

Electronic Supplementary Information (ESI)

DNA-stabilized Silver Nanoclusters with Guanine-enhanced Fluorescence as a Novel Indicator for Enzymatic Detection of Cholesterol

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Table S1 The sequences of DNA oligonucleotides used in this work.

| | DNA sequences (5' → 3') |
|------|-------------------------|
| P0 | CCCTAACTCCCC |
| P1GR | CCCTAACTCCCCG |
| P2GR | CCCTAACTCCCCGG |
| P3GR | CCCTAACTC CCCGGG |
| P4GR | CCCTAACTCCCCGGGG |
| P1GL | G CCCTAACTCCCC |
| P2GL | GGCCCTAACTCCCC |

Supplementary Figures

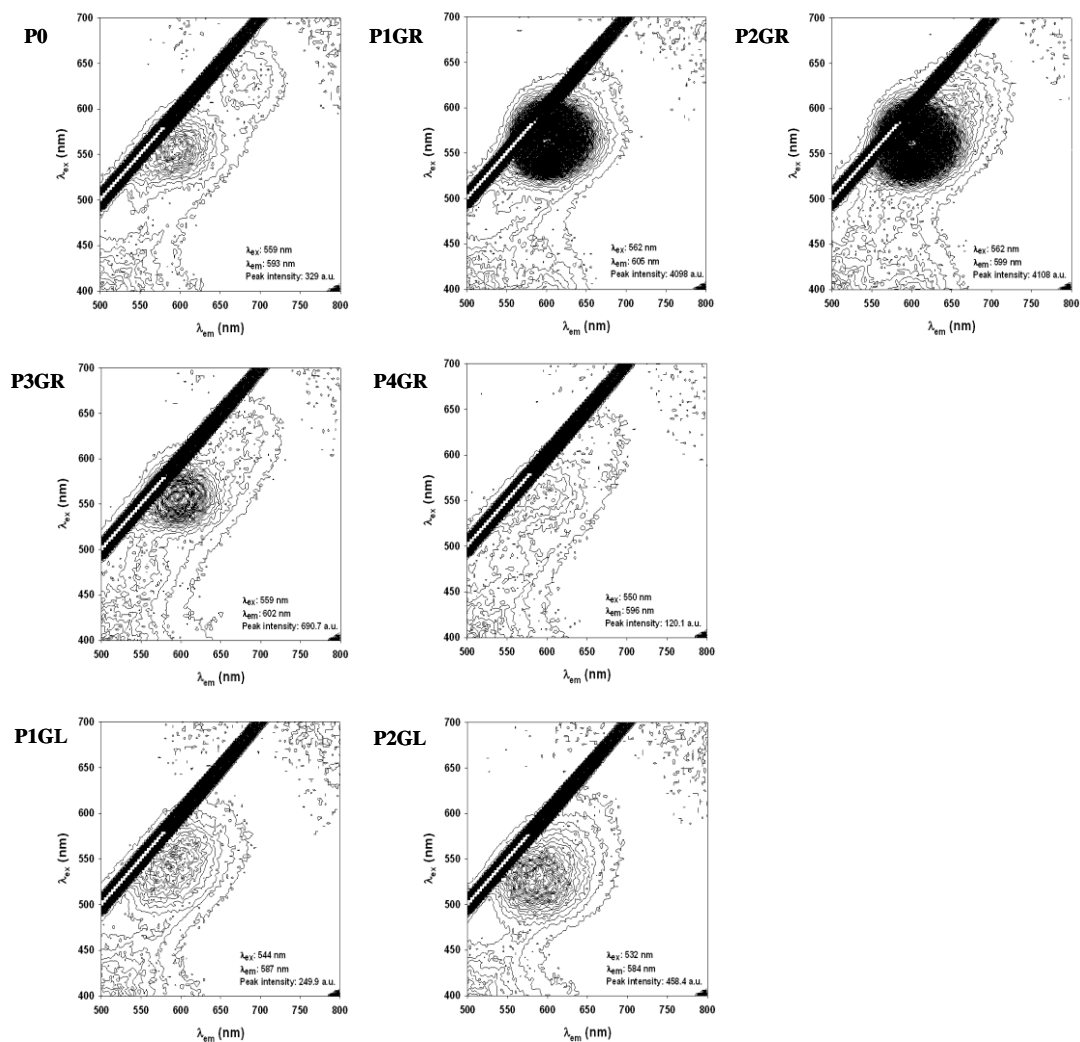


Fig.S1 Contour maps fluorescence of DNA-Ag NCs with different guanine bases modification.

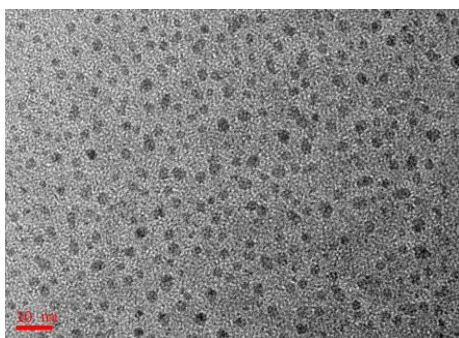


Fig.S2 TEM image of G-DNA-Ag NCs.

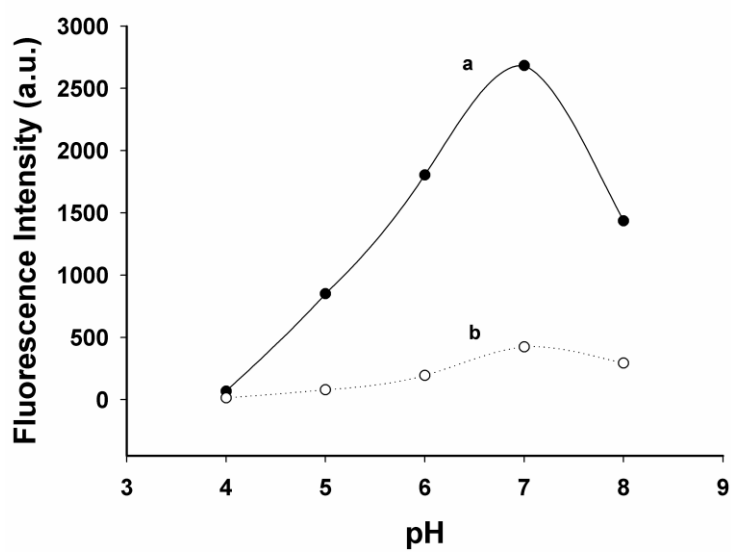


Fig.S3 The effect of pH on the sensor performance: in the absence of H_2O_2 (a), in the presence of $100 \mu\text{M H}_2\text{O}_2$ (b).

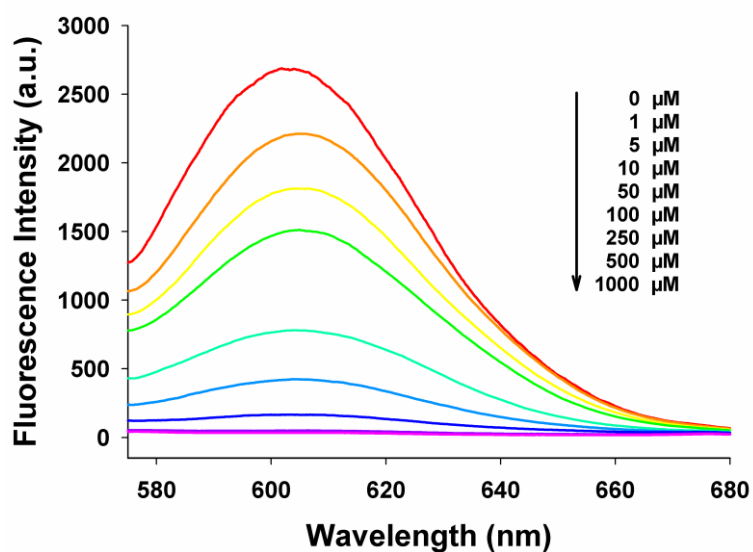


Fig.S4 Fluorescence spectra of G-DNA-Ag NCs after the treatment of different concentrations of H₂O₂.

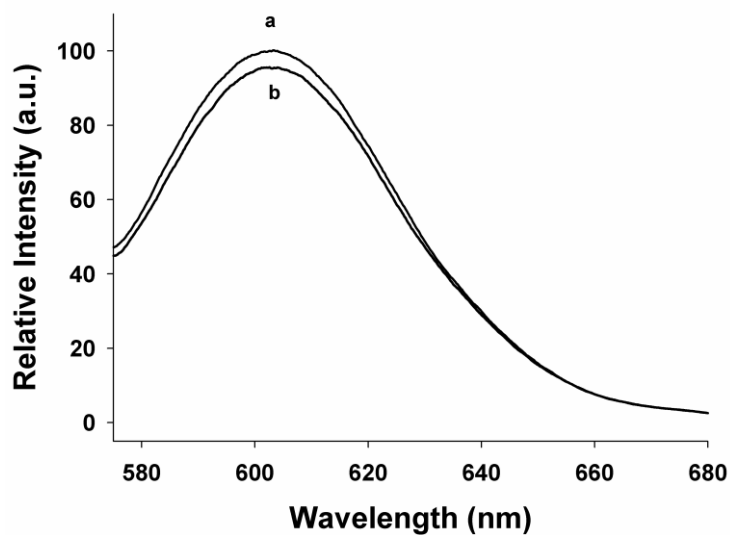


Fig.S5 The effect of cholesterol on the fluorescence intensity of G-DNA-Ag NCs without cholesterol oxidase: (a) in the absence of cholesterol; (b) in the presence of 200 μM cholesterol.

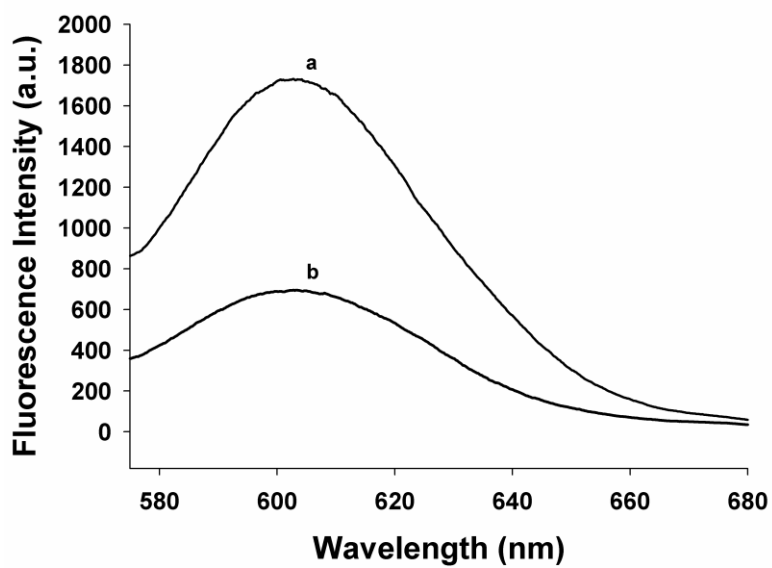


Fig.S6 The fluorescence response in the absence (a) or presence (b) of 100 μM cholesterol in diluted human serum (1%).