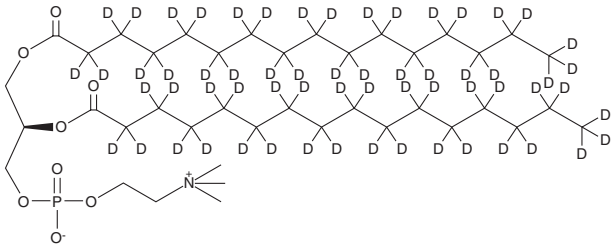
PRODUCT INFORMATION

1,2-Dipalmitoyl-d_{62}-*sn*-glycero-3-PC

Item No. 28751



CAS Registry No.: 25582-63-2
Formal Name: (7R)-4-hydroxy-N,N,N-trimethyl-10-oxo-7-[(1-oxohexadecyl-2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16-d_{31})oxy]-3,5,9-trioxa-4-phosphapentacosan-11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,19,19,20,20,21,21,22,22,23,23,24,24,25,25,25-d_{31}-1-aminium-4-oxide, inner salt
Synonyms: 1,2-Dihexadecanoyl-d_{62}-*sn*-glycero-3-Phosphatidylcholine, 1,2-Dihexadecanoyl-d_{62}-*sn*-glycero-3-Phosphocholine, 16:0-d_{31}/16:0-d_{31}-PC, DPPC-d_{62}, PC(16:0-d_{31}/16:0-d_{31})
MF: $C_{40}H_{18}D_{62}NO_8P$
FW: 796.4
Chemical Purity: ≥95% (1,2-Dipalmitoyl-*sn*-glycero-3-PC)
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_{62}); ≤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-Dipalmiotyl-d_{62}-*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).

1,2-Dipalmitoyl-d_{62}-*sn*-glycero-3-PC is supplied as a crystalline solid. A stock solution may be made by dissolving the 1,2-dipalmitoyl-d_{62}-*sn*-glycero-3-PC in the solvent of choice, which should be purged with an inert gas. 1,2-Dipalmitoyl-d_{62}-*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).

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.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/02/2022

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