Supporting Information

Hydrothermal synthesis of N,S co-doped carbon nanodots for highly selective detection of living cancer cells

Wenbo Cheng,[†abd] Jun Xu,[†c] Zhenzhen Guo,[b] Dawei Yang,[b] Xifeng Chen,[be] Wei Yan,[*a] and Peng Miao[*b]

[a] State Key Lab of Optical Technologies on Nano-fabrication and Micro-engineering, Institute of Optics and Electronics, Chinese Academy of Sciences, Chengdu 610209, P. R. China

[b] Suzhou Institute of Biomedical Engineering and Technology, Chinese Academy of Sciences, Suzhou 215163, P. R. China

[c] Suzhou Blood Center, Suzhou, 215006, P. R. China

[d] University of Chinese Academy of Sciences, Beijing 100049, P. R. China

[e] Tianjin Guoke Jiaye Medical Technology Development Co., LTD, Tianjin, 300399, P. R. China

E-mail: miaopeng@sibet.ac.cn (P. Miao); yanwei@ioe.ac.cn (W. Yan); Fax: +86-512-69588283

† The authors contributed equally.

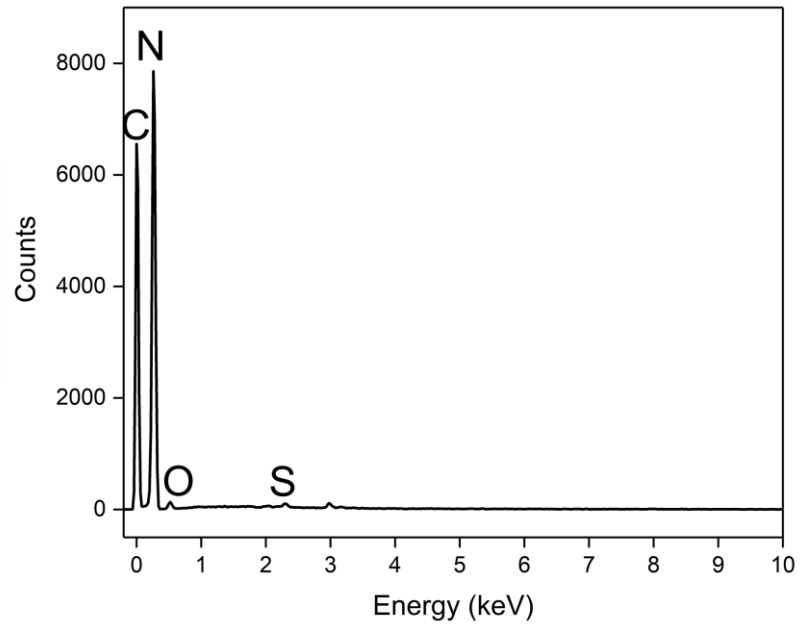

Fig. S1 EDX spectrum of the prepared carbon nanodots.

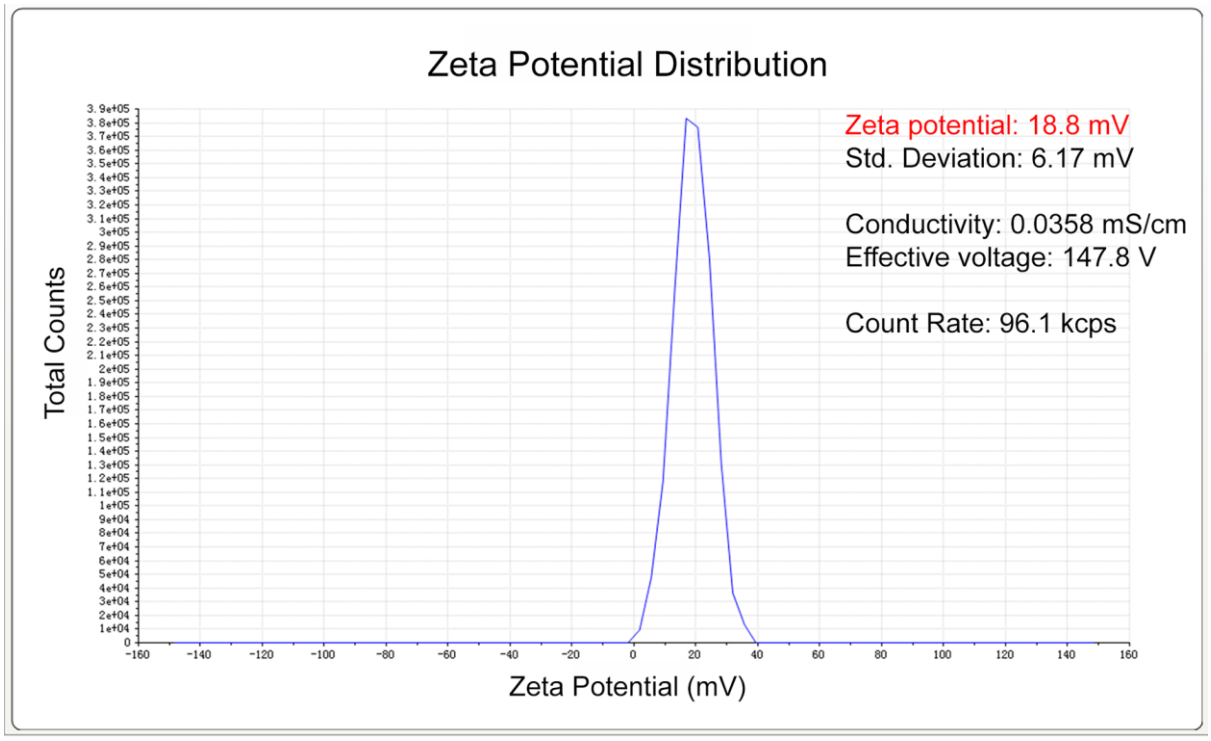

Fig. S2 Zeta potential distribution of the carbon nanodots.

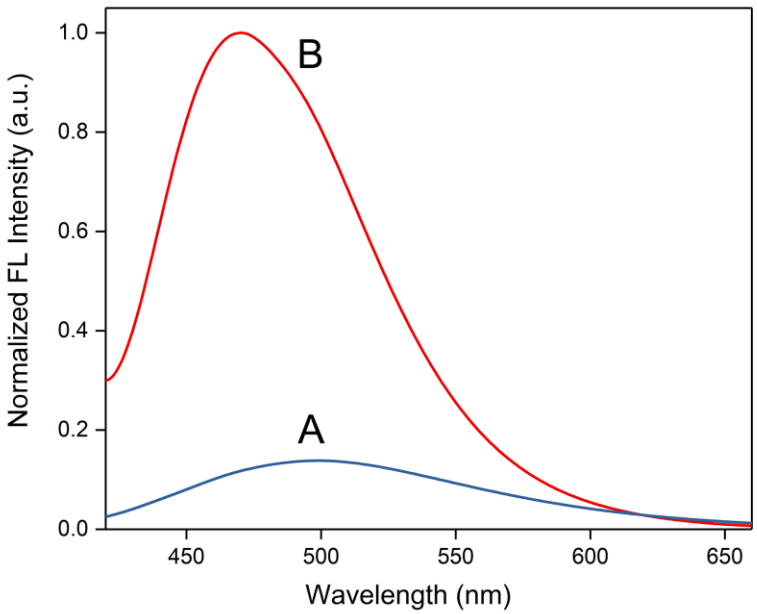

Fig. S3 Comparison of fluorescence emission spectra of carbon nanodots synthesized (A) without and (B) thiourea.

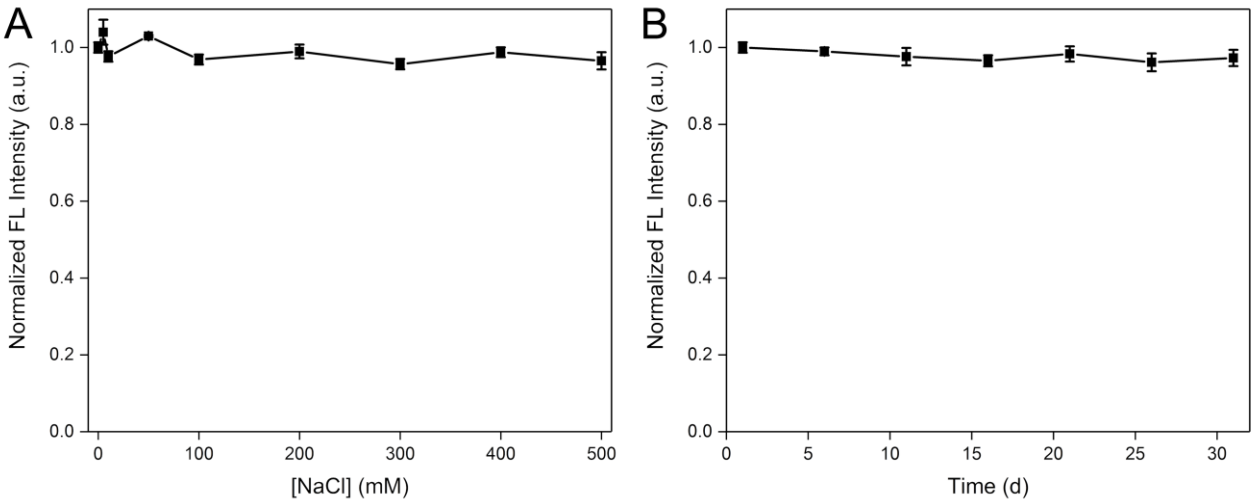

Fig. S4 (A) Effect of ionic strength on the fluorescence of the carbon nanodots. (B) Fluorescence peak intensities of the carbon nanodots during 31 days.

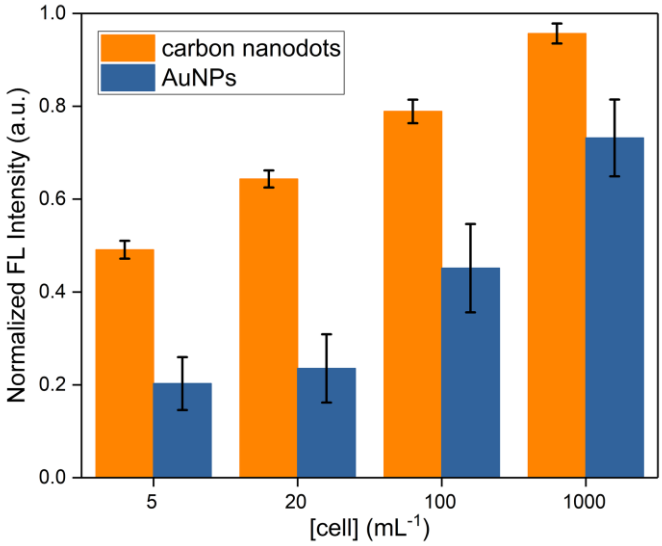

Fig. S5 Fluorescence peak intensities of carbon nanodots-BHQ and AuNPs-FAM based fluorescent systems for the detection of different amount of cells.

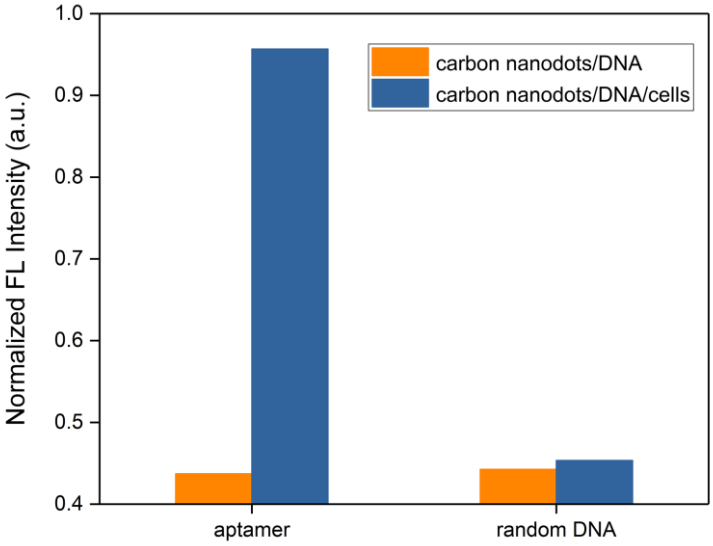

Fig. S6 Fluorescence peak intensities of the aptamer and random DNA wrapped carbon nanodots before and after the interactions with target cells.