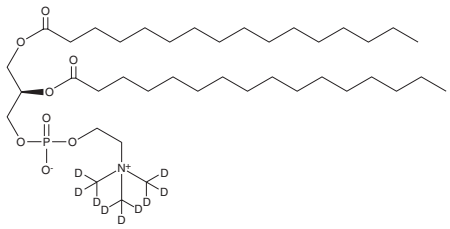
PRODUCT INFORMATION

1,2-Dipalmitoyl-*sn*-glycero-3-PC-d_9

Item No. 41203

CAS Registry No.:	77165-56-1
Formal Name:	4-hydroxy-N,N,N-tri(methyl-d_3)-10-oxo-7R-[(1-oxohexadecyl)oxy]-3,5,9-trioxa-4-phosphapentacosan-1-aminium 4-oxide, inner salt
Synonyms:	1,2-DPPC-d_9, 1,2-Dipalmitoyl-*sn*-glycerol-3-Phosphocholine-d_9, 16:0/16:0-PC-d_9, PC(16:0/16:0)-d_9
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

1,2-Dipalmitoyl-*sn*-glycero-3-PC-d_9 (1,2-DPPC-d_9) is intended for use as an internal standard for the quantification of 1,2-DPPC (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).

1,2-DPPC-d_9 is supplied as a crystalline solid. A stock solution may be made by dissolving the 1,2-DPPC-d_9 in the solvent of choice, which should be purged with an inert gas. 1,2-DPPC-d_9 is slightly soluble (0.1-1 mg/ml) in a 1:1 solution of acetonitrile:methanol and sparingly soluble (1-10 mg/ml) in methanol.

Description

1,2-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 1,2-DPPC-containing liposomes increases the immunogenicity of the antigens in mice.[4]

References

1. Ege, C. and Lee, K.Y.C. Insertion of Alzheimer's Aβ40 peptide into lipid monolayers. *Biophys. J.* **87(3)**, 1732-1740 (2004).
2. Leekumjorn, S. and Sum, A.K. Molecular simulation study of structural and dynamic properties of mixed DPPC/DPPE bilayers. *Biophys. J.* **90(11)**, 3951-3965 (2006).
3. Kalra, V.K., Sikka, S.C., and Sethi, G.S. Transport of amino acids in γ-glutamyl transpeptidase-implanted human erythrocytes. *J. Biol. Chem.* **256(11)**, 5567-5571 (1981).
4. Uemura, A., Watarai, S., Iwasaki, T., *et al.* Induction of immune responses against glycosphingolipid antigens: Comparison of antibody responses in mice immunized with antigen associated with liposomes prepared from various phospholipids. *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