

PRODUCT INFORMATION



1,2-Dipalmitoyl-*sn*-glycero-3-phosphoethanol (sodium salt)

Item No. 45186

CAS Registry No.: 92609-90-0

Formal Name: (1R)-1-
[[[ethoxyhydroxyphosphinyl]oxy]
methyl]-1,2-ethanediyl ester
hexadecanoic acid sodium salt

Synonyms: 16:0 Phosphatidylethanol,
1,2-Dihexadecanoyl-*sn*-glycero-3-
phosphoethanol, 1,2-Dipalmitoyl
Phosphatidylethanol,
PEth(16:0/16:0), PtdEth-(1,2-
dipalmitoyl)

MF: C₃₇H₇₂O₈P • Na

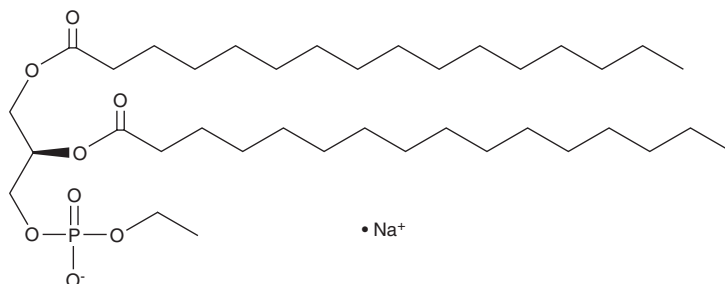
FW: 698.9

Purity: ≥98%

Supplied as: A 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

1,2-Dipalmitoyl-*sn*-glycero-3-phosphoethanol (sodium salt) is supplied as a solid. A stock solution may be made by dissolving the 1,2-dipalmitoyl-*sn*-glycero-3-phosphoethanol (sodium salt) in the solvent of choice, which should be purged with an inert gas. 1,2-Dipalmitoyl-*sn*-glycero-3-phosphoethanol (sodium salt) is sparingly soluble (1-10 mg/ml) in chloroform.

Description

1,2-Dipalmitoyl-*sn*-glycero-3-phosphoethanol is a glycerophospholipid and homolog of 1-palmitoyl-2-oleoyl-*sn*-glycero-3-phosphoethanol, which has been used as a biomarker of alcohol consumption.¹ It has been found in postmortem human blood samples from individuals with moderate and high blood alcohol concentrations.² 1,2-Dipalmitoyl-*sn*-glycero-3-phosphoethanol has been used in the formation of liposomes in the study of negatively charged liposomes and cationic polyamidoamine dendrimer interaction and aggregation.³

References

1. Bantle, M., Long, J. O. T., Brydon, S. C., *et al.* Isomer composition assessment of synthetic phosphatidylethanol by collision-induced and ozone-induced dissociation mass spectrometry. *Drug Test. Anal.* **18**(4), 501-509 (2026).
2. Gnann, H., Weinmann, W., Engelmann, C., *et al.* Selective detection of phosphatidylethanol homologues in blood as biomarkers for alcohol consumption by LC-ESI-MS/MS. *J. Mass Spectrom.* **44**(9), 1293-1299 (2009).
3. Roy, B., Guha, P., Nahak, P., *et al.* Biophysical correlates on the composition, functionality, and structure of dendrimer-liposome aggregates. *ACS Omega* **3**(9), 12235-12245 (2018).

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.

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