Full wwPDB EM Validation Report

Mar 12, 2026 – 06:19 AM UTC

PDB ID	:	5ADY / pdb_00005ady
EMDB ID	:	EMD-3133
Title	:	Cryo-EM structures of the 50S ribosome subunit bound with HflX
Authors	:	Zhang, Y.; Mandava, C.S.; Cao, W.; Li, X.; Zhang, D.; Li, N.; Zhang, Y.; Zhang, X.; Qin, Y.; Mi, K.; Lei, J.; Sanyal, S.; Gao, N.
Deposited on	:	2015-08-25
Resolution	:	4.50 Å(reported)
Based on initial model	:	3FIK

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

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/EMValidationReportHelp
with specific help available everywhere you see the (i) symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

The following versions of software and data (see references (1)) were used in the production of this report:

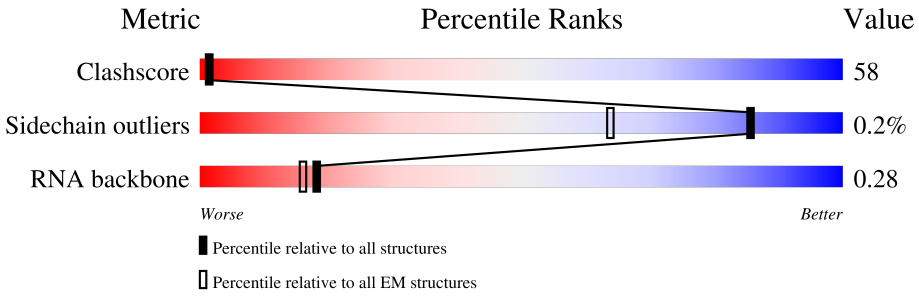
EMDB validation analysis	:	0.0.1.dev132
Mogul	:	2022.3.0, CSD as543be (2022)
MolProbity	:	4-5-2 with Phenix2.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics	:	202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

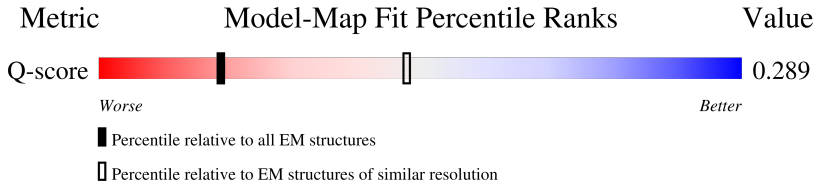
1 Overall quality at a glance

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

The reported resolution of this entry is 4.50 Å.

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





Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Sidechain outliers	223484	23102	-
RNA backbone	8273	3508	-
Q-score	-	25397	2937 (4.00 - 5.00)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion < 40%). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	0	57	18% 30% 65%
2	1	55	29% 42% 44% 7% 7%
3	2	46	24% 35% 61%
4	3	65	14% 49% 48%

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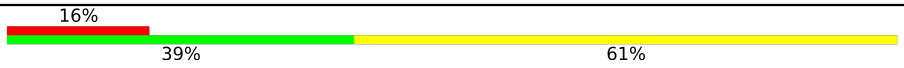
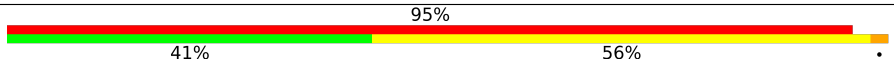
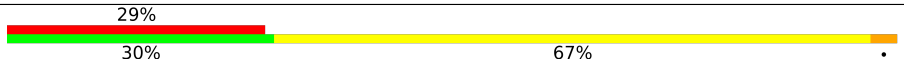
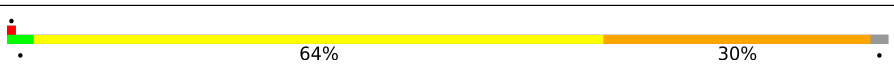
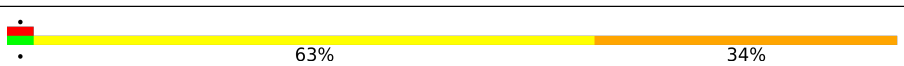
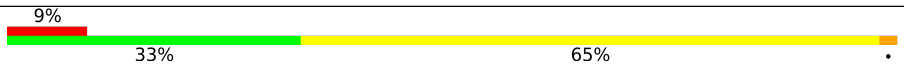
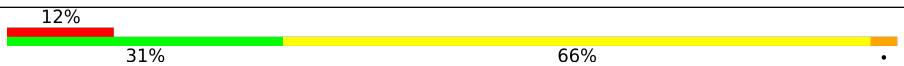
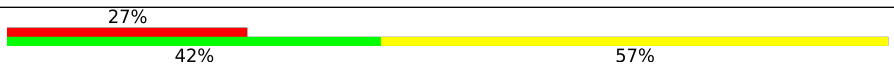
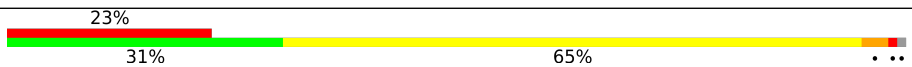
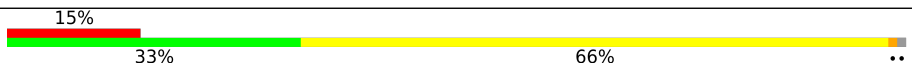
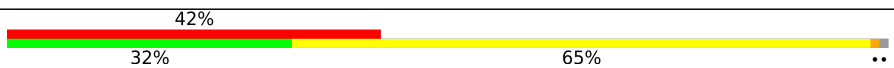
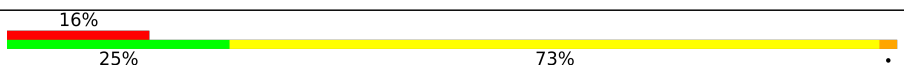
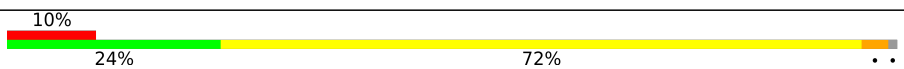
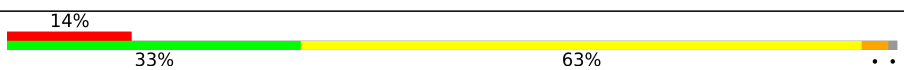
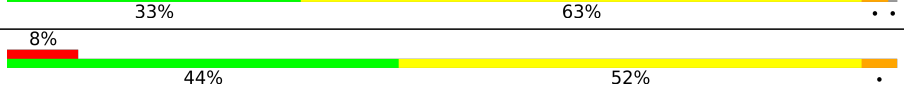
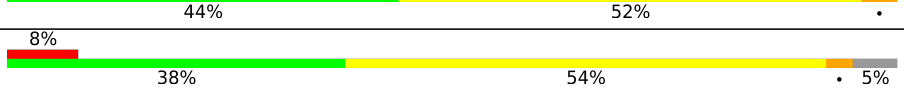
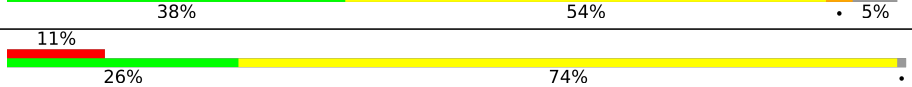
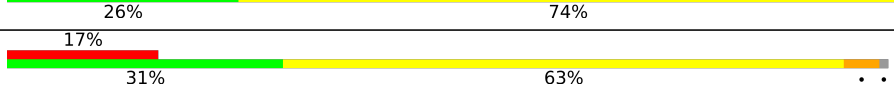
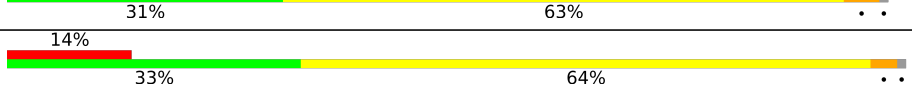
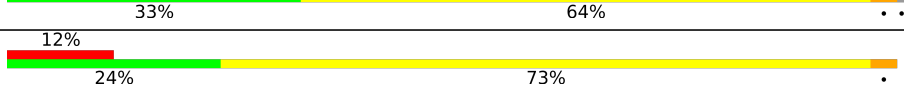
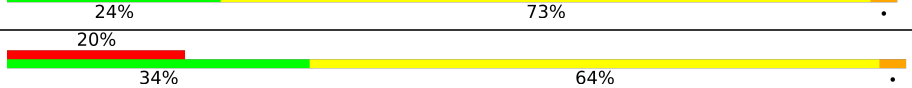
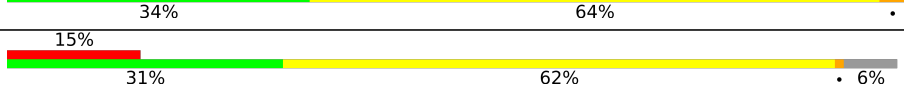
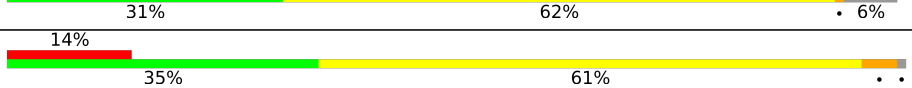
Mol	Chain	Length	Quality of chain
5	4	38	
6	5	234	
7	6	426	
8	7	165	
9	A	120	
10	B	2903	
11	C	273	
12	D	209	
13	E	201	
14	F	179	
15	G	177	
16	H	149	
17	I	142	
18	J	142	
19	K	123	
20	L	144	
21	M	136	
22	N	127	
23	O	117	
24	P	115	
25	Q	118	
26	R	103	
27	S	110	
28	T	100	
29	U	104	

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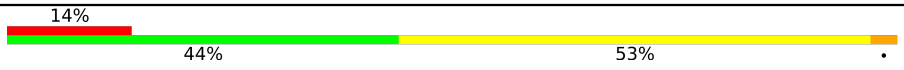
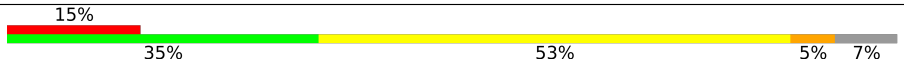
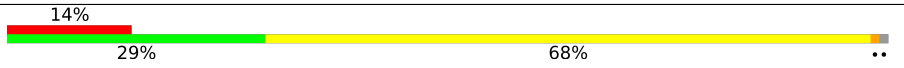
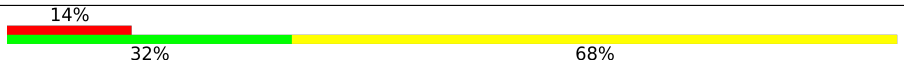
Mol	Chain	Length	Quality of chain
30	V	94	
31	W	85	
32	X	78	
33	Y	63	
34	Z	59	

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
35	GNP	6	527	-	-	X	-

2 Entry composition (i)

There are 36 unique types of molecules in this entry. The entry contains 97364 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called 50S RIBOSOMAL PROTEIN L32.

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

- Molecule 2 is a protein called 50S RIBOSOMAL PROTEIN L33.

Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
2	1	51	410	263	76	71	0	1

- Molecule 3 is a protein called 50S RIBOSOMAL PROTEIN L34.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	2	46	377	228	90	57	2	0	0

- Molecule 4 is a protein called 50S RIBOSOMAL PROTEIN L35.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	3	64	504	323	105	74	2	0	0

- Molecule 5 is a protein called 50S RIBOSOMAL PROTEIN L36.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	4	38	302	185	65	48	4	0	0

- Molecule 6 is a protein called 50S RIBOSOMAL PROTEIN L1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	5	234	1733	1081	315	330	7	0	0

- Molecule 7 is a protein called GTPASE HFLX.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	6	426	Total	C	N	O	S	0	0
			3403	2129	624	641	9		

- Molecule 8 is a protein called 50S RIBOSOMAL PROTEIN L10.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	7	164	Total	C	N	O	S	0	1
			1231	775	220	229	7		

- Molecule 9 is a RNA chain called 5S RRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	A	117	Total	C	N	O	P	0	0
			2504	1116	459	813	116		

- Molecule 10 is a RNA chain called 23S RRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	B	2903	Total	C	N	O	P	0	0
			62317	27801	11467	20147	2902		

There are 18 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
B	264	C	G	conflict	GB 731469900
B	542	C	U	conflict	GB 731469900
B	846	U	C	conflict	GB 731469900
B	1211	C	U	conflict	GB 731469900
B	1220	G	A	conflict	GB 731469900
B	1229	C	U	conflict	GB 731469900
B	1723	G	A	conflict	GB 731469900
B	1725	U	C	conflict	GB 731469900
B	1726	C	G	conflict	GB 731469900
B	1727	C	A	conflict	GB 731469900
B	1730	C	U	conflict	GB 731469900
B	1733	G	U	conflict	GB 731469900
B	1734	G	C	conflict	GB 731469900
B	1735	A	G	conflict	GB 731469900
B	2794	C	U	conflict	GB 731469900
B	2796	U	C	conflict	GB 731469900
B	2799	A	G	conflict	GB 731469900

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Chain	Residue	Modelled	Actual	Comment	Reference
B	2802	G	A	conflict	GB 731469900

- Molecule 11 is a protein called 50S RIBOSOMAL PROTEIN L2.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	C	272	Total	C	N	O	S	0	1
			2083	1288	424	364	7		

- Molecule 12 is a protein called 50S RIBOSOMAL PROTEIN L3.

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

- Molecule 13 is a protein called 50S RIBOSOMAL PROTEIN L4.

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

- Molecule 14 is a protein called 50S RIBOSOMAL PROTEIN L5.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	F	178	Total	C	N	O	S	0	0
			1420	905	251	258	6		

- Molecule 15 is a protein called 50S RIBOSOMAL PROTEIN L6.

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

- Molecule 16 is a protein called 50S RIBOSOMAL PROTEIN L9.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	H	149	Total	C	N	O	S	0	0
			1111	699	197	214	1		

- Molecule 17 is a protein called 50S RIBOSOMAL PROTEIN L11.

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

- Molecule 18 is a protein called 50S RIBOSOMAL PROTEIN L13.

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

- Molecule 19 is a protein called 50S RIBOSOMAL PROTEIN L14.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	K	122	Total	C	N	O	S	0	1
			931	582	180	164	5		

- Molecule 20 is a protein called 50S RIBOSOMAL PROTEIN L15.

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

- Molecule 21 is a protein called 50S RIBOSOMAL PROTEIN L16.

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

- Molecule 22 is a protein called 50S RIBOSOMAL PROTEIN L17.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	N	121	Total	C	N	O	S	0	1
			961	593	197	166	5		

- Molecule 23 is a protein called 50S RIBOSOMAL PROTEIN L18.

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

- Molecule 24 is a protein called 50S RIBOSOMAL PROTEIN L19.

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

- Molecule 25 is a protein called 50S RIBOSOMAL PROTEIN L20.

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

- Molecule 26 is a protein called 50S RIBOSOMAL PROTEIN L21.

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

- Molecule 27 is a protein called 50S RIBOSOMAL PROTEIN L22.

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

- Molecule 28 is a protein called 50S RIBOSOMAL PROTEIN L23.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	T	94	Total 739	C 466	N 140	O 131	S 2	0	1

- Molecule 29 is a protein called 50S RIBOSOMAL PROTEIN L24.

Mol	Chain	Residues	Atoms				AltConf	Trace
29	U	103	Total 780	C 492	N 147	O 141	0	1

- Molecule 30 is a protein called 50S RIBOSOMAL PROTEIN L25.

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

- Molecule 31 is a protein called 50S RIBOSOMAL PROTEIN L27.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	W	79	Total	C	N	O	S	0	0
			596	367	120	108	1		

- Molecule 32 is a protein called 50S RIBOSOMAL PROTEIN L28.

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

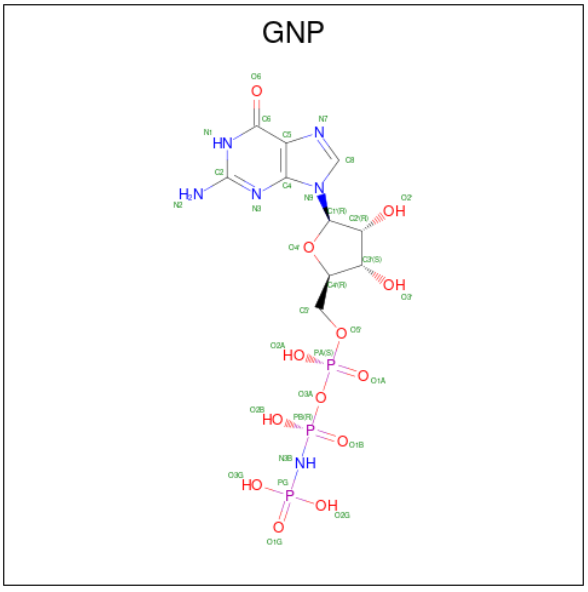
- Molecule 33 is a protein called 50S RIBOSOMAL PROTEIN L29.

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

- Molecule 34 is a protein called 50S RIBOSOMAL PROTEIN L30.

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

- Molecule 35 is PHOSPHOAMINOPHOSPHONIC ACID-GUANYLATE ESTER (CCD ID: GNP) (formula: $C_{10}H_{17}N_6O_{13}P_3$).



Mol	Chain	Residues	Atoms					AltConf
35	6	1	Total	C	N	O	P	0
			32	10	6	13	3	

- Molecule 36 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

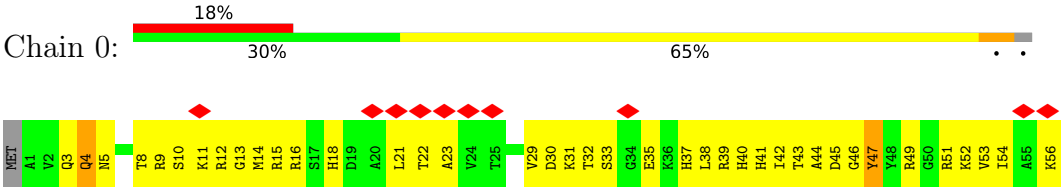
Mol	Chain	Residues	Atoms		AltConf
			Total	Mg	
36	6	1	1	1	0

3 Residue-property plots (i)

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

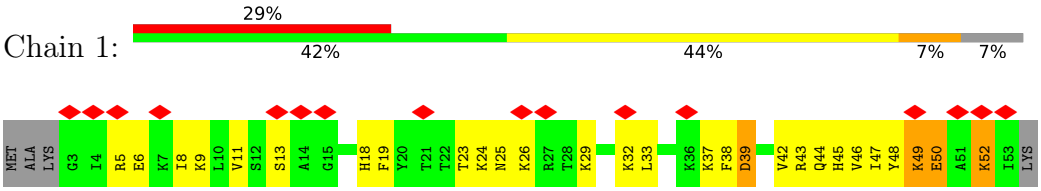
• Molecule 1: 50S RIBOSOMAL PROTEIN L32

Chain 0:



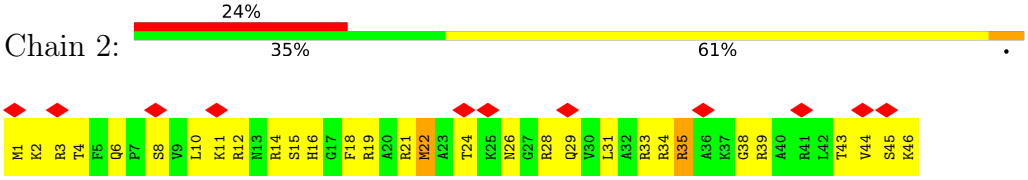
• Molecule 2: 50S RIBOSOMAL PROTEIN L33

Chain 1:



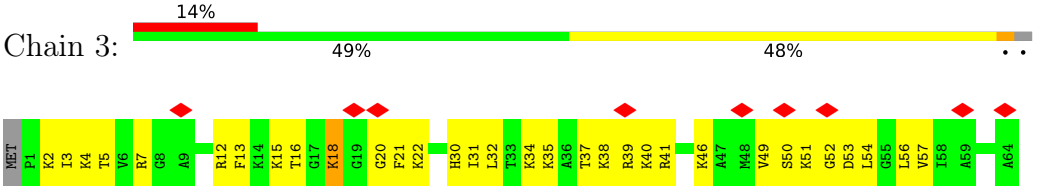
• Molecule 3: 50S RIBOSOMAL PROTEIN L34

Chain 2:



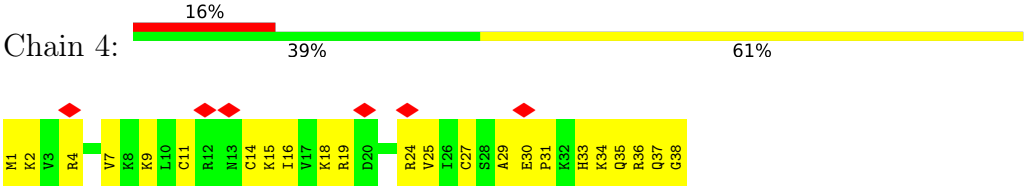
• Molecule 4: 50S RIBOSOMAL PROTEIN L35

Chain 3:



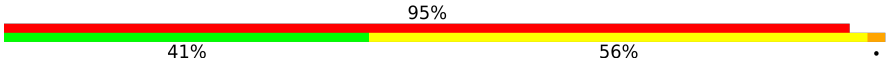
• Molecule 5: 50S RIBOSOMAL PROTEIN L36

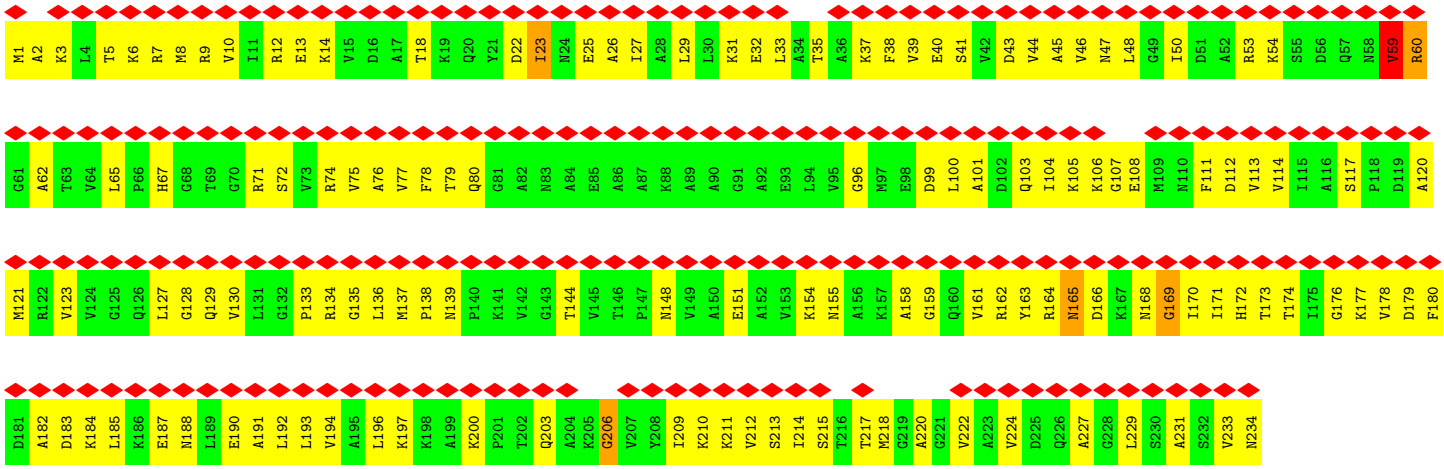
Chain 4:



• Molecule 6: 50S RIBOSOMAL PROTEIN L1

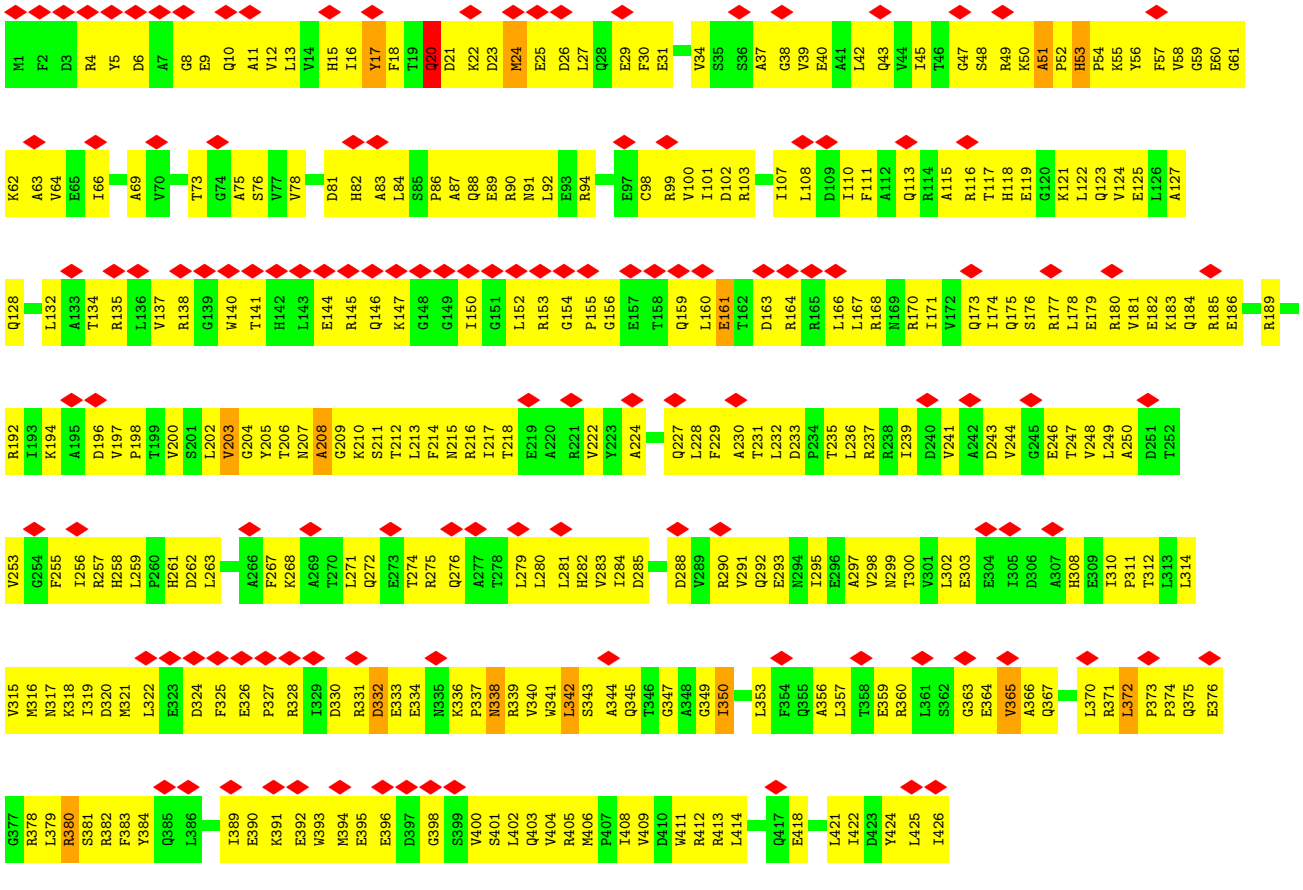
Chain 5:





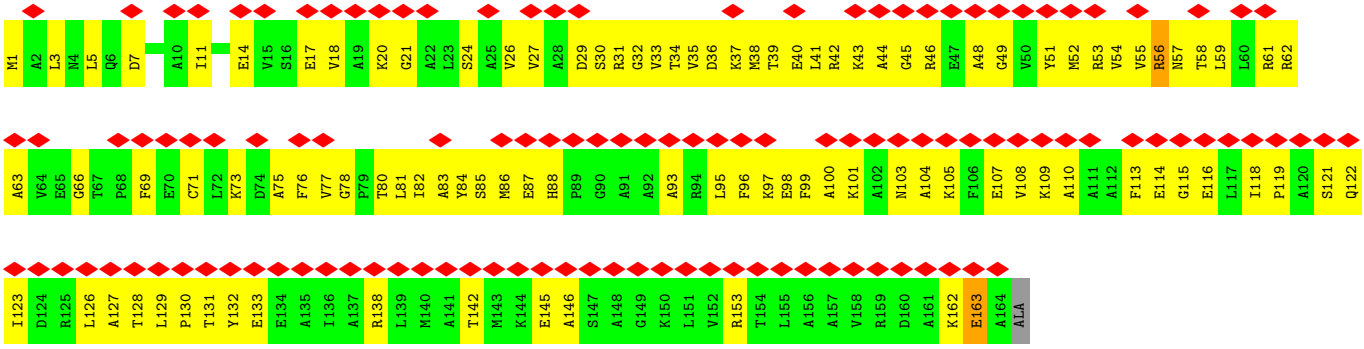
• Molecule 7: GTPASE HFLX

Chain 6:



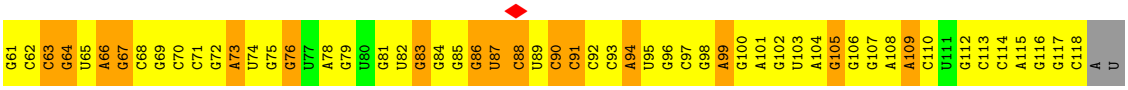
• Molecule 8: 50S RIBOSOMAL PROTEIN L10

Chain 7:



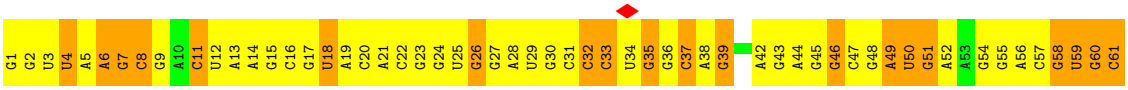
• Molecule 9: 5S RRNA

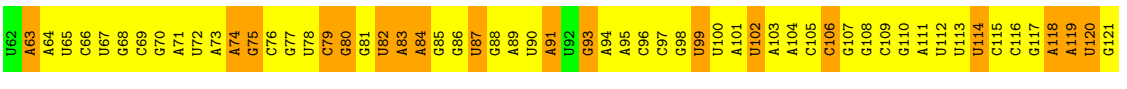
Chain A:

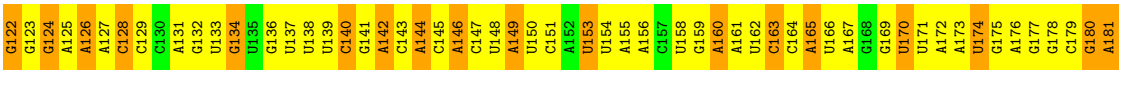


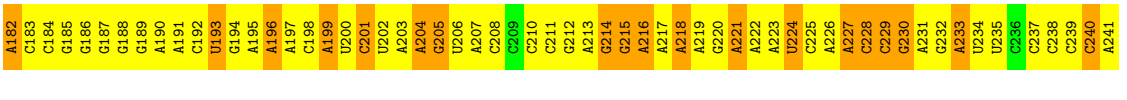
• Molecule 10: 23S RRNA

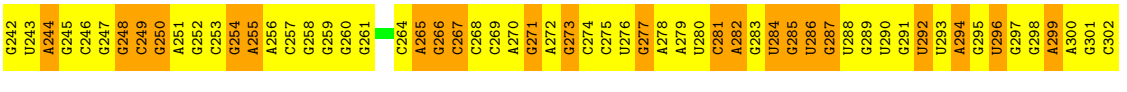
Chain B:

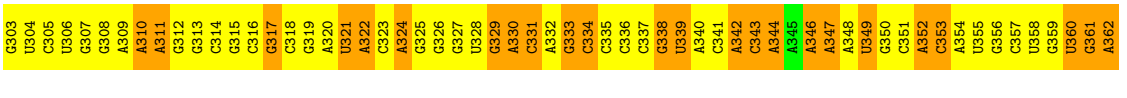


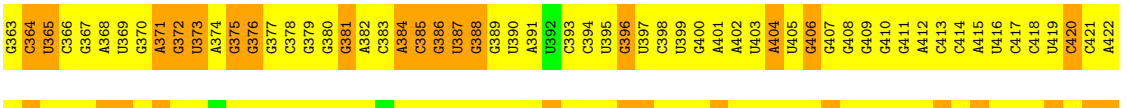


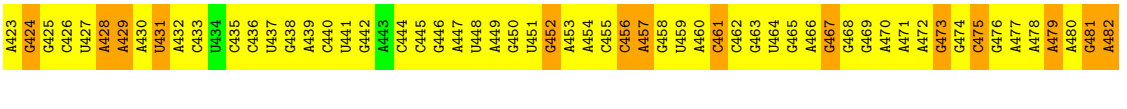


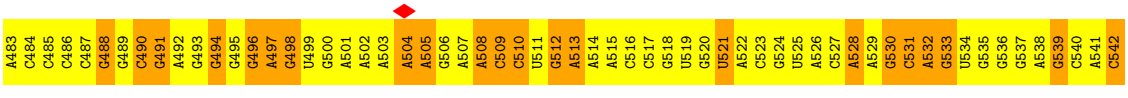


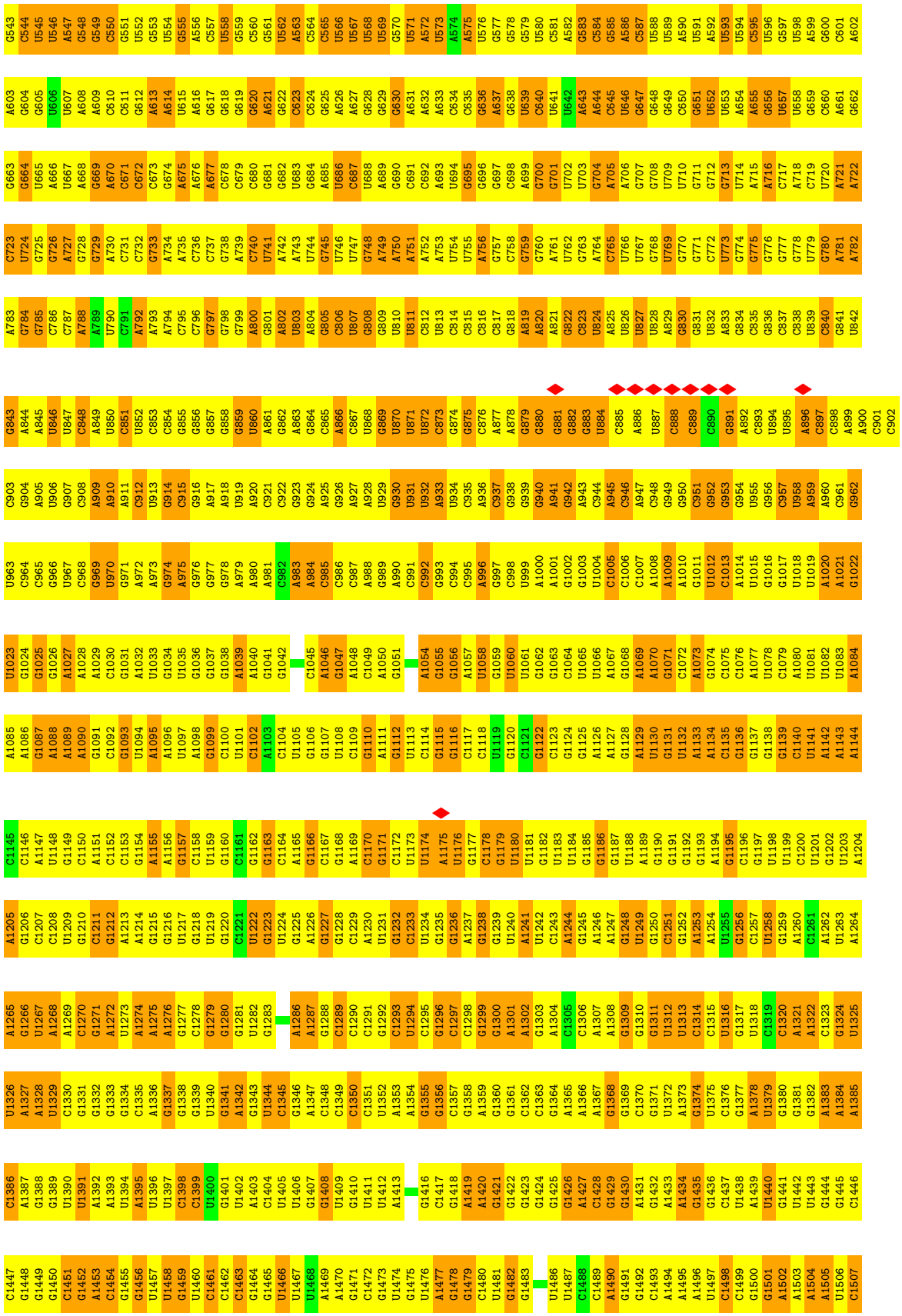


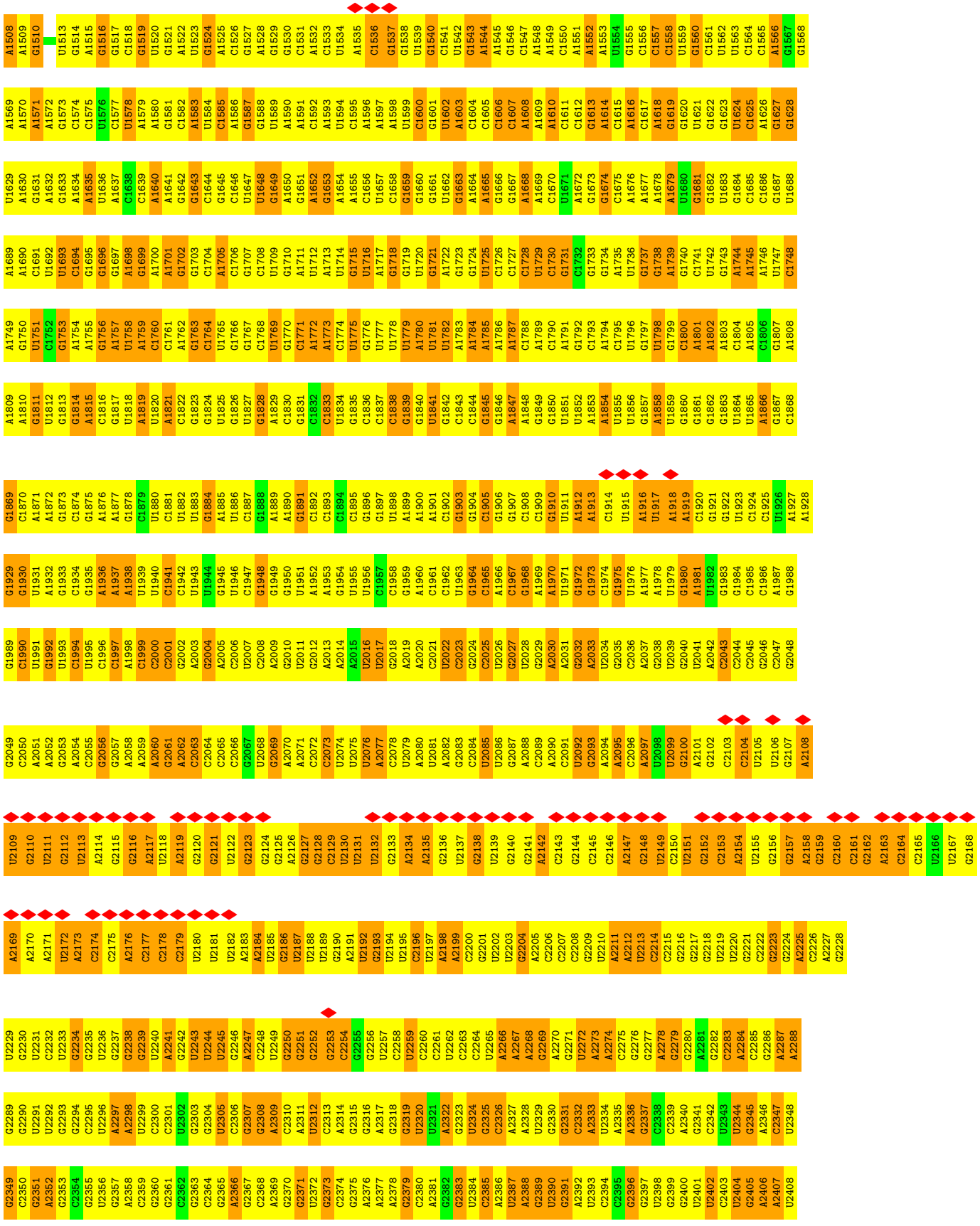








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A1569 A1570 A1571 A1572 G1573 C1574 C1575 U1576 C1577 U1578 A1579 A1580 G1581 C1582 A1583 U1584 C1585 A1586 G1587 G1588 U1589 A1590 G1591 C1592 A1593 U1594 C1595 A1596 A1597 A1598 U1599 C1600 G1601 U1602 A1603 C1604 C1605 C1606 C1607 A1608 A1609 A1610 C1611 C1612 G1613 A1614 C1615 A1616 C1617 A1618 G1619 G1620 U1621 G1622 G1623 U1624 C1625 A1626 G1627 G1628
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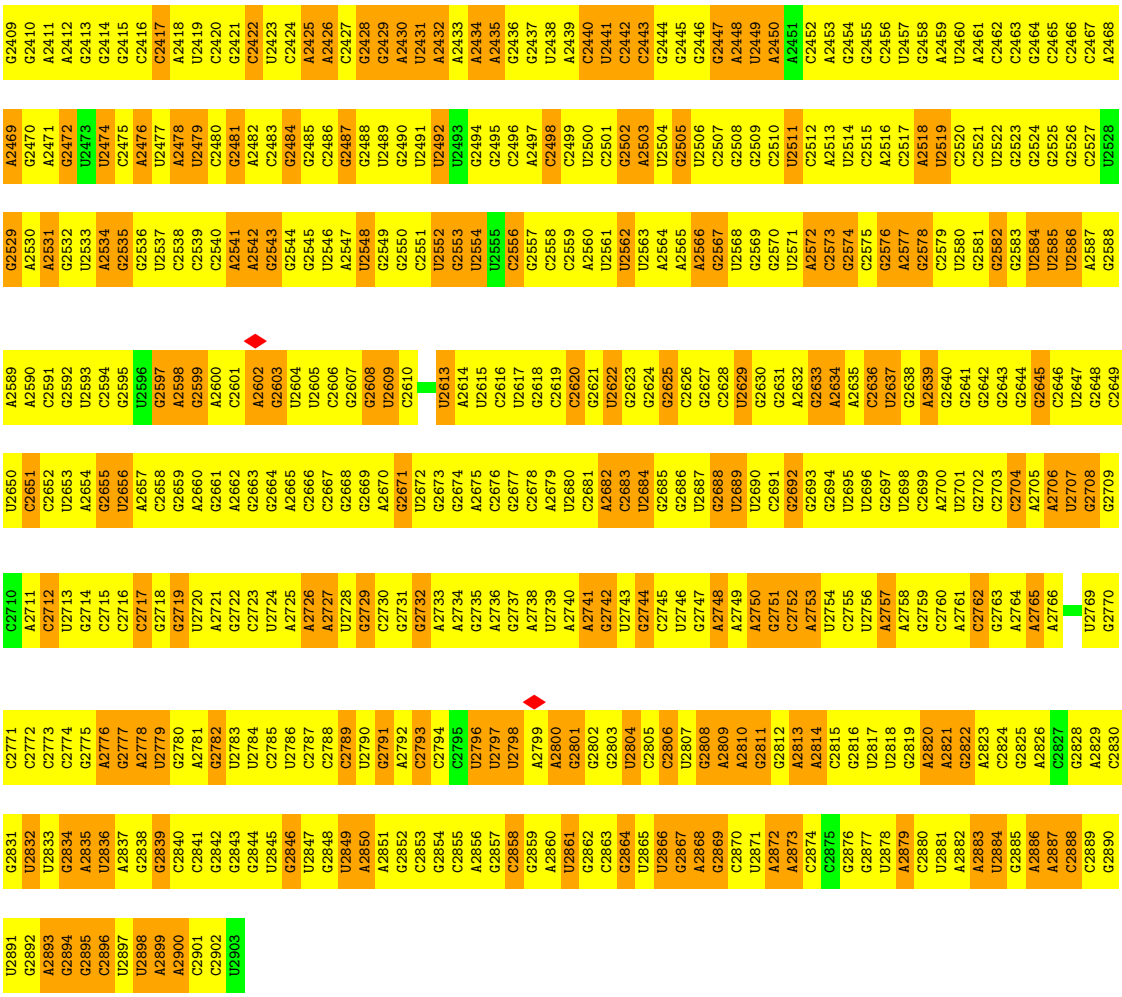
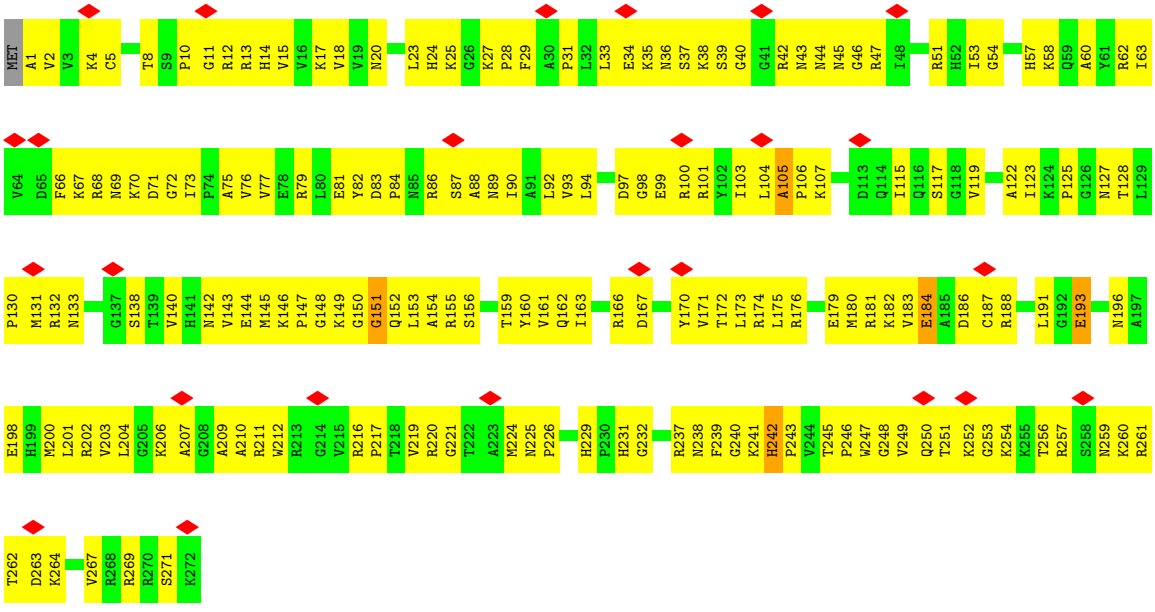
G1929 G1930 U1931 A1932 G1933 C1934 G1935 A1936 A1937 A1938 U1939 U1940 C1941 U1942 U1943 U1944 G1945 U1946 C1947 G1948 A1949 G1950 U1951 A1952 A1953 G1954 U1955 U1956 C1957 C1958 G1959 A1960 C1961 C1962 U1963 G1964 C1965 A1966 C1967 G1968 A1969 A1970 U1971 G1972 G1973 C1974 G1975 U1976 A1977 A1978 U1979 G1980 A1981 U1982 G1983 G1984 C1985 C1986 A1987 G1988
G1989 C1990 U1991 G1992 U1993 C1994 U1995 C1996 C1997 A1998 C1999 C2000 C2001 G2002 A2003 G2004 A2005 C2006 U2007 C2008 A2009 G2010 U2011 G2012 A2013 A2014 A2015 U2016 U2017 C2018 A2019 A2020 C2021 U2022 C2023 C2024 C2025 U2026 G2027 U2028 G2029 A2030 A2031 G2032 A2033 U2034 G2035 C2036 A2037 G2038 U2039 G2040 U2041 A2042 C2043 C2044 C2045 C2046 C2047 G2048
G2049 C2050 A2051 A2052 G2053 A2054 C2055 G2056 G2057 A2058 A2059 A2060 G2061 A2062 C2063 C2064 C2065 C2066 G2067 U2068 G2069 A2070 A2071 C2072 C2073 U2074 U2075 U2076 A2077 C2078 U2079 A2080 U2081 A2082 G2083 C2084 U2085 U2086 G2087 A2088 C2089 A2090 C2091 U2092 G2093 A2094 A2095 C2096 A2097 U2098 U2099 G2100 A2101 G2102 C2103 C2104 U2105 U2106 G2107 A2108
U2109 G2110 U2111 G2112 U2113 A2114 G2115 G2116 A2117 U2118 A2119 G2120 G2121 U2122 G2123 G2124 G2125 A2126 G2127 G2128 C2129 U2130 U2131 U2132 G2133 A2134 A2135 G2136 U2137 G2138 U2139 G2140 G2141 A2142 C2143 G2144 C2145 C2146 A2147 G2148 U2149 C2150 U2151 G2152 C2153 A2154 U2155 G2156 G2157 A2158 G2159 C2160 C2161 G2162 A2163 C2164 C2165 U2166 U2167 G2168
A2169 A2170 A2171 U2172 A2173 C2174 C2175 A2176 C2177 C2178 C2179 U2180 U2181 U2182 A2183 A2184 U2185 G2186 U2187 U2188 G2189 G2190 A2191 U2192 G2193 U2194 U2195 C2196 U2197 A2198 A2199 C2200 G2201 U2202 U2203 G2204 A2205 C2206 C2207 C2208 G2209 U2210 A2211 A2212 U2213 C2214 C2215 G2216 G2217 G2218 U2219 U2220 G2221 C2222 G2223 G2224 A2225 C2226 A2227 G2228
U2229 G2230 U2231 C2232 U2233 G2234 G2235 U2236 G2237 G2238 G2239 U2240 A2241 G2242 U2243 U2244 U2245 G2246 A2247 C2248 U2249 G2250 G2251 G2252 G2253 C2254 G2255 G2256 U2257 C2258 U2259 C2260 C2261 U2262 C2263 C2264 U2265 A2266 A2267 A2268 G2269 A2270 G2271 U2272 A2273 A2274 C2275 G2276 G2277 A2278 G2279 G2280 A2281 G2282 C2283 A2284 C2285 G2286 A2287 A2288
G2289 G2290 U2291 U2292 G2293 G2294 C2295 U2296 A2297 A2298 U2299 C2300 C2301 U2302 G2303 G2304 U2305 C2306 G2307 G2308 A2309 C2310 A2311 U2312 C2313 A2314 G2315 G2316 A2317 A2318 G2319 U2320 U2321 A2322 G2323 U2324 G2325 C2326 A2327 A2328 U2329 G2330 G2331 C2332 A2333 U2334 A2335 A2336 G2337 C2338 C2339 A2340 G2341 C2342 U2343 U2344 G2345 A2346 C2347 U2348
G2349 C2350 G2351 A2352 G2353 C2354 G2355 U2356 C2357 A2358 C2359 G2360 G2361 C2362 G2363 C2364 G2365 A2366 G2367 C2368 A2369 G2370 G2371 U2372 G2373 A2374 G2375 A2376 A2377 A2378 G2379 C2380 A2381 G2382 G2383 U2384 C2385 A2386 U2387 A2388 G2389 U2390 G2391 A2392 U2393 C2394 C2395 G2396 G2397 U2398 G2399 G2400 U2401 U2402 C2403 U2404 G2405 A2406 A2407 U2408

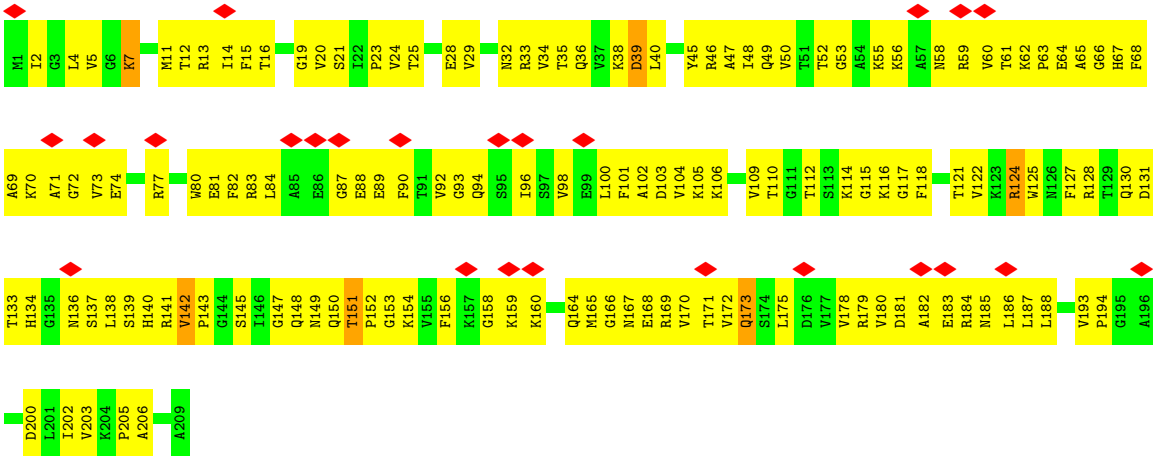


• Molecule 11: 50S RIBOSOMAL PROTEIN L2



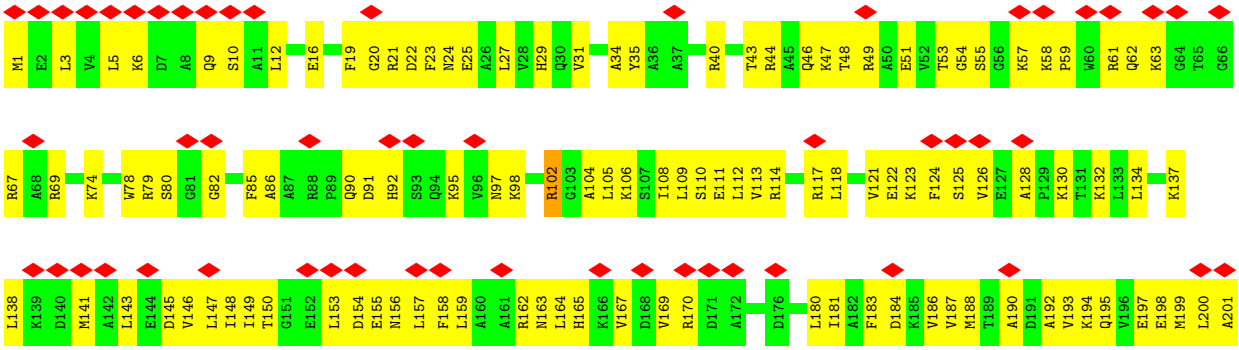
• Molecule 12: 50S RIBOSOMAL PROTEIN L3

Chain D:



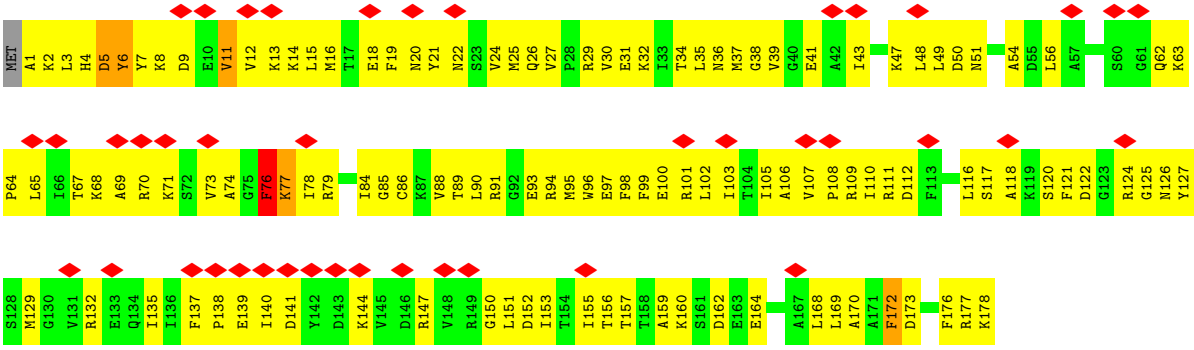
• Molecule 13: 50S RIBOSOMAL PROTEIN L4

Chain E:



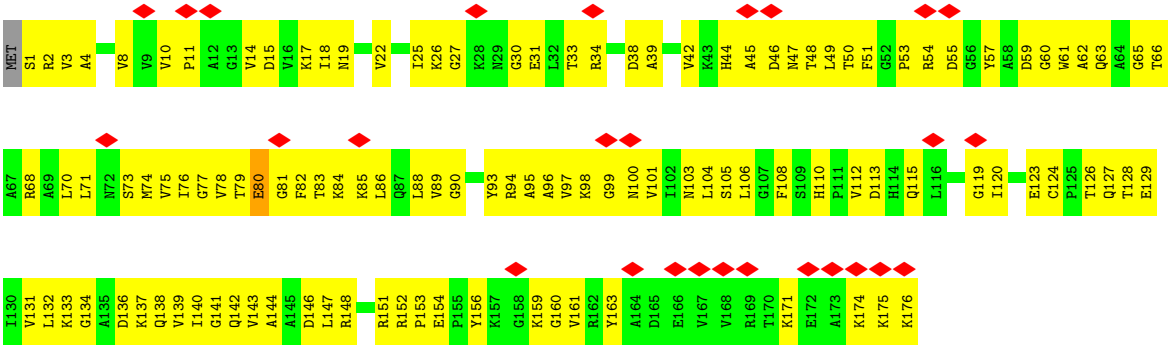
• Molecule 14: 50S RIBOSOMAL PROTEIN L5

Chain F:

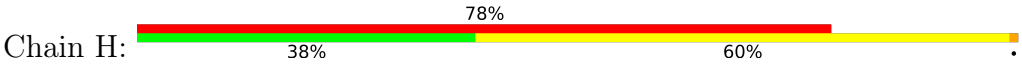


• Molecule 15: 50S RIBOSOMAL PROTEIN L6

Chain G:

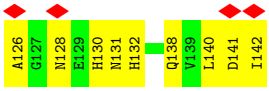


• Molecule 16: 50S RIBOSOMAL PROTEIN L9



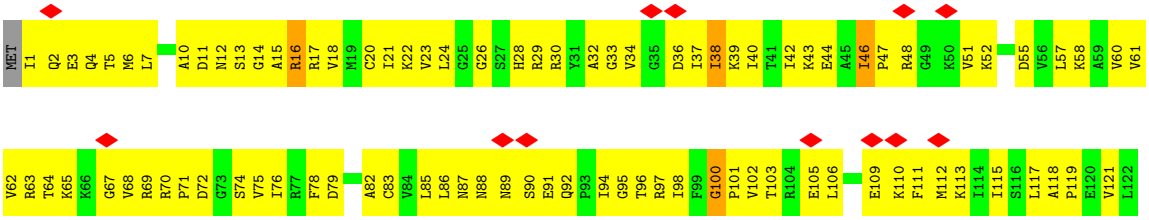
• Molecule 17: 50S RIBOSOMAL PROTEIN L11

• Molecule 18: 50S RIBOSOMAL PROTEIN L13



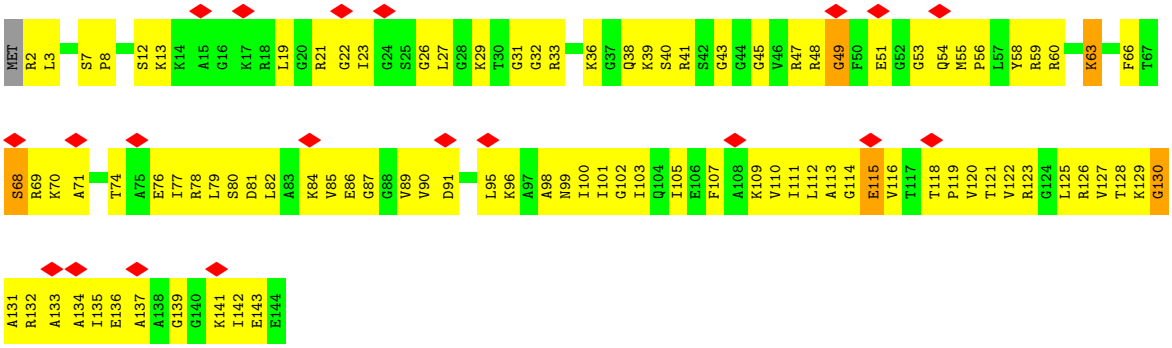
• Molecule 19: 50S RIBOSOMAL PROTEIN L14

Chain K:



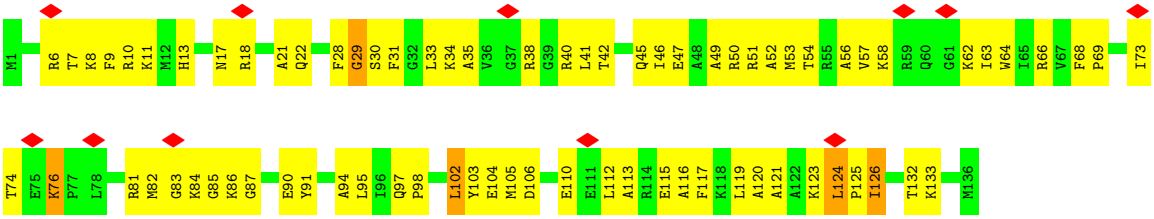
• Molecule 20: 50S RIBOSOMAL PROTEIN L15

Chain L:



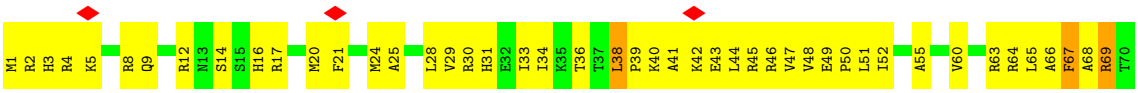
• Molecule 21: 50S RIBOSOMAL PROTEIN L16

Chain M:

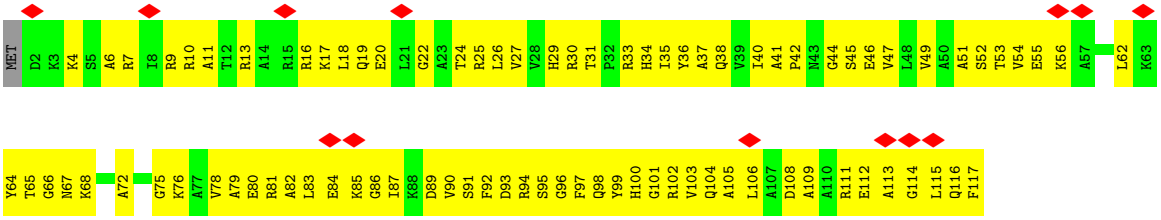


• Molecule 22: 50S RIBOSOMAL PROTEIN L17

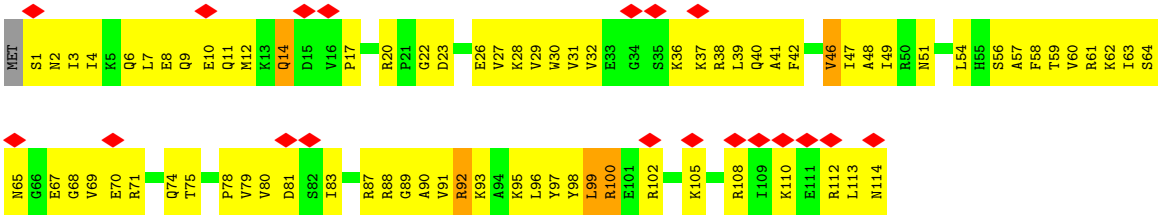
Chain N:



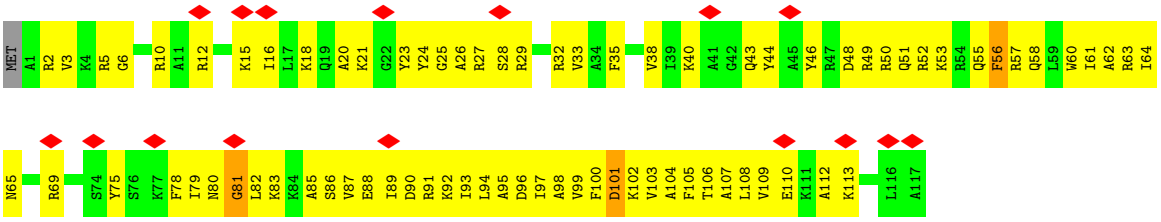
• Molecule 23: 50S RIBOSOMAL PROTEIN L18



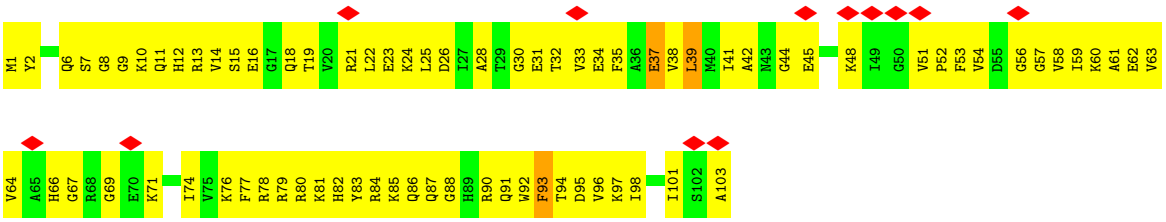
• Molecule 24: 50S RIBOSOMAL PROTEIN L19



• Molecule 25: 50S RIBOSOMAL PROTEIN L20

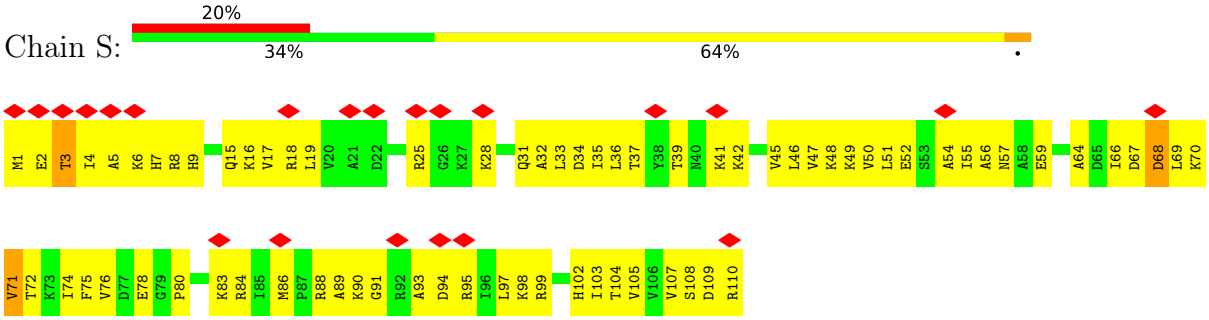


• Molecule 26: 50S RIBOSOMAL PROTEIN L21



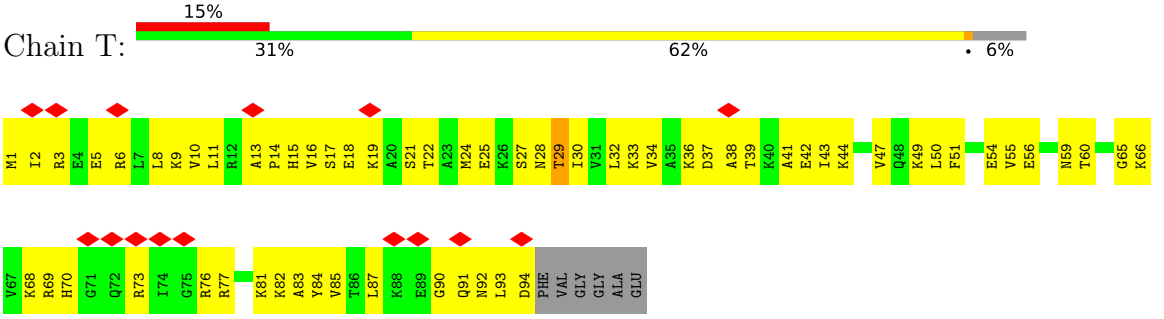
• Molecule 27: 50S RIBOSOMAL PROTEIN L22

Chain S:



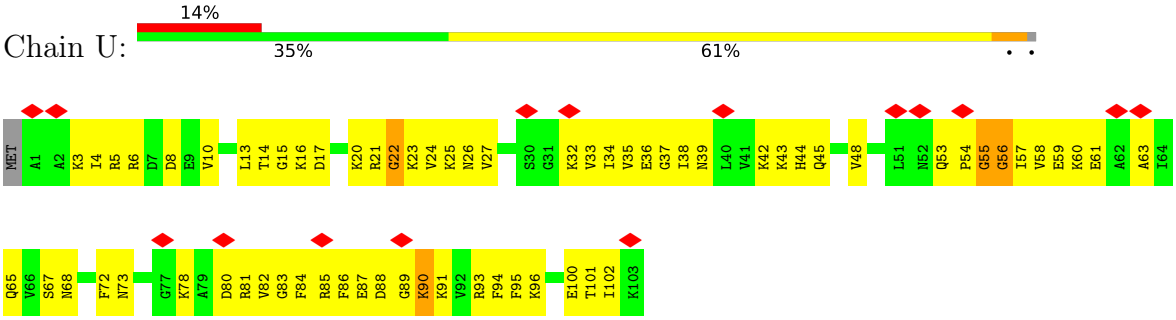
• Molecule 28: 50S RIBOSOMAL PROTEIN L23

Chain T:



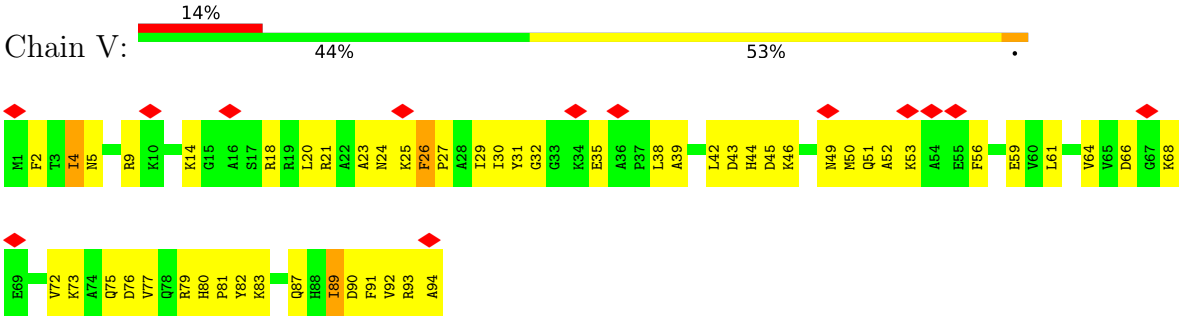
• Molecule 29: 50S RIBOSOMAL PROTEIN L24

Chain U:



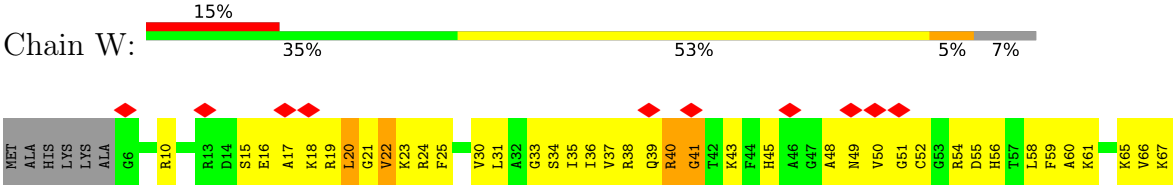
• Molecule 30: 50S RIBOSOMAL PROTEIN L25

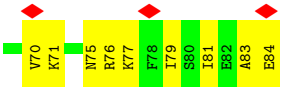
Chain V:



• Molecule 31: 50S RIBOSOMAL PROTEIN L27

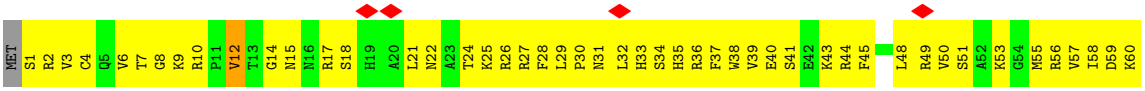
Chain W:

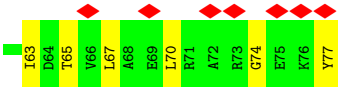




• Molecule 32: 50S RIBOSOMAL PROTEIN L28

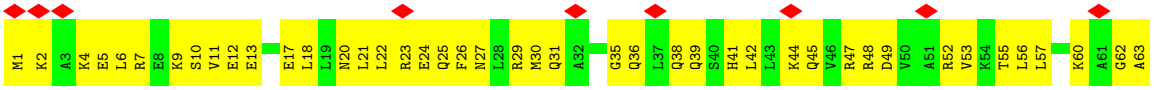
Chain X:





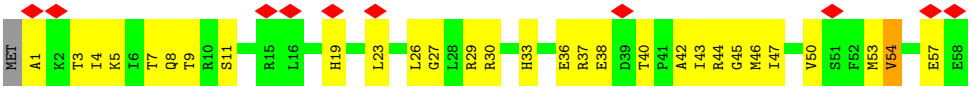
• Molecule 33: 50S RIBOSOMAL PROTEIN L29

Chain Y:



• Molecule 34: 50S RIBOSOMAL PROTEIN L30

Chain Z:



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	384206	Depositor
Resolution determination method	Not provided	
CTF correction method	Not provided	
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	20	Depositor
Minimum defocus (nm)	1000	Depositor
Maximum defocus (nm)	4000	Depositor
Magnification	75000	Depositor
Image detector	FEI EAGLE (4k x 4k)	Depositor
Maximum map value	5.850	Depositor
Minimum map value	-2.336	Depositor
Average map value	0.040	Depositor
Map value standard deviation	0.416	Depositor
Recommended contour level	1.4	Depositor
Map size (Å)	349.77, 349.77, 349.77	wwPDB
Map dimensions	300, 300, 300	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.1659, 1.1659, 1.1659	Depositor

5 Model quality

5.1 Standard geometry

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

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	0.84	0/450	1.09	2/599 (0.3%)
2	1	0.78	1/417 (0.2%)	1.05	4/556 (0.7%)
3	2	0.96	0/380	1.26	4/498 (0.8%)
4	3	0.91	0/513	1.15	2/676 (0.3%)
5	4	0.84	0/303	1.13	0/397
6	5	0.50	0/1748	1.01	8/2355 (0.3%)
7	6	0.76	0/3456	1.18	20/4675 (0.4%)
8	7	0.56	1/1245 (0.1%)	0.97	2/1677 (0.1%)
9	A	0.47	0/2800	0.47	0/4367
10	B	0.55	0/69796	0.51	0/108888
11	C	0.85	1/2122 (0.0%)	1.14	11/2854 (0.4%)
12	D	0.87	0/1586	1.11	6/2134 (0.3%)
13	E	0.81	0/1571	1.06	4/2113 (0.2%)
14	F	0.60	0/1444	1.07	9/1937 (0.5%)
15	G	0.78	0/1343	1.08	5/1816 (0.3%)
16	H	0.61	0/1122	1.00	2/1515 (0.1%)
17	I	0.58	0/1046	1.10	3/1410 (0.2%)
18	J	0.87	0/1152	1.13	8/1551 (0.5%)
19	K	0.83	1/940 (0.1%)	1.23	7/1260 (0.6%)
20	L	0.80	0/1054	1.18	9/1403 (0.6%)
21	M	0.91	0/1093	1.15	7/1460 (0.5%)
22	N	0.91	1/974 (0.1%)	1.12	5/1303 (0.4%)
23	O	0.77	0/902	1.11	1/1209 (0.1%)
24	P	0.78	0/929	1.08	5/1242 (0.4%)
25	Q	0.98	0/960	1.15	2/1278 (0.2%)
26	R	0.76	0/829	1.11	5/1107 (0.5%)
27	S	0.95	0/864	1.24	7/1156 (0.6%)
28	T	0.83	1/745 (0.1%)	1.15	2/996 (0.2%)
29	U	0.75	1/788 (0.1%)	1.16	6/1053 (0.6%)
30	V	0.82	0/766	1.18	4/1025 (0.4%)
31	W	0.88	0/603	1.19	4/797 (0.5%)
32	X	0.84	0/635	1.04	1/848 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
33	Y	0.77	0/510	0.98	0/677
34	Z	0.84	0/453	1.15	2/605 (0.3%)
All	All	0.63	7/105539 (0.0%)	0.73	157/157437 (0.1%)

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
6	5	0	1
13	E	0	1
14	F	0	1
24	P	0	1
25	Q	0	1
All	All	0	5

All (7) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	C	271	SER	C-N	-7.49	1.22	1.33
29	U	102	ILE	C-N	-7.40	1.23	1.33
28	T	93	LEU	C-N	-7.37	1.23	1.33
2	1	52	LYS	C-N	-7.30	1.23	1.33
22	N	120	GLU	C-N	-7.10	1.23	1.33
19	K	121	VAL	C-N	-7.09	1.23	1.33
8	7	163	GLU	C-N	-6.93	1.23	1.33

All (157) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	6	372	LEU	CA-C-N	13.63	134.42	120.38
7	6	372	LEU	C-N-CA	13.63	134.42	120.38
18	J	4	PHE	N-CA-C	-9.70	98.72	111.71
30	V	26	PHE	CA-C-N	9.13	129.18	119.78
30	V	26	PHE	C-N-CA	9.13	129.18	119.78
4	3	52	GLY	N-CA-C	-8.99	101.64	115.66
28	T	29	THR	N-CA-C	8.60	121.89	110.53
21	M	124	LEU	CA-C-N	8.57	128.70	119.28
21	M	124	LEU	C-N-CA	8.57	128.70	119.28
11	C	242	HIS	CA-C-N	8.56	128.51	120.03
11	C	242	HIS	C-N-CA	8.56	128.51	120.03

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	O	114	GLY	N-CA-C	-8.54	104.53	114.69
19	K	46	ILE	CA-C-N	-8.02	111.50	119.76
19	K	46	ILE	C-N-CA	-8.02	111.50	119.76
29	U	56	GLY	N-CA-C	7.98	122.40	110.75
13	E	55	SER	N-CA-C	7.79	118.27	108.45
11	C	105	ALA	CA-C-N	7.68	127.61	119.85
11	C	105	ALA	C-N-CA	7.68	127.61	119.85
7	6	350	ILE	CB-CA-C	-7.63	106.45	113.70
19	K	100	GLY	CA-C-N	7.45	127.46	119.78
19	K	100	GLY	C-N-CA	7.45	127.46	119.78
18	J	109	LEU	CA-C-N	7.34	127.35	119.28
18	J	109	LEU	C-N-CA	7.34	127.35	119.28
29	U	22	GLY	N-CA-C	7.33	118.91	111.95
14	F	6	TYR	N-CA-C	-7.28	103.00	112.68
3	2	6	GLN	CA-C-N	7.24	127.23	119.78
3	2	6	GLN	C-N-CA	7.24	127.23	119.78
31	W	40	ARG	N-CA-C	-7.01	103.91	113.30
14	F	97	GLU	N-CA-C	-6.97	103.61	111.07
20	L	87	GLY	N-CA-C	-6.76	97.15	113.18
26	R	93	PHE	N-CA-C	6.75	118.37	108.86
7	6	20	GLN	CA-C-N	-6.47	109.17	121.54
7	6	20	GLN	C-N-CA	-6.47	109.17	121.54
20	L	142	ILE	N-CA-C	6.44	117.98	108.45
22	N	69	ARG	N-CA-C	-6.33	100.81	110.30
20	L	26	GLY	N-CA-C	-6.33	106.95	115.36
27	S	48	LYS	N-CA-C	-6.31	104.32	111.07
12	D	39	ASP	N-CA-C	6.29	118.75	109.24
24	P	7	LEU	N-CA-C	-6.26	104.46	111.28
7	6	208	ALA	N-CA-C	-6.25	104.96	112.59
31	W	20	LEU	N-CA-C	-6.21	105.45	113.16
34	Z	45	GLY	N-CA-C	-6.21	105.28	112.73
17	I	5	GLN	N-CA-C	6.21	118.79	110.35
7	6	161	GLU	N-CA-C	-6.19	104.59	111.71
6	5	59	VAL	N-CA-C	-6.18	106.73	111.62
17	I	21	PRO	CA-C-N	-6.18	112.11	119.84
17	I	21	PRO	C-N-CA	-6.18	112.11	119.84
7	6	51	ALA	CA-C-N	6.17	126.14	119.78
7	6	51	ALA	C-N-CA	6.17	126.14	119.78
18	J	116	ARG	N-CA-C	-6.15	104.49	111.07
27	S	3	THR	N-CA-C	-6.13	97.82	107.93
12	D	7	LYS	N-CA-C	6.12	118.16	108.79
7	6	332	ASP	N-CA-C	-6.06	104.67	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	6	421	LEU	N-CA-C	-6.06	105.84	113.18
13	E	69	ARG	N-CA-C	-6.06	105.14	112.54
6	5	23	ILE	N-CA-C	6.06	116.84	110.72
26	R	44	GLY	N-CA-C	-6.05	107.31	115.36
31	W	41	GLY	N-CA-C	-6.00	107.86	115.31
11	C	72	GLY	N-CA-C	-5.99	106.90	115.64
20	L	63	LYS	N-CA-C	-5.97	101.64	110.48
28	T	51	PHE	CB-CA-C	-5.94	109.15	117.23
6	5	200	LYS	CA-C-N	5.93	125.89	119.78
6	5	200	LYS	C-N-CA	5.93	125.89	119.78
18	J	79	GLY	N-CA-C	-5.89	107.11	115.30
19	K	16	ARG	CB-CA-C	-5.89	108.78	115.79
15	G	80	GLU	N-CA-C	5.88	116.00	108.24
8	7	56	ARG	CB-CA-C	-5.87	107.06	114.40
12	D	142	VAL	N-CA-C	5.86	114.00	109.19
11	C	27	LYS	CA-C-N	5.86	127.16	119.84
11	C	27	LYS	C-N-CA	5.86	127.16	119.84
7	6	380	ARG	N-CA-C	-5.84	104.92	111.28
11	C	151	GLY	N-CA-C	-5.83	105.08	112.54
29	U	90	LYS	N-CA-C	-5.81	106.19	113.28
13	E	102	ARG	N-CA-C	-5.78	105.06	111.71
2	1	50	GLU	CB-CA-C	-5.78	109.93	116.63
20	L	68	SER	N-CA-C	5.77	117.37	111.14
34	Z	54	VAL	N-CA-C	5.75	118.24	108.86
29	U	65	GLN	N-CA-C	5.75	118.79	110.28
14	F	77	LYS	N-CA-C	-5.74	102.91	110.43
7	6	17	TYR	N-CA-C	-5.74	105.54	112.54
14	F	14	LYS	N-CA-C	-5.74	105.54	112.54
7	6	308	HIS	N-CA-C	-5.73	106.14	113.02
21	M	29	GLY	N-CA-C	5.71	117.69	110.38
2	1	49	LYS	N-CA-C	5.71	117.77	108.76
14	F	172	PHE	N-CA-C	5.70	115.77	108.24
25	Q	81	GLY	N-CA-C	-5.70	105.73	113.37
7	6	338	ASN	N-CA-C	5.67	118.07	110.35
4	3	18	LYS	N-CA-C	-5.66	106.35	113.20
15	G	65	GLY	N-CA-C	-5.65	105.84	113.24
20	L	115	GLU	N-CA-C	5.63	117.62	109.07
22	N	66	ALA	N-CA-C	-5.59	105.18	111.28
21	M	102	LEU	N-CA-C	-5.59	107.11	114.04
12	D	173	GLN	CB-CA-C	-5.59	109.63	117.23
6	5	169	GLY	N-CA-C	-5.57	108.04	115.40
15	G	110	HIS	CA-C-N	5.57	125.52	119.78

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
15	G	110	HIS	C-N-CA	5.57	125.52	119.78
14	F	76	PHE	CB-CA-C	-5.57	107.44	114.40
27	S	7	HIS	N-CA-C	-5.57	101.67	109.96
16	H	85	GLY	N-CA-C	5.54	117.52	110.20
27	S	75	PHE	N-CA-C	5.53	117.68	108.99
7	6	342	LEU	N-CA-C	5.53	118.58	109.85
19	K	4	GLN	CB-CA-C	-5.52	109.73	117.23
11	C	201	LEU	N-CA-C	5.50	118.20	111.82
3	2	35	ARG	N-CA-C	-5.49	105.40	111.71
7	6	53	HIS	CA-C-N	5.47	126.67	119.84
7	6	53	HIS	C-N-CA	5.47	126.67	119.84
20	L	49	GLY	N-CA-C	-5.45	108.12	115.21
20	L	130	GLY	N-CA-C	-5.45	105.79	112.77
27	S	86	MET	CA-C-N	5.45	125.39	119.78
27	S	86	MET	C-N-CA	5.45	125.39	119.78
29	U	82	VAL	N-CA-C	5.45	115.94	107.28
24	P	100	ARG	N-CA-C	5.43	118.70	111.75
31	W	22	VAL	N-CA-C	-5.40	99.93	108.90
18	J	107	GLY	N-CA-C	-5.39	105.87	112.77
1	0	47	TYR	N-CA-C	5.39	117.13	107.80
26	R	37	GLU	N-CA-C	5.39	117.26	109.07
29	U	55	GLY	N-CA-C	-5.39	102.54	112.62
6	5	60	ARG	N-CA-C	-5.39	102.90	110.50
15	G	119	GLY	N-CA-C	-5.37	107.91	115.32
8	7	66	GLY	N-CA-C	5.35	122.33	115.32
6	5	165	ASN	N-CA-C	5.35	117.77	110.55
19	K	38	ILE	N-CA-C	5.31	116.01	108.42
12	D	158	GLY	N-CA-C	-5.30	104.46	112.41
7	6	396	GLU	N-CA-C	5.29	117.90	110.23
25	Q	85	ALA	N-CA-C	-5.25	106.72	113.02
6	5	206	GLY	N-CA-C	5.24	119.28	112.68
30	V	89	ILE	N-CA-C	5.24	115.19	107.75
1	0	4	GLN	N-CA-C	-5.23	106.85	113.18
12	D	124	ARG	N-CA-C	-5.22	106.17	112.54
26	R	39	LEU	N-CA-C	-5.22	107.08	113.50
11	C	184	GLU	CB-CA-C	-5.21	110.55	116.54
21	M	126	ILE	N-CA-C	5.21	115.68	108.23
24	P	46	VAL	CB-CA-C	-5.19	105.64	111.45
24	P	92	ARG	N-CA-C	5.18	116.73	111.14
14	F	5	ASP	N-CA-C	-5.17	106.92	113.18
22	N	38	LEU	CA-C-N	-5.16	113.32	119.05
22	N	38	LEU	C-N-CA	-5.16	113.32	119.05

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	R	9	GLY	N-CA-C	-5.16	108.20	115.32
32	X	12	VAL	N-CA-C	5.15	116.12	108.65
7	6	203	VAL	N-CA-C	5.13	115.76	108.42
13	E	54	GLY	N-CA-C	-5.13	106.22	112.68
20	L	22	GLY	N-CA-C	5.12	118.25	110.97
3	2	22	MET	N-CA-C	-5.12	107.03	113.28
18	J	96	ARG	CA-C-N	5.11	124.90	119.28
18	J	96	ARG	C-N-CA	5.11	124.90	119.28
30	V	4	ILE	N-CA-C	5.10	116.00	108.45
22	N	67	PHE	N-CA-C	-5.09	106.91	113.02
14	F	138	PRO	N-CA-C	-5.07	106.81	113.65
2	1	39	ASP	CA-C-N	5.05	124.66	119.05
2	1	39	ASP	C-N-CA	5.05	124.66	119.05
16	H	36	ALA	N-CA-C	5.05	116.51	108.79
24	P	99	LEU	N-CA-C	-5.04	106.23	112.38
21	M	76	LYS	CA-C-N	5.03	124.93	119.85
21	M	76	LYS	C-N-CA	5.03	124.93	119.85
14	F	11	VAL	N-CA-C	5.03	115.16	108.27
11	C	193	GLU	N-CA-C	5.00	115.91	108.60
27	S	68	ASP	N-CA-C	-5.00	104.99	112.54

There are no chirality outliers.

All (5) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
6	5	59	VAL	Peptide
13	E	59	PRO	Peptide
14	F	76	PHE	Peptide
24	P	14	GLN	Peptide
25	Q	101	ASP	Peptide

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	0	444	0	461	53	0
2	1	410	0	440	41	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	2	377	0	418	43	0
4	3	504	0	574	56	0
5	4	302	0	343	36	0
6	5	1733	0	1823	208	0
7	6	3403	0	3433	407	0
8	7	1231	0	1282	128	0
9	A	2504	0	1271	247	0
10	B	62317	0	31345	6174	0
11	C	2083	0	2157	255	0
12	D	1565	0	1616	240	0
13	E	1552	0	1619	132	0
14	F	1420	0	1460	172	0
15	G	1323	0	1374	140	0
16	H	1111	0	1148	200	0
17	I	1032	0	1088	148	0
18	J	1129	0	1162	153	0
19	K	931	0	1003	117	0
20	L	1045	0	1117	124	0
21	M	1074	0	1157	110	0
22	N	961	0	1000	110	0
23	O	892	0	923	133	0
24	P	917	0	965	107	0
25	Q	947	0	1022	144	0
26	R	816	0	839	112	0
27	S	857	0	922	102	0
28	T	739	0	807	76	0
29	U	780	0	834	90	0
30	V	753	0	780	59	0
31	W	596	0	610	95	0
32	X	625	0	655	94	0
33	Y	509	0	543	56	0
34	Z	449	0	491	25	0
35	6	32	0	13	23	0
36	6	1	0	0	0	0
All	All	97364	0	66695	9177	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 58.

All (9177) 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)
16:H:68:ARG:CD	16:H:132:PHE:CE1	1.84	1.55
16:H:68:ARG:HG3	16:H:132:PHE:CD2	1.40	1.55
16:H:68:ARG:HG3	16:H:132:PHE:CE2	1.37	1.53
16:H:68:ARG:HD2	16:H:132:PHE:CE1	1.43	1.52
7:6:365:VAL:CG2	7:6:405:ARG:NH2	1.69	1.43
16:H:68:ARG:CG	16:H:132:PHE:CZ	2.00	1.43
10:B:1130:U:N3	12:D:152:PRO:HB3	1.28	1.42
16:H:68:ARG:HG3	16:H:132:PHE:CZ	1.55	1.42
16:H:68:ARG:CG	16:H:132:PHE:CE2	2.03	1.37
16:H:68:ARG:HD2	16:H:132:PHE:CZ	1.60	1.34
16:H:68:ARG:HG3	16:H:132:PHE:CG	1.62	1.34
16:H:29:PHE:CD1	16:H:33:GLN:OE1	1.78	1.33
16:H:31:VAL:CG1	32:X:40:GLU:CG	2.06	1.31
16:H:31:VAL:CG1	32:X:40:GLU:HG2	1.57	1.31
7:6:24:MET:CE	7:6:257:ARG:HH22	1.44	1.30
16:H:29:PHE:HD1	16:H:33:GLN:OE1	1.00	1.29
16:H:31:VAL:CG2	32:X:40:GLU:OE2	1.80	1.28
16:H:68:ARG:CD	16:H:132:PHE:CZ	2.13	1.28
6:5:37:LYS:NZ	10:B:2127:G:O2’	1.65	1.28
7:6:24:MET:CE	7:6:257:ARG:NH2	1.98	1.27
10:B:1130:U:C4	12:D:152:PRO:HB3	1.68	1.27
16:H:68:ARG:CG	16:H:132:PHE:CE1	2.15	1.25
7:6:363:GLY:O	7:6:364:GLU:HG2	1.25	1.24
16:H:68:ARG:CG	16:H:132:PHE:CD2	2.21	1.23
10:B:2032:G:H21	12:D:150:GLN:CG	1.52	1.23
16:H:68:ARG:HG3	16:H:132:PHE:CE1	1.74	1.22
10:B:2032:G:N2	12:D:150:GLN:HG2	1.55	1.22
7:6:366:ALA:O	7:6:367:GLN:O	1.58	1.21
6:5:133:PRO:HB3	10:B:2121:G:N7	1.55	1.20
16:H:31:VAL:CG1	32:X:40:GLU:OE2	1.89	1.20
16:H:68:ARG:HG3	16:H:132:PHE:CD1	1.76	1.19
16:H:31:VAL:HG11	32:X:40:GLU:CG	1.68	1.18
16:H:3:VAL:HG11	16:H:30:LEU:HD11	1.25	1.17
28:T:5:GLU:OE2	28:T:49:LYS:NZ	1.76	1.16
6:5:53:ARG:HH12	10:B:1859:U:H5”	1.00	1.13
16:H:68:ARG:CG	16:H:132:PHE:CD1	2.31	1.13
7:6:365:VAL:HG22	7:6:405:ARG:NH2	1.60	1.13
7:6:24:MET:HE3	7:6:257:ARG:HH22	1.03	1.12
12:D:56:LYS:HZ2	12:D:59:ARG:NH2	1.48	1.11
10:B:1130:U:N3	12:D:152:PRO:CB	2.13	1.11
31:W:65:LYS:NZ	31:W:83:ALA:O	1.84	1.10
22:N:118:ARG:HE	22:N:121:LYS:N	1.49	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2032:G:N2	12:D:150:GLN:CG	2.13	1.10
16:H:31:VAL:CG1	32:X:40:GLU:CD	2.25	1.09
16:H:68:ARG:CG	16:H:132:PHE:CG	2.35	1.09
10:B:2251:G:OP1	21:M:81:ARG:NH1	1.87	1.06
10:B:2025:C:OP1	12:D:154:LYS:NZ	1.88	1.06
10:B:1754:A:N7	24:P:93:LYS:NZ	2.02	1.06
24:P:48:ALA:O	24:P:95:LYS:NZ	1.87	1.05
16:H:68:ARG:HB2	16:H:132:PHE:CG	1.91	1.05
11:C:18:VAL:O	11:C:202:ARG:NH2	1.90	1.04
7:6:365:VAL:HG21	7:6:405:ARG:NH2	1.39	1.04
10:B:2571:U:O2'	12:D:151:THR:HG23	1.57	1.04
7:6:364:GLU:HG3	7:6:408:ILE:HG13	1.38	1.04
16:H:29:PHE:O	16:H:33:GLN:CB	2.04	1.04
10:B:796:C:OP1	13:E:57:LYS:NZ	1.91	1.04
19:K:97:ARG:NH1	19:K:117:LEU:O	1.88	1.04
6:5:133:PRO:CB	10:B:2121:G:N7	2.20	1.02
19:K:39:LYS:NZ	19:K:88:ASN:OD1	1.92	1.02
7:6:29:GLU:OE1	7:6:290:ARG:NH1	1.90	1.02
16:H:31:VAL:HG13	32:X:40:GLU:CD	1.84	1.02
16:H:27:ARG:HH21	32:X:59:ASP:HA	1.21	1.02
16:H:29:PHE:O	16:H:33:GLN:HB2	1.59	1.01
7:6:363:GLY:O	7:6:364:GLU:CG	2.07	1.01
16:H:68:ARG:HD3	16:H:132:PHE:CE1	1.95	1.01
17:I:61:TYR:O	17:I:64:ARG:NH1	1.94	1.01
10:B:2312:U:OP2	14:F:71:LYS:NZ	1.93	1.01
16:H:31:VAL:HG13	32:X:40:GLU:CG	1.88	1.01
7:6:24:MET:SD	7:6:257:ARG:NH2	2.34	1.00
18:J:118:MET:HG2	18:J:121:LYS:HZ3	1.26	1.00
3:2:14:ARG:NH2	10:B:770:G:O3'	1.94	0.99
7:6:279:LEU:HD11	7:6:360:ARG:HH12	1.21	0.99
16:H:29:PHE:CE1	16:H:33:GLN:HG2	1.96	0.99
16:H:97:ARG:HH12	16:H:113:SER:HA	1.27	0.99
10:B:2032:G:H21	12:D:150:GLN:HG2	0.84	0.99
16:H:31:VAL:HG13	32:X:40:GLU:HG2	1.37	0.99
16:H:3:VAL:HG11	16:H:30:LEU:CD1	1.92	0.99
10:B:2305:U:O3'	14:F:132:ARG:NH2	1.94	0.99
13:E:22:ASP:HA	13:E:114:ARG:HH22	1.27	0.99
6:5:134:ARG:HB3	10:B:2125:G:O6	1.63	0.99
10:B:8:C:O5'	18:J:120:ARG:NH2	1.95	0.99
15:G:15:ASP:O	15:G:17:LYS:NZ	1.96	0.99
16:H:30:LEU:HD21	16:H:36:ALA:HB3	1.45	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:C:83:ASP:OD2	11:C:86:ARG:N	1.96	0.99
21:M:76:LYS:NZ	21:M:85:GLY:O	1.96	0.99
24:P:87:ARG:NH1	24:P:88:ARG:O	1.95	0.99
16:H:68:ARG:HG2	16:H:132:PHE:CE2	1.97	0.98
10:B:815:C:OP1	26:R:85:LYS:NZ	1.95	0.98
10:B:880:G:N2	10:B:897:C:N3	2.12	0.98
13:E:25:GLU:OE2	20:L:7:SER:N	1.94	0.98
7:6:24:MET:HE1	7:6:257:ARG:NH1	1.77	0.98
9:A:75:G:H2'	9:A:76:G:H8	1.29	0.98
10:B:1252:G:N3	25:Q:32:ARG:NH1	2.11	0.98
10:B:190:A:OP1	32:X:25:LYS:NZ	1.94	0.98
10:B:1666:G:H1	10:B:1994:C:H42	1.07	0.98
16:H:31:VAL:HG22	32:X:40:GLU:OE2	1.64	0.97
10:B:1130:U:H3	12:D:152:PRO:HB3	1.25	0.97
17:I:74:PRO:HA	17:I:112:LYS:HZ3	1.26	0.97
7:6:84:LEU:N	7:6:102:ASP:OD2	1.97	0.97
10:B:374:A:N7	10:B:400:G:N2	2.12	0.97
24:P:88:ARG:HH21	24:P:114:ASN:HD22	1.05	0.97
6:5:134:ARG:HA	10:B:2124:G:O6	1.65	0.97
12:D:183:GLU:HG2	12:D:184:ARG:HG3	1.46	0.96
30:V:66:ASP:O	30:V:68:LYS:NZ	1.96	0.96
10:B:2294:G:OP2	23:O:94:ARG:NH2	1.97	0.96
10:B:636:G:N1	20:L:76:GLU:OE2	1.99	0.96
9:A:116:G:O3'	23:O:56:LYS:NZ	1.98	0.96
10:B:1060:U:OP2	17:I:112:LYS:NZ	1.98	0.96
10:B:2275:C:O2	21:M:84:LYS:NZ	1.99	0.96
10:B:2129:C:N3	10:B:2159:G:N2	2.13	0.96
10:B:2114:A:N6	10:B:2119:A:N7	2.14	0.95
10:B:1723:G:H1	10:B:1737:G:HO2'	1.14	0.95
10:B:2724:U:OP1	12:D:116:LYS:NZ	2.00	0.95
7:6:365:VAL:HG21	7:6:405:ARG:HH22	1.28	0.95
10:B:1913:A:N7	10:B:1917:U:N3	2.14	0.95
10:B:2547:A:N1	10:B:2561:U:N3	2.15	0.95
7:6:24:MET:HE1	7:6:257:ARG:HH12	1.27	0.94
10:B:531:C:O3'	25:Q:40:LYS:NZ	1.99	0.94
22:N:14:SER:HA	22:N:17:ARG:HH21	1.31	0.94
16:H:68:ARG:O	16:H:132:PHE:CD2	2.20	0.94
16:H:31:VAL:HG21	32:X:40:GLU:OE2	1.64	0.94
16:H:68:ARG:CB	16:H:132:PHE:CG	2.51	0.94
7:6:24:MET:HE2	7:6:24:MET:HA	1.47	0.94
10:B:18:U:H2'	10:B:19:A:H8	1.32	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:H:29:PHE:CD1	16:H:33:GLN:CD	2.45	0.94
24:P:47:ILE:O	24:P:95:LYS:NZ	2.01	0.93
10:B:908:C:OP1	21:M:18:ARG:NH2	2.02	0.93
21:M:34:LYS:NZ	30:V:81:PRO:O	2.01	0.93
10:B:413:C:H42	10:B:2410:G:H1	1.15	0.93
6:5:133:PRO:O	10:B:2122:U:C5	2.20	0.93
7:6:331:ARG:NH1	7:6:359:GLU:OE1	2.02	0.93
6:5:47:ASN:HD22	6:5:211:LYS:HB3	1.30	0.93
19:K:91:GLU:HB2	19:K:110:LYS:HZ2	1.32	0.93
10:B:856:G:OP1	31:W:23:LYS:NZ	2.03	0.92
10:B:1007:C:O3'	18:J:111:LYS:NZ	2.02	0.92
10:B:1651:G:H1	10:B:2006:C:H42	1.13	0.92
10:B:807:U:OP1	20:L:36:LYS:NZ	2.02	0.92
10:B:2223:G:O3'	11:C:264:LYS:NZ	2.02	0.92
19:K:92:GLN:N	19:K:110:LYS:HZ3	1.68	0.92
10:B:1076:C:H2'	10:B:1077:A:H8	1.32	0.92
16:H:127:GLU:HG3	16:H:141:LYS:HD2	1.51	0.92
10:B:2659:G:N2	10:B:2662:A:N7	2.18	0.92
10:B:251:A:O3'	20:L:47:ARG:NE	2.02	0.92
4:3:34:LYS:NZ	10:B:2390:U:OP2	2.03	0.91
10:B:1825:U:H2'	10:B:1826:G:H8	1.36	0.91
16:H:30:LEU:HG	16:H:35:LYS:CE	2.00	0.91
7:6:24:MET:SD	7:6:257:ARG:CZ	2.58	0.91
8:7:37:LYS:NZ	8:7:54:VAL:HB	1.86	0.91
7:6:189:ARG:NH1	7:6:272:GLN:HG3	1.84	0.91
10:B:226:A:N3	10:B:229:C:N4	2.17	0.91
7:6:53:HIS:HB3	7:6:55:LYS:HD3	1.52	0.91
10:B:1327:A:N6	10:B:1328:A:N3	2.18	0.91
16:H:31:VAL:HG11	32:X:40:GLU:CD	1.92	0.91
18:J:35:ARG:HH11	18:J:40:HIS:CD2	1.90	0.90
26:R:79:ARG:HG2	26:R:80:ARG:HG2	1.53	0.90
7:6:364:GLU:HG3	7:6:408:ILE:CG1	2.00	0.90
10:B:337:C:OP2	29:U:3:LYS:NZ	2.05	0.90
10:B:396:G:H5"	32:X:9:LYS:HD3	1.53	0.90
6:5:53:ARG:NH1	10:B:1859:U:H5"	1.85	0.90
9:A:90:C:O2'	21:M:38:ARG:NH1	2.05	0.90
10:B:2471:A:HO2'	10:B:2472:G:H8	0.92	0.90
11:C:68:ARG:O	11:C:188:ARG:NH2	2.04	0.90
16:H:31:VAL:HG11	32:X:40:GLU:HG3	1.52	0.90
5:4:30:GLU:OE2	15:G:171:LYS:NZ	2.04	0.90
10:B:52:A:OP2	10:B:117:G:N1	2.05	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:J:98:GLU:OE2	18:J:126:ALA:N	2.04	0.90
10:B:1952:A:OP1	19:K:43:LYS:NZ	2.04	0.89
10:B:1093:G:H21	10:B:1098:A:H62	1.21	0.89
10:B:2204:G:OP2	11:C:149:LYS:NZ	2.05	0.89
10:B:1801:A:H62	11:C:261:ARG:HH12	1.18	0.89
5:4:18:LYS:NZ	10:B:1034:G:H5'	1.87	0.89
10:B:605:G:N3	10:B:657:U:O2'	2.06	0.89
7:6:48:SER:O	7:6:50:LYS:NZ	2.06	0.88
24:P:88:ARG:HH21	24:P:114:ASN:ND2	1.70	0.88
3:2:3:ARG:HH21	10:B:464:U:P	1.95	0.88
7:6:86:PRO:HG3	7:6:135:ARG:HH11	1.38	0.88
7:6:161:GLU:HA	7:6:164:ARG:HD3	1.56	0.88
14:F:147:ARG:HH12	14:F:150:GLY:H	1.17	0.88
10:B:372:G:O4'	32:X:60:LYS:NZ	2.06	0.88
10:B:956:G:OP2	21:M:86:LYS:NZ	2.05	0.88
10:B:1268:A:H62	10:B:2012:G:H21	1.21	0.88
10:B:2032:G:N2	12:D:150:GLN:CB	2.37	0.88
25:Q:89:ILE:HG22	25:Q:91:ARG:H	1.36	0.88
10:B:1130:U:H3	12:D:152:PRO:CB	1.80	0.88
10:B:2811:G:H1	10:B:2889:C:H42	1.20	0.88
16:H:32:PRO:HB3	32:X:38:TRP:CE3	1.92	0.88
10:B:397:U:OP2	32:X:9:LYS:NZ	2.07	0.87
12:D:56:LYS:HZ2	12:D:59:ARG:HH21	1.12	0.87
28:T:38:ALA:HB2	28:T:81:LYS:HZ3	1.36	0.87
6:5:9:ARG:HH12	10:B:2151:U:H5"	1.39	0.87
9:A:13:G:H1'	9:A:14:U:H5"	1.54	0.87
10:B:329:G:H1	29:U:16:LYS:NZ	1.72	0.87
9:A:116:G:H2'	9:A:117:G:H8	1.38	0.87
10:B:1533:C:O2	10:B:1538:G:N2	2.06	0.87
10:B:2824:C:H3'	10:B:2825:G:H21	1.38	0.87
10:B:2872:A:H4'	22:N:46:ARG:NH2	1.88	0.87
4:3:46:LYS:NZ	10:B:630:G:OP1	2.05	0.87
9:A:85:G:H2'	9:A:86:G:H8	1.38	0.87
10:B:1099:G:N7	17:I:3:LYS:N	2.21	0.87
10:B:2364:C:OP1	31:W:54:ARG:NH1	2.07	0.87
10:B:219:A:N6	10:B:428:A:OP2	2.08	0.87
12:D:46:ARG:HH22	12:D:88:GLU:HG2	1.39	0.87
12:D:56:LYS:NZ	12:D:59:ARG:HH21	1.73	0.87
16:H:30:LEU:HG	16:H:35:LYS:NZ	1.90	0.87
10:B:1355:G:H2'	10:B:1356:G:H8	1.38	0.87
16:H:68:ARG:CD	16:H:132:PHE:CD1	2.56	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:411:TRP:HA	7:6:425:LEU:HD21	1.57	0.87
10:B:711:G:H2'	10:B:712:G:H8	1.36	0.87
10:B:1861:G:N1	10:B:1881:C:N3	2.22	0.87
16:H:31:VAL:CB	32:X:40:GLU:OE2	2.22	0.87
17:I:93:ASN:H	17:I:136:GLY:HA2	1.38	0.87
25:Q:18:LYS:HA	25:Q:21:LYS:HZ3	1.38	0.87
10:B:305:C:N3	10:B:312:G:N1	2.22	0.86
10:B:1801:A:N6	11:C:261:ARG:HH12	1.72	0.86
19:K:12:ASN:HD21	19:K:96:THR:HB	1.38	0.86
24:P:70:GLU:OE2	24:P:100:ARG:NH1	2.08	0.86
10:B:172:A:H2'	10:B:173:A:H8	1.38	0.86
7:6:189:ARG:HH12	7:6:272:GLN:HG3	1.38	0.86
10:B:2292:U:H2'	10:B:2293:G:H8	1.38	0.86
10:B:1744:A:H3'	10:B:1745:A:H8	1.40	0.86
10:B:2642:G:H2'	10:B:2643:G:H8	1.40	0.86
10:B:2701:U:O2	22:N:71:ARG:NH2	2.09	0.86
28:T:39:THR:HB	28:T:42:GLU:HB2	1.58	0.86
28:T:54:GLU:HB2	28:T:56:GLU:OE2	1.76	0.86
5:4:18:LYS:HZ1	10:B:1034:G:H5'	1.40	0.86
10:B:2360:G:N3	20:L:60:ARG:NH1	2.23	0.86
10:B:2631:G:N2	10:B:2787:C:O2	2.08	0.86
16:H:30:LEU:HG	16:H:35:LYS:HE2	1.56	0.86
28:T:37:ASP:C	28:T:81:LYS:HZ2	1.83	0.86
10:B:827:U:O2	10:B:2246:G:O2'	1.94	0.86
19:K:6:MET:HB3	19:K:17:ARG:HD2	1.57	0.86
3:2:34:ARG:NH1	10:B:467:G:OP2	2.08	0.86
10:B:238:C:H42	10:B:259:G:H1	1.24	0.86
10:B:692:C:HO2'	10:B:1354:A:HO2'	1.14	0.85
7:6:24:MET:CE	7:6:257:ARG:CZ	2.53	0.85
10:B:160:A:H2'	10:B:161:A:C8	2.12	0.85
10:B:2036:C:H2'	10:B:2037:A:H8	1.39	0.85
10:B:2406:A:N3	20:L:69:ARG:NH1	2.24	0.85
12:D:94:GLN:NE2	12:D:96:ILE:O	2.09	0.85
16:H:31:VAL:HG11	32:X:40:GLU:OE2	1.73	0.85
25:Q:91:ARG:HD2	26:R:11:GLN:HG3	1.59	0.85
10:B:2470:G:N7	10:B:2481:G:N2	2.25	0.85
10:B:1365:A:H2'	10:B:1366:A:H8	1.42	0.85
12:D:94:GLN:HB2	12:D:96:ILE:HG12	1.56	0.85
14:F:1:ALA:N	14:F:93:GLU:OE2	2.09	0.85
10:B:2278:A:H5'	21:M:10:ARG:NH2	1.91	0.85
28:T:13:ALA:HB3	28:T:33:LYS:HB2	1.58	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:134:ARG:O	6:5:137:MET:N	1.99	0.85
9:A:42:C:N3	14:F:89:THR:OG1	2.10	0.85
10:B:1612:C:N3	10:B:1619:G:N1	2.25	0.85
33:Y:38:GLN:HB3	33:Y:42:LEU:HD12	1.57	0.85
10:B:2606:C:H2'	10:B:2607:G:C8	2.11	0.85
11:C:5:CYS:SG	11:C:12:ARG:NH2	2.49	0.85
10:B:2696:U:H2'	10:B:2697:G:H8	1.41	0.84
10:B:2872:A:H4'	22:N:46:ARG:HH22	1.41	0.84
16:H:30:LEU:CD2	16:H:36:ALA:HB3	2.07	0.84
10:B:1508:A:H4'	10:B:1509:A:H5'	1.58	0.84
23:O:93:ASP:OD2	23:O:95:SER:OG	1.94	0.84
10:B:711:G:N1	10:B:720:U:O2	2.09	0.84
10:B:1283:G:N2	10:B:1286:A:OP2	2.10	0.84
10:B:1665:A:OP1	19:K:65:LYS:NZ	2.08	0.84
10:B:1779:U:O2	10:B:1783:A:N6	2.10	0.84
21:M:11:LYS:NZ	21:M:86:LYS:O	2.11	0.84
10:B:1791:A:N6	10:B:1828:G:O2'	2.09	0.84
10:B:2443:C:OP2	13:E:63:LYS:NZ	2.11	0.84
10:B:2572:A:H2'	12:D:149:ASN:HD21	1.41	0.84
10:B:55:G:N1	10:B:115:C:N3	2.25	0.84
10:B:787:C:H5"	10:B:788:A:H5'	1.59	0.84
10:B:2513:A:H4'	12:D:159:LYS:HD3	1.60	0.84
18:J:110:PRO:HB2	18:J:111:LYS:HG2	1.58	0.84
7:6:24:MET:HE1	7:6:257:ARG:CZ	2.07	0.84
10:B:302:C:OP1	29:U:78:LYS:NZ	2.09	0.84
10:B:708:G:N2	10:B:723:C:O2	2.10	0.84
10:B:738:G:N2	10:B:759:G:N7	2.26	0.84
10:B:1392:A:OP1	28:T:19:LYS:NZ	2.09	0.84
10:B:1518:C:H2'	10:B:1519:G:H8	1.40	0.84
10:B:1656:C:H42	10:B:2004:G:H1	1.24	0.84
14:F:43:ILE:HA	14:F:77:LYS:HZ1	1.43	0.84
16:H:31:VAL:HG13	32:X:40:GLU:OE2	1.74	0.84
16:H:130:VAL:H	16:H:144:VAL:HG11	1.42	0.84
10:B:1568:G:OP2	11:C:62:ARG:NH2	2.11	0.84
10:B:2892:G:OP1	10:B:2894:G:N2	2.10	0.84
6:5:37:LYS:HA	10:B:2128:G:OP1	1.77	0.84
10:B:2257:U:H2'	10:B:2258:C:H6	1.42	0.84
25:Q:50:ARG:HA	25:Q:53:LYS:HZ3	1.40	0.84
10:B:1:G:N1	10:B:2902:C:N3	2.25	0.84
7:6:364:GLU:HG3	7:6:408:ILE:CD1	2.07	0.83
10:B:329:G:H1	29:U:16:LYS:HZ3	0.86	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2531:A:H5”	15:G:175:LYS:HZ3	1.40	0.83
10:B:535:G:O3’	25:Q:52:ARG:NH2	2.10	0.83
10:B:826:U:O2’	20:L:53:GLY:N	2.10	0.83
18:J:118:MET:HA	18:J:121:LYS:HZ2	1.43	0.83
21:M:35:ALA:HB2	21:M:102:LEU:HD11	1.58	0.83
7:6:364:GLU:CD	7:6:408:ILE:HD11	2.03	0.83
10:B:638:G:N7	10:B:651:G:N2	2.25	0.83
10:B:2009:A:H2’	10:B:2010:G:H8	1.43	0.83
10:B:2304:G:N1	10:B:2312:U:O4	2.11	0.83
6:5:134:ARG:HD2	10:B:2172:U:H5”	1.59	0.83
10:B:2:G:N2	10:B:2901:C:O2	2.11	0.83
10:B:45:G:N2	10:B:433:C:O2	2.12	0.83
10:B:1062:G:H2’	10:B:1063:G:C8	2.12	0.83
10:B:1987:A:H2’	10:B:1988:G:H8	1.44	0.83
16:H:29:PHE:CE1	16:H:33:GLN:CG	2.61	0.83
18:J:140:LEU:HD23	18:J:142:ILE:H	1.44	0.83
14:F:147:ARG:NH1	14:F:150:GLY:H	1.76	0.83
18:J:118:MET:HG2	18:J:121:LYS:NZ	1.93	0.83
31:W:23:LYS:HZ1	31:W:67:LYS:HE3	1.43	0.83
10:B:1278:C:H2’	10:B:1279:G:H8	1.44	0.83
10:B:2830:C:O3’	12:D:56:LYS:NZ	2.11	0.83
10:B:225:C:H2’	10:B:226:A:H8	1.42	0.83
23:O:18:LEU:O	23:O:22:GLY:N	2.11	0.83
10:B:493:G:O2’	27:S:6:LYS:O	1.96	0.83
10:B:1276:A:O2’	22:N:20:MET:SD	2.35	0.83
10:B:1291:C:H2’	10:B:1292:G:H8	1.44	0.83
10:B:1453:A:N6	22:N:74:GLU:OE1	2.12	0.83
10:B:2809:A:H2’	10:B:2810:A:C8	2.14	0.83
6:5:168:ASN:ND2	10:B:2179:C:OP1	2.12	0.83
26:R:74:ILE:HB	26:R:87:GLN:HB3	1.61	0.83
7:6:84:LEU:O	7:6:135:ARG:NH2	2.11	0.82
10:B:1568:G:P	11:C:62:ARG:HH22	2.02	0.82
7:6:320:ASP:OD2	35:6:527:GNP:N2	2.11	0.82
9:A:43:C:H4’	14:F:91:ARG:HB3	1.60	0.82
10:B:413:C:N3	10:B:2410:G:N2	2.27	0.82
10:B:1788:C:OP1	11:C:220:ARG:NH2	2.12	0.82
16:H:31:VAL:HB	16:H:32:PRO:HD3	1.61	0.82
27:S:3:THR:HG21	27:S:8:ARG:NH1	1.92	0.82
8:7:93:ALA:HB2	8:7:129:LEU:HG	1.60	0.82
8:7:97:LYS:HD2	8:7:101:LYS:NZ	1.94	0.82
10:B:895:U:H5”	10:B:896:A:H5’	1.59	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1346:G:N2	10:B:1600:C:O2	2.13	0.82
10:B:2010:G:H5"	27:S:42:LYS:HB2	1.59	0.82
31:W:19:ARG:NH1	31:W:21:GLY:O	2.11	0.82
7:6:393:TRP:HH2	7:6:403:GLN:HG3	1.44	0.82
10:B:1340:U:OP2	28:T:82:LYS:NZ	2.13	0.82
10:B:856:G:H21	31:W:19:ARG:HH22	1.26	0.82
10:B:2212:A:N7	10:B:2214:C:N4	2.27	0.82
10:B:2387:U:O2	31:W:38:ARG:NH2	2.11	0.82
10:B:2799:A:H3'	10:B:2800:A:H5'	1.61	0.82
7:6:23:ASP:O	7:6:24:MET:HB2	1.77	0.82
16:H:67:ALA:O	16:H:68:ARG:HG2	1.79	0.82
6:5:54:LYS:NZ	10:B:1860:G:H5"	1.95	0.82
7:6:53:HIS:ND1	7:6:57:PHE:O	2.11	0.82
9:A:8:C:O3'	23:O:25:ARG:NH2	2.12	0.82
11:C:29:PHE:HB3	11:C:31:PRO:HD2	1.61	0.82
3:2:39:ARG:NH1	10:B:459:U:OP2	2.11	0.82
10:B:695:G:OP1	10:B:1380:G:O2'	1.97	0.82
10:B:1223:G:O5'	26:R:71:LYS:NZ	2.12	0.82
14:F:64:PRO:HB3	14:F:88:VAL:HG22	1.59	0.82
7:6:375:GLN:HG3	7:6:378:ARG:HH22	1.45	0.81
8:7:37:LYS:HZ2	8:7:54:VAL:HB	1.41	0.81
9:A:16:G:N2	9:A:68:C:O2	2.13	0.81
10:B:974:G:H8	10:B:990:A:H62	1.27	0.81
10:B:2637:U:O2	10:B:2782:G:N2	2.13	0.81
10:B:571:U:N3	10:B:575:A:N7	2.28	0.81
10:B:2315:G:O3'	14:F:124:ARG:NH1	2.12	0.81
7:6:103:ARG:NH2	7:6:257:ARG:O	2.14	0.81
10:B:1661:G:H1	10:B:1999:C:H42	1.24	0.81
18:J:23:LYS:NZ	18:J:141:ASP:O	2.13	0.81
10:B:1072:C:H41	17:I:3:LYS:HD3	1.45	0.81
10:B:1346:G:H2'	10:B:1347:A:C8	2.16	0.81
12:D:77:ARG:NH2	12:D:200:ASP:OD1	2.13	0.81
10:B:1315:C:N4	10:B:1337:G:O6	2.12	0.81
10:B:1492:G:H1	10:B:1498:C:H42	1.28	0.81
10:B:1548:A:H2'	10:B:1549:A:H8	1.46	0.81
10:B:2087:G:H2'	10:B:2088:A:H8	1.45	0.81
10:B:2227:A:H3'	10:B:2228:G:H8	1.44	0.81
13:E:6:LYS:HG2	13:E:122:GLU:H	1.46	0.81
7:6:24:MET:HE3	7:6:257:ARG:NH2	1.75	0.81
10:B:621:A:OP2	20:L:99:ASN:ND2	2.13	0.81
10:B:1059:G:N1	10:B:1079:C:N3	2.26	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2220:U:H2'	10:B:2221:G:H8	1.46	0.81
19:K:92:GLN:H	19:K:110:LYS:HZ3	1.29	0.81
10:B:276:U:O2'	10:B:278:A:N7	2.13	0.81
10:B:1018:U:H3	10:B:1144:A:H61	1.26	0.81
10:B:2740:A:OP2	10:B:2763:G:N1	2.14	0.81
11:C:43:ASN:OD1	11:C:44:ASN:N	2.14	0.81
7:6:318:LYS:HG2	35:6:527:GNP:C6	2.11	0.80
15:G:45:ALA:HB3	15:G:48:THR:HB	1.61	0.80
8:7:71:CYS:HB3	8:7:75:ALA:HB2	1.63	0.80
10:B:1861:G:N2	10:B:1881:C:O2	2.14	0.80
10:B:2508:G:HO2'	10:B:2554:U:HO2'	1.20	0.80
10:B:2841:C:O2	10:B:2876:G:N2	2.12	0.80
10:B:252:G:OP1	20:L:47:ARG:NH2	2.14	0.80
10:B:1487:U:N3	10:B:1502:A:N1	2.27	0.80
21:M:66:ARG:NH2	21:M:104:GLU:OE2	2.14	0.80
25:Q:49:ARG:O	25:Q:53:LYS:NZ	2.14	0.80
6:5:41:SER:HA	6:5:177:LYS:HA	1.62	0.80
7:6:24:MET:HE1	7:6:257:ARG:NH2	1.93	0.80
7:6:119:GLU:OE1	7:6:185:ARG:NH2	2.13	0.80
10:B:2089:C:H2'	10:B:2090:A:H8	1.45	0.80
19:K:57:LEU:HA	19:K:88:ASN:HD21	1.46	0.80
9:A:85:G:H2'	9:A:86:G:C8	2.16	0.80
16:H:29:PHE:CE1	16:H:33:GLN:CD	2.60	0.80
10:B:36:G:N2	10:B:444:C:O2	2.14	0.80
10:B:244:A:H62	10:B:254:G:H21	1.29	0.80
10:B:2634:A:H2'	10:B:2635:A:H8	1.46	0.80
16:H:30:LEU:HA	16:H:35:LYS:HZ3	1.45	0.80
10:B:55:G:N2	10:B:115:C:O2	2.13	0.80
10:B:133:U:H2'	10:B:134:G:H8	1.46	0.80
10:B:541:A:H2'	10:B:542:C:C6	2.17	0.80
10:B:2128:G:HO2'	10:B:2159:G:H1	1.27	0.80
6:5:37:LYS:NZ	6:5:218:MET:HE1	1.97	0.79
10:B:188:G:H2'	10:B:189:G:C8	2.17	0.79
10:B:1055:G:H3'	10:B:1056:G:H8	1.47	0.79
10:B:2794:C:O2	10:B:2802:G:N2	2.15	0.79
10:B:532:A:C5'	25:Q:27:ARG:HH12	1.95	0.79
10:B:948:C:N4	10:B:969:G:O6	2.11	0.79
10:B:960:A:H61	21:M:82:MET:HE3	1.45	0.79
10:B:2674:G:H4'	19:K:29:ARG:HG2	1.64	0.79
19:K:70:ARG:HB3	19:K:74:SER:HB2	1.63	0.79
10:B:160:A:H2'	10:B:161:A:H8	1.46	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1449:G:N1	10:B:1462:C:N3	2.30	0.79
10:B:1801:A:N7	11:C:261:ARG:NH1	2.30	0.79
10:B:2391:G:H22	10:B:2424:C:H2'	1.46	0.79
12:D:28:GLU:OE2	12:D:185:ASN:HB2	1.82	0.79
10:B:279:A:H61	10:B:361:G:H1'	1.46	0.79
10:B:829:A:C8	10:B:2248:C:H5'	2.17	0.79
10:B:910:A:N3	10:B:2264:C:O2'	2.15	0.79
10:B:1501:G:OP1	11:C:100:ARG:NH2	2.14	0.79
12:D:46:ARG:NH1	12:D:87:GLY:O	2.15	0.79
18:J:103:ILE:HD12	18:J:106:LYS:HB3	1.62	0.79
10:B:783:A:C2	10:B:785:G:H1'	2.18	0.79
31:W:31:LEU:HG	31:W:33:GLY:H	1.46	0.79
6:5:53:ARG:HH12	10:B:1859:U:C5'	1.91	0.79
10:B:626:A:H2'	20:L:78:ARG:HE	1.47	0.79
10:B:1807:G:OP1	11:C:47:ARG:NH1	2.16	0.79
14:F:106:ALA:HA	14:F:112:ASP:OD2	1.83	0.79
20:L:89:VAL:HA	20:L:121:THR:HB	1.63	0.79
28:T:28:ASN:O	28:T:91:GLN:NE2	2.15	0.79
10:B:1450:G:N2	10:B:1461:C:O2	2.16	0.79
10:B:2278:A:H5'	21:M:10:ARG:HH21	1.46	0.79
10:B:2818:U:H2'	10:B:2819:G:H8	1.44	0.79
19:K:15:ALA:HA	19:K:48:ARG:HD2	1.65	0.79
30:V:30:ILE:HG12	30:V:91:PHE:HB2	1.62	0.79
10:B:1172:C:O2	10:B:1177:G:N1	2.15	0.79
10:B:2722:G:H4'	22:N:4:ARG:HB2	1.63	0.79
7:6:48:SER:HB3	7:6:49:ARG:HG2	1.64	0.79
10:B:2417:C:H2'	10:B:2418:A:H8	1.48	0.79
7:6:236:LEU:O	7:6:237:ARG:NH1	2.15	0.79
10:B:1059:G:N2	10:B:1079:C:O2	2.14	0.79
10:B:1430:G:H2'	10:B:1431:A:H8	1.48	0.79
17:I:116:MET:HE2	17:I:124:MET:HA	1.65	0.79
33:Y:7:ARG:O	33:Y:9:LYS:NZ	2.15	0.79
10:B:441:U:H2'	10:B:442:G:C8	2.17	0.78
10:B:2511:U:OP1	12:D:128:ARG:NH1	2.16	0.78
10:B:1250:G:OP2	20:L:21:ARG:NE	2.16	0.78
10:B:1287:A:H3'	10:B:1288:G:H21	1.46	0.78
10:B:1853:A:H2'	10:B:1854:A:C8	2.18	0.78
10:B:2843:G:H2'	10:B:2844:G:C8	2.18	0.78
10:B:18:U:H2'	10:B:19:A:C8	2.17	0.78
10:B:947:A:H2'	10:B:948:C:H6	1.48	0.78
10:B:27:G:N2	10:B:513:A:OP2	2.17	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:543:G:N2	10:B:550:C:O2	2.15	0.78
10:B:708:G:N1	10:B:723:C:N3	2.31	0.78
10:B:1152:C:H2'	10:B:1153:C:H6	1.47	0.78
10:B:1853:A:H2'	10:B:1854:A:H8	1.49	0.78
10:B:2269:G:N2	10:B:2270:A:N3	2.32	0.78
10:B:2524:G:N2	10:B:2539:C:O2	2.16	0.78
7:6:45:ILE:HG21	7:6:66:ILE:HG22	1.65	0.78
7:6:412:ARG:NH2	10:B:2660:A:N3	2.32	0.78
10:B:1351:C:N3	10:B:1381:G:N1	2.32	0.78
10:B:1355:G:H2'	10:B:1356:G:C8	2.19	0.78
10:B:2336:A:C6	31:W:40:ARG:NH1	2.51	0.78
8:7:32:GLY:O	10:B:1055:G:O2'	2.01	0.78
10:B:517:C:O2'	27:S:18:ARG:NH2	2.16	0.78
10:B:688:U:H2'	10:B:689:A:H8	1.47	0.78
13:E:149:ILE:HG22	13:E:188:MET:HA	1.65	0.78
18:J:31:GLU:OE2	18:J:34:ARG:NH2	2.16	0.78
2:1:9:LYS:HZ2	2:1:52:LYS:HD3	1.48	0.78
3:2:12:ARG:NH1	10:B:686:U:O4	2.17	0.78
10:B:729:G:N2	11:C:10:PRO:O	2.17	0.78
10:B:1064:C:OP1	17:I:80:LYS:NZ	2.17	0.78
10:B:1170:C:H2'	10:B:1171:G:H8	1.48	0.78
16:H:31:VAL:HG12	32:X:40:GLU:HG2	1.62	0.78
10:B:635:C:H2'	10:B:636:G:C8	2.19	0.78
10:B:1078:U:OP1	17:I:133:ARG:NH2	2.17	0.78
10:B:1170:C:H2'	10:B:1171:G:C8	2.19	0.78
10:B:2251:G:N7	10:B:2450:A:O2'	2.16	0.78
10:B:2323:G:N2	10:B:2332:C:O2	2.17	0.78
11:C:107:LYS:NZ	11:C:193:GLU:OE2	2.17	0.78
11:C:132:ARG:NH1	16:H:125:THR:O	2.17	0.78
7:6:20:GLN:O	10:B:1916:A:OP1	2.02	0.77
10:B:1745:A:H2'	10:B:1746:A:H8	1.49	0.77
10:B:1799:G:O3'	11:C:181:ARG:NH1	2.17	0.77
10:B:2125:G:O2'	10:B:2173:A:N6	2.17	0.77
10:B:2588:G:N7	10:B:2607:G:N2	2.31	0.77
10:B:2589:A:H2'	10:B:2590:A:C8	2.19	0.77
10:B:448:U:N3	10:B:1258:U:O2	2.17	0.77
10:B:1457:U:N3	10:B:1458:U:O4	2.16	0.77
27:S:6:LYS:HZ1	27:S:102:HIS:HB3	1.49	0.77
29:U:23:LYS:NZ	29:U:24:VAL:O	2.17	0.77
10:B:240:C:O2	10:B:257:C:N4	2.17	0.77
10:B:635:C:H2'	10:B:636:G:H8	1.49	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1449:G:O6	10:B:1462:C:N4	2.16	0.77
10:B:1983:G:H2'	10:B:1984:G:H8	1.49	0.77
14:F:31:GLU:HB3	14:F:156:THR:HG22	1.64	0.77
9:A:49:C:OP2	23:O:30:ARG:NH1	2.17	0.77
9:A:116:G:H2'	9:A:117:G:C8	2.19	0.77
10:B:1660:G:H2'	10:B:1661:G:H8	1.50	0.77
10:B:995:C:O2'	18:J:1:MET:SD	2.43	0.77
10:B:1597:A:H5"	10:B:1598:A:H5'	1.66	0.77
10:B:1710:G:H2'	10:B:1711:A:C8	2.19	0.77
10:B:2330:G:H21	31:W:39:GLN:HA	1.50	0.77
28:T:15:HIS:NE2	28:T:17:SER:OG	2.17	0.77
9:A:70:C:O2	9:A:106:G:N2	2.17	0.77
14:F:96:TRP:HA	14:F:99:PHE:HB3	1.67	0.77
1:0:47:TYR:HE1	1:0:52:LYS:HD3	1.49	0.77
7:6:367:GLN:HG2	7:6:405:ARG:HB2	1.67	0.77
9:A:75:G:H2'	9:A:76:G:C8	2.18	0.77
10:B:85:G:OP2	29:U:6:ARG:NH2	2.18	0.77
10:B:870:U:H3'	10:B:871:U:H5"	1.67	0.77
10:B:2260:C:H41	31:W:10:ARG:HH21	1.33	0.77
10:B:391:A:O2'	10:B:410:G:OP1	2.03	0.77
10:B:1061:U:H1'	10:B:1070:A:H1'	1.67	0.77
10:B:2746:U:N3	10:B:2756:U:O4	2.18	0.77
11:C:257:ARG:HH21	11:C:259:ASN:HB2	1.49	0.77
8:7:1:MET:N	10:B:1046:A:O2'	2.16	0.77
10:B:195:A:H61	10:B:198:C:H3'	1.50	0.77
10:B:1383:A:H2'	10:B:1384:A:C8	2.19	0.77
10:B:1487:U:O4	10:B:1502:A:N6	2.14	0.77
10:B:2656:U:OP2	10:B:2664:G:N1	2.13	0.77
12:D:151:THR:HB	12:D:152:PRO:HD2	1.66	0.77
10:B:16:C:H2'	10:B:17:G:H8	1.49	0.77
10:B:769:U:H2'	10:B:770:G:H8	1.50	0.77
10:B:1971:U:O2'	11:C:238:ASN:OD1	2.03	0.77
10:B:2330:G:N2	31:W:38:ARG:O	2.18	0.77
14:F:125:GLY:HA3	14:F:159:ALA:HB3	1.65	0.77
10:B:580:U:H2'	10:B:581:C:H6	1.50	0.76
10:B:1040:A:N6	10:B:1115:G:O6	2.15	0.76
10:B:1340:U:H4'	10:B:1394:U:H1'	1.67	0.76
10:B:1403:A:O3'	10:B:1471:G:O2'	2.02	0.76
10:B:1450:G:N1	10:B:1461:C:N3	2.33	0.76
10:B:1639:C:H2'	10:B:1640:A:H5"	1.65	0.76
10:B:1666:G:N2	10:B:1994:C:N3	2.28	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2489:U:O2'	10:B:2518:A:N6	2.18	0.76
13:E:3:LEU:O	13:E:12:LEU:N	2.18	0.76
19:K:29:ARG:NH2	19:K:36:ASP:OD2	2.18	0.76
31:W:48:ALA:HB3	31:W:81:ILE:HD11	1.66	0.76
10:B:494:G:H4'	27:S:6:LYS:H	1.51	0.76
10:B:1181:U:H2'	10:B:1182:G:H8	1.50	0.76
10:B:1515:A:H2'	10:B:1516:G:O4'	1.84	0.76
10:B:1722:A:H2'	10:B:1723:G:H8	1.50	0.76
10:B:2032:G:H21	12:D:150:GLN:CB	1.95	0.76
10:B:2102:G:N1	10:B:2187:U:O2	2.15	0.76
10:B:2553:G:C2	10:B:2583:G:H1'	2.19	0.76
10:B:2692:G:N3	10:B:2847:U:O2'	2.19	0.76
13:E:19:PHE:HB3	13:E:113:VAL:HG11	1.65	0.76
6:5:103:GLN:HB3	6:5:108:GLU:HB2	1.65	0.76
10:B:1392:A:N6	10:B:1393:A:N1	2.32	0.76
10:B:1619:G:H2'	10:B:1620:G:H8	1.51	0.76
10:B:2079:U:O2	10:B:2242:G:N2	2.17	0.76
10:B:2541:A:O2'	10:B:2765:A:N1	2.18	0.76
17:I:20:SER:HA	17:I:24:GLY:HA3	1.68	0.76
19:K:91:GLU:HB2	19:K:110:LYS:NZ	1.99	0.76
24:P:88:ARG:NH2	24:P:114:ASN:HD22	1.82	0.76
10:B:122:G:H1	10:B:129:C:H42	1.33	0.76
26:R:6:GLN:HG3	26:R:11:GLN:HE22	1.50	0.76
7:6:331:ARG:HH12	7:6:359:GLU:CD	1.92	0.76
10:B:855:G:N2	10:B:922:C:O2	2.15	0.76
10:B:1173:U:O2'	10:B:1176:U:N3	2.16	0.76
10:B:1721:G:N2	10:B:1738:G:O2'	2.18	0.76
10:B:1927:A:H2'	10:B:1928:A:C8	2.20	0.76
25:Q:101:ASP:O	25:Q:104:ALA:N	2.15	0.76
31:W:19:ARG:HH12	31:W:22:VAL:HG12	1.51	0.76
6:5:38:PHE:O	6:5:39:VAL:HB	1.85	0.76
8:7:61:ARG:NH2	10:B:1047:G:O2'	2.19	0.76
10:B:652:U:H3'	10:B:653:U:O2	1.85	0.76
10:B:863:A:OP2	21:M:18:ARG:NH1	2.19	0.76
10:B:2230:G:N3	32:X:31:ASN:ND2	2.34	0.76
10:B:2282:G:N2	10:B:2390:U:O2	2.13	0.76
10:B:2647:U:O2	10:B:2673:G:N1	2.16	0.76
30:V:80:HIS:CD2	30:V:82:TYR:H	2.03	0.76
5:4:34:LYS:HD3	5:4:36:ARG:HH22	1.51	0.76
6:5:44:VAL:HA	6:5:214:ILE:HA	1.67	0.76
10:B:617:G:OP1	13:E:102:ARG:NH1	2.18	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1215:G:H2'	10:B:1216:G:H8	1.49	0.76
10:B:1499:C:H2'	10:B:1500:G:H8	1.50	0.76
11:C:209:ALA:HA	11:C:212:TRP:HD1	1.51	0.76
10:B:2897:U:H2'	10:B:2898:U:H6	1.51	0.76
17:I:91:LYS:O	17:I:95:ASP:N	2.18	0.76
7:6:84:LEU:HD11	7:6:89:GLU:HB2	1.67	0.76
10:B:821:A:H2'	10:B:946:C:H6	1.51	0.76
6:5:212:VAL:HG11	6:5:227:ALA:HB3	1.68	0.76
7:6:24:MET:CE	7:6:24:MET:HA	2.16	0.76
8:7:34:THR:HG21	10:B:1057:A:H1'	1.67	0.76
9:A:112:G:N2	23:O:45:SER:O	2.19	0.76
10:B:280:U:O4	10:B:360:U:N3	2.17	0.76
10:B:451:U:H5'	13:E:47:LYS:HZ1	1.51	0.76
10:B:706:A:N6	10:B:725:G:O2'	2.18	0.76
10:B:1869:G:N2	10:B:1872:A:OP2	2.19	0.76
12:D:151:THR:C	12:D:153:GLY:H	1.93	0.76
10:B:573:U:OP2	26:R:80:ARG:NH2	2.19	0.75
10:B:1952:A:N6	10:B:1953:A:N1	2.33	0.75
10:B:2510:C:O2	10:B:2578:G:N2	2.19	0.75
16:H:26:ALA:O	16:H:28:ASN:N	2.19	0.75
23:O:67:ASN:OD1	23:O:68:LYS:N	2.20	0.75
6:5:134:ARG:HH21	6:5:136:LEU:HD23	1.50	0.75
9:A:43:C:O2'	14:F:90:LEU:O	2.03	0.75
10:B:17:G:N2	10:B:555:G:OP1	2.18	0.75
10:B:644:A:H61	10:B:2349:G:H21	1.32	0.75
10:B:658:U:O3'	13:E:95:LYS:NZ	2.20	0.75
10:B:1439:A:H62	10:B:1552:A:H8	1.30	0.75
10:B:2139:U:H2'	10:B:2152:G:H1	1.51	0.75
10:B:2809:A:H2'	10:B:2810:A:H8	1.51	0.75
7:6:4:ARG:NH1	7:6:113:GLN:HE21	1.84	0.75
10:B:1050:A:H2'	10:B:1051:G:H8	1.51	0.75
10:B:1477:A:N1	10:B:1557:C:O2'	2.19	0.75
10:B:1667:G:O2'	10:B:1991:U:O4	2.04	0.75
10:B:1688:U:H2'	10:B:1698:A:N1	2.02	0.75
10:B:2328:A:H2'	10:B:2329:U:C6	2.21	0.75
1:0:4:GLN:NE2	10:B:2056:G:O2'	2.19	0.75
8:7:56:ARG:NH1	10:B:1084:A:N7	2.34	0.75
10:B:305:C:N4	10:B:312:G:O6	2.18	0.75
10:B:451:U:O2	10:B:453:A:N6	2.20	0.75
10:B:1492:G:N2	10:B:1498:C:N3	2.30	0.75
10:B:1902:C:O2'	11:C:240:GLY:O	2.03	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:H:68:ARG:HD2	16:H:132:PHE:HE1	1.40	0.75
24:P:90:ALA:HB3	24:P:110:LYS:H	1.50	0.75
10:B:11:C:N4	10:B:2629:U:H3	1.84	0.75
10:B:155:A:N6	10:B:171:U:O4	2.18	0.75
10:B:978:G:H2'	10:B:979:A:H8	1.49	0.75
10:B:1822:C:H2'	10:B:1823:G:H8	1.51	0.75
10:B:2636:C:H4'	12:D:81:GLU:OE2	1.86	0.75
7:6:291:VAL:HG23	7:6:292:GLN:H	1.51	0.75
16:H:62:LEU:HD12	16:H:108:VAL:HG23	1.68	0.75
7:6:23:ASP:O	7:6:24:MET:CB	2.34	0.75
7:6:375:GLN:O	7:6:378:ARG:NH2	2.20	0.75
8:7:122:GLN:HG2	8:7:123:ILE:HG13	1.68	0.75
10:B:774:G:N2	10:B:787:C:O2'	2.19	0.75
10:B:998:C:OP2	25:Q:92:LYS:NZ	2.19	0.75
10:B:1308:A:N6	10:B:1606:C:O2	2.20	0.75
10:B:2100:G:N1	10:B:2189:U:O2	2.18	0.75
10:B:2134:A:O2'	10:B:2160:C:O2	2.03	0.75
10:B:2332:C:O4'	31:W:40:ARG:NH2	2.20	0.75
10:B:2472:G:H2'	10:B:2475:C:H42	1.52	0.75
11:C:36:ASN:OD1	11:C:37:SER:N	2.17	0.75
4:3:2:LYS:NZ	10:B:242:G:OP2	2.19	0.75
10:B:820:A:H2'	10:B:821:A:H8	1.50	0.75
10:B:1314:C:N4	10:B:1338:G:H1	1.84	0.75
10:B:1650:A:N6	10:B:2007:U:O4	2.13	0.75
10:B:2127:G:N2	10:B:2162:G:O2'	2.20	0.75
7:6:24:MET:HE1	7:6:257:ARG:HH22	1.48	0.74
9:A:56:G:H4'	9:A:57:A:H5'	1.69	0.74
10:B:29:U:H2'	10:B:30:G:C8	2.20	0.74
11:C:18:VAL:H	11:C:202:ARG:NH2	1.85	0.74
8:7:39:THR:HG22	8:7:43:LYS:HE3	1.70	0.74
9:A:75:G:H1'	30:V:29:ILE:HD13	1.67	0.74
10:B:1077:A:H5"	17:I:94:LYS:HZ2	1.52	0.74
10:B:1437:C:O2'	10:B:1516:G:O2'	2.03	0.74
10:B:2126:A:H2	10:B:2163:A:H5'	1.52	0.74
10:B:2323:G:N1	10:B:2332:C:N3	2.33	0.74
10:B:2811:G:N2	10:B:2890:G:N3	2.36	0.74
12:D:148:GLN:NE2	12:D:151:THR:HG21	2.01	0.74
16:H:29:PHE:CD1	16:H:33:GLN:HG2	2.23	0.74
16:H:29:PHE:O	16:H:33:GLN:HB3	1.84	0.74
16:H:31:VAL:HG12	32:X:38:TRP:CD1	2.21	0.74
20:L:122:VAL:HG13	20:L:125:LEU:HD12	1.70	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:A:76:G:OP1	30:V:9:ARG:NH2	2.20	0.74
10:B:1663:G:O6	10:B:1997:C:N4	2.20	0.74
10:B:2530:A:H5'	15:G:174:LYS:NZ	2.00	0.74
10:B:2632:A:H2'	10:B:2633:G:H8	1.52	0.74
14:F:32:LYS:HB2	14:F:90:LEU:HB2	1.69	0.74
10:B:49:A:H4'	10:B:50:U:H5"	1.70	0.74
10:B:240:C:H3'	10:B:241:A:H8	1.52	0.74
10:B:805:G:N2	10:B:2068:U:OP2	2.20	0.74
10:B:1159:U:H2'	10:B:1160:G:H8	1.52	0.74
10:B:2265:U:H3'	10:B:2266:A:H8	1.52	0.74
10:B:2399:G:H2'	10:B:2400:G:H8	1.52	0.74
11:C:250:GLN:H	11:C:254:LYS:NZ	1.85	0.74
31:W:30:VAL:HA	31:W:60:ALA:O	1.86	0.74
10:B:653:U:OP2	10:B:654:A:N6	2.20	0.74
10:B:875:G:O6	10:B:902:C:N4	2.17	0.74
10:B:1015:U:H2'	10:B:1016:G:H8	1.50	0.74
10:B:1653:G:O2'	22:N:9:GLN:NE2	2.21	0.74
33:Y:31:GLN:OE1	33:Y:36:GLN:NE2	2.14	0.74
33:Y:56:LEU:O	33:Y:60:LYS:N	2.20	0.74
10:B:652:U:P	10:B:653:U:H3	2.10	0.74
10:B:713:G:N2	10:B:717:C:OP2	2.21	0.74
10:B:971:G:OP2	10:B:974:G:N2	2.21	0.74
10:B:2127:G:N1	10:B:2159:G:N7	2.35	0.74
22:N:14:SER:CA	22:N:17:ARG:HH21	1.99	0.74
6:5:46:VAL:N	6:5:171:ILE:O	2.20	0.74
6:5:71:ARG:NH1	6:5:112:ASP:OD1	2.21	0.74
6:5:133:PRO:O	10:B:2122:U:H5	1.68	0.74
7:6:331:ARG:HH21	7:6:334:GLU:HA	1.51	0.74
10:B:116:C:OP1	10:B:128:C:N4	2.18	0.74
10:B:633:A:O2'	10:B:2404:U:OP1	2.05	0.74
10:B:1131:G:H1	10:B:2024:G:H21	1.35	0.74
10:B:1207:C:H2'	10:B:1208:C:H6	1.52	0.74
10:B:1355:G:OP1	11:C:42:ARG:NH1	2.21	0.74
10:B:1964:G:O2'	10:B:1967:C:OP1	2.04	0.74
11:C:67:LYS:O	11:C:69:ASN:ND2	2.20	0.74
7:6:319:ILE:HG13	7:6:324:ASP:HB3	1.67	0.74
10:B:395:U:O2'	10:B:396:G:N7	2.20	0.74
10:B:1299:G:H21	10:B:1641:A:H62	1.35	0.74
10:B:1472:C:O2	10:B:1519:G:N2	2.21	0.74
10:B:2093:G:H1	10:B:2196:C:H42	1.32	0.74
18:J:77:HIS:HA	18:J:84:ILE:HG13	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:281:C:H42	10:B:359:G:H1	1.35	0.74
10:B:1352:U:O2	10:B:1380:G:N2	2.20	0.74
10:B:1365:A:H2'	10:B:1366:A:C8	2.23	0.74
10:B:2032:G:C2	12:D:150:GLN:HG2	2.23	0.74
10:B:2041:U:H2'	10:B:2042:A:C8	2.23	0.74
10:B:2406:A:OP2	10:B:2411:A:N6	2.20	0.74
10:B:141:G:H3'	10:B:141:G:N3	2.03	0.74
10:B:1008:A:P	18:J:111:LYS:HZ1	2.09	0.74
10:B:2591:C:H2'	10:B:2592:G:C8	2.23	0.74
13:E:6:LYS:HA	13:E:121:VAL:HA	1.68	0.74
14:F:127:TYR:H	14:F:155:ILE:HG12	1.53	0.74
24:P:49:ILE:HG22	24:P:57:ALA:HB3	1.69	0.74
6:5:54:LYS:NZ	6:5:203:GLN:HE22	1.86	0.73
10:B:2885:G:O2'	10:B:2886:A:O4'	2.06	0.73
19:K:46:ILE:HG23	19:K:48:ARG:HG3	1.68	0.73
21:M:7:THR:OG1	21:M:9:PHE:O	2.05	0.73
9:A:90:C:O3'	21:M:38:ARG:NH2	2.20	0.73
10:B:571:U:O2'	26:R:80:ARG:NH2	2.21	0.73
10:B:627:A:N6	20:L:112:LEU:O	2.21	0.73
10:B:1660:G:H2'	10:B:1661:G:C8	2.22	0.73
6:5:113:VAL:HA	6:5:162:ARG:HH22	1.52	0.73
10:B:325:G:H1	10:B:337:C:H42	1.36	0.73
10:B:838:C:H2'	10:B:839:U:H6	1.52	0.73
10:B:1824:G:C5'	11:C:51:ARG:HH21	2.01	0.73
10:B:2714:G:H2'	10:B:2715:C:C6	2.23	0.73
11:C:89:ASN:ND2	11:C:196:ASN:OD1	2.21	0.73
31:W:23:LYS:HE3	31:W:67:LYS:HG3	1.69	0.73
6:5:46:VAL:HB	6:5:171:ILE:HB	1.70	0.73
6:5:54:LYS:HZ2	10:B:1860:G:H5"	1.53	0.73
10:B:1804:C:H42	10:B:1813:G:H1	1.35	0.73
10:B:2708:G:H1'	22:N:71:ARG:HH11	1.51	0.73
13:E:145:ASP:HB3	13:E:184:ASP:H	1.53	0.73
17:I:99:LYS:HB3	17:I:138:VAL:HB	1.70	0.73
6:5:9:ARG:NH1	10:B:2151:U:H5"	2.02	0.73
10:B:57:C:H2'	10:B:58:G:C8	2.24	0.73
10:B:1346:G:H2'	10:B:1347:A:H8	1.53	0.73
10:B:2631:G:H2'	10:B:2632:A:H8	1.52	0.73
11:C:2:VAL:HA	11:C:18:VAL:HG22	1.70	0.73
1:0:3:GLN:HG3	10:B:2615:U:H1'	1.70	0.73
10:B:952:G:H1	10:B:965:C:H42	1.35	0.73
10:B:1099:G:H1'	17:I:4:VAL:HB	1.70	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1629:U:H2'	10:B:1630:A:H8	1.53	0.73
28:T:14:PRO:HA	28:T:32:LEU:HB2	1.71	0.73
7:6:10:GLN:HB3	7:6:42:LEU:HD11	1.69	0.73
10:B:491:G:H2'	10:B:492:A:C8	2.24	0.73
10:B:1250:G:P	20:L:21:ARG:HE	2.11	0.73
10:B:1258:U:O2'	13:E:79:ARG:NH1	2.21	0.73
10:B:2142:A:O2'	10:B:2145:C:N4	2.21	0.73
10:B:2336:A:C5	31:W:40:ARG:NH1	2.57	0.73
18:J:24:THR:HB	18:J:27:ARG:HB2	1.69	0.73
19:K:62:VAL:HB	19:K:102:VAL:HG11	1.69	0.73
24:P:64:SER:HB2	24:P:67:GLU:OE2	1.89	0.73
10:B:188:G:H2'	10:B:189:G:H8	1.53	0.73
10:B:2857:G:N2	10:B:2860:A:OP2	2.22	0.73
14:F:11:VAL:HG12	14:F:12:VAL:HG12	1.71	0.73
10:B:2265:U:H3'	10:B:2266:A:C8	2.23	0.73
10:B:2273:A:H2'	10:B:2274:A:H8	1.54	0.73
10:B:2308:G:H2'	10:B:2310:C:H41	1.51	0.73
15:G:14:VAL:HG11	15:G:75:VAL:HG13	1.70	0.73
16:H:43:ASN:O	16:H:50:ARG:NH2	2.22	0.73
6:5:40:GLU:HA	6:5:217:THR:HG23	1.71	0.73
10:B:1130:U:C4	12:D:152:PRO:CB	2.63	0.73
10:B:1138:G:C5	10:B:1139:G:H1'	2.24	0.73
25:Q:18:LYS:HA	25:Q:21:LYS:NZ	2.04	0.73
33:Y:11:VAL:HA	33:Y:63:ALA:HA	1.69	0.73
7:6:24:MET:SD	7:6:258:HIS:HE1	2.11	0.72
10:B:131:A:H2'	10:B:132:G:H8	1.54	0.72
10:B:133:U:H2'	10:B:134:G:C8	2.22	0.72
10:B:583:G:H2'	10:B:584:C:C6	2.23	0.72
10:B:851:C:H2'	10:B:852:U:C6	2.23	0.72
26:R:69:GLY:O	26:R:90:ARG:NH1	2.22	0.72
10:B:218:A:N6	10:B:219:A:N1	2.37	0.72
10:B:401:A:H2'	10:B:402:A:C8	2.23	0.72
10:B:572:A:OP2	26:R:80:ARG:NH2	2.22	0.72
10:B:573:U:O2'	10:B:575:A:OP1	2.07	0.72
10:B:2547:A:N6	10:B:2561:U:O4	2.17	0.72
13:E:27:LEU:HD21	13:E:104:ALA:HA	1.70	0.72
15:G:10:VAL:H	15:G:47:ASN:HB2	1.53	0.72
22:N:1:MET:SD	22:N:3:HIS:NE2	2.62	0.72
23:O:7:ARG:HA	23:O:10:ARG:HH21	1.52	0.72
23:O:16:ARG:O	23:O:20:GLU:N	2.18	0.72
7:6:395:GLU:OE2	7:6:401:SER:OG	2.04	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:27:G:H22	10:B:512:G:H2'	1.55	0.72
10:B:76:C:O2	10:B:110:G:N2	2.16	0.72
10:B:748:G:OP1	27:S:88:ARG:NH2	2.21	0.72
11:C:12:ARG:HE	11:C:15:VAL:HG11	1.53	0.72
10:B:652:U:OP2	10:B:654:A:N6	2.22	0.72
10:B:972:A:H3'	10:B:973:A:H2'	1.70	0.72
10:B:2242:G:O6	10:B:2243:U:N3	2.22	0.72
10:B:186:G:H2'	10:B:187:G:H8	1.53	0.72
10:B:807:U:OP1	10:B:830:G:N2	2.22	0.72
10:B:1677:A:H2'	10:B:1678:A:C8	2.24	0.72
10:B:2717:C:O3'	24:P:98:TYR:OH	2.05	0.72
29:U:89:GLY:HA2	29:U:91:LYS:NZ	2.03	0.72
5:4:1:MET:SD	5:4:36:ARG:NH1	2.63	0.72
10:B:660:C:H2'	10:B:661:A:C8	2.24	0.72
10:B:857:G:N2	10:B:920:A:N1	2.35	0.72
10:B:1999:C:O2	10:B:2687:U:O2'	2.06	0.72
10:B:2292:U:H2'	10:B:2293:G:C8	2.25	0.72
10:B:2569:G:H2'	10:B:2570:G:H8	1.55	0.72
10:B:2573:C:O2'	10:B:2574:G:OP2	2.08	0.72
10:B:2653:U:H3'	10:B:2654:A:C8	2.25	0.72
1:0:37:HIS:ND1	1:0:38:LEU:O	2.22	0.72
7:6:320:ASP:OD1	7:6:321:MET:N	2.23	0.72
10:B:431:U:H2'	10:B:432:A:H8	1.53	0.72
10:B:976:G:H5'	10:B:1156:A:H62	1.54	0.72
10:B:978:G:H2'	10:B:979:A:C8	2.24	0.72
10:B:1276:A:OP2	10:B:1645:G:O2'	2.05	0.72
10:B:1745:A:H2'	10:B:1746:A:C8	2.25	0.72
10:B:2713:U:O2'	10:B:2715:C:OP2	2.06	0.72
12:D:56:LYS:NZ	12:D:59:ARG:NH2	2.29	0.72
29:U:37:GLY:N	29:U:61:GLU:OE2	2.22	0.72
10:B:19:A:H2'	10:B:20:C:H6	1.54	0.72
10:B:401:A:H2'	10:B:402:A:H8	1.54	0.72
10:B:577:G:H2'	10:B:578:G:H8	1.52	0.72
10:B:1783:A:HO2'	10:B:2607:G:HO2'	1.23	0.72
10:B:1971:U:H4'	11:C:238:ASN:HD21	1.54	0.72
10:B:2758:A:H1'	15:G:63:GLN:HE22	1.54	0.72
21:M:34:LYS:NZ	30:V:82:TYR:HA	2.05	0.72
20:L:78:ARG:N	20:L:81:ASP:OD2	2.23	0.72
7:6:261:HIS:CG	7:6:262:ASP:H	2.08	0.72
10:B:1:G:O6	10:B:2902:C:N4	2.23	0.72
10:B:166:U:O2'	32:X:44:ARG:NH2	2.22	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:514:A:H2'	10:B:515:A:H8	1.55	0.72
10:B:1615:C:O2'	10:B:1616:A:H5'	1.90	0.72
10:B:2291:U:H2'	10:B:2292:U:C6	2.25	0.72
12:D:56:LYS:CE	12:D:59:ARG:HH21	2.02	0.72
17:I:59:THR:HB	17:I:67:THR:HB	1.70	0.72
30:V:9:ARG:HH11	30:V:27:PRO:HB3	1.55	0.72
6:5:172:HIS:NE2	10:B:2177:C:O2'	2.22	0.71
10:B:2453:A:H61	10:B:2500:U:H3	1.38	0.71
10:B:2471:A:O2'	10:B:2472:G:O5'	2.08	0.71
10:B:2631:G:N1	10:B:2787:C:N3	2.37	0.71
10:B:2722:G:O2'	22:N:3:HIS:O	2.08	0.71
14:F:41:GLU:O	14:F:77:LYS:NZ	2.23	0.71
19:K:16:ARG:H	19:K:48:ARG:NH1	1.87	0.71
10:B:252:G:P	20:L:47:ARG:HH21	2.14	0.71
10:B:297:G:O2'	29:U:85:ARG:NE	2.22	0.71
10:B:947:A:H2'	10:B:948:C:C6	2.25	0.71
10:B:1069:A:N6	10:B:1096:A:OP1	2.23	0.71
10:B:1420:A:H62	10:B:2211:A:H3'	1.53	0.71
10:B:1800:C:H5'	11:C:145:MET:HE1	1.72	0.71
10:B:2562:U:H1'	19:K:22:LYS:NZ	2.05	0.71
10:B:2794:C:N3	10:B:2802:G:N1	2.34	0.71
13:E:147:LEU:HD13	13:E:183:PHE:HE2	1.54	0.71
9:A:16:G:N1	9:A:68:C:N3	2.36	0.71
10:B:1181:U:H2'	10:B:1182:G:C8	2.26	0.71
10:B:1656:C:OP1	12:D:141:ARG:NE	2.24	0.71
10:B:2633:G:H2'	10:B:2634:A:C8	2.26	0.71
26:R:15:SER:N	26:R:18:GLN:OE1	2.24	0.71
27:S:8:ARG:HE	27:S:102:HIS:CE1	2.09	0.71
4:3:53:ASP:OD2	10:B:2359:C:O2'	2.01	0.71
9:A:9:G:P	23:O:25:ARG:HH22	2.13	0.71
10:B:27:G:N2	10:B:512:G:H2'	2.06	0.71
10:B:143:C:H2'	10:B:144:A:H8	1.55	0.71
10:B:451:U:H5'	13:E:47:LYS:NZ	2.05	0.71
23:O:7:ARG:HG3	23:O:10:ARG:NH2	2.05	0.71
1:0:15:ARG:HG2	10:B:2046:G:H5'	1.72	0.71
6:5:128:GLY:HA3	10:B:2170:A:H2	1.56	0.71
6:5:133:PRO:O	10:B:2122:U:C4	2.43	0.71
10:B:200:U:H4'	32:X:21:LEU:HB2	1.72	0.71
10:B:1519:G:H2'	10:B:1520:U:H6	1.54	0.71
10:B:1792:G:O6	10:B:1828:G:N2	2.22	0.71
10:B:2531:A:H5"	15:G:175:LYS:NZ	2.04	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2642:G:H2'	10:B:2643:G:C8	2.25	0.71
28:T:36:LYS:O	28:T:81:LYS:NZ	2.24	0.71
28:T:38:ALA:HB2	28:T:81:LYS:NZ	2.04	0.71
9:A:15:A:H3'	9:A:16:G:H8	1.56	0.71
10:B:582:A:O3'	25:Q:10:ARG:NH2	2.24	0.71
10:B:1710:G:H2'	10:B:1711:A:H8	1.53	0.71
10:B:2246:G:H2'	10:B:2247:A:C8	2.25	0.71
11:C:162:GLN:H	11:C:174:ARG:HB3	1.54	0.71
21:M:11:LYS:HD3	21:M:86:LYS:HD2	1.73	0.71
10:B:857:G:H2'	10:B:858:G:C8	2.25	0.71
10:B:2333:A:OP2	31:W:76:ARG:NH1	2.23	0.71
15:G:126:THR:HG1	15:G:128:THR:HG1	1.24	0.71
31:W:49:ASN:HB2	31:W:61:LYS:HG2	1.73	0.71
7:6:179:GLU:HB3	7:6:183:LYS:NZ	2.05	0.71
7:6:189:ARG:NH2	7:6:276:GLN:OE1	2.19	0.71
10:B:184:C:O2'	10:B:217:A:N3	2.24	0.71
10:B:445:C:O3'	25:Q:2:ARG:NH1	2.24	0.71
10:B:582:A:H2'	10:B:583:G:C8	2.26	0.71
10:B:1370:C:H2'	10:B:1371:G:C8	2.26	0.71
10:B:1935:G:H2'	10:B:1962:C:H42	1.55	0.71
12:D:7:LYS:NZ	12:D:77:ARG:HH12	1.89	0.71
14:F:2:LYS:HA	14:F:5:ASP:HB2	1.71	0.71
16:H:129:GLU:HB3	16:H:139:PHE:HE2	1.55	0.71
28:T:18:GLU:O	28:T:21:SER:HB2	1.90	0.71
10:B:987:C:H2'	10:B:988:A:H8	1.56	0.71
10:B:1049:C:H1'	10:B:1113:U:H4'	1.73	0.71
10:B:1059:G:H3'	10:B:1060:U:H2'	1.71	0.71
10:B:2320:U:O2'	10:B:2322:A:N7	2.24	0.71
16:H:29:PHE:CD1	16:H:33:GLN:CG	2.74	0.71
25:Q:16:ILE:HG21	25:Q:35:PHE:HD1	1.55	0.71
7:6:10:GLN:HG3	7:6:40:GLU:HG2	1.73	0.71
7:6:390:GLU:N	7:6:403:GLN:O	2.20	0.71
9:A:95:U:H2'	9:A:96:G:H8	1.55	0.71
10:B:1320:C:N4	10:B:1331:G:O6	2.18	0.71
10:B:2723:C:OP1	22:N:3:HIS:ND1	2.23	0.71
15:G:104:LEU:HB2	15:G:112:VAL:HB	1.71	0.71
19:K:60:VAL:HG11	19:K:111:PHE:HE2	1.56	0.71
3:2:33:ARG:HH21	10:B:467:G:P	2.14	0.70
4:3:51:LYS:HZ3	4:3:54:LEU:HD13	1.56	0.70
7:6:26:ASP:O	7:6:27:LEU:CB	2.39	0.70
10:B:409:G:H2'	10:B:410:G:C8	2.26	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2572:A:H2'	12:D:149:ASN:ND2	2.06	0.70
10:B:2589:A:H2'	10:B:2590:A:H8	1.53	0.70
14:F:47:LYS:O	14:F:51:ASN:ND2	2.24	0.70
16:H:127:GLU:O	16:H:141:LYS:NZ	2.15	0.70
19:K:92:GLN:HG3	19:K:110:LYS:NZ	2.06	0.70
27:S:69:LEU:HA	27:S:110:ARG:HB2	1.71	0.70
31:W:59:PHE:CE2	31:W:61:LYS:HE3	2.26	0.70
2:1:44:GLN:NE2	2:1:45:HIS:O	2.18	0.70
7:6:331:ARG:NH2	7:6:359:GLU:OE2	2.22	0.70
8:7:38:MET:HA	8:7:41:LEU:HB2	1.73	0.70
8:7:59:LEU:H	8:7:62:ARG:HB2	1.54	0.70
10:B:414:C:H2'	10:B:415:A:H8	1.55	0.70
10:B:1038:G:H2'	10:B:1039:A:C8	2.25	0.70
10:B:1164:C:H2'	10:B:1165:A:H8	1.56	0.70
10:B:1527:G:N3	10:B:1546:G:N2	2.39	0.70
10:B:2701:U:H3	10:B:2707:U:H3	1.39	0.70
10:B:2820:A:N6	12:D:197:THR:O	2.24	0.70
11:C:122:ALA:O	11:C:127:ASN:ND2	2.24	0.70
10:B:296:U:H3	10:B:342:A:H61	1.39	0.70
10:B:2032:G:N7	10:B:2454:G:O2'	2.25	0.70
10:B:2562:U:H1'	19:K:22:LYS:HZ2	1.54	0.70
11:C:250:GLN:HE21	11:C:252:LYS:H	1.38	0.70
7:6:203:VAL:O	7:6:282:HIS:ND1	2.24	0.70
10:B:19:A:H2'	10:B:20:C:C6	2.27	0.70
10:B:309:A:N6	10:B:330:A:N7	2.39	0.70
10:B:1836:C:N3	10:B:1904:G:N2	2.37	0.70
10:B:1151:A:H4'	25:Q:80:ASN:ND2	2.06	0.70
10:B:1642:G:N2	10:B:1643:G:N3	2.39	0.70
10:B:2207:C:O2	10:B:2217:G:N1	2.19	0.70
10:B:2387:U:O2'	31:W:38:ARG:NE	2.23	0.70
29:U:89:GLY:HA2	29:U:91:LYS:HZ1	1.56	0.70
7:6:231:THR:OG1	35:6:527:GNP:O3G	2.09	0.70
10:B:238:C:N3	10:B:259:G:N2	2.34	0.70
10:B:629:G:H2'	10:B:630:G:C8	2.26	0.70
10:B:1060:U:OP1	17:I:75:ALA:N	2.25	0.70
10:B:1482:G:O6	10:B:1508:A:N6	2.23	0.70
10:B:2070:A:H2'	10:B:2071:A:H8	1.56	0.70
10:B:2316:G:P	14:F:124:ARG:HH12	2.15	0.70
10:B:2336:A:N7	31:W:40:ARG:NH2	2.39	0.70
13:E:1:MET:H1	13:E:19:PHE:HB2	1.55	0.70
25:Q:50:ARG:HA	25:Q:53:LYS:NZ	2.06	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:S:88:ARG:HG3	27:S:94:ASP:OD2	1.91	0.70
8:7:81:LEU:HD11	10:B:1106:G:H21	1.57	0.70
10:B:365:U:H2'	10:B:366:C:C6	2.27	0.70
10:B:371:A:H2	10:B:372:G:H21	1.37	0.70
10:B:487:C:H2'	10:B:488:G:H8	1.55	0.70
10:B:536:G:H21	18:J:47:HIS:CD2	2.10	0.70
10:B:1812:U:H2'	10:B:1813:G:C8	2.27	0.70
10:B:1817:G:OP1	11:C:86:ARG:NH2	2.25	0.70
10:B:2020:A:O3'	25:Q:24:TYR:OH	2.10	0.70
10:B:2283:C:OP2	10:B:2389:G:O2'	2.10	0.70
10:B:2743:U:H4'	15:G:152:ARG:HH22	1.56	0.70
10:B:2811:G:H1	10:B:2889:C:N4	1.88	0.70
23:O:30:ARG:HB2	23:O:102:ARG:HH21	1.56	0.70
8:7:114:GLU:HG2	8:7:122:GLN:HG3	1.72	0.70
10:B:281:C:N3	10:B:359:G:N2	2.39	0.70
10:B:2071:A:H2'	10:B:2072:C:H6	1.57	0.70
10:B:2796:U:O2	10:B:2797:U:N3	2.25	0.70
10:B:480:A:OP2	29:U:43:LYS:NZ	2.25	0.70
10:B:669:G:O2'	10:B:670:A:OP1	2.08	0.70
10:B:1742:U:H2'	10:B:1743:G:O4'	1.92	0.70
10:B:2081:U:OP1	32:X:18:SER:OG	2.09	0.70
10:B:2559:C:H2'	10:B:2560:A:C8	2.26	0.70
10:B:307:G:N2	10:B:309:A:H3'	2.06	0.70
10:B:602:A:O2'	10:B:655:A:N6	2.24	0.70
10:B:1387:A:H2'	10:B:1388:G:H8	1.57	0.70
10:B:2355:G:O2'	31:W:16:GLU:OE1	2.09	0.70
11:C:260:LYS:HA	11:C:263:ASP:OD2	1.92	0.70
14:F:105:ILE:HB	14:F:111:ARG:HH21	1.56	0.70
16:H:27:ARG:NH2	32:X:58:ILE:O	2.25	0.70
19:K:89:ASN:OD1	19:K:90:SER:N	2.24	0.70
31:W:17:ALA:HA	31:W:37:VAL:HG11	1.71	0.70
9:A:24:G:O4'	9:A:26:C:N4	2.23	0.69
10:B:61:C:O4'	33:Y:44:LYS:NZ	2.25	0.69
10:B:277:G:H1'	10:B:361:G:N1	2.07	0.69
19:K:63:ARG:HH12	19:K:100:GLY:C	2.00	0.69
7:6:364:GLU:OE1	7:6:408:ILE:HD11	1.90	0.69
9:A:24:G:N3	9:A:27:C:N4	2.39	0.69
10:B:649:G:H2'	10:B:650:C:C6	2.27	0.69
10:B:1652:A:O2'	10:B:1653:G:OP1	2.09	0.69
10:B:2818:U:H2'	10:B:2819:G:C8	2.27	0.69
16:H:128:HIS:HA	16:H:141:LYS:HZ3	1.57	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:I:13:ALA:HA	17:I:53:PRO:HA	1.72	0.69
25:Q:101:ASP:HB3	25:Q:104:ALA:HB3	1.72	0.69
1:0:51:ARG:HB3	1:0:53:VAL:HG13	1.75	0.69
10:B:579:G:H2'	10:B:580:U:C6	2.28	0.69
10:B:807:U:H2'	10:B:808:G:H8	1.57	0.69
10:B:1767:G:N2	10:B:1985:C:O2	2.24	0.69
10:B:2641:G:H2'	10:B:2642:G:C8	2.27	0.69
10:B:2811:G:H2'	10:B:2812:G:H8	1.57	0.69
14:F:118:ALA:N	14:F:173:ASP:OD2	2.24	0.69
23:O:7:ARG:HA	23:O:10:ARG:HE	1.55	0.69
27:S:66:ILE:O	27:S:68:ASP:N	2.26	0.69
30:V:35:GLU:OE2	30:V:93:ARG:NE	2.25	0.69
7:6:24:MET:SD	7:6:258:HIS:CE1	2.85	0.69
10:B:247:G:H4'	10:B:386:G:C2	2.27	0.69
10:B:2047:C:H2'	10:B:2048:G:C8	2.27	0.69
10:B:2852:G:H5'	22:N:64:ARG:NH2	2.07	0.69
12:D:33:ARG:HH22	12:D:72:GLY:C	2.00	0.69
16:H:31:VAL:HB	16:H:32:PRO:CD	2.21	0.69
20:L:77:ILE:HD11	20:L:110:VAL:HG22	1.74	0.69
22:N:38:LEU:HD11	22:N:42:LYS:HE3	1.73	0.69
7:6:241:VAL:HG12	7:6:243:ASP:H	1.58	0.69
10:B:545:U:O2'	10:B:549:G:OP1	2.10	0.69
10:B:857:G:H1'	31:W:19:ARG:NH2	2.06	0.69
10:B:2074:U:O2'	10:B:2598:A:N3	2.24	0.69
8:7:56:ARG:HD2	10:B:1084:A:C4	2.28	0.69
10:B:456:C:N3	28:T:73:ARG:NH1	2.40	0.69
10:B:658:U:O2	13:E:97:ASN:ND2	2.26	0.69
10:B:690:G:H2'	10:B:691:C:C6	2.28	0.69
10:B:880:G:H1	10:B:897:C:H42	1.41	0.69
10:B:927:A:H2'	10:B:928:A:C8	2.27	0.69
10:B:973:A:O5'	26:R:81:LYS:NZ	2.24	0.69
10:B:1016:G:H1	10:B:1146:C:H42	1.41	0.69
10:B:2325:G:H22	10:B:2389:G:H1	1.38	0.69
10:B:2454:G:H22	10:B:2499:C:H1'	1.56	0.69
10:B:2735:G:H1	10:B:2769:U:H3	1.41	0.69
10:B:2817:U:O2'	10:B:2836:U:O2	2.08	0.69
13:E:155:GLU:HA	13:E:158:PHE:HD2	1.56	0.69
14:F:96:TRP:O	14:F:100:GLU:N	2.23	0.69
17:I:60:VAL:HA	17:I:65:SER:H	1.57	0.69
23:O:7:ARG:HG3	23:O:10:ARG:HH21	1.57	0.69
31:W:45:HIS:NE2	31:W:48:ALA:O	2.25	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:26:G:N1	10:B:513:A:OP2	2.26	0.69
10:B:1802:A:OP2	10:B:1814:G:N2	2.24	0.69
10:B:2007:U:H2'	10:B:2008:C:H6	1.57	0.69
10:B:2032:G:N2	12:D:150:GLN:HB3	2.07	0.69
10:B:2576:G:O2'	10:B:2579:C:OP2	2.11	0.69
11:C:250:GLN:HE21	11:C:252:LYS:N	1.91	0.69
12:D:55:LYS:HD2	12:D:60:VAL:HG22	1.74	0.69
16:H:30:LEU:CG	16:H:35:LYS:HE2	2.22	0.69
18:J:130:HIS:HB2	18:J:132:HIS:HD2	1.57	0.69
4:3:22:LYS:NZ	10:B:650:C:H4'	2.08	0.69
6:5:104:ILE:HD11	10:B:2170:A:H5"	1.74	0.69
10:B:154:U:H2'	10:B:155:A:H8	1.57	0.69
10:B:783:A:H2'	10:B:784:G:H4'	1.74	0.69
10:B:967:U:H2'	10:B:968:C:C6	2.27	0.69
10:B:1140:C:H1'	10:B:1143:A:C2	2.28	0.69
10:B:1204:A:O2'	10:B:1205:A:OP2	2.10	0.69
10:B:1666:G:H1	10:B:1994:C:N4	1.84	0.69
10:B:1753:G:OP2	24:P:108:ARG:NH2	2.24	0.69
10:B:1857:G:H4'	10:B:1858:A:H5'	1.74	0.69
10:B:2047:C:H2'	10:B:2048:G:H8	1.58	0.69
12:D:151:THR:CB	12:D:152:PRO:HD2	2.23	0.69
14:F:126:ASN:HA	14:F:155:ILE:HD11	1.75	0.69
16:H:5:LEU:HD23	16:H:36:ALA:HB2	1.73	0.69
20:L:51:GLU:HG3	20:L:54:GLN:HB3	1.74	0.69
20:L:110:VAL:HB	20:L:127:VAL:HG13	1.73	0.69
20:L:135:ILE:HG23	20:L:136:GLU:HG2	1.73	0.69
34:Z:9:THR:N	34:Z:53:MET:O	2.25	0.69
6:5:166:ASP:HB3	10:B:2120:G:H22	1.57	0.69
10:B:252:G:H5'	20:L:47:ARG:HH21	1.56	0.69
10:B:1176:U:H3'	10:B:1177:G:C8	2.28	0.69
10:B:1724:G:H1	10:B:1737:G:H1'	1.57	0.69
10:B:1729:U:O4	10:B:1731:G:N2	2.26	0.69
12:D:62:LYS:O	12:D:66:GLY:N	2.24	0.69
12:D:151:THR:CG2	12:D:152:PRO:HD2	2.23	0.69
15:G:22:VAL:HB	15:G:33:THR:HG21	1.75	0.69
8:7:40:GLU:HA	8:7:43:LYS:HB2	1.76	0.69
9:A:7:G:O2'	23:O:29:HIS:NE2	2.25	0.69
10:B:543:G:N1	10:B:550:C:N3	2.37	0.69
10:B:564:C:OP2	26:R:79:ARG:NH2	2.26	0.69
10:B:1011:G:OP2	25:Q:69:ARG:NH2	2.26	0.69
10:B:1080:A:H1'	17:I:127:SER:HA	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1492:G:H1	10:B:1498:C:N4	1.91	0.69
11:C:24:HIS:ND1	11:C:25:LYS:O	2.25	0.69
14:F:36:ASN:HB3	14:F:152:ASP:HB2	1.75	0.69
18:J:43:GLU:O	18:J:45:THR:N	2.26	0.69
23:O:35:ILE:HG22	23:O:53:THR:HG23	1.74	0.69
1:0:43:THR:OG1	1:0:47:TYR:O	2.10	0.68
7:6:208:ALA:N	35:6:527:GNP:O1B	2.26	0.68
7:6:332:ASP:HB2	7:6:337:PRO:HD2	1.73	0.68
10:B:1:G:N2	10:B:2902:C:O2	2.19	0.68
10:B:1173:U:H2'	10:B:1174:U:C2	2.28	0.68
10:B:1210:G:O2'	10:B:1211:C:N4	2.25	0.68
10:B:1422:G:H2'	10:B:1423:G:H8	1.57	0.68
10:B:2237:G:O2'	10:B:2239:G:N7	2.27	0.68
16:H:68:ARG:HB2	16:H:132:PHE:CB	2.23	0.68
27:S:35:ILE:O	27:S:39:THR:OG1	2.09	0.68
3:2:8:SER:OG	10:B:770:G:OP1	2.12	0.68
9:A:30:C:H1'	9:A:57:A:H61	1.59	0.68
10:B:570:G:OP1	10:B:972:A:O2'	2.06	0.68
10:B:693:A:H2'	10:B:694:U:O4'	1.93	0.68
10:B:957:C:C2	10:B:959:A:C8	2.82	0.68
10:B:1612:C:O2	10:B:1619:G:N2	2.15	0.68
10:B:1704:C:H2'	10:B:1705:A:C8	2.28	0.68
15:G:8:VAL:HB	15:G:49:LEU:HD12	1.76	0.68
18:J:37:ARG:O	18:J:51:GLY:N	2.25	0.68
1:0:49:ARG:HB3	10:B:2884:U:H5	1.58	0.68
7:6:153:ARG:HH11	7:6:154:GLY:H	1.42	0.68
10:B:1837:C:H2'	10:B:1899:A:H61	1.59	0.68
10:B:2197:U:H1'	10:B:2198:A:H8	1.58	0.68
10:B:2204:G:O2'	11:C:147:PRO:O	2.10	0.68
22:N:2:ARG:HG3	22:N:5:LYS:HD2	1.75	0.68
33:Y:5:GLU:HA	33:Y:7:ARG:HH21	1.56	0.68
2:1:9:LYS:NZ	2:1:52:LYS:HD3	2.07	0.68
6:5:65:LEU:HD12	6:5:161:VAL:HG21	1.75	0.68
7:6:212:THR:HG21	35:6:527:GNP:H2'	1.76	0.68
7:6:393:TRP:CH2	7:6:403:GLN:HG3	2.28	0.68
10:B:321:U:O2'	10:B:322:A:OP1	2.11	0.68
10:B:1661:G:H1	10:B:1999:C:N4	1.92	0.68
10:B:2898:U:H2'	10:B:2899:A:C8	2.28	0.68
24:P:61:ARG:NH2	24:P:63:ILE:HD11	2.09	0.68
29:U:5:ARG:HB2	29:U:8:ASP:OD2	1.93	0.68
3:2:3:ARG:NH2	10:B:464:U:P	2.64	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:304:U:O2	10:B:313:G:N1	2.20	0.68
10:B:993:G:OP2	25:Q:50:ARG:NH2	2.27	0.68
24:P:75:THR:HG23	24:P:80:VAL:HG11	1.75	0.68
25:Q:93:ILE:HG23	25:Q:94:LEU:HG	1.75	0.68
6:5:168:ASN:ND2	10:B:2178:C:OP1	2.25	0.68
10:B:1825:U:H2'	10:B:1826:G:C8	2.25	0.68
17:I:35:MET:HE3	17:I:39:LYS:NZ	2.09	0.68
29:U:85:ARG:HA	29:U:91:LYS:HG2	1.74	0.68
4:3:51:LYS:HZ3	4:3:54:LEU:CD1	2.06	0.68
10:B:532:A:P	25:Q:40:LYS:HZ1	2.17	0.68
10:B:709:U:H2'	10:B:710:U:C6	2.29	0.68
10:B:1590:A:H2'	10:B:1591:A:C8	2.28	0.68
10:B:2838:G:H1'	22:N:45:ARG:NH1	2.09	0.68
16:H:127:GLU:OE2	16:H:141:LYS:HB3	1.93	0.68
10:B:1257:C:HO2'	13:E:78:TRP:CD1	2.10	0.68
10:B:1417:C:H42	10:B:1581:G:H1	1.41	0.68
10:B:2305:U:C3'	14:F:132:ARG:HH21	2.05	0.68
10:B:2314:A:H2'	10:B:2315:G:H8	1.58	0.68
10:B:2824:C:H3'	10:B:2825:G:N2	2.08	0.68
13:E:138:LEU:HD21	13:E:146:VAL:HG11	1.76	0.68
19:K:92:GLN:HG3	19:K:110:LYS:HZ1	1.59	0.68
21:M:17:ASN:HD21	21:M:95:LEU:HD11	1.58	0.68
9:A:52:A:H3'	9:A:53:A:H8	1.57	0.68
10:B:88:G:H2'	10:B:89:A:H8	1.58	0.68
10:B:520:G:OP1	27:S:25:ARG:NH1	2.27	0.68
10:B:674:G:H1	10:B:806:C:H42	1.42	0.68
10:B:1088:A:H61	17:I:134:SER:HB3	1.57	0.68
10:B:1208:C:O2	10:B:1238:G:N1	2.25	0.68
10:B:1252:G:O2'	10:B:1253:A:O5'	2.11	0.68
10:B:1297:C:H2'	10:B:1298:C:H6	1.59	0.68
10:B:2693:G:H2'	10:B:2694:G:H8	1.57	0.68
14:F:98:PHE:HE1	14:F:101:ARG:HH21	1.42	0.68
1:0:10:SER:OG	10:B:17:G:H5'	1.94	0.68
4:3:35:LYS:NZ	4:3:39:ARG:NH2	2.42	0.68
6:5:76:ALA:HB3	6:5:114:VAL:HA	1.75	0.68
7:6:192:ARG:HA	7:6:194:LYS:NZ	2.09	0.68
10:B:178:G:H2'	10:B:179:C:H6	1.57	0.68
10:B:578:G:N2	25:Q:32:ARG:HH21	1.90	0.68
10:B:1047:G:N2	10:B:1110:G:O2'	2.26	0.68
10:B:1229:C:H2'	10:B:1230:A:H8	1.59	0.68
10:B:2075:U:H1'	10:B:2597:G:H21	1.59	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:C:239:PHE:CE2	11:C:241:LYS:HB2	2.29	0.68
6:5:37:LYS:NZ	6:5:218:MET:CE	2.56	0.67
8:7:153:ARG:NE	8:7:163:GLU:OE2	2.27	0.67
10:B:922:C:H2'	10:B:923:G:C8	2.29	0.67
10:B:1019:U:H3	10:B:1142:A:H62	1.42	0.67
10:B:2258:C:P	31:W:10:ARG:HH12	2.17	0.67
10:B:2634:A:H2'	10:B:2635:A:C8	2.28	0.67
12:D:125:TRP:HE1	12:D:160:LYS:HB2	1.58	0.67
10:B:413:C:N4	10:B:2410:G:H1	1.92	0.67
10:B:1518:C:H2'	10:B:1519:G:C8	2.28	0.67
10:B:1651:G:H1	10:B:2006:C:N4	1.90	0.67
10:B:1736:U:H2'	10:B:1737:G:O4'	1.93	0.67
10:B:1786:A:O2'	10:B:1787:A:O5'	2.12	0.67
10:B:2515:C:H2'	10:B:2516:A:H8	1.58	0.67
10:B:2547:A:O2'	10:B:2548:U:O4'	2.11	0.67
12:D:33:ARG:NH2	12:D:72:GLY:C	2.53	0.67
13:E:1:MET:N	13:E:19:PHE:HB2	2.09	0.67
15:G:154:GLU:OE2	15:G:159:LYS:HB2	1.93	0.67
17:I:129:GLU:O	17:I:133:ARG:HG2	1.94	0.67
7:6:370:LEU:HD22	7:6:383:PHE:HZ	1.58	0.67
9:A:28:C:OP2	23:O:34:HIS:ND1	2.27	0.67
10:B:1050:A:H2'	10:B:1051:G:C8	2.28	0.67
10:B:2180:U:H2'	10:B:2181:U:C6	2.29	0.67
10:B:2511:U:H1'	12:D:130:GLN:HE21	1.59	0.67
10:B:2745:C:H4'	15:G:142:GLN:HA	1.75	0.67
10:B:2852:G:OP1	22:N:64:ARG:NH2	2.24	0.67
7:6:184:GLN:HE22	10:B:2479:U:H2'	1.59	0.67
7:6:311:PRO:HB2	7:6:360:ARG:HH22	1.60	0.67
10:B:6:A:H2'	10:B:7:G:H8	1.59	0.67
10:B:185:G:N1	10:B:211:C:N3	2.33	0.67
10:B:988:A:OP1	34:Z:11:SER:N	2.27	0.67
10:B:1450:G:H2'	10:B:1451:C:O2	1.95	0.67
11:C:131:MET:HE3	11:C:173:LEU:HD11	1.75	0.67
20:L:109:LYS:HZ2	20:L:126:ARG:HB3	1.58	0.67
33:Y:5:GLU:HG2	33:Y:52:ARG:HD3	1.76	0.67
1:0:21:LEU:HD13	27:S:19:LEU:HB3	1.76	0.67
9:A:19:C:H2'	9:A:20:G:C8	2.29	0.67
10:B:449:A:OP1	13:E:80:SER:N	2.27	0.67
10:B:548:G:H4'	10:B:549:G:C4	2.30	0.67
10:B:927:A:H2'	10:B:928:A:H8	1.59	0.67
10:B:1722:A:OP2	10:B:1738:G:N2	2.28	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1794:A:N6	10:B:1826:G:O6	2.27	0.67
10:B:2401:U:O2'	10:B:2403:C:N4	2.27	0.67
10:B:2871:U:OP1	22:N:69:ARG:NH2	2.26	0.67
14:F:39:VAL:HG22	14:F:84:ILE:HA	1.77	0.67
16:H:55:GLU:HA	16:H:59:ALA:HB2	1.75	0.67
21:M:64:TRP:HB2	21:M:104:GLU:HB2	1.77	0.67
25:Q:96:ASP:O	25:Q:98:ALA:N	2.26	0.67
7:6:236:LEU:HA	7:6:249:LEU:O	1.94	0.67
7:6:336:LYS:O	7:6:360:ARG:NE	2.28	0.67
9:A:8:C:H4'	23:O:25:ARG:HH21	1.59	0.67
10:B:972:A:C6	10:B:973:A:C6	2.83	0.67
10:B:1097:U:H3	17:I:29:GLN:NE2	1.92	0.67
10:B:1569:A:H2'	10:B:1570:A:H8	1.59	0.67
10:B:1911:U:H2'	10:B:1912:A:H5'	1.77	0.67
10:B:2221:G:O3'	16:H:116:ARG:NH1	2.28	0.67
10:B:2456:C:H2'	10:B:2457:U:H6	1.59	0.67
10:B:2638:G:N7	10:B:2775:G:N1	2.42	0.67
14:F:147:ARG:HH12	14:F:150:GLY:N	1.91	0.67
8:7:37:LYS:O	8:7:41:LEU:N	2.26	0.67
8:7:37:LYS:HE3	10:B:1084:A:N1	2.10	0.67
8:7:40:GLU:O	8:7:44:ALA:N	2.24	0.67
10:B:46:G:O6	10:B:47:C:N4	2.28	0.67
10:B:959:A:H2'	10:B:960:A:C8	2.29	0.67
10:B:1677:A:H2'	10:B:1678:A:H8	1.59	0.67
13:E:126:VAL:HG22	13:E:128:ALA:H	1.59	0.67
23:O:30:ARG:HA	23:O:35:ILE:HG13	1.74	0.67
6:5:164:ARG:NH1	10:B:2122:U:H5'	2.09	0.67
7:6:413:ARG:NH1	15:G:176:LYS:OXT	2.27	0.67
9:A:48:U:C3'	23:O:30:ARG:HH12	2.07	0.67
10:B:238:C:N4	10:B:259:G:H1	1.93	0.67
10:B:311:A:N7	10:B:328:U:N3	2.43	0.67
10:B:669:G:C4	10:B:801:G:C6	2.83	0.67
10:B:1099:G:C1'	17:I:4:VAL:HB	2.25	0.67
10:B:1159:U:H2'	10:B:1160:G:C8	2.29	0.67
10:B:1519:G:H2'	10:B:1520:U:C6	2.29	0.67
10:B:1619:G:H2'	10:B:1620:G:C8	2.30	0.67
10:B:1689:A:OP2	10:B:1698:A:N6	2.25	0.67
10:B:1721:G:O2'	10:B:1722:A:OP2	2.13	0.67
10:B:2294:G:P	23:O:94:ARG:HH21	2.18	0.67
21:M:33:LEU:HG	21:M:117:PHE:CD2	2.30	0.67
1:0:30:ASP:OD2	1:0:43:THR:OG1	2.13	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:9:GLU:C	7:6:40:GLU:HB3	2.20	0.67
7:6:137:VAL:HG11	10:B:1942:C:H4'	1.76	0.67
10:B:794:A:H2'	10:B:795:C:H6	1.60	0.67
10:B:1333:G:H2'	10:B:1334:G:H8	1.59	0.67
10:B:1812:U:H2'	10:B:1813:G:H8	1.57	0.67
10:B:2004:G:N2	10:B:2005:A:N3	2.42	0.67
11:C:34:GLU:OE2	11:C:63:ILE:HD12	1.93	0.67
6:5:168:ASN:HB3	6:5:170:ILE:HG22	1.77	0.67
7:6:15:HIS:HD2	7:6:81:ASP:OD2	1.78	0.67
10:B:1077:A:H5"	17:I:94:LYS:NZ	2.10	0.67
10:B:1730:C:O2'	10:B:1731:G:O5'	2.11	0.67
10:B:1771:C:H2'	10:B:1772:A:C8	2.30	0.67
10:B:2631:G:H2'	10:B:2632:A:C8	2.30	0.67
10:B:2659:G:N2	10:B:2662:A:OP2	2.28	0.67
10:B:2812:G:N3	10:B:2813:A:H1'	2.10	0.67
15:G:153:PRO:HA	15:G:160:GLY:HA3	1.76	0.67
17:I:24:GLY:O	17:I:28:GLY:N	2.26	0.67
1:0:21:LEU:HD11	27:S:41:LYS:HZ2	1.60	0.66
7:6:279:LEU:HD11	7:6:360:ARG:NH1	2.04	0.66
10:B:704:G:HO2'	10:B:705:A:H8	1.43	0.66
10:B:1212:G:O2'	10:B:1235:G:N1	2.28	0.66
10:B:1613:G:N1	10:B:1619:G:N7	2.43	0.66
10:B:2221:G:O2'	16:H:116:ARG:NH2	2.28	0.66
10:B:2787:C:H2'	10:B:2788:C:H6	1.59	0.66
33:Y:25:GLN:HG2	33:Y:29:ARG:HH22	1.60	0.66
4:3:30:HIS:CD2	4:3:31:ILE:H	2.13	0.66
10:B:309:A:H5"	29:U:15:GLY:HA3	1.77	0.66
10:B:1927:A:H2'	10:B:1928:A:H8	1.60	0.66
17:I:99:LYS:HZ3	17:I:140:GLU:HG3	1.60	0.66
25:Q:18:LYS:HG3	25:Q:21:LYS:NZ	2.10	0.66
28:T:39:THR:O	28:T:41:ALA:N	2.27	0.66
32:X:35:HIS:ND1	32:X:36:ARG:O	2.29	0.66
5:4:19:ARG:HH21	10:B:2755:C:H3'	1.59	0.66
7:6:49:ARG:NH2	10:B:1910:G:O6	2.27	0.66
7:6:128:GLN:HE21	7:6:132:LEU:HD11	1.60	0.66
10:B:161:A:O2'	10:B:2207:C:O2'	2.14	0.66
10:B:227:A:C2	10:B:2407:A:H1'	2.30	0.66
10:B:672:C:H2'	10:B:673:C:H6	1.61	0.66
10:B:864:G:H2'	10:B:865:C:H6	1.60	0.66
10:B:2118:U:H5"	10:B:2119:A:H3'	1.76	0.66
10:B:2452:C:H2'	10:B:2453:A:C8	2.30	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:H:68:ARG:CB	16:H:132:PHE:CD1	2.76	0.66
6:5:96:GLY:HA2	6:5:99:ASP:OD2	1.95	0.66
10:B:61:C:OP1	33:Y:44:LYS:NZ	2.27	0.66
10:B:212:G:H2'	10:B:213:A:H8	1.59	0.66
10:B:743:A:H2'	10:B:744:U:H6	1.61	0.66
10:B:1746:A:H2'	10:B:1747:U:C6	2.31	0.66
10:B:1795:C:H42	10:B:1824:G:H1	1.43	0.66
10:B:2107:G:O2'	10:B:2108:A:O4'	2.12	0.66
10:B:2327:A:H2'	10:B:2328:A:C8	2.30	0.66
10:B:2812:G:N2	10:B:2813:A:N3	2.43	0.66
16:H:78:VAL:HB	16:H:112:LYS:HE3	1.78	0.66
29:U:23:LYS:NZ	29:U:25:LYS:HA	2.09	0.66
8:7:57:ASN:O	8:7:62:ARG:NE	2.29	0.66
10:B:912:C:P	21:M:8:LYS:HZ3	2.18	0.66
10:B:2071:A:H2'	10:B:2072:C:C6	2.31	0.66
10:B:2316:G:H5'	14:F:124:ARG:NH1	2.10	0.66
10:B:2513:A:O3'	12:D:159:LYS:NZ	2.28	0.66
12:D:151:THR:O	12:D:153:GLY:N	2.29	0.66
22:N:90:ARG:NE	22:N:117:ASP:OD2	2.28	0.66
7:6:4:ARG:NH1	7:6:6:ASP:HA	2.10	0.66
10:B:185:G:N2	10:B:211:C:O2	2.20	0.66
10:B:578:G:H21	25:Q:32:ARG:HE	1.44	0.66
10:B:1949:G:H2'	10:B:1950:G:C8	2.30	0.66
10:B:2180:U:H2'	10:B:2181:U:H6	1.59	0.66
10:B:2661:G:O6	15:G:176:LYS:NZ	2.25	0.66
21:M:132:THR:OG1	21:M:133:LYS:N	2.24	0.66
22:N:31:HIS:O	22:N:33:ILE:N	2.26	0.66
10:B:954:G:H5"	21:M:13:HIS:HB3	1.76	0.66
10:B:2206:C:H2'	10:B:2207:C:H6	1.59	0.66
10:B:2560:A:H2'	10:B:2561:U:H6	1.60	0.66
14:F:13:LYS:H	14:F:15:LEU:H	1.42	0.66
19:K:60:VAL:HG13	19:K:86:LEU:HD11	1.78	0.66
27:S:59:GLU:HA	27:S:64:ALA:HA	1.78	0.66
10:B:305:C:O2	10:B:312:G:N2	2.29	0.66
10:B:673:C:OP1	13:E:49:ARG:NH1	2.28	0.66
10:B:1162:G:H2'	10:B:1163:G:H8	1.60	0.66
10:B:1501:G:P	11:C:100:ARG:HH22	2.18	0.66
6:5:25:GLU:HG3	6:5:29:LEU:HD12	1.78	0.66
10:B:1199:U:H2'	10:B:1200:C:C6	2.31	0.66
10:B:1461:C:H2'	10:B:1462:C:H6	1.59	0.66
10:B:1836:C:H42	10:B:1904:G:H1	1.43	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:J:11:VAL:HG21	18:J:13:ARG:HH21	1.61	0.66
18:J:60:ASP:N	18:J:60:ASP:OD1	2.26	0.66
25:Q:108:LEU:HD13	26:R:48:LYS:HD2	1.76	0.66
4:3:51:LYS:HG2	4:3:54:LEU:HD13	1.77	0.66
7:6:280:LEU:HB2	7:6:312:THR:HG22	1.78	0.66
10:B:242:G:N2	10:B:255:A:OP2	2.29	0.66
10:B:536:G:H4'	25:Q:56:PHE:CZ	2.31	0.66
10:B:735:A:H2'	10:B:736:C:O4'	1.96	0.66
10:B:864:G:H2'	10:B:865:C:C6	2.31	0.66
10:B:1006:C:OP1	18:J:39:LYS:NZ	2.24	0.66
10:B:2653:U:O5'	10:B:2654:A:H2'	1.96	0.66
10:B:2676:C:H2'	10:B:2677:G:H8	1.61	0.66
12:D:32:ASN:OD1	12:D:52:THR:OG1	2.13	0.66
14:F:160:LYS:N	14:F:164:GLU:OE1	2.28	0.66
15:G:59:ASP:CG	15:G:63:GLN:HB2	2.21	0.66
18:J:113:PRO:HA	18:J:116:ARG:NH1	2.11	0.66
27:S:83:LYS:HD3	27:S:95:ARG:HD2	1.78	0.66
10:B:977:G:H2'	10:B:978:G:H8	1.61	0.65
10:B:1140:C:P	18:J:68:LYS:HZ3	2.20	0.65
10:B:1684:G:H2'	10:B:1685:C:C6	2.31	0.65
10:B:1889:A:N3	10:B:2086:U:O2'	2.26	0.65
10:B:1904:G:O2'	10:B:1927:A:N1	2.26	0.65
10:B:2201:G:N2	10:B:2223:G:H1'	2.11	0.65
10:B:2317:A:H3'	10:B:2318:G:H8	1.61	0.65
10:B:2330:G:H1'	31:W:39:GLN:HE21	1.61	0.65
10:B:2575:C:H5'	12:D:149:ASN:HB2	1.76	0.65
15:G:123:GLU:HG2	15:G:131:VAL:HB	1.78	0.65
18:J:105:VAL:HG12	18:J:109:LEU:HG	1.78	0.65
6:5:177:LYS:HE3	6:5:179:ASP:HB2	1.78	0.65
10:B:518:G:P	27:S:18:ARG:HH12	2.18	0.65
10:B:809:G:H2'	10:B:810:U:C6	2.31	0.65
10:B:2284:A:N6	10:B:2383:G:O6	2.28	0.65
10:B:2602:A:H4'	10:B:2603:G:H5"	1.79	0.65
10:B:2706:A:O2'	22:N:64:ARG:NH1	2.28	0.65
10:B:2840:C:H2'	10:B:2841:C:C6	2.31	0.65
11:C:87:SER:O	11:C:196:ASN:ND2	2.27	0.65
30:V:50:MET:HA	30:V:53:LYS:HE2	1.78	0.65
33:Y:13:GLU:HB3	33:Y:63:ALA:HB2	1.79	0.65
4:3:7:ARG:NH1	10:B:243:U:OP1	2.30	0.65
4:3:7:ARG:NH2	10:B:244:A:OP2	2.28	0.65
5:4:4:ARG:HH12	10:B:2477:U:H6	1.44	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:227:GLN:N	7:6:227:GLN:OE1	2.30	0.65
10:B:297:G:H2'	29:U:85:ARG:HH21	1.61	0.65
10:B:577:G:H2'	10:B:578:G:C8	2.30	0.65
10:B:582:A:H5'	25:Q:10:ARG:HH12	1.62	0.65
10:B:1097:U:H3	17:I:29:GLN:HE22	1.44	0.65
10:B:1245:G:H2'	10:B:1246:A:H8	1.62	0.65
10:B:1954:G:H21	10:B:2551:C:H5"	1.59	0.65
10:B:1983:G:H2'	10:B:1984:G:C8	2.31	0.65
10:B:2278:A:C2	10:B:2279:G:H1'	2.32	0.65
11:C:174:ARG:HE	11:C:180:MET:HG2	1.62	0.65
7:6:322:LEU:HD23	7:6:324:ASP:HB2	1.77	0.65
7:6:375:GLN:HG3	7:6:378:ARG:NH2	2.11	0.65
10:B:147:C:H2'	10:B:148:U:C6	2.30	0.65
10:B:281:C:N4	10:B:359:G:H1	1.94	0.65
10:B:796:C:H2'	10:B:797:G:H8	1.60	0.65
10:B:880:G:O2'	10:B:881:G:OP1	2.11	0.65
10:B:1402:U:O2'	10:B:1470:A:N1	2.25	0.65
12:D:149:ASN:O	12:D:150:GLN:C	2.40	0.65
16:H:51:ARG:HA	16:H:54:LEU:HB3	1.77	0.65
22:N:14:SER:HA	22:N:17:ARG:NH2	2.09	0.65
33:Y:5:GLU:HA	33:Y:7:ARG:NH2	2.12	0.65
6:5:114:VAL:HG21	6:5:136:LEU:O	1.95	0.65
7:6:43:GLN:HE22	7:6:69:ALA:HB1	1.62	0.65
10:B:228:C:N4	10:B:2407:A:N3	2.44	0.65
10:B:1287:A:O4'	22:N:103:ARG:NH2	2.30	0.65
10:B:1310:G:H2'	10:B:1311:G:C4	2.31	0.65
10:B:1765:U:H2'	10:B:1766:G:C8	2.32	0.65
10:B:1851:U:H2'	10:B:1852:U:C6	2.31	0.65
10:B:2843:G:H2'	10:B:2844:G:H8	1.61	0.65
11:C:153:LEU:HD13	11:C:175:LEU:HD21	1.78	0.65
33:Y:44:LYS:HA	33:Y:47:ARG:HD3	1.77	0.65
10:B:29:U:H2'	10:B:30:G:H8	1.59	0.65
10:B:406:G:H2'	10:B:407:G:H8	1.60	0.65
10:B:941:A:H3'	10:B:942:G:H8	1.62	0.65
10:B:1405:U:H2'	10:B:1406:U:C6	2.31	0.65
10:B:2719:G:H21	10:B:2872:A:H61	1.45	0.65
11:C:125:PRO:HA	11:C:191:LEU:HB2	1.79	0.65
11:C:211:ARG:HH21	11:C:217:PRO:HG3	1.60	0.65
12:D:33:ARG:NH1	12:D:71:ALA:O	2.29	0.65
16:H:68:ARG:CB	16:H:132:PHE:CD2	2.79	0.65
17:I:74:PRO:HA	17:I:112:LYS:NZ	2.06	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:O:35:ILE:N	23:O:53:THR:OG1	2.22	0.65
32:X:39:VAL:HG23	32:X:43:LYS:H	1.62	0.65
3:2:39:ARG:NH2	10:B:468:G:N7	2.45	0.65
10:B:32:C:N4	10:B:33:C:H41	1.95	0.65
10:B:672:C:H2'	10:B:673:C:C6	2.31	0.65
10:B:932:U:H4'	10:B:933:A:C5	2.31	0.65
10:B:1977:A:H2'	10:B:1978:A:O4'	1.96	0.65
10:B:2271:G:C5	10:B:2272:U:H5	2.13	0.65
10:B:2788:C:H2'	10:B:2789:C:C5	2.31	0.65
11:C:173:LEU:HD12	11:C:183:VAL:HG11	1.79	0.65
12:D:55:LYS:HB3	12:D:59:ARG:HB3	1.77	0.65
15:G:148:ARG:NH1	15:G:152:ARG:HA	2.12	0.65
19:K:18:VAL:HG12	19:K:42:ILE:HA	1.77	0.65
7:6:275:ARG:HG2	7:6:275:ARG:HH11	1.61	0.65
7:6:393:TRP:NE1	7:6:401:SER:HB2	2.11	0.65
9:A:95:U:H2'	9:A:96:G:C8	2.31	0.65
10:B:732:C:H2'	10:B:733:G:C8	2.31	0.65
10:B:738:G:H2'	10:B:739:A:C8	2.31	0.65
10:B:823:C:N4	10:B:824:U:O4	2.30	0.65
10:B:952:G:N2	10:B:965:C:N3	2.40	0.65
10:B:1386:C:O2'	10:B:1469:A:N3	2.27	0.65
10:B:1667:G:OP1	19:K:6:MET:N	2.22	0.65
10:B:1763:G:H21	10:B:1765:U:H5"	1.61	0.65
10:B:2041:U:H2'	10:B:2042:A:H8	1.59	0.65
10:B:2231:U:H2'	10:B:2232:C:H6	1.62	0.65
10:B:2699:C:H2'	10:B:2700:A:C8	2.32	0.65
11:C:34:GLU:O	11:C:36:ASN:N	2.29	0.65
16:H:30:LEU:HG	16:H:35:LYS:HZ1	1.60	0.65
24:P:102:ARG:HB2	24:P:105:LYS:HD3	1.78	0.65
32:X:4:CYS:HA	32:X:32:LEU:HD21	1.77	0.65
1:0:8:THR:HG23	1:0:11:LYS:H	1.60	0.65
6:5:103:GLN:O	6:5:108:GLU:N	2.25	0.65
8:7:97:LYS:HD2	8:7:101:LYS:HZ1	1.62	0.65
9:A:5:U:OP1	9:A:61:G:O2'	2.14	0.65
10:B:451:U:C5'	13:E:47:LYS:HZ1	2.10	0.65
10:B:626:A:C4	20:L:78:ARG:NH2	2.65	0.65
10:B:1047:G:O2'	10:B:1110:G:N1	2.21	0.65
10:B:1772:A:H2'	10:B:1773:A:H4'	1.79	0.65
10:B:1839:G:C4	10:B:1840:G:C8	2.84	0.65
11:C:147:PRO:HB3	11:C:186:ASP:HB3	1.79	0.65
13:E:102:ARG:NH2	13:E:199:MET:O	2.30	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:I:60:VAL:HB	17:I:64:ARG:HA	1.78	0.65
6:5:65:LEU:O	6:5:159:GLY:HA3	1.97	0.65
9:A:115:A:H2'	9:A:116:G:C8	2.31	0.65
10:B:207:A:H2'	10:B:208:C:O4'	1.97	0.65
10:B:558:U:OP1	18:J:113:PRO:HG2	1.96	0.65
10:B:705:A:C6	10:B:727:A:H1'	2.32	0.65
10:B:980:A:N7	10:B:981:A:C5	2.65	0.65
10:B:1581:G:H2'	10:B:1582:C:C6	2.32	0.65
10:B:1590:A:H2'	10:B:1591:A:H8	1.60	0.65
10:B:2088:A:H61	10:B:2231:U:H3	1.44	0.65
10:B:2094:A:H5'	16:H:25:TYR:CD1	2.31	0.65
10:B:2586:U:H2'	10:B:2587:A:H8	1.62	0.65
12:D:7:LYS:HD3	12:D:77:ARG:HH22	1.62	0.65
13:E:21:ARG:O	13:E:114:ARG:NH2	2.30	0.65
9:A:115:A:H2'	9:A:116:G:H8	1.61	0.64
10:B:712:G:H22	10:B:719:C:H2'	1.61	0.64
10:B:829:A:N7	10:B:2247:A:O2'	2.30	0.64
10:B:2085:U:O2	10:B:2235:G:N1	2.30	0.64
10:B:2205:A:H2'	10:B:2206:C:C6	2.31	0.64
10:B:2324:U:O2	10:B:2385:C:N4	2.31	0.64
10:B:2357:G:OP1	31:W:15:SER:OG	2.13	0.64
10:B:2520:C:O2'	10:B:2565:A:O2'	2.16	0.64
10:B:2639:A:C2	10:B:2640:G:H1'	2.33	0.64
11:C:156:SER:H	11:C:159:THR:HG21	1.63	0.64
13:E:121:VAL:O	13:E:190:ALA:N	2.29	0.64
20:L:29:LYS:HZ1	26:R:82:HIS:HB2	1.61	0.64
8:7:61:ARG:NH2	10:B:1110:G:O6	2.29	0.64
10:B:630:G:N2	10:B:633:A:OP2	2.29	0.64
10:B:1296:G:OP1	10:B:2709:G:O2'	2.15	0.64
10:B:1462:C:H2'	10:B:1463:C:H6	1.62	0.64
10:B:1728:C:O2'	10:B:1729:U:N3	2.30	0.64
10:B:2749:A:H5'	15:G:62:ALA:HA	1.80	0.64
10:B:2884:U:N3	10:B:2885:G:N7	2.45	0.64
23:O:24:THR:HG22	23:O:41:ALA:HA	1.77	0.64
23:O:30:ARG:HB2	23:O:102:ARG:NH2	2.11	0.64
33:Y:45:GLN:O	33:Y:49:ASP:N	2.30	0.64
6:5:37:LYS:HZ3	6:5:218:MET:CE	2.10	0.64
6:5:71:ARG:HH11	6:5:112:ASP:CG	2.05	0.64
10:B:178:G:H2'	10:B:179:C:C6	2.31	0.64
10:B:1268:A:H2'	10:B:1269:A:O4'	1.97	0.64
10:B:1936:A:OP2	10:B:1961:C:N4	2.28	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1995:U:O2	19:K:2:GLN:NE2	2.29	0.64
13:E:108:ILE:O	13:E:111:GLU:HB3	1.97	0.64
15:G:34:ARG:NH2	15:G:138:GLN:OE1	2.30	0.64
17:I:105:LEU:HA	17:I:108:ILE:HD12	1.79	0.64
24:P:91:VAL:HG11	24:P:96:LEU:HD21	1.79	0.64
25:Q:18:LYS:CA	25:Q:21:LYS:HZ3	2.08	0.64
8:7:100:ALA:HA	8:7:103:ASN:HB2	1.79	0.64
10:B:252:G:C5'	20:L:47:ARG:HH21	2.09	0.64
10:B:629:G:N3	10:B:639:U:O2'	2.29	0.64
10:B:685:A:N3	10:B:689:A:N6	2.46	0.64
10:B:715:A:H2'	10:B:716:A:O4'	1.98	0.64
10:B:886:A:O2'	10:B:888:C:OP2	2.15	0.64
10:B:1869:G:N2	10:B:1873:G:N7	2.45	0.64
10:B:1895:C:H2'	10:B:1896:G:H8	1.62	0.64
10:B:1931:U:OP2	10:B:1968:G:N1	2.16	0.64
10:B:2415:G:H2'	10:B:2416:C:C6	2.33	0.64
20:L:77:ILE:HB	20:L:81:ASP:OD2	1.98	0.64
23:O:104:GLN:O	23:O:108:ASP:N	2.30	0.64
3:2:33:ARG:NH2	10:B:467:G:OP1	2.29	0.64
9:A:36:C:N4	9:A:49:C:O2	2.31	0.64
10:B:1796:U:H2'	10:B:1797:G:H8	1.63	0.64
10:B:2148:G:H4'	10:B:2164:C:N3	2.12	0.64
10:B:2848:G:O2'	10:B:2867:G:N2	2.29	0.64
11:C:39:SER:HB3	11:C:42:ARG:HB3	1.80	0.64
11:C:130:PRO:HA	11:C:188:ARG:HA	1.80	0.64
21:M:34:LYS:HZ1	30:V:82:TYR:HA	1.62	0.64
25:Q:78:PHE:CE2	25:Q:82:LEU:HD11	2.33	0.64
29:U:32:LYS:HB3	29:U:63:ALA:HB1	1.79	0.64
4:3:12:ARG:NH2	10:B:250:G:OP2	2.29	0.64
7:6:194:LYS:HZ3	7:6:197:VAL:HG22	1.62	0.64
7:6:378:ARG:O	7:6:381:SER:HB3	1.98	0.64
8:7:30:SER:N	8:7:107:GLU:OE2	2.30	0.64
10:B:521:U:O4	10:B:522:A:N6	2.31	0.64
10:B:2036:C:H2'	10:B:2037:A:C8	2.29	0.64
20:L:133:ALA:O	20:L:137:ALA:N	2.23	0.64
7:6:411:TRP:CD1	7:6:425:LEU:HD11	2.33	0.64
9:A:92:C:H2'	9:A:93:C:C6	2.32	0.64
10:B:335:C:OP2	29:U:81:ARG:NH1	2.31	0.64
10:B:390:U:O2'	10:B:391:A:OP2	2.16	0.64
10:B:1094:U:N3	10:B:1097:U:OP2	2.30	0.64
10:B:1459:G:OP1	10:B:1459:G:N2	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1701:A:OP1	10:B:1763:G:N1	2.26	0.64
10:B:2072:C:H2'	10:B:2073:C:C6	2.33	0.64
10:B:2682:A:C8	12:D:11:MET:HG2	2.33	0.64
10:B:2748:A:N7	10:B:2753:A:N6	2.46	0.64
11:C:86:ARG:HD3	11:C:88:ALA:HB3	1.79	0.64
12:D:109:VAL:HG11	12:D:193:VAL:HG12	1.79	0.64
14:F:105:ILE:O	14:F:111:ARG:NE	2.31	0.64
15:G:154:GLU:N	15:G:159:LYS:O	2.28	0.64
7:6:411:TRP:CG	7:6:425:LEU:HD11	2.33	0.64
9:A:78:A:N6	9:A:98:G:O2'	2.31	0.64
10:B:83:A:H61	10:B:102:U:P	2.20	0.64
10:B:536:G:H4'	25:Q:56:PHE:HZ	1.62	0.64
10:B:651:G:O2'	10:B:652:U:OP1	2.16	0.64
10:B:1058:U:O2'	17:I:115:ASP:O	2.16	0.64
10:B:2083:G:C2	10:B:2084:C:H1'	2.32	0.64
10:B:2571:U:O2'	12:D:151:THR:CG2	2.41	0.64
10:B:2646:C:N4	10:B:2732:G:O6	2.28	0.64
10:B:2649:C:H2'	10:B:2650:U:H6	1.62	0.64
17:I:15:GLY:H	17:I:45:THR:HG21	1.62	0.64
9:A:94:A:H2'	9:A:95:U:O4'	1.98	0.64
10:B:201:C:P	32:X:17:ARG:HH12	2.20	0.64
10:B:620:G:N2	10:B:620:G:OP2	2.30	0.64
10:B:1699:G:O2'	10:B:1701:A:OP2	2.15	0.64
10:B:1860:G:N2	10:B:1882:U:O2	2.31	0.64
10:B:2079:U:H2'	10:B:2080:A:H8	1.61	0.64
19:K:70:ARG:NH1	19:K:76:ILE:HD11	2.12	0.64
19:K:92:GLN:HA	19:K:110:LYS:HD3	1.79	0.64
21:M:64:TRP:HZ3	21:M:106:ASP:HB3	1.63	0.64
7:6:177:ARG:HH22	10:B:2462:C:P	2.21	0.64
7:6:330:ASP:OD2	7:6:339:ARG:HB3	1.98	0.64
8:7:71:CYS:O	8:7:75:ALA:N	2.32	0.64
9:A:40:U:N3	9:A:44:G:OP2	2.22	0.64
10:B:36:G:H4'	10:B:451:U:C5	2.33	0.64
10:B:1128:G:O2'	10:B:1129:A:H5"	1.98	0.64
10:B:2087:G:H2'	10:B:2088:A:C8	2.30	0.64
27:S:6:LYS:NZ	27:S:102:HIS:CG	2.66	0.64
9:A:97:C:H2'	9:A:98:G:O4'	1.99	0.63
10:B:346:A:H3'	10:B:347:A:H8	1.63	0.63
10:B:649:G:H2'	10:B:650:C:H6	1.63	0.63
10:B:726:G:O2'	10:B:727:A:O5'	2.15	0.63
10:B:1058:U:H2'	10:B:1059:G:C8	2.33	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1115:G:O2'	10:B:1116:G:OP1	2.17	0.63
10:B:1373:A:HO2'	10:B:2212:A:H2	1.46	0.63
10:B:2210:U:N3	10:B:2212:A:N7	2.46	0.63
10:B:2247:A:OP2	10:B:2253:G:N1	2.30	0.63
10:B:2696:U:H2'	10:B:2697:G:C8	2.29	0.63
10:B:2831:G:OP2	12:D:59:ARG:NH2	2.30	0.63
10:B:2839:G:N2	22:N:91:ALA:O	2.25	0.63
21:M:42:THR:HG1	21:M:45:GLN:H	1.42	0.63
26:R:21:ARG:HD3	26:R:93:PHE:CD2	2.33	0.63
7:6:184:GLN:NE2	10:B:2479:U:H2'	2.13	0.63
10:B:1038:G:H2'	10:B:1039:A:H8	1.62	0.63
10:B:1062:G:H1'	10:B:1088:A:H62	1.63	0.63
10:B:2224:G:P	11:C:264:LYS:HZ3	2.21	0.63
10:B:2238:G:H8	10:B:2241:A:H61	1.45	0.63
10:B:2256:G:H2'	10:B:2257:U:C6	2.32	0.63
13:E:148:ILE:HA	13:E:187:VAL:HB	1.79	0.63
7:6:177:ARG:NH2	10:B:2462:C:OP1	2.30	0.63
10:B:532:A:H3'	25:Q:27:ARG:NH1	2.13	0.63
10:B:1599:U:H2'	10:B:1600:C:H6	1.63	0.63
10:B:2119:A:N1	10:B:2168:G:N2	2.46	0.63
10:B:2197:U:O3'	10:B:2198:A:H2'	1.98	0.63
10:B:2389:G:O2'	10:B:2390:U:OP2	2.16	0.63
24:P:75:THR:HA	24:P:80:VAL:HG21	1.79	0.63
25:Q:78:PHE:HE1	25:Q:109:VAL:HG22	1.62	0.63
27:S:6:LYS:HZ1	27:S:102:HIS:CG	2.14	0.63
30:V:51:GLN:HE22	30:V:77:VAL:HG11	1.63	0.63
6:5:48:LEU:HG	6:5:209:ILE:HD12	1.81	0.63
10:B:225:C:N3	10:B:231:A:N6	2.45	0.63
10:B:279:A:N6	10:B:361:G:H1'	2.14	0.63
10:B:374:A:H3'	10:B:375:G:H8	1.64	0.63
10:B:814:C:H42	10:B:1193:G:H1	1.46	0.63
10:B:912:C:H2'	10:B:913:U:C6	2.33	0.63
10:B:993:G:OP1	25:Q:50:ARG:NH1	2.22	0.63
10:B:1115:G:H2'	10:B:1116:G:H8	1.63	0.63
10:B:2641:G:H2'	10:B:2642:G:H8	1.63	0.63
11:C:66:PHE:CE2	11:C:155:ARG:NH1	2.65	0.63
6:5:113:VAL:CB	6:5:162:ARG:HH12	2.11	0.63
7:6:198:PRO:HG2	7:6:247:THR:HA	1.78	0.63
10:B:108:G:H2'	10:B:109:C:C6	2.34	0.63
10:B:230:G:H2'	10:B:231:A:H8	1.63	0.63
10:B:487:C:H2'	10:B:488:G:C8	2.33	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:854:C:H42	10:B:923:G:H1	1.47	0.63
10:B:1071:G:C8	17:I:3:LYS:NZ	2.66	0.63
10:B:1668:A:O2'	10:B:1674:G:N7	2.27	0.63
10:B:1669:A:O2'	10:B:2549:G:OP1	2.16	0.63
10:B:1858:A:H2'	10:B:1859:U:O4'	1.99	0.63
10:B:1996:C:H5'	19:K:30:ARG:NH1	2.13	0.63
10:B:2273:A:H2'	10:B:2274:A:C8	2.33	0.63
10:B:2458:G:O2'	10:B:2460:U:O4	2.16	0.63
10:B:2514:U:H4'	12:D:156:PHE:HE2	1.63	0.63
10:B:2636:C:N3	10:B:2782:G:N2	2.46	0.63
10:B:2662:A:H3'	10:B:2663:G:H8	1.63	0.63
10:B:2725:A:N6	10:B:2727:A:N3	2.47	0.63
12:D:96:ILE:HD12	12:D:100:LEU:HD21	1.79	0.63
12:D:101:PHE:HA	12:D:104:VAL:HG13	1.79	0.63
23:O:7:ARG:CB	23:O:10:ARG:HH21	2.12	0.63
25:Q:89:ILE:HG22	25:Q:91:ARG:N	2.11	0.63
32:X:4:CYS:O	32:X:6:VAL:N	2.30	0.63
8:7:31:ARG:N	8:7:107:GLU:OE2	2.30	0.63
10:B:107:G:H21	10:B:346:A:N6	1.96	0.63
10:B:154:U:H2'	10:B:155:A:C8	2.32	0.63
10:B:659:G:P	13:E:95:LYS:NZ	2.72	0.63
10:B:1098:A:H2'	17:I:5:GLN:HA	1.81	0.63
10:B:1341:G:C4	28:T:84:TYR:HD2	2.16	0.63
10:B:1387:A:H2'	10:B:1388:G:C8	2.33	0.63
10:B:2018:G:H2'	10:B:2019:A:C8	2.33	0.63
17:I:27:LEU:HG	17:I:32:VAL:HB	1.79	0.63
23:O:68:LYS:HA	23:O:102:ARG:HG2	1.79	0.63
27:S:6:LYS:HZ1	27:S:102:HIS:CB	2.11	0.63
3:2:21:ARG:NH2	10:B:684:G:OP1	2.31	0.63
7:6:56:TYR:CE1	7:6:91:ASN:HB3	2.33	0.63
10:B:547:A:H8	10:B:548:G:H5'	1.64	0.63
10:B:1796:U:O2'	11:C:253:GLY:N	2.31	0.63
10:B:2249:U:H3	10:B:2253:G:H5'	1.64	0.63
10:B:2495:G:H5"	21:M:81:ARG:HG2	1.78	0.63
10:B:2539:C:H2'	10:B:2540:C:H6	1.64	0.63
11:C:77:VAL:HG22	11:C:93:VAL:HG12	1.80	0.63
11:C:167:ASP:OD2	11:C:172:THR:N	2.32	0.63
14:F:132:ARG:H	14:F:150:GLY:HA2	1.64	0.63
16:H:31:VAL:CB	16:H:32:PRO:HD3	2.28	0.63
22:N:78:LYS:NZ	22:N:82:GLU:OE1	2.32	0.63
23:O:7:ARG:CA	23:O:10:ARG:HH21	2.12	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:4:11:CYS:SG	5:4:14:CYS:N	2.71	0.63
6:5:35:THR:HG21	6:5:218:MET:HE3	1.80	0.63
6:5:50:ILE:HD11	6:5:168:ASN:HA	1.79	0.63
10:B:220:G:H1	10:B:427:U:H2'	1.64	0.63
10:B:519:U:H2'	10:B:520:G:H8	1.63	0.63
10:B:532:A:H5"	25:Q:27:ARG:HH12	1.62	0.63
10:B:1022:G:O2'	10:B:1024:G:O6	2.12	0.63
10:B:1548:A:H2'	10:B:1549:A:C8	2.32	0.63
10:B:1716:U:H2'	10:B:1717:A:H8	1.63	0.63
10:B:1721:G:H22	10:B:1738:G:HO2'	1.47	0.63
10:B:2641:G:P	18:J:85:LYS:HZ3	2.21	0.63
10:B:2642:G:H1	10:B:2772:C:H42	1.45	0.63
10:B:2830:C:H3'	12:D:59:ARG:HH22	1.64	0.63
11:C:28:PRO:HB3	11:C:81:GLU:OE2	1.99	0.63
12:D:148:GLN:HE21	12:D:151:THR:HG21	1.63	0.63
7:6:203:VAL:O	7:6:210:LYS:NZ	2.26	0.63
7:6:318:LYS:N	7:6:342:LEU:O	2.32	0.63
9:A:28:C:H2'	9:A:29:A:C8	2.34	0.63
10:B:389:G:C8	10:B:2413:G:H4'	2.34	0.63
10:B:588:U:H2'	10:B:589:U:H6	1.63	0.63
10:B:912:C:P	21:M:8:LYS:NZ	2.72	0.63
10:B:1039:A:H2'	10:B:1040:A:O4'	1.99	0.63
10:B:1521:G:OP2	10:B:1522:A:O2'	2.16	0.63
13:E:145:ASP:HB3	13:E:183:PHE:HB3	1.81	0.63
25:Q:105:PHE:O	25:Q:109:VAL:HG23	1.99	0.63
28:T:90:GLY:O	28:T:92:ASN:ND2	2.32	0.63
5:4:19:ARG:HE	10:B:2755:C:H2'	1.64	0.62
8:7:113:PHE:HB3	8:7:126:LEU:HB2	1.80	0.62
9:A:5:U:H2'	9:A:6:G:H8	1.63	0.62
10:B:5:A:H2'	10:B:6:A:H8	1.65	0.62
10:B:172:A:H2'	10:B:173:A:C8	2.27	0.62
10:B:237:C:H2'	10:B:238:C:H6	1.64	0.62
10:B:1009:A:C5'	25:Q:58:GLN:HE21	2.12	0.62
10:B:1019:U:H2'	10:B:1020:A:C8	2.34	0.62
10:B:1149:G:H2'	10:B:1150:C:C6	2.34	0.62
10:B:1889:A:H2'	10:B:1890:A:C8	2.34	0.62
10:B:2564:A:OP1	10:B:2648:G:O2'	2.16	0.62
20:L:29:LYS:NZ	26:R:82:HIS:HB2	2.13	0.62
26:R:10:LYS:HE2	26:R:23:GLU:HG2	1.79	0.62
29:U:20:LYS:HD3	29:U:38:ILE:HD11	1.79	0.62
2:1:5:ARG:NH2	2:1:24:LYS:HA	2.14	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:298:G:N1	10:B:339:U:OP2	2.29	0.62
10:B:856:G:H2'	10:B:857:G:C8	2.34	0.62
10:B:1406:U:H2'	10:B:1407:G:H8	1.64	0.62
10:B:1796:U:H2'	10:B:1797:G:C8	2.33	0.62
10:B:2023:C:H2'	10:B:2024:G:H8	1.64	0.62
10:B:2369:A:H2'	10:B:2370:G:C8	2.33	0.62
23:O:7:ARG:HD2	23:O:97:PHE:CZ	2.34	0.62
25:Q:18:LYS:O	25:Q:21:LYS:HD3	1.99	0.62
10:B:1223:G:N1	10:B:1226:A:OP2	2.28	0.62
10:B:1354:A:OP1	11:C:35:LYS:NZ	2.32	0.62
10:B:1969:A:O2'	10:B:1972:G:H1'	2.00	0.62
10:B:2197:U:H3'	16:H:134:VAL:HG21	1.81	0.62
10:B:2230:G:O2'	32:X:30:PRO:O	2.16	0.62
14:F:1:ALA:O	14:F:5:ASP:N	2.32	0.62
16:H:57:LYS:HZ1	16:H:61:VAL:HG11	1.64	0.62
22:N:28:LEU:HD13	22:N:34:ILE:HG12	1.81	0.62
26:R:1:MET:HB3	26:R:101:ILE:HD12	1.80	0.62
29:U:73:ASN:OD1	29:U:80:ASP:N	2.32	0.62
30:V:32:GLY:N	30:V:35:GLU:OE2	2.29	0.62
30:V:80:HIS:HD2	30:V:83:LYS:N	1.97	0.62
2:1:11:VAL:HG23	2:1:49:LYS:HG3	1.81	0.62
2:1:29:LYS:HZ1	2:1:32:LYS:C	2.06	0.62
4:3:35:LYS:HZ2	4:3:39:ARG:CZ	2.11	0.62
7:6:110:ILE:HG23	7:6:229:PHE:HE2	1.64	0.62
8:7:115:GLY:HA3	8:7:119:PRO:HG2	1.80	0.62
10:B:9:G:N2	10:B:11:C:H42	1.96	0.62
10:B:123:G:N2	10:B:124:G:N3	2.46	0.62
10:B:293:U:H3	10:B:347:A:H61	1.46	0.62
10:B:514:A:H2'	10:B:515:A:C8	2.32	0.62
10:B:1447:C:H2'	10:B:1448:G:C8	2.35	0.62
10:B:2208:C:H2'	10:B:2209:G:C8	2.32	0.62
10:B:2544:G:C2	10:B:2545:G:C4	2.88	0.62
10:B:2864:G:OP1	24:P:112:ARG:HA	1.99	0.62
12:D:34:VAL:HA	12:D:50:VAL:HG12	1.81	0.62
15:G:17:LYS:HZ1	15:G:26:LYS:HB2	1.64	0.62
6:5:54:LYS:HZ1	6:5:203:GLN:HE22	1.46	0.62
7:6:4:ARG:HH12	7:6:6:ASP:HA	1.64	0.62
8:7:87:GLU:OE1	8:7:87:GLU:N	2.33	0.62
9:A:29:A:H5'	23:O:4:LYS:NZ	2.15	0.62
10:B:1569:A:H2'	10:B:1570:A:C8	2.34	0.62
10:B:1651:G:H5'	22:N:39:PRO:HG2	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1871:A:H2'	10:B:1872:A:O4'	1.99	0.62
10:B:1936:A:H2	10:B:1943:U:H5	1.47	0.62
10:B:2020:A:N6	10:B:2022:U:O2	2.32	0.62
10:B:2560:A:H2'	10:B:2561:U:C6	2.34	0.62
10:B:2604:U:H2'	10:B:2605:U:C6	2.35	0.62
10:B:2785:C:O3'	12:D:70:LYS:NZ	2.32	0.62
10:B:2855:C:H2'	10:B:2856:A:C8	2.34	0.62
17:I:7:TYR:CE2	17:I:60:VAL:HG22	2.33	0.62
18:J:31:GLU:HG2	18:J:142:ILE:HG13	1.81	0.62
22:N:12:ARG:HE	22:N:16:HIS:CE1	2.17	0.62
4:3:30:HIS:CG	4:3:31:ILE:H	2.15	0.62
6:5:113:VAL:HB	6:5:162:ARG:HH12	1.64	0.62
8:7:130:PRO:HA	8:7:133:GLU:OE2	1.98	0.62
9:A:90:C:HO2'	21:M:38:ARG:HH12	1.45	0.62
10:B:527:C:N4	10:B:2043:C:OP2	2.32	0.62
10:B:593:U:H2'	10:B:594:U:C6	2.34	0.62
10:B:690:G:O3'	11:C:216:ARG:NH2	2.32	0.62
10:B:1084:A:H1'	10:B:1106:G:H5'	1.80	0.62
10:B:1152:C:H2'	10:B:1153:C:C6	2.33	0.62
10:B:2146:C:H4'	10:B:2148:G:C6	2.34	0.62
12:D:34:VAL:H	12:D:93:GLY:HA2	1.64	0.62
2:1:29:LYS:HZ2	2:1:33:LEU:HB2	1.65	0.62
6:5:164:ARG:HH11	10:B:2122:U:H5'	1.62	0.62
10:B:422:A:N6	10:B:423:A:N1	2.48	0.62
10:B:598:U:H2'	10:B:599:A:C8	2.35	0.62
10:B:875:G:H3'	10:B:876:C:H6	1.65	0.62
10:B:906:U:O4'	21:M:66:ARG:NH1	2.33	0.62
10:B:1709:U:O4	10:B:1749:A:N6	2.16	0.62
15:G:96:ALA:HB3	15:G:103:ASN:HB2	1.82	0.62
17:I:120:ASP:OD1	17:I:121:ILE:N	2.32	0.62
24:P:20:ARG:NH1	24:P:114:ASN:OXT	2.32	0.62
9:A:6:G:N1	9:A:114:C:O2	2.33	0.62
10:B:8:C:C5'	18:J:120:ARG:HH22	2.12	0.62
10:B:707:G:H1	10:B:724:U:H3	1.48	0.62
10:B:1435:G:H2'	10:B:1436:G:H8	1.64	0.62
10:B:2092:U:OP1	10:B:2199:A:O2'	2.13	0.62
10:B:2706:A:O2'	10:B:2852:G:OP1	2.16	0.62
10:B:2723:C:H2'	10:B:2724:U:C6	2.34	0.62
10:B:2764:A:C6	10:B:2766:A:C6	2.87	0.62
24:P:20:ARG:HG3	24:P:88:ARG:HH22	1.64	0.62
8:7:57:ASN:CG	10:B:1106:G:H5"	2.25	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:18:U:OP1	25:Q:29:ARG:NH2	2.33	0.62
10:B:132:G:H2'	10:B:133:U:C6	2.35	0.62
10:B:276:U:O2'	10:B:277:G:O3'	2.18	0.62
10:B:852:U:H2'	10:B:853:C:C6	2.35	0.62
10:B:1069:A:H2'	10:B:1073:A:N6	2.14	0.62
10:B:1076:C:H4'	17:I:91:LYS:HE3	1.81	0.62
10:B:1479:G:H2'	10:B:1480:C:H6	1.64	0.62
10:B:1753:G:N2	10:B:1756:G:N3	2.48	0.62
12:D:151:THR:HB	12:D:152:PRO:CD	2.28	0.62
17:I:121:ILE:HA	17:I:124:MET:HE2	1.80	0.62
31:W:52:CYS:HA	31:W:56:HIS:HA	1.80	0.62
9:A:70:C:N3	9:A:106:G:N1	2.47	0.62
10:B:55:G:O6	10:B:115:C:N4	2.32	0.62
10:B:154:U:H3	10:B:172:A:H61	1.48	0.62
10:B:581:C:H2'	10:B:582:A:C8	2.35	0.62
10:B:771:G:H2'	10:B:772:C:H6	1.65	0.62
10:B:1060:U:O4'	10:B:1062:G:H5"	2.00	0.62
10:B:1263:U:H2'	10:B:1264:A:C4	2.34	0.62
10:B:1267:U:O2'	10:B:1268:A:OP1	2.14	0.62
10:B:1335:C:H2'	10:B:1336:A:H8	1.64	0.62
10:B:1765:U:H2'	10:B:1766:G:H8	1.63	0.62
10:B:1805:A:H5"	11:C:247:TRP:CD1	2.35	0.62
10:B:2227:A:H3'	10:B:2228:G:C8	2.32	0.62
20:L:41:ARG:O	20:L:43:GLY:N	2.32	0.62
8:7:127:ALA:O	8:7:131:THR:N	2.33	0.61
10:B:108:G:H2'	10:B:109:C:H6	1.64	0.61
10:B:175:G:H2'	10:B:176:A:O4'	2.00	0.61
10:B:828:U:H4'	10:B:831:G:C6	2.35	0.61
10:B:1310:G:O6	10:B:1605:C:N4	2.33	0.61
10:B:1557:C:H3'	10:B:1558:C:H6	1.65	0.61
10:B:1746:A:H2'	10:B:1747:U:H6	1.64	0.61
10:B:2185:U:N3	10:B:2186:G:N7	2.48	0.61
10:B:2220:U:H2'	10:B:2221:G:C8	2.31	0.61
10:B:2298:A:H62	10:B:2318:G:H21	1.49	0.61
13:E:108:ILE:O	13:E:112:LEU:HG	2.00	0.61
19:K:57:LEU:HA	19:K:88:ASN:ND2	2.15	0.61
21:M:30:SER:N	21:M:106:ASP:OD1	2.33	0.61
2:1:38:PHE:HA	2:1:45:HIS:HA	1.82	0.61
7:6:210:LYS:HZ2	7:6:283:VAL:HB	1.64	0.61
7:6:364:GLU:CG	7:6:408:ILE:CD1	2.78	0.61
7:6:374:PRO:HG3	7:6:398:GLY:HA3	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:570:G:N2	10:B:2030:A:O4’	2.32	0.61
10:B:814:C:H2’	10:B:815:C:H6	1.66	0.61
10:B:1012:U:H3	18:J:27:ARG:NH1	1.98	0.61
10:B:1212:G:HO2’	10:B:1235:G:H1	1.45	0.61
10:B:1287:A:H3’	10:B:1288:G:N2	2.13	0.61
10:B:2620:C:H2’	10:B:2621:G:C8	2.35	0.61
15:G:108:PHE:CE2	15:G:151:ARG:NH1	2.68	0.61
18:J:27:ARG:O	18:J:30:THR:OG1	2.17	0.61
29:U:43:LYS:HE2	29:U:60:LYS:NZ	2.15	0.61
2:1:5:ARG:HG2	2:1:25:ASN:HB2	1.81	0.61
7:6:372:LEU:O	7:6:400:VAL:N	2.34	0.61
8:7:121:SER:HB2	8:7:126:LEU:HD11	1.82	0.61
10:B:8:C:H2’	10:B:9:G:H8	1.65	0.61
10:B:23:G:C5	10:B:518:G:C6	2.88	0.61
10:B:823:C:H42	10:B:834:G:H1	1.48	0.61
10:B:856:G:N2	31:W:19:ARG:HH22	1.98	0.61
10:B:1070:A:O2’	10:B:1071:G:OP1	2.16	0.61
10:B:1946:U:H2’	10:B:1947:C:H6	1.65	0.61
10:B:2328:A:N1	10:B:2386:A:N6	2.47	0.61
11:C:144:GLU:HB2	11:C:187:CYS:HB3	1.81	0.61
13:E:40:ARG:NH2	13:E:90:GLN:OE1	2.32	0.61
13:E:125:SER:HA	13:E:157:LEU:HD21	1.82	0.61
15:G:73:SER:HA	15:G:137:LYS:HZ1	1.64	0.61
16:H:11:ASN:CG	16:H:12:LEU:H	2.08	0.61
6:5:213:SER:O	10:B:2176:A:O2’	2.18	0.61
9:A:83:G:H1	9:A:93:C:N4	1.98	0.61
10:B:1789:A:OP1	11:C:220:ARG:N	2.28	0.61
10:B:2007:U:H2’	10:B:2008:C:C6	2.35	0.61
10:B:2016:U:H2’	10:B:2017:U:H6	1.65	0.61
10:B:2057:G:H2’	10:B:2058:A:H8	1.64	0.61
10:B:2187:U:H2’	10:B:2188:U:H6	1.65	0.61
10:B:2202:U:O2’	10:B:2204:G:OP1	2.18	0.61
10:B:2653:U:O2	10:B:2667:C:N4	2.33	0.61
10:B:2834:G:H2’	10:B:2879:A:H61	1.64	0.61
10:B:2841:C:H2’	10:B:2842:G:H8	1.65	0.61
11:C:204:LEU:HD22	11:C:209:ALA:HB1	1.83	0.61
14:F:24:VAL:O	14:F:29:ARG:NH2	2.33	0.61
18:J:37:ARG:NH2	18:J:46:PRO:HB3	2.15	0.61
20:L:12:SER:C	20:L:13:LYS:HD2	2.24	0.61
7:6:412:ARG:NH1	10:B:2661:G:O4’	2.34	0.61
10:B:578:G:H21	25:Q:32:ARG:NE	1.97	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:582:A:C5'	25:Q:10:ARG:HH12	2.13	0.61
10:B:711:G:H2'	10:B:712:G:C8	2.26	0.61
10:B:1837:C:O2'	10:B:1927:A:N3	2.32	0.61
10:B:2037:A:H2'	10:B:2038:G:C8	2.36	0.61
10:B:2863:C:N4	10:B:2864:G:O6	2.33	0.61
12:D:48:ILE:HG12	12:D:84:LEU:HD21	1.82	0.61
18:J:24:THR:O	18:J:28:LEU:N	2.22	0.61
24:P:22:GLY:H	24:P:46:VAL:HG23	1.66	0.61
25:Q:83:LYS:HA	25:Q:89:ILE:HD11	1.81	0.61
7:6:81:ASP:OD1	7:6:82:HIS:N	2.34	0.61
10:B:376:G:H2'	10:B:377:G:H8	1.65	0.61
10:B:480:A:P	29:U:43:LYS:NZ	2.74	0.61
10:B:543:G:C5	10:B:544:C:H6	2.19	0.61
10:B:712:G:H3'	10:B:713:G:C8	2.36	0.61
10:B:806:C:OP1	20:L:41:ARG:NH1	2.34	0.61
10:B:942:G:C4	10:B:943:A:C8	2.88	0.61
10:B:983:A:N6	10:B:984:A:N7	2.48	0.61
10:B:2093:G:N2	10:B:2196:C:N3	2.37	0.61
10:B:2141:G:N2	10:B:2151:U:H1'	2.15	0.61
10:B:2536:G:H2'	10:B:2537:U:H6	1.66	0.61
11:C:20:ASN:OD1	11:C:89:ASN:ND2	2.32	0.61
11:C:250:GLN:H	11:C:254:LYS:HZ2	1.48	0.61
12:D:112:THR:O	12:D:168:GLU:N	2.34	0.61
16:H:41:LYS:O	16:H:44:ILE:HG12	2.01	0.61
22:N:2:ARG:HG3	22:N:5:LYS:HB2	1.83	0.61
33:Y:22:LEU:O	33:Y:24:GLU:N	2.30	0.61
2:1:5:ARG:HH11	2:1:25:ASN:HB2	1.64	0.61
3:2:1:MET:SD	10:B:1613:G:O2'	2.58	0.61
6:5:39:VAL:HG13	6:5:217:THR:HG21	1.81	0.61
8:7:17:GLU:O	8:7:21:GLY:N	2.34	0.61
9:A:52:A:H3'	9:A:53:A:C8	2.34	0.61
10:B:414:C:O2	10:B:1864:U:O2'	2.16	0.61
10:B:699:A:H2'	10:B:700:G:O4'	2.00	0.61
10:B:1772:A:N6	10:B:1980:G:O6	2.33	0.61
10:B:1835:G:N2	10:B:1930:G:O2'	2.33	0.61
10:B:2089:C:H2'	10:B:2090:A:C8	2.33	0.61
10:B:2095:A:O5'	16:H:11:ASN:ND2	2.34	0.61
10:B:2129:C:H4'	10:B:2130:U:OP1	2.00	0.61
10:B:2257:U:H2'	10:B:2258:C:C6	2.30	0.61
10:B:2369:A:H2'	10:B:2370:G:H8	1.64	0.61
16:H:128:HIS:HA	16:H:141:LYS:NZ	2.16	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:J:40:HIS:CG	18:J:41:LYS:N	2.68	0.61
18:J:115:GLY:HA2	18:J:118:MET:HB2	1.82	0.61
21:M:121:ALA:HA	21:M:124:LEU:HD12	1.83	0.61
6:5:37:LYS:HE3	10:B:2126:A:H5"	1.83	0.61
7:6:328:ARG:H	7:6:341:TRP:CD1	2.18	0.61
8:7:97:LYS:HD2	8:7:101:LYS:HZ2	1.64	0.61
9:A:73:A:H62	9:A:103:U:H3	1.49	0.61
10:B:24:G:N2	27:S:78:GLU:OE2	2.33	0.61
10:B:56:A:C6	10:B:57:C:C4	2.88	0.61
10:B:88:G:H2'	10:B:89:A:C8	2.36	0.61
10:B:266:G:C2	10:B:267:C:H1'	2.36	0.61
10:B:683:U:N3	10:B:684:G:N7	2.48	0.61
10:B:898:C:H2'	10:B:899:A:H8	1.66	0.61
10:B:1002:G:C6	10:B:1154:G:N2	2.69	0.61
10:B:1015:U:H2'	10:B:1016:G:C8	2.34	0.61
10:B:1212:G:H21	10:B:1237:A:H62	1.46	0.61
10:B:1809:A:H2'	10:B:1810:A:O4'	2.00	0.61
11:C:57:HIS:ND1	11:C:58:LYS:O	2.33	0.61
1:0:40:HIS:NE2	10:B:2884:U:OP2	2.34	0.61
7:6:159:GLN:O	7:6:161:GLU:N	2.33	0.61
7:6:179:GLU:HB3	7:6:183:LYS:HZ3	1.65	0.61
7:6:406:MET:O	7:6:411:TRP:NE1	2.34	0.61
10:B:121:G:H2'	10:B:122:G:H8	1.66	0.61
10:B:1005:C:C2	10:B:1143:A:C5	2.89	0.61
10:B:1183:U:H2'	10:B:1184:U:C6	2.35	0.61
10:B:1251:C:OP1	25:Q:12:ARG:NH1	2.33	0.61
10:B:1291:C:H2'	10:B:1292:G:C8	2.31	0.61
10:B:1454:C:H5'	22:N:63:ARG:NH1	2.16	0.61
10:B:1652:A:N1	10:B:1653:G:N2	2.48	0.61
10:B:1666:G:HO2'	19:K:5:THR:HG1	1.44	0.61
10:B:2276:G:C2	10:B:2277:G:C8	2.89	0.61
10:B:2311:A:H3'	14:F:71:LYS:NZ	2.15	0.61
10:B:2787:C:H1'	12:D:63:PRO:HG3	1.83	0.61
14:F:105:ILE:CB	14:F:111:ARG:HH21	2.14	0.61
15:G:8:VAL:HG22	15:G:68:ARG:HG3	1.82	0.61
16:H:27:ARG:NE	32:X:59:ASP:OD1	2.33	0.61
17:I:62:ALA:HA	17:I:64:ARG:HH12	1.65	0.61
25:Q:96:ASP:CG	26:R:13:ARG:HH12	2.09	0.61
33:Y:25:GLN:HG2	33:Y:29:ARG:NH2	2.15	0.61
7:6:115:ALA:O	7:6:116:ARG:HD2	2.01	0.61
10:B:47:C:H42	10:B:179:C:N4	1.98	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:202:U:H5	10:B:203:A:C5	2.19	0.61
10:B:438:G:H2'	10:B:439:A:C8	2.35	0.61
20:L:79:LEU:N	20:L:113:ALA:O	2.34	0.61
6:5:37:LYS:HZ1	6:5:218:MET:HE1	1.64	0.60
6:5:129:GLN:NE2	10:B:2170:A:H61	1.98	0.60
7:6:47:GLY:HA2	7:6:62:LYS:HE2	1.81	0.60
10:B:69:C:H2'	10:B:70:G:H8	1.65	0.60
10:B:414:C:H2'	10:B:415:A:C8	2.35	0.60
10:B:487:C:N4	10:B:488:G:O6	2.34	0.60
10:B:600:G:C2	10:B:601:C:C2	2.88	0.60
10:B:993:G:P	25:Q:50:ARG:HH22	2.24	0.60
10:B:2093:G:OP1	16:H:24:GLY:N	2.34	0.60
10:B:2466:C:N3	10:B:2484:G:N2	2.42	0.60
10:B:2692:G:H2'	10:B:2693:G:C8	2.36	0.60
10:B:2776:A:HO2'	10:B:2781:A:HO2'	1.48	0.60
11:C:44:ASN:OD1	11:C:45:ASN:N	2.33	0.60
6:5:194:VAL:HG12	6:5:197:LYS:HD2	1.83	0.60
8:7:77:VAL:HG13	8:7:82:ILE:HG21	1.82	0.60
9:A:83:G:H1	9:A:93:C:H42	1.49	0.60
10:B:846:U:O2'	10:B:847:U:N3	2.33	0.60
10:B:911:A:HO2'	10:B:2263:C:HO2'	1.48	0.60
10:B:952:G:H1	10:B:965:C:N4	1.99	0.60
10:B:1526:C:H42	10:B:1546:G:H1	1.48	0.60
10:B:1800:C:OP2	11:C:181:ARG:NH2	2.34	0.60
10:B:1924:C:H2'	10:B:1925:C:C6	2.36	0.60
10:B:1973:G:H2'	10:B:1974:C:H6	1.66	0.60
10:B:2286:G:H5'	10:B:2286:G:C8	2.36	0.60
10:B:2313:C:H2'	10:B:2314:A:H8	1.66	0.60
10:B:2314:A:H2'	10:B:2315:G:C8	2.36	0.60
12:D:61:THR:O	12:D:65:ALA:N	2.29	0.60
14:F:11:VAL:O	14:F:13:LYS:NZ	2.31	0.60
20:L:96:LYS:NZ	20:L:102:GLY:O	2.33	0.60
10:B:242:G:O2'	10:B:254:G:O6	2.19	0.60
10:B:465:G:C5	10:B:466:A:C6	2.90	0.60
10:B:741:U:H2'	10:B:742:A:H8	1.67	0.60
10:B:745:G:O3'	10:B:748:G:O2'	2.20	0.60
10:B:831:G:H2'	10:B:832:U:H6	1.66	0.60
10:B:1048:A:C5	10:B:1111:A:C6	2.89	0.60
10:B:1054:A:H2'	10:B:1055:G:C8	2.36	0.60
10:B:2141:G:H1	10:B:2150:C:H42	1.49	0.60
10:B:2627:G:N2	10:B:2777:G:OP2	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:F:34:THR:HG23	14:F:88:VAL:H	1.66	0.60
27:S:56:ALA:HA	27:S:59:GLU:HB2	1.83	0.60
29:U:83:GLY:N	29:U:96:LYS:HB2	2.17	0.60
29:U:85:ARG:H	29:U:94:PHE:HE2	1.49	0.60
1:0:10:SER:OG	10:B:16:C:O3'	2.15	0.60
1:0:29:VAL:O	10:B:2885:G:N2	2.34	0.60
7:6:179:GLU:C	7:6:183:LYS:HZ3	2.08	0.60
9:A:81:G:H2'	9:A:82:U:H6	1.66	0.60
10:B:84:A:N1	10:B:98:G:O2'	2.25	0.60
10:B:528:A:N1	10:B:2042:A:H2'	2.17	0.60
10:B:578:G:N3	25:Q:32:ARG:NH2	2.47	0.60
10:B:1421:G:C2	10:B:1422:G:C8	2.89	0.60
10:B:1657:U:OP1	12:D:141:ARG:N	2.28	0.60
10:B:2051:A:H3'	10:B:2578:G:H5"	1.82	0.60
10:B:2141:G:N2	10:B:2150:C:N3	2.44	0.60
10:B:2223:G:OP1	11:C:170:TYR:OH	2.14	0.60
10:B:2325:G:N2	10:B:2326:C:N3	2.49	0.60
10:B:2581:G:OP2	10:B:2581:G:N2	2.34	0.60
14:F:78:ILE:HD11	14:F:84:ILE:HD12	1.83	0.60
17:I:36:GLU:O	17:I:40:ALA:N	2.32	0.60
19:K:3:GLU:CD	19:K:3:GLU:H	2.09	0.60
25:Q:97:ILE:HG22	26:R:13:ARG:HH11	1.66	0.60
5:4:14:CYS:HB3	5:4:27:CYS:SG	2.42	0.60
5:4:16:ILE:HD13	10:B:1032:A:H4'	1.83	0.60
7:6:164:ARG:HB3	7:6:168:ARG:HH12	1.66	0.60
7:6:343:SER:O	7:6:347:GLY:N	2.24	0.60
10:B:47:C:H42	10:B:179:C:H42	1.49	0.60
10:B:81:G:H1	10:B:105:C:N4	1.99	0.60
10:B:120:U:H4'	10:B:121:G:H5"	1.84	0.60
10:B:155:A:H2'	10:B:156:A:H8	1.67	0.60
10:B:314:C:H2'	10:B:315:G:C8	2.37	0.60
10:B:409:G:H2'	10:B:410:G:H8	1.65	0.60
10:B:861:A:H2'	10:B:862:G:O4'	2.01	0.60
10:B:2025:C:H5'	12:D:154:LYS:HZ1	1.66	0.60
10:B:2306:C:H2'	10:B:2307:G:H21	1.66	0.60
10:B:2660:A:H2'	10:B:2661:G:O4'	2.02	0.60
11:C:250:GLN:HB3	11:C:254:LYS:NZ	2.16	0.60
14:F:132:ARG:HA	14:F:150:GLY:HA2	1.82	0.60
20:L:98:ALA:HB3	20:L:100:ILE:HG12	1.83	0.60
7:6:319:ILE:HD11	7:6:325:PHE:H	1.66	0.60
8:7:73:LYS:HE2	8:7:121:SER:HA	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:191:A:H2'	10:B:192:C:C6	2.36	0.60
10:B:347:A:C4	10:B:348:A:C8	2.89	0.60
10:B:501:A:H2'	10:B:502:A:C8	2.37	0.60
10:B:1277:G:H5'	22:N:20:MET:SD	2.42	0.60
10:B:1592:C:H2'	10:B:1593:A:C8	2.36	0.60
10:B:1761:C:H2'	10:B:1762:A:C4	2.37	0.60
16:H:27:ARG:HH21	32:X:59:ASP:CA	2.05	0.60
16:H:90:LEU:HB2	16:H:147:VAL:HG12	1.84	0.60
22:N:95:THR:OG1	22:N:96:ARG:N	2.31	0.60
24:P:17:PRO:HG3	24:P:83:ILE:O	2.02	0.60
33:Y:13:GLU:OE2	33:Y:57:LEU:N	2.35	0.60
9:A:60:C:H2'	9:A:61:G:H8	1.67	0.60
10:B:328:U:O2'	29:U:67:SER:OG	2.11	0.60
10:B:334:C:OP1	10:B:335:C:N4	2.35	0.60
10:B:646:U:N3	10:B:647:G:H1'	2.16	0.60
10:B:1187:G:OP1	26:R:83:TYR:OH	2.12	0.60
10:B:2070:A:H2'	10:B:2071:A:C8	2.36	0.60
10:B:2147:A:O2'	10:B:2148:G:OP1	2.19	0.60
10:B:2745:C:H2'	10:B:2746:U:C6	2.37	0.60
32:X:14:GLY:HA3	32:X:26:ARG:HG2	1.83	0.60
7:6:375:GLN:OE1	7:6:378:ARG:NH1	2.35	0.60
9:A:49:C:P	23:O:30:ARG:NH1	2.75	0.60
9:A:104:A:H2'	9:A:105:G:O4'	2.01	0.60
10:B:685:A:C2	10:B:689:A:C6	2.89	0.60
10:B:688:U:H2'	10:B:689:A:C8	2.35	0.60
10:B:701:G:H1	10:B:731:C:H42	1.48	0.60
10:B:1479:G:H2'	10:B:1480:C:C6	2.36	0.60
10:B:1819:A:H4'	10:B:1820:U:H5"	1.84	0.60
10:B:2638:G:H21	10:B:2778:A:H62	1.49	0.60
10:B:2685:G:N2	10:B:2724:U:O2	2.34	0.60
10:B:2714:G:H2'	10:B:2715:C:H6	1.67	0.60
16:H:57:LYS:NZ	16:H:61:VAL:HG11	2.17	0.60
18:J:67:ASN:O	18:J:69:ARG:N	2.34	0.60
23:O:7:ARG:HA	23:O:10:ARG:NH2	2.17	0.60
23:O:7:ARG:CG	23:O:10:ARG:HH21	2.15	0.60
29:U:86:PHE:H	29:U:91:LYS:HG3	1.65	0.60
30:V:26:PHE:HE2	30:V:44:HIS:HA	1.66	0.60
8:7:42:ARG:NH2	17:I:116:MET:O	2.20	0.60
10:B:289:G:H2'	10:B:290:U:C6	2.37	0.60
10:B:415:A:H2'	10:B:416:U:H6	1.67	0.60
10:B:484:C:H2'	10:B:485:C:H6	1.67	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:532:A:P	25:Q:40:LYS:NZ	2.73	0.60
10:B:832:U:OP1	20:L:38:GLN:N	2.35	0.60
10:B:1148:U:H2'	10:B:1149:G:H8	1.65	0.60
10:B:1565:C:O2'	10:B:1566:A:O5'	2.19	0.60
10:B:1663:G:C5	10:B:1998:A:N1	2.69	0.60
10:B:2870:C:H2'	10:B:2871:U:O4'	2.01	0.60
12:D:19:GLY:HA3	24:P:78:PRO:HD2	1.84	0.60
12:D:104:VAL:C	12:D:105:LYS:HD2	2.27	0.60
16:H:9:VAL:HB	16:H:13:GLY:HA3	1.83	0.60
18:J:76:HIS:CE1	18:J:85:LYS:HB2	2.36	0.60
25:Q:60:TRP:CZ3	25:Q:93:ILE:HB	2.36	0.60
7:6:17:TYR:CE1	7:6:23:ASP:HB2	2.36	0.60
7:6:373:PRO:O	7:6:375:GLN:N	2.34	0.60
8:7:40:GLU:HG2	8:7:43:LYS:HD2	1.84	0.60
9:A:41:G:P	9:A:43:C:H41	2.25	0.60
10:B:194:G:C2	10:B:195:A:C4	2.90	0.60
10:B:459:U:H2'	10:B:460:A:H8	1.66	0.60
10:B:500:G:N1	10:B:503:A:OP2	2.33	0.60
10:B:1204:A:N6	10:B:1240:U:O2'	2.35	0.60
10:B:1355:G:C2	10:B:1356:G:C5	2.90	0.60
10:B:1449:G:N2	10:B:1462:C:O2	2.33	0.60
10:B:1608:A:O2'	10:B:1610:A:OP2	2.10	0.60
10:B:1658:C:OP1	12:D:140:HIS:NE2	2.34	0.60
10:B:2009:A:H2'	10:B:2010:G:C8	2.31	0.60
10:B:2052:A:C2	10:B:2053:G:C8	2.90	0.60
10:B:2278:A:OP1	21:M:10:ARG:NH2	2.35	0.60
10:B:2333:A:P	31:W:76:ARG:HH22	2.25	0.60
10:B:2376:A:N3	23:O:111:ARG:NH2	2.50	0.60
10:B:2403:C:O2'	10:B:2404:U:O4'	2.13	0.60
10:B:2531:A:N3	10:B:2658:C:O2'	2.28	0.60
22:N:87:PHE:CZ	22:N:117:ASP:HB2	2.36	0.60
7:6:236:LEU:HD23	7:6:250:ALA:HB2	1.83	0.59
7:6:327:PRO:HA	7:6:341:TRP:HB2	1.84	0.59
10:B:57:C:H2'	10:B:58:G:H8	1.65	0.59
10:B:334:C:P	10:B:335:C:H41	2.25	0.59
10:B:644:A:H61	10:B:2349:G:N2	1.99	0.59
10:B:649:G:C2	10:B:650:C:C2	2.90	0.59
10:B:755:U:H2'	10:B:756:A:C8	2.36	0.59
10:B:938:G:H2'	10:B:939:G:H8	1.67	0.59
10:B:1461:C:H2'	10:B:1462:C:C6	2.36	0.59
10:B:1502:A:H2'	10:B:1503:A:H8	1.66	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1834:U:O4	10:B:1900:A:N6	2.35	0.59
10:B:2513:A:H2'	10:B:2514:U:H6	1.67	0.59
10:B:2724:U:O2'	10:B:2725:A:O4'	2.19	0.59
10:B:2811:G:N2	10:B:2889:C:N3	2.50	0.59
12:D:32:ASN:HB2	12:D:94:GLN:NE2	2.17	0.59
14:F:18:GLU:HG3	14:F:19:PHE:CD2	2.37	0.59
15:G:85:LYS:HD2	15:G:129:GLU:OE2	2.02	0.59
26:R:56:GLY:O	26:R:103:ALA:N	2.35	0.59
3:2:2:LYS:HZ1	10:B:1620:G:H4'	1.65	0.59
3:2:34:ARG:O	3:2:38:GLY:N	2.29	0.59
10:B:28:A:N6	10:B:511:U:O2	2.35	0.59
10:B:143:C:H2'	10:B:144:A:C8	2.38	0.59
10:B:322:A:C6	10:B:340:A:C6	2.90	0.59
10:B:673:C:H2'	10:B:674:G:C8	2.37	0.59
10:B:1649:G:O2'	22:N:106:ASP:OD2	2.20	0.59
10:B:1703:G:H2'	10:B:1704:C:H6	1.66	0.59
10:B:1992:G:C2	10:B:1997:C:N3	2.69	0.59
10:B:2024:G:C2	10:B:2025:C:C2	2.90	0.59
10:B:2758:A:H1'	15:G:63:GLN:NE2	2.18	0.59
15:G:98:LYS:O	15:G:100:ASN:N	2.35	0.59
16:H:112:LYS:HD3	16:H:130:VAL:HG12	1.84	0.59
20:L:36:LYS:O	20:L:40:SER:OG	2.19	0.59
24:P:56:SER:N	24:P:74:GLN:OE1	2.35	0.59
27:S:52:GLU:HA	27:S:55:ILE:HD12	1.84	0.59
10:B:6:A:H2'	10:B:7:G:C8	2.38	0.59
10:B:311:A:C8	10:B:332:A:C5	2.90	0.59
10:B:560:C:O2'	25:Q:51:GLN:NE2	2.34	0.59
10:B:1200:C:N3	10:B:1245:G:N2	2.37	0.59
10:B:1213:A:OP2	10:B:1235:G:N2	2.23	0.59
10:B:1448:G:C2	10:B:1464:G:C2	2.90	0.59
10:B:1653:G:OP2	22:N:2:ARG:NH2	2.36	0.59
10:B:2199:A:H3'	10:B:2200:C:C6	2.38	0.59
10:B:2248:C:H42	10:B:2256:G:H1	1.50	0.59
10:B:2533:U:OP1	10:B:2665:A:O2'	2.20	0.59
20:L:102:GLY:H	20:L:105:ILE:HD12	1.67	0.59
20:L:109:LYS:HG2	20:L:126:ARG:HB2	1.84	0.59
31:W:22:VAL:CG2	31:W:25:PHE:HB2	2.32	0.59
1:0:8:THR:OG1	1:0:9:ARG:N	2.35	0.59
3:2:2:LYS:NZ	10:B:1620:G:H4'	2.16	0.59
6:5:133:PRO:CA	10:B:2121:G:N7	2.65	0.59
6:5:217:THR:HA	10:B:2124:G:O2'	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:A:113:C:H2'	9:A:114:C:H6	1.66	0.59
10:B:882:G:H1	10:B:895:U:H1'	1.67	0.59
10:B:1074:G:H2'	10:B:1075:C:C6	2.37	0.59
10:B:1164:C:H2'	10:B:1165:A:C8	2.36	0.59
10:B:1279:G:H2'	10:B:1280:G:H8	1.66	0.59
10:B:1726:C:O2	10:B:1734:G:N1	2.29	0.59
10:B:1799:G:H21	11:C:153:LEU:HD22	1.68	0.59
10:B:2311:A:O2'	10:B:2312:U:O4'	2.20	0.59
17:I:37:PHE:O	17:I:41:PHE:N	2.35	0.59
18:J:78:THR:OG1	18:J:80:HIS:O	2.13	0.59
22:N:63:ARG:HD3	22:N:80:PHE:CE2	2.37	0.59
22:N:103:ARG:HG3	22:N:110:MET:HG3	1.84	0.59
23:O:64:TYR:HD2	23:O:67:ASN:HB2	1.67	0.59
25:Q:18:LYS:HG3	25:Q:21:LYS:HZ3	1.66	0.59
8:7:51:TYR:HA	8:7:88:HIS:HB2	1.85	0.59
10:B:107:G:H21	10:B:346:A:H62	1.50	0.59
10:B:834:G:C2	10:B:835:C:C2	2.90	0.59
10:B:1071:G:N7	17:I:3:LYS:NZ	2.50	0.59
10:B:1340:U:O2'	10:B:1341:G:OP1	2.20	0.59
10:B:2083:G:N1	10:B:2084:C:O2	2.36	0.59
10:B:2543:G:H2'	10:B:2544:G:H8	1.67	0.59
10:B:2580:U:OP1	12:D:137:SER:OG	2.11	0.59
10:B:2721:A:H1'	10:B:2873:A:C8	2.36	0.59
11:C:132:ARG:HA	11:C:166:ARG:NH2	2.17	0.59
17:I:102:ARG:CB	17:I:141:ASP:HA	2.33	0.59
10:B:24:G:C2	10:B:517:C:C2	2.91	0.59
10:B:482:A:O2'	29:U:44:HIS:ND1	2.30	0.59
10:B:491:G:H2'	10:B:492:A:H8	1.64	0.59
10:B:811:U:O4	20:L:21:ARG:NH2	2.34	0.59
10:B:832:U:H2'	10:B:833:A:H8	1.67	0.59
10:B:875:G:C2	10:B:876:C:H1'	2.38	0.59
10:B:952:G:C6	10:B:966:G:C6	2.90	0.59
10:B:1220:G:C6	10:B:1230:A:C6	2.90	0.59
10:B:1341:G:H5"	10:B:1397:U:O2	2.01	0.59
10:B:1342:A:O2'	10:B:1344:U:OP2	2.20	0.59
10:B:1818:U:C4	11:C:152:GLN:HB2	2.38	0.59
10:B:2077:A:H2'	10:B:2078:C:C6	2.38	0.59
10:B:2428:G:H21	20:L:60:ARG:NH2	2.01	0.59
10:B:2586:U:H2'	10:B:2587:A:C8	2.38	0.59
10:B:2745:C:C4	10:B:2746:U:C4	2.90	0.59
10:B:2822:G:N7	22:N:1:MET:HE3	2.16	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:F:21:TYR:HD2	14:F:27:VAL:HG12	1.67	0.59
16:H:130:VAL:N	16:H:144:VAL:HG11	2.17	0.59
18:J:32:LEU:O	18:J:36:LEU:HG	2.03	0.59
7:6:156:GLY:HA3	10:B:2583:G:H21	1.67	0.59
7:6:206:THR:HG21	7:6:229:PHE:H	1.67	0.59
9:A:71:C:H42	9:A:105:G:H1	1.49	0.59
10:B:230:G:H2'	10:B:231:A:C8	2.38	0.59
10:B:740:C:H1'	10:B:1981:A:C8	2.38	0.59
10:B:983:A:C6	10:B:984:A:N7	2.70	0.59
10:B:1027:A:C6	10:B:1126:A:C4	2.91	0.59
10:B:1068:G:O2'	10:B:1070:A:N6	2.36	0.59
10:B:1089:A:H2	10:B:1090:A:H62	1.51	0.59
10:B:1170:C:H42	10:B:1179:G:H1	1.51	0.59
10:B:1705:A:H2'	10:B:1706:C:H6	1.68	0.59
10:B:2194:U:H2'	10:B:2195:U:C6	2.38	0.59
10:B:2819:G:H3'	10:B:2821:A:H62	1.68	0.59
14:F:37:MET:HB2	14:F:85:GLY:HA2	1.84	0.59
16:H:30:LEU:O	16:H:31:VAL:HB	2.03	0.59
24:P:9:GLN:HA	24:P:12:MET:HB3	1.84	0.59
25:Q:109:VAL:HG12	25:Q:113:LYS:HE3	1.84	0.59
4:3:37:THR:HA	4:3:40:LYS:HE2	1.83	0.59
6:5:5:THR:HG23	6:5:7:ARG:H	1.67	0.59
6:5:104:ILE:C	6:5:107:GLY:H	2.11	0.59
7:6:57:PHE:HD2	7:6:58:VAL:HG13	1.68	0.59
10:B:45:G:N3	10:B:215:G:N2	2.51	0.59
10:B:277:G:N1	10:B:360:U:H5	2.00	0.59
10:B:653:U:H3'	10:B:654:A:C8	2.37	0.59
10:B:807:U:P	20:L:36:LYS:NZ	2.76	0.59
10:B:1278:C:H2'	10:B:1279:G:C8	2.33	0.59
10:B:1700:A:H5'	10:B:1701:A:OP2	2.01	0.59
10:B:1778:U:C4	10:B:1784:A:C4	2.90	0.59
10:B:1916:A:H5"	10:B:1917:U:H5	1.68	0.59
10:B:2065:C:H2'	10:B:2066:C:C6	2.37	0.59
10:B:2345:G:C6	10:B:2381:A:C6	2.91	0.59
12:D:103:ASP:OD1	12:D:103:ASP:N	2.33	0.59
14:F:35:LEU:HB3	14:F:151:LEU:HD13	1.82	0.59
18:J:105:VAL:O	18:J:109:LEU:N	2.36	0.59
23:O:37:ALA:H	23:O:52:SER:HG	1.49	0.59
24:P:46:VAL:HG12	24:P:60:VAL:HG22	1.84	0.59
27:S:70:LYS:HE2	27:S:110:ARG:HA	1.83	0.59
28:T:10:VAL:O	28:T:34:VAL:HG13	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:290:U:H2'	10:B:291:G:H8	1.68	0.59
10:B:299:A:N7	10:B:300:A:N6	2.51	0.59
10:B:408:G:H2'	10:B:409:G:H8	1.68	0.59
10:B:848:C:H2'	10:B:849:A:H8	1.66	0.59
10:B:1577:C:H2'	10:B:1578:U:C6	2.38	0.59
10:B:2001:C:H1'	10:B:2689:U:H3	1.68	0.59
10:B:2143:C:H1'	10:B:2145:C:C2	2.37	0.59
10:B:2246:G:C2	10:B:2247:A:C4	2.91	0.59
10:B:2519:U:N3	10:B:2542:A:N1	2.50	0.59
10:B:2805:C:H2'	10:B:2806:C:C6	2.37	0.59
12:D:62:LYS:HA	12:D:65:ALA:HB3	1.84	0.59
16:H:113:SER:HB3	16:H:132:PHE:HA	1.85	0.59
18:J:19:ASP:C	18:J:21:THR:H	2.11	0.59
31:W:60:ALA:C	31:W:61:LYS:HD2	2.27	0.59
2:1:29:LYS:HE3	2:1:33:LEU:HD13	1.84	0.59
7:6:366:ALA:C	7:6:367:GLN:O	2.44	0.59
8:7:24:SER:HA	8:7:86:MET:HG2	1.85	0.59
9:A:81:G:H2'	9:A:82:U:C6	2.38	0.59
10:B:5:A:H2'	10:B:6:A:C8	2.38	0.59
10:B:76:C:H2'	10:B:77:G:H8	1.67	0.59
10:B:129:C:O2'	10:B:1348:C:O3'	2.21	0.59
10:B:634:C:H2'	10:B:635:C:C6	2.38	0.59
10:B:848:C:H2'	10:B:849:A:C8	2.38	0.59
10:B:1259:G:C2	10:B:1260:A:C5	2.90	0.59
10:B:1412:U:H2'	10:B:1413:A:H8	1.67	0.59
10:B:2293:G:OP1	23:O:94:ARG:NH1	2.35	0.59
10:B:2685:G:C2	10:B:2686:G:C4	2.91	0.59
2:1:24:LYS:HZ1	2:1:26:LYS:HG2	1.68	0.58
7:6:295:ILE:HG22	7:6:299:ASN:HD21	1.69	0.58
9:A:31:C:H42	9:A:51:G:H1	1.50	0.58
9:A:113:C:H4'	23:O:46:GLU:OE1	2.03	0.58
10:B:61:C:P	33:Y:44:LYS:NZ	2.75	0.58
10:B:64:A:H5'	28:T:68:LYS:HD2	1.85	0.58
10:B:323:C:C4	10:B:333:G:C8	2.91	0.58
10:B:545:U:OP2	10:B:546:U:O2'	2.15	0.58
10:B:626:A:H2'	20:L:78:ARG:NE	2.17	0.58
10:B:818:G:H21	10:B:1189:A:H62	1.51	0.58
10:B:831:G:H2'	10:B:832:U:C6	2.37	0.58
10:B:981:A:H8	10:B:2027:G:H21	1.51	0.58
10:B:1020:A:OP1	10:B:1034:G:N2	2.35	0.58
10:B:1066:U:H2'	10:B:1068:G:OP2	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2359:C:H2'	10:B:2360:G:C8	2.38	0.58
10:B:2589:A:C2	10:B:2590:A:C5	2.90	0.58
10:B:2729:G:H2'	10:B:2730:C:C6	2.37	0.58
10:B:2743:U:O3'	15:G:152:ARG:NH2	2.36	0.58
13:E:22:ASP:HA	13:E:114:ARG:NH2	2.09	0.58
15:G:101:VAL:HG22	15:G:115:GLN:HB2	1.85	0.58
20:L:81:ASP:HA	20:L:84:LYS:HE3	1.84	0.58
28:T:11:LEU:HA	28:T:34:VAL:HG22	1.85	0.58
32:X:63:ILE:O	32:X:65:THR:N	2.36	0.58
4:3:7:ARG:NH1	10:B:243:U:P	2.76	0.58
6:5:22:ASP:OD1	6:5:23:ILE:N	2.37	0.58
7:6:26:ASP:O	7:6:27:LEU:HB2	2.03	0.58
7:6:84:LEU:HG	7:6:102:ASP:OD2	2.03	0.58
9:A:78:A:C4	9:A:79:G:C8	2.91	0.58
10:B:121:G:H2'	10:B:122:G:C8	2.38	0.58
10:B:684:G:C5	10:B:774:G:C6	2.91	0.58
10:B:967:U:H2'	10:B:968:C:H6	1.67	0.58
10:B:1813:G:H2'	10:B:1814:G:H8	1.68	0.58
10:B:1857:G:N1	10:B:1884:G:N7	2.51	0.58
10:B:1921:G:H2'	10:B:1922:G:C8	2.38	0.58
10:B:2037:A:C6	10:B:2038:G:C6	2.90	0.58
10:B:2803:G:H2'	10:B:2804:U:C6	2.38	0.58
18:J:49:ASP:HA	18:J:118:MET:HE2	1.85	0.58
33:Y:23:ARG:H	33:Y:26:PHE:HB2	1.67	0.58
6:5:8:MET:HG2	10:B:2174:C:H5"	1.83	0.58
7:6:203:VAL:C	7:6:210:LYS:HZ3	2.10	0.58
8:7:37:LYS:HZ3	8:7:54:VAL:HB	1.65	0.58
10:B:329:G:O6	29:U:16:LYS:HD2	2.04	0.58
10:B:396:G:O2'	32:X:29:LEU:O	2.15	0.58
10:B:660:C:H2'	10:B:661:A:H8	1.65	0.58
10:B:831:G:C2	10:B:832:U:C2	2.91	0.58
10:B:1018:U:H3	10:B:1144:A:N6	1.98	0.58
10:B:1150:C:H2'	10:B:1151:A:H8	1.67	0.58
10:B:1167:C:H2'	10:B:1168:G:C8	2.37	0.58
10:B:1801:A:C5	11:C:261:ARG:NH1	2.71	0.58
10:B:1829:A:C6	10:B:1830:C:H1'	2.38	0.58
10:B:2077:A:H2'	10:B:2078:C:H6	1.67	0.58
10:B:2246:G:C6	10:B:2247:A:C6	2.91	0.58
10:B:2546:U:H4'	10:B:2565:A:C6	2.37	0.58
10:B:2562:U:O2'	19:K:22:LYS:NZ	2.33	0.58
10:B:2590:A:H5"	11:C:237:ARG:HH21	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:C:170:TYR:HA	11:C:184:GLU:HA	1.85	0.58
12:D:7:LYS:HZ2	12:D:77:ARG:HH12	1.50	0.58
13:E:109:LEU:HD23	13:E:112:LEU:HD12	1.85	0.58
23:O:31:THR:HB	23:O:34:HIS:C	2.28	0.58
26:R:10:LYS:NZ	26:R:23:GLU:OE2	2.34	0.58
2:1:33:LEU:O	2:1:50:GLU:N	2.33	0.58
3:2:12:ARG:NH2	10:B:686:U:H3	2.02	0.58
7:6:316:MET:HB3	7:6:339:ARG:HD2	1.83	0.58
7:6:328:ARG:H	7:6:341:TRP:HD1	1.49	0.58
9:A:15:A:OP2	9:A:69:G:N2	2.31	0.58
10:B:140:C:O2	10:B:141:G:N1	2.36	0.58
10:B:414:C:H42	10:B:2409:G:H1	1.51	0.58
10:B:636:G:C2	20:L:76:GLU:OE2	2.57	0.58
10:B:639:U:H2'	10:B:640:C:C6	2.38	0.58
10:B:768:G:N2	10:B:1379:U:O2'	2.36	0.58
10:B:1069:A:O2'	10:B:1070:A:OP2	2.21	0.58
10:B:1486:U:H2'	10:B:1487:U:C6	2.38	0.58
10:B:1688:U:N3	10:B:1700:A:OP1	2.36	0.58
10:B:1905:C:H3'	10:B:1930:G:C8	2.38	0.58
10:B:2162:G:H2'	10:B:2173:A:H1'	1.85	0.58
10:B:2345:G:H4'	10:B:2346:A:H5"	1.85	0.58
10:B:2805:C:H2'	10:B:2806:C:H6	1.67	0.58
12:D:56:LYS:HZ2	12:D:59:ARG:HH22	1.46	0.58
18:J:81:ILE:HG23	18:J:82:GLY:O	2.03	0.58
6:5:215:SER:HG	10:B:2175:C:HO2'	1.46	0.58
7:6:192:ARG:O	7:6:197:VAL:HG21	2.02	0.58
7:6:261:HIS:CG	7:6:262:ASP:N	2.68	0.58
9:A:49:C:OP1	23:O:102:ARG:N	2.25	0.58
10:B:476:G:N2	10:B:478:A:H3'	2.19	0.58
10:B:577:G:C2	10:B:578:G:C5	2.91	0.58
10:B:832:U:H2'	10:B:833:A:C8	2.37	0.58
10:B:1009:A:H5"	25:Q:58:GLN:HE21	1.69	0.58
10:B:1022:G:C2	10:B:1141:U:H5	2.20	0.58
10:B:1327:A:H2'	10:B:1328:A:H5'	1.85	0.58
10:B:1874:C:H2'	10:B:1875:G:O4'	2.03	0.58
10:B:1907:G:H2'	10:B:1908:C:C6	2.38	0.58
10:B:2010:G:O3'	27:S:42:LYS:NZ	2.30	0.58
10:B:2772:C:H2'	10:B:2773:C:H6	1.68	0.58
10:B:2799:A:H3'	10:B:2800:A:C5'	2.32	0.58
15:G:38:ASP:OD1	15:G:63:GLN:HG2	2.04	0.58
15:G:73:SER:HA	15:G:137:LYS:NZ	2.18	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:N:21:PHE:HZ	22:N:40:LYS:HG2	1.69	0.58
22:N:86:ARG:NH1	22:N:117:ASP:O	2.36	0.58
7:6:138:ARG:NH1	10:B:1941:C:H1'	2.18	0.58
8:7:14:GLU:O	8:7:18:VAL:HG23	2.03	0.58
10:B:252:G:H5'	20:L:47:ARG:NH2	2.17	0.58
10:B:558:U:P	18:J:113:PRO:HG2	2.44	0.58
10:B:903:C:H2'	10:B:904:G:H8	1.67	0.58
10:B:1378:A:C5	10:B:1380:G:C6	2.92	0.58
10:B:1600:C:H2'	10:B:1601:G:C8	2.39	0.58
10:B:1650:A:H2'	10:B:1651:G:H8	1.67	0.58
10:B:1882:U:H2'	10:B:1883:U:C6	2.38	0.58
10:B:2025:C:P	12:D:154:LYS:NZ	2.77	0.58
10:B:2234:G:H2'	10:B:2235:G:C8	2.38	0.58
10:B:2467:C:H2'	10:B:2468:A:C8	2.39	0.58
10:B:2884:U:C2	10:B:2885:G:N7	2.71	0.58
11:C:145:MET:HE3	11:C:181:ARG:NH2	2.18	0.58
18:J:35:ARG:NH1	18:J:40:HIS:CD2	2.68	0.58
7:6:144:GLU:HB3	10:B:2602:A:C2	2.39	0.58
7:6:194:LYS:HZ3	7:6:197:VAL:HG13	1.69	0.58
10:B:21:A:H61	10:B:519:U:H3	1.51	0.58
10:B:854:C:N4	10:B:923:G:H1	2.01	0.58
10:B:972:A:OP2	10:B:974:G:H5"	2.02	0.58
10:B:974:G:C6	10:B:1186:G:C6	2.91	0.58
10:B:1115:G:H2'	10:B:1116:G:C8	2.38	0.58
10:B:1215:G:H2'	10:B:1216:G:C8	2.37	0.58
10:B:1233:C:H2'	10:B:1234:U:H6	1.67	0.58
10:B:1599:U:H2'	10:B:1600:C:C6	2.38	0.58
10:B:2308:G:H2'	10:B:2310:C:N4	2.19	0.58
12:D:125:TRP:NE1	12:D:160:LYS:HB2	2.18	0.58
14:F:12:VAL:H	14:F:15:LEU:HB2	1.69	0.58
19:K:70:ARG:HG2	19:K:71:PRO:HD2	1.86	0.58
25:Q:99:VAL:HG23	25:Q:100:PHE:CD2	2.38	0.58
4:3:35:LYS:NZ	4:3:39:ARG:CZ	2.67	0.58
9:A:5:U:H2'	9:A:6:G:C8	2.37	0.58
10:B:61:C:O5'	33:Y:44:LYS:NZ	2.37	0.58
10:B:106:C:HO2'	10:B:294:A:HO2'	1.35	0.58
10:B:239:C:H2'	10:B:240:C:O4'	2.04	0.58
10:B:307:G:N2	10:B:310:A:OP2	2.36	0.58
10:B:438:G:H2'	10:B:439:A:H8	1.69	0.58
10:B:1229:C:H2'	10:B:1230:A:C8	2.38	0.58
10:B:1665:A:C2	10:B:1666:G:C4	2.92	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1799:G:C4	11:C:175:LEU:HD13	2.38	0.58
10:B:1995:U:OP1	12:D:128:ARG:NH2	2.37	0.58
10:B:2134:A:C8	10:B:2135:A:H1'	2.39	0.58
10:B:2266:A:N3	10:B:2272:U:N3	2.52	0.58
10:B:2311:A:C3'	14:F:71:LYS:HZ1	2.17	0.58
10:B:2335:A:P	23:O:13:ARG:HE	2.27	0.58
12:D:4:LEU:HD22	12:D:32:ASN:ND2	2.17	0.58
16:H:3:VAL:CG1	16:H:30:LEU:HD11	2.17	0.58
17:I:17:ALA:HB1	17:I:22:PRO:HG3	1.86	0.58
17:I:124:MET:O	17:I:128:ILE:HG12	2.03	0.58
27:S:6:LYS:HB3	27:S:8:ARG:HG2	1.85	0.58
27:S:34:ASP:HA	27:S:37:THR:HG23	1.86	0.58
34:Z:27:GLY:O	34:Z:29:ARG:NH1	2.37	0.58
2:1:24:LYS:HD2	2:1:29:LYS:HD3	1.85	0.58
2:1:45:HIS:HD1	10:B:2371:G:HO2'	1.43	0.58
4:3:38:LYS:HA	4:3:41:ARG:CZ	2.34	0.58
5:4:9:LYS:HB3	5:4:14:CYS:SG	2.44	0.58
7:6:170:ARG:O	7:6:174:ILE:HG12	2.04	0.58
9:A:15:A:O2'	9:A:16:G:O5'	2.14	0.58
10:B:272:A:H2'	10:B:273:G:C8	2.38	0.58
10:B:564:C:H2'	10:B:565:C:H6	1.68	0.58
10:B:741:U:H2'	10:B:742:A:C8	2.39	0.58
10:B:779:U:H2'	10:B:780:G:C8	2.39	0.58
10:B:895:U:H4'	10:B:896:A:C8	2.39	0.58
10:B:1062:G:H2'	10:B:1063:G:H8	1.68	0.58
10:B:1076:C:H2'	10:B:1077:A:C8	2.24	0.58
10:B:1651:G:N2	10:B:2006:C:N3	2.34	0.58
10:B:2018:G:H2'	10:B:2019:A:H8	1.69	0.58
10:B:2206:C:H2'	10:B:2207:C:C6	2.38	0.58
10:B:2748:A:C2	10:B:2757:A:C4	2.91	0.58
10:B:2823:A:OP1	12:D:118:PHE:HB2	2.04	0.58
12:D:5:VAL:HG21	12:D:80:TRP:CD2	2.39	0.58
12:D:151:THR:HG22	12:D:152:PRO:HD2	1.86	0.58
27:S:6:LYS:HE3	27:S:8:ARG:HG2	1.85	0.58
30:V:4:ILE:O	30:V:64:VAL:N	2.36	0.58
2:1:49:LYS:HB2	2:1:50:GLU:HG2	1.85	0.58
3:2:16:HIS:ND1	3:2:21:ARG:NH2	2.52	0.58
3:2:44:VAL:N	3:2:46:LYS:O	2.37	0.58
7:6:376:GLU:OE1	7:6:376:GLU:N	2.36	0.58
10:B:274:C:O2	10:B:363:G:N1	2.35	0.58
10:B:329:G:H22	29:U:16:LYS:NZ	2.02	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:346:A:H3'	10:B:347:A:C8	2.39	0.58
10:B:534:U:O2'	25:Q:44:TYR:HB3	2.03	0.58
10:B:676:A:N3	10:B:2443:C:O2'	2.30	0.58
10:B:769:U:H2'	10:B:770:G:C8	2.34	0.58
10:B:874:G:C2	10:B:875:G:H1'	2.38	0.58
10:B:1790:C:H2'	10:B:1791:A:C8	2.39	0.58
10:B:1824:G:H5"	11:C:51:ARG:HH21	1.67	0.58
10:B:1831:G:N3	10:B:1975:G:N2	2.52	0.58
10:B:2186:G:C2	10:B:2187:U:H1'	2.38	0.58
14:F:3:LEU:HB2	14:F:96:TRP:CE2	2.39	0.58
14:F:56:LEU:HD11	14:F:88:VAL:HG13	1.86	0.58
16:H:144:VAL:HG23	16:H:146:VAL:HB	1.84	0.58
19:K:115:ILE:HA	19:K:118:ALA:HB3	1.86	0.58
30:V:46:LYS:HA	30:V:49:ASN:HD22	1.69	0.58
30:V:80:HIS:ND1	30:V:81:PRO:HD2	2.19	0.58
1:0:37:HIS:HB3	1:0:43:THR:HG23	1.86	0.57
6:5:101:ALA:O	6:5:105:LYS:HG3	2.03	0.57
10:B:759:G:H21	10:B:760:G:H1'	1.69	0.57
10:B:814:C:N4	10:B:1193:G:H1	2.02	0.57
10:B:815:C:H42	10:B:1192:G:H1	1.52	0.57
10:B:815:C:P	26:R:85:LYS:NZ	2.76	0.57
10:B:856:G:P	31:W:23:LYS:NZ	2.77	0.57
10:B:948:C:O2	10:B:984:A:O2'	2.22	0.57
10:B:1492:G:H5"	10:B:1493:C:H5"	1.85	0.57
10:B:2813:A:C5	10:B:2814:A:C5	2.92	0.57
15:G:25:ILE:O	15:G:31:GLU:HA	2.04	0.57
16:H:30:LEU:CD2	16:H:35:LYS:HE2	2.34	0.57
16:H:68:ARG:O	16:H:132:PHE:HD2	1.85	0.57
17:I:85:ILE:HD13	17:I:137:LEU:HD21	1.85	0.57
19:K:70:ARG:HH22	24:P:71:ARG:HD3	1.69	0.57
28:T:3:ARG:NE	28:T:42:GLU:HA	2.18	0.57
28:T:14:PRO:HA	28:T:32:LEU:CB	2.33	0.57
3:2:31:LEU:O	3:2:35:ARG:HG2	2.04	0.57
4:3:38:LYS:HA	4:3:41:ARG:NH2	2.19	0.57
6:5:133:PRO:O	6:5:135:GLY:N	2.28	0.57
7:6:293:GLU:O	7:6:297:ALA:N	2.34	0.57
10:B:218:A:N7	10:B:219:A:C5	2.72	0.57
10:B:544:C:O2	10:B:544:C:H3'	2.04	0.57
10:B:676:A:H62	10:B:802:A:H61	1.50	0.57
10:B:1721:G:HO2'	10:B:1722:A:P	2.26	0.57
10:B:1799:G:C2	11:C:175:LEU:HD22	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2195:U:H2'	10:B:2196:C:H6	1.69	0.57
10:B:2209:G:H2'	10:B:2210:U:H5	1.68	0.57
10:B:2261:C:H2'	10:B:2262:U:C6	2.39	0.57
10:B:2406:A:C2	20:L:69:ARG:NH1	2.72	0.57
11:C:12:ARG:O	11:C:15:VAL:HG12	2.04	0.57
14:F:98:PHE:HE1	14:F:101:ARG:NH2	2.01	0.57
6:5:134:ARG:NH2	6:5:137:MET:HE3	2.19	0.57
7:6:5:TYR:HB3	7:6:99:ARG:NH1	2.19	0.57
8:7:59:LEU:N	8:7:62:ARG:HB2	2.19	0.57
10:B:452:G:C2	10:B:458:G:C5	2.92	0.57
10:B:564:C:P	26:R:79:ARG:HH21	2.26	0.57
10:B:704:G:C2	10:B:726:G:C5	2.93	0.57
10:B:966:G:C5	10:B:967:U:C4	2.91	0.57
10:B:1071:G:H1	10:B:1092:C:N4	2.02	0.57
10:B:1490:A:H2'	11:C:73:ILE:HD11	1.85	0.57
10:B:1612:C:N4	10:B:1619:G:O6	2.37	0.57
10:B:1749:A:H2'	10:B:1750:G:C8	2.38	0.57
10:B:2112:G:H8	10:B:2113:U:C5	2.21	0.57
10:B:2125:G:HO2'	10:B:2173:A:H61	1.49	0.57
10:B:2163:A:N7	10:B:2164:C:O2'	2.37	0.57
10:B:2647:U:O2'	10:B:2648:G:O4'	2.18	0.57
14:F:6:TYR:OH	14:F:168:LEU:O	2.22	0.57
16:H:64:ALA:HA	16:H:71:LYS:NZ	2.19	0.57
19:K:70:ARG:HH11	19:K:76:ILE:HD11	1.67	0.57
27:S:66:ILE:HG23	27:S:67:ASP:H	1.70	0.57
30:V:4:ILE:HD11	30:V:50:MET:SD	2.44	0.57
8:7:26:VAL:HG22	8:7:84:TYR:CE1	2.39	0.57
8:7:142:THR:HB	8:7:145:GLU:HB2	1.85	0.57
10:B:123:G:H2'	10:B:124:G:O4'	2.04	0.57
10:B:1060:U:P	17:I:112:LYS:HZ1	2.23	0.57
10:B:1685:C:H2'	10:B:1686:C:H6	1.69	0.57
10:B:1687:G:H1'	10:B:1702:G:N2	2.19	0.57
10:B:1824:G:H2'	10:B:1825:U:C6	2.39	0.57
10:B:2745:C:N4	10:B:2760:C:H42	2.03	0.57
14:F:11:VAL:HA	14:F:15:LEU:HD12	1.86	0.57
24:P:28:LYS:HB2	24:P:81:ASP:HB2	1.84	0.57
30:V:35:GLU:CD	30:V:93:ARG:HE	2.12	0.57
32:X:4:CYS:HB3	32:X:8:GLY:N	2.19	0.57
6:5:117:SER:H	6:5:120:ALA:HB3	1.69	0.57
7:6:275:ARG:HG2	7:6:275:ARG:NH1	2.20	0.57
7:6:370:LEU:HD22	7:6:383:PHE:CZ	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:A:27:C:C4	9:A:28:C:C4	2.92	0.57
9:A:68:C:H2'	9:A:69:G:C8	2.39	0.57
10:B:26:G:H1'	10:B:515:A:H61	1.69	0.57
10:B:1065:U:C4	10:B:1066:U:C4	2.92	0.57
10:B:1346:G:N1	10:B:1600:C:N3	2.41	0.57
10:B:1509:A:C4	10:B:1510:G:C8	2.93	0.57
10:B:2311:A:H3'	14:F:71:LYS:HZ1	1.70	0.57
10:B:2793:C:H2'	10:B:2794:C:H6	1.69	0.57
10:B:2846:G:C5	10:B:2847:U:C4	2.93	0.57
17:I:116:MET:HE3	17:I:118:GLY:H	1.69	0.57
18:J:77:HIS:CD2	18:J:79:GLY:H	2.21	0.57
26:R:19:THR:HA	26:R:97:LYS:HA	1.85	0.57
29:U:4:ILE:O	29:U:5:ARG:HD2	2.05	0.57
7:6:324:ASP:OD2	7:6:341:TRP:CE3	2.58	0.57
7:6:394:MET:HA	7:6:400:VAL:HG13	1.86	0.57
10:B:216:A:H2'	10:B:217:A:C8	2.40	0.57
10:B:399:U:H2'	10:B:400:G:C8	2.40	0.57
10:B:637:A:C6	10:B:652:U:H5"	2.40	0.57
10:B:796:C:H2'	10:B:797:G:C8	2.40	0.57
10:B:934:U:H2'	10:B:935:C:C6	2.40	0.57
10:B:976:G:C5'	10:B:1156:A:H62	2.16	0.57
10:B:1581:G:H2'	10:B:1582:C:H6	1.69	0.57
10:B:1771:C:O2'	10:B:1786:A:N3	2.35	0.57
10:B:1953:A:N1	10:B:2549:G:O2'	2.25	0.57
10:B:2831:G:P	12:D:59:ARG:HH22	2.27	0.57
11:C:24:HIS:ND1	11:C:79:ARG:NH2	2.52	0.57
12:D:46:ARG:NH2	12:D:88:GLU:HG2	2.15	0.57
14:F:110:ILE:HG23	14:F:176:PHE:O	2.05	0.57
17:I:35:MET:HB3	17:I:39:LYS:NZ	2.19	0.57
24:P:98:TYR:HA	24:P:100:ARG:HG2	1.85	0.57
26:R:37:GLU:OE2	26:R:58:VAL:N	2.37	0.57
7:6:216:ARG:NH2	7:6:345:GLN:O	2.38	0.57
9:A:44:G:O4'	9:A:47:C:N4	2.37	0.57
10:B:72:U:H3	33:Y:55:THR:HG1	1.51	0.57
10:B:81:G:H1	10:B:105:C:H42	1.52	0.57
10:B:90:U:H2'	10:B:91:A:C2	2.39	0.57
10:B:674:G:O3'	13:E:62:GLN:NE2	2.35	0.57
10:B:993:G:P	25:Q:50:ARG:HH12	2.28	0.57
10:B:1218:G:C2	10:B:1232:G:C5	2.92	0.57
10:B:1300:G:N2	10:B:1626:A:H62	2.02	0.57
10:B:1705:A:H2'	10:B:1706:C:C6	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1826:G:H2'	10:B:1827:U:H6	1.70	0.57
10:B:2189:U:H2'	10:B:2190:G:C8	2.39	0.57
10:B:2246:G:H2'	10:B:2247:A:H8	1.70	0.57
10:B:2720:U:H2'	10:B:2721:A:O4'	2.05	0.57
10:B:2824:C:O5'	10:B:2825:G:N2	2.37	0.57
11:C:93:VAL:HG22	11:C:101:ARG:O	2.04	0.57
12:D:106:LYS:O	12:D:206:ALA:N	2.37	0.57
34:Z:5:LYS:HB3	34:Z:57:GLU:HB2	1.85	0.57
4:3:2:LYS:NZ	10:B:242:G:P	2.77	0.57
7:6:262:ASP:N	7:6:262:ASP:OD1	2.35	0.57
9:A:30:C:O2'	9:A:57:A:N1	2.35	0.57
10:B:199:A:C5	10:B:2433:A:N1	2.72	0.57
10:B:543:G:N3	10:B:544:C:H1'	2.20	0.57
10:B:1162:G:H2'	10:B:1163:G:C8	2.39	0.57
10:B:1378:A:C4	10:B:1380:G:C6	2.93	0.57
10:B:1407:G:N1	10:B:1595:C:O2	2.34	0.57
10:B:1425:G:N2	10:B:1574:C:N3	2.52	0.57
10:B:1845:G:C6	10:B:1896:G:C6	2.93	0.57
10:B:1881:C:C4	10:B:1882:U:C4	2.92	0.57
10:B:2821:A:O2'	10:B:2822:G:H5'	2.05	0.57
12:D:38:LYS:HB2	12:D:47:ALA:HB3	1.85	0.57
14:F:159:ALA:HB1	14:F:164:GLU:HB2	1.86	0.57
18:J:28:LEU:O	18:J:32:LEU:HG	2.04	0.57
18:J:42:ALA:HB3	18:J:44:TYR:CZ	2.40	0.57
22:N:80:PHE:O	22:N:81:ASN:ND2	2.37	0.57
23:O:89:ASP:HA	23:O:116:GLN:O	2.05	0.57
26:R:71:LYS:HG2	26:R:90:ARG:HD2	1.86	0.57
26:R:71:LYS:HG3	26:R:90:ARG:NH1	2.20	0.57
1:0:35:GLU:OE2	1:0:45:ASP:OD2	2.23	0.57
1:0:47:TYR:CE1	1:0:52:LYS:HD3	2.36	0.57
4:3:38:LYS:HG3	4:3:41:ARG:HH21	1.69	0.57
6:5:37:LYS:HZ3	6:5:218:MET:HE1	1.68	0.57
6:5:218:MET:SD	10:B:2173:A:N6	2.78	0.57
10:B:64:A:C6	10:B:65:U:C4	2.93	0.57
10:B:278:A:H2	10:B:279:A:C6	2.23	0.57
10:B:457:A:O5'	10:B:459:U:H1'	2.05	0.57
10:B:518:G:O5'	27:S:18:ARG:NH1	2.37	0.57
10:B:519:U:H5"	27:S:25:ARG:HH22	1.70	0.57
10:B:533:G:C5	10:B:534:U:C4	2.92	0.57
10:B:811:U:H1'	10:B:1251:C:H5'	1.86	0.57
10:B:1055:G:H3'	10:B:1056:G:C8	2.35	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1206:G:H2'	10:B:1207:C:O4'	2.05	0.57
10:B:2581:G:C5	10:B:2610:C:C4	2.93	0.57
10:B:2637:U:OP1	12:D:83:ARG:HD2	2.05	0.57
13:E:147:LEU:HB2	13:E:183:PHE:CD2	2.40	0.57
14:F:98:PHE:CE1	14:F:101:ARG:NH2	2.72	0.57
26:R:7:SER:OG	26:R:8:GLY:N	2.37	0.57
26:R:33:VAL:HG13	26:R:61:ALA:HB3	1.87	0.57
1:0:49:ARG:HB3	10:B:2884:U:C5	2.40	0.57
4:3:15:LYS:HA	4:3:21:PHE:CD1	2.40	0.57
6:5:80:GLN:HG2	10:B:2169:A:H1'	1.86	0.57
6:5:133:PRO:O	10:B:2122:U:O4	2.23	0.57
7:6:370:LEU:HG	7:6:424:TYR:HB2	1.86	0.57
10:B:222:A:H62	10:B:232:G:H21	1.52	0.57
10:B:473:G:P	10:B:473:G:H8	2.28	0.57
10:B:484:C:N3	10:B:496:G:N2	2.47	0.57
10:B:807:U:H2'	10:B:808:G:C8	2.39	0.57
10:B:1016:G:H1	10:B:1146:C:N4	2.02	0.57
10:B:1064:C:N4	10:B:1070:A:OP1	2.38	0.57
10:B:1098:A:C6	17:I:4:VAL:HA	2.40	0.57
10:B:1179:G:H2'	10:B:1180:U:C6	2.39	0.57
10:B:1818:U:C5	11:C:152:GLN:HB2	2.40	0.57
10:B:2102:G:N2	10:B:2186:G:H22	2.03	0.57
10:B:2200:C:OP1	32:X:36:ARG:N	2.30	0.57
13:E:21:ARG:O	13:E:110:SER:OG	2.22	0.57
17:I:30:GLN:HG2	17:I:64:ARG:HD2	1.85	0.57
18:J:130:HIS:ND1	18:J:130:HIS:O	2.38	0.57
24:P:61:ARG:HH22	24:P:63:ILE:HD11	1.70	0.57
26:R:42:ALA:HA	26:R:45:GLU:O	2.05	0.57
26:R:71:LYS:HG3	26:R:90:ARG:HH11	1.70	0.57
28:T:24:MET:O	28:T:28:ASN:N	2.28	0.57
29:U:38:ILE:N	29:U:61:GLU:OE2	2.35	0.57
31:W:36:ILE:HG21	31:W:43:LYS:HB2	1.86	0.57
4:3:49:VAL:HG23	4:3:51:LYS:HG3	1.87	0.56
7:6:50:LYS:HE3	7:6:59:GLY:H	1.70	0.56
10:B:211:C:H2'	10:B:212:G:C8	2.40	0.56
10:B:325:G:H1	10:B:337:C:N4	2.01	0.56
10:B:870:U:OP2	21:M:6:ARG:NH2	2.38	0.56
10:B:1094:U:O2'	10:B:1096:A:N7	2.28	0.56
10:B:1366:A:C5	10:B:1367:A:C8	2.93	0.56
10:B:1420:A:H5"	10:B:2211:A:H62	1.69	0.56
10:B:1663:G:HO2'	10:B:1664:A:H8	1.52	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2114:A:H2	10:B:2168:G:H1'	1.70	0.56
10:B:2179:C:O2'	10:B:2180:U:O4'	2.15	0.56
10:B:2638:G:N2	10:B:2776:A:N7	2.52	0.56
10:B:2674:G:H2'	10:B:2675:A:H8	1.68	0.56
10:B:2867:G:O2'	10:B:2868:A:H8	1.88	0.56
11:C:15:VAL:HG23	11:C:204:LEU:O	2.05	0.56
12:D:133:THR:OG1	12:D:134:HIS:N	2.37	0.56
12:D:178:VAL:HB	12:D:188:LEU:HB3	1.87	0.56
14:F:3:LEU:HB2	14:F:96:TRP:CD2	2.40	0.56
23:O:11:ALA:HB2	23:O:96:GLY:N	2.20	0.56
7:6:164:ARG:HB3	7:6:168:ARG:NH1	2.20	0.56
7:6:336:LYS:HZ1	7:6:338:ASN:ND2	2.03	0.56
35:6:527:GNP:H5'2	35:6:527:GNP:H8	1.87	0.56
10:B:70:G:O5'	10:B:75:G:N1	2.38	0.56
10:B:807:U:C2	10:B:808:G:C8	2.92	0.56
10:B:953:G:C2	10:B:954:G:C8	2.92	0.56
10:B:1314:C:H42	10:B:1338:G:H1	1.54	0.56
10:B:1440:U:H2'	10:B:1441:G:C8	2.40	0.56
10:B:1458:U:H5"	10:B:1459:G:H3'	1.86	0.56
10:B:1779:U:OP2	10:B:1784:A:N6	2.31	0.56
10:B:2399:G:H2'	10:B:2400:G:C8	2.36	0.56
10:B:2551:C:H2'	10:B:2552:U:C6	2.40	0.56
10:B:2788:C:H2'	10:B:2789:C:C6	2.39	0.56
15:G:88:LEU:HD21	15:G:95:ALA:HB2	1.85	0.56
16:H:64:ALA:HA	16:H:71:LYS:HZ2	1.70	0.56
18:J:64:VAL:HG11	18:J:69:ARG:HD2	1.86	0.56
22:N:60:VAL:O	22:N:63:ARG:HB2	2.05	0.56
23:O:7:ARG:HA	23:O:10:ARG:NE	2.20	0.56
27:S:28:LYS:H	27:S:71:VAL:HG12	1.70	0.56
32:X:35:HIS:HB3	32:X:37:PHE:CE2	2.39	0.56
6:5:161:VAL:HG11	6:5:192:LEU:HD21	1.87	0.56
6:5:168:ASN:HD22	10:B:2178:C:P	2.28	0.56
7:6:141:THR:O	7:6:145:ARG:HG2	2.06	0.56
7:6:144:GLU:OE2	10:B:2602:A:H3'	2.05	0.56
9:A:13:G:H4'	9:A:14:U:OP1	2.05	0.56
10:B:96:C:H4'	33:Y:41:HIS:CE1	2.41	0.56
10:B:532:A:H5'	25:Q:27:ARG:HH12	1.68	0.56
10:B:562:U:O2	10:B:572:A:H1'	2.04	0.56
10:B:775:G:C2	10:B:777:G:N1	2.74	0.56
10:B:833:A:H2'	10:B:834:G:C8	2.41	0.56
10:B:972:A:C5	10:B:973:A:C5	2.93	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1130:U:C2	12:D:152:PRO:HG3	2.40	0.56
10:B:1281:G:H2'	10:B:1282:U:C6	2.40	0.56
10:B:1392:A:P	28:T:19:LYS:NZ	2.78	0.56
10:B:1837:C:O2	10:B:1903:G:N1	2.38	0.56
10:B:1861:G:O6	10:B:1881:C:N4	2.22	0.56
10:B:2244:U:H2'	10:B:2245:U:C6	2.40	0.56
10:B:2328:A:H2'	10:B:2329:U:H6	1.69	0.56
10:B:2471:A:O2'	10:B:2472:G:H8	1.73	0.56
10:B:2632:A:H2'	10:B:2633:G:C8	2.37	0.56
10:B:2803:G:H2'	10:B:2804:U:H6	1.68	0.56
13:E:5:LEU:N	13:E:10:SER:O	2.26	0.56
21:M:11:LYS:HZ3	21:M:86:LYS:C	2.13	0.56
21:M:21:ALA:HB2	21:M:97:GLN:HB2	1.87	0.56
22:N:44:LEU:HD23	22:N:113:ILE:HD13	1.87	0.56
22:N:78:LYS:HZ2	22:N:82:GLU:CD	2.13	0.56
29:U:80:ASP:HB3	29:U:96:LYS:O	2.04	0.56
8:7:34:THR:HA	10:B:1085:A:H61	1.71	0.56
8:7:84:TYR:HE2	8:7:86:MET:HE2	1.71	0.56
9:A:114:C:H2'	9:A:115:A:C8	2.41	0.56
10:B:220:G:H22	10:B:265:A:N6	2.03	0.56
10:B:265:A:O2'	10:B:266:G:H4'	2.05	0.56
10:B:378:C:N4	10:B:379:G:O6	2.37	0.56
10:B:1189:A:C8	10:B:1190:G:C8	2.93	0.56
10:B:1851:U:H2'	10:B:1852:U:H6	1.70	0.56
10:B:2251:G:N2	10:B:2252:G:O4'	2.36	0.56
10:B:2751:G:O4'	15:G:2:ARG:HG3	2.06	0.56
10:B:2823:A:OP2	12:D:118:PHE:N	2.23	0.56
13:E:123:LYS:HG2	13:E:125:SER:H	1.69	0.56
29:U:43:LYS:HG2	29:U:60:LYS:HD3	1.88	0.56
6:5:130:VAL:HB	10:B:2119:A:C4	2.41	0.56
6:5:134:ARG:NH2	6:5:136:LEU:HD23	2.20	0.56
10:B:153:U:H2'	10:B:154:U:C6	2.40	0.56
10:B:251:A:C6	10:B:252:G:H1'	2.41	0.56
10:B:575:A:H2'	10:B:576:U:H6	1.70	0.56
10:B:583:G:C2	10:B:584:C:C2	2.93	0.56
10:B:588:U:H2'	10:B:589:U:C6	2.39	0.56
10:B:881:G:N2	10:B:897:C:O2	2.38	0.56
10:B:1147:A:H2'	10:B:1148:U:C6	2.40	0.56
10:B:1534:U:O2'	10:B:1537:G:O6	2.14	0.56
10:B:2109:U:N3	10:B:2181:U:O2	2.38	0.56
10:B:2331:G:C5	10:B:2332:C:C4	2.94	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2444:G:C2	10:B:2445:G:C8	2.93	0.56
10:B:2530:A:H5'	15:G:174:LYS:HZ3	1.70	0.56
10:B:2653:U:C4	10:B:2654:A:C6	2.93	0.56
10:B:2765:A:H5'	10:B:2766:A:OP2	2.06	0.56
18:J:93:ILE:HA	18:J:97:PRO:HA	1.87	0.56
24:P:67:GLU:HG2	24:P:69:VAL:HG23	1.88	0.56
7:6:366:ALA:O	7:6:367:GLN:C	2.41	0.56
9:A:21:G:H2'	9:A:22:U:C6	2.41	0.56
10:B:58:G:C6	10:B:59:U:C4	2.93	0.56
10:B:58:G:O2'	10:B:59:U:H5'	2.04	0.56
10:B:1011:G:C6	10:B:1151:A:C6	2.93	0.56
10:B:1023:U:H2'	10:B:1024:G:O4'	2.06	0.56
10:B:1139:G:O5'	18:J:72:LYS:NZ	2.36	0.56
10:B:1301:A:C5	10:B:1303:G:C8	2.93	0.56
10:B:1340:U:P	28:T:82:LYS:NZ	2.79	0.56
10:B:1346:G:C2	10:B:1347:A:C4	2.94	0.56
10:B:1553:A:H2'	10:B:1555:G:C8	2.40	0.56
10:B:1711:A:H61	10:B:1747:U:H3	1.52	0.56
10:B:2143:C:O2'	10:B:2145:C:O2	2.20	0.56
10:B:2673:G:H2'	10:B:2674:G:H8	1.70	0.56
10:B:2801:G:C2	10:B:2802:G:C4	2.93	0.56
12:D:166:GLY:O	12:D:168:GLU:HG2	2.06	0.56
14:F:111:ARG:HH12	14:F:135:ILE:HG22	1.70	0.56
20:L:68:SER:HB3	20:L:70:LYS:HB2	1.87	0.56
22:N:118:ARG:NE	22:N:121:LYS:N	2.35	0.56
24:P:1:SER:OG	24:P:2:ASN:N	2.39	0.56
4:3:35:LYS:HZ2	4:3:39:ARG:NH2	2.04	0.56
7:6:336:LYS:NZ	7:6:338:ASN:ND2	2.53	0.56
9:A:17:C:H2'	9:A:18:G:O4'	2.06	0.56
9:A:34:A:H4'	9:A:35:C:N3	2.20	0.56
9:A:49:C:H5"	23:O:68:LYS:HD2	1.87	0.56
10:B:857:G:H1	10:B:920:A:N6	2.04	0.56
10:B:881:G:C2	10:B:882:G:H1'	2.41	0.56
10:B:1342:A:C5	10:B:1345:C:C4	2.94	0.56
10:B:1364:G:H2'	10:B:1366:A:OP2	2.05	0.56
10:B:1759:A:C5	10:B:1760:C:C4	2.93	0.56
10:B:1773:A:H2'	10:B:1774:C:O4'	2.05	0.56
10:B:1793:C:N4	10:B:1794:A:N7	2.53	0.56
10:B:1825:U:P	11:C:51:ARG:NH2	2.79	0.56
10:B:1841:U:H2'	10:B:1842:G:C8	2.41	0.56
10:B:1895:C:H2'	10:B:1896:G:C8	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2157:G:H5”	10:B:2158:A:C4	2.40	0.56
10:B:2572:A:H8	12:D:149:ASN:HD21	1.53	0.56
10:B:2643:G:H2’	10:B:2644:G:O4’	2.05	0.56
13:E:117:ARG:NH2	13:E:183:PHE:O	2.38	0.56
17:I:30:GLN:HE22	17:I:60:VAL:HG21	1.71	0.56
18:J:24:THR:HG22	18:J:27:ARG:H	1.69	0.56
25:Q:16:ILE:HG21	25:Q:35:PHE:CD1	2.39	0.56
29:U:13:LEU:O	29:U:14:THR:OG1	2.21	0.56
29:U:39:ASN:O	29:U:61:GLU:HG2	2.06	0.56
31:W:18:LYS:HG3	31:W:19:ARG:H	1.71	0.56
6:5:62:ALA:HB3	6:5:144:THR:HB	1.87	0.56
10:B:220:G:N1	10:B:428:A:OP2	2.38	0.56
10:B:491:G:C2	10:B:492:A:C4	2.94	0.56
10:B:537:G:C2	10:B:555:G:N2	2.73	0.56
10:B:700:G:C2	10:B:701:G:C8	2.94	0.56
10:B:738:G:C6	10:B:739:A:C6	2.93	0.56
10:B:749:A:C5	10:B:1618:A:C6	2.94	0.56
10:B:857:G:H1	10:B:920:A:H61	1.54	0.56
10:B:875:G:C6	10:B:876:C:C2	2.93	0.56
10:B:1091:G:H2’	10:B:1092:C:H6	1.71	0.56
10:B:1117:C:H2’	10:B:1118:C:C6	2.40	0.56
10:B:1570:A:H2’	10:B:1571:A:H8	1.71	0.56
10:B:2494:G:C5	10:B:2495:G:N7	2.74	0.56
10:B:2507:C:H2’	10:B:2508:G:H8	1.70	0.56
10:B:2661:G:H2’	10:B:2662:A:O4’	2.05	0.56
15:G:71:LEU:HA	15:G:74:MET:HB2	1.86	0.56
17:I:38:CYS:O	17:I:42:ASN:ND2	2.38	0.56
26:R:37:GLU:HB2	26:R:53:PHE:HB3	1.88	0.56
3:2:33:ARG:NH2	10:B:466:A:O3’	2.39	0.56
7:6:194:LYS:NZ	7:6:197:VAL:HG13	2.20	0.56
7:6:257:ARG:HB3	7:6:258:HIS:ND1	2.20	0.56
7:6:384:TYR:OH	7:6:392:GLU:OE1	2.23	0.56
8:7:103:ASN:OD1	8:7:104:ALA:N	2.39	0.56
9:A:16:G:H2’	9:A:17:C:C6	2.40	0.56
10:B:210:C:H2’	10:B:211:C:H6	1.70	0.56
10:B:264:C:O2’	10:B:428:A:N6	2.39	0.56
10:B:381:G:C2	10:B:382:A:C4	2.94	0.56
10:B:618:G:C5	10:B:619:G:C5	2.94	0.56
10:B:662:G:H2’	10:B:663:G:C8	2.41	0.56
10:B:923:G:H21	31:W:24:ARG:NH2	2.04	0.56
10:B:969:G:H5”	10:B:970:U:OP2	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1009:A:C5	10:B:1010:A:N1	2.74	0.56
10:B:1117:C:H2'	10:B:1118:C:H6	1.71	0.56
10:B:1215:G:N3	10:B:1216:G:C8	2.74	0.56
10:B:1314:C:C5	10:B:1315:C:H5	2.24	0.56
10:B:1351:C:C2	10:B:1381:G:N1	2.73	0.56
10:B:1355:G:P	11:C:42:ARG:NH1	2.78	0.56
10:B:1429:G:C5	10:B:1568:G:C6	2.94	0.56
10:B:1533:C:C4	10:B:1534:U:C4	2.94	0.56
10:B:1910:G:C2	10:B:1911:U:H1'	2.41	0.56
10:B:2279:G:C6	10:B:2280:G:C5	2.94	0.56
10:B:2371:G:OP2	10:B:2371:G:H8	1.89	0.56
10:B:2815:C:C2	10:B:2816:G:C8	2.94	0.56
14:F:108:PRO:HB2	14:F:178:LYS:HD3	1.88	0.56
16:H:29:PHE:CE2	16:H:35:LYS:HD3	2.41	0.56
16:H:30:LEU:CA	16:H:35:LYS:HZ3	2.18	0.56
17:I:106:GLN:OE1	17:I:125:THR:HG21	2.05	0.56
21:M:90:GLU:N	21:M:90:GLU:OE1	2.39	0.56
23:O:98:GLN:O	23:O:100:HIS:N	2.39	0.56
26:R:67:GLY:HA3	26:R:93:PHE:HB2	1.87	0.56
34:Z:30:ARG:HB2	34:Z:33:HIS:HB2	1.87	0.56
9:A:69:G:H2'	9:A:70:C:H5'	1.86	0.56
10:B:74:A:OP1	33:Y:47:ARG:NH2	2.39	0.56
10:B:247:G:O2'	10:B:386:G:N1	2.38	0.56
10:B:579:G:H2'	10:B:580:U:H6	1.68	0.56
10:B:754:U:H2'	10:B:755:U:C6	2.41	0.56
10:B:974:G:H8	10:B:990:A:N6	2.00	0.56
10:B:1382:G:O2'	10:B:1573:G:N3	2.39	0.56
10:B:1392:A:P	28:T:19:LYS:HZ3	2.29	0.56
10:B:2064:C:H1'	10:B:2450:A:C2	2.40	0.56
10:B:2115:G:N2	10:B:2119:A:OP1	2.39	0.56
10:B:2207:C:H2'	10:B:2208:C:C6	2.41	0.56
11:C:143:VAL:O	11:C:151:GLY:HA2	2.06	0.56
18:J:40:HIS:O	18:J:42:ALA:N	2.37	0.56
23:O:100:HIS:CA	23:O:104:GLN:HB2	2.36	0.56
27:S:25:ARG:HA	27:S:71:VAL:HG21	1.87	0.56
28:T:27:SER:O	28:T:28:ASN:ND2	2.38	0.56
32:X:39:VAL:HG22	32:X:44:ARG:O	2.06	0.56
10:B:302:C:P	29:U:78:LYS:HZ1	2.26	0.55
10:B:309:A:C6	10:B:330:A:C5	2.93	0.55
10:B:347:A:H2'	10:B:348:A:H8	1.70	0.55
10:B:925:A:H2'	10:B:926:G:H8	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1279:G:H2'	10:B:1280:G:C8	2.41	0.55
10:B:2092:U:OP2	16:H:28:ASN:ND2	2.39	0.55
10:B:2115:G:O2'	10:B:2165:C:N4	2.34	0.55
10:B:2116:G:C4	10:B:2146:C:H5"	2.41	0.55
10:B:2192:U:N3	10:B:2193:G:N7	2.55	0.55
10:B:2313:C:H2'	10:B:2314:A:C8	2.40	0.55
10:B:2318:G:H3'	10:B:2319:G:C8	2.41	0.55
10:B:2556:C:H3'	10:B:2557:G:H8	1.71	0.55
10:B:2652:C:C2	10:B:2669:G:C2	2.95	0.55
10:B:2728:U:O2'	10:B:2729:G:O4'	2.24	0.55
12:D:14:ILE:HB	12:D:24:VAL:HG21	1.87	0.55
12:D:151:THR:C	12:D:153:GLY:N	2.56	0.55
13:E:29:HIS:CE1	20:L:8:PRO:HD3	2.41	0.55
16:H:68:ARG:HD3	16:H:132:PHE:CD1	2.33	0.55
16:H:127:GLU:C	16:H:141:LYS:HZ2	2.11	0.55
17:I:105:LEU:HD22	17:I:128:ILE:HG22	1.87	0.55
28:T:11:LEU:HD23	28:T:34:VAL:HG21	1.88	0.55
7:6:8:GLY:HA2	7:6:38:GLY:O	2.06	0.55
10:B:372:G:C6	32:X:56:ARG:NH2	2.74	0.55
10:B:894:U:H2'	10:B:895:U:O4'	2.06	0.55
10:B:909:A:O2'	10:B:910:A:O5'	2.22	0.55
10:B:912:C:H2'	10:B:913:U:H6	1.70	0.55
10:B:1084:A:H8	10:B:1105:U:HO2'	1.53	0.55
10:B:1432:G:C2	10:B:1433:A:C4	2.94	0.55
10:B:1529:G:H2'	10:B:1530:G:H8	1.70	0.55
10:B:1643:G:H2'	10:B:1644:C:O4'	2.05	0.55
10:B:1726:C:H2'	10:B:1727:C:C6	2.42	0.55
10:B:1835:G:N3	10:B:1931:U:N3	2.55	0.55
10:B:1916:A:OP2	10:B:1918:A:N6	2.28	0.55
10:B:1919:A:H2'	10:B:1920:C:O4'	2.06	0.55
10:B:2241:A:H2	10:B:2242:G:C6	2.24	0.55
10:B:2489:U:O4	10:B:2490:G:N1	2.39	0.55
10:B:2568:U:H2'	10:B:2569:G:C8	2.41	0.55
10:B:2660:A:N7	15:G:176:LYS:HB3	2.21	0.55
11:C:211:ARG:NH2	11:C:217:PRO:HD3	2.22	0.55
15:G:106:LEU:HD13	15:G:151:ARG:HD2	1.88	0.55
17:I:35:MET:HE3	17:I:39:LYS:HZ2	1.71	0.55
19:K:79:ASP:OD2	24:P:68:GLY:HA3	2.07	0.55
20:L:76:GLU:OE2	20:L:111:ILE:HD13	2.05	0.55
25:Q:100:PHE:O	25:Q:102:LYS:N	2.39	0.55
29:U:20:LYS:HG2	29:U:21:ARG:O	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2:28:ARG:NH2	10:B:178:G:O3'	2.39	0.55
5:4:24:ARG:NH2	10:B:2742:G:P	2.79	0.55
7:6:153:ARG:NH2	10:B:2505:G:O2'	2.39	0.55
7:6:336:LYS:HZ1	7:6:338:ASN:HD22	1.55	0.55
9:A:76:G:P	30:V:9:ARG:HH22	2.28	0.55
10:B:195:A:H5"	10:B:196:A:H4'	1.87	0.55
10:B:238:C:O2'	10:B:608:A:N3	2.39	0.55
10:B:526:A:O2'	10:B:2043:C:O2'	2.08	0.55
10:B:956:G:H2'	10:B:957:C:H2'	1.87	0.55
10:B:1355:G:H1	10:B:1376:C:H42	1.55	0.55
10:B:1373:A:O2'	10:B:2212:A:H2	1.88	0.55
10:B:1652:A:HO2'	10:B:1653:G:P	2.27	0.55
10:B:2357:G:C2	10:B:2361:G:C6	2.95	0.55
10:B:2704:C:C4	10:B:2705:A:N6	2.74	0.55
10:B:2790:U:C4	10:B:2893:A:C6	2.95	0.55
10:B:2830:C:H5"	12:D:56:LYS:NZ	2.22	0.55
10:B:2849:U:OP1	24:P:92:ARG:NH2	2.39	0.55
11:C:144:GLU:CD	11:C:188:ARG:H	2.15	0.55
14:F:37:MET:HB2	14:F:86:CYS:H	1.71	0.55
14:F:105:ILE:HD12	14:F:135:ILE:HB	1.88	0.55
21:M:29:GLY:HA3	21:M:106:ASP:HB2	1.87	0.55
28:T:37:ASP:C	28:T:81:LYS:NZ	2.62	0.55
29:U:56:GLY:C	29:U:58:VAL:H	2.12	0.55
9:A:12:C:O2'	9:A:13:G:OP2	2.22	0.55
10:B:8:C:H2'	10:B:9:G:C8	2.41	0.55
10:B:61:C:C5'	33:Y:44:LYS:HZ3	2.19	0.55
10:B:214:G:C2	10:B:215:G:C5	2.94	0.55
10:B:589:U:H2'	10:B:590:A:C8	2.42	0.55
10:B:659:G:P	13:E:95:LYS:HZ3	2.30	0.55
10:B:704:G:O2'	10:B:705:A:H8	1.89	0.55
10:B:882:G:C6	10:B:895:U:C2	2.94	0.55
10:B:980:A:H62	10:B:981:A:N6	2.03	0.55
10:B:1805:A:H5"	11:C:247:TRP:CG	2.42	0.55
10:B:2168:G:N1	10:B:2171:A:H8	2.04	0.55
10:B:2737:G:H2'	10:B:2738:A:C8	2.41	0.55
10:B:2747:G:H2'	10:B:2748:A:C8	2.41	0.55
12:D:101:PHE:O	12:D:104:VAL:N	2.40	0.55
15:G:38:ASP:OD1	15:G:39:ALA:N	2.40	0.55
24:P:3:ILE:O	24:P:6:GLN:NE2	2.38	0.55
6:5:206:GLY:HA3	10:B:1877:A:P	2.46	0.55
7:6:295:ILE:O	7:6:299:ASN:ND2	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:376:GLU:H	7:6:376:GLU:CD	2.13	0.55
10:B:367:G:H2'	10:B:368:A:C8	2.41	0.55
10:B:512:G:OP2	10:B:1234:U:O2'	2.25	0.55
10:B:541:A:C5	10:B:542:C:C4	2.95	0.55
10:B:621:A:H2'	10:B:622:G:O4'	2.07	0.55
10:B:670:A:H4'	10:B:671:C:H5'	1.89	0.55
10:B:766:U:H2'	10:B:767:U:C6	2.42	0.55
10:B:771:G:H2'	10:B:772:C:C6	2.41	0.55
10:B:897:C:H6	10:B:897:C:P	2.30	0.55
10:B:1077:A:O2'	17:I:93:ASN:ND2	2.36	0.55
10:B:1696:G:C5	10:B:1697:G:C5	2.95	0.55
10:B:1701:A:OP1	10:B:1763:G:N2	2.37	0.55
10:B:2305:U:H2'	10:B:2306:C:C6	2.42	0.55
10:B:2400:G:C5	10:B:2401:U:C4	2.94	0.55
10:B:2428:G:N2	20:L:60:ARG:NH2	2.55	0.55
10:B:2531:A:OP1	15:G:174:LYS:HE2	2.07	0.55
10:B:2638:G:P	12:D:83:ARG:HH22	2.30	0.55
10:B:2729:G:C5	10:B:2730:C:C4	2.94	0.55
10:B:2830:C:C3'	12:D:59:ARG:HH22	2.19	0.55
11:C:204:LEU:HB3	11:C:209:ALA:HB3	1.89	0.55
12:D:33:ARG:NH2	12:D:73:VAL:HA	2.21	0.55
12:D:106:LYS:HB2	12:D:206:ALA:HB2	1.88	0.55
21:M:41:LEU:HD23	21:M:46:ILE:HG12	1.87	0.55
27:S:28:LYS:HA	27:S:70:LYS:HA	1.88	0.55
9:A:16:G:H2'	9:A:17:C:H6	1.72	0.55
10:B:100:U:H5"	10:B:102:U:OP2	2.07	0.55
10:B:321:U:H5	13:E:130:LYS:HE3	1.72	0.55
10:B:653:U:N3	10:B:654:A:N1	2.54	0.55
10:B:727:A:OP1	10:B:1431:A:O2'	2.18	0.55
10:B:814:C:H2'	10:B:815:C:C6	2.42	0.55
10:B:972:A:OP2	10:B:973:A:O2'	2.23	0.55
10:B:976:G:H5'	10:B:1156:A:N6	2.19	0.55
10:B:1004:U:H1'	10:B:1010:A:C5	2.41	0.55
10:B:1138:G:C4	10:B:1139:G:H1'	2.41	0.55
10:B:1313:U:H1'	10:B:1610:A:C8	2.41	0.55
10:B:1782:U:H5"	10:B:1783:A:OP2	2.07	0.55
10:B:2366:A:H2'	10:B:2367:G:O4'	2.05	0.55
10:B:2410:G:C4	10:B:2411:A:C8	2.94	0.55
10:B:2429:G:O6	20:L:55:MET:HE1	2.06	0.55
16:H:97:ARG:NH1	16:H:113:SER:HA	2.10	0.55
17:I:107:GLU:O	17:I:110:GLN:HB3	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:J:64:VAL:O	18:J:65:THR:OG1	2.22	0.55
6:5:38:PHE:O	6:5:39:VAL:CB	2.55	0.55
6:5:54:LYS:HZ1	6:5:203:GLN:NE2	2.04	0.55
7:6:380:ARG:HH22	17:I:20:SER:HB3	1.72	0.55
10:B:132:G:C6	10:B:133:U:C4	2.95	0.55
10:B:265:A:C5	10:B:428:A:C6	2.95	0.55
10:B:484:C:N4	10:B:496:G:H1	2.04	0.55
10:B:535:G:C5	10:B:559:G:C6	2.95	0.55
10:B:1113:U:H2'	10:B:1114:C:H6	1.71	0.55
10:B:1187:G:H5"	26:R:83:TYR:CE1	2.41	0.55
10:B:1191:G:C2	10:B:1192:G:C8	2.95	0.55
10:B:1454:C:H5'	22:N:63:ARG:HH12	1.72	0.55
10:B:1528:A:OP2	10:B:1543:G:N2	2.40	0.55
10:B:1566:A:P	11:C:17:LYS:NZ	2.80	0.55
10:B:1681:G:C6	10:B:1762:A:C6	2.95	0.55
10:B:1836:C:N4	10:B:1904:G:H1	2.05	0.55
10:B:2049:G:C4	10:B:2050:C:H5	2.25	0.55
10:B:2258:C:OP1	31:W:10:ARG:NH2	2.36	0.55
10:B:2597:G:C5	10:B:2598:A:C6	2.95	0.55
10:B:2867:G:C2	24:P:20:ARG:NH2	2.75	0.55
16:H:5:LEU:HD22	16:H:9:VAL:HG21	1.88	0.55
17:I:21:PRO:HG2	17:I:22:PRO:HD3	1.87	0.55
19:K:70:ARG:HH12	24:P:71:ARG:CZ	2.20	0.55
22:N:30:ARG:HB3	22:N:78:LYS:HE3	1.88	0.55
29:U:42:LYS:HG2	29:U:59:GLU:OE2	2.06	0.55
10:B:45:G:H2'	10:B:215:G:C4	2.41	0.55
10:B:199:A:O2'	32:X:22:ASN:ND2	2.40	0.55
10:B:418:C:H2'	10:B:419:U:C6	2.42	0.55
10:B:459:U:OP2	10:B:469:G:N1	2.38	0.55
10:B:544:C:H2'	10:B:545:U:O2	2.06	0.55
10:B:571:U:C2'	26:R:80:ARG:HH21	2.20	0.55
10:B:640:C:H2'	10:B:641:U:C6	2.42	0.55
10:B:855:G:C6	10:B:923:G:C6	2.95	0.55
10:B:922:C:H2'	10:B:923:G:H8	1.71	0.55
10:B:1340:U:OP1	28:T:84:TYR:OH	2.24	0.55
10:B:1407:G:H2'	10:B:1408:G:C8	2.42	0.55
10:B:1444:G:H2'	10:B:1445:G:C8	2.42	0.55
10:B:1930:G:H22	10:B:1968:G:H3'	1.71	0.55
10:B:2010:G:N2	10:B:2011:U:O2	2.39	0.55
10:B:2182:U:N3	10:B:2183:A:N7	2.55	0.55
10:B:2467:C:N4	10:B:2484:G:O6	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2660:A:H62	15:G:176:LYS:HD2	1.72	0.55
14:F:11:VAL:O	14:F:13:LYS:HG2	2.07	0.55
23:O:17:LYS:HA	23:O:20:GLU:HB2	1.89	0.55
24:P:99:LEU:O	24:P:105:LYS:HE2	2.06	0.55
29:U:86:PHE:N	29:U:91:LYS:HG3	2.21	0.55
30:V:30:ILE:HB	30:V:38:LEU:HB2	1.89	0.55
31:W:65:LYS:HZ2	31:W:84:GLU:C	2.14	0.55
6:5:37:LYS:CE	6:5:218:MET:HE2	2.37	0.55
7:6:375:GLN:N	7:6:376:GLU:OE1	2.31	0.55
10:B:76:C:H2'	10:B:77:G:C8	2.42	0.55
10:B:259:G:HO2'	10:B:621:A:HO2'	1.55	0.55
10:B:275:C:H1'	10:B:363:G:N2	2.21	0.55
10:B:458:G:O2'	10:B:469:G:O6	2.22	0.55
10:B:629:G:C6	10:B:630:G:C6	2.94	0.55
10:B:825:A:H2'	10:B:826:U:O4'	2.07	0.55
10:B:910:A:C4	21:M:13:HIS:CE1	2.95	0.55
10:B:1094:U:O2	10:B:1096:A:H3'	2.07	0.55
10:B:1526:C:H2'	10:B:1527:G:O4'	2.07	0.55
10:B:1588:G:H2'	10:B:1589:U:C6	2.42	0.55
10:B:1704:C:N3	10:B:1705:A:N6	2.54	0.55
10:B:1801:A:N6	11:C:261:ARG:NH1	2.51	0.55
10:B:1849:G:H2'	10:B:1850:G:O4'	2.06	0.55
10:B:1941:C:H2'	10:B:1942:C:O4'	2.06	0.55
10:B:1971:U:H4'	11:C:238:ASN:ND2	2.22	0.55
10:B:2025:C:P	12:D:154:LYS:HZ2	2.23	0.55
10:B:2100:G:H3'	10:B:2101:A:H8	1.72	0.55
10:B:2304:G:O2'	14:F:129:MET:O	2.25	0.55
12:D:11:MET:HE1	12:D:23:PRO:HB3	1.89	0.55
15:G:46:ASP:OD2	15:G:47:ASN:ND2	2.39	0.55
1:0:13:GLY:O	1:0:16:ARG:N	2.34	0.55
7:6:152:LEU:HD11	10:B:2602:A:N7	2.22	0.55
7:6:401:SER:C	7:6:402:LEU:HD12	2.30	0.55
8:7:17:GLU:HA	8:7:20:LYS:HB3	1.89	0.55
8:7:30:SER:O	10:B:1054:A:O2'	2.25	0.55
10:B:123:G:N2	10:B:124:G:H1'	2.22	0.55
10:B:207:A:H3'	10:B:208:C:H6	1.72	0.55
10:B:794:A:C5	10:B:795:C:C5	2.95	0.55
10:B:956:G:P	21:M:86:LYS:NZ	2.80	0.55
10:B:987:C:H2'	10:B:988:A:C8	2.39	0.55
10:B:1266:G:C2	10:B:2012:G:C5	2.95	0.55
10:B:1429:G:C2	10:B:1430:G:C5	2.95	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1663:G:N1	10:B:1997:C:N3	2.41	0.55
10:B:1719:G:H1	10:B:1741:C:H42	1.53	0.55
10:B:1799:G:O2'	11:C:181:ARG:NH1	2.39	0.55
10:B:2079:U:O2'	32:X:22:ASN:OD1	2.22	0.55
10:B:2345:G:N3	10:B:2381:A:H2'	2.22	0.55
10:B:2414:G:H2'	10:B:2415:G:C8	2.42	0.55
10:B:2536:G:H2'	10:B:2537:U:C6	2.41	0.55
10:B:2559:C:H2'	10:B:2560:A:H8	1.71	0.55
10:B:2867:G:O2'	10:B:2868:A:O5'	2.25	0.55
24:P:65:ASN:N	24:P:67:GLU:OE1	2.39	0.55
26:R:71:LYS:HZ3	26:R:90:ARG:HD2	1.72	0.55
26:R:79:ARG:O	26:R:81:LYS:N	2.36	0.55
31:W:22:VAL:HG23	31:W:25:PHE:HB2	1.88	0.55
8:7:17:GLU:OE2	8:7:86:MET:HB2	2.08	0.54
8:7:27:VAL:HG13	8:7:109:LYS:HG2	1.88	0.54
9:A:37:C:O2	9:A:48:U:O2'	2.20	0.54
10:B:30:G:H1	10:B:510:C:N4	2.05	0.54
10:B:484:C:H2'	10:B:485:C:C6	2.42	0.54
10:B:494:G:H4'	27:S:6:LYS:N	2.19	0.54
10:B:829:A:H5'	10:B:831:G:N7	2.22	0.54
10:B:1167:C:H2'	10:B:1168:G:H8	1.72	0.54
10:B:1406:U:H2'	10:B:1407:G:C8	2.41	0.54
10:B:1482:G:H2'	10:B:1483:G:H8	1.71	0.54
10:B:1570:A:H2'	10:B:1571:A:C8	2.42	0.54
10:B:1635:A:C6	10:B:1636:U:C2	2.95	0.54
10:B:1862:G:C2	10:B:1863:G:C8	2.94	0.54
10:B:2199:A:H3'	10:B:2200:C:H6	1.72	0.54
12:D:151:THR:HG22	12:D:152:PRO:CD	2.37	0.54
19:K:90:SER:O	19:K:110:LYS:NZ	2.39	0.54
1:0:3:GLN:HA	10:B:2615:U:C2	2.41	0.54
1:0:3:GLN:HB3	1:0:5:ASN:H	1.73	0.54
1:0:15:ARG:HH12	10:B:1265:A:H3'	1.71	0.54
8:7:69:PHE:HB2	8:7:116:GLU:OE2	2.07	0.54
9:A:49:C:P	23:O:30:ARG:HH12	2.30	0.54
10:B:26:G:H4'	10:B:1260:A:H4'	1.89	0.54
10:B:106:C:O2'	10:B:294:A:O2'	2.11	0.54
10:B:524:G:H2'	10:B:525:U:H6	1.72	0.54
10:B:580:U:H2'	10:B:581:C:C6	2.36	0.54
10:B:603:A:N6	10:B:655:A:O4'	2.40	0.54
10:B:762:U:H5'	10:B:763:G:N2	2.22	0.54
10:B:907:G:C2	10:B:908:C:C2	2.94	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1923:U:H2'	10:B:1924:C:H6	1.72	0.54
10:B:1949:G:C2	10:B:1950:G:C4	2.95	0.54
10:B:2164:C:H5"	10:B:2172:U:C5	2.43	0.54
10:B:2303:G:H4'	14:F:121:PHE:H	1.72	0.54
10:B:2642:G:C2	10:B:2643:G:C5	2.95	0.54
10:B:2646:C:H2'	10:B:2647:U:O4'	2.07	0.54
12:D:21:SER:OG	19:K:72:ASP:HA	2.07	0.54
12:D:24:VAL:HG12	12:D:178:VAL:HG21	1.89	0.54
19:K:63:ARG:NH1	19:K:100:GLY:C	2.64	0.54
27:S:4:ILE:HG13	27:S:6:LYS:HG3	1.88	0.54
7:6:180:ARG:HA	7:6:183:LYS:HD2	1.90	0.54
10:B:25:U:H5"	27:S:80:PRO:HG3	1.90	0.54
10:B:283:G:C2	10:B:284:U:C2	2.96	0.54
10:B:493:G:C4	10:B:494:G:C8	2.96	0.54
10:B:499:U:H5"	29:U:42:LYS:HD2	1.90	0.54
10:B:547:A:H2'	10:B:548:G:H5'	1.89	0.54
10:B:577:G:OP1	10:B:2502:G:O2'	2.23	0.54
10:B:631:A:N6	10:B:2416:C:HO2'	2.06	0.54
10:B:806:C:H5"	20:L:41:ARG:NH2	2.22	0.54
10:B:819:A:H2	10:B:942:G:H21	1.55	0.54
10:B:1341:G:N3	28:T:84:TYR:HD2	2.04	0.54
10:B:1425:G:C6	10:B:1426:G:C2	2.95	0.54
10:B:2020:A:H4'	25:Q:24:TYR:HE2	1.72	0.54
10:B:2064:C:H2'	10:B:2065:C:C6	2.43	0.54
10:B:2072:C:N3	10:B:2073:C:C4	2.76	0.54
10:B:2141:G:N1	10:B:2142:A:N7	2.55	0.54
10:B:2230:G:N2	32:X:31:ASN:HD21	2.06	0.54
10:B:2335:A:OP1	23:O:13:ARG:NH2	2.40	0.54
10:B:2425:A:H4'	10:B:2426:A:O5'	2.06	0.54
10:B:2564:A:C2	10:B:2647:U:H4'	2.41	0.54
11:C:5:CYS:HG	11:C:12:ARG:HH21	1.54	0.54
17:I:3:LYS:O	17:I:4:VAL:HG23	2.07	0.54
17:I:105:LEU:HD23	17:I:108:ILE:HD12	1.87	0.54
19:K:112:MET:HA	19:K:115:ILE:HG12	1.89	0.54
21:M:69:PRO:HA	21:M:94:ALA:HB2	1.88	0.54
28:T:36:LYS:C	28:T:81:LYS:HZ1	2.12	0.54
29:U:35:VAL:HB	29:U:38:ILE:HG13	1.90	0.54
2:1:45:HIS:ND1	10:B:2371:G:O2'	2.32	0.54
7:6:284:ILE:HG13	7:6:316:MET:HA	1.90	0.54
9:A:24:G:O6	9:A:56:G:O2'	2.25	0.54
10:B:26:G:C6	10:B:27:G:C2	2.96	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:582:A:H2'	10:B:583:G:H8	1.69	0.54
10:B:582:A:H4'	25:Q:10:ARG:HH22	1.71	0.54
10:B:708:G:C5	10:B:709:U:C4	2.95	0.54
10:B:776:G:O6	10:B:793:A:H8	1.90	0.54
10:B:1299:G:H5"	10:B:1300:G:OP1	2.07	0.54
10:B:1301:A:C4	10:B:1303:G:C8	2.95	0.54
10:B:1412:U:H2'	10:B:1413:A:C8	2.42	0.54
10:B:1770:G:C6	10:B:1983:G:C5	2.96	0.54
10:B:1873:G:H2'	10:B:1874:C:O4'	2.07	0.54
10:B:1891:G:C6	10:B:1892:C:N3	2.75	0.54
10:B:1930:G:H2'	10:B:1968:G:N1	2.22	0.54
10:B:2530:A:H5'	15:G:174:LYS:HZ2	1.71	0.54
10:B:2534:A:N6	10:B:2535:G:C5	2.75	0.54
10:B:2809:A:C2	10:B:2810:A:C4	2.96	0.54
14:F:107:VAL:HG12	14:F:176:PHE:HB2	1.88	0.54
17:I:102:ARG:HB2	17:I:141:ASP:HA	1.88	0.54
18:J:89:PHE:O	18:J:92:MET:HB2	2.07	0.54
19:K:92:GLN:H	19:K:110:LYS:NZ	2.04	0.54
9:A:76:G:H5"	30:V:9:ARG:HH12	1.72	0.54
10:B:8:C:P	18:J:120:ARG:NH2	2.80	0.54
10:B:65:U:OP1	28:T:76:ARG:N	2.40	0.54
10:B:299:A:N7	10:B:300:A:C6	2.76	0.54
10:B:307:G:H22	10:B:309:A:H3'	1.72	0.54
10:B:649:G:C6	10:B:650:C:C4	2.96	0.54
10:B:744:U:C4	10:B:745:G:C5	2.95	0.54
10:B:1216:G:C6	10:B:1217:U:C4	2.95	0.54
10:B:1370:C:H2'	10:B:1371:G:H8	1.72	0.54
10:B:1437:C:H2'	10:B:1438:U:C6	2.43	0.54
10:B:1444:G:C2	10:B:1445:G:C4	2.96	0.54
10:B:1526:C:N4	10:B:1546:G:H1	2.05	0.54
10:B:1916:A:H5"	10:B:1917:U:C5	2.43	0.54
10:B:2261:C:H5'	10:B:2388:A:H4'	1.89	0.54
10:B:2408:U:N3	10:B:2409:G:N7	2.56	0.54
10:B:2646:C:C4	10:B:2647:U:C4	2.96	0.54
16:H:75:LEU:HG	16:H:77:THR:HG23	1.89	0.54
21:M:64:TRP:CZ3	21:M:106:ASP:HB3	2.43	0.54
22:N:116:VAL:HG13	22:N:117:ASP:CG	2.33	0.54
27:S:54:ALA:HA	27:S:57:ASN:OD1	2.07	0.54
6:5:166:ASP:OD2	10:B:2177:C:O2'	2.14	0.54
7:6:376:GLU:OE2	17:I:20:SER:HB2	2.07	0.54
9:A:44:G:H5'	9:A:46:A:H62	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:545:U:H6	10:B:549:G:H5'	1.72	0.54
10:B:596:U:H2'	10:B:597:G:C8	2.43	0.54
10:B:627:A:C4	10:B:637:A:C6	2.95	0.54
10:B:895:U:C5'	10:B:896:A:H5'	2.35	0.54
10:B:1047:G:O3'	10:B:1048:A:H8	1.91	0.54
10:B:1070:A:O2'	10:B:1072:C:OP2	2.25	0.54
10:B:1477:A:C2	10:B:1515:A:C4	2.95	0.54
10:B:1650:A:H2'	10:B:1651:G:C8	2.43	0.54
10:B:1690:A:H3'	10:B:1691:C:H6	1.73	0.54
10:B:1813:G:C4	10:B:1814:G:C8	2.96	0.54
10:B:2132:U:H2'	10:B:2133:G:H3'	1.89	0.54
10:B:2557:G:C6	10:B:2558:C:C4	2.95	0.54
10:B:2588:G:O6	10:B:2607:G:N1	2.40	0.54
10:B:2638:G:C5	10:B:2775:G:C2	2.95	0.54
10:B:2655:G:H22	10:B:2664:G:H2'	1.73	0.54
12:D:7:LYS:HB3	12:D:200:ASP:OD1	2.08	0.54
12:D:151:THR:CB	12:D:152:PRO:CD	2.85	0.54
19:K:2:GLN:HB3	19:K:3:GLU:OE1	2.08	0.54
22:N:14:SER:CB	22:N:17:ARG:HH21	2.21	0.54
23:O:49:VAL:HG11	23:O:81:ARG:HB2	1.89	0.54
1:0:9:ARG:HH21	25:Q:29:ARG:CZ	2.21	0.54
2:1:24:LYS:NZ	2:1:26:LYS:HG2	2.23	0.54
7:6:153:ARG:HH11	7:6:154:GLY:N	2.03	0.54
7:6:408:ILE:HA	7:6:411:TRP:CG	2.43	0.54
10:B:216:A:C4	10:B:217:A:C8	2.96	0.54
10:B:250:G:C2	10:B:251:A:C4	2.95	0.54
10:B:527:C:P	10:B:2779:U:H3	2.30	0.54
10:B:578:G:N2	25:Q:32:ARG:NH2	2.55	0.54
10:B:679:C:H2'	10:B:680:C:C6	2.42	0.54
10:B:748:G:O5'	27:S:89:ALA:HB2	2.08	0.54
10:B:823:C:N4	10:B:834:G:H1	2.05	0.54
10:B:842:U:H3	10:B:936:A:H61	1.55	0.54
10:B:960:A:H2'	10:B:962:G:H5'	1.90	0.54
10:B:1140:C:OP1	18:J:26:GLY:N	2.38	0.54
10:B:1148:U:H2'	10:B:1149:G:C8	2.43	0.54
10:B:1223:G:N2	10:B:1227:G:C4	2.76	0.54
10:B:1340:U:O3'	10:B:1394:U:O2'	2.22	0.54
10:B:1660:G:C2	10:B:1661:G:C5	2.95	0.54
10:B:1697:G:C6	10:B:1698:A:C5	2.95	0.54
10:B:1724:G:N1	10:B:1737:G:H1'	2.22	0.54
10:B:2438:U:O2'	10:B:2439:A:H3'	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2521:C:C2	10:B:2545:G:N2	2.76	0.54
10:B:2603:G:H2'	10:B:2604:U:C6	2.43	0.54
11:C:76:VAL:HB	11:C:94:LEU:HB3	1.89	0.54
13:E:23:PHE:CD1	13:E:111:GLU:HB2	2.42	0.54
13:E:105:LEU:HA	13:E:108:ILE:HD12	1.90	0.54
18:J:29:ALA:HA	18:J:32:LEU:HD12	1.90	0.54
20:L:109:LYS:NZ	20:L:126:ARG:HB3	2.22	0.54
24:P:67:GLU:OE1	24:P:67:GLU:N	2.40	0.54
30:V:14:LYS:HE2	30:V:18:ARG:NH2	2.23	0.54
33:Y:53:VAL:O	33:Y:57:LEU:N	2.36	0.54
7:6:91:ASN:HA	7:6:94:ARG:HE	1.73	0.54
10:B:256:A:H2'	10:B:257:C:H6	1.73	0.54
10:B:264:C:H2'	10:B:265:A:H5"	1.90	0.54
10:B:277:G:H1'	10:B:361:G:C6	2.41	0.54
10:B:449:A:C1'	25:Q:2:ARG:HH22	2.20	0.54
10:B:483:A:C2	29:U:57:ILE:HD11	2.42	0.54
10:B:643:A:H2'	10:B:644:A:O4'	2.08	0.54
10:B:930:G:H3'	10:B:931:U:H5'	1.89	0.54
10:B:958:U:O2'	10:B:959:A:OP2	2.23	0.54
10:B:977:G:H2'	10:B:978:G:C8	2.43	0.54
10:B:1819:A:OP1	11:C:155:ARG:N	2.26	0.54
10:B:1984:G:H2'	10:B:1985:C:H6	1.72	0.54
10:B:2232:C:H2'	10:B:2233:U:C6	2.43	0.54
10:B:2469:A:C2	10:B:2470:G:H1'	2.43	0.54
10:B:2505:G:C6	10:B:2576:G:C8	2.96	0.54
10:B:2543:G:H2'	10:B:2544:G:C8	2.42	0.54
10:B:2719:G:H21	10:B:2872:A:N6	2.05	0.54
10:B:2886:A:C6	10:B:2887:A:C5	2.96	0.54
14:F:129:MET:N	14:F:153:ILE:HB	2.22	0.54
15:G:97:VAL:HG13	15:G:124:CYS:SG	2.48	0.54
15:G:100:ASN:HB2	15:G:115:GLN:HE21	1.73	0.54
17:I:60:VAL:HA	17:I:65:SER:N	2.22	0.54
19:K:11:ASP:OD2	19:K:13:SER:HB2	2.08	0.54
20:L:109:LYS:HZ2	20:L:126:ARG:HD2	1.73	0.54
22:N:8:ARG:HH11	22:N:43:GLU:HG2	1.73	0.54
23:O:76:LYS:NZ	23:O:112:GLU:HG3	2.23	0.54
28:T:3:ARG:CZ	28:T:42:GLU:HA	2.38	0.54
28:T:44:LYS:NZ	28:T:56:GLU:O	2.40	0.54
31:W:23:LYS:C	31:W:25:PHE:H	2.15	0.54
32:X:26:ARG:HD3	32:X:28:PHE:CE2	2.42	0.54
33:Y:9:LYS:O	33:Y:10:SER:OG	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:155:ASN:HA	6:5:158:ALA:HB3	1.89	0.54
7:6:326:GLU:O	7:6:328:ARG:HG3	2.08	0.54
10:B:82:U:P	29:U:90:LYS:HE2	2.48	0.54
10:B:281:C:H2'	10:B:282:A:H8	1.73	0.54
10:B:320:A:O2'	13:E:163:ASN:ND2	2.41	0.54
10:B:513:A:H4'	10:B:1216:G:O2'	2.07	0.54
10:B:634:C:H2'	10:B:635:C:H6	1.73	0.54
10:B:958:U:H3	21:M:40:ARG:CZ	2.21	0.54
10:B:1045:C:H5	10:B:1111:A:C5	2.26	0.54
10:B:1064:C:P	17:I:88:GLY:H	2.31	0.54
10:B:1392:A:N7	10:B:1393:A:C5	2.75	0.54
10:B:1824:G:H2'	10:B:1825:U:H6	1.73	0.54
10:B:2788:C:N3	10:B:2789:C:N4	2.56	0.54
10:B:2821:A:OP1	12:D:115:GLY:N	2.41	0.54
10:B:2838:G:H2'	10:B:2839:G:O4'	2.07	0.54
17:I:1:ALA:C	17:I:2:LYS:HD2	2.31	0.54
18:J:20:ALA:HB3	18:J:58:ASN:O	2.07	0.54
20:L:82:LEU:HD13	20:L:135:ILE:HD12	1.90	0.54
24:P:26:GLU:O	24:P:83:ILE:HG13	2.08	0.54
24:P:36:LYS:NZ	24:P:38:ARG:HD3	2.23	0.54
2:1:5:ARG:NH1	2:1:25:ASN:HB2	2.23	0.54
7:6:137:VAL:O	7:6:140:TRP:NE1	2.40	0.54
9:A:66:A:O5'	9:A:108:A:N6	2.36	0.54
10:B:15:G:C6	10:B:16:C:C4	2.95	0.54
10:B:190:A:C5	10:B:207:A:C2	2.96	0.54
10:B:192:C:H5"	10:B:193:U:OP2	2.08	0.54
10:B:426:C:H2'	10:B:427:U:C6	2.43	0.54
10:B:484:C:H42	10:B:496:G:H1	1.55	0.54
10:B:860:U:C4	10:B:2268:A:C8	2.95	0.54
10:B:976:G:C4'	10:B:1156:A:H62	2.21	0.54
10:B:1609:A:C5	10:B:1616:A:C2	2.96	0.54
10:B:1712:U:H3'	10:B:1713:A:H8	1.73	0.54
10:B:1731:G:N2	10:B:1733:G:C4	2.76	0.54
10:B:1849:G:C4	10:B:1850:G:C8	2.96	0.54
10:B:1970:A:C5	10:B:1972:G:C5	2.96	0.54
10:B:2018:G:C2	10:B:2019:A:C4	2.96	0.54
10:B:2250:G:N7	21:M:83:GLY:HA3	2.22	0.54
10:B:2474:U:H5	10:B:2475:C:C2	2.25	0.54
10:B:2691:C:O2	10:B:2718:G:N2	2.25	0.54
10:B:2718:G:C6	10:B:2719:G:C5	2.96	0.54
10:B:2744:G:C6	10:B:2761:A:C6	2.96	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2844:G:H2'	10:B:2845:U:O4'	2.07	0.54
12:D:33:ARG:HG2	12:D:93:GLY:HA3	1.89	0.54
13:E:117:ARG:HH12	20:L:2:ARG:HG2	1.72	0.54
14:F:16:MET:HE3	14:F:21:TYR:O	2.08	0.54
17:I:104:GLN:O	17:I:108:ILE:HG13	2.09	0.54
18:J:98:GLU:O	18:J:102:GLU:HG3	2.07	0.54
22:N:8:ARG:NH1	22:N:43:GLU:HG2	2.23	0.54
22:N:63:ARG:HD3	22:N:80:PHE:CZ	2.42	0.54
30:V:43:ASP:OD2	30:V:46:LYS:HB3	2.08	0.54
2:1:5:ARG:NH1	2:1:25:ASN:H	2.06	0.53
3:2:19:ARG:HG3	10:B:125:A:H5"	1.90	0.53
6:5:76:ALA:HB3	6:5:114:VAL:HG22	1.89	0.53
7:6:207:ASN:H	35:6:527:GNP:HNB3	1.56	0.53
7:6:295:ILE:HA	7:6:298:VAL:HG12	1.91	0.53
7:6:367:GLN:NE2	7:6:390:GLU:OE1	2.40	0.53
10:B:186:G:N3	10:B:187:G:C8	2.76	0.53
10:B:324:A:C6	10:B:325:G:C4	2.96	0.53
10:B:1098:A:H8	10:B:1098:A:O5'	1.91	0.53
10:B:1136:G:N2	10:B:1137:G:C4	2.76	0.53
10:B:1259:G:H2'	10:B:1260:A:C8	2.43	0.53
10:B:1323:C:OP1	27:S:84:ARG:NH1	2.40	0.53
10:B:1424:G:H2'	10:B:1425:G:C8	2.43	0.53
10:B:1551:A:C6	10:B:1552:A:C5	2.96	0.53
10:B:1580:A:H3'	10:B:1581:G:H8	1.72	0.53
10:B:1824:G:H1'	11:C:251:THR:HG23	1.90	0.53
10:B:1837:C:H2'	10:B:1899:A:N6	2.22	0.53
10:B:1946:U:H2'	10:B:1947:C:C6	2.43	0.53
10:B:2134:A:N1	10:B:2156:G:O2'	2.41	0.53
10:B:2312:U:H5'	14:F:69:ALA:HA	1.88	0.53
10:B:2568:U:N3	10:B:2569:G:C5	2.76	0.53
11:C:132:ARG:HB2	16:H:125:THR:HG21	1.89	0.53
16:H:3:VAL:CG1	16:H:30:LEU:CD1	2.77	0.53
25:Q:28:SER:OG	25:Q:29:ARG:NE	2.24	0.53
7:6:147:LYS:HZ2	7:6:159:GLN:CD	2.16	0.53
10:B:1034:G:C6	10:B:1122:G:C4	2.96	0.53
10:B:1060:U:H5"	17:I:74:PRO:HB3	1.90	0.53
10:B:1246:A:H2'	10:B:1247:A:H8	1.72	0.53
10:B:1341:G:C4	28:T:84:TYR:CD2	2.97	0.53
10:B:1524:G:H2'	10:B:1525:A:H8	1.72	0.53
10:B:1812:U:C2	10:B:1813:G:C8	2.97	0.53
10:B:1965:C:C4	10:B:1966:A:C5	2.96	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2018:G:N2	10:B:2019:A:H1'	2.24	0.53
10:B:2040:G:H2'	10:B:2041:U:H6	1.73	0.53
10:B:2052:A:H4'	12:D:149:ASN:H	1.73	0.53
10:B:2447:G:C5	10:B:2501:C:C4	2.97	0.53
11:C:219:VAL:HG11	11:C:224:MET:HE3	1.89	0.53
20:L:129:LYS:O	20:L:133:ALA:N	2.40	0.53
34:Z:4:ILE:HD11	34:Z:43:ILE:HD11	1.91	0.53
2:1:18:HIS:CD2	2:1:19:PHE:N	2.76	0.53
7:6:43:GLN:NE2	7:6:69:ALA:HB1	2.22	0.53
7:6:212:THR:HG21	35:6:527:GNP:H8	1.89	0.53
7:6:310:ILE:HG22	7:6:311:PRO:O	2.09	0.53
7:6:320:ASP:CG	35:6:527:GNP:HN21	2.16	0.53
9:A:38:C:N4	9:A:39:A:C6	2.76	0.53
10:B:6:A:C4	10:B:7:G:C8	2.97	0.53
10:B:179:C:N4	10:B:180:G:O6	2.41	0.53
10:B:417:C:H2'	10:B:418:C:H6	1.72	0.53
10:B:729:G:N7	10:B:1775:U:N3	2.57	0.53
10:B:950:G:C6	10:B:951:C:C4	2.97	0.53
10:B:1007:C:O2'	18:J:110:PRO:O	2.26	0.53
10:B:1080:A:H2'	10:B:1081:U:O4'	2.08	0.53
10:B:1083:U:H1'	10:B:1085:A:C8	2.43	0.53
10:B:1630:A:H2'	10:B:1631:G:C8	2.43	0.53
10:B:1952:A:C2	19:K:21:ILE:HB	2.43	0.53
10:B:2064:C:H2'	10:B:2065:C:H6	1.73	0.53
10:B:2108:A:H2'	10:B:2109:U:O4'	2.08	0.53
10:B:2678:C:H2'	10:B:2679:A:C8	2.43	0.53
10:B:2708:G:H1'	22:N:71:ARG:NH1	2.22	0.53
11:C:97:ASP:OD1	11:C:98:GLY:N	2.41	0.53
11:C:117:SER:HB3	11:C:128:THR:OG1	2.09	0.53
13:E:181:ILE:HG21	20:L:3:LEU:HD13	1.90	0.53
14:F:91:ARG:HG2	14:F:94:ARG:HH21	1.72	0.53
16:H:80:ILE:HD11	16:H:102:ALA:H	1.73	0.53
17:I:25:PRO:O	17:I:29:GLN:HB2	2.08	0.53
31:W:52:CYS:H	31:W:58:LEU:HD23	1.73	0.53
32:X:39:VAL:HG23	32:X:43:LYS:N	2.24	0.53
6:5:133:PRO:HA	10:B:2121:G:C8	2.43	0.53
7:6:37:ALA:HB3	7:6:39:VAL:HG23	1.91	0.53
7:6:256:ILE:HB	7:6:259:LEU:HD21	1.90	0.53
10:B:225:C:H2'	10:B:226:A:C8	2.33	0.53
10:B:471:A:H3'	10:B:472:A:H8	1.73	0.53
10:B:1039:A:C6	10:B:1040:A:C5	2.97	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1324:G:H3'	10:B:1325:U:H4'	1.90	0.53
10:B:1501:G:C6	10:B:1502:A:N7	2.77	0.53
10:B:1813:G:C5	10:B:1814:G:N7	2.77	0.53
10:B:2187:U:H2'	10:B:2188:U:C6	2.43	0.53
10:B:2244:U:O2'	10:B:2245:U:OP1	2.25	0.53
10:B:2344:U:OP1	10:B:2373:G:H5"	2.07	0.53
10:B:2392:A:C5	10:B:2429:G:C5	2.96	0.53
10:B:2411:A:H2'	10:B:2412:A:C8	2.44	0.53
10:B:2453:A:N6	10:B:2500:U:H3	2.04	0.53
10:B:2484:G:C2	10:B:2485:G:C8	2.96	0.53
10:B:2485:G:H2'	10:B:2486:C:H6	1.73	0.53
10:B:2507:C:N4	10:B:2583:G:O6	2.42	0.53
10:B:2513:A:N1	10:B:2574:G:C5	2.76	0.53
10:B:2648:G:C5	10:B:2673:G:C2	2.96	0.53
10:B:2674:G:C4	10:B:2675:A:C8	2.97	0.53
10:B:2840:C:H2'	10:B:2841:C:H6	1.71	0.53
12:D:89:GLU:HG3	12:D:90:PHE:H	1.74	0.53
13:E:19:PHE:O	13:E:110:SER:OG	2.25	0.53
20:L:109:LYS:NZ	20:L:126:ARG:HD2	2.24	0.53
25:Q:15:LYS:O	25:Q:18:LYS:N	2.41	0.53
7:6:344:ALA:N	35:6:527:GNP:O6	2.41	0.53
8:7:86:MET:O	8:7:88:HIS:NE2	2.42	0.53
10:B:4:U:O4	10:B:5:A:N6	2.42	0.53
10:B:149:A:H2'	10:B:150:U:O4'	2.08	0.53
10:B:195:A:N6	10:B:198:C:O5'	2.41	0.53
10:B:372:G:C5	32:X:56:ARG:NH2	2.76	0.53
10:B:451:U:P	13:E:47:LYS:NZ	2.81	0.53
10:B:608:A:OP2	10:B:619:G:N1	2.32	0.53
10:B:675:A:H62	10:B:803:U:H3	1.56	0.53
10:B:1062:G:H21	17:I:92:PRO:HG2	1.73	0.53
10:B:1130:U:C4	10:B:2025:C:H5"	2.43	0.53
10:B:1627:G:C4	10:B:1628:G:C8	2.97	0.53
10:B:1936:A:H2	10:B:1943:U:C5	2.27	0.53
10:B:1988:G:N2	10:B:1989:G:H1'	2.23	0.53
10:B:2056:G:C6	10:B:2577:A:C4	2.96	0.53
10:B:2086:U:N3	10:B:2234:G:C6	2.77	0.53
10:B:2474:U:H2'	10:B:2475:C:H5'	1.90	0.53
10:B:2787:C:H2'	10:B:2788:C:C6	2.42	0.53
10:B:2814:A:C6	10:B:2815:C:C4	2.95	0.53
11:C:23:LEU:HD22	11:C:81:GLU:C	2.34	0.53
11:C:132:ARG:HD3	16:H:125:THR:HB	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:C:209:ALA:HA	11:C:212:TRP:CD1	2.37	0.53
14:F:117:SER:N	14:F:173:ASP:OD1	2.41	0.53
16:H:68:ARG:O	16:H:132:PHE:CE2	2.62	0.53
7:6:181:VAL:O	7:6:184:GLN:HB3	2.09	0.53
7:6:315:VAL:HG11	7:6:342:LEU:HD22	1.91	0.53
9:A:52:A:O5'	23:O:33:ARG:NH1	2.42	0.53
10:B:171:U:H2'	10:B:172:A:H8	1.74	0.53
10:B:225:C:C2	10:B:226:A:C8	2.96	0.53
10:B:319:G:OP1	13:E:132:LYS:NZ	2.39	0.53
10:B:357:C:H2'	10:B:358:U:C6	2.44	0.53
10:B:559:G:H2'	10:B:560:C:C6	2.44	0.53
10:B:833:A:H2'	10:B:834:G:H8	1.72	0.53
10:B:1654:A:C2	10:B:1655:A:C8	2.97	0.53
10:B:1684:G:H2'	10:B:1685:C:H6	1.72	0.53
10:B:1869:G:O2'	10:B:1872:A:N6	2.42	0.53
10:B:1912:A:H1'	10:B:1913:A:O4'	2.08	0.53
10:B:2464:G:C6	10:B:2487:G:C6	2.96	0.53
10:B:2545:G:C2	10:B:2546:U:O2	2.62	0.53
10:B:2740:A:C5	10:B:2741:A:C6	2.97	0.53
10:B:2838:G:C5	10:B:2839:G:C8	2.97	0.53
12:D:90:PHE:HB3	12:D:92:VAL:HG22	1.91	0.53
15:G:99:GLY:O	15:G:100:ASN:ND2	2.41	0.53
27:S:74:ILE:HG13	27:S:105:VAL:HG22	1.91	0.53
28:T:1:MET:HG3	28:T:2:ILE:O	2.09	0.53
33:Y:17:GLU:OE2	33:Y:21:LEU:HD11	2.08	0.53
4:3:3:ILE:HG13	10:B:592:A:H1'	1.90	0.53
4:3:34:LYS:HZ3	10:B:2390:U:P	2.29	0.53
5:4:25:VAL:CG1	5:4:35:GLN:HB2	2.38	0.53
6:5:53:ARG:HD2	10:B:1860:G:OP1	2.09	0.53
6:5:72:SER:HB2	6:5:74:ARG:HE	1.74	0.53
6:5:133:PRO:CB	10:B:2121:G:C5	2.90	0.53
6:5:165:ASN:HD22	6:5:169:GLY:HA2	1.74	0.53
7:6:189:ARG:HA	7:6:192:ARG:HG2	1.90	0.53
9:A:76:G:C5'	30:V:9:ARG:HH12	2.22	0.53
9:A:93:C:H2'	9:A:94:A:C8	2.44	0.53
10:B:191:A:O2'	10:B:192:C:O4'	2.12	0.53
10:B:335:C:N3	10:B:336:C:N4	2.56	0.53
10:B:494:G:O3'	27:S:5:ALA:HA	2.09	0.53
10:B:910:A:C6	10:B:911:A:C6	2.95	0.53
10:B:1130:U:H3	12:D:152:PRO:HB2	1.70	0.53
10:B:1252:G:H21	25:Q:32:ARG:CZ	2.22	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1287:A:C6	10:B:1288:G:C5	2.97	0.53
10:B:1693:U:O2	11:C:13:ARG:HD3	2.09	0.53
10:B:1763:G:N2	10:B:1765:U:H5"	2.24	0.53
10:B:2060:A:C6	10:B:2502:G:C2	2.97	0.53
10:B:2167:U:H2'	10:B:2168:G:C8	2.44	0.53
10:B:2211:A:O2'	10:B:2212:A:OP2	2.25	0.53
10:B:2455:G:C6	10:B:2456:C:C4	2.97	0.53
10:B:2679:A:C6	10:B:2729:G:C6	2.96	0.53
10:B:2722:G:C6	10:B:2723:C:C4	2.96	0.53
11:C:140:VAL:HG22	11:C:191:LEU:HD23	1.90	0.53
12:D:33:ARG:NH2	12:D:72:GLY:O	2.39	0.53
13:E:150:THR:HB	13:E:153:LEU:H	1.73	0.53
18:J:30:THR:OG1	18:J:31:GLU:N	2.41	0.53
24:P:30:TRP:HB2	24:P:79:VAL:HA	1.91	0.53
25:Q:101:ASP:O	25:Q:103:VAL:N	2.42	0.53
30:V:56:PHE:CZ	30:V:61:LEU:HD11	2.44	0.53
34:Z:3:THR:OG1	34:Z:37:ARG:N	2.41	0.53
3:2:22:MET:SD	3:2:28:ARG:HG2	2.49	0.53
7:6:138:ARG:HH11	10:B:1941:C:H1'	1.73	0.53
9:A:60:C:C2	9:A:61:G:C8	2.97	0.53
10:B:220:G:H22	10:B:265:A:H62	1.57	0.53
10:B:270:A:H1'	10:B:370:G:N2	2.24	0.53
10:B:384:A:O2'	10:B:385:C:OP1	2.25	0.53
10:B:417:C:H2'	10:B:418:C:C6	2.43	0.53
10:B:535:G:C2	10:B:559:G:C4	2.97	0.53
10:B:676:A:OP1	13:E:58:LYS:NZ	2.37	0.53
10:B:715:A:C6	10:B:716:A:C6	2.97	0.53
10:B:880:G:H1	10:B:897:C:N4	2.05	0.53
10:B:992:C:OP1	26:R:76:LYS:NZ	2.41	0.53
10:B:1023:U:C4	10:B:1024:G:C4	2.97	0.53
10:B:1031:G:H1	10:B:1123:C:H42	1.57	0.53
10:B:1084:A:C8	10:B:1105:U:O2'	2.62	0.53
10:B:1218:G:C4	10:B:1232:G:C6	2.96	0.53
10:B:1529:G:H2'	10:B:1530:G:C8	2.44	0.53
10:B:1785:A:N7	10:B:1787:A:C4	2.76	0.53
10:B:1930:G:N1	10:B:1968:G:N7	2.57	0.53
10:B:2087:G:N3	10:B:2088:A:C8	2.77	0.53
10:B:2332:C:O5'	31:W:40:ARG:NE	2.42	0.53
10:B:2385:C:H2'	10:B:2386:A:H8	1.74	0.53
10:B:2428:G:N3	20:L:60:ARG:NH2	2.56	0.53
10:B:2637:U:H5"	12:D:83:ARG:NH1	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2643:G:C6	10:B:2644:G:C6	2.97	0.53
10:B:2652:C:N3	10:B:2669:G:N1	2.57	0.53
10:B:2692:G:OP1	10:B:2870:C:O2'	2.26	0.53
12:D:149:ASN:O	12:D:150:GLN:O	2.27	0.53
18:J:36:LEU:O	18:J:51:GLY:HA3	2.08	0.53
18:J:41:LYS:HD3	18:J:50:THR:O	2.09	0.53
23:O:31:THR:HB	23:O:34:HIS:O	2.08	0.53
23:O:76:LYS:HZ2	23:O:112:GLU:HG3	1.72	0.53
24:P:30:TRP:CD1	24:P:79:VAL:HA	2.44	0.53
4:3:46:LYS:HZ3	10:B:630:G:P	2.27	0.53
6:5:18:THR:HA	6:5:222:VAL:HA	1.91	0.53
8:7:33:VAL:HG23	8:7:36:ASP:H	1.73	0.53
9:A:88:C:C4	9:A:89:U:C2	2.97	0.53
9:A:100:G:H3'	9:A:101:A:H8	1.73	0.53
10:B:97:C:H2'	10:B:98:G:C8	2.44	0.53
10:B:184:C:H42	10:B:212:G:H1	1.55	0.53
10:B:467:G:C2	10:B:468:G:C4	2.97	0.53
10:B:677:A:N1	10:B:802:A:C6	2.77	0.53
10:B:980:A:H62	10:B:981:A:H62	1.56	0.53
10:B:1058:U:H2'	10:B:1059:G:H8	1.72	0.53
10:B:1354:A:C8	10:B:1355:G:C8	2.97	0.53
10:B:1801:A:H62	11:C:261:ARG:NH1	1.97	0.53
10:B:1805:A:O3'	11:C:247:TRP:NE1	2.41	0.53
10:B:1921:G:H2'	10:B:1922:G:H8	1.74	0.53
10:B:1923:U:H2'	10:B:1924:C:C6	2.44	0.53
10:B:2078:C:N3	10:B:2079:U:N3	2.57	0.53
10:B:2163:A:H3'	10:B:2164:C:H4'	1.88	0.53
10:B:2173:A:N6	10:B:2174:C:O2	2.40	0.53
10:B:2250:G:C6	21:M:82:MET:HB3	2.43	0.53
10:B:2276:G:OP2	21:M:85:GLY:N	2.21	0.53
10:B:2327:A:H2'	10:B:2328:A:O4'	2.09	0.53
10:B:2379:G:H2'	10:B:2380:C:H6	1.74	0.53
10:B:2708:G:C2	10:B:2709:G:C8	2.96	0.53
10:B:2851:A:C5	10:B:2852:G:C5	2.96	0.53
11:C:181:ARG:HG2	11:C:182:LYS:O	2.09	0.53
13:E:90:GLN:HB3	13:E:92:HIS:CE1	2.43	0.53
17:I:99:LYS:NZ	17:I:140:GLU:HG3	2.23	0.53
21:M:113:ALA:O	21:M:116:ALA:HB3	2.09	0.53
6:5:224:VAL:HG21	6:5:233:VAL:HG23	1.90	0.53
7:6:412:ARG:HH22	10:B:2661:G:H1'	1.74	0.53
9:A:40:U:O2	9:A:43:C:H3'	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:A:64:G:C6	9:A:65:U:C2	2.97	0.53
10:B:486:C:H2'	10:B:487:C:C6	2.43	0.53
10:B:668:A:C5	10:B:670:A:C5	2.97	0.53
10:B:777:G:C5	10:B:778:G:N7	2.77	0.53
10:B:903:C:H2'	10:B:904:G:C8	2.44	0.53
10:B:995:C:C2	25:Q:56:PHE:CD2	2.97	0.53
10:B:1077:A:H2	10:B:1088:A:C6	2.27	0.53
10:B:1083:U:H2'	10:B:1085:A:OP2	2.09	0.53
10:B:1105:U:H2'	10:B:1106:G:C8	2.44	0.53
10:B:1600:C:H2'	10:B:1601:G:H8	1.72	0.53
10:B:1660:G:H1	10:B:2000:C:H42	1.57	0.53
10:B:1836:C:C2	10:B:1904:G:N2	2.77	0.53
10:B:2159:G:H8	10:B:2161:C:N4	2.07	0.53
10:B:2222:C:P	16:H:136:SER:HB2	2.48	0.53
10:B:2465:C:O2	10:B:2485:G:N1	2.40	0.53
10:B:2535:G:C6	10:B:2536:G:C5	2.97	0.53
10:B:2876:G:C4	10:B:2877:G:C8	2.97	0.53
13:E:150:THR:HG21	13:E:153:LEU:HD23	1.91	0.53
17:I:125:THR:O	17:I:129:GLU:HG3	2.08	0.53
18:J:33:ALA:O	18:J:36:LEU:N	2.41	0.53
24:P:56:SER:H	24:P:74:GLN:HE22	1.57	0.53
26:R:21:ARG:HD3	26:R:93:PHE:CE2	2.44	0.53
28:T:44:LYS:NZ	28:T:55:VAL:HG12	2.23	0.53
29:U:48:VAL:O	29:U:53:GLN:HA	2.09	0.53
6:5:172:HIS:HB2	10:B:2122:U:O2'	2.09	0.52
10:B:165:A:C5	10:B:166:U:C4	2.96	0.52
10:B:197:A:C5	10:B:2430:A:N7	2.77	0.52
10:B:271:G:O2'	10:B:272:A:H8	1.91	0.52
10:B:376:G:H1	10:B:398:C:H42	1.57	0.52
10:B:387:U:N3	10:B:388:G:O6	2.42	0.52
10:B:426:C:H2'	10:B:427:U:H6	1.73	0.52
10:B:465:G:N7	10:B:466:A:C6	2.78	0.52
10:B:819:A:C4	10:B:1189:A:C2	2.96	0.52
10:B:841:G:H2'	10:B:842:U:C6	2.45	0.52
10:B:1098:A:C5	17:I:4:VAL:HA	2.44	0.52
10:B:1332:G:C6	10:B:1609:A:C5	2.97	0.52
10:B:1759:A:OP2	10:B:1760:C:N4	2.37	0.52
10:B:1867:G:H22	10:B:1875:G:H1'	1.74	0.52
10:B:1977:A:H3'	10:B:1978:A:H8	1.74	0.52
10:B:1996:C:OP2	19:K:30:ARG:NH2	2.42	0.52
10:B:2001:C:C2	10:B:2002:G:C8	2.98	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2282:G:H1'	10:B:2390:U:O4	2.09	0.52
10:B:2543:G:C2	10:B:2544:G:C5	2.97	0.52
10:B:2547:A:C6	10:B:2562:U:C4	2.97	0.52
10:B:2674:G:H2'	10:B:2675:A:C8	2.44	0.52
12:D:29:VAL:O	12:D:185:ASN:HB3	2.09	0.52
14:F:2:LYS:HB2	14:F:100:GLU:OE1	2.08	0.52
18:J:140:LEU:CD2	18:J:142:ILE:H	2.16	0.52
22:N:24:MET:HE3	22:N:44:LEU:HD22	1.89	0.52
25:Q:86:SER:C	25:Q:88:GLU:H	2.17	0.52
32:X:15:ASN:ND2	32:X:25:LYS:HD3	2.25	0.52
4:3:13:PHE:HE2	4:3:57:VAL:HG22	1.74	0.52
5:4:18:LYS:HZ3	10:B:1034:G:H5'	1.70	0.52
6:5:182:ALA:HA	6:5:185:LEU:HD12	1.92	0.52
7:6:194:LYS:HZ3	7:6:197:VAL:CG2	2.21	0.52
7:6:210:LYS:HG2	35:6:527:GNP:O1B	2.09	0.52
9:A:2:G:C5	9:A:3:C:C4	2.97	0.52
10:B:42:A:C4	10:B:43:G:C8	2.97	0.52
10:B:311:A:H8	10:B:332:A:C5	2.27	0.52
10:B:446:G:H4'	10:B:447:A:H5'	1.91	0.52
10:B:488:G:H4'	27:S:49:LYS:NZ	2.24	0.52
10:B:504:A:O2'	27:S:1:MET:N	2.42	0.52
10:B:712:G:H3'	10:B:713:G:H8	1.72	0.52
10:B:912:C:OP1	21:M:8:LYS:NZ	2.35	0.52
10:B:1200:C:H42	10:B:1245:G:H1	1.57	0.52
10:B:1435:G:H2'	10:B:1436:G:C8	2.44	0.52
10:B:1738:G:OP1	10:B:1738:G:H4'	2.09	0.52
10:B:2639:A:C6	10:B:2640:G:C4	2.97	0.52
14:F:21:TYR:HB3	14:F:26:GLN:HB3	1.90	0.52
20:L:23:ILE:HG22	26:R:82:HIS:NE2	2.25	0.52
21:M:50:ARG:HE	21:M:63:ILE:HD13	1.74	0.52
26:R:15:SER:O	26:R:18:GLN:HB3	2.09	0.52
2:1:9:LYS:HD2	2:1:19:PHE:CG	2.44	0.52
7:6:10:GLN:OE1	7:6:76:SER:OG	2.15	0.52
7:6:178:LEU:O	7:6:181:VAL:HB	2.08	0.52
10:B:190:A:P	32:X:25:LYS:HZ1	2.28	0.52
10:B:529:A:C5	10:B:2023:C:C4	2.97	0.52
10:B:559:G:C5	10:B:560:C:C4	2.97	0.52
10:B:592:A:C2	10:B:666:A:C5	2.98	0.52
10:B:631:A:N6	10:B:2416:C:O2'	2.42	0.52
10:B:775:G:C8	10:B:794:A:N7	2.77	0.52
10:B:883:G:H2'	10:B:884:U:O4'	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:927:A:C2	10:B:928:A:C4	2.98	0.52
10:B:976:G:H2'	10:B:977:G:H8	1.73	0.52
10:B:1063:G:N2	10:B:1076:C:O2	2.42	0.52
10:B:1588:G:H2'	10:B:1589:U:H6	1.74	0.52
10:B:1722:A:N6	10:B:1738:G:H1'	2.24	0.52
10:B:1889:A:N1	10:B:2234:G:H1'	2.25	0.52
10:B:2205:A:H2'	10:B:2206:C:H6	1.73	0.52
10:B:2392:A:C6	10:B:2393:U:C4	2.97	0.52
10:B:2461:A:H1'	10:B:2492:U:N3	2.24	0.52
10:B:2647:U:N3	10:B:2673:G:O6	2.43	0.52
11:C:174:ARG:NE	11:C:180:MET:HG2	2.24	0.52
15:G:57:TYR:C	15:G:59:ASP:H	2.17	0.52
15:G:93:TYR:OH	15:G:159:LYS:HD3	2.09	0.52
17:I:123:ALA:N	17:I:126:ARG:HH21	2.07	0.52
1:0:4:GLN:O	1:0:5:ASN:ND2	2.43	0.52
6:5:117:SER:O	6:5:121:MET:N	2.35	0.52
6:5:193:LEU:O	6:5:197:LYS:HG3	2.08	0.52
7:6:414:LEU:HD22	7:6:425:LEU:HD23	1.92	0.52
9:A:66:A:H61	9:A:107:G:H3'	1.74	0.52
10:B:55:G:O2'	10:B:126:A:N6	2.42	0.52
10:B:858:G:C2	10:B:2268:A:C4	2.98	0.52
10:B:945:A:N6	10:B:2448:A:C6	2.78	0.52
10:B:975:A:C8	10:B:990:A:N6	2.77	0.52
10:B:1066:U:O2'	10:B:1068:G:N7	2.38	0.52
10:B:1168:G:H2'	10:B:1169:A:O4'	2.09	0.52
10:B:1186:G:C6	10:B:1187:G:C2	2.98	0.52
10:B:1222:U:H5"	10:B:1223:G:OP2	2.09	0.52
10:B:1266:G:O2'	10:B:1267:U:OP2	2.25	0.52
10:B:1563:U:H2'	10:B:1564:C:C6	2.45	0.52
10:B:2104:C:H2'	10:B:2105:U:C6	2.45	0.52
10:B:2168:G:H1	10:B:2171:A:H2'	1.75	0.52
10:B:2211:A:HO2'	10:B:2212:A:P	2.32	0.52
10:B:2641:G:P	18:J:85:LYS:NZ	2.82	0.52
10:B:2641:G:C2	10:B:2642:G:C5	2.97	0.52
15:G:143:VAL:HA	15:G:146:ASP:HB2	1.91	0.52
17:I:91:LYS:HB2	17:I:95:ASP:CG	2.34	0.52
24:P:23:ASP:CG	24:P:89:GLY:H	2.17	0.52
25:Q:90:ASP:O	25:Q:91:ARG:HG2	2.09	0.52
6:5:164:ARG:HH11	10:B:2122:U:C5'	2.22	0.52
7:6:153:ARG:O	7:6:155:PRO:HD2	2.09	0.52
9:A:4:C:H2'	9:A:5:U:H6	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:A:66:A:H4'	9:A:67:G:H8	1.75	0.52
10:B:61:C:P	33:Y:44:LYS:HZ3	2.33	0.52
10:B:65:U:O2'	28:T:73:ARG:HD2	2.10	0.52
10:B:202:U:C5	10:B:203:A:C5	2.97	0.52
10:B:261:G:O2'	10:B:610:C:O2'	2.24	0.52
10:B:480:A:P	29:U:43:LYS:HZ2	2.33	0.52
10:B:941:A:C2	10:B:942:G:C4	2.98	0.52
10:B:949:G:N1	10:B:968:C:O2	2.34	0.52
10:B:971:G:OP1	10:B:974:G:O2'	2.12	0.52
10:B:998:C:N3	10:B:999:U:N3	2.57	0.52
10:B:1028:A:H2'	10:B:1029:A:C8	2.45	0.52
10:B:1036:G:C5	10:B:1120:G:C6	2.98	0.52
10:B:1037:G:C2	10:B:1038:G:C8	2.98	0.52
10:B:1062:G:C6	10:B:1063:G:C6	2.96	0.52
10:B:1101:U:H2'	10:B:1102:C:C6	2.45	0.52
10:B:1173:U:H1'	10:B:1177:G:C2	2.44	0.52
10:B:1779:U:C2	10:B:1783:A:N7	2.77	0.52
10:B:1796:U:H3	10:B:1823:G:H1	1.57	0.52
10:B:1910:G:H2'	10:B:1911:U:O4'	2.10	0.52
10:B:2047:C:H42	10:B:2621:G:H1	1.56	0.52
10:B:2177:C:C4	10:B:2178:C:H5	2.28	0.52
10:B:2209:G:H2'	10:B:2210:U:C5	2.45	0.52
10:B:2341:G:H2'	10:B:2342:C:C6	2.45	0.52
10:B:2414:G:H2'	10:B:2415:G:H8	1.74	0.52
10:B:2579:C:O2'	12:D:136:ASN:HA	2.09	0.52
10:B:2620:C:O3'	12:D:160:LYS:HD2	2.09	0.52
10:B:2635:A:O2'	12:D:49:GLN:NE2	2.42	0.52
10:B:2737:G:C2	10:B:2738:A:C4	2.97	0.52
13:E:106:LYS:HG3	13:E:200:LEU:HD13	1.91	0.52
21:M:47:GLU:O	21:M:51:ARG:HG2	2.10	0.52
26:R:37:GLU:CD	26:R:58:VAL:H	2.18	0.52
28:T:29:THR:OG1	28:T:30:ILE:O	2.28	0.52
6:5:45:ALA:HB3	6:5:213:SER:HB2	1.91	0.52
6:5:54:LYS:HZ3	10:B:1860:G:H5"	1.69	0.52
7:6:194:LYS:HE2	7:6:196:ASP:O	2.10	0.52
7:6:331:ARG:HB3	7:6:333:GLU:O	2.09	0.52
7:6:381:SER:HB2	10:B:1095:A:C4	2.44	0.52
9:A:44:G:N2	9:A:47:C:N3	2.46	0.52
9:A:58:A:H3'	9:A:59:A:H8	1.75	0.52
10:B:124:G:OP1	10:B:1376:C:O2'	2.23	0.52
10:B:332:A:C6	10:B:335:C:C2	2.98	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:545:U:H6	10:B:549:G:C5'	2.23	0.52
10:B:653:U:H5"	10:B:654:A:OP2	2.09	0.52
10:B:862:G:C5	10:B:863:A:C8	2.97	0.52
10:B:947:A:C4	10:B:971:G:N2	2.78	0.52
10:B:1156:A:C2	25:Q:50:ARG:HG3	2.44	0.52
10:B:1205:A:C4	13:E:165:HIS:CE1	2.98	0.52
10:B:1299:G:N2	10:B:1642:G:C6	2.77	0.52
10:B:1315:C:H2'	10:B:1316:U:C6	2.45	0.52
10:B:1368:G:C2	10:B:1369:G:C8	2.98	0.52
10:B:1795:C:H2'	10:B:1796:U:H6	1.75	0.52
10:B:1831:G:C2	10:B:1975:G:C2	2.97	0.52
10:B:1837:C:C2	10:B:1899:A:N6	2.78	0.52
10:B:1853:A:C2	10:B:1854:A:C4	2.98	0.52
10:B:1973:G:H2'	10:B:1974:C:C6	2.44	0.52
10:B:2051:A:OP2	10:B:2051:A:H8	1.92	0.52
10:B:2306:C:H5'	14:F:132:ARG:NH2	2.24	0.52
10:B:2436:G:C2	10:B:2437:G:C8	2.98	0.52
10:B:2606:C:H2'	10:B:2607:G:H8	1.67	0.52
10:B:2800:A:H2'	10:B:2801:G:O4'	2.10	0.52
10:B:2829:A:C6	10:B:2830:C:C4	2.98	0.52
12:D:4:LEU:O	12:D:203:VAL:HG12	2.09	0.52
14:F:109:ARG:HA	14:F:177:ARG:HH11	1.75	0.52
18:J:118:MET:HA	18:J:121:LYS:NZ	2.19	0.52
22:N:2:ARG:HG2	22:N:2:ARG:HH11	1.74	0.52
22:N:31:HIS:C	22:N:33:ILE:H	2.15	0.52
7:6:324:ASP:OD2	7:6:325:PHE:HD2	1.92	0.52
10:B:27:G:H2'	10:B:512:G:N2	2.24	0.52
10:B:475:C:N3	10:B:476:G:C5	2.77	0.52
10:B:767:U:H2'	10:B:768:G:H8	1.74	0.52
10:B:941:A:C6	10:B:942:G:C6	2.98	0.52
10:B:1022:G:O6	18:J:68:LYS:HE2	2.10	0.52
10:B:1077:A:H2	10:B:1088:A:N6	2.08	0.52
10:B:1100:C:H5	17:I:2:LYS:HG3	1.74	0.52
10:B:1207:C:H2'	10:B:1208:C:C6	2.38	0.52
10:B:1218:G:C5	10:B:1219:U:C4	2.97	0.52
10:B:1315:C:N3	10:B:1337:G:N1	2.47	0.52
10:B:1410:G:N1	10:B:1592:C:O2	2.37	0.52
10:B:1538:G:H8	10:B:1538:G:O5'	1.93	0.52
10:B:1662:U:H2'	10:B:1663:G:H5"	1.90	0.52
10:B:1683:U:H2'	10:B:1684:G:H8	1.75	0.52
10:B:1796:U:C2	10:B:1797:G:C8	2.98	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1797:G:C2	10:B:1823:G:C5	2.98	0.52
10:B:1870:C:H3'	10:B:1871:A:C8	2.45	0.52
10:B:1912:A:H2'	10:B:1919:A:N6	2.24	0.52
10:B:2331:G:O2'	31:W:40:ARG:HG2	2.10	0.52
10:B:2392:A:O2'	20:L:60:ARG:O	2.28	0.52
10:B:2807:U:H3'	10:B:2808:G:H8	1.74	0.52
16:H:46:PHE:C	16:H:50:ARG:HE	2.18	0.52
19:K:17:ARG:HB3	19:K:44:GLU:OE1	2.09	0.52
9:A:57:A:H5"	14:F:22:ASN:ND2	2.24	0.52
10:B:48:G:N1	10:B:178:G:O6	2.42	0.52
10:B:51:G:O2'	10:B:119:A:N1	2.29	0.52
10:B:387:U:C2	10:B:388:G:C5	2.98	0.52
10:B:480:A:H61	10:B:505:A:H2	1.58	0.52
10:B:522:A:H2'	10:B:523:C:H6	1.74	0.52
10:B:612:G:C2	10:B:614:A:H1'	2.45	0.52
10:B:612:G:H21	10:B:616:A:H62	1.57	0.52
10:B:663:G:C2	10:B:664:G:C8	2.97	0.52
10:B:887:U:H1'	10:B:888:C:H5	1.75	0.52
10:B:981:A:H8	10:B:2027:G:N2	2.07	0.52
10:B:1091:G:H2'	10:B:1092:C:C6	2.44	0.52
10:B:1151:A:C5	10:B:1152:C:C4	2.98	0.52
10:B:1331:G:C6	10:B:1333:G:C4	2.97	0.52
10:B:1372:U:H1'	10:B:2214:C:C2	2.45	0.52
10:B:1426:G:H3'	10:B:1427:A:H8	1.75	0.52
10:B:1429:G:H2'	10:B:1430:G:C8	2.44	0.52
10:B:1524:G:H2'	10:B:1525:A:C8	2.45	0.52
10:B:1749:A:H2'	10:B:1750:G:H8	1.73	0.52
10:B:1949:G:O6	10:B:1958:C:N4	2.42	0.52
10:B:2134:A:H1'	10:B:2159:G:O2'	2.10	0.52
10:B:2769:U:H2'	10:B:2770:G:O4'	2.10	0.52
13:E:31:VAL:HG11	13:E:104:ALA:HB2	1.92	0.52
13:E:90:GLN:HB3	13:E:92:HIS:HE1	1.73	0.52
17:I:71:LYS:NZ	17:I:115:ASP:OD2	2.31	0.52
22:N:87:PHE:CD2	22:N:90:ARG:HG3	2.45	0.52
24:P:30:TRP:CD2	24:P:39:LEU:HD21	2.45	0.52
30:V:73:LYS:O	30:V:92:VAL:HG12	2.10	0.52
1:0:15:ARG:NH1	10:B:1266:G:OP1	2.43	0.52
3:2:28:ARG:NH2	10:B:179:C:H5'	2.24	0.52
7:6:69:ALA:O	7:6:73:THR:HG22	2.09	0.52
7:6:164:ARG:CB	7:6:168:ARG:HH12	2.22	0.52
9:A:28:C:H2'	9:A:29:A:H8	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:A:86:G:N1	9:A:91:C:O2	2.43	0.52
10:B:24:G:N1	10:B:517:C:N3	2.58	0.52
10:B:66:C:C2	10:B:89:A:N1	2.78	0.52
10:B:67:U:H1'	10:B:88:G:N2	2.25	0.52
10:B:200:U:C5	10:B:201:C:C2	2.98	0.52
10:B:315:G:C6	10:B:316:C:C4	2.98	0.52
10:B:452:G:C6	10:B:453:A:C6	2.98	0.52
10:B:807:U:P	20:L:36:LYS:HZ1	2.32	0.52
10:B:1048:A:P	10:B:1110:G:H22	2.32	0.52
10:B:1131:G:C5	18:J:77:HIS:NE2	2.78	0.52
10:B:1267:U:HO2'	10:B:1268:A:P	2.33	0.52
10:B:1331:G:C6	10:B:1333:G:C5	2.97	0.52
10:B:1409:U:H2'	10:B:1410:G:C8	2.44	0.52
10:B:1742:U:C4	10:B:1743:G:C5	2.98	0.52
10:B:1744:A:H3'	10:B:1745:A:C8	2.32	0.52
10:B:1889:A:H2'	10:B:1890:A:H8	1.73	0.52
10:B:2093:G:H1	10:B:2196:C:N4	2.02	0.52
10:B:2116:G:N2	10:B:2147:A:OP1	2.43	0.52
10:B:2366:A:C6	10:B:2367:G:C4	2.98	0.52
10:B:2516:A:C5	10:B:2517:C:C4	2.98	0.52
10:B:2532:G:H2'	10:B:2533:U:H5'	1.92	0.52
10:B:2626:C:H2'	10:B:2627:G:C8	2.45	0.52
10:B:2674:G:C2	10:B:2675:A:C4	2.98	0.52
12:D:178:VAL:N	12:D:188:LEU:O	2.43	0.52
15:G:95:ALA:H	15:G:127:GLN:HB3	1.74	0.52
17:I:93:ASN:H	17:I:136:GLY:CA	2.18	0.52
20:L:119:PRO:HA	20:L:139:GLY:O	2.09	0.52
31:W:51:GLY:HA2	31:W:59:PHE:CE1	2.45	0.52
6:5:162:ARG:NE	10:B:2123:G:OP1	2.40	0.52
6:5:206:GLY:N	10:B:1876:A:H5"	2.25	0.52
7:6:25:GLU:C	7:6:27:LEU:N	2.68	0.52
7:6:86:PRO:HG3	7:6:135:ARG:NH1	2.17	0.52
8:7:52:MET:HA	8:7:87:GLU:HA	1.92	0.52
9:A:41:G:H21	14:F:65:LEU:HD21	1.75	0.52
10:B:27:G:C6	10:B:512:G:C6	2.97	0.52
10:B:128:C:C2	10:B:129:C:H5	2.28	0.52
10:B:216:A:H2'	10:B:217:A:H8	1.74	0.52
10:B:370:G:C6	10:B:424:G:C5	2.98	0.52
10:B:543:G:C6	10:B:551:G:C5	2.98	0.52
10:B:567:U:C4	10:B:568:U:N3	2.78	0.52
10:B:971:G:H2'	10:B:972:A:O4'	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1116:G:C6	10:B:1117:C:C4	2.98	0.52
10:B:1224:U:O3'	26:R:88:GLY:HA3	2.09	0.52
10:B:1443:U:H2'	10:B:1444:G:H8	1.75	0.52
10:B:1551:A:H2'	10:B:1552:A:O4'	2.11	0.52
10:B:1560:G:C6	10:B:1561:C:C4	2.98	0.52
10:B:2078:C:C4	10:B:2079:U:C4	2.97	0.52
10:B:2351:G:H1'	10:B:2366:A:N6	2.24	0.52
10:B:2460:U:C2	10:B:2461:A:C8	2.98	0.52
10:B:2472:G:N2	10:B:2529:G:H1	2.08	0.52
13:E:156:ASN:HA	13:E:159:LEU:HD12	1.92	0.52
14:F:111:ARG:HG3	14:F:112:ASP:OD1	2.10	0.52
17:I:14:ALA:HA	17:I:41:PHE:CZ	2.45	0.52
19:K:64:THR:HG22	19:K:67:GLY:H	1.74	0.52
21:M:42:THR:OG1	21:M:45:GLN:HG2	2.09	0.52
24:P:95:LYS:O	24:P:97:TYR:N	2.43	0.52
28:T:21:SER:O	28:T:25:GLU:N	2.41	0.52
30:V:35:GLU:OE1	30:V:35:GLU:N	2.42	0.52
31:W:70:VAL:HG12	31:W:77:LYS:HG2	1.92	0.52
33:Y:31:GLN:HB3	33:Y:36:GLN:OE1	2.10	0.52
5:4:29:ALA:HB3	5:4:33:HIS:CE1	2.45	0.51
9:A:2:G:H2'	9:A:3:C:C6	2.45	0.51
9:A:6:G:H2'	9:A:7:G:H8	1.74	0.51
10:B:570:G:C6	10:B:2030:A:C6	2.98	0.51
10:B:648:G:C2	10:B:649:G:N7	2.78	0.51
10:B:659:G:C5	10:B:660:C:C4	2.98	0.51
10:B:661:A:C6	10:B:662:G:C5	2.98	0.51
10:B:706:A:C8	10:B:707:G:C8	2.97	0.51
10:B:899:A:H2'	10:B:899:A:N3	2.23	0.51
10:B:932:U:H4'	10:B:933:A:C4	2.45	0.51
10:B:981:A:N6	10:B:2028:U:H4'	2.25	0.51
10:B:1025:G:C2	10:B:1135:C:C6	2.97	0.51
10:B:1038:G:C2	10:B:1039:A:C5	2.98	0.51
10:B:1050:A:C4	10:B:1051:G:C8	2.98	0.51
10:B:1153:C:H3'	10:B:1154:G:C8	2.45	0.51
10:B:1259:G:H2'	10:B:1260:A:H8	1.75	0.51
10:B:1482:G:H2'	10:B:1483:G:C8	2.45	0.51
10:B:1659:G:C6	10:B:1660:G:C5	2.98	0.51
10:B:2030:A:C2	10:B:2499:C:H5"	2.44	0.51
10:B:2052:A:O4'	12:D:147:GLY:HA3	2.09	0.51
10:B:2541:A:H5"	10:B:2542:A:OP2	2.10	0.51
10:B:2569:G:N3	10:B:2570:G:C8	2.77	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2865:U:H2'	10:B:2866:U:H5	1.75	0.51
16:H:31:VAL:CB	16:H:32:PRO:CD	2.85	0.51
21:M:62:LYS:HD3	21:M:64:TRP:CZ2	2.45	0.51
5:4:34:LYS:HB3	5:4:36:ARG:NH1	2.25	0.51
7:6:235:THR:O	7:6:250:ALA:HA	2.09	0.51
8:7:80:THR:HA	10:B:1107:G:O2'	2.11	0.51
9:A:32:U:N3	9:A:51:G:C2	2.78	0.51
9:A:60:C:H2'	9:A:61:G:C8	2.46	0.51
9:A:96:G:C6	9:A:97:C:C4	2.98	0.51
10:B:37:C:O2'	10:B:38:A:O4'	2.28	0.51
10:B:70:G:H4'	10:B:75:G:H22	1.74	0.51
10:B:226:A:C6	10:B:227:A:C6	2.98	0.51
10:B:265:A:C2'	10:B:266:G:H4'	2.40	0.51
10:B:448:U:O4'	13:E:79:ARG:NH2	2.44	0.51
10:B:711:G:N2	10:B:720:U:O2'	2.43	0.51
10:B:921:C:H2'	10:B:922:C:H6	1.74	0.51
10:B:1083:U:O2	10:B:1085:A:H8	1.93	0.51
10:B:1176:U:H3'	10:B:1177:G:H8	1.75	0.51
10:B:1443:U:H2'	10:B:1444:G:C8	2.45	0.51
10:B:1721:G:O2'	10:B:1738:G:N1	2.36	0.51
10:B:1799:G:C5	10:B:1819:A:C5	2.98	0.51
10:B:1930:G:C6	10:B:1968:G:N7	2.78	0.51
10:B:2092:U:H4'	16:H:24:GLY:HA3	1.90	0.51
10:B:2140:G:H3'	10:B:2141:G:H8	1.74	0.51
10:B:2278:A:P	21:M:10:ARG:HH21	2.33	0.51
10:B:2373:G:H2'	10:B:2374:C:C6	2.45	0.51
10:B:2494:G:H2'	10:B:2495:G:H8	1.74	0.51
10:B:2641:G:OP2	18:J:85:LYS:NZ	2.43	0.51
10:B:2785:C:H2'	10:B:2786:U:H6	1.74	0.51
10:B:2786:U:H4'	12:D:66:GLY:C	2.35	0.51
10:B:2830:C:O2'	10:B:2883:A:N1	2.42	0.51
10:B:2862:G:H2'	10:B:2863:C:C6	2.45	0.51
14:F:90:LEU:HD13	14:F:95:MET:HA	1.91	0.51
4:3:30:HIS:CG	4:3:31:ILE:N	2.79	0.51
10:B:65:U:P	28:T:76:ARG:H	2.33	0.51
10:B:83:A:H61	10:B:102:U:H5'	1.76	0.51
10:B:488:G:N2	10:B:491:G:H3'	2.25	0.51
10:B:628:G:C6	10:B:636:G:C2	2.98	0.51
10:B:971:G:OP1	10:B:989:G:N1	2.41	0.51
10:B:1030:C:C4	10:B:1125:G:N2	2.78	0.51
10:B:1047:G:H8	10:B:1047:G:OP2	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1310:G:C2	10:B:1311:G:N2	2.79	0.51
10:B:1783:A:O2'	10:B:2607:G:O2'	2.02	0.51
10:B:1795:C:N4	10:B:1824:G:H1	2.08	0.51
10:B:2201:G:H22	10:B:2223:G:H1'	1.76	0.51
10:B:2441:U:H2'	10:B:2442:C:O4'	2.10	0.51
10:B:2461:A:H1'	10:B:2492:U:H3	1.74	0.51
18:J:80:HIS:CE1	18:J:81:ILE:HB	2.46	0.51
30:V:5:ASN:HA	30:V:64:VAL:HB	1.91	0.51
32:X:12:VAL:O	32:X:27:ARG:HA	2.10	0.51
1:0:3:GLN:HB3	1:0:5:ASN:O	2.11	0.51
7:6:16:ILE:HG13	7:6:18:PHE:HB2	1.93	0.51
7:6:86:PRO:HG3	7:6:135:ARG:HD3	1.93	0.51
7:6:331:ARG:NH2	7:6:334:GLU:HA	2.24	0.51
10:B:527:C:C4	10:B:2779:U:H2'	2.46	0.51
10:B:645:C:H4'	10:B:646:U:C5	2.46	0.51
10:B:671:C:H2'	10:B:672:C:C6	2.46	0.51
10:B:923:G:C2	10:B:924:G:C8	2.98	0.51
10:B:1155:A:C6	10:B:1157:G:C5	2.98	0.51
10:B:1275:A:N6	10:B:1295:C:O2'	2.42	0.51
10:B:1288:G:N2	10:B:1288:G:OP2	2.43	0.51
10:B:1389:G:C2	10:B:1399:C:C2	2.98	0.51
10:B:1451:C:H4'	10:B:1452:G:C8	2.45	0.51
10:B:1668:A:N6	10:B:1676:A:H61	2.08	0.51
10:B:1826:G:OP2	11:C:221:GLY:N	2.39	0.51
10:B:1846:G:C6	10:B:1895:C:C4	2.98	0.51
10:B:2093:G:C6	10:B:2225:A:C8	2.99	0.51
10:B:2136:G:N2	10:B:2155:U:H3	2.09	0.51
10:B:2401:U:O2	10:B:2403:C:N4	2.44	0.51
10:B:2411:A:H2'	10:B:2412:A:H8	1.74	0.51
10:B:2431:U:H2'	10:B:2433:A:OP2	2.11	0.51
10:B:2432:A:C8	10:B:2433:A:C8	2.97	0.51
10:B:2452:C:N4	10:B:2453:A:H62	2.09	0.51
10:B:2556:C:C4	10:B:2557:G:C5	2.98	0.51
10:B:2757:A:N1	15:G:66:THR:OG1	2.34	0.51
10:B:2773:C:OP1	12:D:169:ARG:NE	2.42	0.51
10:B:2786:U:O2'	12:D:63:PRO:O	2.26	0.51
12:D:39:ASP:OD1	12:D:46:ARG:HG3	2.10	0.51
18:J:11:VAL:HG21	18:J:13:ARG:NH2	2.24	0.51
22:N:118:ARG:HE	22:N:120:GLU:C	2.13	0.51
24:P:30:TRP:HD1	24:P:79:VAL:HA	1.76	0.51
6:5:170:ILE:HG23	6:5:172:HIS:CE1	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:A:9:G:C2	9:A:112:G:C4	2.98	0.51
10:B:563:A:N6	10:B:2018:G:C8	2.79	0.51
10:B:687:C:N3	10:B:688:U:C4	2.79	0.51
10:B:718:A:H3'	10:B:719:C:C6	2.46	0.51
10:B:765:C:C4	10:B:766:U:C4	2.99	0.51
10:B:968:C:H2'	10:B:969:G:C8	2.46	0.51
10:B:1021:A:C2	10:B:1023:U:C2	2.98	0.51
10:B:1022:G:C2	10:B:1140:C:N3	2.78	0.51
10:B:1292:G:H2'	10:B:1293:C:C6	2.46	0.51
10:B:1857:G:C2	10:B:1884:G:C5	2.98	0.51
10:B:1937:A:C6	10:B:1939:U:N3	2.79	0.51
10:B:2003:A:H2'	10:B:2004:G:H8	1.75	0.51
10:B:2051:A:C6	10:B:2614:A:C5	2.99	0.51
10:B:2195:U:O2'	10:B:2196:C:H5'	2.11	0.51
10:B:2198:A:H2	16:H:29:PHE:CG	2.29	0.51
10:B:2621:G:C5	10:B:2622:U:C5	2.99	0.51
10:B:2854:G:C5	10:B:2855:C:C4	2.98	0.51
10:B:2867:G:HO2'	10:B:2868:A:P	2.33	0.51
10:B:2897:U:O2'	10:B:2898:U:H5'	2.11	0.51
11:C:40:GLY:HA3	11:C:54:GLY:HA2	1.93	0.51
14:F:122:ASP:OD2	14:F:126:ASN:HB2	2.10	0.51
14:F:132:ARG:N	14:F:150:GLY:HA2	2.24	0.51
21:M:54:THR:O	21:M:58:LYS:N	2.44	0.51
23:O:76:LYS:HZ2	23:O:113:ALA:HA	1.75	0.51
6:5:48:LEU:O	6:5:210:LYS:NZ	2.27	0.51
9:A:83:G:H2'	9:A:84:G:H8	1.75	0.51
10:B:13:A:C6	10:B:525:U:C2	2.97	0.51
10:B:66:C:H2'	10:B:67:U:O4'	2.09	0.51
10:B:628:G:C2	10:B:629:G:C4	2.99	0.51
10:B:661:A:H2'	10:B:662:G:O4'	2.11	0.51
10:B:676:A:N6	10:B:802:A:H61	2.08	0.51
10:B:737:C:N3	10:B:760:G:C2	2.78	0.51
10:B:760:G:H3'	10:B:761:A:H8	1.76	0.51
10:B:819:A:C4	10:B:820:A:C8	2.98	0.51
10:B:885:C:O2'	10:B:886:A:H5'	2.11	0.51
10:B:976:G:H2'	10:B:977:G:C8	2.45	0.51
10:B:1131:G:C5	18:J:77:HIS:CE1	2.99	0.51
10:B:1203:U:N3	10:B:1204:A:N1	2.59	0.51
10:B:1292:G:C6	10:B:1293:C:C4	2.98	0.51
10:B:1409:U:H2'	10:B:1410:G:H8	1.74	0.51
10:B:1418:G:O6	10:B:1578:U:H5"	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1494:A:H2'	10:B:1495:A:O4'	2.10	0.51
10:B:1566:A:P	11:C:17:LYS:HZ1	2.34	0.51
10:B:1663:G:O2'	10:B:1664:A:H8	1.92	0.51
10:B:1764:C:H2'	10:B:1765:U:C6	2.45	0.51
10:B:1795:C:H2'	10:B:1796:U:C6	2.46	0.51
10:B:1836:C:H2'	10:B:1837:C:H6	1.76	0.51
10:B:2095:A:P	16:H:11:ASN:HD21	2.34	0.51
10:B:2339:C:H2'	10:B:2340:A:H8	1.76	0.51
10:B:2692:G:H2'	10:B:2693:G:H8	1.75	0.51
10:B:2720:U:C2	10:B:2721:A:C8	2.97	0.51
10:B:2801:G:H2'	10:B:2802:G:C8	2.46	0.51
10:B:2807:U:H1'	10:B:2892:G:N2	2.25	0.51
11:C:154:ALA:HB2	11:C:161:VAL:HG23	1.93	0.51
14:F:9:ASP:HA	14:F:13:LYS:NZ	2.25	0.51
14:F:16:MET:HG3	14:F:21:TYR:H	1.75	0.51
15:G:75:VAL:O	15:G:78:VAL:HG22	2.09	0.51
26:R:24:LYS:HG2	26:R:26:ASP:H	1.76	0.51
27:S:5:ALA:O	27:S:104:THR:OG1	2.23	0.51
7:6:261:HIS:CD2	7:6:262:ASP:H	2.29	0.51
8:7:57:ASN:HB3	8:7:62:ARG:CZ	2.40	0.51
10:B:171:U:H2'	10:B:172:A:C8	2.45	0.51
10:B:584:C:H5"	10:B:585:G:OP2	2.10	0.51
10:B:589:U:H2'	10:B:590:A:H8	1.74	0.51
10:B:747:U:C4	10:B:2613:U:C4	2.99	0.51
10:B:1374:G:C6	10:B:1375:U:C4	2.99	0.51
10:B:1457:U:C2	10:B:1458:U:C4	2.98	0.51
10:B:1625:C:C4	10:B:1626:A:N1	2.79	0.51
10:B:1631:G:N2	10:B:1633:G:H3'	2.25	0.51
10:B:1688:U:O4'	10:B:1701:A:N6	2.44	0.51
10:B:1959:G:N2	10:B:1960:A:N3	2.59	0.51
10:B:2217:G:C6	10:B:2218:G:C5	2.98	0.51
10:B:2230:G:O3'	32:X:29:LEU:HB2	2.11	0.51
10:B:2290:G:H4'	10:B:2381:A:O2'	2.11	0.51
10:B:2316:G:H5'	14:F:124:ARG:HH12	1.76	0.51
10:B:2857:G:N1	10:B:2861:U:O4	2.43	0.51
10:B:2859:G:C5	10:B:2860:A:C6	2.98	0.51
18:J:69:ARG:O	18:J:89:PHE:HB3	2.11	0.51
19:K:13:SER:OG	19:K:95:GLY:HA2	2.10	0.51
21:M:74:THR:HA	21:M:90:GLU:OE1	2.10	0.51
6:5:136:LEU:C	6:5:137:MET:HE2	2.35	0.51
7:6:232:LEU:HA	7:6:253:VAL:HG12	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:155:A:H2'	10:B:156:A:C8	2.44	0.51
10:B:295:G:C6	10:B:344:A:C6	2.99	0.51
10:B:352:A:C5	10:B:353:C:C4	2.99	0.51
10:B:362:A:C5	10:B:363:G:C8	2.99	0.51
10:B:374:A:C5	10:B:375:G:C5	2.99	0.51
10:B:404:A:H5'	10:B:406:G:H1'	1.93	0.51
10:B:447:A:C2	10:B:473:G:C4	2.99	0.51
10:B:482:A:H5"	10:B:483:A:OP1	2.11	0.51
10:B:662:G:N3	10:B:663:G:N7	2.59	0.51
10:B:690:G:H2'	10:B:691:C:H6	1.72	0.51
10:B:820:A:N3	10:B:821:A:C8	2.79	0.51
10:B:840:C:H5"	10:B:841:G:OP2	2.10	0.51
10:B:870:U:H3	10:B:907:G:H1	1.58	0.51
10:B:878:A:C2	10:B:899:A:C6	2.99	0.51
10:B:959:A:H2'	10:B:960:A:H8	1.71	0.51
10:B:1418:G:N2	10:B:1579:A:OP2	2.38	0.51
10:B:1682:G:C8	10:B:1757:A:C5	2.99	0.51
10:B:1846:G:N7	10:B:1847:A:N6	2.57	0.51
10:B:1960:A:C6	10:B:1961:C:N3	2.79	0.51
10:B:1977:A:C5	10:B:1978:A:C5	2.98	0.51
10:B:2031:A:N3	10:B:2455:G:O2'	2.33	0.51
10:B:2224:G:N7	16:H:135:HIS:NE2	2.59	0.51
10:B:2305:U:O2'	14:F:132:ARG:NE	2.44	0.51
10:B:2364:C:H2'	10:B:2365:G:C8	2.45	0.51
10:B:2372:U:H3	10:B:2381:A:H61	1.59	0.51
10:B:2443:C:P	13:E:63:LYS:NZ	2.83	0.51
10:B:2495:G:C6	10:B:2496:C:C4	2.99	0.51
10:B:2650:U:H3	10:B:2670:A:H61	1.58	0.51
10:B:2696:U:C2	10:B:2697:G:C8	2.99	0.51
10:B:2858:C:H5	10:B:2859:G:C4	2.29	0.51
20:L:79:LEU:H	20:L:113:ALA:HB3	1.76	0.51
32:X:39:VAL:O	32:X:43:LYS:HA	2.11	0.51
5:4:4:ARG:HH22	10:B:2477:U:H5	1.59	0.51
7:6:204:GLY:HA2	7:6:282:HIS:HE1	1.76	0.51
10:B:35:G:H3'	10:B:35:G:OP2	2.11	0.51
10:B:248:G:O2'	10:B:2431:U:O3'	2.20	0.51
10:B:337:C:P	29:U:3:LYS:HZ2	2.27	0.51
10:B:451:U:H2'	10:B:453:A:N7	2.25	0.51
10:B:489:G:C4	10:B:491:G:C8	2.99	0.51
10:B:523:C:H2'	10:B:524:G:C8	2.46	0.51
10:B:616:A:C6	10:B:617:G:C4	2.99	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:953:G:N3	10:B:954:G:C8	2.79	0.51
10:B:962:G:H2'	10:B:963:U:H6	1.76	0.51
10:B:1364:G:N2	10:B:1367:A:OP2	2.41	0.51
10:B:2119:A:C2	10:B:2170:A:H2'	2.46	0.51
10:B:2297:A:C4	10:B:2320:U:C2	2.99	0.51
10:B:2418:A:C6	10:B:2419:U:C4	2.99	0.51
10:B:2427:C:H5"	10:B:2429:G:OP1	2.10	0.51
10:B:2458:G:H1'	10:B:2459:A:N7	2.26	0.51
16:H:107:GLY:O	16:H:109:GLU:HG3	2.10	0.51
18:J:71:ASP:O	18:J:73:VAL:N	2.41	0.51
20:L:74:THR:HG21	20:L:126:ARG:NH2	2.26	0.51
23:O:85:LYS:HB3	23:O:87:ILE:HG23	1.93	0.51
29:U:23:LYS:HZ3	29:U:25:LYS:HA	1.76	0.51
4:3:16:THR:HG23	10:B:629:G:OP1	2.11	0.51
7:6:211:SER:N	35:6:527:GNP:O2B	2.32	0.51
10:B:9:G:C6	10:B:2629:U:C5	2.99	0.51
10:B:55:G:H2'	10:B:56:A:H8	1.75	0.51
10:B:142:A:H2'	10:B:143:C:H6	1.76	0.51
10:B:181:A:H2'	10:B:182:A:H8	1.76	0.51
10:B:325:G:N2	10:B:337:C:N3	2.49	0.51
10:B:471:A:H2'	10:B:472:A:O4'	2.09	0.51
10:B:881:G:H2'	10:B:882:G:O4'	2.11	0.51
10:B:1359:A:C6	10:B:1360:G:C4	2.99	0.51
10:B:1462:C:H2'	10:B:1463:C:C6	2.44	0.51
10:B:1566:A:OP2	11:C:17:LYS:NZ	2.43	0.51
10:B:1631:G:H21	10:B:1633:G:H8	1.58	0.51
10:B:1843:C:H2'	10:B:1844:C:C6	2.46	0.51
10:B:2109:U:N3	10:B:2181:U:C2	2.79	0.51
10:B:2514:U:H4'	12:D:156:PHE:CE2	2.46	0.51
10:B:2745:C:O2'	15:G:142:GLN:HB2	2.10	0.51
10:B:2849:U:H3	10:B:2867:G:H1'	1.76	0.51
16:H:31:VAL:CG1	16:H:32:PRO:HD3	2.41	0.51
16:H:97:ARG:HH22	16:H:114:GLU:N	2.09	0.51
18:J:122:LEU:O	18:J:123:LYS:HD2	2.11	0.51
20:L:109:LYS:HA	20:L:126:ARG:O	2.11	0.51
21:M:18:ARG:HE	21:M:97:GLN:NE2	2.09	0.51
25:Q:96:ASP:C	25:Q:98:ALA:H	2.18	0.51
26:R:67:GLY:CA	26:R:93:PHE:HB2	2.41	0.51
7:6:422:ILE:H	7:6:422:ILE:HD12	1.76	0.50
10:B:158:U:H3'	10:B:159:G:H8	1.75	0.50
10:B:265:A:H2'	10:B:266:G:H4'	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:608:A:C5	10:B:609:A:C5	2.99	0.50
10:B:640:C:H2'	10:B:641:U:H6	1.76	0.50
10:B:647:G:C6	10:B:648:G:C6	2.99	0.50
10:B:783:A:C6	10:B:785:G:C4	2.99	0.50
10:B:822:G:C2	10:B:823:C:C2	2.98	0.50
10:B:888:C:O2'	10:B:889:C:OP1	2.29	0.50
10:B:949:G:C4	10:B:969:G:C2	3.00	0.50
10:B:1004:U:O2'	10:B:1010:A:N7	2.33	0.50
10:B:1149:G:H2'	10:B:1150:C:H6	1.74	0.50
10:B:1248:G:O2'	10:B:1249:U:H5"	2.11	0.50
10:B:1307:A:C4	10:B:1308:A:C8	2.98	0.50
10:B:1656:C:N4	10:B:1657:U:O4	2.45	0.50
10:B:1678:A:H1'	10:B:1991:U:O2'	2.11	0.50
10:B:1815:A:C5	10:B:1817:G:C5	2.99	0.50
10:B:1841:U:H2'	10:B:1842:G:H8	1.76	0.50
10:B:2141:G:H1	10:B:2150:C:N4	2.07	0.50
10:B:2252:G:O2'	10:B:2253:G:OP1	2.29	0.50
10:B:2297:A:O2'	10:B:2322:A:N3	2.44	0.50
10:B:2677:G:H2'	10:B:2678:C:H6	1.75	0.50
10:B:2694:G:C6	10:B:2695:U:C4	2.99	0.50
10:B:2808:G:H2'	10:B:2890:G:C6	2.46	0.50
10:B:2808:G:H2'	10:B:2890:G:O6	2.11	0.50
10:B:2841:C:H2'	10:B:2842:G:C8	2.45	0.50
24:P:8:GLU:O	24:P:12:MET:N	2.44	0.50
9:A:16:G:C6	9:A:69:G:N1	2.79	0.50
10:B:93:G:H2'	10:B:94:A:O4'	2.11	0.50
10:B:248:G:O5'	10:B:249:C:H5"	2.12	0.50
10:B:331:C:O2'	10:B:332:A:H5'	2.12	0.50
10:B:373:U:O2	10:B:423:A:H2	1.94	0.50
10:B:470:A:C6	10:B:471:A:C6	3.00	0.50
10:B:488:G:H22	10:B:491:G:H3'	1.75	0.50
10:B:532:A:H4'	10:B:533:G:O4'	2.12	0.50
10:B:1004:U:H4'	10:B:1010:A:N6	2.26	0.50
10:B:1147:A:H2'	10:B:1148:U:H6	1.75	0.50
10:B:1234:U:H2'	10:B:1235:G:O4'	2.11	0.50
10:B:1265:A:O3'	10:B:1266:G:H4'	2.11	0.50
10:B:1287:A:C6	10:B:1288:G:C6	2.99	0.50
10:B:1307:A:C5	10:B:1622:G:C6	2.99	0.50
10:B:1429:G:C6	10:B:1568:G:C6	2.99	0.50
10:B:1452:G:N7	10:B:1458:U:C4	2.80	0.50
10:B:1710:G:C6	10:B:1749:A:C6	2.99	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1723:G:C2	10:B:1724:G:C4	2.99	0.50
10:B:1988:G:N2	10:B:1989:G:N3	2.59	0.50
10:B:2367:G:C6	10:B:2368:C:C4	2.99	0.50
10:B:2649:C:H2'	10:B:2650:U:C6	2.44	0.50
12:D:110:THR:OG1	12:D:171:THR:HG22	2.11	0.50
14:F:105:ILE:CG1	14:F:111:ARG:HH21	2.25	0.50
18:J:110:PRO:CB	18:J:111:LYS:HG2	2.36	0.50
29:U:10:VAL:O	29:U:72:PHE:HB2	2.11	0.50
31:W:31:LEU:H	31:W:60:ALA:HB3	1.76	0.50
7:6:179:GLU:HB3	7:6:183:LYS:HZ1	1.75	0.50
7:6:315:VAL:O	7:6:317:ASN:N	2.44	0.50
7:6:350:ILE:O	7:6:353:LEU:N	2.45	0.50
8:7:17:GLU:OE2	8:7:88:HIS:HE1	1.94	0.50
8:7:55:VAL:HA	10:B:1084:A:OP1	2.11	0.50
8:7:57:ASN:OD1	10:B:1106:G:H5"	2.12	0.50
10:B:75:G:C8	10:B:76:C:H5	2.29	0.50
10:B:551:G:C6	10:B:552:U:C4	2.99	0.50
10:B:871:U:H3	10:B:906:U:H3	1.59	0.50
10:B:943:A:N1	10:B:944:C:C4	2.80	0.50
10:B:1238:G:H2'	10:B:1239:G:H8	1.75	0.50
10:B:1390:U:H5"	10:B:1391:U:OP2	2.12	0.50
10:B:1417:C:N3	10:B:1581:G:N2	2.56	0.50
10:B:1473:G:H2'	10:B:1474:U:C6	2.46	0.50
10:B:1566:A:C5	11:C:212:TRP:CE2	3.00	0.50
10:B:1683:U:C2	10:B:1684:G:C8	2.99	0.50
10:B:1829:A:H2'	10:B:1830:C:H5'	1.92	0.50
10:B:1839:G:H2'	10:B:1840:G:O4'	2.11	0.50
10:B:1964:G:H4'	10:B:1965:C:OP2	2.12	0.50
10:B:2231:U:H2'	10:B:2232:C:C6	2.42	0.50
10:B:2516:A:H2'	10:B:2517:C:C6	2.46	0.50
10:B:2540:C:H2'	10:B:2541:A:O4'	2.12	0.50
10:B:2545:G:N3	10:B:2565:A:H2	2.08	0.50
10:B:2853:C:H2'	10:B:2854:G:C8	2.46	0.50
10:B:2868:A:C2	10:B:2869:G:C4	2.99	0.50
12:D:122:VAL:HG22	12:D:127:PHE:HB2	1.93	0.50
20:L:95:LEU:HB3	20:L:101:ILE:HG22	1.92	0.50
23:O:81:ARG:HG2	23:O:84:GLU:CD	2.36	0.50
25:Q:24:TYR:CG	25:Q:25:GLY:N	2.80	0.50
25:Q:93:ILE:HG23	25:Q:94:LEU:N	2.25	0.50
10:B:49:A:H4'	10:B:50:U:C5'	2.39	0.50
10:B:260:G:C2	10:B:261:G:C8	2.99	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:371:A:H2	10:B:372:G:N2	2.08	0.50
10:B:389:G:N3	10:B:389:G:H2'	2.27	0.50
10:B:860:U:N3	10:B:2268:A:C8	2.80	0.50
10:B:1079:C:H5	10:B:1088:A:OP1	1.94	0.50
10:B:1286:A:N6	10:B:1329:U:C2	2.79	0.50
10:B:1333:G:N3	10:B:1334:G:C8	2.80	0.50
10:B:1389:G:C6	10:B:1390:U:N3	2.79	0.50
10:B:1657:U:O4	10:B:2004:G:N1	2.44	0.50
10:B:1695:G:C6	10:B:1696:G:H1'	2.47	0.50
10:B:1858:A:C6	10:B:1859:U:C2	2.99	0.50
10:B:2013:A:C2	10:B:2014:A:C4	2.99	0.50
10:B:2094:A:P	16:H:22:LYS:HG3	2.50	0.50
10:B:2103:C:H5	10:B:2104:C:C4	2.29	0.50
10:B:2224:G:P	11:C:264:LYS:NZ	2.83	0.50
10:B:2357:G:N2	10:B:2360:G:OP2	2.27	0.50
10:B:2660:A:H2'	10:B:2661:G:C8	2.46	0.50
10:B:2749:A:OP1	15:G:1:SER:N	2.44	0.50
10:B:2822:G:O6	22:N:2:ARG:NH2	2.44	0.50
17:I:56:VAL:HG11	17:I:68:PHE:HB2	1.92	0.50
18:J:98:GLU:O	18:J:101:ILE:HG22	2.11	0.50
19:K:14:GLY:HA2	19:K:51:VAL:HG11	1.93	0.50
10:B:271:G:C4	10:B:272:A:C8	3.00	0.50
10:B:310:A:C8	10:B:312:G:C6	3.00	0.50
10:B:338:G:C2	10:B:339:U:C2	2.99	0.50
10:B:664:G:H2'	10:B:664:G:N3	2.27	0.50
10:B:806:C:H5	20:L:41:ARG:NE	2.09	0.50
10:B:1275:A:N1	10:B:1296:G:H1'	2.27	0.50
10:B:1337:G:C2	10:B:1338:G:C4	3.00	0.50
10:B:1473:G:H2'	10:B:1474:U:H6	1.75	0.50
10:B:1482:G:C2	10:B:1483:G:C4	3.00	0.50
10:B:1569:A:C2	10:B:1570:A:C4	2.99	0.50
10:B:1779:U:O2'	10:B:1780:A:P	2.70	0.50
10:B:1855:U:H2'	10:B:1856:U:C6	2.47	0.50
10:B:1873:G:C2	10:B:1874:C:C2	3.00	0.50
10:B:2076:U:O2'	10:B:2077:A:OP1	2.23	0.50
10:B:2303:G:C6	10:B:2314:A:C6	3.00	0.50
10:B:2330:G:H1'	31:W:39:GLN:NE2	2.27	0.50
10:B:2513:A:H2'	10:B:2514:U:C6	2.47	0.50
10:B:2723:C:H2'	10:B:2724:U:H6	1.76	0.50
10:B:2819:G:H2'	10:B:2821:A:N7	2.26	0.50
10:B:2832:U:C2	10:B:2834:G:N1	2.79	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:C:35:LYS:HG3	11:C:36:ASN:N	2.27	0.50
12:D:45:TYR:CD2	12:D:83:ARG:HG2	2.46	0.50
13:E:123:LYS:HD3	13:E:125:SER:HB3	1.94	0.50
14:F:147:ARG:CZ	14:F:150:GLY:H	2.23	0.50
16:H:30:LEU:O	16:H:32:PRO:HD2	2.12	0.50
19:K:60:VAL:HG11	19:K:111:PHE:CE2	2.44	0.50
19:K:110:LYS:O	19:K:113:LYS:HB3	2.11	0.50
24:P:20:ARG:CG	24:P:88:ARG:HH22	2.23	0.50
24:P:27:VAL:O	24:P:41:ALA:HA	2.11	0.50
24:P:30:TRP:CE2	24:P:39:LEU:HD21	2.45	0.50
26:R:37:GLU:OE1	26:R:38:VAL:HG22	2.11	0.50
28:T:60:THR:HG22	28:T:83:ALA:HA	1.91	0.50
33:Y:44:LYS:HB3	33:Y:48:ARG:NH1	2.27	0.50
7:6:21:ASP:OD1	7:6:22:LYS:N	2.42	0.50
9:A:9:G:C4	9:A:10:G:C8	3.00	0.50
9:A:10:G:H1	9:A:110:C:H42	1.58	0.50
10:B:435:C:H2’	10:B:436:C:H5’	1.93	0.50
10:B:461:C:N4	10:B:468:G:H1	2.10	0.50
10:B:548:G:H4’	10:B:549:G:C5	2.46	0.50
10:B:609:A:H62	10:B:619:G:H21	1.58	0.50
10:B:643:A:C4	10:B:644:A:C8	2.99	0.50
10:B:659:G:O5’	13:E:95:LYS:HD3	2.11	0.50
10:B:748:G:C6	27:S:90:LYS:HE3	2.47	0.50
10:B:963:U:O4	10:B:964:C:N4	2.44	0.50
10:B:997:G:H1	10:B:1158:C:H42	1.59	0.50
10:B:1014:A:C6	10:B:1149:G:C6	3.00	0.50
10:B:1215:G:C2	10:B:1216:G:C8	3.00	0.50
10:B:1339:G:H21	10:B:1340:U:H3	1.58	0.50
10:B:1358:G:O2’	10:B:1359:A:H5’	2.11	0.50
10:B:1444:G:C6	10:B:1445:G:C6	3.00	0.50
10:B:1690:A:OP2	10:B:1691:C:N4	2.44	0.50
10:B:1713:A:O2’	10:B:1714:U:H5”	2.10	0.50
10:B:1872:A:C6	10:B:1873:G:H1’	2.47	0.50
10:B:1932:A:C6	10:B:1933:G:C4	3.00	0.50
10:B:2023:C:H42	10:B:2040:G:H1	1.58	0.50
10:B:2044:C:C2	10:B:2625:G:C2	3.00	0.50
10:B:2062:A:O2’	10:B:2063:C:O5’	2.19	0.50
10:B:2385:C:H2’	10:B:2386:A:C8	2.47	0.50
10:B:2520:C:H2’	10:B:2521:C:C6	2.47	0.50
10:B:2588:G:H21	10:B:2589:A:H1’	1.77	0.50
10:B:2618:G:C2	10:B:2619:C:C2	3.00	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2630:G:C4	10:B:2894:G:C6	2.99	0.50
10:B:2647:U:H2'	10:B:2648:G:H8	1.76	0.50
10:B:2682:A:C2	10:B:2683:C:C2	3.00	0.50
10:B:2739:U:H3'	10:B:2763:G:H1	1.76	0.50
10:B:2836:U:C4	10:B:2883:A:C6	3.00	0.50
12:D:35:THR:H	12:D:50:VAL:HA	1.76	0.50
14:F:99:PHE:O	14:F:103:ILE:HG12	2.11	0.50
14:F:132:ARG:CA	14:F:150:GLY:HA2	2.40	0.50
19:K:72:ASP:OD1	19:K:72:ASP:N	2.44	0.50
23:O:105:ALA:HA	23:O:108:ASP:OD2	2.11	0.50
24:P:32:VAL:HG22	24:P:37:LYS:HB3	1.93	0.50
6:5:79:THR:HA	6:5:120:ALA:HB2	1.93	0.50
7:6:20:GLN:CG	10:B:1916:A:OP1	2.60	0.50
7:6:179:GLU:O	7:6:182:GLU:HG2	2.11	0.50
8:7:48:ALA:HB3	8:7:51:TYR:CE1	2.46	0.50
9:A:61:G:H2'	9:A:62:C:C6	2.47	0.50
10:B:44:A:N1	10:B:45:G:C5	2.79	0.50
10:B:97:C:H2'	10:B:98:G:H8	1.77	0.50
10:B:104:A:H2'	10:B:105:C:O4'	2.11	0.50
10:B:247:G:N2	10:B:252:G:C4	2.80	0.50
10:B:501:A:H2'	10:B:502:A:H8	1.74	0.50
10:B:502:A:N1	10:B:505:A:C4	2.80	0.50
10:B:561:G:O2'	10:B:562:U:H5'	2.12	0.50
10:B:760:G:H3'	10:B:761:A:C8	2.46	0.50
10:B:834:G:H2'	10:B:835:C:C6	2.46	0.50
10:B:860:U:O2	10:B:2268:A:H5'	2.12	0.50
10:B:866:A:H1'	10:B:914:G:N2	2.27	0.50
10:B:1078:U:O5'	10:B:1078:U:H6	1.94	0.50
10:B:1233:C:H2'	10:B:1234:U:C6	2.46	0.50
10:B:1492:G:N2	10:B:1496:A:N1	2.60	0.50
10:B:1563:U:H2'	10:B:1564:C:H6	1.75	0.50
10:B:1595:C:H2'	10:B:1596:A:C8	2.46	0.50
10:B:1598:A:C5	10:B:1599:U:C4	3.00	0.50
10:B:1614:A:N7	27:S:93:ALA:HB2	2.26	0.50
10:B:1635:A:H2'	10:B:1636:U:O4'	2.12	0.50
10:B:1663:G:C2	10:B:1992:G:C6	3.00	0.50
10:B:1759:A:O2'	10:B:1760:C:OP1	2.25	0.50
10:B:1858:A:C2	10:B:1859:U:H1'	2.46	0.50
10:B:2090:A:H1'	10:B:2230:G:H22	1.77	0.50
10:B:2136:G:N1	10:B:2155:U:O4	2.44	0.50
10:B:2600:A:H2'	10:B:2601:C:H6	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2748:A:C4	10:B:2757:A:C6	2.99	0.50
12:D:32:ASN:HD22	12:D:94:GLN:NE2	2.10	0.50
15:G:30:GLY:HA3	15:G:78:VAL:HA	1.94	0.50
15:G:120:ILE:HG13	15:G:133:LYS:C	2.37	0.50
18:J:114:LEU:HD11	18:J:118:MET:HE3	1.93	0.50
7:6:27:LEU:O	7:6:31:GLU:N	2.44	0.50
10:B:27:G:H2'	10:B:512:G:H22	1.77	0.50
10:B:85:G:C8	29:U:6:ARG:NH2	2.80	0.50
10:B:189:G:C4	10:B:205:G:N2	2.76	0.50
10:B:195:A:OP1	10:B:196:A:O2'	2.22	0.50
10:B:471:A:C6	10:B:472:A:C5	3.00	0.50
10:B:519:U:H2'	10:B:520:G:C8	2.45	0.50
10:B:543:G:C2	10:B:544:C:H1'	2.47	0.50
10:B:564:C:H2'	10:B:565:C:C6	2.46	0.50
10:B:742:A:H2'	10:B:743:A:C8	2.47	0.50
10:B:839:U:N3	10:B:840:C:C4	2.79	0.50
10:B:855:G:C6	10:B:856:G:N7	2.80	0.50
10:B:940:G:C2	10:B:941:A:C8	3.00	0.50
10:B:1012:U:H3	18:J:27:ARG:HH12	1.60	0.50
10:B:1394:U:C4	10:B:1395:A:C6	3.00	0.50
10:B:1668:A:H61	10:B:1676:A:H61	1.60	0.50
10:B:1718:G:C4	10:B:1719:G:C8	3.00	0.50
10:B:1764:C:C4	10:B:1765:U:C4	2.98	0.50
10:B:1846:G:C4	10:B:1847:A:N7	2.80	0.50
10:B:2094:A:H5'	16:H:25:TYR:HD1	1.74	0.50
10:B:2116:G:H1	10:B:2147:A:H3'	1.77	0.50
10:B:2446:G:C2	10:B:2501:C:C5	3.00	0.50
10:B:2538:C:H2'	10:B:2539:C:H6	1.76	0.50
10:B:2675:A:C6	10:B:2676:C:C4	3.00	0.50
10:B:2682:A:O4'	12:D:11:MET:HG3	2.11	0.50
10:B:2806:C:H2'	10:B:2807:U:H6	1.77	0.50
11:C:70:LYS:HD3	11:C:101:ARG:HH22	1.75	0.50
14:F:50:ASP:HB3	14:F:144:LYS:NZ	2.27	0.50
16:H:29:PHE:CE1	16:H:33:GLN:OE1	2.48	0.50
16:H:68:ARG:CD	16:H:132:PHE:HE1	1.99	0.50
17:I:14:ALA:HA	17:I:41:PHE:CE2	2.46	0.50
17:I:89:SER:HB3	17:I:95:ASP:HB2	1.93	0.50
20:L:23:ILE:HD11	26:R:84:ARG:HD3	1.94	0.50
24:P:49:ILE:HD12	24:P:95:LYS:HD2	1.94	0.50
31:W:18:LYS:HG3	31:W:19:ARG:HG2	1.93	0.50
31:W:70:VAL:HB	31:W:75:ASN:OD1	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:39:ARG:HG2	1:0:40:HIS:ND1	2.27	0.50
3:2:18:PHE:CE2	10:B:126:A:C4	2.98	0.50
7:6:122:LEU:HD23	7:6:125:GLU:OE2	2.11	0.50
7:6:363:GLY:O	7:6:364:GLU:CB	2.59	0.50
8:7:1:MET:N	8:7:7:ASP:OD2	2.45	0.50
10:B:49:A:C5	10:B:177:G:C6	3.00	0.50
10:B:111:A:C2	10:B:112:U:C2	2.99	0.50
10:B:115:C:H2'	10:B:116:C:H6	1.76	0.50
10:B:241:A:C4	10:B:243:U:N3	2.80	0.50
10:B:257:C:H2'	10:B:258:G:O4'	2.11	0.50
10:B:287:G:H2'	10:B:288:U:H6	1.77	0.50
10:B:291:G:C6	10:B:350:G:C5	3.00	0.50
10:B:449:A:C6	10:B:450:G:C4	3.00	0.50
10:B:477:A:N6	10:B:500:G:O2'	2.44	0.50
10:B:659:G:OP1	13:E:95:LYS:NZ	2.41	0.50
10:B:675:A:P	13:E:62:GLN:HE22	2.35	0.50
10:B:708:G:C6	10:B:709:U:C4	2.99	0.50
10:B:709:U:H3	10:B:722:A:H61	1.59	0.50
10:B:1038:G:C2	10:B:1118:C:C2	3.00	0.50
10:B:1308:A:C4	10:B:1309:G:C8	2.99	0.50
10:B:1387:A:H5'	10:B:1469:A:H1'	1.94	0.50
10:B:1452:G:N7	10:B:1458:U:C5	2.80	0.50
10:B:1494:A:C5	10:B:1495:A:C5	3.00	0.50
10:B:1667:G:N2	10:B:1992:G:OP2	2.39	0.50
10:B:1676:A:C6	10:B:1677:A:C6	2.99	0.50
10:B:1735:A:H2'	10:B:1736:U:O4'	2.12	0.50
10:B:1897:G:C2	10:B:1898:U:C2	3.00	0.50
10:B:1916:A:H8	10:B:1917:U:C5	2.30	0.50
10:B:2205:A:C2	10:B:2206:C:C2	3.00	0.50
10:B:2449:U:O2'	10:B:2450:A:OP2	2.25	0.50
10:B:2531:A:OP2	15:G:174:LYS:HB2	2.11	0.50
10:B:2581:G:H4'	10:B:2582:G:C8	2.46	0.50
10:B:2623:G:C2	10:B:2624:G:C4	2.99	0.50
10:B:2701:U:H1'	22:N:71:ARG:NH2	2.27	0.50
10:B:2703:C:H2'	10:B:2704:C:C6	2.47	0.50
10:B:2838:G:H1'	22:N:45:ARG:HH12	1.77	0.50
11:C:14:HIS:O	11:C:203:VAL:HG21	2.12	0.50
11:C:261:ARG:HG3	11:C:262:THR:N	2.27	0.50
12:D:5:VAL:HG21	12:D:80:TRP:CG	2.47	0.50
17:I:2:LYS:C	17:I:3:LYS:HD2	2.37	0.50
18:J:13:ARG:HH22	18:J:49:ASP:C	2.20	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:L:80:SER:HA	20:L:115:GLU:O	2.12	0.50
24:P:20:ARG:CB	24:P:88:ARG:HH22	2.25	0.50
29:U:8:ASP:O	29:U:23:LYS:HA	2.12	0.50
29:U:17:ASP:OD2	29:U:38:ILE:HG23	2.12	0.50
29:U:27:VAL:HA	29:U:33:VAL:HG12	1.94	0.50
32:X:26:ARG:HD3	32:X:28:PHE:CZ	2.46	0.50
6:5:100:LEU:HD22	6:5:111:PHE:CD1	2.47	0.49
6:5:163:TYR:HB2	6:5:171:ILE:CG2	2.42	0.49
7:6:209:GLY:O	7:6:212:THR:OG1	2.17	0.49
7:6:408:ILE:HG12	7:6:411:TRP:CE3	2.47	0.49
10:B:94:A:C5	10:B:95:A:C5	3.00	0.49
10:B:121:G:N3	10:B:122:G:C8	2.80	0.49
10:B:290:U:O2	10:B:350:G:N2	2.45	0.49
10:B:408:G:H2'	10:B:409:G:C8	2.46	0.49
10:B:536:G:H2'	10:B:537:G:O4'	2.12	0.49
10:B:683:U:C2	10:B:684:G:C8	3.00	0.49
10:B:1212:G:C5	10:B:1236:G:C6	3.00	0.49
10:B:1252:G:HO2'	10:B:1253:A:P	2.33	0.49
10:B:1306:C:C2	10:B:1623:G:C2	3.00	0.49
10:B:1349:C:H2'	10:B:1350:C:C6	2.47	0.49
10:B:1599:U:C2	10:B:1600:C:C5	3.00	0.49
10:B:1703:G:H2'	10:B:1704:C:C6	2.46	0.49
10:B:1768:C:H42	10:B:1985:C:N4	2.10	0.49
10:B:2129:C:H6	10:B:2130:U:H3'	1.77	0.49
10:B:2399:G:C4	10:B:2400:G:C8	3.00	0.49
10:B:2839:G:C2	10:B:2880:C:C4	3.00	0.49
11:C:249:VAL:HG13	11:C:254:LYS:NZ	2.27	0.49
13:E:147:LEU:HB2	13:E:183:PHE:CE2	2.47	0.49
14:F:106:ALA:O	14:F:112:ASP:HB2	2.12	0.49
14:F:160:LYS:HB2	14:F:164:GLU:OE2	2.12	0.49
15:G:44:HIS:NE2	15:G:45:ALA:O	2.45	0.49
15:G:83:THR:HB	15:G:140:ILE:HG12	1.94	0.49
17:I:4:VAL:HG12	17:I:5:GLN:H	1.77	0.49
17:I:7:TYR:CZ	17:I:60:VAL:HG22	2.47	0.49
19:K:109:GLU:HB2	19:K:111:PHE:HD1	1.76	0.49
21:M:50:ARG:NH1	21:M:51:ARG:HD2	2.27	0.49
30:V:72:VAL:HA	30:V:94:ALA:H	1.76	0.49
32:X:2:ARG:HA	32:X:49:ARG:NH2	2.27	0.49
7:6:319:ILE:N	7:6:342:LEU:O	2.39	0.49
8:7:100:ALA:HB2	8:7:110:ALA:H	1.78	0.49
10:B:190:A:C8	10:B:207:A:C6	2.99	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:255:A:H1'	10:B:384:A:N7	2.27	0.49
10:B:290:U:H3	10:B:350:G:H1	1.60	0.49
10:B:353:C:H2'	10:B:354:A:H8	1.76	0.49
10:B:414:C:C2	10:B:415:A:C8	3.00	0.49
10:B:620:G:H4'	10:B:621:A:H5'	1.93	0.49
10:B:631:A:O2'	20:L:66:PHE:HB3	2.11	0.49
10:B:762:U:H5'	10:B:763:G:H21	1.77	0.49
10:B:978:G:C2	10:B:979:A:C5	3.00	0.49
10:B:1000:A:OP2	10:B:1154:G:N1	2.32	0.49
10:B:1071:G:C8	10:B:1089:A:C6	3.01	0.49
10:B:1081:U:H2'	10:B:1082:U:H6	1.76	0.49
10:B:1151:A:C6	10:B:1152:C:C4	3.00	0.49
10:B:1193:G:C2	10:B:1194:A:C4	3.00	0.49
10:B:1248:G:O6	13:E:46:GLN:NE2	2.32	0.49
10:B:1395:A:N6	10:B:1398:C:C2	2.81	0.49
10:B:1422:G:H2'	10:B:1423:G:C8	2.43	0.49
10:B:1426:G:O2'	10:B:1573:G:O6	2.19	0.49
10:B:1549:A:C6	10:B:1550:C:C4	3.01	0.49
10:B:1570:A:C4	10:B:1571:A:C8	3.00	0.49
10:B:1773:A:C2	10:B:1829:A:C5	3.00	0.49
10:B:1791:A:O2'	11:C:14:HIS:NE2	2.40	0.49
10:B:1977:A:C6	10:B:1978:A:C4	3.00	0.49
10:B:2040:G:H2'	10:B:2041:U:C6	2.47	0.49
10:B:2069:G:C2	10:B:2070:A:C8	3.00	0.49
10:B:2274:A:C6	10:B:2276:G:C8	3.00	0.49
10:B:2275:C:C2	21:M:84:LYS:NZ	2.78	0.49
10:B:2329:U:C2	10:B:2330:G:C8	3.00	0.49
10:B:2495:G:H2'	10:B:2496:C:C6	2.47	0.49
10:B:2508:G:C2	10:B:2509:G:C8	3.00	0.49
10:B:2621:G:H4'	12:D:164:GLN:H	1.77	0.49
10:B:2895:G:H2'	10:B:2896:C:C6	2.46	0.49
11:C:94:LEU:HD12	11:C:99:GLU:O	2.13	0.49
11:C:144:GLU:HB2	11:C:187:CYS:CB	2.42	0.49
11:C:166:ARG:HD3	11:C:167:ASP:H	1.76	0.49
12:D:36:GLN:OE1	12:D:67:HIS:NE2	2.41	0.49
13:E:197:GLU:HB3	13:E:201:ALA:O	2.11	0.49
14:F:74:ALA:HB3	14:F:78:ILE:O	2.12	0.49
15:G:18:ILE:O	15:G:19:ASN:ND2	2.44	0.49
16:H:30:LEU:CG	16:H:35:LYS:NZ	2.69	0.49
19:K:1:ILE:HG22	19:K:33:GLY:HA3	1.94	0.49
19:K:70:ARG:HH12	24:P:71:ARG:NE	2.10	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:P:6:GLN:O	24:P:10:GLU:HG3	2.13	0.49
26:R:16:GLU:HB2	26:R:101:ILE:HG13	1.94	0.49
31:W:20:LEU:HG	31:W:25:PHE:CZ	2.47	0.49
34:Z:5:LYS:HG3	34:Z:36:GLU:HG2	1.94	0.49
1:0:18:HIS:NE2	10:B:2045:C:H1'	2.28	0.49
4:3:56:LEU:HD22	20:L:49:GLY:HA2	1.93	0.49
6:5:47:ASN:HB3	6:5:211:LYS:O	2.12	0.49
6:5:134:ARG:CZ	6:5:137:MET:HE3	2.42	0.49
9:A:64:G:H2'	9:A:65:U:O4'	2.12	0.49
10:B:186:G:H2'	10:B:187:G:C8	2.40	0.49
10:B:230:G:C2	10:B:231:A:C5	3.00	0.49
10:B:307:G:H22	10:B:310:A:P	2.34	0.49
10:B:346:A:H2'	10:B:347:A:O4'	2.12	0.49
10:B:440:C:H2'	10:B:441:U:H6	1.77	0.49
10:B:838:C:C2	10:B:839:U:C6	3.00	0.49
10:B:858:G:H21	10:B:2268:A:H3'	1.76	0.49
10:B:1128:G:C6	10:B:2518:A:C6	3.00	0.49
10:B:1417:C:N4	10:B:1581:G:H1	2.07	0.49
10:B:1827:U:H2'	10:B:1828:G:O4'	2.12	0.49
10:B:2643:G:C5	10:B:2644:G:C5	3.00	0.49
10:B:2687:U:C4	10:B:2688:G:N1	2.80	0.49
10:B:2687:U:C4	10:B:2688:G:C6	2.99	0.49
10:B:2830:C:H2'	10:B:2831:G:H8	1.77	0.49
12:D:102:ALA:HA	12:D:180:VAL:HG21	1.94	0.49
14:F:3:LEU:HD22	14:F:96:TRP:CZ2	2.47	0.49
16:H:68:ARG:HG2	16:H:132:PHE:CZ	2.22	0.49
16:H:129:GLU:HB3	16:H:139:PHE:CE2	2.42	0.49
21:M:17:ASN:ND2	21:M:95:LEU:HD11	2.24	0.49
31:W:34:SER:HB3	31:W:79:ILE:HD13	1.93	0.49
4:3:34:LYS:NZ	10:B:2390:U:P	2.84	0.49
8:7:128:THR:OG1	8:7:162:LYS:NZ	2.44	0.49
9:A:7:G:O2'	23:O:38:GLN:OE1	2.21	0.49
9:A:30:C:H42	9:A:53:A:H61	1.59	0.49
10:B:81:G:N7	33:Y:1:MET:HE1	2.27	0.49
10:B:98:G:H5"	10:B:99:U:OP2	2.11	0.49
10:B:103:A:C6	10:B:104:A:C5	3.00	0.49
10:B:348:A:C6	10:B:349:U:C4	3.01	0.49
10:B:483:A:H5'	29:U:44:HIS:HB3	1.94	0.49
10:B:564:C:P	26:R:79:ARG:NH2	2.85	0.49
10:B:579:G:N1	10:B:1262:A:N7	2.60	0.49
10:B:753:A:C5	10:B:754:U:C5	3.01	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:949:G:C6	10:B:969:G:C6	3.00	0.49
10:B:976:G:C2	10:B:977:G:C5	3.00	0.49
10:B:1007:C:H4'	18:J:110:PRO:HA	1.94	0.49
10:B:1127:A:O2'	10:B:1128:G:H5'	2.13	0.49
10:B:1202:G:C6	10:B:1244:A:C6	3.00	0.49
10:B:1392:A:N7	10:B:1393:A:C6	2.81	0.49
10:B:1891:G:H5"	10:B:1892:C:OP2	2.12	0.49
10:B:1912:A:H62	10:B:1918:A:C4'	2.26	0.49
10:B:2044:C:H2'	10:B:2045:C:C6	2.47	0.49
10:B:2082:A:N6	10:B:2237:G:H1'	2.26	0.49
10:B:2203:U:O2'	10:B:2204:G:OP2	2.27	0.49
10:B:2286:G:N2	10:B:2346:A:C8	2.81	0.49
10:B:2495:G:C4	10:B:2496:C:C5	3.00	0.49
14:F:129:MET:H	14:F:153:ILE:HB	1.77	0.49
20:L:109:LYS:HG2	20:L:126:ARG:CB	2.42	0.49
1:0:56:LYS:NZ	10:B:1280:G:OP1	2.46	0.49
4:3:22:LYS:NZ	10:B:650:C:C4'	2.75	0.49
7:6:382:ARG:CZ	7:6:418:GLU:OE2	2.60	0.49
8:7:56:ARG:HD2	10:B:1084:A:C5	2.47	0.49
10:B:85:G:C2	10:B:86:G:H1'	2.47	0.49
10:B:131:A:H2'	10:B:132:G:C8	2.42	0.49
10:B:317:G:C2	10:B:318:C:C2	3.00	0.49
10:B:319:G:C4	10:B:333:G:N2	2.80	0.49
10:B:352:A:H8	10:B:352:A:OP2	1.95	0.49
10:B:464:U:N3	10:B:788:A:C6	2.80	0.49
10:B:684:G:C5	10:B:774:G:C5	3.00	0.49
10:B:892:A:C6	10:B:893:C:C2	3.01	0.49
10:B:939:G:C2	10:B:940:G:C8	3.01	0.49
10:B:966:G:C6	10:B:967:U:C4	3.00	0.49
10:B:1096:A:C6	10:B:1097:U:C4	3.01	0.49
10:B:1131:G:N1	10:B:2025:C:H1'	2.26	0.49
10:B:1203:U:C4	10:B:1204:A:C6	3.00	0.49
10:B:1333:G:C4	10:B:1334:G:C8	3.00	0.49
10:B:1422:G:N3	10:B:1423:G:C8	2.81	0.49
10:B:1453:A:O2'	22:N:63:ARG:NH2	2.45	0.49
10:B:1617:C:O2'	10:B:1618:A:O5'	2.18	0.49
10:B:2085:U:H3	10:B:2234:G:H1	1.60	0.49
10:B:2088:A:N6	10:B:2231:U:H3	2.09	0.49
10:B:2478:A:C4	10:B:2529:G:C5	3.00	0.49
10:B:2674:G:H4'	19:K:29:ARG:CG	2.40	0.49
11:C:161:VAL:HG13	11:C:174:ARG:O	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:E:194:LYS:HB3	13:E:198:GLU:OE2	2.13	0.49
17:I:35:MET:HE3	17:I:39:LYS:HZ1	1.78	0.49
27:S:70:LYS:O	27:S:107:VAL:HG13	2.13	0.49
32:X:12:VAL:HG23	32:X:28:PHE:HB2	1.94	0.49
32:X:53:LYS:O	32:X:57:VAL:HG23	2.12	0.49
33:Y:25:GLN:HE21	33:Y:29:ARG:NH2	2.10	0.49
4:3:46:LYS:NZ	10:B:630:G:P	2.83	0.49
6:5:77:VAL:HG12	6:5:79:THR:HB	1.94	0.49
6:5:173:THR:HA	10:B:2123:G:H4'	1.93	0.49
7:6:24:MET:CE	7:6:257:ARG:NH1	2.60	0.49
8:7:27:VAL:HG22	8:7:109:LYS:O	2.12	0.49
9:A:92:C:O2'	9:A:93:C:O4'	2.18	0.49
10:B:132:G:C4	10:B:133:U:C5	3.00	0.49
10:B:250:G:C6	10:B:251:A:C6	3.01	0.49
10:B:464:U:N3	10:B:465:G:C2	2.81	0.49
10:B:651:G:O3'	10:B:653:U:N3	2.45	0.49
10:B:659:G:P	13:E:95:LYS:HZ2	2.35	0.49
10:B:733:G:C5	10:B:761:A:C6	3.00	0.49
10:B:776:G:O2'	10:B:777:G:OP2	2.29	0.49
10:B:852:U:H3	10:B:925:A:H61	1.61	0.49
10:B:954:G:C5	10:B:955:U:C5	3.01	0.49
10:B:959:A:C6	10:B:960:A:C6	3.00	0.49
10:B:1007:C:OP1	18:J:39:LYS:HD2	2.13	0.49
10:B:1030:C:N3	10:B:1125:G:N2	2.61	0.49
10:B:1130:U:O4	12:D:152:PRO:HB3	2.04	0.49
10:B:1142:A:C5	10:B:1144:A:N7	2.81	0.49
10:B:1308:A:C6	10:B:1309:G:C5	3.01	0.49
10:B:1491:G:H2'	10:B:1492:G:H8	1.77	0.49
10:B:1651:G:C6	10:B:1652:A:N6	2.81	0.49
10:B:1668:A:C4	10:B:1993:U:O2	2.66	0.49
10:B:1799:G:C6	10:B:1819:A:C8	3.00	0.49
10:B:2053:G:N1	10:B:2617:U:C2	2.80	0.49
10:B:2137:U:H3	10:B:2154:A:H61	1.59	0.49
10:B:2364:C:H2'	10:B:2365:G:H8	1.78	0.49
10:B:2618:G:N1	10:B:2619:C:C2	2.81	0.49
10:B:2663:G:N2	10:B:2664:G:H1'	2.28	0.49
10:B:2685:G:H1	10:B:2724:U:H3	1.59	0.49
12:D:164:GLN:NE2	12:D:165:MET:H	2.10	0.49
13:E:134:LEU:HD21	13:E:167:VAL:HG21	1.95	0.49
17:I:78:LEU:HD12	17:I:108:ILE:HG23	1.94	0.49
17:I:99:LYS:HG3	17:I:140:GLU:OE2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:N:78:LYS:NZ	22:N:82:GLU:CD	2.71	0.49
26:R:62:GLU:O	26:R:96:VAL:HA	2.13	0.49
27:S:25:ARG:HG3	27:S:74:ILE:HG21	1.93	0.49
1:0:3:GLN:OE1	1:0:3:GLN:N	2.41	0.49
7:6:24:MET:HE2	7:6:24:MET:CA	2.33	0.49
7:6:413:ARG:NH1	15:G:176:LYS:O	2.46	0.49
10:B:110:G:H2'	10:B:111:A:C8	2.47	0.49
10:B:226:A:H1'	10:B:230:G:C2	2.48	0.49
10:B:242:G:O2'	10:B:243:U:P	2.70	0.49
10:B:368:A:C5	10:B:369:U:C4	3.01	0.49
10:B:401:A:C4	10:B:402:A:C8	3.00	0.49
10:B:447:A:C6	10:B:473:G:C2	3.00	0.49
10:B:498:G:C2	10:B:499:U:C6	3.01	0.49
10:B:569:U:H5'	10:B:821:A:H2	1.77	0.49
10:B:595:C:O2'	10:B:939:G:H4'	2.13	0.49
10:B:638:G:C2	10:B:639:U:C2	3.01	0.49
10:B:669:G:C5	10:B:801:G:C6	3.01	0.49
10:B:734:A:C4	10:B:735:A:C8	3.01	0.49
10:B:841:G:H2'	10:B:842:U:H6	1.78	0.49
10:B:949:G:C2	10:B:950:G:C5	3.01	0.49
10:B:1266:G:H22	10:B:2012:G:H2'	1.77	0.49
10:B:1275:A:H2'	10:B:1275:A:N3	2.27	0.49
10:B:1288:G:N7	10:B:1327:A:N6	2.61	0.49
10:B:1387:A:C6	10:B:1388:G:C6	3.01	0.49
10:B:1404:C:H2'	10:B:1405:U:C6	2.48	0.49
10:B:1454:C:H5'	22:N:63:ARG:NH2	2.28	0.49
10:B:1525:A:H2'	10:B:1526:C:O4'	2.13	0.49
10:B:1532:A:H2'	10:B:1533:C:C6	2.47	0.49
10:B:1866:A:N6	10:B:1867:G:N3	2.61	0.49
10:B:1928:A:H2'	10:B:1929:G:O4'	2.12	0.49
10:B:1987:A:H2'	10:B:1988:G:C8	2.34	0.49
10:B:2044:C:H2'	10:B:2045:C:H6	1.76	0.49
10:B:2093:G:P	16:H:24:GLY:H	2.36	0.49
10:B:2140:G:C6	10:B:2152:G:C5	3.01	0.49
10:B:2271:G:C5	10:B:2272:U:C5	3.00	0.49
10:B:2306:C:H2'	10:B:2307:G:N2	2.27	0.49
10:B:2472:G:C2'	10:B:2475:C:H42	2.22	0.49
10:B:2519:U:C4	10:B:2542:A:C6	3.00	0.49
10:B:2662:A:C2	10:B:2663:G:H1'	2.47	0.49
10:B:2668:G:C6	10:B:2669:G:C5	3.01	0.49
10:B:2712:C:OP1	10:B:2714:G:H4'	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2721:A:O2'	10:B:2873:A:O2'	2.19	0.49
10:B:2786:U:H4'	12:D:67:HIS:N	2.26	0.49
12:D:181:ASP:HB2	12:D:186:LEU:HB2	1.94	0.49
13:E:47:LYS:HB2	13:E:51:GLU:HB2	1.94	0.49
18:J:76:HIS:HE1	18:J:85:LYS:HE2	1.77	0.49
31:W:45:HIS:HE2	31:W:48:ALA:C	2.18	0.49
34:Z:5:LYS:HD2	34:Z:36:GLU:OE2	2.12	0.49
2:1:43:ARG:NH2	10:B:643:A:C4	2.80	0.49
6:5:100:LEU:HB3	6:5:111:PHE:CE1	2.48	0.49
6:5:105:LYS:NZ	10:B:2168:G:C5	2.81	0.49
6:5:163:TYR:HB2	6:5:171:ILE:HG23	1.93	0.49
7:6:107:ILE:O	7:6:111:PHE:HB2	2.12	0.49
9:A:28:C:OP1	23:O:36:TYR:OH	2.28	0.49
10:B:123:G:C2	10:B:124:G:H1'	2.47	0.49
10:B:245:G:H22	10:B:252:G:H22	1.60	0.49
10:B:358:U:H3'	10:B:359:G:H8	1.78	0.49
10:B:568:U:H5'	10:B:945:A:N6	2.26	0.49
10:B:585:G:N2	10:B:1256:G:C4	2.81	0.49
10:B:668:A:C4	10:B:670:A:N6	2.81	0.49
10:B:675:A:H2'	10:B:676:A:C4	2.48	0.49
10:B:887:U:O2	10:B:888:C:N4	2.39	0.49
10:B:947:A:C2	10:B:971:G:C2	3.01	0.49
10:B:1177:G:H8	10:B:1177:G:O5'	1.96	0.49
10:B:1268:A:N6	10:B:2012:G:H21	2.01	0.49
10:B:1455:G:N2	10:B:2704:C:O2	2.46	0.49
10:B:1788:C:C2	10:B:1789:A:C8	3.01	0.49
10:B:1840:G:C6	10:B:1841:U:C4	2.99	0.49
10:B:2016:U:H2'	10:B:2017:U:C6	2.46	0.49
10:B:2155:U:H2'	10:B:2156:G:H5'	1.95	0.49
10:B:2230:G:H21	32:X:31:ASN:HD21	1.60	0.49
10:B:2270:A:H2'	10:B:2271:G:O4'	2.12	0.49
10:B:2286:G:H5'	10:B:2286:G:H8	1.77	0.49
10:B:2474:U:H5	10:B:2475:C:N1	2.11	0.49
10:B:2677:G:C4	10:B:2678:C:C5	3.01	0.49
10:B:2698:U:H2'	10:B:2699:C:H6	1.78	0.49
11:C:103:ILE:HG12	11:C:104:LEU:H	1.77	0.49
11:C:144:GLU:HB3	11:C:146:LYS:O	2.13	0.49
17:I:93:ASN:HD21	17:I:134:SER:HA	1.78	0.49
19:K:7:LEU:HD13	19:K:83:CYS:SG	2.52	0.49
19:K:24:LEU:CD1	19:K:58:LYS:HE2	2.43	0.49
22:N:48:VAL:HG13	22:N:49:GLU:HG3	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:O:7:ARG:HD2	23:O:97:PHE:CE1	2.48	0.49
23:O:36:TYR:HA	23:O:52:SER:OG	2.12	0.49
28:T:29:THR:OG1	28:T:85:VAL:O	2.31	0.49
30:V:76:ASP:H	30:V:90:ASP:HB2	1.77	0.49
31:W:31:LEU:HG	31:W:33:GLY:N	2.23	0.49
7:6:12:VAL:HG23	7:6:75:ALA:HB2	1.95	0.49
7:6:101:ILE:HG22	7:6:102:ASP:O	2.13	0.49
7:6:175:GLN:O	7:6:179:GLU:HG3	2.13	0.49
7:6:203:VAL:HG23	7:6:282:HIS:ND1	2.28	0.49
9:A:6:G:H2'	9:A:7:G:C8	2.47	0.49
10:B:14:A:N7	10:B:15:G:C8	2.81	0.49
10:B:70:G:H3'	10:B:113:U:H4'	1.94	0.49
10:B:83:A:N1	10:B:102:U:H5'	2.27	0.49
10:B:207:A:O2'	10:B:799:G:O4'	2.31	0.49
10:B:372:G:C4	32:X:60:LYS:NZ	2.78	0.49
10:B:399:U:C4	10:B:400:G:C5	3.00	0.49
10:B:436:C:H2'	10:B:437:U:H6	1.78	0.49
10:B:552:U:H2'	10:B:553:G:C8	2.48	0.49
10:B:558:U:OP1	18:J:114:LEU:N	2.46	0.49
10:B:608:A:H2'	10:B:609:A:C8	2.48	0.49
10:B:609:A:H61	10:B:619:G:C2'	2.25	0.49
10:B:726:G:HO2'	10:B:727:A:P	2.36	0.49
10:B:764:A:C2	10:B:781:A:C2	3.00	0.49
10:B:807:U:C4	10:B:808:G:N7	2.81	0.49
10:B:820:A:H2'	10:B:821:A:C8	2.39	0.49
10:B:891:G:H2'	10:B:892:A:C8	2.48	0.49
10:B:1188:U:O2'	10:B:1189:A:H5'	2.13	0.49
10:B:1202:G:H1	10:B:1243:C:H42	1.60	0.49
10:B:1287:A:N6	10:B:1288:G:C6	2.81	0.49
10:B:1419:A:C5	10:B:1421:G:C4	3.00	0.49
10:B:1718:G:C2	10:B:1719:G:C4	3.01	0.49
10:B:1839:G:C8	10:B:1927:A:C1'	2.96	0.49
10:B:1936:A:C2	10:B:1943:U:H5	2.28	0.49
10:B:2116:G:C5	10:B:2146:C:H5"	2.47	0.49
10:B:2240:U:H2'	10:B:2241:A:C8	2.47	0.49
10:B:2335:A:N7	10:B:2337:G:C5	2.81	0.49
10:B:2855:C:H2'	10:B:2856:A:H8	1.74	0.49
11:C:18:VAL:C	11:C:202:ARG:NH2	2.69	0.49
11:C:144:GLU:OE1	11:C:147:PRO:HA	2.12	0.49
13:E:147:LEU:HB3	13:E:186:VAL:HG23	1.95	0.49
15:G:101:VAL:HA	15:G:115:GLN:HA	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:G:103:ASN:HA	15:G:113:ASP:OD1	2.12	0.49
16:H:31:VAL:HG12	32:X:38:TRP:HD1	1.77	0.49
17:I:99:LYS:CB	17:I:138:VAL:HB	2.40	0.49
22:N:52:ILE:HA	22:N:55:ALA:HB3	1.94	0.49
24:P:26:GLU:HA	24:P:42:PHE:O	2.13	0.49
28:T:16:VAL:HG22	28:T:33:LYS:NZ	2.27	0.49
30:V:23:ALA:O	30:V:25:LYS:HG2	2.12	0.49
1:0:38:LEU:HG	1:0:41:HIS:CD2	2.48	0.49
4:3:4:LYS:HE2	10:B:253:C:OP2	2.13	0.49
6:5:100:LEU:HD22	6:5:111:PHE:HD1	1.77	0.49
7:6:194:LYS:HZ3	7:6:197:VAL:CG1	2.25	0.49
9:A:15:A:C6	9:A:109:A:C2	3.01	0.49
9:A:31:C:N4	9:A:51:G:H1	2.09	0.49
9:A:38:C:H2'	9:A:39:A:O4'	2.13	0.49
10:B:116:C:HO2'	10:B:126:A:H8	1.60	0.49
10:B:259:G:C2	10:B:260:G:C5	3.01	0.49
10:B:271:G:HO2'	10:B:272:A:H8	1.61	0.49
10:B:370:G:C5	10:B:424:G:C8	3.01	0.49
10:B:404:A:H5'	10:B:406:G:C1'	2.43	0.49
10:B:651:G:N2	10:B:652:U:O4'	2.45	0.49
10:B:722:A:H2'	10:B:723:C:O4'	2.12	0.49
10:B:901:C:C4	10:B:902:C:C4	3.01	0.49
10:B:907:G:C6	10:B:908:C:C4	3.01	0.49
10:B:925:A:H2'	10:B:926:G:C8	2.47	0.49
10:B:1031:G:C4	10:B:1124:G:C2	3.01	0.49
10:B:1055:G:C5	10:B:1056:G:C5	3.01	0.49
10:B:1136:G:C2	10:B:1137:G:C5	3.01	0.49
10:B:1210:G:C5	10:B:1237:A:C6	3.01	0.49
10:B:1224:U:H4'	26:R:88:GLY:O	2.13	0.49
10:B:1287:A:O5'	10:B:1288:G:N2	2.46	0.49
10:B:1288:G:C5	10:B:1327:A:C6	3.01	0.49
10:B:2021:C:H4'	10:B:2022:U:OP2	2.13	0.49
10:B:2092:U:P	16:H:28:ASN:HD21	2.36	0.49
10:B:2100:G:C5	10:B:2101:A:C5	3.01	0.49
10:B:2141:G:C2	10:B:2142:A:C8	3.01	0.49
10:B:2415:G:C5	10:B:2416:C:C4	3.01	0.49
10:B:2549:G:N1	10:B:2560:A:C6	2.80	0.49
10:B:2808:G:N2	10:B:2890:G:N7	2.60	0.49
10:B:2822:G:OP1	12:D:117:GLY:N	2.45	0.49
12:D:58:ASN:OD1	12:D:59:ARG:N	2.45	0.49
27:S:46:LEU:O	27:S:50:VAL:HG23	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:V:21:ARG:NE	30:V:87:GLN:HG2	2.27	0.49
5:4:24:ARG:HH21	10:B:2742:G:P	2.36	0.48
6:5:31:LYS:HD2	6:5:178:VAL:HG12	1.94	0.48
7:6:56:TYR:O	7:6:58:VAL:N	2.46	0.48
7:6:382:ARG:NE	7:6:418:GLU:OE2	2.46	0.48
7:6:411:TRP:HB3	7:6:426:ILE:OXT	2.13	0.48
9:A:18:G:C5	9:A:19:C:C4	3.00	0.48
10:B:383:C:O2	10:B:383:C:H2'	2.12	0.48
10:B:611:C:H2'	10:B:612:G:C8	2.48	0.48
10:B:646:U:H2'	10:B:647:G:H4'	1.94	0.48
10:B:677:A:N1	10:B:802:A:C5	2.81	0.48
10:B:778:G:H2'	10:B:779:U:O4'	2.13	0.48
10:B:857:G:N2	10:B:921:C:O2	2.45	0.48
10:B:968:C:H2'	10:B:969:G:H8	1.78	0.48
10:B:1014:A:H2'	10:B:1015:U:C6	2.48	0.48
10:B:1048:A:OP2	10:B:1110:G:N2	2.45	0.48
10:B:1307:A:C5	10:B:1308:A:N7	2.81	0.48
10:B:1494:A:N6	10:B:1495:A:N1	2.61	0.48
10:B:1722:A:C4	10:B:1723:G:C8	3.01	0.48
10:B:1914:C:H2'	10:B:1916:A:C6	2.48	0.48
10:B:2224:G:N7	16:H:135:HIS:CE1	2.81	0.48
10:B:2386:A:H4'	31:W:55:ASP:OD1	2.13	0.48
10:B:2658:C:H2'	10:B:2659:G:C8	2.48	0.48
11:C:4:LYS:NZ	11:C:14:HIS:HA	2.28	0.48
12:D:103:ASP:O	12:D:105:LYS:NZ	2.28	0.48
14:F:109:ARG:HA	14:F:177:ARG:NH1	2.28	0.48
14:F:117:SER:H	14:F:173:ASP:CG	2.20	0.48
15:G:136:ASP:OD1	15:G:136:ASP:N	2.42	0.48
16:H:7:ASP:HA	16:H:15:LEU:HD12	1.94	0.48
16:H:30:LEU:CA	16:H:35:LYS:NZ	2.76	0.48
17:I:79:LEU:HB2	17:I:135:MET:SD	2.53	0.48
18:J:38:GLY:C	18:J:40:HIS:H	2.21	0.48
19:K:20:CYS:SG	19:K:21:ILE:N	2.85	0.48
20:L:38:GLN:NE2	20:L:45:GLY:O	2.46	0.48
28:T:28:ASN:C	28:T:91:GLN:HE22	2.21	0.48
7:6:194:LYS:NZ	7:6:197:VAL:HG22	2.28	0.48
10:B:83:A:N1	10:B:100:U:H4'	2.29	0.48
10:B:288:U:H3	10:B:352:A:H61	1.60	0.48
10:B:471:A:N6	10:B:472:A:C6	2.82	0.48
10:B:755:U:OP1	10:B:1272:A:N6	2.43	0.48
10:B:758:C:O2'	10:B:759:G:O5'	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:854:C:N3	10:B:923:G:N2	2.54	0.48
10:B:921:C:H4'	10:B:2269:G:O6	2.12	0.48
10:B:936:A:C6	10:B:937:C:C4	3.01	0.48
10:B:1075:C:C4	10:B:1076:C:N4	2.81	0.48
10:B:1130:U:OP1	10:B:1130:U:H6	1.95	0.48
10:B:1458:U:H4'	10:B:1460:U:P	2.53	0.48
10:B:1470:A:C8	10:B:1471:G:C8	3.00	0.48
10:B:1500:G:H2'	10:B:1501:G:O4'	2.13	0.48
10:B:1897:G:H2'	10:B:1898:U:C6	2.47	0.48
10:B:1940:U:H4'	10:B:1941:C:H5'	1.95	0.48
10:B:2061:G:C8	10:B:2501:C:H1'	2.48	0.48
10:B:2251:G:N2	10:B:2252:G:C4	2.81	0.48
10:B:2287:A:H61	10:B:2344:U:H3	1.60	0.48
10:B:2377:A:C4	10:B:2378:A:C8	3.02	0.48
10:B:2469:A:C5	10:B:2482:A:C8	3.01	0.48
10:B:2859:G:H2'	10:B:2860:A:C8	2.47	0.48
10:B:2896:C:H2'	10:B:2897:U:C6	2.47	0.48
11:C:245:THR:O	11:C:248:GLY:N	2.44	0.48
12:D:15:PHE:HB2	24:P:11:GLN:NE2	2.29	0.48
12:D:25:THR:HG21	12:D:193:VAL:HG22	1.95	0.48
14:F:103:ILE:O	14:F:108:PRO:HD3	2.12	0.48
16:H:30:LEU:HA	16:H:35:LYS:NZ	2.23	0.48
23:O:76:LYS:NZ	23:O:113:ALA:HA	2.28	0.48
27:S:70:LYS:O	27:S:72:THR:N	2.46	0.48
7:6:372:LEU:HD11	7:6:422:ILE:HG12	1.95	0.48
10:B:122:G:N2	10:B:129:C:N3	2.55	0.48
10:B:185:G:N1	10:B:186:G:C5	2.82	0.48
10:B:287:G:H2'	10:B:288:U:C6	2.48	0.48
10:B:307:G:N1	10:B:310:A:OP2	2.45	0.48
10:B:327:G:H2'	10:B:328:U:H6	1.78	0.48
10:B:367:G:C6	10:B:368:A:C6	3.01	0.48
10:B:621:A:H3'	10:B:622:G:H8	1.78	0.48
10:B:637:A:C5	10:B:652:U:H5"	2.49	0.48
10:B:646:U:C2	10:B:647:G:H1'	2.48	0.48
10:B:882:G:N1	10:B:895:U:H1'	2.28	0.48
10:B:976:G:N3	10:B:977:G:C8	2.81	0.48
10:B:1012:U:N3	18:J:27:ARG:NH1	2.61	0.48
10:B:1141:U:H4'	10:B:1142:A:O4'	2.13	0.48
10:B:1310:G:C5	10:B:1311:G:N1	2.81	0.48
10:B:1388:G:H2'	10:B:1389:G:H8	1.78	0.48
10:B:1454:C:H5'	22:N:63:ARG:CZ	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1657:U:OP2	12:D:141:ARG:HB3	2.14	0.48
10:B:1681:G:O6	10:B:1762:A:N6	2.46	0.48
10:B:1824:G:P	11:C:51:ARG:NH2	2.86	0.48
10:B:1933:G:O6	10:B:1968:G:N2	2.46	0.48
10:B:2088:A:C5	10:B:2089:C:C4	3.01	0.48
10:B:2096:C:H2'	10:B:2097:A:H8	1.77	0.48
10:B:2464:G:C5	10:B:2465:C:C5	3.01	0.48
10:B:2659:G:O2'	15:G:176:LYS:NZ	2.32	0.48
10:B:2677:G:H2'	10:B:2678:C:C6	2.48	0.48
10:B:2705:A:N6	10:B:2706:A:C4	2.81	0.48
10:B:2741:A:H5"	10:B:2742:G:OP2	2.13	0.48
10:B:2800:A:H2'	10:B:2801:G:C1'	2.43	0.48
10:B:2824:C:C4	10:B:2825:G:C4	3.02	0.48
18:J:80:HIS:O	18:J:81:ILE:HG22	2.13	0.48
18:J:118:MET:CA	18:J:121:LYS:HZ2	2.20	0.48
19:K:98:ILE:HG13	19:K:118:ALA:HB2	1.95	0.48
23:O:79:ALA:HB1	23:O:115:LEU:HB3	1.95	0.48
24:P:39:LEU:HD13	24:P:81:ASP:OD2	2.13	0.48
25:Q:90:ASP:OD2	26:R:39:LEU:HB2	2.13	0.48
28:T:69:ARG:HD2	28:T:70:HIS:CD2	2.49	0.48
32:X:38:TRP:HE1	32:X:40:GLU:HA	1.79	0.48
34:Z:40:THR:O	34:Z:44:ARG:HG2	2.14	0.48
1:0:21:LEU:HD21	27:S:41:LYS:NZ	2.28	0.48
7:6:230:ALA:HB3	35:6:527:GNP:PG	2.53	0.48
8:7:42:ARG:NH1	8:7:46:ARG:NH1	2.62	0.48
10:B:271:G:N2	10:B:367:G:H1'	2.28	0.48
10:B:375:G:C2'	10:B:376:G:H5'	2.43	0.48
10:B:480:A:H2'	10:B:480:A:N3	2.28	0.48
10:B:527:C:OP2	10:B:2779:U:N3	2.25	0.48
10:B:563:A:C6	10:B:564:C:C4	3.01	0.48
10:B:822:G:C4	10:B:836:G:C2	3.02	0.48
10:B:907:G:OP1	21:M:22:GLN:HG2	2.12	0.48
10:B:910:A:C5	21:M:13:HIS:CD2	3.00	0.48
10:B:950:G:C6	10:B:951:C:N3	2.82	0.48
10:B:1003:G:N2	10:B:1153:C:H1'	2.29	0.48
10:B:1016:G:N2	10:B:1146:C:N3	2.53	0.48
10:B:1129:A:O2'	10:B:1130:U:O5'	2.30	0.48
10:B:1227:G:N3	10:B:1228:G:C8	2.81	0.48
10:B:1352:U:H1'	10:B:1570:A:H2	1.77	0.48
10:B:1817:G:N2	10:B:1818:U:O2	2.46	0.48
10:B:1865:U:C2	10:B:1875:G:C2	3.01	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2171:A:H4'	10:B:2172:U:O5'	2.13	0.48
10:B:2222:C:P	16:H:116:ARG:NH1	2.86	0.48
10:B:2235:G:C2	10:B:2236:U:H1'	2.48	0.48
10:B:2373:G:C2	10:B:2374:C:C4	3.01	0.48
10:B:2647:U:HO2'	10:B:2648:G:H8	1.62	0.48
10:B:2648:G:C6	10:B:2673:G:C4	3.01	0.48
10:B:2671:G:C6	10:B:2672:U:C4	3.01	0.48
10:B:2674:G:H1'	19:K:26:GLY:HA2	1.95	0.48
10:B:2793:C:H2'	10:B:2794:C:C6	2.47	0.48
11:C:107:LYS:HG2	11:C:193:GLU:HG3	1.95	0.48
11:C:186:ASP:OD2	16:H:116:ARG:NH2	2.46	0.48
15:G:94:ARG:HB2	15:G:127:GLN:HB3	1.93	0.48
23:O:92:PHE:HB2	23:O:117:PHE:CD1	2.47	0.48
26:R:64:VAL:HB	26:R:95:ASP:HB2	1.95	0.48
27:S:17:VAL:HB	27:S:76:VAL:HG21	1.96	0.48
27:S:55:ILE:O	27:S:59:GLU:HG3	2.14	0.48
34:Z:7:THR:HG23	34:Z:33:HIS:O	2.13	0.48
6:5:67:HIS:CE1	6:5:184:LYS:HD3	2.48	0.48
6:5:139:ASN:HD21	10:B:2123:G:P	2.36	0.48
8:7:53:ARG:O	8:7:85:SER:HA	2.13	0.48
10:B:1:G:H2'	10:B:2:G:C8	2.48	0.48
10:B:5:A:C2	10:B:6:A:C5	3.02	0.48
10:B:28:A:H62	10:B:511:U:H3	1.62	0.48
10:B:56:A:C5	10:B:57:C:C5	3.02	0.48
10:B:87:U:O2	10:B:94:A:N6	2.39	0.48
10:B:255:A:O2'	10:B:384:A:N7	2.41	0.48
10:B:285:G:C2	10:B:286:U:C2	3.01	0.48
10:B:429:A:H2'	10:B:430:A:N9	2.28	0.48
10:B:473:G:H2'	10:B:474:G:H8	1.76	0.48
10:B:503:A:C4	10:B:506:G:N7	2.82	0.48
10:B:540:C:H2'	10:B:541:A:C8	2.48	0.48
10:B:557:C:N4	10:B:558:U:O4	2.46	0.48
10:B:571:U:C5	10:B:2030:A:C5	3.01	0.48
10:B:875:G:H3'	10:B:876:C:C6	2.45	0.48
10:B:942:G:H2'	10:B:943:A:H8	1.78	0.48
10:B:1192:G:H2'	10:B:1193:G:H8	1.78	0.48
10:B:1239:G:C5	10:B:1240:U:C4	3.02	0.48
10:B:1257:C:H4'	13:E:78:TRP:NE1	2.28	0.48
10:B:1358:G:N7	10:B:1371:G:C6	2.82	0.48
10:B:1653:G:P	22:N:2:ARG:HH21	2.37	0.48
10:B:2086:U:H2'	10:B:2087:G:H8	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2294:G:P	23:O:94:ARG:NH2	2.82	0.48
10:B:2396:G:C6	10:B:2421:G:C6	3.01	0.48
10:B:2519:U:C2	10:B:2542:A:N1	2.81	0.48
10:B:2578:G:N2	10:B:2579:C:C2	2.81	0.48
10:B:2638:G:H21	10:B:2778:A:N6	2.11	0.48
10:B:2640:G:C2	10:B:2641:G:C8	3.01	0.48
10:B:2702:G:C6	10:B:2703:C:C4	3.01	0.48
10:B:2729:G:C6	10:B:2730:C:C4	3.01	0.48
10:B:2772:C:H2'	10:B:2773:C:C6	2.48	0.48
10:B:2794:C:N4	10:B:2802:G:O6	2.42	0.48
11:C:133:ASN:HD21	16:H:122:LEU:HD22	1.79	0.48
11:C:160:TYR:HB3	11:C:193:GLU:OE1	2.13	0.48
15:G:86:LEU:HD23	15:G:147:LEU:HD23	1.96	0.48
22:N:28:LEU:C	22:N:30:ARG:H	2.21	0.48
28:T:56:GLU:HG2	28:T:87:LEU:HA	1.95	0.48
31:W:30:VAL:HA	31:W:60:ALA:C	2.38	0.48
33:Y:27:ASN:O	33:Y:30:MET:N	2.46	0.48
3:2:34:ARG:HH21	3:2:39:ARG:HD2	1.79	0.48
6:5:105:LYS:NZ	10:B:2168:G:N7	2.61	0.48
6:5:105:LYS:NZ	10:B:2170:A:OP2	2.43	0.48
6:5:134:ARG:HD2	10:B:2172:U:C5'	2.37	0.48
6:5:163:TYR:CD1	6:5:171:ILE:HD13	2.48	0.48
7:6:163:ASP:HA	7:6:166:LEU:HD12	1.95	0.48
9:A:33:G:C6	9:A:34:A:C5	3.02	0.48
10:B:42:A:H2'	10:B:43:G:H8	1.78	0.48
10:B:158:U:C4	10:B:159:G:C5	3.01	0.48
10:B:277:G:N2	10:B:360:U:OP2	2.45	0.48
10:B:518:G:O5'	27:S:18:ARG:NH2	2.47	0.48
10:B:742:A:H2'	10:B:743:A:H8	1.78	0.48
10:B:822:G:C6	10:B:836:G:C6	3.02	0.48
10:B:1019:U:H3	10:B:1142:A:N6	2.09	0.48
10:B:1036:G:C2	10:B:1120:G:C4	3.01	0.48
10:B:1068:G:H21	10:B:1096:A:H5"	1.79	0.48
10:B:1267:U:O2'	10:B:1268:A:P	2.71	0.48
10:B:1491:G:O2'	11:C:99:GLU:OE1	2.31	0.48
10:B:1650:A:C4	10:B:1651:G:C8	3.02	0.48
10:B:1652:A:C6	10:B:1653:G:C2	3.02	0.48
10:B:1781:U:C3'	10:B:1782:U:H5'	2.43	0.48
10:B:1890:A:H2'	10:B:1891:G:C8	2.48	0.48
10:B:2277:G:N2	10:B:2278:A:H1'	2.29	0.48
10:B:2728:U:OP1	19:K:69:ARG:NH1	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2737:G:H2'	10:B:2738:A:H8	1.78	0.48
17:I:102:ARG:HD3	17:I:105:LEU:HD12	1.95	0.48
22:N:21:PHE:CZ	22:N:40:LYS:HG2	2.48	0.48
25:Q:64:ILE:HD13	25:Q:95:ALA:HB3	1.95	0.48
32:X:26:ARG:NH1	32:X:28:PHE:CE1	2.82	0.48
33:Y:23:ARG:HD2	33:Y:27:ASN:HB2	1.94	0.48
1:0:54:ILE:HD13	22:N:112:TYR:CD2	2.49	0.48
3:2:18:PHE:HB3	10:B:126:A:OP1	2.13	0.48
4:3:18:LYS:HE2	10:B:651:G:OP1	2.14	0.48
6:5:1:MET:SD	6:5:5:THR:HB	2.54	0.48
7:6:375:GLN:CD	7:6:378:ARG:HH12	2.21	0.48
9:A:57:A:C4	14:F:25:MET:HB3	2.47	0.48
10:B:7:G:H2'	10:B:8:C:C6	2.49	0.48
10:B:164:C:N4	10:B:165:A:C4	2.82	0.48
10:B:259:G:H2'	10:B:260:G:C8	2.49	0.48
10:B:442:G:N2	13:E:43:THR:OG1	2.45	0.48
10:B:459:U:H2'	10:B:460:A:C8	2.46	0.48
10:B:585:G:C5	10:B:1251:C:C4	3.02	0.48
10:B:585:G:H5"	10:B:586:A:OP2	2.14	0.48
10:B:844:A:N3	10:B:845:A:C2	2.82	0.48
10:B:988:A:P	34:Z:11:SER:HB2	2.53	0.48
10:B:1026:G:C4	10:B:1134:A:C6	3.02	0.48
10:B:1036:G:C6	10:B:1120:G:C5	3.02	0.48
10:B:1179:G:C6	10:B:1180:U:C4	3.01	0.48
10:B:1184:U:H2'	10:B:1185:G:H8	1.79	0.48
10:B:1218:G:C6	10:B:1219:U:N3	2.81	0.48
10:B:1279:G:C2	10:B:1280:G:C4	3.02	0.48
10:B:1280:G:N1	10:B:1291:C:N3	2.62	0.48
10:B:1316:U:H2'	10:B:1317:G:H8	1.79	0.48
10:B:1401:G:H2'	10:B:1402:U:O4'	2.14	0.48
10:B:1632:A:N1	10:B:1633:G:C6	2.82	0.48
10:B:1809:A:N7	10:B:1810:A:C5	2.82	0.48
10:B:2287:A:N7	10:B:2289:G:C4	2.81	0.48
10:B:2317:A:H3'	10:B:2318:G:C8	2.45	0.48
10:B:2363:G:N2	10:B:2364:C:C2	2.82	0.48
10:B:2392:A:H2'	10:B:2393:U:O4'	2.13	0.48
10:B:2466:C:C2	10:B:2467:C:H5	2.30	0.48
10:B:2867:G:C6	24:P:20:ARG:NH2	2.81	0.48
11:C:239:PHE:CE2	11:C:241:LYS:HD3	2.49	0.48
11:C:250:GLN:NE2	11:C:252:LYS:H	2.10	0.48
14:F:43:ILE:HA	14:F:77:LYS:NZ	2.21	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:M:66:ARG:CZ	21:M:104:GLU:OE2	2.62	0.48
23:O:18:LEU:HD22	23:O:91:SER:HB2	1.94	0.48
25:Q:78:PHE:HE2	25:Q:82:LEU:HD11	1.77	0.48
25:Q:87:VAL:O	25:Q:89:ILE:N	2.47	0.48
31:W:21:GLY:N	31:W:33:GLY:O	2.47	0.48
2:1:43:ARG:CZ	10:B:643:A:C4	2.96	0.48
3:2:43:THR:O	3:2:45:SER:N	2.39	0.48
5:4:31:PRO:O	5:4:34:LYS:HG3	2.14	0.48
8:7:1:MET:HE1	8:7:57:ASN:CG	2.39	0.48
8:7:29:ASP:HA	8:7:107:GLU:HG3	1.95	0.48
10:B:77:G:C5	10:B:110:G:C2	3.02	0.48
10:B:122:G:H1	10:B:129:C:N4	2.05	0.48
10:B:221:A:C5	10:B:266:G:C8	3.01	0.48
10:B:250:G:H5'	10:B:251:A:OP2	2.12	0.48
10:B:460:A:C6	10:B:470:A:C8	3.02	0.48
10:B:528:A:C6	10:B:2042:A:C4	3.01	0.48
10:B:535:G:C6	10:B:559:G:C6	3.02	0.48
10:B:670:A:O2'	10:B:671:C:OP2	2.23	0.48
10:B:692:C:C2	10:B:771:G:C2	3.01	0.48
10:B:874:G:C6	10:B:904:G:C6	3.01	0.48
10:B:1162:G:C4	10:B:1163:G:C8	3.02	0.48
10:B:1241:A:C6	10:B:1242:U:C2	3.02	0.48
10:B:1341:G:H2'	10:B:1397:U:O2	2.14	0.48
10:B:1627:G:C2	10:B:1628:G:C8	3.02	0.48
10:B:1739:A:H2'	10:B:1740:G:O4'	2.13	0.48
10:B:1839:G:C4	10:B:1927:A:C8	3.01	0.48
10:B:1930:G:N2	10:B:1969:A:OP2	2.40	0.48
10:B:1993:U:C4	10:B:1994:C:C2	3.02	0.48
10:B:2425:A:H4'	10:B:2426:A:C5'	2.44	0.48
10:B:2488:G:H2'	10:B:2489:U:H6	1.79	0.48
10:B:2494:G:H2'	10:B:2495:G:C8	2.48	0.48
10:B:2532:G:O2'	10:B:2657:A:N1	2.46	0.48
10:B:2557:G:C2	10:B:2558:C:C2	3.02	0.48
10:B:2702:G:C5	10:B:2703:C:C5	3.01	0.48
10:B:2840:C:C2	10:B:2841:C:C5	3.02	0.48
11:C:86:ARG:HB3	11:C:88:ALA:H	1.78	0.48
13:E:112:LEU:HB3	13:E:118:LEU:HB2	1.95	0.48
15:G:8:VAL:HG23	15:G:51:PHE:HE2	1.79	0.48
15:G:148:ARG:HH11	15:G:153:PRO:HD3	1.79	0.48
18:J:13:ARG:HH22	18:J:49:ASP:CB	2.26	0.48
19:K:20:CYS:HA	19:K:40:ILE:HD13	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:M:50:ARG:HH12	21:M:51:ARG:HD2	1.78	0.48
23:O:90:VAL:HG23	23:O:91:SER:O	2.14	0.48
24:P:36:LYS:HZ1	24:P:38:ARG:HD3	1.78	0.48
25:Q:78:PHE:CE1	25:Q:109:VAL:HG22	2.45	0.48
25:Q:81:GLY:HA3	25:Q:112:ALA:HB1	1.94	0.48
26:R:33:VAL:O	26:R:61:ALA:N	2.46	0.48
26:R:51:VAL:HG13	26:R:54:VAL:HG22	1.96	0.48
1:0:14:MET:HB3	10:B:2045:C:O3'	2.13	0.48
6:5:18:THR:HG21	6:5:213:SER:HB3	1.95	0.48
7:6:357:LEU:O	7:6:360:ARG:N	2.46	0.48
8:7:113:PHE:CB	8:7:126:LEU:HB2	2.44	0.48
9:A:74:U:H2'	9:A:75:G:C8	2.49	0.48
9:A:78:A:H2'	9:A:79:G:O4'	2.14	0.48
9:A:84:G:C2	9:A:85:G:C5	3.02	0.48
10:B:190:A:OP2	10:B:205:G:N2	2.47	0.48
10:B:203:A:C8	10:B:204:A:C8	3.02	0.48
10:B:222:A:C6	10:B:224:U:N3	2.82	0.48
10:B:585:G:N7	25:Q:5:ARG:NH1	2.61	0.48
10:B:599:A:H2'	10:B:600:G:H8	1.79	0.48
10:B:636:G:H3'	20:L:128:THR:HG21	1.96	0.48
10:B:718:A:H3'	10:B:719:C:H6	1.79	0.48
10:B:805:G:N2	10:B:2068:U:P	2.87	0.48
10:B:918:A:H5"	10:B:919:U:OP2	2.14	0.48
10:B:993:G:C6	10:B:1162:G:C6	3.01	0.48
10:B:997:G:H2'	10:B:998:C:H6	1.79	0.48
10:B:1099:G:C6	10:B:1100:C:C4	3.02	0.48
10:B:1177:G:H8	10:B:1177:G:P	2.37	0.48
10:B:1303:G:N1	10:B:1304:A:C5	2.82	0.48
10:B:1449:G:C4	10:B:1450:G:C8	3.02	0.48
10:B:1639:C:C2'	10:B:1640:A:H5"	2.41	0.48
10:B:1824:G:O5'	11:C:51:ARG:NH2	2.46	0.48
10:B:1880:U:H2'	10:B:1881:C:C6	2.49	0.48
10:B:2082:A:H2'	10:B:2083:G:O4'	2.13	0.48
10:B:2093:G:C5	10:B:2225:A:C4	3.01	0.48
10:B:2110:G:H4'	10:B:2111:U:OP2	2.14	0.48
10:B:2241:A:H2	10:B:2242:G:N1	2.11	0.48
10:B:2269:G:N2	10:B:2270:A:C4	2.81	0.48
10:B:2353:G:C6	10:B:2365:G:C2	3.02	0.48
10:B:2437:G:C5	10:B:2438:U:H5	2.32	0.48
10:B:2535:G:C5	10:B:2536:G:C5	3.01	0.48
10:B:2617:U:H2'	10:B:2618:G:C8	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2679:A:H4'	12:D:194:PRO:HB3	1.96	0.48
10:B:2748:A:C5	10:B:2753:A:N6	2.82	0.48
10:B:2816:G:O2'	10:B:2817:U:H5'	2.14	0.48
14:F:34:THR:CG2	14:F:88:VAL:H	2.26	0.48
14:F:95:MET:HB2	14:F:96:TRP:CE3	2.48	0.48
16:H:79:THR:HG23	16:H:145:ASN:OD1	2.14	0.48
17:I:15:GLY:H	17:I:45:THR:CG2	2.25	0.48
17:I:75:ALA:HA	17:I:78:LEU:HD12	1.96	0.48
20:L:91:ASP:OD1	20:L:123:ARG:HG2	2.14	0.48
27:S:47:VAL:HA	27:S:50:VAL:HB	1.96	0.48
28:T:36:LYS:C	28:T:81:LYS:NZ	2.70	0.48
31:W:30:VAL:HG22	31:W:61:LYS:HA	1.95	0.48
31:W:49:ASN:CB	31:W:61:LYS:HG2	2.41	0.48
1:0:32:THR:OG1	1:0:33:SER:N	2.45	0.48
6:5:37:LYS:HG2	10:B:2128:G:O5'	2.14	0.48
7:6:11:ALA:H	7:6:42:LEU:HG	1.79	0.48
7:6:332:ASP:OD2	7:6:338:ASN:HA	2.13	0.48
10:B:21:A:C6	10:B:520:G:C6	3.01	0.48
10:B:244:A:H62	10:B:254:G:N2	2.04	0.48
10:B:279:A:O5'	10:B:279:A:H8	1.97	0.48
10:B:299:A:C5	10:B:300:A:C6	3.01	0.48
10:B:478:A:C6	10:B:480:A:C5	3.02	0.48
10:B:531:C:C5	10:B:2035:G:C2	3.02	0.48
10:B:535:G:C5	10:B:536:G:N7	2.82	0.48
10:B:570:G:C2	10:B:2030:A:C4	3.02	0.48
10:B:951:C:H5"	10:B:952:G:OP2	2.14	0.48
10:B:1245:G:H2'	10:B:1246:A:C8	2.46	0.48
10:B:1286:A:H5"	22:N:104:ALA:HB3	1.96	0.48
10:B:1627:G:N3	10:B:1628:G:C8	2.82	0.48
10:B:1721:G:C2	10:B:1738:G:C4	3.02	0.48
10:B:1833:C:C4	10:B:1834:U:C4	3.02	0.48
10:B:2351:G:H1'	10:B:2366:A:H61	1.79	0.48
10:B:2351:G:HO2'	10:B:2352:A:P	2.37	0.48
10:B:2463:C:C2	10:B:2488:G:C2	3.02	0.48
10:B:2472:G:C8	10:B:2475:C:N4	2.82	0.48
10:B:2595:G:C2	10:B:2599:G:C5	3.01	0.48
10:B:2640:G:N1	10:B:2641:G:C5	2.81	0.48
11:C:73:ILE:HD13	11:C:97:ASP:HB3	1.96	0.48
11:C:105:ALA:N	11:C:106:PRO:HD3	2.27	0.48
12:D:13:ARG:NH2	24:P:74:GLN:NE2	2.62	0.48
15:G:27:GLY:HA3	15:G:78:VAL:HB	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:J:31:GLU:HG3	18:J:142:ILE:HG21	1.95	0.48
19:K:37:ILE:HG22	19:K:60:VAL:HG12	1.96	0.48
20:L:78:ARG:HA	20:L:113:ALA:HB3	1.95	0.48
22:N:39:PRO:O	22:N:41:ALA:N	2.45	0.48
23:O:62:LEU:HB3	23:O:64:TYR:H	1.79	0.48
25:Q:96:ASP:CG	26:R:13:ARG:NH1	2.71	0.48
26:R:30:GLY:N	26:R:63:VAL:HG13	2.28	0.48
27:S:69:LEU:HB3	27:S:107:VAL:HG11	1.96	0.48
28:T:44:LYS:HG3	28:T:55:VAL:HG11	1.96	0.48
2:1:38:PHE:HB2	2:1:45:HIS:CE1	2.49	0.47
10:B:38:A:C2	10:B:39:G:C4	3.02	0.47
10:B:46:G:C6	10:B:47:C:C4	3.02	0.47
10:B:132:G:C5	10:B:133:U:C4	3.02	0.47
10:B:190:A:C2	10:B:191:A:C4	3.02	0.47
10:B:347:A:H2'	10:B:348:A:C8	2.49	0.47
10:B:364:C:H2'	10:B:365:U:C6	2.49	0.47
10:B:495:G:H1'	27:S:57:ASN:ND2	2.29	0.47
10:B:535:G:O4'	25:Q:48:ASP:OD2	2.32	0.47
10:B:585:G:C6	10:B:1251:C:C2	3.02	0.47
10:B:628:G:N1	10:B:629:G:C5	2.82	0.47
10:B:728:G:O2'	10:B:763:G:OP2	2.31	0.47
10:B:802:A:H2'	10:B:802:A:N3	2.28	0.47
10:B:1005:C:C4	10:B:1143:A:C4	3.02	0.47
10:B:1192:G:C2	10:B:1193:G:C8	3.01	0.47
10:B:1360:G:C2	10:B:1361:G:H1'	2.49	0.47
10:B:1601:G:C6	10:B:1602:U:N3	2.82	0.47
10:B:1707:G:C6	10:B:1708:C:C2	3.02	0.47
10:B:1845:G:N1	10:B:1895:C:O2	2.42	0.47
10:B:1860:G:N1	10:B:1861:G:C5	2.82	0.47
10:B:1913:A:N6	10:B:1916:A:H62	2.12	0.47
10:B:2009:A:C4	10:B:2010:G:N7	2.82	0.47
10:B:2104:C:H2'	10:B:2105:U:H6	1.78	0.47
10:B:2126:A:H1'	10:B:2162:G:C5	2.49	0.47
10:B:2293:G:C2	10:B:2294:G:C5	3.02	0.47
10:B:2340:A:H2'	10:B:2341:G:H8	1.79	0.47
10:B:2359:C:H2'	10:B:2360:G:H8	1.79	0.47
10:B:2494:G:C4	10:B:2495:G:C8	3.02	0.47
10:B:2517:C:C2	10:B:2542:A:N7	2.82	0.47
10:B:2543:G:C4	10:B:2544:G:C8	3.01	0.47
10:B:2564:A:H62	10:B:2565:A:N6	2.12	0.47
10:B:2607:G:N1	10:B:2608:G:C6	2.82	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2623:G:H2'	10:B:2624:G:C8	2.49	0.47
10:B:2655:G:O2'	10:B:2656:U:P	2.71	0.47
10:B:2660:A:H2'	10:B:2661:G:H8	1.79	0.47
10:B:2687:U:O4	10:B:2688:G:N1	2.47	0.47
10:B:2769:U:C4	10:B:2770:G:C5	3.02	0.47
10:B:2824:C:C4	10:B:2825:G:C5	3.02	0.47
11:C:142:ASN:HA	11:C:153:LEU:O	2.13	0.47
13:E:188:MET:SD	13:E:193:VAL:HG22	2.55	0.47
15:G:134:GLY:N	15:G:140:ILE:HD12	2.28	0.47
16:H:48:GLU:O	16:H:51:ARG:HG2	2.14	0.47
16:H:84:ALA:HB1	16:H:148:ALA:HA	1.96	0.47
22:N:60:VAL:O	22:N:64:ARG:HG2	2.14	0.47
23:O:100:HIS:N	23:O:104:GLN:HB2	2.29	0.47
25:Q:91:ARG:NH1	26:R:11:GLN:HG3	2.28	0.47
25:Q:101:ASP:OD2	26:R:2:TYR:CZ	2.67	0.47
26:R:62:GLU:CD	26:R:97:LYS:HB3	2.39	0.47
27:S:31:GLN:HB2	27:S:34:ASP:HB2	1.96	0.47
28:T:21:SER:O	28:T:25:GLU:HG3	2.14	0.47
6:5:43:ASP:OD1	6:5:215:SER:HB3	2.14	0.47
7:6:209:GLY:N	35:6:527:GNP:O1B	2.47	0.47
7:6:332:ASP:CG	7:6:338:ASN:HA	2.39	0.47
7:6:364:GLU:CG	7:6:408:ILE:HD11	2.43	0.47
9:A:58:A:H2'	9:A:59:A:O4'	2.15	0.47
9:A:85:G:H1	9:A:91:C:N4	2.12	0.47
9:A:102:G:H2'	9:A:103:U:C6	2.50	0.47
10:B:111:A:C6	10:B:112:U:C4	3.02	0.47
10:B:372:G:N7	32:X:56:ARG:NH2	2.61	0.47
10:B:545:U:H3'	10:B:547:A:OP2	2.14	0.47
10:B:637:A:C2	10:B:652:U:H5"	2.49	0.47
10:B:649:G:C5	10:B:650:C:C4	3.01	0.47
10:B:749:A:H4'	10:B:1271:G:H21	1.77	0.47
10:B:886:A:O2'	10:B:887:U:H3'	2.14	0.47
10:B:1078:U:O2'	10:B:1088:A:H5"	2.15	0.47
10:B:1258:U:H2'	10:B:1259:G:H8	1.79	0.47
10:B:1347:A:C6	10:B:1348:C:N3	2.82	0.47
10:B:1368:G:N3	10:B:1369:G:C8	2.82	0.47
10:B:1502:A:C4	10:B:1503:A:C8	3.01	0.47
10:B:1672:A:C6	10:B:1673:G:C6	3.02	0.47
10:B:1676:A:C5	10:B:1677:A:C5	3.02	0.47
10:B:1707:G:C6	10:B:1708:C:N3	2.82	0.47
10:B:1823:G:H2'	10:B:1824:G:H8	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1880:U:H2'	10:B:1881:C:H6	1.78	0.47
10:B:2106:U:N3	10:B:2107:G:C5	2.82	0.47
10:B:2136:G:H22	10:B:2155:U:H3	1.62	0.47
10:B:2149:U:H2'	10:B:2150:C:H6	1.79	0.47
10:B:2258:C:OP1	31:W:10:ARG:NH1	2.48	0.47
10:B:2358:A:C6	10:B:2359:C:C4	3.02	0.47
10:B:2796:U:C4	10:B:2798:U:N3	2.82	0.47
10:B:2816:G:C4	10:B:2817:U:C5	3.02	0.47
10:B:2849:U:H4'	10:B:2868:A:C4	2.48	0.47
10:B:2852:G:H5'	22:N:64:ARG:HH22	1.78	0.47
13:E:31:VAL:HG11	13:E:104:ALA:CB	2.45	0.47
14:F:37:MET:HB2	14:F:86:CYS:N	2.29	0.47
14:F:37:MET:HB2	14:F:85:GLY:CA	2.44	0.47
14:F:121:PHE:HE1	14:F:127:TYR:CZ	2.32	0.47
18:J:26:GLY:O	18:J:29:ALA:N	2.47	0.47
22:N:90:ARG:NH2	22:N:117:ASP:OD1	2.47	0.47
23:O:40:ILE:HG22	23:O:47:VAL:HG22	1.96	0.47
24:P:90:ALA:HB3	24:P:110:LYS:N	2.26	0.47
26:R:14:VAL:HA	26:R:18:GLN:NE2	2.30	0.47
26:R:24:LYS:HA	26:R:94:THR:OG1	2.14	0.47
26:R:77:PHE:CG	26:R:78:ARG:N	2.82	0.47
1:0:42:ILE:C	1:0:44:ALA:H	2.22	0.47
4:3:53:ASP:OD2	10:B:2359:C:H4'	2.15	0.47
6:5:62:ALA:HA	6:5:161:VAL:O	2.14	0.47
6:5:65:LEU:N	6:5:159:GLY:O	2.44	0.47
8:7:45:GLY:O	8:7:49:GLY:N	2.48	0.47
9:A:68:C:N3	9:A:69:G:C5	2.82	0.47
10:B:18:U:C2	10:B:19:A:C8	3.02	0.47
10:B:47:C:N4	10:B:178:G:H1	2.11	0.47
10:B:55:G:H2'	10:B:56:A:C8	2.49	0.47
10:B:217:A:N6	10:B:218:A:C2	2.82	0.47
10:B:256:A:H2'	10:B:257:C:C6	2.50	0.47
10:B:458:G:N2	10:B:470:A:OP2	2.44	0.47
10:B:536:G:H21	18:J:47:HIS:CG	2.32	0.47
10:B:559:G:N2	25:Q:48:ASP:OD1	2.48	0.47
10:B:600:G:H2'	10:B:601:C:C6	2.49	0.47
10:B:635:C:O2	10:B:639:U:H4'	2.15	0.47
10:B:708:G:H2'	10:B:709:U:C6	2.49	0.47
10:B:858:G:C4	10:B:2268:A:C2	3.03	0.47
10:B:882:G:C2	10:B:883:G:H1'	2.49	0.47
10:B:941:A:H2'	10:B:942:G:C8	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:973:A:P	26:R:81:LYS:NZ	2.88	0.47
10:B:1138:G:O2'	18:J:108:MET:HG3	2.14	0.47
10:B:1157:G:C6	10:B:1158:C:C4	3.02	0.47
10:B:1189:A:N7	10:B:1190:G:C8	2.82	0.47
10:B:1218:G:C6	10:B:1219:U:C4	3.03	0.47
10:B:1606:C:H5"	10:B:1607:C:OP1	2.13	0.47
10:B:1750:G:C5	10:B:1751:U:C4	3.03	0.47
10:B:1797:G:O3'	11:C:256:THR:OG1	2.32	0.47
10:B:1862:G:C4	10:B:1863:G:C8	3.02	0.47
10:B:1965:C:OP1	10:B:1966:A:O2'	2.30	0.47
10:B:2135:A:H2'	10:B:2136:G:C8	2.49	0.47
10:B:2156:G:H5"	10:B:2157:G:OP1	2.15	0.47
10:B:2461:A:C6	10:B:2490:G:N2	2.82	0.47
11:C:119:VAL:HG21	16:H:122:LEU:HD11	1.97	0.47
11:C:179:GLU:OE2	11:C:269:ARG:NH1	2.47	0.47
12:D:65:ALA:O	12:D:69:ALA:N	2.48	0.47
20:L:77:ILE:HD11	20:L:110:VAL:HG13	1.95	0.47
25:Q:108:LEU:N	26:R:48:LYS:HE3	2.30	0.47
27:S:66:ILE:C	27:S:68:ASP:N	2.72	0.47
31:W:30:VAL:O	31:W:30:VAL:HG12	2.15	0.47
31:W:31:LEU:N	31:W:60:ALA:HB3	2.29	0.47
1:0:37:HIS:CE1	1:0:39:ARG:HA	2.49	0.47
4:3:38:LYS:HG3	4:3:41:ARG:NH2	2.29	0.47
4:3:50:SER:HB3	10:B:2360:G:OP1	2.14	0.47
7:6:84:LEU:HD13	7:6:88:GLN:HB2	1.95	0.47
7:6:327:PRO:HB3	7:6:349:GLY:HA2	1.97	0.47
7:6:370:LEU:HA	7:6:424:TYR:CD2	2.49	0.47
8:7:56:ARG:HB3	10:B:1106:G:H4'	1.97	0.47
9:A:87:U:O2'	9:A:88:C:H4'	2.14	0.47
10:B:149:A:C6	10:B:150:U:C4	3.03	0.47
10:B:202:U:C5	10:B:203:A:C4	3.02	0.47
10:B:265:A:H2'	10:B:266:G:C4'	2.44	0.47
10:B:445:C:C5	10:B:446:G:C5	3.03	0.47
10:B:455:C:N4	10:B:472:A:C5	2.82	0.47
10:B:475:C:H1'	10:B:509:C:C2	2.48	0.47
10:B:519:U:H5"	27:S:25:ARG:NH2	2.29	0.47
10:B:524:G:C5	10:B:525:U:C5	3.02	0.47
10:B:554:U:C4	10:B:555:G:N7	2.82	0.47
10:B:725:G:C2	10:B:726:G:N2	2.82	0.47
10:B:750:A:H5"	10:B:751:A:OP2	2.15	0.47
10:B:866:A:N7	10:B:867:C:C4	2.82	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:874:G:C2	10:B:904:G:C4	3.03	0.47
10:B:915:C:N4	10:B:916:G:C6	2.81	0.47
10:B:962:G:C2	10:B:963:U:C2	3.03	0.47
10:B:1057:A:H2'	10:B:1058:U:H5	1.79	0.47
10:B:1078:U:H5"	17:I:133:ARG:HH22	1.78	0.47
10:B:1093:G:C2	10:B:1094:U:C6	3.02	0.47
10:B:1205:A:C6	13:E:165:HIS:CD2	3.02	0.47
10:B:1216:G:C2	10:B:1217:U:C2	3.02	0.47
10:B:1321:A:O2'	10:B:1322:A:OP1	2.23	0.47
10:B:1480:C:C4	10:B:1481:U:C4	3.02	0.47
10:B:1804:C:C4	10:B:1805:A:N7	2.82	0.47
10:B:1823:G:N3	10:B:1824:G:C8	2.82	0.47
10:B:2256:G:C2	10:B:2257:U:C2	3.02	0.47
10:B:2299:U:O4	10:B:2318:G:N2	2.48	0.47
10:B:2470:G:N1	10:B:2471:A:C5	2.82	0.47
10:B:2495:G:C5	10:B:2496:C:C4	3.02	0.47
10:B:2641:G:C2	10:B:2774:C:C2	3.02	0.47
10:B:2657:A:C5	10:B:2665:A:C5	3.02	0.47
10:B:2684:U:H4'	19:K:75:VAL:HG21	1.95	0.47
10:B:2818:U:O5'	10:B:2837:A:O2'	2.32	0.47
11:C:143:VAL:C	11:C:151:GLY:HA2	2.40	0.47
11:C:211:ARG:NH2	11:C:217:PRO:CG	2.77	0.47
12:D:98:VAL:HG21	12:D:182:ALA:HA	1.95	0.47
16:H:32:PRO:HA	32:X:38:TRP:CE2	2.50	0.47
19:K:30:ARG:O	19:K:32:ALA:N	2.47	0.47
19:K:97:ARG:NH2	19:K:119:PRO:HD3	2.29	0.47
21:M:42:THR:H	21:M:45:GLN:NE2	2.12	0.47
5:4:15:LYS:O	5:4:25:VAL:HG23	2.15	0.47
6:5:1:MET:HB3	10:B:2118:U:H1'	1.97	0.47
6:5:129:GLN:HE22	10:B:2170:A:H61	1.61	0.47
7:6:217:ILE:HG23	7:6:218:THR:HG23	1.96	0.47
8:7:78:GLY:H	8:7:82:ILE:HG13	1.79	0.47
9:A:52:A:H8	23:O:33:ARG:NH2	2.12	0.47
9:A:113:C:H2'	9:A:114:C:C6	2.46	0.47
10:B:182:A:C5	10:B:183:C:C4	3.01	0.47
10:B:199:A:N7	10:B:2433:A:N6	2.62	0.47
10:B:222:A:C6	10:B:224:U:C2	3.03	0.47
10:B:296:U:O2'	10:B:297:G:O4'	2.12	0.47
10:B:317:G:C6	10:B:318:C:C4	3.02	0.47
10:B:337:C:OP1	29:U:3:LYS:HD2	2.14	0.47
10:B:487:C:H5"	10:B:488:G:OP2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:585:G:C6	10:B:1251:C:N3	2.82	0.47
10:B:626:A:C2'	20:L:78:ARG:HH21	2.27	0.47
10:B:666:A:N1	10:B:667:U:C4	2.82	0.47
10:B:679:C:C2	10:B:799:G:N2	2.83	0.47
10:B:749:A:C4	10:B:1618:A:C5	3.02	0.47
10:B:886:A:H1'	10:B:889:C:C5	2.49	0.47
10:B:993:G:C5	10:B:994:C:C5	3.02	0.47
10:B:1084:A:N6	10:B:1085:A:C6	2.81	0.47
10:B:1341:G:O2'	10:B:1342:A:H5'	2.13	0.47
10:B:1704:C:H2'	10:B:1705:A:N7	2.29	0.47
10:B:1754:A:C4	10:B:1755:A:C8	3.03	0.47
10:B:1838:C:C4	10:B:1899:A:C2	3.02	0.47
10:B:1885:A:C6	10:B:1886:U:C4	3.03	0.47
10:B:2135:A:C5	10:B:2136:G:C5	3.02	0.47
10:B:2140:G:P	10:B:2140:G:H8	2.38	0.47
10:B:2192:U:C2	10:B:2193:G:C8	3.02	0.47
10:B:2415:G:H2'	10:B:2416:C:H6	1.78	0.47
10:B:2535:G:C5	10:B:2536:G:N7	2.82	0.47
11:C:77:VAL:HA	11:C:93:VAL:HA	1.95	0.47
11:C:144:GLU:CD	11:C:148:GLY:H	2.22	0.47
12:D:52:THR:HG22	12:D:53:GLY:N	2.29	0.47
17:I:73:PRO:HA	17:I:74:PRO:HD3	1.79	0.47
18:J:113:PRO:CA	18:J:116:ARG:NH1	2.77	0.47
21:M:125:PRO:HG2	21:M:126:ILE:HG12	1.97	0.47
22:N:33:ILE:HG22	22:N:114:GLU:CB	2.44	0.47
23:O:62:LEU:HD12	23:O:65:THR:HG22	1.96	0.47
26:R:66:HIS:CE1	26:R:94:THR:HG23	2.49	0.47
27:S:51:LEU:O	27:S:55:ILE:HG13	2.14	0.47
32:X:36:ARG:HD2	32:X:45:PHE:CD2	2.50	0.47
32:X:37:PHE:HB3	32:X:63:ILE:HD11	1.96	0.47
34:Z:43:ILE:O	34:Z:46:MET:HB2	2.15	0.47
3:2:19:ARG:HG2	10:B:126:A:OP1	2.15	0.47
7:6:364:GLU:CD	7:6:408:ILE:CD1	2.81	0.47
9:A:18:G:H1'	9:A:67:G:N2	2.30	0.47
9:A:109:A:H2'	9:A:110:C:O4'	2.15	0.47
10:B:85:G:C6	10:B:86:G:C5	3.03	0.47
10:B:357:C:C4	10:B:358:U:C4	3.03	0.47
10:B:529:A:N6	10:B:2023:C:C2	2.83	0.47
10:B:627:A:H4'	10:B:628:G:H5'	1.96	0.47
10:B:748:G:P	27:S:88:ARG:NH2	2.87	0.47
10:B:855:G:C4	10:B:923:G:C2	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1048:A:N7	10:B:1111:A:N6	2.62	0.47
10:B:1057:A:H2'	10:B:1058:U:C5	2.50	0.47
10:B:1175:A:H5'	10:B:1176:U:H1'	1.96	0.47
10:B:1197:G:H2'	10:B:1198:U:C6	2.50	0.47
10:B:1424:G:C6	10:B:1425:G:C6	3.02	0.47
10:B:1435:G:N3	10:B:1436:G:C8	2.83	0.47
10:B:1748:C:H2'	10:B:1749:A:C8	2.49	0.47
10:B:1799:G:N1	10:B:1819:A:C8	2.82	0.47
10:B:1842:G:H2'	10:B:1843:C:H6	1.80	0.47
10:B:2352:A:C2	10:B:2366:A:N3	2.83	0.47
10:B:2377:A:H2'	10:B:2378:A:H8	1.78	0.47
10:B:2466:C:N4	10:B:2484:G:H1	2.13	0.47
10:B:2538:C:H2'	10:B:2539:C:C6	2.50	0.47
10:B:2552:U:H2'	10:B:2554:U:OP2	2.13	0.47
10:B:2748:A:H1'	15:G:66:THR:OG1	2.14	0.47
11:C:239:PHE:HE2	11:C:241:LYS:HB2	1.79	0.47
13:E:16:GLU:O	13:E:20:GLY:N	2.44	0.47
14:F:30:VAL:HA	14:F:157:THR:HG23	1.96	0.47
15:G:55:ASP:H	15:G:57:TYR:HE2	1.63	0.47
16:H:31:VAL:HG12	16:H:32:PRO:N	2.29	0.47
19:K:87:ASN:HB3	19:K:89:ASN:OD1	2.15	0.47
20:L:71:ALA:HA	20:L:74:THR:HB	1.96	0.47
25:Q:96:ASP:OD2	26:R:13:ARG:NH1	2.47	0.47
27:S:42:LYS:O	27:S:45:VAL:HG22	2.15	0.47
30:V:51:GLN:NE2	30:V:77:VAL:HG11	2.29	0.47
31:W:19:ARG:HB2	31:W:21:GLY:H	1.80	0.47
2:1:38:PHE:HB2	2:1:45:HIS:NE2	2.29	0.47
6:5:10:VAL:HA	6:5:13:GLU:HB2	1.97	0.47
6:5:27:ILE:HD11	6:5:234:ASN:HA	1.97	0.47
7:6:50:LYS:HE3	7:6:59:GLY:N	2.29	0.47
7:6:317:ASN:OD1	7:6:344:ALA:N	2.47	0.47
7:6:364:GLU:CG	7:6:408:ILE:HG13	2.27	0.47
7:6:375:GLN:CG	7:6:378:ARG:HH12	2.28	0.47
8:7:95:LEU:HD23	8:7:98:GLU:HG3	1.97	0.47
9:A:41:G:O6	14:F:68:LYS:NZ	2.41	0.47
10:B:138:U:H2'	10:B:140:C:C4	2.50	0.47
10:B:257:C:C2	10:B:258:G:C8	3.02	0.47
10:B:313:G:N2	10:B:314:C:H1'	2.29	0.47
10:B:325:G:C2	10:B:326:G:C8	3.02	0.47
10:B:399:U:H2'	10:B:400:G:O4'	2.15	0.47
10:B:407:G:N1	10:B:421:C:N3	2.62	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:451:U:P	13:E:47:LYS:HZ2	2.36	0.47
10:B:455:C:C4	10:B:472:A:C4	3.03	0.47
10:B:500:G:H22	10:B:502:A:H3'	1.79	0.47
10:B:597:G:H2'	10:B:598:U:C6	2.49	0.47
10:B:639:U:N3	10:B:640:C:C4	2.83	0.47
10:B:647:G:C6	10:B:648:G:C5	3.03	0.47
10:B:677:A:N7	10:B:678:C:H5	2.13	0.47
10:B:729:G:C5'	11:C:206:LYS:HZ2	2.28	0.47
10:B:753:A:C6	10:B:754:U:C4	3.03	0.47
10:B:775:G:OP1	10:B:777:G:O2'	2.21	0.47
10:B:797:G:C2	10:B:798:G:C4	3.02	0.47
10:B:805:G:C2	10:B:2068:U:P	3.07	0.47
10:B:813:U:C4	10:B:1195:G:N1	2.82	0.47
10:B:825:A:C6	10:B:826:U:N3	2.83	0.47
10:B:842:U:H2'	10:B:843:G:C8	2.49	0.47
10:B:861:A:C8	10:B:862:G:C8	3.02	0.47
10:B:861:A:N6	10:B:862:G:C2	2.83	0.47
10:B:981:A:C6	10:B:2028:U:H4'	2.50	0.47
10:B:1098:A:C2	17:I:5:GLN:HB3	2.50	0.47
10:B:1131:G:C6	18:J:77:HIS:NE2	2.83	0.47
10:B:1265:A:C8	10:B:1267:U:C4	3.02	0.47
10:B:1265:A:C8	10:B:1267:U:C2	3.03	0.47
10:B:1339:G:N2	10:B:1340:U:O4	2.47	0.47
10:B:1403:A:H2'	10:B:1404:C:O4'	2.14	0.47
10:B:1426:G:H2'	10:B:1572:A:H61	1.80	0.47
10:B:1477:A:C6	10:B:1515:A:C8	3.03	0.47
10:B:1478:G:C5	10:B:1479:G:N7	2.83	0.47
10:B:1588:G:C6	10:B:1589:U:C4	3.03	0.47
10:B:1650:A:C6	10:B:1651:G:C5	3.01	0.47
10:B:1707:G:N1	10:B:1708:C:C2	2.83	0.47
10:B:1719:G:C6	10:B:1720:U:C4	3.02	0.47
10:B:1764:C:O2'	10:B:1765:U:H5'	2.15	0.47
10:B:1774:C:C6	10:B:1775:U:H5	2.33	0.47
10:B:1949:G:C6	10:B:1958:C:N3	2.82	0.47
10:B:2010:G:H2'	10:B:2011:U:O4'	2.14	0.47
10:B:2011:U:H2'	10:B:2012:G:O4'	2.13	0.47
10:B:2011:U:P	27:S:42:LYS:NZ	2.88	0.47
10:B:2137:U:N3	10:B:2138:G:N7	2.63	0.47
10:B:2227:A:H2'	10:B:2228:G:O4'	2.15	0.47
10:B:2307:G:C2	10:B:2311:A:N6	2.83	0.47
10:B:2359:C:N3	10:B:2360:G:C5	2.83	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2531:A:H4'	15:G:175:LYS:HZ2	1.78	0.47
10:B:2642:G:H1	10:B:2772:C:N4	2.11	0.47
10:B:2798:U:H1'	10:B:2800:A:C4	2.49	0.47
10:B:2811:G:H2'	10:B:2812:G:C8	2.43	0.47
10:B:2871:U:P	22:N:69:ARG:HH22	2.38	0.47
11:C:1:ALA:O	11:C:18:VAL:HA	2.15	0.47
11:C:132:ARG:CZ	16:H:121:VAL:HA	2.44	0.47
11:C:211:ARG:HH21	11:C:217:PRO:CG	2.26	0.47
12:D:13:ARG:HH12	12:D:15:PHE:HZ	1.63	0.47
12:D:38:LYS:NZ	12:D:45:TYR:OH	2.45	0.47
13:E:188:MET:HG3	13:E:192:ALA:HB3	1.97	0.47
13:E:195:GLN:HA	13:E:198:GLU:OE1	2.14	0.47
14:F:122:ASP:CG	14:F:126:ASN:HB2	2.40	0.47
19:K:69:ARG:HD2	19:K:75:VAL:HG22	1.97	0.47
20:L:132:ARG:HE	20:L:143:GLU:CD	2.22	0.47
21:M:18:ARG:HG2	21:M:97:GLN:HE21	1.80	0.47
23:O:16:ARG:O	23:O:19:GLN:N	2.47	0.47
24:P:51:ASN:ND2	24:P:56:SER:HB2	2.29	0.47
30:V:43:ASP:OD1	30:V:45:ASP:N	2.48	0.47
33:Y:25:GLN:O	33:Y:29:ARG:NH1	2.47	0.47
1:0:21:LEU:HD11	27:S:41:LYS:NZ	2.27	0.47
7:6:295:ILE:HG22	7:6:299:ASN:ND2	2.28	0.47
9:A:44:G:H5'	9:A:46:A:N6	2.30	0.47
10:B:26:G:C6	10:B:27:G:N1	2.83	0.47
10:B:533:G:H4'	25:Q:23:TYR:HE2	1.79	0.47
10:B:564:C:C2	10:B:565:C:C5	3.03	0.47
10:B:643:A:C6	10:B:644:A:C5	3.03	0.47
10:B:697:G:C5	10:B:698:C:C4	3.03	0.47
10:B:784:G:O4'	11:C:225:ASN:ND2	2.47	0.47
10:B:1079:C:H2'	10:B:1080:A:C8	2.50	0.47
10:B:1111:A:N3	10:B:1112:G:H1'	2.28	0.47
10:B:1128:G:N3	10:B:2516:A:O2'	2.48	0.47
10:B:1132:U:O2'	10:B:1133:A:O5'	2.28	0.47
10:B:1193:G:C4	10:B:1194:A:C8	3.02	0.47
10:B:1366:A:C6	10:B:1367:A:C4	3.03	0.47
10:B:1707:G:C4	10:B:1756:G:C2	3.03	0.47
10:B:1716:U:H2'	10:B:1717:A:C8	2.47	0.47
10:B:1865:U:O2'	10:B:1875:G:N2	2.32	0.47
10:B:1873:G:N1	10:B:1874:C:C2	2.83	0.47
10:B:1947:C:H2'	10:B:1948:G:C8	2.50	0.47
10:B:2011:U:OP1	27:S:42:LYS:NZ	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2076:U:O2	10:B:2076:U:H3'	2.15	0.47
10:B:2184:A:C6	10:B:2185:U:C2	3.02	0.47
10:B:2198:A:O2'	10:B:2224:G:N2	2.44	0.47
10:B:2320:U:N3	10:B:2333:A:N1	2.63	0.47
10:B:2360:G:C2	10:B:2428:G:C2	3.03	0.47
10:B:2464:G:C2	10:B:2487:G:C2	3.03	0.47
10:B:2616:C:C2	10:B:2617:U:C6	3.03	0.47
10:B:2863:C:P	24:P:112:ARG:HD2	2.54	0.47
18:J:18:VAL:HG22	18:J:20:ALA:H	1.80	0.47
21:M:52:ALA:O	21:M:56:ALA:N	2.46	0.47
23:O:35:ILE:HG22	23:O:53:THR:CG2	2.44	0.47
24:P:29:VAL:HG22	24:P:40:GLN:O	2.14	0.47
26:R:71:LYS:NZ	26:R:90:ARG:HD2	2.29	0.47
30:V:43:ASP:OD1	30:V:44:HIS:N	2.47	0.47
7:6:210:LYS:H	35:6:527:GNP:PB	2.37	0.47
8:7:3:LEU:HD12	8:7:5:LEU:N	2.30	0.47
9:A:15:A:C4	9:A:109:A:C4	3.03	0.47
9:A:18:G:C4	9:A:67:G:C6	3.03	0.47
9:A:25:U:O2'	9:A:27:C:OP2	2.21	0.47
9:A:82:U:C4	9:A:83:G:N7	2.82	0.47
10:B:23:G:C6	10:B:518:G:C5	3.03	0.47
10:B:190:A:C8	10:B:207:A:N1	2.83	0.47
10:B:191:A:C2	10:B:192:C:C4	3.02	0.47
10:B:195:A:H62	10:B:198:C:P	2.38	0.47
10:B:226:A:C4	10:B:230:G:C6	3.03	0.47
10:B:322:A:O5'	13:E:163:ASN:ND2	2.45	0.47
10:B:332:A:O2'	10:B:335:C:N4	2.48	0.47
10:B:449:A:C5	10:B:450:G:C5	3.03	0.47
10:B:465:G:C6	10:B:466:A:C6	3.03	0.47
10:B:602:A:C6	10:B:656:G:C6	3.03	0.47
10:B:705:A:H2'	10:B:706:A:O4'	2.15	0.47
10:B:746:U:H5'	10:B:748:G:H1'	1.96	0.47
10:B:838:C:H2'	10:B:839:U:C6	2.41	0.47
10:B:897:C:N4	10:B:898:C:N3	2.63	0.47
10:B:1028:A:C2	10:B:1029:A:C5	3.03	0.47
10:B:1031:G:N3	10:B:1124:G:C2	2.83	0.47
10:B:1136:G:H2'	10:B:1137:G:C8	2.50	0.47
10:B:1201:U:H3	10:B:1244:A:H61	1.61	0.47
10:B:1422:G:C4	10:B:1423:G:C8	3.03	0.47
10:B:1562:U:C4	10:B:1563:U:C4	3.03	0.47
10:B:1651:G:C2	10:B:1652:A:C5	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1677:A:C2	10:B:1678:A:C4	3.03	0.47
10:B:1687:G:H21	10:B:1701:A:H62	1.63	0.47
10:B:1912:A:O2'	10:B:1913:A:OP2	2.23	0.47
10:B:1914:C:H2'	10:B:1916:A:C5	2.50	0.47
10:B:1924:C:N3	10:B:1925:C:C4	2.83	0.47
10:B:2023:C:H2'	10:B:2024:G:C8	2.46	0.47
10:B:2350:C:C2	10:B:2351:G:C8	3.03	0.47
10:B:2415:G:C2	10:B:2416:C:C2	3.02	0.47
10:B:2445:G:C4	10:B:2446:G:C8	3.03	0.47
10:B:2747:G:O2'	15:G:66:THR:HG23	2.15	0.47
10:B:2758:A:C6	10:B:2759:G:C5	3.03	0.47
10:B:2847:U:C5	10:B:2848:G:C5	3.03	0.47
10:B:2849:U:N3	10:B:2867:G:H1'	2.30	0.47
11:C:170:TYR:HA	11:C:184:GLU:CA	2.44	0.47
11:C:239:PHE:CD2	11:C:241:LYS:HB2	2.49	0.47
14:F:137:PHE:HB3	14:F:139:GLU:C	2.40	0.47
15:G:70:LEU:O	15:G:74:MET:N	2.44	0.47
15:G:108:PHE:HE2	15:G:151:ARG:NH1	2.13	0.47
16:H:112:LYS:HG2	16:H:131:SER:HA	1.95	0.47
17:I:74:PRO:O	17:I:78:LEU:HG	2.15	0.47
18:J:33:ALA:HA	18:J:36:LEU:HD12	1.97	0.47
19:K:70:ARG:HB3	19:K:74:SER:CB	2.40	0.47
20:L:109:LYS:HZ2	20:L:126:ARG:CB	2.25	0.47
23:O:100:HIS:HA	23:O:104:GLN:OE1	2.15	0.47
25:Q:46:TYR:OH	25:Q:50:ARG:NH2	2.47	0.47
25:Q:109:VAL:O	25:Q:113:LYS:HG3	2.14	0.47
29:U:85:ARG:HA	29:U:91:LYS:CG	2.42	0.47
33:Y:20:ASN:HA	33:Y:24:GLU:HG2	1.96	0.47
2:1:5:ARG:NH1	2:1:25:ASN:CB	2.78	0.47
3:2:3:ARG:NH2	10:B:463:G:O3'	2.48	0.47
6:5:80:GLN:NE2	10:B:2169:A:O2'	2.48	0.47
8:7:146:ALA:HB1	8:7:153:ARG:HD3	1.96	0.47
10:B:204:A:C8	10:B:206:U:N3	2.83	0.47
10:B:583:G:OP1	25:Q:6:GLY:HA2	2.15	0.47
10:B:609:A:H62	10:B:619:G:N2	2.13	0.47
10:B:879:G:H2'	10:B:880:G:O4'	2.15	0.47
10:B:1067:A:H2'	10:B:1068:G:O4'	2.15	0.47
10:B:1153:C:H2'	10:B:1154:G:O4'	2.15	0.47
10:B:1262:A:P	27:S:99:ARG:HH22	2.38	0.47
10:B:1383:A:N7	10:B:1384:A:C5	2.82	0.47
10:B:1385:A:H1'	10:B:1386:C:C6	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1498:C:H2'	10:B:1499:C:O4'	2.15	0.47
10:B:1619:G:N3	10:B:1620:G:C8	2.83	0.47
10:B:2060:A:O2'	10:B:2061:G:P	2.73	0.47
10:B:2279:G:C6	10:B:2280:G:N7	2.82	0.47
10:B:2346:A:C2	10:B:2383:G:C6	3.03	0.47
10:B:2357:G:N2	10:B:2361:G:C5	2.83	0.47
10:B:2445:G:N3	10:B:2446:G:C8	2.83	0.47
10:B:2478:A:C6	10:B:2529:G:C2	3.03	0.47
10:B:2547:A:O4'	10:B:2566:A:C6	2.68	0.47
10:B:2723:C:H2'	10:B:2724:U:C5	2.50	0.47
10:B:2740:A:H8	10:B:2763:G:N2	2.13	0.47
10:B:2764:A:C5	10:B:2766:A:C6	3.03	0.47
10:B:2801:G:C6	10:B:2802:G:C6	3.03	0.47
10:B:2884:U:H2'	10:B:2885:G:H8	1.80	0.47
11:C:107:LYS:CG	11:C:193:GLU:HG3	2.45	0.47
11:C:138:SER:HB2	11:C:163:ILE:HD12	1.97	0.47
12:D:33:ARG:NH2	12:D:73:VAL:CA	2.78	0.47
15:G:53:PRO:HG2	15:G:61:TRP:CZ3	2.50	0.47
15:G:100:ASN:HB2	15:G:115:GLN:HG3	1.97	0.47
16:H:67:ALA:C	16:H:68:ARG:HG2	2.40	0.47
17:I:92:PRO:HB3	17:I:135:MET:C	2.40	0.47
20:L:47:ARG:O	20:L:48:ARG:HB2	2.14	0.47
20:L:74:THR:HG21	20:L:126:ARG:HH22	1.80	0.47
30:V:21:ARG:HH21	30:V:87:GLN:C	2.23	0.47
30:V:50:MET:HA	30:V:53:LYS:HG3	1.97	0.47
31:W:34:SER:O	31:W:36:ILE:HG12	2.15	0.47
6:5:123:VAL:HA	6:5:127:LEU:HD12	1.98	0.46
7:6:184:GLN:NE2	10:B:2479:U:O2	2.47	0.46
7:6:257:ARG:NH2	7:6:258:HIS:HE1	2.12	0.46
7:6:288:ASP:HB3	7:6:290:ARG:H	1.80	0.46
9:A:99:A:H2'	9:A:100:G:C8	2.50	0.46
9:A:100:G:N2	10:B:863:A:H4'	2.29	0.46
10:B:175:G:C6	10:B:176:A:C6	3.02	0.46
10:B:200:U:H5	10:B:201:C:C4	2.33	0.46
10:B:277:G:C6	10:B:360:U:H5	2.34	0.46
10:B:500:G:N2	10:B:502:A:H3'	2.30	0.46
10:B:556:A:H3'	10:B:557:C:H6	1.79	0.46
10:B:709:U:N3	10:B:710:U:C4	2.83	0.46
10:B:819:A:C6	10:B:820:A:C5	3.03	0.46
10:B:895:U:H2'	10:B:897:C:C4	2.50	0.46
10:B:1079:C:O2'	17:I:130:GLY:HA2	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1171:G:C2	10:B:1172:C:C2	3.03	0.46
10:B:1268:A:H62	10:B:2012:G:N2	2.00	0.46
10:B:1354:A:H62	10:B:1377:G:H21	1.61	0.46
10:B:1711:A:H2'	10:B:1712:U:O4'	2.15	0.46
10:B:1717:A:C5	10:B:1718:G:C8	3.04	0.46
10:B:1718:G:C6	10:B:1719:G:C5	3.03	0.46
10:B:1770:G:C5	10:B:1983:G:C6	3.03	0.46
10:B:1815:A:N7	10:B:1817:G:C5	2.83	0.46
10:B:1988:G:H2'	10:B:1989:G:O4'	2.15	0.46
10:B:2094:A:H2'	10:B:2095:A:C8	2.50	0.46
10:B:2272:U:HO2'	10:B:2273:A:H8	1.63	0.46
10:B:2357:G:C2	10:B:2361:G:C5	3.03	0.46
10:B:2454:G:C8	10:B:2455:G:N7	2.83	0.46
10:B:2556:C:H3'	10:B:2557:G:C8	2.51	0.46
10:B:2560:A:C4	10:B:2561:U:C5	3.03	0.46
10:B:2678:C:H2'	10:B:2679:A:H8	1.80	0.46
10:B:2714:G:C2	10:B:2715:C:C2	3.03	0.46
10:B:2835:A:N6	10:B:2878:U:C2	2.83	0.46
10:B:2862:G:H2'	10:B:2863:C:H6	1.79	0.46
10:B:2868:A:C6	10:B:2869:G:C6	3.03	0.46
10:B:2901:C:N3	10:B:2902:C:C4	2.82	0.46
11:C:28:PRO:HG2	11:C:33:LEU:HD11	1.97	0.46
11:C:179:GLU:OE2	11:C:269:ARG:CZ	2.63	0.46
13:E:23:PHE:O	13:E:24:ASN:ND2	2.48	0.46
14:F:54:ALA:HB1	14:F:139:GLU:OE2	2.14	0.46
18:J:8:PRO:O	18:J:11:VAL:HG22	2.15	0.46
19:K:70:ARG:CG	19:K:71:PRO:HD2	2.45	0.46
23:O:49:VAL:HG22	23:O:85:LYS:NZ	2.30	0.46
23:O:76:LYS:HG2	23:O:109:ALA:HB1	1.96	0.46
23:O:94:ARG:HD2	23:O:97:PHE:O	2.14	0.46
23:O:100:HIS:CD2	23:O:101:GLY:H	2.33	0.46
24:P:47:ILE:HG13	24:P:59:THR:HB	1.96	0.46
25:Q:65:ASN:O	25:Q:69:ARG:HG2	2.15	0.46
27:S:2:GLU:HG2	27:S:3:THR:H	1.80	0.46
28:T:44:LYS:HG3	28:T:55:VAL:CG1	2.45	0.46
6:5:37:LYS:CE	10:B:2127:G:O2'	2.56	0.46
6:5:168:ASN:HB2	10:B:2178:C:H4'	1.97	0.46
7:6:167:LEU:HD23	7:6:170:ARG:HG3	1.97	0.46
7:6:255:PHE:HD1	7:6:259:LEU:HD12	1.79	0.46
9:A:43:C:C4	9:A:45:A:C6	3.03	0.46
10:B:85:G:C5	10:B:98:G:C2	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:185:G:H2'	10:B:186:G:H8	1.81	0.46
10:B:414:C:H1'	10:B:1864:U:O2'	2.16	0.46
10:B:429:A:H2'	10:B:430:A:C4	2.50	0.46
10:B:629:G:H1	10:B:634:C:H42	1.63	0.46
10:B:671:C:C2	10:B:672:C:C5	3.02	0.46
10:B:704:G:O2'	10:B:705:A:O5'	2.33	0.46
10:B:756:A:C4	10:B:757:G:N7	2.83	0.46
10:B:775:G:O6	10:B:787:C:H2'	2.15	0.46
10:B:827:U:H5	10:B:2430:A:C4	2.32	0.46
10:B:858:G:H3'	10:B:859:G:N7	2.30	0.46
10:B:886:A:H1'	10:B:889:C:H41	1.80	0.46
10:B:1017:G:H2'	10:B:1018:U:H6	1.78	0.46
10:B:1045:C:C2	10:B:1047:G:C6	3.02	0.46
10:B:1107:G:H2'	10:B:1108:U:C6	2.50	0.46
10:B:1225:G:H4'	26:R:86:GLN:NE2	2.31	0.46
10:B:1308:A:C5	10:B:1309:G:C5	3.04	0.46
10:B:1502:A:H2'	10:B:1503:A:C8	2.49	0.46
10:B:1721:G:O2'	10:B:1738:G:N2	2.46	0.46
10:B:1767:G:N1	10:B:1768:C:C4	2.83	0.46
10:B:1796:U:H2'	10:B:1797:G:O4'	2.16	0.46
10:B:1891:G:O2'	10:B:2235:G:O2'	2.33	0.46
10:B:1959:G:C2	10:B:1960:A:C4	3.03	0.46
10:B:2380:C:H42	10:B:2381:A:N6	2.13	0.46
10:B:2662:A:H2'	10:B:2663:G:O4'	2.15	0.46
10:B:2740:A:N7	10:B:2741:A:N6	2.64	0.46
10:B:2811:G:C4	10:B:2812:G:C8	3.03	0.46
11:C:23:LEU:HD13	11:C:82:TYR:HB2	1.97	0.46
11:C:257:ARG:NH2	11:C:262:THR:OG1	2.48	0.46
16:H:54:LEU:HD12	16:H:58:LEU:HD23	1.98	0.46
17:I:42:ASN:HA	17:I:45:THR:HG23	1.97	0.46
19:K:63:ARG:HB2	19:K:82:ALA:HB3	1.97	0.46
19:K:90:SER:O	19:K:92:GLN:HG3	2.16	0.46
21:M:31:PHE:O	21:M:105:MET:N	2.48	0.46
27:S:88:ARG:HG3	27:S:94:ASP:CG	2.40	0.46
6:5:14:LYS:HD3	10:B:2131:U:OP1	2.14	0.46
6:5:46:VAL:O	6:5:171:ILE:N	2.28	0.46
7:6:389:ILE:HA	7:6:404:VAL:HG22	1.97	0.46
9:A:18:G:C2	9:A:67:G:C5	3.04	0.46
10:B:81:G:C6	10:B:82:U:C4	3.02	0.46
10:B:114:U:C4	10:B:115:C:C4	3.04	0.46
10:B:153:U:H3	10:B:173:A:H61	1.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:188:G:C5	10:B:189:G:C5	3.03	0.46
10:B:204:A:O2'	10:B:205:G:OP2	2.25	0.46
10:B:217:A:N6	10:B:218:A:H2	2.12	0.46
10:B:597:G:H2'	10:B:598:U:H6	1.80	0.46
10:B:616:A:C5	10:B:617:G:C8	3.04	0.46
10:B:705:A:C8	10:B:727:A:C2	3.03	0.46
10:B:738:G:C6	10:B:739:A:N1	2.83	0.46
10:B:780:G:N1	10:B:782:A:N1	2.62	0.46
10:B:798:G:C2	10:B:799:G:C5	3.03	0.46
10:B:848:C:H5"	10:B:849:A:OP2	2.15	0.46
10:B:1048:A:OP2	10:B:1109:C:N4	2.49	0.46
10:B:1202:G:C6	10:B:1203:U:C2	3.03	0.46
10:B:1257:C:H2'	10:B:1258:U:C6	2.50	0.46
10:B:1376:C:N4	10:B:1377:G:C6	2.83	0.46
10:B:1683:U:H2'	10:B:1684:G:C8	2.49	0.46
10:B:1731:G:N1	10:B:1733:G:C5	2.83	0.46
10:B:1741:C:H2'	10:B:1742:U:O4'	2.15	0.46
10:B:2057:G:H2'	10:B:2058:A:C8	2.48	0.46
10:B:2212:A:O2'	10:B:2213:U:O5'	2.29	0.46
10:B:2221:G:HO2'	16:H:116:ARG:NH2	2.13	0.46
10:B:2278:A:C5'	21:M:10:ARG:HH21	2.24	0.46
10:B:2282:G:H1'	10:B:2390:U:C4	2.51	0.46
10:B:2454:G:C8	10:B:2455:G:C8	3.03	0.46
10:B:2463:C:N3	10:B:2488:G:N1	2.63	0.46
10:B:2507:C:N3	10:B:2583:G:C6	2.83	0.46
10:B:2511:U:N3	10:B:2578:G:C6	2.83	0.46
10:B:2599:G:C2	10:B:2600:A:C4	3.02	0.46
10:B:2676:C:C2	10:B:2677:G:C8	3.03	0.46
10:B:2703:C:C4	10:B:2704:C:N4	2.83	0.46
10:B:2703:C:C4	10:B:2704:C:C4	3.04	0.46
11:C:66:PHE:CZ	11:C:155:ARG:NH1	2.84	0.46
14:F:12:VAL:N	14:F:15:LEU:HB2	2.30	0.46
19:K:10:ALA:HB2	19:K:82:ALA:HB1	1.98	0.46
22:N:47:VAL:O	22:N:50:PRO:HD2	2.16	0.46
31:W:18:LYS:HG3	31:W:19:ARG:N	2.30	0.46
9:A:18:G:C5	9:A:19:C:N4	2.84	0.46
9:A:34:A:C2	9:A:44:G:C6	3.03	0.46
10:B:302:C:P	29:U:78:LYS:NZ	2.86	0.46
10:B:577:G:O2'	10:B:1254:A:OP1	2.33	0.46
10:B:628:G:H2'	10:B:629:G:H8	1.81	0.46
10:B:705:A:N1	10:B:727:A:H1'	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:780:G:C2	10:B:782:A:C6	3.03	0.46
10:B:1016:G:N1	10:B:1147:A:C6	2.84	0.46
10:B:1239:G:C6	10:B:1240:U:C4	3.04	0.46
10:B:1309:G:N1	10:B:1310:G:C5	2.83	0.46
10:B:1420:A:C5'	10:B:2211:A:H62	2.29	0.46
10:B:1499:C:C2	10:B:1500:G:C8	3.03	0.46
10:B:1528:A:C8	10:B:1529:G:C8	3.03	0.46
10:B:1552:A:O2'	10:B:1553:A:H5'	2.15	0.46
10:B:1871:A:O5'	10:B:1871:A:H8	1.97	0.46
10:B:1994:C:C4	10:B:1995:U:C5	3.03	0.46
10:B:2061:G:O2'	10:B:2063:C:N4	2.37	0.46
10:B:2149:U:H2'	10:B:2150:C:C6	2.50	0.46
10:B:2512:C:H5"	12:D:127:PHE:CE1	2.51	0.46
10:B:2537:U:N3	10:B:2538:C:C4	2.83	0.46
10:B:2644:G:H5"	10:B:2645:G:OP2	2.16	0.46
12:D:80:TRP:CD1	12:D:202:ILE:HD11	2.50	0.46
13:E:148:ILE:HB	13:E:169:VAL:HG12	1.98	0.46
20:L:120:VAL:N	20:L:141:LYS:HD2	2.31	0.46
21:M:31:PHE:CE2	21:M:110:GLU:HA	2.50	0.46
29:U:23:LYS:HG2	29:U:24:VAL:O	2.16	0.46
6:5:9:ARG:NH1	10:B:2151:U:P	2.88	0.46
8:7:52:MET:HB2	8:7:87:GLU:HG3	1.98	0.46
10:B:216:A:H2'	10:B:217:A:O4'	2.16	0.46
10:B:522:A:H2'	10:B:523:C:C6	2.50	0.46
10:B:547:A:C8	10:B:548:G:H5'	2.47	0.46
10:B:632:A:C2	10:B:633:A:C4	3.03	0.46
10:B:873:C:H4'	21:M:64:TRP:HE1	1.81	0.46
10:B:915:C:C4	10:B:916:G:C5	3.03	0.46
10:B:942:G:N3	10:B:943:A:C8	2.83	0.46
10:B:1129:A:C5	10:B:2570:G:H1'	2.51	0.46
10:B:1199:U:O4'	25:Q:3:VAL:HG22	2.16	0.46
10:B:1266:G:C2	10:B:2012:G:N7	2.84	0.46
10:B:1301:A:C6	10:B:1303:G:C5	3.04	0.46
10:B:1314:C:H5"	10:B:1315:C:OP2	2.15	0.46
10:B:1355:G:N3	10:B:1356:G:C8	2.84	0.46
10:B:1435:G:C2	10:B:1436:G:C5	3.04	0.46
10:B:1613:G:C5	10:B:1617:C:C4	3.03	0.46
10:B:1630:A:C6	10:B:1637:A:N1	2.84	0.46
10:B:1672:A:N6	10:B:1673:G:O6	2.49	0.46
10:B:2010:G:N2	10:B:2011:U:H1'	2.30	0.46
10:B:2216:G:H2'	10:B:2217:G:H8	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2313:C:OP2	14:F:70:ARG:HB2	2.15	0.46
10:B:2428:G:C2	20:L:60:ARG:NH2	2.84	0.46
10:B:2727:A:H5"	10:B:2728:U:OP2	2.15	0.46
10:B:2747:G:N2	10:B:2748:A:N7	2.63	0.46
10:B:2772:C:H5'	12:D:173:GLN:HE22	1.79	0.46
10:B:2820:A:H4'	22:N:3:HIS:CD2	2.50	0.46
10:B:2853:C:H2'	10:B:2854:G:H8	1.80	0.46
23:O:17:LYS:HA	23:O:20:GLU:OE1	2.15	0.46
23:O:89:ASP:OD1	23:O:116:GLN:HB2	2.16	0.46
25:Q:18:LYS:CG	25:Q:21:LYS:HZ3	2.29	0.46
25:Q:96:ASP:OD1	26:R:13:ARG:NH1	2.48	0.46
27:S:84:ARG:CZ	27:S:98:LYS:HD2	2.45	0.46
7:6:315:VAL:HG22	7:6:340:VAL:HB	1.97	0.46
9:A:100:G:C5	9:A:101:A:C5	3.03	0.46
10:B:808:G:H5"	10:B:809:G:OP2	2.16	0.46
10:B:877:A:H8	10:B:877:A:O5'	1.99	0.46
10:B:877:A:H61	10:B:899:A:N6	2.14	0.46
10:B:917:A:H2'	10:B:917:A:N3	2.30	0.46
10:B:992:C:N3	10:B:1163:G:N1	2.63	0.46
10:B:1131:G:C6	18:J:77:HIS:CD2	3.03	0.46
10:B:1225:G:C5	10:B:1226:A:C6	3.03	0.46
10:B:1445:G:H2'	10:B:1446:C:H6	1.81	0.46
10:B:1527:G:C6	10:B:1543:G:H2'	2.50	0.46
10:B:1539:U:H2'	10:B:1540:G:C8	2.51	0.46
10:B:1614:A:N1	27:S:91:GLY:HA2	2.31	0.46
10:B:1717:A:H3'	10:B:1718:G:H8	1.80	0.46
10:B:1772:A:N1	10:B:1980:G:C6	2.83	0.46
10:B:1781:U:H3'	10:B:1782:U:H5'	1.98	0.46
10:B:1825:U:C2	10:B:1826:G:C8	3.04	0.46
10:B:1842:G:C2	10:B:1901:A:C2	3.04	0.46
10:B:1945:G:H2'	10:B:1946:U:C6	2.50	0.46
10:B:1979:U:N3	10:B:1980:G:N7	2.64	0.46
10:B:2199:A:N1	10:B:2225:A:H1'	2.31	0.46
10:B:2230:G:H2'	10:B:2231:U:C6	2.51	0.46
10:B:2238:G:H8	10:B:2241:A:N6	2.10	0.46
10:B:2311:A:H3'	10:B:2311:A:OP1	2.16	0.46
10:B:2509:G:N2	10:B:2580:U:H1'	2.31	0.46
10:B:2584:U:H6	10:B:2584:U:O5'	1.98	0.46
10:B:2641:G:N1	10:B:2774:C:N3	2.64	0.46
13:E:154:ASP:HB2	13:E:157:LEU:HD12	1.98	0.46
14:F:16:MET:O	14:F:20:ASN:HA	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:G:59:ASP:OD2	15:G:63:GLN:HB2	2.16	0.46
21:M:73:ILE:HG22	21:M:90:GLU:OE2	2.16	0.46
22:N:118:ARG:HB3	22:N:121:LYS:N	2.31	0.46
24:P:14:GLN:OE1	24:P:14:GLN:N	2.49	0.46
25:Q:60:TRP:CH2	25:Q:93:ILE:HD12	2.49	0.46
27:S:74:ILE:HG13	27:S:105:VAL:CG2	2.46	0.46
29:U:39:ASN:O	29:U:61:GLU:HA	2.16	0.46
33:Y:10:SER:HA	33:Y:62:GLY:HA3	1.98	0.46
4:3:2:LYS:NZ	10:B:242:G:O5'	2.47	0.46
4:3:15:LYS:HG3	4:3:21:PHE:HE1	1.81	0.46
7:6:299:ASN:O	7:6:303:GLU:HG3	2.16	0.46
9:A:39:A:H2'	9:A:40:U:C6	2.51	0.46
10:B:32:C:H2'	10:B:33:C:H6	1.79	0.46
10:B:199:A:C6	10:B:2434:A:C6	3.03	0.46
10:B:232:G:N2	10:B:420:C:OP1	2.48	0.46
10:B:351:C:H2'	10:B:352:A:C8	2.50	0.46
10:B:440:C:C2	10:B:441:U:C5	3.04	0.46
10:B:464:U:H3	10:B:465:G:N2	2.14	0.46
10:B:585:G:H5"	10:B:586:A:P	2.56	0.46
10:B:647:G:C2	10:B:648:G:C4	3.04	0.46
10:B:738:G:C2	10:B:759:G:C6	3.04	0.46
10:B:862:G:C6	10:B:863:A:C4	3.03	0.46
10:B:866:A:N6	10:B:867:C:N3	2.63	0.46
10:B:980:A:N7	10:B:981:A:C6	2.83	0.46
10:B:1069:A:C8	10:B:1073:A:N7	2.84	0.46
10:B:1294:U:H5'	10:B:1295:C:OP2	2.15	0.46
10:B:1477:A:C4	10:B:1515:A:C6	3.03	0.46
10:B:1628:G:C6	10:B:1629:U:C4	3.04	0.46
10:B:1754:A:C6	10:B:1755:A:C5	3.04	0.46
10:B:1758:U:H3'	10:B:1759:A:N7	2.30	0.46
10:B:1781:U:O2'	10:B:1782:U:OP1	2.27	0.46
10:B:1865:U:H4'	10:B:1866:A:OP1	2.16	0.46
10:B:1868:C:H2'	10:B:1869:G:C8	2.50	0.46
10:B:1945:G:H2'	10:B:1946:U:H6	1.80	0.46
10:B:2175:C:H2'	10:B:2176:A:H8	1.80	0.46
10:B:2190:G:C2	10:B:2191:A:C4	3.04	0.46
10:B:2244:U:H2'	10:B:2245:U:H6	1.79	0.46
10:B:2283:C:C2	10:B:2389:G:C2	3.04	0.46
10:B:2322:A:C4	10:B:2323:G:C8	3.04	0.46
10:B:2347:C:H2'	10:B:2348:U:C6	2.51	0.46
10:B:2424:C:HO2'	10:B:2425:A:P	2.37	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2509:G:C2	10:B:2510:C:C2	3.04	0.46
10:B:2521:C:N3	10:B:2545:G:N1	2.63	0.46
10:B:2620:C:H2'	10:B:2621:G:H8	1.78	0.46
10:B:2740:A:N7	10:B:2741:A:C6	2.84	0.46
10:B:2786:U:OP1	12:D:70:LYS:NZ	2.47	0.46
10:B:2867:G:C5	24:P:20:ARG:CZ	2.99	0.46
10:B:2895:G:H2'	10:B:2896:C:H6	1.80	0.46
12:D:142:VAL:HG12	12:D:143:PRO:O	2.15	0.46
15:G:73:SER:CB	15:G:137:LYS:HZ2	2.29	0.46
18:J:140:LEU:HD23	18:J:141:ASP:N	2.31	0.46
20:L:118:THR:HG22	20:L:119:PRO:O	2.15	0.46
22:N:38:LEU:HB3	22:N:39:PRO:HD3	1.97	0.46
30:V:77:VAL:O	30:V:79:ARG:N	2.49	0.46
31:W:19:ARG:HA	31:W:35:ILE:CG2	2.46	0.46
32:X:15:ASN:HD21	32:X:25:LYS:HD3	1.81	0.46
7:6:299:ASN:HA	7:6:302:LEU:HD12	1.98	0.46
7:6:372:LEU:HD12	7:6:379:LEU:HD11	1.98	0.46
8:7:26:VAL:HG22	8:7:84:TYR:HE1	1.77	0.46
8:7:80:THR:O	10:B:1107:G:H4'	2.16	0.46
10:B:1:G:C2	10:B:2:G:C4	3.03	0.46
10:B:17:G:C4	10:B:18:U:C5	3.04	0.46
10:B:83:A:N6	10:B:102:U:H5'	2.30	0.46
10:B:142:A:H2'	10:B:143:C:C6	2.51	0.46
10:B:161:A:OP2	10:B:162:U:O2'	2.28	0.46
10:B:308:G:N3	10:B:501:A:C8	2.83	0.46
10:B:498:G:N3	10:B:498:G:H2'	2.30	0.46
10:B:617:G:C6	10:B:618:G:C5	3.04	0.46
10:B:702:U:O2'	10:B:703:U:O4'	2.25	0.46
10:B:909:A:H2'	10:B:912:C:C5	2.50	0.46
10:B:1163:G:C6	10:B:1164:C:C4	3.03	0.46
10:B:1227:G:C2	10:B:1228:G:C8	3.04	0.46
10:B:1230:A:C6	10:B:1231:U:C4	3.03	0.46
10:B:1270:C:H5"	10:B:1271:G:OP1	2.16	0.46
10:B:1331:G:O2'	10:B:1332:G:H5'	2.16	0.46
10:B:1374:G:N1	10:B:1375:U:C4	2.84	0.46
10:B:1443:U:C2	10:B:1444:G:C8	3.04	0.46
10:B:1544:A:C6	10:B:1545:A:C6	3.04	0.46
10:B:1830:C:H2'	10:B:1831:G:C8	2.51	0.46
10:B:1831:G:C4	10:B:1975:G:N2	2.84	0.46
10:B:1912:A:HO2'	10:B:1913:A:P	2.39	0.46
10:B:2034:U:C2	10:B:2035:G:N7	2.84	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2041:U:C2	10:B:2042:A:C8	3.04	0.46
10:B:2082:A:H2'	10:B:2083:G:C8	2.50	0.46
10:B:2086:U:H2'	10:B:2087:G:C8	2.51	0.46
10:B:2392:A:C6	10:B:2429:G:C8	3.04	0.46
10:B:2517:C:O2	10:B:2542:A:N6	2.48	0.46
10:B:2544:G:H2'	10:B:2545:G:C8	2.51	0.46
10:B:2583:G:H3'	10:B:2584:U:H5	1.81	0.46
10:B:2822:G:H4'	10:B:2825:G:O6	2.16	0.46
11:C:76:VAL:HG23	11:C:94:LEU:O	2.16	0.46
11:C:89:ASN:HB2	11:C:196:ASN:ND2	2.31	0.46
13:E:124:PHE:HZ	13:E:137:LYS:HB3	1.80	0.46
14:F:11:VAL:H	14:F:13:LYS:HZ3	1.64	0.46
14:F:77:LYS:O	14:F:78:ILE:HB	2.16	0.46
15:G:79:THR:HG22	15:G:80:GLU:HG2	1.98	0.46
18:J:26:GLY:O	18:J:30:THR:HG23	2.16	0.46
19:K:103:THR:HB	19:K:105:GLU:HG2	1.98	0.46
20:L:29:LYS:HB2	20:L:29:LYS:HE3	1.72	0.46
23:O:25:ARG:HB2	23:O:40:ILE:HG12	1.98	0.46
26:R:2:TYR:CD1	26:R:42:ALA:HB3	2.51	0.46
2:1:9:LYS:HD2	2:1:19:PHE:CD2	2.51	0.46
2:1:29:LYS:NZ	2:1:33:LEU:HB2	2.31	0.46
5:4:19:ARG:NH2	10:B:2755:C:H3'	2.30	0.46
5:4:33:HIS:O	5:4:35:GLN:N	2.49	0.46
6:5:47:ASN:HA	6:5:170:ILE:HG13	1.97	0.46
7:6:4:ARG:HH12	7:6:113:GLN:HE21	1.63	0.46
10:B:6:A:C2'	10:B:7:G:H8	2.28	0.46
10:B:33:C:N4	10:B:473:G:H22	2.14	0.46
10:B:64:A:H2'	10:B:65:U:C6	2.51	0.46
10:B:186:G:C2	10:B:187:G:C8	3.04	0.46
10:B:250:G:H2'	10:B:250:G:N3	2.31	0.46
10:B:431:U:H2'	10:B:432:A:C8	2.43	0.46
10:B:588:U:H1'	13:E:85:PHE:CD1	2.51	0.46
10:B:713:G:H1'	10:B:719:C:O2	2.15	0.46
10:B:799:G:N1	10:B:800:A:N6	2.63	0.46
10:B:856:G:H4'	31:W:23:LYS:HD2	1.98	0.46
10:B:924:G:C2	10:B:925:A:C8	3.04	0.46
10:B:1019:U:C2	10:B:1142:A:N6	2.84	0.46
10:B:1030:C:H2'	10:B:1031:G:C8	2.50	0.46
10:B:1168:G:H2'	10:B:1169:A:C8	2.51	0.46
10:B:1389:G:C5	10:B:1390:U:C4	3.04	0.46
10:B:1425:G:H2'	10:B:1426:G:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1491:G:N3	10:B:1492:G:C8	2.84	0.46
10:B:1642:G:H2'	10:B:1643:G:O4'	2.16	0.46
10:B:1769:U:N3	10:B:1984:G:O6	2.46	0.46
10:B:1778:U:H3'	10:B:1784:A:N6	2.31	0.46
10:B:1830:C:C2	10:B:1831:G:N7	2.84	0.46
10:B:1861:G:N1	10:B:1862:G:C5	2.84	0.46
10:B:1862:G:C6	10:B:1881:C:C4	3.04	0.46
10:B:1883:U:N3	10:B:1884:G:N2	2.63	0.46
10:B:1927:A:C2	10:B:1928:A:C4	3.04	0.46
10:B:2128:G:N3	10:B:2130:U:C4	2.83	0.46
10:B:2153:C:H2'	10:B:2154:A:C8	2.51	0.46
10:B:2218:G:H2'	10:B:2219:U:C6	2.51	0.46
10:B:2415:G:C6	10:B:2416:C:N3	2.84	0.46
10:B:2437:G:C5	10:B:2438:U:C5	3.04	0.46
10:B:2480:C:C2	10:B:2481:G:H1'	2.51	0.46
10:B:2670:A:C6	10:B:2671:G:C5	3.04	0.46
10:B:2739:U:H5"	10:B:2763:G:O6	2.16	0.46
10:B:2806:C:H2'	10:B:2807:U:C6	2.50	0.46
11:C:4:LYS:HZ1	11:C:14:HIS:HA	1.81	0.46
14:F:24:VAL:O	14:F:27:VAL:HG22	2.16	0.46
14:F:29:ARG:O	14:F:157:THR:HG23	2.16	0.46
15:G:144:ALA:O	15:G:147:LEU:HB3	2.16	0.46
18:J:81:ILE:HG12	18:J:82:GLY:H	1.79	0.46
20:L:74:THR:HG23	20:L:107:PHE:HB2	1.96	0.46
21:M:50:ARG:HB3	21:M:103:TYR:HE2	1.80	0.46
24:P:48:ALA:CB	24:P:58:PHE:HA	2.46	0.46
25:Q:46:TYR:O	25:Q:49:ARG:N	2.48	0.46
25:Q:86:SER:O	25:Q:88:GLU:N	2.49	0.46
4:3:5:THR:OG1	10:B:243:U:OP1	2.29	0.46
5:4:34:LYS:HB3	5:4:36:ARG:NH2	2.31	0.46
6:5:176:GLY:HA3	6:5:185:LEU:HD22	1.98	0.46
6:5:193:LEU:HD12	6:5:231:ALA:HA	1.97	0.46
9:A:16:G:C2	9:A:17:C:C2	3.04	0.46
9:A:37:C:H42	9:A:44:G:H1	1.64	0.46
10:B:36:G:C4	10:B:37:C:C5	3.04	0.46
10:B:220:G:O6	10:B:427:U:H3'	2.15	0.46
10:B:242:G:H22	10:B:254:G:H3'	1.81	0.46
10:B:298:G:H5'	29:U:85:ARG:HH21	1.80	0.46
10:B:412:A:C6	10:B:413:C:C2	3.04	0.46
10:B:436:C:H2'	10:B:437:U:C6	2.50	0.46
10:B:533:G:H1	10:B:560:C:N4	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:552:U:C2	10:B:553:G:C8	3.03	0.46
10:B:636:G:P	20:L:128:THR:HG22	2.56	0.46
10:B:648:G:N1	10:B:649:G:N7	2.64	0.46
10:B:808:G:H2'	10:B:809:G:C8	2.51	0.46
10:B:841:G:C4	10:B:842:U:C5	3.04	0.46
10:B:986:C:C4	10:B:987:C:C4	3.04	0.46
10:B:1010:A:H4'	25:Q:75:TYR:HD2	1.81	0.46
10:B:1111:A:H1'	10:B:1112:G:H1'	1.98	0.46
10:B:1139:G:C5'	18:J:72:LYS:HZ1	2.29	0.46
10:B:1178:C:C2	10:B:1179:G:C8	3.04	0.46
10:B:1303:G:C6	10:B:1304:A:C5	3.03	0.46
10:B:1432:G:H2'	10:B:1433:A:C8	2.51	0.46
10:B:1434:A:C8	10:B:1435:G:C8	3.03	0.46
10:B:1817:G:N2	10:B:1818:U:H1'	2.31	0.46
10:B:1861:G:C2	10:B:1862:G:C8	3.04	0.46
10:B:1935:G:C2	10:B:1962:C:C2	3.04	0.46
10:B:2470:G:C5	10:B:2481:G:N2	2.81	0.46
10:B:2486:C:N3	10:B:2487:G:C8	2.84	0.46
10:B:2536:G:C4	10:B:2537:U:C5	3.04	0.46
10:B:2549:G:C6	10:B:2560:A:C6	3.04	0.46
10:B:2637:U:H5	10:B:2638:G:C6	2.34	0.46
10:B:2835:A:C2	10:B:2879:A:C5	3.03	0.46
11:C:130:PRO:CA	11:C:188:ARG:HG2	2.46	0.46
14:F:93:GLU:HA	14:F:96:TRP:CZ3	2.51	0.46
15:G:148:ARG:HD3	15:G:163:TYR:H	1.80	0.46
17:I:4:VAL:HG12	17:I:5:GLN:N	2.31	0.46
19:K:92:GLN:CA	19:K:110:LYS:HZ3	2.28	0.46
24:P:6:GLN:O	24:P:10:GLU:N	2.46	0.46
26:R:37:GLU:HB2	26:R:53:PHE:HD1	1.79	0.46
33:Y:44:LYS:HA	33:Y:47:ARG:CD	2.46	0.46
34:Z:26:LEU:HD11	34:Z:46:MET:HB3	1.98	0.46
7:6:84:LEU:HG	7:6:102:ASP:CG	2.40	0.45
7:6:230:ALA:HB3	35:6:527:GNP:N3B	2.31	0.45
7:6:371:ARG:HG2	7:6:424:TYR:CE2	2.51	0.45
7:6:375:GLN:HG3	7:6:378:ARG:HH12	1.79	0.45
10:B:15:G:C5	10:B:16:C:C5	3.04	0.45
10:B:89:A:C5	10:B:90:U:C4	3.03	0.45
10:B:138:U:H1'	28:T:1:MET:HE2	1.98	0.45
10:B:141:G:C2	10:B:142:A:O4'	2.69	0.45
10:B:199:A:N7	10:B:2433:A:C6	2.84	0.45
10:B:203:A:C6	10:B:204:A:N6	2.83	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:329:G:H22	29:U:16:LYS:HZ1	1.64	0.45
10:B:467:G:N2	10:B:468:G:N3	2.63	0.45
10:B:483:A:O2'	29:U:56:GLY:HA2	2.16	0.45
10:B:553:G:H2'	10:B:554:U:O4'	2.17	0.45
10:B:636:G:O2'	10:B:637:A:O5'	2.34	0.45
10:B:732:C:N3	10:B:733:G:C5	2.85	0.45
10:B:1011:G:C2	10:B:1151:A:C4	3.04	0.45
10:B:1041:G:C2	10:B:1042:G:C8	3.04	0.45
10:B:1078:U:C5'	17:I:133:ARG:HH12	2.29	0.45
10:B:1394:U:O4	10:B:1395:A:C6	2.69	0.45
10:B:1417:C:H4'	10:B:1587:G:H21	1.82	0.45
10:B:1717:A:N6	10:B:1743:G:O2'	2.44	0.45
10:B:1769:U:N3	10:B:1984:G:C6	2.84	0.45
10:B:1770:G:C2	10:B:1983:G:C4	3.04	0.45
10:B:2049:G:C4	10:B:2050:C:C5	3.04	0.45
10:B:2417:C:C2	10:B:2418:A:C8	3.04	0.45
10:B:2470:G:N2	10:B:2471:A:C4	2.85	0.45
10:B:2487:G:C4	10:B:2488:G:C8	3.03	0.45
10:B:2627:G:C2	10:B:2777:G:C6	3.04	0.45
10:B:2630:G:H1'	10:B:2894:G:N3	2.31	0.45
10:B:2642:G:N2	10:B:2772:C:N3	2.53	0.45
10:B:2714:G:C6	10:B:2715:C:C4	3.04	0.45
12:D:7:LYS:HD3	12:D:77:ARG:NH2	2.29	0.45
12:D:33:ARG:NH2	12:D:73:VAL:N	2.64	0.45
14:F:73:VAL:HA	14:F:79:ARG:HH11	1.81	0.45
14:F:141:ASP:HB2	14:F:144:LYS:HD3	1.98	0.45
16:H:11:ASN:CG	16:H:12:LEU:N	2.73	0.45
18:J:37:ARG:NH2	18:J:43:GLU:OE2	2.43	0.45
18:J:64:VAL:HG11	18:J:69:ARG:HH11	1.81	0.45
19:K:23:VAL:HA	19:K:38:ILE:HG22	1.98	0.45
19:K:92:GLN:N	19:K:110:LYS:NZ	2.52	0.45
23:O:36:TYR:HA	23:O:52:SER:CB	2.46	0.45
30:V:49:ASN:O	30:V:52:ALA:HB3	2.17	0.45
6:5:133:PRO:HA	10:B:2121:G:N7	2.30	0.45
8:7:99:PHE:O	8:7:108:VAL:HG12	2.16	0.45
9:A:66:A:C5'	9:A:108:A:H61	2.29	0.45
10:B:9:G:OP2	18:J:120:ARG:NH2	2.49	0.45
10:B:58:G:H8	10:B:58:G:OP2	2.00	0.45
10:B:132:G:H2'	10:B:133:U:H6	1.79	0.45
10:B:187:G:C6	10:B:188:G:C5	3.04	0.45
10:B:214:G:H2'	10:B:215:G:C8	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:245:G:C2	10:B:246:C:C6	3.05	0.45
10:B:265:A:C6	10:B:428:A:C5	3.04	0.45
10:B:299:A:C5	10:B:322:A:C2	3.04	0.45
10:B:379:G:C2	10:B:380:G:C8	3.04	0.45
10:B:652:U:OP2	10:B:653:U:N3	2.44	0.45
10:B:713:G:H2'	10:B:714:U:C6	2.51	0.45
10:B:815:C:N4	10:B:1192:G:H1	2.15	0.45
10:B:836:G:C5	10:B:837:C:N3	2.85	0.45
10:B:847:U:H5	10:B:932:U:H1'	1.82	0.45
10:B:1083:U:H1'	10:B:1085:A:N7	2.30	0.45
10:B:1331:G:C5	10:B:1333:G:N7	2.84	0.45
10:B:1361:G:C6	10:B:1362:C:C4	3.05	0.45
10:B:1394:U:H2'	10:B:1395:A:H5'	1.97	0.45
10:B:1681:G:C5	10:B:1762:A:C6	3.05	0.45
10:B:1754:A:H2'	10:B:1755:A:O4'	2.16	0.45
10:B:1839:G:C5	10:B:1840:G:C8	3.04	0.45
10:B:2003:A:H2'	10:B:2004:G:C8	2.51	0.45
10:B:2073:C:H2'	10:B:2074:U:H6	1.81	0.45
10:B:2074:U:H4'	10:B:2598:A:H1'	1.97	0.45
10:B:2224:G:O6	16:H:135:HIS:NE2	2.49	0.45
10:B:2298:A:C5	10:B:2299:U:C4	3.04	0.45
10:B:2327:A:C6	10:B:2328:A:C6	3.05	0.45
10:B:2399:G:C6	10:B:2418:A:C6	3.04	0.45
10:B:2470:G:C2	10:B:2471:A:C8	3.05	0.45
10:B:2575:C:H5"	10:B:2576:G:OP2	2.16	0.45
10:B:2592:G:N2	10:B:2603:G:C4	2.85	0.45
10:B:2659:G:O2'	15:G:176:LYS:HG3	2.16	0.45
10:B:2746:U:H2'	10:B:2747:G:O4'	2.16	0.45
10:B:2808:G:H4'	10:B:2809:A:C5'	2.46	0.45
11:C:144:GLU:OE1	11:C:187:CYS:HA	2.16	0.45
11:C:250:GLN:HG3	11:C:252:LYS:O	2.16	0.45
12:D:33:ARG:CG	12:D:93:GLY:HA3	2.46	0.45
17:I:102:ARG:H	17:I:141:ASP:C	2.24	0.45
18:J:14:ASP:H	18:J:52:ASP:CG	2.24	0.45
23:O:80:GLU:O	23:O:83:LEU:HB3	2.16	0.45
23:O:99:TYR:OH	23:O:111:ARG:NH2	2.45	0.45
1:0:8:THR:O	1:0:12:ARG:N	2.48	0.45
4:3:15:LYS:HG3	4:3:21:PHE:CE1	2.51	0.45
6:5:53:ARG:HB3	6:5:203:GLN:HE21	1.82	0.45
9:A:28:C:C2	9:A:29:A:C8	3.05	0.45
10:B:58:G:C2	10:B:59:U:C2	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:136:G:C6	10:B:144:A:C6	3.04	0.45
10:B:327:G:N1	10:B:335:C:O2	2.47	0.45
10:B:530:G:H5"	10:B:531:C:OP2	2.15	0.45
10:B:733:G:N2	10:B:734:A:N7	2.64	0.45
10:B:792:A:N6	10:B:2440:C:O5'	2.48	0.45
10:B:809:G:C4	10:B:810:U:C5	3.05	0.45
10:B:851:C:N3	10:B:852:U:C4	2.84	0.45
10:B:958:U:H3	21:M:40:ARG:NE	2.13	0.45
10:B:998:C:N3	10:B:999:U:C2	2.84	0.45
10:B:1327:A:N7	10:B:1328:A:N3	2.64	0.45
10:B:1356:G:C5	10:B:1357:C:C5	3.04	0.45
10:B:1438:U:OP2	10:B:1552:A:N6	2.50	0.45
10:B:1456:G:H2'	10:B:1457:U:O4'	2.16	0.45
10:B:1491:G:C2	10:B:1492:G:C5	3.04	0.45
10:B:1571:A:C2	10:B:1572:A:C4	3.04	0.45
10:B:1685:C:H2'	10:B:1686:C:C6	2.50	0.45
10:B:1695:G:O2'	11:C:8:THR:HA	2.16	0.45
10:B:1818:U:OP2	11:C:155:ARG:NE	2.49	0.45
10:B:1897:G:H2'	10:B:1898:U:H6	1.80	0.45
10:B:2023:C:C2	10:B:2024:G:C8	3.03	0.45
10:B:2027:G:C6	10:B:2028:U:N3	2.84	0.45
10:B:2032:G:C2	12:D:150:GLN:CG	2.92	0.45
10:B:2168:G:N2	10:B:2171:A:OP2	2.49	0.45
10:B:2189:U:C2	10:B:2190:G:C8	3.04	0.45
10:B:2383:G:C5	10:B:2384:U:C4	3.05	0.45
10:B:2472:G:C5	10:B:2475:C:C4	3.04	0.45
10:B:2592:G:C6	10:B:2593:U:N3	2.85	0.45
10:B:2621:G:C6	10:B:2622:U:C4	3.04	0.45
10:B:2843:G:C2	10:B:2844:G:C4	3.03	0.45
11:C:132:ARG:NE	16:H:120:GLY:O	2.49	0.45
15:G:8:VAL:CB	15:G:49:LEU:HD12	2.46	0.45
16:H:143:ILE:HG22	16:H:145:ASN:H	1.81	0.45
17:I:102:ARG:O	17:I:106:GLN:HG2	2.16	0.45
23:O:25:ARG:CZ	23:O:40:ILE:HD11	2.45	0.45
26:R:91:GLN:NE2	26:R:92:TRP:H	2.14	0.45
30:V:2:PHE:HE2	30:V:59:GLU:OE2	2.00	0.45
31:W:50:VAL:HG12	31:W:51:GLY:O	2.16	0.45
7:6:328:ARG:HB2	7:6:341:TRP:NE1	2.31	0.45
8:7:61:ARG:NE	10:B:1047:G:OP2	2.45	0.45
10:B:17:G:H2'	10:B:18:U:C6	2.51	0.45
10:B:247:G:N2	10:B:252:G:C5	2.84	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:310:A:OP1	29:U:15:GLY:N	2.49	0.45
10:B:319:G:H2'	10:B:320:A:O4'	2.16	0.45
10:B:380:G:C2	10:B:381:G:C4	3.04	0.45
10:B:402:A:H3'	10:B:403:U:C6	2.51	0.45
10:B:497:A:C4	10:B:498:G:C8	3.04	0.45
10:B:529:A:C5	10:B:2023:C:C5	3.05	0.45
10:B:746:U:H5"	10:B:747:U:H5'	1.98	0.45
10:B:953:G:C6	10:B:965:C:N4	2.85	0.45
10:B:1022:G:C6	10:B:1140:C:C5	3.05	0.45
10:B:1116:G:O2'	10:B:1117:C:H5'	2.16	0.45
10:B:1352:U:O2'	10:B:1353:A:H5'	2.17	0.45
10:B:1774:C:H5"	10:B:1775:U:OP2	2.16	0.45
10:B:1825:U:OP2	11:C:51:ARG:NH2	2.49	0.45
10:B:1834:U:C4	10:B:1900:A:N6	2.84	0.45
10:B:1877:A:C6	10:B:1878:G:C5	3.04	0.45
10:B:2117:A:N1	10:B:2164:C:C4	2.84	0.45
10:B:2140:G:C6	10:B:2152:G:C6	3.05	0.45
10:B:2227:A:C5	10:B:2228:G:C5	3.04	0.45
10:B:2366:A:C5	10:B:2367:G:C5	3.05	0.45
10:B:2392:A:C5	10:B:2393:U:C5	3.04	0.45
10:B:2447:G:N2	10:B:2450:A:OP2	2.49	0.45
10:B:2461:A:N1	10:B:2490:G:N2	2.65	0.45
10:B:2592:G:H2'	10:B:2593:U:O4'	2.17	0.45
10:B:2624:G:C2	10:B:2625:G:C8	3.05	0.45
10:B:2704:C:H2'	10:B:2705:A:C4	2.52	0.45
12:D:121:THR:HB	12:D:127:PHE:HD2	1.82	0.45
15:G:42:VAL:HG23	15:G:50:THR:O	2.15	0.45
17:I:49:GLU:HB3	17:I:52:LEU:CD1	2.46	0.45
17:I:93:ASN:OD1	17:I:133:ARG:HB2	2.17	0.45
17:I:102:ARG:N	17:I:140:GLU:O	2.49	0.45
23:O:24:THR:HG22	23:O:42:PRO:HD3	1.99	0.45
30:V:2:PHE:HB3	30:V:61:LEU:HD23	1.99	0.45
31:W:45:HIS:CD2	31:W:49:ASN:O	2.69	0.45
4:3:51:LYS:HA	4:3:54:LEU:HB2	1.99	0.45
6:5:218:MET:HB3	10:B:2128:G:N2	2.31	0.45
7:6:10:GLN:N	7:6:40:GLU:HB3	2.31	0.45
7:6:311:PRO:HB2	7:6:360:ARG:NH2	2.27	0.45
9:A:20:G:C4	9:A:21:G:C8	3.05	0.45
10:B:19:A:C4	10:B:20:C:C5	3.04	0.45
10:B:197:A:N6	10:B:2430:A:H2'	2.31	0.45
10:B:406:G:H2'	10:B:407:G:C8	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:528:A:N6	10:B:2042:A:C5	2.84	0.45
10:B:596:U:C2	10:B:597:G:C8	3.04	0.45
10:B:669:G:C6	10:B:801:G:O6	2.70	0.45
10:B:914:G:O2'	10:B:915:C:OP1	2.29	0.45
10:B:917:A:N3	10:B:918:A:C8	2.85	0.45
10:B:1067:A:C6	10:B:1068:G:C6	3.05	0.45
10:B:1170:C:N4	10:B:1171:G:O6	2.50	0.45
10:B:1238:G:C2	10:B:1239:G:C8	3.05	0.45
10:B:1268:A:C6	10:B:2013:A:N7	2.84	0.45
10:B:1283:G:H22	10:B:1286:A:P	2.38	0.45
10:B:1759:A:N6	10:B:2696:U:O2'	2.49	0.45
10:B:1787:A:H4'	10:B:2589:A:H4'	1.99	0.45
10:B:1867:G:C6	10:B:1875:G:C2	3.05	0.45
10:B:1949:G:H2'	10:B:1950:G:H8	1.77	0.45
10:B:1996:C:H1'	10:B:1997:C:O4'	2.17	0.45
10:B:2024:G:C5	10:B:2025:C:C4	3.05	0.45
10:B:2048:G:N2	10:B:2049:G:H1'	2.31	0.45
10:B:2175:C:H2'	10:B:2176:A:C8	2.51	0.45
10:B:2527:C:H42	10:B:2536:G:H1	1.63	0.45
10:B:2537:U:H2'	10:B:2538:C:C6	2.52	0.45
10:B:2544:G:H2'	10:B:2545:G:H8	1.82	0.45
10:B:2630:G:C8	10:B:2894:G:C8	3.04	0.45
10:B:2644:G:N2	10:B:2645:G:H22	2.15	0.45
10:B:2652:C:O2	10:B:2668:G:N1	2.46	0.45
10:B:2705:A:N6	10:B:2706:A:C2	2.84	0.45
10:B:2791:G:C4	10:B:2792:A:C8	3.05	0.45
10:B:2842:G:H2'	10:B:2843:G:H8	1.82	0.45
12:D:20:VAL:O	12:D:21:SER:HB2	2.16	0.45
14:F:3:LEU:HB2	14:F:96:TRP:CG	2.51	0.45
14:F:31:GLU:N	14:F:156:THR:O	2.45	0.45
17:I:96:LYS:HD3	17:I:138:VAL:HG22	1.98	0.45
18:J:32:LEU:HD22	18:J:54:ILE:HD11	1.98	0.45
20:L:29:LYS:HE3	26:R:82:HIS:CE1	2.52	0.45
20:L:85:VAL:C	20:L:86:GLU:HG2	2.41	0.45
26:R:34:GLU:OE2	26:R:60:LYS:HA	2.15	0.45
27:S:51:LEU:O	27:S:55:ILE:N	2.41	0.45
31:W:22:VAL:HG22	31:W:25:PHE:HB2	1.98	0.45
31:W:48:ALA:O	31:W:61:LYS:HB2	2.16	0.45
2:1:8:ILE:HG21	2:1:26:LYS:HE3	1.98	0.45
7:6:324:ASP:OD2	7:6:341:TRP:HE3	1.97	0.45
9:A:30:C:N4	9:A:53:A:H61	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:A:81:G:C6	9:A:96:G:C5	3.05	0.45
9:A:102:G:H2'	9:A:103:U:H6	1.81	0.45
9:A:106:G:C5	9:A:107:G:C5	3.05	0.45
10:B:18:U:C2	10:B:19:A:N7	2.85	0.45
10:B:194:G:C6	10:B:195:A:C5	3.05	0.45
10:B:338:G:C5	10:B:339:U:C4	3.05	0.45
10:B:594:U:C4	10:B:595:C:C4	3.05	0.45
10:B:673:C:H2'	10:B:674:G:H8	1.78	0.45
10:B:678:C:C2	10:B:679:C:C6	3.05	0.45
10:B:868:U:C4	10:B:869:G:C5	3.04	0.45
10:B:910:A:C8	21:M:13:HIS:CG	3.05	0.45
10:B:974:G:C5	10:B:1186:G:C2	3.05	0.45
10:B:1039:A:H4'	30:V:45:ASP:OD2	2.16	0.45
10:B:1093:G:C2	17:I:3:LYS:HB3	2.52	0.45
10:B:1131:G:C4	18:J:77:HIS:CE1	3.05	0.45
10:B:1202:G:C6	10:B:1203:U:N3	2.85	0.45
10:B:1205:A:H4'	10:B:1206:G:OP2	2.16	0.45
10:B:1230:A:C5	10:B:1231:U:C4	3.04	0.45
10:B:1269:A:H2'	10:B:1270:C:C6	2.52	0.45
10:B:1385:A:H4'	10:B:1386:C:OP1	2.16	0.45
10:B:1458:U:C5	10:B:2702:G:N1	2.85	0.45
10:B:1527:G:H1'	10:B:1546:G:N2	2.31	0.45
10:B:1729:U:C4	10:B:1731:G:N2	2.85	0.45
10:B:1850:G:C6	10:B:1851:U:C4	3.04	0.45
10:B:2122:U:O5'	10:B:2122:U:H6	1.99	0.45
10:B:2199:A:O2'	16:H:28:ASN:ND2	2.49	0.45
10:B:2253:G:O2'	10:B:2254:C:O5'	2.32	0.45
10:B:2272:U:HO2'	10:B:2273:A:P	2.38	0.45
10:B:2345:G:H1'	10:B:2381:A:H2'	1.98	0.45
10:B:2358:A:C5	10:B:2359:C:C5	3.05	0.45
10:B:2506:U:O2'	10:B:2507:C:O5'	2.30	0.45
10:B:2563:U:H4'	19:K:26:GLY:O	2.16	0.45
10:B:2643:G:C6	10:B:2644:G:C5	3.05	0.45
10:B:2819:G:C6	10:B:2821:A:C2	3.05	0.45
10:B:2846:G:O3'	24:P:49:ILE:HD11	2.16	0.45
10:B:2863:C:OP1	24:P:112:ARG:HD2	2.16	0.45
11:C:54:GLY:N	11:C:216:ARG:HG3	2.32	0.45
12:D:33:ARG:HE	12:D:74:GLU:HB2	1.82	0.45
13:E:49:ARG:O	13:E:74:LYS:HD3	2.17	0.45
15:G:156:TYR:CG	15:G:175:LYS:NZ	2.82	0.45
17:I:9:LYS:HA	17:I:56:VAL:O	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:K:63:ARG:HG2	19:K:78:PHE:CE2	2.51	0.45
20:L:116:VAL:HG11	20:L:134:ALA:C	2.42	0.45
27:S:33:LEU:O	27:S:36:LEU:HB2	2.17	0.45
7:6:51:ALA:HA	7:6:52:PRO:HD3	1.81	0.45
7:6:78:VAL:CG1	7:6:100:VAL:HG22	2.47	0.45
8:7:59:LEU:O	8:7:63:ALA:N	2.37	0.45
8:7:132:TYR:HE1	8:7:153:ARG:HH21	1.64	0.45
10:B:27:G:C5	10:B:512:G:N1	2.85	0.45
10:B:91:A:N3	10:B:91:A:H2'	2.32	0.45
10:B:102:U:H6	10:B:102:U:H2'	1.56	0.45
10:B:251:A:N1	10:B:252:G:H1'	2.32	0.45
10:B:252:G:P	20:L:47:ARG:NH2	2.85	0.45
10:B:289:G:H2'	10:B:290:U:H6	1.78	0.45
10:B:291:G:H2'	10:B:292:U:H6	1.82	0.45
10:B:445:C:O2'	25:Q:2:ARG:NH1	2.49	0.45
10:B:464:U:C2	10:B:788:A:C6	3.05	0.45
10:B:711:G:C6	10:B:721:A:C6	3.04	0.45
10:B:754:U:C2	10:B:755:U:C5	3.04	0.45
10:B:945:A:N1	10:B:2448:A:C4	2.85	0.45
10:B:1323:C:H3'	10:B:1324:G:H5"	1.98	0.45
10:B:1424:G:N1	10:B:1425:G:C2	2.85	0.45
10:B:1665:A:H5"	19:K:65:LYS:HG3	1.99	0.45
10:B:1789:A:OP2	11:C:220:ARG:NE	2.50	0.45
10:B:1881:C:H2'	10:B:1882:U:O4'	2.16	0.45
10:B:1952:A:C6	10:B:1953:A:N1	2.84	0.45
10:B:2083:G:C6	10:B:2084:C:C2	3.05	0.45
10:B:2265:U:C4	10:B:2266:A:C6	3.04	0.45
10:B:2374:C:N4	10:B:2375:G:O6	2.49	0.45
10:B:2483:C:C4	10:B:2484:G:C8	3.04	0.45
10:B:2523:G:C6	10:B:2524:G:N7	2.85	0.45
10:B:2588:G:N2	10:B:2589:A:C4	2.84	0.45
10:B:2597:G:C6	10:B:2598:A:N1	2.85	0.45
10:B:2634:A:N3	10:B:2635:A:C8	2.85	0.45
10:B:2839:G:C6	10:B:2840:C:C2	3.04	0.45
12:D:33:ARG:HH21	12:D:73:VAL:HA	1.81	0.45
14:F:7:TYR:CD2	14:F:11:VAL:HG11	2.51	0.45
15:G:100:ASN:C	15:G:115:GLN:HG3	2.42	0.45
15:G:104:LEU:HD11	15:G:147:LEU:HD11	1.99	0.45
16:H:2:GLN:HA	16:H:19:VAL:O	2.17	0.45
17:I:38:CYS:O	17:I:42:ASN:N	2.33	0.45
23:O:34:HIS:CD2	23:O:54:VAL:HG22	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Q:27:ARG:HG2	25:Q:33:VAL:HG12	1.99	0.45
25:Q:86:SER:C	25:Q:88:GLU:N	2.73	0.45
27:S:69:LEU:HB3	27:S:107:VAL:CG1	2.46	0.45
6:5:3:LYS:HE2	10:B:2177:C:N4	2.32	0.45
7:6:30:PHE:O	7:6:34:VAL:HG23	2.17	0.45
8:7:37:LYS:NZ	8:7:83:ALA:HB1	2.32	0.45
9:A:36:C:N4	9:A:49:C:H1'	2.32	0.45
9:A:45:A:C6	9:A:46:A:C4	3.05	0.45
10:B:85:G:C5	10:B:86:G:C8	3.05	0.45
10:B:203:A:N7	10:B:204:A:C5	2.85	0.45
10:B:247:G:HO2'	10:B:386:G:H1	1.55	0.45
10:B:301:G:C5	10:B:302:C:C4	3.05	0.45
10:B:374:A:C6	10:B:375:G:C5	3.05	0.45
10:B:393:C:H2'	10:B:394:C:H6	1.81	0.45
10:B:618:G:C4	10:B:619:G:C8	3.04	0.45
10:B:695:G:C2	10:B:768:G:C4	3.05	0.45
10:B:740:C:N4	10:B:757:G:H22	2.15	0.45
10:B:795:C:C2	10:B:796:C:C6	3.05	0.45
10:B:820:A:C4	10:B:821:A:C8	3.05	0.45
10:B:843:G:N2	10:B:936:A:C4	2.85	0.45
10:B:856:G:C2	10:B:857:G:C4	3.05	0.45
10:B:876:C:H2'	10:B:877:A:C1'	2.47	0.45
10:B:879:G:C5	10:B:880:G:C5	3.04	0.45
10:B:880:G:C6	10:B:895:U:N3	2.85	0.45
10:B:1007:C:C5	10:B:1008:A:C5	3.05	0.45
10:B:1011:G:C6	10:B:1013:C:N3	2.85	0.45
10:B:1017:G:H2'	10:B:1018:U:C6	2.52	0.45
10:B:1077:A:HO2'	17:I:93:ASN:ND2	2.14	0.45
10:B:1151:A:H4'	25:Q:80:ASN:HD22	1.82	0.45
10:B:1249:U:OP2	20:L:21:ARG:NH2	2.50	0.45
10:B:1290:C:C4	10:B:1291:C:N4	2.85	0.45
10:B:1359:A:H62	10:B:1372:U:H3	1.65	0.45
10:B:1666:G:O2'	10:B:1667:G:H5'	2.17	0.45
10:B:1691:C:O2	10:B:1696:G:N1	2.50	0.45
10:B:1795:C:N3	10:B:1824:G:N2	2.59	0.45
10:B:2048:G:C6	10:B:2621:G:N1	2.85	0.45
10:B:2198:A:C2	16:H:29:PHE:CG	3.05	0.45
10:B:2239:G:C6	10:B:2240:U:N3	2.85	0.45
10:B:2333:A:H5'	10:B:2335:A:H1'	1.98	0.45
10:B:2372:U:H2'	10:B:2373:G:C8	2.52	0.45
10:B:2410:G:C2	10:B:2411:A:C4	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2428:G:N2	20:L:54:GLN:HE21	2.15	0.45
10:B:2825:G:C6	10:B:2826:A:C5	3.05	0.45
11:C:97:ASP:OD2	11:C:99:GLU:OE2	2.34	0.45
11:C:229:HIS:HE1	11:C:231:HIS:HD2	1.64	0.45
11:C:250:GLN:N	11:C:254:LYS:HZ2	2.13	0.45
12:D:15:PHE:HB2	24:P:11:GLN:HE21	1.82	0.45
12:D:109:VAL:HB	12:D:175:LEU:HD12	1.98	0.45
14:F:168:LEU:O	14:F:170:ALA:N	2.50	0.45
15:G:81:GLY:C	15:G:82:PHE:CG	2.95	0.45
21:M:73:ILE:HG21	21:M:91:TYR:OH	2.17	0.45
24:P:87:ARG:NH1	24:P:88:ARG:C	2.70	0.45
24:P:110:LYS:O	24:P:114:ASN:ND2	2.47	0.45
27:S:83:LYS:HG2	27:S:97:LEU:HD23	1.99	0.45
30:V:46:LYS:HB3	30:V:46:LYS:HE2	1.77	0.45
2:1:24:LYS:NZ	2:1:26:LYS:HA	2.32	0.45
6:5:37:LYS:HZ2	10:B:2127:G:C2'	2.26	0.45
6:5:41:SER:HB3	6:5:174:THR:HG23	1.99	0.45
7:6:15:HIS:CD2	7:6:81:ASP:OD2	2.64	0.45
7:6:23:ASP:O	7:6:24:MET:HG2	2.17	0.45
7:6:147:LYS:NZ	7:6:159:GLN:CD	2.75	0.45
7:6:210:LYS:HZ2	7:6:283:VAL:CB	2.27	0.45
9:A:52:A:C5	9:A:53:A:C4	3.04	0.45
10:B:21:A:C4	10:B:520:G:C2	3.05	0.45
10:B:102:U:C1'	33:Y:4:LYS:NZ	2.79	0.45
10:B:150:U:H2'	10:B:151:C:O4'	2.17	0.45
10:B:258:G:C4	10:B:259:G:C8	3.05	0.45
10:B:465:G:C6	10:B:466:A:N1	2.85	0.45
10:B:476:G:N1	10:B:479:A:OP2	2.50	0.45
10:B:493:G:H2'	10:B:494:G:O4'	2.17	0.45
10:B:501:A:C2	10:B:502:A:C4	3.05	0.45
10:B:524:G:H2'	10:B:525:U:C6	2.51	0.45
10:B:567:U:N3	10:B:568:U:O2	2.49	0.45
10:B:577:G:N2	10:B:578:G:C5	2.85	0.45
10:B:651:G:HO2'	10:B:652:U:P	2.38	0.45
10:B:668:A:C6	10:B:670:A:C6	3.05	0.45
10:B:701:G:H1	10:B:731:C:N4	2.14	0.45
10:B:776:G:N7	10:B:793:A:C8	2.85	0.45
10:B:873:C:H1'	21:M:28:PHE:HE1	1.82	0.45
10:B:915:C:N3	10:B:916:G:C4	2.85	0.45
10:B:1011:G:N1	10:B:1151:A:C5	2.85	0.45
10:B:1014:A:C5	10:B:1015:U:C4	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1026:G:H2'	10:B:1027:A:C8	2.52	0.45
10:B:1057:A:P	10:B:1057:A:H8	2.40	0.45
10:B:1062:G:C1'	10:B:1088:A:H62	2.28	0.45
10:B:1081:U:O3'	17:I:118:GLY:HA2	2.16	0.45
10:B:1125:G:C6	10:B:1126:A:N6	2.84	0.45
10:B:1307:A:C6	10:B:1622:G:C6	3.05	0.45
10:B:1410:G:H2'	10:B:1411:U:C6	2.52	0.45
10:B:1434:A:H62	10:B:1558:C:N4	2.14	0.45
10:B:1623:G:C6	10:B:1624:U:C4	3.05	0.45
10:B:1642:G:C2	10:B:1643:G:C4	3.05	0.45
10:B:1754:A:C2	10:B:1755:A:C4	3.05	0.45
10:B:1907:G:C6	10:B:1908:C:N3	2.84	0.45
10:B:1909:C:O2	10:B:1921:G:N1	2.44	0.45
10:B:2027:G:C6	10:B:2028:U:C2	3.04	0.45
10:B:2035:G:OP1	10:B:2036:C:N4	2.38	0.45
10:B:2054:A:N1	10:B:2616:C:C4	2.85	0.45
10:B:2162:G:O2'	10:B:2173:A:O2'	2.28	0.45
10:B:2285:C:O2	10:B:2346:A:N6	2.50	0.45
10:B:2331:G:N7	10:B:2332:C:N4	2.65	0.45
10:B:2355:G:C6	10:B:2356:U:N3	2.83	0.45
10:B:2414:G:C2	10:B:2415:G:C4	3.05	0.45
10:B:2465:C:H2'	10:B:2466:C:C6	2.52	0.45
10:B:2485:G:H2'	10:B:2486:C:C6	2.52	0.45
10:B:2657:A:H2'	10:B:2658:C:H5'	1.99	0.45
10:B:2721:A:C2	10:B:2873:A:C5	3.05	0.45
10:B:2785:C:H2'	10:B:2786:U:C6	2.51	0.45
10:B:2836:U:H2'	10:B:2837:A:H8	1.82	0.45
10:B:2852:G:P	22:N:64:ARG:HH22	2.37	0.45
12:D:35:THR:HB	12:D:67:HIS:HE1	1.82	0.45
12:D:138:LEU:O	12:D:139:SER:OG	2.30	0.45
12:D:179:ARG:O	12:D:188:LEU:HB2	2.16	0.45
14:F:62:GLN:HB3	14:F:63:LYS:H	1.48	0.45
16:H:144:VAL:O	16:H:146:VAL:HG23	2.17	0.45
18:J:110:PRO:HB2	18:J:111:LYS:NZ	2.32	0.45
19:K:46:ILE:HG13	19:K:47:PRO:HD2	1.99	0.45
19:K:62:VAL:HG23	19:K:82:ALA:HB3	1.99	0.45
20:L:23:ILE:CD1	26:R:84:ARG:HD3	2.47	0.45
20:L:96:LYS:HZ2	20:L:103:ILE:C	2.24	0.45
22:N:38:LEU:O	22:N:41:ALA:HB3	2.17	0.45
24:P:4:ILE:O	24:P:6:GLN:HG2	2.16	0.45
26:R:91:GLN:HE21	26:R:92:TRP:H	1.63	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:S:47:VAL:HG12	27:S:103:ILE:HG21	1.99	0.45
32:X:34:SER:HA	32:X:48:LEU:O	2.16	0.45
6:5:9:ARG:NH1	10:B:2151:U:OP2	2.50	0.45
6:5:12:ARG:NH2	10:B:2176:A:N7	2.65	0.45
6:5:139:ASN:HD22	6:5:162:ARG:HD2	1.82	0.45
7:6:26:ASP:O	7:6:27:LEU:HB3	2.15	0.45
7:6:224:ALA:HB1	35:6:527:GNP:PA	2.57	0.45
7:6:257:ARG:HH21	7:6:258:HIS:HE1	1.65	0.45
9:A:18:G:H3'	9:A:19:C:C5	2.52	0.45
9:A:78:A:C4	9:A:99:A:C5	3.05	0.45
10:B:49:A:OP1	10:B:50:U:H2'	2.17	0.45
10:B:120:U:H4'	10:B:121:G:C5'	2.47	0.45
10:B:596:U:H2'	10:B:597:G:H8	1.81	0.45
10:B:644:A:N6	10:B:2349:G:H21	2.07	0.45
10:B:707:G:C2	10:B:725:G:H1'	2.51	0.45
10:B:759:G:H2'	10:B:760:G:H8	1.81	0.45
10:B:986:C:C2	10:B:987:C:C6	3.05	0.45
10:B:986:C:H2'	10:B:987:C:C6	2.52	0.45
10:B:1063:G:N1	10:B:1075:C:O2	2.46	0.45
10:B:1095:A:C5	10:B:1096:A:C6	3.04	0.45
10:B:1129:A:HO2'	10:B:1130:U:P	2.40	0.45
10:B:1214:A:N6	10:B:1235:G:O2'	2.44	0.45
10:B:1227:G:C4	10:B:1228:G:C8	3.05	0.45
10:B:1306:C:N3	10:B:1623:G:C6	2.85	0.45
10:B:1361:G:C6	10:B:1362:C:N4	2.85	0.45
10:B:1613:G:C8	10:B:1617:C:N4	2.85	0.45
10:B:1658:C:P	12:D:140:HIS:CD2	3.10	0.45
10:B:1945:G:C4	10:B:1946:U:C5	3.04	0.45
10:B:2091:C:C5'	10:B:2092:U:H5"	2.46	0.45
10:B:2198:A:H4'	10:B:2199:A:OP1	2.17	0.45
10:B:2346:A:C5	10:B:2383:G:C2	3.05	0.45
10:B:2372:U:C2	10:B:2373:G:N7	2.85	0.45
10:B:2523:G:C4	10:B:2765:A:N6	2.85	0.45
10:B:2828:G:C6	10:B:2829:A:N7	2.85	0.45
12:D:64:GLU:HG3	12:D:68:PHE:HE2	1.82	0.45
12:D:65:ALA:HA	12:D:68:PHE:HB2	1.98	0.45
13:E:124:PHE:CZ	13:E:137:LYS:HB3	2.52	0.45
15:G:120:ILE:HD12	15:G:140:ILE:HG13	1.99	0.45
18:J:130:HIS:O	18:J:130:HIS:CG	2.70	0.45
21:M:57:VAL:HG11	21:M:105:MET:HE3	1.98	0.45
25:Q:64:ILE:HG12	25:Q:95:ALA:O	2.18	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:R:62:GLU:OE2	26:R:97:LYS:C	2.59	0.45
28:T:43:ILE:O	28:T:47:VAL:HG22	2.15	0.45
29:U:10:VAL:HG22	29:U:22:GLY:O	2.17	0.45
32:X:10:ARG:O	32:X:12:VAL:HG13	2.17	0.45
6:5:105:LYS:HG2	10:B:2168:G:C6	2.52	0.44
8:7:34:THR:HA	10:B:1085:A:N6	2.32	0.44
9:A:29:A:H5'	23:O:4:LYS:HZ1	1.82	0.44
9:A:46:A:C6	9:A:47:C:C2	3.05	0.44
10:B:169:G:H2'	10:B:170:U:C6	2.52	0.44
10:B:194:G:N1	10:B:195:A:C4	2.86	0.44
10:B:329:G:C2	10:B:477:A:C2	3.05	0.44
10:B:375:G:C2	10:B:376:G:C8	3.05	0.44
10:B:417:C:C2	10:B:418:C:C6	3.05	0.44
10:B:464:U:C5	10:B:788:A:C2	3.05	0.44
10:B:496:G:C4	10:B:497:A:C8	3.05	0.44
10:B:648:G:C2	10:B:649:G:C8	3.06	0.44
10:B:775:G:C5	10:B:777:G:N2	2.85	0.44
10:B:953:G:C2	10:B:965:C:C2	3.05	0.44
10:B:973:A:H5'	10:B:1188:U:C2	2.52	0.44
10:B:1003:G:N2	10:B:1010:A:N3	2.62	0.44
10:B:1060:U:P	17:I:75:ALA:H	2.40	0.44
10:B:1061:U:C2	10:B:1070:A:C4	3.06	0.44
10:B:1097:U:H3	17:I:29:GLN:CD	2.25	0.44
10:B:1212:G:O2'	10:B:1213:A:OP2	2.35	0.44
10:B:1246:A:H2'	10:B:1247:A:C8	2.52	0.44
10:B:1392:A:H62	10:B:1393:A:N6	2.15	0.44
10:B:1813:G:C4	10:B:1814:G:N7	2.85	0.44
10:B:1815:A:C8	10:B:1817:G:C4	3.05	0.44
10:B:1940:U:H4'	10:B:1941:C:C5'	2.46	0.44
10:B:2080:A:H2'	10:B:2081:U:C6	2.51	0.44
10:B:2285:C:H5'	10:B:2288:A:N1	2.32	0.44
10:B:2331:G:C6	10:B:2332:C:C4	3.05	0.44
10:B:2386:A:C6	10:B:2387:U:C4	3.05	0.44
10:B:2469:A:N6	10:B:2470:G:C4	2.85	0.44
10:B:2531:A:H2'	10:B:2532:G:O4'	2.16	0.44
10:B:2550:G:C5	10:B:2551:C:C5	3.04	0.44
10:B:2588:G:C2	10:B:2589:A:C4	3.06	0.44
10:B:2618:G:N2	10:B:2619:C:H1'	2.32	0.44
10:B:2653:U:H3'	10:B:2654:A:H8	1.77	0.44
10:B:2718:G:H5'	24:P:98:TYR:HE1	1.82	0.44
10:B:2723:C:C2	10:B:2724:U:C5	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2821:A:H4'	12:D:167:ASN:ND2	2.32	0.44
10:B:2831:G:P	12:D:56:LYS:NZ	2.90	0.44
11:C:86:ARG:HB3	11:C:88:ALA:N	2.32	0.44
11:C:143:VAL:HG22	11:C:144:GLU:O	2.17	0.44
12:D:124:ARG:HG2	12:D:125:TRP:NE1	2.31	0.44
14:F:121:PHE:HA	14:F:126:ASN:O	2.17	0.44
14:F:125:GLY:N	14:F:162:ASP:OD1	2.30	0.44
19:K:85:LEU:HB2	19:K:94:ILE:CD1	2.47	0.44
25:Q:48:ASP:C	25:Q:50:ARG:N	2.74	0.44
31:W:59:PHE:N	31:W:59:PHE:CD1	2.85	0.44
1:0:3:GLN:HA	10:B:2615:U:O2	2.18	0.44
1:0:42:ILE:HD11	1:0:46:GLY:HA2	1.99	0.44
5:4:4:ARG:NH2	10:B:2477:U:H5	2.15	0.44
6:5:6:LYS:HG3	6:5:9:ARG:NH2	2.32	0.44
6:5:59:VAL:HG23	6:5:60:ARG:H	1.82	0.44
7:6:320:ASP:H	7:6:343:SER:HB2	1.82	0.44
8:7:58:THR:OG1	8:7:82:ILE:HB	2.16	0.44
9:A:57:A:C5	9:A:58:A:C5	3.05	0.44
9:A:85:G:C2	9:A:86:G:C5	3.06	0.44
10:B:35:G:C5	10:B:36:G:C8	3.06	0.44
10:B:64:A:C2	10:B:65:U:C2	3.06	0.44
10:B:170:U:H2'	10:B:171:U:O4'	2.17	0.44
10:B:374:A:H1'	10:B:401:A:C6	2.52	0.44
10:B:508:A:O2'	10:B:509:C:OP1	2.31	0.44
10:B:563:A:P	26:R:79:ARG:NH2	2.91	0.44
10:B:587:C:N3	20:L:33:ARG:NH1	2.58	0.44
10:B:684:G:C6	10:B:774:G:C5	3.05	0.44
10:B:1192:G:N3	10:B:1193:G:C8	2.86	0.44
10:B:1201:U:H3	10:B:1244:A:N6	2.14	0.44
10:B:1204:A:O4'	10:B:1206:G:C8	2.70	0.44
10:B:1357:C:H2'	10:B:1358:G:O4'	2.16	0.44
10:B:1361:G:C5	10:B:1362:C:C4	3.04	0.44
10:B:1391:U:O2'	28:T:19:LYS:HD3	2.17	0.44
10:B:1707:G:H2'	10:B:1708:C:O4'	2.18	0.44
10:B:1932:A:C4	10:B:1933:G:C8	3.05	0.44
10:B:2050:C:H5"	12:D:143:PRO:HG2	1.99	0.44
10:B:2057:G:C5	10:B:2058:A:N7	2.85	0.44
10:B:2296:U:H2'	23:O:9:ARG:HH22	1.82	0.44
10:B:2300:C:H2'	10:B:2301:C:C6	2.53	0.44
10:B:2328:A:C2	10:B:2329:U:C4	3.05	0.44
10:B:2336:A:N7	31:W:40:ARG:CZ	2.80	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2359:C:N4	10:B:2360:G:O6	2.50	0.44
10:B:2373:G:N2	10:B:2374:C:C2	2.85	0.44
10:B:2400:G:C6	10:B:2401:U:N3	2.85	0.44
10:B:2469:A:C5	10:B:2470:G:C8	3.05	0.44
10:B:2550:G:H2'	10:B:2551:C:H6	1.82	0.44
10:B:2734:A:C6	10:B:2735:G:C4	3.04	0.44
10:B:2771:C:O2'	12:D:173:GLN:OE1	2.35	0.44
10:B:2822:G:C8	22:N:1:MET:HE3	2.52	0.44
10:B:2847:U:O4	10:B:2848:G:N1	2.50	0.44
11:C:23:LEU:HD23	11:C:23:LEU:HA	1.75	0.44
11:C:67:LYS:HG2	11:C:69:ASN:HD21	1.82	0.44
11:C:179:GLU:CD	11:C:269:ARG:NH1	2.75	0.44
11:C:242:HIS:HA	11:C:243:PRO:HD3	1.54	0.44
12:D:34:VAL:H	12:D:93:GLY:CA	2.28	0.44
13:E:67:ARG:HG2	13:E:67:ARG:HH11	1.82	0.44
13:E:106:LYS:CG	13:E:200:LEU:HD13	2.46	0.44
13:E:155:GLU:HA	13:E:158:PHE:CD2	2.43	0.44
15:G:139:VAL:O	15:G:143:VAL:HG22	2.18	0.44
16:H:65:ALA:H	16:H:71:LYS:HG3	1.82	0.44
18:J:25:LEU:HD11	18:J:100:VAL:HG12	1.99	0.44
18:J:38:GLY:O	18:J:40:HIS:N	2.43	0.44
18:J:57:LEU:HB3	18:J:128:ASN:HA	1.99	0.44
18:J:99:ARG:O	18:J:103:ILE:HG22	2.17	0.44
22:N:33:ILE:O	22:N:33:ILE:HG13	2.16	0.44
26:R:34:GLU:HB3	26:R:35:PHE:H	1.68	0.44
27:S:108:SER:OG	27:S:109:ASP:N	2.47	0.44
28:T:5:GLU:HG3	33:Y:18:LEU:HD11	1.99	0.44
28:T:22:THR:HA	28:T:25:GLU:HB2	1.99	0.44
29:U:88:ASP:O	29:U:91:LYS:HD2	2.17	0.44
6:5:33:LEU:HD13	6:5:220:ALA:HB3	2.00	0.44
9:A:20:G:H1	9:A:63:C:H42	1.65	0.44
9:A:63:C:C4	9:A:64:G:N7	2.85	0.44
10:B:83:A:N6	10:B:100:U:O3'	2.50	0.44
10:B:122:G:H2'	10:B:123:G:H8	1.83	0.44
10:B:189:G:H3'	10:B:205:G:H22	1.81	0.44
10:B:242:G:O2'	10:B:243:U:OP2	2.34	0.44
10:B:399:U:H2'	10:B:400:G:H8	1.83	0.44
10:B:572:A:N7	10:B:573:U:C5	2.85	0.44
10:B:582:A:C4'	25:Q:10:ARG:HH22	2.30	0.44
10:B:744:U:C4	10:B:745:G:C6	3.06	0.44
10:B:760:G:C6	10:B:761:A:C4	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:795:C:C4	10:B:796:C:C4	3.05	0.44
10:B:1016:G:C6	10:B:1147:A:N6	2.85	0.44
10:B:1138:G:N2	18:J:108:MET:HE2	2.32	0.44
10:B:1245:G:C2	10:B:1246:A:N7	2.86	0.44
10:B:1250:G:OP1	20:L:21:ARG:NH2	2.46	0.44
10:B:1252:G:C2	10:B:1253:A:C2	3.05	0.44
10:B:1341:G:H5"	10:B:1397:U:C2	2.53	0.44
10:B:1373:A:O2'	10:B:2212:A:C2	2.67	0.44
10:B:1401:G:C6	10:B:1402:U:N3	2.85	0.44
10:B:1478:G:C6	10:B:1479:G:C5	3.05	0.44
10:B:1676:A:N6	10:B:1677:A:C6	2.85	0.44
10:B:1792:G:C2	10:B:1793:C:C2	3.06	0.44
10:B:1948:G:C2	10:B:1959:G:C2	3.05	0.44
10:B:1959:G:C2	10:B:1960:A:N3	2.85	0.44
10:B:1990:C:C4	10:B:1991:U:C4	3.06	0.44
10:B:2088:A:C6	10:B:2089:C:C4	3.05	0.44
10:B:2223:G:C6	10:B:2224:G:C4	3.06	0.44
10:B:2369:A:C6	10:B:2370:G:C6	3.05	0.44
10:B:2372:U:H3	10:B:2381:A:N6	2.14	0.44
10:B:2376:A:OP1	10:B:2376:A:H8	1.99	0.44
10:B:2386:A:H2'	10:B:2387:U:C6	2.53	0.44
10:B:2408:U:C2	10:B:2409:G:N7	2.85	0.44
10:B:2516:A:C6	10:B:2517:C:C4	3.06	0.44
10:B:2759:G:H21	15:G:138:GLN:HE22	1.65	0.44
14:F:120:SER:O	14:F:127:TYR:HA	2.18	0.44
16:H:97:ARG:HH12	16:H:113:SER:CA	2.12	0.44
18:J:46:PRO:HG2	18:J:47:HIS:HD2	1.82	0.44
18:J:103:ILE:O	18:J:106:LYS:N	2.51	0.44
22:N:45:ARG:HB3	22:N:49:GLU:OE2	2.18	0.44
23:O:81:ARG:HA	23:O:84:GLU:CG	2.47	0.44
28:T:15:HIS:CE1	28:T:17:SER:HA	2.52	0.44
4:3:32:LEU:N	10:B:2420:C:OP2	2.50	0.44
5:4:34:LYS:CD	5:4:36:ARG:HH22	2.25	0.44
7:6:117:THR:HG23	7:6:233:ASP:OD2	2.18	0.44
7:6:176:SER:HA	7:6:179:GLU:CD	2.43	0.44
7:6:282:HIS:HB3	7:6:314:LEU:HD23	2.00	0.44
9:A:4:C:H2'	9:A:5:U:C6	2.50	0.44
9:A:34:A:C2	9:A:49:C:C2	3.06	0.44
10:B:67:U:C4	10:B:68:G:N7	2.85	0.44
10:B:310:A:C5	10:B:312:G:C4	3.06	0.44
10:B:461:C:C5	10:B:462:C:H5	2.35	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:480:A:P	29:U:43:LYS:HZ3	2.39	0.44
10:B:630:G:N2	10:B:632:A:H3'	2.32	0.44
10:B:777:G:H2'	10:B:778:G:H8	1.83	0.44
10:B:809:G:H2'	10:B:810:U:C5	2.52	0.44
10:B:816:C:O2'	10:B:817:C:H5'	2.17	0.44
10:B:860:U:C2	10:B:2268:A:O4'	2.70	0.44
10:B:954:G:C4	10:B:955:U:C6	3.05	0.44
10:B:1004:U:H4'	10:B:1010:A:H62	1.83	0.44
10:B:1142:A:C6	10:B:1144:A:C4	3.05	0.44
10:B:1262:A:C6	10:B:1263:U:C4	3.06	0.44
10:B:1403:A:C6	10:B:1404:C:C2	3.06	0.44
10:B:1430:G:H2'	10:B:1431:A:C8	2.40	0.44
10:B:1608:A:O3'	10:B:1609:A:H3'	2.17	0.44
10:B:1675:C:H2'	10:B:1676:A:C8	2.53	0.44
10:B:1853:A:N1	10:B:2087:G:H1'	2.31	0.44
10:B:2347:C:N3	10:B:2348:U:C4	2.85	0.44
10:B:2524:G:C2	10:B:2525:G:C4	3.05	0.44
10:B:2682:A:H2'	10:B:2683:C:C6	2.52	0.44
10:B:2721:A:H1'	10:B:2873:A:H8	1.80	0.44
10:B:2746:U:O2	10:B:2758:A:N6	2.35	0.44
10:B:2800:A:N3	10:B:2801:G:H1'	2.32	0.44
10:B:2824:C:P	10:B:2825:G:H22	2.39	0.44
10:B:2868:A:C6	10:B:2869:G:C5	3.05	0.44
11:C:231:HIS:HB3	11:C:232:GLY:H	1.66	0.44
13:E:29:HIS:CD2	20:L:8:PRO:HB3	2.52	0.44
14:F:5:ASP:HA	14:F:8:LYS:HE3	1.98	0.44
15:G:94:ARG:NH1	15:G:105:SER:OG	2.51	0.44
15:G:120:ILE:HD11	15:G:132:LEU:HB3	1.99	0.44
17:I:30:GLN:NE2	17:I:60:VAL:HG21	2.31	0.44
18:J:34:ARG:HG3	18:J:39:LYS:NZ	2.32	0.44
19:K:29:ARG:CZ	19:K:36:ASP:OD2	2.66	0.44
19:K:34:VAL:HA	19:K:61:VAL:HG11	1.99	0.44
23:O:64:TYR:CD2	23:O:67:ASN:HB2	2.50	0.44
24:P:31:VAL:O	24:P:37:LYS:HA	2.17	0.44
26:R:52:PRO:O	26:R:54:VAL:N	2.49	0.44
27:S:17:VAL:HG11	27:S:103:ILE:HD11	1.99	0.44
27:S:55:ILE:HG22	27:S:59:GLU:OE2	2.17	0.44
31:W:49:ASN:HB2	31:W:61:LYS:CG	2.45	0.44
1:0:15:ARG:CG	10:B:2046:G:H5'	2.43	0.44
3:2:4:THR:O	10:B:686:U:O2'	2.36	0.44
3:2:26:ASN:O	3:2:29:GLN:HB3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:5:THR:OG1	10:B:2150:C:H5”	2.17	0.44
6:5:184:LYS:HG2	6:5:187:GLU:CD	2.42	0.44
7:6:10:GLN:H	7:6:10:GLN:CD	2.25	0.44
7:6:12:VAL:HG23	7:6:75:ALA:CB	2.47	0.44
7:6:16:ILE:C	7:6:18:PHE:H	2.23	0.44
7:6:92:LEU:HD12	7:6:92:LEU:HA	1.76	0.44
8:7:3:LEU:HD12	8:7:5:LEU:H	1.82	0.44
8:7:97:LYS:HD3	8:7:130:PRO:HB3	2.00	0.44
9:A:10:G:C5	9:A:11:C:C4	3.06	0.44
9:A:99:A:C5	9:A:100:G:C5	3.06	0.44
9:A:116:G:H5’	23:O:55:GLU:HG3	1.98	0.44
10:B:48:G:N1	10:B:178:G:C6	2.86	0.44
10:B:57:C:C2	10:B:58:G:C8	3.06	0.44
10:B:89:A:C6	10:B:90:U:C4	3.06	0.44
10:B:407:G:H1	10:B:420:C:N4	2.15	0.44
10:B:516:C:C2	10:B:517:C:C5	3.06	0.44
10:B:712:G:C5	10:B:713:G:C5	3.06	0.44
10:B:799:G:C4	10:B:800:A:N7	2.86	0.44
10:B:956:G:P	21:M:86:LYS:HZ3	2.40	0.44
10:B:958:U:O4	21:M:40:ARG:HG3	2.18	0.44
10:B:1057:A:N7	10:B:1086:A:H2’	2.33	0.44
10:B:1197:G:C2	10:B:1250:G:C6	3.05	0.44
10:B:1228:G:C6	10:B:1229:C:C4	3.06	0.44
10:B:1235:G:C2	10:B:1236:G:N2	2.86	0.44
10:B:1448:G:C4	10:B:1449:G:C8	3.06	0.44
10:B:1582:C:N4	10:B:1583:A:H62	2.15	0.44
10:B:1678:A:O2’	10:B:1991:U:H4’	2.17	0.44
10:B:1750:G:H2’	10:B:1751:U:C6	2.51	0.44
10:B:1833:C:N3	10:B:1834:U:C4	2.86	0.44
10:B:1835:G:N3	10:B:1931:U:C2	2.86	0.44
10:B:1921:G:C4	10:B:1922:G:C8	3.04	0.44
10:B:1922:G:H2’	10:B:1923:U:C6	2.53	0.44
10:B:2011:U:O4	10:B:2012:G:N1	2.51	0.44
10:B:2020:A:N6	10:B:2022:U:C2	2.86	0.44
10:B:2050:C:H2’	10:B:2051:A:C8	2.52	0.44
10:B:2121:G:H1	10:B:2176:A:N6	2.16	0.44
10:B:2197:U:C2	10:B:2224:G:C2	3.06	0.44
10:B:2269:G:C2	10:B:2270:A:C4	3.06	0.44
10:B:2400:G:N1	10:B:2417:C:N3	2.65	0.44
10:B:2659:G:H2’	10:B:2661:G:OP2	2.17	0.44
10:B:2725:A:HO2’	10:B:2726:A:P	2.39	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2869:G:C5	10:B:2870:C:C5	3.06	0.44
18:J:98:GLU:OE2	18:J:125:TYR:C	2.58	0.44
21:M:95:LEU:HD12	21:M:95:LEU:HA	1.82	0.44
25:Q:96:ASP:OD1	25:Q:97:ILE:N	2.49	0.44
31:W:59:PHE:CZ	31:W:61:LYS:HE3	2.53	0.44
32:X:41:SER:O	32:X:43:LYS:HG3	2.17	0.44
6:5:104:ILE:CD1	10:B:2170:A:H5"	2.45	0.44
7:6:61:GLY:N	10:B:1908:C:OP1	2.50	0.44
7:6:99:ARG:NE	7:6:101:ILE:HD11	2.32	0.44
7:6:175:GLN:O	7:6:178:LEU:HB3	2.18	0.44
7:6:409:VAL:HG12	10:B:2660:A:C2	2.52	0.44
9:A:10:G:N2	9:A:110:C:C2	2.82	0.44
9:A:15:A:H3'	9:A:16:G:C8	2.44	0.44
9:A:20:G:H1	9:A:63:C:N4	2.14	0.44
10:B:45:G:C2	10:B:215:G:N2	2.84	0.44
10:B:93:G:C5	10:B:94:A:C8	3.06	0.44
10:B:197:A:C5	10:B:2430:A:C8	3.05	0.44
10:B:220:G:N2	10:B:265:A:H62	2.16	0.44
10:B:288:U:H2'	10:B:289:G:C8	2.53	0.44
10:B:565:C:H5'	10:B:1253:A:N6	2.33	0.44
10:B:604:G:C4	10:B:625:G:C2	3.05	0.44
10:B:638:G:N2	10:B:639:U:C2	2.86	0.44
10:B:650:C:H2'	10:B:651:G:O4'	2.17	0.44
10:B:664:G:O2'	10:B:940:G:H5'	2.17	0.44
10:B:701:G:C4	10:B:702:U:C5	3.05	0.44
10:B:729:G:H4'	10:B:763:G:H4'	1.99	0.44
10:B:769:U:O2	10:B:770:G:C8	2.71	0.44
10:B:877:A:H2	10:B:900:A:N7	2.16	0.44
10:B:1082:U:H2'	10:B:1083:U:C6	2.53	0.44
10:B:1150:C:H2'	10:B:1151:A:C8	2.49	0.44
10:B:1268:A:C6	10:B:1269:A:C4	3.06	0.44
10:B:1457:U:N3	10:B:1458:U:C4	2.85	0.44
10:B:1458:U:H1'	10:B:1461:C:O2	2.18	0.44
10:B:1497:U:O2'	10:B:1498:C:H5'	2.18	0.44
10:B:1559:U:O2'	10:B:1560:G:OP1	2.31	0.44
10:B:1643:G:C6	10:B:1644:C:N3	2.85	0.44
10:B:1820:U:H3	11:C:200:MET:HE2	1.83	0.44
10:B:1907:G:C5	10:B:1908:C:C4	3.05	0.44
10:B:1930:G:H2'	10:B:1968:G:C6	2.53	0.44
10:B:2053:G:C4	10:B:2054:A:C8	3.06	0.44
10:B:2100:G:H3'	10:B:2101:A:C8	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2266:A:H5'	10:B:2267:A:N3	2.33	0.44
10:B:2282:G:C6	10:B:2425:A:N1	2.86	0.44
10:B:2342:C:H6	10:B:2342:C:O5'	2.01	0.44
10:B:2460:U:H2'	10:B:2461:A:H8	1.83	0.44
10:B:2658:C:N3	10:B:2659:G:C5	2.86	0.44
10:B:2684:U:H2'	10:B:2685:G:O4'	2.17	0.44
11:C:226:PRO:HG3	11:C:232:GLY:O	2.17	0.44
12:D:12:THR:OG1	12:D:24:VAL:HG23	2.17	0.44
14:F:25:MET:HA	14:F:29:ARG:HH22	1.83	0.44
16:H:2:GLN:HG2	16:H:20:ASN:HB2	1.99	0.44
17:I:10:LEU:HD12	17:I:10:LEU:O	2.18	0.44
17:I:14:ALA:HB3	17:I:52:LEU:N	2.32	0.44
17:I:123:ALA:HA	17:I:126:ARG:HE	1.82	0.44
17:I:131:THR:HA	17:I:134:SER:HB2	2.00	0.44
25:Q:40:LYS:O	25:Q:43:GLN:HB2	2.18	0.44
26:R:19:THR:OG1	26:R:97:LYS:HD3	2.18	0.44
29:U:24:VAL:HG12	29:U:26:ASN:N	2.32	0.44
29:U:25:LYS:N	29:U:34:ILE:O	2.42	0.44
2:1:39:ASP:OD2	2:1:42:VAL:HG23	2.17	0.44
5:4:2:LYS:HE2	5:4:4:ARG:HD2	1.99	0.44
7:6:15:HIS:HE1	7:6:17:TYR:HB2	1.82	0.44
7:6:50:LYS:HD2	7:6:53:HIS:NE2	2.33	0.44
7:6:425:LEU:HG	7:6:426:ILE:OXT	2.17	0.44
9:A:14:U:O2'	9:A:107:G:O2'	2.33	0.44
9:A:16:G:C4	9:A:69:G:N2	2.85	0.44
9:A:24:G:C5	9:A:56:G:C4	3.05	0.44
9:A:53:A:C2	9:A:54:G:C4	3.05	0.44
10:B:17:G:C6	10:B:524:G:N1	2.85	0.44
10:B:48:G:C2	10:B:178:G:C6	3.06	0.44
10:B:63:A:C8	10:B:64:A:N7	2.86	0.44
10:B:122:G:C2	10:B:123:G:C5	3.05	0.44
10:B:162:U:O2'	10:B:163:C:OP2	2.35	0.44
10:B:327:G:H2'	10:B:328:U:C6	2.52	0.44
10:B:402:A:N1	10:B:422:A:N6	2.66	0.44
10:B:479:A:C8	10:B:481:G:N7	2.86	0.44
10:B:488:G:C4	10:B:490:C:C2	3.06	0.44
10:B:507:A:H4'	10:B:508:A:H5"	2.00	0.44
10:B:543:G:C6	10:B:551:G:C6	3.05	0.44
10:B:565:C:N4	10:B:573:U:OP1	2.50	0.44
10:B:647:G:C5	10:B:648:G:C5	3.05	0.44
10:B:699:A:N7	10:B:734:A:C5	2.86	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:792:A:C6	10:B:2440:C:C6	3.05	0.44
10:B:818:G:O2'	10:B:819:A:O4'	2.31	0.44
10:B:902:C:O5'	10:B:902:C:H6	2.01	0.44
10:B:930:G:C6	10:B:933:A:C2	3.06	0.44
10:B:955:U:OP1	21:M:86:LYS:HE3	2.18	0.44
10:B:962:G:H2'	10:B:963:U:C6	2.53	0.44
10:B:976:G:H4'	10:B:1156:A:H62	1.80	0.44
10:B:1009:A:H8	10:B:1009:A:H3'	1.83	0.44
10:B:1026:G:C5	10:B:1134:A:C5	3.06	0.44
10:B:1534:U:H3'	10:B:1536:C:H41	1.83	0.44
10:B:1696:G:H2'	10:B:1697:G:C8	2.52	0.44
10:B:1936:A:C2	10:B:1945:G:C4	3.06	0.44
10:B:2121:G:H2'	10:B:2122:U:C6	2.53	0.44
10:B:2121:G:N2	10:B:2177:C:O2	2.45	0.44
10:B:2331:G:H4'	31:W:41:GLY:HA3	1.99	0.44
10:B:2527:C:N4	10:B:2536:G:H1	2.16	0.44
10:B:2547:A:OP2	10:B:2566:A:H1'	2.18	0.44
10:B:2630:G:C5	10:B:2894:G:C5	3.05	0.44
10:B:2650:U:H3	10:B:2670:A:N6	2.15	0.44
10:B:2704:C:H5"	10:B:2705:A:OP2	2.18	0.44
10:B:2816:G:C4	10:B:2817:U:H5	2.35	0.44
10:B:2849:U:O4	24:P:20:ARG:NH2	2.50	0.44
12:D:64:GLU:HG3	12:D:68:PHE:CE2	2.52	0.44
15:G:120:ILE:HG13	15:G:133:LYS:O	2.17	0.44
18:J:64:VAL:CG1	18:J:69:ARG:HH11	2.31	0.44
19:K:109:GLU:OE1	19:K:111:PHE:HE1	2.01	0.44
20:L:19:LEU:HD22	20:L:31:GLY:C	2.43	0.44
21:M:50:ARG:O	21:M:53:MET:HB3	2.18	0.44
23:O:41:ALA:HB1	23:O:42:PRO:HD2	1.98	0.44
27:S:9:HIS:CD2	27:S:102:HIS:CE1	3.05	0.44
28:T:30:ILE:HD11	28:T:94:ASP:N	2.33	0.44
30:V:72:VAL:HA	30:V:94:ALA:N	2.32	0.44
5:4:7:VAL:HG13	5:4:35:GLN:CB	2.48	0.44
7:6:60:GLU:O	7:6:64:VAL:HG23	2.17	0.44
7:6:61:GLY:HA3	10:B:1908:C:H5'	2.00	0.44
7:6:167:LEU:O	7:6:171:ILE:HG13	2.18	0.44
9:A:8:C:H4'	23:O:25:ARG:NH2	2.30	0.44
9:A:33:G:C2	9:A:50:A:C4	3.06	0.44
9:A:73:A:C5	9:A:74:U:C4	3.06	0.44
9:A:100:G:H3'	9:A:101:A:C8	2.51	0.44
10:B:58:G:C2	10:B:70:G:C6	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:85:G:H8	29:U:6:ARG:NH2	2.16	0.44
10:B:150:U:C4	10:B:151:C:C4	3.06	0.44
10:B:184:C:H4'	10:B:217:A:C2	2.53	0.44
10:B:321:U:O2'	10:B:322:A:P	2.76	0.44
10:B:384:A:OP1	10:B:385:C:N4	2.32	0.44
10:B:445:C:C5	10:B:446:G:C6	3.06	0.44
10:B:533:G:C6	10:B:534:U:N3	2.86	0.44
10:B:604:G:C6	10:B:625:G:C5	3.05	0.44
10:B:604:G:C6	10:B:625:G:C6	3.06	0.44
10:B:611:C:H2'	10:B:612:G:O4'	2.17	0.44
10:B:664:G:C2	10:B:665:U:C2	3.06	0.44
10:B:675:A:C6	10:B:804:A:N3	2.86	0.44
10:B:675:A:H5'	13:E:58:LYS:HZ3	1.83	0.44
10:B:681:G:C5	10:B:682:G:C8	3.06	0.44
10:B:695:G:C6	10:B:768:G:C6	3.06	0.44
10:B:700:G:C2	10:B:701:G:N9	2.86	0.44
10:B:738:G:C5	10:B:739:A:C6	3.06	0.44
10:B:854:C:C2	10:B:924:G:C2	3.06	0.44
10:B:945:A:C5	10:B:2448:A:C2	3.06	0.44
10:B:1011:G:C6	10:B:1013:C:C2	3.06	0.44
10:B:1147:A:C4	10:B:1148:U:C5	3.06	0.44
10:B:1252:G:H1'	25:Q:32:ARG:HH11	1.82	0.44
10:B:1445:G:H2'	10:B:1446:C:C6	2.53	0.44
10:B:1569:A:C6	10:B:1570:A:C5	3.06	0.44
10:B:1773:A:N3	10:B:1977:A:N6	2.66	0.44
10:B:1867:G:N2	10:B:1875:G:O2'	2.51	0.44
10:B:1910:G:C6	10:B:1911:U:C2	3.06	0.44
10:B:2339:C:H2'	10:B:2340:A:C8	2.53	0.44
10:B:2364:C:OP1	31:W:54:ARG:HD3	2.18	0.44
10:B:2391:G:N2	10:B:2424:C:H2'	2.24	0.44
10:B:2461:A:C6	10:B:2462:C:C4	3.05	0.44
10:B:2776:A:H2'	10:B:2782:G:O6	2.17	0.44
10:B:2796:U:H2'	10:B:2797:U:O2	2.18	0.44
10:B:2812:G:C2	10:B:2813:A:H1'	2.53	0.44
10:B:2831:G:P	12:D:56:LYS:HZ3	2.40	0.44
10:B:2831:G:H5"	10:B:2832:U:O5'	2.17	0.44
11:C:249:VAL:CG1	11:C:254:LYS:HZ2	2.31	0.44
13:E:24:ASN:HB2	13:E:27:LEU:HB3	2.00	0.44
14:F:31:GLU:O	14:F:156:THR:HB	2.18	0.44
14:F:50:ASP:HB3	14:F:144:LYS:HZ1	1.83	0.44
14:F:129:MET:O	14:F:152:ASP:HA	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:G:82:PHE:O	15:G:84:LYS:HG3	2.17	0.44
15:G:140:ILE:HG23	15:G:141:GLY:H	1.83	0.44
15:G:148:ARG:HG3	15:G:161:VAL:HG12	1.99	0.44
26:R:62:GLU:OE2	26:R:98:ILE:N	2.51	0.44
27:S:9:HIS:CD2	27:S:102:HIS:HE1	2.35	0.44
30:V:9:ARG:N	30:V:39:ALA:O	2.37	0.44
32:X:32:LEU:HD23	32:X:51:SER:N	2.33	0.44
5:4:36:ARG:HG3	5:4:37:GLN:OE1	2.18	0.44
6:5:139:ASN:OD1	10:B:2122:U:H5"	2.18	0.44
6:5:166:ASP:CG	10:B:2121:G:H21	2.25	0.44
7:6:18:PHE:N	7:6:18:PHE:CD1	2.83	0.44
7:6:54:PRO:HG2	7:6:55:LYS:HG3	1.98	0.44
7:6:200:VAL:HG22	7:6:248:VAL:O	2.18	0.44
7:6:413:ARG:NH1	15:G:176:LYS:C	2.75	0.44
8:7:76:PHE:HB2	8:7:122:GLN:HE22	1.82	0.44
10:B:142:A:C6	10:B:143:C:C4	3.05	0.44
10:B:202:U:H5	10:B:203:A:C6	2.36	0.44
10:B:207:A:H3'	10:B:208:C:C6	2.52	0.44
10:B:303:G:C6	10:B:304:U:N3	2.86	0.44
10:B:308:G:N3	10:B:501:A:N7	2.66	0.44
10:B:352:A:C6	10:B:353:C:C4	3.06	0.44
10:B:374:A:C4	10:B:375:G:C8	3.06	0.44
10:B:380:G:C4	10:B:381:G:C8	3.06	0.44
10:B:496:G:C5	10:B:497:A:C8	3.06	0.44
10:B:504:A:H3'	10:B:504:A:N3	2.32	0.44
10:B:537:G:N2	10:B:557:C:C4	2.86	0.44
10:B:604:G:C6	10:B:605:G:C6	3.06	0.44
10:B:648:G:N1	10:B:649:G:C5	2.86	0.44
10:B:668:A:C5	10:B:670:A:C6	3.06	0.44
10:B:675:A:H5'	13:E:58:LYS:NZ	2.33	0.44
10:B:974:G:C4	10:B:1186:G:C2	3.06	0.44
10:B:1094:U:C2	10:B:1097:U:OP2	2.71	0.44
10:B:1099:G:N9	17:I:4:VAL:HB	2.33	0.44
10:B:1277:G:H2'	10:B:1278:C:C6	2.53	0.44
10:B:1528:A:C4	10:B:1544:A:C6	3.06	0.44
10:B:1542:U:H2'	10:B:1543:G:C8	2.53	0.44
10:B:1604:C:O2'	10:B:1610:A:N6	2.51	0.44
10:B:1676:A:H2'	10:B:1677:A:C8	2.53	0.44
10:B:1694:C:H5'	10:B:1695:G:C8	2.52	0.44
10:B:1801:A:N3	10:B:2203:U:N3	2.66	0.44
10:B:1903:G:C5	10:B:1904:G:C5	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1952:A:H62	10:B:1953:A:N6	2.15	0.44
10:B:2123:G:N1	10:B:2175:C:O2	2.51	0.44
10:B:2168:G:N1	10:B:2171:A:C8	2.85	0.44
10:B:2217:G:C6	10:B:2218:G:C6	3.06	0.44
10:B:2297:A:N6	10:B:2319:G:H1'	2.32	0.44
10:B:2388:A:O2'	10:B:2389:G:H5'	2.18	0.44
10:B:2397:G:C6	10:B:2420:C:C2	3.06	0.44
10:B:2571:U:HO2'	12:D:151:THR:HG23	1.77	0.44
10:B:2692:G:O2'	10:B:2847:U:O2	2.33	0.44
10:B:2724:U:H2'	10:B:2725:A:C8	2.53	0.44
10:B:2758:A:O2'	15:G:63:GLN:NE2	2.50	0.44
10:B:2773:C:OP1	12:D:169:ARG:NH2	2.51	0.44
10:B:2838:G:C2	10:B:2839:G:H1'	2.53	0.44
10:B:2848:G:O2'	10:B:2849:U:OP2	2.35	0.44
10:B:2852:G:C2	10:B:2853:C:C2	3.06	0.44
12:D:122:VAL:O	12:D:122:VAL:HG12	2.18	0.44
14:F:140:ILE:HB	14:F:141:ASP:H	1.62	0.44
23:O:92:PHE:CG	23:O:93:ASP:N	2.86	0.44
25:Q:79:ILE:HA	25:Q:82:LEU:HD12	2.00	0.44
26:R:19:THR:HG23	26:R:96:VAL:C	2.43	0.44
27:S:36:LEU:HA	27:S:39:THR:OG1	2.18	0.44
27:S:66:ILE:HG23	27:S:67:ASP:N	2.33	0.44
30:V:26:PHE:HA	30:V:27:PRO:HD3	1.71	0.44
32:X:32:LEU:O	32:X:33:HIS:ND1	2.51	0.44
33:Y:42:LEU:HA	33:Y:42:LEU:HD23	1.74	0.44
5:4:34:LYS:HB3	5:4:36:ARG:HH12	1.82	0.43
7:6:317:ASN:O	7:6:318:LYS:HB2	2.18	0.43
9:A:43:C:C2	9:A:45:A:C5	3.06	0.43
10:B:60:G:N2	10:B:74:A:C4	2.86	0.43
10:B:153:U:H2'	10:B:154:U:H6	1.82	0.43
10:B:191:A:C2	10:B:192:C:N3	2.86	0.43
10:B:234:U:H2'	10:B:235:U:C6	2.53	0.43
10:B:253:C:N4	10:B:254:G:C6	2.86	0.43
10:B:326:G:C2	10:B:337:C:C2	3.06	0.43
10:B:373:U:H5"	10:B:374:A:OP2	2.17	0.43
10:B:376:G:H1	10:B:398:C:N4	2.15	0.43
10:B:387:U:C2	10:B:388:G:N7	2.86	0.43
10:B:388:G:C2	10:B:390:U:C4	3.06	0.43
10:B:613:A:N1	10:B:616:A:C5	2.86	0.43
10:B:760:G:C2	10:B:761:A:H1'	2.53	0.43
10:B:778:G:C2	10:B:779:U:C2	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:822:G:C5	10:B:836:G:C2	3.06	0.43
10:B:856:G:H4'	31:W:23:LYS:CD	2.48	0.43
10:B:928:A:H2'	10:B:929:U:O4'	2.18	0.43
10:B:936:A:C6	10:B:937:C:N3	2.86	0.43
10:B:973:A:P	26:R:81:LYS:HZ3	2.40	0.43
10:B:1002:G:H22	10:B:1154:G:H1'	1.83	0.43
10:B:1024:G:C3'	10:B:1025:G:H5"	2.48	0.43
10:B:1137:G:H2'	10:B:1138:G:H8	1.83	0.43
10:B:1238:G:N3	10:B:1239:G:C8	2.86	0.43
10:B:1429:G:H2'	10:B:1430:G:H8	1.83	0.43
10:B:1454:C:C5'	22:N:63:ARG:NH2	2.81	0.43
10:B:1520:U:C4	10:B:1521:G:C6	3.06	0.43
10:B:1566:A:C6	11:C:212:TRP:CZ2	3.06	0.43
10:B:1579:A:H3'	10:B:1580:A:H8	1.83	0.43
10:B:1629:U:C2	10:B:1630:A:N7	2.86	0.43
10:B:1676:A:C6	10:B:1677:A:C5	3.06	0.43
10:B:1766:G:H2'	10:B:1767:G:H8	1.82	0.43
10:B:1770:G:C6	10:B:1771:C:C2	3.06	0.43
10:B:1791:A:H61	10:B:1828:G:HO2'	1.64	0.43
10:B:1827:U:O4	10:B:1828:G:N1	2.51	0.43
10:B:2199:A:N7	10:B:2200:C:C2	2.86	0.43
10:B:2294:G:O6	10:B:2339:C:N4	2.51	0.43
10:B:2311:A:OP1	14:F:71:LYS:NZ	2.42	0.43
10:B:2410:G:N2	10:B:2411:A:H1'	2.33	0.43
10:B:2633:G:C2	10:B:2634:A:C4	3.06	0.43
10:B:2638:G:C5	10:B:2775:G:N1	2.86	0.43
10:B:2684:U:C4	10:B:2685:G:N7	2.86	0.43
10:B:2806:C:C2	10:B:2807:U:C6	3.06	0.43
10:B:2816:G:C2	10:B:2831:G:C4	3.06	0.43
10:B:2848:G:C6	10:B:2867:G:C6	3.06	0.43
10:B:2887:A:C6	10:B:2888:C:C4	3.05	0.43
12:D:89:GLU:HG3	12:D:90:PHE:N	2.33	0.43
14:F:67:THR:OG1	14:F:85:GLY:O	2.30	0.43
14:F:108:PRO:HB2	14:F:178:LYS:CD	2.49	0.43
16:H:72:ILE:HD12	16:H:111:ALA:O	2.18	0.43
16:H:127:GLU:CD	16:H:141:LYS:HB3	2.43	0.43
20:L:130:GLY:O	20:L:133:ALA:HB3	2.18	0.43
22:N:33:ILE:HG22	22:N:114:GLU:HB2	2.00	0.43
23:O:29:HIS:CD2	23:O:36:TYR:HB2	2.53	0.43
23:O:98:GLN:HG2	23:O:100:HIS:HB2	1.99	0.43
24:P:88:ARG:HG2	24:P:89:GLY:N	2.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:P:95:LYS:C	24:P:97:TYR:N	2.76	0.43
30:V:66:ASP:CB	30:V:68:LYS:HZ3	2.31	0.43
33:Y:23:ARG:O	33:Y:27:ASN:HB3	2.18	0.43
33:Y:25:GLN:CG	33:Y:29:ARG:HH22	2.30	0.43
34:Z:5:LYS:CG	34:Z:36:GLU:HG2	2.47	0.43
4:3:22:LYS:NZ	10:B:650:C:O2'	2.41	0.43
6:5:71:ARG:NH1	6:5:112:ASP:CG	2.73	0.43
6:5:76:ALA:HB2	6:5:111:PHE:HB2	1.99	0.43
6:5:104:ILE:HD12	10:B:2171:A:P	2.58	0.43
7:6:124:VAL:O	7:6:127:ALA:N	2.51	0.43
7:6:173:GLN:O	7:6:176:SER:HB2	2.18	0.43
7:6:212:THR:O	7:6:215:ASN:HB2	2.17	0.43
8:7:54:VAL:HG21	10:B:1083:U:H5"	1.99	0.43
9:A:78:A:H2'	9:A:79:G:H8	1.83	0.43
10:B:98:G:C6	10:B:99:U:N3	2.86	0.43
10:B:222:A:C5	10:B:224:U:C2	3.06	0.43
10:B:463:G:N2	10:B:467:G:C4	2.86	0.43
10:B:468:G:C6	10:B:469:G:C4	3.06	0.43
10:B:480:A:N1	10:B:505:A:N1	2.65	0.43
10:B:523:C:C2	10:B:524:G:C8	3.06	0.43
10:B:604:G:C5	10:B:625:G:C2	3.06	0.43
10:B:612:G:N2	10:B:616:A:H62	2.15	0.43
10:B:613:A:N1	10:B:616:A:C6	2.86	0.43
10:B:631:A:H2'	10:B:632:A:O4'	2.17	0.43
10:B:717:C:H3'	10:B:718:A:C2	2.53	0.43
10:B:768:G:H2'	10:B:769:U:C6	2.54	0.43
10:B:782:A:C5	11:C:224:MET:HE2	2.54	0.43
10:B:808:G:H3'	10:B:809:G:H8	1.83	0.43
10:B:856:G:O2'	31:W:23:LYS:HB2	2.18	0.43
10:B:1006:C:H5"	18:J:39:LYS:HZ2	1.82	0.43
10:B:1034:G:C6	10:B:1122:G:C5	3.05	0.43
10:B:1218:G:C2	10:B:1232:G:C4	3.06	0.43
10:B:1234:U:N3	10:B:1235:G:C5	2.86	0.43
10:B:1288:G:C8	10:B:1328:A:H2	2.35	0.43
10:B:1334:G:C5	10:B:1335:C:C5	3.06	0.43
10:B:1419:A:C8	10:B:1421:G:C5	3.06	0.43
10:B:1491:G:H1'	11:C:99:GLU:HB3	2.00	0.43
10:B:1690:A:H3'	10:B:1691:C:C6	2.51	0.43
10:B:1694:C:H2'	10:B:1694:C:OP2	2.19	0.43
10:B:1824:G:OP1	11:C:51:ARG:NH2	2.51	0.43
10:B:1871:A:C6	10:B:1872:A:C4	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2209:G:C4	10:B:2210:U:C5	3.06	0.43
10:B:2569:G:C2'	10:B:2570:G:H8	2.28	0.43
10:B:2745:C:H2'	10:B:2746:U:O4'	2.17	0.43
10:B:2749:A:C6	10:B:2750:A:N7	2.86	0.43
15:G:42:VAL:HA	15:G:50:THR:O	2.17	0.43
18:J:109:LEU:CD1	18:J:119:PHE:HD1	2.30	0.43
23:O:76:LYS:HB3	23:O:80:GLU:OE2	2.18	0.43
25:Q:94:LEU:HD11	26:R:11:GLN:HB3	1.99	0.43
28:T:22:THR:HA	28:T:25:GLU:CG	2.48	0.43
3:2:44:VAL:HG21	10:B:465:G:H5"	1.99	0.43
7:6:50:LYS:HD2	7:6:53:HIS:CE1	2.53	0.43
7:6:78:VAL:HG12	7:6:98:CYS:SG	2.58	0.43
8:7:31:ARG:NH2	8:7:105:LYS:HD2	2.33	0.43
10:B:255:A:C6	10:B:256:A:C5	3.07	0.43
10:B:279:A:H8	10:B:279:A:P	2.41	0.43
10:B:562:U:N3	10:B:572:A:C4	2.78	0.43
10:B:575:A:H2'	10:B:576:U:C6	2.50	0.43
10:B:643:A:C5	10:B:644:A:C8	3.06	0.43
10:B:653:U:C4	10:B:654:A:C2	3.06	0.43
10:B:689:A:N1	10:B:773:U:O4	2.51	0.43
10:B:740:C:H5"	10:B:741:U:OP2	2.17	0.43
10:B:749:A:H4'	10:B:1271:G:N2	2.33	0.43
10:B:806:C:C5	10:B:807:U:C5	3.06	0.43
10:B:861:A:C2	10:B:917:A:C5	3.07	0.43
10:B:973:A:H8	10:B:973:A:OP1	2.02	0.43
10:B:1170:C:N4	10:B:1179:G:H1	2.13	0.43
10:B:1288:G:C8	10:B:1327:A:N6	2.86	0.43
10:B:1300:G:C6	10:B:1626:A:N7	2.86	0.43
10:B:1326:U:C6	10:B:1648:U:H1'	2.53	0.43
10:B:1339:G:N2	10:B:1340:U:H3	2.15	0.43
10:B:1394:U:C2'	10:B:1395:A:H5'	2.48	0.43
10:B:1492:G:C2	10:B:1496:A:N1	2.86	0.43
10:B:1582:C:H3'	10:B:1583:A:H8	1.84	0.43
10:B:1805:A:C6	10:B:1813:G:N1	2.86	0.43
10:B:1835:G:C2	10:B:1931:U:C4	3.06	0.43
10:B:1931:U:H2'	10:B:1932:A:O4'	2.18	0.43
10:B:1996:C:H5'	19:K:30:ARG:HH12	1.79	0.43
10:B:2033:A:C6	10:B:2036:C:N3	2.86	0.43
10:B:2094:A:C2	10:B:2196:C:C2	3.06	0.43
10:B:2294:G:N1	10:B:2339:C:N3	2.66	0.43
10:B:2312:U:H5"	10:B:2313:C:OP2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2318:G:C5	10:B:2319:G:C6	3.06	0.43
10:B:2424:C:O2'	10:B:2425:A:OP2	2.25	0.43
10:B:2425:A:H5"	10:B:2427:C:O4'	2.18	0.43
10:B:2589:A:N1	10:B:2590:A:C6	2.86	0.43
10:B:2593:U:H2'	10:B:2594:C:C6	2.53	0.43
10:B:2625:G:C4	10:B:2626:C:C5	3.07	0.43
10:B:2734:A:H2'	10:B:2735:G:O4'	2.18	0.43
10:B:2819:G:C5	10:B:2821:A:C6	3.06	0.43
10:B:2877:G:O2'	10:B:2878:U:H5'	2.17	0.43
15:G:137:LYS:HE3	15:G:137:LYS:HB2	1.77	0.43
16:H:25:TYR:O	16:H:29:PHE:HB3	2.18	0.43
18:J:16:TYR:HA	18:J:138:GLN:O	2.18	0.43
22:N:25:ALA:O	22:N:29:VAL:HG13	2.18	0.43
23:O:26:LEU:O	23:O:93:ASP:HB3	2.17	0.43
23:O:81:ARG:O	23:O:84:GLU:HB2	2.18	0.43
24:P:48:ALA:HB2	24:P:58:PHE:HA	2.00	0.43
25:Q:103:VAL:O	25:Q:106:THR:HB	2.18	0.43
1:0:54:ILE:HD13	22:N:112:TYR:HD2	1.83	0.43
5:4:38:GLY:O	10:B:1124:G:O2'	2.28	0.43
6:5:106:LYS:HD2	6:5:106:LYS:N	2.33	0.43
6:5:206:GLY:HA3	10:B:1877:A:OP1	2.18	0.43
7:6:20:GLN:HG3	10:B:1916:A:OP1	2.19	0.43
7:6:212:THR:HG21	35:6:527:GNP:C8	2.48	0.43
8:7:96:PHE:CE2	8:7:113:PHE:HD2	2.37	0.43
9:A:4:C:C2	9:A:117:G:C2	3.06	0.43
10:B:66:C:O2	10:B:88:G:N1	2.48	0.43
10:B:90:U:H5"	10:B:91:A:OP2	2.18	0.43
10:B:132:G:C2	10:B:133:U:C2	3.07	0.43
10:B:169:G:C2	10:B:170:U:C4	3.06	0.43
10:B:184:C:N4	10:B:212:G:H1	2.16	0.43
10:B:265:A:C8	10:B:428:A:N6	2.86	0.43
10:B:475:C:N4	10:B:476:G:O6	2.52	0.43
10:B:563:A:O5'	26:R:79:ARG:NH2	2.52	0.43
10:B:657:U:H2'	10:B:658:U:C6	2.52	0.43
10:B:705:A:N6	10:B:726:G:H1'	2.33	0.43
10:B:799:G:C5	10:B:800:A:N7	2.86	0.43
10:B:879:G:C8	10:B:880:G:N7	2.87	0.43
10:B:897:C:C5	10:B:898:C:C5	3.06	0.43
10:B:910:A:C4	21:M:13:HIS:NE2	2.85	0.43
10:B:1016:G:C6	10:B:1147:A:C6	3.05	0.43
10:B:1078:U:C5'	17:I:133:ARG:HH22	2.30	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1213:A:N3	10:B:1214:A:C8	2.86	0.43
10:B:1296:G:C6	10:B:1645:G:C6	3.06	0.43
10:B:1310:G:O6	10:B:1605:C:C4	2.71	0.43
10:B:1373:A:H3'	10:B:1374:G:H8	1.83	0.43
10:B:1410:G:C6	10:B:1411:U:C4	3.07	0.43
10:B:1449:G:N1	10:B:1463:C:C4	2.86	0.43
10:B:1459:G:OP2	10:B:1461:C:C4	2.71	0.43
10:B:1479:G:N1	10:B:1513:U:C2	2.86	0.43
10:B:1492:G:C2	10:B:1496:A:C6	3.06	0.43
10:B:1556:C:N3	10:B:1557:C:C4	2.85	0.43
10:B:1692:U:H4'	10:B:1977:A:H4'	2.00	0.43
10:B:1729:U:C5	10:B:1731:G:N2	2.86	0.43
10:B:1774:C:C5	10:B:1775:U:H5	2.36	0.43
10:B:1867:G:C6	10:B:1875:G:N3	2.87	0.43
10:B:1896:G:C2	10:B:1897:G:C8	3.06	0.43
10:B:1977:A:C6	10:B:1978:A:C5	3.06	0.43
10:B:2082:A:C5	10:B:2083:G:C5	3.07	0.43
10:B:2087:G:C2	10:B:2088:A:C5	3.06	0.43
10:B:2317:A:C5	10:B:2318:G:C5	3.06	0.43
10:B:2355:G:C2	10:B:2363:G:C4	3.07	0.43
10:B:2514:U:P	12:D:159:LYS:NZ	2.91	0.43
10:B:2621:G:C5	10:B:2622:U:C4	3.07	0.43
10:B:2630:G:C8	10:B:2894:G:C4	3.07	0.43
10:B:2754:U:O2'	10:B:2756:U:OP1	2.22	0.43
10:B:2816:G:C5	10:B:2817:U:C5	3.07	0.43
10:B:2852:G:H2'	10:B:2853:C:O4'	2.19	0.43
13:E:192:ALA:O	13:E:195:GLN:N	2.52	0.43
15:G:4:ALA:HB3	15:G:61:TRP:HD1	1.83	0.43
15:G:120:ILE:HA	15:G:133:LYS:O	2.17	0.43
17:I:61:TYR:HB2	17:I:63:ASP:OD1	2.19	0.43
21:M:120:ALA:O	21:M:124:LEU:HG	2.19	0.43
22:N:87:PHE:HD2	22:N:90:ARG:HG3	1.81	0.43
23:O:6:ALA:O	23:O:9:ARG:HB3	2.18	0.43
26:R:31:GLU:O	26:R:62:GLU:HA	2.18	0.43
28:T:47:VAL:HG23	28:T:55:VAL:HG21	1.99	0.43
29:U:95:PHE:N	29:U:100:GLU:O	2.38	0.43
33:Y:25:GLN:NE2	33:Y:29:ARG:NH2	2.67	0.43
34:Z:8:GLN:HG2	34:Z:9:THR:N	2.33	0.43
7:6:89:GLU:HG2	7:6:100:VAL:HB	2.01	0.43
7:6:211:SER:OG	7:6:222:VAL:O	2.37	0.43
8:7:80:THR:C	10:B:1107:G:H4'	2.44	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:45:G:H5”	10:B:46:G:H5’	2.00	0.43
10:B:54:G:C6	10:B:117:G:N2	2.86	0.43
10:B:81:G:C2	10:B:82:U:C2	3.07	0.43
10:B:309:A:N6	10:B:330:A:C5	2.86	0.43
10:B:323:C:N4	10:B:333:G:C5	2.86	0.43
10:B:327:G:C2	10:B:336:C:C2	3.06	0.43
10:B:372:G:O2’	10:B:373:U:OP2	2.30	0.43
10:B:388:G:C2	10:B:390:U:O4	2.71	0.43
10:B:451:U:C2	10:B:453:A:N7	2.87	0.43
10:B:503:A:C6	10:B:506:G:C6	3.07	0.43
10:B:656:G:C6	10:B:657:U:N3	2.87	0.43
10:B:838:C:H2’	10:B:839:U:O4’	2.17	0.43
10:B:1022:G:N1	10:B:1140:C:C2	2.86	0.43
10:B:1079:C:C2	10:B:1088:A:C2	3.06	0.43
10:B:1122:G:C6	10:B:1123:C:C4	3.06	0.43
10:B:1204:A:C8	10:B:1206:G:C6	3.06	0.43
10:B:1274:A:C6	10:B:1302:A:C2	3.06	0.43
10:B:1281:G:N2	10:B:1282:U:C2	2.87	0.43
10:B:1323:C:OP2	27:S:98:LYS:NZ	2.52	0.43
10:B:1331:G:C4	10:B:1333:G:C8	3.06	0.43
10:B:1356:G:C2	10:B:1357:C:C6	3.06	0.43
10:B:1388:G:C4	10:B:1389:G:C8	3.06	0.43
10:B:1410:G:C2	10:B:1411:U:C2	3.07	0.43
10:B:1498:C:C4	10:B:1499:C:C4	3.07	0.43
10:B:1608:A:N6	10:B:1611:C:C2	2.87	0.43
10:B:1629:U:C2	10:B:1630:A:C8	3.07	0.43
10:B:1707:G:C8	10:B:1756:G:C5	3.07	0.43
10:B:1715:G:H1’	10:B:1716:U:H5	1.84	0.43
10:B:1810:A:N6	10:B:1811:G:C2	2.87	0.43
10:B:1823:G:C2	10:B:1824:G:C8	3.07	0.43
10:B:1937:A:C5	10:B:1939:U:C4	3.07	0.43
10:B:1942:C:N3	10:B:1943:U:C4	2.86	0.43
10:B:1949:G:N2	10:B:1950:G:N3	2.67	0.43
10:B:1963:U:H5”	10:B:1964:G:P	2.58	0.43
10:B:1973:G:O2’	10:B:1974:C:H5’	2.19	0.43
10:B:2025:C:OP1	12:D:152:PRO:HB2	2.17	0.43
10:B:2060:A:N6	10:B:2502:G:N1	2.67	0.43
10:B:2108:A:N6	10:B:2180:U:O4	2.51	0.43
10:B:2134:A:H8	10:B:2160:C:H5’	1.83	0.43
10:B:2223:G:H2’	10:B:2224:G:O4’	2.18	0.43
10:B:2256:G:C2	10:B:2257:U:N3	2.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2272:U:O2'	10:B:2273:A:H8	2.01	0.43
10:B:2295:C:N4	10:B:2296:U:O4	2.51	0.43
10:B:2322:A:C2	10:B:2323:G:H1'	2.54	0.43
10:B:2457:U:H3'	10:B:2458:G:H21	1.84	0.43
10:B:2511:U:N3	10:B:2578:G:N1	2.66	0.43
10:B:2516:A:N6	10:B:2568:U:H3	2.15	0.43
10:B:2574:G:C6	10:B:2575:C:C4	3.07	0.43
10:B:2685:G:C2	10:B:2725:A:C2	3.06	0.43
10:B:2697:G:C6	10:B:2698:U:C4	3.06	0.43
10:B:2773:C:OP1	12:D:169:ARG:CZ	2.66	0.43
10:B:2834:G:C5	10:B:2879:A:C5	3.05	0.43
10:B:2873:A:N3	22:N:5:LYS:HA	2.33	0.43
11:C:83:ASP:HB2	11:C:90:ILE:HG12	2.01	0.43
12:D:16:THR:H	12:D:19:GLY:HA2	1.82	0.43
16:H:78:VAL:HB	16:H:112:LYS:CE	2.48	0.43
25:Q:110:GLU:HA	25:Q:113:LYS:HD2	2.00	0.43
32:X:38:TRP:HA	32:X:45:PHE:HD1	1.84	0.43
1:0:30:ASP:HB2	1:0:33:SER:O	2.18	0.43
2:1:45:HIS:CE1	10:B:2371:G:HO2'	2.34	0.43
4:3:20:GLY:HA2	4:3:51:LYS:NZ	2.33	0.43
6:5:18:THR:OG1	10:B:2176:A:H4'	2.19	0.43
7:6:25:GLU:C	7:6:27:LEU:H	2.25	0.43
7:6:62:LYS:O	7:6:66:ILE:HG23	2.18	0.43
7:6:279:LEU:HD12	7:6:311:PRO:O	2.19	0.43
8:7:20:LYS:HE2	8:7:88:HIS:CG	2.54	0.43
9:A:22:U:H2'	9:A:23:G:C8	2.53	0.43
10:B:155:A:C4	10:B:156:A:C8	3.06	0.43
10:B:155:A:C6	10:B:172:A:C6	3.07	0.43
10:B:160:A:C5	10:B:167:A:C2	3.07	0.43
10:B:488:G:C4	10:B:490:C:N3	2.87	0.43
10:B:543:G:C6	10:B:544:C:C6	3.06	0.43
10:B:582:A:H4'	25:Q:10:ARG:HH12	1.83	0.43
10:B:586:A:C2	10:B:1254:A:N1	2.86	0.43
10:B:617:G:H5"	13:E:102:ARG:HH12	1.83	0.43
10:B:692:C:C4	10:B:771:G:N1	2.86	0.43
10:B:831:G:N2	10:B:832:U:H1'	2.34	0.43
10:B:863:A:C6	10:B:864:G:C5	3.06	0.43
10:B:881:G:N3	10:B:882:G:H1'	2.34	0.43
10:B:898:C:N4	10:B:899:A:H62	2.17	0.43
10:B:988:A:O3'	34:Z:11:SER:OG	2.36	0.43
10:B:1214:A:C4	10:B:1215:G:C8	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1288:G:N7	10:B:1327:A:C6	2.87	0.43
10:B:1303:G:C2	10:B:1304:A:C4	3.06	0.43
10:B:1372:U:H1'	10:B:2214:C:O2	2.19	0.43
10:B:1411:U:H2'	10:B:1412:U:C6	2.54	0.43
10:B:1449:G:C2	10:B:1450:G:C8	3.06	0.43
10:B:1450:G:C2	10:B:1462:C:C2	3.06	0.43
10:B:1465:G:N3	10:B:1545:A:H2	2.17	0.43
10:B:1589:U:C2	10:B:1590:A:C8	3.07	0.43
10:B:1608:A:HO2'	10:B:1610:A:P	2.31	0.43
10:B:1608:A:C5	10:B:1611:C:C4	3.07	0.43
10:B:1653:G:C6	22:N:9:GLN:HB2	2.53	0.43
10:B:1672:A:H2'	10:B:1673:G:C8	2.53	0.43
10:B:1727:C:H2'	10:B:1728:C:O4'	2.19	0.43
10:B:1739:A:C5	10:B:1740:G:C8	3.07	0.43
10:B:1789:A:H2'	10:B:1790:C:H6	1.83	0.43
10:B:1821:A:H2'	10:B:1822:C:C6	2.54	0.43
10:B:2032:G:N3	12:D:150:GLN:HG2	2.34	0.43
10:B:2600:A:H2'	10:B:2601:C:C6	2.53	0.43
10:B:2626:C:H2'	10:B:2627:G:H8	1.83	0.43
10:B:2772:C:H4'	12:D:171:THR:OG1	2.18	0.43
11:C:4:LYS:HG3	11:C:15:VAL:O	2.19	0.43
11:C:18:VAL:HG11	11:C:198:GLU:HB3	2.00	0.43
11:C:130:PRO:HA	11:C:188:ARG:HG2	2.00	0.43
11:C:207:ALA:O	11:C:210:ALA:N	2.50	0.43
12:D:149:ASN:CG	12:D:150:GLN:H	2.26	0.43
14:F:15:LEU:HD23	14:F:18:GLU:OE2	2.18	0.43
14:F:122:ASP:CG	14:F:124:ARG:H	2.26	0.43
15:G:82:PHE:CE1	15:G:137:LYS:HE2	2.54	0.43
23:O:81:ARG:HA	23:O:84:GLU:HG3	2.00	0.43
25:Q:107:ALA:C	26:R:48:LYS:HE3	2.43	0.43
26:R:79:ARG:HD3	26:R:80:ARG:CZ	2.49	0.43
29:U:23:LYS:NZ	29:U:24:VAL:C	2.76	0.43
31:W:23:LYS:C	31:W:25:PHE:N	2.77	0.43
33:Y:11:VAL:CA	33:Y:63:ALA:HA	2.44	0.43
7:6:134:THR:OG1	7:6:135:ARG:N	2.51	0.43
9:A:6:G:C2	9:A:7:G:C5	3.07	0.43
9:A:90:C:H4'	21:M:38:ARG:NH1	2.33	0.43
10:B:64:A:H2'	10:B:65:U:H6	1.82	0.43
10:B:80:G:C5	10:B:81:G:N7	2.87	0.43
10:B:160:A:C2	10:B:161:A:C4	3.06	0.43
10:B:181:A:H2'	10:B:182:A:C8	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:190:A:N7	10:B:207:A:C6	2.86	0.43
10:B:245:G:C2	10:B:246:C:C5	3.06	0.43
10:B:291:G:C6	10:B:350:G:C6	3.06	0.43
10:B:319:G:H2'	10:B:320:A:C8	2.53	0.43
10:B:333:G:H2'	10:B:333:G:N3	2.33	0.43
10:B:367:G:C2	10:B:368:A:C4	3.07	0.43
10:B:491:G:N2	10:B:492:A:N3	2.66	0.43
10:B:503:A:H4'	10:B:504:A:H5'	2.01	0.43
10:B:538:A:H1'	10:B:556:A:N1	2.34	0.43
10:B:749:A:C5	10:B:1618:A:C5	3.06	0.43
10:B:753:A:C4	10:B:754:U:C6	3.07	0.43
10:B:759:G:O2'	10:B:760:G:O4'	2.29	0.43
10:B:765:C:C4	10:B:766:U:C5	3.07	0.43
10:B:775:G:C4	10:B:777:G:C2	3.07	0.43
10:B:802:A:C2	10:B:803:U:C2	3.07	0.43
10:B:844:A:N3	10:B:845:A:H2	2.17	0.43
10:B:869:G:C2	10:B:909:A:C6	3.06	0.43
10:B:878:A:H2	10:B:899:A:C5	2.37	0.43
10:B:960:A:C2	10:B:962:G:H1'	2.53	0.43
10:B:1142:A:C6	10:B:1144:A:C5	3.07	0.43
10:B:1235:G:H2'	10:B:1236:G:C4	2.52	0.43
10:B:1334:G:C6	10:B:1335:C:C4	3.07	0.43
10:B:1366:A:N6	10:B:1367:A:C4	2.86	0.43
10:B:1587:G:C5	10:B:1588:G:C8	3.07	0.43
10:B:1625:C:C5	10:B:1626:A:C6	3.07	0.43
10:B:1684:G:C2	10:B:1685:C:C2	3.07	0.43
10:B:1739:A:O5'	10:B:1739:A:H8	2.01	0.43
10:B:1766:G:H1	10:B:1986:C:H42	1.66	0.43
10:B:1907:G:C2	10:B:1908:C:C2	3.06	0.43
10:B:1949:G:N2	10:B:1950:G:C4	2.87	0.43
10:B:1975:G:C5	10:B:1976:U:C5	3.07	0.43
10:B:2020:A:OP1	25:Q:26:ALA:N	2.49	0.43
10:B:2043:C:C5	10:B:2777:G:C4	3.07	0.43
10:B:2083:G:H2'	10:B:2084:C:O4'	2.19	0.43
10:B:2122:U:H2'	10:B:2123:G:C8	2.54	0.43
10:B:2173:A:H8	10:B:2173:A:O5'	2.02	0.43
10:B:2190:G:N1	10:B:2191:A:C5	2.86	0.43
10:B:2306:C:N4	14:F:38:GLY:HA3	2.34	0.43
10:B:2308:G:H5"	10:B:2309:A:OP2	2.18	0.43
10:B:2425:A:H4'	10:B:2426:A:H5"	1.99	0.43
10:B:2808:G:H4'	10:B:2809:A:H5'	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:I:92:PRO:O	17:I:93:ASN:HB2	2.18	0.43
18:J:106:LYS:O	18:J:109:LEU:HB2	2.19	0.43
19:K:68:VAL:HG22	19:K:69:ARG:O	2.19	0.43
21:M:62:LYS:HB3	21:M:64:TRP:CH2	2.54	0.43
25:Q:91:ARG:CD	26:R:11:GLN:HG3	2.41	0.43
30:V:20:LEU:HA	30:V:20:LEU:HD23	1.78	0.43
30:V:75:GLN:HB2	30:V:90:ASP:HB2	2.01	0.43
6:5:2:ALA:HB1	10:B:2110:G:C8	2.54	0.43
6:5:112:ASP:O	6:5:114:VAL:HG23	2.19	0.43
10:B:129:C:O2'	10:B:1349:C:OP1	2.37	0.43
10:B:201:C:OP1	32:X:17:ARG:NH1	2.48	0.43
10:B:268:C:H2'	10:B:269:C:C6	2.54	0.43
10:B:301:G:O2'	10:B:302:C:H5"	2.19	0.43
10:B:449:A:C4	10:B:450:G:C8	3.06	0.43
10:B:590:A:C5	10:B:591:U:N3	2.87	0.43
10:B:626:A:C8	20:L:78:ARG:NH2	2.87	0.43
10:B:643:A:C5	10:B:644:A:N7	2.87	0.43
10:B:721:A:H2'	10:B:722:A:C1'	2.48	0.43
10:B:992:C:N4	10:B:1163:G:O6	2.50	0.43
10:B:1000:A:N1	10:B:1155:A:C4	2.86	0.43
10:B:1128:G:C4	10:B:1129:A:C2	3.07	0.43
10:B:1172:C:H3'	10:B:1173:U:C6	2.54	0.43
10:B:1173:U:O2	10:B:1177:G:C6	2.71	0.43
10:B:1279:G:N3	10:B:1280:G:C8	2.87	0.43
10:B:1386:C:H2'	10:B:1387:A:C8	2.53	0.43
10:B:1531:C:O2	10:B:1541:C:H1'	2.19	0.43
10:B:1555:G:C2	10:B:1556:C:C6	3.07	0.43
10:B:1678:A:H2'	10:B:1679:A:O4'	2.19	0.43
10:B:1709:U:O2'	10:B:2859:G:H1'	2.19	0.43
10:B:1869:G:H8	10:B:1869:G:OP2	2.01	0.43
10:B:2143:C:H2'	10:B:2146:C:OP2	2.18	0.43
10:B:2218:G:H2'	10:B:2219:U:H6	1.84	0.43
10:B:2394:C:OP1	20:L:63:LYS:N	2.51	0.43
10:B:2495:G:C2	10:B:2496:C:C2	3.06	0.43
10:B:2513:A:C8	10:B:2514:U:H5	2.37	0.43
10:B:2578:G:C2	10:B:2579:C:C5	3.06	0.43
10:B:2578:G:H2'	10:B:2579:C:H6	1.84	0.43
10:B:2720:U:C2	10:B:2872:A:C5	3.07	0.43
11:C:75:ALA:HB3	11:C:115:ILE:HG12	2.01	0.43
11:C:92:LEU:HD12	11:C:101:ARG:O	2.19	0.43
11:C:175:LEU:HD23	11:C:175:LEU:HA	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:E:155:GLU:O	13:E:159:LEU:HG	2.19	0.43
16:H:29:PHE:C	16:H:33:GLN:HB2	2.36	0.43
25:Q:57:ARG:O	25:Q:60:TRP:HB2	2.19	0.43
27:S:70:LYS:O	27:S:107:VAL:HG22	2.18	0.43
28:T:37:ASP:HB3	28:T:42:GLU:OE1	2.18	0.43
32:X:4:CYS:HB3	32:X:8:GLY:H	1.82	0.43
33:Y:35:GLY:O	33:Y:39:GLN:HG3	2.18	0.43
34:Z:40:THR:OG1	34:Z:42:ALA:HB3	2.19	0.43
3:2:10:LEU:HD23	10:B:125:A:N1	2.33	0.43
3:2:24:THR:HG23	3:2:26:ASN:N	2.32	0.43
4:3:31:ILE:O	4:3:32:LEU:HD23	2.18	0.43
6:5:2:ALA:HB1	10:B:2110:G:H2'	2.01	0.43
7:6:411:TRP:HE3	7:6:426:ILE:HG22	1.84	0.43
8:7:58:THR:N	10:B:1107:G:OP1	2.50	0.43
8:7:114:GLU:OE2	8:7:122:GLN:NE2	2.51	0.43
9:A:52:A:H2'	9:A:53:A:O4'	2.19	0.43
10:B:118:A:C8	10:B:118:A:H3'	2.53	0.43
10:B:145:C:H2'	10:B:146:A:O4'	2.19	0.43
10:B:216:A:C6	10:B:217:A:C5	3.07	0.43
10:B:255:A:C4	10:B:256:A:C8	3.07	0.43
10:B:299:A:H3'	10:B:300:A:C8	2.54	0.43
10:B:412:A:N6	10:B:413:C:C2	2.87	0.43
10:B:452:G:N7	13:E:53:THR:HG21	2.33	0.43
10:B:470:A:C6	10:B:471:A:C5	3.07	0.43
10:B:503:A:C4	10:B:505:A:N7	2.87	0.43
10:B:699:A:H2'	10:B:700:G:H8	1.84	0.43
10:B:708:G:O6	10:B:723:C:N4	2.46	0.43
10:B:759:G:C8	10:B:1981:A:H2	2.36	0.43
10:B:843:G:C2	10:B:844:A:C2	3.07	0.43
10:B:891:G:C6	10:B:892:A:C6	3.06	0.43
10:B:1139:G:C5'	18:J:72:LYS:NZ	2.82	0.43
10:B:1262:A:OP1	27:S:99:ARG:NH2	2.35	0.43
10:B:1266:G:C8	27:S:16:LYS:NZ	2.80	0.43
10:B:1286:A:C2	10:B:1289:C:C2	3.07	0.43
10:B:1343:G:C5	10:B:1597:A:C6	3.06	0.43
10:B:1420:A:C4	10:B:2211:A:C6	3.06	0.43
10:B:1542:U:C4	10:B:1543:G:C6	3.07	0.43
10:B:1776:G:C2	10:B:1777:U:C6	3.07	0.43
10:B:1823:G:H2'	10:B:1824:G:C8	2.53	0.43
10:B:1858:A:N6	10:B:1884:G:H1'	2.34	0.43
10:B:1918:A:H4'	10:B:1919:A:H5'	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2024:G:H2'	10:B:2025:C:C6	2.54	0.43
10:B:2038:G:H2'	10:B:2039:U:O4'	2.18	0.43
10:B:2070:A:C2	10:B:2071:A:C4	3.07	0.43
10:B:2322:A:C5	10:B:2323:G:C8	3.07	0.43
10:B:2342:C:O2'	10:B:2374:C:H5"	2.19	0.43
10:B:2472:G:O6	10:B:2476:A:H4'	2.19	0.43
10:B:2519:U:C4	10:B:2541:A:C5	3.07	0.43
10:B:2547:A:C8	10:B:2566:A:N7	2.87	0.43
10:B:2623:G:C2	10:B:2624:G:C5	3.07	0.43
10:B:2839:G:H4'	22:N:49:GLU:OE1	2.19	0.43
12:D:56:LYS:CD	12:D:59:ARG:HH21	2.31	0.43
12:D:101:PHE:HB3	12:D:104:VAL:HG22	2.00	0.43
13:E:31:VAL:O	13:E:34:ALA:HB3	2.18	0.43
16:H:4:ILE:HD12	16:H:44:ILE:HG22	2.01	0.43
20:L:116:VAL:HG11	20:L:134:ALA:O	2.19	0.43
22:N:34:ILE:O	22:N:112:TYR:HA	2.19	0.43
22:N:36:THR:OG1	22:N:40:LYS:O	2.35	0.43
23:O:81:ARG:HG2	23:O:84:GLU:OE2	2.19	0.43
24:P:6:GLN:HA	24:P:9:GLN:HB2	2.01	0.43
32:X:4:CYS:O	32:X:50:VAL:HG12	2.19	0.43
34:Z:26:LEU:HD21	34:Z:46:MET:SD	2.59	0.43
5:4:15:LYS:C	5:4:25:VAL:HG23	2.44	0.43
6:5:180:PHE:HB2	6:5:185:LEU:HD21	2.01	0.43
6:5:183:ASP:OD1	6:5:184:LYS:N	2.52	0.43
7:6:159:GLN:C	7:6:161:GLU:N	2.77	0.43
7:6:224:ALA:HB1	35:6:527:GNP:O5'	2.18	0.43
7:6:244:VAL:O	7:6:246:GLU:N	2.52	0.43
7:6:411:TRP:CE3	7:6:426:ILE:HG22	2.54	0.43
9:A:56:G:O2'	9:A:59:A:N6	2.47	0.43
9:A:71:C:N4	9:A:105:G:H1	2.16	0.43
10:B:301:G:C2	10:B:302:C:C2	3.07	0.43
10:B:360:U:C4	10:B:361:G:N2	2.87	0.43
10:B:409:G:C2	10:B:410:G:C4	3.07	0.43
10:B:436:C:C2	10:B:437:U:C5	3.07	0.43
10:B:475:C:H2'	10:B:476:G:O4'	2.19	0.43
10:B:533:G:H2'	10:B:534:U:O4'	2.19	0.43
10:B:578:G:C5	10:B:2018:G:H5'	2.54	0.43
10:B:776:G:O6	10:B:793:A:C8	2.71	0.43
10:B:785:G:C5	10:B:786:C:C5	3.07	0.43
10:B:803:U:C2	10:B:804:A:C8	3.07	0.43
10:B:862:G:C6	10:B:863:A:C5	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:887:U:H1'	10:B:888:C:C5	2.53	0.43
10:B:923:G:N3	10:B:924:G:C8	2.87	0.43
10:B:952:G:N2	10:B:953:G:C4	2.86	0.43
10:B:970:U:O2	10:B:970:U:H2'	2.19	0.43
10:B:972:A:N1	10:B:973:A:N6	2.66	0.43
10:B:1003:G:C2	10:B:1153:C:C2	3.07	0.43
10:B:1048:A:C8	10:B:1111:A:N6	2.86	0.43
10:B:1106:G:C5	10:B:1107:G:N7	2.87	0.43
10:B:1163:G:C6	10:B:1164:C:N4	2.86	0.43
10:B:1277:G:C6	10:B:1278:C:C4	3.07	0.43
10:B:1286:A:C6	10:B:1329:U:C4	3.07	0.43
10:B:1491:G:N1	10:B:1492:G:C5	2.87	0.43
10:B:1522:A:C4	10:B:1524:G:C2	3.06	0.43
10:B:1707:G:C2	10:B:1708:C:H1'	2.53	0.43
10:B:1902:C:N4	10:B:1903:G:C4	2.87	0.43
10:B:1910:G:C2	10:B:1921:G:C4	3.06	0.43
10:B:1932:A:C2	10:B:1933:G:H1'	2.53	0.43
10:B:2025:C:H5'	12:D:154:LYS:NZ	2.33	0.43
10:B:2359:C:N4	10:B:2360:G:C6	2.87	0.43
10:B:2408:U:C2	10:B:2409:G:C8	3.07	0.43
10:B:2599:G:N1	10:B:2600:A:C5	2.87	0.43
10:B:2679:A:C2	10:B:2680:U:C4	3.07	0.43
10:B:2687:U:H5"	10:B:2688:G:OP2	2.19	0.43
11:C:60:ALA:C	11:C:62:ARG:HH12	2.27	0.43
11:C:167:ASP:CG	11:C:171:VAL:HA	2.44	0.43
12:D:11:MET:HE1	12:D:23:PRO:CB	2.48	0.43
12:D:16:THR:OG1	12:D:19:GLY:N	2.43	0.43
12:D:121:THR:HB	12:D:127:PHE:CD2	2.54	0.43
13:E:48:THR:HG22	13:E:86:ALA:HB2	2.00	0.43
13:E:134:LEU:CD2	13:E:167:VAL:HG21	2.49	0.43
14:F:3:LEU:HD22	14:F:96:TRP:CH2	2.54	0.43
14:F:9:ASP:HA	14:F:13:LYS:CE	2.49	0.43
15:G:85:LYS:NZ	15:G:129:GLU:CD	2.77	0.43
15:G:143:VAL:O	15:G:147:LEU:N	2.50	0.43
16:H:124:THR:HG22	16:H:125:THR:H	1.83	0.43
17:I:19:PRO:O	17:I:22:PRO:HD2	2.19	0.43
18:J:131:ASN:C	18:J:132:HIS:CG	2.96	0.43
26:R:14:VAL:HA	26:R:18:GLN:CD	2.44	0.43
28:T:44:LYS:HZ3	28:T:55:VAL:HG12	1.83	0.43
29:U:14:THR:HG23	29:U:68:ASN:ND2	2.33	0.43
29:U:86:PHE:CG	29:U:87:GLU:N	2.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:W:19:ARG:HA	31:W:35:ILE:HG22	2.01	0.43
31:W:35:ILE:O	31:W:36:ILE:HD13	2.19	0.43
2:1:6:GLU:O	2:1:23:THR:HA	2.19	0.42
2:1:37:LYS:HB2	2:1:48:TYR:CD2	2.54	0.42
7:6:122:LEU:HD22	7:6:174:ILE:HG23	2.01	0.42
7:6:180:ARG:NH2	10:B:2537:U:O3'	2.52	0.42
7:6:202:LEU:HD23	7:6:281:LEU:HB2	2.00	0.42
8:7:84:TYR:CE2	8:7:86:MET:HG3	2.54	0.42
9:A:14:U:O2'	9:A:15:A:H5'	2.19	0.42
9:A:20:G:H2'	9:A:21:G:H8	1.83	0.42
10:B:89:A:H2'	10:B:90:U:C6	2.54	0.42
10:B:105:C:H5	33:Y:2:LYS:HZ1	1.63	0.42
10:B:111:A:O2'	10:B:112:U:H5'	2.19	0.42
10:B:121:G:C4	10:B:122:G:N7	2.87	0.42
10:B:532:A:O2'	25:Q:24:TYR:HB3	2.18	0.42
10:B:685:A:N7	10:B:774:G:N1	2.66	0.42
10:B:857:G:C6	10:B:858:G:O6	2.71	0.42
10:B:972:A:C8	10:B:973:A:C8	3.07	0.42
10:B:1017:G:N2	10:B:1018:U:C2	2.87	0.42
10:B:1022:G:N1	10:B:1141:U:H5	2.17	0.42
10:B:1040:A:H2	10:B:1115:G:H22	1.67	0.42
10:B:1107:G:H2'	10:B:1108:U:O4'	2.19	0.42
10:B:1168:G:C6	10:B:1169:A:C5	3.06	0.42
10:B:1262:A:C5	10:B:1263:U:C5	3.07	0.42
10:B:1297:C:O2'	10:B:1298:C:H5'	2.18	0.42
10:B:1301:A:C4	10:B:1303:G:N7	2.86	0.42
10:B:1343:G:O6	10:B:1403:A:N6	2.52	0.42
10:B:1359:A:N6	10:B:1360:G:C2	2.87	0.42
10:B:1452:G:N1	10:B:2702:G:C4	2.87	0.42
10:B:1482:G:C4	10:B:1483:G:C8	3.06	0.42
10:B:1585:C:C5	10:B:1586:A:C4	3.07	0.42
10:B:1698:A:H4'	10:B:1699:G:O5'	2.18	0.42
10:B:1736:U:C4	10:B:1737:G:C5	3.06	0.42
10:B:1782:U:C2	10:B:2609:U:C5	3.06	0.42
10:B:1794:A:O2'	10:B:1795:C:O4'	2.37	0.42
10:B:1935:G:H2'	10:B:1962:C:N4	2.28	0.42
10:B:1953:A:N9	10:B:2550:G:H1'	2.34	0.42
10:B:2029:G:C2	10:B:2033:A:N7	2.87	0.42
10:B:2221:G:O2'	16:H:116:ARG:CZ	2.67	0.42
10:B:2230:G:H1'	32:X:31:ASN:OD1	2.19	0.42
10:B:2264:C:C5	10:B:2265:U:C4	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2392:A:C2	10:B:2393:U:C2	3.07	0.42
10:B:2419:U:H2'	10:B:2420:C:H6	1.84	0.42
10:B:2536:G:N1	10:B:2537:U:C4	2.87	0.42
10:B:2567:G:O2'	10:B:2568:U:H5'	2.19	0.42
10:B:2583:G:C5	10:B:2584:U:C4	3.07	0.42
10:B:2700:A:H2'	10:B:2701:U:C6	2.54	0.42
11:C:167:ASP:OD2	11:C:170:TYR:O	2.37	0.42
13:E:158:PHE:O	13:E:162:ARG:HG3	2.19	0.42
14:F:31:GLU:HG3	14:F:32:LYS:H	1.84	0.42
14:F:48:LEU:HD12	14:F:49:LEU:HG	2.00	0.42
15:G:3:VAL:HB	15:G:68:ARG:NH1	2.34	0.42
18:J:49:ASP:CG	18:J:121:LYS:NZ	2.77	0.42
27:S:28:LYS:HD3	27:S:70:LYS:CB	2.48	0.42
27:S:51:LEU:HG	27:S:55:ILE:HD11	2.00	0.42
29:U:94:PHE:CB	29:U:101:THR:HA	2.49	0.42
2:1:43:ARG:NH2	10:B:2370:G:H4'	2.34	0.42
4:3:46:LYS:NZ	10:B:630:G:H5"	2.33	0.42
6:5:46:VAL:C	6:5:170:ILE:HG13	2.44	0.42
6:5:67:HIS:HB2	6:5:188:ASN:OD1	2.19	0.42
6:5:105:LYS:HG2	10:B:2168:G:O6	2.19	0.42
7:6:63:ALA:O	7:6:66:ILE:HG12	2.19	0.42
7:6:132:LEU:HD23	7:6:132:LEU:HA	1.80	0.42
8:7:41:LEU:O	8:7:45:GLY:HA3	2.19	0.42
8:7:105:LYS:C	8:7:107:GLU:H	2.27	0.42
9:A:6:G:C4	9:A:7:G:C8	3.07	0.42
9:A:20:G:H2'	9:A:21:G:C8	2.54	0.42
9:A:48:U:H3'	23:O:30:ARG:HH12	1.82	0.42
9:A:64:G:C2	9:A:65:U:H1'	2.53	0.42
10:B:258:G:N1	10:B:259:G:C5	2.87	0.42
10:B:323:C:N4	10:B:333:G:N7	2.67	0.42
10:B:488:G:C8	10:B:490:C:N4	2.87	0.42
10:B:488:G:H4'	27:S:49:LYS:HZ3	1.84	0.42
10:B:607:U:P	13:E:98:LYS:HG2	2.58	0.42
10:B:623:C:H5"	10:B:624:C:OP2	2.18	0.42
10:B:711:G:C2	10:B:721:A:C4	3.06	0.42
10:B:795:C:C4	10:B:796:C:C5	3.07	0.42
10:B:811:U:N3	10:B:1250:G:OP1	2.44	0.42
10:B:828:U:O2	10:B:828:U:H2'	2.19	0.42
10:B:870:U:OP1	21:M:6:ARG:NE	2.52	0.42
10:B:924:G:N1	10:B:925:A:C5	2.87	0.42
10:B:934:U:N3	10:B:935:C:C4	2.86	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:976:G:C2	10:B:977:G:C4	3.07	0.42
10:B:1000:A:C6	10:B:1001:A:N1	2.87	0.42
10:B:1009:A:H3'	10:B:1009:A:C8	2.53	0.42
10:B:1131:G:H22	10:B:2024:G:N2	2.15	0.42
10:B:1206:G:C6	10:B:1207:C:C2	3.07	0.42
10:B:1239:G:C5	10:B:1240:U:C5	3.07	0.42
10:B:1266:G:C8	27:S:15:GLN:NE2	2.87	0.42
10:B:1310:G:C4	10:B:1311:G:C2	3.06	0.42
10:B:1353:A:C6	10:B:1354:A:C2	3.07	0.42
10:B:1441:G:H2'	10:B:1442:U:C6	2.54	0.42
10:B:1754:A:N1	10:B:1755:A:C5	2.88	0.42
10:B:1796:U:H4'	11:C:252:LYS:HG3	2.00	0.42
10:B:1867:G:N2	10:B:1875:G:H1'	2.34	0.42
10:B:1867:G:C5	10:B:1868:C:C4	3.07	0.42
10:B:2011:U:C5	10:B:2012:G:C5	3.07	0.42
10:B:2048:G:C4	10:B:2049:G:C8	3.07	0.42
10:B:2127:G:H1'	10:B:2173:A:H2	1.83	0.42
10:B:2185:U:C2	10:B:2186:G:N7	2.87	0.42
10:B:2199:A:N6	10:B:2224:G:O2'	2.42	0.42
10:B:2219:U:C4	10:B:2220:U:C4	3.07	0.42
10:B:2259:U:H5"	10:B:2260:C:OP2	2.18	0.42
10:B:2340:A:C2	10:B:2341:G:C5	3.07	0.42
10:B:2721:A:C4	10:B:2873:A:N7	2.87	0.42
10:B:2739:U:H3'	10:B:2763:G:N1	2.34	0.42
10:B:2748:A:C2	10:B:2749:A:C8	3.07	0.42
10:B:2792:A:C6	10:B:2793:C:C4	3.07	0.42
10:B:2819:G:C4	10:B:2821:A:C6	3.07	0.42
12:D:48:ILE:HG13	12:D:82:PHE:HB2	2.01	0.42
12:D:170:VAL:HG22	12:D:171:THR:O	2.18	0.42
13:E:141:MET:O	13:E:143:LEU:HG	2.19	0.42
18:J:36:LEU:C	18:J:51:GLY:HA3	2.44	0.42
24:P:39:LEU:HD22	24:P:81:ASP:OD2	2.18	0.42
24:P:56:SER:H	24:P:74:GLN:NE2	2.15	0.42
31:W:20:LEU:HG	31:W:20:LEU:O	2.19	0.42
32:X:3:VAL:HA	32:X:9:LYS:O	2.19	0.42
2:1:46:VAL:HG22	2:1:47:ILE:N	2.34	0.42
6:5:33:LEU:O	10:B:2130:U:H5'	2.19	0.42
6:5:53:ARG:HD2	10:B:1860:G:P	2.59	0.42
6:5:65:LEU:HD22	6:5:191:ALA:HB1	2.00	0.42
7:6:15:HIS:CE1	7:6:17:TYR:N	2.88	0.42
7:6:208:ALA:HB3	7:6:210:LYS:HD3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:236:LEU:HD12	10:B:2472:G:H5"	2.01	0.42
7:6:256:ILE:HG22	7:6:257:ARG:N	2.35	0.42
9:A:104:A:C8	9:A:105:G:C8	3.07	0.42
10:B:33:C:OP2	10:B:33:C:H2'	2.19	0.42
10:B:169:G:N1	10:B:170:U:C4	2.87	0.42
10:B:173:A:H2'	10:B:174:U:C6	2.53	0.42
10:B:296:U:H3	10:B:342:A:N6	2.13	0.42
10:B:362:A:C2	10:B:363:G:H1'	2.54	0.42
10:B:446:G:OP1	25:Q:2:ARG:HD3	2.19	0.42
10:B:497:A:C6	10:B:498:G:C5	3.08	0.42
10:B:618:G:C6	10:B:619:G:C5	3.07	0.42
10:B:662:G:C2	10:B:663:G:N7	2.87	0.42
10:B:785:G:O2'	10:B:786:C:H5'	2.20	0.42
10:B:920:A:H2'	10:B:921:C:C6	2.54	0.42
10:B:941:A:H3'	10:B:942:G:C8	2.47	0.42
10:B:953:G:C2	10:B:965:C:N3	2.87	0.42
10:B:978:G:C6	10:B:986:C:N4	2.87	0.42
10:B:1055:G:C6	10:B:1056:G:C6	3.08	0.42
10:B:1077:A:C5'	17:I:94:LYS:HZ2	2.29	0.42
10:B:1252:G:H1'	25:Q:32:ARG:NH1	2.34	0.42
10:B:1331:G:C5	10:B:1333:G:C5	3.08	0.42
10:B:1459:G:O5'	10:B:1459:G:N3	2.52	0.42
10:B:1560:G:C5	10:B:1561:C:C5	3.08	0.42
10:B:1708:C:H2'	10:B:1709:U:H6	1.84	0.42
10:B:1795:C:C4	10:B:1796:U:C4	3.07	0.42
10:B:1802:A:C5	10:B:1803:A:N1	2.87	0.42
10:B:1839:G:C8	10:B:1927:A:H1'	2.54	0.42
10:B:1904:G:C6	10:B:1905:C:N4	2.87	0.42
10:B:1947:C:O2	10:B:1959:G:N2	2.52	0.42
10:B:2079:U:H2'	10:B:2080:A:C8	2.49	0.42
10:B:2121:G:N2	10:B:2176:A:N1	2.66	0.42
10:B:2216:G:C4	10:B:2217:G:C8	3.07	0.42
10:B:2272:U:O2'	10:B:2273:A:O5'	2.26	0.42
10:B:2469:A:C6	10:B:2482:A:C8	3.07	0.42
10:B:2526:G:H1	10:B:2536:G:H22	1.68	0.42
10:B:2535:G:C6	10:B:2536:G:C6	3.07	0.42
10:B:2741:A:C8	10:B:2742:G:C8	3.07	0.42
10:B:2751:G:H5'	10:B:2752:C:C5	2.53	0.42
10:B:2834:G:C6	10:B:2879:A:C8	3.07	0.42
11:C:94:LEU:HD13	11:C:100:ARG:HG2	2.02	0.42
11:C:123:ILE:HG13	11:C:123:ILE:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:E:67:ARG:HG2	13:E:67:ARG:NH1	2.34	0.42
13:E:147:LEU:HD13	13:E:183:PHE:CE2	2.44	0.42
14:F:18:GLU:HG3	14:F:19:PHE:HD2	1.79	0.42
14:F:76:PHE:HB2	14:F:77:LYS:O	2.19	0.42
14:F:157:THR:HG21	14:F:168:LEU:HD22	2.02	0.42
15:G:77:GLY:HA2	15:G:82:PHE:CZ	2.55	0.42
15:G:77:GLY:HA2	15:G:82:PHE:HZ	1.84	0.42
18:J:140:LEU:HD23	18:J:142:ILE:N	2.23	0.42
21:M:76:LYS:HZ1	21:M:85:GLY:C	2.14	0.42
22:N:67:PHE:CZ	22:N:71:ARG:HB2	2.54	0.42
22:N:95:THR:OG1	22:N:114:GLU:O	2.22	0.42
23:O:94:ARG:HB2	23:O:97:PHE:O	2.19	0.42
24:P:29:VAL:HG11	24:P:71:ARG:NH1	2.35	0.42
29:U:83:GLY:H	29:U:96:LYS:HB2	1.82	0.42
31:W:45:HIS:HE1	31:W:81:ILE:HG12	1.83	0.42
5:4:4:ARG:NH1	10:B:2477:U:C6	2.84	0.42
7:6:150:ILE:HD11	10:B:2585:U:C2	2.54	0.42
9:A:61:G:C2	9:A:62:C:C2	3.07	0.42
9:A:100:G:C6	9:A:101:A:C6	3.08	0.42
9:A:116:G:C4	9:A:117:G:N7	2.87	0.42
10:B:9:G:C2	10:B:2629:U:N3	2.87	0.42
10:B:146:A:H2'	10:B:147:C:C6	2.54	0.42
10:B:356:G:H2'	10:B:357:C:O4'	2.18	0.42
10:B:444:C:OP1	13:E:44:ARG:HD3	2.19	0.42
10:B:512:G:HO2'	10:B:513:A:P	2.42	0.42
10:B:523:C:H1'	10:B:554:U:O2'	2.19	0.42
10:B:565:C:H5"	10:B:566:U:OP2	2.19	0.42
10:B:570:G:C2	10:B:2030:A:C5	3.08	0.42
10:B:578:G:C2	25:Q:32:ARG:NH2	2.63	0.42
10:B:644:A:H2'	10:B:645:C:H5"	2.01	0.42
10:B:656:G:N7	10:B:657:U:C4	2.88	0.42
10:B:798:G:N1	10:B:799:G:C6	2.87	0.42
10:B:822:G:C6	10:B:836:G:C5	3.08	0.42
10:B:877:A:H2'	10:B:878:A:O4'	2.20	0.42
10:B:1012:U:OP2	25:Q:69:ARG:NH2	2.52	0.42
10:B:1107:G:N2	10:B:1108:U:H1'	2.34	0.42
10:B:1200:C:H2'	10:B:1201:U:H6	1.84	0.42
10:B:1321:A:H2'	10:B:1321:A:N3	2.34	0.42
10:B:1586:A:N6	10:B:1587:G:C2	2.87	0.42
10:B:1608:A:C6	10:B:1611:C:C2	3.07	0.42
10:B:1688:U:H2'	10:B:1698:A:C6	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1728:C:H2'	10:B:1730:C:O2	2.20	0.42
10:B:1810:A:N7	10:B:1811:G:C8	2.88	0.42
10:B:1869:G:N2	10:B:1873:G:C5	2.88	0.42
10:B:1903:G:C5	10:B:1904:G:N7	2.87	0.42
10:B:1930:G:N1	10:B:1968:G:C8	2.87	0.42
10:B:1977:A:H3'	10:B:1978:A:C8	2.55	0.42
10:B:1992:G:N3	10:B:1994:C:H5	2.17	0.42
10:B:2060:A:O2'	10:B:2061:G:OP2	2.37	0.42
10:B:2096:C:C2'	10:B:2097:A:H8	2.33	0.42
10:B:2217:G:H2'	10:B:2218:G:H8	1.85	0.42
10:B:2228:G:OP2	11:C:260:LYS:HD2	2.19	0.42
10:B:2405:G:HO2'	10:B:2406:A:P	2.43	0.42
10:B:2406:A:H5"	10:B:2407:A:OP1	2.19	0.42
10:B:2422:C:C2	10:B:2424:C:C5	3.07	0.42
10:B:2457:U:C2	10:B:2458:G:N3	2.88	0.42
10:B:2470:G:C2	10:B:2471:A:C5	3.06	0.42
10:B:2482:A:C6	10:B:2483:C:C4	3.07	0.42
10:B:2484:G:N2	10:B:2485:G:C4	2.87	0.42
10:B:2512:C:H1'	12:D:145:SER:O	2.19	0.42
10:B:2543:G:C2	10:B:2544:G:C4	3.08	0.42
10:B:2717:C:H2'	10:B:2718:G:C8	2.53	0.42
10:B:2828:G:C2	10:B:2829:A:C8	3.07	0.42
10:B:2854:G:C2	10:B:2864:G:C2	3.07	0.42
10:B:2886:A:H2'	10:B:2887:A:O4'	2.19	0.42
11:C:211:ARG:NH2	11:C:217:PRO:HG3	2.30	0.42
13:E:5:LEU:HB3	13:E:9:GLN:O	2.19	0.42
14:F:121:PHE:HE1	14:F:127:TYR:CE2	2.37	0.42
19:K:29:ARG:NH1	19:K:36:ASP:OD2	2.52	0.42
23:O:72:ALA:HB2	23:O:105:ALA:HB1	2.01	0.42
23:O:78:VAL:HG23	23:O:79:ALA:N	2.33	0.42
26:R:1:MET:HB2	26:R:15:SER:OG	2.19	0.42
28:T:29:THR:OG1	28:T:30:ILE:N	2.52	0.42
30:V:25:LYS:HA	30:V:42:LEU:O	2.19	0.42
32:X:1:SER:O	32:X:3:VAL:N	2.53	0.42
1:0:8:THR:OG1	1:0:9:ARG:HG2	2.19	0.42
6:5:190:GLU:O	6:5:194:VAL:HG22	2.20	0.42
7:6:179:GLU:CB	7:6:183:LYS:HZ3	2.32	0.42
7:6:214:PHE:HE1	7:6:249:LEU:HB3	1.84	0.42
7:6:231:THR:N	35:6:527:GNP:O2G	2.51	0.42
7:6:268:LYS:HB2	7:6:268:LYS:HE3	1.86	0.42
9:A:26:C:O2'	9:A:117:G:O4'	2.31	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:A:82:U:O3'	34:Z:19:HIS:HE1	2.03	0.42
10:B:55:G:C4	10:B:56:A:C8	3.08	0.42
10:B:80:G:C2	10:B:107:G:C5	3.08	0.42
10:B:80:G:C6	10:B:107:G:C6	3.07	0.42
10:B:81:G:C2	10:B:106:C:C2	3.07	0.42
10:B:103:A:C5	10:B:104:A:C5	3.07	0.42
10:B:237:C:N4	10:B:261:G:C6	2.88	0.42
10:B:513:A:C2	10:B:514:A:C4	3.08	0.42
10:B:541:A:N6	10:B:551:G:O6	2.53	0.42
10:B:783:A:N1	10:B:785:G:H1'	2.35	0.42
10:B:826:U:H2'	10:B:828:U:O4'	2.20	0.42
10:B:855:G:C6	10:B:923:G:N1	2.87	0.42
10:B:886:A:H1'	10:B:889:C:H5	1.82	0.42
10:B:928:A:H2'	10:B:929:U:C6	2.55	0.42
10:B:974:G:O2'	10:B:989:G:N2	2.51	0.42
10:B:983:A:N1	10:B:984:A:C8	2.88	0.42
10:B:1128:G:C2	10:B:1129:A:H2	2.37	0.42
10:B:1155:A:C2	10:B:1157:G:C8	3.08	0.42
10:B:1277:G:C6	10:B:1294:U:N3	2.88	0.42
10:B:1347:A:C5	10:B:1348:C:C4	3.07	0.42
10:B:1363:C:H1'	10:B:1810:A:H1'	2.02	0.42
10:B:1595:C:H2'	10:B:1596:A:H8	1.82	0.42
10:B:1663:G:C4	10:B:1998:A:C2	3.08	0.42
10:B:1748:C:H2'	10:B:1749:A:H8	1.85	0.42
10:B:1933:G:C2	10:B:1934:C:C2	3.08	0.42
10:B:1996:C:O2'	10:B:1997:C:OP2	2.35	0.42
10:B:2069:G:N2	10:B:2070:A:C4	2.88	0.42
10:B:2234:G:C2	10:B:2235:G:C5	3.08	0.42
10:B:2351:G:N2	10:B:2365:G:C4	2.87	0.42
10:B:2385:C:C2	10:B:2386:A:C8	3.08	0.42
10:B:2445:G:C2	10:B:2446:G:C8	3.08	0.42
11:C:167:ASP:HB2	11:C:171:VAL:HA	2.01	0.42
17:I:126:ARG:HA	17:I:129:GLU:CG	2.50	0.42
18:J:13:ARG:HA	18:J:52:ASP:OD1	2.19	0.42
18:J:40:HIS:CG	18:J:41:LYS:H	2.35	0.42
21:M:57:VAL:HA	21:M:112:LEU:HD21	2.01	0.42
23:O:24:THR:HB	23:O:40:ILE:O	2.19	0.42
24:P:20:ARG:HG3	24:P:88:ARG:NH2	2.33	0.42
26:R:59:ILE:HD12	26:R:101:ILE:H	1.84	0.42
30:V:56:PHE:CE1	30:V:61:LEU:HD11	2.54	0.42
3:2:10:LEU:O	3:2:11:LYS:C	2.63	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:29:LEU:HD23	6:5:32:GLU:OE2	2.20	0.42
7:6:10:GLN:HA	7:6:40:GLU:O	2.20	0.42
7:6:87:ALA:O	7:6:90:ARG:HB2	2.20	0.42
7:6:110:ILE:HG12	7:6:229:PHE:CD2	2.53	0.42
8:7:7:ASP:O	8:7:11:ILE:HG12	2.20	0.42
8:7:56:ARG:NH1	10:B:1084:A:C8	2.86	0.42
9:A:99:A:C6	9:A:100:G:C5	3.07	0.42
10:B:3:U:H2'	10:B:4:U:O4'	2.20	0.42
10:B:7:G:H2'	10:B:8:C:H6	1.85	0.42
10:B:19:A:C6	10:B:20:C:C4	3.08	0.42
10:B:28:A:C5	10:B:513:A:C8	3.08	0.42
10:B:38:A:C6	10:B:442:G:C6	3.08	0.42
10:B:94:A:H2'	10:B:95:A:C8	2.55	0.42
10:B:103:A:C6	10:B:104:A:C6	3.08	0.42
10:B:111:A:H2'	10:B:112:U:C6	2.55	0.42
10:B:137:U:C4	10:B:138:U:C4	3.07	0.42
10:B:283:G:C6	10:B:284:U:C4	3.08	0.42
10:B:354:A:C5	10:B:355:U:C5	3.07	0.42
10:B:426:C:C2	10:B:427:U:C5	3.07	0.42
10:B:496:G:C2'	10:B:497:A:H5'	2.49	0.42
10:B:603:A:C5	10:B:655:A:N3	2.87	0.42
10:B:628:G:H2'	10:B:629:G:C8	2.55	0.42
10:B:723:C:C4	10:B:724:U:C4	3.08	0.42
10:B:797:G:N1	10:B:798:G:C5	2.88	0.42
10:B:818:G:N2	10:B:1190:G:C6	2.88	0.42
10:B:822:G:C6	10:B:823:C:C4	3.07	0.42
10:B:843:G:N1	10:B:936:A:C6	2.88	0.42
10:B:882:G:N1	10:B:895:U:C2	2.88	0.42
10:B:892:A:H2'	10:B:893:C:O4'	2.19	0.42
10:B:911:A:C5	21:M:9:PHE:CE2	3.08	0.42
10:B:1027:A:N1	10:B:1126:A:C4	2.88	0.42
10:B:1050:A:C6	10:B:1051:G:C5	3.08	0.42
10:B:1292:G:C2	10:B:1293:C:C2	3.07	0.42
10:B:1439:A:C4	10:B:1553:A:C6	3.08	0.42
10:B:1668:A:N3	10:B:1674:G:C8	2.88	0.42
10:B:1764:C:N4	10:B:1765:U:O4	2.52	0.42
10:B:1937:A:C8	10:B:1939:U:C6	3.07	0.42
10:B:2024:G:OP2	10:B:2034:U:H4'	2.20	0.42
10:B:2056:G:C6	10:B:2577:A:N3	2.87	0.42
10:B:2074:U:H1'	10:B:2598:A:N3	2.34	0.42
10:B:2103:C:C2	10:B:2186:G:N1	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2243:U:C6	10:B:2244:U:H5	2.38	0.42
10:B:2327:A:H61	10:B:2387:U:H3	1.66	0.42
10:B:2345:G:C5	10:B:2347:C:C5	3.08	0.42
10:B:2400:G:H2'	10:B:2401:U:C6	2.55	0.42
10:B:2524:G:N2	10:B:2525:G:C4	2.88	0.42
10:B:2618:G:C6	10:B:2619:C:C4	3.08	0.42
10:B:2643:G:H2'	10:B:2644:G:C8	2.55	0.42
10:B:2648:G:C2	10:B:2649:C:C2	3.07	0.42
10:B:2651:C:C2	10:B:2652:C:C5	3.08	0.42
10:B:2659:G:C2	10:B:2663:G:C6	3.08	0.42
10:B:2683:C:C4	10:B:2684:U:C5	3.08	0.42
10:B:2717:C:C3'	24:P:98:TYR:HH	2.24	0.42
10:B:2740:A:C8	10:B:2741:A:N7	2.87	0.42
10:B:2837:A:C6	10:B:2882:A:N1	2.87	0.42
15:G:154:GLU:HG2	15:G:159:LYS:O	2.20	0.42
17:I:125:THR:O	17:I:128:ILE:HB	2.19	0.42
20:L:128:THR:O	20:L:131:ALA:HB3	2.19	0.42
21:M:42:THR:HG23	21:M:45:GLN:CD	2.44	0.42
23:O:51:ALA:C	23:O:52:SER:HG	2.24	0.42
23:O:105:ALA:O	23:O:108:ASP:HB2	2.20	0.42
24:P:22:GLY:N	24:P:46:VAL:HG23	2.33	0.42
28:T:54:GLU:OE2	28:T:90:GLY:HA3	2.19	0.42
29:U:43:LYS:HE2	29:U:60:LYS:HZ1	1.80	0.42
29:U:84:PHE:CD1	29:U:93:ARG:HG2	2.55	0.42
33:Y:22:LEU:C	33:Y:24:GLU:H	2.21	0.42
5:4:34:LYS:HB3	5:4:36:ARG:CZ	2.50	0.42
7:6:205:TYR:HA	7:6:255:PHE:H	1.85	0.42
7:6:208:ALA:HA	7:6:285:ASP:OD1	2.19	0.42
7:6:239:ILE:HG13	7:6:247:THR:HB	2.00	0.42
9:A:20:G:N2	9:A:63:C:N3	2.64	0.42
9:A:106:G:H3'	9:A:107:G:H8	1.84	0.42
10:B:7:G:C6	10:B:8:C:C4	3.08	0.42
10:B:70:G:C5'	10:B:75:G:H1	2.32	0.42
10:B:83:A:C2	10:B:100:U:H4'	2.55	0.42
10:B:185:G:C2	10:B:186:G:C5	3.07	0.42
10:B:201:C:C4	10:B:202:U:O2	2.73	0.42
10:B:274:C:C4	10:B:275:C:C4	3.07	0.42
10:B:342:A:N6	10:B:343:C:N3	2.67	0.42
10:B:460:A:C2	10:B:470:A:C4	3.08	0.42
10:B:533:G:H3'	10:B:534:U:C6	2.54	0.42
10:B:689:A:N1	10:B:690:G:C5	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:733:G:N7	10:B:761:A:N6	2.67	0.42
10:B:743:A:N3	10:B:744:U:C6	2.88	0.42
10:B:813:U:N3	10:B:1195:G:C2	2.88	0.42
10:B:854:C:N3	10:B:924:G:C6	2.88	0.42
10:B:958:U:O2'	10:B:959:A:P	2.78	0.42
10:B:1031:G:H1	10:B:1123:C:N4	2.17	0.42
10:B:1189:A:OP2	20:L:27:LEU:HD13	2.20	0.42
10:B:1465:G:N2	10:B:1466:U:H1'	2.34	0.42
10:B:1588:G:C2	10:B:1589:U:C2	3.08	0.42
10:B:1799:G:OP1	11:C:257:ARG:HD3	2.18	0.42
10:B:1858:A:C4	10:B:1885:A:C8	3.08	0.42
10:B:2128:G:N2	10:B:2174:C:O2'	2.44	0.42
10:B:2232:C:C4	10:B:2233:U:C4	3.07	0.42
10:B:2244:U:HO2'	10:B:2245:U:P	2.41	0.42
10:B:2359:C:C2	10:B:2360:G:C8	3.08	0.42
10:B:2460:U:H2'	10:B:2461:A:C8	2.55	0.42
10:B:2461:A:C5	10:B:2462:C:C5	3.08	0.42
10:B:2661:G:C2	10:B:2662:A:H1'	2.54	0.42
10:B:2674:G:N3	10:B:2675:A:C8	2.88	0.42
10:B:2743:U:C4'	15:G:152:ARG:HH22	2.27	0.42
10:B:2813:A:C4	10:B:2814:A:C8	3.08	0.42
10:B:2892:G:H5"	10:B:2893:A:H5'	2.02	0.42
11:C:242:HIS:ND1	11:C:242:HIS:O	2.53	0.42
14:F:169:LEU:HG	14:F:172:PHE:CZ	2.55	0.42
15:G:76:ILE:O	15:G:79:THR:HB	2.19	0.42
16:H:1:MET:HE3	16:H:23:ALA:O	2.19	0.42
18:J:59:ALA:O	18:J:62:VAL:HG13	2.19	0.42
24:P:38:ARG:HH22	24:P:40:GLN:CD	2.27	0.42
30:V:77:VAL:HB	30:V:89:ILE:HG13	2.01	0.42
34:Z:1:ALA:HB3	34:Z:38:GLU:OE2	2.20	0.42
4:3:51:LYS:HG2	4:3:54:LEU:HB2	2.01	0.42
6:5:100:LEU:HD13	6:5:111:PHE:CG	2.54	0.42
7:6:48:SER:O	7:6:50:LYS:HG3	2.20	0.42
8:7:35:VAL:O	8:7:39:THR:N	2.47	0.42
8:7:42:ARG:HD3	8:7:42:ARG:HA	1.79	0.42
9:A:20:G:C2	9:A:64:G:C2	3.08	0.42
9:A:27:C:H2'	9:A:28:C:O4'	2.20	0.42
9:A:57:A:C6	9:A:58:A:C5	3.07	0.42
10:B:32:C:H2'	10:B:33:C:C6	2.54	0.42
10:B:76:C:N3	10:B:110:G:N1	2.49	0.42
10:B:82:U:H5"	10:B:83:A:OP2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:85:G:N2	10:B:86:G:H1'	2.35	0.42
10:B:134:G:H2'	10:B:134:G:N3	2.35	0.42
10:B:237:C:H2'	10:B:238:C:C6	2.50	0.42
10:B:251:A:H4'	20:L:47:ARG:HD3	2.02	0.42
10:B:267:C:H42	10:B:268:C:N4	2.18	0.42
10:B:287:G:C2	10:B:354:A:C4	3.08	0.42
10:B:407:G:C6	10:B:421:C:N3	2.88	0.42
10:B:408:G:C2	10:B:409:G:C4	3.08	0.42
10:B:556:A:C6	10:B:557:C:H1'	2.55	0.42
10:B:742:A:C4	10:B:743:A:C8	3.08	0.42
10:B:756:A:H2'	10:B:757:G:H8	1.85	0.42
10:B:779:U:H3'	10:B:780:G:H8	1.84	0.42
10:B:855:G:C2	10:B:856:G:C8	3.08	0.42
10:B:862:G:C4	10:B:863:A:C8	3.08	0.42
10:B:863:A:C6	10:B:864:G:C6	3.08	0.42
10:B:897:C:C4	10:B:898:C:C2	3.07	0.42
10:B:1001:A:N7	10:B:1002:G:C4	2.88	0.42
10:B:1077:A:C5'	17:I:94:LYS:NZ	2.80	0.42
10:B:1082:U:H2'	10:B:1083:U:O4'	2.20	0.42
10:B:1203:U:C4	10:B:1204:A:N1	2.88	0.42
10:B:1277:G:H2'	10:B:1278:C:H6	1.85	0.42
10:B:1282:U:H2'	10:B:1283:G:O4'	2.20	0.42
10:B:1427:A:C4	10:B:1428:C:N4	2.87	0.42
10:B:1435:G:C4	10:B:1436:G:C8	3.07	0.42
10:B:1462:C:O2'	10:B:1463:C:H5'	2.19	0.42
10:B:1543:G:O2'	10:B:1544:A:H8	2.02	0.42
10:B:1677:A:C6	10:B:1678:A:C6	3.08	0.42
10:B:1707:G:C5	10:B:1756:G:C6	3.07	0.42
10:B:1773:A:C2	10:B:1829:A:C4	3.07	0.42
10:B:2228:G:H2'	10:B:2229:U:C6	2.55	0.42
10:B:2403:C:C4	10:B:2415:G:N1	2.86	0.42
10:B:2711:A:C8	10:B:2714:G:O4'	2.73	0.42
10:B:2846:G:H2'	10:B:2847:U:C6	2.54	0.42
10:B:2858:C:H2'	10:B:2859:G:H5'	2.01	0.42
11:C:62:ARG:HG3	11:C:84:PRO:HD2	2.02	0.42
11:C:176:ARG:O	11:C:176:ARG:NH1	2.45	0.42
12:D:2:ILE:O	12:D:205:PRO:HD3	2.18	0.42
18:J:27:ARG:C	18:J:30:THR:HG1	2.24	0.42
20:L:102:GLY:N	20:L:105:ILE:HD12	2.33	0.42
24:P:30:TRP:CZ3	24:P:37:LYS:HE3	2.55	0.42
27:S:28:LYS:O	27:S:32:ALA:HB2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:Y:7:ARG:O	33:Y:9:LYS:HG3	2.20	0.42
6:5:78:PHE:CD2	6:5:138:PRO:HG3	2.55	0.42
7:6:203:VAL:HG23	7:6:282:HIS:HD1	1.84	0.42
10:B:36:G:N3	10:B:36:G:H2'	2.34	0.42
10:B:122:G:OP1	10:B:149:A:H4'	2.20	0.42
10:B:138:U:H2'	10:B:140:C:N3	2.35	0.42
10:B:160:A:N6	10:B:167:A:H1'	2.35	0.42
10:B:197:A:H8	10:B:197:A:O5'	2.03	0.42
10:B:216:A:N7	10:B:432:A:C5	2.87	0.42
10:B:238:C:H1'	10:B:609:A:H1'	2.01	0.42
10:B:281:C:C2	10:B:359:G:N2	2.82	0.42
10:B:309:A:C5	10:B:330:A:C6	3.08	0.42
10:B:315:G:C2	10:B:316:C:C2	3.08	0.42
10:B:319:G:C4	10:B:320:A:C8	3.08	0.42
10:B:401:A:C2	10:B:402:A:C4	3.07	0.42
10:B:404:A:C4	10:B:406:G:N1	2.88	0.42
10:B:406:G:H2'	10:B:407:G:O4'	2.19	0.42
10:B:447:A:H2'	10:B:473:G:O6	2.20	0.42
10:B:565:C:H5'	10:B:1253:A:H61	1.85	0.42
10:B:569:U:H5'	10:B:821:A:C2	2.53	0.42
10:B:579:G:O4'	10:B:2017:U:N3	2.53	0.42
10:B:608:A:C4	10:B:621:A:C6	3.07	0.42
10:B:769:U:C2	10:B:770:G:C8	3.07	0.42
10:B:834:G:C6	10:B:835:C:C4	3.08	0.42
10:B:856:G:P	31:W:23:LYS:HZ3	2.43	0.42
10:B:856:G:C2	10:B:857:G:C5	3.07	0.42
10:B:874:G:N1	10:B:904:G:C5	2.88	0.42
10:B:949:G:C5	10:B:969:G:N1	2.88	0.42
10:B:973:A:O4'	10:B:1188:U:C2	2.72	0.42
10:B:1022:G:C2	10:B:1140:C:C4	3.08	0.42
10:B:1063:G:C6	10:B:1064:C:C2	3.08	0.42
10:B:1079:C:O2'	17:I:133:ARG:HD3	2.19	0.42
10:B:1099:G:C8	17:I:4:VAL:N	2.88	0.42
10:B:1100:C:C5	17:I:2:LYS:HG3	2.55	0.42
10:B:1200:C:N4	10:B:1245:G:H1	2.16	0.42
10:B:1282:U:C4	10:B:1283:G:C5	3.07	0.42
10:B:1293:C:C4	10:B:1294:U:C4	3.08	0.42
10:B:1316:U:H2'	10:B:1317:G:C8	2.54	0.42
10:B:1412:U:C2	10:B:1591:A:C2	3.07	0.42
10:B:1434:A:N7	10:B:1435:G:C5	2.88	0.42
10:B:1455:G:C2	10:B:1456:G:C4	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1463:C:H2'	10:B:1464:G:C8	2.54	0.42
10:B:1498:C:C2	10:B:1499:C:C6	3.08	0.42
10:B:1722:A:C5	10:B:1739:A:C5	3.07	0.42
10:B:1799:G:N9	11:C:175:LEU:HD13	2.35	0.42
10:B:1840:G:C2	10:B:1841:U:C2	3.08	0.42
10:B:2026:U:H2'	10:B:2027:G:C8	2.54	0.42
10:B:2027:G:H2'	10:B:2028:U:O4'	2.19	0.42
10:B:2047:C:C2	10:B:2048:G:C8	3.07	0.42
10:B:2242:G:N7	10:B:2243:U:C2	2.88	0.42
10:B:2291:U:C2	10:B:2292:U:C4	3.08	0.42
10:B:2424:C:O2	10:B:2429:G:O2'	2.33	0.42
10:B:2679:A:C6	10:B:2729:G:O6	2.73	0.42
10:B:2688:G:N2	10:B:2722:G:O6	2.53	0.42
10:B:2693:G:O2'	10:B:2694:G:H5'	2.20	0.42
10:B:2704:C:C2	10:B:2705:A:N1	2.88	0.42
10:B:2735:G:C2	10:B:2736:A:C4	3.08	0.42
10:B:2836:U:C2	10:B:2837:A:C8	3.07	0.42
10:B:2849:U:OP2	24:P:92:ARG:NH1	2.53	0.42
10:B:2895:G:N2	10:B:2896:C:C2	2.88	0.42
11:C:11:GLY:HA3	11:C:206:LYS:HB3	2.02	0.42
11:C:77:VAL:HA	11:C:92:LEU:O	2.20	0.42
12:D:87:GLY:C	12:D:88:GLU:HG3	2.44	0.42
12:D:172:VAL:HG21	12:D:175:LEU:HD11	2.02	0.42
13:E:61:ARG:HA	13:E:61:ARG:HD3	1.65	0.42
14:F:101:ARG:O	14:F:105:ILE:HG12	2.20	0.42
16:H:1:MET:HE3	16:H:26:ALA:HB3	2.02	0.42
18:J:92:MET:HE3	18:J:92:MET:HB3	1.88	0.42
21:M:49:ALA:HB2	21:M:123:LYS:HB2	2.02	0.42
22:N:83:LEU:HD21	22:N:86:ARG:CZ	2.50	0.42
23:O:75:GLY:HA2	23:O:106:LEU:HG	2.02	0.42
24:P:47:ILE:C	24:P:95:LYS:NZ	2.73	0.42
25:Q:96:ASP:OD2	26:R:13:ARG:NH2	2.53	0.42
26:R:22:LEU:HD11	26:R:25:LEU:HD11	2.02	0.42
26:R:32:THR:HA	26:R:61:ALA:O	2.20	0.42
31:W:24:ARG:H	31:W:66:VAL:HG23	1.84	0.42
32:X:18:SER:O	32:X:21:LEU:N	2.48	0.42
2:1:13:SER:HB2	2:1:46:VAL:HG22	2.02	0.42
3:2:34:ARG:NH1	10:B:466:A:P	2.93	0.42
4:3:22:LYS:CE	10:B:650:C:H4'	2.49	0.42
6:5:44:VAL:HG22	6:5:214:ILE:HB	2.02	0.42
6:5:47:ASN:N	6:5:170:ILE:HG13	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:163:TYR:CE1	6:5:196:LEU:HD21	2.55	0.42
7:6:23:ASP:O	7:6:24:MET:CG	2.68	0.42
7:6:406:MET:C	7:6:411:TRP:HE1	2.27	0.42
8:7:57:ASN:C	8:7:62:ARG:HE	2.23	0.42
9:A:21:G:C6	9:A:22:U:C4	3.08	0.42
10:B:7:G:C2	10:B:8:C:C2	3.08	0.42
10:B:7:G:H1	10:B:2896:C:H42	1.68	0.42
10:B:27:G:O2'	10:B:513:A:N6	2.53	0.42
10:B:43:G:C6	10:B:44:A:C6	3.08	0.42
10:B:94:A:C6	10:B:95:A:C5	3.08	0.42
10:B:97:C:C2	10:B:98:G:C8	3.08	0.42
10:B:105:C:H2'	10:B:106:C:H6	1.84	0.42
10:B:124:G:H5'	10:B:1376:C:O2'	2.20	0.42
10:B:165:A:C6	10:B:166:U:C4	3.08	0.42
10:B:218:A:N6	10:B:219:A:C6	2.82	0.42
10:B:249:C:O2'	10:B:250:G:OP2	2.37	0.42
10:B:299:A:C4	10:B:322:A:C6	3.08	0.42
10:B:393:C:C2	10:B:394:C:C5	3.08	0.42
10:B:463:G:N1	10:B:467:G:C5	2.88	0.42
10:B:623:C:C4	10:B:624:C:N4	2.88	0.42
10:B:650:C:C4	10:B:651:G:C8	3.08	0.42
10:B:699:A:C8	10:B:700:G:C8	3.08	0.42
10:B:699:A:C4	10:B:700:G:C8	3.08	0.42
10:B:775:G:N3	10:B:777:G:N1	2.68	0.42
10:B:808:G:C5	10:B:809:G:N7	2.88	0.42
10:B:845:A:H1'	10:B:847:U:H5'	2.02	0.42
10:B:872:U:H2'	10:B:873:C:C6	2.55	0.42
10:B:882:G:H22	10:B:895:U:H1'	1.85	0.42
10:B:936:A:C5	10:B:937:C:C4	3.08	0.42
10:B:953:G:C4	10:B:954:G:C8	3.08	0.42
10:B:1040:A:C4	10:B:1041:G:C8	3.08	0.42
10:B:1158:C:H2'	10:B:1159:U:H6	1.85	0.42
10:B:1178:C:C4	10:B:1179:G:N7	2.88	0.42
10:B:1213:A:C4	10:B:1214:A:C8	3.08	0.42
10:B:1227:G:H2'	10:B:1228:G:H8	1.85	0.42
10:B:1303:G:C6	10:B:1304:A:C6	3.08	0.42
10:B:1333:G:H2'	10:B:1334:G:C8	2.46	0.42
10:B:1383:A:C8	10:B:1384:A:C4	3.08	0.42
10:B:1548:A:N3	10:B:1549:A:C8	2.88	0.42
10:B:1619:G:C2	10:B:1620:G:C4	3.08	0.42
10:B:1666:G:O2'	19:K:5:THR:OG1	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1693:U:H6	10:B:1693:U:OP1	2.03	0.42
10:B:1759:A:C6	10:B:1760:C:N3	2.88	0.42
10:B:1842:G:C8	10:B:1843:C:C5	3.08	0.42
10:B:1975:G:C8	10:B:1976:U:H5	2.38	0.42
10:B:2043:C:N4	10:B:2777:G:C6	2.88	0.42
10:B:2182:U:C2	10:B:2183:A:N7	2.88	0.42
10:B:2332:C:H1'	10:B:2336:A:C8	2.55	0.42
10:B:2346:A:C6	10:B:2383:G:C2	3.08	0.42
10:B:2508:G:C4	10:B:2509:G:C8	3.07	0.42
10:B:2535:G:C4	10:B:2536:G:C8	3.07	0.42
10:B:2570:G:H2'	10:B:2571:U:O4'	2.19	0.42
10:B:2654:A:C4	10:B:2656:U:N3	2.88	0.42
10:B:2747:G:C4	10:B:2756:U:O4	2.73	0.42
10:B:2794:C:C2	10:B:2803:G:C2	3.08	0.42
10:B:2867:G:N1	24:P:20:ARG:NH2	2.67	0.42
10:B:2899:A:C4	10:B:2900:A:C8	3.07	0.42
15:G:59:ASP:O	15:G:60:GLY:C	2.63	0.42
15:G:106:LEU:HD22	15:G:151:ARG:HD3	2.02	0.42
15:G:148:ARG:HD3	15:G:163:TYR:N	2.35	0.42
17:I:120:ASP:O	17:I:124:MET:HG3	2.20	0.42
21:M:47:GLU:HG2	21:M:51:ARG:HG2	2.01	0.42
23:O:40:ILE:HG22	23:O:47:VAL:HA	2.02	0.42
26:R:11:GLN:C	26:R:12:HIS:CG	2.98	0.42
27:S:52:GLU:O	27:S:55:ILE:HB	2.20	0.42
27:S:56:ALA:C	27:S:59:GLU:H	2.27	0.42
31:W:71:LYS:O	31:W:75:ASN:HA	2.19	0.42
32:X:74:GLY:O	32:X:77:TYR:OH	2.32	0.42
2:1:29:LYS:NZ	2:1:32:LYS:C	2.75	0.41
6:5:39:VAL:HG21	10:B:2125:G:OP1	2.19	0.41
6:5:113:VAL:HA	6:5:162:ARG:NH2	2.28	0.41
6:5:134:ARG:HH21	6:5:136:LEU:CD2	2.27	0.41
7:6:83:ALA:HA	7:6:102:ASP:CG	2.45	0.41
7:6:146:GLN:HB3	10:B:2252:G:O6	2.20	0.41
7:6:408:ILE:O	7:6:411:TRP:N	2.51	0.41
8:7:7:ASP:HB3	10:B:1046:A:C8	2.55	0.41
9:A:28:C:N3	9:A:29:A:C5	2.89	0.41
9:A:49:C:C5'	23:O:68:LYS:HD2	2.49	0.41
9:A:96:G:C2	9:A:97:C:C2	3.08	0.41
10:B:24:G:C2	10:B:25:U:O2	2.73	0.41
10:B:46:G:N1	10:B:180:G:C2	2.88	0.41
10:B:59:U:OP2	10:B:59:U:H6	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:61:C:P	33:Y:44:LYS:HZ2	2.39	0.41
10:B:366:C:O5'	10:B:366:C:H6	2.02	0.41
10:B:465:G:N2	10:B:684:G:H1'	2.34	0.41
10:B:582:A:N1	10:B:1259:G:C2	2.88	0.41
10:B:610:C:H42	10:B:619:G:N2	2.18	0.41
10:B:664:G:C4	10:B:665:U:C5	3.08	0.41
10:B:799:G:C6	10:B:800:A:C6	3.08	0.41
10:B:802:A:C6	10:B:803:U:C4	3.08	0.41
10:B:838:C:H42	10:B:940:G:H1	1.67	0.41
10:B:863:A:C2	10:B:864:G:C4	3.08	0.41
10:B:873:C:H1'	21:M:28:PHE:CE1	2.54	0.41
10:B:911:A:C2	21:M:9:PHE:CE1	3.08	0.41
10:B:950:G:C5	10:B:951:C:C4	3.08	0.41
10:B:973:A:H5'	10:B:1188:U:O2	2.20	0.41
10:B:1084:A:H8	10:B:1105:U:O2'	2.02	0.41
10:B:1139:G:P	18:J:72:LYS:NZ	2.93	0.41
10:B:1140:C:O5'	18:J:68:LYS:NZ	2.34	0.41
10:B:1142:A:C5	10:B:1144:A:C5	3.08	0.41
10:B:1182:G:H2'	10:B:1183:U:O4'	2.20	0.41
10:B:1186:G:O6	10:B:1187:G:C2	2.73	0.41
10:B:1223:G:P	26:R:71:LYS:NZ	2.93	0.41
10:B:1341:G:OP2	10:B:1397:U:N3	2.53	0.41
10:B:1374:G:N2	10:B:1375:U:C2	2.88	0.41
10:B:1378:A:C2	10:B:1380:G:C5	3.08	0.41
10:B:1442:U:H2'	10:B:1443:U:C6	2.55	0.41
10:B:1486:U:H3	10:B:1503:A:H61	1.66	0.41
10:B:1559:U:HO2'	10:B:1560:G:P	2.43	0.41
10:B:1562:U:C2	10:B:1563:U:C6	3.08	0.41
10:B:1689:A:C6	10:B:1700:A:C2	3.08	0.41
10:B:1779:U:H4'	10:B:1780:A:OP2	2.20	0.41
10:B:1797:G:C2	10:B:1798:U:C2	3.08	0.41
10:B:1799:G:C6	10:B:1819:A:C5	3.08	0.41
10:B:1820:U:H5"	10:B:1821:A:C8	2.55	0.41
10:B:1849:G:C2	10:B:1850:G:C8	3.07	0.41
10:B:1889:A:C2	10:B:1890:A:C4	3.08	0.41
10:B:1892:C:H5"	10:B:1893:C:OP2	2.20	0.41
10:B:2054:A:N6	10:B:2616:C:N4	2.68	0.41
10:B:2092:U:H5	10:B:2226:C:OP2	2.03	0.41
10:B:2186:G:N1	10:B:2187:U:H1'	2.34	0.41
10:B:2217:G:C4	10:B:2218:G:C8	3.08	0.41
10:B:2277:G:C6	10:B:2278:A:C8	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2335:A:C8	10:B:2337:G:C5	3.08	0.41
10:B:2630:G:H1'	10:B:2894:G:C2	2.54	0.41
10:B:2753:A:C5	10:B:2754:U:C2	3.07	0.41
10:B:2762:C:N4	10:B:2763:G:C6	2.88	0.41
10:B:2764:A:C5	10:B:2766:A:N6	2.88	0.41
10:B:2817:U:O2'	10:B:2837:A:H1'	2.19	0.41
10:B:2865:U:OP2	24:P:113:LEU:HD23	2.20	0.41
10:B:2870:C:N3	10:B:2871:U:N3	2.68	0.41
10:B:2893:A:H4'	10:B:2894:G:O5'	2.20	0.41
11:C:245:THR:N	11:C:249:VAL:O	2.29	0.41
12:D:151:THR:CG2	12:D:152:PRO:CD	2.95	0.41
15:G:54:ARG:NH2	15:G:57:TYR:OH	2.32	0.41
16:H:4:ILE:HA	16:H:17:ASP:O	2.20	0.41
18:J:103:ILE:HA	18:J:106:LYS:HB3	2.02	0.41
19:K:17:ARG:HG2	19:K:18:VAL:N	2.35	0.41
19:K:87:ASN:OD1	19:K:90:SER:HB2	2.20	0.41
21:M:41:LEU:HA	21:M:45:GLN:NE2	2.35	0.41
26:R:57:GLY:O	26:R:103:ALA:HA	2.20	0.41
28:T:6:ARG:O	28:T:9:LYS:HE3	2.19	0.41
28:T:22:THR:HA	28:T:25:GLU:CD	2.45	0.41
32:X:26:ARG:NH1	32:X:28:PHE:CZ	2.88	0.41
34:Z:19:HIS:O	34:Z:23:LEU:HG	2.19	0.41
4:3:18:LYS:HB3	10:B:651:G:OP1	2.20	0.41
6:5:75:VAL:HA	6:5:113:VAL:HG23	2.02	0.41
6:5:209:ILE:O	6:5:229:LEU:HD12	2.20	0.41
7:6:213:LEU:O	7:6:217:ILE:HG22	2.20	0.41
9:A:98:G:H1	30:V:14:LYS:HB2	1.84	0.41
10:B:109:C:H2'	10:B:110:G:O4'	2.19	0.41
10:B:266:G:C2	10:B:427:U:C2	3.09	0.41
10:B:268:C:N4	10:B:424:G:H1	2.18	0.41
10:B:323:C:C2	10:B:333:G:H1'	2.55	0.41
10:B:342:A:N6	10:B:343:C:C4	2.88	0.41
10:B:424:G:C2	10:B:425:G:C5	3.09	0.41
10:B:425:G:N2	10:B:426:C:C2	2.88	0.41
10:B:514:A:C4	10:B:515:A:C8	3.08	0.41
10:B:585:G:N2	10:B:1256:G:C5	2.88	0.41
10:B:604:G:C5	10:B:625:G:N1	2.88	0.41
10:B:695:G:C5	10:B:768:G:C6	3.08	0.41
10:B:739:A:N3	10:B:740:C:N4	2.67	0.41
10:B:827:U:H6	10:B:827:U:H2'	1.74	0.41
10:B:868:U:C4	10:B:869:G:N7	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:915:C:H2'	10:B:916:G:O4'	2.20	0.41
10:B:1024:G:H3'	10:B:1025:G:H5"	2.01	0.41
10:B:1034:G:C5	10:B:1122:G:C2	3.09	0.41
10:B:1081:U:H2'	10:B:1082:U:C6	2.53	0.41
10:B:1137:G:H2'	10:B:1138:G:C8	2.55	0.41
10:B:1210:G:H3'	10:B:1211:C:C5	2.55	0.41
10:B:1266:G:N7	27:S:15:GLN:HG3	2.35	0.41
10:B:1389:G:H2'	10:B:1390:U:O4'	2.20	0.41
10:B:1425:G:N2	10:B:1574:C:C2	2.89	0.41
10:B:1435:G:N1	10:B:1436:G:C5	2.87	0.41
10:B:1452:G:C2	10:B:2702:G:C8	3.08	0.41
10:B:1587:G:C4	10:B:1588:G:C8	3.08	0.41
10:B:1649:G:C2	10:B:2009:A:C5	3.08	0.41
10:B:1675:C:C2	10:B:1676:A:C8	3.08	0.41
10:B:1681:G:O2'	10:B:1682:G:H5'	2.20	0.41
10:B:1739:A:C6	10:B:1740:G:C4	3.09	0.41
10:B:1805:A:H4'	11:C:247:TRP:CE2	2.55	0.41
10:B:1846:G:C2	10:B:1895:C:C2	3.08	0.41
10:B:1851:U:C4	10:B:1852:U:C4	3.08	0.41
10:B:1860:G:C4	10:B:1861:G:C8	3.08	0.41
10:B:1861:G:C2	10:B:1862:G:C4	3.09	0.41
10:B:1932:A:C5	10:B:1933:G:C5	3.08	0.41
10:B:2010:G:C2	10:B:2011:U:C2	3.08	0.41
10:B:2070:A:C4	10:B:2071:A:C8	3.08	0.41
10:B:2074:U:H2'	10:B:2075:U:C6	2.55	0.41
10:B:2106:U:N3	10:B:2107:G:N7	2.68	0.41
10:B:2189:U:H2'	10:B:2190:G:H8	1.81	0.41
10:B:2261:C:H2'	10:B:2262:U:H6	1.85	0.41
10:B:2293:G:H2'	10:B:2294:G:C8	2.55	0.41
10:B:2329:U:H2'	10:B:2330:G:C8	2.55	0.41
10:B:2357:G:N2	10:B:2361:G:N7	2.68	0.41
10:B:2397:G:C2	10:B:2398:U:C2	3.08	0.41
10:B:2399:G:C2	10:B:2400:G:C4	3.08	0.41
10:B:2521:C:H2'	10:B:2522:U:C6	2.54	0.41
10:B:2661:G:N1	10:B:2662:A:N3	2.69	0.41
10:B:2759:G:H21	15:G:138:GLN:NE2	2.17	0.41
10:B:2766:A:H2'	10:B:2766:A:N3	2.34	0.41
10:B:2792:A:N1	10:B:2793:C:C2	2.89	0.41
10:B:2802:G:C6	10:B:2803:G:C5	3.08	0.41
13:E:1:MET:H3	13:E:19:PHE:HD2	1.67	0.41
15:G:44:HIS:HA	15:G:49:LEU:HD23	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:L:32:GLY:O	20:L:33:ARG:C	2.63	0.41
21:M:38:ARG:O	21:M:126:ILE:HG21	2.20	0.41
23:O:76:LYS:CD	23:O:109:ALA:HB1	2.50	0.41
29:U:10:VAL:HG21	29:U:35:VAL:HG21	2.03	0.41
29:U:16:LYS:O	29:U:17:ASP:HB2	2.21	0.41
29:U:45:GLN:O	29:U:55:GLY:HA3	2.20	0.41
31:W:60:ALA:O	31:W:61:LYS:HD2	2.19	0.41
1:0:31:LYS:HE3	10:B:2885:G:N2	2.36	0.41
3:2:12:ARG:O	3:2:15:SER:N	2.54	0.41
3:2:14:ARG:HH22	10:B:770:G:C3'	2.30	0.41
4:3:46:LYS:NZ	10:B:631:A:OP2	2.53	0.41
6:5:26:ALA:HB1	6:5:224:VAL:HG12	2.02	0.41
7:6:328:ARG:N	7:6:341:TRP:CD1	2.85	0.41
35:6:527:GNP:H2'	35:6:527:GNP:H8	1.84	0.41
8:7:37:LYS:HD2	8:7:54:VAL:HG21	2.02	0.41
9:A:32:U:C4	9:A:51:G:C2	3.08	0.41
10:B:29:U:C2	10:B:30:G:C8	3.07	0.41
10:B:270:A:H1'	10:B:370:G:C2	2.55	0.41
10:B:340:A:C2	10:B:341:C:H1'	2.56	0.41
10:B:465:G:N7	10:B:466:A:C5	2.89	0.41
10:B:539:G:C5	10:B:540:C:C5	3.08	0.41
10:B:585:G:C5	10:B:1251:C:N3	2.89	0.41
10:B:593:U:N3	10:B:594:U:C4	2.87	0.41
10:B:615:U:C2	13:E:35:TYR:CD1	3.08	0.41
10:B:687:C:C5	10:B:788:A:C8	3.08	0.41
10:B:695:G:C2	10:B:696:G:C8	3.08	0.41
10:B:709:U:C4	10:B:710:U:O4	2.73	0.41
10:B:722:A:H2'	10:B:723:C:C6	2.54	0.41
10:B:737:C:N3	10:B:759:G:N2	2.67	0.41
10:B:859:G:O2'	10:B:916:G:O6	2.28	0.41
10:B:880:G:H2'	10:B:881:G:N7	2.35	0.41
10:B:979:A:N1	10:B:985:C:N3	2.68	0.41
10:B:1045:C:C4	10:B:1047:G:C2	3.07	0.41
10:B:1115:G:HO2'	10:B:1116:G:P	2.41	0.41
10:B:1130:U:C2	12:D:152:PRO:HB3	2.31	0.41
10:B:1197:G:H2'	10:B:1198:U:H6	1.84	0.41
10:B:1234:U:C4	10:B:1235:G:C5	3.08	0.41
10:B:1311:G:H1'	10:B:1313:U:O4	2.20	0.41
10:B:1338:G:C2	10:B:1339:G:C8	3.08	0.41
10:B:1478:G:C6	10:B:1514:G:N3	2.88	0.41
10:B:1627:G:C6	10:B:1640:A:C5	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1631:G:H8	10:B:1631:G:O5'	2.03	0.41
10:B:1739:A:C4	10:B:1740:G:C8	3.08	0.41
10:B:1783:A:C2	10:B:2587:A:C6	3.08	0.41
10:B:1799:G:C6	10:B:1819:A:N7	2.88	0.41
10:B:1811:G:C2	10:B:1812:U:C6	3.09	0.41
10:B:1856:U:H3	10:B:1887:C:N4	2.18	0.41
10:B:1857:G:N1	10:B:1884:G:C5	2.88	0.41
10:B:1904:G:C6	10:B:1905:C:C4	3.08	0.41
10:B:2070:A:N3	10:B:2071:A:C8	2.88	0.41
10:B:2099:U:H1'	10:B:2191:A:C2	2.55	0.41
10:B:2205:A:C6	10:B:2206:C:C4	3.08	0.41
10:B:2209:G:C2	10:B:2216:G:C2	3.08	0.41
10:B:2231:U:C2	10:B:2232:C:C5	3.09	0.41
10:B:2297:A:C8	10:B:2320:U:N3	2.88	0.41
10:B:2329:U:N3	10:B:2330:G:N7	2.69	0.41
10:B:2330:G:C4	10:B:2331:G:H1'	2.55	0.41
10:B:2360:G:H1'	20:L:60:ARG:NH1	2.35	0.41
10:B:2556:C:H2'	10:B:2557:G:O4'	2.20	0.41
10:B:2637:U:C4	10:B:2638:G:C2	3.09	0.41
10:B:2666:C:H6	10:B:2666:C:H2'	1.69	0.41
10:B:2667:C:H1'	15:G:108:PHE:CD1	2.55	0.41
10:B:2742:G:N2	10:B:2743:U:C2	2.88	0.41
11:C:43:ASN:CG	11:C:44:ASN:N	2.78	0.41
11:C:249:VAL:HG12	11:C:250:GLN:N	2.35	0.41
12:D:180:VAL:HA	12:D:187:LEU:HD12	2.02	0.41
14:F:122:ASP:OD1	14:F:125:GLY:N	2.53	0.41
14:F:160:LYS:HE3	14:F:164:GLU:OE2	2.19	0.41
18:J:91:GLU:HA	18:J:94:ALA:HB3	2.01	0.41
19:K:6:MET:SD	19:K:17:ARG:CZ	3.09	0.41
19:K:28:HIS:O	19:K:28:HIS:ND1	2.54	0.41
22:N:44:LEU:HA	22:N:44:LEU:HD12	1.84	0.41
22:N:51:LEU:O	22:N:55:ALA:N	2.53	0.41
23:O:36:TYR:HA	23:O:52:SER:HB3	2.03	0.41
25:Q:63:ARG:HH22	25:Q:98:ALA:HB3	1.84	0.41
25:Q:90:ASP:HA	25:Q:91:ARG:NH2	2.35	0.41
26:R:34:GLU:OE2	26:R:60:LYS:HG2	2.20	0.41
26:R:37:GLU:HB2	26:R:53:PHE:CD1	2.55	0.41
28:T:38:ALA:CB	28:T:81:LYS:HZ3	2.20	0.41
28:T:65:GLY:HA3	28:T:77:ARG:HG3	2.01	0.41
4:3:2:LYS:HZ2	10:B:242:G:P	2.40	0.41
7:6:108:LEU:HD13	7:6:128:GLN:HA	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:144:GLU:HB3	10:B:2602:A:H2	1.85	0.41
7:6:186:GLU:C	7:6:189:ARG:H	2.28	0.41
7:6:263:LEU:O	7:6:267:PHE:HB2	2.20	0.41
8:7:57:ASN:ND2	10:B:1106:G:OP1	2.48	0.41
8:7:118:ILE:HB	8:7:119:PRO:HD3	2.02	0.41
9:A:46:A:C5	9:A:47:C:C5	3.08	0.41
10:B:37:C:H5'	10:B:451:U:P	2.60	0.41
10:B:329:G:N2	29:U:16:LYS:NZ	2.68	0.41
10:B:457:A:H8	10:B:457:A:OP1	2.04	0.41
10:B:464:U:C4	10:B:788:A:C5	3.08	0.41
10:B:490:C:O2'	10:B:491:G:OP2	2.29	0.41
10:B:546:U:H6	10:B:548:G:H22	1.65	0.41
10:B:552:U:N3	10:B:553:G:N7	2.69	0.41
10:B:577:G:P	10:B:2502:G:O2'	2.78	0.41
10:B:691:C:P	11:C:216:ARG:HH21	2.42	0.41
10:B:705:A:C2	10:B:727:A:H1'	2.55	0.41
10:B:806:C:H5	20:L:41:ARG:HE	1.67	0.41
10:B:833:A:C6	10:B:834:G:O6	2.73	0.41
10:B:888:C:HO2'	10:B:889:C:P	2.42	0.41
10:B:918:A:H2'	10:B:918:A:N3	2.36	0.41
10:B:920:A:C5	10:B:921:C:C4	3.08	0.41
10:B:975:A:C2	10:B:990:A:C8	3.08	0.41
10:B:997:G:O2'	10:B:998:C:H5'	2.20	0.41
10:B:1106:G:C5	10:B:1107:G:C8	3.09	0.41
10:B:1215:G:N2	10:B:1216:G:C4	2.89	0.41
10:B:1262:A:H2'	10:B:1262:A:N3	2.35	0.41
10:B:1277:G:C2	10:B:1278:C:C2	3.08	0.41
10:B:1366:A:H2'	10:B:1367:A:H5'	2.01	0.41
10:B:1420:A:C4	10:B:2211:A:C5	3.08	0.41
10:B:1423:G:C2	10:B:1424:G:C4	3.09	0.41
10:B:1429:G:C5	10:B:1568:G:C5	3.08	0.41
10:B:1562:U:H2'	10:B:1563:U:C6	2.55	0.41
10:B:1660:G:H1	10:B:2000:C:N4	2.16	0.41
10:B:1786:A:C5	10:B:1938:A:C6	3.09	0.41
10:B:1889:A:H2'	10:B:1890:A:O4'	2.21	0.41
10:B:1949:G:C2	10:B:1950:G:C5	3.09	0.41
10:B:2056:G:N2	10:B:2057:G:C4	2.88	0.41
10:B:2107:G:O2'	10:B:2108:A:O5'	2.37	0.41
10:B:2147:A:HO2'	10:B:2148:G:P	2.42	0.41
10:B:2163:A:H5"	10:B:2164:C:OP2	2.20	0.41
10:B:2293:G:N1	10:B:2294:G:C5	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2410:G:H2'	10:B:2411:A:C8	2.55	0.41
10:B:2419:U:H2'	10:B:2420:C:C6	2.55	0.41
10:B:2509:G:N2	10:B:2510:C:C2	2.88	0.41
10:B:2509:G:N1	10:B:2580:U:O2	2.53	0.41
10:B:2520:C:HO2'	10:B:2565:A:HO2'	1.51	0.41
10:B:2583:G:C4	10:B:2584:U:C5	3.08	0.41
10:B:2592:G:N1	10:B:2603:G:C6	2.88	0.41
10:B:2595:G:C6	10:B:2599:G:O6	2.73	0.41
10:B:2684:U:N3	10:B:2685:G:C8	2.88	0.41
10:B:2728:U:OP1	19:K:69:ARG:HG3	2.20	0.41
10:B:2832:U:C2	10:B:2834:G:C2	3.08	0.41
10:B:2848:G:C5	10:B:2867:G:N1	2.88	0.41
10:B:2865:U:H2'	10:B:2866:U:C5	2.55	0.41
11:C:132:ARG:NH1	16:H:121:VAL:HG12	2.35	0.41
11:C:229:HIS:HE1	11:C:231:HIS:CD2	2.38	0.41
12:D:56:LYS:HD2	12:D:59:ARG:HH21	1.86	0.41
13:E:117:ARG:NH1	20:L:2:ARG:HG2	2.33	0.41
14:F:9:ASP:HA	14:F:13:LYS:HZ3	1.85	0.41
14:F:105:ILE:HB	14:F:111:ARG:NH2	2.29	0.41
15:G:49:LEU:HD23	15:G:49:LEU:HA	1.76	0.41
16:H:27:ARG:NH2	32:X:59:ASP:HA	2.06	0.41
16:H:80:ILE:HD11	16:H:102:ALA:N	2.34	0.41
16:H:145:ASN:C	16:H:149:GLU:HB2	2.46	0.41
17:I:59:THR:O	17:I:65:SER:HB3	2.21	0.41
19:K:106:LEU:HD21	19:K:111:PHE:HD2	1.86	0.41
23:O:16:ARG:O	23:O:20:GLU:HG3	2.21	0.41
23:O:66:GLY:O	23:O:102:ARG:HD3	2.20	0.41
31:W:18:LYS:CG	31:W:19:ARG:H	2.32	0.41
32:X:14:GLY:O	32:X:26:ARG:N	2.54	0.41
6:5:7:ARG:HE	10:B:2174:C:P	2.43	0.41
7:6:118:HIS:O	7:6:121:LYS:HB2	2.20	0.41
7:6:194:LYS:CG	7:6:197:VAL:HG22	2.50	0.41
7:6:319:ILE:HD12	7:6:341:TRP:HB3	2.02	0.41
7:6:332:ASP:N	7:6:338:ASN:OD1	2.35	0.41
7:6:371:ARG:HG2	7:6:424:TYR:CZ	2.55	0.41
7:6:371:ARG:HG2	7:6:424:TYR:OH	2.19	0.41
8:7:119:PRO:HB3	8:7:126:LEU:HD13	2.01	0.41
10:B:56:A:C5	10:B:57:C:C4	3.08	0.41
10:B:190:A:P	32:X:25:LYS:NZ	2.91	0.41
10:B:217:A:C6	10:B:218:A:N3	2.89	0.41
10:B:452:G:H8	10:B:452:G:O5'	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:465:G:N7	10:B:466:A:N6	2.68	0.41
10:B:499:U:C5’	29:U:42:LYS:HD2	2.49	0.41
10:B:532:A:H8	10:B:2021:C:C4	2.38	0.41
10:B:627:A:P	10:B:627:A:H8	2.44	0.41
10:B:721:A:N6	10:B:722:A:N6	2.69	0.41
10:B:722:A:H2’	10:B:723:C:H6	1.85	0.41
10:B:743:A:H2’	10:B:744:U:C6	2.47	0.41
10:B:775:G:C5’	10:B:777:G:H1’	2.50	0.41
10:B:821:A:O2’	10:B:946:C:H5”	2.21	0.41
10:B:855:G:O3’	31:W:23:LYS:NZ	2.52	0.41
10:B:882:G:N1	10:B:883:G:H1’	2.35	0.41
10:B:1022:G:C2	10:B:1141:U:C5	3.07	0.41
10:B:1064:C:P	17:I:80:LYS:NZ	2.92	0.41
10:B:1107:G:H2’	10:B:1108:U:H6	1.84	0.41
10:B:1180:U:H2’	10:B:1181:U:C6	2.55	0.41
10:B:1196:C:H1’	10:B:1226:A:C4	2.55	0.41
10:B:1248:G:OP1	13:E:44:ARG:NH1	2.53	0.41
10:B:1258:U:H2’	10:B:1259:G:C8	2.56	0.41
10:B:1298:C:N3	10:B:1299:G:C2	2.89	0.41
10:B:1368:G:N2	10:B:1809:A:N1	2.69	0.41
10:B:1378:A:C6	10:B:1380:G:N1	2.88	0.41
10:B:1412:U:C2	10:B:1413:A:C8	3.08	0.41
10:B:1422:G:C2	10:B:1423:G:C8	3.08	0.41
10:B:1629:U:N3	10:B:1630:A:N7	2.68	0.41
10:B:1633:G:O2’	10:B:1634:A:H5’	2.20	0.41
10:B:1651:G:N1	10:B:1652:A:C6	2.88	0.41
10:B:1744:A:H2’	10:B:1744:A:N3	2.35	0.41
10:B:1817:G:C2	10:B:1818:U:C2	3.08	0.41
10:B:1845:G:C2	10:B:1896:G:C4	3.09	0.41
10:B:2111:U:H4’	10:B:2115:G:O6	2.20	0.41
10:B:2148:G:H5”	10:B:2149:U:OP2	2.20	0.41
10:B:2189:U:N3	10:B:2190:G:C5	2.89	0.41
10:B:2216:G:N3	10:B:2217:G:C8	2.88	0.41
10:B:2218:G:N1	10:B:2219:U:C4	2.88	0.41
10:B:2252:G:O2’	10:B:2253:G:P	2.79	0.41
10:B:2265:U:C5	10:B:2266:A:C5	3.08	0.41
10:B:2304:G:C2	10:B:2313:C:N3	2.88	0.41
10:B:2309:A:C6	10:B:2310:C:N3	2.89	0.41
10:B:2452:C:N4	10:B:2453:A:N6	2.67	0.41
10:B:2553:G:N3	10:B:2583:G:H1’	2.35	0.41
10:B:2617:U:H3’	10:B:2618:G:H8	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2682:A:C4	12:D:11:MET:HE2	2.54	0.41
10:B:2749:A:C5	10:B:2750:A:N7	2.88	0.41
10:B:2842:G:C2	10:B:2843:G:C4	3.08	0.41
14:F:39:VAL:HG11	14:F:48:LEU:HB3	2.01	0.41
14:F:56:LEU:HD12	14:F:64:PRO:HD3	2.02	0.41
14:F:56:LEU:HD12	14:F:64:PRO:N	2.35	0.41
14:F:102:LEU:HD12	14:F:103:ILE:N	2.35	0.41
14:F:111:ARG:HH22	14:F:135:ILE:HG22	1.86	0.41
14:F:137:PHE:HB3	14:F:139:GLU:HG3	2.02	0.41
17:I:18:ASN:ND2	17:I:38:CYS:SG	2.94	0.41
19:K:64:THR:H	19:K:78:PHE:HD2	1.69	0.41
19:K:72:ASP:OD1	19:K:74:SER:OG	2.38	0.41
20:L:80:SER:HB3	20:L:114:GLY:HA3	2.02	0.41
21:M:38:ARG:HG2	21:M:98:PRO:HD3	2.01	0.41
22:N:41:ALA:O	22:N:44:LEU:N	2.54	0.41
23:O:51:ALA:HB3	23:O:78:VAL:CG1	2.50	0.41
24:P:48:ALA:C	24:P:95:LYS:NZ	2.73	0.41
29:U:13:LEU:HB2	29:U:68:ASN:HD22	1.85	0.41
29:U:13:LEU:N	29:U:68:ASN:O	2.53	0.41
33:Y:11:VAL:HA	33:Y:63:ALA:CA	2.47	0.41
34:Z:43:ILE:O	34:Z:47:ILE:HG12	2.21	0.41
34:Z:50:VAL:O	34:Z:54:VAL:HG22	2.20	0.41
6:5:2:ALA:HB1	10:B:2110:G:H8	1.85	0.41
6:5:148:ASN:HB2	6:5:151:GLU:HB2	2.03	0.41
6:5:155:ASN:C	6:5:158:ALA:H	2.28	0.41
7:6:395:GLU:HG2	7:6:400:VAL:HA	2.03	0.41
8:7:123:ILE:HG22	8:7:123:ILE:O	2.20	0.41
9:A:61:G:H2'	9:A:62:C:O4'	2.20	0.41
9:A:71:C:C4	9:A:72:G:C4	3.08	0.41
10:B:35:G:C4	10:B:454:A:C2	3.09	0.41
10:B:64:A:C5	10:B:65:U:C4	3.08	0.41
10:B:106:C:H41	33:Y:2:LYS:NZ	2.17	0.41
10:B:213:A:C2	10:B:214:G:C5	3.08	0.41
10:B:288:U:H3	10:B:352:A:N6	2.18	0.41
10:B:305:C:H2'	10:B:306:U:C6	2.56	0.41
10:B:542:C:C2	10:B:543:G:C8	3.08	0.41
10:B:582:A:C3'	25:Q:10:ARG:HH22	2.31	0.41
10:B:617:G:C4	10:B:618:G:C8	3.09	0.41
10:B:799:G:C8	10:B:800:A:C8	3.08	0.41
10:B:806:C:C5	10:B:807:U:H5	2.39	0.41
10:B:860:U:C2	10:B:2268:A:H5'	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:957:C:N3	10:B:959:A:C4	2.88	0.41
10:B:966:G:H4'	10:B:2267:A:N6	2.36	0.41
10:B:1062:G:OP1	10:B:1070:A:H4'	2.20	0.41
10:B:1139:G:O2'	10:B:1143:A:N1	2.32	0.41
10:B:1193:G:H2'	10:B:1194:A:H8	1.85	0.41
10:B:1312:U:N3	10:B:1603:A:C6	2.77	0.41
10:B:1529:G:C4	10:B:1530:G:C8	3.08	0.41
10:B:1548:A:C4	10:B:1549:A:C8	3.09	0.41
10:B:1618:A:OP1	10:B:1618:A:C8	2.74	0.41
10:B:1658:C:OP1	12:D:140:HIS:CD2	2.73	0.41
10:B:1754:A:H8	10:B:1754:A:OP1	2.03	0.41
10:B:1801:A:N6	11:C:261:ARG:HH22	2.19	0.41
10:B:1935:G:C6	10:B:1964:G:C6	3.09	0.41
10:B:2046:G:C2	10:B:2047:C:C6	3.08	0.41
10:B:2059:A:C2	10:B:2503:A:N1	2.89	0.41
10:B:2092:U:OP2	32:X:55:MET:HE1	2.21	0.41
10:B:2117:A:H2	10:B:2118:U:H2'	1.86	0.41
10:B:2120:G:C6	10:B:2178:C:C4	3.08	0.41
10:B:2243:U:H2'	10:B:2244:U:H6	1.86	0.41
10:B:2415:G:H2'	10:B:2416:C:O4'	2.21	0.41
10:B:2435:A:N1	10:B:2436:G:C5	2.89	0.41
10:B:2662:A:O5'	10:B:2662:A:H8	2.04	0.41
10:B:2816:G:C5	10:B:2817:U:H5	2.39	0.41
10:B:2834:G:H2'	10:B:2879:A:N6	2.32	0.41
10:B:2867:G:OP2	24:P:113:LEU:HG	2.21	0.41
14:F:90:LEU:HD13	14:F:95:MET:HG2	2.02	0.41
15:G:83:THR:O	15:G:132:LEU:HB2	2.20	0.41
18:J:31:GLU:CD	18:J:34:ARG:HH21	2.27	0.41
19:K:21:ILE:HG13	19:K:39:LYS:CB	2.49	0.41
19:K:100:GLY:HA2	19:K:101:PRO:HD3	1.75	0.41
21:M:11:LYS:NZ	21:M:86:LYS:C	2.73	0.41
23:O:27:VAL:HG23	23:O:38:GLN:HB2	2.03	0.41
23:O:81:ARG:HA	23:O:84:GLU:CD	2.45	0.41
23:O:82:ALA:O	23:O:86:GLY:N	2.53	0.41
25:Q:108:LEU:HB2	26:R:48:LYS:HD2	2.02	0.41
26:R:2:TYR:O	26:R:41:ILE:HA	2.21	0.41
26:R:28:ALA:O	26:R:31:GLU:HG2	2.20	0.41
26:R:66:HIS:ND1	26:R:94:THR:OG1	2.49	0.41
30:V:31:TYR:O	30:V:93:ARG:N	2.46	0.41
33:Y:11:VAL:O	33:Y:12:GLU:C	2.64	0.41
1:0:12:ARG:NH2	1:0:16:ARG:NH1	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:22:THR:OG1	1:0:23:ALA:N	2.53	0.41
5:4:4:ARG:NH2	10:B:2477:U:C5	2.89	0.41
5:4:16:ILE:HA	5:4:25:VAL:HG23	2.01	0.41
6:5:104:ILE:HB	10:B:2171:A:OP1	2.20	0.41
6:5:133:PRO:HD2	6:5:134:ARG:H	1.85	0.41
7:6:50:LYS:HE2	7:6:50:LYS:HB2	1.80	0.41
7:6:317:ASN:ND2	35:6:527:GNP:O6	2.54	0.41
9:A:66:A:O2'	9:A:67:G:P	2.79	0.41
9:A:116:G:C3'	23:O:56:LYS:HZ3	2.19	0.41
10:B:68:G:C6	10:B:69:C:C2	3.08	0.41
10:B:116:C:N4	10:B:117:G:N1	2.69	0.41
10:B:136:G:C5	10:B:137:U:C4	3.09	0.41
10:B:477:A:C6	10:B:478:A:C5	3.08	0.41
10:B:508:A:H3'	10:B:509:C:H5'	2.02	0.41
10:B:511:U:C4	10:B:512:G:C4	3.09	0.41
10:B:543:G:H2'	10:B:544:C:O4'	2.20	0.41
10:B:582:A:C6	10:B:583:G:C6	3.09	0.41
10:B:613:A:N6	10:B:616:A:C4	2.87	0.41
10:B:643:A:C5	10:B:644:A:C5	3.09	0.41
10:B:643:A:N6	10:B:644:A:C6	2.88	0.41
10:B:681:G:N2	10:B:797:G:C4	2.89	0.41
10:B:685:A:C6	10:B:774:G:N2	2.89	0.41
10:B:697:G:C6	10:B:698:C:N4	2.89	0.41
10:B:712:G:C2'	10:B:713:G:H5'	2.50	0.41
10:B:760:G:C5	10:B:761:A:C4	3.09	0.41
10:B:783:A:N6	10:B:785:G:C4	2.89	0.41
10:B:809:G:C2	10:B:810:U:C2	3.09	0.41
10:B:870:U:C3'	10:B:871:U:H5"	2.46	0.41
10:B:909:A:C4	10:B:912:C:C4	3.08	0.41
10:B:917:A:H2'	10:B:918:A:C8	2.55	0.41
10:B:972:A:C6	10:B:973:A:C5	3.08	0.41
10:B:986:C:H2'	10:B:987:C:H6	1.86	0.41
10:B:1232:G:C5	10:B:1233:C:C5	3.08	0.41
10:B:1360:G:H2'	10:B:1361:G:O4'	2.21	0.41
10:B:1420:A:C5	10:B:2211:A:C4	3.09	0.41
10:B:1425:G:O6	10:B:1426:G:N1	2.54	0.41
10:B:1486:U:O4	10:B:1504:A:N6	2.54	0.41
10:B:1493:C:N4	10:B:1494:A:C5	2.89	0.41
10:B:1528:A:C6	10:B:1544:A:C8	3.09	0.41
10:B:1630:A:C2	10:B:1631:G:C4	3.09	0.41
10:B:1672:A:C8	10:B:1673:G:N7	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1724:G:C2	10:B:1725:U:C2	3.09	0.41
10:B:1764:C:H2'	10:B:1765:U:H6	1.83	0.41
10:B:1773:A:N7	10:B:1774:C:C2	2.89	0.41
10:B:1797:G:C6	10:B:1798:U:C4	3.09	0.41
10:B:1800:C:C4	10:B:1818:U:O2	2.72	0.41
10:B:1836:C:H2'	10:B:1837:C:C6	2.55	0.41
10:B:2309:A:C5	10:B:2310:C:C4	3.08	0.41
10:B:2359:C:C4	10:B:2360:G:C5	3.08	0.41
10:B:2404:U:H1'	20:L:66:PHE:HZ	1.86	0.41
10:B:2454:G:N7	10:B:2455:G:N7	2.69	0.41
10:B:2467:C:N3	10:B:2468:A:C6	2.88	0.41
10:B:2525:G:C2	10:B:2526:G:C8	3.09	0.41
10:B:2786:U:H2'	10:B:2787:C:C6	2.55	0.41
10:B:2884:U:H2'	10:B:2885:G:C8	2.55	0.41
12:D:114:LYS:H	12:D:114:LYS:HG2	1.64	0.41
17:I:23:VAL:O	17:I:27:LEU:HB3	2.21	0.41
18:J:45:THR:OG1	18:J:48:VAL:HG22	2.21	0.41
23:O:24:THR:O	23:O:90:VAL:HB	2.21	0.41
25:Q:82:LEU:HB3	25:Q:89:ILE:HG12	2.02	0.41
32:X:15:ASN:HA	32:X:24:THR:O	2.21	0.41
3:2:2:LYS:NZ	10:B:1620:G:C4'	2.82	0.41
3:2:14:ARG:HH22	10:B:770:G:H4'	1.85	0.41
7:6:123:GLN:OE1	7:6:267:PHE:HA	2.21	0.41
7:6:206:THR:OG1	7:6:228:LEU:HG	2.20	0.41
7:6:212:THR:CG2	35:6:527:GNP:H2'	2.49	0.41
7:6:256:ILE:HG22	7:6:257:ARG:O	2.20	0.41
8:7:56:ARG:HG3	10:B:1084:A:C2	2.55	0.41
8:7:96:PHE:HA	8:7:99:PHE:CE2	2.56	0.41
9:A:25:U:O2'	9:A:26:C:O5'	2.39	0.41
9:A:33:G:C6	9:A:50:A:C6	3.08	0.41
9:A:75:G:H1'	30:V:29:ILE:HG21	2.02	0.41
9:A:89:U:O2	10:B:958:U:H5	2.04	0.41
10:B:21:A:C6	10:B:22:C:C4	3.09	0.41
10:B:160:A:C6	10:B:161:A:C6	3.09	0.41
10:B:183:C:O2'	10:B:184:C:H5'	2.21	0.41
10:B:195:A:C6	10:B:198:C:C5	3.08	0.41
10:B:264:C:C2'	10:B:265:A:H5"	2.50	0.41
10:B:291:G:H2'	10:B:292:U:C6	2.56	0.41
10:B:456:C:C4	28:T:73:ARG:NH1	2.88	0.41
10:B:461:C:C5	10:B:462:C:C5	3.09	0.41
10:B:483:A:H4'	29:U:45:GLN:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:628:G:O6	10:B:636:G:N1	2.54	0.41
10:B:684:G:C4	10:B:774:G:C6	3.09	0.41
10:B:768:G:C4	10:B:769:U:C5	3.09	0.41
10:B:955:U:C3'	21:M:86:LYS:HZ3	2.34	0.41
10:B:965:C:C4	10:B:966:G:N7	2.89	0.41
10:B:1063:G:C6	10:B:1064:C:C4	3.09	0.41
10:B:1074:G:C2	10:B:1075:C:C2	3.09	0.41
10:B:1076:C:C2	10:B:1077:A:C8	3.09	0.41
10:B:1168:G:C4	10:B:1169:A:C8	3.09	0.41
10:B:1280:G:H2'	10:B:1281:G:H8	1.85	0.41
10:B:1326:U:O2	10:B:1327:A:C8	2.74	0.41
10:B:1355:G:C2	10:B:1356:G:N7	2.88	0.41
10:B:1410:G:H2'	10:B:1411:U:H6	1.86	0.41
10:B:1454:C:H5'	22:N:63:ARG:HH22	1.86	0.41
10:B:1491:G:C2	10:B:1492:G:C4	3.09	0.41
10:B:1505:A:H2'	10:B:1506:U:C6	2.55	0.41
10:B:1593:A:H2'	10:B:1594:U:O4'	2.21	0.41
10:B:1620:G:O2'	10:B:1621:U:H5'	2.20	0.41
10:B:1661:G:C2	10:B:1662:U:C5	3.08	0.41
10:B:1687:G:C2	10:B:1702:G:C6	3.08	0.41
10:B:1701:A:C8	10:B:1702:G:C8	3.09	0.41
10:B:1786:A:C5	10:B:1938:A:N1	2.89	0.41
10:B:2003:A:N3	10:B:2004:G:C8	2.88	0.41
10:B:2011:U:H5'	27:S:42:LYS:NZ	2.36	0.41
10:B:2123:G:C4	10:B:2124:G:C8	3.09	0.41
10:B:2125:G:C2	10:B:2126:A:N7	2.88	0.41
10:B:2164:C:H5"	10:B:2172:U:H5	1.86	0.41
10:B:2197:U:H1'	10:B:2198:A:C8	2.48	0.41
10:B:2341:G:H2'	10:B:2342:C:H6	1.86	0.41
10:B:2621:G:P	12:D:124:ARG:HH22	2.40	0.41
10:B:2655:G:N2	10:B:2664:G:N3	2.69	0.41
10:B:2744:G:O6	10:B:2761:A:N6	2.53	0.41
10:B:2843:G:C5	10:B:2844:G:C5	3.08	0.41
10:B:2881:U:H2'	10:B:2882:A:C8	2.56	0.41
14:F:3:LEU:HD23	14:F:4:HIS:NE2	2.36	0.41
14:F:13:LYS:N	14:F:15:LEU:H	2.13	0.41
14:F:109:ARG:HE	14:F:177:ARG:HH12	1.68	0.41
15:G:100:ASN:HB2	15:G:115:GLN:NE2	2.36	0.41
15:G:140:ILE:HG23	15:G:141:GLY:N	2.36	0.41
16:H:3:VAL:HG12	16:H:38:PRO:HA	2.02	0.41
17:I:109:ALA:HB1	17:I:124:MET:HE3	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:K:62:VAL:HB	19:K:102:VAL:CG1	2.47	0.41
19:K:85:LEU:O	19:K:94:ILE:HG23	2.21	0.41
23:O:30:ARG:HH21	23:O:103:VAL:HG23	1.85	0.41
23:O:68:LYS:HE3	23:O:101:GLY:C	2.45	0.41
23:O:68:LYS:CA	23:O:102:ARG:HG2	2.48	0.41
24:P:47:ILE:C	24:P:95:LYS:HZ2	2.29	0.41
27:S:6:LYS:NZ	27:S:102:HIS:HB3	2.27	0.41
28:T:50:LEU:HD23	28:T:50:LEU:HA	1.82	0.41
34:Z:46:MET:O	34:Z:50:VAL:HG22	2.21	0.41
7:6:84:LEU:HB2	7:6:88:GLN:OE1	2.20	0.41
7:6:295:ILE:O	7:6:298:VAL:HG12	2.20	0.41
7:6:299:ASN:O	7:6:300:THR:C	2.64	0.41
7:6:356:ALA:O	7:6:360:ARG:HG3	2.20	0.41
8:7:17:GLU:OE2	8:7:88:HIS:CE1	2.73	0.41
8:7:33:VAL:HA	10:B:1055:G:H4’	2.03	0.41
9:A:9:G:C6	9:A:112:G:C5	3.09	0.41
9:A:11:C:H3’	9:A:12:C:C6	2.56	0.41
9:A:18:G:N7	9:A:19:C:N4	2.69	0.41
9:A:66:A:C4	9:A:108:A:C6	3.09	0.41
10:B:15:G:H2’	10:B:16:C:H6	1.86	0.41
10:B:20:C:H2’	10:B:21:A:H8	1.86	0.41
10:B:25:U:H5	10:B:26:G:C6	2.39	0.41
10:B:38:A:C4	10:B:442:G:N2	2.89	0.41
10:B:64:A:C5	10:B:65:U:C5	3.09	0.41
10:B:67:U:H1’	10:B:88:G:C2	2.56	0.41
10:B:73:A:H4’	10:B:75:G:N3	2.35	0.41
10:B:90:U:H2’	10:B:91:A:H2	1.83	0.41
10:B:117:G:C6	10:B:119:A:N6	2.89	0.41
10:B:118:A:H3’	10:B:118:A:H8	1.86	0.41
10:B:172:A:N3	10:B:173:A:C8	2.89	0.41
10:B:178:G:C2	10:B:179:C:C4	3.08	0.41
10:B:295:G:H2’	10:B:296:U:C6	2.56	0.41
10:B:301:G:C6	10:B:317:G:C5	3.08	0.41
10:B:305:C:N3	10:B:313:G:C6	2.89	0.41
10:B:412:A:H8	10:B:412:A:OP2	2.03	0.41
10:B:440:C:H2’	10:B:441:U:C6	2.56	0.41
10:B:468:G:O6	10:B:469:G:C2	2.74	0.41
10:B:501:A:C4	10:B:502:A:C8	3.08	0.41
10:B:637:A:C4	10:B:652:U:H5”	2.56	0.41
10:B:639:U:H3	10:B:649:G:H1	1.69	0.41
10:B:682:G:C2	10:B:683:U:C6	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:786:C:N3	10:B:787:C:C4	2.89	0.41
10:B:847:U:C5	10:B:932:U:H1'	2.56	0.41
10:B:849:A:H2'	10:B:850:U:C6	2.55	0.41
10:B:864:G:C4	10:B:865:C:C5	3.08	0.41
10:B:906:U:C4'	21:M:66:ARG:NH1	2.83	0.41
10:B:910:A:C2	10:B:911:A:C4	3.08	0.41
10:B:917:A:H2'	10:B:918:A:H8	1.86	0.41
10:B:942:G:H5"	20:L:39:LYS:HE3	2.02	0.41
10:B:952:G:N1	10:B:953:G:C5	2.89	0.41
10:B:960:A:H8	10:B:960:A:O5'	2.04	0.41
10:B:978:G:O6	10:B:986:C:N4	2.54	0.41
10:B:1090:A:N6	10:B:1091:G:O6	2.54	0.41
10:B:1098:A:N3	17:I:5:GLN:HA	2.35	0.41
10:B:1130:U:C2	12:D:152:PRO:CB	2.96	0.41
10:B:1130:U:C2	12:D:152:PRO:CG	3.04	0.41
10:B:1139:G:H5"	10:B:1140:C:OP2	2.20	0.41
10:B:1166:G:C5	10:B:1167:C:C5	3.08	0.41
10:B:1171:G:H2'	10:B:1172:C:C6	2.56	0.41
10:B:1183:U:H2'	10:B:1184:U:H6	1.85	0.41
10:B:1213:A:C5	10:B:1237:A:C4	3.09	0.41
10:B:1259:G:N2	10:B:1260:A:C4	2.89	0.41
10:B:1299:G:N2	10:B:1642:G:C5	2.88	0.41
10:B:1356:G:C4	10:B:1357:C:C5	3.09	0.41
10:B:1387:A:C6	10:B:1401:G:C6	3.09	0.41
10:B:1398:C:C2	10:B:1399:C:C5	3.09	0.41
10:B:1444:G:C6	10:B:1445:G:C5	3.08	0.41
10:B:1491:G:C2	10:B:1492:G:C8	3.09	0.41
10:B:1492:G:C4	10:B:1496:A:N6	2.88	0.41
10:B:1528:A:C2	10:B:1544:A:C4	3.09	0.41
10:B:1537:G:H2'	10:B:1538:G:O4'	2.21	0.41
10:B:1601:G:C5	10:B:1602:U:C4	3.09	0.41
10:B:1613:G:C5	10:B:1617:C:N3	2.89	0.41
10:B:1620:G:N2	10:B:1621:U:C2	2.89	0.41
10:B:1631:G:N2	10:B:1634:A:OP2	2.35	0.41
10:B:1643:G:C6	10:B:1644:C:C2	3.09	0.41
10:B:1657:U:H2'	10:B:1658:C:H6	1.85	0.41
10:B:1745:A:O2'	10:B:1746:A:O4'	2.22	0.41
10:B:1817:G:N3	10:B:1817:G:H2'	2.35	0.41
10:B:1862:G:C6	10:B:1863:G:N7	2.89	0.41
10:B:1970:A:N6	10:B:1972:G:O6	2.53	0.41
10:B:2053:G:H2'	10:B:2054:A:H8	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2060:A:N1	10:B:2502:G:C5	2.89	0.41
10:B:2077:A:C4	10:B:2435:A:C8	3.09	0.41
10:B:2085:U:O2	10:B:2235:G:C2	2.74	0.41
10:B:2214:C:H2'	10:B:2215:C:O4'	2.20	0.41
10:B:2218:G:N2	10:B:2219:U:C2	2.89	0.41
10:B:2303:G:H2'	10:B:2304:G:O4'	2.21	0.41
10:B:2305:U:H4'	14:F:132:ARG:HE	1.86	0.41
10:B:2327:A:N6	10:B:2328:A:N1	2.69	0.41
10:B:2435:A:C2	10:B:2436:G:C4	3.09	0.41
10:B:2454:G:N2	10:B:2499:C:C2	2.89	0.41
10:B:2454:G:C2	10:B:2499:C:C2	3.08	0.41
10:B:2597:G:C6	10:B:2598:A:C6	3.09	0.41
10:B:2646:C:N3	10:B:2647:U:N3	2.69	0.41
10:B:2731:G:C2	10:B:2732:G:N7	2.89	0.41
10:B:2742:G:C2	10:B:2743:U:C2	3.09	0.41
10:B:2825:G:H3'	10:B:2826:A:H8	1.86	0.41
10:B:2840:C:C4	10:B:2841:C:N4	2.89	0.41
10:B:2850:A:H2'	10:B:2851:A:O4'	2.21	0.41
10:B:2886:A:C4	10:B:2887:A:C8	3.09	0.41
11:C:229:HIS:CE1	11:C:231:HIS:HB2	2.56	0.41
12:D:14:ILE:HD12	12:D:14:ILE:HA	1.94	0.41
12:D:96:ILE:HD12	12:D:100:LEU:HD11	2.03	0.41
12:D:131:ASP:HB2	12:D:136:ASN:OD1	2.21	0.41
12:D:193:VAL:O	12:D:193:VAL:HG23	2.20	0.41
13:E:123:LYS:HG2	13:E:125:SER:N	2.35	0.41
13:E:164:LEU:HB3	13:E:167:VAL:HG12	2.03	0.41
14:F:169:LEU:HG	14:F:172:PHE:CE2	2.56	0.41
16:H:91:PHE:CE1	16:H:127:GLU:HA	2.56	0.41
18:J:39:LYS:HG2	18:J:39:LYS:O	2.21	0.41
19:K:70:ARG:O	19:K:72:ASP:N	2.53	0.41
20:L:56:PRO:C	20:L:58:TYR:H	2.29	0.41
21:M:76:LYS:HZ3	21:M:87:GLY:N	2.19	0.41
22:N:98:LEU:HD11	22:N:114:GLU:OE2	2.21	0.41
23:O:35:ILE:HD12	23:O:102:ARG:HE	1.86	0.41
24:P:20:ARG:HD2	24:P:20:ARG:HA	1.90	0.41
25:Q:55:GLN:O	25:Q:58:GLN:HB3	2.21	0.41
25:Q:60:TRP:CZ2	25:Q:93:ILE:HD12	2.56	0.41
25:Q:93:ILE:O	25:Q:96:ASP:N	2.47	0.41
26:R:30:GLY:N	26:R:63:VAL:O	2.33	0.41
27:S:69:LEU:HA	27:S:69:LEU:HD23	1.90	0.41
29:U:20:LYS:HD3	29:U:38:ILE:CD1	2.46	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:U:20:LYS:HE2	29:U:36:GLU:O	2.20	0.41
29:U:53:GLN:N	29:U:54:PRO:HD2	2.35	0.41
4:3:51:LYS:HD3	4:3:54:LEU:HD22	2.03	0.41
6:5:53:ARG:HH22	10:B:1859:U:P	2.44	0.41
6:5:133:PRO:C	6:5:135:GLY:N	2.79	0.41
6:5:206:GLY:CA	10:B:1876:A:H5"	2.51	0.41
7:6:271:LEU:O	7:6:274:THR:N	2.52	0.41
8:7:24:SER:HB2	8:7:116:GLU:H	1.86	0.41
10:B:17:G:N2	10:B:18:U:C2	2.89	0.41
10:B:59:U:H4'	10:B:73:A:C5	2.56	0.41
10:B:84:A:N1	10:B:103:A:C8	2.89	0.41
10:B:85:G:OP1	29:U:6:ARG:HB2	2.21	0.41
10:B:120:U:C6	10:B:149:A:C4	3.09	0.41
10:B:123:G:O2'	10:B:1376:C:H4'	2.21	0.41
10:B:258:G:C2	10:B:259:G:C4	3.09	0.41
10:B:372:G:O6	32:X:56:ARG:NH2	2.54	0.41
10:B:563:A:C5	10:B:564:C:C5	3.09	0.41
10:B:628:G:C5	10:B:636:G:N2	2.89	0.41
10:B:683:U:N3	10:B:684:G:C8	2.89	0.41
10:B:734:A:C5	10:B:735:A:N7	2.89	0.41
10:B:910:A:H2	10:B:2264:C:H1'	1.86	0.41
10:B:974:G:C6	10:B:1186:G:C5	3.09	0.41
10:B:1034:G:C5	10:B:1035:U:C4	3.09	0.41
10:B:1234:U:C4	10:B:1235:G:C6	3.09	0.41
10:B:1314:C:C5	10:B:1315:C:C5	3.08	0.41
10:B:1342:A:H5"	28:T:59:ASN:OD1	2.20	0.41
10:B:1353:A:C6	10:B:1378:A:C2	3.09	0.41
10:B:1386:C:C2	10:B:1387:A:N7	2.89	0.41
10:B:1458:U:C5'	10:B:1459:G:H3'	2.50	0.41
10:B:1665:A:N6	10:B:1996:C:H42	2.19	0.41
10:B:1803:A:H61	10:B:1814:G:C2'	2.34	0.41
10:B:1810:A:C8	10:B:1811:G:C8	3.09	0.41
10:B:1871:A:C5	10:B:1872:A:C5	3.09	0.41
10:B:1887:C:O2	10:B:1887:C:H2'	2.20	0.41
10:B:1889:A:C6	10:B:1890:A:C5	3.09	0.41
10:B:1890:A:C5	10:B:1891:G:C5	3.09	0.41
10:B:1919:A:H2'	10:B:1920:C:C6	2.56	0.41
10:B:1948:G:C5	10:B:1949:G:N7	2.89	0.41
10:B:2109:U:H3	10:B:2181:U:H3	1.69	0.41
10:B:2244:U:O2'	10:B:2245:U:P	2.78	0.41
10:B:2273:A:C2	10:B:2274:A:C5	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2278:A:C5'	21:M:10:ARG:NH2	2.76	0.41
10:B:2336:A:C5	31:W:40:ARG:CZ	3.04	0.41
10:B:2399:G:N3	10:B:2400:G:C8	2.88	0.41
10:B:2510:C:H2'	10:B:2511:U:C6	2.56	0.41
10:B:2625:G:C6	10:B:2626:C:C4	3.09	0.41
10:B:2655:G:N2	10:B:2664:G:C4	2.88	0.41
10:B:2655:G:HO2'	10:B:2656:U:P	2.43	0.41
10:B:2742:G:C6	10:B:2743:U:C4	3.09	0.41
10:B:2901:C:H2'	10:B:2902:C:C6	2.56	0.41
11:C:38:LYS:HE3	11:C:38:LYS:HB3	1.93	0.41
11:C:144:GLU:HA	11:C:150:GLY:O	2.21	0.41
12:D:187:LEU:HD12	12:D:187:LEU:HA	1.75	0.41
14:F:116:LEU:HA	14:F:173:ASP:O	2.21	0.41
15:G:57:TYR:C	15:G:59:ASP:N	2.79	0.41
15:G:86:LEU:CD2	15:G:147:LEU:HD23	2.51	0.41
18:J:91:GLU:O	18:J:95:ARG:HG2	2.21	0.41
20:L:120:VAL:H	20:L:141:LYS:HB2	1.86	0.41
23:O:40:ILE:HD12	23:O:44:GLY:HA2	2.03	0.41
30:V:24:ASN:O	30:V:25:LYS:HD2	2.20	0.41
31:W:31:LEU:O	31:W:60:ALA:N	2.40	0.41
33:Y:56:LEU:HD23	33:Y:56:LEU:HA	1.82	0.41
7:6:375:GLN:HG3	7:6:378:ARG:NH1	2.36	0.40
8:7:59:LEU:HB2	8:7:62:ARG:HG3	2.03	0.40
8:7:81:LEU:O	8:7:82:ILE:HD13	2.20	0.40
10:B:16:C:H2'	10:B:17:G:C8	2.41	0.40
10:B:83:A:H2	10:B:84:A:N6	2.19	0.40
10:B:102:U:O2'	33:Y:4:LYS:NZ	2.44	0.40
10:B:149:A:C5	10:B:150:U:C5	3.10	0.40
10:B:181:A:O2'	10:B:182:A:O4'	2.29	0.40
10:B:240:C:H3'	10:B:241:A:C8	2.43	0.40
10:B:258:G:N3	10:B:259:G:C8	2.89	0.40
10:B:268:C:H42	10:B:424:G:H1	1.70	0.40
10:B:271:G:O2'	10:B:272:A:H5"	2.21	0.40
10:B:305:C:H2'	10:B:306:U:O4'	2.22	0.40
10:B:332:A:C5	10:B:335:C:C2	3.09	0.40
10:B:359:G:H2'	10:B:360:U:C6	2.57	0.40
10:B:377:G:C2	10:B:378:C:C2	3.09	0.40
10:B:471:A:C5	10:B:472:A:C5	3.09	0.40
10:B:586:A:C2	10:B:1254:A:C6	3.09	0.40
10:B:649:G:H2'	10:B:650:C:O4'	2.21	0.40
10:B:690:G:C6	10:B:691:C:C4	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:701:G:N3	10:B:701:G:H2'	2.36	0.40
10:B:763:G:C6	10:B:765:C:N3	2.89	0.40
10:B:843:G:C2	10:B:936:A:C2	3.09	0.40
10:B:977:G:C4	10:B:978:G:N7	2.89	0.40
10:B:1007:C:N4	10:B:1136:G:H1	2.18	0.40
10:B:1031:G:C4	10:B:1124:G:N2	2.89	0.40
10:B:1035:U:H2'	10:B:1036:G:H8	1.86	0.40
10:B:1062:G:C6	10:B:1077:A:C6	3.10	0.40
10:B:1063:G:C6	10:B:1064:C:N3	2.89	0.40
10:B:1072:C:N4	17:I:3:LYS:HD3	2.24	0.40
10:B:1275:A:C4	22:N:16:HIS:NE2	2.89	0.40
10:B:1451:C:H4'	10:B:1452:G:H8	1.86	0.40
10:B:1585:C:N4	10:B:1586:A:N3	2.69	0.40
10:B:1790:C:H2'	10:B:1791:A:C4	2.56	0.40
10:B:1858:A:C5	10:B:1885:A:C8	3.09	0.40
10:B:1918:A:H1'	10:B:1919:A:C8	2.56	0.40
10:B:2093:G:O6	10:B:2225:A:H5"	2.21	0.40
10:B:2104:C:N4	10:B:2183:A:N6	2.69	0.40
10:B:2316:G:N2	10:B:2317:A:H1'	2.36	0.40
10:B:2339:C:C4	10:B:2340:A:N7	2.89	0.40
10:B:2375:G:N1	10:B:2379:G:C6	2.88	0.40
10:B:2508:G:N1	10:B:2509:G:C5	2.89	0.40
10:B:2512:C:H1'	12:D:145:SER:HB2	2.03	0.40
10:B:2536:G:C6	10:B:2537:U:C4	3.10	0.40
10:B:2583:G:C2	10:B:2584:U:C2	3.09	0.40
10:B:2671:G:C5	10:B:2672:U:C4	3.09	0.40
10:B:2684:U:H4'	19:K:75:VAL:CG2	2.51	0.40
10:B:2817:U:C4	10:B:2818:U:C4	3.09	0.40
10:B:2900:A:C5	10:B:2901:C:C4	3.10	0.40
11:C:43:ASN:C	11:C:46:GLY:H	2.30	0.40
11:C:83:ASP:HA	11:C:84:PRO:HD2	1.83	0.40
11:C:219:VAL:HG12	11:C:220:ARG:O	2.21	0.40
12:D:133:THR:HG23	12:D:134:HIS:CG	2.57	0.40
13:E:47:LYS:HB2	13:E:51:GLU:CB	2.51	0.40
13:E:180:LEU:HD23	13:E:180:LEU:HA	1.87	0.40
15:G:11:PRO:HG2	15:G:14:VAL:HB	2.03	0.40
15:G:85:LYS:HD2	15:G:85:LYS:HA	1.88	0.40
16:H:112:LYS:CD	16:H:130:VAL:HG12	2.51	0.40
20:L:59:ARG:HG2	20:L:59:ARG:O	2.21	0.40
21:M:115:GLU:O	21:M:119:LEU:HG	2.20	0.40
22:N:83:LEU:C	22:N:85:PRO:HD2	2.46	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:13:LEU:HD23	7:6:30:PHE:CE2	2.56	0.40
7:6:194:LYS:HG2	7:6:197:VAL:HG22	2.02	0.40
8:7:31:ARG:HG3	8:7:32:GLY:N	2.35	0.40
8:7:96:PHE:HA	8:7:99:PHE:HE2	1.86	0.40
9:A:88:C:C2	9:A:89:U:C5	3.09	0.40
9:A:89:U:OP2	9:A:90:C:C2	2.75	0.40
10:B:1:G:C4	10:B:2:G:C8	3.09	0.40
10:B:47:C:N3	10:B:178:G:N2	2.66	0.40
10:B:79:C:C4	10:B:80:G:N7	2.89	0.40
10:B:164:C:N3	10:B:165:A:H1'	2.36	0.40
10:B:182:A:C6	10:B:183:C:N3	2.88	0.40
10:B:185:G:C6	10:B:212:G:N1	2.89	0.40
10:B:185:G:C4	10:B:186:G:C8	3.09	0.40
10:B:244:A:C5	10:B:245:G:C8	3.09	0.40
10:B:303:G:N1	10:B:315:G:C6	2.89	0.40
10:B:319:G:H2'	10:B:320:A:H8	1.85	0.40
10:B:387:U:C2	10:B:388:G:C6	3.10	0.40
10:B:444:C:P	13:E:44:ARG:HD3	2.61	0.40
10:B:534:U:OP1	25:Q:23:TYR:OH	2.36	0.40
10:B:543:G:C2	10:B:551:G:C4	3.08	0.40
10:B:629:G:H2'	10:B:630:G:H8	1.82	0.40
10:B:712:G:H2'	10:B:713:G:H5'	2.03	0.40
10:B:794:A:H2'	10:B:795:C:C6	2.48	0.40
10:B:807:U:OP2	20:L:36:LYS:HD2	2.21	0.40
10:B:843:G:OP2	10:B:843:G:H8	2.05	0.40
10:B:936:A:H2'	10:B:937:C:O4'	2.20	0.40
10:B:1005:C:N4	10:B:1006:C:H41	2.18	0.40
10:B:1011:G:H1'	10:B:1013:C:O4'	2.20	0.40
10:B:1077:A:H5'	17:I:94:LYS:HD2	2.02	0.40
10:B:1314:C:N3	10:B:1339:G:C2	2.89	0.40
10:B:1333:G:C2	10:B:1334:G:C8	3.09	0.40
10:B:1461:C:N4	10:B:1462:C:N4	2.70	0.40
10:B:1465:G:N1	10:B:1466:U:C2	2.90	0.40
10:B:1491:G:C8	11:C:97:ASP:O	2.74	0.40
10:B:1627:G:H2'	10:B:1628:G:O4'	2.20	0.40
10:B:1664:A:H61	10:B:1996:C:N4	2.18	0.40
10:B:1672:A:N6	10:B:1673:G:C6	2.89	0.40
10:B:1707:G:C4	10:B:1756:G:N1	2.89	0.40
10:B:1716:U:C5	10:B:1743:G:N2	2.89	0.40
10:B:1724:G:C6	10:B:1725:U:C4	3.10	0.40
10:B:1783:A:N1	10:B:2587:A:C6	2.89	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1977:A:N6	10:B:1978:A:C6	2.89	0.40
10:B:2018:G:C4	10:B:2019:A:C8	3.09	0.40
10:B:2071:A:C4	10:B:2072:C:C5	3.08	0.40
10:B:2078:C:H2'	10:B:2079:U:C6	2.57	0.40
10:B:2123:G:H2'	10:B:2124:G:O4'	2.22	0.40
10:B:2285:C:H5'	10:B:2288:A:C6	2.56	0.40
10:B:2287:A:C8	10:B:2289:G:C8	3.09	0.40
10:B:2318:G:C6	10:B:2319:G:N1	2.89	0.40
10:B:2373:G:H2'	10:B:2374:C:H6	1.83	0.40
10:B:2570:G:C4	10:B:2571:U:C6	3.09	0.40
10:B:2641:G:C2	10:B:2642:G:C4	3.10	0.40
10:B:2661:G:N2	10:B:2662:A:H1'	2.35	0.40
10:B:2869:G:C4	10:B:2870:C:C6	3.09	0.40
11:C:53:ILE:HA	11:C:216:ARG:H	1.84	0.40
11:C:245:THR:HA	11:C:246:PRO:HD3	1.95	0.40
16:H:5:LEU:HA	16:H:36:ALA:HB2	2.02	0.40
16:H:14:SER:O	16:H:15:LEU:HB3	2.21	0.40
16:H:15:LEU:HD21	16:H:55:GLU:CD	2.46	0.40
16:H:31:VAL:CG1	32:X:38:TRP:HD1	2.34	0.40
16:H:46:PHE:C	16:H:50:ARG:HH21	2.29	0.40
17:I:102:ARG:HB3	17:I:141:ASP:HA	2.02	0.40
19:K:39:LYS:HA	19:K:39:LYS:HD2	1.91	0.40
21:M:40:ARG:C	21:M:41:LEU:HD12	2.46	0.40
24:P:62:LYS:HE2	24:P:64:SER:OG	2.21	0.40
24:P:98:TYR:C	24:P:100:ARG:N	2.77	0.40
26:R:1:MET:HB2	26:R:15:SER:CB	2.51	0.40
30:V:21:ARG:NH2	30:V:87:GLN:O	2.51	0.40
32:X:67:LEU:HD12	32:X:70:LEU:HD23	2.04	0.40
33:Y:6:LEU:O	33:Y:7:ARG:HG3	2.21	0.40
1:0:38:LEU:O	1:0:41:HIS:HB2	2.21	0.40
2:1:5:ARG:NH1	2:1:25:ASN:N	2.69	0.40
6:5:37:LYS:O	6:5:38:PHE:CB	2.69	0.40
7:6:160:LEU:HA	7:6:163:ASP:HB3	2.02	0.40
7:6:211:SER:HB3	7:6:224:ALA:HB2	2.03	0.40
9:A:28:C:P	23:O:36:TYR:HH	2.43	0.40
10:B:30:G:C6	10:B:31:C:C4	3.09	0.40
10:B:44:A:N1	10:B:45:G:C4	2.90	0.40
10:B:210:C:H2'	10:B:211:C:C6	2.53	0.40
10:B:212:G:C2	10:B:213:A:N7	2.89	0.40
10:B:218:A:N7	10:B:219:A:C4	2.90	0.40
10:B:311:A:H5'	10:B:332:A:N3	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:504:A:OP2	27:S:2:GLU:HB2	2.22	0.40
10:B:562:U:H5”	10:B:563:A:OP1	2.21	0.40
10:B:592:A:H2’	10:B:593:U:C6	2.56	0.40
10:B:597:G:N1	10:B:661:A:C6	2.90	0.40
10:B:714:U:O2’	10:B:716:A:N7	2.30	0.40
10:B:732:C:H2’	10:B:733:G:O4’	2.21	0.40
10:B:777:G:C4	10:B:778:G:C8	3.09	0.40
10:B:843:G:C6	10:B:936:A:C6	3.09	0.40
10:B:871:U:H4’	21:M:68:PHE:CE2	2.57	0.40
10:B:950:G:H2’	10:B:951:C:O4’	2.22	0.40
10:B:980:A:N7	10:B:981:A:C4	2.89	0.40
10:B:997:G:H5”	25:Q:91:ARG:HB2	2.04	0.40
10:B:1031:G:C2	10:B:1124:G:C4	3.09	0.40
10:B:1055:G:N1	10:B:1105:U:N3	2.69	0.40
10:B:1165:A:C2	10:B:1185:G:C5	3.09	0.40
10:B:1177:G:C6	10:B:1178:C:C2	3.08	0.40
10:B:1199:U:O2	10:B:1200:C:C2	2.74	0.40
10:B:1205:A:C5	13:E:165:HIS:CD2	3.09	0.40
10:B:1306:C:C4	10:B:1623:G:C6	3.09	0.40
10:B:1383:A:C5	10:B:1384:A:C6	3.09	0.40
10:B:1562:U:H2’	10:B:1563:U:H6	1.85	0.40
10:B:1654:A:C2	10:B:1655:A:N9	2.90	0.40
10:B:1667:G:OP1	19:K:6:MET:HG2	2.21	0.40
10:B:1681:G:C6	10:B:1762:A:C5	3.10	0.40
10:B:1707:G:C4	10:B:1708:C:C6	3.09	0.40
10:B:1750:G:N3	10:B:2860:A:H2	2.19	0.40
10:B:1799:G:H21	11:C:153:LEU:CD2	2.32	0.40
10:B:1839:G:C4	10:B:1840:G:H8	2.37	0.40
10:B:1885:A:C5	10:B:1886:U:C5	3.09	0.40
10:B:1970:A:O2’	10:B:1971:U:OP2	2.35	0.40
10:B:2116:G:N1	10:B:2147:A:O5’	2.53	0.40
10:B:2144:G:H4’	10:B:2146:C:OP1	2.21	0.40
10:B:2274:A:C5	10:B:2276:G:C8	3.10	0.40
10:B:2330:G:C2	10:B:2331:G:H1’	2.56	0.40
10:B:2402:U:P	10:B:2402:U:H6	2.44	0.40
10:B:2507:C:C4	10:B:2583:G:C6	3.10	0.40
10:B:2534:A:C2	10:B:2535:G:H1’	2.57	0.40
10:B:2559:C:C2	10:B:2560:A:N7	2.89	0.40
10:B:2686:G:C5	10:B:2687:U:C2	3.09	0.40
10:B:2705:A:H3’	10:B:2705:A:C8	2.57	0.40
10:B:2830:C:C2	10:B:2831:G:C8	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:C:71:ASP:OD2	11:C:117:SER:O	2.39	0.40
11:C:171:VAL:N	11:C:184:GLU:O	2.37	0.40
12:D:40:LEU:O	12:D:40:LEU:HD23	2.22	0.40
14:F:102:LEU:HA	14:F:105:ILE:HG12	2.03	0.40
14:F:122:ASP:O	14:F:162:ASP:OD2	2.39	0.40
15:G:81:GLY:HA2	15:G:134:GLY:O	2.21	0.40
15:G:89:VAL:HG22	15:G:90:GLY:N	2.36	0.40
16:H:46:PHE:HB2	16:H:50:ARG:NH2	2.36	0.40
17:I:62:ALA:CA	17:I:64:ARG:HH12	2.32	0.40
18:J:40:HIS:CE1	18:J:41:LYS:HG2	2.56	0.40
18:J:76:HIS:CE1	18:J:85:LYS:HE2	2.57	0.40
28:T:5:GLU:O	28:T:8:LEU:HB2	2.21	0.40
29:U:85:ARG:N	29:U:94:PHE:HE2	2.17	0.40
1:0:42:ILE:HG23	1:0:44:ALA:H	1.86	0.40
3:2:28:ARG:NH1	10:B:178:G:O3’	2.55	0.40
6:5:151:GLU:O	6:5:154:LYS:HB2	2.21	0.40
7:6:167:LEU:HD23	7:6:167:LEU:HA	1.80	0.40
9:A:83:G:C2	9:A:94:A:N1	2.90	0.40
9:A:84:G:N1	9:A:85:G:C5	2.89	0.40
9:A:117:G:H2’	9:A:118:C:H5’	2.03	0.40
10:B:9:G:H21	10:B:11:C:H42	1.65	0.40
10:B:14:A:N3	10:B:2625:G:O2’	2.47	0.40
10:B:27:G:C4	10:B:512:G:C2	3.09	0.40
10:B:77:G:C4	10:B:78:U:C6	3.10	0.40
10:B:222:A:H2	10:B:233:A:H5”	1.85	0.40
10:B:246:C:N4	10:B:247:G:C6	2.89	0.40
10:B:250:G:H3’	10:B:251:A:H8	1.86	0.40
10:B:300:A:H2’	10:B:334:C:H1’	2.04	0.40
10:B:308:G:C4’	10:B:501:A:H5’	2.52	0.40
10:B:449:A:H1’	25:Q:2:ARG:HH22	1.87	0.40
10:B:534:U:O2’	25:Q:48:ASP:OD2	2.39	0.40
10:B:631:A:C4	10:B:632:A:C8	3.09	0.40
10:B:695:G:C6	10:B:696:G:N7	2.90	0.40
10:B:759:G:N2	10:B:760:G:C4	2.89	0.40
10:B:780:G:C2	10:B:782:A:C2	3.09	0.40
10:B:825:A:C2	10:B:833:A:C2	3.10	0.40
10:B:831:G:C4	10:B:832:U:C6	3.10	0.40
10:B:996:A:H61	10:B:1159:U:H3	1.68	0.40
10:B:1021:A:N1	10:B:1023:U:C4	2.90	0.40
10:B:1074:G:C5	10:B:1075:C:C4	3.10	0.40
10:B:1087:G:N7	10:B:1089:A:C5	2.90	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1182:G:C5	10:B:1183:U:C5	3.10	0.40
10:B:1299:G:N2	10:B:1641:A:H62	2.10	0.40
10:B:1346:G:C4	10:B:1601:G:C2	3.10	0.40
10:B:1366:A:N6	10:B:1367:A:C5	2.89	0.40
10:B:1506:U:C4	10:B:1507:C:C4	3.10	0.40
10:B:1517:G:C5	10:B:1518:C:C5	3.09	0.40
10:B:1543:G:HO2'	10:B:1544:A:P	2.44	0.40
10:B:1558:C:O2	10:B:1560:G:C6	2.74	0.40
10:B:1628:G:C4	10:B:1629:U:C5	3.09	0.40
10:B:1682:G:C5	10:B:1757:A:C4	3.10	0.40
10:B:1814:G:H5"	10:B:1815:A:O5'	2.21	0.40
10:B:1825:U:H5'	11:C:246:PRO:HD3	2.03	0.40
10:B:1849:G:N2	10:B:1850:G:H1'	2.36	0.40
10:B:1890:A:H2'	10:B:1891:G:H8	1.86	0.40
10:B:2007:U:C2	10:B:2008:C:C5	3.10	0.40
10:B:2011:U:O4	10:B:2012:G:C2	2.75	0.40
10:B:2090:A:N1	10:B:2091:C:C4	2.90	0.40
10:B:2096:C:C2	10:B:2097:A:C8	3.09	0.40
10:B:2100:G:C6	10:B:2101:A:C4	3.10	0.40
10:B:2179:C:H2'	10:B:2180:U:C6	2.57	0.40
10:B:2369:A:C6	10:B:2370:G:C5	3.09	0.40
10:B:2461:A:H1'	10:B:2492:U:C2	2.56	0.40
10:B:2478:A:C6	10:B:2479:U:O2	2.75	0.40
10:B:2478:A:C5	10:B:2479:U:C2	3.09	0.40
10:B:2487:G:H2'	10:B:2488:G:H8	1.86	0.40
10:B:2621:G:P	12:D:124:ARG:HH12	2.44	0.40
10:B:2635:A:O3'	12:D:81:GLU:OE2	2.39	0.40
10:B:2725:A:C5	10:B:2727:A:C4	3.10	0.40
10:B:2851:A:H3'	10:B:2852:G:C8	2.56	0.40
10:B:2861:U:H2'	10:B:2862:G:O4'	2.20	0.40
10:B:2867:G:C4	24:P:20:ARG:NH2	2.90	0.40
11:C:180:MET:HB2	11:C:267:VAL:HB	2.03	0.40
13:E:80:SER:C	13:E:82:GLY:H	2.30	0.40
15:G:82:PHE:HB2	15:G:140:ILE:HD13	2.03	0.40
16:H:78:VAL:O	16:H:78:VAL:HG12	2.22	0.40
18:J:80:HIS:NE2	18:J:81:ILE:HB	2.36	0.40
19:K:26:GLY:HA3	19:K:29:ARG:HG3	2.02	0.40
19:K:52:LYS:HB3	19:K:55:ASP:OD2	2.21	0.40
25:Q:61:ILE:O	25:Q:62:ALA:C	2.63	0.40
26:R:79:ARG:HD3	26:R:80:ARG:NH1	2.37	0.40
28:T:66:LYS:HE2	28:T:77:ARG:NH2	2.35	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:X:4:CYS:SG	32:X:7:THR:HB	2.62	0.40
2:1:24:LYS:HD3	2:1:33:LEU:HD22	2.04	0.40
3:2:19:ARG:NH2	10:B:124:G:N7	2.70	0.40
6:5:206:GLY:HA2	10:B:1876:A:H5"	2.03	0.40
7:6:78:VAL:O	7:6:78:VAL:HG13	2.21	0.40
7:6:121:LYS:O	7:6:125:GLU:HG2	2.21	0.40
7:6:211:SER:OG	7:6:222:VAL:HG12	2.21	0.40
7:6:383:PHE:CD2	7:6:389:ILE:HG12	2.56	0.40
7:6:389:ILE:HG22	7:6:391:LYS:N	2.36	0.40
8:7:39:THR:O	8:7:43:LYS:HG3	2.21	0.40
8:7:41:LEU:HD13	10:B:1082:U:H4'	2.03	0.40
8:7:138:ARG:HB3	8:7:146:ALA:HB3	2.02	0.40
9:A:112:G:C6	9:A:113:C:C4	3.10	0.40
10:B:23:G:H1'	10:B:518:G:N2	2.36	0.40
10:B:199:A:N1	10:B:2434:A:C6	2.90	0.40
10:B:270:A:OP1	10:B:271:G:H5'	2.22	0.40
10:B:303:G:C6	10:B:304:U:C4	3.10	0.40
10:B:304:U:C2	10:B:305:C:C5	3.09	0.40
10:B:475:C:C4	10:B:481:G:O6	2.74	0.40
10:B:482:A:OP2	10:B:507:A:N6	2.55	0.40
10:B:487:C:H3'	10:B:490:C:N4	2.37	0.40
10:B:533:G:C2	10:B:561:G:C2	3.10	0.40
10:B:675:A:C5	10:B:804:A:C2	3.09	0.40
10:B:693:A:N7	10:B:694:U:C4	2.89	0.40
10:B:707:G:C2	10:B:708:G:C4	3.09	0.40
10:B:787:C:H5"	10:B:788:A:C5'	2.40	0.40
10:B:798:G:C2	10:B:799:G:C6	3.10	0.40
10:B:856:G:O6	10:B:922:C:C4	2.75	0.40
10:B:862:G:H2'	10:B:863:A:O4'	2.22	0.40
10:B:922:C:H1'	31:W:22:VAL:HG11	2.03	0.40
10:B:955:U:H5"	21:M:86:LYS:NZ	2.36	0.40
10:B:956:G:C2	10:B:962:G:O6	2.74	0.40
10:B:1011:G:C5	10:B:1013:C:C2	3.10	0.40
10:B:1055:G:O2'	10:B:1085:A:C2	2.75	0.40
10:B:1166:G:H2'	10:B:1166:G:N3	2.37	0.40
10:B:1689:A:C2	10:B:1690:A:C5	3.09	0.40
10:B:1733:G:C4	10:B:1734:G:C8	3.10	0.40
10:B:1742:U:C2	10:B:1743:G:C8	3.09	0.40
10:B:1753:G:C2	10:B:1756:G:C2	3.10	0.40
10:B:1827:U:N3	10:B:1828:G:C2	2.87	0.40
10:B:1846:G:C5	10:B:1847:A:N7	2.90	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1866:A:N6	10:B:1867:G:C2	2.89	0.40
10:B:1886:U:O2'	10:B:1887:C:H5'	2.22	0.40
10:B:1936:A:C2	10:B:1945:G:C5	3.10	0.40
10:B:2196:C:C4	10:B:2197:U:C4	3.10	0.40
10:B:2230:G:H2'	10:B:2231:U:H6	1.87	0.40
10:B:2276:G:O2'	10:B:2277:G:H5'	2.21	0.40
10:B:2287:A:C8	10:B:2289:G:N9	2.89	0.40
10:B:2327:A:C5	10:B:2328:A:C5	3.10	0.40
10:B:2345:G:C6	10:B:2347:C:N4	2.87	0.40
10:B:2348:U:H2'	10:B:2349:G:C8	2.57	0.40
10:B:2414:G:C2	10:B:2415:G:C5	3.10	0.40
10:B:2455:G:C2	10:B:2498:C:N4	2.88	0.40
10:B:2468:A:C2	10:B:2481:G:C2	3.09	0.40
10:B:2560:A:C6	10:B:2561:U:C4	3.10	0.40
10:B:2630:G:C8	10:B:2894:G:C5	3.10	0.40
10:B:2646:C:N3	10:B:2647:U:C2	2.89	0.40
10:B:2821:A:C2	10:B:2822:G:C2	3.10	0.40
10:B:2854:G:C5	10:B:2855:C:N4	2.90	0.40
13:E:91:ASP:O	13:E:92:HIS:CG	2.75	0.40
13:E:149:ILE:HG13	13:E:170:ARG:O	2.21	0.40
14:F:147:ARG:NH2	14:F:150:GLY:H	2.19	0.40
15:G:10:VAL:HG23	15:G:47:ASN:O	2.21	0.40
18:J:40:HIS:C	18:J:42:ALA:N	2.78	0.40
18:J:59:ALA:C	18:J:61:LYS:H	2.29	0.40
18:J:109:LEU:HA	18:J:109:LEU:HD23	1.70	0.40
19:K:29:ARG:HH12	19:K:36:ASP:CG	2.29	0.40
19:K:63:ARG:HB2	19:K:82:ALA:H	1.85	0.40
20:L:90:VAL:N	20:L:121:THR:O	2.54	0.40
22:N:65:LEU:C	22:N:68:ALA:H	2.28	0.40
24:P:8:GLU:HB3	24:P:54:LEU:HB2	2.03	0.40
25:Q:16:ILE:HG23	25:Q:38:VAL:HG21	2.04	0.40
25:Q:20:ALA:C	25:Q:23:TYR:HD1	2.29	0.40
28:T:81:LYS:HB2	28:T:81:LYS:HE3	1.85	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

There are no protein backbone outliers to report in this entry.

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	0	47/48 (98%)	47 (100%)	0	100 100
2	1	45/49 (92%)	45 (100%)	0	100 100
3	2	38/38 (100%)	38 (100%)	0	100 100
4	3	51/52 (98%)	51 (100%)	0	100 100
5	4	34/34 (100%)	34 (100%)	0	100 100
6	5	181/181 (100%)	181 (100%)	0	100 100
7	6	364/364 (100%)	361 (99%)	3 (1%)	73 77
8	7	123/123 (100%)	123 (100%)	0	100 100
11	C	216/218 (99%)	216 (100%)	0	100 100
12	D	164/164 (100%)	163 (99%)	1 (1%)	78 80
13	E	165/165 (100%)	165 (100%)	0	100 100
14	F	149/150 (99%)	149 (100%)	0	100 100
15	G	137/138 (99%)	137 (100%)	0	100 100
16	H	114/114 (100%)	113 (99%)	1 (1%)	70 76
17	I	109/110 (99%)	109 (100%)	0	100 100
18	J	116/116 (100%)	116 (100%)	0	100 100
19	K	102/104 (98%)	102 (100%)	0	100 100
20	L	102/103 (99%)	102 (100%)	0	100 100
21	M	109/109 (100%)	109 (100%)	0	100 100
22	N	100/103 (97%)	100 (100%)	0	100 100
23	O	86/87 (99%)	86 (100%)	0	100 100
24	P	99/100 (99%)	99 (100%)	0	100 100
25	Q	89/90 (99%)	88 (99%)	1 (1%)	65 74
26	R	84/84 (100%)	84 (100%)	0	100 100
27	S	93/93 (100%)	92 (99%)	1 (1%)	65 74
28	T	80/84 (95%)	80 (100%)	0	100 100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
29	U	83/85 (98%)	83 (100%)	0	100	100
30	V	78/78 (100%)	78 (100%)	0	100	100
31	W	59/63 (94%)	59 (100%)	0	100	100
32	X	67/68 (98%)	67 (100%)	0	100	100
33	Y	55/55 (100%)	55 (100%)	0	100	100
34	Z	48/49 (98%)	48 (100%)	0	100	100
All	All	3387/3419 (99%)	3380 (100%)	7 (0%)	85	85

All (7) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
7	6	20	GLN
7	6	24	MET
7	6	365	VAL
12	D	151	THR
16	H	68	ARG
25	Q	56	PHE
27	S	71	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (90) such sidechains are listed below:

Mol	Chain	Res	Type
1	0	4	GLN
1	0	5	ASN
1	0	41	HIS
2	1	18	HIS
6	5	24	ASN
6	5	168	ASN
6	5	203	GLN
7	6	15	HIS
7	6	43	GLN
7	6	82	HIS
7	6	113	GLN
7	6	128	GLN
7	6	146	GLN
7	6	190	GLN
7	6	258	HIS
7	6	272	GLN
7	6	292	GLN

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Mol	Chain	Res	Type
7	6	299	ASN
7	6	338	ASN
7	6	368	HIS
8	7	122	GLN
11	C	69	ASN
11	C	231	HIS
11	C	250	GLN
12	D	42	ASN
12	D	94	GLN
12	D	130	GLN
12	D	148	GLN
12	D	164	GLN
12	D	173	GLN
13	E	29	HIS
13	E	163	ASN
13	E	165	HIS
14	F	22	ASN
15	G	19	ASN
15	G	21	GLN
15	G	63	GLN
15	G	100	ASN
15	G	103	ASN
15	G	114	HIS
15	G	115	GLN
16	H	33	GLN
16	H	73	ASN
17	I	30	GLN
18	J	40	HIS
18	J	47	HIS
18	J	76	HIS
18	J	77	HIS
18	J	80	HIS
18	J	135	GLN
20	L	38	GLN
20	L	54	GLN
21	M	13	HIS
21	M	17	ASN
21	M	97	GLN
22	N	9	GLN
22	N	62	ASN
22	N	81	ASN
24	P	11	GLN

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Mol	Chain	Res	Type
24	P	51	ASN
24	P	114	ASN
25	Q	51	GLN
25	Q	58	GLN
25	Q	80	ASN
26	R	11	GLN
26	R	86	GLN
26	R	91	GLN
27	S	7	HIS
27	S	9	HIS
27	S	60	HIS
27	S	102	HIS
28	T	28	ASN
28	T	92	ASN
29	U	68	ASN
29	U	98	ASN
30	V	5	ASN
30	V	49	ASN
30	V	51	GLN
30	V	80	HIS
30	V	87	GLN
31	W	39	GLN
31	W	56	HIS
32	X	15	ASN
32	X	22	ASN
33	Y	25	GLN
33	Y	27	ASN
33	Y	38	GLN
33	Y	39	GLN
33	Y	58	ASN
34	Z	19	HIS

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
10	B	2902/2903 (99%)	1015 (34%)	56 (1%)
9	A	116/120 (96%)	35 (30%)	2 (1%)
All	All	3018/3023 (99%)	1050 (34%)	58 (1%)

All (1050) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
9	A	7	G
9	A	11	C
9	A	13	G
9	A	14	U
9	A	15	A
9	A	16	G
9	A	18	G
9	A	24	G
9	A	25	U
9	A	26	C
9	A	27	C
9	A	29	A
9	A	30	C
9	A	35	C
9	A	37	C
9	A	38	C
9	A	41	G
9	A	45	A
9	A	56	G
9	A	57	A
9	A	63	C
9	A	64	G
9	A	67	G
9	A	73	A
9	A	76	G
9	A	83	G
9	A	86	G
9	A	87	U
9	A	88	C
9	A	90	C
9	A	91	C
9	A	94	A
9	A	99	A
9	A	105	G
9	A	109	A
10	B	4	U
10	B	6	A
10	B	7	G
10	B	8	C
10	B	11	C
10	B	12	U
10	B	18	U
10	B	26	G

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Mol	Chain	Res	Type
10	B	32	C
10	B	33	C
10	B	34	U
10	B	35	G
10	B	37	C
10	B	39	G
10	B	46	G
10	B	49	A
10	B	50	U
10	B	51	G
10	B	58	G
10	B	59	U
10	B	60	G
10	B	61	C
10	B	63	A
10	B	71	A
10	B	74	A
10	B	75	G
10	B	79	C
10	B	80	G
10	B	82	U
10	B	83	A
10	B	84	A
10	B	87	U
10	B	91	A
10	B	93	G
10	B	99	U
10	B	101	A
10	B	102	U
10	B	106	C
10	B	114	U
10	B	118	A
10	B	119	A
10	B	120	U
10	B	122	G
10	B	124	G
10	B	126	A
10	B	127	A
10	B	128	C
10	B	134	G
10	B	139	U
10	B	140	C

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Mol	Chain	Res	Type
10	B	142	A
10	B	144	A
10	B	146	A
10	B	149	A
10	B	153	U
10	B	160	A
10	B	163	C
10	B	165	A
10	B	170	U
10	B	174	U
10	B	180	G
10	B	181	A
10	B	182	A
10	B	193	U
10	B	196	A
10	B	199	A
10	B	201	C
10	B	204	A
10	B	205	G
10	B	214	G
10	B	215	G
10	B	216	A
10	B	218	A
10	B	221	A
10	B	223	A
10	B	224	U
10	B	227	A
10	B	228	C
10	B	229	C
10	B	230	G
10	B	233	A
10	B	240	C
10	B	244	A
10	B	248	G
10	B	249	C
10	B	250	G
10	B	254	G
10	B	255	A
10	B	265	A
10	B	266	G
10	B	267	C
10	B	271	G

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Mol	Chain	Res	Type
10	B	273	G
10	B	277	G
10	B	281	C
10	B	282	A
10	B	284	U
10	B	285	G
10	B	286	U
10	B	287	G
10	B	292	U
10	B	294	A
10	B	296	U
10	B	299	A
10	B	310	A
10	B	311	A
10	B	317	G
10	B	321	U
10	B	322	A
10	B	324	A
10	B	329	G
10	B	330	A
10	B	331	C
10	B	333	G
10	B	334	C
10	B	338	G
10	B	339	U
10	B	342	A
10	B	343	C
10	B	344	A
10	B	346	A
10	B	347	A
10	B	349	U
10	B	352	A
10	B	353	C
10	B	360	U
10	B	361	G
10	B	362	A
10	B	364	C
10	B	365	U
10	B	371	A
10	B	372	G
10	B	373	U
10	B	375	G

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Mol	Chain	Res	Type
10	B	376	G
10	B	381	G
10	B	385	C
10	B	386	G
10	B	388	G
10	B	396	G
10	B	404	A
10	B	405	U
10	B	406	G
10	B	411	G
10	B	420	C
10	B	424	G
10	B	428	A
10	B	429	A
10	B	431	U
10	B	452	G
10	B	456	C
10	B	457	A
10	B	461	C
10	B	467	G
10	B	473	G
10	B	475	C
10	B	479	A
10	B	481	G
10	B	482	A
10	B	488	G
10	B	490	C
10	B	491	G
10	B	494	G
10	B	496	G
10	B	497	A
10	B	498	G
10	B	504	A
10	B	505	A
10	B	508	A
10	B	509	C
10	B	510	C
10	B	512	G
10	B	513	A
10	B	521	U
10	B	528	A
10	B	530	G

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Mol	Chain	Res	Type
10	B	531	C
10	B	532	A
10	B	533	G
10	B	539	G
10	B	542	C
10	B	544	C
10	B	545	U
10	B	546	U
10	B	547	A
10	B	548	G
10	B	549	G
10	B	550	C
10	B	555	G
10	B	558	U
10	B	562	U
10	B	563	A
10	B	565	C
10	B	566	U
10	B	567	U
10	B	568	U
10	B	569	U
10	B	571	U
10	B	572	A
10	B	573	U
10	B	575	A
10	B	583	G
10	B	584	C
10	B	585	G
10	B	586	A
10	B	587	C
10	B	593	U
10	B	595	C
10	B	613	A
10	B	614	A
10	B	620	G
10	B	621	A
10	B	623	C
10	B	630	G
10	B	637	A
10	B	639	U
10	B	640	C
10	B	643	A

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Mol	Chain	Res	Type
10	B	644	A
10	B	645	C
10	B	646	U
10	B	647	G
10	B	652	U
10	B	655	A
10	B	656	G
10	B	657	U
10	B	664	G
10	B	669	G
10	B	670	A
10	B	671	C
10	B	672	C
10	B	675	A
10	B	677	A
10	B	686	U
10	B	687	C
10	B	695	G
10	B	700	G
10	B	701	G
10	B	705	A
10	B	713	G
10	B	716	A
10	B	721	A
10	B	722	A
10	B	723	C
10	B	724	U
10	B	727	A
10	B	729	G
10	B	730	A
10	B	733	G
10	B	740	C
10	B	741	U
10	B	745	G
10	B	748	G
10	B	749	A
10	B	750	A
10	B	751	A
10	B	752	A
10	B	756	A
10	B	759	G
10	B	765	C

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Mol	Chain	Res	Type
10	B	769	U
10	B	773	U
10	B	775	G
10	B	780	G
10	B	781	A
10	B	782	A
10	B	784	G
10	B	785	G
10	B	788	A
10	B	790	U
10	B	792	A
10	B	797	G
10	B	800	A
10	B	802	A
10	B	803	U
10	B	805	G
10	B	806	C
10	B	807	U
10	B	808	G
10	B	811	U
10	B	812	C
10	B	819	A
10	B	820	A
10	B	822	G
10	B	823	C
10	B	824	U
10	B	827	U
10	B	830	G
10	B	840	C
10	B	843	G
10	B	846	U
10	B	848	C
10	B	851	C
10	B	859	G
10	B	860	U
10	B	866	A
10	B	869	G
10	B	870	U
10	B	871	U
10	B	872	U
10	B	873	C
10	B	875	G

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Mol	Chain	Res	Type
10	B	879	G
10	B	881	G
10	B	882	G
10	B	883	G
10	B	884	U
10	B	888	C
10	B	889	C
10	B	891	G
10	B	896	A
10	B	897	C
10	B	905	A
10	B	909	A
10	B	910	A
10	B	912	C
10	B	915	C
10	B	930	G
10	B	931	U
10	B	932	U
10	B	933	A
10	B	937	C
10	B	940	G
10	B	941	A
10	B	942	G
10	B	945	A
10	B	946	C
10	B	951	C
10	B	952	G
10	B	953	G
10	B	957	C
10	B	958	U
10	B	959	A
10	B	961	C
10	B	962	G
10	B	969	G
10	B	970	U
10	B	974	G
10	B	975	A
10	B	983	A
10	B	985	C
10	B	991	C
10	B	992	C
10	B	996	A

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Mol	Chain	Res	Type
10	B	1005	C
10	B	1009	A
10	B	1012	U
10	B	1013	C
10	B	1020	A
10	B	1021	A
10	B	1022	G
10	B	1023	U
10	B	1025	G
10	B	1027	A
10	B	1033	U
10	B	1039	A
10	B	1046	A
10	B	1047	G
10	B	1054	A
10	B	1055	G
10	B	1056	G
10	B	1058	U
10	B	1060	U
10	B	1069	A
10	B	1070	A
10	B	1071	G
10	B	1073	A
10	B	1084	A
10	B	1087	G
10	B	1088	A
10	B	1089	A
10	B	1090	A
10	B	1093	G
10	B	1095	A
10	B	1099	G
10	B	1102	C
10	B	1104	C
10	B	1110	G
10	B	1112	G
10	B	1115	G
10	B	1116	G
10	B	1122	G
10	B	1129	A
10	B	1130	U
10	B	1131	G
10	B	1132	U

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Mol	Chain	Res	Type
10	B	1133	A
10	B	1134	A
10	B	1135	C
10	B	1136	G
10	B	1139	G
10	B	1140	C
10	B	1141	U
10	B	1142	A
10	B	1143	A
10	B	1144	A
10	B	1155	A
10	B	1157	G
10	B	1163	G
10	B	1166	G
10	B	1170	C
10	B	1171	G
10	B	1174	U
10	B	1175	A
10	B	1176	U
10	B	1178	C
10	B	1179	G
10	B	1180	U
10	B	1186	G
10	B	1195	G
10	B	1205	A
10	B	1209	U
10	B	1211	C
10	B	1212	G
10	B	1222	U
10	B	1223	G
10	B	1227	G
10	B	1232	G
10	B	1233	C
10	B	1236	G
10	B	1238	G
10	B	1241	A
10	B	1244	A
10	B	1248	G
10	B	1249	U
10	B	1251	C
10	B	1253	A
10	B	1256	G

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Mol	Chain	Res	Type
10	B	1258	U
10	B	1265	A
10	B	1266	G
10	B	1268	A
10	B	1270	C
10	B	1271	G
10	B	1272	A
10	B	1273	U
10	B	1274	A
10	B	1275	A
10	B	1276	A
10	B	1279	G
10	B	1280	G
10	B	1286	A
10	B	1287	A
10	B	1289	C
10	B	1293	C
10	B	1294	U
10	B	1296	G
10	B	1297	C
10	B	1299	G
10	B	1300	G
10	B	1301	A
10	B	1302	A
10	B	1309	G
10	B	1311	G
10	B	1312	U
10	B	1313	U
10	B	1314	C
10	B	1316	U
10	B	1318	U
10	B	1320	C
10	B	1321	A
10	B	1322	A
10	B	1324	G
10	B	1325	U
10	B	1326	U
10	B	1327	A
10	B	1328	A
10	B	1329	U
10	B	1330	C
10	B	1337	G

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Mol	Chain	Res	Type
10	B	1341	G
10	B	1342	A
10	B	1344	U
10	B	1345	C
10	B	1350	C
10	B	1355	G
10	B	1356	G
10	B	1368	G
10	B	1374	G
10	B	1378	A
10	B	1379	U
10	B	1383	A
10	B	1384	A
10	B	1385	A
10	B	1386	C
10	B	1391	U
10	B	1396	U
10	B	1398	C
10	B	1399	C
10	B	1408	G
10	B	1416	G
10	B	1419	A
10	B	1420	A
10	B	1421	G
10	B	1426	G
10	B	1427	A
10	B	1428	C
10	B	1429	G
10	B	1430	G
10	B	1434	A
10	B	1435	G
10	B	1440	U
10	B	1451	C
10	B	1452	G
10	B	1453	A
10	B	1454	C
10	B	1456	G
10	B	1458	U
10	B	1459	G
10	B	1461	C
10	B	1463	C
10	B	1466	U

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Mol	Chain	Res	Type
10	B	1467	U
10	B	1475	G
10	B	1476	U
10	B	1477	A
10	B	1478	G
10	B	1479	G
10	B	1482	G
10	B	1490	A
10	B	1498	C
10	B	1501	G
10	B	1502	A
10	B	1504	A
10	B	1505	A
10	B	1507	C
10	B	1508	A
10	B	1510	G
10	B	1516	G
10	B	1519	G
10	B	1523	U
10	B	1524	G
10	B	1535	A
10	B	1536	C
10	B	1537	G
10	B	1540	G
10	B	1544	A
10	B	1547	C
10	B	1552	A
10	B	1557	C
10	B	1558	C
10	B	1560	G
10	B	1566	A
10	B	1571	A
10	B	1575	C
10	B	1578	U
10	B	1583	A
10	B	1584	U
10	B	1585	C
10	B	1587	G
10	B	1600	C
10	B	1602	U
10	B	1603	A
10	B	1606	C

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Mol	Chain	Res	Type
10	B	1607	C
10	B	1608	A
10	B	1610	A
10	B	1613	G
10	B	1614	A
10	B	1616	A
10	B	1618	A
10	B	1619	G
10	B	1624	U
10	B	1625	C
10	B	1627	G
10	B	1628	G
10	B	1635	A
10	B	1640	A
10	B	1643	G
10	B	1646	C
10	B	1647	U
10	B	1648	U
10	B	1649	G
10	B	1652	A
10	B	1653	G
10	B	1659	G
10	B	1663	G
10	B	1665	A
10	B	1668	A
10	B	1670	C
10	B	1674	G
10	B	1679	A
10	B	1681	G
10	B	1693	U
10	B	1694	C
10	B	1696	G
10	B	1698	A
10	B	1699	G
10	B	1701	A
10	B	1702	G
10	B	1705	A
10	B	1715	G
10	B	1716	U
10	B	1718	G
10	B	1721	G
10	B	1725	U

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Mol	Chain	Res	Type
10	B	1728	C
10	B	1729	U
10	B	1730	C
10	B	1731	G
10	B	1737	G
10	B	1738	G
10	B	1739	A
10	B	1744	A
10	B	1745	A
10	B	1748	C
10	B	1751	U
10	B	1753	G
10	B	1756	G
10	B	1757	A
10	B	1758	U
10	B	1760	C
10	B	1763	G
10	B	1764	C
10	B	1769	U
10	B	1771	C
10	B	1772	A
10	B	1773	A
10	B	1775	U
10	B	1779	U
10	B	1780	A
10	B	1781	U
10	B	1782	U
10	B	1784	A
10	B	1785	A
10	B	1787	A
10	B	1798	U
10	B	1800	C
10	B	1801	A
10	B	1802	A
10	B	1808	A
10	B	1811	G
10	B	1814	G
10	B	1815	A
10	B	1816	C
10	B	1819	A
10	B	1821	A
10	B	1828	G

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Mol	Chain	Res	Type
10	B	1833	C
10	B	1838	C
10	B	1839	G
10	B	1841	U
10	B	1845	G
10	B	1847	A
10	B	1848	A
10	B	1854	A
10	B	1858	A
10	B	1866	A
10	B	1869	G
10	B	1884	G
10	B	1891	G
10	B	1903	G
10	B	1905	C
10	B	1906	G
10	B	1910	G
10	B	1912	A
10	B	1913	A
10	B	1915	U
10	B	1916	A
10	B	1917	U
10	B	1918	A
10	B	1919	A
10	B	1929	G
10	B	1930	G
10	B	1936	A
10	B	1937	A
10	B	1938	A
10	B	1941	C
10	B	1948	G
10	B	1951	U
10	B	1955	U
10	B	1956	U
10	B	1964	G
10	B	1965	C
10	B	1967	C
10	B	1968	G
10	B	1970	A
10	B	1972	G
10	B	1973	G
10	B	1975	G

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Mol	Chain	Res	Type
10	B	1980	G
10	B	1981	A
10	B	1990	C
10	B	1992	G
10	B	1994	C
10	B	1997	C
10	B	1999	C
10	B	2000	C
10	B	2001	C
10	B	2004	G
10	B	2016	U
10	B	2017	U
10	B	2023	C
10	B	2025	C
10	B	2027	G
10	B	2030	A
10	B	2032	G
10	B	2033	A
10	B	2043	C
10	B	2055	C
10	B	2056	G
10	B	2060	A
10	B	2061	G
10	B	2062	A
10	B	2063	C
10	B	2069	G
10	B	2073	C
10	B	2077	A
10	B	2085	U
10	B	2092	U
10	B	2093	G
10	B	2095	A
10	B	2097	A
10	B	2099	U
10	B	2100	G
10	B	2104	C
10	B	2108	A
10	B	2109	U
10	B	2110	G
10	B	2111	U
10	B	2112	G
10	B	2113	U

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Mol	Chain	Res	Type
10	B	2116	G
10	B	2117	A
10	B	2119	A
10	B	2121	G
10	B	2123	G
10	B	2127	G
10	B	2128	G
10	B	2130	U
10	B	2131	U
10	B	2132	U
10	B	2134	A
10	B	2135	A
10	B	2138	G
10	B	2142	A
10	B	2148	G
10	B	2149	U
10	B	2151	U
10	B	2153	C
10	B	2154	A
10	B	2157	G
10	B	2158	A
10	B	2159	G
10	B	2160	C
10	B	2161	C
10	B	2162	G
10	B	2163	A
10	B	2164	C
10	B	2169	A
10	B	2172	U
10	B	2173	A
10	B	2174	C
10	B	2176	A
10	B	2177	C
10	B	2178	C
10	B	2179	C
10	B	2184	A
10	B	2186	G
10	B	2187	U
10	B	2192	U
10	B	2193	G
10	B	2196	C
10	B	2198	A

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Mol	Chain	Res	Type
10	B	2199	A
10	B	2204	G
10	B	2212	A
10	B	2213	U
10	B	2214	C
10	B	2223	G
10	B	2225	A
10	B	2234	G
10	B	2238	G
10	B	2239	G
10	B	2241	A
10	B	2243	U
10	B	2245	U
10	B	2247	A
10	B	2250	G
10	B	2251	G
10	B	2252	G
10	B	2253	G
10	B	2254	C
10	B	2259	U
10	B	2266	A
10	B	2267	A
10	B	2268	A
10	B	2269	G
10	B	2272	U
10	B	2273	A
10	B	2274	A
10	B	2278	A
10	B	2279	G
10	B	2283	C
10	B	2284	A
10	B	2287	A
10	B	2288	A
10	B	2297	A
10	B	2298	A
10	B	2305	U
10	B	2307	G
10	B	2308	G
10	B	2309	A
10	B	2312	U
10	B	2319	G
10	B	2320	U

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Mol	Chain	Res	Type
10	B	2322	A
10	B	2324	U
10	B	2325	G
10	B	2326	C
10	B	2331	G
10	B	2332	C
10	B	2333	A
10	B	2334	U
10	B	2336	A
10	B	2337	G
10	B	2344	U
10	B	2345	G
10	B	2347	C
10	B	2349	G
10	B	2352	A
10	B	2366	A
10	B	2371	G
10	B	2373	G
10	B	2379	G
10	B	2383	G
10	B	2385	C
10	B	2387	U
10	B	2388	A
10	B	2390	U
10	B	2391	G
10	B	2396	G
10	B	2402	U
10	B	2404	U
10	B	2405	G
10	B	2406	A
10	B	2407	A
10	B	2417	C
10	B	2422	C
10	B	2423	U
10	B	2425	A
10	B	2426	A
10	B	2428	G
10	B	2429	G
10	B	2430	A
10	B	2431	U
10	B	2432	A
10	B	2434	A

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Mol	Chain	Res	Type
10	B	2435	A
10	B	2440	C
10	B	2441	U
10	B	2442	C
10	B	2443	C
10	B	2447	G
10	B	2448	A
10	B	2449	U
10	B	2450	A
10	B	2469	A
10	B	2472	G
10	B	2474	U
10	B	2476	A
10	B	2478	A
10	B	2479	U
10	B	2481	G
10	B	2484	G
10	B	2487	G
10	B	2491	U
10	B	2492	U
10	B	2497	A
10	B	2498	C
10	B	2502	G
10	B	2503	A
10	B	2504	U
10	B	2505	G
10	B	2511	U
10	B	2518	A
10	B	2519	U
10	B	2529	G
10	B	2531	A
10	B	2534	A
10	B	2535	G
10	B	2541	A
10	B	2542	A
10	B	2543	G
10	B	2548	U
10	B	2552	U
10	B	2553	G
10	B	2554	U
10	B	2556	C
10	B	2562	U

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Mol	Chain	Res	Type
10	B	2566	A
10	B	2567	G
10	B	2572	A
10	B	2573	C
10	B	2574	G
10	B	2576	G
10	B	2577	A
10	B	2578	G
10	B	2582	G
10	B	2584	U
10	B	2585	U
10	B	2586	U
10	B	2597	G
10	B	2598	A
10	B	2599	G
10	B	2602	A
10	B	2603	G
10	B	2608	G
10	B	2609	U
10	B	2613	U
10	B	2620	C
10	B	2622	U
10	B	2625	G
10	B	2628	C
10	B	2629	U
10	B	2633	G
10	B	2634	A
10	B	2636	C
10	B	2637	U
10	B	2639	A
10	B	2645	G
10	B	2651	C
10	B	2656	U
10	B	2671	G
10	B	2681	C
10	B	2682	A
10	B	2683	C
10	B	2684	U
10	B	2688	G
10	B	2689	U
10	B	2690	U
10	B	2692	G

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Mol	Chain	Res	Type
10	B	2704	C
10	B	2706	A
10	B	2707	U
10	B	2708	G
10	B	2712	C
10	B	2716	C
10	B	2717	C
10	B	2719	G
10	B	2726	A
10	B	2727	A
10	B	2729	G
10	B	2732	G
10	B	2733	A
10	B	2741	A
10	B	2742	G
10	B	2744	G
10	B	2748	A
10	B	2750	A
10	B	2751	G
10	B	2752	C
10	B	2753	A
10	B	2757	A
10	B	2762	C
10	B	2765	A
10	B	2776	A
10	B	2777	G
10	B	2778	A
10	B	2779	U
10	B	2780	G
10	B	2782	G
10	B	2783	U
10	B	2784	U
10	B	2789	C
10	B	2791	G
10	B	2793	C
10	B	2796	U
10	B	2797	U
10	B	2798	U
10	B	2800	A
10	B	2801	G
10	B	2804	U
10	B	2806	C

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Mol	Chain	Res	Type
10	B	2808	G
10	B	2809	A
10	B	2811	G
10	B	2813	A
10	B	2814	A
10	B	2820	A
10	B	2821	A
10	B	2822	G
10	B	2832	U
10	B	2833	U
10	B	2834	G
10	B	2835	A
10	B	2836	U
10	B	2839	G
10	B	2846	G
10	B	2849	U
10	B	2850	A
10	B	2858	C
10	B	2861	U
10	B	2864	G
10	B	2866	U
10	B	2867	G
10	B	2868	A
10	B	2869	G
10	B	2872	A
10	B	2873	A
10	B	2874	C
10	B	2879	A
10	B	2883	A
10	B	2884	U
10	B	2886	A
10	B	2887	A
10	B	2888	C
10	B	2891	U
10	B	2893	A
10	B	2894	G
10	B	2895	G
10	B	2896	C
10	B	2898	U
10	B	2899	A
10	B	2900	A

All (58) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
9	A	13	G
9	A	66	A
10	B	127	A
10	B	321	U
10	B	384	A
10	B	387	U
10	B	490	C
10	B	509	C
10	B	512	G
10	B	636	G
10	B	651	G
10	B	669	G
10	B	670	A
10	B	704	G
10	B	726	G
10	B	780	G
10	B	784	G
10	B	830	G
10	B	880	G
10	B	888	C
10	B	909	A
10	B	914	G
10	B	958	U
10	B	984	A
10	B	1115	G
10	B	1129	A
10	B	1267	U
10	B	1321	A
10	B	1385	A
10	B	1395	A
10	B	1489	C
10	B	1543	G
10	B	1652	A
10	B	1730	C
10	B	1759	A
10	B	1779	U
10	B	2022	U
10	B	2076	U
10	B	2129	C
10	B	2147	A
10	B	2152	G
10	B	2158	A
10	B	2211	A

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Mol	Chain	Res	Type
10	B	2244	U
10	B	2252	G
10	B	2253	G
10	B	2272	U
10	B	2336	A
10	B	2351	G
10	B	2389	G
10	B	2425	A
10	B	2573	C
10	B	2655	G
10	B	2688	G
10	B	2808	G
10	B	2810	A
10	B	2832	U
10	B	2867	G

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

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

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 2 ligands modelled in this entry, 1 is monoatomic - leaving 1 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
35	GNP	6	527	36	34,34,34	2.25	8 (23%)	47,54,54	1.24	6 (12%)

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
35	GNP	6	527	36	-	4/18/38/38	0/3/3/3

All (8) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	6	527	GNP	PA-O3A	-7.99	1.50	1.59
35	6	527	GNP	PB-O3A	-7.13	1.50	1.59
35	6	527	GNP	PB-O2B	-3.54	1.47	1.56
35	6	527	GNP	PG-O1G	3.03	1.50	1.46
35	6	527	GNP	PG-N3B	-2.35	1.57	1.63
35	6	527	GNP	PG-O3G	-2.32	1.50	1.56
35	6	527	GNP	PB-N3B	-2.31	1.57	1.63
35	6	527	GNP	PG-O2G	-2.24	1.50	1.56

All (6) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	6	527	GNP	O2B-PB-O1B	3.66	117.71	109.87
35	6	527	GNP	O3G-PG-O1G	-3.33	105.11	113.45
35	6	527	GNP	O2G-PG-O3G	3.07	115.85	107.59
35	6	527	GNP	C2'-C3'-C4'	-2.96	96.89	102.61
35	6	527	GNP	C2'-C1'-N9	-2.86	105.29	113.25
35	6	527	GNP	O1G-PG-N3B	-2.13	108.64	111.77

There are no chirality outliers.

All (4) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
35	6	527	GNP	PB-N3B-PG-O1G
35	6	527	GNP	PG-N3B-PB-O1B
35	6	527	GNP	C5'-O5'-PA-O1A
35	6	527	GNP	PA-O3A-PB-O1B

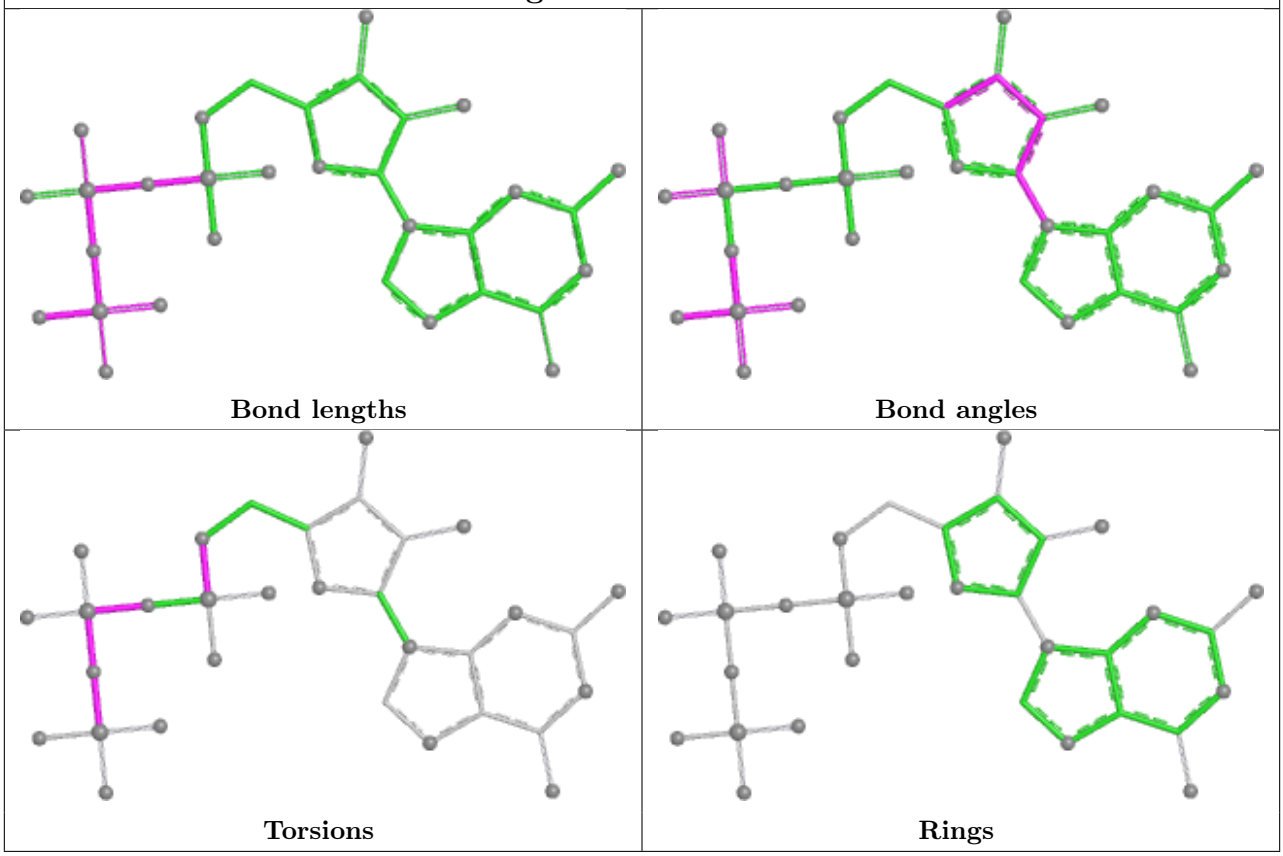
There are no ring outliers.

1 monomer is involved in 23 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
35	6	527	GNP	23	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

Ligand GNP 6 527



5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

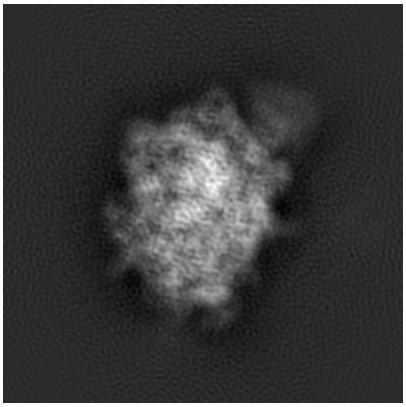
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-3133. These allow visual inspection of the internal detail of the map and identification of artifacts.

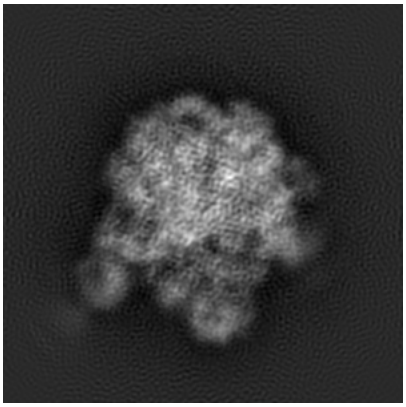
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

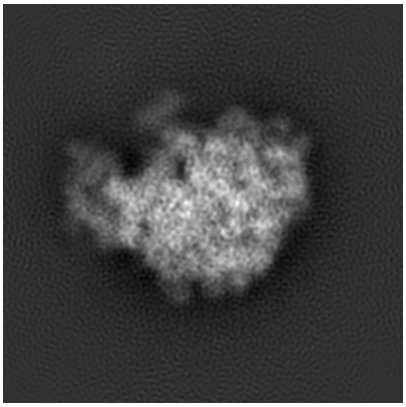
6.1.1 Primary map



X



Y

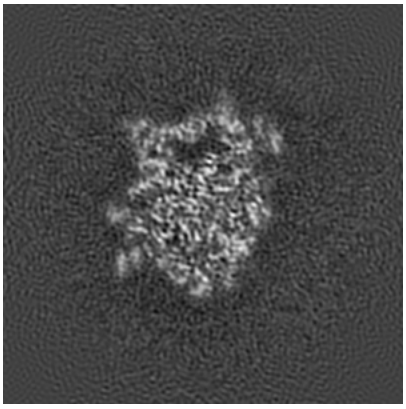


Z

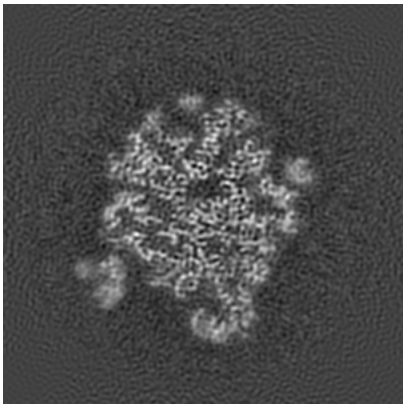
The images above show the map projected in three orthogonal directions.

6.2 Central slices

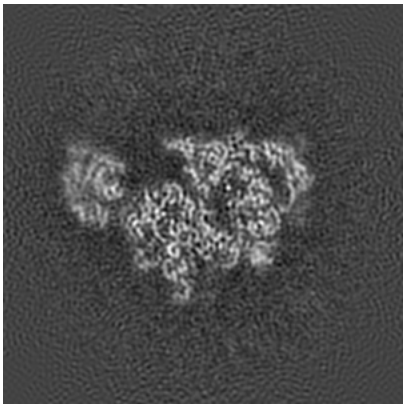
6.2.1 Primary map



X Index: 150



Y Index: 150

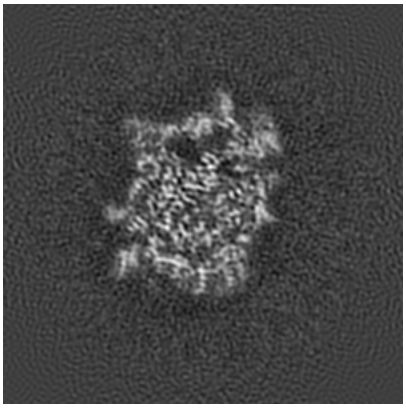


Z Index: 150

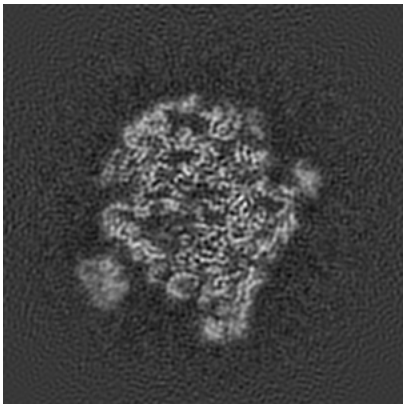
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

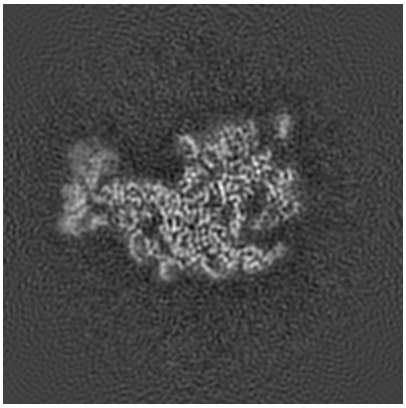
6.3.1 Primary map



X Index: 153



Y Index: 155

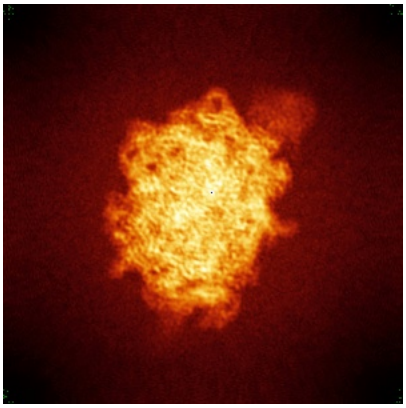


Z Index: 164

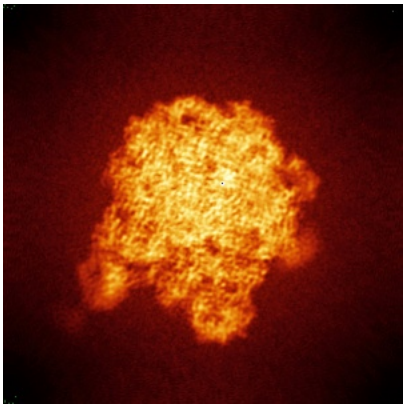
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) (i)

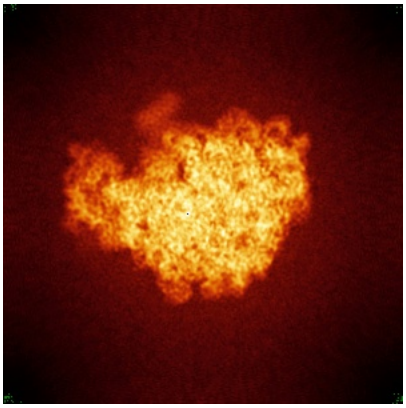
6.4.1 Primary map



X



Y



Z

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

6.5 Orthogonal surface views (i)

6.5.1 Primary map

X Y Z

The images above show the 3D surface view of the map at the recommended contour level 1.4. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

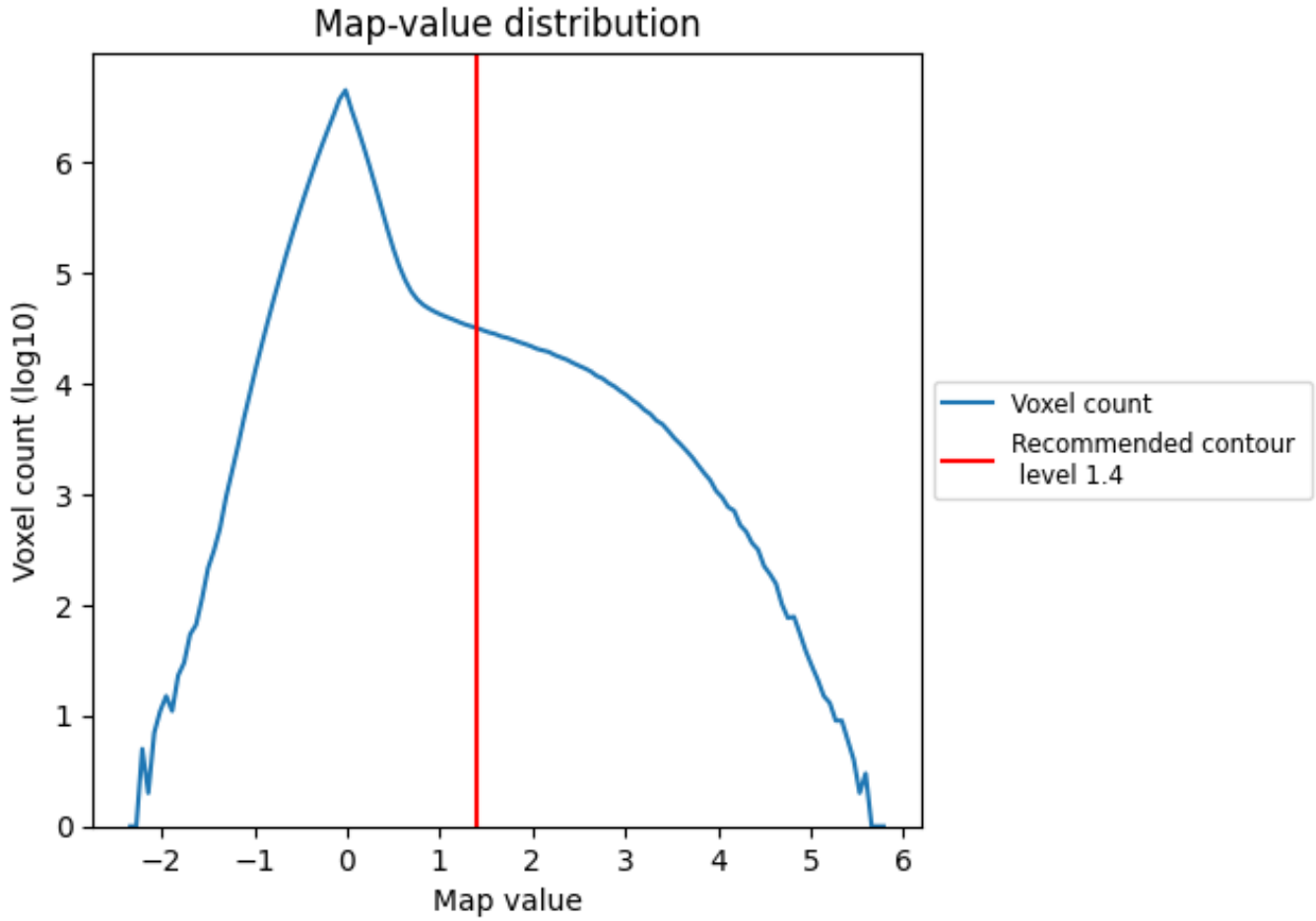
6.6 Mask visualisation (i)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis

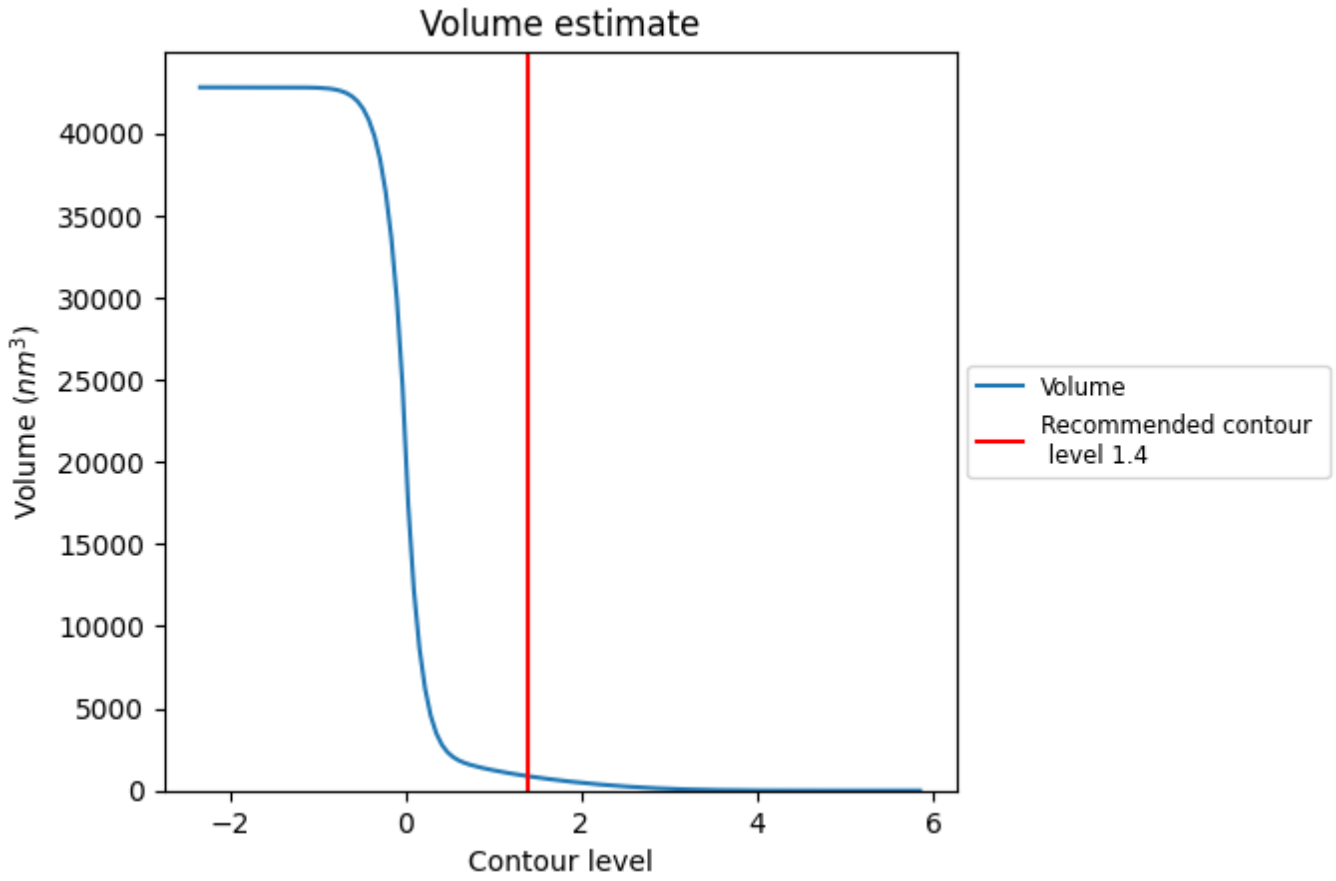
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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

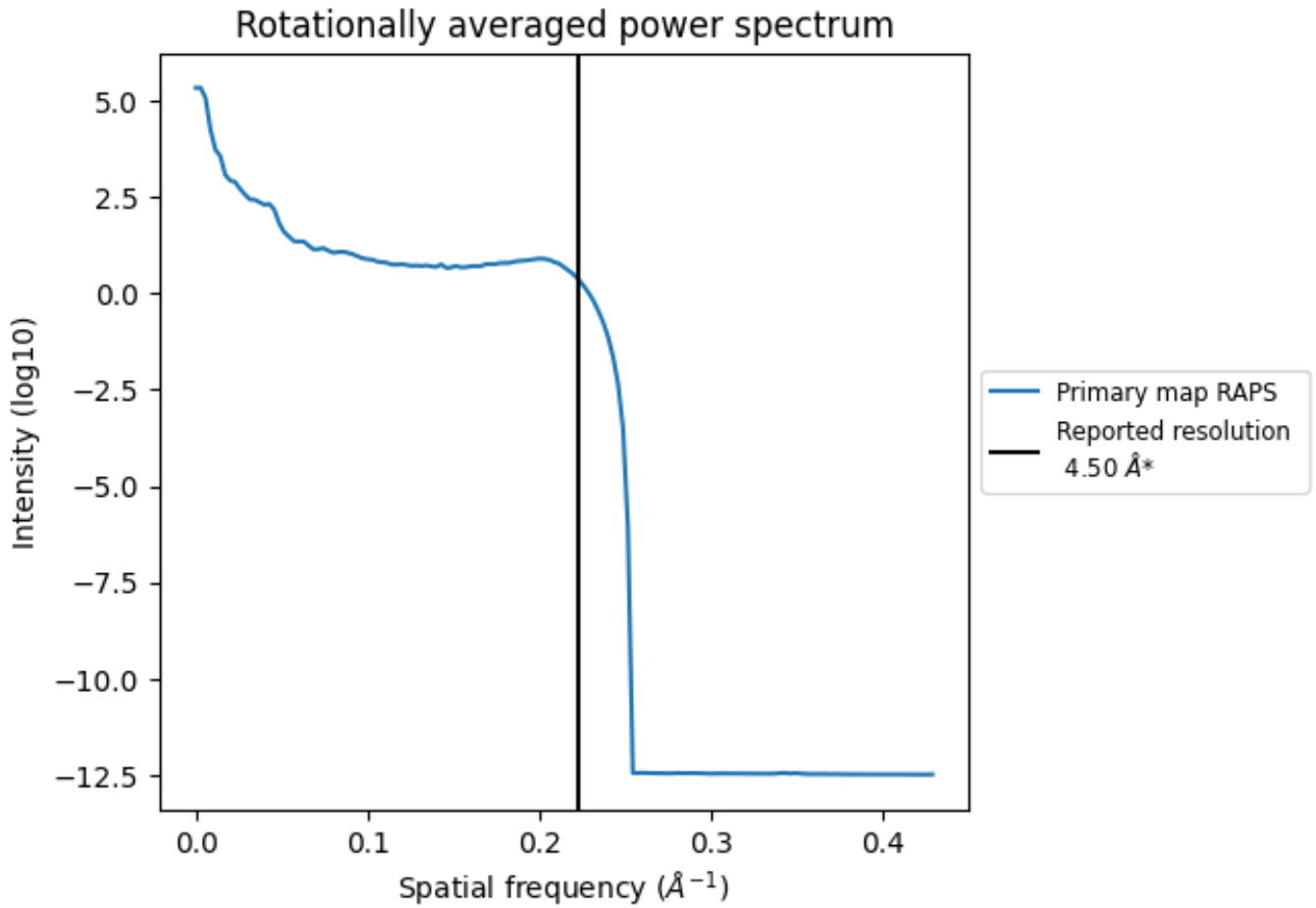
7.2 Volume estimate



The volume at the recommended contour level is 869 nm^3; this corresponds to an approximate mass of 785 kDa.

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

7.3 Rotationally averaged power spectrum (i)



*Reported resolution corresponds to spatial frequency of 0.222 $Å^{-1}$

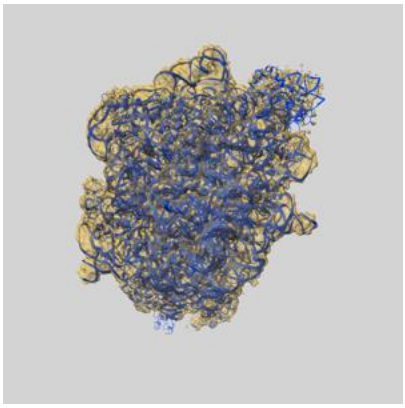
8 Fourier-Shell correlation

This section was not generated. No FSC curve or half-maps provided.

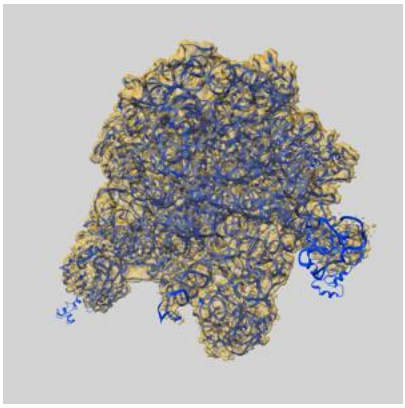
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-3133 and PDB model 5ADY. Per-residue inclusion information can be found in section 3 on page 12.

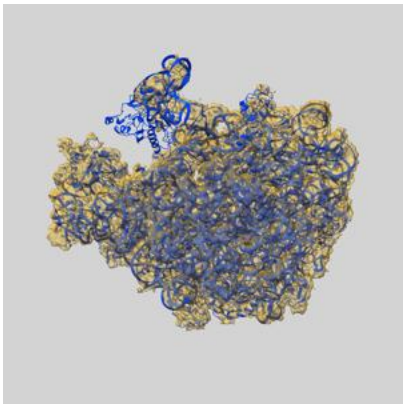
9.1 Map-model overlay



X



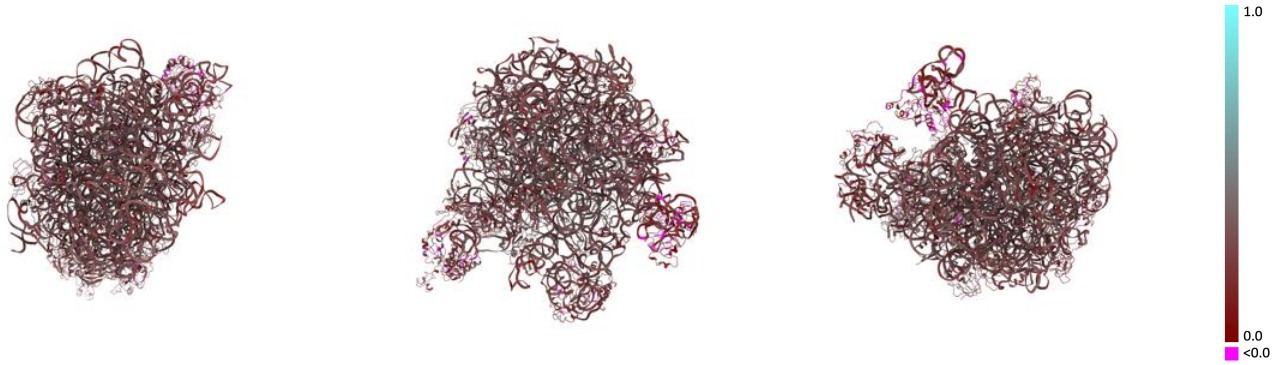
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 1.4 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

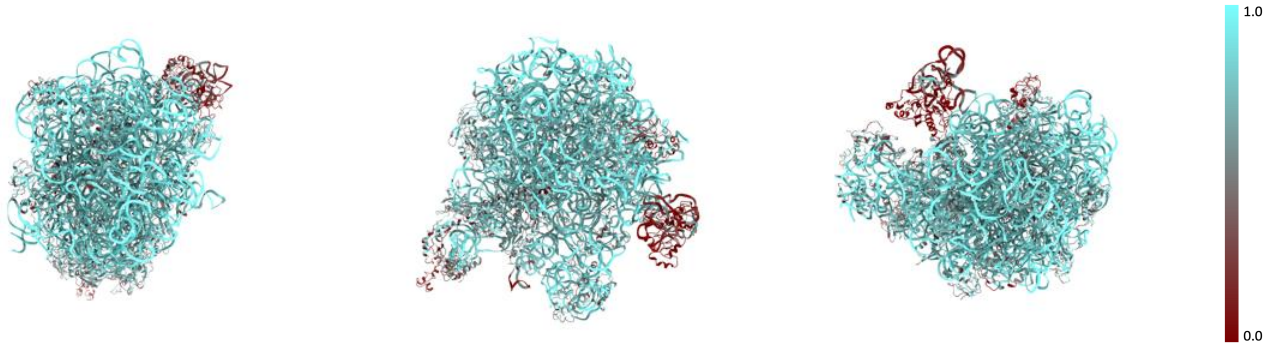
9.2 Q-score mapped to coordinate model



X Y Z

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

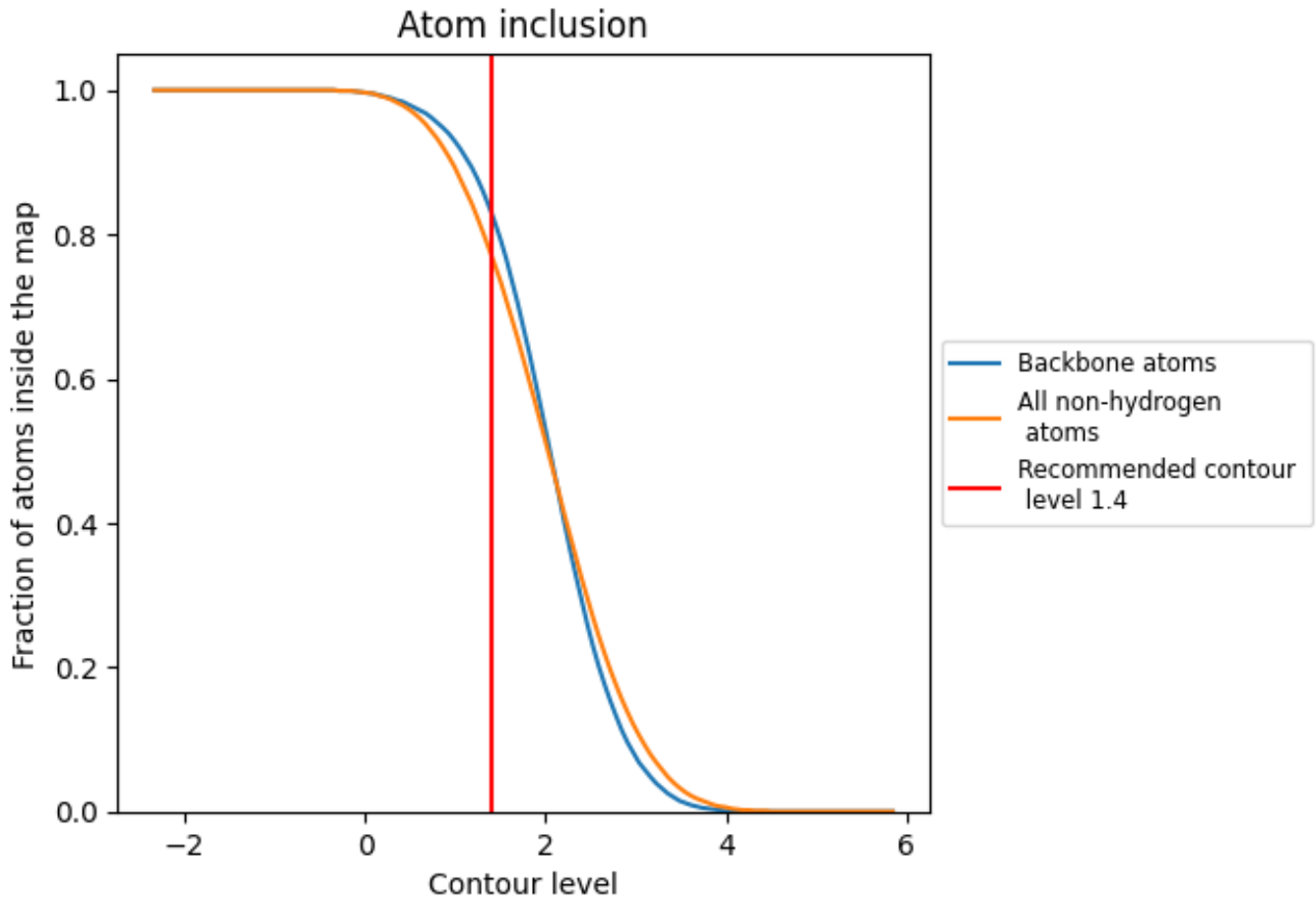
9.3 Atom inclusion mapped to coordinate model



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (1.4).

9.4 Atom inclusion (i)



At the recommended contour level, 83% of all backbone atoms, 77% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (1.4) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.7710	0.2890
0	0.6660	0.2990
1	0.5420	0.2310
2	0.6250	0.2920
3	0.6350	0.3150
4	0.6230	0.2650
5	0.0560	0.1520
6	0.5360	0.2530
7	0.2290	0.2080
A	0.8950	0.2860
B	0.8720	0.3020
C	0.6840	0.2940
D	0.6630	0.2870
E	0.5540	0.2820
F	0.5940	0.2280
G	0.6170	0.2780
H	0.2260	0.2040
I	0.4870	0.2160
J	0.6160	0.2920
K	0.6410	0.2870
L	0.6680	0.3000
M	0.6610	0.3040
N	0.6870	0.2840
O	0.6960	0.2500
P	0.6330	0.2850
Q	0.6760	0.2910
R	0.6690	0.2970
S	0.6300	0.2850
T	0.6580	0.2900
U	0.6470	0.2460
V	0.6300	0.2810
W	0.6190	0.2700
X	0.6290	0.2970
Y	0.6620	0.2380
Z	0.6160	0.3110