Full wwPDB EM Validation Report

Apr 22, 2024 – 06:58 pm BST

PDB ID	:	7ARE
EMDB ID	:	EMD-11881
Title	:	DNA origami pointer object v2
Authors	:	Thomas, M.; Feigl, E.; Kohler, F.; Kube, M.; 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	:	2020-10-24
Resolution	:	7.40 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 (i) symbol.

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

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

EMDB validation analysis	:	0.0.1.dev92
MolProbity	:	4.02b-467
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36.2

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 7.40 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	7249	68% 28%
2	AB	40	62% 30% 8%
3	AC	31	19% 77% 16% 6%
4	AD	40	70% 25% 5%
5	AE	48	10% 73% 21% 6%
6	AF	31	23% 77% 23%
7	AG	40	80% 18%
8	AH	31	100% 74% 26%
9	AI	45	73% 71% 29%
10	AJ	40	65% 32%
11	AK	45	29% 69% 29%
12	AL	36	17% 72% 25%
13	AM	45	11% 89% 11%
14	AN	40	68% 32%
15	AO	40	78% 20%
16	AP	36	11% 69% 25% 6%
17	AQ	45	9% 73% 22%

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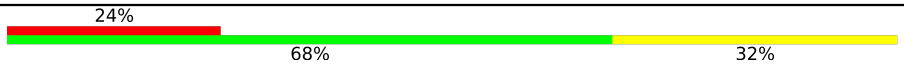
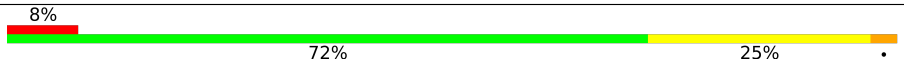
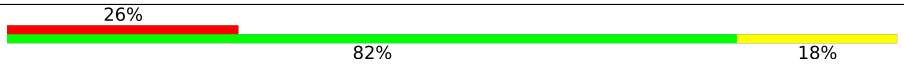
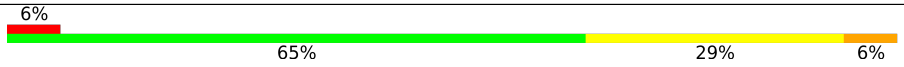
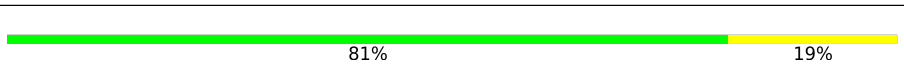
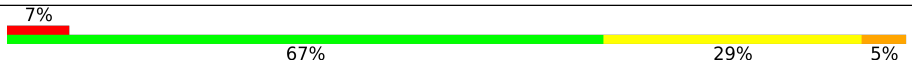
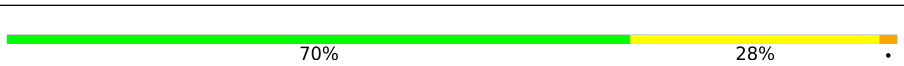
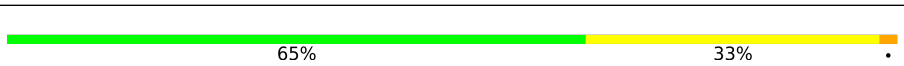
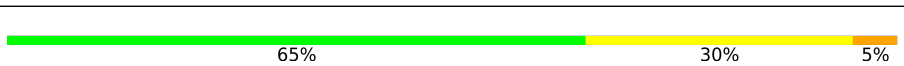
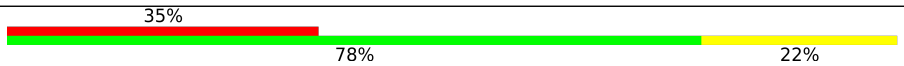
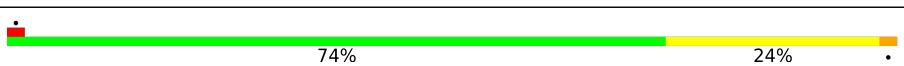
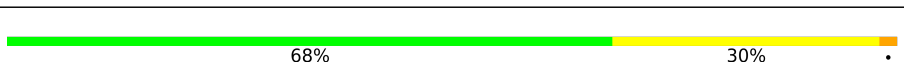
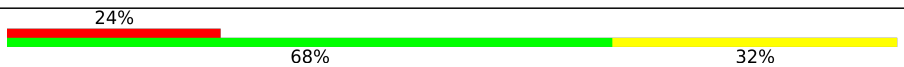
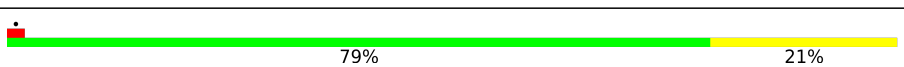
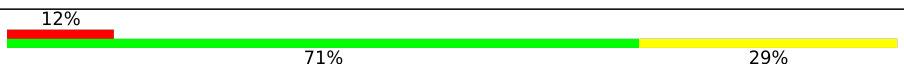
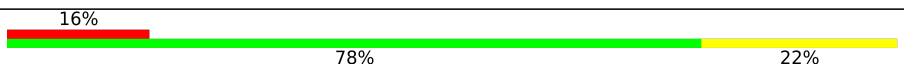
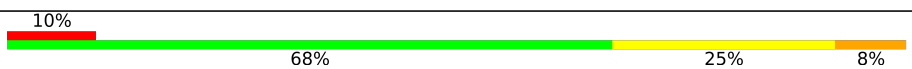
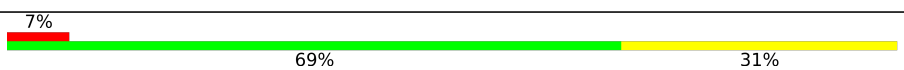
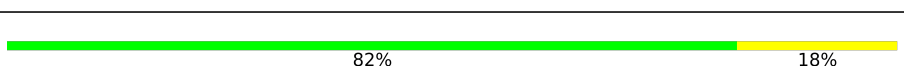
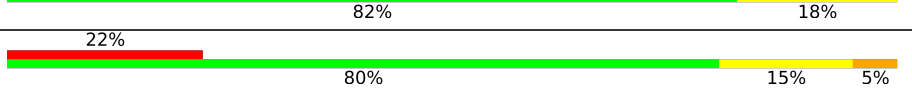
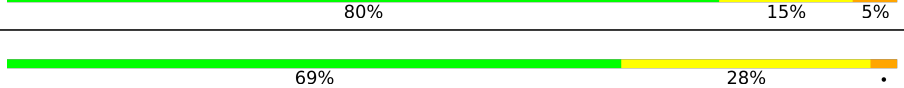
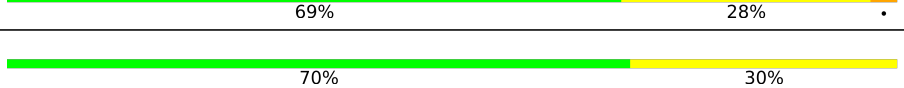
Mol	Chain	Length	Quality of chain
18	AR	34	
19	AS	36	
20	AT	34	
21	AU	34	
22	AV	34	
23	AW	32	
24	AX	42	
25	AY	40	
26	AZ	48	
27	Aa	40	
28	Ab	37	
29	Ac	50	
30	Ad	40	
31	Ae	37	
32	Af	48	
33	Ag	42	
34	Ah	37	
35	Ai	37	
36	Aj	31	
37	Ak	40	
38	Al	42	
39	Am	40	
40	An	40	
41	Ao	32	
42	Ap	37	

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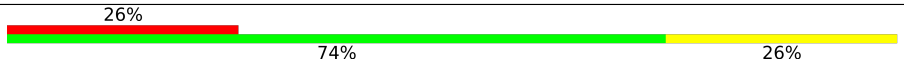
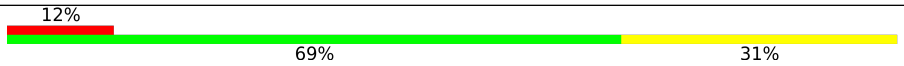
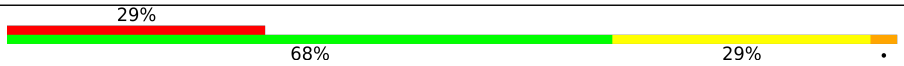
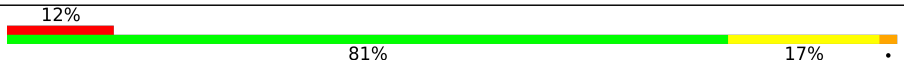
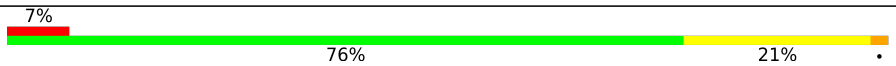
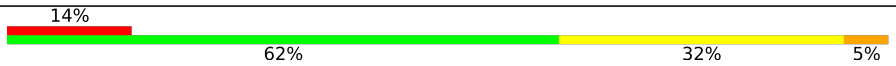
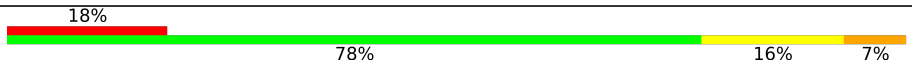
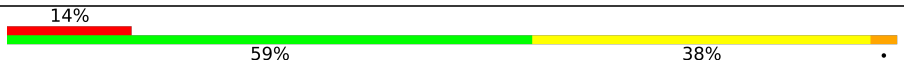
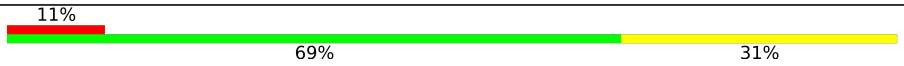
Mol	Chain	Length	Quality of chain
43	Aq	40	
44	Ar	40	
45	As	31	
46	At	32	
47	Au	32	
48	Av	40	
49	Aw	40	
50	Ax	32	
51	Ay	40	
52	Az	40	
53	A0	48	
54	A1	31	
55	A2	42	
56	A3	32	
57	A4	48	
58	A5	40	
59	A6	40	
60	A7	42	
61	A8	37	
62	A9	40	
63	BA	32	
64	BB	45	
65	BC	37	
66	BD	32	
67	BE	36	

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Mol	Chain	Length	Quality of chain
68	BF	42	7% 71% 26%
69	BG	37	14% 76% 24%
70	BH	40	88% 12%
71	BI	32	69% 25% 6%
72	BJ	40	68% 22% 10%
73	BK	32	78% 16% 6%
74	BL	37	8% 70% 22% 8%
75	BM	32	69% 31%
76	BN	32	75% 19% 6%
77	BO	40	80% 20%
78	BP	48	77% 23%
79	BQ	32	75% 25%
80	BR	40	62% 35%
81	BS	48	79% 21%
82	BT	40	62% 35%
83	BU	42	5% 57% 40%
84	BV	48	67% 33%
85	BW	48	56% 69% 29%
86	BX	40	18% 88% 10%
87	BY	40	72% 22% 5%
88	BZ	40	75% 22%
89	Ba	40	65% 32%
90	Bb	40	78% 15% 8%
91	Bc	32	69% 25% 6%
92	Bd	40	32% 62% 38%

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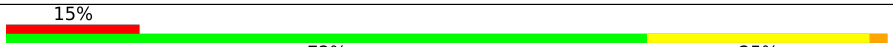
Mol	Chain	Length	Quality of chain
93	Be	40	
94	Bf	44	
95	Bg	32	
96	Bh	40	
97	Bi	40	
98	Bj	49	
99	Bk	29	
100	Bl	42	
101	Bm	40	
102	Bn	40	
103	Bo	32	
104	Bp	40	
105	Bq	48	
106	Br	40	
107	Bs	31	
108	Bt	48	
109	Bu	40	
110	Bv	48	
111	Bw	40	
112	Bx	40	
113	By	40	
114	Bz	40	
115	B0	40	
116	B1	42	
117	B2	31	

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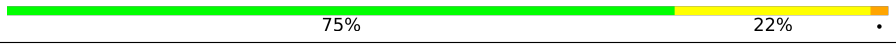
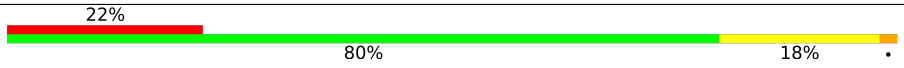
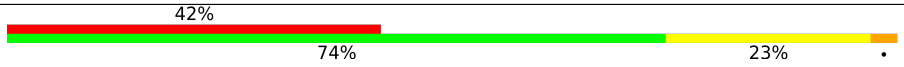
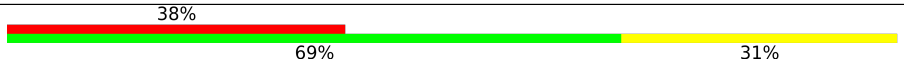
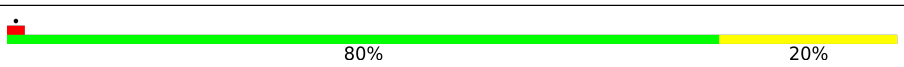
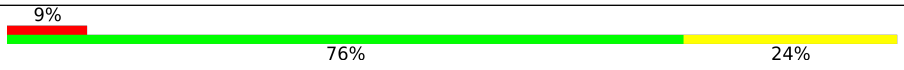
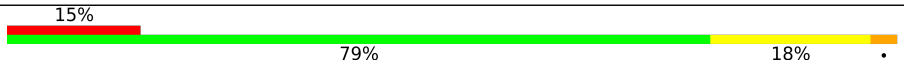
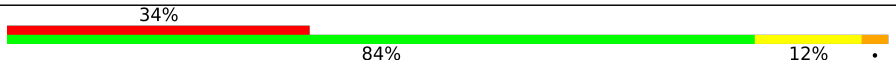
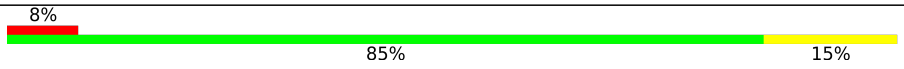
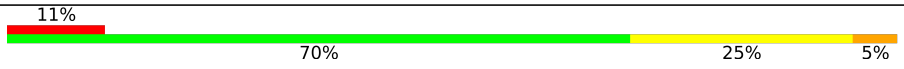
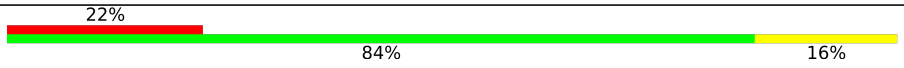
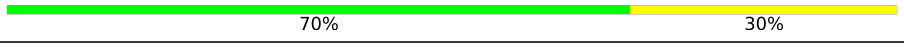
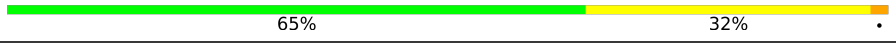
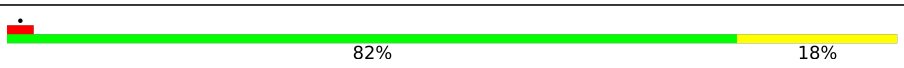
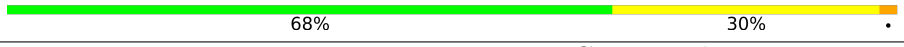
Mol	Chain	Length	Quality of chain
118	B3	40	
119	B4	48	
120	B5	50	
121	B6	31	
122	B7	29	
123	B8	40	
124	B9	40	
125	CA	40	
126	CB	34	
127	CC	40	
128	CD	40	
129	CE	34	
130	CF	32	
131	CG	40	
132	CH	40	
133	CI	40	
134	CJ	40	
135	CK	40	
136	CL	44	
137	CM	37	
138	CN	40	
139	CO	40	
140	CP	48	
141	CQ	34	
142	CR	40	

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Mol	Chain	Length	Quality of chain
143	CS	40	72% 28%
144	CT	48	77% 23%
145	CU	48	73% 25%
146	CV	34	29% 71% 29%
147	CW	26	73% 23%
148	CX	44	23% 82% 16%
149	CY	32	59% 41%
150	CZ	26	19% 65% 31%
151	Ca	40	65% 30% 5%
152	Cb	34	6% 71% 24% 6%
153	Cc	34	9% 88% 9%
154	Cd	40	52% 42% 5%
155	Ce	40	78% 18% 5%
156	Cf	40	55% 40% 5%
157	Cg	48	60% 33% 6%
158	Ch	48	60% 33% 6%
159	Ci	46	76% 22%
160	Cj	48	75% 19% 6%
161	Ck	44	23% 82% 16%
162	Cl	40	78% 20%
163	Cm	48	69% 29%
164	Cn	32	84% 16%
165	Co	44	34% 84% 14%
166	Cp	32	69% 31%
167	Cq	40	70% 28%

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Mol	Chain	Length	Quality of chain
168	Cr	50	8% 70% 26%
169	Cs	40	78% 20%
170	Ct	40	68% 30%
171	Cu	40	75% 25%
172	Cv	40	80% 20%
173	Cw	42	76% 24%
174	Cx	50	68% 28%
175	Cy	42	19% 76% 21%
176	Cz	40	80% 20%
177	C0	48	75% 25%
178	C1	40	72% 25%
179	C2	40	78% 22%
180	C3	31	6% 74% 13% 13%
181	C4	40	75% 25%
182	C5	40	72% 25%
183	C6	45	7% 62% 33%
184	C7	34	35% 74% 26%
185	C8	48	73% 21% 6%
186	C9	48	69% 29%
187	DA	40	75% 20% 5%
188	DB	48	79% 17%
189	DC	31	55% 81% 19%
190	DD	40	70% 30%
191	DE	50	30% 82% 14%
192	DF	50	34% 76% 22%

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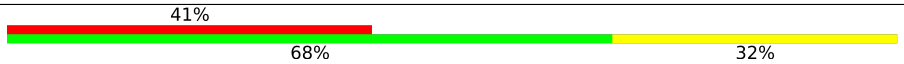
Mol	Chain	Length	Quality of chain
193	DG	40	
194	DH	42	
195	DI	37	
196	DJ	48	
197	DK	40	
198	DL	32	
199	DM	48	
200	DN	48	
201	DO	24	
202	DP	32	
203	DQ	40	

2 Entry composition

There are 203 unique types of molecules in this entry. The entry contains 311400 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	7249	148273	70952	25939	44134	7248	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	819	393	150	237	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	31	630	306	105	189	30	0	0

- Molecule 4 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
4	AD	40	812	393	138	242	39	0	0

- Molecule 5 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
5	AE	48	978	469	173	289	47	0	0

- Molecule 6 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
6	AF	31	630	308	97	195	30	0	0

- Molecule 7 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	AG	40	Total 814	C 393	N 138	O 244	P 39	0	0

- Molecule 8 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	AH	31	Total 637	C 308	N 106	O 193	P 30	0	0

- Molecule 9 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	AI	45	Total 911	C 439	N 158	O 270	P 44	0	0

- Molecule 10 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	AJ	40	Total 826	C 392	N 160	O 235	P 39	0	0

- Molecule 11 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	AK	45	Total 909	C 443	N 142	O 280	P 44	0	0

- Molecule 12 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	AL	36	Total 733	C 355	N 119	O 224	P 35	0	0

- Molecule 13 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	AM	45	Total 925	C 445	N 167	O 269	P 44	0	0

- Molecule 14 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	AN	40	Total	C	N	O	P	0	0
			819	394	149	237	39		

- 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
			818	391	152	236	39		

- Molecule 16 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	AP	36	Total	C	N	O	P	0	0
			736	355	131	215	35		

- Molecule 17 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	AQ	45	Total	C	N	O	P	0	0
			912	440	157	271	44		

- Molecule 18 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	AR	34	Total	C	N	O	P	0	0
			686	338	94	221	33		

- Molecule 19 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	AS	36	Total	C	N	O	P	0	0
			734	360	114	225	35		

- Molecule 20 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	AT	34	Total	C	N	O	P	0	0
			699	340	119	207	33		

- Molecule 21 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	AU	34	Total	C	N	O	P	0	0
			679	336	90	220	33		

- Molecule 22 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	AV	34	Total	C	N	O	P	0	0
			698	336	126	203	33		

- Molecule 23 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	AW	32	Total	C	N	O	P	0	0
			660	314	139	176	31		

- Molecule 24 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	AX	42	Total	C	N	O	P	0	0
			867	412	170	244	41		

- Molecule 25 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	AY	40	Total	C	N	O	P	0	0
			813	393	144	237	39		

- Molecule 26 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	AZ	48	Total	C	N	O	P	0	0
			993	474	186	286	47		

- Molecule 27 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	Aa	40	Total	C	N	O	P	0	0
			815	392	142	242	39		

- Molecule 28 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	Ab	37	Total 747	C 367	N 107	O 237	P 36	0	0

- Molecule 29 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	Ac	50	Total 1033	C 494	N 193	O 297	P 49	0	0

- Molecule 30 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	Ad	40	Total 832	C 397	N 170	O 226	P 39	0	0

- Molecule 31 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	Ae	37	Total 746	C 365	N 109	O 236	P 36	0	0

- Molecule 32 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	Af	48	Total 981	C 469	N 188	O 277	P 47	0	0

- Molecule 33 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	Ag	42	Total 871	C 415	N 179	O 236	P 41	0	0

- Molecule 34 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	Ah	37	Total 746	C 364	N 119	O 227	P 36	0	0

- Molecule 35 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	Ai	37	Total	C	N	O	P	0	0
			756	365	130	225	36		

- Molecule 36 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	Aj	31	Total	C	N	O	P	0	0
			641	310	110	191	30		

- Molecule 37 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	Ak	40	Total	C	N	O	P	0	0
			816	392	148	237	39		

- Molecule 38 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	Al	42	Total	C	N	O	P	0	0
			858	416	157	244	41		

- Molecule 39 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	Am	40	Total	C	N	O	P	0	0
			809	390	138	242	39		

- Molecule 40 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
40	An	40	Total	C	N	O	P	0	0
			811	395	133	244	39		

- Molecule 41 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	Ao	32	Total	C	N	O	P	0	0
			651	314	115	191	31		

- Molecule 42 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	Ap	37	Total	C	N	O	P	0	0
			766	365	151	214	36		

- Molecule 43 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	Aq	40	Total	C	N	O	P	0	0
			824	391	161	233	39		

- Molecule 44 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	Ar	40	Total	C	N	O	P	0	0
			834	395	169	231	39		

- Molecule 45 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	As	31	Total	C	N	O	P	0	0
			619	302	94	193	30		

- Molecule 46 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	At	32	Total	C	N	O	P	0	0
			660	315	129	185	31		

- Molecule 47 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	Au	32	Total	C	N	O	P	0	0
			665	314	142	178	31		

- Molecule 48 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
48	Av	40	Total	C	N	O	P	0	0
			809	389	145	236	39		

- Molecule 49 is a DNA chain called STAPLE STRAND.

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

- Molecule 50 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	Ax	32	Total 655	C 315	N 123	O 186	P 31	0	0

- Molecule 51 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	Ay	40	Total 823	C 391	N 164	O 229	P 39	0	0

- Molecule 52 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	Az	40	Total 822	C 390	N 162	O 231	P 39	0	0

- Molecule 53 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	A0	48	Total 984	C 466	N 194	O 277	P 47	0	0

- Molecule 54 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	A1	31	Total 625	C 303	N 96	O 196	P 30	0	0

- Molecule 55 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	A2	42	Total 840	C 403	N 143	O 253	P 41	0	0

- Molecule 56 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
56	A3	32	Total 652	C 312	N 126	O 183	P 31	0	0

- Molecule 57 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
57	A4	48	Total 984	C 469	N 188	O 280	P 47	0	0

- Molecule 58 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
58	A5	40	Total 820	C 392	N 163	O 226	P 39	0	0

- Molecule 59 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
59	A6	40	Total 829	C 395	N 160	O 235	P 39	0	0

- Molecule 60 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
60	A7	42	Total 851	C 411	N 141	O 258	P 41	0	0

- Molecule 61 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
61	A8	37	Total 746	C 365	N 112	O 233	P 36	0	0

- Molecule 62 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
62	A9	40	Total 819	C 391	N 146	O 243	P 39	0	0

- Molecule 63 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
63	BA	32	Total	C	N	O	P	0	0
			656	313	125	187	31		

- Molecule 64 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
64	BB	45	Total	C	N	O	P	0	0
			928	441	174	269	44		

- Molecule 65 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
65	BC	37	Total	C	N	O	P	0	0
			754	365	121	232	36		

- Molecule 66 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
66	BD	32	Total	C	N	O	P	0	0
			642	307	113	191	31		

- Molecule 67 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
67	BE	36	Total	C	N	O	P	0	0
			733	354	123	221	35		

- 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
			855	409	149	256	41		

- Molecule 69 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
69	BG	37	Total	C	N	O	P	0	0
			760	370	119	235	36		

- 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
			811	389	142	241	39		

- Molecule 71 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
71	BI	32	Total	C	N	O	P	0	0
			642	310	110	191	31		

- Molecule 72 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
72	BJ	40	Total	C	N	O	P	0	0
			814	391	146	238	39		

- Molecule 73 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
73	BK	32	Total	C	N	O	P	0	0
			654	315	120	188	31		

- Molecule 74 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
74	BL	37	Total	C	N	O	P	0	0
			751	361	128	226	36		

- Molecule 75 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
75	BM	32	Total	C	N	O	P	0	0
			660	315	120	194	31		

- Molecule 76 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
76	BN	32	Total	C	N	O	P	0	0
			656	313	119	193	31		

- Molecule 77 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
77	BO	40	Total 819	C 390	N 153	O 237	P 39	0	0

- Molecule 78 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
78	BP	48	Total 969	C 462	N 180	O 280	P 47	0	0

- Molecule 79 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
79	BQ	32	Total 660	C 314	N 133	O 182	P 31	0	0

- Molecule 80 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
80	BR	40	Total 812	C 390	N 150	O 233	P 39	0	0

- Molecule 81 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
81	BS	48	Total 984	C 473	N 181	O 283	P 47	0	0

- Molecule 82 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
82	BT	40	Total 817	C 390	N 156	O 232	P 39	0	0

- Molecule 83 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
83	BU	42	Total 852	C 410	N 148	O 253	P 41	0	0

- Molecule 84 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
84	BV	48	Total 988	C 473	N 178	O 290	P 47	0	0

- Molecule 85 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
85	BW	48	Total 960	C 472	N 128	O 313	P 47	0	0

- Molecule 86 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
86	BX	40	Total 805	C 391	N 134	O 241	P 39	0	0

- Molecule 87 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
87	BY	40	Total 806	C 390	N 132	O 245	P 39	0	0

- Molecule 88 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
88	BZ	40	Total 818	C 391	N 152	O 236	P 39	0	0

- Molecule 89 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
89	Ba	40	Total 804	C 384	N 147	O 234	P 39	0	0

- Molecule 90 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
90	Bb	40	Total 815	C 393	N 153	O 230	P 39	0	0

- Molecule 91 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
91	Bc	32	Total 656	C 312	N 129	O 184	P 31	0	0

- Molecule 92 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
92	Bd	40	Total 809	C 391	N 134	O 245	P 39	0	0

- Molecule 93 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
93	Be	40	Total 818	C 389	N 163	O 227	P 39	0	0

- Molecule 94 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
94	Bf	44	Total 900	C 435	N 144	O 278	P 43	0	0

- Molecule 95 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
95	Bg	32	Total 664	C 317	N 121	O 195	P 31	0	0

- Molecule 96 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
96	Bh	40	Total 835	C 392	N 175	O 229	P 39	0	0

- Molecule 97 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
97	Bi	40	Total 824	C 396	N 141	O 248	P 39	0	0

- Molecule 98 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
98	Bj	49	Total 997	C 480	N 162	O 307	P 48	0	0

- Molecule 99 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
99	Bk	29	Total 599	C 285	N 120	O 166	P 28	0	0

- Molecule 100 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
100	Bl	42	Total 859	C 410	N 154	O 254	P 41	0	0

- Molecule 101 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
101	Bm	40	Total 811	C 386	N 151	O 235	P 39	0	0

- Molecule 102 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
102	Bn	40	Total 817	C 387	N 159	O 232	P 39	0	0

- Molecule 103 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
103	Bo	32	Total 655	C 314	N 121	O 189	P 31	0	0

- Molecule 104 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
104	Bp	40	Total 806	C 387	N 141	O 239	P 39	0	0

- Molecule 105 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
105	Bq	48	Total	C	N	O	P	0	0
			977	474	156	300	47		

- Molecule 106 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
106	Br	40	Total	C	N	O	P	0	0
			820	387	159	235	39		

- Molecule 107 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
107	Bs	31	Total	C	N	O	P	0	0
			629	305	103	191	30		

- Molecule 108 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
108	Bt	48	Total	C	N	O	P	0	0
			983	465	192	279	47		

- Molecule 109 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
109	Bu	40	Total	C	N	O	P	0	0
			807	386	154	228	39		

- Molecule 110 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
110	Bv	48	Total	C	N	O	P	0	0
			976	468	174	287	47		

- Molecule 111 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
111	Bw	40	Total	C	N	O	P	0	0
			824	396	153	236	39		

- Molecule 112 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
112	Bx	40	Total 820	C 391	N 146	O 244	P 39	0	0

- Molecule 113 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
113	By	40	Total 810	C 390	N 138	O 243	P 39	0	0

- Molecule 114 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
114	Bz	40	Total 819	C 391	N 152	O 237	P 39	0	0

- Molecule 115 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
115	B0	40	Total 807	C 392	N 121	O 255	P 39	0	0

- Molecule 116 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
116	B1	42	Total 854	C 415	N 134	O 264	P 41	0	0

- Molecule 117 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
117	B2	31	Total 627	C 303	N 99	O 195	P 30	0	0

- Molecule 118 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
118	B3	40	Total 813	C 388	N 149	O 237	P 39	0	0

- Molecule 119 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
119	B4	48	Total	C	N	O	P	0	0
			989	471	189	282	47		

- Molecule 120 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
120	B5	50	Total	C	N	O	P	0	0
			1023	490	179	305	49		

- Molecule 121 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
121	B6	31	Total	C	N	O	P	0	0
			634	308	106	190	30		

- Molecule 122 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
122	B7	29	Total	C	N	O	P	0	0
			589	287	97	177	28		

- Molecule 123 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
123	B8	40	Total	C	N	O	P	0	0
			819	390	159	231	39		

- Molecule 124 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
124	B9	40	Total	C	N	O	P	0	0
			828	392	160	237	39		

- Molecule 125 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
125	CA	40	Total	C	N	O	P	0	0
			808	385	149	235	39		

- Molecule 126 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
126	CB	34	Total	C	N	O	P	0	0
			699	333	132	201	33		

- Molecule 127 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
127	CC	40	Total	C	N	O	P	0	0
			814	393	141	241	39		

- Molecule 128 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
128	CD	40	Total	C	N	O	P	0	0
			817	387	165	226	39		

- Molecule 129 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
129	CE	34	Total	C	N	O	P	0	0
			699	335	136	195	33		

- Molecule 130 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
130	CF	32	Total	C	N	O	P	0	0
			651	319	98	203	31		

- Molecule 131 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
131	CG	40	Total	C	N	O	P	0	0
			823	392	163	229	39		

- Molecule 132 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
132	CH	40	Total	C	N	O	P	0	0
			814	391	140	244	39		

- Molecule 133 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
133	CI	40	Total 823	C 390	N 165	O 229	P 39	0	0

- Molecule 134 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
134	CJ	40	Total 815	C 391	N 152	O 233	P 39	0	0

- Molecule 135 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
135	CK	40	Total 823	C 394	N 167	O 223	P 39	0	0

- Molecule 136 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
136	CL	44	Total 893	C 429	N 156	O 265	P 43	0	0

- Molecule 137 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
137	CM	37	Total 746	C 361	N 122	O 227	P 36	0	0

- Molecule 138 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
138	CN	40	Total 808	C 392	N 130	O 247	P 39	0	0

- Molecule 139 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
139	CO	40	Total 805	C 385	N 137	O 244	P 39	0	0

- Molecule 140 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
140	CP	48	Total 987	C 472	N 197	O 271	P 47	0	0

- Molecule 141 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
141	CQ	34	Total 686	C 329	N 127	O 197	P 33	0	0

- Molecule 142 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
142	CR	40	Total 820	C 392	N 163	O 226	P 39	0	0

- Molecule 143 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
143	CS	40	Total 808	C 389	N 145	O 235	P 39	0	0

- Molecule 144 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
144	CT	48	Total 965	C 468	N 159	O 291	P 47	0	0

- Molecule 145 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
145	CU	48	Total 980	C 469	N 182	O 282	P 47	0	0

- Molecule 146 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
146	CV	34	Total 691	C 336	N 111	O 211	P 33	0	0

- Molecule 147 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
147	CW	26	Total 535	C 257	N 100	O 153	P 25	0	0

- Molecule 148 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
148	CX	44	Total 902	C 434	N 163	O 262	P 43	0	0

- Molecule 149 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
149	CY	32	Total 670	C 316	N 143	O 180	P 31	0	0

- Molecule 150 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
150	CZ	26	Total 534	C 256	N 98	O 155	P 25	0	0

- Molecule 151 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
151	Ca	40	Total 824	C 393	N 162	O 230	P 39	0	0

- Molecule 152 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
152	Cb	34	Total 690	C 333	N 120	O 204	P 33	0	0

- Molecule 153 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
153	Cc	34	Total 693	C 335	N 124	O 201	P 33	0	0

- Molecule 154 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
154	Cd	40	Total 818	C 389	N 160	O 230	P 39	0	0

- Molecule 155 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
155	Ce	40	Total 822	C 396	N 153	O 234	P 39	0	0

- Molecule 156 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
156	Cf	40	Total 826	C 392	N 166	O 229	P 39	0	0

- Molecule 157 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
157	Cg	48	Total 991	C 470	N 196	O 278	P 47	0	0

- Molecule 158 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
158	Ch	48	Total 983	C 472	N 179	O 285	P 47	0	0

- Molecule 159 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
159	Ci	46	Total 942	C 454	N 164	O 279	P 45	0	0

- Molecule 160 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
160	Cj	48	Total 981	C 470	N 178	O 286	P 47	0	0

- Molecule 161 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
161	Ck	44	Total 899	C 437	N 151	O 268	P 43	0	0

- Molecule 162 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
162	Cl	40	Total 809	C 388	N 146	O 236	P 39	0	0

- Molecule 163 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
163	Cm	48	Total 990	C 472	N 197	O 274	P 47	0	0

- Molecule 164 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
164	Cn	32	Total 640	C 307	N 113	O 189	P 31	0	0

- Molecule 165 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
165	Co	44	Total 889	C 434	N 136	O 276	P 43	0	0

- Molecule 166 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
166	Cp	32	Total 664	C 319	N 125	O 189	P 31	0	0

- Molecule 167 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
167	Cq	40	Total 813	C 394	N 143	O 237	P 39	0	0

- Molecule 168 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
168	Cr	50	Total	C	N	O	P	0	0
			1022	491	187	295	49		

- Molecule 169 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
169	Cs	40	Total	C	N	O	P	0	0
			812	392	145	236	39		

- Molecule 170 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
170	Ct	40	Total	C	N	O	P	0	0
			819	394	149	237	39		

- Molecule 171 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
171	Cu	40	Total	C	N	O	P	0	0
			819	392	160	228	39		

- Molecule 172 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
172	Cv	40	Total	C	N	O	P	0	0
			832	398	160	235	39		

- Molecule 173 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
173	Cw	42	Total	C	N	O	P	0	0
			856	413	148	254	41		

- Molecule 174 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
174	Cx	50	Total	C	N	O	P	0	0
			1019	488	181	301	49		

- Molecule 175 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
175	Cy	42	Total 854	C 414	N 147	O 252	P 41	0	0

- Molecule 176 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
176	Cz	40	Total 818	C 391	N 152	O 236	P 39	0	0

- Molecule 177 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
177	C0	48	Total 990	C 474	N 186	O 283	P 47	0	0

- Molecule 178 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
178	C1	40	Total 830	C 393	N 165	O 233	P 39	0	0

- Molecule 179 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
179	C2	40	Total 824	C 393	N 156	O 236	P 39	0	0

- Molecule 180 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
180	C3	31	Total 626	C 307	N 89	O 200	P 30	0	0

- Molecule 181 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
181	C4	40	Total 824	C 393	N 159	O 233	P 39	0	0

- Molecule 182 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
182	C5	40	Total 826	C 394	N 155	O 238	P 39	0	0

- Molecule 183 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
183	C6	45	Total 910	C 442	N 143	O 281	P 44	0	0

- Molecule 184 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
184	C7	34	Total 684	C 337	N 92	O 222	P 33	0	0

- Molecule 185 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
185	C8	48	Total 980	C 468	N 189	O 276	P 47	0	0

- Molecule 186 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
186	C9	48	Total 984	C 467	N 199	O 271	P 47	0	0

- Molecule 187 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
187	DA	40	Total 814	C 388	N 152	O 235	P 39	0	0

- Molecule 188 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
188	DB	48	Total 975	C 469	N 173	O 286	P 47	0	0

- Molecule 189 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
189	DC	31	Total	C	N	O	P	0	0
			632	309	96	197	30		

- Molecule 190 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
190	DD	40	Total	C	N	O	P	0	0
			821	397	143	242	39		

- Molecule 191 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
191	DE	50	Total	C	N	O	P	0	0
			1024	493	188	294	49		

- Molecule 192 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
192	DF	50	Total	C	N	O	P	0	0
			1024	495	186	294	49		

- Molecule 193 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
193	DG	40	Total	C	N	O	P	0	0
			821	393	156	233	39		

- Molecule 194 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
194	DH	42	Total	C	N	O	P	0	0
			850	411	150	248	41		

- Molecule 195 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
195	DI	37	Total	C	N	O	P	0	0
			747	362	124	225	36		

- Molecule 196 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
196	DJ	48	Total 985	C 472	N 191	O 275	P 47	0	0

- Molecule 197 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
197	DK	40	Total 816	C 393	N 150	O 234	P 39	0	0

- Molecule 198 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
198	DL	32	Total 649	C 313	N 113	O 192	P 31	0	0

- Molecule 199 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
199	DM	48	Total 988	C 473	N 196	O 272	P 47	0	0

- Molecule 200 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
200	DN	48	Total 987	C 472	N 185	O 283	P 47	0	0

- Molecule 201 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
201	DO	24	Total 481	C 239	N 64	O 155	P 23	0	0

- Molecule 202 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
202	DP	32	Total 654	C 312	N 132	O 179	P 31	0	0

- Molecule 203 is a DNA chain called STAPLE STRAND.

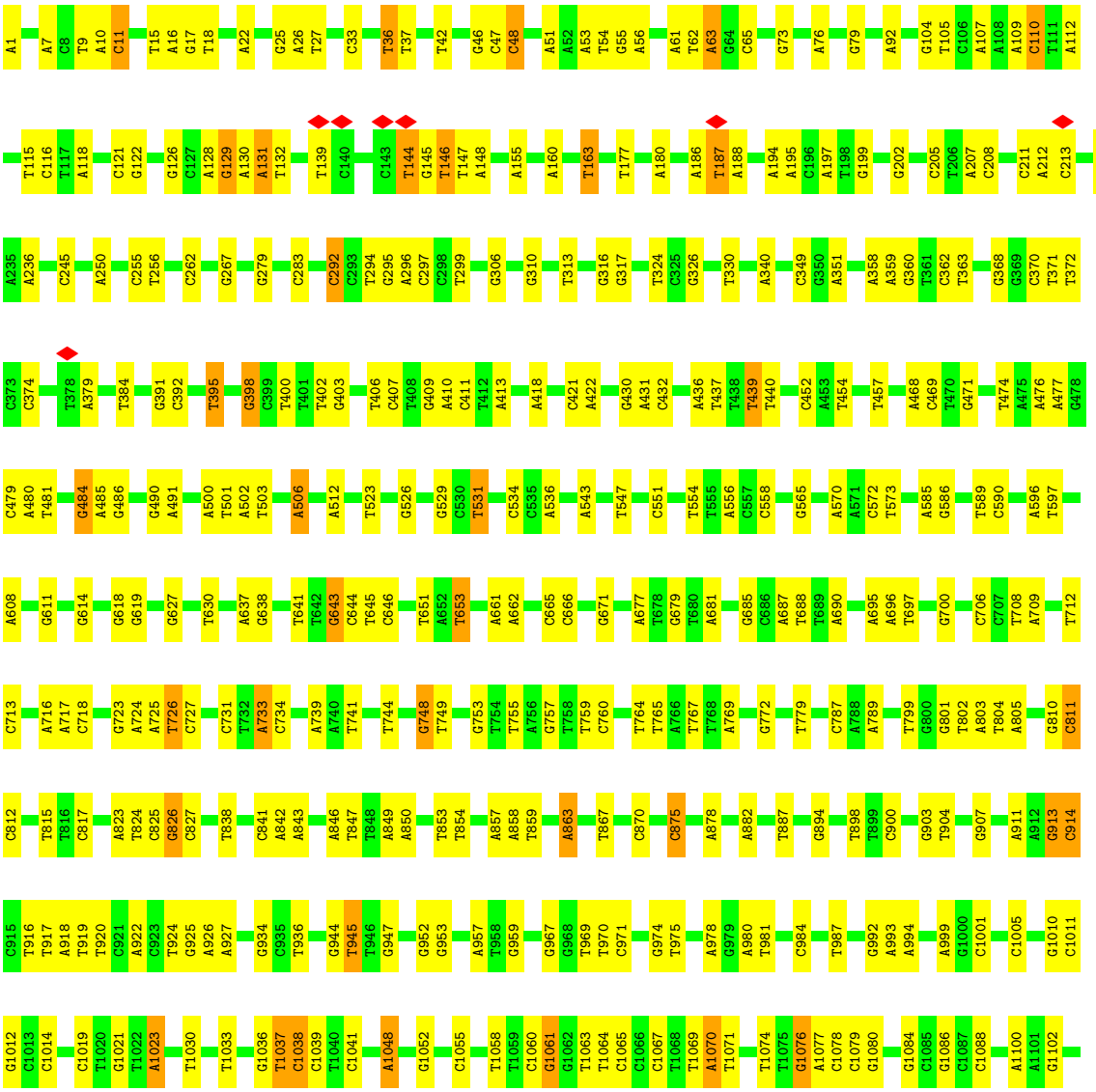
Mol	Chain	Residues	Atoms					AltConf	Trace
203	DQ	40	Total	C	N	O	P	0	0
			826	392	163	232	39		

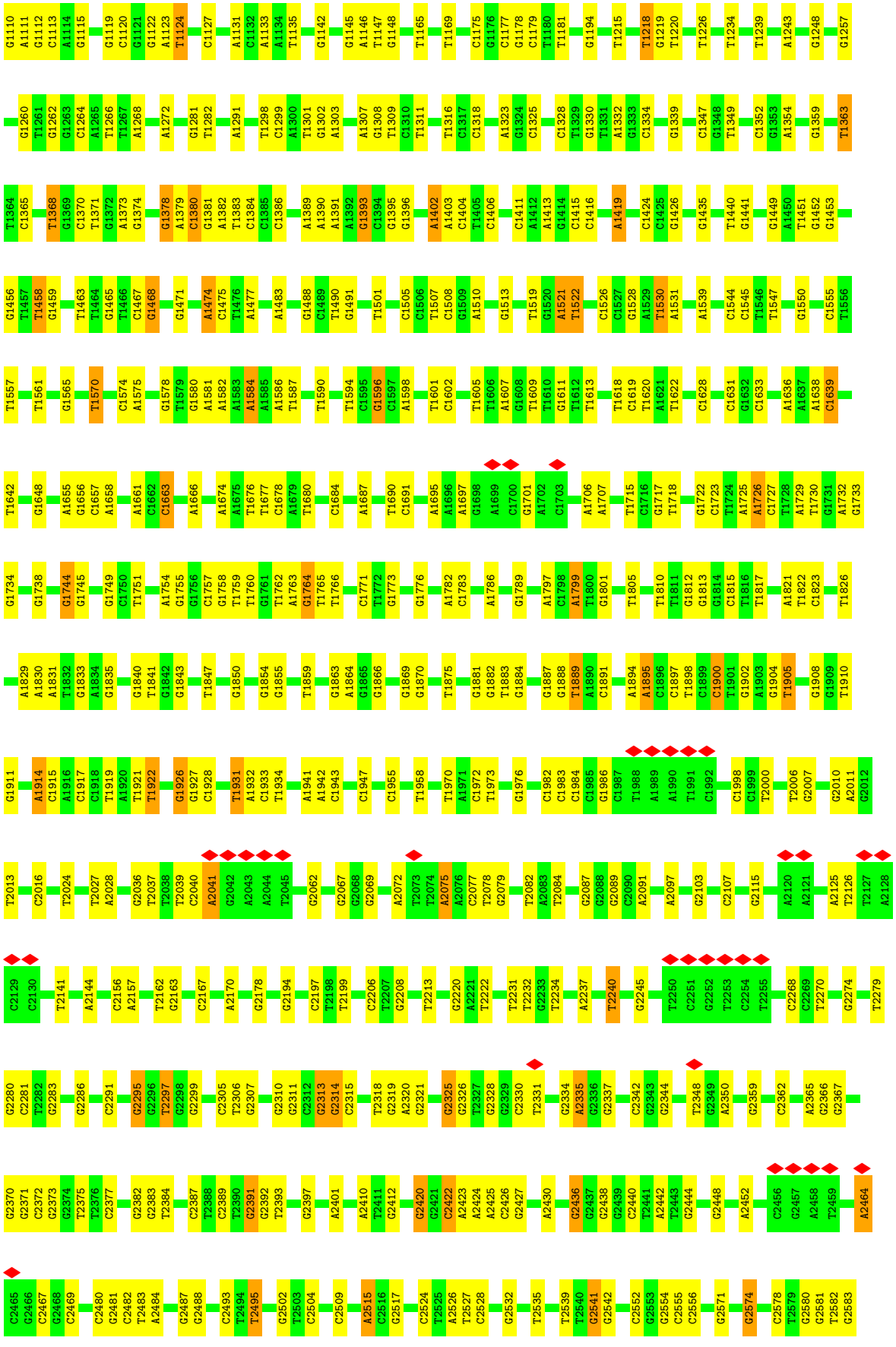
3 Residue-property plots (i)

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:




G1110 A1111 G1112 C1113 A1114 G1115 G1119 C1120 G1121 G1122 A1123 T1124 C1127 A1131 C1132 A1133 A1134 T1135 G1142 G1145 A1146 T1147 G1148 T1165 T1169 C1175 G1176 C1177 G1178 C1179 T1180 T1181 G1194 T1215 T1218 G1219 T1220 T1226 T1234 T1239 A1243 G1248 G1257
G1260 T1261 G1262 G1263 C1264 A1265 T1266 T1267 A1268 A1272 G1281 T1282 A1291 T1298 C1299 A1300 T1301 G1302 A1303 A1307 G1308 T1309 C1310 T1311 T1316 C1317 C1318 A1323 G1324 C1325 C1328 T1329 G1330 T1331 A1332 G1333 C1334 G1339 C1347 G1348 T1349 C1352 G1353 A1354 G1359 T1363
T1364 C1365 T1368 G1369 C1370 T1371 G1372 A1373 G1374 G1378 A1379 C1380 G1381 A1382 T1383 C1384 C1385 C1386 A1389 A1390 A1391 A1392 G1393 C1394 G1395 G1396 A1402 A1403 C1404 T1405 C1406 C1411 A1412 A1413 G1414 C1415 C1416 A1419 C1424 C1425 G1426 G1435 T1440 G1441 G1449 A1450 T1451 G1452 G1453
G1456 T1457 T1458 G1459 T1463 T1464 G1465 T1466 C1467 G1468 G1471 A1474 C1475 T1476 A1477 A1483 G1488 C1489 T1490 G1491 T1501 C1505 C1506 T1507 C1508 G1509 A1510 G1513 T1519 G1520 A1521 T1522 C1526 C1527 G1528 A1529 T1530 A1531 A1539 C1544 C1545 T1546 T1547 G1550 C1555 T1556
T1557 T1561 G1565 T1570 C1574 A1575 G1578 T1579 G1580 A1581 A1582 A1583 A1584 A1585 A1586 T1587 T1590 T1594 C1595 G1596 C1597 A1598 T1601 C1602 T1605 T1606 A1607 G1608 T1609 T1610 G1611 T1612 T1613 T1618 C1619 T1620 A1621 T1622 C1628 C1631 G1632 C1633 A1636 A1637 A1638 C1639
T1642 G1648 A1655 G1656 C1657 A1658 A1661 C1662 C1663 A1666 A1674 A1675 T1676 T1677 C1678 A1679 T1680 C1684 A1687 T1690 C1691 A1695 A1696 A1697 G1698 A1699 C1700 G1701 A1702 C1703 A1706 A1707 T1715 C1716 G1717 T1718 G1722 C1723 T1724 A1725 A1726 C1727 T1728 A1729 T1730 G1731 A1732 G1733
G1734 G1738 G1744 G1745 G1749 C1750 T1751 A1754 G1755 G1756 C1757 G1758 T1759 T1760 G1761 T1762 A1763 G1764 T1765 T1766 C1771 T1772 G1773 G1776 A1782 C1783 A1786 G1789 A1797 C1798 A1799 T1800 G1801 T1805 T1810 T1811 G1812 G1813 G1814 C1815 T1816 T1817 A1821 T1822 C1823 T1826
A1829 A1830 A1831 T1832 G1833 A1834 G1835 G1840 T1841 G1842 G1843 T1847 G1850 G1854 G1855 T1859 G1863 A1864 G1865 G1866 G1869 G1870 T1875 G1881 G1882 T1883 G1884 G1887 G1888 T1889 A1890 C1891 A1894 A1895 C1896 C1897 T1898 C1899 C1900 T1901 G1902 A1903 G1904 T1905 G1908 G1909 T1910
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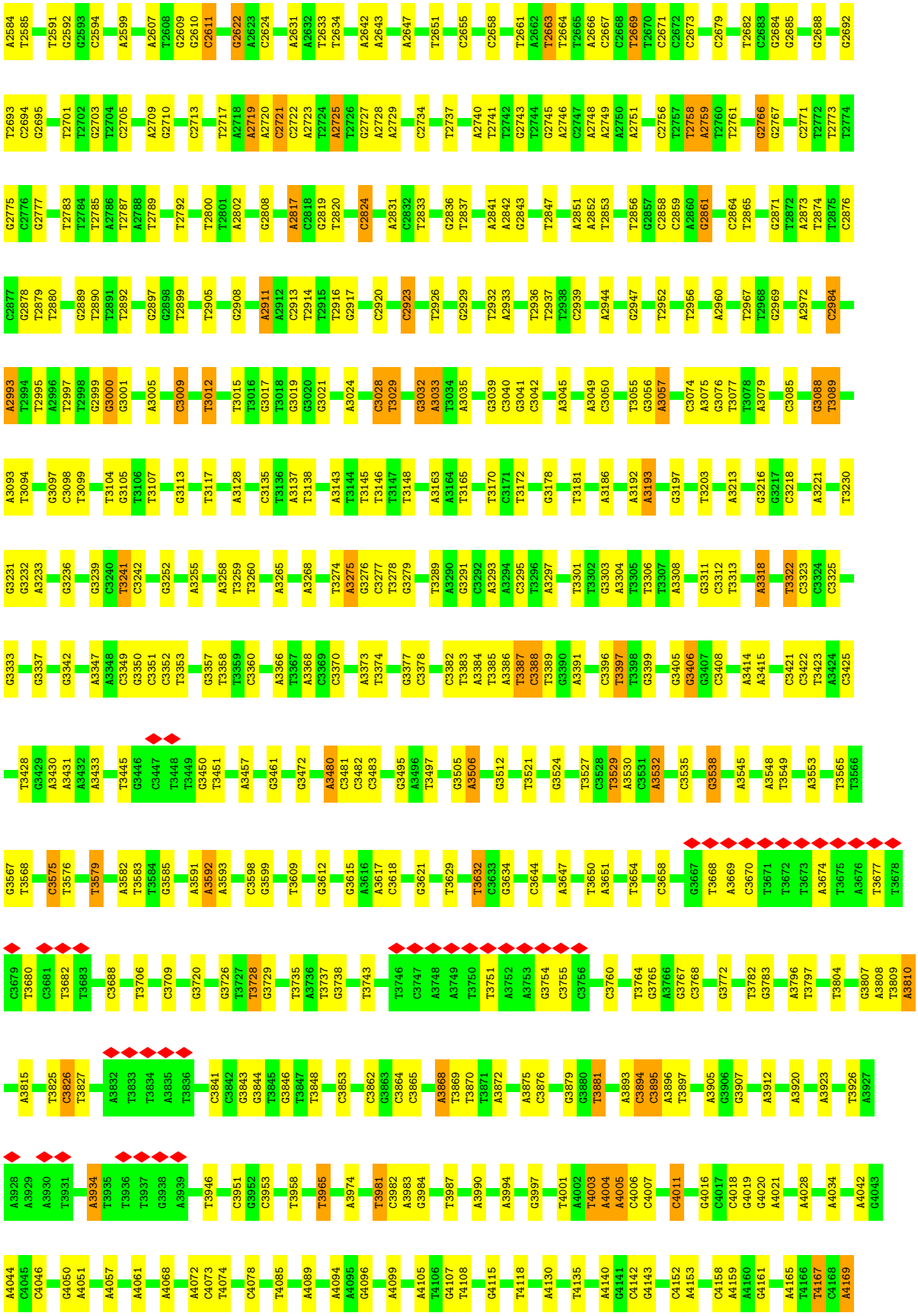

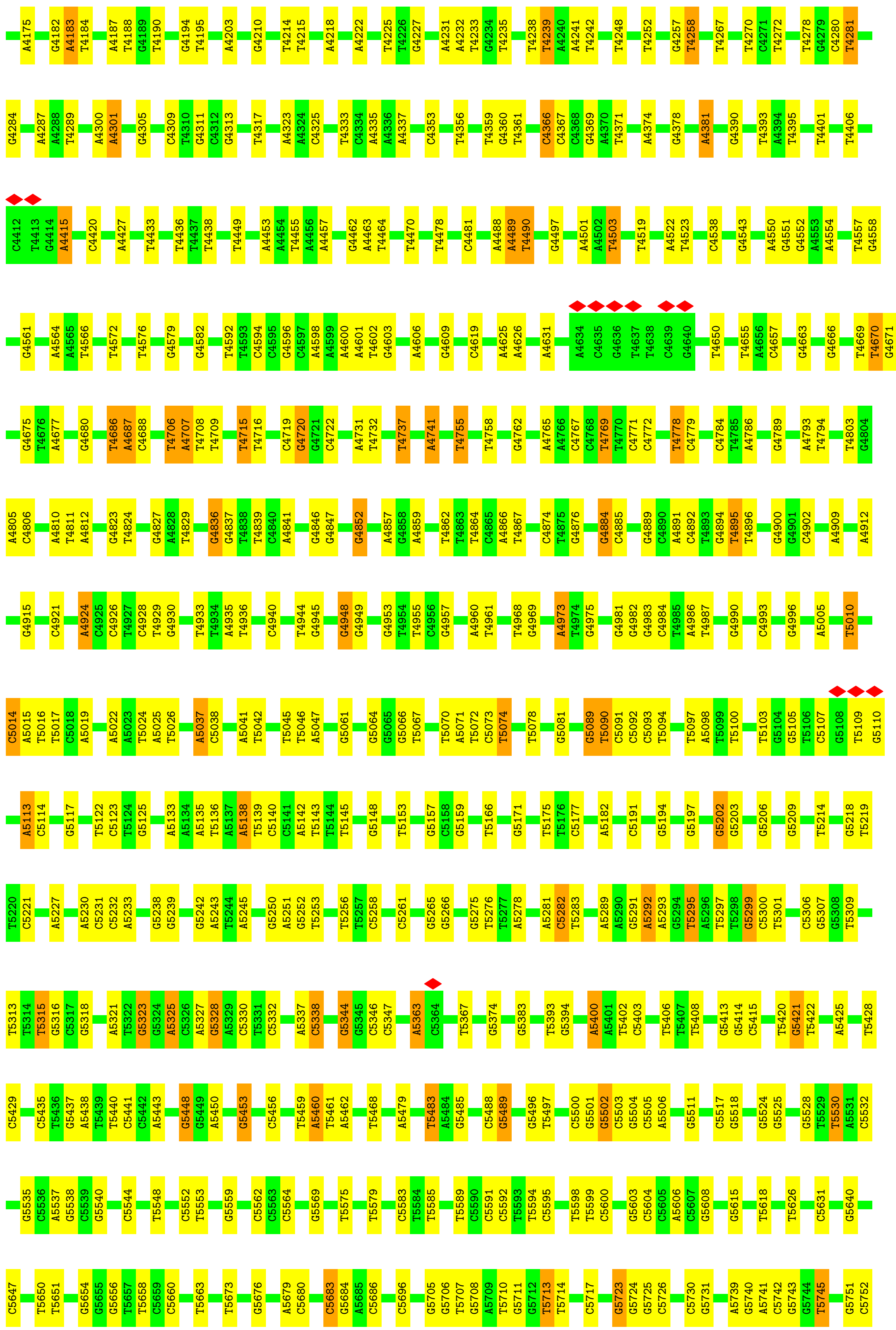
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G4561 A4564 A4565 T4566 T4572 T4576 G4579 G4582 T4592 T4593 C4594 C4595 G4596 C4597 A4598 A4599 A4600 A4601 T4602 G4603 A4606 G4609 C4619 A4625 A4626 A4631 A4634 C4635 G4636 T4637 T4638 C4639 G4640 T4650 T4655 A4656 C4657 G4663 G4666 T4669 T4670 G4671
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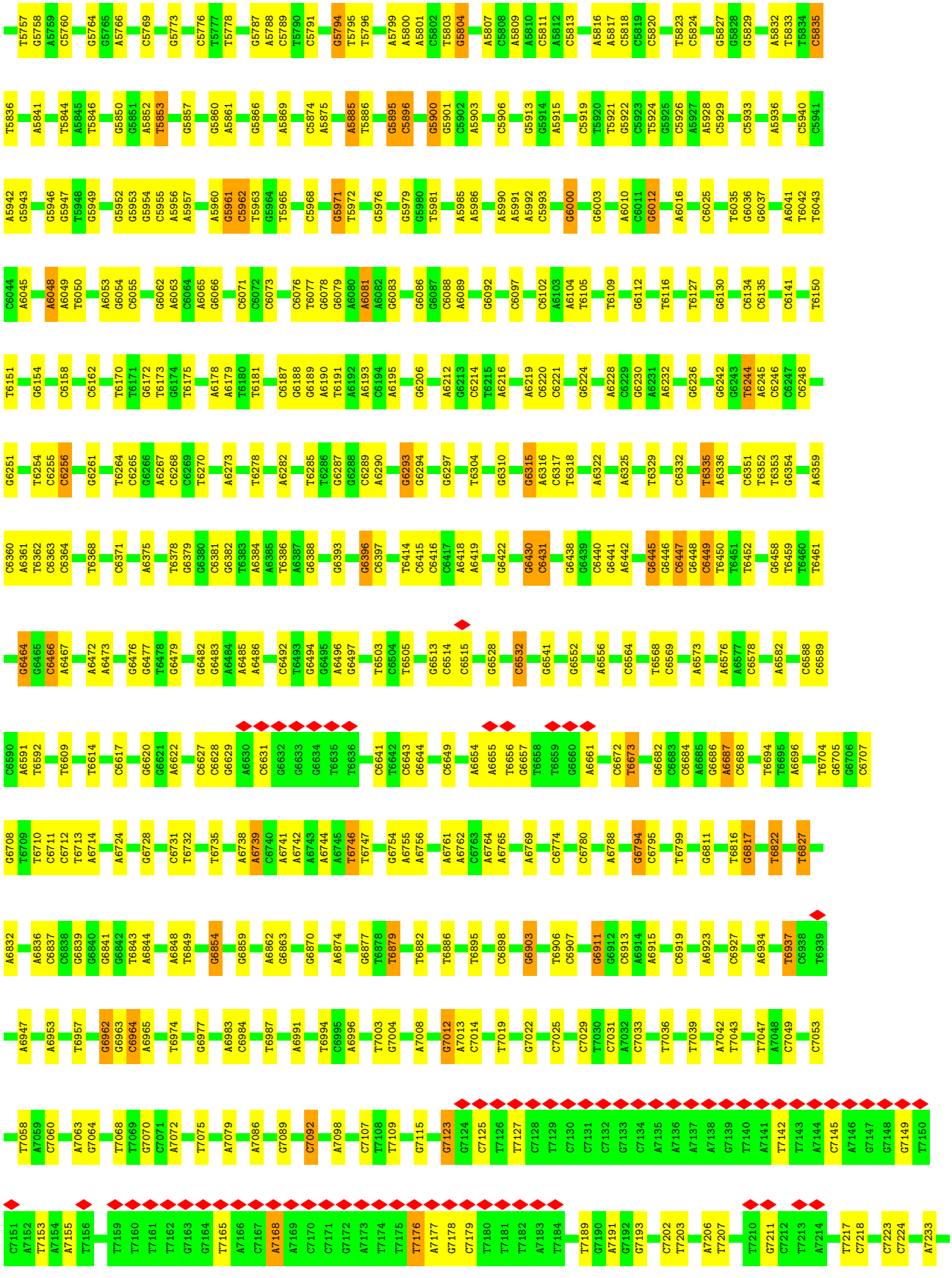
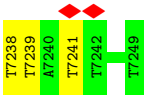
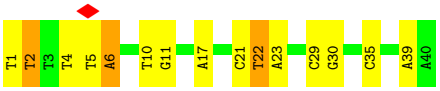




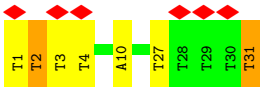
• Molecule 2: STAPLE STRAND

Chain AB:



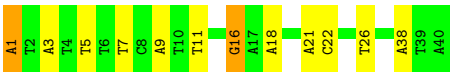
• Molecule 3: STAPLE STRAND

Chain AC:



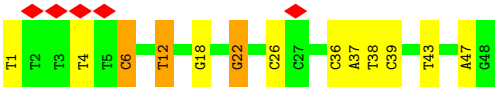
• Molecule 4: STAPLE STRAND

Chain AD:



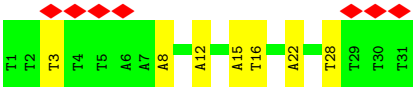
• Molecule 5: STAPLE STRAND

Chain AE:



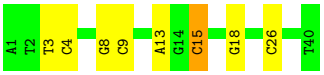
• Molecule 6: STAPLE STRAND

Chain AF:



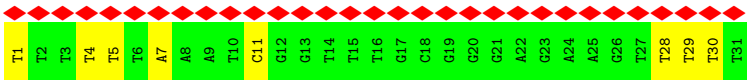
• Molecule 7: STAPLE STRAND

Chain AG:



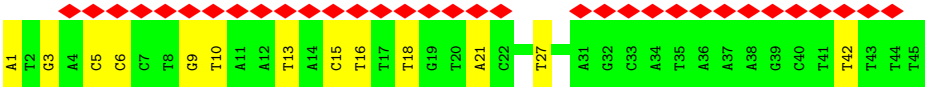
• Molecule 8: STAPLE STRAND

Chain AH:



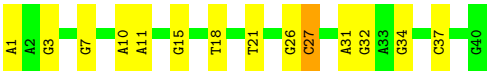
• Molecule 9: STAPLE STRAND

Chain AI:



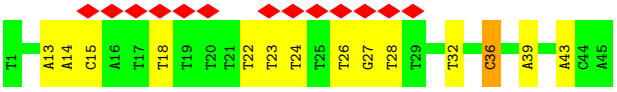
• Molecule 10: STAPLE STRAND

Chain AJ:



• Molecule 11: STAPLE STRAND

Chain AK:

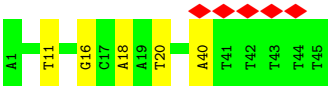


• Molecule 12: STAPLE STRAND

Chain AL:

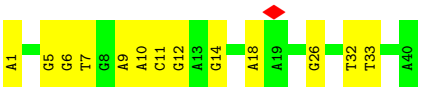
• Molecule 13: STAPLE STRAND

Chain AM:



• Molecule 14: STAPLE STRAND

Chain AN:

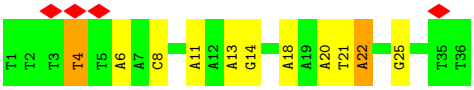


• Molecule 15: STAPLE STRAND

Chain AO:

• Molecule 16: STAPLE STRAND

Chain AP:

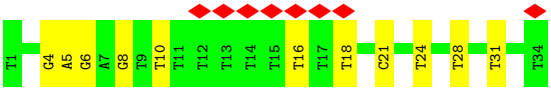


• Molecule 17: STAPLE STRAND

Chain AQ:

• Molecule 18: STAPLE STRAND

Chain AR:

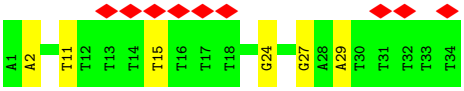


• Molecule 19: STAPLE STRAND

Chain AS:

• Molecule 20: STAPLE STRAND

Chain AT:

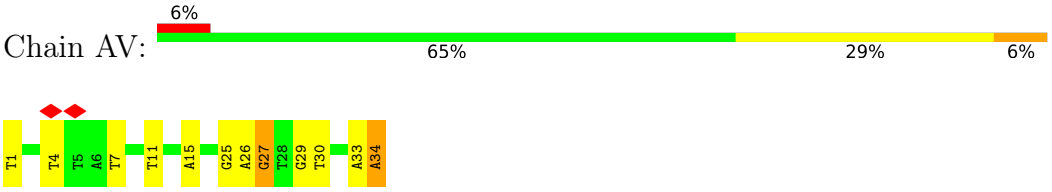


• Molecule 21: STAPLE STRAND

Chain AU:

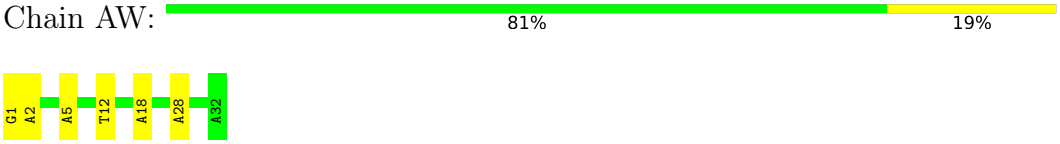
• Molecule 22: STAPLE STRAND

Chain AV:



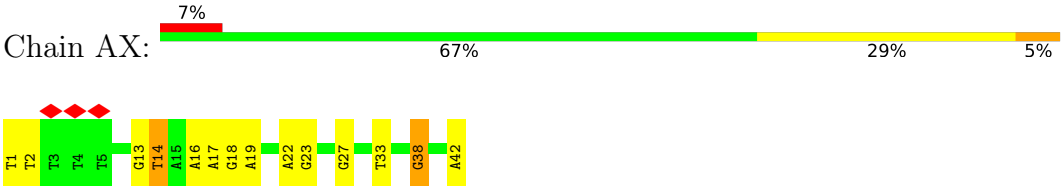
• Molecule 23: STAPLE STRAND

Chain AW:



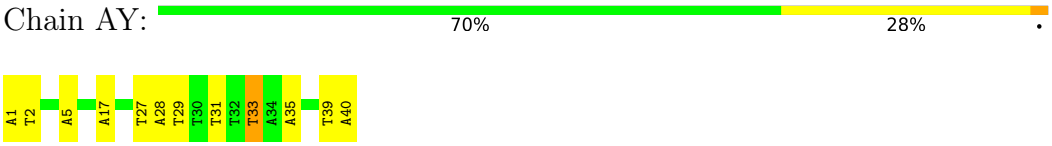
• Molecule 24: STAPLE STRAND

Chain AX:



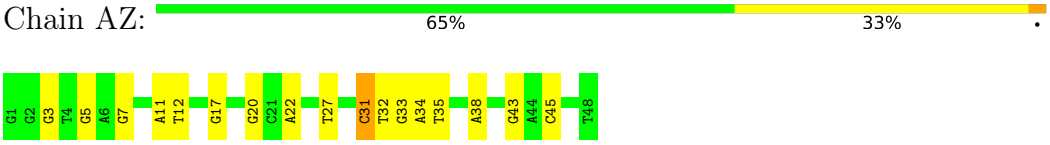
• Molecule 25: STAPLE STRAND

Chain AY:



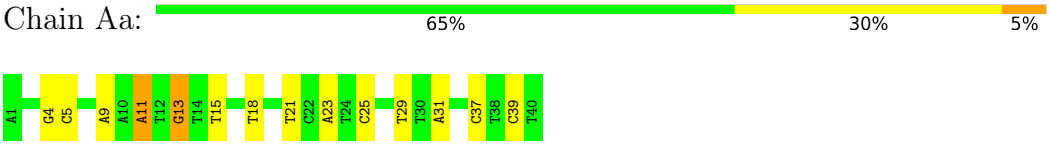
• Molecule 26: STAPLE STRAND

Chain AZ:



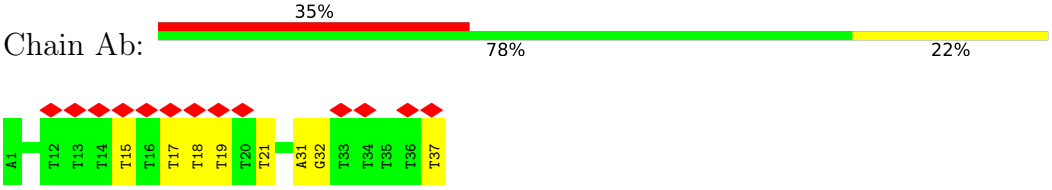
• Molecule 27: STAPLE STRAND

Chain Aa:



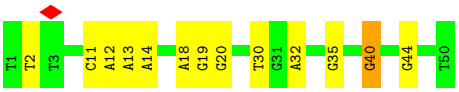
• Molecule 28: STAPLE STRAND

Chain Ab:



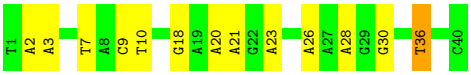
• Molecule 29: STAPLE STRAND

Chain Ac:



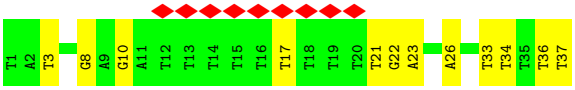
• Molecule 30: STAPLE STRAND

Chain Ad:



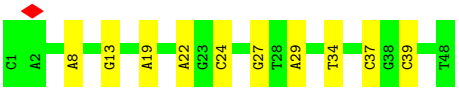
• Molecule 31: STAPLE STRAND

Chain Ae:



• Molecule 32: STAPLE STRAND

Chain Af:

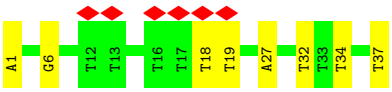


• Molecule 33: STAPLE STRAND

Chain Ag:

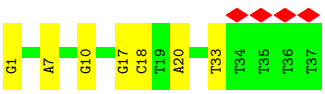
• Molecule 34: STAPLE STRAND

Chain Ah:



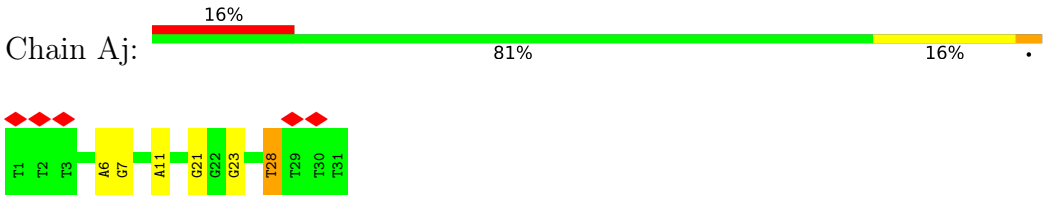
• Molecule 35: STAPLE STRAND

Chain Ai:



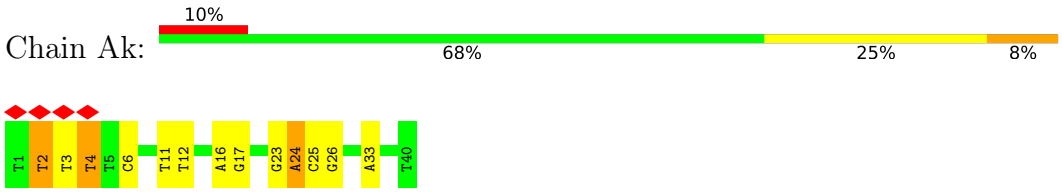
• Molecule 36: STAPLE STRAND

Chain Aj:



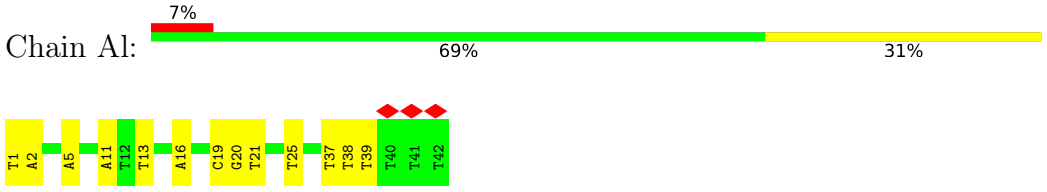
• Molecule 37: STAPLE STRAND

Chain Ak:



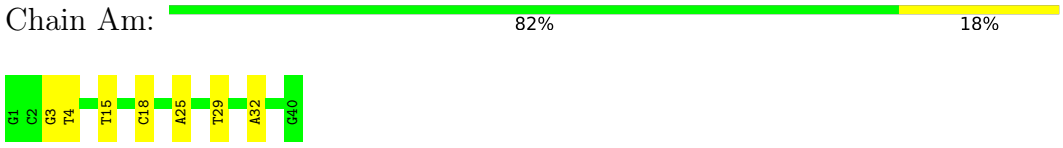
• Molecule 38: STAPLE STRAND

Chain Al:



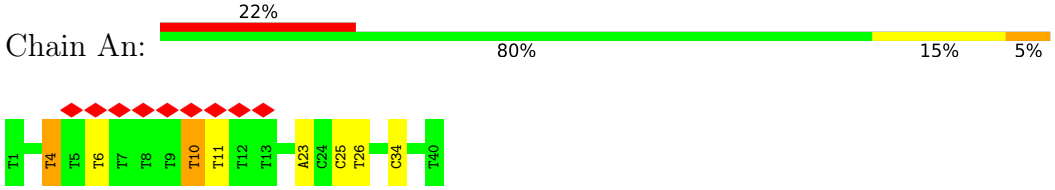
• Molecule 39: STAPLE STRAND

Chain Am:



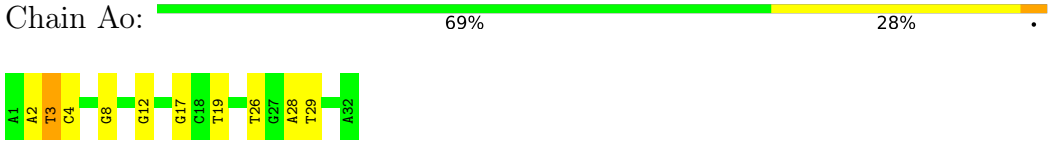
• Molecule 40: STAPLE STRAND

Chain An:



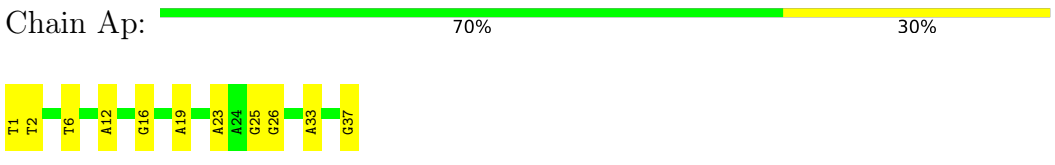
• Molecule 41: STAPLE STRAND

Chain Ao:



• Molecule 42: STAPLE STRAND

Chain Ap:

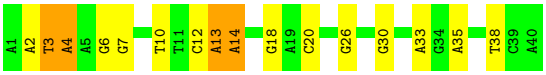


• Molecule 43: STAPLE STRAND

Chain Aq:

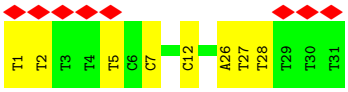
• Molecule 44: STAPLE STRAND

Chain Ar:



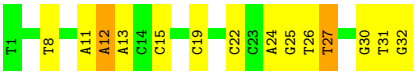
• Molecule 45: STAPLE STRAND

Chain As:



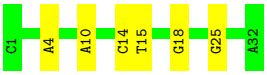
• Molecule 46: STAPLE STRAND

Chain At:



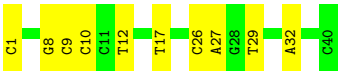
• Molecule 47: STAPLE STRAND

Chain Au:



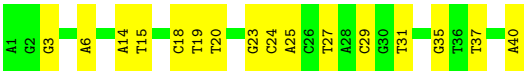
• Molecule 48: STAPLE STRAND

Chain Av:



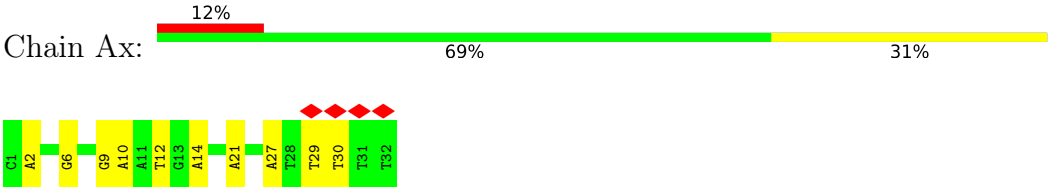
• Molecule 49: STAPLE STRAND

Chain Aw:



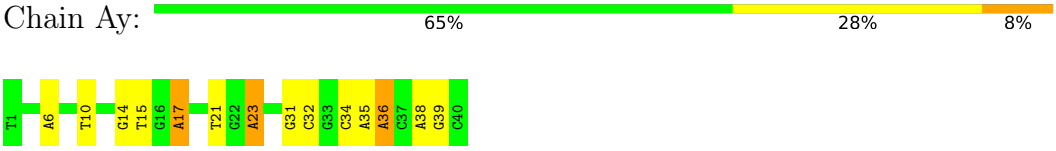
• Molecule 50: STAPLE STRAND

Chain Ax:



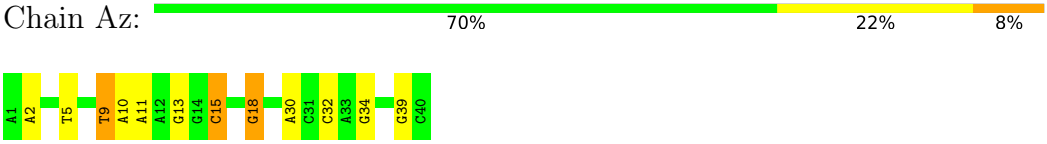
• Molecule 51: STAPLE STRAND

Chain Ay:



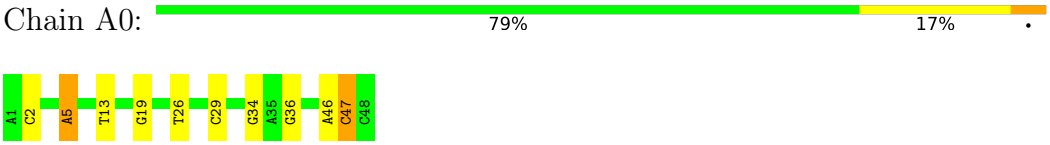
• Molecule 52: STAPLE STRAND

Chain Az:



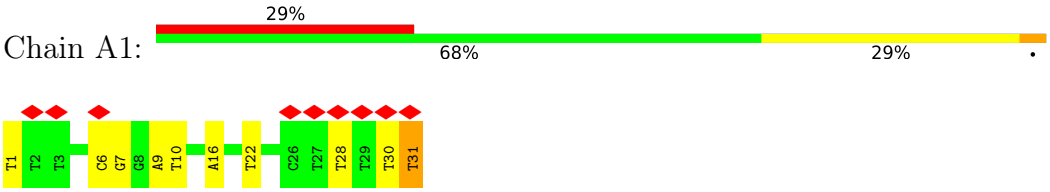
• Molecule 53: STAPLE STRAND

Chain A0:



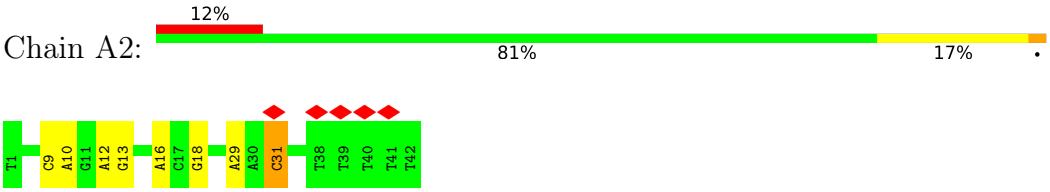
• Molecule 54: STAPLE STRAND

Chain A1:



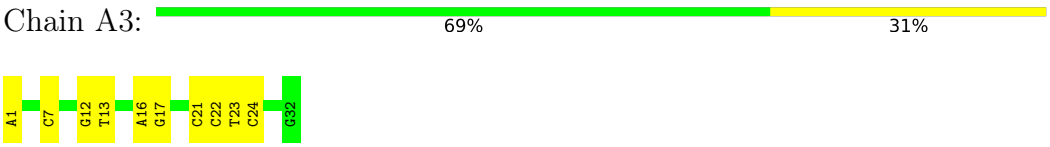
• Molecule 55: STAPLE STRAND

Chain A2:



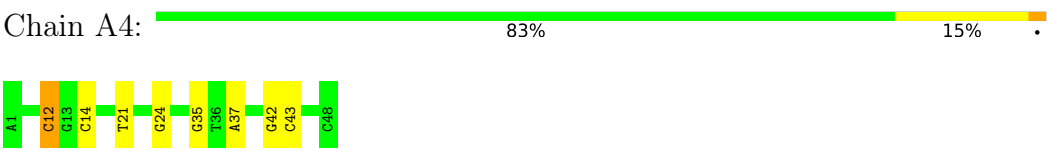
• Molecule 56: STAPLE STRAND

Chain A3:



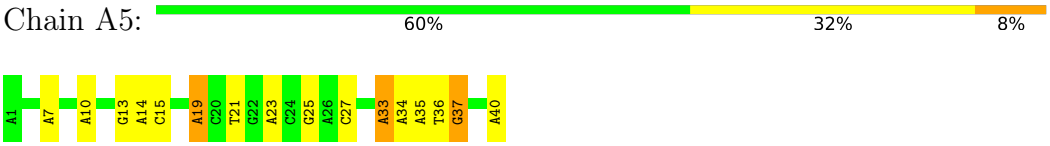
• Molecule 57: STAPLE STRAND

Chain A4:



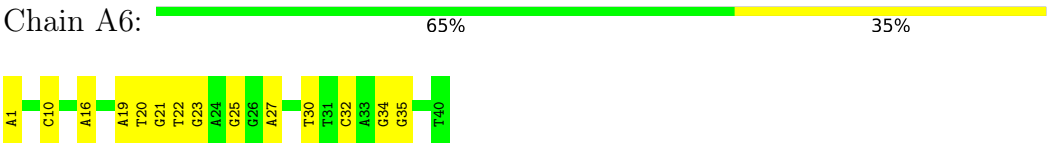
• Molecule 58: STAPLE STRAND

Chain A5:



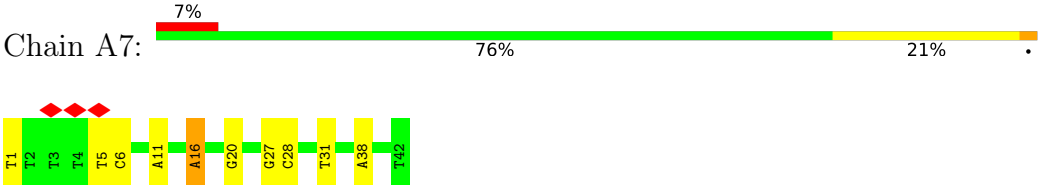
• Molecule 59: STAPLE STRAND

Chain A6:



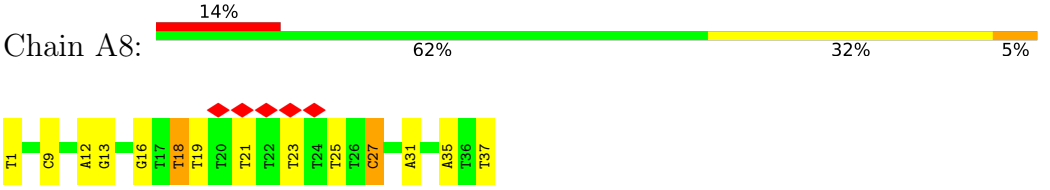
• Molecule 60: STAPLE STRAND

Chain A7:



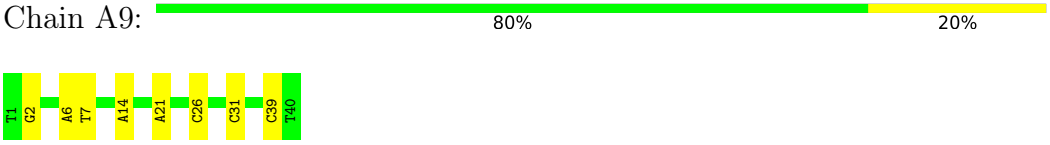
• Molecule 61: STAPLE STRAND

Chain A8:



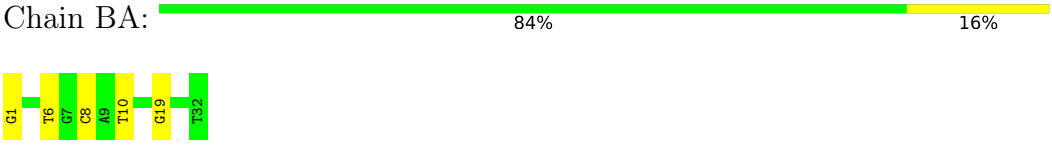
• Molecule 62: STAPLE STRAND

Chain A9:



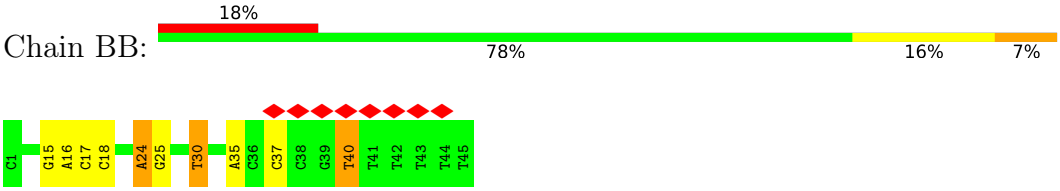
• Molecule 63: STAPLE STRAND

Chain BA:



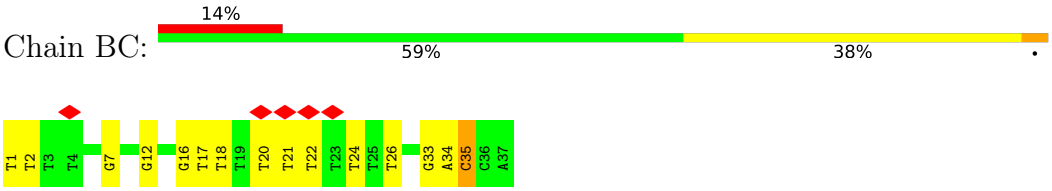
• Molecule 64: STAPLE STRAND

Chain BB:



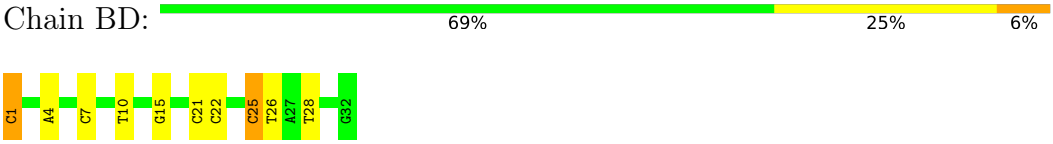
• Molecule 65: STAPLE STRAND

Chain BC:



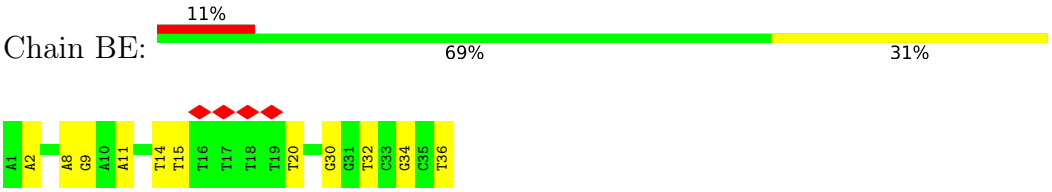
• Molecule 66: STAPLE STRAND

Chain BD:



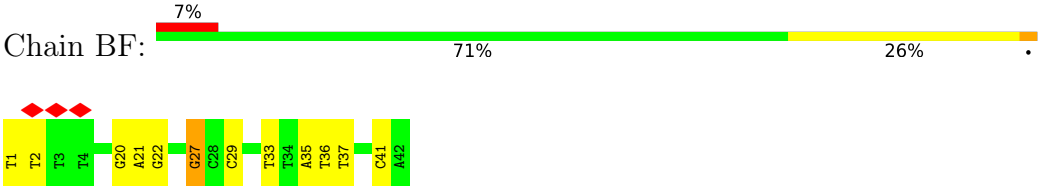
• Molecule 67: STAPLE STRAND

Chain BE:



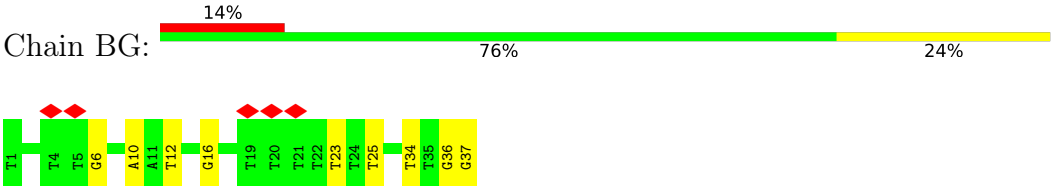
• Molecule 68: STAPLE STRAND

Chain BF:



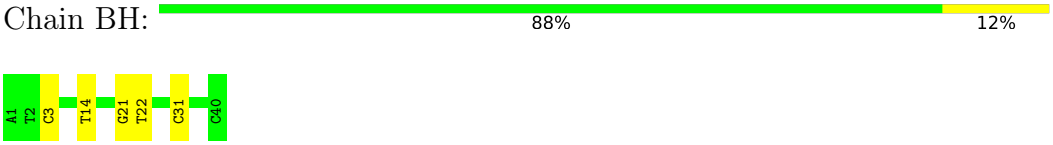
• Molecule 69: STAPLE STRAND

Chain BG:



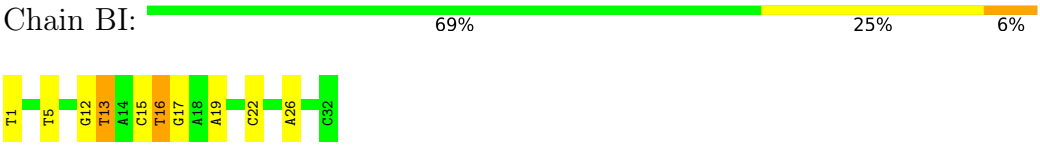
• Molecule 70: STAPLE STRAND

Chain BH:



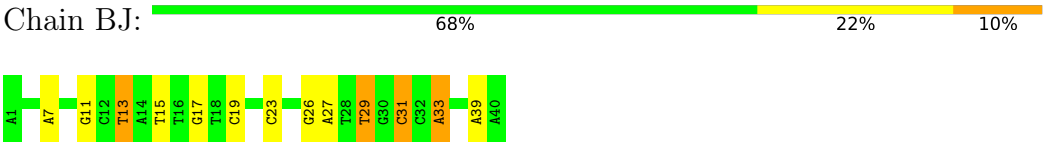
• Molecule 71: STAPLE STRAND

Chain BI:



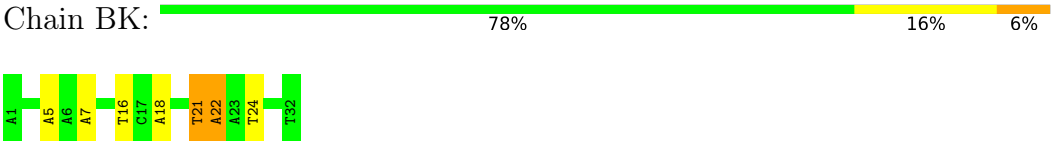
• Molecule 72: STAPLE STRAND

Chain BJ:



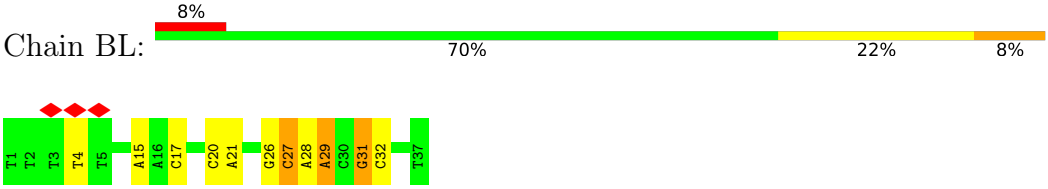
• Molecule 73: STAPLE STRAND

Chain BK:



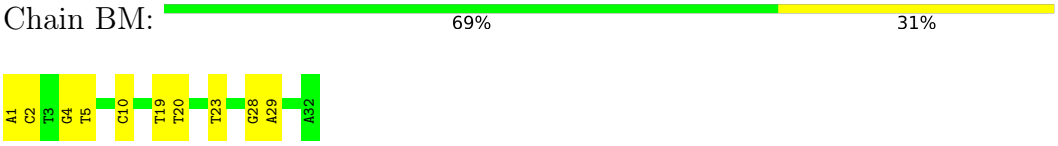
• Molecule 74: STAPLE STRAND

Chain BL:



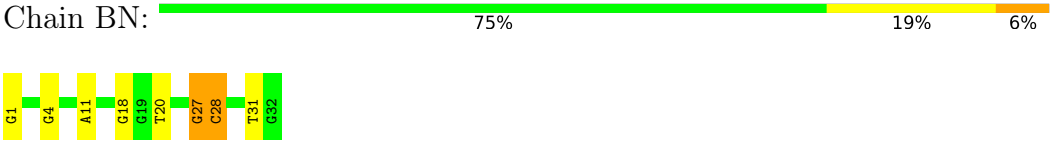
• Molecule 75: STAPLE STRAND

Chain BM:



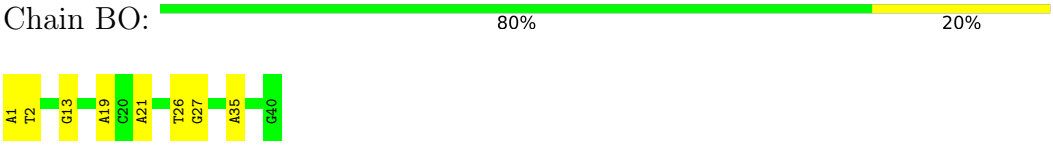
• Molecule 76: STAPLE STRAND

Chain BN:



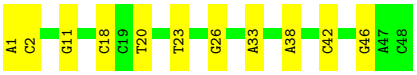
• Molecule 77: STAPLE STRAND

Chain BO:



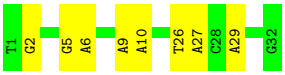
• Molecule 78: STAPLE STRAND

Chain BP:



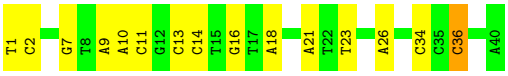
• Molecule 79: STAPLE STRAND

Chain BQ:



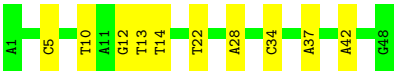
• Molecule 80: STAPLE STRAND

Chain BR:



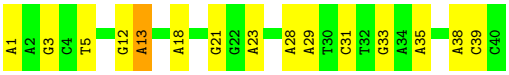
• Molecule 81: STAPLE STRAND

Chain BS:



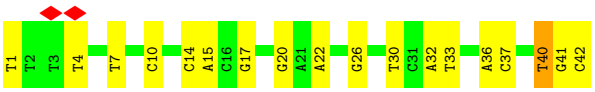
• Molecule 82: STAPLE STRAND

Chain BT:



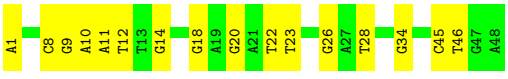
• Molecule 83: STAPLE STRAND

Chain BU:



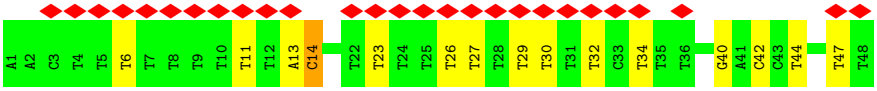
• Molecule 84: STAPLE STRAND

Chain BV:

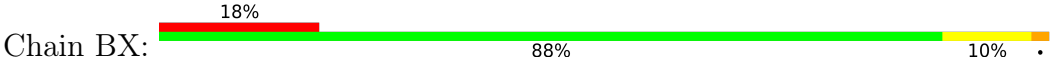


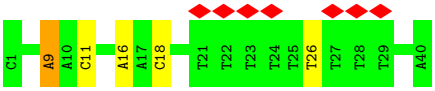
• Molecule 85: STAPLE STRAND

Chain BW:

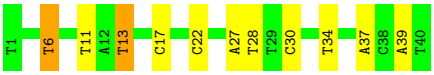


• Molecule 86: STAPLE STRAND

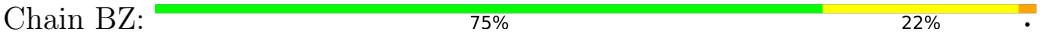


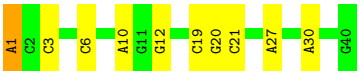


• Molecule 87: STAPLE STRAND

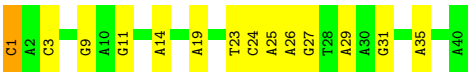


• Molecule 88: STAPLE STRAND

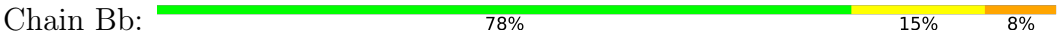




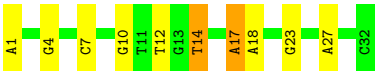
• Molecule 89: STAPLE STRAND



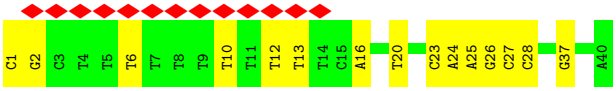
• Molecule 90: STAPLE STRAND



• Molecule 91: STAPLE STRAND

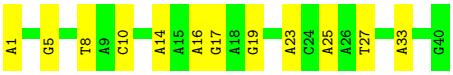


• Molecule 92: STAPLE STRAND



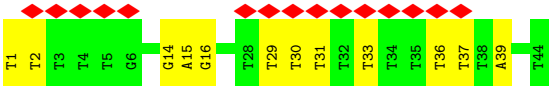
• Molecule 93: STAPLE STRAND

Chain Be:



• Molecule 94: STAPLE STRAND

Chain Bf:



• Molecule 95: STAPLE STRAND

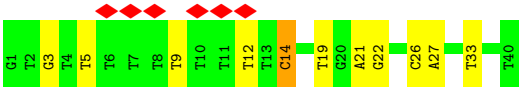
Chain Bg:

• Molecule 96: STAPLE STRAND

Chain Bh:

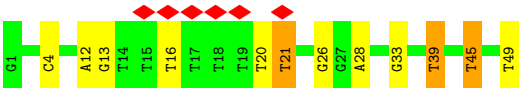
• Molecule 97: STAPLE STRAND

Chain Bi:



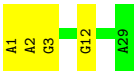
• Molecule 98: STAPLE STRAND

Chain Bj:



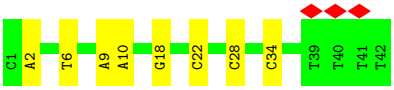
• Molecule 99: STAPLE STRAND

Chain Bk:



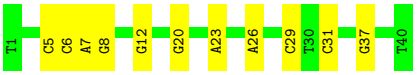
• Molecule 100: STAPLE STRAND

Chain Bl:



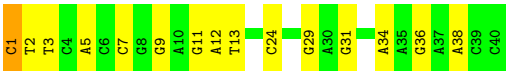
• Molecule 101: STAPLE STRAND

Chain Bm:



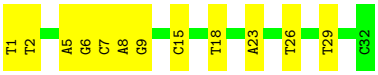
• Molecule 102: STAPLE STRAND

Chain Bn:



• Molecule 103: STAPLE STRAND

Chain Bo:

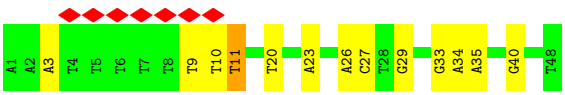


• Molecule 104: STAPLE STRAND

Chain Bp:

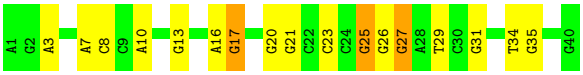
• Molecule 105: STAPLE STRAND

Chain Bq:

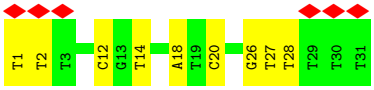


• Molecule 106: STAPLE STRAND

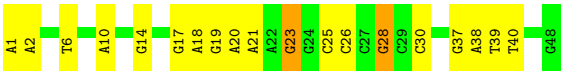
Chain Br:



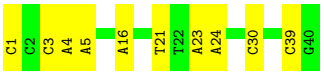
• Molecule 107: STAPLE STRAND



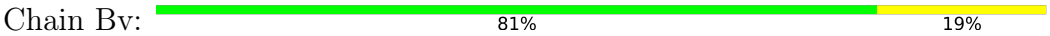
• Molecule 108: STAPLE STRAND

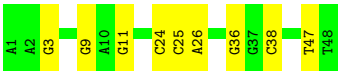


• Molecule 109: STAPLE STRAND

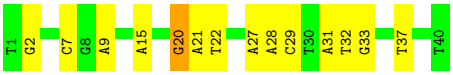


• Molecule 110: STAPLE STRAND

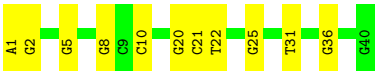




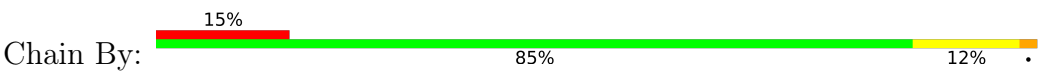
• Molecule 111: STAPLE STRAND

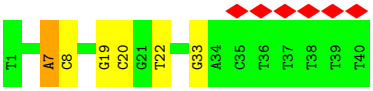


• Molecule 112: STAPLE STRAND



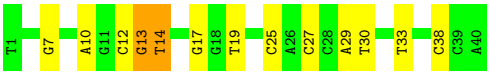
• Molecule 113: STAPLE STRAND





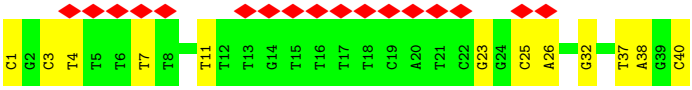
• Molecule 114: STAPLE STRAND

Chain Bz:



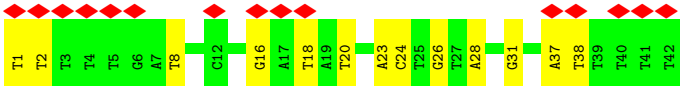
• Molecule 115: STAPLE STRAND

Chain B0:



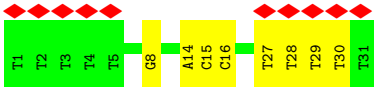
• Molecule 116: STAPLE STRAND

Chain B1:



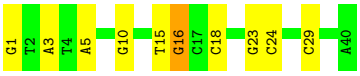
• Molecule 117: STAPLE STRAND

Chain B2:



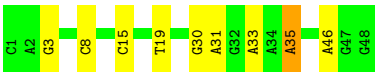
• Molecule 118: STAPLE STRAND

Chain B3:



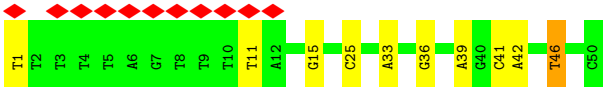
• Molecule 119: STAPLE STRAND

Chain B4:



• Molecule 120: STAPLE STRAND

Chain B5:

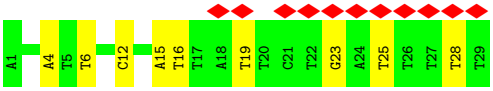


• Molecule 121: STAPLE STRAND

Chain B6:

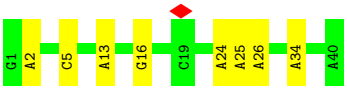
• Molecule 122: STAPLE STRAND

Chain B7:



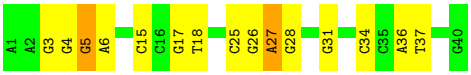
• Molecule 123: STAPLE STRAND

Chain B8:



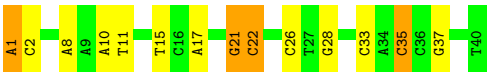
• Molecule 124: STAPLE STRAND

Chain B9:



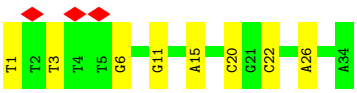
• Molecule 125: STAPLE STRAND

Chain CA:



• Molecule 126: STAPLE STRAND

Chain CB:

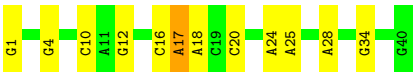


• Molecule 127: STAPLE STRAND

Chain CC:

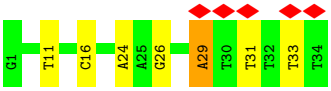
• Molecule 128: STAPLE STRAND

Chain CD:



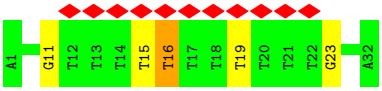
• Molecule 129: STAPLE STRAND

Chain CE:



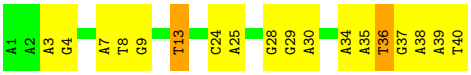
• Molecule 130: STAPLE STRAND

Chain CF:



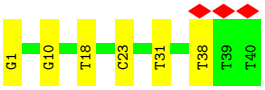
• Molecule 131: STAPLE STRAND

Chain CG:



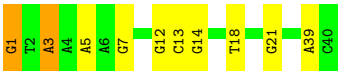
• Molecule 132: STAPLE STRAND

Chain CH:



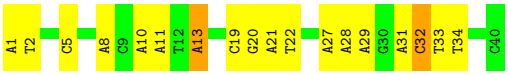
• Molecule 133: STAPLE STRAND

Chain CI:



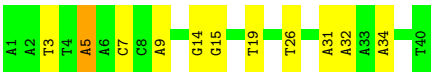
• Molecule 134: STAPLE STRAND

Chain CJ:



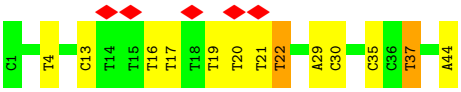
• Molecule 135: STAPLE STRAND

Chain CK:



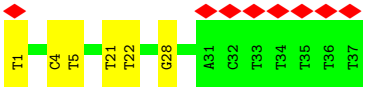
• Molecule 136: STAPLE STRAND

Chain CL:



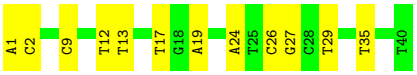
• Molecule 137: STAPLE STRAND

Chain CM:



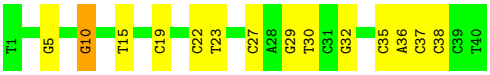
• Molecule 138: STAPLE STRAND

Chain CN:



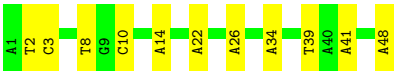
• Molecule 139: STAPLE STRAND

Chain CO:



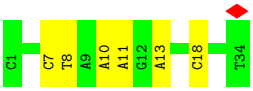
• Molecule 140: STAPLE STRAND

Chain CP:



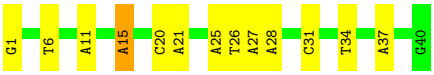
• Molecule 141: STAPLE STRAND

Chain CQ:



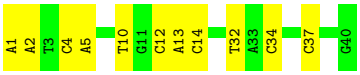
• Molecule 142: STAPLE STRAND

Chain CR:



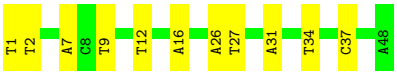
• Molecule 143: STAPLE STRAND

Chain CS:



• Molecule 144: STAPLE STRAND

Chain CT:

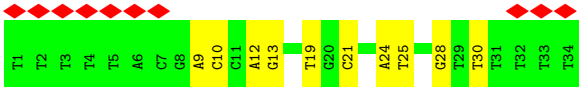


• Molecule 145: STAPLE STRAND

Chain CU:

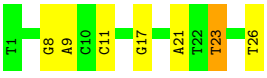
• Molecule 146: STAPLE STRAND

Chain CV:



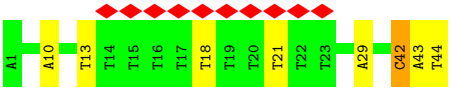
• Molecule 147: STAPLE STRAND

Chain CW:



• Molecule 148: STAPLE STRAND

Chain CX:

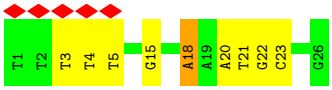


• Molecule 149: STAPLE STRAND

Chain CY:

• Molecule 150: STAPLE STRAND

Chain CZ:

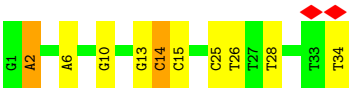


• Molecule 151: STAPLE STRAND

Chain Ca:

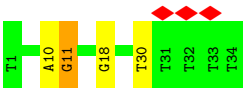
• Molecule 152: STAPLE STRAND

Chain Cb:



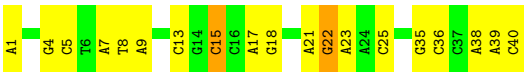
• Molecule 153: STAPLE STRAND

Chain Cc:



• Molecule 154: STAPLE STRAND

Chain Cd:

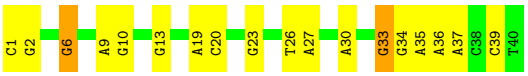


• Molecule 155: STAPLE STRAND

Chain Ce:

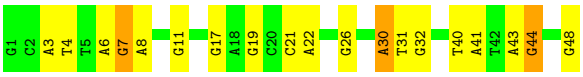
• Molecule 156: STAPLE STRAND

Chain Cf:



• Molecule 157: STAPLE STRAND

Chain Cg:

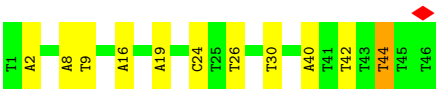


• Molecule 158: STAPLE STRAND

Chain Ch:

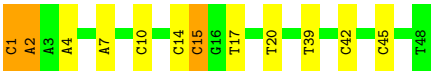
• Molecule 159: STAPLE STRAND

Chain Ci:



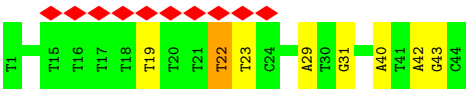
• Molecule 160: STAPLE STRAND

Chain Cj:



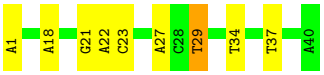
• Molecule 161: STAPLE STRAND

Chain Ck:



• Molecule 162: STAPLE STRAND

Chain Cl:

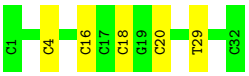


• Molecule 163: STAPLE STRAND

Chain Cm:

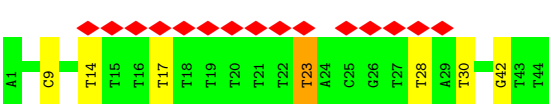
• Molecule 164: STAPLE STRAND

Chain Cn:



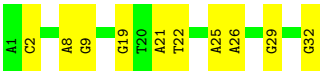
• Molecule 165: STAPLE STRAND

Chain Co:



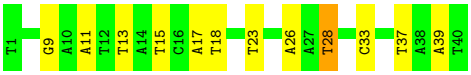
• Molecule 166: STAPLE STRAND

Chain Cp:



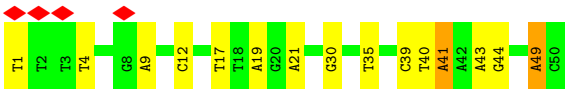
• Molecule 167: STAPLE STRAND

Chain Cq:



• Molecule 168: STAPLE STRAND

Chain Cr:

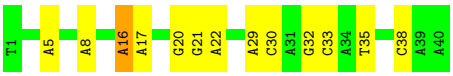


• Molecule 169: STAPLE STRAND

Chain Cs:

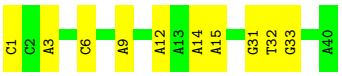
• Molecule 170: STAPLE STRAND

Chain Ct:



• Molecule 171: STAPLE STRAND

Chain Cu:

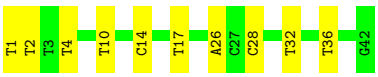


• Molecule 172: STAPLE STRAND

Chain Cv:

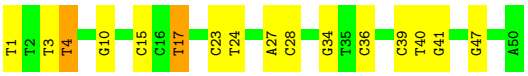
• Molecule 173: STAPLE STRAND

Chain Cw:



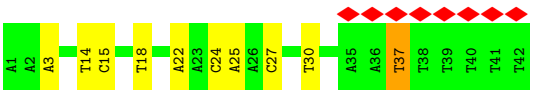
• Molecule 174: STAPLE STRAND

Chain Cx:



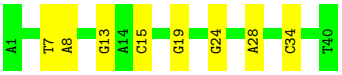
• Molecule 175: STAPLE STRAND

Chain Cy:



• Molecule 176: STAPLE STRAND

Chain Cz:

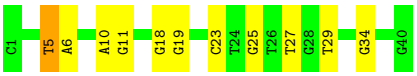


• Molecule 177: STAPLE STRAND

Chain C0:

• Molecule 178: STAPLE STRAND

Chain C1:

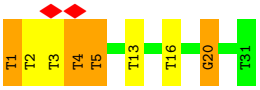


• Molecule 179: STAPLE STRAND

Chain C2:

• Molecule 180: STAPLE STRAND

Chain C3:

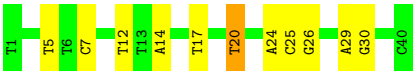


• Molecule 181: STAPLE STRAND

Chain C4:

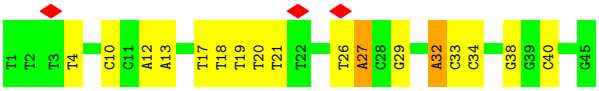
• Molecule 182: STAPLE STRAND

Chain C5:



• Molecule 183: STAPLE STRAND

Chain C6:



• Molecule 184: STAPLE STRAND

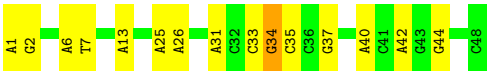
Chain C7:

• Molecule 185: STAPLE STRAND

Chain C8:

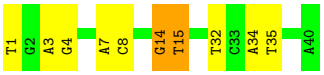
• Molecule 186: STAPLE STRAND

Chain C9:



• Molecule 187: STAPLE STRAND

Chain DA:

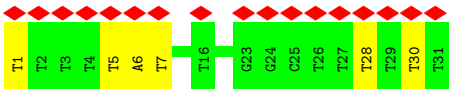


• Molecule 188: STAPLE STRAND

Chain DB:

• Molecule 189: STAPLE STRAND

Chain DC:

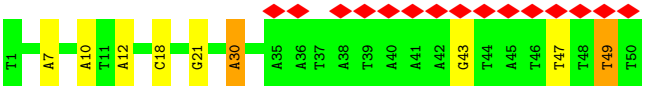


• Molecule 190: STAPLE STRAND

Chain DD:

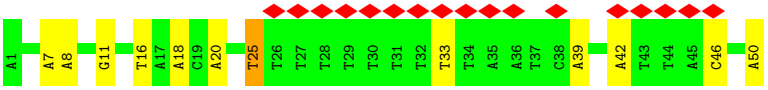
• Molecule 191: STAPLE STRAND

Chain DE:



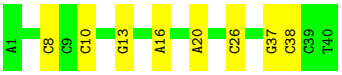
• Molecule 192: STAPLE STRAND

Chain DF:



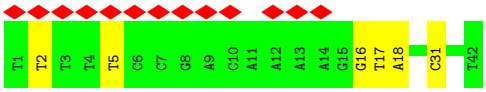
• Molecule 193: STAPLE STRAND

Chain DG:



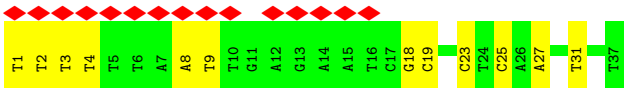
• Molecule 194: STAPLE STRAND

Chain DH:



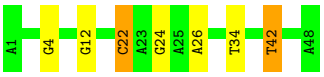
• Molecule 195: STAPLE STRAND

Chain DI:



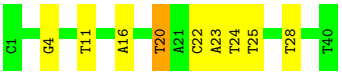
• Molecule 196: STAPLE STRAND

Chain DJ:



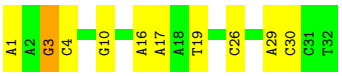
• Molecule 197: STAPLE STRAND

Chain DK:



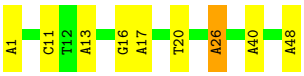
• Molecule 198: STAPLE STRAND

Chain DL:



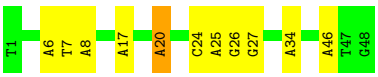
• Molecule 199: STAPLE STRAND

Chain DM:



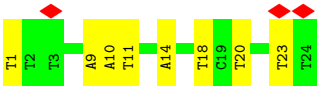
• Molecule 200: STAPLE STRAND

Chain DN:



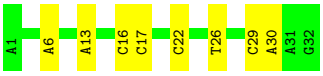
• Molecule 201: STAPLE STRAND

Chain DO:



• Molecule 202: STAPLE STRAND

Chain DP:



• Molecule 203: STAPLE STRAND

Chain DQ:

4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	281527	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI POLARA 300	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	20	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	FEI FALCON II (4k x 4k)	Depositor
Maximum map value	0.627	Depositor
Minimum map value	-0.339	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.023	Depositor
Recommended contour level	0.07	Depositor
Map size (Å)	671.61597, 671.61597, 671.61597	wwPDB
Map dimensions	360, 360, 360	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.8655999, 1.8655999, 1.8655999	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	1.17	3/166071 (0.0%)	1.38	2321/256351 (0.9%)
2	AB	1.15	0/919	1.35	11/1417 (0.8%)
3	AC	1.13	0/704	1.31	7/1085 (0.6%)
4	AD	1.14	0/908	1.38	13/1399 (0.9%)
5	AE	1.18	0/1095	1.39	15/1688 (0.9%)
6	AF	1.08	0/702	1.14	6/1083 (0.6%)
7	AG	1.17	0/910	1.31	6/1403 (0.4%)
8	AH	1.14	0/712	1.21	4/1100 (0.4%)
9	AI	1.17	0/1019	1.43	15/1569 (1.0%)
10	AJ	1.16	0/929	1.28	9/1434 (0.6%)
11	AK	1.18	0/1013	1.40	14/1561 (0.9%)
12	AL	1.15	0/818	1.20	5/1262 (0.4%)
13	AM	1.11	0/1038	1.19	3/1602 (0.2%)
14	AN	1.15	0/919	1.35	10/1417 (0.7%)
15	AO	1.16	0/918	1.33	8/1415 (0.6%)
16	AP	1.11	0/825	1.31	11/1272 (0.9%)
17	AQ	1.15	0/1020	1.37	15/1571 (1.0%)
18	AR	1.12	0/761	1.23	6/1174 (0.5%)
19	AS	1.06	0/819	1.18	9/1264 (0.7%)
20	AT	1.10	0/783	1.14	3/1209 (0.2%)
21	AU	1.11	0/752	1.26	2/1158 (0.2%)
22	AV	1.16	0/783	1.36	7/1208 (0.6%)
23	AW	1.15	0/746	1.22	5/1149 (0.4%)
24	AX	1.17	0/976	1.38	10/1506 (0.7%)
25	AY	1.14	0/911	1.46	16/1403 (1.1%)
26	AZ	1.16	0/1116	1.29	11/1724 (0.6%)
27	Aa	1.20	0/912	1.49	15/1406 (1.1%)
28	Ab	1.10	0/830	1.25	4/1280 (0.3%)
29	Ac	1.17	0/1161	1.36	12/1793 (0.7%)
30	Ad	1.19	0/940	1.38	12/1451 (0.8%)
31	Ae	1.12	0/829	1.34	10/1278 (0.8%)
32	Af	1.13	0/1103	1.30	9/1699 (0.5%)
33	Ag	1.16	0/984	1.32	12/1518 (0.8%)
34	Ah	1.12	0/832	1.21	3/1281 (0.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
35	Ai	1.13	0/846	1.27	9/1305 (0.7%)
36	Aj	1.14	0/718	1.28	7/1110 (0.6%)
37	Ak	1.18	0/915	1.48	16/1410 (1.1%)
38	Al	1.11	0/964	1.28	10/1485 (0.7%)
39	Am	1.13	0/904	1.32	6/1392 (0.4%)
40	An	1.12	0/906	1.25	6/1396 (0.4%)
41	Ao	1.16	0/729	1.51	15/1123 (1.3%)
42	Ap	1.16	0/863	1.23	7/1332 (0.5%)
43	Aq	1.21	0/927	1.43	16/1430 (1.1%)
44	Ar	1.20	0/941	1.51	20/1454 (1.4%)
45	As	1.13	0/688	1.24	6/1058 (0.6%)
46	At	1.22	0/743	1.37	11/1146 (1.0%)
47	Au	1.19	0/752	1.31	4/1160 (0.3%)
48	Av	1.15	0/906	1.40	13/1394 (0.9%)
49	Aw	1.18	0/908	1.44	17/1400 (1.2%)
50	Ax	1.14	0/736	1.44	12/1134 (1.1%)
51	Ay	1.21	0/927	1.47	15/1429 (1.0%)
52	Az	1.18	0/925	1.41	12/1426 (0.8%)
53	A0	1.15	0/1107	1.33	11/1706 (0.6%)
54	A1	1.15	0/695	1.21	4/1071 (0.4%)
55	A2	1.14	0/937	1.38	12/1440 (0.8%)
56	A3	1.14	0/733	1.45	11/1128 (1.0%)
57	A4	1.14	0/1106	1.32	11/1705 (0.6%)
58	A5	1.17	0/924	1.45	15/1423 (1.1%)
59	A6	1.17	0/933	1.20	8/1441 (0.6%)
60	A7	1.14	0/950	1.29	6/1464 (0.4%)
61	A8	1.12	0/830	1.31	9/1279 (0.7%)
62	A9	1.18	0/917	1.33	7/1415 (0.5%)
63	BA	1.12	0/737	1.24	4/1136 (0.4%)
64	BB	1.19	0/1042	1.30	10/1609 (0.6%)
65	BC	1.13	0/841	1.43	17/1298 (1.3%)
66	BD	1.16	0/717	1.31	7/1102 (0.6%)
67	BE	1.15	0/819	1.26	7/1263 (0.6%)
68	BF	1.21	0/956	1.49	16/1474 (1.1%)
69	BG	1.14	0/848	1.25	10/1311 (0.8%)
70	BH	1.16	0/907	1.25	2/1397 (0.1%)
71	BI	1.16	0/717	1.36	7/1102 (0.6%)
72	BJ	1.22	0/912	1.45	13/1405 (0.9%)
73	BK	1.17	0/734	1.49	12/1131 (1.1%)
74	BL	1.17	0/839	1.43	16/1293 (1.2%)
75	BM	1.20	0/740	1.38	9/1143 (0.8%)
76	BN	1.21	0/735	1.35	10/1134 (0.9%)
77	BO	1.18	0/919	1.38	12/1417 (0.8%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
78	BP	1.17	0/1086	1.38	12/1670 (0.7%)
79	BQ	1.20	0/744	1.34	6/1147 (0.5%)
80	BR	1.13	0/911	1.34	15/1402 (1.1%)
81	BS	1.14	0/1105	1.32	12/1704 (0.7%)
82	BT	1.17	0/918	1.35	12/1414 (0.8%)
83	BU	1.15	0/953	1.43	18/1468 (1.2%)
84	BV	1.19	0/1108	1.40	15/1711 (0.9%)
85	BW	1.13	0/1063	1.25	7/1638 (0.4%)
86	BX	1.11	0/899	1.21	6/1383 (0.4%)
87	BY	1.15	0/899	1.32	6/1384 (0.4%)
88	BZ	1.17	0/918	1.40	10/1415 (0.7%)
89	Ba	1.21	0/900	1.43	14/1383 (1.0%)
90	Bb	1.12	0/916	1.29	10/1410 (0.7%)
91	Bc	1.16	0/738	1.35	10/1137 (0.9%)
92	Bd	1.12	0/903	1.23	8/1391 (0.6%)
93	Be	1.19	0/921	1.61	25/1418 (1.8%)
94	Bf	1.14	0/1004	1.17	3/1551 (0.2%)
95	Bg	1.22	0/745	1.38	8/1152 (0.7%)
96	Bh	1.30	0/943	1.40	11/1457 (0.8%)
97	Bi	1.16	0/922	1.26	8/1425 (0.6%)
98	Bj	1.15	0/1112	1.30	11/1716 (0.6%)
99	Bk	1.12	0/675	1.32	5/1041 (0.5%)
100	Bl	1.17	0/962	1.25	6/1484 (0.4%)
101	Bm	1.20	0/909	1.35	9/1399 (0.6%)
102	Bn	1.21	0/918	1.37	12/1414 (0.8%)
103	Bo	1.20	0/735	1.36	7/1133 (0.6%)
104	Bp	1.13	0/901	1.23	3/1386 (0.2%)
105	Bq	1.13	1/1090 (0.1%)	1.25	8/1682 (0.5%)
106	Br	1.27	0/921	1.59	21/1420 (1.5%)
107	Bs	1.11	0/702	1.34	8/1082 (0.7%)
108	Bt	1.22	0/1105	1.44	20/1703 (1.2%)
109	Bu	1.15	0/906	1.37	9/1392 (0.6%)
110	Bv	1.16	0/1093	1.40	13/1684 (0.8%)
111	Bw	1.20	0/926	1.36	12/1429 (0.8%)
112	Bx	1.21	0/918	1.39	12/1417 (0.8%)
113	By	1.12	0/905	1.21	5/1394 (0.4%)
114	Bz	1.15	0/919	1.35	11/1417 (0.8%)
115	B0	1.17	0/897	1.43	14/1383 (1.0%)
116	B1	1.12	0/952	1.31	12/1469 (0.8%)
117	B2	1.16	0/698	1.29	6/1076 (0.6%)
118	B3	1.16	0/911	1.40	13/1403 (0.9%)
119	B4	1.12	0/1112	1.25	8/1716 (0.5%)
120	B5	1.15	0/1145	1.26	10/1767 (0.6%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
121	B6	1.12	0/709	1.14	3/1094 (0.3%)
122	B7	1.06	0/658	1.16	6/1014 (0.6%)
123	B8	1.16	0/921	1.40	9/1419 (0.6%)
124	B9	1.26	0/931	1.44	14/1438 (1.0%)
125	CA	1.19	0/905	1.50	11/1392 (0.8%)
126	CB	1.18	0/785	1.37	8/1211 (0.7%)
127	CC	1.11	0/911	1.28	8/1404 (0.6%)
128	CD	1.21	0/920	1.45	15/1416 (1.1%)
129	CE	1.14	0/787	1.28	8/1213 (0.7%)
130	CF	1.13	0/725	1.15	4/1119 (0.4%)
131	CG	1.27	0/927	1.63	25/1429 (1.7%)
132	CH	1.12	0/910	1.15	3/1403 (0.2%)
133	CI	1.19	0/927	1.38	12/1429 (0.8%)
134	CJ	1.19	0/915	1.58	26/1409 (1.8%)
135	CK	1.13	0/929	1.23	6/1431 (0.4%)
136	CL	1.14	0/999	1.36	12/1539 (0.8%)
137	CM	1.10	0/832	1.15	2/1281 (0.2%)
138	CN	1.15	0/901	1.40	12/1388 (0.9%)
139	CO	1.23	0/898	1.42	15/1382 (1.1%)
140	CP	1.12	0/1113	1.30	10/1715 (0.6%)
141	CQ	1.13	0/769	1.29	4/1182 (0.3%)
142	CR	1.17	0/924	1.44	13/1423 (0.9%)
143	CS	1.18	0/905	1.36	10/1392 (0.7%)
144	CT	1.13	0/1077	1.29	7/1657 (0.4%)
145	CU	1.18	0/1100	1.41	12/1695 (0.7%)
146	CV	1.12	0/771	1.22	6/1189 (0.5%)
147	CW	1.15	0/601	1.30	6/927 (0.6%)
148	CX	1.12	0/1012	1.18	4/1561 (0.3%)
149	CY	1.22	0/758	1.33	7/1171 (0.6%)
150	CZ	1.15	0/599	1.40	8/924 (0.9%)
151	Ca	1.23	0/928	1.38	13/1431 (0.9%)
152	Cb	1.17	0/772	1.38	10/1189 (0.8%)
153	Cc	1.10	0/777	1.17	4/1197 (0.3%)
154	Cd	1.21	0/920	1.56	22/1417 (1.6%)
155	Ce	1.17	0/924	1.40	6/1425 (0.4%)
156	Cf	1.28	0/931	1.55	21/1436 (1.5%)
157	Cg	1.18	0/1116	1.32	12/1722 (0.7%)
158	Ch	1.20	0/1103	1.41	16/1701 (0.9%)
159	Ci	1.15	0/1055	1.44	17/1628 (1.0%)
160	Cj	1.14	0/1100	1.33	13/1696 (0.8%)
161	Ck	1.11	0/1006	1.19	6/1552 (0.4%)
162	Cl	1.13	0/906	1.31	6/1394 (0.4%)
163	Cm	1.16	0/1116	1.30	11/1721 (0.6%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
164	Cn	1.13	0/715	1.39	7/1098 (0.6%)
165	Co	1.09	0/990	1.13	2/1526 (0.1%)
166	Cp	1.19	0/747	1.24	7/1154 (0.6%)
167	Cq	1.15	0/911	1.32	10/1403 (0.7%)
168	Cr	1.17	0/1147	1.33	11/1768 (0.6%)
169	Cs	1.10	0/910	1.25	6/1401 (0.4%)
170	Ct	1.38	5/919 (0.5%)	1.58	19/1417 (1.3%)
171	Cu	1.14	0/922	1.36	10/1420 (0.7%)
172	Cv	1.21	0/937	1.25	5/1448 (0.3%)
173	Cw	1.14	0/958	1.36	13/1477 (0.9%)
174	Cx	1.16	0/1141	1.48	16/1759 (0.9%)
175	Cy	1.12	0/956	1.25	8/1473 (0.5%)
176	Cz	1.14	0/918	1.33	10/1415 (0.7%)
177	C0	1.14	0/1113	1.27	9/1718 (0.5%)
178	C1	1.26	0/935	1.36	11/1444 (0.8%)
179	C2	1.18	0/926	1.34	9/1429 (0.6%)
180	C3	1.11	0/695	1.38	12/1072 (1.1%)
181	C4	1.18	0/927	1.39	14/1430 (1.0%)
182	C5	1.17	0/928	1.20	4/1433 (0.3%)
183	C6	1.15	0/1014	1.50	20/1563 (1.3%)
184	C7	1.13	0/758	1.33	5/1169 (0.4%)
185	C8	1.13	0/1102	1.45	19/1697 (1.1%)
186	C9	1.16	0/1109	1.37	13/1708 (0.8%)
187	DA	1.15	0/913	1.36	10/1406 (0.7%)
188	DB	1.15	0/1092	1.26	9/1682 (0.5%)
189	DC	1.13	0/704	1.16	4/1087 (0.4%)
190	DD	1.20	0/920	1.30	8/1420 (0.6%)
191	DE	1.13	0/1150	1.25	9/1773 (0.5%)
192	DF	1.10	0/1150	1.12	4/1773 (0.2%)
193	DG	1.13	0/923	1.18	6/1423 (0.4%)
194	DH	1.08	0/952	1.16	3/1465 (0.2%)
195	DI	1.15	0/834	1.27	8/1284 (0.6%)
196	DJ	1.09	0/1109	1.19	6/1709 (0.4%)
197	DK	1.10	0/916	1.25	5/1411 (0.4%)
198	DL	1.15	0/726	1.40	8/1118 (0.7%)
199	DM	1.11	0/1114	1.18	5/1717 (0.3%)
200	DN	1.14	0/1109	1.25	9/1711 (0.5%)
201	DO	1.12	0/533	1.23	4/821 (0.5%)
202	DP	1.15	0/737	1.43	12/1134 (1.1%)
203	DQ	1.17	0/930	1.28	9/1435 (0.6%)
All	All	1.16	9/348922 (0.0%)	1.36	4320/538215 (0.8%)

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	11	1015
2	AB	0	9
3	AC	0	5
4	AD	0	7
5	AE	0	7
6	AF	0	2
7	AG	0	4
8	AH	0	4
9	AI	0	5
10	AJ	0	8
11	AK	0	6
12	AL	0	6
13	AM	0	3
14	AN	0	6
15	AO	0	5
16	AP	0	5
17	AQ	0	6
18	AR	0	7
19	AS	0	5
20	AT	0	4
21	AU	0	3
22	AV	0	8
23	AW	0	2
24	AX	0	8
25	AY	0	5
26	AZ	0	12
27	Aa	0	8
28	Ab	0	4
29	Ac	0	6
30	Ad	0	6
31	Ae	0	6
32	Af	0	5
33	Ag	0	6
34	Ah	0	6
35	Ai	0	2
36	Aj	0	2
37	Ak	0	8
38	Al	0	7
39	Am	0	3
40	An	0	4

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Mol	Chain	#Chirality outliers	#Planarity outliers
41	Ao	0	3
42	Ap	0	5
43	Aq	0	1
44	Ar	0	7
45	As	0	3
46	At	0	8
47	Au	0	3
48	Av	0	2
49	Aw	0	3
50	Ax	0	4
51	Ay	0	7
52	Az	0	7
53	A0	0	4
54	A1	0	8
55	A2	0	3
56	A3	0	4
57	A4	0	3
58	A5	0	10
59	A6	0	7
60	A7	0	6
61	A8	0	10
62	A9	0	4
63	BA	0	2
64	BB	0	6
65	BC	0	5
66	BD	0	6
67	BE	0	6
68	BF	0	4
69	BG	0	3
70	BH	0	3
71	BI	0	6
72	BJ	0	7
73	BK	0	2
74	BL	0	6
75	BM	0	4
76	BN	0	3
77	BO	0	1
78	BP	0	2
79	BQ	0	3
80	BR	0	5
81	BS	0	2
82	BT	0	8

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Mol	Chain	#Chirality outliers	#Planarity outliers
83	BU	0	8
84	BV	0	6
85	BW	0	10
86	BX	0	2
87	BY	0	7
88	BZ	0	3
89	Ba	0	6
90	Bb	0	7
91	Bc	0	5
92	Bd	0	10
93	Be	0	2
94	Bf	0	9
95	Bg	0	7
96	Bh	0	7
97	Bi	0	7
98	Bj	0	7
99	Bk	0	2
100	Bl	0	3
101	Bm	0	3
102	Bn	0	7
103	Bo	0	7
104	Bp	0	6
105	Bq	0	8
106	Br	0	10
107	Bs	0	2
108	Bt	0	6
109	Bu	0	5
110	Bv	0	2
111	Bw	0	6
112	Bx	0	2
113	By	0	3
114	Bz	0	7
115	B0	0	6
116	B1	0	6
117	B2	0	2
118	B3	0	3
119	B4	0	5
120	B5	0	4
121	B6	0	6
122	B7	0	6
123	B8	0	4
124	B9	0	7

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Mol	Chain	#Chirality outliers	#Planarity outliers
125	CA	0	9
126	CB	0	2
127	CC	0	5
128	CD	0	5
129	CE	0	3
130	CF	0	3
131	CG	0	6
132	CH	0	4
133	CI	0	4
134	CJ	0	7
135	CK	0	8
136	CL	0	6
137	CM	0	4
138	CN	0	4
139	CO	0	7
140	CP	0	6
141	CQ	0	4
142	CR	0	6
143	CS	0	4
144	CT	0	7
145	CU	0	6
146	CV	0	6
147	CW	0	4
148	CX	0	6
149	CY	0	6
150	CZ	0	5
151	Ca	0	6
152	Cb	0	5
153	Cc	0	2
154	Cd	0	6
155	Ce	0	6
156	Cf	0	6
157	Cg	0	10
158	Ch	0	11
159	Ci	0	4
160	Cj	0	9
161	Ck	0	4
162	Cl	0	5
163	Cm	0	7
164	Cn	0	1
165	Co	0	6
166	Cp	0	4

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Mol	Chain	#Chirality outliers	#Planarity outliers
167	Cq	0	6
168	Cr	0	10
169	Cs	0	5
170	Ct	0	5
171	Cu	0	4
172	Cv	0	4
173	Cw	0	2
174	Cx	0	9
175	Cy	0	5
176	Cz	0	2
177	C0	0	7
178	C1	0	5
179	C2	0	3
180	C3	0	4
181	C4	0	2
182	C5	0	8
183	C6	0	10
184	C7	0	5
185	C8	0	6
186	C9	0	7
187	DA	0	6
188	DB	0	6
189	DC	0	4
190	DD	0	6
191	DE	0	4
192	DF	0	9
193	DG	0	3
194	DH	0	4
195	DI	0	6
196	DJ	0	5
197	DK	0	5
198	DL	0	6
199	DM	0	6
200	DN	0	7
201	DO	0	5
202	DP	0	1
203	DQ	0	3
All	All	11	2081

All (9) bond length outliers are listed below:

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
170	Ct	17	DA	N9-C4	8.51	1.43	1.37
170	Ct	17	DA	C5'-C4'	8.45	1.60	1.51
170	Ct	16	DA	N9-C4	7.77	1.42	1.37
170	Ct	17	DA	C4'-O4'	6.43	1.51	1.45
170	Ct	16	DA	C2'-C1'	5.90	1.58	1.52
1	AA	3057	DA	C4'-C3'	5.37	1.58	1.53
1	AA	4707	DA	C4'-C3'	5.32	1.58	1.53
1	AA	4982	DG	C2-N2	-5.09	1.29	1.34
105	Bq	9	DT	C5'-C4'	5.04	1.56	1.51

All (4320) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
88	BZ	20	DG	O4'-C4'-C3'	-16.44	96.13	106.00
186	C9	34	DG	P-O3'-C3'	16.25	139.21	119.70
1	AA	2720	DA	O4'-C4'-C3'	-16.21	96.27	106.00
41	Ao	3	DT	O4'-C4'-C3'	-16.07	96.36	106.00
1	AA	3505	DG	P-O3'-C3'	15.83	138.69	119.70
198	DL	30	DC	P-O3'-C3'	15.81	138.67	119.70
1	AA	1895	DA	O4'-C4'-C3'	-15.80	96.52	106.00
1	AA	1119	DG	O4'-C4'-C3'	-15.35	96.79	106.00
97	Bi	12	DT	P-O3'-C3'	15.28	138.03	119.70
1	AA	3322	DT	P-O3'-C3'	15.23	137.98	119.70
164	Cn	20	DC	P-O3'-C3'	15.20	137.94	119.70
1	AA	5650	DT	P-O3'-C3'	15.18	137.91	119.70
123	B8	34	DA	P-O3'-C3'	15.17	137.91	119.70
1	AA	5133	DA	P-O3'-C3'	15.09	137.80	119.70
1	AA	3387	DT	O4'-C4'-C3'	-15.08	96.95	106.00
1	AA	398	DG	P-O3'-C3'	15.06	137.77	119.70
1	AA	1986	DG	P-O3'-C3'	15.06	137.77	119.70
9	AI	27	DT	P-O3'-C3'	15.00	137.70	119.70
25	AY	33	DT	P-O3'-C3'	14.83	137.50	119.70
5	AE	26	DC	P-O3'-C3'	14.78	137.43	119.70
1	AA	1730	DT	P-O3'-C3'	14.70	137.34	119.70
1	AA	5233	DA	P-O3'-C3'	14.61	137.24	119.70
43	Aq	1	DA	O4'-C4'-C3'	-14.60	97.24	106.00
155	Ce	10	DC	P-O3'-C3'	14.34	136.91	119.70
1	AA	6568	DT	P-O3'-C3'	14.33	136.89	119.70
1	AA	1086	DG	P-O3'-C3'	14.32	136.88	119.70
1	AA	502	DA	P-O3'-C3'	14.22	136.77	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
125	CA	21	DG	O4'-C4'-C3'	-14.20	97.48	106.00
1	AA	4371	DT	P-O3'-C3'	14.17	136.70	119.70
1	AA	3632	DT	P-O3'-C3'	14.14	136.67	119.70
1	AA	3864	DC	P-O3'-C3'	14.08	136.60	119.70
27	Aa	11	DA	P-O3'-C3'	14.05	136.56	119.70
1	AA	2194	DG	P-O3'-C3'	13.99	136.49	119.70
115	B0	1	DC	O4'-C4'-C3'	-13.98	97.61	106.00
1	AA	2917	DG	O4'-C4'-C3'	-13.95	97.63	106.00
1	AA	4415	DA	P-O3'-C3'	13.86	136.33	119.70
60	A7	28	DC	P-O3'-C3'	13.86	136.33	119.70
1	AA	3350	DG	P-O3'-C3'	13.85	136.32	119.70
77	BO	1	DA	O4'-C4'-C3'	-13.81	97.72	106.00
105	Bq	11	DT	P-O3'-C3'	13.79	136.24	119.70
7	AG	26	DC	P-O3'-C3'	13.77	136.22	119.70
21	AU	1	DT	O4'-C4'-C3'	-13.71	97.78	106.00
68	BF	1	DT	O4'-C4'-C3'	-13.62	97.83	106.00
174	Cx	15	DC	P-O3'-C3'	13.53	135.93	119.70
1	AA	2157	DA	O4'-C4'-C3'	-13.52	97.89	106.00
22	AV	4	DT	P-O3'-C3'	13.45	135.84	119.70
1	AA	586	DG	P-O3'-C3'	13.43	135.82	119.70
1	AA	1303	DA	P-O3'-C3'	13.43	135.81	119.70
75	BM	1	DA	O4'-C4'-C3'	-13.41	97.95	106.00
118	B3	1	DG	O4'-C4'-C3'	-13.40	97.96	106.00
3	AC	2	DT	P-O3'-C3'	13.39	135.77	119.70
123	B8	16	DG	P-O3'-C3'	13.38	135.75	119.70
1	AA	2178	DG	P-O3'-C3'	13.36	135.73	119.70
1	AA	1113	DC	P-O3'-C3'	13.35	135.72	119.70
47	Au	10	DA	P-O3'-C3'	13.34	135.70	119.70
1	AA	6672	DC	P-O3'-C3'	13.32	135.69	119.70
1	AA	3895	DC	P-O3'-C3'	13.24	135.59	119.70
1	AA	4812	DA	P-O3'-C3'	13.24	135.59	119.70
1	AA	6189	DG	O4'-C4'-C3'	-13.23	98.06	106.00
81	BS	10	DT	P-O3'-C3'	13.22	135.56	119.70
126	CB	3	DT	P-O3'-C3'	13.14	135.47	119.70
1	AA	5037	DA	P-O3'-C3'	13.10	135.41	119.70
62	A9	7	DT	P-O3'-C3'	13.09	135.41	119.70
1	AA	6514	DC	P-O3'-C3'	13.08	135.40	119.70
13	AM	18	DA	P-O3'-C3'	13.05	135.36	119.70
145	CU	19	DT	P-O3'-C3'	13.04	135.35	119.70
2	AB	30	DG	P-O3'-C3'	13.03	135.34	119.70
95	Bg	1	DG	O4'-C4'-C3'	-13.00	98.20	106.00
138	CN	13	DT	O4'-C4'-C3'	-12.99	98.21	106.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
136	CL	22	DT	P-O3'-C3'	12.91	135.19	119.70
147	CW	23	DT	P-O3'-C3'	12.88	135.15	119.70
1	AA	3386	DA	O4'-C4'-C3'	-12.86	98.29	106.00
1	AA	2969	DG	P-O3'-C3'	12.85	135.12	119.70
93	Be	1	DA	O4'-C4'-C3'	-12.85	98.29	106.00
1	AA	5318	DG	P-O3'-C3'	12.84	135.10	119.70
44	Ar	4	DA	P-O3'-C3'	12.82	135.08	119.70
1	AA	2222	DT	O4'-C4'-C3'	-12.81	98.31	106.00
32	Af	27	DG	P-O3'-C3'	12.81	135.07	119.70
37	Ak	4	DT	P-O3'-C3'	12.77	135.02	119.70
55	A2	10	DA	P-O3'-C3'	12.76	135.02	119.70
158	Ch	9	DA	O4'-C4'-C3'	-12.76	98.34	106.00
93	Be	16	DA	P-O3'-C3'	12.75	135.00	119.70
83	BU	40	DT	P-O3'-C3'	12.71	134.95	119.70
183	C6	18	DT	O4'-C4'-C3'	-12.70	98.38	106.00
1	AA	4993	DC	O4'-C4'-C3'	-12.60	98.44	106.00
1	AA	6450	DT	O4'-C4'-C3'	-12.59	98.45	106.00
9	AI	3	DG	P-O3'-C3'	12.58	134.80	119.70
140	CP	39	DT	O4'-C4'-C3'	-12.58	98.45	106.00
14	AN	1	DA	O4'-C4'-C3'	-12.55	98.47	106.00
161	Ck	23	DT	O4'-C4'-C3'	-12.55	98.47	106.00
1	AA	5093	DC	P-O3'-C3'	12.55	134.76	119.70
183	C6	38	DG	P-O3'-C3'	12.52	134.72	119.70
1	AA	107	DA	O4'-C4'-C3'	-12.49	98.50	106.00
4	AD	1	DA	O4'-C4'-C3'	-12.45	98.53	106.00
174	Cx	36	DC	P-O3'-C3'	12.44	134.62	119.70
1	AA	2084	DT	O4'-C4'-C3'	-12.41	98.55	106.00
185	C8	10	DT	O4'-C4'-C3'	-12.38	98.57	106.00
1	AA	1403	DA	O4'-C4'-C3'	-12.37	98.58	106.00
197	DK	23	DA	P-O3'-C3'	12.36	134.53	119.70
1	AA	2297	DT	P-O3'-C3'	12.34	134.51	119.70
134	CJ	33	DT	O4'-C4'-C3'	-12.34	98.60	106.00
24	AX	1	DT	O4'-C4'-C3'	-12.32	98.61	106.00
1	AA	379	DA	P-O3'-C3'	12.32	134.49	119.70
128	CD	10	DC	P-O3'-C3'	12.30	134.46	119.70
1	AA	6452	DT	O4'-C4'-C3'	-12.24	98.65	106.00
1	AA	2156	DC	P-O3'-C3'	12.23	134.38	119.70
1	AA	2819	DG	P-O3'-C3'	12.22	134.36	119.70
37	Ak	26	DG	P-O3'-C3'	12.21	134.35	119.70
1	AA	2306	DT	P-O3'-C3'	12.20	134.34	119.70
116	B1	38	DT	O4'-C4'-C3'	-12.20	98.68	106.00
1	AA	1402	DA	O4'-C4'-C3'	-12.20	98.68	106.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	6492	DC	P-O3'-C3'	12.19	134.32	119.70
1	AA	1881	DG	P-O3'-C3'	12.19	134.32	119.70
2	AB	6	DA	O4'-C4'-C3'	-12.18	98.69	106.00
1	AA	1248	DG	P-O3'-C3'	12.17	134.30	119.70
29	Ac	2	DT	O4'-C4'-C3'	-12.16	98.70	106.00
1	AA	5265	DG	O4'-C4'-C3'	-12.15	98.71	106.00
1	AA	3782	DT	P-O3'-C3'	12.13	134.25	119.70
53	A0	46	DA	O4'-C4'-C3'	-12.12	98.72	106.00
202	DP	26	DT	O4'-C4'-C3'	-12.12	98.73	106.00
1	AA	6673	DT	P-O3'-C3'	12.11	134.23	119.70
1	AA	3056	DG	P-O3'-C3'	12.10	134.22	119.70
1	AA	255	DC	P-O3'-C3'	12.10	134.22	119.70
1	AA	4803	DT	P-O3'-C3'	12.10	134.21	119.70
1	AA	6764	DA	P-O3'-C3'	12.09	134.21	119.70
1	AA	116	DC	O4'-C4'-C3'	-12.09	98.75	106.00
1	AA	6248	DC	P-O3'-C3'	12.08	134.20	119.70
68	BF	41	DC	P-O3'-C3'	12.07	134.19	119.70
200	DN	34	DA	P-O3'-C3'	12.07	134.19	119.70
1	AA	5708	DG	P-O3'-C3'	12.05	134.17	119.70
1	AA	5764	DG	P-O3'-C3'	12.06	134.17	119.70
1	AA	5307	DG	O4'-C4'-C3'	-12.04	98.78	106.00
4	AD	16	DG	O4'-C4'-C3'	-12.04	98.78	106.00
1	AA	6688	DC	P-O3'-C3'	12.03	134.13	119.70
56	A3	24	DC	O4'-C4'-C3'	-12.03	98.78	106.00
1	AA	145	DG	P-O3'-C3'	12.02	134.12	119.70
1	AA	213	DC	P-O3'-C3'	12.01	134.12	119.70
44	Ar	26	DG	P-O3'-C3'	12.01	134.11	119.70
48	Av	27	DA	P-O3'-C3'	12.00	134.10	119.70
118	B3	10	DG	O4'-C4'-C3'	-12.00	98.80	106.00
1	AA	6816	DT	O4'-C4'-C3'	-11.99	98.81	106.00
56	A3	22	DC	P-O3'-C3'	11.93	134.02	119.70
1	AA	485	DA	O4'-C4'-C3'	-11.93	98.84	106.00
185	C8	2	DT	O4'-C4'-C3'	-11.93	98.84	106.00
1	AA	2041	DA	P-O3'-C3'	11.92	134.01	119.70
170	Ct	17	DA	P-O3'-C3'	11.92	134.01	119.70
1	AA	1655	DA	P-O3'-C3'	11.92	134.01	119.70
171	Cu	31	DG	O4'-C4'-C3'	-11.92	98.85	106.00
30	Ad	9	DC	P-O3'-C3'	11.90	133.99	119.70
26	AZ	43	DG	P-O3'-C3'	11.90	133.98	119.70
25	AY	2	DT	O4'-C4'-C3'	-11.89	98.87	106.00
110	Bv	26	DA	P-O3'-C3'	11.89	133.97	119.70
1	AA	5038	DC	O4'-C4'-C3'	-11.88	98.87	106.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1755	DG	O4'-C4'-C3'	-11.86	98.88	106.00
22	AV	33	DA	P-O3'-C3'	11.85	133.91	119.70
150	CZ	22	DG	P-O3'-C3'	11.84	133.91	119.70
191	DE	49	DT	P-O3'-C3'	11.79	133.85	119.70
119	B4	33	DA	P-O3'-C3'	11.79	133.84	119.70
73	BK	18	DA	P-O3'-C3'	11.78	133.84	119.70
106	Br	25	DG	P-O3'-C3'	11.76	133.81	119.70
1	AA	2467	DC	P-O3'-C3'	11.76	133.81	119.70
84	BV	34	DG	P-O3'-C3'	11.75	133.80	119.70
1	AA	1833	DG	P-O3'-C3'	11.73	133.78	119.70
1	AA	4671	DG	O4'-C4'-C3'	-11.73	98.96	106.00
134	CJ	1	DA	O4'-C4'-C3'	-11.71	98.98	106.00
1	AA	6515	DC	P-O3'-C3'	11.70	133.74	119.70
58	A5	10	DA	P-O3'-C3'	11.70	133.74	119.70
1	AA	5591	DC	O4'-C4'-C3'	-11.70	98.98	106.00
185	C8	1	DA	O4'-C4'-C3'	-11.69	98.99	106.00
1	AA	6515	DC	O4'-C4'-C3'	-11.67	99.00	106.00
142	CR	20	DC	P-O3'-C3'	11.66	133.69	119.70
170	Ct	32	DG	O4'-C4'-C3'	-11.65	99.01	106.00
1	AA	36	DT	P-O3'-C3'	11.64	133.67	119.70
37	Ak	6	DC	P-O3'-C3'	11.64	133.67	119.70
1	AA	4153	DA	P-O3'-C3'	11.63	133.66	119.70
1	AA	422	DA	O4'-C4'-C3'	-11.61	99.03	106.00
1	AA	6656	DT	O4'-C4'-C3'	-11.61	99.03	106.00
1	AA	4019	DG	O4'-C4'-C3'	-11.60	99.04	106.00
1	AA	1071	DT	O4'-C4'-C3'	-11.58	99.05	106.00
1	AA	5139	DT	O4'-C4'-C3'	-11.58	99.05	106.00
29	Ac	19	DG	P-O3'-C3'	11.58	133.59	119.70
125	CA	2	DC	O4'-C4'-C3'	-11.57	99.06	106.00
1	AA	5456	DC	O4'-C4'-C3'	-11.55	99.07	106.00
1	AA	1468	DG	O4'-C4'-C3'	-11.54	99.08	106.00
1	AA	6841	DG	O4'-C4'-C3'	-11.53	99.08	106.00
57	A4	43	DC	O4'-C4'-C3'	-11.53	99.08	106.00
1	AA	4188	DT	O4'-C4'-C3'	-11.51	99.10	106.00
83	BU	20	DG	P-O3'-C3'	11.50	133.50	119.70
1	AA	5046	DT	P-O3'-C3'	11.49	133.49	119.70
1	AA	6418	DA	P-O3'-C3'	11.49	133.49	119.70
1	AA	4948	DG	O4'-C4'-C3'	-11.47	99.12	106.00
110	Bv	11	DG	P-O3'-C3'	11.46	133.45	119.70
155	Ce	9	DG	P-O3'-C3'	11.46	133.45	119.70
1	AA	4552	DG	O4'-C4'-C3'	-11.44	99.14	106.00
1	AA	4677	DA	P-O3'-C3'	11.44	133.42	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	3445	DT	O4'-C4'-C3'	-11.42	99.15	106.00
1	AA	6879	DT	O4'-C4'-C3'	-11.41	99.16	106.00
52	Az	10	DA	P-O3'-C3'	11.41	133.39	119.70
1	AA	3869	DT	O4'-C4'-C3'	-11.40	99.16	106.00
1	AA	2126	DT	O4'-C4'-C3'	-11.40	99.16	106.00
17	AQ	25	DG	O4'-C4'-C3'	-11.39	99.17	106.00
33	Ag	28	DA	P-O3'-C3'	11.39	133.37	119.70
1	AA	51	DA	P-O3'-C3'	11.38	133.36	119.70
1	AA	3312	DC	P-O3'-C3'	11.38	133.35	119.70
1	AA	1413	DA	P-O3'-C3'	11.36	133.33	119.70
50	Ax	30	DT	P-O3'-C3'	11.34	133.31	119.70
1	AA	5589	DT	P-O3'-C3'	11.33	133.30	119.70
7	AG	15	DC	P-O3'-C3'	11.32	133.28	119.70
114	Bz	7	DG	P-O3'-C3'	11.30	133.26	119.70
1	AA	54	DT	O4'-C4'-C3'	-11.26	99.24	106.00
1	AA	2607	DA	O4'-C4'-C3'	-11.26	99.24	106.00
1	AA	2422	DC	P-O3'-C3'	11.24	133.19	119.70
131	CG	4	DG	O4'-C4'-C3'	-11.24	99.25	106.00
128	CD	25	DA	O4'-C4'-C3'	-11.24	99.25	106.00
1	AA	2313	DG	P-O3'-C3'	11.23	133.18	119.70
1	AA	1823	DC	O4'-C4'-C3'	-11.22	99.27	106.00
1	AA	3275	DA	P-O3'-C3'	11.21	133.15	119.70
138	CN	12	DT	P-O3'-C3'	11.20	133.15	119.70
1	AA	2947	DG	P-O3'-C3'	11.20	133.14	119.70
1	AA	6964	DC	P-O3'-C3'	11.18	133.12	119.70
1	AA	2916	DT	P-O3'-C3'	11.17	133.10	119.70
1	AA	4602	DT	O4'-C4'-C3'	-11.17	99.30	106.00
32	Af	34	DT	P-O3'-C3'	11.16	133.09	119.70
1	AA	4902	DC	O4'-C4'-C3'	-11.15	99.31	106.00
51	Ay	15	DT	O4'-C4'-C3'	-11.15	99.31	106.00
1	AA	5014	DC	P-O3'-C3'	11.15	133.08	119.70
68	BF	22	DG	P-O3'-C3'	11.15	133.08	119.70
38	Al	25	DT	O4'-C4'-C3'	-11.14	99.32	106.00
1	AA	677	DA	O4'-C4'-C3'	-11.13	99.32	106.00
183	C6	27	DA	O4'-C4'-C3'	-11.13	99.32	106.00
52	Az	9	DT	P-O3'-C3'	11.13	133.06	119.70
1	AA	1299	DC	O4'-C4'-C3'	-11.13	99.32	106.00
1	AA	1841	DT	O4'-C4'-C3'	-11.12	99.33	106.00
1	AA	5640	DG	P-O3'-C3'	11.12	133.05	119.70
184	C7	5	DT	O4'-C4'-C3'	-11.11	99.34	106.00
25	AY	1	DA	O4'-C4'-C3'	-11.10	99.34	106.00
48	Av	10	DC	P-O3'-C3'	11.10	133.02	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	6859	DG	O4'-C4'-C3'	-11.10	99.34	106.00
1	AA	3337	DG	P-O3'-C3'	11.07	132.99	119.70
131	CG	36	DT	O4'-C4'-C3'	-11.07	99.36	106.00
134	CJ	27	DA	P-O3'-C3'	11.06	132.98	119.70
46	At	8	DT	P-O3'-C3'	11.06	132.97	119.70
1	AA	4215	DT	O4'-C4'-C3'	-11.05	99.37	106.00
160	Cj	1	DC	O4'-C4'-C3'	-11.05	99.37	106.00
11	AK	22	DT	P-O3'-C3'	11.05	132.96	119.70
1	AA	4497	DG	O4'-C4'-C3'	-11.04	99.38	106.00
1	AA	1823	DC	C2-N1-C1'	11.03	130.94	118.80
9	AI	27	DT	O4'-C1'-C2'	-11.03	97.08	105.90
55	A2	18	DG	P-O3'-C3'	11.01	132.91	119.70
160	Cj	2	DA	P-O3'-C3'	10.99	132.89	119.70
1	AA	506	DA	O4'-C4'-C3'	-10.99	99.41	106.00
1	AA	5175	DT	O4'-C4'-C3'	-10.98	99.41	106.00
1	AA	4794	DT	O4'-C4'-C3'	-10.98	99.41	106.00
11	AK	36	DC	P-O3'-C3'	10.96	132.85	119.70
1	AA	1565	DG	P-O3'-C3'	10.96	132.85	119.70
30	Ad	10	DT	O4'-C4'-C3'	-10.96	99.43	106.00
36	Aj	7	DG	O4'-C4'-C3'	-10.96	99.43	106.00
1	AA	1012	DG	P-O3'-C3'	10.94	132.83	119.70
37	Ak	2	DT	P-O3'-C3'	10.94	132.83	119.70
1	AA	4183	DA	P-O3'-C3'	10.94	132.82	119.70
1	AA	5525	DG	P-O3'-C3'	10.92	132.81	119.70
1	AA	5231	DC	P-O3'-C3'	10.92	132.80	119.70
1	AA	6447	DC	P-O3'-C3'	10.92	132.80	119.70
17	AQ	40	DA	P-O3'-C3'	10.90	132.78	119.70
109	Bu	3	DC	P-O3'-C3'	10.90	132.78	119.70
1	AA	3337	DG	O4'-C4'-C3'	-10.89	99.46	106.00
39	Am	32	DA	O4'-C4'-C3'	-10.89	99.46	106.00
1	AA	5443	DA	O4'-C4'-C3'	-10.88	99.47	106.00
1	AA	6822	DT	P-O3'-C3'	10.87	132.75	119.70
1	AA	6552	DG	P-O3'-C3'	10.87	132.74	119.70
14	AN	14	DG	O4'-C4'-C3'	-10.85	99.49	106.00
1	AA	5460	DA	O4'-C4'-C3'	-10.85	99.49	106.00
183	C6	21	DT	O4'-C4'-C3'	-10.84	99.50	106.00
1	AA	4582	DG	P-O3'-C3'	10.83	132.70	119.70
1	AA	5502	DG	P-O3'-C3'	10.81	132.68	119.70
99	Bk	2	DA	O4'-C4'-C3'	-10.81	99.51	106.00
158	Ch	39	DA	P-O3'-C3'	10.81	132.67	119.70
1	AA	73	DG	O4'-C4'-C3'	-10.80	99.52	106.00
72	BJ	29	DT	P-O3'-C3'	10.79	132.64	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
90	Bb	2	DA	P-O3'-C3'	10.77	132.63	119.70
1	AA	3055	DT	P-O3'-C3'	10.76	132.61	119.70
1	AA	2611	DC	P-O3'-C3'	10.75	132.60	119.70
57	A4	42	DG	P-O3'-C3'	10.74	132.59	119.70
115	B0	32	DG	O4'-C4'-C3'	-10.74	99.55	106.00
45	As	2	DT	P-O3'-C3'	10.73	132.57	119.70
84	BV	28	DT	O4'-C4'-C3'	-10.73	99.56	106.00
1	AA	4317	DT	O4'-C4'-C3'	-10.72	99.56	106.00
1	AA	4490	DT	P-O3'-C3'	10.72	132.56	119.70
2	AB	2	DT	O4'-C4'-C3'	-10.71	99.58	106.00
35	Ai	33	DT	O4'-C4'-C3'	-10.70	99.58	106.00
1	AA	2607	DA	P-O3'-C3'	10.69	132.53	119.70
1	AA	6705	DG	O4'-C4'-C3'	-10.68	99.59	106.00
1	AA	4488	DA	P-O3'-C3'	10.68	132.51	119.70
191	DE	43	DG	O4'-C4'-C3'	-10.67	99.60	106.00
1	AA	5794	DG	O4'-C4'-C3'	-10.67	99.60	106.00
1	AA	1311	DT	O4'-C4'-C3'	-10.65	99.61	106.00
1	AA	2125	DA	O4'-C4'-C3'	-10.64	99.61	106.00
1	AA	1620	DT	P-O3'-C3'	10.64	132.47	119.70
163	Cm	3	DA	O4'-C4'-C3'	-10.64	99.61	106.00
159	Ci	44	DT	P-O3'-C3'	10.63	132.46	119.70
103	Bo	7	DC	P-O3'-C3'	10.61	132.44	119.70
1	AA	490	DG	O4'-C4'-C3'	-10.61	99.64	106.00
1	AA	2011	DA	O4'-C4'-C3'	-10.59	99.64	106.00
183	C6	32	DA	P-O3'-C3'	10.59	132.41	119.70
1	AA	4390	DG	O4'-C4'-C3'	-10.59	99.65	106.00
112	Bx	8	DG	O4'-C4'-C3'	-10.58	99.65	106.00
170	Ct	17	DA	O4'-C1'-C2'	-10.58	97.44	105.90
177	C0	29	DG	O4'-C4'-C3'	-10.57	99.66	106.00
1	AA	3386	DA	P-O3'-C3'	10.57	132.39	119.70
73	BK	22	DA	P-O3'-C3'	10.56	132.38	119.70
84	BV	20	DG	P-O3'-C3'	10.56	132.38	119.70
159	Ci	16	DA	P-O3'-C3'	10.56	132.38	119.70
1	AA	4378	DG	P-O3'-C3'	10.54	132.35	119.70
56	A3	23	DT	P-O3'-C3'	10.54	132.35	119.70
145	CU	45	DA	O4'-C4'-C3'	-10.54	99.67	106.00
1	AA	1776	DG	P-O3'-C3'	10.54	132.34	119.70
72	BJ	15	DT	O4'-C4'-C3'	-10.53	99.68	106.00
1	AA	2366	DG	O4'-C4'-C3'	-10.53	99.68	106.00
27	Aa	13	DG	O4'-C4'-C3'	-10.53	99.68	106.00
98	Bj	33	DG	O4'-C4'-C3'	-10.52	99.69	106.00
115	B0	38	DA	P-O3'-C3'	10.49	132.29	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	5443	DA	P-O3'-C3'	10.49	132.28	119.70
1	AA	6473	DA	P-O3'-C3'	10.49	132.28	119.70
1	AA	5363	DA	P-O3'-C3'	10.48	132.28	119.70
174	Cx	40	DT	P-O3'-C3'	10.48	132.28	119.70
145	CU	23	DT	P-O3'-C3'	10.46	132.25	119.70
32	Af	19	DA	O4'-C4'-C3'	-10.46	99.73	106.00
1	AA	925	DG	P-O3'-C3'	10.45	132.24	119.70
1	AA	3483	DC	P-O3'-C3'	10.45	132.24	119.70
1	AA	4455	DT	O4'-C4'-C3'	-10.45	99.73	106.00
183	C6	18	DT	P-O3'-C3'	10.45	132.24	119.70
1	AA	3783	DG	P-O3'-C3'	10.45	132.24	119.70
1	AA	994	DA	O4'-C4'-C3'	-10.44	99.73	106.00
172	Cv	31	DA	O4'-C4'-C3'	-10.44	99.74	106.00
1	AA	4715	DT	O4'-C4'-C3'	-10.43	99.74	106.00
56	A3	16	DA	O4'-C4'-C3'	-10.43	99.74	106.00
1	AA	4857	DA	O4'-C4'-C3'	-10.42	99.75	106.00
1	AA	6081	DA	P-O3'-C3'	10.42	132.20	119.70
196	DJ	12	DG	O4'-C4'-C3'	-10.42	99.75	106.00
1	AA	2539	DT	O4'-C4'-C3'	-10.41	99.75	106.00
1	AA	6494	DG	O4'-C4'-C3'	-10.41	99.76	106.00
64	BB	24	DA	O4'-C4'-C3'	-10.40	99.76	106.00
1	AA	6297	DG	O4'-C4'-C3'	-10.38	99.77	106.00
131	CG	30	DA	P-O3'-C3'	10.38	132.15	119.70
1	AA	4019	DG	P-O3'-C3'	10.34	132.10	119.70
196	DJ	34	DT	O4'-C4'-C3'	-10.33	99.80	106.00
1	AA	3056	DG	O4'-C4'-C3'	-10.32	99.81	106.00
1	AA	3743	DT	O4'-C4'-C3'	-10.31	99.81	106.00
99	Bk	12	DG	O4'-C4'-C3'	-10.31	99.81	106.00
154	Cd	7	DA	O4'-C4'-C3'	-10.29	99.82	106.00
1	AA	1463	DT	O4'-C4'-C3'	-10.28	99.83	106.00
1	AA	3094	DT	O4'-C4'-C3'	-10.28	99.83	106.00
1	AA	212	DA	O4'-C4'-C3'	-10.26	99.84	106.00
16	AP	8	DC	O4'-C4'-C3'	-10.26	99.84	106.00
1	AA	1618	DT	O4'-C4'-C3'	-10.26	99.84	106.00
1	AA	6386	DT	O4'-C4'-C3'	-10.26	99.85	106.00
117	B2	16	DC	P-O3'-C3'	10.25	132.00	119.70
50	Ax	12	DT	O4'-C4'-C3'	-10.25	99.85	106.00
183	C6	12	DA	P-O3'-C3'	10.24	131.99	119.70
73	BK	5	DA	P-O3'-C3'	10.23	131.97	119.70
1	AA	306	DG	O4'-C4'-C3'	-10.21	99.87	106.00
1	AA	418	DA	O4'-C4'-C3'	-10.21	99.87	106.00
1	AA	3506	DA	N1-C6-N6	-10.21	112.47	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
98	Bj	20	DT	P-O3'-C3'	10.20	131.94	119.70
1	AA	292	DC	P-O3'-C3'	10.20	131.94	119.70
73	BK	7	DA	O4'-C4'-C3'	-10.20	99.88	106.00
1	AA	4552	DG	P-O3'-C3'	10.20	131.94	119.70
50	Ax	2	DA	P-O3'-C3'	10.20	131.94	119.70
1	AA	5778	DT	O4'-C4'-C3'	-10.19	99.89	106.00
152	Cb	2	DA	P-O3'-C3'	10.18	131.92	119.70
25	AY	27	DT	P-O3'-C3'	10.18	131.92	119.70
1	AA	2923	DC	O4'-C4'-C3'	-10.16	99.90	106.00
76	BN	27	DG	P-O3'-C3'	10.16	131.89	119.70
1	AA	5963	DT	P-O3'-C3'	10.16	131.89	119.70
49	Aw	15	DT	O4'-C4'-C3'	-10.16	99.91	106.00
1	AA	146	DT	O4'-C4'-C3'	-10.16	99.91	106.00
65	BC	20	DT	P-O3'-C3'	10.15	131.88	119.70
167	Cq	33	DC	P-O3'-C3'	10.14	131.87	119.70
103	Bo	2	DT	O4'-C4'-C3'	-10.13	99.92	106.00
1	AA	1135	DT	O4'-C4'-C3'	-10.12	99.92	106.00
1	AA	4267	DT	O4'-C4'-C3'	-10.12	99.93	106.00
1	AA	5654	DG	O4'-C4'-C3'	-10.11	99.93	106.00
1	AA	437	DT	P-O3'-C3'	10.11	131.83	119.70
1	AA	3252	DG	O4'-C4'-C3'	-10.10	99.94	106.00
1	AA	3099	DT	O4'-C4'-C3'	-10.09	99.94	106.00
1	AA	5517	DC	P-O3'-C3'	10.09	131.81	119.70
1	AA	7063	DA	O4'-C4'-C3'	-10.09	99.95	106.00
156	Cf	2	DG	P-O3'-C3'	10.09	131.81	119.70
1	AA	2313	DG	O4'-C4'-C3'	-10.08	99.95	106.00
1	AA	596	DA	P-O3'-C3'	10.07	131.79	119.70
108	Bt	26	DC	P-O3'-C3'	10.07	131.79	119.70
179	C2	24	DC	O4'-C4'-C3'	-10.07	99.96	106.00
49	Aw	37	DT	O4'-C4'-C3'	-10.07	99.96	106.00
1	AA	6739	DA	P-O3'-C3'	10.06	131.78	119.70
39	Am	18	DC	P-O3'-C3'	10.06	131.78	119.70
181	C4	27	DT	O4'-C4'-C3'	-10.06	99.96	106.00
176	Cz	15	DC	P-O3'-C3'	10.06	131.77	119.70
11	AK	39	DA	O4'-C4'-C3'	-10.06	99.97	106.00
170	Ct	33	DC	P-O3'-C3'	10.06	131.77	119.70
1	AA	5194	DG	O4'-C4'-C3'	-10.05	99.97	106.00
1	AA	1889	DT	P-O3'-C3'	10.04	131.75	119.70
1	AA	15	DT	O4'-C1'-C2'	-10.03	97.88	105.90
1	AA	3055	DT	O4'-C4'-C3'	-10.03	99.98	106.00
1	AA	4478	DT	O4'-C4'-C3'	-10.03	99.98	106.00
134	CJ	19	DC	P-O3'-C3'	10.02	131.72	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
39	Am	25	DA	O4'-C4'-C3'	-10.01	99.99	106.00
1	AA	3383	DT	P-O3'-C3'	10.00	131.70	119.70
1	AA	5981	DT	O4'-C4'-C3'	-9.98	100.01	106.00
159	Ci	16	DA	O4'-C1'-N9	9.96	114.97	108.00
1	AA	1835	DG	O4'-C4'-C3'	-9.96	100.03	106.00
40	An	6	DT	P-O3'-C3'	9.95	131.64	119.70
1	AA	3009	DC	P-O3'-C3'	9.94	131.62	119.70
1	AA	5650	DT	O4'-C1'-C2'	-9.93	97.96	105.90
112	Bx	31	DT	O4'-C4'-C3'	-9.92	100.05	106.00
61	A8	18	DT	P-O3'-C3'	9.92	131.60	119.70
98	Bj	13	DG	P-O3'-C3'	9.91	131.60	119.70
63	BA	10	DT	O4'-C4'-C3'	-9.90	100.06	106.00
1	AA	148	DA	P-O3'-C3'	9.90	131.58	119.70
197	DK	11	DT	O4'-C4'-C3'	-9.90	100.06	106.00
1	AA	6175	DT	O4'-C4'-C3'	-9.90	100.06	106.00
1	AA	4823	DG	O4'-C4'-C3'	-9.89	100.06	106.00
30	Ad	21	DA	O4'-C4'-C3'	-9.89	100.06	106.00
1	AA	107	DA	P-O3'-C3'	9.89	131.56	119.70
151	Ca	27	DA	O4'-C4'-C3'	-9.89	100.07	106.00
144	CT	9	DT	O4'-C4'-C3'	-9.88	100.07	106.00
183	C6	4	DT	P-O3'-C3'	9.88	131.55	119.70
188	DB	44	DC	P-O3'-C3'	9.88	131.55	119.70
112	Bx	1	DA	P-O3'-C3'	9.87	131.55	119.70
170	Ct	17	DA	O4'-C4'-C3'	-9.87	100.08	106.00
1	AA	7203	DT	P-O3'-C3'	9.87	131.54	119.70
185	C8	39	DA	O4'-C4'-C3'	-9.87	100.08	106.00
61	A8	9	DC	P-O3'-C3'	9.86	131.53	119.70
1	AA	4003	DT	O4'-C4'-C3'	-9.86	100.09	106.00
1	AA	359	DA	P-O3'-C3'	9.85	131.52	119.70
144	CT	9	DT	P-O3'-C3'	9.84	131.51	119.70
1	AA	5559	DG	O4'-C4'-C3'	-9.83	100.10	106.00
1	AA	160	DA	P-O3'-C3'	9.82	131.49	119.70
1	AA	1065	DC	P-O3'-C3'	9.82	131.49	119.70
1	AA	6622	DA	O4'-C4'-C3'	-9.82	100.11	106.00
1	AA	5265	DG	P-O3'-C3'	9.80	131.46	119.70
189	DC	1	DT	O4'-C4'-C3'	-9.80	100.12	106.00
1	AA	1060	DC	P-O3'-C3'	9.79	131.45	119.70
1	AA	2717	DT	O4'-C4'-C3'	-9.80	100.12	106.00
32	Af	22	DA	O4'-C4'-C3'	-9.79	100.12	106.00
17	AQ	34	DA	P-O3'-C3'	9.78	131.44	119.70
105	Bq	3	DA	P-O3'-C3'	9.77	131.42	119.70
175	Cy	15	DC	P-O3'-C3'	9.77	131.42	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	3012	DT	P-O3'-C3'	9.77	131.42	119.70
8	AH	7	DA	O4'-C4'-C3'	-9.76	100.15	106.00
1	AA	2495	DT	P-O3'-C3'	9.75	131.40	119.70
177	C0	1	DG	O4'-C4'-C3'	-9.75	100.15	106.00
162	Cl	34	DT	O4'-C4'-C3'	-9.75	100.15	106.00
76	BN	31	DT	P-O3'-C3'	9.74	131.39	119.70
1	AA	812	DC	P-O3'-C3'	9.74	131.39	119.70
1	AA	2089	DG	P-O3'-C3'	9.74	131.38	119.70
1	AA	1391	DA	P-O3'-C3'	9.73	131.38	119.70
1	AA	2824	DC	P-O3'-C3'	9.73	131.38	119.70
106	Br	17	DG	P-O3'-C3'	9.73	131.38	119.70
1	AA	759	DT	P-O3'-C3'	9.72	131.37	119.70
1	AA	3374	DT	O4'-C4'-C3'	-9.72	100.17	106.00
1	AA	2041	DA	O4'-C1'-C2'	-9.72	98.12	105.90
1	AA	5218	DG	O4'-C4'-C3'	-9.72	100.17	106.00
1	AA	6732	DT	O4'-C4'-C3'	-9.72	100.17	106.00
1	AA	1726	DA	P-O3'-C3'	9.71	131.36	119.70
152	Cb	14	DC	P-O3'-C3'	9.71	131.35	119.70
26	AZ	43	DG	O4'-C1'-C2'	-9.70	98.14	105.90
1	AA	6261	DG	O4'-C4'-C3'	-9.70	100.18	106.00
1	AA	1175	DC	O4'-C4'-C3'	-9.69	100.19	106.00
1	AA	3289	DT	O4'-C4'-C3'	-9.69	100.19	106.00
1	AA	6794	DG	P-O3'-C3'	9.69	131.32	119.70
1	AA	3720	DG	O4'-C4'-C3'	-9.69	100.19	106.00
168	Cr	41	DA	P-O3'-C3'	9.69	131.32	119.70
92	Bd	10	DT	O4'-C4'-C3'	-9.68	100.19	106.00
1	AA	1602	DC	P-O3'-C3'	9.68	131.31	119.70
1	AA	5903	DA	O4'-C4'-C3'	-9.68	100.19	106.00
44	Ar	30	DG	P-O3'-C3'	9.67	131.30	119.70
131	CG	9	DG	O4'-C4'-C3'	-9.67	100.20	106.00
111	Bw	15	DA	O4'-C4'-C3'	-9.67	100.20	106.00
1	AA	3670	DC	O4'-C4'-C3'	-9.66	100.20	106.00
1	AA	1841	DT	P-O3'-C3'	9.66	131.29	119.70
1	AA	2661	DT	O4'-C4'-C3'	-9.64	100.22	106.00
1	AA	6589	DC	P-O3'-C3'	9.64	131.27	119.70
96	Bh	10	DG	P-O3'-C3'	9.63	131.25	119.70
31	Ae	33	DT	O4'-C4'-C3'	-9.62	100.23	106.00
3	AC	3	DT	P-O3'-C3'	9.62	131.24	119.70
1	AA	6265	DC	P-O3'-C3'	9.62	131.24	119.70
1	AA	4011	DC	P-O3'-C3'	9.61	131.23	119.70
168	Cr	49	DA	P-O3'-C3'	9.60	131.22	119.70
27	Aa	18	DT	O4'-C4'-C3'	-9.59	100.25	106.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	3575	DC	P-O3'-C3'	9.58	131.20	119.70
1	AA	4235	DT	P-O3'-C3'	9.58	131.20	119.70
1	AA	1823	DC	C6-N1-C1'	-9.58	109.30	120.80
201	DO	18	DT	P-O3'-C3'	9.57	131.19	119.70
1	AA	4406	DT	P-O3'-C3'	9.57	131.19	119.70
1	AA	5139	DT	P-O3'-C3'	9.57	131.19	119.70
1	AA	4895	DT	P-O3'-C3'	9.57	131.18	119.70
80	BR	36	DC	P-O3'-C3'	9.56	131.18	119.70
176	Cz	7	DT	P-O3'-C3'	9.56	131.18	119.70
106	Br	29	DT	P-O3'-C3'	9.56	131.17	119.70
1	AA	1613	DT	P-O3'-C3'	9.55	131.16	119.70
65	BC	7	DG	O4'-C4'-C3'	-9.54	100.28	106.00
1	AA	1905	DT	O4'-C4'-C3'	-9.53	100.28	106.00
1	AA	2741	DT	O4'-C4'-C3'	-9.53	100.28	106.00
1	AA	6827	DT	P-O3'-C3'	9.52	131.13	119.70
1	AA	6552	DG	O4'-C4'-C3'	-9.52	100.29	106.00
74	BL	21	DA	O4'-C4'-C3'	-9.52	100.29	106.00
15	AO	25	DA	O4'-C4'-C3'	-9.51	100.30	106.00
131	CG	3	DA	O4'-C4'-C3'	-9.50	100.30	106.00
1	AA	1932	DA	P-O3'-C3'	9.49	131.09	119.70
1	AA	5592	DC	P-O3'-C3'	9.48	131.08	119.70
1	AA	3804	DT	O4'-C4'-C3'	-9.48	100.31	106.00
1	AA	37	DT	O4'-C4'-C3'	-9.48	100.31	106.00
1	AA	4289	DT	O4'-C4'-C3'	-9.48	100.31	106.00
1	AA	4709	DT	P-O3'-C3'	9.47	131.07	119.70
131	CG	3	DA	P-O3'-C3'	9.47	131.07	119.70
1	AA	799	DT	P-O3'-C3'	9.47	131.06	119.70
134	CJ	29	DA	O4'-C4'-C3'	-9.46	100.32	106.00
198	DL	4	DC	P-O3'-C3'	9.46	131.05	119.70
1	AA	2326	DG	P-O3'-C3'	9.46	131.05	119.70
1	AA	4889	DG	P-O3'-C3'	9.46	131.05	119.70
1	AA	2383	DG	P-O3'-C3'	9.45	131.04	119.70
141	CQ	11	DA	O4'-C4'-C3'	-9.44	100.33	106.00
87	BY	6	DT	P-O3'-C3'	9.44	131.03	119.70
1	AA	5528	DG	P-O3'-C3'	9.44	131.02	119.70
91	Bc	18	DA	P-O3'-C3'	9.44	131.02	119.70
1	AA	1215	DT	P-O3'-C3'	9.43	131.02	119.70
27	Aa	11	DA	O4'-C4'-C3'	-9.43	100.34	106.00
170	Ct	21	DG	P-O3'-C3'	9.43	131.02	119.70
81	BS	22	DT	P-O3'-C3'	9.43	131.01	119.70
1	AA	2759	DA	P-O3'-C3'	9.42	131.01	119.70
1	AA	5301	DT	P-O3'-C3'	9.42	131.00	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
119	B4	19	DT	P-O3'-C3'	9.42	131.00	119.70
9	AI	15	DC	O4'-C4'-C3'	-9.41	100.35	106.00
1	AA	5489	DG	P-O3'-C3'	9.40	130.98	119.70
154	Cd	4	DG	P-O3'-C3'	9.40	130.98	119.70
1	AA	1847	DT	O4'-C4'-C3'	-9.39	100.36	106.00
10	AJ	27	DC	P-O3'-C3'	9.39	130.97	119.70
62	A9	7	DT	O4'-C1'-C2'	-9.39	98.39	105.90
46	At	25	DG	O4'-C4'-C3'	-9.39	100.37	106.00
1	AA	5010	DT	P-O3'-C3'	9.38	130.95	119.70
1	AA	1863	DG	O4'-C4'-C3'	-9.37	100.38	106.00
1	AA	5595	DC	P-O3'-C3'	9.37	130.94	119.70
1	AA	6822	DT	O4'-C4'-C3'	-9.37	100.38	106.00
1	AA	5166	DT	O4'-C4'-C3'	-9.36	100.39	106.00
158	Ch	39	DA	O4'-C1'-C2'	-9.36	98.41	105.90
1	AA	2737	DT	O4'-C4'-C3'	-9.35	100.39	106.00
33	Ag	14	DG	O4'-C4'-C3'	-9.35	100.39	106.00
162	Cl	37	DT	O4'-C4'-C3'	-9.35	100.39	106.00
200	DN	34	DA	O4'-C4'-C3'	-9.35	100.39	106.00
28	Ab	21	DT	P-O3'-C3'	9.35	130.92	119.70
1	AA	6515	DC	O4'-C1'-C2'	-9.34	98.42	105.90
82	BT	18	DA	O4'-C4'-C3'	-9.34	100.39	106.00
184	C7	22	DT	P-O3'-C3'	9.34	130.91	119.70
171	Cu	9	DA	P-O3'-C3'	9.34	130.90	119.70
53	A0	5	DA	P-O3'-C3'	9.32	130.89	119.70
1	AA	3632	DT	O4'-C1'-C2'	-9.32	98.45	105.90
1	AA	4670	DT	P-O3'-C3'	9.31	130.88	119.70
23	AW	5	DA	P-O3'-C3'	9.31	130.88	119.70
1	AA	3425	DC	O4'-C4'-C3'	-9.31	100.42	106.00
1	AA	3033	DA	P-O3'-C3'	9.30	130.86	119.70
173	Cw	4	DT	P-O3'-C3'	9.30	130.86	119.70
103	Bo	18	DT	O4'-C4'-C3'	-9.30	100.42	106.00
1	AA	5435	DC	O4'-C4'-C3'	-9.29	100.43	106.00
1	AA	3089	DT	P-O3'-C3'	9.28	130.83	119.70
1	AA	3388	DC	P-O3'-C3'	9.28	130.83	119.70
174	Cx	1	DT	O4'-C4'-C3'	-9.28	100.43	106.00
1	AA	3810	DA	P-O3'-C3'	9.27	130.82	119.70
74	BL	20	DC	P-O3'-C3'	9.26	130.81	119.70
51	Ay	36	DA	P-O3'-C3'	9.25	130.80	119.70
58	A5	7	DA	P-O3'-C3'	9.25	130.80	119.70
191	DE	30	DA	P-O3'-C3'	9.24	130.79	119.70
44	Ar	12	DC	P-O3'-C3'	9.24	130.79	119.70
179	C2	4	DA	O4'-C4'-C3'	-9.24	100.46	106.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
77	BO	19	DA	P-O3'-C3'	9.23	130.77	119.70
124	B9	36	DA	O4'-C4'-C3'	-9.22	100.47	106.00
136	CL	17	DT	P-O3'-C3'	9.21	130.76	119.70
159	Ci	26	DT	O4'-C4'-C3'	-9.21	100.48	106.00
1	AA	4184	DT	O4'-C4'-C3'	-9.20	100.48	106.00
1	AA	6221	DC	P-O3'-C3'	9.21	130.75	119.70
37	Ak	4	DT	O4'-C1'-C2'	-9.21	98.54	105.90
128	CD	17	DA	O4'-C1'-C2'	-9.20	98.54	105.90
1	AA	5315	DT	P-O3'-C3'	9.20	130.74	119.70
157	Cg	7	DG	P-O3'-C3'	9.19	130.73	119.70
9	AI	15	DC	P-O3'-C3'	9.19	130.73	119.70
155	Ce	21	DT	P-O3'-C3'	9.18	130.72	119.70
1	AA	5936	DA	O4'-C4'-C3'	-9.18	100.49	106.00
1	AA	4153	DA	O4'-C1'-C2'	-9.18	98.56	105.90
1	AA	4281	DT	P-O3'-C3'	9.18	130.71	119.70
106	Br	27	DG	O4'-C1'-N9	9.18	114.42	108.00
183	C6	38	DG	O4'-C1'-C2'	-9.18	98.56	105.90
181	C4	24	DT	P-O3'-C3'	9.17	130.71	119.70
1	AA	2314	DG	P-O3'-C3'	9.17	130.71	119.70
1	AA	1440	DT	O4'-C4'-C3'	-9.17	100.50	106.00
31	Ae	37	DT	O4'-C4'-C3'	-9.17	100.50	106.00
5	AE	12	DT	P-O3'-C3'	9.16	130.70	119.70
58	A5	37	DG	P-O3'-C3'	9.16	130.70	119.70
1	AA	3868	DA	P-O3'-C3'	9.16	130.69	119.70
1	AA	5113	DA	P-O3'-C3'	9.16	130.69	119.70
38	Al	39	DT	O4'-C4'-C3'	-9.16	100.51	106.00
1	AA	2125	DA	P-O3'-C3'	9.15	130.68	119.70
1	AA	4902	DC	P-O3'-C3'	9.14	130.67	119.70
136	CL	35	DC	P-O3'-C3'	9.14	130.66	119.70
58	A5	33	DA	O4'-C1'-C2'	-9.13	98.59	105.90
187	DA	15	DT	P-O3'-C3'	9.13	130.66	119.70
169	Cs	26	DG	O4'-C4'-C3'	-9.12	100.53	106.00
112	Bx	1	DA	O4'-C4'-C3'	-9.12	100.53	106.00
169	Cs	22	DA	P-O3'-C3'	9.12	130.64	119.70
1	AA	6130	DG	O4'-C4'-C3'	-9.11	100.53	106.00
126	CB	1	DT	O4'-C1'-C2'	-9.11	98.61	105.90
145	CU	19	DT	O4'-C1'-C2'	-9.11	98.61	105.90
1	AA	802	DT	P-O3'-C3'	9.08	130.60	119.70
73	BK	21	DT	P-O3'-C3'	9.08	130.60	119.70
190	DD	9	DA	O4'-C1'-C2'	-9.08	98.64	105.90
1	AA	4707	DA	O4'-C1'-C2'	-9.08	98.64	105.90
8	AH	29	DT	P-O3'-C3'	9.08	130.59	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	BV	46	DT	O4'-C4'-C3'	-9.08	100.55	106.00
1	AA	4301	DA	P-O3'-C3'	9.07	130.58	119.70
1	AA	802	DT	O4'-C1'-C2'	-9.05	98.66	105.90
159	Ci	44	DT	O4'-C1'-C2'	-9.05	98.66	105.90
154	Cd	17	DA	O4'-C4'-C3'	-9.05	100.57	106.00
1	AA	6012	DG	P-O3'-C3'	9.04	130.55	119.70
1	AA	5429	DC	P-O3'-C3'	9.04	130.54	119.70
1	AA	294	DT	P-O3'-C3'	9.04	130.54	119.70
1	AA	945	DT	P-O3'-C3'	9.03	130.54	119.70
123	B8	16	DG	O4'-C1'-C2'	-9.03	98.68	105.90
27	Aa	9	DA	O4'-C1'-C2'	-9.03	98.68	105.90
1	AA	1620	DT	O4'-C4'-C3'	-9.02	100.59	106.00
1	AA	3089	DT	O4'-C4'-C3'	-9.02	100.59	106.00
1	AA	5015	DA	O4'-C4'-C3'	-9.02	100.59	106.00
156	Cf	20	DC	P-O3'-C3'	9.02	130.52	119.70
35	Ai	1	DG	P-O3'-C3'	9.01	130.51	119.70
1	AA	2467	DC	O4'-C4'-C3'	-9.00	100.60	106.00
1	AA	4074	DT	P-O3'-C3'	9.00	130.50	119.70
1	AA	6025	DC	P-O3'-C3'	9.00	130.50	119.70
60	A7	38	DA	P-O3'-C3'	9.00	130.50	119.70
120	B5	41	DC	O4'-C4'-C3'	-9.00	100.60	106.00
1	AA	3579	DT	P-O3'-C3'	8.99	130.49	119.70
134	CJ	33	DT	C4'-C3'-C2'	-8.99	95.01	103.10
180	C3	3	DT	P-O3'-C3'	8.98	130.48	119.70
1	AA	2858	DC	P-O3'-C3'	8.97	130.46	119.70
180	C3	13	DT	P-O3'-C3'	8.97	130.46	119.70
174	Cx	1	DT	O4'-C1'-C2'	-8.96	98.73	105.90
154	Cd	9	DA	P-O3'-C3'	8.96	130.45	119.70
1	AA	6655	DA	P-O3'-C3'	8.95	130.44	119.70
185	C8	1	DA	P-O3'-C3'	8.95	130.44	119.70
136	CL	19	DT	O4'-C1'-C2'	-8.95	98.74	105.90
20	AT	11	DT	P-O3'-C3'	8.94	130.42	119.70
1	AA	105	DT	P-O3'-C3'	8.93	130.42	119.70
27	Aa	31	DA	O4'-C4'-C3'	-8.93	100.64	106.00
1	AA	7125	DC	P-O3'-C3'	8.93	130.41	119.70
70	BH	3	DC	P-O3'-C3'	8.93	130.41	119.70
1	AA	1943	DC	P-O3'-C3'	8.92	130.41	119.70
1	AA	2920	DC	O4'-C4'-C3'	-8.92	100.65	106.00
15	AO	35	DC	P-O3'-C3'	8.92	130.40	119.70
1	AA	3934	DA	O4'-C4'-C3'	-8.91	100.65	106.00
29	Ac	40	DG	P-O3'-C3'	8.91	130.40	119.70
1	AA	6934	DA	O4'-C4'-C3'	-8.91	100.66	106.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
154	Cd	17	DA	O4'-C1'-C2'	-8.90	98.78	105.90
185	C8	22	DA	P-O3'-C3'	8.90	130.38	119.70
93	Be	16	DA	O4'-C1'-N9	8.89	114.23	108.00
1	AA	2969	DG	O4'-C1'-C2'	-8.89	98.79	105.90
1	AA	3001	DG	P-O3'-C3'	8.89	130.37	119.70
1	AA	6974	DT	P-O3'-C3'	8.89	130.37	119.70
44	Ar	33	DA	O4'-C4'-C3'	-8.87	100.68	106.00
85	BW	23	DT	P-O3'-C3'	8.87	130.34	119.70
65	BC	21	DT	O4'-C4'-C3'	-8.87	100.68	106.00
160	Cj	1	DC	P-O3'-C3'	8.87	130.34	119.70
1	AA	5800	DA	O4'-C4'-C3'	-8.86	100.69	106.00
179	C2	33	DA	O4'-C4'-C3'	-8.85	100.69	106.00
1	AA	757	DG	O4'-C4'-C3'	-8.84	100.69	106.00
1	AA	6151	DT	P-O3'-C3'	8.84	130.31	119.70
200	DN	20	DA	P-O3'-C3'	8.84	130.31	119.70
194	DH	2	DT	O4'-C4'-C3'	-8.84	100.70	106.00
1	AA	817	DC	P-O3'-C3'	8.83	130.30	119.70
1	AA	1467	DC	P-O3'-C3'	8.83	130.30	119.70
11	AK	28	DT	P-O3'-C3'	8.83	130.30	119.70
116	B1	24	DC	P-O3'-C3'	8.83	130.30	119.70
73	BK	24	DT	O4'-C4'-C3'	-8.83	100.70	106.00
1	AA	6614	DT	O4'-C4'-C3'	-8.82	100.71	106.00
1	AA	1070	DA	P-O3'-C3'	8.82	130.28	119.70
190	DD	9	DA	O4'-C4'-C3'	-8.82	100.71	106.00
107	Bs	20	DC	O4'-C4'-C3'	-8.82	100.71	106.00
5	AE	4	DT	P-O3'-C3'	8.82	130.28	119.70
174	Cx	36	DC	O4'-C4'-C3'	-8.82	100.71	106.00
1	AA	3783	DG	O4'-C4'-C3'	-8.80	100.72	106.00
106	Br	27	DG	C4-N9-C1'	8.80	137.95	126.50
196	DJ	22	DC	P-O3'-C3'	8.80	130.26	119.70
180	C3	20	DG	P-O3'-C3'	8.80	130.26	119.70
82	BT	35	DA	P-O3'-C3'	8.80	130.26	119.70
1	AA	3532	DA	P-O3'-C3'	8.80	130.26	119.70
1	AA	5318	DG	O4'-C1'-C2'	-8.79	98.87	105.90
52	Az	15	DC	P-O3'-C3'	8.78	130.24	119.70
151	Ca	18	DT	P-O3'-C3'	8.78	130.24	119.70
151	Ca	27	DA	P-O3'-C3'	8.78	130.24	119.70
55	A2	10	DA	O4'-C1'-C2'	-8.77	98.89	105.90
114	Bz	33	DT	P-O3'-C3'	8.76	130.22	119.70
151	Ca	16	DT	P-O3'-C3'	8.76	130.21	119.70
19	AS	12	DT	O4'-C4'-C3'	-8.76	100.74	106.00
5	AE	22	DG	P-O3'-C3'	8.75	130.20	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	Ar	3	DT	P-O3'-C3'	8.74	130.19	119.70
1	AA	4415	DA	O4'-C1'-C2'	-8.74	98.91	105.90
50	Ax	29	DT	P-O3'-C3'	8.74	130.19	119.70
1	AA	3311	DG	P-O3'-C3'	8.73	130.18	119.70
1	AA	3406	DG	P-O3'-C3'	8.73	130.17	119.70
202	DP	17	DC	P-O3'-C3'	8.73	130.17	119.70
37	Ak	26	DG	O4'-C4'-C3'	-8.72	100.77	106.00
1	AA	7145	DC	O4'-C4'-C3'	-8.72	100.77	106.00
81	BS	14	DT	P-O3'-C3'	8.71	130.15	119.70
1	AA	4948	DG	O4'-C1'-C2'	-8.71	98.94	105.90
1	AA	4238	DT	P-O3'-C3'	8.70	130.14	119.70
51	Ay	31	DG	O4'-C1'-C2'	-8.70	98.94	105.90
127	CC	17	DG	O4'-C4'-C3'	-8.70	100.78	106.00
1	AA	1817	DT	O4'-C4'-C3'	-8.69	100.79	106.00
1	AA	3193	DA	P-O3'-C3'	8.69	130.13	119.70
28	Ab	17	DT	P-O3'-C3'	8.69	130.12	119.70
1	AA	5367	DT	P-O3'-C3'	8.67	130.10	119.70
175	Cy	3	DA	P-O3'-C3'	8.67	130.10	119.70
91	Bc	12	DT	O4'-C4'-C3'	-8.66	100.81	106.00
168	Cr	43	DA	O4'-C4'-C3'	-8.65	100.81	106.00
1	AA	5604	DC	P-O3'-C3'	8.65	130.08	119.70
85	BW	30	DT	P-O3'-C3'	8.65	130.08	119.70
1	AA	6573	DA	O4'-C1'-C2'	-8.65	98.98	105.90
1	AA	107	DA	C1'-O4'-C4'	-8.64	101.46	110.10
1	AA	4361	DT	P-O3'-C3'	8.64	130.07	119.70
17	AQ	41	DT	O4'-C4'-C3'	-8.64	100.81	106.00
1	AA	1084	DG	O4'-C1'-C2'	-8.64	98.99	105.90
1	AA	5683	DC	P-O3'-C3'	8.64	130.06	119.70
1	AA	6895	DT	P-O3'-C3'	8.64	130.06	119.70
183	C6	17	DT	O4'-C4'-C3'	-8.64	100.82	106.00
1	AA	1023	DA	P-O3'-C3'	8.63	130.06	119.70
1	AA	1079	DC	P-O3'-C3'	8.63	130.06	119.70
116	B1	8	DT	O4'-C4'-C3'	-8.63	100.82	106.00
198	DL	30	DC	O4'-C1'-C2'	-8.62	99.00	105.90
1	AA	5757	DT	O4'-C4'-C3'	-8.62	100.83	106.00
128	CD	10	DC	O4'-C1'-C2'	-8.62	99.00	105.90
161	Ck	19	DT	P-O3'-C3'	8.62	130.05	119.70
1	AA	3982	DC	P-O3'-C3'	8.62	130.04	119.70
1	AA	734	DC	P-O3'-C3'	8.61	130.04	119.70
81	BS	10	DT	O4'-C1'-C2'	-8.61	99.01	105.90
151	Ca	27	DA	C4'-C3'-C2'	-8.61	95.35	103.10
180	C3	1	DT	O4'-C4'-C3'	-8.61	100.84	106.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	5074	DT	O4'-C1'-C2'	-8.60	99.02	105.90
1	AA	5961	DG	P-O3'-C3'	8.59	130.01	119.70
1	AA	945	DT	O4'-C4'-C3'	-8.59	100.84	106.00
1	AA	6054	DG	P-O3'-C3'	8.59	130.01	119.70
140	CP	10	DC	O4'-C4'-C3'	-8.59	100.85	106.00
120	B5	1	DT	O4'-C4'-C3'	-8.59	100.85	106.00
1	AA	5325	DA	O4'-C4'-C3'	-8.57	100.86	106.00
148	CX	18	DT	P-O3'-C3'	8.57	129.99	119.70
156	Cf	1	DC	O4'-C1'-C2'	-8.57	99.04	105.90
1	AA	5860	DG	P-O3'-C3'	8.56	129.98	119.70
100	Bl	2	DA	P-O3'-C3'	8.56	129.97	119.70
1	AA	1036	DG	P-O3'-C3'	8.56	129.97	119.70
1	AA	4019	DG	C1'-O4'-C4'	-8.56	101.54	110.10
55	A2	31	DC	P-O3'-C3'	8.55	129.97	119.70
173	Cw	26	DA	O4'-C1'-C2'	-8.55	99.06	105.90
1	AA	3864	DC	O4'-C1'-C2'	-8.55	99.06	105.90
1	AA	370	DC	P-O3'-C3'	8.55	129.96	119.70
1	AA	2007	DG	P-O3'-C3'	8.55	129.96	119.70
1	AA	4258	DT	P-O3'-C3'	8.54	129.94	119.70
171	Cu	31	DG	P-O3'-C3'	8.53	129.94	119.70
1	AA	2335	DA	P-O3'-C3'	8.53	129.94	119.70
1	AA	6568	DT	O4'-C1'-C2'	-8.53	99.08	105.90
57	A4	42	DG	O4'-C4'-C3'	-8.53	100.88	106.00
48	Av	27	DA	O4'-C1'-C2'	-8.53	99.08	105.90
27	Aa	5	DC	P-O3'-C3'	8.52	129.93	119.70
106	Br	34	DT	O4'-C4'-C3'	-8.52	100.89	106.00
1	AA	7127	DT	O4'-C4'-C3'	-8.52	100.89	106.00
1	AA	2574	DG	P-O3'-C3'	8.50	129.90	119.70
1	AA	5153	DT	P-O3'-C3'	8.50	129.91	119.70
155	Ce	14	DT	P-O3'-C3'	8.50	129.91	119.70
37	Ak	26	DG	O4'-C1'-C2'	-8.49	99.10	105.90
1	AA	2422	DC	O4'-C1'-C2'	-8.48	99.11	105.90
106	Br	27	DG	C1'-O4'-C4'	-8.48	101.62	110.10
164	Cn	16	DC	P-O3'-C3'	8.48	129.87	119.70
1	AA	1113	DC	O4'-C1'-C2'	-8.47	99.12	105.90
98	Bj	39	DT	P-O3'-C3'	8.47	129.86	119.70
171	Cu	33	DG	O4'-C1'-C2'	-8.47	99.12	105.90
1	AA	4803	DT	O4'-C1'-C2'	-8.46	99.13	105.90
1	AA	5922	DG	P-O3'-C3'	8.46	129.86	119.70
1	AA	614	DG	P-O3'-C3'	8.45	129.84	119.70
169	Cs	6	DC	P-O3'-C3'	8.44	129.82	119.70
8	AH	28	DT	O4'-C4'-C3'	-8.43	100.94	106.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
106	Br	27	DG	C8-N9-C1'	-8.43	116.04	127.00
185	C8	26	DT	O4'-C4'-C3'	-8.43	100.94	106.00
1	AA	1402	DA	C1'-O4'-C4'	-8.42	101.68	110.10
182	C5	20	DT	P-O3'-C3'	8.40	129.79	119.70
184	C7	19	DT	O4'-C1'-C2'	-8.40	99.18	105.90
1	AA	826	DG	O4'-C1'-C2'	-8.40	99.18	105.90
1	AA	5758	DG	P-O3'-C3'	8.40	129.78	119.70
24	AX	13	DG	P-O3'-C3'	8.40	129.78	119.70
74	BL	21	DA	C1'-O4'-C4'	-8.38	101.72	110.10
1	AA	3529	DT	O4'-C1'-C2'	-8.37	99.20	105.90
1	AA	1078	DC	P-O3'-C3'	8.36	129.74	119.70
1	AA	6361	DA	P-O3'-C3'	8.34	129.71	119.70
1	AA	1789	DG	O4'-C1'-C2'	-8.34	99.23	105.90
1	AA	1526	DC	O4'-C4'-C3'	-8.34	101.00	106.00
1	AA	2178	DG	O4'-C1'-C2'	-8.34	99.23	105.90
140	CP	2	DT	P-O3'-C3'	8.34	129.70	119.70
1	AA	810	DG	P-O3'-C3'	8.33	129.70	119.70
72	BJ	29	DT	O4'-C4'-C3'	-8.33	101.00	106.00
1	AA	5420	DT	P-O3'-C3'	8.32	129.69	119.70
1	AA	2837	DT	P-O3'-C3'	8.32	129.69	119.70
1	AA	4812	DA	O4'-C1'-C2'	-8.30	99.26	105.90
1	AA	6541	DG	P-O3'-C3'	8.29	129.65	119.70
1	AA	1381	DG	P-O3'-C3'	8.29	129.65	119.70
41	Ao	2	DA	P-O3'-C3'	8.29	129.65	119.70
48	Av	27	DA	O4'-C4'-C3'	-8.29	101.03	106.00
142	CR	1	DG	O4'-C4'-C3'	-8.29	101.03	106.00
1	AA	2819	DG	O4'-C1'-C2'	-8.29	99.27	105.90
1	AA	4169	DA	P-O3'-C3'	8.29	129.64	119.70
183	C6	38	DG	O4'-C4'-C3'	-8.28	101.03	106.00
173	Cw	17	DT	O4'-C4'-C3'	-8.28	101.03	106.00
1	AA	5896	DC	P-O3'-C3'	8.27	129.62	119.70
162	Cl	18	DA	P-O3'-C3'	8.26	129.62	119.70
110	Bv	24	DC	O4'-C1'-C2'	-8.26	99.29	105.90
14	AN	9	DA	P-O3'-C3'	8.26	129.61	119.70
151	Ca	31	DT	P-O3'-C3'	8.25	129.60	119.70
66	BD	1	DC	P-O3'-C3'	8.24	129.59	119.70
1	AA	1982	DC	P-O3'-C3'	8.24	129.59	119.70
1	AA	3035	DA	O4'-C4'-C3'	-8.23	101.06	106.00
138	CN	1	DA	O4'-C1'-C2'	-8.23	99.31	105.90
139	CO	29	DG	O4'-C1'-C2'	-8.23	99.31	105.90
157	Cg	44	DG	P-O3'-C3'	8.23	129.57	119.70
65	BC	22	DT	P-O3'-C3'	8.23	129.57	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
42	Ap	2	DT	O4'-C4'-C3'	-8.22	101.07	106.00
1	AA	1733	DG	O4'-C1'-C2'	-8.22	99.33	105.90
1	AA	6050	DT	O4'-C4'-C3'	-8.21	101.07	106.00
108	Bt	28	DG	P-O3'-C3'	8.19	129.53	119.70
1	AA	2833	DT	P-O3'-C3'	8.19	129.52	119.70
129	CE	29	DA	N1-C6-N6	-8.18	113.69	118.60
1	AA	2010	DG	O4'-C1'-C2'	-8.18	99.36	105.90
56	A3	23	DT	O4'-C4'-C3'	-8.17	101.10	106.00
65	BC	35	DC	P-O3'-C3'	8.17	129.50	119.70
174	Cx	1	DT	C1'-O4'-C4'	-8.17	101.93	110.10
1	AA	6673	DT	O4'-C1'-C2'	-8.16	99.37	105.90
78	BP	11	DG	O4'-C4'-C3'	-8.15	101.11	106.00
1	AA	512	DA	P-O3'-C3'	8.15	129.48	119.70
1	AA	7153	DT	O4'-C1'-C2'	-8.15	99.38	105.90
83	BU	20	DG	O4'-C4'-C3'	-8.15	101.11	106.00
1	AA	5658	DT	O4'-C1'-C2'	-8.14	99.38	105.90
1	AA	6822	DT	O4'-C1'-C2'	-8.14	99.39	105.90
19	AS	11	DA	P-O3'-C3'	8.13	129.46	119.70
107	Bs	2	DT	O4'-C4'-C3'	-8.13	101.12	106.00
160	Cj	2	DA	O4'-C4'-C3'	-8.13	101.12	106.00
1	AA	3397	DT	O4'-C4'-C3'	-8.13	101.12	106.00
1	AA	6290	DA	P-O3'-C3'	8.13	129.45	119.70
156	Cf	2	DG	O4'-C4'-C3'	-8.12	101.13	106.00
174	Cx	17	DT	O4'-C4'-C3'	-8.12	101.13	106.00
1	AA	421	DC	P-O3'-C3'	8.12	129.44	119.70
1	AA	3505	DG	O4'-C1'-C2'	-8.11	99.42	105.90
1	AA	1086	DG	O4'-C1'-C2'	-8.10	99.42	105.90
1	AA	3000	DG	O4'-C1'-C2'	-8.10	99.42	105.90
1	AA	2913	DC	P-O3'-C3'	8.10	129.41	119.70
106	Br	27	DG	O4'-C1'-C2'	-8.09	99.43	105.90
39	Am	18	DC	O4'-C4'-C3'	-8.07	101.16	106.00
173	Cw	1	DT	O4'-C1'-C2'	-8.07	99.44	105.90
52	Az	39	DG	P-O3'-C3'	8.06	129.38	119.70
177	C0	19	DT	P-O3'-C3'	8.06	129.38	119.70
1	AA	697	DT	O4'-C4'-C3'	-8.05	101.17	106.00
170	Ct	17	DA	O4'-C1'-N9	8.05	113.64	108.00
181	C4	17	DA	O4'-C1'-C2'	-8.05	99.46	105.90
1	AA	2685	DG	O4'-C1'-C2'	-8.04	99.47	105.90
34	Ah	1	DA	O4'-C1'-C2'	-8.04	99.47	105.90
180	C3	5	DT	O4'-C4'-C3'	-8.04	101.18	106.00
1	AA	3783	DG	O4'-C1'-C2'	-8.04	99.47	105.90
26	AZ	43	DG	O4'-C4'-C3'	-8.04	101.18	106.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	3352	DC	P-O3'-C3'	8.03	129.34	119.70
168	Cr	30	DG	P-O3'-C3'	8.03	129.34	119.70
1	AA	5952	DG	O4'-C1'-C2'	-8.03	99.48	105.90
1	AA	6937	DT	O4'-C4'-C3'	-8.02	101.19	106.00
74	BL	28	DA	P-O3'-C3'	8.02	129.32	119.70
89	Ba	3	DC	P-O3'-C3'	8.02	129.32	119.70
4	AD	9	DA	O4'-C4'-C3'	-8.02	101.19	106.00
37	Ak	6	DC	O4'-C1'-C2'	-8.01	99.49	105.90
105	Bq	40	DG	O4'-C1'-C2'	-8.01	99.49	105.90
133	CI	12	DG	O4'-C1'-C2'	-8.01	99.49	105.90
143	CS	2	DA	O4'-C4'-C3'	-8.01	101.20	106.00
1	AA	2911	DA	P-O3'-C3'	8.00	129.30	119.70
1	AA	6042	DT	O4'-C4'-C3'	-8.00	101.20	106.00
86	BX	26	DT	O4'-C4'-C3'	-8.00	101.20	106.00
176	Cz	15	DC	O4'-C4'-C3'	-8.00	101.20	106.00
1	AA	5081	DG	P-O3'-C3'	7.99	129.29	119.70
78	BP	11	DG	O4'-C1'-C2'	-7.99	99.51	105.90
98	Bj	21	DT	O4'-C1'-C2'	-7.99	99.50	105.90
38	Al	39	DT	O4'-C1'-C2'	-7.99	99.51	105.90
159	Ci	16	DA	O4'-C1'-C2'	-7.98	99.52	105.90
156	Cf	20	DC	O4'-C4'-C3'	-7.97	101.22	106.00
1	AA	5429	DC	O4'-C4'-C3'	-7.96	101.22	106.00
6	AF	3	DT	O4'-C4'-C3'	-7.96	101.22	106.00
71	BI	17	DG	O4'-C1'-C2'	-7.96	99.53	105.90
160	Cj	2	DA	O4'-C1'-C2'	-7.96	99.53	105.90
1	AA	6382	DG	P-O3'-C3'	7.96	129.25	119.70
95	Bg	13	DG	O4'-C1'-C2'	-7.96	99.54	105.90
7	AG	4	DC	O4'-C1'-C2'	-7.95	99.54	105.90
1	AA	6071	DC	O4'-C4'-C3'	-7.95	101.23	106.00
3	AC	27	DT	O4'-C4'-C3'	-7.94	101.23	106.00
53	A0	46	DA	C4'-C3'-C2'	-7.93	95.96	103.10
1	AA	3461	DG	P-O3'-C3'	7.93	129.22	119.70
1	AA	847	DT	O4'-C1'-C2'	-7.93	99.56	105.90
65	BC	2	DT	O4'-C1'-C2'	-7.93	99.56	105.90
106	Br	25	DG	O4'-C1'-C2'	-7.92	99.56	105.90
1	AA	1765	DT	O4'-C1'-C2'	-7.92	99.56	105.90
74	BL	27	DC	P-O3'-C3'	7.92	129.20	119.70
1	AA	439	DT	O4'-C1'-C2'	-7.90	99.58	105.90
1	AA	3406	DG	O4'-C1'-C2'	-7.90	99.58	105.90
1	AA	502	DA	O4'-C4'-C3'	-7.90	101.26	106.00
1	AA	4707	DA	P-O3'-C3'	7.90	129.18	119.70
93	Be	16	DA	O4'-C1'-C2'	-7.90	99.58	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
129	CE	26	DG	O4'-C1'-C2'	-7.90	99.58	105.90
167	Cq	33	DC	O4'-C1'-C2'	-7.90	99.58	105.90
1	AA	6687	DA	O4'-C1'-C2'	-7.89	99.59	105.90
73	BK	18	DA	O4'-C1'-C2'	-7.89	99.59	105.90
1	AA	1730	DT	O4'-C1'-C2'	-7.89	99.59	105.90
1	AA	1076	DG	P-O3'-C3'	7.89	129.16	119.70
110	Bv	11	DG	O4'-C1'-C2'	-7.89	99.59	105.90
139	CO	10	DG	P-O3'-C3'	7.89	129.16	119.70
9	AI	27	DT	O4'-C4'-C3'	-7.88	101.27	106.00
33	Ag	28	DA	O4'-C1'-C2'	-7.88	99.60	105.90
202	DP	17	DC	O4'-C4'-C3'	-7.87	101.28	106.00
1	AA	3782	DT	O4'-C1'-C2'	-7.87	99.61	105.90
1	AA	1371	DT	O4'-C4'-C3'	-7.86	101.28	106.00
92	Bd	1	DC	O4'-C4'-C3'	-7.86	101.28	106.00
1	AA	10	DA	O4'-C4'-C3'	-7.86	101.28	106.00
1	AA	5886	DT	O4'-C4'-C3'	-7.85	101.29	106.00
127	CC	11	DA	O4'-C4'-C3'	-7.85	101.29	106.00
1	AA	6418	DA	O4'-C4'-C3'	-7.85	101.29	106.00
5	AE	26	DC	O4'-C1'-C2'	-7.85	99.62	105.90
73	BK	5	DA	O4'-C4'-C3'	-7.85	101.29	106.00
112	Bx	25	DG	O4'-C4'-C3'	-7.85	101.29	106.00
1	AA	1657	DC	P-O3'-C3'	7.85	129.12	119.70
1	AA	4864	DT	O4'-C4'-C3'	-7.84	101.30	106.00
32	Af	34	DT	O4'-C4'-C3'	-7.84	101.30	106.00
1	AA	947	DG	O4'-C4'-C3'	-7.83	101.30	106.00
109	Bu	24	DA	O4'-C1'-C2'	-7.83	99.63	105.90
1	AA	1474	DA	O4'-C1'-C2'	-7.83	99.64	105.90
1	AA	5046	DT	O4'-C4'-C3'	-7.82	101.31	106.00
1	AA	6035	DT	O4'-C4'-C3'	-7.82	101.31	106.00
93	Be	16	DA	C1'-O4'-C4'	-7.82	102.28	110.10
1	AA	2947	DG	O4'-C1'-C2'	-7.82	99.64	105.90
1	AA	3965	DT	P-O3'-C3'	7.82	129.08	119.70
187	DA	1	DT	O4'-C4'-C3'	-7.81	101.31	106.00
1	AA	2422	DC	O4'-C4'-C3'	-7.81	101.31	106.00
92	Bd	37	DG	O4'-C4'-C3'	-7.81	101.31	106.00
1	AA	1726	DA	O4'-C4'-C3'	-7.81	101.31	106.00
1	AA	1855	DG	O4'-C1'-C2'	-7.81	99.65	105.90
1	AA	5979	DG	O4'-C1'-C2'	-7.80	99.66	105.90
1	AA	6473	DA	O4'-C1'-C2'	-7.80	99.66	105.90
1	AA	2871	DG	O4'-C1'-C2'	-7.80	99.66	105.90
1	AA	3001	DG	O4'-C4'-C3'	-7.79	101.33	106.00
1	AA	2334	DG	O4'-C1'-C2'	-7.79	99.67	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	5961	DG	O4'-C4'-C3'	-7.79	101.33	106.00
17	AQ	1	DC	O4'-C1'-C2'	-7.78	99.68	105.90
1	AA	5250	DG	O4'-C1'-C2'	-7.77	99.69	105.90
36	Aj	21	DG	O4'-C1'-C2'	-7.76	99.69	105.90
146	CV	24	DA	O4'-C1'-C2'	-7.76	99.69	105.90
1	AA	1902	DG	O4'-C1'-C2'	-7.76	99.69	105.90
166	Cp	19	DG	O4'-C1'-C2'	-7.75	99.70	105.90
1	AA	5589	DT	O4'-C1'-C2'	-7.75	99.70	105.90
31	Ae	37	DT	O4'-C1'-C2'	-7.75	99.70	105.90
1	AA	858	DA	O4'-C1'-C2'	-7.75	99.70	105.90
1	AA	1914	DA	N1-C6-N6	-7.75	113.95	118.60
1	AA	3088	DG	O4'-C1'-C2'	-7.75	99.70	105.90
1	AA	3033	DA	O4'-C4'-C3'	-7.74	101.36	106.00
1	AA	3386	DA	C1'-O4'-C4'	-7.74	102.36	110.10
24	AX	23	DG	O4'-C1'-C2'	-7.74	99.71	105.90
1	AA	4990	DG	O4'-C1'-C2'	-7.73	99.71	105.90
1	AA	5705	DG	O4'-C1'-C2'	-7.73	99.72	105.90
47	Au	10	DA	O4'-C1'-C2'	-7.73	99.72	105.90
1	AA	2758	DT	P-O3'-C3'	7.73	128.97	119.70
1	AA	6464	DG	P-O3'-C3'	7.72	128.97	119.70
90	Bb	2	DA	O4'-C1'-C2'	-7.72	99.72	105.90
115	B0	38	DA	O4'-C4'-C3'	-7.72	101.37	106.00
134	CJ	27	DA	O4'-C1'-C2'	-7.72	99.73	105.90
27	Aa	11	DA	C1'-O4'-C4'	-7.71	102.39	110.10
1	AA	502	DA	O4'-C1'-C2'	-7.71	99.73	105.90
110	Bv	26	DA	O4'-C1'-C2'	-7.71	99.73	105.90
1	AA	4715	DT	P-O3'-C3'	7.71	128.95	119.70
1	AA	1782	DA	O4'-C1'-C2'	-7.71	99.73	105.90
116	B1	18	DT	O4'-C4'-C3'	-7.71	101.38	106.00
187	DA	14	DG	P-O3'-C3'	7.70	128.94	119.70
159	Ci	16	DA	C1'-O4'-C4'	-7.70	102.40	110.10
1	AA	700	DG	O4'-C1'-C2'	-7.69	99.75	105.90
173	Cw	2	DT	O4'-C1'-C2'	-7.69	99.75	105.90
1	AA	6048	DA	O4'-C1'-C2'	-7.69	99.75	105.90
1	AA	2880	DT	O4'-C1'-C2'	-7.68	99.75	105.90
1	AA	3105	DG	O4'-C1'-C2'	-7.68	99.75	105.90
1	AA	4490	DT	O4'-C1'-C2'	-7.68	99.75	105.90
1	AA	5258	DC	O4'-C4'-C3'	-7.68	101.39	106.00
1	AA	2310	DG	O4'-C1'-C2'	-7.67	99.76	105.90
1	AA	1926	DG	P-O3'-C3'	7.67	128.90	119.70
33	Ag	1	DT	O4'-C1'-C2'	-7.67	99.77	105.90
1	AA	2936	DT	O4'-C1'-C2'	-7.67	99.77	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
131	CG	37	DG	P-O3'-C3'	7.66	128.90	119.70
1	AA	2464	DA	O4'-C4'-C3'	-7.66	101.40	106.00
1	AA	6614	DT	O4'-C1'-C2'	-7.66	99.77	105.90
1	AA	2041	DA	O4'-C4'-C3'	-7.65	101.41	106.00
92	Bd	24	DA	P-O3'-C3'	7.64	128.87	119.70
1	AA	2532	DG	O4'-C1'-C2'	-7.64	99.79	105.90
59	A6	25	DG	O4'-C1'-C2'	-7.64	99.79	105.90
158	Ch	39	DA	O4'-C4'-C3'	-7.64	101.42	106.00
1	AA	572	DC	P-O3'-C3'	7.63	128.86	119.70
99	Bk	2	DA	P-O3'-C3'	7.63	128.85	119.70
1	AA	1005	DC	P-O3'-C3'	7.62	128.85	119.70
154	Cd	9	DA	O4'-C4'-C3'	-7.62	101.42	106.00
1	AA	6962	DG	P-O3'-C3'	7.62	128.85	119.70
131	CG	25	DA	O4'-C1'-C2'	-7.61	99.81	105.90
144	CT	34	DT	P-O3'-C3'	7.61	128.83	119.70
194	DH	31	DC	O4'-C4'-C3'	-7.61	101.43	106.00
1	AA	3170	DT	O4'-C4'-C3'	-7.61	101.44	106.00
93	Be	19	DG	O4'-C1'-C2'	-7.60	99.82	105.90
159	Ci	44	DT	O4'-C4'-C3'	-7.58	101.45	106.00
1	AA	4677	DA	O4'-C1'-C2'	-7.58	99.84	105.90
143	CS	32	DT	O4'-C4'-C3'	-7.58	101.45	106.00
64	BB	18	DC	O4'-C1'-C2'	-7.58	99.84	105.90
195	DI	23	DC	P-O3'-C3'	7.57	128.79	119.70
136	CL	20	DT	P-O3'-C3'	7.57	128.78	119.70
1	AA	556	DA	O4'-C4'-C3'	-7.57	101.46	106.00
35	Ai	20	DA	O4'-C4'-C3'	-7.57	101.46	106.00
119	B4	33	DA	O4'-C1'-C2'	-7.57	99.84	105.90
1	AA	2077	DC	O4'-C4'-C3'	-7.56	101.46	106.00
57	A4	35	DG	O4'-C1'-C2'	-7.56	99.85	105.90
125	CA	1	DA	O4'-C1'-C2'	-7.56	99.85	105.90
1	AA	1403	DA	C4'-C3'-C2'	-7.56	96.30	103.10
147	CW	26	DT	O4'-C1'-C2'	-7.56	99.86	105.90
9	AI	3	DG	O4'-C1'-C2'	-7.55	99.86	105.90
99	Bk	2	DA	C1'-O4'-C4'	-7.55	102.55	110.10
155	Ce	9	DG	O4'-C1'-C2'	-7.55	99.86	105.90
34	Ah	37	DT	O4'-C4'-C3'	-7.54	101.47	106.00
154	Cd	25	DC	P-O3'-C3'	7.54	128.75	119.70
178	C1	34	DG	O4'-C4'-C3'	-7.54	101.47	106.00
110	Bv	9	DG	O4'-C1'-C2'	-7.54	99.87	105.90
1	AA	1863	DG	P-O3'-C3'	7.54	128.75	119.70
1	AA	3735	DT	O4'-C1'-C2'	-7.54	99.87	105.90
1	AA	5133	DA	O4'-C1'-C2'	-7.54	99.87	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	2819	DG	O4'-C4'-C3'	-7.54	101.48	106.00
37	Ak	4	DT	O4'-C4'-C3'	-7.54	101.48	106.00
1	AA	4936	DT	O4'-C4'-C3'	-7.53	101.48	106.00
160	Cj	17	DT	O4'-C1'-C2'	-7.53	99.88	105.90
68	BF	22	DG	O4'-C4'-C3'	-7.53	101.48	106.00
1	AA	944	DG	O4'-C1'-C2'	-7.52	99.88	105.90
1	AA	3461	DG	O4'-C1'-C2'	-7.52	99.88	105.90
1	AA	1565	DG	O4'-C4'-C3'	-7.52	101.49	106.00
1	AA	4680	DG	O4'-C1'-C2'	-7.52	99.89	105.90
1	AA	256	DT	O4'-C1'-C2'	-7.52	99.89	105.90
1	AA	957	DA	O4'-C4'-C3'	-7.52	101.49	106.00
43	Aq	24	DT	P-O3'-C3'	7.51	128.71	119.70
1	AA	2843	DG	O4'-C1'-C2'	-7.50	99.90	105.90
168	Cr	21	DA	P-O3'-C3'	7.50	128.70	119.70
1	AA	4378	DG	O4'-C4'-C3'	-7.50	101.50	104.50
1	AA	5139	DT	C1'-O4'-C4'	-7.49	102.61	110.10
165	Co	42	DG	O4'-C1'-C2'	-7.49	99.91	105.90
1	AA	5953	DG	O4'-C1'-C2'	-7.49	99.91	105.90
1	AA	6911	DG	O4'-C1'-C2'	-7.49	99.91	105.90
1	AA	5504	DG	O4'-C1'-C2'	-7.49	99.91	105.90
48	Av	10	DC	O4'-C1'-C2'	-7.48	99.91	105.90
116	B1	24	DC	O4'-C4'-C3'	-7.48	101.51	104.50
25	AY	1	DA	P-O3'-C3'	7.48	128.67	119.70
1	AA	4663	DG	O4'-C1'-C2'	-7.47	99.92	105.90
1	AA	7127	DT	C4'-C3'-C2'	-7.47	96.38	103.10
1	AA	6220	DC	O4'-C1'-C2'	-7.47	99.93	105.90
29	Ac	19	DG	O4'-C1'-C2'	-7.47	99.93	105.90
49	Aw	31	DT	O4'-C4'-C3'	-7.46	101.51	104.50
1	AA	5594	DT	C4'-C3'-C2'	-7.46	96.39	103.10
1	AA	1905	DT	C4'-C3'-C2'	-7.46	96.39	103.10
87	BY	28	DT	O4'-C1'-C2'	-7.46	99.94	105.90
1	AA	1194	DG	O4'-C1'-C2'	-7.45	99.94	105.90
1	AA	3864	DC	O4'-C4'-C3'	-7.45	101.52	104.50
1	AA	3472	DG	O4'-C1'-C2'	-7.45	99.94	105.90
119	B4	8	DC	O4'-C4'-C3'	-7.45	101.52	104.50
1	AA	6476	DG	O4'-C1'-C2'	-7.45	99.94	105.90
1	AA	7070	DG	O4'-C1'-C2'	-7.45	99.94	105.90
1	AA	2582	DT	O4'-C1'-C2'	-7.44	99.94	105.90
48	Av	8	DG	O4'-C1'-C2'	-7.44	99.94	105.90
1	AA	5650	DT	O4'-C4'-C3'	-7.43	101.53	104.50
1	AA	5708	DG	O4'-C1'-C2'	-7.43	99.95	105.90
1	AA	6310	DG	O4'-C1'-C2'	-7.43	99.95	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
196	DJ	42	DT	P-O3'-C3'	7.43	128.62	119.70
1	AA	3137	DA	P-O3'-C3'	7.43	128.62	119.70
1	AA	903	DG	O4'-C1'-C2'	-7.43	99.96	105.90
143	CS	2	DA	C4'-C3'-C2'	-7.42	96.42	103.10
1	AA	7176	DT	P-O3'-C3'	7.42	128.60	119.70
1	AA	927	DA	O4'-C1'-C2'	-7.42	99.97	105.90
80	BR	26	DA	P-O3'-C3'	7.42	128.60	119.70
1	AA	1648	DG	O4'-C1'-C2'	-7.42	99.97	105.90
1	AA	6649	DC	P-O3'-C3'	7.41	128.60	119.70
3	AC	31	DT	O4'-C1'-N1	7.41	113.19	108.00
144	CT	9	DT	C4'-C3'-C2'	-7.41	96.43	103.10
1	AA	1012	DG	O4'-C1'-C2'	-7.41	99.97	105.90
1	AA	5592	DC	O4'-C1'-C2'	-7.40	99.98	105.90
102	Bn	1	DC	O4'-C1'-C2'	-7.40	99.98	105.90
1	AA	2766	DG	P-O3'-C3'	7.40	128.58	119.70
1	AA	5954	DG	P-O3'-C3'	7.40	128.58	119.70
172	Cv	21	DG	O4'-C1'-C2'	-7.40	99.98	105.90
22	AV	27	DG	O4'-C4'-C3'	-7.39	101.54	104.50
157	Cg	11	DG	O4'-C1'-C2'	-7.39	99.98	105.90
1	AA	2837	DT	O4'-C4'-C3'	-7.39	101.54	104.50
115	B0	38	DA	O4'-C1'-C2'	-7.39	99.99	105.90
1	AA	2484	DA	O4'-C4'-C3'	-7.39	101.55	104.50
1	AA	3809	DT	P-O3'-C3'	7.38	128.56	119.70
46	At	32	DG	O4'-C1'-C2'	-7.38	99.99	105.90
115	B0	3	DC	O4'-C1'-C2'	-7.38	99.99	105.90
1	AA	6764	DA	O4'-C4'-C3'	-7.38	101.55	104.50
124	B9	4	DG	O4'-C1'-C2'	-7.38	100.00	105.90
131	CG	8	DT	O4'-C1'-C2'	-7.37	100.00	105.90
1	AA	6764	DA	O4'-C1'-C2'	-7.37	100.00	105.90
1	AA	5979	DG	C1'-O4'-C4'	-7.37	102.73	110.10
25	AY	1	DA	C1'-O4'-C4'	-7.37	102.73	110.10
1	AA	7	DA	O4'-C1'-C2'	-7.37	100.01	105.90
1	AA	4153	DA	O4'-C4'-C3'	-7.37	101.55	104.50
129	CE	26	DG	P-O3'-C3'	7.37	128.54	119.70
1	AA	295	DG	P-O3'-C3'	7.37	128.54	119.70
96	Bh	14	DA	N1-C6-N6	-7.37	114.18	118.60
1	AA	6112	DG	O4'-C1'-C2'	-7.36	100.01	105.90
1	AA	4626	DA	O4'-C1'-C2'	-7.36	100.01	105.90
1	AA	6037	DG	O4'-C4'-C3'	-7.36	101.56	104.50
1	AA	2077	DC	P-O3'-C3'	7.36	128.53	119.70
1	AA	2865	DT	O4'-C4'-C3'	-7.35	101.56	104.50
1	AA	5325	DA	C4'-C3'-C2'	-7.35	96.48	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1904	DG	O4'-C1'-C2'	-7.35	100.02	105.90
128	CD	10	DC	O4'-C4'-C3'	-7.34	101.56	104.50
1	AA	4503	DT	P-O3'-C3'	7.34	128.51	119.70
1	AA	1889	DT	O4'-C4'-C3'	-7.34	101.56	104.50
1	AA	1611	DG	O4'-C1'-C2'	-7.34	100.03	105.90
173	Cw	28	DC	O4'-C1'-C2'	-7.33	100.04	105.90
1	AA	1037	DT	P-O3'-C3'	7.32	128.48	119.70
1	AA	2947	DG	O4'-C4'-C3'	-7.32	101.57	104.50
1	AA	6418	DA	O4'-C1'-C2'	-7.32	100.05	105.90
1	AA	6513	DG	O4'-C1'-C2'	-7.31	100.06	105.90
41	Ao	12	DG	O4'-C1'-C2'	-7.31	100.06	105.90
84	BV	20	DG	O4'-C1'-C2'	-7.31	100.06	105.90
1	AA	128	DA	O4'-C4'-C3'	-7.30	101.58	104.50
83	BU	17	DG	P-O3'-C3'	7.30	128.46	119.70
202	DP	13	DA	P-O3'-C3'	7.30	128.46	119.70
1	AA	6588	DC	P-O3'-C3'	7.29	128.45	119.70
118	B3	15	DT	O4'-C4'-C3'	-7.29	101.58	104.50
1	AA	1813	DG	O4'-C1'-C2'	-7.29	100.07	105.90
1	AA	3170	DT	C4'-C3'-C2'	-7.29	96.54	103.10
1	AA	6315	DG	P-O3'-C3'	7.29	128.45	119.70
174	Cx	17	DT	C4'-C3'-C2'	-7.28	96.55	103.10
1	AA	1488	DG	O4'-C1'-C2'	-7.28	100.08	105.90
43	Aq	36	DG	O4'-C1'-C2'	-7.28	100.08	105.90
69	BG	34	DT	O4'-C4'-C3'	-7.28	101.59	104.50
1	AA	4543	DG	O4'-C1'-C2'	-7.27	100.08	105.90
1	AA	4706	DT	P-O3'-C3'	7.27	128.42	119.70
1	AA	5650	DT	C1'-O4'-C4'	-7.27	102.83	110.10
123	B8	34	DA	O4'-C1'-C2'	-7.27	100.08	105.90
1	AA	4543	DG	P-O3'-C3'	7.27	128.42	119.70
1	AA	6450	DT	C1'-O4'-C4'	-7.27	102.83	110.10
1	AA	5448	DG	O4'-C1'-C2'	-7.26	100.09	105.90
1	AA	4089	DA	O4'-C1'-C2'	-7.26	100.09	105.90
1	AA	3322	DT	O4'-C1'-C2'	-7.26	100.09	105.90
95	Bg	27	DA	O4'-C4'-C3'	-7.25	101.60	104.50
1	AA	4993	DC	C1'-O4'-C4'	-7.25	102.85	110.10
10	AJ	10	DA	P-O3'-C3'	7.25	128.40	119.70
1	AA	116	DC	P-O3'-C3'	7.25	128.40	119.70
1	AA	748	DG	O4'-C1'-C2'	-7.25	100.10	105.90
1	AA	4378	DG	O4'-C1'-C2'	-7.25	100.10	105.90
1	AA	2062	DG	O4'-C1'-C2'	-7.25	100.10	105.90
1	AA	6965	DA	O4'-C1'-C2'	-7.25	100.10	105.90
1	AA	1915	DC	P-O3'-C3'	7.24	128.39	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	2719	DA	P-O3'-C3'	7.24	128.39	119.70
33	Ag	28	DA	O4'-C4'-C3'	-7.24	101.61	104.50
1	AA	2097	DA	O4'-C1'-C2'	-7.23	100.11	105.90
1	AA	5015	DA	P-O3'-C3'	7.23	128.38	119.70
58	A5	10	DA	O4'-C1'-C2'	-7.23	100.12	105.90
71	BI	26	DA	P-O3'-C3'	7.23	128.38	119.70
1	AA	1391	DA	O4'-C1'-C2'	-7.23	100.12	105.90
124	B9	5	DG	O4'-C1'-C2'	-7.23	100.12	105.90
1	AA	6870	DG	O4'-C1'-C2'	-7.22	100.12	105.90
1	AA	5443	DA	C1'-O4'-C4'	-7.22	102.88	110.10
72	BJ	29	DT	C4'-C3'-C2'	-7.22	96.60	103.10
1	AA	2761	DT	O4'-C4'-C3'	-7.22	101.61	104.50
1	AA	145	DG	O4'-C4'-C3'	-7.22	101.61	104.50
1	AA	5745	DT	O4'-C1'-C2'	-7.22	100.13	105.90
1	AA	5214	DT	O4'-C4'-C3'	-7.21	101.62	104.50
55	A2	13	DG	O4'-C4'-C3'	-7.21	101.62	104.50
156	Cf	37	DA	N1-C6-N6	-7.21	114.28	118.60
1	AA	3738	DG	P-O3'-C3'	7.21	128.35	119.70
1	AA	4551	DG	O4'-C4'-C3'	-7.20	101.62	104.50
1	AA	5921	DT	O4'-C4'-C3'	-7.20	101.62	104.50
31	Ae	10	DG	O4'-C1'-C2'	-7.20	100.14	105.90
50	Ax	2	DA	O4'-C4'-C3'	-7.20	101.62	104.50
58	A5	13	DG	O4'-C1'-C2'	-7.20	100.14	105.90
1	AA	4602	DT	C1'-O4'-C4'	-7.20	102.90	110.10
120	B5	41	DC	P-O3'-C3'	7.20	128.34	119.70
25	AY	35	DA	O4'-C1'-C2'	-7.20	100.14	105.90
86	BX	9	DA	O4'-C1'-C2'	-7.20	100.14	105.90
139	CO	15	DT	O4'-C4'-C3'	-7.20	101.62	104.50
1	AA	3480	DA	O4'-C1'-C2'	-7.20	100.14	105.90
118	B3	1	DG	C1'-O4'-C4'	-7.20	102.91	110.10
43	Aq	27	DG	O4'-C1'-C2'	-7.19	100.14	105.90
1	AA	5456	DC	C1'-O4'-C4'	-7.19	102.91	110.10
109	Bu	24	DA	O4'-C4'-C3'	-7.19	101.62	104.50
178	C1	34	DG	O4'-C1'-C2'	-7.19	100.15	105.90
1	AA	6705	DG	C1'-O4'-C4'	-7.18	102.92	110.10
50	Ax	2	DA	O4'-C1'-C2'	-7.18	100.16	105.90
1	AA	2837	DT	C4'-C3'-C2'	-7.18	96.64	103.10
1	AA	3567	DG	P-O3'-C3'	7.18	128.31	119.70
154	Cd	21	DA	O4'-C1'-C2'	-7.18	100.16	105.90
1	AA	4864	DT	C4'-C3'-C2'	-7.17	96.64	103.10
1	AA	5850	DG	O4'-C1'-C2'	-7.17	100.16	105.90
102	Bn	36	DG	O4'-C1'-C2'	-7.17	100.16	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
176	Cz	15	DC	O4'-C1'-C2'	-7.17	100.16	105.90
176	Cz	8	DA	O4'-C1'-C2'	-7.17	100.16	105.90
189	DC	30	DT	P-O3'-C3'	7.17	128.30	119.70
1	AA	3017	DG	O4'-C1'-C2'	-7.16	100.17	105.90
1	AA	6189	DG	O4'-C1'-C2'	-7.16	100.17	105.90
181	C4	9	DC	P-O3'-C3'	7.16	128.29	119.70
44	Ar	4	DA	O4'-C4'-C3'	-7.16	101.64	104.50
1	AA	61	DA	O4'-C1'-C2'	-7.15	100.18	105.90
1	AA	4884	DG	O4'-C4'-C3'	-7.15	101.64	104.50
72	BJ	15	DT	P-O3'-C3'	7.15	128.28	119.70
1	AA	4582	DG	O4'-C1'-C2'	-7.15	100.18	105.90
1	AA	6661	DA	P-O3'-C3'	7.14	128.27	119.70
44	Ar	26	DG	O4'-C1'-C2'	-7.14	100.18	105.90
127	CC	11	DA	C4'-C3'-C2'	-7.14	96.67	103.10
1	AA	4436	DT	O4'-C4'-C3'	-7.14	101.64	104.50
22	AV	1	DT	O4'-C1'-C2'	-7.14	100.19	105.90
1	AA	5307	DG	C1'-O4'-C4'	-7.14	102.96	110.10
1	AA	5081	DG	O4'-C1'-C2'	-7.13	100.19	105.90
1	AA	5197	DG	P-O3'-C3'	7.13	128.26	119.70
163	Cm	35	DT	C4'-C3'-C2'	-7.13	96.68	103.10
1	AA	2313	DG	C1'-O4'-C4'	-7.13	102.97	110.10
159	Ci	16	DA	C4-N9-C1'	7.13	139.13	126.30
1	AA	3846	DG	O4'-C1'-C2'	-7.12	100.20	105.90
51	Ay	36	DA	O4'-C4'-C3'	-7.12	101.65	104.50
138	CN	17	DT	O4'-C4'-C3'	-7.12	101.65	104.50
128	CD	16	DC	P-O3'-C3'	7.12	128.24	119.70
94	Bf	16	DG	O4'-C1'-C2'	-7.12	100.21	105.90
98	Bj	45	DT	O4'-C4'-C3'	-7.12	101.65	104.50
128	CD	25	DA	C1'-O4'-C4'	-7.12	102.98	110.10
1	AA	1833	DG	O4'-C1'-C2'	-7.11	100.21	105.90
1	AA	7033	DC	P-O3'-C3'	7.11	128.24	119.70
1	AA	1565	DG	O4'-C1'-C2'	-7.11	100.21	105.90
1	AA	5913	DG	O4'-C1'-C2'	-7.11	100.21	105.90
1	AA	1260	DG	O4'-C1'-C2'	-7.11	100.21	105.90
1	AA	2412	DG	O4'-C1'-C2'	-7.11	100.21	105.90
1	AA	2789	DT	O4'-C1'-C2'	-7.11	100.21	105.90
1	AA	4490	DT	O4'-C4'-C3'	-7.11	101.66	104.50
106	Br	7	DA	N1-C6-N6	-7.11	114.34	118.60
183	C6	18	DT	C1'-O4'-C4'	-7.10	103.00	110.10
1	AA	1474	DA	N1-C6-N6	-7.10	114.34	118.60
1	AA	3387	DT	C2-N1-C1'	7.10	129.56	118.20
60	A7	28	DC	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	6214	DC	O4'-C1'-C2'	-7.10	100.22	105.90
81	BS	10	DT	O4'-C4'-C3'	-7.10	101.66	104.50
1	AA	145	DG	O4'-C1'-C2'	-7.10	100.22	105.90
11	AK	14	DA	P-O3'-C3'	7.09	128.21	119.70
82	BT	21	DG	O4'-C1'-C2'	-7.09	100.23	105.90
115	B0	1	DC	O4'-C1'-C2'	-7.09	100.23	105.90
77	BO	35	DA	O4'-C1'-C2'	-7.09	100.23	105.90
10	AJ	32	DG	O4'-C1'-C2'	-7.09	100.23	105.90
18	AR	6	DG	O4'-C1'-C2'	-7.09	100.23	105.90
1	AA	5548	DT	C4'-C3'-C2'	-7.08	96.72	103.10
1	AA	4936	DT	C4'-C3'-C2'	-7.08	96.73	103.10
1	AA	1776	DG	O4'-C1'-C2'	-7.08	100.24	105.90
1	AA	4973	DA	O4'-C4'-C3'	-7.08	101.67	104.50
41	Ao	8	DG	P-O3'-C3'	7.07	128.19	119.70
127	CC	17	DG	C4'-C3'-C2'	-7.07	96.73	103.10
1	AA	5402	DT	P-O3'-C3'	7.07	128.19	119.70
1	AA	5947	DG	P-O3'-C3'	7.07	128.18	119.70
72	BJ	17	DG	O4'-C1'-C2'	-7.07	100.24	105.90
1	AA	6515	DC	C1'-O4'-C4'	-7.07	103.03	110.10
5	AE	47	DA	P-O3'-C3'	7.07	128.18	119.70
159	Ci	16	DA	C8-N9-C1'	-7.07	114.98	127.70
75	BM	2	DC	O4'-C4'-C3'	-7.06	101.67	104.50
1	AA	5281	DA	O4'-C4'-C3'	-7.06	101.67	104.50
142	CR	11	DA	O4'-C4'-C3'	-7.06	101.67	104.50
1	AA	5832	DA	O4'-C1'-C2'	-7.06	100.25	105.90
1	AA	144	DT	O4'-C1'-C2'	-7.05	100.26	105.90
1	AA	4846	DG	O4'-C1'-C2'	-7.05	100.26	105.90
1	AA	5202	DG	O4'-C1'-C2'	-7.05	100.26	105.90
1	AA	6903	DG	O4'-C1'-C2'	-7.05	100.26	105.90
90	Bb	26	DC	P-O3'-C3'	7.05	128.16	119.70
25	AY	2	DT	C1'-O4'-C4'	-7.04	103.06	110.10
15	AO	25	DA	C4'-C3'-C2'	-7.04	96.76	103.10
1	AA	974	DG	O4'-C1'-C2'	-7.04	100.27	105.90
1	AA	3040	DC	O4'-C1'-C2'	-7.04	100.27	105.90
76	BN	27	DG	O4'-C1'-C2'	-7.04	100.27	105.90
108	Bt	28	DG	O4'-C1'-C2'	-7.04	100.27	105.90
124	B9	18	DT	O4'-C1'-C2'	-7.04	100.27	105.90
1	AA	63	DA	O4'-C1'-C2'	-7.04	100.27	105.90
1	AA	5764	DG	O4'-C1'-C2'	-7.04	100.27	105.90
1	AA	6494	DG	O4'-C1'-C2'	-7.04	100.27	105.90
54	A1	30	DT	O4'-C1'-C2'	-7.04	100.27	105.90
1	AA	5853	DT	O4'-C1'-C2'	-7.03	100.27	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
84	BV	20	DG	O4'-C4'-C3'	-7.03	101.69	104.50
150	CZ	22	DG	O4'-C1'-C2'	-7.03	100.27	105.90
145	CU	19	DT	O4'-C4'-C3'	-7.03	101.69	104.50
1	AA	4257	DG	O4'-C1'-C2'	-7.03	100.28	105.90
43	Aq	27	DG	O4'-C4'-C3'	-7.03	101.69	104.50
199	DM	20	DT	O4'-C4'-C3'	-7.03	101.69	104.50
1	AA	627	DG	O4'-C4'-C3'	-7.03	101.69	104.50
131	CG	30	DA	O4'-C1'-C2'	-7.02	100.28	105.90
37	Ak	26	DG	C1'-O4'-C4'	-7.02	103.08	110.10
67	BE	34	DG	P-O3'-C3'	7.02	128.12	119.70
139	CO	36	DA	N1-C6-N6	-7.02	114.39	118.60
1	AA	6054	DG	O4'-C4'-C3'	-7.01	101.69	104.50
1	AA	5218	DG	C1'-O4'-C4'	-7.01	103.09	110.10
1	AA	2759	DA	O4'-C1'-C2'	-7.01	100.30	105.90
1	AA	2274	DG	O4'-C1'-C2'	-7.00	100.30	105.90
1	AA	3032	DG	O4'-C1'-C2'	-7.00	100.30	105.90
183	C6	12	DA	O4'-C1'-C2'	-7.00	100.30	105.90
138	CN	12	DT	O4'-C1'-C2'	-7.00	100.30	105.90
1	AA	131	DA	P-O3'-C3'	7.00	128.10	119.70
1	AA	1926	DG	O4'-C1'-C2'	-7.00	100.30	105.90
1	AA	5038	DC	C1'-O4'-C4'	-7.00	103.10	110.10
30	Ad	2	DA	O4'-C1'-C2'	-7.00	100.30	105.90
1	AA	5066	DG	O4'-C4'-C3'	-7.00	101.70	104.50
76	BN	4	DG	O4'-C1'-C2'	-7.00	100.30	105.90
1	AA	3754	DG	O4'-C1'-C2'	-6.99	100.31	105.90
1	AA	7089	DG	O4'-C1'-C2'	-6.99	100.31	105.90
58	A5	33	DA	P-O3'-C3'	6.99	128.09	119.70
180	C3	16	DT	O4'-C4'-C3'	-6.99	101.70	104.50
1	AA	1402	DA	O4'-C1'-C2'	-6.99	100.31	105.90
1	AA	1078	DC	O4'-C1'-C2'	-6.99	100.31	105.90
156	Cf	2	DG	O4'-C1'-C2'	-6.99	100.31	105.90
1	AA	1932	DA	O4'-C4'-C3'	-6.98	101.71	104.50
4	AD	3	DA	O4'-C4'-C3'	-6.98	101.71	104.50
91	Bc	4	DG	P-O3'-C3'	6.98	128.08	119.70
1	AA	6937	DT	C4'-C3'-C2'	-6.98	96.82	103.10
134	CJ	34	DT	O4'-C1'-C2'	-6.98	100.32	105.90
1	AA	5807	DA	N1-C6-N6	-6.98	114.41	118.60
71	BI	12	DG	O4'-C1'-C2'	-6.98	100.32	105.90
1	AA	398	DG	O4'-C1'-C2'	-6.98	100.32	105.90
133	CI	1	DG	O4'-C4'-C3'	-6.98	101.71	104.50
89	Ba	19	DA	N1-C6-N6	-6.97	114.42	118.60
1	AA	2178	DG	O4'-C4'-C3'	-6.97	101.71	104.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	6212	DA	O4'-C1'-C2'	-6.97	100.33	105.90
68	BF	22	DG	O4'-C1'-C2'	-6.97	100.33	105.90
150	CZ	23	DC	O4'-C1'-C2'	-6.97	100.33	105.90
1	AA	608	DA	O4'-C1'-C2'	-6.96	100.33	105.90
1	AA	5794	DG	C1'-O4'-C4'	-6.96	103.14	110.10
1	AA	4551	DG	O4'-C1'-C2'	-6.96	100.33	105.90
181	C4	17	DA	O4'-C4'-C3'	-6.96	101.72	104.50
1	AA	1021	DG	O4'-C1'-C2'	-6.96	100.33	105.90
112	Bx	1	DA	O4'-C1'-C2'	-6.96	100.33	105.90
1	AA	7189	DT	O4'-C1'-C2'	-6.95	100.34	105.90
122	B7	23	DG	O4'-C4'-C3'	-6.95	101.72	104.50
1	AA	1248	DG	O4'-C1'-C2'	-6.95	100.34	105.90
1	AA	2995	DT	O4'-C4'-C3'	-6.95	101.72	104.50
1	AA	3178	DG	O4'-C1'-C2'	-6.95	100.34	105.90
1	AA	3236	DG	O4'-C1'-C2'	-6.95	100.34	105.90
117	B2	27	DT	P-O3'-C3'	6.95	128.04	119.70
1	AA	1663	DC	P-O3'-C3'	6.95	128.04	119.70
129	CE	11	DT	O4'-C1'-C2'	-6.95	100.34	105.90
1	AA	2622	DG	P-O3'-C3'	6.95	128.04	119.70
156	Cf	2	DG	C1'-O4'-C4'	-6.95	103.15	110.10
56	A3	1	DA	N1-C6-N6	-6.95	114.43	118.60
109	Bu	5	DA	O4'-C1'-C2'	-6.95	100.34	105.90
1	AA	925	DG	O4'-C4'-C3'	-6.94	101.72	104.50
1	AA	2467	DC	C1'-O4'-C4'	-6.94	103.16	110.10
62	A9	7	DT	O4'-C4'-C3'	-6.94	101.72	104.50
139	CO	35	DC	O4'-C1'-C2'	-6.94	100.35	105.90
103	Bo	9	DG	O4'-C1'-C2'	-6.94	100.35	105.90
56	A3	23	DT	O4'-C1'-C2'	-6.94	100.35	105.90
112	Bx	36	DG	O4'-C1'-C2'	-6.94	100.35	105.90
27	Aa	9	DA	O4'-C4'-C3'	-6.93	101.73	104.50
114	Bz	7	DG	O4'-C1'-C2'	-6.93	100.35	105.90
1	AA	741	DT	O4'-C4'-C3'	-6.93	101.73	104.50
1	AA	1308	DG	O4'-C1'-C2'	-6.93	100.36	105.90
1	AA	2737	DT	C4'-C3'-C2'	-6.93	96.86	103.10
1	AA	3337	DG	C1'-O4'-C4'	-6.93	103.17	110.10
1	AA	5921	DT	C4'-C3'-C2'	-6.93	96.86	103.10
42	Ap	16	DG	O4'-C1'-C2'	-6.93	100.36	105.90
1	AA	51	DA	O4'-C1'-C2'	-6.93	100.36	105.90
35	Ai	17	DG	O4'-C1'-C2'	-6.92	100.36	105.90
90	Bb	2	DA	O4'-C4'-C3'	-6.92	101.73	104.50
37	Ak	4	DT	C1'-O4'-C4'	-6.92	103.18	110.10
76	BN	27	DG	C1'-O4'-C4'	-6.92	103.18	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	4975	DG	O4'-C1'-C2'	-6.92	100.36	105.90
1	AA	5488	DC	O4'-C1'-C2'	-6.92	100.36	105.90
1	AA	454	DT	O4'-C4'-C3'	-6.92	101.73	104.50
1	AA	3279	DG	O4'-C1'-C2'	-6.92	100.36	105.90
1	AA	5453	DG	O4'-C1'-C2'	-6.92	100.36	105.90
73	BK	5	DA	O4'-C1'-C2'	-6.92	100.37	105.90
93	Be	5	DG	O4'-C1'-C2'	-6.92	100.37	105.90
1	AA	5148	DG	P-O3'-C3'	6.91	127.99	119.70
1	AA	4143	DG	O4'-C1'-C2'	-6.91	100.37	105.90
124	B9	31	DG	O4'-C1'-C2'	-6.91	100.37	105.90
1	AA	2655	DC	O4'-C4'-C3'	-6.91	101.74	104.50
107	Bs	18	DA	O4'-C1'-C2'	-6.90	100.38	105.90
1	AA	1854	DG	O4'-C1'-C2'	-6.90	100.38	105.90
163	Cm	35	DT	O4'-C4'-C3'	-6.90	101.74	104.50
142	CR	34	DT	O4'-C4'-C3'	-6.90	101.74	104.50
114	Bz	12	DC	O4'-C4'-C3'	-6.90	101.74	104.50
1	AA	207	DA	P-O3'-C3'	6.90	127.97	119.70
1	AA	810	DG	O4'-C1'-C2'	-6.89	100.38	105.90
1	AA	1404	DC	O4'-C1'-C2'	-6.89	100.39	105.90
1	AA	1609	DT	O4'-C1'-C2'	-6.89	100.39	105.90
55	A2	13	DG	C4'-C3'-C2'	-6.89	96.90	103.10
88	BZ	12	DG	P-O3'-C3'	6.89	127.97	119.70
1	AA	4436	DT	C4'-C3'-C2'	-6.89	96.90	103.10
1	AA	3035	DA	C4'-C3'-C2'	-6.89	96.90	103.10
1	AA	5742	DC	O4'-C4'-C3'	-6.89	101.75	104.50
1	AA	6629	DG	O4'-C1'-C2'	-6.89	100.39	105.90
198	DL	17	DA	P-O3'-C3'	6.89	127.96	119.70
156	Cf	13	DG	O4'-C1'-C2'	-6.88	100.39	105.90
58	A5	33	DA	O4'-C1'-N9	6.88	112.82	108.00
1	AA	3113	DG	O4'-C1'-C2'	-6.88	100.39	105.90
78	BP	23	DT	C4'-C3'-C2'	-6.88	96.91	103.10
1	AA	1391	DA	O4'-C4'-C3'	-6.88	101.75	104.50
1	AA	4107	DG	P-O3'-C3'	6.88	127.96	119.70
16	AP	18	DA	O4'-C4'-C3'	-6.88	101.75	104.50
1	AA	1363	DT	O4'-C4'-C3'	-6.87	101.75	104.50
179	C2	33	DA	C4'-C3'-C2'	-6.87	96.92	103.10
1	AA	324	DT	C4'-C3'-C2'	-6.87	96.92	103.10
1	AA	2344	DG	O4'-C1'-C2'	-6.87	100.40	105.90
185	C8	43	DA	N1-C6-N6	-6.87	114.48	118.60
1	AA	6053	DA	O4'-C1'-C2'	-6.87	100.41	105.90
131	CG	28	DG	O4'-C1'-C2'	-6.87	100.41	105.90
1	AA	5092	DC	P-O3'-C3'	6.86	127.94	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
72	BJ	33	DA	O4'-C4'-C3'	-6.86	101.76	104.50
1	AA	5078	DT	O4'-C1'-C2'	-6.86	100.41	105.90
1	AA	6476	DG	P-O3'-C3'	6.86	127.93	119.70
1	AA	637	DA	O4'-C1'-C2'	-6.86	100.41	105.90
142	CR	1	DG	C1'-O4'-C4'	-6.86	103.24	110.10
174	Cx	34	DG	C5-C6-O6	-6.86	124.49	128.60
40	An	34	DC	O4'-C1'-C2'	-6.85	100.42	105.90
141	CQ	18	DC	O4'-C1'-C2'	-6.85	100.42	105.90
1	AA	1145	DG	O4'-C1'-C2'	-6.84	100.42	105.90
1	AA	409	DG	P-O3'-C3'	6.84	127.91	119.70
1	AA	2651	DT	O4'-C1'-C2'	-6.84	100.43	105.90
31	Ae	33	DT	C4'-C3'-C2'	-6.84	96.94	103.10
156	Cf	30	DA	O4'-C1'-C2'	-6.84	100.43	105.90
1	AA	6268	DC	O4'-C1'-C2'	-6.84	100.43	105.90
1	AA	2199	DT	O4'-C4'-C3'	-6.83	101.77	104.50
1	AA	665	DC	O4'-C4'-C3'	-6.83	101.77	104.50
1	AA	695	DA	O4'-C1'-C2'	-6.83	100.43	105.90
1	AA	3728	DT	O4'-C1'-C2'	-6.83	100.43	105.90
1	AA	6048	DA	P-O3'-C3'	6.83	127.90	119.70
49	Aw	40	DA	N1-C6-N6	-6.83	114.50	118.60
63	BA	10	DT	C1'-O4'-C4'	-6.83	103.27	110.10
1	AA	4707	DA	O4'-C4'-C3'	-6.83	101.77	104.50
1	AA	5227	DA	N1-C6-N6	-6.83	114.50	118.60
1	AA	3028	DC	P-O3'-C3'	6.83	127.89	119.70
1	AA	3128	DA	O4'-C1'-C2'	-6.82	100.44	105.90
180	C3	5	DT	C4'-C3'-C2'	-6.82	96.96	103.10
1	AA	3414	DA	O4'-C1'-C2'	-6.82	100.45	105.90
26	AZ	20	DG	O4'-C4'-C3'	-6.82	101.77	104.50
1	AA	6251	DG	O4'-C1'-C2'	-6.81	100.45	105.90
17	AQ	25	DG	O4'-C1'-N9	6.81	112.77	108.00
1	AA	907	DG	O4'-C1'-C2'	-6.81	100.45	105.90
27	Aa	11	DA	O4'-C1'-C2'	-6.81	100.45	105.90
159	Ci	19	DA	P-O3'-C3'	6.81	127.87	119.70
9	AI	18	DT	O4'-C4'-C3'	-6.81	101.78	104.50
131	CG	13	DT	O4'-C4'-C3'	-6.81	101.78	104.50
143	CS	12	DC	P-O3'-C3'	6.81	127.87	119.70
1	AA	4981	DG	O4'-C1'-C2'	-6.80	100.46	105.90
149	CY	27	DG	O4'-C1'-C2'	-6.80	100.46	105.90
1	AA	3024	DA	O4'-C1'-C2'	-6.80	100.46	105.90
1	AA	3406	DG	C1'-O4'-C4'	-6.80	103.30	110.10
1	AA	4188	DT	C1'-O4'-C4'	-6.80	103.30	110.10
72	BJ	31	DC	P-O3'-C3'	6.80	127.86	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	5844	DT	C4'-C3'-C2'	-6.80	96.98	103.10
1	AA	3538	DG	P-O3'-C3'	6.80	127.86	119.70
50	Ax	12	DT	P-O3'-C3'	6.80	127.86	119.70
1	AA	3019	DG	O4'-C1'-C2'	-6.79	100.46	105.90
1	AA	5098	DA	C4'-C3'-C2'	-6.79	96.98	103.10
1	AA	5860	DG	O4'-C4'-C3'	-6.79	101.78	104.50
1	AA	661	DA	O4'-C1'-C2'	-6.79	100.47	105.90
1	AA	4786	DA	O4'-C4'-C3'	-6.79	101.78	104.50
187	DA	4	DG	O4'-C1'-C2'	-6.79	100.47	105.90
86	BX	9	DA	P-O3'-C3'	6.79	127.85	119.70
139	CO	35	DC	P-O3'-C3'	6.79	127.85	119.70
128	CD	25	DA	O4'-C1'-C2'	-6.79	100.47	105.90
1	AA	1458	DT	O4'-C1'-C2'	-6.79	100.47	105.90
65	BC	33	DG	O4'-C1'-C2'	-6.79	100.47	105.90
29	Ac	44	DG	O4'-C1'-C2'	-6.79	100.47	105.90
193	DG	37	DG	P-O3'-C3'	6.79	127.84	119.70
1	AA	5594	DT	O4'-C4'-C3'	-6.79	101.79	104.50
167	Cq	13	DT	C4'-C3'-C2'	-6.79	96.99	103.10
168	Cr	43	DA	C1'-O4'-C4'	-6.79	103.31	110.10
186	C9	34	DG	O4'-C1'-C2'	-6.79	100.47	105.90
1	AA	1776	DG	O4'-C4'-C3'	-6.78	101.79	104.50
1	AA	4671	DG	C1'-O4'-C4'	-6.78	103.32	110.10
1	AA	6172	DG	O4'-C1'-C2'	-6.78	100.47	105.90
1	AA	618	DG	P-O3'-C3'	6.78	127.84	119.70
1	AA	5142	DA	O4'-C1'-C2'	-6.78	100.48	105.90
68	BF	27	DG	O4'-C1'-C2'	-6.78	100.47	105.90
58	A5	25	DG	O4'-C1'-C2'	-6.78	100.48	105.90
108	Bt	17	DG	P-O3'-C3'	6.78	127.83	119.70
140	CP	26	DA	N1-C6-N6	-6.78	114.53	118.60
1	AA	4281	DT	O4'-C4'-C3'	-6.77	101.79	104.50
69	BG	23	DT	O4'-C1'-C2'	-6.77	100.48	105.90
128	CD	34	DG	O4'-C1'-C2'	-6.77	100.48	105.90
1	AA	163	DT	C4'-C3'-C2'	-6.77	97.01	103.10
1	AA	1550	DG	O4'-C1'-C2'	-6.77	100.48	105.90
1	AA	1733	DG	P-O3'-C3'	6.77	127.82	119.70
1	AA	2969	DG	O4'-C4'-C3'	-6.77	101.79	104.50
1	AA	4762	DG	O4'-C1'-C2'	-6.77	100.49	105.90
1	AA	5511	DG	O4'-C1'-C2'	-6.77	100.48	105.90
91	Bc	18	DA	O4'-C4'-C3'	-6.77	101.79	104.50
106	Br	23	DC	P-O3'-C3'	6.77	127.82	119.70
185	C8	1	DA	C1'-O4'-C4'	-6.77	103.33	110.10
33	Ag	17	DA	O4'-C1'-C2'	-6.77	100.49	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
92	Bd	37	DG	C4'-C3'-C2'	-6.76	97.01	103.10
1	AA	3275	DA	O4'-C1'-C2'	-6.76	100.49	105.90
1	AA	3333	DG	O4'-C1'-C2'	-6.76	100.49	105.90
1	AA	4827	DG	P-O3'-C3'	6.76	127.81	119.70
1	AA	913	DG	O4'-C1'-C2'	-6.76	100.49	105.90
1	AA	5214	DT	C4'-C3'-C2'	-6.76	97.02	103.10
188	DB	26	DA	P-O3'-C3'	6.76	127.81	119.70
124	B9	3	DG	P-O3'-C3'	6.76	127.81	119.70
176	Cz	13	DG	O4'-C1'-C2'	-6.76	100.50	105.90
1	AA	2344	DG	O4'-C1'-N9	6.75	112.73	108.00
1	AA	2721	DC	O4'-C4'-C3'	-6.75	101.80	104.50
18	AR	6	DG	P-O3'-C3'	6.75	127.81	119.70
1	AA	4107	DG	O4'-C1'-C2'	-6.75	100.50	105.90
1	AA	5936	DA	C1'-O4'-C4'	-6.75	103.35	110.10
1	AA	187	DT	O4'-C1'-C2'	-6.75	100.50	105.90
1	AA	6631	DC	O4'-C1'-C2'	-6.75	100.50	105.90
1	AA	531	DT	P-O3'-C3'	6.75	127.80	119.70
1	AA	3387	DT	C6-N1-C1'	-6.75	110.28	120.40
1	AA	6071	DC	C4'-C3'-C2'	-6.75	97.03	103.10
55	A2	10	DA	O4'-C4'-C3'	-6.75	101.80	104.50
1	AA	402	DT	O4'-C1'-C2'	-6.74	100.50	105.90
66	BD	25	DC	P-O3'-C3'	6.74	127.79	119.70
97	Bi	3	DG	O4'-C4'-C3'	-6.74	101.81	104.50
133	CI	21	DG	O4'-C1'-C2'	-6.74	100.51	105.90
115	B0	1	DC	C2-N1-C1'	6.74	126.21	118.80
1	AA	4803	DT	O4'-C4'-C3'	-6.74	101.81	104.50
1	AA	3670	DC	C1'-O4'-C4'	-6.73	103.37	110.10
74	BL	26	DG	O4'-C1'-C2'	-6.73	100.52	105.90
53	A0	2	DC	P-O3'-C3'	6.73	127.77	119.70
1	AA	4165	DA	O4'-C1'-C2'	-6.72	100.52	105.90
123	B8	16	DG	O4'-C4'-C3'	-6.72	101.81	104.50
1	AA	5301	DT	O4'-C1'-C2'	-6.72	100.52	105.90
1	AA	6442	DA	P-O3'-C3'	6.72	127.76	119.70
1	AA	2297	DT	O4'-C1'-C2'	-6.72	100.53	105.90
93	Be	14	DA	O4'-C1'-C2'	-6.72	100.53	105.90
1	AA	471	DG	C4'-C3'-C2'	-6.71	97.06	103.10
1	AA	3311	DG	O4'-C4'-C3'	-6.71	101.81	104.50
1	AA	3357	DG	O4'-C1'-C2'	-6.71	100.53	105.90
1	AA	3135	DC	P-O3'-C3'	6.71	127.75	119.70
1	AA	3576	DT	O4'-C4'-C3'	-6.71	101.82	104.50
93	Be	16	DA	C8-N9-C1'	-6.71	115.62	127.70
1	AA	65	DC	P-O3'-C3'	6.71	127.75	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	2666	DA	P-O3'-C3'	6.71	127.75	119.70
159	Ci	16	DA	O4'-C4'-C3'	-6.70	101.82	104.50
164	Cn	18	DC	C4'-C3'-C2'	-6.70	97.07	103.10
1	AA	2391	DG	O4'-C1'-C2'	-6.70	100.54	105.90
1	AA	2841	DA	O4'-C1'-C2'	-6.70	100.54	105.90
1	AA	7125	DC	O4'-C1'-C2'	-6.70	100.54	105.90
1	AA	1584	DA	O4'-C1'-C2'	-6.70	100.54	105.90
114	Bz	19	DT	O4'-C1'-C2'	-6.70	100.54	105.90
1	AA	5976	DG	O4'-C1'-C2'	-6.70	100.54	105.90
1	AA	1889	DT	O4'-C1'-C2'	-6.70	100.54	105.90
1	AA	5015	DA	C4'-C3'-C2'	-6.69	97.08	103.10
1	AA	6965	DA	O4'-C4'-C3'	-6.69	101.82	104.50
11	AK	22	DT	O4'-C1'-C2'	-6.69	100.55	105.90
1	AA	4955	DT	C4'-C3'-C2'	-6.69	97.08	103.10
1	AA	15	DT	C1'-O4'-C4'	-6.69	103.41	110.10
1	AA	3582	DA	O4'-C1'-C2'	-6.69	100.55	105.90
1	AA	5640	DG	O4'-C1'-C2'	-6.69	100.55	105.90
1	AA	6083	DG	P-O3'-C3'	6.69	127.73	119.70
1	AA	1758	DG	O4'-C1'-C2'	-6.69	100.55	105.90
124	B9	17	DG	O4'-C1'-C2'	-6.68	100.55	105.90
1	AA	3481	DC	O4'-C4'-C3'	-6.68	101.83	104.50
67	BE	8	DA	O4'-C1'-C2'	-6.68	100.55	105.90
1	AA	2075	DA	P-O3'-C3'	6.68	127.72	119.70
1	AA	947	DG	C4'-C3'-C2'	-6.68	97.09	103.10
19	AS	12	DT	C4'-C3'-C2'	-6.68	97.09	103.10
166	Cp	9	DG	O4'-C1'-C2'	-6.68	100.56	105.90
1	AA	1142	DG	C4'-C3'-C2'	-6.67	97.09	103.10
1	AA	3255	DA	O4'-C1'-C2'	-6.67	100.56	105.90
1	AA	5479	DA	O4'-C4'-C3'	-6.67	101.83	104.50
1	AA	6769	DA	O4'-C1'-C2'	-6.67	100.56	105.90
159	Ci	24	DC	C2-N1-C1'	6.67	126.14	118.80
1	AA	245	DC	P-O3'-C3'	6.67	127.70	119.70
1	AA	1381	DG	O4'-C1'-C2'	-6.67	100.57	105.90
1	AA	4582	DG	O4'-C4'-C3'	-6.67	101.83	104.50
1	AA	5440	DT	C4'-C3'-C2'	-6.67	97.10	103.10
152	Cb	10	DG	O4'-C1'-C2'	-6.67	100.57	105.90
171	Cu	31	DG	C4'-C3'-C2'	-6.67	97.10	103.10
185	C8	2	DT	C1'-O4'-C4'	-6.67	103.44	110.10
1	AA	5943	DG	O4'-C1'-C2'	-6.66	100.57	105.90
111	Bw	31	DA	O4'-C1'-C2'	-6.66	100.57	105.90
154	Cd	22	DG	O4'-C1'-C2'	-6.66	100.57	105.90
1	AA	3009	DC	O4'-C4'-C3'	-6.66	101.83	104.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
133	CI	3	DA	O4'-C4'-C3'	-6.66	101.84	104.50
1	AA	146	DT	C4'-C3'-C2'	-6.66	97.11	103.10
1	AA	1575	DA	O4'-C1'-C2'	-6.66	100.57	105.90
1	AA	2599	DA	O4'-C4'-C3'	-6.66	101.84	104.50
1	AA	526	DG	P-O3'-C3'	6.66	127.69	119.70
1	AA	1982	DC	O4'-C1'-C2'	-6.66	100.58	105.90
1	AA	3545	DA	O4'-C1'-C2'	-6.66	100.58	105.90
13	AM	18	DA	O4'-C1'-C2'	-6.66	100.58	105.90
1	AA	2913	DC	O4'-C1'-C2'	-6.65	100.58	105.90
1	AA	5202	DG	P-O3'-C3'	6.65	127.68	119.70
154	Cd	13	DC	C4'-C3'-C2'	-6.65	97.11	103.10
175	Cy	25	DA	O4'-C1'-C2'	-6.65	100.58	105.90
1	AA	2743	DG	O4'-C1'-C2'	-6.65	100.58	105.90
1	AA	2705	DC	O4'-C4'-C3'	-6.65	101.84	104.50
1	AA	4935	DA	O4'-C1'-C2'	-6.65	100.58	105.90
46	At	25	DG	O4'-C1'-C2'	-6.65	100.58	105.90
1	AA	3057	DA	O4'-C1'-N9	6.65	112.65	108.00
1	AA	4522	DA	P-O3'-C3'	6.65	127.67	119.70
36	Aj	6	DA	O4'-C1'-C2'	-6.65	100.58	105.90
1	AA	306	DG	C1'-O4'-C4'	-6.64	103.46	110.10
1	AA	6104	DA	C4'-C3'-C2'	-6.64	97.12	103.10
1	AA	2808	DG	O4'-C1'-C2'	-6.64	100.59	105.90
144	CT	34	DT	O4'-C1'-C2'	-6.64	100.59	105.90
1	AA	2464	DA	C4'-C3'-C2'	-6.64	97.13	103.10
1	AA	6189	DG	C1'-O4'-C4'	-6.64	103.46	110.10
120	B5	46	DT	P-O3'-C3'	6.64	127.66	119.70
1	AA	1076	DG	O4'-C1'-C2'	-6.63	100.59	105.90
1	AA	5706	DG	O4'-C1'-C2'	-6.63	100.59	105.90
1	AA	4464	DT	O4'-C4'-C3'	-6.63	101.85	104.50
1	AA	802	DT	O4'-C4'-C3'	-6.63	101.85	104.50
1	AA	1972	DC	O4'-C1'-C2'	-6.63	100.60	105.90
1	AA	4280	DC	P-O3'-C3'	6.63	127.65	119.70
188	DB	44	DC	O4'-C4'-C3'	-6.63	101.85	104.50
1	AA	1415	DC	P-O3'-C3'	6.62	127.65	119.70
83	BU	20	DG	O4'-C1'-C2'	-6.62	100.60	105.90
192	DF	11	DG	O4'-C1'-C2'	-6.62	100.60	105.90
1	AA	5233	DA	O4'-C1'-C2'	-6.62	100.60	105.90
119	B4	33	DA	O4'-C4'-C3'	-6.62	101.85	104.50
163	Cm	23	DG	O4'-C1'-C2'	-6.62	100.61	105.90
84	BV	34	DG	O4'-C1'-C2'	-6.62	100.61	105.90
112	Bx	20	DG	O4'-C1'-C2'	-6.62	100.61	105.90
1	AA	2383	DG	O4'-C1'-C2'	-6.61	100.61	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	3000	DG	C1'-O4'-C4'	-6.61	103.49	110.10
1	AA	2761	DT	C4'-C3'-C2'	-6.61	97.15	103.10
1	AA	2482	DC	O4'-C1'-C2'	-6.61	100.61	105.90
124	B9	28	DG	O4'-C1'-C2'	-6.61	100.61	105.90
1	AA	1378	DG	P-O3'-C3'	6.61	127.63	119.70
143	CS	1	DA	N1-C6-N6	-6.61	114.64	118.60
1	AA	3506	DA	C5-C6-N6	6.61	128.98	123.70
133	CI	7	DG	O4'-C1'-C2'	-6.61	100.62	105.90
1	AA	3576	DT	C4'-C3'-C2'	-6.60	97.16	103.10
1	AA	132	DT	O4'-C4'-C3'	-6.60	101.86	104.50
1	AA	1178	DG	C5-C6-O6	-6.60	124.64	128.60
55	A2	29	DA	P-O3'-C3'	6.60	127.62	119.70
43	Aq	26	DA	O4'-C1'-C2'	-6.60	100.62	105.90
133	CI	3	DA	O4'-C1'-C2'	-6.60	100.62	105.90
1	AA	596	DA	O4'-C1'-C2'	-6.59	100.62	105.90
1	AA	3644	DC	O4'-C1'-C2'	-6.59	100.62	105.90
16	AP	18	DA	C4'-C3'-C2'	-6.59	97.17	103.10
1	AA	4390	DG	C1'-O4'-C4'	-6.59	103.51	110.10
1	AA	4099	DA	O4'-C4'-C3'	-6.59	101.86	104.50
1	AA	4470	DT	C4'-C3'-C2'	-6.59	97.17	103.10
1	AA	5328	DG	O4'-C1'-C2'	-6.59	100.63	105.90
109	Bu	16	DA	N1-C6-N6	-6.59	114.65	118.60
1	AA	665	DC	C4'-C3'-C2'	-6.59	97.17	103.10
1	AA	1012	DG	O4'-C4'-C3'	-6.59	101.86	104.50
1	AA	1722	DG	O4'-C1'-C2'	-6.59	100.63	105.90
1	AA	2524	DC	O4'-C4'-C3'	-6.59	101.86	104.50
1	AA	5047	DA	O4'-C1'-C2'	-6.59	100.63	105.90
1	AA	6293	DG	O4'-C1'-C2'	-6.59	100.63	105.90
1	AA	4836	DG	P-O3'-C3'	6.58	127.60	119.70
1	AA	1100	DA	O4'-C1'-C2'	-6.58	100.63	105.90
125	CA	21	DG	C1'-O4'-C4'	-6.58	103.52	110.10
1	AA	2720	DA	N1-C6-N6	6.58	122.55	118.60
1	AA	3056	DG	O4'-C1'-C2'	-6.58	100.64	105.90
1	AA	3783	DG	C1'-O4'-C4'	-6.58	103.52	110.10
1	AA	5844	DT	O4'-C4'-C3'	-6.58	101.87	104.50
1	AA	6486	DA	O4'-C1'-C2'	-6.58	100.64	105.90
186	C9	37	DG	O4'-C1'-C2'	-6.58	100.64	105.90
1	AA	925	DG	O4'-C1'-C2'	-6.58	100.64	105.90
1	AA	5301	DT	O4'-C4'-C3'	-6.58	101.87	104.50
1	AA	5679	DA	P-O3'-C3'	6.58	127.59	119.70
59	A6	16	DA	P-O3'-C3'	6.57	127.59	119.70
158	Ch	23	DG	O4'-C1'-C2'	-6.57	100.64	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	681	DA	O4'-C4'-C3'	-6.57	101.87	104.50
127	CC	13	DC	C4'-C3'-C2'	-6.57	97.19	103.10
1	AA	324	DT	O4'-C4'-C3'	-6.57	101.87	104.50
1	AA	480	DA	O4'-C1'-C2'	-6.57	100.64	105.90
1	AA	1557	DT	C4'-C3'-C2'	-6.57	97.19	103.10
1	AA	7058	DT	P-O3'-C3'	6.57	127.58	119.70
1	AA	6066	DG	O4'-C1'-C2'	-6.57	100.65	105.90
115	B0	32	DG	C1'-O4'-C4'	-6.57	103.53	110.10
1	AA	3029	DT	P-O3'-C3'	6.56	127.58	119.70
89	Ba	19	DA	O4'-C1'-C2'	-6.56	100.65	105.90
1	AA	3163	DA	O4'-C1'-C2'	-6.56	100.65	105.90
70	BH	21	DG	O4'-C1'-C2'	-6.56	100.65	105.90
142	CR	15	DA	N1-C6-N6	-6.56	114.67	118.60
1	AA	2583	DG	O4'-C1'-C2'	-6.56	100.65	105.90
1	AA	3934	DA	C4'-C3'-C2'	-6.56	97.20	103.10
156	Cf	9	DA	O4'-C1'-C2'	-6.56	100.65	105.90
10	AJ	1	DA	O4'-C4'-C3'	-6.56	101.88	104.50
4	AD	9	DA	C4'-C3'-C2'	-6.55	97.20	103.10
14	AN	18	DA	O4'-C1'-C2'	-6.55	100.66	105.90
65	BC	34	DA	C4'-C3'-C2'	-6.55	97.20	103.10
1	AA	1895	DA	C1'-O4'-C4'	-6.55	103.55	110.10
1	AA	7053	DC	O4'-C1'-C2'	-6.55	100.66	105.90
1	AA	3772	DG	P-O3'-C3'	6.55	127.56	119.70
75	BM	1	DA	C1'-O4'-C4'	-6.55	103.55	110.10
1	AA	1581	DA	P-O3'-C3'	6.54	127.55	119.70
1	AA	4337	DA	P-O3'-C3'	6.54	127.55	119.70
1	AA	5713	DT	O4'-C1'-C2'	-6.54	100.66	105.90
1	AA	6862	DA	O4'-C1'-C2'	-6.54	100.66	105.90
83	BU	36	DA	P-O3'-C3'	6.54	127.55	119.70
125	CA	28	DG	O4'-C1'-C2'	-6.54	100.66	105.90
1	AA	2027	DT	P-O3'-C3'	6.54	127.55	119.70
1	AA	6503	DT	O4'-C1'-C2'	-6.54	100.67	105.90
17	AQ	18	DA	P-O3'-C3'	6.54	127.55	119.70
158	Ch	28	DG	O4'-C1'-C2'	-6.54	100.67	105.90
1	AA	1744	DG	O4'-C1'-C2'	-6.54	100.67	105.90
1	AA	4852	DG	O4'-C1'-C2'	-6.54	100.67	105.90
1	AA	47	DC	O4'-C1'-C2'	-6.54	100.67	105.90
60	A7	16	DA	P-O3'-C3'	6.54	127.55	119.70
1	AA	1530	DT	P-O3'-C3'	6.54	127.54	119.70
85	BW	42	DC	P-O3'-C3'	6.54	127.54	119.70
1	AA	3135	DC	O4'-C1'-C2'	-6.53	100.67	105.90
1	AA	1986	DG	O4'-C1'-C2'	-6.53	100.67	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
156	Cf	33	DG	O4'-C1'-C2'	-6.53	100.68	105.90
1	AA	4732	DT	P-O3'-C3'	6.53	127.53	119.70
152	Cb	25	DC	O4'-C1'-C2'	-6.53	100.68	105.90
1	AA	2972	DA	O4'-C1'-C2'	-6.53	100.68	105.90
1	AA	3632	DT	O4'-C4'-C3'	-6.53	101.89	104.50
93	Be	17	DG	O4'-C1'-C2'	-6.53	100.68	105.90
1	AA	1697	DA	P-O3'-C3'	6.53	127.53	119.70
1	AA	6304	DT	P-O3'-C3'	6.53	127.53	119.70
1	AA	2917	DG	O4'-C1'-C2'	-6.52	100.68	105.90
1	AA	3864	DC	C1'-O4'-C4'	-6.52	103.58	110.10
1	AA	1609	DT	P-O3'-C3'	6.52	127.53	119.70
1	AA	2861	DG	O4'-C1'-C2'	-6.52	100.68	105.90
19	AS	32	DT	O4'-C4'-C3'	-6.52	101.89	104.50
44	Ar	14	DA	P-O3'-C3'	6.52	127.53	119.70
59	A6	20	DT	P-O3'-C3'	6.52	127.53	119.70
1	AA	1323	DA	O4'-C1'-C2'	-6.52	100.68	105.90
1	AA	2920	DC	C1'-O4'-C4'	-6.52	103.58	110.10
1	AA	5400	DA	O4'-C1'-C2'	-6.52	100.68	105.90
69	BG	6	DG	P-O3'-C3'	6.52	127.52	119.70
156	Cf	34	DG	P-O3'-C3'	6.52	127.52	119.70
1	AA	5145	DT	O4'-C1'-C2'	-6.51	100.69	105.90
1	AA	2344	DG	P-O3'-C3'	6.51	127.51	119.70
1	AA	2444	DG	O4'-C1'-C2'	-6.51	100.69	105.90
84	BV	28	DT	C1'-O4'-C4'	-6.51	103.59	110.10
33	Ag	31	DG	O4'-C1'-C2'	-6.51	100.69	105.90
68	BF	22	DG	C1'-O4'-C4'	-6.51	103.59	110.10
1	AA	4042	DA	O4'-C1'-C2'	-6.51	100.69	105.90
1	AA	4284	DG	O4'-C1'-C2'	-6.51	100.69	105.90
1	AA	5245	DA	O4'-C1'-C2'	-6.50	100.70	105.90
1	AA	202	DG	O4'-C1'-C2'	-6.50	100.70	105.90
1	AA	608	DA	O4'-C4'-C3'	-6.50	101.90	104.50
1	AA	1272	DA	O4'-C4'-C3'	-6.50	101.90	104.50
40	An	26	DT	P-O3'-C3'	6.50	127.50	119.70
174	Cx	36	DC	O4'-C1'-C2'	-6.50	100.70	105.90
1	AA	4969	DG	O4'-C1'-C2'	-6.50	100.70	105.90
110	Bv	26	DA	C1'-O4'-C4'	-6.50	103.60	110.10
114	Bz	12	DC	C4'-C3'-C2'	-6.50	97.25	103.10
1	AA	2125	DA	O4'-C1'-C2'	-6.50	100.70	105.90
195	DI	23	DC	O4'-C1'-C2'	-6.50	100.70	105.90
78	BP	1	DA	N1-C6-N6	-6.50	114.70	118.60
1	AA	413	DA	O4'-C1'-C2'	-6.49	100.71	105.90
1	AA	2535	DT	O4'-C4'-C3'	-6.49	101.90	104.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	3521	DT	O4'-C4'-C3'	-6.49	101.90	104.50
1	AA	5037	DA	O4'-C1'-C2'	-6.49	100.71	105.90
1	AA	3029	DT	O4'-C1'-C2'	-6.49	100.71	105.90
82	BT	33	DG	O4'-C1'-C2'	-6.49	100.71	105.90
1	AA	2766	DG	O4'-C1'-C2'	-6.49	100.71	105.90
86	BX	16	DA	O4'-C1'-C2'	-6.49	100.71	105.90
1	AA	4949	DG	O4'-C1'-C2'	-6.49	100.71	105.90
1	AA	4960	DA	O4'-C1'-C2'	-6.49	100.71	105.90
53	A0	47	DC	O4'-C4'-C3'	-6.49	101.91	104.50
193	DG	8	DC	O4'-C1'-C2'	-6.49	100.71	105.90
1	AA	6104	DA	O4'-C4'-C3'	-6.48	101.91	104.50
1	AA	297	DC	C4'-C3'-C2'	-6.48	97.27	103.10
1	AA	4876	DG	O4'-C1'-C2'	-6.48	100.71	105.90
117	B2	29	DT	P-O3'-C3'	6.48	127.48	119.70
1	AA	1419	DA	P-O3'-C3'	6.48	127.48	119.70
65	BC	7	DG	C1'-O4'-C4'	-6.48	103.62	110.10
128	CD	12	DG	O4'-C1'-C2'	-6.48	100.72	105.90
1	AA	651	DT	C4'-C3'-C2'	-6.48	97.27	103.10
1	AA	2911	DA	O4'-C1'-C2'	-6.48	100.72	105.90
14	AN	14	DG	C1'-O4'-C4'	-6.48	103.62	110.10
1	AA	4369	DG	O4'-C1'-C2'	-6.48	100.72	105.90
24	AX	19	DA	O4'-C4'-C3'	-6.48	101.91	104.50
65	BC	12	DG	O4'-C1'-C2'	-6.48	100.72	105.90
114	Bz	13	DG	P-O3'-C3'	6.48	127.47	119.70
131	CG	3	DA	O4'-C1'-C2'	-6.48	100.72	105.90
1	AA	370	DC	O4'-C1'-C2'	-6.47	100.72	105.90
1	AA	3735	DT	C1'-O4'-C4'	-6.47	103.63	110.10
55	A2	18	DG	O4'-C1'-C2'	-6.47	100.72	105.90
69	BG	16	DG	O4'-C4'-C3'	-6.47	101.91	104.50
1	AA	5809	DA	O4'-C1'-C2'	-6.47	100.72	105.90
1	AA	5860	DG	O4'-C1'-C2'	-6.47	100.72	105.90
96	Bh	15	DC	O4'-C1'-C2'	-6.47	100.72	105.90
1	AA	849	DA	O4'-C1'-C2'	-6.47	100.72	105.90
1	AA	1823	DC	C1'-O4'-C4'	-6.47	103.63	110.10
1	AA	6449	DC	O4'-C1'-N1	-6.47	103.47	108.00
1	AA	1687	DA	N1-C6-N6	-6.47	114.72	118.60
130	CF	23	DG	O4'-C1'-C2'	-6.46	100.73	105.90
190	DD	10	DT	P-O3'-C3'	6.46	127.46	119.70
177	C0	1	DG	C1'-O4'-C4'	-6.46	103.64	110.10
1	AA	3997	DG	O4'-C1'-C2'	-6.46	100.73	105.90
1	AA	506	DA	C1'-O4'-C4'	-6.46	103.64	110.10
1	AA	5291	DG	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	6073	DC	O4'-C1'-C2'	-6.45	100.74	105.90
24	AX	27	DG	O4'-C1'-C2'	-6.45	100.74	105.90
127	CC	39	DC	P-O3'-C3'	6.45	127.44	119.70
1	AA	2932	DT	C4'-C3'-C2'	-6.45	97.29	103.10
133	CI	12	DG	C1'-O4'-C4'	-6.45	103.65	110.10
30	Ad	7	DT	C4'-C3'-C2'	-6.45	97.30	103.10
40	An	10	DT	O4'-C1'-C2'	-6.45	100.74	105.90
95	Bg	27	DA	C4'-C3'-C2'	-6.45	97.30	103.10
29	Ac	2	DT	C4'-C3'-C2'	-6.45	97.30	103.10
88	BZ	19	DC	C4'-C3'-C2'	-6.45	97.30	103.10
110	Bv	25	DC	P-O3'-C3'	6.45	127.44	119.70
199	DM	20	DT	C4'-C3'-C2'	-6.44	97.30	103.10
1	AA	3137	DA	O4'-C1'-C2'	-6.44	100.75	105.90
1	AA	3277	DC	P-O3'-C3'	6.44	127.43	119.70
1	AA	6054	DG	C4'-C3'-C2'	-6.44	97.30	103.10
1	AA	6158	DC	C2-N1-C1'	6.44	125.89	118.80
63	BA	8	DC	O4'-C1'-C2'	-6.44	100.75	105.90
93	Be	16	DA	C4-N9-C1'	6.44	137.89	126.30
1	AA	1863	DG	O4'-C1'-C2'	-6.44	100.75	105.90
1	AA	5589	DT	C6-C5-C7	-6.43	119.04	122.90
35	Ai	20	DA	C4'-C3'-C2'	-6.43	97.31	103.10
1	AA	2430	DA	O4'-C1'-C2'	-6.43	100.75	105.90
1	AA	5569	DG	P-O3'-C3'	6.43	127.42	119.70
4	AD	18	DA	O4'-C1'-C2'	-6.43	100.75	105.90
142	CR	11	DA	C4'-C3'-C2'	-6.43	97.31	103.10
1	AA	6354	DG	P-O3'-C3'	6.43	127.42	119.70
2	AB	21	DC	C4'-C3'-C2'	-6.43	97.31	103.10
75	BM	28	DG	O4'-C1'-C2'	-6.43	100.76	105.90
187	DA	14	DG	O4'-C1'-C2'	-6.43	100.76	105.90
1	AA	2878	DG	O4'-C1'-C2'	-6.43	100.76	105.90
1	AA	3391	DA	O4'-C1'-C2'	-6.43	100.76	105.90
110	Bv	26	DA	O4'-C4'-C3'	-6.43	101.93	104.50
1	AA	4675	DG	O4'-C1'-C2'	-6.42	100.76	105.90
1	AA	2873	DA	O4'-C1'-C2'	-6.42	100.76	105.90
1	AA	3567	DG	O4'-C1'-C2'	-6.42	100.76	105.90
1	AA	5708	DG	O4'-C4'-C3'	-6.42	101.93	104.50
1	AA	4519	DT	C4'-C3'-C2'	-6.42	97.32	103.10
1	AA	2334	DG	C1'-O4'-C4'	-6.42	103.68	110.10
1	AA	5723	DG	O4'-C1'-C2'	-6.42	100.77	105.90
52	Az	2	DA	C4'-C3'-C2'	-6.42	97.33	103.10
1	AA	2240	DT	P-O3'-C3'	6.41	127.40	119.70
77	BO	26	DT	O4'-C1'-C2'	-6.41	100.77	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
153	Cc	18	DG	P-O3'-C3'	6.41	127.39	119.70
1	AA	6188	DG	P-O3'-C3'	6.41	127.39	119.70
1	AA	6684	DC	C4'-C3'-C2'	-6.41	97.33	103.10
43	Aq	27	DG	C1'-O4'-C4'	-6.41	103.69	110.10
68	BF	1	DT	C1'-O4'-C4'	-6.41	103.69	110.10
168	Cr	19	DA	O4'-C1'-C2'	-6.41	100.78	105.90
44	Ar	33	DA	C1'-O4'-C4'	-6.40	103.70	110.10
1	AA	1850	DG	O4'-C1'-C2'	-6.40	100.78	105.90
1	AA	2541	DG	O4'-C1'-C2'	-6.40	100.78	105.90
1	AA	5202	DG	O4'-C1'-N9	6.39	112.47	108.00
54	A1	22	DT	O4'-C1'-C2'	-6.39	100.79	105.90
186	C9	42	DA	O4'-C1'-C2'	-6.39	100.79	105.90
203	DQ	18	DG	P-O3'-C3'	6.39	127.37	119.70
124	B9	26	DG	P-O3'-C3'	6.39	127.37	119.70
152	Cb	2	DA	O4'-C1'-C2'	-6.39	100.79	105.90
1	AA	2720	DA	C5-C6-N6	-6.38	118.59	123.70
1	AA	6375	DA	O4'-C1'-C2'	-6.38	100.79	105.90
134	CJ	10	DA	P-O3'-C3'	6.38	127.36	119.70
1	AA	4073	DC	O4'-C1'-C2'	-6.38	100.80	105.90
1	AA	6310	DG	O4'-C4'-C3'	-6.38	101.95	104.50
134	CJ	1	DA	C1'-O4'-C4'	-6.38	103.72	110.10
1	AA	2126	DT	C1'-O4'-C4'	-6.38	103.72	110.10
1	AA	2856	DT	O4'-C1'-C2'	-6.38	100.80	105.90
61	A8	1	DT	O4'-C4'-C3'	-6.38	101.95	104.50
136	CL	19	DT	C1'-O4'-C4'	-6.38	103.72	110.10
1	AA	1530	DT	O4'-C1'-C2'	-6.38	100.80	105.90
164	Cn	18	DC	O4'-C4'-C3'	-6.38	101.95	104.50
1	AA	953	DG	O4'-C1'-C2'	-6.37	100.80	105.90
1	AA	1619	DC	P-O3'-C3'	6.37	127.34	119.70
1	AA	6629	DG	C5-C6-O6	-6.37	124.78	128.60
195	DI	31	DT	P-O3'-C3'	6.37	127.34	119.70
1	AA	212	DA	P-O3'-C3'	6.37	127.34	119.70
142	CR	26	DT	P-O3'-C3'	6.37	127.34	119.70
104	Bp	13	DC	P-O3'-C3'	6.37	127.34	119.70
1	AA	7155	DA	O4'-C1'-C2'	-6.36	100.81	105.90
79	BQ	26	DT	P-O3'-C3'	6.36	127.34	119.70
128	CD	20	DC	O4'-C1'-C2'	-6.36	100.81	105.90
1	AA	4677	DA	O4'-C4'-C3'	-6.36	101.96	104.50
1	AA	823	DA	C4'-C3'-C2'	-6.36	97.38	103.10
1	AA	2824	DC	O4'-C4'-C3'	-6.36	101.96	104.50
1	AA	4948	DG	C1'-O4'-C4'	-6.36	103.75	110.10
1	AA	1833	DG	O4'-C4'-C3'	-6.35	101.96	104.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	5589	DT	C4-C5-C7	6.35	122.81	119.00
1	AA	6042	DT	C4'-C3'-C2'	-6.35	97.38	103.10
9	AI	18	DT	C4'-C3'-C2'	-6.35	97.38	103.10
18	AR	21	DC	P-O5'-C5'	6.35	131.06	120.90
79	BQ	10	DA	P-O3'-C3'	6.35	127.32	119.70
90	Bb	26	DC	O4'-C1'-C2'	-6.35	100.82	105.90
64	BB	37	DC	O4'-C1'-C2'	-6.35	100.82	105.90
1	AA	2889	DG	O4'-C1'-C2'	-6.35	100.82	105.90
1	AA	2897	DG	O4'-C1'-C2'	-6.34	100.83	105.90
115	B0	1	DC	C1'-O4'-C4'	-6.34	103.76	110.10
1	AA	1456	DG	O4'-C1'-C2'	-6.33	100.83	105.90
187	DA	34	DA	O4'-C1'-C2'	-6.33	100.83	105.90
1	AA	2366	DG	C1'-O4'-C4'	-6.33	103.77	110.10
126	CB	1	DT	C1'-O4'-C4'	-6.33	103.77	110.10
100	Bl	18	DG	P-O3'-C3'	6.33	127.30	119.70
126	CB	1	DT	O4'-C4'-C3'	-6.33	101.97	104.50
16	AP	13	DA	O4'-C1'-C2'	-6.33	100.84	105.90
1	AA	6756	DA	O4'-C4'-C3'	-6.33	101.97	104.50
1	AA	1077	DA	N1-C6-N6	-6.32	114.81	118.60
71	BI	15	DC	O4'-C1'-C2'	-6.32	100.84	105.90
1	AA	2157	DA	C1'-O4'-C4'	-6.32	103.78	110.10
1	AA	5089	DG	O4'-C1'-C2'	-6.32	100.84	105.90
41	Ao	26	DT	O4'-C4'-C3'	-6.32	101.97	104.50
49	Aw	29	DC	O4'-C4'-C3'	-6.32	101.97	104.50
49	Aw	31	DT	C4'-C3'-C2'	-6.32	97.41	103.10
1	AA	4836	DG	O4'-C1'-C2'	-6.32	100.84	105.90
108	Bt	2	DA	O4'-C1'-C2'	-6.32	100.84	105.90
1	AA	1124	DT	O4'-C1'-C2'	-6.32	100.85	105.90
1	AA	5374	DG	O4'-C1'-C2'	-6.32	100.85	105.90
1	AA	2541	DG	P-O3'-C3'	6.32	127.28	119.70
1	AA	2773	DT	C4'-C3'-C2'	-6.32	97.42	103.10
150	CZ	23	DC	O4'-C4'-C3'	-6.31	101.97	104.50
1	AA	3669	DA	O4'-C1'-C2'	-6.31	100.85	105.90
1	AA	5098	DA	O4'-C4'-C3'	-6.31	101.97	104.50
1	AA	6375	DA	P-O3'-C3'	6.31	127.28	119.70
43	Aq	34	DG	P-O3'-C3'	6.31	127.28	119.70
167	Cq	11	DA	O4'-C1'-C2'	-6.31	100.85	105.90
1	AA	4194	DG	O4'-C1'-C2'	-6.31	100.85	105.90
1	AA	6854	DG	O4'-C1'-C2'	-6.31	100.85	105.90
52	Az	2	DA	O4'-C4'-C3'	-6.31	101.98	104.50
1	AA	6089	DA	O4'-C1'-C2'	-6.31	100.85	105.90
99	Bk	12	DG	C1'-O4'-C4'	-6.31	103.79	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
101	Bm	12	DG	O4'-C1'-C2'	-6.31	100.85	105.90
65	BC	21	DT	O4'-C1'-C2'	-6.31	100.86	105.90
1	AA	1797	DA	O4'-C1'-C2'	-6.30	100.86	105.90
1	AA	6154	DG	O4'-C1'-C2'	-6.30	100.86	105.90
23	AW	18	DA	O4'-C1'-C2'	-6.30	100.86	105.90
49	Aw	3	DG	P-O3'-C3'	6.30	127.26	119.70
1	AA	6430	DG	O4'-C1'-C2'	-6.30	100.86	105.90
1	AA	5338	DC	O4'-C4'-C3'	-6.30	101.98	104.50
1	AA	5742	DC	C4'-C3'-C2'	-6.30	97.43	103.10
1	AA	2574	DG	C4'-C3'-C2'	-6.30	97.43	103.10
93	Be	16	DA	N1-C6-N6	6.30	122.38	118.60
186	C9	7	DT	O4'-C4'-C3'	-6.30	101.98	104.50
1	AA	1218	DT	O4'-C1'-C2'	-6.30	100.86	105.90
1	AA	2325	DG	O4'-C1'-C2'	-6.30	100.86	105.90
49	Aw	35	DG	O4'-C1'-C2'	-6.30	100.86	105.90
1	AA	3203	DT	P-O3'-C3'	6.30	127.26	119.70
139	CO	15	DT	C4'-C3'-C2'	-6.29	97.43	103.10
1	AA	4928	DC	O4'-C1'-C2'	-6.29	100.86	105.90
1	AA	5496	DG	O4'-C1'-C2'	-6.29	100.87	105.90
153	Cc	10	DA	O4'-C1'-C2'	-6.29	100.87	105.90
168	Cr	30	DG	O4'-C1'-C2'	-6.29	100.87	105.90
107	Bs	27	DT	P-O3'-C3'	6.29	127.25	119.70
147	CW	26	DT	O4'-C4'-C3'	-6.29	101.98	104.50
1	AA	3428	DT	O4'-C1'-C2'	-6.29	100.87	105.90
1	AA	6708	DG	O4'-C1'-C2'	-6.29	100.87	105.90
193	DG	26	DC	O4'-C1'-C2'	-6.29	100.87	105.90
1	AA	6048	DA	C1'-O4'-C4'	-6.28	103.82	110.10
122	B7	6	DT	O4'-C4'-C3'	-6.28	101.99	104.50
1	AA	6497	DG	O4'-C1'-C2'	-6.28	100.88	105.90
108	Bt	14	DG	O4'-C1'-C2'	-6.28	100.88	105.90
1	AA	2944	DA	O4'-C1'-C2'	-6.28	100.88	105.90
1	AA	3291	DG	C4'-C3'-C2'	-6.28	97.45	103.10
174	Cx	28	DC	O4'-C1'-C2'	-6.28	100.88	105.90
1	AA	485	DA	C1'-O4'-C4'	-6.27	103.83	110.10
1	AA	769	DA	O4'-C1'-C2'	-6.27	100.88	105.90
1	AA	731	DC	C4'-C3'-C2'	-6.27	97.45	103.10
102	Bn	34	DA	C1'-O4'-C4'	-6.27	103.83	110.10
1	AA	1782	DA	N1-C6-N6	-6.27	114.84	118.60
1	AA	1911	DG	O4'-C1'-C2'	-6.27	100.88	105.90
10	AJ	10	DA	O4'-C1'-C2'	-6.27	100.88	105.90
1	AA	1910	DT	O4'-C1'-C2'	-6.27	100.88	105.90
156	Cf	33	DG	P-O3'-C3'	6.27	127.22	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	477	DA	O4'-C1'-C2'	-6.27	100.89	105.90
1	AA	2220	DG	O4'-C1'-C2'	-6.27	100.89	105.90
1	AA	7033	DC	O4'-C1'-C2'	-6.27	100.89	105.90
154	Cd	23	DA	P-O3'-C3'	6.27	127.22	119.70
88	BZ	19	DC	O4'-C4'-C3'	-6.26	101.99	104.50
102	Bn	34	DA	O4'-C1'-C2'	-6.26	100.89	105.90
4	AD	26	DT	P-O3'-C3'	6.26	127.22	119.70
181	C4	4	DA	O4'-C1'-C2'	-6.26	100.89	105.90
1	AA	4167	DT	P-O3'-C3'	6.26	127.21	119.70
1	AA	6641	DC	O4'-C1'-C2'	-6.26	100.89	105.90
1	AA	2299	DG	P-O3'-C3'	6.26	127.21	119.70
1	AA	310	DG	O4'-C4'-C3'	-6.26	102.00	104.50
1	AA	5544	DC	O4'-C1'-C2'	-6.26	100.89	105.90
1	AA	6552	DG	C1'-O4'-C4'	-6.26	103.84	110.10
72	BJ	11	DG	O4'-C1'-C2'	-6.26	100.89	105.90
134	CJ	10	DA	O4'-C1'-C2'	-6.26	100.89	105.90
1	AA	4955	DT	O4'-C4'-C3'	-6.25	102.00	104.50
131	CG	36	DT	O4'-C1'-C2'	-6.25	100.90	105.90
1	AA	952	DG	O4'-C1'-C2'	-6.25	100.90	105.90
1	AA	5962	DC	O4'-C4'-C3'	-6.25	102.00	104.50
1	AA	1823	DC	O4'-C1'-C2'	-6.25	100.90	105.90
1	AA	3252	DG	C1'-O4'-C4'	-6.25	103.85	110.10
1	AA	7025	DC	O4'-C1'-C2'	-6.25	100.90	105.90
7	AG	26	DC	O4'-C1'-C2'	-6.25	100.90	105.90
1	AA	471	DG	O4'-C4'-C3'	-6.24	102.00	104.50
1	AA	3591	DA	O4'-C1'-C2'	-6.24	100.91	105.90
143	CS	1	DA	O4'-C1'-C2'	-6.24	100.91	105.90
1	AA	1762	DT	C4'-C3'-C2'	-6.24	97.48	103.10
62	A9	21	DA	O4'-C1'-C2'	-6.24	100.91	105.90
1	AA	3843	DG	P-O3'-C3'	6.24	127.19	119.70
1	AA	5221	DC	P-O5'-C5'	6.24	130.88	120.90
51	Ay	14	DG	O4'-C1'-C2'	-6.24	100.91	105.90
74	BL	15	DA	O4'-C1'-C2'	-6.24	100.91	105.90
1	AA	2759	DA	C1'-O4'-C4'	-6.24	103.86	110.10
1	AA	5413	DG	O4'-C1'-C2'	-6.24	100.91	105.90
1	AA	6710	DT	P-O3'-C3'	6.24	127.19	119.70
39	Am	3	DG	O4'-C1'-C2'	-6.24	100.91	105.90
57	A4	43	DC	C1'-O4'-C4'	-6.24	103.86	110.10
157	Cg	19	DG	P-O3'-C3'	6.23	127.18	119.70
1	AA	1347	DC	O4'-C1'-C2'	-6.23	100.92	105.90
154	Cd	35	DG	O4'-C1'-C2'	-6.23	100.92	105.90
1	AA	1463	DT	C1'-O4'-C4'	-6.23	103.87	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	5252	DG	O4'-C1'-C2'	-6.23	100.92	105.90
93	Be	10	DC	O4'-C1'-C2'	-6.23	100.92	105.90
190	DD	35	DG	O4'-C1'-C2'	-6.23	100.92	105.90
1	AA	3039	DG	O4'-C1'-C2'	-6.23	100.92	105.90
114	Bz	7	DG	O4'-C4'-C3'	-6.23	102.01	104.50
1	AA	6848	DA	O4'-C1'-C2'	-6.22	100.92	105.90
1	AA	310	DG	C4'-C3'-C2'	-6.22	97.50	103.10
1	AA	2729	DA	O4'-C1'-C2'	-6.22	100.93	105.90
38	Al	20	DG	O4'-C1'-C2'	-6.22	100.93	105.90
153	Cc	11	DG	P-O3'-C3'	6.21	127.16	119.70
1	AA	1080	DG	C4'-C3'-C2'	-6.21	97.51	103.10
16	AP	4	DT	C4'-C3'-C2'	-6.21	97.51	103.10
59	A6	23	DG	C4'-C3'-C2'	-6.21	97.51	103.10
176	Cz	13	DG	P-O3'-C3'	6.21	127.15	119.70
119	B4	46	DA	O4'-C1'-C2'	-6.21	100.93	105.90
1	AA	2295	DG	O4'-C1'-C2'	-6.21	100.93	105.90
1	AA	5394	DG	O4'-C1'-C2'	-6.21	100.94	105.90
78	BP	26	DG	O4'-C1'-C2'	-6.21	100.94	105.90
145	CU	3	DG	O4'-C1'-C2'	-6.21	100.93	105.90
1	AA	1086	DG	C1'-O4'-C4'	-6.20	103.90	110.10
1	AA	2295	DG	P-O3'-C3'	6.20	127.14	119.70
1	AA	2775	DG	P-O3'-C3'	6.20	127.14	119.70
108	Bt	21	DA	O4'-C1'-C2'	-6.20	100.94	105.90
154	Cd	9	DA	C4'-C3'-C2'	-6.20	97.52	103.10
154	Cd	13	DC	O4'-C4'-C3'	-6.20	102.02	104.50
1	AA	1601	DT	O4'-C1'-C2'	-6.20	100.94	105.90
1	AA	1801	DG	O4'-C1'-C2'	-6.20	100.94	105.90
200	DN	34	DA	C1'-O4'-C4'	-6.20	103.90	110.10
82	BT	13	DA	C4'-C3'-C2'	-6.20	97.52	103.10
88	BZ	30	DA	O4'-C1'-C2'	-6.20	100.94	105.90
191	DE	12	DA	P-O3'-C3'	6.20	127.14	119.70
1	AA	4889	DG	O4'-C4'-C3'	-6.20	102.02	104.50
1	AA	2162	DT	C4'-C3'-C2'	-6.19	97.53	103.10
1	AA	5804	DG	O4'-C1'-C2'	-6.19	100.94	105.90
108	Bt	37	DG	O4'-C1'-C2'	-6.19	100.94	105.90
105	Bq	26	DA	P-O3'-C3'	6.19	127.13	119.70
1	AA	1468	DG	C1'-O4'-C4'	-6.19	103.91	110.10
1	AA	3107	DT	C4'-C3'-C2'	-6.19	97.53	103.10
1	AA	7070	DG	P-O3'-C3'	6.19	127.13	119.70
68	BF	29	DC	C4'-C3'-C2'	-6.19	97.53	103.10
37	Ak	6	DC	O4'-C4'-C3'	-6.19	102.02	104.50
44	Ar	4	DA	O4'-C1'-C2'	-6.19	100.95	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	6822	DT	C1'-O4'-C4'	-6.19	103.91	110.10
149	CY	5	DA	O4'-C1'-C2'	-6.19	100.95	105.90
160	Cj	2	DA	C1'-O4'-C4'	-6.19	103.91	110.10
1	AA	1618	DT	P-O3'-C3'	6.18	127.12	119.70
1	AA	5506	DA	O4'-C1'-C2'	-6.18	100.95	105.90
41	Ao	17	DG	O4'-C4'-C3'	-6.18	102.03	104.50
1	AA	1557	DT	O4'-C4'-C3'	-6.18	102.03	104.50
1	AA	1656	DG	C5-C6-O6	-6.18	124.89	128.60
1	AA	6874	DA	O4'-C1'-C2'	-6.18	100.95	105.90
69	BG	34	DT	C4'-C3'-C2'	-6.18	97.54	103.10
1	AA	6396	DG	O4'-C1'-N9	6.18	112.33	108.00
1	AA	6903	DG	P-O3'-C3'	6.18	127.12	119.70
1	AA	1607	DA	O4'-C1'-C2'	-6.18	100.96	105.90
1	AA	132	DT	C4'-C3'-C2'	-6.18	97.54	103.10
1	AA	207	DA	O4'-C1'-C2'	-6.18	100.96	105.90
1	AA	1111	DA	P-O3'-C3'	6.18	127.11	119.70
1	AA	1869	DG	O4'-C1'-C2'	-6.18	100.96	105.90
1	AA	2370	DG	O4'-C1'-C2'	-6.18	100.96	105.90
1	AA	4289	DT	C4'-C3'-C2'	-6.18	97.54	103.10
167	Cq	17	DA	O4'-C1'-C2'	-6.18	100.96	105.90
180	C3	4	DT	P-O3'-C3'	6.18	127.11	119.70
93	Be	16	DA	O4'-C4'-C3'	-6.17	102.03	104.50
1	AA	2535	DT	C4'-C3'-C2'	-6.17	97.54	103.10
1	AA	4789	DG	O4'-C1'-C2'	-6.17	100.96	105.90
168	Cr	39	DC	O4'-C1'-C2'	-6.17	100.96	105.90
200	DN	24	DC	C4'-C3'-C2'	-6.17	97.55	103.10
1	AA	1465	DG	O4'-C1'-C2'	-6.17	100.96	105.90
50	Ax	10	DA	P-O3'-C3'	6.17	127.10	119.70
1	AA	2789	DT	P-O3'-C3'	6.17	127.10	119.70
1	AA	5245	DA	O4'-C4'-C3'	-6.17	102.03	104.50
1	AA	5261	DC	O4'-C4'-C3'	-6.17	102.03	104.50
1	AA	5485	DG	O4'-C1'-C2'	-6.17	100.97	105.90
71	BI	13	DT	C4'-C3'-C2'	-6.17	97.55	103.10
169	Cs	28	DA	O4'-C4'-C3'	-6.17	102.03	104.50
186	C9	7	DT	C4'-C3'-C2'	-6.17	97.55	103.10
1	AA	5046	DT	O4'-C1'-C2'	-6.17	100.97	105.90
5	AE	18	DG	P-O3'-C3'	6.16	127.10	119.70
197	DK	20	DT	P-O3'-C3'	6.16	127.10	119.70
1	AA	1887	DG	O4'-C1'-C2'	-6.16	100.97	105.90
1	AA	2373	DG	O4'-C1'-C2'	-6.16	100.97	105.90
1	AA	4996	DG	O4'-C1'-C2'	-6.16	100.97	105.90
138	CN	26	DC	O4'-C1'-C2'	-6.16	100.97	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	4829	DT	C4'-C3'-C2'	-6.16	97.56	103.10
1	AA	1755	DG	C1'-O4'-C4'	-6.16	103.94	110.10
1	AA	4004	DA	P-O3'-C3'	6.16	127.09	119.70
1	AA	5293	DA	O4'-C1'-C2'	-6.16	100.97	105.90
1	AA	5818	DC	O4'-C1'-C2'	-6.16	100.97	105.90
58	A5	7	DA	O4'-C4'-C3'	-6.16	102.04	104.50
134	CJ	13	DA	O4'-C1'-C2'	-6.16	100.97	105.90
1	AA	6000	DG	O4'-C1'-C2'	-6.16	100.97	105.90
1	AA	1086	DG	O4'-C4'-C3'	-6.16	102.04	104.50
73	BK	22	DA	O4'-C1'-C2'	-6.16	100.97	105.90
134	CJ	1	DA	O4'-C1'-C2'	-6.15	100.98	105.90
145	CU	9	DG	O4'-C1'-C2'	-6.15	100.98	105.90
1	AA	4687	DA	P-O3'-C3'	6.15	127.08	119.70
76	BN	27	DG	O4'-C1'-N9	6.15	112.31	108.00
1	AA	999	DA	O4'-C1'-C2'	-6.15	100.98	105.90
1	AA	1477	DA	O4'-C1'-C2'	-6.15	100.98	105.90
1	AA	3216	DG	P-O3'-C3'	6.15	127.08	119.70
30	Ad	21	DA	C1'-O4'-C4'	-6.15	103.95	110.10
1	AA	1799	DA	O4'-C1'-C2'	-6.15	100.98	105.90
1	AA	5250	DG	C1'-O4'-C4'	-6.15	103.95	110.10
1	AA	186	DA	P-O3'-C3'	6.15	127.08	119.70
1	AA	5503	DC	C2-N1-C1'	6.15	125.56	118.80
11	AK	22	DT	O4'-C4'-C3'	-6.15	102.04	104.50
49	Aw	19	DT	O4'-C1'-C2'	-6.15	100.98	105.90
1	AA	755	DT	C4'-C3'-C2'	-6.14	97.57	103.10
1	AA	5626	DT	O4'-C1'-C2'	-6.14	100.98	105.90
159	Ci	8	DA	N1-C6-N6	-6.14	114.91	118.60
1	AA	3005	DA	P-O3'-C3'	6.14	127.07	119.70
1	AA	7233	DA	O4'-C1'-C2'	-6.14	100.99	105.90
186	C9	13	DA	O4'-C1'-C2'	-6.14	100.99	105.90
1	AA	4287	DA	O4'-C1'-C2'	-6.14	100.99	105.90
60	A7	20	DG	O4'-C1'-C2'	-6.14	100.99	105.90
1	AA	2876	DC	O4'-C4'-C3'	-6.14	102.05	104.50
26	AZ	5	DG	O4'-C1'-C2'	-6.14	100.99	105.90
83	BU	20	DG	C1'-O4'-C4'	-6.14	103.96	110.10
150	CZ	15	DG	O4'-C1'-C2'	-6.14	100.99	105.90
1	AA	1076	DG	O4'-C1'-N9	6.13	112.29	108.00
1	AA	5230	DA	O4'-C1'-C2'	-6.13	100.99	105.90
1	AA	490	DG	C1'-O4'-C4'	-6.13	103.97	110.10
1	AA	1268	DA	O4'-C1'-C2'	-6.13	100.99	105.90
16	AP	22	DA	N1-C6-N6	-6.13	114.92	118.60
35	Ai	10	DG	O4'-C1'-C2'	-6.13	101.00	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
101	Bm	7	DA	O4'-C1'-C2'	-6.13	101.00	105.90
180	C3	16	DT	C4'-C3'-C2'	-6.13	97.58	103.10
1	AA	5900	DG	O4'-C1'-C2'	-6.13	101.00	105.90
1	AA	6906	DT	C4'-C3'-C2'	-6.13	97.58	103.10
9	AI	27	DT	C1'-O4'-C4'	-6.13	103.97	110.10
147	CW	26	DT	C1'-O4'-C4'	-6.13	103.97	110.10
1	AA	5318	DG	O4'-C4'-C3'	-6.13	102.05	104.50
167	Cq	13	DT	O4'-C4'-C3'	-6.13	102.05	104.50
202	DP	30	DA	O4'-C1'-C2'	-6.13	101.00	105.90
1	AA	6494	DG	C1'-O4'-C4'	-6.12	103.97	110.10
152	Cb	10	DG	P-O3'-C3'	6.12	127.05	119.70
1	AA	1734	DG	C5-C6-O6	-6.12	124.93	128.60
98	Bj	12	DA	O4'-C1'-C2'	-6.12	101.00	105.90
1	AA	2144	DA	O4'-C4'-C3'	-6.12	102.05	104.50
1	AA	5266	DG	O4'-C1'-C2'	-6.12	101.00	105.90
181	C4	34	DT	O4'-C1'-C2'	-6.12	101.01	105.90
1	AA	6037	DG	C4'-C3'-C2'	-6.12	97.60	103.10
1	AA	3322	DT	C6-N1-C1'	-6.11	111.23	120.40
1	AA	4182	DG	P-O3'-C3'	6.11	127.03	119.70
1	AA	4707	DA	C1'-O4'-C4'	-6.11	103.99	110.10
21	AU	1	DT	C1'-O4'-C4'	-6.11	103.99	110.10
1	AA	2286	DG	O4'-C1'-C2'	-6.11	101.01	105.90
1	AA	4184	DT	C4'-C3'-C2'	-6.11	97.60	103.10
1	AA	2911	DA	C1'-O4'-C4'	-6.11	103.99	110.10
5	AE	4	DT	O4'-C4'-C3'	-6.11	102.06	104.50
1	AA	801	DG	C5-C6-O6	-6.11	124.94	128.60
1	AA	3323	DC	P-O5'-C5'	6.11	130.67	120.90
51	Ay	39	DG	O4'-C1'-C2'	-6.11	101.02	105.90
1	AA	1039	DC	C4'-C3'-C2'	-6.10	97.61	103.10
40	An	11	DT	C4'-C3'-C2'	-6.10	97.61	103.10
1	AA	5125	DG	C4'-C3'-C2'	-6.10	97.61	103.10
1	AA	6418	DA	C1'-O4'-C4'	-6.10	104.00	110.10
1	AA	1165	DT	P-O3'-C3'	6.10	127.02	119.70
31	Ae	8	DG	P-O3'-C3'	6.10	127.02	119.70
62	A9	2	DG	O4'-C1'-C2'	-6.10	101.02	105.90
148	CX	42	DC	P-O3'-C3'	6.10	127.02	119.70
1	AA	256	DT	O4'-C4'-C3'	-6.10	102.06	104.50
1	AA	3512	DG	O4'-C1'-C2'	-6.10	101.02	105.90
1	AA	5197	DG	O4'-C1'-C2'	-6.10	101.02	105.90
162	Cl	21	DG	P-O3'-C3'	6.10	127.02	119.70
1	AA	934	DG	C4'-C3'-C2'	-6.09	97.62	103.10
1	AA	5408	DT	O4'-C1'-C2'	-6.09	101.03	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
63	BA	19	DG	O4'-C1'-C2'	-6.09	101.03	105.90
102	Bn	29	DG	O4'-C1'-C2'	-6.09	101.03	105.90
1	AA	934	DG	O4'-C4'-C3'	-6.09	102.06	104.50
1	AA	1381	DG	C1'-O4'-C4'	-6.09	104.01	110.10
128	CD	17	DA	P-O3'-C3'	6.09	127.00	119.70
166	Cp	21	DA	O4'-C1'-C2'	-6.09	101.03	105.90
1	AA	727	DC	C4'-C3'-C2'	-6.09	97.62	103.10
1	AA	3579	DT	O4'-C4'-C3'	-6.09	102.06	104.50
1	AA	5906	DC	C4'-C3'-C2'	-6.09	97.62	103.10
1	AA	6620	DG	O4'-C1'-C2'	-6.09	101.03	105.90
33	Ag	11	DA	O4'-C1'-C2'	-6.09	101.03	105.90
74	BL	31	DG	O4'-C1'-N9	6.09	112.26	108.00
93	Be	8	DT	O4'-C1'-C2'	-6.09	101.03	105.90
1	AA	4522	DA	O4'-C1'-C2'	-6.08	101.03	105.90
84	BV	11	DA	O4'-C1'-C2'	-6.08	101.03	105.90
1	AA	2599	DA	C4'-C3'-C2'	-6.08	97.63	103.10
1	AA	4812	DA	O4'-C4'-C3'	-6.08	102.07	104.50
115	B0	26	DA	O4'-C1'-C2'	-6.08	101.03	105.90
1	AA	1522	DT	O4'-C1'-C2'	-6.08	101.03	105.90
203	DQ	9	DG	O4'-C1'-C2'	-6.08	101.04	105.90
1	AA	4233	DT	O4'-C4'-C3'	-6.08	102.07	104.50
1	AA	2631	DA	O4'-C1'-C2'	-6.08	101.04	105.90
1	AA	706	DC	P-O5'-C5'	6.08	130.62	120.90
1	AA	2817	DA	O4'-C1'-C2'	-6.08	101.04	105.90
1	AA	3826	DC	P-O5'-C5'	6.08	130.62	120.90
163	Cm	15	DA	P-O3'-C3'	6.08	126.99	119.70
169	Cs	4	DA	O4'-C1'-C2'	-6.07	101.04	105.90
171	Cu	12	DA	P-O3'-C3'	6.07	126.99	119.70
1	AA	6083	DG	O4'-C1'-C2'	-6.07	101.04	105.90
1	AA	2006	DT	C4'-C3'-C2'	-6.07	97.64	103.10
1	AA	2016	DC	O4'-C1'-C2'	-6.07	101.04	105.90
1	AA	2240	DT	O4'-C1'-C2'	-6.07	101.04	105.90
1	AA	5562	DC	O4'-C1'-C2'	-6.07	101.04	105.90
41	Ao	29	DT	O4'-C1'-C2'	-6.07	101.04	105.90
43	Aq	1	DA	C1'-O4'-C4'	-6.07	104.03	110.10
96	Bh	38	DG	O4'-C1'-C2'	-6.07	101.04	105.90
154	Cd	17	DA	C1'-O4'-C4'	-6.07	104.03	110.10
1	AA	5809	DA	P-O3'-C3'	6.07	126.98	119.70
1	AA	2011	DA	C1'-O4'-C4'	-6.07	104.03	110.10
1	AA	2524	DC	C4'-C3'-C2'	-6.07	97.64	103.10
1	AA	5337	DA	N1-C6-N6	-6.07	114.96	118.60
11	AK	39	DA	C1'-O4'-C4'	-6.07	104.03	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	5500	DC	O4'-C1'-C2'	-6.07	101.05	105.90
4	AD	22	DC	C4'-C3'-C2'	-6.07	97.64	103.10
41	Ao	26	DT	C4'-C3'-C2'	-6.07	97.64	103.10
1	AA	7014	DC	O4'-C1'-C2'	-6.06	101.05	105.90
14	AN	1	DA	O4'-C1'-C2'	-6.06	101.05	105.90
1	AA	1931	DT	O4'-C1'-C2'	-6.06	101.05	105.90
1	AA	4949	DG	O4'-C1'-N9	6.06	112.24	108.00
175	Cy	15	DC	O4'-C4'-C3'	-6.06	102.08	104.50
1	AA	326	DG	O4'-C1'-C2'	-6.06	101.05	105.90
14	AN	1	DA	C1'-O4'-C4'	-6.06	104.04	110.10
128	CD	28	DA	O4'-C1'-C2'	-6.06	101.05	105.90
163	Cm	31	DA	N1-C6-N6	-6.06	114.97	118.60
1	AA	805	DA	O4'-C1'-C2'	-6.06	101.05	105.90
1	AA	5608	DG	O4'-C1'-C2'	-6.06	101.05	105.90
118	B3	1	DG	O4'-C1'-C2'	-6.06	101.05	105.90
182	C5	26	DG	P-O3'-C3'	6.06	126.97	119.70
1	AA	2871	DG	O4'-C4'-C3'	-6.05	102.08	104.50
81	BS	10	DT	C1'-O4'-C4'	-6.05	104.05	110.10
125	CA	11	DT	O4'-C1'-C2'	-6.05	101.06	105.90
1	AA	6641	DC	P-O3'-C3'	6.05	126.96	119.70
135	CK	14	DG	O4'-C1'-C2'	-6.05	101.06	105.90
1	AA	1864	DA	P-O3'-C3'	6.05	126.96	119.70
1	AA	3192	DA	O4'-C1'-C2'	-6.05	101.06	105.90
51	Ay	23	DA	C4'-C3'-C2'	-6.05	97.66	103.10
156	Cf	19	DA	O4'-C1'-C2'	-6.05	101.06	105.90
1	AA	1145	DG	C1'-O4'-C4'	-6.05	104.05	110.10
1	AA	1474	DA	C1'-O4'-C4'	-6.05	104.05	110.10
1	AA	1831	DA	O4'-C1'-C2'	-6.05	101.06	105.90
1	AA	3012	DT	O4'-C1'-C2'	-6.05	101.06	105.90
1	AA	4823	DG	C4'-C3'-C2'	-6.05	97.66	103.10
1	AA	502	DA	C1'-O4'-C4'	-6.04	104.06	110.10
154	Cd	40	DC	O4'-C1'-C2'	-6.04	101.06	105.90
68	BF	35	DA	O4'-C1'-C2'	-6.04	101.07	105.90
116	B1	26	DG	P-O3'-C3'	6.04	126.95	119.70
1	AA	2208	DG	P-O3'-C3'	6.04	126.95	119.70
1	AA	5041	DA	O4'-C1'-C2'	-6.04	101.07	105.90
1	AA	5175	DT	C1'-O4'-C4'	-6.04	104.06	110.10
112	Bx	2	DG	O4'-C1'-C2'	-6.04	101.07	105.90
1	AA	709	DA	O4'-C1'-C2'	-6.04	101.07	105.90
1	AA	3347	DA	O4'-C1'-C2'	-6.04	101.07	105.90
1	AA	5846	DT	C4'-C3'-C2'	-6.04	97.67	103.10
1	AA	6672	DC	O4'-C1'-N1	6.04	112.23	108.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	AK	27	DG	O4'-C1'-C2'	-6.04	101.07	105.90
202	DP	13	DA	O4'-C1'-C2'	-6.04	101.07	105.90
96	Bh	17	DG	O4'-C1'-C2'	-6.04	101.07	105.90
114	Bz	29	DA	O4'-C1'-C2'	-6.03	101.07	105.90
143	CS	34	DC	O4'-C1'-C2'	-6.03	101.07	105.90
1	AA	2727	DG	O4'-C1'-C2'	-6.03	101.08	105.90
77	BO	19	DA	O4'-C4'-C3'	-6.03	102.09	104.50
142	CR	34	DT	C4'-C3'-C2'	-6.03	97.67	103.10
173	Cw	36	DT	C4'-C3'-C2'	-6.03	97.67	103.10
185	C8	18	DA	O4'-C1'-C2'	-6.03	101.08	105.90
1	AA	37	DT	O4'-C1'-C2'	-6.03	101.08	105.90
1	AA	2669	DT	C4'-C3'-C2'	-6.03	97.67	103.10
1	AA	4606	DA	O4'-C1'-C2'	-6.03	101.08	105.90
1	AA	5109	DT	O4'-C4'-C3'	-6.03	102.09	104.50
1	AA	5242	DG	O4'-C1'-C2'	-6.03	101.08	105.90
20	AT	2	DA	O4'-C1'-C2'	-6.03	101.08	105.90
29	Ac	12	DA	O4'-C1'-C2'	-6.03	101.08	105.90
1	AA	2580	DG	O4'-C1'-C2'	-6.03	101.08	105.90
122	B7	4	DA	O4'-C4'-C3'	-6.03	102.09	104.50
57	A4	42	DG	O4'-C1'-C2'	-6.02	101.08	105.90
1	AA	6911	DG	C1'-O4'-C4'	-6.02	104.08	110.10
1	AA	422	DA	C1'-O4'-C4'	-6.02	104.08	110.10
1	AA	4594	DC	P-O5'-C5'	6.02	130.53	120.90
1	AA	5949	DG	O4'-C1'-C2'	-6.02	101.08	105.90
49	Aw	25	DA	N1-C6-N6	-6.02	114.99	118.60
1	AA	981	DT	C4'-C3'-C2'	-6.02	97.69	103.10
1	AA	2084	DT	C1'-O4'-C4'	-6.02	104.08	110.10
81	BS	34	DC	O4'-C1'-C2'	-6.01	101.09	105.90
1	AA	5673	DT	C4'-C3'-C2'	-6.01	97.69	103.10
143	CS	14	DC	O4'-C1'-C2'	-6.01	101.09	105.90
172	Cv	31	DA	C1'-O4'-C4'	-6.01	104.09	110.10
1	AA	5453	DG	C1'-O4'-C4'	-6.01	104.09	110.10
135	CK	26	DT	O4'-C4'-C3'	-6.01	102.10	104.50
1	AA	913	DG	P-O3'-C3'	6.01	126.91	119.70
81	BS	12	DG	O4'-C1'-C2'	-6.01	101.09	105.90
1	AA	2843	DG	C1'-O4'-C4'	-6.01	104.09	110.10
1	AA	6614	DT	C2-N1-C1'	6.01	127.81	118.20
46	At	32	DG	O4'-C4'-C3'	-6.01	102.10	104.50
1	AA	5787	DG	O4'-C1'-C2'	-6.00	101.10	105.90
1	AA	6913	DC	O4'-C1'-C2'	-6.00	101.10	105.90
11	AK	13	DA	O4'-C1'-C2'	-6.00	101.10	105.90
1	AA	2330	DC	O4'-C1'-C2'	-6.00	101.10	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	5585	DT	C4'-C3'-C2'	-6.00	97.70	103.10
1	AA	7193	DG	O4'-C1'-C2'	-6.00	101.10	105.90
25	AY	35	DA	P-O3'-C3'	6.00	126.91	119.70
149	CY	11	DG	O4'-C1'-C2'	-6.00	101.10	105.90
1	AA	4501	DA	O4'-C1'-C2'	-6.00	101.10	105.90
1	AA	4552	DG	C1'-O4'-C4'	-6.00	104.10	110.10
1	AA	5309	DT	C4'-C3'-C2'	-6.00	97.70	103.10
139	CO	10	DG	O4'-C1'-N9	6.00	112.20	108.00
1	AA	2709	DA	O4'-C1'-C2'	-6.00	101.10	105.90
1	AA	3431	DA	O4'-C1'-C2'	-6.00	101.10	105.90
1	AA	6438	DG	O4'-C1'-C2'	-6.00	101.10	105.90
105	Bq	35	DA	C4'-C3'-C2'	-6.00	97.70	103.10
107	Bs	2	DT	C4'-C3'-C2'	-6.00	97.70	103.10
1	AA	54	DT	C1'-O4'-C4'	-6.00	104.10	110.10
41	Ao	3	DT	C2-N1-C1'	6.00	127.80	118.20
1	AA	6473	DA	O4'-C4'-C3'	-6.00	102.10	104.50
148	CX	13	DT	C4'-C3'-C2'	-6.00	97.70	103.10
1	AA	2666	DA	O4'-C1'-C2'	-5.99	101.11	105.90
1	AA	5535	DG	O4'-C1'-C2'	-5.99	101.11	105.90
1	AA	5710	DT	C4'-C3'-C2'	-5.99	97.71	103.10
41	Ao	19	DT	P-O3'-C3'	5.99	126.89	119.70
1	AA	3377	DG	O4'-C1'-C2'	-5.99	101.11	105.90
106	Br	17	DG	O4'-C1'-C2'	-5.99	101.11	105.90
129	CE	16	DC	O4'-C1'-C2'	-5.99	101.11	105.90
1	AA	4241	DA	O4'-C1'-C2'	-5.99	101.11	105.90
111	Bw	9	DA	O4'-C4'-C3'	-5.99	102.10	104.50
1	AA	1829	DA	O4'-C1'-C2'	-5.99	101.11	105.90
64	BB	18	DC	C1'-O4'-C4'	-5.99	104.11	110.10
93	Be	27	DT	O4'-C4'-C3'	-5.99	102.11	104.50
1	AA	2162	DT	O4'-C4'-C3'	-5.99	102.11	104.50
1	AA	2571	DG	O4'-C1'-C2'	-5.99	101.11	105.90
1	AA	6687	DA	P-O3'-C3'	5.99	126.88	119.70
72	BJ	26	DG	O4'-C1'-C2'	-5.98	101.11	105.90
84	BV	14	DG	O4'-C1'-C2'	-5.98	101.11	105.90
152	Cb	13	DG	O4'-C1'-C2'	-5.98	101.11	105.90
184	C7	19	DT	O4'-C4'-C3'	-5.98	102.11	104.50
1	AA	406	DT	C4'-C3'-C2'	-5.98	97.72	103.10
1	AA	4579	DG	O4'-C1'-C2'	-5.98	101.11	105.90
109	Bu	1	DC	C4'-C3'-C2'	-5.98	97.72	103.10
193	DG	38	DC	P-O3'-C3'	5.98	126.88	119.70
1	AA	2342	DC	O4'-C1'-C2'	-5.98	101.11	105.90
134	CJ	29	DA	C1'-O4'-C4'	-5.98	104.12	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	403	DG	O4'-C1'-C2'	-5.98	101.12	105.90
1	AA	6081	DA	O4'-C1'-C2'	-5.98	101.12	105.90
83	BU	40	DT	O4'-C1'-C2'	-5.98	101.12	105.90
1	AA	4105	DA	O4'-C1'-C2'	-5.97	101.12	105.90
57	A4	12	DC	O4'-C1'-C2'	-5.97	101.12	105.90
1	AA	7176	DT	O4'-C4'-C3'	-5.97	102.11	104.50
1	AA	920	DT	C4'-C3'-C2'	-5.97	97.73	103.10
1	AA	1926	DG	O4'-C1'-N9	5.97	112.18	108.00
1	AA	2880	DT	O4'-C4'-C3'	-5.97	102.11	104.50
1	AA	3428	DT	O4'-C4'-C3'	-5.97	102.11	104.50
1	AA	3579	DT	C6-C5-C7	5.97	126.48	122.90
11	AK	23	DT	O4'-C1'-C2'	-5.97	101.12	105.90
59	A6	34	DG	O4'-C1'-C2'	-5.97	101.12	105.90
90	Bb	2	DA	C1'-O4'-C4'	-5.97	104.13	110.10
183	C6	27	DA	O4'-C1'-C2'	-5.97	101.13	105.90
1	AA	2526	DA	O4'-C1'-C2'	-5.97	101.13	105.90
1	AA	2908	DG	O4'-C1'-C2'	-5.97	101.13	105.90
1	AA	6977	DG	O4'-C1'-C2'	-5.97	101.13	105.90
1	AA	823	DA	O4'-C4'-C3'	-5.96	102.11	104.50
1	AA	4464	DT	C4'-C3'-C2'	-5.96	97.74	103.10
146	CV	24	DA	P-O3'-C3'	5.96	126.85	119.70
17	AQ	25	DG	C4'-C3'-C2'	-5.96	97.74	103.10
173	Cw	17	DT	C4'-C3'-C2'	-5.96	97.74	103.10
1	AA	1179	DC	C4'-C3'-C2'	-5.96	97.74	103.10
1	AA	4096	DG	O4'-C1'-C2'	-5.96	101.13	105.90
1	AA	6440	DC	P-O3'-C3'	5.96	126.85	119.70
1	AA	3612	DG	P-O3'-C3'	5.96	126.85	119.70
2	AB	6	DA	C1'-O4'-C4'	-5.96	104.14	110.10
103	Bo	7	DC	O4'-C1'-C2'	-5.96	101.13	105.90
107	Bs	28	DT	P-O3'-C3'	5.96	126.85	119.70
121	B6	28	DT	P-O3'-C3'	5.96	126.85	119.70
5	AE	18	DG	O4'-C1'-C2'	-5.96	101.14	105.90
1	AA	5258	DC	C4'-C3'-C2'	-5.95	97.75	103.10
26	AZ	3	DG	C4'-C3'-C2'	-5.95	97.75	103.10
1	AA	3907	DG	C4'-C3'-C2'	-5.95	97.75	103.10
1	AA	5900	DG	P-O3'-C3'	5.95	126.84	119.70
1	AA	2759	DA	C3'-C2'-C1'	-5.94	95.37	102.50
1	AA	1359	DG	O4'-C1'-C2'	-5.94	101.15	105.90
1	AA	1363	DT	C4'-C3'-C2'	-5.94	97.75	103.10
1	AA	2075	DA	O4'-C1'-C2'	-5.94	101.14	105.90
1	AA	2344	DG	C1'-O4'-C4'	-5.94	104.16	110.10
1	AA	7176	DT	C4'-C3'-C2'	-5.94	97.75	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
51	Ay	17	DA	O4'-C4'-C3'	-5.94	102.12	104.50
161	Ck	31	DG	O4'-C1'-C2'	-5.94	101.15	105.90
64	BB	30	DT	C4'-C3'-C2'	-5.94	97.75	103.10
82	BT	35	DA	O4'-C4'-C3'	-5.94	102.12	104.50
1	AA	326	DG	P-O3'-C3'	5.94	126.83	119.70
1	AA	6452	DT	C1'-O4'-C4'	-5.94	104.16	110.10
28	Ab	31	DA	O4'-C4'-C3'	-5.94	102.12	104.50
43	Aq	20	DA	O4'-C1'-C2'	-5.94	101.15	105.90
49	Aw	23	DG	O4'-C1'-C2'	-5.94	101.15	105.90
91	Bc	17	DA	O4'-C1'-C2'	-5.94	101.15	105.90
1	AA	572	DC	O4'-C1'-C2'	-5.94	101.15	105.90
116	B1	18	DT	C4'-C3'-C2'	-5.94	97.76	103.10
24	AX	23	DG	P-O3'-C3'	5.93	126.82	119.70
38	Al	20	DG	P-O3'-C3'	5.93	126.82	119.70
1	AA	5191	DC	P-O5'-C5'	5.93	130.39	120.90
1	AA	4566	DT	O4'-C4'-C3'	-5.93	102.13	104.50
1	AA	5299	DG	O4'-C1'-C2'	-5.93	101.16	105.90
46	At	13	DA	O4'-C1'-C2'	-5.93	101.16	105.90
56	A3	16	DA	C1'-O4'-C4'	-5.93	104.17	110.10
93	Be	16	DA	C5-C6-N6	-5.93	118.96	123.70
124	B9	27	DA	O4'-C1'-N9	-5.93	103.85	108.00
126	CB	15	DA	O4'-C1'-C2'	-5.93	101.16	105.90
163	Cm	6	DA	O4'-C1'-C2'	-5.93	101.16	105.90
1	AA	3135	DC	O4'-C1'-N1	5.93	112.15	108.00
1	AA	6994	DT	O4'-C1'-C2'	-5.93	101.16	105.90
154	Cd	38	DA	P-O3'-C3'	5.93	126.81	119.70
1	AA	661	DA	P-O3'-C3'	5.93	126.81	119.70
1	AA	919	DT	O4'-C1'-C2'	-5.93	101.16	105.90
1	AA	1393	DG	O4'-C1'-C2'	-5.92	101.16	105.90
1	AA	1762	DT	O4'-C4'-C3'	-5.92	102.13	104.50
1	AA	3869	DT	C1'-O4'-C4'	-5.92	104.18	110.10
170	Ct	32	DG	P-O3'-C3'	5.92	126.81	119.70
193	DG	10	DC	O4'-C1'-C2'	-5.92	101.16	105.90
1	AA	3057	DA	C4'-C3'-C2'	-5.92	97.77	103.10
102	Bn	13	DT	C4'-C3'-C2'	-5.92	97.77	103.10
1	AA	5942	DA	N1-C6-N6	-5.92	115.05	118.60
120	B5	39	DA	O4'-C1'-C2'	-5.92	101.16	105.90
134	CJ	19	DC	O4'-C1'-C2'	-5.92	101.16	105.90
1	AA	1882	DG	P-O3'-C3'	5.92	126.80	119.70
1	AA	2824	DC	C4'-C3'-C2'	-5.92	97.77	103.10
1	AA	2864	DC	O4'-C1'-C2'	-5.92	101.17	105.90
91	Bc	4	DG	O4'-C1'-C2'	-5.92	101.17	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	757	DG	C1'-O4'-C4'	-5.92	104.18	110.10
1	AA	4449	DT	C4'-C3'-C2'	-5.92	97.78	103.10
1	AA	6568	DT	O4'-C4'-C3'	-5.92	102.13	104.50
98	Bj	33	DG	C1'-O4'-C4'	-5.92	104.18	110.10
1	AA	2947	DG	C1'-O4'-C4'	-5.91	104.19	110.10
2	AB	30	DG	O4'-C1'-C2'	-5.91	101.17	105.90
41	Ao	3	DT	C6-N1-C1'	-5.91	111.53	120.40
188	DB	26	DA	O4'-C1'-C2'	-5.91	101.17	105.90
1	AA	614	DG	C4'-C3'-C2'	-5.91	97.78	103.10
1	AA	5647	DC	P-O5'-C5'	5.91	130.36	120.90
1	AA	5903	DA	C1'-O4'-C4'	-5.91	104.19	110.10
48	Av	12	DT	C4'-C3'-C2'	-5.91	97.78	103.10
191	DE	47	DT	O4'-C4'-C3'	-5.91	102.14	104.50
1	AA	733	DA	O4'-C1'-C2'	-5.91	101.17	105.90
1	AA	2929	DG	O4'-C1'-C2'	-5.91	101.17	105.90
68	BF	29	DC	O4'-C4'-C3'	-5.91	102.14	104.50
1	AA	3097	DG	O4'-C1'-C2'	-5.91	101.18	105.90
1	AA	3291	DG	O4'-C4'-C3'	-5.91	102.14	104.50
1	AA	3325	DC	C4'-C3'-C2'	-5.91	97.79	103.10
1	AA	4973	DA	C4'-C3'-C2'	-5.91	97.78	103.10
19	AS	27	DT	C4'-C3'-C2'	-5.91	97.78	103.10
188	DB	44	DC	C4'-C3'-C2'	-5.91	97.78	103.10
1	AA	5138	DA	P-O3'-C3'	5.90	126.78	119.70
64	BB	40	DT	C4'-C3'-C2'	-5.90	97.79	103.10
1	AA	5537	DA	O4'-C1'-C2'	-5.90	101.18	105.90
1	AA	5559	DG	C4'-C3'-C2'	-5.90	97.79	103.10
145	CU	23	DT	O4'-C1'-C2'	-5.90	101.18	105.90
1	AA	2555	DC	O4'-C1'-C2'	-5.90	101.18	105.90
1	AA	5327	DA	O4'-C1'-C2'	-5.90	101.18	105.90
195	DI	19	DC	O4'-C1'-C2'	-5.90	101.18	105.90
1	AA	27	DT	C4'-C3'-C2'	-5.89	97.80	103.10
30	Ad	10	DT	C1'-O4'-C4'	-5.89	104.21	110.10
1	AA	4894	DG	O4'-C1'-C2'	-5.89	101.19	105.90
64	BB	15	DG	P-O3'-C3'	5.89	126.77	119.70
152	Cb	28	DT	C4'-C3'-C2'	-5.89	97.80	103.10
1	AA	4378	DG	C1'-O4'-C4'	-5.89	104.21	110.10
138	CN	1	DA	C1'-O4'-C4'	-5.89	104.21	110.10
1	AA	1389	DA	O4'-C1'-C2'	-5.89	101.19	105.90
1	AA	3397	DT	C4'-C3'-C2'	-5.89	97.80	103.10
1	AA	6984	DC	O4'-C1'-C2'	-5.89	101.19	105.90
1	AA	5906	DC	O4'-C4'-C3'	-5.88	102.15	104.50
1	AA	5953	DG	C1'-O4'-C4'	-5.88	104.22	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
19	AS	16	DT	C4'-C3'-C2'	-5.88	97.80	103.10
89	Ba	31	DG	C4'-C3'-C2'	-5.88	97.80	103.10
9	AI	5	DC	O4'-C1'-C2'	-5.88	101.19	105.90
138	CN	13	DT	C1'-O4'-C4'	-5.88	104.22	110.10
1	AA	2199	DT	C4'-C3'-C2'	-5.88	97.81	103.10
106	Br	25	DG	C1'-O4'-C4'	-5.88	104.22	110.10
1	AA	2969	DG	C1'-O4'-C4'	-5.88	104.22	110.10
1	AA	6440	DC	O4'-C1'-C2'	-5.88	101.20	105.90
30	Ad	10	DT	P-O3'-C3'	5.88	126.76	119.70
37	Ak	24	DA	O4'-C1'-C2'	-5.88	101.20	105.90
1	AA	1426	DG	O4'-C1'-C2'	-5.88	101.20	105.90
1	AA	2397	DG	O4'-C1'-C2'	-5.88	101.20	105.90
1	AA	4953	DG	O4'-C1'-C2'	-5.88	101.20	105.90
1	AA	6532	DC	P-O3'-C3'	5.88	126.75	119.70
74	BL	21	DA	P-O3'-C3'	5.88	126.75	119.70
123	B8	5	DC	O4'-C1'-C2'	-5.88	101.20	105.90
1	AA	1620	DT	C1'-O4'-C4'	-5.87	104.23	110.10
1	AA	4836	DG	O4'-C1'-N9	5.87	112.11	108.00
1	AA	5209	DG	O4'-C1'-C2'	-5.87	101.20	105.90
1	AA	5800	DA	C1'-O4'-C4'	-5.87	104.23	110.10
57	A4	21	DT	O4'-C4'-C3'	-5.87	102.15	104.50
1	AA	757	DG	O4'-C1'-C2'	-5.87	101.20	105.90
1	AA	6654	DA	O4'-C1'-C2'	-5.87	101.20	105.90
1	AA	6817	DG	C5-C6-O6	-5.87	125.08	128.60
79	BQ	2	DG	O4'-C1'-C2'	-5.87	101.20	105.90
144	CT	26	DA	O4'-C1'-C2'	-5.87	101.20	105.90
1	AA	1177	DC	O4'-C1'-C2'	-5.87	101.20	105.90
1	AA	6541	DG	O4'-C1'-C2'	-5.87	101.21	105.90
1	AA	4561	DG	O4'-C1'-C2'	-5.87	101.21	105.90
17	AQ	18	DA	O4'-C1'-C2'	-5.87	101.21	105.90
80	BR	10	DA	P-O3'-C3'	5.87	126.74	119.70
1	AA	716	DA	O4'-C1'-C2'	-5.86	101.21	105.90
1	AA	2745	DG	O4'-C1'-C2'	-5.86	101.21	105.90
1	AA	4115	DG	O4'-C1'-C2'	-5.86	101.21	105.90
1	AA	5886	DT	C4'-C3'-C2'	-5.86	97.82	103.10
1	AA	5306	DC	O4'-C1'-C2'	-5.86	101.21	105.90
1	AA	6134	DC	O4'-C1'-C2'	-5.86	101.21	105.90
23	AW	1	DG	C5-C6-O6	-5.86	125.08	128.60
69	BG	16	DG	C4'-C3'-C2'	-5.86	97.83	103.10
109	Bu	24	DA	C4-N9-C1'	5.86	136.85	126.30
119	B4	8	DC	C4'-C3'-C2'	-5.86	97.83	103.10
36	Aj	23	DG	O4'-C1'-C2'	-5.86	101.21	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
93	Be	1	DA	C1'-O4'-C4'	-5.86	104.24	110.10
1	AA	1291	DA	O4'-C1'-C2'	-5.86	101.22	105.90
1	AA	1318	DC	O4'-C4'-C3'	-5.86	102.16	104.50
1	AA	3881	DT	O4'-C1'-C2'	-5.86	101.22	105.90
1	AA	5429	DC	C4'-C3'-C2'	-5.86	97.83	103.10
1	AA	5846	DT	O4'-C4'-C3'	-5.86	102.16	104.50
50	Ax	30	DT	O4'-C4'-C3'	-5.86	102.16	104.50
1	AA	3987	DT	C4'-C3'-C2'	-5.86	97.83	103.10
8	AH	4	DT	O4'-C4'-C3'	-5.86	102.16	104.50
134	CJ	27	DA	O4'-C4'-C3'	-5.86	102.16	104.50
199	DM	26	DA	O4'-C1'-C2'	-5.86	101.22	105.90
1	AA	5885	DA	P-O3'-C3'	-5.85	112.67	119.70
92	Bd	1	DC	C4'-C3'-C2'	-5.85	97.83	103.10
1	AA	4891	DA	O4'-C1'-C2'	-5.85	101.22	105.90
1	AA	7165	DT	C4'-C3'-C2'	-5.85	97.83	103.10
88	BZ	1	DA	N1-C6-N6	-5.85	115.09	118.60
133	CI	18	DT	O4'-C1'-C2'	-5.85	101.22	105.90
1	AA	3545	DA	O4'-C4'-C3'	-5.85	102.16	104.50
1	AA	2268	DC	P-O5'-C5'	5.85	130.26	120.90
1	AA	6290	DA	C4'-C3'-C2'	-5.85	97.84	103.10
185	C8	10	DT	C1'-O4'-C4'	-5.85	104.25	110.10
1	AA	3735	DT	P-O3'-C3'	5.85	126.72	119.70
1	AA	739	DA	O4'-C1'-C2'	-5.84	101.22	105.90
51	Ay	39	DG	P-O3'-C3'	5.84	126.71	119.70
127	CC	13	DC	O4'-C4'-C3'	-5.84	102.16	104.50
89	Ba	35	DA	O4'-C1'-C2'	-5.84	101.22	105.90
5	AE	4	DT	C4'-C3'-C2'	-5.84	97.84	103.10
49	Aw	6	DA	N1-C6-N6	-5.84	115.09	118.60
1	AA	454	DT	C4'-C3'-C2'	-5.84	97.84	103.10
1	AA	3612	DG	O4'-C1'-C2'	-5.84	101.23	105.90
163	Cm	3	DA	C1'-O4'-C4'	-5.84	104.26	110.10
47	Au	25	DG	P-O3'-C3'	5.84	126.70	119.70
158	Ch	21	DA	O4'-C1'-C2'	-5.84	101.23	105.90
177	C0	48	DA	O4'-C1'-C2'	-5.84	101.23	105.90
194	DH	31	DC	C4'-C3'-C2'	-5.84	97.84	103.10
1	AA	1041	DC	P-O5'-C5'	5.84	130.24	120.90
1	AA	3674	DA	C4'-C3'-C2'	-5.84	97.85	103.10
1	AA	6476	DG	C1'-O4'-C4'	-5.84	104.26	110.10
1	AA	6837	DC	C2-N1-C1'	5.84	125.22	118.80
1	AA	5589	DT	O4'-C4'-C3'	-5.83	102.17	104.50
1	AA	1243	DA	O4'-C1'-C2'	-5.83	101.23	105.90
1	AA	3495	DG	O4'-C1'-C2'	-5.83	101.23	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
102	Bn	24	DC	P-O3'-C3'	-5.83	112.70	119.70
153	Cc	10	DA	P-O3'-C3'	5.83	126.70	119.70
120	B5	1	DT	C4'-C3'-C2'	-5.83	97.85	103.10
1	AA	1639	DC	O4'-C4'-C3'	-5.83	102.17	104.50
136	CL	17	DT	C4'-C3'-C2'	-5.83	97.86	103.10
161	Ck	22	DT	P-O3'-C3'	5.83	126.69	119.70
1	AA	2723	DA	O4'-C4'-C3'	-5.83	102.17	104.50
1	AA	5960	DA	O4'-C1'-C2'	-5.83	101.24	105.90
118	B3	18	DC	O4'-C1'-C2'	-5.83	101.24	105.90
1	AA	5136	DT	O4'-C1'-C2'	-5.83	101.24	105.90
1	AA	6236	DG	O4'-C1'-C2'	-5.83	101.24	105.90
1	AA	6464	DG	O4'-C1'-C2'	-5.83	101.24	105.90
73	BK	18	DA	O4'-C4'-C3'	-5.82	102.17	104.50
74	BL	21	DA	O4'-C1'-C2'	-5.82	101.24	105.90
77	BO	35	DA	P-O3'-C3'	5.82	126.69	119.70
1	AA	6297	DG	C1'-O4'-C4'	-5.82	104.28	110.10
12	AL	11	DA	O4'-C1'-C2'	-5.82	101.24	105.90
57	A4	12	DC	P-O3'-C3'	5.82	126.69	119.70
1	AA	7012	DG	P-O3'-C3'	5.82	126.69	119.70
28	Ab	15	DT	O4'-C1'-C2'	-5.82	101.24	105.90
77	BO	2	DT	O4'-C4'-C3'	-5.82	102.17	104.50
1	AA	1900	DC	P-O5'-C5'	5.82	130.21	120.90
56	A3	7	DC	P-O5'-C5'	5.82	130.21	120.90
77	BO	19	DA	C4'-C3'-C2'	-5.82	97.86	103.10
80	BR	23	DT	C4'-C3'-C2'	-5.82	97.86	103.10
123	B8	26	DA	O4'-C1'-C2'	-5.82	101.25	105.90
185	C8	26	DT	C4'-C3'-C2'	-5.82	97.86	103.10
89	Ba	1	DC	C4'-C3'-C2'	-5.81	97.87	103.10
110	Bv	3	DG	O4'-C1'-C2'	-5.81	101.25	105.90
1	AA	4896	DT	O4'-C1'-C2'	-5.81	101.25	105.90
1	AA	5895	DG	O4'-C1'-N9	5.81	112.07	108.00
1	AA	3482	DC	P-O3'-C3'	5.81	126.67	119.70
1	AA	5857	DG	P-O3'-C3'	5.81	126.67	119.70
48	Av	27	DA	C1'-O4'-C4'	-5.81	104.29	110.10
1	AA	391	DG	P-O3'-C3'	5.81	126.67	119.70
1	AA	4381	DA	O4'-C1'-C2'	-5.81	101.25	105.90
1	AA	4741	DA	N1-C6-N6	-5.81	115.12	118.60
74	BL	21	DA	C4-N9-C1'	5.81	136.75	126.30
1	AA	6282	DA	O4'-C1'-C2'	-5.81	101.25	105.90
80	BR	34	DC	P-O3'-C3'	5.80	126.66	119.70
1	AA	3737	DT	C6-C5-C7	-5.80	119.42	122.90
1	AA	5153	DT	O4'-C4'-C3'	-5.80	102.18	104.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
125	CA	35	DC	O4'-C4'-C3'	-5.80	102.18	104.50
129	CE	24	DA	N1-C6-N6	-5.80	115.12	118.60
156	Cf	36	DA	O4'-C1'-C2'	-5.80	101.26	105.90
7	AG	13	DA	O4'-C1'-C2'	-5.80	101.26	105.90
69	BG	12	DT	C4'-C3'-C2'	-5.80	97.88	103.10
129	CE	26	DG	C1'-O4'-C4'	-5.80	104.30	110.10
1	AA	1578	DG	O4'-C1'-C2'	-5.80	101.26	105.90
1	AA	2705	DC	C4'-C3'-C2'	-5.80	97.88	103.10
1	AA	4309	DC	P-O5'-C5'	5.80	130.18	120.90
89	Ba	24	DC	C2-N1-C1'	5.80	125.18	118.80
141	CQ	11	DA	C1'-O4'-C4'	-5.80	104.30	110.10
202	DP	16	DC	C2-N1-C1'	5.80	125.18	118.80
1	AA	4175	DA	O4'-C1'-C2'	-5.80	101.26	105.90
1	AA	4784	DC	P-O5'-C5'	5.80	130.18	120.90
1	AA	5606	DA	O4'-C1'-C2'	-5.80	101.26	105.90
1	AA	5979	DG	O4'-C1'-N9	5.80	112.06	108.00
203	DQ	6	DC	O4'-C4'-C3'	-5.80	102.18	104.50
1	AA	6556	DA	C4'-C3'-C2'	-5.79	97.89	103.10
131	CG	9	DG	O4'-C1'-C2'	-5.79	101.27	105.90
200	DN	7	DT	P-O3'-C3'	5.79	126.65	119.70
1	AA	18	DT	C4'-C3'-C2'	-5.79	97.89	103.10
15	AO	34	DG	P-O3'-C3'	5.79	126.65	119.70
145	CU	41	DC	C4'-C3'-C2'	-5.79	97.89	103.10
48	Av	9	DC	O4'-C1'-N1	5.79	112.05	108.00
1	AA	1642	DT	C4'-C3'-C2'	-5.79	97.89	103.10
1	AA	3382	DC	P-O5'-C5'	5.79	130.16	120.90
1	AA	5518	DG	O4'-C1'-C2'	-5.79	101.27	105.90
139	CO	27	DC	O4'-C1'-C2'	-5.79	101.27	105.90
1	AA	2382	DG	O4'-C1'-C2'	-5.78	101.27	105.90
1	AA	2999	DG	O4'-C1'-C2'	-5.78	101.27	105.90
1	AA	4333	DT	C4'-C3'-C2'	-5.78	97.89	103.10
1	AA	6228	DA	O4'-C4'-C3'	-5.78	102.19	104.50
1	AA	73	DG	C1'-O4'-C4'	-5.78	104.32	110.10
185	C8	1	DA	N1-C6-N6	-5.78	115.13	118.60
1	AA	2555	DC	P-O3'-C3'	5.78	126.64	119.70
1	AA	3322	DT	C2-N1-C1'	5.78	127.45	118.20
27	Aa	11	DA	O4'-C1'-N9	5.78	112.04	108.00
105	Bq	40	DG	O4'-C4'-C3'	-5.78	102.19	104.50
1	AA	4078	DC	P-O5'-C5'	5.77	130.14	120.90
151	Ca	17	DA	O4'-C4'-C3'	-5.77	102.19	104.50
1	AA	4453	DA	O4'-C1'-C2'	-5.77	101.28	105.90
135	CK	26	DT	C4'-C3'-C2'	-5.77	97.91	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	5202	DG	C1'-O4'-C4'	-5.77	104.33	110.10
1	AA	7092	DC	P-O5'-C5'	5.77	130.13	120.90
1	AA	6065	DA	O4'-C1'-C2'	-5.76	101.29	105.90
100	Bl	34	DC	P-O3'-C3'	5.76	126.62	119.70
158	Ch	24	DC	C6-N1-C2	-5.76	117.99	120.30
1	AA	723	DG	O4'-C1'-C2'	-5.76	101.29	105.90
1	AA	3368	DA	P-O3'-C3'	5.76	126.62	119.70
1	AA	5773	DG	O4'-C1'-C2'	-5.76	101.29	105.90
1	AA	6375	DA	C1'-O4'-C4'	-5.76	104.34	110.10
1	AA	3318	DA	O4'-C1'-C2'	-5.76	101.29	105.90
75	BM	2	DC	C4'-C3'-C2'	-5.76	97.92	103.10
89	Ba	9	DG	O4'-C1'-N9	5.76	112.03	108.00
135	CK	32	DA	O4'-C1'-C2'	-5.76	101.29	105.90
174	Cx	47	DG	P-O3'-C3'	5.76	126.61	119.70
1	AA	1257	DG	O4'-C1'-C2'	-5.76	101.30	105.90
1	AA	3295	DC	O4'-C1'-C2'	-5.76	101.30	105.90
1	AA	5425	DA	O4'-C1'-C2'	-5.76	101.29	105.90
1	AA	5961	DG	C4'-C3'-C2'	-5.76	97.92	103.10
1	AA	6315	DG	O4'-C1'-N9	5.76	112.03	108.00
1	AA	7153	DT	C1'-O4'-C4'	-5.76	104.34	110.10
49	Aw	29	DC	C4'-C3'-C2'	-5.76	97.92	103.10
110	Bv	11	DG	C1'-O4'-C4'	-5.76	104.34	110.10
1	AA	110	DC	P-O5'-C5'	5.75	130.11	120.90
9	AI	21	DA	O4'-C1'-C2'	-5.75	101.30	105.90
1	AA	4085	DT	O4'-C4'-C3'	-5.75	102.20	104.50
19	AS	16	DT	O4'-C4'-C3'	-5.75	102.20	104.50
132	CH	10	DG	P-O3'-C3'	5.75	126.60	119.70
173	Cw	14	DC	C4'-C3'-C2'	-5.75	97.92	103.10
1	AA	5218	DG	O4'-C1'-C2'	-5.75	101.30	105.90
1	AA	3057	DA	O4'-C1'-C2'	-5.75	101.30	105.90
1	AA	4323	DA	O4'-C1'-C2'	-5.75	101.30	105.90
1	AA	4596	DG	P-O3'-C3'	5.75	126.60	119.70
51	Ay	35	DA	O4'-C1'-C2'	-5.75	101.30	105.90
186	C9	2	DG	C4'-C3'-C2'	-5.75	97.93	103.10
203	DQ	6	DC	C4'-C3'-C2'	-5.75	97.93	103.10
1	AA	6684	DC	O4'-C4'-C3'	-5.75	102.20	104.50
1	AA	1113	DC	O4'-C4'-C3'	-5.75	102.20	104.50
1	AA	129	DG	P-O3'-C3'	5.74	126.59	119.70
1	AA	4420	DC	P-O5'-C5'	5.74	130.09	120.90
1	AA	744	DT	C4'-C3'-C2'	-5.74	97.93	103.10
42	Ap	6	DT	P-O3'-C3'	5.74	126.59	119.70
77	BO	13	DG	O4'-C1'-C2'	-5.74	101.31	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
116	B1	31	DG	P-O3'-C3'	5.74	126.59	119.70
178	C1	34	DG	C4-N9-C1'	5.74	133.96	126.50
1	AA	1744	DG	P-O3'-C3'	5.74	126.59	119.70
34	Ah	1	DA	C1'-O4'-C4'	-5.74	104.36	110.10
1	AA	194	DA	O4'-C1'-C2'	-5.74	101.31	105.90
1	AA	1038	DC	C6-N1-C2	-5.74	118.00	120.30
1	AA	6614	DT	C6-N1-C1'	-5.74	111.79	120.40
1	AA	1122	DG	P-O3'-C3'	5.74	126.58	119.70
1	AA	1328	DC	P-O5'-C5'	5.74	130.08	120.90
1	AA	3029	DT	C1'-O4'-C4'	-5.74	104.36	110.10
159	Ci	9	DT	O4'-C4'-C3'	-5.74	102.21	104.50
1	AA	1519	DT	C4'-C3'-C2'	-5.73	97.94	103.10
79	BQ	10	DA	O4'-C1'-C2'	-5.73	101.31	105.90
1	AA	1483	DA	N1-C6-N6	-5.73	115.16	118.60
1	AA	6953	DA	O4'-C1'-C2'	-5.73	101.31	105.90
77	BO	21	DA	O4'-C1'-C2'	-5.73	101.31	105.90
1	AA	10	DA	C4'-C3'-C2'	-5.73	97.94	103.10
1	AA	2725	DA	O4'-C1'-C2'	-5.73	101.31	105.90
1	AA	6754	DG	O4'-C1'-C2'	-5.73	101.31	105.90
91	Bc	10	DG	O4'-C1'-C2'	-5.73	101.32	105.90
1	AA	2685	DG	O4'-C4'-C3'	-5.73	102.21	104.50
1	AA	3650	DT	C4'-C3'-C2'	-5.73	97.94	103.10
40	An	4	DT	C4'-C3'-C2'	-5.73	97.94	103.10
1	AA	1917	DC	O4'-C1'-C2'	-5.73	101.32	105.90
1	AA	2775	DG	O4'-C1'-C2'	-5.73	101.32	105.90
83	BU	33	DT	O4'-C1'-C2'	-5.73	101.32	105.90
50	Ax	27	DA	N1-C6-N6	-5.72	115.17	118.60
1	AA	1435	DG	O4'-C1'-C2'	-5.72	101.32	105.90
1	AA	2448	DG	O4'-C1'-C2'	-5.72	101.32	105.90
1	AA	5017	DT	O4'-C1'-C2'	-5.72	101.32	105.90
1	AA	4609	DG	O4'-C1'-C2'	-5.72	101.32	105.90
1	AA	5654	DG	C1'-O4'-C4'	-5.72	104.38	110.10
30	Ad	2	DA	P-O3'-C3'	5.72	126.56	119.70
185	C8	1	DA	O4'-C1'-C2'	-5.72	101.32	105.90
1	AA	1539	DA	C4'-C3'-C2'	-5.72	97.95	103.10
1	AA	1908	DG	O4'-C1'-C2'	-5.72	101.33	105.90
1	AA	6614	DT	C1'-O4'-C4'	-5.72	104.38	110.10
15	AO	10	DG	O4'-C1'-C2'	-5.72	101.33	105.90
144	CT	7	DA	N1-C6-N6	-5.72	115.17	118.60
158	Ch	24	DC	C2-N1-C1'	5.72	125.09	118.80
1	AA	418	DA	C1'-O4'-C4'	-5.71	104.39	110.10
1	AA	3433	DA	C4'-C3'-C2'	-5.71	97.96	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
88	BZ	27	DA	O4'-C1'-C2'	-5.71	101.33	105.90
122	B7	6	DT	C4'-C3'-C2'	-5.71	97.96	103.10
120	B5	15	DG	O4'-C1'-C2'	-5.71	101.33	105.90
1	AA	2467	DC	O4'-C1'-C2'	-5.71	101.33	105.90
1	AA	1381	DG	O4'-C1'-N9	5.71	112.00	108.00
1	AA	1262	DG	P-O3'-C3'	5.71	126.55	119.70
1	AA	1580	DG	O4'-C1'-C2'	-5.71	101.33	105.90
1	AA	4519	DT	O4'-C4'-C3'	-5.71	102.22	104.50
53	A0	26	DT	O4'-C1'-C2'	-5.71	101.33	105.90
1	AA	643	DG	O4'-C1'-N9	5.71	111.99	108.00
1	AA	3079	DA	O4'-C1'-C2'	-5.71	101.33	105.90
1	AA	4169	DA	O4'-C1'-C2'	-5.71	101.33	105.90
83	BU	15	DA	N1-C6-N6	-5.71	115.18	118.60
138	CN	29	DT	C4'-C3'-C2'	-5.71	97.96	103.10
1	AA	1926	DG	C1'-O4'-C4'	-5.71	104.39	110.10
1	AA	267	DG	O4'-C1'-C2'	-5.70	101.34	105.90
1	AA	5739	DA	O4'-C1'-C2'	-5.70	101.34	105.90
22	AV	29	DG	O4'-C1'-C2'	-5.70	101.34	105.90
1	AA	2952	DT	C4'-C3'-C2'	-5.70	97.97	103.10
5	AE	37	DA	O4'-C1'-C2'	-5.70	101.34	105.90
200	DN	34	DA	O4'-C1'-C2'	-5.70	101.34	105.90
1	AA	256	DT	C1'-O4'-C4'	-5.70	104.40	110.10
1	AA	1178	DG	N1-C6-O6	5.70	123.32	119.90
1	AA	2878	DG	C1'-O4'-C4'	-5.70	104.40	110.10
1	AA	5875	DA	O4'-C1'-C2'	-5.70	101.34	105.90
42	Ap	2	DT	C4'-C3'-C2'	-5.70	97.97	103.10
97	Bi	27	DA	O4'-C1'-C2'	-5.70	101.34	105.90
1	AA	760	DC	C4'-C3'-C2'	-5.70	97.97	103.10
1	AA	4551	DG	C1'-O4'-C4'	-5.70	104.40	110.10
44	Ar	33	DA	O4'-C1'-C2'	-5.70	101.34	105.90
131	CG	39	DA	O4'-C1'-C2'	-5.70	101.34	105.90
133	CI	12	DG	O4'-C4'-C3'	-5.70	102.22	104.50
1	AA	3370	DC	C4'-C3'-C2'	-5.70	97.97	103.10
1	AA	4313	DG	P-O3'-C3'	5.70	126.54	119.70
106	Br	10	DA	O4'-C4'-C3'	-5.70	102.22	104.50
125	CA	37	DG	O4'-C1'-C2'	-5.70	101.34	105.90
111	Bw	20	DG	O4'-C1'-C2'	-5.70	101.34	105.90
178	C1	34	DG	C1'-O4'-C4'	-5.70	104.40	110.10
1	AA	6050	DT	O4'-C1'-C2'	-5.69	101.34	105.90
4	AD	3	DA	C4'-C3'-C2'	-5.69	97.97	103.10
1	AA	2487	DG	O4'-C1'-C2'	-5.69	101.35	105.90
1	AA	2871	DG	C1'-O4'-C4'	-5.69	104.41	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	5743	DG	P-O3'-C3'	5.69	126.53	119.70
1	AA	2310	DG	C1'-O4'-C4'	-5.69	104.41	110.10
1	AA	6364	DC	P-O3'-C3'	5.69	126.53	119.70
58	A5	33	DA	C1'-O4'-C4'	-5.69	104.41	110.10
136	CL	37	DT	O4'-C1'-C2'	-5.69	101.35	105.90
1	AA	4836	DG	C1'-O4'-C4'	-5.69	104.41	110.10
177	C0	19	DT	C4'-C3'-C2'	-5.69	97.98	103.10
1	AA	6388	DG	O4'-C1'-C2'	-5.69	101.35	105.90
1	AA	586	DG	C5-C6-O6	-5.68	125.19	128.60
1	AA	1067	DC	P-O5'-C5'	5.68	130.00	120.90
1	AA	1884	DG	O4'-C1'-C2'	-5.68	101.35	105.90
1	AA	5663	DT	C4'-C3'-C2'	-5.68	97.98	103.10
1	AA	6528	DG	O4'-C1'-C2'	-5.68	101.35	105.90
5	AE	47	DA	O4'-C1'-C2'	-5.68	101.35	105.90
122	B7	4	DA	C4'-C3'-C2'	-5.68	97.98	103.10
156	Cf	10	DG	O4'-C1'-C2'	-5.68	101.35	105.90
1	AA	817	DC	P-O5'-C5'	5.68	129.99	120.90
1	AA	1148	DG	C5-C6-O6	-5.68	125.19	128.60
1	AA	5460	DA	N1-C6-N6	-5.68	115.19	118.60
36	Aj	7	DG	C1'-O4'-C4'	-5.68	104.42	110.10
90	Bb	18	DT	C4'-C3'-C2'	-5.68	97.99	103.10
105	Bq	40	DG	C1'-O4'-C4'	-5.68	104.42	110.10
178	C1	11	DG	O4'-C1'-C2'	-5.68	101.35	105.90
1	AA	6430	DG	P-O3'-C3'	5.68	126.52	119.70
59	A6	32	DC	C2-N1-C1'	5.68	125.05	118.80
80	BR	26	DA	O4'-C1'-C2'	-5.68	101.36	105.90
1	AA	6224	DG	O4'-C1'-C2'	-5.68	101.36	105.90
76	BN	28	DC	O4'-C1'-N1	5.68	111.98	108.00
116	B1	16	DG	O4'-C1'-C2'	-5.68	101.36	105.90
1	AA	2926	DT	C4'-C3'-C2'	-5.68	97.99	103.10
77	BO	2	DT	C4'-C3'-C2'	-5.68	97.99	103.10
101	Bm	26	DA	O4'-C1'-C2'	-5.68	101.36	105.90
1	AA	5986	DA	O4'-C1'-C2'	-5.68	101.36	105.90
1	AA	6467	DA	O4'-C1'-C2'	-5.68	101.36	105.90
1	AA	6482	DG	O4'-C1'-C2'	-5.68	101.36	105.90
82	BT	35	DA	C4'-C3'-C2'	-5.68	97.99	103.10
103	Bo	5	DA	O4'-C1'-C2'	-5.68	101.36	105.90
134	CJ	34	DT	C1'-O4'-C4'	-5.68	104.42	110.10
1	AA	799	DT	O4'-C4'-C3'	-5.67	102.23	104.50
1	AA	3399	DG	C4'-C3'-C2'	-5.67	97.99	103.10
1	AA	5730	DC	O4'-C1'-C2'	-5.67	101.36	105.90
1	AA	5776	DC	P-O5'-C5'	5.67	129.98	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	5066	DG	C4'-C3'-C2'	-5.67	98.00	103.10
1	AA	5658	DT	O4'-C4'-C3'	-5.67	102.23	104.50
1	AA	5928	DA	C4'-C3'-C2'	-5.67	98.00	103.10
93	Be	19	DG	O4'-C4'-C3'	-5.67	102.23	104.50
83	BU	17	DG	O4'-C1'-C2'	-5.67	101.37	105.90
125	CA	1	DA	P-O3'-C3'	5.67	126.50	119.70
1	AA	6264	DT	O4'-C1'-C2'	-5.67	101.37	105.90
1	AA	316	DG	O4'-C1'-C2'	-5.66	101.37	105.90
1	AA	2515	DA	O4'-C1'-C2'	-5.66	101.37	105.90
6	AF	12	DA	O4'-C1'-C2'	-5.66	101.37	105.90
1	AA	4034	DA	O4'-C1'-C2'	-5.66	101.37	105.90
1	AA	6290	DA	O4'-C4'-C3'	-5.66	102.23	104.50
198	DL	10	DG	O4'-C1'-C2'	-5.66	101.37	105.90
1	AA	4300	DA	O4'-C1'-C2'	-5.66	101.37	105.90
1	AA	5562	DC	P-O3'-C3'	5.66	126.49	119.70
1	AA	1789	DG	O4'-C4'-C3'	-5.66	102.24	104.50
1	AA	2580	DG	P-O3'-C3'	5.66	126.49	119.70
1	AA	2777	DG	P-O3'-C3'	5.66	126.49	119.70
1	AA	4564	DA	O4'-C1'-C2'	-5.66	101.38	105.90
1	AA	5453	DG	P-O3'-C3'	5.66	126.49	119.70
12	AL	29	DG	O4'-C1'-C2'	-5.66	101.38	105.90
16	AP	20	DA	O4'-C1'-C2'	-5.66	101.38	105.90
38	Al	1	DT	C4'-C3'-C2'	-5.66	98.01	103.10
68	BF	36	DT	O4'-C1'-C2'	-5.66	101.38	105.90
1	AA	436	DA	C4'-C3'-C2'	-5.65	98.01	103.10
1	AA	3879	DG	P-O3'-C3'	5.65	126.48	119.70
1	AA	6578	DC	P-O3'-C3'	5.65	126.48	119.70
1	AA	144	DT	C1'-O4'-C4'	-5.65	104.45	110.10
24	AX	14	DT	C4'-C3'-C2'	-5.65	98.02	103.10
93	Be	27	DT	C4'-C3'-C2'	-5.65	98.02	103.10
157	Cg	22	DA	P-O3'-C3'	5.65	126.48	119.70
1	AA	6591	DA	N1-C6-N6	-5.65	115.21	118.60
27	Aa	21	DT	C4'-C3'-C2'	-5.65	98.02	103.10
41	Ao	3	DT	O4'-C1'-C2'	-5.65	101.38	105.90
1	AA	4203	DA	O4'-C1'-C2'	-5.65	101.38	105.90
26	AZ	43	DG	C1'-O4'-C4'	-5.65	104.45	110.10
1	AA	4470	DT	O4'-C4'-C3'	-5.64	102.24	104.50
82	BT	38	DA	N1-C6-N6	-5.64	115.21	118.60
149	CY	19	DG	O4'-C1'-C2'	-5.64	101.39	105.90
1	AA	6552	DG	O4'-C1'-C2'	-5.64	101.39	105.90
1	AA	6738	DA	P-O3'-C3'	5.64	126.47	119.70
16	AP	11	DA	N1-C6-N6	-5.64	115.22	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	4325	DC	O4'-C1'-C2'	-5.64	101.39	105.90
1	AA	5123	DC	P-O5'-C5'	5.64	129.93	120.90
1	AA	5437	DG	O4'-C1'-C2'	-5.64	101.39	105.90
33	Ag	28	DA	C1'-O4'-C4'	-5.64	104.46	110.10
80	BR	10	DA	O4'-C1'-C2'	-5.64	101.39	105.90
192	DF	18	DA	O4'-C1'-C2'	-5.64	101.39	105.90
1	AA	3000	DG	O4'-C1'-N9	5.64	111.95	108.00
1	AA	4732	DT	O4'-C1'-C2'	-5.64	101.39	105.90
1	AA	5100	DT	C4'-C3'-C2'	-5.64	98.02	103.10
1	AA	5789	DC	O4'-C1'-C2'	-5.64	101.39	105.90
38	Al	13	DT	C4'-C3'-C2'	-5.64	98.03	103.10
74	BL	21	DA	C8-N9-C1'	-5.64	117.55	127.70
118	B3	10	DG	C1'-O4'-C4'	-5.64	104.46	110.10
98	Bj	45	DT	C4'-C3'-C2'	-5.64	98.03	103.10
108	Bt	23	DG	O4'-C1'-C2'	-5.64	101.39	105.90
177	C0	19	DT	O4'-C4'-C3'	-5.64	102.25	104.50
1	AA	6841	DG	O4'-C1'-C2'	-5.63	101.39	105.90
154	Cd	18	DG	O4'-C1'-C2'	-5.63	101.39	105.90
167	Cq	28	DT	O4'-C1'-C2'	-5.63	101.39	105.90
1	AA	661	DA	C1'-O4'-C4'	-5.63	104.47	110.10
1	AA	2069	DG	O4'-C1'-C2'	-5.63	101.39	105.90
1	AA	7075	DT	O4'-C1'-C2'	-5.63	101.39	105.90
146	CV	28	DG	O4'-C1'-C2'	-5.63	101.39	105.90
1	AA	16	DA	O4'-C1'-C2'	-5.63	101.39	105.90
1	AA	1765	DT	C1'-O4'-C4'	-5.63	104.47	110.10
1	AA	2671	DC	O4'-C1'-C2'	-5.63	101.39	105.90
1	AA	3012	DT	C4-C5-C7	5.63	122.38	119.00
1	AA	3674	DA	N1-C6-N6	-5.63	115.22	118.60
179	C2	10	DG	O4'-C1'-C2'	-5.63	101.40	105.90
1	AA	1076	DG	C1'-O4'-C4'	-5.63	104.47	110.10
1	AA	1451	DT	O4'-C1'-C2'	-5.63	101.40	105.90
1	AA	4765	DA	O4'-C1'-C2'	-5.63	101.40	105.90
1	AA	4794	DT	C1'-O4'-C4'	-5.63	104.47	110.10
138	CN	2	DC	O4'-C4'-C3'	-5.63	102.25	104.50
160	Cj	17	DT	O4'-C1'-N1	5.63	111.94	108.00
170	Ct	8	DA	N1-C6-N6	-5.63	115.22	118.60
179	C2	31	DT	C4'-C3'-C2'	-5.63	98.03	103.10
1	AA	398	DG	O4'-C1'-N9	5.63	111.94	108.00
166	Cp	26	DA	O4'-C1'-C2'	-5.63	101.40	105.90
156	Cf	20	DC	C4'-C3'-C2'	-5.62	98.04	103.10
1	AA	4215	DT	C1'-O4'-C4'	-5.62	104.48	110.10
71	BI	26	DA	O4'-C1'-C2'	-5.62	101.40	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	3099	DT	P-O3'-C3'	5.62	126.45	119.70
1	AA	4401	DT	C4'-C3'-C2'	-5.62	98.04	103.10
139	CO	37	DC	O4'-C1'-C2'	-5.62	101.40	105.90
1	AA	643	DG	O4'-C1'-C2'	-5.62	101.40	105.90
1	AA	2682	DT	C4'-C3'-C2'	-5.62	98.04	103.10
79	BQ	5	DG	O4'-C1'-C2'	-5.62	101.40	105.90
1	AA	843	DA	O4'-C1'-C2'	-5.62	101.40	105.90
1	AA	1598	DA	O4'-C1'-C2'	-5.62	101.41	105.90
1	AA	3549	DT	C4'-C3'-C2'	-5.62	98.04	103.10
1	AA	3585	DG	O4'-C1'-C2'	-5.62	101.41	105.90
1	AA	5261	DC	C4'-C3'-C2'	-5.62	98.04	103.10
1	AA	5275	DG	O4'-C1'-C2'	-5.62	101.41	105.90
44	Ar	2	DA	C4'-C3'-C2'	-5.62	98.04	103.10
16	AP	8	DC	C1'-O4'-C4'	-5.62	104.48	110.10
1	AA	992	DG	O4'-C1'-C2'	-5.62	101.41	105.90
80	BR	18	DA	P-O3'-C3'	5.62	126.44	119.70
170	Ct	5	DA	O4'-C1'-C2'	-5.62	101.41	105.90
195	DI	25	DC	C2-N1-C1'	5.62	124.98	118.80
1	AA	2010	DG	C1'-O4'-C4'	-5.61	104.49	110.10
1	AA	6270	DT	O4'-C1'-C2'	-5.61	101.41	105.90
1	AA	6811	DG	O4'-C1'-C2'	-5.61	101.41	105.90
27	Aa	31	DA	N1-C6-N6	-5.61	115.23	118.60
77	BO	35	DA	C1'-O4'-C4'	-5.61	104.49	110.10
1	AA	3089	DT	C4'-C3'-C2'	-5.61	98.05	103.10
23	AW	1	DG	N1-C6-O6	5.61	123.27	119.90
41	Ao	2	DA	O4'-C1'-C2'	-5.61	101.41	105.90
94	Bf	14	DG	O4'-C1'-C2'	-5.61	101.41	105.90
176	Cz	34	DC	P-O3'-C3'	5.61	126.43	119.70
202	DP	26	DT	C1'-O4'-C4'	-5.61	104.49	110.10
51	Ay	32	DC	C2-N1-C1'	5.61	124.97	118.80
147	CW	17	DG	O4'-C1'-C2'	-5.61	101.41	105.90
1	AA	1069	DT	O4'-C1'-C2'	-5.61	101.41	105.90
1	AA	5861	DA	P-O3'-C3'	5.61	126.43	119.70
102	Bn	1	DC	C1'-O4'-C4'	-5.61	104.49	110.10
1	AA	1955	DC	O4'-C1'-C2'	-5.61	101.41	105.90
1	AA	3579	DT	C4-C5-C7	-5.61	115.64	119.00
1	AA	5895	DG	O4'-C1'-C2'	-5.61	101.41	105.90
53	A0	19	DG	P-O3'-C3'	5.61	126.43	119.70
97	Bi	12	DT	C4-C5-C7	-5.61	115.64	119.00
102	Bn	9	DG	O4'-C1'-C2'	-5.61	101.41	105.90
170	Ct	16	DA	P-O3'-C3'	-5.61	112.97	119.70
1	AA	3107	DT	O4'-C4'-C3'	-5.61	102.26	104.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	3450	DG	O4'-C1'-C2'	-5.61	101.42	105.90
1	AA	5500	DC	P-O3'-C3'	5.61	126.43	119.70
1	AA	6464	DG	C1'-O4'-C4'	-5.61	104.50	110.10
175	Cy	18	DT	C4'-C3'-C2'	-5.61	98.06	103.10
1	AA	978	DA	C4'-C3'-C2'	-5.60	98.06	103.10
1	AA	1378	DG	O4'-C1'-C2'	-5.60	101.42	105.90
1	AA	4806	DC	O4'-C1'-C2'	-5.60	101.42	105.90
1	AA	5483	DT	C4'-C3'-C2'	-5.60	98.06	103.10
1	AA	6422	DG	O4'-C1'-C2'	-5.60	101.42	105.90
29	Ac	14	DA	O4'-C1'-C2'	-5.60	101.42	105.90
83	BU	30	DT	C4'-C3'-C2'	-5.60	98.06	103.10
95	Bg	13	DG	P-O3'-C3'	5.60	126.42	119.70
118	B3	24	DC	C2-N1-C1'	5.60	124.96	118.80
131	CG	36	DT	C1'-O4'-C4'	-5.60	104.50	110.10
181	C4	24	DT	O4'-C4'-C3'	-5.60	102.26	104.50
1	AA	3615	DG	O4'-C1'-C2'	-5.60	101.42	105.90
15	AO	32	DC	C2-N1-C1'	5.60	124.96	118.80
1	AA	3197	DG	O4'-C1'-C2'	-5.60	101.42	105.90
1	AA	5253	DT	C4'-C3'-C2'	-5.60	98.06	103.10
1	AA	5717	DC	O4'-C1'-C2'	-5.60	101.42	105.90
1	AA	753	DG	O4'-C1'-C2'	-5.60	101.42	105.90
1	AA	5047	DA	C1'-O4'-C4'	-5.60	104.50	110.10
1	AA	2103	DG	O4'-C1'-C2'	-5.60	101.42	105.90
1	AA	6364	DC	O4'-C1'-C2'	-5.60	101.42	105.90
1	AA	2371	DG	P-O3'-C3'	5.59	126.41	119.70
1	AA	3360	DC	P-O5'-C5'	5.59	129.85	120.90
1	AA	3896	DA	N1-C6-N6	-5.59	115.24	118.60
82	BT	12	DG	O4'-C1'-C2'	-5.59	101.42	105.90
201	DO	10	DA	P-O3'-C3'	5.59	126.41	119.70
1	AA	3387	DT	O4'-C1'-N1	5.59	111.92	108.00
1	AA	6379	DG	O4'-C4'-C3'	-5.59	102.26	104.50
1	AA	2125	DA	C1'-O4'-C4'	-5.59	104.51	110.10
1	AA	6503	DT	P-O3'-C3'	5.59	126.41	119.70
120	B5	33	DA	O4'-C1'-C2'	-5.59	101.43	105.90
202	DP	17	DC	C4'-C3'-C2'	-5.59	98.07	103.10
45	As	26	DA	N1-C6-N6	-5.59	115.25	118.60
110	Bv	11	DG	O4'-C4'-C3'	-5.59	102.26	104.50
1	AA	3303	DG	O4'-C1'-C2'	-5.59	101.43	105.90
53	A0	34	DG	P-O3'-C3'	5.59	126.41	119.70
1	AA	1521	DA	O4'-C1'-N9	-5.59	104.09	108.00
1	AA	2299	DG	O4'-C1'-C2'	-5.59	101.43	105.90
48	Av	32	DA	P-O3'-C3'	5.59	126.40	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
43	Aq	10	DC	O4'-C1'-C2'	-5.58	101.43	105.90
97	Bi	3	DG	C4'-C3'-C2'	-5.58	98.07	103.10
1	AA	1449	DG	O4'-C1'-C2'	-5.58	101.43	105.90
1	AA	3242	DC	P-O3'-C3'	5.58	126.40	119.70
1	AA	3869	DT	O4'-C1'-C2'	-5.58	101.43	105.90
1	AA	4489	DA	O4'-C1'-C2'	-5.58	101.43	105.90
84	BV	1	DA	N1-C6-N6	-5.58	115.25	118.60
118	B3	5	DA	O4'-C1'-C2'	-5.58	101.43	105.90
140	CP	26	DA	P-O3'-C3'	5.58	126.40	119.70
1	AA	5061	DG	O4'-C1'-C2'	-5.58	101.44	105.90
1	AA	815	DT	C4'-C3'-C2'	-5.58	98.08	103.10
184	C7	7	DC	P-O5'-C5'	5.58	129.83	120.90
1	AA	957	DA	C4'-C3'-C2'	-5.58	98.08	103.10
1	AA	1602	DC	C4'-C3'-C2'	-5.58	98.08	103.10
17	AQ	1	DC	P-O3'-C3'	5.58	126.39	119.70
83	BU	14	DC	C4'-C3'-C2'	-5.58	98.08	103.10
1	AA	1380	DC	O4'-C1'-N1	-5.58	104.10	108.00
1	AA	1898	DT	O4'-C1'-C2'	-5.58	101.44	105.90
1	AA	1932	DA	N1-C6-N6	-5.58	115.25	118.60
1	AA	3045	DA	O4'-C1'-C2'	-5.58	101.44	105.90
1	AA	5603	DG	O4'-C1'-C2'	-5.58	101.44	105.90
1	AA	5981	DT	C1'-O4'-C4'	-5.58	104.53	110.10
38	Al	25	DT	C1'-O4'-C4'	-5.58	104.53	110.10
26	AZ	38	DA	O4'-C1'-C2'	-5.57	101.44	105.90
1	AA	1508	DC	O4'-C4'-C3'	-5.57	102.27	104.50
1	AA	2006	DT	O4'-C4'-C3'	-5.57	102.27	104.50
1	AA	2703	DG	O4'-C1'-C2'	-5.57	101.44	105.90
1	AA	7168	DA	O4'-C1'-C2'	-5.57	101.44	105.90
1	AA	3293	DA	P-O3'-C3'	5.57	126.39	119.70
1	AA	3388	DC	O4'-C4'-C3'	-5.57	102.27	104.50
163	Cm	26	DA	P-O3'-C3'	5.57	126.38	119.70
26	AZ	31	DC	P-O5'-C5'	5.57	129.81	120.90
62	A9	26	DC	O4'-C1'-C2'	-5.57	101.45	105.90
185	C8	34	DC	O4'-C1'-C2'	-5.57	101.45	105.90
1	AA	3461	DG	C1'-O4'-C4'	-5.57	104.53	110.10
1	AA	5295	DT	O4'-C1'-C2'	-5.57	101.45	105.90
1	AA	5415	DC	O4'-C1'-C2'	-5.57	101.45	105.90
115	B0	23	DG	O4'-C1'-C2'	-5.57	101.45	105.90
126	CB	20	DC	O4'-C1'-C2'	-5.57	101.45	105.90
203	DQ	38	DG	O4'-C1'-C2'	-5.57	101.45	105.90
50	Ax	30	DT	C4'-C3'-C2'	-5.56	98.09	103.10
193	DG	10	DC	P-O3'-C3'	5.56	126.38	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	212	DA	C1'-O4'-C4'	-5.56	104.54	110.10
1	AA	827	DC	O4'-C1'-C2'	-5.56	101.45	105.90
1	AA	2851	DA	O4'-C1'-C2'	-5.56	101.45	105.90
1	AA	4190	DT	C4'-C3'-C2'	-5.56	98.09	103.10
93	Be	19	DG	C1'-O4'-C4'	-5.56	104.54	110.10
1	AA	1330	DG	O4'-C1'-C2'	-5.56	101.45	105.90
1	AA	5971	DG	O4'-C1'-C2'	-5.56	101.45	105.90
1	AA	6617	DC	O4'-C1'-C2'	-5.56	101.45	105.90
1	AA	4153	DA	C1'-O4'-C4'	-5.56	104.54	110.10
1	AA	5794	DG	O4'-C1'-C2'	-5.56	101.45	105.90
155	Ce	27	DT	C4'-C3'-C2'	-5.56	98.10	103.10
1	AA	1678	DC	P-O3'-C3'	5.56	126.37	119.70
1	AA	4558	DG	O4'-C1'-C2'	-5.56	101.45	105.90
18	AR	28	DT	C4'-C3'-C2'	-5.56	98.10	103.10
29	Ac	20	DG	P-O3'-C3'	5.56	126.37	119.70
124	B9	3	DG	O4'-C1'-C2'	-5.56	101.45	105.90
192	DF	7	DA	C4'-C3'-C2'	-5.56	98.10	103.10
67	BE	30	DG	O4'-C1'-C2'	-5.56	101.45	105.90
1	AA	6221	DC	O4'-C4'-C3'	-5.55	102.28	104.50
156	Cf	37	DA	O4'-C1'-C2'	-5.55	101.46	105.90
1	AA	523	DT	C4'-C3'-C2'	-5.55	98.10	103.10
148	CX	18	DT	C4'-C3'-C2'	-5.55	98.10	103.10
1	AA	474	DT	C4'-C3'-C2'	-5.55	98.10	103.10
1	AA	688	DT	O4'-C4'-C3'	-5.55	102.28	104.50
1	AA	3000	DG	P-O3'-C3'	5.55	126.36	119.70
120	B5	36	DG	P-O3'-C3'	5.55	126.36	119.70
142	CR	26	DT	O4'-C1'-C2'	-5.55	101.46	105.90
1	AA	4135	DT	C4'-C3'-C2'	-5.55	98.11	103.10
1	AA	5323	DG	O4'-C1'-C2'	-5.55	101.46	105.90
1	AA	5589	DT	C6-N1-C1'	-5.55	112.08	120.40
168	Cr	43	DA	O4'-C1'-C2'	-5.55	101.46	105.90
186	C9	2	DG	O4'-C4'-C3'	-5.55	102.28	104.50
65	BC	1	DT	C4'-C3'-C2'	-5.55	98.11	103.10
1	AA	1984	DC	P-O5'-C5'	5.55	129.78	120.90
1	AA	5724	DG	O4'-C1'-C2'	-5.55	101.46	105.90
29	Ac	19	DG	C1'-O4'-C4'	-5.55	104.55	110.10
1	AA	4003	DT	C1'-O4'-C4'	-5.54	104.56	110.10
1	AA	4657	DC	O4'-C1'-C2'	-5.54	101.46	105.90
1	AA	681	DA	C4'-C3'-C2'	-5.54	98.11	103.10
1	AA	3021	DG	O4'-C1'-C2'	-5.54	101.47	105.90
1	AA	5245	DA	N1-C6-N6	-5.54	115.27	118.60
1	AA	6714	DA	P-O3'-C3'	5.54	126.35	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
96	Bh	6	DG	O4'-C1'-C2'	-5.54	101.47	105.90
107	Bs	12	DC	O4'-C1'-C2'	-5.54	101.47	105.90
1	AA	913	DG	O4'-C1'-N9	5.54	111.88	108.00
1	AA	1395	DG	O4'-C1'-C2'	-5.54	101.47	105.90
1	AA	6479	DG	O4'-C1'-C2'	-5.54	101.47	105.90
160	Cj	1	DC	C1'-O4'-C4'	-5.54	104.56	110.10
1	AA	3368	DA	O4'-C1'-C2'	-5.54	101.47	105.90
1	AA	1805	DT	C4'-C3'-C2'	-5.54	98.11	103.10
1	AA	4278	DT	C4'-C3'-C2'	-5.54	98.11	103.10
1	AA	5615	DG	P-O3'-C3'	5.54	126.35	119.70
84	BV	8	DC	C2-N1-C1'	5.54	124.89	118.80
141	CQ	18	DC	P-O3'-C3'	5.54	126.34	119.70
48	Av	1	DC	O4'-C4'-C3'	-5.54	102.28	104.50
1	AA	1071	DT	C1'-O4'-C4'	-5.54	104.56	110.10
1	AA	3353	DT	C4'-C3'-C2'	-5.54	98.12	103.10
1	AA	6317	DC	O4'-C1'-C2'	-5.54	101.47	105.90
1	AA	6564	DC	P-O3'-C3'	5.54	126.34	119.70
177	C0	29	DG	C1'-O4'-C4'	-5.54	104.56	110.10
189	DC	1	DT	O4'-C1'-C2'	-5.54	101.47	105.90
1	AA	3306	DT	C4'-C3'-C2'	-5.53	98.12	103.10
4	AD	16	DG	C1'-O4'-C4'	-5.53	104.57	110.10
23	AW	28	DA	N1-C6-N6	-5.53	115.28	118.60
75	BM	10	DC	P-O3'-C3'	5.53	126.34	119.70
151	Ca	34	DC	O4'-C1'-C2'	-5.53	101.47	105.90
186	C9	44	DG	P-O3'-C3'	5.53	126.34	119.70
1	AA	1919	DT	C6-C5-C7	-5.53	119.58	122.90
1	AA	4866	DA	O4'-C1'-C2'	-5.53	101.47	105.90
1	AA	5968	DC	O4'-C1'-C2'	-5.53	101.47	105.90
2	AB	22	DT	P-O3'-C3'	5.53	126.34	119.70
38	Al	39	DT	C1'-O4'-C4'	-5.53	104.57	110.10
44	Ar	26	DG	O4'-C4'-C3'	-5.53	102.29	104.50
142	CR	28	DA	O4'-C1'-C2'	-5.53	101.48	105.90
1	AA	726	DT	C6-C5-C7	5.53	126.22	122.90
1	AA	994	DA	C1'-O4'-C4'	-5.53	104.57	110.10
1	AA	529	DG	C4'-C3'-C2'	-5.53	98.12	103.10
1	AA	1914	DA	C5-C6-N6	5.53	128.12	123.70
1	AA	4772	DC	P-O5'-C5'	5.53	129.74	120.90
191	DE	10	DA	O4'-C1'-C2'	-5.53	101.48	105.90
1	AA	6738	DA	O4'-C1'-C2'	-5.53	101.48	105.90
14	AN	5	DG	P-O3'-C3'	5.53	126.33	119.70
14	AN	7	DT	C4'-C3'-C2'	-5.53	98.13	103.10
52	Az	9	DT	C6-C5-C7	-5.53	119.58	122.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
113	By	7	DA	P-O3'-C3'	5.53	126.33	119.70
1	AA	1826	DT	C4'-C3'-C2'	-5.52	98.13	103.10
133	CI	14	DG	O4'-C1'-C2'	-5.52	101.48	105.90
1	AA	4598	DA	O4'-C1'-C2'	-5.52	101.48	105.90
22	AV	1	DT	P-O3'-C3'	5.52	126.32	119.70
173	Cw	2	DT	O4'-C1'-N1	5.52	111.86	108.00
173	Cw	26	DA	P-O3'-C3'	5.52	126.32	119.70
1	AA	1797	DA	P-O3'-C3'	5.52	126.32	119.70
1	AA	6244	DT	P-O3'-C3'	5.52	126.32	119.70
1	AA	1127	DC	C4'-C3'-C2'	-5.51	98.14	103.10
1	AA	3797	DT	P-O3'-C3'	5.51	126.32	119.70
1	AA	5866	DG	O4'-C1'-C2'	-5.51	101.49	105.90
1	AA	6261	DG	C1'-O4'-C4'	-5.51	104.58	110.10
1	AA	7070	DG	O4'-C4'-C3'	-5.51	102.29	104.50
26	AZ	3	DG	O4'-C4'-C3'	-5.51	102.29	104.50
33	Ag	1	DT	C1'-O4'-C4'	-5.51	104.58	110.10
171	Cu	3	DA	P-O3'-C3'	5.51	126.32	119.70
1	AA	3050	DC	O4'-C1'-C2'	-5.51	101.49	105.90
124	B9	27	DA	N1-C6-N6	-5.51	115.29	118.60
1	AA	1052	DG	P-O3'-C3'	5.51	126.31	119.70
1	AA	1831	DA	P-O3'-C3'	5.51	126.31	119.70
1	AA	2319	DG	O4'-C1'-C2'	-5.51	101.49	105.90
1	AA	3629	DT	C4'-C3'-C2'	-5.51	98.14	103.10
79	BQ	29	DA	O4'-C1'-C2'	-5.51	101.49	105.90
151	Ca	30	DG	O4'-C1'-C2'	-5.51	101.49	105.90
187	DA	1	DT	C4'-C3'-C2'	-5.51	98.14	103.10
1	AA	5714	DT	C4'-C3'-C2'	-5.51	98.14	103.10
4	AD	16	DG	P-O3'-C3'	5.51	126.31	119.70
1	AA	5421	DG	O4'-C1'-N9	5.51	111.86	108.00
1	AA	212	DA	O4'-C1'-C2'	-5.51	101.49	105.90
1	AA	5489	DG	O4'-C4'-C3'	-5.51	102.30	104.50
3	AC	27	DT	C4'-C3'-C2'	-5.51	98.14	103.10
182	C5	7	DC	P-O5'-C5'	5.51	129.71	120.90
1	AA	4366	DC	P-O5'-C5'	5.50	129.71	120.90
1	AA	6081	DA	C3'-C2'-C1'	-5.50	95.89	102.50
1	AA	6832	DA	O4'-C1'-C2'	-5.50	101.50	105.90
51	Ay	35	DA	P-O3'-C3'	5.50	126.31	119.70
76	BN	20	DT	C4'-C3'-C2'	-5.50	98.14	103.10
1	AA	922	DA	C4'-C3'-C2'	-5.50	98.15	103.10
53	A0	19	DG	O4'-C1'-C2'	-5.50	101.50	105.90
97	Bi	12	DT	C6-C5-C7	5.50	126.20	122.90
1	AA	1052	DG	O4'-C1'-C2'	-5.50	101.50	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	2876	DC	C4'-C3'-C2'	-5.50	98.15	103.10
1	AA	3088	DG	C1'-O4'-C4'	-5.50	104.60	110.10
1	AA	4481	DC	P-O5'-C5'	5.50	129.70	120.90
1	AA	6694	DT	C4'-C3'-C2'	-5.50	98.15	103.10
31	Ae	8	DG	O4'-C1'-C2'	-5.50	101.50	105.90
134	CJ	33	DT	P-O3'-C3'	-5.50	113.10	119.70
183	C6	27	DA	C1'-O4'-C4'	-5.50	104.60	110.10
190	DD	5	DT	C4'-C3'-C2'	-5.50	98.15	103.10
201	DO	1	DT	O4'-C4'-C3'	-5.50	102.30	104.50
1	AA	6756	DA	C4'-C3'-C2'	-5.50	98.15	103.10
1	AA	4239	DT	C4'-C3'-C2'	-5.50	98.15	103.10
1	AA	4857	DA	C1'-O4'-C4'	-5.50	104.60	110.10
1	AA	4926	DC	P-O5'-C5'	5.50	129.70	120.90
121	B6	6	DA	N1-C6-N6	-5.50	115.30	118.60
1	AA	6764	DA	C1'-O4'-C4'	-5.50	104.60	110.10
142	CR	37	DA	O4'-C1'-C2'	-5.50	101.50	105.90
1	AA	3529	DT	C1'-O4'-C4'	-5.49	104.61	110.10
45	As	5	DT	O4'-C4'-C3'	-5.49	102.30	104.50
183	C6	38	DG	C1'-O4'-C4'	-5.49	104.61	110.10
1	AA	5991	DA	O4'-C1'-C2'	-5.49	101.51	105.90
1	AA	6010	DA	O4'-C1'-C2'	-5.49	101.51	105.90
29	Ac	30	DT	C4'-C3'-C2'	-5.49	98.16	103.10
72	BJ	13	DT	O4'-C1'-C2'	-5.49	101.51	105.90
1	AA	2709	DA	P-O3'-C3'	5.49	126.29	119.70
1	AA	4074	DT	C4'-C3'-C2'	-5.49	98.16	103.10
1	AA	4841	DA	O4'-C1'-C2'	-5.49	101.51	105.90
1	AA	5441	DC	P-O5'-C5'	5.49	129.69	120.90
1	AA	7004	DG	O4'-C1'-C2'	-5.49	101.51	105.90
74	BL	31	DG	P-O3'-C3'	5.49	126.29	119.70
199	DM	16	DG	O4'-C1'-C2'	-5.49	101.51	105.90
1	AA	5811	DC	O4'-C1'-C2'	-5.49	101.51	105.90
90	Bb	18	DT	O4'-C4'-C3'	-5.49	102.31	104.50
127	CC	2	DT	C4'-C3'-C2'	-5.49	98.16	103.10
173	Cw	36	DT	O4'-C4'-C3'	-5.49	102.30	104.50
130	CF	11	DG	C5-C6-O6	-5.49	125.31	128.60
1	AA	349	DC	O4'-C4'-C3'	-5.49	102.31	104.50
183	C6	13	DA	P-O3'-C3'	5.49	126.28	119.70
198	DL	3	DG	O4'-C1'-C2'	-5.49	101.51	105.90
1	AA	1638	DA	O4'-C1'-C2'	-5.48	101.51	105.90
1	AA	1786	DA	P-O3'-C3'	5.48	126.28	119.70
86	BX	11	DC	C4'-C3'-C2'	-5.48	98.16	103.10
199	DM	13	DA	O4'-C1'-C2'	-5.48	101.51	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	3057	DA	P-O3'-C3'	5.48	126.28	119.70
1	AA	1835	DG	C1'-O4'-C4'	-5.48	104.62	110.10
1	AA	2969	DG	N1-C6-O6	5.48	123.19	119.90
1	AA	3876	DC	O4'-C1'-C2'	-5.48	101.52	105.90
1	AA	6016	DA	C4'-C3'-C2'	-5.48	98.17	103.10
15	AO	34	DG	O4'-C1'-C2'	-5.48	101.52	105.90
123	B8	16	DG	C1'-O4'-C4'	-5.48	104.62	110.10
1	AA	5965	DT	C4'-C3'-C2'	-5.48	98.17	103.10
97	Bi	19	DT	C4'-C3'-C2'	-5.48	98.17	103.10
1	AA	1281	DG	O4'-C1'-C2'	-5.48	101.52	105.90
1	AA	7149	DG	O4'-C4'-C3'	-5.48	102.31	104.50
120	B5	46	DT	O4'-C1'-C2'	-5.48	101.52	105.90
1	AA	772	DG	O4'-C1'-C2'	-5.48	101.52	105.90
1	AA	5238	DG	O4'-C1'-C2'	-5.48	101.52	105.90
71	BI	16	DT	P-O3'-C3'	-5.48	113.13	119.70
1	AA	4371	DT	C2-N1-C1'	5.47	126.96	118.20
1	AA	6911	DG	O4'-C1'-N9	5.47	111.83	108.00
160	Cj	15	DC	C4'-C3'-C2'	-5.47	98.17	103.10
1	AA	148	DA	O4'-C4'-C3'	-5.47	102.31	104.50
1	AA	914	DC	C6-N1-C2	-5.47	118.11	120.30
100	Bl	10	DA	N1-C6-N6	-5.47	115.32	118.60
1	AA	1508	DC	C4'-C3'-C2'	-5.47	98.18	103.10
1	AA	4924	DA	N1-C6-N6	-5.47	115.32	118.60
1	AA	1339	DG	O4'-C1'-C2'	-5.47	101.52	105.90
1	AA	3308	DA	O4'-C1'-C2'	-5.47	101.53	105.90
32	Af	34	DT	C1'-O4'-C4'	-5.47	104.63	110.10
55	A2	10	DA	C1'-O4'-C4'	-5.47	104.63	110.10
109	Bu	24	DA	C8-N9-C1'	-5.47	117.86	127.70
1	AA	3445	DT	C1'-O4'-C4'	-5.47	104.63	110.10
25	AY	33	DT	O4'-C1'-C2'	-5.47	101.53	105.90
202	DP	6	DA	P-O3'-C3'	5.47	126.26	119.70
1	AA	1055	DC	O4'-C1'-C2'	-5.47	101.53	105.90
1	AA	5318	DG	C1'-O4'-C4'	-5.47	104.63	110.10
64	BB	40	DT	O4'-C4'-C3'	-5.47	102.31	104.50
25	AY	2	DT	O4'-C1'-C2'	-5.46	101.53	105.90
67	BE	14	DT	O4'-C4'-C3'	-5.46	102.31	104.50
139	CO	35	DC	C1'-O4'-C4'	-5.46	104.64	110.10
149	CY	10	DA	O4'-C1'-C2'	-5.46	101.53	105.90
1	AA	5850	DG	O4'-C4'-C3'	-5.46	102.31	104.50
1	AA	2720	DA	C1'-O4'-C4'	-5.46	104.64	110.10
1	AA	4371	DT	C6-C5-C7	-5.46	119.62	122.90
1	AA	7202	DC	C4'-C3'-C2'	-5.46	98.18	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
78	BP	2	DC	O4'-C1'-C2'	-5.46	101.53	105.90
125	CA	22	DC	C4'-C3'-C2'	-5.46	98.19	103.10
169	Cs	28	DA	C4'-C3'-C2'	-5.46	98.18	103.10
1	AA	55	DG	P-O3'-C3'	5.46	126.25	119.70
89	Ba	9	DG	O4'-C1'-C2'	-5.46	101.53	105.90
196	DJ	42	DT	O4'-C1'-C2'	-5.46	101.53	105.90
1	AA	2438	DG	O4'-C1'-C2'	-5.46	101.53	105.90
1	AA	6656	DT	C1'-O4'-C4'	-5.46	104.64	110.10
39	Am	18	DC	O4'-C1'-C2'	-5.46	101.53	105.90
102	Bn	1	DC	P-O3'-C3'	5.46	126.25	119.70
43	Aq	5	DG	O4'-C1'-C2'	-5.46	101.53	105.90
174	Cx	47	DG	O4'-C1'-C2'	-5.46	101.53	105.90
1	AA	590	DC	O4'-C1'-C2'	-5.46	101.54	105.90
175	Cy	22	DA	P-O3'-C3'	5.46	126.25	119.70
1	AA	712	DT	C4'-C3'-C2'	-5.45	98.19	103.10
1	AA	1102	DG	O4'-C1'-C2'	-5.45	101.54	105.90
1	AA	1374	DG	O4'-C1'-C2'	-5.45	101.54	105.90
146	CV	12	DA	O4'-C1'-C2'	-5.45	101.54	105.90
1	AA	959	DG	O4'-C1'-C2'	-5.45	101.54	105.90
1	AA	2384	DT	C4'-C3'-C2'	-5.45	98.19	103.10
61	A8	12	DA	O4'-C1'-C2'	-5.45	101.54	105.90
157	Cg	43	DA	O4'-C1'-C2'	-5.45	101.54	105.90
1	AA	2673	DC	C4'-C3'-C2'	-5.45	98.19	103.10
67	BE	34	DG	O4'-C1'-C2'	-5.45	101.54	105.90
158	Ch	34	DG	O4'-C1'-C2'	-5.45	101.54	105.90
1	AA	1970	DT	O4'-C1'-C2'	-5.45	101.54	105.90
1	AA	5861	DA	O4'-C1'-C2'	-5.45	101.54	105.90
1	AA	6081	DA	C1'-O4'-C4'	-5.45	104.65	110.10
116	B1	8	DT	C1'-O4'-C4'	-5.45	104.65	110.10
170	Ct	35	DT	O4'-C4'-C3'	-5.45	102.32	104.50
1	AA	536	DA	O4'-C1'-C2'	-5.45	101.54	105.90
1	AA	6116	DT	C4'-C3'-C2'	-5.45	98.20	103.10
175	Cy	25	DA	C1'-O4'-C4'	-5.45	104.65	110.10
1	AA	1039	DC	O4'-C4'-C3'	-5.45	102.32	104.50
1	AA	1471	DG	O4'-C1'-C2'	-5.45	101.54	105.90
136	CL	13	DC	O4'-C1'-C2'	-5.45	101.54	105.90
139	CO	29	DG	C1'-O4'-C4'	-5.45	104.66	110.10
124	B9	36	DA	C1'-O4'-C4'	-5.44	104.66	110.10
131	CG	40	DT	O4'-C1'-C2'	-5.44	101.55	105.90
1	AA	1706	DA	O4'-C1'-C2'	-5.44	101.55	105.90
1	AA	4606	DA	P-O3'-C3'	5.44	126.23	119.70
1	AA	2072	DA	O4'-C4'-C3'	-5.44	102.32	104.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
83	BU	36	DA	O4'-C1'-C2'	-5.44	101.55	105.90
111	Bw	33	DG	O4'-C1'-C2'	-5.44	101.55	105.90
179	C2	4	DA	C1'-O4'-C4'	-5.44	104.66	110.10
1	AA	2321	DG	O4'-C1'-C2'	-5.44	101.55	105.90
136	CL	29	DA	N1-C6-N6	-5.44	115.34	118.60
183	C6	17	DT	C4'-C3'-C2'	-5.44	98.20	103.10
1	AA	7025	DC	O4'-C1'-N1	5.44	111.81	108.00
100	Bl	10	DA	O4'-C1'-C2'	-5.44	101.55	105.90
106	Br	13	DG	O4'-C1'-C2'	-5.44	101.55	105.90
1	AA	900	DC	P-O5'-C5'	5.43	129.60	120.90
1	AA	1119	DG	C4-N9-C1'	5.43	133.56	126.50
1	AA	4099	DA	C4'-C3'-C2'	-5.43	98.21	103.10
1	AA	6310	DG	C1'-O4'-C4'	-5.43	104.67	110.10
46	At	27	DT	O4'-C4'-C3'	-5.43	102.33	104.50
1	AA	3796	DA	O4'-C4'-C3'	-5.43	102.33	104.50
1	AA	5143	DT	C4'-C3'-C2'	-5.43	98.21	103.10
191	DE	18	DC	P-O3'-C3'	5.43	126.22	119.70
1	AA	2274	DG	P-O3'-C3'	5.43	126.22	119.70
1	AA	7149	DG	C4'-C3'-C2'	-5.43	98.21	103.10
186	C9	35	DC	P-O5'-C5'	5.43	129.59	120.90
1	AA	2493	DC	P-O5'-C5'	5.43	129.59	120.90
2	AB	4	DT	C4'-C3'-C2'	-5.43	98.21	103.10
108	Bt	19	DG	O4'-C1'-C2'	-5.43	101.56	105.90
1	AA	5502	DG	O4'-C1'-C2'	-5.43	101.56	105.90
1	AA	1738	DG	O4'-C1'-C2'	-5.43	101.56	105.90
1	AA	1922	DT	P-O5'-C5'	5.43	129.58	120.90
1	AA	5502	DG	C3'-C2'-C1'	-5.43	95.99	102.50
1	AA	3422	DC	P-O5'-C5'	5.42	129.58	120.90
44	Ar	10	DT	O4'-C1'-C2'	-5.42	101.56	105.90
1	AA	2213	DT	C4'-C3'-C2'	-5.42	98.22	103.10
65	BC	21	DT	C1'-O4'-C4'	-5.42	104.68	110.10
1	AA	666	DC	P-O5'-C5'	5.42	129.57	120.90
1	AA	1248	DG	O4'-C4'-C3'	-5.42	102.33	104.50
1	AA	1932	DA	C4'-C3'-C2'	-5.42	98.22	103.10
1	AA	1440	DT	C1'-O4'-C4'	-5.42	104.68	110.10
1	AA	3337	DG	O4'-C1'-C2'	-5.42	101.57	105.90
1	AA	4371	DT	C6-N1-C1'	-5.42	112.27	120.40
10	AJ	7	DG	P-O3'-C3'	5.42	126.20	119.70
56	A3	16	DA	O4'-C1'-C2'	-5.42	101.56	105.90
1	AA	2334	DG	P-O3'-C3'	5.42	126.20	119.70
1	AA	5448	DG	O4'-C4'-C3'	-5.42	102.33	104.50
1	AA	6078	DG	O4'-C1'-C2'	-5.42	101.57	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	6079	DG	O4'-C1'-C2'	-5.42	101.57	105.90
17	AQ	23	DC	C4'-C3'-C2'	-5.42	98.22	103.10
51	Ay	15	DT	C1'-O4'-C4'	-5.42	104.68	110.10
65	BC	16	DG	O4'-C4'-C3'	-5.42	102.33	104.50
74	BL	21	DA	O4'-C1'-N9	5.42	111.79	108.00
85	BW	42	DC	O4'-C1'-C2'	-5.42	101.57	105.90
188	DB	34	DA	O4'-C1'-C2'	-5.42	101.57	105.90
1	AA	4829	DT	O4'-C4'-C3'	-5.42	102.33	104.50
1	AA	1133	DA	O4'-C1'-C2'	-5.41	101.57	105.90
1	AA	7064	DG	P-O3'-C3'	5.41	126.19	119.70
1	AA	4359	DT	O4'-C1'-C2'	-5.41	101.57	105.90
93	Be	1	DA	O4'-C1'-C2'	-5.41	101.57	105.90
1	AA	6962	DG	O4'-C1'-C2'	-5.41	101.57	105.90
1	AA	395	DT	O4'-C1'-C2'	-5.41	101.57	105.90
1	AA	992	DG	P-O3'-C3'	5.41	126.19	119.70
1	AA	3313	DT	C4'-C3'-C2'	-5.41	98.23	103.10
1	AA	6097	DC	O4'-C1'-C2'	-5.41	101.57	105.90
30	Ad	36	DT	P-O3'-C3'	5.41	126.19	119.70
45	As	7	DC	O4'-C1'-C2'	-5.41	101.57	105.90
134	CJ	34	DT	O4'-C4'-C3'	-5.41	102.34	104.50
162	Cl	18	DA	O4'-C1'-C2'	-5.41	101.57	105.90
1	AA	2831	DA	O4'-C1'-C2'	-5.41	101.57	105.90
32	Af	37	DC	O4'-C4'-C3'	-5.41	102.34	104.50
201	DO	10	DA	O4'-C1'-C2'	-5.41	101.58	105.90
1	AA	801	DG	N1-C6-O6	5.41	123.14	119.90
80	BR	13	DC	O4'-C1'-C2'	-5.41	101.58	105.90
168	Cr	21	DA	O4'-C1'-C2'	-5.41	101.58	105.90
1	AA	4771	DC	O4'-C4'-C3'	-5.40	102.34	104.50
1	AA	4786	DA	N1-C6-N6	-5.40	115.36	118.60
84	BV	18	DG	O4'-C1'-C2'	-5.40	101.58	105.90
132	CH	18	DT	O4'-C1'-C2'	-5.40	101.58	105.90
154	Cd	4	DG	C4'-C3'-C2'	-5.40	98.24	103.10
36	Aj	7	DG	O4'-C1'-C2'	-5.40	101.58	105.90
88	BZ	6	DC	C4'-C3'-C2'	-5.40	98.24	103.10
116	B1	8	DT	O4'-C1'-C2'	-5.40	101.58	105.90
143	CS	12	DC	O4'-C1'-C2'	-5.40	101.58	105.90
119	B4	35	DA	N1-C6-N6	-5.40	115.36	118.60
158	Ch	26	DT	P-O3'-C3'	5.40	126.18	119.70
170	Ct	16	DA	C3'-C2'-C1'	5.40	108.98	102.50
202	DP	26	DT	O4'-C1'-C2'	-5.40	101.58	105.90
1	AA	2072	DA	C4'-C3'-C2'	-5.40	98.24	103.10
1	AA	4061	DA	C4'-C3'-C2'	-5.40	98.24	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
101	Bm	23	DA	O4'-C1'-C2'	-5.40	101.58	105.90
1	AA	4006	DC	C4'-C3'-C2'	-5.40	98.24	103.10
1	AA	5952	DG	C1'-O4'-C4'	-5.40	104.70	110.10
140	CP	26	DA	O4'-C1'-C2'	-5.40	101.58	105.90
1	AA	5289	DA	O4'-C1'-C2'	-5.40	101.58	105.90
61	A8	13	DG	C5-C6-O6	-5.40	125.36	128.60
1	AA	7109	DT	O4'-C1'-C2'	-5.39	101.58	105.90
56	A3	24	DC	C1'-O4'-C4'	-5.39	104.70	110.10
177	C0	18	DG	O4'-C1'-C2'	-5.39	101.58	105.90
1	AA	1488	DG	C1'-O4'-C4'	-5.39	104.71	110.10
1	AA	3809	DT	O4'-C1'-C2'	-5.39	101.59	105.90
1	AA	618	DG	O4'-C1'-C2'	-5.39	101.59	105.90
1	AA	1894	DA	O4'-C1'-C2'	-5.39	101.59	105.90
1	AA	2307	DG	O4'-C1'-C2'	-5.39	101.59	105.90
69	BG	12	DT	O4'-C4'-C3'	-5.39	102.34	104.50
1	AA	1318	DC	C4'-C3'-C2'	-5.39	98.25	103.10
113	By	33	DG	O4'-C1'-C2'	-5.39	101.59	105.90
1	AA	3923	DA	O4'-C1'-C2'	-5.39	101.59	105.90
1	AA	6246	DC	O4'-C1'-C2'	-5.39	101.59	105.90
1	AA	6317	DC	P-O3'-C3'	5.39	126.16	119.70
31	Ae	37	DT	C1'-O4'-C4'	-5.39	104.71	110.10
61	A8	27	DC	O4'-C1'-N1	5.39	111.77	108.00
170	Ct	16	DA	C8-N9-C4	-5.39	103.64	105.80
1	AA	726	DT	C4-C5-C7	-5.38	115.77	119.00
1	AA	2444	DG	P-O3'-C3'	5.38	126.16	119.70
1	AA	2502	DG	O4'-C1'-C2'	-5.38	101.59	105.90
1	AA	2609	DG	O4'-C1'-C2'	-5.38	101.59	105.90
1	AA	4719	DC	C4'-C3'-C2'	-5.38	98.25	103.10
1	AA	5100	DT	O4'-C4'-C3'	-5.38	102.35	104.50
113	By	8	DC	O4'-C4'-C3'	-5.38	102.35	104.50
157	Cg	32	DG	O4'-C1'-C2'	-5.38	101.59	105.90
31	Ae	21	DT	C4'-C3'-C2'	-5.38	98.25	103.10
200	DN	26	DG	P-O3'-C3'	5.38	126.16	119.70
1	AA	37	DT	C1'-O4'-C4'	-5.38	104.72	110.10
157	Cg	48	DG	O4'-C1'-C2'	-5.38	101.59	105.90
45	As	27	DT	P-O3'-C3'	5.38	126.16	119.70
52	Az	34	DG	O4'-C1'-C2'	-5.38	101.60	105.90
1	AA	2574	DG	O4'-C4'-C3'	-5.38	102.35	104.50
1	AA	6859	DG	C1'-O4'-C4'	-5.38	104.72	110.10
1	AA	6919	DC	O4'-C1'-C2'	-5.38	101.60	105.90
90	Bb	1	DC	C6-N1-C2	-5.38	118.15	120.30
91	Bc	14	DT	C4'-C3'-C2'	-5.38	98.26	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
94	Bf	39	DA	O4'-C1'-C2'	-5.38	101.60	105.90
117	B2	8	DG	P-O3'-C3'	5.38	126.15	119.70
1	AA	3621	DG	O4'-C1'-C2'	-5.38	101.60	105.90
1	AA	4233	DT	C4'-C3'-C2'	-5.38	98.26	103.10
1	AA	6256	DC	P-O5'-C5'	5.38	129.50	120.90
9	AI	3	DG	O4'-C4'-C3'	-5.38	102.35	104.50
78	BP	38	DA	N1-C6-N6	-5.38	115.37	118.60
1	AA	695	DA	P-O3'-C3'	5.38	126.15	119.70
1	AA	2163	DG	P-O3'-C3'	5.37	126.15	119.70
1	AA	2993	DA	O4'-C4'-C3'	-5.37	102.35	104.50
52	Az	18	DG	O4'-C1'-C2'	-5.37	101.60	105.90
80	BR	16	DG	O4'-C1'-C2'	-5.37	101.60	105.90
107	Bs	14	DT	C4'-C3'-C2'	-5.37	98.26	103.10
181	C4	17	DA	C1'-O4'-C4'	-5.37	104.73	110.10
1	AA	2484	DA	C4'-C3'-C2'	-5.37	98.27	103.10
1	AA	4462	DG	O4'-C1'-C2'	-5.37	101.60	105.90
49	Aw	20	DT	C4'-C3'-C2'	-5.37	98.27	103.10
51	Ay	35	DA	C1'-O4'-C4'	-5.37	104.73	110.10
188	DB	37	DG	O4'-C1'-C2'	-5.37	101.60	105.90
191	DE	47	DT	C4'-C3'-C2'	-5.37	98.27	103.10
202	DP	22	DC	O4'-C1'-C2'	-5.37	101.60	105.90
1	AA	3872	DA	O4'-C4'-C3'	-5.37	102.35	104.50
1	AA	112	DA	O4'-C1'-C2'	-5.37	101.61	105.90
1	AA	512	DA	O4'-C1'-C2'	-5.37	101.61	105.90
1	AA	1596	DG	P-O3'-C3'	5.37	126.14	119.70
1	AA	1782	DA	C1'-O4'-C4'	-5.37	104.73	110.10
1	AA	1822	DT	O4'-C1'-C2'	-5.37	101.61	105.90
1	AA	2723	DA	C4'-C3'-C2'	-5.37	98.27	103.10
1	AA	7211	DG	O4'-C1'-C2'	-5.37	101.61	105.90
42	Ap	33	DA	P-O3'-C3'	5.37	126.14	119.70
1	AA	2713	DC	P-O3'-C3'	5.37	126.14	119.70
46	At	25	DG	C1'-O4'-C4'	-5.37	104.73	110.10
1	AA	1119	DG	O4'-C1'-C2'	-5.37	101.61	105.90
1	AA	1145	DG	P-O3'-C3'	5.37	126.14	119.70
1	AA	2920	DC	O4'-C1'-C2'	-5.37	101.61	105.90
80	BR	1	DT	C4'-C3'-C2'	-5.37	98.27	103.10
158	Ch	23	DG	P-O3'-C3'	5.37	126.14	119.70
181	C4	18	DT	P-O3'-C3'	5.37	126.14	119.70
1	AA	2283	DG	O4'-C1'-C2'	-5.36	101.61	105.90
1	AA	2539	DT	C1'-O4'-C4'	-5.36	104.74	110.10
1	AA	6359	DA	N1-C6-N6	-5.36	115.38	118.60
1	AA	1148	DG	N1-C6-O6	5.36	123.12	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
178	C1	34	DG	C8-N9-C1'	-5.36	120.03	127.00
1	AA	1402	DA	O4'-C1'-N9	5.36	111.75	108.00
1	AA	1942	DA	N1-C6-N6	-5.36	115.38	118.60
1	AA	6335	DT	C4'-C3'-C2'	-5.36	98.28	103.10
170	Ct	35	DT	C4'-C3'-C2'	-5.36	98.28	103.10
198	DL	4	DC	O4'-C4'-C3'	-5.36	102.36	104.50
1	AA	1570	DT	C4'-C3'-C2'	-5.36	98.28	103.10
1	AA	5346	DC	O4'-C1'-C2'	-5.36	101.61	105.90
1	AA	6578	DC	O4'-C4'-C3'	-5.36	102.36	104.50
37	Ak	33	DA	O4'-C1'-C2'	-5.36	101.61	105.90
1	AA	3421	DC	C4'-C3'-C2'	-5.36	98.28	103.10
1	AA	3815	DA	C4'-C3'-C2'	-5.36	98.28	103.10
1	AA	5297	DT	C4'-C3'-C2'	-5.36	98.28	103.10
1	AA	5778	DT	C1'-O4'-C4'	-5.36	104.74	110.10
2	AB	39	DA	N1-C6-N6	-5.36	115.39	118.60
16	AP	21	DT	O4'-C1'-C2'	-5.36	101.61	105.90
38	Al	16	DA	O4'-C1'-C2'	-5.36	101.61	105.90
145	CU	25	DA	O4'-C1'-C2'	-5.36	101.61	105.90
17	AQ	27	DA	O4'-C1'-C2'	-5.36	101.61	105.90
37	Ak	17	DG	O4'-C1'-C2'	-5.36	101.62	105.90
83	BU	26	DG	O4'-C1'-C2'	-5.35	101.62	105.90
29	Ac	14	DA	P-O3'-C3'	5.35	126.12	119.70
83	BU	14	DC	O4'-C4'-C3'	-5.35	102.36	104.50
87	BY	30	DC	P-O5'-C5'	5.35	129.46	120.90
130	CF	11	DG	N1-C6-O6	5.35	123.11	119.90
158	Ch	39	DA	C1'-O4'-C4'	-5.35	104.75	110.10
171	Cu	31	DG	C1'-O4'-C4'	-5.35	104.75	110.10
196	DJ	12	DG	C1'-O4'-C4'	-5.35	104.75	110.10
203	DQ	33	DA	O4'-C1'-C2'	-5.35	101.62	105.90
1	AA	236	DA	O4'-C1'-C2'	-5.35	101.62	105.90
1	AA	1586	DA	O4'-C1'-C2'	-5.35	101.62	105.90
1	AA	2087	DG	O4'-C1'-C2'	-5.35	101.62	105.90
1	AA	6568	DT	C1'-O4'-C4'	-5.35	104.75	110.10
35	Ai	10	DG	C1'-O4'-C4'	-5.35	104.75	110.10
1	AA	1365	DC	C4'-C3'-C2'	-5.35	98.29	103.10
1	AA	5680	DC	O4'-C1'-N1	5.35	111.74	108.00
1	AA	5813	DC	O4'-C1'-C2'	-5.35	101.62	105.90
1	AA	6386	DT	C1'-O4'-C4'	-5.35	104.75	110.10
87	BY	34	DT	C4'-C3'-C2'	-5.35	98.29	103.10
1	AA	180	DA	O4'-C1'-C2'	-5.34	101.62	105.90
1	AA	439	DT	O4'-C4'-C3'	-5.34	102.36	104.50
1	AA	1488	DG	P-O3'-C3'	5.34	126.11	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1661	DA	O4'-C1'-C2'	-5.34	101.62	105.90
1	AA	4755	DT	O4'-C1'-C2'	-5.34	101.62	105.90
1	AA	6254	DT	O4'-C1'-C2'	-5.34	101.62	105.90
1	AA	7179	DC	O4'-C1'-C2'	-5.34	101.62	105.90
1	AA	79	DG	O4'-C1'-C2'	-5.34	101.63	105.90
1	AA	4852	DG	O4'-C1'-N9	5.34	111.74	108.00
87	BY	13	DT	O4'-C4'-C3'	-5.34	102.36	104.50
158	Ch	18	DG	O4'-C1'-C2'	-5.34	101.63	105.90
1	AA	1110	DG	C5-C6-O6	-5.34	125.40	128.60
1	AA	3592	DA	P-O3'-C3'	5.34	126.11	119.70
78	BP	26	DG	P-O3'-C3'	5.34	126.11	119.70
1	AA	967	DG	P-O3'-C3'	5.34	126.11	119.70
1	AA	4248	DT	C4'-C3'-C2'	-5.34	98.30	103.10
111	Bw	2	DG	O4'-C1'-C2'	-5.34	101.63	105.90
1	AA	2517	DG	O4'-C1'-C2'	-5.34	101.63	105.90
1	AA	5816	DA	O4'-C1'-C2'	-5.34	101.63	105.90
48	Av	17	DT	C4'-C3'-C2'	-5.34	98.30	103.10
95	Bg	18	DG	O4'-C1'-C2'	-5.34	101.63	105.90
134	CJ	31	DA	O4'-C1'-C2'	-5.34	101.63	105.90
1	AA	1371	DT	C4'-C3'-C2'	-5.33	98.30	103.10
1	AA	6466	DC	O4'-C1'-N1	-5.33	104.27	108.00
1	AA	6744	DA	O4'-C1'-C2'	-5.33	101.63	105.90
1	AA	4007	DC	P-O5'-C5'	5.33	129.43	120.90
1	AA	5461	DT	P-O3'-C3'	5.33	126.10	119.70
1	AA	6746	DT	O4'-C1'-C2'	-5.33	101.63	105.90
78	BP	23	DT	O4'-C4'-C3'	-5.33	102.37	104.50
136	CL	30	DC	O4'-C1'-C2'	-5.33	101.63	105.90
178	C1	18	DG	O4'-C1'-C2'	-5.33	101.63	105.90
191	DE	10	DA	P-O3'-C3'	5.33	126.10	119.70
74	BL	31	DG	O4'-C1'-C2'	-5.33	101.64	105.90
170	Ct	16	DA	O3'-P-O5'	5.33	114.13	104.00
1	AA	6287	DG	O4'-C1'-C2'	-5.33	101.64	105.90
108	Bt	40	DT	O4'-C1'-C2'	-5.33	101.64	105.90
1	AA	936	DT	C4'-C3'-C2'	-5.33	98.30	103.10
1	AA	1947	DC	P-O5'-C5'	5.33	129.43	120.90
1	AA	5827	DG	O4'-C1'-C2'	-5.33	101.64	105.90
33	Ag	11	DA	P-O3'-C3'	5.33	126.09	119.70
96	Bh	14	DA	C5-C6-N6	5.33	127.96	123.70
115	B0	32	DG	O4'-C1'-C2'	-5.33	101.64	105.90
137	CM	28	DG	O4'-C4'-C3'	-5.33	102.37	104.50
152	Cb	6	DA	P-O3'-C3'	5.33	126.09	119.70
178	C1	27	DT	O4'-C1'-C2'	-5.33	101.64	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	5947	DG	O4'-C1'-C2'	-5.33	101.64	105.90
88	BZ	10	DA	P-O3'-C3'	5.33	126.09	119.70
1	AA	2771	DC	P-O5'-C5'	5.33	129.42	120.90
1	AA	4085	DT	C4'-C3'-C2'	-5.33	98.31	103.10
1	AA	6150	DT	C4'-C3'-C2'	-5.33	98.31	103.10
27	Aa	15	DT	O4'-C1'-C2'	-5.33	101.64	105.90
65	BC	16	DG	C4'-C3'-C2'	-5.33	98.31	103.10
1	AA	6384	DA	O4'-C1'-C2'	-5.32	101.64	105.90
1	AA	6977	DG	P-O3'-C3'	5.32	126.09	119.70
134	CJ	32	DC	C2-N1-C1'	5.32	124.66	118.80
1	AA	2766	DG	C1'-O4'-C4'	-5.32	104.78	110.10
100	Bl	9	DA	O4'-C1'-C2'	-5.32	101.64	105.90
158	Ch	13	DA	O4'-C1'-N9	-5.32	104.28	108.00
1	AA	3481	DC	C4'-C3'-C2'	-5.32	98.31	103.10
1	AA	6841	DG	C1'-O4'-C4'	-5.32	104.78	110.10
1	AA	11	DC	P-O5'-C5'	5.32	129.41	120.90
1	AA	126	DG	N1-C6-O6	5.32	123.09	119.90
1	AA	5589	DT	C2-N1-C1'	5.32	126.71	118.20
1	AA	5751	DG	P-O3'-C3'	5.32	126.08	119.70
1	AA	3009	DC	C4'-C3'-C2'	-5.32	98.32	103.10
26	AZ	20	DG	C4'-C3'-C2'	-5.32	98.32	103.10
1	AA	46	DG	N1-C6-O6	5.31	123.09	119.90
1	AA	4005	DA	P-O3'-C3'	5.31	126.08	119.70
44	Ar	4	DA	C1'-O4'-C4'	-5.31	104.79	110.10
1	AA	3480	DA	C1'-O4'-C4'	-5.31	104.79	110.10
1	AA	4564	DA	P-O3'-C3'	5.31	126.08	119.70
6	AF	16	DT	C4'-C3'-C2'	-5.31	98.32	103.10
55	A2	18	DG	O4'-C4'-C3'	-5.31	102.38	104.50
125	CA	10	DA	O4'-C1'-C2'	-5.31	101.65	105.90
1	AA	2194	DG	O4'-C1'-C2'	-5.31	101.65	105.90
1	AA	2622	DG	O4'-C1'-C2'	-5.31	101.65	105.90
1	AA	5278	DA	O4'-C1'-C2'	-5.31	101.65	105.90
1	AA	5518	DG	C1'-O4'-C4'	-5.31	104.79	110.10
52	Az	32	DC	P-O3'-C3'	-5.31	113.33	119.70
57	A4	24	DG	P-O3'-C3'	5.31	126.07	119.70
84	BV	18	DG	P-O3'-C3'	5.31	126.07	119.70
160	Cj	10	DC	O4'-C1'-C2'	-5.31	101.65	105.90
163	Cm	18	DA	O4'-C1'-C2'	-5.31	101.65	105.90
1	AA	2847	DT	C4'-C3'-C2'	-5.31	98.32	103.10
1	AA	122	DG	O4'-C1'-C2'	-5.31	101.66	105.90
1	AA	4852	DG	C1'-O4'-C4'	-5.31	104.79	110.10
1	AA	6025	DC	P-O5'-C5'	5.31	129.39	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	2115	DG	O4'-C1'-C2'	-5.30	101.66	105.90
1	AA	6673	DT	O4'-C4'-C3'	-5.30	102.38	104.50
96	Bh	34	DG	P-O3'-C3'	5.30	126.07	119.70
190	DD	12	DG	O4'-C1'-C2'	-5.30	101.66	105.90
1	AA	1048	DA	C4'-C3'-C2'	-5.30	98.33	103.10
1	AA	2594	DC	O4'-C1'-C2'	-5.30	101.66	105.90
131	CG	9	DG	C4-N9-C1'	5.30	133.39	126.50
1	AA	46	DG	C5-C6-O6	-5.30	125.42	128.60
1	AA	1332	DA	O4'-C1'-C2'	-5.30	101.66	105.90
1	AA	2305	DC	P-O5'-C5'	5.30	129.38	120.90
1	AA	2663	DT	O4'-C1'-C2'	-5.30	101.66	105.90
1	AA	5344	DG	P-O3'-C3'	5.30	126.06	119.70
1	AA	6957	DT	C4'-C3'-C2'	-5.30	98.33	103.10
72	BJ	7	DA	O4'-C1'-C2'	-5.30	101.66	105.90
83	BU	22	DA	C4'-C3'-C2'	-5.30	98.33	103.10
136	CL	19	DT	O4'-C4'-C3'	-5.30	102.38	104.50
1	AA	870	DC	C4'-C3'-C2'	-5.30	98.33	103.10
1	AA	2310	DG	P-O3'-C3'	5.30	126.06	119.70
1	AA	2436	DG	P-O3'-C3'	5.30	126.06	119.70
1	AA	5159	DG	O4'-C1'-C2'	-5.30	101.66	105.90
32	Af	19	DA	C1'-O4'-C4'	-5.30	104.80	110.10
89	Ba	3	DC	O4'-C1'-C2'	-5.30	101.66	105.90
1	AA	2280	DG	O4'-C1'-C2'	-5.30	101.66	105.90
9	AI	13	DT	P-O3'-C3'	5.30	126.06	119.70
1	AA	5524	DG	O4'-C1'-C2'	-5.29	101.66	105.90
1	AA	5024	DT	O4'-C1'-C2'	-5.29	101.67	105.90
1	AA	6396	DG	O4'-C1'-C2'	-5.29	101.67	105.90
31	Ae	26	DA	O4'-C1'-C2'	-5.29	101.67	105.90
46	At	19	DC	P-O3'-C3'	5.29	126.05	119.70
69	BG	23	DT	P-O3'-C3'	5.29	126.05	119.70
95	Bg	1	DG	C1'-O4'-C4'	-5.29	104.81	110.10
139	CO	10	DG	C1'-O4'-C4'	-5.29	104.81	110.10
1	AA	4019	DG	O4'-C1'-C2'	-5.29	101.67	105.90
1	AA	5708	DG	C1'-O4'-C4'	-5.29	104.81	110.10
164	Cn	20	DC	O4'-C1'-C2'	-5.29	101.67	105.90
179	C2	23	DA	O4'-C1'-N9	-5.29	104.30	108.00
182	C5	14	DA	O4'-C1'-C2'	-5.29	101.67	105.90
1	AA	970	DT	C4'-C3'-C2'	-5.29	98.34	103.10
1	AA	1734	DG	N1-C6-O6	5.29	123.07	119.90
1	AA	3647	DA	O4'-C1'-C2'	-5.29	101.67	105.90
3	AC	31	DT	C2-N1-C1'	5.29	126.66	118.20
18	AR	8	DG	C4'-C3'-C2'	-5.29	98.34	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
102	Bn	7	DC	C4'-C3'-C2'	-5.29	98.34	103.10
1	AA	854	DT	C4'-C3'-C2'	-5.29	98.34	103.10
1	AA	1680	DT	C4'-C3'-C2'	-5.29	98.34	103.10
1	AA	1976	DG	O4'-C1'-C2'	-5.29	101.67	105.90
108	Bt	28	DG	C1'-O4'-C4'	-5.29	104.81	110.10
1	AA	2878	DG	P-O3'-C3'	5.29	126.05	119.70
1	AA	262	DC	P-O5'-C5'	5.29	129.36	120.90
1	AA	3032	DG	C1'-O4'-C4'	-5.29	104.81	110.10
25	AY	31	DT	C4'-C3'-C2'	-5.29	98.34	103.10
163	Cm	12	DA	O4'-C1'-C2'	-5.29	101.67	105.90
165	Co	23	DT	C4'-C3'-C2'	-5.29	98.34	103.10
1	AA	4986	DA	O4'-C1'-C2'	-5.28	101.67	105.90
1	AA	5122	DT	C4'-C3'-C2'	-5.28	98.35	103.10
102	Bn	2	DT	O4'-C1'-C2'	-5.28	101.67	105.90
1	AA	5817	DA	O4'-C1'-C2'	-5.28	101.67	105.90
27	Aa	31	DA	C4'-C3'-C2'	-5.28	98.35	103.10
33	Ag	14	DG	C1'-O4'-C4'	-5.28	104.82	110.10
105	Bq	26	DA	O4'-C1'-C2'	-5.28	101.68	105.90
180	C3	1	DT	C4'-C3'-C2'	-5.28	98.35	103.10
44	Ar	18	DG	O4'-C1'-C2'	-5.28	101.68	105.90
200	DN	24	DC	O4'-C4'-C3'	-5.28	102.39	104.50
114	Bz	14	DT	C6-C5-C7	5.28	126.07	122.90
130	CF	16	DT	C4-C5-C7	5.28	122.17	119.00
151	Ca	9	DG	O4'-C1'-C2'	-5.28	101.68	105.90
157	Cg	26	DG	O4'-C1'-C2'	-5.28	101.68	105.90
203	DQ	12	DG	O4'-C1'-C2'	-5.28	101.68	105.90
1	AA	4488	DA	O4'-C1'-C2'	-5.28	101.68	105.90
1	AA	5962	DC	C4'-C3'-C2'	-5.28	98.35	103.10
1	AA	6206	DG	O4'-C1'-C2'	-5.28	101.68	105.90
66	BD	10	DT	P-O3'-C3'	5.28	126.03	119.70
178	C1	5	DT	C4'-C3'-C2'	-5.28	98.35	103.10
1	AA	1272	DA	C4'-C3'-C2'	-5.27	98.35	103.10
1	AA	2039	DT	P-O3'-C3'	5.27	126.03	119.70
1	AA	2295	DG	O4'-C1'-N9	5.27	111.69	108.00
5	AE	39	DC	C2-N1-C1'	5.27	124.60	118.80
17	AQ	27	DA	N1-C6-N6	-5.27	115.44	118.60
85	BW	14	DC	C2-N1-C1'	5.27	124.60	118.80
134	CJ	31	DA	P-O3'-C3'	5.27	126.03	119.70
150	CZ	22	DG	O4'-C4'-C3'	-5.27	102.39	104.50
1	AA	2373	DG	P-O3'-C3'	5.27	126.03	119.70
110	Bv	36	DG	O4'-C1'-C2'	-5.27	101.68	105.90
1	AA	1754	DA	N1-C6-N6	-5.27	115.44	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
67	BE	11	DA	O4'-C1'-C2'	-5.27	101.68	105.90
1	AA	5530	DT	P-O3'-C3'	5.27	126.02	119.70
84	BV	26	DG	O4'-C1'-C2'	-5.27	101.69	105.90
1	AA	3232	DG	O4'-C1'-C2'	-5.27	101.69	105.90
1	AA	4993	DC	O4'-C1'-N1	5.27	111.69	108.00
134	CJ	20	DG	P-O3'-C3'	5.27	126.02	119.70
1	AA	1613	DT	C4'-C3'-C2'	-5.26	98.36	103.10
1	AA	1773	DG	O4'-C1'-C2'	-5.26	101.69	105.90
1	AA	3099	DT	C1'-O4'-C4'	-5.26	104.84	110.10
1	AA	3480	DA	O4'-C1'-N9	5.26	111.69	108.00
1	AA	4715	DT	C4'-C3'-C2'	-5.26	98.36	103.10
1	AA	4720	DG	P-O3'-C3'	5.26	126.02	119.70
1	AA	6049	DA	N1-C6-N6	-5.26	115.44	118.60
78	BP	18	DC	O4'-C1'-C2'	-5.26	101.69	105.90
101	Bm	26	DA	P-O3'-C3'	5.26	126.02	119.70
178	C1	10	DA	O4'-C1'-C2'	-5.26	101.69	105.90
1	AA	3726	DG	P-O3'-C3'	5.26	126.02	119.70
1	AA	4335	DA	O4'-C1'-C2'	-5.26	101.69	105.90
25	AY	35	DA	C1'-O4'-C4'	-5.26	104.84	110.10
36	Aj	28	DT	C6-C5-C7	-5.26	119.74	122.90
78	BP	46	DG	O4'-C1'-C2'	-5.26	101.69	105.90
1	AA	6393	DG	O4'-C1'-C2'	-5.26	101.69	105.90
57	A4	42	DG	C1'-O4'-C4'	-5.26	104.84	110.10
59	A6	25	DG	O4'-C1'-N9	5.26	111.68	108.00
80	BR	11	DC	O4'-C1'-C2'	-5.26	101.69	105.90
1	AA	767	DT	O4'-C4'-C3'	-5.26	102.40	104.50
1	AA	6109	DT	C4'-C3'-C2'	-5.26	98.37	103.10
25	AY	28	DA	P-O3'-C3'	5.26	126.01	119.70
1	AA	3853	DC	C2-N1-C1'	5.26	124.58	118.80
42	Ap	25	DG	O4'-C1'-C2'	-5.26	101.69	105.90
123	B8	26	DA	C1'-O4'-C4'	-5.26	104.84	110.10
1	AA	3990	DA	O4'-C4'-C3'	-5.26	102.40	104.50
1	AA	4161	DG	O4'-C1'-C2'	-5.25	101.70	105.90
1	AA	5110	DG	P-O3'-C3'	5.25	126.00	119.70
12	AL	18	DA	O4'-C1'-C2'	-5.25	101.70	105.90
118	B3	1	DG	C4-N9-C1'	5.25	133.33	126.50
131	CG	29	DG	O4'-C1'-C2'	-5.25	101.70	105.90
82	BT	28	DA	O4'-C1'-C2'	-5.25	101.70	105.90
1	AA	7029	DC	P-O5'-C5'	5.25	129.30	120.90
1	AA	867	DT	O4'-C1'-C2'	-5.25	101.70	105.90
1	AA	999	DA	C1'-O4'-C4'	-5.25	104.85	110.10
1	AA	2679	DC	P-O3'-C3'	5.25	126.00	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	3894	DC	P-O3'-C3'	5.25	126.00	119.70
1	AA	5829	DG	O4'-C1'-C2'	-5.25	101.70	105.90
108	Bt	25	DC	O4'-C4'-C3'	-5.25	102.40	104.50
1	AA	700	DG	C1'-O4'-C4'	-5.25	104.85	110.10
1	AA	6742	DA	O4'-C1'-C2'	-5.25	101.70	105.90
1	AA	3135	DC	C1'-O4'-C4'	-5.25	104.86	110.10
1	AA	838	DT	C4'-C3'-C2'	-5.24	98.38	103.10
1	AA	1717	DG	O4'-C1'-C2'	-5.24	101.70	105.90
1	AA	4909	DA	P-O3'-C3'	5.24	125.99	119.70
131	CG	34	DA	O4'-C1'-C2'	-5.24	101.70	105.90
176	Cz	19	DG	P-O3'-C3'	5.24	125.99	119.70
188	DB	33	DA	O4'-C1'-C2'	-5.24	101.70	105.90
190	DD	10	DT	O4'-C1'-C2'	-5.24	101.70	105.90
1	AA	2424	DA	O4'-C1'-C2'	-5.24	101.71	105.90
1	AA	3297	DA	O4'-C1'-C2'	-5.24	101.71	105.90
75	BM	28	DG	P-O3'-C3'	5.24	125.99	119.70
133	CI	5	DA	O4'-C1'-C2'	-5.24	101.71	105.90
1	AA	2852	DA	O4'-C1'-C2'	-5.24	101.71	105.90
1	AA	4846	DG	C1'-O4'-C4'	-5.24	104.86	110.10
4	AD	26	DT	O4'-C1'-C2'	-5.24	101.71	105.90
114	Bz	10	DA	O4'-C1'-C2'	-5.24	101.71	105.90
1	AA	731	DC	O4'-C4'-C3'	-5.24	102.41	104.50
1	AA	1419	DA	O4'-C1'-C2'	-5.24	101.71	105.90
1	AA	3113	DG	O4'-C1'-N9	5.24	111.66	108.00
1	AA	4930	DG	O4'-C1'-C2'	-5.24	101.71	105.90
154	Cd	15	DC	O4'-C4'-C3'	-5.24	102.41	104.50
161	Ck	42	DA	O4'-C1'-C2'	-5.24	101.71	105.90
1	AA	1726	DA	C4'-C3'-C2'	-5.23	98.39	103.10
1	AA	4371	DT	C4-C5-C7	5.23	122.14	119.00
89	Ba	29	DA	O4'-C1'-C2'	-5.23	101.71	105.90
1	AA	971	DC	P-O5'-C5'	5.23	129.27	120.90
1	AA	3387	DT	N3-C2-O2	-5.23	119.16	122.30
1	AA	4884	DG	C4'-C3'-C2'	-5.23	98.39	103.10
1	AA	5091	DC	P-O3'-C3'	5.23	125.98	119.70
112	Bx	8	DG	C1'-O4'-C4'	-5.23	104.87	110.10
139	CO	5	DG	O4'-C1'-C2'	-5.23	101.71	105.90
185	C8	22	DA	N1-C6-N6	-5.23	115.46	118.60
1	AA	894	DG	O4'-C1'-C2'	-5.23	101.72	105.90
101	Bm	20	DG	P-O3'-C3'	5.23	125.98	119.70
174	Cx	15	DC	O4'-C1'-C2'	-5.23	101.72	105.90
64	BB	15	DG	O4'-C1'-C2'	-5.23	101.72	105.90
203	DQ	23	DT	C4'-C3'-C2'	-5.23	98.39	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	439	DT	C1'-O4'-C4'	-5.23	104.87	110.10
1	AA	1100	DA	C1'-O4'-C4'	-5.23	104.87	110.10
1	AA	3347	DA	P-O3'-C3'	5.23	125.97	119.70
1	AA	4503	DT	O4'-C1'-C2'	-5.23	101.72	105.90
1	AA	4478	DT	C1'-O4'-C4'	-5.23	104.87	110.10
1	AA	4550	DA	N1-C6-N6	-5.23	115.46	118.60
1	AA	6255	DC	C4'-C3'-C2'	-5.23	98.40	103.10
157	Cg	3	DA	O4'-C1'-C2'	-5.23	101.72	105.90
176	Cz	34	DC	O4'-C1'-C2'	-5.23	101.72	105.90
1	AA	1763	DA	O4'-C4'-C3'	-5.22	102.41	104.50
1	AA	2420	DG	P-O3'-C3'	5.22	125.97	119.70
1	AA	3632	DT	C1'-O4'-C4'	-5.22	104.88	110.10
1	AA	5850	DG	C1'-O4'-C4'	-5.22	104.88	110.10
15	AO	35	DC	O4'-C4'-C3'	-5.22	102.41	104.50
161	Ck	23	DT	C1'-O4'-C4'	-5.22	104.88	110.10
1	AA	7075	DT	P-O3'-C3'	5.22	125.97	119.70
44	Ar	13	DA	P-O3'-C3'	5.22	125.97	119.70
157	Cg	30	DA	C4'-C3'-C2'	-5.22	98.40	103.10
118	B3	16	DG	P-O3'-C3'	5.22	125.96	119.70
121	B6	29	DT	C4'-C3'-C2'	-5.22	98.40	103.10
1	AA	6445	DG	O4'-C1'-N9	5.22	111.65	108.00
1	AA	6907	DC	P-O5'-C5'	5.22	129.25	120.90
10	AJ	1	DA	C4'-C3'-C2'	-5.22	98.40	103.10
10	AJ	34	DG	O4'-C1'-C2'	-5.22	101.72	105.90
192	DF	25	DT	C4'-C3'-C2'	-5.22	98.40	103.10
1	AA	430	DG	P-O3'-C3'	5.22	125.96	119.70
1	AA	2759	DA	O4'-C1'-N9	5.22	111.65	108.00
60	A7	6	DC	C4'-C3'-C2'	-5.22	98.41	103.10
74	BL	29	DA	O4'-C1'-N9	-5.22	104.35	108.00
81	BS	28	DA	O4'-C1'-C2'	-5.22	101.73	105.90
146	CV	24	DA	C1'-O4'-C4'	-5.22	104.88	110.10
172	Cv	4	DG	O4'-C1'-C2'	-5.22	101.73	105.90
173	Cw	26	DA	O4'-C4'-C3'	-5.22	102.41	104.50
186	C9	26	DA	O4'-C1'-C2'	-5.22	101.73	105.90
1	AA	853	DT	O4'-C1'-C2'	-5.21	101.73	105.90
1	AA	1001	DC	O4'-C1'-C2'	-5.21	101.73	105.90
1	AA	1005	DC	O4'-C1'-C2'	-5.21	101.73	105.90
1	AA	1061	DG	O4'-C1'-C2'	-5.21	101.73	105.90
1	AA	1725	DA	O4'-C1'-C2'	-5.21	101.73	105.90
1	AA	5800	DA	O4'-C1'-C2'	-5.21	101.73	105.90
44	Ar	6	DG	O4'-C1'-C2'	-5.21	101.73	105.90
1	AA	671	DG	O4'-C1'-C2'	-5.21	101.73	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	2694	DC	O4'-C4'-C3'	-5.21	102.42	104.50
179	C2	24	DC	C1'-O4'-C4'	-5.21	104.89	110.10
1	AA	1584	DA	P-O3'-C3'	5.21	125.95	119.70
1	AA	3598	DC	O4'-C1'-C2'	-5.21	101.73	105.90
1	AA	4094	DA	P-O3'-C3'	5.21	125.95	119.70
1	AA	5064	DG	O4'-C1'-C2'	-5.21	101.73	105.90
172	Cv	10	DA	O4'-C1'-C2'	-5.21	101.73	105.90
1	AA	4933	DT	C4'-C3'-C2'	-5.21	98.41	103.10
7	AG	18	DG	P-O3'-C3'	5.21	125.95	119.70
1	AA	2749	DA	P-O3'-C3'	5.21	125.95	119.70
1	AA	3881	DT	P-O3'-C3'	5.21	125.95	119.70
1	AA	4731	DA	O4'-C1'-C2'	-5.21	101.73	105.90
1	AA	4737	DT	C4'-C3'-C2'	-5.21	98.41	103.10
88	BZ	10	DA	O4'-C1'-C2'	-5.21	101.73	105.90
106	Br	20	DG	O4'-C1'-C2'	-5.21	101.73	105.90
1	AA	2956	DT	C4'-C3'-C2'	-5.21	98.41	103.10
1	AA	5502	DG	C8-N9-C1'	-5.21	120.23	127.00
53	A0	36	DG	O4'-C1'-C2'	-5.21	101.73	105.90
66	BD	10	DT	O4'-C1'-C2'	-5.21	101.74	105.90
1	AA	313	DT	C4'-C3'-C2'	-5.20	98.42	103.10
1	AA	4068	DA	O4'-C1'-C2'	-5.20	101.74	105.90
1	AA	4118	DT	C4'-C3'-C2'	-5.20	98.42	103.10
1	AA	2208	DG	O4'-C1'-C2'	-5.20	101.74	105.90
1	AA	2871	DG	P-O3'-C3'	5.20	125.94	119.70
95	Bg	10	DG	O4'-C1'-C2'	-5.20	101.74	105.90
1	AA	3056	DG	C1'-O4'-C4'	-5.20	104.90	110.10
1	AA	5206	DG	O4'-C1'-C2'	-5.20	101.74	105.90
1	AA	5338	DC	C4'-C3'-C2'	-5.20	98.42	103.10
1	AA	5440	DT	O4'-C4'-C3'	-5.20	102.42	104.50
6	AF	3	DT	C4'-C3'-C2'	-5.20	98.42	103.10
52	Az	32	DC	C2-N1-C1'	5.20	124.52	118.80
78	BP	42	DC	P-O3'-C3'	5.20	125.94	119.70
118	B3	23	DG	P-O3'-C3'	5.20	125.94	119.70
1	AA	1491	DG	O4'-C1'-C2'	-5.20	101.74	105.90
1	AA	4715	DT	C1'-O4'-C4'	-5.20	104.90	110.10
1	AA	5194	DG	C1'-O4'-C4'	-5.20	104.90	110.10
1	AA	5640	DG	O4'-C4'-C3'	-5.20	102.42	104.50
1	AA	5769	DC	C2-N1-C1'	5.20	124.52	118.80
76	BN	11	DA	O4'-C1'-C2'	-5.20	101.74	105.90
1	AA	3259	DT	C4'-C3'-C2'	-5.20	98.42	103.10
1	AA	1298	DT	O4'-C1'-C2'	-5.20	101.74	105.90
1	AA	5811	DC	P-O3'-C3'	5.20	125.94	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	6629	DG	N1-C6-O6	5.20	123.02	119.90
111	Bw	9	DA	C4'-C3'-C2'	-5.20	98.42	103.10
160	Cj	1	DC	O4'-C1'-C2'	-5.20	101.74	105.90
1	AA	1378	DG	C1'-O4'-C4'	-5.19	104.91	110.10
58	A5	27	DC	O4'-C1'-C2'	-5.19	101.75	105.90
1	AA	2592	DG	O4'-C1'-C2'	-5.19	101.75	105.90
1	AA	6416	DC	O4'-C1'-N1	5.19	111.64	108.00
106	Br	10	DA	C4'-C3'-C2'	-5.19	98.43	103.10
166	Cp	19	DG	C1'-O4'-C4'	-5.19	104.91	110.10
1	AA	5090	DT	C4'-C3'-C2'	-5.19	98.43	103.10
32	Af	37	DC	C4'-C3'-C2'	-5.19	98.43	103.10
187	DA	14	DG	C1'-O4'-C4'	-5.19	104.91	110.10
1	AA	974	DG	O4'-C1'-N9	5.19	111.63	108.00
1	AA	61	DA	C1'-O4'-C4'	-5.19	104.91	110.10
1	AA	3674	DA	O4'-C4'-C3'	-5.19	102.42	104.50
1	AA	6799	DT	P-O3'-C3'	5.19	125.92	119.70
61	A8	13	DG	N1-C6-O6	5.19	123.01	119.90
98	Bj	26	DG	P-O3'-C3'	5.19	125.92	119.70
195	DI	8	DA	O4'-C1'-C2'	-5.19	101.75	105.90
115	B0	38	DA	C1'-O4'-C4'	-5.19	104.91	110.10
1	AA	875	DC	P-O3'-C3'	5.18	125.92	119.70
1	AA	1226	DT	C4'-C3'-C2'	-5.18	98.43	103.10
1	AA	2079	DG	N1-C6-O6	5.18	123.01	119.90
18	AR	8	DG	O4'-C4'-C3'	-5.18	102.43	104.50
25	AY	1	DA	O4'-C1'-C2'	-5.18	101.75	105.90
111	Bw	7	DC	C4'-C3'-C2'	-5.18	98.44	103.10
190	DD	37	DT	O4'-C1'-C2'	-5.18	101.75	105.90
1	AA	644	DC	O4'-C1'-N1	5.18	111.63	108.00
1	AA	3618	DC	C4'-C3'-C2'	-5.18	98.44	103.10
1	AA	5532	DC	O4'-C1'-C2'	-5.18	101.75	105.90
1	AA	6053	DA	C1'-O4'-C4'	-5.18	104.92	110.10
5	AE	6	DC	C6-N1-C2	-5.18	118.23	120.30
10	AJ	26	DG	O4'-C1'-C2'	-5.18	101.75	105.90
55	A2	16	DA	N1-C6-N6	-5.18	115.49	118.60
143	CS	5	DA	P-O3'-C3'	5.18	125.92	119.70
171	Cu	3	DA	O4'-C1'-C2'	-5.18	101.75	105.90
1	AA	3218	DC	O4'-C1'-C2'	-5.18	101.75	105.90
86	BX	26	DT	C4'-C3'-C2'	-5.18	98.44	103.10
111	Bw	28	DA	O4'-C1'-C2'	-5.18	101.75	105.90
142	CR	1	DG	O4'-C1'-C2'	-5.18	101.75	105.90
1	AA	646	DC	P-O5'-C5'	5.18	129.19	120.90
1	AA	913	DG	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	5281	DA	C4'-C3'-C2'	-5.18	98.44	103.10
1	AA	5835	DC	P-O5'-C5'	5.18	129.19	120.90
1	AA	6744	DA	P-O3'-C3'	5.18	125.92	119.70
185	C8	18	DA	C1'-O4'-C4'	-5.18	104.92	110.10
1	AA	5600	DC	P-O5'-C5'	5.18	129.19	120.90
101	Bm	8	DG	O4'-C1'-C2'	-5.18	101.76	105.90
1	AA	6628	DC	P-O3'-C3'	5.18	125.91	119.70
24	AX	19	DA	C4'-C3'-C2'	-5.18	98.44	103.10
108	Bt	19	DG	P-O3'-C3'	5.18	125.91	119.70
158	Ch	17	DA	O4'-C1'-C2'	-5.18	101.76	105.90
160	Cj	42	DC	C4'-C3'-C2'	-5.18	98.44	103.10
1	AA	4361	DT	C6-N1-C1'	-5.17	112.64	120.40
14	AN	32	DT	O4'-C1'-C2'	-5.17	101.76	105.90
43	Aq	10	DC	P-O3'-C3'	5.17	125.91	119.70
93	Be	10	DC	P-O3'-C3'	5.17	125.91	119.70
1	AA	1303	DA	O4'-C1'-C2'	-5.17	101.76	105.90
1	AA	5929	DC	P-O5'-C5'	5.17	129.17	120.90
1	AA	6576	DA	P-O3'-C3'	5.17	125.91	119.70
49	Aw	40	DA	O4'-C1'-C2'	-5.17	101.76	105.90
61	A8	13	DG	O4'-C1'-C2'	-5.17	101.76	105.90
166	Cp	2	DC	P-O5'-C5'	5.17	129.17	120.90
20	AT	2	DA	P-O3'-C3'	5.17	125.90	119.70
66	BD	21	DC	C2-N1-C1'	5.17	124.49	118.80
1	AA	1309	DT	C4'-C3'-C2'	-5.17	98.45	103.10
1	AA	1812	DG	O4'-C1'-C2'	-5.17	101.77	105.90
133	CI	7	DG	P-O3'-C3'	5.17	125.90	119.70
1	AA	3085	DC	P-O3'-C3'	5.17	125.90	119.70
1	AA	5337	DA	O4'-C1'-C2'	-5.17	101.77	105.90
1	AA	7189	DT	C1'-O4'-C4'	-5.17	104.93	110.10
44	Ar	38	DT	C4'-C3'-C2'	-5.17	98.45	103.10
59	A6	19	DA	C4'-C3'-C2'	-5.17	98.45	103.10
106	Br	7	DA	C5-C6-N6	5.17	127.83	123.70
1	AA	2391	DG	C1'-O4'-C4'	-5.17	104.94	110.10
96	Bh	9	DA	O4'-C1'-C2'	-5.17	101.77	105.90
96	Bh	15	DC	P-O3'-C3'	5.17	125.90	119.70
135	CK	5	DA	O4'-C1'-C2'	-5.17	101.77	105.90
1	AA	359	DA	O4'-C1'-C2'	-5.16	101.77	105.90
1	AA	2079	DG	C5-C6-O6	-5.16	125.50	128.60
1	AA	2220	DG	P-O3'-C3'	5.16	125.90	119.70
1	AA	2682	DT	O4'-C4'-C3'	-5.16	102.43	104.50
1	AA	3012	DT	C6-C5-C7	-5.16	119.80	122.90
1	AA	3333	DG	P-O3'-C3'	5.16	125.90	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	3846	DG	P-O3'-C3'	5.16	125.90	119.70
1	AA	6278	DT	C4'-C3'-C2'	-5.16	98.45	103.10
1	AA	2721	DC	C4'-C3'-C2'	-5.16	98.46	103.10
1	AA	5660	DC	O4'-C1'-C2'	-5.16	101.77	105.90
85	BW	6	DT	C4'-C3'-C2'	-5.16	98.46	103.10
101	Bm	37	DG	O4'-C1'-C2'	-5.16	101.77	105.90
122	B7	23	DG	C4'-C3'-C2'	-5.16	98.46	103.10
1	AA	825	DC	C2-N1-C1'	5.16	124.47	118.80
1	AA	1505	DC	C2-N1-C1'	5.16	124.47	118.80
1	AA	3370	DC	O4'-C4'-C3'	-5.16	102.44	104.50
1	AA	118	DA	O4'-C1'-C2'	-5.16	101.78	105.90
1	AA	565	DG	O4'-C1'-C2'	-5.16	101.78	105.90
1	AA	3057	DA	C3'-C2'-C1'	-5.16	96.31	102.50
1	AA	3529	DT	O4'-C1'-N1	5.16	111.61	108.00
58	A5	25	DG	P-O3'-C3'	5.16	125.89	119.70
1	AA	2541	DG	O4'-C1'-N9	5.15	111.61	108.00
1	AA	5282	DC	P-O5'-C5'	5.15	129.15	120.90
80	BR	2	DC	P-O5'-C5'	5.15	129.15	120.90
1	AA	3075	DA	O4'-C1'-C2'	-5.15	101.78	105.90
1	AA	3113	DG	C1'-O4'-C4'	-5.15	104.95	110.10
1	AA	685	DG	O4'-C1'-C2'	-5.15	101.78	105.90
41	Ao	3	DT	C1'-O4'-C4'	-5.15	104.95	110.10
66	BD	26	DT	O4'-C1'-C2'	-5.15	101.78	105.90
76	BN	18	DG	O4'-C1'-C2'	-5.15	101.78	105.90
140	CP	2	DT	C4'-C3'-C2'	-5.15	98.46	103.10
1	AA	2234	DT	P-O3'-C3'	5.15	125.88	119.70
1	AA	4538	DC	O4'-C1'-C2'	-5.15	101.78	105.90
1	AA	4983	DG	O4'-C1'-C2'	-5.15	101.78	105.90
49	Aw	27	DT	O4'-C1'-C2'	-5.15	101.78	105.90
68	BF	20	DG	O4'-C1'-C2'	-5.15	101.78	105.90
108	Bt	37	DG	C1'-O4'-C4'	-5.15	104.95	110.10
151	Ca	22	DA	O4'-C1'-N9	-5.15	104.40	108.00
162	Cl	29	DT	C4'-C3'-C2'	-5.15	98.47	103.10
1	AA	1941	DA	O4'-C1'-C2'	-5.15	101.78	105.90
1	AA	4497	DG	C1'-O4'-C4'	-5.15	104.95	110.10
1	AA	5595	DC	P-O5'-C5'	5.14	129.13	120.90
109	Bu	3	DC	O4'-C1'-C2'	-5.14	101.78	105.90
140	CP	34	DA	P-O3'-C3'	5.14	125.87	119.70
1	AA	4140	DA	O4'-C1'-C2'	-5.14	101.79	105.90
1	AA	4582	DG	C1'-O4'-C4'	-5.14	104.96	110.10
1	AA	5292	DA	N1-C6-N6	-5.14	115.51	118.60
1	AA	7012	DG	O4'-C1'-C2'	-5.14	101.79	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1786	DA	O4'-C1'-C2'	-5.14	101.79	105.90
72	BJ	19	DC	C4'-C3'-C2'	-5.14	98.47	103.10
1	AA	1765	DT	O4'-C4'-C3'	-5.14	102.44	104.50
1	AA	2859	DC	P-O3'-C3'	5.14	125.87	119.70
1	AA	7178	DG	N1-C6-O6	5.14	122.98	119.90
85	BW	29	DT	P-O3'-C3'	5.14	125.87	119.70
113	By	20	DC	P-O3'-C3'	5.14	125.87	119.70
117	B2	28	DT	P-O3'-C3'	5.14	125.87	119.70
167	Cq	11	DA	P-O3'-C3'	5.14	125.87	119.70
1	AA	5990	DA	O4'-C1'-N9	-5.14	104.40	108.00
37	Ak	16	DA	N1-C6-N6	-5.14	115.52	118.60
164	Cn	4	DC	C2-N1-C1'	5.14	124.45	118.80
1	AA	3040	DC	C1'-O4'-C4'	-5.14	104.96	110.10
1	AA	3192	DA	P-O3'-C3'	5.14	125.86	119.70
68	BF	2	DT	C4'-C3'-C2'	-5.14	98.48	103.10
93	Be	5	DG	C1'-O4'-C4'	-5.14	104.96	110.10
150	CZ	5	DT	C4-C5-C7	-5.14	115.92	119.00
1	AA	107	DA	O4'-C1'-C2'	-5.13	101.79	105.90
1	AA	2843	DG	O4'-C4'-C3'	-5.13	102.45	104.50
113	By	33	DG	P-O3'-C3'	5.13	125.86	119.70
131	CG	25	DA	O4'-C4'-C3'	-5.13	102.45	104.50
1	AA	5658	DT	C1'-O4'-C4'	-5.13	104.97	110.10
1	AA	801	DG	P-O3'-C3'	5.13	125.86	119.70
1	AA	6378	DT	O4'-C1'-C2'	-5.13	101.80	105.90
3	AC	31	DT	C6-N1-C1'	-5.13	112.70	120.40
11	AK	18	DT	C4'-C3'-C2'	-5.13	98.48	103.10
35	Ai	1	DG	C4'-C3'-C2'	-5.13	98.48	103.10
91	Bc	23	DG	O4'-C1'-C2'	-5.13	101.80	105.90
1	AA	1325	DC	O4'-C1'-C2'	-5.13	101.80	105.90
82	BT	18	DA	C1'-O4'-C4'	-5.13	104.97	110.10
181	C4	4	DA	P-O3'-C3'	5.13	125.85	119.70
1	AA	279	DG	O4'-C1'-C2'	-5.13	101.80	105.90
1	AA	4769	DT	C4'-C3'-C2'	-5.13	98.49	103.10
1	AA	5673	DT	O4'-C4'-C3'	-5.13	102.45	104.50
197	DK	22	DC	P-O3'-C3'	5.13	125.85	119.70
1	AA	2607	DA	C1'-O4'-C4'	-5.12	104.97	110.10
89	Ba	19	DA	C1'-O4'-C4'	-5.12	104.97	110.10
1	AA	5752	DC	C2-N1-C1'	5.12	124.44	118.80
1	AA	484	DG	O4'-C1'-C2'	-5.12	101.80	105.90
1	AA	2426	DC	P-O3'-C3'	5.12	125.85	119.70
1	AA	3981	DT	O4'-C1'-C2'	-5.12	101.80	105.90
159	Ci	9	DT	C4'-C3'-C2'	-5.12	98.49	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	3765	DG	P-O3'-C3'	5.12	125.84	119.70
1	AA	5540	DG	P-O3'-C3'	5.12	125.84	119.70
92	Bd	12	DT	C4'-C3'-C2'	-5.12	98.49	103.10
1	AA	2377	DC	C4'-C3'-C2'	-5.12	98.49	103.10
1	AA	3755	DC	O4'-C1'-C2'	-5.12	101.81	105.90
1	AA	727	DC	O4'-C4'-C3'	-5.12	102.45	104.50
1	AA	3293	DA	O4'-C1'-C2'	-5.12	101.81	105.90
42	Ap	23	DA	O4'-C1'-C2'	-5.12	101.81	105.90
91	Bc	10	DG	P-O3'-C3'	5.12	125.84	119.70
98	Bj	21	DT	O4'-C4'-C3'	-5.12	102.45	104.50
103	Bo	2	DT	C1'-O4'-C4'	-5.12	104.98	110.10
189	DC	1	DT	C1'-O4'-C4'	-5.12	104.98	110.10
1	AA	811	DC	O4'-C1'-N1	5.12	111.58	108.00
1	AA	1594	DT	C4'-C3'-C2'	-5.12	98.50	103.10
1	AA	4892	DC	O4'-C1'-N1	5.12	111.58	108.00
1	AA	5293	DA	P-O3'-C3'	5.12	125.84	119.70
1	AA	5676	DG	O4'-C1'-C2'	-5.12	101.81	105.90
1	AA	2720	DA	C4'-C3'-C2'	-5.11	98.50	103.10
1	AA	3076	DG	O4'-C1'-C2'	-5.11	101.81	105.90
1	AA	3145	DT	C4'-C3'-C2'	-5.11	98.50	103.10
1	AA	4666	DG	O4'-C1'-C2'	-5.11	101.81	105.90
1	AA	7031	DC	P-O5'-C5'	5.11	129.08	120.90
69	BG	36	DG	O4'-C1'-C2'	-5.11	101.81	105.90
92	Bd	24	DA	C4'-C3'-C2'	-5.11	98.50	103.10
108	Bt	10	DA	O4'-C1'-C2'	-5.11	101.81	105.90
126	CB	26	DA	O4'-C1'-C2'	-5.11	101.81	105.90
181	C4	34	DT	O4'-C4'-C3'	-5.11	102.45	104.50
1	AA	283	DC	C4'-C3'-C2'	-5.11	98.50	103.10
1	AA	432	DC	O4'-C1'-C2'	-5.11	101.81	105.90
1	AA	1875	DT	C4'-C3'-C2'	-5.11	98.50	103.10
1	AA	2325	DG	O4'-C1'-N9	5.11	111.58	108.00
1	AA	4050	DG	O4'-C1'-C2'	-5.11	101.81	105.90
1	AA	6450	DT	P-O3'-C3'	5.11	125.83	119.70
75	BM	4	DG	O4'-C1'-C2'	-5.11	101.81	105.90
1	AA	665	DC	O4'-C1'-N1	5.11	111.58	108.00
1	AA	5809	DA	C1'-O4'-C4'	-5.11	104.99	110.10
128	CD	34	DG	P-O3'-C3'	5.11	125.83	119.70
1	AA	556	DA	C4'-C3'-C2'	-5.11	98.50	103.10
1	AA	3049	DA	O4'-C1'-C2'	-5.11	101.81	105.90
1	AA	6092	DG	O4'-C1'-C2'	-5.11	101.81	105.90
13	AM	16	DG	O4'-C1'-C2'	-5.11	101.81	105.90
46	At	26	DT	O4'-C1'-C2'	-5.11	101.81	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	506	DA	O4'-C1'-C2'	-5.11	101.81	105.90
1	AA	1866	DG	O4'-C1'-C2'	-5.11	101.81	105.90
1	AA	3720	DG	C1'-O4'-C4'	-5.11	104.99	110.10
1	AA	5479	DA	C4'-C3'-C2'	-5.11	98.50	103.10
65	BC	35	DC	P-O5'-C5'	5.11	129.07	120.90
108	Bt	30	DC	C4'-C3'-C2'	-5.11	98.50	103.10
157	Cg	6	DA	O4'-C1'-C2'	-5.11	101.81	105.90
1	AA	4778	DT	P-O3'-C3'	5.11	125.83	119.70
1	AA	5421	DG	O4'-C1'-C2'	-5.11	101.82	105.90
6	AF	22	DA	N1-C6-N6	-5.11	115.54	118.60
90	Bb	29	DG	C5-C6-O6	-5.11	125.54	128.60
1	AA	717	DA	N1-C6-N6	-5.10	115.54	118.60
1	AA	5383	DG	O4'-C1'-C2'	-5.10	101.82	105.90
12	AL	15	DC	P-O5'-C5'	5.10	129.07	120.90
140	CP	39	DT	C1'-O4'-C4'	-5.10	105.00	110.10
150	CZ	18	DA	O4'-C1'-N9	-5.10	104.43	108.00
156	Cf	27	DA	P-O3'-C3'	5.10	125.82	119.70
1	AA	4600	DA	O4'-C1'-C2'	-5.10	101.82	105.90
1	AA	6728	DG	O4'-C1'-C2'	-5.10	101.82	105.90
167	Cq	37	DT	C4'-C3'-C2'	-5.10	98.51	103.10
1	AA	1440	DT	O4'-C1'-C2'	-5.10	101.82	105.90
9	AI	9	DG	C4'-C3'-C2'	-5.10	98.51	103.10
81	BS	42	DA	O4'-C1'-C2'	-5.10	101.82	105.90
82	BT	13	DA	O4'-C4'-C3'	-5.10	102.46	104.50
131	CG	4	DG	C1'-O4'-C4'	-5.10	105.00	110.10
134	CJ	5	DC	C4'-C3'-C2'	-5.10	98.51	103.10
146	CV	30	DT	C4'-C3'-C2'	-5.10	98.51	103.10
1	AA	2222	DT	P-O3'-C3'	5.10	125.82	119.70
1	AA	5400	DA	C1'-O4'-C4'	-5.10	105.00	110.10
1	AA	5943	DG	C1'-O4'-C4'	-5.10	105.00	110.10
47	Au	15	DT	C4'-C3'-C2'	-5.10	98.51	103.10
48	Av	8	DG	O4'-C4'-C3'	-5.10	102.46	104.50
80	BR	23	DT	O4'-C4'-C3'	-5.10	102.46	104.50
112	Bx	5	DG	O4'-C1'-C2'	-5.10	101.82	105.90
134	CJ	19	DC	O4'-C4'-C3'	-5.10	102.46	104.50
68	BF	1	DT	O4'-C1'-C2'	-5.10	101.82	105.90
1	AA	1902	DG	C1'-O4'-C4'	-5.09	105.00	110.10
1	AA	4361	DT	C2-N1-C1'	5.09	126.35	118.20
1	AA	4655	DT	P-O5'-C5'	5.09	129.05	120.90
1	AA	6086	DG	O4'-C1'-C2'	-5.09	101.83	105.90
17	AQ	1	DC	C1'-O4'-C4'	-5.09	105.00	110.10
30	Ad	26	DA	O4'-C1'-C2'	-5.09	101.82	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
53	A0	26	DT	C1'-O4'-C4'	-5.09	105.00	110.10
149	CY	17	DA	O4'-C1'-C2'	-5.09	101.82	105.90
1	AA	6063	DA	O4'-C1'-C2'	-5.09	101.83	105.90
131	CG	29	DG	C1'-O4'-C4'	-5.09	105.01	110.10
1	AA	1855	DG	O4'-C1'-N9	5.09	111.56	108.00
1	AA	2773	DT	O4'-C4'-C3'	-5.09	102.46	104.50
1	AA	4270	DT	C4'-C3'-C2'	-5.09	98.52	103.10
1	AA	6934	DA	C1'-O4'-C4'	-5.09	105.01	110.10
41	Ao	17	DG	C4'-C3'-C2'	-5.09	98.52	103.10
149	CY	6	DG	O4'-C1'-C2'	-5.09	101.83	105.90
1	AA	787	DC	O4'-C4'-C3'	-5.09	102.46	104.50
1	AA	2231	DT	C4'-C3'-C2'	-5.09	98.52	103.10
1	AA	2842	DA	O4'-C1'-C2'	-5.09	101.83	105.90
1	AA	6696	DA	O4'-C1'-C2'	-5.09	101.83	105.90
66	BD	22	DC	C4'-C3'-C2'	-5.09	98.52	103.10
118	B3	18	DC	P-O3'-C3'	5.09	125.81	119.70
30	Ad	28	DA	O4'-C1'-C2'	-5.09	101.83	105.90
1	AA	48	DC	C6-N1-C2	-5.09	118.27	120.30
1	AA	2701	DT	C4'-C3'-C2'	-5.09	98.52	103.10
1	AA	4159	DA	O4'-C1'-C2'	-5.09	101.83	105.90
5	AE	12	DT	C4'-C3'-C2'	-5.09	98.52	103.10
126	CB	6	DG	P-O3'-C3'	5.09	125.80	119.70
1	AA	6228	DA	N1-C6-N6	-5.08	115.55	118.60
67	BE	8	DA	P-O3'-C3'	5.08	125.80	119.70
1	AA	1347	DC	C1'-O4'-C4'	-5.08	105.02	110.10
1	AA	1764	DG	P-O3'-C3'	5.08	125.80	119.70
2	AB	17	DA	O4'-C1'-C2'	-5.08	101.83	105.90
195	DI	31	DT	O4'-C1'-C2'	-5.08	101.83	105.90
1	AA	3807	DG	P-O3'-C3'	5.08	125.80	119.70
11	AK	36	DC	O4'-C1'-C2'	-5.08	101.83	105.90
25	AY	5	DA	O4'-C1'-C2'	-5.08	101.83	105.90
54	A1	31	DT	O4'-C1'-C2'	-5.08	101.83	105.90
145	CU	19	DT	C1'-O4'-C4'	-5.08	105.02	110.10
174	Cx	4	DT	C2-N1-C1'	5.08	126.33	118.20
1	AA	4686	DT	P-O5'-C5'	5.08	129.03	120.90
1	AA	5061	DG	C1'-O4'-C4'	-5.08	105.02	110.10
81	BS	22	DT	C4'-C3'-C2'	-5.08	98.53	103.10
96	Bh	16	DC	C2-N1-C1'	5.08	124.39	118.80
111	Bw	20	DG	C1'-O4'-C4'	-5.08	105.02	110.10
87	BY	37	DA	O4'-C1'-C2'	-5.08	101.84	105.90
180	C3	20	DG	O4'-C1'-C2'	-5.08	101.84	105.90
1	AA	2717	DT	C1'-O4'-C4'	-5.08	105.02	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	3241	DT	C4'-C3'-C2'	-5.08	98.53	103.10
19	AS	28	DA	N1-C6-N6	-5.08	115.55	118.60
80	BR	16	DG	P-O3'-C3'	5.08	125.79	119.70
138	CN	1	DA	O4'-C4'-C3'	-5.08	102.47	104.50
1	AA	362	DC	O4'-C1'-C2'	-5.08	101.84	105.90
1	AA	3386	DA	O4'-C1'-C2'	-5.08	101.84	105.90
1	AA	3951	DC	C4'-C3'-C2'	-5.08	98.53	103.10
108	Bt	23	DG	P-O3'-C3'	5.08	125.79	119.70
1	AA	841	DC	O4'-C1'-C2'	-5.07	101.84	105.90
1	AA	863	DA	O4'-C1'-N9	5.07	111.55	108.00
1	AA	4722	DC	O4'-C1'-C2'	-5.07	101.84	105.90
1	AA	7025	DC	P-O3'-C3'	5.07	125.79	119.70
64	BB	25	DG	O4'-C4'-C3'	-5.07	102.47	104.50
178	C1	19	DG	O4'-C1'-C2'	-5.07	101.84	105.90
1	AA	6839	DG	O4'-C1'-C2'	-5.07	101.84	105.90
129	CE	29	DA	C5-C6-N6	5.07	127.76	123.70
135	CK	14	DG	C1'-O4'-C4'	-5.07	105.03	110.10
181	C4	12	DA	O4'-C1'-C2'	-5.07	101.84	105.90
1	AA	452	DC	C2-N1-C1'	5.07	124.38	118.80
1	AA	4889	DG	C4'-C3'-C2'	-5.07	98.54	103.10
1	AA	6573	DA	C1'-O4'-C4'	-5.07	105.03	110.10
6	AF	28	DT	C4'-C3'-C2'	-5.07	98.54	103.10
68	BF	27	DG	C1'-O4'-C4'	-5.07	105.03	110.10
137	CM	5	DT	P-O3'-C3'	5.07	125.78	119.70
1	AA	695	DA	C1'-O4'-C4'	-5.07	105.03	110.10
43	Aq	25	DC	P-O3'-C3'	5.07	125.78	119.70
50	Ax	12	DT	C1'-O4'-C4'	-5.07	105.03	110.10
75	BM	19	DT	C4'-C3'-C2'	-5.07	98.54	103.10
81	BS	37	DA	O4'-C1'-C2'	-5.07	101.85	105.90
198	DL	3	DG	O4'-C1'-N9	5.07	111.55	108.00
1	AA	5992	DA	N1-C6-N6	-5.07	115.56	118.60
151	Ca	5	DG	O4'-C1'-C2'	-5.07	101.85	105.90
1	AA	847	DT	C1'-O4'-C4'	-5.06	105.04	110.10
1	AA	2836	DG	O4'-C1'-C2'	-5.06	101.85	105.90
1	AA	6242	DG	O4'-C1'-C2'	-5.06	101.85	105.90
12	AL	8	DT	C4'-C3'-C2'	-5.06	98.54	103.10
1	AA	5022	DA	P-O3'-C3'	5.06	125.78	119.70
1	AA	5413	DG	C1'-O4'-C4'	-5.06	105.04	110.10
185	C8	29	DA	P-O3'-C3'	5.06	125.78	119.70
19	AS	32	DT	C4'-C3'-C2'	-5.06	98.55	103.10
1	AA	3399	DG	O4'-C4'-C3'	-5.06	102.48	104.50
54	A1	30	DT	O4'-C4'-C3'	-5.06	102.48	104.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
112	Bx	10	DC	P-O3'-C3'	5.06	125.77	119.70
183	C6	12	DA	O4'-C4'-C3'	-5.06	102.48	104.50
1	AA	306	DG	O4'-C1'-C2'	-5.06	101.86	105.90
1	AA	953	DG	O4'-C1'-N9	5.06	111.54	108.00
1	AA	4280	DC	O4'-C1'-C2'	-5.06	101.86	105.90
1	AA	4902	DC	C1'-O4'-C4'	-5.06	105.04	110.10
22	AV	34	DA	O4'-C1'-C2'	-5.06	101.86	105.90
1	AA	944	DG	C1'-O4'-C4'	-5.05	105.05	110.10
1	AA	1715	DT	C4'-C3'-C2'	-5.05	98.55	103.10
1	AA	2585	DT	C4'-C3'-C2'	-5.05	98.55	103.10
1	AA	4267	DT	C1'-O4'-C4'	-5.05	105.05	110.10
1	AA	4390	DG	O4'-C1'-C2'	-5.05	101.86	105.90
1	AA	4576	DT	C4'-C3'-C2'	-5.05	98.55	103.10
1	AA	4786	DA	C4'-C3'-C2'	-5.05	98.55	103.10
61	A8	1	DT	C4'-C3'-C2'	-5.05	98.55	103.10
1	AA	904	DT	C4'-C3'-C2'	-5.05	98.55	103.10
1	AA	2420	DG	O4'-C1'-C2'	-5.05	101.86	105.90
1	AA	3311	DG	C4'-C3'-C2'	-5.05	98.55	103.10
1	AA	4311	DG	P-O3'-C3'	5.05	125.76	119.70
1	AA	283	DC	O4'-C1'-N1	5.05	111.54	108.00
1	AA	1545	DC	C2-N1-C1'	5.05	124.36	118.80
1	AA	4566	DT	C4'-C3'-C2'	-5.05	98.55	103.10
1	AA	5993	DC	O4'-C1'-C2'	-5.05	101.86	105.90
1	AA	6879	DT	P-O3'-C3'	5.05	125.76	119.70
58	A5	19	DA	C4'-C3'-C2'	-5.05	98.55	103.10
139	CO	36	DA	C5-C6-N6	5.05	127.74	123.70
167	Cq	26	DA	O4'-C1'-C2'	-5.05	101.86	105.90
187	DA	14	DG	O4'-C1'-N9	5.05	111.54	108.00
1	AA	1677	DT	P-O5'-C5'	5.05	128.98	120.90
1	AA	5714	DT	O4'-C4'-C3'	-5.05	102.48	104.50
16	AP	22	DA	C4'-C3'-C2'	-5.05	98.56	103.10
24	AX	38	DG	O4'-C1'-C2'	-5.05	101.86	105.90
65	BC	2	DT	C1'-O4'-C4'	-5.05	105.05	110.10
89	Ba	26	DA	O4'-C1'-C2'	-5.05	101.86	105.90
138	CN	24	DA	N1-C6-N6	-5.05	115.57	118.60
188	DB	32	DT	P-O3'-C3'	-5.05	113.64	119.70
1	AA	2642	DA	O4'-C1'-C2'	-5.05	101.86	105.90
1	AA	3050	DC	P-O3'-C3'	5.05	125.76	119.70
89	Ba	31	DG	O4'-C4'-C3'	-5.05	102.48	104.50
1	AA	1633	DC	P-O3'-C3'	5.05	125.76	119.70
1	AA	2041	DA	C1'-O4'-C4'	-5.05	105.05	110.10
1	AA	2313	DG	O4'-C1'-C2'	-5.05	101.86	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	3388	DC	C4'-C3'-C2'	-5.05	98.56	103.10
1	AA	3896	DA	P-O3'-C3'	5.05	125.75	119.70
1	AA	6062	DG	O4'-C1'-C2'	-5.05	101.86	105.90
132	CH	18	DT	P-O3'-C3'	5.05	125.75	119.70
1	AA	2969	DG	C5-C6-O6	-5.04	125.57	128.60
1	AA	3994	DA	N1-C6-N6	-5.04	115.57	118.60
1	AA	5963	DT	C4'-C3'-C2'	-5.04	98.56	103.10
1	AA	6513	DG	C1'-O4'-C4'	-5.04	105.06	110.10
11	AK	39	DA	N1-C6-N6	-5.04	115.57	118.60
49	Aw	15	DT	C1'-O4'-C4'	-5.04	105.06	110.10
181	C4	24	DT	C4'-C3'-C2'	-5.04	98.56	103.10
1	AA	6289	DC	O4'-C1'-C2'	-5.04	101.86	105.90
2	AB	11	DG	P-O3'-C3'	5.04	125.75	119.70
46	At	12	DA	O4'-C1'-N9	-5.04	104.47	108.00
171	Cu	14	DA	O4'-C1'-C2'	-5.04	101.86	105.90
1	AA	713	DC	P-O5'-C5'	5.04	128.97	120.90
1	AA	2010	DG	O4'-C4'-C3'	-5.04	102.48	104.50
1	AA	4945	DG	O4'-C1'-N9	5.04	111.53	108.00
1	AA	5245	DA	C1'-O4'-C4'	-5.04	105.06	110.10
1	AA	2541	DG	C1'-O4'-C4'	-5.04	105.06	110.10
1	AA	3405	DG	O4'-C1'-C2'	-5.04	101.87	105.90
1	AA	2684	DG	O4'-C1'-C2'	-5.04	101.87	105.90
1	AA	7123	DG	C5-C6-O6	-5.04	125.58	128.60
116	B1	38	DT	C1'-O4'-C4'	-5.04	105.06	110.10
131	CG	9	DG	C1'-O4'-C4'	-5.04	105.06	110.10
183	C6	18	DT	O4'-C1'-C2'	-5.04	101.87	105.90
1	AA	6592	DT	C4'-C3'-C2'	-5.04	98.57	103.10
106	Br	29	DT	C4'-C3'-C2'	-5.04	98.57	103.10
111	Bw	21	DA	C4'-C3'-C2'	-5.04	98.57	103.10
156	Cf	6	DG	O4'-C1'-C2'	-5.04	101.87	105.90
1	AA	697	DT	C4'-C3'-C2'	-5.04	98.57	103.10
101	Bm	29	DC	O4'-C4'-C3'	-5.04	102.49	104.50
108	Bt	6	DT	O4'-C1'-C2'	-5.04	101.87	105.90
164	Cn	16	DC	C4'-C3'-C2'	-5.04	98.57	103.10
97	Bi	14	DC	O4'-C1'-N1	5.03	111.52	108.00
128	CD	10	DC	C1'-O4'-C4'	-5.03	105.07	110.10
170	Ct	30	DC	C2-N1-C1'	5.03	124.34	118.80
197	DK	28	DT	C4'-C3'-C2'	-5.03	98.57	103.10
1	AA	3521	DT	C4'-C3'-C2'	-5.03	98.57	103.10
1	AA	4313	DG	O4'-C1'-C2'	-5.03	101.87	105.90
1	AA	6071	DC	O4'-C1'-N1	5.03	111.52	108.00
186	C9	44	DG	O4'-C1'-C2'	-5.03	101.87	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	61	DA	P-O3'-C3'	5.03	125.74	119.70
1	AA	4231	DA	P-O3'-C3'	5.03	125.74	119.70
1	AA	4915	DG	O4'-C1'-C2'	-5.03	101.88	105.90
43	Aq	20	DA	C1'-O4'-C4'	-5.03	105.07	110.10
104	Bp	18	DG	O4'-C1'-C2'	-5.03	101.88	105.90
147	CW	21	DA	P-O3'-C3'	5.03	125.74	119.70
154	Cd	8	DT	P-O3'-C3'	-5.03	113.66	119.70
1	AA	4353	DC	C4'-C3'-C2'	-5.03	98.57	103.10
1	AA	5599	DT	C4'-C3'-C2'	-5.03	98.57	103.10
1	AA	6450	DT	O4'-C1'-C2'	-5.03	101.88	105.90
73	BK	16	DT	P-O3'-C3'	-5.03	113.67	119.70
152	Cb	2	DA	C1'-O4'-C4'	-5.03	105.07	110.10
1	AA	1194	DG	C1'-O4'-C4'	-5.03	105.07	110.10
1	AA	1530	DT	C1'-O4'-C4'	-5.03	105.07	110.10
1	AA	2819	DG	C5-C6-O6	-5.03	125.58	128.60
35	Ai	33	DT	C4'-C3'-C2'	-5.03	98.58	103.10
140	CP	26	DA	C5-C6-N6	5.03	127.72	123.70
1	AA	407	DC	P-O5'-C5'	5.03	128.94	120.90
1	AA	2270	DT	O4'-C1'-C2'	-5.03	101.88	105.90
1	AA	2899	DT	C4'-C3'-C2'	-5.03	98.58	103.10
1	AA	5962	DC	O4'-C1'-N1	5.03	111.52	108.00
1	AA	6294	DG	C4'-C3'-C2'	-5.03	98.58	103.10
1	AA	7063	DA	C1'-O4'-C4'	-5.03	105.07	110.10
43	Aq	22	DC	O4'-C1'-C2'	-5.03	101.88	105.90
106	Br	34	DT	P-O3'-C3'	5.03	125.73	119.70
145	CU	32	DC	C2-N1-C1'	5.03	124.33	118.80
1	AA	645	DT	C4'-C3'-C2'	-5.02	98.58	103.10
1	AA	1368	DT	C4'-C3'-C2'	-5.02	98.58	103.10
1	AA	1550	DG	P-O3'-C3'	5.02	125.73	119.70
1	AA	1751	DT	C4'-C3'-C2'	-5.02	98.58	103.10
170	Ct	17	DA	C8-N9-C4	-5.02	103.79	105.80
203	DQ	18	DG	O4'-C1'-C2'	-5.02	101.88	105.90
1	AA	7	DA	C1'-O4'-C4'	-5.02	105.08	110.10
1	AA	1352	DC	C4'-C3'-C2'	-5.02	98.58	103.10
1	AA	1452	DG	O4'-C1'-C2'	-5.02	101.88	105.90
1	AA	2856	DT	C1'-O4'-C4'	-5.02	105.08	110.10
1	AA	3872	DA	C4'-C3'-C2'	-5.02	98.58	103.10
1	AA	6371	DC	C4'-C3'-C2'	-5.02	98.58	103.10
1	AA	6464	DG	O4'-C1'-N9	5.02	111.52	108.00
1	AA	6991	DA	C4'-C3'-C2'	-5.02	98.58	103.10
4	AD	16	DG	O4'-C1'-C2'	-5.02	101.88	105.90
154	Cd	15	DC	C4'-C3'-C2'	-5.02	98.58	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
166	Cp	29	DG	O4'-C1'-C2'	-5.02	101.88	105.90
1	AA	122	DG	P-O3'-C3'	5.02	125.72	119.70
1	AA	4572	DT	C4'-C3'-C2'	-5.02	98.58	103.10
1	AA	6175	DT	C1'-O4'-C4'	-5.02	105.08	110.10
1	AA	725	DA	O4'-C1'-C2'	-5.02	101.89	105.90
58	A5	40	DA	O4'-C1'-N9	-5.02	104.49	108.00
159	Ci	40	DA	N1-C6-N6	-5.02	115.59	118.60
170	Ct	32	DG	O4'-C1'-C2'	-5.02	101.89	105.90
180	C3	2	DT	P-O3'-C3'	5.02	125.72	119.70
124	B9	31	DG	C1'-O4'-C4'	-5.02	105.08	110.10
1	AA	4707	DA	C3'-C2'-C1'	-5.02	96.48	102.50
1	AA	653	DT	O4'-C1'-C2'	-5.01	101.89	105.90
1	AA	3865	DC	C2-N1-C1'	5.01	124.32	118.80
1	AA	4374	DA	O4'-C1'-C2'	-5.01	101.89	105.90
1	AA	6431	DC	O4'-C1'-N1	5.01	111.51	108.00
51	Ay	10	DT	C4'-C3'-C2'	-5.01	98.59	103.10
104	Bp	7	DG	O4'-C1'-C2'	-5.01	101.89	105.90
134	CJ	8	DA	N1-C6-N6	-5.01	115.59	118.60
1	AA	6214	DC	C1'-O4'-C4'	-5.01	105.09	110.10
1	AA	1115	DG	O4'-C1'-C2'	-5.01	101.89	105.90
1	AA	4900	DG	O4'-C1'-C2'	-5.01	101.89	105.90
111	Bw	15	DA	C1'-O4'-C4'	-5.01	105.09	110.10
117	B2	14	DA	O4'-C1'-C2'	-5.01	101.89	105.90
1	AA	570	DA	P-O3'-C3'	5.01	125.71	119.70
1	AA	1406	DC	O4'-C1'-N1	5.01	111.51	108.00
1	AA	1897	DC	P-O5'-C5'	5.01	128.92	120.90
1	AA	3764	DT	C4'-C3'-C2'	-5.01	98.59	103.10
1	AA	6035	DT	C4'-C3'-C2'	-5.01	98.59	103.10
1	AA	6230	DG	O4'-C1'-C2'	-5.01	101.89	105.90
1	AA	6836	DA	P-O3'-C3'	5.01	125.71	119.70
83	BU	10	DC	C4'-C3'-C2'	-5.01	98.59	103.10
175	Cy	37	DT	C4'-C3'-C2'	-5.01	98.59	103.10
1	AA	144	DT	O4'-C4'-C3'	-5.01	102.50	104.50
45	As	5	DT	C4'-C3'-C2'	-5.01	98.59	103.10
52	Az	18	DG	C1'-O4'-C4'	-5.01	105.09	110.10
62	A9	7	DT	C1'-O4'-C4'	-5.01	105.09	110.10
1	AA	2984	DC	P-O5'-C5'	5.01	128.91	120.90
108	Bt	39	DT	O4'-C1'-C2'	-5.01	101.89	105.90
195	DI	18	DG	P-O3'-C3'	5.01	125.71	119.70
1	AA	810	DG	O4'-C1'-N9	5.00	111.50	108.00
17	AQ	41	DT	C4'-C3'-C2'	-5.00	98.60	103.10
1	AA	690	DA	O4'-C1'-C2'	-5.00	101.90	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	911	DA	O4'-C1'-C2'	-5.00	101.90	105.90
1	AA	1010	DG	O4'-C1'-C2'	-5.00	101.90	105.90
1	AA	1631	DC	O4'-C1'-C2'	-5.00	101.90	105.90
1	AA	2819	DG	C1'-O4'-C4'	-5.00	105.10	110.10
93	Be	25	DA	N1-C6-N6	-5.00	115.60	118.60
151	Ca	31	DT	C4'-C3'-C2'	-5.00	98.60	103.10
187	DA	32	DT	O4'-C1'-C2'	-5.00	101.90	105.90
1	AA	2748	DA	N1-C6-N6	-5.00	115.60	118.60
24	AX	17	DA	P-O3'-C3'	5.00	125.70	119.70

All (11) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	AA	627	DG	C3'
1	AA	767	DT	C3'
1	AA	885	DA	C3'
1	AA	1025	DA	C3'
1	AA	1143	DG	C3'
1	AA	1763	DA	C3'
1	AA	4125	DG	C3'
1	AA	4213	DA	C3'
1	AA	4821	DG	C3'
1	AA	5109	DT	C3'
1	AA	5365	DA	C3'

All (2081) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
53	A0	13	DT	Sidechain
53	A0	29	DC	Sidechain
53	A0	47	DC	Sidechain
53	A0	5	DA	Sidechain
54	A1	1	DT	Sidechain
54	A1	10	DT	Sidechain
54	A1	16	DA	Sidechain
54	A1	28	DT	Sidechain
54	A1	31	DT	Sidechain
54	A1	6	DC	Sidechain
54	A1	7	DG	Sidechain
54	A1	9	DA	Sidechain
55	A2	12	DA	Sidechain
55	A2	31	DC	Sidechain

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Mol	Chain	Res	Type	Group
55	A2	9	DC	Sidechain
56	A3	12	DG	Sidechain
56	A3	13	DT	Sidechain
56	A3	17	DG	Sidechain
56	A3	21	DC	Sidechain
57	A4	12	DC	Sidechain
57	A4	14	DC	Sidechain
57	A4	37	DA	Sidechain
58	A5	14	DA	Sidechain
58	A5	15	DC	Sidechain
58	A5	19	DA	Sidechain
58	A5	21	DT	Sidechain
58	A5	23	DA	Sidechain
58	A5	33	DA	Sidechain
58	A5	34	DA	Sidechain
58	A5	35	DA	Sidechain
58	A5	36	DT	Sidechain
58	A5	37	DG	Sidechain
59	A6	1	DA	Sidechain
59	A6	10	DC	Sidechain
59	A6	21	DG	Sidechain
59	A6	22	DT	Sidechain
59	A6	27	DA	Sidechain
59	A6	30	DT	Sidechain
59	A6	35	DG	Sidechain
60	A7	1	DT	Sidechain
60	A7	11	DA	Sidechain
60	A7	16	DA	Sidechain
60	A7	27	DG	Sidechain
60	A7	31	DT	Sidechain
60	A7	5	DT	Sidechain
61	A8	16	DG	Sidechain
61	A8	18	DT	Sidechain
61	A8	19	DT	Sidechain
61	A8	21	DT	Sidechain
61	A8	23	DT	Sidechain
61	A8	25	DT	Sidechain
61	A8	27	DC	Sidechain
61	A8	31	DA	Sidechain
61	A8	35	DA	Sidechain
61	A8	37	DT	Sidechain
62	A9	14	DA	Sidechain

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Mol	Chain	Res	Type	Group
62	A9	31	DC	Sidechain
62	A9	39	DC	Sidechain
62	A9	6	DA	Sidechain
1	AA	1	DA	Sidechain
1	AA	1011	DC	Sidechain
1	AA	1014	DC	Sidechain
1	AA	1019	DC	Sidechain
1	AA	1023	DA	Sidechain
1	AA	1030	DT	Sidechain
1	AA	1033	DT	Sidechain
1	AA	1037	DT	Sidechain
1	AA	1038	DC	Sidechain
1	AA	104	DG	Sidechain
1	AA	1048	DA	Sidechain
1	AA	1058	DT	Sidechain
1	AA	1061	DG	Sidechain
1	AA	1063	DT	Sidechain
1	AA	1064	DT	Sidechain
1	AA	1070	DA	Sidechain
1	AA	1074	DT	Sidechain
1	AA	1076	DG	Sidechain
1	AA	1088	DC	Sidechain
1	AA	109	DA	Sidechain
1	AA	11	DC	Sidechain
1	AA	110	DC	Sidechain
1	AA	1112	DG	Sidechain
1	AA	1120	DC	Sidechain
1	AA	1123	DA	Sidechain
1	AA	1124	DT	Sidechain
1	AA	1131	DA	Sidechain
1	AA	1146	DA	Sidechain
1	AA	1147	DT	Sidechain
1	AA	115	DT	Sidechain
1	AA	1169	DT	Sidechain
1	AA	1181	DT	Sidechain
1	AA	121	DC	Sidechain
1	AA	1218	DT	Sidechain
1	AA	1219	DG	Sidechain
1	AA	1220	DT	Sidechain
1	AA	1234	DT	Sidechain
1	AA	1239	DT	Sidechain
1	AA	1264	DC	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1266	DT	Sidechain
1	AA	1282	DT	Sidechain
1	AA	129	DG	Sidechain
1	AA	130	DA	Sidechain
1	AA	1301	DT	Sidechain
1	AA	1302	DG	Sidechain
1	AA	1307	DA	Sidechain
1	AA	131	DA	Sidechain
1	AA	1316	DT	Sidechain
1	AA	1334	DC	Sidechain
1	AA	1349	DT	Sidechain
1	AA	1354	DA	Sidechain
1	AA	1363	DT	Sidechain
1	AA	1368	DT	Sidechain
1	AA	1370	DC	Sidechain
1	AA	1373	DA	Sidechain
1	AA	1378	DG	Sidechain
1	AA	1379	DA	Sidechain
1	AA	1380	DC	Sidechain
1	AA	1382	DA	Sidechain
1	AA	1383	DT	Sidechain
1	AA	1384	DC	Sidechain
1	AA	1386	DC	Sidechain
1	AA	139	DT	Sidechain
1	AA	1390	DA	Sidechain
1	AA	1393	DG	Sidechain
1	AA	1396	DG	Sidechain
1	AA	1402	DA	Sidechain
1	AA	1411	DC	Sidechain
1	AA	1416	DC	Sidechain
1	AA	1419	DA	Sidechain
1	AA	1424	DC	Sidechain
1	AA	144	DT	Sidechain
1	AA	1441	DG	Sidechain
1	AA	1453	DG	Sidechain
1	AA	1458	DT	Sidechain
1	AA	1459	DG	Sidechain
1	AA	146	DT	Sidechain
1	AA	1468	DG	Sidechain
1	AA	147	DT	Sidechain
1	AA	1474	DA	Sidechain
1	AA	1475	DC	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1490	DT	Sidechain
1	AA	1501	DT	Sidechain
1	AA	1507	DT	Sidechain
1	AA	1510	DA	Sidechain
1	AA	1513	DG	Sidechain
1	AA	1521	DA	Sidechain
1	AA	1522	DT	Sidechain
1	AA	1528	DG	Sidechain
1	AA	1530	DT	Sidechain
1	AA	1531	DA	Sidechain
1	AA	1544	DC	Sidechain
1	AA	1547	DT	Sidechain
1	AA	155	DA	Sidechain
1	AA	1555	DC	Sidechain
1	AA	1561	DT	Sidechain
1	AA	1570	DT	Sidechain
1	AA	1574	DC	Sidechain
1	AA	1582	DA	Sidechain
1	AA	1584	DA	Sidechain
1	AA	1587	DT	Sidechain
1	AA	1590	DT	Sidechain
1	AA	1596	DG	Sidechain
1	AA	1605	DT	Sidechain
1	AA	1622	DT	Sidechain
1	AA	1628	DC	Sidechain
1	AA	163	DT	Sidechain
1	AA	1636	DA	Sidechain
1	AA	1639	DC	Sidechain
1	AA	1658	DA	Sidechain
1	AA	1663	DC	Sidechain
1	AA	1666	DA	Sidechain
1	AA	1674	DA	Sidechain
1	AA	1676	DT	Sidechain
1	AA	1684	DC	Sidechain
1	AA	1690	DT	Sidechain
1	AA	1691	DC	Sidechain
1	AA	1695	DA	Sidechain
1	AA	17	DG	Sidechain
1	AA	1701	DG	Sidechain
1	AA	1707	DA	Sidechain
1	AA	1718	DT	Sidechain
1	AA	1723	DC	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1726	DA	Sidechain
1	AA	1727	DC	Sidechain
1	AA	1729	DA	Sidechain
1	AA	1732	DA	Sidechain
1	AA	1744	DG	Sidechain
1	AA	1745	DG	Sidechain
1	AA	1749	DG	Sidechain
1	AA	1757	DC	Sidechain
1	AA	1759	DT	Sidechain
1	AA	1760	DT	Sidechain
1	AA	1764	DG	Sidechain
1	AA	1766	DT	Sidechain
1	AA	177	DT	Sidechain
1	AA	1771	DC	Sidechain
1	AA	1783	DC	Sidechain
1	AA	1799	DA	Sidechain
1	AA	1810	DT	Sidechain
1	AA	1815	DC	Sidechain
1	AA	1821	DA	Sidechain
1	AA	1830	DA	Sidechain
1	AA	1840	DG	Sidechain
1	AA	1843	DG	Sidechain
1	AA	1859	DT	Sidechain
1	AA	187	DT	Sidechain
1	AA	1870	DG	Sidechain
1	AA	188	DA	Sidechain
1	AA	1883	DT	Sidechain
1	AA	1888	DG	Sidechain
1	AA	1889	DT	Sidechain
1	AA	1891	DC	Sidechain
1	AA	1895	DA	Sidechain
1	AA	1900	DC	Sidechain
1	AA	1905	DT	Sidechain
1	AA	1914	DA	Sidechain
1	AA	1921	DT	Sidechain
1	AA	1922	DT	Sidechain
1	AA	1926	DG	Sidechain
1	AA	1927	DG	Sidechain
1	AA	1928	DC	Sidechain
1	AA	1931	DT	Sidechain
1	AA	1933	DC	Sidechain
1	AA	1934	DT	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	195	DA	Sidechain
1	AA	1958	DT	Sidechain
1	AA	197	DA	Sidechain
1	AA	1973	DT	Sidechain
1	AA	1983	DC	Sidechain
1	AA	199	DG	Sidechain
1	AA	1998	DC	Sidechain
1	AA	2000	DT	Sidechain
1	AA	2013	DT	Sidechain
1	AA	2024	DT	Sidechain
1	AA	2028	DA	Sidechain
1	AA	2036	DG	Sidechain
1	AA	2037	DT	Sidechain
1	AA	2040	DC	Sidechain
1	AA	2041	DA	Sidechain
1	AA	205	DC	Sidechain
1	AA	2067	DG	Sidechain
1	AA	2075	DA	Sidechain
1	AA	2078	DT	Sidechain
1	AA	208	DC	Sidechain
1	AA	2082	DT	Sidechain
1	AA	2091	DA	Sidechain
1	AA	2107	DC	Sidechain
1	AA	211	DC	Sidechain
1	AA	2141	DT	Sidechain
1	AA	2167	DC	Sidechain
1	AA	2170	DA	Sidechain
1	AA	2197	DC	Sidechain
1	AA	22	DA	Sidechain
1	AA	2206	DC	Sidechain
1	AA	2232	DT	Sidechain
1	AA	2237	DA	Sidechain
1	AA	2240	DT	Sidechain
1	AA	2245	DG	Sidechain
1	AA	2279	DT	Sidechain
1	AA	2281	DC	Sidechain
1	AA	2291	DC	Sidechain
1	AA	2295	DG	Sidechain
1	AA	2297	DT	Sidechain
1	AA	2311	DG	Sidechain
1	AA	2313	DG	Sidechain
1	AA	2314	DG	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	2315	DC	Sidechain
1	AA	2318	DT	Sidechain
1	AA	2320	DA	Sidechain
1	AA	2325	DG	Sidechain
1	AA	2328	DG	Sidechain
1	AA	2331	DT	Sidechain
1	AA	2335	DA	Sidechain
1	AA	2337	DG	Sidechain
1	AA	234	DT	Sidechain
1	AA	2348	DT	Sidechain
1	AA	2350	DA	Sidechain
1	AA	2359	DG	Sidechain
1	AA	2362	DC	Sidechain
1	AA	2365	DA	Sidechain
1	AA	2367	DG	Sidechain
1	AA	2372	DC	Sidechain
1	AA	2375	DT	Sidechain
1	AA	2387	DC	Sidechain
1	AA	2389	DC	Sidechain
1	AA	2391	DG	Sidechain
1	AA	2392	DG	Sidechain
1	AA	2393	DT	Sidechain
1	AA	2401	DA	Sidechain
1	AA	2410	DA	Sidechain
1	AA	2420	DG	Sidechain
1	AA	2422	DC	Sidechain
1	AA	2423	DA	Sidechain
1	AA	2425	DA	Sidechain
1	AA	2427	DG	Sidechain
1	AA	2436	DG	Sidechain
1	AA	2440	DC	Sidechain
1	AA	2442	DA	Sidechain
1	AA	2452	DA	Sidechain
1	AA	2464	DA	Sidechain
1	AA	2469	DC	Sidechain
1	AA	2480	DC	Sidechain
1	AA	2481	DG	Sidechain
1	AA	2483	DT	Sidechain
1	AA	2488	DG	Sidechain
1	AA	2495	DT	Sidechain
1	AA	25	DG	Sidechain
1	AA	250	DA	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	2504	DC	Sidechain
1	AA	2509	DC	Sidechain
1	AA	2515	DA	Sidechain
1	AA	2527	DT	Sidechain
1	AA	2528	DC	Sidechain
1	AA	2541	DG	Sidechain
1	AA	2542	DG	Sidechain
1	AA	2552	DC	Sidechain
1	AA	2554	DG	Sidechain
1	AA	2556	DC	Sidechain
1	AA	2574	DG	Sidechain
1	AA	2578	DC	Sidechain
1	AA	2581	DG	Sidechain
1	AA	2584	DA	Sidechain
1	AA	2591	DT	Sidechain
1	AA	26	DA	Sidechain
1	AA	2610	DG	Sidechain
1	AA	2611	DC	Sidechain
1	AA	2622	DG	Sidechain
1	AA	2624	DC	Sidechain
1	AA	2633	DT	Sidechain
1	AA	2634	DT	Sidechain
1	AA	2643	DA	Sidechain
1	AA	2647	DA	Sidechain
1	AA	2658	DC	Sidechain
1	AA	2663	DT	Sidechain
1	AA	2664	DT	Sidechain
1	AA	2667	DC	Sidechain
1	AA	2669	DT	Sidechain
1	AA	2688	DG	Sidechain
1	AA	2692	DG	Sidechain
1	AA	2693	DT	Sidechain
1	AA	2695	DG	Sidechain
1	AA	2710	DG	Sidechain
1	AA	2719	DA	Sidechain
1	AA	2721	DC	Sidechain
1	AA	2722	DC	Sidechain
1	AA	2725	DA	Sidechain
1	AA	2728	DA	Sidechain
1	AA	2734	DC	Sidechain
1	AA	2740	DA	Sidechain
1	AA	2746	DA	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	2751	DA	Sidechain
1	AA	2756	DC	Sidechain
1	AA	2758	DT	Sidechain
1	AA	2759	DA	Sidechain
1	AA	2766	DG	Sidechain
1	AA	2767	DG	Sidechain
1	AA	2783	DT	Sidechain
1	AA	2785	DT	Sidechain
1	AA	2787	DT	Sidechain
1	AA	2792	DT	Sidechain
1	AA	2800	DT	Sidechain
1	AA	2802	DA	Sidechain
1	AA	2817	DA	Sidechain
1	AA	2820	DT	Sidechain
1	AA	2824	DC	Sidechain
1	AA	2853	DT	Sidechain
1	AA	2861	DG	Sidechain
1	AA	2874	DT	Sidechain
1	AA	2879	DT	Sidechain
1	AA	2890	DT	Sidechain
1	AA	2892	DT	Sidechain
1	AA	2905	DT	Sidechain
1	AA	2911	DA	Sidechain
1	AA	2914	DT	Sidechain
1	AA	292	DC	Sidechain
1	AA	2923	DC	Sidechain
1	AA	2933	DA	Sidechain
1	AA	2937	DT	Sidechain
1	AA	2939	DC	Sidechain
1	AA	296	DA	Sidechain
1	AA	2960	DA	Sidechain
1	AA	2967	DT	Sidechain
1	AA	2984	DC	Sidechain
1	AA	299	DT	Sidechain
1	AA	2993	DA	Sidechain
1	AA	2997	DT	Sidechain
1	AA	3000	DG	Sidechain
1	AA	3009	DC	Sidechain
1	AA	3012	DT	Sidechain
1	AA	3015	DT	Sidechain
1	AA	3028	DC	Sidechain
1	AA	3029	DT	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	3032	DG	Sidechain
1	AA	3033	DA	Sidechain
1	AA	3041	DG	Sidechain
1	AA	3042	DC	Sidechain
1	AA	3057	DA	Sidechain
1	AA	3074	DC	Sidechain
1	AA	3077	DT	Sidechain
1	AA	3088	DG	Sidechain
1	AA	3089	DT	Sidechain
1	AA	3093	DA	Sidechain
1	AA	3098	DC	Sidechain
1	AA	3104	DT	Sidechain
1	AA	3117	DT	Sidechain
1	AA	3138	DT	Sidechain
1	AA	3143	DA	Sidechain
1	AA	3146	DT	Sidechain
1	AA	3148	DT	Sidechain
1	AA	3165	DT	Sidechain
1	AA	317	DG	Sidechain
1	AA	3172	DT	Sidechain
1	AA	3181	DT	Sidechain
1	AA	3186	DA	Sidechain
1	AA	3193	DA	Sidechain
1	AA	3213	DA	Sidechain
1	AA	3221	DA	Sidechain
1	AA	3230	DT	Sidechain
1	AA	3231	DG	Sidechain
1	AA	3233	DA	Sidechain
1	AA	3239	DG	Sidechain
1	AA	3241	DT	Sidechain
1	AA	3258	DA	Sidechain
1	AA	3260	DT	Sidechain
1	AA	3265	DA	Sidechain
1	AA	3268	DA	Sidechain
1	AA	3274	DT	Sidechain
1	AA	3275	DA	Sidechain
1	AA	3276	DG	Sidechain
1	AA	3278	DT	Sidechain
1	AA	33	DC	Sidechain
1	AA	330	DT	Sidechain
1	AA	3301	DT	Sidechain
1	AA	3304	DA	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	3318	DA	Sidechain
1	AA	3322	DT	Sidechain
1	AA	3342	DG	Sidechain
1	AA	3349	DC	Sidechain
1	AA	3351	DC	Sidechain
1	AA	3358	DT	Sidechain
1	AA	3366	DA	Sidechain
1	AA	3373	DA	Sidechain
1	AA	3378	DC	Sidechain
1	AA	3384	DA	Sidechain
1	AA	3385	DT	Sidechain
1	AA	3387	DT	Sidechain
1	AA	3388	DC	Sidechain
1	AA	3389	DT	Sidechain
1	AA	3396	DC	Sidechain
1	AA	3397	DT	Sidechain
1	AA	340	DA	Sidechain
1	AA	3406	DG	Sidechain
1	AA	3408	DC	Sidechain
1	AA	3415	DA	Sidechain
1	AA	3423	DT	Sidechain
1	AA	3430	DA	Sidechain
1	AA	3451	DT	Sidechain
1	AA	3457	DA	Sidechain
1	AA	3480	DA	Sidechain
1	AA	3497	DT	Sidechain
1	AA	3506	DA	Sidechain
1	AA	351	DA	Sidechain
1	AA	3524	DG	Sidechain
1	AA	3527	DT	Sidechain
1	AA	3529	DT	Sidechain
1	AA	3530	DA	Sidechain
1	AA	3532	DA	Sidechain
1	AA	3535	DC	Sidechain
1	AA	3538	DG	Sidechain
1	AA	3548	DA	Sidechain
1	AA	3553	DA	Sidechain
1	AA	3565	DT	Sidechain
1	AA	3568	DT	Sidechain
1	AA	3575	DC	Sidechain
1	AA	3579	DT	Sidechain
1	AA	358	DA	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	3583	DT	Sidechain
1	AA	3592	DA	Sidechain
1	AA	3593	DA	Sidechain
1	AA	3599	DG	Sidechain
1	AA	36	DT	Sidechain
1	AA	360	DG	Sidechain
1	AA	3609	DT	Sidechain
1	AA	3617	DA	Sidechain
1	AA	363	DT	Sidechain
1	AA	3632	DT	Sidechain
1	AA	3634	DG	Sidechain
1	AA	3651	DA	Sidechain
1	AA	3654	DT	Sidechain
1	AA	3658	DC	Sidechain
1	AA	3668	DT	Sidechain
1	AA	3677	DT	Sidechain
1	AA	368	DG	Sidechain
1	AA	3680	DT	Sidechain
1	AA	3682	DT	Sidechain
1	AA	3688	DC	Sidechain
1	AA	3706	DT	Sidechain
1	AA	3709	DC	Sidechain
1	AA	371	DT	Sidechain
1	AA	372	DT	Sidechain
1	AA	3728	DT	Sidechain
1	AA	3729	DG	Sidechain
1	AA	374	DC	Sidechain
1	AA	3751	DT	Sidechain
1	AA	3760	DC	Sidechain
1	AA	3767	DG	Sidechain
1	AA	3768	DC	Sidechain
1	AA	3808	DA	Sidechain
1	AA	3810	DA	Sidechain
1	AA	3825	DT	Sidechain
1	AA	3826	DC	Sidechain
1	AA	3827	DT	Sidechain
1	AA	384	DT	Sidechain
1	AA	3841	DC	Sidechain
1	AA	3844	DG	Sidechain
1	AA	3848	DT	Sidechain
1	AA	3862	DC	Sidechain
1	AA	3868	DA	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	3870	DT	Sidechain
1	AA	3875	DA	Sidechain
1	AA	3881	DT	Sidechain
1	AA	3893	DA	Sidechain
1	AA	3894	DC	Sidechain
1	AA	3895	DC	Sidechain
1	AA	3897	DT	Sidechain
1	AA	3905	DA	Sidechain
1	AA	3912	DA	Sidechain
1	AA	392	DC	Sidechain
1	AA	3920	DA	Sidechain
1	AA	3926	DT	Sidechain
1	AA	3934	DA	Sidechain
1	AA	3946	DT	Sidechain
1	AA	395	DT	Sidechain
1	AA	3953	DC	Sidechain
1	AA	3958	DT	Sidechain
1	AA	3965	DT	Sidechain
1	AA	3974	DA	Sidechain
1	AA	398	DG	Sidechain
1	AA	3981	DT	Sidechain
1	AA	3983	DA	Sidechain
1	AA	3984	DG	Sidechain
1	AA	400	DT	Sidechain
1	AA	4001	DT	Sidechain
1	AA	4003	DT	Sidechain
1	AA	4004	DA	Sidechain
1	AA	4005	DA	Sidechain
1	AA	4011	DC	Sidechain
1	AA	4016	DG	Sidechain
1	AA	4018	DC	Sidechain
1	AA	4020	DG	Sidechain
1	AA	4021	DA	Sidechain
1	AA	4028	DA	Sidechain
1	AA	4044	DA	Sidechain
1	AA	4046	DC	Sidechain
1	AA	4051	DA	Sidechain
1	AA	4057	DA	Sidechain
1	AA	4072	DA	Sidechain
1	AA	410	DA	Sidechain
1	AA	4108	DT	Sidechain
1	AA	411	DC	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	4130	DA	Sidechain
1	AA	4142	DC	Sidechain
1	AA	4152	DC	Sidechain
1	AA	4158	DC	Sidechain
1	AA	4167	DT	Sidechain
1	AA	4169	DA	Sidechain
1	AA	4183	DA	Sidechain
1	AA	4187	DA	Sidechain
1	AA	4195	DT	Sidechain
1	AA	42	DT	Sidechain
1	AA	4210	DG	Sidechain
1	AA	4214	DT	Sidechain
1	AA	4218	DA	Sidechain
1	AA	4222	DA	Sidechain
1	AA	4225	DT	Sidechain
1	AA	4227	DG	Sidechain
1	AA	4232	DA	Sidechain
1	AA	4239	DT	Sidechain
1	AA	4242	DT	Sidechain
1	AA	4252	DT	Sidechain
1	AA	4258	DT	Sidechain
1	AA	4272	DT	Sidechain
1	AA	4281	DT	Sidechain
1	AA	4301	DA	Sidechain
1	AA	4305	DG	Sidechain
1	AA	431	DA	Sidechain
1	AA	4356	DT	Sidechain
1	AA	4360	DG	Sidechain
1	AA	4366	DC	Sidechain
1	AA	4367	DC	Sidechain
1	AA	4381	DA	Sidechain
1	AA	439	DT	Sidechain
1	AA	4393	DT	Sidechain
1	AA	4395	DT	Sidechain
1	AA	440	DT	Sidechain
1	AA	4415	DA	Sidechain
1	AA	4427	DA	Sidechain
1	AA	4433	DT	Sidechain
1	AA	4438	DT	Sidechain
1	AA	4457	DA	Sidechain
1	AA	4463	DA	Sidechain
1	AA	4489	DA	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	4490	DT	Sidechain
1	AA	4503	DT	Sidechain
1	AA	4523	DT	Sidechain
1	AA	4554	DA	Sidechain
1	AA	4557	DT	Sidechain
1	AA	457	DT	Sidechain
1	AA	4592	DT	Sidechain
1	AA	4601	DA	Sidechain
1	AA	4603	DG	Sidechain
1	AA	4619	DC	Sidechain
1	AA	4625	DA	Sidechain
1	AA	4631	DA	Sidechain
1	AA	4650	DT	Sidechain
1	AA	4669	DT	Sidechain
1	AA	4670	DT	Sidechain
1	AA	468	DA	Sidechain
1	AA	4686	DT	Sidechain
1	AA	4687	DA	Sidechain
1	AA	4688	DC	Sidechain
1	AA	469	DC	Sidechain
1	AA	4706	DT	Sidechain
1	AA	4707	DA	Sidechain
1	AA	4708	DT	Sidechain
1	AA	4715	DT	Sidechain
1	AA	4716	DT	Sidechain
1	AA	4720	DG	Sidechain
1	AA	4737	DT	Sidechain
1	AA	4741	DA	Sidechain
1	AA	4755	DT	Sidechain
1	AA	4758	DT	Sidechain
1	AA	476	DA	Sidechain
1	AA	4767	DC	Sidechain
1	AA	4769	DT	Sidechain
1	AA	4778	DT	Sidechain
1	AA	4779	DC	Sidechain
1	AA	479	DC	Sidechain
1	AA	4793	DA	Sidechain
1	AA	48	DC	Sidechain
1	AA	4805	DA	Sidechain
1	AA	481	DT	Sidechain
1	AA	4810	DA	Sidechain
1	AA	4811	DT	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	4824	DT	Sidechain
1	AA	4836	DG	Sidechain
1	AA	4837	DG	Sidechain
1	AA	4839	DT	Sidechain
1	AA	484	DG	Sidechain
1	AA	4847	DG	Sidechain
1	AA	4852	DG	Sidechain
1	AA	4859	DA	Sidechain
1	AA	486	DG	Sidechain
1	AA	4862	DT	Sidechain
1	AA	4867	DT	Sidechain
1	AA	4874	DC	Sidechain
1	AA	4884	DG	Sidechain
1	AA	4885	DC	Sidechain
1	AA	4895	DT	Sidechain
1	AA	491	DA	Sidechain
1	AA	4912	DA	Sidechain
1	AA	4921	DC	Sidechain
1	AA	4924	DA	Sidechain
1	AA	4929	DT	Sidechain
1	AA	4940	DC	Sidechain
1	AA	4944	DT	Sidechain
1	AA	4948	DG	Sidechain
1	AA	4957	DG	Sidechain
1	AA	4961	DT	Sidechain
1	AA	4968	DT	Sidechain
1	AA	4973	DA	Sidechain
1	AA	4984	DC	Sidechain
1	AA	4987	DT	Sidechain
1	AA	500	DA	Sidechain
1	AA	5005	DA	Sidechain
1	AA	501	DT	Sidechain
1	AA	5010	DT	Sidechain
1	AA	5014	DC	Sidechain
1	AA	5016	DT	Sidechain
1	AA	5019	DA	Sidechain
1	AA	5025	DA	Sidechain
1	AA	5026	DT	Sidechain
1	AA	503	DT	Sidechain
1	AA	5037	DA	Sidechain
1	AA	5042	DT	Sidechain
1	AA	5045	DT	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	506	DA	Sidechain
1	AA	5067	DT	Sidechain
1	AA	5070	DT	Sidechain
1	AA	5071	DA	Sidechain
1	AA	5072	DT	Sidechain
1	AA	5073	DC	Sidechain
1	AA	5074	DT	Sidechain
1	AA	5089	DG	Sidechain
1	AA	5090	DT	Sidechain
1	AA	5094	DT	Sidechain
1	AA	5097	DT	Sidechain
1	AA	5103	DT	Sidechain
1	AA	5105	DG	Sidechain
1	AA	5107	DC	Sidechain
1	AA	5113	DA	Sidechain
1	AA	5114	DC	Sidechain
1	AA	5117	DG	Sidechain
1	AA	5135	DA	Sidechain
1	AA	5138	DA	Sidechain
1	AA	5140	DC	Sidechain
1	AA	5157	DG	Sidechain
1	AA	5171	DG	Sidechain
1	AA	5177	DC	Sidechain
1	AA	5182	DA	Sidechain
1	AA	5202	DG	Sidechain
1	AA	5203	DG	Sidechain
1	AA	5219	DT	Sidechain
1	AA	5232	DC	Sidechain
1	AA	5239	DG	Sidechain
1	AA	5243	DA	Sidechain
1	AA	5251	DA	Sidechain
1	AA	5256	DT	Sidechain
1	AA	5276	DT	Sidechain
1	AA	5282	DC	Sidechain
1	AA	5283	DT	Sidechain
1	AA	5292	DA	Sidechain
1	AA	5295	DT	Sidechain
1	AA	5299	DG	Sidechain
1	AA	53	DA	Sidechain
1	AA	5300	DC	Sidechain
1	AA	531	DT	Sidechain
1	AA	5313	DT	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	5315	DT	Sidechain
1	AA	5316	DG	Sidechain
1	AA	5321	DA	Sidechain
1	AA	5323	DG	Sidechain
1	AA	5325	DA	Sidechain
1	AA	5328	DG	Sidechain
1	AA	5330	DC	Sidechain
1	AA	5332	DC	Sidechain
1	AA	5338	DC	Sidechain
1	AA	534	DC	Sidechain
1	AA	5344	DG	Sidechain
1	AA	5347	DC	Sidechain
1	AA	5363	DA	Sidechain
1	AA	5393	DT	Sidechain
1	AA	5400	DA	Sidechain
1	AA	5403	DC	Sidechain
1	AA	5406	DT	Sidechain
1	AA	5414	DG	Sidechain
1	AA	5421	DG	Sidechain
1	AA	5422	DT	Sidechain
1	AA	5428	DT	Sidechain
1	AA	543	DA	Sidechain
1	AA	5438	DA	Sidechain
1	AA	5448	DG	Sidechain
1	AA	5450	DA	Sidechain
1	AA	5453	DG	Sidechain
1	AA	5459	DT	Sidechain
1	AA	5460	DA	Sidechain
1	AA	5462	DA	Sidechain
1	AA	5468	DT	Sidechain
1	AA	547	DT	Sidechain
1	AA	5483	DT	Sidechain
1	AA	5489	DG	Sidechain
1	AA	5497	DT	Sidechain
1	AA	5501	DG	Sidechain
1	AA	5502	DG	Sidechain
1	AA	5505	DC	Sidechain
1	AA	551	DC	Sidechain
1	AA	5530	DT	Sidechain
1	AA	5538	DG	Sidechain
1	AA	554	DT	Sidechain
1	AA	5552	DC	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	5553	DT	Sidechain
1	AA	5564	DC	Sidechain
1	AA	5575	DT	Sidechain
1	AA	5579	DT	Sidechain
1	AA	558	DC	Sidechain
1	AA	5583	DC	Sidechain
1	AA	5598	DT	Sidechain
1	AA	56	DA	Sidechain
1	AA	5618	DT	Sidechain
1	AA	5631	DC	Sidechain
1	AA	5651	DT	Sidechain
1	AA	5656	DG	Sidechain
1	AA	5683	DC	Sidechain
1	AA	5684	DG	Sidechain
1	AA	5686	DC	Sidechain
1	AA	5696	DC	Sidechain
1	AA	5707	DT	Sidechain
1	AA	5711	DG	Sidechain
1	AA	5713	DT	Sidechain
1	AA	5723	DG	Sidechain
1	AA	5725	DG	Sidechain
1	AA	5726	DC	Sidechain
1	AA	573	DT	Sidechain
1	AA	5731	DG	Sidechain
1	AA	5740	DG	Sidechain
1	AA	5741	DA	Sidechain
1	AA	5745	DT	Sidechain
1	AA	5760	DC	Sidechain
1	AA	5766	DA	Sidechain
1	AA	5788	DA	Sidechain
1	AA	5791	DC	Sidechain
1	AA	5794	DG	Sidechain
1	AA	5795	DT	Sidechain
1	AA	5796	DT	Sidechain
1	AA	5799	DA	Sidechain
1	AA	5801	DA	Sidechain
1	AA	5803	DT	Sidechain
1	AA	5804	DG	Sidechain
1	AA	5820	DC	Sidechain
1	AA	5823	DT	Sidechain
1	AA	5824	DC	Sidechain
1	AA	5833	DT	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	5835	DC	Sidechain
1	AA	5836	DT	Sidechain
1	AA	5841	DA	Sidechain
1	AA	585	DA	Sidechain
1	AA	5852	DA	Sidechain
1	AA	5853	DT	Sidechain
1	AA	5869	DA	Sidechain
1	AA	5874	DC	Sidechain
1	AA	5885	DA	Sidechain
1	AA	589	DT	Sidechain
1	AA	5895	DG	Sidechain
1	AA	5896	DC	Sidechain
1	AA	5900	DG	Sidechain
1	AA	5901	DG	Sidechain
1	AA	5915	DA	Sidechain
1	AA	5919	DC	Sidechain
1	AA	5924	DT	Sidechain
1	AA	5926	DC	Sidechain
1	AA	5933	DC	Sidechain
1	AA	5940	DC	Sidechain
1	AA	5946	DG	Sidechain
1	AA	5955	DC	Sidechain
1	AA	5956	DA	Sidechain
1	AA	5957	DA	Sidechain
1	AA	5961	DG	Sidechain
1	AA	5962	DC	Sidechain
1	AA	597	DT	Sidechain
1	AA	5971	DG	Sidechain
1	AA	5972	DT	Sidechain
1	AA	5985	DA	Sidechain
1	AA	6000	DG	Sidechain
1	AA	6003	DG	Sidechain
1	AA	6012	DG	Sidechain
1	AA	6036	DG	Sidechain
1	AA	6041	DA	Sidechain
1	AA	6043	DT	Sidechain
1	AA	6045	DA	Sidechain
1	AA	6048	DA	Sidechain
1	AA	6055	DC	Sidechain
1	AA	6076	DC	Sidechain
1	AA	6077	DT	Sidechain
1	AA	6081	DA	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	6088	DC	Sidechain
1	AA	6102	DC	Sidechain
1	AA	6105	DT	Sidechain
1	AA	611	DG	Sidechain
1	AA	6127	DT	Sidechain
1	AA	6135	DC	Sidechain
1	AA	6141	DC	Sidechain
1	AA	6162	DC	Sidechain
1	AA	6170	DT	Sidechain
1	AA	6173	DT	Sidechain
1	AA	6178	DA	Sidechain
1	AA	6179	DA	Sidechain
1	AA	6181	DT	Sidechain
1	AA	6187	DC	Sidechain
1	AA	619	DG	Sidechain
1	AA	6190	DA	Sidechain
1	AA	6191	DT	Sidechain
1	AA	6193	DA	Sidechain
1	AA	6195	DA	Sidechain
1	AA	62	DT	Sidechain
1	AA	6216	DA	Sidechain
1	AA	6219	DA	Sidechain
1	AA	6232	DA	Sidechain
1	AA	6244	DT	Sidechain
1	AA	6245	DA	Sidechain
1	AA	6256	DC	Sidechain
1	AA	6267	DA	Sidechain
1	AA	6273	DA	Sidechain
1	AA	6285	DT	Sidechain
1	AA	6293	DG	Sidechain
1	AA	63	DA	Sidechain
1	AA	630	DT	Sidechain
1	AA	6315	DG	Sidechain
1	AA	6316	DA	Sidechain
1	AA	6318	DT	Sidechain
1	AA	6322	DA	Sidechain
1	AA	6325	DA	Sidechain
1	AA	6329	DT	Sidechain
1	AA	6332	DC	Sidechain
1	AA	6335	DT	Sidechain
1	AA	6336	DA	Sidechain
1	AA	6351	DC	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	6352	DT	Sidechain
1	AA	6353	DT	Sidechain
1	AA	6360	DC	Sidechain
1	AA	6362	DT	Sidechain
1	AA	6363	DC	Sidechain
1	AA	6368	DT	Sidechain
1	AA	638	DG	Sidechain
1	AA	6381	DC	Sidechain
1	AA	6396	DG	Sidechain
1	AA	6397	DC	Sidechain
1	AA	641	DT	Sidechain
1	AA	6414	DT	Sidechain
1	AA	6415	DC	Sidechain
1	AA	6419	DA	Sidechain
1	AA	643	DG	Sidechain
1	AA	6430	DG	Sidechain
1	AA	6431	DC	Sidechain
1	AA	6441	DG	Sidechain
1	AA	6445	DG	Sidechain
1	AA	6446	DG	Sidechain
1	AA	6447	DC	Sidechain
1	AA	6448	DG	Sidechain
1	AA	6449	DC	Sidechain
1	AA	6458	DG	Sidechain
1	AA	6459	DT	Sidechain
1	AA	6461	DT	Sidechain
1	AA	6464	DG	Sidechain
1	AA	6466	DC	Sidechain
1	AA	6472	DA	Sidechain
1	AA	6477	DG	Sidechain
1	AA	6483	DG	Sidechain
1	AA	6485	DA	Sidechain
1	AA	6496	DA	Sidechain
1	AA	6505	DT	Sidechain
1	AA	653	DT	Sidechain
1	AA	6532	DC	Sidechain
1	AA	6569	DC	Sidechain
1	AA	6582	DA	Sidechain
1	AA	6609	DT	Sidechain
1	AA	662	DA	Sidechain
1	AA	6627	DC	Sidechain
1	AA	6643	DC	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	6644	DG	Sidechain
1	AA	6657	DG	Sidechain
1	AA	6673	DT	Sidechain
1	AA	6682	DG	Sidechain
1	AA	6686	DG	Sidechain
1	AA	6687	DA	Sidechain
1	AA	6704	DT	Sidechain
1	AA	6707	DC	Sidechain
1	AA	6711	DC	Sidechain
1	AA	6712	DC	Sidechain
1	AA	6713	DT	Sidechain
1	AA	6724	DA	Sidechain
1	AA	6731	DC	Sidechain
1	AA	6735	DT	Sidechain
1	AA	6739	DA	Sidechain
1	AA	6741	DA	Sidechain
1	AA	6746	DT	Sidechain
1	AA	6747	DT	Sidechain
1	AA	6755	DA	Sidechain
1	AA	6761	DA	Sidechain
1	AA	6762	DA	Sidechain
1	AA	6765	DA	Sidechain
1	AA	6774	DC	Sidechain
1	AA	6780	DC	Sidechain
1	AA	6788	DA	Sidechain
1	AA	679	DG	Sidechain
1	AA	6794	DG	Sidechain
1	AA	6795	DC	Sidechain
1	AA	6817	DG	Sidechain
1	AA	6822	DT	Sidechain
1	AA	6827	DT	Sidechain
1	AA	6843	DT	Sidechain
1	AA	6844	DA	Sidechain
1	AA	6849	DT	Sidechain
1	AA	6854	DG	Sidechain
1	AA	6863	DG	Sidechain
1	AA	687	DA	Sidechain
1	AA	6877	DG	Sidechain
1	AA	6879	DT	Sidechain
1	AA	6882	DT	Sidechain
1	AA	6886	DT	Sidechain
1	AA	6898	DC	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	6903	DG	Sidechain
1	AA	6911	DG	Sidechain
1	AA	6915	DA	Sidechain
1	AA	6923	DA	Sidechain
1	AA	6927	DC	Sidechain
1	AA	6937	DT	Sidechain
1	AA	6947	DA	Sidechain
1	AA	696	DA	Sidechain
1	AA	6962	DG	Sidechain
1	AA	6963	DG	Sidechain
1	AA	6964	DC	Sidechain
1	AA	6983	DA	Sidechain
1	AA	6987	DT	Sidechain
1	AA	6996	DA	Sidechain
1	AA	7003	DT	Sidechain
1	AA	7008	DA	Sidechain
1	AA	7012	DG	Sidechain
1	AA	7013	DA	Sidechain
1	AA	7019	DT	Sidechain
1	AA	7022	DG	Sidechain
1	AA	7036	DT	Sidechain
1	AA	7039	DT	Sidechain
1	AA	7042	DA	Sidechain
1	AA	7043	DT	Sidechain
1	AA	7047	DT	Sidechain
1	AA	7049	DC	Sidechain
1	AA	7060	DC	Sidechain
1	AA	7068	DT	Sidechain
1	AA	7072	DA	Sidechain
1	AA	7079	DA	Sidechain
1	AA	708	DT	Sidechain
1	AA	7086	DA	Sidechain
1	AA	7092	DC	Sidechain
1	AA	7098	DA	Sidechain
1	AA	7107	DC	Sidechain
1	AA	7115	DG	Sidechain
1	AA	7123	DG	Sidechain
1	AA	7142	DT	Sidechain
1	AA	7168	DA	Sidechain
1	AA	7176	DT	Sidechain
1	AA	7177	DA	Sidechain
1	AA	718	DC	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	7191	DA	Sidechain
1	AA	7206	DA	Sidechain
1	AA	7207	DT	Sidechain
1	AA	7217	DT	Sidechain
1	AA	7218	DC	Sidechain
1	AA	7223	DC	Sidechain
1	AA	7224	DC	Sidechain
1	AA	7238	DT	Sidechain
1	AA	7239	DT	Sidechain
1	AA	724	DA	Sidechain
1	AA	7241	DT	Sidechain
1	AA	726	DT	Sidechain
1	AA	733	DA	Sidechain
1	AA	748	DG	Sidechain
1	AA	749	DT	Sidechain
1	AA	76	DA	Sidechain
1	AA	764	DT	Sidechain
1	AA	765	DT	Sidechain
1	AA	779	DT	Sidechain
1	AA	789	DA	Sidechain
1	AA	803	DA	Sidechain
1	AA	804	DT	Sidechain
1	AA	811	DC	Sidechain
1	AA	824	DT	Sidechain
1	AA	826	DG	Sidechain
1	AA	842	DA	Sidechain
1	AA	846	DA	Sidechain
1	AA	850	DA	Sidechain
1	AA	857	DA	Sidechain
1	AA	859	DT	Sidechain
1	AA	863	DA	Sidechain
1	AA	875	DC	Sidechain
1	AA	878	DA	Sidechain
1	AA	882	DA	Sidechain
1	AA	887	DT	Sidechain
1	AA	898	DT	Sidechain
1	AA	9	DT	Sidechain
1	AA	913	DG	Sidechain
1	AA	914	DC	Sidechain
1	AA	916	DT	Sidechain
1	AA	917	DT	Sidechain
1	AA	918	DA	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	92	DA	Sidechain
1	AA	924	DT	Sidechain
1	AA	926	DA	Sidechain
1	AA	945	DT	Sidechain
1	AA	969	DT	Sidechain
1	AA	975	DT	Sidechain
1	AA	980	DA	Sidechain
1	AA	984	DC	Sidechain
1	AA	987	DT	Sidechain
1	AA	993	DA	Sidechain
2	AB	1	DT	Sidechain
2	AB	10	DT	Sidechain
2	AB	2	DT	Sidechain
2	AB	22	DT	Sidechain
2	AB	23	DA	Sidechain
2	AB	29	DC	Sidechain
2	AB	35	DC	Sidechain
2	AB	5	DT	Sidechain
2	AB	6	DA	Sidechain
3	AC	1	DT	Sidechain
3	AC	10	DA	Sidechain
3	AC	2	DT	Sidechain
3	AC	31	DT	Sidechain
3	AC	4	DT	Sidechain
4	AD	1	DA	Sidechain
4	AD	11	DT	Sidechain
4	AD	16	DG	Sidechain
4	AD	21	DA	Sidechain
4	AD	38	DA	Sidechain
4	AD	5	DT	Sidechain
4	AD	7	DT	Sidechain
5	AE	1	DT	Sidechain
5	AE	12	DT	Sidechain
5	AE	22	DG	Sidechain
5	AE	36	DC	Sidechain
5	AE	38	DT	Sidechain
5	AE	43	DT	Sidechain
5	AE	6	DC	Sidechain
6	AF	15	DA	Sidechain
6	AF	8	DA	Sidechain
7	AG	15	DC	Sidechain
7	AG	3	DT	Sidechain

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Mol	Chain	Res	Type	Group
7	AG	8	DG	Sidechain
7	AG	9	DC	Sidechain
8	AH	1	DT	Sidechain
8	AH	11	DC	Sidechain
8	AH	30	DT	Sidechain
8	AH	5	DT	Sidechain
9	AI	1	DA	Sidechain
9	AI	10	DT	Sidechain
9	AI	16	DT	Sidechain
9	AI	42	DT	Sidechain
9	AI	6	DC	Sidechain
10	AJ	11	DA	Sidechain
10	AJ	15	DG	Sidechain
10	AJ	18	DT	Sidechain
10	AJ	21	DT	Sidechain
10	AJ	27	DC	Sidechain
10	AJ	3	DG	Sidechain
10	AJ	31	DA	Sidechain
10	AJ	37	DC	Sidechain
11	AK	15	DC	Sidechain
11	AK	24	DT	Sidechain
11	AK	26	DT	Sidechain
11	AK	32	DT	Sidechain
11	AK	36	DC	Sidechain
11	AK	43	DA	Sidechain
12	AL	11	DA	Sidechain
12	AL	19	DA	Sidechain
12	AL	21	DT	Sidechain
12	AL	22	DC	Sidechain
12	AL	32	DT	Sidechain
12	AL	6	DC	Sidechain
13	AM	11	DT	Sidechain
13	AM	20	DT	Sidechain
13	AM	40	DA	Sidechain
14	AN	10	DA	Sidechain
14	AN	11	DC	Sidechain
14	AN	12	DG	Sidechain
14	AN	26	DG	Sidechain
14	AN	33	DT	Sidechain
14	AN	6	DG	Sidechain
15	AO	16	DA	Sidechain
15	AO	27	DA	Sidechain

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Mol	Chain	Res	Type	Group
15	AO	31	DT	Sidechain
15	AO	35	DC	Sidechain
15	AO	38	DC	Sidechain
16	AP	14	DG	Sidechain
16	AP	22	DA	Sidechain
16	AP	25	DG	Sidechain
16	AP	4	DT	Sidechain
16	AP	6	DA	Sidechain
17	AQ	25	DG	Sidechain
17	AQ	31	DT	Sidechain
17	AQ	34	DA	Sidechain
17	AQ	43	DT	Sidechain
17	AQ	5	DA	Sidechain
17	AQ	9	DT	Sidechain
18	AR	10	DT	Sidechain
18	AR	16	DT	Sidechain
18	AR	18	DT	Sidechain
18	AR	24	DT	Sidechain
18	AR	31	DT	Sidechain
18	AR	4	DG	Sidechain
18	AR	5	DA	Sidechain
19	AS	1	DT	Sidechain
19	AS	11	DA	Sidechain
19	AS	2	DT	Sidechain
19	AS	21	DA	Sidechain
19	AS	23	DG	Sidechain
20	AT	15	DT	Sidechain
20	AT	24	DG	Sidechain
20	AT	27	DG	Sidechain
20	AT	29	DA	Sidechain
21	AU	11	DT	Sidechain
21	AU	12	DT	Sidechain
21	AU	26	DT	Sidechain
22	AV	11	DT	Sidechain
22	AV	15	DA	Sidechain
22	AV	25	DG	Sidechain
22	AV	26	DA	Sidechain
22	AV	27	DG	Sidechain
22	AV	30	DT	Sidechain
22	AV	34	DA	Sidechain
22	AV	7	DT	Sidechain
23	AW	12	DT	Sidechain

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Mol	Chain	Res	Type	Group
23	AW	2	DA	Sidechain
24	AX	14	DT	Sidechain
24	AX	16	DA	Sidechain
24	AX	18	DG	Sidechain
24	AX	2	DT	Sidechain
24	AX	22	DA	Sidechain
24	AX	33	DT	Sidechain
24	AX	38	DG	Sidechain
24	AX	42	DA	Sidechain
25	AY	17	DA	Sidechain
25	AY	29	DT	Sidechain
25	AY	33	DT	Sidechain
25	AY	39	DT	Sidechain
25	AY	40	DA	Sidechain
26	AZ	11	DA	Sidechain
26	AZ	12	DT	Sidechain
26	AZ	17	DG	Sidechain
26	AZ	22	DA	Sidechain
26	AZ	27	DT	Sidechain
26	AZ	31	DC	Sidechain
26	AZ	32	DT	Sidechain
26	AZ	33	DG	Sidechain
26	AZ	34	DA	Sidechain
26	AZ	35	DT	Sidechain
26	AZ	45	DC	Sidechain
26	AZ	7	DG	Sidechain
27	Aa	11	DA	Sidechain
27	Aa	13	DG	Sidechain
27	Aa	23	DA	Sidechain
27	Aa	25	DC	Sidechain
27	Aa	29	DT	Sidechain
27	Aa	37	DC	Sidechain
27	Aa	39	DC	Sidechain
27	Aa	4	DG	Sidechain
28	Ab	18	DT	Sidechain
28	Ab	19	DT	Sidechain
28	Ab	32	DG	Sidechain
28	Ab	37	DT	Sidechain
29	Ac	11	DC	Sidechain
29	Ac	13	DA	Sidechain
29	Ac	18	DA	Sidechain
29	Ac	32	DA	Sidechain

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Mol	Chain	Res	Type	Group
29	Ac	35	DG	Sidechain
29	Ac	40	DG	Sidechain
30	Ad	18	DG	Sidechain
30	Ad	20	DA	Sidechain
30	Ad	23	DA	Sidechain
30	Ad	3	DA	Sidechain
30	Ad	30	DG	Sidechain
30	Ad	36	DT	Sidechain
31	Ae	17	DT	Sidechain
31	Ae	22	DG	Sidechain
31	Ae	23	DA	Sidechain
31	Ae	3	DT	Sidechain
31	Ae	34	DT	Sidechain
31	Ae	36	DT	Sidechain
32	Af	13	DG	Sidechain
32	Af	24	DC	Sidechain
32	Af	29	DA	Sidechain
32	Af	39	DC	Sidechain
32	Af	8	DA	Sidechain
33	Ag	10	DA	Sidechain
33	Ag	12	DA	Sidechain
33	Ag	15	DG	Sidechain
33	Ag	19	DG	Sidechain
33	Ag	21	DG	Sidechain
33	Ag	24	DA	Sidechain
34	Ah	18	DT	Sidechain
34	Ah	19	DT	Sidechain
34	Ah	27	DA	Sidechain
34	Ah	32	DT	Sidechain
34	Ah	34	DT	Sidechain
34	Ah	6	DG	Sidechain
35	Ai	18	DC	Sidechain
35	Ai	7	DA	Sidechain
36	Aj	11	DA	Sidechain
36	Aj	28	DT	Sidechain
37	Ak	11	DT	Sidechain
37	Ak	12	DT	Sidechain
37	Ak	2	DT	Sidechain
37	Ak	23	DG	Sidechain
37	Ak	24	DA	Sidechain
37	Ak	25	DC	Sidechain
37	Ak	3	DT	Sidechain

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Mol	Chain	Res	Type	Group
37	Ak	4	DT	Sidechain
38	Al	11	DA	Sidechain
38	Al	19	DC	Sidechain
38	Al	2	DA	Sidechain
38	Al	21	DT	Sidechain
38	Al	37	DT	Sidechain
38	Al	38	DT	Sidechain
38	Al	5	DA	Sidechain
39	Am	15	DT	Sidechain
39	Am	29	DT	Sidechain
39	Am	4	DT	Sidechain
40	An	10	DT	Sidechain
40	An	23	DA	Sidechain
40	An	25	DC	Sidechain
40	An	4	DT	Sidechain
41	Ao	28	DA	Sidechain
41	Ao	3	DT	Sidechain
41	Ao	4	DC	Sidechain
42	Ap	1	DT	Sidechain
42	Ap	12	DA	Sidechain
42	Ap	19	DA	Sidechain
42	Ap	26	DG	Sidechain
42	Ap	37	DG	Sidechain
43	Aq	23	DT	Sidechain
44	Ar	13	DA	Sidechain
44	Ar	14	DA	Sidechain
44	Ar	20	DC	Sidechain
44	Ar	3	DT	Sidechain
44	Ar	35	DA	Sidechain
44	Ar	4	DA	Sidechain
44	Ar	7	DG	Sidechain
45	As	1	DT	Sidechain
45	As	12	DC	Sidechain
45	As	28	DT	Sidechain
46	At	11	DA	Sidechain
46	At	12	DA	Sidechain
46	At	15	DC	Sidechain
46	At	22	DC	Sidechain
46	At	24	DA	Sidechain
46	At	27	DT	Sidechain
46	At	30	DG	Sidechain
46	At	31	DT	Sidechain

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Mol	Chain	Res	Type	Group
47	Au	14	DC	Sidechain
47	Au	18	DG	Sidechain
47	Au	4	DA	Sidechain
48	Av	26	DC	Sidechain
48	Av	29	DT	Sidechain
49	Aw	14	DA	Sidechain
49	Aw	18	DC	Sidechain
49	Aw	24	DC	Sidechain
50	Ax	14	DA	Sidechain
50	Ax	21	DA	Sidechain
50	Ax	6	DG	Sidechain
50	Ax	9	DG	Sidechain
51	Ay	17	DA	Sidechain
51	Ay	21	DT	Sidechain
51	Ay	23	DA	Sidechain
51	Ay	34	DC	Sidechain
51	Ay	36	DA	Sidechain
51	Ay	38	DA	Sidechain
51	Ay	6	DA	Sidechain
52	Az	11	DA	Sidechain
52	Az	13	DG	Sidechain
52	Az	15	DC	Sidechain
52	Az	18	DG	Sidechain
52	Az	30	DA	Sidechain
52	Az	5	DT	Sidechain
52	Az	9	DT	Sidechain
115	B0	11	DT	Sidechain
115	B0	25	DC	Sidechain
115	B0	37	DT	Sidechain
115	B0	4	DT	Sidechain
115	B0	40	DC	Sidechain
115	B0	7	DT	Sidechain
116	B1	1	DT	Sidechain
116	B1	2	DT	Sidechain
116	B1	20	DT	Sidechain
116	B1	23	DA	Sidechain
116	B1	28	DA	Sidechain
116	B1	37	DA	Sidechain
117	B2	15	DC	Sidechain
117	B2	30	DT	Sidechain
118	B3	16	DG	Sidechain
118	B3	29	DC	Sidechain

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Mol	Chain	Res	Type	Group
118	B3	3	DA	Sidechain
119	B4	15	DC	Sidechain
119	B4	3	DG	Sidechain
119	B4	30	DG	Sidechain
119	B4	31	DA	Sidechain
119	B4	35	DA	Sidechain
120	B5	11	DT	Sidechain
120	B5	25	DC	Sidechain
120	B5	42	DA	Sidechain
120	B5	46	DT	Sidechain
121	B6	15	DA	Sidechain
121	B6	16	DT	Sidechain
121	B6	21	DA	Sidechain
121	B6	28	DT	Sidechain
121	B6	5	DT	Sidechain
121	B6	7	DA	Sidechain
122	B7	12	DC	Sidechain
122	B7	15	DA	Sidechain
122	B7	16	DT	Sidechain
122	B7	19	DT	Sidechain
122	B7	25	DT	Sidechain
122	B7	28	DT	Sidechain
123	B8	13	DA	Sidechain
123	B8	2	DA	Sidechain
123	B8	24	DA	Sidechain
123	B8	25	DA	Sidechain
124	B9	15	DC	Sidechain
124	B9	25	DC	Sidechain
124	B9	27	DA	Sidechain
124	B9	34	DC	Sidechain
124	B9	37	DT	Sidechain
124	B9	5	DG	Sidechain
124	B9	6	DA	Sidechain
63	BA	1	DG	Sidechain
63	BA	6	DT	Sidechain
64	BB	16	DA	Sidechain
64	BB	17	DC	Sidechain
64	BB	24	DA	Sidechain
64	BB	30	DT	Sidechain
64	BB	35	DA	Sidechain
64	BB	40	DT	Sidechain
65	BC	17	DT	Sidechain

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Mol	Chain	Res	Type	Group
65	BC	18	DT	Sidechain
65	BC	24	DT	Sidechain
65	BC	26	DT	Sidechain
65	BC	35	DC	Sidechain
66	BD	1	DC	Sidechain
66	BD	15	DG	Sidechain
66	BD	25	DC	Sidechain
66	BD	28	DT	Sidechain
66	BD	4	DA	Sidechain
66	BD	7	DC	Sidechain
67	BE	15	DT	Sidechain
67	BE	2	DA	Sidechain
67	BE	20	DT	Sidechain
67	BE	32	DT	Sidechain
67	BE	36	DT	Sidechain
67	BE	9	DG	Sidechain
68	BF	21	DA	Sidechain
68	BF	27	DG	Sidechain
68	BF	33	DT	Sidechain
68	BF	37	DT	Sidechain
69	BG	10	DA	Sidechain
69	BG	25	DT	Sidechain
69	BG	37	DG	Sidechain
70	BH	14	DT	Sidechain
70	BH	22	DT	Sidechain
70	BH	31	DC	Sidechain
71	BI	1	DT	Sidechain
71	BI	13	DT	Sidechain
71	BI	16	DT	Sidechain
71	BI	19	DA	Sidechain
71	BI	22	DC	Sidechain
71	BI	5	DT	Sidechain
72	BJ	13	DT	Sidechain
72	BJ	23	DC	Sidechain
72	BJ	27	DA	Sidechain
72	BJ	29	DT	Sidechain
72	BJ	31	DC	Sidechain
72	BJ	33	DA	Sidechain
72	BJ	39	DA	Sidechain
73	BK	21	DT	Sidechain
73	BK	22	DA	Sidechain
74	BL	17	DC	Sidechain

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Mol	Chain	Res	Type	Group
74	BL	27	DC	Sidechain
74	BL	29	DA	Sidechain
74	BL	31	DG	Sidechain
74	BL	32	DC	Sidechain
74	BL	4	DT	Sidechain
75	BM	20	DT	Sidechain
75	BM	23	DT	Sidechain
75	BM	29	DA	Sidechain
75	BM	5	DT	Sidechain
76	BN	1	DG	Sidechain
76	BN	27	DG	Sidechain
76	BN	28	DC	Sidechain
77	BO	27	DG	Sidechain
78	BP	20	DT	Sidechain
78	BP	33	DA	Sidechain
79	BQ	27	DA	Sidechain
79	BQ	6	DA	Sidechain
79	BQ	9	DA	Sidechain
80	BR	14	DC	Sidechain
80	BR	21	DA	Sidechain
80	BR	36	DC	Sidechain
80	BR	7	DG	Sidechain
80	BR	9	DA	Sidechain
81	BS	13	DT	Sidechain
81	BS	5	DC	Sidechain
82	BT	1	DA	Sidechain
82	BT	13	DA	Sidechain
82	BT	23	DA	Sidechain
82	BT	29	DA	Sidechain
82	BT	3	DG	Sidechain
82	BT	31	DC	Sidechain
82	BT	39	DC	Sidechain
82	BT	5	DT	Sidechain
83	BU	1	DT	Sidechain
83	BU	32	DA	Sidechain
83	BU	37	DC	Sidechain
83	BU	4	DT	Sidechain
83	BU	40	DT	Sidechain
83	BU	41	DG	Sidechain
83	BU	42	DC	Sidechain
83	BU	7	DT	Sidechain
84	BV	10	DA	Sidechain

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Mol	Chain	Res	Type	Group
84	BV	12	DT	Sidechain
84	BV	22	DT	Sidechain
84	BV	23	DT	Sidechain
84	BV	45	DC	Sidechain
84	BV	9	DG	Sidechain
85	BW	11	DT	Sidechain
85	BW	13	DA	Sidechain
85	BW	14	DC	Sidechain
85	BW	26	DT	Sidechain
85	BW	27	DT	Sidechain
85	BW	32	DT	Sidechain
85	BW	34	DT	Sidechain
85	BW	40	DG	Sidechain
85	BW	44	DT	Sidechain
85	BW	47	DT	Sidechain
86	BX	18	DC	Sidechain
86	BX	9	DA	Sidechain
87	BY	11	DT	Sidechain
87	BY	13	DT	Sidechain
87	BY	17	DC	Sidechain
87	BY	22	DC	Sidechain
87	BY	27	DA	Sidechain
87	BY	39	DA	Sidechain
87	BY	6	DT	Sidechain
88	BZ	1	DA	Sidechain
88	BZ	21	DC	Sidechain
88	BZ	3	DC	Sidechain
89	Ba	1	DC	Sidechain
89	Ba	11	DG	Sidechain
89	Ba	14	DA	Sidechain
89	Ba	23	DT	Sidechain
89	Ba	25	DA	Sidechain
89	Ba	27	DG	Sidechain
90	Bb	1	DC	Sidechain
90	Bb	11	DA	Sidechain
90	Bb	2	DA	Sidechain
90	Bb	29	DG	Sidechain
90	Bb	40	DA	Sidechain
90	Bb	6	DC	Sidechain
90	Bb	7	DA	Sidechain
91	Bc	1	DA	Sidechain
91	Bc	14	DT	Sidechain

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Mol	Chain	Res	Type	Group
91	Bc	17	DA	Sidechain
91	Bc	27	DA	Sidechain
91	Bc	7	DC	Sidechain
92	Bd	13	DT	Sidechain
92	Bd	16	DA	Sidechain
92	Bd	2	DG	Sidechain
92	Bd	20	DT	Sidechain
92	Bd	23	DC	Sidechain
92	Bd	25	DA	Sidechain
92	Bd	26	DG	Sidechain
92	Bd	27	DC	Sidechain
92	Bd	28	DC	Sidechain
92	Bd	6	DT	Sidechain
93	Be	23	DA	Sidechain
93	Be	33	DA	Sidechain
94	Bf	1	DT	Sidechain
94	Bf	15	DA	Sidechain
94	Bf	2	DT	Sidechain
94	Bf	29	DT	Sidechain
94	Bf	30	DT	Sidechain
94	Bf	31	DT	Sidechain
94	Bf	33	DT	Sidechain
94	Bf	36	DT	Sidechain
94	Bf	37	DT	Sidechain
95	Bg	11	DT	Sidechain
95	Bg	14	DA	Sidechain
95	Bg	23	DT	Sidechain
95	Bg	29	DG	Sidechain
95	Bg	30	DA	Sidechain
95	Bg	6	DA	Sidechain
95	Bg	7	DT	Sidechain
96	Bh	13	DA	Sidechain
96	Bh	16	DC	Sidechain
96	Bh	17	DG	Sidechain
96	Bh	20	DC	Sidechain
96	Bh	33	DA	Sidechain
96	Bh	38	DG	Sidechain
96	Bh	39	DG	Sidechain
97	Bi	14	DC	Sidechain
97	Bi	21	DA	Sidechain
97	Bi	22	DG	Sidechain
97	Bi	26	DC	Sidechain

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Mol	Chain	Res	Type	Group
97	Bi	33	DT	Sidechain
97	Bi	5	DT	Sidechain
97	Bi	9	DT	Sidechain
98	Bj	16	DT	Sidechain
98	Bj	21	DT	Sidechain
98	Bj	28	DA	Sidechain
98	Bj	39	DT	Sidechain
98	Bj	4	DC	Sidechain
98	Bj	45	DT	Sidechain
98	Bj	49	DT	Sidechain
99	Bk	1	DA	Sidechain
99	Bk	3	DG	Sidechain
100	Bl	22	DC	Sidechain
100	Bl	28	DC	Sidechain
100	Bl	6	DT	Sidechain
101	Bm	31	DC	Sidechain
101	Bm	5	DC	Sidechain
101	Bm	6	DC	Sidechain
102	Bn	1	DC	Sidechain
102	Bn	11	DG	Sidechain
102	Bn	12	DA	Sidechain
102	Bn	3	DT	Sidechain
102	Bn	31	DG	Sidechain
102	Bn	38	DA	Sidechain
102	Bn	5	DA	Sidechain
103	Bo	1	DT	Sidechain
103	Bo	15	DC	Sidechain
103	Bo	23	DA	Sidechain
103	Bo	26	DT	Sidechain
103	Bo	29	DT	Sidechain
103	Bo	6	DG	Sidechain
103	Bo	8	DA	Sidechain
104	Bp	1	DA	Sidechain
104	Bp	17	DA	Sidechain
104	Bp	23	DC	Sidechain
104	Bp	25	DC	Sidechain
104	Bp	33	DT	Sidechain
104	Bp	4	DC	Sidechain
105	Bq	10	DT	Sidechain
105	Bq	11	DT	Sidechain
105	Bq	20	DT	Sidechain
105	Bq	23	DA	Sidechain

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Mol	Chain	Res	Type	Group
105	Bq	27	DC	Sidechain
105	Bq	29	DG	Sidechain
105	Bq	33	DG	Sidechain
105	Bq	34	DA	Sidechain
106	Br	16	DA	Sidechain
106	Br	17	DG	Sidechain
106	Br	21	DG	Sidechain
106	Br	25	DG	Sidechain
106	Br	26	DG	Sidechain
106	Br	27	DG	Sidechain
106	Br	3	DA	Sidechain
106	Br	31	DG	Sidechain
106	Br	35	DG	Sidechain
106	Br	8	DC	Sidechain
107	Bs	1	DT	Sidechain
107	Bs	26	DG	Sidechain
108	Bt	1	DA	Sidechain
108	Bt	18	DA	Sidechain
108	Bt	20	DA	Sidechain
108	Bt	23	DG	Sidechain
108	Bt	28	DG	Sidechain
108	Bt	38	DA	Sidechain
109	Bu	21	DT	Sidechain
109	Bu	23	DA	Sidechain
109	Bu	30	DC	Sidechain
109	Bu	39	DC	Sidechain
109	Bu	4	DA	Sidechain
110	Bv	38	DC	Sidechain
110	Bv	47	DT	Sidechain
111	Bw	20	DG	Sidechain
111	Bw	22	DT	Sidechain
111	Bw	27	DA	Sidechain
111	Bw	29	DC	Sidechain
111	Bw	32	DT	Sidechain
111	Bw	37	DT	Sidechain
112	Bx	21	DC	Sidechain
112	Bx	22	DT	Sidechain
113	By	19	DG	Sidechain
113	By	22	DT	Sidechain
113	By	7	DA	Sidechain
114	Bz	13	DG	Sidechain
114	Bz	14	DT	Sidechain

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Mol	Chain	Res	Type	Group
114	Bz	17	DG	Sidechain
114	Bz	25	DC	Sidechain
114	Bz	27	DC	Sidechain
114	Bz	30	DT	Sidechain
114	Bz	38	DC	Sidechain
177	C0	11	DG	Sidechain
177	C0	12	DA	Sidechain
177	C0	23	DG	Sidechain
177	C0	31	DA	Sidechain
177	C0	45	DT	Sidechain
177	C0	46	DA	Sidechain
177	C0	7	DT	Sidechain
178	C1	23	DC	Sidechain
178	C1	25	DG	Sidechain
178	C1	29	DT	Sidechain
178	C1	5	DT	Sidechain
178	C1	6	DA	Sidechain
179	C2	2	DG	Sidechain
179	C2	3	DA	Sidechain
179	C2	9	DG	Sidechain
180	C3	1	DT	Sidechain
180	C3	20	DG	Sidechain
180	C3	4	DT	Sidechain
180	C3	5	DT	Sidechain
181	C4	15	DG	Sidechain
181	C4	3	DA	Sidechain
182	C5	12	DT	Sidechain
182	C5	17	DT	Sidechain
182	C5	20	DT	Sidechain
182	C5	24	DA	Sidechain
182	C5	25	DC	Sidechain
182	C5	29	DA	Sidechain
182	C5	30	DG	Sidechain
182	C5	5	DT	Sidechain
183	C6	10	DC	Sidechain
183	C6	19	DT	Sidechain
183	C6	20	DT	Sidechain
183	C6	26	DT	Sidechain
183	C6	27	DA	Sidechain
183	C6	29	DG	Sidechain
183	C6	32	DA	Sidechain
183	C6	33	DC	Sidechain

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Mol	Chain	Res	Type	Group
183	C6	34	DC	Sidechain
183	C6	40	DC	Sidechain
184	C7	17	DT	Sidechain
184	C7	18	DT	Sidechain
184	C7	20	DT	Sidechain
184	C7	21	DT	Sidechain
184	C7	32	DT	Sidechain
185	C8	1	DA	Sidechain
185	C8	29	DA	Sidechain
185	C8	37	DG	Sidechain
185	C8	43	DA	Sidechain
185	C8	46	DA	Sidechain
185	C8	7	DA	Sidechain
186	C9	1	DA	Sidechain
186	C9	25	DA	Sidechain
186	C9	31	DA	Sidechain
186	C9	33	DC	Sidechain
186	C9	34	DG	Sidechain
186	C9	40	DA	Sidechain
186	C9	6	DA	Sidechain
125	CA	1	DA	Sidechain
125	CA	15	DT	Sidechain
125	CA	17	DA	Sidechain
125	CA	21	DG	Sidechain
125	CA	22	DC	Sidechain
125	CA	26	DC	Sidechain
125	CA	33	DC	Sidechain
125	CA	35	DC	Sidechain
125	CA	8	DA	Sidechain
126	CB	11	DG	Sidechain
126	CB	22	DC	Sidechain
127	CC	14	DT	Sidechain
127	CC	16	DA	Sidechain
127	CC	31	DT	Sidechain
127	CC	36	DT	Sidechain
127	CC	40	DA	Sidechain
128	CD	1	DG	Sidechain
128	CD	17	DA	Sidechain
128	CD	18	DA	Sidechain
128	CD	24	DA	Sidechain
128	CD	4	DG	Sidechain
129	CE	29	DA	Sidechain

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Mol	Chain	Res	Type	Group
129	CE	31	DT	Sidechain
129	CE	33	DT	Sidechain
130	CF	15	DT	Sidechain
130	CF	16	DT	Sidechain
130	CF	19	DT	Sidechain
131	CG	13	DT	Sidechain
131	CG	24	DC	Sidechain
131	CG	35	DA	Sidechain
131	CG	36	DT	Sidechain
131	CG	38	DA	Sidechain
131	CG	7	DA	Sidechain
132	CH	1	DG	Sidechain
132	CH	23	DC	Sidechain
132	CH	31	DT	Sidechain
132	CH	38	DT	Sidechain
133	CI	1	DG	Sidechain
133	CI	13	DC	Sidechain
133	CI	3	DA	Sidechain
133	CI	39	DA	Sidechain
134	CJ	11	DA	Sidechain
134	CJ	13	DA	Sidechain
134	CJ	2	DT	Sidechain
134	CJ	21	DA	Sidechain
134	CJ	22	DT	Sidechain
134	CJ	28	DA	Sidechain
134	CJ	32	DC	Sidechain
135	CK	15	DG	Sidechain
135	CK	19	DT	Sidechain
135	CK	3	DT	Sidechain
135	CK	31	DA	Sidechain
135	CK	34	DA	Sidechain
135	CK	5	DA	Sidechain
135	CK	7	DC	Sidechain
135	CK	9	DA	Sidechain
136	CL	16	DT	Sidechain
136	CL	21	DT	Sidechain
136	CL	22	DT	Sidechain
136	CL	37	DT	Sidechain
136	CL	4	DT	Sidechain
136	CL	44	DA	Sidechain
137	CM	1	DT	Sidechain
137	CM	21	DT	Sidechain

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Mol	Chain	Res	Type	Group
137	CM	22	DT	Sidechain
137	CM	4	DC	Sidechain
138	CN	19	DA	Sidechain
138	CN	27	DG	Sidechain
138	CN	35	DT	Sidechain
138	CN	9	DC	Sidechain
139	CO	10	DG	Sidechain
139	CO	19	DC	Sidechain
139	CO	22	DC	Sidechain
139	CO	23	DT	Sidechain
139	CO	30	DT	Sidechain
139	CO	32	DG	Sidechain
139	CO	38	DC	Sidechain
140	CP	14	DA	Sidechain
140	CP	22	DA	Sidechain
140	CP	3	DC	Sidechain
140	CP	41	DA	Sidechain
140	CP	48	DA	Sidechain
140	CP	8	DT	Sidechain
141	CQ	10	DA	Sidechain
141	CQ	13	DA	Sidechain
141	CQ	7	DC	Sidechain
141	CQ	8	DT	Sidechain
142	CR	15	DA	Sidechain
142	CR	21	DA	Sidechain
142	CR	25	DA	Sidechain
142	CR	27	DA	Sidechain
142	CR	31	DC	Sidechain
142	CR	6	DT	Sidechain
143	CS	10	DT	Sidechain
143	CS	13	DA	Sidechain
143	CS	37	DC	Sidechain
143	CS	4	DC	Sidechain
144	CT	1	DT	Sidechain
144	CT	12	DT	Sidechain
144	CT	16	DA	Sidechain
144	CT	2	DT	Sidechain
144	CT	27	DT	Sidechain
144	CT	31	DA	Sidechain
144	CT	37	DC	Sidechain
145	CU	10	DC	Sidechain
145	CU	14	DC	Sidechain

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Mol	Chain	Res	Type	Group
145	CU	23	DT	Sidechain
145	CU	24	DA	Sidechain
145	CU	43	DT	Sidechain
145	CU	7	DA	Sidechain
146	CV	10	DC	Sidechain
146	CV	13	DG	Sidechain
146	CV	19	DT	Sidechain
146	CV	21	DC	Sidechain
146	CV	25	DT	Sidechain
146	CV	9	DA	Sidechain
147	CW	11	DC	Sidechain
147	CW	23	DT	Sidechain
147	CW	8	DG	Sidechain
147	CW	9	DA	Sidechain
148	CX	10	DA	Sidechain
148	CX	21	DT	Sidechain
148	CX	29	DA	Sidechain
148	CX	42	DC	Sidechain
148	CX	43	DA	Sidechain
148	CX	44	DT	Sidechain
149	CY	12	DA	Sidechain
149	CY	15	DT	Sidechain
149	CY	25	DA	Sidechain
149	CY	4	DT	Sidechain
149	CY	7	DC	Sidechain
149	CY	9	DA	Sidechain
150	CZ	18	DA	Sidechain
150	CZ	20	DA	Sidechain
150	CZ	21	DT	Sidechain
150	CZ	3	DT	Sidechain
150	CZ	4	DT	Sidechain
151	Ca	15	DA	Sidechain
151	Ca	16	DT	Sidechain
151	Ca	3	DG	Sidechain
151	Ca	31	DT	Sidechain
151	Ca	4	DA	Sidechain
151	Ca	6	DG	Sidechain
152	Cb	14	DC	Sidechain
152	Cb	15	DC	Sidechain
152	Cb	2	DA	Sidechain
152	Cb	26	DT	Sidechain
152	Cb	34	DT	Sidechain

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Mol	Chain	Res	Type	Group
153	Cc	11	DG	Sidechain
153	Cc	30	DT	Sidechain
154	Cd	1	DA	Sidechain
154	Cd	15	DC	Sidechain
154	Cd	22	DG	Sidechain
154	Cd	36	DC	Sidechain
154	Cd	39	DA	Sidechain
154	Cd	5	DC	Sidechain
155	Ce	10	DC	Sidechain
155	Ce	16	DT	Sidechain
155	Ce	17	DG	Sidechain
155	Ce	37	DT	Sidechain
155	Ce	8	DA	Sidechain
155	Ce	9	DG	Sidechain
156	Cf	23	DG	Sidechain
156	Cf	26	DT	Sidechain
156	Cf	33	DG	Sidechain
156	Cf	35	DA	Sidechain
156	Cf	39	DC	Sidechain
156	Cf	6	DG	Sidechain
157	Cg	17	DG	Sidechain
157	Cg	21	DC	Sidechain
157	Cg	30	DA	Sidechain
157	Cg	31	DT	Sidechain
157	Cg	4	DT	Sidechain
157	Cg	40	DT	Sidechain
157	Cg	41	DA	Sidechain
157	Cg	44	DG	Sidechain
157	Cg	7	DG	Sidechain
157	Cg	8	DA	Sidechain
158	Ch	1	DG	Sidechain
158	Ch	13	DA	Sidechain
158	Ch	15	DA	Sidechain
158	Ch	16	DC	Sidechain
158	Ch	19	DT	Sidechain
158	Ch	25	DA	Sidechain
158	Ch	34	DG	Sidechain
158	Ch	35	DC	Sidechain
158	Ch	36	DT	Sidechain
158	Ch	38	DC	Sidechain
158	Ch	9	DA	Sidechain
159	Ci	2	DA	Sidechain

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Mol	Chain	Res	Type	Group
159	Ci	30	DT	Sidechain
159	Ci	42	DT	Sidechain
159	Ci	44	DT	Sidechain
160	Cj	1	DC	Sidechain
160	Cj	14	DC	Sidechain
160	Cj	15	DC	Sidechain
160	Cj	2	DA	Sidechain
160	Cj	20	DT	Sidechain
160	Cj	39	DT	Sidechain
160	Cj	4	DA	Sidechain
160	Cj	45	DC	Sidechain
160	Cj	7	DA	Sidechain
161	Ck	22	DT	Sidechain
161	Ck	29	DA	Sidechain
161	Ck	40	DA	Sidechain
161	Ck	43	DG	Sidechain
162	Cl	1	DA	Sidechain
162	Cl	22	DA	Sidechain
162	Cl	23	DC	Sidechain
162	Cl	27	DA	Sidechain
162	Cl	29	DT	Sidechain
163	Cm	13	DA	Sidechain
163	Cm	2	DA	Sidechain
163	Cm	20	DA	Sidechain
163	Cm	22	DA	Sidechain
163	Cm	31	DA	Sidechain
163	Cm	37	DC	Sidechain
163	Cm	40	DA	Sidechain
164	Cn	29	DT	Sidechain
165	Co	14	DT	Sidechain
165	Co	17	DT	Sidechain
165	Co	23	DT	Sidechain
165	Co	28	DT	Sidechain
165	Co	30	DT	Sidechain
165	Co	9	DC	Sidechain
166	Cp	22	DT	Sidechain
166	Cp	25	DA	Sidechain
166	Cp	32	DG	Sidechain
166	Cp	8	DA	Sidechain
167	Cq	15	DT	Sidechain
167	Cq	18	DT	Sidechain
167	Cq	23	DT	Sidechain

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Mol	Chain	Res	Type	Group
167	Cq	28	DT	Sidechain
167	Cq	39	DA	Sidechain
167	Cq	9	DG	Sidechain
168	Cr	1	DT	Sidechain
168	Cr	12	DC	Sidechain
168	Cr	17	DT	Sidechain
168	Cr	35	DT	Sidechain
168	Cr	4	DT	Sidechain
168	Cr	40	DT	Sidechain
168	Cr	41	DA	Sidechain
168	Cr	44	DG	Sidechain
168	Cr	49	DA	Sidechain
168	Cr	9	DA	Sidechain
169	Cs	11	DA	Sidechain
169	Cs	2	DT	Sidechain
169	Cs	22	DA	Sidechain
169	Cs	34	DC	Sidechain
169	Cs	5	DT	Sidechain
170	Ct	16	DA	Sidechain
170	Ct	20	DG	Sidechain
170	Ct	22	DA	Sidechain
170	Ct	29	DA	Sidechain
170	Ct	38	DC	Sidechain
171	Cu	1	DC	Sidechain
171	Cu	15	DA	Sidechain
171	Cu	32	DT	Sidechain
171	Cu	6	DC	Sidechain
172	Cv	14	DA	Sidechain
172	Cv	29	DT	Sidechain
172	Cv	35	DG	Sidechain
172	Cv	6	DA	Sidechain
173	Cw	10	DT	Sidechain
173	Cw	32	DT	Sidechain
174	Cx	10	DG	Sidechain
174	Cx	17	DT	Sidechain
174	Cx	23	DC	Sidechain
174	Cx	24	DT	Sidechain
174	Cx	27	DA	Sidechain
174	Cx	3	DT	Sidechain
174	Cx	39	DC	Sidechain
174	Cx	4	DT	Sidechain
174	Cx	41	DG	Sidechain

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Mol	Chain	Res	Type	Group
175	Cy	14	DT	Sidechain
175	Cy	24	DC	Sidechain
175	Cy	27	DC	Sidechain
175	Cy	30	DT	Sidechain
175	Cy	37	DT	Sidechain
176	Cz	24	DG	Sidechain
176	Cz	28	DA	Sidechain
187	DA	14	DG	Sidechain
187	DA	15	DT	Sidechain
187	DA	3	DA	Sidechain
187	DA	35	DT	Sidechain
187	DA	7	DA	Sidechain
187	DA	8	DC	Sidechain
188	DB	23	DT	Sidechain
188	DB	31	DA	Sidechain
188	DB	33	DA	Sidechain
188	DB	44	DC	Sidechain
188	DB	46	DC	Sidechain
188	DB	6	DT	Sidechain
189	DC	28	DT	Sidechain
189	DC	5	DT	Sidechain
189	DC	6	DA	Sidechain
189	DC	7	DT	Sidechain
190	DD	11	DT	Sidechain
190	DD	14	DT	Sidechain
190	DD	27	DG	Sidechain
190	DD	36	DC	Sidechain
190	DD	38	DA	Sidechain
190	DD	4	DA	Sidechain
191	DE	21	DG	Sidechain
191	DE	30	DA	Sidechain
191	DE	49	DT	Sidechain
191	DE	7	DA	Sidechain
192	DF	16	DT	Sidechain
192	DF	20	DA	Sidechain
192	DF	25	DT	Sidechain
192	DF	33	DT	Sidechain
192	DF	39	DA	Sidechain
192	DF	42	DA	Sidechain
192	DF	46	DC	Sidechain
192	DF	50	DA	Sidechain
192	DF	8	DA	Sidechain

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Mol	Chain	Res	Type	Group
193	DG	13	DG	Sidechain
193	DG	16	DA	Sidechain
193	DG	20	DA	Sidechain
194	DH	16	DG	Sidechain
194	DH	17	DT	Sidechain
194	DH	18	DA	Sidechain
194	DH	5	DT	Sidechain
195	DI	1	DT	Sidechain
195	DI	2	DT	Sidechain
195	DI	27	DA	Sidechain
195	DI	3	DT	Sidechain
195	DI	4	DT	Sidechain
195	DI	9	DT	Sidechain
196	DJ	22	DC	Sidechain
196	DJ	24	DG	Sidechain
196	DJ	26	DA	Sidechain
196	DJ	4	DG	Sidechain
196	DJ	42	DT	Sidechain
197	DK	16	DA	Sidechain
197	DK	20	DT	Sidechain
197	DK	24	DT	Sidechain
197	DK	25	DT	Sidechain
197	DK	4	DG	Sidechain
198	DL	1	DA	Sidechain
198	DL	16	DA	Sidechain
198	DL	19	DT	Sidechain
198	DL	26	DC	Sidechain
198	DL	29	DA	Sidechain
198	DL	3	DG	Sidechain
199	DM	1	DA	Sidechain
199	DM	11	DC	Sidechain
199	DM	17	DA	Sidechain
199	DM	26	DA	Sidechain
199	DM	40	DA	Sidechain
199	DM	48	DA	Sidechain
200	DN	17	DA	Sidechain
200	DN	20	DA	Sidechain
200	DN	25	DA	Sidechain
200	DN	27	DG	Sidechain
200	DN	46	DA	Sidechain
200	DN	6	DA	Sidechain
200	DN	8	DA	Sidechain

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Mol	Chain	Res	Type	Group
201	DO	11	DT	Sidechain
201	DO	14	DA	Sidechain
201	DO	20	DT	Sidechain
201	DO	23	DT	Sidechain
201	DO	9	DA	Sidechain
202	DP	29	DC	Sidechain
203	DQ	10	DC	Sidechain
203	DQ	15	DG	Sidechain
203	DQ	35	DT	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	148273	0	82149	0	0
2	AB	819	0	454	0	0
3	AC	630	0	357	0	0
4	AD	812	0	458	0	0
5	AE	978	0	545	0	0
6	AF	630	0	361	0	0
7	AG	814	0	458	0	0
8	AH	637	0	358	0	0
9	AI	911	0	512	0	0
10	AJ	826	0	450	0	0
11	AK	909	0	520	0	0
12	AL	733	0	415	0	0
13	AM	925	0	513	0	0
14	AN	819	0	455	0	0
15	AO	818	0	452	0	0
16	AP	736	0	411	0	0
17	AQ	912	0	513	0	0
18	AR	686	0	400	0	0
19	AS	734	0	420	0	0
20	AT	699	0	393	0	0
21	AU	679	0	400	0	0
22	AV	698	0	388	0	0
23	AW	660	0	357	0	0
24	AX	867	0	472	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
25	AY	813	0	456	0	0
26	AZ	993	0	544	0	0
27	Aa	815	0	456	0	0
28	Ab	747	0	433	0	0
29	Ac	1033	0	567	0	0
30	Ad	832	0	450	0	0
31	Ae	746	0	431	0	0
32	Af	981	0	540	0	0
33	Ag	871	0	471	0	0
34	Ah	746	0	427	0	0
35	Ai	756	0	424	0	0
36	Aj	641	0	358	0	0
37	Ak	816	0	454	0	0
38	Al	858	0	479	0	0
39	Am	809	0	456	0	0
40	An	811	0	461	0	0
41	Ao	651	0	365	0	0
42	Ap	766	0	417	0	0
43	Aq	824	0	449	0	0
44	Ar	834	0	449	0	0
45	As	619	0	358	0	0
46	At	660	0	361	0	0
47	Au	665	0	356	0	0
48	Av	809	0	453	0	0
49	Aw	813	0	457	0	0
50	Ax	655	0	363	0	0
51	Ay	823	0	448	0	0
52	Az	822	0	448	0	0
53	A0	984	0	536	0	0
54	A1	625	0	358	0	0
55	A2	840	0	475	0	0
56	A3	652	0	360	0	0
57	A4	984	0	540	0	0
58	A5	820	0	449	0	0
59	A6	829	0	452	0	0
60	A7	851	0	481	0	0
61	A8	746	0	430	0	0
62	A9	819	0	454	0	0
63	BA	656	0	361	0	0
64	BB	928	0	508	0	0
65	BC	754	0	427	0	0
66	BD	642	0	361	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
67	BE	733	0	413	0	0
68	BF	855	0	477	0	0
69	BG	760	0	431	0	0
70	BH	811	0	454	0	0
71	BI	642	0	364	0	0
72	BJ	814	0	454	0	0
73	BK	654	0	364	0	0
74	BL	751	0	422	0	0
75	BM	660	0	364	0	0
76	BN	656	0	363	0	0
77	BO	819	0	451	0	0
78	BP	969	0	538	0	0
79	BQ	660	0	359	0	0
80	BR	812	0	452	0	0
81	BS	984	0	545	0	0
82	BT	817	0	450	0	0
83	BU	852	0	478	0	0
84	BV	988	0	546	0	0
85	BW	960	0	562	0	0
86	BX	805	0	458	0	0
87	BY	806	0	458	0	0
88	BZ	818	0	452	0	0
89	Ba	804	0	449	0	0
90	Bb	815	0	453	0	0
91	Bc	656	0	359	0	0
92	Bd	809	0	458	0	0
93	Be	818	0	447	0	0
94	Bf	900	0	508	0	0
95	Bg	664	0	365	0	0
96	Bh	835	0	445	0	0
97	Bi	824	0	459	0	0
98	Bj	997	0	562	0	0
99	Bk	599	0	326	0	0
100	Bl	859	0	476	0	0
101	Bm	811	0	449	0	0
102	Bn	817	0	447	0	0
103	Bo	655	0	363	0	0
104	Bp	806	0	453	0	0
105	Bq	977	0	554	0	0
106	Br	820	0	447	0	0
107	Bs	629	0	357	0	0
108	Bt	983	0	536	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
109	Bu	807	0	448	0	0
110	Bv	976	0	544	0	0
111	Bw	824	0	455	0	0
112	Bx	820	0	454	0	0
113	By	810	0	456	0	0
114	Bz	819	0	452	0	0
115	B0	807	0	463	0	0
116	B1	854	0	486	0	0
117	B2	627	0	357	0	0
118	B3	813	0	451	0	0
119	B4	989	0	541	0	0
120	B5	1023	0	569	0	0
121	B6	634	0	358	0	0
122	B7	589	0	335	0	0
123	B8	819	0	449	0	0
124	B9	828	0	450	0	0
125	CA	808	0	449	0	0
126	CB	699	0	384	0	0
127	CC	814	0	457	0	0
128	CD	817	0	445	0	0
129	CE	699	0	384	0	0
130	CF	651	0	374	0	0
131	CG	823	0	449	0	0
132	CH	814	0	456	0	0
133	CI	823	0	447	0	0
134	CJ	815	0	452	0	0
135	CK	823	0	449	0	0
136	CL	893	0	500	0	0
137	CM	746	0	424	0	0
138	CN	808	0	460	0	0
139	CO	805	0	453	0	0
140	CP	987	0	539	0	0
141	CQ	686	0	383	0	0
142	CR	820	0	449	0	0
143	CS	808	0	453	0	0
144	CT	965	0	549	0	0
145	CU	980	0	542	0	0
146	CV	691	0	393	0	0
147	CW	535	0	296	0	0
148	CX	902	0	501	0	0
149	CY	670	0	357	0	0
150	CZ	534	0	296	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
151	Ca	824	0	450	0	0
152	Cb	690	0	388	0	0
153	Cc	693	0	388	0	0
154	Cd	818	0	448	0	0
155	Ce	822	0	455	0	0
156	Cf	826	0	448	0	0
157	Cg	991	0	538	0	0
158	Ch	983	0	545	0	0
159	Ci	942	0	526	0	0
160	Cj	981	0	544	0	0
161	Ck	899	0	507	0	0
162	Cl	809	0	452	0	0
163	Cm	990	0	539	0	0
164	Cn	640	0	361	0	0
165	Co	889	0	510	0	0
166	Cp	664	0	365	0	0
167	Cq	813	0	457	0	0
168	Cr	1022	0	567	0	0
169	Cs	812	0	455	0	0
170	Ct	819	0	455	0	0
171	Cu	819	0	450	0	0
172	Cv	832	0	454	0	0
173	Cw	856	0	480	0	0
174	Cx	1019	0	567	0	0
175	Cy	854	0	481	0	0
176	Cz	818	0	452	0	0
177	C0	990	0	544	0	0
178	C1	830	0	449	0	0
179	C2	824	0	452	0	0
180	C3	626	0	363	0	0
181	C4	824	0	451	0	0
182	C5	826	0	453	0	0
183	C6	910	0	519	0	0
184	C7	684	0	400	0	0
185	C8	980	0	539	0	0
186	C9	984	0	535	0	0
187	DA	814	0	450	0	0
188	DB	975	0	545	0	0
189	DC	632	0	362	0	0
190	DD	821	0	459	0	0
191	DE	1024	0	568	0	0
192	DF	1024	0	570	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
193	DG	821	0	452	0	0
194	DH	850	0	478	0	0
195	DI	747	0	424	0	0
196	DJ	985	0	541	0	0
197	DK	816	0	454	0	0
198	DL	649	0	365	0	0
199	DM	988	0	540	0	0
200	DN	987	0	543	0	0
201	DO	481	0	284	0	0
202	DP	654	0	358	0	0
203	DQ	826	0	449	0	0
All	All	311400	0	172940	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 (i)

5.3.1 Protein backbone (i)

There are no protein molecules in this entry.

5.3.2 Protein sidechains (i)

There are no protein molecules in this entry.

5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry

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

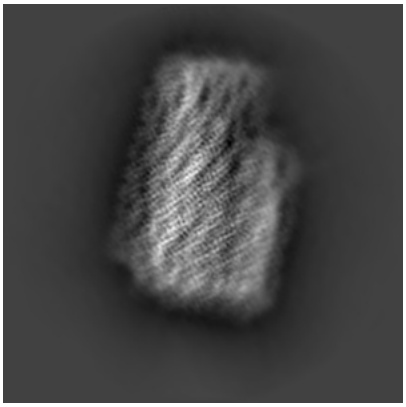
This section contains visualisations of the EMDB entry EMD-11881. These allow visual inspection of the internal detail of the map and identification of artifacts.

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.

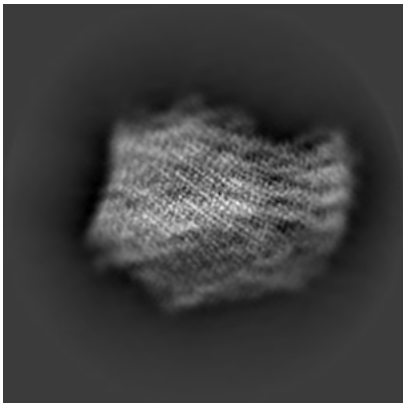
6.1 Orthogonal projections

6.1.1 Primary map

X



Y

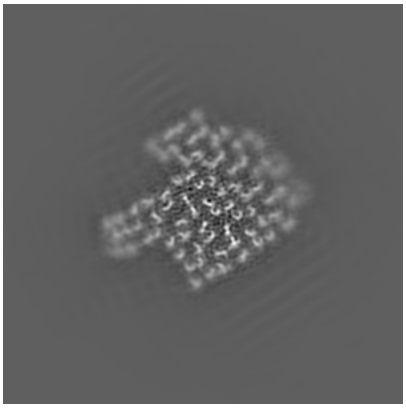


Z

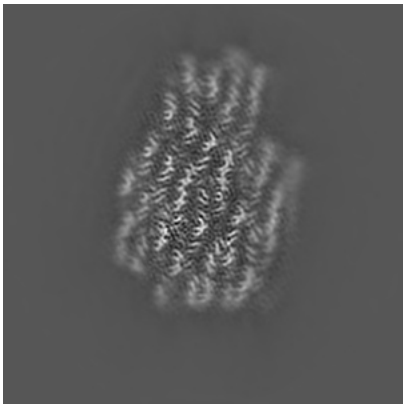
The images above show the map projected in three orthogonal directions.

6.2 Central slices

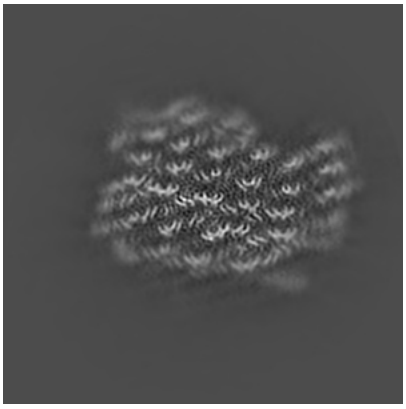
6.2.1 Primary map



X Index: 180



Y Index: 180

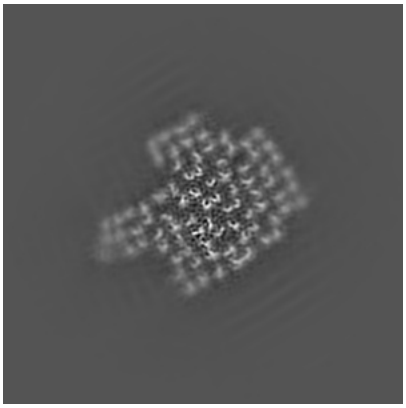


Z Index: 180

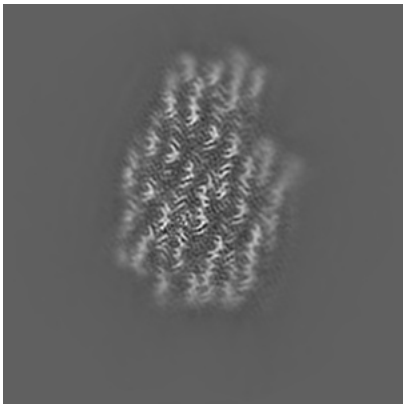
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

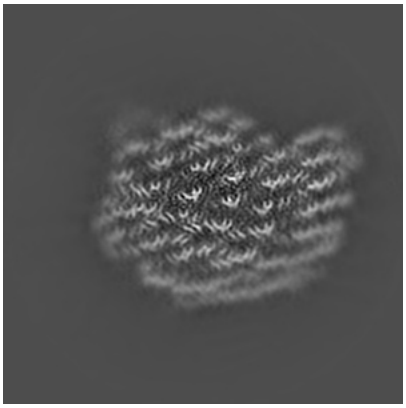
6.3.1 Primary map



X Index: 159



Y Index: 183

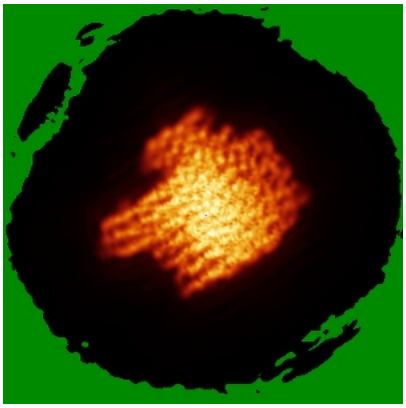


Z Index: 166

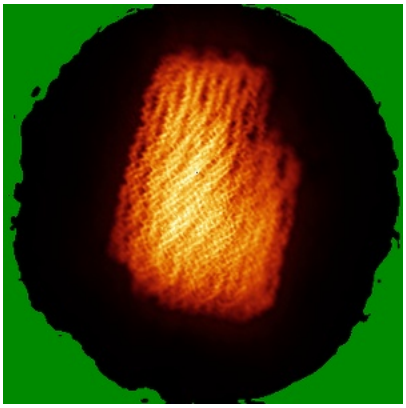
The images above show the largest variance slices of the map in three orthogonal directions.

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

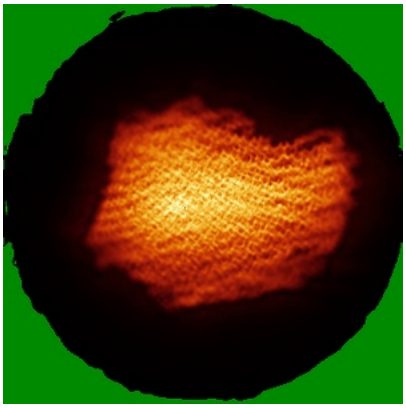
6.4.1 Primary map



X



Y



Z

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

6.5 Orthogonal surface views (i)

6.5.1 Primary map

X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.07. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

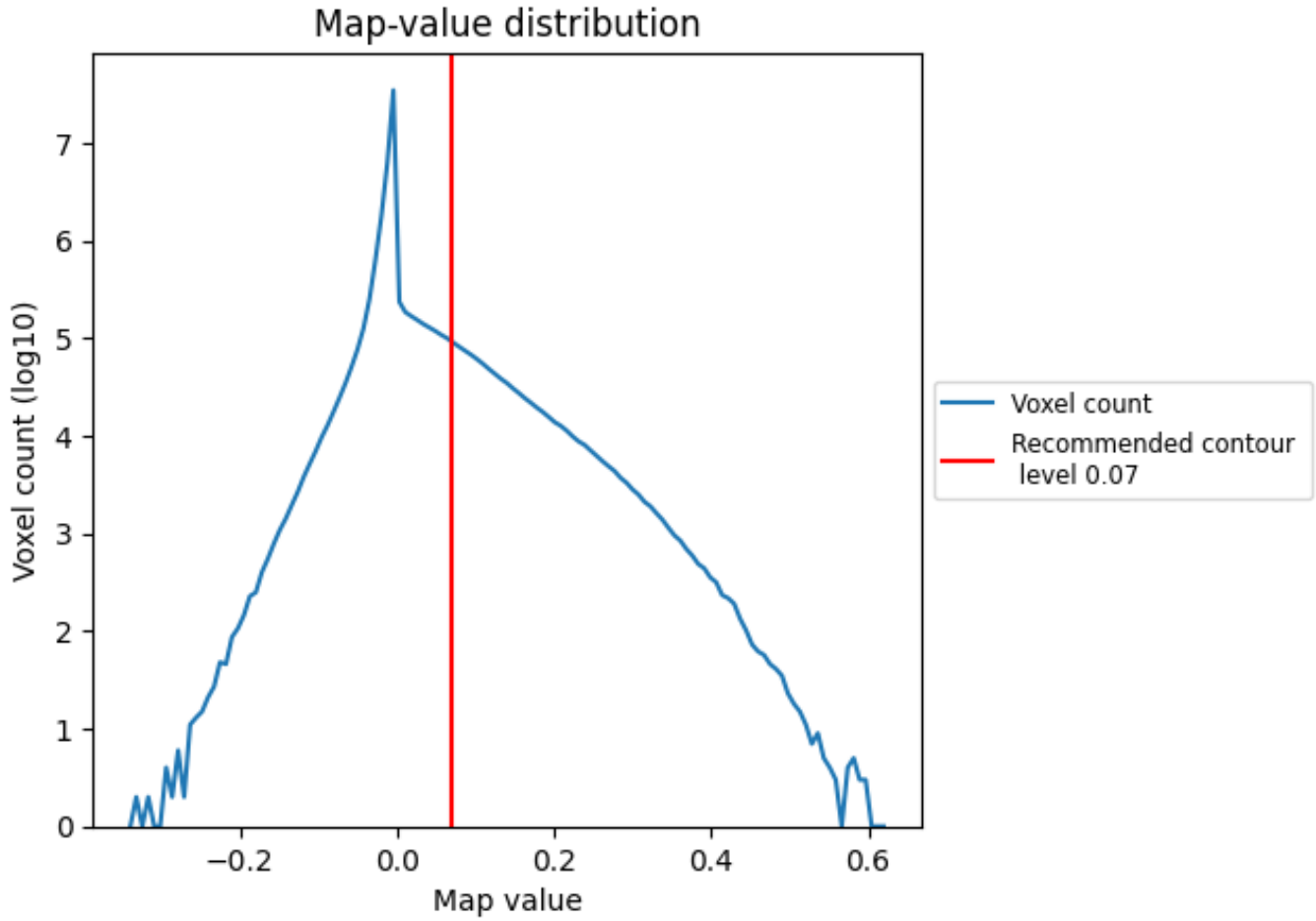
6.6 Mask visualisation (i)

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

7 Map analysis

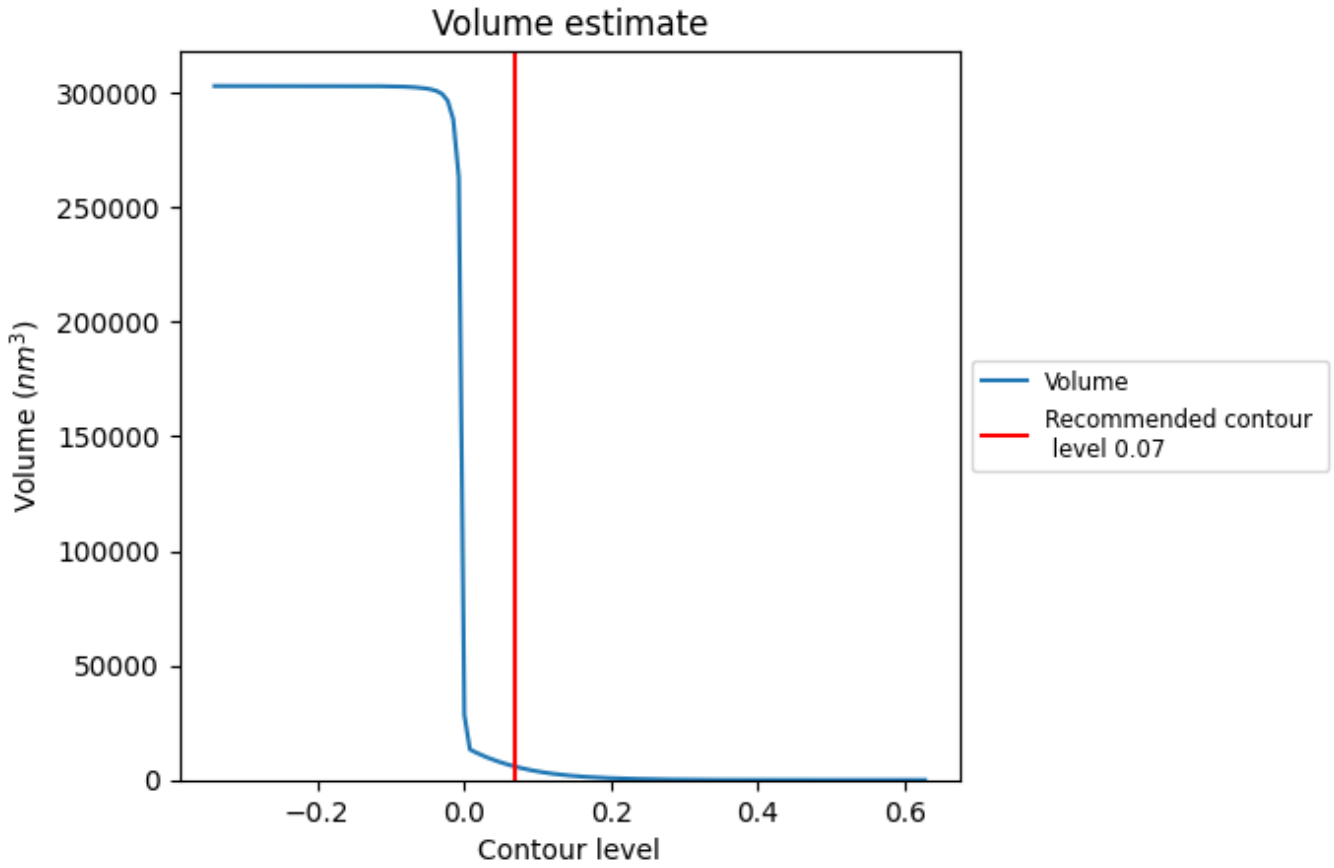
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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

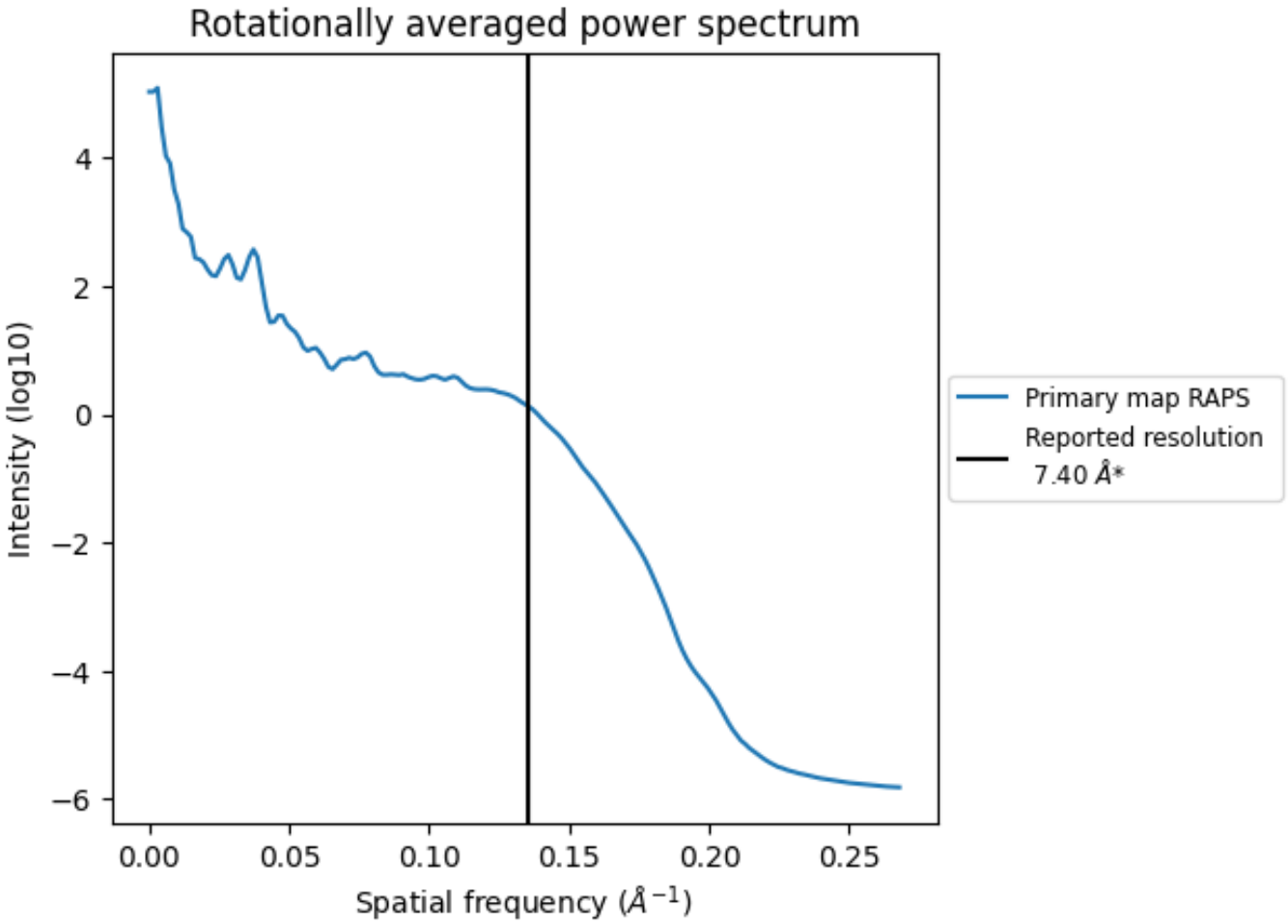
7.2 Volume estimate



The volume at the recommended contour level is 5806 nm^3; this corresponds to an approximate mass of 5245 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)

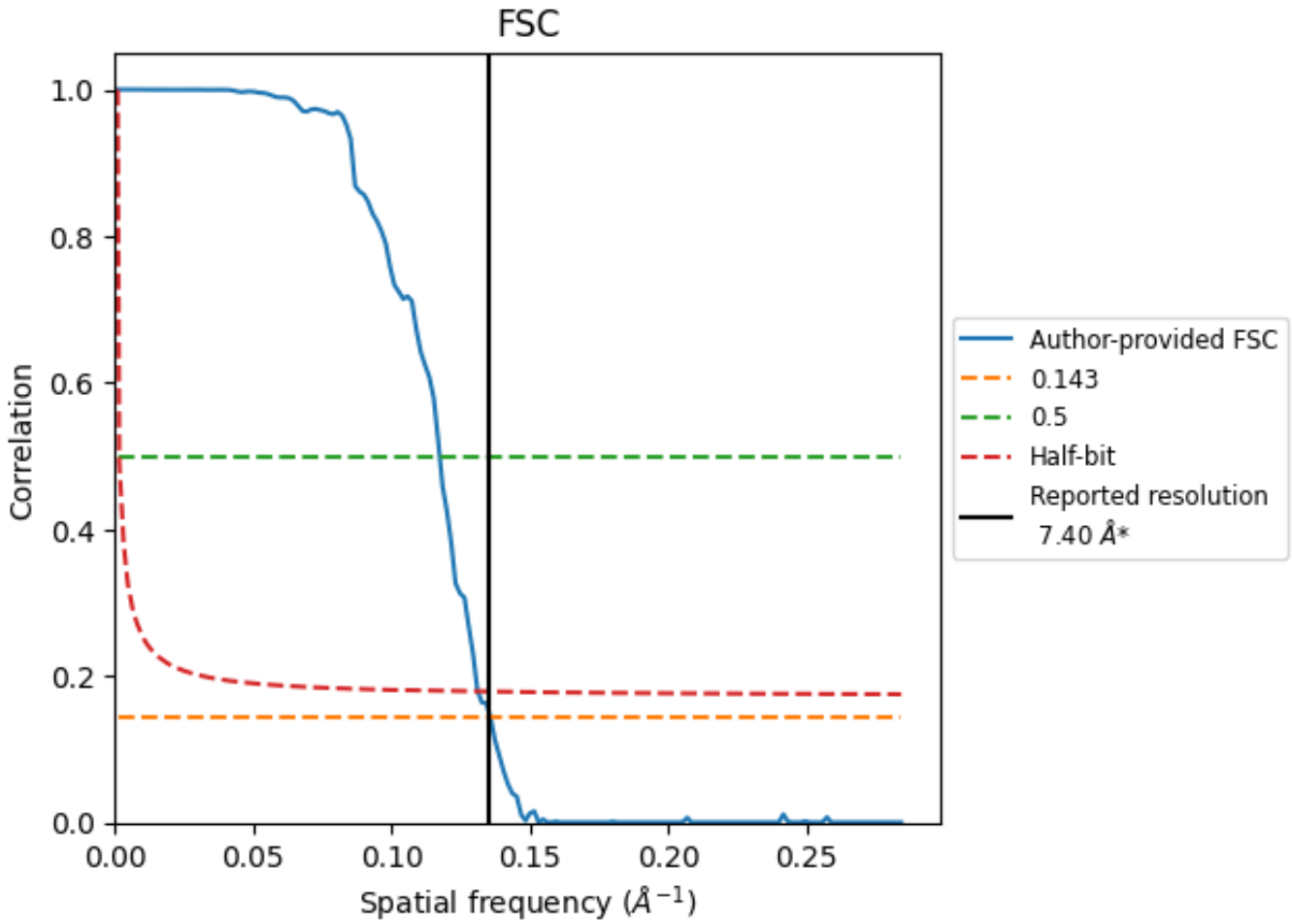


*Reported resolution corresponds to spatial frequency of 0.135 Å^{-1}

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 0.135 Å^{-1}

8.2 Resolution estimates (i)

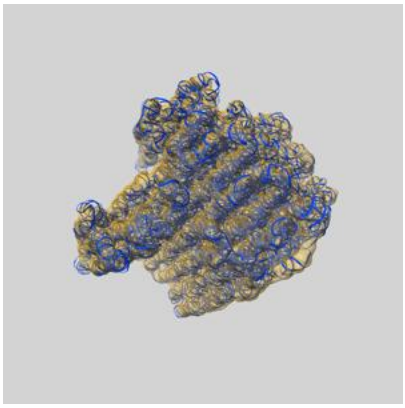
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	7.40	-	-
Author-provided FSC curve	7.37	8.53	7.62
Unmasked-calculated*	-	-	-

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

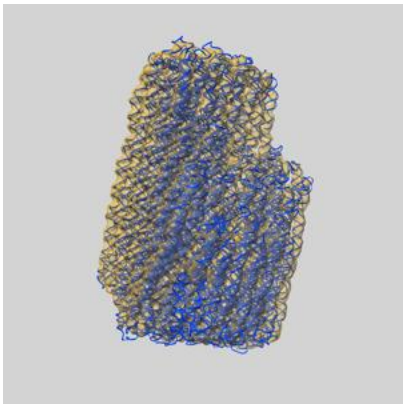
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-11881 and PDB model 7ARE. Per-residue inclusion information can be found in section 3 on page 41.

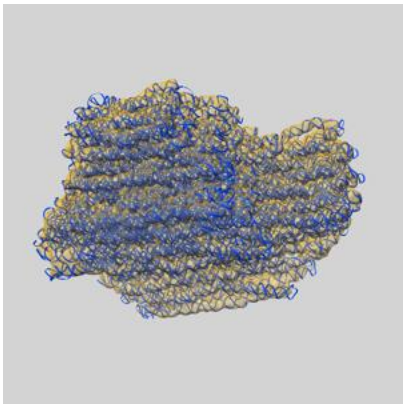
9.1 Map-model overlay



X



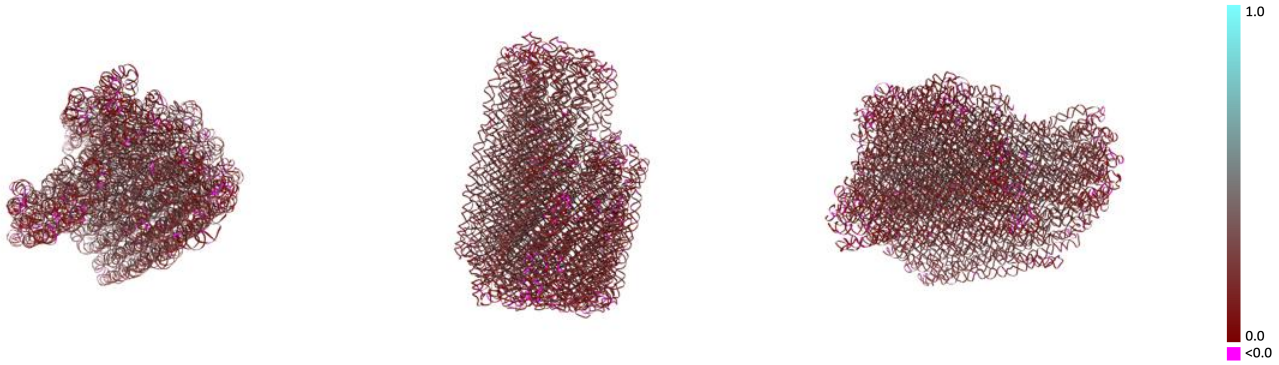
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.07 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

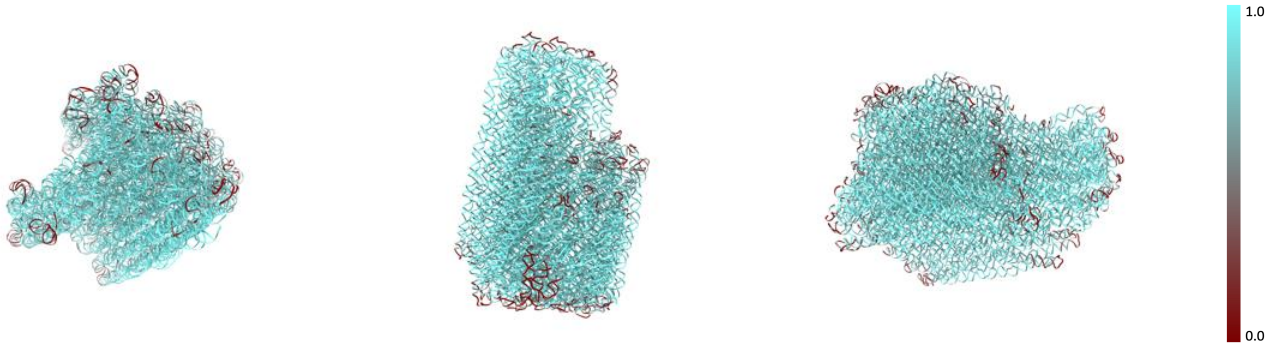
9.2 Q-score mapped to coordinate model (i)



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.

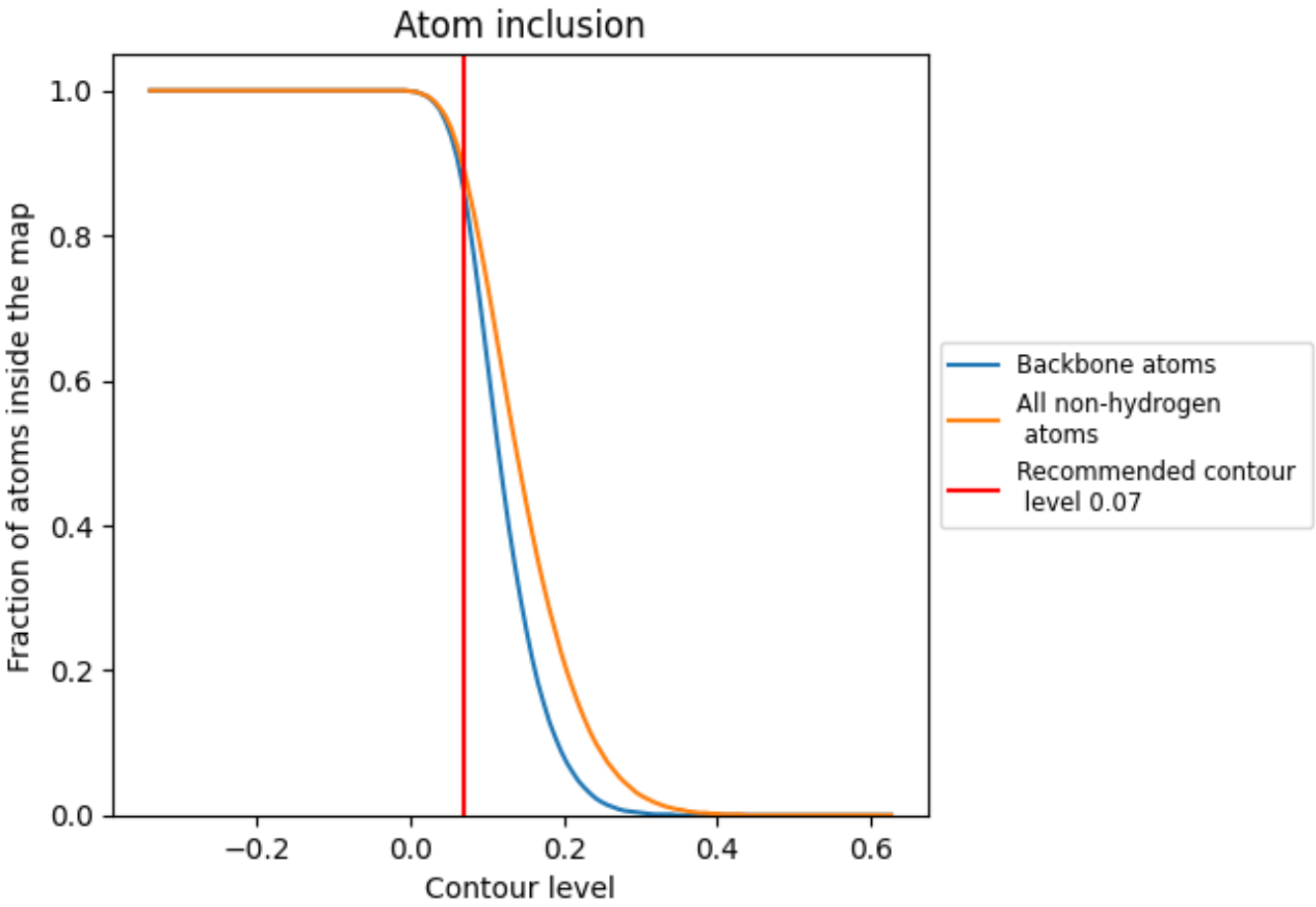
9.3 Atom inclusion mapped to coordinate model (i)



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 (0.07).

9.4 Atom inclusion (i)



At the recommended contour level, 86% of all backbone atoms, 89% 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 (0.07) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.8910	0.1980
A0	0.9190	0.1960
A1	0.5940	0.0920
A2	0.7520	0.1520
A3	0.9060	0.1560
A4	0.9160	0.1560
A5	0.9720	0.2420
A6	0.9130	0.1900
A7	0.8440	0.1610
A8	0.7720	0.1240
A9	0.9230	0.1560
AA	0.9210	0.2030
AB	0.8620	0.1570
AC	0.6840	0.1290
AD	0.9160	0.1530
AE	0.8150	0.1280
AF	0.6560	0.1290
AG	0.9160	0.1570
AH	0.0000	0.0460
AI	0.2140	0.0750
AJ	0.9320	0.2050
AK	0.5560	0.0930
AL	0.7380	0.1600
AM	0.7630	0.1420
AN	0.8400	0.1240
AO	0.9220	0.1960
AP	0.7960	0.1740
AQ	0.7930	0.1500
AR	0.6300	0.1220
AS	0.7780	0.1550
AT	0.6170	0.1250
AU	0.4510	0.0960
AV	0.8870	0.1870
AW	0.9670	0.2180
AX	0.8820	0.2160

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Chain	Atom inclusion	Q-score
AY	0.9510	0.1730
AZ	0.9180	0.1930
Aa	0.9500	0.2450
Ab	0.6100	0.1260
Ac	0.9320	0.2330
Ad	0.9800	0.2450
Ae	0.6610	0.1470
Af	0.8820	0.1890
Ag	0.8570	0.2250
Ah	0.7010	0.1400
Ai	0.8450	0.1610
Aj	0.7910	0.1750
Ak	0.8460	0.1900
Al	0.8720	0.1810
Am	0.9890	0.2500
An	0.7080	0.1530
Ao	0.9690	0.2330
Ap	0.8990	0.2210
Aq	0.9750	0.2350
Ar	0.9640	0.2320
As	0.6590	0.1090
At	0.9560	0.2490
Au	0.9710	0.2300
Av	0.9680	0.2080
Aw	0.9770	0.2520
Ax	0.7590	0.1420
Ay	0.9700	0.2720
Az	0.9830	0.2430
B0	0.4770	0.1020
B1	0.5570	0.0940
B2	0.6010	0.1050
B3	0.8950	0.1600
B4	0.8830	0.1420
B5	0.6870	0.1330
B6	0.4760	0.1040
B7	0.5020	0.1020
B8	0.9100	0.1470
B9	0.9670	0.2680
BA	0.9540	0.1720
BB	0.6900	0.1290
BC	0.7450	0.1530
BD	0.9310	0.1850

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Chain	Atom inclusion	Q-score
BE	0.8240	0.1700
BF	0.8820	0.2230
BG	0.7700	0.1460
BH	0.9640	0.2380
BI	0.9750	0.2720
BJ	0.9680	0.2810
BK	0.9740	0.2320
BL	0.8320	0.1970
BM	0.9730	0.2530
BN	0.9740	0.2540
BO	0.9770	0.2410
BP	0.9410	0.2310
BQ	0.9350	0.2250
BR	0.9300	0.2070
BS	0.9620	0.2160
BT	0.9900	0.2670
BU	0.9390	0.2120
BV	0.9510	0.2420
BW	0.4030	0.0950
BX	0.7650	0.1410
BY	0.9630	0.2430
BZ	0.9840	0.2290
Ba	0.9600	0.2460
Bb	0.9580	0.1810
Bc	0.9850	0.2380
Bd	0.6390	0.1370
Be	0.9830	0.2650
Bf	0.5790	0.1400
Bg	0.9790	0.2650
Bh	0.9760	0.2790
Bi	0.8030	0.1540
Bj	0.8230	0.1770
Bk	0.9730	0.2430
Bl	0.8620	0.2000
Bm	0.9780	0.2670
Bn	0.9650	0.2620
Bo	0.9740	0.2620
Bp	0.9780	0.2130
Bq	0.7580	0.1180
Br	0.9630	0.2490
Bs	0.7500	0.1680
Bt	0.9860	0.2570

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Chain	Atom inclusion	Q-score
Bu	0.9770	0.2370
Bv	0.9530	0.2200
Bw	0.9790	0.2690
Bx	0.9830	0.2520
By	0.7840	0.1700
Bz	0.9500	0.1920
C0	0.9760	0.2340
C1	0.9770	0.2680
C2	0.9620	0.2480
C3	0.8310	0.1230
C4	0.9710	0.2270
C5	0.9490	0.2210
C6	0.8200	0.1160
C7	0.5250	0.1180
C8	0.9640	0.2130
C9	0.9820	0.2490
CA	0.9720	0.2740
CB	0.8710	0.1730
CC	0.9720	0.2250
CD	0.9740	0.2050
CE	0.8240	0.1700
CF	0.6050	0.1390
CG	0.9720	0.2610
CH	0.9020	0.2150
CI	0.9760	0.2500
CJ	0.9830	0.2690
CK	0.9790	0.2470
CL	0.7870	0.1500
CM	0.7430	0.1730
CN	0.9670	0.2080
CO	0.9740	0.2610
CP	0.9620	0.2210
CQ	0.8940	0.1930
CR	0.9760	0.2610
CS	0.9700	0.2500
CT	0.9740	0.2330
CU	0.9680	0.2540
CV	0.6190	0.1500
CW	0.8840	0.1890
CX	0.7420	0.1620
CY	0.9850	0.2650
CZ	0.7420	0.1280

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Chain	Atom inclusion	Q-score
Ca	0.9750	0.2670
Cb	0.9070	0.1880
Cc	0.8720	0.1960
Cd	0.9720	0.2670
Ce	0.9920	0.2580
Cf	0.9690	0.2640
Cg	0.9840	0.2540
Ch	0.9820	0.2490
Ci	0.9170	0.2320
Cj	0.9210	0.1670
Ck	0.7340	0.1600
Cl	0.9830	0.2320
Cm	0.9920	0.2340
Cn	0.9840	0.2350
Co	0.5400	0.1460
Cp	0.9850	0.2130
Cq	0.9850	0.2420
Cr	0.8910	0.1880
Cs	0.9610	0.1930
Ct	0.9510	0.2260
Cu	0.9770	0.2440
Cv	0.9660	0.2680
Cw	0.9080	0.1640
Cx	0.9330	0.1880
Cy	0.7800	0.1480
Cz	0.9440	0.2080
DA	0.9870	0.2270
DB	0.9800	0.2270
DC	0.4020	0.0960
DD	0.9710	0.2170
DE	0.6090	0.1260
DF	0.5840	0.0990
DG	0.9110	0.1570
DH	0.6510	0.1240
DI	0.5560	0.1030
DJ	0.9330	0.1600
DK	0.9500	0.2080
DL	0.9140	0.1430
DM	0.9410	0.1510
DN	0.9530	0.1470
DO	0.8460	0.1570
DP	0.9310	0.1900

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Chain	Atom inclusion	Q-score
DQ	0.9750	0.2560