

PRODUCT INFORMATION



1-Palmitoyl-2-hydroxy-*sn*-glycero-3-PE MaxSpec® Standard

Item No. 30356

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: C₂₁H₄₄NO₇P

FW: 453.6

Purity: ≥95%

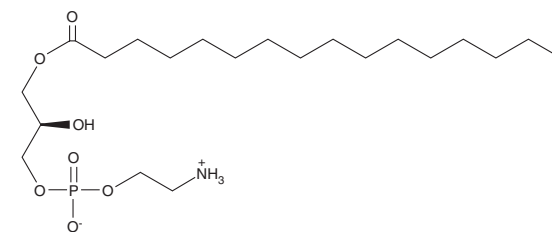
Supplied as: A solution in chloroform:methanol (80:20); in a deactivated glass ampule

Concentration: 100 µg/ml (nominal); see certificate of analysis for verified concentration

Storage: -80°C

Stability: ≥1 year; *Stability testing is ongoing to ensure concentration accuracy. The certificate of analysis and product expiry date will be updated upon completion of testing.*

Special Conditions: Store upright and unopened at -20°C. Warm to room temperature prior to opening. Light sensitive.



Description

1-Palmitoyl-2-hydroxy-*sn*-glycero-3-PE is a naturally occurring lysophospholipid.¹ It inhibits the growth of *L. donovani* promastigotes (GIC₅₀ = 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

1-Palmitoyl-2-hydroxy-*sn*-glycero-3-PE MaxSpec® standard is a quantitative grade standard of 1-palmitoyl-2-hydroxy-*sn*-glycero-3-PE (Item No. 26011) that has been prepared specifically for mass spectrometry or any application where quantitative reproducibility is required. The solution has been prepared gravimetrically and is supplied in a deactivated glass ampule sealed under argon. The concentration was verified by comparison to an independently prepared calibration standard. The verified concentration is provided on the certificate of analysis. This 1-palmitoyl-2-hydroxy-*sn*-glycero-3-PE MaxSpec® standard is guaranteed to meet identity, purity, stability, and concentration specifications and is provided with a batch-specific certificate of analysis. Ongoing stability testing is performed to ensure the concentration remains accurate throughout the shelf life of the product. **Note:** *The amount of solution added to the vial is in excess of the listed amount. Therefore, it is necessary to accurately measure volumes for preparation of calibration standards. Follow recommended storage and handling conditions to maintain product quality.*

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).

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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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