

PRODUCT INFORMATION



1,2-Dimyristoyl-*sn*-glycero-3-PE

Item No. 15090

CAS Registry No.: 998-07-2
Formal Name: tetradecanoic acid, (1R)-1-[[[(2-aminoethoxy)hydroxyphosphinyl]oxy]methyl]-1,2-ethanediyl ester

Synonyms: 1,2-Dimyristoyl-*sn*-glycero-3-Phosphoethanolamine, 1,2-DMPE

MF: C₃₃H₆₆NO₈P

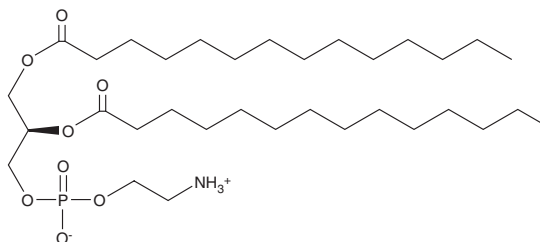
FW: 635.9

Purity: ≥98%

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥4 years



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

Laboratory Procedures

1,2-Dimyristoyl-*sn*-glycero-3-PE (1,2-DMPE) is supplied as a crystalline solid. A stock solution may be made by dissolving the 1,2-DMPE in the solvent of choice, which should be purged with an inert gas. 1,2-DMPE is soluble in the organic solvent chloroform at a concentration of approximately 3 mg/ml.

Description

Phosphatidylethanolamines (PEs) are phospholipids found in biological membranes, serving both structural and functional roles.^{1,2} Different types of PEs are commonly used in the generation of micelles, liposomes, and other types of artificial membranes.^{3,4} 1,2-DMPE is a phospholipid containing the long-chain (14:0) myristic acid inserted at the *sn*-1 and *sn*-2 positions.

References

1. Vance, J.E. and Tasseva, G. Formation and function of phosphatidylserine and phosphatidylethanolamine in mammalian cells. *Biochim. Biophys. Acta* **1831(3)**, 543-554 (2013).
2. Wellner, N., Diep, T.A., Janfelt, C., et al. N-acylation of phosphatidylethanolamine and its biological functions in mammals. *Biochim. Biophys. Acta* **1831(3)**, 652-662 (2013).
3. Simões, S., Moreira, J.N., Fonseca, C., et al. On the formulation of pH-sensitive liposomes with long circulation times. *Adv. Drug Deliv. Rev.* **56(7)**, 947-965 (2004).
4. Fattal, E., Couvreur, P., and Dubernet, C. "Smart" delivery of antisense oligonucleotides by anionic pH-sensitive liposomes. *Adv. Drug Deliv. Rev.* **56(7)**, 931-946 (2004).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM