**Supporting information** 

Facile Fabrication of Redox-responsive Thiol-containing Drug Delivery System via RAFT Polymerization

Yuanyuan Zhuang,<sup>†</sup> Yue Su,<sup>†</sup>,\* Yu Peng,<sup>‡</sup> Dali Wang,<sup>†</sup> Hongping Deng,<sup>†</sup> Xiaodong Xi,<sup>‡</sup> Xinyuan Zhu<sup>†</sup>,\*, Yunfeng Lu<sup>†</sup>,<sup>§</sup>

<sup>†</sup> School of Chemistry and Chemical Engineering, State Key Laboratory of Metal Matrix Composites, Shanghai Jiao Tong University, 800 Dongchuan Road, Shanghai 200240, People's Republic of China

<sup>‡</sup> Shanghai Institute of Hematology, Ruijin Hospital, Shanghai Jiao Tong University School of Medicine, Shanghai 200025, People's Republic of China

<sup>§</sup> Department of Chemical and Biomolecular Engineering, University of California, Los Angeles, California 90095, United States

\* Corresponding author. E-mail: yuesu2005@yahoo.com.cn; xyzhu@sjtu.edu.cn. Telephone: +86-21-34203400. Fax: +86-21-54741297.

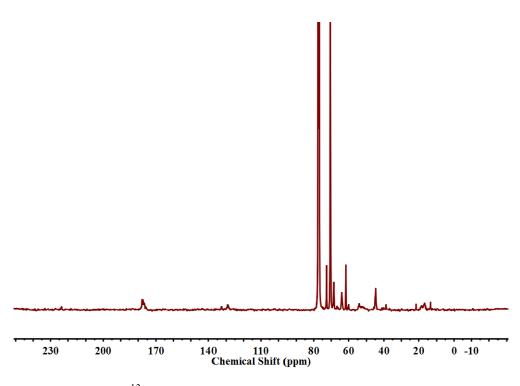


Figure S1. Quantitative <sup>13</sup>C-NMR spectrum of poly(VBPT-*co*-PEGMA) in CDCl<sub>3</sub>.

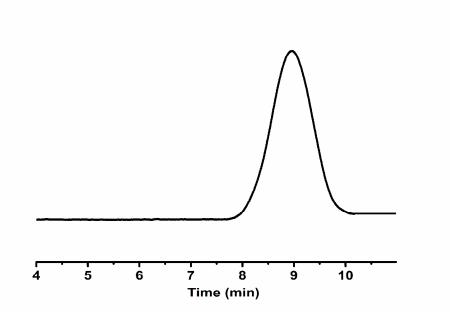


Figure S2. GPC profile of poly(VBPT-co-PEGMA).

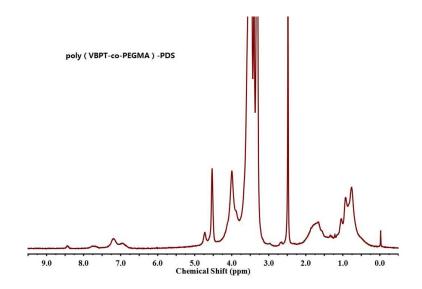
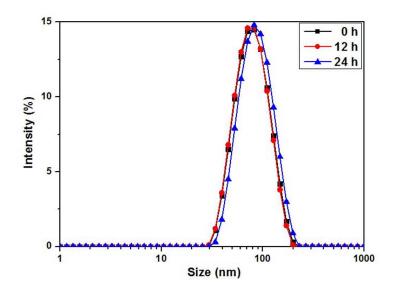
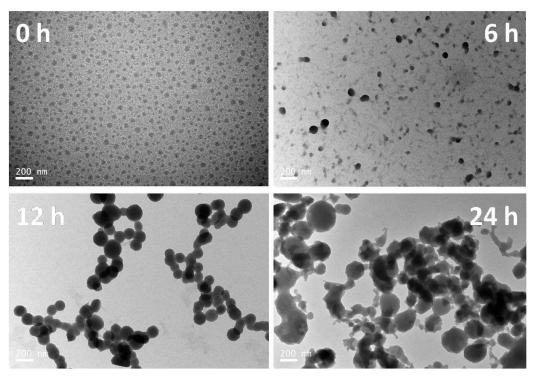


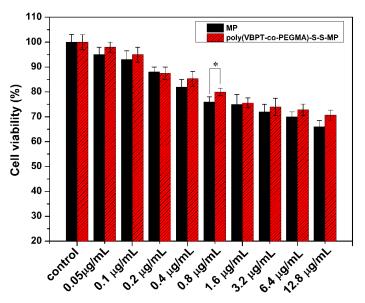
Figure S3. <sup>1</sup>H-NMR spectra of poly(VBPT-*co*-PEGMA)-PDS in DMSO-*d*<sub>6</sub>.



**Figure S4.** DLS plots of poly(VBPT-*co*-PEGMA)-S-S-MP micelles without GSH treatment in PBS (pH 7.4, 50 mM) at 37 °C over time.



**Figure S5.** TEM images of poly(VBPT-*co*-PEGMA)-S-S-MP micelles with 10 mM GSH in PBS (50 mM, pH=7.4) at 37 °C over time.



**Figure S6.** Cell viability of NIH/3T3 cells against poly(VBPT-*co*-PEGMA)-S-S-MP micelles and free MP after incubation for 72 h with different MP concentrations. Data are presented as the average  $\pm$  standard deviation (n = 6).  $0.01 and <math>p \le 0.01$  are considered to be statistically significant and highly significant and are denoted as "\*" and "\*\*", respectively.