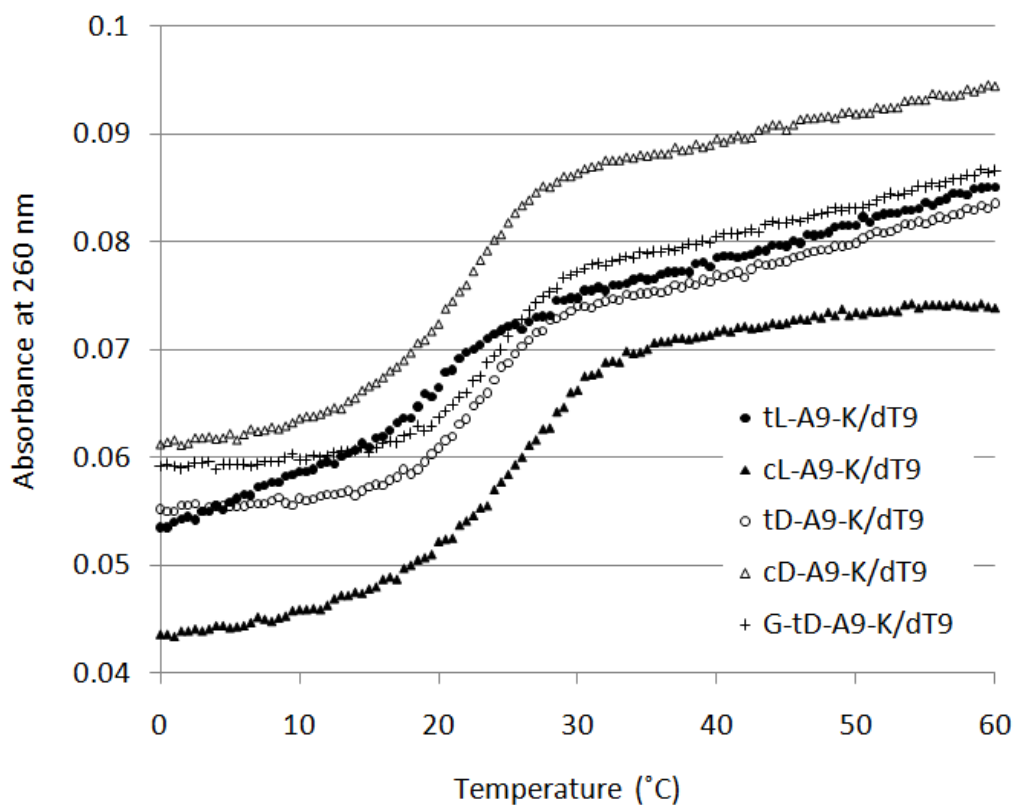


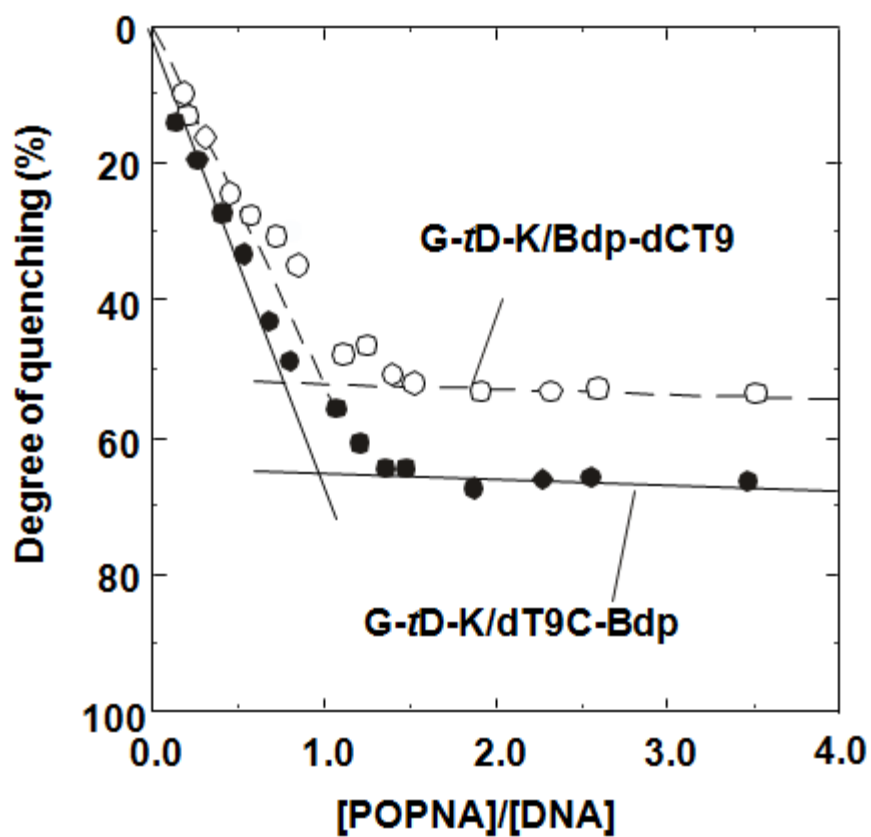
Electronic Supplementary Information

## Quantification of the orientations of pyrrolidine-based oxypeptide nucleic acid-DNA hybrid duplexes

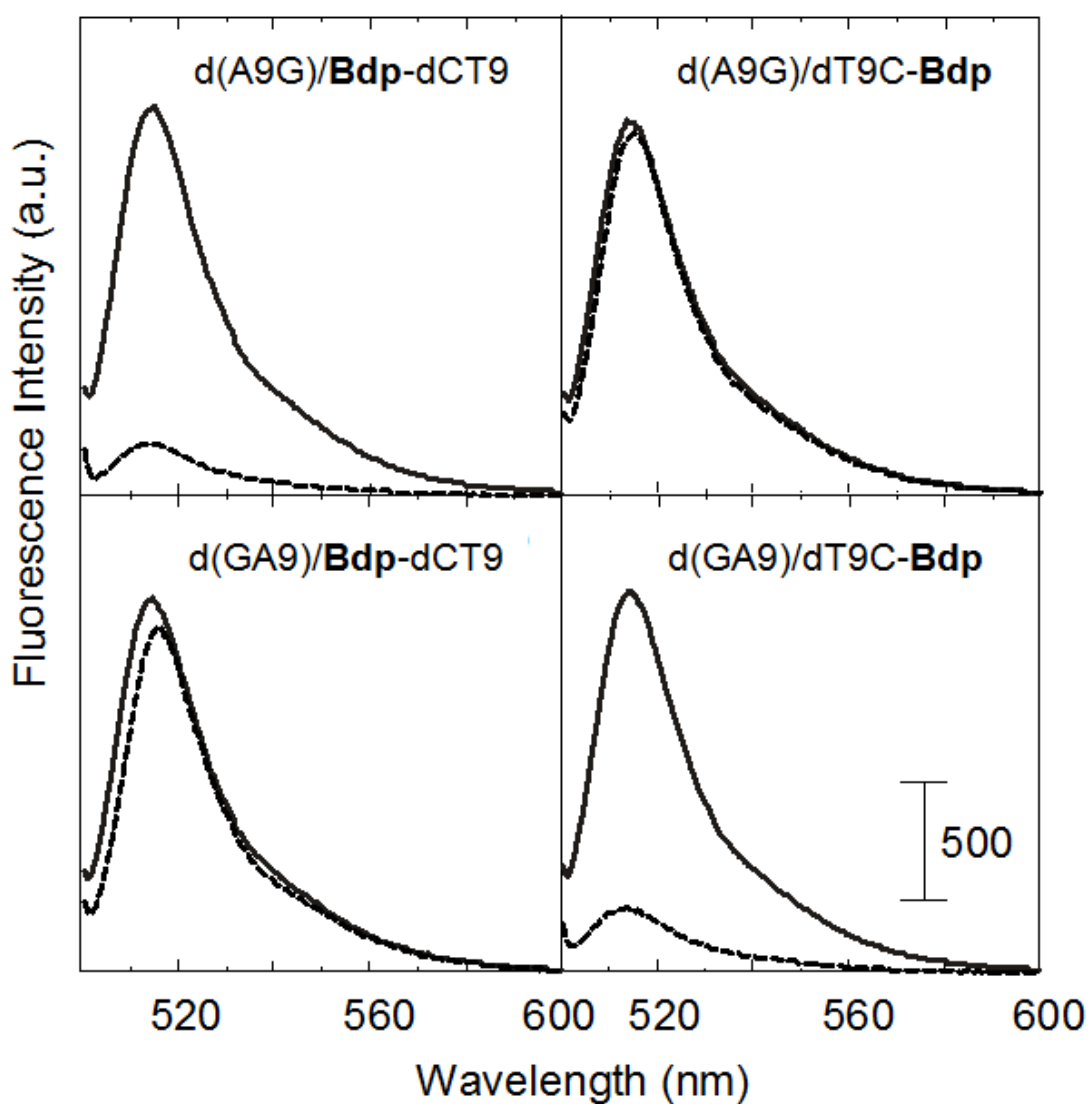
Mizuki Kitamatsu and Masahiko Sisido



**Figure S1.** Temperature dependence of absorption intensity at 260 nm for equimolar mixtures of 9-mer adenine POPNA/9-mer thymine DNA in 100 mM NaCl, 10 mM NaH<sub>2</sub>PO<sub>4</sub>, and 0.1 mM EDTA, pH 7.0. [POPNA] = [DNA] = 1 μM. The melting curves were recorded by heating the solution at a rate of 0.5 °C/0.5 min.



**Figure S2.** Fluorescence titration curves of POPNA + DNA in 100 mM NaCl, 10 mM NaH<sub>2</sub>PO<sub>4</sub>, and 0.1 mM EDTA, pH 7.0. [DNA] = 1  $\mu$ M.



**Figure S3.** Fluorescence spectra of the mixtures of BFL-modified 9-mer thymine DNA and 9-mer adenine DNA at 5 °C (broken lines) and 50 °C (solid lines) in aqueous buffer (100 mM NaCl, 10 mM NaH<sub>2</sub>PO<sub>4</sub> and 0.1 mM EDTA, pH 7.0). [DNA] = 1 μM.  $\lambda_{\text{ex}}$  = 495 nm.