Electronic Supplementary Material (ESI) for Analytical Methods.

Support information

Simple "turn-on" fluorescent biosensor for sensitive detection of exonuclease III activity through photoinduced electron transfer and self-hybridization of one DNA probe

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Table S1 Sequences of the used oligonucleotides

Name	Sequence	Length (bp)	Tm (°C)
$ds(CG\text{-}GC)_6$	5'-CGCGCG-FAM-3' 3'-FAM-GCGCGC-5'	6	20.0
$ds(CG\text{-}GC)_8$	5'-CGCGCGCG-FAM-3' 3'-FAM-CGCGCGCG-5'	8	40.8
$ds(CG\text{-}GC)_{10}$	5'-CGCGCGCGCG-FAM-3' 3'-FAM-GCGCGCGCGC-5'	10	53.3
$ds(CG\text{-}GC)_{12}$	5'-CGCGCGCGCGCG-FAM-3' 3'-FAM-GCGCGCGCGCGC-5'	12	61.6
$ds(CG\text{-}GC)_{14}$	5'-CGCGCGCGCGCGCG-FAM-3' 3'-FAM-GCGCGCGCGCGCGC-5'	14	67.6

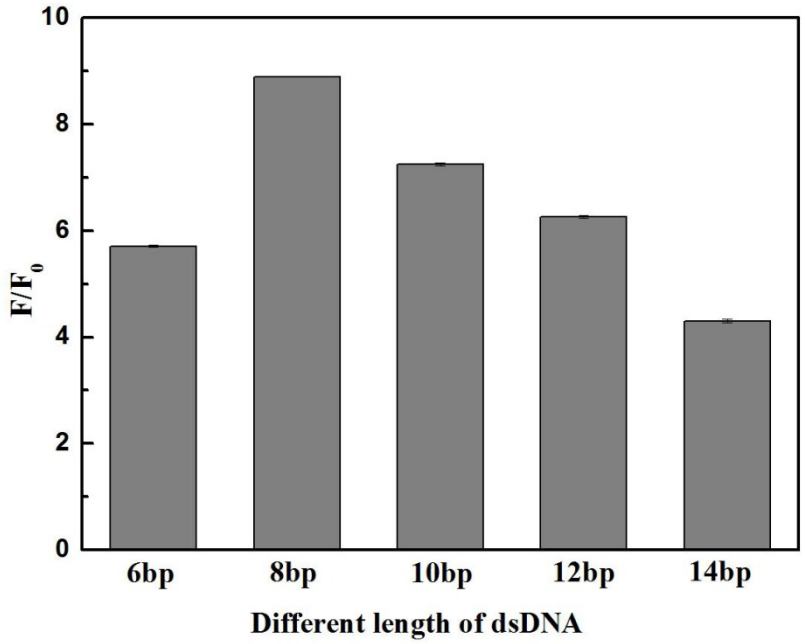

Figure S1. Effect of the length of dsDNA on the sensing system.

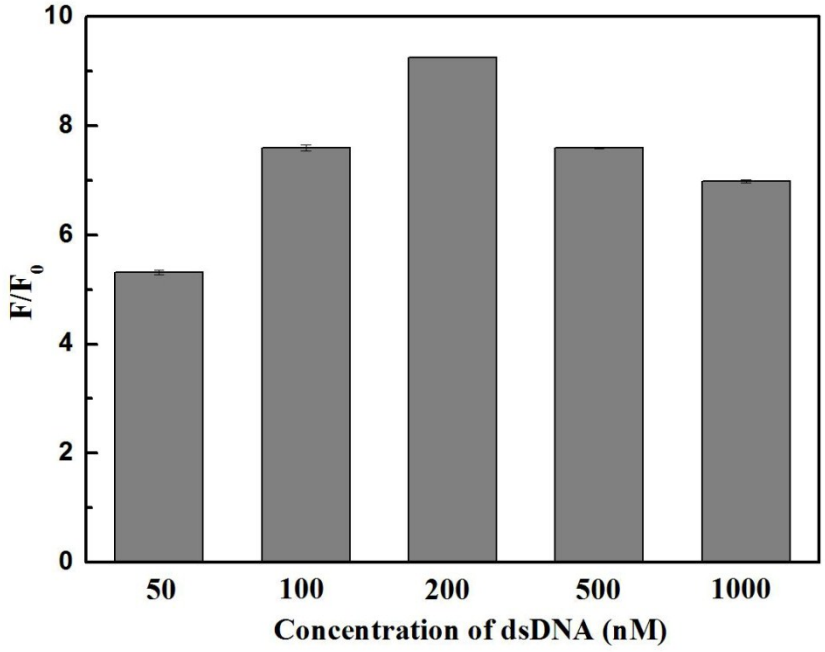

Figure S2. Effect of dsDNA concentration of on the sensing system.

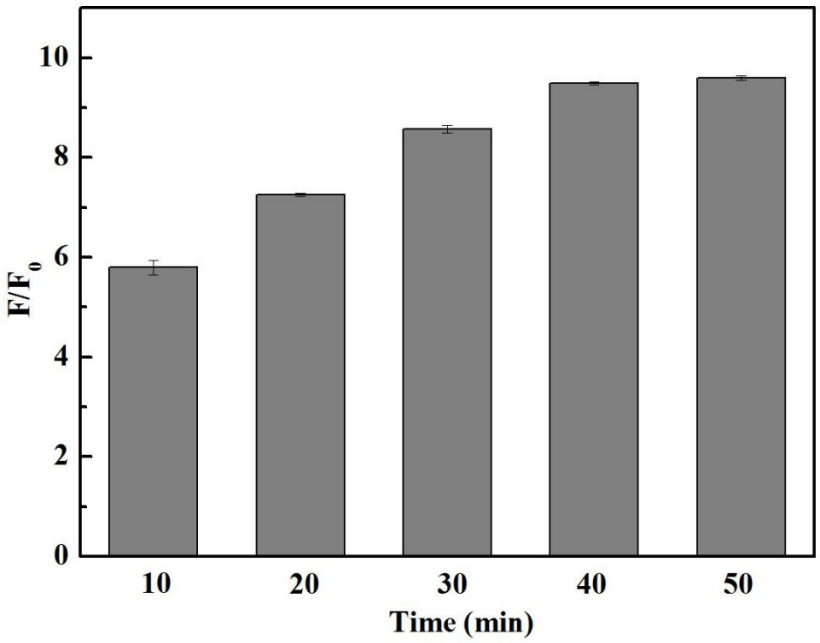

Figure S3. Effect of dsDNA and Exo III reaction time on the sensing system.

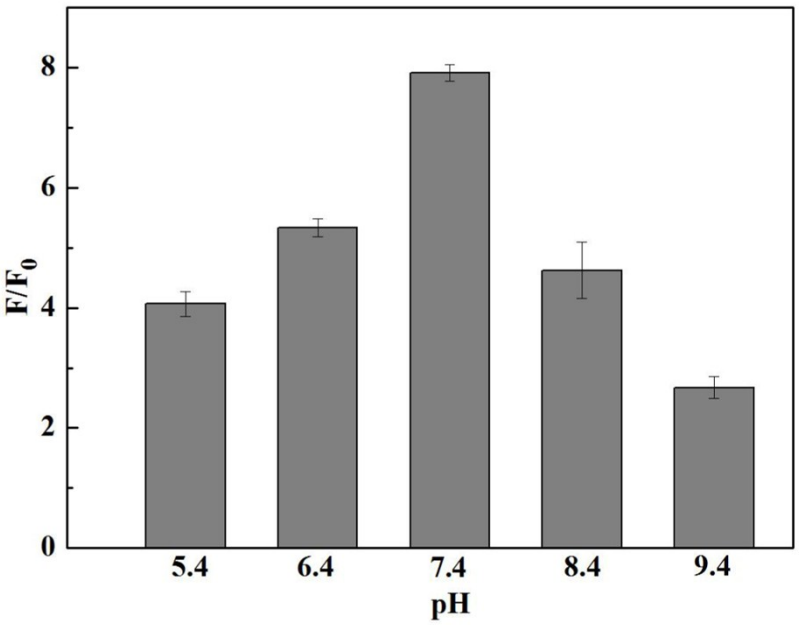

Figure S4. Effect of pH on the sensing system.Experimental condition: 60 μL dsDNA (0.20 μM), 60 μL Exo III (5 U/mL), 40 min reaction time.