

Supplementary Information

# A Label-Free, Mix-and-Detect ssDNA-Binding Assay Based on Cationic Conjugated Polymers

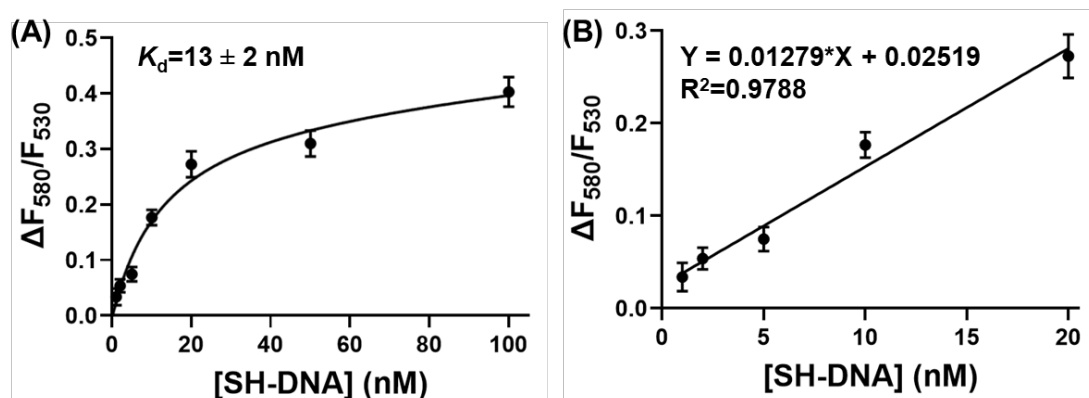
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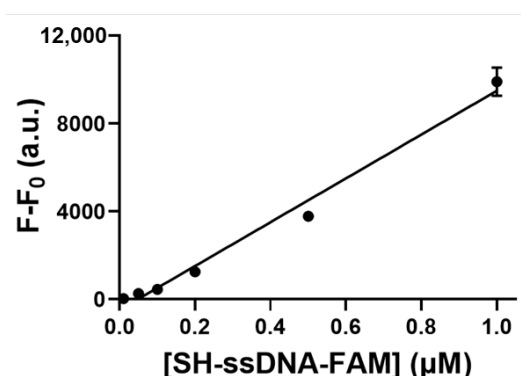
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**Figure S1.** (A) The fluorescence ratio of PMNT as a function of SH-ssDNA concentration. (B) The linear response at 1 to 20 nM SH-ssDNA. The concentration of PMNT was 5  $\mu$ M.



**Figure S2.** The fluorescence intensity changes of SH-ssDNA-FAM in response to ssDNA concentration.

**Table S1.** The sequences of ssDNA used in this work.

Names	Sequences (5'-3')
<b>ssDNA</b>	CCCAGGTTCTCTTCACAGATGCGT
<b>cDNA</b>	ACGCATCTGTGAAGAGAACCTGGG
<b>ssDNA-FAM</b>	CCCAGGTTCTCTTCACAGATGCGT-FAM
<b>SH-ssDNA</b>	SH-AAAAAAAAAACCCAGGTTCTCT
<b>SH-ssDNA-FAM</b>	SH- AAAAAAAAAAACCCAGGTTCTCT-FAM
<b>A30</b>	AAAAAAAAAAAAAAAAAAAAAAAAAAAAA
<b>T30</b>	TTTTTTTTTTTTTTTTTTTTTTTTTTTTT
<b>G18</b>	GGGGGGGGGGGGGGGGGGGG
<b>C30</b>	CCCCCCCCCCCCCCCCCCCCCCCCCCCCC

**Table S2.** The quantification of ssDNA on AuNPs using our CCP-based ssDNA binding assay.

DNA type	Supernatant	KCN released	Average ssDNA number on a single AuNP
Unlabeled DNA	39.9 nM	50.8 nM	26
	41.9 nM	61.0 nM	
	38.4 nM	45.7 nM	
Thiolated DNA	1.3 µM	1.4 µM	130
	1.5 µM	1.3 µM	
	1.5 µM	1.2 µM	