SUPPORTING INFORMATION

Enhancement of Loading Efficiency by Co-loading of Doxorubicin and Quercetin in Thermoresponsive Polymeric Micelles

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Figure S1. ¹H NMR spectrum of 4-ME₂cyclohexanone.



Figure S2. ¹³C NMR spectrum of 4-ME₂cyclohexanone.



Figure S3. ¹H NMR spectrum of 4-ME₄cyclohexanone.



Figure S4. ¹³C NMR spectrum of 4-ME₄cyclohexanone.



Figure S5. ¹H NMR spectrum of ME₂CL.



Figure S6. ¹³C NMR spectrum of ME₂CL.



Figure S7. ¹H NMR spectrum of ME₄CL.



Figure S8. ¹³C NMR spectrum of ME₄CL.



Figure S9. ESI-MS spectrum of ME₂CL.







Figure S11. ESI-MS spectrum of ME₄CL.



Figure S12. ¹H NMR spectrum of PME₂CL-*b*-PBnCL.



Figure S13. ¹H NMR spectrum of PME₃CL-*b*-PBnCL.



Figure S14. ¹H NMR spectrum of PME₄CL-*b*-PBnCL.



Figure S15. SEC traces of the diblock copolymers. The molecular weight and polydispersity index were determined through SEC equipped with refractive index detector using a polystyrene standard.



Figure S16. Absorbance spectra of Que and Dox.



Figure S17. Encapsulation efficiencies with drug loading variations. The feeding ratio of [polymer]:[Dox]:[Que] was varied from 10:1:1 to 10:1:10. The drug loaded samples were

subjected to UV-Vis spectroscopy the quantify the drug loaded. Loading variations of Dox and Que in (A) PME₂CL-*b*-PBnCL, (B) PME₃CL-*b*-PBnCL and (C) PME₄CL-*b*-PBnCL demonstrated that the higher encapsulation efficiency is observed in feeding ratio of [polymer]:[Dox]:[Que] of 10:1:5.



Figure S18. Cytotoxicity of PME₃CL-*b*-PBnCL empty micelles. HepG2 and H9c2 cells were incubated with empty micelles at different concentrations of polymer for 24 hours. Cell viability evaluations demonstrate no significant cytotoxicity of polymer on HepG2 and H9c2 cells even at high concentrations.