

# PRODUCT INFORMATION



## 1,2-Dipalmitoyl-*sn*-glycero-3-EPC (chloride)

Item No. 15099

**CAS Registry No.:** 328250-18-6  
**Formal Name:** 4-ethoxy-N,N,N-trimethyl-10-oxo-7-  
[[1-(1-oxohexadecyl)oxy]-3,5,9-trioxa-4-  
phosphapentacosan-1-aminium, 4-oxide,  
monochloride

**Synonyms:** 1,2-Dipalmitoyl-*sn*-glycero-3-Ethylphosphocholine,  
DPEPC, EDPPC, 16:1-EPC

**MF:** C<sub>42</sub>H<sub>85</sub>NO<sub>8</sub>P • Cl

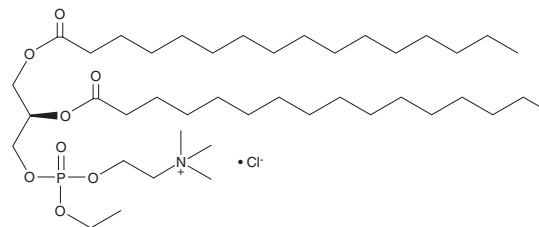
**FW:** 798.6

**Purity:** ≥95%

**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-Dipalmitoyl-*sn*-glycero-3-EPC (chloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the 1,2-dipalmitoyl-*sn*-glycero-3-EPC (chloride) in the solvent of choice, which should be purged with an inert gas. 1,2-Dipalmitoyl-*sn*-glycero-3-EPC (chloride) is soluble in organic solvents such as ethanol and chloroform. The solubility of 1,2-dipalmitoyl-*sn*-glycero-3-EPC (chloride) in these solvents is approximately 25 and 10 mg/ml, respectively.

### Description

1,2-Dipalmitoyl-*sn*-glycero-3-EPC is a phospholipid containing the saturated long-chain (16:0) stearic acid inserted at the *sn*-1 and *sn*-2 positions and an alkyl group on the phosphate oxygen of the polar headgroup. Cationic phospholipids such as this have proved useful as DNA transfection agents and for studies of surface charge density within lipid bilayers.<sup>1,2</sup>

### References

1. Lewis, R.N., Winter, I., Kriechbaum, M., *et al.* Studies of the structure and organization of cationic lipid bilayer membranes: Calorimetric, spectroscopic, and x-ray diffraction studies of linear saturated P-O-ethyl phosphatidylcholines. *Biophys. J.* **80**(3), 1329-1342 (2001).
2. Kopin, I.J., Axelrod, J., and Gordon, E. The metabolic fate of H<sup>3</sup>-epinephrine and C<sup>14</sup>-metanephrine in the rat. *J. Biol. Chem.* **236**(7), 2109-2136 (1961).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 02/01/2024

#### 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