

Electronic Supplementary Information for:

**Hypoxia-responsive micelles self-assembled from
amphiphilic block copolymer for the controlled
release of anticancer drug**

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1. Supplementary Results

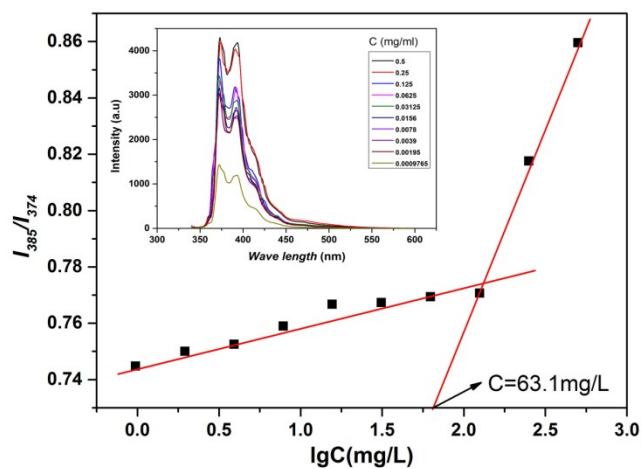
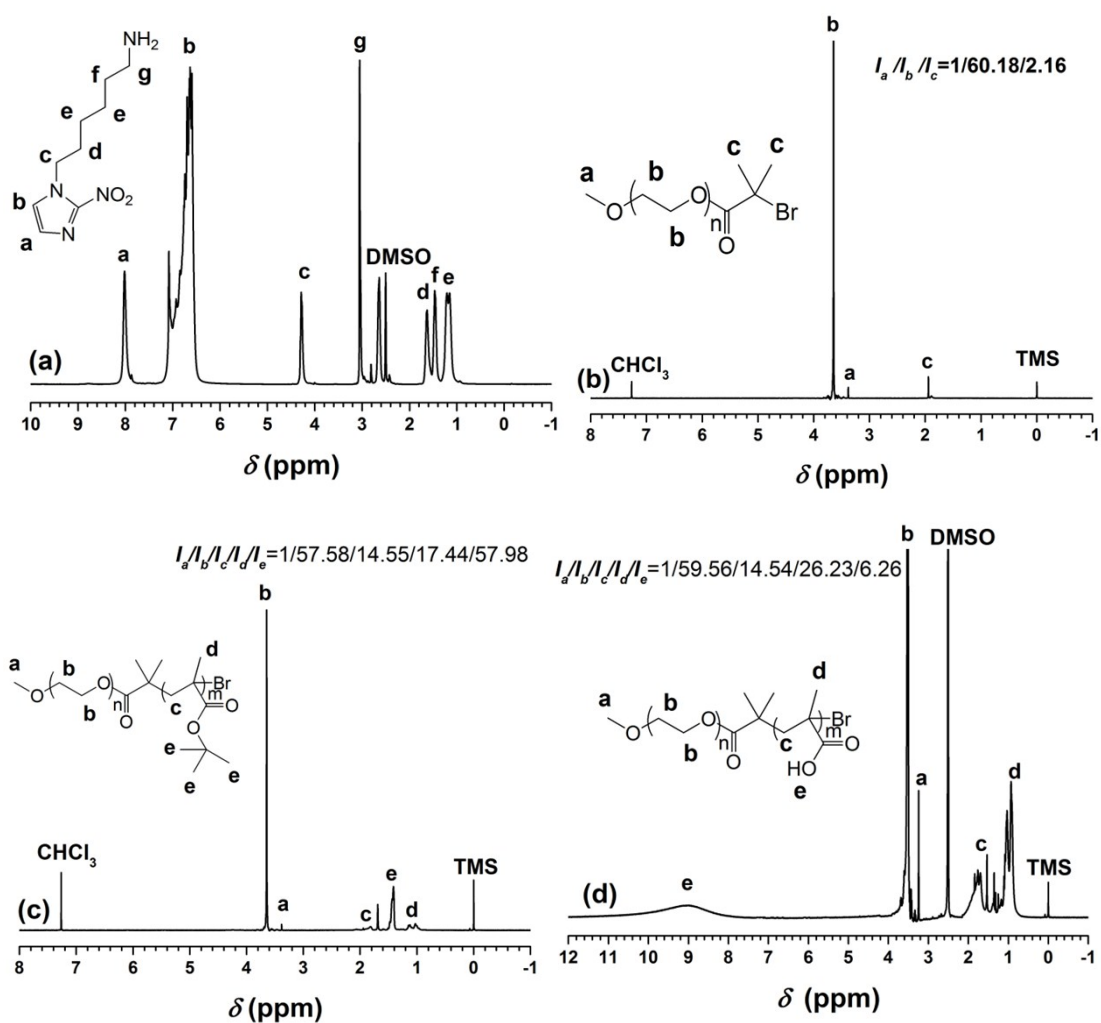


Fig. S1 Determination of CMC for PEG-*b*-P(MAA-*co*-NIMA) using the fluorescence method with pyrene as a probe.



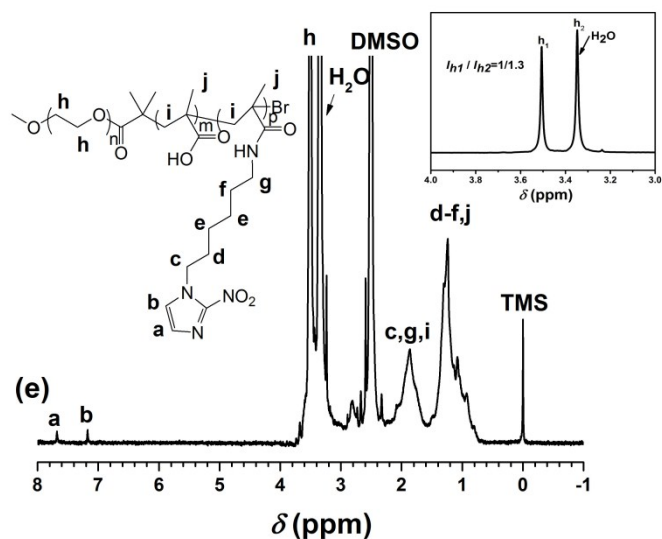


Fig. S2 ^1H NMR spectra of (a) $\text{NH}_2\text{-NI}$, (b) $\text{PEG}_{45}\text{-Br}$, (c) $\text{PEG}_{45}\text{-}b\text{-PtBMA}_{20}$, (d) $\text{PEG}_{45}\text{-}b\text{-PMAA}_{20}$ and (e) $\text{PEG}_{45}\text{-}b\text{-P(MAA}_8\text{-}co\text{-NIMA}_{12})$. The I represents the area of the sub-integral of each peak.

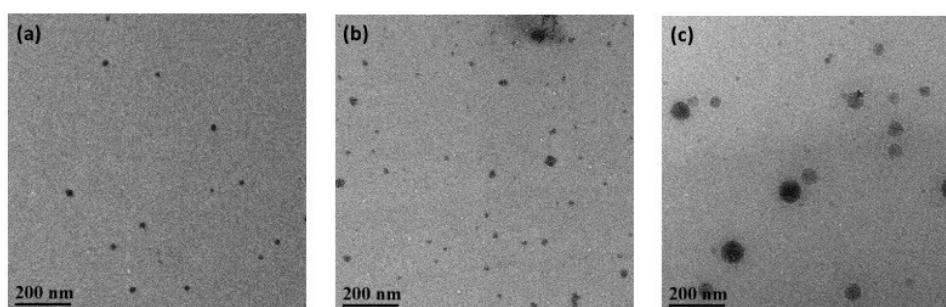


Fig. S3 TEM images of (a) $\text{PEG}_{45}\text{-}b\text{-P(MAA}_{14}\text{-}co\text{-NIMA}_6)$, (b) $\text{PEG}_{45}\text{-}b\text{-P(MAA}_{12}\text{-}co\text{-NIMA}_8)$ and (c) $\text{PEG}_{45}\text{-}b\text{-P(MAA}_8\text{-}co\text{-NIMA}_{12})$ micelles incubated with only NADPH for 3 h under normoxic condition.

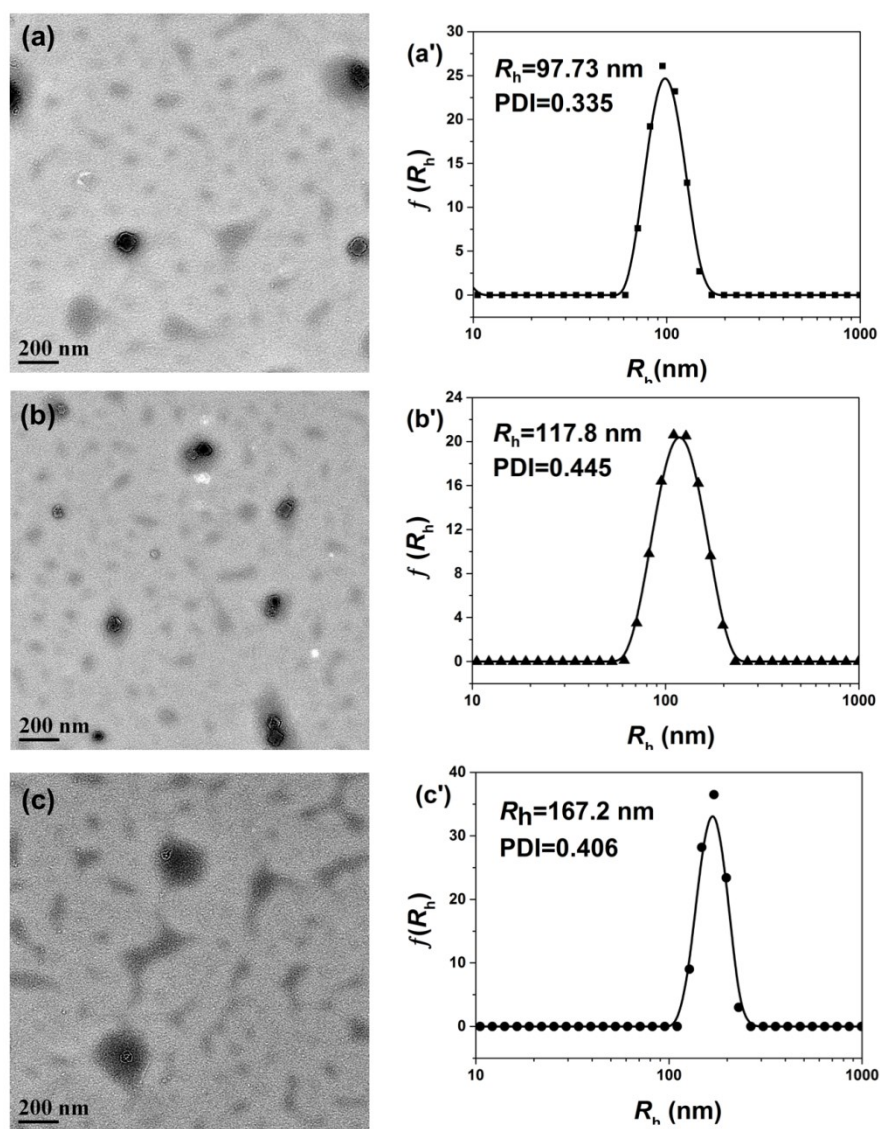


Fig. S4 TEM images of (a) PEG₄₅-*b*-P(MAA₁₄-*co*-NIMA₆), (b) PEG₄₅-*b*-P(MAA₁₂-*co*-NIMA₈) and (c) PEG₄₅-*b*-P(MAA₈-*co*-NIMA₁₂) and hydrodynamic radius (R_h) of copolymer micelles of (a') PEG₄₅-*b*-P(MAA₁₄-*co*-NIMA₆), (b') PEG₄₅-*b*-P(MAA₁₂-*co*-NIMA₈) and (c') PEG₄₅-*b*-P(MAA₈-*co*-NIMA₁₂) incubated under hypoxic condition with 100 mM NADPH as an electron donor.