



Supporting Information

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Inhibiting Solid Tumor Growth In Vivo by Non-Tumor-Penetrating Nanomedicine

Shixian Lv, Zhaohui Tang, Wantong Song, Dawei Zhang, Mingqiang Li, Huaiyu Liu, Jianjun Cheng, Wu Zhong,* and Xuesi Chen**

Supplementary Information for

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Table S1. Characterizations of the **PPD and DOX-PPD micelles**.

Entry	R_h (nm) ^a at 25 °C	Zeta potential ^b (mV)	DLC of DMXAA ^c (wt%)	DLC of DOX ^d (wt%)
PPD	18.7 ± 3.4	-4.61 ± 0.51	11.8	--
DOX-PPD	31.5 ± 9.4	-2.97 ± 1.04	11.1	5.4

a. Measured by DLS; b. Estimated at pH 7.4 at 25 °C, a mean ± STD of 6 measurements; c. Determined by UV-Vis at 343 nm; d. Determined by UV-Vis at 480 nm.

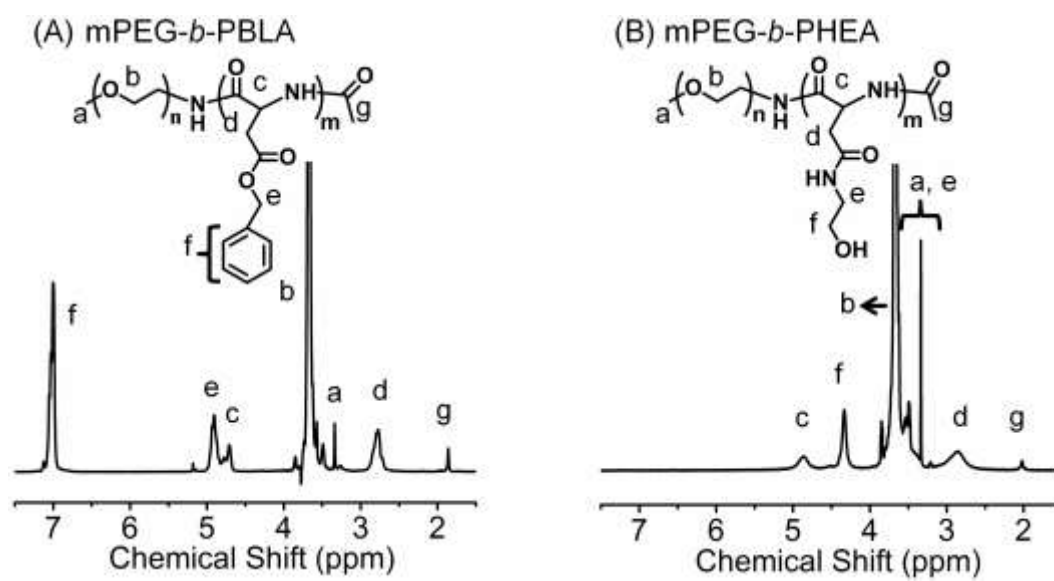


Figure S1. ^1H NMR spectra of mPEG-*b*-PBLA (A), **mPEG-*b*-PHEA** (B) in CF_3COOD .

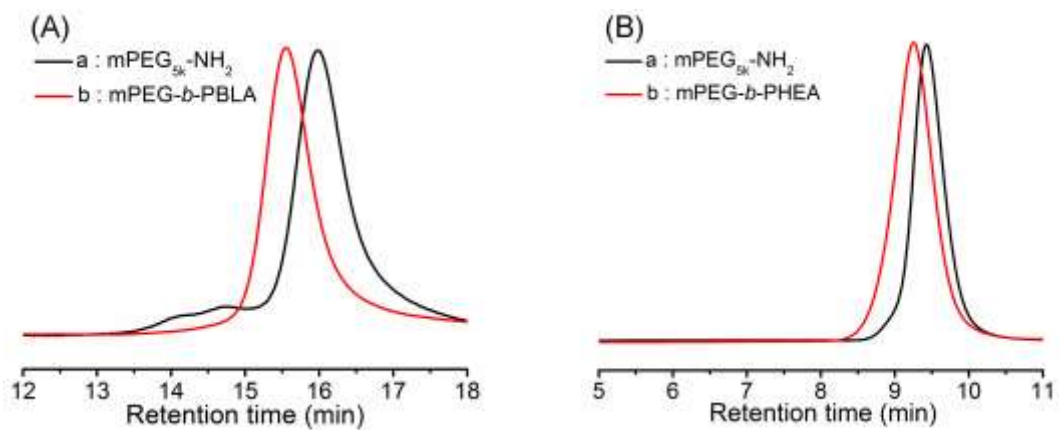


Figure S2. (A), GPC traces for mPEG_{5k}-NH₂ (a) and mPEG-*b*-PBLA (b) using DMF as eluent. (B), GPC traces for mPEG_{5k}-NH₂ (a) and mPEG-*b*-PHEA (b) using acetate buffer solution (0.1 M, pH 2.8) as eluent.

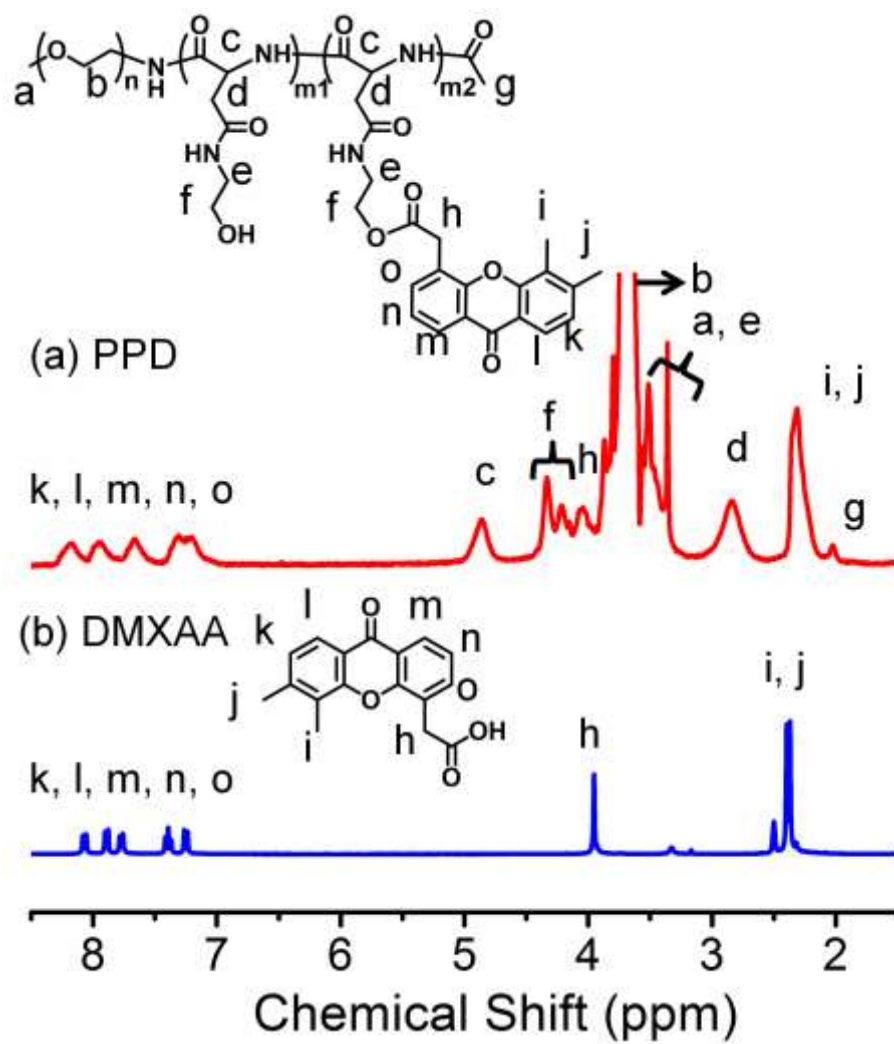


Figure S3. ¹H NMR spectra of PPD (a) and DMXAA (b) in CF₃COOD.

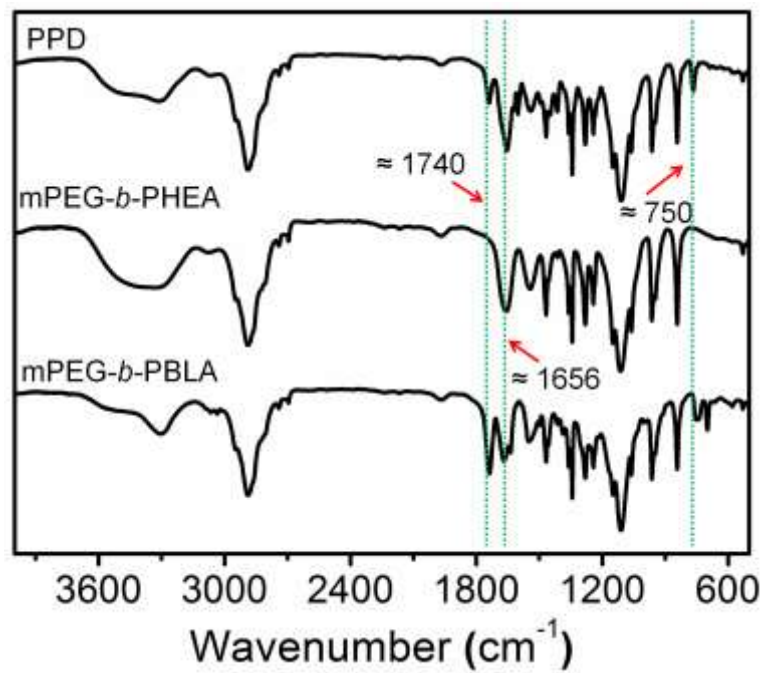


Figure S4. FT-IR spectra of mPEG-*b*-PBLA, mPEG-*b*-PHEA and PPD.

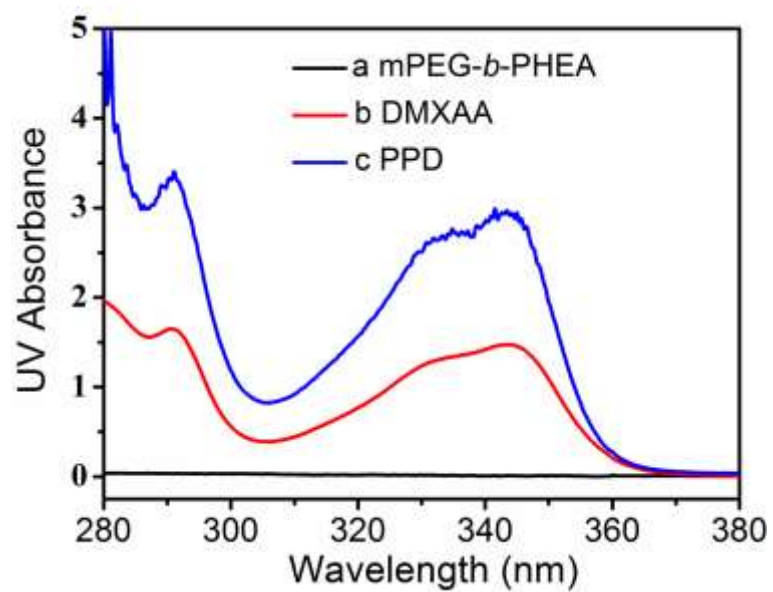


Figure S5. The UV-Vis measurements of **mPEG-*b*-PHEA** (1.0 mg mL^{-1}), **DMXAA** ($0.0625 \text{ mg mL}^{-1}$) and **PPD** (1.0 mg mL^{-1}) using DMF as a solvent.

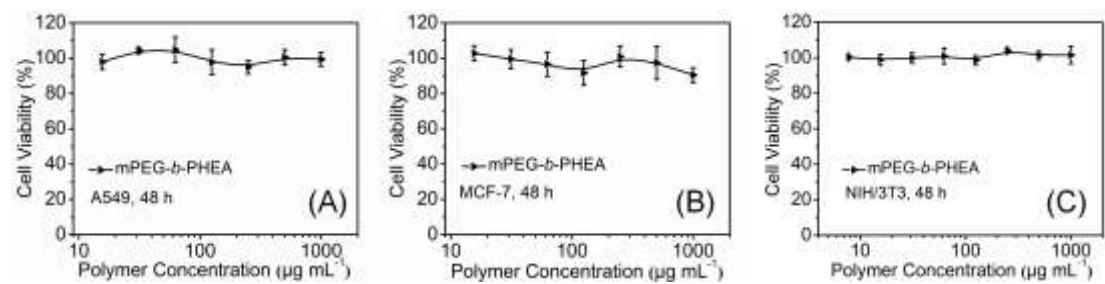


Figure S6. *In vitro* cytotoxicities of mPEG-*b*-PHEA to A549, MCF-7 and NIH/3T3 cells (A, B and C).

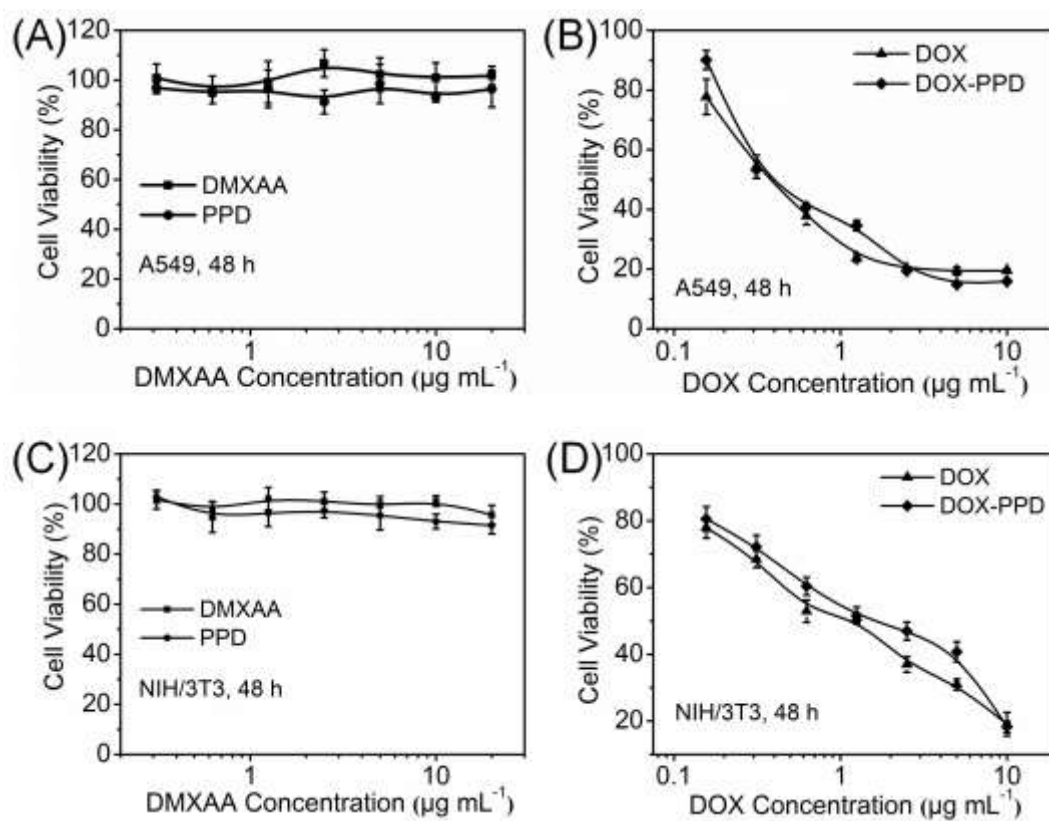


Figure S7. *In vitro* cytotoxicity of free DMXAA, PPD, free DOX and DOX-PPD to A549 and NIH/3T3 cells.

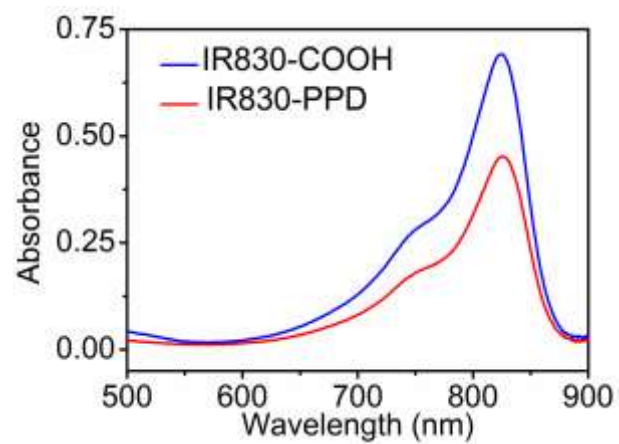


Figure S8. UV/Vis spectra of IR830-COOH and IR830-PPD in DMF (concentrations: IR830-COOH, 0.005 mg mL^{-1} ; IR830-PPD, 0.05 mg mL^{-1}).

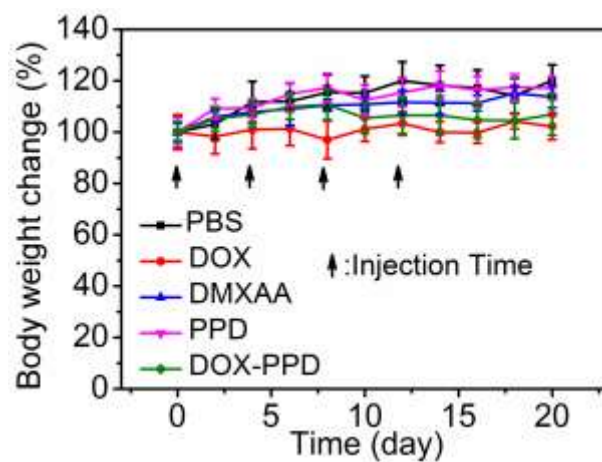


Figure S9. Body weight change of MCF-7 tumor bearing nude mice during different treatments: PBS, free DOX (5 mg kg⁻¹), DMXAA (10 mg kg⁻¹), PPD (10 mg DMXAA kg⁻¹) and DOX-PPD (5 mg DOX kg⁻¹ and 10 DMXAA kg⁻¹). The data are shown as mean ± SD (*n* = 6).