

# PRODUCT INFORMATION



## 1,2-Dioctanoyl-*sn*-glycero-3-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-Phosphorylcholine, 1,2-DCPC, 1,2-Dioctanoyl PC, 1,2-Dioctanoyl Phosphatidylcholine

MF: C<sub>24</sub>H<sub>48</sub>NO<sub>8</sub>P

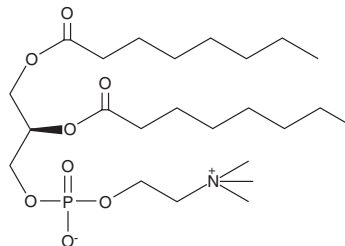
FW: 509.6

Purity: ≥98%

Supplied as: A solution in ethanol

Storage: -20°C

Stability: ≥2 years



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

### Laboratory Procedures

1,2-Dioctanoyl-*sn*-glycero-3-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-*sn*-glycero-3-PC in these solvents is approximately 20 mg/ml.

1,2-Dioctanoyl-*sn*-glycero-3-PC is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of 1,2-dioctanoyl-*sn*-glycero-3-PC should be diluted with the aqueous buffer of choice. 1,2-Dioctanoyl-*sn*-glycero-3-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-*sn*-glycero-3-PC is a synthetic analog of natural phosphatidylcholine species containing saturated C8:O 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.<sup>1</sup> 1,2-Dioctanoyl-*sn*-glycero-3-PC serves as an efficient substrate for phospholipase D (PLD) as well as sPLA<sub>2</sub> isozymes from bovine pancreas and bee venom.<sup>1,2</sup>

### References

1. Lin, G., Noel, J., Loffredo, W., *et al.* Use of short-chain cyclopentano-phosphatidylcholines to probe the mode of activation of phospholipase A<sub>2</sub> 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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