

## Electronic Supplementary Information for

### Reduction-sensitive core-cross-linked mPEG-poly(ester-carbonate) micelles for glutathione-triggered intracellular drug release

Lesan Yan,<sup>a,b</sup> Wenbin Wu,<sup>c</sup> Zhao Wei,<sup>a,b</sup> Ruogu Qi,<sup>a,b</sup> Dongmei Cui,<sup>a</sup> Zhigang Xie,<sup>a</sup> Yubin Huang,<sup>a</sup> Ti Tong,<sup>c</sup> Xiabin Jing<sup>a\*</sup>

<sup>a</sup>State Key Laboratory of Polymer Physics and Chemistry, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun 130022, People's Republic of China

<sup>b</sup>Graduate School of Chinese Academy of Sciences, Beijing 100049, People's Republic of China

<sup>c</sup>The Second Hospital of Jilin University, Changchun 130041, P. R. China

#### Contents

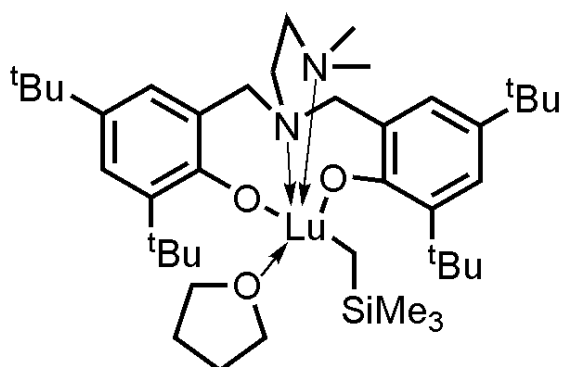
**Figure S1.** The structure of Salan-Lu.

**Figure S2.** <sup>1</sup>H NMR spectra of 2-(2,4-dinitrophenylthio)ethyl 2,2,5-trimethyl-1,3-dioxane-5-carboxylate (DNPT-bis MPA-Ac)

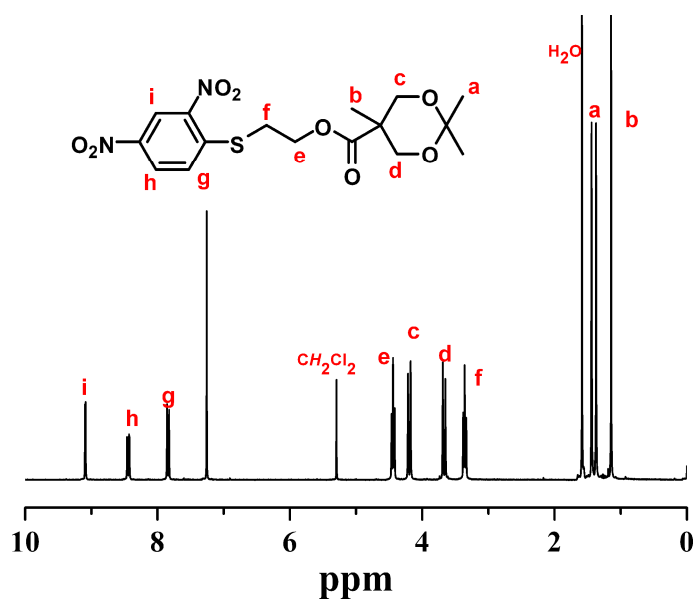
**Figure S3.** <sup>1</sup>H NMR spectra of 2-(2,4-dinitrophenylthio)ethyl 2,2-bis(hydroxymethyl)-propanoate (DNPT-bis MPA-OH)

**Figure S4.** FTIR spectra of mPEG-*b*-P(LA-*co*-MTC) (a) and mPEG-*b*-P(LA-*co*-MTC<sub>SH</sub>) (b).

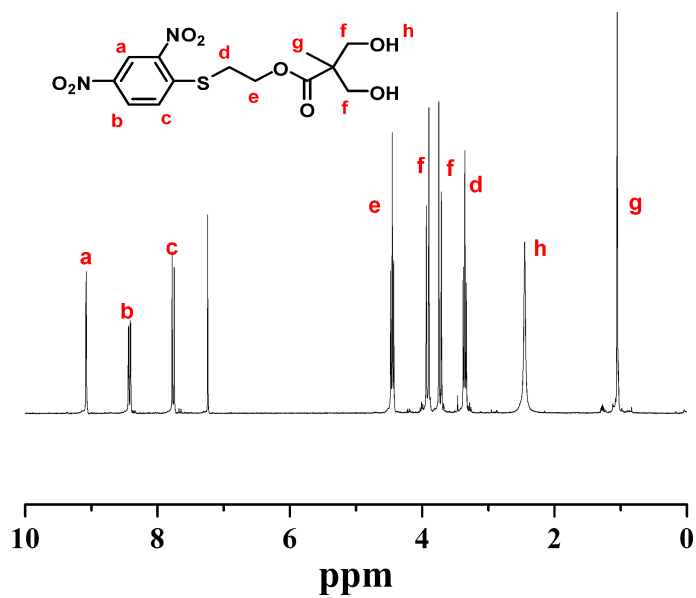
**Figure S5.** <sup>1</sup>H NMR of cross-linked micelles in D<sub>2</sub>O



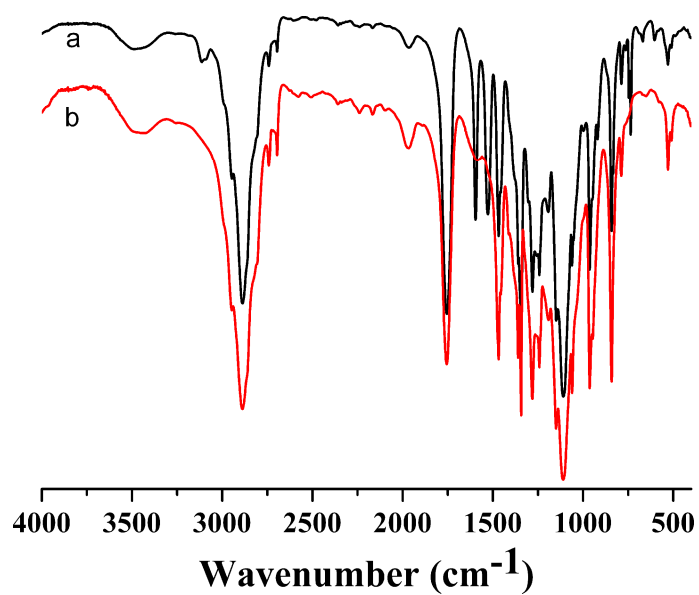
**Figure S1.** The structure of Salan-Lu.



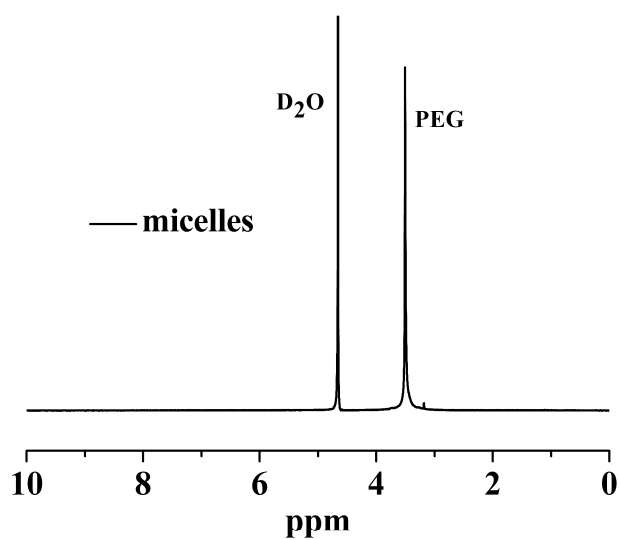
**Figure S2.** <sup>1</sup>H NMR spectra of 2-(2,4-dinitrophenylthio)ethyl 2,2,5-trimethyl-1,3-dioxane-5-carboxylate (DNPT-bis MPA-Ac).



**Figure S3.** <sup>1</sup>H NMR spectra of 2-(2,4-dinitrophenylthio)ethyl 2,2-bis(hydroxymethyl)propanoate (DNPT-bis MPA-OH).



**Figure S4.** FTIR spectra of mPEG-*b*-P(LA-*co*-MTC) (a) and mPEG-*b*-P(LA-*co*-MTC<sub>SH</sub>) (b).



**Figure S5** <sup>1</sup>H NMR of cross-linked micelles in D<sub>2</sub>O.