Simple and rapid preparation of orange-yellow fluorescent gold nanoclusters using DL-homocysteine as a reducing/stabilizing reagent and their application in cancer cell imaging

Shouming Xu,^a Hong Yang,^b Kang Zhao,^a Jianguo Li,^a* Liyun Mei,^a Yun Xie,^a Anping Deng ^a*

^a The Key Lab of Health Chemistry & Molecular Diagnosis of Suzhou, College of Chemistry, Chemical Engineering and Materials Science, Soochow University, Suzhou 215123, China

^b College of Pharmacy Sciences, Soochow University, Suzhou, 215123, China

* Corresponding authors: Tel: +86 512 65882362; Fax: +86 512 65882362 e-mail: denganping@suda.edu.cn, denganping@163.com; lijgsd@suda.edu.cn



Fig.S1 Preparation of the hcy-protected gold nanoclusters with stirring for different times (10, 15 and 20 min)



Fig. S2 Preparation of the hcy-protected gold nanoclusters with different temperatures.



Fig. S3 Preparation of the hcy-protected gold naoclusters with the addition of different amounts of DL-homocysteine solution.



Fig. S4 Size distribution of an aqueous solution of hcy-AuNCs determined by DLS



Fig. S5 The zeta potential of the Au NCs synthesized at different temperatures