## **Supporting Information**

Oxidation and ATP Dual-Responsive Block Copolymer Containing Tertiary Sulfoniums: Self-Assembly, Protein Complexation and Triggered Release

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**Fig. S1** FTIR spectra of (a)  $PEG_{45}$ -*b*-P(Boc-METMA)<sub>32</sub>, (b)  $PEG_{45}$ -*b*-P(METMA/PBA<sub>29</sub>)<sub>32</sub>, and (c)  $PEG_{45}$ -*b*-P(METMA/PBA<sub>29</sub>)<sub>32</sub> after 24 h of incubation with H<sub>2</sub>O<sub>2</sub>.



Fig. S2 KC/R<sub> $\theta$ </sub> vs the square of the scattering vector (q<sup>2</sup>) for PEG<sub>45</sub>-*b*-P(METMA/PBA<sub>29</sub>)<sub>32</sub> micelles.



**Fig. S3** <sup>1</sup>H NMR spectrum of 4-hydroxybenzyl alcohol in  $d_6$ -DMSO.



**Fig. S4** HPLC analysis of the sample in the dialysis solution of the  $PEG_{45}$ -*b*- $P(METMA/PBA_{29})_{32}$  micelles after reaction with  $H_2O_2$  for 15 min.



**Fig. S5** Dependence of the size and  $\zeta$  potential of BSA-entrapped micelles on mass ratio of PEG<sub>45</sub>-*b*-P(METMA/PBA<sub>29</sub>)<sub>32</sub> to BSA.



Fig. S6 KC/R<sub> $\theta$ </sub> vs the square of the scattering vector (q<sup>2</sup>) for BSA10-micelles.



Fig. S7 Esterase-like activities of native BSA and the BSA10-micelles.