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Electronic Supplementary Information (ESI) for

Development and structural analysis of dualthermo-responsive self-assembled zwitterionic micelles

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Figure S1. ¹H NMR spectrum of PLLSA50 in D₂O.



Figure S2. ¹H NMR spectrum of PLLSA65 in D₂O.



Figure S3. ¹H NMR spectrum of PLLSA50 macro-CTA in D₂O.



Figure S4. ¹H NMR spectrum of PLLSA65 macro-CTA in D₂O.



Figure S5. ¹H NMR spectrum of M1 in D_2O .



Figure S6. 13 C NMR spectrum of M1 in D₂O.



Figure S7. ¹H NMR spectrum of M2 in D_2O .



Figure S8. ¹³C NMR spectrum of M2 in D_2O .



Figure S9. AFM images of M1 and M2 at 0.1% (w/w).



Figure S10. (a) SAXS curves of 5% w/w PLL-SA50 at various temperature in aqueous solution and (b) correlation length (ξ OZ) calculated with Ornstein-Zernike plot analysis at high *q* region.



Figure S11. Fitting curves for the SAXS profile at 5°C. The solid line represents the fitted curve; the dashed lines represent the Guinier (red), Debye-Bueche (blue), and Ornstein-Zernike (green) terms.