

Figure S1: Representative ¹H NMR spectra of mPEG-*b*-PHTMC and mPEG-*b*-P(TMC-*co*-HTMC) before and after debenzylation. ¹H NMR spectra of mPEG-*b*-P(BTMC)₁₃ (A top), mPEG-*b*-P(HTMC)₅ (A bottom), mPEG-*b*-P(TMC₁₀-*co*-BTMC₁₀) (B top) and mPEG-*b*-P(TMC₉-*co*-BTMC₉) (B bottom).

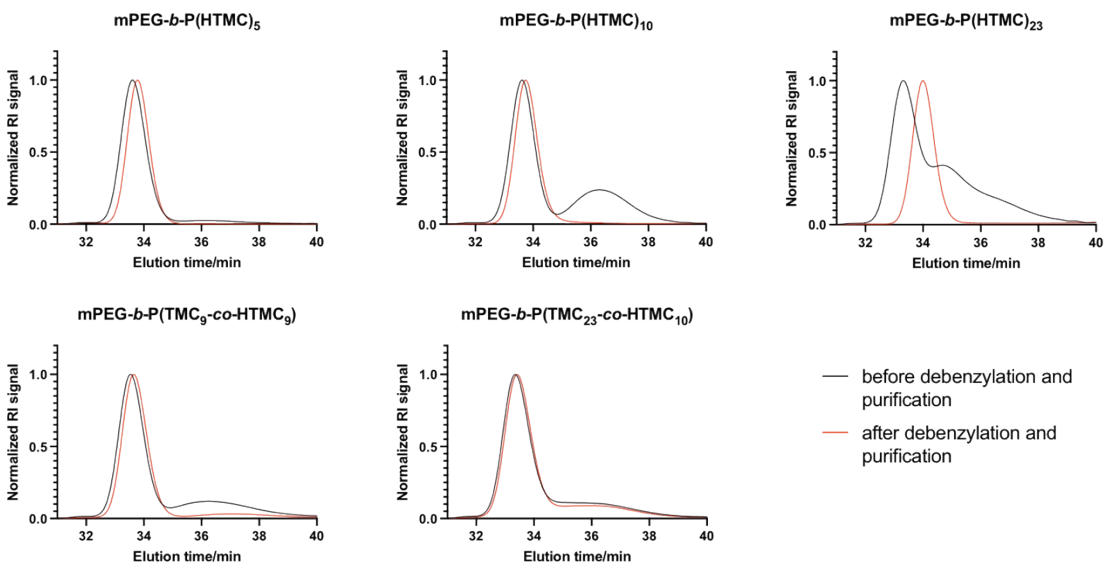


Figure S2. GPC chromatograms of mPEG-b-PHTMC's and mPEG-b-P(TMC-co-HTMC)'s before and after debenzylation and purification.

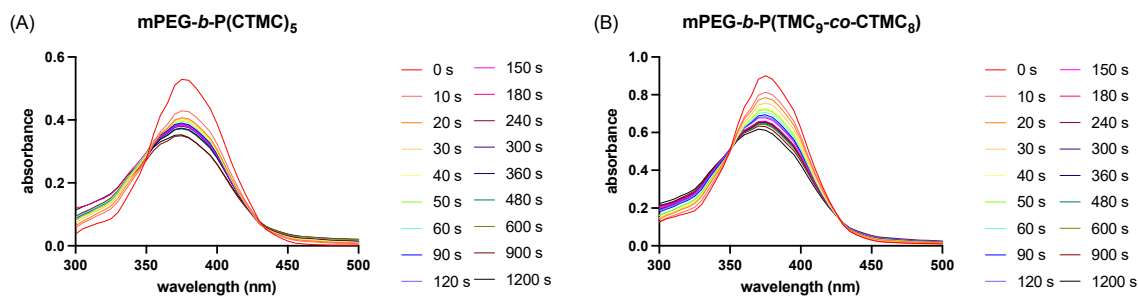


Figure S3: Representative absorbance spectra of micelles suspensions post visible light irradiation (20 min, 28 mW/cm²) over varying time. Absorbance spectra of (A) mPEG-*b*-P(CTMC)₅ and (B) mPEG-*b*-P(TMC₉-*co*-CTMC₈).

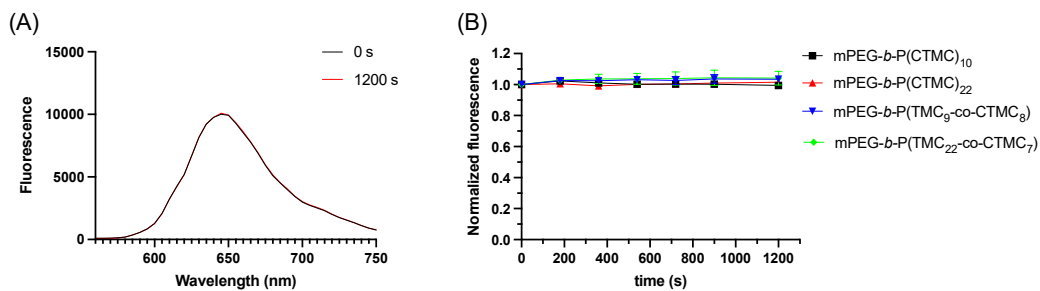


Figure S4: (A) Fluorescence spectrum of Nile Red in acetonitrile/water 50/50 before and after visible light irradiation. (B) Plots of normalized fluorescence vs irradiation time for Nile Red-loaded micelles in PBS in the absence of visible light.