

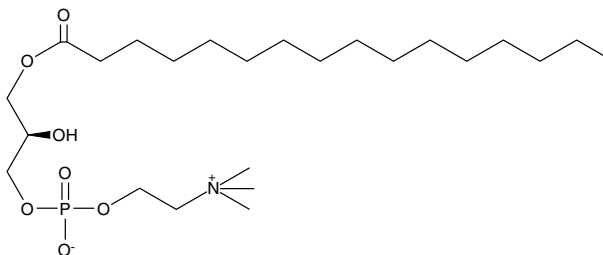
Product Information



Lyso-PC

Item 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

For a list of related products please visit: www.caymanchem.com/catalog/10172

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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.

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