## **Electronic Supplementary Information**

## Highly sensitive fluorescent detection of trypsin based on gold nanoparticle probes

Xin-rui Zhao<sup>†</sup>,<sup>‡</sup>, Yong-lei Chen<sup>†</sup>,<sup>‡</sup>, Lang Wang<sup>†</sup>,<sup>‡</sup>, Wei-feng Wang<sup>†</sup>,<sup>‡</sup>, Xing-guo Chen<sup>†</sup>,<sup>‡</sup>,<sup>§</sup>,<sup>\*</sup>

<sup>†</sup> State Key Laboratory of Applied Organic Chemistry, Lanzhou University, Lanzhou

730000, China

<sup>‡</sup> Department of Chemistry, Lanzhou University, Lanzhou 730000, China

§ Key Laboratory of Nonferrous Metal Chemistry and Resources Utilization of Gansu

Province, Lanzhou 730000, China

\* Corresponding author

E-mail address: chenxg@lzu.edu.cn

Tel: 86-931-8912763

Fax: 86-931-8912582



Fig. S1. (a) The morphology of the initial Au NPs measured by TEM. (b) The UV-vis absorption spectrum of the prepared Au NPs.



Fig. S2. (a) The UV-vis absorption spectra of FITC, peptide and the synthesized FITC-peptide conjugate. (b) The fluorescence emission spectra of FITC and the synthesized FITC-peptide conjugate.



Fig. S3. The schem for the molecular structure of the peptide Lys-Lys-Asn-Leu-Ala-Cys by PyMOL.