Electronic Supplementary Information

A highly stable and biocompatible optical bioimaging nanoprobe

based on carbon nanosphere

Xiaolong Liu \textsuperscript{a,b}, Zuwu Wei \textsuperscript{a,b}, Ming Wu \textsuperscript{a,b}, Xiaolong Zhang \textsuperscript{a,b}, Da Zhang \textsuperscript{a,b}, Buhong Li \textsuperscript{d*}, Jingfeng Liu \textsuperscript{a,b,c*}

\textsuperscript{a} The Liver Center of Fujian Province, Fujian Medical University, Fuzhou, People’s Republic of China

\textsuperscript{b} The United Innovation of Mengchao Hepatobiliary Technology Key Laboratory of Fujian Province, Mengchao Hepatobiliary Hospital of Fujian Medical University, Fuzhou, People’s Republic of China

\textsuperscript{c} Liver Disease Center, the First Affiliated Hospital of Fujian Medical University, Fuzhou, People’s Republic of China

\textsuperscript{d} Key Laboratory of OptoElectronic Science and Technology for Medicine of Ministry of Education, Fujian Provinicial Key Laboratory for Photonics Technology, Fujian Normal University, Fuzhou, People’s Republic of China

*Corresponding Author (correspondence should be address to Buhong Li and Jingfeng Liu), Postal Address: Xihong Road 312, Fuzhou 350025, Fujian Province, P.R. China, Tel.: +86591-83705927 Fax.: +86591-83705927

E-mail addresses: bhli@fjnu.edu.cn, drjingfeng@126.com
Fig. S1 (A) Fluorescence excitation spectra of the CNs aqueous solutions ($\lambda_{em} = 436$ nm), (B) Fluorescence decay curves of CNs at 436 nm ($\lambda_{ex} = 405$ nm).
Fig. S2 Fluorescence emission spectra of the CNs at different excitation ranged from 280 to 405 nm.

Fig. S3 Fluorescence emission spectra at different pH conditions ranged from 1 to 14 ($\lambda_{ex}$ = 350 nm).
**Fig. S4** Fluorescence emission spectra of CNs (A) and DAPI (B) underwent continuous UV exposure of 1–8 h.

**Fig. S5** Size distribution of glycine conjugated CNs measured by DLS.
Fig. S6 Confocal imaging of HepG-2 cells: non-treated cells (A), cells treated by CNs (B) or glycine conjugated CNs (C) with a CN’s concentration of 200 μg·mL⁻¹ for 3 h at 37 °C.