PRODUCT INFORMATION

1-Palmitoyl-d_9-2-Palmitoyl-*sn*-glycero-3-PC

Item No. 28154

Formal Name: (7R)-4-hydroxy-N,N,N-trimethyl-10-oxo-7-[(1-oxohexadecyl)oxy]-3,5,9-trioxa-4-phosphapentacosan-22,22,23,23,24,24,25,25,25-d_9-1-aminium, 4-oxide, inner salt

Synonyms: DPPC-d_9, PC(16:0-d_9/16:0), 16:0-d_9/16:0-PC, 1-Hexadecanoyl-d_9-2-Hexadecanoyl-*sn*-glycero-3-Phosphatidylcholine, 1-Hexadecanoyl-d_9-2-Hexadecanoyl-*sn*-glycero-3-Phosphocholine

MF: $C_{40}H_{71}D_9NO_8P$

FW: 743.1

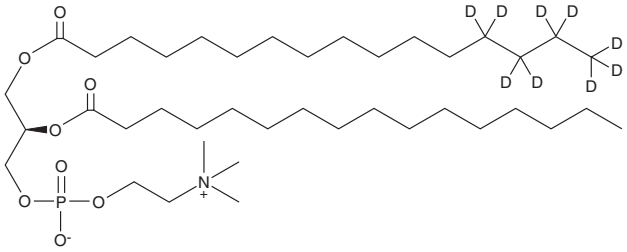
Chemical Purity: ≥95% (1,2-Dipalmitoyl-*sn*-glycero-3-PC)

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-Palmitoyl-d_9-2-palmitoyl-*sn*-glycero-3-PC is intended for use as an internal standard for the quantification of 1,2-dipalmitoyl-*sn*-glycero-3-PC (Item No. 10009473) 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-palmitoyl-*sn*-glycero-3-PC is supplied as a crystalline solid. A stock solution may be made by dissolving the 1-palmitoyl-d_9-2-palmitoyl-*sn*-glycero-3-PC in the solvent of choice, which should be purged with an inert gas. 1-Palmitoyl-d_9-2-palmitoyl-*sn*-glycero-3-PC is soluble in the organic solvent ethanol at a concentration of approximately 30 mg/ml.

Description

1,2-Dipalmitoyl-*sn*-glycero-3-PC (DPPC) is a zwitterionic glycerophospholipid commonly used in the formation of lipid monolayers, bilayers, and liposomes for use in a variety of applications.[1-4] It has been used in the formation of proteoliposomes for implantation of γ-glutamyl transpeptidase into human erythrocyte membranes.[3] Incorporation of glycosphingolipid antigens into DPPC-containing liposomes increases the immunogenicity of the antigens in mice.[4]

References

1. Ege, C. and Lee, K.Y.C. *Biophys. J.* **87(3),** 1732-1740 (2004).
2. Leekumjorn, S. and Sum, A.K. *Biophys. J.* **90(11),** 3951-3965 (2006).
3. Kalra, V.K., Sikka, S.C., and Sethi, G.S. *J. Biol. Chem.* **256(11),** 5567-5571 (1981).
4. Uemura, A., Watarai, S., Iwasaki, T., *et al. J. Vet. Med. Sci.* **67(12),** 1197-1201 (2005).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM