



Full wwPDB X-ray Structure Validation Report ⓘ

Feb 15, 2017 – 04:28 am GMT

PDB ID : 1P9X
Title : THE CRYSTAL STRUCTURE OF THE 50S LARGE RIBOSOMAL SUB-UNIT FROM DEINOCOCCUS RADIODURANS COMPLEXED WITH TELITHROMYCIN KETOLIDE ANTIBIOTIC
Authors : Berisio, R.; Harms, J.; Schlutzen, F.; Zarivach, R.; Hansen, H.A.; Fucini, P.; Yonath, A.
Deposited on : 2003-05-13
Resolution : 3.40 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<http://wwpdb.org/validation/2016/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467
Mogul : 1.7.2 (RC1), CSD as538be (2017)
Xtriage (Phenix) : **NOT EXECUTED**
EDS : **NOT EXECUTED**
Percentile statistics : 20161228.v01 (using entries in the PDB archive December 28th 2016)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : recalc28949

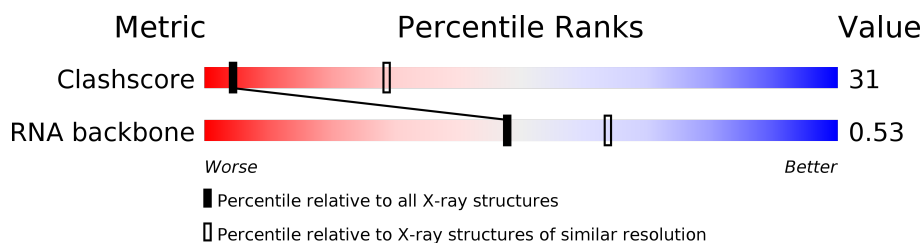
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.40 Å.

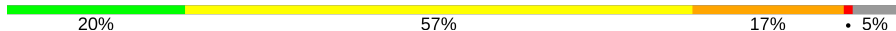
Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
Clashscore	112137	1832 (3.50-3.30)
RNA backbone	2435	1009 (3.96-2.84)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. 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 electron density. The numeric value is given above the bar.

Note EDS was not executed.

Mol	Chain	Length	Quality of chain
1	0	2880	 20% 57% 17% • 5%

2 Entry composition ⓘ

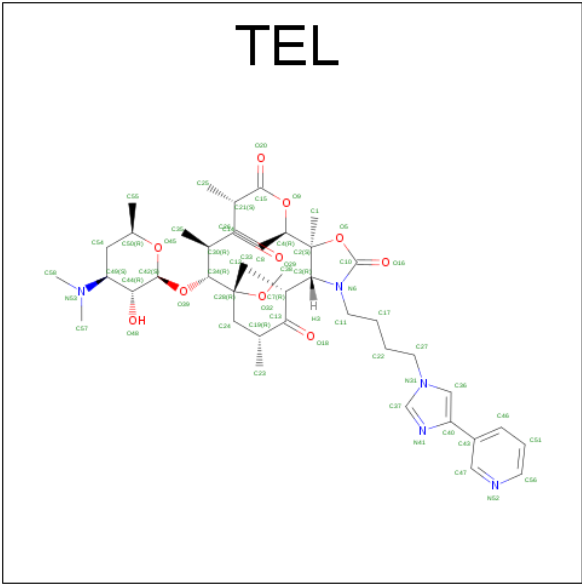
There are 2 unique types of molecules in this entry. The entry contains 58817 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a RNA chain called 23S RIBOSOMAL RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
1	0	2738	58759	26211	10836	18975	2737	0	0	0

- Molecule 2 is TELITHROMYCIN (three-letter code: TEL) (formula: C₄₃H₆₅N₅O₁₀).

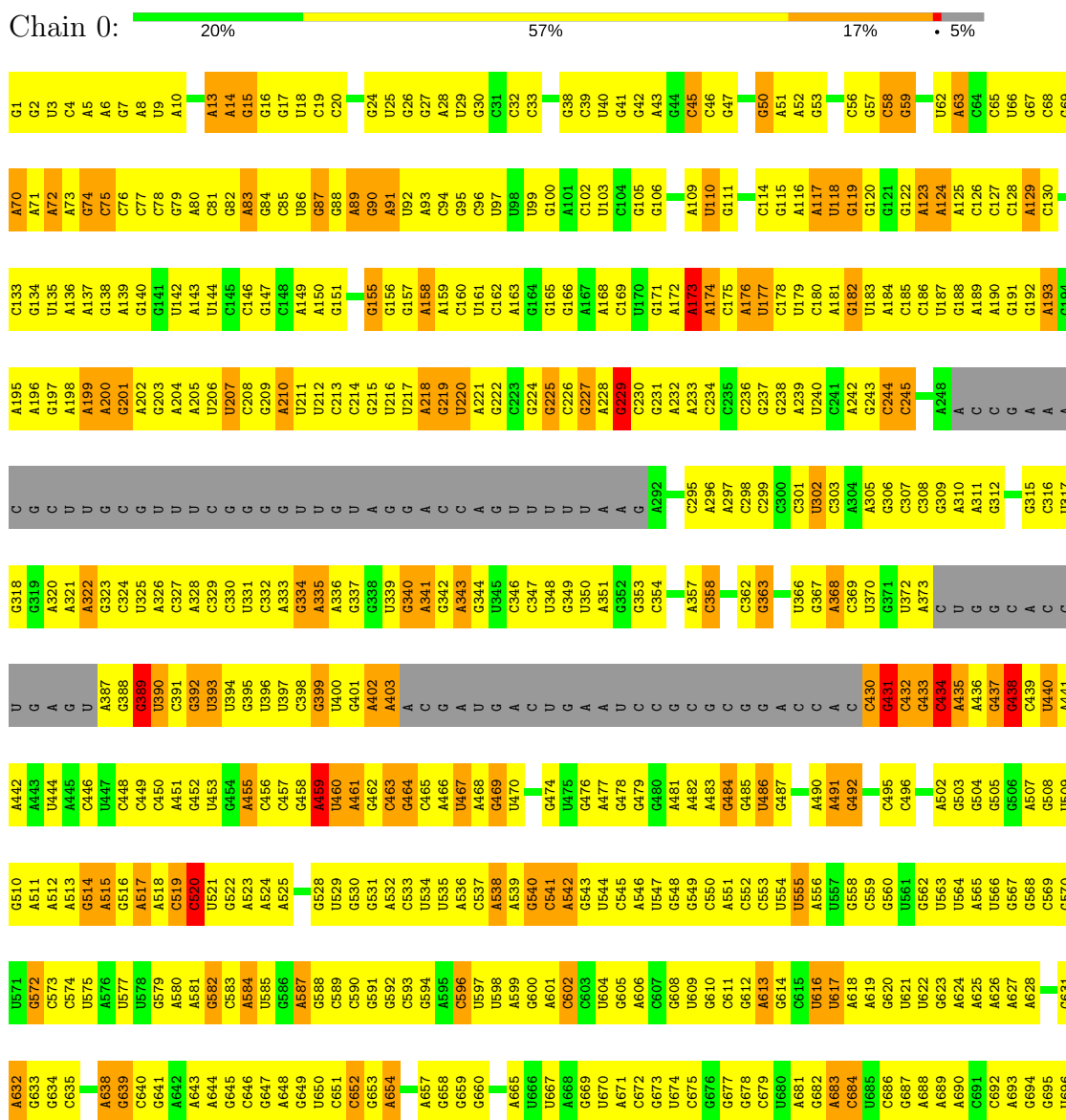


3 Residue-property plots

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

Note EDS was not executed.

• Molecule 1: 23S RIBOSOMAL RNA





G2741	C2678	A2544	C2480	U2410	A2348	A2212	U2081	G2015	C1948	A1811	A1750
G2742	G2679	A2545	G2481	A2411	G2349	G2213	C2082	A2016	A1949	U1812	A1751
G2743	U2680	A2546	A2482	A2412	G2350	G2214	G2083	U2017	C1950	A1813	U1752
A2681	A2681	C2547	U2483	A2413	G2351		G2084	G2018	G1951	A1814	A1753
		G2548	G2484	A2414	A2352	G2217	G2085	C2019	A1884	G1815	G1754
G2746	A2684	G2549	U2485		G2353	U2218	U2086	G2020	A1953	G1816	G1755
G2747	A2685	C2550	C2486	A2418	G2354	U2219	U2087	G2021	A1954	U1817	C1756
G2748	G2686	A2551	G2487	C2419	A2355		U2088	G2022	G1955	G1818	C1757
A2749	G2687	C2552	G2488	C2420	A2356	U2222	C2091	C2023	G1956	U1819	G1758
	G2688	G2553	C2489	C2421	A2357	U2223	U2092	U2024	G1957	G1820	A1759
C2753	C2689	C2554	U2490	G2422	C2358	U2224	G2093	A2025	C1958	A1821	G1760
C2754	A2690	G2555	C2491	G2423	G2359	G2225	C2094	C2026	U1959	G1822	G1761
A2755	C2691	A2556	G2492	G2424	C2360	A2226	C2095		G1823	G1823	C1762
A2756	A2692	G2557	U2493	G2425	G2361	C2227	G2096	C2028	C1962	C1824	G1763
G2757	G2693	C2558	C2494	G2426	G2362	U2228	U2097	G2029	G1963	C1825	A1764
A2758	G2694	U2559	A2427	A2427	G2363	U2229	A2097	U2030	A1964	U1826	C1765
C2759	C2695	G2560	C2496	U2428	C2364	G2230	G	A2031	U1965	G1827	U1766
G2760	A2696	G2561	U2429	A2429	U2298	G2231	U2098	G2032	A1901	C1828	G1767
A2761	G2697		U2498	A2430	G2299	G2232	A	C2033	G1970	C1829	
G2762	G2698	C2565	C2499	C2431	G2300		U	C2034	C1971	C1830	U1770
U2763	G2699	A2566	C2500	A2432	A2301	G2235	A	G2035	G1972	G1831	A1771
U2764	U2700	G2567	G2501	G2433	G2302	U2236	G2103		G1973	C1832	C1772
C2765	A2701	A2568	C2505	G2434	C2303	C2237	G2104	C2038	U1906	G1833	C1773
U2766	G2702	A2569	C2506	G2435	A2372	G2238	U2105	G2039	C1907	U1834	G1774
C2767	C2703	C2570	U2507	U2436	C2373	C2239	G2106	U2040	C1908	C1835	A1775
C2768	U2704	G2571	G2508	G2437	C2374	C2240	G2107	A2041	U1909		A1776
C2769			A2509	A2438		U2241		A2042	A1910	G1838	
A2770	A2770	C2572	A2510	U2439	U2377	G2242	G2108	A2043	U1911	A1839	U1777
C2771	G2707	G2573	G2511	C2440	G2378	C2243	C2109	G2044	G1912	A1840	U1778
U2772	U2708	U2574	G2512	U2441	G2379	C2244	G2110	A2045	U1913		A1779
G2773	C2709	U2575	A2513	C2442	U2380	A2245	C	G2046	U1914	A1846	C1781
U2774	C2710	G2576	G2514		A2312	A2246	U	C2047	G1915	G1847	A1782
U	G2711	A2577	G2515	C2446	C2381	A2247	G	C2048	G1916	U1848	G1783
U2778	A2712	G2578	U2516	G2447	A2314	A2248	C	C2049	A1919	G1849	C1784
A	C2713	A2579	C2517	A2448	G2315	U2249	G	G2050	A1920	G1852	A1785
C2779	U2714	C2580	C2518	U2449	A2316	G2250	A2118	U2051	A1921	G1853	C1786
U2780	C2715	A2581	C2519	A2450	U2385	G2251	A2119	G2052	G1922	G1854	U1787
G2781	G2716	G2582	A2520	G2451	U2386	U2252	A2120	G2053	U1923	G1855	C1788
G2782	G2717	U2583	A2521		U2387	A2253	A2121		U1924	U1856	U1789
C2783	U2718	U2584	A2522	A2455	G2388	A2254	C2121	G2054	C1925		C1791
A2784	U2719	G2585	G2523	U2456	G2389	C2255	U2122	C2055	C1926	A1859	C1792
G2785	A2720	G2586		A2457	A2390	G2256	G2123	U2057	U1927	A1860	A1793
A2786	C2721	U2587	U2526		A2391	G2257	C2124	U2058	G1928	G1861	A1794
G2787	C2722	U2588	G2527	G2460	G2392	A2257	C2125	U2059	U1929	C1862	C1795
C2788	C2723	C2589	U2533	G2461	G2393	C2260	U	A2060	U1999	U1863	A1796
U2789	G2724	U2590	U2534	A2467	G2394	G2261	U2196	C2061	G1930	U1864	C1797
C2790	C2725	G2591	C2535	C2462	C2395	C2262	U	U2062	G1931	C1865	G1798
G2791	U2726	U2592	U2536	G2463	A2396	C2263	U	A2063	G1932	G1866	A1799
C2792	G2727	A2593	C2537	G2464	A2397	C2264	U		G1933		A1800
C2793	G2728	U2594	U2538	G2465	G2398	A2265	G	U2069	U2004	A1869	C1801
G2794	A2729		U2539	A2466	G2400	A2266	G2132	G2070	G2005	U1870	A1802
A2795	U2730	G2597	U2540	A2467	A2401	C2267	U2133	G2071	C2006	U1871	G1803
C2796	C2731	C2598	C2541	G2468	U2402	C2268	U2134	C2072	G2007	A1872	G1804
A2797	G2732	A2600	U2542	G2469	A2403	G2269	C2135	A2073	C2008	G1873	G1805
G2798	A2733		C2543	U2470	U2404	U2270	G2136	U2074	U2009	G1942	G1806
C2799	U2734	C2605	A2544	C2475	A2405	C2271	U2137	U2075	G2010	A1943	A1807
G2799	C2735	G2606	U2545	A2476	C2406		U2138	G2076	U2011	C1875	C1876
C2800	U2736	C2607	G2546	C2477	G2407	C2274	G2139		A2012	C1876	G1808
A2801	A2737	A2608	U2547	C2478	G2408	C2275	A	A2079	A2013	C1877	G1809
		G2609	A2543	U2479	A2409	C2276		U2080	A2014	C1878	U1810

U2872	C2804	C2806	U2807	U2808	A2809	A2810	A2811	A2812	C2813	C2814	C2815	C2816	A2817	U2821	U2822	C2823	C2824	A2825	C2826	C2827	C2828	A2829	U2830	A2831	U2835	U2836	C2837	U2841	C2842	A2843	C2844	C2845	C2846	C2847	A2848	C2849	U2850	C2851	C2852	U2853	C2854	C2855	U2856	C2857	A2858	U2862	U2863	C2864	C2865	A2866	C2867	C2868	U2869	C2870	U2871
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4 Data and refinement statistics

Xtriage (Phenix) and EDS were not executed - this section is therefore incomplete.

Property	Value	Source
Space group	I 2 2 2	Depositor
Cell constants a, b, c, α , β , γ	170.00Å 414.50Å 693.00Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	15.00 – 3.40	Depositor
% Data completeness (in resolution range)	(Not available) (15.00-3.40)	Depositor
R_{merge}	0.18	Depositor
R_{sym}	(Not available)	Depositor
Refinement program	CNS	Depositor
R, R_{free}	0.273 , 0.340	Depositor
Estimated twinning fraction	No twinning to report.	Xtriage
Total number of atoms	58817	wwPDB-VP
Average B, all atoms (Å ²)	58.0	wwPDB-VP

5 Model quality i

5.1 Standard geometry i

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

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	0.77	20/65792 (0.0%)	0.71	28/102613 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	0	0	28

All (20) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	0	762	A	O3'-P	-8.05	1.51	1.61
1	0	1410	U	N1-C2	6.70	1.44	1.38
1	0	2493	U	N1-C2	-6.33	1.32	1.38
1	0	1276	U	N1-C2	6.27	1.44	1.38
1	0	2555	G	C5-C6	-6.20	1.36	1.42
1	0	950	G	C5-C6	6.14	1.48	1.42
1	0	2039	G	C5-C6	-5.70	1.36	1.42
1	0	2523	G	C5-C6	-5.65	1.36	1.42
1	0	2505	G	C5-C6	5.32	1.47	1.42
1	0	2699	G	C5-C6	-5.26	1.37	1.42
1	0	764	A	P-O5'	5.25	1.65	1.59
1	0	464	G	N9-C4	-5.24	1.33	1.38
1	0	841	G	C5-C6	-5.21	1.37	1.42
1	0	1781	C	N1-C2	-5.16	1.34	1.40
1	0	1746	A	C5-C6	-5.15	1.36	1.41
1	0	1985	G	C5-C6	-5.12	1.37	1.42
1	0	2046	C	N1-C2	-5.08	1.35	1.40
1	0	1283	C	N1-C2	-5.08	1.35	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	0	765	C	N1-C2	-5.06	1.35	1.40
1	0	2592	U	O3'-P	-5.05	1.55	1.61

All (28) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	0	1182	U	O4'-C1'-N1	13.88	119.30	108.20
1	0	2044	G	P-O3'-C3'	11.50	133.50	119.70
1	0	765	C	N1-C1'-C2'	11.09	128.42	114.00
1	0	2001	G	N9-C1'-C2'	-9.80	101.22	112.00
1	0	2041	A	OP1-P-OP2	-6.87	109.30	119.60
1	0	764	A	OP1-P-OP2	-6.83	109.36	119.60
1	0	2042	A	OP1-P-OP2	-6.79	109.41	119.60
1	0	438	G	N9-C1'-C2'	6.69	122.69	114.00
1	0	2046	C	OP1-P-OP2	-6.65	109.63	119.60
1	0	763	A	OP1-P-OP2	-6.54	109.79	119.60
1	0	2044	G	OP1-P-OP2	-6.53	109.81	119.60
1	0	430	C	C5'-C4'-O4'	-6.44	101.37	109.10
1	0	765	C	O4'-C1'-N1	6.44	113.36	108.20
1	0	2040	A	OP1-P-OP2	-6.42	109.97	119.60
1	0	1618	U	C5'-C4'-O4'	-6.42	101.40	109.10
1	0	2045	A	OP1-P-OP2	-6.20	110.30	119.60
1	0	765	C	OP1-P-OP2	-5.99	110.62	119.60
1	0	765	C	C2-N1-C1'	-5.86	112.35	118.80
1	0	765	C	C5'-C4'-O4'	5.86	116.13	109.10
1	0	434	C	N1-C1'-C2'	5.59	121.26	114.00
1	0	765	C	C6-N1-C1'	5.54	127.45	120.80
1	0	438	G	C1'-O4'-C4'	-5.38	105.60	109.90
1	0	173	A	C2'-C3'-O3'	5.36	122.28	113.70
1	0	438	G	O4'-C1'-N9	5.36	112.49	108.20
1	0	765	C	N1-C2-O2	-5.22	115.77	118.90
1	0	765	C	O4'-C4'-C3'	-5.19	98.81	104.00
1	0	459	A	N9-C1'-C2'	5.14	120.68	114.00
1	0	2041	A	P-O3'-C3'	5.03	125.74	119.70

There are no chirality outliers.

All (28) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	0	1036	G	Sidechain
1	0	1475	U	Sidechain
1	0	1619	A	Sidechain

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Mol	Chain	Res	Type	Group
1	0	1632	A	Sidechain
1	0	1774	A	Sidechain
1	0	2051	U	Sidechain
1	0	229	G	Sidechain
1	0	2439	U	Sidechain
1	0	2625	U	Sidechain
1	0	2660	C	Sidechain
1	0	2700	U	Sidechain
1	0	2706	U	Sidechain
1	0	2712	G	Sidechain
1	0	2762	G	Sidechain
1	0	389	G	Sidechain
1	0	431	G	Sidechain
1	0	438	G	Sidechain
1	0	459	A	Sidechain
1	0	520	C	Sidechain
1	0	555	U	Sidechain
1	0	707	U	Sidechain
1	0	788	G	Sidechain
1	0	796	A	Sidechain
1	0	804	C	Sidechain
1	0	814	G	Sidechain
1	0	871	U	Sidechain
1	0	873	U	Sidechain
1	0	956	A	Sidechain

5.2 Too-close contacts

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	0	58759	0	29615	2745	0
2	0	58	0	65	11	0
All	All	58817	0	29680	2746	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 31.

All (2746) 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)
1:0:940:G:H3'	1:0:941:U:H5''	1.24	1.18
1:0:752:G:H5'	1:0:1775:A:H61	1.07	1.13
1:0:1572:C:H2'	1:0:1573:G:H5''	1.21	1.10
1:0:2451:G:H1'	1:0:2457:A:H61	1.16	1.09
1:0:387:A:H5'	1:0:436:A:H62	1.07	1.08
1:0:588:G:H4'	1:0:2001:G:C4'	1.85	1.06
1:0:1656:U:H2'	1:0:1657:A:H5''	1.38	1.05
1:0:2841:U:H1'	1:0:2843:A:H1'	1.34	1.04
1:0:2496:C:H42	1:0:2546:G:H1	1.05	1.02
1:0:2198:U:H3'	1:0:2199:C:H5''	1.39	1.01
1:0:436:A:H4'	1:0:437:G:H5''	1.42	1.01
1:0:2498:U:H5''	1:0:2499:C:OP1	1.59	1.00
1:0:2771:C:H42	1:0:2780:A:N6	1.59	1.00
1:0:588:G:C4'	1:0:2001:G:H4'	1.92	0.99
1:0:1449:C:H2'	1:0:1450:G:H5''	1.44	0.98
1:0:951:G:H2'	1:0:952:A:H5''	1.46	0.98
1:0:321:A:O2'	1:0:322:A:H3'	1.62	0.98
1:0:681:A:H2'	1:0:683:A:H62	1.27	0.98
1:0:588:G:H4'	1:0:2001:G:H4'	0.98	0.96
1:0:430:C:H4'	1:0:2386:G:N2	1.81	0.95
1:0:1673:C:N4	1:0:1987:G:H1	1.64	0.95
1:0:983:G:OP2	1:0:985:G:H5''	1.65	0.94
1:0:1747:G:H4'	1:0:1749:G:H1'	1.49	0.94
1:0:2660:C:O2'	1:0:2661:G:H5'	1.66	0.94
1:0:1572:C:C2'	1:0:1573:G:H5''	1.96	0.94
1:0:681:A:H2'	1:0:683:A:N6	1.81	0.94
1:0:794:A:H5'	1:0:795:A:H5''	1.48	0.94
1:0:614:G:N2	1:0:634:G:H22	1.65	0.94
1:0:616:U:H2'	1:0:617:U:H5''	1.50	0.93
1:0:317:U:H3	1:0:321:A:H62	1.07	0.93
1:0:1855:G:H4'	1:0:2390:A:H4'	1.51	0.93
1:0:2194:A:H3'	1:0:2195:C:H5''	1.48	0.92
1:0:1823:G:H1	1:0:1957:C:H42	1.10	0.92
1:0:430:C:H4'	1:0:2386:G:H21	1.35	0.92
1:0:1673:C:H42	1:0:1987:G:H1	1.09	0.92
1:0:1294:G:H1	1:0:1302:C:H42	1.09	0.92
1:0:752:G:H5'	1:0:1775:A:N6	1.85	0.92
1:0:2380:U:H2'	1:0:2381:A:H5'	1.51	0.92
1:0:2395:C:H2'	1:0:2396:C:H5''	1.51	0.92
1:0:2771:C:H42	1:0:2780:A:H61	0.93	0.91
1:0:614:G:H22	1:0:634:G:N2	1.67	0.91
1:0:1791:C:H2'	1:0:1792:C:H5''	1.50	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1937:G:H1'	1:0:2530:C:H4'	1.49	0.91
1:0:614:G:H22	1:0:634:G:H22	1.11	0.91
1:0:317:U:H3	1:0:321:A:N6	1.68	0.90
1:0:683:A:OP2	1:0:683:A:H3'	1.71	0.90
1:0:2804:G:H2'	1:0:2805:G:H5''	1.53	0.90
1:0:321:A:HO2'	1:0:322:A:H8	0.94	0.90
1:0:1651:U:H5''	1:0:1652:G:OP2	1.72	0.90
1:0:387:A:C5'	1:0:436:A:H62	1.86	0.89
1:0:2388:G:H2'	1:0:2389:G:O4'	1.73	0.89
1:0:1108:U:H2'	1:0:1109:A:H5'	1.54	0.89
1:0:2119:A:N6	1:0:2138:U:H3	1.71	0.89
1:0:2043:A:H1'	1:0:2481:G:H1'	1.52	0.89
1:0:1656:U:C2'	1:0:1657:A:H5''	2.03	0.88
1:0:1029:C:H2'	1:0:1030:U:H5''	1.55	0.88
1:0:1452:U:H3	1:0:1569:A:H62	1.18	0.88
1:0:2378:G:H1	1:0:2396:C:H42	1.18	0.88
1:0:588:G:HO2'	1:0:2001:G:HO2'	1.20	0.88
1:0:613:A:H2'	1:0:614:G:H8	1.36	0.88
1:0:2063:A:H61	1:0:2219:U:H3	0.92	0.88
1:0:387:A:H5'	1:0:436:A:N6	1.88	0.87
1:0:990:A:H5'	1:0:991:A:H5''	1.56	0.87
1:0:2043:A:H1'	1:0:2481:G:C1'	2.05	0.86
1:0:2063:A:N6	1:0:2219:U:H3	1.72	0.86
1:0:2532:G:H3'	1:0:2533:U:H5''	1.57	0.86
1:0:1908:C:H2'	1:0:1909:U:H4'	1.57	0.86
1:0:2311:U:H4'	1:0:2315:A:H61	1.36	0.86
1:0:27:G:H1'	1:0:523:A:N6	1.91	0.86
1:0:2841:U:H1'	1:0:2843:A:C1'	2.06	0.86
1:0:804:C:O2	1:0:804:C:H2'	1.76	0.86
1:0:2268:G:H5''	1:0:2363:G:O2'	1.76	0.85
1:0:68:C:H1'	1:0:72:A:H1'	1.59	0.85
1:0:1776:A:H4'	1:0:1965:U:O2'	1.76	0.85
1:0:2410:U:O2	1:0:2412:A:H8	1.58	0.85
1:0:2119:A:H61	1:0:2138:U:H3	1.20	0.85
1:0:875:G:H2'	1:0:876:A:O4'	1.76	0.85
1:0:204:A:N6	1:0:2386:G:H1'	1.91	0.85
1:0:2469:G:H5''	1:0:2470:U:OP1	1.76	0.85
1:0:1949:A:H1'	1:0:2572:U:H5'	1.58	0.85
1:0:1679:U:H2'	1:0:1680:U:H5'	1.58	0.85
1:0:1182:U:H2'	1:0:1183:C:H5''	1.58	0.85
1:0:334:G:N3	1:0:344:G:H1'	1.93	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:942:U:H2'	1:0:943:U:O4'	1.76	0.84
1:0:1029:C:N4	1:0:1153:A:H61	1.74	0.84
1:0:1916:G:H1	1:0:1950:C:H42	1.25	0.84
1:0:200:A:N6	1:0:435:A:H62	1.76	0.84
1:0:2085:G:H22	1:0:2171:U:H1'	1.42	0.84
1:0:362:C:H2'	1:0:363:G:H4'	1.60	0.84
1:0:1900:U:H4'	1:0:1946:U:H4'	1.58	0.84
1:0:940:G:H3'	1:0:941:U:C5'	2.06	0.84
1:0:588:G:H2'	1:0:589:C:C6	2.13	0.84
1:0:1582:A:H2'	1:0:1583:A:H5'	1.59	0.83
1:0:846:A:H62	1:0:955:G:N2	1.75	0.83
1:0:2380:U:C2'	1:0:2381:A:H5'	2.09	0.83
1:0:1900:U:H2'	1:0:1901:A:O4'	1.78	0.83
1:0:1791:C:H1'	1:0:1793:A:H5'	1.60	0.82
1:0:2081:U:H2'	1:0:2082:C:H5''	1.60	0.82
1:0:1449:C:C2'	1:0:1450:G:H5''	2.09	0.82
1:0:2549:G:H2'	1:0:2550:C:O4'	1.79	0.82
1:0:918:A:H3'	1:0:919:U:H5''	1.60	0.82
1:0:2824:C:H2'	1:0:2824:C:O2	1.79	0.82
1:0:1634:A:H4'	1:0:1635:G:OP1	1.77	0.81
1:0:1329:U:H5'	1:0:1405:A:H1'	1.61	0.81
1:0:2442:C:H42	1:0:2466:G:H1	1.25	0.81
1:0:114:C:O2'	1:0:124:A:H1'	1.80	0.81
1:0:1039:A:N6	1:0:1136:G:H2'	1.96	0.81
1:0:162:C:H5'	1:0:195:A:H1'	1.62	0.81
1:0:2599:U:H2'	1:0:2600:A:H5''	1.61	0.81
1:0:1911:A:H2'	1:0:1912:G:H5'	1.63	0.81
1:0:765:C:O2'	1:0:766:A:OP2	1.97	0.81
1:0:796:A:H4'	1:0:2568:A:OP1	1.81	0.81
1:0:834:A:H62	1:0:983:G:H21	1.29	0.81
1:0:109:A:H2'	1:0:110:U:H5''	1.63	0.81
1:0:202:A:H2'	1:0:203:G:O4'	1.79	0.81
1:0:204:A:H62	1:0:2386:G:H1'	1.44	0.80
1:0:2680:U:C5'	1:0:2681:A:H5''	2.11	0.80
1:0:490:A:H2'	1:0:491:A:H3'	1.63	0.80
1:0:1001:A:H5''	1:0:1168:G:OP2	1.81	0.80
1:0:2456:U:H1'	1:0:2460:G:H1	1.47	0.80
1:0:431:G:O6	1:0:433:G:N2	2.15	0.80
1:0:1930:C:H42	1:0:1942:G:H1	1.29	0.80
1:0:613:A:H2'	1:0:614:G:C8	2.16	0.80
1:0:929:A:H3'	1:0:930:A:H5''	1.64	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2266:A:H61	1:0:2323:U:H1'	1.47	0.79
1:0:864:C:H1'	1:0:940:G:H22	1.47	0.79
1:0:2436:U:H2'	1:0:2437:G:O4'	1.82	0.79
1:0:244:C:H2'	1:0:245:C:H5''	1.64	0.79
1:0:2771:C:N4	1:0:2780:A:H61	1.77	0.79
1:0:2382:C:H42	1:0:2393:G:H1	1.28	0.79
1:0:689:A:H8	1:0:2052:G:H21	1.31	0.79
1:0:2418:A:H5''	1:0:2419:C:OP1	1.83	0.79
1:0:759:C:O2	1:0:2590:U:H4'	1.83	0.79
1:0:611:C:O2'	1:0:614:G:H5''	1.83	0.79
1:0:490:A:O2'	1:0:491:A:H5'	1.82	0.78
1:0:2804:G:C2'	1:0:2805:G:H5''	2.13	0.78
1:0:1860:A:H2'	1:0:1861:G:H5'	1.64	0.78
1:0:2378:G:H1	1:0:2396:C:N4	1.82	0.78
1:0:2451:G:H1'	1:0:2457:A:N6	1.97	0.78
1:0:1811:A:H5''	1:0:1812:U:OP1	1.83	0.78
1:0:653:G:H2'	1:0:654:A:H4'	1.64	0.77
1:0:109:A:C3'	1:0:110:U:H5''	2.13	0.77
1:0:165:G:H2'	1:0:166:G:O4'	1.85	0.77
1:0:587:A:H2'	1:0:588:G:H5''	1.67	0.77
1:0:27:G:H1'	1:0:523:A:H62	1.49	0.77
1:0:2329:C:H2'	1:0:2330:G:O4'	1.84	0.77
1:0:1139:A:H1'	1:0:2495:G:O2'	1.84	0.77
1:0:38:G:H1	1:0:453:U:H3	1.31	0.77
1:0:393:U:H2'	1:0:394:U:O4'	1.84	0.77
1:0:1706:A:N7	1:0:1717:A:N1	2.32	0.77
1:0:192:G:H1'	1:0:193:A:H4'	1.66	0.77
1:0:396:U:H2'	1:0:398:C:N4	1.99	0.77
1:0:681:A:C2'	1:0:683:A:H62	1.97	0.77
1:0:1955:G:C2'	1:0:1956:G:H5'	2.15	0.77
1:0:243:G:C6	1:0:244:C:H1'	2.19	0.77
1:0:1683:G:H2'	1:0:1684:G:O4'	1.84	0.77
1:0:2034:A:C5'	1:0:2557:G:H5''	2.15	0.77
1:0:460:U:N3	1:0:592:G:H1'	2.00	0.77
1:0:2669:C:O2	1:0:2669:C:H2'	1.83	0.76
1:0:552:C:H2'	1:0:553:C:H5'	1.67	0.76
1:0:1856:U:H5'	1:0:2389:G:O2'	1.85	0.76
1:0:1823:G:H1	1:0:1957:C:N4	1.83	0.76
1:0:926:C:H2'	1:0:927:C:H5'	1.67	0.76
1:0:225:G:O5'	1:0:226:C:H5'	1.85	0.76
1:0:1528:C:H3'	1:0:1529:C:H5''	1.65	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2599:U:C2'	1:0:2600:A:H5''	2.15	0.76
1:0:1955:G:O2'	1:0:1956:G:H5'	1.84	0.76
1:0:2797:G:H2'	1:0:2798:A:H5''	1.68	0.76
1:0:574:C:H4'	1:0:1266:G:O6	1.85	0.76
1:0:2228:U:H4'	1:0:2254:C:H5	1.51	0.76
1:0:2476:A:O2'	1:0:2477:C:H5'	1.86	0.76
1:0:2812:A:H2'	1:0:2813:G:C8	2.20	0.76
1:0:1294:G:H1	1:0:1302:C:N4	1.83	0.76
1:0:1073:G:H2'	1:0:1074:G:C4'	2.15	0.76
1:0:1302:C:O2'	1:0:1343:C:H4'	1.86	0.76
1:0:168:A:H2'	1:0:169:C:C6	2.20	0.76
1:0:210:A:H61	1:0:442:A:H61	1.34	0.76
1:0:2266:A:N6	1:0:2323:U:H1'	2.01	0.76
1:0:2475:C:H2'	1:0:2476:A:O4'	1.86	0.75
1:0:2672:U:H2'	1:0:2673:G:H8	1.50	0.75
1:0:951:G:C2'	1:0:952:A:H5''	2.15	0.75
1:0:1921:A:H2'	1:0:1922:U:H5''	1.66	0.75
1:0:1998:A:H2'	1:0:1999:U:H5'	1.67	0.75
1:0:2377:U:H2'	1:0:2378:G:H8	1.50	0.75
1:0:460:U:C4	1:0:592:G:H1'	2.21	0.75
1:0:760:U:O2	1:0:1997:A:H1'	1.85	0.75
1:0:437:G:H2'	1:0:438:G:H4'	1.68	0.75
1:0:128:C:H2'	1:0:129:A:H5''	1.67	0.75
1:0:2310:G:H2'	1:0:2311:U:O4'	1.86	0.75
1:0:1778:U:H5'	1:0:2568:A:O2'	1.86	0.75
1:0:328:A:O2'	1:0:329:C:H5'	1.87	0.75
1:0:940:G:C3'	1:0:941:U:H5''	2.13	0.75
1:0:468:A:H1'	1:0:470:U:C2	2.22	0.75
1:0:918:A:C3'	1:0:919:U:H5''	2.16	0.75
1:0:596:C:H1'	1:0:684:C:O4'	1.86	0.75
1:0:109:A:C2'	1:0:110:U:H5''	2.17	0.75
1:0:687:G:O2'	1:0:688:A:H5'	1.87	0.75
1:0:1680:U:HO2'	1:0:1681:A:H8	1.35	0.74
1:0:400:U:H4'	1:0:401:G:C8	2.22	0.74
1:0:777:A:H62	1:0:1767:G:H1'	1.52	0.74
1:0:826:U:O2'	1:0:1238:A:H1'	1.87	0.74
1:0:700:C:H1'	1:0:801:A:H5'	1.69	0.74
1:0:1528:C:C3'	1:0:1529:C:H5''	2.17	0.74
1:0:1529:C:H2'	1:0:1530:U:O4'	1.86	0.74
1:0:1066:G:H3'	1:0:1067:G:H5''	1.68	0.74
1:0:2194:A:C3'	1:0:2195:C:H5''	2.17	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:929:A:N7	1:0:2247:A:N1	2.36	0.74
1:0:964:A:H2'	1:0:965:G:H8	1.52	0.74
1:0:2395:C:C2'	1:0:2396:C:H5''	2.17	0.74
1:0:1088:A:H2'	1:0:1089:C:O4'	1.87	0.74
1:0:514:G:H2'	1:0:514:G:N3	2.01	0.74
1:0:987:G:H2'	1:0:988:G:H8	1.50	0.74
1:0:2377:U:H2'	1:0:2378:G:C8	2.23	0.74
1:0:2483:U:H5'	1:0:2484:G:OP2	1.89	0.73
1:0:633:G:H2'	1:0:634:G:C8	2.23	0.73
1:0:2686:C:H2'	1:0:2687:G:C8	2.24	0.73
1:0:1043:A:H2	1:0:1133:G:H22	1.37	0.73
1:0:2788:C:O2'	1:0:2789:U:H5'	1.87	0.73
1:0:1260:A:HO2'	1:0:1261:G:P	2.12	0.73
1:0:1299:A:H2'	1:0:1301:U:OP2	1.88	0.73
1:0:339:U:O2	1:0:339:U:H2'	1.88	0.73
1:0:840:U:H4'	1:0:841:G:C2	2.24	0.73
1:0:942:U:H2'	1:0:943:U:C4'	2.18	0.73
1:0:1923:U:H5'	1:0:1924:C:OP1	1.89	0.73
1:0:1149:G:H22	1:0:1154:A:C1'	2.01	0.72
1:0:542:A:H2'	1:0:543:G:H5'	1.69	0.72
1:0:214:C:H2'	1:0:215:G:H8	1.54	0.72
1:0:2811:G:H2'	1:0:2812:A:C8	2.24	0.72
1:0:1326:U:O2	1:0:1326:U:H2'	1.89	0.72
1:0:1337:G:H1'	1:0:1632:A:N6	2.04	0.72
1:0:1373:G:H2'	1:0:1374:G:H5'	1.71	0.72
1:0:485:G:O2'	1:0:486:U:OP1	2.06	0.72
1:0:1795:C:H2'	1:0:1796:A:H8	1.53	0.72
1:0:311:A:H1'	1:0:330:C:H1'	1.70	0.72
1:0:2680:U:H5'	1:0:2681:A:H5''	1.72	0.72
1:0:717:G:H1'	1:0:740:A:H61	1.53	0.72
1:0:825:C:H1'	1:0:1263:G:C2	2.25	0.72
1:0:2041:A:H61	2:0:2881:TEL:C58	2.02	0.72
1:0:482:A:C2'	1:0:483:A:H5'	2.20	0.72
1:0:816:U:H2'	1:0:817:A:H5'	1.70	0.72
1:0:930:A:H4'	1:0:930:A:OP1	1.90	0.72
1:0:1979:C:H2'	1:0:1980:A:O4'	1.88	0.72
1:0:1578:U:H2'	1:0:1579:G:C8	2.25	0.72
1:0:369:C:H2'	1:0:370:U:O4'	1.90	0.72
1:0:1918:G:H1'	1:0:1947:G:N2	2.05	0.72
1:0:1582:A:C2'	1:0:1583:A:H5'	2.19	0.71
1:0:1016:C:H1'	1:0:1154:A:N3	2.05	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2532:G:C3'	1:0:2533:U:H5''	2.20	0.71
1:0:2700:U:H3	1:0:2848:A:H62	1.38	0.71
1:0:1149:G:H22	1:0:1154:A:H1'	1.53	0.71
1:0:1055:A:N1	1:0:1122:A:H5'	2.06	0.71
1:0:2814:G:H2'	1:0:2815:C:C6	2.26	0.71
1:0:324:C:H2'	1:0:325:U:O4'	1.90	0.71
1:0:541:C:H42	1:0:572:G:H4'	1.56	0.71
1:0:1263:G:O2'	1:0:1264:C:OP1	2.07	0.71
1:0:1795:C:H2'	1:0:1796:A:C8	2.25	0.71
1:0:2593:A:O2'	1:0:2594:U:H5'	1.90	0.71
1:0:197:G:H1'	1:0:211:U:H1'	1.71	0.71
1:0:2299:A:H5'	1:0:2300:G:C4	2.26	0.71
1:0:1982:C:H4'	1:0:2703:C:O2	1.90	0.71
1:0:1719:G:H2'	1:0:1720:G:H8	1.56	0.71
1:0:2660:C:H2'	1:0:2660:C:O2	1.89	0.71
1:0:766:A:H2'	1:0:767:G:C8	2.26	0.71
1:0:864:C:H1'	1:0:940:G:N2	2.04	0.71
1:0:984:A:H1'	1:0:1202:U:C4	2.25	0.71
1:0:1252:C:O2'	1:0:1253:C:H5''	1.91	0.71
1:0:1345:G:H5''	1:0:1346:C:OP2	1.90	0.71
1:0:1712:G:N3	1:0:1712:G:H3'	2.05	0.71
1:0:430:C:H6	1:0:430:C:H5''	1.56	0.71
1:0:616:U:C2'	1:0:617:U:H5''	2.20	0.71
1:0:1177:U:H2'	1:0:1178:C:C6	2.25	0.71
1:0:88:G:H3'	1:0:89:A:H5''	1.73	0.71
1:0:1729:C:H2'	1:0:1730:G:C8	2.26	0.71
1:0:2404:A:H5''	1:0:2405:A:H5''	1.73	0.71
1:0:2599:U:C3'	1:0:2600:A:H5''	2.21	0.71
1:0:2727:G:C2'	1:0:2728:A:H5''	2.21	0.71
1:0:1007:A:H2'	1:0:1008:G:H8	1.55	0.70
1:0:1073:G:H2'	1:0:1074:G:H4'	1.71	0.70
1:0:1252:C:C2'	1:0:1253:C:H5''	2.20	0.70
1:0:2198:U:C3'	1:0:2199:C:H5''	2.19	0.70
1:0:484:G:O2'	1:0:485:G:H5'	1.91	0.70
1:0:1466:C:H2'	1:0:1467:U:O4'	1.92	0.70
1:0:200:A:N6	1:0:435:A:N6	2.39	0.70
1:0:1541:G:H1	1:0:1562:G:H1	1.38	0.70
1:0:2447:G:H1	1:0:2460:G:H2'	1.56	0.70
1:0:1681:A:C2	1:0:2706:U:H1'	2.26	0.70
1:0:700:C:O2	1:0:800:U:O3'	2.09	0.70
1:0:2713:A:H2'	1:0:2714:A:C8	2.26	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2812:A:H2'	1:0:2813:G:H8	1.56	0.70
1:0:588:G:H2'	1:0:589:C:C5	2.26	0.70
1:0:540:G:C6	1:0:2005:U:H5''	2.27	0.70
1:0:826:U:H2'	1:0:827:C:C6	2.26	0.70
1:0:1154:A:O2'	1:0:1155:G:OP1	2.08	0.70
1:0:2686:C:H2'	1:0:2687:G:H8	1.55	0.70
1:0:16:G:O2'	1:0:17:G:H5'	1.92	0.70
1:0:1680:U:H1'	1:0:2665:G:O2'	1.91	0.70
1:0:1356:G:H5''	1:0:1614:C:OP2	1.92	0.70
1:0:218:A:N1	1:0:232:A:H5''	2.07	0.70
1:0:2565:C:H2'	1:0:2566:A:C8	2.27	0.70
1:0:841:G:H2'	1:0:842:A:C8	2.26	0.70
1:0:1791:C:O2'	1:0:1793:A:H5'	1.92	0.70
1:0:1026:U:H2'	1:0:1027:C:C6	2.26	0.69
1:0:2754:C:H2'	1:0:2755:A:H8	1.57	0.69
1:0:296:A:H2'	1:0:297:A:H8	1.57	0.69
1:0:742:G:H5'	1:0:743:A:H5''	1.73	0.69
1:0:1912:G:H2'	1:0:1912:G:N3	2.06	0.69
1:0:1918:G:H2'	1:0:1945:C:H42	1.57	0.69
1:0:343:A:N6	1:0:346:C:C5	2.60	0.69
1:0:1655:C:OP1	1:0:2690:A:H5'	1.90	0.69
1:0:52:A:H62	1:0:115:G:H21	1.39	0.69
1:0:765:C:O2'	1:0:766:A:P	2.50	0.69
1:0:937:C:H2'	1:0:938:G:O4'	1.92	0.69
1:0:1195:U:H2'	1:0:1196:G:C8	2.28	0.69
1:0:871:U:O2	1:0:2247:A:H2'	1.93	0.69
1:0:2692:A:N3	1:0:2692:A:H2'	2.07	0.69
1:0:651:C:C2'	1:0:652:C:H5''	2.22	0.69
1:0:677:G:H1'	1:0:951:G:H5''	1.75	0.69
1:0:1147:G:H2'	1:0:1148:G:H8	1.57	0.69
1:0:2137:G:H2'	1:0:2138:U:C6	2.28	0.69
1:0:990:A:C5'	1:0:991:A:H5''	2.22	0.69
1:0:2721:A:H61	1:0:2743:G:H1'	1.57	0.69
1:0:1429:A:H1'	1:0:1603:A:C6	2.28	0.69
1:0:181:A:H5''	1:0:182:G:OP1	1.93	0.69
1:0:2447:G:O2'	1:0:2448:A:H5''	1.93	0.69
1:0:482:A:H2'	1:0:483:A:H5'	1.73	0.69
1:0:119:G:H4'	1:0:142:U:H2'	1.75	0.69
1:0:1854:G:H2'	1:0:1855:G:H8	1.57	0.69
1:0:192:G:C1'	1:0:193:A:H4'	2.23	0.69
1:0:1978:U:H3'	1:0:1979:C:H5''	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:474:G:N2	1:0:476:G:H3'	2.07	0.69
1:0:590:C:H2'	1:0:591:G:C8	2.28	0.69
1:0:658:G:H2'	1:0:659:G:H8	1.57	0.69
1:0:431:G:H2'	1:0:432:C:O5'	1.93	0.68
1:0:644:A:H2'	1:0:645:G:H5'	1.73	0.68
1:0:2059:U:H5''	1:0:2217:G:H1	1.58	0.68
1:0:2404:A:H5'	1:0:2406:C:O4'	1.94	0.68
1:0:2708:U:H2'	1:0:2709:C:C6	2.28	0.68
1:0:218:A:H4'	1:0:219:G:O5'	1.94	0.68
1:0:1032:A:H3'	1:0:1033:G:H5''	1.75	0.68
1:0:1234:C:O2'	1:0:1235:C:H5'	1.92	0.68
1:0:56:C:H2'	1:0:57:G:O4'	1.93	0.68
1:0:598:U:H2'	1:0:599:A:C8	2.29	0.68
1:0:818:G:N1	1:0:2050:G:O2'	2.27	0.68
1:0:2238:G:H4'	1:0:2407:G:OP2	1.93	0.68
1:0:2240:C:H1'	1:0:2367:A:H1'	1.75	0.68
1:0:2652:G:H2'	1:0:2653:A:H8	1.58	0.68
1:0:552:C:C2'	1:0:553:C:H5'	2.23	0.68
1:0:952:A:H2'	1:0:953:G:C8	2.28	0.68
1:0:1315:A:H5''	1:0:1316:G:OP2	1.94	0.68
1:0:244:C:C2'	1:0:245:C:H5''	2.23	0.68
1:0:1337:G:H4'	1:0:1632:A:H62	1.59	0.68
1:0:1608:U:H2'	1:0:1609:G:H8	1.58	0.68
1:0:1626:A:H5''	1:0:1627:C:OP2	1.94	0.68
1:0:1706:A:H2'	1:0:1707:A:O4'	1.94	0.68
1:0:2311:U:H4'	1:0:2315:A:N6	2.09	0.68
1:0:688:A:H1'	1:0:2422:C:O2'	1.94	0.68
1:0:716:U:H2'	1:0:717:G:O4'	1.93	0.68
1:0:81:C:H5'	1:0:306:G:O2'	1.94	0.68
1:0:1036:G:H1'	1:0:1145:C:H4'	1.74	0.68
1:0:1368:G:H2'	1:0:1369:G:H8	1.57	0.68
1:0:2081:U:C2'	1:0:2082:C:H5''	2.24	0.68
1:0:2309:G:H1	1:0:2364:C:N4	1.89	0.68
1:0:2702:G:H2'	1:0:2703:C:C6	2.28	0.68
1:0:1922:U:O2	1:0:2571:G:H4'	1.94	0.68
1:0:309:G:H21	1:0:351:A:H62	1.41	0.68
1:0:933:G:H2'	1:0:934:G:H8	1.58	0.68
1:0:1655:C:H5''	1:0:2689:C:O2'	1.93	0.68
1:0:718:A:H62	1:0:739:G:H1'	1.58	0.68
1:0:1514:C:H5'	1:0:1593:C:H5''	1.75	0.67
1:0:366:U:H2'	1:0:367:G:H8	1.58	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1766:U:H2'	1:0:1767:G:O4'	1.94	0.67
1:0:1549:C:H2'	1:0:1550:C:O4'	1.93	0.67
1:0:1937:G:H1'	1:0:2530:C:C4'	2.22	0.67
1:0:591:G:H2'	1:0:592:G:C8	2.28	0.67
1:0:699:G:H5'	1:0:700:C:OP2	1.94	0.67
1:0:1161:U:H2'	1:0:1162:A:H8	1.60	0.67
1:0:15:G:H22	1:0:536:A:H2	1.42	0.67
1:0:1202:U:H2'	1:0:1203:A:H8	1.60	0.67
1:0:1582:A:H62	1:0:1584:G:H21	1.40	0.67
1:0:1777:A:O2'	1:0:1778:U:OP1	2.12	0.67
1:0:1859:A:H2'	1:0:1860:A:H8	1.60	0.67
1:0:2736:U:O2'	1:0:2737:A:H5'	1.95	0.67
1:0:2041:A:H61	2:0:2881:TEL:H582	1.58	0.67
1:0:594:G:C6	1:0:1264:C:N4	2.55	0.67
1:0:109:A:H3'	1:0:110:U:H5''	1.76	0.67
1:0:831:G:H21	1:0:1203:A:H62	1.41	0.67
1:0:1222:G:H1'	1:0:1251:G:N2	2.09	0.67
1:0:2033:C:H2'	1:0:2034:A:O4'	1.94	0.67
1:0:368:A:H2'	1:0:369:C:O4'	1.94	0.67
1:0:389:G:C8	1:0:389:G:H3'	2.30	0.67
1:0:815:A:O2'	1:0:816:U:H5'	1.95	0.67
1:0:1021:A:H1'	1:0:1164:C:H1'	1.77	0.67
1:0:1029:C:C2'	1:0:1030:U:H5''	2.24	0.67
1:0:1930:C:N4	1:0:1942:G:H1	1.92	0.67
1:0:2410:U:O2	1:0:2412:A:C8	2.44	0.67
1:0:2432:A:H4'	1:0:2551:A:O2'	1.95	0.67
1:0:1141:U:O2'	1:0:1142:G:OP1	2.12	0.67
1:0:1247:U:H2'	1:0:1248:G:O4'	1.95	0.67
1:0:1883:A:N3	1:0:1953:A:N7	2.43	0.67
1:0:2369:U:H2'	1:0:2370:G:H8	1.59	0.67
1:0:38:G:H2'	1:0:39:C:C6	2.30	0.66
1:0:1288:A:H2'	1:0:1289:A:O4'	1.95	0.66
1:0:139:A:H2'	1:0:140:G:H8	1.58	0.66
1:0:1911:A:C2'	1:0:1912:G:H5'	2.25	0.66
1:0:2245:A:O2'	1:0:2246:A:OP2	2.11	0.66
1:0:73:A:H2'	1:0:73:A:N3	2.10	0.66
1:0:1804:U:H2'	1:0:1805:G:H8	1.60	0.66
1:0:1182:U:C2'	1:0:1183:C:H5''	2.25	0.66
1:0:1223:G:H5'	1:0:1225:G:O4'	1.95	0.66
1:0:2396:C:H2'	1:0:2397:A:H5'	1.77	0.66
1:0:2521:A:H5'	1:0:2522:G:OP1	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2675:U:H2'	1:0:2676:G:C8	2.29	0.66
1:0:741:G:H5'	1:0:742:G:OP2	1.94	0.66
1:0:1071:U:H2'	1:0:1072:U:H5'	1.77	0.66
1:0:1634:A:O2'	1:0:1635:G:H5'	1.95	0.66
1:0:1679:U:C2'	1:0:1680:U:H5'	2.26	0.66
1:0:541:C:H42	1:0:572:G:C4'	2.08	0.66
1:0:1958:G:H2'	1:0:1959:U:C6	2.31	0.66
1:0:2429:A:H5''	1:0:2476:A:H62	1.60	0.66
1:0:2274:C:H2'	1:0:2275:U:H5'	1.77	0.66
1:0:2816:C:H1'	1:0:2852:G:H22	1.59	0.66
1:0:865:A:H2'	1:0:866:U:C6	2.30	0.66
1:0:1083:C:N3	1:0:1103:C:C5	2.63	0.66
1:0:589:C:H5'	1:0:2001:G:O2'	1.96	0.66
1:0:2402:U:H4'	1:0:2404:A:N7	2.10	0.66
1:0:336:A:H2'	1:0:337:G:C8	2.31	0.66
1:0:340:G:H5'	1:0:341:A:OP1	1.95	0.66
1:0:1561:A:H2'	1:0:1562:G:O4'	1.96	0.66
1:0:2804:G:C3'	1:0:2805:G:H5''	2.25	0.66
1:0:762:A:O2'	1:0:1633:C:H1'	1.95	0.66
1:0:772:G:H2'	1:0:773:G:H8	1.61	0.65
1:0:1218:C:H2'	1:0:1219:C:C6	2.32	0.65
1:0:1776:A:H4'	1:0:1965:U:HO2'	1.60	0.65
1:0:2048:C:H2'	1:0:2049:C:H6	1.61	0.65
1:0:2483:U:H3'	1:0:2484:G:H5''	1.77	0.65
1:0:2782:G:H2'	1:0:2783:U:H5'	1.77	0.65
1:0:681:A:C2'	1:0:683:A:N6	2.55	0.65
1:0:1198:C:OP1	1:0:1199:U:H1'	1.96	0.65
1:0:1435:G:H2'	1:0:1436:G:H8	1.59	0.65
1:0:1458:A:H3'	1:0:1459:U:C5'	2.25	0.65
1:0:1625:A:H2'	1:0:1625:A:N3	2.11	0.65
1:0:542:A:C2'	1:0:543:G:H5'	2.25	0.65
1:0:759:C:H5'	1:0:761:G:H1'	1.78	0.65
1:0:78:C:H2'	1:0:79:G:H8	1.61	0.65
1:0:1572:C:H2'	1:0:1573:G:C5'	2.14	0.65
1:0:1662:G:H5''	1:0:1663:C:H5'	1.77	0.65
1:0:2526:U:H2'	1:0:2527:G:C8	2.31	0.65
1:0:2778:U:H2'	1:0:2779:C:C6	2.30	0.65
1:0:389:G:H8	1:0:389:G:H3'	1.59	0.65
1:0:2034:A:H5'	1:0:2557:G:H5''	1.78	0.65
1:0:430:C:C4'	1:0:2386:G:N2	2.56	0.65
1:0:728:G:H2'	1:0:729:A:O4'	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:843:G:N3	1:0:2427:A:N6	2.44	0.65
1:0:1407:G:H2'	1:0:1408:A:O4'	1.96	0.65
1:0:2324:G:O2'	1:0:2325:A:OP2	2.12	0.65
1:0:2398:U:H2'	1:0:2399:C:C6	2.32	0.65
1:0:983:G:H3'	1:0:984:A:H5''	1.79	0.65
1:0:133:C:H2'	1:0:134:G:O4'	1.96	0.65
1:0:1552:C:H2'	1:0:1553:G:H5'	1.79	0.65
1:0:2651:U:O2'	1:0:2652:G:H5'	1.96	0.65
1:0:2312:A:H1'	1:0:2314:A:C5	2.32	0.65
1:0:2034:A:H5''	1:0:2557:G:H5''	1.78	0.65
1:0:457:C:H2'	1:0:458:G:O4'	1.96	0.65
1:0:1358:C:H2'	1:0:1359:G:H5'	1.79	0.65
1:0:2020:G:H2'	1:0:2021:G:C8	2.31	0.65
1:0:2334:C:C3'	1:0:2335:U:H5''	2.27	0.65
1:0:534:U:O2'	1:0:535:U:H5'	1.97	0.65
1:0:1353:A:N3	1:0:1353:A:H2'	2.11	0.65
1:0:1807:A:H1'	1:0:1809:G:C8	2.32	0.65
1:0:2824:C:H4'	1:0:2825:A:H5'	1.79	0.65
1:0:175:C:H1'	1:0:2413:A:H61	1.62	0.64
1:0:1086:C:H2'	1:0:1087:C:H5''	1.78	0.64
1:0:984:A:H1'	1:0:1202:U:C5	2.32	0.64
1:0:1230:C:H2'	1:0:1231:A:H8	1.62	0.64
1:0:1681:A:H61	1:0:1979:C:N4	1.96	0.64
1:0:1725:C:N4	1:0:1741:G:H1	1.95	0.64
1:0:430:C:H6	1:0:430:C:C5'	2.09	0.64
1:0:1058:G:H2'	1:0:1121:G:H1	1.63	0.64
1:0:2261:G:H4'	1:0:2262:C:OP2	1.95	0.64
1:0:874:A:H2'	1:0:875:G:O4'	1.97	0.64
1:0:1078:A:H2'	1:0:1079:G:H8	1.62	0.64
1:0:1791:C:C2'	1:0:1792:C:H5''	2.26	0.64
1:0:540:G:O6	1:0:2006:G:OP1	2.16	0.64
1:0:587:A:C2'	1:0:588:G:H5''	2.27	0.64
1:0:789:G:H1'	1:0:806:A:C6	2.33	0.64
1:0:813:A:N3	1:0:813:A:H2'	2.12	0.64
1:0:1223:G:N3	1:0:1225:G:N3	2.46	0.64
1:0:1303:U:H2'	1:0:1304:U:C6	2.32	0.64
1:0:1764:A:N7	1:0:1821:A:H1'	2.12	0.64
1:0:1955:G:H2'	1:0:1956:G:H8	1.62	0.64
1:0:2560:G:N3	1:0:2560:G:H3'	2.12	0.64
1:0:2633:A:O2'	1:0:2634:G:H4'	1.98	0.64
1:0:2091:C:H2'	1:0:2092:U:O4'	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2389:G:H2'	1:0:2390:A:C8	2.33	0.64
1:0:2671:C:H2'	1:0:2672:U:C6	2.32	0.64
1:0:1937:G:N3	1:0:2530:C:H5''	2.13	0.64
1:0:1948:C:OP2	1:0:1949:A:H3'	1.97	0.64
1:0:781:G:N2	1:0:1392:U:H1'	2.13	0.64
1:0:2713:A:H2'	1:0:2714:A:H8	1.61	0.64
1:0:1299:A:O2'	1:0:1300:A:OP1	2.15	0.64
1:0:1680:U:O2'	1:0:1681:A:H8	1.80	0.64
1:0:2096:U:H3'	1:0:2097:A:H5''	1.80	0.64
1:0:765:C:HO2'	1:0:766:A:P	2.20	0.64
1:0:1437:A:H2'	1:0:1438:G:H8	1.62	0.63
1:0:367:G:C3'	1:0:368:A:H5''	2.28	0.63
1:0:952:A:O2'	1:0:1204:G:H4'	1.99	0.63
1:0:1332:G:N1	1:0:1333:G:N2	2.46	0.63
1:0:1337:G:C4'	1:0:1632:A:H62	2.12	0.63
1:0:873:U:H3	1:0:930:A:N6	1.96	0.63
1:0:1225:G:H2'	1:0:1249:G:N2	2.13	0.63
1:0:2191:A:H2'	1:0:2192:U:OP1	1.99	0.63
1:0:2274:C:H2'	1:0:2275:U:C5'	2.28	0.63
1:0:651:C:H2'	1:0:652:C:H5''	1.78	0.63
1:0:1886:G:H2'	1:0:1887:G:H8	1.63	0.63
1:0:2334:C:H2'	1:0:2335:U:H5''	1.81	0.63
1:0:2549:G:O2'	1:0:2550:C:H5'	1.98	0.63
1:0:1451:C:H2'	1:0:1452:U:H6	1.62	0.63
1:0:1141:U:O2	1:0:2008:C:H5''	1.99	0.63
1:0:2382:C:N4	1:0:2393:G:H1	1.95	0.63
1:0:2517:C:H2'	1:0:2518:C:C6	2.34	0.63
1:0:1242:A:O2'	1:0:1243:G:H5'	1.99	0.63
1:0:1299:A:HO2'	1:0:1300:A:P	2.22	0.63
1:0:1345:G:C5	1:0:1625:A:N6	2.66	0.63
1:0:2299:A:H5'	1:0:2300:G:C5	2.34	0.63
1:0:1588:A:H2'	1:0:1589:G:H8	1.64	0.63
1:0:2426:G:H1'	1:0:2480:C:C5	2.34	0.63
1:0:2428:U:O2	1:0:2428:U:H2'	1.98	0.63
1:0:68:C:O2	1:0:68:C:H2'	1.99	0.63
1:0:2495:G:H2'	1:0:2496:C:O4'	1.98	0.63
1:0:321:A:O2'	1:0:322:A:H8	1.74	0.63
1:0:612:G:O3'	1:0:613:A:H4'	1.99	0.63
1:0:1161:U:H2'	1:0:1162:A:C8	2.34	0.63
1:0:1679:U:O2	1:0:2666:U:H5''	1.99	0.63
1:0:1982:C:H5''	1:0:2703:C:O2'	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2384:G:H5''	1:0:2385:U:H5''	1.79	0.63
1:0:2043:A:O2'	1:0:2481:G:O4'	2.17	0.63
1:0:1380:C:H2'	1:0:1381:G:H5'	1.80	0.62
1:0:1725:C:H42	1:0:1741:G:H1	1.47	0.62
1:0:1791:C:H1'	1:0:1793:A:C5'	2.29	0.62
1:0:2261:G:H5''	1:0:2262:C:O5'	1.98	0.62
1:0:2687:G:O2'	1:0:2688:G:H5'	1.99	0.62
1:0:1259:A:O2'	1:0:1260:A:H5'	1.99	0.62
1:0:2380:U:H2'	1:0:2381:A:C5'	2.28	0.62
1:0:550:C:H2'	1:0:551:A:C8	2.34	0.62
1:0:2753:C:H2'	1:0:2754:C:C6	2.35	0.62
1:0:2754:C:H2'	1:0:2755:A:C8	2.34	0.62
1:0:2756:A:O2'	1:0:2757:G:OP2	2.15	0.62
1:0:2763:U:H2'	1:0:2764:U:O4'	1.99	0.62
1:0:323:G:H2'	1:0:324:C:C6	2.34	0.62
1:0:200:A:H62	1:0:435:A:H62	1.47	0.62
1:0:7:G:H2'	1:0:8:A:C8	2.34	0.62
1:0:1029:C:N4	1:0:1153:A:N6	2.46	0.62
1:0:1089:C:H2'	1:0:1099:A:O4'	2.00	0.62
1:0:1218:C:H2'	1:0:1219:C:H6	1.64	0.62
1:0:1416:A:O2'	1:0:1417:C:H5'	1.98	0.62
1:0:1698:C:H4'	1:0:1699:A:OP1	2.00	0.62
1:0:1871:G:N3	1:0:1871:G:H3'	2.14	0.62
1:0:2672:U:H2'	1:0:2673:G:C8	2.33	0.62
1:0:198:A:H62	1:0:439:C:H42	1.46	0.62
1:0:210:A:N6	1:0:442:A:H61	1.98	0.62
1:0:1114:A:H2'	1:0:1115:C:O4'	1.98	0.62
1:0:1719:G:H2'	1:0:1720:G:C8	2.35	0.62
1:0:1981:A:H4'	1:0:2704:U:H4'	1.80	0.62
1:0:2024:U:H2'	1:0:2025:A:C8	2.34	0.62
1:0:2565:C:H2'	1:0:2566:A:H8	1.62	0.62
1:0:2746:G:N3	1:0:2746:G:H2'	2.13	0.62
1:0:2870:C:H2'	1:0:2871:U:C6	2.35	0.62
1:0:574:C:C4'	1:0:1266:G:O6	2.47	0.62
1:0:645:G:H2'	1:0:646:C:C6	2.35	0.62
1:0:168:A:H2'	1:0:169:C:H6	1.62	0.62
1:0:1900:U:H4'	1:0:1946:U:C4'	2.30	0.62
1:0:2343:C:H2'	1:0:2344:G:O4'	1.99	0.62
1:0:2:G:H2'	1:0:3:U:C6	2.33	0.62
1:0:562:G:H2'	1:0:563:U:C6	2.35	0.62
1:0:788:G:N2	1:0:801:A:OP2	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1782:A:N6	1:0:1820:G:H2'	2.14	0.62
1:0:1869:A:H2'	1:0:1870:U:O4'	2.00	0.62
1:0:2049:C:H2'	1:0:2050:G:H5'	1.82	0.62
1:0:214:C:H2'	1:0:215:G:C8	2.34	0.62
1:0:2691:C:H3'	1:0:2692:A:H5''	1.81	0.62
1:0:2870:C:H2'	1:0:2871:U:H6	1.65	0.62
1:0:367:G:H3'	1:0:368:A:H5''	1.81	0.62
1:0:396:U:H2'	1:0:398:C:H41	1.63	0.62
1:0:597:U:H2'	1:0:598:U:C6	2.34	0.62
1:0:707:U:OP1	1:0:1585:A:H1'	2.00	0.62
1:0:1555:A:H2'	1:0:1556:A:C8	2.35	0.62
1:0:538:A:C2	1:0:2025:A:H2'	2.35	0.62
1:0:222:G:N2	1:0:231:G:H1'	2.15	0.62
1:0:431:G:N1	1:0:432:C:N4	2.48	0.62
1:0:1194:U:H2'	1:0:1195:U:C6	2.34	0.62
1:0:1278:A:O2'	1:0:1279:G:H4'	2.00	0.62
1:0:2533:U:H2'	1:0:2534:U:C6	2.34	0.62
1:0:2266:A:HO2'	1:0:2267:A:H8	1.48	0.62
1:0:2824:C:C2'	1:0:2824:C:O2	2.46	0.62
1:0:699:G:C5'	1:0:700:C:OP2	2.48	0.62
1:0:837:U:H2'	1:0:838:A:C8	2.34	0.62
1:0:1102:G:N1	1:0:1112:U:H1'	2.15	0.61
1:0:1979:C:O2'	1:0:1980:A:H5'	2.00	0.61
1:0:2495:G:H2'	1:0:2496:C:C1'	2.30	0.61
1:0:330:C:H2'	1:0:331:U:H6	1.64	0.61
1:0:431:G:C6	1:0:433:G:N2	2.67	0.61
1:0:569:C:N4	1:0:570:G:C6	2.67	0.61
1:0:873:U:O2	1:0:2247:A:O5'	2.17	0.61
1:0:978:U:H2'	1:0:979:A:C8	2.35	0.61
1:0:1338:G:H4'	1:0:1339:U:OP1	1.99	0.61
1:0:244:C:C3'	1:0:245:C:H5''	2.30	0.61
1:0:2728:A:N1	1:0:2736:U:H1'	2.14	0.61
1:0:2520:A:H1'	1:0:2744:A:H2	1.65	0.61
1:0:1288:A:H62	1:0:1309:G:C4'	2.13	0.61
1:0:2262:C:H2'	1:0:2263:C:O4'	2.00	0.61
1:0:1033:G:O2'	1:0:1034:U:P	2.58	0.61
1:0:1764:A:H2'	1:0:1765:C:H5'	1.81	0.61
1:0:2059:U:C5'	1:0:2217:G:H1	2.13	0.61
1:0:495:C:H2'	1:0:496:C:C6	2.35	0.61
1:0:834:A:H62	1:0:983:G:N2	1.97	0.61
1:0:14:A:N3	1:0:14:A:H2'	2.14	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1720:G:O2'	1:0:1721:G:H5'	2.00	0.61
1:0:2243:C:H2'	1:0:2244:C:O4'	2.01	0.61
1:0:2692:A:O4'	1:0:2692:A:OP1	2.19	0.61
1:0:564:U:H2'	1:0:565:A:C8	2.34	0.61
1:0:1392:U:O2	1:0:1392:U:H2'	2.00	0.61
1:0:1354:A:H62	1:0:1407:G:H1	1.48	0.61
1:0:2096:U:C3'	1:0:2097:A:H5''	2.31	0.61
1:0:2391:A:H2'	1:0:2392:G:O4'	1.99	0.61
1:0:822:G:O2'	1:0:823:U:H5'	2.00	0.61
1:0:1617:G:H2'	1:0:1618:U:H5'	1.82	0.61
1:0:1975:G:H22	1:0:1979:C:H5	1.47	0.61
1:0:2105:U:H2'	1:0:2106:G:C8	2.35	0.61
1:0:2658:A:O2'	1:0:2659:C:H5'	2.01	0.61
1:0:158:A:H1'	1:0:448:C:H5'	1.83	0.61
1:0:541:C:H42	1:0:572:G:C5'	2.14	0.61
1:0:2351:G:N3	1:0:2351:G:H2'	2.15	0.61
1:0:2477:C:H6	1:0:2477:C:H3'	1.65	0.61
1:0:2727:G:O2'	1:0:2728:A:H5''	1.99	0.61
1:0:879:A:H2'	1:0:879:A:N3	2.16	0.61
1:0:987:G:H2'	1:0:988:G:C8	2.33	0.61
1:0:2748:C:H2'	1:0:2749:A:H8	1.65	0.61
1:0:1429:A:O2'	1:0:1430:G:H4'	2.00	0.61
1:0:1775:A:H8	1:0:1775:A:O5'	1.83	0.61
1:0:1997:A:H2'	1:0:1998:A:C8	2.36	0.61
1:0:460:U:H3	1:0:592:G:H1'	1.66	0.61
1:0:665:A:N3	1:0:665:A:H2'	2.15	0.61
1:0:796:A:N3	1:0:796:A:H2'	2.14	0.61
1:0:809:C:H2'	1:0:810:U:C6	2.35	0.61
1:0:987:G:H5'	1:0:1167:A:N6	2.16	0.60
1:0:824:U:H1'	1:0:1264:C:O2	2.00	0.60
1:0:1281:A:H2'	1:0:1282:A:O4'	2.01	0.60
1:0:1582:A:C3'	1:0:1583:A:H5'	2.30	0.60
1:0:1790:G:H4'	1:0:1791:C:C6	2.37	0.60
1:0:65:C:H2'	1:0:66:U:O4'	2.01	0.60
1:0:706:A:H2'	1:0:707:U:C6	2.37	0.60
1:0:804:C:O2	1:0:804:C:C2'	2.45	0.60
1:0:1172:U:H2'	1:0:1173:G:H8	1.64	0.60
1:0:1621:C:O4'	1:0:1626:A:N1	2.33	0.60
1:0:2225:G:H2'	1:0:2226:A:C8	2.36	0.60
1:0:2487:G:H2'	1:0:2488:G:H8	1.65	0.60
1:0:674:U:H2'	1:0:675:C:O4'	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:330:C:H2'	1:0:331:U:C6	2.36	0.60
1:0:388:G:P	1:0:436:A:H61	2.24	0.60
1:0:466:A:C2'	1:0:467:U:OP2	2.49	0.60
1:0:468:A:O2'	1:0:469:G:H4'	2.01	0.60
1:0:1474:A:N3	1:0:1474:A:H3'	2.16	0.60
1:0:216:U:H2'	1:0:217:U:O4'	2.01	0.60
1:0:2498:U:OP2	1:0:2498:U:H3'	2.00	0.60
1:0:73:A:O3'	1:0:74:G:H4'	2.00	0.60
1:0:1932:G:H3'	1:0:1933:G:C8	2.36	0.60
1:0:2463:G:H2'	1:0:2464:G:H8	1.65	0.60
1:0:2867:G:N3	1:0:2867:G:H2'	2.16	0.60
1:0:510:G:H2'	1:0:512:A:OP2	2.00	0.60
1:0:1057:A:H3'	1:0:1058:G:C5'	2.32	0.60
1:0:1223:G:H5''	1:0:1224:A:OP1	2.02	0.60
1:0:1532:A:H2'	1:0:1533:G:C8	2.37	0.60
1:0:2000:U:H3'	1:0:2001:G:H5''	1.83	0.60
1:0:2136:G:H2'	1:0:2137:G:C8	2.36	0.60
1:0:2322:U:O2'	1:0:2323:U:H5'	2.02	0.60
1:0:2496:C:H2'	1:0:2497:A:H5''	1.84	0.60
1:0:357:A:H2'	1:0:358:C:H5'	1.84	0.60
1:0:688:A:H2'	1:0:689:A:N3	2.15	0.60
1:0:1016:C:H1'	1:0:1154:A:C2	2.37	0.60
1:0:1184:G:H2'	1:0:1185:C:H5'	1.84	0.60
1:0:1725:C:H2'	1:0:1726:C:H6	1.67	0.60
1:0:460:U:H4'	1:0:461:A:OP2	2.01	0.60
1:0:827:C:O2'	1:0:828:C:H5'	2.01	0.60
1:0:872:G:O2'	1:0:873:U:H5''	2.01	0.60
1:0:1700:C:H2'	1:0:1701:C:C6	2.36	0.60
1:0:1886:G:H2'	1:0:1887:G:C8	2.37	0.60
1:0:579:G:H2'	1:0:2013:A:N7	2.16	0.60
1:0:2278:A:H61	1:0:2296:U:H3	1.49	0.60
1:0:2432:A:H2'	1:0:2433:G:H8	1.65	0.60
1:0:2425:G:H2'	1:0:2480:C:H5	1.67	0.60
1:0:644:A:C2'	1:0:645:G:H5'	2.32	0.60
1:0:658:G:H2'	1:0:659:G:C8	2.37	0.60
1:0:311:A:H1'	1:0:330:C:C1'	2.31	0.60
1:0:573:C:HO2'	1:0:1266:G:H1	1.50	0.60
1:0:857:U:H2'	1:0:858:G:O4'	2.02	0.60
1:0:1244:U:H2'	1:0:1245:G:C8	2.37	0.59
1:0:1621:C:O4'	1:0:1626:A:C2	2.55	0.59
1:0:1999:U:H2'	1:0:2000:U:O4'	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2309:G:H1	1:0:2364:C:H42	1.49	0.59
1:0:436:A:H4'	1:0:437:G:C5'	2.26	0.59
1:0:787:A:H2'	1:0:788:G:N7	2.17	0.59
1:0:1353:A:H5''	1:0:1354:A:N7	2.16	0.59
1:0:2633:A:H5''	1:0:2634:G:OP1	2.02	0.59
1:0:792:U:O2'	1:0:793:G:H5'	2.01	0.59
1:0:1175:A:H2'	1:0:1176:U:C6	2.38	0.59
1:0:1326:U:O2	1:0:1326:U:C2'	2.49	0.59
1:0:2384:G:H5''	1:0:2385:U:C5'	2.32	0.59
1:0:2659:C:H2'	1:0:2660:C:H6	1.66	0.59
1:0:66:U:H2'	1:0:67:G:C8	2.36	0.59
1:0:1904:G:H2'	1:0:1905:G:O4'	2.02	0.59
1:0:2500:C:H4'	1:0:2544:A:O4'	2.03	0.59
1:0:633:G:H2'	1:0:634:G:H8	1.66	0.59
1:0:68:C:H2'	1:0:69:G:C8	2.36	0.59
1:0:802:A:N3	1:0:802:A:H2'	2.16	0.59
1:0:820:U:H2'	1:0:821:A:H8	1.67	0.59
1:0:1376:C:H2'	1:0:1377:G:C8	2.37	0.59
1:0:2386:G:H2'	1:0:2386:G:N3	2.17	0.59
1:0:834:A:N6	1:0:983:G:H21	1.99	0.59
1:0:998:C:H1'	1:0:1012:A:H1'	1.84	0.59
1:0:1139:A:H1'	1:0:2495:G:HO2'	1.66	0.59
1:0:1225:G:H2'	1:0:1249:G:H22	1.67	0.59
1:0:1298:G:O6	1:0:1342:U:C6	2.56	0.59
1:0:1391:A:O2'	1:0:1392:U:P	2.60	0.59
1:0:1578:U:H2'	1:0:1579:G:H8	1.66	0.59
1:0:2469:G:H4'	1:0:2470:U:O5'	2.03	0.59
1:0:2483:U:H3'	1:0:2484:G:C5'	2.33	0.59
1:0:2652:G:O2'	1:0:2653:A:H5'	2.02	0.59
1:0:2863:U:H2'	1:0:2864:C:C6	2.37	0.59
1:0:757:U:H2'	1:0:758:G:H5'	1.85	0.59
1:0:956:A:O2'	1:0:957:G:P	2.60	0.59
1:0:1110:G:H2'	1:0:1111:C:C6	2.38	0.59
1:0:824:U:C1'	1:0:1264:C:O2	2.50	0.59
1:0:1304:U:O2'	1:0:1305:C:H5'	2.03	0.59
1:0:2312:A:H1'	1:0:2314:A:N7	2.17	0.59
1:0:1437:A:O2'	1:0:1515:U:H4'	2.02	0.59
1:0:244:C:H2'	1:0:245:C:O4'	2.03	0.59
1:0:2680:U:H5''	1:0:2681:A:H5''	1.83	0.59
1:0:333:A:O2'	1:0:350:U:H2'	2.02	0.59
1:0:759:C:C5'	1:0:761:G:H1'	2.33	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1325:U:H5'	1:0:1326:U:C6	2.38	0.59
1:0:2321:C:H2'	1:0:2322:U:O4'	2.03	0.59
1:0:698:A:H1'	1:0:700:C:C5	2.38	0.59
1:0:872:G:O2'	1:0:2247:A:H1'	2.03	0.59
1:0:1548:U:H3	1:0:1554:G:H1	1.49	0.59
1:0:1949:A:H1'	1:0:2572:U:C5'	2.30	0.59
1:0:2015:G:O2'	1:0:2016:A:OP1	2.18	0.59
1:0:233:A:H2'	1:0:234:C:C6	2.38	0.59
1:0:1222:G:H1'	1:0:1251:G:H22	1.68	0.58
1:0:161:U:H2'	1:0:162:C:C6	2.37	0.58
1:0:1764:A:OP1	1:0:1820:G:H3'	2.02	0.58
1:0:2185:U:H2'	1:0:2186:G:C8	2.38	0.58
1:0:2356:A:H2'	1:0:2357:A:C8	2.38	0.58
1:0:2629:U:H2'	1:0:2630:C:C6	2.37	0.58
1:0:336:A:H2'	1:0:337:G:H8	1.67	0.58
1:0:468:A:C2'	1:0:469:G:H4'	2.33	0.58
1:0:647:G:H4'	1:0:649:G:O3'	2.03	0.58
1:0:986:A:H2'	1:0:987:G:H5'	1.84	0.58
1:0:2107:G:H2'	1:0:2108:G:H8	1.67	0.58
1:0:2326:C:H42	1:0:2350:G:N2	2.00	0.58
1:0:693:A:H2'	1:0:694:G:C8	2.37	0.58
1:0:1180:A:O2'	1:0:1181:C:H5'	2.03	0.58
1:0:1764:A:N7	1:0:1821:A:C1'	2.66	0.58
1:0:2083:G:H22	1:0:2172:U:H3	1.51	0.58
1:0:2395:C:H2'	1:0:2396:C:C5'	2.29	0.58
1:0:2061:C:H5'	1:0:2413:A:H4'	1.85	0.58
1:0:2607:C:H3'	1:0:2608:A:H5''	1.85	0.58
1:0:2624:G:H4'	1:0:2712:G:H2'	1.84	0.58
1:0:2843:A:N6	1:0:2844:G:C6	2.72	0.58
1:0:569:C:N4	1:0:570:G:O6	2.36	0.58
1:0:1633:C:O2'	1:0:1634:A:H3'	2.04	0.58
1:0:2555:G:N3	1:0:2555:G:H2'	2.17	0.58
1:0:3:U:H2'	1:0:4:C:C6	2.38	0.58
1:0:457:C:O2'	1:0:458:G:H5'	2.04	0.58
1:0:67:G:N2	1:0:73:A:H8	2.01	0.58
1:0:801:A:O2'	1:0:802:A:P	2.61	0.58
1:0:165:G:O2'	1:0:166:G:H5'	2.04	0.58
1:0:1865:C:H2'	1:0:1866:G:O4'	2.03	0.58
1:0:1980:A:O2'	1:0:1981:A:H5'	2.03	0.58
1:0:1212:U:H2'	1:0:1213:U:C6	2.39	0.58
1:0:1860:A:C2'	1:0:1861:G:H5'	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:389:G:C8	1:0:389:G:C3'	2.87	0.58
1:0:543:G:H2'	1:0:544:U:C6	2.39	0.58
1:0:597:U:H3	1:0:683:A:HO2'	1.47	0.58
1:0:787:A:H2'	1:0:788:G:C8	2.39	0.58
1:0:855:G:O2'	1:0:856:A:H5'	2.03	0.58
1:0:86:U:H1'	1:0:95:G:N2	2.18	0.58
1:0:128:C:C2'	1:0:129:A:H5''	2.33	0.58
1:0:1337:G:H1'	1:0:1632:A:H61	1.67	0.58
1:0:2544:A:H2'	1:0:2545:A:C1'	2.33	0.58
1:0:2484:G:H5'	2:0:2881:TEL:H571	1.85	0.58
1:0:590:C:H2'	1:0:591:G:H8	1.66	0.58
1:0:877:G:H2'	1:0:878:C:C6	2.38	0.58
1:0:847:C:N4	1:0:955:G:N2	2.52	0.58
1:0:1001:A:H3'	1:0:1002:C:H5''	1.86	0.58
1:0:1821:A:H3'	1:0:1822:C:C6	2.38	0.58
1:0:1927:U:H4'	1:0:1938:U:O2'	2.04	0.58
1:0:2269:G:H2'	1:0:2270:U:O4'	2.03	0.58
1:0:70:A:H5'	1:0:71:A:OP1	2.03	0.58
1:0:1299:A:N6	1:0:1302:C:N4	2.52	0.58
1:0:1337:G:C1'	1:0:1632:A:N6	2.66	0.58
1:0:1378:A:H2'	1:0:1379:A:C8	2.39	0.58
1:0:1465:G:H2'	1:0:1466:C:O4'	2.03	0.58
1:0:2326:C:O2'	1:0:2327:U:H5'	2.04	0.58
1:0:2432:A:H4'	1:0:2551:A:HO2'	1.67	0.58
1:0:224:G:H1'	1:0:399:G:O6	2.04	0.58
1:0:199:A:OP1	1:0:438:G:O6	2.21	0.58
1:0:782:U:H2'	1:0:783:G:H8	1.68	0.58
1:0:1955:G:H2'	1:0:1956:G:H5'	1.86	0.58
1:0:2493:U:H2'	1:0:2494:C:C6	2.39	0.58
1:0:605:G:C2	1:0:606:A:C5	2.91	0.58
1:0:62:U:H5'	1:0:63:A:OP1	2.04	0.58
1:0:651:C:C3'	1:0:652:C:H5''	2.34	0.58
1:0:788:G:H2'	1:0:807:A:C5	2.39	0.58
1:0:697:G:N2	1:0:807:A:H2	2.02	0.58
1:0:1438:G:H2'	1:0:1439:G:H5'	1.85	0.57
1:0:1464:A:H2'	1:0:1465:G:O4'	2.04	0.57
1:0:2158:C:H2'	1:0:2159:A:C8	2.37	0.57
1:0:755:C:H2'	1:0:756:C:C6	2.39	0.57
1:0:861:G:H1'	1:0:944:A:N3	2.18	0.57
1:0:114:C:H2'	1:0:115:G:O4'	2.03	0.57
1:0:1829:C:H42	1:0:1886:G:H1	1.52	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2121:U:H2'	1:0:2122:G:C8	2.38	0.57
1:0:2369:U:H2'	1:0:2370:G:C8	2.40	0.57
1:0:210:A:H61	1:0:442:A:N6	2.02	0.57
1:0:670:U:H2'	1:0:671:A:C8	2.39	0.57
1:0:763:A:H5''	1:0:1631:C:H42	1.68	0.57
1:0:1953:A:O2'	1:0:1955:G:O4'	2.21	0.57
1:0:2334:C:H3'	1:0:2335:U:H5''	1.87	0.57
1:0:2350:G:H2'	1:0:2351:G:H8	1.68	0.57
1:0:2491:C:C3'	1:0:2492:G:H5''	2.34	0.57
1:0:2690:A:OP1	1:0:2692:A:OP2	2.22	0.57
1:0:871:U:H2'	1:0:871:U:O2	2.03	0.57
1:0:1139:A:H61	1:0:2497:A:H61	1.50	0.57
1:0:1194:U:H2'	1:0:1195:U:H6	1.70	0.57
1:0:2615:U:H3	1:0:2762:G:H1	1.52	0.57
1:0:641:G:H4'	1:0:651:C:O2'	2.04	0.57
1:0:717:G:H1'	1:0:740:A:N6	2.18	0.57
1:0:1265:G:C2	1:0:1266:G:N2	2.72	0.57
1:0:1393:G:H1'	1:0:1585:A:N6	2.19	0.57
1:0:861:G:C8	1:0:862:A:N7	2.72	0.57
1:0:867:G:O2'	1:0:868:U:H5'	2.05	0.57
1:0:2532:G:H2'	1:0:2533:U:O4'	2.04	0.57
1:0:322:A:H2'	1:0:342:G:OP1	2.04	0.57
1:0:468:A:H2'	1:0:469:G:H4'	1.86	0.57
1:0:639:G:H2'	1:0:640:C:C6	2.40	0.57
1:0:68:C:C1'	1:0:72:A:H1'	2.34	0.57
1:0:87:G:N3	1:0:87:G:H2'	2.20	0.57
1:0:1395:A:H2'	1:0:1396:C:O4'	2.05	0.57
1:0:1793:A:H2'	1:0:1794:A:C8	2.38	0.57
1:0:2390:A:O2'	1:0:2391:A:H5'	2.05	0.57
1:0:514:G:C2'	1:0:514:G:N3	2.66	0.57
1:0:852:U:H2'	1:0:853:C:C6	2.39	0.57
1:0:1136:G:C6	1:0:1137:A:N6	2.73	0.57
1:0:1758:C:O2'	1:0:1759:A:H5'	2.05	0.57
1:0:2334:C:C2'	1:0:2335:U:H5''	2.34	0.57
1:0:2442:C:N4	1:0:2466:G:H1	2.01	0.57
1:0:2034:A:N6	1:0:2593:A:N7	2.51	0.57
1:0:2056:C:O2'	1:0:2057:U:H5'	2.04	0.57
1:0:2672:U:H5'	1:0:2844:G:N2	2.19	0.57
1:0:449:C:H2'	1:0:450:C:H6	1.69	0.57
1:0:552:C:H2'	1:0:553:C:C5'	2.35	0.57
1:0:677:G:O2'	1:0:678:G:H5'	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1069:G:O2'	1:0:1070:G:H5'	2.03	0.57
1:0:1554:G:H2'	1:0:1555:A:C8	2.39	0.57
1:0:531:G:H2'	1:0:532:A:C8	2.40	0.57
1:0:580:A:N3	1:0:582:G:N7	2.53	0.57
1:0:723:C:H2'	1:0:724:C:C6	2.40	0.57
1:0:747:A:H2'	1:0:748:A:O4'	2.05	0.57
1:0:797:A:H5'	1:0:798:G:OP1	2.05	0.57
1:0:1103:C:H2'	1:0:1104:G:C8	2.40	0.56
1:0:1200:G:H2'	1:0:1201:G:O4'	2.05	0.56
1:0:1785:A:O2'	1:0:1883:A:H2'	2.05	0.56
1:0:435:A:N1	1:0:436:A:N3	2.53	0.56
1:0:1313:U:O2'	1:0:1314:A:P	2.64	0.56
1:0:1596:A:H2'	1:0:1597:A:O4'	2.05	0.56
1:0:202:A:C2	1:0:203:G:H1'	2.41	0.56
1:0:2048:C:H2'	1:0:2049:C:C6	2.40	0.56
1:0:2512:A:H2'	1:0:2513:A:C8	2.40	0.56
1:0:1981:A:O2'	1:0:2704:U:H1'	2.05	0.56
1:0:1021:A:N3	1:0:1164:C:H1'	2.20	0.56
1:0:1286:U:H5''	1:0:1663:C:N4	2.19	0.56
1:0:2478:C:H2'	1:0:2479:U:C6	2.41	0.56
1:0:439:C:H3'	1:0:440:U:C6	2.40	0.56
1:0:1344:C:O2'	1:0:1345:G:H8	1.88	0.56
1:0:1457:A:H2'	1:0:1458:A:O4'	2.04	0.56
1:0:1608:U:H2'	1:0:1609:G:C8	2.39	0.56
1:0:1617:G:H2'	1:0:1618:U:C5'	2.36	0.56
1:0:2014:A:N7	1:0:2477:C:O2	2.39	0.56
1:0:2161:C:H2'	1:0:2162:C:C5	2.40	0.56
1:0:2261:G:N2	1:0:2406:C:N3	2.51	0.56
1:0:1285:A:OP2	1:0:1663:C:H2'	2.05	0.56
1:0:1474:A:H2'	1:0:1475:U:H5'	1.88	0.56
1:0:1655:C:H4'	1:0:2689:C:O2	2.06	0.56
1:0:1811:A:H4'	1:0:1813:A:C8	2.39	0.56
1:0:45:C:OP2	1:0:192:G:H3'	2.05	0.56
1:0:2058:U:H5'	1:0:2576:G:H1'	1.87	0.56
1:0:2771:C:H5'	1:0:2867:G:H22	1.69	0.56
1:0:391:C:H2'	1:0:392:G:H8	1.70	0.56
1:0:1318:A:O2'	1:0:1319:C:H5'	2.05	0.56
1:0:2397:A:H2'	1:0:2398:U:C6	2.41	0.56
1:0:2569:A:H2'	1:0:2570:C:C6	2.41	0.56
1:0:478:G:O2'	1:0:479:G:H5'	2.05	0.56
1:0:821:A:H2'	1:0:822:G:H8	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1102:G:H1	1:0:1112:U:H1'	1.70	0.56
1:0:1345:G:N3	1:0:1626:A:N7	2.53	0.56
1:0:2034:A:OP2	1:0:2034:A:H8	1.87	0.56
1:0:2212:U:H2'	1:0:2213:G:C8	2.40	0.56
1:0:2830:U:H2'	1:0:2831:A:H8	1.71	0.56
1:0:335:A:N6	1:0:349:G:O2'	2.37	0.56
1:0:69:G:O2'	1:0:70:A:P	2.64	0.56
1:0:119:G:H2'	1:0:120:G:H8	1.70	0.56
1:0:1340:C:H2'	1:0:1341:G:O4'	2.06	0.56
1:0:1922:U:H1'	1:0:2570:C:O2'	2.06	0.56
1:0:1933:G:H8	1:0:1933:G:O5'	1.88	0.56
1:0:2780:A:N3	1:0:2780:A:H2'	2.20	0.56
1:0:346:C:O2	1:0:346:C:H2'	2.04	0.56
1:0:1210:C:H2'	1:0:1211:G:C8	2.40	0.56
1:0:1252:C:H2'	1:0:1253:C:H5''	1.87	0.56
1:0:1987:G:C2'	1:0:1988:A:H5'	2.36	0.56
1:0:2229:G:H5''	1:0:2230:G:H5''	1.88	0.56
1:0:2429:A:H5''	1:0:2476:A:N6	2.20	0.56
1:0:2496:C:N4	1:0:2546:G:H1	1.89	0.56
1:0:2624:G:H4'	1:0:2712:G:C2'	2.36	0.56
1:0:2624:G:H4'	1:0:2712:G:O2'	2.06	0.56
1:0:2824:C:H1'	1:0:2843:A:C2	2.40	0.56
1:0:694:G:H2'	1:0:695:G:C8	2.41	0.56
1:0:879:A:H2'	1:0:880:C:C5'	2.36	0.56
1:0:1073:G:H3'	1:0:1074:G:H5''	1.88	0.56
1:0:1964:A:OP1	1:0:1965:U:OP2	2.24	0.56
1:0:971:A:C2	1:0:2475:C:H1'	2.41	0.56
1:0:2498:U:C5'	1:0:2499:C:OP1	2.44	0.56
1:0:449:C:H2'	1:0:450:C:C6	2.40	0.56
1:0:563:U:H2'	1:0:564:U:C6	2.40	0.56
1:0:573:C:H2'	1:0:574:C:O4'	2.06	0.56
1:0:682:G:N3	1:0:682:G:H2'	2.19	0.56
1:0:742:G:N2	1:0:1766:U:C6	2.74	0.56
1:0:1044:U:H5'	1:0:1045:G:OP1	2.06	0.56
1:0:1021:A:H1'	1:0:1164:C:C1'	2.35	0.56
1:0:117:A:H5'	1:0:118:U:OP1	2.06	0.56
1:0:455:A:H4'	1:0:1214:C:O2'	2.05	0.56
1:0:1537:U:H2'	1:0:1538:A:C8	2.40	0.56
1:0:1797:C:H2'	1:0:1798:G:O4'	2.05	0.56
1:0:2085:G:H22	1:0:2171:U:C1'	2.15	0.56
1:0:2198:U:H3'	1:0:2199:C:C5'	2.26	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2073:A:N6	1:0:2208:U:H3	2.03	0.56
1:0:2402:U:O2'	1:0:2404:A:H2'	2.05	0.56
1:0:324:C:H6	1:0:324:C:O5'	1.88	0.56
1:0:400:U:H4'	1:0:401:G:N9	2.20	0.56
1:0:681:A:N6	1:0:683:A:H2'	2.21	0.56
1:0:871:U:C2	1:0:2247:A:H2'	2.41	0.56
1:0:887:G:O2'	1:0:888:G:H5'	2.06	0.56
1:0:929:A:C3'	1:0:930:A:H5''	2.36	0.56
1:0:2783:U:N3	1:0:2785:A:N6	2.54	0.55
1:0:1226:A:H62	1:0:1249:G:H1'	1.72	0.55
1:0:1698:C:H5''	1:0:1699:A:OP2	2.06	0.55
1:0:1811:A:H1'	1:0:1813:A:C6	2.41	0.55
1:0:1378:A:H2'	1:0:1379:A:H8	1.71	0.55
1:0:1471:G:O2'	1:0:1472:C:H5'	2.07	0.55
1:0:2784:A:H3'	1:0:2784:A:OP1	2.05	0.55
1:0:503:G:H2'	1:0:504:G:O4'	2.05	0.55
1:0:979:A:H2'	1:0:980:G:C8	2.42	0.55
1:0:1498:G:O2'	1:0:1499:A:H5'	2.06	0.55
1:0:1962:C:O2'	1:0:1963:G:H5'	2.06	0.55
1:0:2003:A:C2	1:0:2018:G:N2	2.74	0.55
1:0:2191:A:C2'	1:0:2192:U:OP1	2.54	0.55
1:0:219:G:C2'	1:0:220:U:OP2	2.55	0.55
1:0:2298:U:H4'	1:0:2299:A:N7	2.21	0.55
1:0:2779:C:O2'	1:0:2780:A:H5'	2.06	0.55
1:0:486:U:O2'	1:0:515:A:H1'	2.07	0.55
1:0:781:G:H21	1:0:1392:U:H1'	1.70	0.55
1:0:837:U:H2'	1:0:838:A:H8	1.72	0.55
1:0:1125:G:H2'	1:0:1126:A:C8	2.41	0.55
1:0:1301:U:C4	1:0:1340:C:H1'	2.42	0.55
1:0:1370:U:H2'	1:0:1371:G:O4'	2.06	0.55
1:0:1531:C:H2'	1:0:1532:A:H5'	1.88	0.55
1:0:1695:U:C2'	1:0:1696:C:H5'	2.36	0.55
1:0:2261:G:H1	1:0:2406:C:H42	1.52	0.55
1:0:2655:C:H2'	1:0:2656:G:C8	2.41	0.55
1:0:2796:A:H2'	1:0:2797:G:H8	1.70	0.55
1:0:2854:G:H2'	1:0:2854:G:N3	2.21	0.55
1:0:1726:C:H1'	1:0:2835:A:H1'	1.89	0.55
1:0:1987:G:H2'	1:0:1988:A:H5'	1.89	0.55
1:0:2069:U:H2'	1:0:2070:G:H8	1.71	0.55
1:0:243:G:H3'	1:0:244:C:H5''	1.89	0.55
1:0:2664:G:H2'	1:0:2665:G:H8	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:751:G:C2	1:0:752:G:H1'	2.41	0.55
1:0:1196:G:C2'	1:0:1197:U:H5'	2.37	0.55
1:0:1414:G:H2'	1:0:1415:C:C6	2.42	0.55
1:0:1594:U:H2'	1:0:1595:A:C8	2.41	0.55
1:0:2496:C:C4	1:0:2521:A:C6	2.95	0.55
1:0:459:A:N6	1:0:484:G:H1'	2.21	0.55
1:0:510:G:N2	1:0:513:A:OP2	2.40	0.55
1:0:95:G:H2'	1:0:96:C:C6	2.42	0.55
1:0:1112:U:H2'	1:0:1113:C:C5	2.41	0.55
1:0:1554:G:H2'	1:0:1555:A:H8	1.70	0.55
1:0:1603:A:H2'	1:0:1604:A:C8	2.42	0.55
1:0:1763:G:C6	1:0:1963:G:N2	2.74	0.55
1:0:58:C:H2'	1:0:59:G:O4'	2.07	0.55
1:0:941:U:OP1	1:0:941:U:H4'	2.05	0.55
1:0:1015:U:H5'	1:0:1021:A:N6	2.22	0.55
1:0:1468:A:H3'	1:0:1469:U:H5''	1.88	0.55
1:0:1626:A:H4'	1:0:1627:C:OP1	2.07	0.55
1:0:2667:C:H42	1:0:2699:G:H3'	1.71	0.55
1:0:28:A:H61	1:0:522:G:H4'	1.71	0.55
1:0:820:U:H2'	1:0:821:A:C8	2.41	0.55
1:0:1367:A:H2'	1:0:1368:G:O4'	2.07	0.55
1:0:1482:U:H2'	1:0:1483:G:C8	2.41	0.55
1:0:1942:G:H2'	1:0:1943:A:O4'	2.06	0.55
1:0:2306:A:H2'	1:0:2307:A:C8	2.41	0.55
1:0:2674:C:H2'	1:0:2675:U:C6	2.42	0.55
1:0:2796:A:H2'	1:0:2797:G:C8	2.43	0.55
1:0:308:C:H2'	1:0:309:G:O4'	2.07	0.55
1:0:441:A:H2'	1:0:442:A:O4'	2.06	0.55
1:0:1213:U:H2'	1:0:1214:C:C6	2.42	0.54
1:0:1303:U:H2'	1:0:1304:U:H6	1.71	0.54
1:0:1376:C:H2'	1:0:1377:G:H8	1.71	0.54
1:0:1695:U:H2'	1:0:1696:C:H5'	1.90	0.54
1:0:1818:G:H2'	1:0:1819:U:H6	1.72	0.54
1:0:2213:G:O2'	1:0:2214:G:H5'	2.06	0.54
1:0:2252:A:H2'	1:0:2253:A:O4'	2.07	0.54
1:0:2054:A:H2	1:0:2419:C:H41	1.54	0.54
1:0:2437:G:O2'	1:0:2438:A:N7	2.34	0.54
1:0:1774:A:O2'	1:0:2586:G:H1'	2.06	0.54
1:0:2716:G:H2'	1:0:2717:G:H8	1.71	0.54
1:0:2721:A:H2'	1:0:2722:C:O4'	2.07	0.54
1:0:1076:U:H2'	1:0:1077:U:O4'	2.06	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1479:G:H2'	1:0:1480:G:H8	1.72	0.54
1:0:1587:A:H2'	1:0:1588:A:C8	2.42	0.54
1:0:1618:U:H3'	1:0:1619:A:H2	1.72	0.54
1:0:1345:G:N7	1:0:1625:A:N6	2.54	0.54
1:0:1790:G:C8	1:0:1811:A:N6	2.75	0.54
1:0:2018:G:O2'	1:0:2019:C:OP1	2.21	0.54
1:0:2446:C:H2'	1:0:2447:G:O4'	2.07	0.54
1:0:2668:U:O2	1:0:2693:U:O4'	2.24	0.54
1:0:718:A:C2	1:0:740:A:H1'	2.41	0.54
1:0:928:G:HO2'	1:0:929:A:H8	1.55	0.54
1:0:984:A:H2'	1:0:984:A:N3	2.21	0.54
1:0:1260:A:O2'	1:0:1261:G:OP1	2.21	0.54
1:0:1428:G:H5''	1:0:1429:A:H5'	1.89	0.54
1:0:2544:A:H2'	1:0:2545:A:H1'	1.88	0.54
1:0:391:C:H2'	1:0:392:G:C8	2.43	0.54
1:0:433:G:H1'	1:0:434:C:C5	2.42	0.54
1:0:435:A:N1	1:0:436:A:C4	2.75	0.54
1:0:652:C:H5'	1:0:652:C:H6	1.72	0.54
1:0:975:C:H6	1:0:975:C:O5'	1.90	0.54
1:0:1975:G:O2'	1:0:1976:U:P	2.65	0.54
1:0:2204:A:O2'	1:0:2205:C:P	2.65	0.54
1:0:2644:A:H2'	1:0:2645:C:C6	2.42	0.54
1:0:2690:A:H3'	1:0:2691:C:H5'	1.89	0.54
1:0:395:G:H2'	1:0:396:U:H5'	1.90	0.54
1:0:435:A:H2'	1:0:436:A:O5'	2.08	0.54
1:0:8:A:H2'	1:0:9:U:C6	2.43	0.54
1:0:1424:U:H2'	1:0:1425:G:C8	2.42	0.54
1:0:1831:G:O2'	1:0:1832:G:H5'	2.08	0.54
1:0:1826:U:O2'	1:0:1952:A:H2'	2.07	0.54
1:0:2271:C:H4'	1:0:2354:G:O4'	2.08	0.54
1:0:2507:U:HO2'	1:0:2508:G:H8	1.54	0.54
1:0:1276:U:H3	1:0:1999:U:H3	1.55	0.54
1:0:1451:C:H2'	1:0:1452:U:C6	2.41	0.54
1:0:1452:U:O2'	1:0:1453:A:H5'	2.08	0.54
1:0:1618:U:H3'	1:0:1619:A:C2	2.43	0.54
1:0:2345:A:H2'	1:0:2346:G:O4'	2.08	0.54
1:0:2821:G:H2'	1:0:2822:U:O4'	2.07	0.54
1:0:459:A:O2'	1:0:461:A:N6	2.38	0.54
1:0:466:A:O3'	1:0:467:U:H4'	2.08	0.54
1:0:239:A:H5'	1:0:619:A:O2'	2.07	0.54
1:0:1315:A:H4'	1:0:1316:G:OP1	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1778:U:H4'	1:0:2568:A:O3'	2.08	0.54
1:0:1781:C:H2'	1:0:1782:A:C5	2.43	0.54
1:0:2072:C:H2'	1:0:2073:A:O4'	2.08	0.54
1:0:2109:A:H2'	1:0:2110:G:C8	2.42	0.54
1:0:2201:G:H2'	1:0:2202:G:H8	1.73	0.54
1:0:295:C:N4	1:0:296:A:H62	2.06	0.54
1:0:788:G:N2	1:0:801:A:P	2.80	0.54
1:0:846:A:N6	1:0:955:G:N2	2.53	0.54
1:0:2492:G:H2'	1:0:2493:U:C6	2.42	0.54
1:0:2668:U:H4'	1:0:2669:C:H5''	1.90	0.54
1:0:2721:A:N6	1:0:2743:G:H1'	2.23	0.54
1:0:2773:G:H1	1:0:2779:C:H42	1.56	0.54
1:0:459:A:H1'	1:0:461:A:N6	2.22	0.54
1:0:964:A:H2'	1:0:965:G:C8	2.38	0.54
1:0:2014:A:N7	1:0:2477:C:H1'	2.23	0.54
1:0:2204:A:O2'	1:0:2205:C:OP2	2.25	0.54
1:0:2228:U:H4'	1:0:2254:C:C5	2.40	0.54
1:0:466:A:O2'	1:0:467:U:OP2	2.24	0.54
1:0:476:G:C6	1:0:477:A:N6	2.76	0.54
1:0:817:A:H2'	1:0:819:C:C4	2.43	0.54
1:0:1825:C:O2'	1:0:1826:U:H5'	2.08	0.54
1:0:2002:A:C2'	1:0:2003:A:O5'	2.56	0.54
1:0:2053:G:H2'	1:0:2054:A:C8	2.43	0.54
1:0:2282:G:H1	1:0:2292:C:H42	1.54	0.54
1:0:2357:A:H2'	1:0:2358:C:O4'	2.07	0.54
1:0:80:A:H2'	1:0:81:C:C6	2.43	0.54
1:0:136:A:H2'	1:0:137:A:O4'	2.08	0.53
1:0:1443:G:H1'	1:0:1584:G:N3	2.22	0.53
1:0:162:C:H2'	1:0:163:A:H8	1.73	0.53
1:0:1804:U:H2'	1:0:1805:G:C8	2.41	0.53
1:0:2086:U:H2'	1:0:2087:U:C6	2.43	0.53
1:0:2726:U:H2'	1:0:2727:G:O4'	2.08	0.53
1:0:621:U:H2'	1:0:622:U:C6	2.43	0.53
1:0:69:G:H4'	1:0:70:A:OP1	2.08	0.53
1:0:700:C:H2'	1:0:701:U:C6	2.43	0.53
1:0:2299:A:H5'	1:0:2300:G:C8	2.43	0.53
1:0:2469:G:C5'	1:0:2470:U:OP1	2.54	0.53
1:0:2782:G:C2'	1:0:2783:U:H5'	2.39	0.53
1:0:550:C:H2'	1:0:551:A:H8	1.71	0.53
1:0:1253:C:H2'	1:0:1254:G:C5'	2.38	0.53
1:0:1417:C:O2'	1:0:1418:C:H5'	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1582:A:H3'	1:0:1583:A:C5'	2.38	0.53
1:0:1617:G:H3'	1:0:1618:U:O2	2.08	0.53
1:0:1821:A:H5''	1:0:1822:C:C5	2.44	0.53
1:0:195:A:H2'	1:0:196:A:O4'	2.08	0.53
1:0:2020:G:H2'	1:0:2021:G:H8	1.72	0.53
1:0:2621:G:O2'	1:0:2622:G:H5'	2.08	0.53
1:0:574:C:H2'	1:0:575:U:C6	2.43	0.53
1:0:1244:U:H2'	1:0:1245:G:H8	1.73	0.53
1:0:1247:U:O2'	1:0:1248:G:H5'	2.09	0.53
1:0:1267:A:OP1	1:0:1269:G:H8	1.91	0.53
1:0:1312:G:H4'	1:0:1314:A:N3	2.24	0.53
1:0:1355:A:H1'	1:0:1410:U:H4'	1.90	0.53
1:0:1669:A:N6	1:0:1670:G:C2	2.76	0.53
1:0:1697:U:H2'	1:0:1698:C:O4'	2.08	0.53
1:0:1846:A:H2'	1:0:1847:G:O4'	2.08	0.53
1:0:2696:A:H2'	1:0:2697:G:H8	1.72	0.53
1:0:538:A:H62	1:0:2759:U:H3	1.56	0.53
1:0:1033:G:O2'	1:0:1034:U:OP2	2.23	0.53
1:0:139:A:H2'	1:0:140:G:C8	2.41	0.53
1:0:1467:U:H3'	1:0:1468:A:H5'	1.89	0.53
1:0:159:A:H2'	1:0:160:C:C6	2.44	0.53
1:0:178:C:H2'	1:0:179:U:H6	1.73	0.53
1:0:2085:G:H2'	1:0:2086:U:C6	2.42	0.53
1:0:2432:A:H2'	1:0:2433:G:C8	2.44	0.53
1:0:507:A:H2'	1:0:508:G:O4'	2.09	0.53
1:0:742:G:H2'	1:0:742:G:N3	2.23	0.53
1:0:1327:C:P	1:0:1345:G:H5'	2.49	0.53
1:0:1336:G:C2'	1:0:1337:G:H5'	2.39	0.53
1:0:1459:U:H2'	1:0:1475:U:O2'	2.08	0.53
1:0:1685:A:O2'	1:0:1686:A:O5'	2.25	0.53
1:0:1938:U:O2'	1:0:1939:U:OP1	2.23	0.53
1:0:2069:U:H2'	1:0:2070:G:C8	2.44	0.53
1:0:2652:G:H2'	1:0:2653:A:C8	2.41	0.53
1:0:52:A:H2'	1:0:53:G:H5'	1.90	0.53
1:0:653:G:H21	1:0:657:A:N6	2.06	0.53
1:0:797:A:O2'	1:0:798:G:C8	2.61	0.53
1:0:861:G:N2	1:0:943:U:HO2'	2.07	0.53
1:0:1446:U:O2'	1:0:1447:U:H5'	2.09	0.53
1:0:1686:A:N3	1:0:1686:A:H2'	2.23	0.53
1:0:1807:A:O2'	1:0:1808:C:H4'	2.09	0.53
1:0:1981:A:O3'	1:0:2704:U:H4'	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2784:A:H4'	1:0:2786:G:N7	2.24	0.53
1:0:27:G:HO2'	1:0:28:A:H8	1.55	0.53
1:0:2817:A:C2	1:0:2851:G:N1	2.76	0.53
1:0:315:G:H2'	1:0:316:C:C6	2.44	0.53
1:0:521:U:H2'	1:0:522:G:H5'	1.90	0.53
1:0:1449:C:H2'	1:0:1450:G:C5'	2.29	0.53
1:0:701:U:O2'	1:0:1771:A:H2	1.90	0.53
1:0:176:A:H8	1:0:177:U:H5	1.57	0.53
1:0:2249:U:C2'	1:0:2250:G:H5'	2.39	0.53
1:0:1380:C:C2'	1:0:1381:G:H5'	2.38	0.53
1:0:1485:U:H2'	1:0:1486:A:C8	2.44	0.53
1:0:1681:A:H2	1:0:2706:U:H1'	1.70	0.53
1:0:1816:G:H2'	1:0:1817:U:O4'	2.09	0.53
1:0:1999:U:O2'	1:0:2000:U:H5'	2.08	0.53
1:0:2301:A:H2'	1:0:2302:G:H5'	1.91	0.53
1:0:2671:C:H2'	1:0:2672:U:H6	1.73	0.53
1:0:756:C:H2'	1:0:757:U:H6	1.73	0.53
1:0:956:A:HO2'	1:0:957:G:P	2.32	0.53
1:0:966:A:H2'	1:0:967:G:H5'	1.91	0.53
1:0:1883:A:H1'	1:0:1953:A:N7	2.24	0.53
1:0:2217:G:H5'	1:0:2218:G:N7	2.23	0.53
1:0:2279:G:H2'	1:0:2280:A:C8	2.43	0.53
1:0:2487:G:H2'	1:0:2488:G:C8	2.44	0.53
1:0:2535:C:H2'	1:0:2536:G:O4'	2.08	0.53
1:0:2612:G:H2'	1:0:2613:A:C8	2.43	0.53
1:0:2764:U:H2'	1:0:2765:C:C6	2.44	0.53
1:0:789:G:N3	1:0:806:A:N6	2.56	0.53
1:0:879:A:H2'	1:0:880:C:H5'	1.89	0.53
1:0:940:G:C8	1:0:941:U:H5''	2.44	0.53
1:0:1030:U:C2'	1:0:1031:C:H5'	2.39	0.52
1:0:1336:G:H2'	1:0:1337:G:H5'	1.91	0.52
1:0:1810:U:H4'	1:0:1813:A:H1'	1.91	0.52
1:0:2260:C:H2'	1:0:2261:G:C8	2.44	0.52
1:0:2266:A:O2'	1:0:2267:A:H8	1.92	0.52
1:0:2526:U:C4	1:0:2545:A:N7	2.77	0.52
1:0:708:G:H1	1:0:780:U:H3	1.55	0.52
1:0:932:G:H2'	1:0:933:G:C8	2.44	0.52
1:0:1001:A:N6	1:0:1200:G:O3'	2.42	0.52
1:0:1036:G:C4	1:0:1145:C:O4'	2.63	0.52
1:0:1332:G:H2'	1:0:1333:G:O4'	2.09	0.52
1:0:1364:C:H2'	1:0:1365:U:C6	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1979:C:O4'	1:0:1979:C:OP1	2.28	0.52
1:0:2175:A:H2'	1:0:2176:U:C6	2.44	0.52
1:0:2225:G:H1	1:0:2237:C:H42	1.57	0.52
1:0:296:A:H2'	1:0:297:A:C8	2.43	0.52
1:0:599:A:H2'	1:0:600:G:O4'	2.10	0.52
1:0:67:G:H2'	1:0:68:C:O4'	2.08	0.52
1:0:778:G:H2'	1:0:779:U:C6	2.44	0.52
1:0:831:G:H5'	1:0:852:U:OP1	2.10	0.52
1:0:839:U:OP1	1:0:2408:G:OP2	2.28	0.52
1:0:1253:C:H2'	1:0:1254:G:H5'	1.92	0.52
1:0:1671:A:O2'	1:0:1672:A:H5'	2.09	0.52
1:0:2034:A:C6	1:0:2593:A:N6	2.77	0.52
1:0:2044:G:H1'	1:0:2482:A:N1	2.25	0.52
1:0:2270:U:O2'	1:0:2353:G:H1'	2.10	0.52
1:0:316:C:H6	1:0:316:C:O5'	1.93	0.52
1:0:545:C:O2'	1:0:546:A:H5'	2.09	0.52
1:0:57:G:N2	1:0:72:A:C8	2.77	0.52
1:0:678:G:O2'	1:0:679:C:H5'	2.09	0.52
1:0:2004:U:OP2	1:0:2005:U:H5	1.92	0.52
1:0:2265:A:H5''	1:0:2266:A:O4'	2.09	0.52
1:0:2745:A:N3	1:0:2745:A:H3'	2.25	0.52
1:0:757:U:C2'	1:0:758:G:H5'	2.39	0.52
1:0:766:A:H2'	1:0:767:G:H8	1.73	0.52
1:0:940:G:N7	1:0:941:U:C6	2.78	0.52
1:0:1791:C:H1'	1:0:1793:A:C4'	2.40	0.52
1:0:2756:A:H4'	1:0:2758:A:OP1	2.09	0.52
1:0:437:G:H2'	1:0:438:G:C4'	2.37	0.52
1:0:436:A:H4'	1:0:437:G:OP1	2.08	0.52
1:0:727:U:H2'	1:0:728:G:H5''	1.90	0.52
1:0:1001:A:C3'	1:0:1002:C:H5''	2.40	0.52
1:0:1479:G:H2'	1:0:1480:G:C8	2.44	0.52
1:0:1687:C:O2'	1:0:1977:C:H4'	2.09	0.52
1:0:2204:A:H1'	1:0:2205:C:C5	2.45	0.52
1:0:2510:A:H61	1:0:2641:A:H61	1.57	0.52
1:0:324:C:C2'	1:0:325:U:H5'	2.39	0.52
1:0:532:A:H2'	1:0:533:C:C6	2.44	0.52
1:0:651:C:C3'	1:0:652:C:C5'	2.88	0.52
1:0:773:G:H2'	1:0:774:A:H5'	1.90	0.52
1:0:1260:A:O2'	1:0:1261:G:P	2.66	0.52
1:0:783:G:H1'	1:0:1392:U:O4	2.10	0.52
1:0:1442:C:H4'	1:0:1442:C:OP1	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1761:G:H2'	1:0:1762:C:H5'	1.92	0.52
1:0:1764:A:C5	1:0:1821:A:H1'	2.45	0.52
1:0:2041:A:H8	1:0:2041:A:O5'	1.92	0.52
1:0:208:C:H2'	1:0:209:G:O4'	2.10	0.52
1:0:2817:A:C2	1:0:2851:G:C6	2.97	0.52
1:0:2609:G:H1'	1:0:2868:G:H1'	1.90	0.52
1:0:2484:G:OP2	2:0:2881:TEL:H581	2.10	0.52
1:0:616:U:O4'	1:0:616:U:OP2	2.27	0.52
1:0:930:A:N7	1:0:931:G:H1'	2.25	0.52
1:0:1322:G:O2'	1:0:1323:G:H5'	2.09	0.52
1:0:1532:A:H2'	1:0:1533:G:H8	1.74	0.52
1:0:1783:G:H2'	1:0:1784:C:O4'	2.09	0.52
1:0:222:G:H22	1:0:231:G:H1'	1.75	0.52
1:0:2407:G:H5''	1:0:2408:G:OP1	2.08	0.52
1:0:531:G:H2'	1:0:532:A:H8	1.74	0.52
1:0:841:G:H3'	1:0:841:G:N3	2.24	0.52
1:0:1128:G:O2'	1:0:1129:A:H5'	2.10	0.52
1:0:1463:A:H1'	1:0:1543:G:N2	2.25	0.52
1:0:1624:A:C6	1:0:1627:C:C2	2.98	0.52
1:0:1823:G:C6	1:0:1824:C:N4	2.78	0.52
1:0:2520:A:H4'	1:0:2744:A:N1	2.24	0.52
1:0:2668:U:H5'	1:0:2669:C:OP1	2.10	0.52
1:0:1982:C:OP1	1:0:2704:U:H5'	2.09	0.52
1:0:201:G:N7	1:0:432:C:H4'	2.25	0.52
1:0:66:U:H2'	1:0:67:G:N7	2.25	0.52
1:0:1067:G:N1	1:0:1113:C:OP2	2.43	0.52
1:0:1549:C:H3'	1:0:1550:C:C6	2.45	0.52
1:0:1852:G:H2'	1:0:1853:C:C6	2.45	0.52
1:0:162:C:C5'	1:0:195:A:H1'	2.36	0.52
1:0:1982:C:OP1	1:0:2703:C:O2'	2.24	0.52
1:0:2024:U:O2'	1:0:2025:A:H5'	2.09	0.52
1:0:2586:G:H2'	1:0:2587:G:C8	2.45	0.52
1:0:2677:U:O2'	1:0:2678:C:H5'	2.10	0.52
1:0:2758:A:O2'	1:0:2759:U:P	2.68	0.52
1:0:604:U:H2'	1:0:605:G:O4'	2.10	0.52
1:0:1280:U:H3	1:0:1996:A:H62	1.57	0.51
1:0:1284:G:O2'	1:0:1633:C:H4'	2.10	0.51
1:0:1413:U:H2'	1:0:1414:G:C8	2.44	0.51
1:0:1486:A:H2'	1:0:1487:C:C6	2.45	0.51
1:0:1545:G:H2'	1:0:1546:C:H6	1.75	0.51
1:0:1718:A:H2'	1:0:1719:G:H5'	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1724:C:O2	1:0:1725:C:C5	2.62	0.51
1:0:2235:G:O2'	1:0:2236:U:H5'	2.10	0.51
1:0:2396:C:C2'	1:0:2397:A:H5'	2.40	0.51
1:0:430:C:O2'	1:0:2386:G:C2	2.63	0.51
1:0:465:C:O2'	1:0:483:A:N6	2.43	0.51
1:0:749:C:H6	1:0:749:C:O5'	1.94	0.51
1:0:92:U:H2'	1:0:93:A:C8	2.45	0.51
1:0:984:A:C2	1:0:1200:G:N1	2.75	0.51
1:0:122:G:O2'	1:0:123:A:H5''	2.10	0.51
1:0:1337:G:O2'	1:0:1632:A:N6	2.44	0.51
1:0:2007:G:H2'	1:0:2008:C:C6	2.46	0.51
1:0:2060:A:H61	1:0:2222:U:H3	1.58	0.51
1:0:393:U:H2'	1:0:394:U:C6	2.45	0.51
1:0:487:G:H4'	1:0:511:A:H61	1.75	0.51
1:0:638:A:O2'	1:0:639:G:H5'	2.11	0.51
1:0:1149:G:N2	1:0:1154:A:C4	2.79	0.51
1:0:1528:C:C2'	1:0:1529:C:H5''	2.41	0.51
1:0:1823:G:H2'	1:0:1824:C:C6	2.45	0.51
1:0:1998:A:C2'	1:0:1999:U:H5'	2.39	0.51
1:0:460:U:C4'	1:0:461:A:OP2	2.58	0.51
1:0:839:U:H5''	1:0:2408:G:P	2.50	0.51
1:0:1007:A:H2'	1:0:1008:G:C8	2.42	0.51
1:0:1573:G:O6	1:0:1574:A:N6	2.43	0.51
1:0:1603:A:H2'	1:0:1604:A:H8	1.76	0.51
1:0:1670:G:OP1	1:0:1670:G:H4'	2.10	0.51
1:0:1716:G:O6	1:0:1754:G:H1'	2.11	0.51
1:0:1829:C:N4	1:0:1886:G:H1	2.08	0.51
1:0:1983:G:H2'	1:0:1984:A:C8	2.45	0.51
1:0:2208:U:H2'	1:0:2209:G:H8	1.76	0.51
1:0:2218:G:N2	1:0:2219:U:H1'	2.25	0.51
1:0:2372:A:O2'	1:0:2373:C:H5'	2.10	0.51
1:0:2014:A:H62	1:0:2477:C:H1'	1.75	0.51
1:0:2512:A:H2'	1:0:2513:A:H8	1.75	0.51
1:0:29:U:H2'	1:0:30:G:H8	1.73	0.51
1:0:431:G:C2	1:0:432:C:H5	2.29	0.51
1:0:441:A:C2'	1:0:442:A:H5'	2.41	0.51
1:0:513:A:H5''	1:0:514:G:OP1	2.11	0.51
1:0:942:U:C2'	1:0:943:U:H5'	2.40	0.51
1:0:1324:G:HO2'	1:0:1326:U:H5	1.56	0.51
1:0:1514:C:H5'	1:0:1593:C:C5'	2.41	0.51
1:0:1777:A:HO2'	1:0:1778:U:P	2.33	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1787:U:H2'	1:0:1788:C:H6	1.75	0.51
1:0:1859:A:H2'	1:0:1860:A:C8	2.43	0.51
1:0:627:A:H2'	1:0:628:A:C8	2.46	0.51
1:0:846:A:H2'	1:0:847:C:C6	2.45	0.51
1:0:1355:A:O4'	1:0:1410:U:H1'	2.10	0.51
1:0:155:G:O2'	1:0:156:G:H5'	2.09	0.51
1:0:1821:A:H3'	1:0:1822:C:H6	1.74	0.51
1:0:2352:A:H2'	1:0:2353:G:C8	2.45	0.51
1:0:2348:A:N6	1:0:2361:G:H22	2.08	0.51
1:0:460:U:O4	1:0:592:G:H1'	2.11	0.51
1:0:1415:C:O2'	1:0:1416:A:H5'	2.10	0.51
1:0:1459:U:N3	1:0:1476:G:O5'	2.33	0.51
1:0:1623:C:H5'	1:0:1624:A:H5''	1.92	0.51
1:0:1875:C:H2'	1:0:1876:C:C6	2.44	0.51
1:0:1890:G:H2'	1:0:1891:C:C6	2.45	0.51
1:0:2002:A:H2'	1:0:2003:A:O5'	2.11	0.51
1:0:2039:G:OP2	1:0:2483:U:O5'	2.29	0.51
1:0:2173:G:H2'	1:0:2174:G:O4'	2.10	0.51
1:0:2680:U:H5'	1:0:2681:A:C5'	2.40	0.51
1:0:357:A:OP2	1:0:358:C:H1'	2.11	0.51
1:0:431:G:C2'	1:0:432:C:O5'	2.58	0.51
1:0:866:U:H2'	1:0:867:G:C8	2.45	0.51
1:0:1739:G:H2'	1:0:1740:G:C8	2.46	0.51
1:0:1813:A:H2'	1:0:1814:G:C8	2.46	0.51
1:0:2021:G:O2'	1:0:2022:C:H5'	2.11	0.51
1:0:1477:C:O2'	1:0:2681:A:H1'	2.11	0.51
1:0:503:G:H2'	1:0:504:G:C8	2.45	0.51
1:0:566:U:H2'	1:0:567:G:H8	1.76	0.51
1:0:853:C:N3	1:0:950:G:O6	2.44	0.51
1:0:956:A:C2'	1:0:957:G:O5'	2.58	0.51
1:0:115:G:C2	1:0:117:A:N6	2.79	0.51
1:0:192:G:O2'	1:0:193:A:OP2	2.28	0.51
1:0:1948:C:C4	1:0:1949:A:N6	2.79	0.51
1:0:2553:G:H8	1:0:2553:G:O5'	1.93	0.51
1:0:2664:G:O2'	1:0:2665:G:H5'	2.11	0.51
1:0:2876:C:H2'	1:0:2877:A:H8	1.76	0.51
1:0:701:U:O2'	1:0:702:A:H5'	2.11	0.51
1:0:974:U:H1'	1:0:2229:G:C2	2.46	0.51
1:0:1133:G:O2'	1:0:1134:C:H5'	2.11	0.51
1:0:1354:A:H3'	1:0:1410:U:O2	2.11	0.51
1:0:1582:A:H62	1:0:1584:G:N2	2.07	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1787:U:H2'	1:0:1788:C:C6	2.46	0.51
1:0:1827:G:H1'	1:0:1914:U:O4	2.10	0.51
1:0:2107:G:H2'	1:0:2108:G:C8	2.46	0.51
1:0:2210:C:H2'	1:0:2211:U:O4'	2.11	0.51
1:0:2249:U:H2'	1:0:2250:G:H5'	1.93	0.51
1:0:2394:G:H2'	1:0:2395:C:C6	2.46	0.51
1:0:2530:C:H2'	1:0:2531:U:O4'	2.11	0.51
1:0:2660:C:C2'	1:0:2660:C:O2	2.59	0.51
1:0:433:G:O2'	1:0:434:C:C6	2.63	0.51
1:0:520:C:H2'	1:0:521:U:O4'	2.10	0.51
1:0:986:A:N7	1:0:987:G:C8	2.79	0.51
1:0:1938:U:O2	1:0:1938:U:H2'	2.09	0.50
1:0:2516:U:H2'	1:0:2517:C:C6	2.45	0.50
1:0:2574:G:N2	1:0:2577:A:OP2	2.41	0.50
1:0:2627:G:O2'	1:0:2628:C:H5'	2.11	0.50
1:0:2710:C:O2'	1:0:2711:G:H5'	2.12	0.50
1:0:671:A:H2'	1:0:672:C:C6	2.46	0.50
1:0:805:G:O3'	1:0:806:A:O4'	2.29	0.50
1:0:2121:U:H2'	1:0:2122:G:H8	1.76	0.50
1:0:2390:A:H2'	1:0:2391:A:O4'	2.12	0.50
1:0:2491:C:H2'	1:0:2492:G:H5''	1.93	0.50
1:0:2705:A:O2'	1:0:2706:U:C6	2.64	0.50
1:0:2753:C:H2'	1:0:2754:C:H6	1.74	0.50
1:0:541:C:H42	1:0:572:G:H5''	1.76	0.50
1:0:625:A:N3	1:0:625:A:H2'	2.26	0.50
1:0:944:A:H2'	1:0:945:G:O4'	2.11	0.50
1:0:995:A:H5''	1:0:996:C:H5	1.75	0.50
1:0:1822:C:H2'	1:0:1823:G:C8	2.47	0.50
1:0:1877:C:H2'	1:0:1878:C:C6	2.46	0.50
1:0:2618:A:H1'	1:0:2758:A:C2	2.46	0.50
1:0:2716:G:O2'	1:0:2717:G:H5'	2.12	0.50
1:0:340:G:H4'	1:0:341:A:C5'	2.41	0.50
1:0:492:G:H2'	1:0:517:A:C2	2.46	0.50
1:0:701:U:H4'	1:0:1771:A:C2	2.47	0.50
1:0:914:C:H2'	1:0:915:C:C6	2.46	0.50
1:0:941:U:H2'	1:0:942:U:N1	2.26	0.50
1:0:1172:U:H2'	1:0:1173:G:C8	2.45	0.50
1:0:1645:U:H2'	1:0:1646:G:C8	2.46	0.50
1:0:218:A:O2'	1:0:219:G:P	2.69	0.50
1:0:228:A:C5	1:0:229:G:H1'	2.46	0.50
1:0:2669:C:H2'	1:0:2670:C:OP2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2522:G:H5''	1:0:2746:G:O3'	2.12	0.50
1:0:2765:C:H2'	1:0:2766:U:C6	2.46	0.50
1:0:462:G:H2'	1:0:463:C:H5'	1.92	0.50
1:0:539:A:H2'	1:0:540:G:OP2	2.12	0.50
1:0:765:C:H4'	1:0:766:A:H5'	1.93	0.50
1:0:7:G:H2'	1:0:8:A:H8	1.74	0.50
1:0:1035:G:H21	1:0:1155:G:C4'	2.23	0.50
1:0:1196:G:H2'	1:0:1197:U:H5'	1.93	0.50
1:0:1746:A:H2'	1:0:1747:G:H5'	1.94	0.50
1:0:2620:G:H2'	1:0:2621:G:H8	1.77	0.50
1:0:2:G:H2'	1:0:3:U:H6	1.76	0.50
1:0:322:A:H2'	1:0:342:G:P	2.51	0.50
1:0:539:A:C2'	1:0:540:G:OP2	2.59	0.50
1:0:773:G:C2'	1:0:774:A:H5'	2.42	0.50
1:0:807:A:C6	1:0:808:C:C4	2.99	0.50
1:0:1036:G:N3	1:0:1145:C:O4'	2.45	0.50
1:0:109:A:H2'	1:0:110:U:C5'	2.40	0.50
1:0:1299:A:O2'	1:0:1300:A:P	2.69	0.50
1:0:1789:U:C2	1:0:1811:A:H2	2.30	0.50
1:0:2407:G:H5'	1:0:2408:G:C2	2.47	0.50
1:0:688:A:O2'	1:0:2422:C:H4'	2.11	0.50
1:0:2519:C:C4	1:0:2520:A:N7	2.80	0.50
1:0:2551:A:N3	1:0:2551:A:H2'	2.26	0.50
1:0:733:G:H2'	1:0:734:G:H8	1.76	0.50
1:0:768:U:H2'	1:0:769:C:O4'	2.12	0.50
1:0:32:C:H5'	1:0:1251:G:OP1	2.11	0.50
1:0:1447:U:H1'	1:0:1577:G:N2	2.26	0.50
1:0:1542:G:H21	1:0:1561:A:H62	1.59	0.50
1:0:14:A:H62	1:0:15:G:N2	2.10	0.50
1:0:2018:G:O2'	1:0:2019:C:P	2.70	0.50
1:0:2351:G:N2	1:0:2352:A:N9	2.60	0.50
1:0:2520:A:H1'	1:0:2744:A:C2	2.46	0.50
1:0:2522:G:O4'	1:0:2746:G:H4'	2.12	0.50
1:0:357:A:H3'	1:0:358:C:O4'	2.11	0.50
1:0:577:U:H4'	1:0:956:A:N6	2.26	0.50
1:0:598:U:H2'	1:0:599:A:H8	1.72	0.50
1:0:715:U:H2'	1:0:716:U:C6	2.46	0.50
1:0:813:A:O2'	1:0:815:A:H5'	2.12	0.50
1:0:857:U:O2'	1:0:858:G:H5'	2.11	0.50
1:0:953:G:H2'	1:0:954:U:O4'	2.12	0.50
1:0:971:A:H2	1:0:2475:C:H1'	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1255:A:H2'	1:0:1256:C:C6	2.47	0.50
1:0:1363:C:O2'	1:0:1364:C:H5'	2.11	0.50
1:0:1685:A:HO2'	1:0:1686:A:P	2.33	0.50
1:0:195:A:H2'	1:0:196:A:H5'	1.92	0.50
1:0:2268:G:H5''	1:0:2363:G:HO2'	1.75	0.50
1:0:2623:A:H2'	1:0:2624:G:O4'	2.11	0.50
1:0:2756:A:O2'	1:0:2757:G:P	2.69	0.50
1:0:820:U:H1'	1:0:2424:G:OP1	2.11	0.50
1:0:1013:G:N2	1:0:1165:G:H1'	2.26	0.50
1:0:183:U:H2'	1:0:184:A:H8	1.77	0.50
1:0:2014:A:H62	1:0:2477:C:C1'	2.25	0.50
1:0:931:G:N1	1:0:2247:A:H5''	2.27	0.50
1:0:956:A:C2	1:0:2427:A:H1'	2.46	0.50
1:0:2642:G:H2'	1:0:2643:G:O4'	2.11	0.50
1:0:2796:A:HO2'	1:0:2801:A:H2	1.59	0.50
1:0:567:G:O2'	1:0:568:G:H5'	2.12	0.50
1:0:1166:A:C2'	1:0:1167:A:H5''	2.41	0.49
1:0:143:A:O2'	1:0:144:U:H5'	2.12	0.49
1:0:2231:G:O2'	1:0:2232:G:H5'	2.12	0.49
1:0:2280:A:H2'	1:0:2281:C:C6	2.47	0.49
1:0:2307:A:H2'	1:0:2308:A:C8	2.47	0.49
1:0:236:C:H2'	1:0:237:G:H8	1.77	0.49
1:0:239:A:H5''	1:0:620:G:H5'	1.93	0.49
1:0:2672:U:H5'	1:0:2844:G:H22	1.77	0.49
1:0:357:A:H3'	1:0:358:C:C5'	2.42	0.49
1:0:2016:A:N6	1:0:2019:C:N3	2.61	0.49
1:0:2030:U:O2'	1:0:2031:A:H5'	2.11	0.49
1:0:208:C:C2'	1:0:209:G:H5'	2.42	0.49
1:0:2852:G:C2'	1:0:2853:U:H5'	2.42	0.49
1:0:2484:G:O4'	2:0:2881:TEL:H572	2.13	0.49
1:0:509:U:H2'	1:0:510:G:O4'	2.12	0.49
1:0:508:G:O2'	1:0:509:U:H5'	2.12	0.49
1:0:677:G:C1'	1:0:951:G:H5''	2.40	0.49
1:0:982:C:H2'	1:0:983:G:O4'	2.12	0.49
1:0:1296:G:H2'	1:0:1298:G:OP2	2.12	0.49
1:0:1582:A:H3'	1:0:1583:A:H5'	1.93	0.49
1:0:1614:C:H2'	1:0:1615:C:C6	2.46	0.49
1:0:1691:G:H4'	1:0:1692:C:OP1	2.12	0.49
1:0:1916:G:H1	1:0:1950:C:N4	2.02	0.49
1:0:1932:G:H3'	1:0:1933:G:N7	2.27	0.49
1:0:2197:U:H2'	1:0:2198:U:C6	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2677:U:H3	1:0:2688:G:H1	1.58	0.49
1:0:26:G:C6	1:0:27:G:N1	2.80	0.49
1:0:26:G:N1	1:0:27:G:N2	2.60	0.49
1:0:2748:C:H2'	1:0:2749:A:C8	2.47	0.49
1:0:389:G:C8	1:0:390:U:O4'	2.66	0.49
1:0:431:G:C4	1:0:432:C:C5	3.00	0.49
1:0:52:A:H62	1:0:115:G:N2	2.07	0.49
1:0:643:A:O2'	1:0:644:A:H5'	2.12	0.49
1:0:681:A:H2'	1:0:683:A:C6	2.45	0.49
1:0:998:C:H2'	1:0:999:A:H5'	1.94	0.49
1:0:1227:A:H2'	1:0:1228:G:O4'	2.12	0.49
1:0:1473:U:H4'	1:0:1474:A:C5	2.47	0.49
1:0:1778:U:OP2	1:0:1778:U:H3'	2.12	0.49
1:0:1921:A:C2'	1:0:1922:U:H5''	2.38	0.49
1:0:2228:U:C1'	1:0:2254:C:H41	2.25	0.49
1:0:2388:G:H2'	1:0:2389:G:C1'	2.41	0.49
1:0:2714:A:H2'	1:0:2715:C:O4'	2.12	0.49
1:0:431:G:N3	1:0:432:C:H5	2.11	0.49
1:0:717:G:H2'	1:0:739:G:N2	2.27	0.49
1:0:947:C:H2'	1:0:948:C:C6	2.48	0.49
1:0:951:G:C3'	1:0:952:A:H5''	2.41	0.49
1:0:989:G:H2'	1:0:990:A:O4'	2.12	0.49
1:0:1066:G:C3'	1:0:1067:G:H5''	2.38	0.49
1:0:19:C:H2'	1:0:20:C:H6	1.76	0.49
1:0:2049:C:H2'	1:0:2050:G:C5'	2.42	0.49
1:0:2060:A:N6	1:0:2222:U:H3	2.11	0.49
1:0:2082:C:H2'	1:0:2083:G:C8	2.48	0.49
1:0:2161:C:O2'	1:0:2162:C:P	2.70	0.49
1:0:219:G:H2'	1:0:220:U:OP2	2.13	0.49
1:0:2548:G:H2'	1:0:2549:G:H5'	1.93	0.49
1:0:2783:U:H3	1:0:2785:A:N6	2.10	0.49
1:0:339:U:C2'	1:0:339:U:O2	2.59	0.49
1:0:592:G:C6	1:0:593:C:N4	2.81	0.49
1:0:672:C:O2'	1:0:673:G:H5'	2.12	0.49
1:0:761:G:H8	1:0:763:A:OP2	1.96	0.49
1:0:941:U:H2'	1:0:942:U:C6	2.47	0.49
1:0:1175:A:H2'	1:0:1176:U:H6	1.78	0.49
1:0:1540:C:H2'	1:0:1541:G:O4'	2.11	0.49
1:0:1705:U:O4'	1:0:1718:A:N6	2.45	0.49
1:0:1919:A:O4'	1:0:1923:U:C5	2.65	0.49
1:0:1937:G:H2'	1:0:1939:U:C4	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:203:G:N2	1:0:207:U:C4	2.80	0.49
1:0:2606:G:HO2'	1:0:2761:A:H2	1.60	0.49
1:0:485:G:O2'	1:0:486:U:P	2.69	0.49
1:0:833:A:N3	1:0:954:U:O2'	2.46	0.49
1:0:1872:A:O2'	1:0:1873:A:H5'	2.13	0.49
1:0:1875:C:H2'	1:0:1876:C:H6	1.77	0.49
1:0:190:A:H2'	1:0:191:G:C8	2.48	0.49
1:0:2093:G:O2'	1:0:2094:C:P	2.71	0.49
1:0:2245:A:H4'	1:0:2246:A:O5'	2.13	0.49
1:0:2308:A:H2'	1:0:2309:G:C8	2.47	0.49
1:0:2347:C:H2'	1:0:2348:A:C8	2.47	0.49
1:0:344:G:N3	1:0:344:G:H2'	2.28	0.49
1:0:482:A:H2'	1:0:483:A:C5'	2.43	0.49
1:0:838:A:H2'	1:0:839:U:O4'	2.13	0.49
1:0:1137:A:H4'	1:0:1138:A:H5''	1.95	0.49
1:0:1147:G:H2'	1:0:1148:G:C8	2.43	0.49
1:0:173:A:H2	1:0:818:G:N3	2.10	0.49
1:0:2203:G:H4'	1:0:2205:C:N3	2.28	0.49
1:0:2336:G:N2	1:0:2339:A:OP2	2.43	0.49
1:0:2433:G:N1	1:0:2478:C:N4	2.61	0.49
1:0:2544:A:H2'	1:0:2545:A:O4'	2.13	0.49
1:0:2795:A:C2'	1:0:2796:A:OP1	2.60	0.49
1:0:2800:C:H2'	1:0:2801:A:H5'	1.94	0.49
1:0:39:C:H2'	1:0:40:U:C6	2.47	0.49
1:0:566:U:H2'	1:0:567:G:C8	2.48	0.49
1:0:704:G:H2'	1:0:705:C:O4'	2.13	0.49
1:0:838:A:H4'	1:0:2407:G:C5	2.48	0.49
1:0:88:G:H3'	1:0:89:A:C5'	2.40	0.49
1:0:942:U:H6	1:0:942:U:O5'	1.95	0.49
1:0:860:U:H3	1:0:945:G:N2	2.10	0.49
1:0:1368:G:H2'	1:0:1369:G:C8	2.44	0.49
1:0:1391:A:O2'	1:0:1392:U:C6	2.66	0.49
1:0:1764:A:C2'	1:0:1765:C:H5'	2.43	0.49
1:0:2062:U:H2'	1:0:2063:A:O4'	2.12	0.49
1:0:2723:C:O2'	1:0:2724:G:H5'	2.13	0.49
1:0:778:G:H2'	1:0:779:U:H6	1.78	0.49
1:0:826:U:HO2'	1:0:1238:A:H1'	1.73	0.49
1:0:921:A:O2'	1:0:923:A:OP2	2.22	0.49
1:0:50:G:H2'	1:0:117:A:N1	2.28	0.49
1:0:1293:A:H2'	1:0:1294:G:C8	2.47	0.49
1:0:1310:C:H2'	1:0:1311:C:H6	1.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1653:C:H2'	1:0:1654:A:C8	2.48	0.49
1:0:2559:U:C2'	1:0:2560:G:H5'	2.42	0.49
1:0:2728:A:C6	1:0:2736:U:H1'	2.47	0.49
1:0:394:U:O5'	1:0:394:U:H6	1.96	0.49
1:0:159:A:H1'	1:0:446:C:O2'	2.12	0.49
1:0:70:A:H4'	1:0:72:A:OP2	2.13	0.49
1:0:1226:A:N6	1:0:1249:G:H1'	2.28	0.48
1:0:118:U:O2	1:0:143:A:N7	2.46	0.48
1:0:1973:C:H2'	1:0:1974:U:O4'	2.13	0.48
1:0:2451:G:C1'	1:0:2457:A:H61	2.06	0.48
1:0:520:C:O2'	1:0:1249:G:H5''	2.12	0.48
1:0:968:C:C2'	1:0:969:U:OP1	2.61	0.48
1:0:69:G:H3'	1:0:111:G:O2'	2.13	0.48
1:0:125:A:H5''	1:0:126:C:C6	2.48	0.48
1:0:1494:G:O6	1:0:1529:C:N3	2.46	0.48
1:0:2349:G:H2'	1:0:2350:G:O4'	2.13	0.48
1:0:2270:U:H5''	1:0:2359:U:O2'	2.12	0.48
1:0:2407:G:H4'	1:0:2408:G:C4	2.48	0.48
1:0:2427:A:OP2	1:0:2478:C:OP2	2.30	0.48
1:0:2040:A:OP2	1:0:2483:U:OP1	2.31	0.48
1:0:2549:G:C2'	1:0:2550:C:H5'	2.43	0.48
1:0:2671:C:H4'	1:0:2845:C:O2	2.13	0.48
1:0:459:A:N6	1:0:484:G:C1'	2.76	0.48
1:0:621:U:H2'	1:0:622:U:H6	1.77	0.48
1:0:614:G:N2	1:0:634:G:N2	2.38	0.48
1:0:733:G:H2'	1:0:734:G:C8	2.48	0.48
1:0:942:U:O2'	1:0:943:U:H5'	2.13	0.48
1:0:1408:A:H5''	1:0:1409:U:OP1	2.13	0.48
1:0:1918:G:C4	1:0:1945:C:N4	2.81	0.48
1:0:1964:A:H5''	1:0:1965:U:OP2	2.13	0.48
1:0:2229:G:OP1	1:0:2229:G:H8	1.96	0.48
1:0:2397:A:H2'	1:0:2398:U:O4'	2.13	0.48
1:0:2374:C:H42	1:0:2400:G:H1	1.61	0.48
1:0:2542:U:H2'	1:0:2544:A:OP2	2.13	0.48
1:0:2816:C:H1'	1:0:2852:G:N2	2.28	0.48
1:0:2869:U:H2'	1:0:2870:C:C6	2.48	0.48
1:0:430:C:O2'	1:0:2386:G:N2	2.47	0.48
1:0:524:A:H1'	1:0:590:C:O2'	2.13	0.48
1:0:756:C:H2'	1:0:757:U:C6	2.48	0.48
1:0:78:C:H1'	1:0:357:A:N1	2.28	0.48
1:0:931:G:H2'	1:0:932:G:H5'	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:978:U:H2'	1:0:979:A:H8	1.78	0.48
1:0:138:G:H2'	1:0:139:A:C8	2.48	0.48
1:0:1766:U:C2'	1:0:1767:G:H5'	2.43	0.48
1:0:1783:G:H1	1:0:1820:G:H1'	1.78	0.48
1:0:191:G:O2'	1:0:192:G:H5'	2.13	0.48
1:0:1996:A:O2'	1:0:1997:A:H5'	2.13	0.48
1:0:991:A:H2	1:0:2020:G:N3	2.11	0.48
1:0:2199:C:H2'	1:0:2200:G:C8	2.49	0.48
1:0:2059:U:H5''	1:0:2217:G:N1	2.25	0.48
1:0:2350:G:C2	1:0:2351:G:N7	2.82	0.48
1:0:2548:G:H2'	1:0:2549:G:C5'	2.43	0.48
1:0:697:G:C4	1:0:788:G:O6	2.66	0.48
1:0:84:G:H2'	1:0:85:C:C6	2.48	0.48
1:0:1531:C:C2'	1:0:1532:A:H5'	2.43	0.48
1:0:1999:U:C2'	1:0:2000:U:H5'	2.43	0.48
1:0:2076:G:C2	1:0:2181:A:N6	2.81	0.48
1:0:2205:C:O2'	1:0:2206:C:H5'	2.13	0.48
1:0:1038:U:C4	1:0:2467:A:H5'	2.49	0.48
1:0:2765:C:H2'	1:0:2766:U:H6	1.78	0.48
1:0:388:G:OP2	1:0:388:G:H8	1.97	0.48
1:0:538:A:N6	1:0:2759:U:N3	2.61	0.48
1:0:838:A:H2'	1:0:839:U:C6	2.48	0.48
1:0:1033:G:HO2'	1:0:1034:U:P	2.33	0.48
1:0:1092:U:H2'	1:0:1093:U:C6	2.48	0.48
1:0:1223:G:H5'	1:0:1225:G:C5'	2.43	0.48
1:0:1299:A:N6	1:0:1302:C:C4	2.81	0.48
1:0:1356:G:C5'	1:0:1614:C:OP2	2.62	0.48
1:0:221:A:H2'	1:0:222:G:H5'	1.94	0.48
1:0:638:A:C2'	1:0:639:G:H5'	2.44	0.48
1:0:65:C:C2'	1:0:66:U:H5'	2.44	0.48
1:0:67:G:C6	1:0:72:A:C2	3.01	0.48
1:0:742:G:H5'	1:0:743:A:C5'	2.42	0.48
1:0:81:C:H5''	1:0:307:C:H5'	1.96	0.48
1:0:92:U:H2'	1:0:93:A:O4'	2.14	0.48
1:0:1312:G:H5''	1:0:1313:U:OP1	2.13	0.48
1:0:1341:G:H2'	1:0:1343:C:C4	2.48	0.48
1:0:1854:G:H2'	1:0:1855:G:C8	2.44	0.48
1:0:2225:G:N2	1:0:2405:A:HO2'	2.12	0.48
1:0:2548:G:C2'	1:0:2549:G:H5''	2.44	0.48
1:0:2555:G:C2'	1:0:2555:G:N3	2.76	0.48
1:0:2727:G:H2'	1:0:2728:A:H5''	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:762:A:H2'	1:0:763:A:H8	1.78	0.48
1:0:81:C:C5'	1:0:307:C:H5'	2.44	0.48
1:0:946:U:O5'	1:0:946:U:H6	1.96	0.48
1:0:961:G:H2'	1:0:962:C:C6	2.48	0.48
1:0:1313:U:O2'	1:0:1314:A:OP2	2.25	0.48
1:0:180:C:N3	1:0:181:A:C6	2.82	0.48
1:0:2011:U:H3	1:0:2016:A:N6	2.12	0.48
1:0:433:G:C2'	1:0:434:C:OP2	2.61	0.48
1:0:529:U:H2'	1:0:530:G:H8	1.78	0.48
1:0:1118:G:H2'	1:0:1119:U:C6	2.49	0.48
1:0:1712:G:N3	1:0:1712:G:C3'	2.75	0.48
1:0:1950:C:H2'	1:0:1951:G:H5'	1.94	0.48
1:0:2347:C:H2'	1:0:2348:A:O4'	2.14	0.48
1:0:2599:U:H3'	1:0:2600:A:H5''	1.95	0.48
1:0:1982:C:H5''	1:0:2703:C:C2'	2.43	0.48
1:0:698:A:C1'	1:0:700:C:C5	2.97	0.48
1:0:825:C:H1'	1:0:1263:G:N1	2.27	0.48
1:0:882:C:H2'	1:0:883:A:O4'	2.14	0.48
1:0:986:A:H2	1:0:1001:A:O4'	1.96	0.48
1:0:1327:C:OP1	1:0:1345:G:H5'	2.14	0.48
1:0:173:A:O2'	1:0:174:A:OP1	2.30	0.48
1:0:163:A:C2	1:0:188:G:C4	3.02	0.48
1:0:1922:U:O2'	1:0:2571:G:H1'	2.13	0.48
1:0:192:G:O2'	1:0:193:A:P	2.72	0.48
1:0:1955:G:O2'	1:0:1956:G:C5'	2.57	0.48
1:0:931:G:H1	1:0:2247:A:H5''	1.78	0.48
1:0:2448:A:H2'	1:0:2449:G:O4'	2.13	0.48
1:0:2555:G:OP1	1:0:2555:G:H3'	2.14	0.48
1:0:2732:C:H3'	1:0:2733:A:H8	1.79	0.48
1:0:502:A:H2'	1:0:503:G:H5'	1.95	0.48
1:0:605:G:H2'	1:0:606:A:C8	2.48	0.48
1:0:477:A:N3	1:0:696:U:H1'	2.28	0.48
1:0:772:G:H2'	1:0:773:G:C8	2.47	0.48
1:0:1108:U:C2'	1:0:1109:A:H5'	2.34	0.47
1:0:119:G:H2'	1:0:120:G:C8	2.49	0.47
1:0:1605:A:H2'	1:0:1606:C:C6	2.49	0.47
1:0:1923:U:HO2'	1:0:1924:C:H5	1.61	0.47
1:0:2463:G:H2'	1:0:2464:G:C8	2.47	0.47
1:0:2548:G:O2'	1:0:2549:G:H5''	2.14	0.47
1:0:2695:C:H2'	1:0:2696:A:H8	1.78	0.47
1:0:649:G:N1	1:0:660:G:N1	2.62	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:763:A:H5''	1:0:1631:C:N4	2.29	0.47
1:0:876:A:H2'	1:0:877:G:C8	2.49	0.47
1:0:1055:A:H1'	1:0:1058:G:H1'	1.96	0.47
1:0:1489:C:H3'	1:0:1490:U:H5'	1.97	0.47
1:0:1618:U:OP2	1:0:1619:A:N1	2.47	0.47
1:0:1679:U:H2'	1:0:1680:U:C5'	2.37	0.47
1:0:2157:C:H2'	1:0:2158:C:C6	2.49	0.47
1:0:2246:A:H3'	1:0:2246:A:N3	2.30	0.47
1:0:2597:G:H2'	1:0:2598:C:H6	1.79	0.47
1:0:2764:U:H2'	1:0:2765:C:C5	2.49	0.47
1:0:594:G:N1	1:0:1264:C:N4	2.57	0.47
1:0:1040:A:C8	1:0:1041:G:C8	3.02	0.47
1:0:1528:C:H2'	1:0:1529:C:H5''	1.95	0.47
1:0:1545:G:H2'	1:0:1546:C:C6	2.48	0.47
1:0:1641:C:H2'	1:0:1642:G:H5'	1.96	0.47
1:0:1791:C:C1'	1:0:1793:A:H5'	2.38	0.47
1:0:1888:C:H2'	1:0:1913:G:C5	2.49	0.47
1:0:2549:G:H5'	1:0:2549:G:H8	1.79	0.47
1:0:2605:C:H2'	1:0:2606:G:O4'	2.14	0.47
1:0:2650:G:O2'	1:0:2651:U:H5'	2.13	0.47
1:0:548:G:O2'	1:0:549:G:H5'	2.14	0.47
1:0:608:G:O2'	1:0:609:U:H5'	2.15	0.47
1:0:1293:A:H2'	1:0:1294:G:H8	1.79	0.47
1:0:1386:A:H2'	1:0:1387:G:O4'	2.14	0.47
1:0:1435:G:H2'	1:0:1436:G:C8	2.45	0.47
1:0:2001:G:H3'	1:0:2001:G:C8	2.50	0.47
1:0:2377:U:O2'	1:0:2378:G:P	2.72	0.47
1:0:839:U:H5'	1:0:2407:G:H2'	1.95	0.47
1:0:2467:A:H2'	1:0:2468:G:H8	1.78	0.47
1:0:2532:G:H2'	1:0:2533:U:C4'	2.44	0.47
1:0:2607:C:O2'	1:0:2762:G:OP1	2.33	0.47
1:0:803:C:H3'	1:0:803:C:H6	1.80	0.47
1:0:923:A:O4'	1:0:2243:C:H4'	2.15	0.47
1:0:577:U:H4'	1:0:956:A:H61	1.79	0.47
1:0:1293:A:O2'	1:0:1294:G:H5'	2.15	0.47
1:0:1407:G:O2'	1:0:1408:A:H5'	2.15	0.47
1:0:1424:U:H2'	1:0:1425:G:H8	1.79	0.47
1:0:1356:G:H1'	1:0:1613:G:C2	2.50	0.47
1:0:178:C:O2'	1:0:179:U:H5'	2.13	0.47
1:0:187:U:H2'	1:0:188:G:H8	1.79	0.47
1:0:2073:A:H61	1:0:2208:U:H3	1.62	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:26:G:H2'	1:0:27:G:O4'	2.15	0.47
1:0:2876:C:H2'	1:0:2877:A:C8	2.49	0.47
1:0:831:G:N2	1:0:1203:A:H62	2.11	0.47
1:0:1975:G:O2'	1:0:1976:U:O5'	2.33	0.47
1:0:690:A:H4'	1:0:2053:G:O2'	2.14	0.47
1:0:2080:U:H2'	1:0:2081:U:C6	2.49	0.47
1:0:2629:U:H3	1:0:2649:A:H61	1.60	0.47
1:0:200:A:C6	1:0:435:A:C5	3.03	0.47
1:0:939:C:N3	1:0:940:G:O6	2.48	0.47
1:0:105:G:O2'	1:0:106:G:H5'	2.14	0.47
1:0:1073:G:C3'	1:0:1074:G:H5''	2.45	0.47
1:0:1086:C:O5'	1:0:1086:C:H6	1.97	0.47
1:0:1341:G:N2	1:0:1343:C:O2	2.48	0.47
1:0:1391:A:O2'	1:0:1392:U:O5'	2.32	0.47
1:0:1629:G:H3'	1:0:1630:A:C5'	2.44	0.47
1:0:1736:C:H2'	1:0:1737:G:H8	1.79	0.47
1:0:2134:U:O5'	1:0:2134:U:H6	1.98	0.47
1:0:2204:A:C2'	1:0:2205:C:OP2	2.63	0.47
1:0:2633:A:H4'	1:0:2634:G:OP1	2.14	0.47
1:0:301:C:H2'	1:0:302:U:O4'	2.14	0.47
1:0:593:C:H2'	1:0:594:G:C8	2.49	0.47
1:0:782:U:H2'	1:0:783:G:C8	2.49	0.47
1:0:1256:C:H2'	1:0:1257:U:C6	2.50	0.47
1:0:1574:A:C2	1:0:1576:G:H1'	2.49	0.47
1:0:1313:U:C4	1:0:1651:U:H1'	2.50	0.47
1:0:195:A:C2'	1:0:196:A:H5'	2.44	0.47
1:0:2200:G:H2'	1:0:2201:G:C8	2.49	0.47
1:0:2207:G:H2'	1:0:2208:U:O4'	2.14	0.47
1:0:1773:C:H1'	1:0:2588:U:O4'	2.15	0.47
1:0:2598:C:H2'	1:0:2599:U:C6	2.50	0.47
1:0:2760:G:H5'	1:0:2761:A:C8	2.50	0.47
1:0:320:A:N3	1:0:340:G:H2'	2.29	0.47
1:0:398:C:H42	1:0:402:A:N6	2.13	0.47
1:0:564:U:H2'	1:0:565:A:H8	1.80	0.47
1:0:1106:A:H2'	1:0:1107:A:C8	2.50	0.47
1:0:1259:A:C2'	1:0:1260:A:H5'	2.45	0.47
1:0:1431:U:H5''	1:0:1604:A:H1'	1.97	0.47
1:0:1806:G:O6	1:0:1807:A:N6	2.47	0.47
1:0:1820:G:H4'	1:0:1821:A:OP1	2.14	0.47
1:0:1906:U:H2'	1:0:1907:C:C6	2.50	0.47
1:0:1963:G:H2'	1:0:1964:A:OP1	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:200:A:N1	1:0:435:A:N7	2.63	0.47
1:0:203:G:O6	1:0:431:G:O3'	2.32	0.47
1:0:2061:C:O2'	1:0:2062:U:H5'	2.15	0.47
1:0:2161:C:H2'	1:0:2162:C:C6	2.50	0.47
1:0:1373:G:H1	1:0:2192:U:H3	1.63	0.47
1:0:2386:G:C2	1:0:2387:U:C4	3.03	0.47
1:0:2225:G:N2	1:0:2405:A:O2'	2.48	0.47
1:0:2496:C:C2	1:0:2521:A:N6	2.82	0.47
1:0:788:G:H5'	1:0:790:A:N3	2.30	0.47
1:0:1207:G:H2'	1:0:1208:A:C8	2.50	0.47
1:0:1442:C:H3'	1:0:1443:G:C5'	2.45	0.47
1:0:1480:G:C2'	1:0:1481:U:H5'	2.45	0.47
1:0:2040:A:C6	1:0:2041:A:C6	3.03	0.47
1:0:2225:G:H2'	1:0:2226:A:H8	1.80	0.47
1:0:2240:C:H2'	1:0:2241:U:H5'	1.96	0.47
1:0:2324:G:H4'	1:0:2325:A:O5'	2.15	0.47
1:0:2477:C:C6	1:0:2477:C:H3'	2.48	0.47
1:0:459:A:C2	1:0:466:A:N7	2.83	0.47
1:0:673:G:H2'	1:0:674:U:C6	2.49	0.47
1:0:830:C:H3'	1:0:831:G:H8	1.80	0.47
1:0:1199:U:C5	1:0:1201:G:O6	2.68	0.47
1:0:1302:C:OP2	1:0:1302:C:H6	1.98	0.47
1:0:1465:G:H2'	1:0:1466:C:C1'	2.45	0.47
1:0:1674:C:H2'	1:0:1675:C:C6	2.50	0.47
1:0:1982:C:O2'	1:0:1983:G:H5'	2.15	0.47
1:0:2194:A:H2'	1:0:2195:C:O4'	2.15	0.47
1:0:2351:G:N2	1:0:2352:A:C4	2.83	0.47
1:0:1039:A:H1'	1:0:2466:G:O5'	2.15	0.47
1:0:2515:G:O2'	1:0:2516:U:H5'	2.15	0.47
1:0:1949:A:N3	1:0:2572:U:O4'	2.48	0.47
1:0:2695:C:O5'	1:0:2695:C:H6	1.97	0.47
1:0:295:C:N4	1:0:296:A:N6	2.62	0.47
1:0:387:A:H3'	1:0:388:G:C8	2.50	0.47
1:0:580:A:H1'	1:0:582:G:N7	2.30	0.47
1:0:718:A:N6	1:0:739:G:H1'	2.26	0.47
1:0:853:C:C2	1:0:950:G:N1	2.83	0.47
1:0:1147:G:C4	1:0:1148:G:C8	3.03	0.46
1:0:1396:C:H6	1:0:1396:C:O5'	1.99	0.46
1:0:1443:G:N3	1:0:1584:G:C2	2.83	0.46
1:0:176:A:C8	1:0:177:U:H5	2.33	0.46
1:0:1949:A:N3	1:0:2571:G:O2'	2.40	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2228:U:H1'	1:0:2254:C:H41	1.79	0.46
1:0:2387:U:C2'	1:0:2388:G:H5'	2.45	0.46
1:0:2441:U:H2'	1:0:2442:C:C6	2.49	0.46
1:0:2447:G:N1	1:0:2460:G:H2'	2.27	0.46
1:0:2534:U:H2'	1:0:2535:C:H5'	1.98	0.46
1:0:2658:A:H2'	1:0:2659:C:O4'	2.14	0.46
1:0:357:A:C2'	1:0:358:C:H5'	2.45	0.46
1:0:46:C:H2'	1:0:47:G:H8	1.80	0.46
1:0:1272:G:H2'	1:0:1273:G:H8	1.80	0.46
1:0:1496:G:N2	1:0:1527:G:H22	2.12	0.46
1:0:1641:C:C2'	1:0:1642:G:H5'	2.45	0.46
1:0:1745:C:N3	1:0:2696:A:O2'	2.47	0.46
1:0:1861:G:H2'	1:0:1862:C:O4'	2.15	0.46
1:0:2120:C:H42	1:0:2137:G:H1	1.61	0.46
1:0:2437:G:O2'	1:0:2439:U:O4	2.33	0.46
1:0:2477:C:C6	1:0:2477:C:C3'	2.98	0.46
1:0:2499:C:C6	1:0:2546:G:H1'	2.49	0.46
1:0:2570:C:O2'	1:0:2571:G:H5'	2.15	0.46
1:0:2597:G:H2'	1:0:2598:C:C6	2.50	0.46
1:0:2691:C:C3'	1:0:2692:A:H5''	2.46	0.46
1:0:460:U:H5'	1:0:461:A:OP2	2.14	0.46
1:0:516:G:C2'	1:0:517:A:OP2	2.62	0.46
1:0:540:G:N2	1:0:2004:U:O2'	2.49	0.46
1:0:616:U:C3'	1:0:617:U:H5''	2.45	0.46
1:0:658:G:H1'	1:0:2330:G:C5'	2.45	0.46
1:0:919:U:N3	1:0:920:G:N7	2.63	0.46
1:0:983:G:P	1:0:985:G:H5''	2.53	0.46
1:0:1030:U:H2'	1:0:1031:C:H5'	1.96	0.46
1:0:1468:A:O5'	1:0:1468:A:H8	1.98	0.46
1:0:1629:G:N1	1:0:1633:C:N4	2.63	0.46
1:0:2570:C:H42	1:0:2582:G:H1	1.64	0.46
1:0:389:G:C8	1:0:390:U:O2	2.69	0.46
1:0:538:A:N1	1:0:2025:A:H2'	2.29	0.46
1:0:1129:A:H2'	1:0:1130:U:C6	2.50	0.46
1:0:1217:U:H2'	1:0:1218:C:H6	1.81	0.46
1:0:1278:A:HO2'	1:0:1279:G:P	2.39	0.46
1:0:707:U:H5''	1:0:1585:A:C4	2.50	0.46
1:0:1699:A:OP1	1:0:1716:G:N2	2.49	0.46
1:0:1872:A:O2'	1:0:2070:G:H5'	2.16	0.46
1:0:1339:U:O2'	1:0:1993:G:H1'	2.16	0.46
1:0:2079:A:O2'	1:0:2080:U:H5'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2463:G:O2'	1:0:2464:G:H5'	2.15	0.46
1:0:2620:G:H2'	1:0:2621:G:C8	2.50	0.46
1:0:2678:C:O2'	1:0:2679:G:H5'	2.16	0.46
1:0:2824:C:O2'	1:0:2825:A:P	2.74	0.46
1:0:2825:A:C2	1:0:2844:G:H4'	2.51	0.46
1:0:2865:G:H8	1:0:2865:G:O5'	1.99	0.46
1:0:2782:G:C2	1:0:2866:A:N6	2.84	0.46
1:0:2608:A:N6	1:0:2869:U:C2	2.82	0.46
1:0:318:G:N2	1:0:321:A:C8	2.83	0.46
1:0:200:A:C6	1:0:435:A:N6	2.84	0.46
1:0:474:G:H22	1:0:476:G:H3'	1.76	0.46
1:0:583:C:H5''	1:0:584:A:C5'	2.45	0.46
1:0:755:C:O2'	1:0:756:C:H5'	2.16	0.46
1:0:863:C:H2'	1:0:864:C:O4'	2.15	0.46
1:0:851:C:C4	1:0:952:A:N6	2.84	0.46
1:0:990:A:H5'	1:0:991:A:C5'	2.39	0.46
1:0:1194:U:HO2'	1:0:1195:U:P	2.39	0.46
1:0:1302:C:C6	1:0:1302:C:OP2	2.69	0.46
1:0:1402:G:H2'	1:0:1403:U:O4'	2.16	0.46
1:0:1622:G:H5''	1:0:1624:A:O4'	2.16	0.46
1:0:157:G:O6	1:0:191:G:N7	2.48	0.46
1:0:1983:G:H2'	1:0:1984:A:H8	1.81	0.46
1:0:2121:U:H3	1:0:2136:G:H1	1.64	0.46
1:0:2559:U:H2'	1:0:2560:G:H5'	1.97	0.46
1:0:2569:A:H2'	1:0:2570:C:H6	1.80	0.46
1:0:2655:C:H2'	1:0:2656:G:H8	1.79	0.46
1:0:2787:A:H2'	1:0:2788:C:C6	2.51	0.46
1:0:2867:G:N3	1:0:2867:G:C2'	2.79	0.46
1:0:402:A:OP2	1:0:403:A:OP2	2.33	0.46
1:0:622:U:H2'	1:0:623:G:O4'	2.16	0.46
1:0:1253:C:C2'	1:0:1254:G:H5'	2.46	0.46
1:0:1373:G:C2'	1:0:1374:G:H5'	2.43	0.46
1:0:1686:A:H5''	1:0:2529:G:OP1	2.15	0.46
1:0:1725:C:H2'	1:0:1726:C:C6	2.48	0.46
1:0:176:A:O2'	1:0:177:U:OP1	2.32	0.46
1:0:1964:A:H3'	1:0:1965:U:H5'	1.98	0.46
1:0:2043:A:C2'	1:0:2044:G:OP2	2.64	0.46
1:0:2716:G:H2'	1:0:2717:G:C8	2.51	0.46
1:0:2721:A:H3'	1:0:2722:C:C6	2.51	0.46
1:0:439:C:H2'	1:0:439:C:O2	2.16	0.46
1:0:697:G:H2'	1:0:700:C:N4	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:85:C:O2'	1:0:86:U:H5'	2.15	0.46
1:0:886:A:H2'	1:0:887:G:O4'	2.16	0.46
1:0:1197:U:H2'	1:0:1198:C:O4'	2.15	0.46
1:0:1217:U:H2'	1:0:1218:C:C6	2.51	0.46
1:0:1287:A:C2	1:0:1315:A:H2	2.34	0.46
1:0:129:A:H2'	1:0:130:C:O4'	2.16	0.46
1:0:1316:G:C2	1:0:1317:G:C8	3.03	0.46
1:0:1456:C:H2'	1:0:1457:A:C8	2.51	0.46
1:0:1643:A:H2'	1:0:1644:G:H8	1.80	0.46
1:0:1693:A:H2	1:0:1976:U:OP1	1.99	0.46
1:0:1834:G:H2'	1:0:1835:C:O4'	2.15	0.46
1:0:1684:G:H2'	1:0:1974:U:O4	2.15	0.46
1:0:19:C:H2'	1:0:20:C:C6	2.50	0.46
1:0:198:A:O4'	1:0:210:A:H1'	2.15	0.46
1:0:2133:G:H2'	1:0:2134:U:C6	2.50	0.46
1:0:2181:A:O5'	1:0:2181:A:H8	1.98	0.46
1:0:1873:A:H2	1:0:2214:G:H1'	1.81	0.46
1:0:243:G:H3'	1:0:244:C:C5'	2.46	0.46
1:0:2722:C:H6	1:0:2722:C:O5'	1.98	0.46
1:0:2041:A:N6	2:0:2881:TEL:H582	2.30	0.46
1:0:339:U:O4	1:0:342:G:H5''	2.16	0.46
1:0:958:G:H2'	1:0:959:C:C6	2.51	0.46
1:0:127:C:H2'	1:0:128:C:C6	2.50	0.46
1:0:1704:G:H1'	1:0:1719:G:N2	2.30	0.46
1:0:1724:C:H1'	1:0:1747:G:C4	2.50	0.46
1:0:1772:C:O2'	1:0:1773:C:H5'	2.15	0.46
1:0:1924:C:H2'	1:0:1925:C:O4'	2.16	0.46
1:0:2402:U:H4'	1:0:2404:A:C5	2.51	0.46
1:0:2430:A:P	1:0:2476:A:H61	2.38	0.46
1:0:2447:G:O2'	1:0:2448:A:C5'	2.63	0.46
1:0:24:G:H2'	1:0:25:U:C6	2.51	0.46
1:0:646:C:O2	1:0:650:U:H4'	2.15	0.46
1:0:681:A:O2'	1:0:683:A:N6	2.49	0.46
1:0:713:G:H2'	1:0:714:G:O4'	2.15	0.46
1:0:1358:C:H1'	1:0:1409:U:H3	1.81	0.46
1:0:1435:G:O2'	1:0:1436:G:H5'	2.16	0.46
1:0:1651:U:C5'	1:0:1652:G:OP2	2.56	0.46
1:0:1885:C:H2'	1:0:1886:G:H5'	1.98	0.46
1:0:1955:G:H2'	1:0:1956:G:C8	2.48	0.46
1:0:2279:G:H2'	1:0:2280:A:H8	1.81	0.46
1:0:433:G:H2'	1:0:434:C:OP2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:653:G:H21	1:0:657:A:H61	1.64	0.46
1:0:796:A:H2	1:0:797:A:H4'	1.81	0.46
1:0:1059:A:H2	1:0:1123:G:N2	2.14	0.46
1:0:1445:A:H2'	1:0:1446:U:C6	2.51	0.46
1:0:1522:C:H2'	1:0:1523:A:O4'	2.16	0.46
1:0:1622:G:H4'	1:0:1624:A:N3	2.30	0.46
1:0:1696:C:H3'	1:0:1697:U:C6	2.51	0.46
1:0:1142:G:O6	1:0:2008:C:H1'	2.16	0.46
1:0:2080:U:H2'	1:0:2081:U:H6	1.81	0.46
1:0:2197:U:H2'	1:0:2198:U:H6	1.81	0.46
1:0:2695:C:H2'	1:0:2696:A:C8	2.51	0.46
1:0:2744:A:N6	1:0:2746:G:C2	2.84	0.46
1:0:2756:A:H4'	1:0:2757:G:O5'	2.16	0.46
1:0:2828:C:O2'	1:0:2829:A:H5'	2.16	0.46
1:0:40:U:H2'	1:0:41:G:C8	2.51	0.46
1:0:697:G:N2	1:0:807:A:C2	2.81	0.46
1:0:751:G:H2'	1:0:752:G:O4'	2.16	0.46
1:0:78:C:O2'	1:0:79:G:H5'	2.16	0.46
1:0:796:A:N3	1:0:796:A:C2'	2.78	0.46
1:0:1055:A:OP1	1:0:1057:A:H5'	2.16	0.45
1:0:1750:A:C5'	1:0:2695:C:H1'	2.47	0.45
1:0:1819:U:H2'	1:0:1820:G:O4'	2.15	0.45
1:0:2767:C:H2'	1:0:2768:C:C6	2.51	0.45
1:0:439:C:H5''	1:0:440:U:H5	1.81	0.45
1:0:622:U:C2'	1:0:623:G:H5'	2.46	0.45
1:0:67:G:C5	1:0:72:A:C2	3.03	0.45
1:0:677:G:H4'	1:0:952:A:OP1	2.16	0.45
1:0:982:C:H2'	1:0:983:G:C8	2.51	0.45
1:0:987:G:C5'	1:0:1167:A:H62	2.29	0.45
1:0:162:C:H2'	1:0:163:A:C8	2.51	0.45
1:0:2386:G:C2	1:0:2387:U:C5	3.05	0.45
1:0:638:A:H2'	1:0:639:G:O4'	2.16	0.45
1:0:821:A:H2'	1:0:822:G:C8	2.49	0.45
1:0:970:A:H2'	1:0:971:A:C8	2.51	0.45
1:0:1068:A:H2'	1:0:1069:G:C8	2.51	0.45
1:0:1086:C:C2'	1:0:1087:C:H5''	2.45	0.45
1:0:1376:C:H2'	1:0:1377:G:O4'	2.17	0.45
1:0:1408:A:H2'	1:0:1411:C:N4	2.30	0.45
1:0:1928:G:O6	1:0:1943:A:N6	2.48	0.45
1:0:2484:G:N3	1:0:2485:U:H5	2.14	0.45
1:0:2507:U:O2'	1:0:2508:G:H8	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2586:G:H2'	1:0:2587:G:O4'	2.15	0.45
1:0:2773:G:H1	1:0:2779:C:N4	2.13	0.45
1:0:2824:C:C2'	1:0:2825:A:OP2	2.64	0.45
1:0:2824:C:O2'	1:0:2825:A:O5'	2.33	0.45
1:0:341:A:N1	1:0:1223:G:N7	2.64	0.45
1:0:698:A:H1'	1:0:701:U:O4	2.17	0.45
1:0:861:G:N2	1:0:943:U:C2'	2.79	0.45
1:0:1029:C:C3'	1:0:1030:U:H5''	2.46	0.45
1:0:1184:G:C2'	1:0:1185:C:H5'	2.47	0.45
1:0:1392:U:O2	1:0:1392:U:C2'	2.65	0.45
1:0:1399:C:H2'	1:0:1400:A:C8	2.50	0.45
1:0:1438:G:C2'	1:0:1439:G:H5'	2.45	0.45
1:0:1467:U:H3'	1:0:1468:A:C5'	2.46	0.45
1:0:1661:C:H2'	1:0:1662:G:H8	1.81	0.45
1:0:1763:G:N1	1:0:1963:G:N2	2.64	0.45
1:0:2085:G:N2	1:0:2171:U:H1'	2.21	0.45
1:0:2410:U:H2'	1:0:2410:U:O2	2.15	0.45
1:0:1:G:H2'	1:0:2:G:C8	2.52	0.45
1:0:692:C:H2'	1:0:693:A:C8	2.51	0.45
1:0:703:A:O2'	1:0:704:G:H5'	2.16	0.45
1:0:788:G:H21	1:0:801:A:P	2.40	0.45
1:0:856:A:H2'	1:0:857:U:H5'	1.98	0.45
1:0:1605:A:H2'	1:0:1606:C:H6	1.81	0.45
1:0:1618:U:C2	1:0:1618:U:O5'	2.69	0.45
1:0:1624:A:O2'	1:0:1625:A:H5'	2.17	0.45
1:0:1818:G:H2'	1:0:1819:U:C6	2.52	0.45
1:0:1914:U:O2'	1:0:1915:A:H5'	2.16	0.45
1:0:192:G:O2'	1:0:193:A:H4'	2.16	0.45
1:0:1951:G:H4'	1:0:1956:G:H4'	1.99	0.45
1:0:1993:G:O2'	1:0:1994:U:H5'	2.17	0.45
1:0:2357:A:C2'	1:0:2358:C:H5'	2.47	0.45
1:0:2856:U:H2'	1:0:2857:C:C6	2.52	0.45
1:0:431:G:C4	1:0:432:C:H5	2.35	0.45
1:0:200:A:H62	1:0:435:A:N6	2.09	0.45
1:0:459:A:H1'	1:0:466:A:H62	1.81	0.45
1:0:776:G:N3	1:0:776:G:H3'	2.32	0.45
1:0:946:U:O2'	1:0:947:C:H5'	2.17	0.45
1:0:1785:A:H2'	1:0:1786:C:C6	2.51	0.45
1:0:17:G:H2'	1:0:18:U:C6	2.51	0.45
1:0:1929:U:H3	1:0:1943:A:N6	2.15	0.45
1:0:162:C:H4'	1:0:195:A:O2'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2396:C:H2'	1:0:2397:A:C5'	2.45	0.45
1:0:2541:U:H2'	1:0:2542:U:O4'	2.17	0.45
1:0:2669:C:C2'	1:0:2670:C:OP2	2.65	0.45
1:0:430:C:HO2'	1:0:2386:G:N2	2.15	0.45
1:0:387:A:C4'	1:0:436:A:H62	2.30	0.45
1:0:706:A:H2'	1:0:707:U:O4'	2.16	0.45
1:0:753:U:H1'	1:0:1964:A:C4	2.52	0.45
1:0:780:U:O2'	1:0:781:G:H5'	2.17	0.45
1:0:874:A:C2	1:0:875:G:H1'	2.51	0.45
1:0:882:C:C2	1:0:883:A:C8	3.05	0.45
1:0:1707:A:N7	1:0:1714:A:H2	2.15	0.45
1:0:1724:C:C2	1:0:1725:C:C5	3.05	0.45
1:0:1740:G:O2'	1:0:1741:G:H5'	2.17	0.45
1:0:192:G:H4'	1:0:193:A:O5'	2.17	0.45
1:0:1970:G:O2'	1:0:1971:C:H5'	2.16	0.45
1:0:2635:U:H3	1:0:2644:A:H8	1.64	0.45
1:0:2724:G:O2'	1:0:2725:C:H5'	2.17	0.45
1:0:395:G:C2'	1:0:396:U:H5'	2.47	0.45
1:0:625:A:H2'	1:0:626:A:H5'	1.99	0.45
1:0:1223:G:C5'	1:0:1224:A:OP1	2.65	0.45
1:0:824:U:O4'	1:0:1264:C:O2	2.35	0.45
1:0:1288:A:H2'	1:0:1289:A:C4'	2.46	0.45
1:0:1302:C:O2'	1:0:1303:U:H5'	2.16	0.45
1:0:1500:U:H2'	1:0:1501:C:C6	2.52	0.45
1:0:1724:C:H1'	1:0:1747:G:N3	2.32	0.45
1:0:1849:G:N2	1:0:1869:A:N6	2.64	0.45
1:0:1918:G:H1'	1:0:1947:G:C2	2.51	0.45
1:0:2204:A:H4'	1:0:2205:C:O4'	2.17	0.45
1:0:2239:C:H2'	1:0:2240:C:H6	1.82	0.45
1:0:2240:C:H2'	1:0:2241:U:C5'	2.47	0.45
1:0:2338:C:H2'	1:0:2339:A:C8	2.52	0.45
1:0:2827:G:H2'	1:0:2828:C:C6	2.52	0.45
2:0:2881:TEL:H231	2:0:2881:TEL:H332	1.99	0.45
1:0:689:A:H2'	1:0:690:A:H5'	1.99	0.45
1:0:775:U:H4'	1:0:776:G:C8	2.52	0.45
1:0:73:A:N6	1:0:87:G:OP2	2.40	0.45
1:0:1035:G:H21	1:0:1155:G:H5'	1.82	0.45
1:0:1035:G:C6	1:0:1036:G:O6	2.70	0.45
1:0:1265:G:H2'	1:0:1266:G:O4'	2.16	0.45
1:0:1349:A:H2'	1:0:1350:G:C8	2.52	0.45
1:0:173:A:C2	1:0:818:G:H1'	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1830:C:N4	1:0:1881:U:H3'	2.32	0.45
1:0:1975:G:O4'	1:0:1977:C:H5	2.00	0.45
1:0:2013:A:C2'	1:0:2014:A:OP2	2.64	0.45
1:0:582:G:N1	1:0:2014:A:OP2	2.44	0.45
1:0:872:G:O2'	1:0:2247:A:N3	2.49	0.45
1:0:585:U:H5''	1:0:2482:A:OP1	2.17	0.45
1:0:2513:A:C2	1:0:2514:G:H1'	2.52	0.45
1:0:2694:G:H2'	1:0:2695:C:C6	2.52	0.45
1:0:737:C:H2'	1:0:738:G:O4'	2.17	0.45
1:0:802:A:N3	1:0:802:A:C2'	2.80	0.45
1:0:854:G:H2'	1:0:855:G:C8	2.52	0.45
1:0:861:G:N2	1:0:943:U:H2'	2.31	0.45
1:0:875:G:H3'	1:0:876:A:H8	1.81	0.45
1:0:1149:G:N2	1:0:1154:A:H1'	2.28	0.45
1:0:150:A:H2'	1:0:151:G:H5'	1.99	0.45
1:0:1629:G:H3'	1:0:1630:A:H5''	1.99	0.45
1:0:1913:G:H2'	1:0:1914:U:OP2	2.16	0.45
1:0:2161:C:O2'	1:0:2162:C:OP1	2.30	0.45
1:0:2380:U:O2'	1:0:2381:A:H5'	2.17	0.45
1:0:631:G:H5''	1:0:632:A:OP1	2.17	0.45
1:0:740:A:H2'	1:0:741:G:O4'	2.17	0.45
1:0:813:A:H1'	1:0:815:A:H4'	1.98	0.45
1:0:846:A:H62	1:0:955:G:H22	1.56	0.45
1:0:1192:A:H2'	1:0:1193:G:H8	1.82	0.44
1:0:1385:C:H2'	1:0:1386:A:H8	1.82	0.44
1:0:1388:C:H2'	1:0:1389:C:H6	1.81	0.44
1:0:1406:A:O3'	1:0:1407:G:H8	2.00	0.44
1:0:1474:A:H2'	1:0:1476:G:OP1	2.17	0.44
1:0:1621:C:O4'	1:0:1626:A:C6	2.70	0.44
1:0:1758:C:C2'	1:0:1759:A:H5'	2.47	0.44
1:0:1804:U:O2'	1:0:1805:G:H5'	2.17	0.44
1:0:2005:U:O2'	1:0:2017:U:C2	2.70	0.44
1:0:208:C:H2'	1:0:209:G:H5'	1.99	0.44
1:0:2274:C:C2'	1:0:2275:U:C5'	2.95	0.44
1:0:2410:U:H2'	1:0:2412:A:OP2	2.16	0.44
1:0:2455:A:H2'	1:0:2455:A:N3	2.32	0.44
1:0:2633:A:C4'	1:0:2634:G:OP1	2.65	0.44
1:0:2667:C:N4	1:0:2699:G:H3'	2.30	0.44
1:0:2816:C:H2'	1:0:2817:A:C8	2.52	0.44
1:0:324:C:H2'	1:0:325:U:C5'	2.47	0.44
1:0:430:C:C6	1:0:430:C:C5'	2.97	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:441:A:O2'	1:0:442:A:H5'	2.16	0.44
1:0:688:A:N7	1:0:816:U:O4	2.50	0.44
1:0:697:G:C5	1:0:788:G:O6	2.70	0.44
1:0:81:C:H2'	1:0:82:G:O4'	2.16	0.44
1:0:830:C:O2'	1:0:852:U:H5''	2.17	0.44
1:0:1528:C:H3'	1:0:1529:C:C5'	2.40	0.44
1:0:1948:C:N4	1:0:1949:A:N6	2.65	0.44
1:0:2212:U:H2'	1:0:2213:G:H8	1.79	0.44
1:0:2239:C:H2'	1:0:2240:C:C6	2.52	0.44
1:0:2242:C:N4	1:0:2257:A:C6	2.85	0.44
1:0:2578:G:N2	1:0:2579:A:H1'	2.33	0.44
1:0:2585:C:O2'	1:0:2586:G:H5'	2.17	0.44
1:0:2706:U:H2'	1:0:2706:U:O2	2.18	0.44
1:0:734:G:H2'	1:0:735:G:H8	1.81	0.44
1:0:873:U:C4	1:0:929:A:N6	2.85	0.44
1:0:1083:C:N4	1:0:1103:C:C4	2.85	0.44
1:0:1216:G:O2'	1:0:1217:U:H5'	2.16	0.44
1:0:1355:A:H1'	1:0:1410:U:C4'	2.47	0.44
1:0:1391:A:O2'	1:0:1392:U:OP1	2.35	0.44
1:0:1463:A:O2'	1:0:1543:G:N2	2.51	0.44
1:0:1625:A:O2'	1:0:1632:A:H4'	2.17	0.44
1:0:180:C:N3	1:0:181:A:N6	2.66	0.44
1:0:2082:C:N4	1:0:2174:G:N2	2.65	0.44
1:0:226:C:H4'	1:0:227:G:C8	2.53	0.44
1:0:2505:G:H22	1:0:2517:C:H1'	1.83	0.44
1:0:2800:C:C2'	1:0:2801:A:H5'	2.47	0.44
1:0:653:G:H4'	1:0:2328:G:H4'	1.99	0.44
1:0:658:G:H1'	1:0:2330:G:H5''	1.99	0.44
1:0:756:C:H2'	1:0:757:U:O4'	2.17	0.44
1:0:873:U:H1'	1:0:2246:A:H5''	2.00	0.44
1:0:1001:A:N7	1:0:1200:G:H4'	2.33	0.44
1:0:1030:U:H2'	1:0:1031:C:O4'	2.18	0.44
1:0:1711:C:H4'	1:0:1712:G:N2	2.32	0.44
1:0:1970:G:H2'	1:0:1971:C:C6	2.53	0.44
1:0:1999:U:H6	1:0:1999:U:O5'	2.00	0.44
1:0:2013:A:H2'	1:0:2014:A:OP2	2.18	0.44
1:0:2095:G:H2'	1:0:2096:U:H5''	1.99	0.44
1:0:2363:G:C2'	1:0:2364:C:OP1	2.66	0.44
1:0:2797:G:H2'	1:0:2798:A:C5'	2.44	0.44
1:0:26:G:C2	1:0:27:G:N2	2.85	0.44
1:0:402:A:H2'	1:0:403:A:O4'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:434:C:C2'	1:0:434:C:O2	2.66	0.44
1:0:439:C:H3'	1:0:440:U:C5	2.53	0.44
1:0:591:G:H2'	1:0:592:G:H8	1.80	0.44
1:0:4:C:O2'	1:0:5:A:H5'	2.17	0.44
1:0:1142:G:H2'	1:0:1143:A:C8	2.53	0.44
1:0:1196:G:H2'	1:0:1197:U:C5'	2.48	0.44
1:0:1310:C:H2'	1:0:1311:C:C6	2.52	0.44
1:0:1401:G:O2'	1:0:1402:G:H5'	2.17	0.44
1:0:1630:A:H8	1:0:1630:A:OP2	2.00	0.44
1:0:1751:A:H2'	1:0:1752:U:C6	2.52	0.44
1:0:192:G:O2'	1:0:193:A:C5'	2.65	0.44
1:0:2178:U:H2'	1:0:2179:C:H6	1.82	0.44
1:0:2227:C:H2'	1:0:2228:U:H5'	2.00	0.44
1:0:236:C:H2'	1:0:237:G:C8	2.52	0.44
1:0:239:A:H2'	1:0:240:U:O4'	2.17	0.44
1:0:2467:A:H2'	1:0:2468:G:C8	2.53	0.44
1:0:2043:A:O2'	1:0:2481:G:O5'	2.36	0.44
1:0:2491:C:C2'	1:0:2492:G:H5''	2.47	0.44
1:0:2609:G:O4'	1:0:2868:G:N3	2.51	0.44
1:0:2661:G:H2'	1:0:2662:C:O4'	2.18	0.44
1:0:353:G:H2'	1:0:354:C:C6	2.52	0.44
1:0:926:C:H2'	1:0:926:C:O2	2.17	0.44
1:0:939:C:C4	1:0:940:G:O6	2.71	0.44
1:0:1086:C:H2'	1:0:1087:C:C5'	2.46	0.44
1:0:1199:U:H3'	1:0:1200:G:H5''	2.00	0.44
1:0:1257:U:O2'	1:0:1258:G:H5'	2.16	0.44
1:0:1312:G:O2'	1:0:1314:A:C2	2.66	0.44
1:0:1321:A:N1	1:0:1624:A:N1	2.66	0.44
1:0:1437:A:H2'	1:0:1438:G:C8	2.48	0.44
1:0:2105:U:H2'	1:0:2106:G:H8	1.81	0.44
1:0:2299:A:H5'	1:0:2300:G:N9	2.32	0.44
1:0:2315:A:O2'	1:0:2364:C:H5''	2.17	0.44
1:0:2343:C:H2'	1:0:2344:G:C8	2.53	0.44
1:0:2666:U:H2'	1:0:2667:C:O4'	2.18	0.44
1:0:2676:G:H2'	1:0:2677:U:C6	2.53	0.44
1:0:2728:A:H2'	1:0:2729:A:O4'	2.17	0.44
1:0:502:A:C2'	1:0:503:G:H5'	2.48	0.44
1:0:755:C:H2'	1:0:756:C:O4'	2.18	0.44
1:0:1083:C:N4	1:0:1104:G:C6	2.85	0.44
1:0:1514:C:H4'	1:0:1592:U:O2'	2.18	0.44
1:0:216:U:H2'	1:0:217:U:C6	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2428:U:C2'	1:0:2428:U:O2	2.66	0.44
1:0:324:C:O2'	1:0:325:U:H5'	2.17	0.44
1:0:538:A:N6	1:0:2759:U:H3	2.15	0.44
1:0:572:G:OP2	1:0:581:A:H5'	2.17	0.44
1:0:620:G:H1	1:0:628:A:N6	2.15	0.44
1:0:5:A:H2'	1:0:6:A:H8	1.83	0.44
1:0:742:G:C2'	1:0:742:G:N3	2.79	0.44
1:0:78:C:H2'	1:0:79:G:C8	2.48	0.44
1:0:982:C:OP2	1:0:985:G:N1	2.50	0.44
1:0:1001:A:H2'	1:0:1002:C:H5''	1.99	0.44
1:0:1153:A:C2	1:0:1155:G:C6	3.06	0.44
1:0:1177:U:N3	1:0:1197:U:O2	2.51	0.44
1:0:1249:G:C2'	1:0:1250:A:OP2	2.66	0.44
1:0:1253:C:H2'	1:0:1254:G:O4'	2.17	0.44
1:0:1866:G:O5'	1:0:1866:G:H8	2.00	0.44
1:0:1932:G:H2'	1:0:1932:G:N3	2.33	0.44
1:0:1929:U:H3	1:0:1943:A:H61	1.64	0.44
1:0:2010:G:O2'	1:0:2011:U:H5'	2.18	0.44
1:0:2590:U:H1'	2:0:2881:TEL:H21	2.00	0.44
1:0:357:A:C3'	1:0:358:C:H5'	2.47	0.44
1:0:224:G:C1'	1:0:399:G:O6	2.66	0.44
1:0:469:G:O2'	1:0:470:U:C5	2.70	0.44
1:0:547:U:H2'	1:0:548:G:H8	1.82	0.44
1:0:698:A:OP2	1:0:787:A:N1	2.51	0.44
1:0:968:C:H2'	1:0:969:U:OP1	2.17	0.44
1:0:993:C:O5'	1:0:993:C:H6	2.01	0.44
1:0:1052:C:O5'	1:0:1052:C:H6	2.00	0.44
1:0:1194:U:O2'	1:0:1195:U:P	2.76	0.44
1:0:1272:G:H2'	1:0:1273:G:C8	2.52	0.44
1:0:1333:G:N2	1:0:1344:C:N4	2.65	0.44
1:0:1800:A:N3	1:0:1802:A:N1	2.66	0.44
1:0:189:A:O2'	1:0:190:A:H5'	2.17	0.44
1:0:1981:A:H4'	1:0:2704:U:O2'	2.18	0.44
1:0:200:A:C6	1:0:435:A:C6	3.05	0.44
1:0:2122:G:H2'	1:0:2123:G:C8	2.52	0.44
1:0:2348:A:H61	1:0:2361:G:N2	2.16	0.44
1:0:2498:U:P	1:0:2498:U:H3'	2.58	0.44
1:0:2498:U:H5'	1:0:2546:G:N2	2.33	0.44
1:0:2622:G:H2'	1:0:2623:A:O4'	2.18	0.44
1:0:2828:C:H2'	1:0:2829:A:H8	1.83	0.44
1:0:29:U:H6	1:0:29:U:O5'	2.01	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:503:G:H2'	1:0:504:G:H8	1.81	0.44
1:0:93:A:O2'	1:0:94:C:H5'	2.18	0.44
1:0:1013:G:H22	1:0:1165:G:H1'	1.83	0.43
1:0:1034:U:H2'	1:0:1035:G:H5'	2.00	0.43
1:0:1703:C:H2'	1:0:1704:G:O4'	2.18	0.43
1:0:16:G:C2'	1:0:17:G:H5'	2.48	0.43
1:0:1821:A:H5''	1:0:1822:C:H5	1.82	0.43
1:0:1904:G:H2'	1:0:1905:G:C8	2.53	0.43
1:0:2043:A:H1'	1:0:2481:G:O4'	2.17	0.43
1:0:2387:U:H2'	1:0:2388:G:H5'	2.00	0.43
1:0:2709:C:H2'	1:0:2710:C:C6	2.53	0.43
1:0:2824:C:H1'	1:0:2843:A:C4	2.53	0.43
1:0:326:A:H2'	1:0:327:C:O4'	2.18	0.43
1:0:52:A:C2'	1:0:53:G:H5'	2.48	0.43
1:0:810:U:H2'	1:0:811:G:C8	2.52	0.43
1:0:1445:A:H2'	1:0:1446:U:O4'	2.19	0.43
1:0:1474:A:C2'	1:0:1475:U:H5'	2.47	0.43
1:0:2002:A:H61	1:0:2018:G:H22	1.65	0.43
1:0:2082:C:H2'	1:0:2083:G:H8	1.83	0.43
1:0:2875:C:O2'	1:0:2876:C:H5'	2.17	0.43
1:0:436:A:C4'	1:0:437:G:OP1	2.65	0.43
1:0:451:A:H2'	1:0:452:G:O4'	2.18	0.43
1:0:504:G:O2'	1:0:505:G:H5'	2.18	0.43
1:0:568:G:H2'	1:0:569:C:O4'	2.18	0.43
1:0:587:A:C3'	1:0:588:G:H5''	2.48	0.43
1:0:855:G:H2'	1:0:856:A:O4'	2.18	0.43
1:0:1052:C:H2'	1:0:1053:G:C8	2.53	0.43
1:0:1223:G:H5'	1:0:1225:G:H5'	1.99	0.43
1:0:1388:C:H2'	1:0:1389:C:C6	2.53	0.43
1:0:2015:G:C2'	1:0:2015:G:N3	2.81	0.43
1:0:203:G:O2'	1:0:204:A:H5'	2.18	0.43
1:0:2041:A:H61	2:0:2881:TEL:H581	1.78	0.43
1:0:2409:A:N7	1:0:2410:U:H5	2.16	0.43
1:0:2792:C:C3'	1:0:2793:G:H5''	2.48	0.43
1:0:2814:G:H2'	1:0:2815:C:H6	1.75	0.43
1:0:321:A:N1	1:0:323:G:H1'	2.34	0.43
1:0:600:G:O6	1:0:602:C:N4	2.51	0.43
1:0:1625:A:N3	1:0:1625:A:C2'	2.80	0.43
1:0:1779:C:H6	1:0:1779:C:O5'	2.01	0.43
1:0:1779:C:O2'	1:0:1780:A:H5'	2.18	0.43
1:0:1838:G:H2'	1:0:1839:A:O4'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:190:A:H2'	1:0:191:G:H8	1.82	0.43
1:0:2299:A:O2'	1:0:2312:A:N6	2.52	0.43
1:0:2343:C:O2'	1:0:2344:G:H5'	2.18	0.43
1:0:2377:U:O5'	1:0:2377:U:H6	2.01	0.43
1:0:2817:A:N1	1:0:2851:G:C6	2.86	0.43
1:0:317:U:N3	1:0:321:A:N6	2.49	0.43
1:0:32:C:H2'	1:0:33:C:O4'	2.18	0.43
1:0:320:A:N7	1:0:341:A:N7	2.67	0.43
1:0:490:A:C2'	1:0:491:A:H5'	2.47	0.43
1:0:815:A:H2'	1:0:816:U:O4'	2.19	0.43
1:0:1610:A:H2'	1:0:1611:U:C6	2.54	0.43
1:0:1984:A:H2'	1:0:1985:G:H8	1.82	0.43
1:0:202:A:O2'	1:0:203:G:H5'	2.18	0.43
1:0:2493:U:O2'	1:0:2494:C:H5'	2.18	0.43
1:0:700:C:O4'	1:0:801:A:O4'	2.36	0.43
1:0:782:U:HO2'	1:0:1392:U:H6	1.65	0.43
1:0:788:G:H2'	1:0:807:A:C4	2.53	0.43
1:0:1094:C:H2'	1:0:1096:A:OP2	2.19	0.43
1:0:1055:A:H61	1:0:1122:A:C5'	2.31	0.43
1:0:1029:C:H41	1:0:1153:A:H61	1.56	0.43
1:0:1154:A:H3'	1:0:1154:A:C8	2.54	0.43
1:0:952:A:HO2'	1:0:1204:G:H4'	1.84	0.43
1:0:1217:U:O2'	1:0:1218:C:H5'	2.19	0.43
1:0:1274:C:H6	1:0:1274:C:O5'	2.02	0.43
1:0:1358:C:C2'	1:0:1359:G:H5'	2.47	0.43
1:0:1654:A:H4'	1:0:2690:A:O2'	2.19	0.43
1:0:1715:A:O2'	1:0:1716:G:H5''	2.18	0.43
1:0:1715:A:O2'	1:0:1716:G:C5'	2.67	0.43
1:0:201:G:N2	1:0:202:A:C4	2.86	0.43
1:0:2178:U:H2'	1:0:2179:C:C6	2.53	0.43
1:0:219:G:C2'	1:0:231:G:H1	2.30	0.43
1:0:1922:U:O2'	1:0:2571:G:C1'	2.66	0.43
1:0:457:C:H5'	1:0:1261:G:O6	2.19	0.43
1:0:516:G:H2'	1:0:517:A:OP2	2.19	0.43
1:0:935:C:H2'	1:0:936:A:H8	1.83	0.43
1:0:935:C:O2'	1:0:936:A:H5'	2.19	0.43
1:0:1325:U:H5'	1:0:1326:U:H6	1.82	0.43
1:0:1370:U:O2'	1:0:1371:G:H5'	2.18	0.43
1:0:1900:U:H3'	1:0:1901:A:H8	1.82	0.43
1:0:2176:U:C2'	1:0:2177:U:H5'	2.49	0.43
1:0:2240:C:C1'	1:0:2367:A:H1'	2.45	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2694:G:OP1	1:0:2694:G:H8	2.01	0.43
1:0:486:U:H6	1:0:486:U:OP2	2.01	0.43
1:0:738:G:H2'	1:0:739:G:O4'	2.18	0.43
1:0:82:G:O2'	1:0:83:A:H5'	2.19	0.43
1:0:915:C:H2'	1:0:916:U:C6	2.53	0.43
1:0:1089:C:C2	1:0:1099:A:H4'	2.54	0.43
1:0:139:A:O2'	1:0:140:G:H5'	2.19	0.43
1:0:1444:C:H2'	1:0:1445:A:C8	2.54	0.43
1:0:1458:A:C3'	1:0:1459:U:C5'	2.95	0.43
1:0:1566:G:H2'	1:0:1567:A:C8	2.53	0.43
1:0:1625:A:H1'	1:0:1632:A:H1'	2.00	0.43
1:0:1913:G:C2'	1:0:1914:U:OP2	2.67	0.43
1:0:2082:C:H2'	1:0:2083:G:O4'	2.19	0.43
1:0:221:A:C2'	1:0:222:G:H5'	2.49	0.43
1:0:2790:C:H2'	1:0:2791:C:H6	1.84	0.43
1:0:322:A:C6	1:0:339:U:O2	2.72	0.43
1:0:744:C:H2'	1:0:745:C:C6	2.53	0.43
1:0:1054:C:H2'	1:0:1055:A:H5'	2.00	0.43
1:0:1071:U:C2'	1:0:1072:U:H5'	2.47	0.43
1:0:1083:C:N4	1:0:1104:G:O6	2.51	0.43
1:0:1088:A:O2'	1:0:1089:C:H5'	2.19	0.43
1:0:1501:C:H2'	1:0:1502:G:O4'	2.18	0.43
1:0:1686:A:N3	1:0:1686:A:C2'	2.81	0.43
1:0:1790:G:HO2'	1:0:1791:C:H6	1.59	0.43
1:0:1908:C:C2'	1:0:1909:U:H4'	2.40	0.43
1:0:1912:G:C2'	1:0:1912:G:N3	2.78	0.43
1:0:2028:C:H2'	1:0:2029:G:O5'	2.17	0.43
1:0:2033:C:H2'	1:0:2034:A:C1'	2.48	0.43
1:0:2107:G:O2'	1:0:2108:G:H5'	2.19	0.43
1:0:2418:A:H5'	1:0:2420:C:OP2	2.18	0.43
1:0:2492:G:H2'	1:0:2493:U:O4'	2.18	0.43
1:0:367:G:H2'	1:0:368:A:H5''	2.00	0.43
1:0:695:G:N2	1:0:809:C:C2	2.86	0.43
1:0:830:C:C5	1:0:831:G:N7	2.86	0.43
1:0:942:U:H2'	1:0:943:U:C5'	2.49	0.43
1:0:1125:G:H2'	1:0:1126:A:H8	1.81	0.43
1:0:1204:G:H2'	1:0:1205:G:H8	1.84	0.43
1:0:1278:A:O2'	1:0:1279:G:P	2.76	0.43
1:0:128:C:C3'	1:0:129:A:H5''	2.48	0.43
1:0:1582:A:C3'	1:0:1583:A:C5'	2.93	0.43
1:0:1738:U:O2'	1:0:1739:G:H5'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1937:G:N3	1:0:2530:C:C5'	2.82	0.43
1:0:2123:G:H2'	1:0:2124:C:C6	2.54	0.43
1:0:2196:U:H2'	1:0:2197:U:O4'	2.19	0.43
1:0:2519:C:C5	1:0:2520:A:N7	2.87	0.43
1:0:202:A:N6	1:0:432:C:OP2	2.37	0.43
1:0:596:C:C1'	1:0:684:C:O4'	2.63	0.43
1:0:750:C:H2'	1:0:751:G:O4'	2.18	0.43
1:0:75:C:O5'	1:0:75:C:H6	2.01	0.43
1:0:797:A:O2'	1:0:798:G:H8	2.02	0.43
1:0:807:A:C5	1:0:808:C:C4	3.07	0.43
1:0:90:G:H3'	1:0:91:A:C5'	2.48	0.43
1:0:930:A:N3	1:0:930:A:O4'	2.51	0.43
1:0:957:G:O2'	1:0:958:G:H5'	2.19	0.43
1:0:102:C:H2'	1:0:103:U:O4'	2.19	0.42
1:0:1316:G:C4	1:0:1317:G:C8	3.06	0.42
1:0:1630:A:H2'	1:0:1631:C:H5'	2.01	0.42
1:0:1655:C:H2'	1:0:1656:U:O4'	2.19	0.42
1:0:1975:G:HO2'	1:0:1976:U:P	2.42	0.42
1:0:2023:C:H2'	1:0:2024:U:C6	2.54	0.42
1:0:174:A:O2'	1:0:2223:U:OP1	2.29	0.42
1:0:2571:G:H2'	1:0:2572:U:C6	2.54	0.42
1:0:2593:A:C2'	1:0:2594:U:H5'	2.48	0.42
1:0:322:A:C2	1:0:346:C:C4	3.07	0.42
1:0:481:A:H3'	1:0:482:A:C8	2.54	0.42
1:0:515:A:H2'	1:0:516:G:H5'	2.00	0.42
1:0:860:U:H6	1:0:860:U:O5'	2.02	0.42
1:0:880:C:OP1	1:0:881:U:OP2	2.37	0.42
1:0:1090:C:O2'	1:0:1091:C:H5'	2.18	0.42
1:0:1091:C:O2'	1:0:1092:U:H5'	2.19	0.42
1:0:1389:C:H2'	1:0:1390:G:O4'	2.19	0.42
1:0:1685:A:O2'	1:0:1686:A:P	2.77	0.42
1:0:1730:G:O2'	1:0:1731:C:H5'	2.20	0.42
1:0:1930:C:H2'	1:0:1931:G:H5'	2.01	0.42
1:0:193:A:N7	1:0:444:U:N3	2.67	0.42
1:0:2194:A:C3'	1:0:2195:C:C5'	2.95	0.42
1:0:931:G:H22	1:0:2247:A:C5'	2.32	0.42
1:0:2495:G:C2'	1:0:2496:C:O4'	2.65	0.42
1:0:2529:G:H2'	1:0:2530:C:H5'	2.01	0.42
1:0:2584:U:H2'	1:0:2585:C:C6	2.54	0.42
1:0:2763:U:O2'	1:0:2764:U:H5'	2.18	0.42
1:0:2792:C:H2'	1:0:2793:G:O4'	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:434:C:C2'	1:0:435:A:OP2	2.66	0.42
1:0:469:G:O2'	1:0:470:U:H5	2.02	0.42
1:0:697:G:C6	1:0:788:G:N7	2.88	0.42
1:0:956:A:O2'	1:0:957:G:OP1	2.36	0.42
1:0:1419:G:O2'	1:0:1420:A:H5'	2.19	0.42
1:0:1473:U:H5'	1:0:1474:A:C8	2.54	0.42
1:0:1485:U:O2	1:0:1538:A:H2	2.03	0.42
1:0:159:A:O2'	1:0:160:C:H5'	2.18	0.42
1:0:1611:U:O2'	1:0:1612:U:H5'	2.18	0.42
1:0:1624:A:N6	1:0:1627:C:C2	2.87	0.42
1:0:1313:U:N3	1:0:1651:U:H1'	2.34	0.42
1:0:2161:C:H2'	1:0:2162:C:H5	1.85	0.42
1:0:2244:C:N3	1:0:2245:A:N6	2.68	0.42
1:0:2506:C:O2'	1:0:2507:U:H5'	2.17	0.42
1:0:2549:G:H2'	1:0:2550:C:C5'	2.49	0.42
1:0:2867:G:HO2'	1:0:2868:G:P	2.42	0.42
1:0:746:G:OP2	1:0:774:A:N6	2.44	0.42
1:0:789:G:H2'	1:0:790:A:OP2	2.18	0.42
1:0:987:G:C5'	1:0:1167:A:N6	2.81	0.42
1:0:1248:G:N1	1:0:1249:G:N2	2.68	0.42
1:0:1461:C:H2'	1:0:1462:C:C6	2.54	0.42
1:0:173:A:H61	1:0:844:G:H1'	1.83	0.42
1:0:177:U:OP2	1:0:178:C:OP2	2.37	0.42
1:0:2276:C:H1'	1:0:2301:A:N3	2.35	0.42
1:0:2278:A:H2'	1:0:2279:G:C8	2.55	0.42
1:0:2732:C:H3'	1:0:2733:A:C8	2.54	0.42
1:0:747:A:O2'	1:0:748:A:H5'	2.19	0.42
1:0:1154:A:H3'	1:0:1154:A:H8	1.85	0.42
1:0:1440:G:H1'	1:0:1588:A:H61	1.84	0.42
1:0:1641:C:H2'	1:0:1642:G:C5'	2.50	0.42
1:0:1791:C:H2'	1:0:1792:C:C5'	2.35	0.42
1:0:192:G:HO2'	1:0:193:A:P	2.42	0.42
1:0:195:A:H61	1:0:212:U:H4'	1.84	0.42
1:0:195:A:H2'	1:0:196:A:C5'	2.50	0.42
1:0:2792:C:H2'	1:0:2793:G:H5''	2.02	0.42
1:0:2836:U:O2'	1:0:2837:G:H5'	2.19	0.42
1:0:341:A:C2	1:0:1223:G:N7	2.88	0.42
1:0:40:U:H2'	1:0:41:G:H8	1.84	0.42
1:0:431:G:C2	1:0:432:C:C5	3.07	0.42
1:0:1073:G:H2'	1:0:1074:G:C5'	2.48	0.42
1:0:1194:U:O2'	1:0:1195:U:O5'	2.38	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1312:G:C4'	1:0:1314:A:N3	2.83	0.42
1:0:1383:C:H2'	1:0:1384:G:O4'	2.20	0.42
1:0:1459:U:O4	1:0:1476:G:H5''	2.19	0.42
1:0:1365:U:H1'	1:0:1586:A:C2	2.55	0.42
1:0:1729:C:H2'	1:0:1730:G:H8	1.83	0.42
1:0:2109:A:H2'	1:0:2110:G:H8	1.85	0.42
1:0:2274:C:H2'	1:0:2275:U:H5''	1.99	0.42
1:0:2505:G:N1	1:0:2517:C:O2	2.52	0.42
1:0:2526:U:C5	1:0:2545:A:N7	2.88	0.42
1:0:988:G:N3	1:0:1012:A:H2	2.18	0.42
1:0:1017:C:N3	1:0:1148:G:N1	2.68	0.42
1:0:1300:A:H2'	1:0:1300:A:N3	2.34	0.42
1:0:146:C:H2'	1:0:147:G:C8	2.54	0.42
1:0:1717:A:O2'	1:0:1757:C:OP1	2.27	0.42
1:0:172:A:N1	1:0:178:C:N3	2.68	0.42
1:0:1872:A:H1'	1:0:2070:G:H5'	2.02	0.42
1:0:230:C:H2'	1:0:231:G:O4'	2.19	0.42
1:0:2446:C:H2'	1:0:2447:G:C1'	2.49	0.42
1:0:2462:C:H2'	1:0:2463:G:H5'	2.02	0.42
1:0:2490:U:H2'	1:0:2491:C:C6	2.54	0.42
1:0:2539:C:N4	1:0:2540:A:N6	2.68	0.42
1:0:458:G:H4'	1:0:461:A:C4	2.54	0.42
1:0:76:C:H2'	1:0:77:C:C6	2.55	0.42
1:0:790:A:O2'	1:0:791:G:H5'	2.20	0.42
1:0:91:A:H2'	1:0:92:U:C6	2.54	0.42
1:0:1108:U:H2'	1:0:1109:A:C5'	2.39	0.42
1:0:1011:A:N6	1:0:1166:A:C8	2.88	0.42
1:0:1287:A:C2	1:0:1661:C:O2'	2.73	0.42
1:0:1571:G:H2'	1:0:1572:C:O4'	2.20	0.42
1:0:1337:G:O2'	1:0:1632:A:C6	2.72	0.42
1:0:1894:U:H3	1:0:1901:A:H61	1.66	0.42
1:0:238:G:O4'	1:0:618:A:H2	2.03	0.42
1:0:298:C:H2'	1:0:299:C:C6	2.55	0.42
1:0:458:G:H4'	1:0:461:A:N3	2.35	0.42
1:0:528:G:H2'	1:0:529:U:C6	2.54	0.42
1:0:73:A:H2'	1:0:74:G:OP2	2.20	0.42
1:0:1125:G:H2'	1:0:1126:A:O4'	2.18	0.42
1:0:1029:C:N4	1:0:1153:A:C6	2.85	0.42
1:0:1550:C:C2'	1:0:1551:U:O5'	2.68	0.42
1:0:1749:G:H2'	1:0:1750:A:OP1	2.19	0.42
1:0:742:G:N2	1:0:1766:U:C1'	2.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2087:U:H2'	1:0:2088:U:C6	2.54	0.42
1:0:2301:A:C2'	1:0:2302:G:H5'	2.50	0.42
1:0:2538:C:H2'	1:0:2539:C:H6	1.85	0.42
1:0:346:C:O2'	1:0:347:C:H5'	2.19	0.42
1:0:387:A:O5'	1:0:436:A:N7	2.53	0.42
1:0:461:A:H61	1:0:466:A:N6	2.17	0.42
1:0:879:A:H2'	1:0:880:C:O5'	2.20	0.42
1:0:1205:G:O2'	1:0:1206:G:H5'	2.20	0.42
1:0:1271:C:H2'	1:0:1272:G:C8	2.55	0.42
1:0:1552:C:C2'	1:0:1553:G:H5'	2.50	0.42
1:0:1542:G:N2	1:0:1561:A:H62	2.18	0.42
1:0:1514:C:OP2	1:0:1593:C:H5''	2.19	0.42
1:0:174:A:H2'	1:0:175:C:O4'	2.20	0.42
1:0:1770:U:H3'	1:0:1770:U:H6	1.85	0.42
1:0:1900:U:O2'	1:0:1946:U:C5'	2.68	0.42
1:0:1883:A:H1'	1:0:1953:A:C8	2.55	0.42
1:0:1922:U:HO2'	1:0:2571:G:C1'	2.33	0.42
1:0:2696:A:H2'	1:0:2697:G:C8	2.53	0.42
1:0:2756:A:N6	1:0:2762:G:C4	2.88	0.42
1:0:332:C:H5''	1:0:333:A:OP2	2.20	0.42
1:0:801:A:HO2'	1:0:802:A:P	2.42	0.42
1:0:805:G:O6	1:0:2419:C:O4'	2.38	0.42
1:0:914:C:H2'	1:0:915:C:H6	1.83	0.42
1:0:577:U:H5'	1:0:956:A:H62	1.85	0.42
1:0:180:C:H6	1:0:180:C:O5'	2.02	0.41
1:0:200:A:H1'	1:0:432:C:N3	2.35	0.41
1:0:2309:G:O2'	1:0:2310:G:H5'	2.19	0.41
1:0:244:C:H2'	1:0:245:C:C5'	2.41	0.41
1:0:2526:U:H2'	1:0:2527:G:H8	1.81	0.41
1:0:2034:A:N6	1:0:2593:A:C5	2.88	0.41
1:0:310:A:C4	1:0:333:A:N6	2.88	0.41
1:0:1354:A:N6	1:0:1407:G:H1	2.14	0.41
1:0:1440:G:H3'	1:0:1441:A:C5'	2.50	0.41
1:0:1548:U:H2'	1:0:1549:C:H6	1.85	0.41
1:0:1635:G:H2'	1:0:1635:G:N3	2.33	0.41
1:0:1312:G:N2	1:0:1657:A:H5'	2.35	0.41
1:0:1899:A:O5'	1:0:1899:A:H8	2.03	0.41
1:0:1900:U:O2'	1:0:1946:U:H5''	2.19	0.41
1:0:1975:G:N2	1:0:1979:C:H5	2.13	0.41
1:0:2038:C:OP1	1:0:2039:G:H4'	2.20	0.41
1:0:2326:C:N4	1:0:2350:G:N2	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2491:C:H42	1:0:2553:G:H1	1.67	0.41
1:0:2505:G:N1	1:0:2517:C:C2	2.88	0.41
1:0:298:C:H2'	1:0:299:C:H6	1.83	0.41
1:0:367:G:C2'	1:0:368:A:H5''	2.49	0.41
1:0:42:G:H2'	1:0:43:A:O4'	2.19	0.41
1:0:439:C:H5''	1:0:440:U:C5	2.56	0.41
1:0:524:A:H2'	1:0:525:A:C8	2.55	0.41
1:0:634:G:O2'	1:0:635:C:H5'	2.20	0.41
1:0:73:A:O3'	1:0:74:G:C4'	2.66	0.41
1:0:805:G:H5'	1:0:805:G:H8	1.85	0.41
1:0:817:A:H2'	1:0:819:C:N4	2.35	0.41
1:0:984:A:H2	1:0:1200:G:N1	2.15	0.41
1:0:1159:U:O2'	1:0:1160:C:H5'	2.20	0.41
1:0:1550:C:H2'	1:0:1551:U:O5'	2.20	0.41
1:0:1750:A:C8	1:0:2675:U:H1'	2.56	0.41
1:0:1762:C:O2'	1:0:1777:A:O4'	2.37	0.41
1:0:1872:A:H2'	1:0:1873:A:C8	2.56	0.41
1:0:1873:A:H4'	1:0:2069:U:H4'	2.02	0.41
1:0:2015:G:H2'	1:0:2015:G:N3	2.34	0.41
1:0:2281:C:O5'	1:0:2281:C:H6	2.04	0.41
1:0:2484:G:H5'	2:0:2881:TEL:C57	2.48	0.41
1:0:2496:C:C4	1:0:2521:A:N6	2.88	0.41
1:0:2741:G:H2'	1:0:2742:G:C8	2.55	0.41
1:0:321:A:H4'	1:0:322:A:N7	2.36	0.41
1:0:346:C:O2	1:0:346:C:C2'	2.68	0.41
1:0:477:A:H1'	1:0:696:U:O4'	2.20	0.41
1:0:610:G:N2	1:0:614:G:O3'	2.53	0.41
1:0:847:C:H41	1:0:955:G:N2	2.18	0.41
1:0:980:G:H2'	1:0:981:C:O4'	2.20	0.41
1:0:1078:A:H2'	1:0:1079:G:C8	2.49	0.41
1:0:1083:C:C4	1:0:1104:G:O6	2.73	0.41
1:0:114:C:O2'	1:0:115:G:H5'	2.21	0.41
1:0:1166:A:H2'	1:0:1167:A:H5''	2.02	0.41
1:0:1221:C:H2'	1:0:1222:G:C8	2.55	0.41
1:0:1211:G:N2	1:0:1263:G:C4	2.88	0.41
1:0:1684:G:H2'	1:0:1685:A:OP2	2.20	0.41
1:0:1739:G:H2'	1:0:1740:G:H8	1.85	0.41
1:0:1783:G:O2'	1:0:1784:C:H5'	2.20	0.41
1:0:16:G:HO2'	1:0:17:G:H5'	1.80	0.41
1:0:1945:C:O2'	1:0:1946:U:C6	2.73	0.41
1:0:2698:G:H2'	1:0:2699:G:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:593:C:H6	1:0:593:C:O5'	2.04	0.41
1:0:58:C:O4'	1:0:72:A:C8	2.74	0.41
1:0:718:A:N6	1:0:739:G:O2'	2.52	0.41
1:0:1316:G:C6	1:0:1317:G:N7	2.88	0.41
1:0:1454:U:H2'	1:0:1455:C:C6	2.55	0.41
1:0:1685:A:N1	1:0:1691:G:H1'	2.36	0.41
1:0:1723:U:O5'	1:0:1723:U:H6	2.03	0.41
1:0:197:G:OP2	1:0:439:C:OP2	2.38	0.41
1:0:2061:C:C5'	1:0:2413:A:H4'	2.50	0.41
1:0:2433:G:O6	1:0:2477:C:N4	2.54	0.41
1:0:1467:U:HO2'	1:0:2681:A:N6	2.18	0.41
1:0:2871:U:H2'	1:0:2872:U:C6	2.55	0.41
1:0:369:C:O2'	1:0:370:U:H5'	2.20	0.41
1:0:742:G:N2	1:0:1766:U:N1	2.68	0.41
1:0:751:G:N3	1:0:752:G:H1'	2.35	0.41
1:0:779:U:O5'	1:0:779:U:H6	2.03	0.41
1:0:781:G:H2'	1:0:782:U:C6	2.56	0.41
1:0:81:C:H4'	1:0:307:C:H5'	2.01	0.41
1:0:846:A:H2'	1:0:847:C:H6	1.84	0.41
1:0:1191:G:O2'	1:0:1192:A:H5'	2.20	0.41
1:0:1545:G:N2	1:0:1558:C:O2	2.54	0.41
1:0:1462:C:O2'	1:0:1560:A:H1'	2.19	0.41
1:0:1972:G:H2'	1:0:1973:C:O4'	2.21	0.41
1:0:197:G:C1'	1:0:211:U:H1'	2.45	0.41
1:0:2226:A:H2'	1:0:2227:C:C6	2.55	0.41
1:0:2314:A:H1'	1:0:2315:A:N7	2.35	0.41
1:0:2514:G:H2'	1:0:2515:G:H8	1.85	0.41
1:0:346:C:C2'	1:0:347:C:H5'	2.51	0.41
1:0:462:G:H8	1:0:462:G:O5'	2.03	0.41
1:0:474:G:C6	1:0:478:G:O6	2.73	0.41
1:0:459:A:N7	1:0:484:G:C5	2.89	0.41
1:0:919:U:C4	1:0:920:G:N7	2.88	0.41
1:0:1033:G:O2'	1:0:1035:G:N7	2.54	0.41
1:0:1273:G:H2'	1:0:1274:C:C6	2.56	0.41
1:0:1588:A:H2'	1:0:1589:G:C8	2.50	0.41
1:0:1629:G:C6	1:0:1633:C:N4	2.89	0.41
1:0:1761:G:C2'	1:0:1762:C:H5'	2.49	0.41
1:0:2018:G:HO2'	1:0:2019:C:P	2.39	0.41
1:0:2034:A:H2	1:0:2035:G:O6	2.03	0.41
1:0:2302:G:H2'	1:0:2303:C:O4'	2.19	0.41
1:0:2382:C:N3	1:0:2393:G:N2	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1139:A:N6	1:0:2497:A:H61	2.16	0.41
1:0:2684:A:H3'	1:0:2685:A:H8	1.85	0.41
1:0:357:A:H3'	1:0:358:C:H5'	2.02	0.41
1:0:774:A:O5'	1:0:774:A:H8	2.04	0.41
1:0:833:A:H1'	1:0:954:U:O2'	2.21	0.41
1:0:9:U:O2'	1:0:10:A:H5'	2.20	0.41
1:0:1219:C:H2'	1:0:1220:G:O5'	2.21	0.41
1:0:1260:A:C2'	1:0:1261:G:O5'	2.68	0.41
1:0:1341:G:H2'	1:0:1343:C:C5	2.55	0.41
1:0:162:C:H5'	1:0:195:A:C1'	2.41	0.41
1:0:1698:C:H2'	1:0:1753:A:H2'	2.01	0.41
1:0:1755:G:H2'	1:0:1756:C:C6	2.56	0.41
1:0:1809:G:H2'	1:0:1810:U:O4'	2.21	0.41
1:0:2633:A:C5'	1:0:2634:G:OP1	2.68	0.41
1:0:387:A:N6	1:0:388:G:N2	2.69	0.41
1:0:545:C:N4	1:0:546:A:N6	2.68	0.41
1:0:677:G:C2'	1:0:678:G:H5'	2.50	0.41
1:0:922:A:H2'	1:0:923:A:C8	2.56	0.41
1:0:1045:G:H2'	1:0:1046:U:C6	2.56	0.41
1:0:1057:A:H3'	1:0:1058:G:H5''	2.00	0.41
1:0:1035:G:H21	1:0:1155:G:C5'	2.34	0.41
1:0:122:G:N2	1:0:124:A:H4'	2.36	0.41
1:0:1281:A:H1'	1:0:2592:U:O2	2.21	0.41
1:0:1342:U:C5'	1:0:1343:C:H5	2.34	0.41
1:0:1394:G:H1'	1:0:1587:A:C2	2.56	0.41
1:0:1450:G:H2'	1:0:1451:C:O4'	2.20	0.41
1:0:1856:U:O3'	1:0:2388:G:O2'	2.39	0.41
1:0:2434:G:H2'	1:0:2435:C:C6	2.56	0.41
1:0:26:G:C6	1:0:27:G:C2	3.09	0.41
1:0:340:G:C5'	1:0:341:A:OP1	2.65	0.41
1:0:200:A:C6	1:0:435:A:N7	2.88	0.41
1:0:700:C:C1'	1:0:801:A:O4'	2.69	0.41
1:0:853:C:H2'	1:0:854:G:H8	1.86	0.41
1:0:1184:G:C6	1:0:1185:C:N4	2.89	0.41
1:0:1548:U:H2'	1:0:1549:C:C6	2.56	0.41
1:0:1749:G:C2'	1:0:1750:A:OP1	2.69	0.41
1:0:1777:A:O2'	1:0:1778:U:P	2.77	0.41
1:0:1908:C:O5'	1:0:1908:C:H6	2.03	0.41
1:0:2334:C:H3'	1:0:2335:U:C5'	2.50	0.41
1:0:2380:U:O2	1:0:2380:U:H2'	2.20	0.41
1:0:2404:A:O2'	1:0:2405:A:OP2	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2519:C:H2'	1:0:2520:A:O4'	2.21	0.41
1:0:2498:U:H5'	1:0:2546:G:H21	1.86	0.41
1:0:2571:G:C5	1:0:2572:U:C4	3.08	0.41
1:0:2746:G:N3	1:0:2746:G:C2'	2.83	0.41
1:0:2830:U:H2'	1:0:2831:A:C8	2.52	0.41
1:0:306:G:H2'	1:0:307:C:C6	2.56	0.41
1:0:200:A:H4'	1:0:432:C:O2	2.21	0.41
1:0:434:C:H2'	1:0:435:A:OP2	2.21	0.41
1:0:459:A:H1'	1:0:466:A:N6	2.36	0.41
1:0:486:U:OP2	1:0:486:U:C6	2.74	0.41
1:0:767:G:H2'	1:0:768:U:C6	2.55	0.41
1:0:889:C:O2'	1:0:890:U:H5'	2.20	0.41
1:0:1018:C:O5'	1:0:1018:C:H6	2.04	0.41
1:0:1038:U:O2'	1:0:1039:A:H5'	2.21	0.41
1:0:1286:U:H4'	1:0:1288:A:OP1	2.21	0.41
1:0:1333:G:N7	1:0:1342:U:H5'	2.35	0.41
1:0:1352:G:H2'	1:0:1353:A:C8	2.56	0.41
1:0:1452:U:C2'	1:0:1453:A:H5'	2.51	0.41
1:0:1618:U:O2	1:0:1618:U:O5'	2.38	0.41
1:0:1619:A:N3	1:0:1619:A:O5'	2.54	0.41
1:0:1661:C:H2'	1:0:1662:G:C8	2.56	0.41
1:0:1672:A:C2	1:0:2032:G:H4'	2.56	0.41
1:0:1750:A:H5''	1:0:2695:C:H1'	2.02	0.41
1:0:991:A:C2	1:0:2020:G:N3	2.89	0.41
1:0:212:U:H2'	1:0:213:C:C6	2.55	0.41
1:0:172:A:H1'	1:0:228:A:H1'	2.03	0.41
1:0:2357:A:H2'	1:0:2358:C:H5'	2.03	0.41
1:0:2262:C:C5	1:0:2368:G:H2'	2.56	0.41
1:0:2616:U:H3	1:0:2756:A:H62	1.69	0.41
1:0:2823:G:O2'	1:0:2843:A:N6	2.54	0.41
1:0:324:C:H2'	1:0:325:U:H5'	2.02	0.41
1:0:487:G:H4'	1:0:511:A:N6	2.36	0.41
1:0:605:G:N1	1:0:606:A:C6	2.90	0.41
1:0:871:U:H1'	1:0:2248:A:H5''	2.03	0.41
1:0:1141:U:O2'	1:0:1142:G:P	2.78	0.40
1:0:13:A:H4'	1:0:14:A:H8	1.86	0.40
1:0:1419:G:H2'	1:0:1420:A:O4'	2.20	0.40
1:0:1456:C:H2'	1:0:1457:A:H8	1.86	0.40
1:0:1681:A:C2	1:0:2706:U:C1'	3.00	0.40
1:0:1894:U:H6	1:0:1894:U:O5'	2.03	0.40
1:0:190:A:O2'	1:0:191:G:H5'	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2041:A:N1	2:0:2881:TEL:O48	2.45	0.40
1:0:2204:A:P	1:0:2204:A:H8	2.44	0.40
1:0:2532:G:C3'	1:0:2533:U:C5'	2.96	0.40
1:0:2843:A:N6	1:0:2844:G:N1	2.69	0.40
1:0:439:C:C4	1:0:440:U:C2	3.09	0.40
1:0:516:G:O2'	1:0:517:A:C8	2.73	0.40
1:0:853:C:N3	1:0:950:G:C6	2.89	0.40
1:0:1233:A:H2'	1:0:1234:C:OP1	2.22	0.40
1:0:1234:C:H2'	1:0:1235:C:H6	1.86	0.40
1:0:1446:U:H2'	1:0:1447:U:O4'	2.22	0.40
1:0:1458:A:H5''	1:0:1459:U:OP2	2.21	0.40
1:0:1597:A:H2'	1:0:1598:C:C6	2.56	0.40
1:0:171:G:C2	1:0:179:U:C2	3.09	0.40
1:0:173:A:HO2'	1:0:174:A:P	2.43	0.40
1:0:1778:U:O2'	1:0:1779:C:H5'	2.21	0.40
1:0:1816:G:O2'	1:0:1817:U:H5'	2.21	0.40
1:0:1994:U:H2'	1:0:1995:G:H5'	2.03	0.40
1:0:2082:C:O2'	1:0:2083:G:H5'	2.20	0.40
1:0:2322:U:C2'	1:0:2323:U:H5'	2.51	0.40
1:0:2633:A:C2	1:0:2644:A:H5''	2.56	0.40
1:0:2756:A:O2'	1:0:2757:G:C5'	2.69	0.40
1:0:178:C:O4'	1:0:399:G:N2	2.54	0.40
1:0:464:G:H2'	1:0:465:C:H6	1.86	0.40
1:0:619:A:H2'	1:0:620:G:H8	1.87	0.40
1:0:748:A:H3'	1:0:749:C:C5	2.57	0.40
1:0:1294:G:N1	1:0:1302:C:N4	2.55	0.40
1:0:1406:A:H8	1:0:1406:A:O5'	2.04	0.40
1:0:1489:C:H3'	1:0:1490:U:C5'	2.51	0.40
1:0:14:A:N6	1:0:15:G:H21	2.19	0.40
1:0:1679:U:C2'	1:0:1680:U:C5'	2.97	0.40
1:0:1688:U:N3	1:0:1691:G:OP2	2.52	0.40
1:0:2264:C:H2'	1:0:2265:A:H5'	2.02	0.40
1:0:2783:U:C2	1:0:2866:A:N6	2.89	0.40
1:0:2816:C:O2	1:0:2852:G:N1	2.54	0.40
1:0:2862:G:O2'	1:0:2863:U:H5'	2.21	0.40
1:0:474:G:N2	1:0:476:G:C8	2.87	0.40
1:0:686:C:H2'	1:0:687:G:H8	1.86	0.40
1:0:701:U:H6	1:0:701:U:O5'	2.04	0.40
1:0:743:A:C6	1:0:744:C:C4	3.10	0.40
1:0:796:A:C2	1:0:797:A:H4'	2.57	0.40
1:0:1135:C:O2'	1:0:1136:G:H5'	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1145:C:O5'	1:0:1146:G:OP2	2.39	0.40
1:0:1308:C:H2'	1:0:1309:G:H8	1.87	0.40
1:0:1450:G:O2'	1:0:1451:C:H5'	2.21	0.40
1:0:1676:U:O2'	1:0:1677:C:H5'	2.22	0.40
1:0:185:C:O2'	1:0:186:C:H5'	2.22	0.40
1:0:2363:G:H2'	1:0:2364:C:OP1	2.21	0.40
1:0:2377:U:O2'	1:0:2378:G:OP1	2.36	0.40
1:0:2499:C:N1	1:0:2546:G:H1'	2.37	0.40
1:0:2548:G:C2'	1:0:2549:G:C5'	3.00	0.40
1:0:2792:C:H3'	1:0:2793:G:H5''	2.04	0.40
1:0:2852:G:H2'	1:0:2853:U:H5'	2.03	0.40
1:0:329:C:H2'	1:0:330:C:C6	2.57	0.40
1:0:541:C:N4	1:0:572:G:H5''	2.36	0.40
1:0:683:A:H5''	1:0:684:C:O5'	2.21	0.40
1:0:698:A:C4'	1:0:700:C:H5	2.35	0.40
1:0:844:G:H2'	1:0:845:U:O4'	2.21	0.40
1:0:924:C:H2'	1:0:925:U:O4'	2.22	0.40
1:0:874:A:C4	1:0:929:A:N6	2.89	0.40
1:0:873:U:N3	1:0:930:A:C6	2.69	0.40
1:0:834:A:O2'	1:0:955:G:H4'	2.22	0.40
1:0:1029:C:H6	1:0:1029:C:O5'	2.05	0.40
1:0:1177:U:C2	1:0:1197:U:O2	2.75	0.40
1:0:1340:C:O2'	1:0:1341:G:H5'	2.21	0.40
1:0:1366:A:N7	1:0:1390:G:C2	2.89	0.40
1:0:1430:G:H2'	1:0:1431:U:C6	2.56	0.40
1:0:1706:A:H2'	1:0:1707:A:C5'	2.51	0.40
1:0:1725:C:O2'	1:0:1726:C:H5'	2.22	0.40
1:0:174:A:H2	1:0:2413:A:H62	1.69	0.40
1:0:1938:U:O2	1:0:1938:U:C2'	2.69	0.40
1:0:1987:G:H2'	1:0:1988:A:C5'	2.52	0.40
1:0:2104:G:H2'	1:0:2105:U:C6	2.56	0.40
1:0:2160:C:H2'	1:0:2161:C:C6	2.56	0.40
1:0:2236:U:H2'	1:0:2237:C:O4'	2.22	0.40
1:0:2322:U:H4'	1:0:2352:A:O3'	2.22	0.40
1:0:2691:C:H5''	1:0:2694:G:H5'	2.04	0.40
1:0:38:G:H2'	1:0:39:C:H6	1.80	0.40
1:0:441:A:H2'	1:0:442:A:H5'	2.04	0.40
1:0:516:G:H5''	1:0:519:C:H1'	2.04	0.40
1:0:839:U:N3	1:0:841:G:H1'	2.36	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

There are no protein molecules in this entry.

5.3.2 Protein sidechains [i](#)

There are no protein molecules in this entry.

5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	0	2726/2880 (94%)	580 (21%)	0

All (580) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	0	13	A
1	0	14	A
1	0	15	G
1	0	45	C
1	0	50	G
1	0	51	A
1	0	58	C
1	0	59	G
1	0	63	A
1	0	70	A
1	0	72	A
1	0	74	G
1	0	75	C
1	0	83	A
1	0	87	G
1	0	89	A
1	0	90	G
1	0	91	A
1	0	97	U
1	0	99	U
1	0	100	G
1	0	110	U
1	0	116	A
1	0	117	A
1	0	118	U

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Mol	Chain	Res	Type
1	0	119	G
1	0	123	A
1	0	124	A
1	0	129	A
1	0	135	U
1	0	149	A
1	0	155	G
1	0	158	A
1	0	173	A
1	0	174	A
1	0	176	A
1	0	177	U
1	0	182	G
1	0	193	A
1	0	199	A
1	0	200	A
1	0	201	G
1	0	205	A
1	0	206	U
1	0	207	U
1	0	210	A
1	0	218	A
1	0	219	G
1	0	220	U
1	0	225	G
1	0	227	G
1	0	229	G
1	0	242	A
1	0	244	C
1	0	245	C
1	0	302	U
1	0	303	C
1	0	305	A
1	0	312	G
1	0	322	A
1	0	334	G
1	0	335	A
1	0	340	G
1	0	341	A
1	0	343	A
1	0	348	U
1	0	358	C

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Mol	Chain	Res	Type
1	0	363	G
1	0	368	A
1	0	372	U
1	0	373	A
1	0	389	G
1	0	390	U
1	0	392	G
1	0	393	U
1	0	397	U
1	0	399	G
1	0	402	A
1	0	403	A
1	0	431	G
1	0	432	C
1	0	433	G
1	0	434	C
1	0	435	A
1	0	437	G
1	0	438	G
1	0	440	U
1	0	455	A
1	0	456	C
1	0	459	A
1	0	460	U
1	0	461	A
1	0	463	C
1	0	467	U
1	0	469	G
1	0	484	G
1	0	486	U
1	0	491	A
1	0	492	G
1	0	514	G
1	0	515	A
1	0	517	A
1	0	518	A
1	0	519	C
1	0	520	C
1	0	537	C
1	0	538	A
1	0	540	G
1	0	541	C

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Mol	Chain	Res	Type
1	0	542	A
1	0	554	U
1	0	555	U
1	0	556	A
1	0	558	G
1	0	559	C
1	0	560	G
1	0	572	G
1	0	582	G
1	0	584	A
1	0	587	A
1	0	596	C
1	0	601	A
1	0	602	C
1	0	613	A
1	0	616	U
1	0	617	U
1	0	624	A
1	0	632	A
1	0	638	A
1	0	639	G
1	0	648	A
1	0	652	C
1	0	654	A
1	0	667	U
1	0	669	G
1	0	683	A
1	0	684	C
1	0	698	A
1	0	699	G
1	0	700	C
1	0	712	A
1	0	728	G
1	0	742	G
1	0	743	A
1	0	753	U
1	0	760	U
1	0	761	G
1	0	765	C
1	0	766	A
1	0	775	U
1	0	778	G

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Mol	Chain	Res	Type
1	0	787	A
1	0	789	G
1	0	790	A
1	0	794	A
1	0	795	A
1	0	796	A
1	0	797	A
1	0	798	G
1	0	801	A
1	0	802	A
1	0	803	C
1	0	804	C
1	0	805	G
1	0	806	A
1	0	807	A
1	0	815	A
1	0	818	G
1	0	819	C
1	0	825	C
1	0	832	A
1	0	840	U
1	0	841	G
1	0	843	G
1	0	844	G
1	0	860	U
1	0	869	C
1	0	873	U
1	0	880	C
1	0	919	U
1	0	922	A
1	0	926	C
1	0	930	A
1	0	931	G
1	0	939	C
1	0	941	U
1	0	943	U
1	0	944	A
1	0	952	A
1	0	956	A
1	0	957	G
1	0	969	U
1	0	970	A

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Mol	Chain	Res	Type
1	0	972	C
1	0	984	A
1	0	985	G
1	0	990	A
1	0	994	A
1	0	996	C
1	0	1016	C
1	0	1019	U
1	0	1023	U
1	0	1024	G
1	0	1030	U
1	0	1032	A
1	0	1033	G
1	0	1034	U
1	0	1036	G
1	0	1037	U
1	0	1044	U
1	0	1055	A
1	0	1056	U
1	0	1057	A
1	0	1058	G
1	0	1059	A
1	0	1067	G
1	0	1071	U
1	0	1073	G
1	0	1074	G
1	0	1081	A
1	0	1082	G
1	0	1087	C
1	0	1090	C
1	0	1099	A
1	0	1130	U
1	0	1137	A
1	0	1138	A
1	0	1141	U
1	0	1142	G
1	0	1145	C
1	0	1146	G
1	0	1152	C
1	0	1153	A
1	0	1155	G
1	0	1166	A

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Mol	Chain	Res	Type
1	0	1167	A
1	0	1183	C
1	0	1185	C
1	0	1195	U
1	0	1199	U
1	0	1200	G
1	0	1223	G
1	0	1224	A
1	0	1233	A
1	0	1235	C
1	0	1250	A
1	0	1251	G
1	0	1253	C
1	0	1261	G
1	0	1262	U
1	0	1264	C
1	0	1265	G
1	0	1267	A
1	0	1269	G
1	0	1274	C
1	0	1278	A
1	0	1279	G
1	0	1284	G
1	0	1285	A
1	0	1286	U
1	0	1288	A
1	0	1289	A
1	0	1300	A
1	0	1302	C
1	0	1313	U
1	0	1314	A
1	0	1316	G
1	0	1324	G
1	0	1327	C
1	0	1334	A
1	0	1338	G
1	0	1339	U
1	0	1342	U
1	0	1343	C
1	0	1346	C
1	0	1354	A
1	0	1356	G

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Mol	Chain	Res	Type
1	0	1359	G
1	0	1391	A
1	0	1392	U
1	0	1397	A
1	0	1398	G
1	0	1407	G
1	0	1411	C
1	0	1433	A
1	0	1441	A
1	0	1442	C
1	0	1443	G
1	0	1450	G
1	0	1459	U
1	0	1460	G
1	0	1468	A
1	0	1469	U
1	0	1470	G
1	0	1474	A
1	0	1475	U
1	0	1476	G
1	0	1482	U
1	0	1489	C
1	0	1490	U
1	0	1505	U
1	0	1508	G
1	0	1513	U
1	0	1514	C
1	0	1524	C
1	0	1529	C
1	0	1552	C
1	0	1553	G
1	0	1573	G
1	0	1574	A
1	0	1583	A
1	0	1585	A
1	0	1614	C
1	0	1618	U
1	0	1619	A
1	0	1623	C
1	0	1624	A
1	0	1625	A
1	0	1627	C

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Mol	Chain	Res	Type
1	0	1631	C
1	0	1634	A
1	0	1635	G
1	0	1648	C
1	0	1652	G
1	0	1657	A
1	0	1664	G
1	0	1665	C
1	0	1670	G
1	0	1671	A
1	0	1680	U
1	0	1685	A
1	0	1686	A
1	0	1691	G
1	0	1692	C
1	0	1699	A
1	0	1711	C
1	0	1712	G
1	0	1715	A
1	0	1716	G
1	0	1717	A
1	0	1724	C
1	0	1733	U
1	0	1748	U
1	0	1749	G
1	0	1750	A
1	0	1754	G
1	0	1755	G
1	0	1763	G
1	0	1764	A
1	0	1770	U
1	0	1771	A
1	0	1772	C
1	0	1773	C
1	0	1776	A
1	0	1778	U
1	0	1792	C
1	0	1799	A
1	0	1800	A
1	0	1801	C
1	0	1802	A
1	0	1807	A

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Mol	Chain	Res	Type
1	0	1808	C
1	0	1812	U
1	0	1821	A
1	0	1831	G
1	0	1840	A
1	0	1864	G
1	0	1884	A
1	0	1889	G
1	0	1900	U
1	0	1909	U
1	0	1919	A
1	0	1920	A
1	0	1922	U
1	0	1924	C
1	0	1926	U
1	0	1927	U
1	0	1928	G
1	0	1930	C
1	0	1933	G
1	0	1938	U
1	0	1939	U
1	0	1946	U
1	0	1947	G
1	0	1948	C
1	0	1949	A
1	0	1950	C
1	0	1953	A
1	0	1954	A
1	0	1955	G
1	0	1956	G
1	0	1964	A
1	0	1975	G
1	0	1976	U
1	0	1979	C
1	0	1980	A
1	0	2002	A
1	0	2003	A
1	0	2004	U
1	0	2005	U
1	0	2006	G
1	0	2013	A
1	0	2014	A

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Mol	Chain	Res	Type
1	0	2015	G
1	0	2016	A
1	0	2019	C
1	0	2026	C
1	0	2038	C
1	0	2039	G
1	0	2043	A
1	0	2044	G
1	0	2045	A
1	0	2046	C
1	0	2047	C
1	0	2050	G
1	0	2051	U
1	0	2052	G
1	0	2060	A
1	0	2075	U
1	0	2076	G
1	0	2082	C
1	0	2094	C
1	0	2096	U
1	0	2118	A
1	0	2119	A
1	0	2121	U
1	0	2140	G
1	0	2162	C
1	0	2168	A
1	0	2181	A
1	0	2191	A
1	0	2192	U
1	0	2195	C
1	0	2199	C
1	0	2205	C
1	0	2218	G
1	0	2229	G
1	0	2230	G
1	0	2241	U
1	0	2245	A
1	0	2246	A
1	0	2247	A
1	0	2255	G
1	0	2262	C
1	0	2265	A

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Mol	Chain	Res	Type
1	0	2267	A
1	0	2268	G
1	0	2284	U
1	0	2285	U
1	0	2286	G
1	0	2287	G
1	0	2288	A
1	0	2298	U
1	0	2299	A
1	0	2300	G
1	0	2301	A
1	0	2312	A
1	0	2313	G
1	0	2314	A
1	0	2315	A
1	0	2316	G
1	0	2324	G
1	0	2325	A
1	0	2326	C
1	0	2335	U
1	0	2340	C
1	0	2351	G
1	0	2362	G
1	0	2364	C
1	0	2378	G
1	0	2381	A
1	0	2385	U
1	0	2386	G
1	0	2389	G
1	0	2396	C
1	0	2402	U
1	0	2403	C
1	0	2405	A
1	0	2406	C
1	0	2407	G
1	0	2408	G
1	0	2409	A
1	0	2410	U
1	0	2411	A
1	0	2414	A
1	0	2419	C
1	0	2426	G

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Mol	Chain	Res	Type
1	0	2427	A
1	0	2428	U
1	0	2447	G
1	0	2448	A
1	0	2455	A
1	0	2470	U
1	0	2476	A
1	0	2477	C
1	0	2480	C
1	0	2481	G
1	0	2482	A
1	0	2483	U
1	0	2492	G
1	0	2496	C
1	0	2497	A
1	0	2498	U
1	0	2499	C
1	0	2521	A
1	0	2522	G
1	0	2533	U
1	0	2545	A
1	0	2546	G
1	0	2549	G
1	0	2551	A
1	0	2552	C
1	0	2553	G
1	0	2557	G
1	0	2561	G
1	0	2565	C
1	0	2578	G
1	0	2581	A
1	0	2582	G
1	0	2588	U
1	0	2589	C
1	0	2591	C
1	0	2593	A
1	0	2594	U
1	0	2600	A
1	0	2608	A
1	0	2609	G
1	0	2625	U
1	0	2633	A

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Mol	Chain	Res	Type
1	0	2634	G
1	0	2660	C
1	0	2661	G
1	0	2669	C
1	0	2670	C
1	0	2692	A
1	0	2693	U
1	0	2694	G
1	0	2706	U
1	0	2707	G
1	0	2712	G
1	0	2713	A
1	0	2719	U
1	0	2728	A
1	0	2730	A
1	0	2732	C
1	0	2735	C
1	0	2737	A
1	0	2745	A
1	0	2756	A
1	0	2757	G
1	0	2758	A
1	0	2759	U
1	0	2760	G
1	0	2761	A
1	0	2769	C
1	0	2771	C
1	0	2774	U
1	0	2782	G
1	0	2783	U
1	0	2785	A
1	0	2793	G
1	0	2796	A
1	0	2798	A
1	0	2805	G
1	0	2807	U
1	0	2808	U
1	0	2809	A
1	0	2810	A
1	0	2823	G
1	0	2825	A
1	0	2841	U

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Mol	Chain	Res	Type
1	0	2842	C
1	0	2847	G
1	0	2849	C
1	0	2854	G
1	0	2855	C
1	0	2858	A
1	0	2866	A
1	0	2867	G
1	0	2868	G

There are no RNA pucker outliers to report.

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 carbohydrates in this entry.

5.6 Ligand geometry [i](#)

1 ligand is modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
2	TEL	0	2881	-	60,62,62	3.57	30 (50%)	78,92,92	3.38	33 (42%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	TEL	0	2881	-	-	0/73/108/108	0/4/5/5

All (30) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	0	2881	TEL	C36-C40	-2.74	1.34	1.37
2	0	2881	TEL	C37-N41	-2.41	1.30	1.35
2	0	2881	TEL	C1-C2	2.15	1.57	1.51
2	0	2881	TEL	C12-C7	2.23	1.58	1.53
2	0	2881	TEL	O18-C13	2.27	1.25	1.21
2	0	2881	TEL	O29-C26	2.31	1.25	1.21
2	0	2881	TEL	C3-N6	2.50	1.53	1.47
2	0	2881	TEL	C36-N31	2.57	1.41	1.38
2	0	2881	TEL	O16-C10	2.66	1.25	1.21
2	0	2881	TEL	C8-C4	2.80	1.63	1.53
2	0	2881	TEL	C21-C15	2.87	1.57	1.51
2	0	2881	TEL	C33-C28	2.98	1.59	1.52
2	0	2881	TEL	C49-N53	3.08	1.55	1.48
2	0	2881	TEL	C28-C34	3.19	1.64	1.55
2	0	2881	TEL	O32-C28	3.20	1.51	1.44
2	0	2881	TEL	C10-N6	3.36	1.41	1.35
2	0	2881	TEL	C56-N52	3.47	1.44	1.33
2	0	2881	TEL	C44-C49	4.01	1.62	1.53
2	0	2881	TEL	C2-C4	4.11	1.66	1.54
2	0	2881	TEL	O5-C10	4.23	1.42	1.35
2	0	2881	TEL	C21-C26	4.77	1.60	1.53
2	0	2881	TEL	C30-C26	5.04	1.60	1.52
2	0	2881	TEL	C51-C46	5.88	1.50	1.38
2	0	2881	TEL	C11-N6	5.93	1.55	1.46
2	0	2881	TEL	C24-C19	5.97	1.62	1.54
2	0	2881	TEL	C47-C43	6.71	1.51	1.39
2	0	2881	TEL	O9-C15	7.31	1.51	1.34
2	0	2881	TEL	C24-C28	7.92	1.64	1.52
2	0	2881	TEL	C7-C3	8.69	1.65	1.54
2	0	2881	TEL	C30-C34	12.36	1.72	1.54

All (33) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	0	2881	TEL	C3-N6-C10	-11.25	96.35	111.77
2	0	2881	TEL	C11-N6-C10	-6.81	113.68	122.31
2	0	2881	TEL	O20-C15-C21	-6.73	115.73	124.71
2	0	2881	TEL	C2-O5-C10	-6.31	104.19	109.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	0	2881	TEL	O39-C34-C28	-6.25	91.39	106.47
2	0	2881	TEL	C1-C2-C3	-6.10	109.14	116.61
2	0	2881	TEL	C4-O9-C15	-4.93	109.31	118.14
2	0	2881	TEL	C36-C40-C43	-4.68	123.05	129.46
2	0	2881	TEL	C12-C7-C13	-4.37	100.44	108.08
2	0	2881	TEL	O9-C4-C8	-4.20	99.19	107.44
2	0	2881	TEL	C35-C30-C26	-3.68	101.64	108.08
2	0	2881	TEL	O32-C28-C34	-3.25	100.90	107.83
2	0	2881	TEL	C33-C28-C34	-3.24	104.74	109.80
2	0	2881	TEL	C1-C2-C4	-3.14	106.62	112.36
2	0	2881	TEL	C54-C49-N53	-2.73	108.05	115.83
2	0	2881	TEL	O29-C26-C30	-2.60	116.79	120.58
2	0	2881	TEL	C24-C19-C13	-2.60	108.72	113.38
2	0	2881	TEL	C54-C49-C44	-2.34	106.76	110.07
2	0	2881	TEL	C55-C50-C54	-2.32	109.68	113.39
2	0	2881	TEL	O39-C42-O45	-2.06	105.68	110.70
2	0	2881	TEL	O9-C15-O20	-2.06	119.86	123.90
2	0	2881	TEL	C23-C19-C24	2.01	113.71	109.89
2	0	2881	TEL	O32-C28-C24	2.02	110.43	105.87
2	0	2881	TEL	C14-C8-C4	2.02	118.43	113.19
2	0	2881	TEL	C37-N41-C40	2.62	108.96	103.42
2	0	2881	TEL	O5-C2-C1	2.64	111.53	107.09
2	0	2881	TEL	C17-C11-N6	2.79	117.15	113.48
2	0	2881	TEL	C56-N52-C47	2.86	121.84	116.83
2	0	2881	TEL	C28-C24-C19	5.31	125.17	116.17
2	0	2881	TEL	O9-C4-C2	5.39	117.95	105.50
2	0	2881	TEL	C24-C28-C34	5.93	117.61	110.21
2	0	2881	TEL	C42-O39-C34	7.02	128.76	116.29
2	0	2881	TEL	O9-C15-C21	12.48	124.38	110.96

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

1 monomer is involved in 11 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	0	2881	TEL	11	0

5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues ⓘ

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

EDS was not executed - this section is therefore empty.

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

EDS was not executed - this section is therefore empty.

6.3 Carbohydrates

EDS was not executed - this section is therefore empty.

6.4 Ligands

EDS was not executed - this section is therefore empty.

6.5 Other polymers

EDS was not executed - this section is therefore empty.