

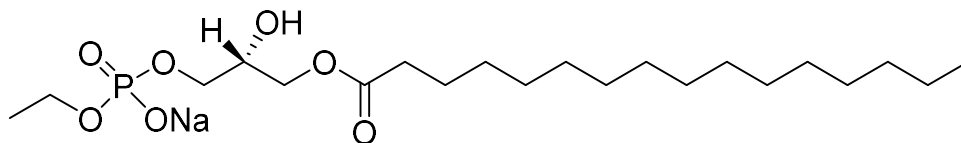
1-Palmitoyl-sn-glycero-3-phosphoethanol (16:0 LysoPEth)

Catalog number: L-6036

Molecular Formula: C₂₁H₄₂NaO₇P

MW: 460.52

CAS: 77444-36-1



Alternative Names: Sodium (R)-ethyl (2-hydroxy-3-(palmitoyloxy)propyl) phosphate, 18:0 LPEth

Solubility: 65:35:4 CHCl₃:MeOH:H₂O 1 mg/mL

Storage and Handling: Lysophosphatidylethanol (LPEth) is stable for at least one year when stored as a solid, protected from moisture, and light at -20°C. Reconstitute with methanol and dilute with water or neutral pH, buffered salt solutions, i.e. PBS, TBS, etc. Storage in basic (pH > 9) or acidic (pH < 4) buffers will result in slow decomposition of the product. After reconstitution, solutions of LPEth should be stored at -20°C between uses. LPEth is stable for at least three months when handled in this way. Repeated freeze/thaw cycles do not affect LPEth. Do not store reconstituted LPEth at 4°C for more than 2-3 days.

Background: Phosphatidylethanol (PEth) is formed primarily in the liver by transphosphatidylation of phosphatidylcholine (PC) by phospholipase D in the presence of ethanol. PEth is a long-lived circulating EtOH biomarker with forensic and biomedical applications. LysoPEth is formed through loss of the the sn-1 acyl chain and is also reported to be a biomarker of alcohol consumption.

References: 1) M. Bantle, L. van Tieghem, et al. "Lyso-phosphatidylethanol detected by LC-MS/MS as a potential new marker for alcohol consumption" *Eur J Mass Spectrom.* 2023 Oct;29(5-6):338-347. doi: 10.1177/1469066723120014

2) Varga A, Hansson P, Johnson G, Alling C (2000) Normalization rate and cellular localization of phosphatidylethanol in whole blood from chronic alcoholics. *Clin Chim Acta* 299: 141-150.

3) Freeman, W. M., and Vrana, K. E., (2010) Future prospects for biomarkers of alcohol consumption and alcohol-induced disorders, *Alcohol Clin Exp Res*, 34, 946.

4) Wurst, F. M., et. al., (2010) Phosphatidylethanol: normalization during detoxification, gender aspects and correlation with other biomarkers and self-reports, *Addict Biol*, 15, 88.

Hazardous Properties and Cautions: The toxicological and pharmacological properties of this compound are not fully known. For further information see the MSDS on request. This product is manufactured and shipped only in small quantities, intended for research and development in a laboratory utilizing prudent procedures for handling chemicals of unknown toxicity, under the supervision of persons technically qualified to evaluate potential risks and authorized to enforce appropriate health and safety measures. As with all research chemicals, precautions should be taken to avoid unnecessary exposures or risks.

Warranty and Disclaimer: Echelon warrants the product conforms to the specifications stated herein. In the event of nonconformity, Echelon will replace products or refund purchase price, at its sole option, and Echelon shall not be responsible for any other loss or damage, whether known or foreseeable to Echelon. No other warranties apply, express or implied, including but not limited to warranty of fitness for any purpose or implied warranty of merchantability. Purchaser is solely responsible for all consequences of its use of the product and Echelon assumes no responsibility therefore, including success of purchaser's research and development. or health or safety of any uses of the product.