## **Electronic Supporting Information**

for

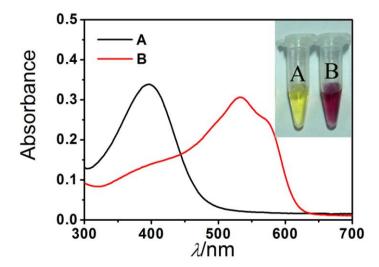
## Calf Thymus DNA-Stabilized Polythiophene Fluorescence Probe for Label-Free Detection of Spermine †

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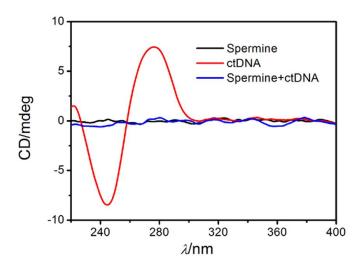
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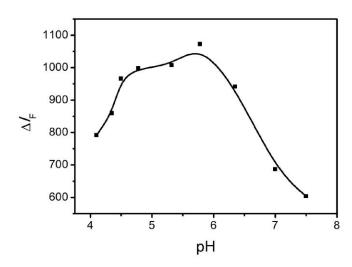
## **Figures**



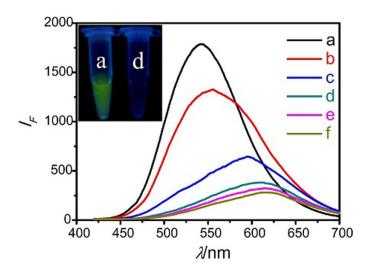
**Fig. S1** <u>Absorption spectra</u> and the corresponding color change of polythiophene in the presence of KI. A, polythiophene; B, polythiophene+KI. Concentrations: polythiophene, 1.5×10<sup>-4</sup> M; KI, 2.5 mM.



**Fig. 2** Circular dichroism spectra of spemine and ctDNA. Concentrations: ctDNA, 0.1 mg/mL; spermine,  $40.0 \mu M$ ; pH 5.78.



**Fig. S3** The dependence of the fluorescence intensity on pH.  $\Delta I_F = I - I^\circ$ ; *I*, fluorescence of ctDNA/polythiophene/KI;  $I^\circ$ , fluorescence of spermine/ctDNA/polythiophene/KI. Concentrations: polythiophene,  $1.5 \times 10^{-4}$  M; ctDNA, 0.1 mg/mL; KI, 2.5 mM; spermine, 40.0 μM.



**Fig. S4** The fluorescence emission spectra and fluorescence imaging of polythiophene in the presence of KI. a, polythiophene; b-f, polythiophene/KI. Concentrations: polythiophene,  $1.5 \times 10^{-4}$  M; KI (from a to f), 0, 0.625, 1.25, 2.5, 3.75, 5.0 mM; pH 5.78