

Supplementary Information for the following manuscript

A sensitive colorimetric label-free assay for trypsin and inhibitor screening with gold nanoparticles

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1. Absorption spectra of Au-NPs after addition of only trypsin

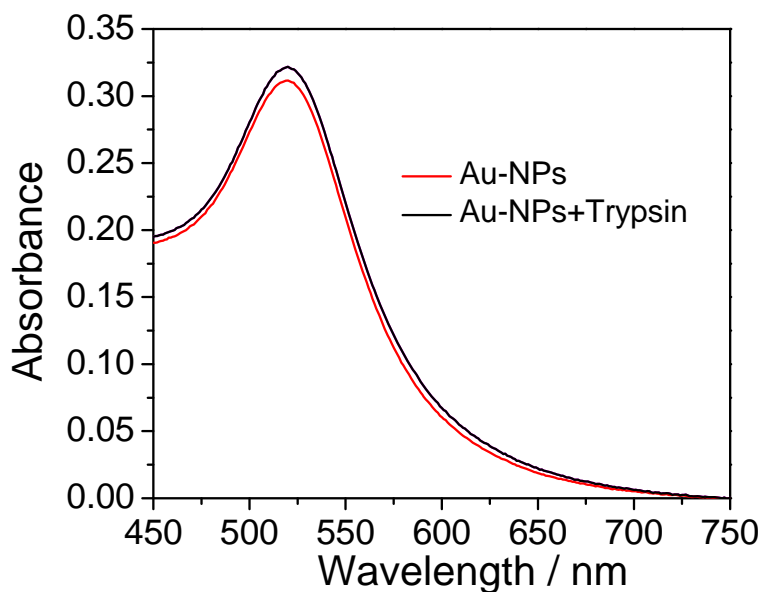


Fig. S1 Absorption spectra of Au-NPs(1.04 nM in PBS (2.0 mM, pH = 8.5) without (red line) and with the addition of only trypsin (30 ng/mL) after incubation at room temperature for 10 min. (black line).

2. Absorption spectra of Au-NPs containing Arg₆ and trypsin in solutions of different pH values.

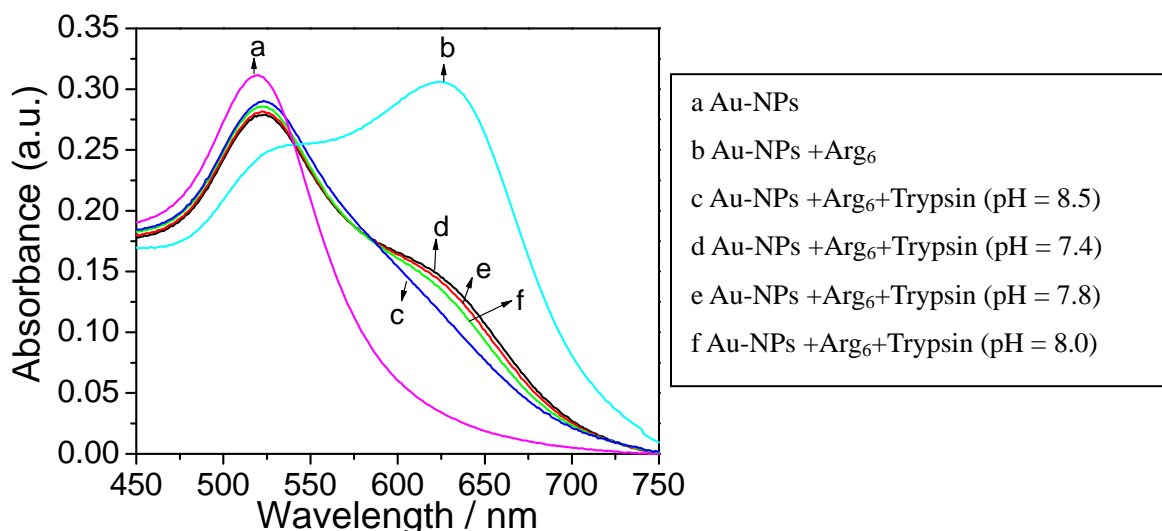


Fig. S2 The absorption spectra of the Au-NP [1.04 nM in PBS (2.0 mM) buffer solution] containing Arg₆ peptide (3.0 μ M) and trypsin (15.0 ng/mL) in solutions of different pH values; each solution of Arg₆ and trypsin was incubated for 10.0 min. at room temperature before mixing with Au-NPs for spectral measurements. .

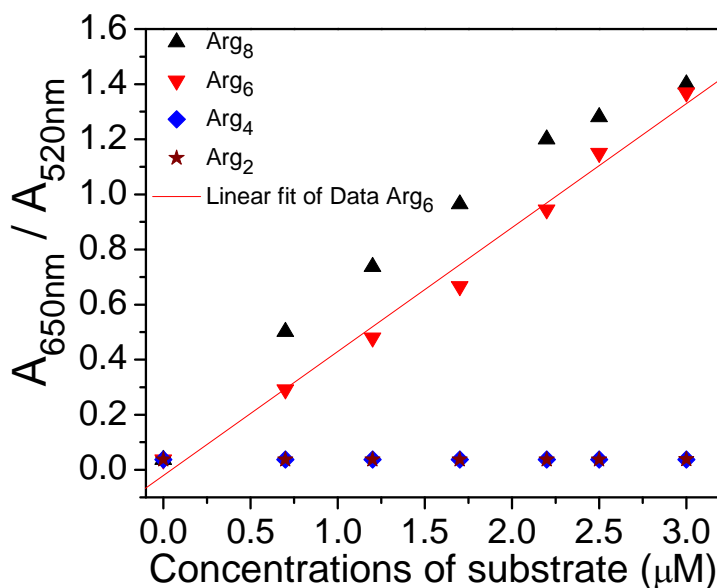


Fig. S3 Variation of the absorbance ratio $A_{650\text{nm}}/A_{520\text{nm}}$ vs. concentrations of arginine peptides (Arg₈, Arg₆, Arg₄ and Arg₂) for the Au-NP(1.04 nM in PBS (2.0 mM, pH = 8.5) buffer solution) solutions in the presence of different amounts of arginine peptides from 0.0 to 3.0 μ M.

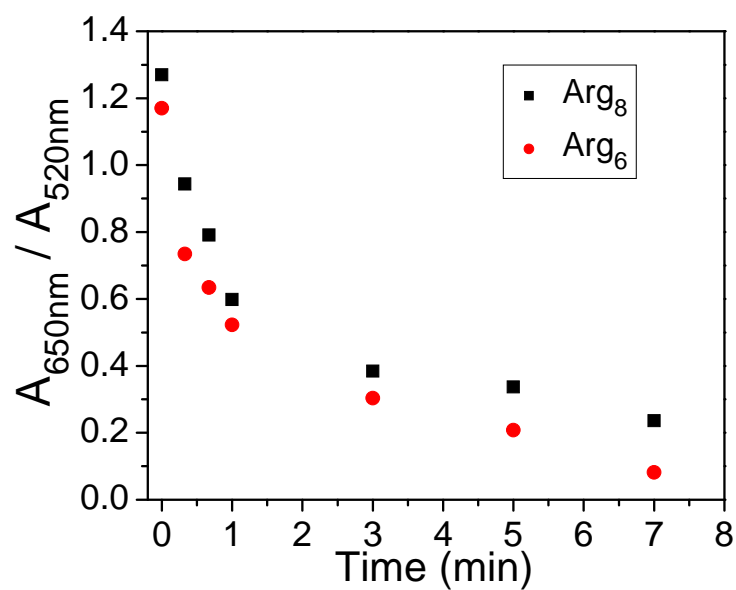


Fig. S4 Variation of the absorbance ratio $A_{650\text{nm}}/A_{520\text{nm}}$ vs. the reaction time for the Au-NPs [1.04 nM in PBS (2.0 mM, pH = 8.5) buffer solution] after mixing with the incubated solutions of trypsin (8.0 ng/mL), Arg₈(3.0 μM) and Arg₆ peptide (3.0 μM) respectively.