# SUPPORTING INFORMATION

## Redox-Responsive Core Cross-Linked Block Copolymer Micelles for Overcoming Multidrug Resistance in Cancer Cells

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**Synthesis of Poly(PEGMA)-Based Macro-Chain Transfer Agent (CTA) (Scheme 1)**.

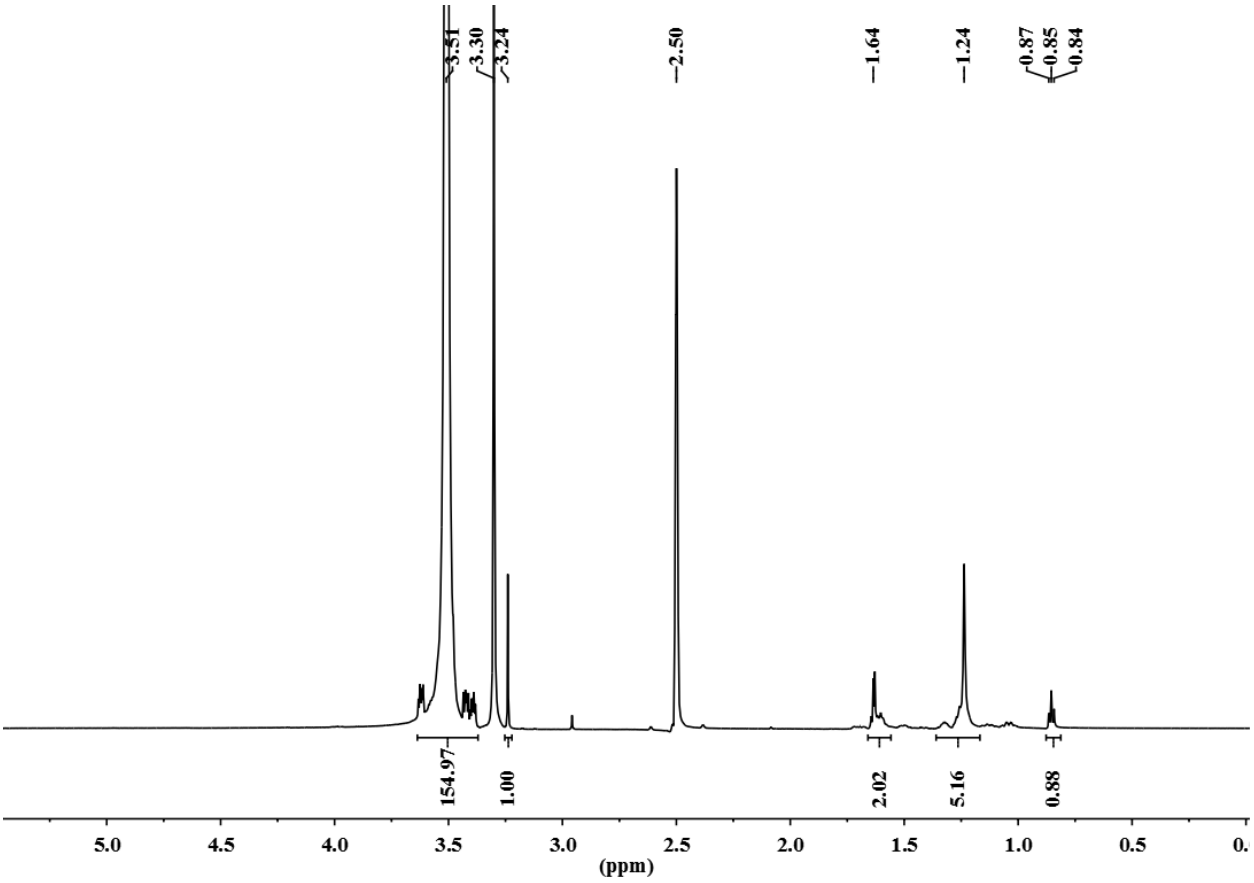


**Figure S1**: $^{1}$HNMR spectra (in DMSO-$d_6$) of PEG macro- CTA.

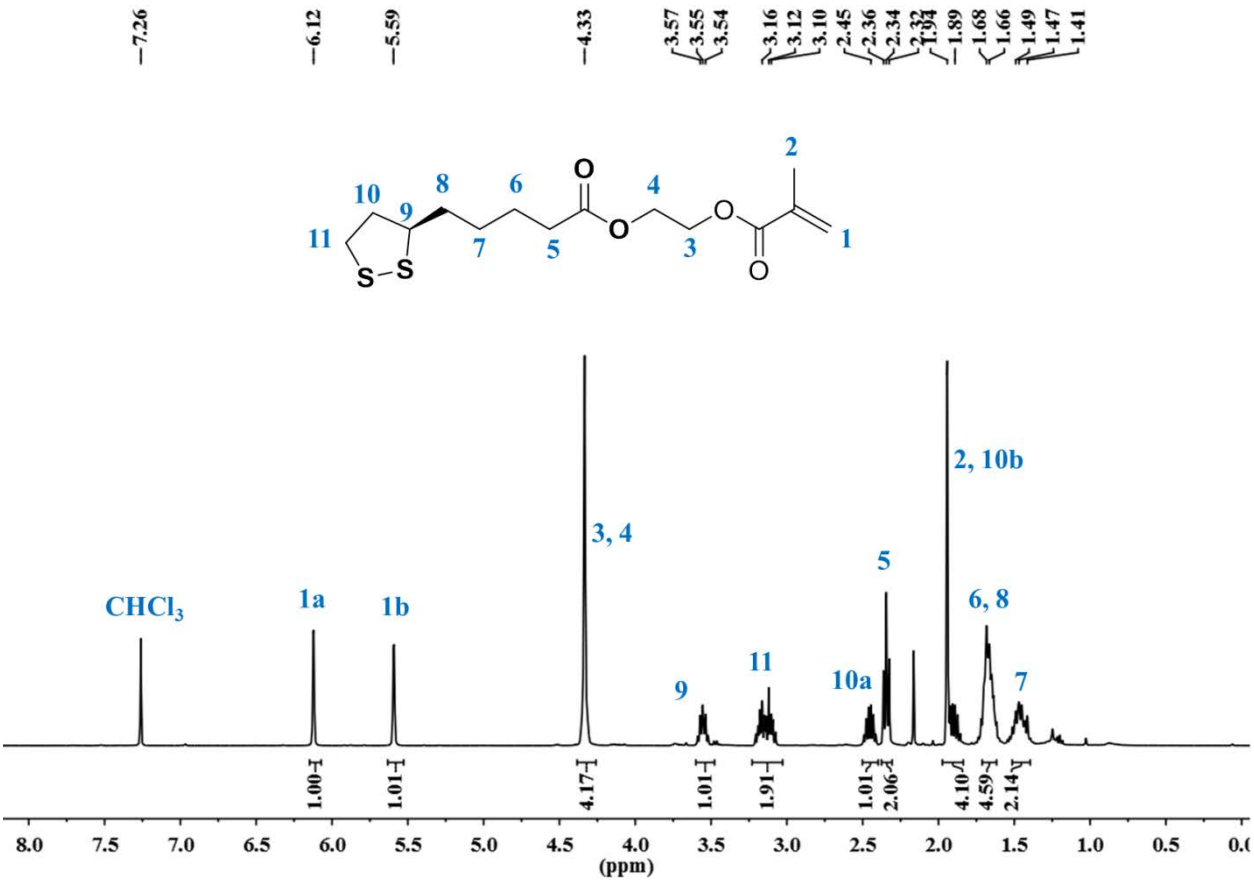


**Figure S2**: $^{1}$H NMR spectra (in $CDCl_3$) of LAHEMA.

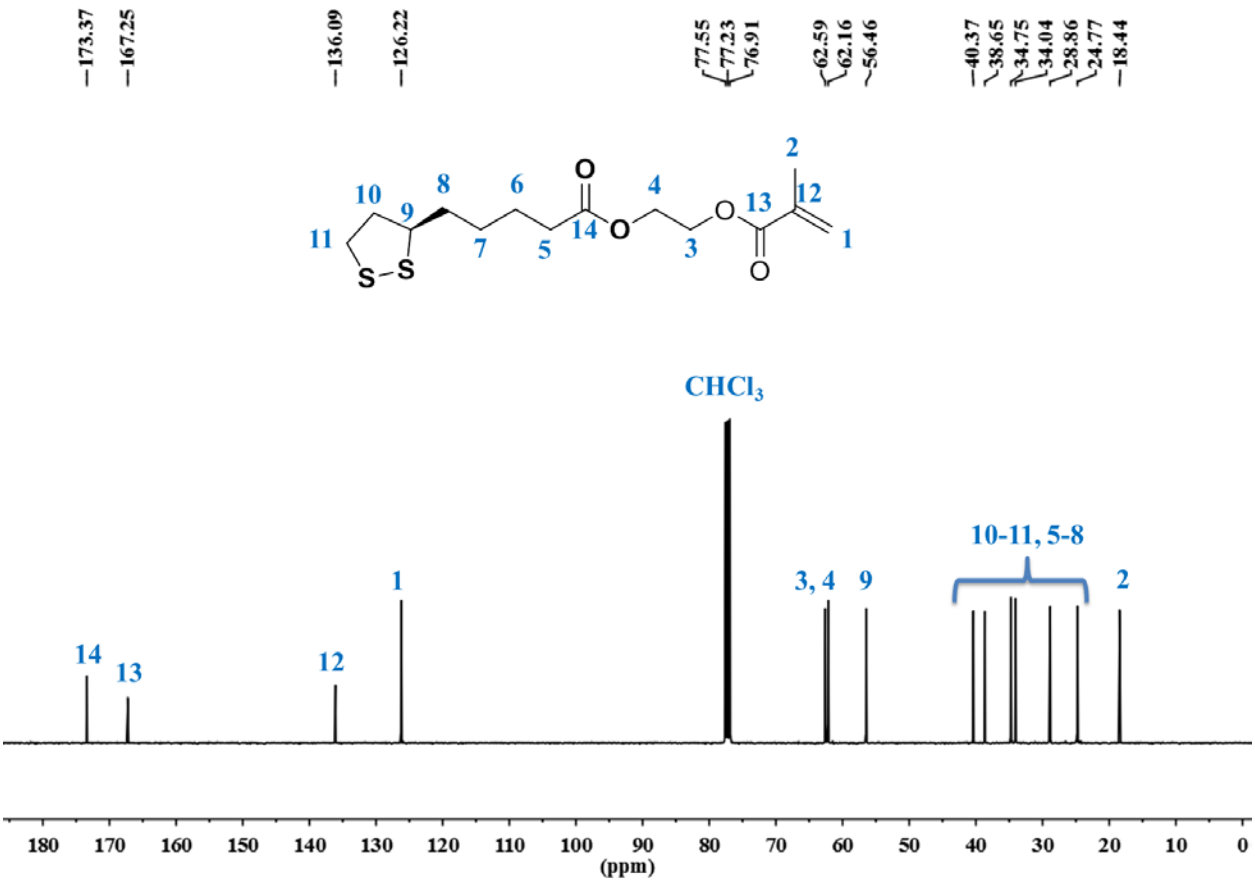


**Figure S3**: $^{13}$C NMR spectra (in $CDCl_3$) of LAHEMA.

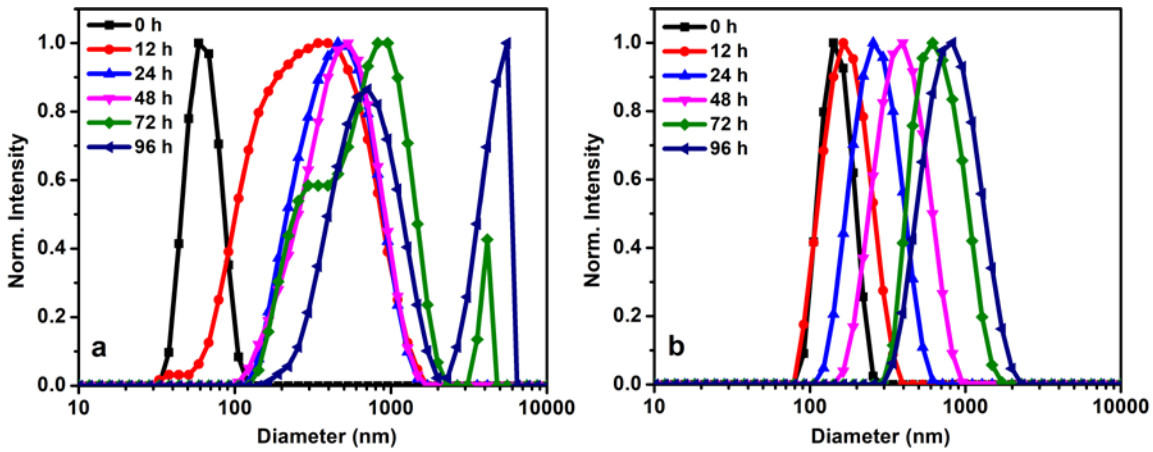


**Figure S4**: Hydrodynamic size distribution profiles of the cross-linked micelles BCP26 (a) and BCP83 (b) measured by DLS due to swelling in response to 10 mM GSH with time in PB (pH 7.4, 10 mM) at 37 °C.

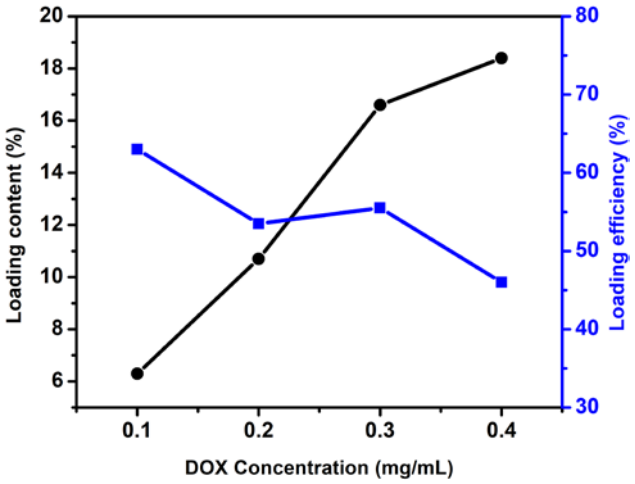


**Figure S5**: Variation of loading content and loading efficiency of DOX with varying DOX concentration in nanocarrier (BCP26) having fixed concentration of 1 mg/mL with maintaining cross-linking GSH concentration in PB (pH 7.4, 10 mM) at 37 °C. DOX loading efficiency was calculated based on the equation $LE\ (\%) = \frac{Weight\ of\ DOX\ into\ the\ micelle}{Weight\ of\ DOX\ feed} \times 100$.