

Supplementary information:

## A photothermal induced accumulation and retention of polymeric nanoparticles in tumor for long-term fluorescent imaging

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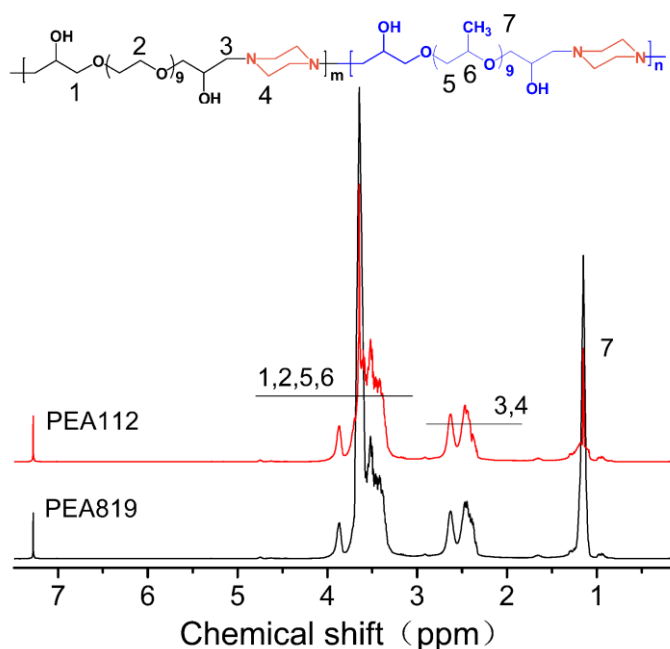


Fig. S1 <sup>1</sup>H-NMR of PEA112 and PEA819 in CDCl<sub>3</sub>.

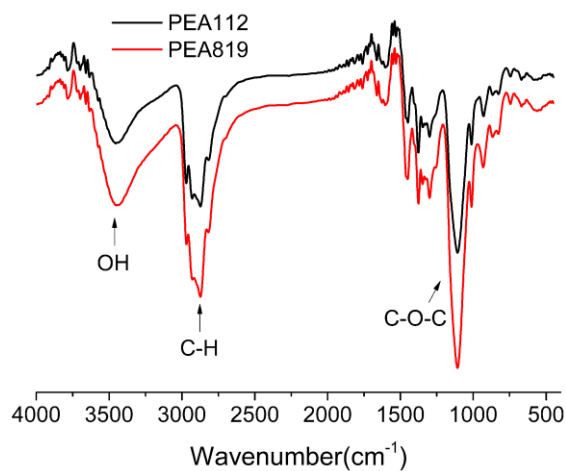
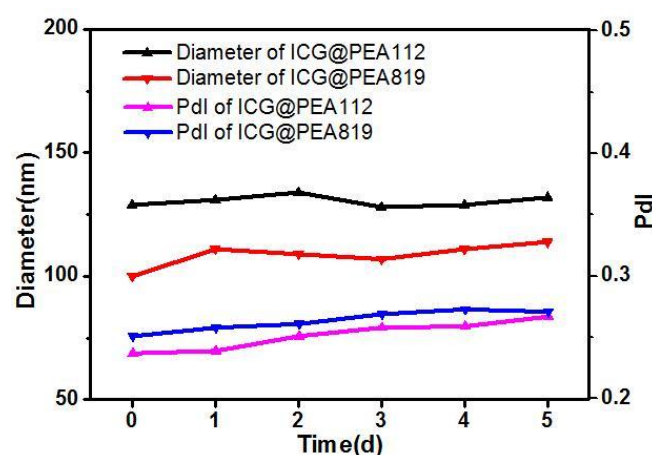
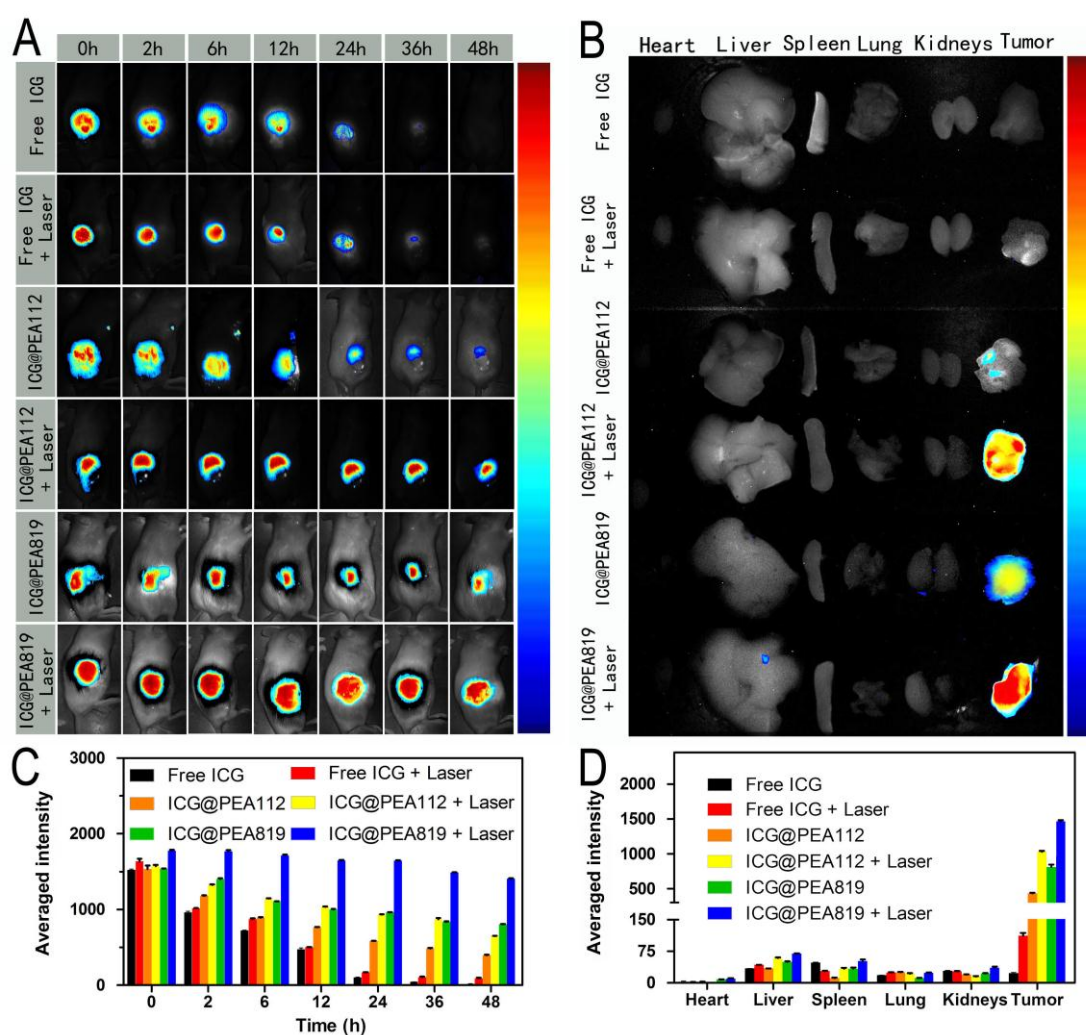


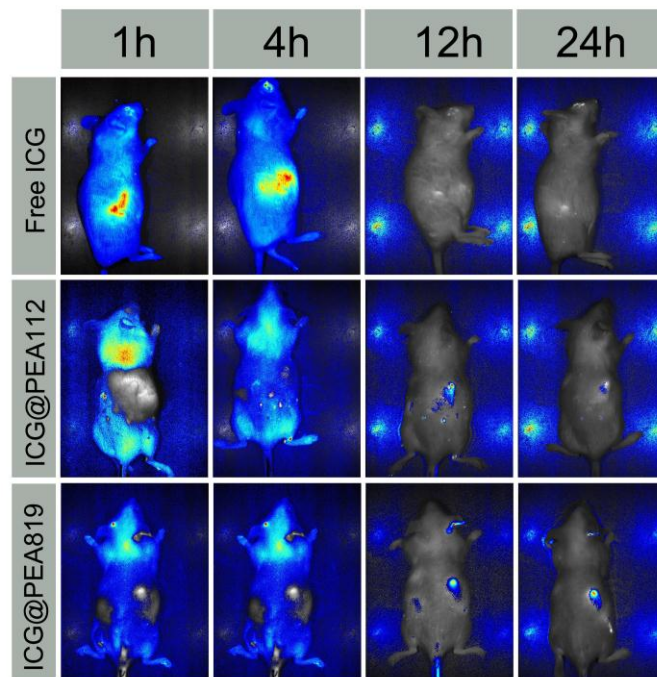
Fig. S2 FTIR characterization of PEA112 and PEA819.



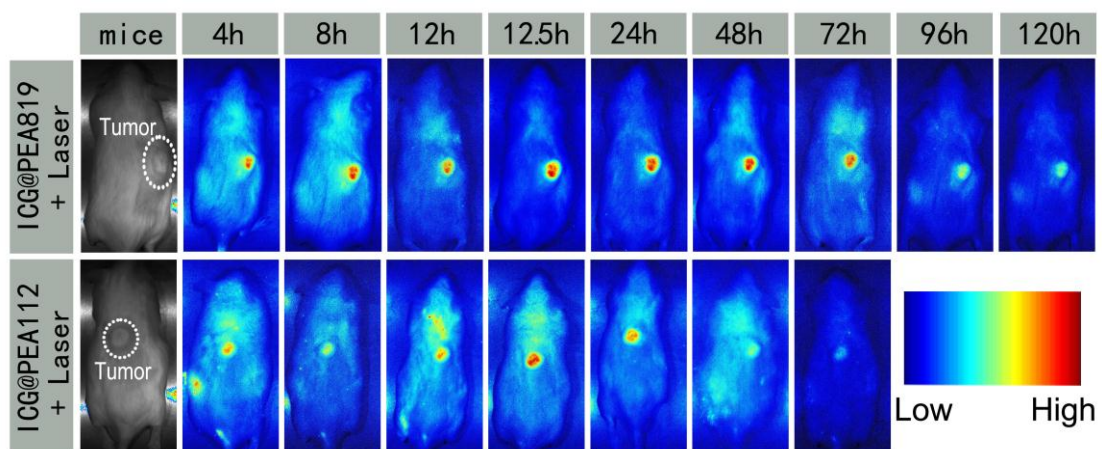
**Fig. S3** Size stability test of ICG@PEA112 and ICG@PEA819 in water.



**Fig. S4** In vivo imaging and biodistribution analysis of mice bearing U14 tumors after intratumoral injection of free ICG, free ICG + laser, ICG@PEA112, ICG@PEA112 + laser, ICG@PEA819 and ICG@PEA819 + laser: (A) Time-lapse NIR fluorescence images of mice; (B) NIR fluorescence images of major organs and tumors after 48 h post-injection; (C) NIR fluorescence intensities of the tumors were quantified at indicated time points; and (D) semiquantitative biodistribution in mice determined by the averaged fluorescence intensity of organs and tumor. The data are shown as mean  $\pm$  SD ( $n = 3$ ).



**Fig. S5** Time-lapse NIR fluorescence images of mice bearing U14 tumors after tail intravenous injection of free ICG, ICG@PEA112 and ICG@PEA819.



**Fig. S6** Time-lapse NIR fluorescence images of mice bearing U14 tumors after tail vein injection of ICG@PEA819 and ICG@PEA112 (the tumors are circled with a dotted line, under laser radiation after 12h).