

Supplementary materials for:

**DNA-scaffolded silver nanoclusters as an on-off label-free
fluorescence probe for the selective detection of endonuclease activity
and inhibition**

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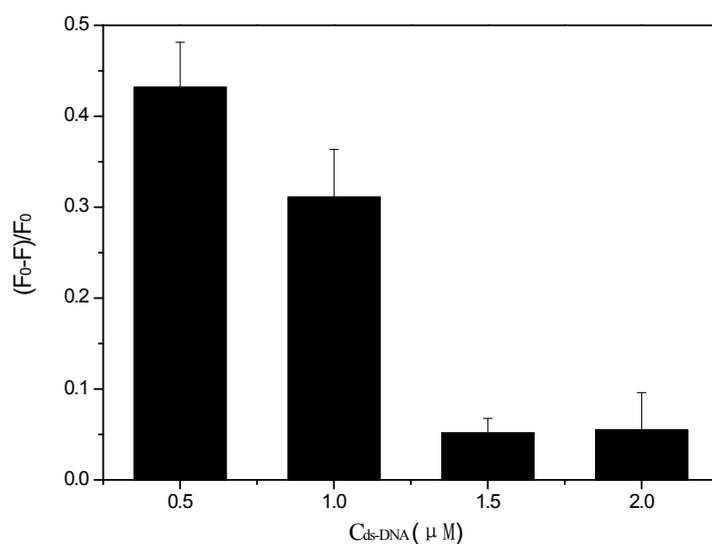


Fig. S1 The effect of concentrations of substrate of EcoRI on the relative fluorescence intensity $((F_0-F)/F_0)$ of the DNA-AgNCs; Conditions of reaction: 2.17×10^{-3} U/ μ L EcoRI; F_0 represented for the fluorescence intensity of blank sample, F represented for the fluorescence intensity with EcoRI. Error bars were calculated from three replicate measurements.

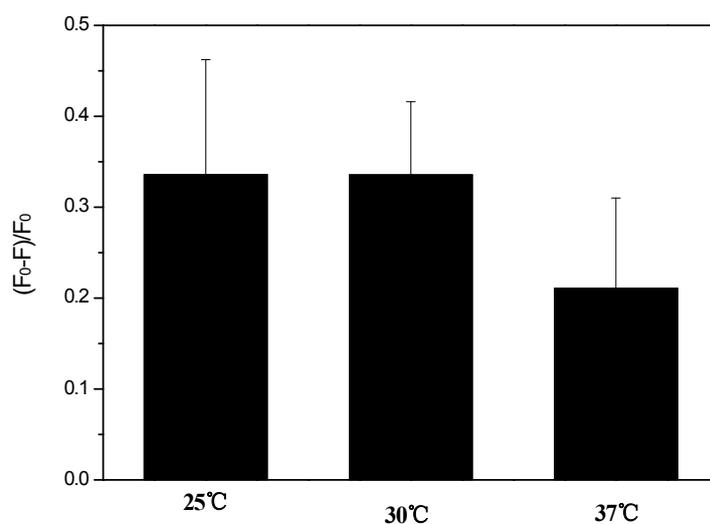


Fig. S2 The effect of reaction temperature of EcoRI on the relative fluorescence intensity $((F_0-F)/F_0)$ of the DNA-AgNCs; Conditions of reaction: 1 μ M G-rich DNA, 1 μ M C-rich probe and 2.17×10^{-3} U/ μ L EcoRI; F_0 represented for the fluorescence intensity of blank sample, F represented for the fluorescence intensity with EcoRI. Error bars were calculated from three replicate measurements.

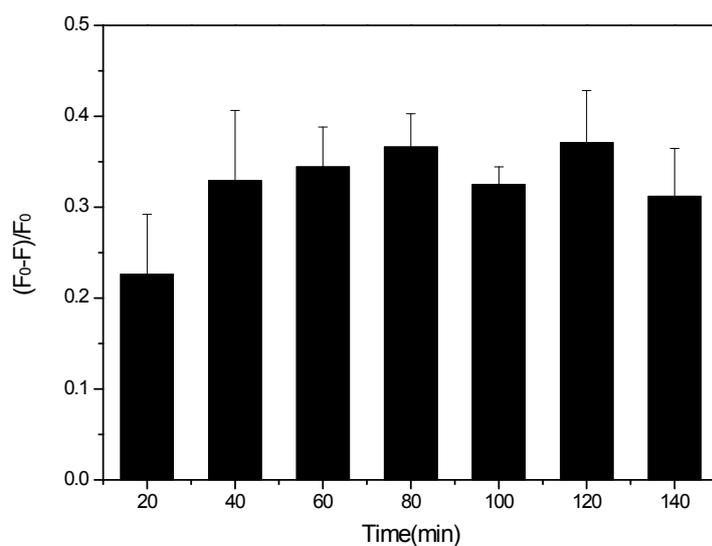


Fig. S3 The effect of reaction time of EcoRI on the relative fluorescence intensity $((F_0-F)/F_0)$ of the DNA-AgNCs; Conditions of reaction: 1 μ M G-rich DNA, 1 μ M C-rich probe and 2.17×10^{-3} U/ μ L EcoRI; F_0 represented for the fluorescence intensity of blank sample, F represented for the fluorescence intensity with EcoRI. Error bars were calculated from three replicate measurements.

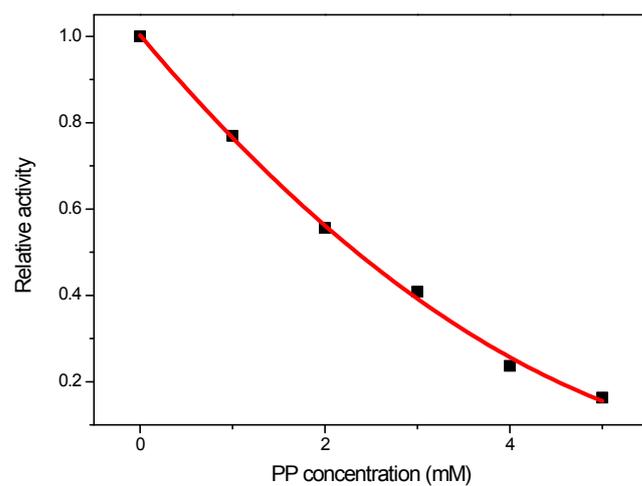


Fig. S4 The inhibition (Pyrophosphate) assay of EcoRI, Conditions of reaction: 1 μ M G-rich DNA, 1 μ M C-rich probe and 1.09×10^{-2} U/ μ L EcoRI, the concentrations of Pyrophosphate were 1 mM, 2 mM, 3 mM, 4 mM, 5 mM, respectively.

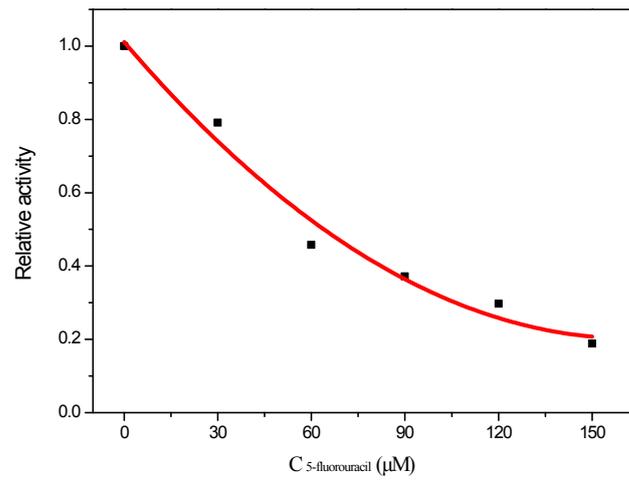


Fig. S5 The inhibition (5-fluorouracil) assay of EcoRI, Conditions of reaction: 1 μM G-rich DNA, 1 μM C-rich probe and 1.09×10^{-2} U/ μL EcoRI, the concentrations of 5-fluorouracil were 30 μM , 60 μM , 90 μM , 120 μM , 150 μM , respectively.

Table S1 Recovery of EcoRI in spiked human serum samples

Samples	Added(U/ μ L)	Found (U/ μ L)	Recovery (%)	RSD (% _{n=3})
1	4.34×10^{-4}	4.44×10^{-4}	102	5.7
2	1.09×10^{-3}	1.07×10^{-3}	98	8.0
3	1.74×10^{-3}	1.67×10^{-3}	96	1.2
4	2.17×10^{-3}	2.11×10^{-3}	97	3.2
5	6.52×10^{-3}	6.27×10^{-3}	96	3.8
6	1.09×10^{-2}	1.11×10^{-2}	102	2.3