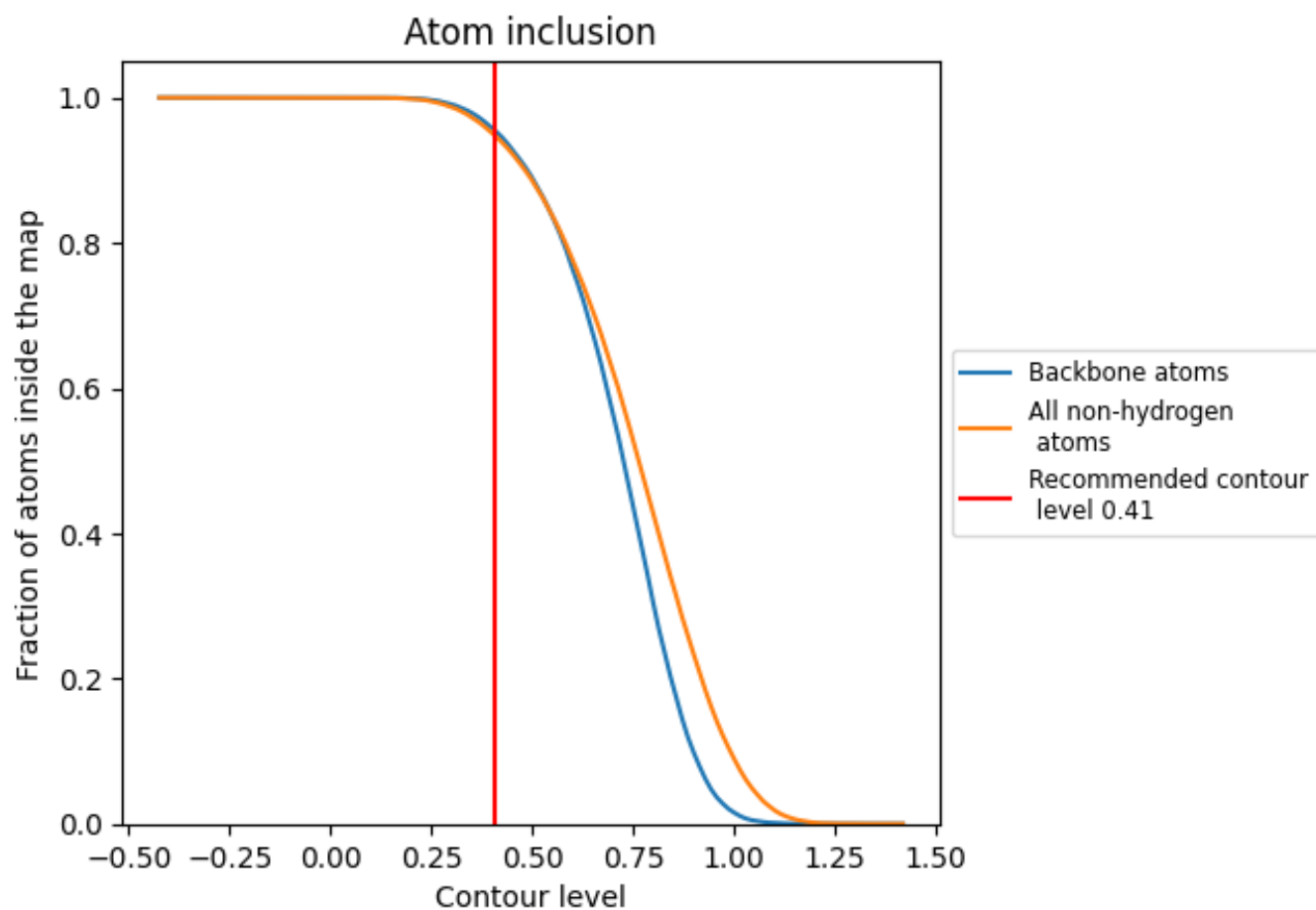
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.41).

































































9.4 Atom inclusion [i](#)



At the recommended contour level, 95% of all backbone atoms, 95% 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 (0.41) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.9470	 0.1570
0	 0.9945	 0.1330
1	 0.9850	 0.1160
2	 0.9561	 0.0860
3	 0.9830	 0.1680
4	 0.9643	 0.1800
a	 0.9843	 0.1170
b	 0.9487	 0.1070
c	 0.9318	 0.1350
d	 0.7003	 0.1380
e	 0.6599	 0.1340
f	 0.5753	 0.1350
g	 0.4895	 0.1510
h	 0.3626	 0.1220
i	 0.9737	 0.1400
j	 0.9457	 0.1300
k	 0.9576	 0.1280
l	 0.9374	 0.1280
m	 0.9754	 0.1290
n	 0.8131	 0.1410
o	 0.9001	 0.1440
p	 0.9650	 0.1200
q	 0.9262	 0.1390
r	 0.9886	 0.1490
s	 0.9788	 0.1430
t	 0.8746	 0.1210
u	 0.9563	 0.1070
v	 0.9980	 0.1150
w	 0.9301	 0.1780
x	 0.4898	 0.1520
y	 0.9862	 0.1100
z	 0.9849	 0.1180

