

Supplementary Information

A simple method for the synthesis of porous polymeric vesicles and their application as MR contrast agent

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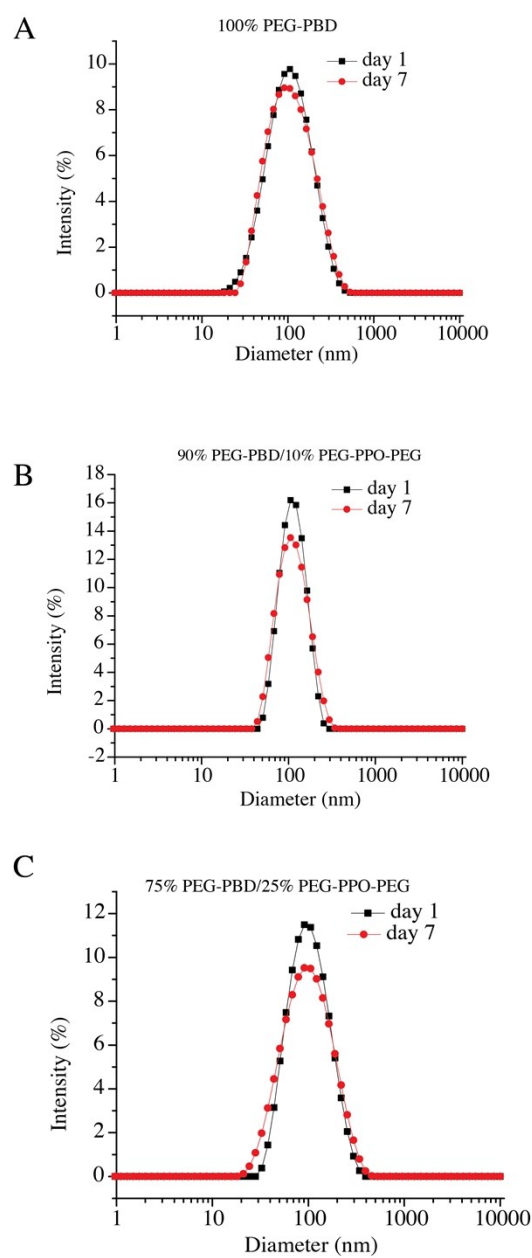


Figure S1. Intensity-weighted hydrodynamic diameter measurement of nanometer-sized vesicles composed of PEG-PBD and PEG-PPO-PEG at three different molar ratios. The measurements were performed over one week.

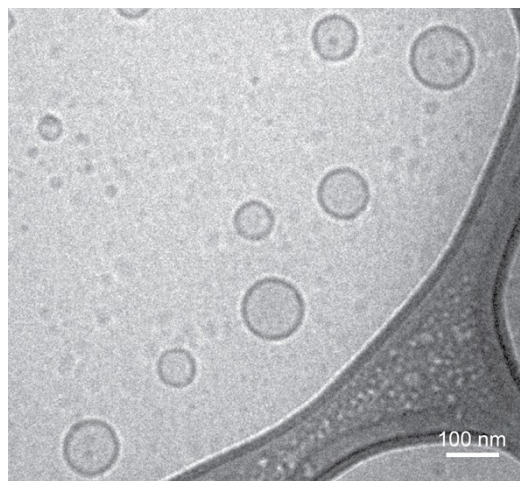


Figure S2. Cryo-TEM image of 75mol% PEG-PBD/25mol% PEG-PPO-PEG vesicles.

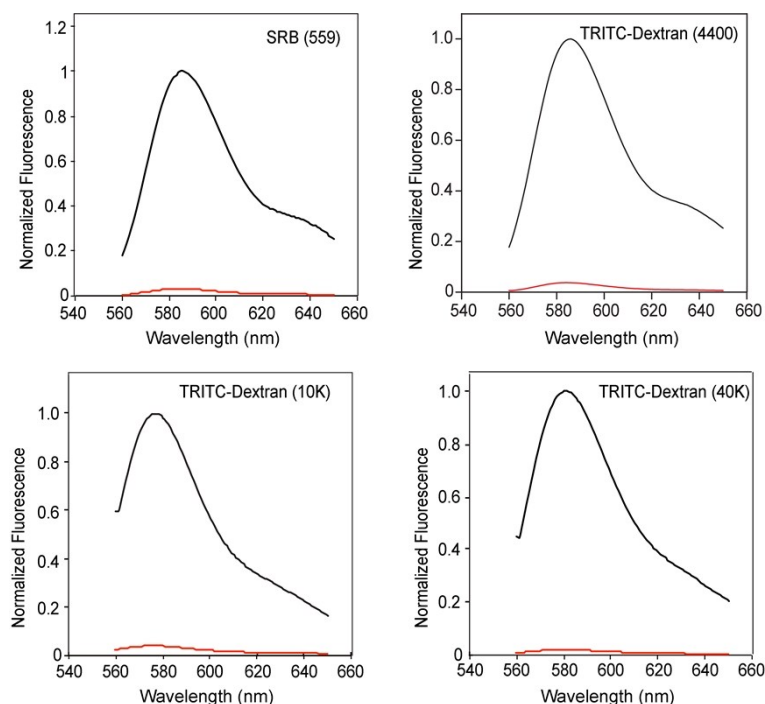


Figure S3 . Release and retention of encapsulated compounds including SRB, TRITC-dextran (4400), TRITC-dextran (10 K) and TRITC-dextran (40 K) within the polymeric vesicles. Vesicles were prepared with 100 mol% PEG-PBD. Following 24 h incubation in HEPES buffer (10 mM, pH 7.4), the vesicles were centrifuged on a Microcon filtering device with a 100 KDa MWCO membrane. The liquid that flowed through the filter was measured for fluorescence (red line). The fluorescence of unfiltered sample in the presence of Triton X-100 was also recorded (black line). The fluorescence intensity is normalized relative to the intensity of unfiltered sample at 585 nm

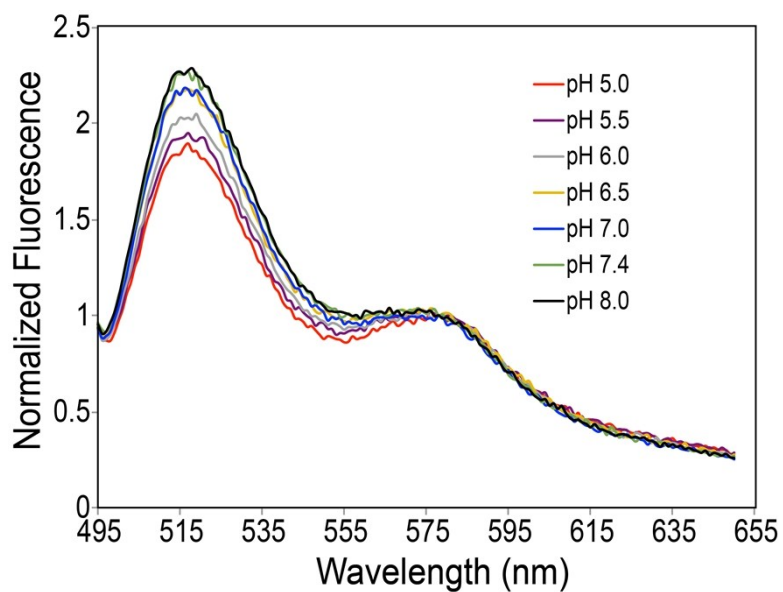


Figure S4 . Sensitivity of FITC-dextran (MW: 59,000-77,000) encapsulated within 100 mol% PEG-PBD vesicles to pH. For ratiometric measurements, the reference dye TRITC-dextran (MW: 10,000) was also co-loaded with FITC-dextran into the aqueous interior of 100 mol% PEG-PBD vesicles.

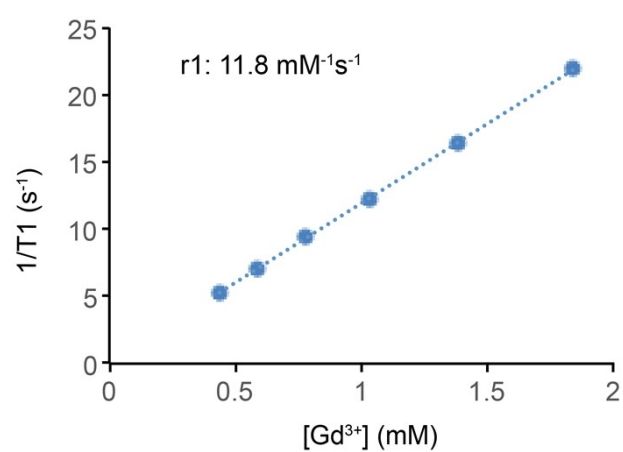


Figure S5 . Relaxivity determination for Gd–GC conjugates.

Table S1. Change in the hydrodynamic diameter of nanometer-sized vesicles composed of PEG-PBD and PEG-PPO-PEG at different molar ratios for one week

	Day 1		Day 7	
	Diameter (nm)	PDI	Diameter (nm)	PDI
100%PEG-PBD	119.9±1.96	0.231±0.002	125.2±2.62	0.239±0.002
90%PEG-PBD/10%PEG-PPO-PEG	120.9±3.37	0.114±0.025	122.6±2.57	0.159±0.012
75%PEG-PBD/25%PEG-PPO-PEG	111.0±0.45	0.209±0.003	111±1.83	0.225±0.003