Supporting information

Lipid Concentration and Molar Ratio Boundaries for the Use of Isotropic Bicelles

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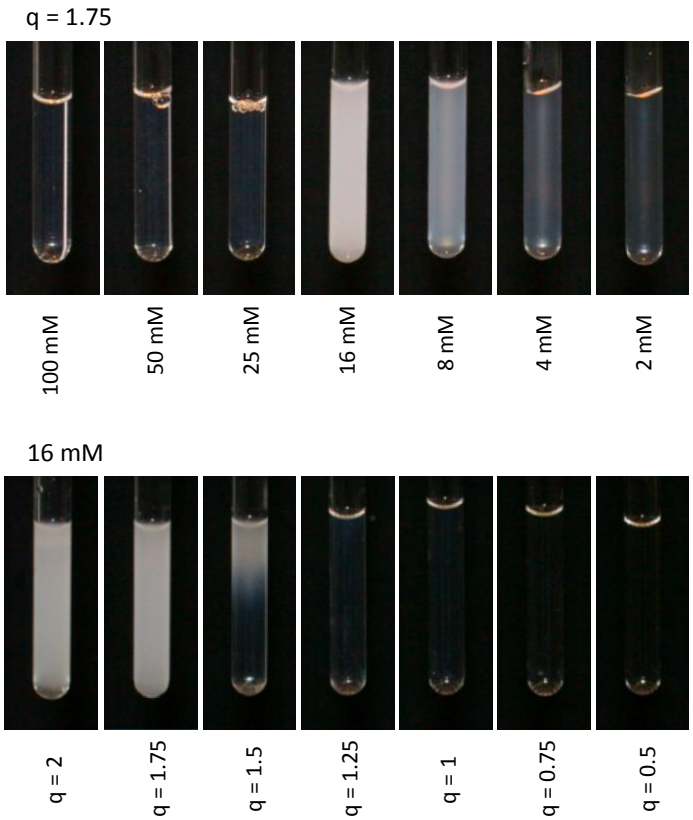

Figure S1. DMPC/DHPC samples with a molar ratio q of 1.75 at concentrations ranging from 100 to 2 mM (top) and a fixed concentration of 16 mM and q ratios ranging from 2 to 0.5. Data obtained at 25°C.

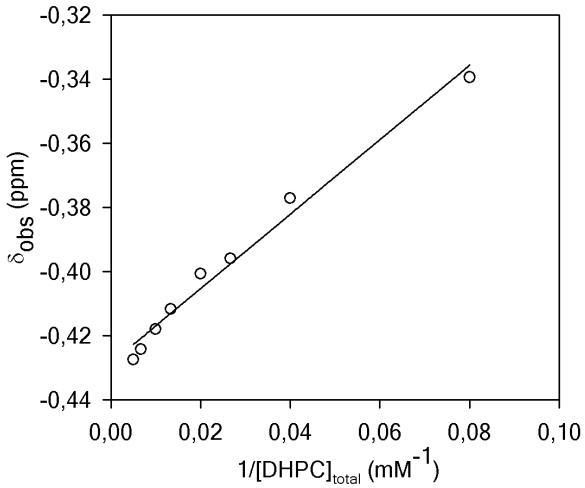

Figure S2. Variation of the observed ^{31}P chemical shift of DHPC as a function of the inverse of DHPC concentration in DMPC/DHPC bicelle mixtures with q =1. Data were obtained at 25°C.

Table S1. Bicelle disk radius calculated for q=1 according to equation 4 from the effective q value q^*.

Effective q*	Bicelle radius (nm)
1	6.5
1.1	7.1
1.2	7.6
1.3	8.2
1.8	11.0
3.2	19.0

Table S2. Minimal total phospholipid concentration recommended to conserve the desired bicelle molar ratio q.

q	$[DMPC+DHPC]_{min}$ (mM)
0.15	162
0.25	133
0.50	120
0.75	121
1.00	121
1.25	133
1.50	172
1.75	186
2.00	221

Table S3. Comparison of the experimental melting temperatures (T_m) of DMPC-d_{54} in DMPC/DHPC bicelles and expected T_m for an ideal mixed micelle at different q ratios.

q [a]	Experimental bicelle T_m (°C)[a]	Calculated mixed micelle T_m (°C)
0	-	-46.0[b]
0.5	6.0±0.3	-23.7
1	17.0±0.9	-12.5
2	21.0±0.9	-1.3
3	21.0±0.9	4.3
∞	21.0±0.3	21.0

[a]Total lipid concentration of 400 mM, therefore q = q*
[b]Tm of pure DHPC from Sakuma, Y.; Taniguchi, T.; Imai, M. Pore Formation in a Binary Giant Vesicle Induced by Cone-Shaped Lipids. Biophys. J. 2010, 99, 472–479.