

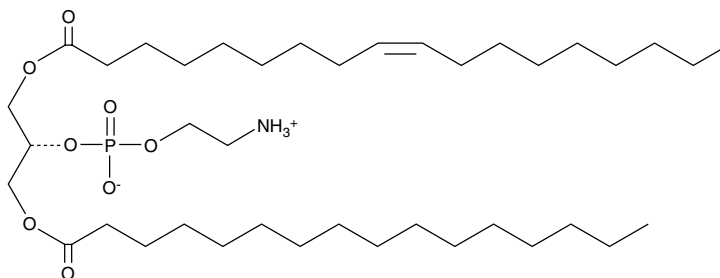
Product Information



1-Palmitoyl-3-oleoyl-*sn*-glycero-2-PE

Item No. 15104

CAS Registry No.: 884324-34-9
Formal Name: 1-palmitoyl-3-oleoyl-*sn*-glycero-2-phosphatidylethanolamine
Synonyms: 1-Palmitoyl-3-oleoyl-*sn*-glycero-2-Phosphoethanolamine, 1,3-POPE
MF: C₃₉H₇₆NO₈P
FW: 718.0
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that 1-Palmitoyl-3-oleoyl-*sn*-glycero-2-PE (1,3-POPE) be stored as supplied at -20°C. It should be stable for at least two years.

1,3-POPE is supplied as a crystalline solid. A stock solution may be made by dissolving the 1,3-POPE in the solvent of choice. 1,3-POPE is soluble in chloroform at a concentration of approximately 3 mg/ml.

1,3-POPE is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Phosphatidylethanolamines (PEs) are phospholipids found in biological membranes that serve 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 1,3-POPE is a phospholipid containing palmitic acid inserted at the *sn*-1 position, oleic acid at the *sn*-3 position, and PE at the *sn*-2 site.

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).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/15104

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. 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 Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman warrants only to the original customer that the material will meet our specifications at the time of delivery.

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