

Supporting Information

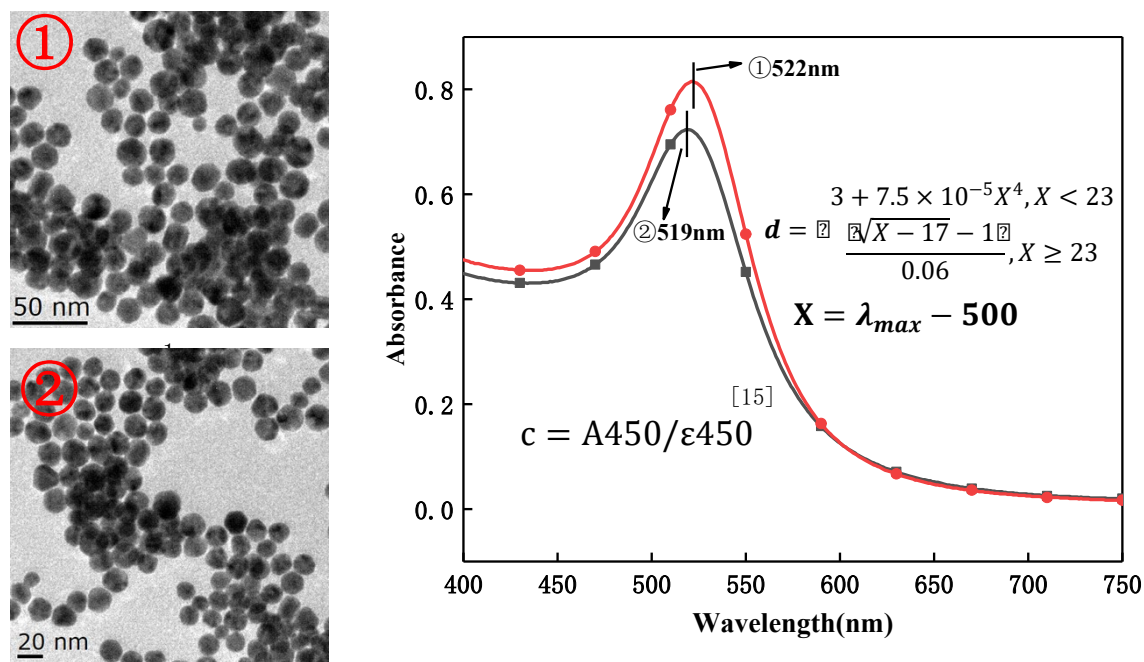


Fig.S1 The left is TEM of gold nanoparticles prepared by sodium citrate reduction method, and the right is UV-VIS absorption spectra. (1 is the product when the concentration of sodium citrate is 0.002M; 2 is the product of sodium citrate at a concentration of 7.2×10^{-4} M)

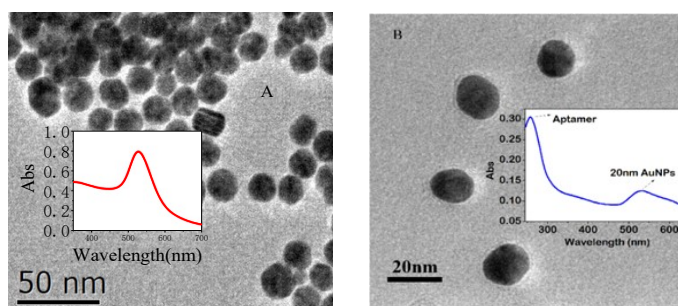


Fig.S2 UV-visible absorption spectra and TEM images of AuNPs and AuNPs+polyA6-aptamer.

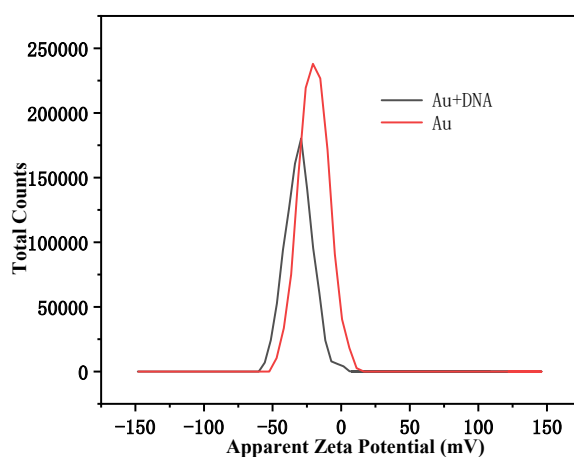


Fig.S3 Zeta potential measurement results of AuNPs and AuNPs+polyA6-aptamer.

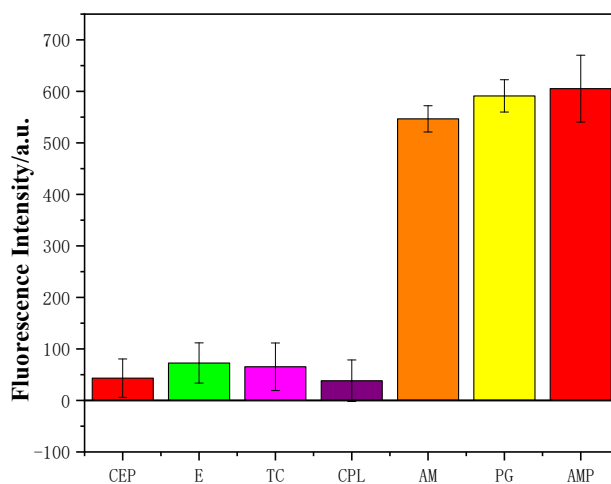


Fig.S4 The change in fluorescence intensity of the working solution after the addition of different types of antibiotics.

Table S1 Comparison of AMP detection methods

Method of detection	Limit of detection	Sensitivity	Real sample detection	References
HPLC	6.933 μ M	9485.965 AU / μ M	Capsule	[24]
	7.11 μ M	0.17 μ A / μ M	Capsule	[25]
	1 pM	1.0248 μ A /pM	Milk	[26]
Colorimetry	34.3nM	0.0204 a.u. / μ M	Lake water	[27]
	21.7 pM	0.0523 a.u. /nM	Human serum	[28]
	6.2 μ M	0.00382 a.u. / μ M	Tap water, River water and Milk	[29]

Fluorescence	0.915nM	358.15 a.u./ μ M	Milk, Pork, Tap Water	[10]
	0.01nM	106.79 r.f.u /nM	Milk, Honey and Egg White	[11]
	1.83nM	0.106 a.u. /nM	Milk, lake water	[30]
	29.2 pM	0.1721 a.u./nM	Human serum	[16]
	18nM	16.87 a.u. / μ M	Milk	[17]
	0.094nM	597.96 a.u. /nM	Milk and Tap water	This work