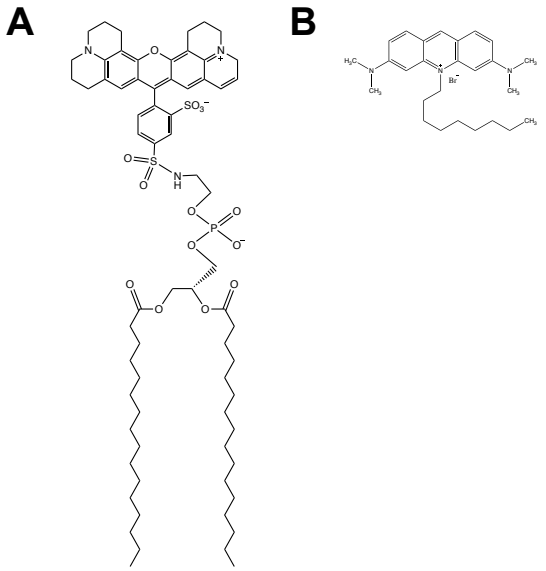
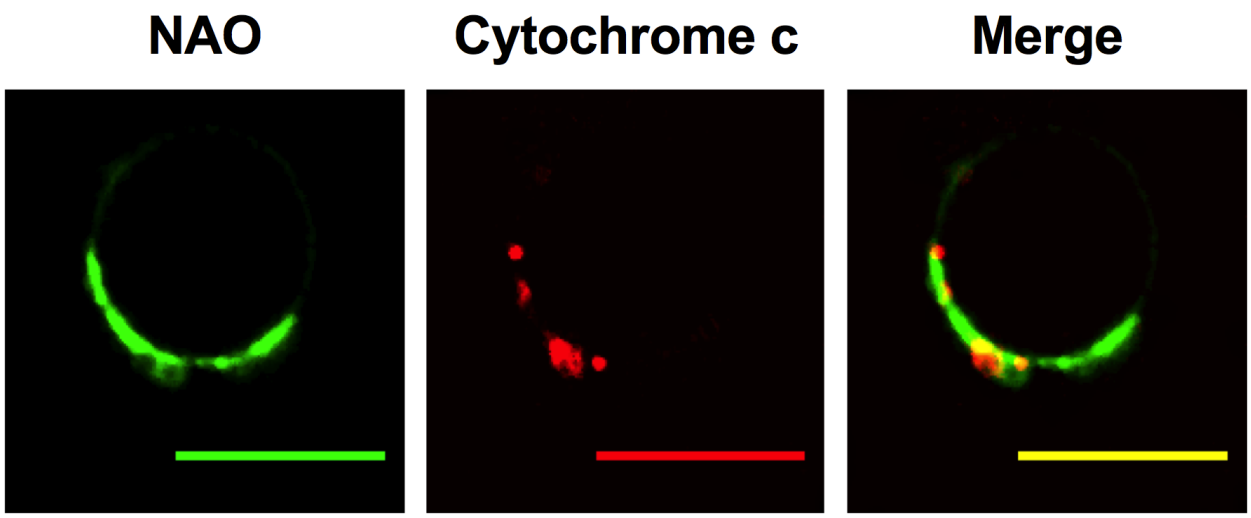
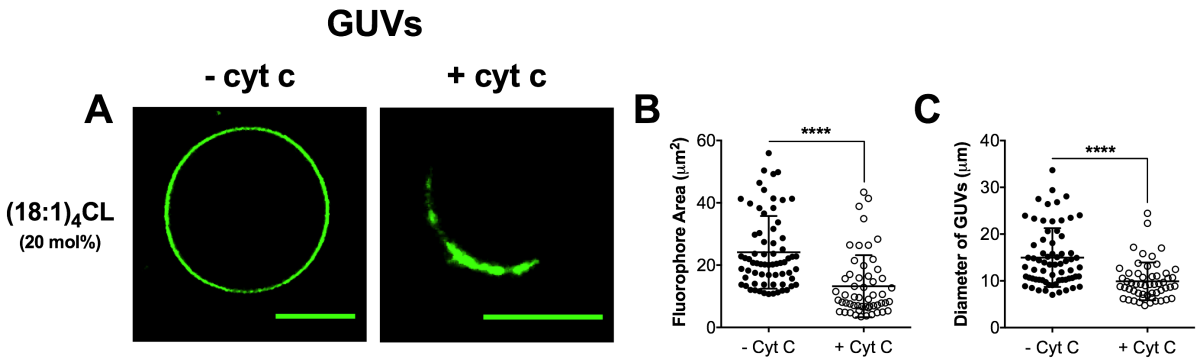
SUPPORTING INFORMATION



Supplemental Figure 1. Molecular structures of the fluorescent probes used to visualize microdomain organization for imaging studies. Structures are depicted for (A) Texas Red DHPE (TX RED) and (B) nonyl acridine orange (NAO).



Supplemental Figure 2. Immunofluorescence of cytochrome c (cyt c) and NAO. Representative images of GUVs composed of (18:0-22:6)PC/(16:0-20:4)PE/$(18:2)_4$CL/DOPI/DOPS/Chol (39.9/30/20/5/3/2 mol%) and NAO (0.1 mol%) in the presence of 17 μM cyt c. Cyt c was visualized by a mouse monoclonal cytochrome c primary antibody conjugated with Alexa Fluor 647. Binding of cyt c to GUVs induced phase segregation as observed by NAO. Images are representative from a total of 10 GUVs analyzed and the average Pearson's correlation coefficient was determined to be 45.1%.



Supplemental Figure 3. Lipid microdomain formation is not perturbed upon replacement of (18:2)$_4$CL with (18:1)$_4$CL. Representative images of (A) GUVs composed of (18:0-22:6)PC/(16:0-20:4)PE/(18:1)$_4$CL/DOPI/DOPS/Chol (39.9/30/20/5/3/2 mol%) and NAO (0.1 mol%) in the absence (left panel) and presence (right panel) of 3.8 μM cyt c. The (B) average fluorophore area of NAO and the (C) average GUV diameter was determined. Each dot represents a single GUV. Data are ± SD from a total of 50–65 vesicles analyzed from 3 independent experiments.