Full wwPDB EM Validation Report ⓘ

Dec 19, 2022 – 04:44 am GMT

PDB ID	:	7ART
EMDB ID	:	EMD-11387
Title	:	48 helix bundle DNA origami brick
Authors	:	Feigl, E.; Kube, M.; Kohler, F.; Nagel-Yuksel, B.; Willner, E.M.; Funke, J.J.; Gerling, T.; Stommer, P.; Honemann, M.N.; Martin, T.G.; Scheres, S.H.W.; Dietz, H.
Deposited on	:	2020-10-26
Resolution	:	10.00 Å(reported)

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

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

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

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

EMDB validation analysis	:	0.0.1.dev43
MolProbity	:	4.02b-467
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.9
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.31.3

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 10.00 Å.

There are no overall percentile quality scores available for this entry.

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	AA	8064	100% 60% 34% 6%
2	AB	40	100% 62% 35% .
3	AC	44	100% 52% 43% 5%
4	AD	50	100% 74% 22% .
5	AE	47	100% 62% 36% .
6	AF	49	100% 67% 27% 6%
7	AG	49	100% 61% 33% 6%
8	AH	49	100% 71% 24% .
9	AI	49	100% 71% 24% .
10	AJ	42	100% 71% 24% 5%
11	AK	54	100% 69% 31%
12	AL	38	100% 50% 42% 8%
13	AM	44	100% 39% 57% 5%
14	AN	35	100% 69% 31%
15	AO	40	100% 65% 28% 8%
16	AP	42	100% 57% 38% 5%
17	AQ	35	100% 69% 26% 6%

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Mol	Chain	Length	Quality of chain
18	AR	49	100% 67% 27% 6%
19	AS	42	100% 69% 26% 5%
20	AT	38	100% 55% 39% 5%
21	AU	47	100% 57% 40%
22	AV	37	100% 65% 32%
23	AW	54	100% 70% 30%
24	AX	36	100% 58% 39%
25	AY	36	100% 61% 33% 6%
26	AZ	44	100% 57% 39% 5%
27	Aa	38	100% 66% 26% 8%
28	Ab	42	100% 67% 33%
29	Ac	49	100% 67% 31%
30	Ad	42	100% 74% 21% 5%
31	Ae	42	100% 55% 38% 7%
32	Af	35	100% 71% 20% 9%
33	Ag	40	100% 72% 28%
34	Ah	42	100% 60% 38%
35	Ai	42	100% 60% 31% 10%
36	Aj	42	100% 69% 29%
37	Ak	42	100% 71% 24% 5%
38	Al	42	100% 64% 29% 7%
39	Am	44	100% 55% 36% 9%
40	An	38	100% 55% 37% 8%
41	Ao	49	100% 69% 22% 8%
42	Ap	49	100% 67% 27% 6%

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Mol	Chain	Length	Quality of chain
43	Aq	47	100% 57% 34% 9%
44	Ar	42	100% 60% 40%
45	As	42	100% 69% 29%
46	At	51	100% 65% 33%
47	Au	49	100% 59% 37%
48	Av	37	100% 65% 24% 11%
49	Aw	42	100% 67% 31%
50	Ax	44	100% 64% 34%
51	Ay	40	100% 60% 30% 10%
52	Az	36	100% 67% 28% 6%
53	A0	63	100% 60% 33% 6%
54	A1	49	100% 71% 20% 8%
55	A2	42	100% 62% 36%
56	A3	40	100% 38% 52% 10%
57	A4	44	100% 64% 32% 5%
58	A5	50	100% 48% 46% 6%
59	A6	49	100% 61% 39%
60	A7	42	100% 71% 29%
61	A8	50	100% 76% 20%
62	A9	49	100% 67% 27% 6%
63	BA	49	100% 69% 20% 10%
64	BB	49	100% 63% 33%
65	BC	49	100% 61% 35%
66	BD	38	100% 61% 39%
67	BE	44	100% 50% 45% 5%

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Mol	Chain	Length	Quality of chain
68	BF	42	100% 67% 26% 7%
69	BG	42	100% 52% 40% 7%
70	BH	40	100% 80% 15% 5%
71	BI	42	100% 52% 36% 12%
72	BJ	38	100% 74% 21% 5%
73	BK	33	100% 64% 33%
74	BL	43	100% 65% 30% 5%
75	BM	43	100% 63% 37%
76	BN	51	100% 55% 45%
77	BO	35	100% 63% 34%
78	BP	40	100% 70% 28%
79	BQ	37	100% 68% 27% 5%
80	BR	38	100% 50% 45% 5%
81	BS	47	100% 70% 30%
82	BT	37	100% 54% 41% 5%
83	BU	40	100% 68% 32%
84	BV	42	100% 67% 29% 5%
85	BW	35	100% 77% 23%
86	BX	42	100% 79% 19%
87	BY	35	100% 63% 37%
88	BZ	42	100% 57% 33% 10%
89	Ba	49	100% 59% 39%
90	Bb	44	100% 59% 34% 7%
91	Bc	38	100% 53% 42% 5%
92	Bd	42	100% 79% 19%

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Mol	Chain	Length	Quality of chain
93	Be	49	100% 67% 33%
94	Bf	42	100% 64% 36%
95	Bg	49	100% 67% 27% 6%
96	Bh	51	100% 65% 35%
97	Bi	35	100% 63% 34%
98	Bj	37	100% 59% 38%
99	Bk	42	100% 64% 31% 5%
100	Bl	44	100% 55% 43%
101	Bm	40	100% 55% 32% 12%
102	Bn	63	100% 68% 30%
103	Bo	35	100% 74% 23%
104	Bp	42	100% 60% 40%
105	Bq	42	100% 69% 26% 5%
106	Br	49	100% 61% 31% 8%
107	Bs	35	100% 66% 26% 9%
108	Bt	35	100% 63% 29% 9%
109	Bu	40	100% 60% 32% 8%
110	Bv	44	100% 70% 23% 7%
111	Bw	49	100% 61% 35%
112	Bx	47	100% 66% 32%
113	By	40	100% 70% 25% 5%
114	Bz	49	100% 51% 43% 6%
115	B0	43	100% 65% 33%
116	B1	49	100% 65% 33%
117	B2	38	100% 53% 39% 8%

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Mol	Chain	Length	Quality of chain
118	B3	44	100% 61% 34% 5%
119	B4	35	100% 69% 31%
120	B5	35	100% 71% 29%
121	B6	49	100% 67% 24% 8%
122	B7	49	100% 63% 29% 8%
123	B8	42	100% 55% 36% 10%
124	B9	36	100% 64% 33%
125	CA	35	100% 71% 26%
126	CB	35	100% 74% 23%
127	CC	49	100% 61% 37%
128	CD	42	100% 69% 29%
129	CE	35	100% 51% 40% 9%
130	CF	38	100% 66% 34%
131	CG	51	100% 65% 29% 6%
132	CH	50	100% 68% 30%
133	CI	43	100% 63% 26% 12%
134	CJ	40	100% 62% 32% 5%
135	CK	37	100% 65% 35%
136	CL	47	100% 62% 30% 9%
137	CM	38	100% 58% 39%
138	CN	40	100% 68% 22% 10%
139	CO	42	100% 60% 33% 7%
140	CP	35	100% 69% 23% 9%
141	CQ	40	100% 70% 22% 8%
142	CR	35	100% 63% 31% 6%

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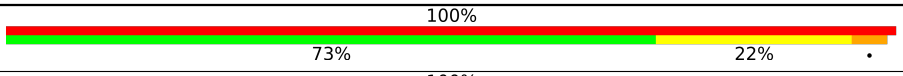
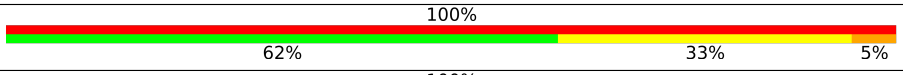
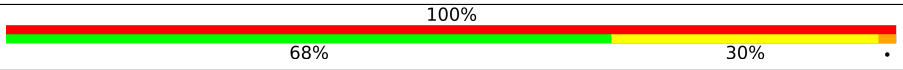
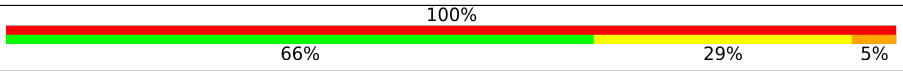
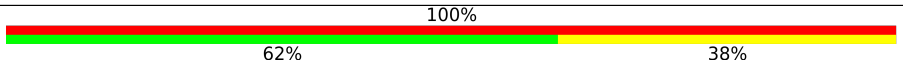
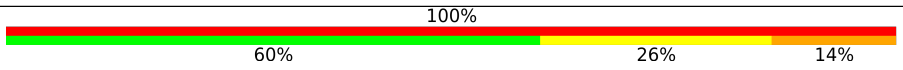
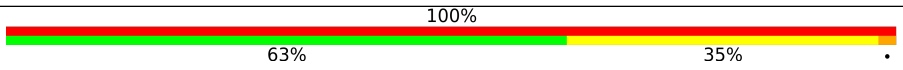
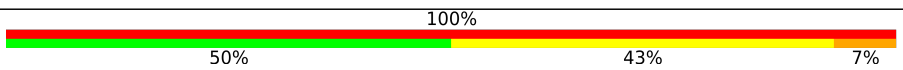
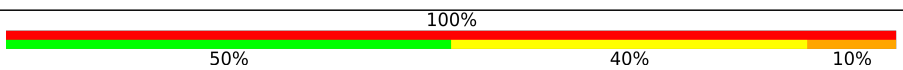
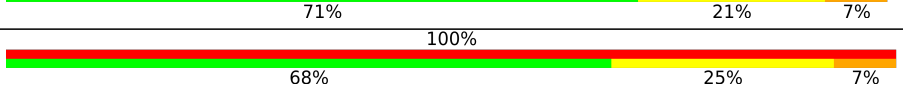
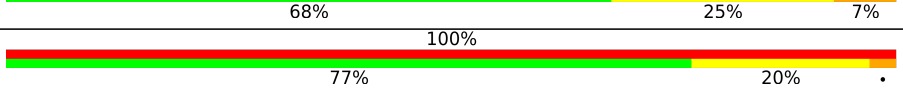
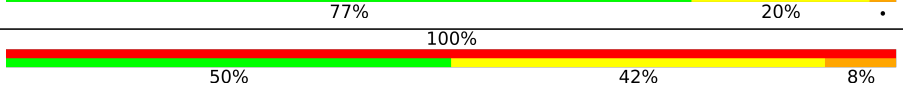
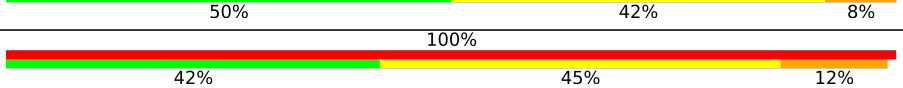
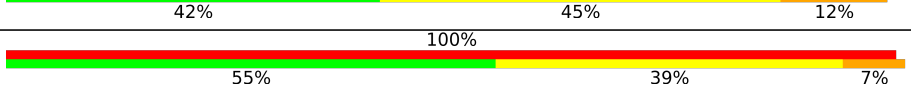
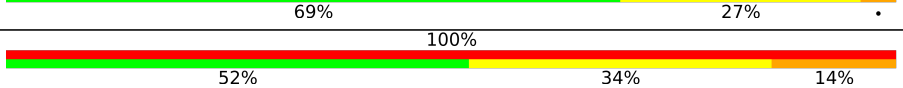
Mol	Chain	Length	Quality of chain
143	CS	49	
144	CT	42	
145	CU	44	
146	CV	38	
147	CW	42	
148	CX	42	
149	CY	49	
150	CZ	49	
151	Ca	42	
152	Cb	49	
153	Cc	42	
154	Cd	47	
155	Ce	44	
156	Cf	40	
157	Cg	36	
158	Ch	42	
159	Ci	56	
160	Cj	35	
161	Ck	36	
162	Cl	40	
163	Cm	44	
164	Cn	42	
165	Co	35	
166	Cp	49	
167	Cq	44	

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Mol	Chain	Length	Quality of chain
168	Cr	49	100% 61% 35% •
169	Cs	44	100% 66% 34%
170	Ct	42	100% 57% 33% 10%
171	Cu	38	100% 55% 26% 18%
172	Cv	44	100% 55% 39% 7%
173	Cw	35	100% 74% 26%
174	Cx	35	100% 57% 40% •
175	Cy	42	100% 52% 43% 5%
176	Cz	49	100% 57% 39% •
177	C0	40	100% 80% 20%
178	C1	42	100% 76% 21% •
179	C2	49	100% 65% 31% •
180	C3	49	100% 67% 27% 6%
181	C4	42	100% 52% 40% 7%
182	C5	42	100% 60% 40%
183	C6	38	100% 58% 37% 5%
184	C7	40	100% 65% 35%
185	C8	36	100% 67% 22% 11%
186	C9	50	100% 62% 34% •
187	DA	44	100% 64% 30% 7%
188	DB	42	100% 64% 33% •
189	DC	35	100% 51% 46% •
190	DD	47	100% 70% 23% 6%
191	DE	37	100% 62% 30% 8%
192	DF	38	100% 45% 47% 8%

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Mol	Chain	Length	Quality of chain
193	DG	49	100% 73% 27%
194	DH	42	100% 67% 26% 7%
195	DI	40	100% 62% 35%
196	DJ	42	100% 67% 33%
197	DK	35	100% 66% 34%
198	DL	44	100% 52% 41% 7%
199	DM	38	100% 61% 39%
200	DN	42	100% 67% 29% 5%
201	DO	49	100% 71% 27%
202	DP	35	100% 54% 34% 11%
203	DQ	49	100% 69% 24% 6%
204	DR	49	100% 61% 35%
205	DS	49	100% 49% 39% 12%
206	DT	37	100% 49% 41% 11%
207	DU	42	100% 64% 36%
208	DV	50	100% 70% 22% 8%
209	DW	44	100% 59% 39%
210	DX	40	100% 62% 30% 8%
211	DY	42	100% 57% 38% 5%
212	DZ	42	100% 60% 36% 5%

2 Entry composition

There are 212 unique types of molecules in this entry. The entry contains 349108 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 DNA chain called SCAFFOLD STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
1	AA	8064	164972	78873	29001	49035	8063	0	0

- Molecule 2 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
2	AB	40	813	394	134	246	39	0	0

- Molecule 3 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
3	AC	44	887	432	132	280	43	0	0

- Molecule 4 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
4	AD	50	1032	495	183	305	49	0	0

- Molecule 5 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
5	AE	47	952	456	174	276	46	0	0

- Molecule 6 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
6	AF	49	1008	481	191	288	48	0	0

- Molecule 7 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	AG	49	Total 997	C 477	N 186	O 286	P 48	0	0

- Molecule 8 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	AH	49	Total 1013	C 481	N 197	O 287	P 48	0	0

- Molecule 9 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	AI	49	Total 1005	C 479	N 187	O 291	P 48	0	0

- Molecule 10 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	AJ	42	Total 860	C 412	N 158	O 249	P 41	0	0

- Molecule 11 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	AK	54	Total 1110	C 527	N 214	O 316	P 53	0	0

- Molecule 12 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	AL	38	Total 768	C 376	N 110	O 245	P 37	0	0

- Molecule 13 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	AM	44	Total 893	C 437	N 133	O 280	P 43	0	0

- Molecule 14 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	AN	35	Total	C	N	O	P	0	0
			713	342	132	205	34		

- Molecule 15 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	AO	40	Total	C	N	O	P	0	0
			806	391	128	248	39		

- Molecule 16 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	AP	42	Total	C	N	O	P	0	0
			852	411	147	253	41		

- Molecule 17 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	AQ	35	Total	C	N	O	P	0	0
			727	346	140	207	34		

- Molecule 18 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	AR	49	Total	C	N	O	P	0	0
			1015	480	210	277	48		

- Molecule 19 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	AS	42	Total	C	N	O	P	0	0
			847	408	147	251	41		

- Molecule 20 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	AT	38	Total	C	N	O	P	0	0
			772	378	120	237	37		

- Molecule 21 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	AU	47	Total	C	N	O	P	0	0
			967	462	195	264	46		

- Molecule 22 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	AV	37	Total	C	N	O	P	0	0
			752	359	139	218	36		

- Molecule 23 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	AW	54	Total	C	N	O	P	0	0
			1114	534	216	311	53		

- Molecule 24 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	AX	36	Total	C	N	O	P	0	0
			731	353	121	222	35		

- Molecule 25 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	AY	36	Total	C	N	O	P	0	0
			735	356	121	223	35		

- Molecule 26 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	AZ	44	Total	C	N	O	P	0	0
			886	422	169	252	43		

- Molecule 27 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	Aa	38	Total	C	N	O	P	0	0
			775	379	119	240	37		

- Molecule 28 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	Ab	42	Total 872	C 415	N 179	O 237	P 41	0	0

- Molecule 29 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	Ac	49	Total 1006	C 485	N 175	O 298	P 48	0	0

- Molecule 30 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	Ad	42	Total 871	C 414	N 165	O 251	P 41	0	0

- Molecule 31 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	Ae	42	Total 860	C 412	N 173	O 234	P 41	0	0

- Molecule 32 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	Af	35	Total 724	C 345	N 135	O 210	P 34	0	0

- Molecule 33 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	Ag	40	Total 813	C 394	N 137	O 243	P 39	0	0

- Molecule 34 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	Ah	42	Total 866	C 414	N 168	O 243	P 41	0	0

- Molecule 35 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	Ai	42	Total 861	C 413	N 148	O 259	P 41	0	0

- Molecule 36 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	Aj	42	Total 845	C 407	N 145	O 252	P 41	0	0

- Molecule 37 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	Ak	42	Total 859	C 412	N 161	O 245	P 41	0	0

- Molecule 38 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	Al	42	Total 855	C 409	N 158	O 247	P 41	0	0

- Molecule 39 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	Am	44	Total 892	C 438	N 126	O 285	P 43	0	0

- Molecule 40 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
40	An	38	Total 766	C 376	N 110	O 243	P 37	0	0

- Molecule 41 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	Ao	49	Total 1000	C 479	N 196	O 277	P 48	0	0

- Molecule 42 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	Ap	49	Total	C	N	O	P	0	0
			1008	479	208	273	48		

- Molecule 43 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	Aq	47	Total	C	N	O	P	0	0
			950	452	181	271	46		

- Molecule 44 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	Ar	42	Total	C	N	O	P	0	0
			850	409	152	248	41		

- Molecule 45 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	As	42	Total	C	N	O	P	0	0
			859	412	164	242	41		

- Molecule 46 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	At	51	Total	C	N	O	P	0	0
			1051	499	197	305	50		

- Molecule 47 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	Au	49	Total	C	N	O	P	0	0
			1004	477	192	287	48		

- Molecule 48 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
48	Av	37	Total	C	N	O	P	0	0
			760	360	150	214	36		

- Molecule 49 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	Aw	42	Total 869	C 411	N 174	O 243	P 41	0	0

- Molecule 50 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	Ax	44	Total 882	C 430	N 128	O 281	P 43	0	0

- Molecule 51 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	Ay	40	Total 808	C 392	N 127	O 250	P 39	0	0

- Molecule 52 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	Az	36	Total 722	C 353	N 106	O 228	P 35	0	0

- Molecule 53 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	A0	63	Total 1285	C 615	N 234	O 374	P 62	0	0

- Molecule 54 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	A1	49	Total 995	C 477	N 180	O 290	P 48	0	0

- Molecule 55 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	A2	42	Total 864	C 414	N 165	O 244	P 41	0	0

- Molecule 56 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
56	A3	40	Total 815	C 393	N 141	O 242	P 39	0	0

- Molecule 57 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
57	A4	44	Total 890	C 434	N 136	O 277	P 43	0	0

- Molecule 58 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
58	A5	50	Total 1024	C 492	N 186	O 297	P 49	0	0

- Molecule 59 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
59	A6	49	Total 1011	C 484	N 194	O 285	P 48	0	0

- Molecule 60 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
60	A7	42	Total 850	C 407	N 157	O 245	P 41	0	0

- Molecule 61 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
61	A8	50	Total 1015	C 489	N 177	O 300	P 49	0	0

- Molecule 62 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
62	A9	49	Total 994	C 479	N 172	O 295	P 48	0	0

- Molecule 63 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
63	BA	49	Total	C	N	O	P	0	0
			1004	476	208	272	48		

- Molecule 64 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
64	BB	49	Total	C	N	O	P	0	0
			1010	482	196	284	48		

- Molecule 65 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
65	BC	49	Total	C	N	O	P	0	0
			998	476	190	284	48		

- Molecule 66 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
66	BD	38	Total	C	N	O	P	0	0
			771	379	116	239	37		

- Molecule 67 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
67	BE	44	Total	C	N	O	P	0	0
			895	437	139	276	43		

- Molecule 68 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
68	BF	42	Total	C	N	O	P	0	0
			863	414	168	240	41		

- Molecule 69 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
69	BG	42	Total	C	N	O	P	0	0
			871	412	185	233	41		

- Molecule 70 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
70	BH	40	Total	C	N	O	P	0	0
			814	396	138	241	39		

- Molecule 71 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
71	BI	42	Total	C	N	O	P	0	0
			874	417	171	245	41		

- Molecule 72 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
72	BJ	38	Total	C	N	O	P	0	0
			761	376	95	253	37		

- Molecule 73 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
73	BK	33	Total	C	N	O	P	0	0
			673	320	127	194	32		

- Molecule 74 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
74	BL	43	Total	C	N	O	P	0	0
			869	424	140	263	42		

- Molecule 75 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
75	BM	43	Total	C	N	O	P	0	0
			878	425	142	269	42		

- Molecule 76 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
76	BN	51	Total	C	N	O	P	0	0
			1048	504	195	299	50		

- Molecule 77 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
77	BO	35	Total 714	C 345	N 126	O 209	P 34	0	0

- Molecule 78 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
78	BP	40	Total 815	C 391	N 158	O 227	P 39	0	0

- Molecule 79 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
79	BQ	37	Total 759	C 362	N 148	O 213	P 36	0	0

- Molecule 80 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
80	BR	38	Total 772	C 377	N 115	O 243	P 37	0	0

- Molecule 81 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
81	BS	47	Total 960	C 463	N 164	O 287	P 46	0	0

- Molecule 82 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
82	BT	37	Total 767	C 364	N 158	O 209	P 36	0	0

- Molecule 83 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
83	BU	40	Total 807	C 393	N 129	O 246	P 39	0	0

- Molecule 84 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
84	BV	42	Total 861	C 410	N 175	O 235	P 41	0	0

- Molecule 85 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
85	BW	35	Total 711	C 342	N 135	O 200	P 34	0	0

- Molecule 86 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
86	BX	42	Total 858	C 412	N 161	O 244	P 41	0	0

- Molecule 87 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
87	BY	35	Total 713	C 344	N 130	O 205	P 34	0	0

- Molecule 88 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
88	BZ	42	Total 859	C 409	N 170	O 239	P 41	0	0

- Molecule 89 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
89	Ba	49	Total 1002	C 475	N 194	O 285	P 48	0	0

- Molecule 90 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
90	Bb	44	Total 879	C 432	N 120	O 284	P 43	0	0

- Molecule 91 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
91	Bc	38	Total 768	C 377	N 112	O 242	P 37	0	0

- Molecule 92 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
92	Bd	42	Total 853	C 412	N 155	O 245	P 41	0	0

- Molecule 93 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
93	Be	49	Total 993	C 476	N 184	O 285	P 48	0	0

- Molecule 94 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
94	Bf	42	Total 867	C 410	N 169	O 247	P 41	0	0

- Molecule 95 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
95	Bg	49	Total 1007	C 482	N 190	O 287	P 48	0	0

- Molecule 96 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
96	Bh	51	Total 1044	C 501	N 195	O 298	P 50	0	0

- Molecule 97 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
97	Bi	35	Total 713	C 342	N 129	O 208	P 34	0	0

- Molecule 98 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
98	Bj	37	Total 754	C 361	N 140	O 217	P 36	0	0

- Molecule 99 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
99	Bk	42	Total 850	C 408	N 153	O 248	P 41	0	0

- Molecule 100 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
100	Bl	44	Total 884	C 434	N 121	O 286	P 43	0	0

- Molecule 101 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
101	Bm	40	Total 811	C 397	N 128	O 247	P 39	0	0

- Molecule 102 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
102	Bn	63	Total 1291	C 613	N 248	O 368	P 62	0	0

- Molecule 103 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
103	Bo	35	Total 725	C 345	N 144	O 202	P 34	0	0

- Molecule 104 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
104	Bp	42	Total 860	C 413	N 160	O 246	P 41	0	0

- Molecule 105 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
105	Bq	42	Total 862	C 413	N 160	O 248	P 41	0	0

- Molecule 106 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
106	Br	49	Total 1006	C 483	N 180	O 295	P 48	0	0

- Molecule 107 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
107	Bs	35	Total 716	C 344	N 136	O 202	P 34	0	0

- Molecule 108 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
108	Bt	35	Total 716	C 344	N 127	O 211	P 34	0	0

- Molecule 109 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
109	Bu	40	Total 819	C 397	N 143	O 240	P 39	0	0

- Molecule 110 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
110	Bv	44	Total 888	C 434	N 130	O 281	P 43	0	0

- Molecule 111 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
111	Bw	49	Total 1012	C 484	N 194	O 286	P 48	0	0

- Molecule 112 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
112	Bx	47	Total 962	C 461	N 178	O 277	P 46	0	0

- Molecule 113 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
113	By	40	Total 810	C 389	N 142	O 240	P 39	0	0

- Molecule 114 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
114	Bz	49	Total 1017	C 487	N 194	O 288	P 48	0	0

- Molecule 115 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
115	B0	43	Total 871	C 423	N 144	O 262	P 42	0	0

- Molecule 116 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
116	B1	49	Total 1017	C 480	N 201	O 288	P 48	0	0

- Molecule 117 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
117	B2	38	Total 769	C 376	N 113	O 243	P 37	0	0

- Molecule 118 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
118	B3	44	Total 890	C 438	N 129	O 280	P 43	0	0

- Molecule 119 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
119	B4	35	Total 704	C 342	N 114	O 214	P 34	0	0

- Molecule 120 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
120	B5	35	Total 712	C 344	N 124	O 210	P 34	0	0

- Molecule 121 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
121	B6	49	Total 997	C 477	N 183	O 289	P 48	0	0

- Molecule 122 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
122	B7	49	Total 1011	C 484	N 194	O 285	P 48	0	0

- Molecule 123 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
123	B8	42	Total 864	C 409	N 170	O 244	P 41	0	0

- Molecule 124 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
124	B9	36	Total 729	C 357	N 111	O 226	P 35	0	0

- Molecule 125 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
125	CA	35	Total 716	C 342	N 132	O 208	P 34	0	0

- Molecule 126 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
126	CB	35	Total 710	C 343	N 125	O 208	P 34	0	0

- Molecule 127 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
127	CC	49	Total 1008	C 482	N 190	O 288	P 48	0	0

- Molecule 128 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
128	CD	42	Total 843	C 408	N 144	O 250	P 41	0	0

- Molecule 129 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
129	CE	35	Total 729	C 346	N 149	O 200	P 34	0	0

- Molecule 130 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
130	CF	38	Total 764	C 377	N 103	O 247	P 37	0	0

- Molecule 131 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
131	CG	51	Total 1047	C 504	N 189	O 304	P 50	0	0

- Molecule 132 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
132	CH	50	Total 1020	C 493	N 176	O 302	P 49	0	0

- Molecule 133 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
133	CI	43	Total 862	C 422	N 124	O 274	P 42	0	0

- Molecule 134 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
134	CJ	40	Total 806	C 387	N 144	O 236	P 39	0	0

- Molecule 135 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
135	CK	37	Total 766	C 364	N 158	O 208	P 36	0	0

- Molecule 136 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
136	CL	47	Total 962	C 463	N 179	O 274	P 46	0	0

- Molecule 137 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
137	CM	38	Total 769	C 376	N 113	O 243	P 37	0	0

- Molecule 138 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
138	CN	40	Total 826	C 393	N 165	O 229	P 39	0	0

- Molecule 139 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
139	CO	42	Total 857	C 409	N 164	O 243	P 41	0	0

- Molecule 140 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
140	CP	35	Total 714	C 342	N 132	O 206	P 34	0	0

- Molecule 141 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
141	CQ	40	Total 821	C 396	N 138	O 248	P 39	0	0

- Molecule 142 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
142	CR	35	Total 715	C 338	N 136	O 207	P 34	0	0

- Molecule 143 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
143	CS	49	Total 1016	C 480	N 213	O 275	P 48	0	0

- Molecule 144 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
144	CT	42	Total 873	C 415	N 170	O 247	P 41	0	0

- Molecule 145 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
145	CU	44	Total 879	C 433	N 122	O 281	P 43	0	0

- Molecule 146 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
146	CV	38	Total 767	C 375	N 111	O 244	P 37	0	0

- Molecule 147 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
147	CW	42	Total 858	C 408	N 162	O 247	P 41	0	0

- Molecule 148 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
148	CX	42	Total 867	C 413	N 169	O 244	P 41	0	0

- Molecule 149 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
149	CY	49	Total 1006	C 484	N 185	O 289	P 48	0	0

- Molecule 150 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
150	CZ	49	Total 1000	C 476	N 184	O 292	P 48	0	0

- Molecule 151 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
151	Ca	42	Total 866	C 414	N 162	O 249	P 41	0	0

- Molecule 152 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
152	Cb	49	Total 1008	C 478	N 194	O 288	P 48	0	0

- Molecule 153 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
153	Cc	42	Total 855	C 411	N 162	O 241	P 41	0	0

- Molecule 154 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
154	Cd	47	Total 963	C 464	N 178	O 275	P 46	0	0

- Molecule 155 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
155	Ce	44	Total 892	C 437	N 136	O 276	P 43	0	0

- Molecule 156 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
156	Cf	40	Total 825	C 394	N 143	O 249	P 39	0	0

- Molecule 157 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
157	Cg	36	Total 731	C 353	N 121	O 222	P 35	0	0

- Molecule 158 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
158	Ch	42	Total 853	C 407	N 154	O 251	P 41	0	0

- Molecule 159 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
159	Ci	56	Total 1145	C 553	N 203	O 334	P 55	0	0

- Molecule 160 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
160	Cj	35	Total 713	C 339	N 135	O 205	P 34	0	0

- Molecule 161 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
161	Ck	36	Total 724	C 351	N 114	O 224	P 35	0	0

- Molecule 162 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
162	Cl	40	Total 829	C 396	N 156	O 238	P 39	0	0

- Molecule 163 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
163	Cm	44	Total 897	C 436	N 137	O 281	P 43	0	0

- Molecule 164 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
164	Cn	42	Total 850	C 405	N 150	O 254	P 41	0	0

- Molecule 165 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
165	Co	35	Total 708	C 340	N 122	O 212	P 34	0	0

- Molecule 166 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
166	Cp	49	Total 1005	C 478	N 185	O 294	P 48	0	0

- Molecule 167 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
167	Cq	44	Total 889	C 425	N 157	O 264	P 43	0	0

- Molecule 168 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
168	Cr	49	Total	C	N	O	P	0	0
			1009	477	195	289	48		

- Molecule 169 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
169	Cs	44	Total	C	N	O	P	0	0
			902	428	178	253	43		

- Molecule 170 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
170	Ct	42	Total	C	N	O	P	0	0
			861	410	160	250	41		

- Molecule 171 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
171	Cu	38	Total	C	N	O	P	0	0
			769	377	109	246	37		

- Molecule 172 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
172	Cv	44	Total	C	N	O	P	0	0
			881	434	115	289	43		

- Molecule 173 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
173	Cw	35	Total	C	N	O	P	0	0
			705	340	119	212	34		

- Molecule 174 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
174	Cx	35	Total	C	N	O	P	0	0
			727	343	143	207	34		

- Molecule 175 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
175	Cy	42	Total 865	C 412	N 164	O 248	P 41	0	0

- Molecule 176 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
176	Cz	49	Total 1004	C 475	N 191	O 290	P 48	0	0

- Molecule 177 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
177	C0	40	Total 820	C 395	N 136	O 250	P 39	0	0

- Molecule 178 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
178	C1	42	Total 863	C 410	N 169	O 243	P 41	0	0

- Molecule 179 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
179	C2	49	Total 1006	C 478	N 197	O 283	P 48	0	0

- Molecule 180 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
180	C3	49	Total 1008	C 480	N 195	O 285	P 48	0	0

- Molecule 181 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
181	C4	42	Total 865	C 415	N 152	O 257	P 41	0	0

- Molecule 182 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
182	C5	42	Total 851	C 410	N 148	O 252	P 41	0	0

- Molecule 183 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
183	C6	38	Total 769	C 375	N 114	O 243	P 37	0	0

- Molecule 184 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
184	C7	40	Total 808	C 390	N 138	O 241	P 39	0	0

- Molecule 185 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
185	C8	36	Total 734	C 354	N 123	O 222	P 35	0	0

- Molecule 186 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
186	C9	50	Total 1007	C 486	N 156	O 316	P 49	0	0

- Molecule 187 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
187	DA	44	Total 913	C 429	N 186	O 255	P 43	0	0

- Molecule 188 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
188	DB	42	Total 857	C 409	N 167	O 240	P 41	0	0

- Molecule 189 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
189	DC	35	Total 708	C 338	N 130	O 206	P 34	0	0

- Molecule 190 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
190	DD	47	Total 962	C 459	N 186	O 271	P 46	0	0

- Molecule 191 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
191	DE	37	Total 759	C 359	N 154	O 210	P 36	0	0

- Molecule 192 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
192	DF	38	Total 770	C 377	N 109	O 247	P 37	0	0

- Molecule 193 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
193	DG	49	Total 990	C 472	N 173	O 297	P 48	0	0

- Molecule 194 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
194	DH	42	Total 866	C 412	N 164	O 249	P 41	0	0

- Molecule 195 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
195	DI	40	Total 827	C 398	N 142	O 248	P 39	0	0

- Molecule 196 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
196	DJ	42	Total 852	C 407	N 154	O 250	P 41	0	0

- Molecule 197 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
197	DK	35	Total 718	C 340	N 146	O 198	P 34	0	0

- Molecule 198 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
198	DL	44	Total 888	C 435	N 123	O 287	P 43	0	0

- Molecule 199 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
199	DM	38	Total 771	C 374	N 115	O 245	P 37	0	0

- Molecule 200 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
200	DN	42	Total 870	C 408	N 180	O 241	P 41	0	0

- Molecule 201 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
201	DO	49	Total 990	C 475	N 167	O 300	P 48	0	0

- Molecule 202 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
202	DP	35	Total 710	C 340	N 122	O 214	P 34	0	0

- Molecule 203 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
203	DQ	49	Total	C	N	O	P	0	0
			1003	478	188	289	48		

- Molecule 204 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
204	DR	49	Total	C	N	O	P	0	0
			1023	483	204	288	48		

- Molecule 205 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
205	DS	49	Total	C	N	O	P	0	0
			992	476	172	296	48		

- Molecule 206 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
206	DT	37	Total	C	N	O	P	0	0
			756	357	144	219	36		

- Molecule 207 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
207	DU	42	Total	C	N	O	P	0	0
			855	409	146	259	41		

- Molecule 208 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
208	DV	50	Total	C	N	O	P	0	0
			1009	484	167	309	49		

- Molecule 209 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
209	DW	44	Total	C	N	O	P	0	0
			891	436	128	284	43		

- Molecule 210 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
210	DX	40	Total	C	N	O	P	0	0
			813	391	137	246	39		

- Molecule 211 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
211	DY	42	Total	C	N	O	P	0	0
			857	410	154	252	41		

- Molecule 212 is a DNA chain called STAPLE STRAND.

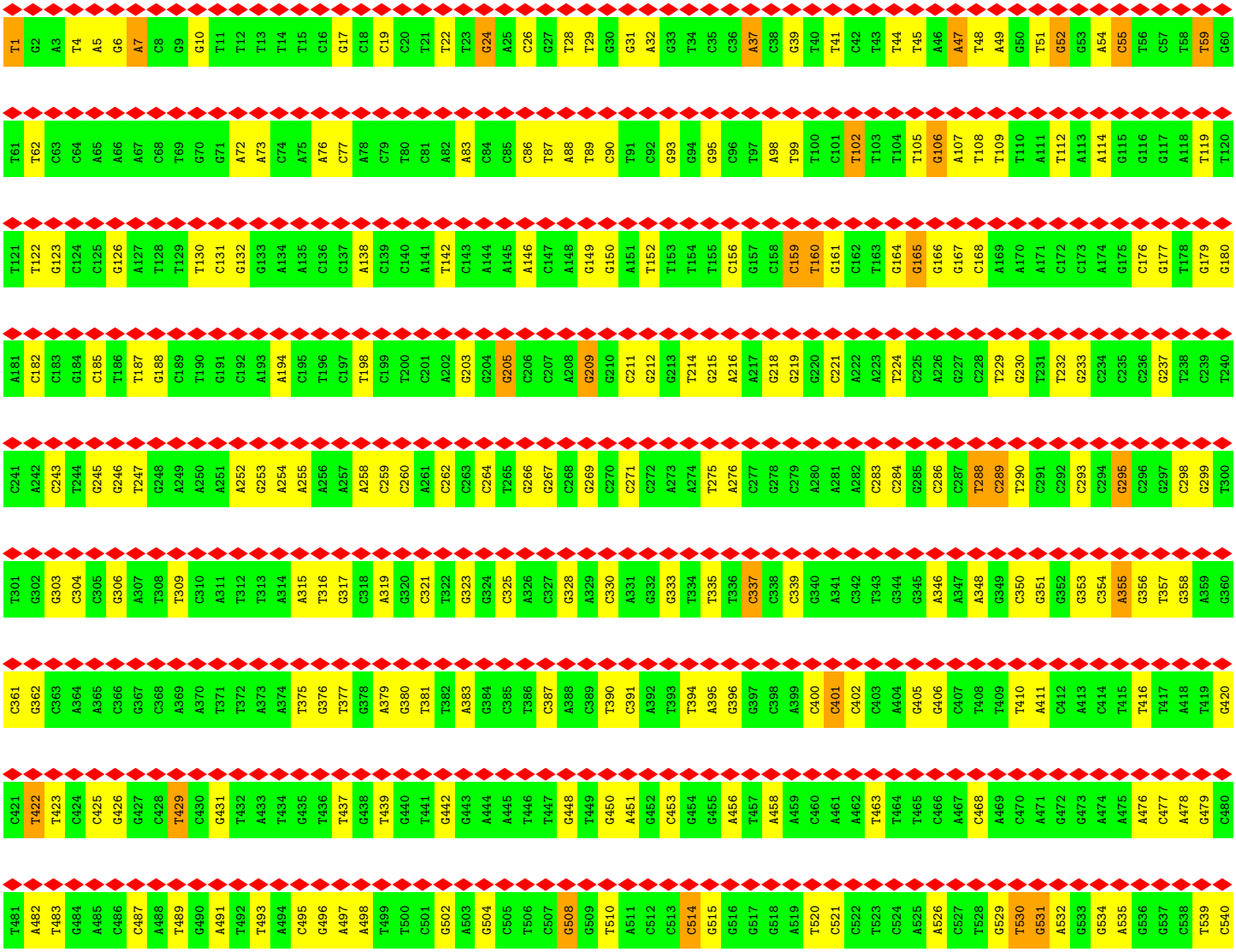
Mol	Chain	Residues	Atoms					AltConf	Trace
212	DZ	42	Total	C	N	O	P	0	0
			854	412	152	249	41		

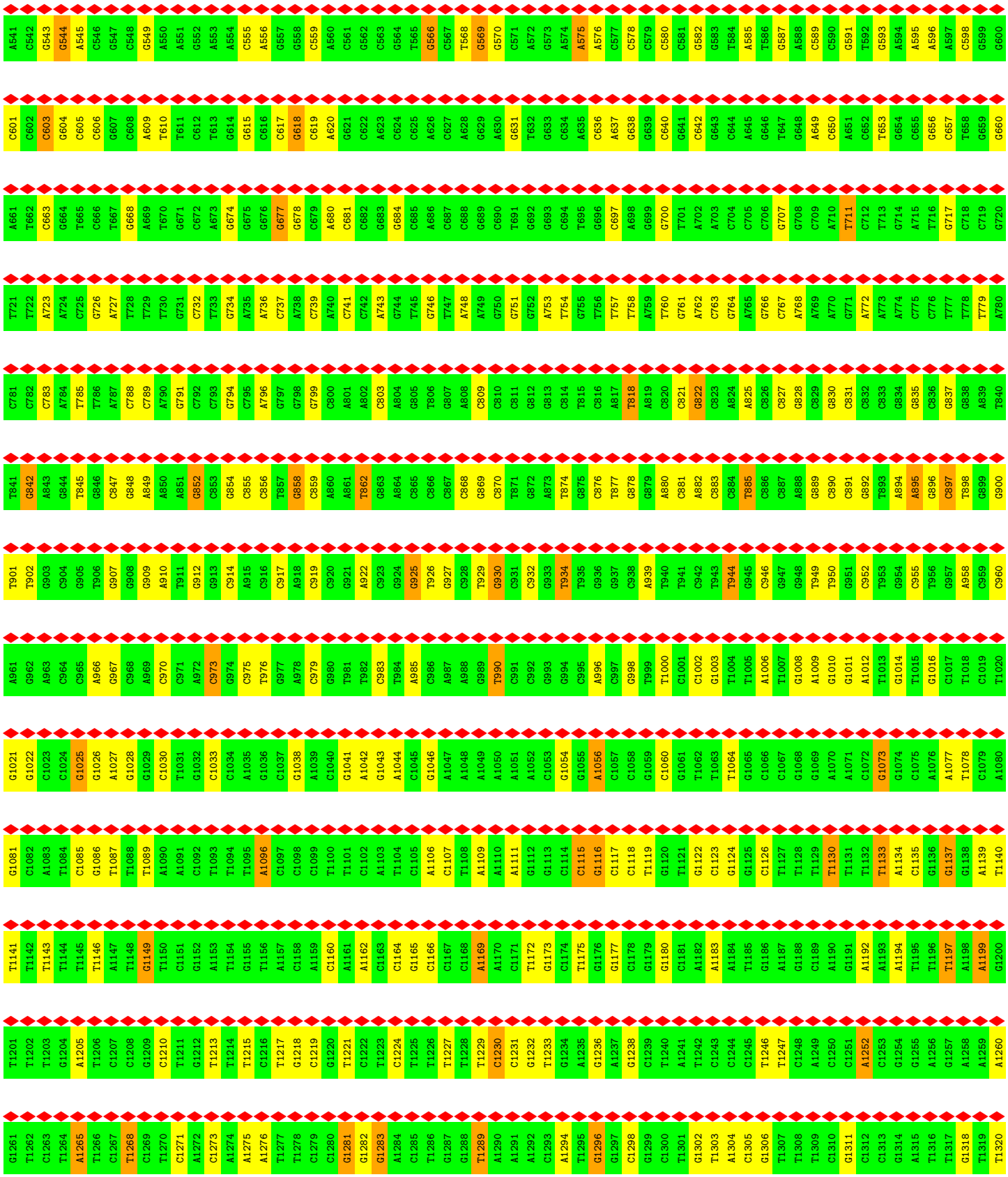
3 Residue-property plots (i)

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: SCAFFOLD STRAND

Chain AA:

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T721 T722 A723 A724 C725 G726 A727 T728 T729 T730 G731 C732 T733 G734 A735 A736 C737 A738 C739 A740 C741 G742 A743 G744 T745 G746 T747 A748 A749 G750 G751 G752 A753 T754 G755 T756 T757 T758 A759 T760 G761 A762 C763 G764 A765 G766 C767 A768 G769 A770 G771 A772 A773 A774 C775 C776 T777 T778 T779 A780
C781 C782 C783 A784 T785 T786 A787 C788 C789 A790 G791 C792 C793 G794 C795 A796 G797 G798 G799 C800 A801 A802 C803 A804 G805 T806 G807 A808 C809 C810 C811 G812 G813 C814 T815 C816 A817 T818 A819 C820 C821 G822 C823 A824 A825 C826 C827 G828 C829 G830 C831 C832 C833 G834 G835 C836 G837 G838 A839 T840
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T901 T902 G903 C904 G905 T906 G907 G908 G909 A910 T911 G912 G913 C914 A915 C916 C917 A918 C919 C920 G921 A922 C923 G924 G925 T926 G927 C928 T929 G930 C931 C932 G933 T934 T935 G936 G937 C938 A939 T940 T941 C942 T943 T944 G945 C946 G947 G948 T949 T950 G951 C952 T953 G954 C955 T956 G957 A958 C959 C960
A961 G962 A963 C964 C965 A966 G967 C968 A969 C970 C971 A972 G973 G974 C975 T976 G977 A978 C979 G980 T981 T982 C983 T984 A985 C986 A987 A988 G989 T990 C991 C992 G993 G994 C995 A996 C997 G998 T999 T1000 C1001 C1002 G1003 T1004 T1005 A1006 T1007 G1008 A1009 G1010 G1011 A1012 T1013 G1014 T1015 G1016 C1017 T1018 C1019 T1020
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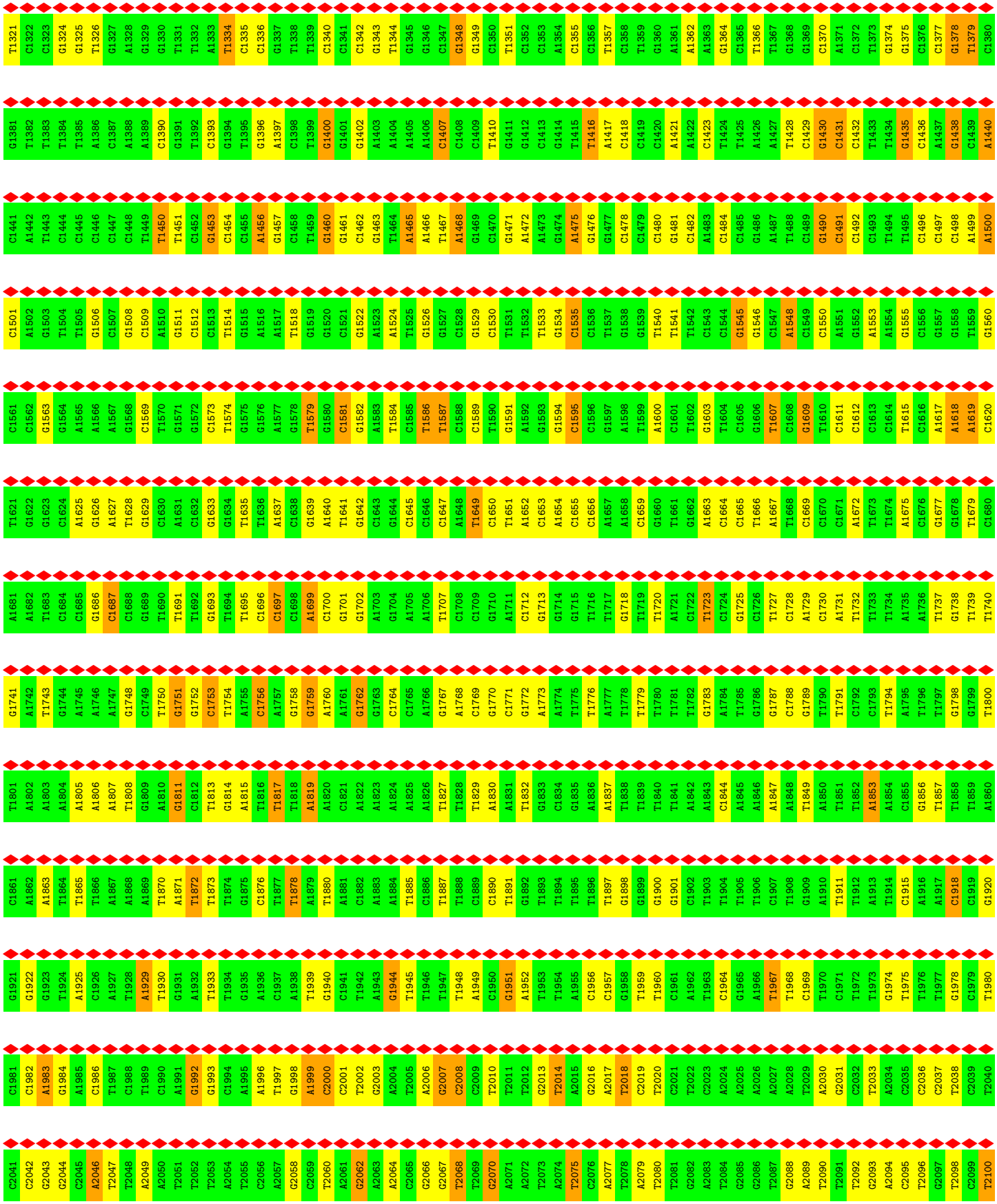
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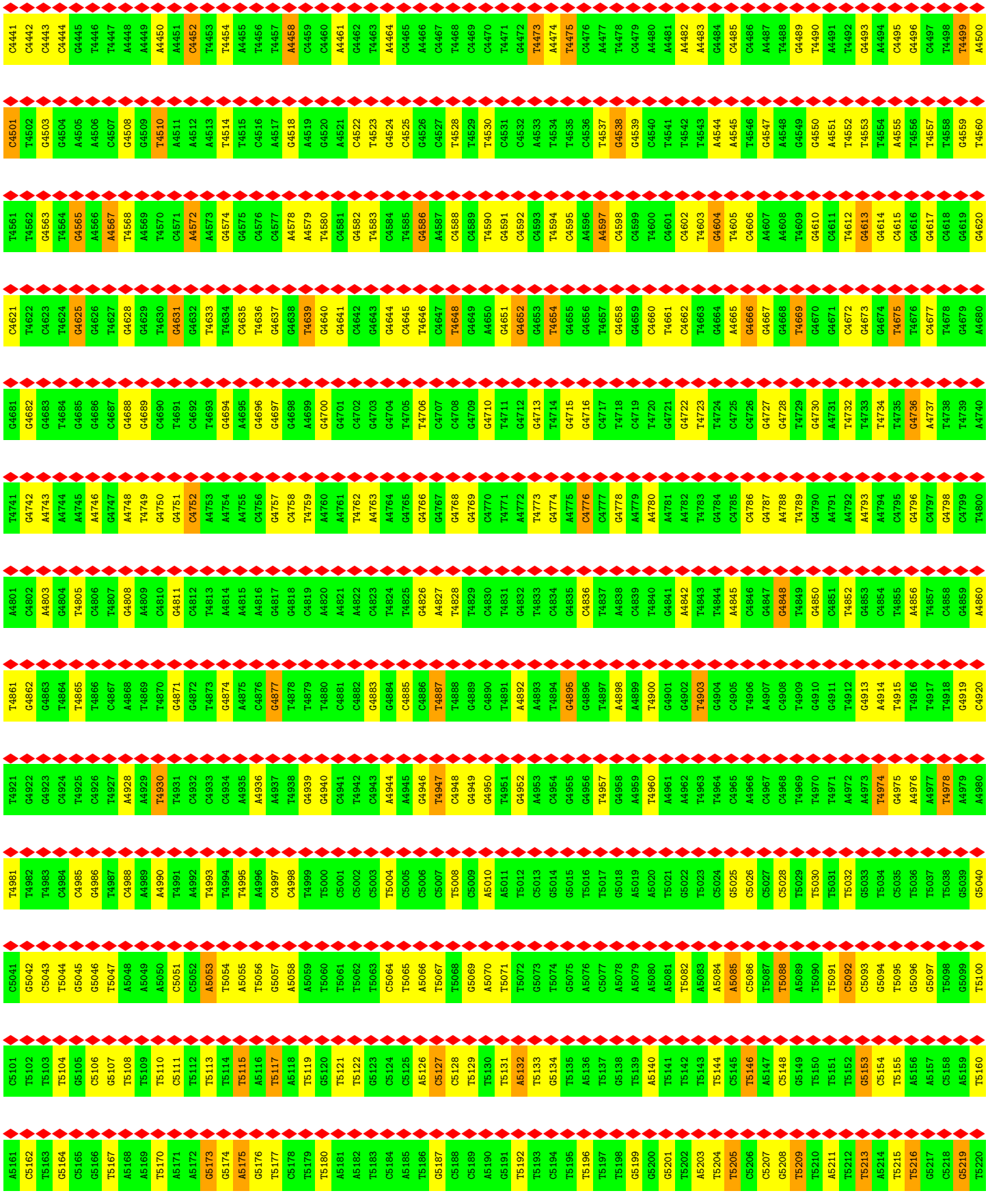
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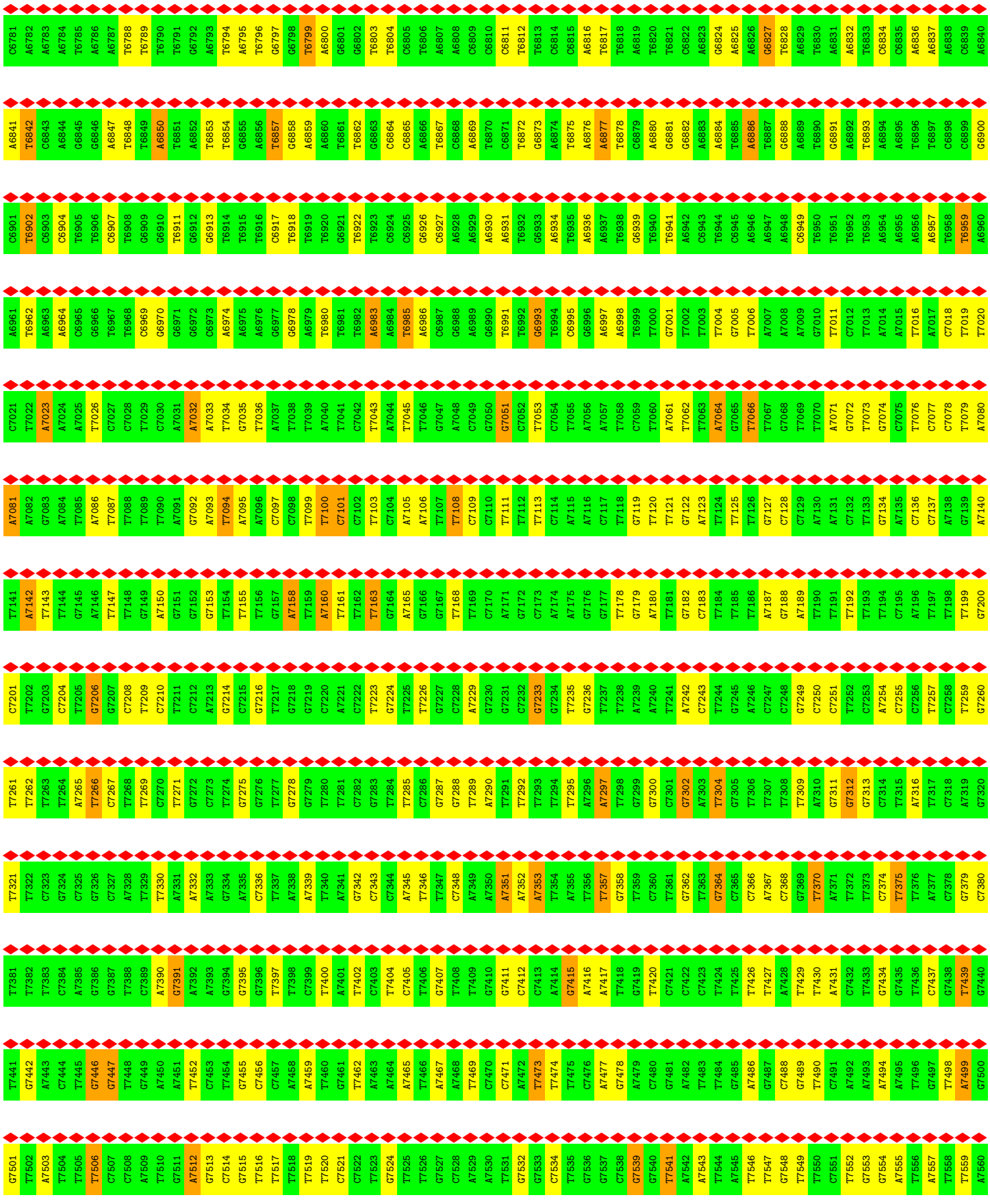
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A6841 T6842 C6843 A6844 G6845 G6846 A6847 T6848 T6849 A6850 T6851 A6852 T6853 T6854 G6855 A6856 T6857 G6858 A6859 A6860 T6861 T6862 G6863 C6864 C6865 A6866 T6867 C6868 A6869 T6870 C6871 T6872 G6873 A6874 T6875 A6876 A6877 T6878 C6879 A6880 G6881 G6882 A6883 A6884 T6885 A6886 T6887 G6888 A6889 T6890 G6891 A6892 T6893 A6894 A6895 T6896 T6897 C6898 C6899 G6900
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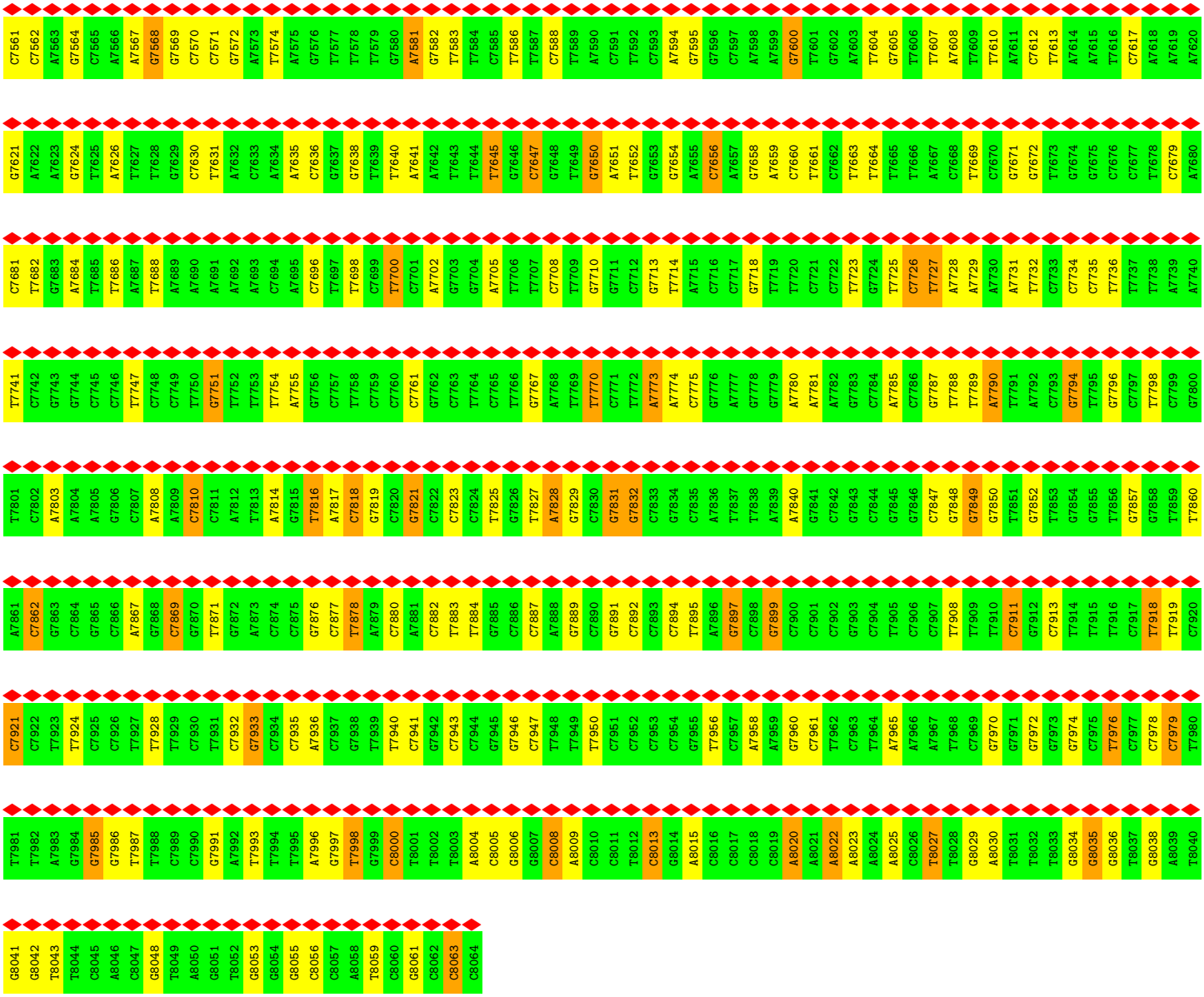
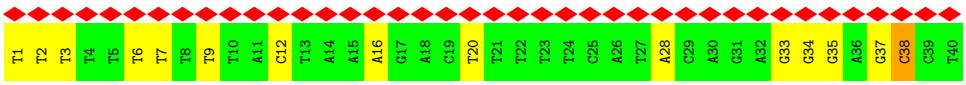


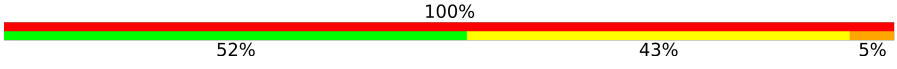
• Molecule 2: STAPLE STRAND

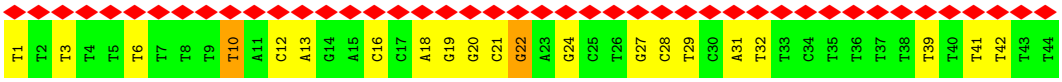
Chain AB:



• Molecule 3: STAPLE STRAND

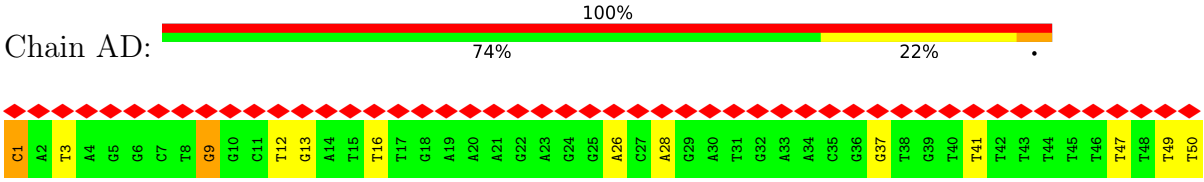
Chain AC:





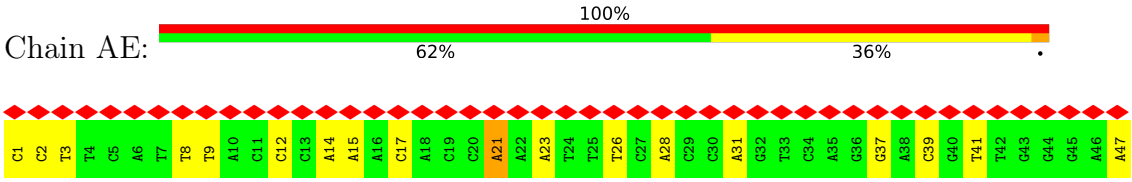
• Molecule 4: STAPLE STRAND

Chain AD:



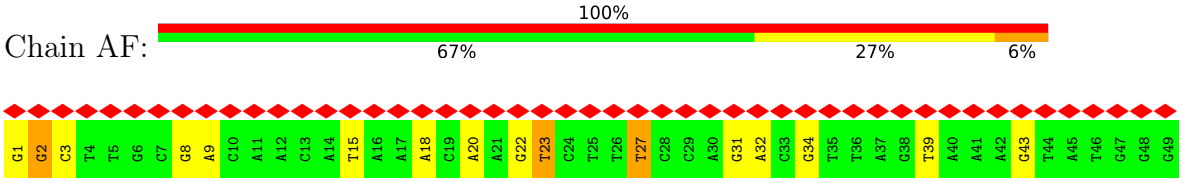
• Molecule 5: STAPLE STRAND

Chain AE:



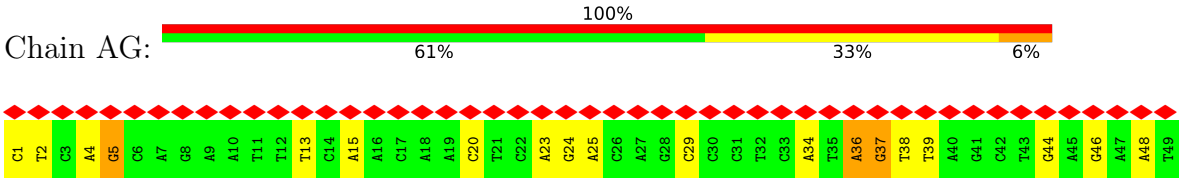
• Molecule 6: STAPLE STRAND

Chain AF:



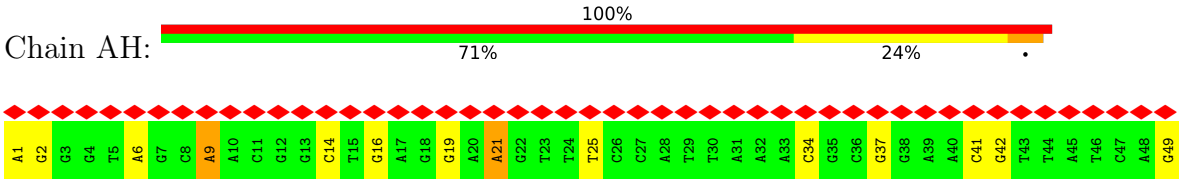
• Molecule 7: STAPLE STRAND

Chain AG:



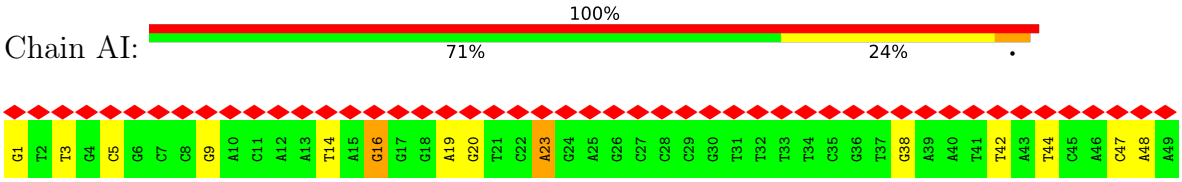
• Molecule 8: STAPLE STRAND

Chain AH:



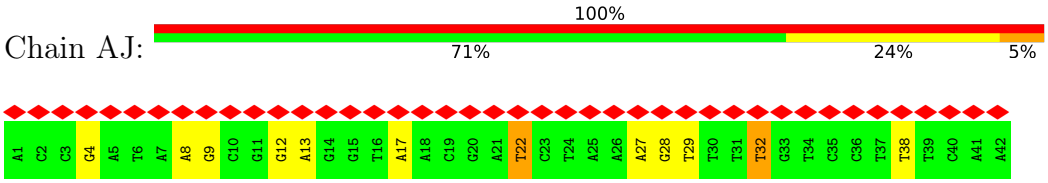
• Molecule 9: STAPLE STRAND

Chain AI:



• Molecule 10: STAPLE STRAND

Chain AJ:

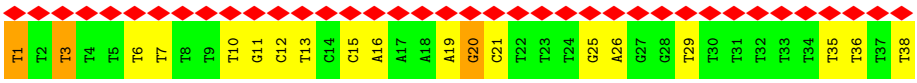


• Molecule 11: STAPLE STRAND

Chain AK:

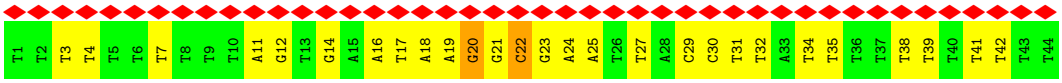
• Molecule 12: STAPLE STRAND

Chain AL:



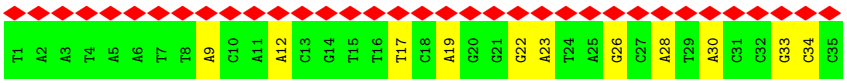
• Molecule 13: STAPLE STRAND

Chain AM:



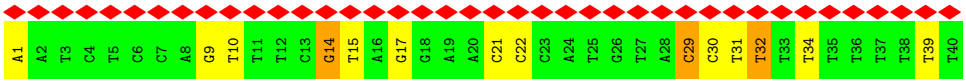
• Molecule 14: STAPLE STRAND

Chain AN:



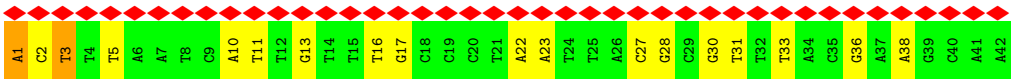
• Molecule 15: STAPLE STRAND

Chain AO:



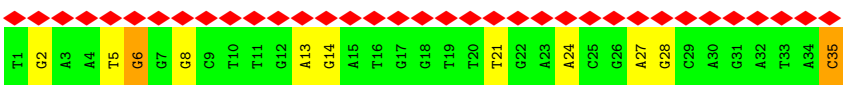
• Molecule 16: STAPLE STRAND

Chain AP:



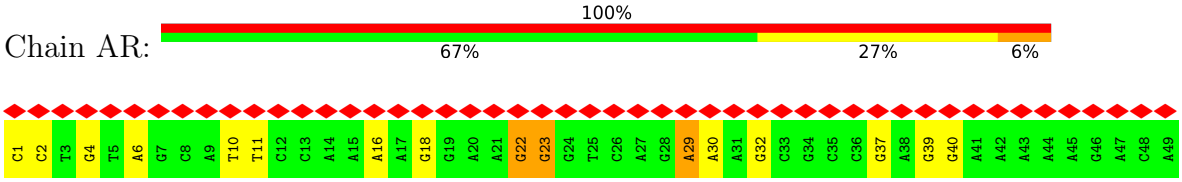
• Molecule 17: STAPLE STRAND

Chain AQ:



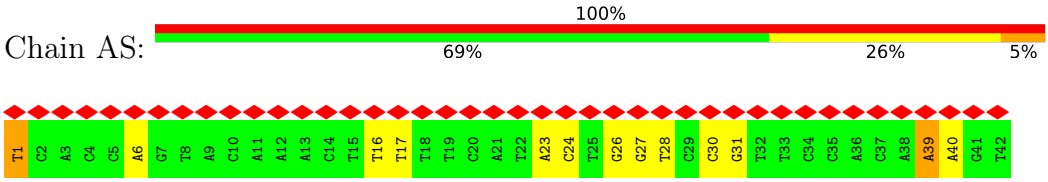
• Molecule 18: STAPLE STRAND

Chain AR:



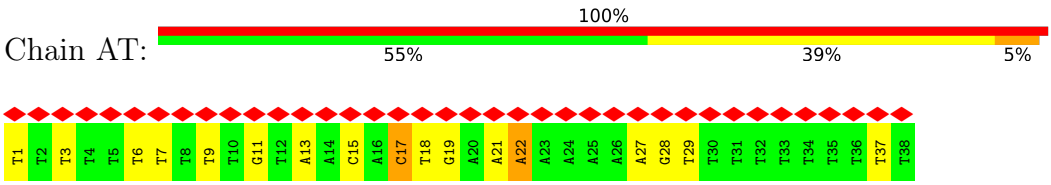
• Molecule 19: STAPLE STRAND

Chain AS:



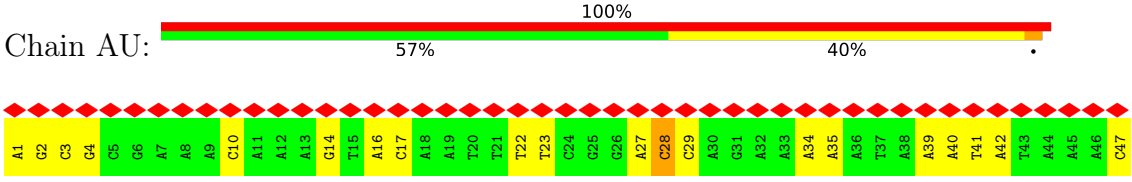
• Molecule 20: STAPLE STRAND

Chain AT:



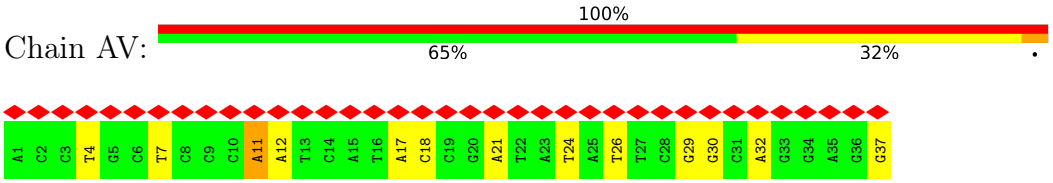
• Molecule 21: STAPLE STRAND

Chain AU:



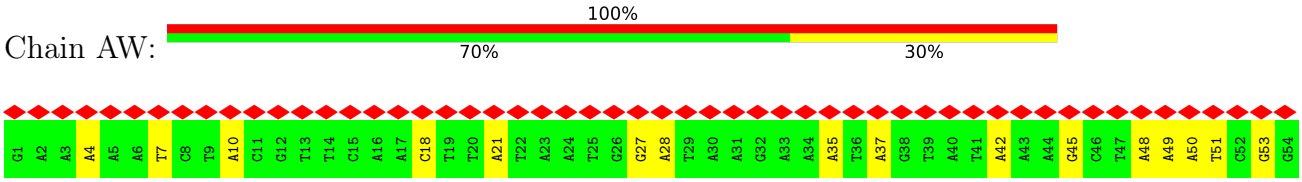
• Molecule 22: STAPLE STRAND

Chain AV:



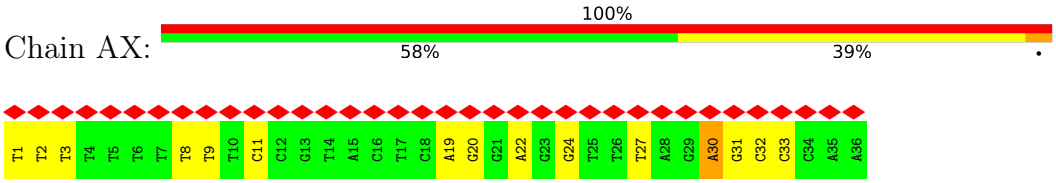
• Molecule 23: STAPLE STRAND

Chain AW:



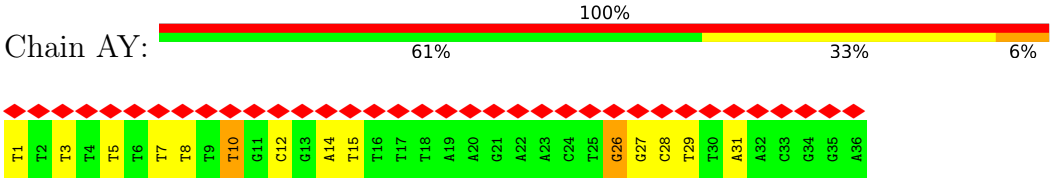
• Molecule 24: STAPLE STRAND

Chain AX:



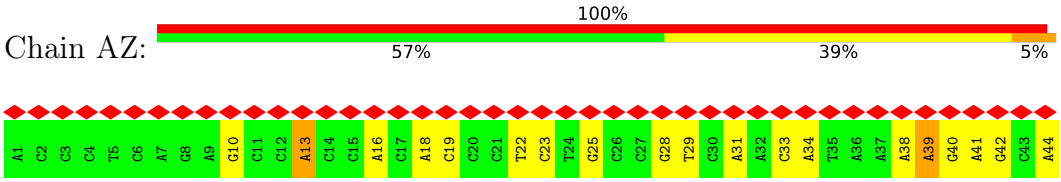
• Molecule 25: STAPLE STRAND

Chain AY:



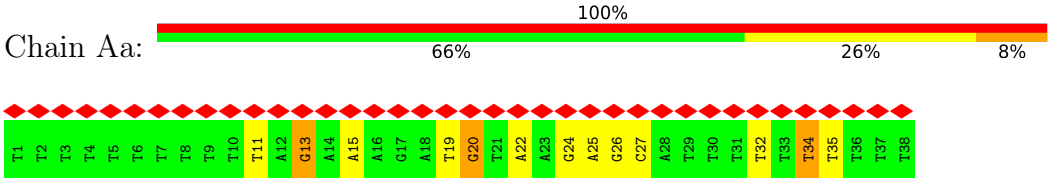
• Molecule 26: STAPLE STRAND

Chain AZ:



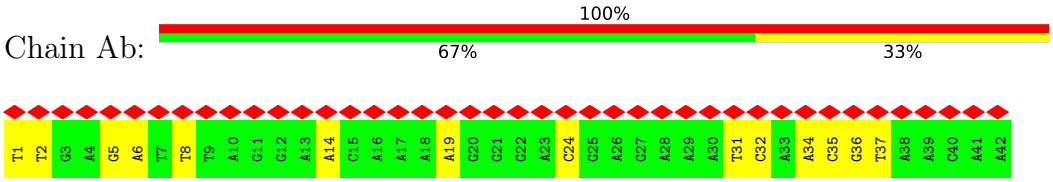
• Molecule 27: STAPLE STRAND

Chain Aa:



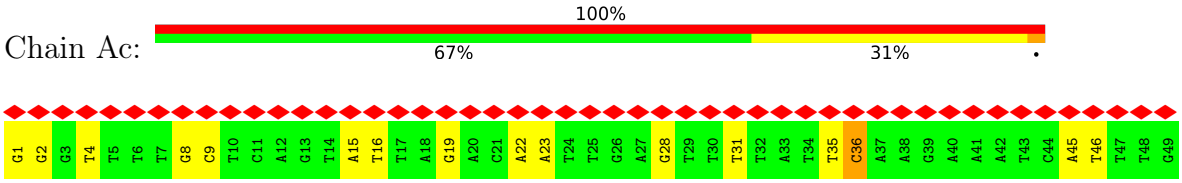
• Molecule 28: STAPLE STRAND

Chain Ab:



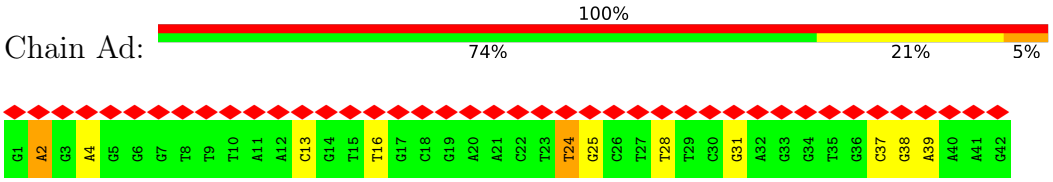
• Molecule 29: STAPLE STRAND

Chain Ac:



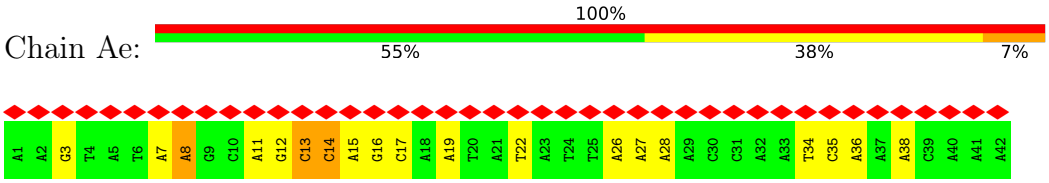
• Molecule 30: STAPLE STRAND

Chain Ad:



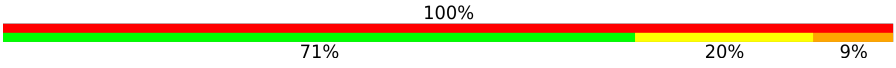
• Molecule 31: STAPLE STRAND

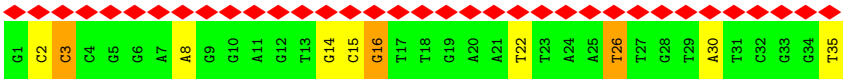
Chain Ae:



• Molecule 32: STAPLE STRAND

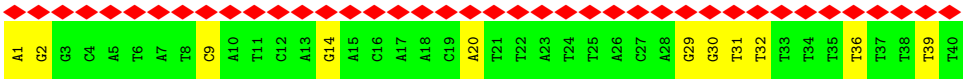
Chain Af:





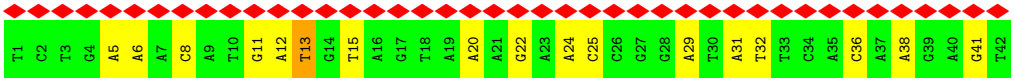
• Molecule 33: STAPLE STRAND

Chain Ag:



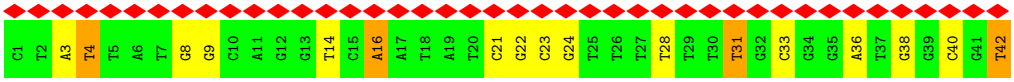
• Molecule 34: STAPLE STRAND

Chain Ah:



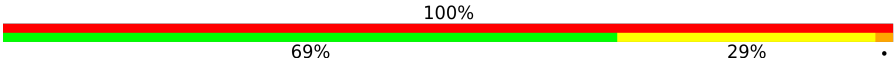
• Molecule 35: STAPLE STRAND

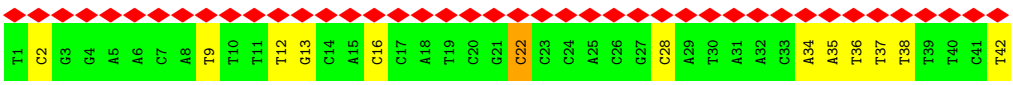
Chain Ai:



• Molecule 36: STAPLE STRAND

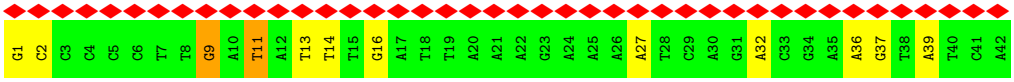
Chain Aj:





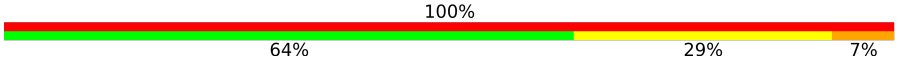
• Molecule 37: STAPLE STRAND

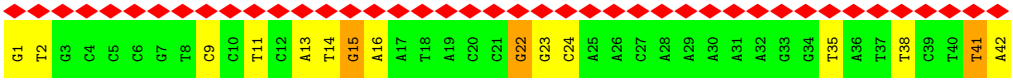
Chain Ak:



• Molecule 38: STAPLE STRAND

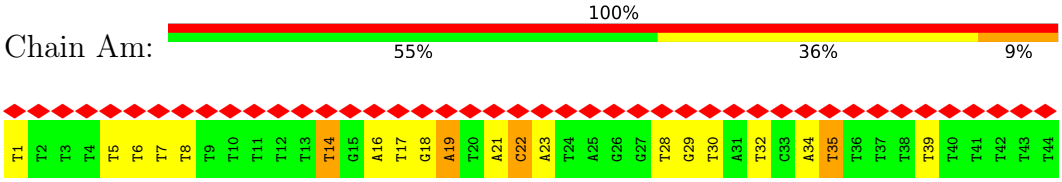
Chain Al:





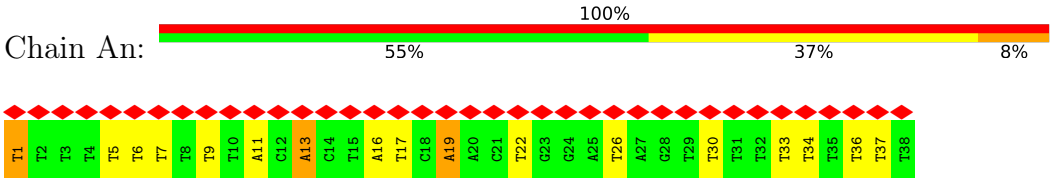
• Molecule 39: STAPLE STRAND

Chain Am:



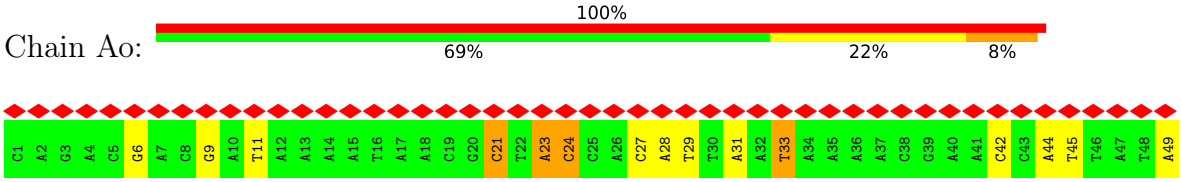
• Molecule 40: STAPLE STRAND

Chain An:



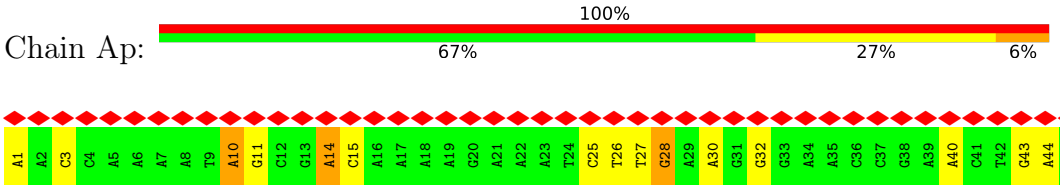
• Molecule 41: STAPLE STRAND

Chain Ao:



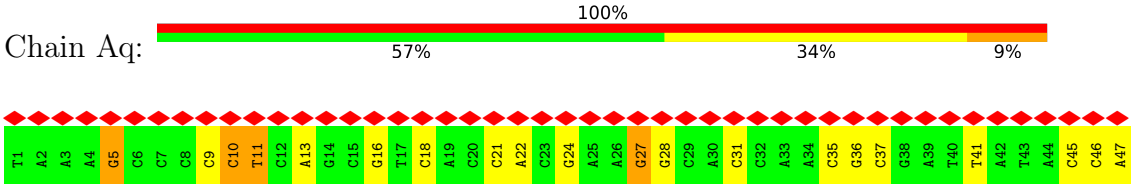
• Molecule 42: STAPLE STRAND

Chain Ap:



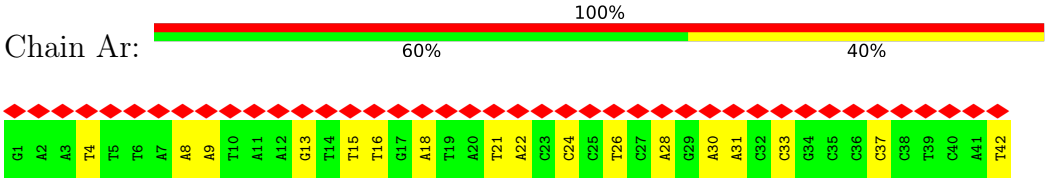
• Molecule 43: STAPLE STRAND

Chain Aq:



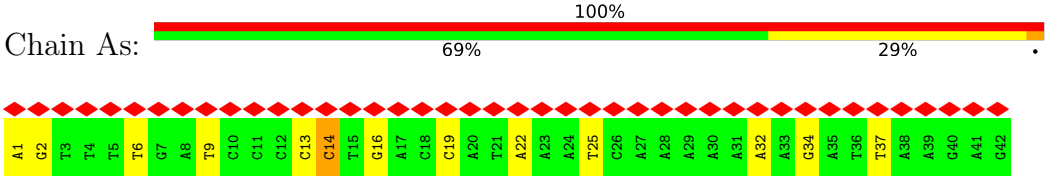
• Molecule 44: STAPLE STRAND

Chain Ar:



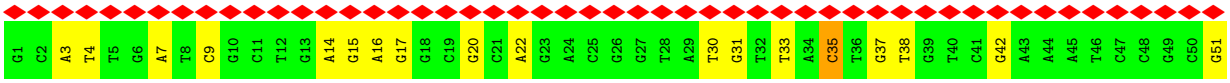
• Molecule 45: STAPLE STRAND

Chain As:



• Molecule 46: STAPLE STRAND

Chain At:

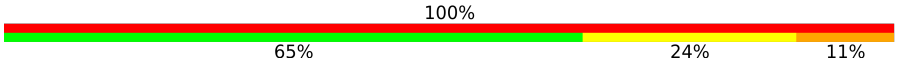


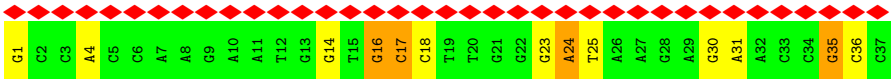
• Molecule 47: STAPLE STRAND

Chain Au:

• Molecule 48: STAPLE STRAND

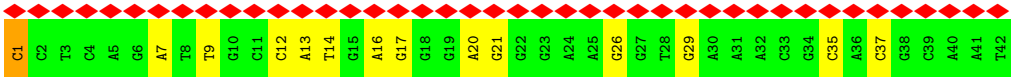
Chain Av:





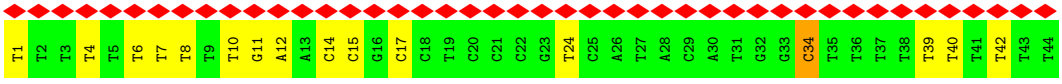
• Molecule 49: STAPLE STRAND

Chain Aw:



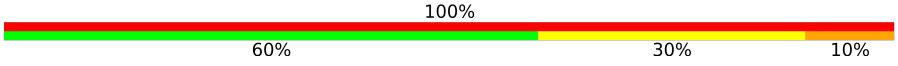
• Molecule 50: STAPLE STRAND

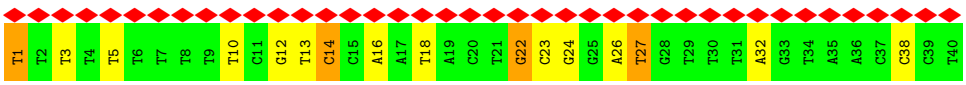
Chain Ax:



• Molecule 51: STAPLE STRAND

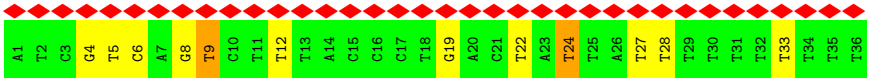
Chain Ay:





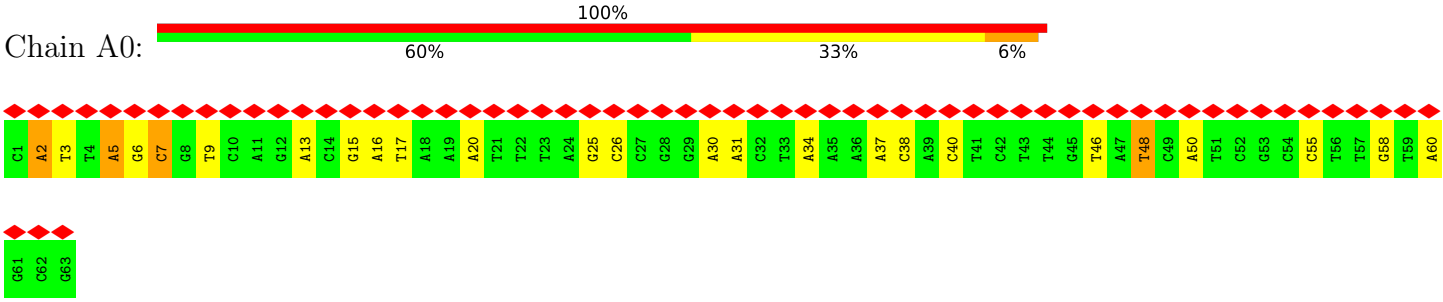
• Molecule 52: STAPLE STRAND

Chain Az:



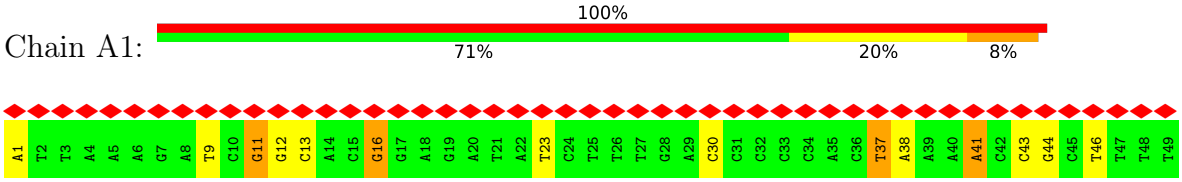
• Molecule 53: STAPLE STRAND

Chain A0:



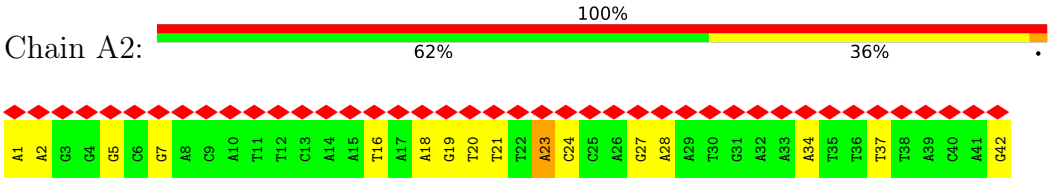
- Molecule 54: STAPLE STRAND

Chain A1:



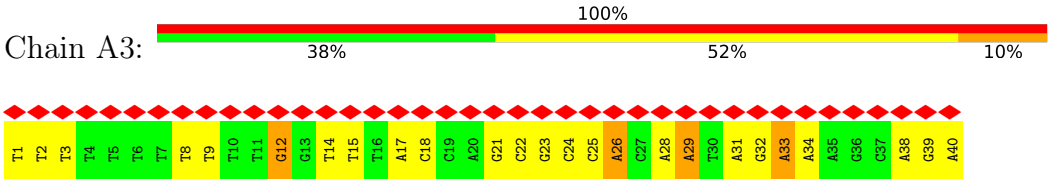
- Molecule 55: STAPLE STRAND

Chain A2:



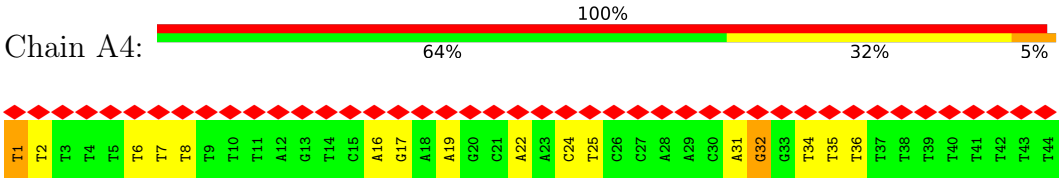
- Molecule 56: STAPLE STRAND

Chain A3:



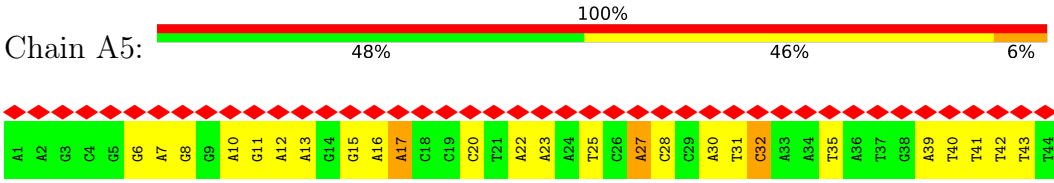
- Molecule 57: STAPLE STRAND

Chain A4:



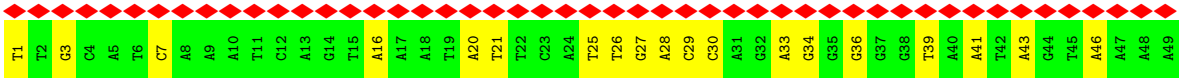
- Molecule 58: STAPLE STRAND

Chain A5:



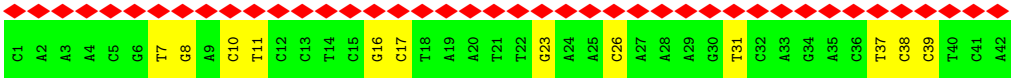
- Molecule 59: STAPLE STRAND

Chain A6:



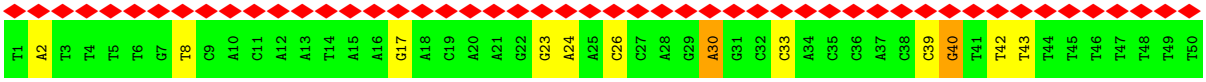
• Molecule 60: STAPLE STRAND

Chain A7:



• Molecule 61: STAPLE STRAND

Chain A8:

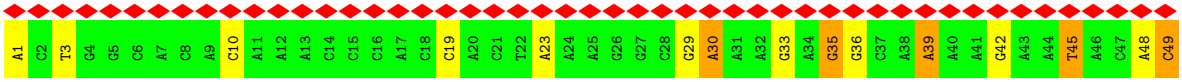


• Molecule 62: STAPLE STRAND

Chain A9:

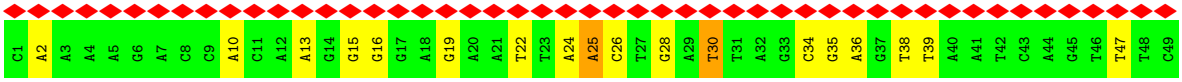
• Molecule 63: STAPLE STRAND

Chain BA:



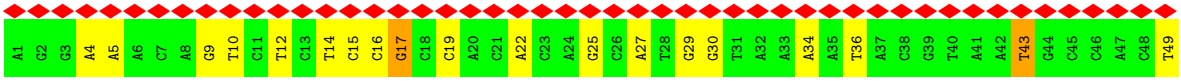
• Molecule 64: STAPLE STRAND

Chain BB:



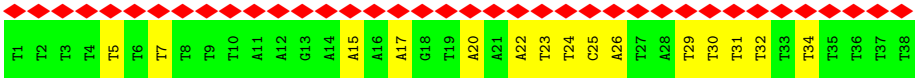
• Molecule 65: STAPLE STRAND

Chain BC:



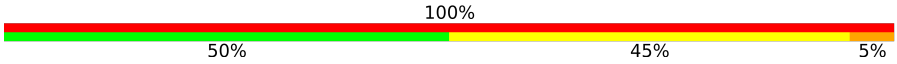
• Molecule 66: STAPLE STRAND

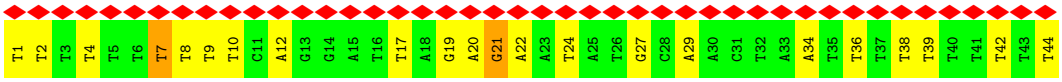
Chain BD:



• Molecule 67: STAPLE STRAND

Chain BE:



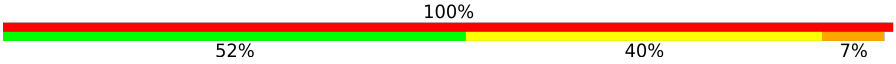


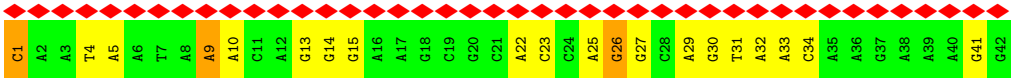
• Molecule 68: STAPLE STRAND

Chain BF:

• Molecule 69: STAPLE STRAND

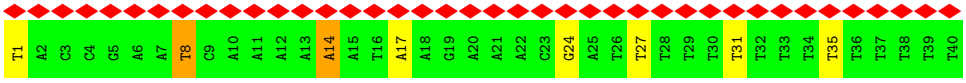
Chain BG:





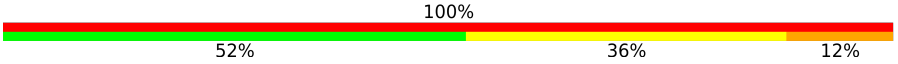
• Molecule 70: STAPLE STRAND

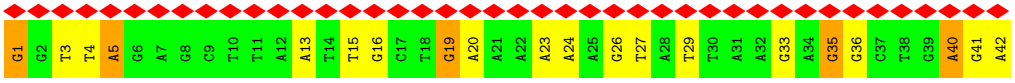
Chain BH:



• Molecule 71: STAPLE STRAND

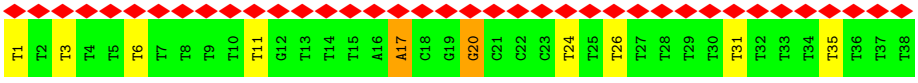
Chain BI:





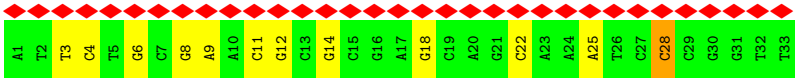
• Molecule 72: STAPLE STRAND

Chain BJ:



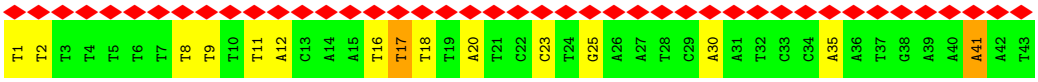
• Molecule 73: STAPLE STRAND

Chain BK:



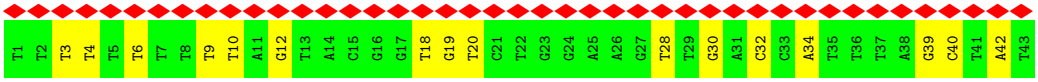
• Molecule 74: STAPLE STRAND

Chain BL:



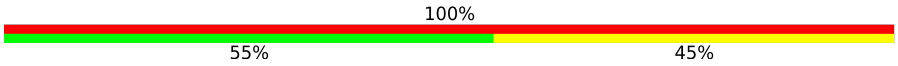
• Molecule 75: STAPLE STRAND

Chain BM:



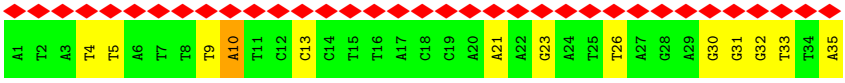
• Molecule 76: STAPLE STRAND

Chain BN:



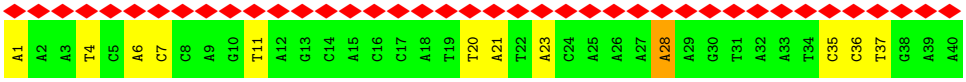
• Molecule 77: STAPLE STRAND

Chain BO:



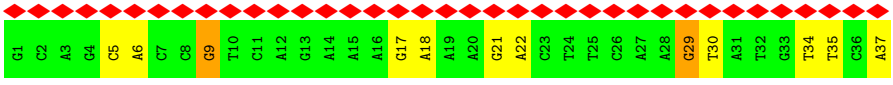
• Molecule 78: STAPLE STRAND

Chain BP:



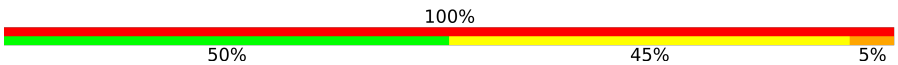
• Molecule 79: STAPLE STRAND

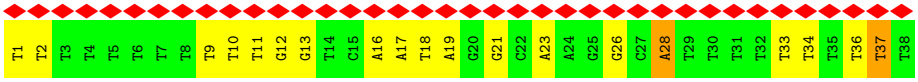
Chain BQ:



• Molecule 80: STAPLE STRAND

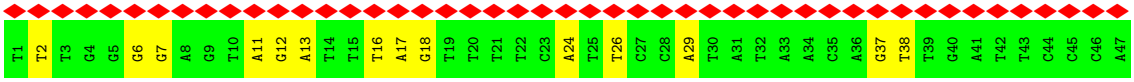
Chain BR:





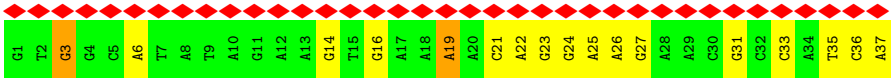
• Molecule 81: STAPLE STRAND

Chain BS:



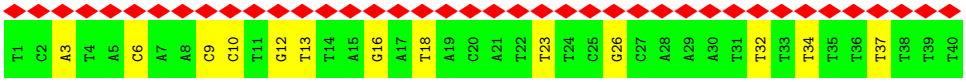
• Molecule 82: STAPLE STRAND

Chain BT:



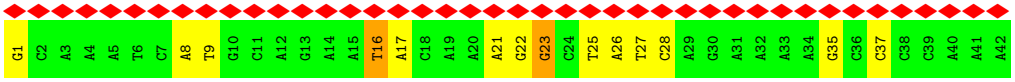
• Molecule 83: STAPLE STRAND

Chain BU:



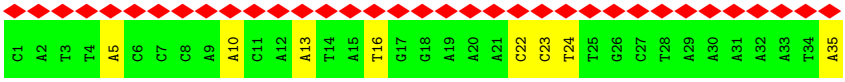
• Molecule 84: STAPLE STRAND

Chain BV:



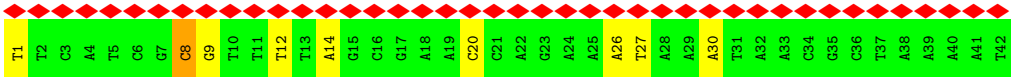
• Molecule 85: STAPLE STRAND

Chain BW:



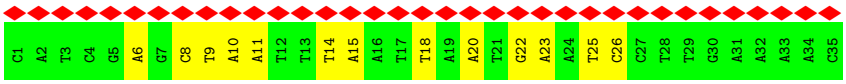
• Molecule 86: STAPLE STRAND

Chain BX:

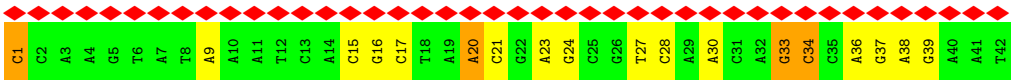


• Molecule 87: STAPLE STRAND

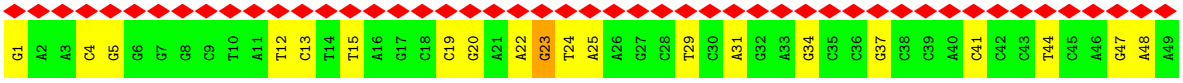
Chain BY:



• Molecule 88: STAPLE STRAND

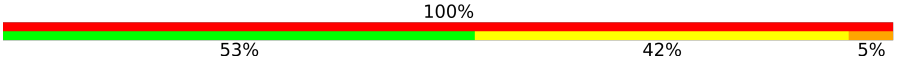


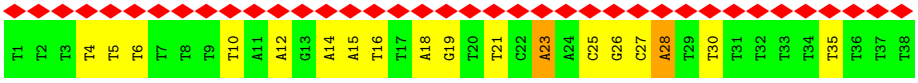
• Molecule 89: STAPLE STRAND



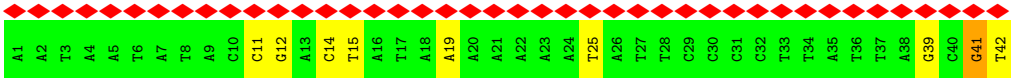
• Molecule 90: STAPLE STRAND

• Molecule 91: STAPLE STRAND

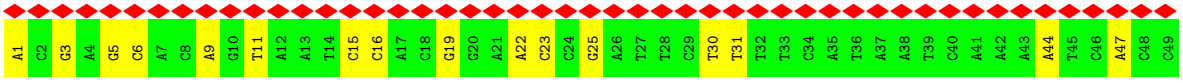




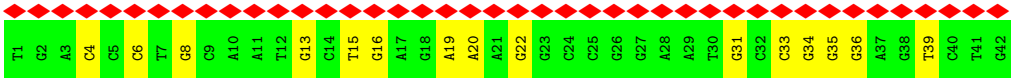
• Molecule 92: STAPLE STRAND



• Molecule 93: STAPLE STRAND

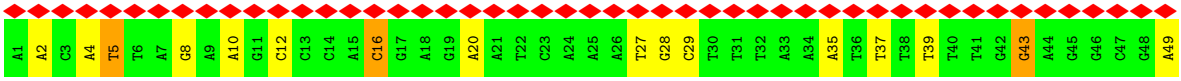


• Molecule 94: STAPLE STRAND



• Molecule 95: STAPLE STRAND

Chain Bg:

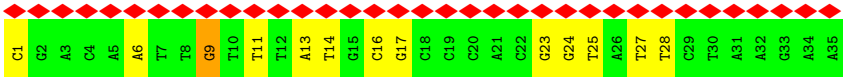


• Molecule 96: STAPLE STRAND

Chain Bh:

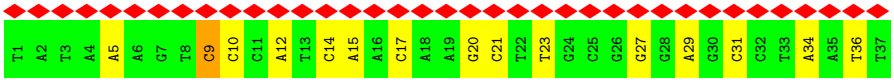
• Molecule 97: STAPLE STRAND

Chain Bi:



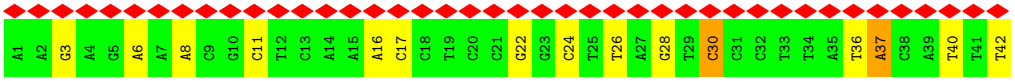
• Molecule 98: STAPLE STRAND

Chain Bj:



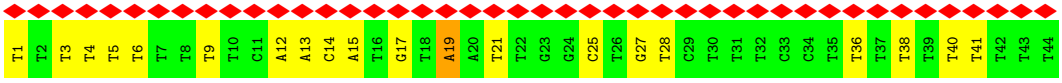
• Molecule 99: STAPLE STRAND

Chain Bk:



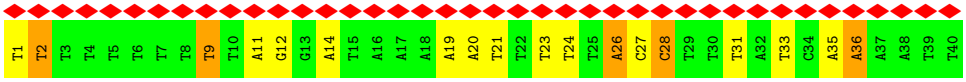
• Molecule 100: STAPLE STRAND

Chain Bl:



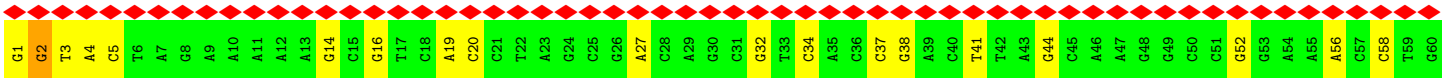
• Molecule 101: STAPLE STRAND

Chain Bm:



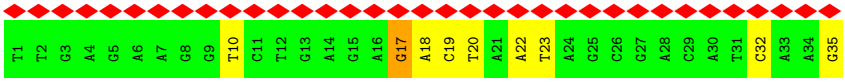
• Molecule 102: STAPLE STRAND

Chain Bn:



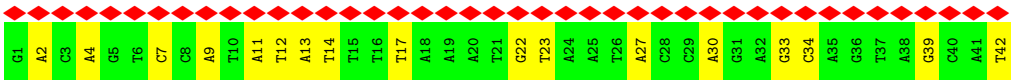
• Molecule 103: STAPLE STRAND

Chain Bo:



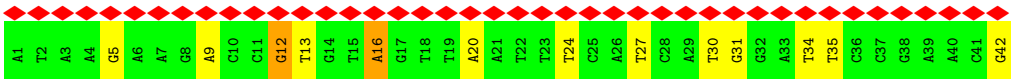
• Molecule 104: STAPLE STRAND

Chain Bp:



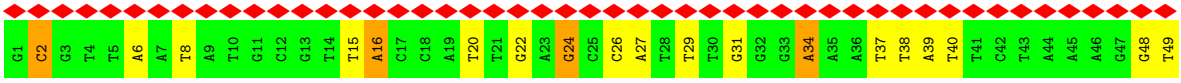
• Molecule 105: STAPLE STRAND

Chain Bq:



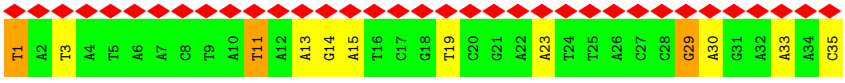
• Molecule 106: STAPLE STRAND

Chain Br:



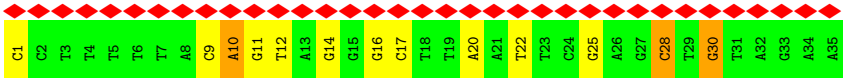
• Molecule 107: STAPLE STRAND

Chain Bs:



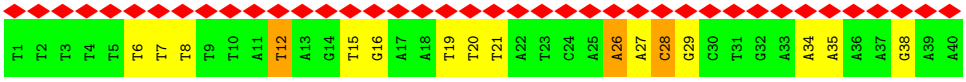
• Molecule 108: STAPLE STRAND

Chain Bt:



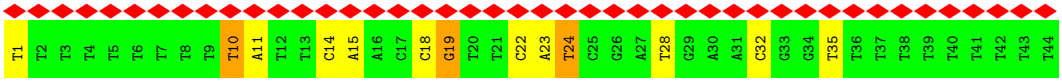
• Molecule 109: STAPLE STRAND

Chain Bu:



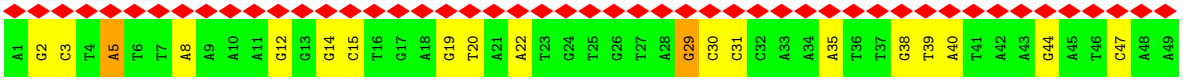
• Molecule 110: STAPLE STRAND

Chain Bv:



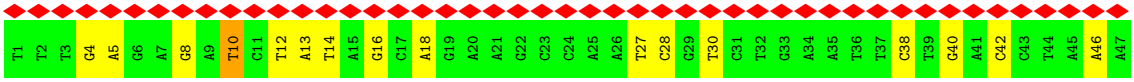
• Molecule 111: STAPLE STRAND

Chain Bw:



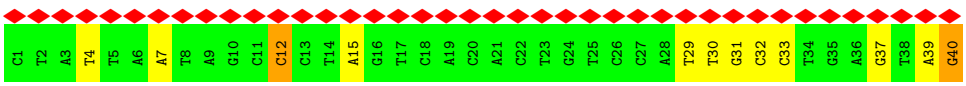
• Molecule 112: STAPLE STRAND

Chain Bx:



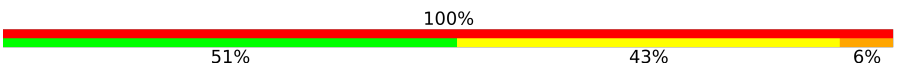
• Molecule 113: STAPLE STRAND

Chain By:



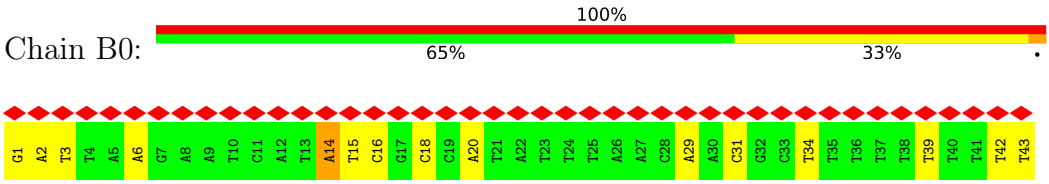
• Molecule 114: STAPLE STRAND

Chain Bz:



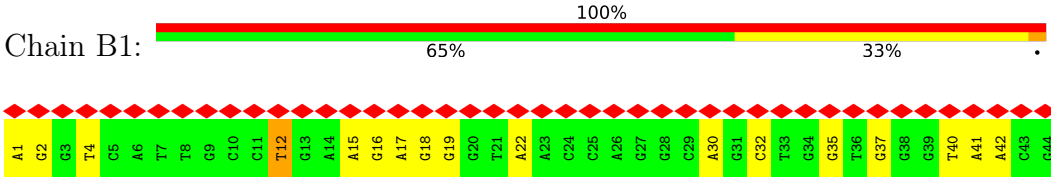
• Molecule 115: STAPLE STRAND

Chain B0:



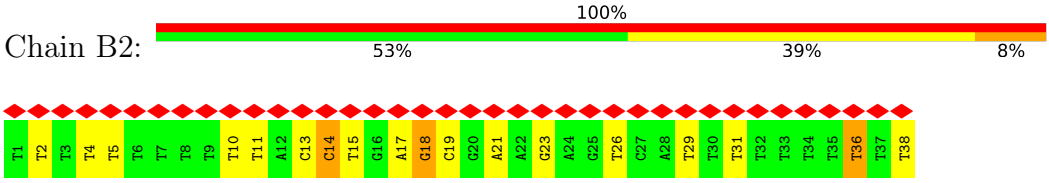
• Molecule 116: STAPLE STRAND

Chain B1:



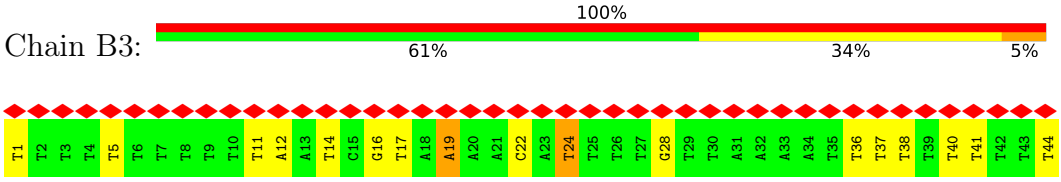
• Molecule 117: STAPLE STRAND

Chain B2:



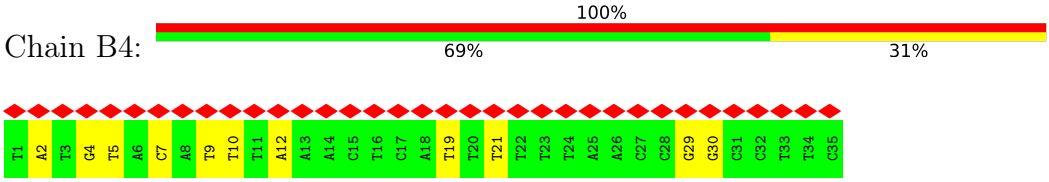
• Molecule 118: STAPLE STRAND

Chain B3:



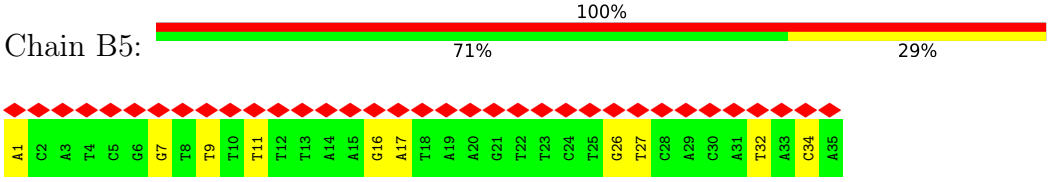
• Molecule 119: STAPLE STRAND

Chain B4:



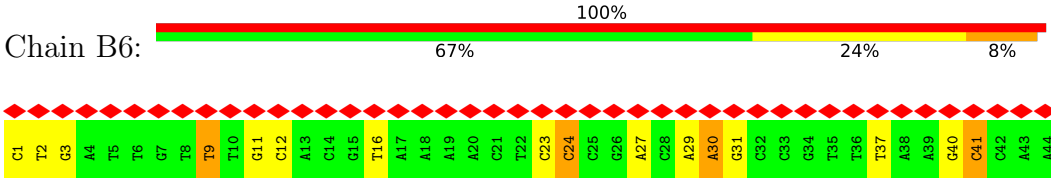
• Molecule 120: STAPLE STRAND

Chain B5:



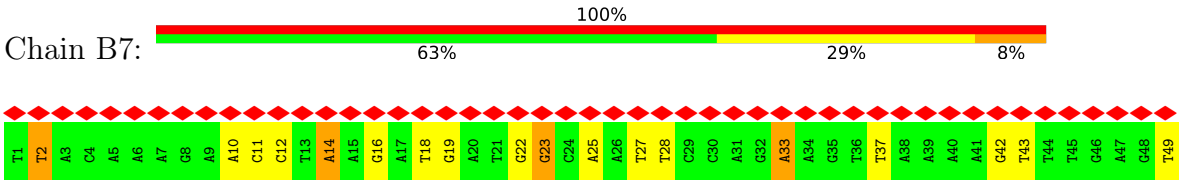
• Molecule 121: STAPLE STRAND

Chain B6:



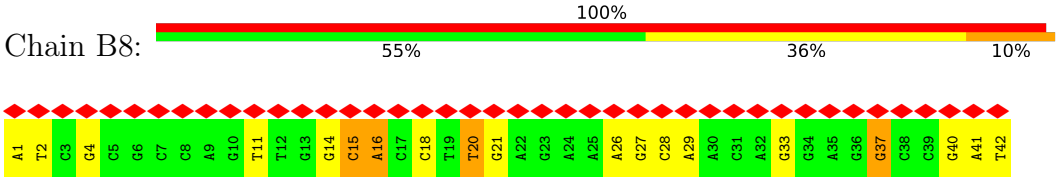
• Molecule 122: STAPLE STRAND

Chain B7:



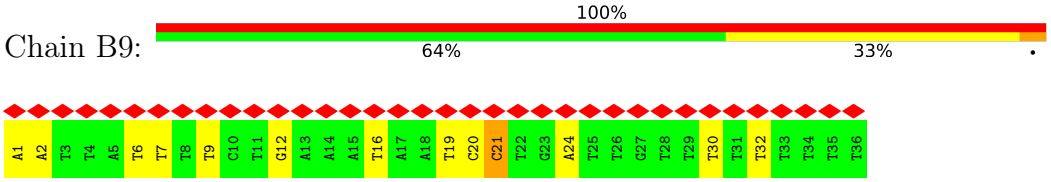
• Molecule 123: STAPLE STRAND

Chain B8:



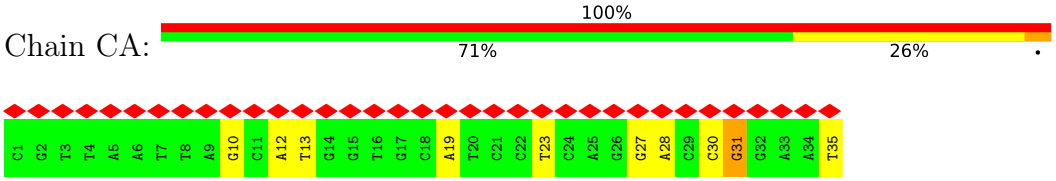
• Molecule 124: STAPLE STRAND

Chain B9:



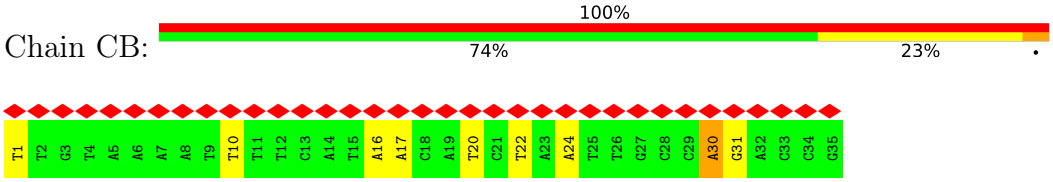
• Molecule 125: STAPLE STRAND

Chain CA:



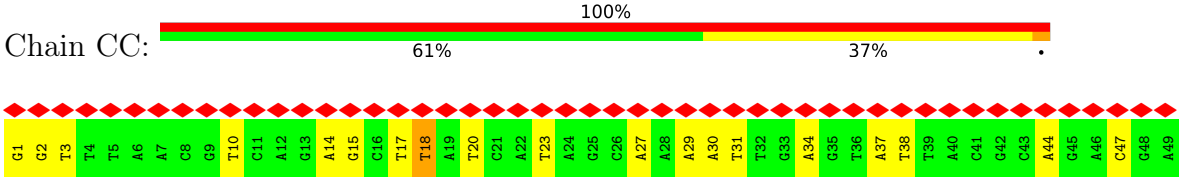
• Molecule 126: STAPLE STRAND

Chain CB:



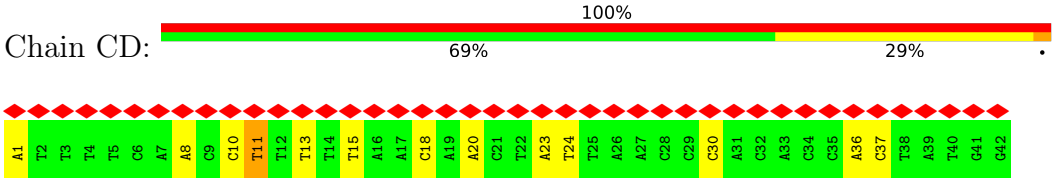
• Molecule 127: STAPLE STRAND

Chain CC:



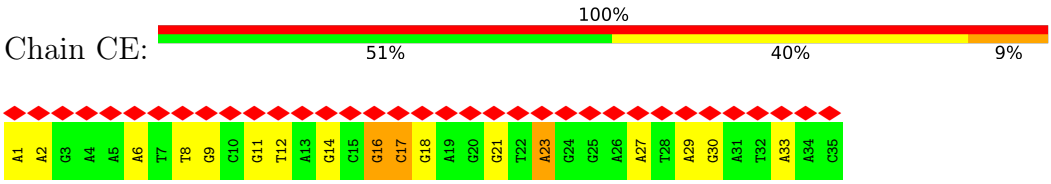
• Molecule 128: STAPLE STRAND

Chain CD:



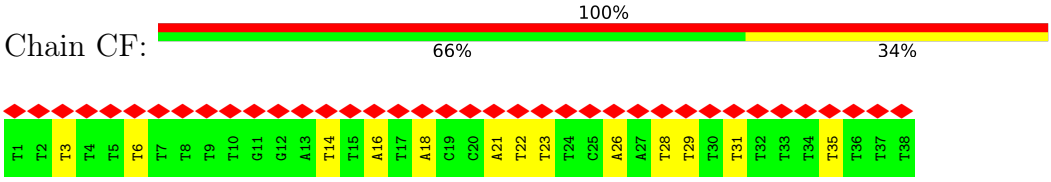
• Molecule 129: STAPLE STRAND

Chain CE:



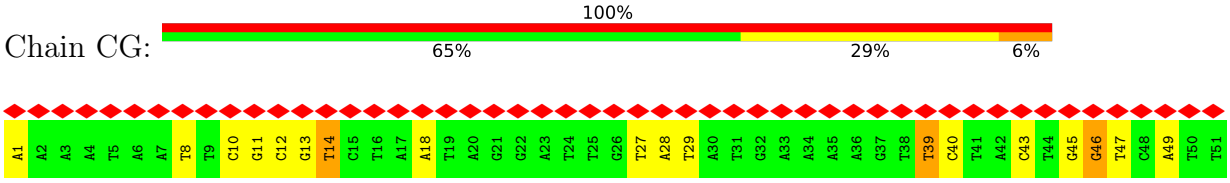
• Molecule 130: STAPLE STRAND

Chain CF:



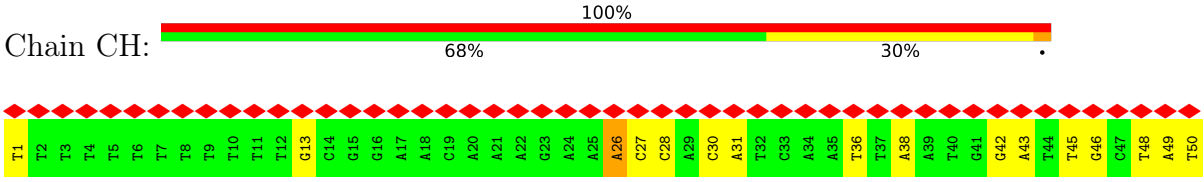
• Molecule 131: STAPLE STRAND

Chain CG:



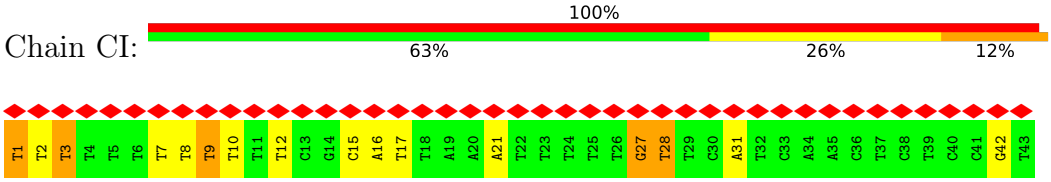
• Molecule 132: STAPLE STRAND

Chain CH:



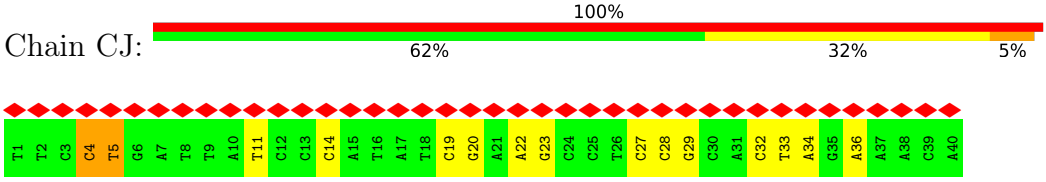
• Molecule 133: STAPLE STRAND

Chain CI:



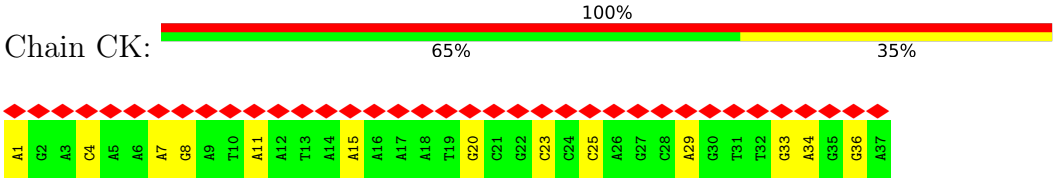
• Molecule 134: STAPLE STRAND

Chain CJ:



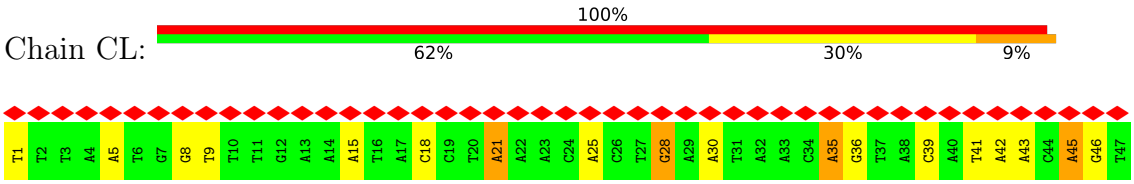
• Molecule 135: STAPLE STRAND

Chain CK:



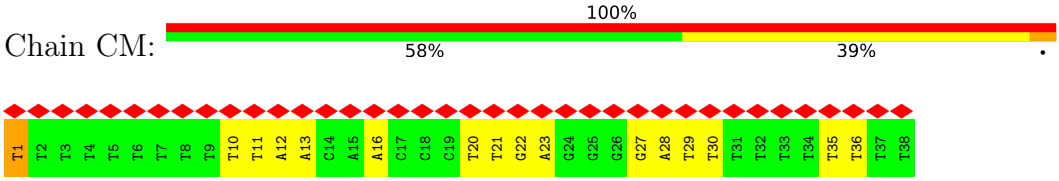
• Molecule 136: STAPLE STRAND

Chain CL:



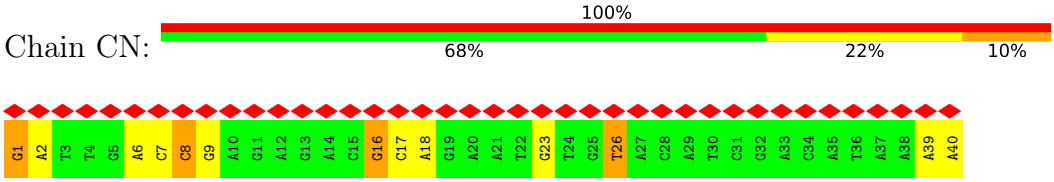
• Molecule 137: STAPLE STRAND

Chain CM:



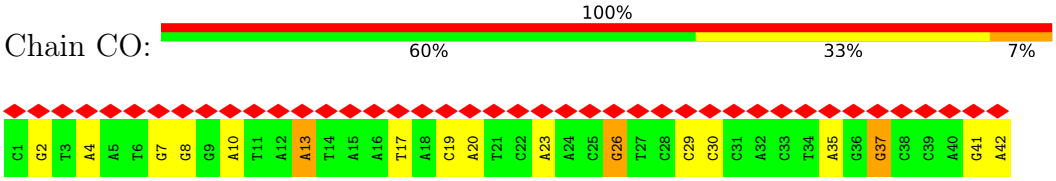
• Molecule 138: STAPLE STRAND

Chain CN:



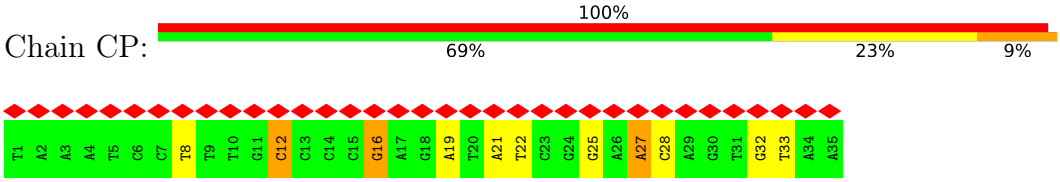
• Molecule 139: STAPLE STRAND

Chain CO:



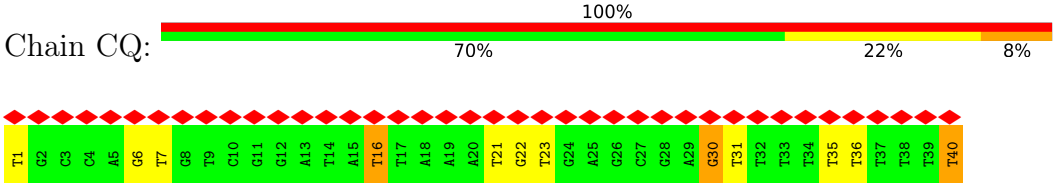
• Molecule 140: STAPLE STRAND

Chain CP:



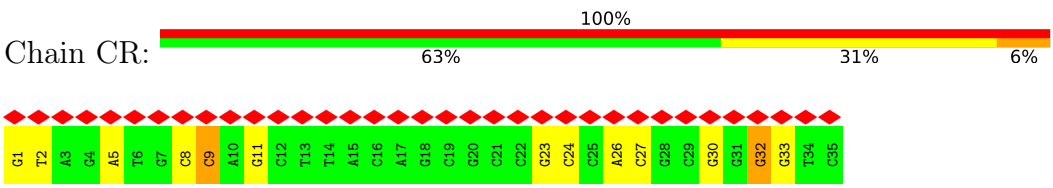
• Molecule 141: STAPLE STRAND

Chain CQ:



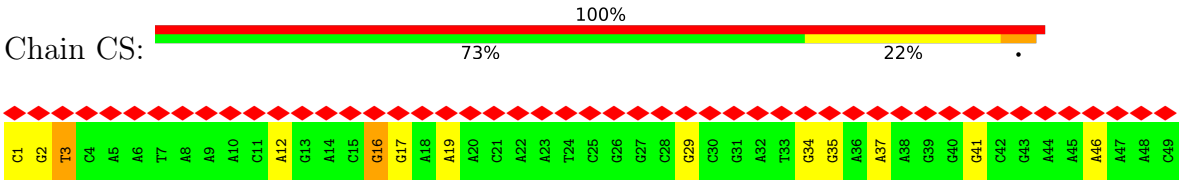
• Molecule 142: STAPLE STRAND

Chain CR:



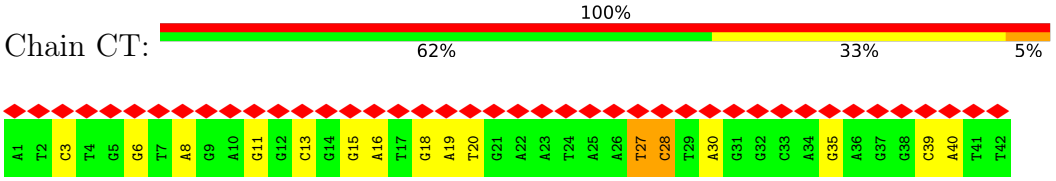
• Molecule 143: STAPLE STRAND

Chain CS:



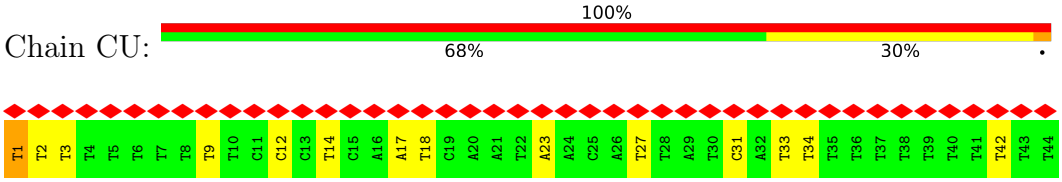
• Molecule 144: STAPLE STRAND

Chain CT:



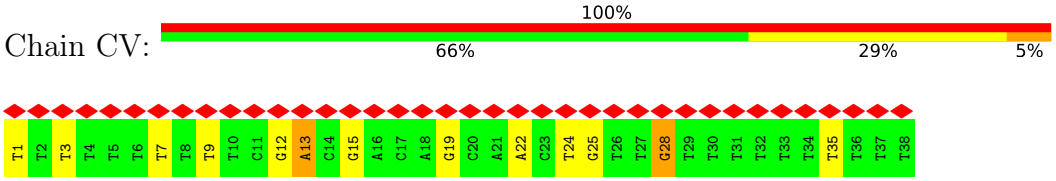
• Molecule 145: STAPLE STRAND

Chain CU:



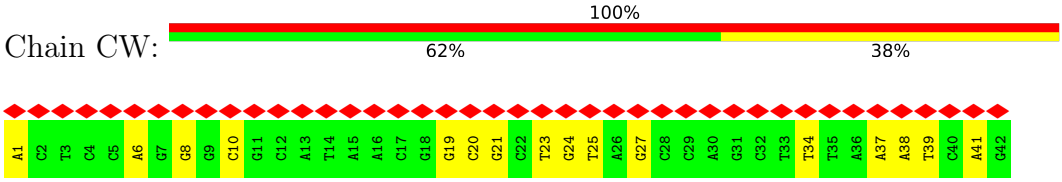
• Molecule 146: STAPLE STRAND

Chain CV:



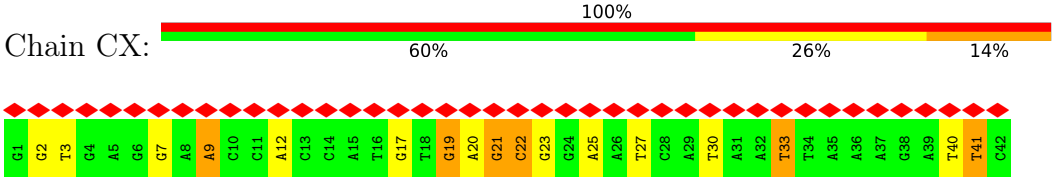
• Molecule 147: STAPLE STRAND

Chain CW:



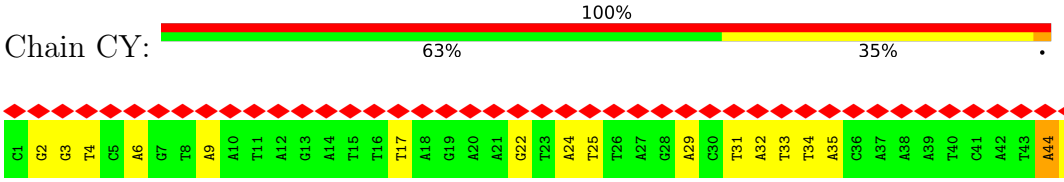
• Molecule 148: STAPLE STRAND

Chain CX:



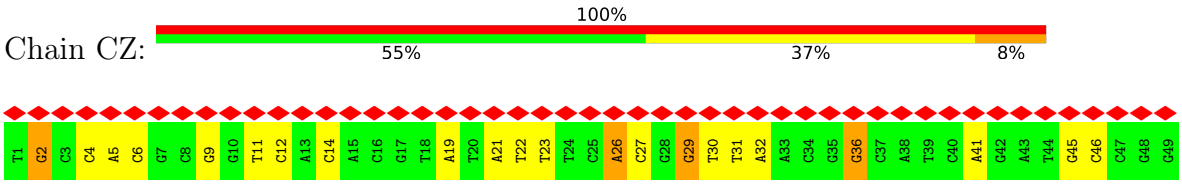
• Molecule 149: STAPLE STRAND

Chain CY:



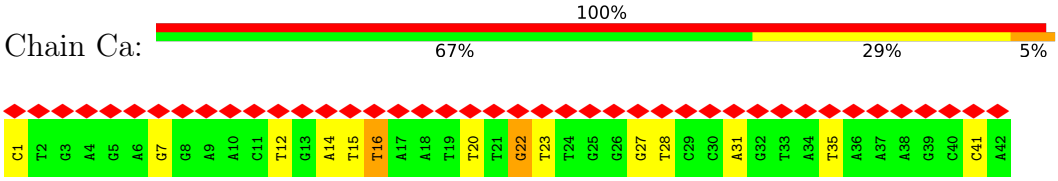
• Molecule 150: STAPLE STRAND

Chain CZ:



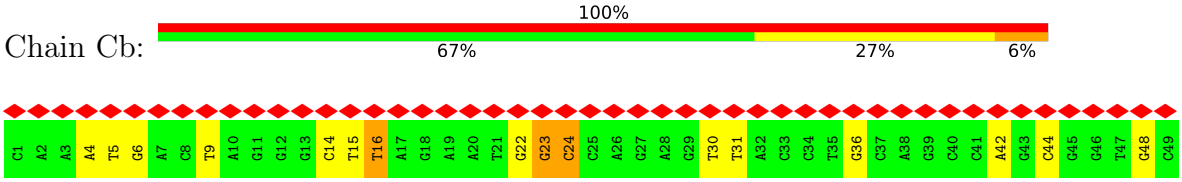
• Molecule 151: STAPLE STRAND

Chain Ca:



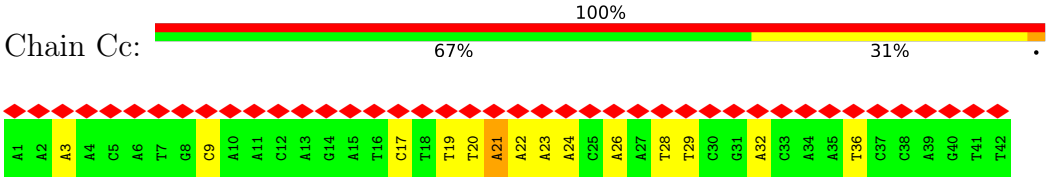
• Molecule 152: STAPLE STRAND

Chain Cb:



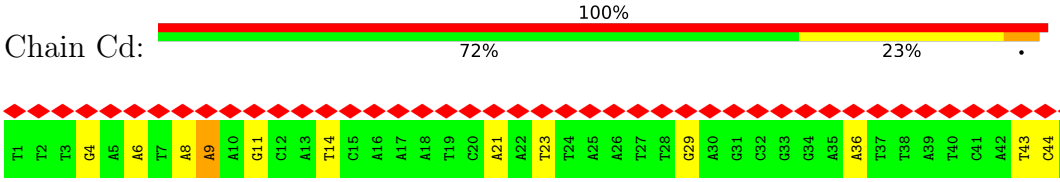
• Molecule 153: STAPLE STRAND

Chain Cc:



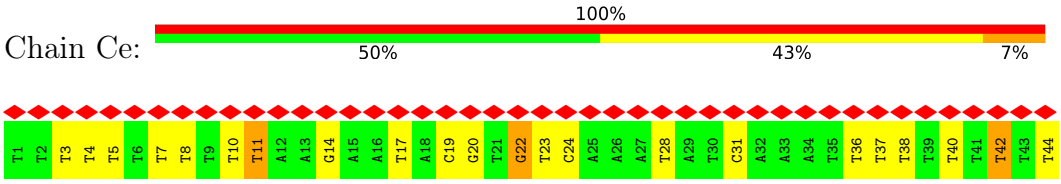
• Molecule 154: STAPLE STRAND

Chain Cd:



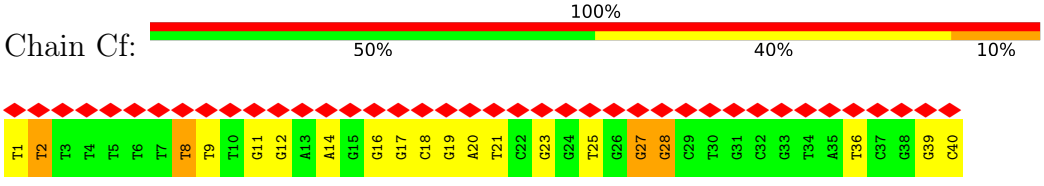
• Molecule 155: STAPLE STRAND

Chain Ce:



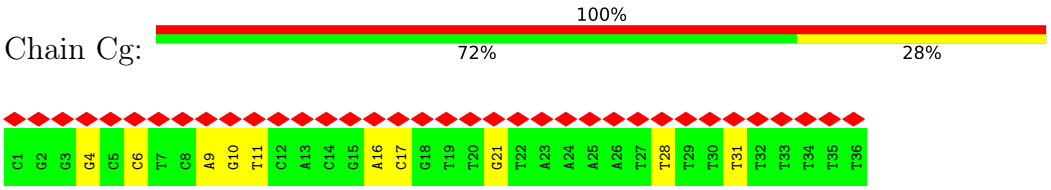
• Molecule 156: STAPLE STRAND

Chain Cf:



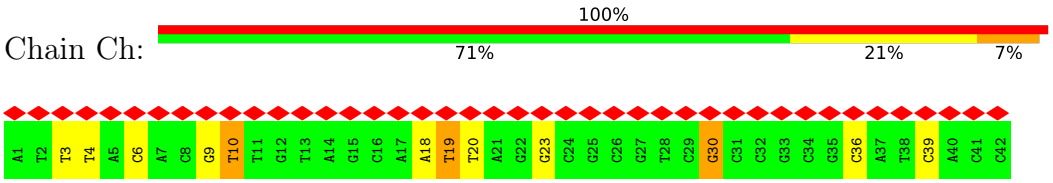
• Molecule 157: STAPLE STRAND

Chain Cg:



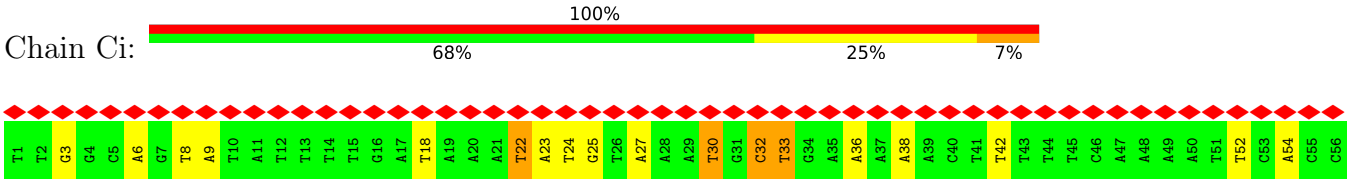
• Molecule 158: STAPLE STRAND

Chain Ch:



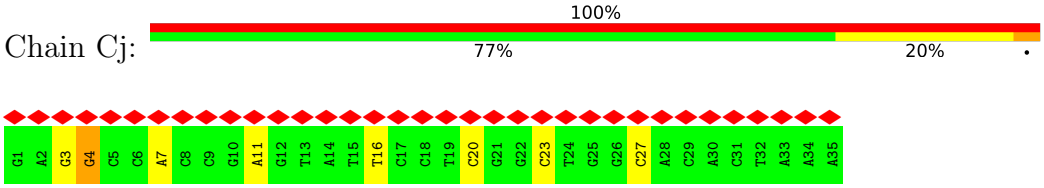
• Molecule 159: STAPLE STRAND

Chain Ci:



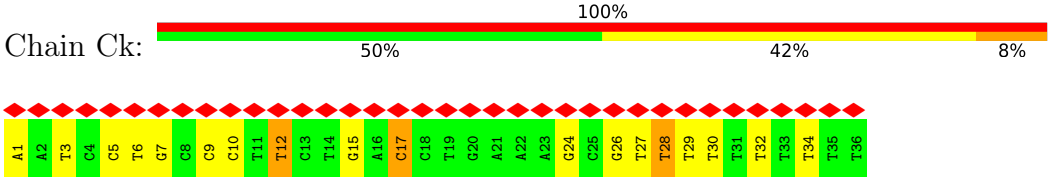
• Molecule 160: STAPLE STRAND

Chain Cj:



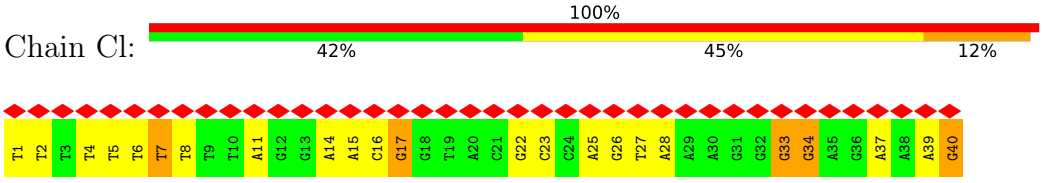
• Molecule 161: STAPLE STRAND

Chain Ck:



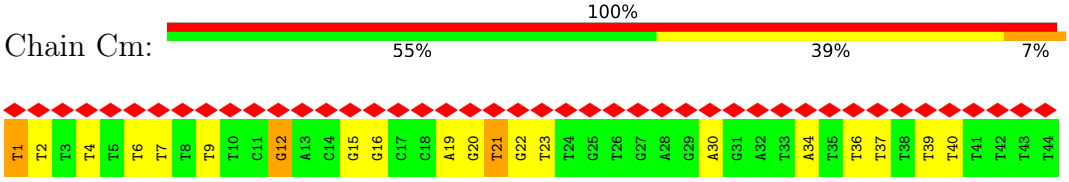
• Molecule 162: STAPLE STRAND

Chain Cl:



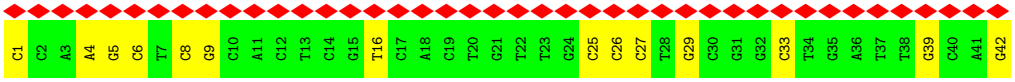
• Molecule 163: STAPLE STRAND

Chain Cm:



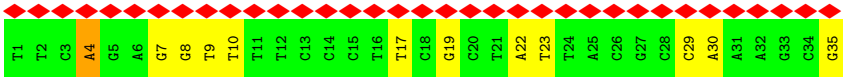
• Molecule 164: STAPLE STRAND

Chain Cn:



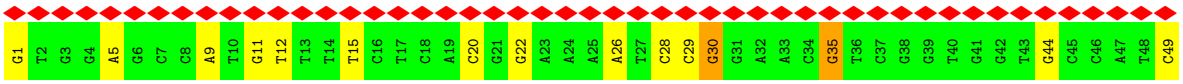
• Molecule 165: STAPLE STRAND

Chain Co:



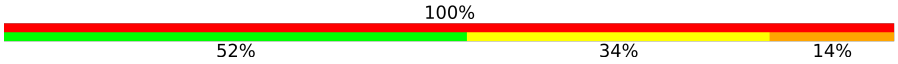
• Molecule 166: STAPLE STRAND

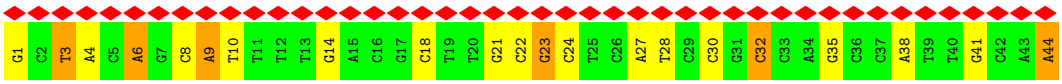
Chain Cp:



• Molecule 167: STAPLE STRAND

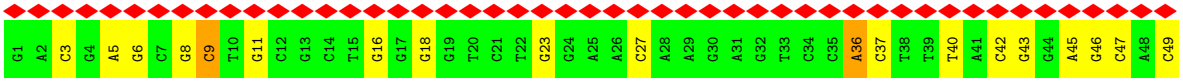
Chain Cq:





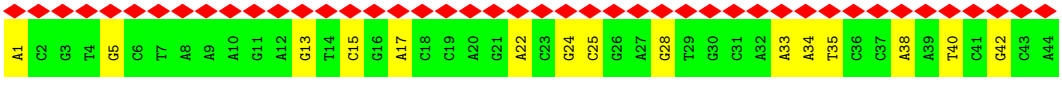
• Molecule 168: STAPLE STRAND

Chain Cr:



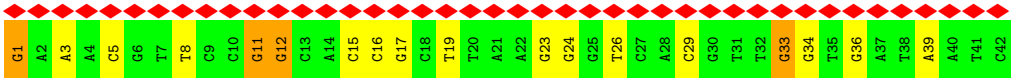
• Molecule 169: STAPLE STRAND

Chain Cs:



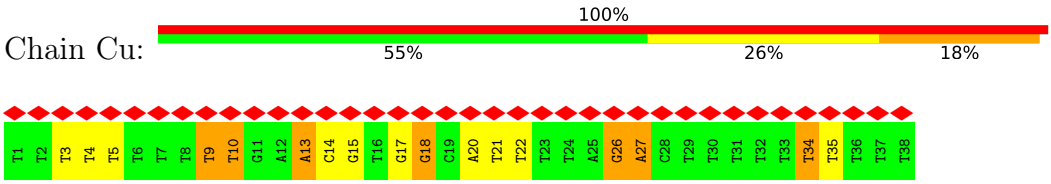
• Molecule 170: STAPLE STRAND

Chain Ct:



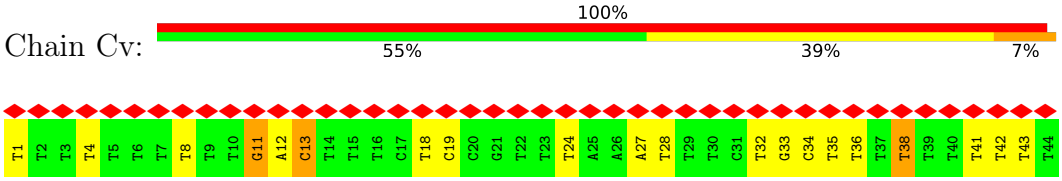
• Molecule 171: STAPLE STRAND

Chain Cu:



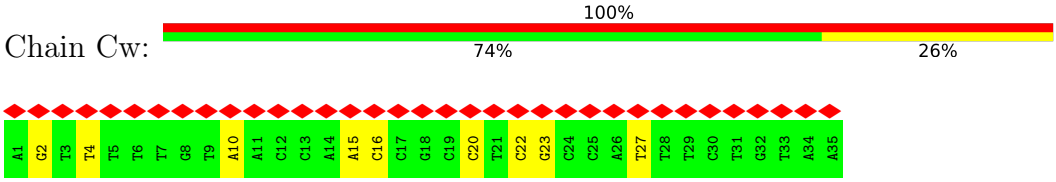
• Molecule 172: STAPLE STRAND

Chain Cv:



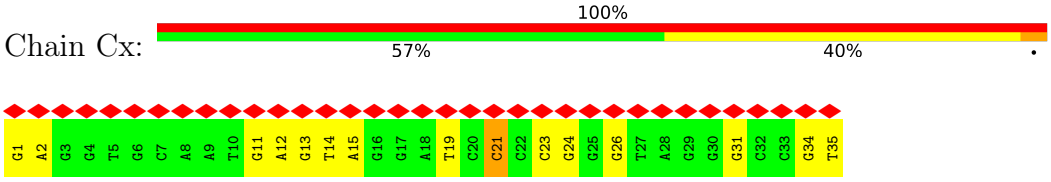
• Molecule 173: STAPLE STRAND

Chain Cw:



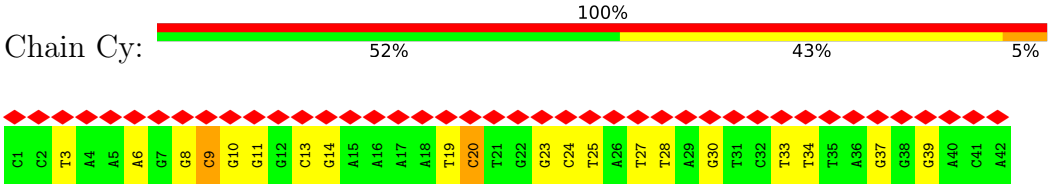
• Molecule 174: STAPLE STRAND

Chain Cx:



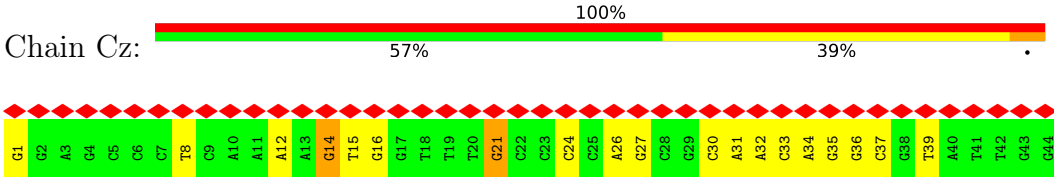
• Molecule 175: STAPLE STRAND

Chain Cy:



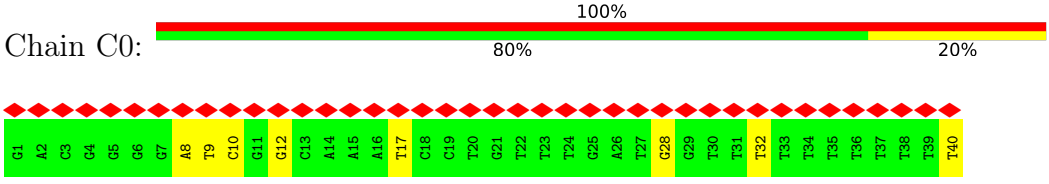
• Molecule 176: STAPLE STRAND

Chain Cz:



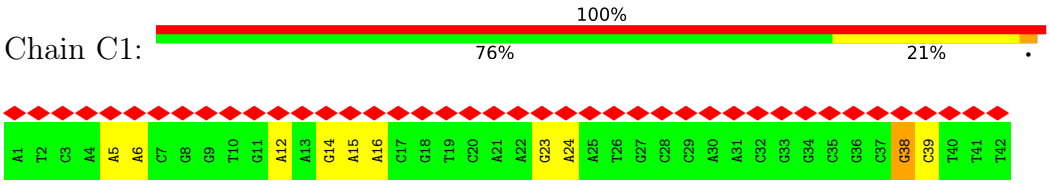
• Molecule 177: STAPLE STRAND

Chain C0:



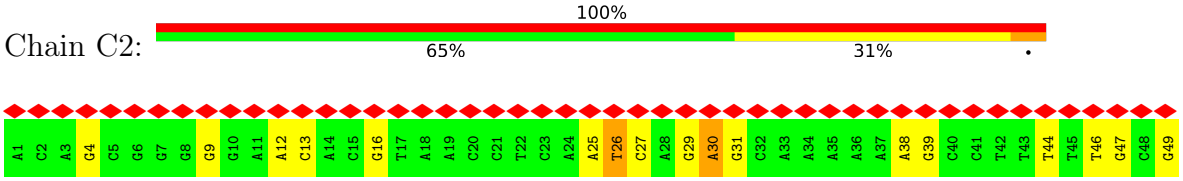
• Molecule 178: STAPLE STRAND

Chain C1:



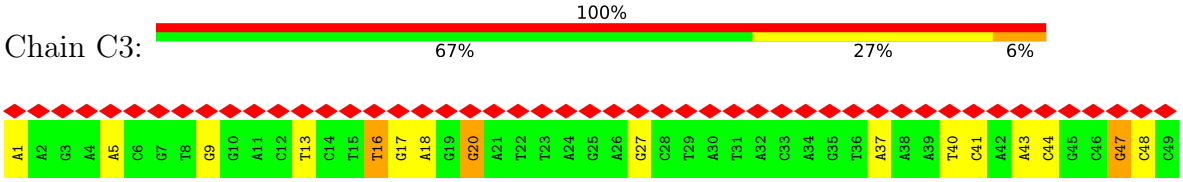
• Molecule 179: STAPLE STRAND

Chain C2:



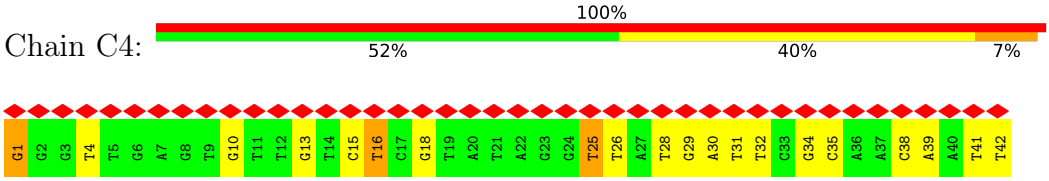
• Molecule 180: STAPLE STRAND

Chain C3:



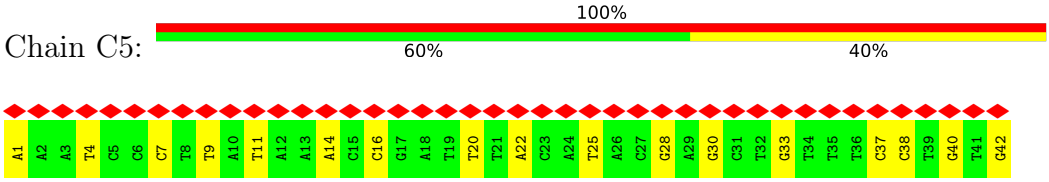
• Molecule 181: STAPLE STRAND

Chain C4:



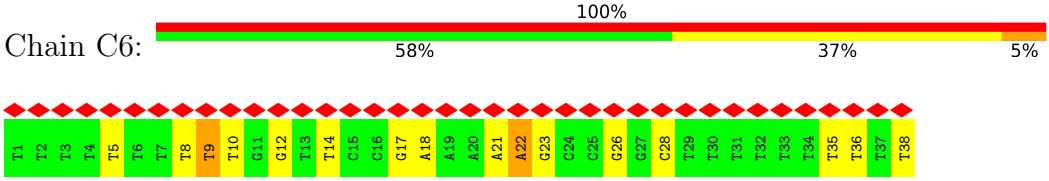
• Molecule 182: STAPLE STRAND

Chain C5:



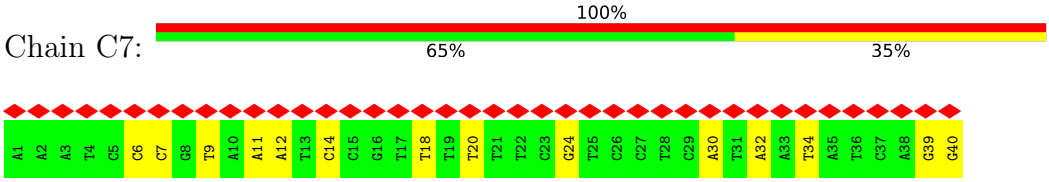
• Molecule 183: STAPLE STRAND

Chain C6:



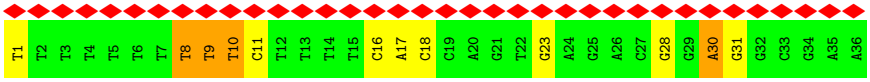
• Molecule 184: STAPLE STRAND

Chain C7:



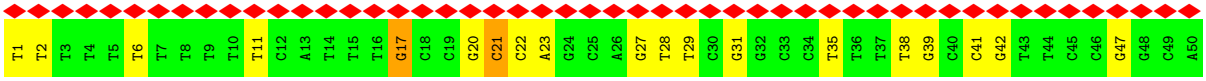
• Molecule 185: STAPLE STRAND

Chain C8:



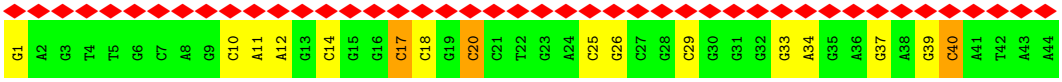
• Molecule 186: STAPLE STRAND

Chain C9:



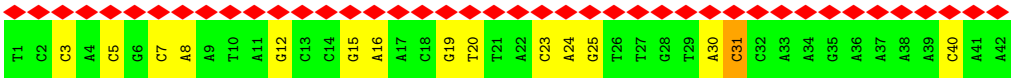
• Molecule 187: STAPLE STRAND

Chain DA:



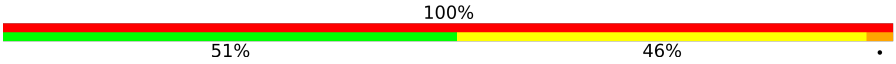
• Molecule 188: STAPLE STRAND

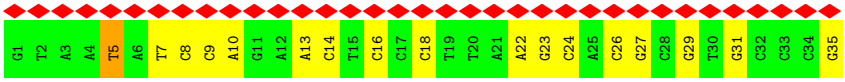
Chain DB:



• Molecule 189: STAPLE STRAND

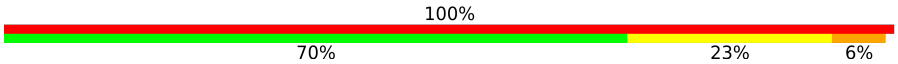
Chain DC:





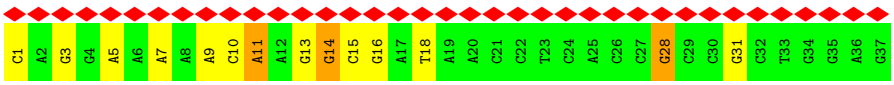
• Molecule 190: STAPLE STRAND

Chain DD:



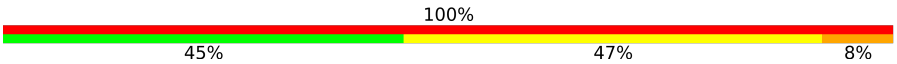
• Molecule 191: STAPLE STRAND

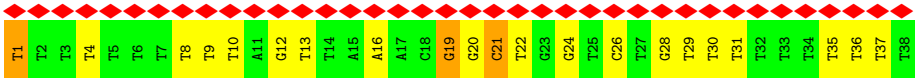
Chain DE:



• Molecule 192: STAPLE STRAND

Chain DF:



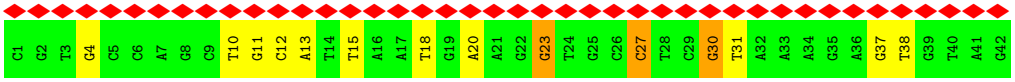


• Molecule 193: STAPLE STRAND

Chain DG:

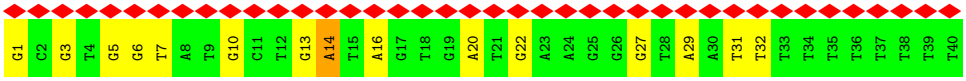
• Molecule 194: STAPLE STRAND

Chain DH:



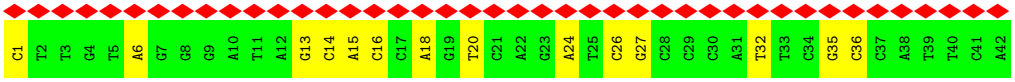
• Molecule 195: STAPLE STRAND

Chain DI:



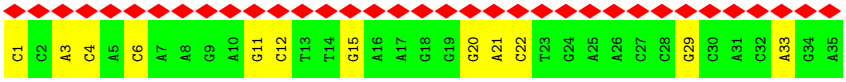
• Molecule 196: STAPLE STRAND

Chain DJ:



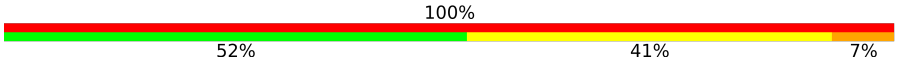
• Molecule 197: STAPLE STRAND

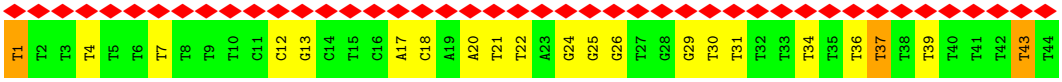
Chain DK:



• Molecule 198: STAPLE STRAND

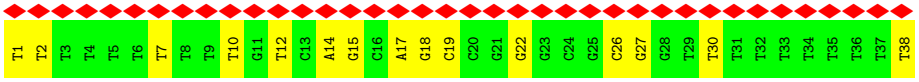
Chain DL:





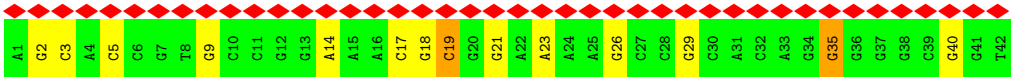
- Molecule 199: STAPLE STRAND

Chain DM:



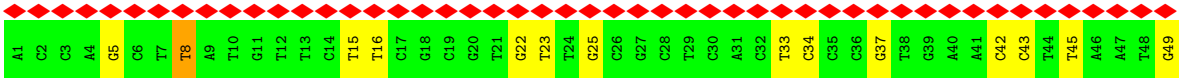
- Molecule 200: STAPLE STRAND

Chain DN:



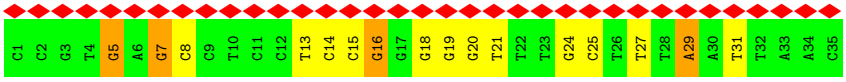
- Molecule 201: STAPLE STRAND

Chain DO:



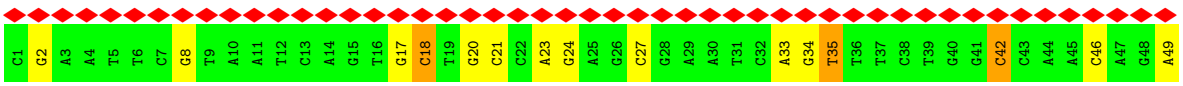
- Molecule 202: STAPLE STRAND

Chain DP:



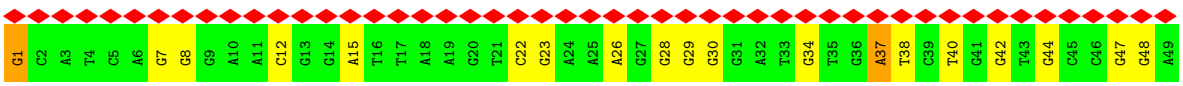
- Molecule 203: STAPLE STRAND

Chain DQ:



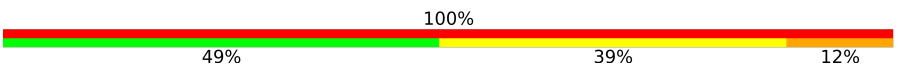
- Molecule 204: STAPLE STRAND

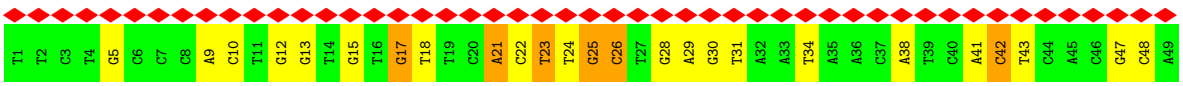
Chain DR:



- Molecule 205: STAPLE STRAND

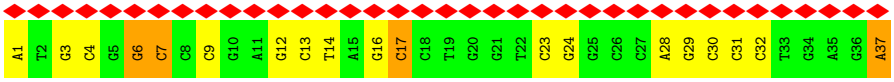
Chain DS:





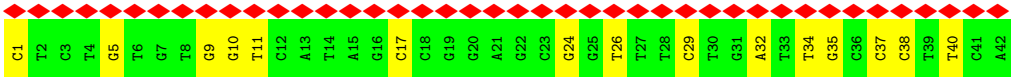
• Molecule 206: STAPLE STRAND

Chain DT:



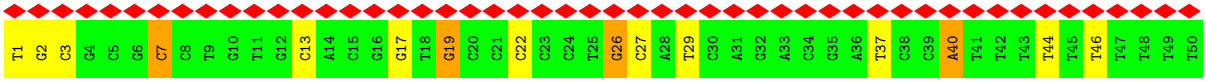
• Molecule 207: STAPLE STRAND

Chain DU:



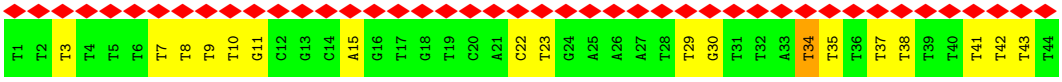
• Molecule 208: STAPLE STRAND

Chain DV:



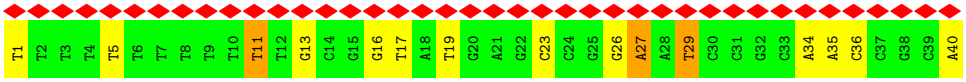
• Molecule 209: STAPLE STRAND

Chain DW:



• Molecule 210: STAPLE STRAND

Chain DX:

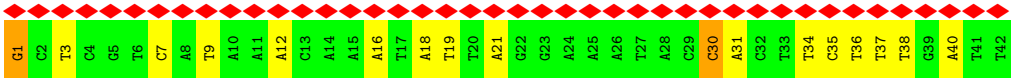


• Molecule 211: STAPLE STRAND

Chain DY:

• Molecule 212: STAPLE STRAND

Chain DZ:



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	31931	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	50	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	FEI FALCON III (4k x 4k)	Depositor
Maximum map value	0.194	Depositor
Minimum map value	-0.064	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.009	Depositor
Recommended contour level	0.06	Depositor
Map size (Å)	921.6, 921.6, 921.6	wwPDB
Map dimensions	512, 512, 512	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.8, 1.8, 1.8	Depositor

5 Model quality

5.1 Standard geometry

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	AA	1.22	14/184801 (0.0%)	1.44	2945/285260 (1.0%)
2	AB	1.23	1/908 (0.1%)	1.28	10/1400 (0.7%)
3	AC	1.20	0/986	1.40	16/1520 (1.1%)
4	AD	1.21	0/1157	1.32	15/1788 (0.8%)
5	AE	1.22	0/1067	1.37	9/1642 (0.5%)
6	AF	1.22	0/1133	1.29	12/1748 (0.7%)
7	AG	1.19	0/1119	1.41	17/1723 (1.0%)
8	AH	1.21	0/1140	1.30	12/1760 (0.7%)
9	AI	1.25	0/1128	1.37	10/1740 (0.6%)
10	AJ	1.21	0/965	1.34	10/1488 (0.7%)
11	AK	1.24	0/1248	1.44	15/1925 (0.8%)
12	AL	1.21	0/853	1.44	17/1316 (1.3%)
13	AM	1.21	0/994	1.50	18/1534 (1.2%)
14	AN	1.20	0/800	1.33	7/1232 (0.6%)
15	AO	1.18	0/898	1.46	12/1383 (0.9%)
16	AP	1.17	1/953 (0.1%)	1.42	13/1468 (0.9%)
17	AQ	1.25	0/818	1.42	12/1264 (0.9%)
18	AR	1.25	0/1146	1.44	19/1768 (1.1%)
19	AS	1.24	0/947	1.48	16/1457 (1.1%)
20	AT	1.21	0/861	1.74	29/1328 (2.2%)
21	AU	1.21	0/1091	1.40	13/1681 (0.8%)
22	AV	1.22	0/843	1.38	8/1298 (0.6%)
23	AW	1.20	0/1255	1.27	12/1936 (0.6%)
24	AX	1.21	0/816	1.34	10/1258 (0.8%)
25	AY	1.19	0/821	1.55	17/1267 (1.3%)
26	AZ	1.24	0/994	1.52	13/1527 (0.9%)
27	Aa	1.27	2/864 (0.2%)	1.35	8/1334 (0.6%)
28	Ab	1.20	0/985	1.42	17/1520 (1.1%)
29	Ac	1.24	0/1127	1.33	14/1740 (0.8%)
30	Ad	1.25	0/979	1.33	7/1513 (0.5%)
31	Ae	1.22	0/970	1.33	11/1493 (0.7%)
32	Af	1.24	0/813	1.41	11/1256 (0.9%)
33	Ag	1.17	0/909	1.17	3/1401 (0.2%)
34	Ah	1.23	0/975	1.33	6/1504 (0.4%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
35	Ai	1.24	0/963	1.41	13/1487 (0.9%)
36	Aj	1.19	0/944	1.30	7/1452 (0.5%)
37	Ak	1.21	0/965	1.27	9/1487 (0.6%)
38	Al	1.22	0/959	1.34	6/1477 (0.4%)
39	Am	1.22	0/991	1.55	21/1530 (1.4%)
40	An	1.18	0/851	1.40	15/1312 (1.1%)
41	Ao	1.17	0/1126	1.34	12/1733 (0.7%)
42	Ap	1.21	0/1138	1.31	8/1753 (0.5%)
43	Aq	1.22	0/1066	1.46	17/1639 (1.0%)
44	Ar	1.24	0/952	1.48	12/1465 (0.8%)
45	As	1.19	0/966	1.38	10/1488 (0.7%)
46	At	1.22	0/1180	1.32	12/1822 (0.7%)
47	Au	1.25	0/1128	1.43	12/1739 (0.7%)
48	Av	1.25	0/855	1.40	11/1318 (0.8%)
49	Aw	1.25	0/979	1.34	12/1511 (0.8%)
50	Ax	1.19	0/979	1.44	13/1508 (0.9%)
51	Ay	1.19	0/900	1.49	19/1387 (1.4%)
52	Az	1.16	0/802	1.30	8/1235 (0.6%)
53	A0	1.24	0/1441	1.44	23/2221 (1.0%)
54	A1	1.23	1/1115 (0.1%)	1.34	12/1717 (0.7%)
55	A2	1.22	0/972	1.45	21/1499 (1.4%)
56	A3	1.24	0/912	1.66	26/1406 (1.8%)
57	A4	1.21	1/991 (0.1%)	1.37	15/1528 (1.0%)
58	A5	1.23	0/1149	1.31	13/1772 (0.7%)
59	A6	1.19	0/1138	1.32	16/1756 (0.9%)
60	A7	1.26	0/953	1.43	13/1466 (0.9%)
61	A8	1.19	0/1136	1.26	7/1750 (0.4%)
62	A9	1.18	0/1112	1.34	10/1713 (0.6%)
63	BA	1.24	0/1133	1.41	17/1744 (1.0%)
64	BB	1.24	0/1137	1.34	11/1754 (0.6%)
65	BC	1.25	0/1121	1.43	14/1726 (0.8%)
66	BD	1.18	0/859	1.44	15/1325 (1.1%)
67	BE	1.26	2/998 (0.2%)	1.39	17/1540 (1.1%)
68	BF	1.20	0/972	1.41	13/1498 (0.9%)
69	BG	1.26	0/985	1.51	17/1519 (1.1%)
70	BH	1.15	0/911	1.26	7/1404 (0.5%)
71	BI	1.21	0/985	1.36	14/1522 (0.9%)
72	BJ	1.18	0/841	1.32	9/1297 (0.7%)
73	BK	1.22	0/755	1.33	6/1163 (0.5%)
74	BL	1.17	0/970	1.29	10/1494 (0.7%)
75	BM	1.21	0/980	1.27	8/1513 (0.5%)
76	BN	1.22	0/1178	1.36	14/1817 (0.8%)
77	BO	1.21	0/800	1.37	13/1233 (1.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
78	BP	1.23	0/917	1.30	6/1411 (0.4%)
79	BQ	1.20	0/854	1.41	6/1316 (0.5%)
80	BR	1.23	0/859	1.41	10/1326 (0.8%)
81	BS	1.19	0/1074	1.28	11/1657 (0.7%)
82	BT	1.26	0/866	1.52	15/1336 (1.1%)
83	BU	1.18	0/900	1.26	6/1386 (0.4%)
84	BV	1.22	0/971	1.47	12/1495 (0.8%)
85	BW	1.19	0/799	1.20	2/1229 (0.2%)
86	BX	1.21	0/964	1.26	6/1485 (0.4%)
87	BY	1.22	0/800	1.30	3/1232 (0.2%)
88	BZ	1.26	0/967	1.53	18/1489 (1.2%)
89	Ba	1.22	0/1126	1.39	13/1735 (0.7%)
90	Bb	1.17	0/974	1.33	11/1500 (0.7%)
91	Bc	1.21	0/854	1.44	20/1317 (1.5%)
92	Bd	1.21	0/957	1.23	1/1473 (0.1%)
93	Be	1.18	0/1114	1.30	13/1714 (0.8%)
94	Bf	1.27	0/975	1.37	10/1505 (0.7%)
95	Bg	1.20	0/1132	1.39	13/1746 (0.7%)
96	Bh	1.18	0/1173	1.24	7/1808 (0.4%)
97	Bi	1.18	0/799	1.24	6/1231 (0.5%)
98	Bj	1.24	0/846	1.48	12/1303 (0.9%)
99	Bk	1.21	0/952	1.47	15/1465 (1.0%)
100	Bl	1.20	1/980 (0.1%)	1.33	10/1511 (0.7%)
101	Bm	1.20	0/905	1.42	16/1395 (1.1%)
102	Bn	1.22	0/1451	1.39	16/2237 (0.7%)
103	Bo	1.20	0/817	1.30	7/1261 (0.6%)
104	Bp	1.21	0/966	1.40	11/1489 (0.7%)
105	Bq	1.21	0/968	1.40	11/1493 (0.7%)
106	Br	1.26	0/1128	1.34	12/1741 (0.7%)
107	Bs	1.19	0/805	1.33	8/1240 (0.6%)
108	Bt	1.25	0/802	1.53	17/1237 (1.4%)
109	Bu	1.18	0/918	1.40	8/1416 (0.6%)
110	Bv	1.23	0/987	1.56	22/1522 (1.4%)
111	Bw	1.21	0/1139	1.35	12/1758 (0.7%)
112	Bx	1.21	0/1080	1.33	7/1665 (0.4%)
113	By	1.23	0/906	1.36	7/1395 (0.5%)
114	Bz	1.24	0/1145	1.47	20/1769 (1.1%)
115	B0	1.15	0/973	1.23	7/1499 (0.5%)
116	B1	1.27	0/1145	1.37	15/1769 (0.8%)
117	B2	1.24	0/855	1.44	19/1319 (1.4%)
118	B3	1.15	0/990	1.33	13/1527 (0.9%)
119	B4	1.18	0/785	1.31	5/1208 (0.4%)
120	B5	1.23	0/797	1.34	8/1228 (0.7%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
121	B6	1.24	0/1118	1.40	12/1722 (0.7%)
122	B7	1.22	0/1138	1.33	11/1756 (0.6%)
123	B8	1.24	0/972	1.51	21/1499 (1.4%)
124	B9	1.18	0/812	1.27	10/1252 (0.8%)
125	CA	1.19	0/803	1.34	7/1238 (0.6%)
126	CB	1.16	0/795	1.31	8/1224 (0.7%)
127	CC	1.17	0/1133	1.39	15/1748 (0.9%)
128	CD	1.15	0/942	1.35	13/1448 (0.9%)
129	CE	1.25	0/823	1.42	12/1271 (0.9%)
130	CF	1.17	0/847	1.32	10/1306 (0.8%)
131	CG	1.22	0/1175	1.41	17/1813 (0.9%)
132	CH	1.19	0/1142	1.36	10/1761 (0.6%)
133	CI	1.20	0/957	1.49	19/1474 (1.3%)
134	CJ	1.25	0/902	1.50	15/1387 (1.1%)
135	CK	1.24	0/865	1.35	7/1334 (0.5%)
136	CL	1.18	0/1081	1.30	11/1666 (0.7%)
137	CM	1.23	0/855	1.29	7/1319 (0.5%)
138	CN	1.22	0/931	1.48	19/1436 (1.3%)
139	CO	1.23	0/963	1.35	15/1483 (1.0%)
140	CP	1.23	0/801	1.36	8/1234 (0.6%)
141	CQ	1.21	0/918	1.30	8/1418 (0.6%)
142	CR	1.25	0/802	1.36	10/1236 (0.8%)
143	CS	1.23	0/1148	1.37	14/1771 (0.8%)
144	CT	1.26	0/983	1.41	14/1519 (0.9%)
145	CU	1.15	0/975	1.28	7/1501 (0.5%)
146	CV	1.24	0/852	1.58	20/1314 (1.5%)
147	CW	1.25	0/963	1.38	5/1484 (0.3%)
148	CX	1.25	0/976	1.36	11/1506 (0.7%)
149	CY	1.20	0/1130	1.28	12/1743 (0.7%)
150	CZ	1.26	0/1121	1.39	15/1728 (0.9%)
151	Ca	1.21	0/973	1.35	8/1502 (0.5%)
152	Cb	1.20	0/1133	1.35	16/1748 (0.9%)
153	Cc	1.19	0/961	1.27	6/1479 (0.4%)
154	Cd	1.21	0/1082	1.33	8/1668 (0.5%)
155	Ce	1.18	0/994	1.58	26/1533 (1.7%)
156	Cf	1.26	0/923	1.49	19/1427 (1.3%)
157	Cg	1.19	0/816	1.31	5/1258 (0.4%)
158	Ch	1.23	0/955	1.34	9/1471 (0.6%)
159	Ci	1.21	0/1284	1.29	10/1980 (0.5%)
160	Cj	1.26	0/800	1.37	5/1232 (0.4%)
161	Ck	1.20	0/806	1.44	16/1241 (1.3%)
162	Cl	1.27	0/932	1.45	13/1440 (0.9%)
163	Cm	1.22	0/999	1.54	20/1543 (1.3%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
164	Cn	1.21	0/950	1.36	10/1463 (0.7%)
165	Co	1.20	0/791	1.33	7/1218 (0.6%)
166	Cp	1.27	0/1127	1.43	19/1739 (1.1%)
167	Cq	1.24	0/994	1.46	18/1530 (1.2%)
168	Cr	1.26	0/1134	1.35	13/1750 (0.7%)
169	Cs	1.23	0/1015	1.40	11/1564 (0.7%)
170	Ct	1.26	0/966	1.48	16/1490 (1.1%)
171	Cu	1.22	0/854	1.41	14/1318 (1.1%)
172	Cv	1.17	0/975	1.40	16/1503 (1.1%)
173	Cw	1.22	0/787	1.32	3/1211 (0.2%)
174	Cx	1.26	0/818	1.44	11/1264 (0.9%)
175	Cy	1.24	0/972	1.32	11/1500 (0.7%)
176	Cz	1.24	0/1127	1.42	16/1738 (0.9%)
177	C0	1.23	0/916	1.22	3/1415 (0.2%)
178	C1	1.24	0/971	1.30	6/1497 (0.4%)
179	C2	1.23	0/1132	1.30	8/1745 (0.5%)
180	C3	1.22	0/1134	1.36	12/1749 (0.7%)
181	C4	1.23	0/969	1.34	8/1497 (0.5%)
182	C5	1.20	0/952	1.49	18/1466 (1.2%)
183	C6	1.22	1/855 (0.1%)	1.40	12/1319 (0.9%)
184	C7	1.17	0/903	1.47	12/1390 (0.9%)
185	C8	1.23	0/820	1.49	14/1265 (1.1%)
186	C9	1.25	0/1120	1.36	14/1726 (0.8%)
187	DA	1.24	0/1029	1.35	8/1589 (0.5%)
188	DB	1.26	0/964	1.41	12/1484 (0.8%)
189	DC	1.23	0/793	1.50	16/1220 (1.3%)
190	DD	1.22	0/1082	1.37	12/1667 (0.7%)
191	DE	1.24	1/855 (0.1%)	1.42	10/1317 (0.8%)
192	DF	1.21	0/855	1.44	19/1320 (1.4%)
193	DG	1.23	0/1106	1.36	14/1703 (0.8%)
194	DH	1.22	0/973	1.36	11/1502 (0.7%)
195	DI	1.21	0/926	1.38	16/1432 (1.1%)
196	DJ	1.24	0/954	1.46	11/1469 (0.7%)
197	DK	1.20	0/809	1.43	10/1246 (0.8%)
198	DL	1.25	0/985	1.50	18/1520 (1.2%)
199	DM	1.26	0/857	1.57	22/1323 (1.7%)
200	DN	1.26	0/981	1.38	15/1514 (1.0%)
201	DO	1.18	0/1105	1.38	12/1702 (0.7%)
202	DP	1.25	0/793	1.46	9/1222 (0.7%)
203	DQ	1.22	0/1126	1.38	15/1736 (0.9%)
204	DR	1.28	0/1153	1.34	9/1783 (0.5%)
205	DS	1.25	0/1109	1.50	21/1708 (1.2%)
206	DT	1.24	0/848	1.41	14/1307 (1.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
207	DU	1.21	0/955	1.42	15/1473 (1.0%)
208	DV	1.23	0/1125	1.50	25/1733 (1.4%)
209	DW	1.20	0/990	1.29	8/1528 (0.5%)
210	DX	1.24	0/908	1.55	16/1400 (1.1%)
211	DY	1.21	0/960	1.39	15/1480 (1.0%)
212	DZ	1.16	0/957	1.30	9/1474 (0.6%)
All	All	1.22	25/391128 (0.0%)	1.41	5547/603352 (0.9%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	AA	15	1914
2	AB	0	8
3	AC	0	11
4	AD	0	8
5	AE	0	13
6	AF	0	9
7	AG	0	10
8	AH	0	6
9	AI	0	8
10	AJ	0	7
11	AK	0	9
12	AL	0	10
13	AM	0	16
14	AN	0	7
15	AO	0	10
16	AP	0	13
17	AQ	0	7
18	AR	0	7
19	AS	0	7
20	AT	0	7
21	AU	0	12
22	AV	0	8
23	AW	0	8
24	AX	0	11
25	AY	0	6
26	AZ	0	12
27	Aa	0	8
28	Ab	0	4

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Mol	Chain	#Chirality outliers	#Planarity outliers
29	Ac	0	8
30	Ad	0	7
31	Ae	0	15
32	Af	0	7
33	Ag	0	8
34	Ah	0	12
35	Ai	0	11
36	Aj	0	7
37	Ak	0	8
38	Al	0	13
39	Am	0	13
40	An	0	10
41	Ao	0	9
42	Ap	0	12
43	Aq	0	11
44	Ar	0	9
45	As	0	6
46	At	0	10
47	Au	0	13
48	Av	0	10
49	Aw	0	7
50	Ax	0	9
51	Ay	0	8
52	Az	0	8
53	A0	0	13
54	A1	0	9
55	A2	0	6
56	A3	0	12
57	A4	0	8
58	A5	0	19
59	A6	0	7
60	A7	0	5
61	A8	0	9
62	A9	0	11
63	BA	0	10
64	BB	0	12
65	BC	0	13
66	BD	0	8
67	BE	0	11
68	BF	0	8
69	BG	0	13
70	BH	0	5

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Mol	Chain	#Chirality outliers	#Planarity outliers
71	BI	0	13
72	BJ	0	8
73	BK	0	8
74	BL	0	10
75	BM	0	12
76	BN	0	14
77	BO	0	6
78	BP	0	9
79	BQ	0	9
80	BR	0	13
81	BS	0	8
82	BT	0	9
83	BU	0	9
84	BV	0	7
85	BW	0	6
86	BX	0	6
87	BY	0	11
88	BZ	0	12
89	Ba	0	11
90	Bb	0	12
91	Bc	0	11
92	Bd	0	9
93	Be	0	7
94	Bf	0	9
95	Bg	0	11
96	Bh	0	11
97	Bi	0	10
98	Bj	0	7
99	Bk	0	8
100	Bl	0	11
101	Bm	0	13
102	Bn	0	12
103	Bo	0	5
104	Bp	0	9
105	Bq	0	9
106	Br	0	12
107	Bs	0	8
108	Bt	0	7
109	Bu	0	13
110	Bv	0	7
111	Bw	0	14
112	Bx	0	12

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Mol	Chain	#Chirality outliers	#Planarity outliers
113	By	0	9
114	Bz	0	17
115	B0	0	9
116	B1	0	10
117	B2	0	10
118	B3	0	12
119	B4	0	7
120	B5	0	6
121	B6	0	12
122	B7	0	12
123	B8	0	12
124	B9	0	6
125	CA	0	8
126	CB	0	5
127	CC	0	12
128	CD	0	6
129	CE	0	14
130	CF	0	6
131	CG	0	11
132	CH	0	12
133	CI	0	10
134	CJ	0	7
135	CK	0	8
136	CL	0	14
137	CM	0	12
138	CN	0	7
139	CO	0	9
140	CP	0	8
141	CQ	0	8
142	CR	0	10
143	CS	0	8
144	CT	0	8
145	CU	0	10
146	CV	0	6
147	CW	0	12
148	CX	0	13
149	CY	0	9
150	CZ	0	12
151	Ca	0	10
152	Cb	0	9
153	Cc	0	10
154	Cd	0	9

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Mol	Chain	#Chirality outliers	#Planarity outliers
155	Ce	0	10
156	Cf	0	11
157	Cg	0	7
158	Ch	0	8
159	Ci	0	14
160	Cj	0	4
161	Ck	0	9
162	Cl	0	17
163	Cm	0	11
164	Cn	0	5
165	Co	0	7
166	Cp	0	9
167	Cq	0	15
168	Cr	0	9
169	Cs	0	6
170	Ct	0	11
171	Cu	0	14
172	Cv	0	12
173	Cw	0	7
174	Cx	0	8
175	Cy	0	12
176	Cz	0	14
177	C0	0	5
178	C1	0	7
179	C2	0	12
180	C3	0	9
181	C4	0	16
182	C5	0	6
183	C6	0	9
184	C7	0	9
185	C8	0	7
186	C9	0	12
187	DA	0	13
188	DB	0	7
189	DC	0	10
190	DD	0	8
191	DE	0	8
192	DF	0	13
193	DG	0	7
194	DH	0	9
195	DI	0	8
196	DJ	0	8

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Mol	Chain	#Chirality outliers	#Planarity outliers
197	DK	0	5
198	DL	0	13
199	DM	0	4
200	DN	0	7
201	DO	0	7
202	DP	0	14
203	DQ	0	8
204	DR	0	13
205	DS	0	17
206	DT	0	12
207	DU	0	6
208	DV	0	6
209	DW	0	13
210	DX	0	8
211	DY	0	12
212	DZ	0	12
All	All	15	3939

All (25) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	259	DC	C5'-C4'	5.69	1.57	1.51
191	DE	14	DG	C2-N2	-5.68	1.28	1.34
1	AA	205	DG	C2-N2	-5.65	1.28	1.34
1	AA	1752	DG	C2-N2	-5.58	1.28	1.34
100	Bl	36	DT	C5'-C4'	5.51	1.57	1.51
1	AA	131	DC	C5'-C4'	5.34	1.57	1.51
1	AA	7288	DG	C4'-C3'	5.34	1.58	1.53
1	AA	2623	DC	C5'-C4'	5.33	1.57	1.51
1	AA	5053	DA	C5'-C4'	5.28	1.57	1.51
1	AA	4281	DA	O3'-P	-5.21	1.54	1.61
67	BE	7	DT	O3'-P	-5.20	1.54	1.61
1	AA	1603	DG	C4'-C3'	5.18	1.58	1.53
2	AB	9	DT	C5'-C4'	5.17	1.57	1.51
1	AA	2049	DA	O3'-P	-5.15	1.54	1.61
1	AA	5209	DT	C5'-C4'	5.11	1.56	1.51
67	BE	7	DT	C5'-C4'	5.08	1.56	1.51
27	Aa	35	DT	C5'-C4'	5.08	1.56	1.51
57	A4	2	DT	C5'-C4'	5.06	1.56	1.51
183	C6	10	DT	C5'-C4'	5.06	1.56	1.51
1	AA	4254	DC	C5'-C4'	5.05	1.56	1.51
54	A1	12	DG	C2-N2	-5.05	1.29	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	1872	DT	O3'-P	-5.04	1.55	1.61
16	AP	16	DT	O3'-P	-5.02	1.55	1.61
27	Aa	34	DT	C5'-C4'	5.00	1.56	1.51
1	AA	3593	DG	C2-N2	-5.00	1.29	1.34

All (5547) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	108	DT	P-O3'-C3'	16.36	139.33	119.70
1	AA	1707	DT	O4'-C4'-C3'	-15.91	96.45	106.00
26	AZ	25	DG	P-O3'-C3'	15.86	138.73	119.70
39	Am	19	DA	P-O3'-C3'	15.64	138.47	119.70
99	Bk	30	DC	P-O3'-C3'	15.28	138.03	119.70
1	AA	1431	DC	P-O3'-C3'	15.27	138.02	119.70
184	C7	14	DC	P-O3'-C3'	15.23	137.98	119.70
1	AA	5259	DG	P-O3'-C3'	15.23	137.97	119.70
204	DR	37	DA	P-O3'-C3'	15.19	137.92	119.70
1	AA	7735	DC	P-O3'-C3'	15.16	137.89	119.70
1	AA	6728	DA	P-O3'-C3'	15.15	137.88	119.70
102	Bn	58	DC	P-O3'-C3'	15.11	137.84	119.70
15	AO	31	DT	O4'-C4'-C3'	-15.08	96.95	106.00
1	AA	6571	DA	P-O3'-C3'	14.98	137.67	119.70
1	AA	4845	DA	P-O3'-C3'	14.92	137.61	119.70
1	AA	5645	DC	P-O3'-C3'	14.84	137.50	119.70
173	Cw	23	DG	P-O3'-C3'	14.79	137.45	119.70
1	AA	6424	DA	P-O3'-C3'	14.71	137.35	119.70
1	AA	8000	DC	P-O3'-C3'	14.67	137.31	119.70
208	DV	19	DG	P-O3'-C3'	14.67	137.30	119.70
1	AA	2340	DA	P-O3'-C3'	14.58	137.20	119.70
32	Af	16	DG	P-O3'-C3'	14.55	137.16	119.70
1	AA	1056	DA	P-O3'-C3'	14.55	137.16	119.70
1	AA	7032	DA	P-O3'-C3'	14.54	137.15	119.70
1	AA	7823	DC	P-O3'-C3'	14.54	137.15	119.70
151	Ca	23	DT	P-O3'-C3'	14.47	137.06	119.70
170	Ct	34	DG	P-O3'-C3'	14.46	137.05	119.70
1	AA	5085	DA	P-O3'-C3'	14.42	137.00	119.70
20	AT	17	DC	P-O3'-C3'	14.40	136.98	119.70
26	AZ	18	DA	P-O3'-C3'	14.40	136.98	119.70
1	AA	498	DA	P-O3'-C3'	14.39	136.97	119.70
1	AA	4444	DC	O4'-C4'-C3'	-14.35	97.39	106.00
18	AR	1	DC	O4'-C4'-C3'	-14.35	97.39	106.00
14	AN	26	DG	O4'-C4'-C3'	-14.33	97.40	106.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
109	Bu	28	DC	P-O3'-C3'	14.30	136.86	119.70
1	AA	7437	DC	P-O3'-C3'	14.27	136.83	119.70
1	AA	1162	DA	P-O3'-C3'	14.27	136.82	119.70
15	AO	29	DC	P-O3'-C3'	14.24	136.78	119.70
1	AA	1219	DC	P-O3'-C3'	14.13	136.65	119.70
132	CH	36	DT	P-O3'-C3'	14.12	136.64	119.70
1	AA	1435	DG	P-O3'-C3'	14.04	136.55	119.70
1	AA	2478	DA	P-O3'-C3'	14.04	136.55	119.70
182	C5	16	DC	P-O3'-C3'	14.04	136.54	119.70
16	AP	1	DA	O4'-C4'-C3'	-13.98	97.61	106.00
190	DD	1	DA	O4'-C4'-C3'	-13.98	97.61	106.00
1	AA	5302	DA	P-O3'-C3'	13.96	136.46	119.70
1	AA	7290	DA	P-O3'-C3'	13.95	136.44	119.70
1	AA	783	DC	P-O3'-C3'	13.91	136.40	119.70
1	AA	3958	DC	P-O3'-C3'	13.82	136.29	119.70
1	AA	5380	DC	O4'-C4'-C3'	-13.81	97.71	106.00
1	AA	1573	DC	P-O3'-C3'	13.81	136.27	119.70
1	AA	7473	DT	P-O3'-C3'	13.79	136.25	119.70
1	AA	7978	DC	P-O3'-C3'	13.79	136.24	119.70
1	AA	3235	DT	P-O3'-C3'	13.78	136.24	119.70
79	BQ	18	DA	P-O3'-C3'	13.76	136.21	119.70
1	AA	5046	DG	P-O3'-C3'	13.73	136.18	119.70
118	B3	17	DT	O4'-C4'-C3'	-13.72	97.77	106.00
1	AA	2891	DC	P-O3'-C3'	13.72	136.17	119.70
76	BN	5	DA	P-O3'-C3'	13.67	136.11	119.70
1	AA	4271	DA	P-O3'-C3'	13.61	136.03	119.70
21	AU	1	DA	O4'-C4'-C3'	-13.60	97.84	106.00
1	AA	944	DT	O4'-C4'-C3'	-13.55	97.87	106.00
1	AA	5576	DA	O4'-C4'-C3'	-13.54	97.87	106.00
1	AA	1656	DC	P-O3'-C3'	13.53	135.93	119.70
88	BZ	20	DA	P-O3'-C3'	13.51	135.91	119.70
1	AA	4316	DG	P-O3'-C3'	13.49	135.89	119.70
95	Bg	16	DC	P-O3'-C3'	13.47	135.87	119.70
1	AA	26	DC	P-O3'-C3'	13.45	135.84	119.70
70	BH	14	DA	O4'-C4'-C3'	-13.44	97.94	106.00
1	AA	7612	DC	P-O3'-C3'	13.38	135.75	119.70
69	BG	9	DA	P-O3'-C3'	13.37	135.74	119.70
133	CI	31	DA	P-O3'-C3'	13.33	135.69	119.70
1	AA	2131	DC	P-O3'-C3'	13.32	135.68	119.70
1	AA	5607	DC	P-O3'-C3'	13.30	135.66	119.70
19	AS	28	DT	O4'-C4'-C3'	-13.30	98.02	106.00
1	AA	7216	DG	P-O3'-C3'	13.25	135.60	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	7073	DT	O4'-C4'-C3'	-13.25	98.05	106.00
1	AA	6677	DC	P-O3'-C3'	13.24	135.59	119.70
20	AT	18	DT	P-O3'-C3'	13.24	135.59	119.70
1	AA	4230	DC	P-O3'-C3'	13.23	135.57	119.70
175	Cy	9	DC	P-O3'-C3'	13.21	135.55	119.70
109	Bu	8	DT	P-O3'-C3'	13.15	135.49	119.70
39	Am	35	DT	O4'-C4'-C3'	-13.13	98.12	106.00
1	AA	3541	DT	P-O3'-C3'	13.12	135.44	119.70
1	AA	330	DC	P-O3'-C3'	13.12	135.44	119.70
1	AA	7681	DC	P-O3'-C3'	13.12	135.44	119.70
184	C7	7	DC	P-O3'-C3'	13.12	135.44	119.70
20	AT	1	DT	O4'-C4'-C3'	-13.11	98.13	106.00
134	CJ	14	DC	P-O3'-C3'	13.09	135.41	119.70
1	AA	7636	DC	P-O3'-C3'	13.09	135.41	119.70
1	AA	531	DG	O4'-C4'-C3'	-13.07	98.16	106.00
66	BD	26	DA	P-O3'-C3'	13.07	135.38	119.70
39	Am	17	DT	P-O3'-C3'	13.05	135.36	119.70
105	Bq	30	DT	P-O3'-C3'	13.04	135.35	119.70
1	AA	6991	DT	P-O3'-C3'	13.02	135.32	119.70
44	Ar	21	DT	O4'-C4'-C3'	-13.00	98.20	106.00
1	AA	4185	DG	O4'-C4'-C3'	-12.98	98.21	106.00
1	AA	2554	DA	P-O3'-C3'	12.96	135.25	119.70
1	AA	3900	DT	O4'-C4'-C3'	-12.96	98.22	106.00
1	AA	3532	DA	O4'-C4'-C3'	-12.96	98.23	106.00
9	AI	47	DC	O4'-C4'-C3'	-12.94	98.24	106.00
114	Bz	28	DG	O4'-C4'-C3'	-12.93	98.24	106.00
10	AJ	9	DG	O4'-C4'-C3'	-12.92	98.25	106.00
1	AA	5043	DC	P-O3'-C3'	12.91	135.19	119.70
1	AA	7825	DT	P-O3'-C3'	12.89	135.17	119.70
1	AA	897	DC	P-O3'-C3'	12.89	135.17	119.70
108	Bt	12	DT	P-O3'-C3'	12.88	135.16	119.70
163	Cm	19	DA	P-O3'-C3'	12.87	135.15	119.70
1	AA	2790	DT	P-O3'-C3'	12.87	135.14	119.70
1	AA	6092	DG	O4'-C4'-C3'	-12.87	98.28	106.00
88	BZ	1	DC	O4'-C4'-C3'	-12.84	98.29	106.00
138	CN	26	DT	P-O3'-C3'	12.83	135.10	119.70
202	DP	18	DG	O4'-C4'-C3'	-12.83	98.30	106.00
17	AQ	14	DG	P-O3'-C3'	12.81	135.08	119.70
107	Bs	29	DG	P-O3'-C3'	12.80	135.06	119.70
1	AA	5507	DT	P-O3'-C3'	12.79	135.05	119.70
1	AA	6500	DC	P-O3'-C3'	12.79	135.04	119.70
148	CX	19	DG	P-O3'-C3'	12.79	135.04	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
170	Ct	36	DG	O4'-C4'-C3'	-12.78	98.33	106.00
1	AA	6816	DA	P-O3'-C3'	12.77	135.03	119.70
1	AA	3707	DG	O4'-C4'-C3'	-12.77	98.34	106.00
13	AM	30	DC	P-O3'-C3'	12.76	135.01	119.70
1	AA	5058	DA	P-O3'-C3'	12.75	135.00	119.70
180	C3	1	DA	O4'-C4'-C3'	-12.74	98.36	106.00
1	AA	7079	DT	O4'-C4'-C3'	-12.72	98.37	106.00
13	AM	29	DC	P-O3'-C3'	12.72	134.96	119.70
1	AA	510	DT	P-O3'-C3'	12.67	134.90	119.70
1	AA	5959	DT	P-O3'-C3'	12.66	134.90	119.70
44	Ar	22	DA	P-O3'-C3'	12.66	134.90	119.70
1	AA	3866	DT	P-O3'-C3'	12.66	134.89	119.70
127	CC	2	DG	O4'-C4'-C3'	-12.66	98.41	106.00
146	CV	25	DG	O4'-C4'-C3'	-12.66	98.41	106.00
146	CV	15	DG	P-O3'-C3'	12.65	134.88	119.70
1	AA	2630	DG	P-O3'-C3'	12.65	134.88	119.70
161	Ck	9	DC	P-O3'-C3'	12.65	134.88	119.70
1	AA	3978	DG	O4'-C4'-C3'	-12.63	98.42	106.00
1	AA	2214	DG	P-O3'-C3'	12.62	134.84	119.70
1	AA	3274	DC	P-O3'-C3'	12.62	134.84	119.70
155	Ce	24	DC	P-O3'-C3'	12.60	134.82	119.70
50	Ax	1	DT	O4'-C4'-C3'	-12.57	98.46	106.00
1	AA	1756	DC	P-O3'-C3'	12.56	134.78	119.70
198	DL	12	DC	P-O3'-C3'	12.56	134.78	119.70
129	CE	16	DG	P-O3'-C3'	12.55	134.76	119.70
26	AZ	33	DC	P-O3'-C3'	12.54	134.75	119.70
1	AA	6087	DC	P-O3'-C3'	12.53	134.74	119.70
72	BJ	35	DT	P-O3'-C3'	12.53	134.74	119.70
1	AA	77	DC	O4'-C4'-C3'	-12.52	98.49	106.00
51	Ay	18	DT	O4'-C4'-C3'	-12.52	98.49	106.00
1	AA	3349	DT	P-O3'-C3'	12.49	134.69	119.70
1	AA	3963	DC	P-O3'-C3'	12.49	134.68	119.70
1	AA	681	DC	O4'-C4'-C3'	-12.48	98.51	106.00
1	AA	7390	DA	P-O3'-C3'	12.48	134.67	119.70
1	AA	2013	DG	O4'-C4'-C3'	-12.48	98.51	106.00
1	AA	6405	DC	P-O3'-C3'	12.47	134.67	119.70
1	AA	176	DC	P-O3'-C3'	12.46	134.66	119.70
1	AA	6088	DT	O4'-C4'-C3'	-12.46	98.52	106.00
1	AA	876	DC	P-O3'-C3'	12.44	134.63	119.70
111	Bw	15	DC	P-O3'-C3'	12.44	134.62	119.70
1	AA	1844	DC	P-O3'-C3'	12.42	134.60	119.70
135	CK	1	DA	O4'-C4'-C3'	-12.42	98.55	106.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	4246	DA	P-O3'-C3'	12.41	134.59	119.70
1	AA	3133	DA	P-O3'-C3'	12.41	134.59	119.70
1	AA	3829	DA	P-O3'-C3'	12.40	134.58	119.70
1	AA	7411	DG	O4'-C4'-C3'	-12.40	98.56	106.00
101	Bm	28	DC	P-O3'-C3'	12.40	134.58	119.70
161	Ck	10	DC	O4'-C4'-C3'	-12.39	98.56	106.00
41	Ao	9	DG	O4'-C4'-C3'	-12.37	98.58	106.00
1	AA	1737	DT	P-O3'-C3'	12.37	134.54	119.70
55	A2	42	DG	O4'-C4'-C3'	-12.36	98.59	106.00
205	DS	48	DC	P-O3'-C3'	12.33	134.49	119.70
198	DL	37	DT	P-O3'-C3'	12.32	134.48	119.70
1	AA	3234	DG	O4'-C4'-C3'	-12.31	98.61	106.00
1	AA	6636	DC	O4'-C4'-C3'	-12.30	98.62	106.00
1	AA	946	DC	P-O3'-C3'	12.29	134.45	119.70
127	CC	29	DA	O4'-C4'-C3'	-12.30	98.62	106.00
1	AA	4240	DT	O4'-C4'-C3'	-12.29	98.62	106.00
1	AA	4666	DG	P-O3'-C3'	12.29	134.45	119.70
163	Cm	9	DT	P-O3'-C3'	12.29	134.45	119.70
5	AE	28	DA	O4'-C4'-C3'	-12.26	98.65	106.00
95	Bg	8	DG	O4'-C4'-C3'	-12.25	98.65	106.00
59	A6	30	DC	P-O3'-C3'	12.24	134.39	119.70
24	AX	31	DG	P-O3'-C3'	12.24	134.38	119.70
199	DM	22	DG	P-O3'-C3'	12.23	134.38	119.70
1	AA	7312	DG	P-O3'-C3'	12.23	134.37	119.70
1	AA	7705	DA	P-O3'-C3'	12.23	134.37	119.70
11	AK	30	DC	P-O3'-C3'	12.23	134.37	119.70
1	AA	960	DC	P-O3'-C3'	12.22	134.37	119.70
1	AA	2296	DA	O4'-C4'-C3'	-12.22	98.67	106.00
106	Br	48	DG	P-O3'-C3'	12.21	134.35	119.70
129	CE	29	DA	O4'-C4'-C3'	-12.20	98.68	106.00
12	AL	12	DC	O4'-C4'-C3'	-12.19	98.69	106.00
197	DK	20	DG	P-O3'-C3'	12.19	134.33	119.70
110	Bv	18	DC	P-O3'-C3'	12.18	134.31	119.70
1	AA	3349	DT	O4'-C4'-C3'	-12.17	98.70	106.00
120	B5	16	DG	P-O3'-C3'	12.17	134.30	119.70
110	Bv	15	DA	P-O3'-C3'	12.16	134.29	119.70
1	AA	4214	DG	P-O3'-C3'	12.16	134.29	119.70
194	DH	31	DT	O4'-C4'-C3'	-12.16	98.71	106.00
1	AA	5434	DT	P-O3'-C3'	12.15	134.28	119.70
1	AA	1808	DT	O4'-C4'-C3'	-12.15	98.71	106.00
110	Bv	24	DT	P-O3'-C3'	12.12	134.25	119.70
1	AA	3401	DA	O4'-C4'-C3'	-12.12	98.73	106.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	3134	DT	O4'-C4'-C3'	-12.11	98.73	106.00
188	DB	30	DA	P-O3'-C3'	12.11	134.23	119.70
1	AA	6088	DT	P-O3'-C3'	12.10	134.22	119.70
123	B8	1	DA	O4'-C4'-C3'	-12.10	98.74	106.00
145	CU	1	DT	O4'-C4'-C3'	-12.09	98.75	106.00
1	AA	4552	DT	O4'-C4'-C3'	-12.09	98.75	106.00
20	AT	11	DG	O4'-C4'-C3'	-12.08	98.75	106.00
1	AA	2631	DT	O4'-C4'-C3'	-12.08	98.75	106.00
1	AA	6553	DA	P-O3'-C3'	12.07	134.18	119.70
172	Cv	1	DT	O4'-C4'-C3'	-12.06	98.77	106.00
123	B8	2	DT	O4'-C4'-C3'	-12.04	98.78	106.00
20	AT	22	DA	O4'-C4'-C3'	-12.03	98.78	106.00
1	AA	2912	DA	P-O3'-C3'	12.02	134.13	119.70
155	Ce	31	DC	O4'-C4'-C3'	-12.02	98.79	106.00
47	Au	9	DT	P-O3'-C3'	11.99	134.09	119.70
4	AD	1	DC	P-O3'-C3'	11.98	134.08	119.70
114	Bz	8	DC	P-O3'-C3'	11.98	134.08	119.70
103	Bo	22	DA	O4'-C4'-C3'	-11.96	98.82	106.00
1	AA	530	DT	P-O3'-C3'	11.96	134.05	119.70
1	AA	7869	DC	P-O3'-C3'	11.95	134.04	119.70
90	Bb	37	DT	O4'-C4'-C3'	-11.95	98.83	106.00
1	AA	5148	DC	P-O3'-C3'	11.93	134.01	119.70
25	AY	1	DT	O4'-C4'-C3'	-11.92	98.85	106.00
1	AA	1885	DT	O4'-C4'-C3'	-11.92	98.85	106.00
1	AA	7447	DG	P-O3'-C3'	11.91	133.99	119.70
1	AA	211	DC	P-O3'-C3'	11.90	133.98	119.70
208	DV	17	DG	O4'-C4'-C3'	-11.90	98.86	106.00
1	AA	6491	DG	P-O3'-C3'	11.89	133.97	119.70
1	AA	1731	DA	P-O3'-C3'	11.87	133.95	119.70
1	AA	6765	DA	P-O3'-C3'	11.87	133.95	119.70
1	AA	6478	DT	O4'-C4'-C3'	-11.87	98.88	106.00
1	AA	3531	DC	P-O3'-C3'	11.85	133.92	119.70
1	AA	2067	DG	P-O3'-C3'	11.84	133.91	119.70
1	AA	2843	DT	O4'-C4'-C3'	-11.84	98.89	106.00
1	AA	7965	DA	P-O3'-C3'	11.84	133.90	119.70
1	AA	4051	DC	O4'-C1'-N1	11.82	116.28	108.00
1	AA	4613	DG	P-O3'-C3'	11.81	133.87	119.70
112	Bx	13	DA	O4'-C4'-C3'	-11.81	98.92	106.00
1	AA	5576	DA	P-O3'-C3'	11.81	133.87	119.70
1	AA	5026	DC	P-O3'-C3'	11.80	133.86	119.70
1	AA	5971	DG	P-O3'-C3'	11.80	133.86	119.70
208	DV	7	DC	O4'-C4'-C3'	-11.79	98.92	106.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
174	Cx	26	DG	O4'-C4'-C3'	-11.79	98.93	106.00
1	AA	4763	DA	P-O3'-C3'	11.78	133.84	119.70
1	AA	2001	DC	P-O3'-C3'	11.78	133.83	119.70
125	CA	30	DC	P-O3'-C3'	11.77	133.83	119.70
1	AA	3295	DT	O4'-C4'-C3'	-11.77	98.94	106.00
9	AI	47	DC	P-O3'-C3'	11.76	133.81	119.70
181	C4	10	DG	O4'-C4'-C3'	-11.76	98.94	106.00
156	Cf	8	DT	P-O3'-C3'	11.76	133.81	119.70
1	AA	1563	DG	P-O3'-C3'	11.76	133.81	119.70
1	AA	7600	DG	O4'-C4'-C3'	-11.75	98.95	106.00
185	C8	30	DA	P-O3'-C3'	11.75	133.80	119.70
35	Ai	23	DC	O4'-C4'-C3'	-11.75	98.95	106.00
1	AA	2816	DG	P-O3'-C3'	11.74	133.79	119.70
1	AA	4976	DA	P-O3'-C3'	11.74	133.79	119.70
1	AA	161	DG	P-O3'-C3'	11.72	133.76	119.70
1	AA	4682	DG	P-O3'-C3'	11.71	133.75	119.70
1	AA	489	DT	O4'-C4'-C3'	-11.70	98.98	106.00
69	BG	26	DG	P-O3'-C3'	11.69	133.73	119.70
114	Bz	15	DG	O4'-C4'-C3'	-11.70	98.98	106.00
131	CG	8	DT	O4'-C4'-C3'	-11.69	98.99	106.00
99	Bk	3	DG	O4'-C4'-C3'	-11.68	98.99	106.00
1	AA	2287	DA	P-O3'-C3'	11.67	133.70	119.70
176	Cz	27	DG	P-O3'-C3'	11.65	133.68	119.70
176	Cz	16	DG	O4'-C4'-C3'	-11.64	99.02	106.00
142	CR	9	DC	P-O3'-C3'	11.63	133.66	119.70
166	Cp	22	DG	P-O3'-C3'	11.63	133.66	119.70
28	Ab	1	DT	O4'-C4'-C3'	-11.63	99.02	106.00
176	Cz	31	DA	O4'-C4'-C3'	-11.62	99.03	106.00
1	AA	7796	DG	O4'-C4'-C3'	-11.62	99.03	106.00
1	AA	979	DC	O4'-C4'-C3'	-11.61	99.04	106.00
56	A3	26	DA	O4'-C4'-C3'	-11.61	99.04	106.00
1	AA	4103	DG	O4'-C4'-C3'	-11.60	99.04	106.00
1	AA	4111	DA	P-O3'-C3'	11.60	133.62	119.70
207	DU	24	DG	O4'-C4'-C3'	-11.60	99.04	106.00
1	AA	6473	DG	P-O3'-C3'	11.58	133.59	119.70
1	AA	6614	DG	O4'-C4'-C3'	-11.58	99.05	106.00
1	AA	4750	DG	P-O3'-C3'	11.57	133.59	119.70
162	Cl	34	DG	O4'-C4'-C3'	-11.56	99.06	106.00
1	AA	4162	DT	P-O3'-C3'	11.56	133.57	119.70
1	AA	732	DC	P-O3'-C3'	11.55	133.56	119.70
1	AA	2049	DA	P-O3'-C3'	11.54	133.55	119.70
156	Cf	12	DG	O4'-C4'-C3'	-11.53	99.08	106.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
125	CA	31	DG	O4'-C4'-C3'	-11.52	99.09	106.00
198	DL	18	DC	O4'-C4'-C3'	-11.52	99.09	106.00
158	Ch	20	DT	P-O3'-C3'	11.52	133.52	119.70
35	Ai	22	DG	P-O3'-C3'	11.51	133.51	119.70
146	CV	13	DA	P-O3'-C3'	11.51	133.51	119.70
1	AA	3367	DG	P-O3'-C3'	11.51	133.51	119.70
1	AA	4337	DG	P-O3'-C3'	11.51	133.51	119.70
1	AA	6690	DG	P-O3'-C3'	11.50	133.50	119.70
68	BF	36	DT	O4'-C4'-C3'	-11.50	99.10	106.00
13	AM	20	DG	O4'-C4'-C3'	-11.49	99.10	106.00
1	AA	5208	DG	P-O3'-C3'	11.48	133.48	119.70
56	A3	18	DC	O4'-C4'-C3'	-11.48	99.11	106.00
1	AA	1	DT	O4'-C4'-C3'	-11.47	99.12	106.00
1	AA	4631	DG	P-O3'-C3'	11.46	133.46	119.70
34	Ah	13	DT	O4'-C4'-C3'	-11.46	99.12	106.00
1	AA	6877	DA	P-O3'-C3'	11.45	133.44	119.70
1	AA	2190	DT	O4'-C4'-C3'	-11.45	99.13	106.00
17	AQ	27	DA	P-O3'-C3'	11.45	133.44	119.70
1	AA	1827	DT	O4'-C4'-C3'	-11.44	99.14	106.00
1	AA	28	DT	O4'-C4'-C3'	-11.43	99.14	106.00
82	BT	23	DG	P-O3'-C3'	11.43	133.42	119.70
1	AA	2674	DA	P-O3'-C3'	11.43	133.42	119.70
199	DM	10	DT	P-O3'-C3'	11.42	133.41	119.70
172	Cv	43	DT	P-O3'-C3'	11.41	133.39	119.70
104	Bp	30	DA	P-O3'-C3'	11.40	133.38	119.70
126	CB	31	DG	O4'-C4'-C3'	-11.40	99.16	106.00
1	AA	2664	DG	O4'-C4'-C3'	-11.39	99.16	106.00
69	BG	1	DC	O4'-C4'-C3'	-11.39	99.16	106.00
1	AA	7574	DT	O4'-C4'-C3'	-11.38	99.17	106.00
88	BZ	9	DA	P-O3'-C3'	11.36	133.33	119.70
1	AA	4135	DT	P-O3'-C3'	11.35	133.32	119.70
17	AQ	27	DA	O4'-C4'-C3'	-11.35	99.19	106.00
110	Bv	24	DT	O4'-C4'-C3'	-11.33	99.20	106.00
51	Ay	27	DT	O4'-C4'-C3'	-11.29	99.22	106.00
1	AA	1891	DT	P-O3'-C3'	11.28	133.24	119.70
84	BV	9	DT	O4'-C4'-C3'	-11.28	99.23	106.00
196	DJ	1	DC	O4'-C4'-C3'	-11.27	99.24	106.00
1	AA	5763	DA	P-O3'-C3'	11.25	133.20	119.70
82	BT	36	DC	P-O3'-C3'	11.23	133.18	119.70
1	AA	4952	DG	O4'-C4'-C3'	-11.22	99.27	106.00
1	AA	6917	DC	P-O3'-C3'	11.21	133.16	119.70
1	AA	7652	DT	O4'-C4'-C3'	-11.21	99.28	106.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	2593	DA	P-O3'-C3'	11.17	133.11	119.70
64	BB	2	DA	P-O3'-C3'	11.17	133.10	119.70
42	Ap	32	DG	O4'-C4'-C3'	-11.15	99.31	106.00
101	Bm	23	DT	O4'-C4'-C3'	-11.15	99.31	106.00
137	CM	21	DT	O4'-C4'-C3'	-11.14	99.31	106.00
1	AA	1849	DT	O4'-C4'-C3'	-11.14	99.32	106.00
25	AY	3	DT	P-O3'-C3'	11.14	133.07	119.70
133	CI	9	DT	P-O3'-C3'	11.13	133.06	119.70
1	AA	5687	DG	P-O3'-C3'	11.13	133.06	119.70
1	AA	831	DC	O4'-C4'-C3'	-11.13	99.32	106.00
47	Au	22	DA	O4'-C4'-C3'	-11.12	99.33	106.00
1	AA	7553	DG	O4'-C4'-C3'	-11.12	99.33	106.00
57	A4	1	DT	O4'-C4'-C3'	-11.11	99.33	106.00
1	AA	3720	DA	P-O3'-C3'	11.11	133.03	119.70
1	AA	5113	DT	O4'-C4'-C3'	-11.11	99.33	106.00
79	BQ	29	DG	O4'-C4'-C3'	-11.11	99.34	106.00
1	AA	1375	DG	O4'-C4'-C3'	-11.10	99.34	106.00
167	Cq	23	DG	P-O3'-C3'	11.10	133.02	119.70
1	AA	5954	DG	O4'-C4'-C3'	-11.09	99.34	106.00
143	CS	16	DG	P-O3'-C3'	11.09	133.01	119.70
1	AA	723	DA	O4'-C4'-C3'	-11.09	99.35	106.00
56	A3	1	DT	P-O3'-C3'	11.08	132.99	119.70
1	AA	1116	DG	P-O3'-C3'	11.07	132.99	119.70
1	AA	818	DT	O4'-C4'-C3'	-11.06	99.36	106.00
30	Ad	16	DT	O4'-C4'-C3'	-11.05	99.37	106.00
1	AA	5243	DC	P-O3'-C3'	11.03	132.94	119.70
1	AA	6690	DG	O4'-C4'-C3'	-11.03	99.38	106.00
155	Ce	36	DT	O4'-C4'-C3'	-11.03	99.38	106.00
1	AA	1581	DC	P-O3'-C3'	11.03	132.93	119.70
1	AA	6430	DT	O4'-C4'-C3'	-11.03	99.38	106.00
176	Cz	31	DA	P-O3'-C3'	11.02	132.93	119.70
192	DF	29	DT	O4'-C4'-C3'	-11.02	99.39	106.00
1	AA	7790	DA	P-O3'-C3'	11.00	132.90	119.70
1	AA	6705	DA	P-O3'-C3'	11.00	132.90	119.70
19	AS	30	DC	P-O3'-C3'	10.98	132.88	119.70
10	AJ	8	DA	P-O3'-C3'	10.98	132.87	119.70
18	AR	30	DA	P-O3'-C3'	10.97	132.87	119.70
1	AA	746	DG	O4'-C4'-C3'	-10.97	99.42	106.00
1	AA	4251	DT	O4'-C4'-C3'	-10.96	99.42	106.00
1	AA	2242	DT	O4'-C4'-C3'	-10.95	99.43	106.00
1	AA	4746	DA	P-O3'-C3'	10.95	132.84	119.70
1	AA	7278	DG	O4'-C4'-C3'	-10.94	99.44	106.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
20	AT	21	DA	P-O3'-C3'	10.94	132.82	119.70
7	AG	24	DG	O4'-C4'-C3'	-10.93	99.44	106.00
197	DK	15	DG	O4'-C4'-C3'	-10.93	99.44	106.00
1	AA	3393	DG	P-O3'-C3'	10.90	132.78	119.70
121	B6	2	DT	O4'-C4'-C3'	-10.90	99.46	106.00
1	AA	2388	DA	P-O3'-C3'	10.89	132.77	119.70
1	AA	4298	DG	P-O3'-C3'	10.89	132.77	119.70
1	AA	6812	DT	O4'-C4'-C3'	-10.89	99.46	106.00
1	AA	47	DA	P-O3'-C3'	10.89	132.77	119.70
1	AA	2001	DC	O4'-C4'-C3'	-10.87	99.48	106.00
1	AA	2647	DG	O4'-C4'-C3'	-10.87	99.48	106.00
1	AA	4246	DA	O4'-C4'-C3'	-10.86	99.49	106.00
163	Cm	16	DG	O4'-C4'-C3'	-10.86	99.49	106.00
1	AA	5113	DT	P-O3'-C3'	10.86	132.73	119.70
1	AA	5897	DG	O4'-C4'-C3'	-10.85	99.49	106.00
114	Bz	34	DA	P-O3'-C3'	10.85	132.72	119.70
110	Bv	24	DT	O4'-C1'-C2'	-10.84	97.23	105.90
21	AU	28	DC	P-O3'-C3'	10.84	132.70	119.70
163	Cm	15	DG	P-O3'-C3'	10.84	132.70	119.70
155	Ce	28	DT	O4'-C4'-C3'	-10.83	99.50	106.00
1	AA	4052	DG	P-O3'-C3'	10.80	132.66	119.70
1	AA	2619	DA	P-O3'-C3'	10.79	132.65	119.70
183	C6	9	DT	P-O3'-C3'	10.79	132.65	119.70
1	AA	7486	DA	P-O3'-C3'	10.78	132.64	119.70
8	AH	37	DG	O4'-C4'-C3'	-10.78	99.53	106.00
171	Cu	34	DT	P-O3'-C3'	10.77	132.63	119.70
1	AA	3125	DT	P-O3'-C3'	10.77	132.62	119.70
1	AA	1143	DT	O4'-C4'-C3'	-10.77	99.54	106.00
1	AA	214	DT	O4'-C4'-C3'	-10.76	99.55	106.00
196	DJ	6	DA	O4'-C4'-C3'	-10.76	99.55	106.00
1	AA	6853	DT	O4'-C4'-C3'	-10.75	99.55	106.00
56	A3	1	DT	O4'-C4'-C3'	-10.74	99.56	106.00
1	AA	4789	DT	O4'-C4'-C3'	-10.74	99.56	106.00
1	AA	6224	DC	P-O3'-C3'	10.73	132.58	119.70
1	AA	4930	DT	O4'-C4'-C3'	-10.73	99.56	106.00
12	AL	1	DT	P-O3'-C3'	10.70	132.54	119.70
144	CT	6	DG	O4'-C4'-C3'	-10.67	99.60	106.00
155	Ce	14	DG	O4'-C4'-C3'	-10.67	99.60	106.00
105	Bq	42	DG	O4'-C4'-C3'	-10.67	99.60	106.00
1	AA	6811	DC	P-O3'-C3'	10.66	132.50	119.70
45	As	1	DA	O4'-C4'-C3'	-10.63	99.62	106.00
1	AA	377	DT	P-O3'-C3'	10.62	132.44	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	514	DC	P-O3'-C3'	10.62	132.44	119.70
1	AA	7122	DG	P-O3'-C3'	10.61	132.43	119.70
1	AA	4122	DA	P-O3'-C3'	10.61	132.43	119.70
24	AX	30	DA	O4'-C4'-C3'	-10.61	99.63	106.00
1	AA	4375	DT	P-O3'-C3'	10.61	132.43	119.70
86	BX	26	DA	O4'-C4'-C3'	-10.61	99.63	106.00
1	AA	7594	DA	P-O3'-C3'	10.60	132.43	119.70
1	AA	5066	DA	O4'-C4'-C3'	-10.60	99.64	106.00
98	Bj	20	DG	P-O3'-C3'	10.60	132.42	119.70
108	Bt	16	DG	O4'-C4'-C3'	-10.60	99.64	106.00
1	AA	7734	DC	P-O3'-C3'	10.58	132.40	119.70
5	AE	17	DC	O4'-C4'-C3'	-10.57	99.66	106.00
131	CG	1	DA	O4'-C4'-C3'	-10.57	99.66	106.00
205	DS	41	DA	P-O3'-C3'	10.56	132.37	119.70
1	AA	1343	DG	P-O3'-C3'	10.56	132.37	119.70
189	DC	16	DC	P-O3'-C3'	10.56	132.37	119.70
191	DE	15	DC	P-O3'-C3'	10.56	132.37	119.70
1	AA	4111	DA	O4'-C4'-C3'	-10.54	99.68	106.00
15	AO	29	DC	O4'-C1'-C2'	-10.54	97.47	105.90
117	B2	31	DT	P-O3'-C3'	10.54	132.35	119.70
1	AA	1343	DG	O4'-C1'-C2'	-10.53	97.48	105.90
1	AA	1939	DT	O4'-C4'-C3'	-10.52	99.69	106.00
1	AA	6465	DT	O4'-C4'-C3'	-10.51	99.70	106.00
127	CC	23	DT	O4'-C4'-C3'	-10.50	99.70	106.00
1	AA	1918	DC	P-O3'-C3'	10.49	132.29	119.70
195	DI	22	DG	O4'-C4'-C3'	-10.49	99.71	106.00
199	DM	27	DG	P-O3'-C3'	10.48	132.28	119.70
1	AA	1438	DG	O4'-C4'-C3'	-10.45	99.73	106.00
1	AA	6361	DG	O4'-C4'-C3'	-10.45	99.73	106.00
54	A1	41	DA	P-O3'-C3'	10.45	132.24	119.70
1	AA	3257	DA	O4'-C4'-C3'	-10.44	99.74	106.00
1	AA	3480	DA	P-O3'-C3'	10.44	132.22	119.70
185	C8	1	DT	O4'-C4'-C3'	-10.44	99.74	106.00
165	Co	19	DG	O4'-C4'-C3'	-10.43	99.74	106.00
1	AA	7446	DG	P-O3'-C3'	10.43	132.22	119.70
1	AA	891	DC	P-O3'-C3'	10.43	132.21	119.70
1	AA	7911	DC	P-O3'-C3'	10.43	132.21	119.70
80	BR	1	DT	O4'-C4'-C3'	-10.42	99.75	106.00
56	A3	8	DT	P-O3'-C3'	10.42	132.21	119.70
111	Bw	5	DA	O4'-C4'-C3'	-10.41	99.75	106.00
1	AA	2242	DT	P-O3'-C3'	10.39	132.17	119.70
189	DC	35	DG	O4'-C4'-C3'	-10.39	99.77	106.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	6710	DT	O4'-C4'-C3'	-10.39	99.77	106.00
16	AP	16	DT	P-O3'-C3'	10.38	132.15	119.70
1	AA	4639	DT	O4'-C4'-C3'	-10.36	99.78	106.00
39	Am	22	DC	O4'-C4'-C3'	-10.36	99.78	106.00
1	AA	4375	DT	O4'-C4'-C3'	-10.36	99.78	106.00
201	DO	37	DG	P-O3'-C3'	10.36	132.13	119.70
1	AA	6438	DT	P-O3'-C3'	10.36	132.13	119.70
27	Aa	19	DT	O4'-C4'-C3'	-10.35	99.79	106.00
195	DI	14	DA	O4'-C4'-C3'	-10.35	99.79	106.00
88	BZ	1	DC	P-O3'-C3'	10.35	132.12	119.70
143	CS	1	DC	O4'-C4'-C3'	-10.35	99.79	106.00
89	Ba	15	DT	O4'-C4'-C3'	-10.34	99.80	106.00
11	AK	1	DT	P-O3'-C3'	10.32	132.08	119.70
45	As	13	DC	P-O3'-C3'	10.31	132.07	119.70
1	AA	6115	DT	P-O3'-C3'	10.31	132.07	119.70
1	AA	3537	DT	O4'-C4'-C3'	-10.30	99.82	106.00
210	DX	36	DC	P-O3'-C3'	10.30	132.06	119.70
185	C8	31	DG	O4'-C4'-C3'	-10.30	99.82	106.00
1	AA	2013	DG	P-O3'-C3'	10.30	132.06	119.70
148	CX	22	DC	P-O3'-C3'	10.30	132.06	119.70
1	AA	1430	DG	P-O3'-C3'	10.28	132.04	119.70
101	Bm	36	DA	O4'-C4'-C3'	-10.28	99.83	106.00
1	AA	5823	DA	P-O3'-C3'	10.27	132.03	119.70
1	AA	6725	DT	P-O3'-C3'	10.27	132.03	119.70
1	AA	4793	DA	O4'-C4'-C3'	-10.27	99.84	106.00
1	AA	5708	DC	P-O3'-C3'	10.25	132.00	119.70
67	BE	2	DT	P-O3'-C3'	10.24	131.99	119.70
55	A2	16	DT	O4'-C4'-C3'	-10.24	99.86	106.00
1	AA	7216	DG	O4'-C4'-C3'	-10.23	99.86	106.00
1	AA	1870	DT	O4'-C4'-C3'	-10.22	99.86	106.00
176	Cz	35	DG	P-O3'-C3'	10.20	131.94	119.70
1	AA	7447	DG	O4'-C4'-C3'	-10.20	99.88	106.00
1	AA	7079	DT	C4'-C3'-C2'	-10.19	93.92	103.10
1	AA	1429	DC	P-O3'-C3'	10.18	131.91	119.70
1	AA	1498	DC	P-O3'-C3'	10.17	131.91	119.70
1	AA	4474	DA	P-O3'-C3'	10.17	131.90	119.70
1	AA	5025	DG	P-O3'-C3'	10.16	131.90	119.70
1	AA	7852	DG	O4'-C4'-C3'	-10.16	99.90	106.00
1	AA	6102	DG	P-O3'-C3'	10.16	131.89	119.70
1	AA	1334	DT	P-O3'-C3'	10.14	131.87	119.70
1	AA	5994	DT	P-O3'-C3'	10.14	131.87	119.70
1	AA	4073	DT	O4'-C4'-C3'	-10.12	99.92	106.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
102	Bn	1	DG	O4'-C4'-C3'	-10.12	99.93	106.00
1	AA	1302	DG	O4'-C4'-C3'	-10.11	99.94	106.00
27	Aa	32	DT	P-O3'-C3'	10.10	131.81	119.70
1	AA	3182	DG	P-O3'-C3'	10.08	131.80	119.70
1	AA	7810	DC	P-O3'-C3'	10.08	131.79	119.70
180	C3	47	DG	P-O3'-C3'	10.08	131.79	119.70
112	Bx	13	DA	P-O3'-C3'	10.07	131.79	119.70
210	DX	26	DG	P-O3'-C3'	10.07	131.79	119.70
145	CU	31	DC	O4'-C4'-C3'	-10.07	99.96	106.00
1	AA	396	DG	P-O3'-C3'	10.06	131.78	119.70
155	Ce	38	DT	O4'-C1'-C2'	-10.06	97.85	105.90
208	DV	19	DG	O4'-C1'-N9	10.06	115.04	108.00
1	AA	4157	DG	O4'-C4'-C3'	-10.06	99.97	106.00
11	AK	1	DT	O4'-C1'-C2'	-10.05	97.86	105.90
1	AA	4706	DT	O4'-C4'-C3'	-10.05	99.97	106.00
1	AA	1106	DA	P-O3'-C3'	10.04	131.75	119.70
1	AA	653	DT	O4'-C4'-C3'	-10.04	99.98	106.00
22	AV	29	DG	O4'-C4'-C3'	-10.03	99.98	106.00
1	AA	4508	DG	O4'-C4'-C3'	-10.03	99.98	106.00
111	Bw	44	DG	P-O3'-C3'	10.03	131.73	119.70
46	At	9	DC	P-O3'-C3'	10.02	131.72	119.70
98	Bj	17	DC	O4'-C4'-C3'	-10.02	99.99	106.00
20	AT	13	DA	O4'-C4'-C3'	-10.01	99.99	106.00
66	BD	34	DT	O4'-C4'-C3'	-10.01	99.99	106.00
42	Ap	28	DG	O4'-C4'-C3'	-9.99	100.00	106.00
157	Cg	10	DG	O4'-C4'-C3'	-9.99	100.00	106.00
1	AA	2432	DT	O4'-C4'-C3'	-9.99	100.01	106.00
210	DX	11	DT	P-O3'-C3'	9.99	131.69	119.70
1	AA	7402	DT	P-O3'-C3'	9.98	131.68	119.70
41	Ao	27	DC	P-O3'-C3'	9.98	131.68	119.70
1	AA	6092	DG	P-O3'-C3'	9.97	131.67	119.70
1	AA	4669	DT	O4'-C4'-C3'	-9.96	100.02	106.00
1	AA	5466	DT	O4'-C4'-C3'	-9.96	100.02	106.00
1	AA	2683	DA	O4'-C4'-C3'	-9.94	100.04	106.00
1	AA	3771	DT	O4'-C4'-C3'	-9.93	100.04	106.00
13	AM	22	DC	P-O3'-C3'	9.93	131.61	119.70
178	C1	15	DA	O4'-C4'-C3'	-9.93	100.04	106.00
1	AA	1086	DG	O4'-C4'-C3'	-9.92	100.05	106.00
39	Am	17	DT	O4'-C1'-C2'	-9.91	97.97	105.90
39	Am	32	DT	O4'-C4'-C3'	-9.91	100.05	106.00
1	AA	4895	DG	O4'-C4'-C3'	-9.90	100.06	106.00
1	AA	7161	DT	O4'-C4'-C3'	-9.89	100.06	106.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	7447	DG	O4'-C1'-C2'	-9.89	97.99	105.90
67	BE	7	DT	P-O3'-C3'	9.89	131.56	119.70
1	AA	1944	DG	O4'-C4'-C3'	-9.88	100.07	106.00
203	DQ	20	DG	O4'-C4'-C3'	-9.88	100.07	106.00
1	AA	6993	DG	O4'-C4'-C3'	-9.88	100.07	106.00
1	AA	7265	DA	P-O3'-C3'	9.88	131.55	119.70
7	AG	5	DG	P-O3'-C3'	9.86	131.53	119.70
146	CV	15	DG	O4'-C1'-C2'	-9.86	98.01	105.90
82	BT	35	DT	O4'-C4'-C3'	-9.85	100.09	106.00
11	AK	15	DG	O4'-C4'-C3'	-9.84	100.10	106.00
133	CI	2	DT	P-O3'-C3'	9.83	131.50	119.70
1	AA	7033	DA	O4'-C4'-C3'	-9.83	100.10	106.00
108	Bt	1	DC	O4'-C4'-C3'	-9.83	100.10	106.00
1	AA	4997	DC	P-O3'-C3'	9.82	131.49	119.70
71	BI	5	DA	P-O3'-C3'	9.81	131.48	119.70
1	AA	159	DC	O4'-C1'-C2'	-9.81	98.05	105.90
164	Cn	8	DC	O4'-C4'-C3'	-9.81	100.11	106.00
1	AA	6934	DA	P-O3'-C3'	9.80	131.47	119.70
131	CG	1	DA	P-O3'-C3'	9.80	131.47	119.70
1	AA	1524	DA	O4'-C4'-C3'	-9.80	100.12	106.00
25	AY	12	DC	P-O3'-C3'	9.79	131.45	119.70
1	AA	1753	DC	C6-N1-C2	-9.78	116.39	120.30
156	Cf	1	DT	O4'-C4'-C3'	-9.78	100.13	106.00
98	Bj	9	DC	P-O3'-C3'	9.78	131.44	119.70
190	DD	19	DC	O4'-C4'-C3'	-9.78	100.13	106.00
90	Bb	4	DT	P-O3'-C3'	9.77	131.42	119.70
163	Cm	1	DT	O4'-C4'-C3'	-9.76	100.14	106.00
1	AA	5058	DA	O4'-C1'-C2'	-9.76	98.09	105.90
53	A0	17	DT	P-O3'-C3'	9.75	131.41	119.70
1	AA	1218	DG	P-O3'-C3'	9.73	131.38	119.70
1	AA	5994	DT	O4'-C4'-C3'	-9.73	100.16	106.00
69	BG	34	DC	P-O3'-C3'	9.73	131.38	119.70
1	AA	4415	DA	O4'-C4'-C3'	-9.73	100.16	106.00
1	AA	5026	DC	O4'-C1'-C2'	-9.73	98.12	105.90
1	AA	1798	DG	P-O3'-C3'	9.72	131.37	119.70
51	Ay	5	DT	P-O3'-C3'	9.71	131.35	119.70
163	Cm	21	DT	P-O3'-C3'	9.70	131.34	119.70
209	DW	42	DT	P-O3'-C3'	9.70	131.34	119.70
167	Cq	32	DC	P-O3'-C3'	9.69	131.33	119.70
1	AA	615	DG	O4'-C4'-C3'	-9.69	100.19	106.00
1	AA	917	DC	P-O3'-C3'	9.69	131.32	119.70
1	AA	2312	DG	P-O3'-C3'	9.69	131.32	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
155	Ce	38	DT	O4'-C4'-C3'	-9.68	100.19	106.00
4	AD	16	DT	O4'-C4'-C3'	-9.68	100.19	106.00
1	AA	3132	DT	P-O3'-C3'	9.68	131.31	119.70
156	Cf	18	DC	P-O3'-C3'	9.68	131.31	119.70
1	AA	5959	DT	O4'-C1'-C2'	-9.67	98.16	105.90
43	Aq	35	DC	O4'-C1'-C2'	-9.67	98.17	105.90
29	Ac	19	DG	O4'-C4'-C3'	-9.65	100.21	106.00
1	AA	3943	DT	O4'-C4'-C3'	-9.63	100.22	106.00
42	Ap	1	DA	P-O3'-C3'	9.63	131.26	119.70
1	AA	7638	DG	O4'-C4'-C3'	-9.63	100.22	106.00
186	C9	1	DT	O4'-C4'-C3'	-9.63	100.22	106.00
1	AA	2736	DT	O4'-C4'-C3'	-9.62	100.23	106.00
1	AA	1732	DT	O4'-C4'-C3'	-9.61	100.23	106.00
1	AA	47	DA	O4'-C4'-C3'	-9.61	100.23	106.00
115	B0	39	DT	P-O3'-C3'	9.60	131.22	119.70
1	AA	8009	DA	P-O3'-C3'	9.60	131.22	119.70
28	Ab	37	DT	O4'-C4'-C3'	-9.60	100.24	106.00
144	CT	27	DT	P-O3'-C3'	9.60	131.22	119.70
203	DQ	42	DC	P-O3'-C3'	9.60	131.22	119.70
1	AA	5046	DG	O4'-C1'-C2'	-9.59	98.23	105.90
1	AA	1311	DG	O4'-C4'-C3'	-9.57	100.25	106.00
211	DY	1	DG	O4'-C4'-C3'	-9.57	100.26	106.00
1	AA	6048	DA	O4'-C4'-C3'	-9.56	100.26	106.00
54	A1	11	DG	P-O3'-C3'	9.56	131.17	119.70
210	DX	40	DA	O4'-C1'-C2'	-9.56	98.25	105.90
1	AA	1268	DT	P-O3'-C3'	9.55	131.17	119.70
71	BI	13	DA	P-O3'-C3'	9.56	131.17	119.70
1	AA	7297	DA	P-O3'-C3'	9.55	131.16	119.70
120	B5	26	DG	O4'-C4'-C3'	-9.54	100.27	106.00
1	AA	246	DG	P-O3'-C3'	9.54	131.15	119.70
1	AA	6405	DC	O4'-C1'-C2'	-9.54	98.27	105.90
1	AA	3666	DC	P-O3'-C3'	9.54	131.15	119.70
1	AA	7932	DC	O4'-C1'-C2'	-9.53	98.27	105.90
31	Ae	13	DC	P-O3'-C3'	9.53	131.14	119.70
141	CQ	16	DT	O4'-C4'-C3'	-9.53	100.28	106.00
1	AA	7913	DC	P-O3'-C3'	9.52	131.12	119.70
202	DP	18	DG	P-O3'-C3'	9.52	131.12	119.70
1	AA	5434	DT	O4'-C1'-C2'	-9.51	98.29	105.90
211	DY	8	DG	O4'-C4'-C3'	-9.51	100.29	106.00
39	Am	39	DT	P-O3'-C3'	9.51	131.11	119.70
1	AA	649	DA	O4'-C4'-C3'	-9.51	100.30	106.00
1	AA	2451	DC	P-O3'-C3'	9.50	131.10	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	5777	DC	P-O3'-C3'	9.49	131.09	119.70
1	AA	4214	DG	O4'-C4'-C3'	-9.49	100.31	106.00
210	DX	34	DA	O4'-C1'-C2'	-9.48	98.31	105.90
1	AA	7442	DG	O4'-C4'-C3'	-9.48	100.31	106.00
210	DX	17	DT	O4'-C4'-C3'	-9.48	100.31	106.00
184	C7	7	DC	C2-N1-C1'	9.47	129.22	118.80
1	AA	5613	DG	P-O3'-C3'	9.47	131.07	119.70
81	BS	18	DG	O4'-C4'-C3'	-9.47	100.32	106.00
123	B8	15	DC	C6-N1-C2	-9.47	116.51	120.30
60	A7	26	DC	P-O3'-C3'	9.46	131.05	119.70
89	Ba	19	DC	P-O3'-C3'	9.46	131.05	119.70
166	Cp	35	DG	P-O3'-C3'	9.45	131.04	119.70
23	AW	35	DA	P-O3'-C3'	9.45	131.04	119.70
1	AA	4510	DT	O4'-C4'-C3'	-9.44	100.33	106.00
187	DA	29	DC	P-O3'-C3'	9.44	131.03	119.70
1	AA	1948	DT	O4'-C4'-C3'	-9.43	100.34	106.00
100	Bl	5	DT	P-O3'-C3'	9.43	131.02	119.70
40	An	26	DT	O4'-C4'-C3'	-9.43	100.34	106.00
60	A7	8	DG	P-O3'-C3'	9.42	131.00	119.70
25	AY	15	DT	O4'-C4'-C3'	-9.42	100.35	106.00
1	AA	6918	DT	O4'-C4'-C3'	-9.41	100.35	106.00
61	A8	30	DA	P-O3'-C3'	9.41	130.99	119.70
101	Bm	2	DT	P-O3'-C3'	9.41	130.99	119.70
1	AA	960	DC	O4'-C1'-C2'	-9.39	98.39	105.90
1	AA	1581	DC	O4'-C1'-C2'	-9.37	98.40	105.90
118	B3	16	DG	O4'-C4'-C3'	-9.38	100.38	106.00
121	B6	24	DC	P-O3'-C3'	9.38	130.95	119.70
205	DS	26	DC	P-O3'-C3'	9.34	130.91	119.70
21	AU	2	DG	O4'-C4'-C3'	-9.34	100.40	106.00
1	AA	2206	DC	O4'-C4'-C3'	-9.33	100.40	106.00
127	CC	1	DG	O4'-C4'-C3'	-9.31	100.41	106.00
1	AA	2214	DG	O4'-C1'-N9	9.30	114.51	108.00
25	AY	28	DC	O4'-C4'-C3'	-9.30	100.42	106.00
1	AA	7122	DG	O4'-C4'-C3'	-9.29	100.42	106.00
25	AY	29	DT	O4'-C4'-C3'	-9.29	100.43	106.00
1	AA	6779	DT	P-O3'-C3'	9.29	130.85	119.70
117	B2	19	DC	P-O3'-C3'	9.29	130.85	119.70
1	AA	377	DT	O4'-C1'-C2'	-9.28	98.48	105.90
1	AA	2385	DG	O4'-C1'-N9	9.27	114.49	108.00
82	BT	6	DA	O4'-C4'-C3'	-9.27	100.44	106.00
1	AA	2046	DA	P-O3'-C3'	9.26	130.81	119.70
117	B2	26	DT	O4'-C4'-C3'	-9.26	100.45	106.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
135	CK	1	DA	P-O3'-C3'	9.25	130.80	119.70
1	AA	6123	DT	O4'-C4'-C3'	-9.25	100.45	106.00
1	AA	1844	DC	O4'-C1'-C2'	-9.25	98.50	105.90
193	DG	1	DT	O4'-C1'-C2'	-9.24	98.51	105.90
1	AA	6507	DA	O4'-C4'-C3'	-9.24	100.46	106.00
1	AA	7288	DG	O4'-C1'-N9	9.23	114.46	108.00
155	Ce	42	DT	O4'-C1'-C2'	-9.23	98.52	105.90
1	AA	4464	DA	O4'-C4'-C3'	-9.22	100.47	106.00
108	Bt	22	DT	P-O3'-C3'	9.22	130.76	119.70
192	DF	19	DG	P-O3'-C3'	9.22	130.77	119.70
1	AA	4162	DT	O4'-C4'-C3'	-9.21	100.47	106.00
138	CN	8	DC	O4'-C4'-C3'	-9.21	100.47	106.00
1	AA	2891	DC	O4'-C1'-C2'	-9.21	98.53	105.90
1	AA	2924	DC	P-O3'-C3'	9.21	130.75	119.70
1	AA	2147	DC	P-O3'-C3'	9.20	130.74	119.70
30	Ad	24	DT	P-O3'-C3'	9.20	130.74	119.70
1	AA	3740	DT	O4'-C4'-C3'	-9.19	100.48	106.00
1	AA	7462	DT	O4'-C4'-C3'	-9.20	100.48	106.00
138	CN	26	DT	O4'-C1'-C2'	-9.20	98.54	105.90
206	DT	7	DC	O4'-C4'-C3'	-9.19	100.48	106.00
1	AA	5277	DG	O4'-C4'-C3'	-9.19	100.49	106.00
1	AA	7831	DG	P-O3'-C3'	9.18	130.71	119.70
1	AA	7993	DT	O4'-C4'-C3'	-9.17	100.50	106.00
1	AA	1872	DT	P-O3'-C3'	9.17	130.70	119.70
1	AA	4281	DA	P-O3'-C3'	9.17	130.70	119.70
40	An	13	DA	O4'-C4'-C3'	-9.16	100.50	106.00
66	BD	24	DT	P-O3'-C3'	9.16	130.69	119.70
1	AA	377	DT	O4'-C4'-C3'	-9.15	100.51	106.00
149	CY	3	DG	P-O3'-C3'	9.15	130.68	119.70
1	AA	1318	DG	O4'-C4'-C3'	-9.15	100.51	106.00
1	AA	2333	DT	O4'-C4'-C3'	-9.15	100.51	106.00
76	BN	32	DA	P-O3'-C3'	9.15	130.68	119.70
209	DW	22	DC	O4'-C4'-C3'	-9.15	100.51	106.00
170	Ct	23	DG	P-O3'-C3'	9.14	130.67	119.70
1	AA	5234	DT	O4'-C4'-C3'	-9.14	100.52	106.00
1	AA	4483	DA	O4'-C1'-C2'	-9.14	98.59	105.90
43	Aq	5	DG	P-O3'-C3'	9.14	130.67	119.70
1	AA	7882	DC	P-O3'-C3'	9.13	130.66	119.70
1	AA	6160	DT	P-O3'-C3'	9.13	130.66	119.70
203	DQ	24	DG	O4'-C4'-C3'	-9.13	100.52	106.00
102	Bn	2	DG	P-O3'-C3'	9.12	130.65	119.70
1	AA	5367	DT	P-O3'-C3'	9.12	130.64	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
146	CV	9	DT	O4'-C4'-C3'	-9.11	100.53	106.00
1	AA	5607	DC	O4'-C1'-C2'	-9.11	98.61	105.90
127	CC	1	DG	P-O3'-C3'	9.11	130.63	119.70
8	AH	37	DG	P-O3'-C3'	9.10	130.62	119.70
50	Ax	6	DT	O4'-C1'-C2'	-9.10	98.62	105.90
1	AA	5906	DT	P-O3'-C3'	9.09	130.61	119.70
1	AA	6817	DT	O4'-C4'-C3'	-9.09	100.55	106.00
1	AA	3397	DC	O4'-C1'-C2'	-9.08	98.63	105.90
1	AA	593	DG	P-O3'-C3'	9.07	130.59	119.70
1	AA	1106	DA	O4'-C4'-C3'	-9.07	100.56	106.00
1	AA	6451	DT	P-O3'-C3'	9.07	130.59	119.70
56	A3	15	DT	O4'-C1'-C2'	-9.06	98.65	105.90
1	AA	7681	DC	O4'-C1'-C2'	-9.05	98.66	105.90
1	AA	1119	DT	O4'-C4'-C3'	-9.05	100.57	106.00
27	Aa	13	DG	P-O3'-C3'	9.04	130.55	119.70
1	AA	4214	DG	O4'-C1'-C2'	-9.04	98.67	105.90
1	AA	7153	DG	P-O3'-C3'	9.04	130.55	119.70
35	Ai	16	DA	P-O3'-C3'	9.03	130.54	119.70
1	AA	510	DT	O4'-C1'-C2'	-9.03	98.68	105.90
1	AA	6420	DA	P-O3'-C3'	9.02	130.53	119.70
1	AA	498	DA	O4'-C1'-C2'	-9.00	98.70	105.90
116	B1	41	DA	P-O3'-C3'	9.00	130.50	119.70
12	AL	6	DT	P-O3'-C3'	8.99	130.49	119.70
98	Bj	20	DG	O4'-C4'-C3'	-8.98	100.61	106.00
205	DS	21	DA	O4'-C1'-C2'	-8.98	98.71	105.90
1	AA	2683	DA	P-O3'-C3'	8.98	130.47	119.70
1	AA	1343	DG	O4'-C4'-C3'	-8.97	100.62	106.00
1	AA	4877	DG	O4'-C4'-C3'	-8.97	100.62	106.00
1	AA	8034	DG	O4'-C4'-C3'	-8.97	100.62	106.00
1	AA	2413	DA	P-O3'-C3'	8.96	130.46	119.70
82	BT	23	DG	O4'-C1'-C2'	-8.97	98.73	105.90
1	AA	150	DG	O4'-C1'-C2'	-8.96	98.73	105.90
1	AA	6991	DT	O4'-C1'-C2'	-8.96	98.73	105.90
189	DC	14	DC	O4'-C1'-C2'	-8.95	98.74	105.90
132	CH	45	DT	C1'-O4'-C4'	-8.95	101.15	110.10
114	Bz	36	DG	O4'-C1'-N9	8.95	114.26	108.00
128	CD	37	DC	P-O3'-C3'	8.95	130.44	119.70
193	DG	29	DG	O4'-C1'-C2'	-8.94	98.75	105.90
1	AA	1837	DA	O4'-C1'-C2'	-8.94	98.75	105.90
1	AA	2864	DC	O4'-C1'-C2'	-8.94	98.75	105.90
129	CE	16	DG	O4'-C1'-C2'	-8.94	98.75	105.90
1	AA	5208	DG	O4'-C1'-C2'	-8.94	98.75	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
75	BM	9	DT	P-O3'-C3'	8.93	130.42	119.70
1	AA	2287	DA	O4'-C1'-C2'	-8.93	98.76	105.90
171	Cu	18	DG	P-O3'-C3'	8.92	130.41	119.70
1	AA	1756	DC	O4'-C1'-C2'	-8.92	98.76	105.90
1	AA	3973	DT	O4'-C4'-C3'	-8.92	100.65	106.00
1	AA	1324	DG	P-O3'-C3'	8.91	130.40	119.70
20	AT	19	DG	O4'-C4'-C3'	-8.91	100.65	106.00
1	AA	5737	DG	O4'-C4'-C3'	-8.90	100.66	106.00
172	Cv	13	DC	O4'-C1'-C2'	-8.90	98.78	105.90
19	AS	39	DA	P-O3'-C3'	8.90	130.38	119.70
69	BG	34	DC	O4'-C4'-C3'	-8.90	100.66	106.00
98	Bj	10	DC	P-O3'-C3'	8.90	130.38	119.70
1	AA	132	DG	P-O3'-C3'	8.89	130.37	119.70
20	AT	29	DT	O4'-C4'-C3'	-8.89	100.67	106.00
1	AA	6765	DA	O4'-C1'-C2'	-8.89	98.79	105.90
3	AC	10	DT	O4'-C4'-C3'	-8.88	100.67	106.00
1	AA	1595	DC	P-O3'-C3'	8.88	130.35	119.70
181	C4	1	DG	P-O3'-C3'	8.87	130.35	119.70
155	Ce	4	DT	P-O3'-C3'	8.86	130.34	119.70
177	C0	9	DT	P-O3'-C3'	8.86	130.34	119.70
35	Ai	42	DT	O4'-C1'-C2'	-8.86	98.81	105.90
82	BT	19	DA	P-O3'-C3'	8.86	130.33	119.70
11	AK	1	DT	O4'-C4'-C3'	-8.86	100.69	106.00
65	BC	49	DT	O4'-C4'-C3'	-8.86	100.68	106.00
1	AA	7051	DG	O4'-C4'-C3'	-8.86	100.69	106.00
1	AA	7101	DC	P-O3'-C3'	8.85	130.32	119.70
32	Af	16	DG	O4'-C1'-C2'	-8.85	98.82	105.90
143	CS	16	DG	O4'-C4'-C3'	-8.85	100.69	106.00
1	AA	7735	DC	O4'-C1'-C2'	-8.85	98.82	105.90
91	Bc	28	DA	O4'-C4'-C3'	-8.84	100.70	106.00
113	By	12	DC	P-O3'-C3'	8.84	130.30	119.70
1	AA	3169	DC	P-O3'-C3'	8.83	130.29	119.70
130	CF	21	DA	P-O3'-C3'	8.82	130.29	119.70
1	AA	1003	DG	O4'-C4'-C3'	-8.82	100.71	106.00
25	AY	28	DC	P-O3'-C3'	8.82	130.28	119.70
1	AA	6587	DG	O4'-C4'-C3'	-8.82	100.71	106.00
1	AA	7380	DC	O4'-C4'-C3'	-8.81	100.71	106.00
121	B6	1	DC	O4'-C1'-C2'	-8.80	98.86	105.90
1	AA	2008	DC	C6-N1-C2	-8.79	116.78	120.30
1	AA	6509	DA	P-O3'-C3'	8.79	130.25	119.70
53	A0	48	DT	O4'-C4'-C3'	-8.79	100.72	106.00
40	An	30	DT	O4'-C1'-C2'	-8.78	98.87	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
91	Bc	12	DA	O4'-C4'-C3'	-8.78	100.73	106.00
53	A0	6	DG	P-O3'-C3'	8.78	130.23	119.70
167	Cq	23	DG	C1'-O4'-C4'	-8.78	101.33	110.10
1	AA	2198	DA	O4'-C1'-C2'	-8.77	98.88	105.90
132	CH	45	DT	P-O3'-C3'	8.77	130.23	119.70
199	DM	19	DC	P-O3'-C3'	8.77	130.23	119.70
1	AA	1891	DT	O4'-C1'-C2'	-8.77	98.89	105.90
159	Ci	33	DT	P-O3'-C3'	8.77	130.22	119.70
199	DM	15	DG	O4'-C4'-C3'	-8.76	100.74	106.00
1	AA	6400	DT	O4'-C1'-C2'	-8.76	98.89	105.90
18	AR	29	DA	P-O3'-C3'	8.75	130.20	119.70
82	BT	23	DG	O4'-C4'-C3'	-8.75	100.75	106.00
190	DD	1	DA	P-O3'-C3'	8.75	130.20	119.70
1	AA	2413	DA	O4'-C4'-C3'	-8.75	100.75	106.00
1	AA	4344	DC	P-O3'-C3'	8.74	130.19	119.70
1	AA	176	DC	O4'-C1'-C2'	-8.74	98.91	105.90
52	Az	9	DT	P-O3'-C3'	8.74	130.19	119.70
1	AA	858	DG	C5-C6-O6	-8.74	123.36	128.60
1	AA	4051	DC	O4'-C1'-C2'	-8.74	98.91	105.90
1	AA	5148	DC	O4'-C1'-C2'	-8.74	98.91	105.90
1	AA	7965	DA	O4'-C1'-C2'	-8.74	98.91	105.90
1	AA	493	DT	P-O3'-C3'	8.74	130.18	119.70
1	AA	1431	DC	O4'-C1'-C2'	-8.73	98.91	105.90
1	AA	7137	DC	P-O3'-C3'	8.73	130.18	119.70
199	DM	1	DT	O4'-C4'-C3'	-8.72	100.77	106.00
1	AA	4260	DA	O4'-C4'-C3'	-8.72	100.77	106.00
1	AA	3829	DA	O4'-C1'-C2'	-8.72	98.93	105.90
198	DL	12	DC	O4'-C1'-C2'	-8.71	98.93	105.90
134	CJ	34	DA	O4'-C4'-C3'	-8.70	100.78	106.00
17	AQ	5	DT	O4'-C1'-C2'	-8.70	98.94	105.90
206	DT	14	DT	O4'-C4'-C3'	-8.70	100.78	106.00
3	AC	18	DA	O4'-C4'-C3'	-8.70	100.78	106.00
15	AO	14	DG	O4'-C4'-C3'	-8.70	100.78	106.00
1	AA	7810	DC	O4'-C1'-C2'	-8.70	98.94	105.90
63	BA	42	DG	O4'-C1'-C2'	-8.69	98.95	105.90
1	AA	4389	DA	P-O3'-C3'	8.69	130.13	119.70
1	AA	8027	DT	O4'-C4'-C3'	-8.68	100.79	106.00
1	AA	4337	DG	O4'-C1'-C2'	-8.68	98.96	105.90
1	AA	5986	DA	P-O3'-C3'	8.67	130.11	119.70
150	CZ	12	DC	P-O3'-C3'	8.67	130.11	119.70
141	CQ	30	DG	P-O3'-C3'	8.67	130.10	119.70
1	AA	4165	DG	O4'-C1'-C2'	-8.66	98.97	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	4135	DT	O4'-C1'-C2'	-8.66	98.97	105.90
1	AA	4483	DA	O4'-C4'-C3'	-8.66	100.81	106.00
1	AA	4625	DG	P-O3'-C3'	8.64	130.07	119.70
133	CI	9	DT	O4'-C1'-C2'	-8.64	98.98	105.90
195	DI	14	DA	C1'-O4'-C4'	-8.64	101.46	110.10
166	Cp	22	DG	O4'-C1'-C2'	-8.63	99.00	105.90
66	BD	26	DA	O4'-C1'-C2'	-8.62	99.00	105.90
1	AA	2403	DG	O4'-C1'-C2'	-8.61	99.01	105.90
1	AA	3673	DA	O4'-C4'-C3'	-8.61	100.83	106.00
182	C5	22	DA	O4'-C4'-C3'	-8.61	100.84	106.00
136	CL	21	DA	P-O3'-C3'	8.60	130.02	119.70
187	DA	20	DC	C6-N1-C2	-8.60	116.86	120.30
1	AA	6795	DA	P-O3'-C3'	8.60	130.02	119.70
1	AA	7825	DT	O4'-C1'-C2'	-8.60	99.02	105.90
107	Bs	15	DA	O4'-C4'-C3'	-8.60	100.84	106.00
162	Cl	17	DG	O4'-C1'-C2'	-8.59	99.03	105.90
1	AA	2725	DT	O4'-C4'-C3'	-8.59	100.85	106.00
129	CE	17	DC	P-O3'-C3'	8.59	130.00	119.70
119	B4	21	DT	O4'-C4'-C3'	-8.58	100.85	106.00
1	AA	2674	DA	O4'-C1'-C2'	-8.58	99.04	105.90
211	DY	14	DG	O4'-C1'-C2'	-8.58	99.04	105.90
1	AA	2872	DA	O4'-C4'-C3'	-8.57	100.86	106.00
19	AS	30	DC	O4'-C1'-C2'	-8.57	99.05	105.90
3	AC	29	DT	P-O3'-C3'	8.56	129.97	119.70
1	AA	2287	DA	O4'-C4'-C3'	-8.56	100.87	106.00
111	Bw	44	DG	O4'-C4'-C3'	-8.56	100.86	106.00
1	AA	4976	DA	O4'-C4'-C3'	-8.56	100.87	106.00
75	BM	19	DG	O4'-C4'-C3'	-8.55	100.87	106.00
1	AA	7790	DA	O4'-C1'-C2'	-8.55	99.06	105.90
1	AA	7370	DT	O4'-C4'-C3'	-8.55	100.87	106.00
1	AA	2931	DG	P-O3'-C3'	8.54	129.95	119.70
1	AA	4590	DT	C4'-C3'-C2'	-8.53	95.43	103.10
171	Cu	14	DC	O4'-C1'-C2'	-8.52	99.08	105.90
1	AA	6352	DG	O4'-C4'-C3'	-8.52	100.89	106.00
1	AA	1025	DG	P-O3'-C3'	8.51	129.92	119.70
1	AA	1435	DG	O4'-C1'-C2'	-8.51	99.09	105.90
1	AA	1649	DT	O4'-C4'-C3'	-8.51	100.89	106.00
184	C7	7	DC	O4'-C1'-N1	8.51	113.96	108.00
69	BG	1	DC	O4'-C1'-C2'	-8.50	99.10	105.90
158	Ch	36	DC	O4'-C4'-C3'	-8.50	100.90	106.00
1	AA	3157	DC	P-O3'-C3'	8.50	129.90	119.70
205	DS	23	DT	P-O3'-C3'	8.49	129.89	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
151	Ca	16	DT	O4'-C4'-C3'	-8.49	100.91	106.00
1	AA	7913	DC	O4'-C1'-C2'	-8.49	99.11	105.90
1	AA	2790	DT	O4'-C1'-C2'	-8.48	99.11	105.90
38	Al	1	DG	O4'-C4'-C3'	-8.48	100.91	106.00
118	B3	19	DA	P-O3'-C3'	8.48	129.88	119.70
192	DF	1	DT	O4'-C1'-C2'	-8.48	99.11	105.90
195	DI	1	DG	O4'-C1'-C2'	-8.48	99.12	105.90
122	B7	33	DA	P-O3'-C3'	8.47	129.87	119.70
43	Aq	45	DC	O4'-C4'-C3'	-8.47	100.92	106.00
1	AA	5243	DC	O4'-C1'-C2'	-8.46	99.13	105.90
1	AA	6047	DC	O4'-C1'-C2'	-8.46	99.13	105.90
184	C7	7	DC	C6-N1-C1'	-8.45	110.66	120.80
59	A6	1	DT	O4'-C4'-C3'	-8.45	100.93	106.00
1	AA	1126	DC	O4'-C1'-C2'	-8.44	99.14	105.90
39	Am	17	DT	O4'-C4'-C3'	-8.44	100.94	106.00
183	C6	28	DC	O4'-C1'-C2'	-8.44	99.15	105.90
1	AA	4604	DG	O4'-C4'-C3'	-8.44	100.94	106.00
1	AA	4936	DA	O4'-C4'-C3'	-8.43	100.94	106.00
1	AA	7734	DC	O4'-C1'-C2'	-8.43	99.15	105.90
1	AA	3234	DG	O4'-C1'-C2'	-8.43	99.16	105.90
1	AA	732	DC	O4'-C1'-C2'	-8.43	99.16	105.90
1	AA	990	DT	O4'-C4'-C3'	-8.43	100.94	106.00
1	AA	2089	DA	O4'-C1'-C2'	-8.43	99.16	105.90
1	AA	2816	DG	O4'-C1'-C2'	-8.42	99.17	105.90
185	C8	16	DC	O4'-C1'-C2'	-8.42	99.17	105.90
1	AA	7127	DG	C4'-C3'-C2'	-8.41	95.53	103.10
1	AA	900	DG	O4'-C1'-C2'	-8.41	99.17	105.90
65	BC	9	DG	P-O3'-C3'	8.41	129.80	119.70
95	Bg	5	DT	P-O3'-C3'	8.41	129.80	119.70
1	AA	2733	DG	O4'-C4'-C3'	-8.41	100.95	106.00
169	Cs	25	DC	P-O3'-C3'	8.41	129.79	119.70
1	AA	6317	DT	O4'-C4'-C3'	-8.40	100.96	106.00
207	DU	37	DC	O4'-C1'-C2'	-8.40	99.18	105.90
1	AA	2204	DG	O4'-C4'-C3'	-8.40	100.96	106.00
91	Bc	30	DT	O4'-C4'-C3'	-8.39	100.96	106.00
118	B3	1	DT	O4'-C4'-C3'	-8.39	100.96	106.00
1	AA	4450	DA	O4'-C1'-C2'	-8.39	99.19	105.90
1	AA	1311	DG	C4'-C3'-C2'	-8.39	95.55	103.10
1	AA	578	DC	O4'-C1'-C2'	-8.39	99.19	105.90
118	B3	17	DT	P-O3'-C3'	8.39	129.76	119.70
1	AA	6438	DT	O4'-C4'-C3'	-8.38	100.97	106.00
1	AA	3276	DT	O4'-C1'-C2'	-8.38	99.20	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	6483	DA	P-O3'-C3'	8.38	129.76	119.70
1	AA	2865	DC	O4'-C1'-C2'	-8.37	99.20	105.90
1	AA	3142	DC	O4'-C4'-C3'	-8.37	100.98	106.00
1	AA	5716	DA	P-O3'-C3'	8.37	129.75	119.70
1	AA	7431	DA	O4'-C4'-C3'	-8.37	100.98	106.00
1	AA	7288	DG	P-O3'-C3'	8.37	129.74	119.70
1	AA	303	DG	O4'-C4'-C3'	-8.37	100.98	106.00
183	C6	36	DT	O4'-C4'-C3'	-8.36	100.98	106.00
1	AA	4396	DG	P-O3'-C3'	8.36	129.73	119.70
1	AA	2912	DA	O4'-C1'-C2'	-8.36	99.21	105.90
1	AA	7972	DG	O4'-C1'-C2'	-8.36	99.21	105.90
1	AA	1	DT	C1'-O4'-C4'	-8.36	101.75	110.10
1	AA	3866	DT	O4'-C1'-C2'	-8.35	99.22	105.90
1	AA	4184	DG	O4'-C1'-C2'	-8.35	99.22	105.90
1	AA	2683	DA	C4'-C3'-C2'	-8.35	95.59	103.10
1	AA	2403	DG	O4'-C4'-C3'	-8.34	100.99	106.00
34	Ah	11	DG	P-O3'-C3'	8.34	129.71	119.70
166	Cp	1	DG	O4'-C4'-C3'	-8.34	101.00	106.00
183	C6	22	DA	O4'-C4'-C3'	-8.34	101.00	106.00
1	AA	108	DT	O4'-C1'-C2'	-8.33	99.23	105.90
150	CZ	32	DA	P-O3'-C3'	8.33	129.70	119.70
1	AA	6405	DC	O4'-C4'-C3'	-8.32	101.01	106.00
1	AA	5026	DC	O4'-C4'-C3'	-8.31	101.01	106.00
1	AA	3575	DG	O4'-C1'-C2'	-8.31	99.25	105.90
1	AA	955	DC	O4'-C1'-C2'	-8.30	99.26	105.90
1	AA	6771	DG	O4'-C4'-C3'	-8.30	101.02	106.00
1	AA	1232	DG	O4'-C1'-C2'	-8.29	99.26	105.90
1	AA	3720	DA	O4'-C1'-C2'	-8.29	99.26	105.90
167	Cq	23	DG	O4'-C1'-C2'	-8.29	99.27	105.90
184	C7	14	DC	O4'-C1'-C2'	-8.29	99.27	105.90
134	CJ	32	DC	P-O3'-C3'	8.29	129.65	119.70
1	AA	159	DC	O4'-C4'-C3'	-8.29	101.03	106.00
1	AA	7288	DG	C1'-O4'-C4'	-8.28	101.82	110.10
1	AA	5763	DA	O4'-C1'-C2'	-8.28	99.28	105.90
1	AA	2067	DG	O4'-C1'-C2'	-8.27	99.28	105.90
129	CE	16	DG	O4'-C4'-C3'	-8.27	101.04	106.00
46	At	9	DC	O4'-C1'-C2'	-8.27	99.29	105.90
193	DG	34	DG	O4'-C1'-C2'	-8.27	99.29	105.90
135	CK	33	DG	P-O3'-C3'	8.26	129.62	119.70
1	AA	4199	DG	O4'-C1'-C2'	-8.26	99.29	105.90
1	AA	4257	DG	O4'-C1'-C2'	-8.26	99.29	105.90
1	AA	5199	DG	P-O3'-C3'	8.26	129.61	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	5803	DG	O4'-C4'-C3'	-8.26	101.04	106.00
191	DE	31	DG	O4'-C4'-C3'	-8.26	101.04	106.00
178	C1	5	DA	P-O3'-C3'	8.26	129.61	119.70
1	AA	7831	DG	O4'-C4'-C3'	-8.24	101.06	106.00
110	Bv	19	DG	P-O3'-C3'	8.24	129.58	119.70
1	AA	1003	DG	C4'-C3'-C2'	-8.23	95.69	103.10
1	AA	7869	DC	O4'-C1'-C2'	-8.23	99.32	105.90
196	DJ	20	DT	O4'-C4'-C3'	-8.23	101.06	106.00
200	DN	3	DC	P-O3'-C3'	8.23	129.58	119.70
20	AT	22	DA	C1'-O4'-C4'	-8.23	101.87	110.10
78	BP	6	DA	P-O3'-C3'	8.23	129.57	119.70
53	A0	7	DC	P-O3'-C3'	8.22	129.57	119.70
64	BB	30	DT	O4'-C4'-C3'	-8.22	101.06	106.00
1	AA	5507	DT	O4'-C1'-C2'	-8.22	99.32	105.90
125	CA	30	DC	O4'-C1'-C2'	-8.22	99.33	105.90
172	Cv	34	DC	O4'-C1'-C2'	-8.22	99.33	105.90
99	Bk	28	DG	O4'-C1'-C2'	-8.21	99.33	105.90
155	Ce	24	DC	O4'-C1'-C2'	-8.21	99.33	105.90
1	AA	4115	DC	O4'-C1'-C2'	-8.21	99.33	105.90
110	Bv	11	DA	O4'-C4'-C3'	-8.21	101.08	106.00
153	Cc	20	DT	O4'-C4'-C3'	-8.20	101.08	106.00
1	AA	508	DG	P-O3'-C3'	8.20	129.54	119.70
1	AA	7288	DG	O4'-C1'-C2'	-8.20	99.34	105.90
65	BC	15	DC	O4'-C1'-C2'	-8.20	99.34	105.90
131	CG	39	DT	P-O3'-C3'	8.20	129.54	119.70
1	AA	6827	DG	O4'-C4'-C3'	-8.20	101.08	106.00
12	AL	25	DG	O4'-C1'-C2'	-8.20	99.34	105.90
36	Aj	42	DT	O4'-C4'-C3'	-8.19	101.08	106.00
1	AA	5382	DC	P-O3'-C3'	8.19	129.53	119.70
47	Au	9	DT	O4'-C1'-C2'	-8.19	99.35	105.90
117	B2	19	DC	O4'-C4'-C3'	-8.19	101.08	106.00
196	DJ	1	DC	O4'-C1'-C2'	-8.19	99.35	105.90
1	AA	1573	DC	O4'-C1'-C2'	-8.19	99.35	105.90
20	AT	18	DT	O4'-C1'-C2'	-8.19	99.35	105.90
51	Ay	13	DT	O4'-C1'-C2'	-8.19	99.35	105.90
9	AI	47	DC	C1'-O4'-C4'	-8.18	101.92	110.10
103	Bo	22	DA	P-O3'-C3'	8.18	129.51	119.70
1	AA	1025	DG	O4'-C4'-C3'	-8.17	101.10	106.00
1	AA	4700	DG	O4'-C4'-C3'	-8.17	101.10	106.00
120	B5	16	DG	O4'-C4'-C3'	-8.17	101.10	106.00
1	AA	5587	DG	O4'-C1'-C2'	-8.17	99.37	105.90
1	AA	6765	DA	O4'-C4'-C3'	-8.17	101.10	106.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	6730	DC	P-O3'-C3'	8.16	129.50	119.70
66	BD	22	DA	O4'-C1'-C2'	-8.16	99.37	105.90
1	AA	681	DC	C1'-O4'-C4'	-8.16	101.94	110.10
1	AA	5687	DG	O4'-C1'-C2'	-8.16	99.38	105.90
151	Ca	22	DG	P-O3'-C3'	8.16	129.49	119.70
1	AA	3140	DG	O4'-C1'-C2'	-8.15	99.38	105.90
1	AA	5869	DT	C4'-C3'-C2'	-8.15	95.76	103.10
1	AA	4862	DG	O4'-C1'-C2'	-8.15	99.38	105.90
1	AA	7726	DC	C6-N1-C2	-8.15	117.04	120.30
108	Bt	1	DC	C4'-C3'-C2'	-8.15	95.77	103.10
104	Bp	30	DA	O4'-C4'-C3'	-8.14	101.11	106.00
141	CQ	1	DT	O4'-C1'-C2'	-8.14	99.39	105.90
25	AY	10	DT	P-O3'-C3'	8.13	129.46	119.70
116	B1	37	DG	O4'-C1'-C2'	-8.13	99.39	105.90
1	AA	1737	DT	O4'-C1'-C2'	-8.12	99.40	105.90
77	BO	23	DG	P-O3'-C3'	8.12	129.45	119.70
1	AA	5664	DG	O4'-C1'-C2'	-8.12	99.40	105.90
39	Am	21	DA	O4'-C1'-C2'	-8.11	99.41	105.90
1	AA	2733	DG	C4'-C3'-C2'	-8.11	95.81	103.10
21	AU	1	DA	P-O3'-C3'	8.10	129.42	119.70
40	An	1	DT	O4'-C1'-C2'	-8.10	99.42	105.90
117	B2	38	DT	O4'-C1'-C2'	-8.09	99.43	105.90
1	AA	1175	DT	O4'-C1'-C2'	-8.09	99.43	105.90
1	AA	3284	DG	O4'-C1'-C2'	-8.09	99.43	105.90
1	AA	1619	DA	N1-C6-N6	-8.09	113.75	118.60
110	Bv	15	DA	O4'-C1'-C2'	-8.09	99.43	105.90
1	AA	5208	DG	O4'-C4'-C3'	-8.08	101.15	106.00
82	BT	35	DT	C1'-O4'-C4'	-8.08	102.02	110.10
60	A7	8	DG	C1'-O4'-C4'	-8.08	102.02	110.10
72	BJ	26	DT	O4'-C4'-C3'	-8.08	101.15	106.00
186	C9	20	DG	P-O3'-C3'	8.07	129.39	119.70
1	AA	3093	DT	O4'-C1'-C2'	-8.07	99.44	105.90
114	Bz	25	DA	O4'-C1'-C2'	-8.07	99.45	105.90
163	Cm	15	DG	O4'-C1'-N9	8.07	113.65	108.00
137	CM	27	DG	O4'-C1'-C2'	-8.06	99.45	105.90
1	AA	3087	DG	O4'-C1'-C2'	-8.06	99.45	105.90
1	AA	892	DG	O4'-C1'-C2'	-8.06	99.45	105.90
1	AA	6130	DC	P-O3'-C3'	8.06	129.37	119.70
28	Ab	34	DA	O4'-C1'-C2'	-8.05	99.46	105.90
144	CT	8	DA	P-O3'-C3'	8.05	129.36	119.70
1	AA	1918	DC	O4'-C1'-C2'	-8.05	99.46	105.90
57	A4	32	DG	O4'-C1'-C2'	-8.04	99.47	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	6705	DA	O4'-C1'-C2'	-8.04	99.47	105.90
22	AV	18	DC	O4'-C4'-C3'	-8.04	101.18	106.00
157	Cg	21	DG	O4'-C1'-C2'	-8.04	99.47	105.90
1	AA	3304	DT	O4'-C1'-C2'	-8.03	99.47	105.90
1	AA	5042	DG	O4'-C1'-C2'	-8.02	99.48	105.90
65	BC	15	DC	O4'-C4'-C3'	-8.02	101.19	106.00
1	AA	2007	DG	O4'-C1'-C2'	-8.02	99.48	105.90
185	C8	1	DT	P-O3'-C3'	8.02	129.32	119.70
1	AA	892	DG	O4'-C4'-C3'	-8.02	101.19	106.00
1	AA	970	DC	O4'-C4'-C3'	-8.02	101.19	106.00
1	AA	498	DA	O4'-C1'-N9	8.01	113.61	108.00
148	CX	9	DA	P-O3'-C3'	8.01	129.31	119.70
1	AA	5058	DA	O4'-C4'-C3'	-8.01	101.20	106.00
1	AA	7005	DG	O4'-C1'-C2'	-8.00	99.50	105.90
1	AA	160	DT	O4'-C1'-C2'	-8.00	99.50	105.90
1	AA	4501	DC	P-O3'-C3'	8.00	129.29	119.70
1	AA	6473	DG	O4'-C4'-C3'	-7.99	101.21	106.00
1	AA	28	DT	P-O3'-C3'	7.99	129.28	119.70
53	A0	9	DT	O4'-C4'-C3'	-7.99	101.21	106.00
1	AA	4763	DA	O4'-C1'-C2'	-7.98	99.52	105.90
55	A2	37	DT	O4'-C4'-C3'	-7.98	101.21	106.00
179	C2	16	DG	P-O3'-C3'	7.98	129.27	119.70
1	AA	869	DG	O4'-C1'-C2'	-7.98	99.52	105.90
1	AA	4337	DG	O4'-C4'-C3'	-7.97	101.22	106.00
1	AA	6858	DG	O4'-C4'-C3'	-7.97	101.22	106.00
1	AA	919	DC	O4'-C4'-C3'	-7.97	101.22	106.00
1	AA	1086	DG	C4'-C3'-C2'	-7.97	95.93	103.10
1	AA	4682	DG	O4'-C1'-C2'	-7.97	99.53	105.90
20	AT	6	DT	O4'-C1'-C2'	-7.97	99.53	105.90
59	A6	28	DA	O4'-C1'-C2'	-7.97	99.53	105.90
1	AA	3548	DG	O4'-C1'-C2'	-7.96	99.53	105.90
20	AT	21	DA	O4'-C4'-C3'	-7.96	101.22	106.00
1	AA	7887	DC	P-O3'-C3'	7.96	129.25	119.70
199	DM	22	DG	O4'-C1'-C2'	-7.96	99.54	105.90
1	AA	4051	DC	C2-N1-C1'	7.95	127.55	118.80
152	Cb	16	DT	O4'-C4'-C3'	-7.95	101.23	106.00
182	C5	14	DA	O4'-C1'-C2'	-7.95	99.54	105.90
5	AE	23	DA	P-O3'-C3'	7.95	129.24	119.70
1	AA	7568	DG	O4'-C1'-C2'	-7.95	99.54	105.90
1	AA	2147	DC	O4'-C4'-C3'	-7.94	101.23	106.00
1	AA	4613	DG	O4'-C1'-C2'	-7.94	99.55	105.90
118	B3	17	DT	C1'-O4'-C4'	-7.94	102.16	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	902	DT	O4'-C4'-C3'	-7.94	101.24	106.00
39	Am	34	DA	O4'-C1'-C2'	-7.94	99.55	105.90
1	AA	1712	DC	O4'-C1'-C2'	-7.94	99.55	105.90
1	AA	7391	DG	O4'-C1'-C2'	-7.94	99.55	105.90
1	AA	4652	DG	O4'-C1'-C2'	-7.93	99.55	105.90
1	AA	6430	DT	P-O3'-C3'	7.93	129.22	119.70
77	BO	35	DA	O4'-C4'-C3'	-7.93	101.24	106.00
123	B8	21	DG	C5-C6-O6	-7.93	123.84	128.60
104	Bp	30	DA	O4'-C1'-C2'	-7.92	99.56	105.90
91	Bc	19	DG	O4'-C1'-C2'	-7.92	99.56	105.90
103	Bo	22	DA	C1'-O4'-C4'	-7.92	102.18	110.10
1	AA	3855	DA	O4'-C1'-C2'	-7.92	99.57	105.90
91	Bc	19	DG	C1'-O4'-C4'	-7.92	102.19	110.10
1	AA	218	DG	O4'-C1'-C2'	-7.91	99.57	105.90
1	AA	3172	DA	O4'-C1'-C2'	-7.91	99.57	105.90
1	AA	7520	DT	O4'-C4'-C3'	-7.91	101.26	106.00
53	A0	6	DG	O4'-C4'-C3'	-7.90	101.26	106.00
23	AW	10	DA	O4'-C4'-C3'	-7.90	101.26	106.00
35	Ai	42	DT	O4'-C4'-C3'	-7.90	101.26	106.00
1	AA	1723	DT	O4'-C4'-C3'	-7.89	101.26	106.00
1	AA	1497	DC	O4'-C4'-C3'	-7.89	101.26	106.00
1	AA	6675	DG	O4'-C1'-C2'	-7.89	99.59	105.90
1	AA	7297	DA	O4'-C1'-C2'	-7.89	99.58	105.90
182	C5	4	DT	C4'-C3'-C2'	-7.89	96.00	103.10
11	AK	15	DG	C4'-C3'-C2'	-7.89	96.00	103.10
31	Ae	11	DA	O4'-C1'-C2'	-7.89	99.59	105.90
20	AT	7	DT	O4'-C1'-C2'	-7.89	99.59	105.90
1	AA	4976	DA	O4'-C1'-C2'	-7.88	99.59	105.90
4	AD	1	DC	C6-N1-C2	-7.88	117.15	120.30
1	AA	4749	DT	O4'-C4'-C3'	-7.88	101.27	106.00
53	A0	25	DG	O4'-C1'-C2'	-7.88	99.59	105.90
1	AA	520	DT	C4'-C3'-C2'	-7.88	96.01	103.10
114	Bz	8	DC	C2-N1-C1'	7.88	127.47	118.80
56	A3	18	DC	C1'-O4'-C4'	-7.88	102.22	110.10
1	AA	681	DC	P-O3'-C3'	7.88	129.15	119.70
80	BR	9	DT	P-O3'-C3'	7.88	129.15	119.70
122	B7	28	DT	O4'-C4'-C3'	-7.88	101.27	106.00
136	CL	8	DG	O4'-C1'-C2'	-7.88	99.60	105.90
184	C7	12	DA	O4'-C1'-C2'	-7.88	99.60	105.90
1	AA	858	DG	N1-C6-O6	7.88	124.63	119.90
1	AA	2285	DT	O4'-C4'-C3'	-7.88	101.28	106.00
49	Aw	17	DG	O4'-C1'-C2'	-7.87	99.60	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
66	BD	24	DT	O4'-C4'-C3'	-7.87	101.28	106.00
1	AA	4132	DG	O4'-C1'-C2'	-7.87	99.61	105.90
1	AA	6123	DT	P-O3'-C3'	7.86	129.13	119.70
1	AA	5959	DT	O4'-C4'-C3'	-7.86	101.29	106.00
88	BZ	20	DA	O4'-C1'-C2'	-7.86	99.62	105.90
1	AA	6069	DG	O4'-C1'-C2'	-7.85	99.62	105.90
1	AA	1870	DT	C4'-C3'-C2'	-7.85	96.04	103.10
1	AA	6414	DG	O4'-C1'-C2'	-7.85	99.62	105.90
1	AA	1891	DT	O4'-C4'-C3'	-7.84	101.29	106.00
1	AA	7033	DA	O4'-C1'-C2'	-7.84	99.62	105.90
75	BM	18	DT	O4'-C1'-C2'	-7.84	99.62	105.90
133	CI	28	DT	P-O3'-C3'	7.84	129.11	119.70
197	DK	1	DC	O4'-C4'-C3'	-7.84	101.29	106.00
1	AA	6850	DA	O4'-C1'-C2'	-7.84	99.63	105.90
1	AA	7127	DG	O4'-C4'-C3'	-7.84	101.30	106.00
1	AA	5861	DC	P-O3'-C3'	7.84	129.11	119.70
117	B2	19	DC	O4'-C1'-C2'	-7.84	99.63	105.90
11	AK	2	DT	O4'-C4'-C3'	-7.83	101.30	106.00
159	Ci	32	DC	P-O3'-C3'	7.83	129.10	119.70
194	DH	30	DG	P-O3'-C3'	7.83	129.10	119.70
63	BA	48	DA	O4'-C1'-C2'	-7.83	99.64	105.90
1	AA	6725	DT	C4'-C3'-C2'	-7.83	96.06	103.10
1	AA	2891	DC	C1'-O4'-C4'	-7.83	102.27	110.10
2	AB	37	DG	O4'-C1'-C2'	-7.83	99.64	105.90
123	B8	1	DA	P-O3'-C3'	7.83	129.09	119.70
56	A3	2	DT	O4'-C4'-C3'	-7.82	101.31	106.00
144	CT	11	DG	O4'-C4'-C3'	-7.82	101.31	106.00
126	CB	31	DG	C1'-O4'-C4'	-7.82	102.28	110.10
182	C5	22	DA	O4'-C1'-C2'	-7.82	99.64	105.90
133	CI	15	DC	O4'-C1'-C2'	-7.82	99.64	105.90
1	AA	979	DC	C1'-O4'-C4'	-7.82	102.28	110.10
56	A3	15	DT	O4'-C4'-C3'	-7.82	101.31	106.00
41	Ao	28	DA	O4'-C4'-C3'	-7.81	101.31	106.00
1	AA	508	DG	O4'-C1'-C2'	-7.81	99.65	105.90
94	Bf	13	DG	O4'-C4'-C3'	-7.81	101.31	106.00
183	C6	38	DT	O4'-C1'-N1	7.81	113.47	108.00
1	AA	1435	DG	O4'-C4'-C3'	-7.81	101.31	106.00
1	AA	3937	DA	O4'-C1'-C2'	-7.81	99.66	105.90
79	BQ	5	DC	P-O3'-C3'	7.80	129.07	119.70
1	AA	3134	DT	C1'-O4'-C4'	-7.80	102.30	110.10
188	DB	23	DC	P-O3'-C3'	7.80	129.06	119.70
195	DI	13	DG	O4'-C1'-C2'	-7.80	99.66	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1798	DG	O4'-C1'-C2'	-7.80	99.66	105.90
1	AA	3541	DT	O4'-C1'-C2'	-7.80	99.66	105.90
38	Al	41	DT	P-O3'-C3'	7.80	129.06	119.70
1	AA	5473	DA	O4'-C1'-C2'	-7.79	99.67	105.90
1	AA	6473	DG	O4'-C1'-C2'	-7.79	99.67	105.90
64	BB	30	DT	C4'-C3'-C2'	-7.78	96.09	103.10
1	AA	2827	DT	O4'-C4'-C3'	-7.78	101.33	106.00
174	Cx	34	DG	P-O3'-C3'	7.78	129.04	119.70
1	AA	2180	DT	O4'-C1'-C2'	-7.78	99.68	105.90
1	AA	7312	DG	O4'-C1'-C2'	-7.77	99.69	105.90
25	AY	29	DT	C4'-C3'-C2'	-7.77	96.11	103.10
1	AA	677	DG	O4'-C1'-C2'	-7.77	99.69	105.90
1	AA	3685	DA	O4'-C1'-C2'	-7.77	99.69	105.90
1	AA	3157	DC	O4'-C1'-C2'	-7.76	99.69	105.90
1	AA	6020	DG	O4'-C1'-C2'	-7.76	99.69	105.90
205	DS	21	DA	O4'-C4'-C3'	-7.76	101.34	106.00
198	DL	30	DT	O4'-C4'-C3'	-7.76	101.34	106.00
1	AA	6451	DT	O4'-C4'-C3'	-7.76	101.34	106.00
1	AA	2340	DA	O4'-C1'-C2'	-7.76	99.69	105.90
110	Bv	32	DC	O4'-C1'-C2'	-7.76	99.69	105.90
1	AA	4298	DG	O4'-C1'-C2'	-7.75	99.70	105.90
31	Ae	8	DA	O4'-C4'-C3'	-7.75	101.35	106.00
1	AA	7473	DT	O4'-C1'-C2'	-7.75	99.70	105.90
1	AA	5763	DA	O4'-C4'-C3'	-7.75	101.35	106.00
152	Cb	30	DT	O4'-C1'-C2'	-7.74	99.70	105.90
1	AA	1918	DC	O4'-C4'-C3'	-7.74	101.36	106.00
1	AA	4166	DG	P-O3'-C3'	7.74	128.99	119.70
1	AA	566	DG	O4'-C4'-C3'	-7.74	101.36	106.00
1	AA	2593	DA	O4'-C1'-C2'	-7.74	99.71	105.90
1	AA	7849	DG	O4'-C1'-C2'	-7.74	99.71	105.90
4	AD	3	DT	O4'-C1'-C2'	-7.74	99.71	105.90
57	A4	19	DA	O4'-C1'-C2'	-7.74	99.71	105.90
128	CD	15	DT	O4'-C4'-C3'	-7.74	101.36	106.00
1	AA	253	DG	O4'-C1'-C2'	-7.73	99.71	105.90
1	AA	5822	DA	O4'-C4'-C3'	-7.73	101.36	106.00
73	BK	11	DC	O4'-C1'-C2'	-7.73	99.72	105.90
211	DY	28	DA	O4'-C4'-C3'	-7.73	101.36	106.00
1	AA	6705	DA	O4'-C4'-C3'	-7.73	101.36	106.00
1	AA	6088	DT	C1'-O4'-C4'	-7.73	102.37	110.10
1	AA	6491	DG	O4'-C1'-C2'	-7.72	99.72	105.90
1	AA	2162	DA	O4'-C1'-C2'	-7.72	99.72	105.90
1	AA	2651	DG	O4'-C1'-C2'	-7.72	99.72	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	4675	DT	O4'-C1'-C2'	-7.72	99.72	105.90
48	Av	16	DG	O4'-C1'-N9	7.72	113.40	108.00
1	AA	1429	DC	O4'-C1'-C2'	-7.72	99.73	105.90
161	Ck	9	DC	O4'-C1'-C2'	-7.72	99.73	105.90
1	AA	2175	DA	O4'-C1'-C2'	-7.71	99.73	105.90
1	AA	2633	DG	O4'-C1'-C2'	-7.71	99.73	105.90
1	AA	3394	DT	P-O3'-C3'	7.71	128.95	119.70
94	Bf	22	DG	O4'-C1'-C2'	-7.71	99.73	105.90
1	AA	2958	DG	O4'-C1'-C2'	-7.71	99.73	105.90
182	C5	4	DT	O4'-C4'-C3'	-7.71	101.38	106.00
1	AA	2499	DC	O4'-C1'-C2'	-7.70	99.74	105.90
70	BH	1	DT	O4'-C4'-C3'	-7.70	101.38	106.00
1	AA	7621	DG	O4'-C1'-C2'	-7.70	99.74	105.90
1	AA	2204	DG	O4'-C1'-C2'	-7.70	99.74	105.90
88	BZ	9	DA	O4'-C4'-C3'	-7.69	101.38	106.00
134	CJ	14	DC	O4'-C1'-C2'	-7.69	99.75	105.90
1	AA	6148	DG	O4'-C1'-C2'	-7.69	99.75	105.90
1	AA	7161	DT	C1'-O4'-C4'	-7.69	102.41	110.10
88	BZ	9	DA	O4'-C1'-C2'	-7.69	99.75	105.90
13	AM	30	DC	O4'-C1'-C2'	-7.69	99.75	105.90
199	DM	7	DT	O4'-C1'-C2'	-7.69	99.75	105.90
1	AA	831	DC	C1'-O4'-C4'	-7.68	102.42	110.10
1	AA	2309	DC	C2-N1-C1'	7.68	127.25	118.80
24	AX	31	DG	O4'-C1'-C2'	-7.68	99.75	105.90
1	AA	3274	DC	O4'-C1'-C2'	-7.68	99.75	105.90
131	CG	12	DC	O4'-C1'-C2'	-7.68	99.76	105.90
170	Ct	1	DG	O4'-C1'-C2'	-7.68	99.76	105.90
1	AA	6361	DG	C1'-O4'-C4'	-7.68	102.42	110.10
93	Be	15	DC	O4'-C4'-C3'	-7.68	101.39	106.00
125	CA	30	DC	O4'-C4'-C3'	-7.68	101.39	106.00
1	AA	1073	DG	O4'-C1'-C2'	-7.67	99.76	105.90
1	AA	4316	DG	O4'-C1'-C2'	-7.67	99.76	105.90
1	AA	7547	DT	C4'-C3'-C2'	-7.67	96.19	103.10
91	Bc	19	DG	O4'-C1'-N9	7.67	113.37	108.00
101	Bm	19	DA	O4'-C1'-C2'	-7.67	99.77	105.90
55	A2	1	DA	O4'-C1'-C2'	-7.67	99.77	105.90
1	AA	2760	DG	O4'-C1'-C2'	-7.66	99.77	105.90
1	AA	4123	DC	O4'-C1'-C2'	-7.66	99.77	105.90
116	B1	1	DA	O4'-C4'-C3'	-7.66	101.40	106.00
109	Bu	28	DC	O4'-C1'-C2'	-7.65	99.78	105.90
138	CN	23	DG	O4'-C1'-C2'	-7.65	99.78	105.90
1	AA	7405	DC	P-O3'-C3'	7.65	128.88	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	7099	DT	O4'-C4'-C3'	-7.65	101.41	106.00
1	AA	4211	DG	O4'-C1'-C2'	-7.65	99.78	105.90
1	AA	7731	DA	P-O3'-C3'	7.65	128.88	119.70
113	By	40	DG	O4'-C4'-C3'	-7.64	101.41	106.00
1	AA	1162	DA	O4'-C1'-N9	7.64	113.35	108.00
1	AA	3873	DC	O4'-C1'-C2'	-7.64	99.79	105.90
3	AC	12	DC	O4'-C1'-C2'	-7.64	99.79	105.90
1	AA	3582	DG	O4'-C1'-C2'	-7.64	99.79	105.90
102	Bn	4	DA	P-O3'-C3'	7.64	128.86	119.70
32	Af	16	DG	O4'-C4'-C3'	-7.63	101.42	106.00
1	AA	7122	DG	O4'-C1'-C2'	-7.63	99.79	105.90
20	AT	21	DA	O4'-C1'-C2'	-7.63	99.80	105.90
1	AA	6962	DT	C4'-C3'-C2'	-7.63	96.23	103.10
88	BZ	1	DC	C1'-O4'-C4'	-7.63	102.47	110.10
46	At	9	DC	O4'-C4'-C3'	-7.63	101.42	106.00
1	AA	504	DG	P-O3'-C3'	7.62	128.85	119.70
1	AA	1106	DA	O4'-C1'-C2'	-7.62	99.80	105.90
114	Bz	37	DG	O4'-C1'-C2'	-7.62	99.80	105.90
96	Bh	14	DG	O4'-C4'-C3'	-7.62	101.43	106.00
203	DQ	35	DT	O4'-C4'-C3'	-7.62	101.43	106.00
1	AA	3793	DA	O4'-C4'-C3'	-7.61	101.43	106.00
1	AA	1581	DC	O4'-C4'-C3'	-7.61	101.44	106.00
1	AA	3569	DG	O4'-C1'-C2'	-7.61	99.81	105.90
1	AA	4682	DG	O4'-C4'-C3'	-7.61	101.44	106.00
1	AA	5046	DG	O4'-C4'-C3'	-7.61	101.44	106.00
143	CS	29	DG	C4'-C3'-C2'	-7.61	96.25	103.10
189	DC	23	DG	P-O3'-C3'	7.61	128.83	119.70
1	AA	711	DT	O4'-C4'-C3'	-7.61	101.44	106.00
16	AP	11	DT	O4'-C1'-C2'	-7.61	99.81	105.90
210	DX	40	DA	C1'-O4'-C4'	-7.61	102.49	110.10
1	AA	2891	DC	O4'-C1'-N1	7.60	113.32	108.00
107	Bs	30	DA	P-O3'-C3'	7.60	128.82	119.70
1	AA	102	DT	O4'-C4'-C3'	-7.60	101.44	106.00
1	AA	1246	DT	O4'-C1'-C2'	-7.60	99.82	105.90
203	DQ	21	DC	P-O3'-C3'	7.60	128.82	119.70
1	AA	4415	DA	C4'-C3'-C2'	-7.59	96.27	103.10
1	AA	6583	DT	O4'-C4'-C3'	-7.59	101.44	106.00
91	Bc	28	DA	C4'-C3'-C2'	-7.59	96.27	103.10
1	AA	549	DG	O4'-C4'-C3'	-7.59	101.44	106.00
165	Co	7	DG	O4'-C4'-C3'	-7.59	101.45	106.00
115	B0	31	DC	O4'-C1'-C2'	-7.58	99.83	105.90
1	AA	4746	DA	O4'-C1'-C2'	-7.58	99.84	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	252	DA	O4'-C1'-C2'	-7.58	99.84	105.90
1	AA	4495	DC	O4'-C1'-C2'	-7.58	99.84	105.90
168	Cr	46	DG	P-O3'-C3'	7.58	128.79	119.70
1	AA	4433	DG	O4'-C1'-C2'	-7.57	99.84	105.90
1	AA	351	DG	O4'-C4'-C3'	-7.57	101.46	106.00
68	BF	1	DG	O4'-C4'-C3'	-7.56	101.46	106.00
1	AA	2042	DC	O4'-C4'-C3'	-7.56	101.46	106.00
1	AA	4696	DG	O4'-C1'-C2'	-7.56	99.85	105.90
1	AA	7226	DT	O4'-C4'-C3'	-7.55	101.47	106.00
25	AY	31	DA	O4'-C1'-C2'	-7.55	99.86	105.90
62	A9	40	DC	P-O3'-C3'	7.55	128.76	119.70
1	AA	5698	DA	P-O3'-C3'	7.55	128.76	119.70
1	AA	4660	DC	P-O3'-C3'	7.54	128.75	119.70
194	DH	23	DG	P-O3'-C3'	7.54	128.75	119.70
1	AA	7226	DT	C4'-C3'-C2'	-7.54	96.31	103.10
175	Cy	10	DG	P-O3'-C3'	7.54	128.74	119.70
1	AA	2093	DG	O4'-C1'-C2'	-7.54	99.87	105.90
1	AA	1077	DA	O4'-C1'-C2'	-7.53	99.87	105.90
1	AA	7437	DC	O4'-C1'-C2'	-7.53	99.87	105.90
163	Cm	19	DA	O4'-C1'-C2'	-7.53	99.87	105.90
1	AA	3724	DG	O4'-C1'-C2'	-7.53	99.88	105.90
208	DV	7	DC	C1'-O4'-C4'	-7.53	102.57	110.10
1	AA	5331	DG	O4'-C1'-N9	7.53	113.27	108.00
1	AA	6677	DC	O4'-C1'-C2'	-7.53	99.88	105.90
152	Cb	9	DT	O4'-C4'-C3'	-7.52	101.49	106.00
138	CN	26	DT	O4'-C4'-C3'	-7.52	101.49	106.00
1	AA	2169	DG	O4'-C1'-C2'	-7.52	99.88	105.90
1	AA	6264	DA	O4'-C1'-C2'	-7.52	99.89	105.90
72	BJ	20	DG	O4'-C4'-C3'	-7.52	101.49	106.00
1	AA	510	DT	O4'-C4'-C3'	-7.51	101.49	106.00
1	AA	907	DG	O4'-C1'-C2'	-7.51	99.89	105.90
28	Ab	24	DC	O4'-C4'-C3'	-7.51	101.49	106.00
17	AQ	14	DG	O4'-C1'-C2'	-7.51	99.89	105.90
1	AA	7446	DG	O4'-C1'-C2'	-7.51	99.89	105.90
1	AA	7700	DT	P-O3'-C3'	7.51	128.71	119.70
1	AA	4051	DC	C6-N1-C1'	-7.51	111.79	120.80
147	CW	8	DG	P-O3'-C3'	7.51	128.71	119.70
1	AA	5737	DG	C4'-C3'-C2'	-7.50	96.35	103.10
1	AA	5445	DT	C4'-C3'-C2'	-7.50	96.35	103.10
66	BD	24	DT	O4'-C1'-C2'	-7.50	99.90	105.90
146	CV	15	DG	C1'-O4'-C4'	-7.50	102.60	110.10
174	Cx	19	DT	O4'-C4'-C3'	-7.50	101.50	104.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	892	DG	C1'-O4'-C4'	-7.50	102.60	110.10
1	AA	5160	DT	C4'-C3'-C2'	-7.50	96.35	103.10
124	B9	16	DT	O4'-C1'-C2'	-7.50	99.90	105.90
1	AA	1743	DT	P-O3'-C3'	7.49	128.68	119.70
1	AA	1819	DA	O4'-C1'-C2'	-7.49	99.91	105.90
1	AA	5460	DG	O4'-C1'-C2'	-7.49	99.91	105.90
1	AA	3608	DA	P-O3'-C3'	7.48	128.68	119.70
56	A3	39	DG	O4'-C1'-C2'	-7.48	99.91	105.90
183	C6	22	DA	O4'-C1'-C2'	-7.48	99.91	105.90
1	AA	618	DG	O4'-C4'-C3'	-7.48	101.51	104.50
1	AA	2066	DG	O4'-C1'-C2'	-7.48	99.92	105.90
64	BB	2	DA	O4'-C1'-C2'	-7.48	99.92	105.90
1	AA	4514	DT	O4'-C1'-C2'	-7.47	99.92	105.90
1	AA	7330	DT	C4'-C3'-C2'	-7.47	96.37	103.10
80	BR	17	DA	O4'-C1'-C2'	-7.47	99.92	105.90
154	Cd	44	DC	O4'-C1'-C2'	-7.47	99.92	105.90
43	Aq	16	DG	P-O3'-C3'	7.47	128.67	119.70
1	AA	6059	DG	O4'-C1'-C2'	-7.47	99.92	105.90
1	AA	7520	DT	C4'-C3'-C2'	-7.47	96.38	103.10
1	AA	37	DA	P-O3'-C3'	7.47	128.66	119.70
187	DA	12	DA	O4'-C1'-C2'	-7.47	99.92	105.90
1	AA	2068	DT	O4'-C1'-C2'	-7.47	99.93	105.90
47	Au	22	DA	C4'-C3'-C2'	-7.47	96.38	103.10
1	AA	45	DT	C4'-C3'-C2'	-7.47	96.38	103.10
4	AD	9	DG	O4'-C1'-C2'	-7.46	99.93	105.90
159	Ci	22	DT	C4'-C3'-C2'	-7.46	96.38	103.10
1	AA	3740	DT	C4'-C3'-C2'	-7.46	96.38	103.10
91	Bc	5	DT	O4'-C1'-C2'	-7.46	99.93	105.90
1	AA	3926	DG	C4'-C3'-C2'	-7.46	96.39	103.10
53	A0	48	DT	C4'-C3'-C2'	-7.46	96.39	103.10
1	AA	4508	DG	C1'-O4'-C4'	-7.46	102.64	110.10
1	AA	3916	DA	O4'-C1'-C2'	-7.46	99.93	105.90
1	AA	284	DC	P-O3'-C3'	7.46	128.65	119.70
1	AA	2976	DC	O4'-C1'-C2'	-7.46	99.93	105.90
1	AA	5192	DT	O4'-C4'-C3'	-7.46	101.52	104.50
1	AA	7821	DG	C4'-C3'-C2'	-7.46	96.39	103.10
25	AY	28	DC	O4'-C1'-C2'	-7.46	99.94	105.90
1	AA	2962	DA	O4'-C1'-C2'	-7.45	99.94	105.90
201	DO	16	DT	O4'-C4'-C3'	-7.45	101.52	104.50
1	AA	4464	DA	C4'-C3'-C2'	-7.45	96.39	103.10
1	AA	2671	DT	O4'-C4'-C3'	-7.45	101.52	104.50
1	AA	6483	DA	O4'-C1'-C2'	-7.45	99.94	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	2697	DG	O4'-C1'-C2'	-7.44	99.95	105.90
1	AA	3182	DG	O4'-C1'-C2'	-7.44	99.95	105.90
1	AA	7086	DA	O4'-C1'-C2'	-7.44	99.95	105.90
132	CH	31	DA	O4'-C1'-C2'	-7.44	99.95	105.90
16	AP	5	DT	O4'-C4'-C3'	-7.43	101.53	104.50
1	AA	1126	DC	C1'-O4'-C4'	-7.43	102.67	110.10
1	AA	1375	DG	C1'-O4'-C4'	-7.43	102.67	110.10
101	Bm	12	DG	O4'-C1'-C2'	-7.42	99.96	105.90
154	Cd	43	DT	O4'-C1'-C2'	-7.42	99.96	105.90
1	AA	4300	DT	C4'-C3'-C2'	-7.42	96.42	103.10
98	Bj	20	DG	C4'-C3'-C2'	-7.42	96.42	103.10
1	AA	674	DG	O4'-C1'-C2'	-7.41	99.97	105.90
1	AA	7153	DG	O4'-C1'-C2'	-7.41	99.97	105.90
1	AA	2855	DG	O4'-C1'-C2'	-7.41	99.97	105.90
75	BM	18	DT	O4'-C1'-N1	7.40	113.18	108.00
1	AA	6749	DT	C4'-C3'-C2'	-7.40	96.44	103.10
1	AA	8027	DT	C4'-C3'-C2'	-7.40	96.44	103.10
1	AA	7490	DT	C6-C5-C7	7.40	127.34	122.90
1	AA	4298	DG	O4'-C4'-C3'	-7.40	101.54	104.50
1	AA	7358	DG	O4'-C1'-C2'	-7.40	99.98	105.90
185	C8	1	DT	C1'-O4'-C4'	-7.40	102.70	110.10
193	DG	29	DG	P-O3'-C3'	7.39	128.57	119.70
205	DS	15	DG	O4'-C1'-C2'	-7.39	99.98	105.90
15	AO	32	DT	O4'-C4'-C3'	-7.39	101.54	104.50
146	CV	15	DG	O4'-C1'-N9	7.39	113.17	108.00
1	AA	4700	DG	C4'-C3'-C2'	-7.39	96.45	103.10
199	DM	1	DT	O4'-C1'-C2'	-7.39	99.99	105.90
1	AA	4883	DG	O4'-C1'-C2'	-7.39	99.99	105.90
135	CK	33	DG	O4'-C1'-C2'	-7.39	99.99	105.90
1	AA	5382	DC	O4'-C1'-C2'	-7.38	99.99	105.90
1	AA	5251	DG	O4'-C1'-C2'	-7.38	100.00	105.90
1	AA	7236	DG	O4'-C1'-C2'	-7.38	100.00	105.90
110	Bv	28	DT	O4'-C4'-C3'	-7.38	101.55	104.50
1	AA	2478	DA	O4'-C1'-C2'	-7.38	100.00	105.90
1	AA	7965	DA	O4'-C4'-C3'	-7.38	101.55	104.50
1	AA	3277	DT	O4'-C1'-C2'	-7.37	100.00	105.90
155	Ce	36	DT	C4'-C3'-C2'	-7.37	96.47	103.10
101	Bm	28	DC	O4'-C1'-C2'	-7.37	100.01	105.90
146	CV	13	DA	O4'-C1'-C2'	-7.37	100.00	105.90
1	AA	2736	DT	C4'-C3'-C2'	-7.37	96.47	103.10
191	DE	11	DA	O4'-C1'-C2'	-7.36	100.01	105.90
43	Aq	27	DG	O4'-C1'-C2'	-7.36	100.01	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
207	DU	9	DG	O4'-C1'-C2'	-7.36	100.01	105.90
1	AA	5482	DG	O4'-C4'-C3'	-7.36	101.56	104.50
12	AL	3	DT	O4'-C1'-C2'	-7.36	100.01	105.90
39	Am	28	DT	O4'-C1'-C2'	-7.36	100.01	105.90
1	AA	7431	DA	C4'-C3'-C2'	-7.36	96.48	103.10
52	Az	24	DT	O4'-C1'-C2'	-7.36	100.02	105.90
1	AA	6799	DT	C4'-C3'-C2'	-7.35	96.48	103.10
1	AA	1028	DG	O4'-C1'-C2'	-7.35	100.02	105.90
1	AA	3971	DG	O4'-C1'-C2'	-7.35	100.02	105.90
1	AA	6587	DG	C4'-C3'-C2'	-7.35	96.48	103.10
1	AA	7490	DT	C4-C5-C7	-7.35	114.59	119.00
59	A6	28	DA	O4'-C4'-C3'	-7.35	101.56	104.50
114	Bz	9	DA	O4'-C1'-C2'	-7.35	100.02	105.90
186	C9	47	DG	O4'-C1'-C2'	-7.35	100.02	105.90
1	AA	4409	DG	O4'-C1'-N9	7.35	113.14	108.00
1	AA	1431	DC	O4'-C1'-N1	7.34	113.14	108.00
1	AA	2108	DT	P-O3'-C3'	7.34	128.51	119.70
89	Ba	23	DG	O4'-C1'-C2'	-7.34	100.02	105.90
1	AA	2121	DG	O4'-C1'-C2'	-7.34	100.03	105.90
1	AA	3033	DA	O4'-C1'-C2'	-7.34	100.03	105.90
1	AA	3973	DT	P-O3'-C3'	7.33	128.50	119.70
1	AA	3440	DG	O4'-C1'-C2'	-7.33	100.03	105.90
1	AA	7970	DG	O4'-C1'-C2'	-7.33	100.03	105.90
171	Cu	13	DA	O4'-C1'-C2'	-7.33	100.04	105.90
1	AA	5903	DG	O4'-C1'-C2'	-7.33	100.04	105.90
1	AA	7032	DA	O4'-C1'-N9	7.33	113.13	108.00
1	AA	2994	DT	C4'-C3'-C2'	-7.32	96.51	103.10
58	A5	13	DA	O4'-C1'-C2'	-7.32	100.04	105.90
1	AA	1654	DA	P-O3'-C3'	7.32	128.49	119.70
74	BL	2	DT	O4'-C1'-C2'	-7.32	100.04	105.90
100	Bl	19	DA	O4'-C1'-C2'	-7.32	100.04	105.90
192	DF	22	DT	O4'-C1'-C2'	-7.32	100.05	105.90
116	B1	1	DA	O4'-C1'-C2'	-7.32	100.05	105.90
1	AA	4187	DG	O4'-C1'-C2'	-7.31	100.05	105.90
72	BJ	20	DG	O4'-C1'-C2'	-7.31	100.05	105.90
166	Cp	9	DA	P-O3'-C3'	7.31	128.48	119.70
201	DO	16	DT	C4'-C3'-C2'	-7.31	96.52	103.10
130	CF	3	DT	O4'-C1'-C2'	-7.31	100.05	105.90
1	AA	1967	DT	O4'-C1'-C2'	-7.31	100.05	105.90
1	AA	2244	DG	P-O3'-C3'	7.31	128.47	119.70
163	Cm	15	DG	O4'-C1'-C2'	-7.31	100.06	105.90
1	AA	4631	DG	O4'-C1'-C2'	-7.31	100.06	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	266	DG	O4'-C1'-C2'	-7.30	100.06	105.90
123	B8	42	DT	O4'-C1'-C2'	-7.30	100.06	105.90
126	CB	16	DA	P-O3'-C3'	7.30	128.46	119.70
1	AA	6531	DT	O4'-C4'-C3'	-7.30	101.58	104.50
1	AA	6553	DA	O4'-C1'-C2'	-7.30	100.06	105.90
205	DS	31	DT	P-O3'-C3'	7.30	128.46	119.70
1	AA	52	DG	O4'-C1'-C2'	-7.30	100.06	105.90
1	AA	156	DC	O4'-C1'-C2'	-7.30	100.06	105.90
1	AA	711	DT	C4'-C3'-C2'	-7.30	96.53	103.10
15	AO	29	DC	O4'-C4'-C3'	-7.30	101.58	104.50
1	AA	768	DA	O4'-C1'-C2'	-7.30	100.06	105.90
1	AA	930	DG	O4'-C1'-C2'	-7.30	100.06	105.90
29	Ac	2	DG	O4'-C1'-C2'	-7.30	100.06	105.90
1	AA	5277	DG	C1'-O4'-C4'	-7.30	102.80	110.10
199	DM	22	DG	C1'-O4'-C4'	-7.30	102.80	110.10
1	AA	4091	DG	O4'-C1'-C2'	-7.29	100.06	105.90
1	AA	5140	DA	O4'-C1'-C2'	-7.29	100.07	105.90
81	BS	7	DG	O4'-C1'-C2'	-7.29	100.07	105.90
1	AA	1844	DC	O4'-C4'-C3'	-7.29	101.58	104.50
199	DM	22	DG	O4'-C4'-C3'	-7.29	101.58	104.50
1	AA	7061	DA	O4'-C1'-C2'	-7.29	100.07	105.90
174	Cx	1	DG	O4'-C1'-C2'	-7.29	100.07	105.90
53	A0	9	DT	C4'-C3'-C2'	-7.28	96.55	103.10
1	AA	1056	DA	O4'-C1'-C2'	-7.28	100.07	105.90
1	AA	1143	DT	C1'-O4'-C4'	-7.28	102.82	110.10
1	AA	3397	DC	C1'-O4'-C4'	-7.28	102.82	110.10
72	BJ	17	DA	P-O3'-C3'	7.28	128.44	119.70
1	AA	2897	DC	O4'-C1'-C2'	-7.28	100.08	105.90
1	AA	4286	DA	O4'-C1'-C2'	-7.28	100.08	105.90
1	AA	5164	DG	O4'-C1'-C2'	-7.28	100.08	105.90
16	AP	1	DA	C1'-O4'-C4'	-7.28	102.82	110.10
1	AA	605	DC	O4'-C1'-C2'	-7.28	100.08	105.90
1	AA	5025	DG	O4'-C1'-C2'	-7.28	100.08	105.90
131	CG	13	DG	O4'-C1'-C2'	-7.28	100.08	105.90
1	AA	2958	DG	C1'-O4'-C4'	-7.27	102.83	110.10
1	AA	3349	DT	C1'-O4'-C4'	-7.27	102.83	110.10
1	AA	10	DG	O4'-C1'-C2'	-7.27	100.08	105.90
43	Aq	9	DC	P-O3'-C3'	7.27	128.43	119.70
1	AA	3063	DA	O4'-C1'-C2'	-7.27	100.08	105.90
1	AA	5065	DT	O4'-C1'-C2'	-7.27	100.09	105.90
123	B8	1	DA	C1'-O4'-C4'	-7.27	102.83	110.10
1	AA	7608	DA	O4'-C4'-C3'	-7.27	101.59	104.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
151	Ca	16	DT	C4'-C3'-C2'	-7.26	96.56	103.10
1	AA	5208	DG	C1'-O4'-C4'	-7.26	102.84	110.10
1	AA	2259	DG	O4'-C4'-C3'	-7.26	101.59	104.50
1	AA	7020	DT	O4'-C1'-C2'	-7.26	100.09	105.90
1	AA	3916	DA	O4'-C4'-C3'	-7.26	101.60	104.50
1	AA	6027	DA	C4'-C3'-C2'	-7.26	96.57	103.10
1	AA	2388	DA	O4'-C1'-C2'	-7.25	100.10	105.90
1	AA	6763	DT	C4'-C3'-C2'	-7.25	96.57	103.10
1	AA	530	DT	O4'-C1'-C2'	-7.25	100.10	105.90
24	AX	31	DG	O4'-C4'-C3'	-7.25	101.60	104.50
1	AA	1827	DT	C1'-O4'-C4'	-7.25	102.85	110.10
1	AA	4061	DG	O4'-C1'-C2'	-7.25	100.10	105.90
1	AA	2631	DT	C1'-O4'-C4'	-7.25	102.85	110.10
1	AA	6656	DT	P-O3'-C3'	7.25	128.40	119.70
1	AA	2895	DG	P-O3'-C3'	7.25	128.40	119.70
132	CH	45	DT	O4'-C4'-C3'	-7.25	101.60	104.50
22	AV	18	DC	C4'-C3'-C2'	-7.24	96.58	103.10
155	Ce	17	DT	C4'-C3'-C2'	-7.24	96.58	103.10
1	AA	255	DA	O4'-C1'-C2'	-7.24	100.11	105.90
1	AA	3813	DT	O4'-C4'-C3'	-7.24	101.61	104.50
1	AA	4159	DA	O4'-C1'-C2'	-7.24	100.11	105.90
1	AA	7714	DT	P-O3'-C3'	7.23	128.38	119.70
172	Cv	13	DC	C1'-O4'-C4'	-7.23	102.87	110.10
192	DF	35	DT	P-O3'-C3'	7.23	128.38	119.70
1	AA	7816	DT	P-O3'-C3'	7.23	128.38	119.70
18	AR	37	DG	O4'-C1'-C2'	-7.23	100.12	105.90
44	Ar	16	DT	O4'-C1'-C2'	-7.22	100.12	105.90
127	CC	2	DG	C1'-O4'-C4'	-7.22	102.88	110.10
200	DN	9	DG	P-O3'-C3'	7.22	128.37	119.70
1	AA	5836	DA	O4'-C1'-C2'	-7.22	100.12	105.90
89	Ba	1	DG	O4'-C1'-C2'	-7.22	100.12	105.90
171	Cu	9	DT	O4'-C1'-C2'	-7.22	100.12	105.90
1	AA	3000	DT	O4'-C4'-C3'	-7.22	101.61	104.50
1	AA	3033	DA	P-O3'-C3'	7.22	128.36	119.70
1	AA	6379	DT	O4'-C1'-C2'	-7.22	100.13	105.90
1	AA	1611	DC	O4'-C1'-C2'	-7.22	100.13	105.90
91	Bc	18	DA	O4'-C1'-C2'	-7.22	100.13	105.90
1	AA	2106	DC	P-O3'-C3'	7.21	128.35	119.70
195	DI	1	DG	O4'-C4'-C3'	-7.21	101.61	104.50
1	AA	5489	DA	O4'-C4'-C3'	-7.21	101.62	104.50
191	DE	16	DG	O4'-C1'-C2'	-7.21	100.13	105.90
207	DU	1	DC	O4'-C4'-C3'	-7.21	101.62	104.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	4139	DA	O4'-C1'-C2'	-7.21	100.13	105.90
15	AO	14	DG	C4'-C3'-C2'	-7.21	96.61	103.10
74	BL	41	DA	O4'-C1'-C2'	-7.21	100.13	105.90
1	AA	6115	DT	O4'-C4'-C3'	-7.20	101.62	104.50
199	DM	12	DT	O4'-C1'-C2'	-7.20	100.14	105.90
1	AA	5106	DC	P-O3'-C3'	7.20	128.34	119.70
149	CY	22	DG	O4'-C1'-C2'	-7.20	100.14	105.90
1	AA	2204	DG	C1'-O4'-C4'	-7.20	102.90	110.10
67	BE	21	DG	O4'-C1'-C2'	-7.19	100.14	105.90
1	AA	6424	DA	O4'-C1'-C2'	-7.19	100.15	105.90
57	A4	32	DG	C1'-O4'-C4'	-7.19	102.91	110.10
67	BE	12	DA	O4'-C1'-C2'	-7.19	100.14	105.90
142	CR	9	DC	O4'-C1'-C2'	-7.19	100.15	105.90
210	DX	27	DA	N1-C6-N6	-7.19	114.28	118.60
1	AA	1146	DT	O4'-C4'-C3'	-7.19	101.62	104.50
1	AA	4162	DT	C1'-O4'-C4'	-7.19	102.91	110.10
1	AA	2822	DT	C4'-C3'-C2'	-7.19	96.63	103.10
200	DN	17	DC	O4'-C1'-C2'	-7.19	100.15	105.90
1	AA	649	DA	C1'-O4'-C4'	-7.19	102.91	110.10
1	AA	4877	DG	C4'-C3'-C2'	-7.18	96.63	103.10
1	AA	7416	DA	P-O3'-C3'	7.18	128.32	119.70
1	AA	150	DG	P-O3'-C3'	7.18	128.32	119.70
1	AA	6150	DC	O4'-C1'-C2'	-7.18	100.16	105.90
3	AC	20	DG	C5-C6-O6	-7.18	124.29	128.60
1	AA	5069	DG	O4'-C1'-C2'	-7.18	100.16	105.90
1	AA	5058	DA	C1'-O4'-C4'	-7.18	102.92	110.10
50	Ax	8	DT	O4'-C4'-C3'	-7.18	101.63	104.50
1	AA	3795	DT	C4'-C3'-C2'	-7.18	96.64	103.10
1	AA	7278	DG	C1'-O4'-C4'	-7.18	102.92	110.10
111	Bw	44	DG	O4'-C1'-C2'	-7.18	100.16	105.90
210	DX	17	DT	C4'-C3'-C2'	-7.17	96.64	103.10
1	AA	6725	DT	O4'-C4'-C3'	-7.17	101.63	104.50
1	AA	575	DA	O4'-C1'-C2'	-7.17	100.16	105.90
1	AA	1679	DT	O4'-C4'-C3'	-7.17	101.63	104.50
1	AA	822	DG	O4'-C1'-C2'	-7.17	100.17	105.90
1	AA	3083	DG	O4'-C1'-C2'	-7.17	100.17	105.90
1	AA	6102	DG	O4'-C1'-C2'	-7.17	100.17	105.90
1	AA	508	DG	C1'-O4'-C4'	-7.16	102.94	110.10
67	BE	1	DT	O4'-C4'-C3'	-7.16	101.64	104.50
1	AA	4845	DA	O4'-C1'-C2'	-7.16	100.17	105.90
1	AA	1594	DG	O4'-C1'-C2'	-7.16	100.17	105.90
1	AA	1563	DG	O4'-C1'-C2'	-7.16	100.17	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	4727	DG	O4'-C1'-C2'	-7.16	100.17	105.90
1	AA	7688	DT	O4'-C1'-C2'	-7.16	100.17	105.90
114	Bz	28	DG	C1'-O4'-C4'	-7.16	102.94	110.10
187	DA	20	DC	O4'-C1'-C2'	-7.15	100.18	105.90
1	AA	2547	DA	C4'-C3'-C2'	-7.15	96.66	103.10
36	Aj	35	DA	O4'-C1'-C2'	-7.15	100.18	105.90
1	AA	47	DA	O4'-C1'-C2'	-7.15	100.18	105.90
1	AA	7113	DT	C4'-C3'-C2'	-7.15	96.66	103.10
1	AA	902	DT	C4'-C3'-C2'	-7.15	96.67	103.10
163	Cm	16	DG	C4'-C3'-C2'	-7.15	96.67	103.10
1	AA	6476	DG	P-O3'-C3'	7.15	128.28	119.70
1	AA	6827	DG	O4'-C1'-C2'	-7.14	100.19	105.90
47	Au	30	DA	O4'-C1'-C2'	-7.14	100.18	105.90
1	AA	566	DG	C4'-C3'-C2'	-7.14	96.67	103.10
1	AA	1707	DT	C1'-O4'-C4'	-7.14	102.96	110.10
11	AK	1	DT	C1'-O4'-C4'	-7.14	102.96	110.10
13	AM	31	DT	O4'-C1'-C2'	-7.14	100.19	105.90
18	AR	1	DC	C2-N1-C1'	7.14	126.66	118.80
1	AA	2413	DA	O4'-C1'-C2'	-7.14	100.19	105.90
14	AN	26	DG	C1'-O4'-C4'	-7.13	102.97	110.10
1	AA	3965	DG	O4'-C1'-C2'	-7.13	100.20	105.90
1	AA	6404	DT	O4'-C1'-C2'	-7.13	100.20	105.90
1	AA	5055	DA	O4'-C1'-C2'	-7.13	100.20	105.90
89	Ba	1	DG	C1'-O4'-C4'	-7.12	102.98	110.10
1	AA	1460	DG	O4'-C1'-C2'	-7.12	100.20	105.90
1	AA	1664	DC	O4'-C1'-C2'	-7.12	100.20	105.90
58	A5	35	DT	O4'-C1'-C2'	-7.12	100.21	105.90
1	AA	7932	DC	C1'-O4'-C4'	-7.12	102.98	110.10
46	At	14	DA	O4'-C1'-C2'	-7.12	100.21	105.90
1	AA	4763	DA	O4'-C4'-C3'	-7.11	101.66	104.50
1	AA	3036	DC	O4'-C4'-C3'	-7.11	101.66	104.50
1	AA	7869	DC	O4'-C4'-C3'	-7.11	101.66	104.50
1	AA	668	DG	O4'-C1'-C2'	-7.11	100.21	105.90
1	AA	1	DT	O4'-C1'-C2'	-7.11	100.21	105.90
1	AA	6662	DT	O4'-C1'-C2'	-7.11	100.21	105.90
1	AA	1686	DG	P-O3'-C3'	7.11	128.23	119.70
1	AA	3278	DG	O4'-C1'-C2'	-7.10	100.22	105.90
60	A7	26	DC	O4'-C4'-C3'	-7.10	101.66	104.50
188	DB	19	DG	O4'-C1'-C2'	-7.10	100.22	105.90
1	AA	159	DC	C1'-O4'-C4'	-7.10	103.00	110.10
1	AA	1010	DG	O4'-C1'-C2'	-7.10	100.22	105.90
1	AA	1199	DA	O4'-C1'-C2'	-7.10	100.22	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	5906	DT	O4'-C4'-C3'	-7.10	101.66	104.50
30	Ad	2	DA	P-O3'-C3'	7.10	128.22	119.70
171	Cu	21	DT	O4'-C1'-C2'	-7.10	100.22	105.90
1	AA	4028	DG	O4'-C1'-C2'	-7.09	100.22	105.90
1	AA	5365	DA	P-O3'-C3'	7.09	128.21	119.70
67	BE	24	DT	O4'-C1'-C2'	-7.09	100.23	105.90
1	AA	5064	DC	O4'-C1'-C2'	-7.09	100.23	105.90
13	AM	20	DG	C1'-O4'-C4'	-7.09	103.01	110.10
1	AA	5936	DG	C4'-C3'-C2'	-7.09	96.72	103.10
1	AA	7402	DT	O4'-C1'-C2'	-7.09	100.23	105.90
103	Bo	17	DG	P-O3'-C3'	7.09	128.21	119.70
205	DS	17	DG	P-O3'-C3'	7.08	128.20	119.70
1	AA	2781	DT	C4'-C3'-C2'	-7.08	96.73	103.10
1	AA	5213	DT	C4'-C3'-C2'	-7.08	96.73	103.10
136	CL	45	DA	P-O3'-C3'	7.08	128.19	119.70
1	AA	1633	DG	O4'-C1'-C2'	-7.08	100.24	105.90
1	AA	4482	DA	P-O3'-C3'	7.07	128.19	119.70
1	AA	5528	DG	C5-C6-O6	-7.07	124.36	128.60
1	AA	482	DA	O4'-C1'-C2'	-7.07	100.25	105.90
1	AA	3157	DC	O4'-C4'-C3'	-7.07	101.67	104.50
19	AS	30	DC	O4'-C4'-C3'	-7.07	101.67	104.50
1	AA	7987	DT	C4'-C3'-C2'	-7.07	96.74	103.10
1	AA	5273	DA	P-O3'-C3'	7.06	128.17	119.70
1	AA	7671	DG	O4'-C1'-C2'	-7.06	100.25	105.90
1	AA	3334	DA	O4'-C1'-C2'	-7.06	100.25	105.90
1	AA	4713	DG	O4'-C1'-C2'	-7.06	100.25	105.90
192	DF	26	DC	O4'-C1'-C2'	-7.06	100.25	105.90
1	AA	1844	DC	C1'-O4'-C4'	-7.05	103.05	110.10
162	Cl	8	DT	O4'-C1'-C2'	-7.05	100.26	105.90
1	AA	5004	DT	O4'-C4'-C3'	-7.05	101.68	104.50
117	B2	29	DT	O4'-C1'-C2'	-7.05	100.26	105.90
1	AA	4499	DT	C4'-C3'-C2'	-7.05	96.75	103.10
1	AA	3827	DA	O4'-C1'-C2'	-7.05	100.26	105.90
1	AA	5008	DT	O4'-C4'-C3'	-7.05	101.68	104.50
1	AA	426	DG	O4'-C1'-C2'	-7.05	100.26	105.90
1	AA	1617	DA	P-O3'-C3'	7.04	128.15	119.70
147	CW	38	DA	O4'-C1'-C2'	-7.04	100.27	105.90
1	AA	1431	DC	C1'-O4'-C4'	-7.04	103.06	110.10
42	Ap	43	DG	O4'-C1'-C2'	-7.04	100.27	105.90
1	AA	6531	DT	C4'-C3'-C2'	-7.04	96.76	103.10
156	Cf	2	DT	C1'-O4'-C4'	-7.04	103.06	110.10
180	C3	9	DG	O4'-C1'-C2'	-7.04	100.27	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	4796	DG	O4'-C1'-C2'	-7.04	100.27	105.90
1	AA	3840	DG	O4'-C1'-C2'	-7.04	100.27	105.90
1	AA	4042	DA	O4'-C1'-C2'	-7.04	100.27	105.90
100	Bl	14	DC	O4'-C1'-C2'	-7.04	100.27	105.90
1	AA	3943	DT	P-O3'-C3'	7.03	128.14	119.70
1	AA	1649	DT	C4'-C3'-C2'	-7.03	96.77	103.10
1	AA	5869	DT	O4'-C4'-C3'	-7.03	101.69	104.50
1	AA	2219	DA	O4'-C1'-C2'	-7.03	100.28	105.90
1	AA	4483	DA	C1'-O4'-C4'	-7.03	103.07	110.10
1	AA	1880	DT	O4'-C4'-C3'	-7.03	101.69	104.50
1	AA	6625	DT	O4'-C1'-C2'	-7.03	100.28	105.90
71	BI	24	DA	O4'-C1'-C2'	-7.02	100.28	105.90
195	DI	7	DT	C4'-C3'-C2'	-7.02	96.78	103.10
1	AA	990	DT	C4'-C3'-C2'	-7.02	96.78	103.10
1	AA	6995	DC	O4'-C4'-C3'	-7.02	101.69	104.50
21	AU	4	DG	P-O3'-C3'	7.02	128.12	119.70
48	Av	1	DG	O4'-C1'-C2'	-7.02	100.28	105.90
156	Cf	2	DT	O4'-C1'-C2'	-7.02	100.28	105.90
1	AA	2042	DC	P-O3'-C3'	7.02	128.12	119.70
137	CM	11	DT	C6-C5-C7	-7.01	118.69	122.90
182	C5	42	DG	O4'-C1'-C2'	-7.01	100.29	105.90
1	AA	5897	DG	O4'-C1'-C2'	-7.01	100.29	105.90
206	DT	23	DC	P-O3'-C3'	7.01	128.12	119.70
59	A6	30	DC	O4'-C1'-C2'	-7.01	100.29	105.90
39	Am	17	DT	C1'-O4'-C4'	-7.01	103.09	110.10
28	Ab	34	DA	C1'-O4'-C4'	-7.01	103.09	110.10
55	A2	37	DT	C4'-C3'-C2'	-7.01	96.79	103.10
76	BN	10	DC	P-O3'-C3'	7.01	128.11	119.70
1	AA	7647	DC	O4'-C1'-C2'	-7.00	100.30	105.90
1	AA	1482	DC	C4'-C3'-C2'	-7.00	96.80	103.10
150	CZ	30	DT	P-O3'-C3'	7.00	128.10	119.70
186	C9	42	DG	O4'-C1'-C2'	-7.00	100.30	105.90
204	DR	29	DG	O4'-C1'-C2'	-7.00	100.30	105.90
1	AA	7985	DG	O4'-C1'-C2'	-7.00	100.30	105.90
1	AA	6911	DT	O4'-C1'-C2'	-7.00	100.30	105.90
1	AA	7295	DT	C4'-C3'-C2'	-7.00	96.80	103.10
1	AA	7941	DC	O4'-C4'-C3'	-7.00	101.70	104.50
19	AS	1	DT	C1'-O4'-C4'	-7.00	103.10	110.10
76	BN	6	DG	O4'-C4'-C3'	-7.00	101.70	104.50
1	AA	6771	DG	O4'-C1'-C2'	-6.99	100.31	105.90
1	AA	3126	DG	P-O3'-C3'	6.99	128.09	119.70
1	AA	7547	DT	O4'-C4'-C3'	-6.99	101.70	104.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	5097	DG	O4'-C4'-C3'	-6.99	101.70	104.50
142	CR	23	DG	P-O3'-C3'	6.99	128.09	119.70
171	Cu	26	DG	O4'-C1'-C2'	-6.99	100.31	105.90
1	AA	5227	DG	O4'-C1'-C2'	-6.99	100.31	105.90
155	Ce	22	DG	O4'-C1'-C2'	-6.99	100.31	105.90
1	AA	8059	DT	C4'-C3'-C2'	-6.98	96.81	103.10
1	AA	589	DC	O4'-C4'-C3'	-6.98	101.71	104.50
153	Cc	21	DA	N1-C6-N6	-6.98	114.41	118.60
174	Cx	19	DT	C4'-C3'-C2'	-6.98	96.82	103.10
1	AA	218	DG	P-O3'-C3'	6.98	128.08	119.70
1	AA	3863	DC	P-O3'-C3'	6.98	128.08	119.70
59	A6	34	DG	O4'-C1'-C2'	-6.98	100.32	105.90
203	DQ	23	DA	O4'-C1'-C2'	-6.98	100.32	105.90
151	Ca	41	DC	P-O3'-C3'	6.98	128.07	119.70
81	BS	26	DT	O4'-C4'-C3'	-6.98	101.71	104.50
143	CS	29	DG	O4'-C4'-C3'	-6.97	101.71	104.50
1	AA	7206	DG	P-O3'-C3'	6.97	128.07	119.70
198	DL	12	DC	O4'-C4'-C3'	-6.97	101.71	104.50
1	AA	5482	DG	C4'-C3'-C2'	-6.97	96.83	103.10
1	AA	328	DG	O4'-C1'-C2'	-6.96	100.33	105.90
1	AA	5085	DA	O4'-C1'-N9	6.96	112.88	108.00
1	AA	7446	DG	O4'-C4'-C3'	-6.96	101.72	104.50
1	AA	7862	DC	C4'-C3'-C2'	-6.96	96.83	103.10
110	Bv	14	DC	O4'-C4'-C3'	-6.96	101.72	104.50
1	AA	1025	DG	O4'-C1'-C2'	-6.96	100.33	105.90
1	AA	2153	DA	O4'-C1'-C2'	-6.96	100.33	105.90
1	AA	4260	DA	C4'-C3'-C2'	-6.96	96.84	103.10
47	Au	37	DA	P-O3'-C3'	6.96	128.05	119.70
1	AA	1915	DC	O4'-C4'-C3'	-6.95	101.72	104.50
1	AA	1180	DG	O4'-C1'-C2'	-6.95	100.34	105.90
1	AA	4949	DG	O4'-C1'-C2'	-6.95	100.34	105.90
206	DT	32	DC	P-O3'-C3'	6.95	128.04	119.70
1	AA	3006	DT	C4'-C3'-C2'	-6.95	96.85	103.10
1	AA	6847	DA	O4'-C1'-C2'	-6.95	100.34	105.90
164	Cn	16	DT	P-O3'-C3'	6.95	128.03	119.70
1	AA	2547	DA	O4'-C4'-C3'	-6.94	101.72	104.50
1	AA	1334	DT	O4'-C1'-C2'	-6.94	100.35	105.90
57	A4	24	DC	O4'-C1'-C2'	-6.94	100.35	105.90
1	AA	4047	DG	O4'-C1'-C2'	-6.94	100.35	105.90
132	CH	48	DT	P-O3'-C3'	6.94	128.03	119.70
196	DJ	13	DG	P-O3'-C3'	6.94	128.03	119.70
1	AA	7849	DG	C1'-O4'-C4'	-6.94	103.16	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	33	DG	P-O3'-C3'	6.94	128.02	119.70
175	Cy	30	DG	O4'-C1'-C2'	-6.94	100.35	105.90
181	C4	13	DG	O4'-C1'-C2'	-6.94	100.35	105.90
1	AA	3295	DT	C1'-O4'-C4'	-6.94	103.16	110.10
1	AA	5687	DG	O4'-C4'-C3'	-6.93	101.73	104.50
1	AA	6556	DT	O4'-C4'-C3'	-6.93	101.73	104.50
60	A7	8	DG	O4'-C1'-C2'	-6.93	100.36	105.90
1	AA	3208	DA	O4'-C1'-C2'	-6.93	100.36	105.90
1	AA	6048	DA	C1'-O4'-C4'	-6.93	103.17	110.10
1	AA	59	DT	C4'-C3'-C2'	-6.93	96.87	103.10
1	AA	4639	DT	P-O3'-C3'	6.92	128.01	119.70
1	AA	6327	DG	O4'-C1'-C2'	-6.92	100.36	105.90
1	AA	6503	DA	P-O3'-C3'	6.92	128.01	119.70
1	AA	900	DG	C1'-O4'-C4'	-6.92	103.18	110.10
146	CV	3	DT	P-O3'-C3'	6.92	128.01	119.70
108	Bt	30	DG	O4'-C1'-C2'	-6.92	100.36	105.90
1	AA	463	DT	O4'-C1'-C2'	-6.92	100.37	105.90
82	BT	6	DA	C1'-O4'-C4'	-6.92	103.18	110.10
162	Cl	40	DG	O4'-C1'-C2'	-6.92	100.37	105.90
1	AA	3276	DT	C1'-O4'-C4'	-6.92	103.19	110.10
1	AA	7142	DA	O4'-C1'-C2'	-6.92	100.37	105.90
1	AA	4444	DC	C1'-O4'-C4'	-6.91	103.19	110.10
1	AA	726	DG	O4'-C1'-C2'	-6.91	100.37	105.90
81	BS	24	DA	O4'-C1'-C2'	-6.91	100.37	105.90
1	AA	5776	DG	O4'-C1'-C2'	-6.91	100.37	105.90
1	AA	5951	DG	O4'-C1'-C2'	-6.91	100.37	105.90
1	AA	6451	DT	C4'-C3'-C2'	-6.91	96.88	103.10
1	AA	2008	DC	C2-N1-C1'	6.91	126.40	118.80
1	AA	150	DG	C1'-O4'-C4'	-6.90	103.20	110.10
1	AA	5524	DT	O4'-C1'-C2'	-6.90	100.38	105.90
1	AA	6006	DA	O4'-C1'-C2'	-6.90	100.38	105.90
138	CN	8	DC	C4'-C3'-C2'	-6.90	96.89	103.10
171	Cu	18	DG	O4'-C1'-C2'	-6.90	100.38	105.90
1	AA	6675	DG	C1'-O4'-C4'	-6.90	103.20	110.10
1	AA	4856	DA	O4'-C1'-C2'	-6.89	100.39	105.90
1	AA	5066	DA	C1'-O4'-C4'	-6.89	103.21	110.10
55	A2	42	DG	C1'-O4'-C4'	-6.89	103.20	110.10
99	Bk	3	DG	C1'-O4'-C4'	-6.89	103.20	110.10
1	AA	7947	DC	O4'-C1'-C2'	-6.89	100.39	105.90
161	Ck	10	DC	C1'-O4'-C4'	-6.89	103.21	110.10
1	AA	1844	DC	O4'-C1'-N1	6.89	112.82	108.00
1	AA	44	DT	C4'-C3'-C2'	-6.89	96.90	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	387	DC	C4'-C3'-C2'	-6.89	96.90	103.10
1	AA	2671	DT	O4'-C1'-C2'	-6.89	100.39	105.90
1	AA	3464	DA	O4'-C1'-C2'	-6.89	100.39	105.90
3	AC	1	DT	O4'-C4'-C3'	-6.89	101.74	104.50
1	AA	5004	DT	C4'-C3'-C2'	-6.89	96.90	103.10
188	DB	16	DA	P-O3'-C3'	6.89	127.97	119.70
196	DJ	20	DT	C4'-C3'-C2'	-6.89	96.90	103.10
1	AA	6730	DC	O4'-C4'-C3'	-6.88	101.75	104.50
1	AA	8022	DA	P-O3'-C3'	6.88	127.96	119.70
1	AA	5259	DG	O4'-C1'-C2'	-6.88	100.39	105.90
1	AA	7216	DG	O4'-C1'-C2'	-6.88	100.39	105.90
44	Ar	21	DT	C1'-O4'-C4'	-6.88	103.22	110.10
51	Ay	3	DT	O4'-C1'-C2'	-6.88	100.39	105.90
172	Cv	1	DT	O4'-C1'-C2'	-6.88	100.40	105.90
1	AA	1548	DA	O4'-C1'-C2'	-6.88	100.40	105.90
1	AA	7608	DA	C4'-C3'-C2'	-6.88	96.91	103.10
51	Ay	1	DT	O4'-C1'-C2'	-6.88	100.40	105.90
61	A8	40	DG	O4'-C4'-C3'	-6.88	101.75	104.50
64	BB	36	DA	P-O3'-C3'	6.88	127.95	119.70
38	Al	22	DG	P-O3'-C3'	6.88	127.95	119.70
146	CV	15	DG	O4'-C4'-C3'	-6.88	101.75	104.50
1	AA	2068	DT	O4'-C1'-N1	6.87	112.81	108.00
20	AT	6	DT	O4'-C4'-C3'	-6.87	101.75	104.50
1	AA	2801	DG	O4'-C1'-C2'	-6.87	100.40	105.90
1	AA	4281	DA	O4'-C1'-C2'	-6.87	100.40	105.90
1	AA	4510	DT	C4'-C3'-C2'	-6.87	96.92	103.10
166	Cp	9	DA	O4'-C1'-C2'	-6.87	100.41	105.90
176	Cz	31	DA	C1'-O4'-C4'	-6.87	103.23	110.10
1	AA	319	DA	O4'-C1'-C2'	-6.87	100.41	105.90
1	AA	8048	DG	O4'-C1'-C2'	-6.87	100.41	105.90
69	BG	15	DG	O4'-C1'-C2'	-6.87	100.41	105.90
140	CP	32	DG	O4'-C1'-C2'	-6.87	100.41	105.90
164	Cn	8	DC	C4'-C3'-C2'	-6.87	96.92	103.10
1	AA	7751	DG	O4'-C1'-C2'	-6.86	100.41	105.90
63	BA	48	DA	N1-C6-N6	-6.86	114.48	118.60
107	Bs	1	DT	O4'-C1'-C2'	-6.86	100.41	105.90
1	AA	5347	DG	O4'-C1'-C2'	-6.86	100.41	105.90
1	AA	4204	DT	C4'-C3'-C2'	-6.86	96.93	103.10
1	AA	8055	DG	O4'-C1'-C2'	-6.86	100.41	105.90
51	Ay	22	DG	O4'-C1'-C2'	-6.86	100.41	105.90
1	AA	2067	DG	O4'-C4'-C3'	-6.86	101.76	104.50
28	Ab	1	DT	O4'-C1'-C2'	-6.86	100.41	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
95	Bg	43	DG	O4'-C1'-C2'	-6.86	100.41	105.90
208	DV	37	DT	O4'-C1'-C2'	-6.86	100.41	105.90
1	AA	5044	DT	O4'-C1'-C2'	-6.86	100.42	105.90
1	AA	6812	DT	C4'-C3'-C2'	-6.86	96.93	103.10
1	AA	7380	DC	O4'-C1'-N1	6.86	112.80	108.00
18	AR	22	DG	O4'-C1'-C2'	-6.86	100.42	105.90
1	AA	4279	DC	C4'-C3'-C2'	-6.85	96.93	103.10
73	BK	28	DC	O4'-C1'-C2'	-6.85	100.42	105.90
127	CC	18	DT	O4'-C4'-C3'	-6.85	101.76	104.50
169	Cs	13	DG	O4'-C4'-C3'	-6.85	101.76	104.50
205	DS	23	DT	O4'-C1'-C2'	-6.85	100.42	105.90
1	AA	874	DT	C4'-C3'-C2'	-6.85	96.94	103.10
1	AA	7831	DG	O4'-C1'-C2'	-6.85	100.42	105.90
53	A0	30	DA	O4'-C1'-C2'	-6.85	100.42	105.90
63	BA	42	DG	O4'-C4'-C3'	-6.85	101.76	104.50
1	AA	1238	DG	O4'-C1'-C2'	-6.85	100.42	105.90
193	DG	29	DG	C1'-O4'-C4'	-6.85	103.25	110.10
1	AA	1438	DG	C4'-C3'-C2'	-6.84	96.94	103.10
1	AA	2129	DA	O4'-C1'-C2'	-6.84	100.42	105.90
68	BF	30	DA	O4'-C1'-C2'	-6.84	100.42	105.90
109	Bu	12	DT	C4'-C3'-C2'	-6.84	96.94	103.10
206	DT	16	DG	P-O3'-C3'	6.84	127.91	119.70
89	Ba	15	DT	C4'-C3'-C2'	-6.84	96.94	103.10
138	CN	1	DG	P-O3'-C3'	6.84	127.91	119.70
1	AA	2491	DC	O4'-C1'-C2'	-6.84	100.43	105.90
123	B8	15	DC	P-O3'-C3'	6.84	127.91	119.70
203	DQ	17	DG	O4'-C1'-C2'	-6.84	100.43	105.90
1	AA	1465	DA	P-O3'-C3'	6.84	127.91	119.70
1	AA	8006	DG	O4'-C1'-C2'	-6.84	100.43	105.90
1	AA	4666	DG	O4'-C1'-C2'	-6.84	100.43	105.90
1	AA	7532	DG	O4'-C1'-C2'	-6.84	100.43	105.90
51	Ay	14	DC	C6-N1-C2	-6.84	117.56	120.30
109	Bu	26	DA	O4'-C1'-C2'	-6.83	100.43	105.90
181	C4	30	DA	P-O3'-C3'	6.83	127.90	119.70
1	AA	1898	DG	O4'-C1'-C2'	-6.83	100.43	105.90
1	AA	2630	DG	C5-C6-O6	-6.83	124.50	128.60
1	AA	3608	DA	O4'-C1'-C2'	-6.83	100.43	105.90
1	AA	6556	DT	C4'-C3'-C2'	-6.83	96.95	103.10
29	Ac	23	DA	P-O3'-C3'	6.83	127.90	119.70
55	A2	7	DG	P-O3'-C3'	6.83	127.90	119.70
206	DT	9	DC	O4'-C1'-C2'	-6.83	100.43	105.90
1	AA	7726	DC	C2-N1-C1'	6.83	126.31	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	2565	DA	P-O3'-C3'	6.83	127.89	119.70
1	AA	3690	DG	O4'-C1'-C2'	-6.83	100.44	105.90
1	AA	6985	DT	P-O3'-C3'	6.83	127.89	119.70
1	AA	5793	DG	O4'-C4'-C3'	-6.83	101.77	104.50
127	CC	18	DT	C4'-C3'-C2'	-6.83	96.95	103.10
1	AA	3766	DG	O4'-C1'-N9	6.83	112.78	108.00
1	AA	7402	DT	O4'-C1'-N1	6.83	112.78	108.00
1	AA	7471	DC	P-O3'-C3'	6.83	127.89	119.70
84	BV	9	DT	C1'-O4'-C4'	-6.83	103.27	110.10
1	AA	1137	DG	O4'-C1'-C2'	-6.82	100.44	105.90
1	AA	5911	DT	O4'-C4'-C3'	-6.82	101.77	104.50
26	AZ	18	DA	O4'-C1'-C2'	-6.82	100.44	105.90
162	Cl	26	DG	O4'-C1'-C2'	-6.82	100.44	105.90
1	AA	431	DG	O4'-C1'-N9	6.82	112.78	108.00
143	CS	1	DC	C1'-O4'-C4'	-6.82	103.28	110.10
1	AA	7073	DT	O4'-C1'-C2'	-6.82	100.44	105.90
82	BT	14	DG	O4'-C1'-C2'	-6.82	100.44	105.90
191	DE	28	DG	C4'-C3'-C2'	-6.82	96.96	103.10
201	DO	42	DC	C2-N1-C1'	6.82	126.30	118.80
1	AA	498	DA	C1'-O4'-C4'	-6.82	103.28	110.10
1	AA	3735	DC	P-O3'-C3'	6.82	127.88	119.70
1	AA	6612	DC	O4'-C1'-C2'	-6.82	100.45	105.90
1	AA	7397	DT	C4'-C3'-C2'	-6.82	96.96	103.10
132	CH	45	DT	O4'-C1'-C2'	-6.82	100.45	105.90
1	AA	6438	DT	O4'-C1'-C2'	-6.81	100.45	105.90
1	AA	7271	DT	C4'-C3'-C2'	-6.81	96.97	103.10
1	AA	2514	DG	O4'-C1'-C2'	-6.81	100.45	105.90
108	Bt	20	DA	N1-C6-N6	-6.81	114.51	118.60
1	AA	4031	DG	O4'-C1'-C2'	-6.81	100.45	105.90
1	AA	4093	DA	O4'-C1'-C2'	-6.81	100.45	105.90
129	CE	23	DA	C1'-O4'-C4'	-6.81	103.29	110.10
1	AA	6399	DT	O4'-C4'-C3'	-6.81	101.78	104.50
1	AA	1603	DG	O4'-C1'-C2'	-6.80	100.46	105.90
131	CG	18	DA	P-O3'-C3'	6.80	127.86	119.70
167	Cq	44	DA	O4'-C4'-C3'	-6.80	101.78	104.50
201	DO	8	DT	C4'-C3'-C2'	-6.80	96.97	103.10
1	AA	6931	DA	O4'-C1'-C2'	-6.80	100.46	105.90
1	AA	998	DG	O4'-C1'-C2'	-6.80	100.46	105.90
1	AA	1548	DA	P-O3'-C3'	6.80	127.86	119.70
1	AA	1968	DT	P-O3'-C3'	6.80	127.86	119.70
44	Ar	37	DC	O4'-C1'-C2'	-6.80	100.46	105.90
1	AA	102	DT	C4'-C3'-C2'	-6.80	96.98	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	AG	1	DC	O4'-C1'-C2'	-6.80	100.46	105.90
202	DP	29	DA	O4'-C4'-C3'	-6.80	101.78	104.50
1	AA	2855	DG	O4'-C1'-N9	6.80	112.76	108.00
1	AA	1748	DG	C4'-C3'-C2'	-6.79	96.99	103.10
1	AA	5251	DG	O4'-C4'-C3'	-6.79	101.78	104.50
160	Cj	16	DT	P-O3'-C3'	6.79	127.85	119.70
1	AA	3160	DA	O4'-C1'-C2'	-6.79	100.47	105.90
18	AR	1	DC	C1'-O4'-C4'	-6.79	103.31	110.10
1	AA	4848	DG	O4'-C1'-C2'	-6.79	100.47	105.90
1	AA	5234	DT	C4'-C3'-C2'	-6.79	96.99	103.10
153	Cc	20	DT	C4'-C3'-C2'	-6.79	96.99	103.10
1	AA	5175	DA	O4'-C1'-C2'	-6.79	100.47	105.90
1	AA	5289	DG	O4'-C1'-C2'	-6.79	100.47	105.90
91	Bc	5	DT	O4'-C1'-N1	6.79	112.75	108.00
1	AA	3835	DA	O4'-C1'-C2'	-6.78	100.47	105.90
76	BN	17	DT	O4'-C1'-C2'	-6.78	100.47	105.90
1	AA	2357	DT	O4'-C1'-C2'	-6.78	100.47	105.90
1	AA	4949	DG	C1'-O4'-C4'	-6.78	103.32	110.10
167	Cq	23	DG	O4'-C4'-C3'	-6.78	101.79	104.50
21	AU	1	DA	C1'-O4'-C4'	-6.78	103.32	110.10
1	AA	4037	DA	O4'-C4'-C3'	-6.78	101.79	104.50
1	AA	4246	DA	C1'-O4'-C4'	-6.77	103.33	110.10
1	AA	4900	DT	O4'-C1'-C2'	-6.77	100.48	105.90
1	AA	5008	DT	C4'-C3'-C2'	-6.77	97.00	103.10
3	AC	20	DG	N1-C6-O6	6.77	123.96	119.90
211	DY	6	DG	O4'-C1'-C2'	-6.77	100.48	105.90
1	AA	1169	DA	O4'-C1'-C2'	-6.77	100.48	105.90
1	AA	4251	DT	C1'-O4'-C4'	-6.77	103.33	110.10
1	AA	6995	DC	C4'-C3'-C2'	-6.77	97.01	103.10
32	Af	30	DA	P-O3'-C3'	6.77	127.82	119.70
1	AA	2108	DT	O4'-C1'-C2'	-6.77	100.49	105.90
74	BL	17	DT	O4'-C4'-C3'	-6.77	101.79	104.50
207	DU	24	DG	C1'-O4'-C4'	-6.77	103.33	110.10
1	AA	6959	DT	C4'-C3'-C2'	-6.77	97.01	103.10
40	An	26	DT	C1'-O4'-C4'	-6.77	103.33	110.10
1	AA	3305	DG	O4'-C1'-C2'	-6.76	100.49	105.90
114	Bz	8	DC	C6-N1-C1'	-6.76	112.68	120.80
1	AA	4434	DG	C5-C6-O6	-6.76	124.54	128.60
1	AA	2049	DA	O4'-C1'-C2'	-6.76	100.49	105.90
32	Af	30	DA	O4'-C1'-C2'	-6.76	100.49	105.90
1	AA	5687	DG	C1'-O4'-C4'	-6.76	103.34	110.10
192	DF	21	DC	O4'-C1'-C2'	-6.76	100.49	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	5153	DG	O4'-C1'-N9	6.76	112.73	108.00
1	AA	5612	DT	O4'-C1'-C2'	-6.76	100.50	105.90
1	AA	5192	DT	C4'-C3'-C2'	-6.75	97.02	103.10
51	Ay	27	DT	C1'-O4'-C4'	-6.75	103.34	110.10
75	BM	19	DG	C4'-C3'-C2'	-6.75	97.02	103.10
201	DO	45	DT	C4'-C3'-C2'	-6.75	97.02	103.10
1	AA	4395	DA	P-O3'-C3'	6.75	127.81	119.70
32	Af	14	DG	O4'-C1'-C2'	-6.75	100.50	105.90
115	B0	16	DC	O4'-C1'-C2'	-6.75	100.50	105.90
1	AA	498	DA	O4'-C4'-C3'	-6.75	101.80	104.50
1	AA	3790	DG	O4'-C1'-C2'	-6.75	100.50	105.90
28	Ab	32	DC	O4'-C1'-C2'	-6.75	100.50	105.90
1	AA	1944	DG	C1'-O4'-C4'	-6.75	103.35	110.10
1	AA	2324	DG	O4'-C1'-C2'	-6.75	100.50	105.90
1	AA	5243	DC	O4'-C4'-C3'	-6.75	101.80	104.50
88	BZ	9	DA	C1'-O4'-C4'	-6.75	103.35	110.10
209	DW	35	DT	P-O3'-C3'	6.75	127.80	119.70
1	AA	7064	DA	P-O3'-C3'	6.75	127.80	119.70
117	B2	14	DC	O4'-C1'-C2'	-6.75	100.50	105.90
1	AA	5624	DA	N1-C6-N6	-6.75	114.55	118.60
1	AA	1603	DG	P-O3'-C3'	6.74	127.79	119.70
1	AA	2895	DG	O4'-C1'-N9	6.74	112.72	108.00
122	B7	16	DG	O4'-C1'-C2'	-6.74	100.50	105.90
1	AA	4103	DG	C1'-O4'-C4'	-6.74	103.36	110.10
154	Cd	47	DA	O4'-C4'-C3'	-6.74	101.80	104.50
195	DI	1	DG	C1'-O4'-C4'	-6.74	103.36	110.10
1	AA	6620	DT	C4'-C3'-C2'	-6.73	97.04	103.10
176	Cz	45	DG	P-O3'-C3'	6.73	127.78	119.70
1	AA	855	DC	O4'-C1'-C2'	-6.73	100.52	105.90
94	Bf	34	DG	O4'-C1'-C2'	-6.73	100.52	105.90
112	Bx	16	DG	O4'-C1'-C2'	-6.73	100.52	105.90
1	AA	5528	DG	N1-C6-O6	6.73	123.94	119.90
1	AA	7889	DG	O4'-C1'-C2'	-6.73	100.52	105.90
174	Cx	13	DG	O4'-C1'-C2'	-6.73	100.52	105.90
1	AA	4088	DG	O4'-C1'-C2'	-6.73	100.52	105.90
131	CG	18	DA	O4'-C1'-C2'	-6.73	100.52	105.90
194	DH	4	DG	C4'-C3'-C2'	-6.73	97.05	103.10
204	DR	28	DG	O4'-C1'-C2'	-6.73	100.52	105.90
191	DE	28	DG	O4'-C4'-C3'	-6.72	101.81	104.50
11	AK	30	DC	O4'-C1'-C2'	-6.72	100.52	105.90
1	AA	1607	DT	O4'-C1'-C2'	-6.72	100.52	105.90
180	C3	1	DA	C1'-O4'-C4'	-6.72	103.38	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	2832	DA	C4'-C3'-C2'	-6.72	97.05	103.10
1	AA	3941	DG	O4'-C1'-C2'	-6.72	100.53	105.90
1	AA	6307	DT	C4'-C3'-C2'	-6.72	97.06	103.10
25	AY	10	DT	O4'-C1'-C2'	-6.72	100.53	105.90
67	BE	9	DT	P-O3'-C3'	6.72	127.76	119.70
1	AA	1529	DG	O4'-C1'-C2'	-6.71	100.53	105.90
1	AA	4393	DG	O4'-C1'-N9	6.71	112.70	108.00
102	Bn	1	DG	C1'-O4'-C4'	-6.71	103.39	110.10
139	CO	4	DA	O4'-C1'-C2'	-6.71	100.53	105.90
188	DB	5	DC	O4'-C4'-C3'	-6.71	101.81	104.50
1	AA	4422	DC	P-O3'-C3'	6.71	127.75	119.70
1	AA	5097	DG	C4'-C3'-C2'	-6.71	97.06	103.10
1	AA	6617	DA	O4'-C4'-C3'	-6.71	101.82	104.50
1	AA	1428	DT	O4'-C1'-C2'	-6.71	100.53	105.90
1	AA	2169	DG	C1'-O4'-C4'	-6.71	103.39	110.10
1	AA	2627	DC	O4'-C1'-C2'	-6.71	100.53	105.90
1	AA	6121	DT	C4'-C3'-C2'	-6.71	97.06	103.10
1	AA	7600	DG	C1'-O4'-C4'	-6.71	103.39	110.10
1	AA	578	DC	C1'-O4'-C4'	-6.70	103.40	110.10
1	AA	6405	DC	C1'-O4'-C4'	-6.70	103.40	110.10
1	AA	7020	DT	P-O3'-C3'	6.70	127.74	119.70
1	AA	7370	DT	C4'-C3'-C2'	-6.70	97.07	103.10
19	AS	1	DT	O4'-C1'-C2'	-6.70	100.54	105.90
45	As	22	DA	N1-C6-N6	-6.70	114.58	118.60
110	Bv	28	DT	O4'-C1'-C2'	-6.70	100.54	105.90
1	AA	2129	DA	P-O3'-C3'	6.70	127.74	119.70
33	Ag	14	DG	O4'-C1'-C2'	-6.70	100.54	105.90
134	CJ	22	DA	O4'-C1'-C2'	-6.70	100.54	105.90
1	AA	3152	DA	O4'-C1'-C2'	-6.69	100.55	105.90
88	BZ	16	DG	N1-C6-O6	6.69	123.92	119.90
1	AA	431	DG	O4'-C1'-C2'	-6.69	100.55	105.90
1	AA	4530	DT	C4'-C3'-C2'	-6.69	97.08	103.10
65	BC	15	DC	C1'-O4'-C4'	-6.69	103.41	110.10
1	AA	2884	DT	O4'-C1'-C2'	-6.69	100.55	105.90
20	AT	27	DA	O4'-C1'-C2'	-6.69	100.55	105.90
1	AA	2008	DC	O4'-C1'-C2'	-6.69	100.55	105.90
62	A9	23	DC	P-O3'-C3'	6.69	127.73	119.70
86	BX	26	DA	C1'-O4'-C4'	-6.69	103.41	110.10
105	Bq	30	DT	O4'-C1'-C2'	-6.69	100.55	105.90
1	AA	4199	DG	C1'-O4'-C4'	-6.69	103.41	110.10
1	AA	4952	DG	C1'-O4'-C4'	-6.69	103.41	110.10
49	Aw	9	DT	C4'-C3'-C2'	-6.69	97.08	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
128	CD	1	DA	O4'-C1'-C2'	-6.69	100.55	105.90
1	AA	6964	DA	P-O3'-C3'	6.68	127.72	119.70
200	DN	26	DG	O4'-C4'-C3'	-6.68	101.83	104.50
1	AA	3560	DG	O4'-C1'-C2'	-6.68	100.56	105.90
1	AA	7899	DG	P-O3'-C3'	6.68	127.72	119.70
10	AJ	27	DA	O4'-C1'-C2'	-6.68	100.56	105.90
161	Ck	24	DG	O4'-C1'-C2'	-6.68	100.56	105.90
133	CI	1	DT	O4'-C1'-C2'	-6.68	100.56	105.90
1	AA	4051	DC	C1'-O4'-C4'	-6.68	103.42	110.10
1	AA	7604	DT	C4'-C3'-C2'	-6.68	97.09	103.10
18	AR	23	DG	P-O3'-C3'	6.68	127.71	119.70
95	Bg	8	DG	C1'-O4'-C4'	-6.67	103.43	110.10
1	AA	2900	DA	C4'-C3'-C2'	-6.67	97.09	103.10
1	AA	7094	DT	P-O3'-C3'	6.67	127.71	119.70
50	Ax	1	DT	C1'-O4'-C4'	-6.67	103.43	110.10
2	AB	37	DG	C1'-O4'-C4'	-6.67	103.43	110.10
62	A9	1	DA	O4'-C1'-C2'	-6.67	100.56	105.90
1	AA	2664	DG	C1'-O4'-C4'	-6.67	103.43	110.10
1	AA	6334	DA	O4'-C1'-C2'	-6.67	100.57	105.90
66	BD	29	DT	O4'-C1'-C2'	-6.67	100.56	105.90
81	BS	18	DG	C1'-O4'-C4'	-6.67	103.43	110.10
212	DZ	21	DA	N1-C6-N6	-6.67	114.60	118.60
1	AA	4232	DG	O4'-C1'-C2'	-6.67	100.57	105.90
1	AA	5876	DG	O4'-C1'-C2'	-6.67	100.57	105.90
1	AA	5566	DG	O4'-C1'-C2'	-6.67	100.57	105.90
1	AA	2413	DA	C1'-O4'-C4'	-6.66	103.44	110.10
1	AA	5026	DC	C1'-O4'-C4'	-6.66	103.44	110.10
1	AA	5999	DA	O4'-C1'-C2'	-6.66	100.57	105.90
1	AA	6055	DC	O4'-C1'-C2'	-6.66	100.57	105.90
198	DL	1	DT	O4'-C4'-C3'	-6.66	101.83	104.50
69	BG	10	DA	P-O3'-C3'	6.66	127.69	119.70
1	AA	852	DG	O4'-C1'-N9	6.66	112.66	108.00
1	AA	2891	DC	O4'-C4'-C3'	-6.66	101.84	104.50
1	AA	4845	DA	O4'-C1'-N9	6.66	112.66	108.00
140	CP	12	DC	P-O3'-C3'	6.66	127.69	119.70
152	Cb	4	DA	N1-C6-N6	-6.66	114.61	118.60
1	AA	165	DG	P-O3'-C3'	6.66	127.69	119.70
1	AA	3172	DA	C1'-O4'-C4'	-6.66	103.44	110.10
74	BL	17	DT	C4'-C3'-C2'	-6.66	97.11	103.10
129	CE	23	DA	O4'-C1'-C2'	-6.66	100.58	105.90
1	AA	1974	DG	O4'-C1'-C2'	-6.65	100.58	105.90
1	AA	149	DG	O4'-C1'-C2'	-6.65	100.58	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	4335	DT	O4'-C1'-C2'	-6.65	100.58	105.90
51	Ay	13	DT	O4'-C4'-C3'	-6.65	101.84	104.50
124	B9	16	DT	C1'-O4'-C4'	-6.65	103.45	110.10
66	BD	34	DT	O4'-C1'-C2'	-6.65	100.58	105.90
1	AA	3829	DA	O4'-C4'-C3'	-6.65	101.84	104.50
1	AA	5273	DA	O4'-C4'-C3'	-6.65	101.84	104.50
27	Aa	19	DT	C4'-C3'-C2'	-6.65	97.12	103.10
152	Cb	42	DA	O4'-C1'-C2'	-6.65	100.58	105.90
1	AA	1064	DT	C4'-C3'-C2'	-6.65	97.12	103.10
1	AA	6688	DT	C4'-C3'-C2'	-6.65	97.12	103.10
60	A7	8	DG	O4'-C1'-N9	6.64	112.65	108.00
1	AA	2227	DA	O4'-C1'-C2'	-6.64	100.59	105.90
1	AA	5664	DG	O4'-C1'-N9	6.64	112.65	108.00
1	AA	6728	DA	O4'-C1'-C2'	-6.64	100.59	105.90
110	Bv	11	DA	C4'-C3'-C2'	-6.64	97.12	103.10
163	Cm	23	DT	O4'-C1'-C2'	-6.64	100.59	105.90
1	AA	1109	DA	O4'-C1'-C2'	-6.64	100.59	105.90
1	AA	3718	DG	O4'-C1'-C2'	-6.64	100.59	105.90
112	Bx	10	DT	O4'-C1'-C2'	-6.64	100.59	105.90
176	Cz	21	DG	O4'-C4'-C3'	-6.64	101.84	104.50
190	DD	1	DA	C1'-O4'-C4'	-6.64	103.46	110.10
1	AA	2145	DG	O4'-C1'-C2'	-6.63	100.59	105.90
1	AA	6751	DT	O4'-C1'-C2'	-6.63	100.59	105.90
1	AA	751	DG	O4'-C1'-C2'	-6.63	100.59	105.90
1	AA	4565	DG	O4'-C1'-N9	6.63	112.64	108.00
1	AA	4776	DC	O4'-C4'-C3'	-6.63	101.85	104.50
130	CF	16	DA	O4'-C4'-C3'	-6.63	101.85	104.50
1	AA	5199	DG	O4'-C1'-C2'	-6.63	100.60	105.90
1	AA	2169	DG	O4'-C1'-N9	6.63	112.64	108.00
1	AA	2781	DT	O4'-C4'-C3'	-6.63	101.85	104.50
44	Ar	9	DA	O4'-C1'-C2'	-6.63	100.60	105.90
1	AA	855	DC	P-O3'-C3'	6.63	127.65	119.70
1	AA	5897	DG	C1'-O4'-C4'	-6.63	103.47	110.10
11	AK	7	DA	O4'-C1'-C2'	-6.63	100.60	105.90
71	BI	26	DG	O4'-C1'-C2'	-6.63	100.60	105.90
46	At	37	DG	O4'-C1'-C2'	-6.62	100.60	105.90
71	BI	4	DT	C4'-C3'-C2'	-6.62	97.14	103.10
201	DO	8	DT	O4'-C4'-C3'	-6.62	101.85	104.50
1	AA	5876	DG	C1'-O4'-C4'	-6.62	103.48	110.10
16	AP	5	DT	C4'-C3'-C2'	-6.62	97.14	103.10
1	AA	381	DT	O4'-C1'-C2'	-6.62	100.60	105.90
81	BS	24	DA	P-O3'-C3'	6.62	127.65	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1922	DG	O4'-C1'-C2'	-6.62	100.61	105.90
195	DI	7	DT	O4'-C4'-C3'	-6.62	101.85	104.50
1	AA	796	DA	O4'-C1'-C2'	-6.62	100.61	105.90
65	BC	17	DG	O4'-C1'-C2'	-6.62	100.61	105.90
1	AA	2214	DG	O4'-C1'-C2'	-6.61	100.61	105.90
1	AA	4341	DA	O4'-C1'-C2'	-6.61	100.61	105.90
1	AA	7119	DG	O4'-C1'-C2'	-6.61	100.61	105.90
105	Bq	12	DG	C5-C6-O6	-6.61	124.63	128.60
1	AA	1901	DG	O4'-C1'-C2'	-6.61	100.61	105.90
1	AA	3985	DA	O4'-C1'-C2'	-6.61	100.61	105.90
170	Ct	3	DA	O4'-C4'-C3'	-6.61	101.86	104.50
1	AA	3424	DT	O4'-C1'-C2'	-6.61	100.62	105.90
1	AA	4057	DC	P-O3'-C3'	6.60	127.62	119.70
1	AA	4936	DA	C4'-C3'-C2'	-6.60	97.16	103.10
88	BZ	37	DG	O4'-C1'-C2'	-6.60	100.62	105.90
123	B8	18	DC	P-O3'-C3'	6.60	127.62	119.70
199	DM	15	DG	C4'-C3'-C2'	-6.60	97.16	103.10
1	AA	1756	DC	O4'-C4'-C3'	-6.60	101.86	104.50
63	BA	35	DG	O4'-C1'-C2'	-6.60	100.62	105.90
179	C2	46	DT	C4'-C3'-C2'	-6.60	97.16	103.10
1	AA	1589	DC	P-O3'-C3'	6.60	127.62	119.70
1	AA	1645	DC	C4'-C3'-C2'	-6.60	97.16	103.10
1	AA	4550	DG	O4'-C1'-C2'	-6.60	100.62	105.90
1	AA	5155	DT	O4'-C1'-C2'	-6.60	100.62	105.90
1	AA	7516	DT	O4'-C1'-C2'	-6.59	100.62	105.90
1	AA	700	DG	O4'-C1'-C2'	-6.59	100.63	105.90
1	AA	1038	DG	O4'-C1'-C2'	-6.59	100.63	105.90
12	AL	12	DC	C1'-O4'-C4'	-6.59	103.51	110.10
87	BY	9	DT	O4'-C1'-C2'	-6.59	100.63	105.90
1	AA	7122	DG	C1'-O4'-C4'	-6.59	103.51	110.10
20	AT	11	DG	C1'-O4'-C4'	-6.59	103.51	110.10
1	AA	3921	DT	C4'-C3'-C2'	-6.59	97.17	103.10
1	AA	636	DC	O4'-C1'-C2'	-6.59	100.63	105.90
1	AA	5302	DA	O4'-C1'-C2'	-6.59	100.63	105.90
1	AA	6690	DG	O4'-C1'-C2'	-6.58	100.63	105.90
1	AA	5542	DA	P-O3'-C3'	6.58	127.60	119.70
1	AA	7650	DG	O4'-C1'-C2'	-6.58	100.63	105.90
123	B8	33	DG	O4'-C1'-C2'	-6.58	100.63	105.90
1	AA	515	DG	O4'-C1'-C2'	-6.58	100.64	105.90
21	AU	28	DC	O4'-C1'-C2'	-6.58	100.64	105.90
1	AA	2865	DC	C1'-O4'-C4'	-6.58	103.52	110.10
1	AA	1707	DT	O4'-C1'-C2'	-6.58	100.64	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	255	DA	P-O3'-C3'	6.58	127.59	119.70
42	Ap	10	DA	P-O3'-C3'	6.58	127.59	119.70
1	AA	2147	DC	O4'-C1'-C2'	-6.57	100.64	105.90
1	AA	2831	DT	O4'-C1'-C2'	-6.57	100.64	105.90
1	AA	6571	DA	O4'-C1'-C2'	-6.57	100.64	105.90
114	Bz	37	DG	P-O3'-C3'	6.57	127.59	119.70
23	AW	21	DA	P-O3'-C3'	6.57	127.59	119.70
98	Bj	23	DT	C4'-C3'-C2'	-6.57	97.19	103.10
1	AA	6539	DG	O4'-C1'-C2'	-6.57	100.64	105.90
39	Am	22	DC	O4'-C1'-N1	6.57	112.60	108.00
1	AA	1169	DA	N1-C6-N6	-6.57	114.66	118.60
1	AA	2190	DT	C1'-O4'-C4'	-6.57	103.53	110.10
1	AA	4669	DT	C1'-O4'-C4'	-6.57	103.53	110.10
1	AA	6471	DG	O4'-C1'-C2'	-6.57	100.65	105.90
1	AA	7831	DG	C1'-O4'-C4'	-6.57	103.53	110.10
70	BH	14	DA	C1'-O4'-C4'	-6.57	103.53	110.10
86	BX	30	DA	P-O3'-C3'	6.57	127.58	119.70
165	Co	22	DA	O4'-C1'-C2'	-6.57	100.65	105.90
202	DP	18	DG	C1'-O4'-C4'	-6.57	103.53	110.10
1	AA	1679	DT	C4'-C3'-C2'	-6.56	97.19	103.10
1	AA	7755	DA	O4'-C1'-C2'	-6.56	100.65	105.90
1	AA	1625	DA	O4'-C1'-C2'	-6.56	100.65	105.90
61	A8	40	DG	C4'-C3'-C2'	-6.56	97.19	103.10
94	Bf	16	DG	O4'-C1'-C2'	-6.56	100.65	105.90
99	Bk	16	DA	P-O3'-C3'	6.56	127.58	119.70
1	AA	2484	DA	O4'-C1'-C2'	-6.56	100.65	105.90
1	AA	7767	DG	O4'-C1'-C2'	-6.56	100.65	105.90
1	AA	7862	DC	O4'-C4'-C3'	-6.56	101.88	104.50
197	DK	6	DC	O4'-C4'-C3'	-6.56	101.88	104.50
16	AP	23	DA	P-O3'-C3'	6.56	127.57	119.70
111	Bw	8	DA	O4'-C4'-C3'	-6.56	101.88	104.50
1	AA	7932	DC	O4'-C1'-N1	6.56	112.59	108.00
163	Cm	6	DT	O4'-C1'-C2'	-6.56	100.66	105.90
165	Co	9	DT	O4'-C1'-C2'	-6.56	100.66	105.90
1	AA	357	DT	P-O3'-C3'	6.55	127.57	119.70
1	AA	569	DG	O4'-C1'-C2'	-6.55	100.66	105.90
1	AA	3000	DT	C4'-C3'-C2'	-6.55	97.20	103.10
10	AJ	9	DG	C1'-O4'-C4'	-6.55	103.55	110.10
46	At	31	DG	O4'-C1'-C2'	-6.55	100.66	105.90
45	As	14	DC	C4'-C3'-C2'	-6.55	97.20	103.10
66	BD	25	DC	O4'-C1'-C2'	-6.55	100.66	105.90
1	AA	7727	DT	C4-C5-C7	-6.55	115.07	119.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
43	Aq	45	DC	C4'-C3'-C2'	-6.55	97.21	103.10
62	A9	15	DA	C4'-C3'-C2'	-6.54	97.21	103.10
1	AA	3055	DA	O4'-C1'-C2'	-6.54	100.67	105.90
1	AA	3813	DT	C4'-C3'-C2'	-6.54	97.21	103.10
122	B7	23	DG	C4'-C3'-C2'	-6.54	97.21	103.10
1	AA	1378	DG	O4'-C1'-C2'	-6.54	100.67	105.90
1	AA	6438	DT	C1'-O4'-C4'	-6.54	103.56	110.10
1	AA	934	DT	C4'-C3'-C2'	-6.54	97.22	103.10
1	AA	1238	DG	O4'-C4'-C3'	-6.54	101.88	104.50
82	BT	16	DG	O4'-C1'-C2'	-6.54	100.67	105.90
1	AA	3685	DA	P-O3'-C3'	6.54	127.54	119.70
80	BR	13	DG	C4'-C3'-C2'	-6.54	97.22	103.10
156	Cf	1	DT	P-O3'-C3'	-6.54	111.86	119.70
1	AA	761	DG	P-O3'-C3'	6.54	127.54	119.70
1	AA	3569	DG	C1'-O4'-C4'	-6.54	103.56	110.10
199	DM	22	DG	O4'-C1'-N9	6.54	112.58	108.00
7	AG	36	DA	O4'-C1'-C2'	-6.53	100.67	105.90
54	A1	37	DT	O4'-C1'-C2'	-6.53	100.67	105.90
100	Bl	25	DC	O4'-C1'-C2'	-6.53	100.67	105.90
1	AA	5664	DG	C1'-O4'-C4'	-6.53	103.57	110.10
1	AA	2466	DG	O4'-C1'-C2'	-6.53	100.68	105.90
1	AA	3720	DA	O4'-C4'-C3'	-6.53	101.89	104.50
152	Cb	16	DT	C4'-C3'-C2'	-6.53	97.22	103.10
1	AA	5542	DA	N1-C6-N6	-6.53	114.68	118.60
1	AA	1431	DC	O4'-C4'-C3'	-6.53	101.89	104.50
1	AA	4412	DT	C4'-C3'-C2'	-6.53	97.23	103.10
3	AC	21	DC	C4'-C3'-C2'	-6.53	97.23	103.10
101	Bm	28	DC	O4'-C4'-C3'	-6.53	101.89	104.50
102	Bn	16	DG	P-O3'-C3'	6.53	127.53	119.70
123	B8	21	DG	N1-C6-O6	6.53	123.82	119.90
164	Cn	1	DC	O4'-C1'-C2'	-6.53	100.68	105.90
1	AA	1460	DG	P-O3'-C3'	6.53	127.53	119.70
1	AA	6876	DA	N1-C6-N6	-6.52	114.69	118.60
133	CI	21	DA	O4'-C4'-C3'	-6.52	101.89	104.50
210	DX	40	DA	O4'-C4'-C3'	-6.52	101.89	104.50
1	AA	5877	DG	O4'-C1'-C2'	-6.52	100.68	105.90
1	AA	2433	DG	P-O3'-C3'	6.52	127.52	119.70
35	Ai	8	DG	O4'-C1'-C2'	-6.52	100.69	105.90
1	AA	6227	DT	O4'-C1'-C2'	-6.52	100.69	105.90
202	DP	29	DA	C4'-C3'-C2'	-6.52	97.24	103.10
1	AA	1500	DA	O4'-C1'-C2'	-6.51	100.69	105.90
1	AA	6084	DG	N1-C6-O6	6.51	123.81	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	7160	DA	O4'-C1'-C2'	-6.51	100.69	105.90
63	BA	30	DA	O4'-C1'-C2'	-6.51	100.69	105.90
1	AA	6094	DT	O4'-C4'-C3'	-6.51	101.89	104.50
1	AA	7001	DG	O4'-C1'-C2'	-6.51	100.69	105.90
1	AA	7255	DC	O4'-C1'-N1	6.51	112.56	108.00
1	AA	1289	DT	C4'-C3'-C2'	-6.51	97.24	103.10
11	AK	2	DT	C4'-C3'-C2'	-6.51	97.24	103.10
1	AA	6364	DA	O4'-C1'-C2'	-6.51	100.69	105.90
1	AA	6991	DT	O4'-C4'-C3'	-6.51	101.90	104.50
1	AA	8013	DC	C4'-C3'-C2'	-6.51	97.24	103.10
183	C6	36	DT	C4'-C3'-C2'	-6.51	97.25	103.10
29	Ac	2	DG	P-O3'-C3'	6.50	127.50	119.70
8	AH	6	DA	O4'-C1'-C2'	-6.50	100.70	105.90
143	CS	2	DG	C5-C6-O6	-6.50	124.70	128.60
186	C9	23	DA	O4'-C1'-C2'	-6.50	100.70	105.90
12	AL	12	DC	O4'-C1'-N1	6.50	112.55	108.00
83	BU	12	DG	O4'-C1'-C2'	-6.50	100.70	105.90
1	AA	253	DG	P-O3'-C3'	6.50	127.49	119.70
1	AA	6092	DG	C1'-O4'-C4'	-6.50	103.61	110.10
116	B1	30	DA	O4'-C1'-C2'	-6.50	100.70	105.90
1	AA	4199	DG	P-O3'-C3'	6.49	127.49	119.70
1	AA	6341	DC	O4'-C1'-C2'	-6.49	100.71	105.90
95	Bg	37	DT	C4'-C3'-C2'	-6.49	97.26	103.10
119	B4	21	DT	C4'-C3'-C2'	-6.49	97.25	103.10
1	AA	531	DG	C1'-O4'-C4'	-6.49	103.61	110.10
1	AA	2166	DG	O4'-C1'-C2'	-6.49	100.71	105.90
22	AV	17	DA	N1-C6-N6	-6.49	114.71	118.60
27	Aa	27	DC	O4'-C1'-C2'	-6.49	100.71	105.90
56	A3	18	DC	O4'-C1'-N1	6.49	112.54	108.00
65	BC	9	DG	O4'-C1'-C2'	-6.49	100.71	105.90
131	CG	8	DT	C1'-O4'-C4'	-6.49	103.61	110.10
162	Cl	17	DG	C1'-O4'-C4'	-6.49	103.61	110.10
182	C5	28	DG	O4'-C1'-C2'	-6.49	100.71	105.90
197	DK	6	DC	C4'-C3'-C2'	-6.49	97.26	103.10
1	AA	5384	DC	P-O3'-C3'	6.49	127.48	119.70
1	AA	1041	DG	O4'-C1'-C2'	-6.49	100.71	105.90
1	AA	794	DG	P-O3'-C3'	6.48	127.48	119.70
76	BN	19	DT	P-O3'-C3'	6.48	127.48	119.70
162	Cl	1	DT	O4'-C1'-C2'	-6.48	100.72	105.90
1	AA	2067	DG	O4'-C1'-N9	6.48	112.53	108.00
82	BT	6	DA	O4'-C1'-C2'	-6.48	100.72	105.90
1	AA	3665	DC	O4'-C1'-C2'	-6.48	100.72	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
124	B9	16	DT	O4'-C1'-N1	6.48	112.53	108.00
1	AA	2465	DG	O4'-C1'-C2'	-6.47	100.72	105.90
155	Ce	17	DT	O4'-C4'-C3'	-6.47	101.91	104.50
1	AA	925	DG	O4'-C1'-C2'	-6.47	100.72	105.90
1	AA	2674	DA	O4'-C4'-C3'	-6.47	101.91	104.50
13	AM	14	DG	O4'-C1'-C2'	-6.47	100.72	105.90
1	AA	4604	DG	C4'-C3'-C2'	-6.47	97.28	103.10
1	AA	3735	DC	O4'-C1'-C2'	-6.47	100.72	105.90
1	AA	4746	DA	O4'-C4'-C3'	-6.47	101.91	104.50
1	AA	5642	DC	O4'-C1'-C2'	-6.47	100.72	105.90
40	An	37	DT	P-O3'-C3'	6.47	127.46	119.70
59	A6	3	DG	O4'-C1'-C2'	-6.47	100.72	105.90
40	An	13	DA	C4'-C3'-C2'	-6.47	97.28	103.10
159	Ci	24	DT	O4'-C1'-C2'	-6.47	100.73	105.90
211	DY	14	DG	C1'-O4'-C4'	-6.47	103.63	110.10
1	AA	2169	DG	P-O3'-C3'	6.47	127.46	119.70
1	AA	5085	DA	O4'-C1'-C2'	-6.47	100.73	105.90
114	Bz	36	DG	O4'-C1'-C2'	-6.47	100.73	105.90
178	C1	15	DA	O4'-C1'-C2'	-6.47	100.73	105.90
1	AA	7847	DC	P-O3'-C3'	6.46	127.46	119.70
154	Cd	9	DA	O4'-C1'-C2'	-6.46	100.73	105.90
1	AA	3774	DG	P-O3'-C3'	6.46	127.45	119.70
8	AH	14	DC	P-O3'-C3'	6.46	127.45	119.70
138	CN	17	DC	P-O3'-C3'	6.46	127.45	119.70
1	AA	1435	DG	C1'-O4'-C4'	-6.46	103.64	110.10
1	AA	3957	DA	N1-C6-N6	-6.46	114.72	118.60
1	AA	6410	DC	P-O3'-C3'	6.46	127.45	119.70
1	AA	7787	DG	O4'-C1'-C2'	-6.46	100.73	105.90
154	Cd	9	DA	C1'-O4'-C4'	-6.46	103.64	110.10
4	AD	9	DG	C1'-O4'-C4'	-6.46	103.64	110.10
120	B5	16	DG	O4'-C1'-C2'	-6.46	100.73	105.90
104	Bp	30	DA	C1'-O4'-C4'	-6.45	103.65	110.10
1	AA	5905	DC	O4'-C1'-C2'	-6.45	100.74	105.90
1	AA	2352	DA	O4'-C1'-C2'	-6.45	100.74	105.90
1	AA	4974	DT	C4'-C3'-C2'	-6.45	97.30	103.10
1	AA	3930	DT	O4'-C1'-C2'	-6.45	100.74	105.90
1	AA	1229	DT	C4'-C3'-C2'	-6.45	97.30	103.10
1	AA	5289	DG	O4'-C1'-N9	6.45	112.51	108.00
166	Cp	22	DG	O4'-C4'-C3'	-6.45	101.92	104.50
1	AA	754	DT	C4'-C3'-C2'	-6.45	97.30	103.10
1	AA	4321	DT	O4'-C1'-C2'	-6.45	100.74	105.90
67	BE	29	DA	O4'-C1'-C2'	-6.45	100.74	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	7729	DA	O4'-C1'-C2'	-6.44	100.75	105.90
16	AP	11	DT	O4'-C4'-C3'	-6.44	101.92	104.50
1	AA	593	DG	O4'-C1'-C2'	-6.44	100.75	105.90
1	AA	2855	DG	C1'-O4'-C4'	-6.44	103.66	110.10
1	AA	5057	DG	O4'-C1'-C2'	-6.44	100.75	105.90
1	AA	8020	DA	O4'-C1'-C2'	-6.44	100.75	105.90
1	AA	1396	DG	O4'-C1'-C2'	-6.44	100.75	105.90
101	Bm	9	DT	O4'-C1'-C2'	-6.44	100.75	105.90
163	Cm	22	DG	C4'-C3'-C2'	-6.44	97.30	103.10
1	AA	5524	DT	P-O3'-C3'	6.44	127.42	119.70
1	AA	7947	DC	O4'-C1'-N1	6.44	112.50	108.00
43	Aq	41	DT	C4'-C3'-C2'	-6.44	97.31	103.10
1	AA	7206	DG	O4'-C1'-N9	6.43	112.50	108.00
118	B3	24	DT	O4'-C1'-C2'	-6.43	100.75	105.90
1	AA	637	DA	O4'-C1'-C2'	-6.43	100.75	105.90
1	AA	7249	DG	O4'-C1'-C2'	-6.43	100.75	105.90
45	As	9	DT	O4'-C1'-C2'	-6.43	100.76	105.90
209	DW	34	DT	O4'-C1'-C2'	-6.43	100.76	105.90
2	AB	38	DC	C6-N1-C2	-6.43	117.73	120.30
26	AZ	31	DA	C4'-C3'-C2'	-6.43	97.31	103.10
182	C5	1	DA	O4'-C1'-C2'	-6.43	100.76	105.90
28	Ab	37	DT	C1'-O4'-C4'	-6.42	103.68	110.10
140	CP	27	DA	O4'-C1'-C2'	-6.42	100.76	105.90
1	AA	6400	DT	O4'-C4'-C3'	-6.42	101.93	104.50
97	Bi	16	DC	O4'-C1'-C2'	-6.42	100.76	105.90
1	AA	7179	DG	C5-C6-O6	-6.42	124.75	128.60
64	BB	16	DG	O4'-C1'-C2'	-6.42	100.76	105.90
194	DH	37	DG	O4'-C1'-C2'	-6.42	100.76	105.90
1	AA	4099	DT	P-O3'-C3'	6.42	127.40	119.70
1	AA	5323	DA	O4'-C1'-C2'	-6.42	100.77	105.90
7	AG	44	DG	O4'-C1'-C2'	-6.42	100.77	105.90
1	AA	4675	DT	O4'-C1'-N1	6.42	112.49	108.00
130	CF	16	DA	C4'-C3'-C2'	-6.42	97.33	103.10
182	C5	16	DC	O4'-C1'-C2'	-6.42	100.77	105.90
201	DO	37	DG	O4'-C1'-C2'	-6.42	100.77	105.90
1	AA	3044	DT	C4'-C3'-C2'	-6.41	97.33	103.10
106	Br	34	DA	C4'-C3'-C2'	-6.41	97.33	103.10
1	AA	1609	DG	C5-C6-O6	-6.41	124.75	128.60
1	AA	3502	DG	O4'-C1'-C2'	-6.41	100.77	105.90
1	AA	7727	DT	C6-C5-C7	6.41	126.75	122.90
1	AA	7735	DC	C1'-O4'-C4'	-6.41	103.69	110.10
56	A3	31	DA	N1-C6-N6	-6.41	114.75	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
69	BG	1	DC	C2-N1-C1'	6.41	125.85	118.80
90	Bb	34	DC	O4'-C1'-C2'	-6.41	100.77	105.90
1	AA	6213	DG	O4'-C1'-C2'	-6.41	100.77	105.90
54	A1	1	DA	O4'-C1'-C2'	-6.41	100.77	105.90
84	BV	35	DG	N1-C6-O6	6.41	123.75	119.90
159	Ci	54	DA	P-O3'-C3'	6.41	127.39	119.70
17	AQ	5	DT	O4'-C4'-C3'	-6.41	101.94	104.50
79	BQ	29	DG	C1'-O4'-C4'	-6.41	103.69	110.10
65	BC	5	DA	N1-C6-N6	-6.41	114.76	118.60
156	Cf	23	DG	O4'-C1'-C2'	-6.41	100.78	105.90
211	DY	8	DG	C4'-C3'-C2'	-6.41	97.33	103.10
102	Bn	58	DC	O4'-C1'-C2'	-6.40	100.78	105.90
1	AA	2285	DT	C4'-C3'-C2'	-6.40	97.34	103.10
1	AA	2647	DG	C1'-O4'-C4'	-6.40	103.70	110.10
1	AA	3873	DC	C1'-O4'-C4'	-6.40	103.70	110.10
13	AM	20	DG	O4'-C1'-N9	6.40	112.48	108.00
176	Cz	16	DG	C1'-O4'-C4'	-6.40	103.70	110.10
1	AA	2772	DG	O4'-C1'-C2'	-6.40	100.78	105.90
1	AA	970	DC	O4'-C1'-C2'	-6.40	100.78	105.90
119	B4	4	DG	O4'-C1'-C2'	-6.40	100.78	105.90
1	AA	1501	DC	O4'-C1'-C2'	-6.40	100.78	105.90
1	AA	960	DC	O4'-C4'-C3'	-6.39	101.94	104.50
1	AA	2799	DC	O4'-C4'-C3'	-6.39	101.94	104.50
26	AZ	39	DA	O4'-C1'-C2'	-6.39	100.78	105.90
200	DN	26	DG	C4'-C3'-C2'	-6.39	97.34	103.10
1	AA	2553	DC	C4'-C3'-C2'	-6.39	97.35	103.10
20	AT	1	DT	O4'-C1'-C2'	-6.39	100.79	105.90
28	Ab	24	DC	C4'-C3'-C2'	-6.39	97.35	103.10
163	Cm	12	DG	O4'-C1'-C2'	-6.39	100.79	105.90
108	Bt	12	DT	O4'-C1'-C2'	-6.39	100.79	105.90
1	AA	4353	DT	O4'-C4'-C3'	-6.39	101.94	104.50
1	AA	4736	DG	O4'-C1'-C2'	-6.39	100.79	105.90
1	AA	5213	DT	O4'-C4'-C3'	-6.39	101.94	104.50
1	AA	7608	DA	N1-C6-N6	-6.39	114.77	118.60
187	DA	20	DC	P-O3'-C3'	6.39	127.37	119.70
1	AA	2104	DG	C4'-C3'-C2'	-6.38	97.35	103.10
68	BF	28	DA	O4'-C1'-C2'	-6.38	100.79	105.90
156	Cf	17	DG	O4'-C1'-C2'	-6.38	100.79	105.90
207	DU	17	DC	O4'-C1'-C2'	-6.38	100.79	105.90
57	A4	1	DT	C1'-O4'-C4'	-6.38	103.72	110.10
205	DS	22	DC	P-O3'-C3'	6.38	127.36	119.70
1	AA	5285	DG	O4'-C1'-C2'	-6.38	100.80	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	4037	DA	C4'-C3'-C2'	-6.38	97.36	103.10
1	AA	4848	DG	O4'-C1'-N9	6.38	112.47	108.00
1	AA	7790	DA	O4'-C4'-C3'	-6.38	101.95	104.50
15	AO	9	DG	O4'-C1'-C2'	-6.38	100.80	105.90
1	AA	396	DG	O4'-C1'-C2'	-6.38	100.80	105.90
1	AA	5383	DT	C6-C5-C7	6.38	126.72	122.90
105	Bq	9	DA	O4'-C4'-C3'	-6.38	101.95	104.50
1	AA	5058	DA	O4'-C1'-N9	6.38	112.46	108.00
1	AA	205	DG	P-O3'-C3'	6.37	127.35	119.70
1	AA	1944	DG	O4'-C1'-C2'	-6.37	100.80	105.90
1	AA	2643	DT	C4'-C3'-C2'	-6.37	97.36	103.10
186	C9	17	DG	N1-C6-O6	6.37	123.72	119.90
1	AA	6139	DT	C4'-C3'-C2'	-6.37	97.37	103.10
1	AA	7671	DG	C1'-O4'-C4'	-6.37	103.73	110.10
152	Cb	30	DT	O4'-C4'-C3'	-6.37	101.95	104.50
207	DU	1	DC	C4'-C3'-C2'	-6.37	97.37	103.10
1	AA	2205	DG	O4'-C1'-C2'	-6.37	100.81	105.90
1	AA	2872	DA	C4'-C3'-C2'	-6.37	97.37	103.10
1	AA	3601	DG	O4'-C1'-C2'	-6.37	100.81	105.90
1	AA	642	DC	O4'-C1'-C2'	-6.37	100.81	105.90
1	AA	7351	DA	C1'-O4'-C4'	-6.37	103.73	110.10
186	C9	31	DG	O4'-C1'-C2'	-6.37	100.81	105.90
1	AA	7357	DT	P-O3'-C3'	6.36	127.33	119.70
1	AA	878	DG	O4'-C1'-C2'	-6.36	100.81	105.90
1	AA	3694	DT	C4'-C3'-C2'	-6.36	97.38	103.10
1	AA	4165	DG	C1'-O4'-C4'	-6.36	103.74	110.10
105	Bq	12	DG	N1-C6-O6	6.36	123.72	119.90
128	CD	8	DA	C4'-C3'-C2'	-6.36	97.37	103.10
1	AA	2124	DT	C4'-C3'-C2'	-6.36	97.38	103.10
1	AA	4672	DC	P-O3'-C3'	6.36	127.33	119.70
194	DH	30	DG	O4'-C1'-C2'	-6.36	100.81	105.90
1	AA	1872	DT	O4'-C1'-C2'	-6.36	100.81	105.90
91	Bc	19	DG	O4'-C4'-C3'	-6.36	101.96	104.50
161	Ck	1	DA	O4'-C1'-C2'	-6.36	100.81	105.90
84	BV	21	DA	O4'-C1'-C2'	-6.36	100.81	105.90
1	AA	1524	DA	C1'-O4'-C4'	-6.36	103.75	110.10
5	AE	21	DA	O4'-C1'-N9	-6.36	103.55	108.00
123	B8	15	DC	O4'-C1'-C2'	-6.36	100.81	105.90
1	AA	3101	DC	C4'-C3'-C2'	-6.35	97.38	103.10
1	AA	6541	DT	C4'-C3'-C2'	-6.35	97.38	103.10
100	Bl	38	DT	P-O3'-C3'	6.35	127.32	119.70
171	Cu	10	DT	P-O3'-C3'	6.35	127.32	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	3900	DT	C1'-O4'-C4'	-6.35	103.75	110.10
1	AA	5863	DT	O4'-C1'-C2'	-6.35	100.82	105.90
49	Aw	1	DC	O4'-C1'-N1	6.35	112.44	108.00
12	AL	21	DC	O4'-C1'-C2'	-6.35	100.82	105.90
170	Ct	23	DG	O4'-C1'-C2'	-6.35	100.82	105.90
1	AA	5414	DT	O4'-C4'-C3'	-6.35	101.96	104.50
1	AA	521	DC	P-O3'-C3'	6.34	127.31	119.70
1	AA	2089	DA	C1'-O4'-C4'	-6.34	103.76	110.10
77	BO	32	DG	C4'-C3'-C2'	-6.34	97.39	103.10
155	Ce	38	DT	C1'-O4'-C4'	-6.34	103.76	110.10
1	AA	1123	DC	P-O3'-C3'	6.34	127.31	119.70
1	AA	4458	DA	O4'-C1'-C2'	-6.34	100.83	105.90
3	AC	10	DT	P-O3'-C3'	6.34	127.31	119.70
156	Cf	12	DG	C1'-O4'-C4'	-6.34	103.76	110.10
1	AA	1006	DA	C4'-C3'-C2'	-6.34	97.40	103.10
1	AA	1712	DC	C1'-O4'-C4'	-6.34	103.76	110.10
1	AA	2296	DA	C1'-O4'-C4'	-6.34	103.76	110.10
1	AA	7568	DG	C1'-O4'-C4'	-6.34	103.76	110.10
99	Bk	42	DT	O4'-C4'-C3'	-6.34	101.97	104.50
1	AA	1162	DA	O4'-C1'-C2'	-6.33	100.83	105.90
1	AA	3820	DC	O4'-C1'-C2'	-6.33	100.83	105.90
20	AT	19	DG	P-O3'-C3'	6.33	127.30	119.70
190	DD	21	DC	C6-N1-C2	-6.33	117.77	120.30
1	AA	3383	DG	P-O3'-C3'	6.33	127.30	119.70
1	AA	1137	DG	O4'-C1'-N9	6.33	112.43	108.00
23	AW	50	DA	O4'-C1'-C2'	-6.33	100.84	105.90
163	Cm	2	DT	P-O5'-C5'	6.33	131.03	120.90
1	AA	2242	DT	C1'-O4'-C4'	-6.33	103.77	110.10
1	AA	7913	DC	O4'-C4'-C3'	-6.33	101.97	104.50
203	DQ	35	DT	O4'-C1'-C2'	-6.33	100.84	105.90
57	A4	22	DA	O4'-C1'-C2'	-6.33	100.84	105.90
167	Cq	9	DA	O4'-C1'-C2'	-6.33	100.84	105.90
1	AA	1891	DT	C1'-O4'-C4'	-6.33	103.78	110.10
74	BL	41	DA	P-O3'-C3'	6.33	127.29	119.70
102	Bn	38	DG	O4'-C1'-C2'	-6.33	100.84	105.90
203	DQ	46	DC	O4'-C1'-C2'	-6.32	100.84	105.90
1	AA	7260	DG	C4'-C3'-C2'	-6.32	97.41	103.10
116	B1	37	DG	C1'-O4'-C4'	-6.32	103.78	110.10
1	AA	3608	DA	O4'-C1'-N9	6.32	112.42	108.00
1	AA	7735	DC	O4'-C1'-N1	6.32	112.42	108.00
1	AA	1856	DG	P-O3'-C3'	6.32	127.28	119.70
1	AA	7595	DG	O4'-C1'-C2'	-6.32	100.85	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
199	DM	14	DA	O4'-C1'-C2'	-6.32	100.85	105.90
53	A0	17	DT	C4'-C3'-C2'	-6.31	97.42	103.10
1	AA	3926	DG	O4'-C4'-C3'	-6.31	101.97	104.50
1	AA	4375	DT	C1'-O4'-C4'	-6.31	103.79	110.10
51	Ay	26	DA	O4'-C1'-C2'	-6.31	100.85	105.90
1	AA	2757	DA	O4'-C1'-C2'	-6.31	100.85	105.90
1	AA	3036	DC	C4'-C3'-C2'	-6.31	97.42	103.10
68	BF	3	DA	P-O3'-C3'	6.31	127.27	119.70
77	BO	26	DT	C4'-C3'-C2'	-6.31	97.42	103.10
189	DC	5	DT	C4'-C3'-C2'	-6.31	97.42	103.10
203	DQ	24	DG	O4'-C1'-C2'	-6.31	100.85	105.90
1	AA	1526	DG	O4'-C1'-C2'	-6.31	100.85	105.90
190	DD	35	DC	O4'-C1'-C2'	-6.31	100.85	105.90
198	DL	29	DG	C5-C6-O6	-6.31	124.81	128.60
176	Cz	30	DC	O4'-C1'-C2'	-6.31	100.86	105.90
7	AG	15	DA	O4'-C4'-C3'	-6.30	101.98	104.50
28	Ab	14	DA	O4'-C1'-C2'	-6.30	100.86	105.90
63	BA	30	DA	C1'-O4'-C4'	-6.30	103.80	110.10
65	BC	19	DC	O4'-C1'-C2'	-6.30	100.86	105.90
1	AA	7223	DT	C4'-C3'-C2'	-6.30	97.43	103.10
64	BB	13	DA	N1-C6-N6	-6.30	114.82	118.60
106	Br	27	DA	O4'-C1'-C2'	-6.30	100.86	105.90
114	Bz	2	DA	O4'-C1'-C2'	-6.30	100.86	105.90
200	DN	9	DG	O4'-C1'-C2'	-6.30	100.86	105.90
1	AA	1743	DT	O4'-C1'-C2'	-6.30	100.86	105.90
1	AA	8041	DG	O4'-C1'-C2'	-6.30	100.86	105.90
98	Bj	23	DT	O4'-C4'-C3'	-6.30	101.98	104.50
142	CR	30	DG	C1'-O4'-C4'	-6.30	103.80	110.10
51	Ay	1	DT	O4'-C4'-C3'	-6.30	101.98	104.50
1	AA	3366	DT	C4'-C3'-C2'	-6.30	97.43	103.10
1	AA	5612	DT	P-O3'-C3'	6.30	127.25	119.70
1	AA	5679	DC	O4'-C1'-C2'	-6.30	100.86	105.90
1	AA	7878	DT	P-O3'-C3'	6.30	127.26	119.70
37	Ak	36	DA	O4'-C4'-C3'	-6.30	101.98	104.50
1	AA	828	DG	C4'-C3'-C2'	-6.29	97.44	103.10
1	AA	1416	DT	C4'-C3'-C2'	-6.29	97.43	103.10
1	AA	3610	DC	C6-N1-C2	-6.29	117.78	120.30
143	CS	16	DG	O4'-C1'-C2'	-6.29	100.86	105.90
208	DV	40	DA	O4'-C1'-C2'	-6.29	100.86	105.90
1	AA	2986	DC	O4'-C1'-C2'	-6.29	100.86	105.90
1	AA	5082	DT	C4'-C3'-C2'	-6.29	97.44	103.10
211	DY	28	DA	C4'-C3'-C2'	-6.29	97.44	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	6193	DG	C5-C6-O6	-6.29	124.83	128.60
116	B1	22	DA	C4'-C3'-C2'	-6.29	97.44	103.10
161	Ck	26	DG	P-O3'-C3'	6.29	127.25	119.70
169	Cs	13	DG	C4'-C3'-C2'	-6.29	97.44	103.10
184	C7	12	DA	O4'-C4'-C3'	-6.29	101.98	104.50
1	AA	7105	DA	O4'-C1'-C2'	-6.29	100.87	105.90
1	AA	6836	DA	O4'-C1'-C2'	-6.29	100.87	105.90
93	Be	30	DT	O4'-C1'-C2'	-6.29	100.87	105.90
146	CV	28	DG	O4'-C1'-C2'	-6.29	100.87	105.90
1	AA	4990	DA	O4'-C1'-C2'	-6.29	100.87	105.90
146	CV	22	DA	O4'-C1'-C2'	-6.29	100.87	105.90
1	AA	1612	DC	O4'-C1'-C2'	-6.28	100.87	105.90
1	AA	6133	DA	O4'-C1'-C2'	-6.28	100.87	105.90
1	AA	7034	DT	P-O3'-C3'	6.28	127.24	119.70
1	AA	3473	DG	O4'-C1'-C2'	-6.28	100.88	105.90
1	AA	5329	DG	O4'-C1'-C2'	-6.28	100.88	105.90
76	BN	3	DC	C2-N1-C1'	6.28	125.71	118.80
1	AA	3827	DA	P-O3'-C3'	6.28	127.23	119.70
1	AA	6084	DG	C5-C6-O6	-6.28	124.83	128.60
69	BG	23	DC	P-O3'-C3'	6.28	127.23	119.70
94	Bf	4	DC	C4'-C3'-C2'	-6.28	97.45	103.10
105	Bq	12	DG	O4'-C4'-C3'	-6.28	101.99	104.50
172	Cv	38	DT	O4'-C1'-C2'	-6.27	100.88	105.90
1	AA	1417	DA	C4'-C3'-C2'	-6.27	97.45	103.10
1	AA	6524	DG	O4'-C1'-C2'	-6.27	100.88	105.90
41	Ao	28	DA	C4'-C3'-C2'	-6.27	97.45	103.10
7	AG	37	DG	C5-C6-O6	-6.27	124.84	128.60
1	AA	72	DA	O4'-C1'-C2'	-6.27	100.88	105.90
1	AA	3298	DG	O4'-C1'-C2'	-6.27	100.89	105.90
1	AA	3417	DG	O4'-C4'-C3'	-6.27	101.99	104.50
1	AA	3273	DA	O4'-C1'-C2'	-6.27	100.89	105.90
174	Cx	24	DG	O4'-C1'-C2'	-6.27	100.89	105.90
1	AA	7180	DA	O4'-C1'-C2'	-6.26	100.89	105.90
1	AA	8035	DG	P-O3'-C3'	6.26	127.22	119.70
1	AA	2783	DA	O4'-C1'-C2'	-6.26	100.89	105.90
150	CZ	41	DA	P-O3'-C3'	6.26	127.21	119.70
157	Cg	10	DG	C4'-C3'-C2'	-6.26	97.47	103.10
1	AA	6352	DG	C1'-O4'-C4'	-6.26	103.84	110.10
1	AA	6884	DA	O4'-C1'-C2'	-6.26	100.89	105.90
55	A2	23	DA	O4'-C1'-C2'	-6.26	100.89	105.90
211	DY	13	DG	O4'-C1'-C2'	-6.26	100.89	105.90
1	AA	4381	DG	O4'-C1'-C2'	-6.26	100.89	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
117	B2	14	DC	O4'-C1'-N1	6.26	112.38	108.00
145	CU	1	DT	C1'-O4'-C4'	-6.26	103.84	110.10
6	AF	31	DG	P-O3'-C3'	6.26	127.21	119.70
19	AS	31	DG	P-O3'-C3'	6.26	127.21	119.70
26	AZ	13	DA	O4'-C1'-C2'	-6.26	100.89	105.90
81	BS	29	DA	O4'-C1'-C2'	-6.26	100.89	105.90
188	DB	40	DC	O4'-C1'-C2'	-6.26	100.89	105.90
1	AA	4871	DG	O4'-C1'-C2'	-6.25	100.90	105.90
95	Bg	35	DA	O4'-C4'-C3'	-6.25	102.00	104.50
97	Bi	9	DG	O4'-C1'-C2'	-6.25	100.90	105.90
131	CG	14	DT	C6-C5-C7	6.25	126.65	122.90
1	AA	3140	DG	C1'-O4'-C4'	-6.25	103.85	110.10
1	AA	7071	DA	O4'-C1'-C2'	-6.25	100.90	105.90
1	AA	7541	DT	C4'-C3'-C2'	-6.25	97.47	103.10
1	AA	2816	DG	O4'-C4'-C3'	-6.25	102.00	104.50
212	DZ	21	DA	O4'-C4'-C3'	-6.25	102.00	104.50
1	AA	3284	DG	C1'-O4'-C4'	-6.25	103.85	110.10
1	AA	5911	DT	C4'-C3'-C2'	-6.25	97.48	103.10
38	Al	15	DG	O4'-C1'-C2'	-6.25	100.90	105.90
83	BU	16	DG	O4'-C1'-C2'	-6.25	100.90	105.90
1	AA	883	DC	C4'-C3'-C2'	-6.24	97.48	103.10
6	AF	3	DC	P-O3'-C3'	6.24	127.19	119.70
129	CE	8	DT	C4'-C3'-C2'	-6.24	97.48	103.10
142	CR	30	DG	O4'-C1'-C2'	-6.24	100.91	105.90
1	AA	2370	DG	O4'-C1'-C2'	-6.24	100.91	105.90
32	Af	16	DG	C1'-O4'-C4'	-6.24	103.86	110.10
1	AA	7374	DC	O4'-C1'-C2'	-6.24	100.91	105.90
86	BX	30	DA	O4'-C1'-C2'	-6.24	100.91	105.90
159	Ci	30	DT	C4'-C3'-C2'	-6.24	97.48	103.10
1	AA	1723	DT	C4'-C3'-C2'	-6.24	97.48	103.10
1	AA	5547	DG	C5-C6-O6	-6.24	124.86	128.60
1	AA	5898	DT	P-O3'-C3'	6.24	127.19	119.70
102	Bn	19	DA	O4'-C1'-C2'	-6.24	100.91	105.90
1	AA	2626	DA	O4'-C1'-C2'	-6.24	100.91	105.90
1	AA	4316	DG	O4'-C4'-C3'	-6.24	102.01	104.50
61	A8	17	DG	O4'-C1'-C2'	-6.24	100.91	105.90
207	DU	10	DG	P-O3'-C3'	6.24	127.18	119.70
1	AA	4579	DA	O4'-C1'-C2'	-6.23	100.91	105.90
1	AA	5113	DT	C1'-O4'-C4'	-6.23	103.87	110.10
1	AA	5918	DG	O4'-C1'-C2'	-6.23	100.92	105.90
1	AA	7179	DG	N1-C6-O6	6.23	123.64	119.90
49	Aw	13	DA	O4'-C1'-C2'	-6.23	100.91	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1563	DG	C1'-O4'-C4'	-6.23	103.87	110.10
1	AA	5822	DA	C4'-C3'-C2'	-6.23	97.49	103.10
1	AA	7208	DC	O4'-C1'-C2'	-6.23	100.92	105.90
1	AA	3044	DT	O4'-C4'-C3'	-6.23	102.01	104.50
1	AA	5554	DA	O4'-C1'-C2'	-6.23	100.92	105.90
1	AA	4220	DA	O4'-C1'-C2'	-6.23	100.92	105.90
1	AA	6609	DG	O4'-C1'-C2'	-6.23	100.92	105.90
206	DT	17	DC	C6-N1-C2	-6.23	117.81	120.30
209	DW	22	DC	C4'-C3'-C2'	-6.23	97.50	103.10
1	AA	842	DG	O4'-C1'-C2'	-6.22	100.92	105.90
60	A7	38	DC	C6-N1-C2	-6.22	117.81	120.30
1	AA	6148	DG	P-O3'-C3'	6.22	127.17	119.70
1	AA	6317	DT	C4'-C3'-C2'	-6.22	97.50	103.10
1	AA	7345	DA	O4'-C1'-C2'	-6.22	100.92	105.90
1	AA	7891	DG	O4'-C1'-C2'	-6.22	100.92	105.90
1	AA	335	DT	C4'-C3'-C2'	-6.22	97.50	103.10
1	AA	681	DC	O4'-C1'-N1	6.22	112.36	108.00
1	AA	3480	DA	O4'-C1'-C2'	-6.22	100.92	105.90
84	BV	23	DG	C4'-C3'-C2'	-6.22	97.50	103.10
128	CD	37	DC	O4'-C1'-C2'	-6.22	100.92	105.90
17	AQ	5	DT	C1'-O4'-C4'	-6.22	103.88	110.10
127	CC	1	DG	O4'-C1'-C2'	-6.22	100.92	105.90
1	AA	2475	DG	O4'-C1'-C2'	-6.22	100.93	105.90
109	Bu	38	DG	O4'-C1'-C2'	-6.22	100.93	105.90
1	AA	8020	DA	C1'-O4'-C4'	-6.21	103.89	110.10
26	AZ	39	DA	P-O3'-C3'	6.21	127.16	119.70
51	Ay	22	DG	P-O3'-C3'	6.21	127.16	119.70
164	Cn	39	DG	O4'-C1'-C2'	-6.21	100.93	105.90
194	DH	4	DG	O4'-C4'-C3'	-6.21	102.01	104.50
1	AA	589	DC	C4'-C3'-C2'	-6.21	97.51	103.10
1	AA	7718	DG	O4'-C4'-C3'	-6.21	102.02	104.50
1	AA	4166	DG	O4'-C1'-C2'	-6.21	100.93	105.90
1	AA	5175	DA	C1'-O4'-C4'	-6.21	103.89	110.10
1	AA	5607	DC	O4'-C4'-C3'	-6.21	102.02	104.50
62	A9	23	DC	O4'-C1'-C2'	-6.21	100.93	105.90
124	B9	9	DT	P-O3'-C3'	6.21	127.15	119.70
1	AA	3494	DT	C4'-C3'-C2'	-6.21	97.51	103.10
1	AA	4660	DC	O4'-C1'-C2'	-6.21	100.93	105.90
1	AA	1324	DG	O4'-C1'-C2'	-6.21	100.93	105.90
1	AA	3554	DT	C4'-C3'-C2'	-6.21	97.51	103.10
17	AQ	2	DG	O4'-C1'-C2'	-6.21	100.93	105.90
208	DV	3	DC	P-O3'-C3'	6.21	127.15	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
19	AS	6	DA	O4'-C1'-C2'	-6.21	100.94	105.90
1	AA	6817	DT	C4'-C3'-C2'	-6.20	97.52	103.10
163	Cm	20	DG	O4'-C1'-C2'	-6.20	100.94	105.90
189	DC	13	DA	P-O3'-C3'	6.20	127.14	119.70
18	AR	23	DG	C1'-O4'-C4'	-6.20	103.90	110.10
41	Ao	29	DT	P-O5'-C5'	6.20	130.82	120.90
1	AA	1355	DC	C4'-C3'-C2'	-6.20	97.52	103.10
1	AA	2287	DA	C1'-O4'-C4'	-6.20	103.90	110.10
1	AA	3953	DT	C4'-C3'-C2'	-6.20	97.52	103.10
139	CO	13	DA	C4'-C3'-C2'	-6.20	97.52	103.10
134	CJ	32	DC	O4'-C4'-C3'	-6.20	102.02	104.50
1	AA	5175	DA	O4'-C1'-N9	6.20	112.34	108.00
1	AA	6483	DA	C1'-O4'-C4'	-6.20	103.90	110.10
1	AA	7455	DG	C4'-C3'-C2'	-6.20	97.52	103.10
1	AA	2539	DA	P-O3'-C3'	6.19	127.13	119.70
1	AA	649	DA	O4'-C1'-C2'	-6.19	100.95	105.90
1	AA	985	DA	C4'-C3'-C2'	-6.19	97.53	103.10
1	AA	3795	DT	O4'-C4'-C3'	-6.19	102.02	104.50
18	AR	37	DG	C1'-O4'-C4'	-6.19	103.91	110.10
52	Az	12	DT	O4'-C4'-C3'	-6.19	102.02	104.50
104	Bp	9	DA	O4'-C1'-C2'	-6.19	100.95	105.90
128	CD	1	DA	C1'-O4'-C4'	-6.19	103.91	110.10
162	Cl	33	DG	N3-C2-N2	6.19	124.23	119.90
35	Ai	31	DT	C4'-C3'-C2'	-6.19	97.53	103.10
1	AA	544	DG	O4'-C1'-N9	6.19	112.33	108.00
1	AA	5336	DA	O4'-C1'-C2'	-6.19	100.95	105.90
1	AA	6551	DG	O4'-C1'-C2'	-6.19	100.95	105.90
15	AO	1	DA	O4'-C1'-C2'	-6.19	100.95	105.90
1	AA	610	DT	C4'-C3'-C2'	-6.18	97.53	103.10
40	An	1	DT	O4'-C4'-C3'	-6.18	102.03	104.50
1	AA	6090	DC	C6-N1-C2	-6.18	117.83	120.30
88	BZ	16	DG	C5-C6-O6	-6.18	124.89	128.60
200	DN	40	DG	O4'-C1'-C2'	-6.18	100.95	105.90
1	AA	2741	DC	P-O3'-C3'	6.18	127.12	119.70
1	AA	2671	DT	C1'-O4'-C4'	-6.18	103.92	110.10
1	AA	3718	DG	O4'-C1'-N9	6.18	112.33	108.00
1	AA	1654	DA	O4'-C1'-C2'	-6.18	100.96	105.90
1	AA	6238	DT	C4'-C3'-C2'	-6.18	97.54	103.10
1	AA	7884	DT	O4'-C1'-C2'	-6.18	100.96	105.90
100	Bl	40	DT	C4'-C3'-C2'	-6.18	97.54	103.10
1	AA	3754	DA	P-O3'-C3'	6.17	127.11	119.70
189	DC	16	DC	O4'-C1'-C2'	-6.17	100.96	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
121	B6	23	DC	O4'-C1'-C2'	-6.17	100.96	105.90
1	AA	3366	DT	O4'-C4'-C3'	-6.17	102.03	104.50
130	CF	18	DA	P-O3'-C3'	6.17	127.11	119.70
142	CR	32	DG	O4'-C1'-C2'	-6.17	100.96	105.90
1	AA	1011	DG	O4'-C1'-C2'	-6.17	100.96	105.90
1	AA	4444	DC	O4'-C1'-C2'	-6.17	100.97	105.90
1	AA	7210	DC	P-O5'-C5'	6.17	130.77	120.90
47	Au	16	DC	P-O3'-C3'	6.17	127.10	119.70
87	BY	18	DT	C4'-C3'-C2'	-6.17	97.55	103.10
1	AA	2790	DT	O4'-C4'-C3'	-6.17	102.03	104.50
97	Bi	28	DT	C4'-C3'-C2'	-6.17	97.55	103.10
101	Bm	9	DT	O4'-C1'-N1	6.17	112.32	108.00
206	DT	37	DA	O4'-C4'-C3'	-6.17	102.03	104.50
1	AA	1016	DG	O4'-C1'-C2'	-6.16	100.97	105.90
1	AA	4298	DG	C1'-O4'-C4'	-6.16	103.94	110.10
1	AA	5793	DG	C4'-C3'-C2'	-6.16	97.55	103.10
51	Ay	18	DT	C1'-O4'-C4'	-6.16	103.94	110.10
1	AA	2761	DA	P-O3'-C3'	6.16	127.09	119.70
57	A4	32	DG	O4'-C1'-N9	6.16	112.31	108.00
211	DY	31	DA	O4'-C1'-C2'	-6.16	100.97	105.90
1	AA	4316	DG	C1'-O4'-C4'	-6.16	103.94	110.10
1	AA	7702	DA	P-O3'-C3'	6.16	127.09	119.70
152	Cb	23	DG	O4'-C1'-C2'	-6.16	100.97	105.90
1	AA	237	DG	O4'-C1'-C2'	-6.16	100.97	105.90
1	AA	3582	DG	P-O3'-C3'	6.16	127.09	119.70
7	AG	37	DG	N1-C6-O6	6.16	123.59	119.90
99	Bk	30	DC	O4'-C1'-C2'	-6.16	100.97	105.90
1	AA	831	DC	O4'-C1'-N1	6.15	112.31	108.00
1	AA	900	DG	O4'-C1'-N9	6.15	112.31	108.00
1	AA	944	DT	C1'-O4'-C4'	-6.15	103.95	110.10
1	AA	4157	DG	C1'-O4'-C4'	-6.15	103.95	110.10
1	AA	7395	DG	O4'-C1'-C2'	-6.15	100.98	105.90
28	Ab	31	DT	O4'-C1'-C2'	-6.15	100.98	105.90
32	Af	3	DC	C6-N1-C2	-6.15	117.84	120.30
199	DM	19	DC	O4'-C1'-C2'	-6.15	100.98	105.90
1	AA	3937	DA	C1'-O4'-C4'	-6.15	103.95	110.10
1	AA	6853	DT	C1'-O4'-C4'	-6.15	103.95	110.10
41	Ao	44	DA	O4'-C1'-C2'	-6.15	100.98	105.90
51	Ay	13	DT	C1'-O4'-C4'	-6.15	103.95	110.10
189	DC	35	DG	C1'-O4'-C4'	-6.15	103.95	110.10
1	AA	7026	DT	C4'-C3'-C2'	-6.15	97.57	103.10
1	AA	7405	DC	O4'-C1'-C2'	-6.15	100.98	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	7640	DT	C4'-C3'-C2'	-6.15	97.57	103.10
1	AA	7770	DT	C4'-C3'-C2'	-6.15	97.57	103.10
68	BF	28	DA	O4'-C4'-C3'	-6.15	102.04	104.50
136	CL	28	DG	C1'-O4'-C4'	-6.15	103.95	110.10
1	AA	582	DG	P-O3'-C3'	6.15	127.08	119.70
1	AA	5343	DT	C4'-C3'-C2'	-6.15	97.57	103.10
1	AA	1957	DC	C2-N1-C1'	6.14	125.56	118.80
1	AA	2951	DA	O4'-C1'-C2'	-6.14	100.98	105.90
106	Br	34	DA	O4'-C4'-C3'	-6.14	102.04	104.50
152	Cb	24	DC	O4'-C4'-C3'	-6.14	102.04	104.50
1	AA	37	DA	O4'-C1'-C2'	-6.14	100.99	105.90
1	AA	1511	DG	O4'-C1'-C2'	-6.14	100.99	105.90
1	AA	2982	DA	O4'-C1'-C2'	-6.14	100.99	105.90
1	AA	3006	DT	O4'-C4'-C3'	-6.14	102.04	104.50
1	AA	6189	DT	C4'-C3'-C2'	-6.14	97.57	103.10
1	AA	6609	DG	C5-C6-O6	-6.14	124.91	128.60
19	AS	30	DC	O4'-C1'-N1	6.14	112.30	108.00
192	DF	1	DT	C1'-O4'-C4'	-6.14	103.96	110.10
138	CN	9	DG	N1-C6-O6	6.14	123.58	119.90
1	AA	1462	DC	O4'-C1'-C2'	-6.14	100.99	105.90
1	AA	4722	DG	C4'-C3'-C2'	-6.14	97.57	103.10
131	CG	47	DT	C4'-C3'-C2'	-6.14	97.58	103.10
162	Cl	2	DT	O4'-C1'-C2'	-6.14	100.99	105.90
183	C6	22	DA	C1'-O4'-C4'	-6.14	103.96	110.10
1	AA	1563	DG	O4'-C4'-C3'	-6.14	102.05	104.50
1	AA	1639	DG	O4'-C1'-C2'	-6.14	100.99	105.90
1	AA	221	DC	O4'-C1'-C2'	-6.14	100.99	105.90
1	AA	3234	DG	C1'-O4'-C4'	-6.14	103.96	110.10
1	AA	4353	DT	C4'-C3'-C2'	-6.14	97.58	103.10
24	AX	31	DG	C1'-O4'-C4'	-6.14	103.96	110.10
43	Aq	35	DC	O4'-C4'-C3'	-6.14	102.05	104.50
77	BO	35	DA	C4'-C3'-C2'	-6.14	97.58	103.10
93	Be	30	DT	P-O3'-C3'	6.14	127.06	119.70
192	DF	29	DT	C4'-C3'-C2'	-6.14	97.58	103.10
1	AA	934	DT	O4'-C4'-C3'	-6.13	102.05	104.50
1	AA	3859	DG	O4'-C1'-C2'	-6.13	100.99	105.90
1	AA	6198	DA	O4'-C1'-C2'	-6.13	100.99	105.90
1	AA	6669	DC	O4'-C1'-C2'	-6.13	100.99	105.90
1	AA	7498	DT	O4'-C4'-C3'	-6.13	102.05	104.50
18	AR	1	DC	C6-N1-C1'	-6.13	113.44	120.80
35	Ai	3	DA	O4'-C1'-C2'	-6.13	100.99	105.90
44	Ar	22	DA	N1-C6-N6	-6.13	114.92	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	6	DT	O4'-C1'-C2'	-6.13	100.99	105.90
39	Am	22	DC	C1'-O4'-C4'	-6.13	103.97	110.10
1	AA	4675	DT	C1'-O4'-C4'	-6.13	103.97	110.10
56	A3	21	DG	O4'-C1'-C2'	-6.13	100.99	105.90
1	AA	3133	DA	O4'-C1'-C2'	-6.13	101.00	105.90
50	Ax	34	DC	C2-N1-C1'	6.13	125.54	118.80
110	Bv	14	DC	C4'-C3'-C2'	-6.13	97.59	103.10
1	AA	4165	DG	O4'-C1'-N9	6.12	112.29	108.00
1	AA	6084	DG	P-O3'-C3'	6.12	127.05	119.70
12	AL	10	DT	O4'-C1'-C2'	-6.12	101.00	105.90
130	CF	21	DA	O4'-C1'-C2'	-6.12	101.00	105.90
1	AA	7985	DG	C1'-O4'-C4'	-6.12	103.98	110.10
1	AA	1837	DA	O4'-C4'-C3'	-6.12	102.05	104.50
1	AA	3777	DG	P-O3'-C3'	6.12	127.04	119.70
1	AA	5747	DG	O4'-C1'-C2'	-6.12	101.01	105.90
1	AA	5810	DA	O4'-C1'-C2'	-6.12	101.00	105.90
36	Aj	37	DT	P-O3'-C3'	6.12	127.04	119.70
127	CC	29	DA	C1'-O4'-C4'	-6.12	103.98	110.10
1	AA	6296	DG	O4'-C1'-C2'	-6.12	101.01	105.90
1	AA	5434	DT	O4'-C4'-C3'	-6.12	102.05	104.50
19	AS	16	DT	O4'-C1'-C2'	-6.12	101.01	105.90
1	AA	3333	DC	O4'-C1'-C2'	-6.11	101.01	105.90
1	AA	3909	DT	O4'-C1'-C2'	-6.11	101.01	105.90
64	BB	25	DA	N1-C6-N6	-6.11	114.93	118.60
1	AA	7726	DC	O4'-C1'-C2'	-6.11	101.01	105.90
1	AA	5865	DC	P-O5'-C5'	6.11	130.68	120.90
1	AA	6361	DG	O4'-C1'-C2'	-6.11	101.01	105.90
1	AA	601	DC	P-O5'-C5'	6.11	130.68	120.90
1	AA	5267	DT	C4'-C3'-C2'	-6.11	97.60	103.10
1	AA	90	DC	P-O5'-C5'	6.11	130.67	120.90
1	AA	463	DT	P-O3'-C3'	6.11	127.03	119.70
1	AA	1677	DG	O4'-C1'-C2'	-6.11	101.01	105.90
1	AA	2309	DC	C6-N1-C1'	-6.11	113.47	120.80
108	Bt	9	DC	O4'-C1'-C2'	-6.11	101.01	105.90
211	DY	1	DG	C4'-C3'-C2'	-6.11	97.60	103.10
72	BJ	17	DA	O4'-C1'-C2'	-6.11	101.02	105.90
106	Br	16	DA	P-O3'-C3'	6.11	127.03	119.70
139	CO	2	DG	O4'-C1'-C2'	-6.11	101.02	105.90
1	AA	3417	DG	C4'-C3'-C2'	-6.10	97.61	103.10
13	AM	30	DC	O4'-C4'-C3'	-6.10	102.06	104.50
155	Ce	24	DC	O4'-C4'-C3'	-6.10	102.06	104.50
207	DU	26	DT	C4'-C3'-C2'	-6.10	97.61	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	AZ	18	DA	C1'-O4'-C4'	-6.10	104.00	110.10
1	AA	4861	DT	O4'-C1'-C2'	-6.10	101.02	105.90
1	AA	7275	DG	O4'-C1'-C2'	-6.10	101.02	105.90
208	DV	2	DG	O4'-C1'-C2'	-6.10	101.02	105.90
1	AA	1265	DA	O4'-C1'-C2'	-6.10	101.02	105.90
1	AA	4957	DT	O4'-C1'-C2'	-6.10	101.02	105.90
1	AA	4990	DA	O4'-C1'-N9	6.10	112.27	108.00
1	AA	5346	DT	P-O3'-C3'	6.10	127.02	119.70
5	AE	23	DA	O4'-C1'-C2'	-6.10	101.02	105.90
113	By	12	DC	O4'-C4'-C3'	-6.10	102.06	104.50
205	DS	22	DC	O4'-C1'-N1	6.10	112.27	108.00
1	AA	1421	DA	P-O3'-C3'	6.10	127.02	119.70
1	AA	3128	DC	O4'-C1'-C2'	-6.10	101.02	105.90
1	AA	7574	DT	C1'-O4'-C4'	-6.09	104.01	110.10
40	An	16	DA	O4'-C1'-C2'	-6.09	101.03	105.90
1	AA	4127	DA	C4'-C3'-C2'	-6.09	97.62	103.10
70	BH	1	DT	C4'-C3'-C2'	-6.09	97.62	103.10
159	Ci	27	DA	O4'-C1'-C2'	-6.09	101.03	105.90
192	DF	28	DG	C4'-C3'-C2'	-6.09	97.62	103.10
152	Cb	36	DG	O4'-C1'-C2'	-6.09	101.03	105.90
158	Ch	36	DC	C4'-C3'-C2'	-6.09	97.62	103.10
1	AA	1460	DG	C1'-O4'-C4'	-6.09	104.01	110.10
1	AA	1529	DG	P-O3'-C3'	6.09	127.01	119.70
1	AA	1357	DT	C4'-C3'-C2'	-6.09	97.62	103.10
1	AA	2435	DT	C4'-C3'-C2'	-6.09	97.62	103.10
1	AA	3142	DC	C4'-C3'-C2'	-6.09	97.62	103.10
1	AA	5092	DC	C6-N1-C2	-6.09	117.87	120.30
110	Bv	24	DT	C1'-O4'-C4'	-6.09	104.01	110.10
133	CI	3	DT	P-O3'-C3'	6.09	127.00	119.70
1	AA	3401	DA	C1'-O4'-C4'	-6.08	104.02	110.10
1	AA	3594	DG	C4-N9-C1'	6.08	134.41	126.50
1	AA	5383	DT	C4-C5-C7	-6.08	115.35	119.00
133	CI	27	DG	O4'-C1'-N9	6.08	112.26	108.00
202	DP	24	DG	O4'-C1'-C2'	-6.08	101.03	105.90
1	AA	3093	DT	O4'-C4'-C3'	-6.08	102.07	104.50
116	B1	41	DA	O4'-C1'-C2'	-6.08	101.03	105.90
1	AA	5065	DT	C1'-O4'-C4'	-6.08	104.02	110.10
93	Be	9	DA	O4'-C1'-C2'	-6.08	101.03	105.90
150	CZ	6	DC	P-O3'-C3'	6.08	127.00	119.70
192	DF	12	DG	C4'-C3'-C2'	-6.08	97.63	103.10
70	BH	27	DT	C4'-C3'-C2'	-6.08	97.63	103.10
126	CB	20	DT	C4'-C3'-C2'	-6.08	97.63	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
166	Cp	1	DG	C4-N9-C1'	6.08	134.40	126.50
1	AA	2796	DG	O4'-C1'-C2'	-6.08	101.04	105.90
2	AB	38	DC	O4'-C1'-C2'	-6.08	101.04	105.90
102	Bn	2	DG	O4'-C1'-C2'	-6.08	101.04	105.90
108	Bt	16	DG	C1'-O4'-C4'	-6.08	104.02	110.10
186	C9	1	DT	C1'-O4'-C4'	-6.08	104.02	110.10
1	AA	4409	DG	O4'-C1'-C2'	-6.08	101.04	105.90
1	AA	5042	DG	C1'-O4'-C4'	-6.08	104.02	110.10
1	AA	5502	DT	O4'-C1'-C2'	-6.08	101.04	105.90
1	AA	7780	DA	P-O3'-C3'	6.08	126.99	119.70
171	Cu	35	DT	P-O3'-C3'	6.08	126.99	119.70
188	DB	12	DG	O4'-C1'-C2'	-6.08	101.04	105.90
1	AA	1252	DA	O4'-C1'-C2'	-6.07	101.04	105.90
1	AA	6102	DG	O4'-C1'-N9	6.07	112.25	108.00
62	A9	38	DA	P-O3'-C3'	6.07	126.99	119.70
1	AA	5241	DA	O4'-C1'-C2'	-6.07	101.04	105.90
1	AA	5258	DT	C4'-C3'-C2'	-6.07	97.64	103.10
58	A5	27	DA	O4'-C1'-C2'	-6.07	101.04	105.90
196	DJ	1	DC	C1'-O4'-C4'	-6.07	104.03	110.10
1	AA	3459	DG	P-O3'-C3'	6.07	126.98	119.70
1	AA	4006	DT	O4'-C1'-C2'	-6.07	101.04	105.90
1	AA	7638	DG	C1'-O4'-C4'	-6.07	104.03	110.10
95	Bg	5	DT	O4'-C4'-C3'	-6.07	102.07	104.50
131	CG	46	DG	O4'-C1'-C2'	-6.07	101.04	105.90
163	Cm	15	DG	O4'-C4'-C3'	-6.07	102.07	104.50
1	AA	7775	DC	O4'-C1'-C2'	-6.07	101.05	105.90
191	DE	5	DA	O4'-C1'-C2'	-6.07	101.05	105.90
1	AA	1847	DA	O4'-C1'-C2'	-6.07	101.05	105.90
89	Ba	31	DA	O4'-C1'-C2'	-6.07	101.05	105.90
205	DS	29	DA	O4'-C1'-C2'	-6.07	101.05	105.90
1	AA	4265	DT	C4'-C3'-C2'	-6.06	97.64	103.10
201	DO	33	DT	C4'-C3'-C2'	-6.06	97.64	103.10
1	AA	3962	DG	N1-C6-O6	6.06	123.54	119.90
29	Ac	19	DG	C1'-O4'-C4'	-6.06	104.04	110.10
41	Ao	9	DG	C1'-O4'-C4'	-6.06	104.04	110.10
61	A8	39	DC	O4'-C1'-C2'	-6.06	101.05	105.90
1	AA	4675	DT	P-O3'-C3'	6.06	126.97	119.70
118	B3	24	DT	P-O3'-C3'	6.06	126.97	119.70
193	DG	1	DT	C1'-O4'-C4'	-6.06	104.04	110.10
1	AA	88	DA	O4'-C1'-C2'	-6.06	101.05	105.90
1	AA	7788	DT	C4'-C3'-C2'	-6.06	97.65	103.10
81	BS	11	DA	O4'-C1'-C2'	-6.06	101.05	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	2487	DG	O4'-C1'-C2'	-6.06	101.05	105.90
52	Az	24	DT	C1'-O4'-C4'	-6.06	104.04	110.10
54	A1	1	DA	N1-C6-N6	-6.06	114.97	118.60
69	BG	1	DC	C1'-O4'-C4'	-6.06	104.04	110.10
1	AA	4013	DA	O4'-C1'-C2'	-6.06	101.06	105.90
6	AF	39	DT	O4'-C4'-C3'	-6.06	102.08	104.50
1	AA	1213	DT	C4'-C3'-C2'	-6.05	97.65	103.10
1	AA	2150	DT	C4'-C3'-C2'	-6.05	97.65	103.10
1	AA	3649	DC	O4'-C1'-C2'	-6.05	101.06	105.90
15	AO	31	DT	C1'-O4'-C4'	-6.05	104.05	110.10
40	An	7	DT	C4'-C3'-C2'	-6.05	97.65	103.10
62	A9	30	DT	O4'-C1'-C2'	-6.05	101.06	105.90
1	AA	3629	DT	O4'-C4'-C3'	-6.05	102.08	104.50
1	AA	852	DG	O4'-C1'-C2'	-6.05	101.06	105.90
168	Cr	42	DC	C2-N1-C1'	6.05	125.46	118.80
1	AA	3629	DT	C4'-C3'-C2'	-6.05	97.66	103.10
1	AA	6481	DA	O4'-C1'-C2'	-6.05	101.06	105.90
90	Bb	6	DT	P-O3'-C3'	6.05	126.96	119.70
170	Ct	19	DT	C4'-C3'-C2'	-6.05	97.66	103.10
206	DT	23	DC	O4'-C1'-C2'	-6.05	101.06	105.90
183	C6	21	DA	O4'-C1'-C2'	-6.05	101.06	105.90
1	AA	348	DA	P-O3'-C3'	6.05	126.95	119.70
1	AA	2852	DA	O4'-C4'-C3'	-6.05	102.08	104.50
1	AA	4606	DC	P-O3'-C3'	6.05	126.96	119.70
200	DN	35	DG	O4'-C1'-C2'	-6.05	101.06	105.90
1	AA	4669	DT	P-O3'-C3'	6.04	126.95	119.70
31	Ae	16	DG	O4'-C1'-C2'	-6.04	101.07	105.90
102	Bn	1	DG	O4'-C1'-C2'	-6.04	101.06	105.90
168	Cr	40	DT	C4'-C3'-C2'	-6.04	97.66	103.10
1	AA	3184	DT	C4'-C3'-C2'	-6.04	97.66	103.10
1	AA	4071	DT	O4'-C1'-C2'	-6.04	101.07	105.90
1	AA	508	DG	C5-C6-O6	-6.04	124.98	128.60
1	AA	6566	DA	O4'-C1'-C2'	-6.04	101.07	105.90
1	AA	7351	DA	O4'-C1'-C2'	-6.04	101.07	105.90
60	A7	37	DT	P-O3'-C3'	6.04	126.94	119.70
1	AA	1514	DT	O4'-C1'-C2'	-6.04	101.07	105.90
1	AA	6985	DT	O4'-C1'-C2'	-6.04	101.07	105.90
43	Aq	10	DC	C6-N1-C2	-6.04	117.89	120.30
7	AG	46	DG	O4'-C1'-C2'	-6.03	101.07	105.90
1	AA	19	DC	P-O3'-C3'	6.03	126.94	119.70
71	BI	40	DA	P-O3'-C3'	6.03	126.94	119.70
1	AA	2259	DG	C4'-C3'-C2'	-6.03	97.67	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	4070	DC	C2-N1-C1'	6.03	125.43	118.80
1	AA	4393	DG	O4'-C1'-C2'	-6.03	101.08	105.90
1	AA	4473	DT	O4'-C1'-C2'	-6.03	101.08	105.90
1	AA	5720	DG	O4'-C1'-C2'	-6.03	101.08	105.90
192	DF	29	DT	P-O5'-C5'	6.03	130.55	120.90
1	AA	401	DC	P-O3'-C3'	6.03	126.94	119.70
52	Az	4	DG	O4'-C1'-C2'	-6.03	101.08	105.90
98	Bj	31	DC	O4'-C1'-C2'	-6.03	101.08	105.90
1	AA	657	DC	C4'-C3'-C2'	-6.03	97.68	103.10
1	AA	4182	DG	C4'-C3'-C2'	-6.03	97.68	103.10
1	AA	5371	DG	O4'-C1'-C2'	-6.03	101.08	105.90
91	Bc	25	DC	P-O3'-C3'	6.03	126.93	119.70
131	CG	14	DT	C4-C5-C7	-6.03	115.39	119.00
1	AA	3793	DA	O4'-C1'-C2'	-6.02	101.08	105.90
1	AA	5365	DA	O4'-C1'-C2'	-6.02	101.08	105.90
1	AA	6970	DG	O4'-C1'-C2'	-6.02	101.08	105.90
1	AA	1740	DT	O4'-C4'-C3'	-6.02	102.09	104.50
21	AU	14	DG	O4'-C1'-C2'	-6.02	101.08	105.90
1	AA	1720	DT	C4'-C3'-C2'	-6.02	97.68	103.10
1	AA	5680	DG	C4'-C3'-C2'	-6.02	97.68	103.10
1	AA	6013	DT	C4'-C3'-C2'	-6.02	97.68	103.10
66	BD	26	DA	C1'-O4'-C4'	-6.02	104.08	110.10
133	CI	1	DT	O4'-C4'-C3'	-6.02	102.09	104.50
1	AA	5791	DG	O4'-C1'-C2'	-6.02	101.09	105.90
1	AA	209	DG	O4'-C1'-C2'	-6.01	101.09	105.90
1	AA	3866	DT	C1'-O4'-C4'	-6.01	104.09	110.10
1	AA	7051	DG	O4'-C1'-C2'	-6.01	101.09	105.90
53	A0	46	DT	P-O3'-C3'	6.01	126.92	119.70
170	Ct	3	DA	C4'-C3'-C2'	-6.01	97.69	103.10
115	B0	20	DA	O4'-C1'-C2'	-6.01	101.09	105.90
156	Cf	1	DT	C4'-C3'-C2'	-6.01	97.69	103.10
1	AA	7380	DC	C4'-C3'-C2'	-6.01	97.69	103.10
1	AA	5605	DA	C4'-C3'-C2'	-6.01	97.69	103.10
68	BF	11	DT	P-O3'-C3'	6.01	126.91	119.70
78	BP	21	DA	O4'-C1'-C2'	-6.01	101.09	105.90
1	AA	631	DG	O4'-C1'-C2'	-6.01	101.09	105.90
1	AA	1856	DG	O4'-C1'-C2'	-6.01	101.10	105.90
65	BC	9	DG	C1'-O4'-C4'	-6.01	104.09	110.10
148	CX	21	DG	O4'-C1'-C2'	-6.01	101.09	105.90
164	Cn	26	DC	P-O3'-C3'	6.00	126.91	119.70
146	CV	12	DG	C5-C6-O6	-6.00	125.00	128.60
179	C2	26	DT	C4-C5-C7	-6.00	115.40	119.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
18	AR	16	DA	O4'-C1'-C2'	-6.00	101.10	105.90
29	Ac	16	DT	O4'-C1'-C2'	-6.00	101.10	105.90
125	CA	31	DG	C1'-O4'-C4'	-6.00	104.10	110.10
193	DG	34	DG	C1'-O4'-C4'	-6.00	104.10	110.10
1	AA	1609	DG	N1-C6-O6	6.00	123.50	119.90
1	AA	6128	DA	O4'-C1'-C2'	-6.00	101.10	105.90
1	AA	2432	DT	C1'-O4'-C4'	-6.00	104.10	110.10
1	AA	5167	DT	C4'-C3'-C2'	-6.00	97.70	103.10
6	AF	39	DT	C4'-C3'-C2'	-6.00	97.70	103.10
145	CU	17	DA	O4'-C1'-C2'	-6.00	101.10	105.90
1	AA	355	DA	P-O3'-C3'	5.99	126.89	119.70
1	AA	2198	DA	C1'-O4'-C4'	-5.99	104.11	110.10
1	AA	7242	DA	O4'-C1'-C2'	-5.99	101.11	105.90
167	Cq	22	DC	C4'-C3'-C2'	-5.99	97.71	103.10
1	AA	7187	DA	O4'-C1'-C2'	-5.99	101.11	105.90
1	AA	6	DG	P-O3'-C3'	5.99	126.89	119.70
1	AA	1920	DG	O4'-C1'-C2'	-5.99	101.11	105.90
1	AA	4019	DG	O4'-C4'-C3'	-5.99	102.10	104.50
1	AA	4900	DT	O4'-C4'-C3'	-5.99	102.10	104.50
1	AA	4993	DT	C4'-C3'-C2'	-5.99	97.71	103.10
2	AB	37	DG	O4'-C4'-C3'	-5.99	102.10	104.50
7	AG	39	DT	C4'-C3'-C2'	-5.99	97.71	103.10
154	Cd	23	DT	O4'-C1'-C2'	-5.99	101.11	105.90
1	AA	8055	DG	O4'-C1'-N9	5.99	112.19	108.00
71	BI	1	DG	O4'-C1'-C2'	-5.99	101.11	105.90
208	DV	19	DG	O4'-C1'-C2'	-5.99	101.11	105.90
1	AA	6178	DT	C4'-C3'-C2'	-5.99	97.71	103.10
1	AA	2866	DA	O4'-C1'-C2'	-5.99	101.11	105.90
1	AA	8020	DA	O4'-C1'-N9	5.99	112.19	108.00
42	Ap	14	DA	P-O3'-C3'	-5.99	112.52	119.70
1	AA	3191	DA	O4'-C1'-C2'	-5.98	101.11	105.90
1	AA	4188	DG	O4'-C1'-C2'	-5.98	101.11	105.90
35	Ai	38	DG	O4'-C1'-C2'	-5.98	101.11	105.90
65	BC	36	DT	O4'-C1'-C2'	-5.98	101.11	105.90
134	CJ	28	DC	P-O3'-C3'	5.98	126.88	119.70
139	CO	4	DA	P-O3'-C3'	5.98	126.88	119.70
197	DK	3	DA	N1-C6-N6	-5.98	115.01	118.60
1	AA	7660	DC	O4'-C1'-C2'	-5.98	101.12	105.90
46	At	33	DT	C4'-C3'-C2'	-5.98	97.72	103.10
1	AA	3184	DT	O4'-C4'-C3'	-5.98	102.11	104.50
1	AA	3385	DT	C4'-C3'-C2'	-5.98	97.72	103.10
1	AA	6645	DG	O4'-C1'-C2'	-5.98	101.12	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
55	A2	5	DG	C5-C6-O6	-5.98	125.01	128.60
1	AA	6233	DT	P-O3'-C3'	5.98	126.87	119.70
50	Ax	4	DT	C4'-C3'-C2'	-5.98	97.72	103.10
1	AA	7391	DG	O4'-C4'-C3'	-5.98	102.11	104.50
20	AT	29	DT	C4'-C3'-C2'	-5.98	97.72	103.10
108	Bt	22	DT	C4'-C3'-C2'	-5.98	97.72	103.10
1	AA	869	DG	C1'-O4'-C4'	-5.97	104.13	110.10
1	AA	6169	DT	O4'-C1'-C2'	-5.97	101.12	105.90
6	AF	8	DG	P-O3'-C3'	5.97	126.87	119.70
50	Ax	6	DT	O4'-C1'-N1	5.97	112.18	108.00
57	A4	17	DG	O4'-C1'-C2'	-5.97	101.12	105.90
198	DL	18	DC	C1'-O4'-C4'	-5.97	104.12	110.10
1	AA	531	DG	C5-C6-O6	-5.97	125.02	128.60
1	AA	878	DG	P-O3'-C3'	5.97	126.87	119.70
42	Ap	3	DC	O4'-C1'-C2'	-5.97	101.12	105.90
168	Cr	27	DC	C4'-C3'-C2'	-5.97	97.72	103.10
168	Cr	40	DT	O4'-C4'-C3'	-5.97	102.11	104.50
129	CE	29	DA	O4'-C1'-C2'	-5.97	101.12	105.90
1	AA	3101	DC	O4'-C4'-C3'	-5.97	102.11	104.50
1	AA	4993	DT	O4'-C4'-C3'	-5.97	102.11	104.50
39	Am	21	DA	C1'-O4'-C4'	-5.97	104.13	110.10
1	AA	650	DC	O4'-C1'-C2'	-5.97	101.12	105.90
1	AA	4159	DA	P-O3'-C3'	5.97	126.86	119.70
1	AA	2210	DT	C4'-C3'-C2'	-5.97	97.73	103.10
1	AA	2224	DT	C4'-C3'-C2'	-5.97	97.73	103.10
1	AA	3627	DC	C4'-C3'-C2'	-5.97	97.73	103.10
1	AA	3694	DT	O4'-C4'-C3'	-5.97	102.11	104.50
156	Cf	16	DG	O4'-C1'-N9	5.97	112.18	108.00
182	C5	40	DG	O4'-C1'-C2'	-5.97	101.13	105.90
36	Aj	16	DC	O4'-C1'-C2'	-5.96	101.13	105.90
51	Ay	32	DA	O4'-C1'-C2'	-5.96	101.13	105.90
1	AA	950	DT	C4'-C3'-C2'	-5.96	97.73	103.10
119	B4	30	DG	O4'-C1'-C2'	-5.96	101.13	105.90
212	DZ	30	DC	O4'-C1'-N1	5.96	112.17	108.00
28	Ab	36	DG	C5-C6-O6	-5.96	125.02	128.60
59	A6	46	DA	N1-C6-N6	-5.96	115.02	118.60
1	AA	827	DC	O4'-C1'-C2'	-5.96	101.13	105.90
1	AA	1106	DA	C1'-O4'-C4'	-5.96	104.14	110.10
13	AM	41	DT	C4'-C3'-C2'	-5.96	97.74	103.10
201	DO	22	DG	O4'-C1'-C2'	-5.96	101.14	105.90
1	AA	7918	DT	P-O3'-C3'	5.96	126.85	119.70
1	AA	2096	DT	O4'-C4'-C3'	-5.95	102.12	104.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
20	AT	18	DT	C1'-O4'-C4'	-5.95	104.15	110.10
188	DB	23	DC	O4'-C1'-C2'	-5.95	101.14	105.90
208	DV	7	DC	O4'-C1'-N1	5.95	112.17	108.00
1	AA	5664	DG	O4'-C4'-C3'	-5.95	102.12	104.50
1	AA	508	DG	O4'-C1'-N9	5.95	112.16	108.00
150	CZ	31	DT	C4'-C3'-C2'	-5.95	97.75	103.10
164	Cn	29	DG	O4'-C1'-C2'	-5.95	101.14	105.90
176	Cz	21	DG	C4'-C3'-C2'	-5.95	97.75	103.10
1	AA	4395	DA	O4'-C1'-C2'	-5.95	101.14	105.90
1	AA	5252	DG	C5-C6-O6	-5.95	125.03	128.60
1	AA	6079	DA	C4'-C3'-C2'	-5.95	97.75	103.10
1	AA	2037	DC	O4'-C1'-C2'	-5.95	101.14	105.90
1	AA	2822	DT	O4'-C4'-C3'	-5.95	102.12	104.50
155	Ce	40	DT	O4'-C1'-C2'	-5.95	101.14	105.90
1	AA	1334	DT	C1'-O4'-C4'	-5.94	104.16	110.10
1	AA	3332	DC	O4'-C1'-C2'	-5.94	101.14	105.90
1	AA	3965	DG	P-O3'-C3'	5.94	126.83	119.70
175	Cy	27	DT	C4'-C3'-C2'	-5.94	97.75	103.10
1	AA	7200	DG	O4'-C1'-C2'	-5.94	101.15	105.90
47	Au	25	DG	P-O3'-C3'	5.94	126.83	119.70
196	DJ	35	DG	O4'-C1'-C2'	-5.94	101.15	105.90
1	AA	1232	DG	C1'-O4'-C4'	-5.94	104.16	110.10
1	AA	1948	DT	C4'-C3'-C2'	-5.94	97.75	103.10
1	AA	4165	DG	O4'-C4'-C3'	-5.94	102.12	104.50
1	AA	5122	DT	C4'-C3'-C2'	-5.94	97.75	103.10
1	AA	5741	DG	O4'-C1'-C2'	-5.94	101.15	105.90
1	AA	5849	DG	O4'-C1'-C2'	-5.94	101.15	105.90
77	BO	26	DT	O4'-C4'-C3'	-5.94	102.12	104.50
84	BV	26	DA	O4'-C1'-C2'	-5.94	101.15	105.90
146	CV	19	DG	O4'-C1'-C2'	-5.94	101.15	105.90
1	AA	2253	DG	O4'-C1'-C2'	-5.94	101.15	105.90
1	AA	3957	DA	O4'-C1'-C2'	-5.94	101.15	105.90
1	AA	7876	DG	O4'-C1'-C2'	-5.94	101.15	105.90
29	Ac	45	DA	O4'-C1'-C2'	-5.94	101.15	105.90
39	Am	8	DT	O4'-C1'-C2'	-5.94	101.15	105.90
25	AY	1	DT	C1'-O4'-C4'	-5.94	104.16	110.10
37	Ak	2	DC	C4'-C3'-C2'	-5.94	97.76	103.10
1	AA	2941	DG	P-O3'-C3'	5.93	126.82	119.70
1	AA	4774	DG	O4'-C1'-C2'	-5.93	101.15	105.90
134	CJ	29	DG	N1-C6-O6	5.93	123.46	119.90
1	AA	2235	DA	O4'-C1'-C2'	-5.93	101.15	105.90
1	AA	4538	DG	O4'-C1'-C2'	-5.93	101.15	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
200	DN	23	DA	P-O3'-C3'	5.93	126.82	119.70
1	AA	674	DG	C1'-O4'-C4'	-5.93	104.17	110.10
1	AA	723	DA	C1'-O4'-C4'	-5.93	104.17	110.10
1	AA	3394	DT	O4'-C1'-C2'	-5.93	101.16	105.90
1	AA	1811	DG	C4'-C3'-C2'	-5.93	97.76	103.10
1	AA	2801	DG	P-O3'-C3'	5.93	126.81	119.70
1	AA	5445	DT	O4'-C4'-C3'	-5.93	102.13	104.50
1	AA	7921	DC	C4'-C3'-C2'	-5.93	97.77	103.10
1	AA	7960	DG	C4'-C3'-C2'	-5.93	97.77	103.10
1	AA	3966	DA	N1-C6-N6	-5.93	115.04	118.60
1	AA	7402	DT	C1'-O4'-C4'	-5.93	104.17	110.10
1	AA	7747	DT	O4'-C4'-C3'	-5.93	102.13	104.50
209	DW	37	DT	C4'-C3'-C2'	-5.93	97.77	103.10
1	AA	739	DC	O4'-C1'-C2'	-5.92	101.16	105.90
1	AA	3827	DA	C1'-O4'-C4'	-5.92	104.18	110.10
99	Bk	8	DA	C4'-C3'-C2'	-5.92	97.77	103.10
1	AA	4161	DA	C4'-C3'-C2'	-5.92	97.77	103.10
193	DG	36	DA	O4'-C4'-C3'	-5.92	102.13	104.50
1	AA	2613	DC	C4'-C3'-C2'	-5.92	97.77	103.10
1	AA	4162	DT	O4'-C1'-C2'	-5.92	101.16	105.90
1	AA	6771	DG	C1'-O4'-C4'	-5.92	104.18	110.10
21	AU	2	DG	C4'-C3'-C2'	-5.92	97.77	103.10
211	DY	1	DG	C4-N9-C1'	5.92	134.20	126.50
1	AA	2096	DT	C4'-C3'-C2'	-5.92	97.77	103.10
61	A8	17	DG	P-O3'-C3'	5.92	126.80	119.70
1	AA	732	DC	O4'-C4'-C3'	-5.92	102.13	104.50
1	AA	2910	DG	C4'-C3'-C2'	-5.92	97.78	103.10
1	AA	5587	DG	C1'-O4'-C4'	-5.92	104.18	110.10
20	AT	19	DG	O4'-C1'-C2'	-5.92	101.17	105.90
144	CT	11	DG	C1'-O4'-C4'	-5.92	104.18	110.10
1	AA	6428	DT	P-O3'-C3'	5.92	126.80	119.70
55	A2	1	DA	O4'-C4'-C3'	-5.92	102.13	104.50
1	AA	619	DC	P-O3'-C3'	5.91	126.80	119.70
1	AA	6208	DC	O4'-C1'-C2'	-5.91	101.17	105.90
1	AA	8061	DG	N1-C6-O6	5.91	123.45	119.90
1	AA	346	DA	O4'-C1'-C2'	-5.91	101.17	105.90
1	AA	6594	DT	C4'-C3'-C2'	-5.91	97.78	103.10
23	AW	28	DA	P-O3'-C3'	5.91	126.79	119.70
40	An	30	DT	O4'-C4'-C3'	-5.91	102.14	104.50
54	A1	37	DT	P-O3'-C3'	5.91	126.79	119.70
1	AA	2062	DG	C4'-C3'-C2'	-5.91	97.78	103.10
123	B8	4	DG	C5-C6-O6	-5.91	125.06	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	6974	DA	P-O3'-C3'	5.91	126.79	119.70
211	DY	14	DG	O4'-C4'-C3'	-5.91	102.14	104.50
1	AA	6718	DC	O4'-C4'-C3'	-5.90	102.14	104.50
71	BI	16	DG	O4'-C1'-C2'	-5.90	101.18	105.90
1	AA	106	DG	P-O3'-C3'	5.90	126.78	119.70
1	AA	7913	DC	C1'-O4'-C4'	-5.90	104.20	110.10
91	Bc	23	DA	P-O3'-C3'	5.90	126.78	119.70
114	Bz	37	DG	C1'-O4'-C4'	-5.90	104.20	110.10
123	B8	4	DG	N1-C6-O6	5.90	123.44	119.90
1	AA	985	DA	O4'-C4'-C3'	-5.90	102.14	104.50
1	AA	1545	DG	O4'-C1'-C2'	-5.90	101.18	105.90
1	AA	4985	DC	O4'-C4'-C3'	-5.90	102.14	104.50
140	CP	27	DA	O4'-C1'-N9	5.90	112.13	108.00
1	AA	22	DT	O4'-C4'-C3'	-5.90	102.14	104.50
1	AA	4434	DG	N1-C6-O6	5.90	123.44	119.90
1	AA	5277	DG	O4'-C1'-C2'	-5.90	101.18	105.90
25	AY	26	DG	P-O3'-C3'	5.90	126.78	119.70
1	AA	2651	DG	C1'-O4'-C4'	-5.90	104.20	110.10
1	AA	1618	DA	P-O3'-C3'	5.89	126.77	119.70
1	AA	2939	DT	C4'-C3'-C2'	-5.89	97.80	103.10
1	AA	6355	DT	C4'-C3'-C2'	-5.89	97.79	103.10
200	DN	17	DC	P-O3'-C3'	5.89	126.77	119.70
1	AA	1043	DG	O4'-C1'-C2'	-5.89	101.19	105.90
1	AA	1357	DT	O4'-C4'-C3'	-5.89	102.14	104.50
1	AA	6620	DT	O4'-C4'-C3'	-5.89	102.14	104.50
108	Bt	30	DG	C1'-O4'-C4'	-5.89	104.21	110.10
1	AA	299	DG	O4'-C1'-C2'	-5.89	101.19	105.90
161	Ck	17	DC	P-O5'-C5'	5.89	130.32	120.90
1	AA	3718	DG	P-O3'-C3'	5.89	126.77	119.70
1	AA	6339	DA	P-O3'-C3'	5.89	126.77	119.70
1	AA	6379	DT	P-O3'-C3'	5.89	126.77	119.70
1	AA	7604	DT	O4'-C4'-C3'	-5.89	102.14	104.50
1	AA	2890	DC	O4'-C1'-C2'	-5.89	101.19	105.90
1	AA	7	DA	O4'-C1'-N9	-5.89	103.88	108.00
1	AA	1298	DC	O4'-C1'-C2'	-5.89	101.19	105.90
1	AA	7452	DT	C4'-C3'-C2'	-5.89	97.80	103.10
1	AA	7555	DA	C4'-C3'-C2'	-5.89	97.80	103.10
1	AA	7976	DT	C4'-C3'-C2'	-5.89	97.80	103.10
170	Ct	26	DT	C4'-C3'-C2'	-5.89	97.80	103.10
198	DL	12	DC	C1'-O4'-C4'	-5.89	104.21	110.10
1	AA	1591	DG	O4'-C1'-N9	5.88	112.12	108.00
1	AA	7465	DA	P-O3'-C3'	5.88	126.76	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	7808	DA	O4'-C1'-C2'	-5.88	101.19	105.90
43	Aq	24	DG	O4'-C1'-C2'	-5.88	101.19	105.90
1	AA	6779	DT	C4'-C3'-C2'	-5.88	97.81	103.10
1	AA	10	DG	C1'-O4'-C4'	-5.88	104.22	110.10
1	AA	1296	DG	O4'-C1'-C2'	-5.88	101.19	105.90
1	AA	6238	DT	O4'-C4'-C3'	-5.88	102.15	104.50
1	AA	7459	DA	C4'-C3'-C2'	-5.88	97.81	103.10
1	AA	7993	DT	C1'-O4'-C4'	-5.88	104.22	110.10
4	AD	16	DT	C1'-O4'-C4'	-5.88	104.22	110.10
93	Be	11	DT	C4'-C3'-C2'	-5.88	97.81	103.10
89	Ba	1	DG	O4'-C1'-N9	5.88	112.12	108.00
121	B6	1	DC	O4'-C4'-C3'	-5.88	102.15	104.50
1	AA	2491	DC	C1'-O4'-C4'	-5.88	104.22	110.10
1	AA	615	DG	C1'-O4'-C4'	-5.88	104.22	110.10
1	AA	3685	DA	C1'-O4'-C4'	-5.88	104.22	110.10
1	AA	7524	DG	O4'-C1'-C2'	-5.88	101.20	105.90
1	AA	6302	DG	O4'-C1'-C2'	-5.87	101.20	105.90
155	Ce	28	DT	C1'-O4'-C4'	-5.87	104.23	110.10
176	Cz	45	DG	O4'-C1'-C2'	-5.87	101.20	105.90
1	AA	1837	DA	C1'-O4'-C4'	-5.87	104.23	110.10
1	AA	3385	DT	O4'-C4'-C3'	-5.87	102.15	104.50
1	AA	7849	DG	O4'-C1'-N9	5.87	112.11	108.00
27	Aa	20	DG	P-O3'-C3'	5.87	126.75	119.70
1	AA	2658	DT	O4'-C1'-C2'	-5.87	101.20	105.90
1	AA	4286	DA	C1'-O4'-C4'	-5.87	104.23	110.10
48	Av	17	DC	C6-N1-C2	-5.87	117.95	120.30
53	A0	7	DC	O4'-C1'-N1	5.87	112.11	108.00
1	AA	3513	DG	P-O3'-C3'	5.87	126.74	119.70
1	AA	6900	DG	O4'-C1'-C2'	-5.87	101.21	105.90
12	AL	16	DA	O4'-C1'-C2'	-5.87	101.20	105.90
202	DP	16	DG	O4'-C1'-C2'	-5.87	101.21	105.90
1	AA	1149	DG	C5-C6-O6	-5.87	125.08	128.60
1	AA	6379	DT	O4'-C1'-N1	5.87	112.11	108.00
1	AA	7498	DT	C4'-C3'-C2'	-5.87	97.82	103.10
46	At	42	DG	O4'-C1'-C2'	-5.87	101.21	105.90
1	AA	1591	DG	O4'-C1'-C2'	-5.86	101.21	105.90
1	AA	4803	DA	O4'-C1'-C2'	-5.86	101.21	105.90
1	AA	5925	DA	O4'-C1'-C2'	-5.86	101.21	105.90
56	A3	12	DG	O4'-C1'-C2'	-5.86	101.21	105.90
1	AA	1343	DG	C1'-O4'-C4'	-5.86	104.24	110.10
1	AA	4185	DG	C1'-O4'-C4'	-5.86	104.24	110.10
18	AR	18	DG	O4'-C1'-C2'	-5.86	101.21	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1283	DG	O4'-C1'-C2'	-5.86	101.21	105.90
123	B8	1	DA	O4'-C1'-C2'	-5.86	101.21	105.90
1	AA	6040	DT	C4'-C3'-C2'	-5.86	97.83	103.10
1	AA	4985	DC	C4'-C3'-C2'	-5.86	97.83	103.10
1	AA	7216	DG	C1'-O4'-C4'	-5.86	104.24	110.10
18	AR	22	DG	P-O3'-C3'	5.86	126.73	119.70
55	A2	23	DA	O4'-C1'-N9	5.86	112.10	108.00
210	DX	17	DT	O4'-C1'-N1	5.86	112.10	108.00
1	AA	3270	DG	C4'-C3'-C2'	-5.86	97.83	103.10
1	AA	6478	DT	C1'-O4'-C4'	-5.86	104.24	110.10
20	AT	6	DT	C1'-O4'-C4'	-5.86	104.25	110.10
1	AA	1586	DT	P-O3'-C3'	5.85	126.72	119.70
1	AA	2448	DA	O4'-C1'-C2'	-5.85	101.22	105.90
1	AA	4052	DG	N1-C6-O6	5.85	123.41	119.90
1	AA	4898	DA	O4'-C1'-C2'	-5.85	101.22	105.90
118	B3	36	DT	P-O3'-C3'	5.85	126.72	119.70
210	DX	1	DT	O4'-C4'-C3'	-5.85	102.16	104.50
1	AA	3469	DA	O4'-C1'-C2'	-5.85	101.22	105.90
1	AA	4885	DC	O4'-C1'-C2'	-5.85	101.22	105.90
65	BC	49	DT	C4'-C3'-C2'	-5.85	97.83	103.10
1	AA	2067	DG	C1'-O4'-C4'	-5.85	104.25	110.10
1	AA	2316	DG	O4'-C1'-C2'	-5.85	101.22	105.90
1	AA	7142	DA	P-O3'-C3'	5.85	126.72	119.70
205	DS	47	DG	O4'-C1'-C2'	-5.85	101.22	105.90
1	AA	289	DC	P-O5'-C5'	5.84	130.25	120.90
1	AA	2007	DG	C1'-O4'-C4'	-5.84	104.25	110.10
1	AA	5414	DT	C4'-C3'-C2'	-5.84	97.84	103.10
13	AM	12	DG	O4'-C1'-C2'	-5.84	101.22	105.90
42	Ap	10	DA	O4'-C1'-C2'	-5.84	101.22	105.90
117	B2	11	DT	C4'-C3'-C2'	-5.84	97.84	103.10
150	CZ	45	DG	O4'-C1'-C2'	-5.84	101.22	105.90
180	C3	16	DT	O4'-C4'-C3'	-5.84	102.16	104.50
205	DS	47	DG	O4'-C4'-C3'	-5.84	102.16	104.50
1	AA	914	DC	O4'-C1'-C2'	-5.84	101.22	105.90
99	Bk	8	DA	O4'-C4'-C3'	-5.84	102.16	104.50
1	AA	5046	DG	C1'-O4'-C4'	-5.84	104.26	110.10
1	AA	7645	DT	C4'-C3'-C2'	-5.84	97.84	103.10
48	Av	16	DG	C1'-O4'-C4'	-5.84	104.26	110.10
161	Ck	30	DT	O4'-C1'-C2'	-5.84	101.23	105.90
179	C2	12	DA	N1-C6-N6	-5.84	115.09	118.60
1	AA	3227	DG	O4'-C1'-C2'	-5.84	101.23	105.90
1	AA	5494	DA	C4'-C3'-C2'	-5.84	97.84	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
63	BA	35	DG	O4'-C1'-N9	5.84	112.09	108.00
186	C9	17	DG	C5-C6-O6	-5.84	125.10	128.60
1	AA	1933	DT	C4'-C3'-C2'	-5.84	97.85	103.10
23	AW	28	DA	O4'-C1'-C2'	-5.84	101.23	105.90
189	DC	23	DG	O4'-C1'-C2'	-5.84	101.23	105.90
1	AA	1499	DA	O4'-C1'-C2'	-5.83	101.23	105.90
1	AA	809	DC	C4'-C3'-C2'	-5.83	97.85	103.10
1	AA	2385	DG	P-O3'-C3'	5.83	126.70	119.70
1	AA	885	DT	C4'-C3'-C2'	-5.83	97.85	103.10
1	AA	1456	DA	O4'-C1'-C2'	-5.83	101.24	105.90
1	AA	3658	DT	O4'-C4'-C3'	-5.83	102.17	104.50
57	A4	24	DC	P-O3'-C3'	5.83	126.70	119.70
159	Ci	22	DT	O4'-C4'-C3'	-5.83	102.17	104.50
1	AA	6020	DG	C1'-O4'-C4'	-5.83	104.27	110.10
57	A4	19	DA	C1'-O4'-C4'	-5.83	104.27	110.10
113	By	39	DA	O4'-C1'-C2'	-5.83	101.24	105.90
1	AA	6583	DT	C4'-C3'-C2'	-5.83	97.86	103.10
3	AC	21	DC	O4'-C4'-C3'	-5.83	102.17	104.50
196	DJ	35	DG	P-O3'-C3'	5.83	126.69	119.70
1	AA	4631	DG	C1'-O4'-C4'	-5.83	104.27	110.10
98	Bj	34	DA	O4'-C1'-C2'	-5.83	101.24	105.90
1	AA	4293	DC	O4'-C1'-N1	5.83	112.08	108.00
1	AA	7911	DC	C6-N1-C2	-5.83	117.97	120.30
29	Ac	16	DT	P-O3'-C3'	5.83	126.69	119.70
44	Ar	16	DT	C1'-O4'-C4'	-5.83	104.28	110.10
181	C4	16	DT	O4'-C1'-C2'	-5.83	101.24	105.90
1	AA	4588	DC	O4'-C1'-C2'	-5.82	101.24	105.90
1	AA	5803	DG	C4'-C3'-C2'	-5.82	97.86	103.10
1	AA	7033	DA	C1'-O4'-C4'	-5.82	104.28	110.10
1	AA	8055	DG	P-O3'-C3'	5.82	126.69	119.70
11	AK	19	DG	O4'-C1'-C2'	-5.82	101.24	105.90
1	AA	5425	DG	O4'-C1'-C2'	-5.82	101.24	105.90
158	Ch	19	DT	C4'-C3'-C2'	-5.82	97.86	103.10
1	AA	1929	DA	O4'-C1'-C2'	-5.82	101.24	105.90
1	AA	3033	DA	C1'-O4'-C4'	-5.82	104.28	110.10
103	Bo	10	DT	C4'-C3'-C2'	-5.82	97.86	103.10
166	Cp	22	DG	C1'-O4'-C4'	-5.82	104.28	110.10
174	Cx	26	DG	C1'-O4'-C4'	-5.82	104.28	110.10
189	DC	14	DC	O4'-C4'-C3'	-5.82	102.17	104.50
1	AA	437	DT	C4'-C3'-C2'	-5.82	97.86	103.10
48	Av	4	DA	N1-C6-N6	-5.82	115.11	118.60
1	AA	6834	DC	O4'-C1'-C2'	-5.82	101.25	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	7208	DC	P-O3'-C3'	5.82	126.68	119.70
1	AA	7773	DA	O4'-C1'-N9	5.82	112.07	108.00
1	AA	5094	DG	O4'-C1'-C2'	-5.82	101.25	105.90
1	AA	6886	DA	N1-C6-N6	-5.82	115.11	118.60
160	Cj	4	DG	C4'-C3'-C2'	-5.82	97.86	103.10
198	DL	36	DT	P-O3'-C3'	5.82	126.68	119.70
1	AA	3745	DG	P-O3'-C3'	5.81	126.68	119.70
69	BG	5	DA	N1-C6-N6	-5.81	115.11	118.60
180	C3	16	DT	C4'-C3'-C2'	-5.81	97.87	103.10
199	DM	1	DT	C1'-O4'-C4'	-5.81	104.29	110.10
117	B2	21	DA	O4'-C1'-C2'	-5.81	101.25	105.90
138	CN	9	DG	C5-C6-O6	-5.81	125.11	128.60
156	Cf	16	DG	O4'-C1'-C2'	-5.81	101.25	105.90
210	DX	29	DT	C4'-C3'-C2'	-5.81	97.87	103.10
210	DX	34	DA	C1'-O4'-C4'	-5.81	104.29	110.10
1	AA	22	DT	C4'-C3'-C2'	-5.81	97.87	103.10
1	AA	453	DC	O4'-C4'-C3'	-5.81	102.18	104.50
1	AA	955	DC	O4'-C1'-N1	5.81	112.07	108.00
1	AA	4988	DC	O4'-C1'-C2'	-5.81	101.25	105.90
129	CE	29	DA	C1'-O4'-C4'	-5.81	104.29	110.10
170	Ct	36	DG	C1'-O4'-C4'	-5.81	104.29	110.10
138	CN	40	DA	O4'-C1'-C2'	-5.81	101.25	105.90
1	AA	1492	DC	O4'-C1'-N1	5.81	112.06	108.00
1	AA	6653	DA	O4'-C1'-C2'	-5.81	101.25	105.90
1	AA	7832	DG	O4'-C4'-C3'	-5.81	102.18	104.50
39	Am	34	DA	O4'-C1'-N9	5.81	112.06	108.00
1	AA	881	DC	P-O3'-C3'	5.80	126.67	119.70
1	AA	7494	DA	C4'-C3'-C2'	-5.80	97.88	103.10
72	BJ	17	DA	O4'-C1'-N9	5.80	112.06	108.00
155	Ce	19	DC	O4'-C1'-C2'	-5.80	101.26	105.90
1	AA	1421	DA	O4'-C1'-C2'	-5.80	101.26	105.90
1	AA	3884	DG	O4'-C1'-C2'	-5.80	101.26	105.90
45	As	34	DG	O4'-C1'-C2'	-5.80	101.26	105.90
59	A6	20	DA	O4'-C1'-C2'	-5.80	101.26	105.90
90	Bb	12	DT	C4'-C3'-C2'	-5.80	97.88	103.10
133	CI	15	DC	C1'-O4'-C4'	-5.80	104.30	110.10
134	CJ	5	DT	C4'-C3'-C2'	-5.80	97.88	103.10
1	AA	1374	DG	O4'-C1'-C2'	-5.80	101.26	105.90
1	AA	5382	DC	C1'-O4'-C4'	-5.80	104.30	110.10
1	AA	1014	DG	O4'-C1'-C2'	-5.80	101.26	105.90
1	AA	2390	DT	C4'-C3'-C2'	-5.80	97.88	103.10
1	AA	5331	DG	O4'-C1'-C2'	-5.80	101.26	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	6560	DA	N1-C6-N6	-5.80	115.12	118.60
70	BH	24	DG	O4'-C1'-C2'	-5.80	101.26	105.90
1	AA	5245	DT	C4'-C3'-C2'	-5.80	97.88	103.10
1	AA	6022	DC	O4'-C1'-C2'	-5.80	101.26	105.90
106	Br	2	DC	P-O3'-C3'	5.80	126.66	119.70
116	B1	1	DA	C1'-O4'-C4'	-5.80	104.30	110.10
1	AA	1096	DA	O4'-C1'-C2'	-5.79	101.26	105.90
1	AA	7688	DT	P-O3'-C3'	5.79	126.65	119.70
1	AA	304	DC	P-O5'-C5'	5.79	130.17	120.90
1	AA	4631	DG	O4'-C4'-C3'	-5.79	102.18	104.50
74	BL	20	DA	O4'-C1'-C2'	-5.79	101.27	105.90
91	Bc	18	DA	O4'-C1'-N9	5.79	112.06	108.00
1	AA	2803	DT	C4'-C3'-C2'	-5.79	97.89	103.10
1	AA	4652	DG	C1'-O4'-C4'	-5.79	104.31	110.10
30	Ad	25	DG	C4'-C3'-C2'	-5.79	97.89	103.10
155	Ce	14	DG	C1'-O4'-C4'	-5.79	104.31	110.10
192	DF	28	DG	O4'-C4'-C3'	-5.79	102.18	104.50
1	AA	2098	DT	C4'-C3'-C2'	-5.79	97.89	103.10
1	AA	2799	DC	P-O3'-C3'	5.79	126.65	119.70
1	AA	7092	DG	O4'-C1'-C2'	-5.79	101.27	105.90
91	Bc	23	DA	O4'-C1'-C2'	-5.79	101.27	105.90
149	CY	2	DG	O4'-C1'-C2'	-5.79	101.27	105.90
168	Cr	16	DG	O4'-C1'-C2'	-5.79	101.27	105.90
182	C5	30	DG	P-O3'-C3'	5.79	126.65	119.70
1	AA	2331	DA	O4'-C1'-C2'	-5.79	101.27	105.90
1	AA	4567	DA	O4'-C1'-C2'	-5.79	101.27	105.90
1	AA	3996	DA	O4'-C1'-C2'	-5.79	101.27	105.90
1	AA	5986	DA	O4'-C1'-C2'	-5.79	101.27	105.90
1	AA	6794	DT	C4'-C3'-C2'	-5.79	97.89	103.10
1	AA	2586	DT	O4'-C1'-C2'	-5.78	101.27	105.90
1	AA	4919	DG	P-O3'-C3'	5.78	126.64	119.70
20	AT	7	DT	P-O3'-C3'	5.78	126.64	119.70
123	B8	42	DT	O4'-C4'-C3'	-5.78	102.19	104.50
1	AA	456	DA	O4'-C1'-C2'	-5.78	101.27	105.90
1	AA	5227	DG	C1'-O4'-C4'	-5.78	104.32	110.10
122	B7	11	DC	C4'-C3'-C2'	-5.78	97.90	103.10
1	AA	2958	DG	P-O3'-C3'	5.78	126.64	119.70
34	Ah	25	DC	C2-N1-C1'	5.78	125.16	118.80
1	AA	6918	DT	C4'-C3'-C2'	-5.78	97.90	103.10
90	Bb	22	DA	O4'-C4'-C3'	-5.78	102.19	104.50
1	AA	3586	DT	C4'-C3'-C2'	-5.78	97.90	103.10
1	AA	6614	DG	C1'-O4'-C4'	-5.78	104.32	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
53	A0	2	DA	P-O3'-C3'	5.78	126.63	119.70
55	A2	19	DG	O4'-C1'-C2'	-5.78	101.28	105.90
1	AA	2843	DT	C1'-O4'-C4'	-5.77	104.33	110.10
1	AA	4057	DC	O4'-C1'-C2'	-5.77	101.28	105.90
1	AA	7312	DG	O4'-C4'-C3'	-5.77	102.19	104.50
8	AH	16	DG	O4'-C1'-C2'	-5.77	101.28	105.90
1	AA	1762	DG	O4'-C1'-C2'	-5.77	101.28	105.90
1	AA	2746	DA	C4'-C3'-C2'	-5.77	97.91	103.10
1	AA	4508	DG	O4'-C1'-C2'	-5.77	101.28	105.90
1	AA	6749	DT	O4'-C4'-C3'	-5.77	102.19	104.50
1	AA	7097	DC	P-O3'-C3'	5.77	126.63	119.70
1	AA	28	DT	C1'-O4'-C4'	-5.77	104.33	110.10
1	AA	849	DA	O4'-C4'-C3'	-5.77	102.19	104.50
1	AA	1545	DG	C1'-O4'-C4'	-5.77	104.33	110.10
1	AA	105	DT	C4'-C3'-C2'	-5.77	97.91	103.10
1	AA	2030	DA	O4'-C1'-C2'	-5.77	101.28	105.90
146	CV	9	DT	O4'-C1'-C2'	-5.77	101.28	105.90
151	Ca	23	DT	O4'-C1'-C2'	-5.77	101.28	105.90
207	DU	37	DC	C1'-O4'-C4'	-5.77	104.33	110.10
1	AA	2250	DA	C4'-C3'-C2'	-5.77	97.91	103.10
1	AA	5515	DG	O4'-C1'-C2'	-5.77	101.29	105.90
12	AL	3	DT	P-O3'-C3'	5.77	126.62	119.70
140	CP	27	DA	C1'-O4'-C4'	-5.77	104.33	110.10
76	BN	17	DT	C1'-O4'-C4'	-5.76	104.34	110.10
207	DU	37	DC	P-O3'-C3'	5.76	126.62	119.70
1	AA	1830	DA	O4'-C1'-C2'	-5.76	101.29	105.90
157	Cg	21	DG	O4'-C4'-C3'	-5.76	102.19	104.50
205	DS	21	DA	P-O3'-C3'	5.76	126.62	119.70
1	AA	160	DT	O4'-C4'-C3'	-5.76	102.19	104.50
1	AA	355	DA	O4'-C1'-C2'	-5.76	101.29	105.90
1	AA	3658	DT	C4'-C3'-C2'	-5.76	97.91	103.10
35	Ai	4	DT	C4'-C3'-C2'	-5.76	97.91	103.10
148	CX	33	DT	C4'-C3'-C2'	-5.76	97.92	103.10
149	CY	44	DA	P-O3'-C3'	5.76	126.61	119.70
171	Cu	13	DA	C1'-O4'-C4'	-5.76	104.34	110.10
1	AA	1687	DC	P-O3'-C3'	5.76	126.61	119.70
1	AA	4944	DA	P-O3'-C3'	5.76	126.61	119.70
1	AA	6561	DA	C4'-C3'-C2'	-5.76	97.92	103.10
1	AA	6564	DG	C5-C6-O6	-5.76	125.14	128.60
22	AV	4	DT	C4'-C3'-C2'	-5.76	97.92	103.10
127	CC	37	DA	O4'-C1'-C2'	-5.76	101.29	105.90
1	AA	4161	DA	O4'-C4'-C3'	-5.76	102.20	104.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	5530	DT	C4'-C3'-C2'	-5.76	97.92	103.10
1	AA	6006	DA	P-O3'-C3'	5.76	126.61	119.70
1	AA	1491	DC	O4'-C1'-N1	5.75	112.03	108.00
80	BR	37	DT	C4-C5-C7	5.75	122.45	119.00
1	AA	165	DG	O4'-C1'-N9	5.75	112.03	108.00
1	AA	531	DG	O4'-C1'-C2'	-5.75	101.30	105.90
1	AA	1579	DT	C4'-C3'-C2'	-5.75	97.92	103.10
1	AA	1732	DT	C4'-C3'-C2'	-5.75	97.92	103.10
1	AA	5205	DT	C4'-C3'-C2'	-5.75	97.92	103.10
189	DC	27	DG	O4'-C4'-C3'	-5.75	102.20	104.50
1	AA	1999	DA	C4'-C3'-C2'	-5.75	97.92	103.10
1	AA	2312	DG	C4'-C3'-C2'	-5.75	97.92	103.10
7	AG	2	DT	C4'-C3'-C2'	-5.75	97.92	103.10
56	A3	26	DA	P-O3'-C3'	5.75	126.60	119.70
68	BF	36	DT	C1'-O4'-C4'	-5.75	104.35	110.10
101	Bm	28	DC	C1'-O4'-C4'	-5.75	104.35	110.10
1	AA	37	DA	C1'-O4'-C4'	-5.75	104.35	110.10
1	AA	3705	DG	O4'-C1'-C2'	-5.75	101.30	105.90
1	AA	7473	DT	O4'-C1'-N1	5.75	112.03	108.00
45	As	16	DG	O4'-C1'-C2'	-5.75	101.30	105.90
134	CJ	29	DG	C5-C6-O6	-5.75	125.15	128.60
1	AA	2093	DG	O4'-C1'-N9	5.75	112.02	108.00
68	BF	11	DT	O4'-C1'-C2'	-5.75	101.30	105.90
1	AA	1115	DC	O4'-C1'-C2'	-5.75	101.30	105.90
1	AA	2271	DG	O4'-C1'-C2'	-5.75	101.30	105.90
1	AA	3077	DT	O4'-C1'-C2'	-5.75	101.30	105.90
1	AA	5936	DG	O4'-C4'-C3'	-5.75	102.20	104.50
1	AA	6857	DT	O4'-C1'-C2'	-5.75	101.30	105.90
106	Br	37	DT	O4'-C1'-C2'	-5.75	101.30	105.90
190	DD	30	DA	N1-C6-N6	-5.75	115.15	118.60
1	AA	150	DG	O4'-C4'-C3'	-5.75	102.20	104.50
1	AA	1791	DT	C4'-C3'-C2'	-5.74	97.93	103.10
1	AA	5273	DA	C4'-C3'-C2'	-5.74	97.93	103.10
1	AA	6716	DT	P-O3'-C3'	5.74	126.59	119.70
5	AE	9	DT	P-O3'-C3'	5.74	126.59	119.70
19	AS	23	DA	O4'-C1'-C2'	-5.74	101.31	105.90
64	BB	38	DT	C4'-C3'-C2'	-5.74	97.93	103.10
1	AA	1753	DC	O4'-C1'-C2'	-5.74	101.31	105.90
1	AA	2472	DA	P-O3'-C3'	5.74	126.59	119.70
1	AA	7073	DT	C1'-O4'-C4'	-5.74	104.36	110.10
1	AA	7309	DT	C4'-C3'-C2'	-5.74	97.93	103.10
116	B1	18	DG	O4'-C1'-C2'	-5.74	101.31	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
170	Ct	26	DT	O4'-C4'-C3'	-5.74	102.20	104.50
207	DU	34	DT	O4'-C1'-C2'	-5.74	101.31	105.90
1	AA	4293	DC	O4'-C1'-C2'	-5.74	101.31	105.90
1	AA	7761	DC	O4'-C4'-C3'	-5.74	102.20	104.50
43	Aq	18	DC	C4'-C3'-C2'	-5.74	97.94	103.10
118	B3	1	DT	C1'-O4'-C4'	-5.74	104.36	110.10
206	DT	24	DG	O4'-C1'-C2'	-5.74	101.31	105.90
1	AA	849	DA	C4'-C3'-C2'	-5.74	97.94	103.10
1	AA	2337	DA	O4'-C1'-C2'	-5.74	101.31	105.90
1	AA	2936	DT	O4'-C4'-C3'	-5.74	102.21	104.50
1	AA	3182	DG	C1'-O4'-C4'	-5.74	104.36	110.10
1	AA	6769	DC	P-O5'-C5'	5.74	130.08	120.90
195	DI	14	DA	O4'-C1'-C2'	-5.73	101.31	105.90
1	AA	224	DT	C4'-C3'-C2'	-5.73	97.94	103.10
1	AA	2900	DA	O4'-C4'-C3'	-5.73	102.21	104.50
1	AA	4567	DA	P-O3'-C3'	5.73	126.58	119.70
1	AA	5211	DA	O4'-C1'-C2'	-5.73	101.31	105.90
44	Ar	13	DG	O4'-C1'-C2'	-5.73	101.31	105.90
90	Bb	31	DC	O4'-C1'-C2'	-5.73	101.31	105.90
199	DM	26	DC	O4'-C1'-C2'	-5.73	101.31	105.90
1	AA	3176	DA	C4'-C3'-C2'	-5.73	97.94	103.10
10	AJ	22	DT	O4'-C1'-C2'	-5.73	101.32	105.90
1	AA	549	DG	C4'-C3'-C2'	-5.73	97.94	103.10
195	DI	10	DG	O4'-C1'-C2'	-5.73	101.32	105.90
1	AA	1478	DC	O4'-C1'-C2'	-5.73	101.32	105.90
1	AA	3594	DG	C8-N9-C1'	-5.73	119.56	127.00
1	AA	5153	DG	P-O3'-C3'	5.73	126.57	119.70
1	AA	6379	DT	C1'-O4'-C4'	-5.73	104.37	110.10
131	CG	18	DA	C1'-O4'-C4'	-5.73	104.37	110.10
163	Cm	1	DT	C4'-C3'-C2'	-5.73	97.94	103.10
84	BV	37	DC	C6-N1-C2	-5.73	118.01	120.30
93	Be	15	DC	C4'-C3'-C2'	-5.73	97.95	103.10
192	DF	24	DG	O4'-C1'-C2'	-5.73	101.32	105.90
1	AA	4730	DG	O4'-C1'-C2'	-5.72	101.32	105.90
9	AI	1	DG	O4'-C4'-C3'	-5.72	102.21	104.50
31	Ae	11	DA	C1'-O4'-C4'	-5.72	104.38	110.10
115	B0	29	DA	O4'-C1'-C2'	-5.72	101.32	105.90
60	A7	26	DC	O4'-C1'-C2'	-5.72	101.32	105.90
130	CF	26	DA	O4'-C1'-C2'	-5.72	101.32	105.90
1	AA	5115	DT	C4'-C3'-C2'	-5.72	97.95	103.10
1	AA	451	DA	N1-C6-N6	-5.72	115.17	118.60
1	AA	4682	DG	C1'-O4'-C4'	-5.72	104.38	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
17	AQ	27	DA	C1'-O4'-C4'	-5.72	104.38	110.10
187	DA	34	DA	O4'-C1'-C2'	-5.72	101.32	105.90
101	Bm	27	DC	O4'-C1'-N1	5.72	112.00	108.00
102	Bn	34	DC	C4'-C3'-C2'	-5.72	97.95	103.10
172	Cv	13	DC	O4'-C1'-N1	5.72	112.00	108.00
1	AA	1748	DG	O4'-C4'-C3'	-5.72	102.21	104.50
1	AA	2343	DA	C4'-C3'-C2'	-5.72	97.95	103.10
91	Bc	30	DT	O4'-C1'-C2'	-5.72	101.33	105.90
110	Bv	15	DA	O4'-C1'-N9	5.72	112.00	108.00
140	CP	28	DC	C2-N1-C1'	5.72	125.09	118.80
1	AA	1783	DG	P-O3'-C3'	5.71	126.56	119.70
1	AA	3083	DG	C1'-O4'-C4'	-5.71	104.39	110.10
1	AA	5645	DC	O4'-C1'-C2'	-5.71	101.33	105.90
110	Bv	10	DT	P-O3'-C3'	5.71	126.56	119.70
117	B2	14	DC	C1'-O4'-C4'	-5.71	104.39	110.10
1	AA	2645	DC	P-O3'-C3'	5.71	126.56	119.70
1	AA	4314	DC	P-O3'-C3'	5.71	126.56	119.70
12	AL	25	DG	P-O3'-C3'	5.71	126.56	119.70
127	CC	23	DT	C1'-O4'-C4'	-5.71	104.39	110.10
1	AA	4262	DA	P-O3'-C3'	5.71	126.55	119.70
1	AA	5657	DC	C4'-C3'-C2'	-5.71	97.96	103.10
1	AA	7427	DT	C4'-C3'-C2'	-5.71	97.96	103.10
1	AA	422	DT	P-O3'-C3'	5.71	126.55	119.70
1	AA	4334	DC	C2-N1-C1'	5.71	125.08	118.80
8	AH	19	DG	O4'-C1'-C2'	-5.71	101.33	105.90
171	Cu	14	DC	C1'-O4'-C4'	-5.71	104.39	110.10
1	AA	2526	DC	C4'-C3'-C2'	-5.71	97.96	103.10
1	AA	2589	DT	C4'-C3'-C2'	-5.71	97.96	103.10
1	AA	6983	DA	O4'-C1'-C2'	-5.71	101.33	105.90
125	CA	12	DA	C4'-C3'-C2'	-5.71	97.96	103.10
198	DL	17	DA	O4'-C1'-C2'	-5.71	101.33	105.90
1	AA	176	DC	O4'-C4'-C3'	-5.71	102.22	104.50
1	AA	4749	DT	C4'-C3'-C2'	-5.71	97.97	103.10
1	AA	7936	DA	N1-C6-N6	-5.71	115.18	118.60
3	AC	18	DA	C1'-O4'-C4'	-5.71	104.39	110.10
71	BI	4	DT	O4'-C4'-C3'	-5.71	102.22	104.50
139	CO	8	DG	P-O3'-C3'	5.71	126.55	119.70
165	Co	30	DA	O4'-C1'-C2'	-5.71	101.33	105.90
38	Al	24	DC	C4'-C3'-C2'	-5.71	97.97	103.10
94	Bf	16	DG	P-O3'-C3'	5.71	126.55	119.70
99	Bk	22	DG	O4'-C1'-C2'	-5.71	101.34	105.90
1	AA	269	DG	C4'-C3'-C2'	-5.70	97.97	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	3277	DT	C1'-O4'-C4'	-5.70	104.40	110.10
1	AA	7233	DG	P-O3'-C3'	5.70	126.55	119.70
40	An	19	DA	O4'-C1'-C2'	-5.70	101.34	105.90
124	B9	1	DA	O4'-C1'-C2'	-5.70	101.34	105.90
1	AA	5652	DT	O4'-C1'-C2'	-5.70	101.34	105.90
121	B6	9	DT	O4'-C1'-C2'	-5.70	101.34	105.90
128	CD	15	DT	C4'-C3'-C2'	-5.70	97.97	103.10
1	AA	3855	DA	C1'-O4'-C4'	-5.70	104.40	110.10
1	AA	5391	DT	C4'-C3'-C2'	-5.70	97.97	103.10
108	Bt	9	DC	P-O3'-C3'	5.70	126.54	119.70
122	B7	42	DG	O4'-C1'-C2'	-5.70	101.34	105.90
185	C8	18	DC	P-O3'-C3'	5.70	126.54	119.70
192	DF	16	DA	C4'-C3'-C2'	-5.70	97.97	103.10
1	AA	450	DG	O4'-C1'-C2'	-5.70	101.34	105.90
1	AA	1268	DT	C4'-C3'-C2'	-5.70	97.97	103.10
133	CI	21	DA	C4'-C3'-C2'	-5.70	97.97	103.10
149	CY	24	DA	O4'-C1'-C2'	-5.70	101.34	105.90
208	DV	29	DT	O4'-C1'-C2'	-5.70	101.34	105.90
25	AY	28	DC	C1'-O4'-C4'	-5.70	104.40	110.10
1	AA	3951	DA	O4'-C1'-C2'	-5.70	101.34	105.90
1	AA	6329	DT	C4'-C3'-C2'	-5.70	97.97	103.10
30	Ad	37	DC	O4'-C1'-C2'	-5.70	101.34	105.90
1	AA	5126	DA	O4'-C1'-C2'	-5.69	101.34	105.90
8	AH	25	DT	C4'-C3'-C2'	-5.69	97.97	103.10
1	AA	2829	DA	P-O3'-C3'	5.69	126.53	119.70
1	AA	4752	DC	C4'-C3'-C2'	-5.69	97.98	103.10
1	AA	7880	DC	C4'-C3'-C2'	-5.69	97.98	103.10
6	AF	23	DT	O4'-C1'-C2'	-5.69	101.35	105.90
53	A0	50	DA	N1-C6-N6	-5.69	115.19	118.60
99	Bk	26	DT	C4'-C3'-C2'	-5.69	97.98	103.10
40	An	22	DT	O4'-C1'-C2'	-5.69	101.35	105.90
60	A7	16	DG	O4'-C1'-N9	5.69	111.98	108.00
69	BG	1	DC	C6-N1-C1'	-5.69	113.97	120.80
126	CB	30	DA	O4'-C1'-C2'	-5.69	101.35	105.90
152	Cb	24	DC	C4'-C3'-C2'	-5.69	97.98	103.10
1	AA	7099	DT	C4'-C3'-C2'	-5.69	97.98	103.10
1	AA	734	DG	N1-C6-O6	5.69	123.31	119.90
1	AA	869	DG	C5-C6-O6	-5.69	125.19	128.60
1	AA	1281	DG	O4'-C1'-C2'	-5.69	101.35	105.90
1	AA	5088	DT	C4'-C3'-C2'	-5.69	97.98	103.10
1	AA	5642	DC	O4'-C1'-N1	5.69	111.98	108.00
1	AA	7251	DC	P-O3'-C3'	5.69	126.53	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	Aw	21	DG	P-O3'-C3'	5.69	126.53	119.70
1	AA	6902	DT	O4'-C1'-C2'	-5.69	101.35	105.90
24	AX	19	DA	O4'-C1'-C2'	-5.69	101.35	105.90
47	Au	33	DA	O4'-C1'-C2'	-5.69	101.35	105.90
155	Ce	11	DT	C4'-C3'-C2'	-5.69	97.98	103.10
167	Cq	6	DA	P-O3'-C3'	5.69	126.52	119.70
1	AA	2625	DG	C5-C6-O6	-5.68	125.19	128.60
1	AA	7397	DT	O4'-C4'-C3'	-5.68	102.23	104.50
4	AD	28	DA	O4'-C1'-C2'	-5.68	101.35	105.90
57	A4	35	DT	C4'-C3'-C2'	-5.68	97.98	103.10
66	BD	26	DA	O4'-C4'-C3'	-5.68	102.23	104.50
111	Bw	12	DG	O4'-C1'-C2'	-5.68	101.35	105.90
182	C5	28	DG	P-O3'-C3'	5.68	126.52	119.70
208	DV	26	DG	O4'-C1'-C2'	-5.68	101.35	105.90
1	AA	351	DG	P-O3'-C3'	5.68	126.52	119.70
1	AA	2419	DG	P-O3'-C3'	5.68	126.52	119.70
1	AA	4424	DG	O4'-C1'-C2'	-5.68	101.35	105.90
1	AA	7796	DG	C1'-O4'-C4'	-5.68	104.42	110.10
193	DG	22	DC	P-O5'-C5'	5.68	129.99	120.90
1	AA	1117	DC	C4'-C3'-C2'	-5.68	97.99	103.10
37	Ak	36	DA	C4'-C3'-C2'	-5.68	97.99	103.10
91	Bc	21	DT	O4'-C1'-C2'	-5.68	101.36	105.90
95	Bg	10	DA	O4'-C1'-C2'	-5.68	101.36	105.90
1	AA	4325	DA	O4'-C1'-C2'	-5.68	101.36	105.90
35	Ai	8	DG	C1'-O4'-C4'	-5.68	104.42	110.10
68	BF	4	DC	P-O3'-C3'	5.68	126.51	119.70
13	AM	11	DA	O4'-C1'-C2'	-5.68	101.36	105.90
1	AA	5462	DC	C6-N1-C2	-5.67	118.03	120.30
1	AA	5956	DT	C4'-C3'-C2'	-5.67	97.99	103.10
1	AA	6020	DG	O4'-C1'-N9	5.67	111.97	108.00
1	AA	6130	DC	O4'-C1'-C2'	-5.67	101.36	105.90
1	AA	7640	DT	O4'-C4'-C3'	-5.67	102.23	104.50
49	Aw	1	DC	O4'-C1'-C2'	-5.67	101.36	105.90
79	BQ	9	DG	O4'-C1'-C2'	-5.67	101.36	105.90
144	CT	6	DG	C1'-O4'-C4'	-5.67	104.43	110.10
1	AA	3965	DG	O4'-C1'-N9	5.67	111.97	108.00
1	AA	6074	DT	C4'-C3'-C2'	-5.67	98.00	103.10
1	AA	6690	DG	C1'-O4'-C4'	-5.67	104.43	110.10
1	AA	6788	DT	O4'-C1'-C2'	-5.67	101.36	105.90
55	A2	27	DG	O4'-C1'-C2'	-5.67	101.36	105.90
1	AA	303	DG	C4'-C3'-C2'	-5.67	98.00	103.10
101	Bm	26	DA	O4'-C1'-C2'	-5.67	101.36	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
179	C2	26	DT	C6-C5-C7	5.67	126.30	122.90
1	AA	1183	DA	C4'-C3'-C2'	-5.67	98.00	103.10
1	AA	3840	DG	C1'-O4'-C4'	-5.67	104.43	110.10
32	Af	26	DT	P-O3'-C3'	5.67	126.50	119.70
117	B2	36	DT	P-O3'-C3'	5.67	126.50	119.70
180	C3	44	DC	O4'-C1'-C2'	-5.67	101.37	105.90
1	AA	2832	DA	O4'-C4'-C3'	-5.67	102.23	104.50
1	AA	6858	DG	O4'-C1'-C2'	-5.67	101.37	105.90
24	AX	30	DA	C1'-O4'-C4'	-5.67	104.43	110.10
181	C4	10	DG	C1'-O4'-C4'	-5.67	104.43	110.10
1	AA	1397	DA	P-O3'-C3'	5.67	126.50	119.70
147	CW	8	DG	O4'-C1'-C2'	-5.67	101.37	105.90
1	AA	2437	DA	O4'-C1'-C2'	-5.66	101.37	105.90
1	AA	3028	DG	N1-C6-O6	5.66	123.30	119.90
1	AA	4441	DC	P-O5'-C5'	5.66	129.96	120.90
41	Ao	21	DC	O4'-C1'-C2'	-5.66	101.37	105.90
67	BE	12	DA	P-O3'-C3'	5.66	126.50	119.70
1	AA	6636	DC	P-O3'-C3'	5.66	126.49	119.70
100	Bl	15	DA	O4'-C1'-C2'	-5.66	101.37	105.90
121	B6	1	DC	C1'-O4'-C4'	-5.66	104.44	110.10
152	Cb	23	DG	C1'-O4'-C4'	-5.66	104.44	110.10
1	AA	2528	DT	C4'-C3'-C2'	-5.66	98.01	103.10
1	AA	7621	DG	C1'-O4'-C4'	-5.66	104.44	110.10
116	B1	12	DT	C4'-C3'-C2'	-5.66	98.01	103.10
142	CR	1	DG	O4'-C4'-C3'	-5.66	102.24	104.50
1	AA	8063	DC	P-O5'-C5'	5.66	129.95	120.90
44	Ar	28	DA	P-O3'-C3'	5.66	126.49	119.70
1	AA	2133	DA	O4'-C1'-C2'	-5.66	101.38	105.90
126	CB	16	DA	O4'-C1'-C2'	-5.66	101.38	105.90
183	C6	17	DG	C5-C6-O6	-5.66	125.21	128.60
1	AA	429	DT	P-O3'-C3'	5.65	126.48	119.70
1	AA	108	DT	O4'-C4'-C3'	-5.65	102.24	104.50
23	AW	42	DA	O4'-C1'-C2'	-5.65	101.38	105.90
41	Ao	33	DT	O4'-C1'-C2'	-5.65	101.38	105.90
55	A2	23	DA	C1'-O4'-C4'	-5.65	104.45	110.10
1	AA	3707	DG	C1'-O4'-C4'	-5.65	104.45	110.10
1	AA	7581	DA	P-O3'-C3'	5.65	126.48	119.70
151	Ca	35	DT	C4'-C3'-C2'	-5.65	98.02	103.10
159	Ci	24	DT	P-O3'-C3'	5.65	126.48	119.70
161	Ck	28	DT	P-O3'-C3'	5.65	126.48	119.70
1	AA	1475	DA	O4'-C1'-C2'	-5.65	101.38	105.90
169	Cs	5	DG	O4'-C1'-C2'	-5.65	101.38	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	108	DT	C1'-O4'-C4'	-5.65	104.45	110.10
1	AA	2440	DC	P-O5'-C5'	5.65	129.94	120.90
1	AA	2979	DA	N1-C6-N6	-5.65	115.21	118.60
212	DZ	9	DT	C4'-C3'-C2'	-5.65	98.02	103.10
1	AA	3203	DG	C4'-C3'-C2'	-5.65	98.02	103.10
1	AA	3965	DG	C1'-O4'-C4'	-5.65	104.45	110.10
1	AA	1669	DC	C4'-C3'-C2'	-5.64	98.02	103.10
1	AA	7539	DG	O4'-C1'-C2'	-5.64	101.38	105.90
29	Ac	23	DA	O4'-C1'-C2'	-5.64	101.38	105.90
105	Bq	12	DG	C4'-C3'-C2'	-5.64	98.02	103.10
193	DG	1	DT	O4'-C4'-C3'	-5.64	102.24	104.50
167	Cq	3	DT	P-O3'-C3'	5.64	126.47	119.70
1	AA	1115	DC	O4'-C1'-N1	5.64	111.95	108.00
134	CJ	32	DC	C4'-C3'-C2'	-5.64	98.02	103.10
1	AA	1915	DC	C4'-C3'-C2'	-5.64	98.02	103.10
1	AA	2559	DA	O4'-C1'-C2'	-5.64	101.39	105.90
39	Am	35	DT	C1'-O4'-C4'	-5.64	104.46	110.10
1	AA	4286	DA	P-O3'-C3'	5.64	126.47	119.70
204	DR	47	DG	O4'-C1'-C2'	-5.64	101.39	105.90
1	AA	112	DT	C4'-C3'-C2'	-5.64	98.03	103.10
1	AA	620	DA	P-O3'-C3'	5.64	126.47	119.70
1	AA	3840	DG	P-O3'-C3'	5.64	126.46	119.70
1	AA	6037	DG	C4'-C3'-C2'	-5.64	98.03	103.10
1	AA	6053	DG	P-O3'-C3'	5.64	126.46	119.70
1	AA	7656	DC	C4'-C3'-C2'	-5.64	98.03	103.10
158	Ch	9	DG	C5-C6-O6	-5.64	125.22	128.60
1	AA	2925	DT	C4'-C3'-C2'	-5.63	98.03	103.10
1	AA	4552	DT	C1'-O4'-C4'	-5.63	104.47	110.10
6	AF	27	DT	C4'-C3'-C2'	-5.63	98.03	103.10
56	A3	33	DA	P-O3'-C3'	5.63	126.46	119.70
131	CG	28	DA	O4'-C1'-C2'	-5.63	101.39	105.90
1	AA	2528	DT	O4'-C4'-C3'	-5.63	102.25	104.50
1	AA	5396	DA	O4'-C1'-C2'	-5.63	101.39	105.90
206	DT	9	DC	P-O3'-C3'	5.63	126.46	119.70
1	AA	1956	DC	O4'-C1'-N1	5.63	111.94	108.00
1	AA	4327	DT	C4'-C3'-C2'	-5.63	98.03	103.10
1	AA	6171	DC	C2-N1-C1'	5.63	125.00	118.80
1	AA	7136	DC	P-O3'-C3'	5.63	126.46	119.70
87	BY	9	DT	C1'-O4'-C4'	-5.63	104.47	110.10
149	CY	17	DT	C4'-C3'-C2'	-5.63	98.03	103.10
169	Cs	42	DG	O4'-C1'-C2'	-5.63	101.39	105.90
37	Ak	39	DA	O4'-C1'-C2'	-5.63	101.40	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
56	A3	17	DA	O4'-C1'-C2'	-5.63	101.40	105.90
144	CT	28	DC	O4'-C1'-C2'	-5.63	101.40	105.90
1	AA	495	DC	C4'-C3'-C2'	-5.63	98.03	103.10
1	AA	3569	DG	O4'-C4'-C3'	-5.63	102.25	104.50
1	AA	5010	DA	O4'-C1'-C2'	-5.63	101.40	105.90
29	Ac	16	DT	C1'-O4'-C4'	-5.63	104.47	110.10
58	A5	17	DA	C4'-C3'-C2'	-5.63	98.03	103.10
1	AA	5542	DA	O4'-C1'-C2'	-5.63	101.40	105.90
169	Cs	24	DG	O4'-C1'-C2'	-5.63	101.40	105.90
192	DF	19	DG	O4'-C1'-C2'	-5.63	101.40	105.90
199	DM	7	DT	P-O3'-C3'	5.63	126.45	119.70
205	DS	23	DT	C1'-O4'-C4'	-5.63	104.47	110.10
1	AA	914	DC	P-O3'-C3'	5.62	126.45	119.70
150	CZ	2	DG	O4'-C1'-N9	5.62	111.94	108.00
1	AA	743	DA	O4'-C1'-C2'	-5.62	101.40	105.90
1	AA	1808	DT	C1'-O4'-C4'	-5.62	104.48	110.10
15	AO	32	DT	C4'-C3'-C2'	-5.62	98.04	103.10
24	AX	32	DC	P-O3'-C3'	5.62	126.45	119.70
99	Bk	37	DA	P-O3'-C3'	5.62	126.45	119.70
117	B2	26	DT	C1'-O4'-C4'	-5.62	104.48	110.10
185	C8	1	DT	O4'-C1'-C2'	-5.62	101.40	105.90
208	DV	17	DG	C1'-O4'-C4'	-5.62	104.48	110.10
1	AA	1720	DT	O4'-C4'-C3'	-5.62	102.25	104.50
1	AA	4165	DG	P-O3'-C3'	5.62	126.45	119.70
1	AA	5040	DG	C5-C6-O6	-5.62	125.23	128.60
1	AA	6850	DA	C1'-O4'-C4'	-5.62	104.48	110.10
1	AA	3461	DC	C4'-C3'-C2'	-5.62	98.04	103.10
1	AA	6139	DT	O4'-C4'-C3'	-5.62	102.25	104.50
1	AA	7979	DC	O4'-C1'-N1	5.62	111.93	108.00
89	Ba	44	DT	C4'-C3'-C2'	-5.62	98.04	103.10
1	AA	2013	DG	C1'-O4'-C4'	-5.62	104.48	110.10
1	AA	3726	DG	O4'-C1'-C2'	-5.62	101.41	105.90
1	AA	4316	DG	O4'-C1'-N9	5.62	111.93	108.00
1	AA	4892	DA	O4'-C1'-C2'	-5.62	101.41	105.90
59	A6	16	DA	O4'-C1'-C2'	-5.62	101.41	105.90
107	Bs	15	DA	C4'-C3'-C2'	-5.62	98.04	103.10
1	AA	7064	DA	O4'-C1'-C2'	-5.62	101.41	105.90
1	AA	7271	DT	O4'-C4'-C3'	-5.62	102.25	104.50
1	AA	717	DG	O4'-C1'-C2'	-5.62	101.41	105.90
1	AA	1165	DG	N1-C6-O6	5.62	123.27	119.90
1	AA	1620	DC	P-O3'-C3'	5.62	126.44	119.70
1	AA	3165	DA	O4'-C1'-C2'	-5.62	101.41	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	AG	34	DA	O4'-C1'-C2'	-5.62	101.41	105.90
184	C7	7	DC	O4'-C1'-C2'	-5.62	101.41	105.90
1	AA	479	DG	C4'-C3'-C2'	-5.61	98.05	103.10
1	AA	1197	DT	C4'-C3'-C2'	-5.61	98.05	103.10
62	A9	36	DT	P-O3'-C3'	5.61	126.44	119.70
6	AF	2	DG	C5-C6-O6	-5.61	125.23	128.60
1	AA	4827	DA	C4'-C3'-C2'	-5.61	98.05	103.10
1	AA	6420	DA	C4'-C3'-C2'	-5.61	98.05	103.10
93	Be	23	DC	O4'-C1'-C2'	-5.61	101.41	105.90
97	Bi	23	DG	O4'-C1'-C2'	-5.61	101.41	105.90
203	DQ	33	DA	N1-C6-N6	-5.61	115.23	118.60
31	Ae	3	DG	O4'-C1'-C2'	-5.61	101.41	105.90
182	C5	30	DG	O4'-C1'-C2'	-5.61	101.41	105.90
20	AT	1	DT	C1'-O4'-C4'	-5.61	104.49	110.10
120	B5	26	DG	C1'-O4'-C4'	-5.61	104.49	110.10
1	AA	1647	DC	O4'-C1'-C2'	-5.61	101.42	105.90
179	C2	30	DA	P-O3'-C3'	5.61	126.43	119.70
196	DJ	18	DA	P-O3'-C3'	5.61	126.42	119.70
30	Ad	24	DT	C4'-C3'-C2'	-5.60	98.06	103.10
168	Cr	9	DC	O4'-C1'-C2'	-5.60	101.42	105.90
1	AA	160	DT	C1'-O4'-C4'	-5.60	104.50	110.10
1	AA	3112	DC	P-O5'-C5'	5.60	129.86	120.90
1	AA	7136	DC	O4'-C1'-C2'	-5.60	101.42	105.90
31	Ae	14	DC	O4'-C1'-N1	-5.60	104.08	108.00
123	B8	2	DT	C1'-O4'-C4'	-5.60	104.50	110.10
208	DV	26	DG	P-O3'-C3'	5.60	126.42	119.70
1	AA	1813	DT	C4'-C3'-C2'	-5.60	98.06	103.10
1	AA	5331	DG	C1'-O4'-C4'	-5.60	104.50	110.10
12	AL	3	DT	C1'-O4'-C4'	-5.60	104.50	110.10
1	AA	894	DA	O4'-C1'-C2'	-5.60	101.42	105.90
12	AL	20	DG	O4'-C1'-C2'	-5.60	101.42	105.90
161	Ck	27	DT	C4'-C3'-C2'	-5.60	98.06	103.10
166	Cp	49	DC	P-O5'-C5'	5.60	129.86	120.90
1	AA	2866	DA	C1'-O4'-C4'	-5.60	104.50	110.10
1	AA	4043	DG	P-O3'-C3'	5.60	126.42	119.70
1	AA	4111	DA	C1'-O4'-C4'	-5.60	104.50	110.10
4	AD	1	DC	C2-N1-C1'	5.60	124.96	118.80
137	CM	20	DT	O4'-C1'-C2'	-5.60	101.42	105.90
174	Cx	11	DG	O4'-C1'-C2'	-5.60	101.42	105.90
187	DA	17	DC	C6-N1-C2	-5.60	118.06	120.30
132	CH	45	DT	O4'-C1'-N1	5.60	111.92	108.00
135	CK	11	DA	O4'-C1'-C2'	-5.60	101.42	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
166	Cp	9	DA	C1'-O4'-C4'	-5.60	104.50	110.10
1	AA	3397	DC	O4'-C4'-C3'	-5.59	102.26	104.50
1	AA	4101	DC	C2-N1-C1'	5.59	124.95	118.80
1	AA	6873	DG	O4'-C1'-C2'	-5.59	101.42	105.90
1	AA	7434	DG	O4'-C1'-C2'	-5.59	101.42	105.90
49	Aw	37	DC	O4'-C1'-C2'	-5.59	101.42	105.90
1	AA	2989	DG	N1-C6-O6	5.59	123.26	119.90
43	Aq	31	DC	C4'-C3'-C2'	-5.59	98.07	103.10
1	AA	1289	DT	O4'-C4'-C3'	-5.59	102.26	104.50
1	AA	2983	DT	O4'-C1'-C2'	-5.59	101.43	105.90
1	AA	3427	DG	O4'-C1'-C2'	-5.59	101.43	105.90
1	AA	7266	DT	C1'-O4'-C4'	-5.59	104.51	110.10
99	Bk	37	DA	O4'-C1'-C2'	-5.59	101.43	105.90
111	Bw	44	DG	C1'-O4'-C4'	-5.59	104.51	110.10
164	Cn	42	DG	O4'-C1'-C2'	-5.59	101.43	105.90
143	CS	2	DG	N1-C6-O6	5.59	123.25	119.90
190	DD	6	DC	P-O5'-C5'	5.59	129.84	120.90
204	DR	1	DG	C5-C6-O6	-5.59	125.25	128.60
1	AA	869	DG	N1-C6-O6	5.59	123.25	119.90
1	AA	2637	DT	C4'-C3'-C2'	-5.59	98.07	103.10
1	AA	6401	DG	O4'-C1'-C2'	-5.59	101.43	105.90
1	AA	8061	DG	C5-C6-O6	-5.59	125.25	128.60
10	AJ	17	DA	O4'-C1'-C2'	-5.59	101.43	105.90
21	AU	10	DC	C4'-C3'-C2'	-5.59	98.07	103.10
97	Bi	28	DT	O4'-C4'-C3'	-5.59	102.27	104.50
147	CW	6	DA	C4'-C3'-C2'	-5.59	98.07	103.10
190	DD	10	DA	O4'-C1'-C2'	-5.59	101.43	105.90
1	AA	1199	DA	C1'-O4'-C4'	-5.58	104.52	110.10
67	BE	27	DG	C5-C6-O6	-5.58	125.25	128.60
1	AA	3010	DT	P-O3'-C3'	5.58	126.40	119.70
76	BN	32	DA	O4'-C1'-C2'	-5.58	101.43	105.90
204	DR	23	DG	O4'-C1'-C2'	-5.58	101.43	105.90
1	AA	167	DG	C4'-C3'-C2'	-5.58	98.08	103.10
1	AA	531	DG	N1-C6-O6	5.58	123.25	119.90
1	AA	1236	DG	O4'-C1'-C2'	-5.58	101.44	105.90
1	AA	3392	DG	O4'-C1'-C2'	-5.58	101.44	105.90
28	Ab	5	DG	O4'-C1'-C2'	-5.58	101.44	105.90
152	Cb	14	DC	C2-N1-C1'	5.58	124.94	118.80
162	Cl	22	DG	O4'-C1'-C2'	-5.58	101.44	105.90
209	DW	34	DT	O4'-C1'-N1	5.58	111.91	108.00
1	AA	2198	DA	N1-C6-N6	-5.58	115.25	118.60
1	AA	4123	DC	O4'-C4'-C3'	-5.58	102.27	104.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	4552	DT	O4'-C1'-C2'	-5.58	101.44	105.90
1	AA	7375	DT	O4'-C1'-C2'	-5.58	101.44	105.90
112	Bx	38	DC	C2-N1-C1'	5.58	124.94	118.80
132	CH	31	DA	C1'-O4'-C4'	-5.58	104.52	110.10
1	AA	1407	DC	C4'-C3'-C2'	-5.58	98.08	103.10
1	AA	4429	DT	C4'-C3'-C2'	-5.58	98.08	103.10
1	AA	7803	DA	O4'-C1'-C2'	-5.58	101.44	105.90
23	AW	35	DA	O4'-C1'-C2'	-5.58	101.44	105.90
62	A9	43	DG	O4'-C1'-C2'	-5.58	101.44	105.90
167	Cq	24	DC	P-O5'-C5'	5.58	129.82	120.90
41	Ao	6	DG	O4'-C1'-C2'	-5.57	101.44	105.90
2	AB	28	DA	O4'-C1'-C2'	-5.57	101.44	105.90
1	AA	6102	DG	C1'-O4'-C4'	-5.57	104.53	110.10
1	AA	6278	DT	O4'-C1'-C2'	-5.57	101.44	105.90
1	AA	8055	DG	C1'-O4'-C4'	-5.57	104.53	110.10
43	Aq	21	DC	C2-N1-C1'	5.57	124.93	118.80
45	As	14	DC	O4'-C4'-C3'	-5.57	102.27	104.50
69	BG	34	DC	O4'-C1'-C2'	-5.57	101.44	105.90
144	CT	18	DG	O4'-C1'-C2'	-5.57	101.44	105.90
1	AA	2196	DG	O4'-C1'-C2'	-5.57	101.45	105.90
162	Cl	5	DT	O4'-C1'-C2'	-5.57	101.45	105.90
1	AA	2725	DT	C4'-C3'-C2'	-5.57	98.09	103.10
1	AA	3978	DG	C1'-O4'-C4'	-5.57	104.53	110.10
1	AA	6662	DT	P-O3'-C3'	5.57	126.38	119.70
1	AA	6902	DT	P-O3'-C3'	5.57	126.38	119.70
92	Bd	41	DG	O4'-C1'-C2'	-5.57	101.45	105.90
133	CI	1	DT	C1'-O4'-C4'	-5.57	104.53	110.10
1	AA	179	DG	O4'-C1'-C2'	-5.56	101.45	105.90
1	AA	5665	DG	P-O3'-C3'	5.56	126.38	119.70
116	B1	16	DG	P-O3'-C3'	5.56	126.38	119.70
104	Bp	17	DT	C4'-C3'-C2'	-5.56	98.09	103.10
1	AA	1939	DT	C1'-O4'-C4'	-5.56	104.54	110.10
1	AA	1569	DC	P-O5'-C5'	5.56	129.79	120.90
158	Ch	30	DG	O4'-C1'-C2'	-5.56	101.45	105.90
164	Cn	4	DA	O4'-C1'-C2'	-5.56	101.45	105.90
1	AA	5106	DC	O4'-C1'-C2'	-5.56	101.45	105.90
1	AA	7456	DC	P-O5'-C5'	5.56	129.79	120.90
1	AA	7828	DA	P-O5'-C5'	5.56	129.79	120.90
103	Bo	35	DG	O4'-C1'-C2'	-5.56	101.45	105.90
1	AA	4990	DA	P-O3'-C3'	5.56	126.37	119.70
133	CI	17	DT	O4'-C4'-C3'	-5.56	102.28	104.50
134	CJ	34	DA	C4'-C3'-C2'	-5.56	98.10	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1465	DA	O4'-C1'-C2'	-5.55	101.46	105.90
1	AA	2565	DA	O4'-C1'-C2'	-5.55	101.46	105.90
69	BG	23	DC	O4'-C1'-C2'	-5.55	101.46	105.90
103	Bo	32	DC	C4'-C3'-C2'	-5.55	98.10	103.10
1	AA	218	DG	C1'-O4'-C4'	-5.55	104.55	110.10
1	AA	7825	DT	O4'-C4'-C3'	-5.55	102.28	104.50
50	Ax	8	DT	C4'-C3'-C2'	-5.55	98.10	103.10
1	AA	830	DG	O4'-C1'-C2'	-5.55	101.46	105.90
8	AH	2	DG	O4'-C1'-C2'	-5.55	101.46	105.90
150	CZ	2	DG	O4'-C1'-C2'	-5.55	101.46	105.90
172	Cv	35	DT	P-O3'-C3'	5.55	126.36	119.70
1	AA	3464	DA	N1-C6-N6	-5.55	115.27	118.60
1	AA	4264	DT	O4'-C1'-C2'	-5.55	101.46	105.90
75	BM	18	DT	C1'-O4'-C4'	-5.55	104.55	110.10
102	Bn	2	DG	O4'-C1'-N9	5.55	111.88	108.00
166	Cp	1	DG	C8-N9-C1'	-5.55	119.78	127.00
1	AA	763	DC	O4'-C1'-C2'	-5.55	101.46	105.90
1	AA	5164	DG	C1'-O4'-C4'	-5.55	104.55	110.10
146	CV	13	DA	O4'-C4'-C3'	-5.55	102.28	104.50
200	DN	19	DC	C4'-C3'-C2'	-5.55	98.11	103.10
7	AG	23	DA	O4'-C1'-C2'	-5.55	101.46	105.90
198	DL	17	DA	N1-C6-N6	-5.55	115.27	118.60
206	DT	16	DG	O4'-C1'-C2'	-5.55	101.46	105.90
208	DV	22	DC	P-O3'-C3'	5.55	126.36	119.70
1	AA	2240	DT	O4'-C1'-C2'	-5.54	101.46	105.90
1	AA	7105	DA	P-O3'-C3'	5.54	126.35	119.70
1	AA	5533	DT	C4'-C3'-C2'	-5.54	98.11	103.10
1	AA	7105	DA	C1'-O4'-C4'	-5.54	104.56	110.10
1	AA	7878	DT	O4'-C4'-C3'	-5.54	102.28	104.50
55	A2	2	DA	O4'-C1'-C2'	-5.54	101.47	105.90
1	AA	996	DA	O4'-C1'-C2'	-5.54	101.47	105.90
1	AA	1370	DC	O4'-C1'-C2'	-5.54	101.47	105.90
1	AA	5146	DT	O4'-C1'-C2'	-5.54	101.47	105.90
1	AA	5256	DT	P-O3'-C3'	5.54	126.35	119.70
1	AA	59	DT	O4'-C4'-C3'	-5.54	102.28	104.50
1	AA	2895	DG	O4'-C1'-C2'	-5.54	101.47	105.90
1	AA	6891	DG	O4'-C1'-C2'	-5.54	101.47	105.90
7	AG	15	DA	C4'-C3'-C2'	-5.54	98.11	103.10
54	A1	23	DT	O4'-C1'-C2'	-5.54	101.47	105.90
68	BF	34	DG	O4'-C1'-C2'	-5.54	101.47	105.90
71	BI	35	DG	O4'-C1'-C2'	-5.54	101.47	105.90
1	AA	3718	DG	C1'-O4'-C4'	-5.54	104.56	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1133	DT	C4'-C3'-C2'	-5.54	98.12	103.10
1	AA	5380	DC	C1'-O4'-C4'	-5.54	104.56	110.10
4	AD	13	DG	N1-C6-O6	5.54	123.22	119.90
148	CX	23	DG	O4'-C1'-C2'	-5.54	101.47	105.90
1	AA	1788	DC	P-O3'-C3'	5.53	126.34	119.70
96	Bh	30	DA	N1-C6-N6	-5.53	115.28	118.60
113	By	15	DA	O4'-C1'-C2'	-5.53	101.47	105.90
122	B7	14	DA	O4'-C1'-C2'	-5.53	101.47	105.90
160	Cj	11	DA	O4'-C1'-C2'	-5.53	101.47	105.90
170	Ct	1	DG	C1'-O4'-C4'	-5.53	104.57	110.10
186	C9	23	DA	P-O3'-C3'	5.53	126.34	119.70
1	AA	7539	DG	P-O3'-C3'	5.53	126.34	119.70
1	AA	504	DG	O4'-C1'-N9	5.53	111.87	108.00
1	AA	3943	DT	C4'-C3'-C2'	-5.53	98.12	103.10
1	AA	5931	DG	O4'-C1'-C2'	-5.53	101.48	105.90
23	AW	53	DG	O4'-C1'-C2'	-5.53	101.48	105.90
23	AW	10	DA	C4'-C3'-C2'	-5.53	98.12	103.10
1	AA	791	DG	C4'-C3'-C2'	-5.53	98.13	103.10
1	AA	7351	DA	P-O3'-C3'	5.53	126.33	119.70
96	Bh	25	DC	C2-N1-C1'	5.53	124.88	118.80
167	Cq	9	DA	C1'-O4'-C4'	-5.53	104.57	110.10
177	C0	28	DG	O4'-C1'-C2'	-5.53	101.48	105.90
1	AA	159	DC	O4'-C1'-N1	5.53	111.87	108.00
1	AA	2825	DA	P-O3'-C3'	5.53	126.33	119.70
1	AA	5057	DG	O4'-C1'-N9	5.53	111.87	108.00
1	AA	7080	DA	P-O3'-C3'	5.53	126.33	119.70
1	AA	3215	DA	O4'-C1'-C2'	-5.52	101.48	105.90
1	AA	3532	DA	C1'-O4'-C4'	-5.52	104.58	110.10
1	AA	4225	DA	C4'-C3'-C2'	-5.52	98.13	103.10
1	AA	7617	DC	O4'-C4'-C3'	-5.52	102.29	104.50
31	Ae	7	DA	P-O3'-C3'	5.52	126.33	119.70
194	DH	10	DT	C4'-C3'-C2'	-5.52	98.13	103.10
194	DH	31	DT	C1'-O4'-C4'	-5.52	104.58	110.10
1	AA	952	DC	C4'-C3'-C2'	-5.52	98.13	103.10
19	AS	30	DC	C1'-O4'-C4'	-5.52	104.58	110.10
1	AA	1794	DT	C4'-C3'-C2'	-5.52	98.13	103.10
1	AA	3521	DC	O4'-C1'-C2'	-5.52	101.48	105.90
182	C5	37	DC	P-O5'-C5'	5.52	129.73	120.90
1	AA	6658	DG	O4'-C1'-C2'	-5.52	101.49	105.90
43	Aq	31	DC	O4'-C4'-C3'	-5.52	102.29	104.50
47	Au	37	DA	O4'-C1'-C2'	-5.52	101.48	105.90
49	Aw	17	DG	C1'-O4'-C4'	-5.52	104.58	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
110	Bv	18	DC	O4'-C1'-C2'	-5.52	101.49	105.90
116	B1	30	DA	C1'-O4'-C4'	-5.52	104.58	110.10
1	AA	582	DG	O4'-C1'-C2'	-5.52	101.49	105.90
1	AA	6271	DA	O4'-C1'-C2'	-5.51	101.49	105.90
138	CN	39	DA	P-O3'-C3'	5.51	126.32	119.70
1	AA	309	DT	C4'-C3'-C2'	-5.51	98.14	103.10
1	AA	2008	DC	C6-N1-C1'	-5.51	114.18	120.80
1	AA	3217	DT	C4'-C3'-C2'	-5.51	98.14	103.10
1	AA	559	DC	P-O3'-C3'	5.51	126.31	119.70
1	AA	575	DA	C1'-O4'-C4'	-5.51	104.59	110.10
1	AA	638	DG	O4'-C1'-C2'	-5.51	101.49	105.90
1	AA	4452	DC	C4'-C3'-C2'	-5.51	98.14	103.10
1	AA	7415	DG	C5-C6-O6	-5.51	125.29	128.60
114	Bz	15	DG	C1'-O4'-C4'	-5.51	104.59	110.10
174	Cx	21	DC	C4'-C3'-C2'	-5.51	98.14	103.10
1	AA	1945	DT	P-O3'-C3'	5.51	126.31	119.70
1	AA	2955	DG	N1-C6-O6	5.51	123.21	119.90
1	AA	6962	DT	O4'-C4'-C3'	-5.51	102.30	104.50
104	Bp	27	DA	N1-C6-N6	-5.51	115.29	118.60
138	CN	17	DC	O4'-C1'-C2'	-5.51	101.49	105.90
145	CU	31	DC	C1'-O4'-C4'	-5.51	104.59	110.10
1	AA	7467	DA	O4'-C1'-C2'	-5.51	101.49	105.90
1	AA	47	DA	C1'-O4'-C4'	-5.51	104.59	110.10
1	AA	520	DT	O4'-C4'-C3'	-5.51	102.30	104.50
182	C5	14	DA	O4'-C4'-C3'	-5.51	102.30	104.50
1	AA	1482	DC	O4'-C4'-C3'	-5.50	102.30	104.50
1	AA	3143	DA	O4'-C1'-C2'	-5.50	101.50	105.90
1	AA	6180	DA	O4'-C1'-C2'	-5.50	101.50	105.90
1	AA	7946	DG	O4'-C1'-C2'	-5.50	101.50	105.90
105	Bq	9	DA	C4'-C3'-C2'	-5.50	98.15	103.10
107	Bs	11	DT	C4'-C3'-C2'	-5.50	98.15	103.10
1	AA	1555	DG	O4'-C1'-C2'	-5.50	101.50	105.90
1	AA	1957	DC	O4'-C1'-N1	5.50	111.85	108.00
1	AA	2296	DA	O4'-C1'-C2'	-5.50	101.50	105.90
1	AA	3115	DC	C4'-C3'-C2'	-5.50	98.15	103.10
1	AA	3276	DT	O4'-C4'-C3'	-5.50	102.30	104.50
203	DQ	20	DG	C4'-C3'-C2'	-5.50	98.15	103.10
1	AA	530	DT	O4'-C4'-C3'	-5.50	102.30	104.50
1	AA	1400	DG	O4'-C1'-C2'	-5.50	101.50	105.90
1	AA	1992	DG	P-O3'-C3'	5.50	126.30	119.70
1	AA	2295	DA	O4'-C1'-C2'	-5.50	101.50	105.90
1	AA	2852	DA	C4'-C3'-C2'	-5.50	98.15	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	3020	DA	O4'-C1'-C2'	-5.50	101.50	105.90
1	AA	4493	DG	O4'-C1'-C2'	-5.50	101.50	105.90
1	AA	6075	DC	P-O5'-C5'	5.50	129.70	120.90
20	AT	7	DT	C1'-O4'-C4'	-5.50	104.60	110.10
148	CX	17	DG	O4'-C1'-C2'	-5.50	101.50	105.90
160	Cj	23	DC	O4'-C1'-C2'	-5.50	101.50	105.90
205	DS	42	DC	O4'-C1'-N1	-5.50	104.15	108.00
1	AA	6730	DC	C4'-C3'-C2'	-5.50	98.15	103.10
50	Ax	12	DA	P-O3'-C3'	5.50	126.30	119.70
141	CQ	6	DG	C4'-C3'-C2'	-5.50	98.15	103.10
142	CR	9	DC	O4'-C1'-N1	-5.50	104.15	108.00
208	DV	19	DG	C8-N9-C1'	-5.50	119.86	127.00
1	AA	4329	DC	P-O3'-C3'	5.50	126.29	119.70
91	Bc	5	DT	C1'-O4'-C4'	-5.50	104.61	110.10
1	AA	4107	DA	O4'-C1'-C2'	-5.49	101.50	105.90
63	BA	49	DC	O4'-C1'-N1	-5.49	104.16	108.00
84	BV	28	DC	C2-N1-C1'	5.49	124.84	118.80
1	AA	2264	DA	O4'-C1'-C2'	-5.49	101.51	105.90
1	AA	4565	DG	O4'-C1'-C2'	-5.49	101.51	105.90
137	CM	21	DT	C1'-O4'-C4'	-5.49	104.61	110.10
1	AA	1589	DC	O4'-C1'-C2'	-5.49	101.51	105.90
1	AA	2003	DG	O4'-C1'-C2'	-5.49	101.51	105.90
1	AA	3891	DT	C4'-C3'-C2'	-5.49	98.16	103.10
1	AA	4586	DG	O4'-C1'-N9	5.49	111.84	108.00
1	AA	7696	DC	C4'-C3'-C2'	-5.49	98.16	103.10
56	A3	1	DT	C1'-O4'-C4'	-5.49	104.61	110.10
208	DV	26	DG	O4'-C1'-N9	5.49	111.84	108.00
1	AA	1326	DT	P-O3'-C3'	5.49	126.29	119.70
1	AA	4808	DG	O4'-C4'-C3'	-5.49	102.31	104.50
1	AA	5307	DA	O4'-C1'-N9	-5.49	104.16	108.00
1	AA	5744	DA	C4'-C3'-C2'	-5.49	98.16	103.10
1	AA	6858	DG	C1'-O4'-C4'	-5.49	104.61	110.10
1	AA	7364	DG	O4'-C1'-N9	5.49	111.84	108.00
46	At	35	DC	C2-N1-C1'	5.49	124.84	118.80
100	Bl	15	DA	N1-C6-N6	-5.49	115.31	118.60
1	AA	1863	DA	C4'-C3'-C2'	-5.49	98.16	103.10
172	Cv	18	DT	C4'-C3'-C2'	-5.49	98.16	103.10
211	DY	27	DC	O4'-C1'-N1	-5.49	104.16	108.00
1	AA	2340	DA	O4'-C1'-N9	5.49	111.84	108.00
1	AA	4736	DG	C1'-O4'-C4'	-5.49	104.61	110.10
1	AA	5939	DT	C4'-C3'-C2'	-5.49	98.16	103.10
58	A5	27	DA	C1'-O4'-C4'	-5.49	104.61	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
137	CM	27	DG	C1'-O4'-C4'	-5.49	104.61	110.10
144	CT	15	DG	P-O3'-C3'	5.49	126.28	119.70
1	AA	4874	DG	O4'-C1'-C2'	-5.48	101.51	105.90
1	AA	8008	DC	C4'-C3'-C2'	-5.48	98.16	103.10
14	AN	30	DA	C4'-C3'-C2'	-5.48	98.16	103.10
170	Ct	39	DA	O4'-C1'-C2'	-5.48	101.51	105.90
1	AA	2430	DA	O4'-C1'-C2'	-5.48	101.51	105.90
1	AA	3937	DA	P-O3'-C3'	5.48	126.28	119.70
1	AA	4111	DA	O4'-C1'-C2'	-5.48	101.52	105.90
48	Av	16	DG	P-O3'-C3'	5.48	126.28	119.70
78	BP	28	DA	P-O3'-C3'	5.48	126.28	119.70
1	AA	4286	DA	N1-C6-N6	-5.48	115.31	118.60
1	AA	2066	DG	N1-C6-O6	5.48	123.19	119.90
1	AA	4524	DG	O4'-C1'-C2'	-5.48	101.52	105.90
156	Cf	19	DG	P-O3'-C3'	5.48	126.28	119.70
1	AA	3990	DA	C4'-C3'-C2'	-5.48	98.17	103.10
1	AA	5380	DC	O4'-C1'-C2'	-5.48	101.52	105.90
29	Ac	1	DG	P-O3'-C3'	5.48	126.27	119.70
53	A0	58	DG	O4'-C1'-C2'	-5.48	101.52	105.90
61	A8	26	DC	O4'-C1'-N1	5.48	111.83	108.00
111	Bw	8	DA	C4'-C3'-C2'	-5.48	98.17	103.10
1	AA	3688	DC	O4'-C1'-N1	5.47	111.83	108.00
1	AA	6609	DG	N1-C6-O6	5.47	123.19	119.90
1	AA	7557	DA	O4'-C1'-C2'	-5.47	101.52	105.90
121	B6	41	DC	C6-N1-C2	-5.47	118.11	120.30
139	CO	37	DG	O4'-C1'-N9	5.47	111.83	108.00
189	DC	10	DA	P-O3'-C3'	5.47	126.27	119.70
1	AA	1393	DC	C4'-C3'-C2'	-5.47	98.17	103.10
1	AA	1701	DG	O4'-C1'-C2'	-5.47	101.52	105.90
1	AA	4007	DT	O4'-C1'-C2'	-5.47	101.52	105.90
1	AA	7823	DC	O4'-C1'-C2'	-5.47	101.52	105.90
13	AM	34	DT	O4'-C1'-C2'	-5.47	101.52	105.90
82	BT	3	DG	P-O3'-C3'	5.47	126.27	119.70
82	BT	27	DG	O4'-C1'-C2'	-5.47	101.52	105.90
166	Cp	28	DC	C2-N1-C1'	5.47	124.82	118.80
1	AA	2741	DC	O4'-C1'-C2'	-5.47	101.52	105.90
1	AA	7631	DT	C4'-C3'-C2'	-5.47	98.18	103.10
32	Af	2	DC	C4'-C3'-C2'	-5.47	98.18	103.10
121	B6	30	DA	O4'-C1'-C2'	-5.47	101.52	105.90
211	DY	1	DG	C8-N9-C1'	-5.47	119.89	127.00
1	AA	1162	DA	C1'-O4'-C4'	-5.47	104.63	110.10
1	AA	2201	DA	O4'-C1'-C2'	-5.47	101.52	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	2672	DT	C4'-C3'-C2'	-5.47	98.18	103.10
1	AA	5100	DT	C4'-C3'-C2'	-5.47	98.18	103.10
1	AA	6424	DA	N1-C6-N6	-5.47	115.32	118.60
45	As	25	DT	C4'-C3'-C2'	-5.47	98.18	103.10
172	Cv	34	DC	O4'-C4'-C3'	-5.47	102.31	104.50
1	AA	55	DC	P-O5'-C5'	5.47	129.65	120.90
1	AA	2656	DG	C4'-C3'-C2'	-5.47	98.18	103.10
1	AA	2827	DT	C4'-C3'-C2'	-5.47	98.18	103.10
1	AA	3159	DT	O4'-C1'-C2'	-5.47	101.53	105.90
1	AA	3673	DA	C4'-C3'-C2'	-5.47	98.18	103.10
1	AA	4826	DG	O4'-C1'-C2'	-5.47	101.53	105.90
1	AA	5177	DT	C4'-C3'-C2'	-5.47	98.18	103.10
167	Cq	9	DA	O4'-C1'-N9	5.47	111.83	108.00
1	AA	3246	DC	O4'-C1'-C2'	-5.46	101.53	105.90
1	AA	4774	DG	P-O3'-C3'	5.46	126.26	119.70
27	Aa	32	DT	C6-C5-C7	-5.46	119.62	122.90
77	BO	5	DT	O4'-C1'-C2'	-5.46	101.53	105.90
138	CN	23	DG	O4'-C4'-C3'	-5.46	102.31	104.50
165	Co	30	DA	C1'-O4'-C4'	-5.46	104.64	110.10
1	AA	1978	DG	O4'-C1'-C2'	-5.46	101.53	105.90
123	B8	16	DA	P-O3'-C3'	5.46	126.26	119.70
1	AA	7266	DT	O4'-C1'-C2'	-5.46	101.53	105.90
1	AA	7761	DC	C4'-C3'-C2'	-5.46	98.19	103.10
210	DX	16	DG	P-O3'-C3'	5.46	126.25	119.70
1	AA	7970	DG	C5-C6-O6	-5.46	125.32	128.60
106	Br	6	DA	O4'-C4'-C3'	-5.46	102.32	104.50
1	AA	351	DG	O4'-C1'-C2'	-5.46	101.53	105.90
1	AA	1586	DT	O4'-C1'-N1	5.46	111.82	108.00
1	AA	5362	DG	O4'-C1'-C2'	-5.46	101.53	105.90
37	Ak	16	DG	P-O3'-C3'	5.46	126.25	119.70
113	By	12	DC	C6-N1-C2	-5.46	118.12	120.30
118	B3	28	DG	C5-C6-O6	-5.46	125.33	128.60
181	C4	25	DT	C4'-C3'-C2'	-5.46	98.19	103.10
190	DD	37	DG	O4'-C1'-C2'	-5.46	101.53	105.90
1	AA	4433	DG	C1'-O4'-C4'	-5.46	104.64	110.10
1	AA	4503	DG	O4'-C1'-C2'	-5.46	101.53	105.90
1	AA	4789	DT	C1'-O4'-C4'	-5.46	104.64	110.10
1	AA	7061	DA	C1'-O4'-C4'	-5.46	104.64	110.10
26	AZ	39	DA	C1'-O4'-C4'	-5.46	104.64	110.10
194	DH	27	DC	O4'-C1'-N1	-5.46	104.18	108.00
196	DJ	6	DA	C1'-O4'-C4'	-5.46	104.64	110.10
1	AA	142	DT	C4'-C3'-C2'	-5.46	98.19	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	5433	DC	C6-N1-C2	-5.45	118.12	120.30
1	AA	6491	DG	O4'-C4'-C3'	-5.45	102.32	104.50
72	BJ	26	DT	C4'-C3'-C2'	-5.45	98.19	103.10
130	CF	29	DT	O4'-C1'-C2'	-5.45	101.54	105.90
1	AA	1805	DA	P-O3'-C3'	5.45	126.24	119.70
1	AA	7889	DG	C1'-O4'-C4'	-5.45	104.65	110.10
1	AA	7897	DG	C4'-C3'-C2'	-5.45	98.19	103.10
58	A5	22	DA	N1-C6-N6	-5.45	115.33	118.60
128	CD	11	DT	C4'-C3'-C2'	-5.45	98.19	103.10
161	Ck	12	DT	C4'-C3'-C2'	-5.45	98.19	103.10
1	AA	653	DT	C4'-C3'-C2'	-5.45	98.19	103.10
1	AA	6248	DA	C4'-C3'-C2'	-5.45	98.19	103.10
1	AA	4214	DG	C1'-O4'-C4'	-5.45	104.65	110.10
1	AA	6068	DG	P-O3'-C3'	5.45	126.24	119.70
50	Ax	15	DC	O4'-C1'-C2'	-5.45	101.54	105.90
144	CT	35	DG	O4'-C1'-C2'	-5.45	101.54	105.90
200	DN	35	DG	C1'-O4'-C4'	-5.45	104.65	110.10
1	AA	8020	DA	P-O3'-C3'	5.45	126.24	119.70
1	AA	788	DC	C4'-C3'-C2'	-5.45	98.20	103.10
1	AA	4068	DG	O4'-C1'-C2'	-5.45	101.54	105.90
1	AA	4229	DC	P-O3'-C3'	5.45	126.24	119.70
1	AA	4648	DT	O4'-C1'-C2'	-5.45	101.54	105.90
175	Cy	37	DG	P-O3'-C3'	5.44	126.23	119.70
1	AA	149	DG	C1'-O4'-C4'	-5.44	104.66	110.10
1	AA	3002	DG	O4'-C1'-C2'	-5.44	101.55	105.90
1	AA	5906	DT	C4'-C3'-C2'	-5.44	98.20	103.10
1	AA	6632	DT	O4'-C1'-C2'	-5.44	101.55	105.90
150	CZ	14	DC	O4'-C1'-C2'	-5.44	101.55	105.90
1	AA	1827	DT	O4'-C1'-C2'	-5.44	101.55	105.90
1	AA	6888	DG	O4'-C1'-C2'	-5.44	101.55	105.90
1	AA	7564	DG	C4'-C3'-C2'	-5.44	98.20	103.10
18	AR	32	DG	O4'-C1'-C2'	-5.44	101.55	105.90
114	Bz	36	DG	C1'-O4'-C4'	-5.44	104.66	110.10
139	CO	7	DG	O4'-C1'-C2'	-5.44	101.55	105.90
152	Cb	48	DG	P-O3'-C3'	5.44	126.23	119.70
212	DZ	21	DA	C4'-C3'-C2'	-5.44	98.20	103.10
53	A0	40	DC	C4'-C3'-C2'	-5.44	98.20	103.10
1	AA	306	DG	O4'-C1'-C2'	-5.44	101.55	105.90
1	AA	4887	DT	C4'-C3'-C2'	-5.44	98.21	103.10
1	AA	8053	DG	O4'-C1'-C2'	-5.44	101.55	105.90
80	BR	13	DG	O4'-C4'-C3'	-5.44	102.33	104.50
151	Ca	31	DA	O4'-C1'-C2'	-5.44	101.55	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
167	Cq	14	DG	O4'-C1'-C2'	-5.44	101.55	105.90
169	Cs	38	DA	N1-C6-N6	-5.44	115.34	118.60
170	Ct	12	DG	N1-C6-O6	5.44	123.16	119.90
1	AA	4565	DG	C1'-O4'-C4'	-5.44	104.66	110.10
200	DN	5	DC	C4'-C3'-C2'	-5.44	98.21	103.10
1	AA	2733	DG	O4'-C1'-N9	5.43	111.80	108.00
1	AA	3041	DA	C4'-C3'-C2'	-5.43	98.21	103.10
14	AN	9	DA	P-O3'-C3'	5.43	126.22	119.70
14	AN	19	DA	O4'-C1'-C2'	-5.43	101.55	105.90
37	Ak	9	DG	O4'-C1'-C2'	-5.43	101.55	105.90
54	A1	16	DG	O4'-C1'-C2'	-5.43	101.55	105.90
67	BE	19	DG	O4'-C1'-C2'	-5.43	101.55	105.90
93	Be	30	DT	C1'-O4'-C4'	-5.43	104.67	110.10
102	Bn	16	DG	O4'-C1'-C2'	-5.43	101.55	105.90
198	DL	43	DT	P-O3'-C3'	5.43	126.22	119.70
1	AA	4052	DG	C5-C6-O6	-5.43	125.34	128.60
1	AA	4055	DA	N1-C6-N6	-5.43	115.34	118.60
58	A5	49	DT	P-O3'-C3'	5.43	126.22	119.70
94	Bf	13	DG	C4'-C3'-C2'	-5.43	98.21	103.10
172	Cv	11	DG	P-O3'-C3'	5.43	126.22	119.70
198	DL	13	DG	C4'-C3'-C2'	-5.43	98.21	103.10
207	DU	1	DC	O4'-C1'-N1	5.43	111.80	108.00
1	AA	86	DC	O4'-C1'-C2'	-5.43	101.56	105.90
1	AA	1126	DC	O4'-C1'-N1	5.43	111.80	108.00
1	AA	2895	DG	C1'-O4'-C4'	-5.43	104.67	110.10
1	AA	5505	DT	C4'-C3'-C2'	-5.43	98.21	103.10
1	AA	6486	DA	C4'-C3'-C2'	-5.43	98.21	103.10
18	AR	23	DG	O4'-C1'-C2'	-5.43	101.56	105.90
209	DW	9	DT	O4'-C1'-C2'	-5.43	101.56	105.90
169	Cs	1	DA	O4'-C4'-C3'	-5.43	102.33	104.50
177	C0	10	DC	O4'-C1'-C2'	-5.43	101.56	105.90
1	AA	1362	DA	O4'-C1'-C2'	-5.43	101.56	105.90
1	AA	4006	DT	P-O3'-C3'	5.43	126.21	119.70
1	AA	5647	DA	O4'-C1'-C2'	-5.43	101.56	105.90
1	AA	7304	DT	P-O3'-C3'	5.43	126.21	119.70
76	BN	25	DG	O4'-C1'-C2'	-5.43	101.56	105.90
1	AA	3397	DC	P-O3'-C3'	5.42	126.21	119.70
90	Bb	17	DT	C4'-C3'-C2'	-5.42	98.22	103.10
109	Bu	35	DA	O4'-C1'-C2'	-5.42	101.56	105.90
1	AA	3139	DA	P-O3'-C3'	5.42	126.21	119.70
142	CR	1	DG	C4'-C3'-C2'	-5.42	98.22	103.10
1	AA	852	DG	P-O3'-C3'	5.42	126.21	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	6036	DT	P-O3'-C3'	5.42	126.21	119.70
122	B7	19	DG	O4'-C1'-C2'	-5.42	101.56	105.90
197	DK	15	DG	C1'-O4'-C4'	-5.42	104.68	110.10
205	DS	17	DG	O4'-C1'-C2'	-5.42	101.56	105.90
1	AA	2633	DG	C1'-O4'-C4'	-5.42	104.68	110.10
1	AA	3066	DT	O4'-C1'-C2'	-5.42	101.56	105.90
1	AA	1647	DC	P-O3'-C3'	5.42	126.20	119.70
1	AA	4387	DA	O4'-C1'-C2'	-5.42	101.57	105.90
125	CA	30	DC	C1'-O4'-C4'	-5.42	104.68	110.10
142	CR	9	DC	O4'-C4'-C3'	-5.42	102.33	104.50
1	AA	1000	DT	C4'-C3'-C2'	-5.42	98.23	103.10
1	AA	3783	DG	O4'-C1'-C2'	-5.42	101.57	105.90
1	AA	5119	DT	O4'-C1'-C2'	-5.42	101.57	105.90
1	AA	6142	DT	O4'-C1'-C2'	-5.42	101.57	105.90
16	AP	3	DT	C4'-C3'-C2'	-5.42	98.23	103.10
110	Bv	15	DA	C1'-O4'-C4'	-5.42	104.69	110.10
173	Cw	23	DG	O4'-C1'-N9	5.42	111.79	108.00
1	AA	6047	DC	O4'-C4'-C3'	-5.41	102.33	104.50
28	Ab	1	DT	C1'-O4'-C4'	-5.41	104.69	110.10
54	A1	44	DG	P-O3'-C3'	5.41	126.19	119.70
129	CE	1	DA	O4'-C4'-C3'	-5.41	102.33	104.50
141	CQ	21	DT	C4'-C3'-C2'	-5.41	98.23	103.10
203	DQ	24	DG	C1'-O4'-C4'	-5.41	104.69	110.10
1	AA	1849	DT	C1'-O4'-C4'	-5.41	104.69	110.10
1	AA	4026	DA	P-O3'-C3'	5.41	126.19	119.70
1	AA	6355	DT	O4'-C4'-C3'	-5.41	102.33	104.50
84	BV	16	DT	O4'-C1'-C2'	-5.41	101.57	105.90
111	Bw	5	DA	C1'-O4'-C4'	-5.41	104.69	110.10
1	AA	1379	DT	C4'-C3'-C2'	-5.41	98.23	103.10
1	AA	2068	DT	C1'-O4'-C4'	-5.41	104.69	110.10
1	AA	4522	DC	P-O3'-C3'	5.41	126.19	119.70
1	AA	6107	DT	C4'-C3'-C2'	-5.41	98.23	103.10
34	Ah	31	DA	O4'-C1'-C2'	-5.41	101.57	105.90
1	AA	3408	DA	C4'-C3'-C2'	-5.41	98.23	103.10
8	AH	21	DA	P-O3'-C3'	5.41	126.19	119.70
66	BD	22	DA	N1-C6-N6	-5.41	115.36	118.60
67	BE	8	DT	O4'-C1'-N1	5.41	111.78	108.00
129	CE	16	DG	C1'-O4'-C4'	-5.41	104.69	110.10
185	C8	10	DT	C4'-C3'-C2'	-5.41	98.23	103.10
205	DS	12	DG	O4'-C1'-C2'	-5.41	101.57	105.90
206	DT	6	DG	P-O3'-C3'	5.41	126.19	119.70
1	AA	544	DG	O4'-C1'-C2'	-5.41	101.58	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
111	Bw	40	DA	C4'-C3'-C2'	-5.41	98.23	103.10
118	B3	16	DG	C4'-C3'-C2'	-5.41	98.23	103.10
175	Cy	20	DC	P-O5'-C5'	5.41	129.55	120.90
198	DL	17	DA	P-O3'-C3'	5.41	126.19	119.70
1	AA	5535	DA	O4'-C1'-C2'	-5.40	101.58	105.90
54	A1	23	DT	P-O3'-C3'	5.40	126.19	119.70
57	A4	31	DA	O4'-C1'-C2'	-5.40	101.58	105.90
178	C1	38	DG	O4'-C1'-C2'	-5.40	101.58	105.90
1	AA	2691	DT	O4'-C1'-C2'	-5.40	101.58	105.90
1	AA	4291	DT	C4'-C3'-C2'	-5.40	98.24	103.10
1	AA	5296	DA	O4'-C1'-C2'	-5.40	101.58	105.90
1	AA	7351	DA	O4'-C1'-N9	5.40	111.78	108.00
63	BA	1	DA	C4'-C3'-C2'	-5.40	98.24	103.10
145	CU	23	DA	P-O3'-C3'	5.40	126.18	119.70
179	C2	25	DA	C4'-C3'-C2'	-5.40	98.24	103.10
186	C9	21	DC	C6-N1-C2	-5.40	118.14	120.30
203	DQ	35	DT	C1'-O4'-C4'	-5.40	104.70	110.10
1	AA	677	DG	C1'-O4'-C4'	-5.40	104.70	110.10
1	AA	1853	DA	N1-C6-N6	-5.40	115.36	118.60
1	AA	2124	DT	O4'-C4'-C3'	-5.40	102.34	104.50
1	AA	7871	DT	P-O3'-C3'	5.40	126.18	119.70
139	CO	26	DG	N1-C6-O6	5.40	123.14	119.90
146	CV	28	DG	O4'-C1'-N9	5.40	111.78	108.00
1	AA	732	DC	C1'-O4'-C4'	-5.40	104.70	110.10
1	AA	1595	DC	C6-N1-C2	-5.40	118.14	120.30
1	AA	44	DT	O4'-C4'-C3'	-5.39	102.34	104.50
1	AA	3396	DC	O4'-C1'-C2'	-5.39	101.58	105.90
1	AA	6248	DA	O4'-C4'-C3'	-5.39	102.34	104.50
93	Be	5	DG	C4'-C3'-C2'	-5.39	98.25	103.10
167	Cq	30	DC	O4'-C1'-C2'	-5.39	101.58	105.90
1	AA	919	DC	C4'-C3'-C2'	-5.39	98.25	103.10
1	AA	1756	DC	C1'-O4'-C4'	-5.39	104.71	110.10
1	AA	2093	DG	C1'-O4'-C4'	-5.39	104.71	110.10
1	AA	4154	DC	C2-N1-C1'	5.39	124.73	118.80
5	AE	17	DC	C1'-O4'-C4'	-5.39	104.71	110.10
6	AF	43	DG	O4'-C1'-C2'	-5.39	101.59	105.90
1	AA	3608	DA	C1'-O4'-C4'	-5.39	104.71	110.10
1	AA	2326	DA	C4'-C3'-C2'	-5.39	98.25	103.10
74	BL	25	DG	O4'-C1'-C2'	-5.39	101.59	105.90
152	Cb	30	DT	C1'-O4'-C4'	-5.39	104.71	110.10
154	Cd	44	DC	C1'-O4'-C4'	-5.39	104.71	110.10
1	AA	828	DG	O4'-C4'-C3'	-5.39	102.34	104.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	2458	DA	O4'-C4'-C3'	-5.39	102.34	104.50
1	AA	4572	DA	N1-C6-N6	-5.39	115.37	118.60
1	AA	6235	DA	O4'-C1'-C2'	-5.39	101.59	105.90
77	BO	5	DT	P-O3'-C3'	5.39	126.17	119.70
1	AA	4524	DG	P-O3'-C3'	5.39	126.17	119.70
1	AA	6341	DC	O4'-C1'-N1	5.39	111.77	108.00
1	AA	7998	DT	P-O3'-C3'	5.39	126.17	119.70
3	AC	24	DG	P-O3'-C3'	5.39	126.16	119.70
1	AA	1759	DG	P-O3'-C3'	5.38	126.16	119.70
1	AA	4787	DG	P-O3'-C3'	5.38	126.16	119.70
1	AA	6473	DG	C1'-O4'-C4'	-5.38	104.72	110.10
31	Ae	13	DC	C6-N1-C2	-5.38	118.15	120.30
169	Cs	40	DT	C4'-C3'-C2'	-5.38	98.25	103.10
1	AA	1304	DA	O4'-C1'-C2'	-5.38	101.59	105.90
1	AA	2010	DT	C4'-C3'-C2'	-5.38	98.25	103.10
77	BO	9	DT	C4'-C3'-C2'	-5.38	98.26	103.10
1	AA	707	DG	O4'-C1'-C2'	-5.38	101.59	105.90
1	AA	2742	DT	O4'-C4'-C3'	-5.38	102.35	104.50
1	AA	4364	DA	C4'-C3'-C2'	-5.38	98.26	103.10
4	AD	3	DT	C1'-O4'-C4'	-5.38	104.72	110.10
118	B3	1	DT	O4'-C1'-C2'	-5.38	101.59	105.90
150	CZ	9	DG	O4'-C1'-C2'	-5.38	101.60	105.90
180	C3	48	DC	O4'-C1'-N1	5.38	111.77	108.00
1	AA	3575	DG	C1'-O4'-C4'	-5.38	104.72	110.10
1	AA	5243	DC	C1'-O4'-C4'	-5.38	104.72	110.10
1	AA	5957	DT	C4'-C3'-C2'	-5.38	98.26	103.10
72	BJ	20	DG	C1'-O4'-C4'	-5.38	104.72	110.10
193	DG	40	DT	P-O3'-C3'	5.38	126.16	119.70
1	AA	6352	DG	O4'-C1'-C2'	-5.38	101.60	105.90
1	AA	6569	DT	C4'-C3'-C2'	-5.38	98.26	103.10
44	Ar	9	DA	C1'-O4'-C4'	-5.38	104.72	110.10
68	BF	3	DA	O4'-C1'-C2'	-5.38	101.60	105.90
185	C8	31	DG	C1'-O4'-C4'	-5.38	104.72	110.10
1	AA	1160	DC	O4'-C1'-C2'	-5.38	101.60	105.90
1	AA	2633	DG	O4'-C4'-C3'	-5.38	102.35	104.50
1	AA	3873	DC	O4'-C4'-C3'	-5.38	102.35	104.50
76	BN	6	DG	C4'-C3'-C2'	-5.38	98.26	103.10
122	B7	2	DT	C4'-C3'-C2'	-5.38	98.26	103.10
208	DV	40	DA	O4'-C1'-N9	5.38	111.76	108.00
1	AA	1740	DT	C4'-C3'-C2'	-5.38	98.26	103.10
1	AA	1758	DG	O4'-C1'-C2'	-5.38	101.60	105.90
63	BA	35	DG	C1'-O4'-C4'	-5.37	104.73	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
101	Bm	23	DT	C1'-O4'-C4'	-5.37	104.73	110.10
128	CD	18	DC	C4'-C3'-C2'	-5.37	98.26	103.10
178	C1	38	DG	P-O3'-C3'	5.37	126.15	119.70
1	AA	165	DG	O4'-C1'-C2'	-5.37	101.60	105.90
1	AA	2075	DT	C4'-C3'-C2'	-5.37	98.27	103.10
1	AA	3515	DT	O4'-C4'-C3'	-5.37	102.35	104.50
1	AA	5053	DA	O4'-C4'-C3'	-5.37	102.35	104.50
1	AA	5652	DT	C4'-C3'-C2'	-5.37	98.27	103.10
26	AZ	42	DG	C4'-C3'-C2'	-5.37	98.27	103.10
130	CF	26	DA	N1-C6-N6	-5.37	115.38	118.60
144	CT	40	DA	P-O3'-C3'	5.37	126.15	119.70
1	AA	7302	DG	O4'-C1'-C2'	-5.37	101.60	105.90
98	Bj	14	DC	C6-N1-C2	-5.37	118.15	120.30
212	DZ	35	DC	P-O3'-C3'	5.37	126.14	119.70
1	AA	660	DG	O4'-C1'-C2'	-5.37	101.61	105.90
1	AA	4314	DC	O4'-C1'-C2'	-5.37	101.61	105.90
1	AA	5617	DA	O4'-C1'-C2'	-5.37	101.61	105.90
156	Cf	36	DT	C4'-C3'-C2'	-5.37	98.27	103.10
170	Ct	11	DG	P-O3'-C3'	5.37	126.14	119.70
195	DI	16	DA	O4'-C1'-C2'	-5.37	101.61	105.90
200	DN	9	DG	C1'-O4'-C4'	-5.37	104.73	110.10
1	AA	734	DG	C5-C6-O6	-5.37	125.38	128.60
1	AA	3885	DC	O4'-C1'-N1	5.37	111.76	108.00
1	AA	3916	DA	C1'-O4'-C4'	-5.37	104.73	110.10
1	AA	4913	DG	P-O3'-C3'	5.37	126.14	119.70
1	AA	7343	DC	P-O3'-C3'	5.37	126.14	119.70
75	BM	32	DC	C4'-C3'-C2'	-5.37	98.27	103.10
144	CT	11	DG	O4'-C1'-C2'	-5.37	101.61	105.90
1	AA	2066	DG	O4'-C4'-C3'	-5.36	102.35	104.50
207	DU	32	DA	P-O3'-C3'	5.36	126.14	119.70
1	AA	6167	DG	P-O3'-C3'	5.36	126.13	119.70
1	AA	7965	DA	C1'-O4'-C4'	-5.36	104.74	110.10
28	Ab	36	DG	O4'-C1'-C2'	-5.36	101.61	105.90
1	AA	540	DC	C4'-C3'-C2'	-5.36	98.28	103.10
1	AA	5871	DA	O4'-C1'-C2'	-5.36	101.61	105.90
1	AA	6564	DG	N1-C6-O6	5.36	123.12	119.90
1	AA	6799	DT	O4'-C4'-C3'	-5.36	102.36	104.50
110	Bv	15	DA	O4'-C4'-C3'	-5.36	102.36	104.50
155	Ce	20	DG	O4'-C1'-C2'	-5.36	101.61	105.90
1	AA	354	DC	O4'-C1'-C2'	-5.36	101.61	105.90
1	AA	5347	DG	C1'-O4'-C4'	-5.36	104.74	110.10
1	AA	6223	DA	N1-C6-N6	5.36	121.81	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
67	BE	24	DT	C1'-O4'-C4'	-5.36	104.74	110.10
83	BU	16	DG	C1'-O4'-C4'	-5.36	104.74	110.10
139	CO	26	DG	C5-C6-O6	-5.36	125.39	128.60
1	AA	2460	DA	P-O3'-C3'	5.36	126.13	119.70
1	AA	6320	DA	N1-C6-N6	-5.36	115.39	118.60
1	AA	7391	DG	C1'-O4'-C4'	-5.36	104.74	110.10
168	Cr	11	DG	O4'-C1'-C2'	-5.36	101.61	105.90
185	C8	9	DT	C4'-C3'-C2'	-5.36	98.28	103.10
1	AA	2260	DC	O4'-C1'-N1	5.36	111.75	108.00
1	AA	6842	DT	C4'-C3'-C2'	-5.36	98.28	103.10
3	AC	31	DA	N1-C6-N6	-5.36	115.39	118.60
71	BI	19	DG	O4'-C1'-C2'	-5.36	101.62	105.90
172	Cv	1	DT	C1'-O4'-C4'	-5.36	104.75	110.10
195	DI	13	DG	C1'-O4'-C4'	-5.36	104.75	110.10
39	Am	32	DT	C1'-O4'-C4'	-5.35	104.75	110.10
56	A3	29	DA	N1-C6-N6	-5.35	115.39	118.60
158	Ch	10	DT	P-O3'-C3'	5.35	126.12	119.70
124	B9	30	DT	O4'-C1'-C2'	-5.35	101.62	105.90
193	DG	34	DG	O4'-C4'-C3'	-5.35	102.36	104.50
56	A3	38	DA	O4'-C1'-C2'	-5.35	101.62	105.90
1	AA	2309	DC	C6-N1-C2	-5.35	118.16	120.30
1	AA	3861	DT	C4'-C3'-C2'	-5.35	98.28	103.10
1	AA	5903	DG	O4'-C1'-N9	5.35	111.74	108.00
79	BQ	37	DA	O4'-C1'-N9	-5.35	104.25	108.00
1	AA	1117	DC	O4'-C4'-C3'	-5.35	102.36	104.50
1	AA	1146	DT	C4'-C3'-C2'	-5.35	98.29	103.10
1	AA	5343	DT	O4'-C4'-C3'	-5.35	102.36	104.50
4	AD	49	DT	O4'-C1'-C2'	-5.35	101.62	105.90
36	Aj	28	DC	P-O5'-C5'	5.35	129.46	120.90
58	A5	32	DC	P-O3'-C3'	5.35	126.12	119.70
128	CD	30	DC	O4'-C1'-C2'	-5.35	101.62	105.90
1	AA	8038	DG	O4'-C1'-C2'	-5.35	101.62	105.90
46	At	17	DG	C4'-C3'-C2'	-5.35	98.29	103.10
1	AA	276	DA	C4'-C3'-C2'	-5.34	98.29	103.10
1	AA	895	DA	N1-C6-N6	-5.34	115.39	118.60
1	AA	2175	DA	C1'-O4'-C4'	-5.34	104.76	110.10
1	AA	2388	DA	O4'-C4'-C3'	-5.34	102.36	104.50
1	AA	2551	DA	C4'-C3'-C2'	-5.34	98.29	103.10
1	AA	6941	DT	C4'-C3'-C2'	-5.34	98.29	103.10
198	DL	34	DT	C6-C5-C7	-5.34	119.69	122.90
1	AA	5401	DG	O4'-C1'-C2'	-5.34	101.63	105.90
1	AA	5667	DG	O4'-C1'-C2'	-5.34	101.62	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	6718	DC	C4'-C3'-C2'	-5.34	98.29	103.10
1	AA	7206	DG	C1'-O4'-C4'	-5.34	104.76	110.10
188	DB	25	DG	O4'-C1'-C2'	-5.34	101.62	105.90
12	AL	13	DT	C4'-C3'-C2'	-5.34	98.29	103.10
107	Bs	13	DA	O4'-C1'-C2'	-5.34	101.63	105.90
124	B9	20	DC	P-O5'-C5'	5.34	129.45	120.90
174	Cx	21	DC	O4'-C4'-C3'	-5.34	102.36	104.50
1	AA	1435	DG	O4'-C1'-N9	5.34	111.74	108.00
1	AA	4544	DA	O4'-C1'-C2'	-5.34	101.63	105.90
1	AA	7358	DG	O4'-C4'-C3'	-5.34	102.36	104.50
162	Cl	34	DG	C1'-O4'-C4'	-5.34	104.76	110.10
189	DC	35	DG	O4'-C1'-C2'	-5.34	101.63	105.90
37	Ak	9	DG	C1'-O4'-C4'	-5.34	104.76	110.10
1	AA	3115	DC	O4'-C1'-N1	5.34	111.73	108.00
40	An	34	DT	P-O3'-C3'	5.34	126.10	119.70
1	AA	1878	DT	C4'-C3'-C2'	-5.33	98.30	103.10
1	AA	6864	DC	P-O3'-C3'	5.33	126.10	119.70
74	BL	30	DA	N1-C6-N6	-5.33	115.40	118.60
53	A0	17	DT	O4'-C4'-C3'	-5.33	102.37	104.50
71	BI	13	DA	C4'-C3'-C2'	-5.33	98.30	103.10
95	Bg	43	DG	C1'-O4'-C4'	-5.33	104.77	110.10
175	Cy	39	DG	P-O3'-C3'	5.33	126.10	119.70
1	AA	587	DG	C4'-C3'-C2'	-5.33	98.30	103.10
1	AA	1348	DG	O4'-C1'-C2'	-5.33	101.63	105.90
1	AA	6869	DA	O4'-C1'-C2'	-5.33	101.64	105.90
14	AN	26	DG	O4'-C1'-C2'	-5.33	101.63	105.90
95	Bg	43	DG	O4'-C1'-N9	5.33	111.73	108.00
1	AA	3345	DC	P-O5'-C5'	5.33	129.43	120.90
1	AA	7794	DG	O4'-C1'-C2'	-5.33	101.64	105.90
115	B0	18	DC	O4'-C1'-N1	5.33	111.73	108.00
123	B8	15	DC	C2-N1-C1'	5.33	124.66	118.80
141	CQ	30	DG	C4'-C3'-C2'	-5.33	98.30	103.10
158	Ch	6	DC	P-O5'-C5'	5.33	129.43	120.90
1	AA	5637	DT	C4'-C3'-C2'	-5.33	98.30	103.10
1	AA	6907	DC	P-O5'-C5'	5.33	129.43	120.90
1	AA	7081	DA	N1-C6-N6	-5.33	115.40	118.60
1	AA	105	DT	O4'-C4'-C3'	-5.33	102.37	104.50
1	AA	4184	DG	C1'-O4'-C4'	-5.33	104.77	110.10
1	AA	6995	DC	O4'-C1'-N1	5.33	111.73	108.00
145	CU	12	DC	C2-N1-C1'	5.33	124.66	118.80
1	AA	1149	DG	N1-C6-O6	5.33	123.09	119.90
1	AA	4187	DG	C1'-O4'-C4'	-5.33	104.77	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
136	CL	28	DG	O4'-C1'-C2'	-5.33	101.64	105.90
1	AA	3848	DG	C4'-C3'-C2'	-5.32	98.31	103.10
1	AA	6006	DA	C1'-O4'-C4'	-5.32	104.78	110.10
48	Av	16	DG	C3'-C2'-C1'	-5.32	96.11	102.50
58	A5	27	DA	P-O3'-C3'	5.32	126.09	119.70
136	CL	25	DA	C4'-C3'-C2'	-5.32	98.31	103.10
160	Cj	20	DC	C2-N1-C1'	5.32	124.66	118.80
1	AA	763	DC	P-O3'-C3'	5.32	126.09	119.70
29	Ac	4	DT	O4'-C1'-C2'	-5.32	101.64	105.90
1	AA	1697	DC	O4'-C1'-N1	-5.32	104.28	108.00
1	AA	3347	DG	O4'-C1'-C2'	-5.32	101.64	105.90
22	AV	29	DG	C1'-O4'-C4'	-5.32	104.78	110.10
180	C3	20	DG	C4'-C3'-C2'	-5.32	98.31	103.10
191	DE	31	DG	C4'-C3'-C2'	-5.32	98.31	103.10
43	Aq	11	DT	C4'-C3'-C2'	-5.32	98.31	103.10
161	Ck	30	DT	C1'-O4'-C4'	-5.32	104.78	110.10
163	Cm	19	DA	C1'-O4'-C4'	-5.32	104.78	110.10
1	AA	2100	DT	P-O3'-C3'	5.32	126.08	119.70
1	AA	5492	DA	O4'-C1'-C2'	-5.32	101.65	105.90
34	Ah	8	DC	O4'-C1'-C2'	-5.32	101.65	105.90
41	Ao	23	DA	O4'-C1'-C2'	-5.32	101.65	105.90
186	C9	47	DG	C1'-O4'-C4'	-5.32	104.78	110.10
1	AA	348	DA	O4'-C1'-C2'	-5.32	101.65	105.90
1	AA	575	DA	O4'-C1'-N9	5.32	111.72	108.00
1	AA	3962	DG	C5-C6-O6	-5.32	125.41	128.60
1	AA	7541	DT	O4'-C4'-C3'	-5.32	102.37	104.50
139	CO	19	DC	O4'-C1'-C2'	-5.32	101.65	105.90
1	AA	2593	DA	O4'-C4'-C3'	-5.31	102.37	104.50
116	B1	37	DG	P-O3'-C3'	5.31	126.08	119.70
1	AA	2134	DC	C4'-C3'-C2'	-5.31	98.32	103.10
1	AA	6799	DT	P-O3'-C3'	5.31	126.08	119.70
201	DO	25	DG	P-O5'-C5'	5.31	129.40	120.90
1	AA	1476	DG	O4'-C1'-C2'	-5.31	101.65	105.90
1	AA	3027	DT	O4'-C1'-C2'	-5.31	101.65	105.90
1	AA	5245	DT	O4'-C4'-C3'	-5.31	102.38	104.50
1	AA	7018	DC	O4'-C1'-C2'	-5.31	101.65	105.90
1	AA	1230	DC	P-O5'-C5'	5.31	129.39	120.90
1	AA	6094	DT	C4'-C3'-C2'	-5.31	98.32	103.10
1	AA	7477	DA	C4'-C3'-C2'	-5.31	98.32	103.10
81	BS	26	DT	C4'-C3'-C2'	-5.31	98.32	103.10
1	AA	2102	DC	C6-N1-C2	-5.31	118.18	120.30
46	At	3	DA	O4'-C1'-C2'	-5.31	101.66	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
162	Cl	7	DT	O4'-C1'-C2'	-5.31	101.66	105.90
169	Cs	35	DT	C4'-C3'-C2'	-5.31	98.32	103.10
1	AA	1534	DG	O4'-C1'-C2'	-5.30	101.66	105.90
1	AA	4883	DG	C1'-O4'-C4'	-5.30	104.80	110.10
1	AA	7411	DG	C1'-O4'-C4'	-5.30	104.80	110.10
1	AA	7499	DA	O4'-C1'-N9	-5.30	104.29	108.00
51	Ay	16	DA	O4'-C1'-C2'	-5.30	101.66	105.90
100	Bl	27	DG	O4'-C1'-C2'	-5.30	101.66	105.90
189	DC	27	DG	C4'-C3'-C2'	-5.30	98.33	103.10
1	AA	6128	DA	C1'-O4'-C4'	-5.30	104.80	110.10
1	AA	7364	DG	O4'-C1'-C2'	-5.30	101.66	105.90
1	AA	7818	DC	O4'-C1'-C2'	-5.30	101.66	105.90
202	DP	7	DG	C5-C6-O6	-5.30	125.42	128.60
204	DR	42	DG	C4'-C3'-C2'	-5.30	98.33	103.10
1	AA	383	DA	O4'-C1'-C2'	-5.30	101.66	105.90
1	AA	416	DT	O4'-C4'-C3'	-5.30	102.38	104.50
1	AA	1545	DG	O4'-C1'-N9	5.30	111.71	108.00
1	AA	2651	DG	O4'-C4'-C3'	-5.30	102.38	104.50
1	AA	6728	DA	C1'-O4'-C4'	-5.30	104.80	110.10
1	AA	6998	DA	O4'-C1'-C2'	-5.30	101.66	105.90
36	Aj	22	DC	C4'-C3'-C2'	-5.30	98.33	103.10
123	B8	20	DT	O4'-C4'-C3'	-5.30	102.38	104.50
149	CY	32	DA	O4'-C1'-C2'	-5.30	101.66	105.90
22	AV	32	DA	O4'-C1'-C2'	-5.30	101.66	105.90
94	Bf	4	DC	O4'-C4'-C3'	-5.30	102.38	104.50
112	Bx	13	DA	C4'-C3'-C2'	-5.30	98.33	103.10
198	DL	18	DC	O4'-C1'-N1	5.30	111.71	108.00
1	AA	3055	DA	P-O3'-C3'	5.30	126.06	119.70
1	AA	535	DA	O4'-C1'-C2'	-5.30	101.66	105.90
1	AA	7512	DA	C4'-C3'-C2'	-5.30	98.33	103.10
1	AA	7935	DC	C4'-C3'-C2'	-5.30	98.33	103.10
8	AH	37	DG	C1'-O4'-C4'	-5.30	104.80	110.10
63	BA	23	DA	P-O3'-C3'	5.30	126.06	119.70
67	BE	34	DA	C4'-C3'-C2'	-5.30	98.33	103.10
76	BN	10	DC	O4'-C1'-C2'	-5.30	101.66	105.90
1	AA	39	DG	O4'-C1'-C2'	-5.29	101.66	105.90
1	AA	4960	DT	C4'-C3'-C2'	-5.29	98.34	103.10
1	AA	5861	DC	O4'-C1'-C2'	-5.29	101.66	105.90
70	BH	8	DT	P-O3'-C3'	5.29	126.05	119.70
156	Cf	2	DT	O4'-C4'-C3'	-5.29	102.38	104.50
182	C5	9	DT	C4'-C3'-C2'	-5.29	98.34	103.10
88	BZ	28	DC	O4'-C1'-N1	-5.29	104.30	108.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
101	Bm	27	DC	C6-N1-C2	-5.29	118.18	120.30
101	Bm	31	DT	P-O3'-C3'	5.29	126.05	119.70
1	AA	4389	DA	O4'-C1'-C2'	-5.29	101.67	105.90
1	AA	7366	DC	P-O3'-C3'	5.29	126.05	119.70
11	AK	39	DG	O4'-C1'-C2'	-5.29	101.67	105.90
130	CF	28	DT	O4'-C1'-C2'	-5.29	101.67	105.90
136	CL	35	DA	O4'-C1'-C2'	-5.29	101.67	105.90
1	AA	748	DA	N1-C6-N6	-5.29	115.43	118.60
1	AA	2836	DA	O4'-C1'-C2'	-5.29	101.67	105.90
58	A5	23	DA	O4'-C1'-C2'	-5.29	101.67	105.90
104	Bp	14	DT	C4'-C3'-C2'	-5.29	98.34	103.10
139	CO	10	DA	P-O3'-C3'	5.29	126.05	119.70
180	C3	37	DA	O4'-C1'-C2'	-5.29	101.67	105.90
208	DV	1	DT	O4'-C1'-C2'	-5.29	101.67	105.90
1	AA	356	DG	O4'-C1'-C2'	-5.29	101.67	105.90
1	AA	3551	DT	O4'-C1'-C2'	-5.29	101.67	105.90
1	AA	5706	DA	O4'-C1'-C2'	-5.29	101.67	105.90
1	AA	7161	DT	O4'-C1'-C2'	-5.29	101.67	105.90
13	AM	4	DT	O4'-C1'-C2'	-5.29	101.67	105.90
157	Cg	9	DA	O4'-C1'-C2'	-5.29	101.67	105.90
191	DE	3	DG	P-O3'-C3'	5.29	126.04	119.70
1	AA	62	DT	C4'-C3'-C2'	-5.29	98.34	103.10
1	AA	3617	DA	O4'-C1'-C2'	-5.29	101.67	105.90
1	AA	3712	DG	O4'-C1'-C2'	-5.29	101.67	105.90
1	AA	4475	DT	C4'-C3'-C2'	-5.29	98.34	103.10
1	AA	4978	DT	O4'-C1'-N1	-5.29	104.30	108.00
1	AA	7061	DA	P-O3'-C3'	5.29	126.04	119.70
50	Ax	34	DC	C6-N1-C1'	-5.29	114.46	120.80
59	A6	43	DA	O4'-C1'-C2'	-5.29	101.67	105.90
143	CS	35	DG	C5-C6-O6	-5.29	125.43	128.60
205	DS	25	DG	C5-C6-O6	-5.29	125.43	128.60
1	AA	822	DG	O4'-C4'-C3'	-5.28	102.39	104.50
1	AA	3764	DT	C4'-C3'-C2'	-5.28	98.35	103.10
1	AA	4136	DC	O4'-C1'-N1	5.28	111.70	108.00
1	AA	7679	DC	O4'-C1'-C2'	-5.28	101.67	105.90
5	AE	28	DA	C1'-O4'-C4'	-5.28	104.82	110.10
18	AR	4	DG	C5-C6-O6	-5.28	125.43	128.60
108	Bt	28	DC	O4'-C1'-N1	-5.28	104.30	108.00
168	Cr	3	DC	C4'-C3'-C2'	-5.28	98.34	103.10
1	AA	1166	DC	O4'-C4'-C3'	-5.28	102.39	104.50
1	AA	7645	DT	O4'-C4'-C3'	-5.28	102.39	104.50
141	CQ	22	DG	P-O5'-C5'	5.28	129.35	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
143	CS	3	DT	C4'-C3'-C2'	-5.28	98.35	103.10
1	AA	2142	DT	C4'-C3'-C2'	-5.28	98.35	103.10
1	AA	2502	DC	P-O3'-C3'	5.28	126.03	119.70
37	Ak	11	DT	O4'-C1'-C2'	-5.28	101.68	105.90
165	Co	4	DA	P-O3'-C3'	5.28	126.04	119.70
208	DV	19	DG	C4-N9-C1'	5.28	133.36	126.50
1	AA	5216	DT	C4'-C3'-C2'	-5.28	98.35	103.10
120	B5	1	DA	C4'-C3'-C2'	-5.28	98.35	103.10
1	AA	2014	DT	O4'-C1'-N1	-5.28	104.31	108.00
1	AA	2776	DT	C4'-C3'-C2'	-5.28	98.35	103.10
1	AA	5134	DG	O4'-C1'-C2'	-5.28	101.68	105.90
1	AA	6500	DC	O4'-C1'-N1	5.28	111.69	108.00
23	AW	37	DA	P-O3'-C3'	5.28	126.03	119.70
1	AA	544	DG	P-O3'-C3'	5.28	126.03	119.70
1	AA	1418	DC	P-O3'-C3'	5.28	126.03	119.70
1	AA	7158	DA	N1-C6-N6	-5.28	115.44	118.60
2	AB	2	DT	P-O5'-C5'	-5.28	112.46	120.90
83	BU	16	DG	O4'-C1'-N9	5.28	111.69	108.00
1	AA	4669	DT	O4'-C1'-C2'	-5.27	101.68	105.90
175	Cy	23	DG	O4'-C1'-C2'	-5.27	101.68	105.90
1	AA	1260	DA	O4'-C1'-C2'	-5.27	101.68	105.90
1	AA	2000	DC	C6-N1-C2	-5.27	118.19	120.30
1	AA	3091	DG	O4'-C1'-C2'	-5.27	101.68	105.90
1	AA	5300	DC	O4'-C1'-N1	5.27	111.69	108.00
1	AA	7473	DT	C1'-O4'-C4'	-5.27	104.83	110.10
1	AA	7506	DT	C4'-C3'-C2'	-5.27	98.36	103.10
13	AM	18	DA	O4'-C1'-C2'	-5.27	101.68	105.90
41	Ao	24	DC	O4'-C1'-N1	5.27	111.69	108.00
56	A3	26	DA	C1'-O4'-C4'	-5.27	104.83	110.10
117	B2	38	DT	C1'-O4'-C4'	-5.27	104.83	110.10
204	DR	34	DG	O4'-C1'-C2'	-5.27	101.68	105.90
1	AA	3492	DG	O4'-C1'-C2'	-5.27	101.68	105.90
187	DA	40	DC	C4'-C3'-C2'	-5.27	98.36	103.10
1	AA	2801	DG	O4'-C1'-N9	5.27	111.69	108.00
1	AA	5042	DG	O4'-C4'-C3'	-5.27	102.39	104.50
18	AR	6	DA	O4'-C1'-C2'	-5.27	101.69	105.90
1	AA	1421	DA	O4'-C1'-N9	5.27	111.69	108.00
1	AA	3962	DG	P-O3'-C3'	5.27	126.02	119.70
1	AA	4458	DA	C1'-O4'-C4'	-5.27	104.83	110.10
9	AI	23	DA	P-O3'-C3'	5.27	126.02	119.70
62	A9	43	DG	P-O3'-C3'	5.27	126.02	119.70
110	Bv	11	DA	N1-C6-N6	-5.27	115.44	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1885	DT	C1'-O4'-C4'	-5.27	104.83	110.10
1	AA	2755	DG	P-O3'-C3'	5.27	126.02	119.70
1	AA	5045	DG	P-O3'-C3'	5.27	126.02	119.70
1	AA	6404	DT	C1'-O4'-C4'	-5.27	104.83	110.10
1	AA	325	DC	O4'-C1'-C2'	-5.26	101.69	105.90
1	AA	1302	DG	C1'-O4'-C4'	-5.26	104.83	110.10
1	AA	1450	DT	C4'-C3'-C2'	-5.26	98.36	103.10
1	AA	8034	DG	C1'-O4'-C4'	-5.26	104.84	110.10
46	At	37	DG	C1'-O4'-C4'	-5.26	104.83	110.10
112	Bx	4	DG	P-O3'-C3'	5.26	126.02	119.70
1	AA	5127	DC	O4'-C1'-N1	5.26	111.68	108.00
1	AA	6430	DT	C1'-O4'-C4'	-5.26	104.84	110.10
34	Ah	41	DG	O4'-C4'-C3'	-5.26	102.39	104.50
139	CO	30	DC	O4'-C1'-C2'	-5.26	101.69	105.90
1	AA	5629	DT	O4'-C1'-C2'	-5.26	101.69	105.90
86	BX	9	DG	P-O3'-C3'	5.26	126.01	119.70
166	Cp	22	DG	O4'-C1'-N9	5.26	111.68	108.00
193	DG	36	DA	C4'-C3'-C2'	-5.26	98.36	103.10
197	DK	4	DC	P-O3'-C3'	5.26	126.01	119.70
1	AA	2088	DG	O4'-C1'-C2'	-5.26	101.69	105.90
1	AA	2326	DA	O4'-C4'-C3'	-5.26	102.40	104.50
1	AA	4613	DG	O4'-C4'-C3'	-5.26	102.40	104.50
1	AA	5111	DC	C4'-C3'-C2'	-5.26	98.37	103.10
1	AA	7183	DC	P-O5'-C5'	5.26	129.31	120.90
1	AA	1281	DG	P-O3'-C3'	5.26	126.01	119.70
1	AA	2941	DG	O4'-C1'-C2'	-5.26	101.69	105.90
1	AA	7521	DC	O4'-C1'-N1	5.26	111.68	108.00
60	A7	7	DT	P-O3'-C3'	5.26	126.01	119.70
63	BA	10	DC	O4'-C1'-C2'	-5.26	101.69	105.90
80	BR	2	DT	O4'-C1'-C2'	-5.26	101.69	105.90
1	AA	5643	DT	C4'-C3'-C2'	-5.26	98.37	103.10
12	AL	26	DA	N1-C6-N6	-5.26	115.45	118.60
2	AB	20	DT	C4'-C3'-C2'	-5.25	98.37	103.10
52	Az	5	DT	C4'-C3'-C2'	-5.25	98.37	103.10
163	Cm	15	DG	C1'-O4'-C4'	-5.25	104.84	110.10
183	C6	17	DG	N1-C6-O6	5.25	123.05	119.90
1	AA	2912	DA	O4'-C4'-C3'	-5.25	102.40	104.50
1	AA	3160	DA	C1'-O4'-C4'	-5.25	104.85	110.10
1	AA	6533	DA	P-O3'-C3'	5.25	126.00	119.70
1	AA	7233	DG	O4'-C1'-C2'	-5.25	101.70	105.90
52	Az	9	DT	O4'-C1'-C2'	-5.25	101.70	105.90
96	Bh	42	DA	O4'-C1'-C2'	-5.25	101.70	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
106	Br	24	DG	C4'-C3'-C2'	-5.25	98.37	103.10
1	AA	1215	DT	C4'-C3'-C2'	-5.25	98.37	103.10
1	AA	3517	DT	C4'-C3'-C2'	-5.25	98.37	103.10
1	AA	6273	DA	P-O3'-C3'	5.25	126.00	119.70
4	AD	9	DG	O4'-C4'-C3'	-5.25	102.40	104.50
6	AF	23	DT	P-O3'-C3'	5.25	126.00	119.70
1	AA	168	DC	O4'-C1'-C2'	-5.25	101.70	105.90
1	AA	1468	DA	P-O3'-C3'	5.25	126.00	119.70
27	Aa	22	DA	O4'-C1'-C2'	-5.25	101.70	105.90
56	A3	28	DA	O4'-C1'-C2'	-5.25	101.70	105.90
1	AA	4300	DT	O4'-C4'-C3'	-5.25	102.40	104.50
1	AA	5323	DA	C1'-O4'-C4'	-5.25	104.85	110.10
1	AA	2989	DG	C5-C6-O6	-5.25	125.45	128.60
1	AA	4148	DG	O4'-C1'-C2'	-5.25	101.70	105.90
1	AA	5543	DA	P-O3'-C3'	5.25	126.00	119.70
60	A7	16	DG	C1'-O4'-C4'	-5.25	104.85	110.10
77	BO	13	DC	O4'-C1'-N1	-5.25	104.33	108.00
96	Bh	29	DT	P-O5'-C5'	5.25	129.29	120.90
1	AA	5639	DA	O4'-C1'-C2'	-5.25	101.70	105.90
1	AA	7734	DC	C1'-O4'-C4'	-5.25	104.86	110.10
64	BB	2	DA	O4'-C4'-C3'	-5.25	102.40	104.50
1	AA	3320	DG	O4'-C1'-C2'	-5.24	101.70	105.90
1	AA	4808	DG	C4'-C3'-C2'	-5.24	98.38	103.10
1	AA	680	DA	O4'-C1'-C2'	-5.24	101.71	105.90
1	AA	1587	DT	C4'-C3'-C2'	-5.24	98.38	103.10
1	AA	2519	DT	C4'-C3'-C2'	-5.24	98.38	103.10
1	AA	3856	DA	C4'-C3'-C2'	-5.24	98.38	103.10
1	AA	4226	DC	P-O5'-C5'	5.24	129.29	120.90
104	Bp	11	DA	O4'-C1'-C2'	-5.24	101.71	105.90
143	CS	37	DA	O4'-C1'-C2'	-5.24	101.71	105.90
175	Cy	13	DC	C4'-C3'-C2'	-5.24	98.38	103.10
200	DN	17	DC	C1'-O4'-C4'	-5.24	104.86	110.10
1	AA	2864	DC	C1'-O4'-C4'	-5.24	104.86	110.10
1	AA	3341	DG	O4'-C1'-C2'	-5.24	101.71	105.90
73	BK	3	DT	P-O3'-C3'	5.24	125.99	119.70
102	Bn	38	DG	C1'-O4'-C4'	-5.24	104.86	110.10
119	B4	7	DC	C2-N1-C1'	5.24	124.56	118.80
1	AA	5704	DT	C4'-C3'-C2'	-5.24	98.39	103.10
48	Av	35	DG	O4'-C1'-C2'	-5.24	101.71	105.90
67	BE	27	DG	N1-C6-O6	5.24	123.04	119.90
69	BG	27	DG	P-O3'-C3'	-5.24	113.42	119.70
113	By	30	DT	O4'-C1'-C2'	-5.24	101.71	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
117	B2	18	DG	C5-C6-O6	-5.24	125.46	128.60
117	B2	29	DT	C1'-O4'-C4'	-5.24	104.86	110.10
138	CN	16	DG	N1-C6-O6	5.24	123.04	119.90
1	AA	7617	DC	C4'-C3'-C2'	-5.23	98.39	103.10
21	AU	34	DA	C4'-C3'-C2'	-5.23	98.39	103.10
1	AA	603	DC	P-O3'-C3'	5.23	125.98	119.70
1	AA	2711	DT	C4'-C3'-C2'	-5.23	98.39	103.10
1	AA	2969	DT	O4'-C1'-C2'	-5.23	101.71	105.90
1	AA	3464	DA	C1'-O4'-C4'	-5.23	104.87	110.10
1	AA	6672	DT	C4'-C3'-C2'	-5.23	98.39	103.10
59	A6	29	DC	O4'-C1'-N1	5.23	111.66	108.00
71	BI	27	DT	C4'-C3'-C2'	-5.23	98.39	103.10
88	BZ	1	DC	O4'-C1'-N1	5.23	111.66	108.00
106	Br	38	DT	C4'-C3'-C2'	-5.23	98.39	103.10
33	Ag	1	DA	O4'-C1'-C2'	-5.23	101.72	105.90
168	Cr	23	DG	O4'-C1'-C2'	-5.23	101.72	105.90
1	AA	5816	DT	C6-C5-C7	-5.23	119.76	122.90
1	AA	3244	DG	N3-C2-N2	5.23	123.56	119.90
1	AA	5113	DT	O4'-C1'-C2'	-5.23	101.72	105.90
1	AA	7459	DA	O4'-C4'-C3'	-5.23	102.41	104.50
1	AA	8015	DA	C4'-C3'-C2'	-5.23	98.39	103.10
51	Ay	38	DC	P-O5'-C5'	5.23	129.26	120.90
54	A1	9	DT	O4'-C1'-C2'	-5.23	101.72	105.90
1	AA	2185	DA	O4'-C1'-C2'	-5.23	101.72	105.90
1	AA	2213	DC	P-O5'-C5'	5.23	129.26	120.90
121	B6	40	DG	O4'-C1'-C2'	-5.23	101.72	105.90
167	Cq	23	DG	O4'-C1'-N9	5.23	111.66	108.00
176	Cz	31	DA	O4'-C1'-C2'	-5.23	101.72	105.90
1	AA	1143	DT	O4'-C1'-C2'	-5.22	101.72	105.90
1	AA	5908	DA	O4'-C1'-C2'	-5.22	101.72	105.90
6	AF	34	DG	O4'-C1'-C2'	-5.22	101.72	105.90
166	Cp	30	DG	O4'-C1'-C2'	-5.22	101.72	105.90
1	AA	4610	DG	O4'-C1'-C2'	-5.22	101.72	105.90
1	AA	5822	DA	P-O3'-C3'	-5.22	113.43	119.70
144	CT	40	DA	O4'-C1'-C2'	-5.22	101.72	105.90
146	CV	9	DT	C1'-O4'-C4'	-5.22	104.88	110.10
22	AV	11	DA	O4'-C1'-C2'	-5.22	101.72	105.90
1	AA	1467	DT	C4'-C3'-C2'	-5.22	98.40	103.10
1	AA	2820	DG	P-O3'-C3'	5.22	125.96	119.70
1	AA	3654	DA	O4'-C1'-C2'	-5.22	101.72	105.90
1	AA	3665	DC	C1'-O4'-C4'	-5.22	104.88	110.10
1	AA	4222	DT	P-O3'-C3'	5.22	125.96	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	6222	DA	C4'-C3'-C2'	-5.22	98.40	103.10
134	CJ	4	DC	C6-N1-C2	-5.22	118.21	120.30
1	AA	5162	DC	O4'-C1'-C2'	-5.22	101.73	105.90
166	Cp	9	DA	C3'-C2'-C1'	-5.22	96.24	102.50
1	AA	656	DG	N1-C6-O6	5.22	123.03	119.90
1	AA	1832	DT	O4'-C1'-C2'	-5.22	101.73	105.90
1	AA	2193	DG	O4'-C1'-C2'	-5.22	101.73	105.90
1	AA	4776	DC	C4'-C3'-C2'	-5.22	98.40	103.10
53	A0	38	DC	C4'-C3'-C2'	-5.22	98.41	103.10
120	B5	16	DG	C1'-O4'-C4'	-5.22	104.88	110.10
133	CI	42	DG	C4'-C3'-C2'	-5.22	98.41	103.10
208	DV	27	DC	C4'-C3'-C2'	-5.22	98.40	103.10
1	AA	1028	DG	C1'-O4'-C4'	-5.21	104.89	110.10
1	AA	2779	DG	O4'-C1'-C2'	-5.21	101.73	105.90
1	AA	6708	DG	P-O3'-C3'	5.21	125.96	119.70
1	AA	7840	DA	P-O3'-C3'	5.21	125.96	119.70
1	AA	8061	DG	O4'-C1'-C2'	-5.21	101.73	105.90
77	BO	10	DA	N1-C6-N6	-5.21	115.47	118.60
114	Bz	34	DA	O4'-C1'-C2'	-5.21	101.73	105.90
146	CV	25	DG	C1'-O4'-C4'	-5.21	104.89	110.10
1	AA	3598	DT	C4'-C3'-C2'	-5.21	98.41	103.10
1	AA	3985	DA	C1'-O4'-C4'	-5.21	104.89	110.10
16	AP	16	DT	O4'-C1'-C2'	-5.21	101.73	105.90
1	AA	779	DT	C4'-C3'-C2'	-5.21	98.41	103.10
166	Cp	20	DC	P-O3'-C3'	5.21	125.95	119.70
1	AA	1025	DG	C5-C6-O6	-5.21	125.47	128.60
1	AA	4440	DA	C4'-C3'-C2'	-5.21	98.41	103.10
43	Aq	35	DC	C1'-O4'-C4'	-5.21	104.89	110.10
85	BW	22	DC	C6-N1-C2	-5.21	118.22	120.30
88	BZ	17	DC	O4'-C1'-C2'	-5.21	101.73	105.90
133	CI	17	DT	C4'-C3'-C2'	-5.21	98.41	103.10
168	Cr	49	DC	O4'-C1'-N1	-5.21	104.35	108.00
176	Cz	45	DG	C1'-O4'-C4'	-5.21	104.89	110.10
1	AA	255	DA	C1'-O4'-C4'	-5.21	104.89	110.10
1	AA	1522	DG	P-O3'-C3'	5.21	125.95	119.70
1	AA	4220	DA	N1-C6-N6	-5.21	115.48	118.60
1	AA	7832	DG	C4'-C3'-C2'	-5.21	98.42	103.10
3	AC	16	DC	O4'-C1'-C2'	-5.21	101.73	105.90
37	Ak	16	DG	O4'-C1'-C2'	-5.21	101.73	105.90
82	BT	21	DC	P-O3'-C3'	5.21	125.95	119.70
127	CC	1	DG	C1'-O4'-C4'	-5.21	104.89	110.10
184	C7	24	DG	O4'-C1'-C2'	-5.21	101.74	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
201	DO	42	DC	C6-N1-C1'	-5.21	114.55	120.80
1	AA	1548	DA	C1'-O4'-C4'	-5.21	104.89	110.10
127	CC	15	DG	O4'-C1'-C2'	-5.21	101.74	105.90
155	Ce	28	DT	O4'-C1'-C2'	-5.21	101.74	105.90
1	AA	973	DC	C4'-C3'-C2'	-5.20	98.42	103.10
1	AA	4597	DA	P-O3'-C3'	5.20	125.94	119.70
1	AA	5473	DA	C1'-O4'-C4'	-5.20	104.90	110.10
29	Ac	8	DG	O4'-C1'-C2'	-5.20	101.74	105.90
56	A3	39	DG	C1'-O4'-C4'	-5.20	104.90	110.10
84	BV	35	DG	C5-C6-O6	-5.20	125.48	128.60
1	AA	3944	DC	P-O3'-C3'	5.20	125.94	119.70
9	AI	3	DT	C4'-C3'-C2'	-5.20	98.42	103.10
102	Bn	56	DA	O4'-C1'-C2'	-5.20	101.74	105.90
1	AA	478	DA	N1-C6-N6	-5.20	115.48	118.60
1	AA	5786	DG	O4'-C1'-C2'	-5.20	101.74	105.90
153	Cc	9	DC	O4'-C1'-C2'	-5.20	101.74	105.90
1	AA	1691	DT	C4'-C3'-C2'	-5.20	98.42	103.10
1	AA	5065	DT	O4'-C1'-N1	5.20	111.64	108.00
1	AA	5868	DG	N1-C6-O6	5.20	123.02	119.90
17	AQ	35	DC	O4'-C1'-C2'	-5.20	101.74	105.90
36	Aj	12	DT	C4'-C3'-C2'	-5.20	98.42	103.10
58	A5	20	DC	P-O5'-C5'	5.20	129.22	120.90
67	BE	1	DT	C4'-C3'-C2'	-5.20	98.42	103.10
88	BZ	34	DC	O4'-C1'-C2'	-5.20	101.74	105.90
131	CG	39	DT	O4'-C1'-C2'	-5.20	101.74	105.90
182	C5	1	DA	C1'-O4'-C4'	-5.20	104.90	110.10
1	AA	2405	DT	C4'-C3'-C2'	-5.20	98.42	103.10
1	AA	4759	DT	O4'-C4'-C3'	-5.20	102.42	104.50
1	AA	6501	DT	P-O3'-C3'	5.20	125.94	119.70
126	CB	20	DT	O4'-C4'-C3'	-5.20	102.42	104.50
212	DZ	16	DA	O4'-C1'-C2'	-5.20	101.74	105.90
1	AA	1945	DT	O4'-C1'-C2'	-5.20	101.74	105.90
1	AA	3699	DT	O4'-C1'-C2'	-5.20	101.74	105.90
1	AA	3733	DA	O4'-C1'-C2'	-5.20	101.74	105.90
1	AA	4628	DG	O4'-C1'-C2'	-5.20	101.74	105.90
1	AA	5572	DC	C4'-C3'-C2'	-5.20	98.42	103.10
1	AA	7553	DG	O4'-C1'-C2'	-5.20	101.74	105.90
49	Aw	26	DG	O4'-C1'-C2'	-5.20	101.74	105.90
57	A4	16	DA	O4'-C1'-C2'	-5.20	101.74	105.90
73	BK	4	DC	C2-N1-C1'	5.20	124.51	118.80
166	Cp	1	DG	C4'-C3'-C2'	-5.20	98.42	103.10
1	AA	5954	DG	C1'-O4'-C4'	-5.19	104.91	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	6551	DG	C1'-O4'-C4'	-5.19	104.91	110.10
6	AF	20	DA	O4'-C1'-C2'	-5.19	101.75	105.90
25	AY	8	DT	P-O3'-C3'	5.19	125.93	119.70
95	Bg	35	DA	C4'-C3'-C2'	-5.19	98.42	103.10
169	Cs	1	DA	C4'-C3'-C2'	-5.19	98.43	103.10
1	AA	2221	DT	C4'-C3'-C2'	-5.19	98.43	103.10
1	AA	6400	DT	C1'-O4'-C4'	-5.19	104.91	110.10
9	AI	16	DG	O4'-C1'-N9	5.19	111.64	108.00
55	A2	1	DA	C1'-O4'-C4'	-5.19	104.91	110.10
90	Bb	34	DC	O4'-C1'-N1	5.19	111.64	108.00
188	DB	5	DC	C4'-C3'-C2'	-5.19	98.43	103.10
192	DF	22	DT	C1'-O4'-C4'	-5.19	104.91	110.10
1	AA	3302	DC	C2-N1-C1'	5.19	124.51	118.80
1	AA	6253	DA	O4'-C1'-C2'	-5.19	101.75	105.90
7	AG	44	DG	P-O3'-C3'	5.19	125.93	119.70
51	Ay	3	DT	C1'-O4'-C4'	-5.19	104.91	110.10
53	A0	26	DC	C6-N1-C2	-5.19	118.22	120.30
56	A3	14	DT	P-O5'-C5'	5.19	129.21	120.90
122	B7	28	DT	C4'-C3'-C2'	-5.19	98.43	103.10
193	DG	29	DG	O4'-C1'-N9	5.19	111.63	108.00
13	AM	31	DT	O4'-C4'-C3'	-5.19	102.42	104.50
91	Bc	25	DC	O4'-C1'-C2'	-5.19	101.75	105.90
1	AA	2789	DG	N1-C6-O6	5.19	123.01	119.90
1	AA	6653	DA	C1'-O4'-C4'	-5.19	104.91	110.10
1	AA	7671	DG	O4'-C1'-N9	5.19	111.63	108.00
53	A0	40	DC	O4'-C4'-C3'	-5.19	102.42	104.50
107	Bs	33	DA	P-O3'-C3'	5.19	125.93	119.70
116	B1	30	DA	N1-C6-N6	-5.19	115.49	118.60
143	CS	35	DG	N1-C6-O6	5.19	123.01	119.90
1	AA	3746	DC	C6-N1-C2	-5.19	118.22	120.30
1	AA	6796	DT	C4'-C3'-C2'	-5.19	98.43	103.10
48	Av	23	DG	P-O3'-C3'	5.19	125.92	119.70
1	AA	2810	DA	O4'-C1'-C2'	-5.18	101.75	105.90
1	AA	4409	DG	C1'-O4'-C4'	-5.18	104.92	110.10
1	AA	5132	DA	O4'-C1'-C2'	-5.18	101.75	105.90
1	AA	5509	DG	C5-C6-O6	-5.18	125.49	128.60
1	AA	7767	DG	C1'-O4'-C4'	-5.18	104.92	110.10
4	AD	3	DT	O4'-C4'-C3'	-5.18	102.43	104.50
28	Ab	34	DA	P-O3'-C3'	5.18	125.92	119.70
150	CZ	26	DA	C4'-C3'-C2'	-5.18	98.43	103.10
1	AA	2742	DT	C4'-C3'-C2'	-5.18	98.44	103.10
1	AA	3093	DT	C1'-O4'-C4'	-5.18	104.92	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	5903	DG	C1'-O4'-C4'	-5.18	104.92	110.10
1	AA	7514	DC	P-O3'-C3'	5.18	125.92	119.70
1	AA	7956	DT	C4'-C3'-C2'	-5.18	98.44	103.10
31	Ae	8	DA	C4'-C3'-C2'	-5.18	98.44	103.10
155	Ce	8	DT	C4'-C3'-C2'	-5.18	98.44	103.10
178	C1	16	DA	O4'-C1'-C2'	-5.18	101.75	105.90
134	CJ	19	DC	C2-N1-C1'	5.18	124.50	118.80
45	As	22	DA	C4'-C3'-C2'	-5.18	98.44	103.10
53	A0	5	DA	O4'-C1'-C2'	-5.18	101.76	105.90
54	A1	37	DT	C3'-C2'-C1'	-5.18	96.28	102.50
100	Bl	1	DT	P-O3'-C3'	5.18	125.91	119.70
172	Cv	24	DT	O4'-C1'-C2'	-5.18	101.76	105.90
185	C8	8	DT	O4'-C1'-C2'	-5.18	101.76	105.90
199	DM	17	DA	O4'-C1'-C2'	-5.18	101.76	105.90
1	AA	1484	DC	C4'-C3'-C2'	-5.18	98.44	103.10
1	AA	7249	DG	P-O3'-C3'	5.18	125.91	119.70
11	AK	30	DC	C1'-O4'-C4'	-5.18	104.92	110.10
78	BP	11	DT	C4'-C3'-C2'	-5.18	98.44	103.10
121	B6	2	DT	C1'-O4'-C4'	-5.18	104.92	110.10
168	Cr	8	DG	N1-C6-O6	5.18	123.01	119.90
1	AA	1490	DG	C4'-C3'-C2'	-5.18	98.44	103.10
1	AA	5173	DG	O4'-C1'-C2'	-5.18	101.76	105.90
1	AA	7501	DG	O4'-C1'-C2'	-5.18	101.76	105.90
9	AI	9	DG	O4'-C1'-C2'	-5.18	101.76	105.90
21	AU	42	DA	O4'-C1'-C2'	-5.18	101.76	105.90
81	BS	24	DA	C1'-O4'-C4'	-5.18	104.92	110.10
132	CH	26	DA	C4'-C3'-C2'	-5.18	98.44	103.10
1	AA	5219	DG	O4'-C1'-C2'	-5.17	101.76	105.90
1	AA	5252	DG	N1-C6-O6	5.17	123.00	119.90
192	DF	21	DC	P-O3'-C3'	5.17	125.91	119.70
1	AA	4572	DA	O4'-C1'-C2'	-5.17	101.76	105.90
1	AA	4613	DG	C1'-O4'-C4'	-5.17	104.93	110.10
1	AA	5687	DG	O4'-C1'-N9	5.17	111.62	108.00
30	Ad	31	DG	O4'-C1'-C2'	-5.17	101.76	105.90
133	CI	31	DA	O4'-C1'-C2'	-5.17	101.76	105.90
1	AA	927	DG	C4'-C3'-C2'	-5.17	98.45	103.10
1	AA	1603	DG	C1'-O4'-C4'	-5.17	104.93	110.10
1	AA	1769	DC	O4'-C1'-N1	5.17	111.62	108.00
1	AA	2677	DC	C4'-C3'-C2'	-5.17	98.44	103.10
1	AA	5270	DT	C4'-C3'-C2'	-5.17	98.45	103.10
1	AA	6636	DC	C1'-O4'-C4'	-5.17	104.93	110.10
1	AA	6853	DT	O4'-C1'-C2'	-5.17	101.76	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
197	DK	11	DG	C5-C6-O6	-5.17	125.50	128.60
212	DZ	1	DG	C4'-C3'-C2'	-5.17	98.44	103.10
28	Ab	19	DA	O4'-C1'-C2'	-5.17	101.76	105.90
1	AA	37	DA	N1-C6-N6	-5.17	115.50	118.60
1	AA	1421	DA	C1'-O4'-C4'	-5.17	104.93	110.10
1	AA	2417	DG	C5-C6-O6	-5.17	125.50	128.60
1	AA	2672	DT	O4'-C4'-C3'	-5.17	102.43	104.50
1	AA	5180	DT	C4'-C3'-C2'	-5.17	98.45	103.10
1	AA	7379	DG	O4'-C4'-C3'	-5.17	102.43	104.50
38	Al	1	DG	C4'-C3'-C2'	-5.17	98.45	103.10
93	Be	1	DA	O4'-C4'-C3'	-5.17	102.43	104.50
134	CJ	23	DG	C4'-C3'-C2'	-5.17	98.45	103.10
185	C8	8	DT	O4'-C1'-N1	5.17	111.62	108.00
1	AA	32	DA	O4'-C1'-C2'	-5.17	101.77	105.90
1	AA	854	DG	N1-C6-O6	5.17	123.00	119.90
1	AA	3408	DA	O4'-C4'-C3'	-5.17	102.43	104.50
1	AA	2435	DT	O4'-C4'-C3'	-5.17	102.43	104.50
1	AA	7415	DG	N1-C6-O6	5.17	123.00	119.90
16	AP	36	DG	C4'-C3'-C2'	-5.17	98.45	103.10
50	Ax	17	DC	C4'-C3'-C2'	-5.17	98.45	103.10
139	CO	2	DG	C1'-O4'-C4'	-5.17	104.94	110.10
161	Ck	3	DT	O4'-C1'-C2'	-5.17	101.77	105.90
197	DK	3	DA	C4'-C3'-C2'	-5.17	98.45	103.10
1	AA	211	DC	C6-N1-C2	-5.16	118.23	120.30
1	AA	862	DT	O4'-C1'-C2'	-5.16	101.77	105.90
1	AA	2313	DT	C4'-C3'-C2'	-5.16	98.45	103.10
1	AA	3262	DG	C4'-C3'-C2'	-5.16	98.45	103.10
1	AA	8034	DG	O4'-C1'-C2'	-5.16	101.77	105.90
135	CK	25	DC	O4'-C1'-C2'	-5.16	101.77	105.90
1	AA	1817	DT	C4'-C3'-C2'	-5.16	98.45	103.10
1	AA	3480	DA	O4'-C1'-N9	5.16	111.61	108.00
1	AA	4665	DA	N1-C6-N6	-5.16	115.50	118.60
1	AA	5576	DA	C1'-O4'-C4'	-5.16	104.94	110.10
161	Ck	10	DC	O4'-C1'-N1	5.16	111.61	108.00
1	AA	1440	DA	O4'-C1'-C2'	-5.16	101.77	105.90
14	AN	9	DA	O4'-C1'-C2'	-5.16	101.77	105.90
154	Cd	21	DA	C4'-C3'-C2'	-5.16	98.46	103.10
1	AA	1667	DA	P-O3'-C3'	5.16	125.89	119.70
50	Ax	12	DA	O4'-C1'-C2'	-5.16	101.77	105.90
60	A7	10	DC	O4'-C1'-C2'	-5.16	101.77	105.90
117	B2	17	DA	N1-C6-N6	5.16	121.69	118.60
1	AA	6638	DT	C4'-C3'-C2'	-5.16	98.46	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
9	AI	38	DG	O4'-C1'-C2'	-5.16	101.78	105.90
1	AA	717	DG	P-O3'-C3'	5.16	125.89	119.70
1	AA	2181	DT	C4'-C3'-C2'	-5.16	98.46	103.10
1	AA	4415	DA	P-O3'-C3'	-5.16	113.51	119.70
39	Am	14	DT	C4'-C3'-C2'	-5.16	98.46	103.10
75	BM	18	DT	C6-C5-C7	-5.16	119.81	122.90
84	BV	26	DA	C1'-O4'-C4'	-5.16	104.94	110.10
150	CZ	4	DC	P-O3'-C3'	5.16	125.89	119.70
156	Cf	27	DG	O4'-C1'-C2'	-5.16	101.78	105.90
167	Cq	10	DT	C4'-C3'-C2'	-5.16	98.46	103.10
195	DI	22	DG	C1'-O4'-C4'	-5.16	104.94	110.10
1	AA	1650	DC	P-O5'-C5'	5.15	129.15	120.90
1	AA	656	DG	C5-C6-O6	-5.15	125.51	128.60
1	AA	1492	DC	C6-N1-C2	-5.15	118.24	120.30
1	AA	1773	DA	C4'-C3'-C2'	-5.15	98.46	103.10
86	BX	8	DC	O4'-C1'-N1	5.15	111.61	108.00
1	AA	3243	DA	O4'-C1'-C2'	-5.15	101.78	105.90
4	AD	13	DG	C5-C6-O6	-5.15	125.51	128.60
19	AS	39	DA	C4'-C3'-C2'	-5.15	98.46	103.10
55	A2	5	DG	N1-C6-O6	5.15	122.99	119.90
1	AA	1686	DG	O4'-C1'-N9	5.15	111.60	108.00
1	AA	6273	DA	O4'-C1'-C2'	-5.15	101.78	105.90
11	AK	28	DC	C2-N1-C1'	5.15	124.46	118.80
32	Af	2	DC	C6-N1-C2	-5.15	118.24	120.30
1	AA	4550	DG	C1'-O4'-C4'	-5.15	104.95	110.10
1	AA	7638	DG	O4'-C1'-C2'	-5.15	101.78	105.90
16	AP	11	DT	C1'-O4'-C4'	-5.15	104.95	110.10
74	BL	1	DT	O4'-C1'-C2'	-5.15	101.78	105.90
99	Bk	37	DA	C3'-C2'-C1'	-5.15	96.32	102.50
195	DI	14	DA	P-O3'-C3'	5.15	125.88	119.70
1	AA	2309	DC	O4'-C1'-C2'	-5.15	101.78	105.90
1	AA	6504	DC	C4'-C3'-C2'	-5.15	98.47	103.10
24	AX	30	DA	O4'-C1'-C2'	-5.15	101.78	105.90
88	BZ	33	DG	O4'-C1'-C2'	-5.15	101.78	105.90
1	AA	2646	DG	O4'-C1'-C2'	-5.14	101.78	105.90
1	AA	6036	DT	O4'-C1'-C2'	-5.14	101.78	105.90
128	CD	1	DA	P-O3'-C3'	5.14	125.87	119.70
149	CY	9	DA	O4'-C1'-C2'	-5.14	101.78	105.90
1	AA	979	DC	O4'-C1'-N1	5.14	111.60	108.00
1	AA	3440	DG	C5-C6-O6	-5.14	125.52	128.60
1	AA	6985	DT	O4'-C1'-N1	5.14	111.60	108.00
1	AA	7288	DG	C3'-C2'-C1'	-5.14	96.33	102.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	7559	DT	O4'-C1'-C2'	-5.14	101.79	105.90
1	AA	8059	DT	O4'-C4'-C3'	-5.14	102.44	104.50
17	AQ	27	DA	O4'-C1'-C2'	-5.14	101.79	105.90
33	Ag	2	DG	O4'-C1'-C2'	-5.14	101.79	105.90
1	AA	1725	DG	O4'-C1'-C2'	-5.14	101.79	105.90
1	AA	3424	DT	O4'-C1'-N1	5.14	111.60	108.00
1	AA	8056	DC	O4'-C1'-N1	5.14	111.60	108.00
63	BA	48	DA	C5-C6-N6	5.14	127.81	123.70
99	Bk	28	DG	P-O3'-C3'	-5.14	113.53	119.70
1	AA	5951	DG	C5-C6-O6	-5.14	125.52	128.60
1	AA	6705	DA	C1'-O4'-C4'	-5.14	104.96	110.10
59	A6	1	DT	C4'-C3'-C2'	-5.14	98.47	103.10
66	BD	20	DA	O4'-C1'-C2'	-5.14	101.79	105.90
71	BI	33	DG	O4'-C1'-C2'	-5.14	101.79	105.90
138	CN	26	DT	C1'-O4'-C4'	-5.14	104.96	110.10
155	Ce	14	DG	C5-C6-O6	-5.14	125.52	128.60
175	Cy	23	DG	P-O3'-C3'	5.14	125.87	119.70
212	DZ	18	DA	N1-C6-N6	-5.14	115.52	118.60
1	AA	3033	DA	O4'-C1'-N9	5.14	111.60	108.00
73	BK	11	DC	P-O3'-C3'	5.14	125.87	119.70
199	DM	12	DT	C1'-O4'-C4'	-5.14	104.96	110.10
1	AA	930	DG	C1'-O4'-C4'	-5.14	104.96	110.10
1	AA	1305	DC	C2-N1-C1'	5.14	124.45	118.80
1	AA	4093	DA	C1'-O4'-C4'	-5.14	104.96	110.10
1	AA	5527	DG	O4'-C1'-C2'	-5.14	101.79	105.90
7	AG	24	DG	C1'-O4'-C4'	-5.14	104.96	110.10
136	CL	35	DA	P-O3'-C3'	5.14	125.86	119.70
138	CN	7	DC	C2-N1-C1'	5.14	124.45	118.80
150	CZ	29	DG	C2-N3-C4	5.14	114.47	111.90
186	C9	11	DT	C4'-C3'-C2'	-5.14	98.48	103.10
188	DB	31	DC	O4'-C1'-N1	5.14	111.60	108.00
1	AA	262	DC	C4'-C3'-C2'	-5.13	98.48	103.10
1	AA	7086	DA	C1'-O4'-C4'	-5.13	104.97	110.10
8	AH	41	DC	C4'-C3'-C2'	-5.13	98.48	103.10
124	B9	12	DG	O4'-C1'-C2'	-5.13	101.79	105.90
1	AA	825	DA	C4'-C3'-C2'	-5.13	98.48	103.10
1	AA	2674	DA	C1'-O4'-C4'	-5.13	104.97	110.10
1	AA	3251	DT	C4'-C3'-C2'	-5.13	98.48	103.10
96	Bh	1	DA	C4'-C3'-C2'	-5.13	98.48	103.10
1	AA	3959	DT	P-O3'-C3'	5.13	125.86	119.70
1	AA	4654	DT	C4'-C3'-C2'	-5.13	98.48	103.10
1	AA	5488	DC	C4'-C3'-C2'	-5.13	98.48	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
9	AI	19	DA	P-O3'-C3'	5.13	125.86	119.70
88	BZ	27	DT	C4'-C3'-C2'	-5.13	98.48	103.10
171	Cu	27	DA	O4'-C1'-C2'	-5.13	101.80	105.90
1	AA	4169	DG	O4'-C1'-C2'	-5.13	101.80	105.90
1	AA	6113	DG	C1'-O4'-C4'	-5.13	104.97	110.10
1	AA	6491	DG	C1'-O4'-C4'	-5.13	104.97	110.10
1	AA	7366	DC	O4'-C1'-C2'	-5.13	101.80	105.90
110	Bv	28	DT	C1'-O4'-C4'	-5.13	104.97	110.10
1	AA	112	DT	O4'-C4'-C3'	-5.13	102.45	104.50
1	AA	295	DG	N1-C6-O6	5.13	122.98	119.90
1	AA	400	DC	P-O3'-C3'	5.13	125.85	119.70
1	AA	2214	DG	C1'-O4'-C4'	-5.13	104.97	110.10
1	AA	8025	DA	C4'-C3'-C2'	-5.13	98.48	103.10
208	DV	13	DC	P-O3'-C3'	5.13	125.86	119.70
1	AA	598	DC	O4'-C1'-C2'	-5.13	101.80	105.90
1	AA	1951	DG	P-O3'-C3'	5.13	125.85	119.70
1	AA	4706	DT	C1'-O4'-C4'	-5.13	104.97	110.10
1	AA	5660	DG	O4'-C1'-C2'	-5.13	101.80	105.90
1	AA	6047	DC	C1'-O4'-C4'	-5.13	104.97	110.10
93	Be	9	DA	C1'-O4'-C4'	-5.13	104.97	110.10
186	C9	21	DC	O4'-C1'-N1	5.13	111.59	108.00
1	AA	146	DA	P-O3'-C3'	5.12	125.85	119.70
1	AA	2044	DG	C5-C6-O6	-5.12	125.53	128.60
1	AA	4903	DT	C4'-C3'-C2'	-5.12	98.49	103.10
1	AA	5286	DT	C4'-C3'-C2'	-5.12	98.49	103.10
39	Am	21	DA	O4'-C1'-N9	5.12	111.59	108.00
63	BA	39	DA	P-O3'-C3'	5.12	125.85	119.70
1	AA	580	DC	C2-N1-C1'	5.12	124.44	118.80
1	AA	5547	DG	N1-C6-O6	5.12	122.97	119.90
3	AC	22	DG	C4'-C3'-C2'	-5.12	98.49	103.10
16	AP	23	DA	O4'-C1'-C2'	-5.12	101.80	105.90
80	BR	28	DA	O4'-C1'-N9	5.12	111.59	108.00
139	CO	23	DA	O4'-C1'-C2'	-5.12	101.80	105.90
1	AA	1078	DT	C4'-C3'-C2'	-5.12	98.49	103.10
1	AA	2007	DG	O4'-C4'-C3'	-5.12	102.45	104.50
1	AA	2499	DC	O4'-C4'-C3'	-5.12	102.45	104.50
1	AA	3440	DG	C1'-O4'-C4'	-5.12	104.98	110.10
1	AA	4713	DG	C1'-O4'-C4'	-5.12	104.98	110.10
1	AA	5905	DC	P-O3'-C3'	5.12	125.85	119.70
1	AA	5938	DA	O4'-C1'-C2'	-5.12	101.80	105.90
1	AA	7094	DT	O4'-C1'-C2'	-5.12	101.80	105.90
1	AA	7624	DG	O4'-C1'-C2'	-5.12	101.80	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
78	BP	21	DA	P-O3'-C3'	5.12	125.84	119.70
149	CY	34	DT	C4'-C3'-C2'	-5.12	98.49	103.10
1	AA	1645	DC	O4'-C1'-N1	5.12	111.58	108.00
1	AA	1751	DG	O4'-C1'-C2'	-5.12	101.80	105.90
1	AA	5697	DT	O4'-C1'-C2'	-5.12	101.80	105.90
17	AQ	6	DG	O4'-C1'-C2'	-5.12	101.80	105.90
19	AS	28	DT	P-O3'-C3'	5.12	125.84	119.70
1	AA	6741	DC	C4'-C3'-C2'	-5.12	98.49	103.10
84	BV	1	DG	C4'-C3'-C2'	-5.12	98.49	103.10
97	Bi	9	DG	O4'-C1'-N9	5.12	111.58	108.00
109	Bu	28	DC	O4'-C1'-N1	5.12	111.58	108.00
1	AA	1453	DG	O4'-C1'-C2'	-5.12	101.81	105.90
159	Ci	9	DA	O4'-C1'-C2'	-5.12	101.81	105.90
1	AA	1130	DT	C4'-C3'-C2'	-5.12	98.50	103.10
1	AA	1166	DC	C4'-C3'-C2'	-5.12	98.50	103.10
1	AA	8022	DA	O4'-C1'-C2'	-5.12	101.81	105.90
12	AL	7	DT	O4'-C1'-C2'	-5.12	101.81	105.90
81	BS	18	DG	O4'-C1'-C2'	-5.12	101.81	105.90
105	Bq	16	DA	O4'-C1'-C2'	-5.12	101.81	105.90
124	B9	21	DC	C6-N1-C2	-5.12	118.25	120.30
1	AA	2044	DG	N1-C6-O6	5.11	122.97	119.90
1	AA	2398	DA	P-O3'-C3'	5.11	125.84	119.70
1	AA	6930	DA	N1-C6-N6	-5.11	115.53	118.60
111	Bw	29	DG	O4'-C1'-C2'	-5.11	101.81	105.90
185	C8	28	DG	O4'-C1'-C2'	-5.11	101.81	105.90
1	AA	1512	DC	C6-N1-C2	-5.11	118.25	120.30
1	AA	2214	DG	C8-N9-C1'	-5.11	120.36	127.00
1	AA	4257	DG	C1'-O4'-C4'	-5.11	104.99	110.10
26	AZ	28	DG	O4'-C1'-C2'	-5.11	101.81	105.90
63	BA	45	DT	C4'-C3'-C2'	-5.11	98.50	103.10
156	Cf	28	DG	C5-C6-O6	-5.11	125.53	128.60
1	AA	4976	DA	C1'-O4'-C4'	-5.11	104.99	110.10
1	AA	6636	DC	O4'-C1'-N1	5.11	111.58	108.00
1	AA	7066	DT	C4'-C3'-C2'	-5.11	98.50	103.10
65	BC	43	DT	O4'-C1'-C2'	-5.11	101.81	105.90
83	BU	3	DA	O4'-C1'-C2'	-5.11	101.81	105.90
1	AA	2379	DC	C4'-C3'-C2'	-5.11	98.50	103.10
1	AA	5509	DG	N1-C6-O6	5.11	122.97	119.90
1	AA	7747	DT	C4'-C3'-C2'	-5.11	98.50	103.10
153	Cc	23	DA	O4'-C1'-C2'	-5.11	101.81	105.90
1	AA	431	DG	C1'-O4'-C4'	-5.11	104.99	110.10
1	AA	2018	DT	P-O5'-C5'	5.11	129.07	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	2651	DG	P-O3'-C3'	5.11	125.83	119.70
89	Ba	20	DG	C4'-C3'-C2'	-5.11	98.50	103.10
192	DF	1	DT	O4'-C1'-N1	5.11	111.58	108.00
1	AA	283	DC	O4'-C1'-N1	5.11	111.57	108.00
1	AA	1654	DA	C1'-O4'-C4'	-5.11	104.99	110.10
1	AA	3487	DT	C4'-C3'-C2'	-5.11	98.50	103.10
1	AA	3522	DG	C5-C6-O6	-5.11	125.54	128.60
1	AA	4136	DC	C6-N1-C2	-5.11	118.26	120.30
1	AA	4694	DG	O4'-C1'-C2'	-5.11	101.81	105.90
1	AA	6812	DT	P-O3'-C3'	-5.11	113.57	119.70
136	CL	9	DT	C4'-C3'-C2'	-5.11	98.51	103.10
139	CO	13	DA	O4'-C4'-C3'	-5.11	102.46	104.50
96	Bh	28	DT	C4'-C3'-C2'	-5.10	98.51	103.10
1	AA	2843	DT	O4'-C1'-C2'	-5.10	101.82	105.90
1	AA	3483	DC	C4'-C3'-C2'	-5.10	98.51	103.10
1	AA	3548	DG	C1'-O4'-C4'	-5.10	105.00	110.10
1	AA	4049	DT	C4'-C3'-C2'	-5.10	98.51	103.10
1	AA	4199	DG	O4'-C4'-C3'	-5.10	102.46	104.50
10	AJ	32	DT	C4'-C3'-C2'	-5.10	98.51	103.10
49	Aw	1	DC	C1'-O4'-C4'	-5.10	105.00	110.10
108	Bt	9	DC	C1'-O4'-C4'	-5.10	105.00	110.10
184	C7	12	DA	C1'-O4'-C4'	-5.10	105.00	110.10
1	AA	1758	DG	C4-N9-C1'	5.10	133.13	126.50
1	AA	4115	DC	C1'-O4'-C4'	-5.10	105.00	110.10
1	AA	5308	DT	O4'-C1'-C2'	-5.10	101.82	105.90
13	AM	24	DA	O4'-C1'-C2'	-5.10	101.82	105.90
105	Bq	20	DA	O4'-C1'-C2'	-5.10	101.82	105.90
148	CX	2	DG	O4'-C4'-C3'	-5.10	102.46	104.50
179	C2	31	DG	N1-C6-O6	5.10	122.96	119.90
1	AA	1230	DC	C6-N1-C2	-5.10	118.26	120.30
1	AA	3480	DA	C1'-O4'-C4'	-5.10	105.00	110.10
1	AA	4766	DG	P-O3'-C3'	5.10	125.82	119.70
1	AA	4793	DA	C1'-O4'-C4'	-5.10	105.00	110.10
1	AA	6551	DG	P-O3'-C3'	5.10	125.82	119.70
1	AA	6936	DA	O4'-C1'-C2'	-5.10	101.82	105.90
67	BE	42	DT	C4'-C3'-C2'	-5.10	98.51	103.10
78	BP	28	DA	O4'-C1'-C2'	-5.10	101.82	105.90
158	Ch	36	DC	O4'-C1'-N1	5.10	111.57	108.00
1	AA	3804	DA	O4'-C1'-C2'	-5.10	101.82	105.90
59	A6	27	DG	P-O3'-C3'	5.10	125.82	119.70
149	CY	44	DA	O4'-C1'-C2'	-5.10	101.82	105.90
1	AA	746	DG	C1'-O4'-C4'	-5.09	105.01	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	4654	DT	O4'-C4'-C3'	-5.09	102.46	104.50
1	AA	6059	DG	C1'-O4'-C4'	-5.09	105.00	110.10
1	AA	7249	DG	C1'-O4'-C4'	-5.09	105.01	110.10
35	Ai	16	DA	O4'-C1'-C2'	-5.09	101.82	105.90
93	Be	25	DG	O4'-C1'-C2'	-5.09	101.83	105.90
135	CK	4	DC	P-O3'-C3'	5.09	125.81	119.70
180	C3	13	DT	C4'-C3'-C2'	-5.09	98.51	103.10
210	DX	34	DA	O4'-C4'-C3'	-5.09	102.46	104.50
1	AA	1407	DC	O4'-C4'-C3'	-5.09	102.46	104.50
1	AA	2403	DG	C1'-O4'-C4'	-5.09	105.01	110.10
1	AA	4898	DA	P-O3'-C3'	5.09	125.81	119.70
55	A2	42	DG	O4'-C1'-C2'	-5.09	101.83	105.90
77	BO	23	DG	O4'-C1'-C2'	-5.09	101.83	105.90
120	B5	11	DT	C4'-C3'-C2'	-5.09	98.52	103.10
1	AA	2844	DT	C4'-C3'-C2'	-5.09	98.52	103.10
10	AJ	9	DG	O4'-C1'-C2'	-5.09	101.83	105.90
1	AA	1175	DT	C1'-O4'-C4'	-5.09	105.01	110.10
1	AA	6694	DC	C2-N1-C1'	5.09	124.40	118.80
1	AA	7163	DT	C4'-C3'-C2'	-5.09	98.52	103.10
1	AA	7312	DG	O4'-C1'-N9	5.09	111.56	108.00
181	C4	41	DT	O4'-C1'-C2'	-5.09	101.83	105.90
1	AA	7933	DG	P-O3'-C3'	5.09	125.81	119.70
1	AA	24	DG	O4'-C1'-C2'	-5.09	101.83	105.90
1	AA	337	DC	O4'-C1'-C2'	-5.09	101.83	105.90
89	Ba	25	DA	P-O3'-C3'	5.09	125.80	119.70
138	CN	8	DC	O4'-C1'-N1	5.09	111.56	108.00
149	CY	3	DG	C4'-C3'-C2'	-5.09	98.52	103.10
1	AA	4184	DG	O4'-C4'-C3'	-5.08	102.47	104.50
1	AA	6032	DC	O4'-C1'-C2'	-5.08	101.83	105.90
55	A2	5	DG	C4'-C3'-C2'	-5.08	98.52	103.10
1	AA	504	DG	O4'-C1'-C2'	-5.08	101.83	105.90
1	AA	2233	DA	O4'-C1'-C2'	-5.08	101.83	105.90
1	AA	4947	DT	P-O3'-C3'	5.08	125.80	119.70
31	Ae	16	DG	P-O3'-C3'	5.08	125.80	119.70
173	Cw	15	DA	P-O3'-C3'	5.08	125.80	119.70
1	AA	295	DG	C5-C6-O6	-5.08	125.55	128.60
1	AA	5085	DA	C1'-O4'-C4'	-5.08	105.02	110.10
77	BO	32	DG	O4'-C4'-C3'	-5.08	102.47	104.50
131	CG	13	DG	C1'-O4'-C4'	-5.08	105.02	110.10
1	AA	3095	DT	O4'-C4'-C3'	-5.08	102.47	104.50
1	AA	4458	DA	O4'-C1'-N9	5.08	111.56	108.00
176	Cz	14	DG	O4'-C1'-C2'	-5.08	101.84	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1169	DA	C1'-O4'-C4'	-5.08	105.02	110.10
1	AA	5170	DT	C4'-C3'-C2'	-5.08	98.53	103.10
1	AA	6233	DT	O4'-C1'-C2'	-5.08	101.84	105.90
21	AU	16	DA	O4'-C1'-C2'	-5.08	101.84	105.90
66	BD	34	DT	C1'-O4'-C4'	-5.08	105.02	110.10
85	BW	16	DT	O4'-C1'-C2'	-5.08	101.84	105.90
208	DV	19	DG	C1'-O4'-C4'	-5.08	105.02	110.10
1	AA	437	DT	O4'-C4'-C3'	-5.08	102.47	104.50
1	AA	1669	DC	O4'-C1'-N1	5.08	111.55	108.00
1	AA	6939	DG	O4'-C1'-C2'	-5.08	101.84	105.90
114	Bz	25	DA	C1'-O4'-C4'	-5.08	105.02	110.10
1	AA	2970	DG	C4'-C3'-C2'	-5.08	98.53	103.10
1	AA	3179	DA	O4'-C1'-C2'	-5.08	101.84	105.90
1	AA	3561	DC	C6-N1-C2	-5.08	118.27	120.30
1	AA	3590	DA	O4'-C1'-C2'	-5.08	101.84	105.90
1	AA	4461	DA	O4'-C1'-C2'	-5.08	101.84	105.90
1	AA	6634	DC	C6-N1-C2	-5.08	118.27	120.30
52	Az	19	DG	O4'-C1'-C2'	-5.08	101.84	105.90
1	AA	998	DG	C1'-O4'-C4'	-5.07	105.03	110.10
1	AA	1993	DG	N1-C6-O6	5.07	122.94	119.90
1	AA	6388	DT	C4'-C3'-C2'	-5.07	98.53	103.10
40	An	37	DT	O4'-C1'-C2'	-5.07	101.84	105.90
80	BR	10	DT	O4'-C1'-C2'	-5.07	101.84	105.90
121	B6	30	DA	C1'-O4'-C4'	-5.07	105.03	110.10
207	DU	37	DC	O4'-C4'-C3'	-5.07	102.47	104.50
1	AA	4559	DG	O4'-C1'-C2'	-5.07	101.84	105.90
114	Bz	12	DA	O4'-C1'-C2'	-5.07	101.84	105.90
149	CY	4	DT	C4'-C3'-C2'	-5.07	98.53	103.10
190	DD	39	DT	C4'-C3'-C2'	-5.07	98.53	103.10
1	AA	1752	DG	O4'-C1'-C2'	-5.07	101.84	105.90
1	AA	4522	DC	O4'-C1'-C2'	-5.07	101.84	105.90
1	AA	7100	DT	P-O5'-C5'	5.07	129.01	120.90
1	AA	7275	DG	C1'-O4'-C4'	-5.07	105.03	110.10
5	AE	1	DC	O4'-C1'-N1	5.07	111.55	108.00
140	CP	22	DT	C4'-C3'-C2'	-5.07	98.54	103.10
164	Cn	25	DC	P-O3'-C3'	5.07	125.79	119.70
49	Aw	29	DG	N1-C6-O6	5.07	122.94	119.90
138	CN	16	DG	C5-C6-O6	-5.07	125.56	128.60
146	CV	12	DG	N1-C6-O6	5.07	122.94	119.90
1	AA	1501	DC	C1'-O4'-C4'	-5.07	105.03	110.10
1	AA	2253	DG	C1'-O4'-C4'	-5.07	105.03	110.10
1	AA	3274	DC	C1'-O4'-C4'	-5.07	105.03	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	5876	DG	O4'-C4'-C3'	-5.07	102.47	104.50
1	AA	6662	DT	C1'-O4'-C4'	-5.07	105.03	110.10
90	Bb	34	DC	C1'-O4'-C4'	-5.07	105.03	110.10
117	B2	38	DT	O4'-C4'-C3'	-5.07	102.47	104.50
147	CW	39	DT	C4'-C3'-C2'	-5.07	98.54	103.10
1	AA	288	DT	C4'-C3'-C2'	-5.07	98.54	103.10
1	AA	2728	DG	N1-C6-O6	5.07	122.94	119.90
1	AA	2984	DG	C4'-C3'-C2'	-5.07	98.54	103.10
1	AA	3343	DG	C4'-C3'-C2'	-5.07	98.54	103.10
1	AA	5640	DG	O4'-C1'-N9	5.07	111.55	108.00
1	AA	6521	DA	C4'-C3'-C2'	-5.07	98.54	103.10
1	AA	7287	DG	O4'-C1'-C2'	-5.07	101.85	105.90
80	BR	17	DA	C1'-O4'-C4'	-5.07	105.03	110.10
94	Bf	22	DG	C1'-O4'-C4'	-5.07	105.03	110.10
122	B7	43	DT	C4'-C3'-C2'	-5.07	98.54	103.10
148	CX	25	DA	P-O3'-C3'	5.07	125.78	119.70
1	AA	531	DG	C4-N9-C1'	5.06	133.08	126.50
1	AA	1535	DC	O4'-C1'-N1	5.06	111.55	108.00
1	AA	2647	DG	O4'-C1'-C2'	-5.06	101.85	105.90
47	Au	6	DC	O4'-C1'-N1	-5.06	104.45	108.00
1	AA	1695	DT	C4'-C3'-C2'	-5.06	98.54	103.10
1	AA	3761	DA	C4'-C3'-C2'	-5.06	98.54	103.10
1	AA	4495	DC	C1'-O4'-C4'	-5.06	105.04	110.10
1	AA	5587	DG	O4'-C4'-C3'	-5.06	102.47	104.50
1	AA	6276	DT	C4'-C3'-C2'	-5.06	98.54	103.10
15	AO	17	DG	O4'-C1'-C2'	-5.06	101.85	105.90
24	AX	27	DT	P-O3'-C3'	5.06	125.78	119.70
83	BU	9	DC	P-O3'-C3'	5.06	125.78	119.70
98	Bj	27	DG	N3-C2-N2	-5.06	116.36	119.90
106	Br	39	DA	N1-C6-N6	-5.06	115.56	118.60
115	B0	14	DA	O4'-C1'-C2'	-5.06	101.85	105.90
156	Cf	25	DT	C4'-C3'-C2'	-5.06	98.54	103.10
204	DR	1	DG	N1-C6-O6	5.06	122.94	119.90
1	AA	1476	DG	P-O3'-C3'	5.06	125.77	119.70
1	AA	4204	DT	O4'-C4'-C3'	-5.06	102.48	104.50
1	AA	5738	DC	P-O5'-C5'	5.06	129.00	120.90
133	CI	9	DT	O4'-C4'-C3'	-5.06	102.48	104.50
1	AA	5613	DG	C4'-C3'-C2'	-5.06	98.55	103.10
1	AA	6282	DG	O4'-C1'-C2'	-5.06	101.85	105.90
1	AA	6503	DA	O4'-C1'-C2'	-5.06	101.85	105.90
166	Cp	30	DG	P-O3'-C3'	5.06	125.77	119.70
1	AA	1584	DT	C4'-C3'-C2'	-5.06	98.55	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
65	BC	9	DG	O4'-C1'-N9	5.06	111.54	108.00
155	Ce	11	DT	O4'-C4'-C3'	-5.06	102.48	104.50
1	AA	502	DG	O4'-C1'-C2'	-5.06	101.86	105.90
1	AA	5570	DC	P-O3'-C3'	5.06	125.77	119.70
1	AA	7755	DA	P-O3'-C3'	5.06	125.77	119.70
167	Cq	35	DG	P-O3'-C3'	5.06	125.77	119.70
1	AA	2358	DG	O4'-C1'-C2'	-5.05	101.86	105.90
1	AA	6113	DG	O4'-C1'-C2'	-5.05	101.86	105.90
49	Aw	29	DG	C5-C6-O6	-5.05	125.57	128.60
190	DD	10	DA	C1'-O4'-C4'	-5.05	105.05	110.10
194	DH	38	DT	C4'-C3'-C2'	-5.05	98.55	103.10
1	AA	854	DG	C5-C6-O6	-5.05	125.57	128.60
1	AA	254	DA	N1-C6-N6	-5.05	115.57	118.60
1	AA	2070	DG	P-O3'-C3'	5.05	125.76	119.70
48	Av	35	DG	P-O3'-C3'	5.05	125.76	119.70
104	Bp	2	DA	C4'-C3'-C2'	-5.05	98.55	103.10
184	C7	11	DA	P-O3'-C3'	5.05	125.76	119.70
195	DI	29	DA	O4'-C1'-C2'	-5.05	101.86	105.90
1	AA	3428	DG	C5-C6-O6	-5.05	125.57	128.60
1	AA	5732	DA	O4'-C1'-C2'	-5.05	101.86	105.90
1	AA	5987	DC	O4'-C1'-N1	5.05	111.53	108.00
1	AA	7061	DA	O4'-C1'-N9	5.05	111.53	108.00
170	Ct	33	DG	O4'-C1'-C2'	-5.05	101.86	105.90
202	DP	5	DG	O4'-C1'-C2'	-5.05	101.86	105.90
206	DT	12	DG	O4'-C1'-C2'	-5.05	101.86	105.90
1	AA	5768	DA	O4'-C1'-C2'	-5.05	101.86	105.90
168	Cr	36	DA	O4'-C1'-C2'	-5.05	101.86	105.90
1	AA	2168	DG	O4'-C1'-C2'	-5.05	101.86	105.90
1	AA	2736	DT	P-O3'-C3'	-5.05	113.64	119.70
1	AA	4499	DT	O4'-C4'-C3'	-5.05	102.48	104.50
1	AA	4798	DG	O4'-C1'-C2'	-5.05	101.86	105.90
1	AA	7439	DT	O4'-C1'-C2'	-5.05	101.86	105.90
90	Bb	2	DT	C4'-C3'-C2'	-5.05	98.56	103.10
124	B9	19	DT	C4'-C3'-C2'	-5.05	98.56	103.10
188	DB	30	DA	C1'-O4'-C4'	-5.05	105.05	110.10
1	AA	1667	DA	O4'-C1'-C2'	-5.04	101.86	105.90
25	AY	26	DG	O4'-C1'-C2'	-5.04	101.86	105.90
58	A5	39	DA	P-O3'-C3'	5.04	125.75	119.70
93	Be	6	DC	O4'-C1'-N1	5.04	111.53	108.00
94	Bf	20	DA	O4'-C1'-C2'	-5.04	101.86	105.90
1	AA	2646	DG	O4'-C1'-N9	5.04	111.53	108.00
73	BK	14	DG	O4'-C1'-C2'	-5.04	101.86	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
141	CQ	40	DT	O4'-C1'-N1	-5.04	104.47	108.00
1	AA	328	DG	C1'-O4'-C4'	-5.04	105.06	110.10
1	AA	426	DG	C1'-O4'-C4'	-5.04	105.06	110.10
1	AA	508	DG	N1-C6-O6	5.04	122.92	119.90
1	AA	4489	DG	O4'-C1'-C2'	-5.04	101.87	105.90
1	AA	5840	DC	C2-N1-C1'	5.04	124.35	118.80
1	AA	7295	DT	C6-C5-C7	-5.04	119.88	122.90
44	Ar	42	DT	C6-C5-C7	-5.04	119.88	122.90
63	BA	1	DA	O4'-C4'-C3'	-5.04	102.48	104.50
150	CZ	36	DG	C5-C6-O6	-5.04	125.58	128.60
161	Ck	15	DG	C5-C6-O6	-5.04	125.58	128.60
199	DM	14	DA	N1-C6-N6	-5.04	115.58	118.60
1	AA	5596	DT	O4'-C1'-C2'	-5.04	101.87	105.90
1	AA	7970	DG	N1-C6-O6	5.04	122.92	119.90
19	AS	16	DT	C1'-O4'-C4'	-5.04	105.06	110.10
1	AA	970	DC	C1'-O4'-C4'	-5.04	105.06	110.10
1	AA	2331	DA	C1'-O4'-C4'	-5.04	105.06	110.10
1	AA	4166	DG	C1'-O4'-C4'	-5.04	105.06	110.10
1	AA	5313	DT	C4'-C3'-C2'	-5.04	98.56	103.10
1	AA	5524	DT	C1'-O4'-C4'	-5.04	105.06	110.10
1	AA	6071	DG	P-O3'-C3'	5.04	125.75	119.70
1	AA	6623	DA	O4'-C1'-C2'	-5.04	101.87	105.90
1	AA	7108	DT	P-O3'-C3'	-5.04	113.65	119.70
126	CB	24	DA	C4'-C3'-C2'	-5.04	98.57	103.10
1	AA	6148	DG	O4'-C1'-N9	5.04	111.53	108.00
53	A0	16	DA	O4'-C1'-C2'	-5.04	101.87	105.90
89	Ba	22	DA	N1-C6-N6	-5.04	115.58	118.60
1	AA	468	DC	C4'-C3'-C2'	-5.04	98.57	103.10
1	AA	5070	DA	N1-C6-N6	-5.04	115.58	118.60
64	BB	24	DA	O4'-C1'-C2'	-5.04	101.87	105.90
1	AA	2328	DG	O4'-C1'-C2'	-5.03	101.87	105.90
1	AA	3301	DT	C4'-C3'-C2'	-5.03	98.57	103.10
1	AA	5728	DT	C4'-C3'-C2'	-5.03	98.57	103.10
8	AH	9	DA	P-O3'-C3'	5.03	125.74	119.70
76	BN	17	DT	P-O3'-C3'	5.03	125.74	119.70
95	Bg	12	DC	P-O5'-C5'	5.03	128.95	120.90
108	Bt	30	DG	P-O3'-C3'	5.03	125.74	119.70
128	CD	1	DA	C3'-C2'-C1'	-5.03	96.46	102.50
1	AA	335	DT	O4'-C4'-C3'	-5.03	102.49	104.50
55	A2	24	DC	O4'-C1'-N1	5.03	111.52	108.00
183	C6	26	DG	O4'-C1'-C2'	-5.03	101.87	105.90
1	AA	6054	DG	O4'-C1'-C2'	-5.03	101.88	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
89	Ba	47	DG	P-O3'-C3'	5.03	125.74	119.70
127	CC	20	DT	C4'-C3'-C2'	-5.03	98.57	103.10
189	DC	16	DC	O4'-C1'-N1	5.03	111.52	108.00
1	AA	4458	DA	P-O3'-C3'	5.03	125.73	119.70
148	CX	33	DT	O4'-C4'-C3'	-5.03	102.49	104.50
171	Cu	10	DT	O4'-C1'-C2'	-5.03	101.88	105.90
1	AA	2958	DG	O4'-C1'-N9	5.03	111.52	108.00
1	AA	5117	DT	P-O3'-C3'	5.03	125.73	119.70
1	AA	5610	DG	P-O3'-C3'	5.03	125.73	119.70
1	AA	5983	DT	C4'-C3'-C2'	-5.03	98.58	103.10
10	AJ	4	DG	O4'-C1'-C2'	-5.03	101.88	105.90
69	BG	30	DG	P-O3'-C3'	5.03	125.73	119.70
91	Bc	18	DA	C1'-O4'-C4'	-5.03	105.07	110.10
148	CX	41	DT	C4-C5-C7	-5.03	115.98	119.00
172	Cv	4	DT	P-O3'-C3'	5.03	125.73	119.70
1	AA	930	DG	O4'-C1'-N9	5.03	111.52	108.00
1	AA	4715	DG	O4'-C1'-C2'	-5.03	101.88	105.90
1	AA	7032	DA	O4'-C1'-C2'	-5.03	101.88	105.90
137	CM	1	DT	C6-N1-C2	-5.03	118.79	121.30
152	Cb	42	DA	P-O3'-C3'	5.03	125.73	119.70
176	Cz	48	DC	P-O5'-C5'	5.03	128.94	120.90
1	AA	361	DC	P-O3'-C3'	5.02	125.73	119.70
1	AA	3873	DC	O4'-C1'-N1	5.02	111.52	108.00
1	AA	6307	DT	O4'-C4'-C3'	-5.02	102.49	104.50
1	AA	7076	DT	C4'-C3'-C2'	-5.02	98.58	103.10
1	AA	1983	DA	O4'-C1'-C2'	-5.02	101.88	105.90
1	AA	3615	DT	C4'-C3'-C2'	-5.02	98.58	103.10
18	AR	39	DG	O4'-C1'-C2'	-5.02	101.88	105.90
26	AZ	38	DA	N1-C6-N6	-5.02	115.59	118.60
108	Bt	10	DA	P-O3'-C3'	5.02	125.73	119.70
136	CL	42	DA	O4'-C1'-C2'	-5.02	101.88	105.90
1	AA	3697	DG	C4'-C3'-C2'	-5.02	98.58	103.10
1	AA	4565	DG	P-O3'-C3'	5.02	125.72	119.70
1	AA	1456	DA	C1'-O4'-C4'	-5.02	105.08	110.10
1	AA	1819	DA	C1'-O4'-C4'	-5.02	105.08	110.10
1	AA	2770	DT	C4'-C3'-C2'	-5.02	98.58	103.10
1	AA	7353	DA	O4'-C1'-C2'	-5.02	101.88	105.90
1	AA	3824	DT	C4'-C3'-C2'	-5.02	98.58	103.10
1	AA	6882	DG	C5-C6-O6	-5.02	125.59	128.60
1	AA	7142	DA	N1-C6-N6	-5.02	115.59	118.60
7	AG	44	DG	C1'-O4'-C4'	-5.02	105.08	110.10
10	AJ	27	DA	P-O3'-C3'	5.02	125.72	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
29	Ac	36	DC	C4'-C3'-C2'	-5.02	98.58	103.10
58	A5	27	DA	O4'-C1'-N9	5.02	111.51	108.00
180	C3	27	DG	C4'-C3'-C2'	-5.02	98.58	103.10
203	DQ	18	DC	P-O3'-C3'	5.02	125.72	119.70
35	Ai	40	DC	O4'-C1'-C2'	-5.02	101.89	105.90
106	Br	20	DT	C4'-C3'-C2'	-5.02	98.58	103.10
208	DV	22	DC	C6-N1-C2	-5.02	118.29	120.30
1	AA	2954	DC	P-O3'-C3'	5.01	125.72	119.70
1	AA	5657	DC	O4'-C4'-C3'	-5.01	102.49	104.50
3	AC	27	DG	O4'-C4'-C3'	-5.01	102.49	104.50
68	BF	9	DA	P-O3'-C3'	5.01	125.72	119.70
74	BL	41	DA	C1'-O4'-C4'	-5.01	105.08	110.10
104	Bp	12	DT	C4'-C3'-C2'	-5.01	98.59	103.10
128	CD	20	DA	C4'-C3'-C2'	-5.01	98.59	103.10
172	Cv	12	DA	O4'-C1'-C2'	-5.01	101.89	105.90
189	DC	14	DC	C1'-O4'-C4'	-5.01	105.08	110.10
1	AA	3793	DA	C1'-O4'-C4'	-5.01	105.09	110.10
59	A6	41	DA	O4'-C1'-C2'	-5.01	101.89	105.90
76	BN	39	DT	O4'-C1'-C2'	-5.01	101.89	105.90
1	AA	3080	DT	C4'-C3'-C2'	-5.01	98.59	103.10
1	AA	7023	DA	P-O3'-C3'	5.01	125.71	119.70
47	Au	48	DA	P-O3'-C3'	5.01	125.71	119.70
48	Av	24	DA	C4'-C3'-C2'	-5.01	98.59	103.10
57	A4	35	DT	O4'-C4'-C3'	-5.01	102.50	104.50
1	AA	1497	DC	P-O3'-C3'	-5.01	113.69	119.70
1	AA	2818	DG	C5-C6-O6	-5.01	125.59	128.60
1	AA	4337	DG	C1'-O4'-C4'	-5.01	105.09	110.10
1	AA	4346	DC	P-O5'-C5'	5.01	128.91	120.90
1	AA	4396	DG	C4'-C3'-C2'	-5.01	98.59	103.10
20	AT	22	DA	O4'-C1'-N9	5.01	111.51	108.00
59	A6	28	DA	C1'-O4'-C4'	-5.01	105.09	110.10
143	CS	16	DG	C1'-O4'-C4'	-5.01	105.09	110.10
1	AA	1939	DT	O4'-C1'-C2'	-5.01	101.89	105.90
1	AA	4405	DA	P-O5'-C5'	5.01	128.91	120.90
55	A2	7	DG	O4'-C1'-C2'	-5.01	101.89	105.90
56	A3	24	DC	C2-N1-C1'	5.01	124.31	118.80
1	AA	3028	DG	C5-C6-O6	-5.01	125.60	128.60
1	AA	4071	DT	C1'-O4'-C4'	-5.01	105.09	110.10
1	AA	7878	DT	C4'-C3'-C2'	-5.01	98.59	103.10
20	AT	18	DT	O4'-C4'-C3'	-5.01	102.50	104.50
123	B8	37	DG	C4'-C3'-C2'	-5.01	98.59	103.10
136	CL	21	DA	O4'-C1'-C2'	-5.01	101.89	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
175	Cy	6	DA	P-O3'-C3'	5.01	125.71	119.70
56	A3	38	DA	P-O3'-C3'	5.00	125.71	119.70
153	Cc	3	DA	C4'-C3'-C2'	-5.00	98.60	103.10
1	AA	1699	DA	P-O3'-C3'	5.00	125.70	119.70
1	AA	7236	DG	C1'-O4'-C4'	-5.00	105.10	110.10
1	AA	7987	DT	O4'-C4'-C3'	-5.00	102.50	104.50
144	CT	30	DA	O4'-C1'-C2'	-5.00	101.90	105.90
1	AA	160	DT	C4-C5-C7	-5.00	116.00	119.00
23	AW	28	DA	C1'-O4'-C4'	-5.00	105.10	110.10
140	CP	16	DG	P-O3'-C3'	5.00	125.70	119.70
191	DE	18	DT	O4'-C1'-C2'	-5.00	101.90	105.90

All (15) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	AA	137	DC	C3'
1	AA	892	DG	C3'
1	AA	1026	DG	C3'
1	AA	3017	DA	C3'
1	AA	3647	DT	C3'
1	AA	3885	DC	C3'
1	AA	4123	DC	C3'
1	AA	5053	DA	C3'
1	AA	5271	DT	C3'
1	AA	5489	DA	C3'
1	AA	6399	DT	C3'
1	AA	6617	DA	C3'
1	AA	6835	DC	C3'
1	AA	7723	DT	C3'
1	AA	7941	DC	C3'

All (3939) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
53	A0	13	DA	Sidechain
53	A0	15	DG	Sidechain
53	A0	2	DA	Sidechain
53	A0	20	DA	Sidechain
53	A0	3	DT	Sidechain
53	A0	31	DA	Sidechain
53	A0	34	DA	Sidechain
53	A0	37	DA	Sidechain

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Mol	Chain	Res	Type	Group
53	A0	48	DT	Sidechain
53	A0	5	DA	Sidechain
53	A0	55	DC	Sidechain
53	A0	60	DA	Sidechain
53	A0	7	DC	Sidechain
54	A1	11	DG	Sidechain
54	A1	13	DC	Sidechain
54	A1	16	DG	Sidechain
54	A1	30	DC	Sidechain
54	A1	37	DT	Sidechain
54	A1	38	DA	Sidechain
54	A1	41	DA	Sidechain
54	A1	43	DC	Sidechain
54	A1	46	DT	Sidechain
55	A2	18	DA	Sidechain
55	A2	20	DT	Sidechain
55	A2	21	DT	Sidechain
55	A2	23	DA	Sidechain
55	A2	28	DA	Sidechain
55	A2	34	DA	Sidechain
56	A3	12	DG	Sidechain
56	A3	22	DC	Sidechain
56	A3	23	DG	Sidechain
56	A3	25	DC	Sidechain
56	A3	26	DA	Sidechain
56	A3	29	DA	Sidechain
56	A3	3	DT	Sidechain
56	A3	32	DG	Sidechain
56	A3	33	DA	Sidechain
56	A3	34	DA	Sidechain
56	A3	40	DA	Sidechain
56	A3	9	DT	Sidechain
57	A4	1	DT	Sidechain
57	A4	25	DT	Sidechain
57	A4	32	DG	Sidechain
57	A4	34	DT	Sidechain
57	A4	36	DT	Sidechain
57	A4	6	DT	Sidechain
57	A4	7	DT	Sidechain
57	A4	8	DT	Sidechain
58	A5	10	DA	Sidechain
58	A5	11	DG	Sidechain

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Mol	Chain	Res	Type	Group
58	A5	12	DA	Sidechain
58	A5	15	DG	Sidechain
58	A5	16	DA	Sidechain
58	A5	17	DA	Sidechain
58	A5	25	DT	Sidechain
58	A5	27	DA	Sidechain
58	A5	28	DC	Sidechain
58	A5	30	DA	Sidechain
58	A5	31	DT	Sidechain
58	A5	32	DC	Sidechain
58	A5	40	DT	Sidechain
58	A5	41	DT	Sidechain
58	A5	42	DT	Sidechain
58	A5	43	DT	Sidechain
58	A5	6	DG	Sidechain
58	A5	7	DA	Sidechain
58	A5	8	DG	Sidechain
59	A6	21	DT	Sidechain
59	A6	25	DT	Sidechain
59	A6	26	DT	Sidechain
59	A6	33	DA	Sidechain
59	A6	36	DG	Sidechain
59	A6	39	DT	Sidechain
59	A6	7	DC	Sidechain
60	A7	11	DT	Sidechain
60	A7	17	DC	Sidechain
60	A7	23	DG	Sidechain
60	A7	31	DT	Sidechain
60	A7	39	DC	Sidechain
61	A8	2	DA	Sidechain
61	A8	23	DG	Sidechain
61	A8	24	DA	Sidechain
61	A8	30	DA	Sidechain
61	A8	33	DC	Sidechain
61	A8	40	DG	Sidechain
61	A8	42	DT	Sidechain
61	A8	43	DT	Sidechain
61	A8	8	DT	Sidechain
62	A9	1	DA	Sidechain
62	A9	10	DT	Sidechain
62	A9	2	DA	Sidechain
62	A9	20	DA	Sidechain

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Mol	Chain	Res	Type	Group
62	A9	26	DT	Sidechain
62	A9	3	DT	Sidechain
62	A9	33	DA	Sidechain
62	A9	34	DG	Sidechain
62	A9	36	DT	Sidechain
62	A9	38	DA	Sidechain
62	A9	45	DT	Sidechain
1	AA	1	DT	Sidechain
1	AA	1002	DC	Sidechain
1	AA	1008	DG	Sidechain
1	AA	1009	DA	Sidechain
1	AA	1012	DA	Sidechain
1	AA	102	DT	Sidechain
1	AA	1021	DG	Sidechain
1	AA	1022	DG	Sidechain
1	AA	1025	DG	Sidechain
1	AA	1026	DG	Sidechain
1	AA	1027	DA	Sidechain
1	AA	1030	DC	Sidechain
1	AA	1033	DC	Sidechain
1	AA	1042	DA	Sidechain
1	AA	1044	DA	Sidechain
1	AA	1046	DG	Sidechain
1	AA	1054	DG	Sidechain
1	AA	1056	DA	Sidechain
1	AA	106	DG	Sidechain
1	AA	1060	DC	Sidechain
1	AA	107	DA	Sidechain
1	AA	1073	DG	Sidechain
1	AA	1081	DG	Sidechain
1	AA	1085	DC	Sidechain
1	AA	1087	DT	Sidechain
1	AA	1089	DT	Sidechain
1	AA	109	DT	Sidechain
1	AA	1096	DA	Sidechain
1	AA	1107	DC	Sidechain
1	AA	1111	DA	Sidechain
1	AA	1115	DC	Sidechain
1	AA	1116	DG	Sidechain
1	AA	1118	DC	Sidechain
1	AA	1122	DG	Sidechain
1	AA	1124	DG	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1130	DT	Sidechain
1	AA	1133	DT	Sidechain
1	AA	1134	DA	Sidechain
1	AA	1135	DC	Sidechain
1	AA	1137	DG	Sidechain
1	AA	1139	DA	Sidechain
1	AA	114	DA	Sidechain
1	AA	1140	DT	Sidechain
1	AA	1141	DT	Sidechain
1	AA	1149	DG	Sidechain
1	AA	1164	DC	Sidechain
1	AA	1169	DA	Sidechain
1	AA	1172	DT	Sidechain
1	AA	1173	DG	Sidechain
1	AA	1177	DG	Sidechain
1	AA	119	DT	Sidechain
1	AA	1192	DA	Sidechain
1	AA	1194	DA	Sidechain
1	AA	1197	DT	Sidechain
1	AA	1199	DA	Sidechain
1	AA	1205	DA	Sidechain
1	AA	1210	DC	Sidechain
1	AA	1217	DT	Sidechain
1	AA	122	DT	Sidechain
1	AA	1221	DT	Sidechain
1	AA	1224	DC	Sidechain
1	AA	1227	DT	Sidechain
1	AA	123	DG	Sidechain
1	AA	1230	DC	Sidechain
1	AA	1231	DC	Sidechain
1	AA	1233	DT	Sidechain
1	AA	1247	DT	Sidechain
1	AA	1252	DA	Sidechain
1	AA	126	DG	Sidechain
1	AA	1265	DA	Sidechain
1	AA	1268	DT	Sidechain
1	AA	1271	DC	Sidechain
1	AA	1273	DC	Sidechain
1	AA	1275	DA	Sidechain
1	AA	1276	DA	Sidechain
1	AA	1281	DG	Sidechain
1	AA	1282	DG	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1283	DG	Sidechain
1	AA	1289	DT	Sidechain
1	AA	1294	DA	Sidechain
1	AA	1296	DG	Sidechain
1	AA	130	DT	Sidechain
1	AA	1303	DT	Sidechain
1	AA	1306	DG	Sidechain
1	AA	1320	DT	Sidechain
1	AA	1321	DT	Sidechain
1	AA	1325	DG	Sidechain
1	AA	1334	DT	Sidechain
1	AA	1335	DC	Sidechain
1	AA	1336	DC	Sidechain
1	AA	1340	DC	Sidechain
1	AA	1342	DC	Sidechain
1	AA	1344	DT	Sidechain
1	AA	1348	DG	Sidechain
1	AA	1349	DG	Sidechain
1	AA	1351	DT	Sidechain
1	AA	1364	DG	Sidechain
1	AA	1366	DT	Sidechain
1	AA	1377	DC	Sidechain
1	AA	1378	DG	Sidechain
1	AA	1379	DT	Sidechain
1	AA	138	DA	Sidechain
1	AA	1390	DC	Sidechain
1	AA	1400	DG	Sidechain
1	AA	1402	DG	Sidechain
1	AA	1407	DC	Sidechain
1	AA	1410	DT	Sidechain
1	AA	1416	DT	Sidechain
1	AA	1423	DC	Sidechain
1	AA	1430	DG	Sidechain
1	AA	1431	DC	Sidechain
1	AA	1432	DC	Sidechain
1	AA	1435	DG	Sidechain
1	AA	1436	DC	Sidechain
1	AA	1438	DG	Sidechain
1	AA	1440	DA	Sidechain
1	AA	1450	DT	Sidechain
1	AA	1451	DT	Sidechain
1	AA	1453	DG	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1454	DC	Sidechain
1	AA	1456	DA	Sidechain
1	AA	1457	DG	Sidechain
1	AA	1460	DG	Sidechain
1	AA	1461	DG	Sidechain
1	AA	1463	DG	Sidechain
1	AA	1465	DA	Sidechain
1	AA	1466	DA	Sidechain
1	AA	1468	DA	Sidechain
1	AA	1471	DG	Sidechain
1	AA	1472	DA	Sidechain
1	AA	1475	DA	Sidechain
1	AA	1480	DC	Sidechain
1	AA	1481	DG	Sidechain
1	AA	1490	DG	Sidechain
1	AA	1491	DC	Sidechain
1	AA	1496	DC	Sidechain
1	AA	1500	DA	Sidechain
1	AA	1506	DG	Sidechain
1	AA	1508	DG	Sidechain
1	AA	1509	DC	Sidechain
1	AA	1518	DT	Sidechain
1	AA	152	DT	Sidechain
1	AA	1530	DC	Sidechain
1	AA	1533	DT	Sidechain
1	AA	1535	DC	Sidechain
1	AA	1540	DT	Sidechain
1	AA	1541	DT	Sidechain
1	AA	1545	DG	Sidechain
1	AA	1546	DG	Sidechain
1	AA	1548	DA	Sidechain
1	AA	1550	DC	Sidechain
1	AA	1553	DA	Sidechain
1	AA	1560	DG	Sidechain
1	AA	1574	DT	Sidechain
1	AA	1579	DT	Sidechain
1	AA	1581	DC	Sidechain
1	AA	1582	DG	Sidechain
1	AA	1586	DT	Sidechain
1	AA	1587	DT	Sidechain
1	AA	159	DC	Sidechain
1	AA	1595	DC	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	160	DT	Sidechain
1	AA	1600	DA	Sidechain
1	AA	1607	DT	Sidechain
1	AA	1609	DG	Sidechain
1	AA	1615	DT	Sidechain
1	AA	1618	DA	Sidechain
1	AA	1619	DA	Sidechain
1	AA	1626	DG	Sidechain
1	AA	1627	DA	Sidechain
1	AA	1628	DT	Sidechain
1	AA	1629	DG	Sidechain
1	AA	1635	DT	Sidechain
1	AA	1637	DA	Sidechain
1	AA	164	DG	Sidechain
1	AA	1640	DA	Sidechain
1	AA	1641	DT	Sidechain
1	AA	1642	DG	Sidechain
1	AA	1649	DT	Sidechain
1	AA	165	DG	Sidechain
1	AA	1651	DT	Sidechain
1	AA	1652	DA	Sidechain
1	AA	1653	DC	Sidechain
1	AA	1655	DC	Sidechain
1	AA	1659	DC	Sidechain
1	AA	166	DG	Sidechain
1	AA	1663	DA	Sidechain
1	AA	1665	DC	Sidechain
1	AA	1666	DT	Sidechain
1	AA	1672	DA	Sidechain
1	AA	1675	DA	Sidechain
1	AA	1687	DC	Sidechain
1	AA	1693	DG	Sidechain
1	AA	1696	DC	Sidechain
1	AA	1697	DC	Sidechain
1	AA	1699	DA	Sidechain
1	AA	17	DG	Sidechain
1	AA	1700	DC	Sidechain
1	AA	1702	DG	Sidechain
1	AA	1713	DG	Sidechain
1	AA	1718	DG	Sidechain
1	AA	1723	DT	Sidechain
1	AA	1727	DT	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1728	DC	Sidechain
1	AA	1729	DA	Sidechain
1	AA	1730	DC	Sidechain
1	AA	1738	DG	Sidechain
1	AA	1739	DT	Sidechain
1	AA	1741	DG	Sidechain
1	AA	1750	DT	Sidechain
1	AA	1751	DG	Sidechain
1	AA	1753	DC	Sidechain
1	AA	1754	DT	Sidechain
1	AA	1756	DC	Sidechain
1	AA	1759	DG	Sidechain
1	AA	1760	DA	Sidechain
1	AA	1762	DG	Sidechain
1	AA	1764	DC	Sidechain
1	AA	1767	DG	Sidechain
1	AA	1768	DA	Sidechain
1	AA	177	DG	Sidechain
1	AA	1770	DG	Sidechain
1	AA	1771	DC	Sidechain
1	AA	1772	DG	Sidechain
1	AA	1776	DT	Sidechain
1	AA	1779	DT	Sidechain
1	AA	1787	DG	Sidechain
1	AA	1789	DG	Sidechain
1	AA	180	DG	Sidechain
1	AA	1800	DT	Sidechain
1	AA	1806	DA	Sidechain
1	AA	1807	DA	Sidechain
1	AA	1811	DG	Sidechain
1	AA	1814	DG	Sidechain
1	AA	1815	DA	Sidechain
1	AA	1817	DT	Sidechain
1	AA	1819	DA	Sidechain
1	AA	182	DC	Sidechain
1	AA	1829	DT	Sidechain
1	AA	185	DC	Sidechain
1	AA	1853	DA	Sidechain
1	AA	1857	DT	Sidechain
1	AA	1865	DT	Sidechain
1	AA	187	DT	Sidechain
1	AA	1871	DA	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1872	DT	Sidechain
1	AA	1873	DT	Sidechain
1	AA	1876	DC	Sidechain
1	AA	1878	DT	Sidechain
1	AA	188	DG	Sidechain
1	AA	1887	DT	Sidechain
1	AA	1890	DC	Sidechain
1	AA	1897	DT	Sidechain
1	AA	1900	DG	Sidechain
1	AA	1911	DT	Sidechain
1	AA	1918	DC	Sidechain
1	AA	1925	DA	Sidechain
1	AA	1929	DA	Sidechain
1	AA	1930	DT	Sidechain
1	AA	194	DA	Sidechain
1	AA	1940	DG	Sidechain
1	AA	1944	DG	Sidechain
1	AA	1949	DA	Sidechain
1	AA	1951	DG	Sidechain
1	AA	1952	DA	Sidechain
1	AA	1959	DT	Sidechain
1	AA	1960	DT	Sidechain
1	AA	1964	DC	Sidechain
1	AA	1967	DT	Sidechain
1	AA	1969	DC	Sidechain
1	AA	1975	DT	Sidechain
1	AA	198	DT	Sidechain
1	AA	1980	DT	Sidechain
1	AA	1982	DC	Sidechain
1	AA	1983	DA	Sidechain
1	AA	1984	DG	Sidechain
1	AA	1986	DC	Sidechain
1	AA	1992	DG	Sidechain
1	AA	1996	DA	Sidechain
1	AA	1997	DT	Sidechain
1	AA	1998	DG	Sidechain
1	AA	1999	DA	Sidechain
1	AA	2000	DC	Sidechain
1	AA	2002	DT	Sidechain
1	AA	2006	DA	Sidechain
1	AA	2007	DG	Sidechain
1	AA	2008	DC	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	2014	DT	Sidechain
1	AA	2016	DG	Sidechain
1	AA	2017	DA	Sidechain
1	AA	2018	DT	Sidechain
1	AA	2019	DC	Sidechain
1	AA	2020	DT	Sidechain
1	AA	203	DG	Sidechain
1	AA	2031	DG	Sidechain
1	AA	2033	DT	Sidechain
1	AA	2036	DC	Sidechain
1	AA	2038	DT	Sidechain
1	AA	2043	DG	Sidechain
1	AA	2046	DA	Sidechain
1	AA	2047	DT	Sidechain
1	AA	205	DG	Sidechain
1	AA	2058	DG	Sidechain
1	AA	2060	DT	Sidechain
1	AA	2062	DG	Sidechain
1	AA	2064	DA	Sidechain
1	AA	2068	DT	Sidechain
1	AA	2070	DG	Sidechain
1	AA	2075	DT	Sidechain
1	AA	2077	DA	Sidechain
1	AA	2079	DA	Sidechain
1	AA	2080	DT	Sidechain
1	AA	209	DG	Sidechain
1	AA	2090	DT	Sidechain
1	AA	2092	DT	Sidechain
1	AA	2094	DA	Sidechain
1	AA	2095	DC	Sidechain
1	AA	2100	DT	Sidechain
1	AA	2102	DC	Sidechain
1	AA	2107	DT	Sidechain
1	AA	2108	DT	Sidechain
1	AA	2111	DT	Sidechain
1	AA	2113	DA	Sidechain
1	AA	2114	DC	Sidechain
1	AA	2117	DT	Sidechain
1	AA	212	DG	Sidechain
1	AA	2122	DA	Sidechain
1	AA	2131	DC	Sidechain
1	AA	2134	DC	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	2145	DG	Sidechain
1	AA	215	DG	Sidechain
1	AA	2152	DC	Sidechain
1	AA	2154	DT	Sidechain
1	AA	216	DA	Sidechain
1	AA	2170	DG	Sidechain
1	AA	2181	DT	Sidechain
1	AA	2186	DT	Sidechain
1	AA	219	DG	Sidechain
1	AA	2192	DC	Sidechain
1	AA	2193	DG	Sidechain
1	AA	2194	DT	Sidechain
1	AA	2200	DT	Sidechain
1	AA	2201	DA	Sidechain
1	AA	2205	DG	Sidechain
1	AA	2210	DT	Sidechain
1	AA	2211	DC	Sidechain
1	AA	2213	DC	Sidechain
1	AA	2214	DG	Sidechain
1	AA	2215	DC	Sidechain
1	AA	2221	DT	Sidechain
1	AA	2222	DA	Sidechain
1	AA	2225	DA	Sidechain
1	AA	2234	DT	Sidechain
1	AA	2238	DG	Sidechain
1	AA	2239	DT	Sidechain
1	AA	2240	DT	Sidechain
1	AA	2243	DT	Sidechain
1	AA	2245	DG	Sidechain
1	AA	2255	DT	Sidechain
1	AA	2267	DC	Sidechain
1	AA	2274	DG	Sidechain
1	AA	2278	DT	Sidechain
1	AA	2282	DG	Sidechain
1	AA	2287	DA	Sidechain
1	AA	2288	DT	Sidechain
1	AA	229	DT	Sidechain
1	AA	2291	DT	Sidechain
1	AA	2292	DG	Sidechain
1	AA	2297	DT	Sidechain
1	AA	230	DG	Sidechain
1	AA	2303	DG	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	2306	DT	Sidechain
1	AA	2308	DG	Sidechain
1	AA	2313	DT	Sidechain
1	AA	2318	DT	Sidechain
1	AA	232	DT	Sidechain
1	AA	2326	DA	Sidechain
1	AA	233	DG	Sidechain
1	AA	2334	DG	Sidechain
1	AA	2337	DA	Sidechain
1	AA	2341	DC	Sidechain
1	AA	2344	DT	Sidechain
1	AA	2350	DG	Sidechain
1	AA	2351	DA	Sidechain
1	AA	2354	DT	Sidechain
1	AA	2356	DA	Sidechain
1	AA	2359	DC	Sidechain
1	AA	2378	DC	Sidechain
1	AA	2379	DC	Sidechain
1	AA	2384	DT	Sidechain
1	AA	2385	DG	Sidechain
1	AA	2386	DA	Sidechain
1	AA	2393	DA	Sidechain
1	AA	2394	DG	Sidechain
1	AA	2399	DA	Sidechain
1	AA	24	DG	Sidechain
1	AA	2402	DG	Sidechain
1	AA	2410	DA	Sidechain
1	AA	2413	DA	Sidechain
1	AA	2414	DT	Sidechain
1	AA	2420	DA	Sidechain
1	AA	2422	DA	Sidechain
1	AA	2423	DT	Sidechain
1	AA	2427	DT	Sidechain
1	AA	243	DC	Sidechain
1	AA	2433	DG	Sidechain
1	AA	2435	DT	Sidechain
1	AA	2445	DT	Sidechain
1	AA	2448	DA	Sidechain
1	AA	245	DG	Sidechain
1	AA	2450	DT	Sidechain
1	AA	2451	DC	Sidechain
1	AA	2460	DA	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	2462	DT	Sidechain
1	AA	2463	DT	Sidechain
1	AA	247	DT	Sidechain
1	AA	2473	DC	Sidechain
1	AA	2480	DA	Sidechain
1	AA	2488	DA	Sidechain
1	AA	2520	DT	Sidechain
1	AA	2540	DG	Sidechain
1	AA	2541	DC	Sidechain
1	AA	2543	DT	Sidechain
1	AA	2548	DT	Sidechain
1	AA	2549	DT	Sidechain
1	AA	2550	DC	Sidechain
1	AA	2555	DA	Sidechain
1	AA	2557	DT	Sidechain
1	AA	2559	DA	Sidechain
1	AA	2563	DC	Sidechain
1	AA	2565	DA	Sidechain
1	AA	2567	DG	Sidechain
1	AA	2572	DC	Sidechain
1	AA	258	DA	Sidechain
1	AA	2582	DG	Sidechain
1	AA	2591	DT	Sidechain
1	AA	2598	DG	Sidechain
1	AA	260	DC	Sidechain
1	AA	2605	DT	Sidechain
1	AA	2606	DA	Sidechain
1	AA	2617	DC	Sidechain
1	AA	2619	DA	Sidechain
1	AA	2621	DT	Sidechain
1	AA	2625	DG	Sidechain
1	AA	2629	DT	Sidechain
1	AA	2635	DA	Sidechain
1	AA	264	DC	Sidechain
1	AA	2644	DC	Sidechain
1	AA	2645	DC	Sidechain
1	AA	2653	DT	Sidechain
1	AA	2662	DA	Sidechain
1	AA	267	DG	Sidechain
1	AA	2674	DA	Sidechain
1	AA	2678	DG	Sidechain
1	AA	2679	DC	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	2681	DA	Sidechain
1	AA	2684	DT	Sidechain
1	AA	2685	DT	Sidechain
1	AA	2688	DA	Sidechain
1	AA	2690	DG	Sidechain
1	AA	2691	DT	Sidechain
1	AA	2700	DC	Sidechain
1	AA	2705	DT	Sidechain
1	AA	2708	DT	Sidechain
1	AA	271	DC	Sidechain
1	AA	2713	DT	Sidechain
1	AA	2719	DA	Sidechain
1	AA	2721	DG	Sidechain
1	AA	2733	DG	Sidechain
1	AA	2740	DA	Sidechain
1	AA	2742	DT	Sidechain
1	AA	2743	DA	Sidechain
1	AA	2744	DT	Sidechain
1	AA	2746	DA	Sidechain
1	AA	275	DT	Sidechain
1	AA	2752	DA	Sidechain
1	AA	2753	DG	Sidechain
1	AA	2762	DC	Sidechain
1	AA	2770	DT	Sidechain
1	AA	2772	DG	Sidechain
1	AA	2773	DA	Sidechain
1	AA	2780	DG	Sidechain
1	AA	2781	DT	Sidechain
1	AA	2784	DT	Sidechain
1	AA	2788	DC	Sidechain
1	AA	2791	DT	Sidechain
1	AA	2795	DT	Sidechain
1	AA	2797	DA	Sidechain
1	AA	2798	DA	Sidechain
1	AA	2808	DG	Sidechain
1	AA	2815	DA	Sidechain
1	AA	2818	DG	Sidechain
1	AA	2821	DA	Sidechain
1	AA	2831	DT	Sidechain
1	AA	2832	DA	Sidechain
1	AA	2834	DT	Sidechain
1	AA	2835	DT	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	2837	DT	Sidechain
1	AA	2839	DA	Sidechain
1	AA	2841	DG	Sidechain
1	AA	2851	DT	Sidechain
1	AA	2855	DG	Sidechain
1	AA	286	DC	Sidechain
1	AA	2871	DA	Sidechain
1	AA	288	DT	Sidechain
1	AA	2886	DA	Sidechain
1	AA	289	DC	Sidechain
1	AA	2891	DC	Sidechain
1	AA	2895	DG	Sidechain
1	AA	2896	DG	Sidechain
1	AA	29	DT	Sidechain
1	AA	290	DT	Sidechain
1	AA	2902	DC	Sidechain
1	AA	2903	DT	Sidechain
1	AA	2905	DC	Sidechain
1	AA	2910	DG	Sidechain
1	AA	2912	DA	Sidechain
1	AA	2915	DA	Sidechain
1	AA	2917	DC	Sidechain
1	AA	2919	DT	Sidechain
1	AA	2924	DC	Sidechain
1	AA	293	DC	Sidechain
1	AA	2939	DT	Sidechain
1	AA	2941	DG	Sidechain
1	AA	2945	DT	Sidechain
1	AA	295	DG	Sidechain
1	AA	2952	DA	Sidechain
1	AA	2955	DG	Sidechain
1	AA	2963	DT	Sidechain
1	AA	2964	DG	Sidechain
1	AA	2965	DA	Sidechain
1	AA	2974	DC	Sidechain
1	AA	2977	DT	Sidechain
1	AA	298	DC	Sidechain
1	AA	2984	DG	Sidechain
1	AA	2990	DT	Sidechain
1	AA	2995	DC	Sidechain
1	AA	2996	DC	Sidechain
1	AA	3001	DG	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	3006	DT	Sidechain
1	AA	3007	DA	Sidechain
1	AA	3009	DG	Sidechain
1	AA	3010	DT	Sidechain
1	AA	3016	DC	Sidechain
1	AA	3021	DG	Sidechain
1	AA	3027	DT	Sidechain
1	AA	3028	DG	Sidechain
1	AA	3029	DT	Sidechain
1	AA	3033	DA	Sidechain
1	AA	3065	DC	Sidechain
1	AA	3082	DC	Sidechain
1	AA	3084	DT	Sidechain
1	AA	3088	DT	Sidechain
1	AA	31	DG	Sidechain
1	AA	3109	DT	Sidechain
1	AA	3113	DT	Sidechain
1	AA	3122	DT	Sidechain
1	AA	3136	DA	Sidechain
1	AA	3137	DT	Sidechain
1	AA	315	DA	Sidechain
1	AA	3152	DA	Sidechain
1	AA	316	DT	Sidechain
1	AA	3163	DG	Sidechain
1	AA	3166	DA	Sidechain
1	AA	317	DG	Sidechain
1	AA	3170	DA	Sidechain
1	AA	3171	DC	Sidechain
1	AA	3174	DT	Sidechain
1	AA	3176	DA	Sidechain
1	AA	3186	DA	Sidechain
1	AA	3188	DA	Sidechain
1	AA	3190	DT	Sidechain
1	AA	321	DC	Sidechain
1	AA	3211	DT	Sidechain
1	AA	3214	DT	Sidechain
1	AA	3216	DC	Sidechain
1	AA	3217	DT	Sidechain
1	AA	3223	DT	Sidechain
1	AA	3227	DG	Sidechain
1	AA	3228	DT	Sidechain
1	AA	323	DG	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	3240	DG	Sidechain
1	AA	3247	DT	Sidechain
1	AA	3248	DT	Sidechain
1	AA	3254	DC	Sidechain
1	AA	3266	DC	Sidechain
1	AA	3279	DA	Sidechain
1	AA	3292	DA	Sidechain
1	AA	3293	DT	Sidechain
1	AA	3294	DA	Sidechain
1	AA	3303	DT	Sidechain
1	AA	3304	DT	Sidechain
1	AA	3305	DG	Sidechain
1	AA	3307	DC	Sidechain
1	AA	3308	DA	Sidechain
1	AA	3309	DA	Sidechain
1	AA	3311	DA	Sidechain
1	AA	3312	DT	Sidechain
1	AA	3318	DT	Sidechain
1	AA	3321	DA	Sidechain
1	AA	3322	DT	Sidechain
1	AA	3324	DA	Sidechain
1	AA	3325	DA	Sidechain
1	AA	3328	DT	Sidechain
1	AA	333	DG	Sidechain
1	AA	3343	DG	Sidechain
1	AA	3351	DT	Sidechain
1	AA	3353	DT	Sidechain
1	AA	3356	DA	Sidechain
1	AA	3365	DC	Sidechain
1	AA	337	DC	Sidechain
1	AA	3381	DT	Sidechain
1	AA	3384	DG	Sidechain
1	AA	3385	DT	Sidechain
1	AA	339	DC	Sidechain
1	AA	3390	DT	Sidechain
1	AA	3393	DG	Sidechain
1	AA	3412	DT	Sidechain
1	AA	3415	DG	Sidechain
1	AA	3422	DG	Sidechain
1	AA	3427	DG	Sidechain
1	AA	3428	DG	Sidechain
1	AA	3445	DA	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	3447	DG	Sidechain
1	AA	3459	DG	Sidechain
1	AA	3460	DA	Sidechain
1	AA	3461	DC	Sidechain
1	AA	3467	DT	Sidechain
1	AA	3469	DA	Sidechain
1	AA	3473	DG	Sidechain
1	AA	3475	DC	Sidechain
1	AA	3476	DG	Sidechain
1	AA	3481	DT	Sidechain
1	AA	350	DC	Sidechain
1	AA	3508	DC	Sidechain
1	AA	3513	DG	Sidechain
1	AA	3517	DT	Sidechain
1	AA	3519	DA	Sidechain
1	AA	3520	DT	Sidechain
1	AA	3523	DC	Sidechain
1	AA	3528	DG	Sidechain
1	AA	353	DG	Sidechain
1	AA	3530	DT	Sidechain
1	AA	3536	DA	Sidechain
1	AA	3538	DG	Sidechain
1	AA	3541	DT	Sidechain
1	AA	3546	DT	Sidechain
1	AA	355	DA	Sidechain
1	AA	3550	DG	Sidechain
1	AA	3552	DA	Sidechain
1	AA	3557	DT	Sidechain
1	AA	3558	DT	Sidechain
1	AA	3559	DT	Sidechain
1	AA	3564	DC	Sidechain
1	AA	3567	DT	Sidechain
1	AA	3570	DT	Sidechain
1	AA	3573	DT	Sidechain
1	AA	3576	DG	Sidechain
1	AA	3577	DT	Sidechain
1	AA	3578	DT	Sidechain
1	AA	358	DG	Sidechain
1	AA	3583	DC	Sidechain
1	AA	3584	DC	Sidechain
1	AA	3589	DT	Sidechain
1	AA	3591	DG	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	3592	DT	Sidechain
1	AA	3605	DT	Sidechain
1	AA	3608	DA	Sidechain
1	AA	3610	DC	Sidechain
1	AA	362	DG	Sidechain
1	AA	3621	DA	Sidechain
1	AA	3626	DT	Sidechain
1	AA	3636	DA	Sidechain
1	AA	3641	DC	Sidechain
1	AA	3643	DT	Sidechain
1	AA	3648	DC	Sidechain
1	AA	3653	DA	Sidechain
1	AA	3656	DC	Sidechain
1	AA	3658	DT	Sidechain
1	AA	3660	DT	Sidechain
1	AA	3661	DG	Sidechain
1	AA	3668	DT	Sidechain
1	AA	3671	DC	Sidechain
1	AA	3675	DC	Sidechain
1	AA	3684	DG	Sidechain
1	AA	3691	DT	Sidechain
1	AA	3697	DG	Sidechain
1	AA	37	DA	Sidechain
1	AA	3700	DG	Sidechain
1	AA	3701	DC	Sidechain
1	AA	3718	DG	Sidechain
1	AA	3727	DG	Sidechain
1	AA	3728	DC	Sidechain
1	AA	3731	DT	Sidechain
1	AA	3736	DT	Sidechain
1	AA	3737	DC	Sidechain
1	AA	3740	DT	Sidechain
1	AA	3741	DG	Sidechain
1	AA	3745	DG	Sidechain
1	AA	3746	DC	Sidechain
1	AA	375	DT	Sidechain
1	AA	3753	DG	Sidechain
1	AA	3755	DC	Sidechain
1	AA	376	DG	Sidechain
1	AA	3762	DT	Sidechain
1	AA	3764	DT	Sidechain
1	AA	3766	DG	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	3774	DG	Sidechain
1	AA	3775	DT	Sidechain
1	AA	3783	DG	Sidechain
1	AA	3786	DT	Sidechain
1	AA	379	DA	Sidechain
1	AA	3791	DT	Sidechain
1	AA	3793	DA	Sidechain
1	AA	380	DG	Sidechain
1	AA	3806	DC	Sidechain
1	AA	3807	DT	Sidechain
1	AA	3811	DG	Sidechain
1	AA	3812	DG	Sidechain
1	AA	3818	DA	Sidechain
1	AA	3821	DT	Sidechain
1	AA	3830	DA	Sidechain
1	AA	3831	DA	Sidechain
1	AA	3832	DT	Sidechain
1	AA	3835	DA	Sidechain
1	AA	3836	DC	Sidechain
1	AA	3846	DA	Sidechain
1	AA	3851	DG	Sidechain
1	AA	3858	DC	Sidechain
1	AA	3864	DA	Sidechain
1	AA	3874	DT	Sidechain
1	AA	3877	DT	Sidechain
1	AA	3881	DG	Sidechain
1	AA	3886	DC	Sidechain
1	AA	3887	DT	Sidechain
1	AA	3891	DT	Sidechain
1	AA	390	DT	Sidechain
1	AA	3909	DT	Sidechain
1	AA	391	DC	Sidechain
1	AA	3918	DT	Sidechain
1	AA	3919	DA	Sidechain
1	AA	3923	DT	Sidechain
1	AA	3930	DT	Sidechain
1	AA	3932	DC	Sidechain
1	AA	3934	DT	Sidechain
1	AA	3935	DT	Sidechain
1	AA	3938	DG	Sidechain
1	AA	394	DT	Sidechain
1	AA	3943	DT	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	3944	DC	Sidechain
1	AA	3945	DC	Sidechain
1	AA	395	DA	Sidechain
1	AA	3950	DT	Sidechain
1	AA	3957	DA	Sidechain
1	AA	3961	DC	Sidechain
1	AA	3965	DG	Sidechain
1	AA	3966	DA	Sidechain
1	AA	3967	DA	Sidechain
1	AA	3980	DT	Sidechain
1	AA	3982	DT	Sidechain
1	AA	3986	DG	Sidechain
1	AA	3990	DA	Sidechain
1	AA	3992	DT	Sidechain
1	AA	3996	DA	Sidechain
1	AA	3997	DT	Sidechain
1	AA	3998	DA	Sidechain
1	AA	4	DT	Sidechain
1	AA	4001	DG	Sidechain
1	AA	4004	DA	Sidechain
1	AA	4006	DT	Sidechain
1	AA	401	DC	Sidechain
1	AA	4014	DC	Sidechain
1	AA	402	DC	Sidechain
1	AA	4020	DT	Sidechain
1	AA	4024	DG	Sidechain
1	AA	4025	DA	Sidechain
1	AA	4032	DA	Sidechain
1	AA	4037	DA	Sidechain
1	AA	405	DG	Sidechain
1	AA	4055	DA	Sidechain
1	AA	4059	DA	Sidechain
1	AA	406	DG	Sidechain
1	AA	4071	DT	Sidechain
1	AA	4075	DG	Sidechain
1	AA	4084	DA	Sidechain
1	AA	4086	DG	Sidechain
1	AA	4094	DG	Sidechain
1	AA	4099	DT	Sidechain
1	AA	41	DT	Sidechain
1	AA	410	DT	Sidechain
1	AA	4100	DA	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	4104	DG	Sidechain
1	AA	4106	DG	Sidechain
1	AA	4109	DG	Sidechain
1	AA	411	DA	Sidechain
1	AA	4124	DG	Sidechain
1	AA	4126	DT	Sidechain
1	AA	4131	DG	Sidechain
1	AA	4132	DG	Sidechain
1	AA	4136	DC	Sidechain
1	AA	4140	DT	Sidechain
1	AA	4148	DG	Sidechain
1	AA	4158	DA	Sidechain
1	AA	4160	DA	Sidechain
1	AA	4161	DA	Sidechain
1	AA	4164	DA	Sidechain
1	AA	4166	DG	Sidechain
1	AA	4167	DG	Sidechain
1	AA	4179	DA	Sidechain
1	AA	4183	DT	Sidechain
1	AA	4184	DG	Sidechain
1	AA	4199	DG	Sidechain
1	AA	420	DG	Sidechain
1	AA	4205	DT	Sidechain
1	AA	4209	DA	Sidechain
1	AA	4210	DG	Sidechain
1	AA	4212	DG	Sidechain
1	AA	4214	DG	Sidechain
1	AA	4218	DG	Sidechain
1	AA	422	DT	Sidechain
1	AA	4226	DC	Sidechain
1	AA	4228	DT	Sidechain
1	AA	423	DT	Sidechain
1	AA	4238	DG	Sidechain
1	AA	4245	DC	Sidechain
1	AA	425	DC	Sidechain
1	AA	4256	DG	Sidechain
1	AA	4257	DG	Sidechain
1	AA	4265	DT	Sidechain
1	AA	4271	DA	Sidechain
1	AA	4276	DT	Sidechain
1	AA	4280	DG	Sidechain
1	AA	4281	DA	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	4282	DC	Sidechain
1	AA	4284	DG	Sidechain
1	AA	4286	DA	Sidechain
1	AA	4287	DC	Sidechain
1	AA	429	DT	Sidechain
1	AA	4292	DC	Sidechain
1	AA	4294	DG	Sidechain
1	AA	4299	DG	Sidechain
1	AA	4300	DT	Sidechain
1	AA	4302	DC	Sidechain
1	AA	4303	DT	Sidechain
1	AA	4305	DA	Sidechain
1	AA	4307	DC	Sidechain
1	AA	4315	DC	Sidechain
1	AA	4322	DC	Sidechain
1	AA	4326	DA	Sidechain
1	AA	4330	DT	Sidechain
1	AA	4333	DT	Sidechain
1	AA	4336	DT	Sidechain
1	AA	4340	DG	Sidechain
1	AA	4342	DG	Sidechain
1	AA	4344	DC	Sidechain
1	AA	4346	DC	Sidechain
1	AA	4347	DA	Sidechain
1	AA	4352	DC	Sidechain
1	AA	4356	DA	Sidechain
1	AA	4359	DC	Sidechain
1	AA	4366	DG	Sidechain
1	AA	4373	DA	Sidechain
1	AA	4375	DT	Sidechain
1	AA	4377	DA	Sidechain
1	AA	4378	DT	Sidechain
1	AA	439	DT	Sidechain
1	AA	4393	DG	Sidechain
1	AA	4399	DG	Sidechain
1	AA	4400	DG	Sidechain
1	AA	4405	DA	Sidechain
1	AA	4408	DT	Sidechain
1	AA	4413	DA	Sidechain
1	AA	4416	DC	Sidechain
1	AA	4417	DG	Sidechain
1	AA	4419	DG	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	442	DG	Sidechain
1	AA	4434	DG	Sidechain
1	AA	4437	DC	Sidechain
1	AA	4442	DC	Sidechain
1	AA	4443	DC	Sidechain
1	AA	4452	DC	Sidechain
1	AA	4454	DT	Sidechain
1	AA	4458	DA	Sidechain
1	AA	4473	DT	Sidechain
1	AA	4475	DT	Sidechain
1	AA	448	DG	Sidechain
1	AA	4485	DC	Sidechain
1	AA	4490	DT	Sidechain
1	AA	4496	DG	Sidechain
1	AA	4499	DT	Sidechain
1	AA	4500	DA	Sidechain
1	AA	4501	DC	Sidechain
1	AA	4510	DT	Sidechain
1	AA	4518	DG	Sidechain
1	AA	4523	DT	Sidechain
1	AA	4525	DC	Sidechain
1	AA	4528	DT	Sidechain
1	AA	4537	DT	Sidechain
1	AA	4538	DG	Sidechain
1	AA	4539	DG	Sidechain
1	AA	4545	DA	Sidechain
1	AA	4547	DG	Sidechain
1	AA	4551	DA	Sidechain
1	AA	4553	DT	Sidechain
1	AA	4555	DA	Sidechain
1	AA	4557	DT	Sidechain
1	AA	4560	DT	Sidechain
1	AA	4563	DG	Sidechain
1	AA	4565	DG	Sidechain
1	AA	4567	DA	Sidechain
1	AA	4568	DT	Sidechain
1	AA	4572	DA	Sidechain
1	AA	4574	DG	Sidechain
1	AA	4578	DA	Sidechain
1	AA	458	DA	Sidechain
1	AA	4580	DT	Sidechain
1	AA	4582	DG	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	4583	DT	Sidechain
1	AA	4586	DG	Sidechain
1	AA	4591	DG	Sidechain
1	AA	4592	DC	Sidechain
1	AA	4594	DT	Sidechain
1	AA	4595	DC	Sidechain
1	AA	4597	DA	Sidechain
1	AA	4598	DC	Sidechain
1	AA	4602	DC	Sidechain
1	AA	4603	DT	Sidechain
1	AA	4604	DG	Sidechain
1	AA	4605	DT	Sidechain
1	AA	4612	DT	Sidechain
1	AA	4613	DG	Sidechain
1	AA	4614	DG	Sidechain
1	AA	4615	DC	Sidechain
1	AA	4617	DG	Sidechain
1	AA	4620	DG	Sidechain
1	AA	4621	DC	Sidechain
1	AA	4625	DG	Sidechain
1	AA	4631	DG	Sidechain
1	AA	4633	DT	Sidechain
1	AA	4635	DC	Sidechain
1	AA	4636	DT	Sidechain
1	AA	4637	DG	Sidechain
1	AA	4639	DT	Sidechain
1	AA	4640	DG	Sidechain
1	AA	4641	DG	Sidechain
1	AA	4644	DG	Sidechain
1	AA	4645	DC	Sidechain
1	AA	4646	DT	Sidechain
1	AA	4648	DT	Sidechain
1	AA	4651	DG	Sidechain
1	AA	4652	DG	Sidechain
1	AA	4654	DT	Sidechain
1	AA	4658	DG	Sidechain
1	AA	4661	DT	Sidechain
1	AA	4662	DC	Sidechain
1	AA	4666	DG	Sidechain
1	AA	4667	DG	Sidechain
1	AA	4669	DT	Sidechain
1	AA	4673	DG	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	4675	DT	Sidechain
1	AA	4677	DC	Sidechain
1	AA	4688	DG	Sidechain
1	AA	4689	DG	Sidechain
1	AA	4697	DG	Sidechain
1	AA	47	DA	Sidechain
1	AA	4710	DG	Sidechain
1	AA	4716	DG	Sidechain
1	AA	4723	DT	Sidechain
1	AA	4728	DG	Sidechain
1	AA	4732	DT	Sidechain
1	AA	4734	DT	Sidechain
1	AA	4736	DG	Sidechain
1	AA	4737	DA	Sidechain
1	AA	4742	DG	Sidechain
1	AA	4743	DA	Sidechain
1	AA	4748	DA	Sidechain
1	AA	4751	DG	Sidechain
1	AA	4752	DC	Sidechain
1	AA	4757	DG	Sidechain
1	AA	4758	DC	Sidechain
1	AA	476	DA	Sidechain
1	AA	4762	DT	Sidechain
1	AA	4768	DG	Sidechain
1	AA	4769	DG	Sidechain
1	AA	477	DC	Sidechain
1	AA	4773	DT	Sidechain
1	AA	4776	DC	Sidechain
1	AA	4778	DG	Sidechain
1	AA	4780	DA	Sidechain
1	AA	4786	DC	Sidechain
1	AA	4788	DA	Sidechain
1	AA	48	DT	Sidechain
1	AA	4805	DT	Sidechain
1	AA	4811	DG	Sidechain
1	AA	4828	DT	Sidechain
1	AA	483	DT	Sidechain
1	AA	4836	DC	Sidechain
1	AA	4842	DA	Sidechain
1	AA	4848	DG	Sidechain
1	AA	4850	DG	Sidechain
1	AA	4852	DT	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	4860	DA	Sidechain
1	AA	4865	DT	Sidechain
1	AA	487	DC	Sidechain
1	AA	4877	DG	Sidechain
1	AA	4887	DT	Sidechain
1	AA	4895	DG	Sidechain
1	AA	49	DA	Sidechain
1	AA	4903	DT	Sidechain
1	AA	491	DA	Sidechain
1	AA	4914	DA	Sidechain
1	AA	4915	DT	Sidechain
1	AA	4920	DC	Sidechain
1	AA	4928	DA	Sidechain
1	AA	4930	DT	Sidechain
1	AA	4939	DG	Sidechain
1	AA	4940	DG	Sidechain
1	AA	4946	DG	Sidechain
1	AA	4947	DT	Sidechain
1	AA	4948	DC	Sidechain
1	AA	4950	DG	Sidechain
1	AA	496	DG	Sidechain
1	AA	497	DA	Sidechain
1	AA	4974	DT	Sidechain
1	AA	4975	DG	Sidechain
1	AA	4978	DT	Sidechain
1	AA	4981	DT	Sidechain
1	AA	4986	DG	Sidechain
1	AA	4995	DT	Sidechain
1	AA	4998	DC	Sidechain
1	AA	5	DA	Sidechain
1	AA	5028	DC	Sidechain
1	AA	5030	DT	Sidechain
1	AA	5032	DT	Sidechain
1	AA	5047	DT	Sidechain
1	AA	5051	DC	Sidechain
1	AA	5053	DA	Sidechain
1	AA	5054	DT	Sidechain
1	AA	5056	DT	Sidechain
1	AA	5067	DT	Sidechain
1	AA	5071	DT	Sidechain
1	AA	508	DG	Sidechain
1	AA	5084	DA	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	5085	DA	Sidechain
1	AA	5086	DC	Sidechain
1	AA	5088	DT	Sidechain
1	AA	5091	DT	Sidechain
1	AA	5092	DC	Sidechain
1	AA	5093	DC	Sidechain
1	AA	5095	DT	Sidechain
1	AA	5096	DG	Sidechain
1	AA	51	DT	Sidechain
1	AA	5104	DT	Sidechain
1	AA	5107	DG	Sidechain
1	AA	5108	DT	Sidechain
1	AA	5110	DT	Sidechain
1	AA	5115	DT	Sidechain
1	AA	5117	DT	Sidechain
1	AA	5121	DT	Sidechain
1	AA	5127	DC	Sidechain
1	AA	5128	DC	Sidechain
1	AA	5129	DT	Sidechain
1	AA	5131	DT	Sidechain
1	AA	5132	DA	Sidechain
1	AA	5133	DT	Sidechain
1	AA	514	DC	Sidechain
1	AA	5144	DT	Sidechain
1	AA	5146	DT	Sidechain
1	AA	5153	DG	Sidechain
1	AA	5154	DC	Sidechain
1	AA	5173	DG	Sidechain
1	AA	5174	DG	Sidechain
1	AA	5175	DA	Sidechain
1	AA	5176	DG	Sidechain
1	AA	5187	DG	Sidechain
1	AA	5196	DT	Sidechain
1	AA	52	DG	Sidechain
1	AA	5201	DG	Sidechain
1	AA	5203	DA	Sidechain
1	AA	5204	DT	Sidechain
1	AA	5205	DT	Sidechain
1	AA	5207	DC	Sidechain
1	AA	5209	DT	Sidechain
1	AA	5213	DT	Sidechain
1	AA	5215	DT	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	5216	DT	Sidechain
1	AA	5219	DG	Sidechain
1	AA	5234	DT	Sidechain
1	AA	5236	DC	Sidechain
1	AA	5238	DG	Sidechain
1	AA	5239	DG	Sidechain
1	AA	5243	DC	Sidechain
1	AA	5247	DG	Sidechain
1	AA	5248	DT	Sidechain
1	AA	5254	DT	Sidechain
1	AA	5255	DA	Sidechain
1	AA	5257	DC	Sidechain
1	AA	526	DA	Sidechain
1	AA	5263	DA	Sidechain
1	AA	5269	DC	Sidechain
1	AA	5271	DT	Sidechain
1	AA	5273	DA	Sidechain
1	AA	5275	DA	Sidechain
1	AA	5283	DC	Sidechain
1	AA	5288	DA	Sidechain
1	AA	529	DG	Sidechain
1	AA	5290	DA	Sidechain
1	AA	5291	DT	Sidechain
1	AA	5297	DT	Sidechain
1	AA	5299	DG	Sidechain
1	AA	530	DT	Sidechain
1	AA	5303	DT	Sidechain
1	AA	5307	DA	Sidechain
1	AA	5308	DT	Sidechain
1	AA	5309	DT	Sidechain
1	AA	531	DG	Sidechain
1	AA	5315	DT	Sidechain
1	AA	5317	DG	Sidechain
1	AA	5319	DT	Sidechain
1	AA	532	DA	Sidechain
1	AA	5321	DT	Sidechain
1	AA	5324	DT	Sidechain
1	AA	5326	DA	Sidechain
1	AA	5328	DT	Sidechain
1	AA	5331	DG	Sidechain
1	AA	5332	DC	Sidechain
1	AA	5335	DA	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	5338	DT	Sidechain
1	AA	534	DG	Sidechain
1	AA	5342	DT	Sidechain
1	AA	5346	DT	Sidechain
1	AA	5351	DG	Sidechain
1	AA	5366	DT	Sidechain
1	AA	5368	DA	Sidechain
1	AA	5377	DT	Sidechain
1	AA	5380	DC	Sidechain
1	AA	5383	DT	Sidechain
1	AA	539	DT	Sidechain
1	AA	5391	DT	Sidechain
1	AA	5394	DT	Sidechain
1	AA	5397	DG	Sidechain
1	AA	5399	DG	Sidechain
1	AA	54	DA	Sidechain
1	AA	5411	DT	Sidechain
1	AA	5416	DC	Sidechain
1	AA	5417	DC	Sidechain
1	AA	5418	DG	Sidechain
1	AA	5419	DT	Sidechain
1	AA	5426	DC	Sidechain
1	AA	543	DG	Sidechain
1	AA	5431	DC	Sidechain
1	AA	5433	DC	Sidechain
1	AA	5435	DG	Sidechain
1	AA	544	DG	Sidechain
1	AA	5443	DG	Sidechain
1	AA	5445	DT	Sidechain
1	AA	5446	DA	Sidechain
1	AA	5447	DT	Sidechain
1	AA	545	DA	Sidechain
1	AA	5452	DT	Sidechain
1	AA	5462	DC	Sidechain
1	AA	5463	DT	Sidechain
1	AA	5465	DC	Sidechain
1	AA	5466	DT	Sidechain
1	AA	5474	DT	Sidechain
1	AA	5477	DT	Sidechain
1	AA	5491	DA	Sidechain
1	AA	5497	DG	Sidechain
1	AA	5499	DT	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	55	DC	Sidechain
1	AA	5501	DC	Sidechain
1	AA	5505	DT	Sidechain
1	AA	5510	DA	Sidechain
1	AA	5513	DG	Sidechain
1	AA	5514	DG	Sidechain
1	AA	5516	DA	Sidechain
1	AA	5518	DA	Sidechain
1	AA	5520	DA	Sidechain
1	AA	5527	DG	Sidechain
1	AA	5528	DG	Sidechain
1	AA	5531	DG	Sidechain
1	AA	5536	DT	Sidechain
1	AA	5540	DG	Sidechain
1	AA	5541	DT	Sidechain
1	AA	5542	DA	Sidechain
1	AA	5543	DA	Sidechain
1	AA	5549	DA	Sidechain
1	AA	555	DC	Sidechain
1	AA	5550	DA	Sidechain
1	AA	5552	DT	Sidechain
1	AA	5555	DG	Sidechain
1	AA	5557	DC	Sidechain
1	AA	5559	DC	Sidechain
1	AA	556	DA	Sidechain
1	AA	5561	DG	Sidechain
1	AA	5573	DG	Sidechain
1	AA	5575	DT	Sidechain
1	AA	5576	DA	Sidechain
1	AA	5580	DT	Sidechain
1	AA	5594	DG	Sidechain
1	AA	5603	DG	Sidechain
1	AA	5610	DG	Sidechain
1	AA	5626	DT	Sidechain
1	AA	5627	DA	Sidechain
1	AA	5629	DT	Sidechain
1	AA	5632	DT	Sidechain
1	AA	5637	DT	Sidechain
1	AA	5640	DG	Sidechain
1	AA	5643	DT	Sidechain
1	AA	5647	DA	Sidechain
1	AA	5648	DA	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	5654	DC	Sidechain
1	AA	5657	DC	Sidechain
1	AA	566	DG	Sidechain
1	AA	5660	DG	Sidechain
1	AA	5662	DC	Sidechain
1	AA	5666	DA	Sidechain
1	AA	5673	DC	Sidechain
1	AA	568	DT	Sidechain
1	AA	5685	DG	Sidechain
1	AA	5687	DG	Sidechain
1	AA	5688	DT	Sidechain
1	AA	569	DG	Sidechain
1	AA	570	DG	Sidechain
1	AA	5702	DG	Sidechain
1	AA	5704	DT	Sidechain
1	AA	5709	DC	Sidechain
1	AA	5710	DT	Sidechain
1	AA	5712	DC	Sidechain
1	AA	5713	DT	Sidechain
1	AA	5714	DA	Sidechain
1	AA	5715	DT	Sidechain
1	AA	5717	DT	Sidechain
1	AA	5720	DG	Sidechain
1	AA	5726	DC	Sidechain
1	AA	5729	DG	Sidechain
1	AA	5731	DT	Sidechain
1	AA	5733	DT	Sidechain
1	AA	5738	DC	Sidechain
1	AA	5743	DT	Sidechain
1	AA	5745	DA	Sidechain
1	AA	5749	DT	Sidechain
1	AA	575	DA	Sidechain
1	AA	5750	DT	Sidechain
1	AA	5753	DT	Sidechain
1	AA	5754	DA	Sidechain
1	AA	5758	DT	Sidechain
1	AA	5759	DG	Sidechain
1	AA	576	DA	Sidechain
1	AA	5762	DA	Sidechain
1	AA	5764	DT	Sidechain
1	AA	5772	DG	Sidechain
1	AA	5778	DT	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	5780	DG	Sidechain
1	AA	5788	DT	Sidechain
1	AA	5793	DG	Sidechain
1	AA	5795	DG	Sidechain
1	AA	5797	DT	Sidechain
1	AA	5799	DC	Sidechain
1	AA	5801	DT	Sidechain
1	AA	5802	DG	Sidechain
1	AA	5806	DT	Sidechain
1	AA	5809	DT	Sidechain
1	AA	5823	DA	Sidechain
1	AA	5829	DA	Sidechain
1	AA	5830	DG	Sidechain
1	AA	5833	DA	Sidechain
1	AA	5843	DA	Sidechain
1	AA	5848	DT	Sidechain
1	AA	585	DA	Sidechain
1	AA	5852	DT	Sidechain
1	AA	5853	DG	Sidechain
1	AA	5856	DT	Sidechain
1	AA	5857	DT	Sidechain
1	AA	5859	DT	Sidechain
1	AA	5866	DT	Sidechain
1	AA	5868	DG	Sidechain
1	AA	5869	DT	Sidechain
1	AA	5871	DA	Sidechain
1	AA	5875	DA	Sidechain
1	AA	5877	DG	Sidechain
1	AA	5878	DA	Sidechain
1	AA	5886	DT	Sidechain
1	AA	5888	DA	Sidechain
1	AA	5889	DT	Sidechain
1	AA	5896	DT	Sidechain
1	AA	59	DT	Sidechain
1	AA	5904	DA	Sidechain
1	AA	5906	DT	Sidechain
1	AA	591	DG	Sidechain
1	AA	5911	DT	Sidechain
1	AA	5919	DA	Sidechain
1	AA	5920	DT	Sidechain
1	AA	5929	DG	Sidechain
1	AA	5932	DT	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	5935	DT	Sidechain
1	AA	5936	DG	Sidechain
1	AA	5940	DT	Sidechain
1	AA	5943	DC	Sidechain
1	AA	5946	DA	Sidechain
1	AA	5947	DA	Sidechain
1	AA	595	DA	Sidechain
1	AA	5957	DT	Sidechain
1	AA	596	DA	Sidechain
1	AA	5960	DT	Sidechain
1	AA	5964	DG	Sidechain
1	AA	5971	DG	Sidechain
1	AA	5979	DT	Sidechain
1	AA	5980	DT	Sidechain
1	AA	5981	DA	Sidechain
1	AA	5983	DT	Sidechain
1	AA	5986	DA	Sidechain
1	AA	5987	DC	Sidechain
1	AA	5989	DT	Sidechain
1	AA	5991	DT	Sidechain
1	AA	5992	DT	Sidechain
1	AA	5995	DC	Sidechain
1	AA	5998	DT	Sidechain
1	AA	6001	DT	Sidechain
1	AA	6003	DT	Sidechain
1	AA	6004	DA	Sidechain
1	AA	6007	DT	Sidechain
1	AA	6013	DT	Sidechain
1	AA	6018	DC	Sidechain
1	AA	6019	DT	Sidechain
1	AA	6021	DG	Sidechain
1	AA	6023	DT	Sidechain
1	AA	6027	DA	Sidechain
1	AA	603	DC	Sidechain
1	AA	6030	DT	Sidechain
1	AA	604	DG	Sidechain
1	AA	6040	DT	Sidechain
1	AA	6046	DA	Sidechain
1	AA	606	DC	Sidechain
1	AA	6072	DA	Sidechain
1	AA	6076	DT	Sidechain
1	AA	6083	DA	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	6084	DG	Sidechain
1	AA	6085	DC	Sidechain
1	AA	6087	DC	Sidechain
1	AA	6088	DT	Sidechain
1	AA	609	DA	Sidechain
1	AA	6090	DC	Sidechain
1	AA	6093	DT	Sidechain
1	AA	6094	DT	Sidechain
1	AA	6097	DG	Sidechain
1	AA	6099	DG	Sidechain
1	AA	6105	DT	Sidechain
1	AA	6107	DT	Sidechain
1	AA	6110	DA	Sidechain
1	AA	6113	DG	Sidechain
1	AA	6114	DG	Sidechain
1	AA	6115	DT	Sidechain
1	AA	6116	DA	Sidechain
1	AA	6123	DT	Sidechain
1	AA	6124	DG	Sidechain
1	AA	6128	DA	Sidechain
1	AA	6131	DG	Sidechain
1	AA	6134	DT	Sidechain
1	AA	6135	DA	Sidechain
1	AA	6137	DG	Sidechain
1	AA	6140	DA	Sidechain
1	AA	6148	DG	Sidechain
1	AA	6151	DT	Sidechain
1	AA	6161	DA	Sidechain
1	AA	6163	DT	Sidechain
1	AA	6165	DA	Sidechain
1	AA	617	DC	Sidechain
1	AA	6174	DG	Sidechain
1	AA	6175	DT	Sidechain
1	AA	6176	DG	Sidechain
1	AA	6177	DT	Sidechain
1	AA	618	DG	Sidechain
1	AA	6180	DA	Sidechain
1	AA	6181	DT	Sidechain
1	AA	6182	DT	Sidechain
1	AA	6183	DC	Sidechain
1	AA	6189	DT	Sidechain
1	AA	6193	DG	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	6194	DC	Sidechain
1	AA	6199	DT	Sidechain
1	AA	6209	DG	Sidechain
1	AA	6211	DT	Sidechain
1	AA	6216	DA	Sidechain
1	AA	6222	DA	Sidechain
1	AA	6229	DA	Sidechain
1	AA	6230	DA	Sidechain
1	AA	6238	DT	Sidechain
1	AA	6244	DG	Sidechain
1	AA	6246	DT	Sidechain
1	AA	6247	DG	Sidechain
1	AA	6249	DA	Sidechain
1	AA	6255	DC	Sidechain
1	AA	6257	DA	Sidechain
1	AA	6259	DA	Sidechain
1	AA	6265	DT	Sidechain
1	AA	6266	DT	Sidechain
1	AA	6272	DA	Sidechain
1	AA	6273	DA	Sidechain
1	AA	6274	DG	Sidechain
1	AA	6284	DG	Sidechain
1	AA	6286	DT	Sidechain
1	AA	6289	DT	Sidechain
1	AA	6293	DC	Sidechain
1	AA	6299	DA	Sidechain
1	AA	6304	DA	Sidechain
1	AA	6314	DG	Sidechain
1	AA	6320	DA	Sidechain
1	AA	6340	DA	Sidechain
1	AA	6343	DT	Sidechain
1	AA	6344	DA	Sidechain
1	AA	6346	DG	Sidechain
1	AA	6347	DC	Sidechain
1	AA	6348	DC	Sidechain
1	AA	6350	DG	Sidechain
1	AA	6365	DG	Sidechain
1	AA	6366	DT	Sidechain
1	AA	6368	DT	Sidechain
1	AA	6374	DA	Sidechain
1	AA	6375	DC	Sidechain
1	AA	6379	DT	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	6381	DA	Sidechain
1	AA	6384	DT	Sidechain
1	AA	6390	DA	Sidechain
1	AA	6392	DT	Sidechain
1	AA	6394	DC	Sidechain
1	AA	6399	DT	Sidechain
1	AA	640	DC	Sidechain
1	AA	6404	DT	Sidechain
1	AA	6408	DC	Sidechain
1	AA	6409	DT	Sidechain
1	AA	6416	DC	Sidechain
1	AA	6423	DT	Sidechain
1	AA	6428	DT	Sidechain
1	AA	6433	DC	Sidechain
1	AA	6438	DT	Sidechain
1	AA	6440	DT	Sidechain
1	AA	6451	DT	Sidechain
1	AA	6452	DA	Sidechain
1	AA	6454	DG	Sidechain
1	AA	6463	DA	Sidechain
1	AA	6464	DA	Sidechain
1	AA	6471	DG	Sidechain
1	AA	6474	DA	Sidechain
1	AA	6486	DA	Sidechain
1	AA	6491	DG	Sidechain
1	AA	6493	DT	Sidechain
1	AA	6494	DT	Sidechain
1	AA	6496	DT	Sidechain
1	AA	6499	DA	Sidechain
1	AA	6502	DC	Sidechain
1	AA	6508	DT	Sidechain
1	AA	6512	DG	Sidechain
1	AA	6516	DT	Sidechain
1	AA	6517	DA	Sidechain
1	AA	6524	DG	Sidechain
1	AA	6525	DT	Sidechain
1	AA	6544	DT	Sidechain
1	AA	6551	DG	Sidechain
1	AA	6552	DA	Sidechain
1	AA	6553	DA	Sidechain
1	AA	6554	DA	Sidechain
1	AA	6559	DT	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	6562	DA	Sidechain
1	AA	6567	DA	Sidechain
1	AA	6571	DA	Sidechain
1	AA	6573	DT	Sidechain
1	AA	6577	DT	Sidechain
1	AA	6579	DT	Sidechain
1	AA	6584	DG	Sidechain
1	AA	6585	DA	Sidechain
1	AA	6587	DG	Sidechain
1	AA	6588	DT	Sidechain
1	AA	6594	DT	Sidechain
1	AA	6603	DT	Sidechain
1	AA	6604	DC	Sidechain
1	AA	6609	DG	Sidechain
1	AA	6611	DT	Sidechain
1	AA	6613	DA	Sidechain
1	AA	6617	DA	Sidechain
1	AA	6622	DA	Sidechain
1	AA	6627	DA	Sidechain
1	AA	6629	DT	Sidechain
1	AA	663	DC	Sidechain
1	AA	6631	DA	Sidechain
1	AA	6632	DT	Sidechain
1	AA	6634	DC	Sidechain
1	AA	6639	DC	Sidechain
1	AA	6641	DG	Sidechain
1	AA	6645	DG	Sidechain
1	AA	6648	DT	Sidechain
1	AA	6649	DT	Sidechain
1	AA	6651	DG	Sidechain
1	AA	6653	DA	Sidechain
1	AA	6656	DT	Sidechain
1	AA	6660	DT	Sidechain
1	AA	6667	DA	Sidechain
1	AA	6668	DG	Sidechain
1	AA	6675	DG	Sidechain
1	AA	6680	DA	Sidechain
1	AA	6685	DT	Sidechain
1	AA	6689	DT	Sidechain
1	AA	6695	DT	Sidechain
1	AA	6701	DT	Sidechain
1	AA	6703	DT	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	6716	DT	Sidechain
1	AA	6721	DT	Sidechain
1	AA	6724	DA	Sidechain
1	AA	6728	DA	Sidechain
1	AA	6729	DT	Sidechain
1	AA	6731	DT	Sidechain
1	AA	6743	DT	Sidechain
1	AA	6749	DT	Sidechain
1	AA	6754	DG	Sidechain
1	AA	6759	DT	Sidechain
1	AA	6765	DA	Sidechain
1	AA	6766	DT	Sidechain
1	AA	677	DG	Sidechain
1	AA	6772	DT	Sidechain
1	AA	6773	DT	Sidechain
1	AA	678	DG	Sidechain
1	AA	6780	DG	Sidechain
1	AA	6789	DT	Sidechain
1	AA	6797	DG	Sidechain
1	AA	6799	DT	Sidechain
1	AA	6800	DA	Sidechain
1	AA	6803	DT	Sidechain
1	AA	6804	DT	Sidechain
1	AA	6824	DG	Sidechain
1	AA	6825	DA	Sidechain
1	AA	6827	DG	Sidechain
1	AA	6828	DT	Sidechain
1	AA	6832	DA	Sidechain
1	AA	6837	DA	Sidechain
1	AA	684	DG	Sidechain
1	AA	6841	DA	Sidechain
1	AA	6842	DT	Sidechain
1	AA	6848	DT	Sidechain
1	AA	6850	DA	Sidechain
1	AA	6854	DT	Sidechain
1	AA	6857	DT	Sidechain
1	AA	6859	DA	Sidechain
1	AA	6862	DT	Sidechain
1	AA	6865	DC	Sidechain
1	AA	6867	DT	Sidechain
1	AA	6872	DT	Sidechain
1	AA	6875	DT	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	6877	DA	Sidechain
1	AA	6878	DT	Sidechain
1	AA	6880	DA	Sidechain
1	AA	6881	DG	Sidechain
1	AA	6886	DA	Sidechain
1	AA	6893	DT	Sidechain
1	AA	6902	DT	Sidechain
1	AA	6904	DC	Sidechain
1	AA	6913	DG	Sidechain
1	AA	6922	DT	Sidechain
1	AA	6926	DG	Sidechain
1	AA	6927	DC	Sidechain
1	AA	6949	DC	Sidechain
1	AA	6957	DA	Sidechain
1	AA	6959	DT	Sidechain
1	AA	6969	DC	Sidechain
1	AA	697	DC	Sidechain
1	AA	6978	DG	Sidechain
1	AA	6980	DT	Sidechain
1	AA	6983	DA	Sidechain
1	AA	6985	DT	Sidechain
1	AA	6986	DA	Sidechain
1	AA	6993	DG	Sidechain
1	AA	6997	DA	Sidechain
1	AA	7	DA	Sidechain
1	AA	7004	DT	Sidechain
1	AA	7006	DT	Sidechain
1	AA	7011	DT	Sidechain
1	AA	7016	DT	Sidechain
1	AA	7019	DT	Sidechain
1	AA	7023	DA	Sidechain
1	AA	7032	DA	Sidechain
1	AA	7035	DG	Sidechain
1	AA	7036	DT	Sidechain
1	AA	7043	DT	Sidechain
1	AA	7045	DT	Sidechain
1	AA	7051	DG	Sidechain
1	AA	7053	DT	Sidechain
1	AA	7062	DT	Sidechain
1	AA	7064	DA	Sidechain
1	AA	7066	DT	Sidechain
1	AA	7072	DG	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	7074	DG	Sidechain
1	AA	7077	DC	Sidechain
1	AA	7078	DC	Sidechain
1	AA	7081	DA	Sidechain
1	AA	7087	DT	Sidechain
1	AA	7093	DA	Sidechain
1	AA	7094	DT	Sidechain
1	AA	7095	DA	Sidechain
1	AA	7100	DT	Sidechain
1	AA	7101	DC	Sidechain
1	AA	7103	DT	Sidechain
1	AA	7106	DA	Sidechain
1	AA	7108	DT	Sidechain
1	AA	7109	DC	Sidechain
1	AA	711	DT	Sidechain
1	AA	7111	DT	Sidechain
1	AA	7120	DT	Sidechain
1	AA	7121	DT	Sidechain
1	AA	7123	DA	Sidechain
1	AA	7125	DT	Sidechain
1	AA	7128	DC	Sidechain
1	AA	7134	DG	Sidechain
1	AA	7140	DA	Sidechain
1	AA	7142	DA	Sidechain
1	AA	7143	DT	Sidechain
1	AA	7147	DT	Sidechain
1	AA	7150	DA	Sidechain
1	AA	7155	DT	Sidechain
1	AA	7158	DA	Sidechain
1	AA	7160	DA	Sidechain
1	AA	7163	DT	Sidechain
1	AA	7165	DA	Sidechain
1	AA	7168	DT	Sidechain
1	AA	7178	DT	Sidechain
1	AA	7182	DG	Sidechain
1	AA	7188	DG	Sidechain
1	AA	7189	DA	Sidechain
1	AA	7192	DT	Sidechain
1	AA	7199	DT	Sidechain
1	AA	7201	DC	Sidechain
1	AA	7204	DC	Sidechain
1	AA	7206	DG	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	7209	DT	Sidechain
1	AA	7214	DG	Sidechain
1	AA	7224	DG	Sidechain
1	AA	7229	DA	Sidechain
1	AA	7233	DG	Sidechain
1	AA	7235	DT	Sidechain
1	AA	7243	DC	Sidechain
1	AA	7250	DC	Sidechain
1	AA	7254	DA	Sidechain
1	AA	7257	DT	Sidechain
1	AA	7259	DT	Sidechain
1	AA	7261	DT	Sidechain
1	AA	7262	DT	Sidechain
1	AA	7266	DT	Sidechain
1	AA	7267	DC	Sidechain
1	AA	7269	DT	Sidechain
1	AA	727	DA	Sidechain
1	AA	7285	DT	Sidechain
1	AA	7289	DT	Sidechain
1	AA	7292	DT	Sidechain
1	AA	7297	DA	Sidechain
1	AA	73	DA	Sidechain
1	AA	7300	DG	Sidechain
1	AA	7302	DG	Sidechain
1	AA	7304	DT	Sidechain
1	AA	7311	DG	Sidechain
1	AA	7312	DG	Sidechain
1	AA	7313	DG	Sidechain
1	AA	7316	DA	Sidechain
1	AA	7321	DT	Sidechain
1	AA	7332	DA	Sidechain
1	AA	7336	DC	Sidechain
1	AA	7339	DA	Sidechain
1	AA	7342	DG	Sidechain
1	AA	7346	DT	Sidechain
1	AA	7348	DC	Sidechain
1	AA	7351	DA	Sidechain
1	AA	7352	DA	Sidechain
1	AA	7353	DA	Sidechain
1	AA	7357	DT	Sidechain
1	AA	736	DA	Sidechain
1	AA	7362	DG	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	7364	DG	Sidechain
1	AA	7367	DA	Sidechain
1	AA	7368	DC	Sidechain
1	AA	737	DC	Sidechain
1	AA	7370	DT	Sidechain
1	AA	7375	DT	Sidechain
1	AA	7391	DG	Sidechain
1	AA	7400	DT	Sidechain
1	AA	7404	DT	Sidechain
1	AA	7407	DG	Sidechain
1	AA	741	DC	Sidechain
1	AA	7412	DC	Sidechain
1	AA	7415	DG	Sidechain
1	AA	7417	DA	Sidechain
1	AA	7420	DT	Sidechain
1	AA	7426	DT	Sidechain
1	AA	7429	DT	Sidechain
1	AA	7430	DT	Sidechain
1	AA	7439	DT	Sidechain
1	AA	7446	DG	Sidechain
1	AA	7447	DG	Sidechain
1	AA	7469	DT	Sidechain
1	AA	7473	DT	Sidechain
1	AA	7474	DT	Sidechain
1	AA	7478	DG	Sidechain
1	AA	7488	DC	Sidechain
1	AA	7489	DG	Sidechain
1	AA	7499	DA	Sidechain
1	AA	7503	DA	Sidechain
1	AA	7506	DT	Sidechain
1	AA	7512	DA	Sidechain
1	AA	7513	DG	Sidechain
1	AA	7515	DG	Sidechain
1	AA	7517	DT	Sidechain
1	AA	7519	DT	Sidechain
1	AA	753	DA	Sidechain
1	AA	7534	DC	Sidechain
1	AA	7539	DG	Sidechain
1	AA	7541	DT	Sidechain
1	AA	7543	DA	Sidechain
1	AA	7546	DT	Sidechain
1	AA	7548	DG	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	7549	DT	Sidechain
1	AA	7552	DT	Sidechain
1	AA	7554	DG	Sidechain
1	AA	7561	DC	Sidechain
1	AA	7562	DC	Sidechain
1	AA	7567	DA	Sidechain
1	AA	7568	DG	Sidechain
1	AA	7569	DG	Sidechain
1	AA	757	DT	Sidechain
1	AA	7570	DC	Sidechain
1	AA	7571	DC	Sidechain
1	AA	7572	DG	Sidechain
1	AA	758	DT	Sidechain
1	AA	7581	DA	Sidechain
1	AA	7582	DG	Sidechain
1	AA	7583	DT	Sidechain
1	AA	7586	DT	Sidechain
1	AA	7588	DC	Sidechain
1	AA	76	DA	Sidechain
1	AA	760	DT	Sidechain
1	AA	7600	DG	Sidechain
1	AA	7605	DG	Sidechain
1	AA	7607	DT	Sidechain
1	AA	7610	DT	Sidechain
1	AA	7613	DT	Sidechain
1	AA	762	DA	Sidechain
1	AA	7626	DA	Sidechain
1	AA	7630	DC	Sidechain
1	AA	7635	DA	Sidechain
1	AA	764	DG	Sidechain
1	AA	7641	DA	Sidechain
1	AA	7645	DT	Sidechain
1	AA	7647	DC	Sidechain
1	AA	7650	DG	Sidechain
1	AA	7651	DA	Sidechain
1	AA	7654	DG	Sidechain
1	AA	7656	DC	Sidechain
1	AA	7658	DG	Sidechain
1	AA	7659	DA	Sidechain
1	AA	766	DG	Sidechain
1	AA	7661	DT	Sidechain
1	AA	7663	DT	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	7664	DT	Sidechain
1	AA	7669	DT	Sidechain
1	AA	767	DC	Sidechain
1	AA	7672	DG	Sidechain
1	AA	7682	DT	Sidechain
1	AA	7684	DA	Sidechain
1	AA	7686	DT	Sidechain
1	AA	7698	DT	Sidechain
1	AA	7700	DT	Sidechain
1	AA	7708	DC	Sidechain
1	AA	7710	DG	Sidechain
1	AA	7713	DG	Sidechain
1	AA	772	DA	Sidechain
1	AA	7723	DT	Sidechain
1	AA	7725	DT	Sidechain
1	AA	7726	DC	Sidechain
1	AA	7727	DT	Sidechain
1	AA	7728	DA	Sidechain
1	AA	7732	DT	Sidechain
1	AA	7736	DT	Sidechain
1	AA	7741	DT	Sidechain
1	AA	7751	DG	Sidechain
1	AA	7754	DT	Sidechain
1	AA	7770	DT	Sidechain
1	AA	7773	DA	Sidechain
1	AA	7774	DA	Sidechain
1	AA	7781	DA	Sidechain
1	AA	7785	DA	Sidechain
1	AA	7789	DT	Sidechain
1	AA	7790	DA	Sidechain
1	AA	7794	DG	Sidechain
1	AA	7798	DT	Sidechain
1	AA	7810	DC	Sidechain
1	AA	7814	DA	Sidechain
1	AA	7816	DT	Sidechain
1	AA	7817	DA	Sidechain
1	AA	7818	DC	Sidechain
1	AA	7819	DG	Sidechain
1	AA	7821	DG	Sidechain
1	AA	7827	DT	Sidechain
1	AA	7828	DA	Sidechain
1	AA	7829	DG	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	7831	DG	Sidechain
1	AA	7832	DG	Sidechain
1	AA	7848	DG	Sidechain
1	AA	7849	DG	Sidechain
1	AA	785	DT	Sidechain
1	AA	7850	DG	Sidechain
1	AA	7857	DG	Sidechain
1	AA	7860	DT	Sidechain
1	AA	7862	DC	Sidechain
1	AA	7867	DA	Sidechain
1	AA	7869	DC	Sidechain
1	AA	7877	DC	Sidechain
1	AA	7878	DT	Sidechain
1	AA	7883	DT	Sidechain
1	AA	789	DC	Sidechain
1	AA	7892	DC	Sidechain
1	AA	7894	DC	Sidechain
1	AA	7895	DT	Sidechain
1	AA	7897	DG	Sidechain
1	AA	7899	DG	Sidechain
1	AA	7908	DT	Sidechain
1	AA	7911	DC	Sidechain
1	AA	7918	DT	Sidechain
1	AA	7919	DT	Sidechain
1	AA	7921	DC	Sidechain
1	AA	7924	DT	Sidechain
1	AA	7928	DT	Sidechain
1	AA	7933	DG	Sidechain
1	AA	7940	DT	Sidechain
1	AA	7943	DC	Sidechain
1	AA	7950	DT	Sidechain
1	AA	7958	DA	Sidechain
1	AA	7961	DC	Sidechain
1	AA	7974	DG	Sidechain
1	AA	7976	DT	Sidechain
1	AA	7979	DC	Sidechain
1	AA	7985	DG	Sidechain
1	AA	7986	DG	Sidechain
1	AA	799	DG	Sidechain
1	AA	7991	DG	Sidechain
1	AA	7996	DA	Sidechain
1	AA	7997	DG	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	7998	DT	Sidechain
1	AA	8000	DC	Sidechain
1	AA	8004	DA	Sidechain
1	AA	8005	DC	Sidechain
1	AA	8008	DC	Sidechain
1	AA	8013	DC	Sidechain
1	AA	8020	DA	Sidechain
1	AA	8022	DA	Sidechain
1	AA	8023	DA	Sidechain
1	AA	8027	DT	Sidechain
1	AA	8029	DG	Sidechain
1	AA	803	DC	Sidechain
1	AA	8030	DA	Sidechain
1	AA	8035	DG	Sidechain
1	AA	8036	DG	Sidechain
1	AA	8042	DG	Sidechain
1	AA	8043	DT	Sidechain
1	AA	8063	DC	Sidechain
1	AA	818	DT	Sidechain
1	AA	821	DC	Sidechain
1	AA	822	DG	Sidechain
1	AA	83	DA	Sidechain
1	AA	835	DG	Sidechain
1	AA	837	DG	Sidechain
1	AA	842	DG	Sidechain
1	AA	845	DT	Sidechain
1	AA	847	DC	Sidechain
1	AA	848	DG	Sidechain
1	AA	852	DG	Sidechain
1	AA	856	DC	Sidechain
1	AA	858	DG	Sidechain
1	AA	859	DC	Sidechain
1	AA	862	DT	Sidechain
1	AA	868	DC	Sidechain
1	AA	87	DT	Sidechain
1	AA	870	DC	Sidechain
1	AA	877	DT	Sidechain
1	AA	880	DA	Sidechain
1	AA	882	DA	Sidechain
1	AA	885	DT	Sidechain
1	AA	889	DG	Sidechain
1	AA	89	DT	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	890	DC	Sidechain
1	AA	895	DA	Sidechain
1	AA	896	DG	Sidechain
1	AA	897	DC	Sidechain
1	AA	898	DT	Sidechain
1	AA	901	DT	Sidechain
1	AA	909	DG	Sidechain
1	AA	910	DA	Sidechain
1	AA	912	DG	Sidechain
1	AA	922	DA	Sidechain
1	AA	925	DG	Sidechain
1	AA	926	DT	Sidechain
1	AA	929	DT	Sidechain
1	AA	93	DG	Sidechain
1	AA	930	DG	Sidechain
1	AA	932	DC	Sidechain
1	AA	934	DT	Sidechain
1	AA	939	DA	Sidechain
1	AA	944	DT	Sidechain
1	AA	949	DT	Sidechain
1	AA	95	DG	Sidechain
1	AA	958	DA	Sidechain
1	AA	966	DA	Sidechain
1	AA	967	DG	Sidechain
1	AA	973	DC	Sidechain
1	AA	975	DC	Sidechain
1	AA	976	DT	Sidechain
1	AA	98	DA	Sidechain
1	AA	983	DC	Sidechain
1	AA	99	DT	Sidechain
1	AA	990	DT	Sidechain
2	AB	1	DT	Sidechain
2	AB	12	DC	Sidechain
2	AB	16	DA	Sidechain
2	AB	3	DT	Sidechain
2	AB	34	DG	Sidechain
2	AB	35	DG	Sidechain
2	AB	38	DC	Sidechain
2	AB	7	DT	Sidechain
3	AC	10	DT	Sidechain
3	AC	13	DA	Sidechain
3	AC	19	DG	Sidechain

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Mol	Chain	Res	Type	Group
3	AC	22	DG	Sidechain
3	AC	28	DC	Sidechain
3	AC	3	DT	Sidechain
3	AC	32	DT	Sidechain
3	AC	39	DT	Sidechain
3	AC	41	DT	Sidechain
3	AC	42	DT	Sidechain
3	AC	6	DT	Sidechain
4	AD	1	DC	Sidechain
4	AD	12	DT	Sidechain
4	AD	26	DA	Sidechain
4	AD	37	DG	Sidechain
4	AD	41	DT	Sidechain
4	AD	47	DT	Sidechain
4	AD	50	DT	Sidechain
4	AD	9	DG	Sidechain
5	AE	12	DC	Sidechain
5	AE	14	DA	Sidechain
5	AE	15	DA	Sidechain
5	AE	2	DC	Sidechain
5	AE	21	DA	Sidechain
5	AE	26	DT	Sidechain
5	AE	3	DT	Sidechain
5	AE	31	DA	Sidechain
5	AE	37	DG	Sidechain
5	AE	39	DC	Sidechain
5	AE	41	DT	Sidechain
5	AE	47	DA	Sidechain
5	AE	8	DT	Sidechain
6	AF	1	DG	Sidechain
6	AF	15	DT	Sidechain
6	AF	18	DA	Sidechain
6	AF	2	DG	Sidechain
6	AF	22	DG	Sidechain
6	AF	23	DT	Sidechain
6	AF	27	DT	Sidechain
6	AF	32	DA	Sidechain
6	AF	9	DA	Sidechain
7	AG	13	DT	Sidechain
7	AG	20	DC	Sidechain
7	AG	25	DA	Sidechain
7	AG	29	DC	Sidechain

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Mol	Chain	Res	Type	Group
7	AG	36	DA	Sidechain
7	AG	37	DG	Sidechain
7	AG	38	DT	Sidechain
7	AG	4	DA	Sidechain
7	AG	48	DA	Sidechain
7	AG	5	DG	Sidechain
8	AH	1	DA	Sidechain
8	AH	21	DA	Sidechain
8	AH	34	DC	Sidechain
8	AH	42	DG	Sidechain
8	AH	49	DG	Sidechain
8	AH	9	DA	Sidechain
9	AI	14	DT	Sidechain
9	AI	16	DG	Sidechain
9	AI	20	DG	Sidechain
9	AI	23	DA	Sidechain
9	AI	42	DT	Sidechain
9	AI	44	DT	Sidechain
9	AI	48	DA	Sidechain
9	AI	5	DC	Sidechain
10	AJ	12	DG	Sidechain
10	AJ	13	DA	Sidechain
10	AJ	22	DT	Sidechain
10	AJ	28	DG	Sidechain
10	AJ	29	DT	Sidechain
10	AJ	32	DT	Sidechain
10	AJ	38	DT	Sidechain
11	AK	18	DG	Sidechain
11	AK	22	DA	Sidechain
11	AK	23	DG	Sidechain
11	AK	27	DC	Sidechain
11	AK	36	DG	Sidechain
11	AK	40	DG	Sidechain
11	AK	53	DC	Sidechain
11	AK	54	DA	Sidechain
11	AK	6	DC	Sidechain
12	AL	1	DT	Sidechain
12	AL	11	DG	Sidechain
12	AL	15	DC	Sidechain
12	AL	19	DA	Sidechain
12	AL	20	DG	Sidechain
12	AL	29	DT	Sidechain

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Mol	Chain	Res	Type	Group
12	AL	3	DT	Sidechain
12	AL	35	DT	Sidechain
12	AL	36	DT	Sidechain
12	AL	38	DT	Sidechain
13	AM	16	DA	Sidechain
13	AM	17	DT	Sidechain
13	AM	19	DA	Sidechain
13	AM	20	DG	Sidechain
13	AM	21	DG	Sidechain
13	AM	22	DC	Sidechain
13	AM	23	DG	Sidechain
13	AM	25	DA	Sidechain
13	AM	27	DT	Sidechain
13	AM	3	DT	Sidechain
13	AM	32	DT	Sidechain
13	AM	35	DT	Sidechain
13	AM	38	DT	Sidechain
13	AM	39	DT	Sidechain
13	AM	42	DT	Sidechain
13	AM	7	DT	Sidechain
14	AN	12	DA	Sidechain
14	AN	17	DT	Sidechain
14	AN	22	DG	Sidechain
14	AN	23	DA	Sidechain
14	AN	28	DA	Sidechain
14	AN	33	DG	Sidechain
14	AN	34	DC	Sidechain
15	AO	10	DT	Sidechain
15	AO	14	DG	Sidechain
15	AO	15	DT	Sidechain
15	AO	21	DC	Sidechain
15	AO	22	DC	Sidechain
15	AO	29	DC	Sidechain
15	AO	30	DC	Sidechain
15	AO	32	DT	Sidechain
15	AO	34	DT	Sidechain
15	AO	39	DT	Sidechain
16	AP	1	DA	Sidechain
16	AP	10	DA	Sidechain
16	AP	13	DG	Sidechain
16	AP	17	DG	Sidechain
16	AP	2	DC	Sidechain

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Mol	Chain	Res	Type	Group
16	AP	22	DA	Sidechain
16	AP	27	DC	Sidechain
16	AP	28	DG	Sidechain
16	AP	3	DT	Sidechain
16	AP	30	DG	Sidechain
16	AP	31	DT	Sidechain
16	AP	33	DT	Sidechain
16	AP	38	DA	Sidechain
17	AQ	13	DA	Sidechain
17	AQ	21	DT	Sidechain
17	AQ	24	DA	Sidechain
17	AQ	28	DG	Sidechain
17	AQ	35	DC	Sidechain
17	AQ	6	DG	Sidechain
17	AQ	8	DG	Sidechain
18	AR	10	DT	Sidechain
18	AR	11	DT	Sidechain
18	AR	2	DC	Sidechain
18	AR	22	DG	Sidechain
18	AR	23	DG	Sidechain
18	AR	29	DA	Sidechain
18	AR	40	DG	Sidechain
19	AS	1	DT	Sidechain
19	AS	17	DT	Sidechain
19	AS	24	DC	Sidechain
19	AS	26	DG	Sidechain
19	AS	27	DG	Sidechain
19	AS	39	DA	Sidechain
19	AS	40	DA	Sidechain
20	AT	15	DC	Sidechain
20	AT	17	DC	Sidechain
20	AT	22	DA	Sidechain
20	AT	28	DG	Sidechain
20	AT	3	DT	Sidechain
20	AT	37	DT	Sidechain
20	AT	9	DT	Sidechain
21	AU	17	DC	Sidechain
21	AU	22	DT	Sidechain
21	AU	23	DT	Sidechain
21	AU	27	DA	Sidechain
21	AU	28	DC	Sidechain
21	AU	29	DC	Sidechain

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Mol	Chain	Res	Type	Group
21	AU	3	DC	Sidechain
21	AU	35	DA	Sidechain
21	AU	39	DA	Sidechain
21	AU	40	DA	Sidechain
21	AU	41	DT	Sidechain
21	AU	47	DC	Sidechain
22	AV	11	DA	Sidechain
22	AV	12	DA	Sidechain
22	AV	21	DA	Sidechain
22	AV	24	DT	Sidechain
22	AV	26	DT	Sidechain
22	AV	30	DG	Sidechain
22	AV	37	DG	Sidechain
22	AV	7	DT	Sidechain
23	AW	18	DC	Sidechain
23	AW	27	DG	Sidechain
23	AW	4	DA	Sidechain
23	AW	45	DG	Sidechain
23	AW	48	DA	Sidechain
23	AW	49	DA	Sidechain
23	AW	51	DT	Sidechain
23	AW	7	DT	Sidechain
24	AX	1	DT	Sidechain
24	AX	11	DC	Sidechain
24	AX	2	DT	Sidechain
24	AX	20	DG	Sidechain
24	AX	22	DA	Sidechain
24	AX	24	DG	Sidechain
24	AX	3	DT	Sidechain
24	AX	30	DA	Sidechain
24	AX	33	DC	Sidechain
24	AX	8	DT	Sidechain
24	AX	9	DT	Sidechain
25	AY	10	DT	Sidechain
25	AY	14	DA	Sidechain
25	AY	26	DG	Sidechain
25	AY	27	DG	Sidechain
25	AY	5	DT	Sidechain
25	AY	7	DT	Sidechain
26	AZ	10	DG	Sidechain
26	AZ	13	DA	Sidechain
26	AZ	16	DA	Sidechain

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Mol	Chain	Res	Type	Group
26	AZ	19	DC	Sidechain
26	AZ	22	DT	Sidechain
26	AZ	23	DC	Sidechain
26	AZ	29	DT	Sidechain
26	AZ	34	DA	Sidechain
26	AZ	39	DA	Sidechain
26	AZ	40	DG	Sidechain
26	AZ	41	DA	Sidechain
26	AZ	44	DA	Sidechain
27	Aa	11	DT	Sidechain
27	Aa	13	DG	Sidechain
27	Aa	15	DA	Sidechain
27	Aa	20	DG	Sidechain
27	Aa	24	DG	Sidechain
27	Aa	25	DA	Sidechain
27	Aa	26	DG	Sidechain
27	Aa	34	DT	Sidechain
28	Ab	2	DT	Sidechain
28	Ab	35	DC	Sidechain
28	Ab	6	DA	Sidechain
28	Ab	8	DT	Sidechain
29	Ac	15	DA	Sidechain
29	Ac	22	DA	Sidechain
29	Ac	28	DG	Sidechain
29	Ac	31	DT	Sidechain
29	Ac	35	DT	Sidechain
29	Ac	36	DC	Sidechain
29	Ac	46	DT	Sidechain
29	Ac	9	DC	Sidechain
30	Ad	13	DC	Sidechain
30	Ad	2	DA	Sidechain
30	Ad	24	DT	Sidechain
30	Ad	28	DT	Sidechain
30	Ad	38	DG	Sidechain
30	Ad	39	DA	Sidechain
30	Ad	4	DA	Sidechain
31	Ae	12	DG	Sidechain
31	Ae	13	DC	Sidechain
31	Ae	14	DC	Sidechain
31	Ae	15	DA	Sidechain
31	Ae	17	DC	Sidechain
31	Ae	19	DA	Sidechain

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Mol	Chain	Res	Type	Group
31	Ae	22	DT	Sidechain
31	Ae	26	DA	Sidechain
31	Ae	27	DA	Sidechain
31	Ae	28	DA	Sidechain
31	Ae	34	DT	Sidechain
31	Ae	35	DC	Sidechain
31	Ae	36	DA	Sidechain
31	Ae	38	DA	Sidechain
31	Ae	8	DA	Sidechain
32	Af	15	DC	Sidechain
32	Af	16	DG	Sidechain
32	Af	22	DT	Sidechain
32	Af	26	DT	Sidechain
32	Af	3	DC	Sidechain
32	Af	35	DT	Sidechain
32	Af	8	DA	Sidechain
33	Ag	20	DA	Sidechain
33	Ag	29	DG	Sidechain
33	Ag	30	DG	Sidechain
33	Ag	31	DT	Sidechain
33	Ag	32	DT	Sidechain
33	Ag	36	DT	Sidechain
33	Ag	39	DT	Sidechain
33	Ag	9	DC	Sidechain
34	Ah	12	DA	Sidechain
34	Ah	13	DT	Sidechain
34	Ah	15	DT	Sidechain
34	Ah	20	DA	Sidechain
34	Ah	22	DG	Sidechain
34	Ah	24	DA	Sidechain
34	Ah	29	DA	Sidechain
34	Ah	32	DT	Sidechain
34	Ah	36	DC	Sidechain
34	Ah	38	DA	Sidechain
34	Ah	5	DA	Sidechain
34	Ah	6	DA	Sidechain
35	Ai	14	DT	Sidechain
35	Ai	16	DA	Sidechain
35	Ai	21	DC	Sidechain
35	Ai	24	DG	Sidechain
35	Ai	28	DT	Sidechain
35	Ai	31	DT	Sidechain

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Mol	Chain	Res	Type	Group
35	Ai	33	DC	Sidechain
35	Ai	36	DA	Sidechain
35	Ai	4	DT	Sidechain
35	Ai	42	DT	Sidechain
35	Ai	9	DG	Sidechain
36	Aj	13	DG	Sidechain
36	Aj	2	DC	Sidechain
36	Aj	22	DC	Sidechain
36	Aj	34	DA	Sidechain
36	Aj	36	DT	Sidechain
36	Aj	38	DT	Sidechain
36	Aj	9	DT	Sidechain
37	Ak	1	DG	Sidechain
37	Ak	11	DT	Sidechain
37	Ak	13	DT	Sidechain
37	Ak	14	DT	Sidechain
37	Ak	27	DA	Sidechain
37	Ak	32	DA	Sidechain
37	Ak	37	DG	Sidechain
37	Ak	9	DG	Sidechain
38	Al	11	DT	Sidechain
38	Al	13	DA	Sidechain
38	Al	14	DT	Sidechain
38	Al	15	DG	Sidechain
38	Al	16	DA	Sidechain
38	Al	2	DT	Sidechain
38	Al	22	DG	Sidechain
38	Al	23	DG	Sidechain
38	Al	35	DT	Sidechain
38	Al	38	DT	Sidechain
38	Al	41	DT	Sidechain
38	Al	42	DA	Sidechain
38	Al	9	DC	Sidechain
39	Am	1	DT	Sidechain
39	Am	14	DT	Sidechain
39	Am	16	DA	Sidechain
39	Am	18	DG	Sidechain
39	Am	19	DA	Sidechain
39	Am	22	DC	Sidechain
39	Am	23	DA	Sidechain
39	Am	29	DG	Sidechain
39	Am	30	DT	Sidechain

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Mol	Chain	Res	Type	Group
39	Am	35	DT	Sidechain
39	Am	5	DT	Sidechain
39	Am	6	DT	Sidechain
39	Am	7	DT	Sidechain
40	An	1	DT	Sidechain
40	An	11	DA	Sidechain
40	An	13	DA	Sidechain
40	An	17	DT	Sidechain
40	An	19	DA	Sidechain
40	An	33	DT	Sidechain
40	An	36	DT	Sidechain
40	An	5	DT	Sidechain
40	An	6	DT	Sidechain
40	An	9	DT	Sidechain
41	Ao	11	DT	Sidechain
41	Ao	21	DC	Sidechain
41	Ao	23	DA	Sidechain
41	Ao	24	DC	Sidechain
41	Ao	31	DA	Sidechain
41	Ao	33	DT	Sidechain
41	Ao	42	DC	Sidechain
41	Ao	45	DT	Sidechain
41	Ao	49	DA	Sidechain
42	Ap	10	DA	Sidechain
42	Ap	11	DG	Sidechain
42	Ap	14	DA	Sidechain
42	Ap	15	DC	Sidechain
42	Ap	25	DC	Sidechain
42	Ap	26	DT	Sidechain
42	Ap	27	DT	Sidechain
42	Ap	28	DG	Sidechain
42	Ap	30	DA	Sidechain
42	Ap	40	DA	Sidechain
42	Ap	44	DA	Sidechain
42	Ap	49	DC	Sidechain
43	Aq	10	DC	Sidechain
43	Aq	11	DT	Sidechain
43	Aq	13	DA	Sidechain
43	Aq	22	DA	Sidechain
43	Aq	27	DG	Sidechain
43	Aq	28	DG	Sidechain
43	Aq	36	DG	Sidechain

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Mol	Chain	Res	Type	Group
43	Aq	37	DC	Sidechain
43	Aq	46	DC	Sidechain
43	Aq	47	DA	Sidechain
43	Aq	5	DG	Sidechain
44	Ar	15	DT	Sidechain
44	Ar	18	DA	Sidechain
44	Ar	24	DC	Sidechain
44	Ar	26	DT	Sidechain
44	Ar	30	DA	Sidechain
44	Ar	31	DA	Sidechain
44	Ar	33	DC	Sidechain
44	Ar	4	DT	Sidechain
44	Ar	8	DA	Sidechain
45	As	14	DC	Sidechain
45	As	19	DC	Sidechain
45	As	2	DG	Sidechain
45	As	32	DA	Sidechain
45	As	37	DT	Sidechain
45	As	6	DT	Sidechain
46	At	15	DG	Sidechain
46	At	16	DA	Sidechain
46	At	20	DG	Sidechain
46	At	22	DA	Sidechain
46	At	30	DT	Sidechain
46	At	35	DC	Sidechain
46	At	38	DT	Sidechain
46	At	4	DT	Sidechain
46	At	51	DG	Sidechain
46	At	7	DA	Sidechain
47	Au	10	DG	Sidechain
47	Au	11	DG	Sidechain
47	Au	13	DC	Sidechain
47	Au	15	DG	Sidechain
47	Au	19	DA	Sidechain
47	Au	24	DA	Sidechain
47	Au	29	DG	Sidechain
47	Au	31	DT	Sidechain
47	Au	35	DG	Sidechain
47	Au	37	DA	Sidechain
47	Au	39	DA	Sidechain
47	Au	47	DG	Sidechain
47	Au	48	DA	Sidechain

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Mol	Chain	Res	Type	Group
48	Av	14	DG	Sidechain
48	Av	16	DG	Sidechain
48	Av	17	DC	Sidechain
48	Av	18	DC	Sidechain
48	Av	24	DA	Sidechain
48	Av	25	DT	Sidechain
48	Av	30	DG	Sidechain
48	Av	31	DA	Sidechain
48	Av	35	DG	Sidechain
48	Av	36	DC	Sidechain
49	Aw	1	DC	Sidechain
49	Aw	12	DC	Sidechain
49	Aw	14	DT	Sidechain
49	Aw	16	DA	Sidechain
49	Aw	20	DA	Sidechain
49	Aw	35	DC	Sidechain
49	Aw	7	DA	Sidechain
50	Ax	10	DT	Sidechain
50	Ax	11	DG	Sidechain
50	Ax	14	DC	Sidechain
50	Ax	24	DT	Sidechain
50	Ax	34	DC	Sidechain
50	Ax	39	DT	Sidechain
50	Ax	40	DT	Sidechain
50	Ax	42	DT	Sidechain
50	Ax	7	DT	Sidechain
51	Ay	1	DT	Sidechain
51	Ay	10	DT	Sidechain
51	Ay	12	DG	Sidechain
51	Ay	14	DC	Sidechain
51	Ay	22	DG	Sidechain
51	Ay	23	DC	Sidechain
51	Ay	24	DG	Sidechain
51	Ay	27	DT	Sidechain
52	Az	22	DT	Sidechain
52	Az	24	DT	Sidechain
52	Az	27	DT	Sidechain
52	Az	28	DT	Sidechain
52	Az	33	DT	Sidechain
52	Az	6	DC	Sidechain
52	Az	8	DG	Sidechain
52	Az	9	DT	Sidechain

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Mol	Chain	Res	Type	Group
115	B0	1	DG	Sidechain
115	B0	14	DA	Sidechain
115	B0	15	DT	Sidechain
115	B0	2	DA	Sidechain
115	B0	3	DT	Sidechain
115	B0	34	DT	Sidechain
115	B0	42	DT	Sidechain
115	B0	43	DT	Sidechain
115	B0	6	DA	Sidechain
116	B1	12	DT	Sidechain
116	B1	15	DA	Sidechain
116	B1	17	DA	Sidechain
116	B1	19	DG	Sidechain
116	B1	2	DG	Sidechain
116	B1	32	DC	Sidechain
116	B1	35	DG	Sidechain
116	B1	4	DT	Sidechain
116	B1	40	DT	Sidechain
116	B1	42	DA	Sidechain
117	B2	10	DT	Sidechain
117	B2	13	DC	Sidechain
117	B2	14	DC	Sidechain
117	B2	15	DT	Sidechain
117	B2	18	DG	Sidechain
117	B2	2	DT	Sidechain
117	B2	23	DG	Sidechain
117	B2	36	DT	Sidechain
117	B2	4	DT	Sidechain
117	B2	5	DT	Sidechain
118	B3	11	DT	Sidechain
118	B3	12	DA	Sidechain
118	B3	14	DT	Sidechain
118	B3	19	DA	Sidechain
118	B3	22	DC	Sidechain
118	B3	24	DT	Sidechain
118	B3	37	DT	Sidechain
118	B3	38	DT	Sidechain
118	B3	40	DT	Sidechain
118	B3	41	DT	Sidechain
118	B3	44	DT	Sidechain
118	B3	5	DT	Sidechain
119	B4	10	DT	Sidechain

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Mol	Chain	Res	Type	Group
119	B4	12	DA	Sidechain
119	B4	19	DT	Sidechain
119	B4	2	DA	Sidechain
119	B4	29	DG	Sidechain
119	B4	5	DT	Sidechain
119	B4	9	DT	Sidechain
120	B5	17	DA	Sidechain
120	B5	27	DT	Sidechain
120	B5	32	DT	Sidechain
120	B5	34	DC	Sidechain
120	B5	7	DG	Sidechain
120	B5	9	DT	Sidechain
121	B6	11	DG	Sidechain
121	B6	12	DC	Sidechain
121	B6	16	DT	Sidechain
121	B6	24	DC	Sidechain
121	B6	27	DA	Sidechain
121	B6	29	DA	Sidechain
121	B6	3	DG	Sidechain
121	B6	30	DA	Sidechain
121	B6	31	DG	Sidechain
121	B6	37	DT	Sidechain
121	B6	41	DC	Sidechain
121	B6	9	DT	Sidechain
122	B7	10	DA	Sidechain
122	B7	12	DC	Sidechain
122	B7	14	DA	Sidechain
122	B7	18	DT	Sidechain
122	B7	2	DT	Sidechain
122	B7	22	DG	Sidechain
122	B7	23	DG	Sidechain
122	B7	25	DA	Sidechain
122	B7	27	DT	Sidechain
122	B7	33	DA	Sidechain
122	B7	37	DT	Sidechain
122	B7	49	DT	Sidechain
123	B8	11	DT	Sidechain
123	B8	14	DG	Sidechain
123	B8	15	DC	Sidechain
123	B8	16	DA	Sidechain
123	B8	20	DT	Sidechain
123	B8	26	DA	Sidechain

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Mol	Chain	Res	Type	Group
123	B8	27	DG	Sidechain
123	B8	28	DC	Sidechain
123	B8	29	DA	Sidechain
123	B8	37	DG	Sidechain
123	B8	40	DG	Sidechain
123	B8	41	DA	Sidechain
124	B9	2	DA	Sidechain
124	B9	21	DC	Sidechain
124	B9	24	DA	Sidechain
124	B9	32	DT	Sidechain
124	B9	6	DT	Sidechain
124	B9	7	DT	Sidechain
63	BA	19	DC	Sidechain
63	BA	29	DG	Sidechain
63	BA	3	DT	Sidechain
63	BA	30	DA	Sidechain
63	BA	33	DG	Sidechain
63	BA	35	DG	Sidechain
63	BA	36	DG	Sidechain
63	BA	39	DA	Sidechain
63	BA	45	DT	Sidechain
63	BA	49	DC	Sidechain
64	BB	10	DA	Sidechain
64	BB	15	DG	Sidechain
64	BB	19	DG	Sidechain
64	BB	22	DT	Sidechain
64	BB	25	DA	Sidechain
64	BB	26	DC	Sidechain
64	BB	28	DG	Sidechain
64	BB	30	DT	Sidechain
64	BB	34	DC	Sidechain
64	BB	35	DG	Sidechain
64	BB	39	DT	Sidechain
64	BB	47	DT	Sidechain
65	BC	10	DT	Sidechain
65	BC	12	DT	Sidechain
65	BC	14	DT	Sidechain
65	BC	16	DC	Sidechain
65	BC	17	DG	Sidechain
65	BC	22	DA	Sidechain
65	BC	25	DG	Sidechain
65	BC	27	DA	Sidechain

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Mol	Chain	Res	Type	Group
65	BC	29	DG	Sidechain
65	BC	30	DG	Sidechain
65	BC	34	DA	Sidechain
65	BC	4	DA	Sidechain
65	BC	43	DT	Sidechain
66	BD	15	DA	Sidechain
66	BD	17	DA	Sidechain
66	BD	23	DT	Sidechain
66	BD	30	DT	Sidechain
66	BD	31	DT	Sidechain
66	BD	32	DT	Sidechain
66	BD	5	DT	Sidechain
66	BD	7	DT	Sidechain
67	BE	10	DT	Sidechain
67	BE	17	DT	Sidechain
67	BE	20	DA	Sidechain
67	BE	21	DG	Sidechain
67	BE	22	DA	Sidechain
67	BE	36	DT	Sidechain
67	BE	38	DT	Sidechain
67	BE	39	DT	Sidechain
67	BE	4	DT	Sidechain
67	BE	44	DT	Sidechain
67	BE	7	DT	Sidechain
68	BF	11	DT	Sidechain
68	BF	26	DA	Sidechain
68	BF	27	DG	Sidechain
68	BF	3	DA	Sidechain
68	BF	30	DA	Sidechain
68	BF	40	DT	Sidechain
68	BF	41	DT	Sidechain
68	BF	5	DC	Sidechain
69	BG	1	DC	Sidechain
69	BG	13	DG	Sidechain
69	BG	14	DG	Sidechain
69	BG	22	DA	Sidechain
69	BG	25	DA	Sidechain
69	BG	26	DG	Sidechain
69	BG	29	DA	Sidechain
69	BG	31	DT	Sidechain
69	BG	32	DA	Sidechain
69	BG	33	DA	Sidechain

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Mol	Chain	Res	Type	Group
69	BG	4	DT	Sidechain
69	BG	41	DG	Sidechain
69	BG	9	DA	Sidechain
70	BH	14	DA	Sidechain
70	BH	17	DA	Sidechain
70	BH	31	DT	Sidechain
70	BH	35	DT	Sidechain
70	BH	8	DT	Sidechain
71	BI	1	DG	Sidechain
71	BI	15	DT	Sidechain
71	BI	19	DG	Sidechain
71	BI	20	DA	Sidechain
71	BI	23	DA	Sidechain
71	BI	29	DT	Sidechain
71	BI	3	DT	Sidechain
71	BI	35	DG	Sidechain
71	BI	36	DG	Sidechain
71	BI	40	DA	Sidechain
71	BI	41	DG	Sidechain
71	BI	42	DA	Sidechain
71	BI	5	DA	Sidechain
72	BJ	1	DT	Sidechain
72	BJ	11	DT	Sidechain
72	BJ	17	DA	Sidechain
72	BJ	20	DG	Sidechain
72	BJ	24	DT	Sidechain
72	BJ	3	DT	Sidechain
72	BJ	31	DT	Sidechain
72	BJ	6	DT	Sidechain
73	BK	12	DG	Sidechain
73	BK	18	DG	Sidechain
73	BK	22	DC	Sidechain
73	BK	25	DA	Sidechain
73	BK	28	DC	Sidechain
73	BK	6	DG	Sidechain
73	BK	8	DG	Sidechain
73	BK	9	DA	Sidechain
74	BL	11	DT	Sidechain
74	BL	12	DA	Sidechain
74	BL	16	DT	Sidechain
74	BL	17	DT	Sidechain
74	BL	18	DT	Sidechain

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Mol	Chain	Res	Type	Group
74	BL	23	DC	Sidechain
74	BL	35	DA	Sidechain
74	BL	41	DA	Sidechain
74	BL	8	DT	Sidechain
74	BL	9	DT	Sidechain
75	BM	10	DT	Sidechain
75	BM	12	DG	Sidechain
75	BM	20	DT	Sidechain
75	BM	28	DT	Sidechain
75	BM	3	DT	Sidechain
75	BM	30	DG	Sidechain
75	BM	34	DA	Sidechain
75	BM	39	DG	Sidechain
75	BM	4	DT	Sidechain
75	BM	40	DC	Sidechain
75	BM	42	DA	Sidechain
75	BM	6	DT	Sidechain
76	BN	1	DT	Sidechain
76	BN	15	DT	Sidechain
76	BN	20	DC	Sidechain
76	BN	24	DA	Sidechain
76	BN	28	DT	Sidechain
76	BN	30	DT	Sidechain
76	BN	31	DA	Sidechain
76	BN	35	DT	Sidechain
76	BN	40	DT	Sidechain
76	BN	45	DA	Sidechain
76	BN	48	DG	Sidechain
76	BN	49	DG	Sidechain
76	BN	50	DA	Sidechain
76	BN	8	DT	Sidechain
77	BO	10	DA	Sidechain
77	BO	21	DA	Sidechain
77	BO	30	DG	Sidechain
77	BO	31	DG	Sidechain
77	BO	33	DT	Sidechain
77	BO	4	DT	Sidechain
78	BP	1	DA	Sidechain
78	BP	20	DT	Sidechain
78	BP	23	DA	Sidechain
78	BP	28	DA	Sidechain
78	BP	35	DC	Sidechain

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Mol	Chain	Res	Type	Group
78	BP	36	DC	Sidechain
78	BP	37	DT	Sidechain
78	BP	4	DT	Sidechain
78	BP	7	DC	Sidechain
79	BQ	17	DG	Sidechain
79	BQ	21	DG	Sidechain
79	BQ	22	DA	Sidechain
79	BQ	29	DG	Sidechain
79	BQ	30	DT	Sidechain
79	BQ	34	DT	Sidechain
79	BQ	35	DT	Sidechain
79	BQ	6	DA	Sidechain
79	BQ	9	DG	Sidechain
80	BR	11	DT	Sidechain
80	BR	12	DG	Sidechain
80	BR	16	DA	Sidechain
80	BR	18	DT	Sidechain
80	BR	19	DA	Sidechain
80	BR	21	DG	Sidechain
80	BR	23	DA	Sidechain
80	BR	26	DG	Sidechain
80	BR	28	DA	Sidechain
80	BR	33	DT	Sidechain
80	BR	34	DT	Sidechain
80	BR	36	DT	Sidechain
80	BR	37	DT	Sidechain
81	BS	12	DG	Sidechain
81	BS	13	DA	Sidechain
81	BS	16	DT	Sidechain
81	BS	17	DA	Sidechain
81	BS	2	DT	Sidechain
81	BS	37	DG	Sidechain
81	BS	38	DT	Sidechain
81	BS	6	DG	Sidechain
82	BT	19	DA	Sidechain
82	BT	22	DA	Sidechain
82	BT	24	DG	Sidechain
82	BT	25	DA	Sidechain
82	BT	26	DA	Sidechain
82	BT	3	DG	Sidechain
82	BT	31	DG	Sidechain
82	BT	33	DC	Sidechain

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Mol	Chain	Res	Type	Group
82	BT	37	DA	Sidechain
83	BU	10	DC	Sidechain
83	BU	13	DT	Sidechain
83	BU	18	DT	Sidechain
83	BU	23	DT	Sidechain
83	BU	26	DG	Sidechain
83	BU	32	DT	Sidechain
83	BU	34	DT	Sidechain
83	BU	37	DT	Sidechain
83	BU	6	DC	Sidechain
84	BV	16	DT	Sidechain
84	BV	17	DA	Sidechain
84	BV	22	DG	Sidechain
84	BV	23	DG	Sidechain
84	BV	25	DT	Sidechain
84	BV	27	DT	Sidechain
84	BV	8	DA	Sidechain
85	BW	10	DA	Sidechain
85	BW	13	DA	Sidechain
85	BW	23	DC	Sidechain
85	BW	24	DT	Sidechain
85	BW	35	DA	Sidechain
85	BW	5	DA	Sidechain
86	BX	1	DT	Sidechain
86	BX	12	DT	Sidechain
86	BX	14	DA	Sidechain
86	BX	20	DC	Sidechain
86	BX	27	DT	Sidechain
86	BX	8	DC	Sidechain
87	BY	10	DA	Sidechain
87	BY	11	DA	Sidechain
87	BY	14	DT	Sidechain
87	BY	15	DA	Sidechain
87	BY	20	DA	Sidechain
87	BY	22	DG	Sidechain
87	BY	23	DA	Sidechain
87	BY	25	DT	Sidechain
87	BY	26	DC	Sidechain
87	BY	6	DA	Sidechain
87	BY	8	DC	Sidechain
88	BZ	1	DC	Sidechain
88	BZ	15	DC	Sidechain

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Mol	Chain	Res	Type	Group
88	BZ	20	DA	Sidechain
88	BZ	21	DC	Sidechain
88	BZ	23	DA	Sidechain
88	BZ	24	DG	Sidechain
88	BZ	30	DA	Sidechain
88	BZ	33	DG	Sidechain
88	BZ	34	DC	Sidechain
88	BZ	36	DA	Sidechain
88	BZ	38	DA	Sidechain
88	BZ	39	DG	Sidechain
89	Ba	12	DT	Sidechain
89	Ba	13	DC	Sidechain
89	Ba	23	DG	Sidechain
89	Ba	24	DT	Sidechain
89	Ba	29	DT	Sidechain
89	Ba	34	DG	Sidechain
89	Ba	37	DG	Sidechain
89	Ba	4	DC	Sidechain
89	Ba	41	DC	Sidechain
89	Ba	48	DA	Sidechain
89	Ba	5	DG	Sidechain
90	Bb	10	DT	Sidechain
90	Bb	11	DT	Sidechain
90	Bb	14	DT	Sidechain
90	Bb	17	DT	Sidechain
90	Bb	19	DC	Sidechain
90	Bb	24	DT	Sidechain
90	Bb	27	DC	Sidechain
90	Bb	34	DC	Sidechain
90	Bb	39	DT	Sidechain
90	Bb	6	DT	Sidechain
90	Bb	7	DT	Sidechain
90	Bb	9	DT	Sidechain
91	Bc	10	DT	Sidechain
91	Bc	14	DA	Sidechain
91	Bc	15	DA	Sidechain
91	Bc	16	DT	Sidechain
91	Bc	23	DA	Sidechain
91	Bc	26	DG	Sidechain
91	Bc	27	DC	Sidechain
91	Bc	28	DA	Sidechain
91	Bc	35	DT	Sidechain

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Mol	Chain	Res	Type	Group
91	Bc	4	DT	Sidechain
91	Bc	6	DT	Sidechain
92	Bd	11	DC	Sidechain
92	Bd	12	DG	Sidechain
92	Bd	14	DC	Sidechain
92	Bd	15	DT	Sidechain
92	Bd	19	DA	Sidechain
92	Bd	25	DT	Sidechain
92	Bd	39	DG	Sidechain
92	Bd	41	DG	Sidechain
92	Bd	42	DT	Sidechain
93	Be	16	DC	Sidechain
93	Be	19	DG	Sidechain
93	Be	22	DA	Sidechain
93	Be	3	DG	Sidechain
93	Be	31	DT	Sidechain
93	Be	44	DA	Sidechain
93	Be	47	DA	Sidechain
94	Bf	15	DT	Sidechain
94	Bf	19	DA	Sidechain
94	Bf	31	DG	Sidechain
94	Bf	33	DC	Sidechain
94	Bf	35	DG	Sidechain
94	Bf	36	DG	Sidechain
94	Bf	39	DT	Sidechain
94	Bf	6	DC	Sidechain
94	Bf	8	DG	Sidechain
95	Bg	16	DC	Sidechain
95	Bg	2	DA	Sidechain
95	Bg	20	DA	Sidechain
95	Bg	27	DT	Sidechain
95	Bg	28	DG	Sidechain
95	Bg	29	DC	Sidechain
95	Bg	39	DT	Sidechain
95	Bg	4	DA	Sidechain
95	Bg	43	DG	Sidechain
95	Bg	49	DA	Sidechain
95	Bg	5	DT	Sidechain
96	Bh	10	DG	Sidechain
96	Bh	13	DA	Sidechain
96	Bh	20	DT	Sidechain
96	Bh	24	DC	Sidechain

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Mol	Chain	Res	Type	Group
96	Bh	27	DG	Sidechain
96	Bh	31	DA	Sidechain
96	Bh	40	DA	Sidechain
96	Bh	41	DA	Sidechain
96	Bh	46	DT	Sidechain
96	Bh	5	DA	Sidechain
96	Bh	8	DA	Sidechain
97	Bi	1	DC	Sidechain
97	Bi	11	DT	Sidechain
97	Bi	13	DA	Sidechain
97	Bi	14	DT	Sidechain
97	Bi	17	DG	Sidechain
97	Bi	24	DG	Sidechain
97	Bi	25	DT	Sidechain
97	Bi	27	DT	Sidechain
97	Bi	6	DA	Sidechain
97	Bi	9	DG	Sidechain
98	Bj	12	DA	Sidechain
98	Bj	15	DA	Sidechain
98	Bj	21	DC	Sidechain
98	Bj	29	DA	Sidechain
98	Bj	36	DT	Sidechain
98	Bj	5	DA	Sidechain
98	Bj	9	DC	Sidechain
99	Bk	11	DC	Sidechain
99	Bk	17	DC	Sidechain
99	Bk	24	DC	Sidechain
99	Bk	30	DC	Sidechain
99	Bk	36	DT	Sidechain
99	Bk	37	DA	Sidechain
99	Bk	40	DT	Sidechain
99	Bk	6	DA	Sidechain
100	Bl	12	DA	Sidechain
100	Bl	13	DA	Sidechain
100	Bl	17	DG	Sidechain
100	Bl	19	DA	Sidechain
100	Bl	21	DT	Sidechain
100	Bl	28	DT	Sidechain
100	Bl	3	DT	Sidechain
100	Bl	4	DT	Sidechain
100	Bl	41	DT	Sidechain
100	Bl	6	DT	Sidechain

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Mol	Chain	Res	Type	Group
100	Bl	9	DT	Sidechain
101	Bm	1	DT	Sidechain
101	Bm	11	DA	Sidechain
101	Bm	14	DA	Sidechain
101	Bm	2	DT	Sidechain
101	Bm	20	DA	Sidechain
101	Bm	21	DT	Sidechain
101	Bm	24	DT	Sidechain
101	Bm	26	DA	Sidechain
101	Bm	28	DC	Sidechain
101	Bm	33	DT	Sidechain
101	Bm	35	DA	Sidechain
101	Bm	36	DA	Sidechain
101	Bm	9	DT	Sidechain
102	Bn	14	DG	Sidechain
102	Bn	2	DG	Sidechain
102	Bn	20	DC	Sidechain
102	Bn	27	DA	Sidechain
102	Bn	3	DT	Sidechain
102	Bn	32	DG	Sidechain
102	Bn	37	DC	Sidechain
102	Bn	41	DT	Sidechain
102	Bn	44	DG	Sidechain
102	Bn	5	DC	Sidechain
102	Bn	52	DG	Sidechain
102	Bn	62	DT	Sidechain
103	Bo	17	DG	Sidechain
103	Bo	18	DA	Sidechain
103	Bo	19	DC	Sidechain
103	Bo	20	DT	Sidechain
103	Bo	23	DT	Sidechain
104	Bp	13	DA	Sidechain
104	Bp	22	DG	Sidechain
104	Bp	23	DT	Sidechain
104	Bp	33	DG	Sidechain
104	Bp	34	DC	Sidechain
104	Bp	39	DG	Sidechain
104	Bp	4	DA	Sidechain
104	Bp	42	DT	Sidechain
104	Bp	7	DC	Sidechain
105	Bq	12	DG	Sidechain
105	Bq	13	DT	Sidechain

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Mol	Chain	Res	Type	Group
105	Bq	16	DA	Sidechain
105	Bq	24	DT	Sidechain
105	Bq	27	DT	Sidechain
105	Bq	31	DG	Sidechain
105	Bq	34	DT	Sidechain
105	Bq	35	DT	Sidechain
105	Bq	5	DG	Sidechain
106	Br	15	DT	Sidechain
106	Br	16	DA	Sidechain
106	Br	2	DC	Sidechain
106	Br	22	DG	Sidechain
106	Br	24	DG	Sidechain
106	Br	26	DC	Sidechain
106	Br	29	DT	Sidechain
106	Br	31	DG	Sidechain
106	Br	34	DA	Sidechain
106	Br	40	DT	Sidechain
106	Br	49	DT	Sidechain
106	Br	8	DT	Sidechain
107	Bs	1	DT	Sidechain
107	Bs	11	DT	Sidechain
107	Bs	14	DG	Sidechain
107	Bs	19	DT	Sidechain
107	Bs	23	DA	Sidechain
107	Bs	29	DG	Sidechain
107	Bs	3	DT	Sidechain
107	Bs	35	DC	Sidechain
108	Bt	10	DA	Sidechain
108	Bt	11	DG	Sidechain
108	Bt	14	DG	Sidechain
108	Bt	17	DC	Sidechain
108	Bt	25	DG	Sidechain
108	Bt	28	DC	Sidechain
108	Bt	30	DG	Sidechain
109	Bu	12	DT	Sidechain
109	Bu	15	DT	Sidechain
109	Bu	16	DG	Sidechain
109	Bu	19	DT	Sidechain
109	Bu	20	DT	Sidechain
109	Bu	21	DT	Sidechain
109	Bu	26	DA	Sidechain
109	Bu	27	DA	Sidechain

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Mol	Chain	Res	Type	Group
109	Bu	28	DC	Sidechain
109	Bu	29	DG	Sidechain
109	Bu	34	DA	Sidechain
109	Bu	6	DT	Sidechain
109	Bu	7	DT	Sidechain
110	Bv	1	DT	Sidechain
110	Bv	10	DT	Sidechain
110	Bv	19	DG	Sidechain
110	Bv	22	DC	Sidechain
110	Bv	23	DA	Sidechain
110	Bv	24	DT	Sidechain
110	Bv	35	DT	Sidechain
111	Bw	14	DG	Sidechain
111	Bw	19	DG	Sidechain
111	Bw	2	DG	Sidechain
111	Bw	20	DT	Sidechain
111	Bw	22	DA	Sidechain
111	Bw	29	DG	Sidechain
111	Bw	3	DC	Sidechain
111	Bw	30	DC	Sidechain
111	Bw	31	DC	Sidechain
111	Bw	35	DA	Sidechain
111	Bw	38	DG	Sidechain
111	Bw	39	DT	Sidechain
111	Bw	47	DC	Sidechain
111	Bw	5	DA	Sidechain
112	Bx	10	DT	Sidechain
112	Bx	12	DT	Sidechain
112	Bx	14	DT	Sidechain
112	Bx	18	DA	Sidechain
112	Bx	27	DT	Sidechain
112	Bx	28	DC	Sidechain
112	Bx	30	DT	Sidechain
112	Bx	40	DG	Sidechain
112	Bx	42	DC	Sidechain
112	Bx	46	DA	Sidechain
112	Bx	5	DA	Sidechain
112	Bx	8	DG	Sidechain
113	By	12	DC	Sidechain
113	By	29	DT	Sidechain
113	By	31	DG	Sidechain
113	By	32	DC	Sidechain

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Mol	Chain	Res	Type	Group
113	By	33	DC	Sidechain
113	By	37	DG	Sidechain
113	By	4	DT	Sidechain
113	By	40	DG	Sidechain
113	By	7	DA	Sidechain
114	Bz	13	DT	Sidechain
114	Bz	16	DA	Sidechain
114	Bz	24	DA	Sidechain
114	Bz	26	DG	Sidechain
114	Bz	28	DG	Sidechain
114	Bz	29	DT	Sidechain
114	Bz	3	DG	Sidechain
114	Bz	30	DT	Sidechain
114	Bz	31	DT	Sidechain
114	Bz	34	DA	Sidechain
114	Bz	36	DG	Sidechain
114	Bz	39	DG	Sidechain
114	Bz	4	DC	Sidechain
114	Bz	40	DC	Sidechain
114	Bz	44	DA	Sidechain
114	Bz	45	DA	Sidechain
114	Bz	46	DA	Sidechain
177	C0	12	DG	Sidechain
177	C0	17	DT	Sidechain
177	C0	32	DT	Sidechain
177	C0	40	DT	Sidechain
177	C0	8	DA	Sidechain
178	C1	12	DA	Sidechain
178	C1	14	DG	Sidechain
178	C1	23	DG	Sidechain
178	C1	24	DA	Sidechain
178	C1	38	DG	Sidechain
178	C1	39	DC	Sidechain
178	C1	6	DA	Sidechain
179	C2	13	DC	Sidechain
179	C2	26	DT	Sidechain
179	C2	27	DC	Sidechain
179	C2	29	DG	Sidechain
179	C2	30	DA	Sidechain
179	C2	38	DA	Sidechain
179	C2	39	DG	Sidechain
179	C2	4	DG	Sidechain

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Mol	Chain	Res	Type	Group
179	C2	44	DT	Sidechain
179	C2	47	DG	Sidechain
179	C2	49	DG	Sidechain
179	C2	9	DG	Sidechain
180	C3	16	DT	Sidechain
180	C3	17	DG	Sidechain
180	C3	18	DA	Sidechain
180	C3	20	DG	Sidechain
180	C3	40	DT	Sidechain
180	C3	41	DC	Sidechain
180	C3	43	DA	Sidechain
180	C3	47	DG	Sidechain
180	C3	5	DA	Sidechain
181	C4	1	DG	Sidechain
181	C4	15	DC	Sidechain
181	C4	16	DT	Sidechain
181	C4	18	DG	Sidechain
181	C4	25	DT	Sidechain
181	C4	26	DT	Sidechain
181	C4	28	DT	Sidechain
181	C4	29	DG	Sidechain
181	C4	31	DT	Sidechain
181	C4	32	DT	Sidechain
181	C4	34	DG	Sidechain
181	C4	35	DC	Sidechain
181	C4	38	DC	Sidechain
181	C4	39	DA	Sidechain
181	C4	4	DT	Sidechain
181	C4	42	DT	Sidechain
182	C5	11	DT	Sidechain
182	C5	20	DT	Sidechain
182	C5	25	DT	Sidechain
182	C5	33	DG	Sidechain
182	C5	38	DC	Sidechain
182	C5	7	DC	Sidechain
183	C6	12	DG	Sidechain
183	C6	14	DT	Sidechain
183	C6	18	DA	Sidechain
183	C6	22	DA	Sidechain
183	C6	23	DG	Sidechain
183	C6	35	DT	Sidechain
183	C6	5	DT	Sidechain

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Mol	Chain	Res	Type	Group
183	C6	8	DT	Sidechain
183	C6	9	DT	Sidechain
184	C7	18	DT	Sidechain
184	C7	20	DT	Sidechain
184	C7	30	DA	Sidechain
184	C7	32	DA	Sidechain
184	C7	34	DT	Sidechain
184	C7	39	DG	Sidechain
184	C7	40	DG	Sidechain
184	C7	6	DC	Sidechain
184	C7	9	DT	Sidechain
185	C8	10	DT	Sidechain
185	C8	11	DC	Sidechain
185	C8	17	DA	Sidechain
185	C8	23	DG	Sidechain
185	C8	30	DA	Sidechain
185	C8	8	DT	Sidechain
185	C8	9	DT	Sidechain
186	C9	17	DG	Sidechain
186	C9	2	DT	Sidechain
186	C9	21	DC	Sidechain
186	C9	22	DC	Sidechain
186	C9	27	DG	Sidechain
186	C9	28	DT	Sidechain
186	C9	29	DT	Sidechain
186	C9	35	DT	Sidechain
186	C9	38	DT	Sidechain
186	C9	39	DG	Sidechain
186	C9	41	DC	Sidechain
186	C9	6	DT	Sidechain
125	CA	10	DG	Sidechain
125	CA	13	DT	Sidechain
125	CA	19	DA	Sidechain
125	CA	23	DT	Sidechain
125	CA	27	DG	Sidechain
125	CA	28	DA	Sidechain
125	CA	31	DG	Sidechain
125	CA	35	DT	Sidechain
126	CB	1	DT	Sidechain
126	CB	10	DT	Sidechain
126	CB	17	DA	Sidechain
126	CB	22	DT	Sidechain

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Mol	Chain	Res	Type	Group
126	CB	30	DA	Sidechain
127	CC	10	DT	Sidechain
127	CC	14	DA	Sidechain
127	CC	17	DT	Sidechain
127	CC	18	DT	Sidechain
127	CC	27	DA	Sidechain
127	CC	3	DT	Sidechain
127	CC	30	DA	Sidechain
127	CC	31	DT	Sidechain
127	CC	34	DA	Sidechain
127	CC	38	DT	Sidechain
127	CC	44	DA	Sidechain
127	CC	47	DC	Sidechain
128	CD	10	DC	Sidechain
128	CD	11	DT	Sidechain
128	CD	13	DT	Sidechain
128	CD	23	DA	Sidechain
128	CD	24	DT	Sidechain
128	CD	36	DA	Sidechain
129	CE	11	DG	Sidechain
129	CE	12	DT	Sidechain
129	CE	14	DG	Sidechain
129	CE	16	DG	Sidechain
129	CE	17	DC	Sidechain
129	CE	18	DG	Sidechain
129	CE	2	DA	Sidechain
129	CE	21	DG	Sidechain
129	CE	23	DA	Sidechain
129	CE	27	DA	Sidechain
129	CE	30	DG	Sidechain
129	CE	33	DA	Sidechain
129	CE	6	DA	Sidechain
129	CE	9	DG	Sidechain
130	CF	14	DT	Sidechain
130	CF	22	DT	Sidechain
130	CF	23	DT	Sidechain
130	CF	31	DT	Sidechain
130	CF	35	DT	Sidechain
130	CF	6	DT	Sidechain
131	CG	10	DC	Sidechain
131	CG	11	DG	Sidechain
131	CG	14	DT	Sidechain

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Mol	Chain	Res	Type	Group
131	CG	27	DT	Sidechain
131	CG	29	DT	Sidechain
131	CG	39	DT	Sidechain
131	CG	40	DC	Sidechain
131	CG	43	DC	Sidechain
131	CG	45	DG	Sidechain
131	CG	46	DG	Sidechain
131	CG	49	DA	Sidechain
132	CH	1	DT	Sidechain
132	CH	13	DG	Sidechain
132	CH	26	DA	Sidechain
132	CH	27	DC	Sidechain
132	CH	28	DC	Sidechain
132	CH	30	DC	Sidechain
132	CH	38	DA	Sidechain
132	CH	42	DG	Sidechain
132	CH	43	DA	Sidechain
132	CH	46	DG	Sidechain
132	CH	49	DA	Sidechain
132	CH	50	DT	Sidechain
133	CI	1	DT	Sidechain
133	CI	10	DT	Sidechain
133	CI	12	DT	Sidechain
133	CI	16	DA	Sidechain
133	CI	27	DG	Sidechain
133	CI	28	DT	Sidechain
133	CI	3	DT	Sidechain
133	CI	7	DT	Sidechain
133	CI	8	DT	Sidechain
133	CI	9	DT	Sidechain
134	CJ	11	DT	Sidechain
134	CJ	20	DG	Sidechain
134	CJ	27	DC	Sidechain
134	CJ	33	DT	Sidechain
134	CJ	36	DA	Sidechain
134	CJ	4	DC	Sidechain
134	CJ	5	DT	Sidechain
135	CK	15	DA	Sidechain
135	CK	20	DG	Sidechain
135	CK	23	DC	Sidechain
135	CK	29	DA	Sidechain
135	CK	34	DA	Sidechain

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Mol	Chain	Res	Type	Group
135	CK	36	DG	Sidechain
135	CK	7	DA	Sidechain
135	CK	8	DG	Sidechain
136	CL	1	DT	Sidechain
136	CL	15	DA	Sidechain
136	CL	18	DC	Sidechain
136	CL	21	DA	Sidechain
136	CL	28	DG	Sidechain
136	CL	30	DA	Sidechain
136	CL	35	DA	Sidechain
136	CL	36	DG	Sidechain
136	CL	39	DC	Sidechain
136	CL	41	DT	Sidechain
136	CL	43	DA	Sidechain
136	CL	45	DA	Sidechain
136	CL	46	DG	Sidechain
136	CL	5	DA	Sidechain
137	CM	1	DT	Sidechain
137	CM	10	DT	Sidechain
137	CM	12	DA	Sidechain
137	CM	13	DA	Sidechain
137	CM	16	DA	Sidechain
137	CM	22	DG	Sidechain
137	CM	23	DA	Sidechain
137	CM	28	DA	Sidechain
137	CM	29	DT	Sidechain
137	CM	30	DT	Sidechain
137	CM	35	DT	Sidechain
137	CM	36	DT	Sidechain
138	CN	1	DG	Sidechain
138	CN	16	DG	Sidechain
138	CN	18	DA	Sidechain
138	CN	2	DA	Sidechain
138	CN	26	DT	Sidechain
138	CN	6	DA	Sidechain
138	CN	8	DC	Sidechain
139	CO	13	DA	Sidechain
139	CO	17	DT	Sidechain
139	CO	20	DA	Sidechain
139	CO	26	DG	Sidechain
139	CO	29	DC	Sidechain
139	CO	35	DA	Sidechain

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Mol	Chain	Res	Type	Group
139	CO	37	DG	Sidechain
139	CO	41	DG	Sidechain
139	CO	42	DA	Sidechain
140	CP	12	DC	Sidechain
140	CP	16	DG	Sidechain
140	CP	19	DA	Sidechain
140	CP	21	DA	Sidechain
140	CP	25	DG	Sidechain
140	CP	27	DA	Sidechain
140	CP	33	DT	Sidechain
140	CP	8	DT	Sidechain
141	CQ	16	DT	Sidechain
141	CQ	23	DT	Sidechain
141	CQ	30	DG	Sidechain
141	CQ	31	DT	Sidechain
141	CQ	35	DT	Sidechain
141	CQ	36	DT	Sidechain
141	CQ	40	DT	Sidechain
141	CQ	7	DT	Sidechain
142	CR	11	DG	Sidechain
142	CR	2	DT	Sidechain
142	CR	24	DC	Sidechain
142	CR	26	DA	Sidechain
142	CR	27	DC	Sidechain
142	CR	32	DG	Sidechain
142	CR	33	DG	Sidechain
142	CR	5	DA	Sidechain
142	CR	8	DC	Sidechain
142	CR	9	DC	Sidechain
143	CS	12	DA	Sidechain
143	CS	16	DG	Sidechain
143	CS	17	DG	Sidechain
143	CS	19	DA	Sidechain
143	CS	3	DT	Sidechain
143	CS	34	DG	Sidechain
143	CS	41	DG	Sidechain
143	CS	46	DA	Sidechain
144	CT	13	DC	Sidechain
144	CT	16	DA	Sidechain
144	CT	19	DA	Sidechain
144	CT	20	DT	Sidechain
144	CT	27	DT	Sidechain

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Mol	Chain	Res	Type	Group
144	CT	28	DC	Sidechain
144	CT	3	DC	Sidechain
144	CT	39	DC	Sidechain
145	CU	1	DT	Sidechain
145	CU	14	DT	Sidechain
145	CU	18	DT	Sidechain
145	CU	2	DT	Sidechain
145	CU	27	DT	Sidechain
145	CU	3	DT	Sidechain
145	CU	33	DT	Sidechain
145	CU	34	DT	Sidechain
145	CU	42	DT	Sidechain
145	CU	9	DT	Sidechain
146	CV	1	DT	Sidechain
146	CV	13	DA	Sidechain
146	CV	24	DT	Sidechain
146	CV	28	DG	Sidechain
146	CV	35	DT	Sidechain
146	CV	7	DT	Sidechain
147	CW	1	DA	Sidechain
147	CW	10	DC	Sidechain
147	CW	19	DG	Sidechain
147	CW	20	DC	Sidechain
147	CW	21	DG	Sidechain
147	CW	23	DT	Sidechain
147	CW	24	DG	Sidechain
147	CW	25	DT	Sidechain
147	CW	27	DG	Sidechain
147	CW	34	DT	Sidechain
147	CW	37	DA	Sidechain
147	CW	41	DA	Sidechain
148	CX	12	DA	Sidechain
148	CX	19	DG	Sidechain
148	CX	20	DA	Sidechain
148	CX	21	DG	Sidechain
148	CX	22	DC	Sidechain
148	CX	27	DT	Sidechain
148	CX	3	DT	Sidechain
148	CX	30	DT	Sidechain
148	CX	33	DT	Sidechain
148	CX	40	DT	Sidechain
148	CX	41	DT	Sidechain

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Mol	Chain	Res	Type	Group
148	CX	7	DG	Sidechain
148	CX	9	DA	Sidechain
149	CY	25	DT	Sidechain
149	CY	29	DA	Sidechain
149	CY	31	DT	Sidechain
149	CY	33	DT	Sidechain
149	CY	35	DA	Sidechain
149	CY	44	DA	Sidechain
149	CY	45	DA	Sidechain
149	CY	48	DG	Sidechain
149	CY	6	DA	Sidechain
150	CZ	11	DT	Sidechain
150	CZ	19	DA	Sidechain
150	CZ	2	DG	Sidechain
150	CZ	21	DA	Sidechain
150	CZ	22	DT	Sidechain
150	CZ	23	DT	Sidechain
150	CZ	26	DA	Sidechain
150	CZ	27	DC	Sidechain
150	CZ	29	DG	Sidechain
150	CZ	36	DG	Sidechain
150	CZ	46	DC	Sidechain
150	CZ	5	DA	Sidechain
151	Ca	1	DC	Sidechain
151	Ca	12	DT	Sidechain
151	Ca	14	DA	Sidechain
151	Ca	15	DT	Sidechain
151	Ca	16	DT	Sidechain
151	Ca	20	DT	Sidechain
151	Ca	22	DG	Sidechain
151	Ca	27	DG	Sidechain
151	Ca	28	DT	Sidechain
151	Ca	7	DG	Sidechain
152	Cb	15	DT	Sidechain
152	Cb	16	DT	Sidechain
152	Cb	22	DG	Sidechain
152	Cb	23	DG	Sidechain
152	Cb	24	DC	Sidechain
152	Cb	31	DT	Sidechain
152	Cb	44	DC	Sidechain
152	Cb	5	DT	Sidechain
152	Cb	6	DG	Sidechain

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Mol	Chain	Res	Type	Group
153	Cc	17	DC	Sidechain
153	Cc	19	DT	Sidechain
153	Cc	21	DA	Sidechain
153	Cc	22	DA	Sidechain
153	Cc	24	DA	Sidechain
153	Cc	26	DA	Sidechain
153	Cc	28	DT	Sidechain
153	Cc	29	DT	Sidechain
153	Cc	32	DA	Sidechain
153	Cc	36	DT	Sidechain
154	Cd	11	DG	Sidechain
154	Cd	14	DT	Sidechain
154	Cd	29	DG	Sidechain
154	Cd	36	DA	Sidechain
154	Cd	4	DG	Sidechain
154	Cd	47	DA	Sidechain
154	Cd	6	DA	Sidechain
154	Cd	8	DA	Sidechain
154	Cd	9	DA	Sidechain
155	Ce	10	DT	Sidechain
155	Ce	11	DT	Sidechain
155	Ce	22	DG	Sidechain
155	Ce	23	DT	Sidechain
155	Ce	3	DT	Sidechain
155	Ce	37	DT	Sidechain
155	Ce	42	DT	Sidechain
155	Ce	44	DT	Sidechain
155	Ce	5	DT	Sidechain
155	Ce	7	DT	Sidechain
156	Cf	11	DG	Sidechain
156	Cf	14	DA	Sidechain
156	Cf	2	DT	Sidechain
156	Cf	20	DA	Sidechain
156	Cf	21	DT	Sidechain
156	Cf	27	DG	Sidechain
156	Cf	28	DG	Sidechain
156	Cf	39	DG	Sidechain
156	Cf	40	DC	Sidechain
156	Cf	8	DT	Sidechain
156	Cf	9	DT	Sidechain
157	Cg	11	DT	Sidechain
157	Cg	16	DA	Sidechain

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Mol	Chain	Res	Type	Group
157	Cg	17	DC	Sidechain
157	Cg	28	DT	Sidechain
157	Cg	31	DT	Sidechain
157	Cg	4	DG	Sidechain
157	Cg	6	DC	Sidechain
158	Ch	10	DT	Sidechain
158	Ch	18	DA	Sidechain
158	Ch	19	DT	Sidechain
158	Ch	23	DG	Sidechain
158	Ch	3	DT	Sidechain
158	Ch	30	DG	Sidechain
158	Ch	39	DC	Sidechain
158	Ch	4	DT	Sidechain
159	Ci	18	DT	Sidechain
159	Ci	22	DT	Sidechain
159	Ci	23	DA	Sidechain
159	Ci	25	DG	Sidechain
159	Ci	3	DG	Sidechain
159	Ci	30	DT	Sidechain
159	Ci	32	DC	Sidechain
159	Ci	33	DT	Sidechain
159	Ci	36	DA	Sidechain
159	Ci	38	DA	Sidechain
159	Ci	42	DT	Sidechain
159	Ci	52	DT	Sidechain
159	Ci	6	DA	Sidechain
159	Ci	8	DT	Sidechain
160	Cj	27	DC	Sidechain
160	Cj	3	DG	Sidechain
160	Cj	4	DG	Sidechain
160	Cj	7	DA	Sidechain
161	Ck	12	DT	Sidechain
161	Ck	17	DC	Sidechain
161	Ck	28	DT	Sidechain
161	Ck	29	DT	Sidechain
161	Ck	32	DT	Sidechain
161	Ck	34	DT	Sidechain
161	Ck	5	DC	Sidechain
161	Ck	6	DT	Sidechain
161	Ck	7	DG	Sidechain
162	Cl	11	DA	Sidechain
162	Cl	14	DA	Sidechain

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Mol	Chain	Res	Type	Group
162	Cl	15	DA	Sidechain
162	Cl	16	DC	Sidechain
162	Cl	17	DG	Sidechain
162	Cl	23	DC	Sidechain
162	Cl	25	DA	Sidechain
162	Cl	27	DT	Sidechain
162	Cl	28	DA	Sidechain
162	Cl	33	DG	Sidechain
162	Cl	34	DG	Sidechain
162	Cl	37	DA	Sidechain
162	Cl	39	DA	Sidechain
162	Cl	4	DT	Sidechain
162	Cl	40	DG	Sidechain
162	Cl	6	DT	Sidechain
162	Cl	7	DT	Sidechain
163	Cm	1	DT	Sidechain
163	Cm	12	DG	Sidechain
163	Cm	21	DT	Sidechain
163	Cm	30	DA	Sidechain
163	Cm	34	DA	Sidechain
163	Cm	36	DT	Sidechain
163	Cm	37	DT	Sidechain
163	Cm	39	DT	Sidechain
163	Cm	4	DT	Sidechain
163	Cm	40	DT	Sidechain
163	Cm	7	DT	Sidechain
164	Cn	27	DC	Sidechain
164	Cn	33	DC	Sidechain
164	Cn	5	DG	Sidechain
164	Cn	6	DC	Sidechain
164	Cn	9	DG	Sidechain
165	Co	10	DT	Sidechain
165	Co	17	DT	Sidechain
165	Co	23	DT	Sidechain
165	Co	29	DC	Sidechain
165	Co	35	DG	Sidechain
165	Co	4	DA	Sidechain
165	Co	8	DG	Sidechain
166	Cp	11	DG	Sidechain
166	Cp	12	DT	Sidechain
166	Cp	15	DT	Sidechain
166	Cp	26	DA	Sidechain

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Mol	Chain	Res	Type	Group
166	Cp	29	DC	Sidechain
166	Cp	30	DG	Sidechain
166	Cp	35	DG	Sidechain
166	Cp	44	DG	Sidechain
166	Cp	5	DA	Sidechain
167	Cq	1	DG	Sidechain
167	Cq	18	DC	Sidechain
167	Cq	21	DG	Sidechain
167	Cq	23	DG	Sidechain
167	Cq	27	DA	Sidechain
167	Cq	28	DT	Sidechain
167	Cq	3	DT	Sidechain
167	Cq	32	DC	Sidechain
167	Cq	38	DA	Sidechain
167	Cq	4	DA	Sidechain
167	Cq	41	DG	Sidechain
167	Cq	44	DA	Sidechain
167	Cq	6	DA	Sidechain
167	Cq	8	DC	Sidechain
167	Cq	9	DA	Sidechain
168	Cr	18	DG	Sidechain
168	Cr	36	DA	Sidechain
168	Cr	37	DC	Sidechain
168	Cr	43	DG	Sidechain
168	Cr	45	DA	Sidechain
168	Cr	47	DC	Sidechain
168	Cr	5	DA	Sidechain
168	Cr	6	DG	Sidechain
168	Cr	9	DC	Sidechain
169	Cs	15	DC	Sidechain
169	Cs	17	DA	Sidechain
169	Cs	22	DA	Sidechain
169	Cs	28	DG	Sidechain
169	Cs	33	DA	Sidechain
169	Cs	34	DA	Sidechain
170	Ct	1	DG	Sidechain
170	Ct	11	DG	Sidechain
170	Ct	12	DG	Sidechain
170	Ct	15	DC	Sidechain
170	Ct	16	DC	Sidechain
170	Ct	17	DG	Sidechain
170	Ct	24	DG	Sidechain

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Mol	Chain	Res	Type	Group
170	Ct	29	DC	Sidechain
170	Ct	33	DG	Sidechain
170	Ct	5	DC	Sidechain
170	Ct	8	DT	Sidechain
171	Cu	10	DT	Sidechain
171	Cu	13	DA	Sidechain
171	Cu	15	DG	Sidechain
171	Cu	17	DG	Sidechain
171	Cu	18	DG	Sidechain
171	Cu	20	DA	Sidechain
171	Cu	22	DT	Sidechain
171	Cu	26	DG	Sidechain
171	Cu	27	DA	Sidechain
171	Cu	3	DT	Sidechain
171	Cu	34	DT	Sidechain
171	Cu	4	DT	Sidechain
171	Cu	5	DT	Sidechain
171	Cu	9	DT	Sidechain
172	Cv	11	DG	Sidechain
172	Cv	13	DC	Sidechain
172	Cv	19	DC	Sidechain
172	Cv	27	DA	Sidechain
172	Cv	28	DT	Sidechain
172	Cv	32	DT	Sidechain
172	Cv	33	DG	Sidechain
172	Cv	36	DT	Sidechain
172	Cv	38	DT	Sidechain
172	Cv	41	DT	Sidechain
172	Cv	42	DT	Sidechain
172	Cv	8	DT	Sidechain
173	Cw	10	DA	Sidechain
173	Cw	16	DC	Sidechain
173	Cw	2	DG	Sidechain
173	Cw	20	DC	Sidechain
173	Cw	22	DC	Sidechain
173	Cw	27	DT	Sidechain
173	Cw	4	DT	Sidechain
174	Cx	12	DA	Sidechain
174	Cx	14	DT	Sidechain
174	Cx	15	DA	Sidechain
174	Cx	2	DA	Sidechain
174	Cx	21	DC	Sidechain

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Mol	Chain	Res	Type	Group
174	Cx	23	DC	Sidechain
174	Cx	31	DG	Sidechain
174	Cx	35	DT	Sidechain
175	Cy	11	DG	Sidechain
175	Cy	14	DG	Sidechain
175	Cy	19	DT	Sidechain
175	Cy	20	DC	Sidechain
175	Cy	24	DC	Sidechain
175	Cy	25	DT	Sidechain
175	Cy	28	DT	Sidechain
175	Cy	3	DT	Sidechain
175	Cy	33	DT	Sidechain
175	Cy	34	DT	Sidechain
175	Cy	8	DG	Sidechain
175	Cy	9	DC	Sidechain
176	Cz	1	DG	Sidechain
176	Cz	12	DA	Sidechain
176	Cz	14	DG	Sidechain
176	Cz	15	DT	Sidechain
176	Cz	21	DG	Sidechain
176	Cz	24	DC	Sidechain
176	Cz	26	DA	Sidechain
176	Cz	32	DA	Sidechain
176	Cz	33	DC	Sidechain
176	Cz	34	DA	Sidechain
176	Cz	36	DG	Sidechain
176	Cz	37	DC	Sidechain
176	Cz	39	DT	Sidechain
176	Cz	8	DT	Sidechain
187	DA	1	DG	Sidechain
187	DA	10	DC	Sidechain
187	DA	11	DA	Sidechain
187	DA	14	DC	Sidechain
187	DA	17	DC	Sidechain
187	DA	18	DC	Sidechain
187	DA	20	DC	Sidechain
187	DA	25	DC	Sidechain
187	DA	26	DG	Sidechain
187	DA	33	DG	Sidechain
187	DA	37	DG	Sidechain
187	DA	39	DG	Sidechain
187	DA	40	DC	Sidechain

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Mol	Chain	Res	Type	Group
188	DB	15	DG	Sidechain
188	DB	20	DT	Sidechain
188	DB	24	DA	Sidechain
188	DB	3	DC	Sidechain
188	DB	31	DC	Sidechain
188	DB	7	DC	Sidechain
188	DB	8	DA	Sidechain
189	DC	18	DC	Sidechain
189	DC	22	DA	Sidechain
189	DC	24	DC	Sidechain
189	DC	26	DC	Sidechain
189	DC	29	DG	Sidechain
189	DC	31	DG	Sidechain
189	DC	5	DT	Sidechain
189	DC	7	DT	Sidechain
189	DC	8	DC	Sidechain
189	DC	9	DC	Sidechain
190	DD	17	DG	Sidechain
190	DD	18	DG	Sidechain
190	DD	20	DG	Sidechain
190	DD	21	DC	Sidechain
190	DD	23	DA	Sidechain
190	DD	25	DT	Sidechain
190	DD	39	DT	Sidechain
190	DD	6	DC	Sidechain
191	DE	1	DC	Sidechain
191	DE	10	DC	Sidechain
191	DE	11	DA	Sidechain
191	DE	13	DG	Sidechain
191	DE	14	DG	Sidechain
191	DE	28	DG	Sidechain
191	DE	7	DA	Sidechain
191	DE	9	DA	Sidechain
192	DF	1	DT	Sidechain
192	DF	10	DT	Sidechain
192	DF	13	DT	Sidechain
192	DF	19	DG	Sidechain
192	DF	20	DG	Sidechain
192	DF	21	DC	Sidechain
192	DF	30	DT	Sidechain
192	DF	31	DT	Sidechain
192	DF	36	DT	Sidechain

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Mol	Chain	Res	Type	Group
192	DF	37	DT	Sidechain
192	DF	4	DT	Sidechain
192	DF	8	DT	Sidechain
192	DF	9	DT	Sidechain
193	DG	20	DC	Sidechain
193	DG	21	DG	Sidechain
193	DG	24	DT	Sidechain
193	DG	27	DC	Sidechain
193	DG	37	DA	Sidechain
193	DG	45	DC	Sidechain
193	DG	7	DC	Sidechain
194	DH	11	DG	Sidechain
194	DH	12	DC	Sidechain
194	DH	13	DA	Sidechain
194	DH	15	DT	Sidechain
194	DH	18	DT	Sidechain
194	DH	20	DA	Sidechain
194	DH	23	DG	Sidechain
194	DH	27	DC	Sidechain
194	DH	30	DG	Sidechain
195	DI	14	DA	Sidechain
195	DI	20	DA	Sidechain
195	DI	27	DG	Sidechain
195	DI	3	DG	Sidechain
195	DI	31	DT	Sidechain
195	DI	32	DT	Sidechain
195	DI	5	DG	Sidechain
195	DI	6	DG	Sidechain
196	DJ	14	DC	Sidechain
196	DJ	15	DA	Sidechain
196	DJ	16	DC	Sidechain
196	DJ	24	DA	Sidechain
196	DJ	26	DC	Sidechain
196	DJ	27	DG	Sidechain
196	DJ	32	DT	Sidechain
196	DJ	36	DC	Sidechain
197	DK	12	DC	Sidechain
197	DK	21	DA	Sidechain
197	DK	22	DC	Sidechain
197	DK	29	DG	Sidechain
197	DK	33	DA	Sidechain
198	DL	1	DT	Sidechain

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Mol	Chain	Res	Type	Group
198	DL	20	DA	Sidechain
198	DL	21	DT	Sidechain
198	DL	22	DT	Sidechain
198	DL	24	DG	Sidechain
198	DL	25	DG	Sidechain
198	DL	26	DG	Sidechain
198	DL	31	DT	Sidechain
198	DL	37	DT	Sidechain
198	DL	39	DT	Sidechain
198	DL	4	DT	Sidechain
198	DL	43	DT	Sidechain
198	DL	7	DT	Sidechain
199	DM	18	DG	Sidechain
199	DM	2	DT	Sidechain
199	DM	30	DT	Sidechain
199	DM	38	DT	Sidechain
200	DN	14	DA	Sidechain
200	DN	18	DG	Sidechain
200	DN	19	DC	Sidechain
200	DN	2	DG	Sidechain
200	DN	21	DG	Sidechain
200	DN	29	DG	Sidechain
200	DN	35	DG	Sidechain
201	DO	15	DT	Sidechain
201	DO	23	DT	Sidechain
201	DO	34	DC	Sidechain
201	DO	43	DC	Sidechain
201	DO	49	DG	Sidechain
201	DO	5	DG	Sidechain
201	DO	8	DT	Sidechain
202	DP	13	DT	Sidechain
202	DP	14	DC	Sidechain
202	DP	15	DC	Sidechain
202	DP	16	DG	Sidechain
202	DP	19	DG	Sidechain
202	DP	20	DG	Sidechain
202	DP	21	DT	Sidechain
202	DP	25	DC	Sidechain
202	DP	27	DT	Sidechain
202	DP	29	DA	Sidechain
202	DP	31	DT	Sidechain
202	DP	5	DG	Sidechain

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Mol	Chain	Res	Type	Group
202	DP	7	DG	Sidechain
202	DP	8	DC	Sidechain
203	DQ	18	DC	Sidechain
203	DQ	2	DG	Sidechain
203	DQ	27	DC	Sidechain
203	DQ	34	DG	Sidechain
203	DQ	35	DT	Sidechain
203	DQ	42	DC	Sidechain
203	DQ	49	DA	Sidechain
203	DQ	8	DG	Sidechain
204	DR	1	DG	Sidechain
204	DR	12	DC	Sidechain
204	DR	15	DA	Sidechain
204	DR	22	DC	Sidechain
204	DR	26	DA	Sidechain
204	DR	30	DG	Sidechain
204	DR	37	DA	Sidechain
204	DR	38	DT	Sidechain
204	DR	40	DT	Sidechain
204	DR	44	DG	Sidechain
204	DR	48	DG	Sidechain
204	DR	7	DG	Sidechain
204	DR	8	DG	Sidechain
205	DS	10	DC	Sidechain
205	DS	13	DG	Sidechain
205	DS	17	DG	Sidechain
205	DS	18	DT	Sidechain
205	DS	21	DA	Sidechain
205	DS	23	DT	Sidechain
205	DS	24	DT	Sidechain
205	DS	25	DG	Sidechain
205	DS	26	DC	Sidechain
205	DS	28	DG	Sidechain
205	DS	30	DG	Sidechain
205	DS	34	DT	Sidechain
205	DS	38	DA	Sidechain
205	DS	42	DC	Sidechain
205	DS	43	DT	Sidechain
205	DS	5	DG	Sidechain
205	DS	9	DA	Sidechain
206	DT	1	DA	Sidechain
206	DT	13	DC	Sidechain

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Mol	Chain	Res	Type	Group
206	DT	17	DC	Sidechain
206	DT	28	DA	Sidechain
206	DT	29	DG	Sidechain
206	DT	3	DG	Sidechain
206	DT	30	DC	Sidechain
206	DT	31	DC	Sidechain
206	DT	37	DA	Sidechain
206	DT	4	DC	Sidechain
206	DT	6	DG	Sidechain
206	DT	7	DC	Sidechain
207	DU	11	DT	Sidechain
207	DU	29	DC	Sidechain
207	DU	35	DG	Sidechain
207	DU	38	DC	Sidechain
207	DU	40	DT	Sidechain
207	DU	5	DG	Sidechain
208	DV	19	DG	Sidechain
208	DV	26	DG	Sidechain
208	DV	40	DA	Sidechain
208	DV	44	DT	Sidechain
208	DV	46	DT	Sidechain
208	DV	7	DC	Sidechain
209	DW	10	DT	Sidechain
209	DW	11	DG	Sidechain
209	DW	15	DA	Sidechain
209	DW	23	DT	Sidechain
209	DW	29	DT	Sidechain
209	DW	3	DT	Sidechain
209	DW	30	DG	Sidechain
209	DW	34	DT	Sidechain
209	DW	38	DT	Sidechain
209	DW	41	DT	Sidechain
209	DW	43	DT	Sidechain
209	DW	7	DT	Sidechain
209	DW	8	DT	Sidechain
210	DX	11	DT	Sidechain
210	DX	13	DG	Sidechain
210	DX	19	DT	Sidechain
210	DX	23	DC	Sidechain
210	DX	27	DA	Sidechain
210	DX	29	DT	Sidechain
210	DX	35	DA	Sidechain

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Mol	Chain	Res	Type	Group
210	DX	5	DT	Sidechain
211	DY	1	DG	Sidechain
211	DY	19	DT	Sidechain
211	DY	21	DT	Sidechain
211	DY	22	DG	Sidechain
211	DY	25	DT	Sidechain
211	DY	27	DC	Sidechain
211	DY	29	DC	Sidechain
211	DY	30	DC	Sidechain
211	DY	35	DA	Sidechain
211	DY	41	DT	Sidechain
211	DY	7	DG	Sidechain
211	DY	9	DT	Sidechain
212	DZ	1	DG	Sidechain
212	DZ	12	DA	Sidechain
212	DZ	19	DT	Sidechain
212	DZ	3	DT	Sidechain
212	DZ	30	DC	Sidechain
212	DZ	31	DA	Sidechain
212	DZ	34	DT	Sidechain
212	DZ	36	DT	Sidechain
212	DZ	37	DT	Sidechain
212	DZ	38	DT	Sidechain
212	DZ	40	DA	Sidechain
212	DZ	7	DC	Sidechain

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	AA	164972	0	91297	0	0
2	AB	813	0	460	0	0
3	AC	887	0	510	0	0
4	AD	1032	0	571	0	0
5	AE	952	0	530	0	0
6	AF	1008	0	553	0	0
7	AG	997	0	552	0	0
8	AH	1013	0	551	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
9	AI	1005	0	553	0	0
10	AJ	860	0	476	0	0
11	AK	1110	0	606	0	0
12	AL	768	0	444	0	0
13	AM	893	0	513	0	0
14	AN	713	0	396	0	0
15	AO	806	0	460	0	0
16	AP	852	0	479	0	0
17	AQ	727	0	396	0	0
18	AR	1015	0	546	0	0
19	AS	847	0	477	0	0
20	AT	772	0	442	0	0
21	AU	967	0	527	0	0
22	AV	752	0	417	0	0
23	AW	1114	0	610	0	0
24	AX	731	0	413	0	0
25	AY	735	0	415	0	0
26	AZ	886	0	491	0	0
27	Aa	775	0	443	0	0
28	Ab	872	0	471	0	0
29	Ac	1006	0	561	0	0
30	Ad	871	0	475	0	0
31	Ae	860	0	471	0	0
32	Af	724	0	397	0	0
33	Ag	813	0	459	0	0
34	Ah	866	0	474	0	0
35	Ai	861	0	480	0	0
36	Aj	845	0	477	0	0
37	Ak	859	0	475	0	0
38	Al	855	0	474	0	0
39	Am	892	0	516	0	0
40	An	766	0	444	0	0
41	Ao	1000	0	550	0	0
42	Ap	1008	0	546	0	0
43	Aq	950	0	525	0	0
44	Ar	850	0	476	0	0
45	As	859	0	474	0	0
46	At	1051	0	575	0	0
47	Au	1004	0	550	0	0
48	Av	760	0	414	0	0
49	Aw	869	0	470	0	0
50	Ax	882	0	510	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
51	Ay	808	0	461	0	0
52	Az	722	0	418	0	0
53	A0	1285	0	712	0	0
54	A1	995	0	552	0	0
55	A2	864	0	475	0	0
56	A3	815	0	457	0	0
57	A4	890	0	510	0	0
58	A5	1024	0	568	0	0
59	A6	1011	0	554	0	0
60	A7	850	0	473	0	0
61	A8	1015	0	569	0	0
62	A9	994	0	558	0	0
63	BA	1004	0	544	0	0
64	BB	1010	0	552	0	0
65	BC	998	0	550	0	0
66	BD	771	0	444	0	0
67	BE	895	0	511	0	0
68	BF	863	0	474	0	0
69	BG	871	0	467	0	0
70	BH	814	0	460	0	0
71	BI	874	0	475	0	0
72	BJ	761	0	449	0	0
73	BK	673	0	371	0	0
74	BL	869	0	496	0	0
75	BM	878	0	496	0	0
76	BN	1048	0	579	0	0
77	BO	714	0	400	0	0
78	BP	815	0	450	0	0
79	BQ	759	0	416	0	0
80	BR	772	0	443	0	0
81	BS	960	0	538	0	0
82	BT	767	0	414	0	0
83	BU	807	0	461	0	0
84	BV	861	0	469	0	0
85	BW	711	0	395	0	0
86	BX	858	0	475	0	0
87	BY	713	0	398	0	0
88	BZ	859	0	470	0	0
89	Ba	1002	0	548	0	0
90	Bb	879	0	514	0	0
91	Bc	768	0	444	0	0
92	Bd	853	0	477	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
93	Be	993	0	552	0	0
94	Bf	867	0	471	0	0
95	Bg	1007	0	554	0	0
96	Bh	1044	0	577	0	0
97	Bi	713	0	397	0	0
98	Bj	754	0	418	0	0
99	Bk	850	0	475	0	0
100	Bl	884	0	515	0	0
101	Bm	811	0	464	0	0
102	Bn	1291	0	706	0	0
103	Bo	725	0	394	0	0
104	Bp	860	0	476	0	0
105	Bq	862	0	476	0	0
106	Br	1006	0	558	0	0
107	Bs	716	0	396	0	0
108	Bt	716	0	399	0	0
109	Bu	819	0	459	0	0
110	Bv	888	0	512	0	0
111	Bw	1012	0	554	0	0
112	Bx	962	0	532	0	0
113	By	810	0	454	0	0
114	Bz	1017	0	556	0	0
115	B0	871	0	494	0	0
116	B1	1017	0	549	0	0
117	B2	769	0	443	0	0
118	B3	890	0	515	0	0
119	B4	704	0	402	0	0
120	B5	712	0	400	0	0
121	B6	997	0	553	0	0
122	B7	1011	0	554	0	0
123	B8	864	0	470	0	0
124	B9	729	0	419	0	0
125	CA	716	0	396	0	0
126	CB	710	0	399	0	0
127	CC	1008	0	554	0	0
128	CD	843	0	478	0	0
129	CE	729	0	393	0	0
130	CF	764	0	447	0	0
131	CG	1047	0	581	0	0
132	CH	1020	0	572	0	0
133	CI	862	0	500	0	0
134	CJ	806	0	452	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
135	CK	766	0	414	0	0
136	CL	962	0	533	0	0
137	CM	769	0	443	0	0
138	CN	826	0	449	0	0
139	CO	857	0	472	0	0
140	CP	714	0	396	0	0
141	CQ	821	0	460	0	0
142	CR	715	0	392	0	0
143	CS	1016	0	545	0	0
144	CT	873	0	474	0	0
145	CU	879	0	514	0	0
146	CV	767	0	443	0	0
147	CW	858	0	472	0	0
148	CX	867	0	473	0	0
149	CY	1006	0	557	0	0
150	CZ	1000	0	552	0	0
151	Ca	866	0	476	0	0
152	Cb	1008	0	550	0	0
153	Cc	855	0	474	0	0
154	Cd	963	0	534	0	0
155	Ce	892	0	512	0	0
156	Cf	825	0	457	0	0
157	Cg	731	0	413	0	0
158	Ch	853	0	474	0	0
159	Ci	1145	0	639	0	0
160	Cj	713	0	393	0	0
161	Ck	724	0	414	0	0
162	Cl	829	0	454	0	0
163	Cm	897	0	511	0	0
164	Cn	850	0	474	0	0
165	Co	708	0	398	0	0
166	Cp	1005	0	553	0	0
167	Cq	889	0	497	0	0
168	Cr	1009	0	549	0	0
169	Cs	902	0	492	0	0
170	Ct	861	0	474	0	0
171	Cu	769	0	445	0	0
172	Cv	881	0	517	0	0
173	Cw	705	0	399	0	0
174	Cx	727	0	393	0	0
175	Cy	865	0	474	0	0
176	Cz	1004	0	549	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
177	C0	820	0	460	0	0
178	C1	863	0	471	0	0
179	C2	1006	0	549	0	0
180	C3	1008	0	551	0	0
181	C4	865	0	480	0	0
182	C5	851	0	478	0	0
183	C6	769	0	442	0	0
184	C7	808	0	456	0	0
185	C8	734	0	413	0	0
186	C9	1007	0	574	0	0
187	DA	913	0	490	0	0
188	DB	857	0	471	0	0
189	DC	708	0	394	0	0
190	DD	962	0	528	0	0
191	DE	759	0	410	0	0
192	DF	770	0	445	0	0
193	DG	990	0	553	0	0
194	DH	866	0	474	0	0
195	DI	827	0	460	0	0
196	DJ	852	0	474	0	0
197	DK	718	0	390	0	0
198	DL	888	0	515	0	0
199	DM	771	0	441	0	0
200	DN	870	0	466	0	0
201	DO	990	0	557	0	0
202	DP	710	0	398	0	0
203	DQ	1003	0	552	0	0
204	DR	1023	0	550	0	0
205	DS	992	0	556	0	0
206	DT	756	0	414	0	0
207	DU	855	0	478	0	0
208	DV	1009	0	569	0	0
209	DW	891	0	514	0	0
210	DX	813	0	457	0	0
211	DY	857	0	476	0	0
212	DZ	854	0	478	0	0
All	All	349108	0	193833	0	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). Clashscore could not be calculated for this entry.

There are no clashes within the asymmetric unit.

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone

There are no protein molecules in this entry.

5.3.2 Protein sidechains

There are no protein molecules in this entry.

5.3.3 RNA

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates

There are no monosaccharides in this entry.

5.6 Ligand geometry

There are no ligands in this entry.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

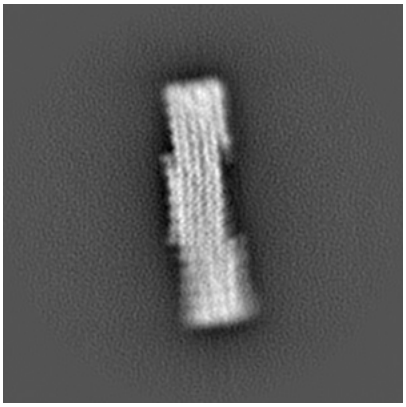
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-11387. These allow visual inspection of the internal detail of the map and identification of artifacts.

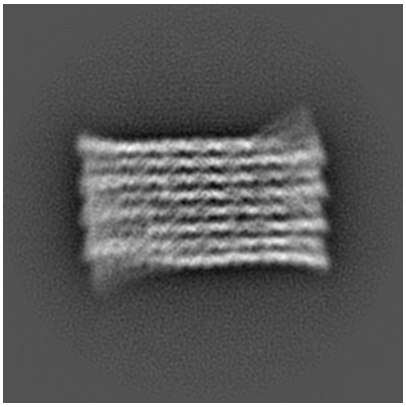
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

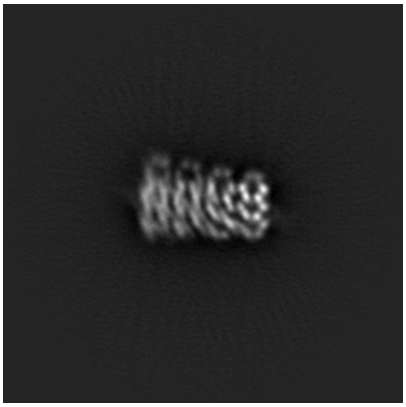
6.1.1 Primary map



X



Y

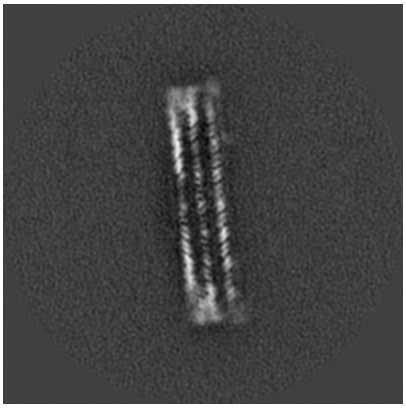


Z

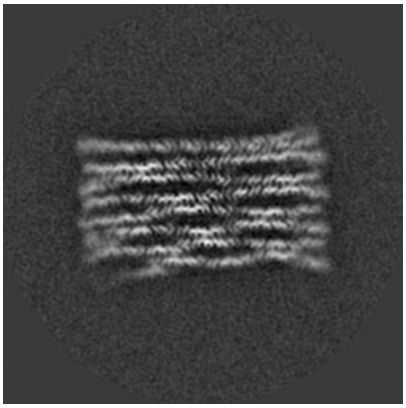
The images above show the map projected in three orthogonal directions.

6.2 Central slices

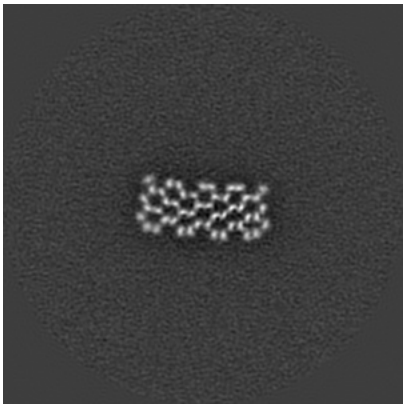
6.2.1 Primary map



X Index: 256



Y Index: 256

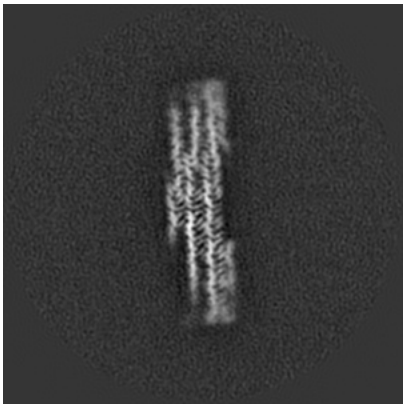


Z Index: 256

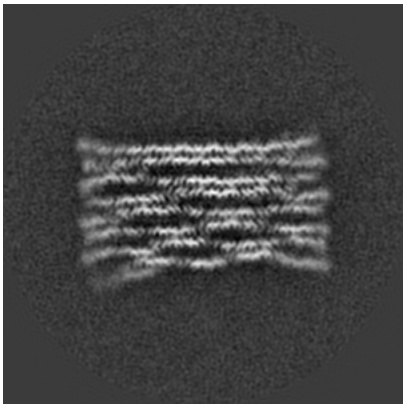
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

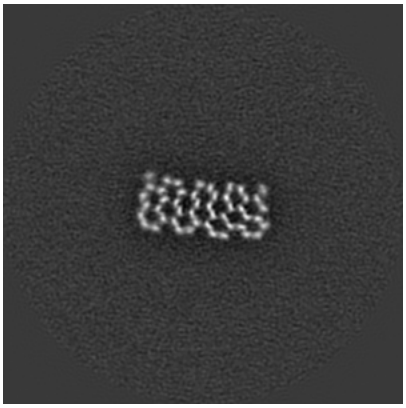
6.3.1 Primary map



X Index: 310



Y Index: 262



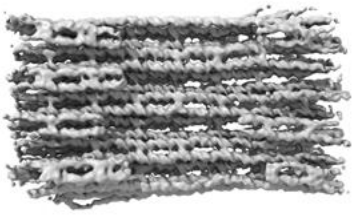
Z Index: 241

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

6.4 Orthogonal surface views (i)

6.4.1 Primary map

X



Y

Z

The images above show the 3D surface view of the map at the recommended contour level 0.06. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

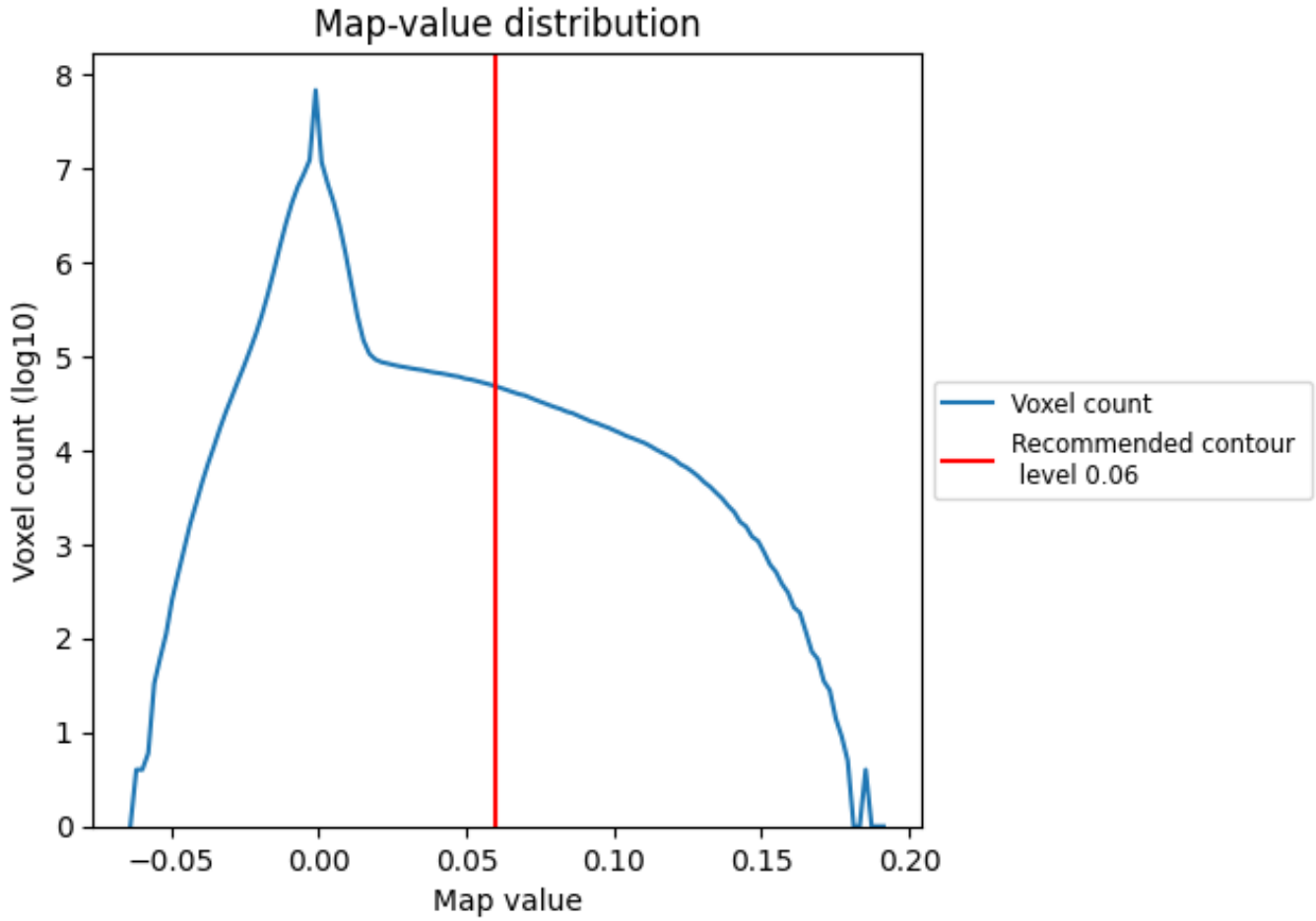
6.5 Mask visualisation (i)

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

7 Map analysis

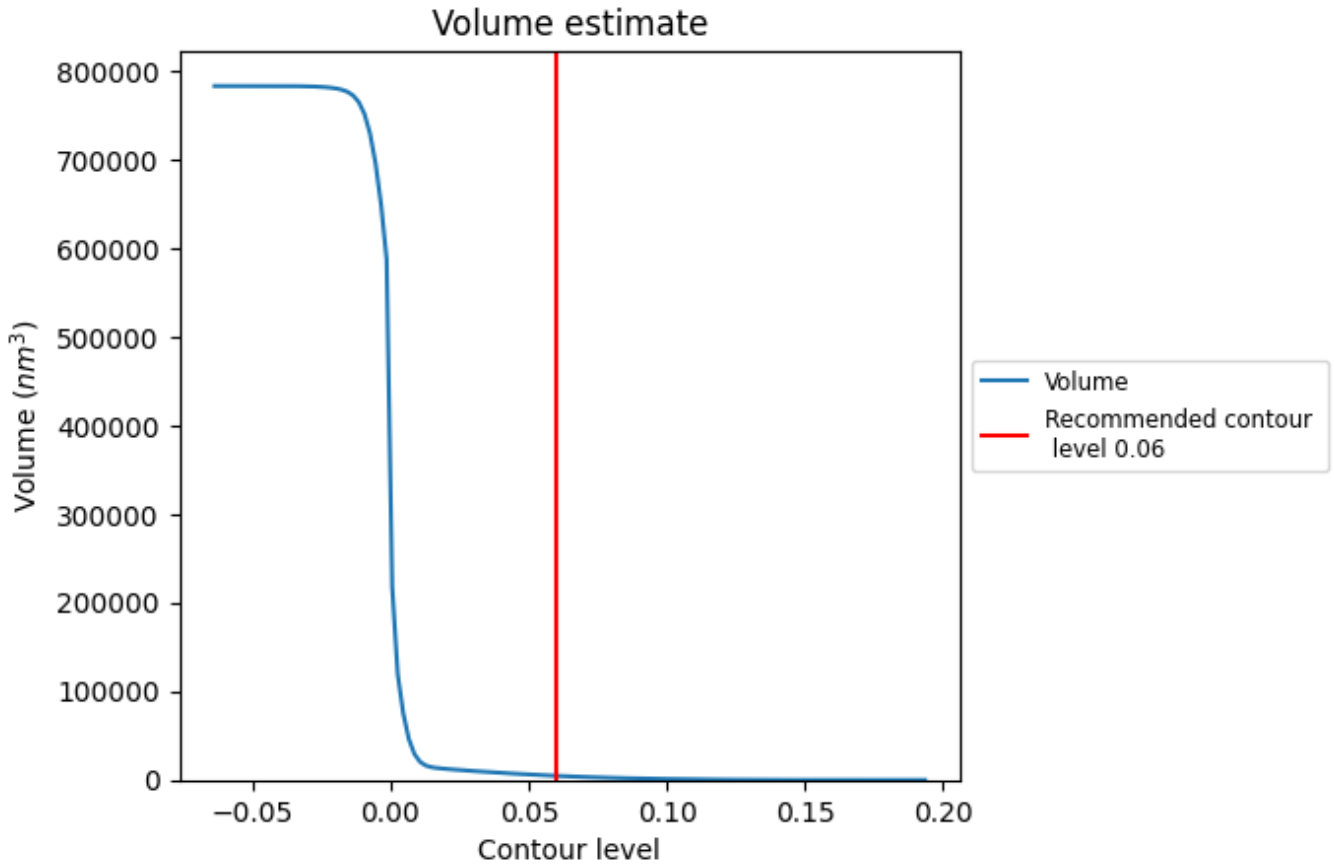
This section contains the results of statistical analysis of the map.

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.

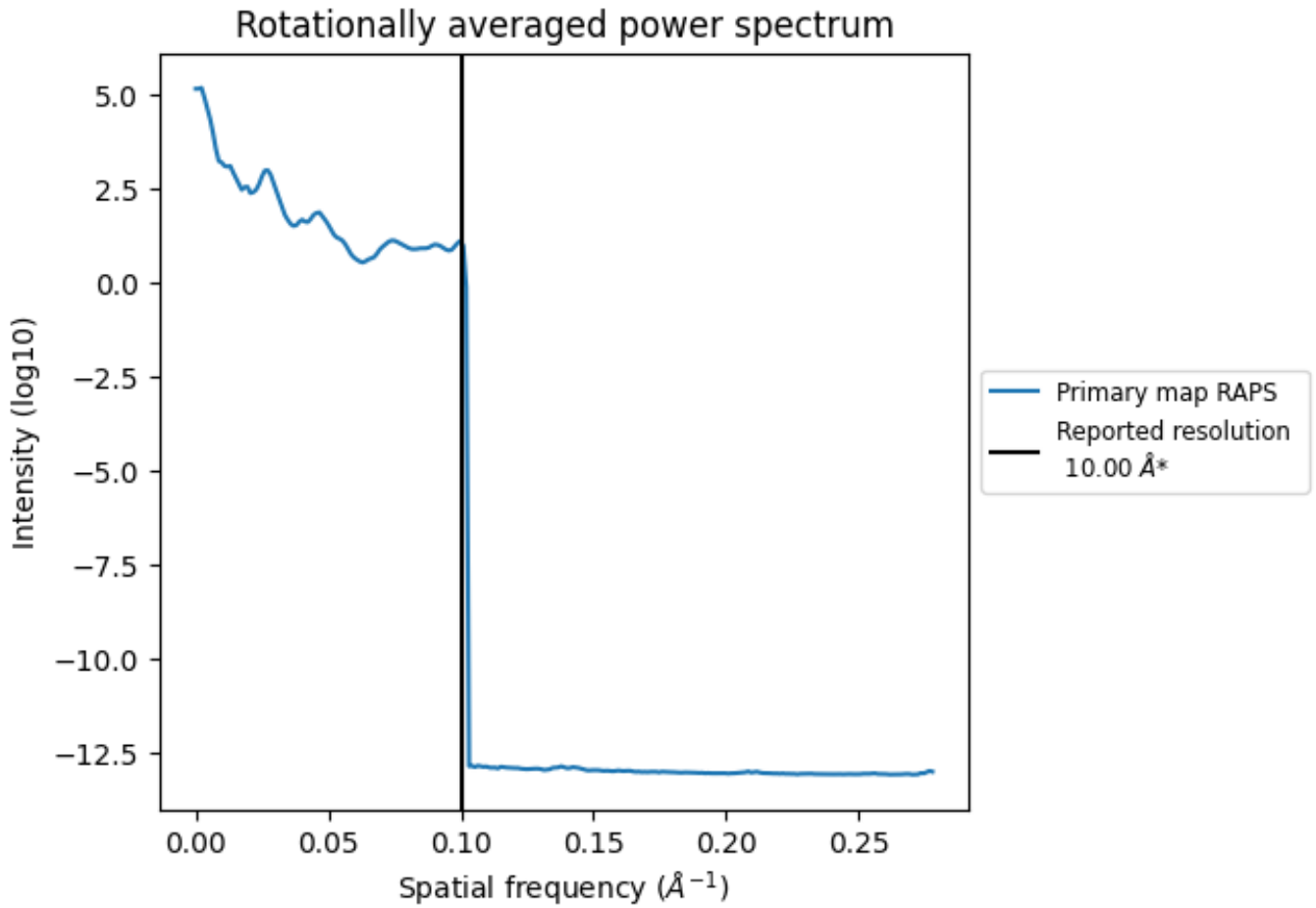
7.2 Volume estimate



The volume at the recommended contour level is 4633 nm^3; this corresponds to an approximate mass of 4185 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)

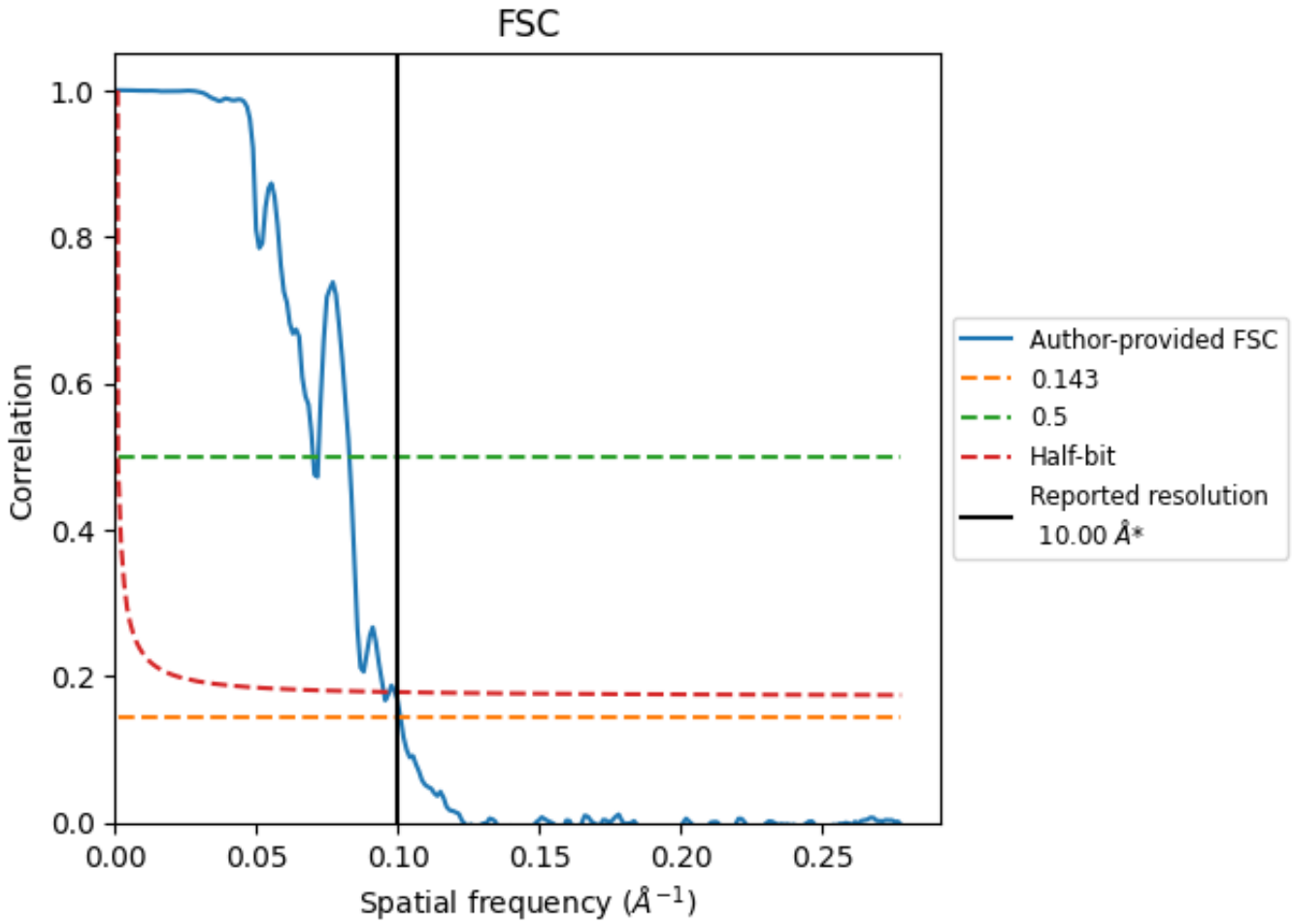


*Reported resolution corresponds to spatial frequency of 0.100 $Å^{-1}$

8 Fourier-Shell correlation

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

8.1 FSC



*Reported resolution corresponds to spatial frequency of 0.100 Å^{-1}

8.2 Resolution estimates (i)

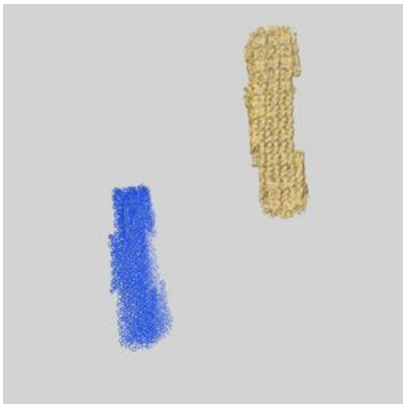
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	10.00	-	-
Author-provided FSC curve	9.91	14.27	10.53
Unmasked-calculated*	-	-	-

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps.

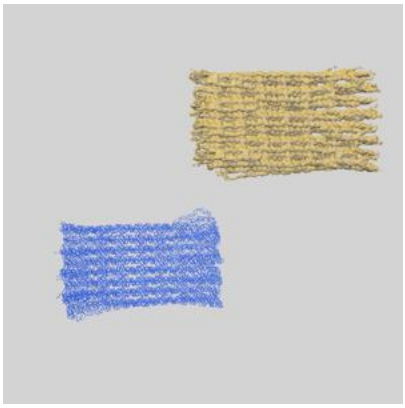
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-11387 and PDB model 7ART. Per-residue inclusion information can be found in section 3 on page 42.

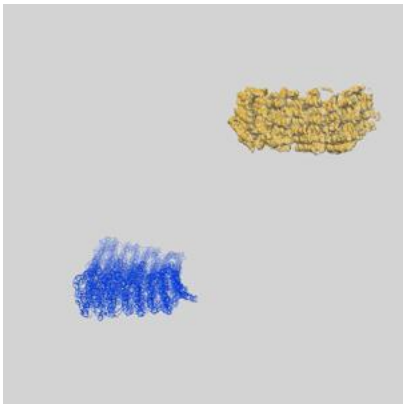
9.1 Map-model overlay



X



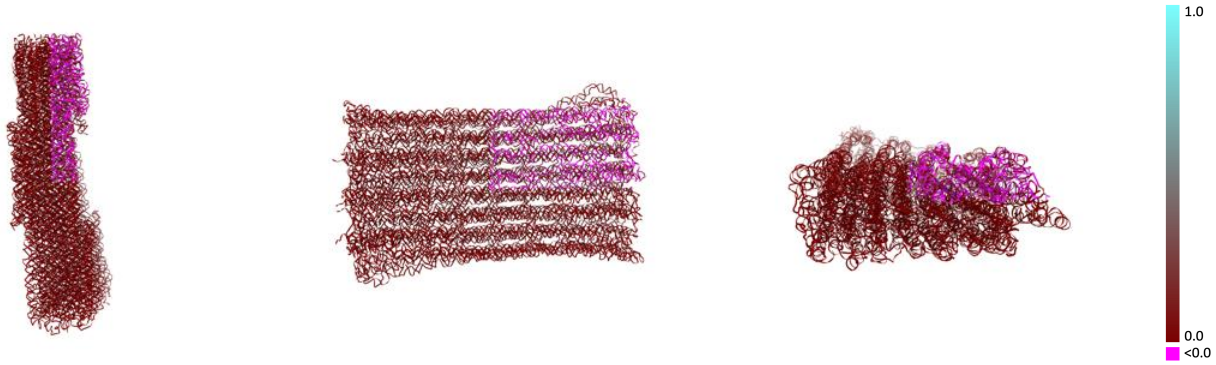
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.06 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.

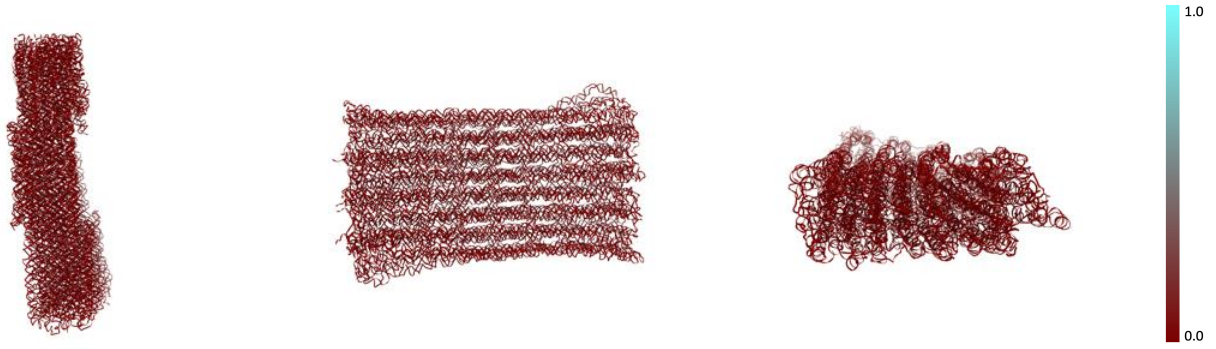
9.2 Q-score mapped to coordinate model



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.

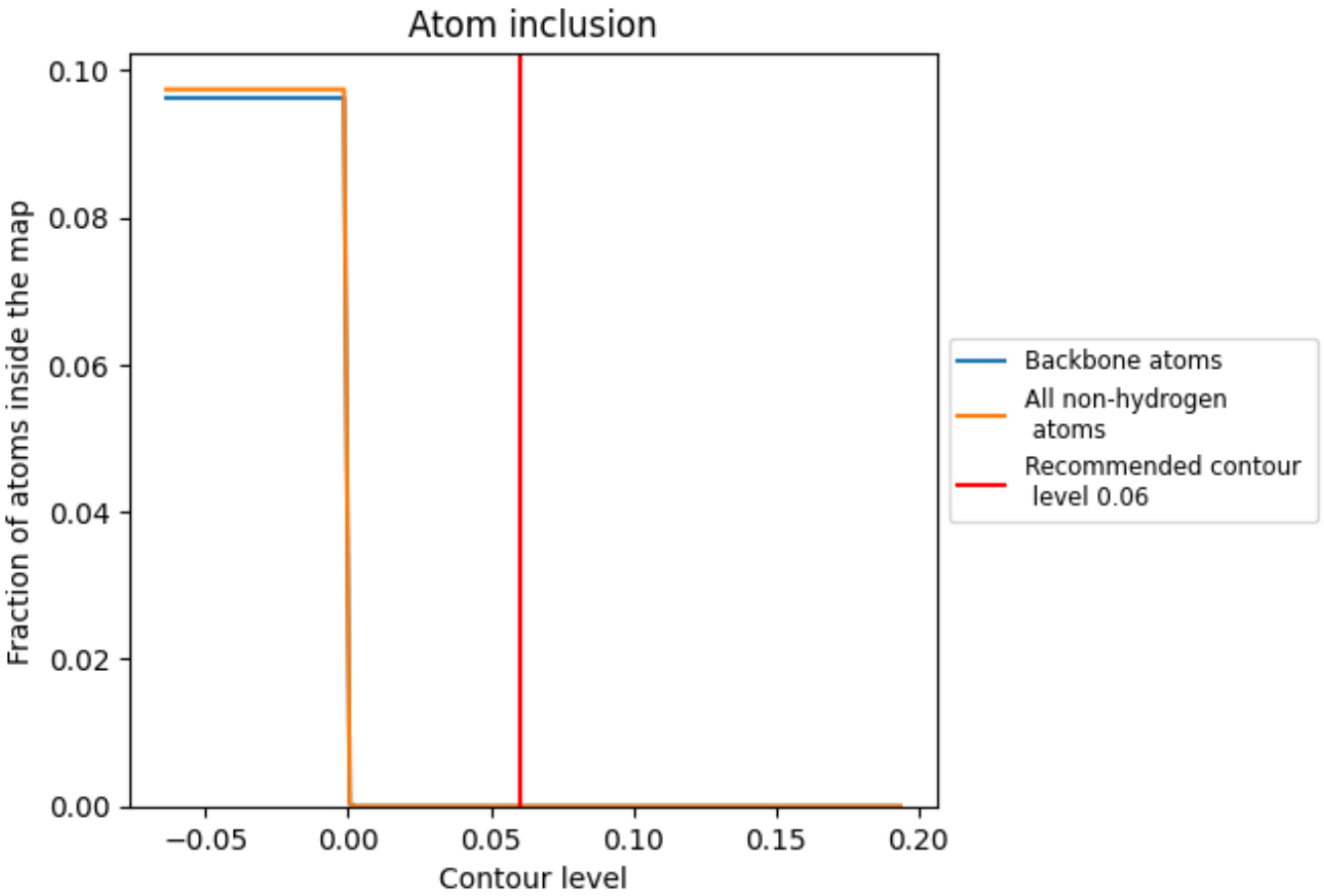
9.3 Atom inclusion mapped to coordinate model



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 (0.06).

9.4 Atom inclusion (i)



At the recommended contour level, 0% of all backbone atoms, 0% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.06) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.0000	-0.0010
A0	0.0000	0.0000
A1	0.0000	0.0000
A2	0.0000	0.0000
A3	0.0000	0.0000
A4	0.0000	0.0000
A5	0.0000	0.0000
A6	0.0000	0.0000
A7	0.0000	-0.0350
A8	0.0000	0.0000
A9	0.0000	-0.0080
AA	0.0000	-0.0010
AB	0.0000	0.0000
AC	0.0000	-0.0040
AD	0.0000	0.0000
AE	0.0000	0.0110
AF	0.0000	0.0230
AG	0.0000	0.0000
AH	0.0000	0.0000
AI	0.0000	-0.0020
AJ	0.0000	0.0030
AK	0.0000	0.0000
AL	0.0000	0.0000
AM	0.0000	0.0110
AN	0.0000	0.0000
AO	0.0000	0.0000
AP	0.0000	-0.0280
AQ	0.0000	-0.0240
AR	0.0000	0.0000
AS	0.0000	0.0000
AT	0.0000	0.0000
AU	0.0000	0.0000
AV	0.0000	0.0000
AW	0.0000	-0.0370
AX	0.0000	0.0000

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Chain	Atom inclusion	Q-score
AY	0.0000	0.0000
AZ	0.0000	0.0000
Aa	0.0000	-0.0160
Ab	0.0000	-0.0040
Ac	0.0000	0.0000
Ad	0.0000	0.0000
Ae	0.0000	0.0000
Af	0.0000	0.0000
Ag	0.0000	0.0060
Ah	0.0000	-0.0040
Ai	0.0000	-0.0160
Aj	0.0000	-0.0060
Ak	0.0000	-0.0060
Al	0.0000	0.0000
Am	0.0000	0.0000
An	0.0000	0.0000
Ao	0.0000	0.0060
Ap	0.0000	0.0000
Aq	0.0000	0.0000
Ar	0.0000	0.0000
As	0.0000	0.0000
At	0.0000	0.0000
Au	0.0000	-0.0130
Av	0.0000	0.0000
Aw	0.0000	0.0000
Ax	0.0000	0.0000
Ay	0.0000	0.0000
Az	0.0000	0.0000
B0	0.0000	0.0000
B1	0.0000	0.0000
B2	0.0000	0.0000
B3	0.0000	-0.0010
B4	0.0000	-0.0010
B5	0.0000	-0.0020
B6	0.0000	0.0000
B7	0.0000	0.0000
B8	0.0000	0.0000
B9	0.0000	0.0000
BA	0.0000	0.0000
BB	0.0000	-0.0060
BC	0.0000	0.0000
BD	0.0000	0.0000

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Chain	Atom inclusion	Q-score
BE	0.0000	0.0130
BF	0.0000	0.0100
BG	0.0000	0.0000
BH	0.0000	0.0000
BI	0.0000	0.0220
BJ	0.0000	0.0000
BK	0.0000	0.0060
BL	0.0000	0.0000
BM	0.0000	-0.0330
BN	0.0000	0.0000
BO	0.0000	0.0000
BP	0.0000	0.0000
BQ	0.0000	0.0000
BR	0.0000	0.0100
BS	0.0000	-0.0280
BT	0.0000	0.0020
BU	0.0000	0.0090
BV	0.0000	0.0010
BW	0.0000	-0.0010
BX	0.0000	0.0000
BY	0.0000	0.0000
BZ	0.0000	0.0000
Ba	0.0000	0.0000
Bb	0.0000	0.0000
Bc	0.0000	0.0000
Bd	0.0000	0.0000
Be	0.0000	0.0000
Bf	0.0000	0.0000
Bg	0.0000	0.0000
Bh	0.0000	0.0000
Bi	0.0000	-0.0310
Bj	0.0000	0.0000
Bk	0.0000	0.0000
Bl	0.0000	0.0000
Bm	0.0000	0.0000
Bn	0.0000	0.0000
Bo	0.0000	0.0000
Bp	0.0000	-0.0030
Bq	0.0000	0.0000
Br	0.0000	0.0000
Bs	0.0000	0.0000
Bt	0.0000	0.0000

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Chain	Atom inclusion	Q-score
Bu	0.0000	0.0000
Bv	0.0000	0.0000
Bw	0.0000	-0.0010
Bx	0.0000	0.0000
By	0.0000	0.0000
Bz	0.0000	0.0000
C0	0.0000	0.0000
C1	0.0000	0.0000
C2	0.0000	0.0000
C3	0.0000	-0.0000
C4	0.0000	0.0000
C5	0.0000	0.0000
C6	0.0000	0.0000
C7	0.0000	0.0000
C8	0.0000	0.0000
C9	0.0000	0.0000
CA	0.0000	0.0000
CB	0.0000	-0.0120
CC	0.0000	0.0130
CD	0.0000	-0.0030
CE	0.0000	-0.0100
CF	0.0000	0.0000
CG	0.0000	0.0020
CH	0.0000	0.0000
CI	0.0000	0.0000
CJ	0.0000	0.0000
CK	0.0000	0.0000
CL	0.0000	0.0000
CM	0.0000	0.0000
CN	0.0000	0.0000
CO	0.0000	0.0000
CP	0.0000	0.0000
CQ	0.0000	0.0000
CR	0.0000	0.0000
CS	0.0000	0.0000
CT	0.0000	0.0000
CU	0.0000	0.0000
CV	0.0000	0.0000
CW	0.0000	0.0000
CX	0.0000	0.0000
CY	0.0000	0.0000
CZ	0.0000	0.0000

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Chain	Atom inclusion	Q-score
Ca	0.0000	0.0000
Cb	0.0000	0.0000
Cc	0.0000	0.0000
Cd	0.0000	0.0000
Ce	0.0000	0.0000
Cf	0.0000	0.0000
Cg	0.0000	0.0000
Ch	0.0000	0.0000
Ci	0.0000	0.0000
Cj	0.0000	0.0000
Ck	0.0000	0.0000
Cl	0.0000	0.0000
Cm	0.0000	0.0000
Cn	0.0000	0.0000
Co	0.0000	0.0000
Cp	0.0000	0.0000
Cq	0.0000	0.0000
Cr	0.0000	0.0000
Cs	0.0000	0.0000
Ct	0.0000	0.0000
Cu	0.0000	0.0000
Cv	0.0000	0.0000
Cw	0.0000	0.0000
Cx	0.0000	0.0000
Cy	0.0000	0.0000
Cz	0.0000	0.0000
DA	0.0000	0.0000
DB	0.0000	0.0000
DC	0.0000	0.0000
DD	0.0000	0.0000
DE	0.0000	0.0000
DF	0.0000	0.0000
DG	0.0000	0.0000
DH	0.0000	0.0000
DI	0.0000	0.0000
DJ	0.0000	0.0000
DK	0.0000	0.0000
DL	0.0000	0.0000
DM	0.0000	0.0000
DN	0.0000	0.0000
DO	0.0000	0.0000
DP	0.0000	0.0000

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Chain	Atom inclusion	Q-score
DQ	0.0000	0.0000
DR	0.0000	0.0000
DS	0.0000	0.0000
DT	0.0000	0.0000
DU	0.0000	0.0000
DV	0.0000	0.0000
DW	0.0000	0.0000
DX	0.0000	0.0000
DY	0.0000	0.0000
DZ	0.0000	0.0000