

Supporting Information

DNA-templated copper nanoparticles for voltammetric analysis of endonuclease activity

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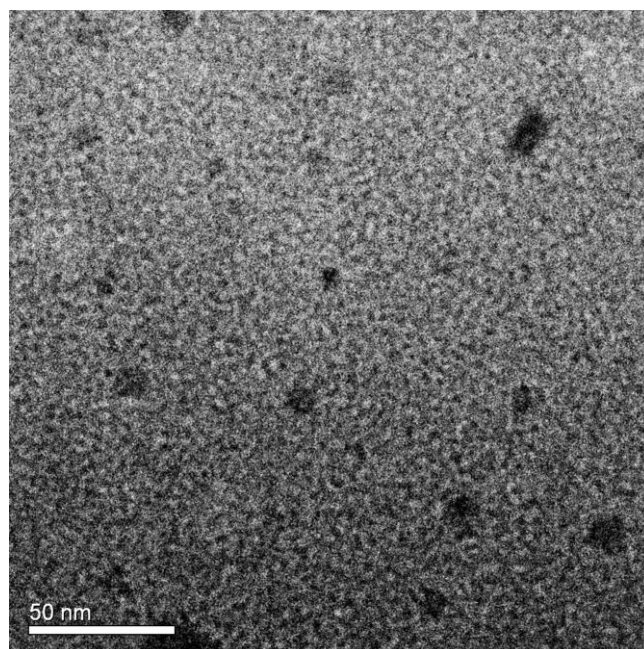


Figure S1. TEM image of the prepared CuNPs.

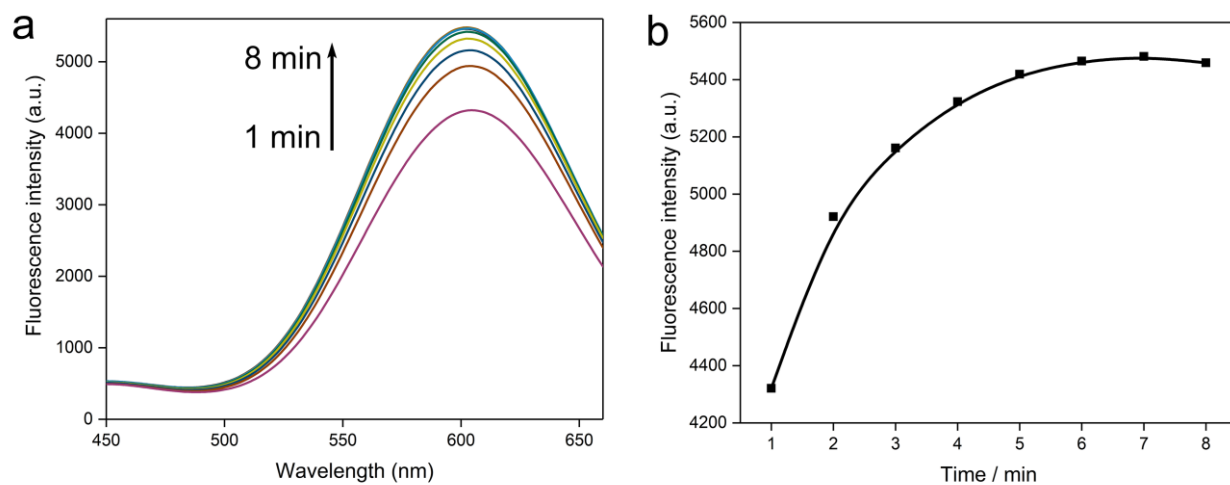


Figure S2. (a) Fluorescence emission spectra of the CuNPs with different reaction time. (b) The relationship between fluorescence peak and reaction time.

Table S1. Comparison of the analytical performances of EcoRI assays.

Technique	Materials	Detection range (U/mL)	Detection limit (U/mL)	Ref
ECL	gold nanoparticles-graphene composite	10^{-4} to 20	5.6×10^{-5}	[1]
fluorescence	<i>N</i> -Methyl mesoporphyrin IX	10^{-1} to 30	6.8×10^{-2}	[2]
fluorescence	graphene oxide	10^{-1} to 2	6×10^{-2}	[3]
fluorescence	gold nanorods	1 to 100	6.5×10^{-1}	[4]
fluorescence	exonuclease III-aided molecular beacon	1 to 80	5.7×10^{-1}	[5]
EIS	DNA duplex	40 to 400	4×10	[6]
DPV	CuNPs	10^{-3} to 10	10^{-3}	this work

Table S2. Reproducibility assessment of the biosensor for the detection of endonuclease activity.

Endonuclease (U/mL)	ΔPeak current (μA)			Relative standard deviation (%)
	Electrode 1	Electrode 2	Electrode 3	
0.01	2.677	2.792	2.535	4.825
0.05	4.008	4.203	4.127	2.390
0.1	4.451	4.295	4.492	2.356
0.5	5.426	5.676	5.377	2.919

References

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