Suporting Information

A gold nanoparticle based colorimetric and fluorescent dual-channel probe for Acetylcholinesterase detection and inhibitor screening

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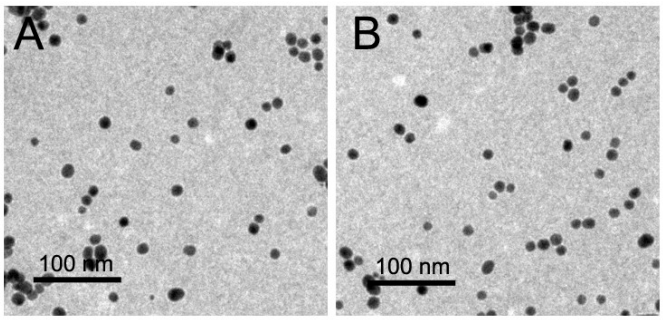

Fig. S1 The TEM images of (A) p-SC_6A-AuNPs and (B) RhB-p-SC_6A-AuNPs.

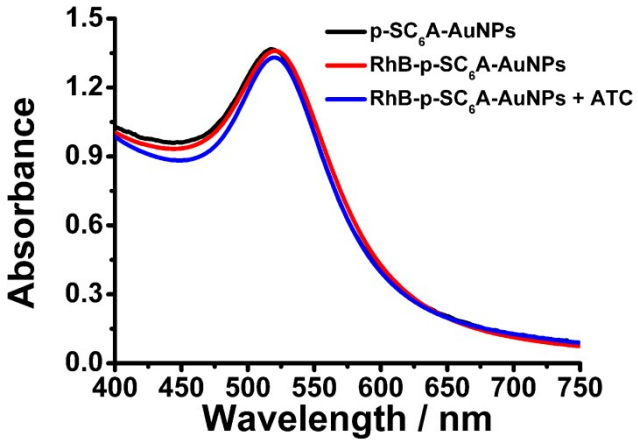

Fig. S2 UV-Vis spectra of p-SC_6A-AuNPs, RhB-p-SC_6A-AuNPs and RhB-p-SC_6A-AuNPs in the presence of ATC.

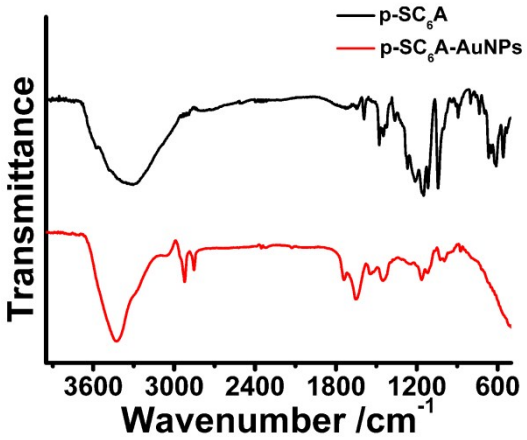

Fig. S3 FTIR spectrum of p-SC_6A and p-SC_6A-AuNPs.

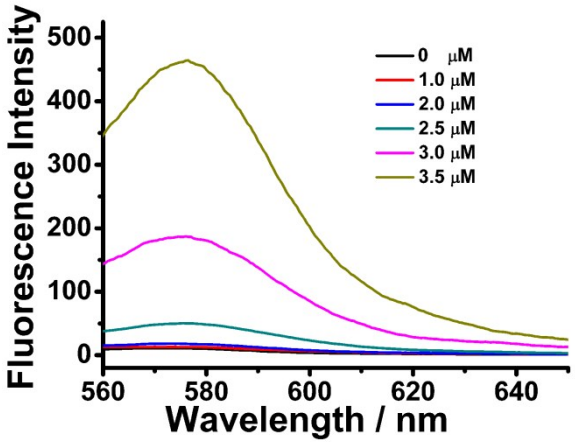

Fig. S4 Fluorescence spectra for various final concentrations of RhB (0-3.5 μM) mixing with a fixed concentration of p-SC_6A-AuNPs (5.5 nM).

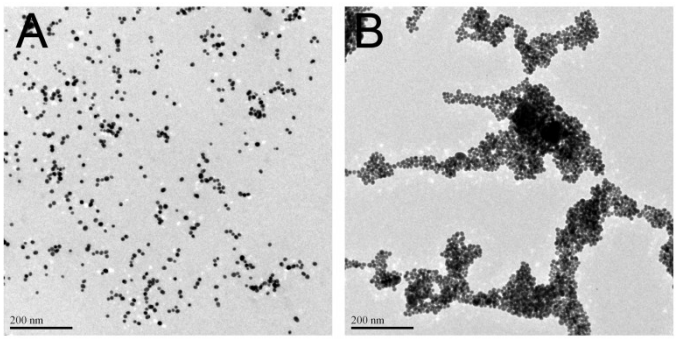

Fig. S5 TEM images of RhB-p-SC_6A-AuNPs incubated (A) without or (B) with AChE (5 mU mL^{-1}) in the presence of ATC (20 μM).

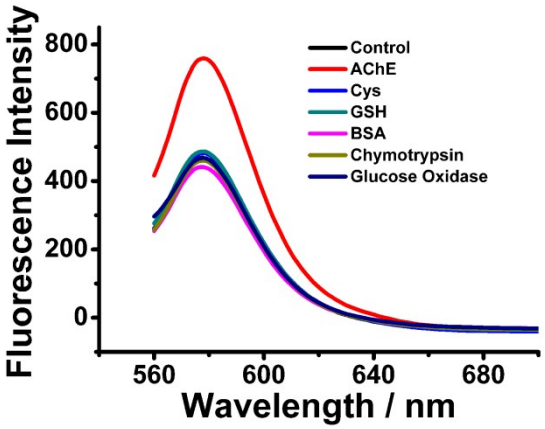

Fig. S6 Fluorescence spectra in response to different species including biothiols and proteins that may exist in human serum. The final concentration of each biothiol was 0.1 mM and the enzyme was 1U/mL.

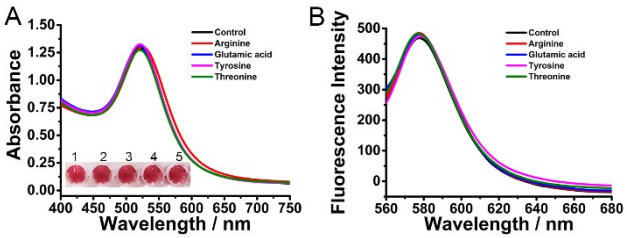

Fig. S7 Selectivity of the AChE sensor. (A) Absorption curves of the solutions in response to different amino acids. Inset were the photographs of corresponding solutions. 1) Control; 2) Arginine; 3) Glutamic acid; 4) Tyrosine; 5) Threonine. (B) Fluorescence spectra in response to different amino acids. The final concentration of each amino acid was 0.1 mM.