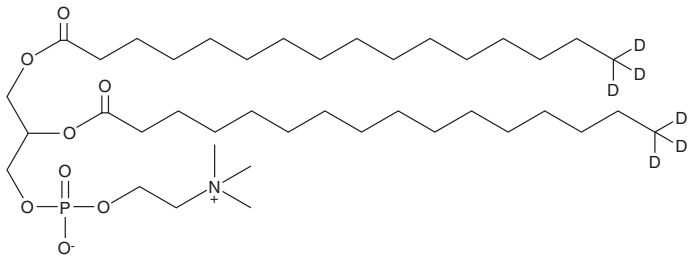
PRODUCT INFORMATION

1,2-Dipalmitoyl-d_6-*rac*-glycero-3-PC

Item No. 28932

CAS Registry No.: 82765-17-1
Formal Name: 4-hydroxy-N,N,N-trimethyl-10-oxo-7-[(1-oxohexadecyl-16,16,16-d_3)oxy]-3,5,9-trioxa-4-phosphapentacosan-25,25,25-d_3-1-aminium, inner salt, 4-oxide
Synonyms: 16:0/16:0-d_6-PC, PC(16:0/16:0)-d_6, 1,2-Dihexadecanoyl-d_6-*rac*-glycero-3-Phosphocholine, 1,2-Dihexadecanoyl-d_6-*rac*-glycero-3-Phosphatidylcholine
MF: $C_{40}H_{74}D_6NO_8P$
FW: 740.1
Chemical Purity: ≥98% (1,2-Dipalmitoyl-*rac*-glycero-3-PC)
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_6); ≤1% d_0
Supplied as: 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-d_6-*rac*-glycero-3-PC is intended for use as an internal standard for the quantification of 1,2-dipalmitoyl-*rac*-glycero-3-PC 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).

1,2-Dipalmitoyl-d_6-*rac*-glycero-3-PC is supplied as a solid. A stock solution may be made by dissolving the 1,2-dipalmitoyl-d_6-*rac*-glycero-3-PC in the solvent of choice, which should be purged with an inert gas. 1,2-Dipalmitoyl-d_6-*rac*-glycero-3-PC is soluble in methanol.

Description

1,2-Dipalmitoyl-*rac*-glycero-3-PC is a phospholipid that contains palmitic acid (Item No. 10006627) at the *sn*-1 and *sn*-2 positions. It has been used as a component of liposomes, monolayers, and bilayers to study the influence of chirality on membrane dynamics.[1-4] 1,2-Dipalmitoyl-*rac*-glycero-3-PC has been used to study electric field-induced orientation of phospholipid head groups and dynamics of liposomal phase transitions.[1,2]

References

1. Vollhardt, D., Nandi, N., and Banki, S.D. *Phys. Chem. Chem. Phys.* **13(11)**, 4812-4829 (2011).
2. Mishima, K., Tanaka, S., and Ogihara, T. *Biochim. Biophys. Acta.* **1565(1)**, 107-111 (2002).
3. Boyanov, A.I., Tenchov, B.G., Koynova, R.D., *et al. Biochim. Biophys. Acta* **732**, 711-713 (1983).
4. Moy, V.T., Keller, D.J., Gaub, H.E., *et al. J. Phys. Chem.* **90(14)**, 3198-3202 (1986).

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