

Supplementary Information

DNA Conductance Modulation via Aptamer Binding

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1 Generating the DNA+Aptamer Structure

To generate the aptamer, we attached the G-quadruplex (Figure S1 (a)) and 5'-TTTAA-3' (Figure S1 (b)) together. The two structures are connected through their backbone via the oxygen-carbon bond between O5' of Adenine (Res ID: A₈) and C5' of Guanine (Res ID: G₁), and O3' of Thymine (Res ID: T₁) and C3' of Guanine (Res ID: G₁₅) as shown in Figure S2. This was done in GaussView by first measuring the bond distance between O5' and C5' of G₁ which was found to be 1.42701 Å. Next, the TTTAA structure was manually added into the G-quadruplex and the O5' atom of G₁ was removed and replaced with the O5' of A₈, ensuring the distance between O5' of Adenine and C5' of Guanine matched the measured 1.42701 Å. The process was repeated between the 3'-end G₁₅ and T₁ of 5'-TTTAA-3'. The O3' of T₁ was connected to the C3' of G₁₅, with a measured bond distance of 1.42680 Å. The resulting sequence was then rearranged using a text editor to follow the order of 5'- A₁A₂A₃[Gquad]T₁₉T₂₀T₂₁A₂₂A₂₃-3' as shown in Figure S3. The resulting aptamer structure was then energy minimized in Amber in an implicit water solvent using the Born solvation model with the DNA.bsc1² force field. We employed maximum minimization cycles of

10000 steps, with the first 2000 steps using the steepest descent method, then followed by maximum of 8000 steps using the conjugate gradient algorithm.

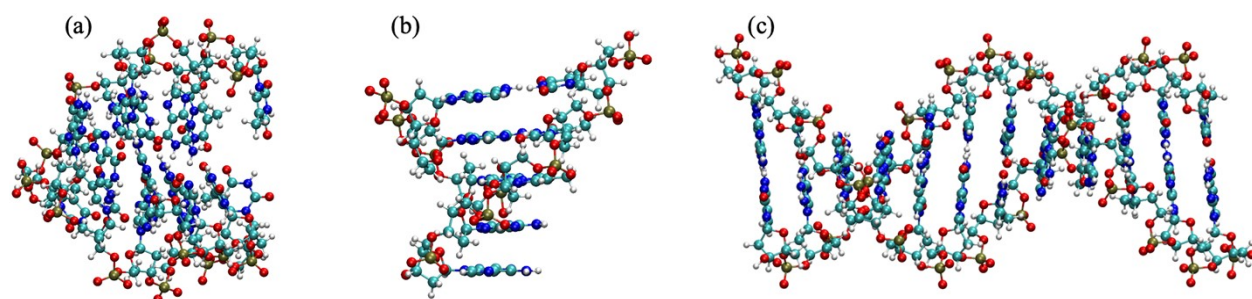


Figure S1 Snapshots of the three components of the DNA-aptamer components. (a) G-quadruplex; (b) ds-TTTAA sequence; and (c) 12-mer ds-DNA.

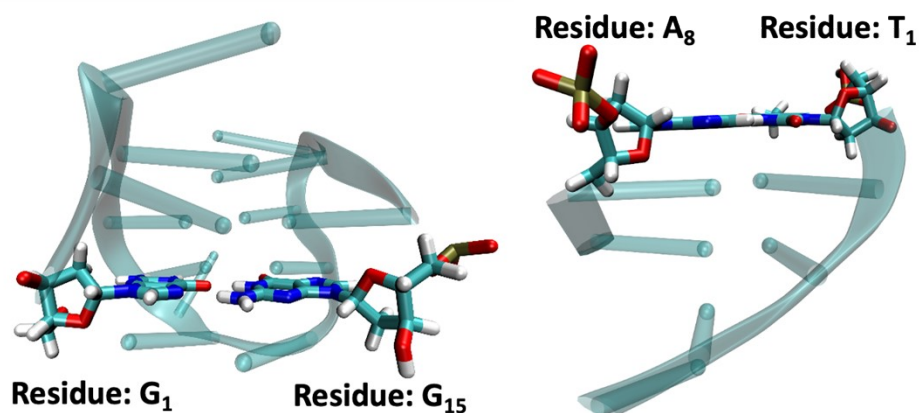


Figure S2 Residue IDs of the G-quadruplex and ds-TTTAA structures that are connected together to form the aptamer.

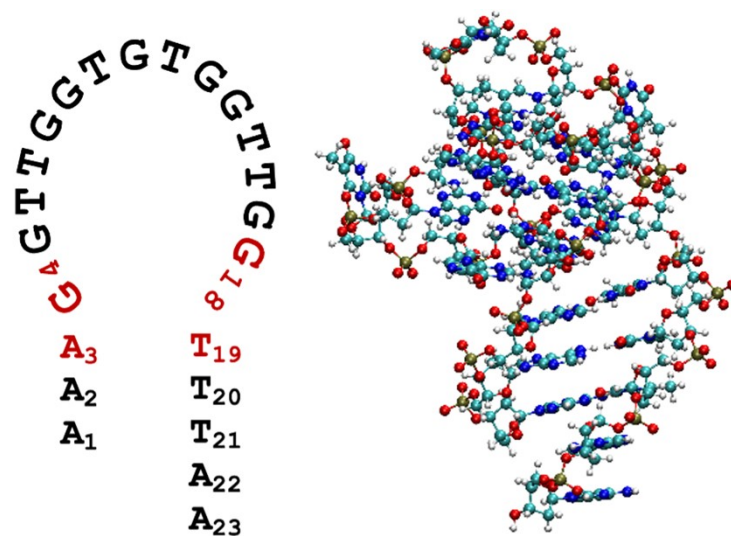


Figure S3 Illustration and snapshot showing the connected Gquad+TTTAA.

Next, the Aptamer was connected to the DsDNA via the O3' atom of Guanine (Res ID: G₈) and the Phosphate of Adenine A₁ at one end, and between O3' of adenine A₂₃ and the Phosphate of thymine T₉ at the other end (Figure S4). The operation required the following steps: 1) temporarily breaking the dsDNA into two blocks, 2) connecting the aptamer to each block via the backbone, 3) reordering the residues in the resulting PDB file to correspond to a one whole structure DNA+aptamer. In step 1, to fit the Gquad+TTTAA ends to the DsDNA, the DNA was temporarily divided into two blocks as shown in Figure S4, by removing the bond between O3' of G₈ and the phosphate of thymine (Res ID: T₉) as well as the bond between O3' of adenine (Res ID: A₄) and the phosphate of cytosine (Res ID: C₅), noting the distances.

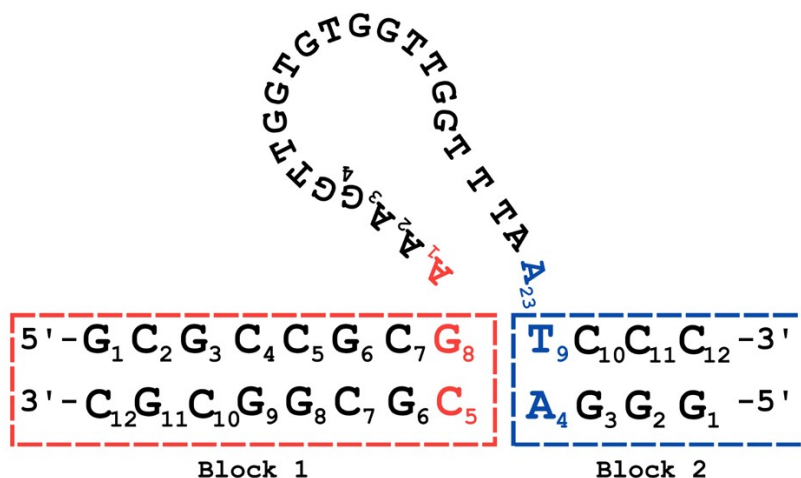


Figure S4 Illustration showing the separation of the 12-mer DsDNA into blocks with the aptamer positioned above guanine (G₈) and thymine (T₉).

The aptamer structure was then imported into the ds-DNA PDB file, and manually positioned so that that ends of TTTAA (Res IDs: A₁, A₂₃) were above G₈ and T₉ as shown in Figure S5. Alignment and connection

to Block 1 involved orienting the 5' adenine (A₁) of the Gquad+TTTAA structure above G₈ of the ds-DNA, adjusting the structure to avoid overlap, and using the “modify bond” tool to match the bond distance between O3' of guanine and the phosphate of adenine to the measured value. Similarly, Block 2 was connected by aligning the 3' end of TTTAA with T₉, tilting and shifting the blocks to maintain proper distances. After finalizing the connections, the bonds between blocks 1 and 2 in the complementary strand were restored. The PDB file was then reordered to yield a final sequence of 5'G₁ C₂ G₃ C₄ C₅ G₆ C₇ G₈ [Gquad+TTTAA] T₃₂ C₃₃ C₃₄ C₃₅ G₃₆ G₃₇ G₃₈ A₃₉ C₄₀ G₄₁ C₄₂ G₄₃ G₄₄ C₄₅ G₄₆ C₄₇, as shown in Figure S6.

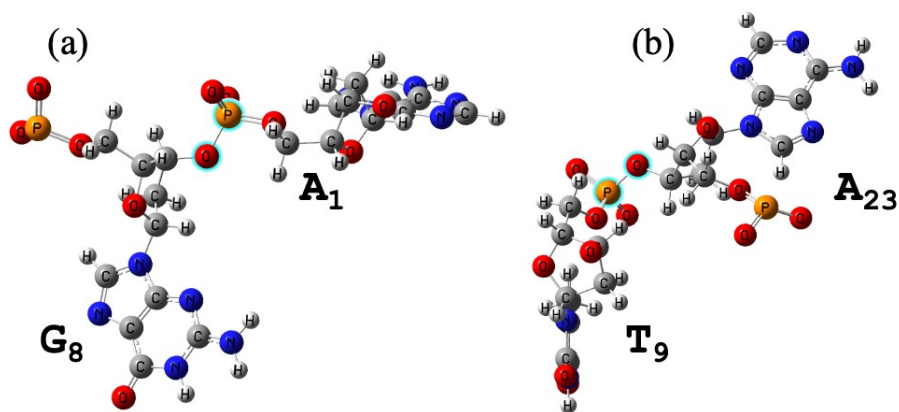


Figure S5 Snapshot highlighting the bonds between (a) phosphate of adenine (A₁) and O3' of guanine (G₈) (b) phosphate of thymine (T₉) and O3' of adenine (A₂₃).

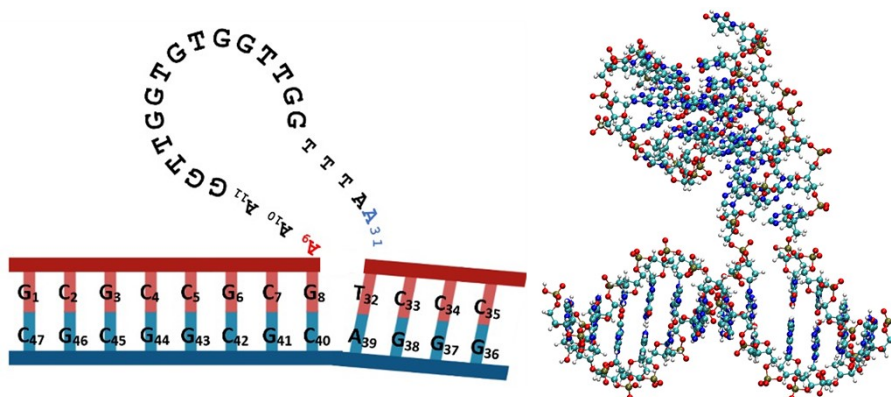


Figure S6 Illustration and snapshot showing the final dsDNA+aptamer structure, total sequence is 5'-G₁ C₂ G₃ C₄ C₅ G₆ C₇ G₈ [Gquad+TTTAA] T₃₂ C₃₃ C₃₄ C₃₅ G₃₆ G₃₇ G₃₈ A₃₉ C₄₀ G₄₁ C₄₂ G₄₃ G₄₄ C₄₅ G₄₆ C₄₇-3'.

2 MD RMSD Clustering and Additional Plots

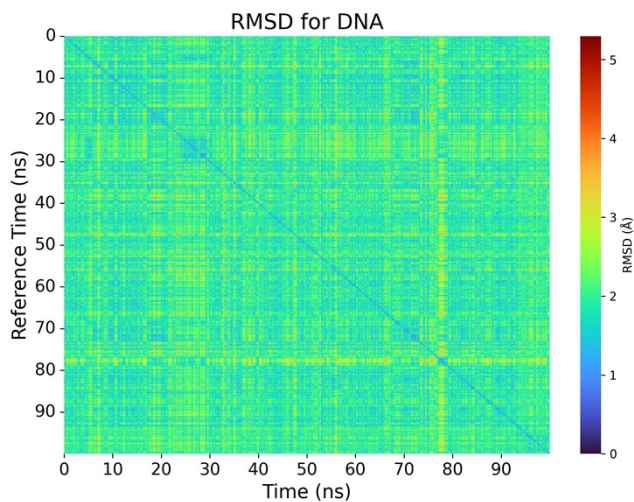


Figure S7 RMSD plot of the simulation frames for dsDNA structure within the 100 ns MD simulation used for clustering the conformations.

Table S1 Clusters conformations of ds-DNA

Clusters	Frames	Percentage
C1	90917	90.9%
C2	2941	2.94%
C3	2761	2.76%
C4	1618	1.6%
C5	1031	1.03%
None	750	0.75%

Table S2 Clusters conformations of DNA+aptamer

Clusters	Frames	Percentage
C1	68309	68.3%
C2	14788	14.79%
C3	10809	10.8%
C4	2590	2.59%
C5	1961	1.96%
None	1543	1.54%

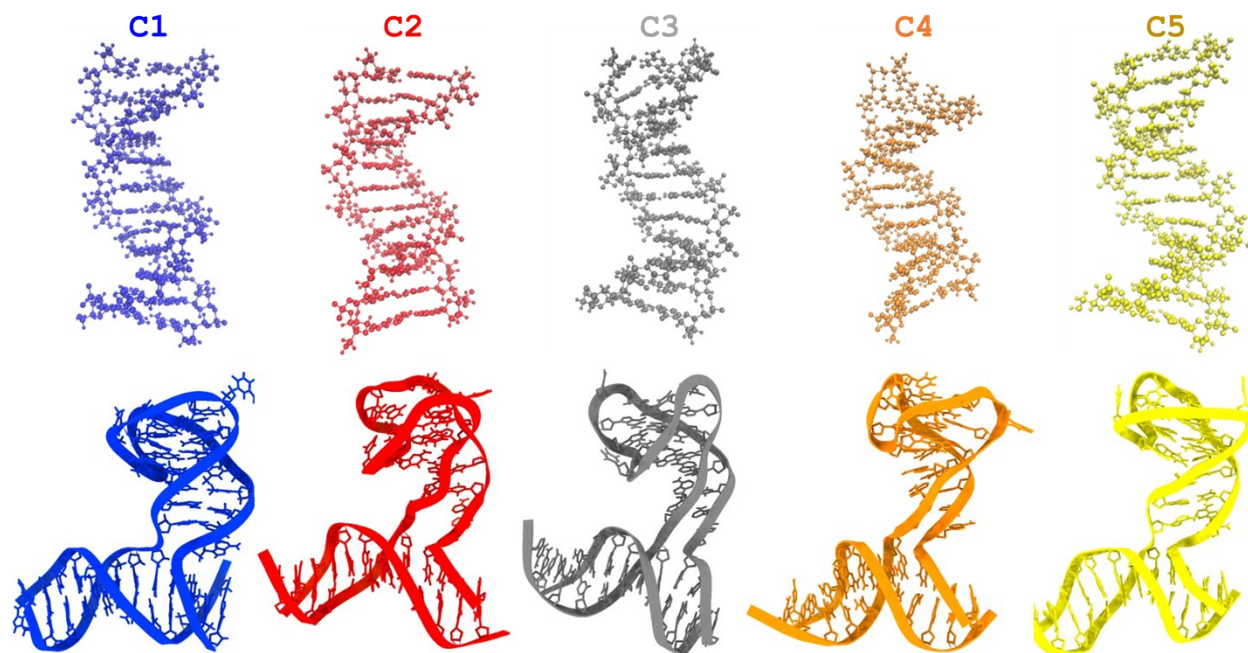


Figure S8 Conformation clusters for dsDNA (top row) and DNA+aptamer (bottom row).

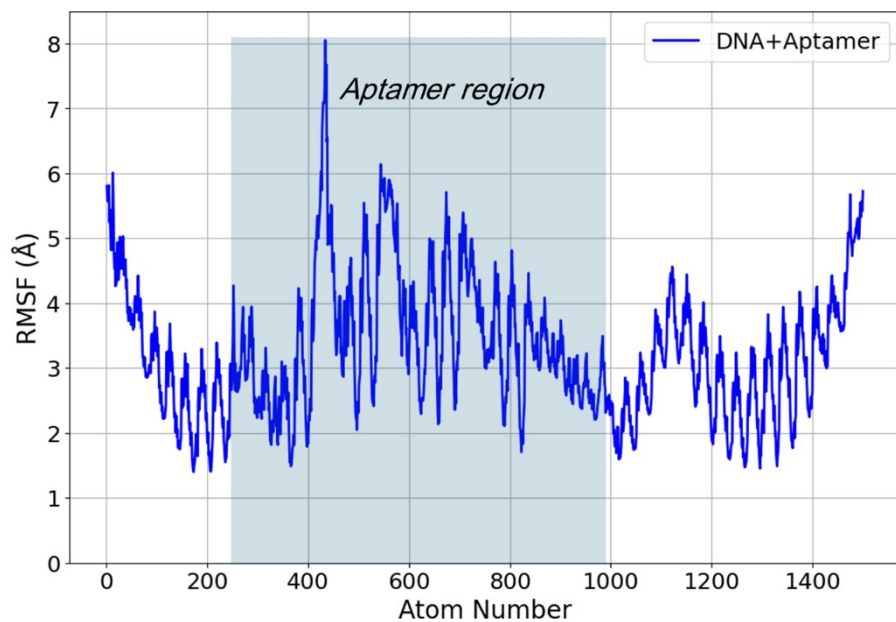


Figure S9 RMSF of the whole dsAPT structure.

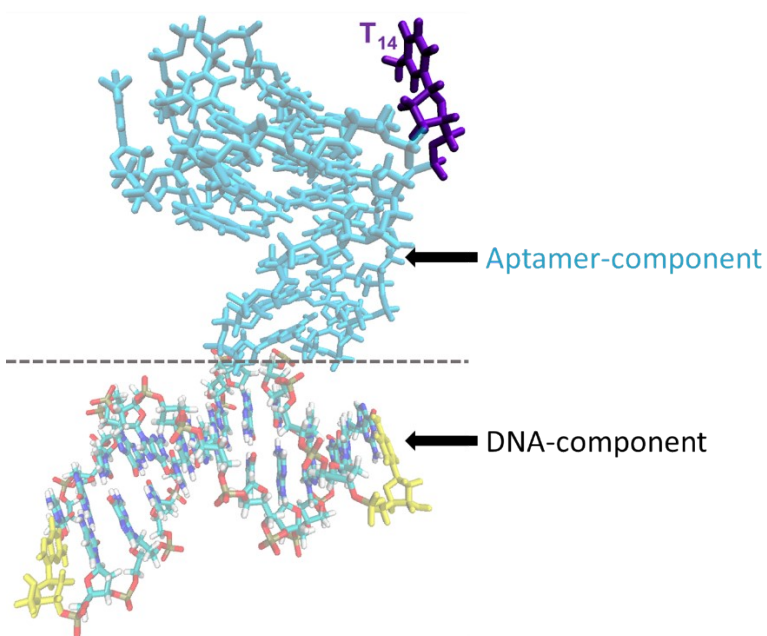


Figure S10 DNA+Aptamer, the thymine T_{14} (violet color) with the high RMSF is shown in violet. The dashed line is an eye guide to separate the aptamer- and DNA-components of the dsAPT structure.

3 Additional DOS Plots

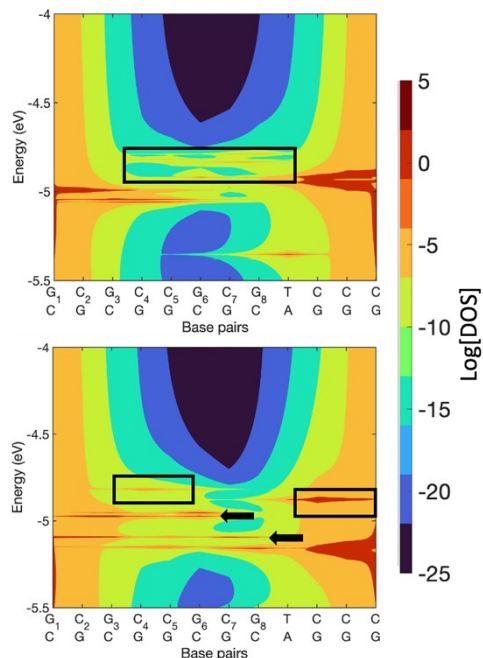


Figure S11 2D DOS plot of dsAPT and dsDNA without including decoherence broadening in the calculations. The localized DOS of the Aptamer was omitted for clarity. The black blocks highlight the molecular orbitals within -4.8 eV and -4.9 eV. The black arrows highlight the MOs of the $G_6C_7G_8$ segment.

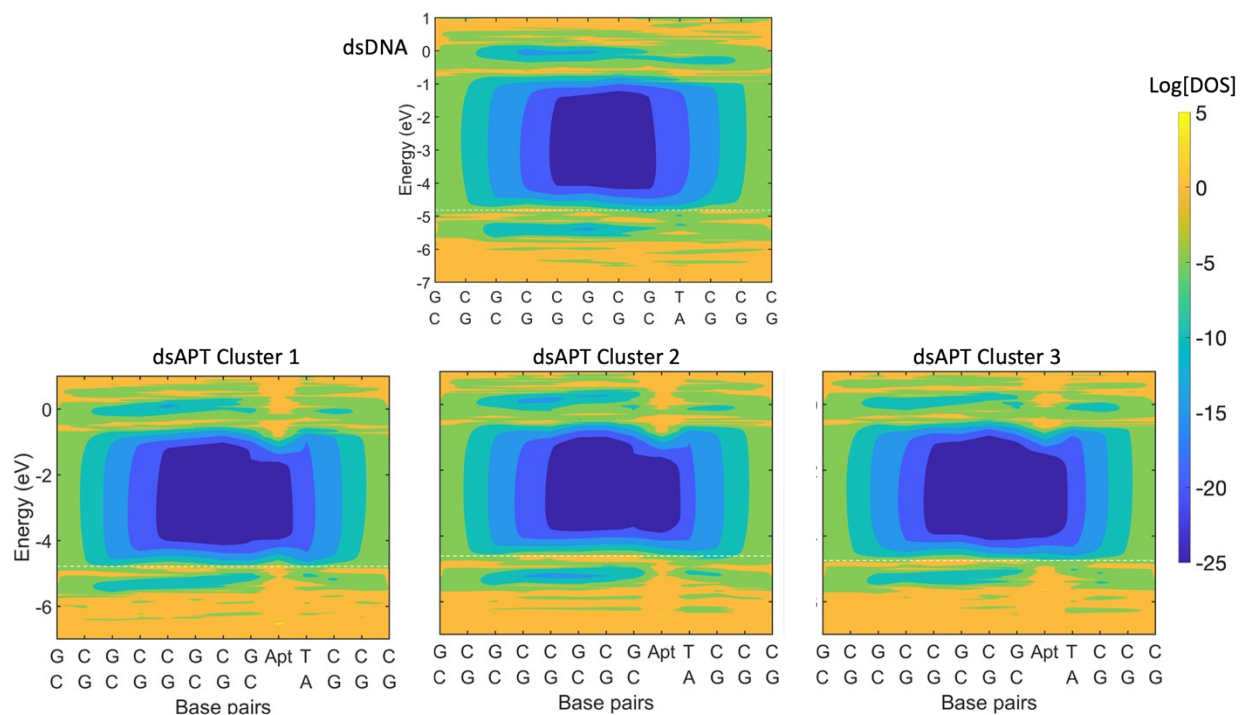


Figure S12 Overall 2D DOS plots for all structures including the aptamer, extending from HOMO region into LUMO region.

4 Transmission and Conductance with textbook B-DNA and Clusters 2 and 3 of dsAPT

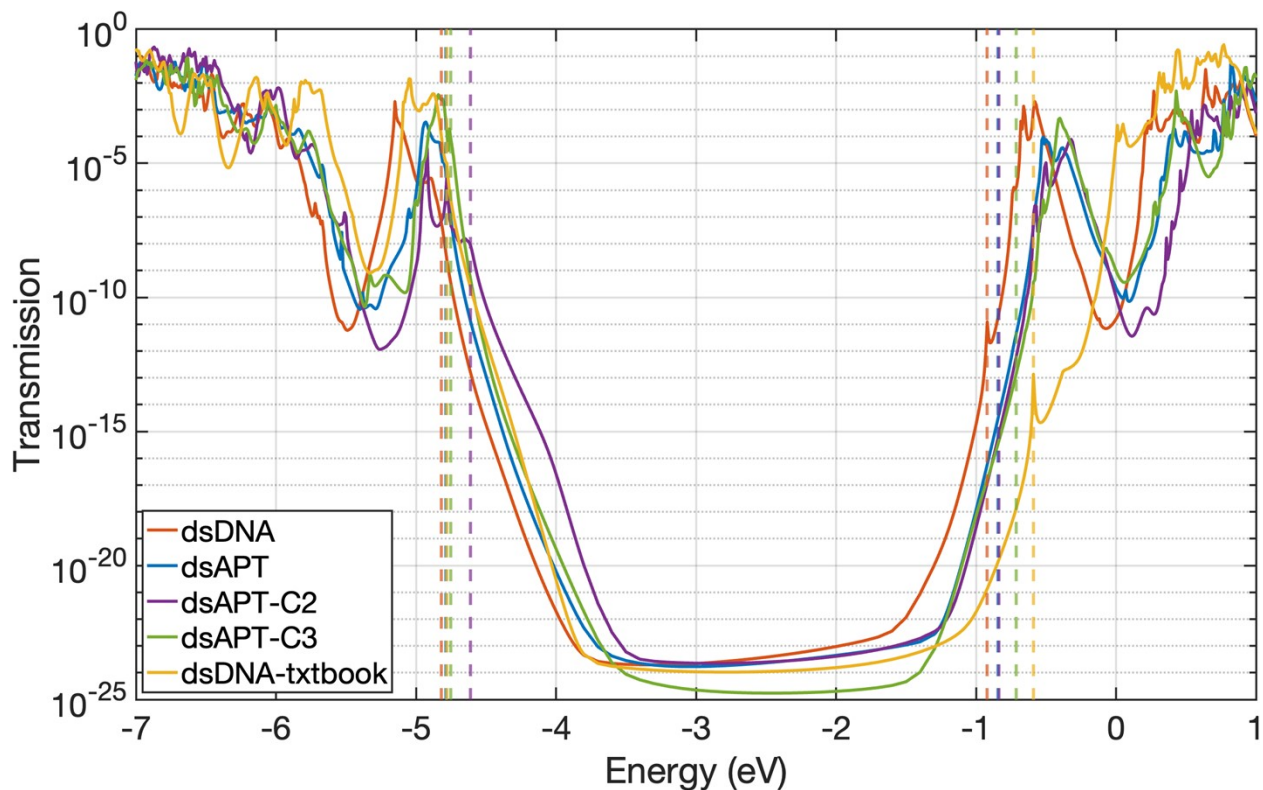


Figure S13 Transmission plots including textbook B-DNA, dsAPT cluster 2, and cluster 3.

We notice that the transmission and conductance of dsAPT-cluster 2 is lower than dsDNA. The reason can be understood from the resulting MOs distribution, which is shown in the 2D DOS plot Figure. Although the $G_6C_7G_8$ segment still contains delocalized DOS near HOMO, the conformation of cluster 2 resulted in DOS at the contact sites (terminal base-pairs) to be at much lower energy, which is inaccessible to the DOS on the $G_6C_7G_8$ segment. Thus, hindering the transmission and lowering the conductance at energy \sim HOMO. The other clusters always have high DOS regions on either contact side at energy \sim HOMO, which create a conductive path along the DOS on the $G_6C_7G_8$ segment.

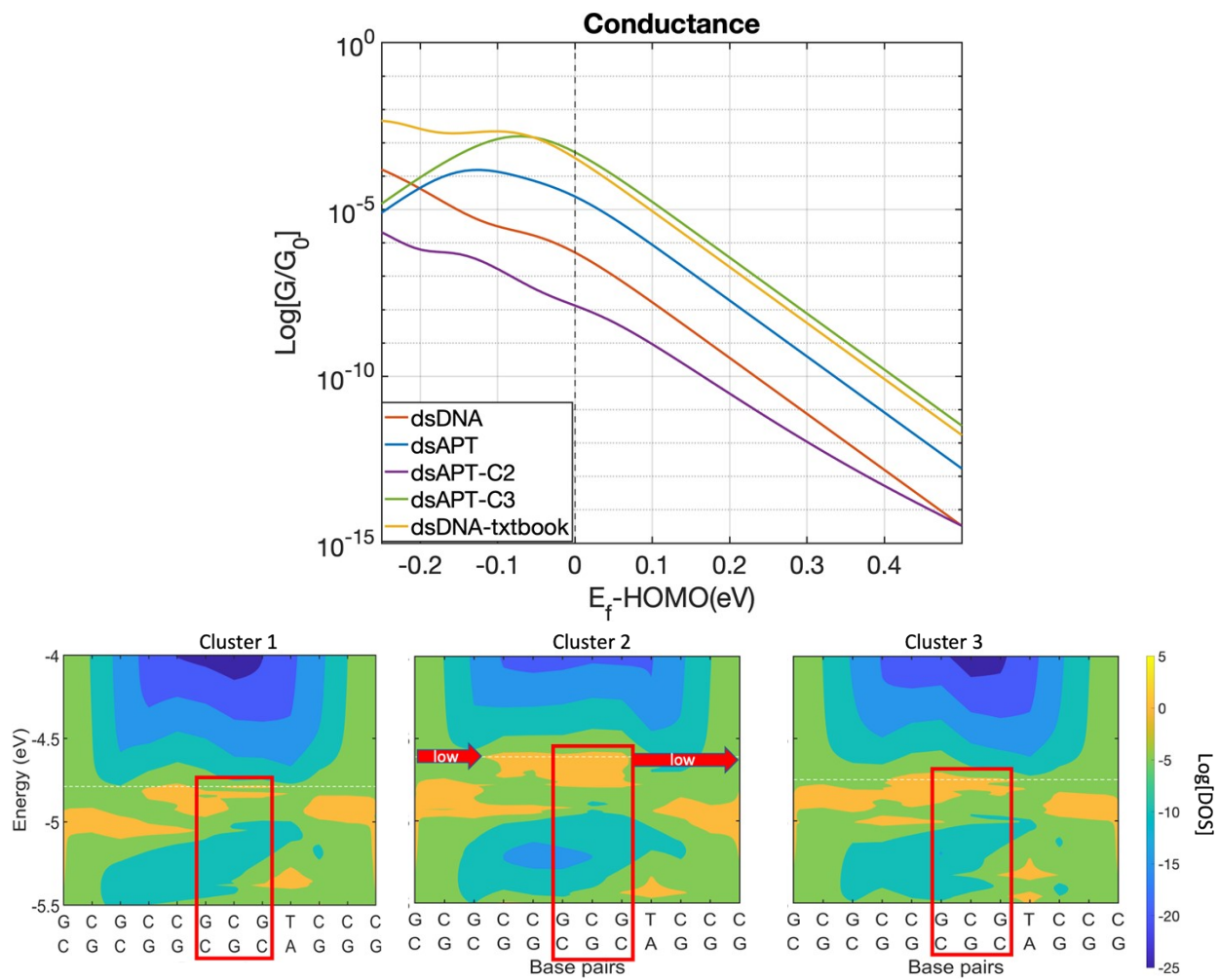


Figure S14 **Top** conductance plots. **Bottom**: Zoom-In of DOS at the HOMO edge for clusters 1, 2, and 3 of dsAPT.

5 Structural Analysis Including Clusters 2 and 3

The same trends, observations, and conclusions are applicable to cluster 2 and cluster 3 of the dsAPT structure.

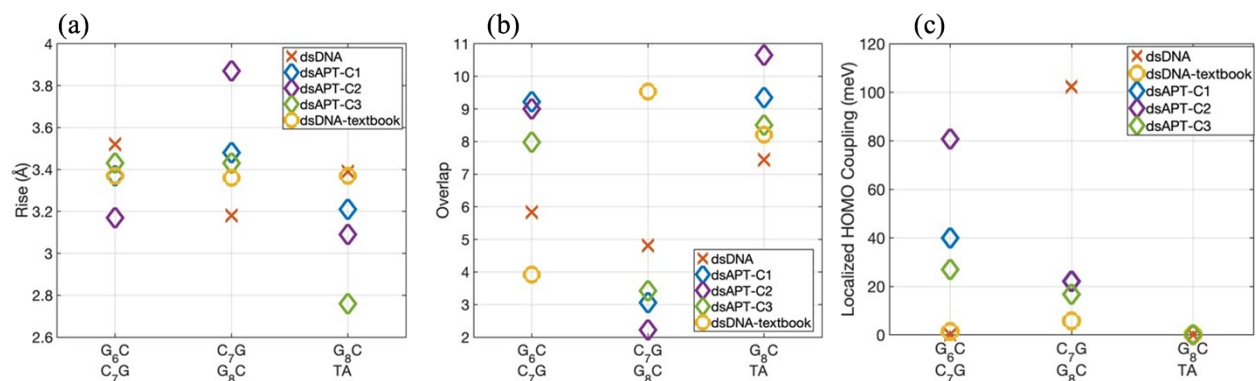


Figure S15 Rise, overlap, and localized HOMO coupling plots between the nearest neighboring base-pairs G_6C/C_7G , respectively, including clusters 2 and 3 of dsAPT.

6 Minimizing the Centroid Prior to DFT

Performing DFT calculations on structures resulting from MD simulations can encounter difficulties in convergence. From our experience, we had previous difficulties with getting convergence if we would take the centroid (or a snapshot) without minimization and run DFT calculations. That is because of the large bond lengths that could be present in the unminimized structure. However, in this case for dsAPT, we ran the calculation on the centroid of cluster 1 without prior minimization and the calculations did converge. In Figure S16 below, we show the comparison of the calculated transmission and conductance for the same structure with and without the minimization step prior to the DFT. We notice that the results are very similar. Therefore, we anticipate the trade-off between minimizing the structure to ensure DFT convergence and sacrificing some of the detailed features from MD will be justifiable.

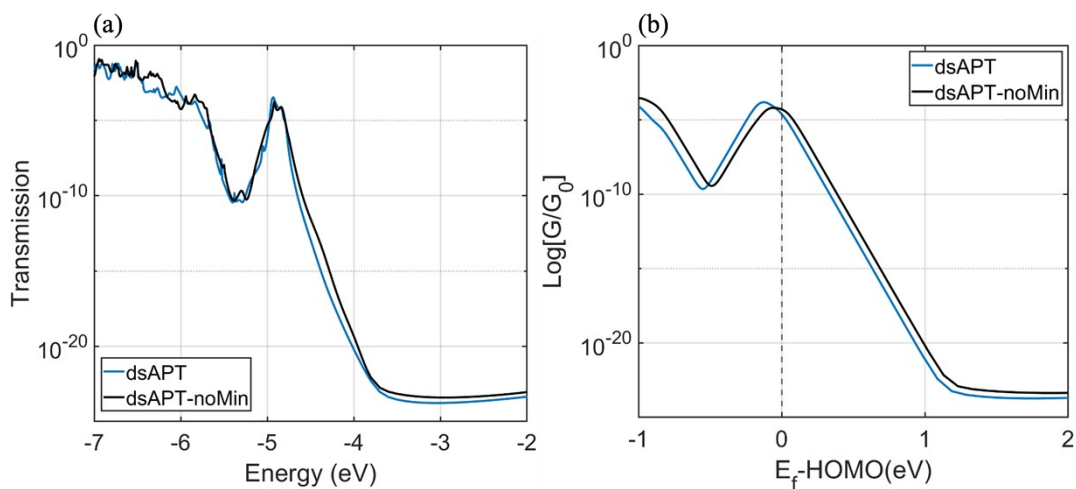


Figure S16 (a) Transmission of dsAPT cluster 1 centroid with and without the minimization step prior to DFT. (b) conductance plot of the same structures.

7 Coherent Transport

We note that the main difference between coherent and decoherent transport appears in the resonant and off-resonant transmission. The plot in Figure S18 shows that the coherent transmission has very sharp resonant peaks compared to decoherence case. However, the off-resonant transmission is orders of magnitude lower than the decoherent case.

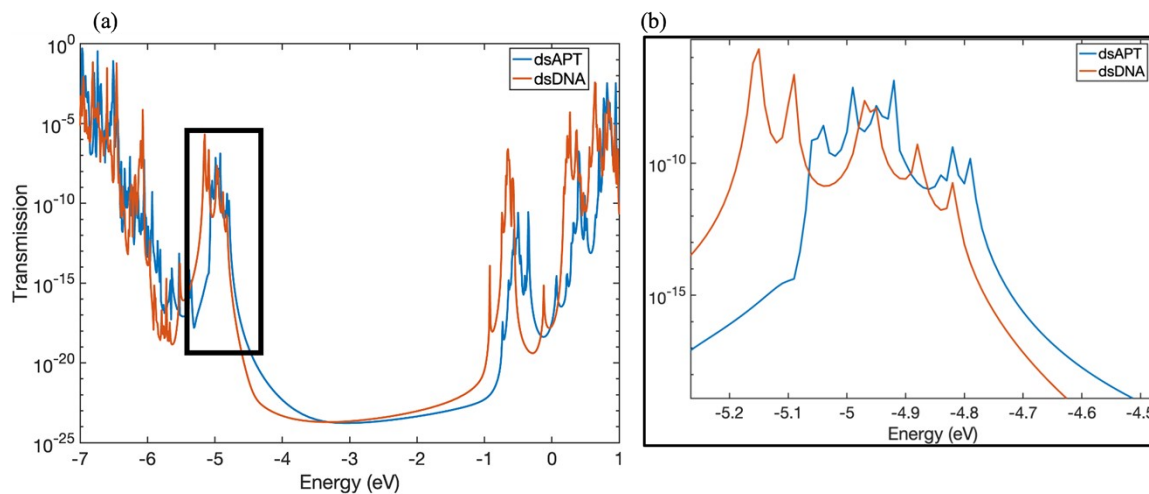


Figure S17 (a) Coherent Transmission comparing dsDNA and dsAPT structures. (b) Zoomed in version of the plot on the left at energies close to the HOMO.

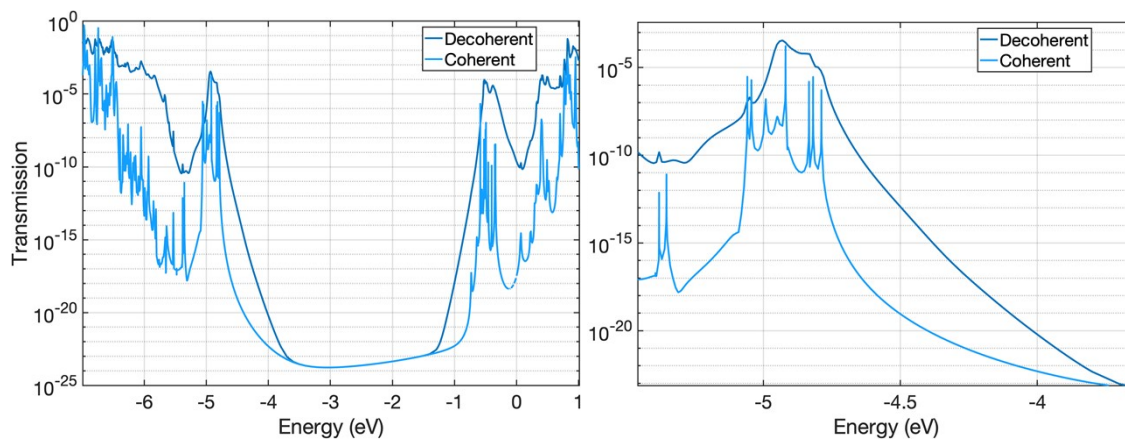


Figure S18 Coherent versus decoherent transmission for the dsAPT structure. The plot on the right is a zoomed in version of the plot on the left at energies close to the HOMO.

8 Atomic Coordinates in PDB Format

8.1 DNA without Aptamer

```
CRYST1  50.952  51.833  73.244  90.00  90.00  90.00      1
ATOM   1 HO5' DG5   1  -11.613  81.444  18.307  1.00  0.00    H
ATOM   2 O5' DG5   1  -10.661  81.612  18.509  1.00  0.00    O
ATOM   3 C5' DG5   1  -10.372  82.992  18.316  1.00  0.00    C
ATOM   4 H5' DG5   1  -10.765  83.314  17.350  1.00  0.00    H
ATOM   5 H5" DG5   1   -9.290  83.129  18.301  1.00  0.00    H
ATOM   6 C4' DG5   1  -10.958  83.892  19.416  1.00  0.00    C
ATOM   7 H4' DG5   1  -10.678  84.927  19.210  1.00  0.00    H
ATOM   8 O4' DG5   1  -12.380  83.769  19.413  1.00  0.00    O
ATOM   9 C1' DG5   1  -12.773  83.588  20.759  1.00  0.00    C
ATOM  10 H1' DG5   1  -12.753  84.557  21.266  1.00  0.00    H
ATOM  11 N9 DG5   1  -14.127  83.027  20.907  1.00  0.00    N
ATOM  12 C8 DG5   1  -14.540  81.723  20.794  1.00  0.00    C
ATOM  13 H8 DG5   1  -13.903  80.944  20.393  1.00  0.00    H
ATOM  14 N7 DG5   1  -15.752  81.510  21.234  1.00  0.00    N
ATOM  15 C5 DG5   1  -16.178  82.779  21.651  1.00  0.00    C
ATOM  16 C6 DG5   1  -17.395  83.218  22.281  1.00  0.00    C
ATOM  17 O6 DG5   1  -18.379  82.561  22.617  1.00  0.00    O
ATOM  18 N1 DG5   1  -17.418  84.568  22.554  1.00  0.00    N
ATOM  19 H1 DG5   1  -18.241  84.944  22.995  1.00  0.00    H
ATOM  20 C2 DG5   1  -16.418  85.418  22.228  1.00  0.00    C
ATOM  21 N2 DG5   1  -16.600  86.663  22.565  1.00  0.00    N
ATOM  22 H21 DG5   1  -17.427  86.928  23.081  1.00  0.00    H
ATOM  23 H22 DG5   1  -15.904  87.356  22.311  1.00  0.00    H
ATOM  24 N3 DG5   1  -15.269  85.070  21.653  1.00  0.00    N
ATOM  25 C4 DG5   1  -15.207  83.724  21.398  1.00  0.00    C
ATOM  26 C3' DG5   1  -10.480  83.524  20.838  1.00  0.00    C
ATOM  27 H3' DG5   1   -9.553  82.945  20.841  1.00  0.00    H
ATOM  28 C2' DG5   1  -11.664  82.714  21.344  1.00  0.00    C
ATOM  29 H2' DG5   1  -11.671  81.711  20.916  1.00  0.00    H
```

ATOM	30	H2"	DG5	1	-11.692	82.678	22.432	1.00	0.00	H
ATOM	31	O3'	DG5	1	-10.419	84.665	21.679	1.00	0.00	O
ATOM	32	P	DC	2	-9.068	85.301	22.204	1.00	0.00	P
ATOM	33	OP1	DC	2	-8.139	85.524	21.073	1.00	0.00	O
ATOM	34	OP2	DC	2	-8.604	84.527	23.376	1.00	0.00	O
ATOM	35	O5'	DC	2	-9.601	86.693	22.736	1.00	0.00	O
ATOM	36	C5'	DC	2	-10.159	87.678	21.872	1.00	0.00	C
ATOM	37	H5'	DC	2	-10.593	87.209	20.986	1.00	0.00	H
ATOM	38	H5"	DC	2	-9.371	88.360	21.548	1.00	0.00	H
ATOM	39	C4'	DC	2	-11.267	88.472	22.588	1.00	0.00	C
ATOM	40	H4'	DC	2	-11.481	89.371	22.006	1.00	0.00	H
ATOM	41	O4'	DC	2	-12.453	87.681	22.698	1.00	0.00	O
ATOM	42	C1'	DC	2	-12.885	87.670	24.051	1.00	0.00	C
ATOM	43	H1'	DC	2	-13.565	88.510	24.225	1.00	0.00	H
ATOM	44	N1	DC	2	-13.542	86.383	24.411	1.00	0.00	N
ATOM	45	C6	DC	2	-12.940	85.180	24.133	1.00	0.00	C
ATOM	46	H6	DC	2	-11.972	85.179	23.641	1.00	0.00	H
ATOM	47	C5	DC	2	-13.566	84.018	24.452	1.00	0.00	C
ATOM	48	H5	DC	2	-13.110	83.070	24.225	1.00	0.00	H
ATOM	49	C4	DC	2	-14.842	84.114	25.067	1.00	0.00	C
ATOM	50	N4	DC	2	-15.541	83.039	25.287	1.00	0.00	N
ATOM	51	H41	DC	2	-16.475	83.133	25.662	1.00	0.00	H
ATOM	52	H42	DC	2	-15.149	82.141	25.033	1.00	0.00	H
ATOM	53	N3	DC	2	-15.417	85.254	25.388	1.00	0.00	N
ATOM	54	C2	DC	2	-14.775	86.408	25.076	1.00	0.00	C
ATOM	55	O2	DC	2	-15.330	87.467	25.380	1.00	0.00	O
ATOM	56	C3'	DC	2	-10.852	88.881	24.009	1.00	0.00	C
ATOM	57	H3'	DC	2	-9.777	88.741	24.130	1.00	0.00	H
ATOM	58	C2'	DC	2	-11.621	87.887	24.868	1.00	0.00	C
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ATOM	60	H2"	DC	2	-11.855	88.293	25.849	1.00	0.00	H
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ATOM	62	P	DG	3	-10.554	90.971	25.572	1.00	0.00	P
ATOM	63	OP1	DG	3	-10.552	92.413	25.266	1.00	0.00	O

ATOM	64	OP2	DG	3	-9.266	90.316	25.907	1.00	0.00	O
ATOM	65	O5'	DG	3	-11.547	90.701	26.783	1.00	0.00	O
ATOM	66	C5'	DG	3	-12.804	91.359	26.872	1.00	0.00	C
ATOM	67	H5'	DG	3	-13.378	91.185	25.964	1.00	0.00	H
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ATOM	75	C8	DG	3	-12.552	86.772	28.140	1.00	0.00	C
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ATOM	78	C5	DG	3	-13.951	85.206	28.499	1.00	0.00	C
ATOM	79	C6	DG	3	-14.694	83.976	28.619	1.00	0.00	C
ATOM	80	O6	DG	3	-14.390	82.838	28.247	1.00	0.00	O
ATOM	81	N1	DG	3	-15.903	84.128	29.266	1.00	0.00	N
ATOM	82	H1	DG	3	-16.514	83.326	29.310	1.00	0.00	H
ATOM	83	C2	DG	3	-16.320	85.299	29.806	1.00	0.00	C
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ATOM	85	H21	DG	3	-18.011	84.451	30.490	1.00	0.00	H
ATOM	86	H22	DG	3	-17.741	86.166	30.861	1.00	0.00	H
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ATOM	92	H2'	DG	3	-11.706	89.160	29.300	1.00	0.00	H
ATOM	93	H2"	DG	3	-12.632	89.313	30.822	1.00	0.00	H
ATOM	94	O3'	DG	3	-13.652	91.687	30.345	1.00	0.00	O
ATOM	95	P	DC	4	-13.087	92.097	31.782	1.00	0.00	P
ATOM	96	OP1	DC	4	-13.840	93.286	32.244	1.00	0.00	O
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ATOM	98	O5'	DC	4	-13.455	90.860	32.712	1.00	0.00	O
ATOM	99	C5'	DC	4	-14.811	90.562	33.011	1.00	0.00	C
ATOM	100	H5'	DC	4	-15.379	90.506	32.081	1.00	0.00	H
ATOM	101	H5"	DC	4	-15.227	91.369	33.612	1.00	0.00	H
ATOM	102	C4'	DC	4	-15.000	89.237	33.760	1.00	0.00	C
ATOM	103	H4'	DC	4	-16.017	89.218	34.149	1.00	0.00	H
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ATOM	105	C1'	DC	4	-14.114	87.136	33.601	1.00	0.00	C
ATOM	106	H1'	DC	4	-14.794	86.664	34.322	1.00	0.00	H
ATOM	107	N1	DC	4	-13.537	86.084	32.714	1.00	0.00	N
ATOM	108	C6	DC	4	-12.386	86.287	31.991	1.00	0.00	C
ATOM	109	H6	DC	4	-11.905	87.258	31.998	1.00	0.00	H
ATOM	110	C5	DC	4	-11.849	85.271	31.270	1.00	0.00	C
ATOM	111	H5	DC	4	-10.945	85.430	30.704	1.00	0.00	H
ATOM	112	C4	DC	4	-12.527	84.026	31.288	1.00	0.00	C
ATOM	113	N4	DC	4	-12.038	82.997	30.659	1.00	0.00	N
ATOM	114	H41	DC	4	-12.475	82.115	30.888	1.00	0.00	H
ATOM	115	H42	DC	4	-11.066	83.049	30.386	1.00	0.00	H
ATOM	116	N3	DC	4	-13.656	83.816	31.928	1.00	0.00	N
ATOM	117	C2	DC	4	-14.182	84.838	32.648	1.00	0.00	C
ATOM	118	O2	DC	4	-15.241	84.619	33.241	1.00	0.00	O
ATOM	119	C3'	DC	4	-14.052	89.028	34.951	1.00	0.00	C
ATOM	120	H3'	DC	4	-13.524	89.940	35.241	1.00	0.00	H
ATOM	121	C2'	DC	4	-13.105	87.977	34.389	1.00	0.00	C
ATOM	122	H2'	DC	4	-12.378	88.452	33.736	1.00	0.00	H
ATOM	123	H2"	DC	4	-12.616	87.410	35.180	1.00	0.00	H
ATOM	124	O3'	DC	4	-14.735	88.420	36.031	1.00	0.00	O
ATOM	125	P	DC	5	-15.083	89.189	37.367	1.00	0.00	P
ATOM	126	OP1	DC	5	-15.866	90.410	37.071	1.00	0.00	O
ATOM	127	OP2	DC	5	-13.857	89.288	38.189	1.00	0.00	O
ATOM	128	O5'	DC	5	-16.068	88.148	38.062	1.00	0.00	O
ATOM	129	C5'	DC	5	-17.358	87.902	37.504	1.00	0.00	C
ATOM	130	H5'	DC	5	-17.411	88.291	36.486	1.00	0.00	H
ATOM	131	H5"	DC	5	-18.115	88.413	38.100	1.00	0.00	H

ATOM	132	C4'	DC	5	-17.702	86.413	37.422	1.00	0.00	C
ATOM	133	H4'	DC	5	-18.714	86.329	37.030	1.00	0.00	H
ATOM	134	O4'	DC	5	-16.801	85.749	36.542	1.00	0.00	O
ATOM	135	C1'	DC	5	-16.400	84.525	37.129	1.00	0.00	C
ATOM	136	H1'	DC	5	-17.147	83.754	36.916	1.00	0.00	H
ATOM	137	N1	DC	5	-15.059	84.133	36.609	1.00	0.00	N
ATOM	138	C6	DC	5	-14.011	85.020	36.659	1.00	0.00	C
ATOM	139	H6	DC	5	-14.173	86.007	37.082	1.00	0.00	H
ATOM	140	C5	DC	5	-12.796	84.664	36.173	1.00	0.00	C
ATOM	141	H5	DC	5	-11.970	85.354	36.214	1.00	0.00	H
ATOM	142	C4	DC	5	-12.667	83.372	35.604	1.00	0.00	C
ATOM	143	N4	DC	5	-11.529	83.016	35.077	1.00	0.00	N
ATOM	144	H41	DC	5	-11.444	82.140	34.588	1.00	0.00	H
ATOM	145	H42	DC	5	-10.724	83.628	35.138	1.00	0.00	H
ATOM	146	N3	DC	5	-13.663	82.508	35.527	1.00	0.00	N
ATOM	147	C2	DC	5	-14.866	82.860	36.049	1.00	0.00	C
ATOM	148	O2	DC	5	-15.765	82.012	36.016	1.00	0.00	O
ATOM	149	C3'	DC	5	-17.649	85.694	38.772	1.00	0.00	C
ATOM	150	H3'	DC	5	-17.529	86.422	39.576	1.00	0.00	H
ATOM	151	C2'	DC	5	-16.399	84.831	38.626	1.00	0.00	C
ATOM	152	H2'	DC	5	-15.521	85.413	38.909	1.00	0.00	H
ATOM	153	H2"	DC	5	-16.460	83.923	39.220	1.00	0.00	H
ATOM	154	O3'	DC	5	-18.834	84.930	38.970	1.00	0.00	O
ATOM	155	P	DG	6	-19.180	84.287	40.390	1.00	0.00	P
ATOM	156	OP1	DG	6	-20.627	84.495	40.625	1.00	0.00	O
ATOM	157	OP2	DG	6	-18.219	84.801	41.386	1.00	0.00	O
ATOM	158	O5'	DG	6	-18.910	82.723	40.197	1.00	0.00	O
ATOM	159	C5'	DG	6	-19.801	81.945	39.408	1.00	0.00	C
ATOM	160	H5'	DG	6	-19.798	82.329	38.387	1.00	0.00	H
ATOM	161	H5"	DG	6	-20.808	82.058	39.804	1.00	0.00	H
ATOM	162	C4'	DG	6	-19.517	80.439	39.359	1.00	0.00	C
ATOM	163	H4'	DG	6	-20.286	80.001	38.727	1.00	0.00	H
ATOM	164	O4'	DG	6	-18.263	80.171	38.753	1.00	0.00	O
ATOM	165	C1'	DG	6	-17.412	79.513	39.677	1.00	0.00	C

ATOM	166	H1'	DG	6	-17.366	78.441	39.455	1.00	0.00	H
ATOM	167	N9	DG	6	-16.074	80.123	39.516	1.00	0.00	N
ATOM	168	C8	DG	6	-15.645	81.359	39.926	1.00	0.00	C
ATOM	169	H8	DG	6	-16.277	82.014	40.515	1.00	0.00	H
ATOM	170	N7	DG	6	-14.445	81.680	39.516	1.00	0.00	N
ATOM	171	C5	DG	6	-14.043	80.556	38.770	1.00	0.00	C
ATOM	172	C6	DG	6	-12.837	80.259	38.033	1.00	0.00	C
ATOM	173	O6	DG	6	-11.826	80.943	37.859	1.00	0.00	O
ATOM	174	N1	DG	6	-12.847	79.013	37.442	1.00	0.00	N
ATOM	175	H1	DG	6	-12.036	78.740	36.909	1.00	0.00	H
ATOM	176	C2	DG	6	-13.885	78.150	37.518	1.00	0.00	C
ATOM	177	N2	DG	6	-13.760	77.003	36.915	1.00	0.00	N
ATOM	178	H21	DG	6	-12.911	76.791	36.399	1.00	0.00	H
ATOM	179	H22	DG	6	-14.492	76.320	37.033	1.00	0.00	H
ATOM	180	N3	DG	6	-15.034	78.387	38.142	1.00	0.00	N
ATOM	181	C4	DG	6	-15.044	79.604	38.769	1.00	0.00	C
ATOM	182	C3'	DG	6	-19.537	79.708	40.708	1.00	0.00	C
ATOM	183	H3'	DG	6	-20.119	80.254	41.454	1.00	0.00	H
ATOM	184	C2'	DG	6	-18.051	79.704	41.054	1.00	0.00	C
ATOM	185	H2'	DG	6	-17.779	80.662	41.497	1.00	0.00	H
ATOM	186	H2"	DG	6	-17.793	78.894	41.731	1.00	0.00	H
ATOM	187	O3'	DG	6	-20.098	78.421	40.460	1.00	0.00	O
ATOM	188	P	DC	7	-20.252	77.278	41.570	1.00	0.00	P
ATOM	189	OP1	DC	7	-21.368	76.416	41.126	1.00	0.00	O
ATOM	190	OP2	DC	7	-20.321	77.914	42.903	1.00	0.00	O
ATOM	191	O5'	DC	7	-18.883	76.465	41.483	1.00	0.00	O
ATOM	192	C5'	DC	7	-18.587	75.645	40.363	1.00	0.00	C
ATOM	193	H5'	DC	7	-18.711	76.227	39.449	1.00	0.00	H
ATOM	194	H5"	DC	7	-19.290	74.813	40.335	1.00	0.00	H
ATOM	195	C4'	DC	7	-17.156	75.087	40.382	1.00	0.00	C
ATOM	196	H4'	DC	7	-17.040	74.442	39.511	1.00	0.00	H
ATOM	197	O4'	DC	7	-16.213	76.153	40.292	1.00	0.00	O
ATOM	198	C1'	DC	7	-15.181	75.906	41.228	1.00	0.00	C
ATOM	199	H1'	DC	7	-14.495	75.158	40.817	1.00	0.00	H

ATOM	200	N1	DC	7	-14.442	77.166	41.534	1.00	0.00	N
ATOM	201	C6	DC	7	-14.982	78.154	42.324	1.00	0.00	C
ATOM	202	H6	DC	7	-15.952	78.007	42.785	1.00	0.00	H
ATOM	203	C5	DC	7	-14.309	79.317	42.514	1.00	0.00	C
ATOM	204	H5	DC	7	-14.737	80.090	43.134	1.00	0.00	H
ATOM	205	C4	DC	7	-13.050	79.459	41.870	1.00	0.00	C
ATOM	206	N4	DC	7	-12.359	80.551	42.008	1.00	0.00	N
ATOM	207	H41	DC	7	-11.481	80.621	41.507	1.00	0.00	H
ATOM	208	H42	DC	7	-12.703	81.281	42.607	1.00	0.00	H
ATOM	209	N3	DC	7	-12.512	78.530	41.109	1.00	0.00	N
ATOM	210	C2	DC	7	-13.191	77.373	40.933	1.00	0.00	C
ATOM	211	O2	DC	7	-12.652	76.516	40.229	1.00	0.00	O
ATOM	212	C3'	DC	7	-16.792	74.260	41.628	1.00	0.00	C
ATOM	213	H3'	DC	7	-17.682	73.992	42.201	1.00	0.00	H
ATOM	214	C2'	DC	7	-15.920	75.253	42.396	1.00	0.00	C
ATOM	215	H2'	DC	7	-16.563	75.960	42.916	1.00	0.00	H
ATOM	216	H2''	DC	7	-15.241	74.769	43.097	1.00	0.00	H
ATOM	217	O3'	DC	7	-16.083	73.097	41.204	1.00	0.00	O
ATOM	218	P	DG	8	-15.574	71.978	42.215	1.00	0.00	P
ATOM	219	OP1	DG	8	-15.422	70.714	41.451	1.00	0.00	O
ATOM	220	OP2	DG	8	-16.426	71.955	43.415	1.00	0.00	O
ATOM	221	O5'	DG	8	-14.136	72.481	42.667	1.00	0.00	O
ATOM	222	C5'	DG	8	-12.985	72.242	41.882	1.00	0.00	C
ATOM	223	H5'	DG	8	-13.108	72.688	40.896	1.00	0.00	H
ATOM	224	H5''	DG	8	-12.870	71.168	41.767	1.00	0.00	H
ATOM	225	C4'	DG	8	-11.704	72.777	42.530	1.00	0.00	C
ATOM	226	H4'	DG	8	-10.859	72.291	42.041	1.00	0.00	H
ATOM	227	O4'	DG	8	-11.573	74.190	42.374	1.00	0.00	O
ATOM	228	C1'	DG	8	-11.072	74.665	43.612	1.00	0.00	C
ATOM	229	H1'	DG	8	-10.022	74.374	43.707	1.00	0.00	H
ATOM	230	N9	DG	8	-11.120	76.132	43.767	1.00	0.00	N
ATOM	231	C8	DG	8	-12.042	76.921	44.414	1.00	0.00	C
ATOM	232	H8	DG	8	-12.961	76.528	44.833	1.00	0.00	H
ATOM	233	N7	DG	8	-11.699	78.180	44.496	1.00	0.00	N

ATOM	234	C5	DG	8	-10.453	78.226	43.851	1.00	0.00	C
ATOM	235	C6	DG	8	-9.538	79.311	43.611	1.00	0.00	C
ATOM	236	O6	DG	8	-9.645	80.503	43.903	1.00	0.00	O
ATOM	237	N1	DG	8	-8.383	78.926	42.961	1.00	0.00	N
ATOM	238	H1	DG	8	-7.699	79.638	42.755	1.00	0.00	H
ATOM	239	C2	DG	8	-8.131	77.662	42.555	1.00	0.00	C
ATOM	240	N2	DG	8	-7.006	77.472	41.924	1.00	0.00	N
ATOM	241	H21	DG	8	-6.367	78.249	41.774	1.00	0.00	H
ATOM	242	H22	DG	8	-6.773	76.552	41.601	1.00	0.00	H
ATOM	243	N3	DG	8	-8.940	76.621	42.743	1.00	0.00	N
ATOM	244	C4	DG	8	-10.094	76.973	43.400	1.00	0.00	C
ATOM	245	C3'	DG	8	-11.614	72.485	44.040	1.00	0.00	C
ATOM	246	H3'	DG	8	-12.351	71.750	44.376	1.00	0.00	H
ATOM	247	C2'	DG	8	-11.886	73.864	44.624	1.00	0.00	C
ATOM	248	H2'	DG	8	-12.948	74.109	44.564	1.00	0.00	H
ATOM	249	H2''	DG	8	-11.508	73.958	45.641	1.00	0.00	H
ATOM	250	O3'	DG	8	-10.285	72.123	44.379	1.00	0.00	O
ATOM	251	P	DT	9	-9.900	70.653	44.811	1.00	0.00	P
ATOM	252	OP1	DT	9	-10.704	69.683	44.043	1.00	0.00	O
ATOM	253	OP2	DT	9	-9.894	70.604	46.289	1.00	0.00	O
ATOM	254	O5'	DT	9	-8.403	70.601	44.293	1.00	0.00	O
ATOM	255	C5'	DT	9	-8.135	70.418	42.912	1.00	0.00	C
ATOM	256	H5'	DT	9	-8.918	70.892	42.317	1.00	0.00	H
ATOM	257	H5''	DT	9	-8.137	69.351	42.687	1.00	0.00	H
ATOM	258	C4'	DT	9	-6.799	71.031	42.486	1.00	0.00	C
ATOM	259	H4'	DT	9	-6.646	70.771	41.439	1.00	0.00	H
ATOM	260	O4'	DT	9	-6.847	72.452	42.620	1.00	0.00	O
ATOM	261	C1'	DT	9	-5.804	72.881	43.486	1.00	0.00	C
ATOM	262	H1'	DT	9	-4.924	73.138	42.889	1.00	0.00	H
ATOM	263	N1	DT	9	-6.254	74.057	44.286	1.00	0.00	N
ATOM	264	C6	DT	9	-7.343	73.956	45.130	1.00	0.00	C
ATOM	265	H6	DT	9	-7.881	73.017	45.189	1.00	0.00	H
ATOM	266	C5	DT	9	-7.752	75.015	45.879	1.00	0.00	C
ATOM	267	C7	DT	9	-8.948	74.858	46.798	1.00	0.00	C

ATOM	268	H71	DT	9	-8.642	75.052	47.827	1.00	0.00	H
ATOM	269	H72	DT	9	-9.710	75.588	46.526	1.00	0.00	H
ATOM	270	H73	DT	9	-9.368	73.854	46.734	1.00	0.00	H
ATOM	271	C4	DT	9	-7.057	76.298	45.805	1.00	0.00	C
ATOM	272	O4	DT	9	-7.345	77.319	46.435	1.00	0.00	O
ATOM	273	N3	DT	9	-5.995	76.324	44.926	1.00	0.00	N
ATOM	274	H3	DT	9	-5.492	77.197	44.843	1.00	0.00	H
ATOM	275	C2	DT	9	-5.555	75.268	44.156	1.00	0.00	C
ATOM	276	O2	DT	9	-4.598	75.425	43.394	1.00	0.00	O
ATOM	277	C3'	DT	9	-5.605	70.529	43.307	1.00	0.00	C
ATOM	278	H3'	DT	9	-5.840	69.581	43.798	1.00	0.00	H
ATOM	279	C2'	DT	9	-5.454	71.654	44.327	1.00	0.00	C
ATOM	280	H2'	DT	9	-6.158	71.512	45.146	1.00	0.00	H
ATOM	281	H2''	DT	9	-4.445	71.708	44.718	1.00	0.00	H
ATOM	282	O3'	DT	9	-4.478	70.382	42.449	1.00	0.00	O
ATOM	283	P	DC	10	-3.071	69.826	42.965	1.00	0.00	P
ATOM	284	OP1	DC	10	-2.444	69.081	41.853	1.00	0.00	O
ATOM	285	OP2	DC	10	-3.255	69.144	44.265	1.00	0.00	O
ATOM	286	O5'	DC	10	-2.214	71.138	43.213	1.00	0.00	O
ATOM	287	C5'	DC	10	-1.703	71.876	42.110	1.00	0.00	C
ATOM	288	H5'	DC	10	-2.534	72.270	41.524	1.00	0.00	H
ATOM	289	H5''	DC	10	-1.117	71.215	41.471	1.00	0.00	H
ATOM	290	C4'	DC	10	-0.797	73.041	42.508	1.00	0.00	C
ATOM	291	H4'	DC	10	-0.424	73.501	41.593	1.00	0.00	H
ATOM	292	O4'	DC	10	-1.553	73.993	43.247	1.00	0.00	O
ATOM	293	C1'	DC	10	-0.930	74.192	44.506	1.00	0.00	C
ATOM	294	H1'	DC	10	-0.241	75.039	44.427	1.00	0.00	H
ATOM	295	N1	DC	10	-1.974	74.483	45.531	1.00	0.00	N
ATOM	296	C6	DC	10	-2.807	73.508	46.021	1.00	0.00	C
ATOM	297	H6	DC	10	-2.676	72.484	45.698	1.00	0.00	H
ATOM	298	C5	DC	10	-3.790	73.828	46.900	1.00	0.00	C
ATOM	299	H5	DC	10	-4.440	73.062	47.290	1.00	0.00	H
ATOM	300	C4	DC	10	-3.915	75.191	47.280	1.00	0.00	C
ATOM	301	N4	DC	10	-4.845	75.554	48.115	1.00	0.00	N

ATOM	302	H41	DC	10	-4.908	76.529	48.369	1.00	0.00	H
ATOM	303	H42	DC	10	-5.376	74.839	48.596	1.00	0.00	H
ATOM	304	N3	DC	10	-3.140	76.145	46.805	1.00	0.00	N
ATOM	305	C2	DC	10	-2.153	75.807	45.940	1.00	0.00	C
ATOM	306	O2	DC	10	-1.406	76.704	45.546	1.00	0.00	O
ATOM	307	C3'	DC	10	0.404	72.614	43.363	1.00	0.00	C
ATOM	308	H3'	DC	10	0.594	71.544	43.247	1.00	0.00	H
ATOM	309	C2'	DC	10	-0.088	72.940	44.767	1.00	0.00	C
ATOM	310	H2'	DC	10	-0.680	72.108	45.137	1.00	0.00	H
ATOM	311	H2''	DC	10	0.732	73.145	45.454	1.00	0.00	H
ATOM	312	O3'	DC	10	1.550	73.376	43.000	1.00	0.00	O
ATOM	313	P	DC	11	3.021	72.955	43.455	1.00	0.00	P
ATOM	314	OP1	DC	11	3.969	73.569	42.503	1.00	0.00	O
ATOM	315	OP2	DC	11	3.075	71.492	43.637	1.00	0.00	O
ATOM	316	O5'	DC	11	3.191	73.669	44.867	1.00	0.00	O
ATOM	317	C5'	DC	11	3.319	75.085	44.928	1.00	0.00	C
ATOM	318	H5'	DC	11	2.652	75.548	44.203	1.00	0.00	H
ATOM	319	H5''	DC	11	4.341	75.365	44.669	1.00	0.00	H
ATOM	320	C4'	DC	11	2.977	75.684	46.293	1.00	0.00	C
ATOM	321	H4'	DC	11	3.157	76.757	46.229	1.00	0.00	H
ATOM	322	O4'	DC	11	1.610	75.459	46.646	1.00	0.00	O
ATOM	323	C1'	DC	11	1.597	75.301	48.051	1.00	0.00	C
ATOM	324	H1'	DC	11	1.827	76.267	48.516	1.00	0.00	H
ATOM	325	N1	DC	11	0.294	74.812	48.582	1.00	0.00	N
ATOM	326	C6	DC	11	-0.092	73.497	48.477	1.00	0.00	C
ATOM	327	H6	DC	11	0.518	72.799	47.917	1.00	0.00	H
ATOM	328	C5	DC	11	-1.232	73.073	49.081	1.00	0.00	C
ATOM	329	H5	DC	11	-1.535	72.041	49.005	1.00	0.00	H
ATOM	330	C4	DC	11	-1.986	74.036	49.804	1.00	0.00	C
ATOM	331	N4	DC	11	-3.095	73.711	50.396	1.00	0.00	N
ATOM	332	H41	DC	11	-3.596	74.465	50.854	1.00	0.00	H
ATOM	333	H42	DC	11	-3.450	72.773	50.345	1.00	0.00	H
ATOM	334	N3	DC	11	-1.648	75.303	49.893	1.00	0.00	N
ATOM	335	C2	DC	11	-0.513	75.718	49.288	1.00	0.00	C

ATOM	336	O2	DC	11	-0.218	76.907	49.404	1.00	0.00	O
ATOM	337	C3'	DC	11	3.828	75.134	47.445	1.00	0.00	C
ATOM	338	H3'	DC	11	4.628	74.482	47.089	1.00	0.00	H
ATOM	339	C2'	DC	11	2.794	74.373	48.263	1.00	0.00	C
ATOM	340	H2'	DC	11	2.625	73.390	47.825	1.00	0.00	H
ATOM	341	H2''	DC	11	3.088	74.293	49.309	1.00	0.00	H
ATOM	342	O3'	DC	11	4.313	76.195	48.245	1.00	0.00	O
ATOM	343	P	DC3	12	5.862	76.375	48.515	1.00	0.00	P
ATOM	344	OP1	DC3	12	6.529	76.703	47.234	1.00	0.00	O
ATOM	345	OP2	DC3	12	6.335	75.209	49.294	1.00	0.00	O
ATOM	346	O5'	DC3	12	5.857	77.682	49.434	1.00	0.00	O
ATOM	347	C5'	DC3	12	5.693	78.974	48.851	1.00	0.00	C
ATOM	348	H5'	DC3	12	5.152	78.877	47.909	1.00	0.00	H
ATOM	349	H5''	DC3	12	6.676	79.391	48.630	1.00	0.00	H
ATOM	350	C4'	DC3	12	4.899	79.976	49.705	1.00	0.00	C
ATOM	351	H4'	DC3	12	4.837	80.915	49.151	1.00	0.00	H
ATOM	352	O4'	DC3	12	3.580	79.466	49.921	1.00	0.00	O
ATOM	353	C1'	DC3	12	3.314	79.464	51.317	1.00	0.00	C
ATOM	354	H1'	DC3	12	2.850	80.417	51.600	1.00	0.00	H
ATOM	355	N1	DC3	12	2.449	78.317	51.703	1.00	0.00	N
ATOM	356	C6	DC3	12	2.725	77.051	51.245	1.00	0.00	C
ATOM	357	H6	DC3	12	3.561	76.905	50.569	1.00	0.00	H
ATOM	358	C5	DC3	12	1.961	76.003	51.643	1.00	0.00	C
ATOM	359	H5	DC3	12	2.172	75.006	51.294	1.00	0.00	H
ATOM	360	C4	DC3	12	0.890	76.281	52.530	1.00	0.00	C
ATOM	361	N4	DC3	12	0.095	75.340	52.929	1.00	0.00	N
ATOM	362	H41	DC3	12	-0.746	75.604	53.430	1.00	0.00	H
ATOM	363	H42	DC3	12	0.194	74.395	52.585	1.00	0.00	H
ATOM	364	N3	DC3	12	0.657	77.470	53.050	1.00	0.00	N
ATOM	365	C2	DC3	12	1.421	78.510	52.637	1.00	0.00	C
ATOM	366	O2	DC3	12	1.187	79.601	53.155	1.00	0.00	O
ATOM	367	C3'	DC3	12	5.516	80.270	51.080	1.00	0.00	C
ATOM	368	H3'	DC3	12	6.576	80.004	51.105	1.00	0.00	H
ATOM	369	C2'	DC3	12	4.687	79.368	51.978	1.00	0.00	C

ATOM	370	H2' DC3	12	5.074	78.350	51.935	1.00	0.00	H
ATOM	371	H2" DC3	12	4.658	79.731	53.006	1.00	0.00	H
ATOM	372	O3' DC3	12	5.317	81.626	51.457	1.00	0.00	O
ATOM	373	HO3' DC3	12	5.895	81.842	52.221	1.00	0.00	H
TER	374	DC3	12						
ATOM	374	HO5' DG5	13	-8.205	78.127	60.455	1.00	0.00	H
ATOM	375	O5' DG5	13	-8.449	79.078	60.475	1.00	0.00	O
ATOM	376	C5' DG5	13	-7.326	79.827	60.920	1.00	0.00	C
ATOM	377	H5' DG5	13	-6.752	79.246	61.644	1.00	0.00	H
ATOM	378	H5" DG5	13	-7.679	80.729	61.416	1.00	0.00	H
ATOM	379	C4' DG5	13	-6.398	80.261	59.781	1.00	0.00	C
ATOM	380	H4' DG5	13	-5.649	80.932	60.204	1.00	0.00	H
ATOM	381	O4' DG5	13	-5.708	79.164	59.207	1.00	0.00	O
ATOM	382	C1' DG5	13	-5.322	79.603	57.924	1.00	0.00	C
ATOM	383	H1' DG5	13	-4.547	80.370	58.012	1.00	0.00	H
ATOM	384	N9 DG5	13	-4.834	78.488	57.085	1.00	0.00	N
ATOM	385	C8 DG5	13	-5.374	77.236	56.923	1.00	0.00	C
ATOM	386	H8 DG5	13	-6.252	76.915	57.470	1.00	0.00	H
ATOM	387	N7 DG5	13	-4.738	76.477	56.069	1.00	0.00	N
ATOM	388	C5 DG5	13	-3.678	77.294	55.650	1.00	0.00	C
ATOM	389	C6 DG5	13	-2.596	77.045	54.742	1.00	0.00	C
ATOM	390	O6 DG5	13	-2.347	76.029	54.103	1.00	0.00	O
ATOM	391	N1 DG5	13	-1.747	78.115	54.579	1.00	0.00	N
ATOM	392	H1 DG5	13	-0.980	78.001	53.934	1.00	0.00	H
ATOM	393	C2 DG5	13	-1.881	79.286	55.238	1.00	0.00	C
ATOM	394	N2 DG5	13	-0.965	80.188	55.023	1.00	0.00	N
ATOM	395	H21 DG5	13	-0.220	80.025	54.349	1.00	0.00	H
ATOM	396	H22 DG5	13	-1.073	81.070	55.493	1.00	0.00	H
ATOM	397	N3 DG5	13	-2.842	79.560	56.124	1.00	0.00	N
ATOM	398	C4 DG5	13	-3.726	78.522	56.272	1.00	0.00	C
ATOM	399	C3' DG5	13	-7.108	80.998	58.625	1.00	0.00	C
ATOM	400	H3' DG5	13	-8.191	80.890	58.713	1.00	0.00	H
ATOM	401	C2' DG5	13	-6.607	80.229	57.399	1.00	0.00	C
ATOM	402	H2' DG5	13	-7.321	79.448	57.140	1.00	0.00	H

ATOM	403	H2"	DG5	13	-6.417	80.875	56.544	1.00	0.00	H
ATOM	404	O3'	DG5	13	-6.732	82.371	58.607	1.00	0.00	O
ATOM	405	P	DG	14	-7.514	83.464	57.739	1.00	0.00	P
ATOM	406	OP1	DG	14	-7.204	84.790	58.319	1.00	0.00	O
ATOM	407	OP2	DG	14	-8.937	83.067	57.647	1.00	0.00	O
ATOM	408	O5'	DG	14	-6.869	83.401	56.283	1.00	0.00	O
ATOM	409	C5'	DG	14	-5.539	83.865	56.073	1.00	0.00	C
ATOM	410	H5'	DG	14	-4.887	83.464	56.850	1.00	0.00	H
ATOM	411	H5"	DG	14	-5.521	84.953	56.149	1.00	0.00	H
ATOM	412	C4'	DG	14	-4.959	83.460	54.712	1.00	0.00	C
ATOM	413	H4'	DG	14	-3.999	83.963	54.585	1.00	0.00	H
ATOM	414	O4'	DG	14	-4.756	82.049	54.636	1.00	0.00	O
ATOM	415	C1'	DG	14	-5.137	81.668	53.327	1.00	0.00	C
ATOM	416	H1'	DG	14	-4.385	82.019	52.618	1.00	0.00	H
ATOM	417	N9	DG	14	-5.267	80.203	53.155	1.00	0.00	N
ATOM	418	C8	DG	14	-6.299	79.365	53.510	1.00	0.00	C
ATOM	419	H8	DG	14	-7.163	79.707	54.067	1.00	0.00	H
ATOM	420	N7	DG	14	-6.150	78.128	53.107	1.00	0.00	N
ATOM	421	C5	DG	14	-4.917	78.150	52.437	1.00	0.00	C
ATOM	422	C6	DG	14	-4.180	77.109	51.773	1.00	0.00	C
ATOM	423	O6	DG	14	-4.467	75.915	51.666	1.00	0.00	O
ATOM	424	N1	DG	14	-2.993	77.543	51.217	1.00	0.00	N
ATOM	425	H1	DG	14	-2.429	76.846	50.750	1.00	0.00	H
ATOM	426	C2	DG	14	-2.524	78.811	51.328	1.00	0.00	C
ATOM	427	N2	DG	14	-1.366	79.073	50.787	1.00	0.00	N
ATOM	428	H21	DG	14	-0.874	78.337	50.283	1.00	0.00	H
ATOM	429	H22	DG	14	-0.958	79.989	50.909	1.00	0.00	H
ATOM	430	N3	DG	14	-3.160	79.805	51.947	1.00	0.00	N
ATOM	431	C4	DG	14	-4.364	79.412	52.477	1.00	0.00	C
ATOM	432	C3'	DG	14	-5.866	83.845	53.532	1.00	0.00	C
ATOM	433	H3'	DG	14	-6.663	84.522	53.836	1.00	0.00	H
ATOM	434	C2'	DG	14	-6.404	82.484	53.098	1.00	0.00	C
ATOM	435	H2'	DG	14	-7.208	82.155	53.758	1.00	0.00	H
ATOM	436	H2"	DG	14	-6.712	82.486	52.053	1.00	0.00	H

ATOM	437	O3'	DG	14	-5.096	84.383	52.471	1.00	0.00	O
ATOM	438	P	DG	15	-5.384	85.825	51.877	1.00	0.00	P
ATOM	439	OP1	DG	15	-5.239	86.821	52.962	1.00	0.00	O
ATOM	440	OP2	DG	15	-6.645	85.764	51.118	1.00	0.00	O
ATOM	441	O5'	DG	15	-4.182	86.004	50.842	1.00	0.00	O
ATOM	442	C5'	DG	15	-2.857	86.216	51.317	1.00	0.00	C
ATOM	443	H5'	DG	15	-2.760	85.813	52.327	1.00	0.00	H
ATOM	444	H5"	DG	15	-2.662	87.288	51.368	1.00	0.00	H
ATOM	445	C4'	DG	15	-1.773	85.539	50.469	1.00	0.00	C
ATOM	446	H4'	DG	15	-0.813	85.791	50.914	1.00	0.00	H
ATOM	447	O4'	DG	15	-1.946	84.125	50.500	1.00	0.00	O
ATOM	448	C1'	DG	15	-2.157	83.644	49.183	1.00	0.00	C
ATOM	449	H1'	DG	15	-1.224	83.231	48.791	1.00	0.00	H
ATOM	450	N9	DG	15	-3.203	82.598	49.184	1.00	0.00	N
ATOM	451	C8	DG	15	-4.462	82.618	49.733	1.00	0.00	C
ATOM	452	H8	DG	15	-4.854	83.486	50.244	1.00	0.00	H
ATOM	453	N7	DG	15	-5.124	81.497	49.600	1.00	0.00	N
ATOM	454	C5	DG	15	-4.242	80.681	48.877	1.00	0.00	C
ATOM	455	C6	DG	15	-4.355	79.326	48.400	1.00	0.00	C
ATOM	456	O6	DG	15	-5.281	78.523	48.533	1.00	0.00	O
ATOM	457	N1	DG	15	-3.252	78.908	47.687	1.00	0.00	N
ATOM	458	H1	DG	15	-3.262	77.968	47.320	1.00	0.00	H
ATOM	459	C2	DG	15	-2.174	79.689	47.442	1.00	0.00	C
ATOM	460	N2	DG	15	-1.242	79.216	46.674	1.00	0.00	N
ATOM	461	H21	DG	15	-1.345	78.285	46.288	1.00	0.00	H
ATOM	462	H22	DG	15	-0.497	79.823	46.388	1.00	0.00	H
ATOM	463	N3	DG	15	-2.004	80.927	47.882	1.00	0.00	N
ATOM	464	C4	DG	15	-3.079	81.367	48.598	1.00	0.00	C
ATOM	465	C3'	DG	15	-1.748	85.963	48.996	1.00	0.00	C
ATOM	466	H3'	DG	15	-2.229	86.935	48.878	1.00	0.00	H
ATOM	467	C2'	DG	15	-2.553	84.848	48.342	1.00	0.00	C
ATOM	468	H2'	DG	15	-3.615	85.038	48.450	1.00	0.00	H
ATOM	469	H2"	DG	15	-2.290	84.708	47.294	1.00	0.00	H
ATOM	470	O3'	DG	15	-0.407	85.992	48.519	1.00	0.00	O

ATOM	471	P	DA	16	-0.006	86.771	47.184	1.00	0.00	P
ATOM	472	OP1	DA	16	1.424	87.123	47.285	1.00	0.00	O
ATOM	473	OP2	DA	16	-0.973	87.861	46.946	1.00	0.00	O
ATOM	474	O5'	DA	16	-0.188	85.715	46.013	1.00	0.00	O
ATOM	475	C5'	DA	16	0.786	84.710	45.769	1.00	0.00	C
ATOM	476	H5'	DA	16	0.886	84.088	46.658	1.00	0.00	H
ATOM	477	H5"	DA	16	1.749	85.180	45.562	1.00	0.00	H
ATOM	478	C4'	DA	16	0.425	83.805	44.584	1.00	0.00	C
ATOM	479	H4'	DA	16	1.304	83.215	44.334	1.00	0.00	H
ATOM	480	O4'	DA	16	-0.625	82.917	44.952	1.00	0.00	O
ATOM	481	C1'	DA	16	-1.608	82.948	43.937	1.00	0.00	C
ATOM	482	H1'	DA	16	-1.331	82.263	43.132	1.00	0.00	H
ATOM	483	N9	DA	16	-2.926	82.564	44.499	1.00	0.00	N
ATOM	484	C8	DA	16	-3.842	83.333	45.179	1.00	0.00	C
ATOM	485	H8	DA	16	-3.689	84.390	45.355	1.00	0.00	H
ATOM	486	N7	DA	16	-4.899	82.686	45.604	1.00	0.00	N
ATOM	487	C5	DA	16	-4.654	81.378	45.146	1.00	0.00	C
ATOM	488	C6	DA	16	-5.341	80.141	45.216	1.00	0.00	C
ATOM	489	N6	DA	16	-6.497	79.942	45.807	1.00	0.00	N
ATOM	490	H61	DA	16	-6.845	78.993	45.837	1.00	0.00	H
ATOM	491	H62	DA	16	-6.963	80.695	46.285	1.00	0.00	H
ATOM	492	N1	DA	16	-4.833	79.025	44.694	1.00	0.00	N
ATOM	493	C2	DA	16	-3.665	79.107	44.078	1.00	0.00	C
ATOM	494	H2	DA	16	-3.284	78.184	43.662	1.00	0.00	H
ATOM	495	N3	DA	16	-2.909	80.188	43.905	1.00	0.00	N
ATOM	496	C4	DA	16	-3.461	81.297	44.479	1.00	0.00	C
ATOM	497	C3'	DA	16	-0.028	84.600	43.344	1.00	0.00	C
ATOM	498	H3'	DA	16	0.211	85.658	43.473	1.00	0.00	H
ATOM	499	C2'	DA	16	-1.536	84.380	43.418	1.00	0.00	C
ATOM	500	H2'	DA	16	-1.957	85.073	44.143	1.00	0.00	H
ATOM	501	H2"	DA	16	-2.029	84.489	42.454	1.00	0.00	H
ATOM	502	O3'	DA	16	0.535	84.106	42.127	1.00	0.00	O
ATOM	503	P	DC	17	0.499	84.990	40.785	1.00	0.00	P
ATOM	504	OP1	DC	17	1.468	84.407	39.830	1.00	0.00	O

ATOM	505	OP2	DC	17	0.664	86.410	41.165	1.00	0.00	O
ATOM	506	O5'	DC	17	-0.975	84.834	40.168	1.00	0.00	O
ATOM	507	C5'	DC	17	-1.317	83.842	39.201	1.00	0.00	C
ATOM	508	H5'	DC	17	-0.699	83.983	38.314	1.00	0.00	H
ATOM	509	H5"	DC	17	-2.355	83.999	38.904	1.00	0.00	H
ATOM	510	C4'	DC	17	-1.161	82.388	39.681	1.00	0.00	C
ATOM	511	H4'	DC	17	-0.114	82.195	39.917	1.00	0.00	H
ATOM	512	O4'	DC	17	-1.983	82.137	40.819	1.00	0.00	O
ATOM	513	C1'	DC	17	-3.009	81.210	40.480	1.00	0.00	C
ATOM	514	H1'	DC	17	-2.706	80.209	40.811	1.00	0.00	H
ATOM	515	N1	DC	17	-4.311	81.590	41.094	1.00	0.00	N
ATOM	516	C6	DC	17	-4.624	82.907	41.324	1.00	0.00	C
ATOM	517	H6	DC	17	-3.931	83.684	41.019	1.00	0.00	H
ATOM	518	C5	DC	17	-5.789	83.225	41.939	1.00	0.00	C
ATOM	519	H5	DC	17	-6.040	84.255	42.132	1.00	0.00	H
ATOM	520	C4	DC	17	-6.647	82.157	42.307	1.00	0.00	C
ATOM	521	N4	DC	17	-7.759	82.408	42.925	1.00	0.00	N
ATOM	522	H41	DC	17	-8.392	81.640	43.100	1.00	0.00	H
ATOM	523	H42	DC	17	-8.050	83.371	43.024	1.00	0.00	H
ATOM	524	N3	DC	17	-6.380	80.887	42.083	1.00	0.00	N
ATOM	525	C2	DC	17	-5.224	80.587	41.445	1.00	0.00	C
ATOM	526	O2	DC	17	-5.007	79.399	41.197	1.00	0.00	O
ATOM	527	C3'	DC	17	-1.623	81.416	38.589	1.00	0.00	C
ATOM	528	H3'	DC	17	-1.525	81.864	37.597	1.00	0.00	H
ATOM	529	C2'	DC	17	-3.087	81.219	38.957	1.00	0.00	C
ATOM	530	H2'	DC	17	-3.683	82.061	38.607	1.00	0.00	H
ATOM	531	H2"	DC	17	-3.479	80.278	38.570	1.00	0.00	H
ATOM	532	O3'	DC	17	-0.913	80.191	38.677	1.00	0.00	O
ATOM	533	P	DG	18	-0.578	79.343	37.372	1.00	0.00	P
ATOM	534	OP1	DG	18	0.266	78.205	37.801	1.00	0.00	O
ATOM	535	OP2	DG	18	-0.042	80.256	36.335	1.00	0.00	O
ATOM	536	O5'	DG	18	-1.990	78.800	36.859	1.00	0.00	O
ATOM	537	C5'	DG	18	-2.390	77.443	37.005	1.00	0.00	C
ATOM	538	H5'	DG	18	-2.293	77.143	38.050	1.00	0.00	H

ATOM	539	H5"	DG	18	-1.730	76.816	36.405	1.00	0.00	H
ATOM	540	C4'	DG	18	-3.838	77.187	36.552	1.00	0.00	C
ATOM	541	H4'	DG	18	-3.968	76.110	36.448	1.00	0.00	H
ATOM	542	O4'	DG	18	-4.765	77.678	37.523	1.00	0.00	O
ATOM	543	C1'	DG	18	-5.778	78.375	36.814	1.00	0.00	C
ATOM	544	H1'	DG	18	-6.473	77.655	36.370	1.00	0.00	H
ATOM	545	N9	DG	18	-6.560	79.280	37.684	1.00	0.00	N
ATOM	546	C8	DG	18	-6.437	80.634	37.891	1.00	0.00	C
ATOM	547	H8	DG	18	-5.671	81.232	37.414	1.00	0.00	H
ATOM	548	N7	DG	18	-7.329	81.136	38.704	1.00	0.00	N
ATOM	549	C5	DG	18	-8.134	80.031	39.027	1.00	0.00	C
ATOM	550	C6	DG	18	-9.322	79.913	39.834	1.00	0.00	C
ATOM	551	O6	DG	18	-9.901	80.769	40.505	1.00	0.00	O
ATOM	552	N1	DG	18	-9.880	78.652	39.812	1.00	0.00	N
ATOM	553	H1	DG	18	-10.766	78.536	40.281	1.00	0.00	H
ATOM	554	C2	DG	18	-9.351	77.603	39.139	1.00	0.00	C
ATOM	555	N2	DG	18	-10.016	76.482	39.178	1.00	0.00	N
ATOM	556	H21	DG	18	-10.916	76.458	39.650	1.00	0.00	H
ATOM	557	H22	DG	18	-9.697	75.711	38.617	1.00	0.00	H
ATOM	558	N3	DG	18	-8.221	77.636	38.436	1.00	0.00	N
ATOM	559	C4	DG	18	-7.672	78.894	38.398	1.00	0.00	C
ATOM	560	C3'	DG	18	-4.217	77.839	35.209	1.00	0.00	C
ATOM	561	H3'	DG	18	-3.350	78.137	34.622	1.00	0.00	H
ATOM	562	C2'	DG	18	-5.000	79.053	35.691	1.00	0.00	C
ATOM	563	H2'	DG	18	-4.327	79.815	36.081	1.00	0.00	H
ATOM	564	H2"	DG	18	-5.646	79.454	34.911	1.00	0.00	H
ATOM	565	O3'	DG	18	-5.111	77.019	34.467	1.00	0.00	O
ATOM	566	P	DC	19	-4.622	76.059	33.303	1.00	0.00	P
ATOM	567	OP1	DC	19	-3.440	75.295	33.760	1.00	0.00	O
ATOM	568	OP2	DC	19	-4.523	76.840	32.052	1.00	0.00	O
ATOM	569	O5'	DC	19	-5.860	75.072	33.156	1.00	0.00	O
ATOM	570	C5'	DC	19	-6.048	73.975	34.038	1.00	0.00	C
ATOM	571	H5'	DC	19	-5.704	74.247	35.037	1.00	0.00	H
ATOM	572	H5"	DC	19	-5.449	73.132	33.690	1.00	0.00	H

ATOM	573	C4'	DC	19	-7.518	73.540	34.154	1.00	0.00	C
ATOM	574	H4'	DC	19	-7.529	72.580	34.669	1.00	0.00	H
ATOM	575	O4'	DC	19	-8.253	74.482	34.932	1.00	0.00	O
ATOM	576	C1'	DC	19	-9.304	75.034	34.151	1.00	0.00	C
ATOM	577	H1'	DC	19	-10.235	74.499	34.370	1.00	0.00	H
ATOM	578	N1	DC	19	-9.446	76.478	34.496	1.00	0.00	N
ATOM	579	C6	DC	19	-8.471	77.389	34.172	1.00	0.00	C
ATOM	580	H6	DC	19	-7.601	77.075	33.605	1.00	0.00	H
ATOM	581	C5	DC	19	-8.584	78.673	34.588	1.00	0.00	C
ATOM	582	H5	DC	19	-7.825	79.392	34.329	1.00	0.00	H
ATOM	583	C4	DC	19	-9.705	79.019	35.385	1.00	0.00	C
ATOM	584	N4	DC	19	-9.805	80.224	35.863	1.00	0.00	N
ATOM	585	H41	DC	19	-10.570	80.464	36.478	1.00	0.00	H
ATOM	586	H42	DC	19	-9.063	80.882	35.638	1.00	0.00	H
ATOM	587	N3	DC	19	-10.659	78.166	35.702	1.00	0.00	N
ATOM	588	C2	DC	19	-10.547	76.887	35.263	1.00	0.00	C
ATOM	589	O2	DC	19	-11.442	76.097	35.572	1.00	0.00	O
ATOM	590	C3'	DC	19	-8.263	73.384	32.821	1.00	0.00	C
ATOM	591	H3'	DC	19	-7.557	73.209	32.006	1.00	0.00	H
ATOM	592	C2'	DC	19	-8.946	74.745	32.691	1.00	0.00	C
ATOM	593	H2'	DC	19	-8.246	75.471	32.283	1.00	0.00	H
ATOM	594	H2"	DC	19	-9.836	74.703	32.065	1.00	0.00	H
ATOM	595	O3'	DC	19	-9.203	72.319	32.933	1.00	0.00	O
ATOM	596	P	DG	20	-9.955	71.716	31.659	1.00	0.00	P
ATOM	597	OP1	DG	20	-10.389	70.353	32.014	1.00	0.00	O
ATOM	598	OP2	DG	20	-9.098	71.897	30.467	1.00	0.00	O
ATOM	599	O5'	DG	20	-11.249	72.627	31.471	1.00	0.00	O
ATOM	600	C5'	DG	20	-12.392	72.435	32.293	1.00	0.00	C
ATOM	601	H5'	DG	20	-12.079	72.408	33.335	1.00	0.00	H
ATOM	602	H5"	DG	20	-12.839	71.471	32.048	1.00	0.00	H
ATOM	603	C4'	DG	20	-13.470	73.520	32.163	1.00	0.00	C
ATOM	604	H4'	DG	20	-14.316	73.240	32.790	1.00	0.00	H
ATOM	605	O4'	DG	20	-12.953	74.768	32.612	1.00	0.00	O
ATOM	606	C1'	DG	20	-13.294	75.731	31.633	1.00	0.00	C

ATOM	607	H1'	DG	20	-14.332	76.046	31.776	1.00	0.00	H
ATOM	608	N9	DG	20	-12.442	76.927	31.739	1.00	0.00	N
ATOM	609	C8	DG	20	-11.271	77.243	31.096	1.00	0.00	C
ATOM	610	H8	DG	20	-10.780	76.570	30.401	1.00	0.00	H
ATOM	611	N7	DG	20	-10.809	78.429	31.394	1.00	0.00	N
ATOM	612	C5	DG	20	-11.752	78.935	32.303	1.00	0.00	C
ATOM	613	C6	DG	20	-11.854	80.203	32.975	1.00	0.00	C
ATOM	614	O6	DG	20	-11.108	81.179	32.912	1.00	0.00	O
ATOM	615	N1	DG	20	-12.970	80.311	33.777	1.00	0.00	N
ATOM	616	H1	DG	20	-13.122	81.173	34.276	1.00	0.00	H
ATOM	617	C2	DG	20	-13.886	79.330	33.929	1.00	0.00	C
ATOM	618	N2	DG	20	-14.915	79.604	34.675	1.00	0.00	N
ATOM	619	H21	DG	20	-15.005	80.515	35.115	1.00	0.00	H
ATOM	620	H22	DG	20	-15.622	78.897	34.760	1.00	0.00	H
ATOM	621	N3	DG	20	-13.853	78.154	33.317	1.00	0.00	N
ATOM	622	C4	DG	20	-12.751	78.013	32.518	1.00	0.00	C
ATOM	623	C3'	DG	20	-13.991	73.739	30.736	1.00	0.00	C
ATOM	624	H3'	DG	20	-13.800	72.874	30.104	1.00	0.00	H
ATOM	625	C2'	DG	20	-13.200	74.969	30.315	1.00	0.00	C
ATOM	626	H2'	DG	20	-12.170	74.706	30.074	1.00	0.00	H
ATOM	627	H2''	DG	20	-13.686	75.505	29.500	1.00	0.00	H
ATOM	628	O3'	DG	20	-15.364	74.094	30.775	1.00	0.00	O
ATOM	629	P	DG	21	-16.436	73.533	29.753	1.00	0.00	P
ATOM	630	OP1	DG	21	-16.595	72.078	29.960	1.00	0.00	O
ATOM	631	OP2	DG	21	-16.081	73.998	28.396	1.00	0.00	O
ATOM	632	O5'	DG	21	-17.764	74.305	30.205	1.00	0.00	O
ATOM	633	C5'	DG	21	-18.310	74.134	31.509	1.00	0.00	C
ATOM	634	H5'	DG	21	-17.492	73.976	32.210	1.00	0.00	H
ATOM	635	H5''	DG	21	-18.935	73.242	31.519	1.00	0.00	H
ATOM	636	C4'	DG	21	-19.126	75.323	32.054	1.00	0.00	C
ATOM	637	H4'	DG	21	-19.544	74.993	33.005	1.00	0.00	H
ATOM	638	O4'	DG	21	-18.292	76.447	32.315	1.00	0.00	O
ATOM	639	C1'	DG	21	-18.586	77.504	31.413	1.00	0.00	C
ATOM	640	H1'	DG	21	-19.080	78.309	31.961	1.00	0.00	H

ATOM	641	N9	DG	21	-17.314	78.016	30.837	1.00	0.00	N
ATOM	642	C8	DG	21	-16.435	77.378	29.995	1.00	0.00	C
ATOM	643	H8	DG	21	-16.634	76.391	29.601	1.00	0.00	H
ATOM	644	N7	DG	21	-15.340	78.046	29.736	1.00	0.00	N
ATOM	645	C5	DG	21	-15.511	79.234	30.464	1.00	0.00	C
ATOM	646	C6	DG	21	-14.659	80.385	30.624	1.00	0.00	C
ATOM	647	O6	DG	21	-13.532	80.602	30.170	1.00	0.00	O
ATOM	648	N1	DG	21	-15.202	81.366	31.424	1.00	0.00	N
ATOM	649	H1	DG	21	-14.668	82.210	31.568	1.00	0.00	H
ATOM	650	C2	DG	21	-16.414	81.271	32.013	1.00	0.00	C
ATOM	651	N2	DG	21	-16.784	82.293	32.734	1.00	0.00	N
ATOM	652	H21	DG	21	-16.162	83.087	32.851	1.00	0.00	H
ATOM	653	H22	DG	21	-17.696	82.304	33.156	1.00	0.00	H
ATOM	654	N3	DG	21	-17.238	80.227	31.915	1.00	0.00	N
ATOM	655	C4	DG	21	-16.726	79.231	31.123	1.00	0.00	C
ATOM	656	C3'	DG	21	-20.272	75.823	31.162	1.00	0.00	C
ATOM	657	H3'	DG	21	-20.609	75.030	30.490	1.00	0.00	H
ATOM	658	C2'	DG	21	-19.569	76.936	30.385	1.00	0.00	C
ATOM	659	H2'	DG	21	-19.041	76.510	29.531	1.00	0.00	H
ATOM	660	H2''	DG	21	-20.271	77.695	30.043	1.00	0.00	H
ATOM	661	O3'	DG	21	-21.352	76.281	31.986	1.00	0.00	O
ATOM	662	P	DC	22	-22.787	76.694	31.379	1.00	0.00	P
ATOM	663	OP1	DC	22	-23.820	76.429	32.408	1.00	0.00	O
ATOM	664	OP2	DC	22	-22.944	76.060	30.059	1.00	0.00	O
ATOM	665	O5'	DC	22	-22.704	78.264	31.138	1.00	0.00	O
ATOM	666	C5'	DC	22	-22.766	79.187	32.214	1.00	0.00	C
ATOM	667	H5'	DC	22	-21.990	78.951	32.943	1.00	0.00	H
ATOM	668	H5''	DC	22	-23.730	79.107	32.708	1.00	0.00	H
ATOM	669	C4'	DC	22	-22.584	80.637	31.755	1.00	0.00	C
ATOM	670	H4'	DC	22	-22.731	81.283	32.621	1.00	0.00	H
ATOM	671	O4'	DC	22	-21.257	80.797	31.270	1.00	0.00	O
ATOM	672	C1'	DC	22	-21.312	81.449	30.018	1.00	0.00	C
ATOM	673	H1'	DC	22	-21.421	82.528	30.179	1.00	0.00	H
ATOM	674	N1	DC	22	-20.039	81.192	29.280	1.00	0.00	N

ATOM	675	C6	DC	22	-19.851	80.104	28.460	1.00	0.00	C
ATOM	676	H6	DC	22	-20.663	79.410	28.277	1.00	0.00	H
ATOM	677	C5	DC	22	-18.644	79.900	27.875	1.00	0.00	C
ATOM	678	H5	DC	22	-18.494	79.051	27.226	1.00	0.00	H
ATOM	679	C4	DC	22	-17.615	80.847	28.131	1.00	0.00	C
ATOM	680	N4	DC	22	-16.452	80.729	27.563	1.00	0.00	N
ATOM	681	H41	DC	22	-15.777	81.464	27.722	1.00	0.00	H
ATOM	682	H42	DC	22	-16.335	80.017	26.857	1.00	0.00	H
ATOM	683	N3	DC	22	-17.758	81.875	28.938	1.00	0.00	N
ATOM	684	C2	DC	22	-18.966	82.064	29.519	1.00	0.00	C
ATOM	685	O2	DC	22	-19.079	83.035	30.269	1.00	0.00	O
ATOM	686	C3'	DC	22	-23.538	81.092	30.636	1.00	0.00	C
ATOM	687	H3'	DC	22	-24.417	80.447	30.577	1.00	0.00	H
ATOM	688	C2'	DC	22	-22.630	80.952	29.413	1.00	0.00	C
ATOM	689	H2'	DC	22	-22.576	79.907	29.114	1.00	0.00	H
ATOM	690	H2"	DC	22	-22.965	81.576	28.586	1.00	0.00	H
ATOM	691	O3'	DC	22	-23.894	82.455	30.851	1.00	0.00	O
ATOM	692	P	DG	23	-25.272	83.086	30.352	1.00	0.00	P
ATOM	693	OP1	DG	23	-26.176	83.118	31.524	1.00	0.00	O
ATOM	694	OP2	DG	23	-25.710	82.405	29.118	1.00	0.00	O
ATOM	695	O5'	DG	23	-24.887	84.582	29.962	1.00	0.00	O
ATOM	696	C5'	DG	23	-24.770	85.587	30.964	1.00	0.00	C
ATOM	697	H5'	DG	23	-24.238	85.180	31.821	1.00	0.00	H
ATOM	698	H5"	DG	23	-25.768	85.876	31.296	1.00	0.00	H
ATOM	699	C4'	DG	23	-24.023	86.852	30.521	1.00	0.00	C
ATOM	700	H4'	DG	23	-24.073	87.564	31.346	1.00	0.00	H
ATOM	701	O4'	DG	23	-22.659	86.557	30.244	1.00	0.00	O
ATOM	702	C1'	DG	23	-22.379	86.765	28.870	1.00	0.00	C
ATOM	703	H1'	DG	23	-21.789	87.677	28.755	1.00	0.00	H
ATOM	704	N9	DG	23	-21.631	85.613	28.309	1.00	0.00	N
ATOM	705	C8	DG	23	-22.067	84.332	28.074	1.00	0.00	C
ATOM	706	H8	DG	23	-23.048	83.995	28.381	1.00	0.00	H
ATOM	707	N7	DG	23	-21.208	83.575	27.439	1.00	0.00	N
ATOM	708	C5	DG	23	-20.099	84.419	27.262	1.00	0.00	C

ATOM	709	C6	DG	23	-18.819	84.215	26.625	1.00	0.00	C
ATOM	710	O6	DG	23	-18.362	83.212	26.073	1.00	0.00	O
ATOM	711	N1	DG	23	-18.017	85.338	26.640	1.00	0.00	N
ATOM	712	H1	DG	23	-17.122	85.279	26.181	1.00	0.00	H
ATOM	713	C2	DG	23	-18.368	86.511	27.213	1.00	0.00	C
ATOM	714	N2	DG	23	-17.511	87.489	27.161	1.00	0.00	N
ATOM	715	H21	DG	23	-16.617	87.372	26.692	1.00	0.00	H
ATOM	716	H22	DG	23	-17.727	88.330	27.669	1.00	0.00	H
ATOM	717	N3	DG	23	-19.528	86.749	27.817	1.00	0.00	N
ATOM	718	C4	DG	23	-20.355	85.662	27.805	1.00	0.00	C
ATOM	719	C3'	DG	23	-24.616	87.508	29.272	1.00	0.00	C
ATOM	720	H3'	DG	23	-25.648	87.179	29.141	1.00	0.00	H
ATOM	721	C2'	DG	23	-23.720	86.957	28.174	1.00	0.00	C
ATOM	722	H2'	DG	23	-24.117	86.008	27.835	1.00	0.00	H
ATOM	723	H2"	DG	23	-23.633	87.642	27.335	1.00	0.00	H
ATOM	724	O3'	DG	23	-24.538	88.924	29.362	1.00	0.00	O
ATOM	725	P	DC3	24	-25.334	89.882	28.366	1.00	0.00	P
ATOM	726	OP1	DC3	24	-25.520	91.164	29.073	1.00	0.00	O
ATOM	727	OP2	DC3	24	-26.517	89.151	27.863	1.00	0.00	O
ATOM	728	O5'	DC3	24	-24.322	90.106	27.157	1.00	0.00	O
ATOM	729	C5'	DC3	24	-23.132	90.862	27.369	1.00	0.00	C
ATOM	730	H5'	DC3	24	-22.653	90.537	28.293	1.00	0.00	H
ATOM	731	H5"	DC3	24	-23.391	91.915	27.474	1.00	0.00	H
ATOM	732	C4'	DC3	24	-22.099	90.718	26.249	1.00	0.00	C
ATOM	733	H4'	DC3	24	-21.255	91.373	26.476	1.00	0.00	H
ATOM	734	O4'	DC3	24	-21.621	89.383	26.175	1.00	0.00	O
ATOM	735	C1'	DC3	24	-21.204	89.166	24.843	1.00	0.00	C
ATOM	736	H1'	DC3	24	-20.248	89.674	24.674	1.00	0.00	H
ATOM	737	N1	DC3	24	-21.091	87.704	24.572	1.00	0.00	N
ATOM	738	C6	DC3	24	-22.148	86.863	24.814	1.00	0.00	C
ATOM	739	H6	DC3	24	-23.066	87.272	25.217	1.00	0.00	H
ATOM	740	C5	DC3	24	-22.041	85.538	24.552	1.00	0.00	C
ATOM	741	H5	DC3	24	-22.872	84.877	24.744	1.00	0.00	H
ATOM	742	C4	DC3	24	-20.814	85.076	24.005	1.00	0.00	C

ATOM	743	N4	DC3	24	-20.655	83.809	23.764	1.00	0.00	N
ATOM	744	H41	DC3	24	-19.788	83.486	23.360	1.00	0.00	H
ATOM	745	H42	DC3	24	-21.366	83.149	24.046	1.00	0.00	H
ATOM	746	N3	DC3	24	-19.777	85.862	23.775	1.00	0.00	N
ATOM	747	C2	DC3	24	-19.896	87.182	24.059	1.00	0.00	C
ATOM	748	O2	DC3	24	-18.917	87.903	23.832	1.00	0.00	O
ATOM	749	C3'	DC3	24	-22.635	91.085	24.856	1.00	0.00	C
ATOM	750	H3'	DC3	24	-23.716	91.226	24.878	1.00	0.00	H
ATOM	751	C2'	DC3	24	-22.293	89.856	24.018	1.00	0.00	C
ATOM	752	H2'	DC3	24	-23.177	89.225	23.938	1.00	0.00	H
ATOM	753	H2"	DC3	24	-21.931	90.127	23.025	1.00	0.00	H
ATOM	754	O3'	DC3	24	-22.001	92.240	24.334	1.00	0.00	O
ATOM	755	HO3'	DC3	24	-22.641	92.982	24.412	1.00	0.00	H
TER	756		DC3	24						
END										

8.2 DNA+Aptamer

CRYST1	76.147	66.782	76.910	90.00	90.00	90.00				1
ATOM	1	HO5'	DG5	1	-2.797	21.655	67.180	1.00	0.00	H
ATOM	2	O5'	DG5	1	-2.244	21.568	67.999	1.00	0.00	O
ATOM	3	C5'	DG5	1	-2.959	22.226	69.034	1.00	0.00	C
ATOM	4	H5'	DG5	1	-2.259	22.580	69.792	1.00	0.00	H
ATOM	5	H5"	DG5	1	-3.472	23.093	68.621	1.00	0.00	H
ATOM	6	C4'	DG5	1	-4.001	21.329	69.715	1.00	0.00	C
ATOM	7	H4'	DG5	1	-4.551	21.954	70.419	1.00	0.00	H
ATOM	8	O4'	DG5	1	-4.918	20.771	68.773	1.00	0.00	O
ATOM	9	C1'	DG5	1	-5.073	19.374	68.993	1.00	0.00	C
ATOM	10	H1'	DG5	1	-5.921	19.178	69.655	1.00	0.00	H
ATOM	11	N9	DG5	1	-5.253	18.683	67.691	1.00	0.00	N
ATOM	12	C8	DG5	1	-4.511	18.884	66.554	1.00	0.00	C
ATOM	13	H8	DG5	1	-3.710	19.611	66.507	1.00	0.00	H
ATOM	14	N7	DG5	1	-4.864	18.148	65.539	1.00	0.00	N
ATOM	15	C5	DG5	1	-5.898	17.358	66.050	1.00	0.00	C
ATOM	16	C6	DG5	1	-6.685	16.330	65.423	1.00	0.00	C

ATOM	17	O6	DG5	1	-6.614	15.898	64.271	1.00	0.00	O
ATOM	18	N1	DG5	1	-7.647	15.794	66.251	1.00	0.00	N
ATOM	19	H1	DG5	1	-8.274	15.114	65.847	1.00	0.00	H
ATOM	20	C2	DG5	1	-7.832	16.181	67.535	1.00	0.00	C
ATOM	21	N2	DG5	1	-8.832	15.636	68.169	1.00	0.00	N
ATOM	22	H21	DG5	1	-8.976	15.899	69.135	1.00	0.00	H
ATOM	23	H22	DG5	1	-9.441	14.971	67.698	1.00	0.00	H
ATOM	24	N3	DG5	1	-7.135	17.136	68.161	1.00	0.00	N
ATOM	25	C4	DG5	1	-6.162	17.688	67.365	1.00	0.00	C
ATOM	26	C3'	DG5	1	-3.360	20.170	70.486	1.00	0.00	C
ATOM	27	H3'	DG5	1	-2.275	20.282	70.500	1.00	0.00	H
ATOM	28	C2'	DG5	1	-3.770	18.948	69.664	1.00	0.00	C
ATOM	29	H2'	DG5	1	-3.005	18.740	68.917	1.00	0.00	H
ATOM	30	H2''	DG5	1	-3.927	18.071	70.285	1.00	0.00	H
ATOM	31	O3'	DG5	1	-3.876	20.161	71.808	1.00	0.00	O
ATOM	32	P	DC	2	-3.193	19.333	72.989	1.00	0.00	P
ATOM	33	OP1	DC	2	-3.665	19.908	74.263	1.00	0.00	O
ATOM	34	OP2	DC	2	-1.742	19.228	72.729	1.00	0.00	O
ATOM	35	O5'	DC	2	-3.861	17.909	72.805	1.00	0.00	O
ATOM	36	C5'	DC	2	-5.256	17.756	73.028	1.00	0.00	C
ATOM	37	H5'	DC	2	-5.486	18.007	74.065	1.00	0.00	H
ATOM	38	H5''	DC	2	-5.812	18.428	72.379	1.00	0.00	H
ATOM	39	C4'	DC	2	-5.747	16.339	72.755	1.00	0.00	C
ATOM	40	H4'	DC	2	-6.781	16.282	73.097	1.00	0.00	H
ATOM	41	O4'	DC	2	-5.688	16.023	71.369	1.00	0.00	O
ATOM	42	C1'	DC	2	-5.071	14.754	71.221	1.00	0.00	C
ATOM	43	H1'	DC	2	-5.822	13.969	71.337	1.00	0.00	H
ATOM	44	N1	DC	2	-4.448	14.670	69.869	1.00	0.00	N
ATOM	45	C6	DC	2	-3.357	15.431	69.526	1.00	0.00	C
ATOM	46	H6	DC	2	-2.855	16.024	70.279	1.00	0.00	H
ATOM	47	C5	DC	2	-2.930	15.462	68.239	1.00	0.00	C
ATOM	48	H5	DC	2	-2.080	16.067	67.964	1.00	0.00	H
ATOM	49	C4	DC	2	-3.639	14.678	67.293	1.00	0.00	C
ATOM	50	N4	DC	2	-3.294	14.706	66.042	1.00	0.00	N

ATOM	51	H41	DC	2	-3.804	14.148	65.369	1.00	0.00	H
ATOM	52	H42	DC	2	-2.505	15.285	65.795	1.00	0.00	H
ATOM	53	N3	DC	2	-4.674	13.925	67.598	1.00	0.00	N
ATOM	54	C2	DC	2	-5.087	13.904	68.888	1.00	0.00	C
ATOM	55	O2	DC	2	-6.055	13.193	69.159	1.00	0.00	O
ATOM	56	C3'	DC	2	-4.927	15.297	73.508	1.00	0.00	C
ATOM	57	H3'	DC	2	-4.263	15.799	74.214	1.00	0.00	H
ATOM	58	C2'	DC	2	-4.111	14.637	72.402	1.00	0.00	C
ATOM	59	H2'	DC	2	-3.197	15.206	72.244	1.00	0.00	H
ATOM	60	H2"	DC	2	-3.873	13.598	72.629	1.00	0.00	H
ATOM	61	O3'	DC	2	-5.815	14.409	74.170	1.00	0.00	O
ATOM	62	P	DG	3	-5.319	13.573	75.432	1.00	0.00	P
ATOM	63	OP1	DG	3	-6.517	13.239	76.241	1.00	0.00	O
ATOM	64	OP2	DG	3	-4.200	14.311	76.060	1.00	0.00	O
ATOM	65	O5'	DG	3	-4.741	12.269	74.734	1.00	0.00	O
ATOM	66	C5'	DG	3	-5.614	11.326	74.140	1.00	0.00	C
ATOM	67	H5'	DG	3	-6.066	10.741	74.931	1.00	0.00	H
ATOM	68	H5"	DG	3	-6.404	11.841	73.592	1.00	0.00	H
ATOM	69	C4'	DG	3	-4.920	10.364	73.178	1.00	0.00	C
ATOM	70	H4'	DG	3	-5.636	9.579	72.933	1.00	0.00	H
ATOM	71	O4'	DG	3	-4.550	11.008	71.967	1.00	0.00	O
ATOM	72	C1'	DG	3	-3.367	10.361	71.552	1.00	0.00	C
ATOM	73	H1'	DG	3	-3.607	9.337	71.250	1.00	0.00	H
ATOM	74	N9	DG	3	-2.745	11.019	70.386	1.00	0.00	N
ATOM	75	C8	DG	3	-1.667	11.866	70.297	1.00	0.00	C
ATOM	76	H8	DG	3	-1.154	12.256	71.169	1.00	0.00	H
ATOM	77	N7	DG	3	-1.303	12.133	69.066	1.00	0.00	N
ATOM	78	C5	DG	3	-2.225	11.422	68.281	1.00	0.00	C
ATOM	79	C6	DG	3	-2.365	11.265	66.853	1.00	0.00	C
ATOM	80	O6	DG	3	-1.680	11.737	65.936	1.00	0.00	O
ATOM	81	N1	DG	3	-3.420	10.444	66.497	1.00	0.00	N
ATOM	82	H1	DG	3	-3.569	10.254	65.519	1.00	0.00	H
ATOM	83	C2	DG	3	-4.243	9.841	67.389	1.00	0.00	C
ATOM	84	N2	DG	3	-5.186	9.079	66.912	1.00	0.00	N

ATOM	85	H21	DG	3	-5.798	8.617	67.563	1.00	0.00	H
ATOM	86	H22	DG	3	-5.263	8.926	65.912	1.00	0.00	H
ATOM	87	N3	DG	3	-4.159	9.951	68.709	1.00	0.00	N
ATOM	88	C4	DG	3	-3.121	10.758	69.092	1.00	0.00	C
ATOM	89	C3'	DG	3	-3.651	9.694	73.737	1.00	0.00	C
ATOM	90	H3'	DG	3	-3.476	9.921	74.791	1.00	0.00	H
ATOM	91	C2'	DG	3	-2.568	10.307	72.850	1.00	0.00	C
ATOM	92	H2'	DG	3	-2.306	11.309	73.195	1.00	0.00	H
ATOM	93	H2"	DG	3	-1.691	9.663	72.773	1.00	0.00	H
ATOM	94	O3'	DG	3	-3.693	8.298	73.478	1.00	0.00	O
ATOM	95	P	DC	4	-4.321	7.253	74.494	1.00	0.00	P
ATOM	96	OP1	DC	4	-5.494	7.848	75.182	1.00	0.00	O
ATOM	97	OP2	DC	4	-3.225	6.702	75.316	1.00	0.00	O
ATOM	98	O5'	DC	4	-4.837	6.113	73.503	1.00	0.00	O
ATOM	99	C5'	DC	4	-6.099	6.231	72.856	1.00	0.00	C
ATOM	100	H5'	DC	4	-6.875	5.867	73.527	1.00	0.00	H
ATOM	101	H5"	DC	4	-6.298	7.284	72.655	1.00	0.00	H
ATOM	102	C4'	DC	4	-6.226	5.495	71.513	1.00	0.00	C
ATOM	103	H4'	DC	4	-7.288	5.487	71.261	1.00	0.00	H
ATOM	104	O4'	DC	4	-5.526	6.206	70.497	1.00	0.00	O
ATOM	105	C1'	DC	4	-4.582	5.352	69.872	1.00	0.00	C
ATOM	106	H1'	DC	4	-5.029	4.903	68.981	1.00	0.00	H
ATOM	107	N1	DC	4	-3.376	6.150	69.500	1.00	0.00	N
ATOM	108	C6	DC	4	-2.644	6.805	70.463	1.00	0.00	C
ATOM	109	H6	DC	4	-2.929	6.706	71.507	1.00	0.00	H
ATOM	110	C5	DC	4	-1.589	7.578	70.105	1.00	0.00	C
ATOM	111	H5	DC	4	-1.011	8.092	70.856	1.00	0.00	H
ATOM	112	C4	DC	4	-1.288	7.679	68.721	1.00	0.00	C
ATOM	113	N4	DC	4	-0.304	8.433	68.328	1.00	0.00	N
ATOM	114	H41	DC	4	-0.087	8.466	67.341	1.00	0.00	H
ATOM	115	H42	DC	4	0.273	8.879	69.027	1.00	0.00	H
ATOM	116	N3	DC	4	-1.971	7.061	67.777	1.00	0.00	N
ATOM	117	C2	DC	4	-3.029	6.295	68.146	1.00	0.00	C
ATOM	118	O2	DC	4	-3.660	5.732	67.246	1.00	0.00	O

ATOM	119	C3'	DC	4	-5.718	4.047	71.492	1.00	0.00	C
ATOM	120	H3'	DC	4	-5.668	3.638	72.503	1.00	0.00	H
ATOM	121	C2'	DC	4	-4.329	4.235	70.891	1.00	0.00	C
ATOM	122	H2'	DC	4	-3.630	4.548	71.666	1.00	0.00	H
ATOM	123	H2''	DC	4	-3.977	3.323	70.413	1.00	0.00	H
ATOM	124	O3'	DC	4	-6.566	3.272	70.646	1.00	0.00	O
ATOM	125	P	DC	5	-6.635	1.673	70.725	1.00	0.00	P
ATOM	126	OP1	DC	5	-7.871	1.284	70.012	1.00	0.00	O
ATOM	127	OP2	DC	5	-6.458	1.240	72.131	1.00	0.00	O
ATOM	128	O5'	DC	5	-5.403	1.169	69.842	1.00	0.00	O
ATOM	129	C5'	DC	5	-5.474	1.224	68.419	1.00	0.00	C
ATOM	130	H5'	DC	5	-6.028	0.355	68.058	1.00	0.00	H
ATOM	131	H5''	DC	5	-6.022	2.118	68.120	1.00	0.00	H
ATOM	132	C4'	DC	5	-4.119	1.274	67.703	1.00	0.00	C
ATOM	133	H4'	DC	5	-4.307	1.177	66.632	1.00	0.00	H
ATOM	134	O4'	DC	5	-3.426	2.487	67.933	1.00	0.00	O
ATOM	135	C1'	DC	5	-2.142	2.287	67.374	1.00	0.00	C
ATOM	136	H1'	DC	5	-2.222	2.430	66.289	1.00	0.00	H
ATOM	137	N1	DC	5	-1.116	3.212	67.921	1.00	0.00	N
ATOM	138	C6	DC	5	-1.060	3.502	69.259	1.00	0.00	C
ATOM	139	H6	DC	5	-1.785	3.056	69.932	1.00	0.00	H
ATOM	140	C5	DC	5	-0.100	4.339	69.722	1.00	0.00	C
ATOM	141	H5	DC	5	-0.048	4.583	70.770	1.00	0.00	H
ATOM	142	C4	DC	5	0.816	4.876	68.777	1.00	0.00	C
ATOM	143	N4	DC	5	1.754	5.681	69.167	1.00	0.00	N
ATOM	144	H41	DC	5	2.404	6.013	68.468	1.00	0.00	H
ATOM	145	H42	DC	5	1.915	5.768	70.160	1.00	0.00	H
ATOM	146	N3	DC	5	0.798	4.586	67.492	1.00	0.00	N
ATOM	147	C2	DC	5	-0.141	3.718	67.054	1.00	0.00	C
ATOM	148	O2	DC	5	-0.090	3.368	65.873	1.00	0.00	O
ATOM	149	C3'	DC	5	-3.117	0.193	68.106	1.00	0.00	C
ATOM	150	H3'	DC	5	-3.124	0.078	69.191	1.00	0.00	H
ATOM	151	C2'	DC	5	-1.798	0.820	67.649	1.00	0.00	C
ATOM	152	H2'	DC	5	-1.045	0.709	68.430	1.00	0.00	H

ATOM	153	H2"	DC	5	-1.449	0.361	66.727	1.00	0.00	H
ATOM	154	O3'	DC	5	-3.379	-1.024	67.425	1.00	0.00	O
ATOM	155	P	DG	6	-2.691	-2.392	67.844	1.00	0.00	P
ATOM	156	OP1	DG	6	-3.381	-3.462	67.090	1.00	0.00	O
ATOM	157	OP2	DG	6	-2.706	-2.468	69.323	1.00	0.00	O
ATOM	158	O5'	DG	6	-1.171	-2.305	67.333	1.00	0.00	O
ATOM	159	C5'	DG	6	-0.886	-2.348	65.934	1.00	0.00	C
ATOM	160	H5'	DG	6	-1.108	-3.349	65.560	1.00	0.00	H
ATOM	161	H5"	DG	6	-1.552	-1.648	65.431	1.00	0.00	H
ATOM	162	C4'	DG	6	0.552	-1.983	65.520	1.00	0.00	C
ATOM	163	H4'	DG	6	0.640	-2.147	64.444	1.00	0.00	H
ATOM	164	O4'	DG	6	0.848	-0.610	65.809	1.00	0.00	O
ATOM	165	C1'	DG	6	2.140	-0.584	66.400	1.00	0.00	C
ATOM	166	H1'	DG	6	2.900	-0.696	65.621	1.00	0.00	H
ATOM	167	N9	DG	6	2.437	0.650	67.162	1.00	0.00	N
ATOM	168	C8	DG	6	2.181	0.933	68.483	1.00	0.00	C
ATOM	169	H8	DG	6	1.582	0.290	69.117	1.00	0.00	H
ATOM	170	N7	DG	6	2.747	2.025	68.918	1.00	0.00	N
ATOM	171	C5	DG	6	3.404	2.526	67.783	1.00	0.00	C
ATOM	172	C6	DG	6	4.220	3.699	67.592	1.00	0.00	C
ATOM	173	O6	DG	6	4.542	4.573	68.400	1.00	0.00	O
ATOM	174	N1	DG	6	4.714	3.823	66.312	1.00	0.00	N
ATOM	175	H1	DG	6	5.313	4.614	66.131	1.00	0.00	H
ATOM	176	C2	DG	6	4.485	2.929	65.324	1.00	0.00	C
ATOM	177	N2	DG	6	5.078	3.167	64.187	1.00	0.00	N
ATOM	178	H21	DG	6	5.012	2.495	63.434	1.00	0.00	H
ATOM	179	H22	DG	6	5.667	3.988	64.090	1.00	0.00	H
ATOM	180	N3	DG	6	3.738	1.830	65.444	1.00	0.00	N
ATOM	181	C4	DG	6	3.216	1.688	66.704	1.00	0.00	C
ATOM	182	C3'	DG	6	1.632	-2.828	66.213	1.00	0.00	C
ATOM	183	H3'	DG	6	1.226	-3.728	66.677	1.00	0.00	H
ATOM	184	C2'	DG	6	2.145	-1.848	67.252	1.00	0.00	C
ATOM	185	H2'	DG	6	1.441	-1.755	68.074	1.00	0.00	H
ATOM	186	H2"	DG	6	3.139	-2.119	67.604	1.00	0.00	H

ATOM	187	O3'	DG	6	2.713	-3.106	65.334	1.00	0.00	O
ATOM	188	P	DC	7	3.000	-4.564	64.792	1.00	0.00	P
ATOM	189	OP1	DC	7	1.813	-5.032	64.040	1.00	0.00	O
ATOM	190	OP2	DC	7	3.500	-5.372	65.924	1.00	0.00	O
ATOM	191	O5'	DC	7	4.203	-4.329	63.766	1.00	0.00	O
ATOM	192	C5'	DC	7	3.971	-3.708	62.507	1.00	0.00	C
ATOM	193	H5'	DC	7	3.909	-4.477	61.737	1.00	0.00	H
ATOM	194	H5"	DC	7	3.013	-3.190	62.536	1.00	0.00	H
ATOM	195	C4'	DC	7	5.032	-2.679	62.089	1.00	0.00	C
ATOM	196	H4'	DC	7	4.738	-2.284	61.117	1.00	0.00	H
ATOM	197	O4'	DC	7	5.073	-1.601	63.019	1.00	0.00	O
ATOM	198	C1'	DC	7	6.420	-1.351	63.380	1.00	0.00	C
ATOM	199	H1'	DC	7	6.876	-0.668	62.653	1.00	0.00	H
ATOM	200	N1	DC	7	6.469	-0.772	64.754	1.00	0.00	N
ATOM	201	C6	DC	7	5.794	-1.364	65.796	1.00	0.00	C
ATOM	202	H6	DC	7	5.282	-2.307	65.628	1.00	0.00	H
ATOM	203	C5	DC	7	5.757	-0.757	67.010	1.00	0.00	C
ATOM	204	H5	DC	7	5.226	-1.209	67.829	1.00	0.00	H
ATOM	205	C4	DC	7	6.445	0.477	67.147	1.00	0.00	C
ATOM	206	N4	DC	7	6.428	1.133	68.266	1.00	0.00	N
ATOM	207	H41	DC	7	6.945	2.002	68.311	1.00	0.00	H
ATOM	208	H42	DC	7	5.968	0.749	69.081	1.00	0.00	H
ATOM	209	N3	DC	7	7.124	1.044	66.177	1.00	0.00	N
ATOM	210	C2	DC	7	7.145	0.436	64.968	1.00	0.00	C
ATOM	211	O2	DC	7	7.767	1.003	64.071	1.00	0.00	O
ATOM	212	C3'	DC	7	6.456	-3.241	61.965	1.00	0.00	C
ATOM	213	H3'	DC	7	6.435	-4.331	61.952	1.00	0.00	H
ATOM	214	C2'	DC	7	7.096	-2.713	63.248	1.00	0.00	C
ATOM	215	H2'	DC	7	6.840	-3.361	64.088	1.00	0.00	H
ATOM	216	H2"	DC	7	8.176	-2.614	63.152	1.00	0.00	H
ATOM	217	O3'	DC	7	7.068	-2.727	60.781	1.00	0.00	O
ATOM	218	P	DG	8	8.423	-3.345	60.181	1.00	0.00	P
ATOM	219	OP1	DG	8	8.506	-2.949	58.755	1.00	0.00	O
ATOM	220	OP2	DG	8	8.475	-4.785	60.522	1.00	0.00	O

ATOM	221	O5'	DG	8	9.574	-2.600	60.983	1.00	0.00	O
ATOM	222	C5'	DG	8	9.877	-1.231	60.743	1.00	0.00	C
ATOM	223	H5'	DG	8	10.299	-1.125	59.744	1.00	0.00	H
ATOM	224	H5"	DG	8	8.962	-0.639	60.792	1.00	0.00	H
ATOM	225	C4'	DG	8	10.871	-0.660	61.764	1.00	0.00	C
ATOM	226	H4'	DG	8	11.160	0.343	61.453	1.00	0.00	H
ATOM	227	O4'	DG	8	10.248	-0.578	63.037	1.00	0.00	O
ATOM	228	C1'	DG	8	11.178	-1.049	63.989	1.00	0.00	C
ATOM	229	H1'	DG	8	11.919	-0.267	64.168	1.00	0.00	H
ATOM	230	N9	DG	8	10.486	-1.354	65.262	1.00	0.00	N
ATOM	231	C8	DG	8	9.654	-2.393	65.609	1.00	0.00	C
ATOM	232	H8	DG	8	9.461	-3.230	64.950	1.00	0.00	H
ATOM	233	N7	DG	8	9.109	-2.275	66.796	1.00	0.00	N
ATOM	234	C5	DG	8	9.633	-1.067	67.276	1.00	0.00	C
ATOM	235	C6	DG	8	9.435	-0.352	68.511	1.00	0.00	C
ATOM	236	O6	DG	8	8.714	-0.624	69.471	1.00	0.00	O
ATOM	237	N1	DG	8	10.179	0.806	68.596	1.00	0.00	N
ATOM	238	H1	DG	8	10.120	1.354	69.439	1.00	0.00	H
ATOM	239	C2	DG	8	11.003	1.246	67.623	1.00	0.00	C
ATOM	240	N2	DG	8	11.670	2.333	67.867	1.00	0.00	N
ATOM	241	H21	DG	8	12.386	2.629	67.213	1.00	0.00	H
ATOM	242	H22	DG	8	11.560	2.808	68.757	1.00	0.00	H
ATOM	243	N3	DG	8	11.230	0.626	66.475	1.00	0.00	N
ATOM	244	C4	DG	8	10.500	-0.523	66.353	1.00	0.00	C
ATOM	245	C3'	DG	8	12.147	-1.502	61.939	1.00	0.00	C
ATOM	246	H3'	DG	8	12.248	-2.241	61.145	1.00	0.00	H
ATOM	247	C2'	DG	8	11.878	-2.197	63.275	1.00	0.00	C
ATOM	248	H2'	DG	8	11.204	-3.045	63.139	1.00	0.00	H
ATOM	249	H2"	DG	8	12.801	-2.495	63.771	1.00	0.00	H
ATOM	250	O3'	DG	8	13.311	-0.679	62.034	1.00	0.00	O
ATOM	251	P	DA	9	14.278	-0.466	60.780	1.00	0.00	P
ATOM	252	OP1	DA	9	13.508	0.177	59.687	1.00	0.00	O
ATOM	253	OP2	DA	9	14.946	-1.752	60.499	1.00	0.00	O
ATOM	254	O5'	DA	9	15.446	0.530	61.225	1.00	0.00	O

ATOM	255	C5'	DA	9	15.198	1.841	61.709	1.00	0.00	C
ATOM	256	H5'	DA	9	14.522	2.366	61.032	1.00	0.00	H
ATOM	257	H5"	DA	9	14.709	1.775	62.681	1.00	0.00	H
ATOM	258	C4'	DA	9	16.492	2.670	61.861	1.00	0.00	C
ATOM	259	H4'	DA	9	16.234	3.572	62.418	1.00	0.00	H
ATOM	260	O4'	DA	9	17.507	1.932	62.558	1.00	0.00	O
ATOM	261	C1'	DA	9	18.627	1.734	61.699	1.00	0.00	C
ATOM	262	H1'	DA	9	19.378	2.506	61.889	1.00	0.00	H
ATOM	263	N9	DA	9	19.242	0.397	61.832	1.00	0.00	N
ATOM	264	C8	DA	9	18.690	-0.829	61.553	1.00	0.00	C
ATOM	265	H8	DA	9	17.644	-0.940	61.280	1.00	0.00	H
ATOM	266	N7	DA	9	19.534	-1.830	61.628	1.00	0.00	N
ATOM	267	C5	DA	9	20.744	-1.198	61.976	1.00	0.00	C
ATOM	268	C6	DA	9	22.085	-1.611	62.197	1.00	0.00	C
ATOM	269	N6	DA	9	22.578	-2.828	62.101	1.00	0.00	N
ATOM	270	H61	DA	9	22.021	-3.608	61.769	1.00	0.00	H
ATOM	271	H62	DA	9	23.578	-2.921	62.159	1.00	0.00	H
ATOM	272	N1	DA	9	23.031	-0.739	62.540	1.00	0.00	N
ATOM	273	C2	DA	9	22.708	0.543	62.606	1.00	0.00	C
ATOM	274	H2	DA	9	23.510	1.223	62.863	1.00	0.00	H
ATOM	275	N3	DA	9	21.518	1.093	62.400	1.00	0.00	N
ATOM	276	C4	DA	9	20.568	0.156	62.102	1.00	0.00	C
ATOM	277	C3'	DA	9	17.149	3.095	60.539	1.00	0.00	C
ATOM	278	H3'	DA	9	16.422	3.193	59.738	1.00	0.00	H
ATOM	279	C2'	DA	9	18.094	1.937	60.291	1.00	0.00	C
ATOM	280	H2'	DA	9	17.546	1.065	59.944	1.00	0.00	H
ATOM	281	H2"	DA	9	18.888	2.195	59.600	1.00	0.00	H
ATOM	282	O3'	DA	9	17.891	4.290	60.745	1.00	0.00	O
ATOM	283	P	DA	10	18.237	5.301	59.571	1.00	0.00	P
ATOM	284	OP1	DA	10	18.948	6.416	60.239	1.00	0.00	O
ATOM	285	OP2	DA	10	17.003	5.596	58.808	1.00	0.00	O
ATOM	286	O5'	DA	10	19.232	4.496	58.598	1.00	0.00	O
ATOM	287	C5'	DA	10	20.395	5.071	58.011	1.00	0.00	C
ATOM	288	H5'	DA	10	20.690	4.446	57.168	1.00	0.00	H

ATOM	289	H5"	DA	10	20.162	6.063	57.618	1.00	0.00	H
ATOM	290	C4'	DA	10	21.585	5.178	58.985	1.00	0.00	C
ATOM	291	H4'	DA	10	21.418	6.035	59.637	1.00	0.00	H
ATOM	292	O4'	DA	10	21.733	3.984	59.754	1.00	0.00	O
ATOM	293	C1'	DA	10	22.845	3.230	59.284	1.00	0.00	C
ATOM	294	H1'	DA	10	23.632	3.246	60.043	1.00	0.00	H
ATOM	295	N9	DA	10	22.438	1.831	58.999	1.00	0.00	N
ATOM	296	C8	DA	10	21.273	1.395	58.419	1.00	0.00	C
ATOM	297	H8	DA	10	20.494	2.083	58.119	1.00	0.00	H
ATOM	298	N7	DA	10	21.183	0.098	58.273	1.00	0.00	N
ATOM	299	C5	DA	10	22.420	-0.352	58.765	1.00	0.00	C
ATOM	300	C6	DA	10	23.057	-1.614	58.878	1.00	0.00	C
ATOM	301	N6	DA	10	22.557	-2.771	58.493	1.00	0.00	N
ATOM	302	H61	DA	10	21.647	-2.807	58.061	1.00	0.00	H
ATOM	303	H62	DA	10	23.139	-3.592	58.539	1.00	0.00	H
ATOM	304	N1	DA	10	24.282	-1.727	59.383	1.00	0.00	N
ATOM	305	C2	DA	10	24.894	-0.625	59.787	1.00	0.00	C
ATOM	306	H2	DA	10	25.890	-0.757	60.187	1.00	0.00	H
ATOM	307	N3	DA	10	24.447	0.628	59.733	1.00	0.00	N
ATOM	308	C4	DA	10	23.189	0.695	59.206	1.00	0.00	C
ATOM	309	C3'	DA	10	22.902	5.379	58.229	1.00	0.00	C
ATOM	310	H3'	DA	10	22.699	5.857	57.273	1.00	0.00	H
ATOM	311	C2'	DA	10	23.342	3.932	58.020	1.00	0.00	C
ATOM	312	H2'	DA	10	22.854	3.527	57.133	1.00	0.00	H
ATOM	313	H2"	DA	10	24.422	3.845	57.919	1.00	0.00	H
ATOM	314	O3'	DA	10	23.852	6.147	58.964	1.00	0.00	O
ATOM	315	P	DA	11	25.048	6.915	58.210	1.00	0.00	P
ATOM	316	OP1	DA	11	25.604	7.949	59.109	1.00	0.00	O
ATOM	317	OP2	DA	11	24.591	7.350	56.875	1.00	0.00	O
ATOM	318	O5'	DA	11	26.130	5.788	57.942	1.00	0.00	O
ATOM	319	C5'	DA	11	27.071	5.372	58.916	1.00	0.00	C
ATOM	320	H5'	DA	11	27.762	6.186	59.129	1.00	0.00	H
ATOM	321	H5"	DA	11	26.561	5.095	59.841	1.00	0.00	H
ATOM	322	C4'	DA	11	27.872	4.171	58.394	1.00	0.00	C

ATOM	323	H4'	DA	11	28.724	4.014	59.058	1.00	0.00	H
ATOM	324	O4'	DA	11	27.068	2.990	58.384	1.00	0.00	O
ATOM	325	C1'	DA	11	27.435	2.266	57.226	1.00	0.00	C
ATOM	326	H1'	DA	11	28.412	1.806	57.388	1.00	0.00	H
ATOM	327	N9	DA	11	26.473	1.202	56.868	1.00	0.00	N
ATOM	328	C8	DA	11	25.260	1.307	56.229	1.00	0.00	C
ATOM	329	H8	DA	11	24.818	2.264	55.972	1.00	0.00	H
ATOM	330	N7	DA	11	24.698	0.158	55.947	1.00	0.00	N
ATOM	331	C5	DA	11	25.627	-0.775	56.443	1.00	0.00	C
ATOM	332	C6	DA	11	25.702	-2.188	56.488	1.00	0.00	C
ATOM	333	N6	DA	11	24.766	-3.001	56.042	1.00	0.00	N
ATOM	334	H61	DA	11	23.872	-2.618	55.767	1.00	0.00	H
ATOM	335	H62	DA	11	24.863	-3.985	56.238	1.00	0.00	H
ATOM	336	N1	DA	11	26.752	-2.816	57.015	1.00	0.00	N
ATOM	337	C2	DA	11	27.710	-2.069	57.548	1.00	0.00	C
ATOM	338	H2	DA	11	28.532	-2.609	57.995	1.00	0.00	H
ATOM	339	N3	DA	11	27.781	-0.740	57.609	1.00	0.00	N
ATOM	340	C4	DA	11	26.700	-0.149	57.018	1.00	0.00	C
ATOM	341	C3'	DA	11	28.401	4.362	56.956	1.00	0.00	C
ATOM	342	H3'	DA	11	28.235	5.377	56.584	1.00	0.00	H
ATOM	343	C2'	DA	11	27.565	3.361	56.172	1.00	0.00	C
ATOM	344	H2'	DA	11	26.595	3.796	55.930	1.00	0.00	H
ATOM	345	H2''	DA	11	28.082	3.016	55.276	1.00	0.00	H
ATOM	346	O3'	DA	11	29.762	3.984	56.841	1.00	0.00	O
ATOM	347	P	DG	12	30.905	5.087	56.933	1.00	0.00	P
ATOM	348	OP1	DG	12	30.582	5.997	58.050	1.00	0.00	O
ATOM	349	OP2	DG	12	31.146	5.611	55.576	1.00	0.00	O
ATOM	350	O5'	DG	12	32.150	4.195	57.364	1.00	0.00	O
ATOM	351	C5'	DG	12	32.191	3.685	58.686	1.00	0.00	C
ATOM	352	H5'	DG	12	32.304	4.518	59.381	1.00	0.00	H
ATOM	353	H5''	DG	12	31.246	3.186	58.906	1.00	0.00	H
ATOM	354	C4'	DG	12	33.312	2.688	58.962	1.00	0.00	C
ATOM	355	H4'	DG	12	33.246	2.417	60.017	1.00	0.00	H
ATOM	356	O4'	DG	12	33.165	1.506	58.174	1.00	0.00	O

ATOM	357	C1'	DG	12	34.428	1.214	57.602	1.00	0.00	C
ATOM	358	H1'	DG	12	35.041	0.698	58.346	1.00	0.00	H
ATOM	359	N9	DG	12	34.296	0.331	56.414	1.00	0.00	N
ATOM	360	C8	DG	12	34.651	-0.994	56.355	1.00	0.00	C
ATOM	361	H8	DG	12	35.238	-1.473	57.132	1.00	0.00	H
ATOM	362	N7	DG	12	34.212	-1.630	55.304	1.00	0.00	N
ATOM	363	C5	DG	12	33.518	-0.646	54.592	1.00	0.00	C
ATOM	364	C6	DG	12	32.765	-0.724	53.367	1.00	0.00	C
ATOM	365	O6	DG	12	32.549	-1.701	52.643	1.00	0.00	O
ATOM	366	N1	DG	12	32.194	0.475	53.001	1.00	0.00	N
ATOM	367	H1	DG	12	31.687	0.490	52.127	1.00	0.00	H
ATOM	368	C2	DG	12	32.309	1.622	53.707	1.00	0.00	C
ATOM	369	N2	DG	12	31.688	2.678	53.250	1.00	0.00	N
ATOM	370	H21	DG	12	31.150	2.641	52.389	1.00	0.00	H
ATOM	371	H22	DG	12	31.810	3.559	53.726	1.00	0.00	H
ATOM	372	N3	DG	12	32.985	1.740	54.852	1.00	0.00	N
ATOM	373	C4	DG	12	33.577	0.567	55.252	1.00	0.00	C
ATOM	374	C3'	DG	12	34.714	3.247	58.710	1.00	0.00	C
ATOM	375	H3'	DG	12	34.712	4.336	58.640	1.00	0.00	H
ATOM	376	C2'	DG	12	35.056	2.582	57.379	1.00	0.00	C
ATOM	377	H2'	DG	12	34.570	3.104	56.561	1.00	0.00	H
ATOM	378	H2"	DG	12	36.128	2.523	57.220	1.00	0.00	H
ATOM	379	O3'	DG	12	35.506	2.797	59.797	1.00	0.00	O
ATOM	380	P	DG	13	37.009	3.243	60.041	1.00	0.00	P
ATOM	381	OP1	DG	13	37.312	2.905	61.447	1.00	0.00	O
ATOM	382	OP2	DG	13	37.163	4.650	59.613	1.00	0.00	O
ATOM	383	O5'	DG	13	37.836	2.283	59.064	1.00	0.00	O
ATOM	384	C5'	DG	13	37.840	0.874	59.278	1.00	0.00	C
ATOM	385	H5'	DG	13	36.839	0.541	59.553	1.00	0.00	H
ATOM	386	H5"	DG	13	38.499	0.651	60.114	1.00	0.00	H
ATOM	387	C4'	DG	13	38.296	0.035	58.076	1.00	0.00	C
ATOM	388	H4'	DG	13	38.285	-1.013	58.383	1.00	0.00	H
ATOM	389	O4'	DG	13	37.418	0.198	56.963	1.00	0.00	O
ATOM	390	C1'	DG	13	38.198	0.374	55.790	1.00	0.00	C

ATOM	391	H1'	DG	13	38.508	-0.603	55.407	1.00	0.00	H
ATOM	392	N9	DG	13	37.429	1.100	54.746	1.00	0.00	N
ATOM	393	C8	DG	13	37.117	2.437	54.677	1.00	0.00	C
ATOM	394	H8	DG	13	37.434	3.144	55.434	1.00	0.00	H
ATOM	395	N7	DG	13	36.385	2.773	53.648	1.00	0.00	N
ATOM	396	C5	DG	13	36.218	1.566	52.956	1.00	0.00	C
ATOM	397	C6	DG	13	35.520	1.260	51.732	1.00	0.00	C
ATOM	398	O6	DG	13	34.881	2.010	50.991	1.00	0.00	O
ATOM	399	N1	DG	13	35.593	-0.072	51.386	1.00	0.00	N
ATOM	400	H1	DG	13	35.172	-0.358	50.516	1.00	0.00	H
ATOM	401	C2	DG	13	36.262	-1.004	52.106	1.00	0.00	C
ATOM	402	N2	DG	13	36.206	-2.224	51.654	1.00	0.00	N
ATOM	403	H21	DG	13	35.673	-2.408	50.813	1.00	0.00	H
ATOM	404	H22	DG	13	36.647	-2.960	52.185	1.00	0.00	H
ATOM	405	N3	DG	13	36.917	-0.773	53.244	1.00	0.00	N
ATOM	406	C4	DG	13	36.860	0.541	53.621	1.00	0.00	C
ATOM	407	C3'	DG	13	39.710	0.377	57.593	1.00	0.00	C
ATOM	408	H3'	DG	13	40.219	1.028	58.307	1.00	0.00	H
ATOM	409	C2'	DG	13	39.427	1.125	56.299	1.00	0.00	C
ATOM	410	H2'	DG	13	39.187	2.161	56.526	1.00	0.00	H
ATOM	411	H2''	DG	13	40.267	1.065	55.614	1.00	0.00	H
ATOM	412	O3'	DG	13	40.425	-0.830	57.344	1.00	0.00	O
ATOM	413	P	DT	14	41.901	-1.061	57.912	1.00	0.00	P
ATOM	414	OP1	DT	14	42.148	-2.513	57.925	1.00	0.00	O
ATOM	415	OP2	DT	14	42.050	-0.301	59.177	1.00	0.00	O
ATOM	416	O5'	DT	14	42.854	-0.405	56.802	1.00	0.00	O
ATOM	417	C5'	DT	14	44.148	0.081	57.144	1.00	0.00	C
ATOM	418	H5'	DT	14	44.835	-0.755	57.286	1.00	0.00	H
ATOM	419	H5''	DT	14	44.092	0.629	58.085	1.00	0.00	H
ATOM	420	C4'	DT	14	44.729	1.050	56.107	1.00	0.00	C
ATOM	421	H4'	DT	14	45.545	1.585	56.596	1.00	0.00	H
ATOM	422	O4'	DT	14	45.268	0.411	54.960	1.00	0.00	O
ATOM	423	C1'	DT	14	45.400	1.443	54.002	1.00	0.00	C
ATOM	424	H1'	DT	14	46.183	2.134	54.335	1.00	0.00	H

ATOM	425	N1	DT	14	45.712	0.960	52.628	1.00	0.00	N
ATOM	426	C6	DT	14	44.983	-0.053	52.042	1.00	0.00	C
ATOM	427	H6	DT	14	44.240	-0.573	52.631	1.00	0.00	H
ATOM	428	C5	DT	14	45.184	-0.400	50.741	1.00	0.00	C
ATOM	429	C7	DT	14	44.341	-1.510	50.140	1.00	0.00	C
ATOM	430	H71	DT	14	43.585	-1.858	50.845	1.00	0.00	H
ATOM	431	H72	DT	14	44.989	-2.341	49.871	1.00	0.00	H
ATOM	432	H73	DT	14	43.847	-1.143	49.240	1.00	0.00	H
ATOM	433	C4	DT	14	46.177	0.300	49.921	1.00	0.00	C
ATOM	434	O4	DT	14	46.436	0.085	48.733	1.00	0.00	O
ATOM	435	N3	DT	14	46.880	1.281	50.588	1.00	0.00	N
ATOM	436	H3	DT	14	47.546	1.823	50.064	1.00	0.00	H
ATOM	437	C2	DT	14	46.692	1.648	51.900	1.00	0.00	C
ATOM	438	O2	DT	14	47.360	2.570	52.367	1.00	0.00	O
ATOM	439	C3'	DT	14	43.735	2.105	55.589	1.00	0.00	C
ATOM	440	H3'	DT	14	42.705	1.778	55.747	1.00	0.00	H
ATOM	441	C2'	DT	14	44.046	2.143	54.089	1.00	0.00	C
ATOM	442	H2'	DT	14	43.300	1.578	53.535	1.00	0.00	H
ATOM	443	H2''	DT	14	44.103	3.161	53.704	1.00	0.00	H
ATOM	444	O3'	DT	14	43.973	3.374	56.178	1.00	0.00	O
ATOM	445	P	DT	15	42.762	4.323	56.599	1.00	0.00	P
ATOM	446	OP1	DT	15	43.357	5.550	57.177	1.00	0.00	O
ATOM	447	OP2	DT	15	41.803	3.549	57.411	1.00	0.00	O
ATOM	448	O5'	DT	15	42.053	4.677	55.227	1.00	0.00	O
ATOM	449	C5'	DT	15	42.528	5.675	54.337	1.00	0.00	C
ATOM	450	H5'	DT	15	43.493	5.388	53.917	1.00	0.00	H
ATOM	451	H5''	DT	15	42.644	6.619	54.870	1.00	0.00	H
ATOM	452	C4'	DT	15	41.512	5.885	53.206	1.00	0.00	C
ATOM	453	H4'	DT	15	41.826	6.743	52.610	1.00	0.00	H
ATOM	454	O4'	DT	15	41.422	4.724	52.377	1.00	0.00	O
ATOM	455	C1'	DT	15	40.051	4.363	52.265	1.00	0.00	C
ATOM	456	H1'	DT	15	39.593	4.956	51.468	1.00	0.00	H
ATOM	457	N1	DT	15	39.876	2.913	51.980	1.00	0.00	N
ATOM	458	C6	DT	15	40.489	1.955	52.765	1.00	0.00	C

ATOM	459	H6	DT	15	41.078	2.281	53.611	1.00	0.00	H
ATOM	460	C5	DT	15	40.399	0.632	52.449	1.00	0.00	C
ATOM	461	C7	DT	15	41.110	-0.408	53.301	1.00	0.00	C
ATOM	462	H71	DT	15	41.803	-0.969	52.673	1.00	0.00	H
ATOM	463	H72	DT	15	40.376	-1.108	53.703	1.00	0.00	H
ATOM	464	H73	DT	15	41.660	0.047	54.122	1.00	0.00	H
ATOM	465	C4	DT	15	39.641	0.201	51.274	1.00	0.00	C
ATOM	466	O4	DT	15	39.541	-0.953	50.855	1.00	0.00	O
ATOM	467	N3	DT	15	38.981	1.210	50.609	1.00	0.00	N
ATOM	468	H3	DT	15	38.388	0.946	49.833	1.00	0.00	H
ATOM	469	C2	DT	15	39.067	2.551	50.894	1.00	0.00	C
ATOM	470	O2	DT	15	38.432	3.358	50.216	1.00	0.00	O
ATOM	471	C3'	DT	15	40.104	6.151	53.764	1.00	0.00	C
ATOM	472	H3'	DT	15	40.146	6.446	54.816	1.00	0.00	H
ATOM	473	C2'	DT	15	39.440	4.789	53.594	1.00	0.00	C
ATOM	474	H2'	DT	15	39.730	4.115	54.400	1.00	0.00	H
ATOM	475	H2''	DT	15	38.358	4.867	53.535	1.00	0.00	H
ATOM	476	O3'	DT	15	39.432	7.121	52.979	1.00	0.00	O
ATOM	477	P	DG	16	38.320	8.051	53.623	1.00	0.00	P
ATOM	478	OP1	DG	16	38.946	8.969	54.605	1.00	0.00	O
ATOM	479	OP2	DG	16	37.199	7.192	54.044	1.00	0.00	O
ATOM	480	O5'	DG	16	37.852	8.908	52.385	1.00	0.00	O
ATOM	481	C5'	DG	16	38.696	9.855	51.748	1.00	0.00	C
ATOM	482	H5'	DG	16	39.608	9.375	51.391	1.00	0.00	H
ATOM	483	H5''	DG	16	38.980	10.623	52.465	1.00	0.00	H
ATOM	484	C4'	DG	16	37.985	10.524	50.562	1.00	0.00	C
ATOM	485	H4'	DG	16	38.665	11.264	50.147	1.00	0.00	H
ATOM	486	O4'	DG	16	37.627	9.574	49.550	1.00	0.00	O
ATOM	487	C1'	DG	16	36.235	9.718	49.293	1.00	0.00	C
ATOM	488	H1'	DG	16	36.090	10.531	48.576	1.00	0.00	H
ATOM	489	N9	DG	16	35.564	8.505	48.765	1.00	0.00	N
ATOM	490	C8	DG	16	34.931	8.361	47.556	1.00	0.00	C
ATOM	491	H8	DG	16	34.851	9.180	46.850	1.00	0.00	H
ATOM	492	N7	DG	16	34.403	7.179	47.357	1.00	0.00	N

ATOM	493	C5	DG	16	34.742	6.470	48.519	1.00	0.00	C
ATOM	494	C6	DG	16	34.452	5.122	48.941	1.00	0.00	C
ATOM	495	O6	DG	16	33.770	4.266	48.376	1.00	0.00	O
ATOM	496	N1	DG	16	35.016	4.784	50.156	1.00	0.00	N
ATOM	497	H1	DG	16	34.895	3.836	50.475	1.00	0.00	H
ATOM	498	C2	DG	16	35.717	5.659	50.919	1.00	0.00	C
ATOM	499	N2	DG	16	36.170	5.258	52.072	1.00	0.00	N
ATOM	500	H21	DG	16	36.107	4.292	52.355	1.00	0.00	H
ATOM	501	H22	DG	16	36.608	5.964	52.655	1.00	0.00	H
ATOM	502	N3	DG	16	35.971	6.916	50.592	1.00	0.00	N
ATOM	503	C4	DG	16	35.468	7.271	49.374	1.00	0.00	C
ATOM	504	C3'	DG	16	36.688	11.217	51.009	1.00	0.00	C
ATOM	505	H3'	DG	16	36.699	11.377	52.089	1.00	0.00	H
ATOM	506	C2'	DG	16	35.652	10.173	50.618	1.00	0.00	C
ATOM	507	H2'	DG	16	35.617	9.366	51.346	1.00	0.00	H
ATOM	508	H2''	DG	16	34.668	10.598	50.488	1.00	0.00	H
ATOM	509	O3'	DG	16	36.465	12.445	50.319	1.00	0.00	O
ATOM	510	P	DG	17	35.243	13.403	50.712	1.00	0.00	P
ATOM	511	OP1	DG	17	35.628	14.770	50.306	1.00	0.00	O
ATOM	512	OP2	DG	17	34.923	13.135	52.136	1.00	0.00	O
ATOM	513	O5'	DG	17	34.007	12.894	49.834	1.00	0.00	O
ATOM	514	C5'	DG	17	33.934	13.123	48.432	1.00	0.00	C
ATOM	515	H5'	DG	17	34.883	12.851	47.965	1.00	0.00	H
ATOM	516	H5''	DG	17	33.751	14.183	48.249	1.00	0.00	H
ATOM	517	C4'	DG	17	32.818	12.302	47.765	1.00	0.00	C
ATOM	518	H4'	DG	17	32.785	12.556	46.703	1.00	0.00	H
ATOM	519	O4'	DG	17	33.075	10.902	47.880	1.00	0.00	O
ATOM	520	C1'	DG	17	31.848	10.193	48.027	1.00	0.00	C
ATOM	521	H1'	DG	17	31.745	9.446	47.233	1.00	0.00	H
ATOM	522	N9	DG	17	31.845	9.501	49.342	1.00	0.00	N
ATOM	523	C8	DG	17	32.193	10.006	50.572	1.00	0.00	C
ATOM	524	H8	DG	17	32.443	11.050	50.715	1.00	0.00	H
ATOM	525	N7	DG	17	32.278	9.114	51.523	1.00	0.00	N
ATOM	526	C5	DG	17	31.898	7.924	50.878	1.00	0.00	C

ATOM	527	C6	DG	17	31.770	6.576	51.367	1.00	0.00	C
ATOM	528	O6	DG	17	32.024	6.131	52.485	1.00	0.00	O
ATOM	529	N1	DG	17	31.257	5.695	50.438	1.00	0.00	N
ATOM	530	H1	DG	17	31.029	4.767	50.755	1.00	0.00	H
ATOM	531	C2	DG	17	30.913	6.047	49.177	1.00	0.00	C
ATOM	532	N2	DG	17	30.406	5.108	48.424	1.00	0.00	N
ATOM	533	H21	DG	17	30.317	4.156	48.759	1.00	0.00	H
ATOM	534	H22	DG	17	30.102	5.321	47.487	1.00	0.00	H
ATOM	535	N3	DG	17	31.058	7.268	48.658	1.00	0.00	N
ATOM	536	C4	DG	17	31.559	8.170	49.563	1.00	0.00	C
ATOM	537	C3'	DG	17	31.426	12.527	48.364	1.00	0.00	C
ATOM	538	H3'	DG	17	31.494	12.555	49.451	1.00	0.00	H
ATOM	539	C2'	DG	17	30.740	11.240	47.913	1.00	0.00	C
ATOM	540	H2'	DG	17	29.881	11.002	48.540	1.00	0.00	H
ATOM	541	H2"	DG	17	30.433	11.324	46.870	1.00	0.00	H
ATOM	542	O3'	DG	17	30.779	13.695	47.867	1.00	0.00	O
ATOM	543	P	DT	18	29.310	14.110	48.359	1.00	0.00	P
ATOM	544	OP1	DT	18	29.144	15.563	48.137	1.00	0.00	O
ATOM	545	OP2	DT	18	29.096	13.589	49.722	1.00	0.00	O
ATOM	546	O5'	DT	18	28.321	13.333	47.374	1.00	0.00	O
ATOM	547	C5'	DT	18	28.367	13.554	45.971	1.00	0.00	C
ATOM	548	H5'	DT	18	29.349	13.262	45.593	1.00	0.00	H
ATOM	549	H5"	DT	18	28.229	14.615	45.764	1.00	0.00	H
ATOM	550	C4'	DT	18	27.282	12.787	45.202	1.00	0.00	C
ATOM	551	H4'	DT	18	26.309	13.198	45.462	1.00	0.00	H
ATOM	552	O4'	DT	18	27.550	12.974	43.815	1.00	0.00	O
ATOM	553	C1'	DT	18	27.818	11.708	43.227	1.00	0.00	C
ATOM	554	H1'	DT	18	26.871	11.306	42.854	1.00	0.00	H
ATOM	555	N1	DT	18	28.807	11.792	42.118	1.00	0.00	N
ATOM	556	C6	DT	18	29.921	12.603	42.212	1.00	0.00	C
ATOM	557	H6	DT	18	30.049	13.225	43.088	1.00	0.00	H
ATOM	558	C5	DT	18	30.831	12.662	41.201	1.00	0.00	C
ATOM	559	C7	DT	18	32.035	13.580	41.337	1.00	0.00	C
ATOM	560	H71	DT	18	32.033	14.095	42.298	1.00	0.00	H

ATOM	561	H72	DT	18	32.016	14.320	40.536	1.00	0.00	H
ATOM	562	H73	DT	18	32.951	12.993	41.247	1.00	0.00	H
ATOM	563	C4	DT	18	30.654	11.855	39.993	1.00	0.00	C
ATOM	564	O4	DT	18	31.399	11.833	39.011	1.00	0.00	O
ATOM	565	N3	DT	18	29.539	11.048	39.995	1.00	0.00	N
ATOM	566	H3	DT	18	29.419	10.419	39.210	1.00	0.00	H
ATOM	567	C2	DT	18	28.594	10.987	40.991	1.00	0.00	C
ATOM	568	O2	DT	18	27.621	10.241	40.862	1.00	0.00	O
ATOM	569	C3'	DT	18	27.277	11.266	45.434	1.00	0.00	C
ATOM	570	H3'	DT	18	27.596	10.987	46.441	1.00	0.00	H
ATOM	571	C2'	DT	18	28.281	10.818	44.380	1.00	0.00	C
ATOM	572	H2'	DT	18	29.303	11.053	44.679	1.00	0.00	H
ATOM	573	H2''	DT	18	28.174	9.758	44.144	1.00	0.00	H
ATOM	574	O3'	DT	18	26.017	10.698	45.094	1.00	0.00	O
ATOM	575	P	DG	19	24.911	10.331	46.172	1.00	0.00	P
ATOM	576	OP1	DG	19	23.689	9.950	45.435	1.00	0.00	O
ATOM	577	OP2	DG	19	24.808	11.442	47.142	1.00	0.00	O
ATOM	578	O5'	DG	19	25.460	9.019	46.890	1.00	0.00	O
ATOM	579	C5'	DG	19	25.623	7.814	46.146	1.00	0.00	C
ATOM	580	H5'	DG	19	26.387	7.970	45.382	1.00	0.00	H
ATOM	581	H5''	DG	19	24.688	7.577	45.638	1.00	0.00	H
ATOM	582	C4'	DG	19	26.020	6.591	46.987	1.00	0.00	C
ATOM	583	H4'	DG	19	26.245	5.768	46.309	1.00	0.00	H
ATOM	584	O4'	DG	19	27.175	6.913	47.753	1.00	0.00	O
ATOM	585	C1'	DG	19	26.844	6.819	49.130	1.00	0.00	C
ATOM	586	H1'	DG	19	27.184	5.853	49.506	1.00	0.00	H
ATOM	587	N9	DG	19	27.491	7.890	49.910	1.00	0.00	N
ATOM	588	C8	DG	19	27.615	9.227	49.622	1.00	0.00	C
ATOM	589	H8	DG	19	27.208	9.661	48.716	1.00	0.00	H
ATOM	590	N7	DG	19	28.270	9.911	50.526	1.00	0.00	N
ATOM	591	C5	DG	19	28.585	8.944	51.494	1.00	0.00	C
ATOM	592	C6	DG	19	29.309	9.027	52.734	1.00	0.00	C
ATOM	593	O6	DG	19	29.865	10.002	53.242	1.00	0.00	O
ATOM	594	N1	DG	19	29.399	7.823	53.405	1.00	0.00	N

ATOM	595	H1	DG	19	29.820	7.833	54.318	1.00	0.00	H
ATOM	596	C2	DG	19	28.880	6.661	52.945	1.00	0.00	C
ATOM	597	N2	DG	19	29.134	5.571	53.613	1.00	0.00	N
ATOM	598	H21	DG	19	29.802	5.603	54.384	1.00	0.00	H
ATOM	599	H22	DG	19	28.916	4.704	53.161	1.00	0.00	H
ATOM	600	N3	DG	19	28.204	6.528	51.809	1.00	0.00	N
ATOM	601	C4	DG	19	28.094	7.710	51.127	1.00	0.00	C
ATOM	602	C3'	DG	19	24.936	6.125	47.972	1.00	0.00	C
ATOM	603	H3'	DG	19	23.940	6.408	47.626	1.00	0.00	H
ATOM	604	C2'	DG	19	25.321	6.884	49.229	1.00	0.00	C
ATOM	605	H2'	DG	19	24.966	7.914	49.178	1.00	0.00	H
ATOM	606	H2''	DG	19	24.950	6.391	50.128	1.00	0.00	H
ATOM	607	O3'	DG	19	25.040	4.722	48.196	1.00	0.00	O
ATOM	608	P	DT	20	23.768	3.760	48.111	1.00	0.00	P
ATOM	609	OP1	DT	20	22.987	4.086	46.894	1.00	0.00	O
ATOM	610	OP2	DT	20	23.101	3.749	49.431	1.00	0.00	O
ATOM	611	O5'	DT	20	24.429	2.329	47.929	1.00	0.00	O
ATOM	612	C5'	DT	20	25.137	1.973	46.752	1.00	0.00	C
ATOM	613	H5'	DT	20	26.001	2.627	46.628	1.00	0.00	H
ATOM	614	H5''	DT	20	24.486	2.085	45.884	1.00	0.00	H
ATOM	615	C4'	DT	20	25.616	0.518	46.808	1.00	0.00	C
ATOM	616	H4'	DT	20	26.067	0.271	45.850	1.00	0.00	H
ATOM	617	O4'	DT	20	26.587	0.336	47.837	1.00	0.00	O
ATOM	618	C1'	DT	20	26.313	-0.897	48.481	1.00	0.00	C
ATOM	619	H1'	DT	20	26.681	-1.718	47.855	1.00	0.00	H
ATOM	620	N1	DT	20	26.917	-0.978	49.845	1.00	0.00	N
ATOM	621	C6	DT	20	27.008	0.138	50.655	1.00	0.00	C
ATOM	622	H6	DT	20	26.653	1.084	50.272	1.00	0.00	H
ATOM	623	C5	DT	20	27.537	0.057	51.908	1.00	0.00	C
ATOM	624	C7	DT	20	27.614	1.294	52.787	1.00	0.00	C
ATOM	625	H71	DT	20	28.655	1.480	53.053	1.00	0.00	H
ATOM	626	H72	DT	20	27.214	2.167	52.276	1.00	0.00	H
ATOM	627	H73	DT	20	27.047	1.120	53.700	1.00	0.00	H
ATOM	628	C4	DT	20	28.028	-1.217	52.429	1.00	0.00	C

ATOM	629	O4	DT	20	28.505	-1.411	53.547	1.00	0.00	O
ATOM	630	N3	DT	20	27.902	-2.279	51.564	1.00	0.00	N
ATOM	631	H3	DT	20	28.220	-3.179	51.889	1.00	0.00	H
ATOM	632	C2	DT	20	27.325	-2.234	50.315	1.00	0.00	C
ATOM	633	O2	DT	20	27.162	-3.283	49.693	1.00	0.00	O
ATOM	634	C3'	DT	20	24.468	-0.472	47.075	1.00	0.00	C
ATOM	635	H3'	DT	20	23.496	0.028	47.052	1.00	0.00	H
ATOM	636	C2'	DT	20	24.787	-0.925	48.500	1.00	0.00	C
ATOM	637	H2'	DT	20	24.405	-0.198	49.219	1.00	0.00	H
ATOM	638	H2"	DT	20	24.402	-1.920	48.715	1.00	0.00	H
ATOM	639	O3'	DT	20	24.496	-1.573	46.169	1.00	0.00	O
ATOM	640	P	DG	21	23.747	-1.498	44.754	1.00	0.00	P
ATOM	641	OP1	DG	21	22.304	-1.364	45.040	1.00	0.00	O
ATOM	642	OP2	DG	21	24.173	-2.657	43.941	1.00	0.00	O
ATOM	643	O5'	DG	21	24.210	-0.159	44.019	1.00	0.00	O
ATOM	644	C5'	DG	21	25.335	-0.122	43.149	1.00	0.00	C
ATOM	645	H5'	DG	21	25.226	-0.899	42.391	1.00	0.00	H
ATOM	646	H5"	DG	21	26.254	-0.305	43.705	1.00	0.00	H
ATOM	647	C4'	DG	21	25.408	1.239	42.439	1.00	0.00	C
ATOM	648	H4'	DG	21	24.417	1.455	42.038	1.00	0.00	H
ATOM	649	O4'	DG	21	25.799	2.278	43.336	1.00	0.00	O
ATOM	650	C1'	DG	21	27.138	2.676	43.052	1.00	0.00	C
ATOM	651	H1'	DG	21	27.110	3.649	42.556	1.00	0.00	H
ATOM	652	N9	DG	21	27.914	2.843	44.308	1.00	0.00	N
ATOM	653	C8	DG	21	28.119	4.025	44.971	1.00	0.00	C
ATOM	654	H8	DG	21	27.755	4.968	44.587	1.00	0.00	H
ATOM	655	N7	DG	21	28.767	3.919	46.097	1.00	0.00	N
ATOM	656	C5	DG	21	28.988	2.542	46.214	1.00	0.00	C
ATOM	657	C6	DG	21	29.617	1.769	47.253	1.00	0.00	C
ATOM	658	O6	DG	21	30.140	2.165	48.294	1.00	0.00	O
ATOM	659	N1	DG	21	29.608	0.408	47.015	1.00	0.00	N
ATOM	660	H1	DG	21	29.974	-0.193	47.733	1.00	0.00	H
ATOM	661	C2	DG	21	29.039	-0.156	45.924	1.00	0.00	C
ATOM	662	N2	DG	21	29.013	-1.459	45.844	1.00	0.00	N

ATOM	663	H21	DG	21	29.448	-2.043	46.544	1.00	0.00	H
ATOM	664	H22	DG	21	28.570	-1.855	45.031	1.00	0.00	H
ATOM	665	N3	DG	21	28.462	0.517	44.937	1.00	0.00	N
ATOM	666	C4	DG	21	28.462	1.872	45.129	1.00	0.00	C
ATOM	667	C3'	DG	21	26.439	1.246	41.299	1.00	0.00	C
ATOM	668	H3'	DG	21	26.570	0.240	40.905	1.00	0.00	H
ATOM	669	C2'	DG	21	27.700	1.683	42.033	1.00	0.00	C
ATOM	670	H2'	DG	21	28.155	0.817	42.505	1.00	0.00	H
ATOM	671	H2"	DG	21	28.422	2.154	41.371	1.00	0.00	H
ATOM	672	O3'	DG	21	26.028	2.145	40.268	1.00	0.00	O
ATOM	673	P	DG	22	26.715	2.163	38.814	1.00	0.00	P
ATOM	674	OP1	DG	22	25.810	2.895	37.911	1.00	0.00	O
ATOM	675	OP2	DG	22	27.084	0.776	38.461	1.00	0.00	O
ATOM	676	O5'	DG	22	28.025	3.046	39.002	1.00	0.00	O
ATOM	677	C5'	DG	22	27.900	4.454	39.196	1.00	0.00	C
ATOM	678	H5'	DG	22	27.093	4.655	39.897	1.00	0.00	H
ATOM	679	H5"	DG	22	27.642	4.929	38.248	1.00	0.00	H
ATOM	680	C4'	DG	22	29.154	5.125	39.760	1.00	0.00	C
ATOM	681	H4'	DG	22	28.957	6.194	39.859	1.00	0.00	H
ATOM	682	O4'	DG	22	29.467	4.588	41.046	1.00	0.00	O
ATOM	683	C1'	DG	22	30.862	4.356	41.070	1.00	0.00	C
ATOM	684	H1'	DG	22	31.384	5.303	41.235	1.00	0.00	H
ATOM	685	N9	DG	22	31.254	3.396	42.127	1.00	0.00	N
ATOM	686	C8	DG	22	31.457	2.041	42.030	1.00	0.00	C
ATOM	687	H8	DG	22	31.262	1.492	41.120	1.00	0.00	H
ATOM	688	N7	DG	22	31.912	1.481	43.117	1.00	0.00	N
ATOM	689	C5	DG	22	32.007	2.551	44.019	1.00	0.00	C
ATOM	690	C6	DG	22	32.452	2.609	45.386	1.00	0.00	C
ATOM	691	O6	DG	22	32.847	1.702	46.117	1.00	0.00	O
ATOM	692	N1	DG	22	32.419	3.878	45.920	1.00	0.00	N
ATOM	693	H1	DG	22	32.757	3.986	46.866	1.00	0.00	H
ATOM	694	C2	DG	22	31.970	4.965	45.252	1.00	0.00	C
ATOM	695	N2	DG	22	31.992	6.099	45.892	1.00	0.00	N
ATOM	696	H21	DG	22	32.422	6.170	46.805	1.00	0.00	H

ATOM	697	H22	DG	22	31.677	6.934	45.427	1.00	0.00	H
ATOM	698	N3	DG	22	31.543	4.971	43.990	1.00	0.00	N
ATOM	699	C4	DG	22	31.590	3.724	43.422	1.00	0.00	C
ATOM	700	C3'	DG	22	30.390	4.943	38.870	1.00	0.00	C
ATOM	701	H3'	DG	22	30.118	4.614	37.865	1.00	0.00	H
ATOM	702	C2'	DG	22	31.136	3.867	39.648	1.00	0.00	C
ATOM	703	H2'	DG	22	30.673	2.896	39.472	1.00	0.00	H
ATOM	704	H2"	DG	22	32.195	3.833	39.407	1.00	0.00	H
ATOM	705	O3'	DG	22	31.098	6.173	38.845	1.00	0.00	O
ATOM	706	P	DT	23	32.232	6.490	37.784	1.00	0.00	P
ATOM	707	OP1	DT	23	32.477	7.939	37.912	1.00	0.00	O
ATOM	708	OP2	DT	23	31.826	5.956	36.465	1.00	0.00	O
ATOM	709	O5'	DT	23	33.496	5.716	38.355	1.00	0.00	O
ATOM	710	C5'	DT	23	34.793	5.839	37.796	1.00	0.00	C
ATOM	711	H5'	DT	23	34.924	6.831	37.360	1.00	0.00	H
ATOM	712	H5"	DT	23	34.921	5.097	37.007	1.00	0.00	H
ATOM	713	C4'	DT	23	35.870	5.640	38.879	1.00	0.00	C
ATOM	714	H4'	DT	23	36.850	5.761	38.415	1.00	0.00	H
ATOM	715	O4'	DT	23	35.693	6.637	39.889	1.00	0.00	O
ATOM	716	C1'	DT	23	35.576	5.985	41.149	1.00	0.00	C
ATOM	717	H1'	DT	23	36.574	5.838	41.571	1.00	0.00	H
ATOM	718	N1	DT	23	34.739	6.727	42.119	1.00	0.00	N
ATOM	719	C6	DT	23	33.610	7.400	41.700	1.00	0.00	C
ATOM	720	H6	DT	23	33.319	7.351	40.657	1.00	0.00	H
ATOM	721	C5	DT	23	32.888	8.152	42.571	1.00	0.00	C
ATOM	722	C7	DT	23	31.684	8.928	42.064	1.00	0.00	C
ATOM	723	H71	DT	23	30.794	8.616	42.611	1.00	0.00	H
ATOM	724	H72	DT	23	31.526	8.762	40.998	1.00	0.00	H
ATOM	725	H73	DT	23	31.842	9.991	42.246	1.00	0.00	H
ATOM	726	C4	DT	23	33.278	8.229	43.978	1.00	0.00	C
ATOM	727	O4	DT	23	32.742	8.914	44.845	1.00	0.00	O
ATOM	728	N3	DT	23	34.354	7.446	44.333	1.00	0.00	N
ATOM	729	H3	DT	23	34.556	7.367	45.318	1.00	0.00	H
ATOM	730	C2	DT	23	35.111	6.688	43.472	1.00	0.00	C

ATOM	731	O2	DT	23	36.048	6.014	43.912	1.00	0.00	O
ATOM	732	C3'	DT	23	35.825	4.278	39.599	1.00	0.00	C
ATOM	733	H3'	DT	23	35.360	3.508	38.978	1.00	0.00	H
ATOM	734	C2'	DT	23	34.990	4.622	40.831	1.00	0.00	C
ATOM	735	H2'	DT	23	33.933	4.700	40.590	1.00	0.00	H
ATOM	736	H2"	DT	23	35.138	3.939	41.662	1.00	0.00	H
ATOM	737	O3'	DT	23	37.150	3.927	39.992	1.00	0.00	O
ATOM	738	P	DT	24	37.588	2.436	40.352	1.00	0.00	P
ATOM	739	OP1	DT	24	38.997	2.511	40.774	1.00	0.00	O
ATOM	740	OP2	DT	24	37.261	1.579	39.194	1.00	0.00	O
ATOM	741	O5'	DT	24	36.726	2.032	41.632	1.00	0.00	O
ATOM	742	C5'	DT	24	35.526	1.273	41.555	1.00	0.00	C
ATOM	743	H5'	DT	24	34.953	1.551	40.669	1.00	0.00	H
ATOM	744	H5"	DT	24	34.917	1.496	42.430	1.00	0.00	H
ATOM	745	C4'	DT	24	35.819	-0.234	41.528	1.00	0.00	C
ATOM	746	H4'	DT	24	36.309	-0.485	40.587	1.00	0.00	H
ATOM	747	O4'	DT	24	36.654	-0.591	42.624	1.00	0.00	O
ATOM	748	C1'	DT	24	35.915	-1.356	43.566	1.00	0.00	C
ATOM	749	H1'	DT	24	36.205	-2.405	43.460	1.00	0.00	H
ATOM	750	N1	DT	24	36.192	-0.863	44.943	1.00	0.00	N
ATOM	751	C6	DT	24	36.107	0.486	45.238	1.00	0.00	C
ATOM	752	H6	DT	24	35.841	1.179	44.453	1.00	0.00	H
ATOM	753	C5	DT	24	36.400	0.954	46.480	1.00	0.00	C
ATOM	754	C7	DT	24	36.317	2.444	46.760	1.00	0.00	C
ATOM	755	H71	DT	24	35.951	2.993	45.893	1.00	0.00	H
ATOM	756	H72	DT	24	37.305	2.813	47.036	1.00	0.00	H
ATOM	757	H73	DT	24	35.647	2.609	47.603	1.00	0.00	H
ATOM	758	C4	DT	24	36.811	0.034	47.538	1.00	0.00	C
ATOM	759	O4	DT	24	37.113	0.323	48.692	1.00	0.00	O
ATOM	760	N3	DT	24	36.868	-1.286	47.166	1.00	0.00	N
ATOM	761	H3	DT	24	37.212	-1.929	47.858	1.00	0.00	H
ATOM	762	C2	DT	24	36.584	-1.787	45.920	1.00	0.00	C
ATOM	763	O2	DT	24	36.669	-3.001	45.735	1.00	0.00	O
ATOM	764	C3'	DT	24	34.539	-1.061	41.669	1.00	0.00	C

ATOM	765	H3'	DT	24	33.686	-0.522	41.254	1.00	0.00	H
ATOM	766	C2'	DT	24	34.444	-1.220	43.179	1.00	0.00	C
ATOM	767	H2'	DT	24	34.003	-0.328	43.624	1.00	0.00	H
ATOM	768	H2"	DT	24	33.878	-2.110	43.456	1.00	0.00	H
ATOM	769	O3'	DT	24	34.732	-2.303	41.021	1.00	0.00	O
ATOM	770	P	DG	25	33.535	-3.235	40.562	1.00	0.00	P
ATOM	771	OP1	DG	25	34.005	-3.896	39.326	1.00	0.00	O
ATOM	772	OP2	DG	25	32.282	-2.450	40.515	1.00	0.00	O
ATOM	773	O5'	DG	25	33.330	-4.330	41.704	1.00	0.00	O
ATOM	774	C5'	DG	25	34.132	-5.503	41.740	1.00	0.00	C
ATOM	775	H5'	DG	25	35.185	-5.222	41.748	1.00	0.00	H
ATOM	776	H5"	DG	25	33.946	-6.086	40.836	1.00	0.00	H
ATOM	777	C4'	DG	25	33.866	-6.403	42.953	1.00	0.00	C
ATOM	778	H4'	DG	25	34.391	-7.342	42.774	1.00	0.00	H
ATOM	779	O4'	DG	25	34.370	-5.840	44.157	1.00	0.00	O
ATOM	780	C1'	DG	25	33.498	-6.224	45.203	1.00	0.00	C
ATOM	781	H1'	DG	25	33.647	-7.285	45.428	1.00	0.00	H
ATOM	782	N9	DG	25	33.771	-5.430	46.430	1.00	0.00	N
ATOM	783	C8	DG	25	34.507	-5.858	47.509	1.00	0.00	C
ATOM	784	H8	DG	25	34.848	-6.884	47.603	1.00	0.00	H
ATOM	785	N7	DG	25	34.784	-4.930	48.386	1.00	0.00	N
ATOM	786	C5	DG	25	34.166	-3.790	47.855	1.00	0.00	C
ATOM	787	C6	DG	25	34.104	-2.438	48.345	1.00	0.00	C
ATOM	788	O6	DG	25	34.572	-1.971	49.380	1.00	0.00	O
ATOM	789	N1	DG	25	33.426	-1.572	47.516	1.00	0.00	N
ATOM	790	H1	DG	25	33.336	-0.618	47.835	1.00	0.00	H
ATOM	791	C2	DG	25	32.839	-1.959	46.359	1.00	0.00	C
ATOM	792	N2	DG	25	32.237	-1.042	45.656	1.00	0.00	N
ATOM	793	H21	DG	25	32.321	-0.063	45.907	1.00	0.00	H
ATOM	794	H22	DG	25	31.782	-1.336	44.803	1.00	0.00	H
ATOM	795	N3	DG	25	32.853	-3.196	45.877	1.00	0.00	N
ATOM	796	C4	DG	25	33.540	-4.083	46.662	1.00	0.00	C
ATOM	797	C3'	DG	25	32.390	-6.741	43.208	1.00	0.00	C
ATOM	798	H3'	DG	25	31.755	-6.332	42.422	1.00	0.00	H

ATOM	799	C2'	DG	25	32.124	-6.080	44.563	1.00	0.00	C
ATOM	800	H2'	DG	25	31.869	-5.033	44.425	1.00	0.00	H
ATOM	801	H2''	DG	25	31.354	-6.594	45.135	1.00	0.00	H
ATOM	802	O3'	DG	25	32.273	-8.152	43.263	1.00	0.00	O
ATOM	803	P	DG	26	30.873	-8.898	43.268	1.00	0.00	P
ATOM	804	OP1	DG	26	31.096	-10.212	42.630	1.00	0.00	O
ATOM	805	OP2	DG	26	29.856	-7.997	42.694	1.00	0.00	O
ATOM	806	O5'	DG	26	30.539	-9.117	44.814	1.00	0.00	O
ATOM	807	C5'	DG	26	31.420	-9.844	45.667	1.00	0.00	C
ATOM	808	H5'	DG	26	32.454	-9.581	45.440	1.00	0.00	H
ATOM	809	H5''	DG	26	31.295	-10.913	45.492	1.00	0.00	H
ATOM	810	C4'	DG	26	31.181	-9.542	47.155	1.00	0.00	C
ATOM	811	H4'	DG	26	31.853	-10.168	47.746	1.00	0.00	H
ATOM	812	O4'	DG	26	31.458	-8.163	47.420	1.00	0.00	O
ATOM	813	C1'	DG	26	30.364	-7.627	48.150	1.00	0.00	C
ATOM	814	H1'	DG	26	30.498	-7.859	49.209	1.00	0.00	H
ATOM	815	N9	DG	26	30.222	-6.157	47.995	1.00	0.00	N
ATOM	816	C8	DG	26	29.479	-5.451	47.078	1.00	0.00	C
ATOM	817	H8	DG	26	28.950	-5.937	46.268	1.00	0.00	H
ATOM	818	N7	DG	26	29.447	-4.158	47.278	1.00	0.00	N
ATOM	819	C5	DG	26	30.263	-3.989	48.404	1.00	0.00	C
ATOM	820	C6	DG	26	30.652	-2.805	49.124	1.00	0.00	C
ATOM	821	O6	DG	26	30.340	-1.632	48.910	1.00	0.00	O
ATOM	822	N1	DG	26	31.503	-3.055	50.182	1.00	0.00	N
ATOM	823	H1	DG	26	31.832	-2.274	50.726	1.00	0.00	H
ATOM	824	C2	DG	26	31.940	-4.295	50.515	1.00	0.00	C
ATOM	825	N2	DG	26	32.776	-4.370	51.512	1.00	0.00	N
ATOM	826	H21	DG	26	33.097	-3.527	51.972	1.00	0.00	H
ATOM	827	H22	DG	26	33.088	-5.282	51.804	1.00	0.00	H
ATOM	828	N3	DG	26	31.582	-5.422	49.905	1.00	0.00	N
ATOM	829	C4	DG	26	30.748	-5.205	48.841	1.00	0.00	C
ATOM	830	C3'	DG	26	29.736	-9.814	47.608	1.00	0.00	C
ATOM	831	H3'	DG	26	29.205	-10.454	46.906	1.00	0.00	H
ATOM	832	C2'	DG	26	29.161	-8.408	47.622	1.00	0.00	C

ATOM	833	H2'	DG	26	28.905	-8.110	46.605	1.00	0.00	H
ATOM	834	H2"	DG	26	28.299	-8.330	48.281	1.00	0.00	H
ATOM	835	O3'	DG	26	29.705	-10.341	48.923	1.00	0.00	O
ATOM	836	P	DT	27	28.939	-11.693	49.273	1.00	0.00	P
ATOM	837	OP1	DT	27	29.256	-12.716	48.248	1.00	0.00	O
ATOM	838	OP2	DT	27	27.520	-11.366	49.544	1.00	0.00	O
ATOM	839	O5'	DT	27	29.671	-12.087	50.653	1.00	0.00	O
ATOM	840	C5'	DT	27	31.063	-12.419	50.676	1.00	0.00	C
ATOM	841	H5'	DT	27	31.170	-13.486	50.881	1.00	0.00	H
ATOM	842	H5"	DT	27	31.505	-12.233	49.695	1.00	0.00	H
ATOM	843	C4'	DT	27	31.896	-11.628	51.709	1.00	0.00	C
ATOM	844	H4'	DT	27	32.937	-11.943	51.606	1.00	0.00	H
ATOM	845	O4'	DT	27	31.800	-10.224	51.457	1.00	0.00	O
ATOM	846	C1'	DT	27	31.455	-9.565	52.666	1.00	0.00	C
ATOM	847	H1'	DT	27	32.364	-9.341	53.235	1.00	0.00	H
ATOM	848	N1	DT	27	30.679	-8.324	52.397	1.00	0.00	N
ATOM	849	C6	DT	27	29.477	-8.383	51.725	1.00	0.00	C
ATOM	850	H6	DT	27	29.173	-9.321	51.275	1.00	0.00	H
ATOM	851	C5	DT	27	28.680	-7.288	51.625	1.00	0.00	C
ATOM	852	C7	DT	27	27.364	-7.410	50.880	1.00	0.00	C
ATOM	853	H71	DT	27	27.317	-6.657	50.093	1.00	0.00	H
ATOM	854	H72	DT	27	26.540	-7.253	51.573	1.00	0.00	H
ATOM	855	H73	DT	27	27.259	-8.401	50.442	1.00	0.00	H
ATOM	856	C4	DT	27	29.071	-6.019	52.241	1.00	0.00	C
ATOM	857	O4	DT	27	28.405	-4.984	52.252	1.00	0.00	O
ATOM	858	N3	DT	27	30.299	-6.034	52.865	1.00	0.00	N
ATOM	859	H3	DT	27	30.637	-5.166	53.260	1.00	0.00	H
ATOM	860	C2	DT	27	31.160	-7.108	52.903	1.00	0.00	C
ATOM	861	O2	DT	27	32.296	-6.961	53.349	1.00	0.00	O
ATOM	862	C3'	DT	27	31.474	-11.851	53.171	1.00	0.00	C
ATOM	863	H3'	DT	27	30.873	-12.755	53.260	1.00	0.00	H
ATOM	864	C2'	DT	27	30.650	-10.602	53.446	1.00	0.00	C
ATOM	865	H2'	DT	27	29.645	-10.724	53.042	1.00	0.00	H
ATOM	866	H2"	DT	27	30.608	-10.364	54.507	1.00	0.00	H

ATOM	867	O3'	DT	27	32.616	-11.920	54.023	1.00	0.00	O
ATOM	868	P	DT	28	32.510	-12.397	55.550	1.00	0.00	P
ATOM	869	OP1	DT	28	33.793	-13.030	55.916	1.00	0.00	O
ATOM	870	OP2	DT	28	31.256	-13.152	55.745	1.00	0.00	O
ATOM	871	O5'	DT	28	32.327	-11.060	56.399	1.00	0.00	O
ATOM	872	C5'	DT	28	33.346	-10.076	56.530	1.00	0.00	C
ATOM	873	H5'	DT	28	34.118	-10.437	57.210	1.00	0.00	H
ATOM	874	H5"	DT	28	33.803	-9.879	55.559	1.00	0.00	H
ATOM	875	C4'	DT	28	32.780	-8.753	57.074	1.00	0.00	C
ATOM	876	H4'	DT	28	33.607	-8.071	57.281	1.00	0.00	H
ATOM	877	O4'	DT	28	31.894	-8.140	56.150	1.00	0.00	O
ATOM	878	C1'	DT	28	31.175	-7.147	56.867	1.00	0.00	C
ATOM	879	H1'	DT	28	31.764	-6.224	56.876	1.00	0.00	H
ATOM	880	N1	DT	28	29.839	-6.883	56.275	1.00	0.00	N
ATOM	881	C6	DT	28	29.083	-7.917	55.768	1.00	0.00	C
ATOM	882	H6	DT	28	29.476	-8.927	55.820	1.00	0.00	H
ATOM	883	C5	DT	28	27.866	-7.681	55.213	1.00	0.00	C
ATOM	884	C7	DT	28	27.083	-8.848	54.642	1.00	0.00	C
ATOM	885	H71	DT	28	26.916	-8.686	53.578	1.00	0.00	H
ATOM	886	H72	DT	28	26.112	-8.914	55.132	1.00	0.00	H
ATOM	887	H73	DT	28	27.613	-9.791	54.782	1.00	0.00	H
ATOM	888	C4	DT	28	27.312	-6.325	55.182	1.00	0.00	C
ATOM	889	O4	DT	28	26.242	-5.981	54.683	1.00	0.00	O
ATOM	890	N3	DT	28	28.087	-5.367	55.796	1.00	0.00	N
ATOM	891	H3	DT	28	27.697	-4.443	55.902	1.00	0.00	H
ATOM	892	C2	DT	28	29.329	-5.581	56.345	1.00	0.00	C
ATOM	893	O2	DT	28	29.916	-4.644	56.880	1.00	0.00	O
ATOM	894	C3'	DT	28	31.929	-8.910	58.338	1.00	0.00	C
ATOM	895	H3'	DT	28	31.295	-9.791	58.233	1.00	0.00	H
ATOM	896	C2'	DT	28	31.052	-7.661	58.300	1.00	0.00	C
ATOM	897	H2'	DT	28	30.026	-7.918	58.563	1.00	0.00	H
ATOM	898	H2"	DT	28	31.421	-6.895	58.977	1.00	0.00	H
ATOM	899	O3'	DT	28	32.711	-8.961	59.523	1.00	0.00	O
ATOM	900	P	DT	29	32.080	-9.431	60.915	1.00	0.00	P

ATOM	901	OP1	DT	29	33.187	-9.629	61.867	1.00	0.00	O
ATOM	902	OP2	DT	29	31.175	-10.574	60.656	1.00	0.00	O
ATOM	903	O5'	DT	29	31.183	-8.206	61.421	1.00	0.00	O
ATOM	904	C5'	DT	29	31.781	-6.957	61.760	1.00	0.00	C
ATOM	905	H5'	DT	29	32.428	-7.095	62.629	1.00	0.00	H
ATOM	906	H5''	DT	29	32.407	-6.610	60.940	1.00	0.00	H
ATOM	907	C4'	DT	29	30.765	-5.848	62.073	1.00	0.00	C
ATOM	908	H4'	DT	29	31.321	-4.947	62.332	1.00	0.00	H
ATOM	909	O4'	DT	29	29.902	-5.556	60.968	1.00	0.00	O
ATOM	910	C1'	DT	29	28.615	-5.335	61.519	1.00	0.00	C
ATOM	911	H1'	DT	29	28.610	-4.374	62.042	1.00	0.00	H
ATOM	912	N1	DT	29	27.508	-5.375	60.527	1.00	0.00	N
ATOM	913	C6	DT	29	27.267	-6.502	59.769	1.00	0.00	C
ATOM	914	H6	DT	29	27.954	-7.339	59.836	1.00	0.00	H
ATOM	915	C5	DT	29	26.176	-6.577	58.961	1.00	0.00	C
ATOM	916	C7	DT	29	25.953	-7.842	58.155	1.00	0.00	C
ATOM	917	H71	DT	29	25.709	-7.578	57.128	1.00	0.00	H
ATOM	918	H72	DT	29	25.113	-8.395	58.571	1.00	0.00	H
ATOM	919	H73	DT	29	26.838	-8.480	58.164	1.00	0.00	H
ATOM	920	C4	DT	29	25.238	-5.455	58.858	1.00	0.00	C
ATOM	921	O4	DT	29	24.225	-5.399	58.159	1.00	0.00	O
ATOM	922	N3	DT	29	25.558	-4.371	59.640	1.00	0.00	N
ATOM	923	H3	DT	29	24.998	-3.536	59.553	1.00	0.00	H
ATOM	924	C2	DT	29	26.643	-4.274	60.474	1.00	0.00	C
ATOM	925	O2	DT	29	26.800	-3.240	61.120	1.00	0.00	O
ATOM	926	C3'	DT	29	29.856	-6.197	63.259	1.00	0.00	C
ATOM	927	H3'	DT	29	30.222	-7.080	63.781	1.00	0.00	H
ATOM	928	C2'	DT	29	28.522	-6.443	62.557	1.00	0.00	C
ATOM	929	H2'	DT	29	28.513	-7.423	62.082	1.00	0.00	H
ATOM	930	H2''	DT	29	27.661	-6.324	63.211	1.00	0.00	H
ATOM	931	O3'	DT	29	29.780	-5.090	64.144	1.00	0.00	O
ATOM	932	P	DA	30	29.130	-5.226	65.586	1.00	0.00	P
ATOM	933	OP1	DA	30	29.619	-4.085	66.397	1.00	0.00	O
ATOM	934	OP2	DA	30	29.358	-6.599	66.072	1.00	0.00	O

ATOM	935	O5'	DA	30	27.563	-5.058	65.350	1.00	0.00	O
ATOM	936	C5'	DA	30	27.012	-3.836	64.888	1.00	0.00	C
ATOM	937	H5'	DA	30	27.176	-3.067	65.645	1.00	0.00	H
ATOM	938	H5"	DA	30	27.520	-3.528	63.974	1.00	0.00	H
ATOM	939	C4'	DA	30	25.506	-3.921	64.596	1.00	0.00	C
ATOM	940	H4'	DA	30	25.174	-2.906	64.393	1.00	0.00	H
ATOM	941	O4'	DA	30	25.205	-4.700	63.437	1.00	0.00	O
ATOM	942	C1'	DA	30	24.044	-5.464	63.719	1.00	0.00	C
ATOM	943	H1'	DA	30	23.145	-4.845	63.643	1.00	0.00	H
ATOM	944	N9	DA	30	23.915	-6.617	62.796	1.00	0.00	N
ATOM	945	C8	DA	30	24.492	-7.864	62.881	1.00	0.00	C
ATOM	946	H8	DA	30	25.166	-8.146	63.682	1.00	0.00	H
ATOM	947	N7	DA	30	24.155	-8.679	61.914	1.00	0.00	N
ATOM	948	C5	DA	30	23.297	-7.897	61.121	1.00	0.00	C
ATOM	949	C6	DA	30	22.576	-8.104	59.918	1.00	0.00	C
ATOM	950	N6	DA	30	22.559	-9.228	59.225	1.00	0.00	N
ATOM	951	H61	DA	30	23.107	-10.017	59.543	1.00	0.00	H
ATOM	952	H62	DA	30	22.012	-9.272	58.380	1.00	0.00	H
ATOM	953	N1	DA	30	21.862	-7.128	59.355	1.00	0.00	N
ATOM	954	C2	DA	30	21.787	-5.974	60.006	1.00	0.00	C
ATOM	955	H2	DA	30	21.177	-5.209	59.546	1.00	0.00	H
ATOM	956	N3	DA	30	22.399	-5.624	61.132	1.00	0.00	N
ATOM	957	C4	DA	30	23.150	-6.641	61.648	1.00	0.00	C
ATOM	958	C3'	DA	30	24.658	-4.478	65.757	1.00	0.00	C
ATOM	959	H3'	DA	30	25.253	-4.600	66.665	1.00	0.00	H
ATOM	960	C2'	DA	30	24.256	-5.835	65.183	1.00	0.00	C
ATOM	961	H2'	DA	30	25.085	-6.535	65.294	1.00	0.00	H
ATOM	962	H2"	DA	30	23.354	-6.230	65.642	1.00	0.00	H
ATOM	963	O3'	DA	30	23.561	-3.592	65.978	1.00	0.00	O
ATOM	964	P	DA	31	22.361	-3.882	67.006	1.00	0.00	P
ATOM	965	OP1	DA	31	21.909	-2.565	67.514	1.00	0.00	O
ATOM	966	OP2	DA	31	22.764	-4.929	67.967	1.00	0.00	O
ATOM	967	O5'	DA	31	21.224	-4.463	66.049	1.00	0.00	O
ATOM	968	C5'	DA	31	20.692	-3.667	64.996	1.00	0.00	C

ATOM	969	H5'	DA	31	20.152	-2.815	65.409	1.00	0.00	H
ATOM	970	H5''	DA	31	21.519	-3.276	64.409	1.00	0.00	H
ATOM	971	C4'	DA	31	19.760	-4.425	64.038	1.00	0.00	C
ATOM	972	H4'	DA	31	19.558	-3.776	63.192	1.00	0.00	H
ATOM	973	O4'	DA	31	20.409	-5.604	63.576	1.00	0.00	O
ATOM	974	C1'	DA	31	19.638	-6.738	63.935	1.00	0.00	C
ATOM	975	H1'	DA	31	19.024	-7.039	63.083	1.00	0.00	H
ATOM	976	N9	DA	31	20.535	-7.847	64.340	1.00	0.00	N
ATOM	977	C8	DA	31	21.269	-7.975	65.496	1.00	0.00	C
ATOM	978	H8	DA	31	21.250	-7.223	66.278	1.00	0.00	H
ATOM	979	N7	DA	31	21.994	-9.066	65.560	1.00	0.00	N
ATOM	980	C5	DA	31	21.707	-9.703	64.337	1.00	0.00	C
ATOM	981	C6	DA	31	22.123	-10.903	63.703	1.00	0.00	C
ATOM	982	N6	DA	31	22.974	-11.774	64.204	1.00	0.00	N
ATOM	983	H61	DA	31	23.319	-11.655	65.149	1.00	0.00	H
ATOM	984	H62	DA	31	23.191	-12.611	63.692	1.00	0.00	H
ATOM	985	N1	DA	31	21.664	-11.255	62.496	1.00	0.00	N
ATOM	986	C2	DA	31	20.795	-10.440	61.910	1.00	0.00	C
ATOM	987	H2	DA	31	20.437	-10.749	60.936	1.00	0.00	H
ATOM	988	N3	DA	31	20.304	-9.293	62.371	1.00	0.00	N
ATOM	989	C4	DA	31	20.815	-8.973	63.597	1.00	0.00	C
ATOM	990	C3'	DA	31	18.419	-4.846	64.651	1.00	0.00	C
ATOM	991	H3'	DA	31	18.171	-4.221	65.513	1.00	0.00	H
ATOM	992	C2'	DA	31	18.721	-6.274	65.066	1.00	0.00	C
ATOM	993	H2'	DA	31	19.243	-6.256	66.016	1.00	0.00	H
ATOM	994	H2''	DA	31	17.819	-6.883	65.132	1.00	0.00	H
ATOM	995	O3'	DA	31	17.382	-4.822	63.675	1.00	0.00	O
ATOM	996	P	DT	32	15.867	-4.518	64.095	1.00	0.00	P
ATOM	997	OP1	DT	32	15.065	-4.539	62.855	1.00	0.00	O
ATOM	998	OP2	DT	32	15.494	-5.422	65.201	1.00	0.00	O
ATOM	999	O5'	DT	32	15.935	-3.031	64.676	1.00	0.00	O
ATOM	1000	C5'	DT	32	15.948	-1.904	63.813	1.00	0.00	C
ATOM	1001	H5'	DT	32	16.780	-2.009	63.119	1.00	0.00	H
ATOM	1002	H5''	DT	32	15.030	-1.906	63.231	1.00	0.00	H

ATOM	1003	C4'	DT	32	16.075	-0.540	64.518	1.00	0.00	C
ATOM	1004	H4'	DT	32	16.217	0.198	63.732	1.00	0.00	H
ATOM	1005	O4'	DT	32	14.904	-0.187	65.261	1.00	0.00	O
ATOM	1006	C1'	DT	32	15.199	-0.147	66.656	1.00	0.00	C
ATOM	1007	H1'	DT	32	15.242	0.893	66.991	1.00	0.00	H
ATOM	1008	N1	DT	32	14.181	-0.897	67.442	1.00	0.00	N
ATOM	1009	C6	DT	32	13.714	-2.105	66.971	1.00	0.00	C
ATOM	1010	H6	DT	32	14.069	-2.463	66.016	1.00	0.00	H
ATOM	1011	C5	DT	32	12.814	-2.839	67.671	1.00	0.00	C
ATOM	1012	C7	DT	32	12.343	-4.147	67.064	1.00	0.00	C
ATOM	1013	H71	DT	32	11.268	-4.113	66.916	1.00	0.00	H
ATOM	1014	H72	DT	32	12.573	-4.967	67.738	1.00	0.00	H
ATOM	1015	H73	DT	32	12.824	-4.337	66.104	1.00	0.00	H
ATOM	1016	C4	DT	32	12.312	-2.365	68.963	1.00	0.00	C
ATOM	1017	O4	DT	32	11.466	-2.905	69.676	1.00	0.00	O
ATOM	1018	N3	DT	32	12.850	-1.167	69.380	1.00	0.00	N
ATOM	1019	H3	DT	32	12.552	-0.818	70.281	1.00	0.00	H
ATOM	1020	C2	DT	32	13.756	-0.398	68.683	1.00	0.00	C
ATOM	1021	O2	DT	32	14.136	0.668	69.168	1.00	0.00	O
ATOM	1022	C3'	DT	32	17.267	-0.463	65.480	1.00	0.00	C
ATOM	1023	H3'	DT	32	18.008	-1.226	65.230	1.00	0.00	H
ATOM	1024	C2'	DT	32	16.583	-0.773	66.806	1.00	0.00	C
ATOM	1025	H2'	DT	32	16.512	-1.853	66.943	1.00	0.00	H
ATOM	1026	H2"	DT	32	17.111	-0.327	67.641	1.00	0.00	H
ATOM	1027	O3'	DT	32	17.857	0.836	65.457	1.00	0.00	O
ATOM	1028	P	DC	33	19.264	1.149	66.161	1.00	0.00	P
ATOM	1029	OP1	DC	33	19.869	2.336	65.513	1.00	0.00	O
ATOM	1030	OP2	DC	33	20.070	-0.084	66.242	1.00	0.00	O
ATOM	1031	O5'	DC	33	18.884	1.540	67.669	1.00	0.00	O
ATOM	1032	C5'	DC	33	18.126	2.713	67.952	1.00	0.00	C
ATOM	1033	H5'	DC	33	18.702	3.594	67.661	1.00	0.00	H
ATOM	1034	H5"	DC	33	17.212	2.701	67.361	1.00	0.00	H
ATOM	1035	C4'	DC	33	17.714	2.865	69.425	1.00	0.00	C
ATOM	1036	H4'	DC	33	17.203	3.824	69.520	1.00	0.00	H

ATOM	1037	O4'	DC	33	16.812	1.839	69.828	1.00	0.00	O
ATOM	1038	C1'	DC	33	17.195	1.365	71.115	1.00	0.00	C
ATOM	1039	H1'	DC	33	16.779	2.016	71.892	1.00	0.00	H
ATOM	1040	N1	DC	33	16.729	-0.041	71.305	1.00	0.00	N
ATOM	1041	C6	DC	33	17.035	-1.015	70.385	1.00	0.00	C
ATOM	1042	H6	DC	33	17.767	-0.806	69.614	1.00	0.00	H
ATOM	1043	C5	DC	33	16.393	-2.210	70.419	1.00	0.00	C
ATOM	1044	H5	DC	33	16.606	-2.964	69.677	1.00	0.00	H
ATOM	1045	C4	DC	33	15.439	-2.409	71.451	1.00	0.00	C
ATOM	1046	N4	DC	33	14.705	-3.480	71.469	1.00	0.00	N
ATOM	1047	H41	DC	33	13.996	-3.563	72.186	1.00	0.00	H
ATOM	1048	H42	DC	33	14.786	-4.163	70.729	1.00	0.00	H
ATOM	1049	N3	DC	33	15.203	-1.526	72.399	1.00	0.00	N
ATOM	1050	C2	DC	33	15.859	-0.343	72.362	1.00	0.00	C
ATOM	1051	O2	DC	33	15.644	0.446	73.284	1.00	0.00	O
ATOM	1052	C3'	DC	33	18.887	2.863	70.411	1.00	0.00	C
ATOM	1053	H3'	DC	33	19.832	2.909	69.874	1.00	0.00	H
ATOM	1054	C2'	DC	33	18.711	1.523	71.127	1.00	0.00	C
ATOM	1055	H2'	DC	33	19.183	0.726	70.561	1.00	0.00	H
ATOM	1056	H2"	DC	33	19.099	1.543	72.143	1.00	0.00	H
ATOM	1057	O3'	DC	33	18.744	3.979	71.279	1.00	0.00	O
ATOM	1058	P	DC	34	19.938	4.522	72.186	1.00	0.00	P
ATOM	1059	OP1	DC	34	19.595	5.912	72.560	1.00	0.00	O
ATOM	1060	OP2	DC	34	21.228	4.252	71.524	1.00	0.00	O
ATOM	1061	O5'	DC	34	19.843	3.598	73.486	1.00	0.00	O
ATOM	1062	C5'	DC	34	18.766	3.766	74.398	1.00	0.00	C
ATOM	1063	H5'	DC	34	18.918	4.692	74.952	1.00	0.00	H
ATOM	1064	H5"	DC	34	17.831	3.859	73.842	1.00	0.00	H
ATOM	1065	C4'	DC	34	18.589	2.615	75.397	1.00	0.00	C
ATOM	1066	H4'	DC	34	17.761	2.887	76.052	1.00	0.00	H
ATOM	1067	O4'	DC	34	18.216	1.409	74.754	1.00	0.00	O
ATOM	1068	C1'	DC	34	18.504	0.385	75.680	1.00	0.00	C
ATOM	1069	H1'	DC	34	17.812	0.455	76.524	1.00	0.00	H
ATOM	1070	N1	DC	34	18.402	-0.964	75.063	1.00	0.00	N

ATOM	1071	C6	DC	34	18.995	-1.248	73.858	1.00	0.00	C
ATOM	1072	H6	DC	34	19.628	-0.502	73.387	1.00	0.00	H
ATOM	1073	C5	DC	34	18.763	-2.447	73.262	1.00	0.00	C
ATOM	1074	H5	DC	34	19.208	-2.676	72.307	1.00	0.00	H
ATOM	1075	C4	DC	34	17.906	-3.357	73.937	1.00	0.00	C
ATOM	1076	N4	DC	34	17.581	-4.498	73.414	1.00	0.00	N
ATOM	1077	H41	DC	34	16.856	-5.028	73.875	1.00	0.00	H
ATOM	1078	H42	DC	34	17.978	-4.807	72.543	1.00	0.00	H
ATOM	1079	N3	DC	34	17.363	-3.119	75.108	1.00	0.00	N
ATOM	1080	C2	DC	34	17.621	-1.934	75.704	1.00	0.00	C
ATOM	1081	O2	DC	34	17.141	-1.750	76.821	1.00	0.00	O
ATOM	1082	C3'	DC	34	19.810	2.286	76.284	1.00	0.00	C
ATOM	1083	H3'	DC	34	20.701	2.756	75.865	1.00	0.00	H
ATOM	1084	C2'	DC	34	19.901	0.760	76.156	1.00	0.00	C
ATOM	1085	H2'	DC	34	20.647	0.491	75.408	1.00	0.00	H
ATOM	1086	H2''	DC	34	20.120	0.278	77.106	1.00	0.00	H
ATOM	1087	O3'	DC	34	19.601	2.697	77.639	1.00	0.00	O
ATOM	1088	P	DC3	35	20.790	2.708	78.729	1.00	0.00	P
ATOM	1089	OP1	DC3	35	20.363	3.634	79.806	1.00	0.00	O
ATOM	1090	OP2	DC3	35	22.063	2.959	78.015	1.00	0.00	O
ATOM	1091	O5'	DC3	35	20.853	1.230	79.342	1.00	0.00	O
ATOM	1092	C5'	DC3	35	19.901	0.777	80.302	1.00	0.00	C
ATOM	1093	H5'	DC3	35	19.995	1.366	81.212	1.00	0.00	H
ATOM	1094	H5''	DC3	35	18.896	0.918	79.915	1.00	0.00	H
ATOM	1095	C4'	DC3	35	20.045	-0.701	80.685	1.00	0.00	C
ATOM	1096	H4'	DC3	35	19.287	-0.933	81.436	1.00	0.00	H
ATOM	1097	O4'	DC3	35	19.832	-1.519	79.541	1.00	0.00	O
ATOM	1098	C1'	DC3	35	20.833	-2.511	79.532	1.00	0.00	C
ATOM	1099	H1'	DC3	35	20.564	-3.289	80.252	1.00	0.00	H
ATOM	1100	N1	DC3	35	20.960	-3.092	78.171	1.00	0.00	N
ATOM	1101	C6	DC3	35	21.425	-2.350	77.114	1.00	0.00	C
ATOM	1102	H6	DC3	35	21.749	-1.329	77.278	1.00	0.00	H
ATOM	1103	C5	DC3	35	21.452	-2.890	75.872	1.00	0.00	C
ATOM	1104	H5	DC3	35	21.802	-2.308	75.034	1.00	0.00	H

ATOM	1105	C4	DC3	35	21.016	-4.233	75.730	1.00	0.00	C
ATOM	1106	N4	DC3	35	21.023	-4.810	74.570	1.00	0.00	N
ATOM	1107	H41	DC3	35	20.670	-5.752	74.464	1.00	0.00	H
ATOM	1108	H42	DC3	35	21.374	-4.293	73.775	1.00	0.00	H
ATOM	1109	N3	DC3	35	20.567	-4.966	76.729	1.00	0.00	N
ATOM	1110	C2	DC3	35	20.504	-4.398	77.955	1.00	0.00	C
ATOM	1111	O2	DC3	35	20.017	-5.080	78.863	1.00	0.00	O
ATOM	1112	C3'	DC3	35	21.427	-1.074	81.254	1.00	0.00	C
ATOM	1113	H3'	DC3	35	21.992	-0.183	81.539	1.00	0.00	H
ATOM	1114	C2'	DC3	35	22.067	-1.784	80.068	1.00	0.00	C
ATOM	1115	H2'	DC3	35	22.451	-1.051	79.359	1.00	0.00	H
ATOM	1116	H2"	DC3	35	22.847	-2.478	80.380	1.00	0.00	H
ATOM	1117	O3'	DC3	35	21.322	-1.991	82.340	1.00	0.00	O
ATOM	1118	HO3'	DC3	35	22.219	-2.092	82.733	1.00	0.00	H
TER	1119		DC3	35						
ATOM	1119	HO5'	DG5	36	12.533	-14.166	75.550	1.00	0.00	H
ATOM	1120	O5'	DG5	36	12.943	-14.178	76.441	1.00	0.00	O
ATOM	1121	C5'	DG5	36	14.044	-13.278	76.451	1.00	0.00	C
ATOM	1122	H5'	DG5	36	14.764	-13.601	77.206	1.00	0.00	H
ATOM	1123	H5"	DG5	36	14.539	-13.296	75.478	1.00	0.00	H
ATOM	1124	C4'	DG5	36	13.616	-11.836	76.776	1.00	0.00	C
ATOM	1125	H4'	DG5	36	13.264	-11.787	77.808	1.00	0.00	H
ATOM	1126	O4'	DG5	36	14.746	-10.983	76.608	1.00	0.00	O
ATOM	1127	C1'	DG5	36	14.421	-9.943	75.699	1.00	0.00	C
ATOM	1128	H1'	DG5	36	13.993	-9.096	76.247	1.00	0.00	H
ATOM	1129	N9	DG5	36	15.649	-9.503	74.986	1.00	0.00	N
ATOM	1130	C8	DG5	36	16.212	-9.988	73.827	1.00	0.00	C
ATOM	1131	H8	DG5	36	15.756	-10.780	73.246	1.00	0.00	H
ATOM	1132	N7	DG5	36	17.349	-9.430	73.497	1.00	0.00	N
ATOM	1133	C5	DG5	36	17.547	-8.479	74.509	1.00	0.00	C
ATOM	1134	C6	DG5	36	18.616	-7.541	74.735	1.00	0.00	C
ATOM	1135	O6	DG5	36	19.624	-7.322	74.061	1.00	0.00	O
ATOM	1136	N1	DG5	36	18.467	-6.817	75.895	1.00	0.00	N
ATOM	1137	H1	DG5	36	19.187	-6.153	76.119	1.00	0.00	H

ATOM	1138	C2	DG5	36	17.432	-6.963	76.753	1.00	0.00	C
ATOM	1139	N2	DG5	36	17.490	-6.245	77.840	1.00	0.00	N
ATOM	1140	H21	DG5	36	16.741	-6.347	78.512	1.00	0.00	H
ATOM	1141	H22	DG5	36	18.317	-5.705	78.044	1.00	0.00	H
ATOM	1142	N3	DG5	36	16.417	-7.803	76.584	1.00	0.00	N
ATOM	1143	C4	DG5	36	16.526	-8.538	75.435	1.00	0.00	C
ATOM	1144	C3'	DG5	36	12.517	-11.310	75.843	1.00	0.00	C
ATOM	1145	H3'	DG5	36	11.959	-12.113	75.375	1.00	0.00	H
ATOM	1146	C2'	DG5	36	13.336	-10.552	74.809	1.00	0.00	C
ATOM	1147	H2'	DG5	36	13.751	-11.253	74.086	1.00	0.00	H
ATOM	1148	H2"	DG5	36	12.738	-9.791	74.314	1.00	0.00	H
ATOM	1149	O3'	DG5	36	11.630	-10.447	76.526	1.00	0.00	O
ATOM	1150	P	DG	37	10.075	-10.781	76.646	1.00	0.00	P
ATOM	1151	OP1	DG	37	9.893	-12.068	77.360	1.00	0.00	O
ATOM	1152	OP2	DG	37	9.451	-10.595	75.320	1.00	0.00	O
ATOM	1153	O5'	DG	37	9.592	-9.604	77.595	1.00	0.00	O
ATOM	1154	C5'	DG	37	9.960	-9.577	78.968	1.00	0.00	C
ATOM	1155	H5'	DG	37	9.258	-10.177	79.544	1.00	0.00	H
ATOM	1156	H5"	DG	37	10.954	-10.010	79.092	1.00	0.00	H
ATOM	1157	C4'	DG	37	9.994	-8.165	79.564	1.00	0.00	C
ATOM	1158	H4'	DG	37	10.047	-8.287	80.645	1.00	0.00	H
ATOM	1159	O4'	DG	37	11.152	-7.462	79.119	1.00	0.00	O
ATOM	1160	C1'	DG	37	10.770	-6.410	78.242	1.00	0.00	C
ATOM	1161	H1'	DG	37	10.933	-5.457	78.749	1.00	0.00	H
ATOM	1162	N9	DG	37	11.610	-6.464	77.016	1.00	0.00	N
ATOM	1163	C8	DG	37	11.502	-7.286	75.915	1.00	0.00	C
ATOM	1164	H8	DG	37	10.699	-8.006	75.801	1.00	0.00	H
ATOM	1165	N7	DG	37	12.464	-7.149	75.039	1.00	0.00	N
ATOM	1166	C5	DG	37	13.278	-6.158	75.603	1.00	0.00	C
ATOM	1167	C6	DG	37	14.514	-5.570	75.154	1.00	0.00	C
ATOM	1168	O6	DG	37	15.185	-5.819	74.149	1.00	0.00	O
ATOM	1169	N1	DG	37	14.994	-4.593	76.000	1.00	0.00	N
ATOM	1170	H1	DG	37	15.850	-4.130	75.740	1.00	0.00	H
ATOM	1171	C2	DG	37	14.394	-4.235	77.158	1.00	0.00	C

ATOM	1172	N2	DG	37	14.951	-3.264	77.826	1.00	0.00	N
ATOM	1173	H21	DG	37	14.488	-2.904	78.648	1.00	0.00	H
ATOM	1174	H22	DG	37	15.780	-2.806	77.463	1.00	0.00	H
ATOM	1175	N3	DG	37	13.254	-4.744	77.621	1.00	0.00	N
ATOM	1176	C4	DG	37	12.746	-5.717	76.798	1.00	0.00	C
ATOM	1177	C3'	DG	37	8.774	-7.300	79.223	1.00	0.00	C
ATOM	1178	H3'	DG	37	7.912	-7.926	78.988	1.00	0.00	H
ATOM	1179	C2'	DG	37	9.269	-6.555	77.987	1.00	0.00	C
ATOM	1180	H2'	DG	37	9.071	-7.150	77.099	1.00	0.00	H
ATOM	1181	H2"	DG	37	8.793	-5.582	77.893	1.00	0.00	H
ATOM	1182	O3'	DG	37	8.479	-6.442	80.318	1.00	0.00	O
ATOM	1183	P	DG	38	7.163	-5.532	80.388	1.00	0.00	P
ATOM	1184	OP1	DG	38	6.649	-5.589	81.777	1.00	0.00	O
ATOM	1185	OP2	DG	38	6.257	-5.862	79.270	1.00	0.00	O
ATOM	1186	O5'	DG	38	7.738	-4.071	80.114	1.00	0.00	O
ATOM	1187	C5'	DG	38	8.596	-3.454	81.065	1.00	0.00	C
ATOM	1188	H5'	DG	38	8.012	-3.173	81.942	1.00	0.00	H
ATOM	1189	H5"	DG	38	9.356	-4.169	81.381	1.00	0.00	H
ATOM	1190	C4'	DG	38	9.332	-2.217	80.538	1.00	0.00	C
ATOM	1191	H4'	DG	38	9.950	-1.836	81.350	1.00	0.00	H
ATOM	1192	O4'	DG	38	10.190	-2.577	79.457	1.00	0.00	O
ATOM	1193	C1'	DG	38	9.949	-1.691	78.377	1.00	0.00	C
ATOM	1194	H1'	DG	38	10.584	-0.805	78.482	1.00	0.00	H
ATOM	1195	N9	DG	38	10.232	-2.360	77.085	1.00	0.00	N
ATOM	1196	C8	DG	38	9.482	-3.286	76.396	1.00	0.00	C
ATOM	1197	H8	DG	38	8.524	-3.643	76.757	1.00	0.00	H
ATOM	1198	N7	DG	38	10.029	-3.707	75.286	1.00	0.00	N
ATOM	1199	C5	DG	38	11.228	-2.982	75.218	1.00	0.00	C
ATOM	1200	C6	DG	38	12.287	-2.966	74.243	1.00	0.00	C
ATOM	1201	O6	DG	38	12.435	-3.647	73.230	1.00	0.00	O
ATOM	1202	N1	DG	38	13.262	-2.030	74.504	1.00	0.00	N
ATOM	1203	H1	DG	38	13.986	-1.912	73.812	1.00	0.00	H
ATOM	1204	C2	DG	38	13.288	-1.258	75.611	1.00	0.00	C
ATOM	1205	N2	DG	38	14.285	-0.427	75.719	1.00	0.00	N

ATOM	1206	H21	DG	38	14.352	0.101	76.577	1.00	0.00	H
ATOM	1207	H22	DG	38	14.925	-0.289	74.945	1.00	0.00	H
ATOM	1208	N3	DG	38	12.370	-1.276	76.574	1.00	0.00	N
ATOM	1209	C4	DG	38	11.348	-2.149	76.309	1.00	0.00	C
ATOM	1210	C3'	DG	38	8.410	-1.083	80.059	1.00	0.00	C
ATOM	1211	H3'	DG	38	7.388	-1.230	80.412	1.00	0.00	H
ATOM	1212	C2'	DG	38	8.494	-1.271	78.544	1.00	0.00	C
ATOM	1213	H2'	DG	38	7.818	-2.071	78.241	1.00	0.00	H
ATOM	1214	H2"	DG	38	8.271	-0.362	77.991	1.00	0.00	H
ATOM	1215	O3'	DG	38	8.930	0.152	80.550	1.00	0.00	O
ATOM	1216	P	DA	39	8.346	1.593	80.156	1.00	0.00	P
ATOM	1217	OP1	DA	39	8.416	2.437	81.373	1.00	0.00	O
ATOM	1218	OP2	DA	39	7.057	1.441	79.442	1.00	0.00	O
ATOM	1219	O5'	DA	39	9.408	2.135	79.100	1.00	0.00	O
ATOM	1220	C5'	DA	39	10.722	2.487	79.513	1.00	0.00	C
ATOM	1221	H5'	DA	39	10.662	3.169	80.361	1.00	0.00	H
ATOM	1222	H5"	DA	39	11.251	1.590	79.840	1.00	0.00	H
ATOM	1223	C4'	DA	39	11.549	3.178	78.422	1.00	0.00	C
ATOM	1224	H4'	DA	39	12.504	3.460	78.868	1.00	0.00	H
ATOM	1225	O4'	DA	39	11.785	2.281	77.339	1.00	0.00	O
ATOM	1226	C1'	DA	39	11.297	2.840	76.131	1.00	0.00	C
ATOM	1227	H1'	DA	39	12.117	3.318	75.585	1.00	0.00	H
ATOM	1228	N9	DA	39	10.691	1.759	75.313	1.00	0.00	N
ATOM	1229	C8	DA	39	9.546	1.035	75.554	1.00	0.00	C
ATOM	1230	H8	DA	39	8.928	1.218	76.425	1.00	0.00	H
ATOM	1231	N7	DA	39	9.271	0.124	74.650	1.00	0.00	N
ATOM	1232	C5	DA	39	10.356	0.244	73.757	1.00	0.00	C
ATOM	1233	C6	DA	39	10.776	-0.426	72.577	1.00	0.00	C
ATOM	1234	N6	DA	39	10.154	-1.431	71.998	1.00	0.00	N
ATOM	1235	H61	DA	39	9.230	-1.693	72.308	1.00	0.00	H
ATOM	1236	H62	DA	39	10.555	-1.817	71.155	1.00	0.00	H
ATOM	1237	N1	DA	39	11.892	-0.077	71.939	1.00	0.00	N
ATOM	1238	C2	DA	39	12.604	0.919	72.439	1.00	0.00	C
ATOM	1239	H2	DA	39	13.497	1.181	71.889	1.00	0.00	H

ATOM	1240	N3	DA	39	12.361	1.636	73.532	1.00	0.00	N
ATOM	1241	C4	DA	39	11.213	1.238	74.153	1.00	0.00	C
ATOM	1242	C3'	DA	39	10.896	4.442	77.848	1.00	0.00	C
ATOM	1243	H3'	DA	39	10.121	4.815	78.522	1.00	0.00	H
ATOM	1244	C2'	DA	39	10.293	3.910	76.556	1.00	0.00	C
ATOM	1245	H2'	DA	39	9.325	3.470	76.773	1.00	0.00	H
ATOM	1246	H2"	DA	39	10.192	4.689	75.805	1.00	0.00	H
ATOM	1247	O3'	DA	39	11.891	5.435	77.631	1.00	0.00	O
ATOM	1248	P	DC	40	11.540	6.932	77.204	1.00	0.00	P
ATOM	1249	OP1	DC	40	12.493	7.790	77.942	1.00	0.00	O
ATOM	1250	OP2	DC	40	10.085	7.163	77.357	1.00	0.00	O
ATOM	1251	O5'	DC	40	11.905	6.966	75.653	1.00	0.00	O
ATOM	1252	C5'	DC	40	13.263	6.924	75.218	1.00	0.00	C
ATOM	1253	H5'	DC	40	13.769	7.844	75.514	1.00	0.00	H
ATOM	1254	H5"	DC	40	13.773	6.084	75.691	1.00	0.00	H
ATOM	1255	C4'	DC	40	13.401	6.757	73.700	1.00	0.00	C
ATOM	1256	H4'	DC	40	14.461	6.767	73.439	1.00	0.00	H
ATOM	1257	O4'	DC	40	12.840	5.500	73.329	1.00	0.00	O
ATOM	1258	C1'	DC	40	12.069	5.694	72.164	1.00	0.00	C
ATOM	1259	H1'	DC	40	12.737	5.717	71.294	1.00	0.00	H
ATOM	1260	N1	DC	40	11.050	4.615	72.010	1.00	0.00	N
ATOM	1261	C6	DC	40	9.959	4.524	72.840	1.00	0.00	C
ATOM	1262	H6	DC	40	9.852	5.219	73.663	1.00	0.00	H
ATOM	1263	C5	DC	40	9.022	3.567	72.632	1.00	0.00	C
ATOM	1264	H5	DC	40	8.164	3.504	73.281	1.00	0.00	H
ATOM	1265	C4	DC	40	9.220	2.683	71.536	1.00	0.00	C
ATOM	1266	N4	DC	40	8.384	1.710	71.317	1.00	0.00	N
ATOM	1267	H41	DC	40	8.557	1.053	70.572	1.00	0.00	H
ATOM	1268	H42	DC	40	7.621	1.572	71.963	1.00	0.00	H
ATOM	1269	N3	DC	40	10.275	2.723	70.754	1.00	0.00	N
ATOM	1270	C2	DC	40	11.205	3.681	70.980	1.00	0.00	C
ATOM	1271	O2	DC	40	12.186	3.678	70.235	1.00	0.00	O
ATOM	1272	C3'	DC	40	12.682	7.860	72.899	1.00	0.00	C
ATOM	1273	H3'	DC	40	12.365	8.662	73.567	1.00	0.00	H

ATOM	1274	C2'	DC	40	11.476	7.087	72.369	1.00	0.00	C
ATOM	1275	H2'	DC	40	10.701	7.087	73.132	1.00	0.00	H
ATOM	1276	H2"	DC	40	11.082	7.493	71.441	1.00	0.00	H
ATOM	1277	O3'	DC	40	13.507	8.395	71.864	1.00	0.00	O
ATOM	1278	P	DG	41	13.038	9.631	70.950	1.00	0.00	P
ATOM	1279	OP1	DG	41	14.046	10.709	71.052	1.00	0.00	O
ATOM	1280	OP2	DG	41	11.637	9.967	71.280	1.00	0.00	O
ATOM	1281	O5'	DG	41	13.060	9.085	69.445	1.00	0.00	O
ATOM	1282	C5'	DG	41	14.289	8.887	68.744	1.00	0.00	C
ATOM	1283	H5'	DG	41	14.839	9.827	68.706	1.00	0.00	H
ATOM	1284	H5"	DG	41	14.903	8.176	69.300	1.00	0.00	H
ATOM	1285	C4'	DG	41	14.147	8.376	67.295	1.00	0.00	C
ATOM	1286	H4'	DG	41	15.152	8.310	66.881	1.00	0.00	H
ATOM	1287	O4'	DG	41	13.560	7.077	67.301	1.00	0.00	O
ATOM	1288	C1'	DG	41	12.318	7.113	66.608	1.00	0.00	C
ATOM	1289	H1'	DG	41	12.429	6.680	65.609	1.00	0.00	H
ATOM	1290	N9	DG	41	11.282	6.389	67.373	1.00	0.00	N
ATOM	1291	C8	DG	41	10.851	6.650	68.649	1.00	0.00	C
ATOM	1292	H8	DG	41	11.306	7.424	69.253	1.00	0.00	H
ATOM	1293	N7	DG	41	9.854	5.909	69.050	1.00	0.00	N
ATOM	1294	C5	DG	41	9.616	5.077	67.942	1.00	0.00	C
ATOM	1295	C6	DG	41	8.661	4.024	67.735	1.00	0.00	C
ATOM	1296	O6	DG	41	7.821	3.576	68.515	1.00	0.00	O
ATOM	1297	N1	DG	41	8.729	3.454	66.481	1.00	0.00	N
ATOM	1298	H1	DG	41	8.099	2.692	66.283	1.00	0.00	H
ATOM	1299	C2	DG	41	9.612	3.829	65.527	1.00	0.00	C
ATOM	1300	N2	DG	41	9.534	3.196	64.389	1.00	0.00	N
ATOM	1301	H21	DG	41	10.124	3.469	63.617	1.00	0.00	H
ATOM	1302	H22	DG	41	8.889	2.419	64.287	1.00	0.00	H
ATOM	1303	N3	DG	41	10.531	4.783	65.673	1.00	0.00	N
ATOM	1304	C4	DG	41	10.481	5.373	66.909	1.00	0.00	C
ATOM	1305	C3'	DG	41	13.306	9.253	66.350	1.00	0.00	C
ATOM	1306	H3'	DG	41	13.276	10.290	66.691	1.00	0.00	H
ATOM	1307	C2'	DG	41	11.946	8.585	66.478	1.00	0.00	C

ATOM	1308	H2'	DG	41	11.445	8.940	67.375	1.00	0.00	H
ATOM	1309	H2"	DG	41	11.320	8.756	65.609	1.00	0.00	H
ATOM	1310	O3'	DG	41	13.819	9.170	65.024	1.00	0.00	O
ATOM	1311	P	DC	42	13.269	10.058	63.809	1.00	0.00	P
ATOM	1312	OP1	DC	42	14.327	10.027	62.775	1.00	0.00	O
ATOM	1313	OP2	DC	42	12.796	11.370	64.306	1.00	0.00	O
ATOM	1314	O5'	DC	42	12.013	9.266	63.241	1.00	0.00	O
ATOM	1315	C5'	DC	42	12.168	8.017	62.576	1.00	0.00	C
ATOM	1316	H5'	DC	42	12.733	8.160	61.654	1.00	0.00	H
ATOM	1317	H5"	DC	42	12.718	7.328	63.216	1.00	0.00	H
ATOM	1318	C4'	DC	42	10.823	7.372	62.229	1.00	0.00	C
ATOM	1319	H4'	DC	42	11.011	6.489	61.616	1.00	0.00	H
ATOM	1320	O4'	DC	42	10.146	6.975	63.414	1.00	0.00	O
ATOM	1321	C1'	DC	42	8.764	7.178	63.205	1.00	0.00	C
ATOM	1322	H1'	DC	42	8.384	6.373	62.569	1.00	0.00	H
ATOM	1323	N1	DC	42	8.043	7.210	64.508	1.00	0.00	N
ATOM	1324	C6	DC	42	8.406	8.089	65.498	1.00	0.00	C
ATOM	1325	H6	DC	42	9.163	8.836	65.291	1.00	0.00	H
ATOM	1326	C5	DC	42	7.831	8.005	66.725	1.00	0.00	C
ATOM	1327	H5	DC	42	8.122	8.688	67.508	1.00	0.00	H
ATOM	1328	C4	DC	42	6.843	7.002	66.914	1.00	0.00	C
ATOM	1329	N4	DC	42	6.312	6.811	68.083	1.00	0.00	N
ATOM	1330	H41	DC	42	5.621	6.076	68.153	1.00	0.00	H
ATOM	1331	H42	DC	42	6.642	7.342	68.874	1.00	0.00	H
ATOM	1332	N3	DC	42	6.460	6.165	65.972	1.00	0.00	N
ATOM	1333	C2	DC	42	7.031	6.274	64.751	1.00	0.00	C
ATOM	1334	O2	DC	42	6.622	5.516	63.869	1.00	0.00	O
ATOM	1335	C3'	DC	42	9.878	8.306	61.457	1.00	0.00	C
ATOM	1336	H3'	DC	42	10.377	9.256	61.273	1.00	0.00	H
ATOM	1337	C2'	DC	42	8.715	8.491	62.430	1.00	0.00	C
ATOM	1338	H2'	DC	42	8.920	9.341	63.082	1.00	0.00	H
ATOM	1339	H2"	DC	42	7.762	8.622	61.916	1.00	0.00	H
ATOM	1340	O3'	DC	42	9.459	7.707	60.237	1.00	0.00	O
ATOM	1341	P	DG	43	8.915	8.597	59.020	1.00	0.00	P

ATOM	1342	OP1	DG	43	9.189	7.861	57.776	1.00	0.00	O
ATOM	1343	OP2	DG	43	9.427	9.982	59.150	1.00	0.00	O
ATOM	1344	O5'	DG	43	7.342	8.644	59.267	1.00	0.00	O
ATOM	1345	C5'	DG	43	6.483	7.674	58.685	1.00	0.00	C
ATOM	1346	H5'	DG	43	6.450	7.832	57.605	1.00	0.00	H
ATOM	1347	H5"	DG	43	6.876	6.674	58.862	1.00	0.00	H
ATOM	1348	C4'	DG	43	5.054	7.736	59.234	1.00	0.00	C
ATOM	1349	H4'	DG	43	4.461	6.989	58.704	1.00	0.00	H
ATOM	1350	O4'	DG	43	5.026	7.442	60.631	1.00	0.00	O
ATOM	1351	C1'	DG	43	4.062	8.295	61.215	1.00	0.00	C
ATOM	1352	H1'	DG	43	3.064	7.947	60.937	1.00	0.00	H
ATOM	1353	N9	DG	43	4.144	8.316	62.696	1.00	0.00	N
ATOM	1354	C8	DG	43	4.745	9.225	63.537	1.00	0.00	C
ATOM	1355	H8	DG	43	5.331	10.063	63.173	1.00	0.00	H
ATOM	1356	N7	DG	43	4.524	9.006	64.808	1.00	0.00	N
ATOM	1357	C5	DG	43	3.726	7.851	64.814	1.00	0.00	C
ATOM	1358	C6	DG	43	3.126	7.098	65.889	1.00	0.00	C
ATOM	1359	O6	DG	43	3.182	7.273	67.107	1.00	0.00	O
ATOM	1360	N1	DG	43	2.366	6.033	65.456	1.00	0.00	N
ATOM	1361	H1	DG	43	1.878	5.503	66.161	1.00	0.00	H
ATOM	1362	C2	DG	43	2.226	5.683	64.157	1.00	0.00	C
ATOM	1363	N2	DG	43	1.466	4.653	63.914	1.00	0.00	N
ATOM	1364	H21	DG	43	1.364	4.308	62.969	1.00	0.00	H
ATOM	1365	H22	DG	43	0.990	4.187	64.678	1.00	0.00	H
ATOM	1366	N3	DG	43	2.760	6.335	63.127	1.00	0.00	N
ATOM	1367	C4	DG	43	3.502	7.419	63.523	1.00	0.00	C
ATOM	1368	C3'	DG	43	4.373	9.105	59.064	1.00	0.00	C
ATOM	1369	H3'	DG	43	4.946	9.780	58.425	1.00	0.00	H
ATOM	1370	C2'	DG	43	4.328	9.617	60.501	1.00	0.00	C
ATOM	1371	H2'	DG	43	5.296	10.030	60.785	1.00	0.00	H
ATOM	1372	H2"	DG	43	3.525	10.339	60.647	1.00	0.00	H
ATOM	1373	O3'	DG	43	3.041	8.938	58.598	1.00	0.00	O
ATOM	1374	P	DG	44	2.706	8.858	57.042	1.00	0.00	P
ATOM	1375	OP1	DG	44	3.755	8.080	56.344	1.00	0.00	O

ATOM	1376	OP2	DG	44	2.381	10.222	56.564	1.00	0.00	O
ATOM	1377	O5'	DG	44	1.351	8.033	57.022	1.00	0.00	O
ATOM	1378	C5'	DG	44	1.323	6.611	57.071	1.00	0.00	C
ATOM	1379	H5'	DG	44	1.305	6.219	56.053	1.00	0.00	H
ATOM	1380	H5"	DG	44	2.214	6.229	57.571	1.00	0.00	H
ATOM	1381	C4'	DG	44	0.091	6.099	57.835	1.00	0.00	C
ATOM	1382	H4'	DG	44	-0.059	5.046	57.588	1.00	0.00	H
ATOM	1383	O4'	DG	44	0.311	6.227	59.240	1.00	0.00	O
ATOM	1384	C1'	DG	44	-0.795	6.905	59.807	1.00	0.00	C
ATOM	1385	H1'	DG	44	-1.595	6.197	60.041	1.00	0.00	H
ATOM	1386	N9	DG	44	-0.362	7.616	61.030	1.00	0.00	N
ATOM	1387	C8	DG	44	0.497	8.684	61.133	1.00	0.00	C
ATOM	1388	H8	DG	44	0.962	9.138	60.264	1.00	0.00	H
ATOM	1389	N7	DG	44	0.719	9.078	62.360	1.00	0.00	N
ATOM	1390	C5	DG	44	-0.081	8.218	63.130	1.00	0.00	C
ATOM	1391	C6	DG	44	-0.307	8.141	64.551	1.00	0.00	C
ATOM	1392	O6	DG	44	0.187	8.813	65.458	1.00	0.00	O
ATOM	1393	N1	DG	44	-1.214	7.170	64.915	1.00	0.00	N
ATOM	1394	H1	DG	44	-1.452	7.099	65.893	1.00	0.00	H
ATOM	1395	C2	DG	44	-1.802	6.323	64.038	1.00	0.00	C
ATOM	1396	N2	DG	44	-2.649	5.470	64.541	1.00	0.00	N
ATOM	1397	H21	DG	44	-3.102	4.824	63.914	1.00	0.00	H
ATOM	1398	H22	DG	44	-2.882	5.509	65.527	1.00	0.00	H
ATOM	1399	N3	DG	44	-1.596	6.318	62.720	1.00	0.00	N
ATOM	1400	C4	DG	44	-0.736	7.311	62.322	1.00	0.00	C
ATOM	1401	C3'	DG	44	-1.194	6.873	57.501	1.00	0.00	C
ATOM	1402	H3'	DG	44	-1.087	7.421	56.564	1.00	0.00	H
ATOM	1403	C2'	DG	44	-1.280	7.826	58.695	1.00	0.00	C
ATOM	1404	H2'	DG	44	-0.603	8.668	58.555	1.00	0.00	H
ATOM	1405	H2"	DG	44	-2.290	8.184	58.874	1.00	0.00	H
ATOM	1406	O3'	DG	44	-2.291	5.972	57.416	1.00	0.00	O
ATOM	1407	P	DC	45	-3.774	6.459	57.103	1.00	0.00	P
ATOM	1408	OP1	DC	45	-4.420	5.437	56.249	1.00	0.00	O
ATOM	1409	OP2	DC	45	-3.719	7.858	56.622	1.00	0.00	O

ATOM	1410	O5'	DC	45	-4.477	6.424	58.533	1.00	0.00	O
ATOM	1411	C5'	DC	45	-4.664	5.180	59.203	1.00	0.00	C
ATOM	1412	H5'	DC	45	-5.099	4.466	58.505	1.00	0.00	H
ATOM	1413	H5"	DC	45	-3.699	4.793	59.530	1.00	0.00	H
ATOM	1414	C4'	DC	45	-5.612	5.231	60.404	1.00	0.00	C
ATOM	1415	H4'	DC	45	-5.765	4.208	60.742	1.00	0.00	H
ATOM	1416	O4'	DC	45	-5.051	5.979	61.471	1.00	0.00	O
ATOM	1417	C1'	DC	45	-5.873	7.095	61.753	1.00	0.00	C
ATOM	1418	H1'	DC	45	-6.502	6.855	62.615	1.00	0.00	H
ATOM	1419	N1	DC	45	-4.976	8.247	62.053	1.00	0.00	N
ATOM	1420	C6	DC	45	-4.124	8.758	61.104	1.00	0.00	C
ATOM	1421	H6	DC	45	-4.190	8.396	60.084	1.00	0.00	H
ATOM	1422	C5	DC	45	-3.192	9.682	61.452	1.00	0.00	C
ATOM	1423	H5	DC	45	-2.518	10.081	60.711	1.00	0.00	H
ATOM	1424	C4	DC	45	-3.138	10.067	62.817	1.00	0.00	C
ATOM	1425	N4	DC	45	-2.215	10.877	63.239	1.00	0.00	N
ATOM	1426	H41	DC	45	-2.195	11.114	64.218	1.00	0.00	H
ATOM	1427	H42	DC	45	-1.536	11.248	62.585	1.00	0.00	H
ATOM	1428	N3	DC	45	-3.950	9.606	63.745	1.00	0.00	N
ATOM	1429	C2	DC	45	-4.895	8.711	63.370	1.00	0.00	C
ATOM	1430	O2	DC	45	-5.684	8.334	64.238	1.00	0.00	O
ATOM	1431	C3'	DC	45	-6.970	5.845	60.046	1.00	0.00	C
ATOM	1432	H3'	DC	45	-7.111	5.829	58.963	1.00	0.00	H
ATOM	1433	C2'	DC	45	-6.788	7.281	60.539	1.00	0.00	C
ATOM	1434	H2'	DC	45	-6.311	7.874	59.759	1.00	0.00	H
ATOM	1435	H2"	DC	45	-7.731	7.743	60.823	1.00	0.00	H
ATOM	1436	O3'	DC	45	-8.026	5.136	60.692	1.00	0.00	O
ATOM	1437	P	DG	46	-9.549	5.358	60.256	1.00	0.00	P
ATOM	1438	OP1	DG	46	-10.356	4.204	60.713	1.00	0.00	O
ATOM	1439	OP2	DG	46	-9.619	5.759	58.834	1.00	0.00	O
ATOM	1440	O5'	DG	46	-9.985	6.606	61.107	1.00	0.00	O
ATOM	1441	C5'	DG	46	-10.324	6.508	62.479	1.00	0.00	C
ATOM	1442	H5'	DG	46	-11.191	5.863	62.606	1.00	0.00	H
ATOM	1443	H5"	DG	46	-9.490	6.089	63.044	1.00	0.00	H

ATOM	1444	C4'	DG	46	-10.659	7.894	63.030	1.00	0.00	C
ATOM	1445	H4'	DG	46	-11.265	7.776	63.925	1.00	0.00	H
ATOM	1446	O4'	DG	46	-9.450	8.565	63.361	1.00	0.00	O
ATOM	1447	C1'	DG	46	-9.582	9.887	62.882	1.00	0.00	C
ATOM	1448	H1'	DG	46	-10.208	10.451	63.577	1.00	0.00	H
ATOM	1449	N9	DG	46	-8.274	10.562	62.774	1.00	0.00	N
ATOM	1450	C8	DG	46	-7.482	10.800	61.676	1.00	0.00	C
ATOM	1451	H8	DG	46	-7.739	10.454	60.681	1.00	0.00	H
ATOM	1452	N7	DG	46	-6.401	11.490	61.938	1.00	0.00	N
ATOM	1453	C5	DG	46	-6.496	11.738	63.318	1.00	0.00	C
ATOM	1454	C6	DG	46	-5.654	12.478	64.224	1.00	0.00	C
ATOM	1455	O6	DG	46	-4.615	13.099	63.993	1.00	0.00	O
ATOM	1456	N1	DG	46	-6.117	12.477	65.526	1.00	0.00	N
ATOM	1457	H1	DG	46	-5.583	12.986	66.212	1.00	0.00	H
ATOM	1458	C2	DG	46	-7.266	11.879	65.920	1.00	0.00	C
ATOM	1459	N2	DG	46	-7.608	12.007	67.171	1.00	0.00	N
ATOM	1460	H21	DG	46	-8.496	11.641	67.481	1.00	0.00	H
ATOM	1461	H22	DG	46	-7.001	12.499	67.819	1.00	0.00	H
ATOM	1462	N3	DG	46	-8.081	11.194	65.125	1.00	0.00	N
ATOM	1463	C4	DG	46	-7.635	11.158	63.831	1.00	0.00	C
ATOM	1464	C3'	DG	46	-11.429	8.774	62.025	1.00	0.00	C
ATOM	1465	H3'	DG	46	-11.819	8.186	61.191	1.00	0.00	H
ATOM	1466	C2'	DG	46	-10.332	9.722	61.565	1.00	0.00	C
ATOM	1467	H2'	DG	46	-9.709	9.241	60.811	1.00	0.00	H
ATOM	1468	H2"	DG	46	-10.735	10.666	61.201	1.00	0.00	H
ATOM	1469	O3'	DG	46	-12.455	9.523	62.647	1.00	0.00	O
ATOM	1470	P	DC3	47	-13.876	9.685	61.957	1.00	0.00	P
ATOM	1471	OP1	DC3	47	-14.471	8.340	61.789	1.00	0.00	O
ATOM	1472	OP2	DC3	47	-13.722	10.545	60.763	1.00	0.00	O
ATOM	1473	O5'	DC3	47	-14.702	10.487	63.079	1.00	0.00	O
ATOM	1474	C5'	DC3	47	-14.927	9.929	64.377	1.00	0.00	C
ATOM	1475	H5'	DC3	47	-15.994	9.738	64.507	1.00	0.00	H
ATOM	1476	H5"	DC3	47	-14.423	8.964	64.456	1.00	0.00	H
ATOM	1477	C4'	DC3	47	-14.440	10.809	65.549	1.00	0.00	C

