

Supporting Information

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Figure SI 1. Molecular Structure of A) Sphingosine (B) FTY720

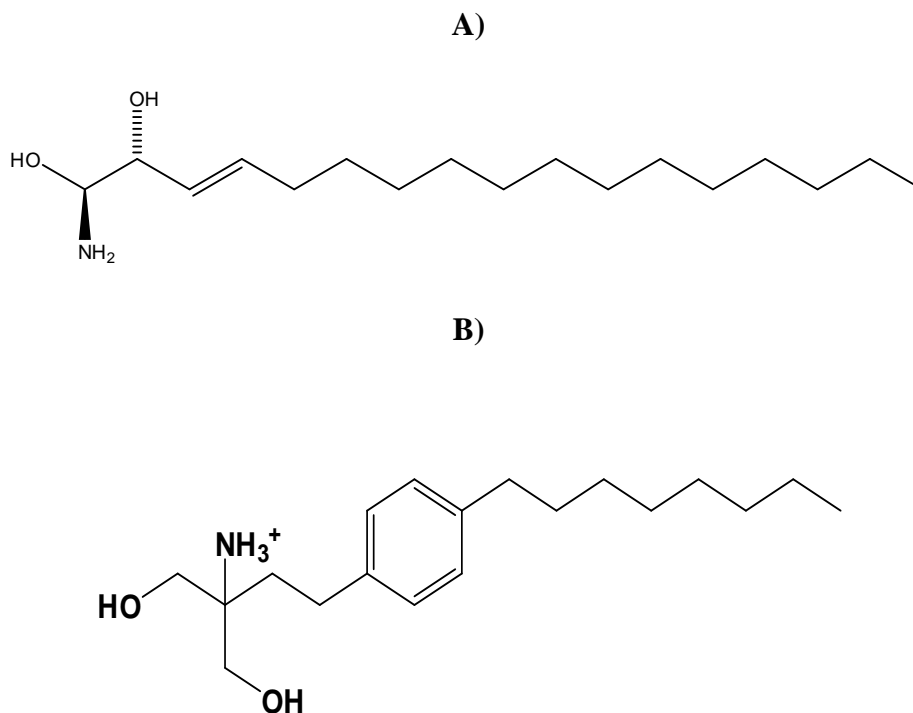
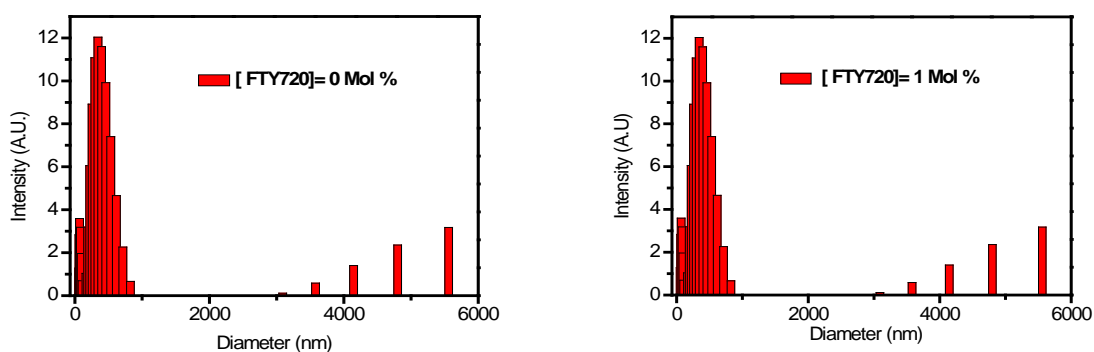


Figure SI 2. DLS histogram plot for DMPC MLVs in presence of different mol % of FTY720, ([DMPC] =0.4mM)



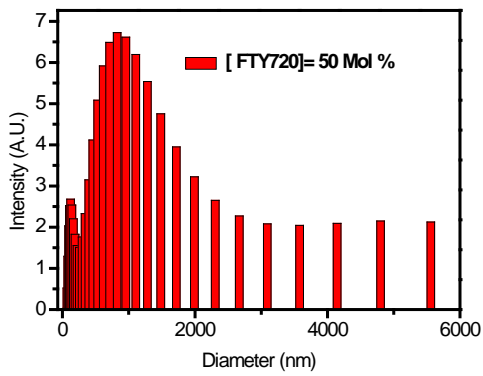
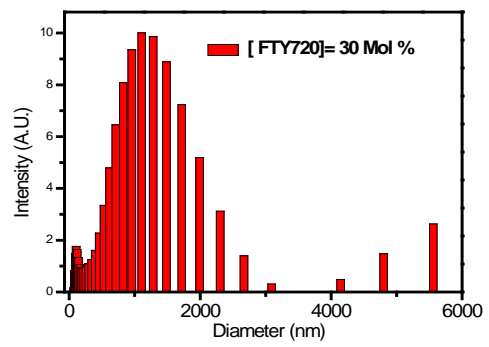
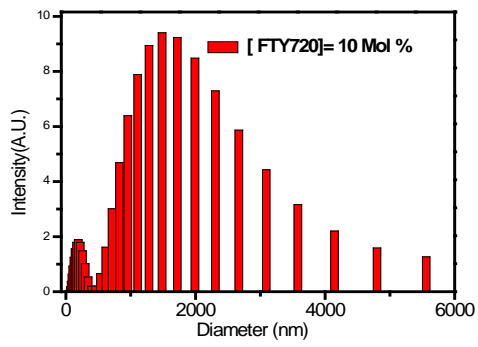
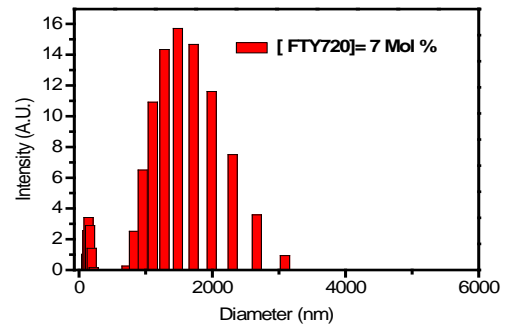
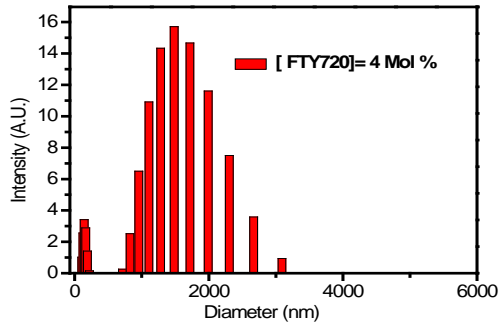
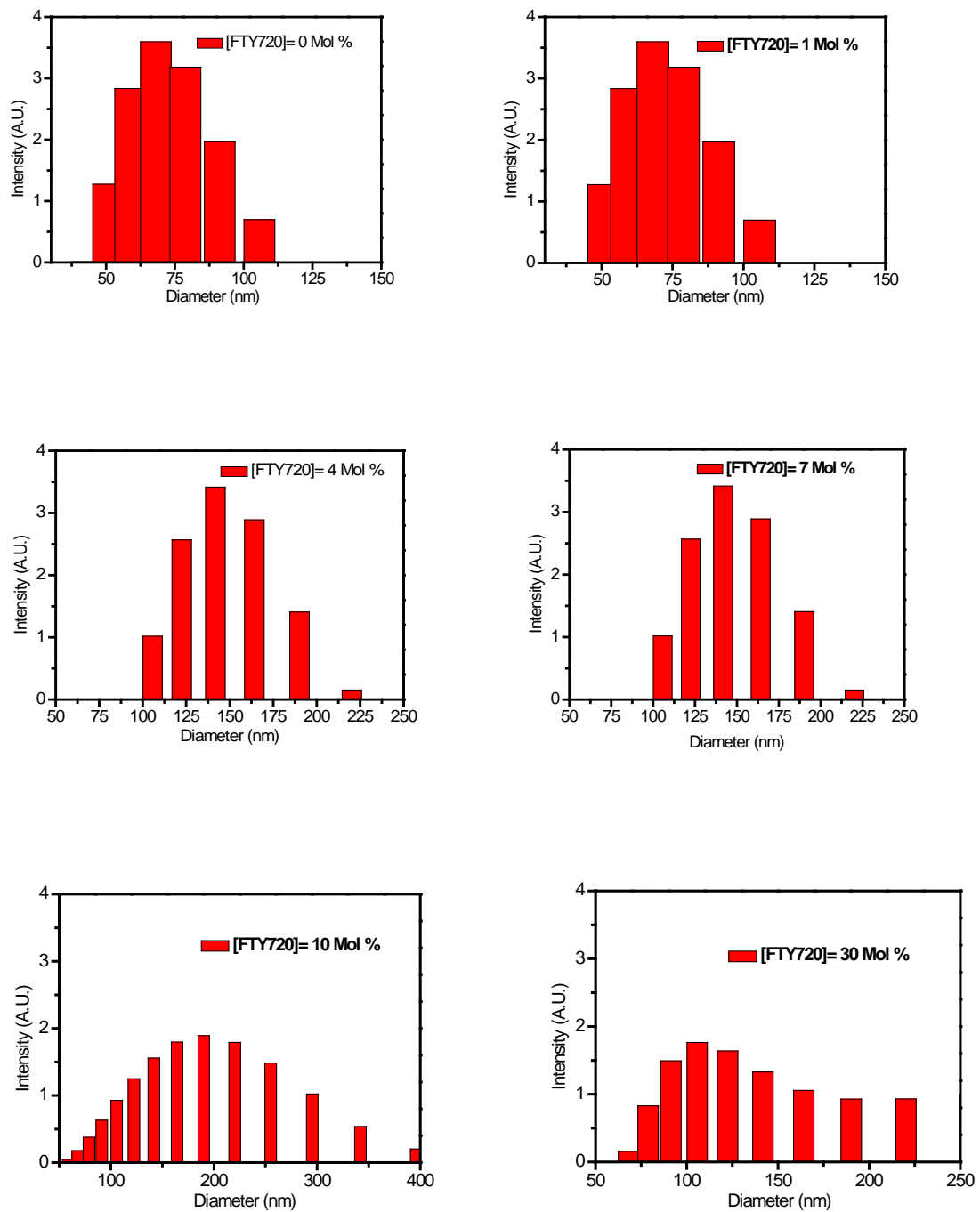


Figure SI 3. DLS histograms plot for complex smaller aggregates of DMPC MLVs with increase in mol % FTY720. ([DMPC] =0.4mM)



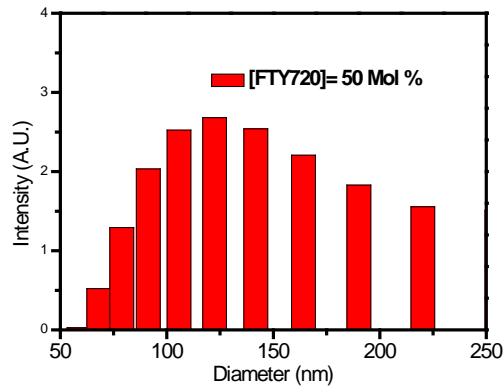
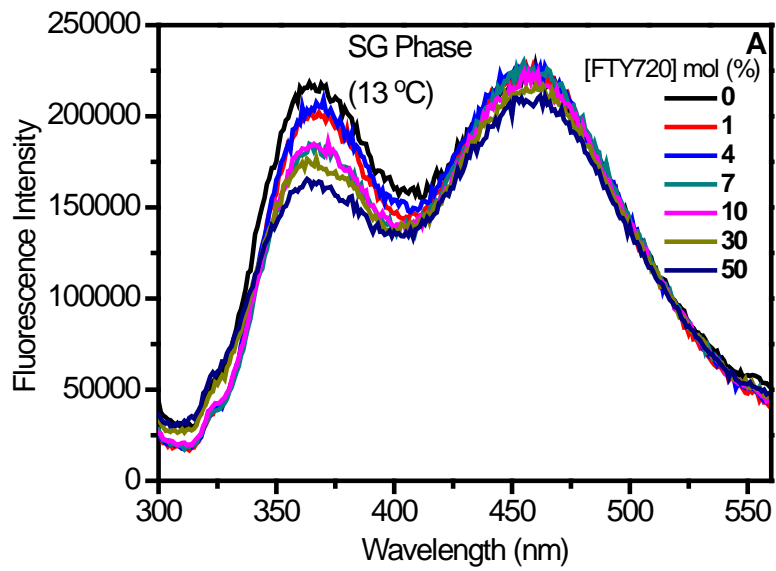


Figure SI 4: Emission spectra of 1-naphthol with increase in mol % of FTY720 at (A) 13 °C (SG) and (B) 35 °C (LC) phase of DMPC MLVs. ([DMPC] = 0.4mM, [1-naphthol] = 4 μ M)



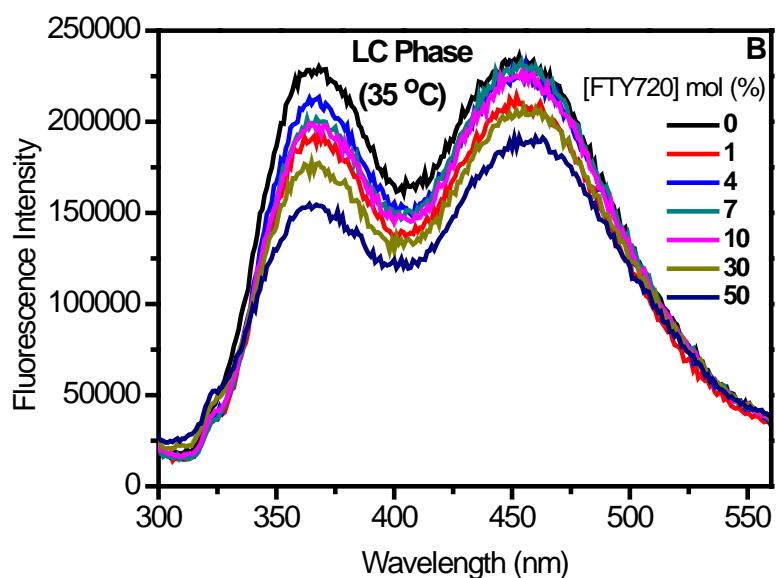


Table SI 1: Variation in fluorescence lifetimes and amplitudes of NpO^* form with increase in mol % FTY720 for SG (13 °C) and LC phase (35 °C) of DMPC MLVs ($\lambda_{\text{ex}} = 295 \text{ nm}$, $\lambda_{\text{em}}=460 \text{ nm}$). [DMPC] = 0.4 mM, [1-naphthol] = 4 μM . (Error = $\pm 5 \%$)

[FTY720] Mol (%) Em=460	τ_s (ns) (α_1)	τ_1 (ns) (α_2)	τ_{avg} (ns)	[FTY720] Mol (%) Em=460	τ_s (ns) (α_1)	τ_1 (ns)(α_2)	τ_{avg} (ns)
13°C (SG Phase)				35°C (LC Phase)			
0	7.5 ₂ (0.72)	18.1 ₈ (0.28)	12.6 ₈	0	7.7 ₂ (0.54)	16.8 ₆ (0.46)	13.6 ₆
1	7.5 ₀ (0.73)	18.1 ₆ (0.27)	12.5 ₃	1	7.7 ₀ (0.54)	16.8 ₂ (0.46)	13.6 ₃
4	7.4 ₃ (0.73)	17.8 ₃ (0.27)	12.3 ₁	4	7.6 ₉ (0.55)	16.7 ₅ (0.45)	13.4 ₉
7	7.5 ₂ (0.74)	18.4 ₃ (0.26)	12.5 ₆	7	7.5 ₂ (0.53)	16.3 ₄ (0.47)	13.2 ₂
10	7.4 ₁ (0.74)	17.1 ₁ (0.26)	11.7 ₅	10	7.6 ₂ (0.55)	15.7 ₅ (0.45)	12.7 ₂
30	7.1 ₃ (0.74)	15.4 ₆ (0.27)	10.8 ₃	30	7.2 ₂ (0.59)	13.5 ₅ (0.41)	10.8 ₀
50	7.0 ₉ (0.72)	14.7 ₉ (0.28)	10.5 ₃	50	6.1 ₅ (0.52)	11.3 ₁ (0.48)	9.3 ₉

Figure SI 5: Response of the fluorescence intensity of DPH in water with increase in mol % FTY720 ($\lambda_{\text{ex}} = 370 \text{ nm}$, $[\text{DPH}] = 4 \mu\text{M}$).

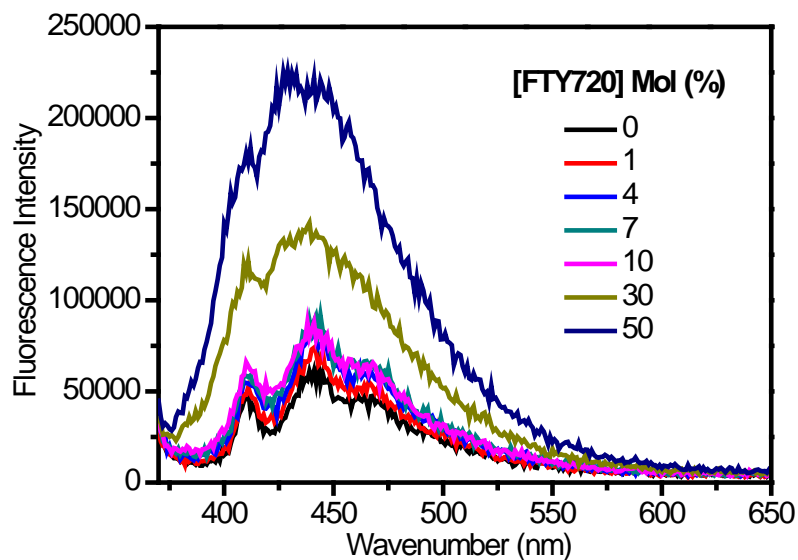


Figure SI 6: Fluorescence anisotropy plot of DPH in DMPC MLVs and in water with increase in mol % of FTY720 at 13°C ($\lambda_{\text{ex}} = 370 \text{ nm}$, $[\text{DMPC}] = 0.4 \text{ mM}$, $[\text{DPH}] = 4 \mu\text{M}$).

