

Electronic Supplementary Information

A novel label-free fluorescent molecular beacon for the detection of 3'-5' exonuclease enzymatic activity by using DNA-templated copper nanoclusters

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Fig. S1. (A) Effect of molecular beacon concentrations on the fluorescence spectra of molecular beacon-structured DNA templated CuNPs. The molecular beacon concentrations are 100 nM, 250 nM, 500 nM, 750 nM and 1000 nM from bottom to top. (B) The linear relationship between the fluorescence intensity and the molecular beacon concentrations.

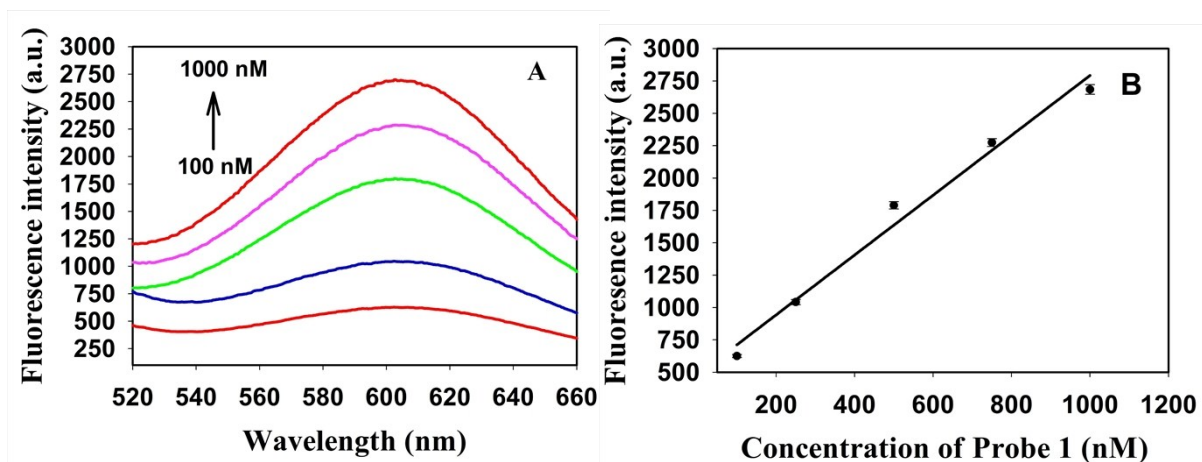


Fig. S2. Optimization of Cu^{2+} concentration on the formation of fluorescent CuNPs. The results were the average of three repetitive experiments with error bars indicating the standard deviation. (Probe 1, 500 nM; sodium ascorbate, 5 mM).

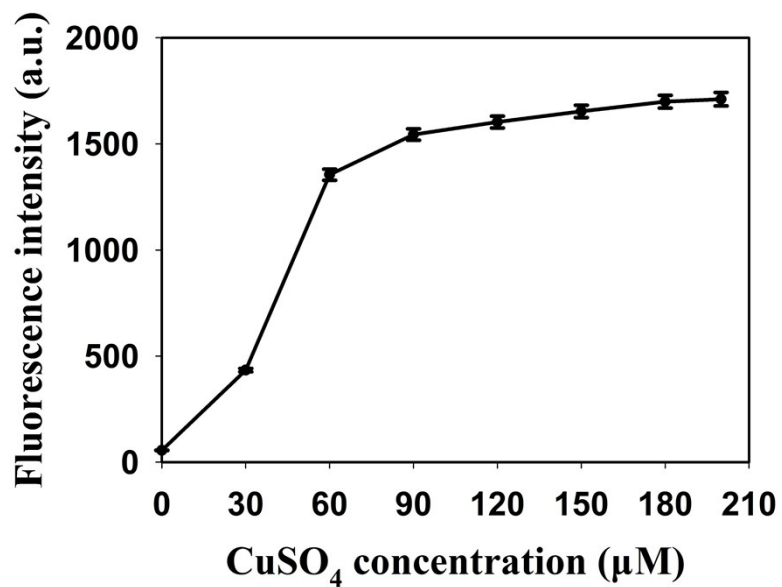


Fig. S3. Optimization of sodium ascorbate concentration on the formation of fluorescent CuNPs. The results were the average of three repetitive experiments with error bars indicating the standard deviation. (Probe 1, 500 nM; Cu^{2+} , 200 μM).

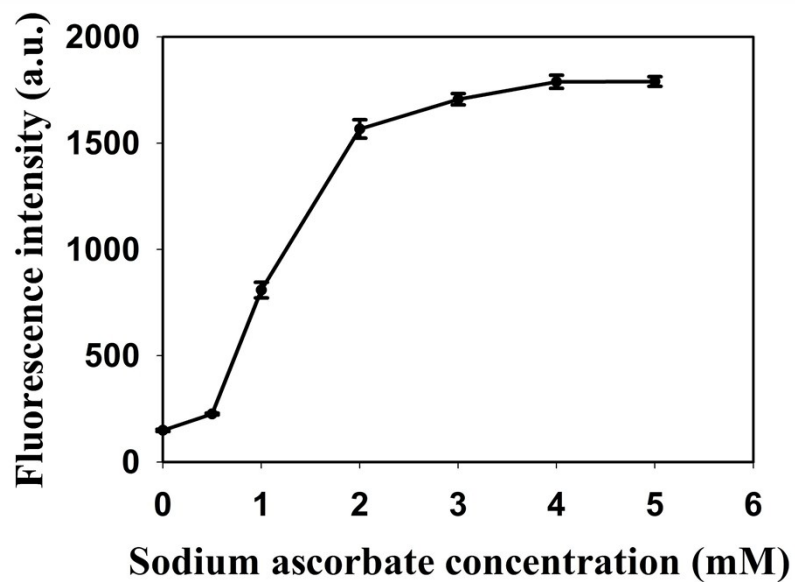


Fig. S4. Investigation of the fluorescence stability of CuNPs as a function of time.

