

Effect of cholesterol on the phase state and permeability of mixed liposomes composed of anionic diphosphatidylglycerol and zwitterionic dipalmitoylphosphatidylcholine

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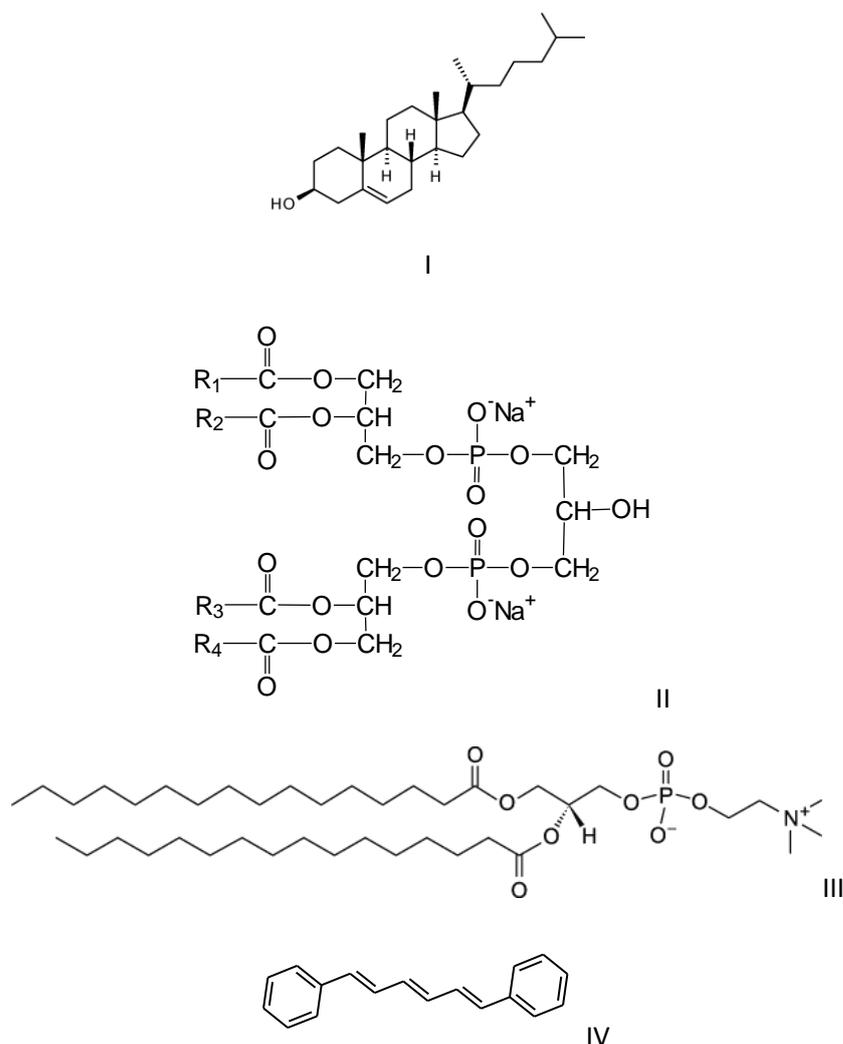


Figure S1 The structure of the compounds: (I), diphosphatidyl glycerol (cardiolipin, CL²⁻) (II), dipalmitoylphosphatidylcholine (DPPC) (III), diphenylhexatriene (DPHT) (IV).

Procedure S1 The small unilamellar mixed DPPC/CL²⁻/Chol liposomes were prepared by standard sonication technique from mixture of anionic CL²⁻, electroneutral DPPC and Chol. The required amounts of lipid solutions in a methanol-chloroform mixture (1:1 wt/wt) were mixed,

and the organic solvent was removed on a vacuum rotary evaporator at 55°C. The formed thin film was dispersed in a 10^{-2} M Tris buffer with pH 7, and then sonicated with a Cole-Parmer 4710 ultrasonic homogenizer for 400 s (2×200 s) at 55 °C. The resulting liposomes were separated from titanium dust *via* centrifugation in a J-11 centrifuge (Beckman) for 5 min at 12000 rpm.

Liposomes with sodium chloride solution in the inner water cavity were prepared *via* dispersion of the lipid film in a 10^{-3} M Tris buffer additionally containing 1 M NaCl. The resulting suspension was dialyzed for 1.5 h against a 10^{-3} M Tris buffer that was renewed every 45 min.

Size of liposomes, measured by quasi-elastic light scattering, was within a 40-60 nm interval.