PRODUCT INFORMATION

1-1(Z)-Hexadecenyl-2-Palmitoyl-d_9-*sn*-glycero-3-PC

Item No. 27589

Formal Name: (R,Z)-3-(hexadec-1-en-1-yloxy)-2-((hexadecanoyl-13,13,14,14,15,15,16,16,16-d_9)oxy)propyl (2-(trimethylammonio)ethyl) phosphate

Synonyms: C16(plasm)-16:0-d_9-PC, 1-1(Z)-Hexadecenyl-2-Hexadecanoyl-d_9-*sn*-glycero-3-Phosphocholine, 16:0p/16:0-d_9-PC, PC(P-16:0/16:0-d_9)

MF: $C_{40}H_{71}D_9NO_7P$

FW: 727.1

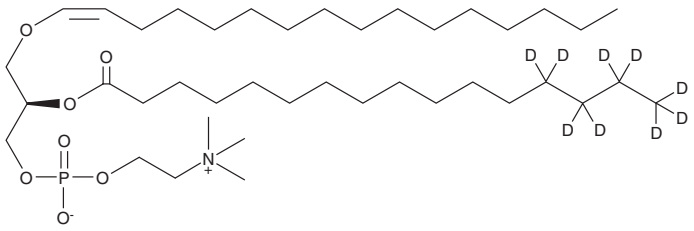
Chemical Purity: ≥95% (1-1(Z)-hexadecenyl-2-palmitoyl-*sn*-glycero-3-PC)

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

1-1(Z)-Hexadecenyl-2-palmitoyl-d_9-*sn*-glycero-3-PC is intended for use as an internal standard for the quantification of 1-1(Z)-hexadecenyl-2-palmitoyl-*sn*-glycero-3-PC (Item No. 28348) 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).

1-1(Z)-Hexadecenyl-2-palmitoyl-d_9-*sn*-glycero-3-PC is supplied as a crystalline solid. A stock solution may be made by dissolving the 1-1(Z)-hexadecenyl-2-palmitoyl-d_9-*sn*-glycero-3-PC in the solvent of choice, which should be purged with an inert gas. 1-1(Z)-Hexadecenyl-2-palmitoyl-d_9-*sn*-glycero-3-PC is soluble in the organic solvent ethanol at a concentration of approximately 30 mg/ml.

Description

1-1(Z)-Hexadecenyl-2-palmitoyl-*sn*-glycero-3-PC is a plasmalogen that has been found in various rat tissues, including the liver, heart, kidney, gluteus muscle, soleus muscle, and visceral and subcutaneous adipose tissue.[1] It has been used in the synthesis of lipid bilayers to quantify the effects of amphiphilic compounds, such as lysophosphatidylcholine (1-palmitoyl-2-hydroxy-*sn*-glycero-3-PC; Item No. 10172) and lysoplasmenylcholine, on membrane dynamics.[2]

References

1. Pradas, I., Huynh, K., Cabré, R., *et al.* Lipidomics reveals a tissue-specific fingerprint. *Front. Physiol.* **9**, 1165 (2018).
2. Han, X. and Gross, R.W. Alterations in membrane dynamics elicited by amphiphilic compounds are augmented in plasmenylcholine bilayers. *Biochim. Biophys. Acta.* **1069(1)**, 37-45 (1991).

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
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