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A conjugate of decyltriphenylphosphonium with plastoquinone can carry cyclic adenosine monophosphate, but not cyclic guanosine monophosphate, across artificial and natural membranes

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Key words: cyclic AMP, mitochondria targeted antioxidant, liquid membrane, liposome leakage, platelet, erythrocyte ghost.

Abbreviations: cAMP, adenosine 3',5'-cyclic monophosphate; cGMP, guanosine 3',5'-cyclic monophosphate; 8-Br-cAMP, 8-bromoadenosine 3',5'-cyclic monophosphate; 8-Br-cGMP, 8-bromoguanosine 3',5'-cyclic monophosphate; PKA, protein kinase A; PKG, protein kinase G; PDE, phosphodiesterase; MTA, mitochondria-targeted antioxidants; SkQ1, plastoquinonyl-decyl-triphenylphosphonium, [10-(4,5-dimethyl-3,6-dioxocyclohexa-1,4-dien-1-yl)decyl] (triphenyl) phosphonium; C₁₂TPP, dodecyl triphenyl phosphonium; TPP, triphenylphosphonium; CF, 5(6)-carboxyfluorescein; VASP, vasodilator stimulated phosphoprotein, RBC, red blood cells.

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