

# PRODUCT INFORMATION



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

Item No. 20959

CAS Registry No.: 19420-56-5

Formal Name: 4,7R-dihydroxy-N,N,N-trimethyl-10-oxo-3,5,9-trioxa-4-phosphaheneptacos-18Z-en-1-aminium, 4-oxide, inner salt

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

MF: C<sub>26</sub>H<sub>52</sub>NO<sub>7</sub>P

FW: 521.7

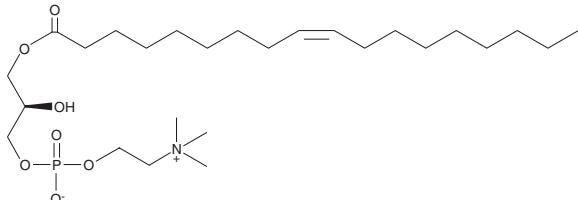
Purity: ≥95%

UV/Vis.: λ<sub>max</sub>: 221 nm

Supplied as: A 10 mg/ml solution in chloroform

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-Oleoyl-2-hydroxy-sn-glycero-3-phosphocholine is supplied as a solution in chloroform. For biological experiments, we suggest that organic solvent-free aqueous solutions of 1-oleoyl-2-hydroxy-sn-glycero-3-phosphocholine be prepared by directly dissolving the neat oil in aqueous buffers. The solubility of 1-oleoyl-2-hydroxy-sn-glycero-3-phosphocholine in PBS (pH 7.2) is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### 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.<sup>1</sup> 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 A<sub>2</sub> (PLA<sub>2</sub>) inhibitor oleyloxyethyl phosphorylcholine (Item No. 70560).<sup>2</sup> Plasma levels of 1-oleoyl-2-hydroxy-sn-glycero-3-phosphocholine are decreased in patients with lung cancer or abdominal aortic aneurysm.<sup>3,4</sup>

### 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.

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