

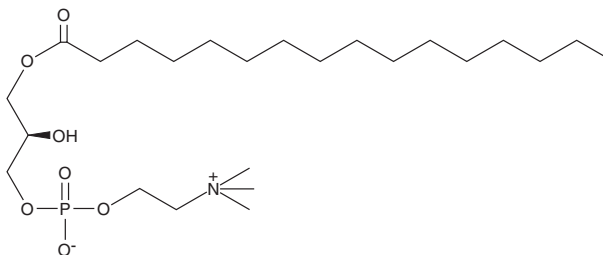
Product Information



Lyso-PC

Catalog No. 10172

CAS Registry No.: 17364-16-8
Formal Name: 1-hexadecanoyl-*sn*-glycerol-3-phosphorylcholine
MF: C₂₄H₅₀NO₇P
FW: 495.6
Purity: ≥98%
Stability: ≥1 year at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that lyso-PC be stored as supplied at -20°C. It should be stable for at least one year.

Lyso-PC is supplied as a crystalline solid. Lyso-PC is sparingly soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. For biological experiments, we suggest that organic solvent-free aqueous solutions of lyso-PC be prepared by directly dissolving the lyso-PC compound in aqueous buffers. The solubility of lyso-PC in PBS, pH 7.2, is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Lyso-PC is the ubiquitous lipid species generated following phospholipase A₂ (PLA₂) hydrolysis of phosphatidylcholine. The hydrolysis of phospholipids by arachidonoyl-selective PLA₂s is the initiating event in many eicosanoid-based signal transduction pathways.¹ Many other reactions also generate phosphatidylcholine species with a free hydroxyl group in the *sn*-2 position. Lyso-PC augments inflammation through effects on adhesion molecules and growth factors, monocytes, and macrophages.¹⁻³ The lymphocyte G-protein coupled receptor G2A binds lyso-PC as a specific ligand with a K_d of 65 nM; this receptor also binds the related phospholipid sphingosyl phosphorylcholine.⁴

References

1. Balsinde, J., Winstead, M.V., and Dennis, E.D. Phospholipase A₂ regulation of arachidonic acid mobilization. *FEBS Lett.* **531**, 2-6 (2002).
2. Kume, N. and Gimbrone, M.A., Jr. Lysophosphatidylcholine transcriptionally induces growth factor gene expression in cultured human endothelial cells. *J. Clin. Invest.* **93**, 907-911 (1994).
3. Yan, J.-J., Jung, J.-S., Lee, J.-Y., *et al.* Therapeutic effects of lysophosphatidylcholine in experimental sepsis. *Nature Med.* **10**(2), 161-167 (2004).
4. Kabarowski, J.H.S., Zhu, K., Le, L.Q., *et al.* Lysophosphatidylcholine as a ligand for the immunoregulatory receptor G2A. *Science* **293**, 702-705 (2001).

Related Products

POV-PC - Cat. No. 10031 • PGPC - Cat. No. 10044 • 10-Pyrene-PC - Cat. No. 62245 • PAz-PC - Cat. No. 62924 • KOdiA-PC - Cat. No. 62945

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WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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