Supporting information for:

NIR Imaging-guided Combined Photodynamic Therapy and Chemotherapy by a pH-responsive Amphiphilic Polypeptide Prodrug

Zheng Ruan^a, Le Liu^a, Wei Jiang^b, Shuya Li^b, Yucai Wang^b, Lifeng Yan^{a, *}

^aCAS Key Laboratory of Soft Matter Chemistry, Hefei National Laboratory for Physical Sciences at the Microscale, iChEM, and Department of Chemical Physics, University of Science and Technology of China. Jinzai Road 96[#], Hefei, 230026, Anhui, P.R.China. Fax: (+86-551-63606853); E-mail:<u>Ifyan@ustc.edu.cn</u>.

^b School of Life Sciences, University of Science and Technology of China, Hefei, 230027, Anhui, P.R.China.



Figure S1 TEM images of PDOX at neutral (pH=7.4) condition.



Figure S2 Fluorescence imaging of DPMB (a) and BPM (b) nanoparticles in HepG2 cells, respectively. (magnification: ×40).

Figure S2 shows the distribution of the polymeric nanopaticles of DPMB and BPM measured by means of fluorescence microscopy. Clearly, both the polymeric nanoparticles can be efficiently internalized by HepG2 cells. After incubation with BPM (Fig. S2b) for 24h, these nanoparticles could be captured efficiently into cells, BODIPY-Br₂ molecules could be released from the polymeric micelles in cytoplasm, and free BODIPY-Br₂ molecules were dispersed homogeneously, which made it possible for efficient PDT therapy after irradiation. For DPMB (Fig. S2a), conjugated DOX and encapsulated BODIPY could be released synchronously by the pH-responsive cutting of the drug from polymer backbone after acidic stimulation, and free DOX was enriched in nucleus while BODIPY molecules and polymer were dispersed homogeneously in cytoplasm traced by fluorescence microscopy