

PRODUCT INFORMATION



1-Oleoyl-d₁₇-2-hydroxy-sn-glycero-3-phosphocholine

Item No. 44626

Formal Name: (7R,18Z)-4,7-dihydroxy-N,N,N-trimethyl-10-oxo-3,5,9-trioxa-4-phosphaheptacos-18-en-20,20,21,21,22,22,23,23,24,24,25,25,26,26,27,27,27-d₁₇-1-aminium, inner salt, 4-oxide

Synonyms: LPC(18:1-d₁₇), 1-(9Z)-Octadecenoyl)-d₁₇-2-hydroxy-sn-glycero-3-phosphocholine, 1-Oleoyl-d₁₇-2-hydroxy Phosphatidylcholine, PC(18:1-d₁₇/0:0), PC(18:1(9Z)-d₁₇/0:0), PtdCho-(1-oleoyl-d₁₇, 2-hydroxy)

MF: C₂₆H₃₅D₁₇NO₇P

FW: 538.8

Chemical Purity: ≥95% (1-Oleoyl-2-hydroxy-sn-glycero-3-phosphocholine)

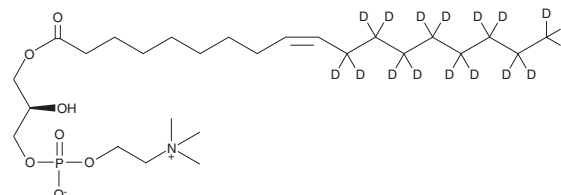
Deuterium

Incorporation: ≥99% deuterated forms (d₁-d₁₇); ≤1% d₀

Supplied as: A 250 µg/ml 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-Oleoyl-d₁₇-2-hydroxy-sn-glycero-3-phosphocholine is intended for use as an internal standard for the quantification of 1-oleoyl-2-hydroxy-sn-glycero-3-phosphocholine (Item No. 20959) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Description

1-Oleoyl-2-hydroxy-sn-glycero-3-phosphocholine is a lysophospholipid containing oleic acid (Item Nos. 90260 | 24659) at the sn-1 position. It inhibits taurine uptake in Caco-2 cells when used at a concentration of 200 µM.¹ Levels of 1-oleoyl-2-hydroxy-sn-glycero-3-phosphocholine are increased in conditioned medium in VEGF-stimulated primary normal human bronchial epithelial (NHBE) cells, an effect that can be reversed by the phospholipase A₂ (PLA₂) inhibitor oleyloxyethyl phosphorylcholine (Item No. 70560).² Plasma levels of 1-oleoyl-2-hydroxy-sn-glycero-3-phosphocholine are decreased in patients with lung cancer or abdominal aortic aneurysm.^{3,4}

References

1. Ishizuka, K., Miyamoto, Y., Satsu, H., *et al.* Characteristics of lysophosphatidylcholine in its inhibition of taurine uptake by human intestinal Caco-2 cells. *Biosci. Biotechnol. Biochem.* **66(4)**, 730-736 (2002).
2. Zhuge, Y., Yuan, Y., van Breemen, R., *et al.* Stimulated bronchial epithelial cells release bioactive lysophosphatidylcholine 16:0, 18:0, and 18:1. *Allergy Asthma Immunol. Res.* **6(1)**, 66-74 (2014).
3. Dong, J., Xiaoming, C., Zhao, L., *et al.* Lysophosphatidylcholine profiling of plasma: Discrimination of isomers and discovery of lung cancer biomarkers. *Metabolomics* **6(4)**, 478-488 (2010).
4. Xie, T., Lei, C., Song, W., *et al.* Plasma lipidomics analysis reveals the potential role of lysophosphatidylcholines in abdominal aortic aneurysm progression and formation. *Int. J. Mol. Sci.* **24(12)**, 10253 (2023).

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

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