

## Supporting Information

### **Ferrocene-liposome-PEG: a robust ·OH/lipid peroxides nano-converter for inducing tumor ferroptosis**

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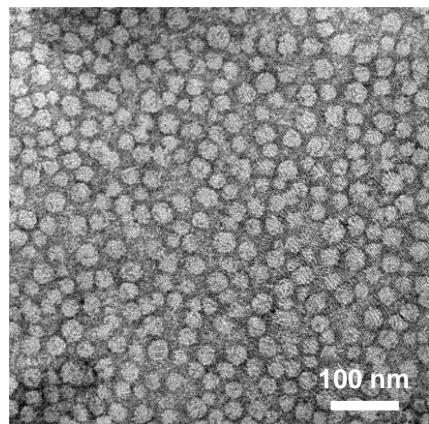
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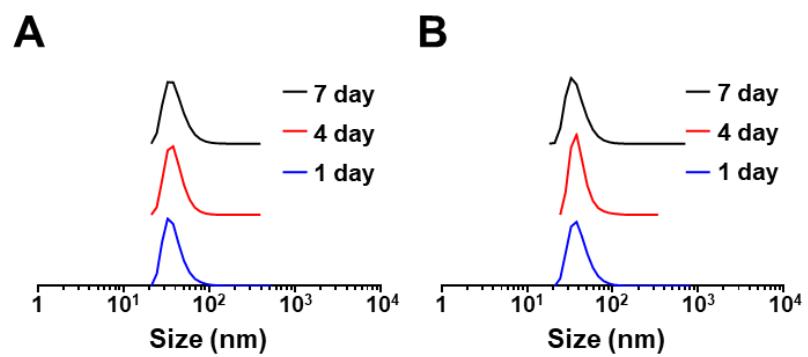
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Fig. S1-S14.

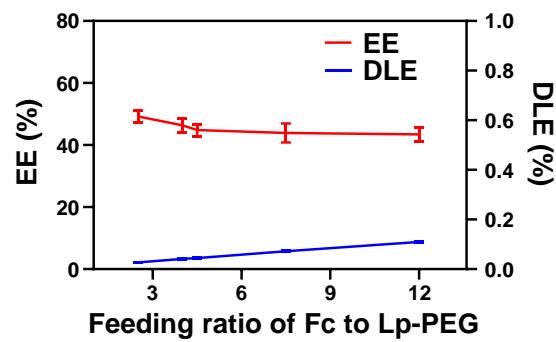
## Supplementary Figures



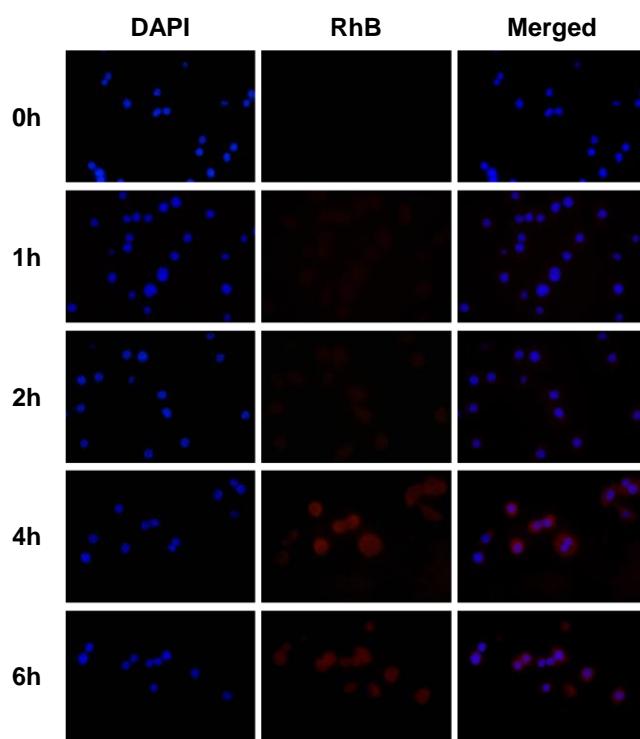
**Fig. S1** TEM image of Lp-PEG .



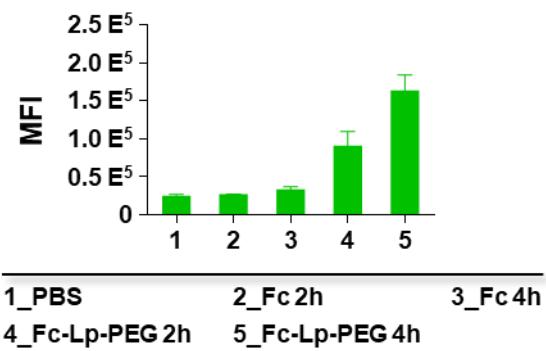
**Fig. S2** The stability of Fc-Lp-PEG in PBS (a) and RPMI 1640 (b) at 37 °C 7 days. .



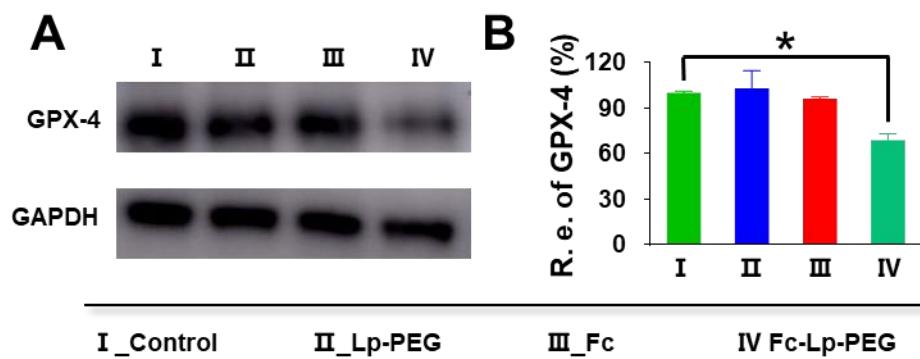
**Fig. S3** The encapsulation efficiency (EE) and drug loading efficiency (DLE) of Lp-PEG to Fc at different feeding ratios.



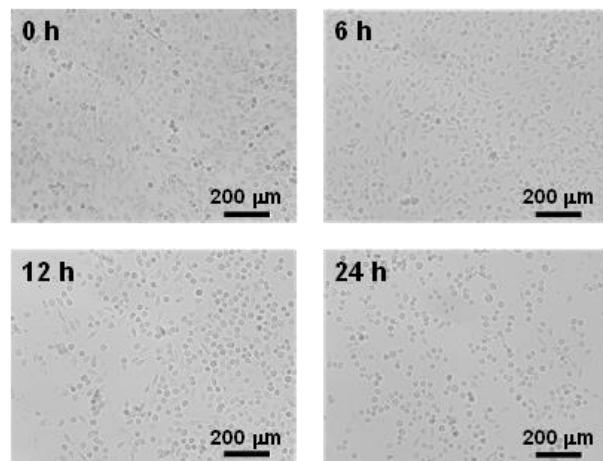
**Fig. S4** Detection of the intracellular RhB&Fc-Lp-PEG for 0 h, 1 h, 2h, 4 h, and 6 h by a fluorescence microscope. DAPI was used to stain the nuclei. RhB was used to label Fc-Lp-PEG.



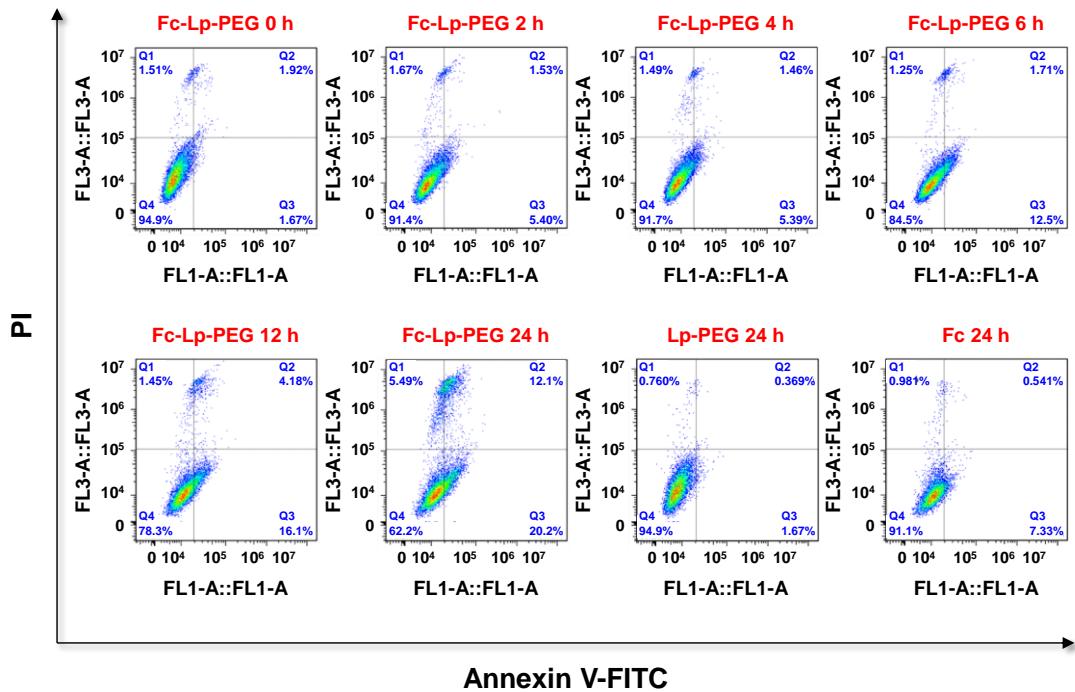
**Fig. S5** The mean fluorescence intensity (MFI) of 4T1 cells with various treatments by H<sub>2</sub>DCFDA staining.



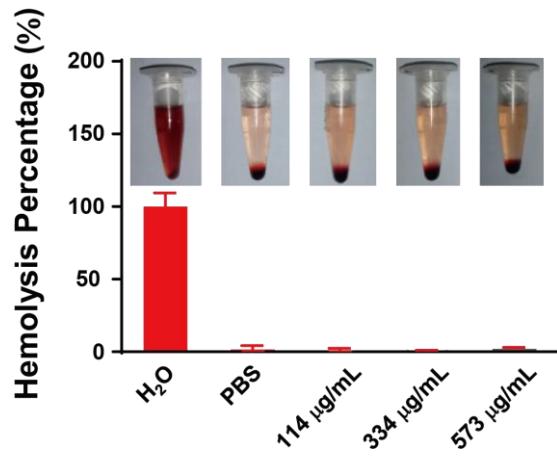
**Fig. S6** A) Western blot and B) relative expression (R. e.) analysis of GPX-4 in 4T1 cells treated with Lp-PEG, Fc and Fc-Lp-PEG.



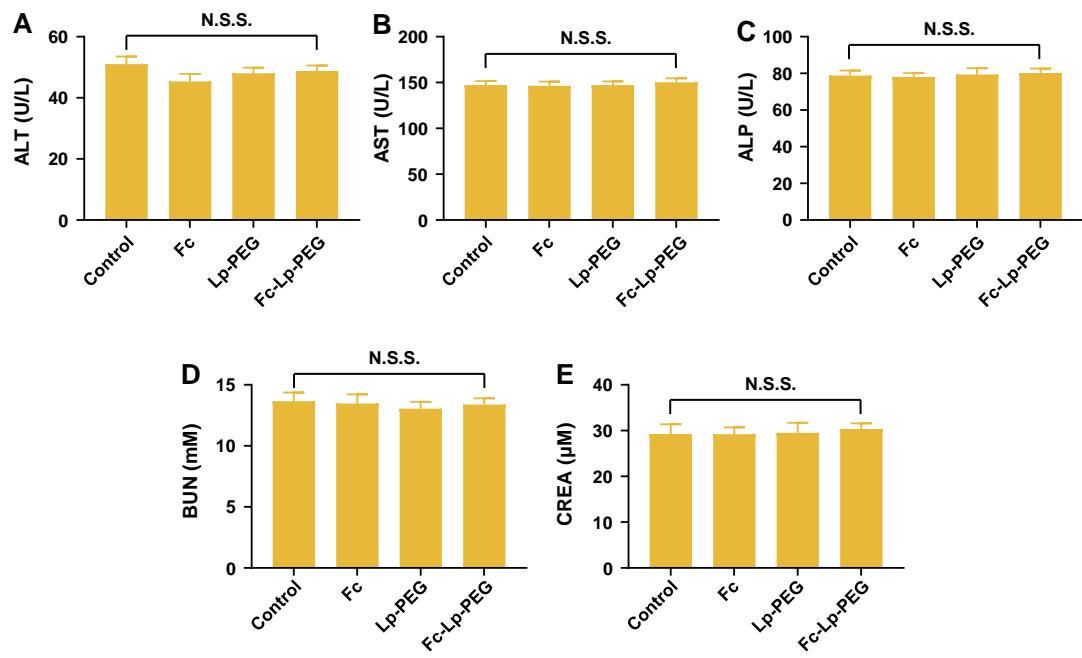
**Fig. S7** Optical microscope images of 4T1 cells treated with Fc-Lp-PEG for 0 h, 6 h, 12 h, and 24 h.



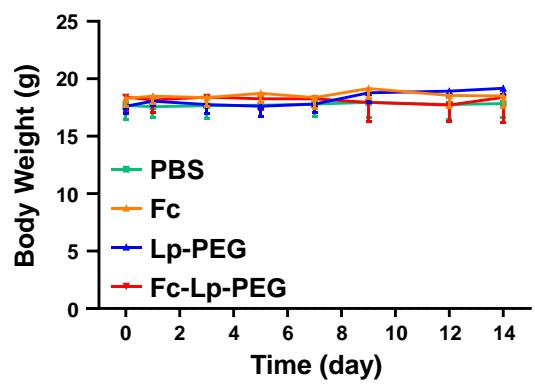
**Fig. S8** Flow cytometry analysis of 4T1 cells received various treatments *via* fluorescein Annexin V-FITC/PI double labeling.



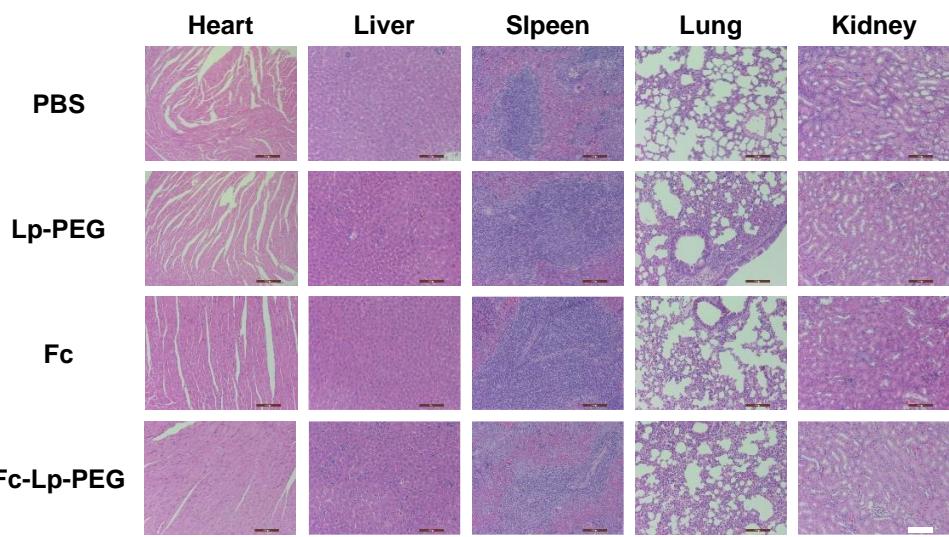
**Fig. S9** Hemolysis percentage of Fc-Lp-PEG at different mass concentrations. The RBCs treated with PBS and H<sub>2</sub>O were negative and positive control groups.



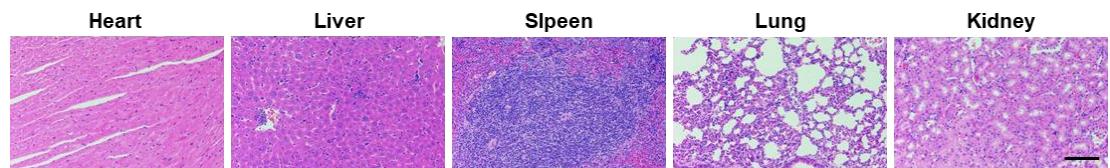
**Fig. S10** Blood biochemistry analysis of hepatorenal function markers including A) alanine aminotransferase (ALT), B) aspartate aminotransferase (AST), C) alkaline phosphatase (ALP), D) urea nitrogen (BUN), and E) creatinine (CREA). N.S.S. represents no statistical significance.



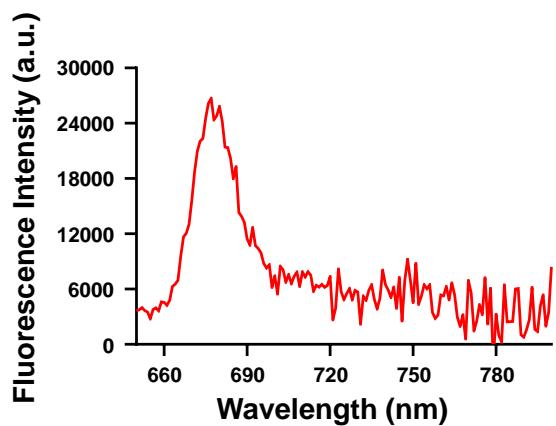
**Fig. S11** The bodyweight variations of 4T1 tumor-bearing mice exposed to various treatments during 14 days.



**Fig. S12** The H&E staining images of main organs of 4T1 tumor-bearing mice exposed to various treatments at day 14. The scale bar value was 100  $\mu\text{m}$ .



**Fig. S13** The H&E staining images of main organs of mice exposed to Fc-Lp-PEG at day 30. The scale bar value was 100  $\mu\text{m}$ .



**Fig. S14** The fluorescence emission spectrum of the ZnPC&Fc-Lp-PEG at excitation of 630 nm.