

SUPPORTING INFORMATION

Figure S1. Particle size distributions of LNPs as in Figure 2A

Figure S2. Critical micelle concentrations of PEG-DMG in 25 v/v% ethanol-buffer solutions

Figure S3. Chemical structures of lipids for LNPs in Figure 8

Figure SI-1: Particle Size Distributions of LNPs as in Figure 2A. LNPs composed of CLinDMA:Chol:PEG-DMG (60:38:2 mol:mol) at N/P = 1.5 and prepared by rapid mixing of siRNA in acetate buffer with an ethanolic solution of lipids. Particle size distributions obtained by dynamic light scattering (DLS). For DLS analyses, LNP solutions containing 3 μg siRNA were diluted to a final volume of 3 ml with $1 \times \text{PBS}$. Dynamic light scattering measurements were conducted on a Zetasizer Nano (Malvern Instruments, UK), and results reported as the average of triplicate measurements.

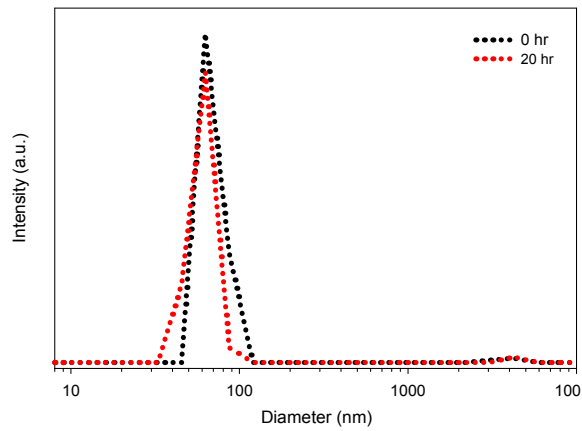


Figure SI-2: Critical micelle concentration (CMC) of PEG-DMG in ethanol-buffer solutions. Fluorescence intensity ratios of pyrene excitation bands ($I_{336\text{ nm}}/I_{333\text{ nm}}$) as a function of PEG-DMG concentration in (■) 25% v/v ethanol/acetate and (□) 25% v/v ethanol/citrate solutions. PEG-DMG CMCs are estimated at approximately 0.02 mM for both citrate and acetate solutions.

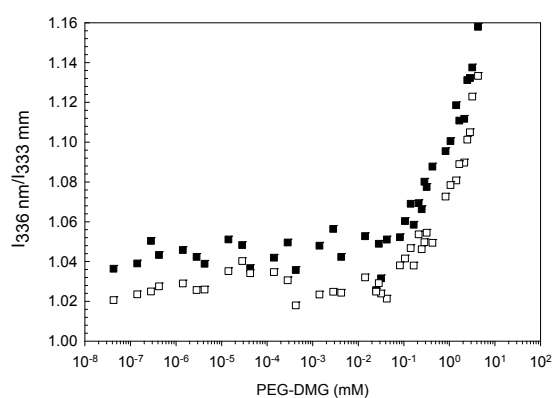


Fig SI-3: Chemical structures of lipids used for generation of LNPs shown in Figure 9.

