

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: $\geq 95\%$ (1,2-dipalmitoyl-*sn*-glycero-3-PC)

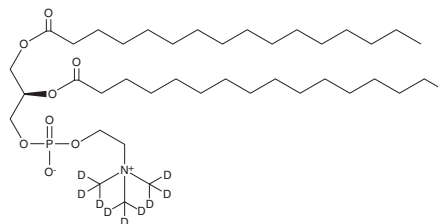
Deuterium

Incorporation: $\geq 99\%$ deuterated forms (d_1 - d_9); $\leq 1\%$ 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 A β 40 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).

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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