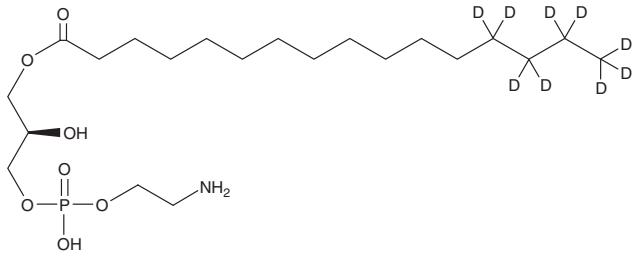
PRODUCT INFORMATION

1-Palmitoyl-d_9-2-hydroxy-*sn*-glycero-3-PE

Item No. 27588

CAS Registry No.: 2747981-09-3
Formal Name: hexadecanoic acid-13,13,14,14,15,15,16,16,16-d_9, (2R)-3-[[(2-aminoethoxy)hydroxyphosphinyl]oxy]-2-hydroxypropyl ester
Synonyms: 1-Hexadecanoyl-d_9-*sn*-glycero-3-Phosphoethanolamine, 16:0 LPE-d_9, 16:0 Lyso-PE-d_9, 1-Palmitoyl-d_9-2-hydroxy-*sn*-glycero-3-Phosphoethanolamine
MF: $C_{21}H_{35}D_9NO_7P$
FW: 462.6
Chemical Purity: ≥95% (1-Palmitoyl-2-hydroxy-*sn*-glycero-3-PE)
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_9); ≤1% d_0
Supplied as: A crystalline solid
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-Palmitoyl-d_9-2-hydroxy-*sn*-glycero-3-PE is intended for use as an internal standard for the quantification of 1-palmitoyl-2-hydroxy-*sn*-glycero-3-PE (Item No. 26011) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

1-Palmitoyl-d_9-2-hydroxy-*sn*-glycero-3-PE is supplied as a crystalline solid. A stock solution may be made by dissolving the 1-palmitoyl-d_9-2-hydroxy-*sn*-glycero-3-PE in the solvent of choice, which should be purged with an inert gas. 1-palmitoyl-d_9-2-hydroxy-*sn*-glycero-3-PE is soluble in the organic solvent chloroform at a concentration of approximately 3 mg/ml.

Description

1-Palmitoyl-2-hydroxy-*sn*-glycero-3-PE is a naturally occurring lysophospholipid.[1] It inhibits the growth of *L. donovani* promastigotes (GI_{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. J. Proteome Res.* **12(10)**, 4577-4584 (2013).
2. Achterberg, V. and Gercken, G. *Mol. Biochem. Parasitol.* **23(2)**, 117-122 (1987).
3. Li, S., Liu, H., Jin, Y., *et al. J. Chromatogr. B Analyt. Technol. Biomed. Life Sci.* **879(24)**, 2369-2375 (2011).
4. Avadhani, M., Geyer, R., White, D.C., *et al. J. Bacteriol.* **188(24)**, 8543-8550 (2006).

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