Supplementary Material

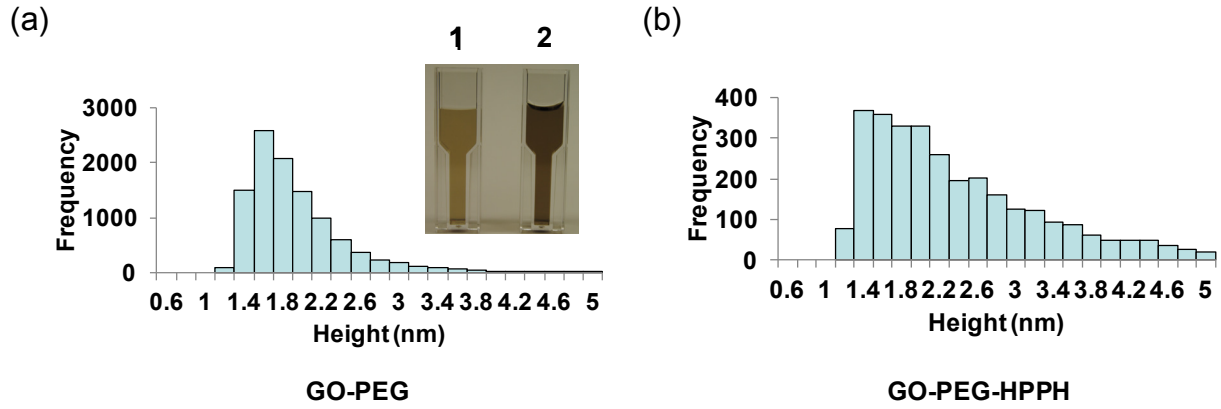

Figure S1. Quantification of AFM images of GO-PEG (a) and GO-PEG-HPPH (b) dispersed in ultra-pure water. The inset shows GO-PEG (1) and GO-PEG-HPPH (2) dispersed in ultra-pure water.

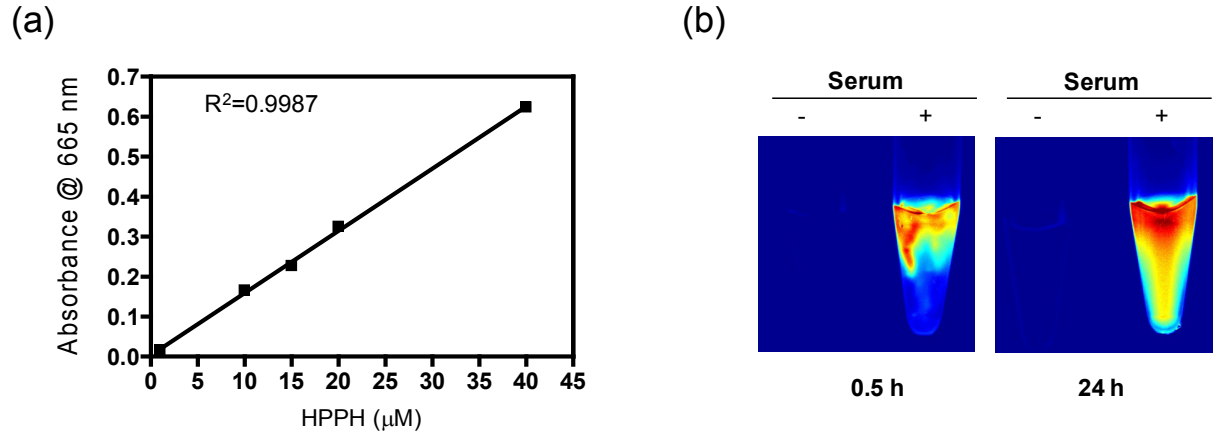

Figure S2. a) Linear correlation between HPPH concentration and absorbance at 665 nm. b) Fluorescence imaging of free HPPH with or with serum at 30min and 24 hr.

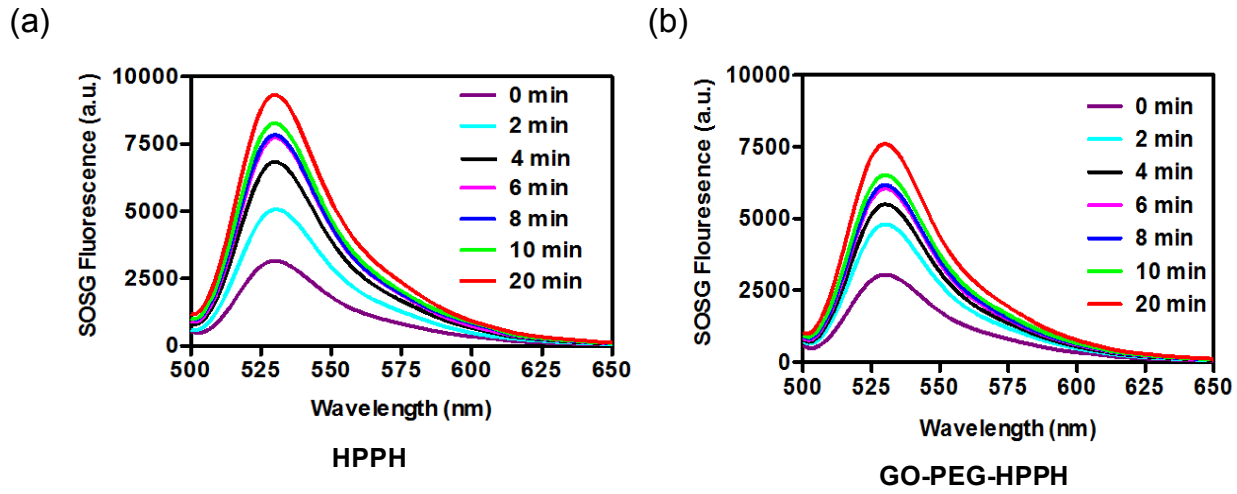

Figure S3. SOSG fluorescence intensity (FI) at 530 nm in 1 μM free HPPH (a) and GO-PEG-HPPH (HPPH concentration 1 μM) (b) after irradiated with 671 nm laser (75 mW/cm^2) for different period of time.

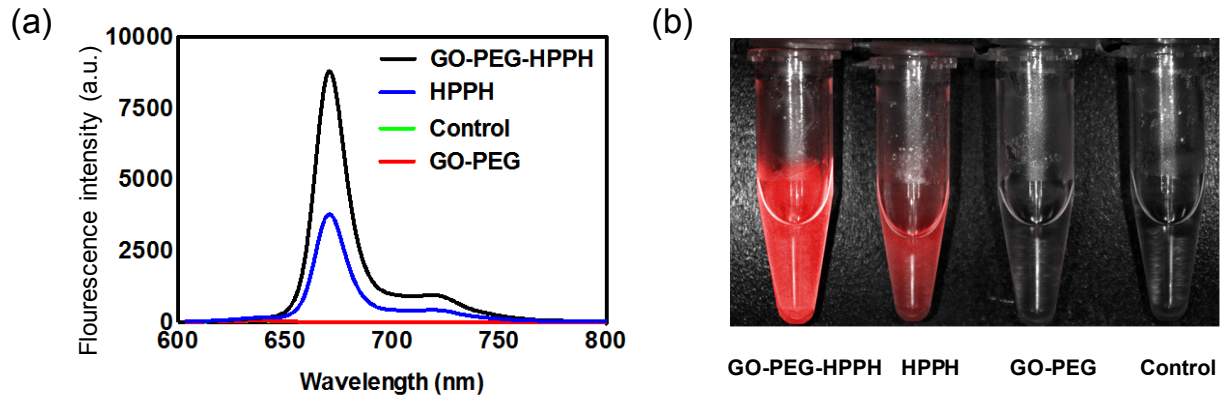

Figure S4. a) Fluorescence spectra of cell lysates under 414 nm excitation after incubating the cells with GO-PEG-HPPH, HPPH, GO-PEG or Control (PBS) for 24 hr. b) Fluorescence imaging of cell lysates from cells incubated with GO-PEG-HPPH, HPPH, GO-PEG or Control (PBS) for 24 hr.

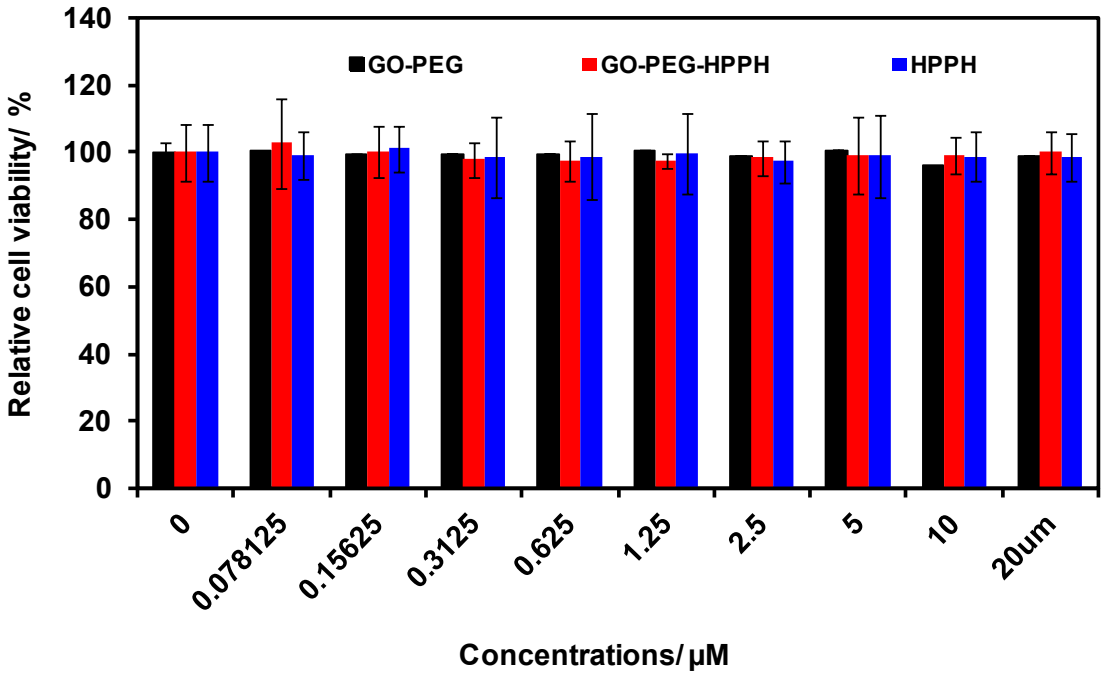

Figure S5. Relative viability of 4T1 cells incubated with various concentrations of free HPPH, GO-PEG, and GO-PEG-HPPH without laser irradiation.

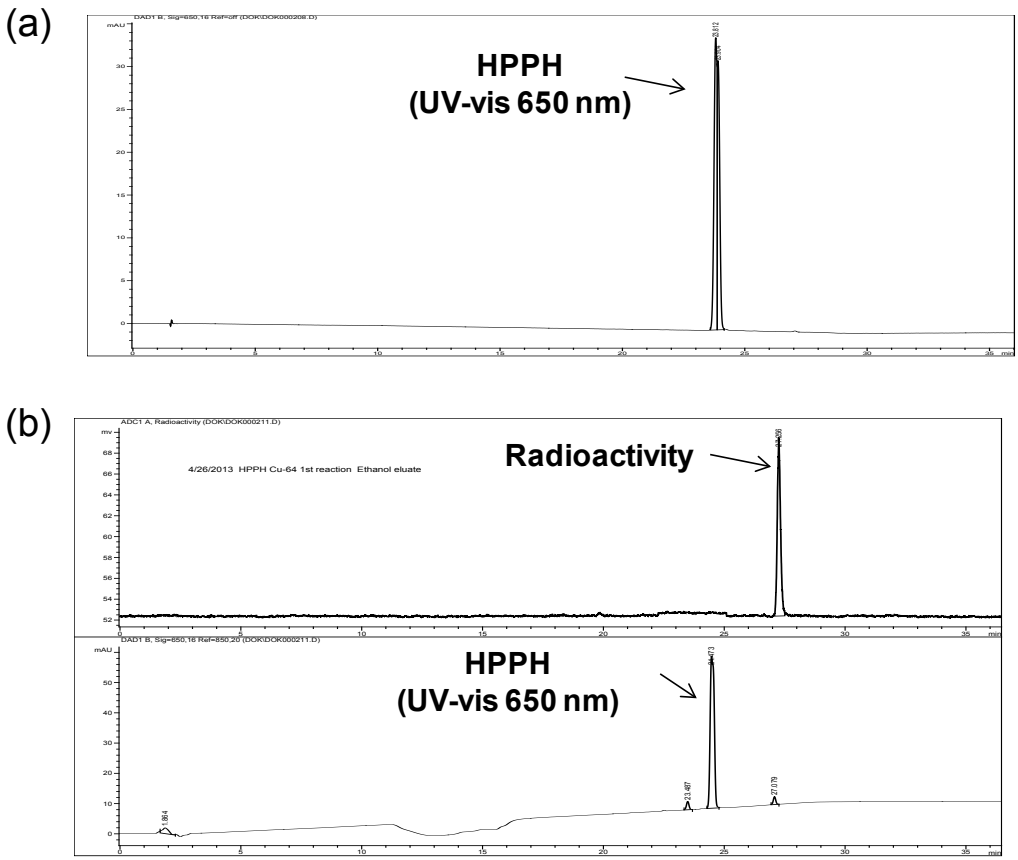

Figure S6. Radiolabeling of HPPH with ^{64}Cu. a) HPLC peak showing HPPH at 650 nm before labeling. b) Radioactivity peak of ^{64}Cu labeled HPPH (upper) and free HPPH (lower) after ^{64}Cu labeling. No unlabeled ^{64}Cu radioactivity peak was detected, indicating all radioactivity was chelated by HPPH.