



Supplementary Figure S6: Elution profiles of LNP containing 5 mol% PEG-c-DMA and PEG-c-DMA micelles. The LNP was composed of DLinKC2-DMA/DSPC/Cholesterol/ PEG-c-DMA/ DiIc18 at a molar ratio of 40/11.5/43.3/5/0.2. Both LNP and micelles were produced under fast mixing (4 ml/min) at a volumetric flow rate ratio of 3:1 (aq:EtOH) and a lipid concentration of 30 mM in ethanol. LNP and micelle samples were run down a Sepharose CL-4B size exclusion column (28 cm x 1.5 cm) and collected into 1 ml fractions. 50 μ L of each fraction was diluted with 150 μ L methanol and fluorescence intensity measured in black 96 well plates (DiIC18, Life technologies, Ex. 549 nm, Em. 565 nm). Particle size of LNP was determined to be 25.8 nm (PDI 0.067, number weighting) prior to column separation. Following elution of the LNP sample, fractions 14 – 21 were combined, concentrated (Amicon Ultra-4 centrifugal units, Millipore) and measured to be 20.6 nm (PDI 0.11, number weighting).

