Supporting Information for manuscript entitled

Conjugated porphyrins as a CD reporter of the salt-induced B to Z-DNA transition

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General procedures

All the measurements have been made at room temperature in 50 mM potassium phosphate buffer at pH=7.0. The concentration of the ODNs was 10⁻⁵ to 10⁻⁶ M according to the experimental details. Circular dichroism spectra were recorded on a JASCO J-810 spectrophotometer using quartz cuvettes with an optic path of 1 cm. Fluorescence emission spectra were recorded on a SPEX Fluorolog-3 spectrometer FL3-22 (J. Y. Horiba, Edison, NJ) at an excitation wavelength of 420 nm using quartz cuvettes with optical path length of 1x1 cm. Absorbance spectra were recorded on a JASCO V-530 spectrophotometer using quartz cuvettes with an optic path of 1 cm.
HPLC purification of porphyrin-oligonucleotide conjugate 1P

The porphyrin-oligonucleotide 1P was synthesized according to previously described procedure.\(^1\) 1P was purified using a JASCO HPLC system using a Waters reverse phase X-Terra semi-preparative column MS C\(_{18}\) 2.5\(\mu\)m 10x50mm equipped with a Fenomenex column heater Thermasphere TS-130.\(^2\) During the HPLC, the profile was monitored by a JASCO two-channel array detector using 260 nm wavelength for oligonucleotide detection and 420 nm wavelength for porphyrin detection (see below).

Figure SI-1. Absorbance spectra of porphyrin-ODN conjugate 1P in 50 mM K-phosphate buffer, pH=7.0 at room temperature.

Figure SI-2. Fluorescence spectra of porphyrin-ODN conjugate 1P in 50 mM K-phosphate buffer, pH=7.0 at room temperature.
Figure SI-3  Absorption spectrum of porphyrin-8-mer conjugate 1P at different concentration of NaCl and NiCl$_2$. Conditions: 50mM K-phosphate buffer, pH=7.0; ODN concentration ~5.10$^{-6}$M.

Figure SI-4  CD spectrum of porphyrin-8-mer conjugate 1P at different concentration of NaCl and NiCl$_2$. Conditions: 50mM K-phosphate buffer at pH=7.0; ODN concentration ~10$^{-5}$M.
Figure SI-5  CD spectrum of 8-mer ODN 1 at different concentration of NaCl and NiCl₂.

Conditions: 50mM K-phosphate buffer at pH=7.0.

Figure SI-6  Absorption spectrum of 8-mer ODN 1 at different concentration of NaCl and NiCl₂.

Conditions: 50mM K-phosphate buffer at pH=7.0.