# Supporting Information for

## ORIGINAL ARTICLE

# Hypoxia-degradable and long-circulating zwitterionic phosphorylcholine-based nanogel for enhanced tumor drug delivery

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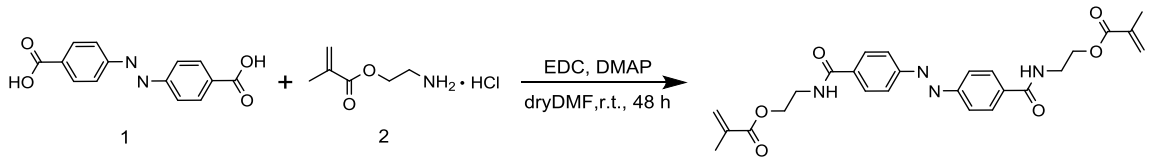


**Scheme S1** The chemical reaction equation and reaction conditions in the fabcrication of hypoxia-degradable crosslinker.

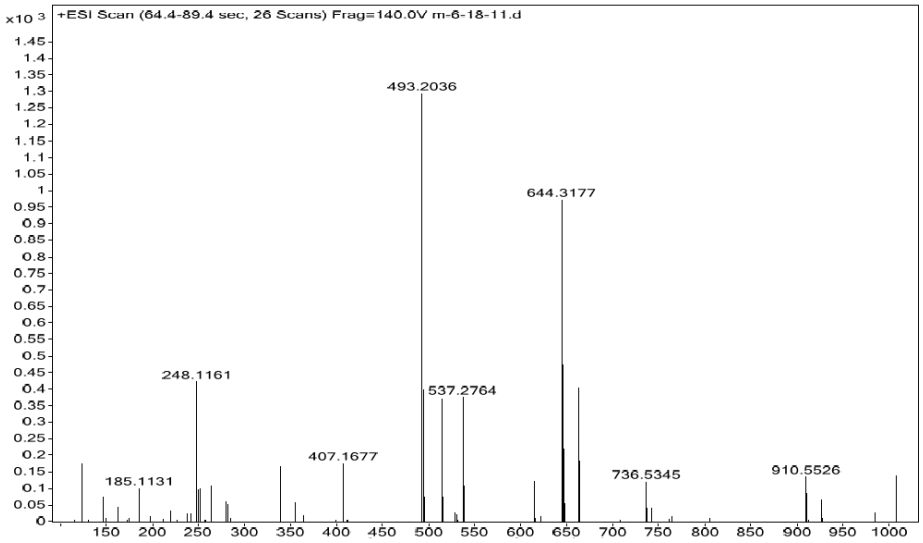


**Figure S1** Mass spectrum of hypoxia-degradable crosslinker, exact mass: 492.20, Found [M+H$^+$]:493.20.

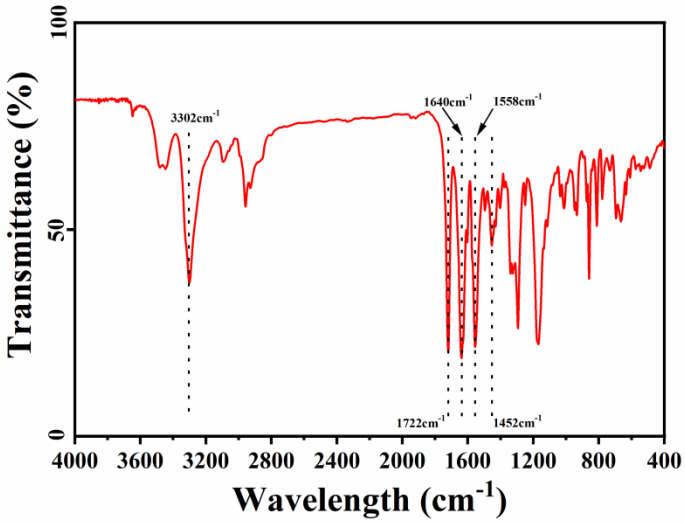


**Figure S2** FT-IR spectra of the hypoxic-degradable crosslinker.

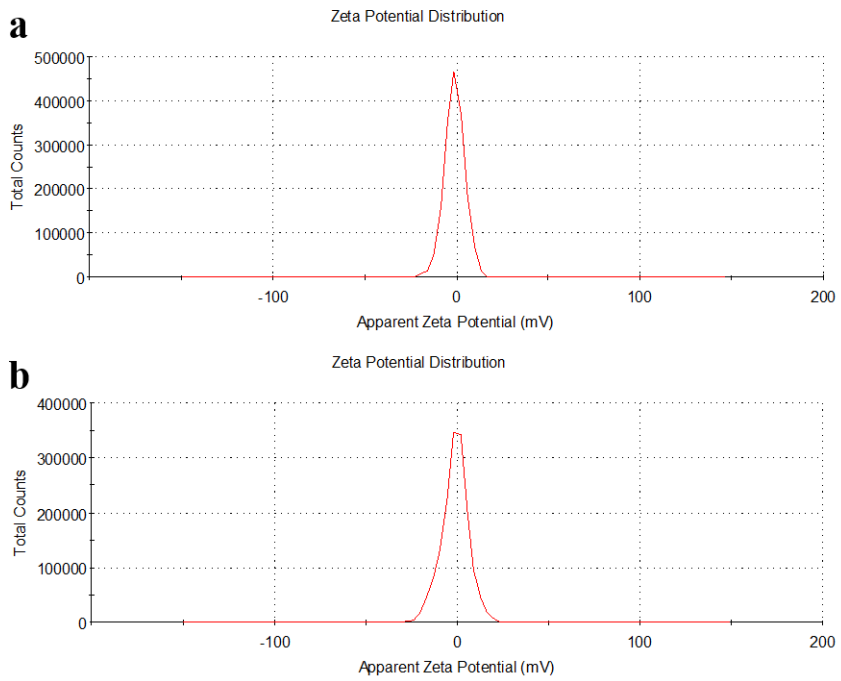


**Figure S3** Zeta potentials of $^{H}$PMPC and $^{R}$PMPC nanogels.

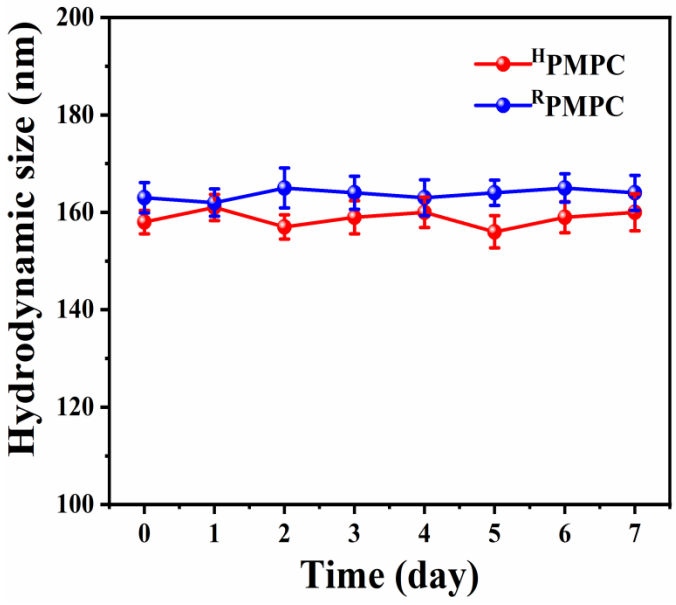


**Figure S4** Hydrodynamic size changes of $^{H}$PMPC and $^{R}$PMPC nanogels in DMEM cell culture for 7 days. Data are expressed as mean ± SD, *n*=3.

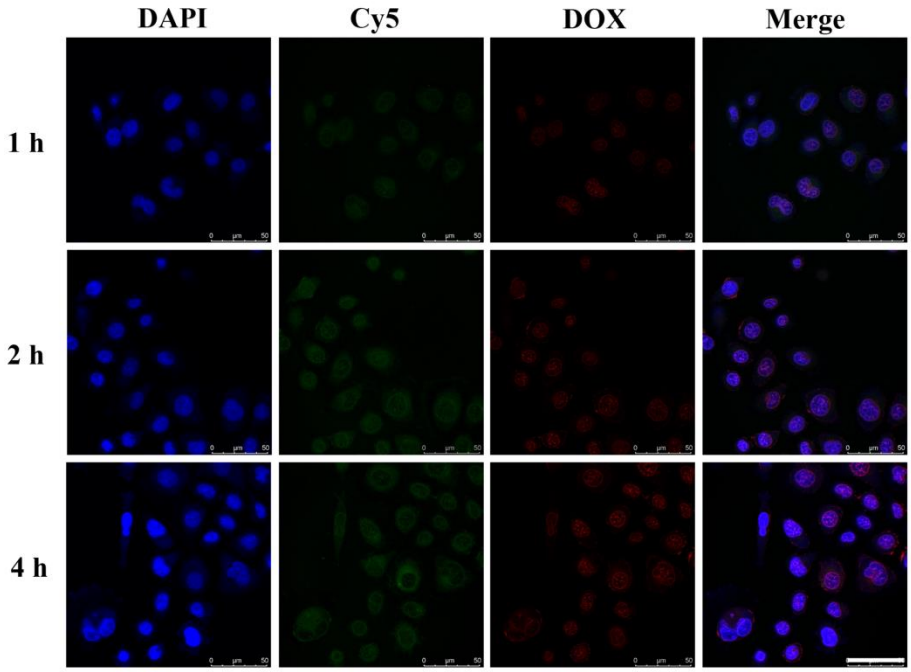


**Figure S5** Confocal laser scanning microscopy observation of $^{H}$PMPC@DOX in normoxic environment. Scale bar = 50 μm.

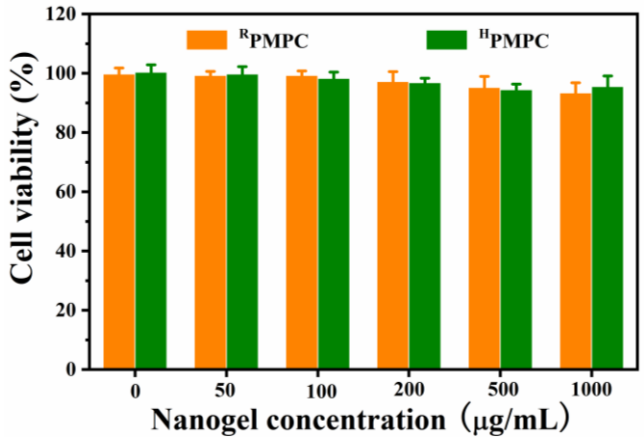


**Figure S6** Toxicity evaluation of blank $^{H}$PMPC and $^{R}$PMPC nanogels to 293T cells. Data are expressed as mean ± SD, *n*=5.

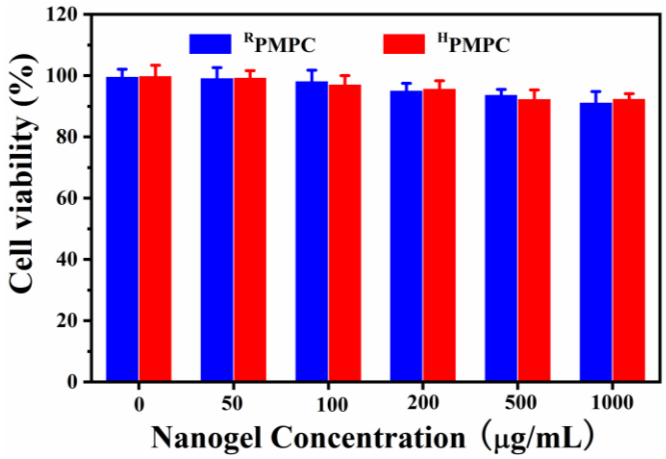


**Figure S7** Toxicity evaluation of blank $^{H}$PMPC and $^{R}$PMPC nanogels to HepG2 cells. Data are expressed as mean ± SD, *n*=5.

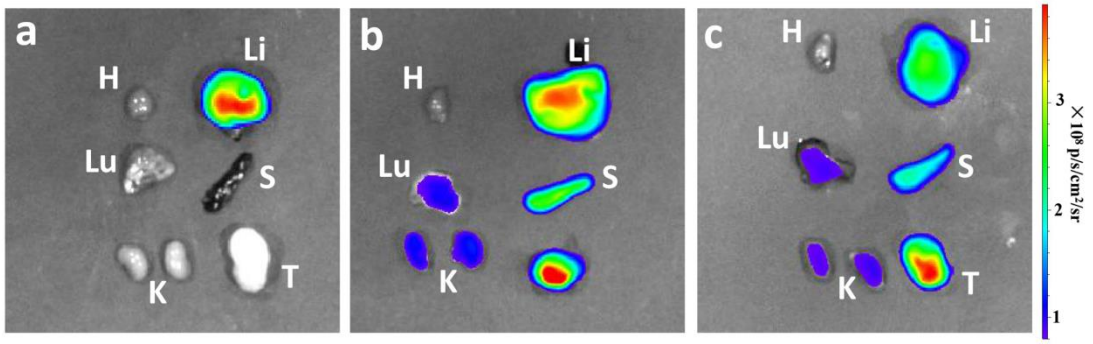


**Figure S8** *Ex vivo* imaging of tumor tissues and major organs at 24 h post-injection. a: free Cy5, b: $^{R}$PMPC, c: $^{H}$PMPC. T: tumor, H: heart, Li: liver, S: spleen, Lu: lung, K: kidney.