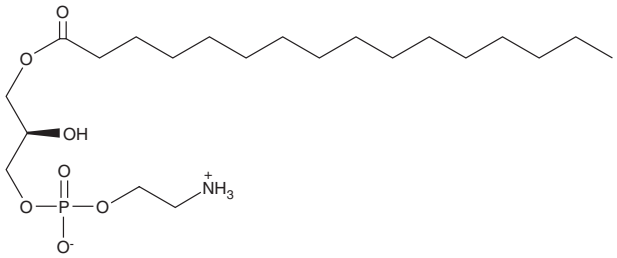
PRODUCT INFORMATION

1-Palmitoyl-2-hydroxy-*sn*-glycero-3-PE

Item No. 26011

CAS Registry No.: 53862-35-4
Formal Name: hexadecanoic acid, (2R)-3-[[(2-aminoethoxy) hydroxyphosphinyl]oxy]-2-hydroxypropyl ester
Synonyms: 1-Hexadecanoyl-*sn*-glycero-3-Phosphoethanolamine, 16:0 LPE, 16:0 Lyso-PE, 1-Palmitoyl-2-hydroxy-*sn*-glycero-3-Phosphoethanolamine
MF: $C_{21}H_{44}NO_7P$
FW: 453.6
Purity: ≥95% (9:1 mixture of 1-acyl and 2-acyl)
Supplied as: A solid
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-Palmitoyl-2-hydroxy-*sn*-glycero-3-PE is supplied as a solid. A stock solution may be made by dissolving the 1-palmitoyl-2-hydroxy-*sn*-glycero-3-PE in the solvent of choice, which should be purged with an inert gas. 1-Palmitoyl-2-hydroxy-*sn*-glycero-3-PE is slightly soluble in DMSO, dimethyl formamide, and chloroform.

Description

1-Palmitoyl-2-hydroxy-*sn*-glycero-3-PE is a naturally occurring lysophospholipid.[1] It inhibits the growth of *L. donovani* promastigotes (GIC_{50} = 8 µM).[2] 1-Palmitoyl-2-hydroxy-*sn*-glycero-3-PE serum levels are decreased in a mouse model of alcohol-induced liver injury and in a hepatocellular carcinoma mouse xenograft model.[3] Human serum levels are also decreased immediately after completing a three-day exercise regimen of 2.5 hours of running per day, as well as 14 hours after completing the regimen.[1] 1-Palmitoyl-2-hydroxy-*sn*-glycero-3-PE has been used as an internal standard for the quantification of saturated lysophosphoethanolamines.[4]

References

1. Nieman, D.C., Shanely, R.A., Gillitt, N.D., *et al.* Serum metabolic signatures induced by a three-day intensified exercise period persist after 14 h of recovery in runners. *J. Proteome Res.* **12(10)**, 4577-4584 (2013).
2. Achterberg, V. and Gercken, G. Cytotoxicity of ester and ether lysophospholipids on *Leishmania donovani* promastigotes. *Mol. Biochem. Parasitol.* **23(2)**, 117-122 (1987).
3. Li, S., Liu, H., Jin, Y., *et al.* Metabolomics study of alcohol-induced liver injury and hepatocellular carcinoma xenografts in mice. *J. Chromatogr. B Analyt. Technol. Biomed. Life Sci.* **879(24)**, 2369-2375 (2011).
4. Avadhani, M., Geyer, R., White, D.C., *et al.* Lysophosphatidylethanolamine is a substrate for the short-chain alcohol dehydrogenase SocA from *Myxococcus xanthus*. *J. Bacteriol.* **188(24)**, 8543-8550 (2006).

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