Electronic supplementary material

On the Analytical methods publication entitled

PolyA aptamer-based label-free colorimetrical biosensor for the detection of kanamycin in human serum

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Text. S1. A 100 mL solution of 1 mM $HAuCl_4$ was heated at its boiling point with stirring, and 10 mL of a 38.8 mM sodium citrate solution was added. The solution continued to boil with mixing for 20 min. The sample was cooled to room temperature and was stored in a dark bottle at 4°C for further use. The gold nanoparticles were characterized by transmission electron microscopy (TEM) and UV-Vis spectroscopy. The AuNPs were determined to be 15 nm in diameter by TEM. The final AuNPs concentration was determined to be 10 nM based on the extinction measured at 520 nm, using $\varepsilon=2.4\times10^8$ L. $mol^{-1}.cm^{-1}$.

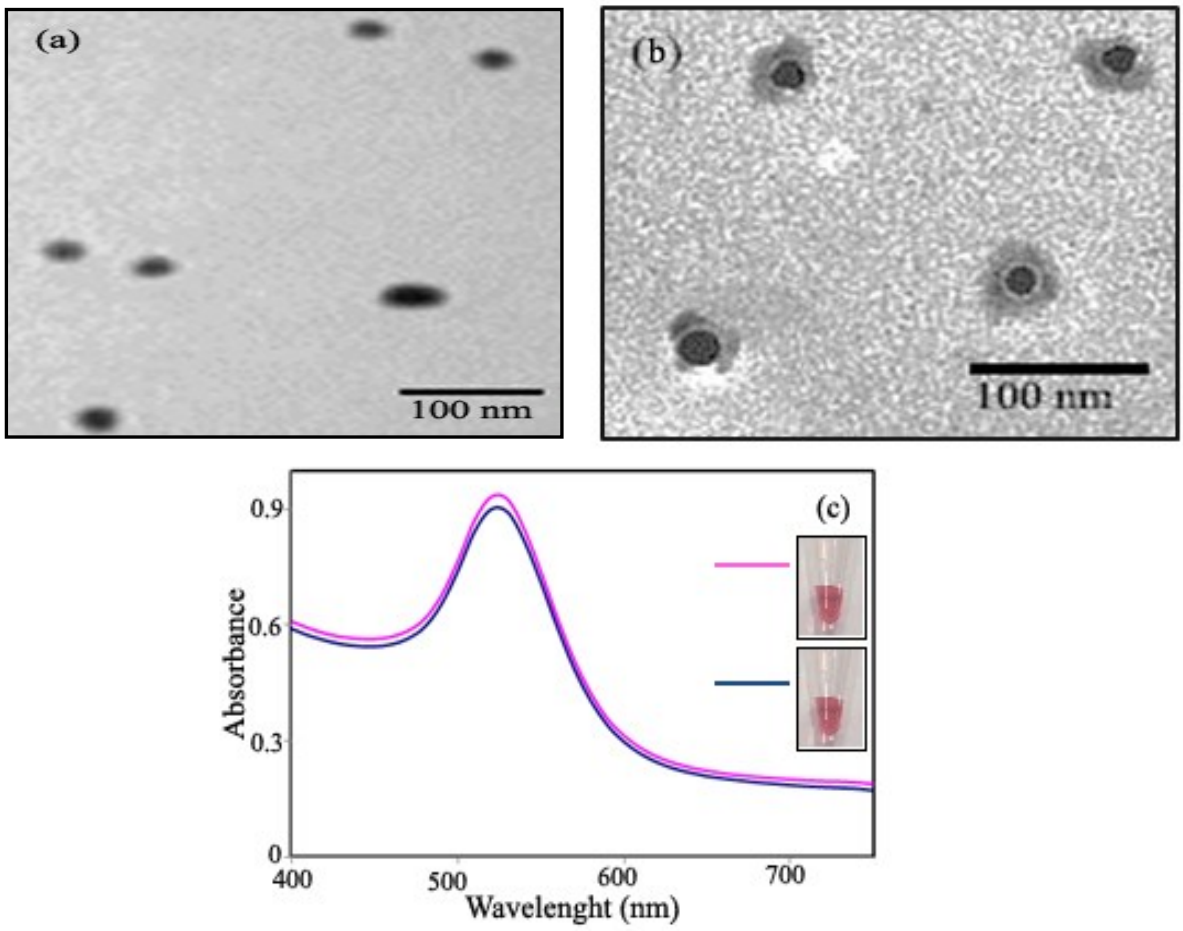

Fig. S1. The transmission electron microscope (TEM) images of gold nanoparticles (~15 nm diameter) (a), polyA DNA-AuNPs (b), Absorption spectra and visual observation (Inset) of AuNPs (pink spectrum) and polyA DNA-AuNPs (dark blue spectrum) at 520 nm (c).

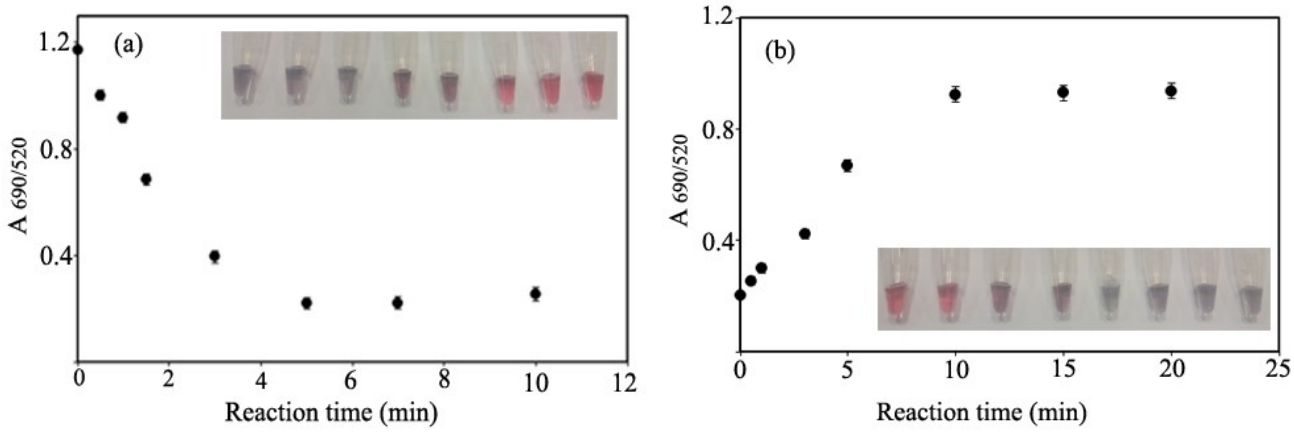

Fig. S2. The reaction time for complete adsorption of polyA apt (1.5 μM) on the AuNPs (a), and for complete aggregation of AuNPs by PDDA (30 nM) (b). The corresponding color changes shown inset.