Full wwPDB EM Validation Report ⓘ

Dec 18, 2022 – 08:49 pm GMT

PDB ID	:	7ARV
EMDB ID	:	EMD-11379
Title	:	TwistTower_native-twist
Authors	:	Kube, M.; Kohler, F.; Feigl, E.; Nagel-Yuksel, B.; Willner, E.M.; Funke, J.J.; Gerling, T.; Stommer, P.; Honemann, M.N.; Martin, T.G.; Scheres, S.H.W.; Dietz, H.
Deposited on	:	2020-10-26
Resolution	:	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 ⓘ symbol.

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

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

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

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 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	8064	69% 28%
2	AB	29	14% 86% 14%
3	AC	48	75% 23%
4	AD	53	62% 36%
5	AE	60	52% 77% 20%
6	AF	48	6% 71% 19% 10%
7	AG	48	8% 69% 25% 6%
8	AH	60	22% 85% 13%
9	AI	42	17% 76% 21%
10	AJ	60	25% 82% 17%
11	AK	32	75% 19% 6%
12	AL	40	58% 35% 8%
13	AM	48	71% 27%
14	AN	32	66% 34%
15	AO	48	73% 27%
16	AP	40	18% 70% 30%
17	AQ	45	9% 73% 24%

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Mol	Chain	Length	Quality of chain
18	AR	48	19% 77% 23%
19	AS	48	69% 29%
20	AT	45	11% 69% 27%
21	AU	48	67% 31%
22	AV	40	62% 38%
23	AW	58	74% 19% 7%
24	AX	60	35% 83% 13%
25	AY	32	72% 28%
26	AZ	48	71% 27%
27	Aa	40	85% 15%
28	Ab	48	69% 25% 6%
29	Ac	40	60% 38%
30	Ad	53	74% 23%
31	Ae	40	62% 28% 10%
32	Af	32	66% 31%
33	Ag	58	5% 76% 22%
34	Ah	60	28% 73% 22% 5%
35	Ai	48	75% 21%
36	Aj	48	69% 31%
37	Ak	32	72% 19% 9%
38	Al	48	73% 25%
39	Am	58	74% 24%
40	An	60	27% 82% 17%
41	Ao	57	7% 75% 23%
42	Ap	60	27% 68% 27% 5%

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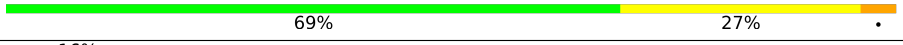
Mol	Chain	Length	Quality of chain
43	Aq	48	
44	Ar	37	
45	As	40	
46	At	44	
47	Au	40	
48	Av	40	
49	Aw	56	
50	Ax	40	
51	Ay	48	
52	Az	45	
53	A0	32	
54	A1	48	
55	A2	48	
56	A3	56	
57	A4	45	
58	A5	48	
59	A6	32	
60	A7	32	
61	A8	32	
62	A9	48	
63	BA	45	
64	BB	32	
65	BC	45	
66	BD	57	
67	BE	57	

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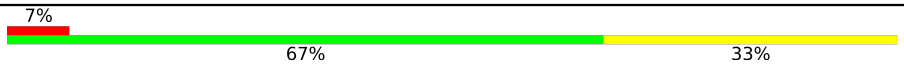
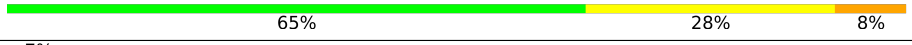
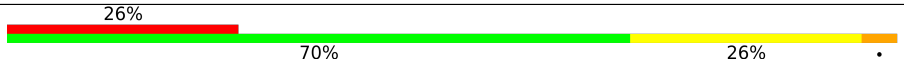
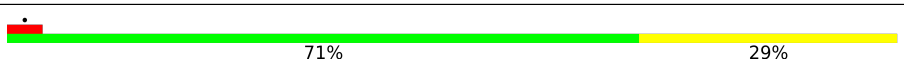
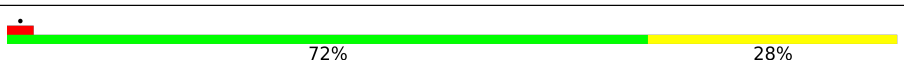
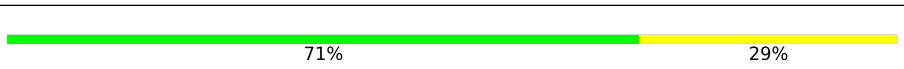
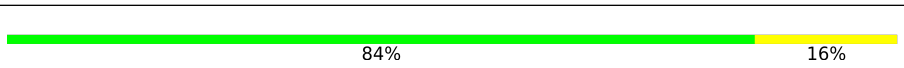
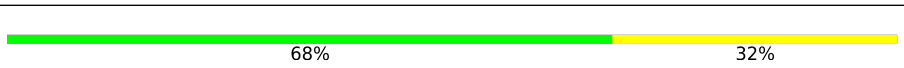
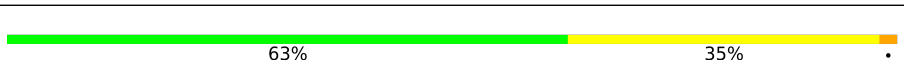
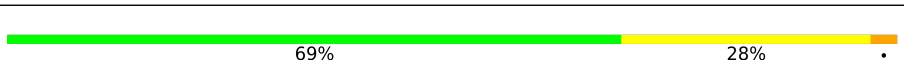
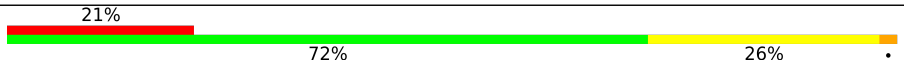
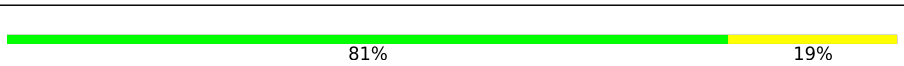
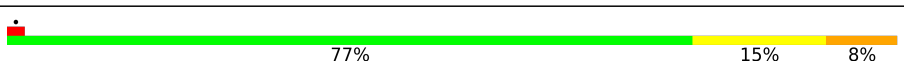
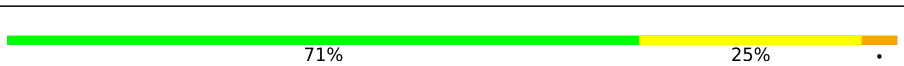
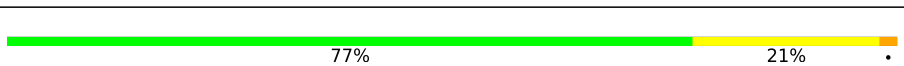
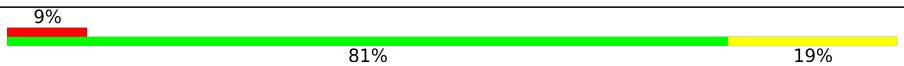
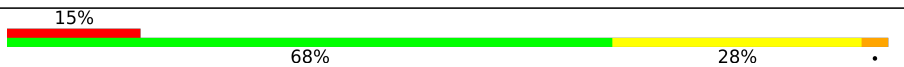
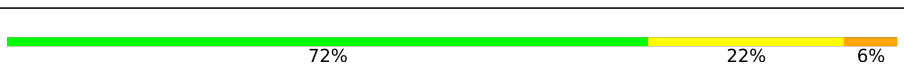
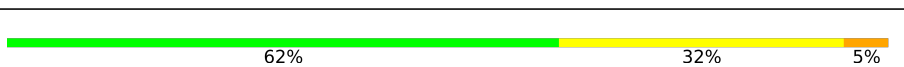
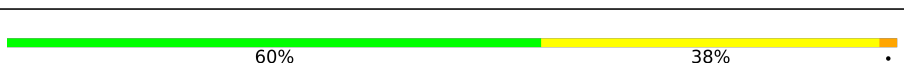
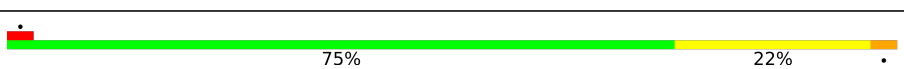
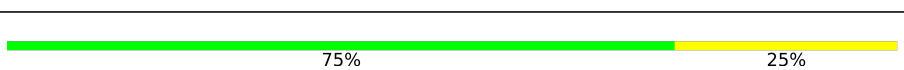
Mol	Chain	Length	Quality of chain
68	BF	45	
69	BG	40	
70	BH	57	
71	BI	57	
72	BJ	45	
73	BK	32	
74	BL	56	
75	BM	32	
76	BN	40	
77	BO	48	
78	BP	58	
79	BQ	57	
80	BR	48	
81	BS	48	
82	BT	48	
83	BU	48	
84	BV	58	
85	BW	60	
86	BX	32	
87	BY	40	
88	BZ	40	
89	Ba	48	
90	Bb	48	
91	Bc	32	
92	Bd	48	

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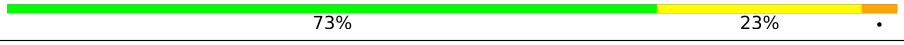
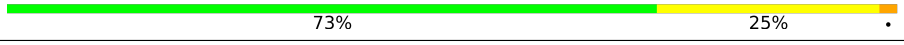
Mol	Chain	Length	Quality of chain
93	Be	48	
94	Bf	48	
95	Bg	40	
96	Bh	56	
97	Bi	40	
98	Bj	32	
99	Bk	32	
100	Bl	48	
101	Bm	56	
102	Bn	48	
103	Bo	48	
104	Bp	40	
105	Bq	48	
106	Br	48	
107	Bs	32	
108	Bt	40	
109	Bu	40	
110	Bv	40	
111	Bw	60	
112	Bx	45	
113	By	40	
114	Bz	32	
115	B0	60	
116	B1	60	
117	B2	40	

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Mol	Chain	Length	Quality of chain
118	B3	32	75% 25%
119	B4	32	69% 25% 6%
120	B5	60	7% 73% 25%
121	B6	53	8% 66% 32%
122	B7	48	75% 25%
123	B8	32	81% 19%
124	B9	48	63% 31% 6%
125	CA	48	67% 31%
126	CB	60	17% 73% 25%
127	CC	37	11% 76% 19% 5%
128	CD	57	72% 74% 26%
129	CE	32	66% 31%
130	CF	40	60% 38%
131	CG	32	69% 28%
132	CH	53	6% 60% 38%
133	CI	32	75% 25%
134	CJ	57	67% 67% 28% 5%
135	CK	32	6% 69% 31%
136	CL	40	68% 30%
137	CM	32	75% 22%
138	CN	56	21% 80% 14% 5%
139	CO	48	69% 27%
140	CP	48	63% 31% 6%
141	CQ	57	9% 65% 33%
142	CR	60	52% 70% 30%

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Mol	Chain	Length	Quality of chain
143	CS	48	69% 29%
144	CT	56	75% 21%
145	CU	37	78% 22%
146	CV	32	75% 19% 6%
147	CW	32	62% 38%
148	CX	57	74% 25%
149	CY	60	47% 80% 18%
150	CZ	48	67% 31%
151	Ca	48	71% 27%
152	Cb	40	60% 38%
153	Cc	32	9% 59% 41%
154	Cd	40	62% 25% 12%
155	Ce	40	70% 25% 5%
156	Cf	32	69% 28%
157	Cg	40	70% 30%
158	Ch	40	68% 25% 8%
159	Ci	48	69% 31%
160	Cj	40	70% 30%
161	Ck	48	71% 29%
162	Cl	40	72% 25%
163	Cm	48	58% 40%
164	Cn	40	52% 48%
165	Co	40	15% 65% 30% 5%
166	Cp	37	8% 70% 27%
167	Cq	37	19% 86% 11%

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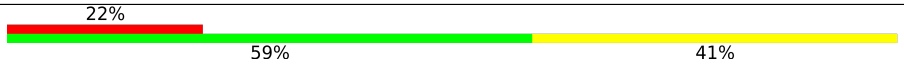
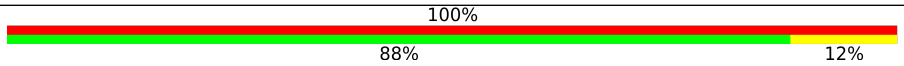
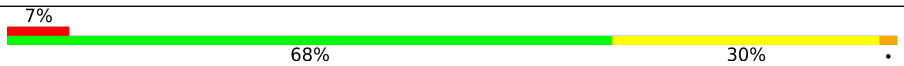
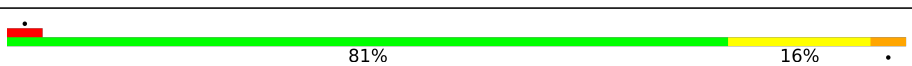
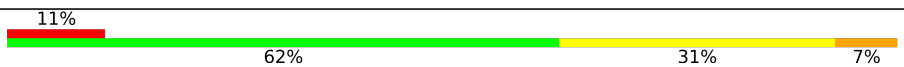
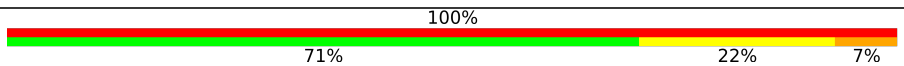
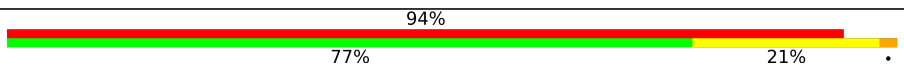
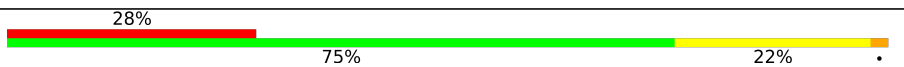
Mol	Chain	Length	Quality of chain
168	Cr	40	
169	Cs	40	
170	Ct	45	
171	Cu	37	
172	Cv	40	
173	Cw	40	
174	Cx	32	
175	Cy	32	
176	Cz	32	
177	C0	57	
178	C1	57	
179	C2	32	
180	C3	48	
181	C4	48	
182	C5	48	
183	C6	48	
184	C7	40	
185	C8	48	
186	C9	57	
187	DA	45	
188	DB	32	
189	DC	40	
190	DD	45	
191	DE	48	
192	DF	40	

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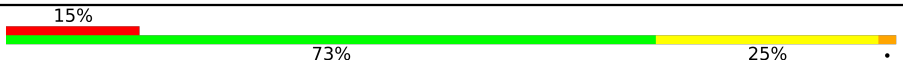
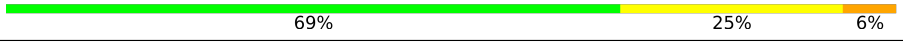
Mol	Chain	Length	Quality of chain
193	DG	48	
194	DH	32	
195	DI	32	

2 Entry composition

There are 195 unique types of molecules in this entry. The entry contains 342569 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a DNA chain called SCAFFOLD STRAND.

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

- Molecule 2 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
2	AB	29	582	282	90	182	28	0	0

- Molecule 3 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
3	AC	48	984	469	182	286	47	0	0

- Molecule 4 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
4	AD	53	1094	523	206	313	52	0	0

- Molecule 5 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
5	AE	60	1217	585	201	372	59	0	0

- Molecule 6 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
6	AF	48	982	469	179	287	47	0	0

- Molecule 7 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	AG	48	Total 991	C 470	N 193	O 281	P 47	0	0

- Molecule 8 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	AH	60	Total 1224	C 593	N 196	O 376	P 59	0	0

- Molecule 9 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	AI	42	Total 851	C 413	N 139	O 258	P 41	0	0

- Molecule 10 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	AJ	60	Total 1218	C 593	N 193	O 373	P 59	0	0

- Molecule 11 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	AK	32	Total 658	C 316	N 122	O 189	P 31	0	0

- Molecule 12 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	AL	40	Total 815	C 393	N 138	O 245	P 39	0	0

- Molecule 13 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	AM	48	Total 988	C 474	N 186	O 281	P 47	0	0

- Molecule 14 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	AN	32	Total 662	C 317	N 130	O 184	P 31	0	0

- Molecule 15 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	AO	48	Total 978	C 470	N 181	O 280	P 47	0	0

- Molecule 16 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	AP	40	Total 817	C 390	N 159	O 229	P 39	0	0

- Molecule 17 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	AQ	45	Total 914	C 443	N 151	O 276	P 44	0	0

- Molecule 18 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	AR	48	Total 986	C 474	N 183	O 282	P 47	0	0

- Molecule 19 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	AS	48	Total 988	C 471	N 192	O 278	P 47	0	0

- Molecule 20 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	AT	45	Total 928	C 443	N 166	O 275	P 44	0	0

- Molecule 21 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	AU	48	Total 977	C 467	N 178	O 285	P 47	0	0

- Molecule 22 is a DNA chain called STAPLE STRAND.

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

- Molecule 23 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	AW	58	Total 1155	C 556	N 185	O 357	P 57	0	0

- Molecule 24 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	AX	60	Total 1225	C 590	N 214	O 362	P 59	0	0

- Molecule 25 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	AY	32	Total 659	C 314	N 124	O 190	P 31	0	0

- Molecule 26 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	AZ	48	Total 990	C 472	N 191	O 280	P 47	0	0

- Molecule 27 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	Aa	40	Total 823	C 396	N 147	O 241	P 39	0	0

- Molecule 28 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	Ab	48	Total 986	C 468	N 189	O 282	P 47	0	0

- Molecule 29 is a DNA chain called STAPLE STRAND.

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

- Molecule 30 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	Ad	53	Total 1091	C 522	N 204	O 313	P 52	0	0

- Molecule 31 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	Ae	40	Total 830	C 392	N 163	O 236	P 39	0	0

- Molecule 32 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	Af	32	Total 666	C 317	N 127	O 191	P 31	0	0

- Molecule 33 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	Ag	58	Total 1173	C 571	N 185	O 360	P 57	0	0

- Molecule 34 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	Ah	60	Total 1233	C 594	N 216	O 364	P 59	0	0

- Molecule 35 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	Ai	48	Total 979	C 467	N 172	O 293	P 47	0	0

- Molecule 36 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	Aj	48	Total 969	C 466	N 170	O 286	P 47	0	0

- Molecule 37 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	Ak	32	Total 652	C 312	N 123	O 186	P 31	0	0

- Molecule 38 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	Al	48	Total 982	C 471	N 183	O 281	P 47	0	0

- Molecule 39 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	Am	58	Total 1175	C 569	N 187	O 362	P 57	0	0

- Molecule 40 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
40	An	60	Total 1231	C 594	N 210	O 368	P 59	0	0

- Molecule 41 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	Ao	57	Total 1167	C 563	N 199	O 349	P 56	0	0

- Molecule 42 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	Ap	60	Total	C	N	O	P	0	0
			1217	590	187	381	59		

- Molecule 43 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	Aq	48	Total	C	N	O	P	0	0
			985	468	183	287	47		

- Molecule 44 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	Ar	37	Total	C	N	O	P	0	0
			752	361	137	218	36		

- Molecule 45 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	As	40	Total	C	N	O	P	0	0
			817	396	138	244	39		

- Molecule 46 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	At	44	Total	C	N	O	P	0	0
			899	432	168	256	43		

- Molecule 47 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	Au	40	Total	C	N	O	P	0	0
			818	391	158	230	39		

- 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
			814	387	153	235	39		

- Molecule 49 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	Aw	56	Total 1137	C 545	N 199	O 338	P 55	0	0

- Molecule 50 is a DNA chain called STAPLE STRAND.

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

- Molecule 51 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	Ay	48	Total 990	C 471	N 195	O 277	P 47	0	0

- Molecule 52 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	Az	45	Total 900	C 432	N 156	O 268	P 44	0	0

- Molecule 53 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	A0	32	Total 641	C 308	N 109	O 193	P 31	0	0

- Molecule 54 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	A1	48	Total 992	C 472	N 191	O 282	P 47	0	0

- Molecule 55 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	A2	48	Total 966	C 458	N 175	O 286	P 47	0	0

- Molecule 56 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
56	A3	56	Total 1151	C 546	N 222	O 328	P 55	0	0

- Molecule 57 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
57	A4	45	Total 931	C 445	N 170	O 272	P 44	0	0

- Molecule 58 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
58	A5	48	Total 991	C 471	N 192	O 281	P 47	0	0

- Molecule 59 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
59	A6	32	Total 655	C 313	N 119	O 192	P 31	0	0

- Molecule 60 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
60	A7	32	Total 643	C 307	N 122	O 183	P 31	0	0

- Molecule 61 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
61	A8	32	Total 658	C 312	N 129	O 186	P 31	0	0

- Molecule 62 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
62	A9	48	Total 988	C 468	N 195	O 278	P 47	0	0

- Molecule 63 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
63	BA	45	Total	C	N	O	P	0	0
			918	439	176	259	44		

- Molecule 64 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
64	BB	32	Total	C	N	O	P	0	0
			659	311	133	184	31		

- Molecule 65 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
65	BC	45	Total	C	N	O	P	0	0
			910	438	153	275	44		

- Molecule 66 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
66	BD	57	Total	C	N	O	P	0	0
			1156	561	183	356	56		

- Molecule 67 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
67	BE	57	Total	C	N	O	P	0	0
			1155	559	191	349	56		

- Molecule 68 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
68	BF	45	Total	C	N	O	P	0	0
			911	436	158	273	44		

- Molecule 69 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
69	BG	40	Total	C	N	O	P	0	0
			807	387	147	234	39		

- Molecule 70 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
70	BH	57	Total 1156	C 564	N 177	O 359	P 56	0	0

- Molecule 71 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
71	BI	57	Total 1156	C 564	N 189	O 347	P 56	0	0

- Molecule 72 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
72	BJ	45	Total 918	C 443	N 157	O 274	P 44	0	0

- Molecule 73 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
73	BK	32	Total 655	C 313	N 119	O 192	P 31	0	0

- Molecule 74 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
74	BL	56	Total 1142	C 548	N 199	O 340	P 55	0	0

- Molecule 75 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
75	BM	32	Total 650	C 312	N 126	O 181	P 31	0	0

- Molecule 76 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
76	BN	40	Total 832	C 394	N 173	O 226	P 39	0	0

- Molecule 77 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
77	BO	48	Total	C	N	O	P	0	0
			974	464	181	282	47		

- Molecule 78 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
78	BP	58	Total	C	N	O	P	0	0
			1175	569	196	353	57		

- Molecule 79 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
79	BQ	57	Total	C	N	O	P	0	0
			1147	558	183	350	56		

- Molecule 80 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
80	BR	48	Total	C	N	O	P	0	0
			995	475	191	282	47		

- Molecule 81 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
81	BS	48	Total	C	N	O	P	0	0
			975	470	169	289	47		

- Molecule 82 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
82	BT	48	Total	C	N	O	P	0	0
			973	465	174	287	47		

- Molecule 83 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
83	BU	48	Total	C	N	O	P	0	0
			981	466	182	286	47		

- Molecule 84 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
84	BV	58	Total	C	N	O	P	0	0
			1186	573	201	355	57		

- Molecule 85 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
85	BW	60	Total	C	N	O	P	0	0
			1213	586	191	377	59		

- Molecule 86 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
86	BX	32	Total	C	N	O	P	0	0
			657	311	127	188	31		

- Molecule 87 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
87	BY	40	Total	C	N	O	P	0	0
			831	392	160	240	39		

- Molecule 88 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
88	BZ	40	Total	C	N	O	P	0	0
			818	388	155	236	39		

- Molecule 89 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
89	Ba	48	Total	C	N	O	P	0	0
			1002	476	205	274	47		

- Molecule 90 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
90	Bb	48	Total	C	N	O	P	0	0
			971	464	175	285	47		

- Molecule 91 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
91	Bc	32	Total 658	C 313	N 131	O 183	P 31	0	0

- Molecule 92 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
92	Bd	48	Total 992	C 473	N 202	O 270	P 47	0	0

- Molecule 93 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
93	Be	48	Total 976	C 469	N 176	O 284	P 47	0	0

- Molecule 94 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
94	Bf	48	Total 986	C 470	N 190	O 279	P 47	0	0

- Molecule 95 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
95	Bg	40	Total 812	C 389	N 142	O 242	P 39	0	0

- Molecule 96 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
96	Bh	56	Total 1157	C 552	N 222	O 328	P 55	0	0

- Molecule 97 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
97	Bi	40	Total 805	C 390	N 132	O 244	P 39	0	0

- Molecule 98 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
98	Bj	32	Total 653	C 313	N 125	O 184	P 31	0	0

- Molecule 99 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
99	Bk	32	Total 660	C 316	N 125	O 188	P 31	0	0

- Molecule 100 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
100	Bl	48	Total 974	C 463	N 176	O 288	P 47	0	0

- Molecule 101 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
101	Bm	56	Total 1148	C 548	N 205	O 340	P 55	0	0

- Molecule 102 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
102	Bn	48	Total 971	C 466	N 173	O 285	P 47	0	0

- Molecule 103 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
103	Bo	48	Total 994	C 471	N 201	O 275	P 47	0	0

- Molecule 104 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
104	Bp	40	Total 822	C 393	N 153	O 237	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
			986	470	169	300	47		

- Molecule 106 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
106	Br	48	Total	C	N	O	P	0	0
			992	471	189	285	47		

- Molecule 107 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
107	Bs	32	Total	C	N	O	P	0	0
			653	312	129	181	31		

- Molecule 108 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
108	Bt	40	Total	C	N	O	P	0	0
			823	391	158	235	39		

- 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
			819	391	158	231	39		

- Molecule 110 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
110	Bv	40	Total	C	N	O	P	0	0
			812	388	149	236	39		

- Molecule 111 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
111	Bw	60	Total	C	N	O	P	0	0
			1216	592	194	371	59		

- Molecule 112 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
112	Bx	45	Total	C	N	O	P	0	0
			919	439	167	269	44		

- Molecule 113 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
113	By	40	Total	C	N	O	P	0	0
			823	389	169	226	39		

- Molecule 114 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
114	Bz	32	Total	C	N	O	P	0	0
			654	316	116	191	31		

- Molecule 115 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
115	B0	60	Total	C	N	O	P	0	0
			1210	590	187	374	59		

- Molecule 116 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
116	B1	60	Total	C	N	O	P	0	0
			1213	589	188	377	59		

- Molecule 117 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
117	B2	40	Total	C	N	O	P	0	0
			823	393	162	229	39		

- Molecule 118 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
118	B3	32	Total	C	N	O	P	0	0
			664	314	136	183	31		

- Molecule 119 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
119	B4	32	Total	C	N	O	P	0	0
			663	314	130	188	31		

- Molecule 120 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
120	B5	60	Total	C	N	O	P	0	0
			1223	590	214	360	59		

- Molecule 121 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
121	B6	53	Total	C	N	O	P	0	0
			1077	516	195	314	52		

- Molecule 122 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
122	B7	48	Total	C	N	O	P	0	0
			982	468	192	275	47		

- Molecule 123 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
123	B8	32	Total	C	N	O	P	0	0
			658	313	131	183	31		

- Molecule 124 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
124	B9	48	Total	C	N	O	P	0	0
			975	464	181	283	47		

- Molecule 125 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
125	CA	48	Total	C	N	O	P	0	0
			977	465	177	288	47		

- Molecule 126 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
126	CB	60	Total	C	N	O	P	0	0
			1223	592	212	360	59		

- Molecule 127 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
127	CC	37	Total	C	N	O	P	0	0
			754	361	134	223	36		

- Molecule 128 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
128	CD	57	Total	C	N	O	P	0	0
			1160	566	178	360	56		

- Molecule 129 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
129	CE	32	Total	C	N	O	P	0	0
			667	313	134	189	31		

- Molecule 130 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
130	CF	40	Total	C	N	O	P	0	0
			822	393	159	231	39		

- Molecule 131 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
131	CG	32	Total	C	N	O	P	0	0
			658	315	123	189	31		

- Molecule 132 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
132	CH	53	Total	C	N	O	P	0	0
			1087	521	205	309	52		

- Molecule 133 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
133	CI	32	Total 646	C 314	N 109	O 192	P 31	0	0

- Molecule 134 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
134	CJ	57	Total 1159	C 564	N 186	O 353	P 56	0	0

- Molecule 135 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
135	CK	32	Total 650	C 313	N 119	O 187	P 31	0	0

- Molecule 136 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
136	CL	40	Total 819	C 390	N 162	O 228	P 39	0	0

- Molecule 137 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
137	CM	32	Total 664	C 316	N 134	O 183	P 31	0	0

- Molecule 138 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
138	CN	56	Total 1153	C 553	N 218	O 327	P 55	0	0

- Molecule 139 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
139	CO	48	Total 979	C 467	N 190	O 275	P 47	0	0

- Molecule 140 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
140	CP	48	Total 992	C 473	N 181	O 291	P 47	0	0

- Molecule 141 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
141	CQ	57	Total 1162	C 564	N 189	O 353	P 56	0	0

- Molecule 142 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
142	CR	60	Total 1225	C 594	N 204	O 368	P 59	0	0

- Molecule 143 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
143	CS	48	Total 968	C 468	N 159	O 294	P 47	0	0

- Molecule 144 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
144	CT	56	Total 1158	C 554	N 220	O 329	P 55	0	0

- Molecule 145 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
145	CU	37	Total 759	C 364	N 146	O 213	P 36	0	0

- Molecule 146 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
146	CV	32	Total 656	C 314	N 124	O 187	P 31	0	0

- Molecule 147 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
147	CW	32	Total 652	C 314	N 121	O 186	P 31	0	0

- Molecule 148 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
148	CX	57	Total 1159	C 564	N 180	O 359	P 56	0	0

- Molecule 149 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
149	CY	60	Total 1211	C 593	N 187	O 372	P 59	0	0

- Molecule 150 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
150	CZ	48	Total 981	C 472	N 173	O 289	P 47	0	0

- Molecule 151 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
151	Ca	48	Total 984	C 473	N 193	O 271	P 47	0	0

- Molecule 152 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
152	Cb	40	Total 821	C 392	N 160	O 230	P 39	0	0

- Molecule 153 is a DNA chain called STAPLE STRAND.

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

- Molecule 154 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
154	Cd	40	Total 831	C 393	N 174	O 225	P 39	0	0

- Molecule 155 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
155	Ce	40	Total 829	C 397	N 155	O 238	P 39	0	0

- Molecule 156 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
156	Cf	32	Total 657	C 316	N 116	O 194	P 31	0	0

- Molecule 157 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
157	Cg	40	Total 817	C 393	N 153	O 232	P 39	0	0

- Molecule 158 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
158	Ch	40	Total 817	C 394	N 149	O 235	P 39	0	0

- Molecule 159 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
159	Ci	48	Total 971	C 466	N 176	O 282	P 47	0	0

- Molecule 160 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
160	Cj	40	Total 817	C 391	N 152	O 235	P 39	0	0

- Molecule 161 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
161	Ck	48	Total 985	C 474	N 171	O 293	P 47	0	0

- Molecule 162 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
162	Cl	40	Total 821	C 393	N 159	O 230	P 39	0	0

- Molecule 163 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
163	Cm	48	Total 980	C 471	N 174	O 288	P 47	0	0

- Molecule 164 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
164	Cn	40	Total 819	C 393	N 150	O 237	P 39	0	0

- Molecule 165 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
165	Co	40	Total 811	C 388	N 152	O 232	P 39	0	0

- Molecule 166 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
166	Cp	37	Total 752	C 361	N 137	O 218	P 36	0	0

- Molecule 167 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
167	Cq	37	Total 754	C 360	N 144	O 214	P 36	0	0

- Molecule 168 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
168	Cr	40	Total	C	N	O	P	0	0
			832	396	159	238	39		

- 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
			822	393	159	231	39		

- Molecule 170 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
170	Ct	45	Total	C	N	O	P	0	0
			920	443	163	270	44		

- Molecule 171 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
171	Cu	37	Total	C	N	O	P	0	0
			757	366	138	217	36		

- 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
			810	390	138	243	39		

- Molecule 173 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
173	Cw	40	Total	C	N	O	P	0	0
			825	391	161	234	39		

- Molecule 174 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
174	Cx	32	Total	C	N	O	P	0	0
			652	310	128	183	31		

- Molecule 175 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
175	Cy	32	Total 652	C 309	N 129	O 183	P 31	0	0

- Molecule 176 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
176	Cz	32	Total 667	C 316	N 131	O 189	P 31	0	0

- Molecule 177 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
177	C0	57	Total 1148	C 554	N 190	O 348	P 56	0	0

- Molecule 178 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
178	C1	57	Total 1166	C 566	N 187	O 357	P 56	0	0

- Molecule 179 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
179	C2	32	Total 657	C 315	N 123	O 188	P 31	0	0

- Molecule 180 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
180	C3	48	Total 979	C 466	N 188	O 278	P 47	0	0

- Molecule 181 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
181	C4	48	Total 977	C 470	N 178	O 282	P 47	0	0

- Molecule 182 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
182	C5	48	Total 976	C 470	N 169	O 290	P 47	0	0

- Molecule 183 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
183	C6	48	Total 997	C 473	N 196	O 281	P 47	0	0

- Molecule 184 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
184	C7	40	Total 803	C 388	N 134	O 242	P 39	0	0

- Molecule 185 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
185	C8	48	Total 991	C 472	N 194	O 278	P 47	0	0

- Molecule 186 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
186	C9	57	Total 1158	C 563	N 187	O 352	P 56	0	0

- Molecule 187 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
187	DA	45	Total 917	C 440	N 163	O 270	P 44	0	0

- Molecule 188 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
188	DB	32	Total 646	C 310	N 119	O 186	P 31	0	0

- Molecule 189 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
189	DC	40	Total 832	C 395	N 178	O 220	P 39	0	0

- Molecule 190 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
190	DD	45	Total 910	C 435	N 159	O 272	P 44	0	0

- Molecule 191 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
191	DE	48	Total 982	C 471	N 180	O 284	P 47	0	0

- Molecule 192 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
192	DF	40	Total 817	C 389	N 154	O 235	P 39	0	0

- Molecule 193 is a DNA chain called STAPLE STRAND.

Mol	Chain	Residues	Atoms					AltConf	Trace
193	DG	48	Total 990	C 471	N 186	O 286	P 47	0	0

- Molecule 194 is a DNA chain called STAPLE STRAND.

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

- Molecule 195 is a DNA chain called STAPLE STRAND.

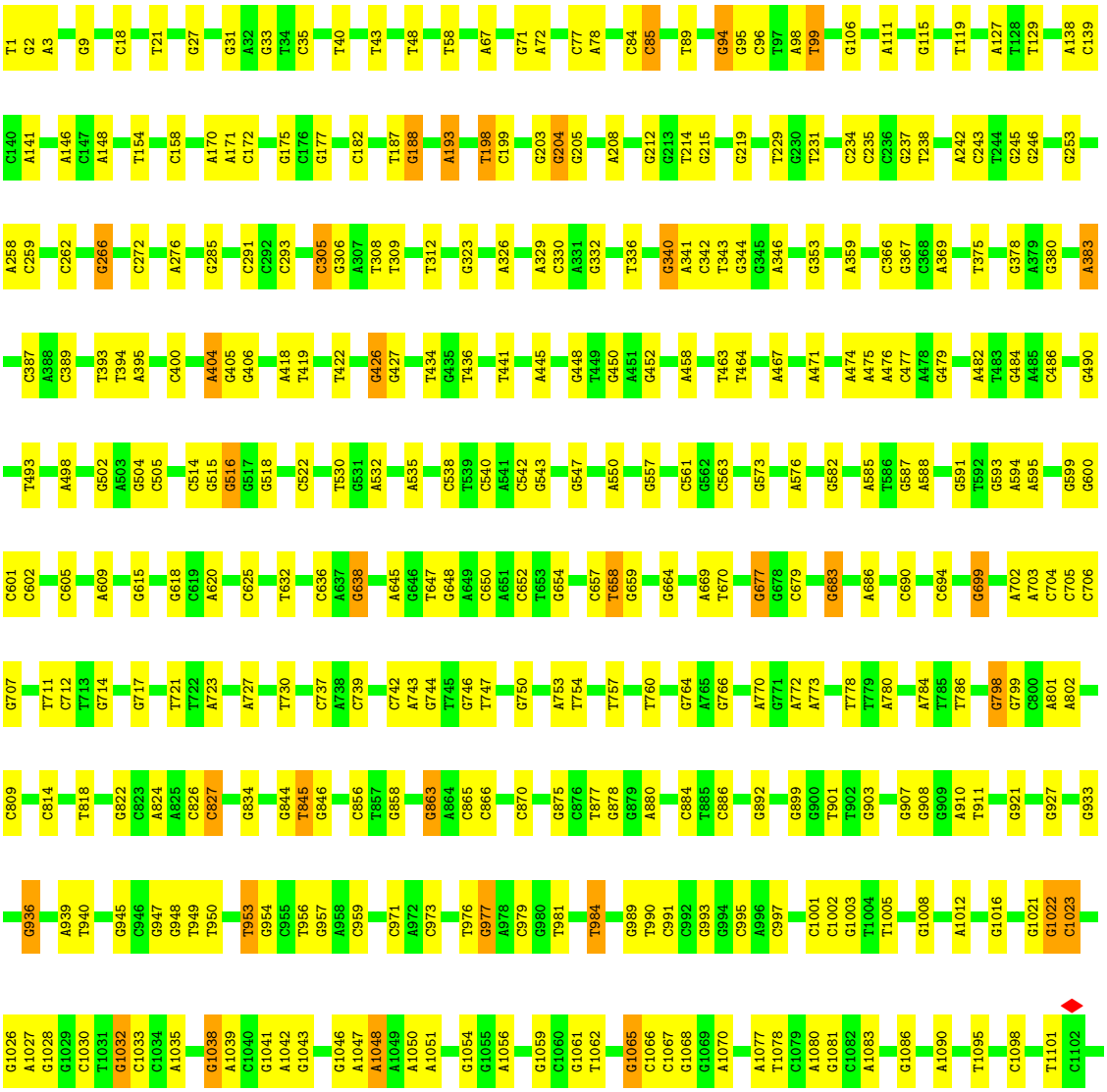
Mol	Chain	Residues	Atoms					AltConf	Trace
195	DI	32	Total 653	C 314	N 118	O 190	P 31	0	0

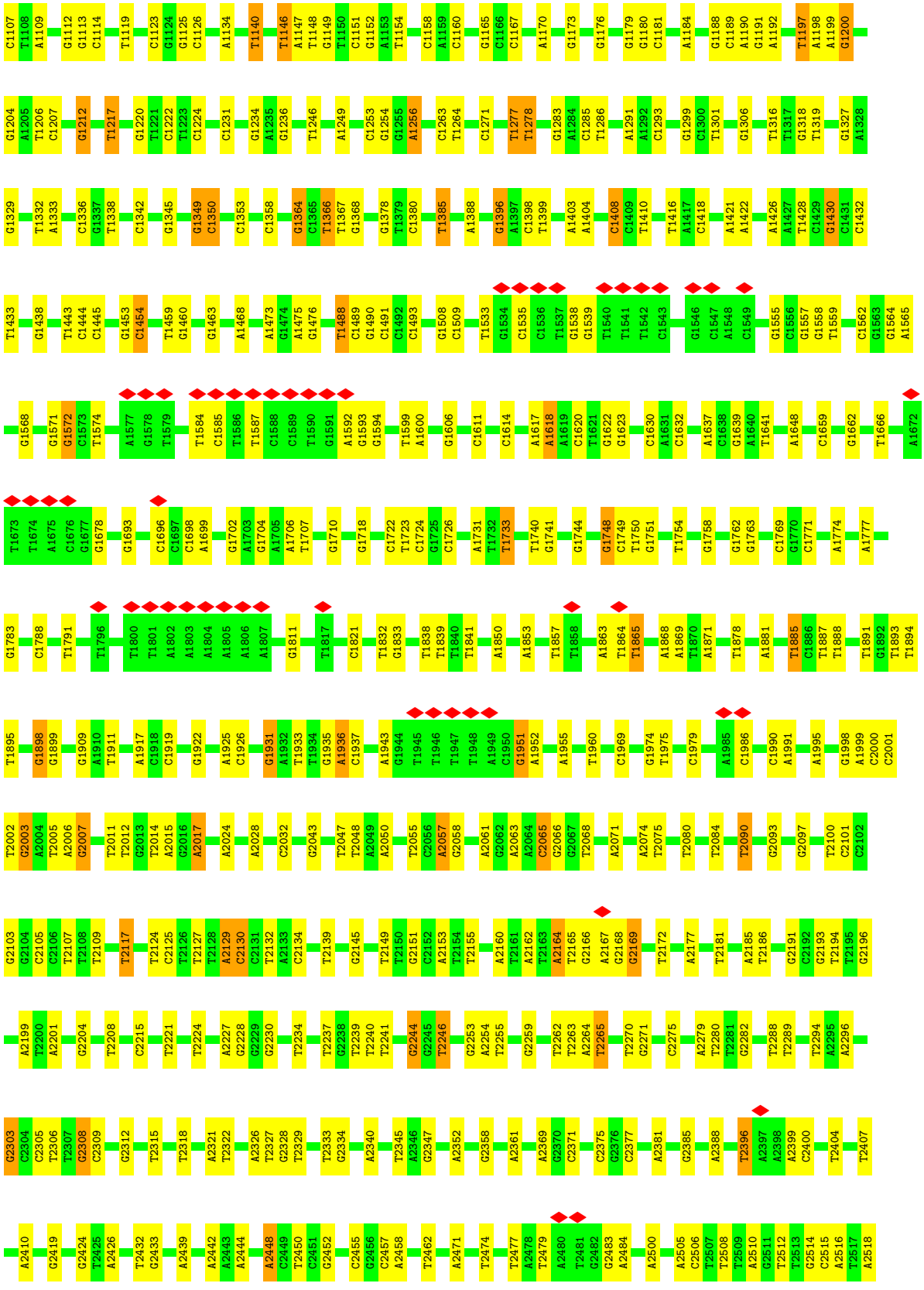
3 Residue-property plots (i)

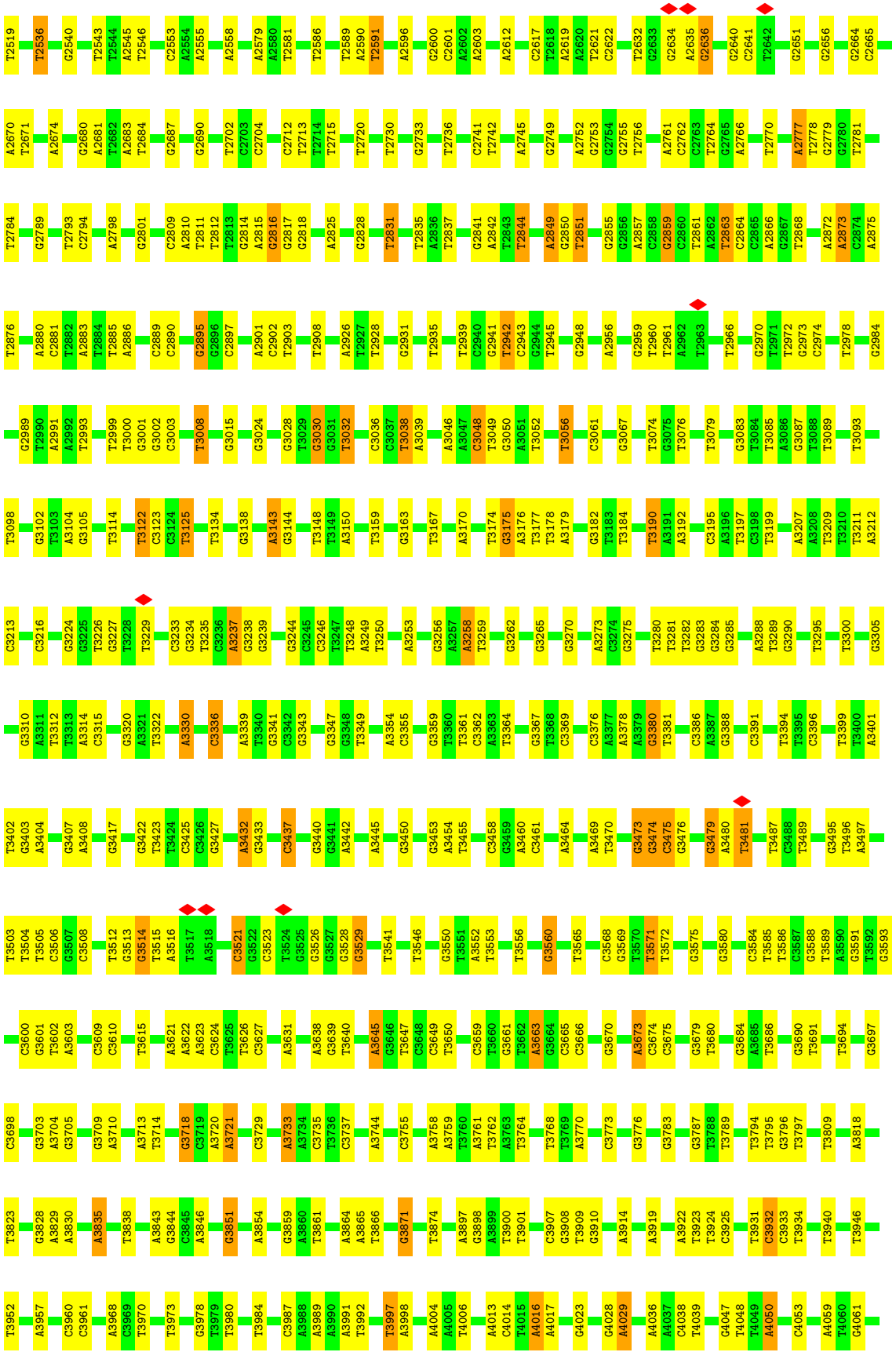
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion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

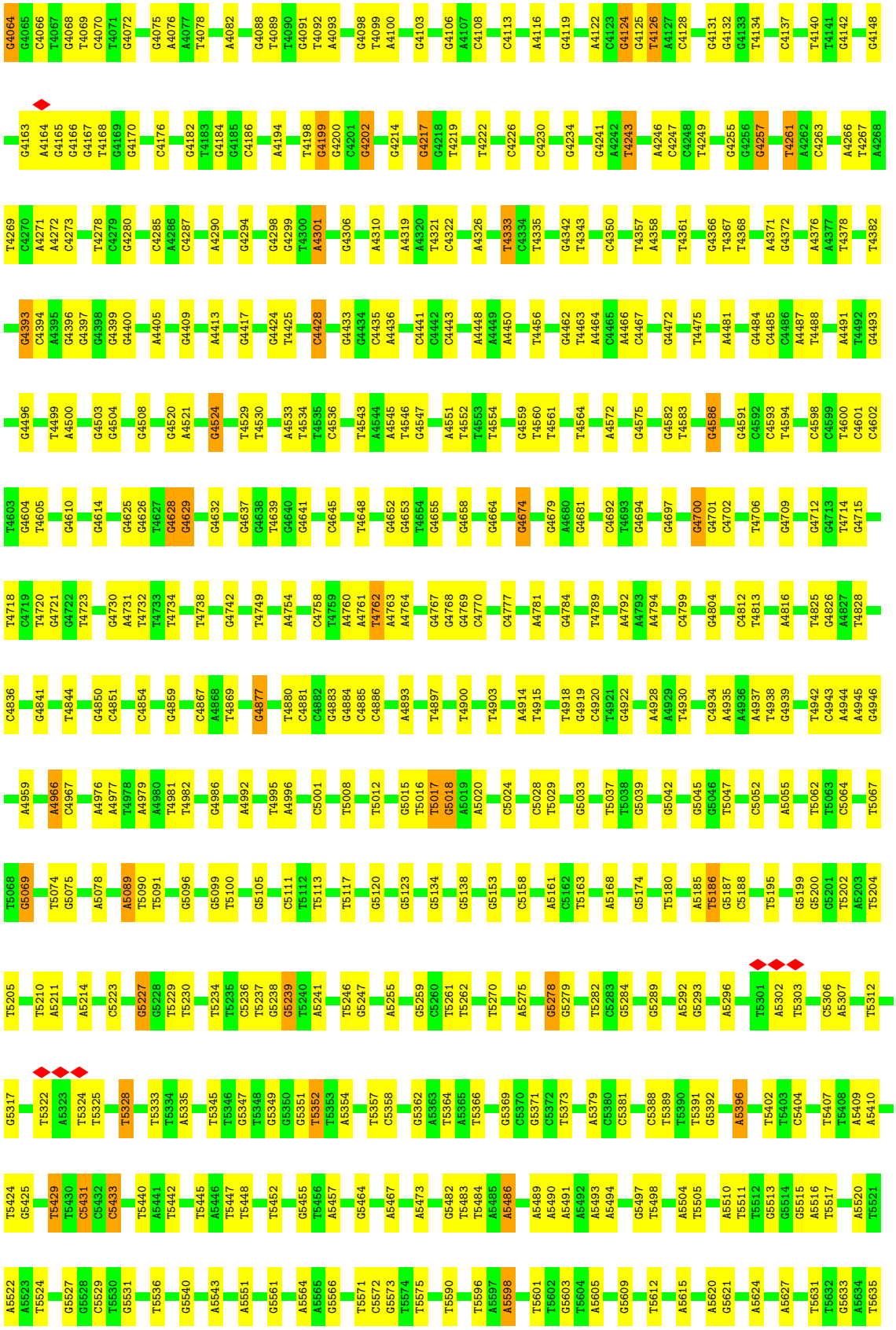
- Molecule 1: SCAFFOLD STRAND

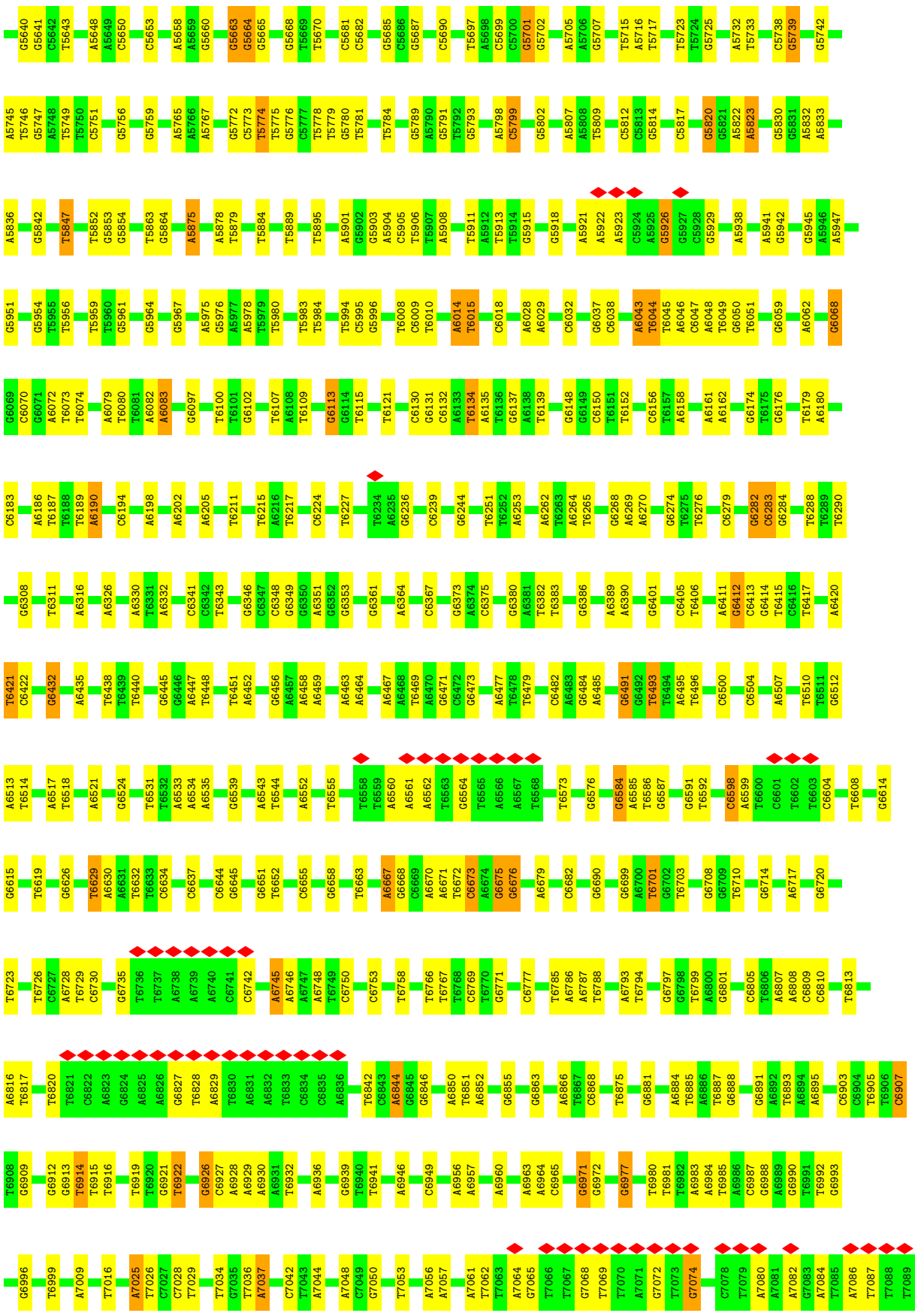
Chain AA:

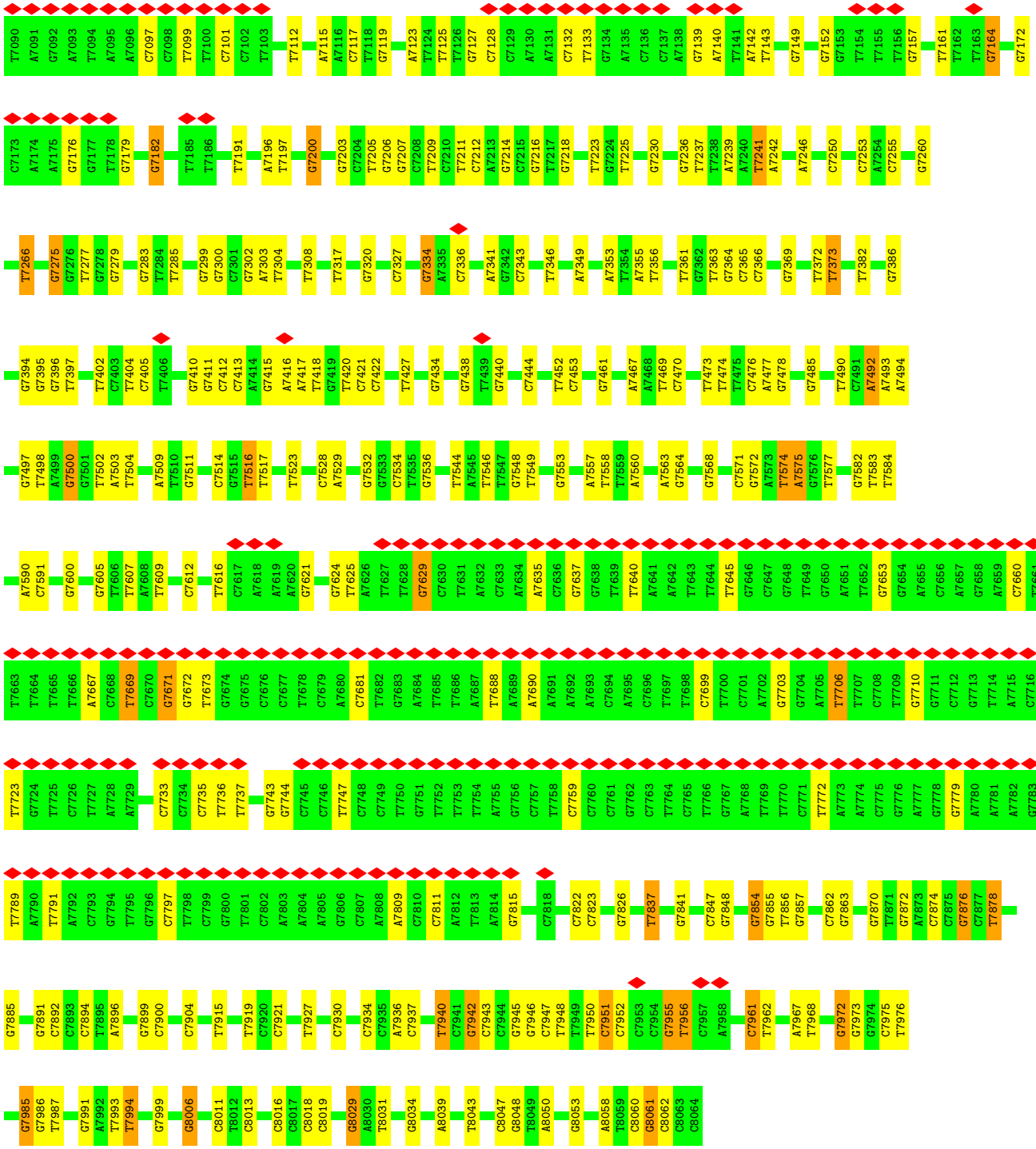






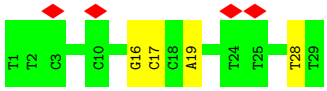






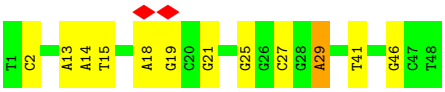
• Molecule 2: STAPLE STRAND

Chain AB:



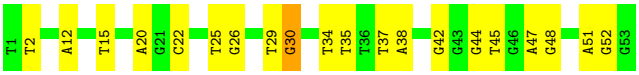
• Molecule 3: STAPLE STRAND

Chain AC:



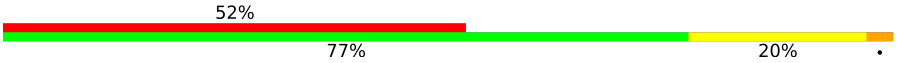
• Molecule 4: STAPLE STRAND

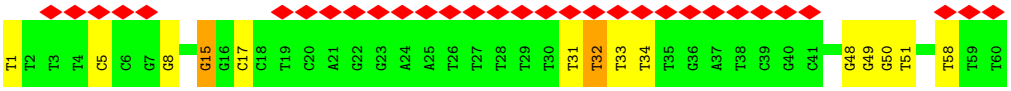
Chain AD:



• Molecule 5: STAPLE STRAND

Chain AE:



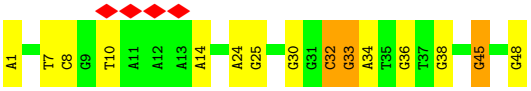


• Molecule 6: STAPLE STRAND

Chain AF:

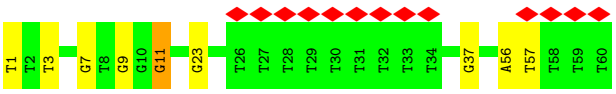
• Molecule 7: STAPLE STRAND

Chain AG:



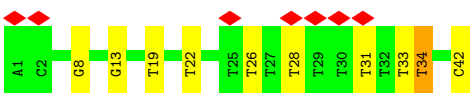
• Molecule 8: STAPLE STRAND

Chain AH:



• Molecule 9: STAPLE STRAND

Chain AI:

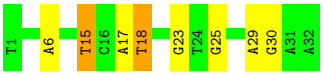


• Molecule 10: STAPLE STRAND

Chain AJ:

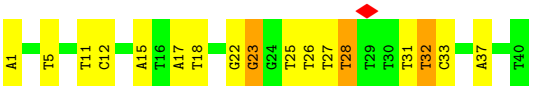
• Molecule 11: STAPLE STRAND

Chain AK:



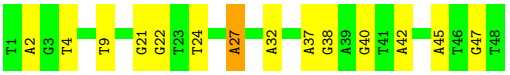
• Molecule 12: STAPLE STRAND

Chain AL:



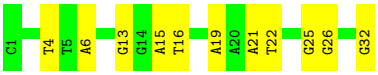
• Molecule 13: STAPLE STRAND

Chain AM:



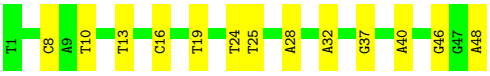
• Molecule 14: STAPLE STRAND

Chain AN:



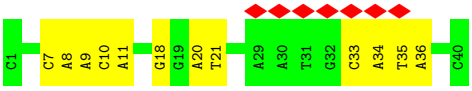
• Molecule 15: STAPLE STRAND

Chain AO:



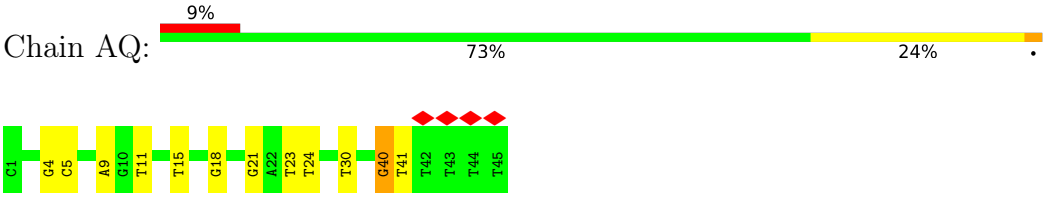
• Molecule 16: STAPLE STRAND

Chain AP:



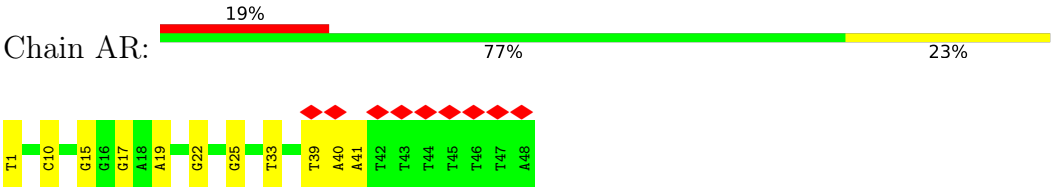
• Molecule 17: STAPLE STRAND

Chain AQ:



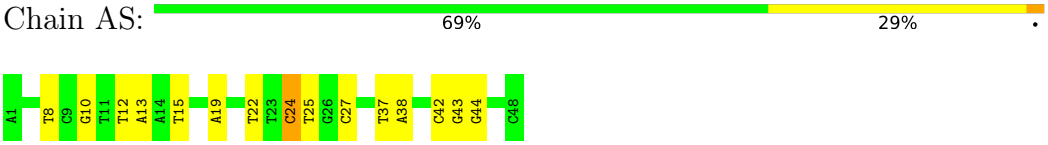
• Molecule 18: STAPLE STRAND

Chain AR:



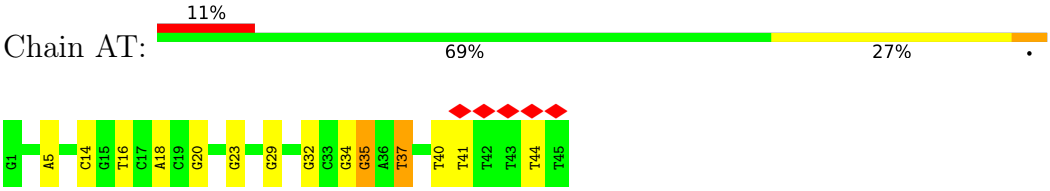
• Molecule 19: STAPLE STRAND

Chain AS:



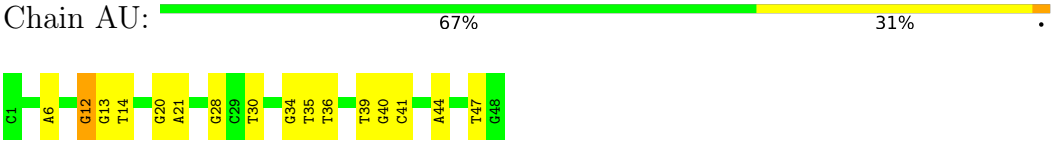
• Molecule 20: STAPLE STRAND

Chain AT:



• Molecule 21: STAPLE STRAND

Chain AU:

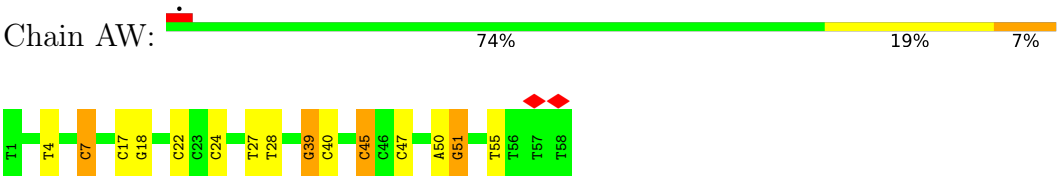


• Molecule 22: STAPLE STRAND

Chain AV:

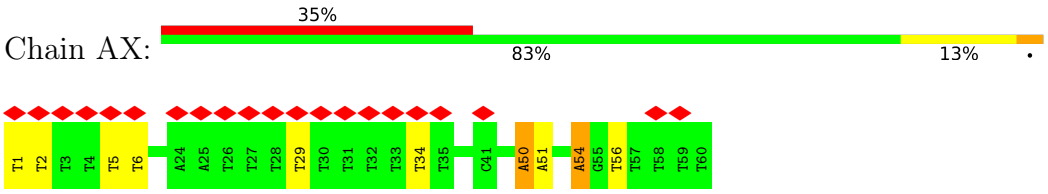
• Molecule 23: STAPLE STRAND

Chain AW:



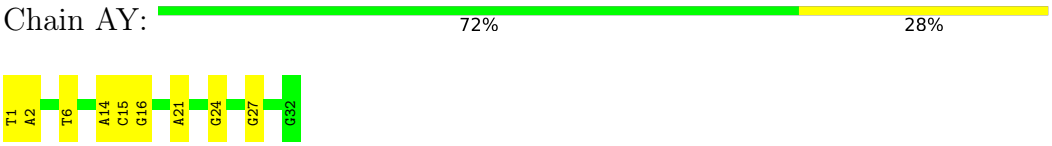
• Molecule 24: STAPLE STRAND

Chain AX:



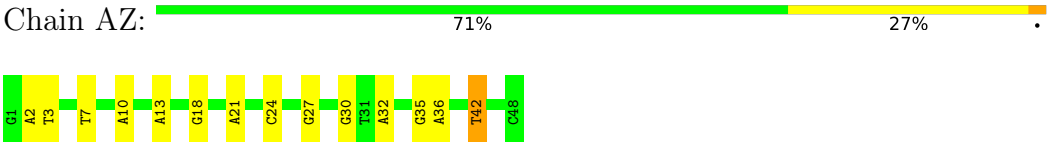
• Molecule 25: STAPLE STRAND

Chain AY:



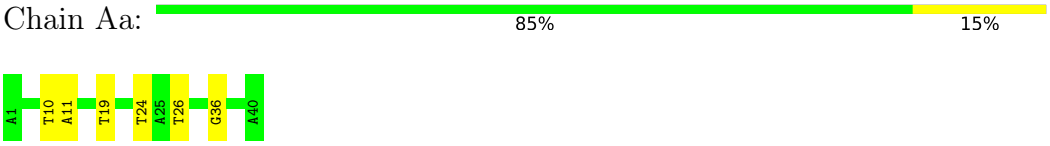
• Molecule 26: STAPLE STRAND

Chain AZ:



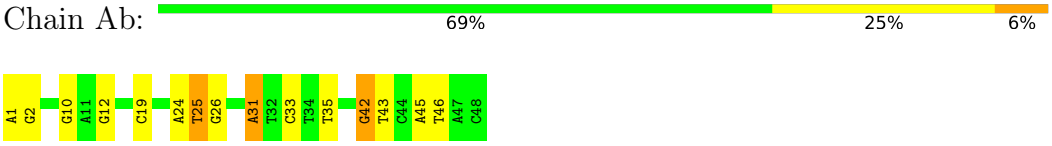
• Molecule 27: STAPLE STRAND

Chain Aa:



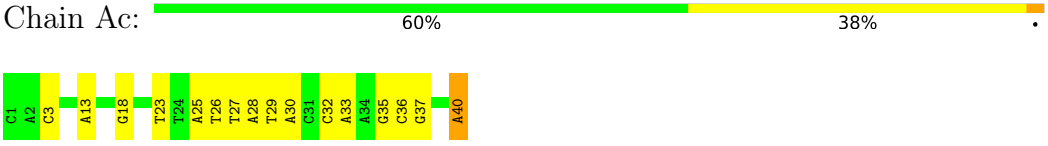
• Molecule 28: STAPLE STRAND

Chain Ab:



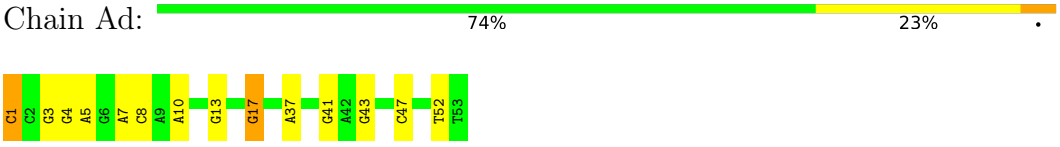
• Molecule 29: STAPLE STRAND

Chain Ac:



• Molecule 30: STAPLE STRAND

Chain Ad:

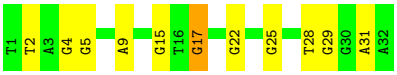


• Molecule 31: STAPLE STRAND

Chain Ae:

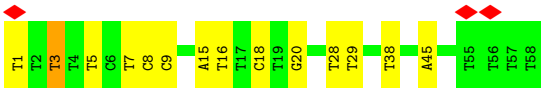
• Molecule 32: STAPLE STRAND

Chain Af:



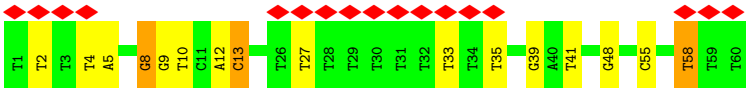
• Molecule 33: STAPLE STRAND

Chain Ag:



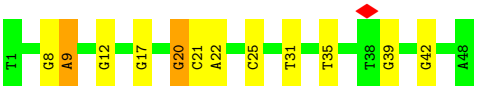
• Molecule 34: STAPLE STRAND

Chain Ah:



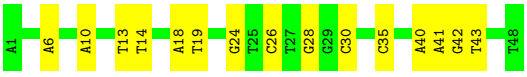
• Molecule 35: STAPLE STRAND

Chain Ai:



• Molecule 36: STAPLE STRAND

Chain Aj:

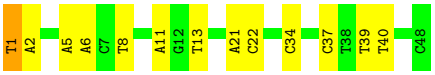


• Molecule 37: STAPLE STRAND

Chain Ak:

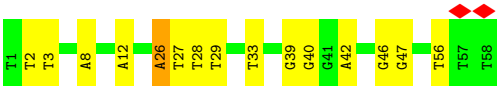
• Molecule 38: STAPLE STRAND

Chain Al:



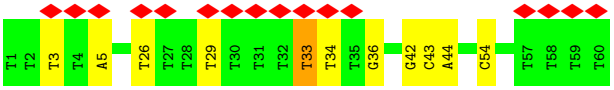
• Molecule 39: STAPLE STRAND

Chain Am:



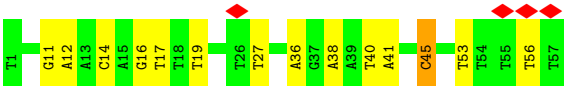
• Molecule 40: STAPLE STRAND

Chain An:



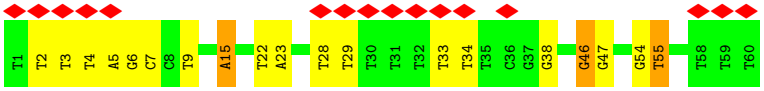
• Molecule 41: STAPLE STRAND

Chain Ao:



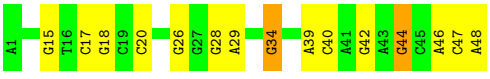
• Molecule 42: STAPLE STRAND

Chain Ap:



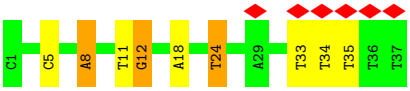
• Molecule 43: STAPLE STRAND

Chain Aq:



• Molecule 44: STAPLE STRAND

Chain Ar:



• Molecule 45: STAPLE STRAND

Chain As:

• Molecule 46: STAPLE STRAND

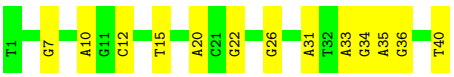
Chain At:

• Molecule 47: STAPLE STRAND

Chain Au:

• Molecule 48: STAPLE STRAND

Chain Av:

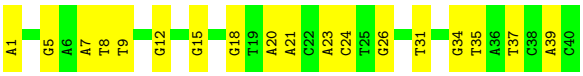


• Molecule 49: STAPLE STRAND

Chain Aw:

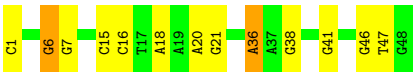
• Molecule 50: STAPLE STRAND

Chain Ax:



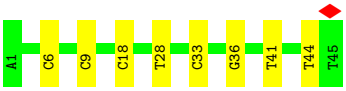
• Molecule 51: STAPLE STRAND

Chain Ay:



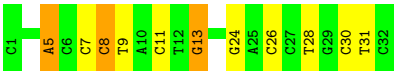
• Molecule 52: STAPLE STRAND

Chain Az:



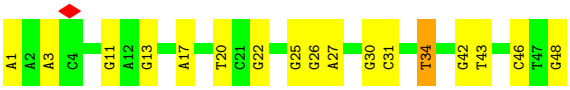
• Molecule 53: STAPLE STRAND

Chain A0:



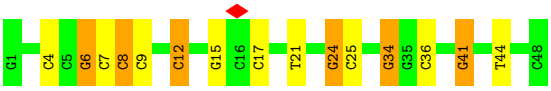
• Molecule 54: STAPLE STRAND

Chain A1:



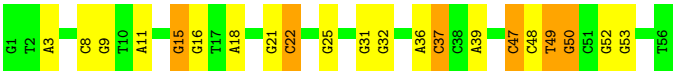
• Molecule 55: STAPLE STRAND

Chain A2:



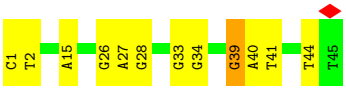
• Molecule 56: STAPLE STRAND

Chain A3:



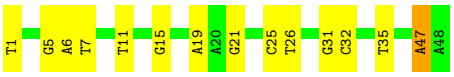
• Molecule 57: STAPLE STRAND

Chain A4:



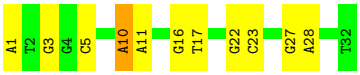
• Molecule 58: STAPLE STRAND

Chain A5:



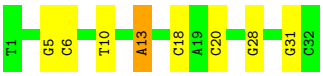
• Molecule 59: STAPLE STRAND

Chain A6:



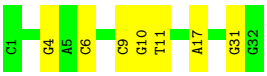
• Molecule 60: STAPLE STRAND

Chain A7:



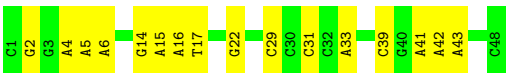
• Molecule 61: STAPLE STRAND

Chain A8:



• Molecule 62: STAPLE STRAND

Chain A9:

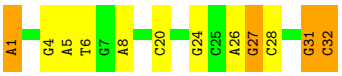


• Molecule 63: STAPLE STRAND

Chain BA:

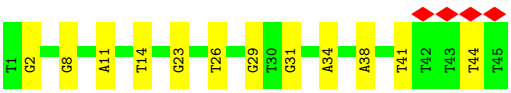
• Molecule 64: STAPLE STRAND

Chain BB:



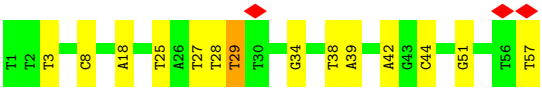
• Molecule 65: STAPLE STRAND

Chain BC:



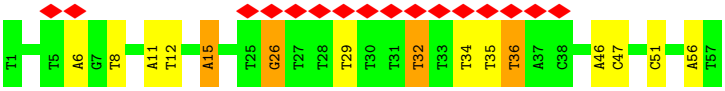
• Molecule 66: STAPLE STRAND

Chain BD:



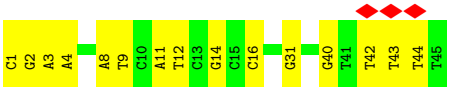
• Molecule 67: STAPLE STRAND

Chain BE:



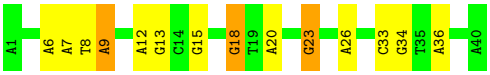
• Molecule 68: STAPLE STRAND

Chain BF:



• Molecule 69: STAPLE STRAND

Chain BG:

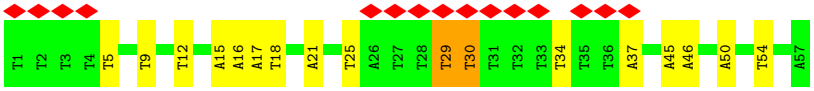


• Molecule 70: STAPLE STRAND

Chain BH:

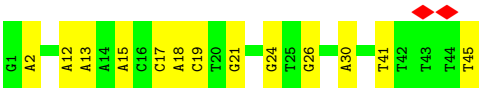
• Molecule 71: STAPLE STRAND

Chain BI:



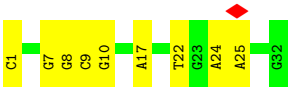
• Molecule 72: STAPLE STRAND

Chain BJ:



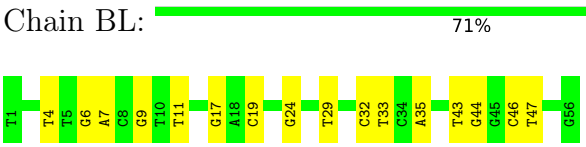
• Molecule 73: STAPLE STRAND

Chain BK:



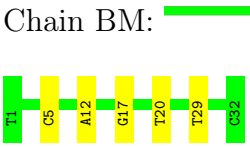
• Molecule 74: STAPLE STRAND

Chain BL:



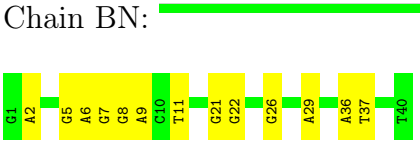
• Molecule 75: STAPLE STRAND

Chain BM:



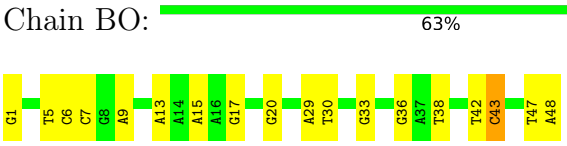
• Molecule 76: STAPLE STRAND

Chain BN:



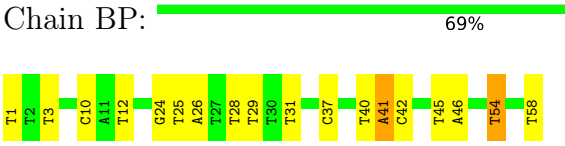
• Molecule 77: STAPLE STRAND

Chain BO:



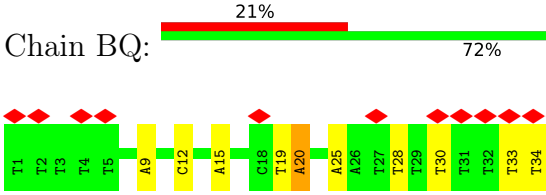
• Molecule 78: STAPLE STRAND

Chain BP:



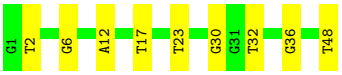
• Molecule 79: STAPLE STRAND

Chain BQ:



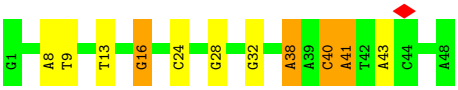
• Molecule 80: STAPLE STRAND

Chain BR:



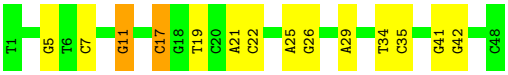
• Molecule 81: STAPLE STRAND

Chain BS:



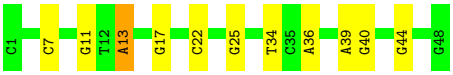
• Molecule 82: STAPLE STRAND

Chain BT:



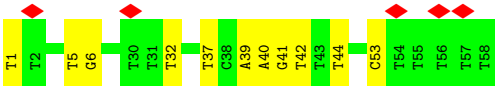
• Molecule 83: STAPLE STRAND

Chain BU:



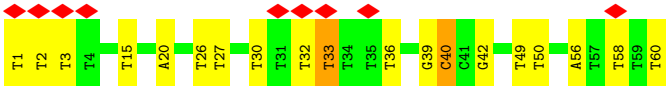
• Molecule 84: STAPLE STRAND

Chain BV:



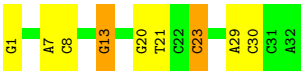
• Molecule 85: STAPLE STRAND

Chain BW:



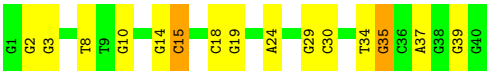
• Molecule 86: STAPLE STRAND

Chain BX:



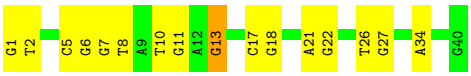
• Molecule 87: STAPLE STRAND

Chain BY:



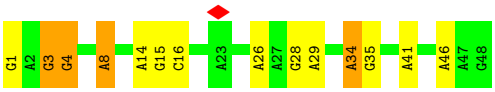
• Molecule 88: STAPLE STRAND

Chain BZ:



• Molecule 89: STAPLE STRAND

Chain Ba:

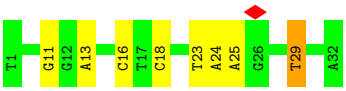


• Molecule 90: STAPLE STRAND

Chain Bb:

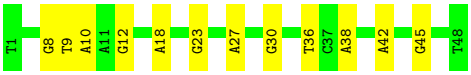
• Molecule 91: STAPLE STRAND

Chain Bc:



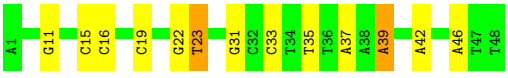
• Molecule 92: STAPLE STRAND

Chain Bd:



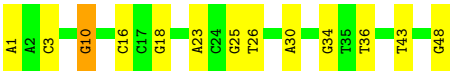
• Molecule 93: STAPLE STRAND

Chain Be:



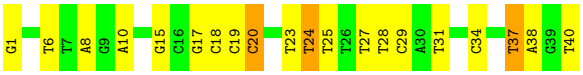
• Molecule 94: STAPLE STRAND

Chain Bf:



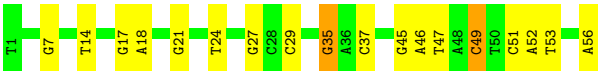
• Molecule 95: STAPLE STRAND

Chain Bg:



• Molecule 96: STAPLE STRAND

Chain Bh:

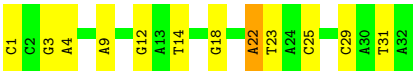


• Molecule 97: STAPLE STRAND

Chain Bi:

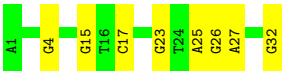
• Molecule 98: STAPLE STRAND

Chain Bj:



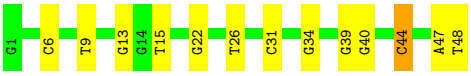
• Molecule 99: STAPLE STRAND

Chain Bk:



• Molecule 100: STAPLE STRAND

Chain Bl:

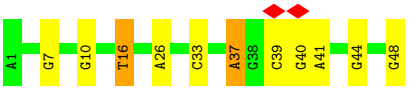


• Molecule 101: STAPLE STRAND

Chain Bm:

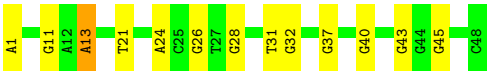
• Molecule 102: STAPLE STRAND

Chain Bn:



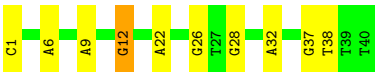
• Molecule 103: STAPLE STRAND

Chain Bo:



• Molecule 104: STAPLE STRAND

Chain Bp:

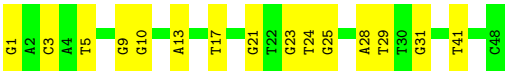


• Molecule 105: STAPLE STRAND

Chain Bq:

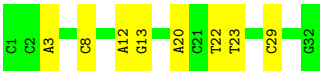
• Molecule 106: STAPLE STRAND

Chain Br:



• Molecule 107: STAPLE STRAND

Chain Bs:

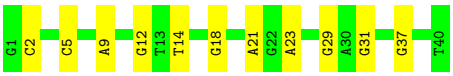


• Molecule 108: STAPLE STRAND

Chain Bt:

• Molecule 109: STAPLE STRANDS

Chain Bu:

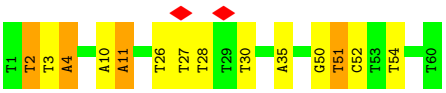


• Molecule 110: STAPLE STRANDS

Chain Bv:

• Molecule 111: STAPLE STRANDS

Chain Bw:

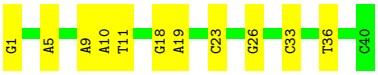


• Molecule 112: STAPLE STRANDS

Chain Bx:

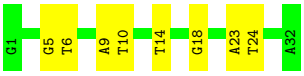
• Molecule 113: STAPLE STRANDS

Chain By:



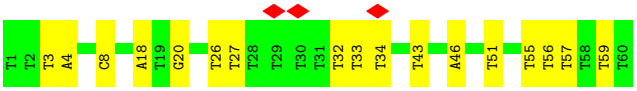
• Molecule 114: STAPLE STRANDS

Chain Bz:



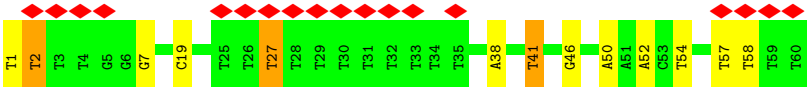
• Molecule 115: STAPLE STRANDS

Chain B0:



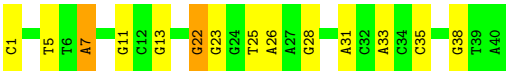
• Molecule 116: STAPLE STRAND

Chain B1:



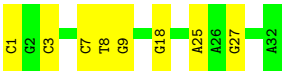
• Molecule 117: STAPLE STRAND

Chain B2:



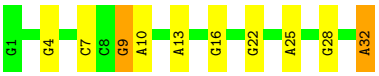
• Molecule 118: STAPLE STRAND

Chain B3:



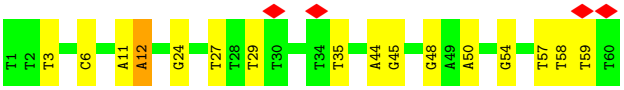
• Molecule 119: STAPLE STRAND

Chain B4:



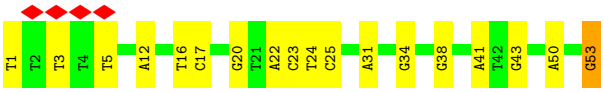
• Molecule 120: STAPLE STRAND

Chain B5:



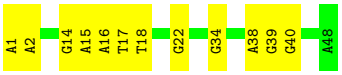
• Molecule 121: STAPLE STRAND

Chain B6:



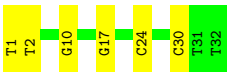
• Molecule 122: STAPLE STRAND

Chain B7:



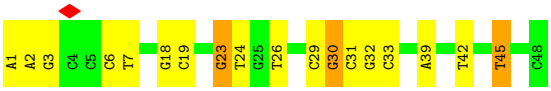
• Molecule 123: STAPLE STRAND

Chain B8:



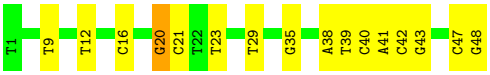
• Molecule 124: STAPLE STRAND

Chain B9:



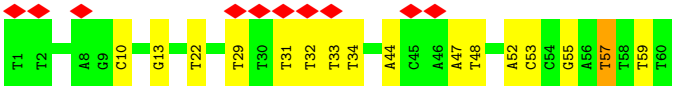
• Molecule 125: STAPLE STRAND

Chain CA:



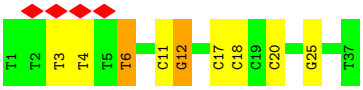
• Molecule 126: STAPLE STRAND

Chain CB:



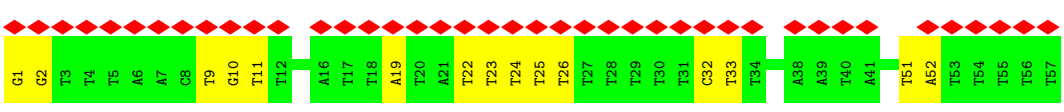
• Molecule 127: STAPLE STRAND

Chain CC:



• Molecule 128: STAPLE STRAND

Chain CD:

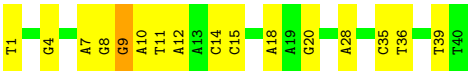


• Molecule 129: STAPLE STRAND

Chain CE:

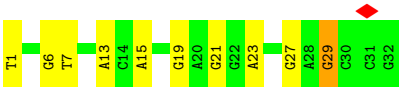
• Molecule 130: STAPLE STRAND

Chain CF:



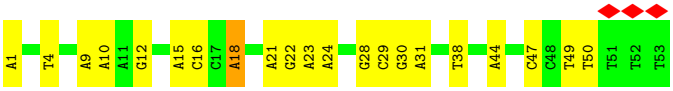
• Molecule 131: STAPLE STRAND

Chain CG:



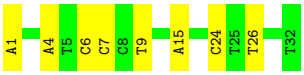
• Molecule 132: STAPLE STRAND

Chain CH:



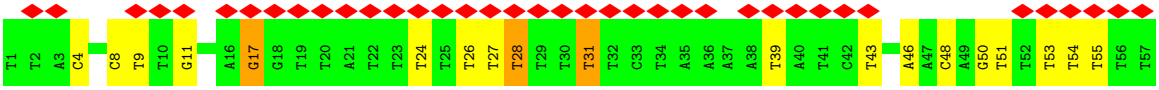
• Molecule 133: STAPLE STRAND

Chain CI:



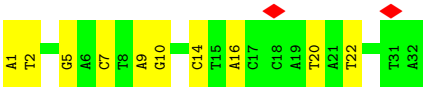
• Molecule 134: STAPLE STRAND

Chain CJ:



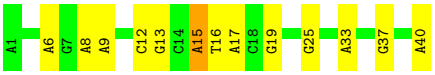
• Molecule 135: STAPLE STRAND

Chain CK:



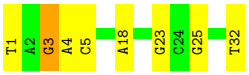
• Molecule 136: STAPLE STRAND

Chain CL:



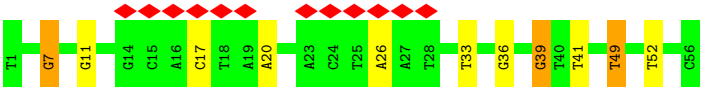
• Molecule 137: STAPLE STRAND

Chain CM:



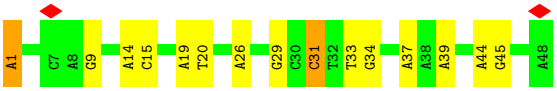
• Molecule 138: STAPLE STRAND

Chain CN:



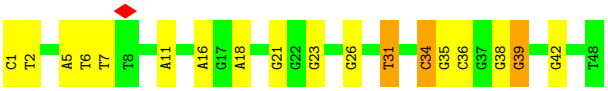
• Molecule 139: STAPLE STRAND

Chain CO:



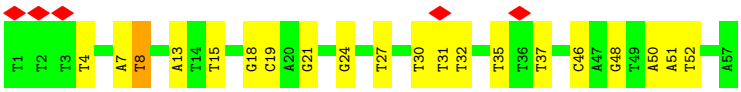
• Molecule 140: STAPLE STRAND

Chain CP:



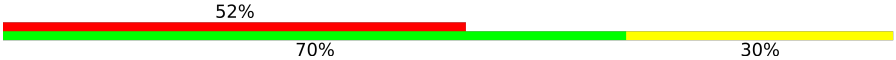
• Molecule 141: STAPLE STRAND

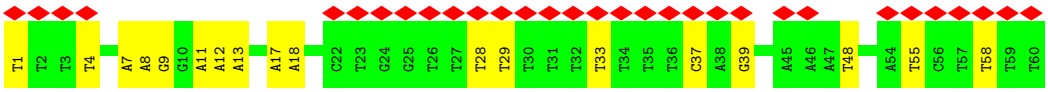
Chain CQ:



• Molecule 142: STAPLE STRAND

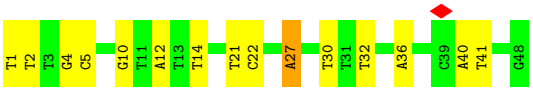
Chain CR:





• Molecule 143: STAPLE STRAND

Chain CS:

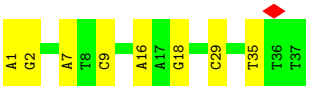


• Molecule 144: STAPLE STRAND

Chain CT:

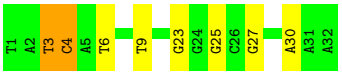
• Molecule 145: STAPLE STRAND

Chain CU:



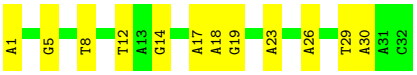
• Molecule 146: STAPLE STRAND

Chain CV:



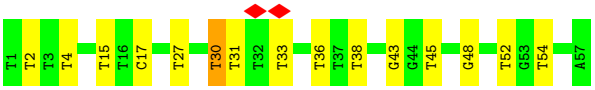
• Molecule 147: STAPLE STRAND

Chain CW:



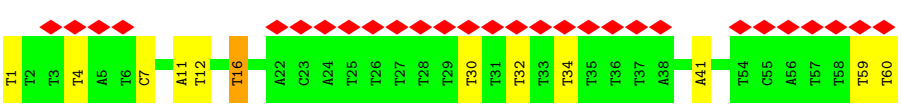
• Molecule 148: STAPLE STRAND

Chain CX:



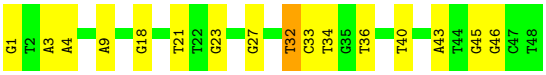
• Molecule 149: STAPLE STRAND

Chain CY:

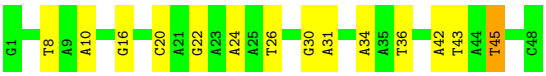


• Molecule 150: STAPLE STRAND

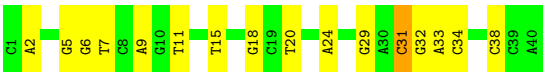
Chain CZ:



• Molecule 151: STAPLE STRAND



• Molecule 152: STAPLE STRAND



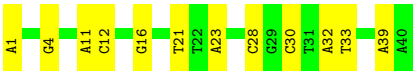
• Molecule 153: STAPLE STRAND

• Molecule 154: STAPLE STRAND

• Molecule 155: STAPLE STRAND

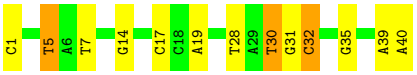
• Molecule 156: STAPLE STRAND

• Molecule 157: STAPLE STRAND



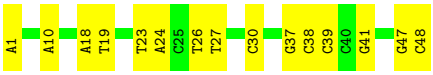
• Molecule 158: STAPLE STRAND

Chain Ch:



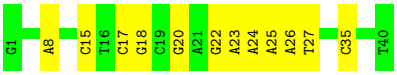
• Molecule 159: STAPLE STRAND

Chain Ci:



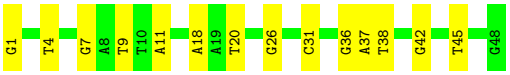
• Molecule 160: STAPLE STRAND

Chain Cj:



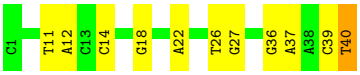
• Molecule 161: STAPLE STRAND

Chain Ck:



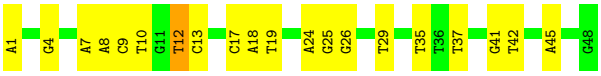
• Molecule 162: STAPLE STRAND

Chain Cl:



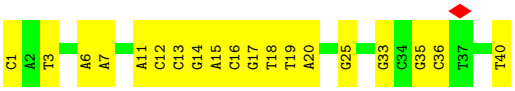
• Molecule 163: STAPLE STRAND

Chain Cm:

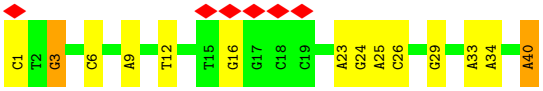


• Molecule 164: STAPLE STRAND

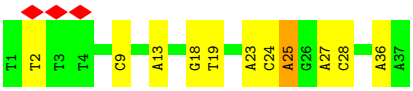
Chain Cn:



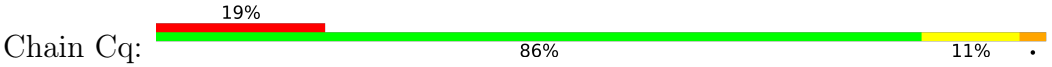
• Molecule 165: STAPLE STRAND

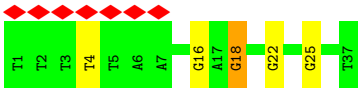


• Molecule 166: STAPLE STRAND

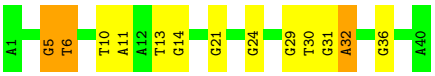


• Molecule 167: STAPLE STRAND

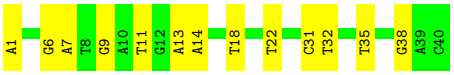




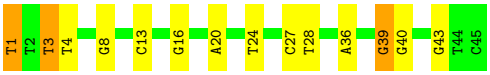
• Molecule 168: STAPLE STRAND



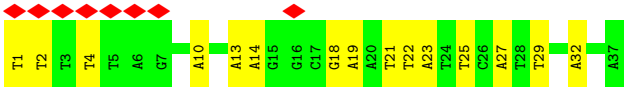
• Molecule 169: STAPLE STRAND



• Molecule 170: STAPLE STRAND



• Molecule 171: STAPLE STRAND



• Molecule 172: STAPLE STRAND

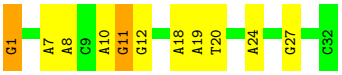
Chain Cv:

• Molecule 173: STAPLE STRAND

Chain Cw:

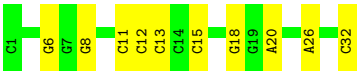
• Molecule 174: STAPLE STRAND

Chain Cx:



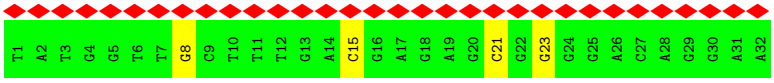
• Molecule 175: STAPLE STRAND

Chain Cy:



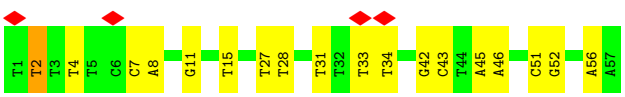
• Molecule 176: STAPLE STRAND

Chain Cz:



• Molecule 177: STAPLE STRAND

Chain C0:

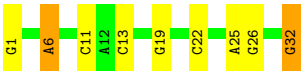


• Molecule 178: STAPLE STRAND

Chain C1:

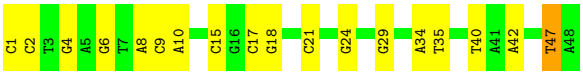
• Molecule 179: STAPLE STRAND

Chain C2:



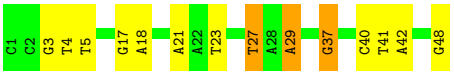
• Molecule 180: STAPLE STRAND

Chain C3:



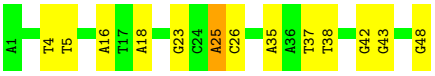
• Molecule 181: STAPLE STRAND

Chain C4:



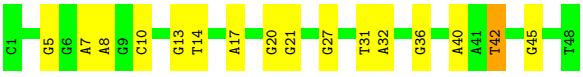
• Molecule 182: STAPLE STRAND

Chain C5:



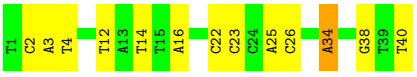
• Molecule 183: STAPLE STRAND

Chain C6:



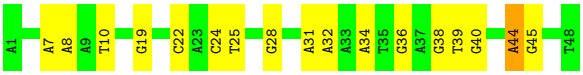
• Molecule 184: STAPLE STRAND

Chain C7:

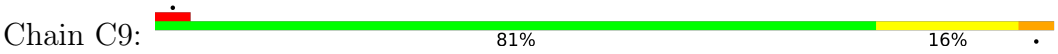


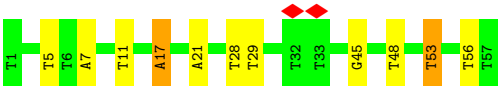
• Molecule 185: STAPLE STRAND

Chain C8:

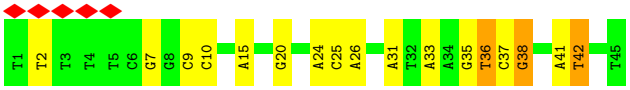


• Molecule 186: STAPLE STRAND

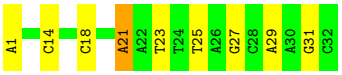




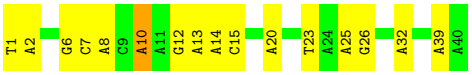
• Molecule 187: STAPLE STRAND



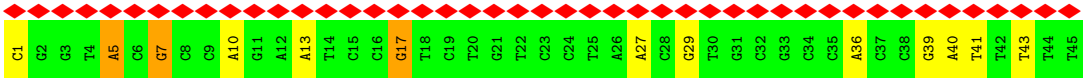
• Molecule 188: STAPLE STRAND



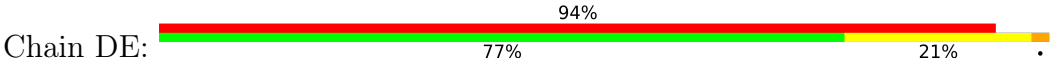
• Molecule 189: STAPLE STRAND

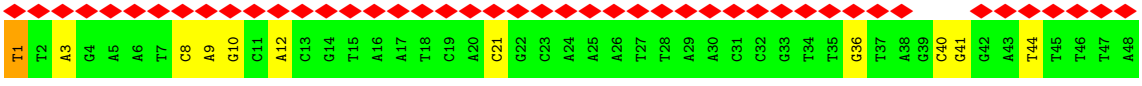


• Molecule 190: STAPLE STRAND

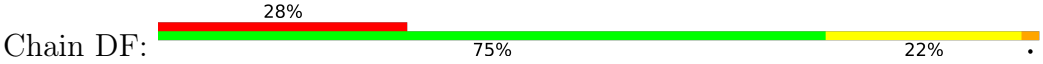


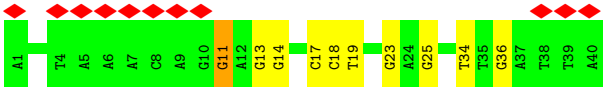
• Molecule 191: STAPLE STRAND



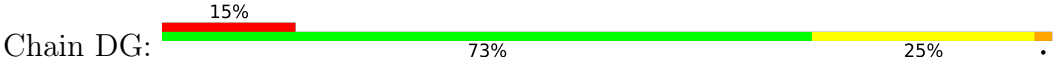


• Molecule 192: STAPLE STRAND

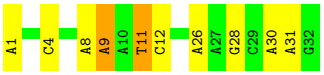




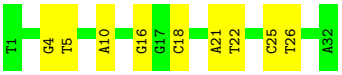
• Molecule 193: STAPLE STRAND



• Molecule 194: STAPLE STRAND



• Molecule 195: STAPLE STRAND



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	509812	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	55	Depositor
Minimum defocus (nm)	260.5	Depositor
Maximum defocus (nm)	3692	Depositor
Magnification	47000	Depositor
Image detector	FEI FALCON III (4k x 4k)	Depositor
Maximum map value	0.401	Depositor
Minimum map value	-0.217	Depositor
Average map value	0.001	Depositor
Map value standard deviation	0.017	Depositor
Recommended contour level	0.051	Depositor
Map size (Å)	644.96, 644.96, 644.96	wwPDB
Map dimensions	464, 464, 464	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.3900001, 1.3900001, 1.3900001	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	6/184801 (0.0%)	1.35	2299/285260 (0.8%)
2	AB	1.15	0/647	1.17	5/996 (0.5%)
3	AC	1.19	0/1104	1.35	14/1703 (0.8%)
4	AD	1.18	0/1230	1.39	17/1899 (0.9%)
5	AE	1.18	0/1358	1.39	15/2094 (0.7%)
6	AF	1.19	0/1101	1.41	18/1698 (1.1%)
7	AG	1.22	0/1115	1.37	16/1721 (0.9%)
8	AH	1.16	0/1366	1.22	10/2109 (0.5%)
9	AI	1.17	0/950	1.28	5/1464 (0.3%)
10	AJ	1.11	0/1359	1.21	9/2096 (0.4%)
11	AK	1.18	0/739	1.32	8/1140 (0.7%)
12	AL	1.14	0/911	1.35	13/1405 (0.9%)
13	AM	1.13	0/1111	1.29	9/1714 (0.5%)
14	AN	1.18	0/746	1.41	9/1151 (0.8%)
15	AO	1.12	0/1098	1.25	10/1691 (0.6%)
16	AP	1.18	0/919	1.27	8/1415 (0.6%)
17	AQ	1.13	0/1021	1.34	12/1574 (0.8%)
18	AR	1.20	1/1108 (0.1%)	1.29	9/1709 (0.5%)
19	AS	1.17	0/1112	1.24	7/1715 (0.4%)
20	AT	1.18	0/1040	1.35	14/1607 (0.9%)
21	AU	1.18	0/1095	1.34	9/1687 (0.5%)
22	AV	1.16	0/920	1.39	13/1416 (0.9%)
23	AW	1.16	0/1285	1.41	23/1975 (1.2%)
24	AX	1.15	0/1372	1.25	9/2116 (0.4%)
25	AY	1.18	0/740	1.22	5/1142 (0.4%)
26	AZ	1.17	0/1114	1.34	10/1719 (0.6%)
27	Aa	1.14	0/923	1.19	3/1425 (0.2%)
28	Ab	1.17	0/1108	1.32	14/1709 (0.8%)
29	Ac	1.20	1/911 (0.1%)	1.27	5/1402 (0.4%)
30	Ad	1.14	0/1226	1.29	16/1892 (0.8%)
31	Ae	1.20	0/934	1.51	19/1443 (1.3%)
32	Af	1.19	0/749	1.25	8/1158 (0.7%)
33	Ag	1.12	0/1308	1.24	11/2016 (0.5%)
34	Ah	1.14	0/1382	1.24	9/2134 (0.4%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
35	Ai	1.20	0/1095	1.25	8/1689 (0.5%)
36	Aj	1.16	0/1084	1.34	10/1668 (0.6%)
37	Ak	1.15	0/732	1.33	10/1127 (0.9%)
38	Al	1.13	0/1103	1.25	11/1700 (0.6%)
39	Am	1.17	0/1310	1.23	9/2020 (0.4%)
40	An	1.14	0/1378	1.19	8/2128 (0.4%)
41	Ao	1.16	0/1306	1.22	7/2016 (0.3%)
42	Ap	1.17	0/1355	1.33	21/2091 (1.0%)
43	Aq	1.19	0/1105	1.31	10/1705 (0.6%)
44	Ar	1.15	0/843	1.20	6/1298 (0.5%)
45	As	1.13	0/914	1.33	11/1410 (0.8%)
46	At	1.13	0/1010	1.26	7/1556 (0.4%)
47	Au	1.15	0/920	1.39	9/1417 (0.6%)
48	Av	1.18	0/913	1.43	11/1406 (0.8%)
49	Aw	1.17	1/1272 (0.1%)	1.42	16/1960 (0.8%)
50	Ax	1.13	0/912	1.41	16/1406 (1.1%)
51	Ay	1.15	0/1115	1.35	17/1720 (1.0%)
52	Az	1.15	0/1005	1.24	3/1544 (0.2%)
53	A0	1.19	0/715	1.50	13/1099 (1.2%)
54	A1	1.18	0/1116	1.39	14/1723 (0.8%)
55	A2	1.20	1/1080 (0.1%)	1.44	21/1661 (1.3%)
56	A3	1.21	0/1294	1.43	24/1996 (1.2%)
57	A4	1.17	0/1045	1.26	10/1615 (0.6%)
58	A5	1.19	0/1115	1.35	14/1721 (0.8%)
59	A6	1.18	0/734	1.27	7/1132 (0.6%)
60	A7	1.17	0/721	1.33	8/1107 (0.7%)
61	A8	1.16	0/740	1.21	4/1141 (0.4%)
62	A9	1.20	0/1112	1.41	13/1715 (0.8%)
63	BA	1.14	0/1032	1.23	4/1589 (0.3%)
64	BB	1.18	0/742	1.35	8/1144 (0.7%)
65	BC	1.17	0/1016	1.26	9/1565 (0.6%)
66	BD	1.16	0/1289	1.38	15/1988 (0.8%)
67	BE	1.18	0/1290	1.31	13/1988 (0.7%)
68	BF	1.16	0/1018	1.36	14/1568 (0.9%)
69	BG	1.19	1/904 (0.1%)	1.41	14/1390 (1.0%)
70	BH	1.12	0/1288	1.16	2/1987 (0.1%)
71	BI	1.13	0/1292	1.27	10/1991 (0.5%)
72	BJ	1.15	0/1027	1.33	12/1584 (0.8%)
73	BK	1.19	0/734	1.36	8/1132 (0.7%)
74	BL	1.18	0/1278	1.36	17/1971 (0.9%)
75	BM	1.12	0/731	1.25	3/1124 (0.3%)
76	BN	1.17	0/940	1.29	7/1451 (0.5%)
77	BO	1.18	0/1092	1.43	16/1681 (1.0%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
78	BP	1.15	0/1313	1.28	11/2023 (0.5%)
79	BQ	1.13	0/1279	1.27	10/1969 (0.5%)
80	BR	1.15	0/1120	1.28	7/1730 (0.4%)
81	BS	1.16	0/1091	1.30	11/1681 (0.7%)
82	BT	1.17	0/1089	1.34	15/1677 (0.9%)
83	BU	1.16	0/1100	1.33	10/1696 (0.6%)
84	BV	1.15	0/1327	1.26	8/2048 (0.4%)
85	BW	1.17	0/1351	1.44	18/2083 (0.9%)
86	BX	1.21	0/738	1.35	7/1138 (0.6%)
87	BY	1.20	0/934	1.38	9/1444 (0.6%)
88	BZ	1.18	0/918	1.40	14/1415 (1.0%)
89	Ba	1.16	0/1132	1.32	14/1749 (0.8%)
90	Bb	1.23	0/1087	1.60	28/1673 (1.7%)
91	Bc	1.16	0/741	1.36	9/1142 (0.8%)
92	Bd	1.16	0/1120	1.36	15/1727 (0.9%)
93	Be	1.17	0/1094	1.41	16/1685 (0.9%)
94	Bf	1.15	0/1109	1.34	15/1710 (0.9%)
95	Bg	1.22	0/908	1.56	21/1399 (1.5%)
96	Bh	1.18	0/1302	1.31	16/2010 (0.8%)
97	Bi	1.14	0/898	1.39	11/1382 (0.8%)
98	Bj	1.20	0/734	1.56	13/1130 (1.2%)
99	Bk	1.12	0/742	1.35	11/1145 (1.0%)
100	Bl	1.18	0/1090	1.33	12/1679 (0.7%)
101	Bm	1.21	0/1286	1.46	15/1985 (0.8%)
102	Bn	1.17	1/1087 (0.1%)	1.36	14/1673 (0.8%)
103	Bo	1.18	0/1121	1.31	12/1730 (0.7%)
104	Bp	1.17	0/923	1.42	15/1424 (1.1%)
105	Bq	1.21	0/1102	1.35	14/1703 (0.8%)
106	Br	1.20	0/1115	1.39	15/1722 (0.9%)
107	Bs	1.16	0/735	1.28	5/1131 (0.4%)
108	Bt	1.18	0/925	1.39	14/1427 (1.0%)
109	Bu	1.16	0/921	1.31	9/1419 (0.6%)
110	Bv	1.20	0/910	1.38	11/1401 (0.8%)
111	Bw	1.13	0/1357	1.27	12/2092 (0.6%)
112	Bx	1.16	0/1030	1.35	14/1588 (0.9%)
113	By	1.18	0/928	1.36	11/1430 (0.8%)
114	Bz	1.15	0/733	1.20	3/1130 (0.3%)
115	B0	1.13	0/1348	1.30	12/2077 (0.6%)
116	B1	1.18	0/1351	1.22	5/2083 (0.2%)
117	B2	1.17	0/927	1.36	15/1429 (1.0%)
118	B3	1.17	0/749	1.19	4/1156 (0.3%)
119	B4	1.17	0/746	1.37	12/1152 (1.0%)
120	B5	1.14	0/1370	1.22	9/2112 (0.4%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
121	B6	1.16	0/1207	1.31	10/1859 (0.5%)
122	B7	1.16	0/1105	1.42	15/1702 (0.9%)
123	B8	1.16	0/741	1.24	2/1142 (0.2%)
124	B9	1.18	0/1093	1.48	24/1683 (1.4%)
125	CA	1.15	0/1094	1.34	12/1686 (0.7%)
126	CB	1.13	0/1370	1.20	8/2112 (0.4%)
127	CC	1.19	0/844	1.34	7/1301 (0.5%)
128	CD	1.12	0/1293	1.27	9/1996 (0.5%)
129	CE	1.21	0/751	1.46	17/1161 (1.5%)
130	CF	1.17	0/925	1.40	12/1426 (0.8%)
131	CG	1.17	0/739	1.29	9/1140 (0.8%)
132	CH	1.16	0/1222	1.34	12/1884 (0.6%)
133	CI	1.15	0/722	1.32	5/1111 (0.5%)
134	CJ	1.12	0/1294	1.38	20/1996 (1.0%)
135	CK	1.13	0/729	1.40	11/1122 (1.0%)
136	CL	1.20	0/922	1.45	10/1420 (0.7%)
137	CM	1.16	0/749	1.23	6/1156 (0.5%)
138	CN	1.14	0/1297	1.25	10/2001 (0.5%)
139	CO	1.15	0/1101	1.37	10/1695 (0.6%)
140	CP	1.18	0/1113	1.40	15/1720 (0.9%)
141	CQ	1.16	1/1298 (0.1%)	1.31	14/2003 (0.7%)
142	CR	1.14	0/1370	1.20	5/2114 (0.2%)
143	CS	1.13	0/1080	1.28	9/1663 (0.5%)
144	CT	1.16	0/1303	1.34	17/2012 (0.8%)
145	CU	1.13	0/854	1.37	8/1316 (0.6%)
146	CV	1.17	0/737	1.34	9/1136 (0.8%)
147	CW	1.15	0/732	1.29	10/1127 (0.9%)
148	CX	1.14	0/1292	1.32	14/1994 (0.7%)
149	CY	1.13	0/1350	1.18	6/2080 (0.3%)
150	CZ	1.16	0/1099	1.37	16/1695 (0.9%)
151	Ca	1.13	0/1109	1.32	14/1708 (0.8%)
152	Cb	1.19	0/924	1.32	8/1424 (0.6%)
153	Cc	1.16	0/735	1.31	8/1133 (0.7%)
154	Cd	1.18	0/939	1.58	22/1449 (1.5%)
155	Ce	1.13	0/932	1.27	13/1440 (0.9%)
156	Cf	1.17	0/736	1.29	6/1136 (0.5%)
157	Cg	1.15	0/918	1.36	12/1414 (0.8%)
158	Ch	1.11	0/917	1.36	16/1413 (1.1%)
159	Ci	1.16	0/1088	1.33	12/1674 (0.7%)
160	Cj	1.15	0/917	1.36	9/1413 (0.6%)
161	Ck	1.17	0/1103	1.32	14/1703 (0.8%)
162	Cl	1.14	0/924	1.24	6/1424 (0.4%)
163	Cm	1.17	0/1098	1.36	12/1693 (0.7%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
164	Cn	1.17	0/919	1.40	19/1417 (1.3%)
165	Co	1.15	0/910	1.44	15/1400 (1.1%)
166	Cp	1.15	0/843	1.34	6/1298 (0.5%)
167	Cq	1.15	0/847	1.35	6/1304 (0.5%)
168	Cr	1.18	0/936	1.37	11/1447 (0.8%)
169	Cs	1.15	0/925	1.32	10/1426 (0.7%)
170	Ct	1.15	0/1031	1.35	10/1590 (0.6%)
171	Cu	1.15	0/850	1.41	11/1310 (0.8%)
172	Cv	1.15	0/905	1.31	8/1394 (0.6%)
173	Cw	1.19	0/928	1.36	12/1432 (0.8%)
174	Cx	1.19	0/733	1.40	9/1128 (0.8%)
175	Cy	1.20	0/733	1.37	10/1128 (0.9%)
176	Cz	1.14	0/751	1.15	2/1161 (0.2%)
177	C0	1.18	1/1281 (0.1%)	1.41	17/1972 (0.9%)
178	C1	1.12	0/1302	1.23	9/2011 (0.4%)
179	C2	1.15	0/738	1.33	9/1138 (0.8%)
180	C3	1.17	0/1100	1.35	14/1694 (0.8%)
181	C4	1.14	0/1096	1.34	16/1688 (0.9%)
182	C5	1.14	0/1092	1.40	14/1683 (0.8%)
183	C6	1.20	0/1123	1.34	13/1735 (0.7%)
184	C7	1.13	0/896	1.40	11/1378 (0.8%)
185	C8	1.18	0/1116	1.39	16/1722 (0.9%)
186	C9	1.13	0/1293	1.21	7/1994 (0.4%)
187	DA	1.20	0/1027	1.35	12/1583 (0.8%)
188	DB	1.15	0/724	1.34	8/1113 (0.7%)
189	DC	1.17	0/942	1.43	13/1453 (0.9%)
190	DD	1.16	0/1017	1.31	9/1566 (0.6%)
191	DE	1.11	0/1102	1.26	13/1699 (0.8%)
192	DF	1.15	0/917	1.31	8/1413 (0.6%)
193	DG	1.13	0/1112	1.25	8/1717 (0.5%)
194	DH	1.17	0/737	1.40	8/1134 (0.7%)
195	DI	1.15	0/732	1.30	7/1128 (0.6%)
All	All	1.16	14/383925 (0.0%)	1.34	4478/592251 (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	1	1140
3	AC	0	3

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

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Mol	Chain	#Chirality outliers	#Planarity outliers
46	At	0	7
47	Au	0	7
48	Av	0	3
49	Aw	0	6
50	Ax	0	9
51	Ay	0	4
52	Az	0	5
53	A0	0	5
54	A1	0	8
55	A2	0	11
56	A3	0	9
57	A4	0	6
58	A5	0	5
59	A6	0	7
60	A7	0	2
61	A8	0	3
62	A9	0	6
63	BA	0	6
64	BB	0	9
65	BC	0	6
66	BD	0	4
67	BE	0	10
68	BF	0	7
69	BG	0	9
70	BH	0	14
71	BI	0	12
72	BJ	0	5
73	BK	0	3
74	BL	0	4
75	BM	0	3
76	BN	0	7
77	BO	0	7
78	BP	0	10
79	BQ	0	9
80	BR	0	4
81	BS	0	6
82	BT	0	5
83	BU	0	4
84	BV	0	7
85	BW	0	12
86	BX	0	4
87	BY	0	9

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Mol	Chain	#Chirality outliers	#Planarity outliers
88	BZ	0	7
89	Ba	0	9
90	Bb	0	11
91	Bc	0	3
92	Bd	0	1
93	Be	0	4
94	Bf	0	5
95	Bg	0	12
96	Bh	0	10
97	Bi	0	8
98	Bj	0	4
99	Bk	0	2
100	Bl	0	6
101	Bm	0	7
102	Bn	0	3
103	Bo	0	5
104	Bp	0	4
105	Bq	0	4
106	Br	0	5
107	Bs	0	3
108	Bt	0	5
109	Bu	0	3
110	Bv	0	6
111	Bw	0	9
112	Bx	0	6
113	By	0	2
114	Bz	0	5
115	B0	0	7
116	B1	0	11
117	B2	0	4
118	B3	0	5
119	B4	0	3
120	B5	0	8
121	B6	0	11
122	B7	0	4
123	B8	0	4
124	B9	0	9
125	CA	0	10
126	CB	0	11
127	CC	0	4
128	CD	0	9
129	CE	0	2

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Mol	Chain	#Chirality outliers	#Planarity outliers
130	CF	0	7
131	CG	0	6
132	CH	0	12
133	CI	0	3
134	CJ	0	7
135	CK	0	4
136	CL	0	6
137	CM	0	5
138	CN	0	7
139	CO	0	8
140	CP	0	11
141	CQ	0	10
142	CR	0	13
143	CS	0	8
144	CT	0	4
145	CU	0	4
146	CV	0	3
147	CW	0	4
148	CX	0	6
149	CY	0	9
150	CZ	0	6
151	Ca	0	5
152	Cb	0	10
153	Cc	0	6
154	Cd	0	8
155	Ce	0	5
156	Cf	0	6
157	Cg	0	2
158	Ch	0	6
159	Ci	0	6
160	Cj	0	5
161	Ck	0	5
162	Cl	0	6
163	Cm	0	11
164	Cn	0	7
165	Co	0	7
166	Cp	0	8
167	Cq	0	2
168	Cr	0	7
169	Cs	0	6
170	Ct	0	11
171	Cu	0	5

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Mol	Chain	#Chirality outliers	#Planarity outliers
172	Cv	0	9
173	Cw	0	4
174	Cx	0	6
175	Cy	0	3
176	Cz	0	3
177	C0	0	8
178	C1	0	13
179	C2	0	5
180	C3	0	10
181	C4	0	6
182	C5	0	5
183	C6	0	6
184	C7	0	5
185	C8	0	7
186	C9	0	8
187	DA	0	11
188	DB	0	4
189	DC	0	6
190	DD	0	11
191	DE	0	4
192	DF	0	4
193	DG	0	8
194	DH	0	6
195	DI	0	3
All	All	1	2388

All (14) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	A2	8	DC	C5'-C4'	5.42	1.57	1.51
1	AA	2168	DG	C5'-C4'	5.39	1.57	1.51
18	AR	40	DA	N9-C4	5.34	1.41	1.37
1	AA	2816	DG	C2'-C1'	5.33	1.57	1.52
177	C0	4	DT	C5'-C4'	5.32	1.57	1.51
69	BG	9	DA	C4'-O4'	5.31	1.50	1.45
49	Aw	8	DA	C2'-C1'	5.29	1.57	1.52
1	AA	706	DC	C5'-C4'	5.27	1.57	1.51
29	Ac	27	DT	C5'-C4'	5.22	1.57	1.51
102	Bn	39	DC	C5'-C4'	5.21	1.57	1.51
141	CQ	31	DT	C5'-C4'	5.16	1.57	1.51
1	AA	4762	DT	C5'-C4'	5.14	1.57	1.51
1	AA	7955	DG	O3'-P	-5.14	1.54	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	3823	DT	O3'-P	-5.02	1.55	1.61

All (4478) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	601	DC	P-O3'-C3'	18.83	142.30	119.70
1	AA	4222	DT	P-O3'-C3'	18.05	141.36	119.70
1	AA	486	DC	P-O3'-C3'	15.05	137.76	119.70
84	BV	39	DA	P-O3'-C3'	15.05	137.76	119.70
1	AA	6047	DC	P-O3'-C3'	14.93	137.62	119.70
1	AA	4674	DG	O4'-C4'-C3'	-14.92	97.05	106.00
115	B0	57	DT	P-O3'-C3'	14.83	137.50	119.70
1	AA	182	DC	P-O3'-C3'	14.82	137.49	119.70
134	CJ	55	DT	O4'-C4'-C3'	-14.78	97.14	106.00
1	AA	266	DG	P-O3'-C3'	14.77	137.42	119.70
1	AA	1491	DC	P-O3'-C3'	14.76	137.41	119.70
14	AN	25	DG	P-O3'-C3'	14.60	137.22	119.70
1	AA	5392	DG	P-O3'-C3'	14.59	137.21	119.70
1	AA	6562	DA	P-O3'-C3'	14.52	137.13	119.70
1	AA	7336	DC	P-O3'-C3'	14.46	137.05	119.70
77	BO	1	DG	O4'-C4'-C3'	-14.43	97.34	106.00
136	CL	12	DC	P-O3'-C3'	14.32	136.89	119.70
1	AA	2536	DT	P-O3'-C3'	14.09	136.61	119.70
1	AA	997	DC	P-O3'-C3'	14.08	136.59	119.70
174	Cx	1	DG	O4'-C4'-C3'	-14.06	97.56	106.00
1	AA	6629	DT	P-O3'-C3'	14.05	136.56	119.70
95	Bg	18	DC	P-O3'-C3'	13.97	136.46	119.70
90	Bb	9	DA	P-O3'-C3'	13.96	136.45	119.70
1	AA	6132	DC	P-O3'-C3'	13.95	136.44	119.70
1	AA	4217	DG	P-O3'-C3'	13.92	136.41	119.70
1	AA	3506	DC	O4'-C4'-C3'	-13.92	97.65	106.00
1	AA	636	DC	P-O3'-C3'	13.90	136.38	119.70
23	AW	4	DT	O4'-C4'-C3'	-13.89	97.67	106.00
1	AA	2057	DA	P-O3'-C3'	13.83	136.30	119.70
87	BY	14	DG	P-O3'-C3'	13.82	136.28	119.70
1	AA	518	DG	P-O3'-C3'	13.80	136.26	119.70
5	AE	49	DG	P-O3'-C3'	13.78	136.24	119.70
1	AA	5665	DG	P-O3'-C3'	13.77	136.23	119.70
191	DE	1	DT	O4'-C4'-C3'	-13.73	97.76	106.00
180	C3	1	DC	O4'-C4'-C3'	-13.72	97.77	106.00
5	AE	1	DT	O4'-C4'-C3'	-13.72	97.77	106.00
20	AT	18	DA	P-O3'-C3'	13.72	136.16	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	5123	DG	O4'-C4'-C3'	-13.70	97.78	106.00
1	AA	3212	DA	P-O3'-C3'	13.63	136.05	119.70
53	A0	13	DG	P-O3'-C3'	13.59	136.00	119.70
1	AA	652	DC	P-O3'-C3'	13.58	136.00	119.70
1	AA	4604	DG	O4'-C4'-C3'	-13.54	97.88	106.00
3	AC	27	DC	P-O3'-C3'	13.54	135.94	119.70
1	AA	3143	DA	P-O3'-C3'	13.49	135.89	119.70
1	AA	1366	DT	P-O3'-C3'	13.46	135.85	119.70
101	Bm	31	DT	P-O3'-C3'	13.42	135.80	119.70
153	Cc	4	DC	P-O3'-C3'	13.41	135.80	119.70
177	C0	4	DT	P-O3'-C3'	13.35	135.72	119.70
47	Au	1	DG	O4'-C4'-C3'	-13.25	98.05	106.00
139	CO	1	DA	O4'-C4'-C3'	-13.24	98.05	106.00
88	BZ	1	DG	O4'-C4'-C3'	-13.18	98.09	106.00
50	Ax	18	DG	P-O3'-C3'	13.16	135.50	119.70
31	Ae	22	DA	P-O3'-C3'	13.16	135.49	119.70
1	AA	6586	DT	O4'-C4'-C3'	-13.16	98.10	106.00
105	Bq	10	DG	P-O3'-C3'	13.16	135.49	119.70
47	Au	23	DA	O4'-C4'-C3'	-13.14	98.12	106.00
1	AA	2377	DC	P-O3'-C3'	13.13	135.46	119.70
1	AA	7304	DT	O4'-C4'-C3'	-13.12	98.13	106.00
101	Bm	23	DT	P-O3'-C3'	13.11	135.43	119.70
1	AA	6082	DA	P-O3'-C3'	13.05	135.36	119.70
26	AZ	24	DC	P-O3'-C3'	13.03	135.34	119.70
1	AA	3823	DT	P-O3'-C3'	13.02	135.32	119.70
1	AA	1067	DC	P-O3'-C3'	13.01	135.32	119.70
145	CU	1	DA	O4'-C4'-C3'	-13.01	98.19	106.00
98	Bj	9	DA	O4'-C4'-C3'	-12.96	98.22	106.00
1	AA	4394	DC	P-O3'-C3'	12.95	135.24	119.70
1	AA	3515	DT	P-O3'-C3'	12.95	135.24	119.70
1	AA	3627	DC	O4'-C4'-C3'	-12.94	98.24	106.00
160	Cj	18	DG	O4'-C4'-C3'	-12.93	98.24	106.00
1	AA	6015	DT	P-O3'-C3'	12.93	135.21	119.70
78	BP	1	DT	O4'-C4'-C3'	-12.92	98.25	106.00
13	AM	9	DT	O4'-C4'-C3'	-12.92	98.25	106.00
194	DH	1	DA	O4'-C4'-C3'	-12.91	98.25	106.00
160	Cj	15	DC	P-O3'-C3'	12.86	135.14	119.70
1	AA	1459	DT	P-O3'-C3'	12.86	135.13	119.70
4	AD	15	DT	P-O3'-C3'	12.86	135.13	119.70
1	AA	4718	DT	P-O3'-C3'	12.84	135.11	119.70
9	AI	22	DT	P-O3'-C3'	12.83	135.10	119.70
1	AA	3997	DT	O4'-C4'-C3'	-12.81	98.31	106.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
121	B6	1	DT	O4'-C4'-C3'	-12.81	98.31	106.00
1	AA	1396	DG	P-O3'-C3'	12.80	135.06	119.70
1	AA	490	DG	O4'-C4'-C3'	-12.79	98.33	106.00
1	AA	404	DA	O4'-C4'-C3'	-12.78	98.33	106.00
85	BW	42	DG	P-O3'-C3'	12.78	135.04	119.70
1	AA	4731	DA	O4'-C4'-C3'	-12.75	98.35	106.00
49	Aw	8	DA	O4'-C4'-C3'	-12.74	98.35	106.00
1	AA	5598	DA	P-O3'-C3'	12.74	134.99	119.70
1	AA	6406	DT	O4'-C4'-C3'	-12.71	98.37	106.00
122	B7	18	DT	O4'-C4'-C3'	-12.70	98.38	106.00
1	AA	949	DT	O4'-C4'-C3'	-12.68	98.39	106.00
1	AA	3623	DA	P-O3'-C3'	12.67	134.90	119.70
136	CL	6	DA	P-O3'-C3'	12.65	134.88	119.70
144	CT	33	DG	P-O3'-C3'	12.65	134.88	119.70
1	AA	3008	DT	P-O3'-C3'	12.63	134.85	119.70
93	Be	16	DC	O4'-C4'-C3'	-12.63	98.42	106.00
48	Av	7	DG	P-O3'-C3'	12.62	134.84	119.70
11	AK	17	DA	O4'-C4'-C3'	-12.60	98.44	106.00
5	AE	5	DC	O4'-C4'-C3'	-12.59	98.45	106.00
1	AA	7736	DT	P-O3'-C3'	12.57	134.78	119.70
66	BD	8	DC	P-O3'-C3'	12.57	134.78	119.70
182	C5	43	DG	O4'-C4'-C3'	-12.57	98.46	106.00
83	BU	17	DG	P-O3'-C3'	12.56	134.78	119.70
1	AA	5702	DG	P-O3'-C3'	12.55	134.76	119.70
98	Bj	23	DT	O4'-C4'-C3'	-12.55	98.47	106.00
1	AA	6493	DT	O4'-C4'-C3'	-12.53	98.48	106.00
1	AA	6766	DT	O4'-C4'-C3'	-12.50	98.50	106.00
1	AA	3865	DA	P-O3'-C3'	12.49	134.69	119.70
1	AA	3330	DA	P-O3'-C3'	12.48	134.67	119.70
1	AA	5590	DT	O4'-C4'-C3'	-12.46	98.53	106.00
1	AA	1098	DC	P-O3'-C3'	12.46	134.65	119.70
17	AQ	11	DT	P-O3'-C3'	12.45	134.64	119.70
1	AA	7857	DG	O4'-C4'-C3'	-12.44	98.54	106.00
74	BL	17	DG	P-O3'-C3'	12.44	134.63	119.70
1	AA	2505	DA	P-O3'-C3'	12.42	134.60	119.70
193	DG	1	DC	O4'-C4'-C3'	-12.41	98.55	106.00
21	AU	47	DT	P-O3'-C3'	12.39	134.56	119.70
1	AA	98	DA	P-O3'-C3'	12.39	134.56	119.70
1	AA	5922	DA	P-O3'-C3'	12.37	134.54	119.70
84	BV	40	DA	P-O3'-C3'	12.33	134.50	119.70
101	Bm	24	DG	O4'-C4'-C3'	-12.33	98.60	106.00
1	AA	7164	DG	O4'-C4'-C3'	-12.31	98.61	106.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	2011	DT	P-O3'-C3'	12.31	134.47	119.70
1	AA	650	DC	P-O3'-C3'	12.30	134.46	119.70
1	AA	3380	DG	O4'-C4'-C3'	-12.29	98.63	106.00
1	AA	1299	DG	P-O3'-C3'	12.28	134.44	119.70
1	AA	7302	DG	P-O3'-C3'	12.28	134.44	119.70
1	AA	743	DA	O4'-C4'-C3'	-12.28	98.63	106.00
1	AA	4564	DT	P-O3'-C3'	12.27	134.43	119.70
122	B7	17	DT	P-O3'-C3'	12.26	134.41	119.70
1	AA	5975	DA	O4'-C4'-C3'	-12.23	98.66	106.00
30	Ad	1	DC	O4'-C4'-C3'	-12.23	98.66	106.00
1	AA	7438	DG	P-O3'-C3'	12.23	134.37	119.70
189	DC	10	DA	P-O3'-C3'	12.22	134.37	119.70
1	AA	1021	DG	O4'-C4'-C3'	-12.22	98.67	106.00
45	As	32	DG	O4'-C4'-C3'	-12.20	98.68	106.00
90	Bb	17	DT	O4'-C4'-C3'	-12.19	98.69	106.00
144	CT	10	DT	O4'-C4'-C3'	-12.16	98.70	106.00
1	AA	7277	DT	P-O3'-C3'	12.15	134.28	119.70
1	AA	834	DG	P-O3'-C3'	12.14	134.26	119.70
12	AL	28	DT	O4'-C4'-C3'	-12.12	98.73	106.00
104	Bp	9	DA	O4'-C4'-C3'	-12.11	98.74	106.00
1	AA	7303	DA	P-O3'-C3'	12.10	134.22	119.70
73	BK	7	DG	O4'-C4'-C3'	-12.09	98.75	106.00
1	AA	4709	DG	P-O3'-C3'	12.07	134.19	119.70
1	AA	27	DG	O4'-C4'-C3'	-12.05	98.77	106.00
184	C7	34	DA	P-O3'-C3'	12.04	134.15	119.70
148	CX	54	DT	P-O3'-C3'	12.02	134.13	119.70
1	AA	7469	DT	O4'-C4'-C3'	-12.01	98.80	106.00
1	AA	33	DG	O4'-C4'-C3'	-11.99	98.81	106.00
182	C5	42	DG	P-O3'-C3'	11.97	134.06	119.70
53	A0	11	DC	O4'-C4'-C3'	-11.96	98.82	106.00
1	AA	7571	DC	P-O3'-C3'	11.95	134.04	119.70
1	AA	215	DG	O4'-C4'-C3'	-11.92	98.85	106.00
1	AA	3213	DC	O4'-C4'-C3'	-11.88	98.87	106.00
48	Av	31	DA	P-O3'-C3'	11.87	133.94	119.70
1	AA	7285	DT	O4'-C4'-C3'	-11.86	98.88	106.00
1	AA	2784	DT	O4'-C4'-C3'	-11.86	98.88	106.00
1	AA	6626	DG	P-O3'-C3'	11.83	133.90	119.70
97	Bi	31	DA	P-O3'-C3'	11.83	133.89	119.70
56	A3	47	DC	P-O3'-C3'	11.80	133.86	119.70
1	AA	1364	DG	O4'-C4'-C3'	-11.80	98.92	106.00
1	AA	7574	DT	O4'-C4'-C3'	-11.79	98.93	106.00
62	A9	41	DA	P-O3'-C3'	11.79	133.84	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	2741	DC	O4'-C4'-C3'	-11.78	98.94	106.00
1	AA	530	DT	P-O3'-C3'	11.76	133.81	119.70
69	BG	9	DA	O4'-C1'-N9	11.76	116.23	108.00
124	B9	24	DT	O4'-C4'-C3'	-11.76	98.95	106.00
50	Ax	34	DG	O4'-C4'-C3'	-11.75	98.95	106.00
90	Bb	8	DA	P-O3'-C3'	11.75	133.80	119.70
1	AA	6211	DT	O4'-C4'-C3'	-11.74	98.95	106.00
154	Cd	18	DT	P-O3'-C3'	11.74	133.79	119.70
39	Am	40	DG	P-O3'-C3'	11.73	133.78	119.70
26	AZ	18	DG	O4'-C4'-C3'	-11.72	98.97	106.00
10	AJ	27	DT	O4'-C4'-C3'	-11.72	98.97	106.00
93	Be	15	DC	P-O3'-C3'	11.71	133.76	119.70
63	BA	42	DT	P-O3'-C3'	11.70	133.74	119.70
1	AA	2	DG	O4'-C4'-C3'	-11.69	98.99	106.00
1	AA	3336	DC	O4'-C4'-C3'	-11.68	98.99	106.00
53	A0	11	DC	P-O3'-C3'	11.68	133.72	119.70
166	Cp	25	DA	O4'-C4'-C3'	-11.68	99.00	106.00
1	AA	6585	DA	P-O3'-C3'	11.67	133.71	119.70
49	Aw	9	DA	O4'-C4'-C3'	-11.65	99.01	106.00
54	A1	42	DG	O4'-C4'-C3'	-11.65	99.01	106.00
72	BJ	17	DC	P-O3'-C3'	11.64	133.67	119.70
1	AA	2194	DT	P-O3'-C3'	11.63	133.66	119.70
1	AA	7548	DG	O4'-C4'-C3'	-11.63	99.02	106.00
1	AA	4048	DT	P-O3'-C3'	11.60	133.62	119.70
1	AA	7236	DG	O4'-C4'-C3'	-11.59	99.05	106.00
90	Bb	7	DA	P-O3'-C3'	11.59	133.61	119.70
146	CV	25	DG	O4'-C4'-C3'	-11.59	99.05	106.00
66	BD	34	DG	O4'-C4'-C3'	-11.58	99.05	106.00
1	AA	3079	DT	P-O3'-C3'	11.56	133.57	119.70
1	AA	6469	DT	O4'-C4'-C3'	-11.52	99.09	106.00
1	AA	899	DG	O4'-C4'-C3'	-11.51	99.09	106.00
1	AA	7057	DA	O4'-C4'-C3'	-11.51	99.10	106.00
80	BR	36	DG	O4'-C4'-C3'	-11.49	99.10	106.00
1	AA	2851	DT	P-O3'-C3'	11.49	133.49	119.70
1	AA	5204	DT	O4'-C4'-C3'	-11.47	99.12	106.00
164	Cn	36	DC	P-O3'-C3'	11.46	133.46	119.70
163	Cm	25	DG	P-O3'-C3'	11.46	133.45	119.70
1	AA	746	DG	O4'-C4'-C3'	-11.46	99.12	106.00
85	BW	20	DA	P-O3'-C3'	11.46	133.45	119.70
1	AA	2789	DG	O4'-C4'-C3'	-11.45	99.13	106.00
54	A1	13	DG	O4'-C4'-C3'	-11.44	99.14	106.00
1	AA	2779	DG	P-O3'-C3'	11.42	133.40	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
140	CP	39	DG	P-O3'-C3'	11.41	133.40	119.70
1	AA	4583	DT	P-O3'-C3'	11.41	133.39	119.70
1	AA	342	DC	P-O3'-C3'	11.40	133.38	119.70
158	Ch	35	DG	O4'-C4'-C3'	-11.40	99.16	106.00
67	BE	46	DA	P-O3'-C3'	11.39	133.36	119.70
1	AA	3046	DA	P-O3'-C3'	11.36	133.33	119.70
1	AA	1316	DT	O4'-C4'-C3'	-11.36	99.18	106.00
1	AA	1460	DG	P-O3'-C3'	11.36	133.33	119.70
1	AA	4491	DA	O4'-C4'-C3'	-11.34	99.19	106.00
1	AA	3061	DC	O4'-C4'-C3'	-11.34	99.20	106.00
102	Bn	48	DG	O4'-C4'-C3'	-11.33	99.20	106.00
183	C6	7	DA	P-O3'-C3'	11.33	133.30	119.70
9	AI	34	DT	P-O3'-C3'	11.32	133.29	119.70
168	Cr	5	DG	O4'-C4'-C3'	-11.32	99.21	106.00
1	AA	5259	DG	O4'-C4'-C3'	-11.31	99.22	106.00
1	AA	7523	DT	P-O3'-C3'	11.28	133.24	119.70
33	Ag	29	DT	O4'-C4'-C3'	-11.28	99.23	106.00
1	AA	2484	DA	O4'-C4'-C3'	-11.27	99.24	106.00
173	Cw	1	DG	O4'-C4'-C3'	-11.26	99.24	106.00
51	Ay	16	DC	P-O3'-C3'	11.26	133.21	119.70
1	AA	4851	DC	P-O3'-C3'	11.25	133.20	119.70
1	AA	7025	DA	O4'-C4'-C3'	-11.25	99.25	106.00
99	Bk	25	DA	O4'-C4'-C3'	-11.25	99.25	106.00
64	BB	31	DG	P-O3'-C3'	11.24	133.19	119.70
66	BD	28	DT	O4'-C4'-C3'	-11.23	99.26	106.00
1	AA	2424	DG	O4'-C4'-C3'	-11.23	99.26	106.00
1	AA	5515	DG	O4'-C4'-C3'	-11.23	99.26	106.00
1	AA	705	DC	P-O3'-C3'	11.22	133.16	119.70
1	AA	3283	DG	O4'-C4'-C3'	-11.20	99.28	106.00
104	Bp	26	DG	O4'-C4'-C3'	-11.20	99.28	106.00
149	CY	16	DT	P-O3'-C3'	11.19	133.13	119.70
1	AA	1181	DC	P-O3'-C3'	11.18	133.11	119.70
6	AF	8	DA	O4'-C4'-C3'	-11.18	99.29	106.00
1	AA	72	DA	P-O3'-C3'	11.17	133.10	119.70
1	AA	5015	DG	O4'-C4'-C3'	-11.16	99.30	106.00
1	AA	3744	DA	O4'-C4'-C3'	-11.16	99.31	106.00
129	CE	15	DG	O4'-C4'-C3'	-11.16	99.31	106.00
1	AA	6927	DC	P-O3'-C3'	11.15	133.08	119.70
41	Ao	16	DG	O4'-C4'-C3'	-11.15	99.31	106.00
1	AA	2974	DC	P-O3'-C3'	11.14	133.07	119.70
1	AA	6050	DG	O4'-C4'-C3'	-11.14	99.32	106.00
1	AA	2970	DG	O4'-C4'-C3'	-11.13	99.32	106.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	2003	DG	O4'-C4'-C3'	-11.12	99.33	106.00
1	AA	743	DA	P-O3'-C3'	11.12	133.04	119.70
144	CT	4	DG	O4'-C4'-C3'	-11.10	99.34	106.00
1	AA	7532	DG	O4'-C4'-C3'	-11.09	99.34	106.00
1	AA	911	DT	O4'-C4'-C3'	-11.08	99.35	106.00
1	AA	8016	DC	P-O3'-C3'	11.07	132.98	119.70
1	AA	4122	DA	O4'-C4'-C3'	-11.07	99.36	106.00
1	AA	6714	DG	O4'-C4'-C3'	-11.06	99.36	106.00
62	A9	39	DC	P-O3'-C3'	11.05	132.96	119.70
1	AA	6531	DT	O4'-C4'-C3'	-11.05	99.37	106.00
38	Al	22	DC	P-O3'-C3'	11.05	132.96	119.70
145	CU	9	DC	O4'-C4'-C3'	-11.05	99.37	106.00
55	A2	25	DC	P-O3'-C3'	11.03	132.94	119.70
1	AA	3238	DG	O4'-C4'-C3'	-11.03	99.38	106.00
1	AA	1197	DT	P-O3'-C3'	11.02	132.93	119.70
175	Cy	15	DC	P-O3'-C3'	11.02	132.92	119.70
1	AA	5402	DT	P-O3'-C3'	11.01	132.91	119.70
1	AA	516	DG	P-O3'-C3'	11.01	132.91	119.70
148	CX	30	DT	O4'-C4'-C3'	-11.00	99.40	106.00
135	CK	10	DG	P-O3'-C3'	11.00	132.90	119.70
129	CE	17	DC	P-O3'-C3'	10.99	132.89	119.70
28	Ab	26	DG	P-O3'-C3'	10.97	132.86	119.70
178	C1	2	DT	P-O3'-C3'	10.96	132.86	119.70
1	AA	1190	DA	P-O3'-C3'	10.96	132.85	119.70
106	Br	9	DG	P-O3'-C3'	10.95	132.84	119.70
112	Bx	3	DT	O4'-C4'-C3'	-10.95	99.43	106.00
1	AA	7119	DG	O4'-C4'-C3'	-10.94	99.44	106.00
173	Cw	16	DA	O4'-C4'-C3'	-10.94	99.44	106.00
141	CQ	52	DT	O4'-C4'-C3'	-10.93	99.44	106.00
31	Ae	27	DA	P-O3'-C3'	10.93	132.81	119.70
1	AA	3285	DG	O4'-C4'-C3'	-10.93	99.44	106.00
101	Bm	7	DA	O4'-C4'-C3'	-10.92	99.45	106.00
12	AL	32	DT	O4'-C4'-C3'	-10.92	99.45	106.00
165	Co	6	DC	O4'-C4'-C3'	-10.91	99.45	106.00
1	AA	353	DG	O4'-C4'-C3'	-10.91	99.46	106.00
89	Ba	1	DG	O4'-C4'-C3'	-10.90	99.46	106.00
1	AA	305	DC	P-O3'-C3'	10.89	132.77	119.70
7	AG	25	DG	P-O3'-C3'	10.89	132.77	119.70
86	BX	23	DC	P-O3'-C3'	10.88	132.75	119.70
78	BP	12	DT	P-O3'-C3'	10.86	132.73	119.70
99	Bk	15	DG	O4'-C4'-C3'	-10.86	99.49	106.00
62	A9	16	DA	O4'-C4'-C3'	-10.85	99.49	106.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
170	Ct	1	DT	O4'-C4'-C3'	-10.85	99.49	106.00
1	AA	1979	DC	P-O3'-C3'	10.84	132.71	119.70
1	AA	342	DC	O4'-C4'-C3'	-10.84	99.50	106.00
1	AA	6535	DA	P-O3'-C3'	10.83	132.69	119.70
1	AA	353	DG	P-O3'-C3'	10.82	132.68	119.70
93	Be	23	DT	P-O3'-C3'	10.82	132.69	119.70
24	AX	54	DA	P-O3'-C3'	10.81	132.67	119.70
1	AA	6785	DT	O4'-C4'-C3'	-10.81	99.52	106.00
1	AA	7557	DA	O4'-C4'-C3'	-10.80	99.52	106.00
1	AA	4072	DG	O4'-C4'-C3'	-10.79	99.52	106.00
1	AA	3391	DC	P-O3'-C3'	10.79	132.65	119.70
23	AW	18	DG	O4'-C4'-C3'	-10.79	99.53	106.00
163	Cm	7	DA	P-O3'-C3'	10.78	132.64	119.70
1	AA	6264	DA	O4'-C4'-C3'	-10.78	99.53	106.00
124	B9	31	DC	P-O3'-C3'	10.78	132.63	119.70
27	Aa	24	DT	O4'-C4'-C3'	-10.75	99.55	106.00
1	AA	2007	DG	P-O3'-C3'	10.74	132.59	119.70
117	B2	31	DA	O4'-C4'-C3'	-10.73	99.56	106.00
1	AA	6518	DT	O4'-C4'-C3'	-10.72	99.56	106.00
1	AA	5396	DA	O4'-C4'-C3'	-10.71	99.57	106.00
179	C2	26	DG	P-O3'-C3'	10.71	132.55	119.70
1	AA	5457	DA	O4'-C4'-C3'	-10.70	99.58	106.00
185	C8	22	DC	O4'-C4'-C3'	-10.70	99.58	106.00
154	Cd	18	DT	O4'-C4'-C3'	-10.69	99.59	106.00
165	Co	29	DG	O4'-C4'-C3'	-10.68	99.59	106.00
143	CS	10	DG	O4'-C4'-C3'	-10.68	99.59	106.00
1	AA	2777	DA	O4'-C4'-C3'	-10.67	99.60	106.00
91	Bc	16	DC	O4'-C4'-C3'	-10.67	99.60	106.00
22	AV	2	DA	O4'-C4'-C3'	-10.66	99.60	106.00
53	A0	7	DC	P-O3'-C3'	10.66	132.49	119.70
108	Bt	40	DG	O4'-C4'-C3'	-10.66	99.60	106.00
1	AA	5347	DG	O4'-C4'-C3'	-10.65	99.61	106.00
1	AA	5572	DC	P-O3'-C3'	10.65	132.48	119.70
1	AA	7862	DC	O4'-C4'-C3'	-10.65	99.61	106.00
140	CP	23	DG	O4'-C4'-C3'	-10.63	99.62	106.00
104	Bp	1	DC	O4'-C4'-C3'	-10.63	99.62	106.00
1	AA	77	DC	P-O3'-C3'	10.62	132.45	119.70
1	AA	4165	DG	O4'-C4'-C3'	-10.62	99.63	106.00
185	C8	38	DG	O4'-C4'-C3'	-10.62	99.63	106.00
1	AA	7412	DC	P-O3'-C3'	10.60	132.43	119.70
115	B0	55	DT	P-O3'-C3'	10.60	132.42	119.70
111	Bw	30	DT	O4'-C4'-C3'	-10.59	99.64	106.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	3479	DG	P-O3'-C3'	10.59	132.41	119.70
150	CZ	43	DA	O4'-C4'-C3'	-10.56	99.66	106.00
169	Cs	11	DT	O4'-C4'-C3'	-10.56	99.66	106.00
1	AA	6885	DT	O4'-C4'-C3'	-10.54	99.67	106.00
189	DC	7	DC	P-O3'-C3'	10.54	132.35	119.70
1	AA	3050	DG	O4'-C4'-C3'	-10.53	99.68	106.00
85	BW	1	DT	P-O3'-C3'	10.53	132.33	119.70
1	AA	3259	DT	O4'-C4'-C3'	-10.52	99.69	106.00
1	AA	7945	DG	P-O3'-C3'	10.52	132.32	119.70
89	Ba	1	DG	P-O3'-C3'	10.51	132.31	119.70
1	AA	4784	DG	O4'-C4'-C3'	-10.50	99.70	106.00
100	Bl	34	DG	P-O3'-C3'	10.49	132.29	119.70
111	Bw	11	DA	N1-C6-N6	-10.48	112.31	118.60
1	AA	3686	DT	O4'-C4'-C3'	-10.47	99.72	106.00
72	BJ	17	DC	O4'-C4'-C3'	-10.46	99.72	106.00
1	AA	4944	DA	P-O3'-C3'	10.45	132.24	119.70
1	AA	5635	DT	O4'-C4'-C3'	-10.45	99.73	106.00
1	AA	7955	DG	P-O3'-C3'	10.44	132.23	119.70
130	CF	9	DG	O4'-C4'-C3'	-10.44	99.74	106.00
96	Bh	21	DG	O4'-C4'-C3'	-10.43	99.74	106.00
130	CF	15	DC	P-O3'-C3'	10.43	132.21	119.70
95	Bg	38	DA	O4'-C4'-C3'	-10.42	99.75	106.00
68	BF	31	DG	P-O3'-C3'	10.41	132.19	119.70
78	BP	42	DC	P-O3'-C3'	10.41	132.19	119.70
1	AA	1733	DT	P-O3'-C3'	10.40	132.18	119.70
1	AA	3028	DG	O4'-C4'-C3'	-10.40	99.76	106.00
1	AA	4768	DG	P-O3'-C3'	10.40	132.18	119.70
1	AA	3087	DG	O4'-C4'-C3'	-10.39	99.77	106.00
1	AA	3489	DT	P-O3'-C3'	10.37	132.15	119.70
98	Bj	22	DA	P-O3'-C3'	10.37	132.14	119.70
1	AA	5396	DA	P-O3'-C3'	10.36	132.13	119.70
85	BW	40	DC	P-O3'-C3'	10.36	132.13	119.70
1	AA	1	DT	O4'-C4'-C3'	-10.35	99.79	106.00
136	CL	17	DA	O4'-C4'-C3'	-10.34	99.80	106.00
1	AA	6161	DA	O4'-C4'-C3'	-10.33	99.80	106.00
1	AA	7260	DG	O4'-C4'-C3'	-10.33	99.80	106.00
90	Bb	47	DG	P-O3'-C3'	10.33	132.10	119.70
195	DI	10	DA	O4'-C4'-C3'	-10.33	99.81	106.00
1	AA	115	DG	O4'-C4'-C3'	-10.32	99.81	106.00
170	Ct	3	DT	P-O3'-C3'	10.32	132.08	119.70
92	Bd	23	DG	O4'-C4'-C3'	-10.32	99.81	106.00
34	Ah	4	DT	P-O3'-C3'	10.31	132.07	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
101	Bm	7	DA	P-O3'-C3'	10.31	132.07	119.70
154	Cd	35	DC	P-O3'-C3'	10.30	132.06	119.70
1	AA	3476	DG	P-O3'-C3'	10.29	132.05	119.70
1	AA	6161	DA	P-O3'-C3'	10.28	132.03	119.70
1	AA	856	DC	P-O3'-C3'	10.27	132.03	119.70
95	Bg	25	DT	O4'-C4'-C3'	-10.27	99.84	106.00
1	AA	111	DA	O4'-C4'-C3'	-10.25	99.85	106.00
1	AA	4604	DG	P-O3'-C3'	10.25	132.00	119.70
115	B0	32	DT	P-O3'-C3'	10.23	131.98	119.70
166	Cp	25	DA	P-O3'-C3'	10.22	131.97	119.70
113	By	33	DC	O4'-C4'-C3'	-10.21	99.87	106.00
1	AA	3505	DT	O4'-C4'-C3'	-10.20	99.88	106.00
71	BI	45	DA	P-O3'-C3'	10.20	131.94	119.70
20	AT	35	DG	P-O3'-C3'	10.20	131.93	119.70
101	Bm	17	DG	P-O3'-C3'	10.20	131.93	119.70
1	AA	5915	DG	O4'-C4'-C3'	-10.18	99.89	106.00
1	AA	4881	DC	P-O3'-C3'	10.18	131.92	119.70
1	AA	2215	DC	P-O3'-C3'	10.17	131.91	119.70
184	C7	23	DC	P-O3'-C3'	10.17	131.91	119.70
1	AA	7856	DT	P-O3'-C3'	10.17	131.90	119.70
177	C0	7	DC	P-O3'-C3'	10.17	131.90	119.70
1	AA	801	DA	P-O3'-C3'	10.15	131.88	119.70
1	AA	7572	DG	P-O3'-C3'	10.14	131.87	119.70
1	AA	2457	DC	P-O3'-C3'	10.14	131.87	119.70
150	CZ	23	DG	O4'-C4'-C3'	-10.13	99.92	106.00
4	AD	44	DG	P-O3'-C3'	10.12	131.85	119.70
134	CJ	27	DT	P-O3'-C3'	10.12	131.84	119.70
80	BR	23	DT	P-O3'-C3'	10.11	131.84	119.70
1	AA	4335	DT	O4'-C4'-C3'	-10.10	99.94	106.00
97	Bi	30	DC	P-O3'-C3'	10.10	131.81	119.70
1	AA	3968	DA	P-O3'-C3'	10.09	131.81	119.70
72	BJ	45	DT	O4'-C4'-C3'	-10.09	99.95	106.00
165	Co	1	DC	O4'-C4'-C3'	-10.09	99.95	106.00
128	CD	51	DT	P-O3'-C3'	10.08	131.80	119.70
1	AA	5328	DT	P-O3'-C3'	10.08	131.79	119.70
1	AA	3195	DC	P-O3'-C3'	10.07	131.78	119.70
167	Cq	4	DT	P-O3'-C3'	10.07	131.78	119.70
1	AA	3178	DT	P-O3'-C3'	10.06	131.78	119.70
1	AA	7349	DA	P-O3'-C3'	10.06	131.77	119.70
119	B4	9	DG	O4'-C4'-C3'	-10.04	99.98	106.00
100	Bl	31	DC	P-O3'-C3'	10.03	131.74	119.70
1	AA	3003	DC	P-O3'-C3'	10.01	131.72	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	367	DG	P-O3'-C3'	10.01	131.71	119.70
189	DC	6	DG	O4'-C4'-C3'	-10.01	99.99	106.00
60	A7	20	DC	P-O3'-C3'	10.01	131.71	119.70
185	C8	22	DC	P-O3'-C3'	9.99	131.69	119.70
58	A5	7	DT	O4'-C4'-C3'	-9.98	100.01	106.00
1	AA	1126	DC	P-O3'-C3'	9.98	131.67	119.70
1	AA	1367	DT	P-O3'-C3'	9.97	131.67	119.70
16	AP	7	DC	P-O3'-C3'	9.97	131.67	119.70
1	AA	375	DT	O4'-C4'-C3'	-9.97	100.02	106.00
1	AA	6745	DA	P-O3'-C3'	9.96	131.66	119.70
42	Ap	3	DT	P-O3'-C3'	9.96	131.66	119.70
188	DB	18	DC	P-O3'-C3'	9.96	131.66	119.70
1	AA	5185	DA	P-O3'-C3'	9.96	131.65	119.70
1	AA	7523	DT	O4'-C4'-C3'	-9.95	100.03	106.00
6	AF	20	DT	P-O3'-C3'	9.95	131.64	119.70
1	AA	2942	DT	P-O3'-C3'	9.94	131.63	119.70
1	AA	2296	DA	P-O3'-C3'	9.94	131.62	119.70
1	AA	3125	DT	P-O3'-C3'	9.94	131.62	119.70
124	B9	23	DG	O4'-C4'-C3'	-9.94	100.04	106.00
1	AA	77	DC	O4'-C4'-C3'	-9.94	100.04	106.00
119	B4	25	DA	O4'-C4'-C3'	-9.93	100.04	106.00
1	AA	1887	DT	P-O3'-C3'	9.93	131.61	119.70
1	AA	3989	DA	O4'-C4'-C3'	-9.93	100.04	106.00
135	CK	10	DG	O4'-C4'-C3'	-9.93	100.05	106.00
106	Br	28	DA	O4'-C4'-C3'	-9.92	100.05	106.00
1	AA	2334	DG	P-O3'-C3'	9.92	131.60	119.70
1	AA	2941	DG	P-O3'-C3'	9.91	131.59	119.70
124	B9	1	DA	P-O3'-C3'	9.89	131.57	119.70
1	AA	8011	DC	P-O3'-C3'	9.87	131.54	119.70
1	AA	3550	DG	O4'-C4'-C3'	-9.86	100.09	106.00
1	AA	3933	DC	P-O3'-C3'	9.86	131.53	119.70
31	Ae	19	DG	O4'-C4'-C3'	-9.84	100.10	106.00
1	AA	6390	DA	O4'-C4'-C3'	-9.82	100.11	106.00
134	CJ	31	DT	P-O3'-C3'	9.82	131.49	119.70
87	BY	15	DC	P-O3'-C3'	9.82	131.48	119.70
3	AC	41	DT	P-O3'-C3'	9.81	131.47	119.70
1	AA	7476	DC	P-O3'-C3'	9.81	131.47	119.70
1	AA	1350	DC	P-O3'-C3'	9.79	131.44	119.70
1	AA	1114	DC	P-O3'-C3'	9.76	131.41	119.70
28	Ab	19	DC	P-O3'-C3'	9.74	131.39	119.70
185	C8	8	DA	O4'-C4'-C3'	-9.73	100.16	106.00
134	CJ	28	DT	P-O3'-C3'	9.71	131.35	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
168	Cr	31	DG	O4'-C4'-C3'	-9.71	100.18	106.00
171	Cu	32	DA	P-O3'-C3'	9.71	131.35	119.70
1	AA	801	DA	O4'-C4'-C3'	-9.69	100.19	106.00
186	C9	28	DT	P-O3'-C3'	9.69	131.32	119.70
147	CW	8	DT	O4'-C4'-C3'	-9.67	100.20	106.00
148	CX	15	DT	O4'-C4'-C3'	-9.67	100.20	106.00
7	AG	8	DC	P-O3'-C3'	9.67	131.31	119.70
1	AA	2193	DG	O4'-C4'-C3'	-9.66	100.20	106.00
109	Bu	14	DT	O4'-C4'-C3'	-9.65	100.21	106.00
1	AA	3038	DT	P-O3'-C3'	9.64	131.27	119.70
128	CD	24	DT	P-O3'-C3'	9.64	131.27	119.70
134	CJ	53	DT	P-O3'-C3'	9.64	131.26	119.70
184	C7	3	DA	P-O3'-C3'	9.63	131.26	119.70
134	CJ	54	DT	O4'-C4'-C3'	-9.63	100.22	106.00
1	AA	7405	DC	P-O3'-C3'	9.62	131.25	119.70
56	A3	53	DG	O4'-C1'-C2'	-9.62	98.20	105.90
1	AA	2999	DT	P-O3'-C3'	9.62	131.24	119.70
1	AA	2315	DT	P-O3'-C3'	9.61	131.24	119.70
1	AA	3568	DC	P-O3'-C3'	9.61	131.24	119.70
97	Bi	5	DC	P-O3'-C3'	9.61	131.23	119.70
23	AW	18	DG	P-O3'-C3'	9.59	131.21	119.70
97	Bi	3	DC	O4'-C4'-C3'	-9.59	100.25	106.00
105	Bq	45	DC	P-O3'-C3'	9.59	131.20	119.70
1	AA	2540	DG	P-O3'-C3'	9.58	131.20	119.70
1	AA	2155	DT	P-O3'-C3'	9.58	131.20	119.70
1	AA	6189	DT	P-O3'-C3'	9.58	131.19	119.70
8	AH	1	DT	O4'-C4'-C3'	-9.58	100.25	106.00
1	AA	48	DT	O4'-C4'-C3'	-9.57	100.26	106.00
83	BU	7	DC	O4'-C4'-C3'	-9.56	100.26	106.00
122	B7	38	DA	O4'-C4'-C3'	-9.56	100.27	106.00
1	AA	5358	DC	P-O3'-C3'	9.55	131.16	119.70
81	BS	9	DT	P-O3'-C3'	9.54	131.15	119.70
88	BZ	27	DG	P-O3'-C3'	9.54	131.15	119.70
87	BY	35	DG	P-O3'-C3'	9.54	131.15	119.70
46	At	18	DT	O4'-C4'-C3'	-9.52	100.29	106.00
185	C8	24	DC	P-O3'-C3'	9.50	131.10	119.70
1	AA	2801	DG	O4'-C4'-C3'	-9.50	100.30	106.00
1	AA	4306	DG	P-O3'-C3'	9.50	131.09	119.70
154	Cd	35	DC	O4'-C4'-C3'	-9.49	100.30	106.00
1	AA	2600	DG	P-O3'-C3'	9.48	131.08	119.70
51	Ay	21	DG	P-O3'-C3'	9.47	131.06	119.70
83	BU	7	DC	P-O3'-C3'	9.46	131.05	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	Ae	27	DA	O4'-C1'-C2'	-9.45	98.34	105.90
154	Cd	17	DC	O4'-C4'-C3'	-9.45	100.33	106.00
194	DH	9	DA	P-O3'-C3'	9.45	131.03	119.70
1	AA	563	DC	P-O3'-C3'	9.44	131.03	119.70
131	CG	1	DT	O4'-C4'-C3'	-9.44	100.34	106.00
17	AQ	4	DG	P-O3'-C3'	9.43	131.02	119.70
1	AA	690	DC	P-O3'-C3'	9.43	131.02	119.70
1	AA	1620	DC	P-O3'-C3'	9.42	131.00	119.70
67	BE	32	DT	P-O3'-C3'	9.42	131.00	119.70
1	AA	1969	DC	P-O3'-C3'	9.42	131.00	119.70
1	AA	3546	DT	P-O3'-C3'	9.42	131.00	119.70
1	AA	4186	DC	O4'-C4'-C3'	-9.41	100.36	106.00
1	AA	3046	DA	O4'-C1'-C2'	-9.39	98.38	105.90
5	AE	32	DT	P-O3'-C3'	9.39	130.97	119.70
1	AA	530	DT	O4'-C1'-C2'	-9.39	98.39	105.90
119	B4	7	DC	P-O3'-C3'	9.39	130.96	119.70
42	Ap	5	DA	P-O3'-C3'	9.37	130.94	119.70
10	AJ	56	DA	P-O3'-C3'	9.36	130.93	119.70
45	As	6	DT	P-O3'-C3'	9.36	130.94	119.70
24	AX	29	DT	P-O3'-C3'	9.36	130.93	119.70
48	Av	33	DA	O4'-C1'-C2'	-9.36	98.41	105.90
1	AA	7993	DT	O4'-C4'-C3'	-9.36	100.39	106.00
8	AH	37	DG	O4'-C4'-C3'	-9.35	100.39	106.00
1	AA	2581	DT	P-O3'-C3'	9.35	130.92	119.70
140	CP	39	DG	O4'-C1'-C2'	-9.35	98.42	105.90
128	CD	26	DT	O4'-C1'-C2'	-9.33	98.43	105.90
79	BQ	33	DT	P-O3'-C3'	9.33	130.89	119.70
181	C4	23	DT	O4'-C4'-C3'	-9.33	100.40	106.00
85	BW	1	DT	O4'-C4'-C3'	-9.32	100.41	106.00
1	AA	4048	DT	O4'-C1'-C2'	-9.32	98.44	105.90
1	AA	3479	DG	O4'-C4'-C3'	-9.32	100.41	106.00
1	AA	3282	DT	P-O3'-C3'	9.31	130.88	119.70
170	Ct	40	DG	P-O3'-C3'	9.30	130.85	119.70
1	AA	1630	DC	P-O3'-C3'	9.29	130.85	119.70
1	AA	5847	DT	P-O3'-C3'	9.29	130.84	119.70
127	CC	12	DG	P-O3'-C3'	9.28	130.84	119.70
1	AA	6130	DC	O4'-C4'-C3'	-9.28	100.43	106.00
1	AA	6107	DT	P-O3'-C3'	9.28	130.84	119.70
1	AA	3584	DC	P-O3'-C3'	9.27	130.83	119.70
192	DF	34	DT	O4'-C4'-C3'	-9.27	100.44	106.00
126	CB	31	DT	P-O3'-C3'	9.27	130.82	119.70
1	AA	2215	DC	O4'-C4'-C3'	-9.26	100.44	106.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1113	DG	P-O3'-C3'	9.26	130.81	119.70
1	AA	21	DT	O4'-C4'-C3'	-9.25	100.45	106.00
42	Ap	2	DT	P-O3'-C3'	9.25	130.80	119.70
148	CX	27	DT	P-O3'-C3'	9.23	130.78	119.70
95	Bg	37	DT	P-O3'-C3'	9.23	130.78	119.70
5	AE	58	DT	P-O3'-C3'	9.22	130.76	119.70
112	Bx	1	DT	P-O3'-C3'	9.22	130.76	119.70
1	AA	1952	DA	O4'-C4'-C3'	-9.21	100.47	106.00
1	AA	4400	DG	O4'-C4'-C3'	-9.21	100.47	106.00
1	AA	1878	DT	P-O3'-C3'	9.21	130.75	119.70
1	AA	6598	DC	P-O3'-C3'	9.21	130.75	119.70
1	AA	3624	DC	O4'-C4'-C3'	-9.20	100.48	106.00
1	AA	1562	DC	P-O3'-C3'	9.19	130.73	119.70
1	AA	5440	DT	P-O3'-C3'	9.19	130.72	119.70
1	AA	2400	DC	O4'-C1'-C2'	-9.18	98.55	105.90
1	AA	3046	DA	O4'-C4'-C3'	-9.18	100.49	106.00
66	BD	29	DT	O4'-C4'-C3'	-9.18	100.49	106.00
1	AA	7743	DG	P-O3'-C3'	9.17	130.71	119.70
66	BD	39	DA	P-O3'-C3'	9.17	130.70	119.70
1	AA	799	DG	P-O3'-C3'	9.16	130.69	119.70
1	AA	2105	DC	P-O3'-C3'	9.16	130.69	119.70
89	Ba	4	DG	P-O3'-C3'	9.14	130.67	119.70
148	CX	54	DT	O4'-C1'-C2'	-9.14	98.59	105.90
1	AA	1081	DG	P-O3'-C3'	9.13	130.66	119.70
51	Ay	36	DA	P-O3'-C3'	9.11	130.64	119.70
57	A4	34	DG	P-O3'-C3'	9.11	130.63	119.70
1	AA	4023	DG	P-O3'-C3'	9.11	130.63	119.70
31	Ae	1	DC	O4'-C1'-C2'	-9.11	98.61	105.90
1	AA	2960	DT	P-O3'-C3'	9.10	130.61	119.70
32	Af	2	DT	P-O3'-C3'	9.08	130.60	119.70
1	AA	3281	DT	P-O3'-C3'	9.08	130.59	119.70
190	DD	40	DA	P-O3'-C3'	9.08	130.59	119.70
92	Bd	30	DG	O4'-C4'-C3'	-9.07	100.56	106.00
1	AA	7494	DA	P-O3'-C3'	9.07	130.58	119.70
1	AA	3079	DT	O4'-C1'-C2'	-9.06	98.65	105.90
1	AA	6827	DG	O4'-C4'-C3'	-9.05	100.57	106.00
66	BD	27	DT	O4'-C4'-C3'	-9.05	100.57	106.00
1	AA	3809	DT	O4'-C4'-C3'	-9.04	100.58	106.00
1	AA	6985	DT	O4'-C4'-C3'	-9.03	100.58	106.00
78	BP	26	DA	P-O3'-C3'	9.02	130.52	119.70
1	AA	2641	DC	O4'-C4'-C3'	-9.01	100.59	106.00
1	AA	6957	DA	P-O3'-C3'	9.01	130.52	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
113	By	36	DT	O4'-C4'-C3'	-9.01	100.60	106.00
133	CI	9	DT	P-O3'-C3'	9.00	130.50	119.70
171	Cu	32	DA	O4'-C4'-C3'	-9.00	100.60	106.00
57	A4	33	DG	O4'-C1'-C2'	-8.99	98.70	105.90
1	AA	4583	DT	O4'-C1'-C2'	-8.99	98.71	105.90
154	Cd	18	DT	C1'-O4'-C4'	-8.98	101.12	110.10
50	Ax	31	DT	P-O3'-C3'	8.97	130.47	119.70
154	Cd	16	DA	P-O3'-C3'	8.97	130.47	119.70
1	AA	5324	DT	P-O3'-C3'	8.97	130.46	119.70
1	AA	6162	DA	O4'-C4'-C3'	-8.96	100.62	106.00
70	BH	3	DT	P-O3'-C3'	8.96	130.46	119.70
177	C0	31	DT	O4'-C4'-C3'	-8.96	100.62	106.00
124	B9	23	DG	P-O3'-C3'	8.94	130.43	119.70
1	AA	1398	DC	P-O3'-C3'	8.94	130.43	119.70
102	Bn	33	DC	O4'-C4'-C3'	-8.93	100.64	106.00
1	AA	3381	DT	P-O3'-C3'	8.93	130.41	119.70
1	AA	4413	DA	O4'-C4'-C3'	-8.93	100.64	106.00
1	AA	4850	DG	O4'-C4'-C3'	-8.91	100.65	106.00
1	AA	7237	DT	P-O3'-C3'	8.91	130.39	119.70
31	Ae	11	DC	P-O3'-C3'	8.91	130.39	119.70
83	BU	13	DA	P-O3'-C3'	8.91	130.39	119.70
124	B9	19	DC	P-O3'-C3'	8.91	130.39	119.70
1	AA	1001	DC	O4'-C1'-C2'	-8.90	98.78	105.90
71	BI	50	DA	O4'-C1'-C2'	-8.90	98.78	105.90
91	Bc	23	DT	P-O3'-C3'	8.88	130.36	119.70
1	AA	7164	DG	P-O3'-C3'	8.88	130.35	119.70
9	AI	22	DT	O4'-C1'-C2'	-8.86	98.81	105.90
95	Bg	29	DC	P-O3'-C3'	8.86	130.33	119.70
115	B0	26	DT	P-O3'-C3'	8.86	130.33	119.70
122	B7	22	DG	P-O3'-C3'	8.86	130.33	119.70
140	CP	1	DC	O4'-C4'-C3'	-8.85	100.69	106.00
41	Ao	53	DT	P-O3'-C3'	8.85	130.32	119.70
124	B9	42	DT	O4'-C4'-C3'	-8.85	100.69	106.00
1	AA	2555	DA	O4'-C4'-C3'	-8.85	100.69	106.00
189	DC	32	DA	P-O3'-C3'	8.84	130.31	119.70
1	AA	827	DC	P-O3'-C3'	8.83	130.30	119.70
1	AA	7395	DG	O4'-C1'-C2'	-8.83	98.84	105.90
4	AD	15	DT	O4'-C4'-C3'	-8.83	100.70	106.00
171	Cu	23	DA	P-O3'-C3'	8.82	130.29	119.70
98	Bj	1	DC	O4'-C4'-C3'	-8.82	100.71	106.00
3	AC	2	DC	P-O3'-C3'	8.82	130.28	119.70
1	AA	3922	DA	O4'-C4'-C3'	-8.81	100.71	106.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
138	CN	49	DT	P-O3'-C3'	8.81	130.27	119.70
141	CQ	37	DT	P-O3'-C3'	8.80	130.26	119.70
42	Ap	28	DT	O4'-C1'-C2'	-8.80	98.86	105.90
1	AA	4789	DT	P-O3'-C3'	8.80	130.25	119.70
17	AQ	11	DT	O4'-C1'-C2'	-8.79	98.86	105.90
106	Br	31	DG	O4'-C4'-C3'	-8.79	100.72	106.00
58	A5	47	DA	P-O3'-C3'	8.79	130.25	119.70
1	AA	246	DG	O4'-C4'-C3'	-8.78	100.73	106.00
1	AA	6383	DT	P-O3'-C3'	8.78	130.23	119.70
5	AE	51	DT	P-O3'-C3'	8.77	130.23	119.70
140	CP	31	DT	P-O3'-C3'	8.76	130.22	119.70
1	AA	7492	DA	N1-C6-N6	-8.76	113.34	118.60
108	Bt	1	DC	O4'-C1'-C2'	-8.76	98.90	105.90
132	CH	21	DA	O4'-C4'-C3'	-8.76	100.75	106.00
1	AA	5186	DT	O4'-C4'-C3'	-8.75	100.75	106.00
101	Bm	31	DT	O4'-C1'-C2'	-8.75	98.90	105.90
171	Cu	1	DT	O4'-C1'-C2'	-8.73	98.91	105.90
1	AA	4792	DA	O4'-C4'-C3'	-8.72	100.77	106.00
1	AA	6671	DA	O4'-C1'-C2'	-8.72	98.93	105.90
1	AA	1125	DG	O4'-C4'-C3'	-8.71	100.77	106.00
153	Cc	8	DG	O4'-C4'-C3'	-8.71	100.77	106.00
85	BW	33	DT	P-O3'-C3'	8.71	130.15	119.70
1	AA	7411	DG	O4'-C1'-C2'	-8.71	98.94	105.90
1	AA	7736	DT	O4'-C1'-C2'	-8.71	98.94	105.90
85	BW	40	DC	O4'-C4'-C3'	-8.71	100.78	106.00
116	B1	27	DT	P-O3'-C3'	8.70	130.14	119.70
162	Cl	22	DA	P-O3'-C3'	8.70	130.14	119.70
1	AA	2536	DT	O4'-C4'-C3'	-8.70	100.78	106.00
1	AA	4499	DT	P-O3'-C3'	8.69	130.13	119.70
129	CE	18	DA	O4'-C4'-C3'	-8.68	100.79	106.00
104	Bp	9	DA	N1-C6-N6	-8.68	113.39	118.60
161	Ck	4	DT	P-O3'-C3'	8.68	130.12	119.70
12	AL	28	DT	C1'-O4'-C4'	-8.68	101.42	110.10
1	AA	6629	DT	O4'-C1'-C2'	-8.67	98.97	105.90
99	Bk	23	DG	O4'-C4'-C3'	-8.67	100.80	106.00
1	AA	4886	DC	P-O3'-C3'	8.66	130.10	119.70
1	AA	5237	DT	P-O3'-C3'	8.66	130.09	119.70
1	AA	657	DC	P-O3'-C3'	8.66	130.09	119.70
95	Bg	37	DT	O4'-C4'-C3'	-8.66	100.81	106.00
1	AA	4564	DT	O4'-C1'-C2'	-8.65	98.98	105.90
1	AA	1454	DC	P-O3'-C3'	8.65	130.07	119.70
108	Bt	17	DT	O4'-C4'-C3'	-8.64	100.81	106.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
115	B0	59	DT	P-O3'-C3'	8.64	130.07	119.70
43	Aq	40	DC	O4'-C1'-C2'	-8.63	99.00	105.90
1	AA	989	DG	O4'-C1'-C2'	-8.63	99.00	105.90
89	Ba	16	DC	C2-N1-C1'	8.63	128.29	118.80
1	AA	2816	DG	O4'-C4'-C3'	-8.62	100.83	106.00
3	AC	15	DT	O4'-C1'-C2'	-8.62	99.01	105.90
1	AA	5429	DT	P-O3'-C3'	8.61	130.03	119.70
1	AA	1702	DG	O4'-C4'-C3'	-8.61	100.83	106.00
51	Ay	1	DC	O4'-C1'-C2'	-8.60	99.02	105.90
1	AA	7956	DT	P-O3'-C3'	8.60	130.02	119.70
1	AA	1453	DG	P-O3'-C3'	8.59	130.01	119.70
1	AA	2377	DC	O4'-C1'-C2'	-8.59	99.03	105.90
127	CC	20	DC	P-O3'-C3'	8.59	130.00	119.70
1	AA	1190	DA	O4'-C1'-C2'	-8.58	99.04	105.90
192	DF	11	DG	P-O3'-C3'	8.57	129.99	119.70
1	AA	2536	DT	O4'-C1'-C2'	-8.56	99.05	105.90
157	Cg	1	DA	P-O3'-C3'	8.56	129.97	119.70
98	Bj	1	DC	O4'-C1'-C2'	-8.55	99.06	105.90
168	Cr	6	DT	P-O3'-C3'	8.55	129.96	119.70
62	A9	31	DC	P-O3'-C3'	8.55	129.96	119.70
1	AA	3666	DC	P-O3'-C3'	8.55	129.96	119.70
24	AX	56	DT	O4'-C4'-C3'	-8.54	100.88	106.00
1	AA	2	DG	P-O3'-C3'	8.54	129.94	119.70
1	AA	3623	DA	O4'-C1'-C2'	-8.53	99.08	105.90
85	BW	42	DG	O4'-C1'-C2'	-8.53	99.08	105.90
1	AA	2306	DT	P-O3'-C3'	8.52	129.93	119.70
1	AA	2974	DC	O4'-C1'-C2'	-8.51	99.09	105.90
187	DA	35	DG	O4'-C1'-C2'	-8.51	99.09	105.90
23	AW	45	DC	P-O3'-C3'	8.51	129.91	119.70
26	AZ	21	DA	P-O3'-C3'	8.49	129.89	119.70
1	AA	4602	DC	P-O3'-C3'	8.49	129.88	119.70
67	BE	6	DA	O4'-C1'-C2'	-8.49	99.11	105.90
1	AA	2012	DT	O4'-C4'-C3'	-8.47	100.92	106.00
1	AA	1710	DG	O4'-C1'-C2'	-8.47	99.12	105.90
4	AD	44	DG	O4'-C1'-C2'	-8.46	99.14	105.90
17	AQ	9	DA	O4'-C4'-C3'	-8.46	100.93	106.00
68	BF	31	DG	O4'-C4'-C3'	-8.46	100.93	106.00
48	Av	26	DG	O4'-C4'-C3'	-8.44	100.94	106.00
118	B3	1	DC	O4'-C1'-C2'	-8.44	99.15	105.90
1	AA	5186	DT	O4'-C1'-C2'	-8.44	99.15	105.90
77	BO	7	DC	P-O3'-C3'	8.43	129.82	119.70
194	DH	1	DA	P-O3'-C3'	8.43	129.82	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
12	AL	26	DT	O4'-C4'-C3'	-8.43	100.94	106.00
177	C0	31	DT	O4'-C1'-C2'	-8.43	99.16	105.90
1	AA	3898	DG	O4'-C1'-C2'	-8.42	99.17	105.90
1	AA	4372	DG	O4'-C1'-C2'	-8.42	99.17	105.90
68	BF	8	DA	P-O3'-C3'	8.41	129.80	119.70
60	A7	6	DC	P-O3'-C3'	8.41	129.79	119.70
6	AF	6	DG	P-O3'-C3'	8.40	129.78	119.70
144	CT	46	DA	P-O3'-C3'	8.40	129.79	119.70
74	BL	7	DA	O4'-C4'-C3'	-8.40	100.96	106.00
1	AA	4433	DG	O4'-C1'-C2'	-8.39	99.19	105.90
21	AU	41	DC	P-O3'-C3'	8.38	129.76	119.70
1	AA	5402	DT	O4'-C1'-C2'	-8.38	99.19	105.90
111	Bw	27	DT	P-O3'-C3'	8.38	129.75	119.70
1	AA	4424	DG	O4'-C1'-C2'	-8.37	99.20	105.90
1	AA	1101	DT	O4'-C1'-C2'	-8.36	99.21	105.90
1	AA	2003	DG	P-O3'-C3'	8.36	129.73	119.70
1	AA	3182	DG	O4'-C1'-C2'	-8.35	99.22	105.90
49	Aw	9	DA	C4'-C3'-C2'	-8.35	95.59	103.10
1	AA	1180	DG	O4'-C1'-C2'	-8.34	99.23	105.90
1	AA	7994	DT	P-O3'-C3'	8.34	129.71	119.70
128	CD	1	DG	O4'-C1'-C2'	-8.34	99.23	105.90
1	AA	1385	DT	P-O3'-C3'	8.34	129.71	119.70
1	AA	4029	DA	P-O3'-C3'	8.34	129.70	119.70
46	At	11	DC	P-O3'-C3'	8.34	129.71	119.70
1	AA	4893	DA	O4'-C4'-C3'	-8.34	101.00	106.00
20	AT	18	DA	O4'-C1'-C2'	-8.33	99.23	105.90
163	Cm	8	DA	P-O3'-C3'	8.33	129.69	119.70
85	BW	40	DC	O4'-C1'-C2'	-8.31	99.25	105.90
23	AW	40	DC	P-O3'-C3'	8.31	129.67	119.70
39	Am	40	DG	O4'-C1'-C2'	-8.31	99.25	105.90
1	AA	242	DA	O4'-C4'-C3'	-8.31	101.02	106.00
172	Cv	17	DC	O4'-C4'-C3'	-8.30	101.02	106.00
65	BC	8	DG	O4'-C1'-C2'	-8.30	99.26	105.90
44	Ar	8	DA	P-O3'-C3'	8.29	129.65	119.70
76	BN	26	DG	O4'-C1'-C2'	-8.28	99.27	105.90
38	Al	11	DA	O4'-C4'-C3'	-8.28	101.03	106.00
1	AA	7366	DC	P-O3'-C3'	8.27	129.63	119.70
1	AA	516	DG	O4'-C1'-C2'	-8.27	99.28	105.90
74	BL	33	DT	O4'-C4'-C3'	-8.27	101.04	106.00
1	AA	2665	DC	P-O3'-C3'	8.27	129.62	119.70
6	AF	4	DA	N1-C6-N6	-8.26	113.64	118.60
49	Aw	41	DT	O4'-C1'-C2'	-8.26	99.29	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	3473	DG	O4'-C1'-C2'	-8.25	99.30	105.90
1	AA	3866	DT	O4'-C4'-C3'	-8.25	101.05	106.00
1	AA	1366	DT	O4'-C4'-C3'	-8.25	101.05	106.00
94	Bf	25	DG	O4'-C4'-C3'	-8.25	101.05	106.00
1	AA	5227	DG	P-O3'-C3'	8.24	129.59	119.70
1	AA	3759	DA	O4'-C4'-C3'	-8.24	101.06	106.00
67	BE	46	DA	O4'-C1'-C2'	-8.23	99.31	105.90
74	BL	6	DG	O4'-C1'-C2'	-8.23	99.32	105.90
1	AA	7469	DT	C1'-O4'-C4'	-8.22	101.88	110.10
111	Bw	30	DT	P-O3'-C3'	8.22	129.57	119.70
59	A6	16	DG	O4'-C4'-C3'	-8.22	101.07	106.00
56	A3	48	DC	P-O3'-C3'	8.22	129.56	119.70
1	AA	1473	DA	O4'-C4'-C3'	-8.21	101.07	106.00
1	AA	7500	DG	O4'-C1'-C2'	-8.21	99.33	105.90
33	Ag	29	DT	C4'-C3'-C2'	-8.21	95.71	103.10
154	Cd	34	DG	O4'-C4'-C3'	-8.21	101.07	106.00
1	AA	3528	DG	O4'-C1'-C2'	-8.20	99.34	105.90
25	AY	15	DC	P-O3'-C3'	8.20	129.53	119.70
103	Bo	1	DA	O4'-C1'-C2'	-8.20	99.34	105.90
1	AA	5961	DG	O4'-C4'-C3'	-8.19	101.08	106.00
1	AA	834	DG	O4'-C1'-C2'	-8.18	99.36	105.90
40	An	42	DG	O4'-C1'-C2'	-8.17	99.37	105.90
45	As	1	DG	O4'-C1'-C2'	-8.16	99.37	105.90
1	AA	5901	DA	O4'-C1'-C2'	-8.16	99.37	105.90
25	AY	24	DG	O4'-C4'-C3'	-8.16	101.10	106.00
28	Ab	1	DA	O4'-C1'-C2'	-8.16	99.37	105.90
129	CE	1	DA	O4'-C1'-C2'	-8.16	99.37	105.90
1	AA	3175	DG	O4'-C1'-C2'	-8.15	99.38	105.90
1	AA	6134	DT	O4'-C4'-C3'	-8.14	101.12	106.00
1	AA	7955	DG	O4'-C1'-C2'	-8.14	99.39	105.90
6	AF	47	DC	P-O3'-C3'	8.13	129.46	119.70
22	AV	9	DA	O4'-C1'-C2'	-8.13	99.39	105.90
34	Ah	13	DC	P-O3'-C3'	8.13	129.45	119.70
4	AD	15	DT	O4'-C1'-C2'	-8.12	99.41	105.90
95	Bg	23	DT	P-O3'-C3'	8.12	129.44	119.70
97	Bi	31	DA	O4'-C1'-C2'	-8.11	99.41	105.90
1	AA	1051	DA	P-O3'-C3'	8.11	129.43	119.70
178	C1	1	DT	P-O3'-C3'	8.11	129.43	119.70
1	AA	1148	DT	O4'-C1'-C2'	-8.10	99.42	105.90
1	AA	4134	DT	O4'-C4'-C3'	-8.10	101.14	106.00
1	AA	7991	DG	O4'-C1'-C2'	-8.09	99.43	105.90
1	AA	530	DT	O4'-C4'-C3'	-8.09	101.15	106.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	3288	DA	O4'-C1'-C2'	-8.09	99.43	105.90
104	Bp	9	DA	C4'-C3'-C2'	-8.09	95.82	103.10
180	C3	1	DC	C2-N1-C1'	8.09	127.69	118.80
1	AA	2201	DA	O4'-C1'-C2'	-8.08	99.43	105.90
31	Ae	27	DA	O4'-C4'-C3'	-8.08	101.15	106.00
124	B9	18	DG	O4'-C1'-C2'	-8.08	99.44	105.90
1	AA	5402	DT	O4'-C4'-C3'	-8.07	101.16	106.00
190	DD	17	DG	O4'-C1'-N9	8.07	113.65	108.00
94	Bf	25	DG	C4'-C3'-C2'	-8.06	95.85	103.10
154	Cd	34	DG	O4'-C1'-C2'	-8.05	99.46	105.90
138	CN	36	DG	O4'-C1'-C2'	-8.04	99.47	105.90
155	Ce	7	DT	P-O3'-C3'	8.04	129.35	119.70
72	BJ	45	DT	O4'-C1'-C2'	-8.04	99.47	105.90
31	Ae	8	DG	O4'-C1'-C2'	-8.03	99.48	105.90
95	Bg	17	DG	O4'-C1'-C2'	-8.03	99.48	105.90
1	AA	2375	DC	O4'-C1'-C2'	-8.02	99.48	105.90
1	AA	3968	DA	O4'-C4'-C3'	-8.02	101.19	106.00
82	BT	17	DC	O4'-C4'-C3'	-8.02	101.19	106.00
183	C6	45	DG	O4'-C1'-C2'	-8.01	99.49	105.90
151	Ca	30	DG	O4'-C1'-C2'	-8.01	99.49	105.90
128	CD	1	DG	O4'-C4'-C3'	-8.01	101.19	106.00
1	AA	4521	DA	O4'-C4'-C3'	-8.01	101.20	106.00
1	AA	1022	DG	P-O3'-C3'	8.00	129.30	119.70
155	Ce	2	DG	P-O3'-C3'	8.00	129.31	119.70
174	Cx	8	DA	O4'-C1'-C2'	-8.00	99.50	105.90
1	AA	4200	DG	O4'-C4'-C3'	-8.00	101.20	106.00
136	CL	17	DA	C4'-C3'-C2'	-8.00	95.90	103.10
152	Cb	33	DA	O4'-C1'-C2'	-8.00	99.50	105.90
1	AA	6999	DT	O4'-C4'-C3'	-7.99	101.20	106.00
1	AA	954	DG	P-O3'-C3'	7.99	129.29	119.70
1	AA	7025	DA	C1'-O4'-C4'	-7.99	102.11	110.10
96	Bh	49	DC	O4'-C1'-C2'	-7.98	99.51	105.90
90	Bb	43	DG	O4'-C1'-C2'	-7.98	99.52	105.90
1	AA	1366	DT	O4'-C1'-C2'	-7.98	99.52	105.90
1	AA	4564	DT	O4'-C4'-C3'	-7.97	101.22	106.00
1	AA	2670	DA	O4'-C1'-C2'	-7.96	99.53	105.90
1	AA	6644	DC	P-O3'-C3'	7.96	129.26	119.70
1	AA	1126	DC	O4'-C1'-C2'	-7.96	99.53	105.90
1	AA	5138	DG	O4'-C1'-C2'	-7.96	99.54	105.90
1	AA	2129	DA	O4'-C1'-C2'	-7.95	99.54	105.90
1	AA	3401	DA	O4'-C1'-C2'	-7.95	99.54	105.90
1	AA	1126	DC	O4'-C4'-C3'	-7.95	101.23	106.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
125	CA	41	DA	O4'-C1'-C2'	-7.95	99.54	105.90
108	Bt	19	DA	O4'-C1'-C2'	-7.94	99.54	105.90
6	AF	33	DT	O4'-C4'-C3'	-7.94	101.24	106.00
1	AA	4768	DG	O4'-C4'-C3'	-7.93	101.24	106.00
141	CQ	46	DC	P-O3'-C3'	7.93	129.22	119.70
1	AA	1922	DG	O4'-C1'-C2'	-7.93	99.56	105.90
1	AA	7277	DT	O4'-C1'-C2'	-7.93	99.56	105.90
189	DC	10	DA	O4'-C1'-C2'	-7.93	99.56	105.90
1	AA	4301	DA	O4'-C4'-C3'	-7.91	101.25	106.00
1	AA	6599	DA	O4'-C4'-C3'	-7.91	101.25	106.00
1	AA	3003	DC	O4'-C1'-C2'	-7.91	99.58	105.90
1	AA	7304	DT	C1'-O4'-C4'	-7.91	102.19	110.10
1	AA	3968	DA	O4'-C1'-C2'	-7.90	99.58	105.90
1	AA	6244	DG	O4'-C1'-C2'	-7.90	99.58	105.90
104	Bp	12	DG	C5-C6-O6	-7.90	123.86	128.60
101	Bm	50	DT	O4'-C1'-C2'	-7.90	99.58	105.90
1	AA	85	DC	C6-N1-C2	-7.90	117.14	120.30
23	AW	4	DT	C1'-O4'-C4'	-7.90	102.20	110.10
68	BF	9	DT	O4'-C4'-C3'	-7.90	101.26	106.00
1	AA	3818	DA	O4'-C1'-C2'	-7.89	99.59	105.90
100	Bl	34	DG	O4'-C1'-C2'	-7.89	99.59	105.90
134	CJ	26	DT	O4'-C1'-C2'	-7.89	99.59	105.90
1	AA	6746	DA	P-O3'-C3'	7.88	129.16	119.70
1	AA	5134	DG	O4'-C1'-C2'	-7.88	99.59	105.90
56	A3	21	DG	O4'-C1'-C2'	-7.88	99.60	105.90
155	Ce	2	DG	O4'-C1'-C2'	-7.88	99.60	105.90
1	AA	1408	DC	O4'-C1'-C2'	-7.88	99.60	105.90
1	AA	4706	DT	O4'-C1'-C2'	-7.88	99.60	105.90
1	AA	6373	DG	O4'-C1'-C2'	-7.87	99.60	105.90
122	B7	1	DA	O4'-C1'-C2'	-7.87	99.60	105.90
1	AA	1190	DA	O4'-C4'-C3'	-7.87	101.28	106.00
7	AG	34	DA	P-O3'-C3'	7.87	129.15	119.70
1	AA	3481	DT	O4'-C1'-C2'	-7.87	99.61	105.90
1	AA	3952	DT	O4'-C1'-C2'	-7.87	99.61	105.90
69	BG	9	DA	O4'-C1'-C2'	-7.86	99.61	105.90
85	BW	42	DG	C1'-O4'-C4'	-7.86	102.24	110.10
130	CF	1	DT	O4'-C1'-C2'	-7.86	99.61	105.90
94	Bf	48	DG	O4'-C1'-C2'	-7.86	99.62	105.90
1	AA	4851	DC	O4'-C1'-C2'	-7.85	99.62	105.90
21	AU	34	DG	O4'-C1'-C2'	-7.85	99.62	105.90
164	Cn	36	DC	O4'-C1'-C2'	-7.85	99.62	105.90
144	CT	33	DG	O4'-C1'-C2'	-7.85	99.62	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
90	Bb	41	DT	O4'-C1'-C2'	-7.85	99.62	105.90
117	B2	38	DG	O4'-C1'-C2'	-7.85	99.62	105.90
7	AG	25	DG	O4'-C1'-C2'	-7.84	99.62	105.90
1	AA	6748	DA	O4'-C1'-C2'	-7.84	99.63	105.90
150	CZ	32	DT	O4'-C1'-C2'	-7.84	99.63	105.90
1	AA	6083	DA	O4'-C1'-C2'	-7.83	99.63	105.90
84	BV	40	DA	O4'-C1'-C2'	-7.83	99.63	105.90
1	AA	3516	DA	N1-C6-N6	-7.83	113.90	118.60
1	AA	3603	DA	O4'-C4'-C3'	-7.83	101.30	106.00
1	AA	3148	DT	O4'-C4'-C3'	-7.83	101.30	106.00
1	AA	393	DT	O4'-C4'-C3'	-7.82	101.31	106.00
1	AA	601	DC	C1'-O4'-C4'	-7.82	102.28	110.10
160	Cj	26	DA	P-O3'-C3'	7.82	129.09	119.70
1	AA	3	DA	O4'-C1'-C2'	-7.82	99.64	105.90
1	AA	3024	DG	O4'-C1'-C2'	-7.82	99.65	105.90
1	AA	4664	DG	O4'-C1'-C2'	-7.82	99.65	105.90
158	Ch	30	DT	P-O3'-C3'	7.82	129.08	119.70
141	CQ	48	DG	O4'-C4'-C3'	-7.81	101.31	106.00
1	AA	4466	DA	P-O3'-C3'	7.81	129.07	119.70
51	Ay	1	DC	O4'-C4'-C3'	-7.81	101.32	106.00
1	AA	1149	DG	O4'-C1'-C2'	-7.81	99.66	105.90
1	AA	3496	DT	C4'-C3'-C2'	-7.80	96.08	103.10
1	AA	4721	DG	P-O3'-C3'	7.79	129.05	119.70
13	AM	47	DG	O4'-C1'-C2'	-7.79	99.67	105.90
150	CZ	27	DG	O4'-C1'-C2'	-7.79	99.67	105.90
129	CE	6	DT	P-O3'-C3'	7.78	129.04	119.70
112	Bx	1	DT	O4'-C4'-C3'	-7.78	101.33	106.00
1	AA	204	DG	O4'-C1'-C2'	-7.78	99.68	105.90
1	AA	4409	DG	O4'-C1'-C2'	-7.78	99.68	105.90
1	AA	5945	DG	O4'-C1'-C2'	-7.78	99.68	105.90
4	AD	30	DG	P-O3'-C3'	7.78	129.03	119.70
1	AA	4604	DG	C1'-O4'-C4'	-7.77	102.33	110.10
1	AA	6018	DC	O4'-C1'-C2'	-7.77	99.68	105.90
1	AA	5664	DG	O4'-C1'-C2'	-7.77	99.69	105.90
1	AA	4048	DT	O4'-C4'-C3'	-7.76	101.34	106.00
71	BI	29	DT	O4'-C1'-C2'	-7.76	99.69	105.90
1	AA	5357	DT	O4'-C1'-N1	7.76	113.43	108.00
1	AA	3504	DT	O4'-C4'-C3'	-7.76	101.35	106.00
1	AA	3237	DA	P-O3'-C3'	7.75	129.00	119.70
1	AA	6413	DC	O4'-C1'-C2'	-7.75	99.70	105.90
164	Cn	1	DC	O4'-C4'-C3'	-7.75	101.35	106.00
1	AA	6544	DT	O4'-C4'-C3'	-7.75	101.35	106.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	7366	DC	O4'-C4'-C3'	-7.75	101.35	106.00
49	Aw	17	DG	O4'-C4'-C3'	-7.74	101.36	106.00
1	AA	3143	DA	O4'-C1'-C2'	-7.74	99.71	105.90
1	AA	4768	DG	O4'-C1'-C2'	-7.74	99.71	105.90
1	AA	7856	DT	O4'-C4'-C3'	-7.73	101.36	106.00
62	A9	33	DA	O4'-C1'-C2'	-7.73	99.72	105.90
96	Bh	49	DC	O4'-C1'-N1	7.73	113.41	108.00
80	BR	30	DG	O4'-C1'-C2'	-7.72	99.72	105.90
193	DG	35	DT	P-O3'-C3'	7.72	128.96	119.70
159	Ci	27	DT	O4'-C4'-C3'	-7.71	101.37	106.00
1	AA	1364	DG	C1'-O4'-C4'	-7.70	102.40	110.10
1	AA	4131	DG	O4'-C1'-C2'	-7.70	99.74	105.90
87	BY	14	DG	O4'-C1'-C2'	-7.70	99.74	105.90
1	AA	933	DG	O4'-C4'-C3'	-7.70	101.38	106.00
1	AA	7564	DG	O4'-C1'-C2'	-7.70	99.74	105.90
110	Bv	2	DG	O4'-C1'-C2'	-7.70	99.74	105.90
1	AA	146	DA	O4'-C1'-C2'	-7.70	99.74	105.90
122	B7	2	DA	O4'-C1'-C2'	-7.69	99.75	105.90
159	Ci	24	DA	O4'-C1'-C2'	-7.69	99.75	105.90
50	Ax	18	DG	O4'-C1'-C2'	-7.69	99.75	105.90
58	A5	21	DG	O4'-C1'-C2'	-7.69	99.75	105.90
1	AA	6690	DG	O4'-C1'-C2'	-7.69	99.75	105.90
175	Cy	12	DC	O4'-C1'-C2'	-7.69	99.75	105.90
1	AA	3330	DA	O4'-C1'-C2'	-7.68	99.75	105.90
165	Co	1	DC	C2-N1-C1'	7.68	127.25	118.80
1	AA	2619	DA	O4'-C4'-C3'	-7.68	101.39	106.00
1	AA	6626	DG	O4'-C1'-C2'	-7.68	99.76	105.90
1	AA	5598	DA	O4'-C1'-C2'	-7.68	99.76	105.90
3	AC	15	DT	C1'-O4'-C4'	-7.68	102.42	110.10
131	CG	29	DG	O4'-C1'-C2'	-7.67	99.76	105.90
157	Cg	16	DG	O4'-C1'-C2'	-7.67	99.76	105.90
1	AA	1231	DC	O4'-C4'-C3'	-7.67	101.40	106.00
1	AA	6539	DG	O4'-C1'-C2'	-7.67	99.77	105.90
138	CN	11	DG	O4'-C1'-C2'	-7.67	99.77	105.90
195	DI	26	DT	O4'-C1'-C2'	-7.66	99.78	105.90
94	Bf	48	DG	O4'-C4'-C3'	-7.65	101.41	106.00
1	AA	516	DG	O4'-C4'-C3'	-7.64	101.42	106.00
129	CE	18	DA	O4'-C1'-C2'	-7.64	99.79	105.90
1	AA	6887	DT	O4'-C1'-C2'	-7.64	99.79	105.90
1	AA	2764	DT	O4'-C1'-C2'	-7.64	99.79	105.90
92	Bd	12	DG	O4'-C1'-C2'	-7.64	99.79	105.90
124	B9	19	DC	O4'-C1'-C2'	-7.64	99.79	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	907	DG	O4'-C1'-C2'	-7.63	99.79	105.90
1	AA	4709	DG	O4'-C1'-C2'	-7.63	99.79	105.90
159	Ci	41	DG	O4'-C4'-C3'	-7.63	101.42	106.00
104	Bp	12	DG	N1-C6-O6	7.63	124.48	119.90
56	A3	49	DT	O4'-C1'-N1	7.62	113.34	108.00
120	B5	54	DG	O4'-C1'-C2'	-7.62	99.80	105.90
1	AA	3591	DG	O4'-C1'-C2'	-7.62	99.81	105.90
89	Ba	1	DG	C1'-O4'-C4'	-7.61	102.49	110.10
1	AA	3003	DC	O4'-C4'-C3'	-7.61	101.43	106.00
1	AA	3030	DG	P-O3'-C3'	7.61	128.83	119.70
135	CK	1	DA	O4'-C1'-C2'	-7.61	99.81	105.90
1	AA	5015	DG	C1'-O4'-C4'	-7.60	102.50	110.10
1	AA	4278	DT	O4'-C1'-C2'	-7.60	99.82	105.90
95	Bg	17	DG	O4'-C4'-C3'	-7.60	101.44	106.00
95	Bg	37	DT	O4'-C1'-C2'	-7.60	99.82	105.90
68	BF	12	DT	O4'-C1'-C2'	-7.59	99.83	105.90
1	AA	258	DA	O4'-C1'-C2'	-7.59	99.83	105.90
12	AL	28	DT	P-O3'-C3'	7.58	128.80	119.70
146	CV	9	DT	O4'-C4'-C3'	-7.58	101.45	106.00
1	AA	7473	DT	O4'-C1'-C2'	-7.58	99.84	105.90
13	AM	45	DA	O4'-C1'-C2'	-7.58	99.84	105.90
1	AA	4148	DG	O4'-C1'-C2'	-7.58	99.84	105.90
84	BV	1	DT	O4'-C4'-C3'	-7.58	101.45	106.00
1	AA	659	DG	O4'-C1'-C2'	-7.58	99.84	105.90
1	AA	3569	DG	O4'-C4'-C3'	-7.58	101.45	106.00
1	AA	3163	DG	O4'-C1'-C2'	-7.57	99.84	105.90
1	AA	5702	DG	O4'-C1'-C2'	-7.57	99.84	105.90
1	AA	3794	DT	O4'-C4'-C3'	-7.57	101.46	106.00
51	Ay	41	DG	P-O3'-C3'	7.57	128.78	119.70
56	A3	21	DG	P-O3'-C3'	7.57	128.78	119.70
125	CA	38	DA	C4'-C3'-C2'	-7.57	96.29	103.10
1	AA	6981	DT	O4'-C4'-C3'	-7.56	101.46	106.00
1	AA	6535	DA	O4'-C1'-C2'	-7.56	99.85	105.90
1	AA	647	DT	O4'-C4'-C3'	-7.56	101.46	106.00
194	DH	28	DG	O4'-C4'-C3'	-7.56	101.46	106.00
179	C2	26	DG	O4'-C4'-C3'	-7.56	101.47	106.00
81	BS	40	DC	P-O3'-C3'	7.56	128.77	119.70
1	AA	6985	DT	C4'-C3'-C2'	-7.55	96.31	103.10
106	Br	10	DG	O4'-C1'-C2'	-7.55	99.86	105.90
1	AA	2426	DA	P-O3'-C3'	7.54	128.75	119.70
1	AA	5099	DG	O4'-C1'-C2'	-7.54	99.86	105.90
55	A2	8	DC	C6-N1-C2	-7.54	117.28	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
106	Br	23	DG	O4'-C1'-C2'	-7.54	99.87	105.90
1	AA	3900	DT	O4'-C1'-C2'	-7.54	99.87	105.90
1	AA	1148	DT	O4'-C4'-C3'	-7.54	101.48	106.00
139	CO	31	DC	P-O3'-C3'	7.54	128.75	119.70
1	AA	7037	DA	O4'-C4'-C3'	-7.54	101.48	106.00
7	AG	33	DG	P-O3'-C3'	7.53	128.74	119.70
168	Cr	13	DT	C4'-C3'-C2'	-7.53	96.32	103.10
191	DE	10	DG	P-O3'-C3'	7.53	128.74	119.70
170	Ct	13	DC	O4'-C4'-C3'	-7.53	101.48	106.00
1	AA	323	DG	O4'-C1'-C2'	-7.53	99.88	105.90
1	AA	1898	DG	O4'-C1'-C2'	-7.53	99.88	105.90
1	AA	7395	DG	O4'-C4'-C3'	-7.52	101.49	106.00
74	BL	7	DA	C4'-C3'-C2'	-7.52	96.33	103.10
1	AA	4777	DC	O4'-C1'-C2'	-7.52	99.89	105.90
1	AA	834	DG	O4'-C4'-C3'	-7.52	101.49	106.00
1	AA	705	DC	O4'-C4'-C3'	-7.51	101.50	106.00
1	AA	234	DC	O4'-C1'-C2'	-7.50	99.90	105.90
1	AA	3433	DG	O4'-C1'-C2'	-7.49	99.91	105.90
1	AA	1696	DC	P-O3'-C3'	7.49	128.69	119.70
18	AR	25	DG	O4'-C1'-C2'	-7.49	99.91	105.90
1	AA	4396	DG	O4'-C1'-C2'	-7.49	99.91	105.90
115	B0	4	DA	O4'-C1'-C2'	-7.49	99.91	105.90
68	BF	12	DT	C1'-O4'-C4'	-7.48	102.62	110.10
50	Ax	20	DA	O4'-C1'-C2'	-7.48	99.92	105.90
144	CT	52	DG	O4'-C1'-C2'	-7.48	99.92	105.90
62	A9	41	DA	O4'-C1'-C2'	-7.47	99.92	105.90
1	AA	5901	DA	P-O3'-C3'	7.47	128.66	119.70
1	AA	5895	DT	O4'-C4'-C3'	-7.47	101.51	104.50
1	AA	2859	DG	P-O3'-C3'	7.47	128.66	119.70
1	AA	3514	DG	C5-C6-O6	-7.46	124.12	128.60
134	CJ	24	DT	O4'-C4'-C3'	-7.46	101.52	104.50
124	B9	24	DT	P-O3'-C3'	7.46	128.65	119.70
150	CZ	46	DG	P-O3'-C3'	7.46	128.65	119.70
128	CD	1	DG	C1'-O4'-C4'	-7.46	102.64	110.10
1	AA	981	DT	O4'-C4'-C3'	-7.45	101.52	104.50
56	A3	49	DT	O4'-C1'-C2'	-7.45	99.94	105.90
122	B7	16	DA	O4'-C1'-C2'	-7.45	99.94	105.90
137	CM	5	DC	P-O3'-C3'	7.45	128.63	119.70
1	AA	5429	DT	C4'-C3'-C2'	-7.44	96.41	103.10
99	Bk	32	DG	O4'-C1'-C2'	-7.44	99.95	105.90
145	CU	1	DA	P-O3'-C3'	7.44	128.63	119.70
1	AA	198	DT	P-O3'-C3'	7.43	128.62	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	6729	DT	O4'-C4'-C3'	-7.43	101.53	104.50
98	Bj	9	DA	C4'-C3'-C2'	-7.43	96.41	103.10
1	AA	1070	DA	P-O3'-C3'	7.43	128.61	119.70
53	A0	26	DC	P-O3'-C3'	7.42	128.61	119.70
4	AD	44	DG	O4'-C4'-C3'	-7.42	101.53	104.50
111	Bw	35	DA	O4'-C1'-C2'	-7.42	99.97	105.90
139	CO	1	DA	C1'-O4'-C4'	-7.41	102.69	110.10
155	Ce	15	DT	P-O3'-C3'	7.41	128.59	119.70
1	AA	193	DA	P-O3'-C3'	7.40	128.59	119.70
1	AA	3150	DA	P-O3'-C3'	7.40	128.58	119.70
125	CA	38	DA	O4'-C4'-C3'	-7.40	101.54	104.50
1	AA	7438	DG	O4'-C1'-C2'	-7.40	99.98	105.90
1	AA	5738	DC	P-O3'-C3'	7.40	128.57	119.70
1	AA	3505	DT	C4'-C3'-C2'	-7.39	96.45	103.10
1	AA	7320	DG	O4'-C1'-C2'	-7.39	99.99	105.90
54	A1	48	DG	O4'-C1'-C2'	-7.39	99.99	105.90
1	AA	1212	DG	O4'-C1'-C2'	-7.39	99.99	105.90
1	AA	3002	DG	O4'-C1'-C2'	-7.39	99.99	105.90
148	CX	54	DT	O4'-C4'-C3'	-7.39	101.55	104.50
1	AA	7349	DA	O4'-C1'-C2'	-7.39	99.99	105.90
1	AA	2065	DC	O4'-C4'-C3'	-7.38	101.55	104.50
1	AA	7874	DC	P-O3'-C3'	7.38	128.56	119.70
1	AA	3378	DA	P-O3'-C3'	7.38	128.55	119.70
192	DF	25	DG	O4'-C4'-C3'	-7.38	101.55	104.50
1	AA	1622	DG	O4'-C1'-C2'	-7.37	100.00	105.90
1	AA	7560	DA	O4'-C4'-C3'	-7.37	101.55	104.50
1	AA	3361	DT	O4'-C4'-C3'	-7.36	101.56	104.50
1	AA	471	DA	O4'-C1'-C2'	-7.36	100.01	105.90
1	AA	1236	DG	O4'-C1'-C2'	-7.36	100.01	105.90
106	Br	1	DG	P-O3'-C3'	7.36	128.53	119.70
174	Cx	11	DG	O4'-C1'-C2'	-7.36	100.01	105.90
182	C5	43	DG	C1'-O4'-C4'	-7.36	102.74	110.10
1	AA	6113	DG	P-O3'-C3'	7.36	128.53	119.70
1	AA	3624	DC	C4'-C3'-C2'	-7.35	96.48	103.10
1	AA	5504	DA	O4'-C1'-C2'	-7.35	100.02	105.90
1	AA	7673	DT	O4'-C4'-C3'	-7.35	101.56	104.50
1	AA	7736	DT	O4'-C4'-C3'	-7.35	101.56	104.50
177	C0	15	DT	O4'-C1'-C2'	-7.35	100.02	105.90
184	C7	34	DA	O4'-C1'-C2'	-7.35	100.02	105.90
1	AA	7412	DC	O4'-C1'-C2'	-7.35	100.02	105.90
18	AR	19	DA	O4'-C1'-C2'	-7.34	100.03	105.90
54	A1	13	DG	C1'-O4'-C4'	-7.34	102.76	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
90	Bb	9	DA	O4'-C1'-C2'	-7.34	100.03	105.90
179	C2	26	DG	O4'-C1'-C2'	-7.34	100.03	105.90
100	Bl	26	DT	O4'-C4'-C3'	-7.34	101.57	104.50
117	B2	23	DG	O4'-C1'-C2'	-7.34	100.03	105.90
1	AA	1065	DG	P-O3'-C3'	7.33	128.50	119.70
1	AA	5262	DT	C4'-C3'-C2'	-7.33	96.50	103.10
1	AA	5090	DT	C4'-C3'-C2'	-7.33	96.50	103.10
55	A2	24	DG	O4'-C1'-C2'	-7.33	100.03	105.90
56	A3	15	DG	O4'-C1'-C2'	-7.33	100.04	105.90
1	AA	2753	DG	O4'-C1'-C2'	-7.33	100.04	105.90
1	AA	5776	DG	O4'-C4'-C3'	-7.32	101.57	104.50
1	AA	1832	DT	O4'-C1'-C2'	-7.32	100.05	105.90
1	AA	1181	DC	O4'-C1'-C2'	-7.31	100.05	105.90
103	Bo	26	DG	O4'-C1'-C2'	-7.31	100.05	105.90
135	CK	10	DG	C1'-O4'-C4'	-7.31	102.79	110.10
1	AA	3432	DA	O4'-C1'-C2'	-7.31	100.05	105.90
1	AA	3865	DA	O4'-C1'-C2'	-7.31	100.05	105.90
132	CH	12	DG	O4'-C1'-C2'	-7.31	100.06	105.90
57	A4	39	DG	O4'-C1'-C2'	-7.30	100.06	105.90
103	Bo	11	DG	O4'-C1'-C2'	-7.30	100.06	105.90
95	Bg	23	DT	O4'-C4'-C3'	-7.30	101.58	104.50
182	C5	48	DG	O4'-C1'-C2'	-7.29	100.06	105.90
1	AA	1468	DA	O4'-C1'-C2'	-7.29	100.07	105.90
92	Bd	45	DG	O4'-C1'-C2'	-7.29	100.07	105.90
1	AA	3714	DT	O4'-C1'-C2'	-7.29	100.07	105.90
1	AA	5551	DA	O4'-C4'-C3'	-7.29	101.59	104.50
29	Ac	40	DA	O4'-C1'-C2'	-7.28	100.07	105.90
1	AA	1065	DG	O4'-C1'-C2'	-7.28	100.08	105.90
163	Cm	25	DG	O4'-C1'-C2'	-7.28	100.08	105.90
1	AA	4826	DG	O4'-C1'-C2'	-7.28	100.08	105.90
8	AH	23	DG	O4'-C1'-C2'	-7.28	100.08	105.90
1	AA	2973	DG	O4'-C1'-C2'	-7.27	100.08	105.90
28	Ab	26	DG	O4'-C1'-C2'	-7.26	100.09	105.90
1	AA	493	DT	C4'-C3'-C2'	-7.26	96.56	103.10
90	Bb	43	DG	C1'-O4'-C4'	-7.26	102.84	110.10
166	Cp	25	DA	C1'-O4'-C4'	-7.26	102.84	110.10
85	BW	42	DG	O4'-C4'-C3'	-7.26	101.60	104.50
146	CV	23	DG	O4'-C1'-C2'	-7.25	100.10	105.90
177	C0	8	DA	O4'-C1'-C2'	-7.25	100.10	105.90
1	AA	4674	DG	C1'-O4'-C4'	-7.25	102.85	110.10
1	AA	6977	DG	O4'-C1'-C2'	-7.25	100.10	105.90
81	BS	41	DA	O4'-C1'-C2'	-7.25	100.10	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	Aw	16	DG	O4'-C1'-C2'	-7.24	100.11	105.90
1	AA	5497	DG	O4'-C1'-C2'	-7.24	100.11	105.90
156	Cf	25	DG	P-O3'-C3'	7.24	128.39	119.70
1	AA	6844	DA	P-O3'-C3'	7.24	128.39	119.70
1	AA	6850	DA	P-O3'-C3'	7.24	128.38	119.70
121	B6	31	DA	O4'-C1'-C2'	-7.24	100.11	105.90
1	AA	2674	DA	O4'-C4'-C3'	-7.23	101.61	104.50
154	Cd	24	DG	O4'-C1'-C2'	-7.23	100.11	105.90
1	AA	4417	DG	O4'-C1'-C2'	-7.23	100.12	105.90
1	AA	5241	DA	O4'-C1'-C2'	-7.23	100.12	105.90
1	AA	1283	DG	O4'-C1'-C2'	-7.23	100.12	105.90
1	AA	3150	DA	N1-C6-N6	-7.22	114.27	118.60
108	Bt	1	DC	O4'-C4'-C3'	-7.22	101.61	104.50
11	AK	23	DG	O4'-C1'-C2'	-7.22	100.12	105.90
147	CW	5	DG	O4'-C1'-C2'	-7.22	100.12	105.90
1	AA	5975	DA	C1'-O4'-C4'	-7.22	102.88	110.10
1	AA	6211	DT	C1'-O4'-C4'	-7.22	102.88	110.10
1	AA	6888	DG	O4'-C1'-C2'	-7.22	100.13	105.90
77	BO	38	DT	O4'-C1'-C2'	-7.22	100.13	105.90
1	AA	1197	DT	O4'-C1'-C2'	-7.21	100.13	105.90
1	AA	5660	DG	C4'-C3'-C2'	-7.21	96.61	103.10
181	C4	3	DG	O4'-C1'-C2'	-7.21	100.13	105.90
17	AQ	9	DA	C4'-C3'-C2'	-7.21	96.62	103.10
126	CB	57	DT	O4'-C1'-C2'	-7.21	100.14	105.90
90	Bb	43	DG	O4'-C1'-N9	7.20	113.04	108.00
54	A1	25	DG	O4'-C1'-C2'	-7.20	100.14	105.90
23	AW	27	DT	O4'-C4'-C3'	-7.20	101.62	104.50
79	BQ	15	DA	O4'-C1'-C2'	-7.19	100.14	105.90
85	BW	30	DT	O4'-C4'-C3'	-7.19	101.62	104.50
99	Bk	25	DA	C1'-O4'-C4'	-7.19	102.91	110.10
58	A5	26	DT	P-O3'-C3'	7.18	128.32	119.70
190	DD	17	DG	C1'-O4'-C4'	-7.18	102.92	110.10
90	Bb	1	DG	O4'-C1'-C2'	-7.18	100.15	105.90
1	AA	1593	DG	O4'-C1'-C2'	-7.18	100.16	105.90
1	AA	4851	DC	O4'-C4'-C3'	-7.18	101.63	104.50
1	AA	5279	DG	O4'-C1'-C2'	-7.18	100.16	105.90
1	AA	6274	DG	O4'-C1'-C2'	-7.18	100.16	105.90
72	BJ	45	DT	C1'-O4'-C4'	-7.18	102.92	110.10
1	AA	3207	DA	O4'-C1'-C2'	-7.18	100.16	105.90
1	AA	4070	DC	P-O3'-C3'	7.18	128.31	119.70
1	AA	6614	DG	O4'-C1'-C2'	-7.18	100.16	105.90
1	AA	2621	DT	O4'-C1'-C2'	-7.17	100.16	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	601	DC	O4'-C1'-C2'	-7.17	100.16	105.90
1	AA	6382	DT	O4'-C1'-C2'	-7.17	100.17	105.90
22	AV	5	DA	O4'-C1'-C2'	-7.17	100.17	105.90
1	AA	6412	DG	P-O3'-C3'	7.17	128.30	119.70
3	AC	19	DG	P-O3'-C3'	7.17	128.30	119.70
1	AA	418	DA	O4'-C1'-C2'	-7.16	100.17	105.90
91	Bc	23	DT	C4'-C3'-C2'	-7.16	96.66	103.10
1	AA	6097	DG	O4'-C1'-C2'	-7.16	100.17	105.90
1	AA	6456	DG	O4'-C4'-C3'	-7.16	101.64	104.50
158	Ch	35	DG	C1'-O4'-C4'	-7.16	102.94	110.10
1	AA	2536	DT	C1'-O4'-C4'	-7.16	102.94	110.10
1	AA	5746	DT	O4'-C1'-C2'	-7.16	100.18	105.90
1	AA	7855	DG	O4'-C4'-C3'	-7.16	101.64	104.50
184	C7	25	DA	O4'-C1'-C2'	-7.16	100.18	105.90
190	DD	17	DG	O4'-C1'-C2'	-7.15	100.18	105.90
1	AA	6445	DG	O4'-C1'-C2'	-7.15	100.18	105.90
30	Ad	17	DG	O4'-C1'-C2'	-7.15	100.18	105.90
78	BP	45	DT	O4'-C1'-C2'	-7.15	100.18	105.90
110	Bv	25	DC	O4'-C1'-C2'	-7.15	100.18	105.90
1	AA	6215	DT	O4'-C4'-C3'	-7.15	101.64	104.50
1	AA	7855	DG	O4'-C1'-C2'	-7.14	100.19	105.90
117	B2	25	DT	O4'-C1'-C2'	-7.14	100.19	105.90
1	AA	4059	DA	O4'-C1'-C2'	-7.14	100.19	105.90
1	AA	5431	DC	O4'-C4'-C3'	-7.14	101.64	104.50
152	Cb	38	DC	O4'-C1'-C2'	-7.14	100.19	105.90
1	AA	6068	DG	O4'-C1'-C2'	-7.13	100.19	105.90
122	B7	2	DA	O4'-C4'-C3'	-7.13	101.65	104.50
1	AA	6521	DA	O4'-C4'-C3'	-7.12	101.65	104.50
7	AG	45	DG	P-O3'-C3'	7.12	128.25	119.70
183	C6	13	DG	O4'-C1'-C2'	-7.12	100.20	105.90
93	Be	23	DT	O4'-C4'-C3'	-7.12	101.65	104.50
1	AA	2048	DT	C4'-C3'-C2'	-7.12	96.69	103.10
1	AA	272	DC	O4'-C1'-C2'	-7.12	100.21	105.90
1	AA	2851	DT	O4'-C1'-C2'	-7.12	100.21	105.90
1	AA	2057	DA	O4'-C1'-C2'	-7.11	100.21	105.90
1	AA	6346	DG	C5-C6-O6	-7.11	124.33	128.60
82	BT	11	DG	O4'-C1'-C2'	-7.11	100.21	105.90
1	AA	901	DT	O4'-C1'-C2'	-7.11	100.21	105.90
1	AA	1086	DG	O4'-C1'-C2'	-7.11	100.21	105.90
1	AA	3046	DA	C1'-O4'-C4'	-7.11	102.99	110.10
1	AA	5664	DG	C1'-O4'-C4'	-7.11	102.99	110.10
55	A2	25	DC	O4'-C1'-C2'	-7.11	100.21	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	380	DG	O4'-C1'-C2'	-7.11	100.21	105.90
1	AA	1333	DA	O4'-C4'-C3'	-7.11	101.66	104.50
1	AA	2347	DG	O4'-C1'-C2'	-7.11	100.21	105.90
1	AA	3978	DG	O4'-C1'-C2'	-7.11	100.21	105.90
15	AO	32	DA	O4'-C1'-C2'	-7.11	100.21	105.90
1	AA	3213	DC	C1'-O4'-C4'	-7.11	102.99	110.10
43	Aq	44	DG	O4'-C1'-C2'	-7.11	100.22	105.90
1	AA	2779	DG	O4'-C1'-C2'	-7.10	100.22	105.90
140	CP	1	DC	C1'-O4'-C4'	-7.10	103.00	110.10
1	AA	3227	DG	O4'-C4'-C3'	-7.10	101.66	104.50
3	AC	14	DA	O4'-C1'-C2'	-7.10	100.22	105.90
1	AA	5802	DG	O4'-C1'-C2'	-7.10	100.22	105.90
1	AA	6484	DG	O4'-C1'-C2'	-7.09	100.23	105.90
1	AA	2288	DT	O4'-C4'-C3'	-7.09	101.67	104.50
164	Cn	36	DC	O4'-C4'-C3'	-7.09	101.67	104.50
45	As	1	DG	O4'-C4'-C3'	-7.08	101.67	104.50
1	AA	3761	DA	O4'-C4'-C3'	-7.08	101.67	104.50
163	Cm	12	DT	P-O3'-C3'	7.08	128.20	119.70
1	AA	2193	DG	C1'-O4'-C4'	-7.08	103.02	110.10
1	AA	7355	DA	O4'-C1'-C2'	-7.08	100.24	105.90
127	CC	3	DT	P-O3'-C3'	7.08	128.19	119.70
28	Ab	1	DA	C1'-O4'-C4'	-7.07	103.03	110.10
77	BO	9	DA	O4'-C1'-C2'	-7.07	100.24	105.90
76	BN	21	DG	O4'-C1'-C2'	-7.07	100.24	105.90
100	Bl	34	DG	O4'-C4'-C3'	-7.07	101.67	104.50
1	AA	2555	DA	C4'-C3'-C2'	-7.07	96.74	103.10
171	Cu	14	DA	O4'-C1'-C2'	-7.07	100.25	105.90
1	AA	490	DG	P-O3'-C3'	7.07	128.18	119.70
1	AA	3758	DA	O4'-C1'-C2'	-7.06	100.25	105.90
132	CH	4	DT	O4'-C1'-C2'	-7.06	100.25	105.90
1	AA	1863	DA	O4'-C4'-C3'	-7.06	101.68	104.50
15	AO	10	DT	O4'-C4'-C3'	-7.06	101.68	104.50
167	Cq	22	DG	O4'-C4'-C3'	-7.06	101.68	104.50
1	AA	5524	DT	O4'-C1'-C2'	-7.05	100.26	105.90
1	AA	7952	DC	P-O3'-C3'	7.05	128.16	119.70
176	Cz	8	DG	O4'-C4'-C3'	-7.05	101.68	104.50
1	AA	4028	DG	O4'-C1'-C2'	-7.05	100.26	105.90
149	CY	7	DC	P-O3'-C3'	7.05	128.16	119.70
84	BV	41	DG	O4'-C1'-C2'	-7.05	100.26	105.90
140	CP	39	DG	O4'-C4'-C3'	-7.05	101.68	104.50
1	AA	6044	DT	O4'-C4'-C3'	-7.04	101.68	104.50
85	BW	56	DA	O4'-C4'-C3'	-7.04	101.68	104.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	2193	DG	O4'-C1'-C2'	-7.04	100.27	105.90
1	AA	6586	DT	C1'-O4'-C4'	-7.04	103.06	110.10
139	CO	37	DA	O4'-C1'-C2'	-7.04	100.27	105.90
1	AA	1476	DG	O4'-C1'-C2'	-7.04	100.27	105.90
1	AA	4764	DA	O4'-C1'-C2'	-7.04	100.27	105.90
185	C8	44	DA	O4'-C1'-C2'	-7.04	100.27	105.90
1	AA	2074	DA	P-O3'-C3'	7.04	128.15	119.70
1	AA	4504	DG	O4'-C1'-C2'	-7.04	100.27	105.90
15	AO	46	DG	O4'-C1'-C2'	-7.04	100.27	105.90
1	AA	7394	DG	O4'-C1'-C2'	-7.04	100.27	105.90
90	Bb	47	DG	O4'-C1'-C2'	-7.03	100.27	105.90
131	CG	1	DT	O4'-C1'-C2'	-7.03	100.28	105.90
1	AA	458	DA	O4'-C1'-C2'	-7.03	100.28	105.90
1	AA	3074	DT	O4'-C4'-C3'	-7.03	101.69	104.50
161	Ck	42	DG	O4'-C1'-C2'	-7.03	100.28	105.90
1	AA	7690	DA	P-O3'-C3'	7.03	128.13	119.70
55	A2	34	DG	P-O3'-C3'	7.02	128.13	119.70
1	AA	1606	DG	O4'-C4'-C3'	-7.02	101.69	104.50
1	AA	3079	DT	O4'-C4'-C3'	-7.02	101.69	104.50
1	AA	7560	DA	C4'-C3'-C2'	-7.02	96.78	103.10
90	Bb	20	DA	O4'-C1'-C2'	-7.02	100.29	105.90
110	Bv	17	DG	O4'-C1'-C2'	-7.02	100.29	105.90
191	DE	1	DT	C1'-O4'-C4'	-7.02	103.08	110.10
1	AA	99	DT	O4'-C1'-C2'	-7.02	100.29	105.90
112	Bx	22	DA	O4'-C1'-C2'	-7.01	100.29	105.90
1	AA	1231	DC	C4'-C3'-C2'	-7.01	96.79	103.10
168	Cr	29	DG	O4'-C1'-C2'	-7.01	100.29	105.90
1	AA	8016	DC	O4'-C1'-N1	7.01	112.91	108.00
1	AA	482	DA	O4'-C1'-C2'	-7.00	100.30	105.90
1	AA	5515	DG	C1'-O4'-C4'	-7.00	103.10	110.10
1	AA	7854	DG	O4'-C1'-C2'	-7.00	100.30	105.90
1	AA	6156	DC	P-O3'-C3'	7.00	128.10	119.70
1	AA	977	DG	P-O3'-C3'	7.00	128.09	119.70
1	AA	6929	DA	N1-C6-N6	-7.00	114.40	118.60
125	CA	20	DG	O4'-C1'-C2'	-7.00	100.30	105.90
1	AA	754	DT	O4'-C1'-C2'	-7.00	100.30	105.90
1	AA	1043	DG	O4'-C4'-C3'	-7.00	101.70	104.50
40	An	54	DC	P-O3'-C3'	7.00	128.09	119.70
1	AA	739	DC	P-O3'-C3'	6.99	128.09	119.70
1	AA	3721	DA	O4'-C1'-C2'	-6.99	100.31	105.90
1	AA	5609	DG	O4'-C1'-C2'	-6.99	100.31	105.90
1	AA	2151	DG	O4'-C1'-C2'	-6.99	100.31	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	Aj	35	DC	C4'-C3'-C2'	-6.99	96.81	103.10
189	DC	23	DT	C4'-C3'-C2'	-6.99	96.81	103.10
159	Ci	1	DA	O4'-C4'-C3'	-6.99	101.70	104.50
1	AA	253	DG	O4'-C1'-C2'	-6.99	100.31	105.90
1	AA	3473	DG	P-O3'-C3'	6.99	128.08	119.70
1	AA	542	DC	C4'-C3'-C2'	-6.98	96.82	103.10
1	AA	1428	DT	O4'-C1'-C2'	-6.98	100.32	105.90
1	AA	6353	DG	O4'-C1'-C2'	-6.98	100.32	105.90
1	AA	557	DG	O4'-C1'-C2'	-6.98	100.32	105.90
1	AA	858	DG	C5-C6-O6	-6.97	124.42	128.60
1	AA	2259	DG	O4'-C1'-C2'	-6.97	100.32	105.90
1	AA	3361	DT	C4'-C3'-C2'	-6.97	96.82	103.10
1	AA	7260	DG	C1'-O4'-C4'	-6.97	103.12	110.10
1	AA	6676	DG	P-O3'-C3'	6.97	128.07	119.70
1	AA	4625	DG	O4'-C1'-C2'	-6.97	100.33	105.90
1	AA	7128	DC	P-O3'-C3'	6.97	128.06	119.70
170	Ct	13	DC	C4'-C3'-C2'	-6.97	96.83	103.10
1	AA	3233	DC	O4'-C4'-C3'	-6.96	101.71	104.50
130	CF	4	DG	O4'-C1'-C2'	-6.96	100.33	105.90
1	AA	5227	DG	O4'-C1'-C2'	-6.96	100.33	105.90
108	Bt	17	DT	O4'-C1'-C2'	-6.96	100.33	105.90
1	AA	7991	DG	P-O3'-C3'	6.96	128.05	119.70
57	A4	41	DT	O4'-C1'-C2'	-6.95	100.34	105.90
79	BQ	20	DA	O4'-C4'-C3'	-6.95	101.72	104.50
142	CR	18	DA	P-O3'-C3'	6.95	128.04	119.70
1	AA	1349	DG	O4'-C1'-N9	6.95	112.86	108.00
168	Cr	21	DG	O4'-C1'-C2'	-6.95	100.34	105.90
1	AA	1706	DA	O4'-C1'-C2'	-6.95	100.34	105.90
1	AA	5187	DG	P-O3'-C3'	6.95	128.03	119.70
22	AV	1	DC	O4'-C4'-C3'	-6.95	101.72	104.50
98	Bj	1	DC	C1'-O4'-C4'	-6.94	103.16	110.10
155	Ce	11	DG	O4'-C1'-C2'	-6.94	100.35	105.90
1	AA	3216	DC	P-O3'-C3'	6.94	128.03	119.70
1	AA	5278	DG	O4'-C1'-N9	6.94	112.86	108.00
48	Av	40	DT	O4'-C4'-C3'	-6.94	101.72	104.50
86	BX	29	DA	C4'-C3'-C2'	-6.94	96.85	103.10
108	Bt	20	DG	N1-C6-O6	6.94	124.06	119.90
1	AA	5620	DA	O4'-C1'-C2'	-6.94	100.35	105.90
37	Ak	1	DA	O4'-C4'-C3'	-6.94	101.72	104.50
91	Bc	16	DC	C4'-C3'-C2'	-6.94	96.86	103.10
97	Bi	31	DA	O4'-C4'-C3'	-6.94	101.73	104.50
1	AA	4168	DT	O4'-C4'-C3'	-6.93	101.73	104.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
46	At	18	DT	C4'-C3'-C2'	-6.93	96.86	103.10
1	AA	3835	DA	O4'-C1'-C2'	-6.93	100.35	105.90
108	Bt	14	DT	O4'-C1'-C2'	-6.93	100.36	105.90
161	Ck	36	DG	P-O3'-C3'	6.93	128.01	119.70
1	AA	2974	DC	C1'-O4'-C4'	-6.93	103.17	110.10
1	AA	5045	DG	O4'-C1'-C2'	-6.93	100.36	105.90
111	Bw	30	DT	C4'-C3'-C2'	-6.93	96.87	103.10
1	AA	4016	DA	O4'-C1'-C2'	-6.92	100.36	105.90
39	Am	26	DA	O4'-C1'-N9	6.92	112.84	108.00
1	AA	242	DA	N1-C6-N6	-6.92	114.45	118.60
95	Bg	25	DT	C4'-C3'-C2'	-6.91	96.88	103.10
96	Bh	51	DC	C4'-C3'-C2'	-6.91	96.88	103.10
175	Cy	18	DG	O4'-C1'-C2'	-6.91	100.37	105.90
98	Bj	29	DC	P-O3'-C3'	6.91	127.99	119.70
1	AA	1555	DG	O4'-C1'-C2'	-6.91	100.37	105.90
1	AA	7074	DG	O4'-C1'-C2'	-6.91	100.38	105.90
1	AA	7744	DG	P-O3'-C3'	6.91	127.99	119.70
189	DC	12	DG	O4'-C1'-C2'	-6.91	100.37	105.90
1	AA	5640	DG	O4'-C1'-C2'	-6.90	100.38	105.90
1	AA	683	DG	O4'-C1'-C2'	-6.90	100.38	105.90
1	AA	3627	DC	C1'-O4'-C4'	-6.90	103.20	110.10
164	Cn	7	DA	O4'-C4'-C3'	-6.89	101.74	104.50
1	AA	4091	DG	O4'-C1'-C2'	-6.89	100.39	105.90
135	CK	9	DA	O4'-C1'-C2'	-6.89	100.39	105.90
143	CS	32	DT	O4'-C1'-C2'	-6.89	100.39	105.90
35	Ai	9	DA	O4'-C1'-C2'	-6.89	100.39	105.90
113	By	1	DG	O4'-C4'-C3'	-6.89	101.75	104.50
1	AA	4655	DG	O4'-C1'-C2'	-6.88	100.40	105.90
1	AA	1558	DG	O4'-C1'-C2'	-6.88	100.40	105.90
143	CS	12	DA	O4'-C1'-C2'	-6.88	100.40	105.90
1	AA	5357	DT	O4'-C1'-C2'	-6.88	100.40	105.90
1	AA	2764	DT	P-O3'-C3'	6.88	127.95	119.70
1	AA	5513	DG	O4'-C1'-C2'	-6.87	100.40	105.90
177	C0	52	DG	P-O3'-C3'	6.87	127.94	119.70
1	AA	4128	DC	P-O3'-C3'	6.87	127.94	119.70
1	AA	6044	DT	C4'-C3'-C2'	-6.87	96.92	103.10
94	Bf	43	DT	C4'-C3'-C2'	-6.87	96.92	103.10
73	BK	1	DC	O4'-C1'-C2'	-6.87	100.41	105.90
1	AA	2426	DA	O4'-C4'-C3'	-6.86	101.75	104.50
160	Cj	17	DC	O4'-C1'-N1	6.86	112.80	108.00
1	AA	35	DC	O4'-C4'-C3'	-6.86	101.76	104.50
105	Bq	18	DG	O4'-C1'-C2'	-6.86	100.42	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	5653	DC	O4'-C4'-C3'	-6.85	101.76	104.50
60	A7	31	DG	P-O3'-C3'	6.85	127.92	119.70
140	CP	1	DC	O4'-C1'-C2'	-6.85	100.42	105.90
1	AA	2246	DT	P-O3'-C3'	6.85	127.92	119.70
102	Bn	44	DG	C4'-C3'-C2'	-6.85	96.94	103.10
191	DE	41	DG	O4'-C1'-C2'	-6.85	100.42	105.90
50	Ax	18	DG	O4'-C4'-C3'	-6.85	101.76	104.50
55	A2	41	DG	C5-C6-O6	-6.84	124.49	128.60
120	B5	6	DC	O4'-C1'-C2'	-6.84	100.43	105.90
132	CH	24	DA	O4'-C1'-C2'	-6.84	100.43	105.90
1	AA	450	DG	O4'-C1'-C2'	-6.83	100.43	105.90
1	AA	3516	DA	C4'-C3'-C2'	-6.83	96.95	103.10
1	AA	3776	DG	O4'-C1'-C2'	-6.83	100.44	105.90
2	AB	16	DG	O4'-C1'-C2'	-6.83	100.44	105.90
1	AA	4400	DG	C4'-C3'-C2'	-6.83	96.95	103.10
1	AA	5732	DA	O4'-C4'-C3'	-6.83	101.77	104.50
92	Bd	30	DG	O4'-C1'-C2'	-6.83	100.44	105.90
1	AA	2230	DG	C4'-C3'-C2'	-6.83	96.96	103.10
1	AA	4919	DG	O4'-C1'-C2'	-6.82	100.44	105.90
15	AO	10	DT	C4'-C3'-C2'	-6.82	96.96	103.10
142	CR	48	DT	O4'-C1'-C2'	-6.82	100.44	105.90
1	AA	3908	DG	O4'-C1'-C2'	-6.82	100.44	105.90
130	CF	11	DT	O4'-C1'-C2'	-6.82	100.44	105.90
1	AA	2065	DC	C4'-C3'-C2'	-6.82	96.96	103.10
1	AA	6671	DA	C1'-O4'-C4'	-6.82	103.28	110.10
141	CQ	52	DT	C1'-O4'-C4'	-6.82	103.28	110.10
172	Cv	5	DC	O4'-C4'-C3'	-6.82	101.77	104.50
1	AA	2664	DG	O4'-C1'-C2'	-6.82	100.45	105.90
181	C4	17	DG	O4'-C1'-C2'	-6.82	100.45	105.90
1	AA	1623	DG	O4'-C1'-C2'	-6.82	100.45	105.90
1	AA	6980	DT	O4'-C1'-C2'	-6.81	100.45	105.90
1	AA	2230	DG	O4'-C4'-C3'	-6.81	101.78	104.50
1	AA	6960	DA	O4'-C1'-C2'	-6.81	100.45	105.90
109	Bu	29	DG	O4'-C1'-C2'	-6.81	100.45	105.90
113	By	19	DA	P-O3'-C3'	6.81	127.87	119.70
1	AA	3603	DA	C4'-C3'-C2'	-6.80	96.97	103.10
1	AA	4966	DA	O4'-C1'-C2'	-6.80	100.46	105.90
129	CE	1	DA	C1'-O4'-C4'	-6.80	103.30	110.10
136	CL	9	DA	O4'-C1'-C2'	-6.80	100.46	105.90
158	Ch	39	DA	O4'-C1'-C2'	-6.80	100.46	105.90
1	AA	6448	DT	O4'-C1'-C2'	-6.79	100.46	105.90
1	AA	6723	DT	C4'-C3'-C2'	-6.79	96.99	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	699	DG	P-O3'-C3'	6.78	127.84	119.70
91	Bc	24	DA	N1-C6-N6	-6.78	114.53	118.60
1	AA	5551	DA	O4'-C1'-C2'	-6.78	100.48	105.90
1	AA	6491	DG	P-O3'-C3'	6.78	127.83	119.70
53	A0	11	DC	C1'-O4'-C4'	-6.78	103.32	110.10
90	Bb	9	DA	O4'-C1'-N9	6.78	112.75	108.00
73	BK	7	DG	C1'-O4'-C4'	-6.78	103.32	110.10
165	Co	1	DC	C6-N1-C1'	-6.78	112.67	120.80
1	AA	802	DA	O4'-C1'-C2'	-6.77	100.48	105.90
119	B4	16	DG	O4'-C1'-C2'	-6.77	100.48	105.90
175	Cy	26	DA	P-O3'-C3'	6.77	127.83	119.70
1	AA	2741	DC	C1'-O4'-C4'	-6.77	103.33	110.10
163	Cm	10	DT	C4'-C3'-C2'	-6.77	97.01	103.10
1	AA	1	DT	C4'-C3'-C2'	-6.77	97.01	103.10
1	AA	2448	DA	P-O3'-C3'	6.77	127.82	119.70
11	AK	18	DT	O4'-C1'-C2'	-6.77	100.49	105.90
44	Ar	8	DA	O4'-C4'-C3'	-6.77	101.79	104.50
189	DC	25	DA	N1-C6-N6	-6.77	114.54	118.60
76	BN	26	DG	C1'-O4'-C4'	-6.76	103.34	110.10
1	AA	2855	DG	O4'-C1'-C2'	-6.76	100.49	105.90
5	AE	17	DC	O4'-C1'-C2'	-6.76	100.49	105.90
125	CA	47	DC	O4'-C1'-C2'	-6.76	100.49	105.90
1	AA	618	DG	O4'-C1'-C2'	-6.76	100.50	105.90
158	Ch	7	DT	O4'-C4'-C3'	-6.76	101.80	104.50
1	AA	5527	DG	O4'-C1'-C2'	-6.75	100.50	105.90
1	AA	899	DG	P-O3'-C3'	6.75	127.80	119.70
1	AA	3714	DT	C1'-O4'-C4'	-6.75	103.35	110.10
1	AA	4168	DT	C1'-O4'-C4'	-6.75	103.35	110.10
162	Cl	26	DT	O4'-C1'-C2'	-6.75	100.50	105.90
1	AA	7564	DG	C1'-O4'-C4'	-6.74	103.36	110.10
46	At	39	DA	O4'-C1'-C2'	-6.74	100.51	105.90
181	C4	48	DG	O4'-C1'-C2'	-6.74	100.50	105.90
62	A9	16	DA	C1'-O4'-C4'	-6.74	103.36	110.10
116	B1	38	DA	P-O3'-C3'	6.74	127.79	119.70
1	AA	1008	DG	O4'-C1'-C2'	-6.74	100.51	105.90
58	A5	26	DT	O4'-C1'-C2'	-6.74	100.51	105.90
1	AA	2134	DC	P-O3'-C3'	6.74	127.78	119.70
55	A2	41	DG	O4'-C1'-C2'	-6.73	100.52	105.90
95	Bg	23	DT	C4'-C3'-C2'	-6.73	97.05	103.10
54	A1	30	DG	O4'-C1'-C2'	-6.72	100.52	105.90
173	Cw	7	DG	O4'-C1'-C2'	-6.72	100.52	105.90
1	AA	234	DC	P-O3'-C3'	6.72	127.77	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	4029	DA	O4'-C4'-C3'	-6.72	101.81	104.50
19	AS	37	DT	O4'-C1'-C2'	-6.72	100.52	105.90
69	BG	36	DA	O4'-C1'-C2'	-6.72	100.52	105.90
112	Bx	7	DT	P-O3'-C3'	6.72	127.77	119.70
1	AA	237	DG	O4'-C1'-C2'	-6.72	100.53	105.90
90	Bb	1	DG	C1'-O4'-C4'	-6.72	103.38	110.10
102	Bn	7	DG	O4'-C1'-C2'	-6.72	100.53	105.90
1	AA	1925	DA	N1-C6-N6	-6.71	114.57	118.60
1	AA	5596	DT	C4'-C3'-C2'	-6.71	97.06	103.10
47	Au	23	DA	C1'-O4'-C4'	-6.71	103.39	110.10
1	AA	4559	DG	O4'-C1'-C2'	-6.71	100.53	105.90
1	AA	2831	DT	O4'-C1'-C2'	-6.71	100.53	105.90
1	AA	3866	DT	C4'-C3'-C2'	-6.71	97.06	103.10
1	AA	4877	DG	O4'-C1'-C2'	-6.71	100.53	105.90
1	AA	2641	DC	C4'-C3'-C2'	-6.71	97.06	103.10
96	Bh	56	DA	O4'-C1'-C2'	-6.71	100.53	105.90
75	BM	20	DT	O4'-C1'-C2'	-6.71	100.53	105.90
156	Cf	16	DG	O4'-C1'-C2'	-6.71	100.53	105.90
166	Cp	18	DG	O4'-C1'-C2'	-6.71	100.53	105.90
1	AA	3783	DG	O4'-C1'-C2'	-6.70	100.54	105.90
18	AR	17	DG	O4'-C1'-C2'	-6.70	100.54	105.90
1	AA	6564	DG	O4'-C1'-C2'	-6.70	100.54	105.90
1	AA	1206	DT	C4'-C3'-C2'	-6.70	97.07	103.10
1	AA	2674	DA	C4'-C3'-C2'	-6.70	97.07	103.10
1	AA	7557	DA	C1'-O4'-C4'	-6.70	103.40	110.10
89	Ba	26	DA	P-O3'-C3'	6.70	127.74	119.70
181	C4	27	DT	O4'-C1'-C2'	-6.70	100.54	105.90
1	AA	7972	DG	P-O3'-C3'	6.69	127.73	119.70
164	Cn	1	DC	O4'-C1'-C2'	-6.69	100.55	105.90
1	AA	4484	DG	O4'-C1'-C2'	-6.69	100.55	105.90
1	AA	7139	DG	C5-C6-O6	-6.69	124.59	128.60
50	Ax	9	DT	C4'-C3'-C2'	-6.69	97.08	103.10
1	AA	3290	DG	O4'-C1'-C2'	-6.69	100.55	105.90
49	Aw	9	DA	O4'-C1'-N9	6.69	112.68	108.00
1	AA	5473	DA	O4'-C4'-C3'	-6.68	101.83	104.50
1	AA	601	DC	O4'-C4'-C3'	-6.68	101.83	104.50
1	AA	1726	DC	O4'-C1'-C2'	-6.68	100.56	105.90
193	DG	1	DC	C1'-O4'-C4'	-6.68	103.42	110.10
75	BM	12	DA	O4'-C1'-C2'	-6.68	100.56	105.90
6	AF	8	DA	O4'-C1'-C2'	-6.67	100.56	105.90
43	Aq	18	DG	O4'-C4'-C3'	-6.67	101.83	104.50
1	AA	7369	DG	O4'-C1'-C2'	-6.67	100.56	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
96	Bh	35	DG	O4'-C1'-C2'	-6.67	100.56	105.90
1	AA	3859	DG	O4'-C1'-C2'	-6.67	100.56	105.90
177	C0	51	DC	O4'-C1'-C2'	-6.67	100.56	105.90
1	AA	3506	DC	C1'-O4'-C4'	-6.67	103.43	110.10
43	Aq	42	DG	O4'-C1'-C2'	-6.67	100.56	105.90
108	Bt	20	DG	C5-C6-O6	-6.67	124.60	128.60
1	AA	3364	DT	O4'-C1'-C2'	-6.67	100.57	105.90
30	Ad	13	DG	O4'-C1'-C2'	-6.67	100.57	105.90
1	AA	1952	DA	C4'-C3'-C2'	-6.67	97.10	103.10
1	AA	5603	DG	O4'-C1'-C2'	-6.66	100.57	105.90
188	DB	14	DC	P-O3'-C3'	6.66	127.69	119.70
1	AA	4761	DA	C4'-C3'-C2'	-6.66	97.11	103.10
1	AA	3475	DC	P-O3'-C3'	6.66	127.69	119.70
1	AA	4966	DA	P-O3'-C3'	6.66	127.69	119.70
44	Ar	8	DA	O4'-C1'-C2'	-6.66	100.58	105.90
183	C6	20	DG	O4'-C1'-C2'	-6.65	100.58	105.90
1	AA	6591	DG	O4'-C1'-C2'	-6.65	100.58	105.90
1	AA	33	DG	C1'-O4'-C4'	-6.65	103.45	110.10
1	AA	7955	DG	C1'-O4'-C4'	-6.65	103.45	110.10
165	Co	1	DC	C1'-O4'-C4'	-6.65	103.45	110.10
188	DB	25	DT	C4'-C3'-C2'	-6.65	97.12	103.10
1	AA	4714	DT	O4'-C1'-C2'	-6.65	100.58	105.90
1	AA	6083	DA	C1'-O4'-C4'	-6.64	103.46	110.10
17	AQ	11	DT	O4'-C4'-C3'	-6.64	101.84	104.50
157	Cg	4	DG	O4'-C1'-C2'	-6.64	100.58	105.90
1	AA	6983	DA	O4'-C1'-C2'	-6.64	100.59	105.90
64	BB	1	DA	O4'-C1'-C2'	-6.64	100.59	105.90
1	AA	1710	DG	O4'-C4'-C3'	-6.64	101.84	104.50
1	AA	6421	DT	C4'-C3'-C2'	-6.64	97.13	103.10
1	AA	3275	DG	O4'-C1'-C2'	-6.63	100.59	105.90
61	A8	31	DG	O4'-C1'-C2'	-6.63	100.59	105.90
1	AA	1038	DG	P-O3'-C3'	6.63	127.66	119.70
1	AA	4036	DA	O4'-C1'-C2'	-6.63	100.59	105.90
112	Bx	25	DG	O4'-C4'-C3'	-6.63	101.85	104.50
89	Ba	16	DC	C6-N1-C1'	-6.63	112.84	120.80
159	Ci	30	DC	P-O3'-C3'	6.63	127.65	119.70
1	AA	383	DA	O4'-C1'-C2'	-6.62	100.60	105.90
94	Bf	10	DG	P-O3'-C3'	6.62	127.65	119.70
1	AA	6992	DT	O4'-C1'-C2'	-6.62	100.60	105.90
109	Bu	18	DG	P-O3'-C3'	6.62	127.65	119.70
1	AA	4076	DA	O4'-C4'-C3'	-6.62	101.85	104.50
1	AA	7991	DG	O4'-C4'-C3'	-6.62	101.85	104.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
48	Av	33	DA	C1'-O4'-C4'	-6.62	103.48	110.10
1	AA	4583	DT	O4'-C4'-C3'	-6.62	101.85	104.50
85	BW	39	DG	P-O3'-C3'	6.62	127.64	119.70
1	AA	6510	DT	O4'-C4'-C3'	-6.62	101.85	104.50
1	AA	5823	DA	N1-C6-N6	-6.62	114.63	118.60
180	C3	1	DC	C6-N1-C1'	-6.62	112.86	120.80
1	AA	7072	DG	O4'-C1'-C2'	-6.62	100.61	105.90
50	Ax	12	DG	O4'-C1'-C2'	-6.62	100.61	105.90
1	AA	5473	DA	C4'-C3'-C2'	-6.61	97.15	103.10
130	CF	20	DG	O4'-C1'-C2'	-6.61	100.61	105.90
1	AA	7469	DT	O4'-C1'-C2'	-6.61	100.61	105.90
136	CL	37	DG	O4'-C1'-C2'	-6.61	100.61	105.90
1	AA	542	DC	O4'-C4'-C3'	-6.61	101.86	104.50
1	AA	4700	DG	O4'-C1'-C2'	-6.61	100.61	105.90
112	Bx	1	DT	C1'-O4'-C4'	-6.61	103.49	110.10
151	Ca	30	DG	C1'-O4'-C4'	-6.61	103.49	110.10
1	AA	5793	DG	O4'-C1'-C2'	-6.61	100.61	105.90
50	Ax	34	DG	C1'-O4'-C4'	-6.61	103.49	110.10
1	AA	6452	DA	P-O3'-C3'	6.60	127.62	119.70
15	AO	24	DT	C4'-C3'-C2'	-6.60	97.16	103.10
1	AA	3560	DG	P-O3'-C3'	6.60	127.62	119.70
1	AA	3761	DA	C4'-C3'-C2'	-6.60	97.16	103.10
1	AA	4301	DA	C4'-C3'-C2'	-6.60	97.16	103.10
1	AA	6186	DA	O4'-C1'-C2'	-6.60	100.62	105.90
1	AA	4038	DC	P-O3'-C3'	6.60	127.62	119.70
1	AA	6130	DC	C4'-C3'-C2'	-6.60	97.16	103.10
62	A9	43	DA	O4'-C1'-C2'	-6.60	100.62	105.90
1	AA	1783	DG	O4'-C1'-C2'	-6.60	100.62	105.90
175	Cy	18	DG	P-O3'-C3'	6.60	127.62	119.70
1	AA	587	DG	O4'-C1'-C2'	-6.60	100.62	105.90
1	AA	4935	DA	P-O3'-C3'	6.60	127.62	119.70
1	AA	4108	DC	O4'-C4'-C3'	-6.59	101.86	104.50
1	AA	5447	DT	O4'-C1'-C2'	-6.59	100.62	105.90
1	AA	4413	DA	C4'-C3'-C2'	-6.59	97.17	103.10
183	C6	8	DA	C4'-C3'-C2'	-6.59	97.17	103.10
126	CB	22	DT	O4'-C1'-C2'	-6.59	100.63	105.90
129	CE	15	DG	C1'-O4'-C4'	-6.59	103.51	110.10
42	Ap	2	DT	C4'-C3'-C2'	-6.59	97.17	103.10
51	Ay	1	DC	C2-N1-C1'	6.59	126.05	118.80
1	AA	933	DG	C4'-C3'-C2'	-6.58	97.17	103.10
1	AA	4464	DA	O4'-C1'-C2'	-6.58	100.63	105.90
1	AA	4481	DA	O4'-C1'-C2'	-6.58	100.64	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
101	Bm	31	DT	O4'-C4'-C3'	-6.58	101.87	104.50
1	AA	5759	DG	O4'-C1'-C2'	-6.58	100.64	105.90
1	AA	203	DG	O4'-C1'-C2'	-6.58	100.64	105.90
129	CE	15	DG	P-O3'-C3'	6.57	127.59	119.70
165	Co	12	DT	C4'-C3'-C2'	-6.57	97.18	103.10
1	AA	1101	DT	O4'-C1'-N1	6.57	112.60	108.00
1	AA	5951	DG	O4'-C1'-C2'	-6.57	100.64	105.90
1	AA	2545	DA	O4'-C1'-C2'	-6.57	100.64	105.90
1	AA	3600	DC	P-O3'-C3'	6.57	127.58	119.70
1	AA	5491	DA	O4'-C1'-C2'	-6.57	100.64	105.90
1	AA	7203	DG	C4'-C3'-C2'	-6.57	97.19	103.10
1	AA	3489	DT	O4'-C4'-C3'	-6.57	101.87	104.50
105	Bq	31	DG	O4'-C1'-C2'	-6.57	100.64	105.90
37	Ak	32	DG	O4'-C1'-C2'	-6.57	100.65	105.90
1	AA	99	DT	O4'-C1'-N1	6.56	112.59	108.00
1	AA	1032	DG	O4'-C1'-C2'	-6.56	100.65	105.90
1	AA	3359	DG	O4'-C1'-C2'	-6.56	100.65	105.90
1	AA	3623	DA	C1'-O4'-C4'	-6.56	103.54	110.10
67	BE	26	DG	O4'-C4'-C3'	-6.56	101.88	104.50
1	AA	4462	DG	O4'-C1'-C2'	-6.56	100.65	105.90
1	AA	7568	DG	O4'-C1'-C2'	-6.56	100.65	105.90
1	AA	4068	DG	O4'-C1'-C2'	-6.56	100.65	105.90
195	DI	4	DG	O4'-C1'-C2'	-6.56	100.65	105.90
1	AA	1080	DA	O4'-C1'-C2'	-6.56	100.66	105.90
1	AA	1618	DA	P-O3'-C3'	6.55	127.57	119.70
164	Cn	18	DT	P-O3'-C3'	6.55	127.56	119.70
1	AA	7544	DT	O4'-C1'-C2'	-6.55	100.66	105.90
1	AA	3067	DG	O4'-C1'-C2'	-6.55	100.66	105.90
1	AA	7176	DG	O4'-C1'-C2'	-6.55	100.66	105.90
1	AA	6316	DA	O4'-C1'-C2'	-6.54	100.66	105.90
1	AA	1198	DA	N1-C6-N6	-6.54	114.67	118.60
186	C9	45	DG	O4'-C1'-C2'	-6.54	100.67	105.90
1	AA	1180	DG	O4'-C4'-C3'	-6.54	101.88	104.50
1	AA	6827	DG	P-O3'-C3'	6.54	127.55	119.70
88	BZ	13	DG	O4'-C1'-C2'	-6.54	100.67	105.90
131	CG	21	DG	O4'-C1'-C2'	-6.54	100.67	105.90
143	CS	40	DA	O4'-C1'-C2'	-6.54	100.67	105.90
152	Cb	5	DG	O4'-C1'-C2'	-6.54	100.67	105.90
1	AA	4072	DG	C1'-O4'-C4'	-6.54	103.56	110.10
1	AA	865	DC	O4'-C4'-C3'	-6.54	101.89	104.50
1	AA	1098	DC	O4'-C1'-C2'	-6.54	100.67	105.90
1	AA	5246	DT	C4'-C3'-C2'	-6.54	97.22	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	6799	DT	O4'-C4'-C3'	-6.53	101.89	104.50
1	AA	4472	DG	O4'-C1'-C2'	-6.53	100.67	105.90
1	AA	1022	DG	O4'-C1'-N9	6.53	112.57	108.00
1	AA	7246	DA	C4'-C3'-C2'	-6.53	97.22	103.10
6	AF	45	DT	O4'-C4'-C3'	-6.53	101.89	104.50
1	AA	1723	DT	P-O3'-C3'	6.53	127.53	119.70
1	AA	6073	DT	O4'-C4'-C3'	-6.53	101.89	104.50
1	AA	479	DG	O4'-C1'-C2'	-6.53	100.68	105.90
1	AA	6766	DT	O4'-C1'-C2'	-6.53	100.68	105.90
1	AA	1821	DC	C4'-C3'-C2'	-6.53	97.23	103.10
1	AA	7629	DG	O4'-C1'-C2'	-6.53	100.68	105.90
134	CJ	50	DG	N1-C6-O6	6.53	123.81	119.90
1	AA	4554	DT	O4'-C4'-C3'	-6.52	101.89	104.50
139	CO	9	DG	O4'-C1'-C2'	-6.52	100.68	105.90
59	A6	22	DG	P-O3'-C3'	6.52	127.53	119.70
143	CS	4	DG	O4'-C1'-C2'	-6.52	100.68	105.90
113	By	9	DA	O4'-C1'-C2'	-6.52	100.69	105.90
122	B7	2	DA	C1'-O4'-C4'	-6.52	103.58	110.10
1	AA	3720	DA	N1-C6-N6	-6.51	114.69	118.60
32	Af	22	DG	O4'-C1'-C2'	-6.51	100.69	105.90
154	Cd	28	DG	O4'-C1'-C2'	-6.51	100.69	105.90
167	Cq	25	DG	O4'-C4'-C3'	-6.51	101.89	104.50
1	AA	6524	DG	O4'-C4'-C3'	-6.51	101.90	104.50
144	CT	4	DG	C1'-O4'-C4'	-6.51	103.59	110.10
1	AA	1204	DG	O4'-C1'-C2'	-6.51	100.69	105.90
55	A2	9	DC	O4'-C1'-C2'	-6.51	100.69	105.90
144	CT	43	DG	O4'-C1'-C2'	-6.51	100.69	105.90
1	AA	5429	DT	O4'-C4'-C3'	-6.50	101.90	104.50
193	DG	11	DG	O4'-C1'-C2'	-6.50	100.70	105.90
1	AA	6134	DT	C4'-C3'-C2'	-6.50	97.25	103.10
157	Cg	30	DC	O4'-C1'-C2'	-6.50	100.70	105.90
183	C6	36	DG	O4'-C1'-C2'	-6.50	100.70	105.90
189	DC	26	DG	O4'-C1'-C2'	-6.50	100.70	105.90
1	AA	6799	DT	C4'-C3'-C2'	-6.50	97.25	103.10
124	B9	42	DT	C4'-C3'-C2'	-6.50	97.25	103.10
1	AA	846	DG	C5-C6-O6	-6.50	124.70	128.60
135	CK	10	DG	O4'-C1'-C2'	-6.50	100.70	105.90
1	AA	3560	DG	O4'-C1'-N9	6.50	112.55	108.00
1	AA	7624	DG	O4'-C1'-C2'	-6.50	100.70	105.90
63	BA	21	DG	O4'-C1'-C2'	-6.50	100.70	105.90
1	AA	4122	DA	C1'-O4'-C4'	-6.50	103.60	110.10
24	AX	56	DT	C4'-C3'-C2'	-6.50	97.25	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
93	Be	37	DA	O4'-C1'-C2'	-6.49	100.71	105.90
180	C3	1	DC	O4'-C1'-C2'	-6.49	100.70	105.90
1	AA	6658	DG	O4'-C1'-C2'	-6.49	100.71	105.90
169	Cs	18	DT	O4'-C4'-C3'	-6.49	101.90	104.50
1	AA	7057	DA	C1'-O4'-C4'	-6.49	103.61	110.10
59	A6	22	DG	O4'-C1'-C2'	-6.49	100.71	105.90
1	AA	2901	DA	C4'-C3'-C2'	-6.48	97.27	103.10
132	CH	47	DC	P-O3'-C3'	6.48	127.48	119.70
1	AA	1353	DC	C4'-C3'-C2'	-6.48	97.27	103.10
70	BH	5	DT	O4'-C1'-C2'	-6.48	100.71	105.90
1	AA	6270	DA	O4'-C1'-C2'	-6.48	100.72	105.90
30	Ad	1	DC	C1'-O4'-C4'	-6.48	103.62	110.10
1	AA	995	DC	P-O3'-C3'	6.48	127.47	119.70
1	AA	7230	DG	O4'-C1'-C2'	-6.47	100.72	105.90
1	AA	798	DG	O4'-C1'-N9	6.47	112.53	108.00
1	AA	2816	DG	O4'-C1'-C2'	-6.47	100.72	105.90
1	AA	3843	DA	O4'-C1'-C2'	-6.47	100.72	105.90
1	AA	5814	DG	O4'-C1'-C2'	-6.47	100.72	105.90
1	AA	7528	DC	P-O3'-C3'	6.47	127.47	119.70
177	C0	45	DA	O4'-C1'-C2'	-6.47	100.72	105.90
1	AA	6432	DG	O4'-C1'-N9	6.47	112.53	108.00
7	AG	48	DG	O4'-C1'-C2'	-6.47	100.72	105.90
1	AA	198	DT	O4'-C1'-C2'	-6.47	100.73	105.90
1	AA	1349	DG	O4'-C1'-C2'	-6.47	100.73	105.90
1	AA	2903	DT	C4'-C3'-C2'	-6.47	97.28	103.10
79	BQ	51	DT	O4'-C4'-C3'	-6.47	101.91	104.50
151	Ca	30	DG	O4'-C4'-C3'	-6.47	101.91	104.50
1	AA	2246	DT	C1'-O4'-C4'	-6.46	103.64	110.10
72	BJ	26	DG	O4'-C1'-C2'	-6.46	100.73	105.90
1	AA	4938	DT	C4'-C3'-C2'	-6.46	97.28	103.10
1	AA	5455	DG	O4'-C1'-C2'	-6.46	100.73	105.90
169	Cs	6	DG	O4'-C1'-C2'	-6.46	100.73	105.90
1	AA	5100	DT	C4'-C3'-C2'	-6.46	97.29	103.10
1	AA	6576	DG	P-O3'-C3'	6.46	127.45	119.70
1	AA	3690	DG	O4'-C1'-C2'	-6.46	100.73	105.90
1	AA	1416	DT	P-O3'-C3'	6.46	127.45	119.70
1	AA	2801	DG	O4'-C1'-C2'	-6.45	100.74	105.90
1	AA	170	DA	O4'-C1'-C2'	-6.45	100.74	105.90
1	AA	4709	DG	O4'-C4'-C3'	-6.45	101.92	104.50
1	AA	3744	DA	C1'-O4'-C4'	-6.45	103.65	110.10
143	CS	27	DA	O4'-C1'-C2'	-6.45	100.74	105.90
1	AA	5075	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	7196	DA	O4'-C4'-C3'	-6.45	101.92	104.50
81	BS	24	DC	P-O5'-C5'	6.44	131.21	120.90
114	Bz	5	DG	O4'-C1'-C2'	-6.44	100.75	105.90
167	Cq	25	DG	C4'-C3'-C2'	-6.44	97.30	103.10
4	AD	22	DC	C2-N1-C1'	6.44	125.89	118.80
131	CG	29	DG	P-O3'-C3'	6.44	127.43	119.70
10	AJ	45	DG	O4'-C1'-C2'	-6.44	100.75	105.90
58	A5	1	DT	C4'-C3'-C2'	-6.44	97.30	103.10
1	AA	2084	DT	C4'-C3'-C2'	-6.44	97.31	103.10
1	AA	7218	DG	P-O3'-C3'	6.44	127.43	119.70
1	AA	7703	DG	O4'-C1'-C2'	-6.44	100.75	105.90
1	AA	7975	DC	O4'-C1'-C2'	-6.44	100.75	105.90
55	A2	6	DG	C5-C6-O6	-6.43	124.74	128.60
154	Cd	18	DT	O4'-C1'-C2'	-6.43	100.75	105.90
1	AA	1998	DG	O4'-C1'-C2'	-6.43	100.75	105.90
84	BV	40	DA	O4'-C4'-C3'	-6.43	101.93	104.50
162	Cl	39	DC	O4'-C1'-C2'	-6.43	100.75	105.90
1	AA	3182	DG	O4'-C4'-C3'	-6.43	101.93	104.50
1	AA	4124	DG	O4'-C1'-C2'	-6.43	100.76	105.90
158	Ch	28	DT	C4'-C3'-C2'	-6.43	97.31	103.10
1	AA	3661	DG	O4'-C1'-C2'	-6.42	100.76	105.90
1	AA	3984	DT	O4'-C1'-C2'	-6.42	100.76	105.90
1	AA	4333	DT	P-O3'-C3'	6.42	127.41	119.70
107	Bs	13	DG	O4'-C1'-C2'	-6.42	100.76	105.90
110	Bv	40	DT	O4'-C1'-C2'	-6.42	100.76	105.90
124	B9	19	DC	O4'-C4'-C3'	-6.42	101.93	104.50
129	CE	4	DG	P-O3'-C3'	6.42	127.40	119.70
5	AE	5	DC	C1'-O4'-C4'	-6.42	103.69	110.10
1	AA	4738	DT	C4'-C3'-C2'	-6.41	97.33	103.10
1	AA	7571	DC	O4'-C1'-C2'	-6.41	100.77	105.90
1	AA	6921	DG	O4'-C1'-C2'	-6.41	100.77	105.90
111	Bw	11	DA	C5-C6-N6	6.41	128.83	123.70
1	AA	7334	DG	O4'-C1'-C2'	-6.41	100.77	105.90
23	AW	47	DC	O4'-C1'-C2'	-6.41	100.77	105.90
157	Cg	11	DA	C4'-C3'-C2'	-6.41	97.33	103.10
1	AA	1299	DG	O4'-C1'-C2'	-6.41	100.77	105.90
1	AA	344	DG	O4'-C1'-C2'	-6.41	100.78	105.90
110	Bv	8	DA	O4'-C1'-C2'	-6.40	100.78	105.90
28	Ab	26	DG	O4'-C4'-C3'	-6.40	101.94	104.50
45	As	32	DG	C1'-O4'-C4'	-6.40	103.70	110.10
1	AA	4126	DT	P-O3'-C3'	6.40	127.38	119.70
1	AA	7025	DA	O4'-C1'-C2'	-6.40	100.78	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	7946	DG	O4'-C1'-N9	6.40	112.48	108.00
1	AA	1001	DC	C1'-O4'-C4'	-6.40	103.70	110.10
102	Bn	33	DC	O4'-C1'-N1	6.40	112.48	108.00
173	Cw	19	DG	O4'-C1'-C2'	-6.40	100.78	105.90
1	AA	705	DC	O4'-C1'-C2'	-6.40	100.78	105.90
1	AA	2381	DA	O4'-C1'-C2'	-6.39	100.78	105.90
66	BD	29	DT	C4'-C3'-C2'	-6.39	97.34	103.10
1	AA	2793	DT	O4'-C4'-C3'	-6.39	101.94	104.50
16	AP	18	DG	O4'-C1'-C2'	-6.39	100.79	105.90
50	Ax	20	DA	P-O3'-C3'	6.39	127.37	119.70
106	Br	25	DG	O4'-C1'-C2'	-6.39	100.78	105.90
94	Bf	34	DG	O4'-C1'-C2'	-6.39	100.79	105.90
140	CP	21	DG	O4'-C1'-C2'	-6.39	100.79	105.90
7	AG	25	DG	O4'-C4'-C3'	-6.39	101.94	104.50
65	BC	8	DG	C1'-O4'-C4'	-6.39	103.71	110.10
129	CE	28	DG	O4'-C1'-C2'	-6.39	100.79	105.90
140	CP	26	DG	O4'-C1'-C2'	-6.39	100.79	105.90
1	AA	2801	DG	C1'-O4'-C4'	-6.38	103.72	110.10
38	Al	1	DT	C4'-C3'-C2'	-6.38	97.36	103.10
182	C5	25	DA	O4'-C1'-C2'	-6.38	100.79	105.90
55	A2	9	DC	O4'-C1'-N1	6.38	112.47	108.00
1	AA	3473	DG	C1'-O4'-C4'	-6.38	103.72	110.10
1	AA	395	DA	O4'-C1'-C2'	-6.38	100.80	105.90
66	BD	38	DT	C4'-C3'-C2'	-6.38	97.36	103.10
121	B6	23	DC	O4'-C1'-C2'	-6.38	100.80	105.90
1	AA	1936	DA	C4'-C3'-C2'	-6.38	97.36	103.10
1	AA	3184	DT	O4'-C4'-C3'	-6.37	101.95	104.50
19	AS	10	DG	O4'-C1'-C2'	-6.37	100.80	105.90
1	AA	4804	DG	O4'-C1'-C2'	-6.37	100.80	105.90
1	AA	8058	DA	O4'-C4'-C3'	-6.37	101.95	104.50
187	DA	20	DG	C5-C6-O6	-6.37	124.78	128.60
1	AA	3134	DT	C4'-C3'-C2'	-6.37	97.37	103.10
1	AA	6914	DT	O4'-C1'-C2'	-6.37	100.81	105.90
4	AD	15	DT	C1'-O4'-C4'	-6.37	103.73	110.10
125	CA	20	DG	O4'-C1'-N9	6.37	112.46	108.00
127	CC	6	DT	P-O3'-C3'	6.37	127.34	119.70
1	AA	3123	DC	P-O3'-C3'	6.36	127.34	119.70
1	AA	6070	DC	P-O3'-C3'	6.36	127.34	119.70
61	A8	10	DG	P-O3'-C3'	6.36	127.34	119.70
168	Cr	5	DG	C1'-O4'-C4'	-6.36	103.74	110.10
1	AA	3437	DC	O4'-C4'-C3'	-6.36	101.96	104.50
1	AA	6993	DG	O4'-C1'-C2'	-6.36	100.81	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	Aj	10	DA	O4'-C1'-C2'	-6.36	100.81	105.90
159	Ci	27	DT	C4'-C3'-C2'	-6.36	97.38	103.10
1	AA	654	DG	O4'-C1'-C2'	-6.36	100.81	105.90
1	AA	3610	DC	P-O3'-C3'	6.36	127.33	119.70
26	AZ	18	DG	C1'-O4'-C4'	-6.36	103.74	110.10
83	BU	36	DA	P-O3'-C3'	6.36	127.33	119.70
1	AA	187	DT	O4'-C4'-C3'	-6.36	101.96	104.50
127	CC	11	DC	O4'-C1'-C2'	-6.36	100.81	105.90
1	AA	3940	DT	O4'-C1'-C2'	-6.35	100.82	105.90
1	AA	4016	DA	P-O3'-C3'	6.35	127.32	119.70
119	B4	9	DG	C1'-O4'-C4'	-6.35	103.75	110.10
168	Cr	5	DG	O4'-C1'-C2'	-6.35	100.82	105.90
1	AA	2866	DA	O4'-C1'-C2'	-6.35	100.82	105.90
55	A2	12	DC	P-O3'-C3'	6.35	127.32	119.70
164	Cn	7	DA	C4'-C3'-C2'	-6.35	97.39	103.10
169	Cs	9	DG	O4'-C1'-C2'	-6.35	100.82	105.90
172	Cv	26	DA	O4'-C1'-C2'	-6.35	100.82	105.90
1	AA	6364	DA	O4'-C1'-C2'	-6.34	100.83	105.90
1	AA	7037	DA	C4'-C3'-C2'	-6.34	97.39	103.10
1	AA	7068	DG	O4'-C1'-C2'	-6.34	100.82	105.90
35	Ai	17	DG	O4'-C1'-C2'	-6.34	100.83	105.90
103	Bo	28	DG	O4'-C1'-N9	6.34	112.44	108.00
1	AA	6965	DC	C4'-C3'-C2'	-6.34	97.39	103.10
41	Ao	14	DC	O4'-C1'-C2'	-6.34	100.83	105.90
1	AA	5615	DA	O4'-C1'-C2'	-6.34	100.83	105.90
1	AA	7413	DC	P-O5'-C5'	6.34	131.04	120.90
1	AA	1637	DA	O4'-C1'-C2'	-6.34	100.83	105.90
8	AH	56	DA	N1-C6-N6	-6.34	114.80	118.60
23	AW	39	DG	O4'-C1'-C2'	-6.34	100.83	105.90
1	AA	2863	DT	O4'-C1'-C2'	-6.34	100.83	105.90
1	AA	3175	DG	C1'-O4'-C4'	-6.34	103.76	110.10
1	AA	6382	DT	P-O3'-C3'	6.33	127.30	119.70
10	AJ	27	DT	C1'-O4'-C4'	-6.33	103.77	110.10
100	Bl	26	DT	C4'-C3'-C2'	-6.33	97.40	103.10
103	Bo	24	DA	O4'-C1'-C2'	-6.33	100.83	105.90
1	AA	3259	DT	C1'-O4'-C4'	-6.33	103.77	110.10
74	BL	24	DG	O4'-C1'-C2'	-6.33	100.84	105.90
111	Bw	10	DA	O4'-C1'-C2'	-6.33	100.84	105.90
1	AA	3175	DG	O4'-C4'-C3'	-6.33	101.97	104.50
20	AT	32	DG	C4'-C3'-C2'	-6.33	97.41	103.10
1	AA	1926	DC	O4'-C4'-C3'	-6.33	101.97	104.50
1	AA	2145	DG	O4'-C1'-C2'	-6.33	100.84	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
16	AP	11	DA	O4'-C1'-C2'	-6.33	100.84	105.90
1	AA	743	DA	C1'-O4'-C4'	-6.32	103.78	110.10
1	AA	5033	DG	O4'-C1'-C2'	-6.32	100.84	105.90
1	AA	204	DG	C1'-O4'-C4'	-6.32	103.78	110.10
1	AA	1068	DG	O4'-C1'-C2'	-6.32	100.84	105.90
1	AA	6629	DT	C1'-O4'-C4'	-6.32	103.78	110.10
1	AA	2687	DG	O4'-C1'-C2'	-6.32	100.84	105.90
182	C5	42	DG	O4'-C1'-C2'	-6.32	100.84	105.90
1	AA	2619	DA	C4'-C3'-C2'	-6.32	97.41	103.10
1	AA	7203	DG	O4'-C4'-C3'	-6.32	101.97	104.50
182	C5	18	DA	O4'-C1'-C2'	-6.32	100.85	105.90
1	AA	5716	DA	O4'-C1'-C2'	-6.32	100.85	105.90
1	AA	18	DC	P-O3'-C3'	6.31	127.28	119.70
1	AA	3233	DC	C4'-C3'-C2'	-6.31	97.42	103.10
31	Ae	22	DA	O4'-C1'-C2'	-6.31	100.85	105.90
1	AA	2880	DA	O4'-C1'-C2'	-6.31	100.85	105.90
1	AA	7497	DG	O4'-C1'-C2'	-6.31	100.85	105.90
141	CQ	48	DG	C4'-C3'-C2'	-6.31	97.42	103.10
1	AA	7720	DT	C4'-C3'-C2'	-6.31	97.42	103.10
64	BB	32	DC	O4'-C1'-C2'	-6.31	100.85	105.90
67	BE	36	DT	O4'-C1'-C2'	-6.31	100.85	105.90
1	AA	5863	DT	O4'-C1'-C2'	-6.31	100.86	105.90
1	AA	4935	DA	O4'-C1'-C2'	-6.30	100.86	105.90
88	BZ	8	DT	C4'-C3'-C2'	-6.30	97.42	103.10
1	AA	3150	DA	O4'-C4'-C3'	-6.30	101.98	104.50
1	AA	2749	DG	O4'-C1'-C2'	-6.30	100.86	105.90
97	Bi	12	DC	C4'-C3'-C2'	-6.30	97.43	103.10
195	DI	16	DG	O4'-C1'-C2'	-6.30	100.86	105.90
1	AA	1283	DG	P-O3'-C3'	6.30	127.26	119.70
1	AA	2452	DG	P-O3'-C3'	6.30	127.26	119.70
1	AA	2745	DA	O4'-C1'-C2'	-6.30	100.86	105.90
1	AA	5756	DG	O4'-C1'-C2'	-6.30	100.86	105.90
1	AA	7485	DG	O4'-C1'-C2'	-6.30	100.86	105.90
116	B1	57	DT	P-O3'-C3'	6.30	127.26	119.70
1	AA	2296	DA	O4'-C4'-C3'	-6.30	101.98	104.50
132	CH	18	DA	O4'-C1'-C2'	-6.30	100.86	105.90
1	AA	7196	DA	C4'-C3'-C2'	-6.30	97.43	103.10
25	AY	24	DG	C4'-C3'-C2'	-6.29	97.44	103.10
76	BN	36	DA	O4'-C1'-C2'	-6.29	100.86	105.90
133	CI	24	DC	C2-N1-C1'	6.29	125.72	118.80
192	DF	14	DG	P-O3'-C3'	6.29	127.25	119.70
1	AA	798	DG	O4'-C1'-C2'	-6.29	100.87	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	7236	DG	C1'-O4'-C4'	-6.29	103.81	110.10
124	B9	18	DG	O4'-C4'-C3'	-6.29	101.98	104.50
161	Ck	18	DA	P-O3'-C3'	6.29	127.25	119.70
1	AA	884	DC	C4'-C3'-C2'	-6.29	97.44	103.10
6	AF	12	DT	C4'-C3'-C2'	-6.29	97.44	103.10
112	Bx	7	DT	O4'-C1'-C2'	-6.29	100.87	105.90
1	AA	6341	DC	O4'-C1'-C2'	-6.29	100.87	105.90
106	Br	28	DA	C1'-O4'-C4'	-6.29	103.81	110.10
1	AA	2974	DC	O4'-C4'-C3'	-6.29	101.98	104.50
1	AA	6062	DA	O4'-C1'-C2'	-6.29	100.87	105.90
45	As	1	DG	C1'-O4'-C4'	-6.29	103.81	110.10
1	AA	2442	DA	O4'-C1'-C2'	-6.28	100.87	105.90
1	AA	3526	DG	C5-C6-O6	-6.28	124.83	128.60
45	As	5	DG	C4'-C3'-C2'	-6.28	97.45	103.10
120	B5	45	DG	O4'-C1'-C2'	-6.28	100.88	105.90
1	AA	5789	DG	O4'-C1'-C2'	-6.28	100.88	105.90
1	AA	2312	DG	O4'-C1'-C2'	-6.28	100.88	105.90
1	AA	3380	DG	C1'-O4'-C4'	-6.28	103.82	110.10
1	AA	7673	DT	C4'-C3'-C2'	-6.28	97.45	103.10
16	AP	33	DC	O4'-C1'-C2'	-6.27	100.88	105.90
31	Ae	23	DG	O4'-C1'-C2'	-6.27	100.88	105.90
38	Al	11	DA	O4'-C1'-C2'	-6.27	100.88	105.90
48	Av	22	DG	P-O3'-C3'	6.27	127.23	119.70
179	C2	32	DG	O4'-C1'-C2'	-6.27	100.88	105.90
1	AA	1538	DG	O4'-C1'-C2'	-6.27	100.88	105.90
10	AJ	28	DT	O4'-C1'-C2'	-6.27	100.89	105.90
49	Aw	8	DA	O4'-C1'-C2'	-6.27	100.89	105.90
187	DA	20	DG	N1-C6-O6	6.27	123.66	119.90
1	AA	880	DA	O4'-C4'-C3'	-6.26	101.99	104.50
1	AA	4310	DA	O4'-C1'-C2'	-6.26	100.89	105.90
1	AA	6495	DA	O4'-C1'-C2'	-6.26	100.89	105.90
104	Bp	28	DG	O4'-C1'-C2'	-6.26	100.89	105.90
134	CJ	50	DG	C5-C6-O6	-6.26	124.84	128.60
36	Aj	24	DG	O4'-C1'-C2'	-6.26	100.89	105.90
3	AC	18	DA	O4'-C1'-C2'	-6.26	100.89	105.90
174	Cx	1	DG	C1'-O4'-C4'	-6.26	103.84	110.10
1	AA	3399	DT	O4'-C4'-C3'	-6.26	102.00	104.50
1	AA	6808	DA	O4'-C1'-C2'	-6.25	100.90	105.90
1	AA	6284	DG	O4'-C1'-C2'	-6.25	100.90	105.90
1	AA	6891	DG	O4'-C1'-C2'	-6.25	100.90	105.90
102	Bn	16	DT	O4'-C1'-C2'	-6.25	100.90	105.90
1	AA	2333	DT	C4'-C3'-C2'	-6.25	97.47	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	4769	DG	O4'-C1'-C2'	-6.25	100.90	105.90
6	AF	33	DT	C4'-C3'-C2'	-6.25	97.47	103.10
39	Am	26	DA	O4'-C1'-C2'	-6.25	100.90	105.90
135	CK	16	DA	O4'-C1'-C2'	-6.25	100.90	105.90
138	CN	11	DG	C1'-O4'-C4'	-6.25	103.85	110.10
1	AA	43	DT	C1'-O4'-C4'	-6.25	103.85	110.10
1	AA	7164	DG	C1'-O4'-C4'	-6.25	103.85	110.10
1	AA	7885	DG	O4'-C1'-C2'	-6.25	100.90	105.90
1	AA	3105	DG	O4'-C1'-C2'	-6.25	100.90	105.90
1	AA	6827	DG	O4'-C1'-C2'	-6.25	100.90	105.90
1	AA	6972	DG	P-O3'-C3'	6.25	127.20	119.70
1	AA	7856	DT	O4'-C1'-C2'	-6.25	100.90	105.90
1	AA	7857	DG	C1'-O4'-C4'	-6.25	103.85	110.10
8	AH	11	DG	O4'-C1'-C2'	-6.24	100.91	105.90
37	Ak	3	DG	O4'-C1'-C2'	-6.24	100.91	105.90
56	A3	11	DA	O4'-C1'-C2'	-6.24	100.91	105.90
112	Bx	20	DA	P-O3'-C3'	6.24	127.19	119.70
64	BB	27	DG	C5-C6-O6	-6.24	124.86	128.60
92	Bd	18	DA	O4'-C1'-C2'	-6.24	100.91	105.90
170	Ct	39	DG	O4'-C1'-C2'	-6.24	100.91	105.90
1	AA	35	DC	C4'-C3'-C2'	-6.24	97.48	103.10
149	CY	34	DT	C4'-C3'-C2'	-6.24	97.49	103.10
1	AA	366	DC	O4'-C1'-C2'	-6.24	100.91	105.90
1	AA	5186	DT	C1'-O4'-C4'	-6.23	103.87	110.10
1	AA	1488	DT	O4'-C1'-C2'	-6.23	100.92	105.90
41	Ao	41	DA	O4'-C1'-C2'	-6.23	100.92	105.90
74	BL	9	DG	O4'-C1'-C2'	-6.23	100.92	105.90
1	AA	6521	DA	C4'-C3'-C2'	-6.23	97.50	103.10
1	AA	6912	DG	O4'-C1'-C2'	-6.23	100.92	105.90
1	AA	3679	DG	O4'-C1'-C2'	-6.23	100.92	105.90
1	AA	4103	DG	O4'-C1'-C2'	-6.22	100.92	105.90
154	Cd	13	DA	O4'-C4'-C3'	-6.22	102.01	104.50
1	AA	2452	DG	O4'-C1'-C2'	-6.22	100.92	105.90
1	AA	7605	DG	O4'-C1'-C2'	-6.22	100.92	105.90
23	AW	17	DC	P-O3'-C3'	6.22	127.17	119.70
146	CV	3	DT	P-O3'-C3'	6.22	127.17	119.70
32	Af	22	DG	O4'-C4'-C3'	-6.22	102.01	104.50
1	AA	723	DA	P-O3'-C3'	6.22	127.16	119.70
43	Aq	18	DG	C4'-C3'-C2'	-6.22	97.50	103.10
160	Cj	22	DG	O4'-C1'-C2'	-6.22	100.93	105.90
1	AA	4061	DG	O4'-C1'-C2'	-6.21	100.93	105.90
1	AA	2612	DA	O4'-C1'-C2'	-6.21	100.93	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	3388	DG	C4'-C3'-C2'	-6.21	97.51	103.10
1	AA	6432	DG	O4'-C1'-C2'	-6.21	100.93	105.90
1	AA	703	DA	P-O3'-C3'	6.21	127.15	119.70
85	BW	30	DT	C4'-C3'-C2'	-6.21	97.51	103.10
1	AA	3343	DG	O4'-C1'-C2'	-6.21	100.93	105.90
117	B2	28	DG	O4'-C1'-C2'	-6.21	100.94	105.90
179	C2	19	DG	O4'-C1'-C2'	-6.21	100.94	105.90
1	AA	6651	DG	O4'-C1'-C2'	-6.21	100.94	105.90
1	AA	1986	DC	O4'-C4'-C3'	-6.20	102.02	104.50
1	AA	2835	DT	C4'-C3'-C2'	-6.20	97.52	103.10
1	AA	5774	DT	P-O3'-C3'	6.20	127.14	119.70
159	Ci	41	DG	C4'-C3'-C2'	-6.20	97.52	103.10
1	AA	514	DC	O4'-C1'-C2'	-6.20	100.94	105.90
183	C6	40	DA	O4'-C1'-C2'	-6.20	100.94	105.90
1	AA	2255	DT	C4'-C3'-C2'	-6.20	97.52	103.10
75	BM	12	DA	N1-C6-N6	-6.20	114.88	118.60
1	AA	1003	DG	O4'-C1'-C2'	-6.20	100.94	105.90
1	AA	3609	DC	O4'-C1'-C2'	-6.20	100.94	105.90
82	BT	29	DA	O4'-C1'-C2'	-6.20	100.94	105.90
182	C5	37	DT	O4'-C1'-C2'	-6.20	100.94	105.90
17	AQ	15	DT	C4'-C3'-C2'	-6.20	97.52	103.10
1	AA	2328	DG	O4'-C1'-C2'	-6.20	100.94	105.90
1	AA	976	DT	C4'-C3'-C2'	-6.19	97.53	103.10
79	BQ	51	DT	C4'-C3'-C2'	-6.19	97.53	103.10
107	Bs	23	DT	O4'-C4'-C3'	-6.19	102.02	104.50
1	AA	43	DT	O4'-C1'-C2'	-6.19	100.95	105.90
1	AA	679	DC	P-O3'-C3'	6.19	127.13	119.70
1	AA	6050	DG	C1'-O4'-C4'	-6.19	103.91	110.10
140	CP	11	DA	N1-C6-N6	-6.19	114.88	118.60
1	AA	198	DT	O4'-C1'-N1	6.19	112.33	108.00
104	Bp	1	DC	C1'-O4'-C4'	-6.19	103.91	110.10
138	CN	26	DA	O4'-C1'-C2'	-6.19	100.95	105.90
103	Bo	32	DG	O4'-C1'-C2'	-6.19	100.95	105.90
22	AV	18	DG	O4'-C1'-C2'	-6.19	100.95	105.90
1	AA	138	DA	O4'-C1'-C2'	-6.18	100.95	105.90
119	B4	4	DG	O4'-C1'-C2'	-6.18	100.95	105.90
1	AA	846	DG	N1-C6-O6	6.18	123.61	119.90
1	AA	7266	DT	O4'-C1'-C2'	-6.18	100.95	105.90
1	AA	2296	DA	C4'-C3'-C2'	-6.18	97.54	103.10
1	AA	5879	DT	O4'-C1'-C2'	-6.18	100.96	105.90
91	Bc	23	DT	O4'-C4'-C3'	-6.18	102.03	104.50
1	AA	6805	DC	P-O5'-C5'	6.18	130.78	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	2755	DG	C4'-C3'-C2'	-6.17	97.54	103.10
151	Ca	45	DT	C4'-C3'-C2'	-6.17	97.54	103.10
161	Ck	36	DG	O4'-C1'-C2'	-6.17	100.96	105.90
177	C0	31	DT	C1'-O4'-C4'	-6.17	103.92	110.10
1	AA	3076	DT	O4'-C4'-C3'	-6.17	102.03	104.50
1	AA	2227	DA	O4'-C1'-C2'	-6.17	100.97	105.90
10	AJ	25	DA	O4'-C4'-C3'	-6.17	102.03	104.50
1	AA	1054	DG	C5-C6-O6	-6.17	124.90	128.60
1	AA	2622	DC	C4'-C3'-C2'	-6.17	97.55	103.10
26	AZ	32	DA	O4'-C1'-C2'	-6.17	100.97	105.90
39	Am	40	DG	O4'-C4'-C3'	-6.17	102.03	104.50
1	AA	3270	DG	O4'-C1'-C2'	-6.16	100.97	105.90
1	AA	4850	DG	O4'-C1'-C2'	-6.16	100.97	105.90
151	Ca	26	DT	O4'-C4'-C3'	-6.16	102.03	104.50
90	Bb	22	DT	P-O3'-C3'	6.16	127.09	119.70
1	AA	1926	DC	O4'-C1'-C2'	-6.16	100.97	105.90
1	AA	7870	DG	P-O3'-C3'	6.16	127.09	119.70
69	BG	18	DG	O4'-C1'-N9	6.16	112.31	108.00
1	AA	7099	DT	O4'-C4'-C3'	-6.16	102.04	104.50
23	AW	7	DC	P-O3'-C3'	6.16	127.09	119.70
172	Cv	34	DT	O4'-C1'-C2'	-6.16	100.97	105.90
1	AA	723	DA	O4'-C1'-C2'	-6.16	100.97	105.90
1	AA	3575	DG	O4'-C1'-C2'	-6.16	100.97	105.90
95	Bg	24	DT	P-O3'-C3'	6.16	127.09	119.70
144	CT	27	DA	O4'-C1'-C2'	-6.16	100.97	105.90
177	C0	46	DA	N1-C6-N6	-6.16	114.91	118.60
1	AA	3238	DG	C1'-O4'-C4'	-6.16	103.94	110.10
76	BN	5	DG	O4'-C1'-C2'	-6.16	100.97	105.90
1	AA	3079	DT	C1'-O4'-C4'	-6.15	103.95	110.10
19	AS	37	DT	P-O3'-C3'	6.15	127.08	119.70
1	AA	378	DG	O4'-C1'-C2'	-6.15	100.98	105.90
1	AA	4119	DG	O4'-C1'-C2'	-6.15	100.98	105.90
1	AA	6939	DG	O4'-C1'-C2'	-6.15	100.98	105.90
140	CP	5	DA	O4'-C1'-C2'	-6.15	100.98	105.90
1	AA	1998	DG	P-O3'-C3'	6.15	127.08	119.70
1	AA	6375	DC	P-O3'-C3'	6.15	127.08	119.70
1	AA	2809	DC	P-O3'-C3'	6.15	127.08	119.70
1	AA	3440	DG	O4'-C1'-C2'	-6.15	100.98	105.90
21	AU	12	DG	O4'-C1'-C2'	-6.15	100.98	105.90
1	AA	4995	DT	C4'-C3'-C2'	-6.15	97.57	103.10
18	AR	22	DG	O4'-C1'-C2'	-6.15	100.98	105.90
119	B4	9	DG	O4'-C1'-C2'	-6.15	100.98	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	2897	DC	O4'-C1'-C2'	-6.14	100.98	105.90
1	AA	3718	DG	O4'-C1'-C2'	-6.14	100.98	105.90
1	AA	4547	DG	O4'-C1'-C2'	-6.14	100.98	105.90
1	AA	730	DT	C4'-C3'-C2'	-6.14	97.57	103.10
1	AA	4986	DG	O4'-C1'-C2'	-6.14	100.99	105.90
1	AA	5905	DC	O4'-C4'-C3'	-6.14	102.04	104.50
163	Cm	18	DA	O4'-C1'-C2'	-6.14	100.99	105.90
183	C6	5	DG	O4'-C1'-C2'	-6.14	100.99	105.90
1	AA	3028	DG	C1'-O4'-C4'	-6.14	103.96	110.10
1	AA	5001	DC	P-O3'-C3'	6.14	127.06	119.70
5	AE	50	DG	C5-C6-O6	-6.14	124.92	128.60
67	BE	6	DA	O4'-C4'-C3'	-6.14	102.05	104.50
95	Bg	17	DG	C1'-O4'-C4'	-6.14	103.96	110.10
129	CE	18	DA	C1'-O4'-C4'	-6.14	103.96	110.10
1	AA	5996	DG	P-O3'-C3'	6.13	127.06	119.70
113	By	18	DG	O4'-C1'-C2'	-6.13	100.99	105.90
165	Co	6	DC	C1'-O4'-C4'	-6.13	103.97	110.10
1	AA	4214	DG	P-O3'-C3'	6.13	127.06	119.70
53	A0	5	DA	O4'-C1'-C2'	-6.13	101.00	105.90
71	BI	30	DT	P-O3'-C3'	6.13	127.06	119.70
1	AA	3437	DC	C4'-C3'-C2'	-6.13	97.58	103.10
1	AA	1080	DA	C1'-O4'-C4'	-6.13	103.97	110.10
1	AA	1277	DT	O4'-C1'-C2'	-6.13	101.00	105.90
1	AA	6115	DT	O4'-C4'-C3'	-6.13	102.05	104.50
30	Ad	17	DG	O4'-C4'-C3'	-6.12	102.05	104.50
82	BT	5	DG	O4'-C1'-C2'	-6.12	101.00	105.90
141	CQ	13	DA	O4'-C1'-C2'	-6.12	101.00	105.90
82	BT	22	DC	P-O3'-C3'	6.12	127.05	119.70
169	Cs	18	DT	O4'-C1'-C2'	-6.12	101.00	105.90
1	AA	5817	DC	P-O5'-C5'	6.12	130.69	120.90
1	AA	7440	DG	O4'-C1'-C2'	-6.12	101.00	105.90
92	Bd	38	DA	O4'-C1'-C2'	-6.12	101.00	105.90
1	AA	6971	DG	O4'-C1'-C2'	-6.12	101.00	105.90
1	AA	5349	DG	O4'-C1'-C2'	-6.12	101.01	105.90
1	AA	6629	DT	O4'-C4'-C3'	-6.12	102.05	104.50
65	BC	11	DA	O4'-C1'-C2'	-6.12	101.01	105.90
1	AA	5364	DT	C4'-C3'-C2'	-6.12	97.60	103.10
24	AX	54	DA	O4'-C1'-C2'	-6.12	101.01	105.90
134	CJ	46	DA	P-O3'-C3'	6.12	127.04	119.70
159	Ci	30	DC	O4'-C1'-C2'	-6.12	101.01	105.90
1	AA	2926	DA	O4'-C1'-C2'	-6.11	101.01	105.90
1	AA	3823	DT	O4'-C1'-C2'	-6.11	101.01	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	3992	DT	O4'-C1'-C2'	-6.11	101.01	105.90
1	AA	858	DG	N1-C6-O6	6.11	123.57	119.90
1	AA	6406	DT	C1'-O4'-C4'	-6.11	103.99	110.10
1	AA	6881	DG	O4'-C1'-C2'	-6.11	101.01	105.90
7	AG	36	DG	O4'-C1'-C2'	-6.11	101.01	105.90
65	BC	34	DA	O4'-C1'-C2'	-6.11	101.01	105.90
103	Bo	1	DA	C1'-O4'-C4'	-6.11	103.99	110.10
1	AA	6037	DG	O4'-C1'-C2'	-6.11	101.01	105.90
1	AA	387	DC	C4'-C3'-C2'	-6.11	97.60	103.10
1	AA	3401	DA	C1'-O4'-C4'	-6.11	103.99	110.10
1	AA	5067	DT	O4'-C1'-C2'	-6.11	101.01	105.90
1	AA	8053	DG	O4'-C1'-C2'	-6.11	101.01	105.90
130	CF	1	DT	C1'-O4'-C4'	-6.11	103.99	110.10
1	AA	1444	DC	C4'-C3'-C2'	-6.10	97.61	103.10
1	AA	5100	DT	O4'-C4'-C3'	-6.10	102.06	104.50
1	AA	5791	DG	O4'-C1'-C2'	-6.10	101.02	105.90
9	AI	22	DT	O4'-C4'-C3'	-6.10	102.06	104.50
1	AA	1253	DC	O4'-C4'-C3'	-6.10	102.06	104.50
1	AA	3854	DA	O4'-C1'-C2'	-6.10	101.02	105.90
1	AA	7993	DT	C4'-C3'-C2'	-6.10	97.61	103.10
173	Cw	16	DA	P-O3'-C3'	6.10	127.02	119.70
1	AA	2169	DG	O4'-C1'-C2'	-6.10	101.02	105.90
126	CB	57	DT	O4'-C1'-N1	6.10	112.27	108.00
145	CU	18	DG	O4'-C1'-C2'	-6.10	101.02	105.90
148	CX	45	DT	P-O3'-C3'	6.10	127.02	119.70
1	AA	3569	DG	C4'-C3'-C2'	-6.09	97.62	103.10
74	BL	33	DT	C4'-C3'-C2'	-6.09	97.61	103.10
1	AA	2288	DT	C4'-C3'-C2'	-6.09	97.62	103.10
1	AA	3376	DC	P-O5'-C5'	6.09	130.65	120.90
1	AA	3957	DA	N1-C6-N6	-6.09	114.94	118.60
1	AA	2185	DA	O4'-C1'-C2'	-6.09	101.03	105.90
1	AA	6456	DG	C4'-C3'-C2'	-6.09	97.62	103.10
1	AA	115	DG	C1'-O4'-C4'	-6.09	104.01	110.10
1	AA	4106	DG	O4'-C1'-C2'	-6.09	101.03	105.90
1	AA	4893	DA	C4'-C3'-C2'	-6.09	97.62	103.10
40	An	42	DG	O4'-C4'-C3'	-6.08	102.07	104.50
3	AC	15	DT	O4'-C4'-C3'	-6.08	102.07	104.50
108	Bt	23	DG	O4'-C1'-C2'	-6.08	101.03	105.90
1	AA	27	DG	C1'-O4'-C4'	-6.08	104.02	110.10
1	AA	3796	DG	O4'-C1'-C2'	-6.08	101.04	105.90
1	AA	5747	DG	O4'-C1'-C2'	-6.08	101.03	105.90
1	AA	7057	DA	O4'-C1'-C2'	-6.08	101.03	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	3455	DT	O4'-C4'-C3'	-6.08	102.07	104.50
1	AA	7574	DT	C1'-O4'-C4'	-6.08	104.02	110.10
184	C7	16	DA	C4'-C3'-C2'	-6.08	97.63	103.10
178	C1	38	DA	C4'-C3'-C2'	-6.08	97.63	103.10
1	AA	3455	DT	C4'-C3'-C2'	-6.08	97.63	103.10
53	A0	8	DC	C2-N1-C1'	6.08	125.48	118.80
156	Cf	21	DT	C4'-C3'-C2'	-6.08	97.63	103.10
1	AA	2303	DG	O4'-C1'-C2'	-6.07	101.04	105.90
1	AA	4393	DG	C5-C6-O6	-6.07	124.96	128.60
1	AA	5875	DA	O4'-C1'-C2'	-6.07	101.04	105.90
1	AA	6521	DA	N1-C6-N6	-6.07	114.96	118.60
77	BO	5	DT	O4'-C1'-C2'	-6.07	101.04	105.90
1	AA	2107	DT	C4'-C3'-C2'	-6.07	97.64	103.10
42	Ap	46	DG	O4'-C1'-C2'	-6.07	101.05	105.90
181	C4	17	DG	C5-C6-O6	-6.07	124.96	128.60
19	AS	19	DA	O4'-C1'-C2'	-6.07	101.05	105.90
100	Bl	39	DG	O4'-C1'-C2'	-6.07	101.05	105.90
160	Cj	18	DG	C1'-O4'-C4'	-6.07	104.03	110.10
1	AA	1253	DC	C4'-C3'-C2'	-6.07	97.64	103.10
1	AA	6477	DA	N1-C6-N6	-6.07	114.96	118.60
36	Aj	13	DT	O4'-C1'-C2'	-6.07	101.05	105.90
92	Bd	10	DA	P-O3'-C3'	6.06	126.98	119.70
1	AA	3931	DT	O4'-C1'-C2'	-6.06	101.05	105.90
64	BB	20	DC	P-O3'-C3'	6.06	126.97	119.70
104	Bp	1	DC	C2-N1-C1'	6.06	125.47	118.80
1	AA	479	DG	O4'-C1'-N9	6.06	112.24	108.00
9	AI	8	DG	O4'-C1'-C2'	-6.06	101.05	105.90
1	AA	4938	DT	O4'-C4'-C3'	-6.06	102.08	104.50
1	AA	4992	DA	C4'-C3'-C2'	-6.06	97.65	103.10
1	AA	6855	DG	O4'-C1'-C2'	-6.06	101.06	105.90
21	AU	28	DG	O4'-C1'-C2'	-6.06	101.06	105.90
60	A7	18	DC	O4'-C1'-C2'	-6.06	101.06	105.90
81	BS	41	DA	C1'-O4'-C4'	-6.06	104.04	110.10
134	CJ	54	DT	C4'-C3'-C2'	-6.06	97.65	103.10
145	CU	1	DA	C1'-O4'-C4'	-6.06	104.04	110.10
164	Cn	17	DG	P-O3'-C3'	6.06	126.97	119.70
1	AA	7500	DG	C1'-O4'-C4'	-6.05	104.05	110.10
14	AN	32	DG	O4'-C1'-C2'	-6.05	101.06	105.90
90	Bb	3	DC	P-O3'-C3'	6.05	126.96	119.70
171	Cu	29	DT	O4'-C1'-C2'	-6.05	101.06	105.90
1	AA	3871	DG	P-O3'-C3'	6.05	126.96	119.70
77	BO	1	DG	C1'-O4'-C4'	-6.05	104.05	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
102	Bn	10	DG	O4'-C1'-C2'	-6.05	101.06	105.90
141	CQ	46	DC	O4'-C1'-C2'	-6.05	101.06	105.90
82	BT	42	DG	O4'-C1'-C2'	-6.05	101.06	105.90
163	Cm	4	DG	O4'-C1'-C2'	-6.05	101.06	105.90
79	BQ	20	DA	C4'-C3'-C2'	-6.05	97.66	103.10
148	CX	4	DT	O4'-C1'-C2'	-6.05	101.06	105.90
161	Ck	38	DT	O4'-C4'-C3'	-6.05	102.08	104.50
1	AA	3980	DT	C4'-C3'-C2'	-6.04	97.66	103.10
30	Ad	41	DG	O4'-C1'-C2'	-6.04	101.06	105.90
136	CL	15	DA	O4'-C4'-C3'	-6.04	102.08	104.50
1	AA	5820	DG	O4'-C1'-C2'	-6.04	101.07	105.90
1	AA	2889	DC	O4'-C4'-C3'	-6.04	102.08	104.50
11	AK	29	DA	O4'-C4'-C3'	-6.04	102.08	104.50
37	Ak	27	DG	O4'-C1'-C2'	-6.04	101.07	105.90
1	AA	3170	DA	C4'-C3'-C2'	-6.04	97.67	103.10
74	BL	35	DA	O4'-C1'-C2'	-6.04	101.07	105.90
1	AA	3378	DA	O4'-C1'-C2'	-6.04	101.07	105.90
8	AH	7	DG	C5-C6-O6	-6.04	124.98	128.60
12	AL	33	DC	O4'-C1'-C2'	-6.04	101.07	105.90
1	AA	625	DC	P-O3'-C3'	6.03	126.94	119.70
1	AA	3984	DT	O4'-C4'-C3'	-6.03	102.09	104.50
1	AA	6893	DT	O4'-C1'-C2'	-6.03	101.07	105.90
151	Ca	26	DT	C4'-C3'-C2'	-6.03	97.67	103.10
1	AA	4632	DG	C4'-C3'-C2'	-6.03	97.67	103.10
1	AA	2246	DT	O4'-C1'-N1	6.03	112.22	108.00
74	BL	6	DG	O4'-C1'-N9	6.03	112.22	108.00
117	B2	11	DG	O4'-C1'-C2'	-6.03	101.08	105.90
182	C5	42	DG	O4'-C4'-C3'	-6.03	102.09	104.50
1	AA	7951	DC	O4'-C4'-C3'	-6.03	102.09	104.50
178	C1	29	DT	P-O3'-C3'	6.03	126.93	119.70
1	AA	4016	DA	C1'-O4'-C4'	-6.02	104.08	110.10
1	AA	3874	DT	P-O3'-C3'	6.02	126.93	119.70
1	AA	5292	DA	O4'-C1'-C2'	-6.02	101.08	105.90
20	AT	32	DG	O4'-C4'-C3'	-6.02	102.09	104.50
170	Ct	1	DT	C1'-O4'-C4'	-6.02	104.08	110.10
1	AA	1568	DG	O4'-C1'-C2'	-6.02	101.08	105.90
55	A2	34	DG	O4'-C1'-N9	6.02	112.21	108.00
151	Ca	34	DA	O4'-C1'-C2'	-6.02	101.08	105.90
50	Ax	5	DG	O4'-C1'-C2'	-6.02	101.09	105.90
164	Cn	3	DT	O4'-C4'-C3'	-6.02	102.09	104.50
1	AA	3104	DA	O4'-C1'-C2'	-6.02	101.09	105.90
1	AA	3258	DA	P-O3'-C3'	6.02	126.92	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
164	Cn	35	DG	O4'-C1'-C2'	-6.02	101.09	105.90
1	AA	547	DG	O4'-C4'-C3'	-6.01	102.09	104.50
1	AA	5204	DT	C1'-O4'-C4'	-6.01	104.09	110.10
1	AA	5078	DA	O4'-C1'-C2'	-6.01	101.09	105.90
1	AA	6137	DG	O4'-C1'-C2'	-6.01	101.09	105.90
146	CV	25	DG	C1'-O4'-C4'	-6.01	104.09	110.10
1	AA	7930	DC	P-O5'-C5'	6.01	130.51	120.90
1	AA	8047	DC	C4'-C3'-C2'	-6.01	97.69	103.10
142	CR	9	DG	O4'-C1'-C2'	-6.01	101.09	105.90
153	Cc	27	DT	C4'-C3'-C2'	-6.01	97.69	103.10
1	AA	2970	DG	C1'-O4'-C4'	-6.01	104.09	110.10
1	AA	5746	DT	C1'-O4'-C4'	-6.01	104.09	110.10
20	AT	18	DA	O4'-C4'-C3'	-6.01	102.10	104.50
173	Cw	4	DG	P-O3'-C3'	6.01	126.91	119.70
1	AA	1336	DC	O4'-C4'-C3'	-6.00	102.10	104.50
1	AA	3445	DA	O4'-C1'-C2'	-6.00	101.10	105.90
1	AA	3469	DA	O4'-C1'-C2'	-6.00	101.10	105.90
1	AA	4981	DT	O4'-C1'-C2'	-6.00	101.10	105.90
18	AR	41	DA	O4'-C1'-C2'	-6.00	101.10	105.90
1	AA	2483	DG	O4'-C1'-C2'	-6.00	101.10	105.90
1	AA	7200	DG	O4'-C1'-C2'	-6.00	101.10	105.90
1	AA	84	DC	P-O3'-C3'	6.00	126.90	119.70
1	AA	1123	DC	P-O3'-C3'	6.00	126.90	119.70
1	AA	5612	DT	C4'-C3'-C2'	-6.00	97.70	103.10
1	AA	6043	DA	P-O3'-C3'	6.00	126.90	119.70
192	DF	18	DC	O4'-C4'-C3'	-6.00	102.10	104.50
1	AA	6735	DG	O4'-C1'-C2'	-6.00	101.10	105.90
13	AM	27	DA	O4'-C1'-C2'	-6.00	101.10	105.90
1	AA	4366	DG	O4'-C1'-C2'	-6.00	101.10	105.90
1	AA	6183	DC	P-O5'-C5'	6.00	130.50	120.90
18	AR	10	DC	O4'-C1'-C2'	-6.00	101.10	105.90
92	Bd	8	DG	C4-N9-C1'	6.00	134.30	126.50
1	AA	4372	DG	O4'-C4'-C3'	-6.00	102.10	104.50
6	AF	12	DT	O4'-C4'-C3'	-6.00	102.10	104.50
1	AA	6842	DT	O4'-C1'-C2'	-6.00	101.10	105.90
25	AY	2	DA	O4'-C1'-C2'	-6.00	101.10	105.90
62	A9	33	DA	N1-C6-N6	-6.00	115.00	118.60
1	AA	1572	DG	C5-C6-O6	-5.99	125.00	128.60
1	AA	2506	DC	O4'-C1'-C2'	-5.99	101.11	105.90
28	Ab	31	DA	O4'-C4'-C3'	-5.99	102.10	104.50
55	A2	41	DG	O4'-C1'-N9	5.99	112.19	108.00
106	Br	3	DC	O4'-C1'-C2'	-5.99	101.11	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
56	A3	53	DG	C1'-O4'-C4'	-5.99	104.11	110.10
125	CA	41	DA	C1'-O4'-C4'	-5.99	104.11	110.10
1	AA	96	DC	O4'-C1'-C2'	-5.99	101.11	105.90
1	AA	6679	DA	O4'-C1'-C2'	-5.99	101.11	105.90
11	AK	17	DA	C1'-O4'-C4'	-5.99	104.11	110.10
42	Ap	15	DA	P-O3'-C3'	5.99	126.89	119.70
1	AA	332	DG	O4'-C1'-C2'	-5.99	101.11	105.90
1	AA	2621	DT	C1'-O4'-C4'	-5.99	104.11	110.10
77	BO	42	DT	P-O3'-C3'	5.99	126.88	119.70
180	C3	10	DA	O4'-C1'-C2'	-5.99	101.11	105.90
1	AA	242	DA	C4'-C3'-C2'	-5.99	97.71	103.10
139	CO	29	DG	O4'-C1'-C2'	-5.99	101.11	105.90
90	Bb	47	DG	O4'-C4'-C3'	-5.98	102.11	104.50
188	DB	25	DT	O4'-C4'-C3'	-5.98	102.11	104.50
1	AA	7919	DT	O4'-C1'-C2'	-5.98	101.11	105.90
165	Co	12	DT	O4'-C4'-C3'	-5.98	102.11	104.50
1	AA	3388	DG	O4'-C4'-C3'	-5.98	102.11	104.50
1	AA	7042	DC	O4'-C1'-C2'	-5.98	101.12	105.90
62	A9	22	DG	O4'-C1'-C2'	-5.98	101.12	105.90
111	Bw	2	DT	C4'-C3'-C2'	-5.98	97.72	103.10
1	AA	1936	DA	O4'-C4'-C3'	-5.98	102.11	104.50
1	AA	2863	DT	P-O3'-C3'	5.98	126.87	119.70
1	AA	4246	DA	N1-C6-N6	-5.98	115.01	118.60
90	Bb	1	DG	O4'-C1'-N9	5.98	112.18	108.00
158	Ch	32	DC	O4'-C1'-C2'	-5.98	101.12	105.90
1	AA	4760	DA	O4'-C1'-C2'	-5.98	101.12	105.90
38	Al	39	DT	C4'-C3'-C2'	-5.98	97.72	103.10
1	AA	426	DG	O4'-C1'-C2'	-5.97	101.12	105.90
1	AA	7341	DA	O4'-C1'-C2'	-5.97	101.12	105.90
23	AW	18	DG	O4'-C1'-C2'	-5.97	101.12	105.90
155	Ce	1	DT	O4'-C4'-C3'	-5.97	102.11	104.50
1	AA	5445	DT	C4'-C3'-C2'	-5.97	97.73	103.10
1	AA	8050	DA	O4'-C1'-C2'	-5.97	101.12	105.90
68	BF	40	DG	O4'-C1'-C2'	-5.97	101.12	105.90
187	DA	38	DG	P-O3'-C3'	5.97	126.86	119.70
1	AA	1038	DG	O4'-C1'-C2'	-5.97	101.12	105.90
163	Cm	17	DC	P-O3'-C3'	5.97	126.86	119.70
174	Cx	18	DA	O4'-C1'-C2'	-5.97	101.12	105.90
1	AA	593	DG	O4'-C1'-C2'	-5.97	101.13	105.90
1	AA	824	DA	O4'-C1'-C2'	-5.97	101.13	105.90
1	AA	2872	DA	O4'-C1'-C2'	-5.97	101.13	105.90
96	Bh	51	DC	O4'-C4'-C3'	-5.97	102.11	104.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
148	CX	52	DT	P-O3'-C3'	5.97	126.86	119.70
189	DC	23	DT	O4'-C4'-C3'	-5.97	102.11	104.50
1	AA	1125	DG	C1'-O4'-C4'	-5.96	104.14	110.10
1	AA	6866	DA	O4'-C4'-C3'	-5.96	102.11	104.50
86	BX	8	DC	P-O3'-C3'	5.96	126.86	119.70
1	AA	522	DC	C4'-C3'-C2'	-5.96	97.73	103.10
1	AA	585	DA	P-O3'-C3'	5.96	126.86	119.70
1	AA	1146	DT	O4'-C1'-C2'	-5.96	101.13	105.90
1	AA	5105	DG	O4'-C1'-C2'	-5.96	101.13	105.90
127	CC	25	DG	O4'-C1'-C2'	-5.96	101.13	105.90
1	AA	911	DT	C1'-O4'-C4'	-5.96	104.14	110.10
97	Bi	12	DC	O4'-C4'-C3'	-5.96	102.12	104.50
1	AA	7607	DT	O4'-C4'-C3'	-5.96	102.12	104.50
17	AQ	21	DG	O4'-C1'-C2'	-5.96	101.13	105.90
51	Ay	41	DG	O4'-C1'-C2'	-5.96	101.14	105.90
109	Bu	31	DG	O4'-C1'-C2'	-5.96	101.14	105.90
154	Cd	33	DT	O4'-C1'-C2'	-5.96	101.13	105.90
3	AC	29	DA	O4'-C4'-C3'	-5.96	102.12	104.50
1	AA	591	DG	O4'-C1'-C2'	-5.95	101.14	105.90
69	BG	18	DG	O4'-C1'-C2'	-5.95	101.14	105.90
71	BI	50	DA	N1-C6-N6	-5.95	115.03	118.60
1	AA	4222	DT	O4'-C4'-C3'	-5.95	102.12	104.50
85	BW	40	DC	C1'-O4'-C4'	-5.95	104.15	110.10
106	Br	31	DG	C4'-C3'-C2'	-5.95	97.75	103.10
173	Cw	29	DA	O4'-C1'-C2'	-5.95	101.14	105.90
1	AA	2097	DG	O4'-C4'-C3'	-5.95	102.12	104.50
77	BO	9	DA	N1-C6-N6	-5.95	115.03	118.60
1	AA	5564	DA	O4'-C1'-C2'	-5.95	101.14	105.90
155	Ce	31	DA	O4'-C4'-C3'	-5.95	102.12	104.50
7	AG	33	DG	O4'-C1'-C2'	-5.95	101.14	105.90
82	BT	7	DC	C4'-C3'-C2'	-5.95	97.75	103.10
163	Cm	41	DG	O4'-C1'-C2'	-5.95	101.14	105.90
1	AA	3907	DC	O4'-C1'-C2'	-5.94	101.14	105.90
1	AA	7492	DA	C5-C6-N6	5.94	128.45	123.70
1	AA	1473	DA	C1'-O4'-C4'	-5.94	104.16	110.10
1	AA	2789	DG	C1'-O4'-C4'	-5.94	104.16	110.10
1	AA	3593	DG	O4'-C1'-C2'	-5.94	101.15	105.90
1	AA	6190	DA	P-O3'-C3'	5.94	126.83	119.70
152	Cb	31	DC	O4'-C1'-C2'	-5.94	101.15	105.90
1	AA	3627	DC	O4'-C1'-N1	5.94	112.16	108.00
1	AA	6467	DA	O4'-C1'-C2'	-5.94	101.15	105.90
147	CW	14	DG	O4'-C4'-C3'	-5.94	102.12	104.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1937	DC	P-O3'-C3'	5.94	126.82	119.70
128	CD	10	DG	O4'-C1'-C2'	-5.94	101.15	105.90
1	AA	1061	DG	O4'-C1'-C2'	-5.94	101.15	105.90
1	AA	6308	DG	O4'-C1'-C2'	-5.94	101.15	105.90
1	AA	1021	DG	C1'-O4'-C4'	-5.93	104.17	110.10
22	AV	29	DG	O4'-C1'-C2'	-5.93	101.15	105.90
64	BB	4	DG	O4'-C1'-C2'	-5.93	101.15	105.90
152	Cb	29	DG	O4'-C1'-C2'	-5.93	101.15	105.90
1	AA	393	DT	C4'-C3'-C2'	-5.93	97.76	103.10
1	AA	8031	DT	O4'-C1'-C2'	-5.93	101.16	105.90
82	BT	17	DC	C4'-C3'-C2'	-5.93	97.76	103.10
90	Bb	29	DA	N1-C6-N6	-5.93	115.04	118.60
1	AA	638	DG	O4'-C1'-C2'	-5.93	101.16	105.90
26	AZ	10	DA	O4'-C1'-C2'	-5.93	101.16	105.90
123	B8	17	DG	O4'-C1'-C2'	-5.93	101.16	105.90
158	Ch	14	DG	C4'-C3'-C2'	-5.93	97.76	103.10
1	AA	1197	DT	O4'-C1'-N1	5.93	112.15	108.00
1	AA	5701	DG	O4'-C1'-C2'	-5.93	101.16	105.90
1	AA	3283	DG	C1'-O4'-C4'	-5.93	104.17	110.10
27	Aa	10	DT	O4'-C1'-C2'	-5.93	101.16	105.90
34	Ah	8	DG	O4'-C1'-C2'	-5.93	101.16	105.90
158	Ch	39	DA	C1'-O4'-C4'	-5.93	104.17	110.10
151	Ca	20	DC	P-O3'-C3'	5.92	126.81	119.70
28	Ab	1	DA	O4'-C4'-C3'	-5.92	102.13	104.50
1	AA	6482	DC	P-O3'-C3'	5.92	126.80	119.70
1	AA	3787	DG	O4'-C1'-C2'	-5.92	101.17	105.90
1	AA	7099	DT	C4'-C3'-C2'	-5.92	97.77	103.10
94	Bf	36	DT	O4'-C4'-C3'	-5.92	102.13	104.50
112	Bx	25	DG	C4'-C3'-C2'	-5.92	97.77	103.10
31	Ae	27	DA	C1'-O4'-C4'	-5.92	104.18	110.10
38	Al	21	DA	O4'-C1'-C2'	-5.92	101.17	105.90
42	Ap	33	DT	O4'-C4'-C3'	-5.91	102.14	104.50
79	BQ	57	DG	O4'-C1'-C2'	-5.91	101.17	105.90
1	AA	3349	DT	C4'-C3'-C2'	-5.91	97.78	103.10
1	AA	2761	DA	O4'-C1'-C2'	-5.91	101.17	105.90
56	A3	3	DA	O4'-C1'-C2'	-5.91	101.17	105.90
194	DH	8	DA	O4'-C1'-C2'	-5.91	101.17	105.90
1	AA	4792	DA	C4'-C3'-C2'	-5.91	97.78	103.10
89	Ba	14	DA	P-O3'-C3'	5.91	126.79	119.70
100	Bl	13	DG	O4'-C1'-C2'	-5.91	101.17	105.90
26	AZ	35	DG	O4'-C1'-C2'	-5.91	101.17	105.90
1	AA	1048	DA	P-O3'-C3'	5.91	126.79	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	3256	DG	O4'-C1'-C2'	-5.91	101.18	105.90
1	AA	7356	DT	C4'-C3'-C2'	-5.91	97.78	103.10
68	BF	9	DT	C4'-C3'-C2'	-5.90	97.79	103.10
1	AA	1342	DC	P-O5'-C5'	5.90	130.34	120.90
1	AA	7086	DA	O4'-C1'-C2'	-5.90	101.18	105.90
51	Ay	20	DA	O4'-C1'-C2'	-5.90	101.18	105.90
135	CK	5	DG	O4'-C1'-C2'	-5.90	101.18	105.90
180	C3	9	DC	P-O3'-C3'	5.90	126.78	119.70
181	C4	41	DT	O4'-C1'-C2'	-5.90	101.18	105.90
1	AA	3087	DG	C1'-O4'-C4'	-5.90	104.20	110.10
130	CF	18	DA	O4'-C1'-C2'	-5.90	101.18	105.90
143	CS	10	DG	C1'-O4'-C4'	-5.90	104.20	110.10
191	DE	21	DC	C4'-C3'-C2'	-5.90	97.79	103.10
1	AA	3314	DA	N1-C6-N6	-5.90	115.06	118.60
1	AA	6510	DT	C4'-C3'-C2'	-5.90	97.79	103.10
26	AZ	42	DT	O4'-C1'-C2'	-5.90	101.18	105.90
32	Af	4	DG	O4'-C1'-C2'	-5.90	101.18	105.90
42	Ap	33	DT	C4'-C3'-C2'	-5.90	97.79	103.10
118	B3	27	DG	O4'-C1'-C2'	-5.90	101.18	105.90
1	AA	3623	DA	O4'-C4'-C3'	-5.90	102.14	104.50
94	Bf	18	DG	O4'-C1'-C2'	-5.90	101.18	105.90
1	AA	4108	DC	C4'-C3'-C2'	-5.89	97.79	103.10
1	AA	7139	DG	N1-C6-O6	5.89	123.44	119.90
1	AA	7710	DG	O4'-C1'-C2'	-5.89	101.18	105.90
154	Cd	18	DT	O4'-C1'-N1	5.89	112.13	108.00
41	Ao	16	DG	C1'-O4'-C4'	-5.89	104.21	110.10
55	A2	6	DG	O4'-C1'-C2'	-5.89	101.19	105.90
67	BE	15	DA	O4'-C1'-C2'	-5.89	101.19	105.90
157	Cg	28	DC	C4'-C3'-C2'	-5.89	97.80	103.10
186	C9	17	DA	P-O3'-C3'	5.89	126.77	119.70
1	AA	1606	DG	C4'-C3'-C2'	-5.89	97.80	103.10
1	AA	4491	DA	C1'-O4'-C4'	-5.89	104.21	110.10
11	AK	18	DT	O4'-C4'-C3'	-5.89	102.14	104.50
30	Ad	1	DC	O4'-C1'-N1	5.89	112.12	108.00
106	Br	13	DA	O4'-C4'-C3'	-5.89	102.14	104.50
1	AA	4433	DG	C1'-O4'-C4'	-5.89	104.21	110.10
1	AA	5765	DA	O4'-C1'-C2'	-5.89	101.19	105.90
71	BI	46	DA	O4'-C1'-C2'	-5.89	101.19	105.90
1	AA	89	DT	O4'-C1'-C2'	-5.89	101.19	105.90
1	AA	686	DA	O4'-C1'-C2'	-5.89	101.19	105.90
1	AA	5161	DA	O4'-C1'-C2'	-5.89	101.19	105.90
86	BX	30	DC	C6-N1-C2	-5.89	117.95	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1702	DG	C4'-C3'-C2'	-5.88	97.80	103.10
1	AA	3244	DG	O4'-C1'-C2'	-5.88	101.19	105.90
1	AA	4100	DA	O4'-C1'-C2'	-5.88	101.19	105.90
1	AA	6615	DG	O4'-C1'-C2'	-5.88	101.19	105.90
53	A0	26	DC	O4'-C1'-C2'	-5.88	101.19	105.90
54	A1	11	DG	O4'-C1'-C2'	-5.88	101.19	105.90
1	AA	1151	DC	C4'-C3'-C2'	-5.88	97.81	103.10
1	AA	7848	DG	P-O3'-C3'	5.88	126.76	119.70
1	AA	6599	DA	C4'-C3'-C2'	-5.88	97.81	103.10
121	B6	31	DA	C1'-O4'-C4'	-5.88	104.22	110.10
1	AA	4520	DG	O4'-C1'-C2'	-5.88	101.20	105.90
1	AA	1618	DA	O4'-C1'-C2'	-5.88	101.20	105.90
1	AA	2061	DA	O4'-C1'-C2'	-5.88	101.20	105.90
1	AA	3514	DG	N1-C6-O6	5.88	123.42	119.90
181	C4	42	DA	O4'-C1'-C2'	-5.88	101.20	105.90
183	C6	32	DA	O4'-C1'-C2'	-5.88	101.20	105.90
1	AA	4016	DA	O4'-C1'-N9	5.88	112.11	108.00
1	AA	4266	DA	O4'-C4'-C3'	-5.88	102.15	104.50
1	AA	5961	DG	C4'-C3'-C2'	-5.88	97.81	103.10
1	AA	1112	DG	O4'-C1'-C2'	-5.87	101.20	105.90
12	AL	1	DA	C4'-C3'-C2'	-5.87	97.82	103.10
1	AA	5540	DG	O4'-C1'-C2'	-5.87	101.20	105.90
1	AA	77	DC	C1'-O4'-C4'	-5.87	104.23	110.10
1	AA	187	DT	C4'-C3'-C2'	-5.87	97.82	103.10
147	CW	18	DA	P-O3'-C3'	5.87	126.74	119.70
154	Cd	34	DG	C1'-O4'-C4'	-5.87	104.23	110.10
1	AA	3481	DT	P-O3'-C3'	5.87	126.74	119.70
14	AN	6	DA	O4'-C1'-C2'	-5.87	101.21	105.90
117	B2	26	DA	O4'-C1'-C2'	-5.87	101.21	105.90
131	CG	13	DA	O4'-C1'-C2'	-5.87	101.21	105.90
152	Cb	33	DA	O4'-C4'-C3'	-5.87	102.15	104.50
169	Cs	38	DG	O4'-C1'-C2'	-5.87	101.21	105.90
1	AA	4013	DA	O4'-C1'-C2'	-5.86	101.21	105.90
101	Bm	41	DA	O4'-C1'-C2'	-5.86	101.21	105.90
137	CM	5	DC	O4'-C4'-C3'	-5.86	102.16	104.50
1	AA	4441	DC	O4'-C1'-C2'	-5.86	101.21	105.90
1	AA	3645	DA	O4'-C1'-C2'	-5.86	101.21	105.90
1	AA	3851	DG	O4'-C1'-C2'	-5.86	101.21	105.90
1	AA	1220	DG	O4'-C1'-C2'	-5.86	101.21	105.90
1	AA	3396	DC	P-O3'-C3'	5.86	126.73	119.70
1	AA	5778	DT	O4'-C4'-C3'	-5.86	102.16	104.50
1	AA	7822	DC	P-O3'-C3'	5.86	126.73	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
59	A6	10	DA	O4'-C1'-C2'	-5.86	101.21	105.90
158	Ch	1	DC	O4'-C4'-C3'	-5.86	102.16	104.50
1	AA	4714	DT	O4'-C4'-C3'	-5.86	102.16	104.50
1	AA	4945	DA	O4'-C4'-C3'	-5.86	102.16	104.50
126	CB	47	DA	C4'-C3'-C2'	-5.86	97.83	103.10
130	CF	14	DC	O4'-C1'-C2'	-5.85	101.22	105.90
1	AA	1048	DA	O4'-C1'-C2'	-5.85	101.22	105.90
1	AA	5045	DG	C1'-O4'-C4'	-5.85	104.25	110.10
1	AA	6158	DA	O4'-C1'-C2'	-5.85	101.22	105.90
32	Af	29	DG	O4'-C1'-C2'	-5.85	101.22	105.90
148	CX	45	DT	O4'-C1'-C2'	-5.85	101.22	105.90
181	C4	37	DG	O4'-C1'-C2'	-5.85	101.22	105.90
1	AA	229	DT	C4'-C3'-C2'	-5.85	97.84	103.10
1	AA	3541	DT	C4'-C3'-C2'	-5.85	97.83	103.10
1	AA	5052	DC	O4'-C1'-C2'	-5.85	101.22	105.90
1	AA	5648	DA	O4'-C1'-C2'	-5.85	101.22	105.90
78	BP	54	DT	O4'-C1'-N1	5.85	112.09	108.00
174	Cx	24	DA	O4'-C1'-C2'	-5.85	101.22	105.90
1	AA	6262	DA	O4'-C1'-C2'	-5.85	101.22	105.90
165	Co	40	DA	O4'-C1'-C2'	-5.85	101.22	105.90
1	AA	1316	DT	C1'-O4'-C4'	-5.85	104.25	110.10
1	AA	448	DG	O4'-C1'-C2'	-5.84	101.22	105.90
1	AA	2160	DA	C4'-C3'-C2'	-5.84	97.84	103.10
14	AN	16	DT	O4'-C4'-C3'	-5.84	102.16	104.50
79	BQ	30	DT	O4'-C1'-C2'	-5.84	101.22	105.90
103	Bo	28	DG	O4'-C1'-C2'	-5.84	101.22	105.90
190	DD	39	DG	O4'-C1'-C2'	-5.84	101.22	105.90
1	AA	880	DA	C4'-C3'-C2'	-5.84	97.84	103.10
145	CU	9	DC	C1'-O4'-C4'	-5.84	104.26	110.10
1	AA	2777	DA	C1'-O4'-C4'	-5.84	104.26	110.10
118	B3	1	DC	C1'-O4'-C4'	-5.84	104.26	110.10
1	AA	6176	DG	O4'-C1'-C2'	-5.84	101.23	105.90
1	AA	7892	DC	P-O5'-C5'	5.84	130.24	120.90
133	CI	26	DT	O4'-C1'-C2'	-5.84	101.23	105.90
1	AA	4496	DG	O4'-C1'-C2'	-5.84	101.23	105.90
1	AA	6720	DG	O4'-C1'-C2'	-5.84	101.23	105.90
112	Bx	1	DT	O4'-C1'-C2'	-5.84	101.23	105.90
1	AA	1021	DG	O4'-C1'-C2'	-5.83	101.23	105.90
1	AA	5543	DA	O4'-C1'-C2'	-5.83	101.23	105.90
1	AA	6922	DT	C6-C5-C7	5.83	126.40	122.90
144	CT	23	DG	P-O3'-C3'	5.83	126.70	119.70
1	AA	308	DT	O4'-C1'-C2'	-5.83	101.23	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	5017	DT	O4'-C1'-N1	5.83	112.08	108.00
1	AA	6493	DT	O4'-C1'-C2'	-5.83	101.23	105.90
150	CZ	34	DT	C4'-C3'-C2'	-5.83	97.85	103.10
1	AA	2794	DC	P-O5'-C5'	5.83	130.23	120.90
1	AA	3526	DG	N1-C6-O6	5.83	123.40	119.90
1	AA	4715	DG	P-O3'-C3'	5.83	126.70	119.70
1	AA	6500	DC	C4'-C3'-C2'	-5.83	97.85	103.10
1	AA	6981	DT	C4'-C3'-C2'	-5.83	97.85	103.10
19	AS	43	DG	O4'-C1'-C2'	-5.83	101.23	105.90
1	AA	3300	DT	C4'-C3'-C2'	-5.83	97.85	103.10
1	AA	7461	DG	O4'-C1'-C2'	-5.83	101.24	105.90
47	Au	3	DT	O4'-C1'-C2'	-5.83	101.24	105.90
54	A1	26	DG	P-O3'-C3'	5.83	126.69	119.70
141	CQ	18	DG	C5-C6-O6	-5.83	125.10	128.60
1	AA	463	DT	C4'-C3'-C2'	-5.83	97.86	103.10
1	AA	2841	DG	O4'-C1'-C2'	-5.83	101.24	105.90
8	AH	7	DG	N1-C6-O6	5.83	123.39	119.90
124	B9	45	DT	O4'-C1'-C2'	-5.83	101.24	105.90
1	AA	714	DG	P-O3'-C3'	5.82	126.69	119.70
1	AA	4290	DA	C4'-C3'-C2'	-5.82	97.86	103.10
1	AA	6074	DT	C4'-C3'-C2'	-5.82	97.86	103.10
88	BZ	13	DG	P-O3'-C3'	5.82	126.69	119.70
1	AA	2186	DT	O4'-C1'-C2'	-5.82	101.24	105.90
1	AA	7346	DT	C4'-C3'-C2'	-5.82	97.86	103.10
110	Bv	14	DA	O4'-C1'-C2'	-5.82	101.24	105.90
47	Au	6	DG	O4'-C1'-C2'	-5.82	101.24	105.90
147	CW	19	DG	C5-C6-O6	-5.82	125.11	128.60
168	Cr	32	DA	P-O3'-C3'	-5.82	112.72	119.70
1	AA	953	DT	C4'-C3'-C2'	-5.82	97.86	103.10
1	AA	6963	DA	O4'-C1'-C2'	-5.82	101.25	105.90
49	Aw	26	DT	C4'-C3'-C2'	-5.82	97.86	103.10
178	C1	30	DT	C4'-C3'-C2'	-5.82	97.86	103.10
6	AF	40	DT	O4'-C1'-C2'	-5.82	101.25	105.90
14	AN	26	DG	C4'-C3'-C2'	-5.82	97.86	103.10
54	A1	46	DC	P-O5'-C5'	5.82	130.21	120.90
125	CA	40	DC	C2-N1-C1'	5.82	125.20	118.80
1	AA	845	DT	C4'-C3'-C2'	-5.82	97.87	103.10
1	AA	2519	DT	O4'-C4'-C3'	-5.82	102.17	104.50
1	AA	2733	DG	O4'-C1'-C2'	-5.82	101.25	105.90
1	AA	4255	DG	O4'-C1'-C2'	-5.82	101.25	105.90
1	AA	7516	DT	C4'-C3'-C2'	-5.82	97.87	103.10
6	AF	14	DG	P-O3'-C3'	5.82	126.68	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	6500	DC	O4'-C4'-C3'	-5.81	102.17	104.50
150	CZ	1	DG	O4'-C4'-C3'	-5.81	102.17	104.50
151	Ca	45	DT	O4'-C4'-C3'	-5.81	102.17	104.50
1	AA	2875	DA	N1-C6-N6	-5.81	115.11	118.60
1	AA	2895	DG	O4'-C1'-N9	5.81	112.07	108.00
112	Bx	22	DA	C1'-O4'-C4'	-5.81	104.29	110.10
1	AA	989	DG	O4'-C1'-N9	5.81	112.06	108.00
1	AA	1068	DG	C1'-O4'-C4'	-5.81	104.29	110.10
71	BI	29	DT	O4'-C1'-N1	5.81	112.07	108.00
124	B9	30	DG	N1-C6-O6	5.81	123.38	119.90
164	Cn	33	DG	P-O3'-C3'	5.81	126.67	119.70
1	AA	4050	DA	P-O3'-C3'	5.81	126.67	119.70
1	AA	2683	DA	O4'-C1'-C2'	-5.80	101.26	105.90
1	AA	7080	DA	O4'-C1'-C2'	-5.80	101.26	105.90
60	A7	31	DG	O4'-C1'-C2'	-5.80	101.26	105.90
150	CZ	3	DA	O4'-C1'-C2'	-5.80	101.26	105.90
15	AO	16	DC	C2-N1-C1'	5.80	125.18	118.80
23	AW	4	DT	C2-N1-C1'	5.80	127.48	118.20
23	AW	39	DG	O4'-C1'-N9	5.80	112.06	108.00
31	Ae	34	DG	O4'-C1'-C2'	-5.80	101.26	105.90
1	AA	6518	DT	C1'-O4'-C4'	-5.80	104.30	110.10
35	Ai	12	DG	O4'-C1'-C2'	-5.80	101.26	105.90
40	An	36	DG	O4'-C4'-C3'	-5.80	102.18	104.50
1	AA	2196	DG	O4'-C1'-C2'	-5.80	101.26	105.90
38	Al	11	DA	C1'-O4'-C4'	-5.80	104.30	110.10
1	AA	2080	DT	C4'-C3'-C2'	-5.79	97.89	103.10
1	AA	1336	DC	C4'-C3'-C2'	-5.79	97.89	103.10
1	AA	6885	DT	C1'-O4'-C4'	-5.79	104.31	110.10
1	AA	7660	DC	C4'-C3'-C2'	-5.79	97.89	103.10
97	Bi	16	DA	O4'-C1'-C2'	-5.79	101.27	105.90
180	C3	47	DT	O4'-C1'-C2'	-5.79	101.27	105.90
1	AA	3401	DA	O4'-C4'-C3'	-5.79	102.18	104.50
1	AA	7404	DT	C4'-C3'-C2'	-5.79	97.89	103.10
1	AA	7534	DC	P-O3'-C3'	5.79	126.65	119.70
5	AE	8	DG	N1-C6-O6	5.79	123.37	119.90
48	Av	20	DA	P-O3'-C3'	5.79	126.65	119.70
1	AA	6561	DA	O4'-C1'-N9	5.79	112.05	108.00
1	AA	1894	DT	C4'-C3'-C2'	-5.79	97.89	103.10
1	AA	3212	DA	O4'-C1'-C2'	-5.79	101.27	105.90
1	AA	5707	DG	O4'-C1'-C2'	-5.79	101.27	105.90
1	AA	7214	DG	O4'-C1'-C2'	-5.79	101.27	105.90
187	DA	33	DA	N1-C6-N6	-5.79	115.13	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	954	DG	C5-C6-O6	-5.78	125.13	128.60
1	AA	2484	DA	C1'-O4'-C4'	-5.78	104.32	110.10
95	Bg	38	DA	C1'-O4'-C4'	-5.78	104.32	110.10
1	AA	3631	DA	N1-C6-N6	-5.78	115.13	118.60
1	AA	6253	DA	O4'-C1'-C2'	-5.78	101.28	105.90
7	AG	32	DC	C2-N1-C1'	5.78	125.16	118.80
89	Ba	3	DG	O4'-C1'-C2'	-5.78	101.27	105.90
1	AA	5739	DG	N1-C6-O6	5.78	123.37	119.90
1	AA	6382	DT	C1'-O4'-C4'	-5.78	104.32	110.10
1	AA	6936	DA	O4'-C1'-C2'	-5.78	101.28	105.90
134	CJ	55	DT	C1'-O4'-C4'	-5.78	104.32	110.10
1	AA	43	DT	P-O3'-C3'	5.78	126.64	119.70
17	AQ	4	DG	C4'-C3'-C2'	-5.78	97.90	103.10
20	AT	40	DT	P-O3'-C3'	5.78	126.63	119.70
119	B4	13	DA	P-O3'-C3'	5.78	126.63	119.70
1	AA	445	DA	C4'-C3'-C2'	-5.78	97.90	103.10
1	AA	1769	DC	O4'-C1'-C2'	-5.78	101.28	105.90
1	AA	6785	DT	C1'-O4'-C4'	-5.78	104.33	110.10
62	A9	29	DC	P-O3'-C3'	5.78	126.63	119.70
63	BA	4	DG	O4'-C1'-C2'	-5.78	101.28	105.90
110	Bv	25	DC	O4'-C1'-N1	5.78	112.04	108.00
122	B7	16	DA	P-O3'-C3'	5.78	126.63	119.70
1	AA	4610	DG	O4'-C1'-C2'	-5.77	101.28	105.90
152	Cb	32	DG	P-O3'-C3'	-5.77	112.77	119.70
1	AA	4996	DA	P-O3'-C3'	5.77	126.63	119.70
1	AA	5075	DG	O4'-C1'-N9	5.77	112.04	108.00
138	CN	39	DG	O4'-C4'-C3'	-5.77	102.19	104.50
1	AA	291	DC	P-O3'-C3'	5.77	126.62	119.70
1	AA	4176	DC	P-O5'-C5'	5.77	130.13	120.90
141	CQ	7	DA	O4'-C1'-C2'	-5.77	101.28	105.90
164	Cn	14	DG	O4'-C1'-C2'	-5.77	101.28	105.90
1	AA	3665	DC	O4'-C4'-C3'	-5.77	102.19	104.50
1	AA	5486	DA	O4'-C1'-C2'	-5.77	101.29	105.90
74	BL	43	DT	O4'-C1'-C2'	-5.77	101.29	105.90
93	Be	16	DC	P-O3'-C3'	5.77	126.62	119.70
178	C1	20	DG	O4'-C1'-C2'	-5.77	101.29	105.90
1	AA	2017	DA	O4'-C1'-C2'	-5.77	101.29	105.90
65	BC	31	DG	P-O3'-C3'	5.77	126.62	119.70
92	Bd	30	DG	C1'-O4'-C4'	-5.77	104.33	110.10
93	Be	42	DA	P-O3'-C3'	5.77	126.62	119.70
132	CH	15	DA	O4'-C1'-C2'	-5.76	101.29	105.90
1	AA	844	DG	O4'-C1'-C2'	-5.76	101.29	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1623	DG	C1'-O4'-C4'	-5.76	104.34	110.10
1	AA	6675	DG	O4'-C1'-C2'	-5.76	101.29	105.90
120	B5	12	DA	O4'-C1'-C2'	-5.76	101.29	105.90
1	AA	293	DC	O4'-C1'-C2'	-5.76	101.29	105.90
1	AA	1868	DA	O4'-C1'-C2'	-5.76	101.29	105.90
1	AA	7452	DT	O4'-C1'-C2'	-5.76	101.29	105.90
1	AA	7733	DC	P-O3'-C3'	5.76	126.61	119.70
16	AP	9	DA	N1-C6-N6	-5.76	115.14	118.60
33	Ag	8	DC	P-O3'-C3'	5.76	126.61	119.70
113	By	1	DG	C5-C6-O6	-5.76	125.14	128.60
151	Ca	16	DG	O4'-C1'-C2'	-5.76	101.29	105.90
161	Ck	9	DT	P-O3'-C3'	5.76	126.61	119.70
1	AA	266	DG	O4'-C1'-N9	5.76	112.03	108.00
1	AA	2017	DA	O4'-C1'-N9	5.76	112.03	108.00
1	AA	3922	DA	C4'-C3'-C2'	-5.76	97.92	103.10
39	Am	39	DG	O4'-C1'-C2'	-5.76	101.30	105.90
173	Cw	16	DA	C1'-O4'-C4'	-5.76	104.34	110.10
1	AA	6604	DC	P-O5'-C5'	5.75	130.11	120.90
1	AA	1557	DG	C5-C6-O6	-5.75	125.15	128.60
1	AA	3417	DG	O4'-C4'-C3'	-5.75	102.20	104.50
86	BX	7	DA	O4'-C1'-C2'	-5.75	101.30	105.90
7	AG	25	DG	C1'-O4'-C4'	-5.75	104.35	110.10
55	A2	6	DG	N1-C6-O6	5.75	123.35	119.90
98	Bj	3	DG	P-O3'-C3'	5.75	126.60	119.70
164	Cn	3	DT	C4'-C3'-C2'	-5.75	97.93	103.10
1	AA	1046	DG	P-O3'-C3'	5.75	126.59	119.70
177	C0	2	DT	O4'-C1'-C2'	-5.75	101.30	105.90
1	AA	6701	DT	O4'-C1'-C2'	-5.75	101.30	105.90
42	Ap	34	DT	P-O3'-C3'	5.75	126.59	119.70
1	AA	5702	DG	O4'-C4'-C3'	-5.74	102.20	104.50
1	AA	2889	DC	C4'-C3'-C2'	-5.74	97.93	103.10
1	AA	5404	DC	O4'-C1'-C2'	-5.74	101.31	105.90
88	BZ	34	DA	P-O3'-C3'	5.74	126.59	119.70
1	AA	2793	DT	C4'-C3'-C2'	-5.74	97.93	103.10
1	AA	3560	DG	O4'-C1'-C2'	-5.74	101.31	105.90
4	AD	26	DG	C5-C6-O6	-5.74	125.16	128.60
98	Bj	23	DT	O4'-C1'-C2'	-5.74	101.31	105.90
19	AS	13	DA	O4'-C1'-C2'	-5.74	101.31	105.90
56	A3	16	DG	C5-C6-O6	-5.74	125.16	128.60
94	Bf	30	DA	O4'-C1'-C2'	-5.74	101.31	105.90
148	CX	33	DT	O4'-C1'-C2'	-5.74	101.31	105.90
1	AA	98	DA	N1-C6-N6	-5.74	115.16	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	4448	DA	O4'-C1'-C2'	-5.74	101.31	105.90
1	AA	5773	DC	O4'-C1'-N1	5.74	112.01	108.00
40	An	33	DT	O4'-C1'-C2'	-5.74	101.31	105.90
54	A1	42	DG	C1'-O4'-C4'	-5.74	104.36	110.10
69	BG	36	DA	N1-C6-N6	-5.74	115.16	118.60
124	B9	39	DA	O4'-C4'-C3'	-5.74	102.21	104.50
96	Bh	17	DG	O4'-C1'-C2'	-5.73	101.31	105.90
141	CQ	15	DT	C4'-C3'-C2'	-5.73	97.94	103.10
1	AA	1113	DG	C4'-C3'-C2'	-5.73	97.94	103.10
1	AA	3320	DG	O4'-C4'-C3'	-5.73	102.21	104.50
1	AA	3367	DG	O4'-C1'-C2'	-5.73	101.31	105.90
87	BY	2	DG	P-O3'-C3'	5.73	126.58	119.70
1	AA	1740	DT	C4'-C3'-C2'	-5.73	97.94	103.10
1	AA	4593	DC	C4'-C3'-C2'	-5.73	97.94	103.10
93	Be	23	DT	O4'-C1'-C2'	-5.73	101.32	105.90
1	AA	2755	DG	O4'-C4'-C3'	-5.73	102.21	104.50
1	AA	5362	DG	O4'-C1'-C2'	-5.73	101.32	105.90
20	AT	37	DT	C4'-C3'-C2'	-5.73	97.94	103.10
1	AA	743	DA	O4'-C1'-C2'	-5.73	101.32	105.90
1	AA	798	DG	C1'-O4'-C4'	-5.73	104.37	110.10
1	AA	3663	DA	P-O3'-C3'	5.73	126.57	119.70
1	AA	5571	DT	P-O3'-C3'	5.73	126.57	119.70
28	Ab	33	DC	C4'-C3'-C2'	-5.73	97.94	103.10
52	Az	36	DG	O4'-C1'-C2'	-5.73	101.32	105.90
169	Cs	35	DT	C4'-C3'-C2'	-5.73	97.95	103.10
86	BX	13	DG	O4'-C1'-C2'	-5.72	101.32	105.90
1	AA	177	DG	O4'-C1'-C2'	-5.72	101.32	105.90
1	AA	6215	DT	C4'-C3'-C2'	-5.72	97.95	103.10
1	AA	1345	DG	O4'-C1'-C2'	-5.72	101.33	105.90
1	AA	3997	DT	C1'-O4'-C4'	-5.72	104.38	110.10
1	AA	5725	DG	O4'-C1'-C2'	-5.72	101.33	105.90
1	AA	6884	DA	O4'-C1'-C2'	-5.72	101.33	105.90
3	AC	15	DT	O4'-C1'-N1	5.72	112.00	108.00
56	A3	25	DG	O4'-C1'-C2'	-5.72	101.33	105.90
99	Bk	32	DG	O4'-C4'-C3'	-5.72	102.21	104.50
193	DG	27	DT	C4'-C3'-C2'	-5.72	97.95	103.10
1	AA	2809	DC	O4'-C1'-C2'	-5.72	101.33	105.90
1	AA	7991	DG	C5-C6-O6	-5.72	125.17	128.60
1	AA	2828	DG	O4'-C1'-C2'	-5.72	101.33	105.90
1	AA	5214	DA	O4'-C1'-C2'	-5.72	101.33	105.90
1	AA	5921	DA	O4'-C1'-C2'	-5.72	101.33	105.90
1	AA	7025	DA	O4'-C1'-N9	5.71	112.00	108.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
181	C4	29	DA	O4'-C1'-C2'	-5.71	101.33	105.90
1	AA	5627	DA	O4'-C1'-C2'	-5.71	101.33	105.90
129	CE	6	DT	O4'-C1'-C2'	-5.71	101.33	105.90
1	AA	899	DG	C1'-O4'-C4'	-5.71	104.39	110.10
1	AA	1777	DA	O4'-C1'-C2'	-5.71	101.33	105.90
1	AA	2590	DA	O4'-C1'-C2'	-5.71	101.33	105.90
1	AA	5687	DG	O4'-C1'-C2'	-5.71	101.33	105.90
77	BO	36	DG	O4'-C1'-C2'	-5.71	101.33	105.90
1	AA	193	DA	O4'-C1'-C2'	-5.71	101.33	105.90
1	AA	1771	DC	O4'-C1'-C2'	-5.71	101.33	105.90
1	AA	3705	DG	O4'-C1'-C2'	-5.71	101.33	105.90
1	AA	3898	DG	P-O3'-C3'	5.71	126.55	119.70
11	AK	29	DA	C4'-C3'-C2'	-5.71	97.96	103.10
81	BS	28	DG	O4'-C1'-C2'	-5.71	101.33	105.90
1	AA	484	DG	O4'-C1'-C2'	-5.71	101.33	105.90
1	AA	2720	DT	C4'-C3'-C2'	-5.71	97.96	103.10
1	AA	5926	DG	O4'-C1'-C2'	-5.71	101.33	105.90
112	Bx	12	DG	O4'-C1'-C2'	-5.71	101.34	105.90
1	AA	6771	DG	O4'-C1'-C2'	-5.71	101.34	105.90
124	B9	18	DG	C1'-O4'-C4'	-5.71	104.39	110.10
125	CA	23	DT	C4'-C3'-C2'	-5.71	97.97	103.10
1	AA	2984	DG	O4'-C1'-C2'	-5.70	101.34	105.90
1	AA	6014	DA	O4'-C1'-C2'	-5.70	101.34	105.90
23	AW	4	DT	C6-N1-C1'	-5.70	111.84	120.40
150	CZ	43	DA	C1'-O4'-C4'	-5.70	104.40	110.10
1	AA	6421	DT	O4'-C4'-C3'	-5.70	102.22	104.50
1	AA	892	DG	O4'-C1'-C2'	-5.70	101.34	105.90
1	AA	1865	DT	C4'-C3'-C2'	-5.70	97.97	103.10
1	AA	3246	DC	O4'-C1'-C2'	-5.70	101.34	105.90
50	Ax	26	DG	O4'-C1'-C2'	-5.70	101.34	105.90
1	AA	58	DT	C4'-C3'-C2'	-5.70	97.97	103.10
1	AA	1038	DG	O4'-C1'-N9	5.70	111.99	108.00
1	AA	4088	DG	O4'-C1'-C2'	-5.70	101.34	105.90
1	AA	1032	DG	P-O3'-C3'	5.70	126.54	119.70
185	C8	38	DG	C1'-O4'-C4'	-5.70	104.41	110.10
1	AA	4122	DA	N1-C6-N6	-5.69	115.18	118.60
1	AA	2972	DT	O4'-C1'-C2'	-5.69	101.35	105.90
1	AA	3733	DA	O4'-C1'-C2'	-5.69	101.35	105.90
13	AM	21	DG	O4'-C1'-C2'	-5.69	101.35	105.90
43	Aq	26	DG	O4'-C1'-C2'	-5.69	101.34	105.90
89	Ba	16	DC	C6-N1-C2	-5.69	118.02	120.30
1	AA	375	DT	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	601	DC	O4'-C1'-N1	5.69	111.98	108.00
1	AA	2305	DC	P-O3'-C3'	5.69	126.53	119.70
51	Ay	18	DA	O4'-C1'-C2'	-5.69	101.35	105.90
172	Cv	37	DT	C4'-C3'-C2'	-5.69	97.98	103.10
1	AA	6102	DG	O4'-C1'-C2'	-5.69	101.35	105.90
1	AA	2450	DT	P-O3'-C3'	5.68	126.52	119.70
1	AA	3552	DA	O4'-C4'-C3'	-5.68	102.23	104.50
1	AA	5664	DG	O4'-C4'-C3'	-5.68	102.23	104.50
97	Bi	36	DA	C4'-C3'-C2'	-5.68	97.98	103.10
181	C4	5	DT	C4'-C3'-C2'	-5.68	97.98	103.10
1	AA	4500	DA	C4'-C3'-C2'	-5.68	97.99	103.10
144	CT	10	DT	C1'-O4'-C4'	-5.68	104.42	110.10
157	Cg	32	DA	O4'-C1'-C2'	-5.68	101.35	105.90
187	DA	36	DT	C6-C5-C7	5.68	126.31	122.90
1	AA	5842	DG	O4'-C1'-C2'	-5.68	101.36	105.90
1	AA	981	DT	C4'-C3'-C2'	-5.68	97.99	103.10
1	AA	6284	DG	P-O3'-C3'	5.68	126.52	119.70
1	AA	6671	DA	P-O3'-C3'	5.68	126.52	119.70
30	Ad	17	DG	C1'-O4'-C4'	-5.68	104.42	110.10
124	B9	30	DG	C5-C6-O6	-5.68	125.19	128.60
1	AA	471	DA	O4'-C4'-C3'	-5.68	102.23	104.50
79	BQ	39	DC	P-O5'-C5'	5.68	129.98	120.90
1	AA	3148	DT	C4'-C3'-C2'	-5.68	97.99	103.10
1	AA	7241	DT	P-O5'-C5'	5.68	129.98	120.90
14	AN	16	DT	C4'-C3'-C2'	-5.68	97.99	103.10
14	AN	21	DA	O4'-C1'-C2'	-5.68	101.36	105.90
94	Bf	36	DT	C4'-C3'-C2'	-5.68	97.99	103.10
184	C7	38	DG	O4'-C1'-C2'	-5.68	101.36	105.90
1	AA	1868	DA	O4'-C1'-N9	5.67	111.97	108.00
1	AA	4629	DG	C5-C6-O6	-5.67	125.19	128.60
1	AA	5864	DG	C5-C6-O6	-5.67	125.20	128.60
1	AA	954	DG	N1-C6-O6	5.67	123.30	119.90
1	AA	6316	DA	P-O3'-C3'	5.67	126.51	119.70
1	AA	7621	DG	O4'-C1'-C2'	-5.67	101.36	105.90
3	AC	13	DA	O4'-C1'-C2'	-5.67	101.36	105.90
47	Au	34	DA	O4'-C1'-C2'	-5.67	101.36	105.90
165	Co	26	DC	O4'-C1'-C2'	-5.67	101.36	105.90
104	Bp	22	DA	O4'-C1'-C2'	-5.67	101.36	105.90
190	DD	5	DA	N1-C6-N6	-5.67	115.20	118.60
1	AA	7637	DG	O4'-C1'-C2'	-5.67	101.37	105.90
181	C4	17	DG	N1-C6-O6	5.67	123.30	119.90
1	AA	5911	DT	C4'-C3'-C2'	-5.67	98.00	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
102	Bn	48	DG	C1'-O4'-C4'	-5.67	104.43	110.10
108	Bt	1	DC	C1'-O4'-C4'	-5.67	104.43	110.10
134	CJ	26	DT	O4'-C1'-N1	5.67	111.97	108.00
1	AA	997	DC	O4'-C1'-C2'	-5.67	101.37	105.90
1	AA	5905	DC	C4'-C3'-C2'	-5.67	98.00	103.10
193	DG	1	DC	O4'-C1'-N1	5.67	111.97	108.00
1	AA	6996	DG	O4'-C1'-C2'	-5.66	101.37	105.90
1	AA	3336	DC	C4'-C3'-C2'	-5.66	98.00	103.10
1	AA	7548	DG	C1'-O4'-C4'	-5.66	104.44	110.10
151	Ca	10	DA	O4'-C1'-C2'	-5.66	101.37	105.90
1	AA	2396	DT	O4'-C1'-C2'	-5.66	101.37	105.90
23	AW	28	DT	P-O3'-C3'	5.66	126.49	119.70
132	CH	28	DG	O4'-C1'-C2'	-5.66	101.37	105.90
1	AA	340	DG	O4'-C1'-C2'	-5.66	101.37	105.90
1	AA	6346	DG	N1-C6-O6	5.66	123.30	119.90
17	AQ	18	DG	O4'-C1'-C2'	-5.66	101.38	105.90
1	AA	3721	DA	O4'-C1'-N9	5.66	111.96	108.00
1	AA	7937	DC	P-O3'-C3'	5.66	126.49	119.70
121	B6	53	DG	C5-C6-O6	-5.66	125.21	128.60
35	Ai	20	DG	O4'-C1'-C2'	-5.65	101.38	105.90
1	AA	2204	DG	O4'-C1'-C2'	-5.65	101.38	105.90
1	AA	4257	DG	C5-C6-O6	-5.65	125.21	128.60
1	AA	5738	DC	O4'-C1'-C2'	-5.65	101.38	105.90
44	Ar	24	DT	C4'-C3'-C2'	-5.65	98.01	103.10
1	AA	3336	DC	C1'-O4'-C4'	-5.65	104.45	110.10
1	AA	3450	DG	P-O3'-C3'	5.65	126.48	119.70
1	AA	6417	DT	C4'-C3'-C2'	-5.65	98.02	103.10
56	A3	36	DA	P-O3'-C3'	5.65	126.48	119.70
124	B9	23	DG	O4'-C1'-C2'	-5.65	101.38	105.90
1	AA	2450	DT	O4'-C1'-C2'	-5.65	101.38	105.90
1	AA	6777	DC	C4'-C3'-C2'	-5.65	98.02	103.10
1	AA	4165	DG	C1'-O4'-C4'	-5.65	104.45	110.10
1	AA	878	DG	P-O3'-C3'	5.64	126.47	119.70
1	AA	2811	DT	O4'-C1'-C2'	-5.64	101.39	105.90
14	AN	13	DG	O4'-C1'-C2'	-5.64	101.39	105.90
35	Ai	39	DG	O4'-C1'-C2'	-5.64	101.38	105.90
56	A3	49	DT	C1'-O4'-C4'	-5.64	104.45	110.10
141	CQ	24	DG	C5-C6-O6	-5.64	125.21	128.60
1	AA	1046	DG	O4'-C1'-C2'	-5.64	101.39	105.90
1	AA	4992	DA	O4'-C4'-C3'	-5.64	102.24	104.50
49	Aw	42	DT	O4'-C1'-C2'	-5.64	101.39	105.90
1	AA	538	DC	C4'-C3'-C2'	-5.64	98.02	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	2003	DG	O4'-C1'-C2'	-5.64	101.39	105.90
1	AA	3697	DG	O4'-C1'-C2'	-5.64	101.39	105.90
1	AA	5047	DT	C4'-C3'-C2'	-5.64	98.03	103.10
1	AA	6113	DG	O4'-C1'-C2'	-5.64	101.39	105.90
120	B5	44	DA	O4'-C1'-C2'	-5.64	101.39	105.90
24	AX	50	DA	P-O3'-C3'	5.64	126.47	119.70
179	C2	26	DG	C1'-O4'-C4'	-5.64	104.46	110.10
1	AA	1909	DG	O4'-C1'-C2'	-5.64	101.39	105.90
171	Cu	18	DG	P-O3'-C3'	5.64	126.46	119.70
1	AA	3339	DA	C4'-C3'-C2'	-5.63	98.03	103.10
79	BQ	25	DA	O4'-C1'-C2'	-5.63	101.39	105.90
139	CO	20	DT	C4'-C3'-C2'	-5.63	98.03	103.10
1	AA	2844	DT	O4'-C1'-C2'	-5.63	101.39	105.90
1	AA	3238	DG	O4'-C1'-C2'	-5.63	101.39	105.90
1	AA	4199	DG	O4'-C1'-N9	5.63	111.94	108.00
1	AA	2303	DG	O4'-C1'-N9	5.63	111.94	108.00
185	C8	34	DA	C4'-C3'-C2'	-5.63	98.03	103.10
1	AA	2444	DA	C4'-C3'-C2'	-5.63	98.03	103.10
172	Cv	12	DG	O4'-C1'-C2'	-5.63	101.40	105.90
186	C9	45	DG	C1'-O4'-C4'	-5.63	104.47	110.10
1	AA	2265	DT	O4'-C1'-C2'	-5.63	101.40	105.90
104	Bp	37	DG	O4'-C1'-C2'	-5.63	101.40	105.90
111	Bw	51	DT	O4'-C1'-C2'	-5.63	101.40	105.90
1	AA	4928	DA	O4'-C1'-C2'	-5.62	101.40	105.90
1	AA	5442	DT	C4'-C3'-C2'	-5.62	98.04	103.10
1	AA	6561	DA	O4'-C1'-C2'	-5.62	101.40	105.90
140	CP	23	DG	C1'-O4'-C4'	-5.62	104.47	110.10
36	Aj	18	DA	O4'-C1'-C2'	-5.62	101.40	105.90
1	AA	8034	DG	O4'-C1'-C2'	-5.62	101.40	105.90
148	CX	30	DT	C4'-C3'-C2'	-5.62	98.04	103.10
1	AA	2471	DA	O4'-C1'-C2'	-5.62	101.41	105.90
56	A3	31	DG	O4'-C1'-C2'	-5.62	101.41	105.90
105	Bq	43	DA	O4'-C1'-C2'	-5.62	101.41	105.90
1	AA	5732	DA	C4'-C3'-C2'	-5.62	98.04	103.10
161	Ck	7	DG	O4'-C1'-C2'	-5.62	101.41	105.90
191	DE	41	DG	C1'-O4'-C4'	-5.62	104.48	110.10
1	AA	2244	DG	O4'-C1'-C2'	-5.62	101.41	105.90
1	AA	5641	DG	C5-C6-O6	-5.62	125.23	128.60
1	AA	7826	DG	O4'-C4'-C3'	-5.62	102.25	104.50
37	Ak	23	DT	P-O3'-C3'	5.62	126.44	119.70
1	AA	1077	DA	C4'-C3'-C2'	-5.61	98.05	103.10
1	AA	4922	DG	O4'-C1'-C2'	-5.61	101.41	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	6194	DC	C4'-C3'-C2'	-5.61	98.05	103.10
6	AF	4	DA	C5-C6-N6	5.61	128.19	123.70
10	AJ	19	DT	O4'-C1'-C2'	-5.61	101.41	105.90
78	BP	1	DT	C1'-O4'-C4'	-5.61	104.49	110.10
1	AA	4826	DG	P-O3'-C3'	5.61	126.43	119.70
1	AA	5522	DA	O4'-C1'-C2'	-5.61	101.41	105.90
1	AA	5967	DG	O4'-C4'-C3'	-5.61	102.25	104.50
1	AA	3330	DA	O4'-C4'-C3'	-5.61	102.26	104.50
1	AA	5670	DT	C4'-C3'-C2'	-5.61	98.05	103.10
13	AM	24	DT	C4'-C3'-C2'	-5.61	98.05	103.10
158	Ch	19	DA	O4'-C1'-C2'	-5.61	101.41	105.90
177	C0	56	DA	O4'-C1'-C2'	-5.61	101.41	105.90
1	AA	306	DG	C4'-C3'-C2'	-5.61	98.05	103.10
1	AA	585	DA	O4'-C1'-C2'	-5.61	101.41	105.90
1	AA	2477	DT	C4'-C3'-C2'	-5.61	98.05	103.10
1	AA	4198	DT	O4'-C1'-C2'	-5.61	101.41	105.90
1	AA	4709	DG	C1'-O4'-C4'	-5.61	104.49	110.10
31	Ae	8	DG	C1'-O4'-C4'	-5.61	104.49	110.10
155	Ce	2	DG	C1'-O4'-C4'	-5.61	104.49	110.10
155	Ce	22	DA	O4'-C1'-C2'	-5.61	101.41	105.90
165	Co	26	DC	P-O3'-C3'	5.61	126.43	119.70
182	C5	23	DG	O4'-C1'-C2'	-5.61	101.41	105.90
1	AA	5396	DA	O4'-C1'-C2'	-5.61	101.42	105.90
1	AA	6907	DC	P-O5'-C5'	5.61	129.87	120.90
179	C2	6	DA	O4'-C1'-C2'	-5.61	101.42	105.90
120	B5	29	DT	C4'-C3'-C2'	-5.60	98.06	103.10
42	Ap	28	DT	O4'-C4'-C3'	-5.60	102.26	104.50
1	AA	3910	DG	O4'-C1'-C2'	-5.60	101.42	105.90
1	AA	7386	DG	O4'-C1'-C2'	-5.60	101.42	105.90
1	AA	7411	DG	O4'-C4'-C3'	-5.60	102.26	104.50
155	Ce	1	DT	C4'-C3'-C2'	-5.60	98.06	103.10
1	AA	2849	DA	P-O3'-C3'	5.60	126.42	119.70
1	AA	5433	DC	C6-N1-C2	-5.60	118.06	120.30
85	BW	56	DA	C4'-C3'-C2'	-5.60	98.06	103.10
105	Bq	25	DG	O4'-C1'-C2'	-5.60	101.42	105.90
121	B6	16	DT	O4'-C1'-C2'	-5.60	101.42	105.90
1	AA	757	DT	C4'-C3'-C2'	-5.60	98.06	103.10
1	AA	7536	DG	O4'-C1'-C2'	-5.60	101.42	105.90
65	BC	8	DG	O4'-C4'-C3'	-5.60	102.26	104.50
77	BO	29	DA	O4'-C1'-C2'	-5.60	101.42	105.90
99	Bk	4	DG	O4'-C1'-C2'	-5.60	101.42	105.90
1	AA	2399	DA	N1-C6-N6	-5.59	115.24	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	2764	DT	C1'-O4'-C4'	-5.59	104.50	110.10
1	AA	3061	DC	O4'-C1'-N1	5.59	111.92	108.00
194	DH	26	DA	O4'-C1'-C2'	-5.59	101.42	105.90
144	CT	15	DA	N1-C6-N6	-5.59	115.24	118.60
150	CZ	9	DA	O4'-C1'-C2'	-5.59	101.42	105.90
168	Cr	11	DA	O4'-C1'-C2'	-5.59	101.42	105.90
1	AA	959	DC	P-O3'-C3'	5.59	126.41	119.70
15	AO	13	DT	C4'-C3'-C2'	-5.59	98.07	103.10
37	Ak	3	DG	P-O3'-C3'	5.59	126.41	119.70
66	BD	51	DG	O4'-C1'-C2'	-5.59	101.43	105.90
74	BL	6	DG	C1'-O4'-C4'	-5.59	104.51	110.10
1	AA	4066	DC	O4'-C1'-C2'	-5.59	101.43	105.90
1	AA	4372	DG	C1'-O4'-C4'	-5.59	104.51	110.10
1	AA	6083	DA	O4'-C1'-N9	5.59	111.91	108.00
1	AA	7575	DA	P-O3'-C3'	5.59	126.41	119.70
28	Ab	42	DG	O4'-C1'-C2'	-5.59	101.43	105.90
61	A8	6	DC	O4'-C1'-C2'	-5.59	101.43	105.90
1	AA	5188	DC	O4'-C1'-N1	5.59	111.91	108.00
33	Ag	7	DT	P-O3'-C3'	5.59	126.41	119.70
138	CN	36	DG	C1'-O4'-C4'	-5.59	104.51	110.10
88	BZ	18	DG	O4'-C1'-C2'	-5.59	101.43	105.90
190	DD	7	DG	O4'-C1'-N9	5.59	111.91	108.00
1	AA	5660	DG	O4'-C4'-C3'	-5.58	102.27	104.50
1	AA	6411	DA	P-O3'-C3'	5.58	126.40	119.70
1	AA	6868	DC	C4'-C3'-C2'	-5.58	98.07	103.10
1	AA	2090	DT	C4'-C3'-C2'	-5.58	98.08	103.10
1	AA	4243	DT	O4'-C1'-C2'	-5.58	101.43	105.90
34	Ah	55	DC	P-O3'-C3'	5.58	126.40	119.70
131	CG	1	DT	C1'-O4'-C4'	-5.58	104.52	110.10
153	Cc	25	DG	O4'-C1'-C2'	-5.58	101.43	105.90
1	AA	2166	DG	O4'-C1'-C2'	-5.58	101.44	105.90
1	AA	5739	DG	C5-C6-O6	-5.58	125.25	128.60
1	AA	6957	DA	C4'-C3'-C2'	-5.58	98.08	103.10
54	A1	48	DG	O4'-C4'-C3'	-5.58	102.27	104.50
59	A6	27	DG	O4'-C1'-C2'	-5.58	101.43	105.90
190	DD	7	DG	O4'-C1'-C2'	-5.58	101.43	105.90
86	BX	20	DG	O4'-C1'-C2'	-5.58	101.44	105.90
13	AM	42	DA	O4'-C1'-C2'	-5.58	101.44	105.90
72	BJ	17	DC	C1'-O4'-C4'	-5.58	104.52	110.10
113	By	26	DG	O4'-C1'-C2'	-5.58	101.44	105.90
1	AA	1533	DT	O4'-C1'-C2'	-5.58	101.44	105.90
1	AA	2861	DT	O4'-C1'-C2'	-5.58	101.44	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	3320	DG	C4'-C3'-C2'	-5.58	98.08	103.10
1	AA	4261	DT	P-O3'-C3'	5.58	126.39	119.70
1	AA	6615	DG	P-O3'-C3'	5.58	126.39	119.70
1	AA	7119	DG	C1'-O4'-C4'	-5.58	104.53	110.10
69	BG	12	DA	O4'-C1'-C2'	-5.58	101.44	105.90
103	Bo	37	DG	O4'-C1'-C2'	-5.58	101.44	105.90
151	Ca	22	DG	O4'-C1'-C2'	-5.58	101.44	105.90
1	AA	2191	DG	O4'-C1'-C2'	-5.57	101.44	105.90
1	AA	3399	DT	C4'-C3'-C2'	-5.57	98.08	103.10
95	Bg	8	DA	O4'-C1'-C2'	-5.57	101.44	105.90
119	B4	28	DG	O4'-C1'-C2'	-5.57	101.44	105.90
155	Ce	25	DA	P-O3'-C3'	5.57	126.39	119.70
1	AA	1453	DG	O4'-C1'-C2'	-5.57	101.44	105.90
82	BT	26	DG	O4'-C1'-C2'	-5.57	101.44	105.90
117	B2	31	DA	C1'-O4'-C4'	-5.57	104.53	110.10
147	CW	19	DG	N1-C6-O6	5.57	123.24	119.90
1	AA	3684	DG	O4'-C1'-C2'	-5.57	101.44	105.90
119	B4	32	DA	O4'-C1'-C2'	-5.57	101.44	105.90
1	AA	2859	DG	O4'-C1'-C2'	-5.57	101.45	105.90
1	AA	7855	DG	C1'-O4'-C4'	-5.57	104.53	110.10
49	Aw	45	DC	C4'-C3'-C2'	-5.57	98.09	103.10
1	AA	1378	DG	O4'-C1'-C2'	-5.57	101.45	105.90
90	Bb	20	DA	C1'-O4'-C4'	-5.57	104.53	110.10
106	Br	10	DG	O4'-C4'-C3'	-5.57	102.27	104.50
117	B2	1	DC	C4'-C3'-C2'	-5.57	98.09	103.10
117	B2	35	DC	P-O3'-C3'	5.57	126.38	119.70
150	CZ	23	DG	C1'-O4'-C4'	-5.57	104.53	110.10
1	AA	1731	DA	O4'-C1'-C2'	-5.56	101.45	105.90
88	BZ	1	DG	C1'-O4'-C4'	-5.56	104.54	110.10
182	C5	26	DC	C4'-C3'-C2'	-5.56	98.09	103.10
1	AA	4241	DG	O4'-C1'-C2'	-5.56	101.45	105.90
68	BF	31	DG	C4'-C3'-C2'	-5.56	98.09	103.10
69	BG	33	DC	O4'-C4'-C3'	-5.56	102.28	104.50
87	BY	37	DA	O4'-C1'-C2'	-5.56	101.45	105.90
1	AA	2271	DG	O4'-C1'-C2'	-5.56	101.45	105.90
1	AA	3355	DC	O4'-C1'-C2'	-5.56	101.45	105.90
84	BV	1	DT	C4'-C3'-C2'	-5.56	98.10	103.10
185	C8	25	DT	C4'-C3'-C2'	-5.56	98.10	103.10
1	AA	330	DC	O4'-C1'-C2'	-5.56	101.45	105.90
1	AA	2635	DA	N1-C6-N6	-5.56	115.27	118.60
138	CN	7	DG	O4'-C1'-C2'	-5.56	101.45	105.90
144	CT	10	DT	O4'-C1'-C2'	-5.56	101.45	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
147	CW	26	DA	O4'-C1'-C2'	-5.56	101.45	105.90
88	BZ	21	DA	O4'-C1'-C2'	-5.56	101.45	105.90
1	AA	148	DA	O4'-C1'-C2'	-5.55	101.46	105.90
161	Ck	38	DT	C4'-C3'-C2'	-5.55	98.10	103.10
31	Ae	23	DG	C5-C6-O6	-5.55	125.27	128.60
1	AA	1585	DC	C4'-C3'-C2'	-5.55	98.10	103.10
1	AA	6671	DA	O4'-C4'-C3'	-5.55	102.28	104.50
12	AL	26	DT	C4'-C3'-C2'	-5.55	98.10	103.10
144	CT	37	DG	O4'-C1'-C2'	-5.55	101.46	105.90
150	CZ	18	DG	O4'-C1'-C2'	-5.55	101.46	105.90
161	Ck	42	DG	C1'-O4'-C4'	-5.55	104.55	110.10
1	AA	1396	DG	O4'-C1'-N9	5.55	111.89	108.00
28	Ab	33	DC	P-O3'-C3'	5.55	126.36	119.70
46	At	11	DC	C4'-C3'-C2'	-5.55	98.11	103.10
145	CU	2	DG	C4'-C3'-C2'	-5.55	98.11	103.10
155	Ce	31	DA	C4'-C3'-C2'	-5.55	98.11	103.10
180	C3	34	DA	O4'-C1'-C2'	-5.55	101.46	105.90
1	AA	504	DG	O4'-C1'-C2'	-5.55	101.46	105.90
1	AA	4234	DG	O4'-C1'-C2'	-5.55	101.46	105.90
1	AA	4326	DA	C4'-C3'-C2'	-5.55	98.11	103.10
60	A7	13	DA	P-O3'-C3'	5.55	126.36	119.70
147	CW	1	DA	O4'-C1'-C2'	-5.55	101.46	105.90
194	DH	28	DG	C4'-C3'-C2'	-5.55	98.11	103.10
22	AV	15	DA	N1-C6-N6	-5.55	115.27	118.60
33	Ag	15	DA	O4'-C1'-C2'	-5.55	101.46	105.90
96	Bh	21	DG	C1'-O4'-C4'	-5.55	104.55	110.10
1	AA	6059	DG	O4'-C1'-C2'	-5.54	101.46	105.90
1	AA	5431	DC	O4'-C1'-N1	5.54	111.88	108.00
78	BP	24	DG	C5-C6-O6	-5.54	125.27	128.60
181	C4	21	DA	O4'-C1'-C2'	-5.54	101.47	105.90
183	C6	45	DG	C1'-O4'-C4'	-5.54	104.56	110.10
1	AA	6667	DA	O4'-C1'-C2'	-5.54	101.47	105.90
1	AA	6797	DG	O4'-C1'-C2'	-5.54	101.47	105.90
85	BW	2	DT	O4'-C1'-C2'	-5.54	101.47	105.90
130	CF	35	DC	C4'-C3'-C2'	-5.54	98.11	103.10
1	AA	2784	DT	C1'-O4'-C4'	-5.54	104.56	110.10
1	AA	6107	DT	C4'-C3'-C2'	-5.54	98.11	103.10
77	BO	20	DG	O4'-C1'-C2'	-5.54	101.47	105.90
1	AA	936	DG	O4'-C1'-C2'	-5.54	101.47	105.90
1	AA	1059	DG	O4'-C1'-C2'	-5.54	101.47	105.90
1	AA	2305	DC	O4'-C1'-C2'	-5.54	101.47	105.90
183	C6	8	DA	O4'-C4'-C3'	-5.54	102.28	104.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1744	DG	O4'-C1'-C2'	-5.54	101.47	105.90
1	AA	5039	DG	O4'-C1'-C2'	-5.54	101.47	105.90
31	Ae	3	DG	O4'-C1'-C2'	-5.54	101.47	105.90
113	By	11	DT	P-O3'-C3'	5.54	126.34	119.70
154	Cd	13	DA	C4'-C3'-C2'	-5.54	98.12	103.10
178	C1	57	DG	C5-C6-O6	-5.54	125.28	128.60
1	AA	5945	DG	O4'-C1'-N9	5.54	111.88	108.00
1	AA	6866	DA	C4'-C3'-C2'	-5.54	98.12	103.10
73	BK	22	DT	O4'-C1'-C2'	-5.54	101.47	105.90
90	Bb	17	DT	C1'-O4'-C4'	-5.54	104.56	110.10
169	Cs	14	DA	O4'-C1'-C2'	-5.54	101.47	105.90
181	C4	5	DT	O4'-C4'-C3'	-5.54	102.29	104.50
1	AA	1380	DC	C4'-C3'-C2'	-5.53	98.12	103.10
57	A4	15	DA	O4'-C1'-C2'	-5.53	101.47	105.90
1	AA	3039	DA	O4'-C1'-C2'	-5.53	101.47	105.90
1	AA	6576	DG	O4'-C1'-C2'	-5.53	101.47	105.90
1	AA	7212	DC	O4'-C4'-C3'	-5.53	102.29	104.50
180	C3	1	DC	C1'-O4'-C4'	-5.53	104.57	110.10
1	AA	1438	DG	P-O3'-C3'	5.53	126.34	119.70
1	AA	4376	DA	O4'-C1'-C2'	-5.53	101.47	105.90
1	AA	1751	DG	O4'-C1'-C2'	-5.53	101.48	105.90
1	AA	6083	DA	P-O3'-C3'	5.53	126.33	119.70
1	AA	4524	DG	O4'-C1'-C2'	-5.53	101.48	105.90
1	AA	8018	DC	O4'-C4'-C3'	-5.53	102.29	104.50
12	AL	11	DT	P-O3'-C3'	5.53	126.33	119.70
96	Bh	49	DC	C1'-O4'-C4'	-5.53	104.57	110.10
1	AA	7417	DA	O4'-C1'-C2'	-5.53	101.48	105.90
43	Aq	46	DA	N1-C6-N6	-5.53	115.28	118.60
48	Av	10	DA	O4'-C1'-C2'	-5.53	101.48	105.90
58	A5	1	DT	O4'-C4'-C3'	-5.53	102.29	104.50
88	BZ	13	DG	O4'-C1'-N9	5.53	111.87	108.00
141	CQ	8	DT	C4'-C3'-C2'	-5.53	98.13	103.10
1	AA	856	DC	C4'-C3'-C2'	-5.52	98.13	103.10
1	AA	1078	DT	C4-C5-C7	-5.52	115.69	119.00
1	AA	1693	DG	O4'-C1'-C2'	-5.52	101.48	105.90
1	AA	7942	DG	O4'-C1'-C2'	-5.52	101.48	105.90
42	Ap	29	DT	O4'-C1'-C2'	-5.52	101.48	105.90
43	Aq	34	DG	O4'-C1'-C2'	-5.52	101.48	105.90
1	AA	1306	DG	O4'-C1'-C2'	-5.52	101.48	105.90
1	AA	2444	DA	O4'-C4'-C3'	-5.52	102.29	104.50
46	At	11	DC	O4'-C4'-C3'	-5.52	102.29	104.50
53	A0	28	DT	C4'-C3'-C2'	-5.52	98.13	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	7899	DG	P-O3'-C3'	5.52	126.33	119.70
56	A3	21	DG	C1'-O4'-C4'	-5.52	104.58	110.10
64	BB	27	DG	N1-C6-O6	5.52	123.21	119.90
146	CV	4	DC	C2-N1-C1'	5.52	124.87	118.80
92	Bd	27	DA	P-O3'-C3'	5.52	126.32	119.70
1	AA	1246	DT	O4'-C1'-C2'	-5.52	101.49	105.90
1	AA	1404	DA	O4'-C4'-C3'	-5.52	102.29	104.50
1	AA	7991	DG	N1-C6-O6	5.52	123.21	119.90
77	BO	33	DG	O4'-C1'-C2'	-5.52	101.49	105.90
109	Bu	12	DG	C4'-C3'-C2'	-5.52	98.14	103.10
1	AA	764	DG	O4'-C1'-C2'	-5.52	101.49	105.90
1	AA	2130	DC	P-O3'-C3'	5.52	126.32	119.70
69	BG	26	DA	O4'-C1'-C2'	-5.52	101.49	105.90
1	AA	2948	DG	P-O3'-C3'	5.51	126.32	119.70
1	AA	6807	DA	O4'-C1'-C2'	-5.51	101.49	105.90
1	AA	7669	DT	O4'-C1'-C2'	-5.51	101.49	105.90
56	A3	9	DG	O4'-C1'-C2'	-5.51	101.49	105.90
80	BR	36	DG	C1'-O4'-C4'	-5.51	104.58	110.10
139	CO	34	DG	O4'-C1'-C2'	-5.51	101.49	105.90
1	AA	875	DG	O4'-C1'-C2'	-5.51	101.49	105.90
80	BR	12	DA	O4'-C1'-C2'	-5.51	101.49	105.90
1	AA	2483	DG	C1'-O4'-C4'	-5.51	104.59	110.10
1	AA	3143	DA	C1'-O4'-C4'	-5.51	104.59	110.10
1	AA	7279	DG	O4'-C4'-C3'	-5.51	102.30	104.50
68	BF	42	DT	O4'-C4'-C3'	-5.51	102.30	104.50
1	AA	3056	DT	C4'-C3'-C2'	-5.51	98.14	103.10
1	AA	707	DG	O4'-C1'-C2'	-5.51	101.49	105.90
58	A5	31	DG	O4'-C1'-C2'	-5.51	101.49	105.90
78	BP	41	DA	O4'-C1'-C2'	-5.51	101.49	105.90
188	DB	23	DT	O4'-C1'-C2'	-5.51	101.49	105.90
1	AA	6202	DA	O4'-C4'-C3'	-5.51	102.30	104.50
21	AU	39	DT	O4'-C1'-C2'	-5.51	101.50	105.90
42	Ap	4	DT	C4'-C3'-C2'	-5.51	98.14	103.10
1	AA	2419	DG	O4'-C1'-C2'	-5.50	101.50	105.90
105	Bq	10	DG	O4'-C1'-C2'	-5.50	101.50	105.90
1	AA	3961	DC	O4'-C1'-C2'	-5.50	101.50	105.90
1	AA	5369	DG	O4'-C1'-C2'	-5.50	101.50	105.90
1	AA	5945	DG	C1'-O4'-C4'	-5.50	104.60	110.10
23	AW	27	DT	C4'-C3'-C2'	-5.50	98.15	103.10
87	BY	10	DG	O4'-C1'-C2'	-5.50	101.50	105.90
109	Bu	21	DA	O4'-C1'-C2'	-5.50	101.50	105.90
162	Cl	27	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	5767	DA	P-O3'-C3'	5.50	126.30	119.70
1	AA	7275	DG	P-O3'-C3'	5.50	126.30	119.70
1	AA	7894	DC	C2-N1-C1'	5.50	124.85	118.80
91	Bc	18	DC	C4'-C3'-C2'	-5.50	98.15	103.10
1	AA	1256	DA	O4'-C1'-C2'	-5.50	101.50	105.90
1	AA	2432	DT	C4'-C3'-C2'	-5.50	98.15	103.10
1	AA	3989	DA	C1'-O4'-C4'	-5.50	104.60	110.10
1	AA	4885	DC	P-O3'-C3'	5.50	126.30	119.70
72	BJ	24	DG	O4'-C1'-C2'	-5.50	101.50	105.90
113	By	5	DA	O4'-C1'-C2'	-5.50	101.50	105.90
158	Ch	7	DT	C4'-C3'-C2'	-5.50	98.15	103.10
1	AA	7082	DA	N1-C6-N6	-5.50	115.30	118.60
4	AD	51	DA	O4'-C1'-C2'	-5.50	101.50	105.90
1	AA	1054	DG	N1-C6-O6	5.50	123.20	119.90
157	Cg	12	DC	O4'-C1'-N1	5.50	111.85	108.00
176	Cz	8	DG	C4'-C3'-C2'	-5.50	98.15	103.10
1	AA	479	DG	P-O3'-C3'	5.49	126.29	119.70
1	AA	5259	DG	C1'-O4'-C4'	-5.49	104.61	110.10
120	B5	24	DG	O4'-C4'-C3'	-5.49	102.30	104.50
159	Ci	10	DA	O4'-C1'-C2'	-5.49	101.51	105.90
1	AA	7206	DG	O4'-C1'-C2'	-5.49	101.51	105.90
49	Aw	8	DA	C1'-O4'-C4'	-5.49	104.61	110.10
66	BD	42	DA	O4'-C1'-C2'	-5.49	101.51	105.90
122	B7	18	DT	C1'-O4'-C4'	-5.49	104.61	110.10
134	CJ	4	DC	P-O3'-C3'	5.49	126.29	119.70
1	AA	5493	DA	O4'-C1'-C2'	-5.49	101.51	105.90
1	AA	7115	DA	O4'-C1'-C2'	-5.49	101.51	105.90
58	A5	26	DT	C1'-O4'-C4'	-5.49	104.61	110.10
169	Cs	11	DT	C1'-O4'-C4'	-5.49	104.61	110.10
20	AT	20	DG	O4'-C1'-C2'	-5.49	101.51	105.90
57	A4	26	DG	P-O3'-C3'	5.49	126.28	119.70
114	Bz	18	DG	P-O3'-C3'	5.49	126.28	119.70
1	AA	712	DC	O4'-C1'-C2'	-5.49	101.51	105.90
1	AA	801	DA	N1-C6-N6	-5.49	115.31	118.60
1	AA	4271	DA	O4'-C1'-C2'	-5.49	101.51	105.90
1	AA	4754	DA	O4'-C1'-C2'	-5.49	101.51	105.90
73	BK	25	DA	O4'-C1'-C2'	-5.49	101.51	105.90
1	AA	380	DG	O4'-C1'-N9	5.48	111.84	108.00
1	AA	5942	DG	P-O3'-C3'	5.48	126.28	119.70
102	Bn	40	DG	O4'-C1'-C2'	-5.48	101.51	105.90
123	B8	10	DG	O4'-C1'-C2'	-5.48	101.51	105.90
1	AA	1003	DG	C1'-O4'-C4'	-5.48	104.62	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	3987	DC	P-O3'-C3'	5.48	126.28	119.70
91	Bc	29	DT	C4'-C3'-C2'	-5.48	98.17	103.10
187	DA	35	DG	C1'-O4'-C4'	-5.48	104.62	110.10
1	AA	158	DC	C4'-C3'-C2'	-5.48	98.17	103.10
82	BT	11	DG	C1'-O4'-C4'	-5.48	104.62	110.10
100	Bl	22	DG	O4'-C1'-C2'	-5.48	101.52	105.90
144	CT	7	DA	O4'-C1'-C2'	-5.48	101.52	105.90
160	Cj	26	DA	O4'-C1'-C2'	-5.48	101.52	105.90
1	AA	3310	DG	O4'-C1'-C2'	-5.48	101.52	105.90
1	AA	6875	DT	O4'-C1'-C2'	-5.48	101.52	105.90
44	Ar	12	DG	O4'-C1'-C2'	-5.48	101.52	105.90
93	Be	42	DA	O4'-C1'-C2'	-5.48	101.52	105.90
99	Bk	23	DG	C4'-C3'-C2'	-5.48	98.17	103.10
110	Bv	12	DG	O4'-C1'-C2'	-5.48	101.52	105.90
1	AA	1473	DA	O4'-C1'-C2'	-5.48	101.52	105.90
1	AA	1951	DG	O4'-C1'-C2'	-5.48	101.52	105.90
1	AA	3529	DG	C5-C6-O6	-5.48	125.31	128.60
1	AA	5396	DA	C1'-O4'-C4'	-5.48	104.62	110.10
40	An	36	DG	C4'-C3'-C2'	-5.48	98.17	103.10
154	Cd	14	DG	P-O3'-C3'	5.48	126.27	119.70
1	AA	4545	DA	O4'-C1'-C2'	-5.47	101.52	105.90
53	A0	8	DC	C6-N1-C2	-5.47	118.11	120.30
93	Be	33	DC	O4'-C1'-N1	5.47	111.83	108.00
1	AA	3474	DG	N1-C6-O6	5.47	123.18	119.90
1	AA	3670	DG	C5-C6-O6	-5.47	125.32	128.60
1	AA	3703	DG	P-O3'-C3'	5.47	126.27	119.70
1	AA	5278	DG	O4'-C1'-C2'	-5.47	101.52	105.90
1	AA	6283	DC	O4'-C1'-C2'	-5.47	101.52	105.90
1	AA	199	DC	C4'-C3'-C2'	-5.47	98.18	103.10
31	Ae	36	DG	O4'-C1'-C2'	-5.47	101.52	105.90
37	Ak	23	DT	O4'-C1'-C2'	-5.47	101.52	105.90
1	AA	138	DA	P-O3'-C3'	5.47	126.26	119.70
51	Ay	6	DG	O4'-C1'-C2'	-5.47	101.52	105.90
124	B9	26	DT	P-O3'-C3'	5.47	126.26	119.70
66	BD	28	DT	C4'-C3'-C2'	-5.47	98.18	103.10
1	AA	215	DG	C1'-O4'-C4'	-5.47	104.63	110.10
1	AA	766	DG	P-O3'-C3'	5.47	126.26	119.70
35	Ai	42	DG	O4'-C1'-C2'	-5.47	101.53	105.90
1	AA	2080	DT	O4'-C4'-C3'	-5.46	102.31	104.50
1	AA	2993	DT	C4'-C3'-C2'	-5.46	98.18	103.10
1	AA	3425	DC	P-O5'-C5'	5.46	129.64	120.90
99	Bk	32	DG	C5-C6-O6	-5.46	125.32	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	5807	DA	O4'-C1'-C2'	-5.46	101.53	105.90
93	Be	31	DG	O4'-C1'-C2'	-5.46	101.53	105.90
132	CH	10	DA	O4'-C1'-C2'	-5.46	101.53	105.90
1	AA	2483	DG	O4'-C1'-N9	5.46	111.82	108.00
71	BI	50	DA	C1'-O4'-C4'	-5.46	104.64	110.10
175	Cy	11	DC	O4'-C1'-C2'	-5.46	101.53	105.90
5	AE	1	DT	C1'-O4'-C4'	-5.46	104.64	110.10
108	Bt	16	DG	P-O3'-C3'	5.46	126.25	119.70
187	DA	41	DA	N1-C6-N6	-5.46	115.32	118.60
1	AA	3835	DA	P-O3'-C3'	5.46	126.25	119.70
1	AA	5325	DT	C4'-C3'-C2'	-5.46	98.19	103.10
76	BN	7	DG	O4'-C1'-C2'	-5.46	101.53	105.90
103	Bo	43	DG	O4'-C1'-C2'	-5.46	101.53	105.90
188	DB	18	DC	P-O5'-C5'	5.46	129.63	120.90
1	AA	4554	DT	C4'-C3'-C2'	-5.46	98.19	103.10
1	AA	4628	DG	P-O3'-C3'	5.46	126.25	119.70
42	Ap	38	DG	O4'-C4'-C3'	-5.46	102.32	104.50
1	AA	737	DC	P-O3'-C3'	5.46	126.25	119.70
1	AA	4694	DG	O4'-C1'-C2'	-5.46	101.54	105.90
159	Ci	37	DG	O4'-C1'-C2'	-5.46	101.54	105.90
36	Aj	26	DC	P-O5'-C5'	5.45	129.62	120.90
187	DA	42	DT	C4'-C3'-C2'	-5.45	98.19	103.10
1	AA	3163	DG	C1'-O4'-C4'	-5.45	104.65	110.10
1	AA	1762	DG	O4'-C1'-C2'	-5.45	101.54	105.90
1	AA	2340	DA	O4'-C1'-C2'	-5.45	101.54	105.90
1	AA	5605	DA	O4'-C1'-C2'	-5.45	101.54	105.90
23	AW	45	DC	O4'-C4'-C3'	-5.45	102.32	104.50
1	AA	1421	DA	N1-C6-N6	-5.45	115.33	118.60
1	AA	3032	DT	O4'-C1'-C2'	-5.45	101.54	105.90
1	AA	7209	DT	C4'-C3'-C2'	-5.45	98.20	103.10
1	AA	138	DA	C1'-O4'-C4'	-5.45	104.65	110.10
1	AA	3997	DT	O4'-C1'-C2'	-5.45	101.54	105.90
165	Co	3	DG	O4'-C1'-C2'	-5.45	101.54	105.90
1	AA	3122	DT	P-O3'-C3'	5.45	126.23	119.70
1	AA	6373	DG	O4'-C1'-N9	5.45	111.81	108.00
106	Br	21	DG	O4'-C1'-C2'	-5.45	101.54	105.90
154	Cd	26	DG	O4'-C1'-C2'	-5.45	101.54	105.90
182	C5	18	DA	C1'-O4'-C4'	-5.45	104.65	110.10
1	AA	1224	DC	P-O5'-C5'	5.44	129.61	120.90
1	AA	3386	DC	P-O3'-C3'	5.44	126.23	119.70
2	AB	28	DT	C4'-C3'-C2'	-5.44	98.20	103.10
1	AA	4168	DT	O4'-C1'-C2'	-5.44	101.55	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	6903	DC	P-O3'-C3'	5.44	126.23	119.70
1	AA	7179	DG	O4'-C1'-C2'	-5.44	101.55	105.90
1	AA	7343	DC	P-O3'-C3'	5.44	126.23	119.70
57	A4	33	DG	C1'-O4'-C4'	-5.44	104.66	110.10
97	Bi	40	DT	O4'-C1'-C2'	-5.44	101.55	105.90
133	CI	7	DC	P-O3'-C3'	5.44	126.23	119.70
136	CL	9	DA	N1-C6-N6	-5.44	115.33	118.60
1	AA	5391	DT	C4'-C3'-C2'	-5.44	98.20	103.10
95	Bg	19	DC	P-O3'-C3'	5.44	126.23	119.70
56	A3	52	DG	C5-C6-O6	-5.44	125.34	128.60
161	Ck	4	DT	C4'-C3'-C2'	-5.44	98.20	103.10
1	AA	3709	DG	P-O3'-C3'	5.44	126.23	119.70
18	AR	25	DG	C1'-O4'-C4'	-5.44	104.66	110.10
69	BG	9	DA	C1'-O4'-C4'	-5.44	104.66	110.10
151	Ca	24	DA	O4'-C1'-C2'	-5.44	101.55	105.90
1	AA	219	DG	O4'-C1'-C2'	-5.43	101.55	105.90
1	AA	4485	DC	P-O3'-C3'	5.43	126.22	119.70
1	AA	4521	DA	C4'-C3'-C2'	-5.43	98.21	103.10
1	AA	6469	DT	C1'-O4'-C4'	-5.43	104.67	110.10
81	BS	32	DG	O4'-C1'-C2'	-5.43	101.55	105.90
106	Br	28	DA	O4'-C1'-C2'	-5.43	101.55	105.90
110	Bv	2	DG	C1'-O4'-C4'	-5.43	104.67	110.10
1	AA	677	DG	O4'-C1'-C2'	-5.43	101.55	105.90
1	AA	3755	DC	O4'-C1'-C2'	-5.43	101.55	105.90
1	AA	4273	DC	O4'-C1'-N1	5.43	111.80	108.00
1	AA	7511	DG	O4'-C1'-C2'	-5.43	101.55	105.90
24	AX	1	DT	O4'-C4'-C3'	-5.43	102.33	104.50
30	Ad	47	DC	O4'-C1'-C2'	-5.43	101.55	105.90
4	AD	26	DG	N1-C6-O6	5.43	123.16	119.90
1	AA	1955	DA	P-O3'-C3'	5.43	126.21	119.70
1	AA	4004	DA	O4'-C1'-C2'	-5.43	101.56	105.90
1	AA	7009	DA	O4'-C1'-C2'	-5.43	101.56	105.90
20	AT	34	DG	O4'-C1'-C2'	-5.43	101.56	105.90
51	Ay	15	DC	C4'-C3'-C2'	-5.43	98.21	103.10
83	BU	44	DG	O4'-C1'-C2'	-5.43	101.56	105.90
160	Cj	20	DG	O4'-C1'-C2'	-5.43	101.56	105.90
1	AA	1430	DG	C4'-C3'-C2'	-5.43	98.22	103.10
1	AA	6373	DG	C1'-O4'-C4'	-5.43	104.67	110.10
67	BE	8	DT	C4'-C3'-C2'	-5.43	98.22	103.10
179	C2	11	DC	P-O3'-C3'	5.43	126.21	119.70
1	AA	866	DC	P-O3'-C3'	5.42	126.21	119.70
1	AA	4880	DT	C4'-C3'-C2'	-5.42	98.22	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	7061	DA	O4'-C1'-C2'	-5.42	101.56	105.90
149	CY	16	DT	C4'-C3'-C2'	-5.42	98.22	103.10
31	Ae	1	DC	C2-N1-C1'	5.42	124.77	118.80
131	CG	29	DG	C1'-O4'-C4'	-5.42	104.68	110.10
1	AA	5246	DT	O4'-C4'-C3'	-5.42	102.33	104.50
29	Ac	18	DG	O4'-C1'-C2'	-5.42	101.56	105.90
87	BY	29	DG	O4'-C1'-C2'	-5.42	101.56	105.90
1	AA	6634	DC	C4'-C3'-C2'	-5.42	98.22	103.10
21	AU	6	DA	N1-C6-N6	-5.42	115.35	118.60
1	AA	989	DG	C1'-O4'-C4'	-5.42	104.68	110.10
1	AA	1648	DA	O4'-C1'-C2'	-5.42	101.57	105.90
1	AA	6584	DG	O4'-C1'-C2'	-5.42	101.56	105.90
1	AA	7157	DG	O4'-C1'-C2'	-5.42	101.57	105.90
55	A2	41	DG	N1-C6-O6	5.42	123.15	119.90
107	Bs	3	DA	O4'-C1'-C2'	-5.42	101.56	105.90
1	AA	475	DA	O4'-C1'-C2'	-5.42	101.57	105.90
1	AA	4493	DG	O4'-C1'-C2'	-5.42	101.57	105.90
1	AA	780	DA	O4'-C1'-C2'	-5.41	101.57	105.90
1	AA	3585	DT	C4'-C3'-C2'	-5.41	98.23	103.10
1	AA	3737	DC	C4'-C3'-C2'	-5.41	98.23	103.10
33	Ag	5	DT	C4'-C3'-C2'	-5.41	98.23	103.10
1	AA	4134	DT	C4'-C3'-C2'	-5.41	98.23	103.10
1	AA	6198	DA	O4'-C1'-C2'	-5.41	101.57	105.90
1	AA	6473	DG	O4'-C1'-C2'	-5.41	101.57	105.90
99	Bk	15	DG	C1'-O4'-C4'	-5.41	104.69	110.10
1	AA	2886	DA	P-O3'-C3'	5.41	126.19	119.70
1	AA	3407	DG	O4'-C1'-C2'	-5.41	101.57	105.90
1	AA	5566	DG	O4'-C1'-C2'	-5.41	101.57	105.90
35	Ai	22	DA	O4'-C1'-C2'	-5.41	101.57	105.90
1	AA	2849	DA	O4'-C1'-C2'	-5.41	101.57	105.90
1	AA	7942	DG	O4'-C1'-N9	5.41	111.79	108.00
96	Bh	53	DT	C4'-C3'-C2'	-5.41	98.23	103.10
115	B0	43	DT	C4'-C3'-C2'	-5.41	98.23	103.10
157	Cg	16	DG	O4'-C4'-C3'	-5.41	102.34	104.50
122	B7	38	DA	C1'-O4'-C4'	-5.41	104.69	110.10
158	Ch	39	DA	O4'-C1'-N9	5.41	111.78	108.00
1	AA	1003	DG	C5-C6-O6	-5.40	125.36	128.60
1	AA	1291	DA	P-O3'-C3'	5.40	126.18	119.70
1	AA	2825	DA	O4'-C1'-C2'	-5.40	101.58	105.90
65	BC	11	DA	P-O3'-C3'	5.40	126.18	119.70
76	BN	29	DA	C4'-C3'-C2'	-5.40	98.24	103.10
161	Ck	11	DA	O4'-C1'-C2'	-5.40	101.58	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
183	C6	42	DT	O4'-C1'-C2'	-5.40	101.58	105.90
1	AA	1931	DG	O4'-C1'-C2'	-5.40	101.58	105.90
1	AA	2003	DG	C1'-O4'-C4'	-5.40	104.70	110.10
1	AA	7946	DG	O4'-C1'-C2'	-5.40	101.58	105.90
69	BG	9	DA	P-O3'-C3'	5.40	126.18	119.70
83	BU	11	DG	C4'-C3'-C2'	-5.40	98.24	103.10
1	AA	5776	DG	C4'-C3'-C2'	-5.40	98.24	103.10
192	DF	23	DG	O4'-C1'-C2'	-5.40	101.58	105.90
1	AA	5527	DG	P-O3'-C3'	5.40	126.18	119.70
1	AA	5772	DG	O4'-C4'-C3'	-5.40	102.34	104.50
1	AA	5798	DA	N1-C6-N6	-5.40	115.36	118.60
1	AA	6936	DA	N1-C6-N6	-5.40	115.36	118.60
16	AP	11	DA	C1'-O4'-C4'	-5.40	104.70	110.10
35	Ai	20	DG	O4'-C1'-N9	5.40	111.78	108.00
38	Al	5	DA	O4'-C1'-C2'	-5.40	101.58	105.90
115	B0	8	DC	O4'-C1'-C2'	-5.40	101.58	105.90
1	AA	205	DG	P-O3'-C3'	5.40	126.17	119.70
1	AA	5055	DA	O4'-C4'-C3'	-5.39	102.34	104.50
10	AJ	25	DA	C4'-C3'-C2'	-5.39	98.25	103.10
21	AU	44	DA	O4'-C1'-C2'	-5.39	101.58	105.90
58	A5	5	DG	P-O3'-C3'	5.39	126.17	119.70
98	Bj	4	DA	N1-C6-N6	5.39	121.84	118.60
124	B9	19	DC	C1'-O4'-C4'	-5.39	104.70	110.10
164	Cn	15	DA	P-O3'-C3'	5.39	126.17	119.70
1	AA	3721	DA	C1'-O4'-C4'	-5.39	104.71	110.10
103	Bo	1	DA	O4'-C4'-C3'	-5.39	102.34	104.50
150	CZ	27	DG	C1'-O4'-C4'	-5.39	104.71	110.10
156	Cf	27	DA	O4'-C1'-C2'	-5.39	101.59	105.90
169	Cs	38	DG	P-O3'-C3'	5.39	126.17	119.70
1	AA	2903	DT	O4'-C4'-C3'	-5.39	102.34	104.50
130	CF	14	DC	P-O3'-C3'	5.39	126.17	119.70
1	AA	3280	DT	C4'-C3'-C2'	-5.39	98.25	103.10
60	A7	5	DG	O4'-C1'-C2'	-5.39	101.59	105.90
104	Bp	9	DA	C5-C6-N6	5.39	128.01	123.70
38	Al	2	DA	P-O3'-C3'	5.39	126.17	119.70
66	BD	34	DG	C1'-O4'-C4'	-5.39	104.71	110.10
30	Ad	7	DA	O4'-C4'-C3'	-5.39	102.34	104.50
95	Bg	20	DC	C6-N1-C2	-5.39	118.15	120.30
1	AA	212	DG	O4'-C1'-C2'	-5.38	101.59	105.90
1	AA	784	DA	O4'-C1'-C2'	-5.38	101.59	105.90
1	AA	1659	DC	C4'-C3'-C2'	-5.38	98.25	103.10
1	AA	1758	DG	O4'-C1'-C2'	-5.38	101.59	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	6264	DA	C1'-O4'-C4'	-5.38	104.72	110.10
1	AA	8011	DC	P-O5'-C5'	5.38	129.51	120.90
66	BD	27	DT	C4'-C3'-C2'	-5.38	98.25	103.10
186	C9	7	DA	C4'-C3'-C2'	-5.38	98.25	103.10
1	AA	5055	DA	C4'-C3'-C2'	-5.38	98.25	103.10
129	CE	15	DG	O4'-C1'-C2'	-5.38	101.59	105.90
1	AA	9	DG	O4'-C1'-C2'	-5.38	101.59	105.90
1	AA	2177	DA	O4'-C1'-C2'	-5.38	101.59	105.90
1	AA	7182	DG	O4'-C1'-C2'	-5.38	101.59	105.90
4	AD	48	DG	O4'-C1'-C2'	-5.38	101.59	105.90
93	Be	19	DC	C4'-C3'-C2'	-5.38	98.26	103.10
125	CA	39	DT	P-O3'-C3'	5.38	126.16	119.70
1	AA	5884	DT	C4'-C3'-C2'	-5.38	98.26	103.10
1	AA	6535	DA	O4'-C4'-C3'	-5.38	102.35	104.50
12	AL	23	DG	O4'-C1'-C2'	-5.38	101.60	105.90
1	AA	1043	DG	C4'-C3'-C2'	-5.38	98.26	103.10
1	AA	4503	DG	O4'-C1'-C2'	-5.38	101.60	105.90
1	AA	7878	DT	O4'-C1'-C2'	-5.38	101.60	105.90
117	B2	22	DG	O4'-C1'-C2'	-5.38	101.60	105.90
177	C0	8	DA	P-O3'-C3'	5.38	126.15	119.70
74	BL	32	DC	C2-N1-C1'	5.38	124.71	118.80
1	AA	106	DG	O4'-C1'-C2'	-5.37	101.60	105.90
1	AA	237	DG	C1'-O4'-C4'	-5.37	104.73	110.10
1	AA	4393	DG	O4'-C1'-C2'	-5.37	101.60	105.90
1	AA	4742	DG	P-O3'-C3'	5.37	126.15	119.70
32	Af	9	DA	O4'-C1'-C2'	-5.37	101.60	105.90
153	Cc	3	DG	N1-C6-O6	5.37	123.12	119.90
170	Ct	13	DC	O4'-C1'-N1	5.37	111.76	108.00
1	AA	7955	DG	O4'-C1'-N9	5.37	111.76	108.00
13	AM	4	DT	C4'-C3'-C2'	-5.37	98.27	103.10
105	Bq	40	DC	C2-N1-C1'	5.37	124.71	118.80
150	CZ	32	DT	C1'-O4'-C4'	-5.37	104.73	110.10
1	AA	3838	DT	C4'-C3'-C2'	-5.37	98.27	103.10
22	AV	11	DC	P-O3'-C3'	5.37	126.14	119.70
1	AA	1078	DT	C6-C5-C7	5.37	126.12	122.90
191	DE	1	DT	C2-N1-C1'	5.37	126.79	118.20
1	AA	175	DG	O4'-C1'-C2'	-5.37	101.61	105.90
1	AA	5573	DG	C5-C6-O6	-5.37	125.38	128.60
1	AA	7968	DT	C4'-C3'-C2'	-5.37	98.27	103.10
7	AG	48	DG	C1'-O4'-C4'	-5.37	104.73	110.10
26	AZ	21	DA	C4'-C3'-C2'	-5.37	98.27	103.10
38	Al	40	DT	P-O3'-C3'	-5.37	113.26	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	3433	DG	O4'-C1'-N9	5.36	111.75	108.00
1	AA	7421	DC	O4'-C1'-N1	5.36	111.75	108.00
156	Cf	25	DG	O4'-C1'-C2'	-5.36	101.61	105.90
3	AC	21	DG	C4'-C3'-C2'	-5.36	98.27	103.10
100	Bl	34	DG	C1'-O4'-C4'	-5.36	104.74	110.10
105	Bq	18	DG	P-O3'-C3'	5.36	126.13	119.70
1	AA	1035	DA	O4'-C1'-C2'	-5.36	101.61	105.90
1	AA	2873	DA	P-O3'-C3'	5.36	126.13	119.70
1	AA	4664	DG	C1'-O4'-C4'	-5.36	104.74	110.10
22	AV	16	DC	C2-N1-C1'	5.36	124.69	118.80
1	AA	2164	DA	N1-C6-N6	-5.36	115.39	118.60
1	AA	5379	DA	O4'-C1'-C2'	-5.36	101.61	105.90
1	AA	6504	DC	C4'-C3'-C2'	-5.36	98.28	103.10
1	AA	7444	DC	C4'-C3'-C2'	-5.36	98.28	103.10
1	AA	7509	DA	P-O3'-C3'	5.36	126.13	119.70
115	B0	4	DA	N1-C6-N6	-5.36	115.39	118.60
122	B7	22	DG	C4'-C3'-C2'	-5.36	98.28	103.10
1	AA	1388	DA	O4'-C1'-C2'	-5.36	101.61	105.90
121	B6	38	DG	O4'-C1'-C2'	-5.36	101.61	105.90
1	AA	2640	DG	C5-C6-O6	-5.35	125.39	128.60
1	AA	4877	DG	C1'-O4'-C4'	-5.35	104.75	110.10
67	BE	26	DG	C4'-C3'-C2'	-5.35	98.28	103.10
1	AA	515	DG	O4'-C1'-C2'	-5.35	101.62	105.90
1	AA	4443	DC	O4'-C1'-N1	5.35	111.75	108.00
1	AA	7493	DA	N1-C6-N6	-5.35	115.39	118.60
23	AW	18	DG	C1'-O4'-C4'	-5.35	104.75	110.10
34	Ah	10	DT	C4-C5-C7	-5.35	115.79	119.00
158	Ch	19	DA	P-O3'-C3'	5.35	126.12	119.70
5	AE	8	DG	C5-C6-O6	-5.35	125.39	128.60
1	AA	2989	DG	O4'-C1'-C2'	-5.35	101.62	105.90
1	AA	3364	DT	C1'-O4'-C4'	-5.35	104.75	110.10
1	AA	5561	DG	O4'-C1'-C2'	-5.35	101.62	105.90
1	AA	3249	DA	O4'-C1'-C2'	-5.35	101.62	105.90
134	CJ	17	DG	O4'-C1'-C2'	-5.35	101.62	105.90
1	AA	670	DT	C4'-C3'-C2'	-5.35	98.29	103.10
1	AA	1380	DC	O4'-C4'-C3'	-5.35	102.36	104.50
1	AA	1641	DT	C4'-C3'-C2'	-5.35	98.29	103.10
1	AA	7467	DA	O4'-C1'-C2'	-5.35	101.62	105.90
1	AA	3952	DT	P-O3'-C3'	5.34	126.11	119.70
1	AA	2690	DG	C4'-C3'-C2'	-5.34	98.29	103.10
1	AA	2745	DA	N1-C6-N6	-5.34	115.39	118.60
1	AA	3227	DG	C4'-C3'-C2'	-5.34	98.29	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	7279	DG	C4'-C3'-C2'	-5.34	98.29	103.10
98	Bj	25	DC	O4'-C1'-C2'	-5.34	101.62	105.90
1	AA	2400	DC	O4'-C4'-C3'	-5.34	102.36	104.50
1	AA	5402	DT	C1'-O4'-C4'	-5.34	104.76	110.10
1	AA	6139	DT	O4'-C1'-C2'	-5.34	101.63	105.90
1	AA	7396	DG	O4'-C1'-C2'	-5.34	101.63	105.90
118	B3	18	DG	O4'-C1'-C2'	-5.34	101.63	105.90
122	B7	1	DA	O4'-C4'-C3'	-5.34	102.36	104.50
1	AA	2895	DG	P-O3'-C3'	5.34	126.11	119.70
1	AA	2814	DG	O4'-C1'-C2'	-5.34	101.63	105.90
1	AA	7317	DT	P-O3'-C3'	5.34	126.11	119.70
96	Bh	53	DT	O4'-C4'-C3'	-5.34	102.36	104.50
174	Cx	20	DT	O4'-C1'-C2'	-5.34	101.63	105.90
1	AA	1922	DG	C1'-O4'-C4'	-5.34	104.76	110.10
1	AA	4637	DG	O4'-C1'-C2'	-5.34	101.63	105.90
92	Bd	42	DA	P-O3'-C3'	5.34	126.10	119.70
102	Bn	39	DC	C2-N1-C1'	5.34	124.67	118.80
185	C8	32	DA	C4'-C3'-C2'	-5.34	98.30	103.10
1	AA	936	DG	P-O3'-C3'	5.33	126.10	119.70
1	AA	1090	DA	O4'-C1'-C2'	-5.33	101.63	105.90
1	AA	6926	DG	C5-C6-O6	-5.33	125.40	128.60
1	AA	7299	DG	O4'-C1'-C2'	-5.33	101.63	105.90
1	AA	3015	DG	P-O3'-C3'	5.33	126.10	119.70
1	AA	7993	DT	O4'-C1'-N1	5.33	111.73	108.00
11	AK	15	DT	O4'-C1'-C2'	-5.33	101.63	105.90
30	Ad	41	DG	C5-C6-O6	-5.33	125.40	128.60
101	Bm	50	DT	P-O3'-C3'	5.33	126.10	119.70
167	Cq	22	DG	C4'-C3'-C2'	-5.33	98.30	103.10
1	AA	2309	DC	O4'-C1'-N1	5.33	111.73	108.00
1	AA	2817	DG	O4'-C1'-C2'	-5.33	101.64	105.90
1	AA	7934	DC	O4'-C1'-C2'	-5.33	101.64	105.90
19	AS	24	DC	O4'-C4'-C3'	-5.33	102.37	104.50
158	Ch	30	DT	O4'-C1'-C2'	-5.33	101.64	105.90
188	DB	21	DA	O4'-C1'-C2'	-5.33	101.64	105.90
1	AA	588	DA	C4'-C3'-C2'	-5.33	98.30	103.10
1	AA	6524	DG	C4'-C3'-C2'	-5.33	98.30	103.10
6	AF	20	DT	C4'-C3'-C2'	-5.33	98.30	103.10
1	AA	826	DC	C4'-C3'-C2'	-5.33	98.30	103.10
1	AA	4639	DT	C4'-C3'-C2'	-5.33	98.31	103.10
63	BA	16	DA	O4'-C1'-C2'	-5.33	101.64	105.90
147	CW	14	DG	C4'-C3'-C2'	-5.33	98.30	103.10
166	Cp	9	DC	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	773	DA	O4'-C1'-C2'	-5.33	101.64	105.90
1	AA	2084	DT	O4'-C4'-C3'	-5.33	102.37	104.50
58	A5	5	DG	O4'-C1'-C2'	-5.33	101.64	105.90
117	B2	13	DG	C4'-C3'-C2'	-5.33	98.31	103.10
1	AA	1623	DG	O4'-C4'-C3'	-5.33	102.37	104.50
1	AA	4881	DC	P-O5'-C5'	5.33	129.42	120.90
1	AA	5653	DC	C4'-C3'-C2'	-5.33	98.31	103.10
1	AA	7951	DC	C4'-C3'-C2'	-5.33	98.31	103.10
20	AT	23	DG	O4'-C1'-C2'	-5.33	101.64	105.90
31	Ae	8	DG	O4'-C4'-C3'	-5.32	102.37	104.50
33	Ag	9	DC	P-O3'-C3'	5.32	126.09	119.70
58	A5	15	DG	O4'-C1'-C2'	-5.32	101.64	105.90
141	CQ	18	DG	N1-C6-O6	5.32	123.09	119.90
143	CS	14	DT	C4'-C3'-C2'	-5.32	98.31	103.10
181	C4	17	DG	C1'-O4'-C4'	-5.32	104.78	110.10
1	AA	1535	DC	O4'-C1'-C2'	-5.32	101.64	105.90
1	AA	2246	DT	O4'-C1'-C2'	-5.32	101.64	105.90
42	Ap	55	DT	O4'-C1'-C2'	-5.32	101.64	105.90
61	A8	4	DG	O4'-C1'-C2'	-5.32	101.64	105.90
96	Bh	35	DG	C1'-O4'-C4'	-5.32	104.78	110.10
1	AA	7688	DT	O4'-C4'-C3'	-5.32	102.37	104.50
62	A9	5	DA	O4'-C1'-C2'	-5.32	101.64	105.90
90	Bb	42	DA	N1-C6-N6	-5.32	115.41	118.60
110	Bv	16	DT	P-O3'-C3'	5.32	126.08	119.70
189	DC	20	DA	O4'-C1'-C2'	-5.32	101.64	105.90
1	AA	3673	DA	O4'-C1'-C2'	-5.32	101.64	105.90
1	AA	5852	DT	C4'-C3'-C2'	-5.32	98.31	103.10
1	AA	6349	DG	O4'-C1'-C2'	-5.32	101.65	105.90
1	AA	746	DG	C1'-O4'-C4'	-5.32	104.78	110.10
1	AA	1066	DC	O4'-C1'-N1	5.32	111.72	108.00
30	Ad	1	DC	C2-N1-C1'	5.32	124.65	118.80
72	BJ	15	DA	C4'-C3'-C2'	-5.32	98.31	103.10
113	By	1	DG	N1-C6-O6	5.32	123.09	119.90
135	CK	20	DT	C4'-C3'-C2'	-5.32	98.32	103.10
1	AA	139	DC	O4'-C1'-N1	5.31	111.72	108.00
1	AA	1630	DC	O4'-C1'-C2'	-5.31	101.65	105.90
154	Cd	17	DC	C4'-C3'-C2'	-5.31	98.32	103.10
1	AA	7669	DT	C1'-O4'-C4'	-5.31	104.79	110.10
30	Ad	3	DG	O4'-C1'-C2'	-5.31	101.65	105.90
59	A6	11	DA	N1-C6-N6	-5.31	115.41	118.60
163	Cm	8	DA	O4'-C1'-C2'	-5.31	101.65	105.90
185	C8	10	DT	O4'-C1'-C2'	-5.31	101.65	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	6028	DA	C4'-C3'-C2'	-5.31	98.32	103.10
140	CP	2	DT	P-O3'-C3'	5.31	126.07	119.70
1	AA	3521	DC	C6-N1-C2	-5.31	118.18	120.30
14	AN	19	DA	O4'-C1'-C2'	-5.31	101.65	105.90
46	At	28	DA	P-O3'-C3'	5.31	126.07	119.70
51	Ay	21	DG	C4'-C3'-C2'	-5.31	98.32	103.10
89	Ba	8	DA	P-O3'-C3'	5.31	126.07	119.70
1	AA	2208	DT	C4'-C3'-C2'	-5.31	98.32	103.10
1	AA	2505	DA	O4'-C1'-C2'	-5.31	101.65	105.90
1	AA	4294	DG	O4'-C1'-C2'	-5.31	101.65	105.90
34	Ah	9	DG	O4'-C1'-C2'	-5.31	101.65	105.90
152	Cb	18	DG	O4'-C1'-C2'	-5.31	101.65	105.90
1	AA	5018	DG	C5-C6-O6	-5.31	125.42	128.60
1	AA	6131	DG	C5-C6-O6	-5.31	125.42	128.60
1	AA	1926	DC	C1'-O4'-C4'	-5.30	104.80	110.10
1	AA	4900	DT	C4'-C3'-C2'	-5.30	98.33	103.10
1	AA	5621	DG	C5-C6-O6	-5.30	125.42	128.60
7	AG	24	DA	N1-C6-N6	-5.30	115.42	118.60
178	C1	12	DG	O4'-C1'-C2'	-5.30	101.66	105.90
180	C3	24	DG	O4'-C1'-C2'	-5.30	101.66	105.90
195	DI	21	DA	O4'-C1'-C2'	-5.30	101.66	105.90
175	Cy	26	DA	O4'-C1'-C2'	-5.30	101.66	105.90
1	AA	1614	DC	C4'-C3'-C2'	-5.30	98.33	103.10
1	AA	2107	DT	O4'-C4'-C3'	-5.30	102.38	104.50
80	BR	6	DG	O4'-C1'-C2'	-5.30	101.66	105.90
193	DG	40	DC	C2-N1-C1'	5.30	124.63	118.80
1	AA	5024	DC	C4'-C3'-C2'	-5.30	98.33	103.10
1	AA	5504	DA	N1-C6-N6	-5.30	115.42	118.60
1	AA	6544	DT	C4'-C3'-C2'	-5.30	98.33	103.10
5	AE	15	DG	P-O3'-C3'	5.30	126.06	119.70
39	Am	47	DG	C5-C6-O6	-5.30	125.42	128.60
62	A9	2	DG	O4'-C1'-C2'	-5.30	101.66	105.90
166	Cp	13	DA	O4'-C1'-C2'	-5.30	101.66	105.90
1	AA	1594	DG	O4'-C1'-C2'	-5.30	101.66	105.90
1	AA	6032	DC	P-O3'-C3'	5.30	126.06	119.70
1	AA	6115	DT	C4'-C3'-C2'	-5.30	98.33	103.10
57	A4	34	DG	C5-C6-O6	-5.30	125.42	128.60
94	Bf	48	DG	C1'-O4'-C4'	-5.30	104.80	110.10
150	CZ	45	DG	O4'-C1'-C2'	-5.30	101.66	105.90
1	AA	7300	DG	O4'-C4'-C3'	-5.30	102.38	104.50
1	AA	7503	DA	O4'-C1'-C2'	-5.30	101.66	105.90
1	AA	7991	DG	C1'-O4'-C4'	-5.30	104.80	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	Aw	51	DA	O4'-C1'-C2'	-5.30	101.66	105.90
56	A3	18	DA	O4'-C1'-C2'	-5.30	101.66	105.90
125	CA	20	DG	C1'-O4'-C4'	-5.30	104.80	110.10
1	AA	971	DC	O4'-C1'-C2'	-5.29	101.66	105.90
1	AA	3714	DT	P-O3'-C3'	5.29	126.05	119.70
1	AA	5947	DA	O4'-C1'-C2'	-5.29	101.66	105.90
1	AA	8006	DG	O4'-C1'-C2'	-5.29	101.66	105.90
1	AA	7373	DT	P-O3'-C3'	5.29	126.05	119.70
27	Aa	36	DG	O4'-C1'-C2'	-5.29	101.67	105.90
37	Ak	17	DA	O4'-C1'-C2'	-5.29	101.67	105.90
55	A2	34	DG	C1'-O4'-C4'	-5.29	104.81	110.10
150	CZ	34	DT	O4'-C4'-C3'	-5.29	102.38	104.50
191	DE	1	DT	C6-N1-C1'	-5.29	112.46	120.40
1	AA	690	DC	O4'-C4'-C3'	-5.29	102.38	104.50
1	AA	5482	DG	O4'-C1'-C2'	-5.29	101.67	105.90
67	BE	35	DT	P-O3'-C3'	5.29	126.05	119.70
120	B5	3	DT	C4'-C3'-C2'	-5.29	98.34	103.10
177	C0	51	DC	P-O3'-C3'	5.29	126.05	119.70
1	AA	939	DA	O4'-C1'-C2'	-5.29	101.67	105.90
65	BC	29	DG	O4'-C1'-C2'	-5.29	101.67	105.90
1	AA	3952	DT	O4'-C1'-N1	5.29	111.70	108.00
87	BY	18	DC	O4'-C1'-C2'	-5.29	101.67	105.90
105	Bq	17	DA	P-O3'-C3'	5.29	126.05	119.70
159	Ci	18	DA	O4'-C1'-C2'	-5.29	101.67	105.90
1	AA	949	DT	O4'-C1'-C2'	-5.29	101.67	105.90
1	AA	5864	DG	N1-C6-O6	5.29	123.07	119.90
88	BZ	6	DG	O4'-C1'-C2'	-5.29	101.67	105.90
96	Bh	47	DT	C4'-C3'-C2'	-5.29	98.34	103.10
175	Cy	13	DC	O4'-C1'-N1	5.29	111.70	108.00
177	C0	51	DC	O4'-C1'-N1	5.29	111.70	108.00
1	AA	1539	DG	C5-C6-O6	-5.29	125.43	128.60
1	AA	2558	DA	C4'-C3'-C2'	-5.29	98.34	103.10
1	AA	3675	DC	O4'-C1'-N1	5.29	111.70	108.00
1	AA	6999	DT	C4'-C3'-C2'	-5.29	98.34	103.10
34	Ah	58	DT	C4'-C3'-C2'	-5.29	98.34	103.10
65	BC	2	DG	P-O3'-C3'	5.29	126.04	119.70
74	BL	46	DC	O4'-C1'-C2'	-5.29	101.67	105.90
96	Bh	45	DG	O4'-C1'-C2'	-5.29	101.67	105.90
116	B1	2	DT	C4'-C3'-C2'	-5.29	98.34	103.10
173	Cw	12	DG	O4'-C1'-C2'	-5.29	101.67	105.90
1	AA	111	DA	C1'-O4'-C4'	-5.28	104.82	110.10
1	AA	3422	DG	O4'-C1'-C2'	-5.28	101.67	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	4014	DC	C2-N1-C1'	5.28	124.61	118.80
12	AL	15	DA	C4'-C3'-C2'	-5.28	98.35	103.10
24	AX	6	DT	C4'-C3'-C2'	-5.28	98.34	103.10
109	Bu	31	DG	P-O3'-C3'	5.28	126.04	119.70
1	AA	6615	DG	O4'-C1'-N9	5.28	111.70	108.00
42	Ap	38	DG	C4'-C3'-C2'	-5.28	98.35	103.10
58	A5	11	DT	O4'-C1'-C2'	-5.28	101.68	105.90
68	BF	12	DT	O4'-C1'-N1	5.28	111.70	108.00
161	Ck	26	DG	O4'-C1'-C2'	-5.28	101.68	105.90
178	C1	57	DG	N1-C6-O6	5.28	123.07	119.90
1	AA	490	DG	C1'-O4'-C4'	-5.28	104.82	110.10
107	Bs	8	DC	C4'-C3'-C2'	-5.28	98.35	103.10
1	AA	1033	DC	O4'-C1'-N1	5.28	111.69	108.00
32	Af	2	DT	C4'-C3'-C2'	-5.28	98.35	103.10
81	BS	41	DA	O4'-C4'-C3'	-5.28	102.39	104.50
82	BT	7	DC	O4'-C4'-C3'	-5.28	102.39	104.50
1	AA	1181	DC	O4'-C4'-C3'	-5.28	102.39	104.50
1	AA	1881	DA	N1-C6-N6	5.28	121.77	118.60
1	AA	2864	DC	O4'-C1'-N1	5.28	111.69	108.00
1	AA	3182	DG	C1'-O4'-C4'	-5.28	104.82	110.10
1	AA	5751	DC	C2-N1-C1'	5.28	124.60	118.80
1	AA	6010	DT	P-O3'-C3'	5.28	126.03	119.70
1	AA	6533	DA	O4'-C1'-C2'	-5.28	101.68	105.90
1	AA	6946	DA	O4'-C1'-C2'	-5.28	101.68	105.90
25	AY	27	DG	O4'-C1'-C2'	-5.28	101.68	105.90
130	CF	28	DA	N1-C6-N6	-5.28	115.44	118.60
146	CV	27	DG	C5-C6-O6	-5.28	125.43	128.60
192	DF	25	DG	C4'-C3'-C2'	-5.28	98.35	103.10
1	AA	2155	DT	C4'-C3'-C2'	-5.27	98.35	103.10
1	AA	6290	DT	C4'-C3'-C2'	-5.27	98.35	103.10
190	DD	17	DG	C3'-C2'-C1'	-5.27	96.17	102.50
1	AA	1200	DG	C4'-C3'-C2'	-5.27	98.36	103.10
1	AA	4877	DG	O4'-C1'-N9	5.27	111.69	108.00
56	A3	50	DG	O4'-C1'-C2'	-5.27	101.68	105.90
93	Be	11	DG	O4'-C1'-C2'	-5.27	101.68	105.90
96	Bh	7	DG	O4'-C1'-C2'	-5.27	101.68	105.90
1	AA	593	DG	P-O3'-C3'	5.27	126.03	119.70
1	AA	5590	DT	C1'-O4'-C4'	-5.27	104.83	110.10
1	AA	7600	DG	O4'-C1'-C2'	-5.27	101.68	105.90
5	AE	50	DG	C4'-C3'-C2'	-5.27	98.36	103.10
191	DE	12	DA	N1-C6-N6	-5.27	115.44	118.60
1	AA	3560	DG	C1'-O4'-C4'	-5.27	104.83	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	4943	DC	O4'-C1'-N1	5.27	111.69	108.00
1	AA	5064	DC	C2-N1-C1'	5.27	124.60	118.80
1	AA	7854	DG	O4'-C4'-C3'	-5.27	102.39	104.50
4	AD	22	DC	C6-N1-C1'	-5.27	114.48	120.80
22	AV	1	DC	C4'-C3'-C2'	-5.27	98.36	103.10
23	AW	4	DT	O4'-C1'-C2'	-5.27	101.68	105.90
57	A4	28	DG	O4'-C1'-C2'	-5.27	101.69	105.90
93	Be	39	DA	N1-C6-N6	-5.27	115.44	118.60
125	CA	41	DA	P-O3'-C3'	5.27	126.02	119.70
1	AA	2636	DG	C5-C6-O6	-5.27	125.44	128.60
22	AV	2	DA	C1'-O4'-C4'	-5.27	104.83	110.10
89	Ba	1	DG	O4'-C1'-C2'	-5.27	101.69	105.90
165	Co	16	DG	O4'-C1'-C2'	-5.27	101.69	105.90
1	AA	3216	DC	P-O5'-C5'	5.26	129.32	120.90
1	AA	4594	DT	C4-C5-C7	-5.26	115.84	119.00
1	AA	6615	DG	C1'-O4'-C4'	-5.26	104.84	110.10
1	AA	6703	DT	O4'-C1'-C2'	-5.26	101.69	105.90
41	Ao	53	DT	C4'-C3'-C2'	-5.26	98.36	103.10
173	Cw	31	DC	C4'-C3'-C2'	-5.26	98.36	103.10
22	AV	31	DA	O4'-C1'-C2'	-5.26	101.69	105.90
127	CC	17	DC	P-O3'-C3'	5.26	126.02	119.70
131	CG	19	DG	O4'-C1'-C2'	-5.26	101.69	105.90
1	AA	2006	DA	N1-C6-N6	-5.26	115.44	118.60
1	AA	4604	DG	O4'-C1'-C2'	-5.26	101.69	105.90
51	Ay	47	DT	P-O3'-C3'	5.26	126.01	119.70
137	CM	5	DC	C4'-C3'-C2'	-5.26	98.37	103.10
180	C3	10	DA	C1'-O4'-C4'	-5.26	104.84	110.10
1	AA	6922	DT	C4-C5-C7	-5.26	115.84	119.00
1	AA	7653	DG	O4'-C1'-C2'	-5.26	101.69	105.90
155	Ce	14	DT	C4'-C3'-C2'	-5.26	98.37	103.10
164	Cn	1	DC	C1'-O4'-C4'	-5.26	104.84	110.10
183	C6	10	DC	O4'-C1'-C2'	-5.26	101.69	105.90
1	AA	3506	DC	O4'-C1'-C2'	-5.26	101.69	105.90
1	AA	6766	DT	C1'-O4'-C4'	-5.26	104.84	110.10
1	AA	7304	DT	O4'-C1'-C2'	-5.26	101.69	105.90
49	Aw	45	DC	O4'-C4'-C3'	-5.26	102.40	104.50
134	CJ	39	DT	C4'-C3'-C2'	-5.26	98.37	103.10
1	AA	3138	DG	O4'-C1'-C2'	-5.26	101.69	105.90
1	AA	4142	DG	O4'-C1'-C2'	-5.26	101.69	105.90
77	BO	42	DT	O4'-C1'-C2'	-5.26	101.69	105.90
185	C8	28	DG	O4'-C1'-C2'	-5.26	101.69	105.90
1	AA	5012	DT	C4'-C3'-C2'	-5.25	98.37	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
100	Bl	15	DT	C4'-C3'-C2'	-5.25	98.37	103.10
1	AA	2400	DC	C1'-O4'-C4'	-5.25	104.85	110.10
1	AA	5075	DG	C1'-O4'-C4'	-5.25	104.85	110.10
1	AA	5772	DG	C4'-C3'-C2'	-5.25	98.37	103.10
1	AA	8062	DC	P-O5'-C5'	5.25	129.31	120.90
153	Cc	13	DG	O4'-C1'-C2'	-5.25	101.70	105.90
186	C9	53	DT	C4'-C3'-C2'	-5.25	98.37	103.10
1	AA	234	DC	C1'-O4'-C4'	-5.25	104.85	110.10
1	AA	1618	DA	C1'-O4'-C4'	-5.25	104.85	110.10
1	AA	1821	DC	O4'-C4'-C3'	-5.25	102.40	104.50
1	AA	4047	DG	C5-C6-O6	-5.25	125.45	128.60
1	AA	5690	DC	C2-N1-C1'	5.25	124.58	118.80
1	AA	6438	DT	P-O3'-C3'	5.25	126.00	119.70
15	AO	40	DA	P-O3'-C3'	5.25	126.00	119.70
1	AA	6673	DC	C4'-C3'-C2'	-5.25	98.38	103.10
1	AA	7532	DG	C1'-O4'-C4'	-5.25	104.85	110.10
6	AF	45	DT	C4'-C3'-C2'	-5.25	98.38	103.10
73	BK	25	DA	N1-C6-N6	-5.25	115.45	118.60
1	AA	2006	DA	P-O3'-C3'	5.25	126.00	119.70
1	AA	4098	DG	O4'-C1'-C2'	-5.25	101.70	105.90
1	AA	4285	DC	O4'-C1'-C2'	-5.25	101.70	105.90
1	AA	6708	DG	O4'-C1'-C2'	-5.25	101.70	105.90
1	AA	6729	DT	C4'-C3'-C2'	-5.25	98.38	103.10
119	B4	25	DA	C1'-O4'-C4'	-5.25	104.85	110.10
153	Cc	21	DT	O4'-C1'-C2'	-5.25	101.70	105.90
1	AA	1350	DC	O4'-C4'-C3'	-5.25	102.40	104.50
1	AA	2617	DC	P-O5'-C5'	5.25	129.29	120.90
1	AA	5685	DG	O4'-C1'-C2'	-5.25	101.70	105.90
1	AA	6417	DT	O4'-C4'-C3'	-5.25	102.40	104.50
1	AA	2733	DG	P-O3'-C3'	5.24	125.99	119.70
1	AA	5573	DG	N1-C6-O6	5.24	123.05	119.90
69	BG	23	DG	P-O3'-C3'	5.24	125.99	119.70
1	AA	235	DC	O4'-C1'-N1	5.24	111.67	108.00
1	AA	1277	DT	P-O3'-C3'	5.24	125.99	119.70
1	AA	1318	DG	O4'-C1'-C2'	-5.24	101.71	105.90
1	AA	1722	DC	O4'-C1'-N1	5.24	111.67	108.00
1	AA	2902	DC	C6-N1-C2	-5.24	118.20	120.30
1	AA	3176	DA	O4'-C1'-C2'	-5.24	101.71	105.90
1	AA	7236	DG	O4'-C1'-C2'	-5.24	101.71	105.90
1	AA	7237	DT	C4'-C3'-C2'	-5.24	98.38	103.10
1	AA	4763	DA	O4'-C1'-N9	5.24	111.67	108.00
98	Bj	12	DG	O4'-C1'-C2'	-5.24	101.71	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
167	Cq	18	DG	O4'-C1'-N9	5.24	111.67	108.00
1	AA	1587	DT	P-O3'-C3'	5.24	125.98	119.70
1	AA	2890	DC	P-O5'-C5'	5.24	129.28	120.90
55	A2	36	DC	O4'-C1'-C2'	-5.24	101.71	105.90
129	CE	19	DG	O4'-C1'-C2'	-5.24	101.71	105.90
1	AA	2369	DA	O4'-C1'-C2'	-5.24	101.71	105.90
52	Az	18	DC	P-O5'-C5'	5.24	129.28	120.90
53	A0	31	DT	P-O3'-C3'	5.24	125.98	119.70
110	Bv	36	DC	C4'-C3'-C2'	-5.24	98.39	103.10
1	AA	2264	DA	P-O3'-C3'	5.23	125.98	119.70
29	Ac	40	DA	O4'-C4'-C3'	-5.23	102.41	104.50
78	BP	28	DT	C4'-C3'-C2'	-5.23	98.39	103.10
1	AA	984	DT	O4'-C1'-C2'	-5.23	101.71	105.90
1	AA	1639	DG	O4'-C1'-C2'	-5.23	101.71	105.90
1	AA	1888	DT	C4'-C3'-C2'	-5.23	98.39	103.10
1	AA	5964	DG	O4'-C1'-C2'	-5.23	101.71	105.90
1	AA	6850	DA	O4'-C1'-C2'	-5.23	101.71	105.90
1	AA	7671	DG	O4'-C1'-C2'	-5.23	101.71	105.90
50	Ax	31	DT	C4'-C3'-C2'	-5.23	98.39	103.10
51	Ay	15	DC	O4'-C4'-C3'	-5.23	102.41	104.50
91	Bc	11	DG	O4'-C1'-C2'	-5.23	101.71	105.90
95	Bg	25	DT	O4'-C1'-N1	5.23	111.66	108.00
136	CL	25	DG	O4'-C1'-C2'	-5.23	101.71	105.90
1	AA	1557	DG	N1-C6-O6	5.23	123.04	119.90
1	AA	1662	DG	O4'-C1'-C2'	-5.23	101.72	105.90
1	AA	1748	DG	O4'-C1'-C2'	-5.23	101.72	105.90
1	AA	3919	DA	O4'-C1'-C2'	-5.23	101.72	105.90
1	AA	7115	DA	P-O3'-C3'	5.23	125.98	119.70
28	Ab	42	DG	P-O3'-C3'	5.23	125.98	119.70
49	Aw	6	DG	O4'-C1'-C2'	-5.23	101.72	105.90
81	BS	16	DG	O4'-C1'-C2'	-5.23	101.72	105.90
139	CO	26	DA	O4'-C1'-C2'	-5.23	101.72	105.90
1	AA	4093	DA	O4'-C1'-C2'	-5.23	101.72	105.90
33	Ag	29	DT	P-O3'-C3'	-5.23	113.42	119.70
37	Ak	14	DT	C4'-C3'-C2'	-5.23	98.39	103.10
1	AA	380	DG	C1'-O4'-C4'	-5.23	104.87	110.10
1	AA	1489	DC	C4'-C3'-C2'	-5.23	98.39	103.10
1	AA	5505	DT	O4'-C1'-C2'	-5.23	101.72	105.90
1	AA	6367	DC	C2-N1-C1'	5.23	124.55	118.80
1	AA	7064	DA	O4'-C1'-C2'	-5.23	101.72	105.90
175	Cy	6	DG	O4'-C1'-C2'	-5.23	101.72	105.90
186	C9	53	DT	O4'-C4'-C3'	-5.23	102.41	104.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1935	DG	P-O3'-C3'	5.23	125.97	119.70
42	Ap	6	DG	C5-C6-O6	-5.23	125.46	128.60
115	B0	18	DA	C4'-C3'-C2'	-5.23	98.40	103.10
171	Cu	22	DT	C4'-C3'-C2'	-5.23	98.40	103.10
1	AA	2117	DT	C4'-C3'-C2'	-5.22	98.40	103.10
102	Bn	33	DC	C4'-C3'-C2'	-5.22	98.40	103.10
1	AA	3442	DA	O4'-C1'-C2'	-5.22	101.72	105.90
1	AA	6810	DC	C4'-C3'-C2'	-5.22	98.40	103.10
8	AH	1	DT	C4'-C3'-C2'	-5.22	98.40	103.10
82	BT	34	DT	P-O3'-C3'	5.22	125.97	119.70
175	Cy	18	DG	C1'-O4'-C4'	-5.22	104.88	110.10
184	C7	25	DA	O4'-C4'-C3'	-5.22	102.41	104.50
195	DI	22	DT	C4'-C3'-C2'	-5.22	98.40	103.10
1	AA	3529	DG	O4'-C1'-N9	5.22	111.66	108.00
1	AA	5028	DC	O4'-C4'-C3'	-5.22	102.41	104.50
36	Aj	28	DG	O4'-C1'-C2'	-5.22	101.72	105.90
69	BG	20	DA	P-O3'-C3'	5.22	125.97	119.70
1	AA	620	DA	C4'-C3'-C2'	-5.22	98.40	103.10
1	AA	979	DC	P-O3'-C3'	5.22	125.96	119.70
1	AA	4945	DA	C4'-C3'-C2'	-5.22	98.40	103.10
1	AA	7300	DG	C4'-C3'-C2'	-5.22	98.40	103.10
51	Ay	38	DG	O4'-C1'-C2'	-5.22	101.72	105.90
105	Bq	35	DG	O4'-C1'-C2'	-5.22	101.72	105.90
146	CV	9	DT	C4'-C3'-C2'	-5.22	98.40	103.10
1	AA	778	DT	C4'-C3'-C2'	-5.22	98.40	103.10
1	AA	3666	DC	P-O5'-C5'	5.22	129.25	120.90
1	AA	4321	DT	P-O3'-C3'	5.22	125.96	119.70
1	AA	4816	DA	C4'-C3'-C2'	-5.22	98.40	103.10
1	AA	243	DC	P-O5'-C5'	5.22	129.25	120.90
1	AA	1212	DG	C1'-O4'-C4'	-5.22	104.88	110.10
1	AA	4399	DG	O4'-C1'-C2'	-5.22	101.73	105.90
1	AA	6987	DC	O4'-C1'-C2'	-5.22	101.73	105.90
1	AA	7779	DG	O4'-C1'-C2'	-5.22	101.73	105.90
101	Bm	48	DT	O4'-C1'-C2'	-5.22	101.73	105.90
1	AA	3224	DG	P-O3'-C3'	5.21	125.96	119.70
1	AA	7250	DC	O4'-C1'-N1	5.21	111.65	108.00
4	AD	38	DA	N1-C6-N6	-5.21	115.47	118.60
106	Br	13	DA	C4'-C3'-C2'	-5.21	98.41	103.10
142	CR	17	DA	O4'-C1'-C2'	-5.21	101.73	105.90
1	AA	730	DT	O4'-C4'-C3'	-5.21	102.42	104.50
1	AA	3992	DT	C1'-O4'-C4'	-5.21	104.89	110.10
93	Be	35	DT	C4'-C3'-C2'	-5.21	98.41	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
135	CK	1	DA	C1'-O4'-C4'	-5.21	104.89	110.10
1	AA	947	DG	O4'-C1'-C2'	-5.21	101.73	105.90
1	AA	2234	DT	O4'-C1'-C2'	-5.21	101.73	105.90
1	AA	4869	DT	O4'-C4'-C3'	-5.21	102.42	104.50
1	AA	5431	DC	C4'-C3'-C2'	-5.21	98.41	103.10
1	AA	6386	DG	O4'-C1'-C2'	-5.21	101.73	105.90
6	AF	14	DG	O4'-C1'-C2'	-5.21	101.73	105.90
41	Ao	45	DC	O4'-C1'-N1	5.21	111.65	108.00
149	CY	34	DT	O4'-C4'-C3'	-5.21	102.42	104.50
182	C5	35	DA	O4'-C1'-C2'	-5.21	101.73	105.90
72	BJ	21	DG	O4'-C1'-C2'	-5.21	101.73	105.90
90	Bb	24	DG	O4'-C1'-C2'	-5.21	101.73	105.90
177	C0	51	DC	C1'-O4'-C4'	-5.21	104.89	110.10
1	AA	886	DC	O4'-C1'-N1	5.21	111.65	108.00
1	AA	5322	DT	C4'-C3'-C2'	-5.21	98.41	103.10
1	AA	7921	DC	C4'-C3'-C2'	-5.21	98.41	103.10
36	Aj	6	DA	P-O3'-C3'	5.21	125.95	119.70
138	CN	49	DT	C4'-C3'-C2'	-5.21	98.41	103.10
1	AA	77	DC	C4'-C3'-C2'	-5.21	98.41	103.10
1	AA	266	DG	O4'-C1'-C2'	-5.21	101.73	105.90
1	AA	2303	DG	P-O3'-C3'	5.21	125.95	119.70
173	Cw	1	DG	C4-N9-C1'	5.21	133.27	126.50
1	AA	3262	DG	C5-C6-O6	-5.21	125.48	128.60
1	AA	5324	DT	C4'-C3'-C2'	-5.21	98.42	103.10
1	AA	6361	DG	O4'-C1'-C2'	-5.21	101.74	105.90
30	Ad	1	DC	C6-N1-C1'	-5.21	114.56	120.80
1	AA	582	DG	O4'-C1'-C2'	-5.20	101.74	105.90
1	AA	1083	DA	N1-C6-N6	-5.20	115.48	118.60
1	AA	3190	DT	O4'-C1'-C2'	-5.20	101.74	105.90
1	AA	4378	DT	C4'-C3'-C2'	-5.20	98.42	103.10
1	AA	6079	DA	C4'-C3'-C2'	-5.20	98.42	103.10
1	AA	6699	DG	O4'-C1'-C2'	-5.20	101.74	105.90
77	BO	13	DA	O4'-C1'-C2'	-5.20	101.74	105.90
1	AA	276	DA	O4'-C1'-C2'	-5.20	101.74	105.90
1	AA	2129	DA	C1'-O4'-C4'	-5.20	104.90	110.10
173	Cw	16	DA	O4'-C1'-C2'	-5.20	101.74	105.90
1	AA	2162	DA	O4'-C1'-C2'	-5.20	101.74	105.90
1	AA	5138	DG	C1'-O4'-C4'	-5.20	104.90	110.10
84	BV	41	DG	C1'-O4'-C4'	-5.20	104.90	110.10
162	Cl	40	DT	O4'-C1'-N1	-5.20	104.36	108.00
1	AA	1404	DA	C4'-C3'-C2'	-5.20	98.42	103.10
1	AA	3638	DA	O4'-C1'-C2'	-5.20	101.74	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	5905	DC	O4'-C1'-N1	5.20	111.64	108.00
1	AA	7363	DT	O4'-C1'-C2'	-5.20	101.74	105.90
80	BR	30	DG	C1'-O4'-C4'	-5.20	104.90	110.10
1	AA	1190	DA	C1'-O4'-C4'	-5.20	104.90	110.10
1	AA	2129	DA	N1-C6-N6	-5.20	115.48	118.60
44	Ar	5	DC	C4'-C3'-C2'	-5.20	98.42	103.10
1	AA	1125	DG	O4'-C1'-C2'	-5.20	101.74	105.90
1	AA	1740	DT	O4'-C4'-C3'	-5.20	102.42	104.50
1	AA	2074	DA	O4'-C1'-C2'	-5.20	101.74	105.90
12	AL	32	DT	C4'-C3'-C2'	-5.20	98.42	103.10
180	C3	18	DG	O4'-C1'-C2'	-5.20	101.74	105.90
185	C8	32	DA	O4'-C4'-C3'	-5.20	102.42	104.50
1	AA	1023	DC	O4'-C1'-N1	5.19	111.64	108.00
1	AA	2424	DG	C1'-O4'-C4'	-5.19	104.91	110.10
1	AA	6459	DA	O4'-C1'-C2'	-5.19	101.75	105.90
1	AA	7872	DG	O4'-C1'-C2'	-5.19	101.75	105.90
42	Ap	6	DG	N1-C6-O6	5.19	123.02	119.90
1	AA	659	DG	O4'-C1'-N9	5.19	111.63	108.00
1	AA	4202	DG	P-O3'-C3'	5.19	125.93	119.70
1	AA	6282	DG	O4'-C1'-C2'	-5.19	101.75	105.90
10	AJ	7	DA	P-O3'-C3'	5.19	125.93	119.70
29	Ac	33	DA	C5-C6-N6	-5.19	119.55	123.70
103	Bo	13	DA	P-O3'-C3'	5.19	125.93	119.70
126	CB	47	DA	O4'-C4'-C3'	-5.19	102.42	104.50
148	CX	48	DG	O4'-C1'-C2'	-5.19	101.75	105.90
1	AA	1126	DC	C1'-O4'-C4'	-5.19	104.91	110.10
1	AA	3968	DA	C1'-O4'-C4'	-5.19	104.91	110.10
1	AA	1003	DG	N1-C6-O6	5.19	123.01	119.90
1	AA	1943	DA	O4'-C1'-C2'	-5.19	101.75	105.90
1	AA	4126	DT	O4'-C1'-C2'	-5.19	101.75	105.90
180	C3	21	DC	O4'-C1'-C2'	-5.19	101.75	105.90
1	AA	1234	DG	O4'-C1'-C2'	-5.19	101.75	105.90
1	AA	5255	DA	O4'-C1'-C2'	-5.19	101.75	105.90
24	AX	2	DT	P-O3'-C3'	5.19	125.92	119.70
82	BT	42	DG	O4'-C1'-N9	5.19	111.63	108.00
92	Bd	12	DG	C1'-O4'-C4'	-5.19	104.91	110.10
1	AA	770	DA	C4'-C3'-C2'	-5.18	98.43	103.10
1	AA	3461	DC	P-O3'-C3'	5.18	125.92	119.70
1	AA	6753	DC	O4'-C1'-C2'	-5.18	101.75	105.90
30	Ad	37	DA	O4'-C4'-C3'	-5.18	102.43	104.50
48	Av	12	DC	O4'-C1'-C2'	-5.18	101.75	105.90
1	AA	4850	DG	C1'-O4'-C4'	-5.18	104.92	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
168	Cr	36	DG	O4'-C1'-C2'	-5.18	101.75	105.90
1	AA	1490	DG	N1-C6-O6	5.18	123.01	119.90
1	AA	5089	DA	O4'-C1'-C2'	-5.18	101.75	105.90
105	Bq	2	DG	O4'-C1'-C2'	-5.18	101.75	105.90
1	AA	540	DC	C4'-C3'-C2'	-5.18	98.44	103.10
1	AA	750	DG	O4'-C1'-C2'	-5.18	101.76	105.90
1	AA	1217	DT	C4'-C3'-C2'	-5.18	98.44	103.10
1	AA	3224	DG	O4'-C1'-C2'	-5.18	101.76	105.90
1	AA	6202	DA	C4'-C3'-C2'	-5.18	98.44	103.10
1	AA	7616	DT	C4'-C3'-C2'	-5.18	98.44	103.10
48	Av	36	DG	O4'-C1'-C2'	-5.18	101.76	105.90
81	BS	8	DA	C4'-C3'-C2'	-5.18	98.44	103.10
1	AA	3000	DT	C4'-C3'-C2'	-5.18	98.44	103.10
1	AA	6990	DG	O4'-C1'-C2'	-5.18	101.76	105.90
1	AA	7308	DT	O4'-C1'-C2'	-5.18	101.76	105.90
105	Bq	34	DA	O4'-C1'-C2'	-5.18	101.76	105.90
126	CB	53	DC	C2-N1-C1'	5.18	124.50	118.80
1	AA	2781	DT	C4'-C3'-C2'	-5.18	98.44	103.10
1	AA	5111	DC	P-O5'-C5'	5.18	129.18	120.90
8	AH	37	DG	C1'-O4'-C4'	-5.18	104.92	110.10
38	Al	22	DC	O4'-C4'-C3'	-5.18	102.43	104.50
42	Ap	23	DA	C4'-C3'-C2'	-5.18	98.44	103.10
45	As	18	DA	O4'-C1'-C2'	-5.18	101.76	105.90
151	Ca	43	DT	P-O3'-C3'	5.18	125.91	119.70
1	AA	154	DT	O4'-C4'-C3'	-5.17	102.43	104.50
1	AA	188	DG	P-O5'-C5'	5.17	129.18	120.90
1	AA	1207	DC	C6-N1-C2	-5.17	118.23	120.30
1	AA	5648	DA	P-O3'-C3'	5.17	125.91	119.70
1	AA	6787	DA	O4'-C1'-C2'	-5.17	101.76	105.90
34	Ah	2	DT	C4'-C3'-C2'	-5.17	98.44	103.10
82	BT	35	DC	P-O3'-C3'	5.17	125.91	119.70
1	AA	5448	DT	C4'-C3'-C2'	-5.17	98.45	103.10
1	AA	5511	DT	P-O3'-C3'	5.17	125.91	119.70
1	AA	6332	DA	O4'-C1'-C2'	-5.17	101.76	105.90
1	AA	7976	DT	C4'-C3'-C2'	-5.17	98.44	103.10
26	AZ	3	DT	C4'-C3'-C2'	-5.17	98.45	103.10
170	Ct	39	DG	O4'-C1'-N9	5.17	111.62	108.00
1	AA	658	DT	O4'-C1'-C2'	-5.17	101.76	105.90
1	AA	6531	DT	C1'-O4'-C4'	-5.17	104.93	110.10
1	AA	2199	DA	O4'-C1'-C2'	-5.17	101.77	105.90
1	AA	3670	DG	N1-C6-O6	5.17	123.00	119.90
1	AA	8061	DG	N1-C6-O6	5.17	123.00	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
67	BE	34	DT	C4'-C3'-C2'	-5.17	98.45	103.10
184	C7	22	DC	C4'-C3'-C2'	-5.17	98.45	103.10
1	AA	1109	DA	O4'-C1'-C2'	-5.17	101.77	105.90
1	AA	1733	DT	C4'-C3'-C2'	-5.17	98.45	103.10
1	AA	2762	DC	O4'-C1'-N1	5.17	111.62	108.00
1	AA	2779	DG	O4'-C4'-C3'	-5.17	102.43	104.50
1	AA	3504	DT	C4'-C3'-C2'	-5.17	98.45	103.10
1	AA	4116	DA	O4'-C1'-C2'	-5.17	101.77	105.90
1	AA	4769	DG	C5-C6-O6	-5.17	125.50	128.60
1	AA	5352	DT	O4'-C4'-C3'	-5.17	102.43	104.50
1	AA	7577	DT	C4'-C3'-C2'	-5.17	98.45	103.10
1	AA	595	DA	O4'-C1'-C2'	-5.17	101.77	105.90
1	AA	3008	DT	O4'-C1'-C2'	-5.17	101.77	105.90
1	AA	4488	DT	C4'-C3'-C2'	-5.17	98.45	103.10
1	AA	2640	DG	N1-C6-O6	5.16	123.00	119.90
13	AM	37	DA	O4'-C1'-C2'	-5.16	101.77	105.90
73	BK	17	DA	O4'-C1'-C2'	-5.16	101.77	105.90
102	Bn	37	DA	N1-C6-N6	-5.16	115.50	118.60
1	AA	1885	DT	O4'-C1'-C2'	-5.16	101.77	105.90
1	AA	7285	DT	C1'-O4'-C4'	-5.16	104.94	110.10
36	Aj	41	DA	N1-C6-N6	-5.16	115.50	118.60
1	AA	3686	DT	C1'-O4'-C4'	-5.16	104.94	110.10
83	BU	39	DA	O4'-C1'-C2'	-5.16	101.77	105.90
1	AA	3403	DG	O4'-C1'-C2'	-5.16	101.77	105.90
1	AA	6758	DT	C4'-C3'-C2'	-5.16	98.46	103.10
1	AA	7117	DC	P-O5'-C5'	5.16	129.16	120.90
104	Bp	26	DG	C1'-O4'-C4'	-5.16	104.94	110.10
144	CT	23	DG	O4'-C1'-C2'	-5.16	101.77	105.90
99	Bk	17	DC	C4'-C3'-C2'	-5.16	98.46	103.10
132	CH	18	DA	P-O3'-C3'	5.16	125.89	119.70
1	AA	2883	DA	O4'-C1'-C2'	-5.16	101.78	105.90
1	AA	4036	DA	C1'-O4'-C4'	-5.16	104.94	110.10
1	AA	4064	DG	O4'-C1'-C2'	-5.16	101.78	105.90
1	AA	7872	DG	P-O3'-C3'	5.16	125.89	119.70
81	BS	38	DA	O4'-C1'-C2'	-5.16	101.78	105.90
100	Bl	44	DC	C4'-C3'-C2'	-5.16	98.46	103.10
126	CB	55	DG	O4'-C1'-C2'	-5.16	101.78	105.90
137	CM	23	DG	O4'-C1'-C2'	-5.16	101.78	105.90
154	Cd	16	DA	C4'-C3'-C2'	-5.16	98.46	103.10
1	AA	4361	DT	C4'-C3'-C2'	-5.15	98.46	103.10
3	AC	29	DA	C4'-C3'-C2'	-5.15	98.46	103.10
33	Ag	3	DT	O4'-C4'-C3'	-5.15	102.44	104.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
52	Az	6	DC	O4'-C1'-N1	5.15	111.61	108.00
149	CY	30	DT	O4'-C1'-C2'	-5.15	101.78	105.90
1	AA	2385	DG	C5-C6-O6	-5.15	125.51	128.60
1	AA	3588	DG	O4'-C4'-C3'	-5.15	102.44	104.50
1	AA	4884	DG	N1-C6-O6	5.15	122.99	119.90
1	AA	7275	DG	O4'-C1'-C2'	-5.15	101.78	105.90
53	A0	24	DG	O4'-C1'-C2'	-5.15	101.78	105.90
104	Bp	9	DA	O4'-C1'-N9	5.15	111.61	108.00
135	CK	1	DA	O4'-C4'-C3'	-5.15	102.44	104.50
1	AA	7607	DT	C4'-C3'-C2'	-5.15	98.47	103.10
66	BD	3	DT	C4'-C3'-C2'	-5.15	98.46	103.10
1	AA	340	DG	O4'-C1'-N9	5.15	111.60	108.00
1	AA	1246	DT	P-O3'-C3'	5.15	125.88	119.70
1	AA	1995	DA	N1-C6-N6	-5.15	115.51	118.60
1	AA	2591	DT	C4-C5-C7	-5.15	115.91	119.00
1	AA	6049	DT	O4'-C1'-C2'	-5.15	101.78	105.90
1	AA	6517	DA	O4'-C1'-C2'	-5.15	101.78	105.90
112	Bx	3	DT	C1'-O4'-C4'	-5.15	104.95	110.10
162	Cl	18	DG	C4'-C3'-C2'	-5.15	98.47	103.10
1	AA	4226	DC	O4'-C1'-N1	5.15	111.60	108.00
1	AA	5515	DG	O4'-C1'-C2'	-5.15	101.78	105.90
1	AA	5967	DG	C4'-C3'-C2'	-5.15	98.47	103.10
1	AA	6608	DT	C4'-C3'-C2'	-5.15	98.47	103.10
45	As	5	DG	O4'-C4'-C3'	-5.15	102.44	104.50
128	CD	26	DT	O4'-C4'-C3'	-5.15	102.44	104.50
157	Cg	1	DA	C4'-C3'-C2'	-5.15	98.47	103.10
1	AA	427	DG	P-O3'-C3'	5.15	125.88	119.70
1	AA	2264	DA	O4'-C1'-C2'	-5.15	101.78	105.90
1	AA	5306	DC	C2-N1-C1'	5.15	124.46	118.80
31	Ae	30	DA	O4'-C1'-C2'	-5.15	101.78	105.90
145	CU	9	DC	O4'-C1'-N1	5.15	111.60	108.00
1	AA	865	DC	C4'-C3'-C2'	-5.14	98.47	103.10
1	AA	3952	DT	C1'-O4'-C4'	-5.14	104.96	110.10
1	AA	6463	DA	O4'-C1'-C2'	-5.14	101.78	105.90
20	AT	29	DG	P-O3'-C3'	5.14	125.87	119.70
83	BU	40	DG	O4'-C1'-C2'	-5.14	101.78	105.90
182	C5	48	DG	O4'-C4'-C3'	-5.14	102.44	104.50
40	An	5	DA	C4'-C3'-C2'	-5.14	98.47	103.10
58	A5	19	DA	P-O3'-C3'	5.14	125.87	119.70
88	BZ	11	DG	O4'-C1'-C2'	-5.14	101.78	105.90
117	B2	38	DG	C1'-O4'-C4'	-5.14	104.96	110.10
156	Cf	3	DT	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	3733	DA	P-O3'-C3'	5.14	125.87	119.70
64	BB	26	DA	O4'-C1'-C2'	-5.14	101.79	105.90
1	AA	3789	DT	C4'-C3'-C2'	-5.14	98.47	103.10
4	AD	12	DA	P-O3'-C3'	5.14	125.87	119.70
39	Am	42	DA	C4'-C3'-C2'	-5.14	98.47	103.10
69	BG	23	DG	O4'-C1'-C2'	-5.14	101.79	105.90
109	Bu	2	DC	O4'-C1'-N1	5.14	111.60	108.00
153	Cc	8	DG	O4'-C1'-C2'	-5.14	101.79	105.90
165	Co	34	DA	O4'-C1'-C2'	-5.14	101.79	105.90
45	As	6	DT	C4'-C3'-C2'	-5.14	98.48	103.10
1	AA	863	DG	P-O3'-C3'	5.14	125.86	119.70
1	AA	3213	DC	O4'-C1'-N1	5.14	111.60	108.00
1	AA	6626	DG	O4'-C4'-C3'	-5.14	102.44	104.50
2	AB	19	DA	O4'-C1'-C2'	-5.14	101.79	105.90
68	BF	12	DT	P-O3'-C3'	5.14	125.86	119.70
1	AA	4298	DG	O4'-C1'-C2'	-5.13	101.79	105.90
1	AA	5551	DA	C1'-O4'-C4'	-5.13	104.97	110.10
1	AA	5650	DC	O4'-C1'-C2'	-5.13	101.79	105.90
12	AL	18	DT	C4'-C3'-C2'	-5.13	98.48	103.10
50	Ax	39	DA	O4'-C1'-C2'	-5.13	101.79	105.90
56	A3	22	DC	O4'-C1'-N1	5.13	111.59	108.00
57	A4	34	DG	N1-C6-O6	5.13	122.98	119.90
108	Bt	38	DG	O4'-C1'-C2'	-5.13	101.79	105.90
133	CI	6	DC	P-O3'-C3'	5.13	125.86	119.70
1	AA	2991	DA	O4'-C1'-C2'	-5.13	101.79	105.90
1	AA	5018	DG	N1-C6-O6	5.13	122.98	119.90
129	CE	10	DC	C4'-C3'-C2'	-5.13	98.48	103.10
1	AA	645	DA	P-O3'-C3'	5.13	125.86	119.70
1	AA	3253	DA	O4'-C1'-C2'	-5.13	101.80	105.90
102	Bn	37	DA	O4'-C1'-C2'	-5.13	101.79	105.90
124	B9	24	DT	C1'-O4'-C4'	-5.13	104.97	110.10
128	CD	19	DA	O4'-C1'-C2'	-5.13	101.80	105.90
140	CP	34	DC	P-O3'-C3'	5.13	125.86	119.70
72	BJ	30	DA	O4'-C1'-C2'	-5.13	101.80	105.90
164	Cn	20	DA	O4'-C1'-C2'	-5.13	101.80	105.90
170	Ct	8	DG	O4'-C1'-C2'	-5.13	101.80	105.90
1	AA	2282	DG	O4'-C1'-C2'	-5.13	101.80	105.90
1	AA	7563	DA	O4'-C1'-C2'	-5.13	101.80	105.90
1	AA	7940	DT	C4'-C3'-C2'	-5.13	98.48	103.10
1	AA	7986	DG	P-O3'-C3'	5.13	125.85	119.70
5	AE	50	DG	N1-C6-O6	5.13	122.98	119.90
68	BF	14	DG	C5-C6-O6	-5.13	125.52	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
144	CT	56	DG	O4'-C1'-C2'	-5.13	101.80	105.90
1	AA	4586	DG	P-O3'-C3'	5.13	125.85	119.70
1	AA	6717	DA	O4'-C1'-C2'	-5.13	101.80	105.90
1	AA	1718	DG	C5-C6-O6	-5.12	125.53	128.60
1	AA	7434	DG	O4'-C1'-C2'	-5.12	101.80	105.90
90	Bb	30	DC	O4'-C1'-C2'	-5.12	101.80	105.90
115	B0	4	DA	C1'-O4'-C4'	-5.12	104.97	110.10
1	AA	94	DG	O4'-C1'-C2'	-5.12	101.80	105.90
1	AA	1366	DT	C1'-O4'-C4'	-5.12	104.98	110.10
1	AA	1493	DC	O4'-C1'-C2'	-5.12	101.80	105.90
1	AA	5153	DG	O4'-C1'-C2'	-5.12	101.80	105.90
1	AA	5699	DC	O4'-C1'-C2'	-5.12	101.80	105.90
1	AA	7523	DT	C1'-O4'-C4'	-5.12	104.98	110.10
4	AD	44	DG	C1'-O4'-C4'	-5.12	104.98	110.10
56	A3	37	DC	O4'-C1'-N1	5.12	111.59	108.00
121	B6	53	DG	N1-C6-O6	5.12	122.97	119.90
1	AA	814	DC	C4'-C3'-C2'	-5.12	98.49	103.10
1	AA	1158	DC	P-O3'-C3'	5.12	125.85	119.70
1	AA	2948	DG	O4'-C1'-C2'	-5.12	101.80	105.90
1	AA	3159	DT	C4'-C3'-C2'	-5.12	98.49	103.10
1	AA	3275	DG	C1'-O4'-C4'	-5.12	104.98	110.10
42	Ap	23	DA	O4'-C4'-C3'	-5.12	102.45	104.50
47	Au	1	DG	C1'-O4'-C4'	-5.12	104.98	110.10
73	BK	10	DG	O4'-C1'-C2'	-5.12	101.80	105.90
132	CH	18	DA	C1'-O4'-C4'	-5.12	104.98	110.10
1	AA	2239	DT	O4'-C1'-C2'	-5.12	101.81	105.90
1	AA	3197	DT	C4'-C3'-C2'	-5.12	98.49	103.10
1	AA	5168	DA	C4'-C3'-C2'	-5.12	98.49	103.10
23	AW	51	DG	N1-C6-O6	5.12	122.97	119.90
50	Ax	20	DA	C1'-O4'-C4'	-5.12	104.98	110.10
111	Bw	54	DT	C4'-C3'-C2'	-5.12	98.49	103.10
117	B2	7	DA	C4'-C3'-C2'	-5.12	98.49	103.10
1	AA	1333	DA	C4'-C3'-C2'	-5.12	98.50	103.10
1	AA	2358	DG	O4'-C1'-C2'	-5.12	101.81	105.90
1	AA	7260	DG	O4'-C1'-C2'	-5.12	101.81	105.90
1	AA	1718	DG	N1-C6-O6	5.12	122.97	119.90
1	AA	5028	DC	C4'-C3'-C2'	-5.12	98.50	103.10
1	AA	6769	DC	O4'-C4'-C3'	-5.12	102.45	104.50
1	AA	7152	DG	O4'-C1'-C2'	-5.12	101.81	105.90
1	AA	7961	DC	O4'-C1'-C2'	-5.12	101.81	105.90
17	AQ	40	DG	O4'-C1'-C2'	-5.12	101.81	105.90
88	BZ	26	DT	O4'-C1'-C2'	-5.12	101.81	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
121	B6	50	DA	C4'-C3'-C2'	-5.12	98.50	103.10
1	AA	1001	DC	O4'-C4'-C3'	-5.11	102.45	104.50
71	BI	37	DA	P-O3'-C3'	5.11	125.83	119.70
181	C4	3	DG	C1'-O4'-C4'	-5.11	104.99	110.10
185	C8	44	DA	C1'-O4'-C4'	-5.11	104.99	110.10
1	AA	690	DC	C4'-C3'-C2'	-5.11	98.50	103.10
1	AA	4738	DT	O4'-C4'-C3'	-5.11	102.45	104.50
1	AA	375	DT	O4'-C1'-C2'	-5.11	101.81	105.90
1	AA	3305	DG	C4'-C3'-C2'	-5.11	98.50	103.10
1	AA	4629	DG	N1-C6-O6	5.11	122.97	119.90
1	AA	5663	DG	O4'-C1'-C2'	-5.11	101.81	105.90
1	AA	6432	DG	C1'-O4'-C4'	-5.11	104.99	110.10
1	AA	6730	DC	P-O5'-C5'	5.11	129.07	120.90
1	AA	6769	DC	C4'-C3'-C2'	-5.11	98.50	103.10
1	AA	7366	DC	C4'-C3'-C2'	-5.11	98.50	103.10
1	AA	7422	DC	O4'-C1'-C2'	-5.11	101.81	105.90
29	Ac	35	DG	C5-C6-O6	-5.11	125.53	128.60
1	AA	3978	DG	C1'-O4'-C4'	-5.11	104.99	110.10
40	An	54	DC	O4'-C1'-C2'	-5.11	101.81	105.90
1	AA	664	DG	O4'-C1'-C2'	-5.11	101.81	105.90
16	AP	8	DA	O4'-C4'-C3'	-5.11	102.46	104.50
1	AA	1327	DG	O4'-C1'-C2'	-5.11	101.82	105.90
1	AA	1426	DA	N1-C6-N6	-5.11	115.54	118.60
1	AA	4877	DG	P-O3'-C3'	5.11	125.83	119.70
18	AR	15	DG	O4'-C1'-C2'	-5.11	101.82	105.90
55	A2	7	DC	O4'-C1'-C2'	-5.11	101.81	105.90
74	BL	9	DG	O4'-C1'-N9	5.11	111.57	108.00
94	Bf	16	DC	P-O5'-C5'	5.11	129.07	120.90
129	CE	26	DG	O4'-C1'-C2'	-5.11	101.82	105.90
142	CR	55	DT	C4'-C3'-C2'	-5.11	98.50	103.10
1	AA	6895	DA	C4'-C3'-C2'	-5.10	98.51	103.10
1	AA	7142	DA	N1-C6-N6	-5.10	115.54	118.60
16	AP	36	DA	C4'-C3'-C2'	-5.10	98.51	103.10
163	Cm	26	DG	O4'-C1'-C2'	-5.10	101.82	105.90
1	AA	6239	DC	C2-N1-C1'	5.10	124.41	118.80
2	AB	17	DC	O4'-C1'-N1	5.10	111.57	108.00
43	Aq	28	DG	O4'-C1'-C2'	-5.10	101.82	105.90
51	Ay	1	DC	C6-N1-C1'	-5.10	114.68	120.80
1	AA	1114	DC	C4'-C3'-C2'	-5.10	98.51	103.10
1	AA	1278	DT	C4'-C3'-C2'	-5.10	98.51	103.10
54	A1	34	DT	O4'-C1'-C2'	-5.10	101.82	105.90
89	Ba	28	DG	C5-C6-O6	-5.10	125.54	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
134	CJ	11	DG	O4'-C1'-C2'	-5.10	101.82	105.90
184	C7	40	DT	O4'-C4'-C3'	-5.10	102.46	104.50
1	AA	3659	DC	P-O5'-C5'	5.10	129.06	120.90
1	AA	4428	DC	C4'-C3'-C2'	-5.10	98.51	103.10
1	AA	4841	DG	O4'-C1'-C2'	-5.10	101.82	105.90
1	AA	5723	DT	C4'-C3'-C2'	-5.10	98.51	103.10
1	AA	7789	DT	C4'-C3'-C2'	-5.10	98.51	103.10
101	Bm	41	DA	P-O3'-C3'	5.10	125.82	119.70
1	AA	1038	DG	C1'-O4'-C4'	-5.10	105.00	110.10
1	AA	1999	DA	P-O3'-C3'	5.10	125.82	119.70
1	AA	4601	DC	P-O3'-C3'	5.10	125.82	119.70
1	AA	4652	DG	O4'-C1'-C2'	-5.10	101.82	105.90
1	AA	5241	DA	O4'-C4'-C3'	-5.10	102.46	104.50
1	AA	6863	DG	O4'-C1'-C2'	-5.10	101.82	105.90
124	B9	29	DC	P-O3'-C3'	5.10	125.82	119.70
147	CW	30	DA	O4'-C1'-C2'	-5.10	101.82	105.90
1	AA	214	DT	O4'-C1'-C2'	-5.09	101.83	105.90
1	AA	2377	DC	O4'-C1'-N1	5.09	111.57	108.00
1	AA	4450	DA	O4'-C1'-C2'	-5.09	101.82	105.90
1	AA	4322	DC	P-O3'-C3'	5.09	125.81	119.70
1	AA	4593	DC	O4'-C1'-N1	5.09	111.56	108.00
88	BZ	34	DA	O4'-C1'-C2'	-5.09	101.83	105.90
90	Bb	28	DA	O4'-C1'-C2'	-5.09	101.83	105.90
171	Cu	2	DT	O4'-C1'-C2'	-5.09	101.83	105.90
1	AA	973	DC	O4'-C1'-C2'	-5.09	101.83	105.90
1	AA	5529	DC	C4'-C3'-C2'	-5.09	98.52	103.10
8	AH	37	DG	C5-C6-O6	-5.09	125.55	128.60
50	Ax	31	DT	O4'-C4'-C3'	-5.09	102.46	104.50
101	Bm	31	DT	C1'-O4'-C4'	-5.09	105.01	110.10
139	CO	44	DA	O4'-C1'-C2'	-5.09	101.83	105.90
187	DA	25	DC	C4'-C3'-C2'	-5.09	98.52	103.10
1	AA	7894	DC	C6-N1-C2	-5.09	118.27	120.30
7	AG	1	DA	O4'-C4'-C3'	-5.09	102.46	104.50
15	AO	8	DC	P-O3'-C3'	5.09	125.81	119.70
15	AO	37	DG	O4'-C1'-C2'	-5.09	101.83	105.90
143	CS	5	DC	O4'-C1'-N1	5.09	111.56	108.00
192	DF	36	DG	O4'-C1'-C2'	-5.09	101.83	105.90
1	AA	7837	DT	C4'-C3'-C2'	-5.09	98.52	103.10
1	AA	172	DC	C4'-C3'-C2'	-5.09	98.52	103.10
1	AA	2166	DG	P-O3'-C3'	5.09	125.80	119.70
1	AA	3473	DG	O4'-C1'-N9	5.09	111.56	108.00
1	AA	4594	DT	C6-C5-C7	5.09	125.95	122.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
56	A3	16	DG	N1-C6-O6	5.09	122.95	119.90
1	AA	6813	DT	C4'-C3'-C2'	-5.08	98.52	103.10
1	AA	246	DG	C4'-C3'-C2'	-5.08	98.53	103.10
1	AA	1620	DC	C4'-C3'-C2'	-5.08	98.53	103.10
1	AA	3288	DA	O4'-C4'-C3'	-5.08	102.47	104.50
1	AA	6507	DA	O4'-C1'-C2'	-5.08	101.83	105.90
28	Ab	25	DT	O4'-C1'-C2'	-5.08	101.83	105.90
72	BJ	12	DA	O4'-C1'-C2'	-5.08	101.83	105.90
93	Be	16	DC	C1'-O4'-C4'	-5.08	105.02	110.10
94	Bf	10	DG	O4'-C1'-N9	5.08	111.56	108.00
101	Bm	24	DG	O4'-C1'-C2'	-5.08	101.83	105.90
1	AA	1165	DG	O4'-C1'-C2'	-5.08	101.83	105.90
1	AA	3143	DA	O4'-C1'-N9	5.08	111.56	108.00
6	AF	14	DG	C1'-O4'-C4'	-5.08	105.02	110.10
32	Af	17	DG	O4'-C1'-C2'	-5.08	101.83	105.90
45	As	38	DA	O4'-C1'-C2'	-5.08	101.83	105.90
1	AA	1080	DA	O4'-C1'-N9	5.08	111.56	108.00
22	AV	32	DA	O4'-C1'-C2'	-5.08	101.84	105.90
161	Ck	36	DG	C1'-O4'-C4'	-5.08	105.02	110.10
1	AA	3768	DT	C4'-C3'-C2'	-5.08	98.53	103.10
1	AA	3932	DC	P-O3'-C3'	5.08	125.79	119.70
1	AA	4812	DC	O4'-C1'-N1	5.08	111.56	108.00
55	A2	34	DG	O4'-C1'-C2'	-5.08	101.84	105.90
1	AA	3354	DA	O4'-C1'-C2'	-5.08	101.84	105.90
1	AA	3773	DC	O4'-C1'-C2'	-5.08	101.84	105.90
1	AA	4424	DG	C1'-O4'-C4'	-5.08	105.02	110.10
136	CL	33	DA	C4'-C3'-C2'	-5.08	98.53	103.10
1	AA	602	DC	C6-N1-C2	-5.08	118.27	120.30
1	AA	4598	DC	P-O3'-C3'	5.08	125.79	119.70
1	AA	6965	DC	O4'-C4'-C3'	-5.08	102.47	104.50
1	AA	7815	DG	O4'-C1'-C2'	-5.08	101.84	105.90
78	BP	25	DT	P-O3'-C3'	5.08	125.79	119.70
132	CH	30	DG	O4'-C1'-C2'	-5.08	101.84	105.90
1	AA	2043	DG	O4'-C1'-C2'	-5.07	101.84	105.90
1	AA	5918	DG	O4'-C4'-C3'	-5.07	102.47	104.50
1	AA	7411	DG	C1'-O4'-C4'	-5.07	105.03	110.10
7	AG	38	DG	O4'-C1'-C2'	-5.07	101.84	105.90
82	BT	21	DA	O4'-C1'-C2'	-5.07	101.84	105.90
89	Ba	34	DA	O4'-C1'-C2'	-5.07	101.84	105.90
90	Bb	42	DA	O4'-C1'-C2'	-5.07	101.84	105.90
1	AA	5681	DC	O4'-C1'-C2'	-5.07	101.84	105.90
33	Ag	20	DG	N1-C6-O6	5.07	122.94	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
160	Cj	27	DT	O4'-C1'-C2'	-5.07	101.84	105.90
1	AA	3262	DG	N1-C6-O6	5.07	122.94	119.90
1	AA	3571	DT	O4'-C1'-C2'	-5.07	101.84	105.90
1	AA	4859	DG	P-O3'-C3'	5.07	125.78	119.70
1	AA	6283	DC	C1'-O4'-C4'	-5.07	105.03	110.10
1	AA	7553	DG	O4'-C1'-C2'	-5.07	101.84	105.90
33	Ag	3	DT	C4'-C3'-C2'	-5.07	98.54	103.10
164	Cn	18	DT	O4'-C1'-C2'	-5.07	101.84	105.90
172	Cv	6	DC	P-O5'-C5'	5.07	129.01	120.90
189	DC	14	DA	N1-C6-N6	-5.07	115.56	118.60
172	Cv	17	DC	O4'-C1'-C2'	-5.07	101.84	105.90
1	AA	502	DG	O4'-C1'-C2'	-5.07	101.84	105.90
1	AA	3030	DG	O4'-C1'-C2'	-5.07	101.85	105.90
1	AA	7759	DC	C4'-C3'-C2'	-5.07	98.54	103.10
1	AA	7891	DG	C4'-C3'-C2'	-5.07	98.54	103.10
1	AA	7896	DA	O4'-C1'-C2'	-5.07	101.85	105.90
43	Aq	47	DC	P-O3'-C3'	5.07	125.78	119.70
66	BD	25	DT	C4'-C3'-C2'	-5.07	98.54	103.10
68	BF	16	DC	C2-N1-C1'	5.07	124.38	118.80
105	Bq	5	DG	O4'-C1'-C2'	-5.07	101.85	105.90
1	AA	4064	DG	O4'-C1'-N9	5.07	111.55	108.00
1	AA	7283	DG	O4'-C1'-C2'	-5.07	101.85	105.90
60	A7	10	DT	O4'-C1'-C2'	-5.07	101.85	105.90
134	CJ	24	DT	C4'-C3'-C2'	-5.07	98.54	103.10
154	Cd	36	DG	C5-C6-O6	-5.07	125.56	128.60
1	AA	3028	DG	O4'-C1'-C2'	-5.06	101.85	105.90
1	AA	3347	DG	O4'-C1'-C2'	-5.06	101.85	105.90
1	AA	5229	DT	P-O3'-C3'	5.06	125.78	119.70
17	AQ	41	DT	C4'-C3'-C2'	-5.06	98.54	103.10
1	AA	3735	DC	O4'-C1'-C2'	-5.06	101.85	105.90
1	AA	5335	DA	O4'-C1'-C2'	-5.06	101.85	105.90
1	AA	5624	DA	C4'-C3'-C2'	-5.06	98.54	103.10
36	Aj	42	DG	O4'-C1'-C2'	-5.06	101.85	105.90
184	C7	26	DC	O4'-C1'-C2'	-5.06	101.85	105.90
185	C8	36	DG	O4'-C1'-C2'	-5.06	101.85	105.90
195	DI	26	DT	P-O3'-C3'	5.06	125.78	119.70
1	AA	4272	DA	C4'-C3'-C2'	-5.06	98.55	103.10
42	Ap	2	DT	O4'-C4'-C3'	-5.06	102.48	104.50
171	Cu	10	DA	O4'-C1'-C2'	-5.06	101.85	105.90
187	DA	35	DG	O4'-C1'-N9	5.06	111.54	108.00
1	AA	1059	DG	P-O3'-C3'	5.06	125.77	119.70
1	AA	6224	DC	C4'-C3'-C2'	-5.06	98.55	103.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	7239	DA	N1-C6-N6	-5.06	115.56	118.60
55	A2	25	DC	O4'-C4'-C3'	-5.06	102.48	104.50
109	Bu	37	DG	O4'-C1'-C2'	-5.06	101.85	105.90
137	CM	25	DG	N1-C6-O6	5.06	122.94	119.90
180	C3	29	DG	O4'-C1'-C2'	-5.06	101.85	105.90
1	AA	2991	DA	N1-C6-N6	-5.06	115.56	118.60
37	Ak	11	DC	O4'-C1'-C2'	-5.06	101.86	105.90
49	Aw	16	DG	O4'-C4'-C3'	-5.06	102.48	104.50
1	AA	1329	DG	O4'-C1'-C2'	-5.05	101.86	105.90
1	AA	2015	DA	N1-C6-N6	-5.05	115.57	118.60
1	AA	5042	DG	O4'-C1'-C2'	-5.05	101.86	105.90
1	AA	5670	DT	O4'-C4'-C3'	-5.05	102.48	104.50
1	AA	6984	DA	O4'-C1'-C2'	-5.05	101.86	105.90
54	A1	17	DA	P-O3'-C3'	5.05	125.77	119.70
116	B1	41	DT	C4'-C3'-C2'	-5.05	98.55	103.10
137	CM	3	DG	O4'-C1'-C2'	-5.05	101.86	105.90
164	Cn	6	DA	O4'-C1'-C2'	-5.05	101.86	105.90
83	BU	11	DG	O4'-C4'-C3'	-5.05	102.48	104.50
1	AA	323	DG	C1'-O4'-C4'	-5.05	105.05	110.10
1	AA	4979	DA	N1-C6-N6	-5.05	115.57	118.60
1	AA	5239	DG	P-O3'-C3'	5.05	125.76	119.70
1	AA	658	DT	C6-N1-C2	-5.05	118.78	121.30
1	AA	1666	DT	C4'-C3'-C2'	-5.05	98.56	103.10
23	AW	45	DC	C4'-C3'-C2'	-5.05	98.56	103.10
47	Au	1	DG	C4-N9-C1'	5.05	133.07	126.50
134	CJ	48	DC	O4'-C1'-C2'	-5.05	101.86	105.90
90	Bb	9	DA	C1'-O4'-C4'	-5.05	105.05	110.10
124	B9	1	DA	O4'-C4'-C3'	-5.05	102.48	104.50
188	DB	27	DG	O4'-C1'-C2'	-5.05	101.86	105.90
1	AA	7985	DG	O4'-C1'-C2'	-5.05	101.86	105.90
77	BO	36	DG	P-O3'-C3'	5.05	125.76	119.70
94	Bf	10	DG	O4'-C1'-C2'	-5.05	101.86	105.90
191	DE	3	DA	O4'-C1'-C2'	-5.05	101.86	105.90
193	DG	16	DT	C4'-C3'-C2'	-5.05	98.56	103.10
1	AA	2586	DT	C4-C5-C7	-5.04	115.97	119.00
1	AA	3674	DC	C4'-C3'-C2'	-5.04	98.56	103.10
1	AA	6148	DG	O4'-C1'-C2'	-5.04	101.86	105.90
1	AA	6816	DA	O4'-C1'-C2'	-5.04	101.86	105.90
1	AA	7149	DG	C5-C6-O6	-5.04	125.57	128.60
92	Bd	8	DG	C8-N9-C1'	-5.04	120.44	127.00
191	DE	1	DT	O4'-C1'-C2'	-5.04	101.86	105.90
1	AA	262	DC	O4'-C1'-C2'	-5.04	101.87	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1149	DG	C1'-O4'-C4'	-5.04	105.06	110.10
1	AA	3322	DT	C4'-C3'-C2'	-5.04	98.56	103.10
1	AA	3497	DA	P-O3'-C3'	5.04	125.75	119.70
1	AA	6161	DA	O4'-C1'-C2'	-5.04	101.87	105.90
115	B0	46	DA	O4'-C1'-C2'	-5.04	101.87	105.90
1	AA	4572	DA	P-O3'-C3'	5.04	125.75	119.70
114	Bz	23	DA	O4'-C1'-C2'	-5.04	101.87	105.90
138	CN	20	DA	P-O3'-C3'	5.04	125.75	119.70
148	CX	2	DT	C4'-C3'-C2'	-5.04	98.56	103.10
1	AA	2308	DG	O4'-C1'-C2'	-5.04	101.87	105.90
1	AA	4679	DG	O4'-C1'-C2'	-5.04	101.87	105.90
1	AA	5096	DG	O4'-C1'-C2'	-5.04	101.87	105.90
1	AA	5289	DG	O4'-C1'-C2'	-5.04	101.87	105.90
1	AA	5799	DC	C4'-C3'-C2'	-5.04	98.56	103.10
1	AA	6383	DT	C4'-C3'-C2'	-5.04	98.57	103.10
2	AB	16	DG	C1'-O4'-C4'	-5.04	105.06	110.10
23	AW	24	DC	P-O3'-C3'	5.04	125.75	119.70
1	AA	1299	DG	O4'-C4'-C3'	-5.04	102.48	104.50
1	AA	3624	DC	P-O3'-C3'	-5.04	113.66	119.70
1	AA	8029	DG	P-O5'-C5'	5.04	128.96	120.90
1	AA	4946	DG	C4'-C3'-C2'	-5.03	98.57	103.10
1	AA	6675	DG	O4'-C1'-N9	5.03	111.52	108.00
174	Cx	27	DG	O4'-C1'-C2'	-5.03	101.87	105.90
179	C2	22	DC	C4'-C3'-C2'	-5.03	98.57	103.10
1	AA	605	DC	C2-N1-C1'	5.03	124.33	118.80
1	AA	3336	DC	O4'-C1'-N1	5.03	111.52	108.00
1	AA	4287	DC	C4'-C3'-C2'	-5.03	98.57	103.10
1	AA	5759	DG	P-O3'-C3'	5.03	125.74	119.70
171	Cu	27	DA	P-O3'-C3'	5.03	125.74	119.70
187	DA	9	DC	O4'-C1'-C2'	-5.03	101.88	105.90
1	AA	1140	DT	C4'-C3'-C2'	-5.03	98.57	103.10
1	AA	3087	DG	O4'-C1'-C2'	-5.03	101.88	105.90
1	AA	4658	DG	O4'-C1'-C2'	-5.03	101.88	105.90
1	AA	6276	DT	C4'-C3'-C2'	-5.03	98.58	103.10
18	AR	17	DG	C1'-O4'-C4'	-5.03	105.07	110.10
1	AA	2680	DG	O4'-C1'-C2'	-5.03	101.88	105.90
1	AA	3192	DA	P-O3'-C3'	5.03	125.73	119.70
71	BI	25	DT	O4'-C1'-C2'	-5.03	101.88	105.90
77	BO	43	DC	O4'-C1'-N1	5.03	111.52	108.00
92	Bd	9	DT	O4'-C1'-C2'	-5.03	101.88	105.90
185	C8	24	DC	C4'-C3'-C2'	-5.03	98.58	103.10
1	AA	921	DG	O4'-C1'-C2'	-5.02	101.88	105.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	5531	DG	O4'-C1'-C2'	-5.02	101.88	105.90
1	AA	2279	DA	O4'-C1'-C2'	-5.02	101.88	105.90
1	AA	5889	DT	C4'-C3'-C2'	-5.02	98.58	103.10
74	BL	11	DT	C4'-C3'-C2'	-5.02	98.58	103.10
74	BL	29	DT	C4'-C3'-C2'	-5.02	98.58	103.10
191	DE	36	DG	O4'-C1'-C2'	-5.02	101.88	105.90
59	A6	16	DG	C4'-C3'-C2'	-5.02	98.58	103.10
107	Bs	29	DC	O4'-C1'-N1	5.02	111.52	108.00
157	Cg	23	DA	O4'-C1'-C2'	-5.02	101.88	105.90
1	AA	2375	DC	C1'-O4'-C4'	-5.02	105.08	110.10
1	AA	4319	DA	O4'-C1'-C2'	-5.02	101.88	105.90
1	AA	5778	DT	C4'-C3'-C2'	-5.02	98.58	103.10
1	AA	5954	DG	O4'-C1'-C2'	-5.02	101.88	105.90
1	AA	7230	DG	C5-C6-O6	-5.02	125.59	128.60
39	Am	3	DT	P-O3'-C3'	5.02	125.72	119.70
117	B2	13	DG	O4'-C4'-C3'	-5.02	102.49	104.50
1	AA	353	DG	O4'-C1'-C2'	-5.02	101.89	105.90
1	AA	1611	DC	O4'-C1'-C2'	-5.02	101.89	105.90
1	AA	5069	DG	C5-C6-O6	-5.02	125.59	128.60
1	AA	8047	DC	O4'-C4'-C3'	-5.02	102.49	104.50
20	AT	44	DT	P-O3'-C3'	5.02	125.72	119.70
28	Ab	10	DG	O4'-C1'-C2'	-5.02	101.89	105.90
1	AA	2812	DT	C4'-C3'-C2'	-5.02	98.59	103.10
47	Au	10	DA	O4'-C1'-C2'	-5.02	101.89	105.90
189	DC	39	DA	O4'-C1'-C2'	-5.02	101.89	105.90
1	AA	2	DG	C5-C6-O6	-5.01	125.59	128.60
1	AA	1283	DG	C1'-O4'-C4'	-5.01	105.09	110.10
1	AA	4167	DG	C5-C6-O6	-5.01	125.59	128.60
1	AA	6279	DC	C4'-C3'-C2'	-5.01	98.59	103.10
1	AA	7255	DC	O4'-C1'-C2'	-5.01	101.89	105.90
30	Ad	8	DC	C2-N1-C1'	5.01	124.31	118.80
146	CV	30	DA	N1-C6-N6	-5.01	115.59	118.60
1	AA	2153	DA	O4'-C1'-C2'	-5.01	101.89	105.90
1	AA	7876	DG	O4'-C1'-C2'	-5.01	101.89	105.90
108	Bt	19	DA	C1'-O4'-C4'	-5.01	105.09	110.10
194	DH	11	DT	P-O3'-C3'	5.01	125.72	119.70
1	AA	770	DA	O4'-C4'-C3'	-5.01	102.50	104.50
1	AA	3102	DG	O4'-C1'-C2'	-5.01	101.89	105.90
1	AA	6829	DA	C4'-C3'-C2'	-5.01	98.59	103.10
1	AA	7097	DC	O4'-C1'-C2'	-5.01	101.89	105.90
1	AA	8019	DC	P-O5'-C5'	5.01	128.92	120.90
34	Ah	5	DA	P-O3'-C3'	5.01	125.71	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1050	DA	O4'-C1'-C2'	-5.01	101.89	105.90
1	AA	3048	DC	O4'-C1'-C2'	-5.01	101.89	105.90
1	AA	4068	DG	P-O3'-C3'	5.01	125.71	119.70
1	AA	4184	DG	O4'-C1'-C2'	-5.01	101.89	105.90
1	AA	4508	DG	O4'-C1'-C2'	-5.01	101.89	105.90
1	AA	6808	DA	C1'-O4'-C4'	-5.01	105.09	110.10
95	Bg	37	DT	C1'-O4'-C4'	-5.01	105.09	110.10
158	Ch	5	DT	P-O3'-C3'	5.01	125.71	119.70
1	AA	4762	DT	P-O3'-C3'	5.01	125.71	119.70
191	DE	8	DC	C2-N1-C1'	5.01	124.31	118.80
1	AA	1418	DC	P-O3'-C3'	5.01	125.71	119.70
1	AA	2704	DC	C4'-C3'-C2'	-5.01	98.59	103.10
119	B4	10	DA	P-O3'-C3'	5.01	125.71	119.70
157	Cg	39	DA	O4'-C1'-C2'	-5.01	101.89	105.90
1	AA	5956	DT	C6-C5-C7	-5.00	119.90	122.90
1	AA	6956	DA	O4'-C1'-C2'	-5.00	101.90	105.90
1	AA	7706	DT	C4'-C3'-C2'	-5.00	98.60	103.10
1	AA	1428	DT	C1'-O4'-C4'	-5.00	105.10	110.10
1	AA	6180	DA	O4'-C1'-C2'	-5.00	101.90	105.90
21	AU	30	DT	C4'-C3'-C2'	-5.00	98.60	103.10
120	B5	11	DA	P-O3'-C3'	5.00	125.70	119.70
121	B6	43	DG	O4'-C1'-C2'	-5.00	101.90	105.90
122	B7	34	DG	C4'-C3'-C2'	-5.00	98.60	103.10
159	Ci	39	DC	C4'-C3'-C2'	-5.00	98.60	103.10
174	Cx	1	DG	O4'-C1'-C2'	-5.00	101.90	105.90
1	AA	4591	DG	O4'-C1'-C2'	-5.00	101.90	105.90
20	AT	18	DA	C1'-O4'-C4'	-5.00	105.10	110.10
54	A1	11	DG	C1'-O4'-C4'	-5.00	105.10	110.10
67	BE	46	DA	C1'-O4'-C4'	-5.00	105.10	110.10
102	Bn	26	DA	C4'-C3'-C2'	-5.00	98.60	103.10
111	Bw	4	DA	O4'-C1'-C2'	-5.00	101.90	105.90

All (1) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	AA	1863	DA	C3'

All (2388) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
53	A0	13	DG	Sidechain
53	A0	30	DC	Sidechain

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Mol	Chain	Res	Type	Group
53	A0	5	DA	Sidechain
53	A0	8	DC	Sidechain
53	A0	9	DT	Sidechain
54	A1	1	DA	Sidechain
54	A1	20	DT	Sidechain
54	A1	22	DG	Sidechain
54	A1	27	DA	Sidechain
54	A1	3	DA	Sidechain
54	A1	31	DC	Sidechain
54	A1	34	DT	Sidechain
54	A1	43	DT	Sidechain
55	A2	12	DC	Sidechain
55	A2	15	DG	Sidechain
55	A2	17	DC	Sidechain
55	A2	21	DT	Sidechain
55	A2	24	DG	Sidechain
55	A2	34	DG	Sidechain
55	A2	4	DC	Sidechain
55	A2	41	DG	Sidechain
55	A2	44	DT	Sidechain
55	A2	6	DG	Sidechain
55	A2	8	DC	Sidechain
56	A3	15	DG	Sidechain
56	A3	22	DC	Sidechain
56	A3	32	DG	Sidechain
56	A3	37	DC	Sidechain
56	A3	39	DA	Sidechain
56	A3	47	DC	Sidechain
56	A3	49	DT	Sidechain
56	A3	50	DG	Sidechain
56	A3	8	DC	Sidechain
57	A4	1	DC	Sidechain
57	A4	2	DT	Sidechain
57	A4	27	DA	Sidechain
57	A4	39	DG	Sidechain
57	A4	40	DA	Sidechain
57	A4	44	DT	Sidechain
58	A5	25	DC	Sidechain
58	A5	32	DC	Sidechain
58	A5	35	DT	Sidechain
58	A5	47	DA	Sidechain
58	A5	6	DA	Sidechain

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Mol	Chain	Res	Type	Group
59	A6	1	DA	Sidechain
59	A6	10	DA	Sidechain
59	A6	17	DT	Sidechain
59	A6	23	DC	Sidechain
59	A6	28	DA	Sidechain
59	A6	3	DG	Sidechain
59	A6	5	DC	Sidechain
60	A7	13	DA	Sidechain
60	A7	28	DG	Sidechain
61	A8	11	DT	Sidechain
61	A8	17	DA	Sidechain
61	A8	9	DC	Sidechain
62	A9	14	DG	Sidechain
62	A9	15	DA	Sidechain
62	A9	17	DT	Sidechain
62	A9	4	DA	Sidechain
62	A9	42	DA	Sidechain
62	A9	6	DA	Sidechain
1	AA	1002	DC	Sidechain
1	AA	1005	DT	Sidechain
1	AA	1012	DA	Sidechain
1	AA	1016	DG	Sidechain
1	AA	1022	DG	Sidechain
1	AA	1023	DC	Sidechain
1	AA	1026	DG	Sidechain
1	AA	1027	DA	Sidechain
1	AA	1028	DG	Sidechain
1	AA	1030	DC	Sidechain
1	AA	1032	DG	Sidechain
1	AA	1038	DG	Sidechain
1	AA	1039	DA	Sidechain
1	AA	1041	DG	Sidechain
1	AA	1042	DA	Sidechain
1	AA	1047	DA	Sidechain
1	AA	1048	DA	Sidechain
1	AA	1056	DA	Sidechain
1	AA	1062	DT	Sidechain
1	AA	1065	DG	Sidechain
1	AA	1095	DT	Sidechain
1	AA	1107	DC	Sidechain
1	AA	1119	DT	Sidechain
1	AA	1134	DA	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1140	DT	Sidechain
1	AA	1146	DT	Sidechain
1	AA	1147	DA	Sidechain
1	AA	1152	DG	Sidechain
1	AA	1154	DT	Sidechain
1	AA	1160	DC	Sidechain
1	AA	1167	DC	Sidechain
1	AA	1170	DA	Sidechain
1	AA	1173	DG	Sidechain
1	AA	1176	DG	Sidechain
1	AA	1179	DG	Sidechain
1	AA	1184	DA	Sidechain
1	AA	1188	DG	Sidechain
1	AA	1189	DC	Sidechain
1	AA	119	DT	Sidechain
1	AA	1191	DG	Sidechain
1	AA	1192	DA	Sidechain
1	AA	1197	DT	Sidechain
1	AA	1199	DA	Sidechain
1	AA	1200	DG	Sidechain
1	AA	1212	DG	Sidechain
1	AA	1217	DT	Sidechain
1	AA	1222	DC	Sidechain
1	AA	1249	DA	Sidechain
1	AA	1254	DG	Sidechain
1	AA	1256	DA	Sidechain
1	AA	1263	DC	Sidechain
1	AA	1264	DT	Sidechain
1	AA	127	DA	Sidechain
1	AA	1271	DC	Sidechain
1	AA	1277	DT	Sidechain
1	AA	1278	DT	Sidechain
1	AA	1285	DC	Sidechain
1	AA	1286	DT	Sidechain
1	AA	129	DT	Sidechain
1	AA	1293	DC	Sidechain
1	AA	1301	DT	Sidechain
1	AA	1319	DT	Sidechain
1	AA	1332	DT	Sidechain
1	AA	1338	DT	Sidechain
1	AA	1349	DG	Sidechain
1	AA	1350	DC	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1358	DC	Sidechain
1	AA	1364	DG	Sidechain
1	AA	1366	DT	Sidechain
1	AA	1368	DG	Sidechain
1	AA	1385	DT	Sidechain
1	AA	1396	DG	Sidechain
1	AA	1399	DT	Sidechain
1	AA	1403	DA	Sidechain
1	AA	1408	DC	Sidechain
1	AA	141	DA	Sidechain
1	AA	1410	DT	Sidechain
1	AA	1422	DA	Sidechain
1	AA	1430	DG	Sidechain
1	AA	1432	DC	Sidechain
1	AA	1433	DT	Sidechain
1	AA	1443	DT	Sidechain
1	AA	1445	DC	Sidechain
1	AA	1454	DC	Sidechain
1	AA	1463	DG	Sidechain
1	AA	1475	DA	Sidechain
1	AA	1488	DT	Sidechain
1	AA	1508	DG	Sidechain
1	AA	1509	DC	Sidechain
1	AA	1559	DT	Sidechain
1	AA	1564	DG	Sidechain
1	AA	1565	DA	Sidechain
1	AA	1571	DG	Sidechain
1	AA	1572	DG	Sidechain
1	AA	1574	DT	Sidechain
1	AA	1584	DT	Sidechain
1	AA	1592	DA	Sidechain
1	AA	1599	DT	Sidechain
1	AA	1600	DA	Sidechain
1	AA	1617	DA	Sidechain
1	AA	1618	DA	Sidechain
1	AA	1632	DC	Sidechain
1	AA	1678	DG	Sidechain
1	AA	1698	DC	Sidechain
1	AA	1699	DA	Sidechain
1	AA	1704	DG	Sidechain
1	AA	1707	DT	Sidechain
1	AA	171	DA	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1724	DC	Sidechain
1	AA	1733	DT	Sidechain
1	AA	1741	DG	Sidechain
1	AA	1748	DG	Sidechain
1	AA	1749	DC	Sidechain
1	AA	1750	DT	Sidechain
1	AA	1754	DT	Sidechain
1	AA	1763	DG	Sidechain
1	AA	1774	DA	Sidechain
1	AA	1788	DC	Sidechain
1	AA	1791	DT	Sidechain
1	AA	1811	DG	Sidechain
1	AA	1833	DG	Sidechain
1	AA	1838	DT	Sidechain
1	AA	1839	DT	Sidechain
1	AA	1841	DT	Sidechain
1	AA	1850	DA	Sidechain
1	AA	1853	DA	Sidechain
1	AA	1857	DT	Sidechain
1	AA	1864	DT	Sidechain
1	AA	1865	DT	Sidechain
1	AA	1869	DA	Sidechain
1	AA	1871	DA	Sidechain
1	AA	188	DG	Sidechain
1	AA	1885	DT	Sidechain
1	AA	1891	DT	Sidechain
1	AA	1893	DT	Sidechain
1	AA	1895	DT	Sidechain
1	AA	1898	DG	Sidechain
1	AA	1899	DG	Sidechain
1	AA	1911	DT	Sidechain
1	AA	1917	DA	Sidechain
1	AA	1919	DC	Sidechain
1	AA	193	DA	Sidechain
1	AA	1931	DG	Sidechain
1	AA	1933	DT	Sidechain
1	AA	1936	DA	Sidechain
1	AA	1951	DG	Sidechain
1	AA	1960	DT	Sidechain
1	AA	1974	DG	Sidechain
1	AA	1975	DT	Sidechain
1	AA	198	DT	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1990	DC	Sidechain
1	AA	1991	DA	Sidechain
1	AA	2000	DC	Sidechain
1	AA	2001	DC	Sidechain
1	AA	2002	DT	Sidechain
1	AA	2003	DG	Sidechain
1	AA	2005	DT	Sidechain
1	AA	2007	DG	Sidechain
1	AA	2014	DT	Sidechain
1	AA	2017	DA	Sidechain
1	AA	2024	DA	Sidechain
1	AA	2028	DA	Sidechain
1	AA	2032	DC	Sidechain
1	AA	204	DG	Sidechain
1	AA	2047	DT	Sidechain
1	AA	2050	DA	Sidechain
1	AA	2055	DT	Sidechain
1	AA	2057	DA	Sidechain
1	AA	2058	DG	Sidechain
1	AA	2063	DA	Sidechain
1	AA	2065	DC	Sidechain
1	AA	2066	DG	Sidechain
1	AA	2068	DT	Sidechain
1	AA	2071	DA	Sidechain
1	AA	2075	DT	Sidechain
1	AA	208	DA	Sidechain
1	AA	2090	DT	Sidechain
1	AA	2093	DG	Sidechain
1	AA	2100	DT	Sidechain
1	AA	2101	DC	Sidechain
1	AA	2103	DG	Sidechain
1	AA	2109	DT	Sidechain
1	AA	2117	DT	Sidechain
1	AA	2124	DT	Sidechain
1	AA	2125	DC	Sidechain
1	AA	2127	DT	Sidechain
1	AA	2129	DA	Sidechain
1	AA	2130	DC	Sidechain
1	AA	2132	DT	Sidechain
1	AA	2139	DT	Sidechain
1	AA	2149	DT	Sidechain
1	AA	2164	DA	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	2165	DT	Sidechain
1	AA	2167	DA	Sidechain
1	AA	2169	DG	Sidechain
1	AA	2172	DT	Sidechain
1	AA	2181	DT	Sidechain
1	AA	2221	DT	Sidechain
1	AA	2224	DT	Sidechain
1	AA	2228	DG	Sidechain
1	AA	2237	DT	Sidechain
1	AA	2240	DT	Sidechain
1	AA	2241	DT	Sidechain
1	AA	2244	DG	Sidechain
1	AA	2246	DT	Sidechain
1	AA	2253	DG	Sidechain
1	AA	2254	DA	Sidechain
1	AA	2262	DT	Sidechain
1	AA	2263	DT	Sidechain
1	AA	2265	DT	Sidechain
1	AA	2270	DT	Sidechain
1	AA	2275	DC	Sidechain
1	AA	2280	DT	Sidechain
1	AA	2289	DT	Sidechain
1	AA	2294	DT	Sidechain
1	AA	2303	DG	Sidechain
1	AA	2308	DG	Sidechain
1	AA	231	DT	Sidechain
1	AA	2318	DT	Sidechain
1	AA	2321	DA	Sidechain
1	AA	2322	DT	Sidechain
1	AA	2326	DA	Sidechain
1	AA	2327	DT	Sidechain
1	AA	2329	DT	Sidechain
1	AA	2345	DT	Sidechain
1	AA	2352	DA	Sidechain
1	AA	2361	DA	Sidechain
1	AA	2371	DC	Sidechain
1	AA	238	DT	Sidechain
1	AA	2388	DA	Sidechain
1	AA	2396	DT	Sidechain
1	AA	2404	DT	Sidechain
1	AA	2407	DT	Sidechain
1	AA	2410	DA	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	2433	DG	Sidechain
1	AA	2439	DA	Sidechain
1	AA	2448	DA	Sidechain
1	AA	245	DG	Sidechain
1	AA	2455	DC	Sidechain
1	AA	2458	DA	Sidechain
1	AA	2462	DT	Sidechain
1	AA	2474	DT	Sidechain
1	AA	2479	DT	Sidechain
1	AA	2500	DA	Sidechain
1	AA	2508	DT	Sidechain
1	AA	2510	DA	Sidechain
1	AA	2512	DT	Sidechain
1	AA	2514	DG	Sidechain
1	AA	2515	DC	Sidechain
1	AA	2516	DA	Sidechain
1	AA	2518	DA	Sidechain
1	AA	2536	DT	Sidechain
1	AA	2543	DT	Sidechain
1	AA	2546	DT	Sidechain
1	AA	2553	DC	Sidechain
1	AA	2579	DA	Sidechain
1	AA	2589	DT	Sidechain
1	AA	259	DC	Sidechain
1	AA	2591	DT	Sidechain
1	AA	2596	DA	Sidechain
1	AA	2601	DC	Sidechain
1	AA	2603	DA	Sidechain
1	AA	2632	DT	Sidechain
1	AA	2634	DG	Sidechain
1	AA	2636	DG	Sidechain
1	AA	2651	DG	Sidechain
1	AA	2656	DG	Sidechain
1	AA	266	DG	Sidechain
1	AA	2671	DT	Sidechain
1	AA	2681	DA	Sidechain
1	AA	2684	DT	Sidechain
1	AA	2702	DT	Sidechain
1	AA	2712	DC	Sidechain
1	AA	2713	DT	Sidechain
1	AA	2715	DT	Sidechain
1	AA	2730	DT	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	2736	DT	Sidechain
1	AA	2742	DT	Sidechain
1	AA	2752	DA	Sidechain
1	AA	2756	DT	Sidechain
1	AA	2766	DA	Sidechain
1	AA	2770	DT	Sidechain
1	AA	2777	DA	Sidechain
1	AA	2778	DT	Sidechain
1	AA	2798	DA	Sidechain
1	AA	2810	DA	Sidechain
1	AA	2815	DA	Sidechain
1	AA	2816	DG	Sidechain
1	AA	2818	DG	Sidechain
1	AA	2831	DT	Sidechain
1	AA	2837	DT	Sidechain
1	AA	2842	DA	Sidechain
1	AA	2844	DT	Sidechain
1	AA	2849	DA	Sidechain
1	AA	285	DG	Sidechain
1	AA	2850	DG	Sidechain
1	AA	2851	DT	Sidechain
1	AA	2857	DA	Sidechain
1	AA	2859	DG	Sidechain
1	AA	2863	DT	Sidechain
1	AA	2868	DT	Sidechain
1	AA	2873	DA	Sidechain
1	AA	2876	DT	Sidechain
1	AA	2881	DC	Sidechain
1	AA	2885	DT	Sidechain
1	AA	2895	DG	Sidechain
1	AA	2908	DT	Sidechain
1	AA	2928	DT	Sidechain
1	AA	2931	DG	Sidechain
1	AA	2935	DT	Sidechain
1	AA	2939	DT	Sidechain
1	AA	2942	DT	Sidechain
1	AA	2943	DC	Sidechain
1	AA	2945	DT	Sidechain
1	AA	2956	DA	Sidechain
1	AA	2959	DG	Sidechain
1	AA	2961	DT	Sidechain
1	AA	2966	DT	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	2978	DT	Sidechain
1	AA	3001	DG	Sidechain
1	AA	3008	DT	Sidechain
1	AA	3030	DG	Sidechain
1	AA	3032	DT	Sidechain
1	AA	3036	DC	Sidechain
1	AA	3038	DT	Sidechain
1	AA	3048	DC	Sidechain
1	AA	3049	DT	Sidechain
1	AA	305	DC	Sidechain
1	AA	3052	DT	Sidechain
1	AA	3056	DT	Sidechain
1	AA	3083	DG	Sidechain
1	AA	3085	DT	Sidechain
1	AA	3089	DT	Sidechain
1	AA	309	DT	Sidechain
1	AA	3093	DT	Sidechain
1	AA	3098	DT	Sidechain
1	AA	31	DG	Sidechain
1	AA	3114	DT	Sidechain
1	AA	312	DT	Sidechain
1	AA	3122	DT	Sidechain
1	AA	3125	DT	Sidechain
1	AA	3143	DA	Sidechain
1	AA	3144	DG	Sidechain
1	AA	3167	DT	Sidechain
1	AA	3174	DT	Sidechain
1	AA	3175	DG	Sidechain
1	AA	3177	DT	Sidechain
1	AA	3179	DA	Sidechain
1	AA	3190	DT	Sidechain
1	AA	3199	DT	Sidechain
1	AA	3209	DT	Sidechain
1	AA	3211	DT	Sidechain
1	AA	3226	DT	Sidechain
1	AA	3229	DT	Sidechain
1	AA	3234	DG	Sidechain
1	AA	3235	DT	Sidechain
1	AA	3237	DA	Sidechain
1	AA	3239	DG	Sidechain
1	AA	3248	DT	Sidechain
1	AA	3250	DT	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	3258	DA	Sidechain
1	AA	326	DA	Sidechain
1	AA	3265	DG	Sidechain
1	AA	3273	DA	Sidechain
1	AA	3284	DG	Sidechain
1	AA	3289	DT	Sidechain
1	AA	329	DA	Sidechain
1	AA	3295	DT	Sidechain
1	AA	3312	DT	Sidechain
1	AA	3315	DC	Sidechain
1	AA	3330	DA	Sidechain
1	AA	3336	DC	Sidechain
1	AA	3341	DG	Sidechain
1	AA	336	DT	Sidechain
1	AA	3362	DC	Sidechain
1	AA	3369	DC	Sidechain
1	AA	3380	DG	Sidechain
1	AA	3394	DT	Sidechain
1	AA	340	DG	Sidechain
1	AA	3402	DT	Sidechain
1	AA	3404	DA	Sidechain
1	AA	3408	DA	Sidechain
1	AA	341	DA	Sidechain
1	AA	3423	DT	Sidechain
1	AA	3427	DG	Sidechain
1	AA	343	DT	Sidechain
1	AA	3432	DA	Sidechain
1	AA	3437	DC	Sidechain
1	AA	3453	DG	Sidechain
1	AA	3454	DA	Sidechain
1	AA	3458	DC	Sidechain
1	AA	346	DA	Sidechain
1	AA	3460	DA	Sidechain
1	AA	3464	DA	Sidechain
1	AA	3470	DT	Sidechain
1	AA	3473	DG	Sidechain
1	AA	3474	DG	Sidechain
1	AA	3475	DC	Sidechain
1	AA	3479	DG	Sidechain
1	AA	3480	DA	Sidechain
1	AA	3481	DT	Sidechain
1	AA	3487	DT	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	3495	DG	Sidechain
1	AA	3503	DT	Sidechain
1	AA	3508	DC	Sidechain
1	AA	3512	DT	Sidechain
1	AA	3513	DG	Sidechain
1	AA	3514	DG	Sidechain
1	AA	3521	DC	Sidechain
1	AA	3523	DC	Sidechain
1	AA	3529	DG	Sidechain
1	AA	3553	DT	Sidechain
1	AA	3556	DT	Sidechain
1	AA	3560	DG	Sidechain
1	AA	3565	DT	Sidechain
1	AA	3571	DT	Sidechain
1	AA	3572	DT	Sidechain
1	AA	3580	DG	Sidechain
1	AA	3586	DT	Sidechain
1	AA	3589	DT	Sidechain
1	AA	359	DA	Sidechain
1	AA	3601	DG	Sidechain
1	AA	3602	DT	Sidechain
1	AA	3615	DT	Sidechain
1	AA	3621	DA	Sidechain
1	AA	3622	DA	Sidechain
1	AA	3626	DT	Sidechain
1	AA	3639	DG	Sidechain
1	AA	3640	DT	Sidechain
1	AA	3645	DA	Sidechain
1	AA	3647	DT	Sidechain
1	AA	3649	DC	Sidechain
1	AA	3650	DT	Sidechain
1	AA	3663	DA	Sidechain
1	AA	3673	DA	Sidechain
1	AA	3680	DT	Sidechain
1	AA	369	DA	Sidechain
1	AA	3691	DT	Sidechain
1	AA	3694	DT	Sidechain
1	AA	3698	DC	Sidechain
1	AA	3704	DA	Sidechain
1	AA	3710	DA	Sidechain
1	AA	3713	DA	Sidechain
1	AA	3718	DG	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	3721	DA	Sidechain
1	AA	3729	DC	Sidechain
1	AA	3733	DA	Sidechain
1	AA	3762	DT	Sidechain
1	AA	3764	DT	Sidechain
1	AA	3770	DA	Sidechain
1	AA	3795	DT	Sidechain
1	AA	3797	DT	Sidechain
1	AA	3828	DG	Sidechain
1	AA	3829	DA	Sidechain
1	AA	383	DA	Sidechain
1	AA	3830	DA	Sidechain
1	AA	3835	DA	Sidechain
1	AA	3844	DG	Sidechain
1	AA	3846	DA	Sidechain
1	AA	3851	DG	Sidechain
1	AA	3861	DT	Sidechain
1	AA	3864	DA	Sidechain
1	AA	3871	DG	Sidechain
1	AA	389	DC	Sidechain
1	AA	3897	DA	Sidechain
1	AA	3901	DT	Sidechain
1	AA	3909	DT	Sidechain
1	AA	3914	DA	Sidechain
1	AA	3923	DT	Sidechain
1	AA	3924	DT	Sidechain
1	AA	3925	DC	Sidechain
1	AA	3932	DC	Sidechain
1	AA	3934	DT	Sidechain
1	AA	394	DT	Sidechain
1	AA	3946	DT	Sidechain
1	AA	3960	DC	Sidechain
1	AA	3970	DT	Sidechain
1	AA	3973	DT	Sidechain
1	AA	3991	DA	Sidechain
1	AA	3997	DT	Sidechain
1	AA	3998	DA	Sidechain
1	AA	40	DT	Sidechain
1	AA	400	DC	Sidechain
1	AA	4006	DT	Sidechain
1	AA	4016	DA	Sidechain
1	AA	4017	DA	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	4029	DA	Sidechain
1	AA	4039	DT	Sidechain
1	AA	404	DA	Sidechain
1	AA	405	DG	Sidechain
1	AA	4050	DA	Sidechain
1	AA	4053	DC	Sidechain
1	AA	406	DG	Sidechain
1	AA	4064	DG	Sidechain
1	AA	4069	DT	Sidechain
1	AA	4075	DG	Sidechain
1	AA	4078	DT	Sidechain
1	AA	4082	DA	Sidechain
1	AA	4089	DT	Sidechain
1	AA	4092	DT	Sidechain
1	AA	4099	DT	Sidechain
1	AA	4113	DC	Sidechain
1	AA	4124	DG	Sidechain
1	AA	4125	DG	Sidechain
1	AA	4126	DT	Sidechain
1	AA	4132	DG	Sidechain
1	AA	4137	DC	Sidechain
1	AA	4140	DT	Sidechain
1	AA	4163	DG	Sidechain
1	AA	4164	DA	Sidechain
1	AA	4166	DG	Sidechain
1	AA	4170	DG	Sidechain
1	AA	4182	DG	Sidechain
1	AA	419	DT	Sidechain
1	AA	4194	DA	Sidechain
1	AA	4199	DG	Sidechain
1	AA	4202	DG	Sidechain
1	AA	4217	DG	Sidechain
1	AA	4219	DT	Sidechain
1	AA	422	DT	Sidechain
1	AA	4230	DC	Sidechain
1	AA	4243	DT	Sidechain
1	AA	4247	DC	Sidechain
1	AA	4249	DT	Sidechain
1	AA	4257	DG	Sidechain
1	AA	426	DG	Sidechain
1	AA	4261	DT	Sidechain
1	AA	4263	DC	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	4267	DT	Sidechain
1	AA	4269	DT	Sidechain
1	AA	4280	DG	Sidechain
1	AA	4299	DG	Sidechain
1	AA	4301	DA	Sidechain
1	AA	4333	DT	Sidechain
1	AA	434	DT	Sidechain
1	AA	4342	DG	Sidechain
1	AA	4343	DT	Sidechain
1	AA	4350	DC	Sidechain
1	AA	4357	DT	Sidechain
1	AA	4358	DA	Sidechain
1	AA	436	DT	Sidechain
1	AA	4367	DT	Sidechain
1	AA	4368	DT	Sidechain
1	AA	4371	DA	Sidechain
1	AA	4382	DT	Sidechain
1	AA	4393	DG	Sidechain
1	AA	4397	DG	Sidechain
1	AA	4405	DA	Sidechain
1	AA	441	DT	Sidechain
1	AA	4425	DT	Sidechain
1	AA	4428	DC	Sidechain
1	AA	4435	DC	Sidechain
1	AA	4436	DA	Sidechain
1	AA	4456	DT	Sidechain
1	AA	4463	DT	Sidechain
1	AA	4467	DC	Sidechain
1	AA	4475	DT	Sidechain
1	AA	4487	DA	Sidechain
1	AA	452	DG	Sidechain
1	AA	4524	DG	Sidechain
1	AA	4529	DT	Sidechain
1	AA	4530	DT	Sidechain
1	AA	4533	DA	Sidechain
1	AA	4534	DT	Sidechain
1	AA	4536	DC	Sidechain
1	AA	4543	DT	Sidechain
1	AA	4546	DT	Sidechain
1	AA	4551	DA	Sidechain
1	AA	4552	DT	Sidechain
1	AA	4560	DT	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	4561	DT	Sidechain
1	AA	4575	DG	Sidechain
1	AA	4582	DG	Sidechain
1	AA	4586	DG	Sidechain
1	AA	4600	DT	Sidechain
1	AA	4605	DT	Sidechain
1	AA	4614	DG	Sidechain
1	AA	4626	DG	Sidechain
1	AA	4628	DG	Sidechain
1	AA	4629	DG	Sidechain
1	AA	464	DT	Sidechain
1	AA	4641	DG	Sidechain
1	AA	4645	DC	Sidechain
1	AA	4648	DT	Sidechain
1	AA	4653	DG	Sidechain
1	AA	467	DA	Sidechain
1	AA	4674	DG	Sidechain
1	AA	4681	DG	Sidechain
1	AA	4692	DC	Sidechain
1	AA	4697	DG	Sidechain
1	AA	4700	DG	Sidechain
1	AA	4701	DG	Sidechain
1	AA	4702	DC	Sidechain
1	AA	4712	DG	Sidechain
1	AA	4720	DT	Sidechain
1	AA	4723	DT	Sidechain
1	AA	4730	DG	Sidechain
1	AA	4732	DT	Sidechain
1	AA	4734	DT	Sidechain
1	AA	474	DA	Sidechain
1	AA	4749	DT	Sidechain
1	AA	4758	DC	Sidechain
1	AA	476	DA	Sidechain
1	AA	4762	DT	Sidechain
1	AA	4767	DG	Sidechain
1	AA	477	DC	Sidechain
1	AA	4770	DC	Sidechain
1	AA	4781	DA	Sidechain
1	AA	4794	DA	Sidechain
1	AA	4799	DC	Sidechain
1	AA	4813	DT	Sidechain
1	AA	4825	DT	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	4828	DT	Sidechain
1	AA	4836	DC	Sidechain
1	AA	4844	DT	Sidechain
1	AA	4854	DC	Sidechain
1	AA	4867	DC	Sidechain
1	AA	4877	DG	Sidechain
1	AA	4883	DG	Sidechain
1	AA	4897	DT	Sidechain
1	AA	4903	DT	Sidechain
1	AA	4914	DA	Sidechain
1	AA	4915	DT	Sidechain
1	AA	4918	DT	Sidechain
1	AA	4920	DC	Sidechain
1	AA	4930	DT	Sidechain
1	AA	4934	DC	Sidechain
1	AA	4937	DA	Sidechain
1	AA	4939	DG	Sidechain
1	AA	4942	DT	Sidechain
1	AA	4959	DA	Sidechain
1	AA	4966	DA	Sidechain
1	AA	4967	DC	Sidechain
1	AA	4976	DA	Sidechain
1	AA	4977	DA	Sidechain
1	AA	498	DA	Sidechain
1	AA	4982	DT	Sidechain
1	AA	5008	DT	Sidechain
1	AA	5016	DT	Sidechain
1	AA	5017	DT	Sidechain
1	AA	5018	DG	Sidechain
1	AA	5020	DA	Sidechain
1	AA	5029	DT	Sidechain
1	AA	5037	DT	Sidechain
1	AA	505	DC	Sidechain
1	AA	5062	DT	Sidechain
1	AA	5069	DG	Sidechain
1	AA	5074	DT	Sidechain
1	AA	5089	DA	Sidechain
1	AA	5091	DT	Sidechain
1	AA	5113	DT	Sidechain
1	AA	5117	DT	Sidechain
1	AA	5120	DG	Sidechain
1	AA	5158	DC	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	516	DG	Sidechain
1	AA	5163	DT	Sidechain
1	AA	5174	DG	Sidechain
1	AA	5180	DT	Sidechain
1	AA	5186	DT	Sidechain
1	AA	5195	DT	Sidechain
1	AA	5199	DG	Sidechain
1	AA	5200	DG	Sidechain
1	AA	5202	DT	Sidechain
1	AA	5205	DT	Sidechain
1	AA	5210	DT	Sidechain
1	AA	5211	DA	Sidechain
1	AA	5223	DC	Sidechain
1	AA	5227	DG	Sidechain
1	AA	5230	DT	Sidechain
1	AA	5234	DT	Sidechain
1	AA	5236	DC	Sidechain
1	AA	5238	DG	Sidechain
1	AA	5239	DG	Sidechain
1	AA	5247	DG	Sidechain
1	AA	5261	DT	Sidechain
1	AA	5270	DT	Sidechain
1	AA	5275	DA	Sidechain
1	AA	5278	DG	Sidechain
1	AA	5282	DT	Sidechain
1	AA	5284	DG	Sidechain
1	AA	5293	DG	Sidechain
1	AA	5296	DA	Sidechain
1	AA	5302	DA	Sidechain
1	AA	5303	DT	Sidechain
1	AA	5307	DA	Sidechain
1	AA	5312	DT	Sidechain
1	AA	5317	DG	Sidechain
1	AA	532	DA	Sidechain
1	AA	5328	DT	Sidechain
1	AA	5333	DT	Sidechain
1	AA	5345	DT	Sidechain
1	AA	535	DA	Sidechain
1	AA	5351	DG	Sidechain
1	AA	5352	DT	Sidechain
1	AA	5354	DA	Sidechain
1	AA	5366	DT	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	5371	DG	Sidechain
1	AA	5373	DT	Sidechain
1	AA	5381	DC	Sidechain
1	AA	5388	DC	Sidechain
1	AA	5389	DT	Sidechain
1	AA	5396	DA	Sidechain
1	AA	5407	DT	Sidechain
1	AA	5409	DA	Sidechain
1	AA	5410	DA	Sidechain
1	AA	5424	DT	Sidechain
1	AA	5425	DG	Sidechain
1	AA	5429	DT	Sidechain
1	AA	543	DG	Sidechain
1	AA	5431	DC	Sidechain
1	AA	5433	DC	Sidechain
1	AA	5452	DT	Sidechain
1	AA	5464	DG	Sidechain
1	AA	5467	DA	Sidechain
1	AA	5483	DT	Sidechain
1	AA	5484	DT	Sidechain
1	AA	5486	DA	Sidechain
1	AA	5489	DA	Sidechain
1	AA	5490	DA	Sidechain
1	AA	5494	DA	Sidechain
1	AA	5498	DT	Sidechain
1	AA	550	DA	Sidechain
1	AA	5510	DA	Sidechain
1	AA	5516	DA	Sidechain
1	AA	5517	DT	Sidechain
1	AA	5520	DA	Sidechain
1	AA	5536	DT	Sidechain
1	AA	5575	DT	Sidechain
1	AA	5598	DA	Sidechain
1	AA	5601	DT	Sidechain
1	AA	561	DC	Sidechain
1	AA	5631	DT	Sidechain
1	AA	5633	DG	Sidechain
1	AA	5643	DT	Sidechain
1	AA	5658	DA	Sidechain
1	AA	5663	DG	Sidechain
1	AA	5664	DG	Sidechain
1	AA	5668	DG	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	5682	DC	Sidechain
1	AA	5697	DT	Sidechain
1	AA	5701	DG	Sidechain
1	AA	5705	DA	Sidechain
1	AA	5715	DT	Sidechain
1	AA	5717	DT	Sidechain
1	AA	573	DG	Sidechain
1	AA	5733	DT	Sidechain
1	AA	5739	DG	Sidechain
1	AA	5742	DG	Sidechain
1	AA	5745	DA	Sidechain
1	AA	5749	DT	Sidechain
1	AA	576	DA	Sidechain
1	AA	5774	DT	Sidechain
1	AA	5775	DT	Sidechain
1	AA	5779	DT	Sidechain
1	AA	5780	DG	Sidechain
1	AA	5781	DT	Sidechain
1	AA	5784	DT	Sidechain
1	AA	5799	DC	Sidechain
1	AA	5809	DT	Sidechain
1	AA	5812	DC	Sidechain
1	AA	5820	DG	Sidechain
1	AA	5822	DA	Sidechain
1	AA	5823	DA	Sidechain
1	AA	5830	DG	Sidechain
1	AA	5832	DA	Sidechain
1	AA	5833	DA	Sidechain
1	AA	5836	DA	Sidechain
1	AA	5847	DT	Sidechain
1	AA	5853	DG	Sidechain
1	AA	5854	DG	Sidechain
1	AA	5875	DA	Sidechain
1	AA	5878	DA	Sidechain
1	AA	5903	DG	Sidechain
1	AA	5904	DA	Sidechain
1	AA	5906	DT	Sidechain
1	AA	5908	DA	Sidechain
1	AA	5913	DT	Sidechain
1	AA	5923	DA	Sidechain
1	AA	5926	DG	Sidechain
1	AA	5929	DG	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	5938	DA	Sidechain
1	AA	594	DA	Sidechain
1	AA	5941	DA	Sidechain
1	AA	5959	DT	Sidechain
1	AA	5976	DG	Sidechain
1	AA	5978	DA	Sidechain
1	AA	5980	DT	Sidechain
1	AA	5983	DT	Sidechain
1	AA	5984	DT	Sidechain
1	AA	599	DG	Sidechain
1	AA	5994	DT	Sidechain
1	AA	5995	DC	Sidechain
1	AA	600	DG	Sidechain
1	AA	6008	DT	Sidechain
1	AA	6009	DC	Sidechain
1	AA	6014	DA	Sidechain
1	AA	6015	DT	Sidechain
1	AA	6029	DA	Sidechain
1	AA	6038	DC	Sidechain
1	AA	6043	DA	Sidechain
1	AA	6044	DT	Sidechain
1	AA	6045	DT	Sidechain
1	AA	6046	DA	Sidechain
1	AA	6048	DA	Sidechain
1	AA	6051	DT	Sidechain
1	AA	6068	DG	Sidechain
1	AA	6072	DA	Sidechain
1	AA	6080	DT	Sidechain
1	AA	6083	DA	Sidechain
1	AA	609	DA	Sidechain
1	AA	6100	DT	Sidechain
1	AA	6109	DT	Sidechain
1	AA	6113	DG	Sidechain
1	AA	6121	DT	Sidechain
1	AA	6134	DT	Sidechain
1	AA	6135	DA	Sidechain
1	AA	615	DG	Sidechain
1	AA	6150	DC	Sidechain
1	AA	6152	DT	Sidechain
1	AA	6174	DG	Sidechain
1	AA	6179	DT	Sidechain
1	AA	6187	DT	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	6190	DA	Sidechain
1	AA	6205	DA	Sidechain
1	AA	6217	DT	Sidechain
1	AA	6227	DT	Sidechain
1	AA	6236	DG	Sidechain
1	AA	6251	DT	Sidechain
1	AA	6265	DT	Sidechain
1	AA	6268	DG	Sidechain
1	AA	6269	DA	Sidechain
1	AA	6282	DG	Sidechain
1	AA	6283	DC	Sidechain
1	AA	6288	DT	Sidechain
1	AA	6311	DT	Sidechain
1	AA	632	DT	Sidechain
1	AA	6326	DA	Sidechain
1	AA	6330	DA	Sidechain
1	AA	6343	DT	Sidechain
1	AA	6348	DC	Sidechain
1	AA	6351	DA	Sidechain
1	AA	638	DG	Sidechain
1	AA	6380	DG	Sidechain
1	AA	6389	DA	Sidechain
1	AA	6401	DG	Sidechain
1	AA	6405	DC	Sidechain
1	AA	6412	DG	Sidechain
1	AA	6414	DG	Sidechain
1	AA	6415	DT	Sidechain
1	AA	6420	DA	Sidechain
1	AA	6421	DT	Sidechain
1	AA	6422	DC	Sidechain
1	AA	6432	DG	Sidechain
1	AA	6435	DA	Sidechain
1	AA	6440	DT	Sidechain
1	AA	6447	DA	Sidechain
1	AA	6451	DT	Sidechain
1	AA	6458	DA	Sidechain
1	AA	6464	DA	Sidechain
1	AA	6471	DG	Sidechain
1	AA	6479	DT	Sidechain
1	AA	648	DG	Sidechain
1	AA	6485	DA	Sidechain
1	AA	6491	DG	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	6493	DT	Sidechain
1	AA	6496	DT	Sidechain
1	AA	6512	DG	Sidechain
1	AA	6513	DA	Sidechain
1	AA	6514	DT	Sidechain
1	AA	6534	DA	Sidechain
1	AA	6543	DA	Sidechain
1	AA	6552	DA	Sidechain
1	AA	6555	DT	Sidechain
1	AA	6560	DA	Sidechain
1	AA	6573	DT	Sidechain
1	AA	658	DT	Sidechain
1	AA	6584	DG	Sidechain
1	AA	6587	DG	Sidechain
1	AA	6592	DT	Sidechain
1	AA	6598	DC	Sidechain
1	AA	6619	DT	Sidechain
1	AA	6629	DT	Sidechain
1	AA	6630	DA	Sidechain
1	AA	6632	DT	Sidechain
1	AA	6637	DC	Sidechain
1	AA	6645	DG	Sidechain
1	AA	6652	DT	Sidechain
1	AA	6655	DC	Sidechain
1	AA	6663	DT	Sidechain
1	AA	6667	DA	Sidechain
1	AA	6668	DG	Sidechain
1	AA	6670	DA	Sidechain
1	AA	6672	DT	Sidechain
1	AA	6673	DC	Sidechain
1	AA	6675	DG	Sidechain
1	AA	6676	DG	Sidechain
1	AA	6682	DC	Sidechain
1	AA	669	DA	Sidechain
1	AA	67	DA	Sidechain
1	AA	6701	DT	Sidechain
1	AA	6710	DT	Sidechain
1	AA	6726	DT	Sidechain
1	AA	6728	DA	Sidechain
1	AA	6742	DC	Sidechain
1	AA	6745	DA	Sidechain
1	AA	6750	DC	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	6767	DT	Sidechain
1	AA	677	DG	Sidechain
1	AA	6786	DA	Sidechain
1	AA	6788	DT	Sidechain
1	AA	6793	DA	Sidechain
1	AA	6794	DT	Sidechain
1	AA	6801	DG	Sidechain
1	AA	6809	DC	Sidechain
1	AA	6817	DT	Sidechain
1	AA	6820	DT	Sidechain
1	AA	6828	DT	Sidechain
1	AA	683	DG	Sidechain
1	AA	6844	DA	Sidechain
1	AA	6846	DG	Sidechain
1	AA	6851	DT	Sidechain
1	AA	6852	DA	Sidechain
1	AA	6905	DT	Sidechain
1	AA	6907	DC	Sidechain
1	AA	6909	DG	Sidechain
1	AA	6913	DG	Sidechain
1	AA	6914	DT	Sidechain
1	AA	6915	DT	Sidechain
1	AA	6916	DT	Sidechain
1	AA	6919	DT	Sidechain
1	AA	6922	DT	Sidechain
1	AA	6926	DG	Sidechain
1	AA	6928	DA	Sidechain
1	AA	6930	DA	Sidechain
1	AA	6932	DT	Sidechain
1	AA	694	DC	Sidechain
1	AA	6941	DT	Sidechain
1	AA	6949	DC	Sidechain
1	AA	6964	DA	Sidechain
1	AA	6971	DG	Sidechain
1	AA	6977	DG	Sidechain
1	AA	6988	DG	Sidechain
1	AA	699	DG	Sidechain
1	AA	7016	DT	Sidechain
1	AA	702	DA	Sidechain
1	AA	7025	DA	Sidechain
1	AA	7026	DT	Sidechain
1	AA	7028	DC	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	7029	DT	Sidechain
1	AA	7034	DT	Sidechain
1	AA	7036	DT	Sidechain
1	AA	7037	DA	Sidechain
1	AA	704	DC	Sidechain
1	AA	7044	DA	Sidechain
1	AA	7048	DA	Sidechain
1	AA	7050	DG	Sidechain
1	AA	7053	DT	Sidechain
1	AA	7056	DA	Sidechain
1	AA	7062	DT	Sidechain
1	AA	7065	DG	Sidechain
1	AA	7069	DT	Sidechain
1	AA	7074	DG	Sidechain
1	AA	7084	DA	Sidechain
1	AA	7087	DT	Sidechain
1	AA	71	DG	Sidechain
1	AA	7101	DC	Sidechain
1	AA	711	DT	Sidechain
1	AA	7112	DT	Sidechain
1	AA	7123	DA	Sidechain
1	AA	7125	DT	Sidechain
1	AA	7127	DG	Sidechain
1	AA	7132	DC	Sidechain
1	AA	7133	DT	Sidechain
1	AA	7140	DA	Sidechain
1	AA	7143	DT	Sidechain
1	AA	7161	DT	Sidechain
1	AA	7164	DG	Sidechain
1	AA	717	DG	Sidechain
1	AA	7172	DG	Sidechain
1	AA	7182	DG	Sidechain
1	AA	7191	DT	Sidechain
1	AA	7197	DT	Sidechain
1	AA	7200	DG	Sidechain
1	AA	7205	DT	Sidechain
1	AA	7207	DG	Sidechain
1	AA	721	DT	Sidechain
1	AA	7211	DT	Sidechain
1	AA	7216	DG	Sidechain
1	AA	7223	DT	Sidechain
1	AA	7225	DT	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	7241	DT	Sidechain
1	AA	7242	DA	Sidechain
1	AA	7253	DC	Sidechain
1	AA	7266	DT	Sidechain
1	AA	727	DA	Sidechain
1	AA	7275	DG	Sidechain
1	AA	7327	DC	Sidechain
1	AA	7334	DG	Sidechain
1	AA	7353	DA	Sidechain
1	AA	7361	DT	Sidechain
1	AA	7364	DG	Sidechain
1	AA	7365	DC	Sidechain
1	AA	7372	DT	Sidechain
1	AA	7373	DT	Sidechain
1	AA	7382	DT	Sidechain
1	AA	7397	DT	Sidechain
1	AA	7402	DT	Sidechain
1	AA	7410	DG	Sidechain
1	AA	7415	DG	Sidechain
1	AA	7416	DA	Sidechain
1	AA	7418	DT	Sidechain
1	AA	742	DC	Sidechain
1	AA	7420	DT	Sidechain
1	AA	7427	DT	Sidechain
1	AA	744	DG	Sidechain
1	AA	7453	DC	Sidechain
1	AA	747	DT	Sidechain
1	AA	7470	DC	Sidechain
1	AA	7474	DT	Sidechain
1	AA	7477	DA	Sidechain
1	AA	7478	DG	Sidechain
1	AA	7490	DT	Sidechain
1	AA	7492	DA	Sidechain
1	AA	7498	DT	Sidechain
1	AA	7500	DG	Sidechain
1	AA	7502	DT	Sidechain
1	AA	7504	DT	Sidechain
1	AA	7514	DC	Sidechain
1	AA	7516	DT	Sidechain
1	AA	7517	DT	Sidechain
1	AA	7529	DA	Sidechain
1	AA	753	DA	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	7546	DT	Sidechain
1	AA	7549	DT	Sidechain
1	AA	7558	DT	Sidechain
1	AA	7574	DT	Sidechain
1	AA	7575	DA	Sidechain
1	AA	7582	DG	Sidechain
1	AA	7583	DT	Sidechain
1	AA	7584	DT	Sidechain
1	AA	7590	DA	Sidechain
1	AA	7591	DC	Sidechain
1	AA	760	DT	Sidechain
1	AA	7609	DT	Sidechain
1	AA	7612	DC	Sidechain
1	AA	7625	DT	Sidechain
1	AA	7629	DG	Sidechain
1	AA	7635	DA	Sidechain
1	AA	7640	DT	Sidechain
1	AA	7645	DT	Sidechain
1	AA	7667	DA	Sidechain
1	AA	7669	DT	Sidechain
1	AA	7671	DG	Sidechain
1	AA	7672	DG	Sidechain
1	AA	7681	DC	Sidechain
1	AA	7699	DC	Sidechain
1	AA	7706	DT	Sidechain
1	AA	7718	DG	Sidechain
1	AA	7719	DT	Sidechain
1	AA	772	DA	Sidechain
1	AA	7723	DT	Sidechain
1	AA	7735	DC	Sidechain
1	AA	7737	DT	Sidechain
1	AA	7747	DT	Sidechain
1	AA	7772	DT	Sidechain
1	AA	7791	DT	Sidechain
1	AA	7797	DC	Sidechain
1	AA	78	DA	Sidechain
1	AA	7809	DA	Sidechain
1	AA	7811	DC	Sidechain
1	AA	7823	DC	Sidechain
1	AA	7837	DT	Sidechain
1	AA	7841	DG	Sidechain
1	AA	7847	DC	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	7854	DG	Sidechain
1	AA	786	DT	Sidechain
1	AA	7863	DG	Sidechain
1	AA	7876	DG	Sidechain
1	AA	7878	DT	Sidechain
1	AA	7900	DC	Sidechain
1	AA	7904	DC	Sidechain
1	AA	7915	DT	Sidechain
1	AA	7927	DT	Sidechain
1	AA	7936	DA	Sidechain
1	AA	7940	DT	Sidechain
1	AA	7942	DG	Sidechain
1	AA	7943	DC	Sidechain
1	AA	7947	DC	Sidechain
1	AA	7948	DT	Sidechain
1	AA	7950	DT	Sidechain
1	AA	7951	DC	Sidechain
1	AA	7955	DG	Sidechain
1	AA	7956	DT	Sidechain
1	AA	7961	DC	Sidechain
1	AA	7962	DT	Sidechain
1	AA	7967	DA	Sidechain
1	AA	7972	DG	Sidechain
1	AA	7973	DG	Sidechain
1	AA	798	DG	Sidechain
1	AA	7985	DG	Sidechain
1	AA	7987	DT	Sidechain
1	AA	7994	DT	Sidechain
1	AA	7999	DG	Sidechain
1	AA	8006	DG	Sidechain
1	AA	8013	DC	Sidechain
1	AA	8029	DG	Sidechain
1	AA	8039	DA	Sidechain
1	AA	8043	DT	Sidechain
1	AA	8048	DG	Sidechain
1	AA	8060	DC	Sidechain
1	AA	8061	DG	Sidechain
1	AA	809	DC	Sidechain
1	AA	818	DT	Sidechain
1	AA	822	DG	Sidechain
1	AA	827	DC	Sidechain
1	AA	845	DT	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	85	DC	Sidechain
1	AA	863	DG	Sidechain
1	AA	870	DC	Sidechain
1	AA	877	DT	Sidechain
1	AA	903	DG	Sidechain
1	AA	908	DG	Sidechain
1	AA	910	DA	Sidechain
1	AA	927	DG	Sidechain
1	AA	936	DG	Sidechain
1	AA	94	DG	Sidechain
1	AA	940	DT	Sidechain
1	AA	945	DG	Sidechain
1	AA	948	DG	Sidechain
1	AA	95	DG	Sidechain
1	AA	950	DT	Sidechain
1	AA	953	DT	Sidechain
1	AA	956	DT	Sidechain
1	AA	957	DG	Sidechain
1	AA	977	DG	Sidechain
1	AA	984	DT	Sidechain
1	AA	99	DT	Sidechain
1	AA	990	DT	Sidechain
1	AA	991	DC	Sidechain
1	AA	993	DG	Sidechain
3	AC	25	DG	Sidechain
3	AC	29	DA	Sidechain
3	AC	46	DG	Sidechain
4	AD	2	DT	Sidechain
4	AD	20	DA	Sidechain
4	AD	25	DT	Sidechain
4	AD	29	DT	Sidechain
4	AD	30	DG	Sidechain
4	AD	34	DT	Sidechain
4	AD	35	DT	Sidechain
4	AD	37	DT	Sidechain
4	AD	42	DG	Sidechain
4	AD	45	DT	Sidechain
4	AD	47	DA	Sidechain
4	AD	52	DG	Sidechain
5	AE	15	DG	Sidechain
5	AE	31	DT	Sidechain
5	AE	32	DT	Sidechain

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Mol	Chain	Res	Type	Group
5	AE	33	DT	Sidechain
5	AE	34	DT	Sidechain
5	AE	48	DG	Sidechain
6	AF	12	DT	Sidechain
6	AF	13	DA	Sidechain
6	AF	20	DT	Sidechain
6	AF	30	DT	Sidechain
6	AF	36	DT	Sidechain
6	AF	40	DT	Sidechain
6	AF	47	DC	Sidechain
6	AF	5	DG	Sidechain
6	AF	8	DA	Sidechain
7	AG	10	DT	Sidechain
7	AG	14	DA	Sidechain
7	AG	30	DG	Sidechain
7	AG	32	DC	Sidechain
7	AG	33	DG	Sidechain
7	AG	45	DG	Sidechain
7	AG	7	DT	Sidechain
8	AH	11	DG	Sidechain
8	AH	3	DT	Sidechain
8	AH	57	DT	Sidechain
8	AH	9	DG	Sidechain
9	AI	13	DG	Sidechain
9	AI	19	DT	Sidechain
9	AI	26	DT	Sidechain
9	AI	28	DT	Sidechain
9	AI	31	DT	Sidechain
9	AI	33	DT	Sidechain
9	AI	34	DT	Sidechain
9	AI	42	DC	Sidechain
10	AJ	27	DT	Sidechain
10	AJ	3	DT	Sidechain
10	AJ	30	DT	Sidechain
10	AJ	43	DA	Sidechain
10	AJ	59	DT	Sidechain
11	AK	15	DT	Sidechain
11	AK	18	DT	Sidechain
11	AK	25	DG	Sidechain
11	AK	30	DG	Sidechain
11	AK	6	DA	Sidechain
12	AL	12	DC	Sidechain

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Mol	Chain	Res	Type	Group
12	AL	17	DA	Sidechain
12	AL	22	DG	Sidechain
12	AL	23	DG	Sidechain
12	AL	25	DT	Sidechain
12	AL	27	DT	Sidechain
12	AL	28	DT	Sidechain
12	AL	31	DT	Sidechain
12	AL	32	DT	Sidechain
12	AL	37	DA	Sidechain
12	AL	5	DT	Sidechain
13	AM	2	DA	Sidechain
13	AM	22	DG	Sidechain
13	AM	27	DA	Sidechain
13	AM	32	DA	Sidechain
13	AM	38	DG	Sidechain
13	AM	40	DG	Sidechain
14	AN	15	DA	Sidechain
14	AN	22	DT	Sidechain
14	AN	4	DT	Sidechain
15	AO	19	DT	Sidechain
15	AO	25	DT	Sidechain
15	AO	28	DA	Sidechain
15	AO	48	DA	Sidechain
16	AP	10	DC	Sidechain
16	AP	20	DA	Sidechain
16	AP	21	DT	Sidechain
16	AP	34	DA	Sidechain
16	AP	35	DT	Sidechain
17	AQ	23	DT	Sidechain
17	AQ	24	DT	Sidechain
17	AQ	30	DT	Sidechain
17	AQ	40	DG	Sidechain
17	AQ	5	DC	Sidechain
18	AR	1	DT	Sidechain
18	AR	33	DT	Sidechain
18	AR	39	DT	Sidechain
19	AS	12	DT	Sidechain
19	AS	15	DT	Sidechain
19	AS	22	DT	Sidechain
19	AS	24	DC	Sidechain
19	AS	25	DT	Sidechain
19	AS	27	DC	Sidechain

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Mol	Chain	Res	Type	Group
19	AS	38	DA	Sidechain
19	AS	42	DC	Sidechain
19	AS	44	DG	Sidechain
19	AS	8	DT	Sidechain
20	AT	14	DC	Sidechain
20	AT	16	DT	Sidechain
20	AT	35	DG	Sidechain
20	AT	37	DT	Sidechain
20	AT	41	DT	Sidechain
20	AT	5	DA	Sidechain
21	AU	12	DG	Sidechain
21	AU	13	DG	Sidechain
21	AU	14	DT	Sidechain
21	AU	20	DG	Sidechain
21	AU	21	DA	Sidechain
21	AU	35	DT	Sidechain
21	AU	36	DT	Sidechain
21	AU	40	DG	Sidechain
22	AV	23	DG	Sidechain
22	AV	30	DA	Sidechain
22	AV	38	DG	Sidechain
22	AV	39	DA	Sidechain
23	AW	22	DC	Sidechain
23	AW	39	DG	Sidechain
23	AW	45	DC	Sidechain
23	AW	50	DA	Sidechain
23	AW	51	DG	Sidechain
23	AW	55	DT	Sidechain
23	AW	7	DC	Sidechain
24	AX	34	DT	Sidechain
24	AX	5	DT	Sidechain
24	AX	50	DA	Sidechain
24	AX	51	DA	Sidechain
24	AX	54	DA	Sidechain
25	AY	1	DT	Sidechain
25	AY	14	DA	Sidechain
25	AY	16	DG	Sidechain
25	AY	21	DA	Sidechain
25	AY	6	DT	Sidechain
26	AZ	13	DA	Sidechain
26	AZ	2	DA	Sidechain
26	AZ	27	DG	Sidechain

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Mol	Chain	Res	Type	Group
26	AZ	30	DG	Sidechain
26	AZ	36	DA	Sidechain
26	AZ	42	DT	Sidechain
26	AZ	7	DT	Sidechain
27	Aa	11	DA	Sidechain
27	Aa	19	DT	Sidechain
27	Aa	26	DT	Sidechain
28	Ab	12	DG	Sidechain
28	Ab	2	DG	Sidechain
28	Ab	24	DA	Sidechain
28	Ab	25	DT	Sidechain
28	Ab	31	DA	Sidechain
28	Ab	35	DT	Sidechain
28	Ab	42	DG	Sidechain
28	Ab	43	DT	Sidechain
28	Ab	45	DA	Sidechain
28	Ab	46	DT	Sidechain
29	Ac	13	DA	Sidechain
29	Ac	23	DT	Sidechain
29	Ac	25	DA	Sidechain
29	Ac	26	DT	Sidechain
29	Ac	28	DA	Sidechain
29	Ac	29	DT	Sidechain
29	Ac	3	DC	Sidechain
29	Ac	30	DA	Sidechain
29	Ac	32	DC	Sidechain
29	Ac	36	DC	Sidechain
29	Ac	37	DG	Sidechain
29	Ac	40	DA	Sidechain
30	Ad	1	DC	Sidechain
30	Ad	10	DA	Sidechain
30	Ad	17	DG	Sidechain
30	Ad	4	DG	Sidechain
30	Ad	43	DG	Sidechain
30	Ad	5	DA	Sidechain
30	Ad	52	DT	Sidechain
31	Ae	1	DC	Sidechain
31	Ae	10	DG	Sidechain
31	Ae	11	DC	Sidechain
31	Ae	14	DT	Sidechain
31	Ae	19	DG	Sidechain
31	Ae	33	DG	Sidechain

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Mol	Chain	Res	Type	Group
31	Ae	34	DG	Sidechain
31	Ae	4	DA	Sidechain
32	Af	15	DG	Sidechain
32	Af	17	DG	Sidechain
32	Af	25	DG	Sidechain
32	Af	28	DT	Sidechain
32	Af	31	DA	Sidechain
32	Af	5	DG	Sidechain
33	Ag	1	DT	Sidechain
33	Ag	16	DT	Sidechain
33	Ag	18	DC	Sidechain
33	Ag	28	DT	Sidechain
33	Ag	3	DT	Sidechain
33	Ag	38	DT	Sidechain
33	Ag	45	DA	Sidechain
34	Ah	12	DA	Sidechain
34	Ah	13	DC	Sidechain
34	Ah	27	DT	Sidechain
34	Ah	33	DT	Sidechain
34	Ah	35	DT	Sidechain
34	Ah	39	DG	Sidechain
34	Ah	41	DT	Sidechain
34	Ah	48	DG	Sidechain
34	Ah	58	DT	Sidechain
34	Ah	8	DG	Sidechain
35	Ai	20	DG	Sidechain
35	Ai	21	DC	Sidechain
35	Ai	25	DC	Sidechain
35	Ai	31	DT	Sidechain
35	Ai	35	DT	Sidechain
35	Ai	8	DG	Sidechain
35	Ai	9	DA	Sidechain
36	Aj	14	DT	Sidechain
36	Aj	19	DT	Sidechain
36	Aj	30	DC	Sidechain
36	Aj	40	DA	Sidechain
36	Aj	43	DT	Sidechain
37	Ak	17	DA	Sidechain
37	Ak	21	DC	Sidechain
37	Ak	3	DG	Sidechain
37	Ak	32	DG	Sidechain
38	Al	1	DT	Sidechain

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Mol	Chain	Res	Type	Group
38	Al	13	DT	Sidechain
38	Al	34	DC	Sidechain
38	Al	37	DC	Sidechain
38	Al	6	DA	Sidechain
38	Al	8	DT	Sidechain
39	Am	12	DA	Sidechain
39	Am	2	DT	Sidechain
39	Am	26	DA	Sidechain
39	Am	27	DT	Sidechain
39	Am	28	DT	Sidechain
39	Am	29	DT	Sidechain
39	Am	33	DT	Sidechain
39	Am	46	DG	Sidechain
39	Am	56	DT	Sidechain
39	Am	8	DA	Sidechain
40	An	26	DT	Sidechain
40	An	29	DT	Sidechain
40	An	3	DT	Sidechain
40	An	33	DT	Sidechain
40	An	34	DT	Sidechain
40	An	43	DC	Sidechain
40	An	44	DA	Sidechain
41	Ao	11	DG	Sidechain
41	Ao	12	DA	Sidechain
41	Ao	17	DT	Sidechain
41	Ao	19	DT	Sidechain
41	Ao	27	DT	Sidechain
41	Ao	36	DA	Sidechain
41	Ao	38	DA	Sidechain
41	Ao	40	DT	Sidechain
41	Ao	45	DC	Sidechain
41	Ao	56	DT	Sidechain
42	Ap	15	DA	Sidechain
42	Ap	22	DT	Sidechain
42	Ap	46	DG	Sidechain
42	Ap	47	DG	Sidechain
42	Ap	54	DG	Sidechain
42	Ap	55	DT	Sidechain
42	Ap	7	DC	Sidechain
42	Ap	9	DT	Sidechain
43	Aq	15	DG	Sidechain
43	Aq	17	DC	Sidechain

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Mol	Chain	Res	Type	Group
43	Aq	20	DC	Sidechain
43	Aq	29	DA	Sidechain
43	Aq	34	DG	Sidechain
43	Aq	39	DA	Sidechain
43	Aq	44	DG	Sidechain
43	Aq	48	DA	Sidechain
44	Ar	11	DT	Sidechain
44	Ar	12	DG	Sidechain
44	Ar	18	DA	Sidechain
44	Ar	24	DT	Sidechain
44	Ar	33	DT	Sidechain
44	Ar	34	DT	Sidechain
44	Ar	35	DT	Sidechain
44	Ar	8	DA	Sidechain
45	As	23	DT	Sidechain
45	As	32	DG	Sidechain
46	At	10	DA	Sidechain
46	At	15	DC	Sidechain
46	At	34	DG	Sidechain
46	At	40	DA	Sidechain
46	At	42	DT	Sidechain
46	At	8	DC	Sidechain
46	At	9	DA	Sidechain
47	Au	11	DA	Sidechain
47	Au	15	DG	Sidechain
47	Au	2	DC	Sidechain
47	Au	27	DC	Sidechain
47	Au	35	DT	Sidechain
47	Au	4	DT	Sidechain
47	Au	40	DC	Sidechain
48	Av	15	DT	Sidechain
48	Av	34	DG	Sidechain
48	Av	35	DA	Sidechain
49	Aw	13	DT	Sidechain
49	Aw	25	DA	Sidechain
49	Aw	31	DA	Sidechain
49	Aw	34	DA	Sidechain
49	Aw	37	DT	Sidechain
49	Aw	40	DC	Sidechain
50	Ax	1	DA	Sidechain
50	Ax	15	DG	Sidechain
50	Ax	21	DA	Sidechain

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Mol	Chain	Res	Type	Group
50	Ax	23	DA	Sidechain
50	Ax	24	DC	Sidechain
50	Ax	35	DT	Sidechain
50	Ax	37	DT	Sidechain
50	Ax	7	DA	Sidechain
50	Ax	8	DT	Sidechain
51	Ay	36	DA	Sidechain
51	Ay	46	DG	Sidechain
51	Ay	6	DG	Sidechain
51	Ay	7	DG	Sidechain
52	Az	28	DT	Sidechain
52	Az	33	DC	Sidechain
52	Az	41	DT	Sidechain
52	Az	44	DT	Sidechain
52	Az	9	DC	Sidechain
115	B0	20	DG	Sidechain
115	B0	27	DT	Sidechain
115	B0	3	DT	Sidechain
115	B0	33	DT	Sidechain
115	B0	34	DT	Sidechain
115	B0	51	DT	Sidechain
115	B0	56	DT	Sidechain
116	B1	1	DT	Sidechain
116	B1	19	DC	Sidechain
116	B1	2	DT	Sidechain
116	B1	27	DT	Sidechain
116	B1	41	DT	Sidechain
116	B1	46	DG	Sidechain
116	B1	50	DA	Sidechain
116	B1	52	DA	Sidechain
116	B1	54	DT	Sidechain
116	B1	58	DT	Sidechain
116	B1	7	DG	Sidechain
117	B2	22	DG	Sidechain
117	B2	33	DA	Sidechain
117	B2	5	DT	Sidechain
117	B2	7	DA	Sidechain
118	B3	25	DA	Sidechain
118	B3	3	DC	Sidechain
118	B3	7	DC	Sidechain
118	B3	8	DT	Sidechain
118	B3	9	DG	Sidechain

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Mol	Chain	Res	Type	Group
119	B4	22	DG	Sidechain
119	B4	32	DA	Sidechain
119	B4	9	DG	Sidechain
120	B5	12	DA	Sidechain
120	B5	27	DT	Sidechain
120	B5	35	DT	Sidechain
120	B5	48	DG	Sidechain
120	B5	50	DA	Sidechain
120	B5	57	DT	Sidechain
120	B5	58	DT	Sidechain
120	B5	59	DT	Sidechain
121	B6	12	DA	Sidechain
121	B6	17	DC	Sidechain
121	B6	20	DG	Sidechain
121	B6	22	DA	Sidechain
121	B6	24	DT	Sidechain
121	B6	25	DC	Sidechain
121	B6	3	DT	Sidechain
121	B6	34	DG	Sidechain
121	B6	41	DA	Sidechain
121	B6	5	DT	Sidechain
121	B6	53	DG	Sidechain
122	B7	14	DG	Sidechain
122	B7	15	DA	Sidechain
122	B7	39	DG	Sidechain
122	B7	40	DG	Sidechain
123	B8	1	DT	Sidechain
123	B8	2	DT	Sidechain
123	B8	24	DC	Sidechain
123	B8	30	DC	Sidechain
124	B9	2	DA	Sidechain
124	B9	23	DG	Sidechain
124	B9	3	DG	Sidechain
124	B9	30	DG	Sidechain
124	B9	32	DG	Sidechain
124	B9	33	DC	Sidechain
124	B9	45	DT	Sidechain
124	B9	6	DC	Sidechain
124	B9	7	DT	Sidechain
63	BA	15	DC	Sidechain
63	BA	21	DG	Sidechain
63	BA	26	DC	Sidechain

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Mol	Chain	Res	Type	Group
63	BA	27	DA	Sidechain
63	BA	39	DC	Sidechain
63	BA	41	DT	Sidechain
64	BB	1	DA	Sidechain
64	BB	24	DG	Sidechain
64	BB	27	DG	Sidechain
64	BB	28	DC	Sidechain
64	BB	31	DG	Sidechain
64	BB	32	DC	Sidechain
64	BB	5	DA	Sidechain
64	BB	6	DT	Sidechain
64	BB	8	DA	Sidechain
65	BC	14	DT	Sidechain
65	BC	23	DG	Sidechain
65	BC	26	DT	Sidechain
65	BC	38	DA	Sidechain
65	BC	41	DT	Sidechain
65	BC	44	DT	Sidechain
66	BD	18	DA	Sidechain
66	BD	29	DT	Sidechain
66	BD	44	DC	Sidechain
66	BD	57	DT	Sidechain
67	BE	11	DA	Sidechain
67	BE	12	DT	Sidechain
67	BE	15	DA	Sidechain
67	BE	26	DG	Sidechain
67	BE	29	DT	Sidechain
67	BE	32	DT	Sidechain
67	BE	36	DT	Sidechain
67	BE	47	DC	Sidechain
67	BE	51	DC	Sidechain
67	BE	56	DA	Sidechain
68	BF	1	DC	Sidechain
68	BF	11	DA	Sidechain
68	BF	2	DG	Sidechain
68	BF	3	DA	Sidechain
68	BF	4	DA	Sidechain
68	BF	43	DT	Sidechain
68	BF	44	DT	Sidechain
69	BG	13	DG	Sidechain
69	BG	15	DG	Sidechain
69	BG	18	DG	Sidechain

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Mol	Chain	Res	Type	Group
69	BG	23	DG	Sidechain
69	BG	34	DG	Sidechain
69	BG	6	DA	Sidechain
69	BG	7	DA	Sidechain
69	BG	8	DT	Sidechain
69	BG	9	DA	Sidechain
70	BH	15	DA	Sidechain
70	BH	16	DT	Sidechain
70	BH	3	DT	Sidechain
70	BH	31	DT	Sidechain
70	BH	35	DT	Sidechain
70	BH	37	DC	Sidechain
70	BH	39	DT	Sidechain
70	BH	4	DT	Sidechain
70	BH	42	DA	Sidechain
70	BH	47	DA	Sidechain
70	BH	48	DC	Sidechain
70	BH	52	DT	Sidechain
70	BH	54	DT	Sidechain
70	BH	6	DT	Sidechain
71	BI	12	DT	Sidechain
71	BI	15	DA	Sidechain
71	BI	16	DA	Sidechain
71	BI	17	DA	Sidechain
71	BI	18	DT	Sidechain
71	BI	21	DA	Sidechain
71	BI	29	DT	Sidechain
71	BI	30	DT	Sidechain
71	BI	34	DT	Sidechain
71	BI	5	DT	Sidechain
71	BI	54	DT	Sidechain
71	BI	9	DT	Sidechain
72	BJ	13	DA	Sidechain
72	BJ	18	DA	Sidechain
72	BJ	19	DC	Sidechain
72	BJ	2	DA	Sidechain
72	BJ	41	DT	Sidechain
73	BK	24	DA	Sidechain
73	BK	8	DG	Sidechain
73	BK	9	DC	Sidechain
74	BL	19	DC	Sidechain
74	BL	4	DT	Sidechain

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Mol	Chain	Res	Type	Group
74	BL	44	DG	Sidechain
74	BL	47	DT	Sidechain
75	BM	17	DG	Sidechain
75	BM	29	DT	Sidechain
75	BM	5	DC	Sidechain
76	BN	11	DT	Sidechain
76	BN	2	DA	Sidechain
76	BN	22	DG	Sidechain
76	BN	37	DT	Sidechain
76	BN	6	DA	Sidechain
76	BN	8	DG	Sidechain
76	BN	9	DA	Sidechain
77	BO	15	DA	Sidechain
77	BO	17	DG	Sidechain
77	BO	30	DT	Sidechain
77	BO	43	DC	Sidechain
77	BO	47	DT	Sidechain
77	BO	48	DA	Sidechain
77	BO	6	DC	Sidechain
78	BP	10	DC	Sidechain
78	BP	29	DT	Sidechain
78	BP	3	DT	Sidechain
78	BP	31	DT	Sidechain
78	BP	37	DC	Sidechain
78	BP	40	DT	Sidechain
78	BP	41	DA	Sidechain
78	BP	46	DA	Sidechain
78	BP	54	DT	Sidechain
78	BP	58	DT	Sidechain
79	BQ	12	DC	Sidechain
79	BQ	19	DT	Sidechain
79	BQ	20	DA	Sidechain
79	BQ	28	DT	Sidechain
79	BQ	34	DT	Sidechain
79	BQ	36	DT	Sidechain
79	BQ	50	DA	Sidechain
79	BQ	54	DG	Sidechain
79	BQ	9	DA	Sidechain
80	BR	17	DT	Sidechain
80	BR	2	DT	Sidechain
80	BR	32	DT	Sidechain
80	BR	48	DT	Sidechain

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Mol	Chain	Res	Type	Group
81	BS	13	DT	Sidechain
81	BS	16	DG	Sidechain
81	BS	38	DA	Sidechain
81	BS	40	DC	Sidechain
81	BS	41	DA	Sidechain
81	BS	43	DA	Sidechain
82	BT	11	DG	Sidechain
82	BT	17	DC	Sidechain
82	BT	19	DT	Sidechain
82	BT	25	DA	Sidechain
82	BT	41	DG	Sidechain
83	BU	13	DA	Sidechain
83	BU	22	DC	Sidechain
83	BU	25	DG	Sidechain
83	BU	34	DT	Sidechain
84	BV	32	DT	Sidechain
84	BV	37	DT	Sidechain
84	BV	42	DT	Sidechain
84	BV	44	DT	Sidechain
84	BV	5	DT	Sidechain
84	BV	53	DC	Sidechain
84	BV	6	DG	Sidechain
85	BW	15	DT	Sidechain
85	BW	26	DT	Sidechain
85	BW	27	DT	Sidechain
85	BW	3	DT	Sidechain
85	BW	32	DT	Sidechain
85	BW	33	DT	Sidechain
85	BW	36	DT	Sidechain
85	BW	40	DC	Sidechain
85	BW	49	DT	Sidechain
85	BW	50	DT	Sidechain
85	BW	58	DT	Sidechain
85	BW	60	DT	Sidechain
86	BX	1	DG	Sidechain
86	BX	13	DG	Sidechain
86	BX	21	DT	Sidechain
86	BX	23	DC	Sidechain
87	BY	15	DC	Sidechain
87	BY	19	DG	Sidechain
87	BY	24	DA	Sidechain
87	BY	3	DG	Sidechain

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Mol	Chain	Res	Type	Group
87	BY	30	DC	Sidechain
87	BY	34	DT	Sidechain
87	BY	35	DG	Sidechain
87	BY	39	DG	Sidechain
87	BY	8	DT	Sidechain
88	BZ	10	DT	Sidechain
88	BZ	13	DG	Sidechain
88	BZ	17	DC	Sidechain
88	BZ	2	DT	Sidechain
88	BZ	22	DG	Sidechain
88	BZ	5	DC	Sidechain
88	BZ	7	DG	Sidechain
89	Ba	15	DG	Sidechain
89	Ba	29	DA	Sidechain
89	Ba	3	DG	Sidechain
89	Ba	34	DA	Sidechain
89	Ba	35	DG	Sidechain
89	Ba	4	DG	Sidechain
89	Ba	41	DA	Sidechain
89	Ba	46	DA	Sidechain
89	Ba	8	DA	Sidechain
90	Bb	1	DG	Sidechain
90	Bb	10	DG	Sidechain
90	Bb	14	DT	Sidechain
90	Bb	2	DT	Sidechain
90	Bb	20	DA	Sidechain
90	Bb	21	DG	Sidechain
90	Bb	27	DA	Sidechain
90	Bb	37	DC	Sidechain
90	Bb	43	DG	Sidechain
90	Bb	48	DA	Sidechain
90	Bb	9	DA	Sidechain
91	Bc	13	DA	Sidechain
91	Bc	25	DA	Sidechain
91	Bc	29	DT	Sidechain
92	Bd	36	DT	Sidechain
93	Be	22	DG	Sidechain
93	Be	23	DT	Sidechain
93	Be	39	DA	Sidechain
93	Be	46	DA	Sidechain
94	Bf	1	DA	Sidechain
94	Bf	10	DG	Sidechain

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Mol	Chain	Res	Type	Group
94	Bf	23	DA	Sidechain
94	Bf	26	DT	Sidechain
94	Bf	3	DC	Sidechain
95	Bg	1	DG	Sidechain
95	Bg	10	DA	Sidechain
95	Bg	15	DG	Sidechain
95	Bg	20	DC	Sidechain
95	Bg	24	DT	Sidechain
95	Bg	27	DT	Sidechain
95	Bg	28	DT	Sidechain
95	Bg	31	DT	Sidechain
95	Bg	34	DC	Sidechain
95	Bg	37	DT	Sidechain
95	Bg	40	DT	Sidechain
95	Bg	6	DT	Sidechain
96	Bh	14	DT	Sidechain
96	Bh	18	DA	Sidechain
96	Bh	24	DT	Sidechain
96	Bh	27	DG	Sidechain
96	Bh	29	DC	Sidechain
96	Bh	35	DG	Sidechain
96	Bh	37	DC	Sidechain
96	Bh	46	DA	Sidechain
96	Bh	49	DC	Sidechain
96	Bh	52	DA	Sidechain
97	Bi	1	DG	Sidechain
97	Bi	22	DT	Sidechain
97	Bi	24	DT	Sidechain
97	Bi	3	DC	Sidechain
97	Bi	30	DC	Sidechain
97	Bi	31	DA	Sidechain
97	Bi	36	DA	Sidechain
97	Bi	37	DT	Sidechain
98	Bj	14	DT	Sidechain
98	Bj	18	DG	Sidechain
98	Bj	22	DA	Sidechain
98	Bj	31	DT	Sidechain
99	Bk	26	DG	Sidechain
99	Bk	27	DA	Sidechain
100	Bl	40	DG	Sidechain
100	Bl	44	DC	Sidechain
100	Bl	47	DA	Sidechain

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Mol	Chain	Res	Type	Group
100	Bl	48	DT	Sidechain
100	Bl	6	DC	Sidechain
100	Bl	9	DT	Sidechain
101	Bm	16	DA	Sidechain
101	Bm	17	DG	Sidechain
101	Bm	31	DT	Sidechain
101	Bm	42	DT	Sidechain
101	Bm	53	DA	Sidechain
101	Bm	8	DT	Sidechain
101	Bm	9	DG	Sidechain
102	Bn	16	DT	Sidechain
102	Bn	37	DA	Sidechain
102	Bn	41	DA	Sidechain
103	Bo	13	DA	Sidechain
103	Bo	21	DT	Sidechain
103	Bo	31	DT	Sidechain
103	Bo	40	DG	Sidechain
103	Bo	45	DG	Sidechain
104	Bp	12	DG	Sidechain
104	Bp	32	DA	Sidechain
104	Bp	38	DT	Sidechain
104	Bp	6	DA	Sidechain
105	Bq	1	DG	Sidechain
105	Bq	19	DT	Sidechain
105	Bq	42	DT	Sidechain
105	Bq	6	DT	Sidechain
106	Br	17	DT	Sidechain
106	Br	24	DT	Sidechain
106	Br	29	DT	Sidechain
106	Br	41	DT	Sidechain
106	Br	5	DT	Sidechain
107	Bs	12	DA	Sidechain
107	Bs	20	DA	Sidechain
107	Bs	22	DT	Sidechain
108	Bt	11	DG	Sidechain
108	Bt	21	DC	Sidechain
108	Bt	32	DT	Sidechain
108	Bt	38	DG	Sidechain
108	Bt	9	DG	Sidechain
109	Bu	23	DA	Sidechain
109	Bu	5	DC	Sidechain
109	Bu	9	DA	Sidechain

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Mol	Chain	Res	Type	Group
110	Bv	16	DT	Sidechain
110	Bv	17	DG	Sidechain
110	Bv	23	DT	Sidechain
110	Bv	24	DG	Sidechain
110	Bv	4	DT	Sidechain
110	Bv	9	DT	Sidechain
111	Bw	11	DA	Sidechain
111	Bw	2	DT	Sidechain
111	Bw	26	DT	Sidechain
111	Bw	28	DT	Sidechain
111	Bw	3	DT	Sidechain
111	Bw	4	DA	Sidechain
111	Bw	50	DG	Sidechain
111	Bw	51	DT	Sidechain
111	Bw	52	DC	Sidechain
112	Bx	15	DT	Sidechain
112	Bx	17	DT	Sidechain
112	Bx	20	DA	Sidechain
112	Bx	21	DG	Sidechain
112	Bx	29	DG	Sidechain
112	Bx	4	DT	Sidechain
113	By	10	DA	Sidechain
113	By	23	DC	Sidechain
114	Bz	10	DT	Sidechain
114	Bz	14	DT	Sidechain
114	Bz	24	DT	Sidechain
114	Bz	6	DT	Sidechain
114	Bz	9	DA	Sidechain
177	C0	11	DG	Sidechain
177	C0	2	DT	Sidechain
177	C0	27	DT	Sidechain
177	C0	28	DT	Sidechain
177	C0	33	DT	Sidechain
177	C0	34	DT	Sidechain
177	C0	42	DG	Sidechain
177	C0	43	DC	Sidechain
178	C1	1	DT	Sidechain
178	C1	13	DA	Sidechain
178	C1	14	DT	Sidechain
178	C1	24	DT	Sidechain
178	C1	28	DT	Sidechain
178	C1	29	DT	Sidechain

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Mol	Chain	Res	Type	Group
178	C1	3	DT	Sidechain
178	C1	34	DT	Sidechain
178	C1	36	DT	Sidechain
178	C1	4	DT	Sidechain
178	C1	5	DT	Sidechain
178	C1	56	DC	Sidechain
178	C1	6	DG	Sidechain
179	C2	1	DG	Sidechain
179	C2	13	DC	Sidechain
179	C2	25	DA	Sidechain
179	C2	32	DG	Sidechain
179	C2	6	DA	Sidechain
180	C3	15	DC	Sidechain
180	C3	17	DC	Sidechain
180	C3	2	DC	Sidechain
180	C3	35	DT	Sidechain
180	C3	4	DG	Sidechain
180	C3	40	DT	Sidechain
180	C3	42	DA	Sidechain
180	C3	47	DT	Sidechain
180	C3	6	DG	Sidechain
180	C3	8	DA	Sidechain
181	C4	18	DA	Sidechain
181	C4	27	DT	Sidechain
181	C4	29	DA	Sidechain
181	C4	37	DG	Sidechain
181	C4	4	DT	Sidechain
181	C4	40	DC	Sidechain
182	C5	16	DA	Sidechain
182	C5	25	DA	Sidechain
182	C5	38	DT	Sidechain
182	C5	4	DT	Sidechain
182	C5	5	DT	Sidechain
183	C6	14	DT	Sidechain
183	C6	17	DA	Sidechain
183	C6	21	DG	Sidechain
183	C6	27	DG	Sidechain
183	C6	31	DT	Sidechain
183	C6	42	DT	Sidechain
184	C7	12	DT	Sidechain
184	C7	14	DT	Sidechain
184	C7	2	DC	Sidechain

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Mol	Chain	Res	Type	Group
184	C7	34	DA	Sidechain
184	C7	4	DT	Sidechain
185	C8	19	DG	Sidechain
185	C8	31	DA	Sidechain
185	C8	39	DT	Sidechain
185	C8	40	DG	Sidechain
185	C8	44	DA	Sidechain
185	C8	45	DG	Sidechain
185	C8	7	DA	Sidechain
186	C9	11	DT	Sidechain
186	C9	17	DA	Sidechain
186	C9	21	DA	Sidechain
186	C9	29	DT	Sidechain
186	C9	48	DT	Sidechain
186	C9	5	DT	Sidechain
186	C9	53	DT	Sidechain
186	C9	56	DT	Sidechain
125	CA	12	DT	Sidechain
125	CA	16	DC	Sidechain
125	CA	20	DG	Sidechain
125	CA	21	DC	Sidechain
125	CA	29	DT	Sidechain
125	CA	35	DG	Sidechain
125	CA	42	DC	Sidechain
125	CA	43	DG	Sidechain
125	CA	48	DG	Sidechain
125	CA	9	DT	Sidechain
126	CB	10	DC	Sidechain
126	CB	13	DG	Sidechain
126	CB	29	DT	Sidechain
126	CB	32	DT	Sidechain
126	CB	33	DT	Sidechain
126	CB	34	DT	Sidechain
126	CB	44	DA	Sidechain
126	CB	48	DT	Sidechain
126	CB	52	DA	Sidechain
126	CB	57	DT	Sidechain
126	CB	59	DT	Sidechain
127	CC	12	DG	Sidechain
127	CC	18	DC	Sidechain
127	CC	4	DT	Sidechain
127	CC	6	DT	Sidechain

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Mol	Chain	Res	Type	Group
128	CD	11	DT	Sidechain
128	CD	2	DG	Sidechain
128	CD	22	DT	Sidechain
128	CD	23	DT	Sidechain
128	CD	25	DT	Sidechain
128	CD	32	DC	Sidechain
128	CD	33	DT	Sidechain
128	CD	52	DA	Sidechain
128	CD	9	DT	Sidechain
129	CE	24	DG	Sidechain
129	CE	4	DG	Sidechain
130	CF	10	DA	Sidechain
130	CF	12	DA	Sidechain
130	CF	36	DT	Sidechain
130	CF	39	DT	Sidechain
130	CF	7	DA	Sidechain
130	CF	8	DG	Sidechain
130	CF	9	DG	Sidechain
131	CG	15	DA	Sidechain
131	CG	23	DA	Sidechain
131	CG	27	DG	Sidechain
131	CG	29	DG	Sidechain
131	CG	6	DG	Sidechain
131	CG	7	DT	Sidechain
132	CH	1	DA	Sidechain
132	CH	16	DC	Sidechain
132	CH	18	DA	Sidechain
132	CH	22	DG	Sidechain
132	CH	23	DA	Sidechain
132	CH	29	DC	Sidechain
132	CH	31	DA	Sidechain
132	CH	38	DT	Sidechain
132	CH	44	DA	Sidechain
132	CH	49	DT	Sidechain
132	CH	50	DT	Sidechain
132	CH	9	DA	Sidechain
133	CI	1	DA	Sidechain
133	CI	15	DA	Sidechain
133	CI	4	DA	Sidechain
134	CJ	17	DG	Sidechain
134	CJ	28	DT	Sidechain
134	CJ	31	DT	Sidechain

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Mol	Chain	Res	Type	Group
134	CJ	43	DT	Sidechain
134	CJ	51	DT	Sidechain
134	CJ	8	DC	Sidechain
134	CJ	9	DT	Sidechain
135	CK	14	DC	Sidechain
135	CK	2	DT	Sidechain
135	CK	22	DT	Sidechain
135	CK	7	DC	Sidechain
136	CL	13	DG	Sidechain
136	CL	15	DA	Sidechain
136	CL	16	DT	Sidechain
136	CL	19	DG	Sidechain
136	CL	40	DA	Sidechain
136	CL	8	DA	Sidechain
137	CM	1	DT	Sidechain
137	CM	18	DA	Sidechain
137	CM	3	DG	Sidechain
137	CM	32	DT	Sidechain
137	CM	4	DA	Sidechain
138	CN	17	DC	Sidechain
138	CN	33	DT	Sidechain
138	CN	39	DG	Sidechain
138	CN	41	DT	Sidechain
138	CN	49	DT	Sidechain
138	CN	52	DT	Sidechain
138	CN	7	DG	Sidechain
139	CO	1	DA	Sidechain
139	CO	14	DA	Sidechain
139	CO	15	DC	Sidechain
139	CO	19	DA	Sidechain
139	CO	31	DC	Sidechain
139	CO	33	DT	Sidechain
139	CO	39	DA	Sidechain
139	CO	45	DG	Sidechain
140	CP	16	DA	Sidechain
140	CP	18	DA	Sidechain
140	CP	31	DT	Sidechain
140	CP	34	DC	Sidechain
140	CP	35	DG	Sidechain
140	CP	36	DC	Sidechain
140	CP	38	DG	Sidechain
140	CP	39	DG	Sidechain

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Mol	Chain	Res	Type	Group
140	CP	42	DG	Sidechain
140	CP	6	DT	Sidechain
140	CP	7	DT	Sidechain
141	CQ	19	DC	Sidechain
141	CQ	21	DG	Sidechain
141	CQ	27	DT	Sidechain
141	CQ	30	DT	Sidechain
141	CQ	32	DT	Sidechain
141	CQ	35	DT	Sidechain
141	CQ	4	DT	Sidechain
141	CQ	50	DA	Sidechain
141	CQ	51	DA	Sidechain
141	CQ	8	DT	Sidechain
142	CR	1	DT	Sidechain
142	CR	11	DA	Sidechain
142	CR	12	DA	Sidechain
142	CR	13	DA	Sidechain
142	CR	28	DT	Sidechain
142	CR	29	DT	Sidechain
142	CR	33	DT	Sidechain
142	CR	37	DC	Sidechain
142	CR	39	DG	Sidechain
142	CR	4	DT	Sidechain
142	CR	58	DT	Sidechain
142	CR	7	DA	Sidechain
142	CR	8	DA	Sidechain
143	CS	1	DT	Sidechain
143	CS	2	DT	Sidechain
143	CS	21	DT	Sidechain
143	CS	22	DC	Sidechain
143	CS	27	DA	Sidechain
143	CS	30	DT	Sidechain
143	CS	36	DA	Sidechain
143	CS	41	DT	Sidechain
144	CT	1	DA	Sidechain
144	CT	28	DT	Sidechain
144	CT	33	DG	Sidechain
144	CT	46	DA	Sidechain
145	CU	16	DA	Sidechain
145	CU	29	DC	Sidechain
145	CU	35	DT	Sidechain
145	CU	7	DA	Sidechain

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Mol	Chain	Res	Type	Group
146	CV	3	DT	Sidechain
146	CV	4	DC	Sidechain
146	CV	6	DT	Sidechain
147	CW	12	DT	Sidechain
147	CW	17	DA	Sidechain
147	CW	23	DA	Sidechain
147	CW	29	DT	Sidechain
148	CX	17	DC	Sidechain
148	CX	30	DT	Sidechain
148	CX	31	DT	Sidechain
148	CX	36	DT	Sidechain
148	CX	38	DT	Sidechain
148	CX	43	DG	Sidechain
149	CY	1	DT	Sidechain
149	CY	11	DA	Sidechain
149	CY	12	DT	Sidechain
149	CY	16	DT	Sidechain
149	CY	32	DT	Sidechain
149	CY	4	DT	Sidechain
149	CY	41	DA	Sidechain
149	CY	59	DT	Sidechain
149	CY	60	DT	Sidechain
150	CZ	21	DT	Sidechain
150	CZ	32	DT	Sidechain
150	CZ	33	DC	Sidechain
150	CZ	36	DT	Sidechain
150	CZ	4	DA	Sidechain
150	CZ	40	DT	Sidechain
151	Ca	31	DA	Sidechain
151	Ca	36	DT	Sidechain
151	Ca	42	DA	Sidechain
151	Ca	45	DT	Sidechain
151	Ca	8	DT	Sidechain
152	Cb	11	DT	Sidechain
152	Cb	15	DT	Sidechain
152	Cb	2	DA	Sidechain
152	Cb	20	DT	Sidechain
152	Cb	24	DA	Sidechain
152	Cb	31	DC	Sidechain
152	Cb	34	DC	Sidechain
152	Cb	6	DG	Sidechain
152	Cb	7	DT	Sidechain

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Mol	Chain	Res	Type	Group
152	Cb	9	DA	Sidechain
153	Cc	1	DT	Sidechain
153	Cc	10	DT	Sidechain
153	Cc	14	DA	Sidechain
153	Cc	19	DT	Sidechain
153	Cc	2	DC	Sidechain
153	Cc	22	DA	Sidechain
154	Cd	12	DA	Sidechain
154	Cd	14	DG	Sidechain
154	Cd	16	DA	Sidechain
154	Cd	17	DC	Sidechain
154	Cd	18	DT	Sidechain
154	Cd	20	DA	Sidechain
154	Cd	24	DG	Sidechain
154	Cd	25	DT	Sidechain
155	Ce	1	DT	Sidechain
155	Ce	12	DG	Sidechain
155	Ce	17	DG	Sidechain
155	Ce	29	DG	Sidechain
155	Ce	7	DT	Sidechain
156	Cf	25	DG	Sidechain
156	Cf	26	DA	Sidechain
156	Cf	28	DG	Sidechain
156	Cf	30	DG	Sidechain
156	Cf	6	DT	Sidechain
156	Cf	8	DT	Sidechain
157	Cg	21	DT	Sidechain
157	Cg	33	DT	Sidechain
158	Ch	17	DC	Sidechain
158	Ch	30	DT	Sidechain
158	Ch	31	DG	Sidechain
158	Ch	32	DC	Sidechain
158	Ch	40	DA	Sidechain
158	Ch	5	DT	Sidechain
159	Ci	19	DT	Sidechain
159	Ci	23	DT	Sidechain
159	Ci	26	DT	Sidechain
159	Ci	38	DC	Sidechain
159	Ci	47	DG	Sidechain
159	Ci	48	DC	Sidechain
160	Cj	23	DA	Sidechain
160	Cj	24	DA	Sidechain

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Mol	Chain	Res	Type	Group
160	Cj	25	DA	Sidechain
160	Cj	35	DC	Sidechain
160	Cj	8	DA	Sidechain
161	Ck	1	DG	Sidechain
161	Ck	20	DT	Sidechain
161	Ck	31	DC	Sidechain
161	Ck	37	DA	Sidechain
161	Ck	45	DT	Sidechain
162	Cl	11	DT	Sidechain
162	Cl	12	DA	Sidechain
162	Cl	14	DC	Sidechain
162	Cl	36	DG	Sidechain
162	Cl	37	DA	Sidechain
162	Cl	40	DT	Sidechain
163	Cm	1	DA	Sidechain
163	Cm	12	DT	Sidechain
163	Cm	13	DC	Sidechain
163	Cm	19	DT	Sidechain
163	Cm	24	DA	Sidechain
163	Cm	29	DT	Sidechain
163	Cm	35	DT	Sidechain
163	Cm	37	DT	Sidechain
163	Cm	42	DT	Sidechain
163	Cm	45	DA	Sidechain
163	Cm	9	DC	Sidechain
164	Cn	11	DA	Sidechain
164	Cn	12	DC	Sidechain
164	Cn	13	DC	Sidechain
164	Cn	16	DC	Sidechain
164	Cn	19	DT	Sidechain
164	Cn	25	DG	Sidechain
164	Cn	40	DT	Sidechain
165	Co	23	DA	Sidechain
165	Co	24	DG	Sidechain
165	Co	25	DA	Sidechain
165	Co	3	DG	Sidechain
165	Co	33	DA	Sidechain
165	Co	40	DA	Sidechain
165	Co	9	DA	Sidechain
166	Cp	19	DT	Sidechain
166	Cp	2	DT	Sidechain
166	Cp	23	DA	Sidechain

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Mol	Chain	Res	Type	Group
166	Cp	24	DC	Sidechain
166	Cp	25	DA	Sidechain
166	Cp	27	DA	Sidechain
166	Cp	28	DC	Sidechain
166	Cp	36	DA	Sidechain
167	Cq	16	DG	Sidechain
167	Cq	18	DG	Sidechain
168	Cr	10	DT	Sidechain
168	Cr	14	DG	Sidechain
168	Cr	24	DG	Sidechain
168	Cr	30	DT	Sidechain
168	Cr	32	DA	Sidechain
168	Cr	5	DG	Sidechain
168	Cr	6	DT	Sidechain
169	Cs	1	DA	Sidechain
169	Cs	13	DA	Sidechain
169	Cs	22	DT	Sidechain
169	Cs	31	DC	Sidechain
169	Cs	32	DT	Sidechain
169	Cs	7	DA	Sidechain
170	Ct	1	DT	Sidechain
170	Ct	16	DG	Sidechain
170	Ct	20	DA	Sidechain
170	Ct	24	DT	Sidechain
170	Ct	27	DC	Sidechain
170	Ct	28	DT	Sidechain
170	Ct	3	DT	Sidechain
170	Ct	36	DA	Sidechain
170	Ct	39	DG	Sidechain
170	Ct	4	DT	Sidechain
170	Ct	43	DG	Sidechain
171	Cu	13	DA	Sidechain
171	Cu	19	DA	Sidechain
171	Cu	21	DT	Sidechain
171	Cu	25	DT	Sidechain
171	Cu	4	DT	Sidechain
172	Cv	1	DT	Sidechain
172	Cv	14	DA	Sidechain
172	Cv	15	DT	Sidechain
172	Cv	19	DC	Sidechain
172	Cv	20	DC	Sidechain
172	Cv	23	DA	Sidechain

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Mol	Chain	Res	Type	Group
172	Cv	26	DA	Sidechain
172	Cv	37	DT	Sidechain
172	Cv	7	DC	Sidechain
173	Cw	2	DT	Sidechain
173	Cw	20	DG	Sidechain
173	Cw	25	DA	Sidechain
173	Cw	3	DC	Sidechain
174	Cx	1	DG	Sidechain
174	Cx	10	DA	Sidechain
174	Cx	11	DG	Sidechain
174	Cx	12	DG	Sidechain
174	Cx	19	DA	Sidechain
174	Cx	7	DA	Sidechain
175	Cy	20	DA	Sidechain
175	Cy	32	DC	Sidechain
175	Cy	8	DG	Sidechain
176	Cz	15	DC	Sidechain
176	Cz	21	DC	Sidechain
176	Cz	23	DG	Sidechain
187	DA	10	DC	Sidechain
187	DA	15	DA	Sidechain
187	DA	2	DT	Sidechain
187	DA	24	DA	Sidechain
187	DA	26	DA	Sidechain
187	DA	31	DA	Sidechain
187	DA	36	DT	Sidechain
187	DA	37	DC	Sidechain
187	DA	38	DG	Sidechain
187	DA	42	DT	Sidechain
187	DA	7	DG	Sidechain
188	DB	1	DA	Sidechain
188	DB	21	DA	Sidechain
188	DB	29	DA	Sidechain
188	DB	31	DG	Sidechain
189	DC	1	DT	Sidechain
189	DC	10	DA	Sidechain
189	DC	13	DA	Sidechain
189	DC	15	DC	Sidechain
189	DC	2	DA	Sidechain
189	DC	8	DA	Sidechain
190	DD	1	DC	Sidechain
190	DD	10	DA	Sidechain

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Mol	Chain	Res	Type	Group
190	DD	13	DA	Sidechain
190	DD	17	DG	Sidechain
190	DD	27	DA	Sidechain
190	DD	29	DG	Sidechain
190	DD	36	DA	Sidechain
190	DD	41	DT	Sidechain
190	DD	43	DT	Sidechain
190	DD	5	DA	Sidechain
190	DD	7	DG	Sidechain
191	DE	1	DT	Sidechain
191	DE	40	DC	Sidechain
191	DE	44	DT	Sidechain
191	DE	9	DA	Sidechain
192	DF	11	DG	Sidechain
192	DF	13	DG	Sidechain
192	DF	17	DC	Sidechain
192	DF	19	DT	Sidechain
193	DG	10	DA	Sidechain
193	DG	2	DT	Sidechain
193	DG	25	DG	Sidechain
193	DG	31	DA	Sidechain
193	DG	33	DA	Sidechain
193	DG	35	DT	Sidechain
193	DG	37	DC	Sidechain
193	DG	45	DG	Sidechain
194	DH	11	DT	Sidechain
194	DH	12	DC	Sidechain
194	DH	30	DA	Sidechain
194	DH	31	DA	Sidechain
194	DH	4	DC	Sidechain
194	DH	9	DA	Sidechain
195	DI	18	DC	Sidechain
195	DI	25	DC	Sidechain
195	DI	5	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	164972	0	91301	0	0
2	AB	582	0	334	0	0
3	AC	984	0	542	0	0
4	AD	1094	0	600	0	0
5	AE	1217	0	685	0	0
6	AF	982	0	543	0	0
7	AG	991	0	539	0	0
8	AH	1224	0	692	0	0
9	AI	851	0	483	0	0
10	AJ	1218	0	693	0	0
11	AK	658	0	364	0	0
12	AL	815	0	458	0	0
13	AM	988	0	544	0	0
14	AN	662	0	362	0	0
15	AO	978	0	543	0	0
16	AP	817	0	449	0	0
17	AQ	914	0	517	0	0
18	AR	986	0	545	0	0
19	AS	988	0	540	0	0
20	AT	928	0	512	0	0
21	AU	977	0	542	0	0
22	AV	817	0	445	0	0
23	AW	1155	0	659	0	0
24	AX	1225	0	684	0	0
25	AY	659	0	362	0	0
26	AZ	990	0	541	0	0
27	Aa	823	0	457	0	0
28	Ab	986	0	539	0	0
29	Ac	812	0	452	0	0
30	Ad	1091	0	600	0	0
31	Ae	830	0	449	0	0
32	Af	666	0	363	0	0
33	Ag	1173	0	669	0	0
34	Ah	1233	0	686	0	0
35	Ai	979	0	544	0	0
36	Aj	969	0	544	0	0
37	Ak	652	0	361	0	0
38	Al	982	0	543	0	0
39	Am	1175	0	667	0	0
40	An	1231	0	688	0	0
41	Ao	1167	0	653	0	0
42	Ap	1217	0	693	0	0
43	Aq	985	0	541	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
44	Ar	752	0	419	0	0
45	As	817	0	460	0	0
46	At	899	0	498	0	0
47	Au	818	0	450	0	0
48	Av	814	0	449	0	0
49	Aw	1137	0	635	0	0
50	Ax	815	0	457	0	0
51	Ay	990	0	539	0	0
52	Az	900	0	508	0	0
53	A0	641	0	363	0	0
54	A1	992	0	541	0	0
55	A2	966	0	537	0	0
56	A3	1151	0	628	0	0
57	A4	931	0	512	0	0
58	A5	991	0	540	0	0
59	A6	655	0	363	0	0
60	A7	643	0	358	0	0
61	A8	658	0	359	0	0
62	A9	988	0	537	0	0
63	BA	918	0	506	0	0
64	BB	659	0	357	0	0
65	BC	910	0	513	0	0
66	BD	1156	0	657	0	0
67	BE	1155	0	653	0	0
68	BF	911	0	510	0	0
69	BG	807	0	451	0	0
70	BH	1156	0	661	0	0
71	BI	1156	0	657	0	0
72	BJ	918	0	515	0	0
73	BK	655	0	363	0	0
74	BL	1142	0	637	0	0
75	BM	650	0	360	0	0
76	BN	832	0	447	0	0
77	BO	974	0	539	0	0
78	BP	1175	0	664	0	0
79	BQ	1147	0	655	0	0
80	BR	995	0	543	0	0
81	BS	975	0	547	0	0
82	BT	973	0	542	0	0
83	BU	981	0	540	0	0
84	BV	1186	0	665	0	0
85	BW	1213	0	689	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
86	BX	657	0	359	0	0
87	BY	831	0	450	0	0
88	BZ	818	0	449	0	0
89	Ba	1002	0	539	0	0
90	Bb	971	0	541	0	0
91	Bc	658	0	359	0	0
92	Bd	992	0	538	0	0
93	Be	976	0	544	0	0
94	Bf	986	0	540	0	0
95	Bg	812	0	454	0	0
96	Bh	1157	0	632	0	0
97	Bi	805	0	458	0	0
98	Bj	653	0	361	0	0
99	Bk	660	0	363	0	0
100	Bl	974	0	540	0	0
101	Bm	1148	0	635	0	0
102	Bn	971	0	543	0	0
103	Bo	994	0	537	0	0
104	Bp	822	0	453	0	0
105	Bq	986	0	547	0	0
106	Br	992	0	541	0	0
107	Bs	653	0	359	0	0
108	Bt	823	0	450	0	0
109	Bu	819	0	450	0	0
110	Bv	812	0	451	0	0
111	Bw	1216	0	692	0	0
112	Bx	919	0	509	0	0
113	By	823	0	445	0	0
114	Bz	654	0	366	0	0
115	B0	1210	0	693	0	0
116	B1	1213	0	692	0	0
117	B2	823	0	450	0	0
118	B3	664	0	358	0	0
119	B4	663	0	360	0	0
120	B5	1223	0	684	0	0
121	B6	1077	0	599	0	0
122	B7	982	0	538	0	0
123	B8	658	0	359	0	0
124	B9	975	0	539	0	0
125	CA	977	0	541	0	0
126	CB	1223	0	686	0	0
127	CC	754	0	420	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
128	CD	1160	0	662	0	0
129	CE	667	0	358	0	0
130	CF	822	0	451	0	0
131	CG	658	0	363	0	0
132	CH	1087	0	599	0	0
133	CI	646	0	367	0	0
134	CJ	1159	0	658	0	0
135	CK	650	0	363	0	0
136	CL	819	0	448	0	0
137	CM	664	0	360	0	0
138	CN	1153	0	634	0	0
139	CO	979	0	538	0	0
140	CP	992	0	545	0	0
141	CQ	1162	0	657	0	0
142	CR	1225	0	690	0	0
143	CS	968	0	549	0	0
144	CT	1158	0	634	0	0
145	CU	759	0	418	0	0
146	CV	656	0	362	0	0
147	CW	652	0	363	0	0
148	CX	1159	0	660	0	0
149	CY	1211	0	695	0	0
150	CZ	981	0	547	0	0
151	Ca	984	0	541	0	0
152	Cb	821	0	450	0	0
153	Cc	655	0	363	0	0
154	Cd	831	0	446	0	0
155	Ce	829	0	455	0	0
156	Cf	657	0	366	0	0
157	Cg	817	0	453	0	0
158	Ch	817	0	455	0	0
159	Ci	971	0	542	0	0
160	Cj	817	0	452	0	0
161	Ck	985	0	549	0	0
162	Cl	821	0	451	0	0
163	Cm	980	0	546	0	0
164	Cn	819	0	454	0	0
165	Co	811	0	450	0	0
166	Cp	752	0	419	0	0
167	Cq	754	0	416	0	0
168	Cr	832	0	453	0	0
169	Cs	822	0	451	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
170	Ct	920	0	513	0	0
171	Cu	757	0	422	0	0
172	Cv	810	0	456	0	0
173	Cw	825	0	449	0	0
174	Cx	652	0	358	0	0
175	Cy	652	0	357	0	0
176	Cz	667	0	361	0	0
177	C0	1148	0	650	0	0
178	C1	1166	0	659	0	0
179	C2	657	0	363	0	0
180	C3	979	0	538	0	0
181	C4	977	0	544	0	0
182	C5	976	0	547	0	0
183	C6	997	0	540	0	0
184	C7	803	0	456	0	0
185	C8	991	0	540	0	0
186	C9	1158	0	657	0	0
187	DA	917	0	511	0	0
188	DB	646	0	361	0	0
189	DC	832	0	446	0	0
190	DD	910	0	509	0	0
191	DE	982	0	544	0	0
192	DF	817	0	450	0	0
193	DG	990	0	542	0	0
194	DH	654	0	358	0	0
195	DI	653	0	364	0	0
All	All	342569	0	189904	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

There are no protein molecules in this entry.

5.3.3 RNA

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates

There are no monosaccharides in this entry.

5.6 Ligand geometry

There are no ligands in this entry.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

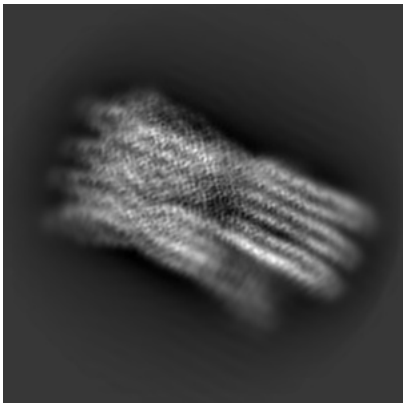
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-11379. These allow visual inspection of the internal detail of the map and identification of artifacts.

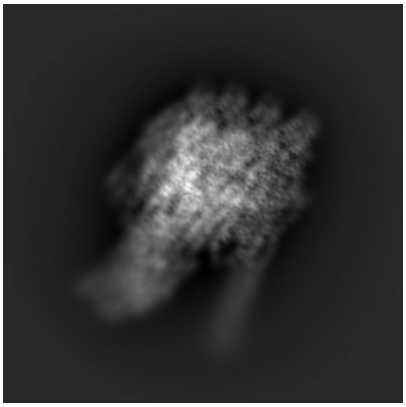
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

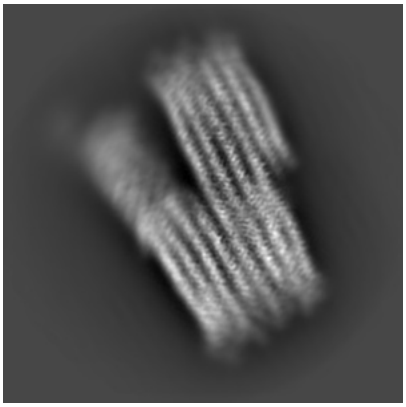
6.1.1 Primary map



X



Y

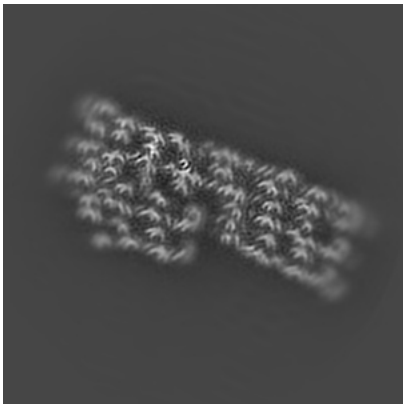


Z

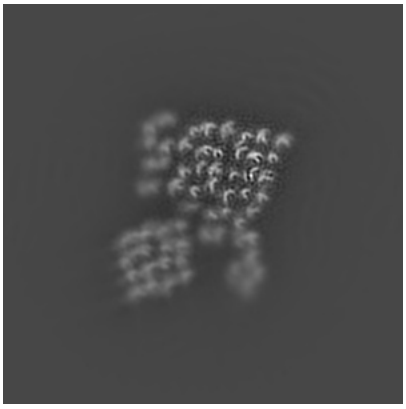
The images above show the map projected in three orthogonal directions.

6.2 Central slices

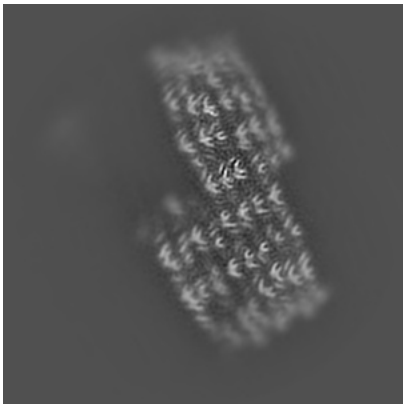
6.2.1 Primary map



X Index: 232



Y Index: 232

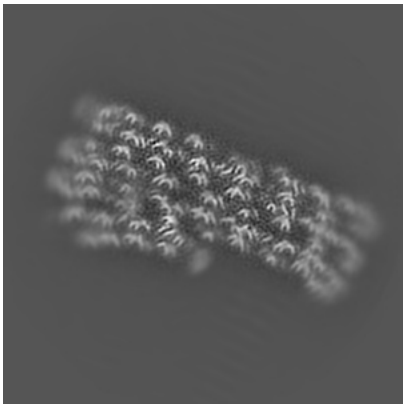


Z Index: 232

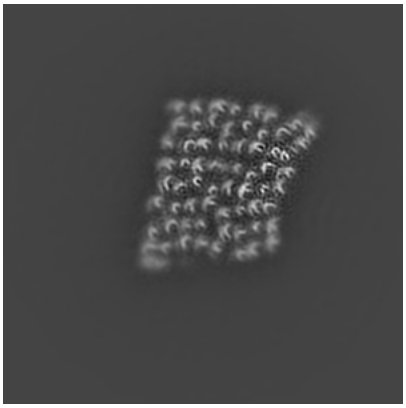
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

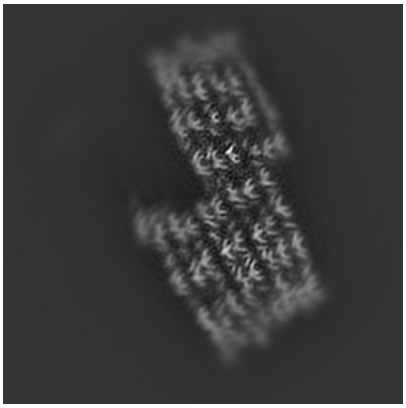
6.3.1 Primary map



X Index: 247



Y Index: 179

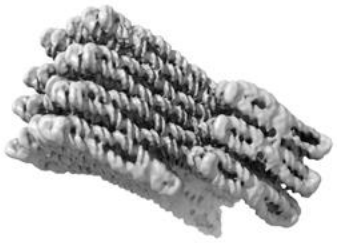


Z Index: 222

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

6.4 Orthogonal surface views (i)

6.4.1 Primary map



X

Y

Z

The images above show the 3D surface view of the map at the recommended contour level 0.051. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

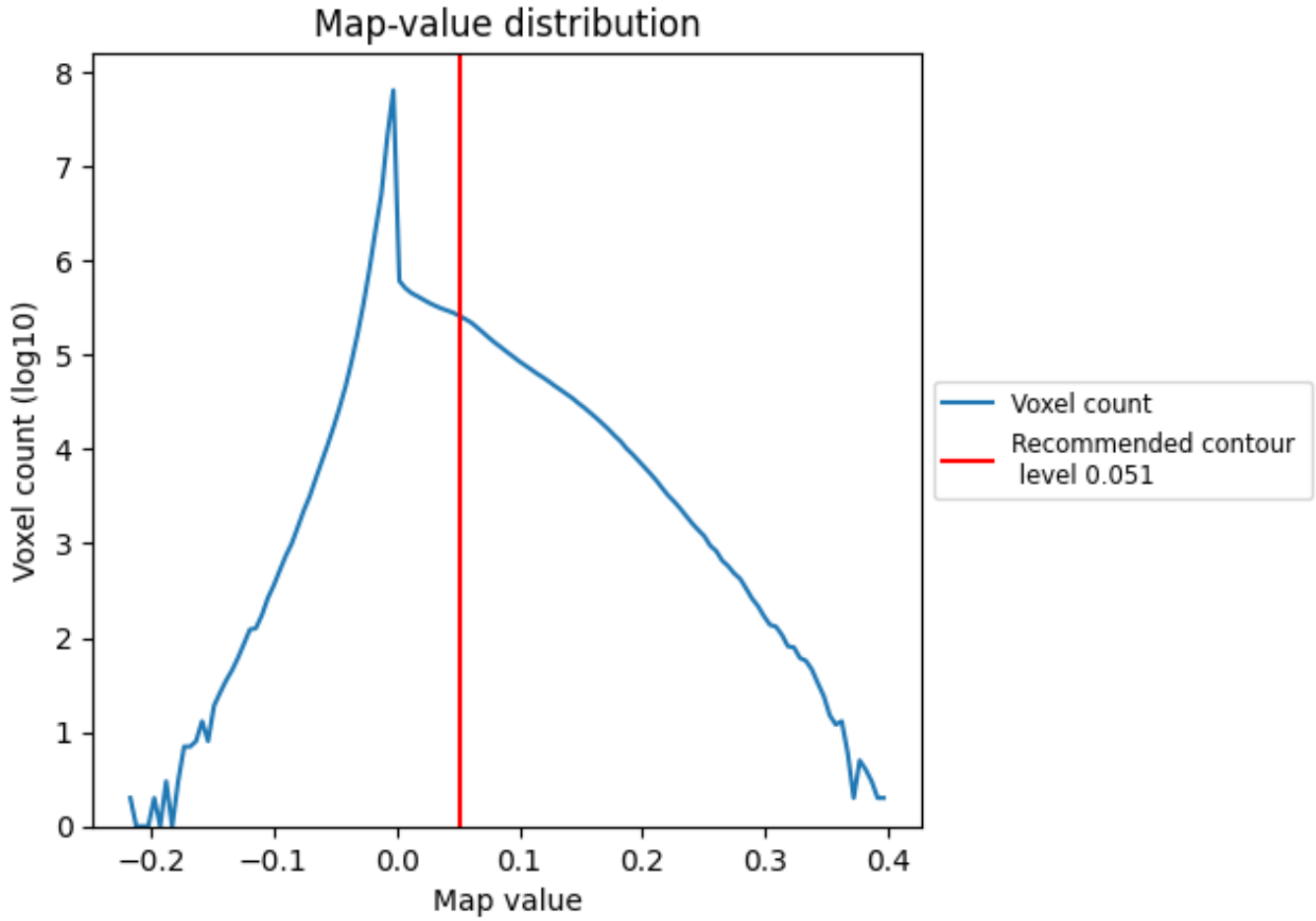
6.5 Mask visualisation (i)

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

7 Map analysis

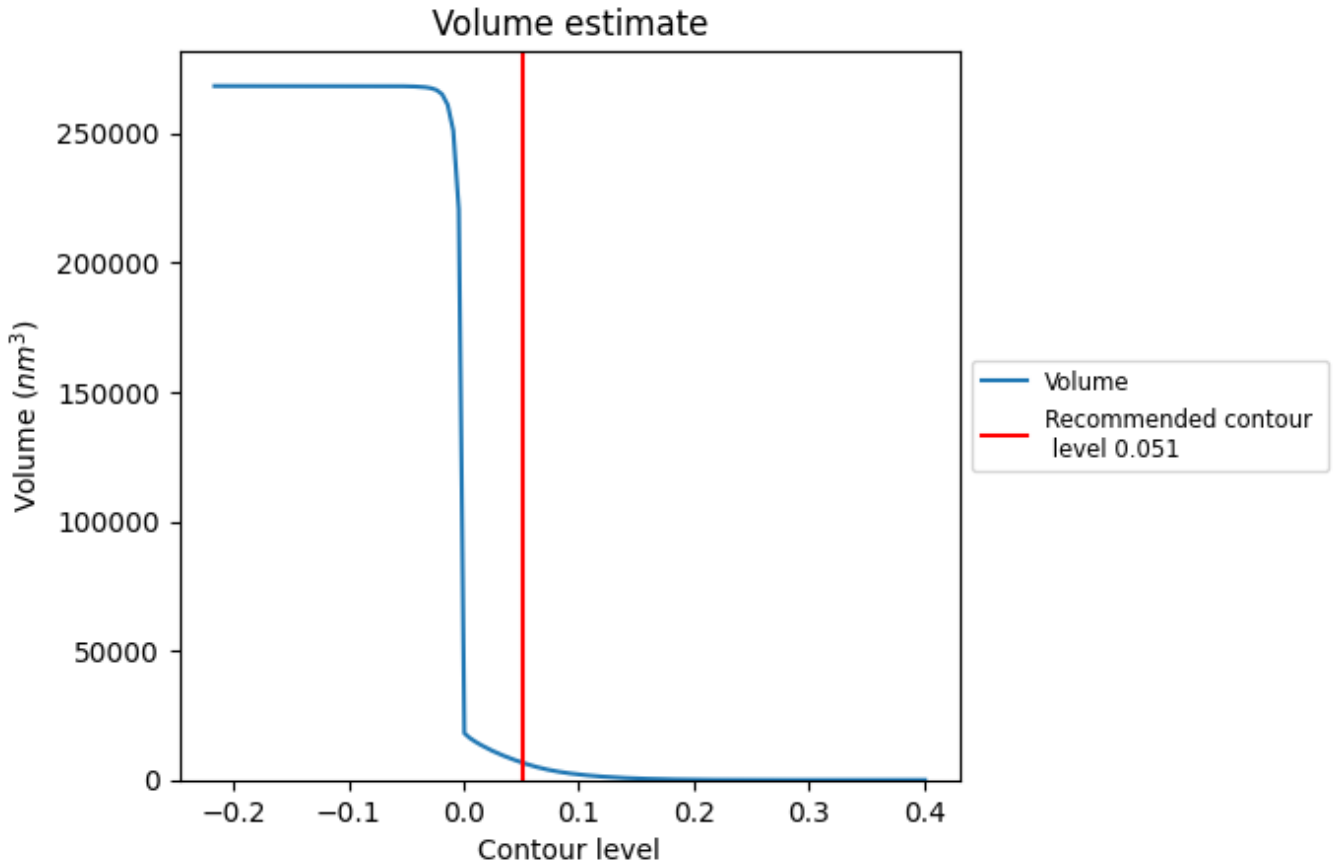
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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

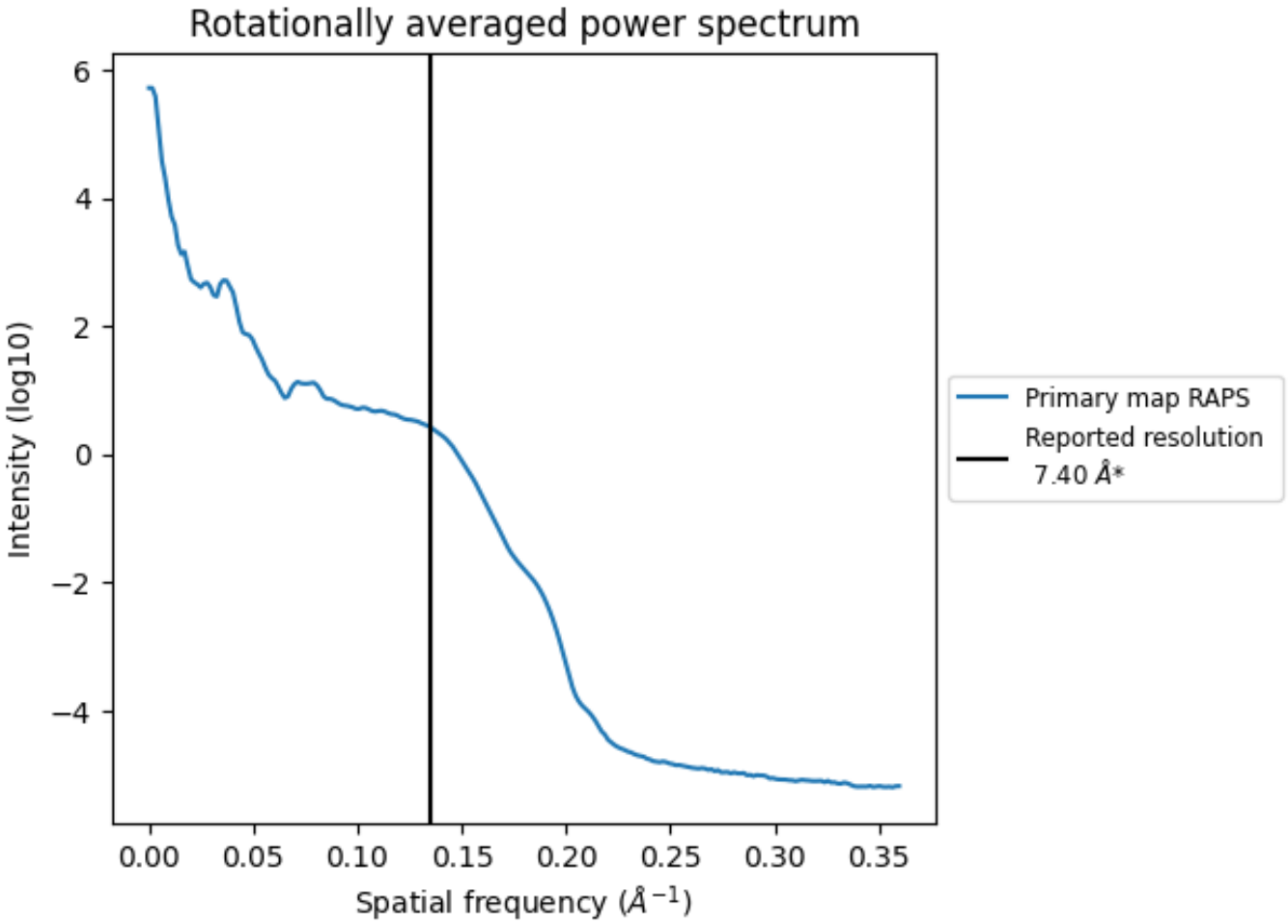
7.2 Volume estimate



The volume at the recommended contour level is 6695 nm^3; this corresponds to an approximate mass of 6048 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)

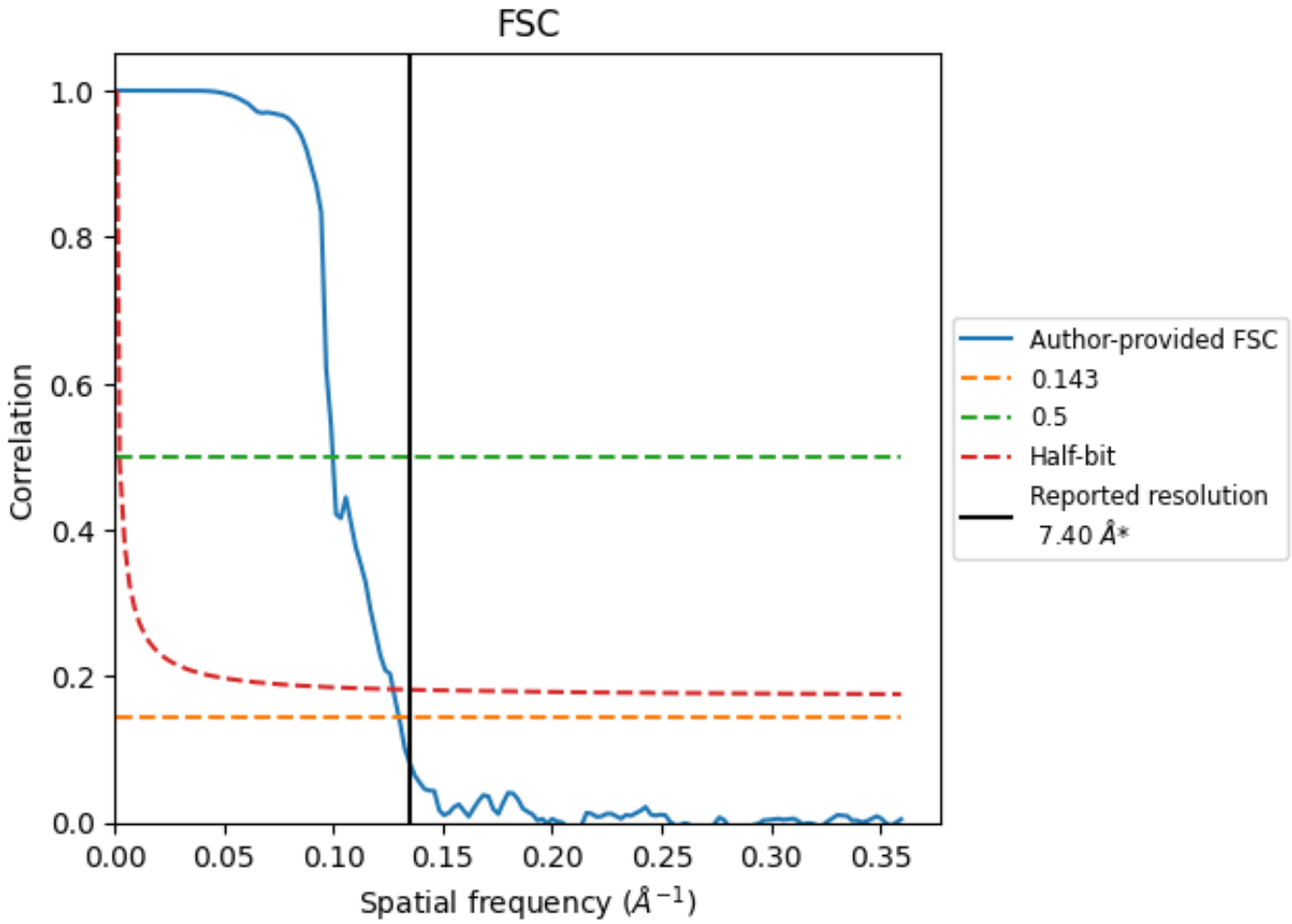


*Reported resolution corresponds to spatial frequency of 0.135 Å^{-1}

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)

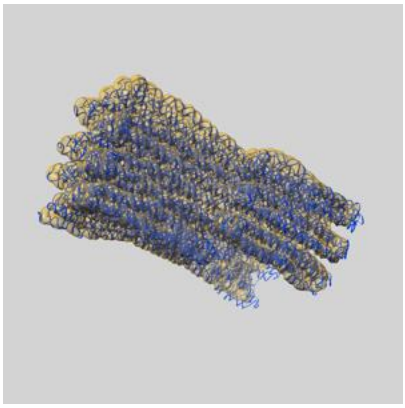
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	7.40	-	-
Author-provided FSC curve	7.69	10.03	7.86
Unmasked-calculated*	-	-	-

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

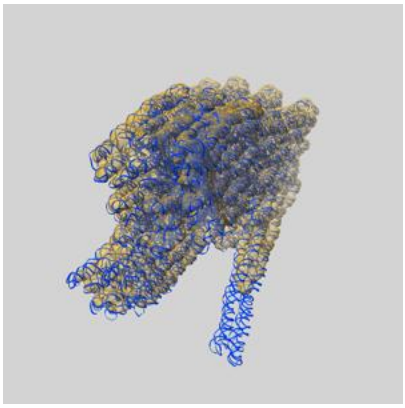
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-11379 and PDB model 7ARV. Per-residue inclusion information can be found in section 3 on page 39.

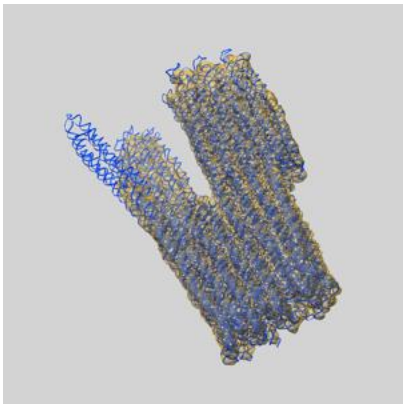
9.1 Map-model overlay



X



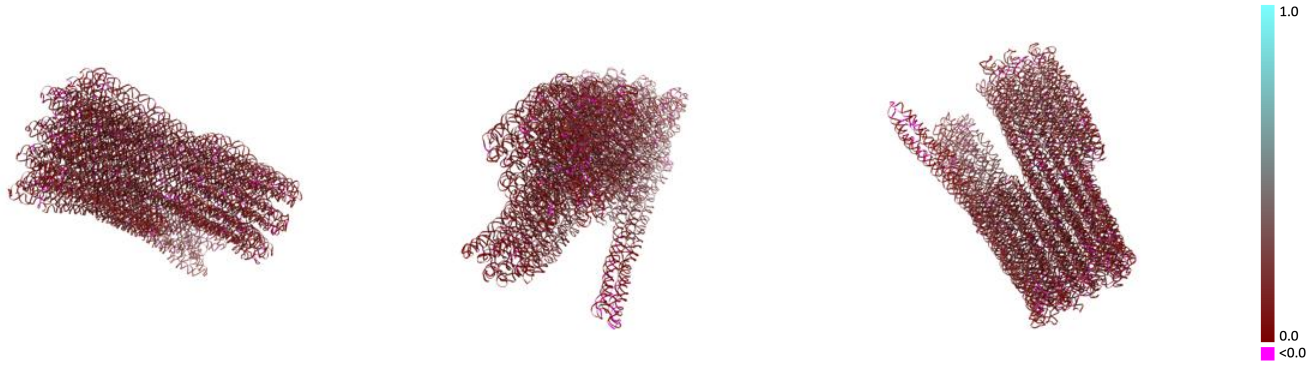
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.051 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.

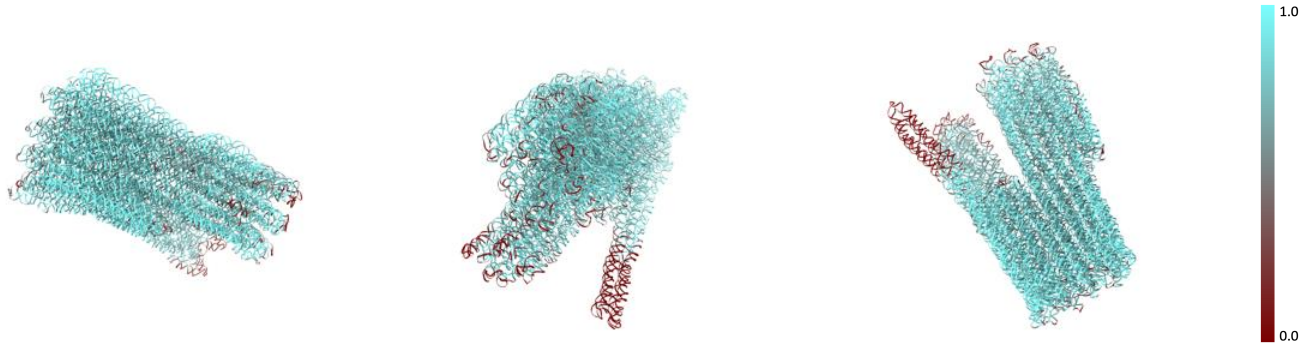
9.2 Q-score mapped to coordinate model (i)



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.

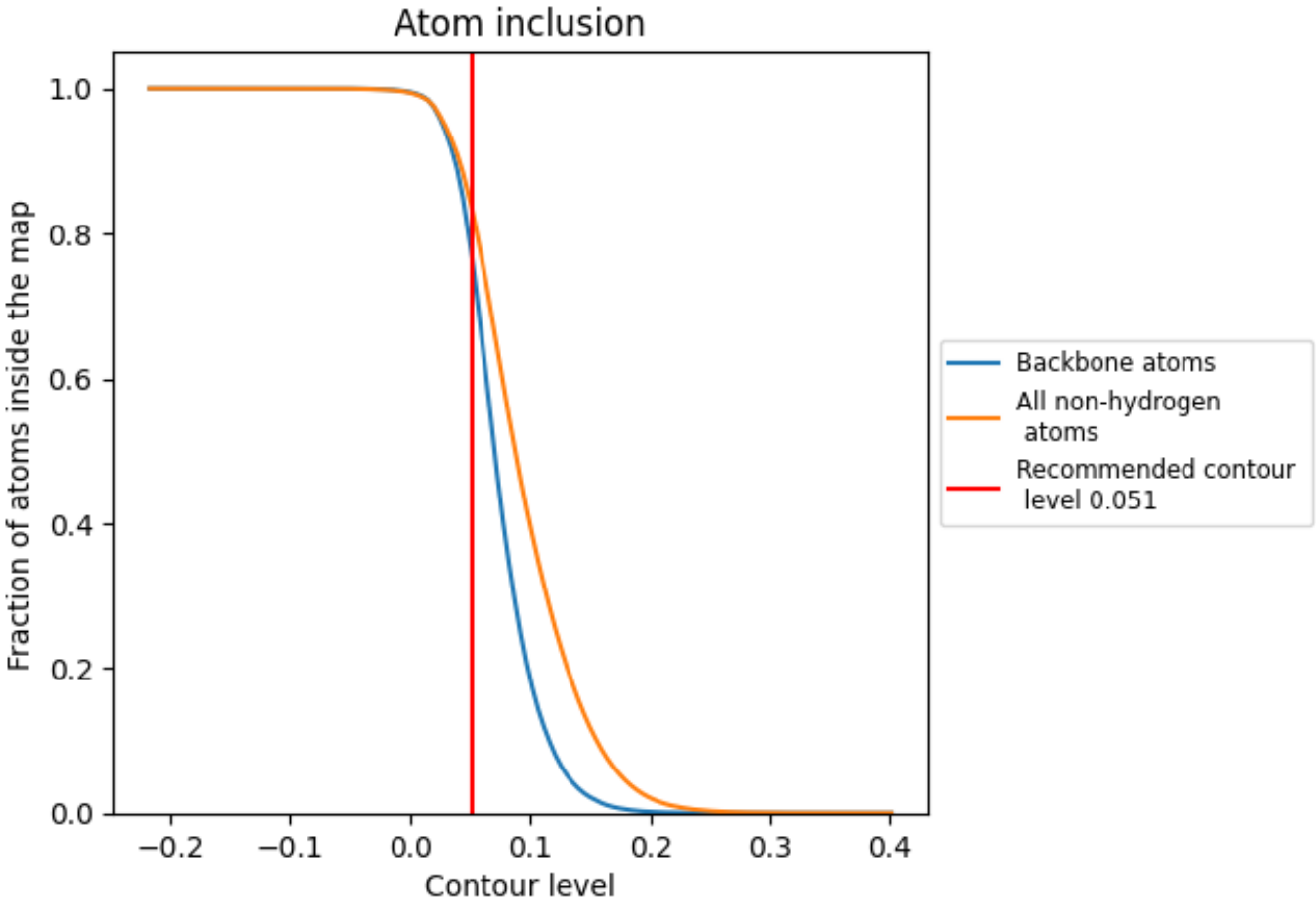
9.3 Atom inclusion mapped to coordinate model (i)



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 (0.051).

9.4 Atom inclusion (i)



At the recommended contour level, 77% of all backbone atoms, 84% 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 (0.051) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.8382	0.1400
A0	0.8549	0.1250
A1	0.8417	0.1350
A2	0.7909	0.1050
A3	0.8775	0.1380
A4	0.9076	0.1430
A5	0.9223	0.1410
A6	0.8290	0.1290
A7	0.9238	0.1500
A8	0.8967	0.1500
A9	0.8887	0.1580
AA	0.8580	0.1440
AB	0.6409	0.1130
AC	0.8476	0.1330
AD	0.9132	0.1160
AE	0.4174	0.0720
AF	0.8503	0.1350
AG	0.8517	0.1320
AH	0.6683	0.0900
AI	0.7321	0.1060
AJ	0.6593	0.0950
AK	0.9012	0.1330
AL	0.8859	0.1230
AM	0.9241	0.1490
AN	0.8912	0.1610
AO	0.8926	0.1330
AP	0.7479	0.1310
AQ	0.8085	0.1340
AR	0.7150	0.1330
AS	0.7966	0.1190
AT	0.8103	0.1200
AU	0.8997	0.1440
AV	0.8874	0.1470
AW	0.8926	0.1000
AX	0.5535	0.0770

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Chain	Atom inclusion	Q-score
AY	0.8756	0.1660
AZ	0.9364	0.1560
Aa	0.8724	0.1230
Ab	0.9067	0.1490
Ac	0.8571	0.1400
Ad	0.9038	0.1360
Ae	0.9193	0.1140
Af	0.8859	0.1400
Ag	0.8721	0.1170
Ah	0.6577	0.1130
Ai	0.8100	0.1550
Aj	0.8731	0.1360
Ak	0.8865	0.1490
Al	0.9043	0.1500
Am	0.8706	0.1120
An	0.6824	0.1130
Ao	0.8586	0.1130
Ap	0.6565	0.1070
Aq	0.9249	0.1520
Ar	0.7367	0.1160
As	0.9106	0.1510
At	0.9333	0.1460
Au	0.8863	0.1290
Av	0.8980	0.1450
Aw	0.8294	0.1380
Ax	0.8748	0.1450
Ay	0.9010	0.1530
Az	0.8722	0.1260
B0	0.7983	0.1190
B1	0.6208	0.1200
B2	0.8809	0.1560
B3	0.8795	0.1700
B4	0.8748	0.1730
B5	0.8070	0.1210
B6	0.8217	0.1520
B7	0.9165	0.1540
B8	0.9012	0.1820
B9	0.9190	0.1720
BA	0.9477	0.1560
BB	0.9135	0.1510
BC	0.8648	0.1270
BD	0.8979	0.1340

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Chain	Atom inclusion	Q-score
BE	0.6848	0.1030
BF	0.8211	0.1210
BG	0.8910	0.1630
BH	0.7976	0.1220
BI	0.7050	0.1170
BJ	0.8126	0.1590
BK	0.8382	0.1540
BL	0.9186	0.1460
BM	0.8554	0.1250
BN	0.8930	0.1460
BO	0.8737	0.1470
BP	0.8536	0.1230
BQ	0.6818	0.1040
BR	0.8593	0.1320
BS	0.8862	0.1560
BT	0.9168	0.1510
BU	0.8909	0.1610
BV	0.8381	0.1220
BW	0.7238	0.1110
BX	0.9209	0.1620
BY	0.9254	0.1430
BZ	0.9315	0.1660
Ba	0.8802	0.1400
Bb	0.8579	0.1450
Bc	0.8131	0.1300
Bd	0.8589	0.1450
Be	0.8320	0.1450
Bf	0.8509	0.1520
Bg	0.9187	0.1720
Bh	0.9170	0.1450
Bi	0.9217	0.1330
Bj	0.8208	0.1380
Bk	0.9379	0.1790
Bl	0.8881	0.1470
Bm	0.9477	0.1570
Bn	0.9053	0.1410
Bo	0.9346	0.1550
Bp	0.8710	0.1410
Bq	0.8337	0.1290
Br	0.8700	0.1520
Bs	0.8545	0.1590
Bt	0.9465	0.1650

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Chain	Atom inclusion	Q-score
Bu	0.8962	0.1400
Bv	0.8645	0.1460
Bw	0.8651	0.1180
Bx	0.8455	0.1460
By	0.8967	0.1590
Bz	0.8318	0.1490
C0	0.8319	0.1070
C1	0.0000	0.0300
C2	0.9346	0.1800
C3	0.9203	0.1710
C4	0.9232	0.1580
C5	0.9580	0.1710
C6	0.9087	0.1650
C7	0.8780	0.1600
C8	0.8819	0.1660
C9	0.8653	0.1280
CA	0.8618	0.1670
CB	0.6574	0.1090
CC	0.8316	0.1460
CD	0.2474	0.0510
CE	0.9250	0.1660
CF	0.9148	0.1600
CG	0.8040	0.1370
CH	0.8970	0.1760
CI	0.9226	0.1710
CJ	0.3236	0.0600
CK	0.8477	0.1330
CL	0.8840	0.1640
CM	0.9277	0.1890
CN	0.6505	0.1250
CO	0.8458	0.1480
CP	0.8508	0.1460
CQ	0.8124	0.1190
CR	0.4620	0.0650
CS	0.8409	0.1460
CT	0.8558	0.1630
CU	0.8999	0.1630
CV	0.8796	0.1640
CW	0.9479	0.1740
CX	0.7903	0.1210
CY	0.5070	0.0830
CZ	0.8879	0.1460

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Chain	Atom inclusion	Q-score
Ca	0.9065	0.1390
Cb	0.9391	0.1670
Cc	0.7939	0.1270
Cd	0.9410	0.1670
Ce	0.8951	0.1500
Cf	0.8919	0.1430
Cg	0.9364	0.1670
Ch	0.9400	0.1680
Ci	0.9228	0.1670
Cj	0.9584	0.1670
Ck	0.9360	0.1530
Cl	0.9440	0.1540
Cm	0.9082	0.1700
Cn	0.8864	0.1650
Co	0.7448	0.1320
Cp	0.8378	0.1520
Cq	0.7241	0.1270
Cr	0.9147	0.1890
Cs	0.8637	0.1220
Ct	0.9174	0.1710
Cu	0.6526	0.1260
Cv	0.9494	0.1760
Cw	0.8897	0.1630
Cx	0.8850	0.1560
Cy	0.8742	0.1580
Cz	0.0000	0.0480
DA	0.8441	0.1520
DB	0.9520	0.1760
DC	0.8798	0.1530
DD	0.0000	0.0360
DE	0.0611	0.0430
DF	0.6083	0.1130
DG	0.7364	0.1190
DH	0.9388	0.1710
DI	0.9587	0.1760