Supplementary Information:

Materials and Methods:

Polymerase chain amplification was performed using 300 nM forward primer, 300 nM return primer, 200 μM dNTPs, 2 mM $MgCl_2$, and 1.2 ng template. The PCR program was one cycle at 94 °C for 3 min followed by 40 cycles at 94 °C for 1min then 63 °C for 1 min, and one cycle at 72 °C for 5 min. The penicillin binding protein 5 template for amplification was a gift from Dr. P. A. Ropp, University of North Carolina at Chapel Hill. Nondenaturing polyacrylamide gels (12%) were prepared and run according to directions in the TRAPeze® manual (Intergen, Purchase, NY). After electrophoresis was complete, the gel was stained with SYBR green (Molecular Probes, Eugene, OR) and then scanned using blue fluorescence on a Molecular Dynamics Storm 840 phosphorimager.

Forward primer sequences: 5'-d[TGA ATA TCA AAA CTA TGA TCC CGG G]-3'

5'-d[TGA ATA TCA AAA CTA TGA TCC C8OGG G]-3'

5'-d[TGA ATA TCA AAA CTA TGA TCC CG8OG G]-3'

Return primer sequence: 5'-d[ATC TGC GTT CTG TTC GGC GAG C]-3'

Figure S1 Blue-fluorescence scan of a SYBR-green stained 12% nondenaturing polyacrylamide gel of PCR amplification of the gene for penicillin-binding protein 5. Lane 1: forward primer with 5'-GGG-3' at the 3'-end; lane 2: forward primer with 5'-8OGGG-3' at the 3'-end; lane 3: forward primer with 5'-G8OGG-3' at the 3'-end; lane 4, 20 bp double-stranded DNA ladder.

Figure S2 Circular dichroism spectra of 25 μM **2** collected under conditions used for oxidative cleavage experiments in Figure 3 (dashed) or cyclic voltammetry experiments of Figure 4 (solid).

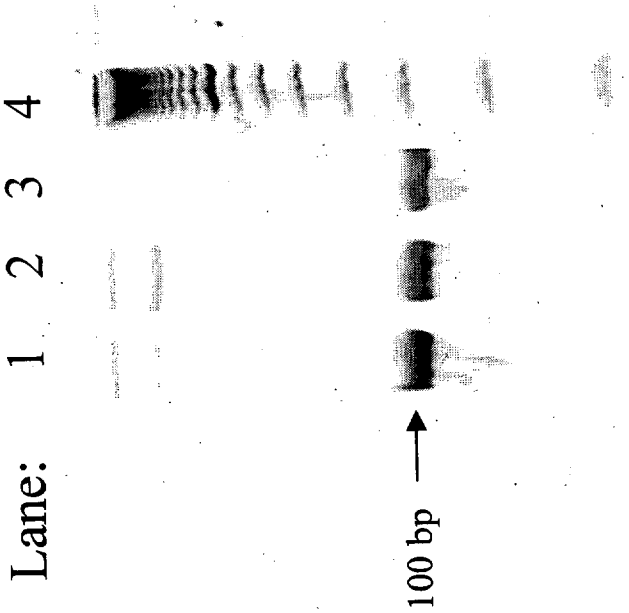

Figure S1

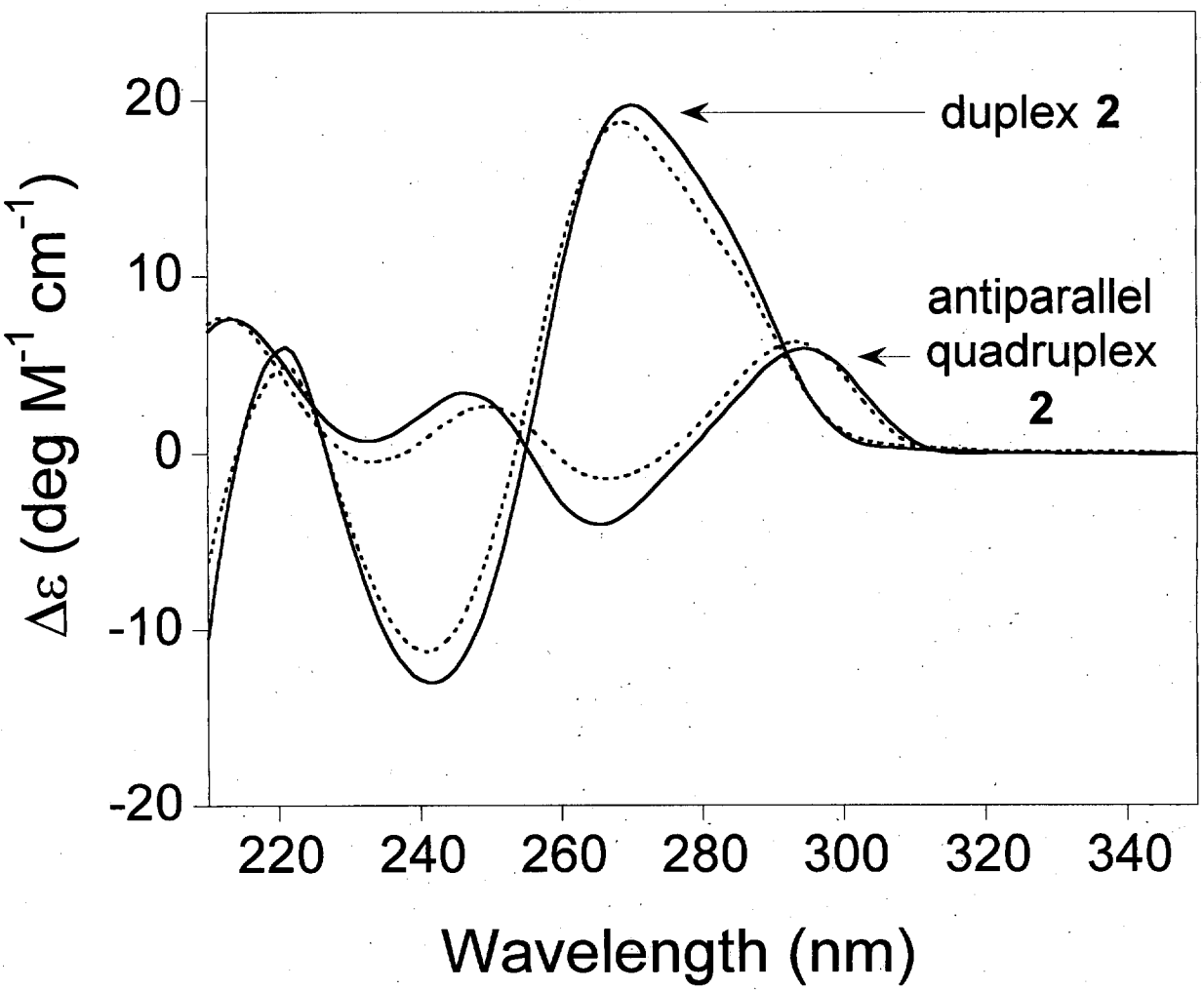
20
10
0
-10
-20
Δε (deg M-1 cm-1)
220
240
260
280
300
320
340
Wavelength (nm)
duplex 2
antiparallel
quadruplex
2

Figure S2