

Supporting Information for

Modification of block copolymer vesicles: What will happen when AB diblock copolymer is block-extended to ABC triblock terpolymer?

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Table S1. Experimental details and summary of the synthesized polymers.

Polymer	[M] ₀ /[CTA] ₀ :[I] ₀	Time (h)	Conv. (%) ^a	<i>M_n</i> (kg/mol)			PDI ^e
				<i>M_{n,th}</i> ^b	<i>M_{n,GPC}</i> ^c	<i>M_{n,NMR}</i> ^d	
PEG ₄₅ - <i>b</i> -PS ₂₇₈	900:3:1	24	92.7	31.3	24.3	33.7	1.07
PEG ₄₅ - <i>b</i> -PS ₂₇₈ - <i>b</i> -P4VP ₃₃	450:3:1	2	22.2	34.8	25.6	37.1	1.12
PEG ₄₅ - <i>b</i> -PS ₂₇₈ - <i>b</i> -P4VP ₆₃	450:3:1	5	42.0	37.9	26.8	41.4	1.12
PEG ₄₅ - <i>b</i> -PS ₂₇₈ - <i>b</i> -P4VP ₈₁	450:3:1	6	54.3	39.8	27.8	42.8	1.20
PEG ₄₅ - <i>b</i> -PS ₂₇₈ - <i>b</i> -P4VP ₉₈	450:3:1	7	65.2	41.6	29.4	44.8	1.17
PEG ₄₅ - <i>b</i> -PS ₂₇₈ - <i>b</i> -P4VP ₁₀₅	450:3:1	8	70.3	42.3	30.3	46.3	1.18
PEG ₄₅ - <i>b</i> -PS ₂₇₈ - <i>b</i> -P4VP ₁₂₁	450:3:1	12	80.6	44.0	31.2	47.6	1.19
PEG ₄₅ - <i>b</i> -PS ₂₇₈ - <i>b</i> -P4VP ₁₃₁	450:3:1	14	87.2	45.1	33.3	48.0	1.24
PEG ₄₅ - <i>b</i> -PS ₂₇₈ - <i>b</i> -P4VP ₁₃₇	450:3:1	20	91.1	45.7	33.3	48.7	1.24

^a The monomer conversion determined by ¹H NMR analysis. ^b Theoretical molecular weight determined by monomer conversion. ^c The molecular weight determined by GPC analysis. ^d The molecular weight determined by ¹H NMR analysis. ^e The PDI (*M_w*/*M_n*) value determined by GPC analysis.

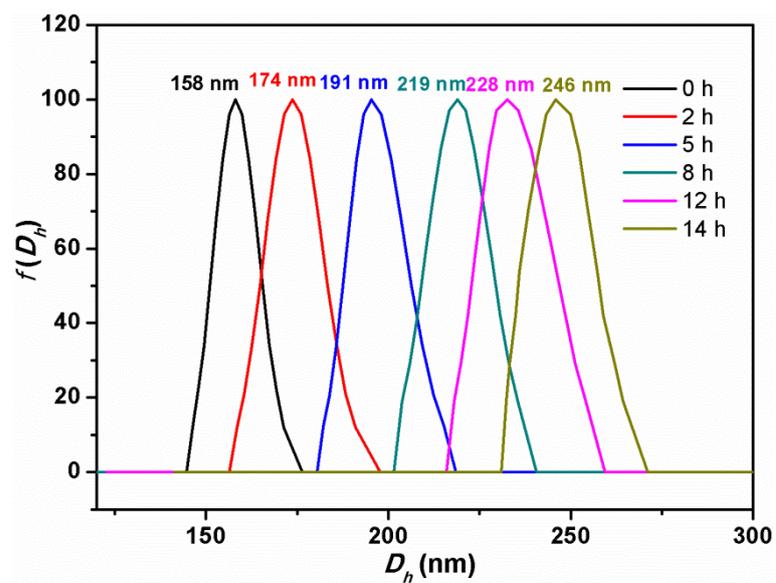


Figure S1. Hydrodynamic diameter (D_h) distribution of the PEG₄₅-*b*-PS₂₇₈-TTC vesicles (0 h) and the PEG₄₅-*b*-PS₂₇₈-*b*-P4VP membrane-compartmentalized vesicles dispersed in the 80/20 methanol/water mixture at different polymerization time.