

PRODUCT INFORMATION

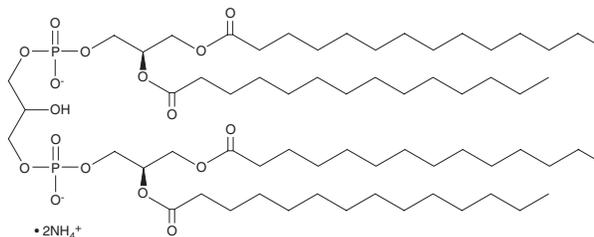


Tetramyristoylcardiolipin (ammonium salt)

Item No. 37277

CAS Registry No.: 63988-20-5
Formal Name: tetradecanoic acid, 1,1',1'',1'''-[(2R,14R)-5,8,11-trihydroxy-5,11-dioxido-4,6,10,12-tetraoxa-5,11-diphosphapentadecane-1,2,14,15-tetrayl] ester, diammonium salt

Synonym: TMCL
MF: $C_{65}H_{124}O_{17}P_2 \cdot 2NH_4$
FW: 1,275.7
Purity: $\geq 98\%$
Supplied as: A solid
Storage: $-20^\circ C$
Stability: ≥ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Tetramyristoylcardiolipin (ammonium salt) is supplied as a solid. A stock solution may be made by dissolving the tetramyristoylcardiolipin (ammonium salt) in the solvent of choice, which should be purged with an inert gas. Tetramyristoylcardiolipin (ammonium salt) is soluble in the organic solvent chloroform at a concentration of approximately 10 mg/ml. Tetramyristoylcardiolipin (ammonium salt) is also soluble in methanol (slightly heated).

Description

Tetramyristoylcardiolipin is an anionic phospholipid containing the long-chain saturated fatty acid myristic acid (Item No. 13351).¹ Tetramyristoylcardiolipin in combination with apolipoprotein A1 (ApoA1) forms nanodisk bilayers, which undergo calcium chloride-induced transformation to non-bilayers. Tetramyristoylcardiolipin increases the liposome membrane gel-to-liquid transition temperature in a concentration-dependent manner.²

References

1. Fox, C.A., Ellison, P., Ikon, N., *et al.* Calcium-induced transformation of cardiolipin nanodisks. *Biochim. Biophys. Acta Biomembr.* **1861(5)**, 1030-1036 (2019).
2. Beriashvili, D., Taylor, R., Kralt, B., *et al.* Mechanistic studies on the effect of membrane lipid acyl chain composition on daptomycin pore formation. *Chem. Phys. Lipids* **216**, 73-79 (2018).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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