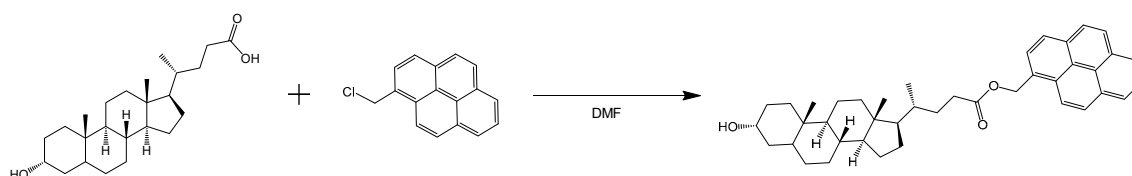
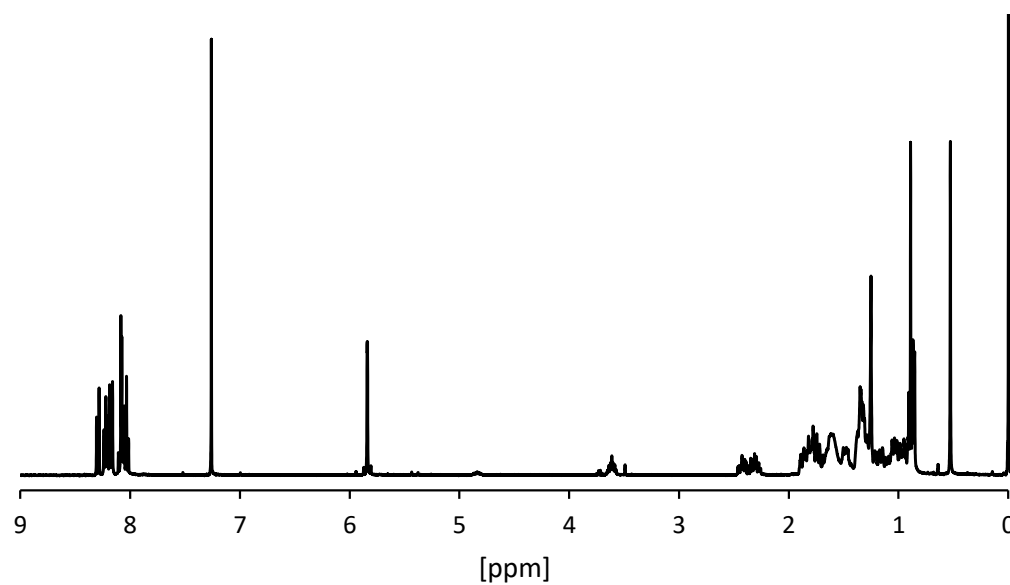


## Supporting Information

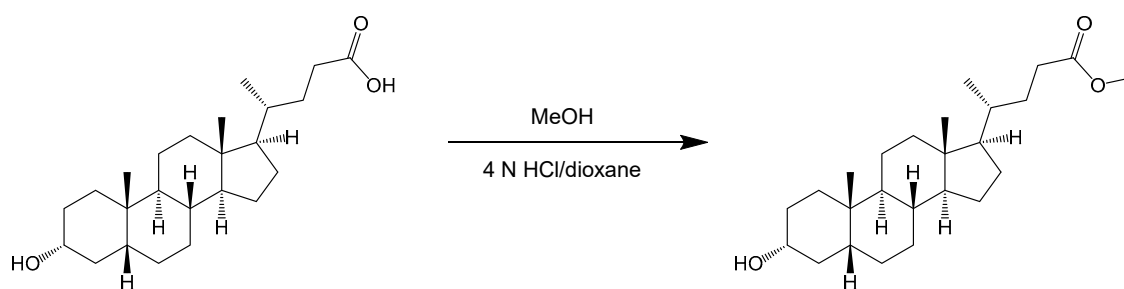
### SUPPLEMENTARY DATA



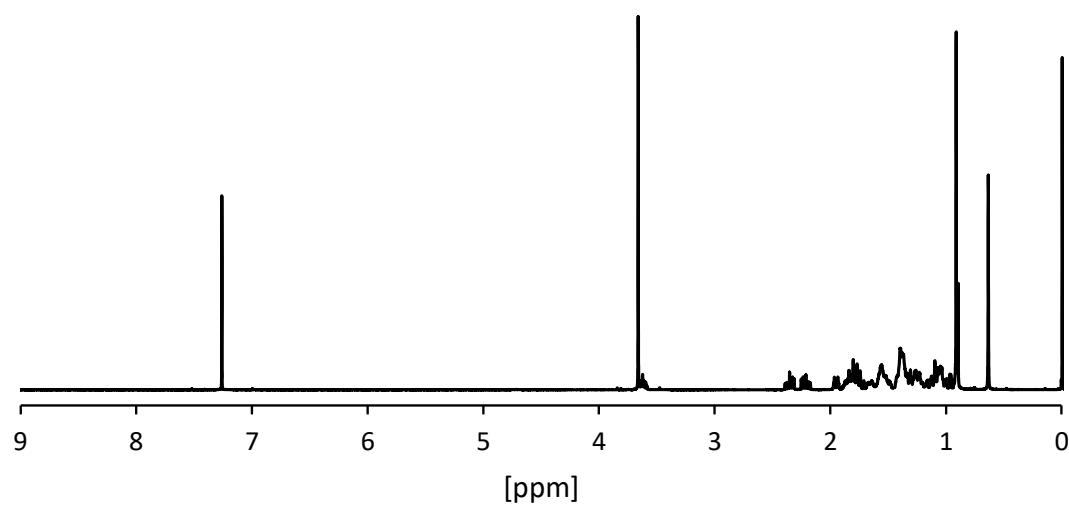
**Figure. S1.** Scheme of the synthesis of Py-LCA.



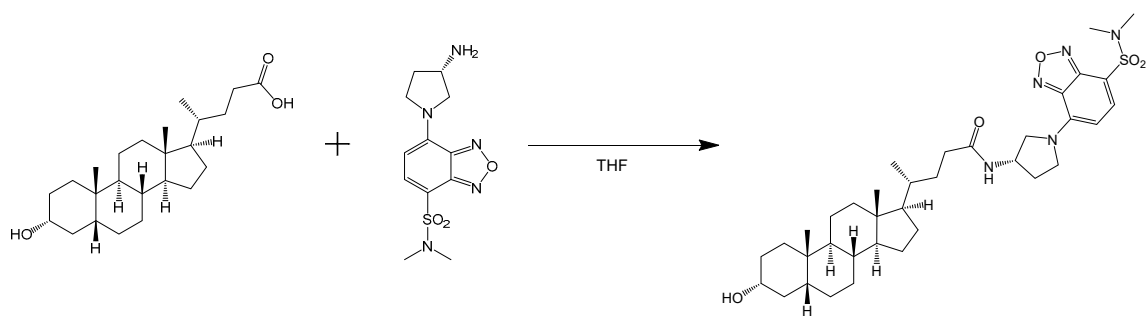
**Figure. S2.** NMR spectrum of Py-LCA.



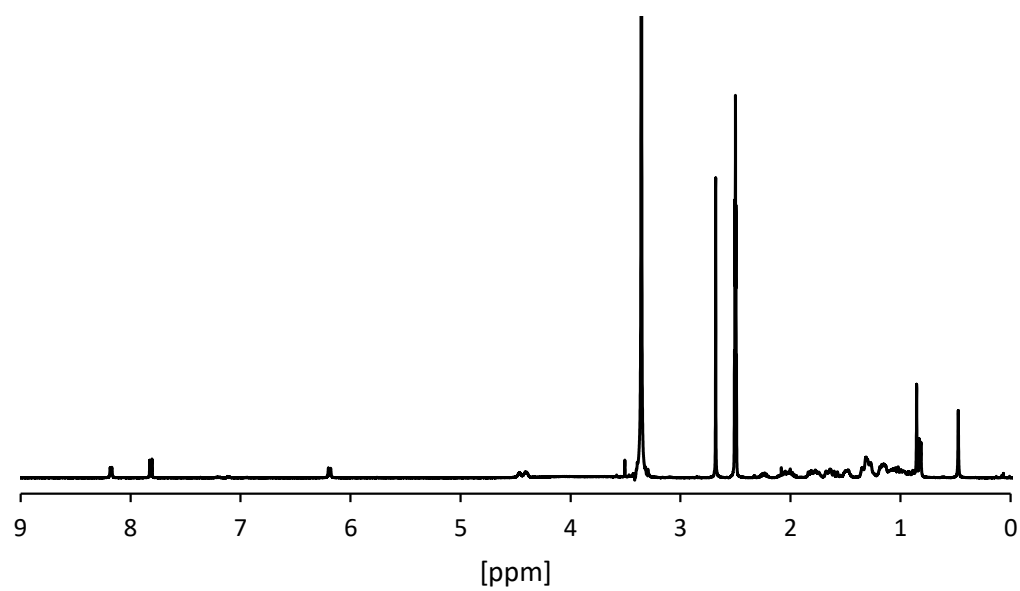
**Figure. S3.** Scheme of the synthesis of Me-LCA.



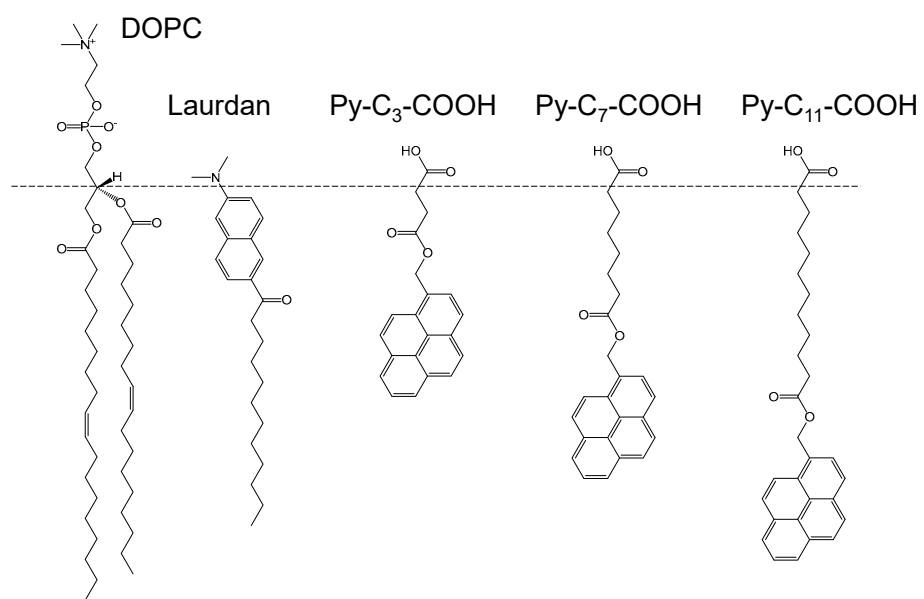
**Figure. S4.** NMR spectrum of Me-LCA.



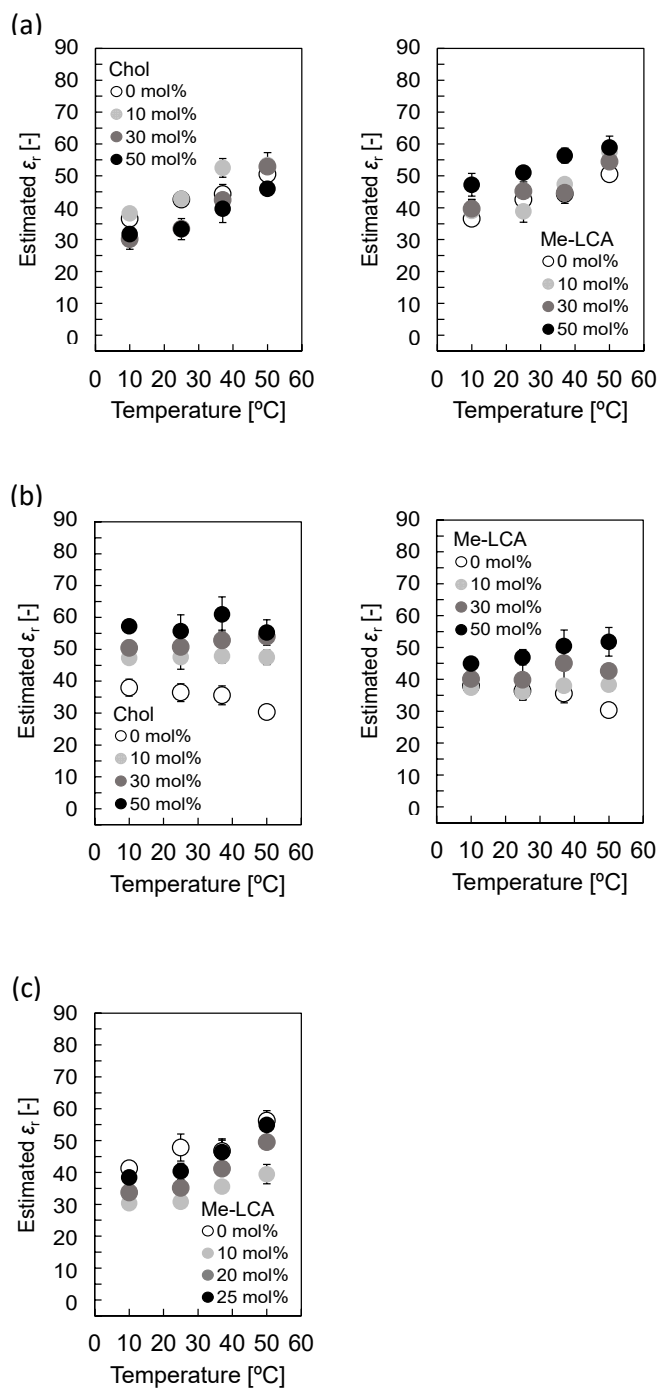
**Figure. S5.** Scheme of the synthesis of DBD-APy-LCA.



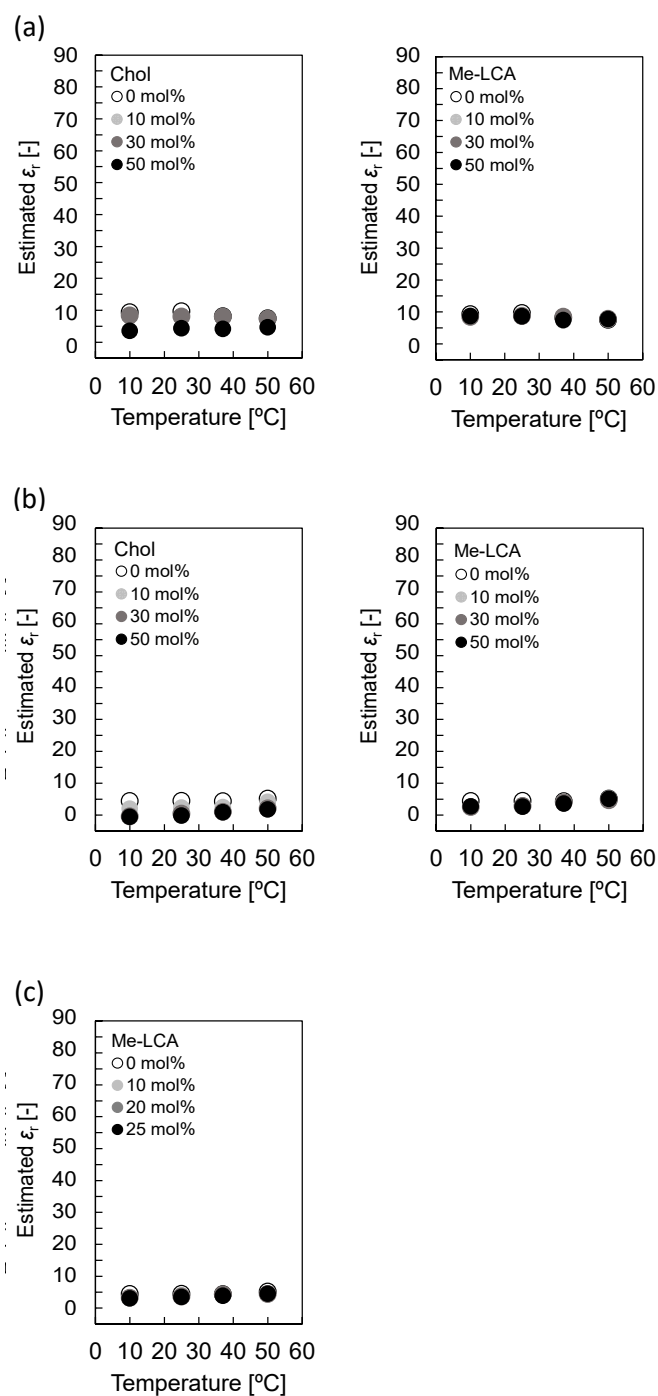
**Figure. S6.** NMR spectrum of DBD-APy-LCA.



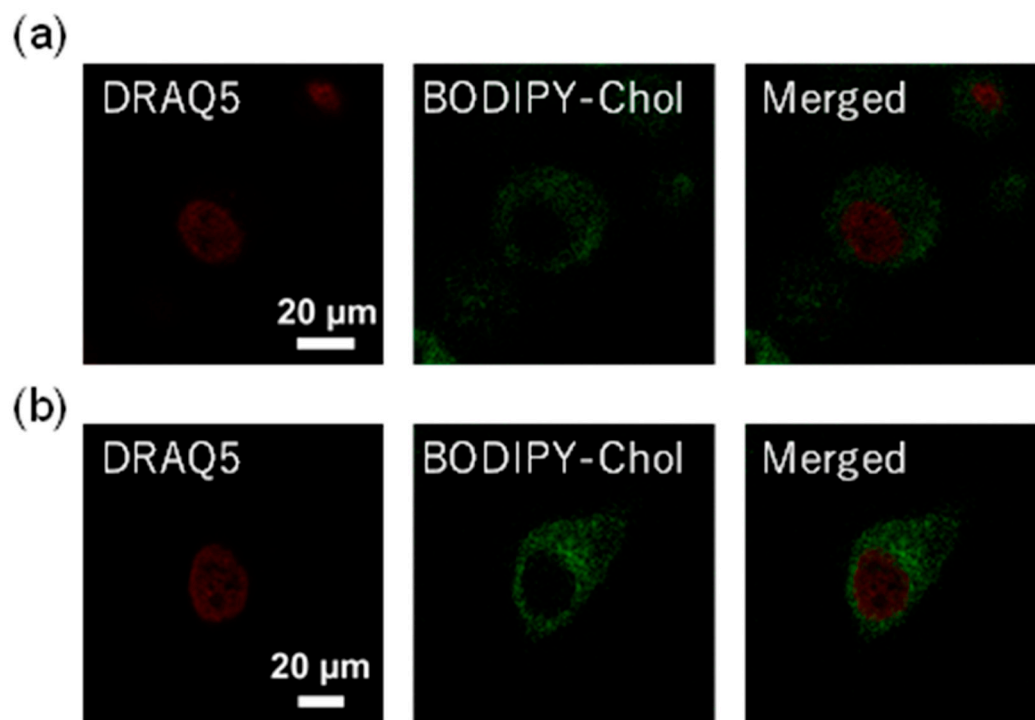
**Figure. S7.** Localization of fluorescence probes in liposome.



**Figure. S8.** Estimated  $\epsilon_r$  values using Py-C<sub>3</sub>-COOH of (a) DOPC liposome, (b) DPPC liposome, and (c) DOPC/DPPC/Chol (1:1:1, mol/mol) liposome with Me-LCA.



**Figure. S9.** Estimated  $\epsilon_r$  values using Py-C<sub>11</sub>-COOH of (a) DOPC liposome, (b) DPPC liposome, and (c) DOPC/DPPC/Chol (1:1:1, mol/mol) liposome with Me-LCA.



**Figure. S10.** Confocal laser fluorescence microscopy images of (a) Hep G2 and (b) HeLa cells treated with DRAQ5 (red) and BODIPY-Chol (green).