

PRODUCT INFORMATION



1,2-Dioctanoyl PC

Item No. 10009874

CAS Registry No.: 19191-91-4

Formal Name: (7R)-4-hydroxy-N,N,N-trimethyl-10-oxo-7-[(1-oxooctyl)oxy]-3,5,9-trioxa-4-phosphaheptadecan-1-aminium, inner salt, 4-oxide

Synonyms: 1,2-bis(O-octanoyl)-sn-glyceryl-Phophorylcholine, 1,2-DCPC, 1,2-Dicapryloyl-sn-glycero-3-PC, 1,2-Dioctanoyl Phosphatidylcholine

MF: C₂₄H₄₈NO₈P

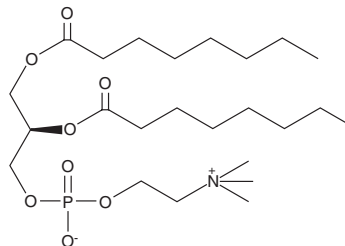
FW: 509.6

Purity: ≥98%

Supplied as: A solution in ethanol

Storage: -20°C

Stability: ≥1 year



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

Laboratory Procedures

1,2-Dioctanoyl PC is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of 1,2-dioctanoyl PC in these solvents is approximately 20 mg/ml.

1,2-Dioctanoyl PC is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of 1,2-dioctanoyl PC should be diluted with the aqueous buffer of choice. 1,2-Dioctanoyl PC has a solubility of 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

1,2-Dioctanoyl PC is a synthetic analog of natural phosphatidylcholine species containing saturated C8:0 fatty acids in the sn-1 and sn-2 positions of the glycerol backbone. It exhibits a critical micelle concentration (CMC) value of 0.25 mM at 27°C.¹ 1,2-Dioctanoyl PC serves as an efficient substrate for phospholipase D (PLD) as well as sPLA₂ isozymes from bovine pancreas and bee venom.^{1,2}

References

1. Lin, G., Noel, J., Loffredo, W., *et al.* Use of short-chain cyclopentano-phosphatidylcholines to probe the mode of activation of phospholipase A₂ from bovine pancreas and bee venom. *J. Biol. Chem.* **263**(26), 13208-13214 (1988).
2. Davis, L.L., Maglio, J.J., and Horwitz, J. Phospholipase D hydrolyzes short-chain analogs of phosphatidylcholine in the absence of detergent. *Lipids* **33**(2), 223-227 (1998).

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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