Electronic Supplementary Material (ESI) for RSC Advances.

Supporting Information

Lipids Influence the Proton Pump Activity of Photosynthetic Protein Embedded in Nanodiscs

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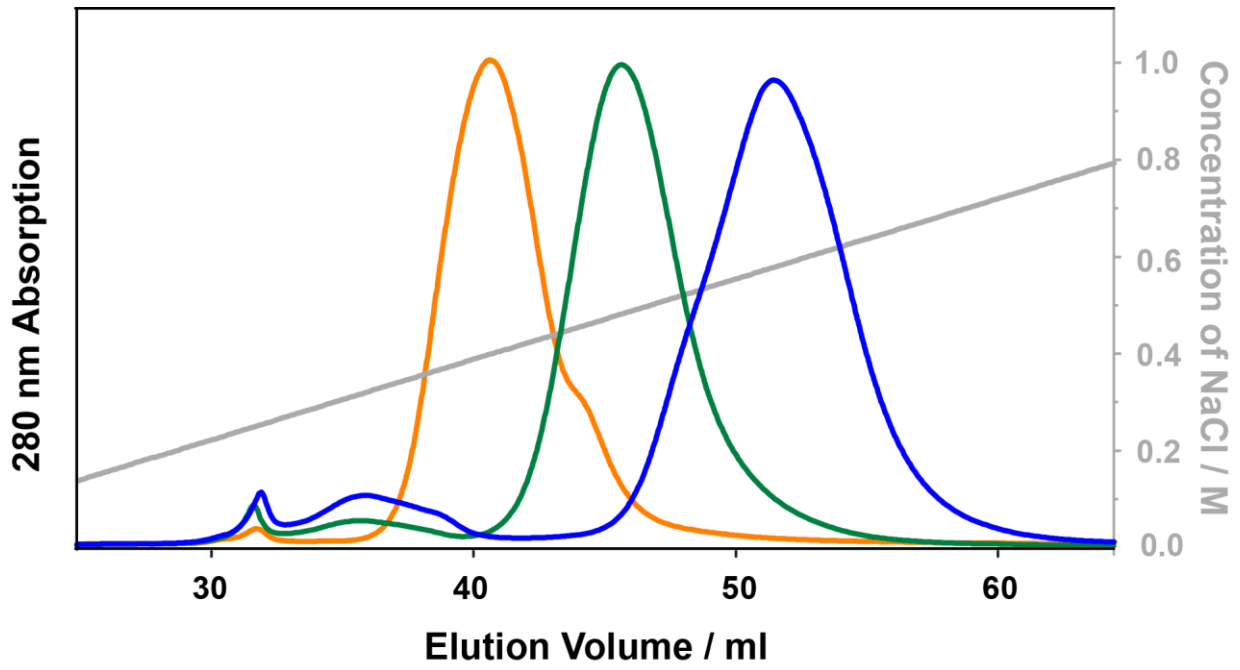

Figure S1. Anion-exchange chromatography profiles of bR embedded in nanodisc composed of POPG/POPC = 100/0 (blue), POPG/POPC = 50/50 (green), and POPG/POPC = 10/90 (orange), using a gradient of linearly increasing NaCl concentration, from 0 M to 1 M, in elution buffer with 25 mM Tris, 0.5 mM EDTA at pH 8.

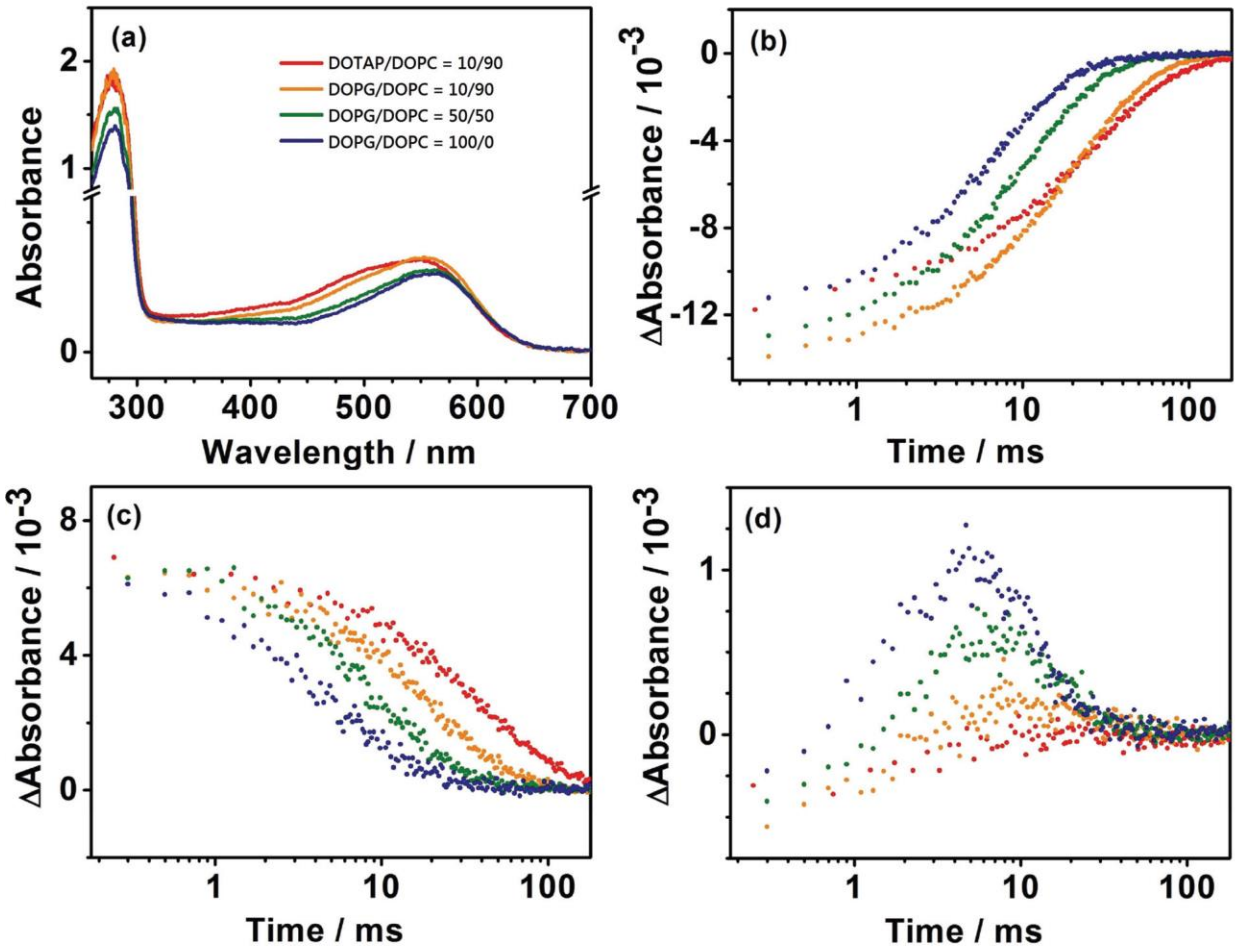

Figure S2. (a) Steady-state absorption spectra of bR embedded in nanodiscs composed of DOPG/DOPC = 100/0 (blue), DOPG/DOPC = 50/50 (green), DOPG/DOPC = 10/90 (orange) and DOTAP/DOPC = 10/90 (red) in the presence of 50 mM NaCl. The pH was controlled at 7.02 by adding NaOH or HCl without using buffer solution. The un-weighted temporal profiles of (b) the recovery of the parent state at 560 nm, (c) the intermediate M at 410 nm, and (d) the intermediate O at 650 nm upon 532-nm excitation (0.5 mJ cm^{-2} $pulse^{-1}$) of these samples.