

PRODUCT INFORMATION



1,2-Dipalmitoyl-¹³C-*sn*-glycero-3-PC

Item No. 29133

CAS Registry No.: 65277-91-0

Formal Name: (R)-4-hydroxy-N,N,N-trimethyl-10-oxo-7-
[(1-oxohexadecyl-1-¹³C)oxy]-3,5,9-trioxa-
4-phosphapentacosan-1-aminium-10-¹³C,
4-oxide, inner salt

Synonyms: 1,2-Dihexadecanoyl-¹³C-*sn*-glycero-3-
Phosphatidylcholine, 1,2-Dihexadecanoyl-¹³C-
sn-glycero-3-Phosphocholine, DPPC-¹³C₂,
16:0-¹³C/16:0-¹³C-PC, PC(16:0-¹³C/16:0-¹³C)

MF: C₃₈[¹³C]₂H₈₀NO₈P

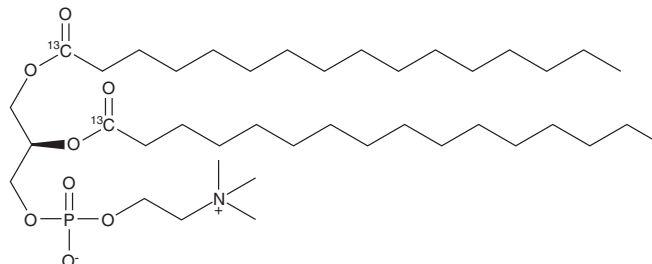
FW: 736.0

Purity: ≥95%

Supplied as: A 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-¹³C-*sn*-glycero-3-PC is supplied as a solid. A stock solution may be made by dissolving the 1,2-dipalmitoyl-¹³C-*sn*-glycero-3-PC in the solvent of choice, which should be purged with an inert gas. 1,2-Dipalmitoyl-¹³C-*sn*-glycero-3-PC is soluble in the organic solvent ethanol at a concentration of approximately 30 mg/ml.

Description

1,2-Dipalmitoyl-¹³C-*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. 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. 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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