

Supporting Information

UCST-type Thermoresponsive Sol-Gel Transition Triblock Copolymer Containing Zwitterionic Polymer Blocks

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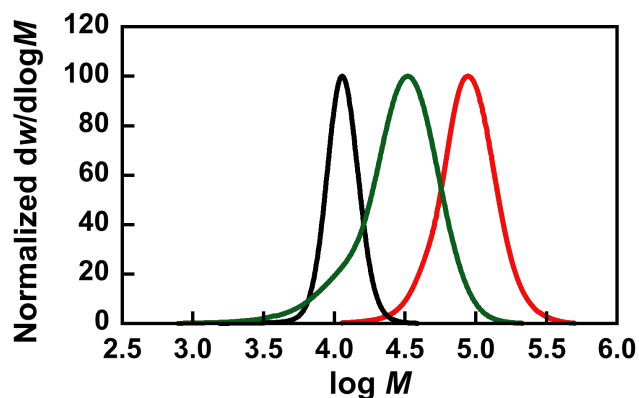


Figure S1. Molecular weight distributions (normalized to peak height) of PEG₂₅₀ (black line), PSB₉₆-PEG₂₅₀-PSB₉₆ (green line), and PSaB₉₇-PEG₂₅₀-PSaB₉₇ (red line). The size exclusion chromatography measurements were conducted using a Shimadzu Prominence HPLC system (Shimadzu corp., Kyoto, Japan) equipped with PFG 100 Å and PFG 1000 Å columns (Polymer Standards Service GmbH, Germany) at 40 °C under a flow rate of 1.0 mL/min using a refractive index detector. A 2,2,2-trifluoroethanol solution containing 20 mM sodium trifluoroacetate was used as an eluent. The molecular weight distributions were calculated using near-monodisperse poly(methyl methacrylate) standards.

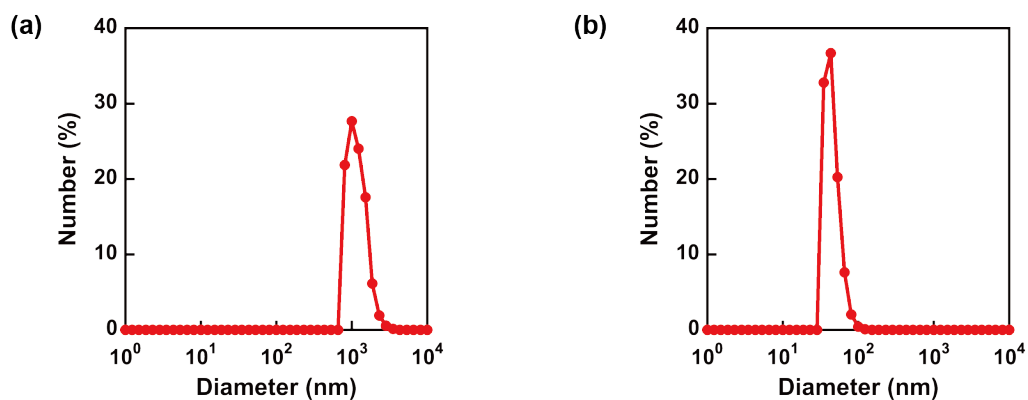


Figure S2. Size distributions of (a) PSB₁₄₀-PEG₉₁-PSB₁₄₀ and (b) PSB₉₆-PEG₂₅₀-PSB₉₆ at 25 °C. The concentration of triblock copolymers was 5 mg/mL. Size distributions of PSB-PEG-PSB self-assemblies were measured using ELS-Z1000 spectrometer (Otsuka Electronics Co., Ltd., Osaka, Japan) equipped with a He–Ne laser ($\lambda = 633.8$ nm) and backscatter optics. Size distribution was obtained using Marquart analysis.

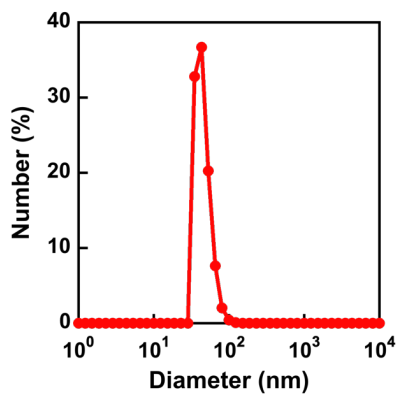


Figure S3. Size distribution of PSaB₉₇-PEG₂₅₀-PSaB₉₇ at 25 °C. The concentration of PSaB₉₇-PEG₂₅₀-PSaB₉₇ was 5 mg/mL. Size distributions of PSaB₉₇-PEG₂₅₀-PSB₉₇ self-assemblies were measured using ELS-Z1000 spectrometer (Otsuka Electronics Co., Ltd., Osaka, Japan) equipped with a He–Ne laser ($\lambda = 633.8$ nm) and backscatter optics. Size distribution was obtained using Marquart analysis.

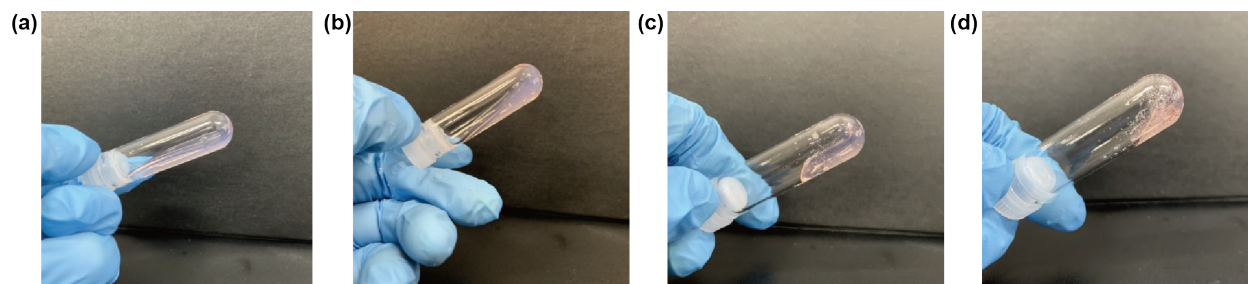


Figure S4. Photographs of PSB₉₆-PEG₂₅₀-PSB₉₆ in water after heating at 80 °C, followed by cooling to 25 °C. The concentrations of PSB₉₆-PEG₂₅₀-PSB₉₆ were (a) 15, (b) 20, (c) 25, and (d) 30 wt%.