

Product Data Sheet

Product Name: 1,2-Dioleoyl-sn-glycero-3-PC

Cat. No.: GC41814

Chemical Properties

Cas. No. 4235-95-4

SMILES CCCCCCCC/C=C\CCCCCCCC(O[C@@H](COP(OCC[N+](C)(C)C)([O-])=O)COC(CCC(CCCC/C=C\CCCCCCCC)=O)=O

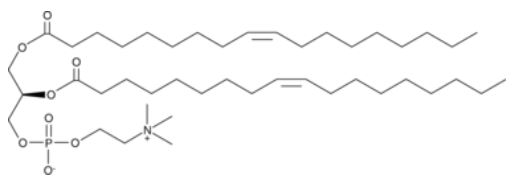
Formula $C_{44}H_{84}NO_8P$ M.Wt 786.1

Solubility ≤ 25 mg/ml in ethanol Storage Store at -20°C , protect from light

General For obtaining a higher solubility, please warm the tube at 37°C and shake it in the tips ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Evaluation sample solution: ship with blue ice All other available size: ship with RT, or Condition blue ice upon request.

Structure



Background

1,2-Dioleoyl-sn-glycero-3-PC (DOPC) is an unsaturated phospholipid containing two oleic acid chains (18:1) and is commonly used for the formation of micelles, liposomes, and other types of artificial membranes^[1]. 1,2-Dioleoyl-sn-glycero-3-PC can incorporate purified proteins from dodecyl- β -D-maltopyranoside (DDM) to form mixed PC-DDM micelles^[2]. It can form stable phospholipid bilayers, which are utilized to study structural changes in multi-component biological membranes under various physiological conditions^[3]. 1,2-Dioleoyl-sn-glycero-3-PC is also used for the encapsulation of drugs, proteins, and nucleic acids^[4]. As a neutral lipid, 1,2-Dioleoyl-sn-glycero-3-PC has minimal impact on cell signaling and can be used as a control to distinguish the specific effects of phosphatidic acid (PA) on Hippo signaling^[5].

References:

Caution: Product has not been fully validated for medical applications. For research use only.

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[2] Caldo K M P, Shen W, Xu Y, et al. Diacylglycerol acyltransferase 1 is activated by phosphatidate and inhibited by SnRK1-catalyzed phosphorylation[J]. The Plant Journal, 2018, 96(2): 287-299.

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