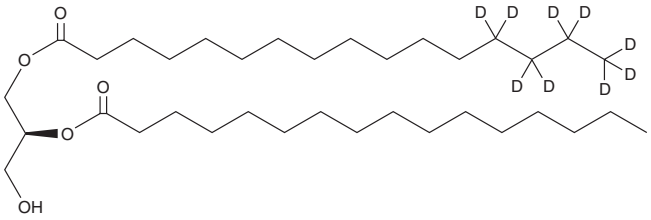
PRODUCT INFORMATION

1-Palmitoyl-d_9-2-Palmitoyl-*sn*-glycerol

Item No. 27591

CAS Registry No.:	1872379-48-0
Formal Name:	hexadecanoic-13,13,14,14,15,15,16,16,16-d_9 acid, (2S)-3-hydroxy-2-[(1-oxohexadecyl)oxy] propyl ester
Synonyms:	1,2-Dipalmitoyl-*sn*-glycerol-d_9, DG(16:0-d_9/16:0/0:0)
MF:	$C_{35}H_{59}D_9O_5$
FW:	578.0
Chemical Purity:	≥95% (1,2-Dipalmitoyl-*sn*-glycerol)
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*-glycerol is intended for use as an internal standard for the quantification of 1,2-dipalmitoyl-*sn*-glycerol (Item No. 10008648) 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*-glycerol is supplied as a crystalline solid. A stock solution may be made by dissolving the 1-palmitoyl-d_9-2-palmitoyl-*sn*-glycerol in the solvent of choice. 1-Palmitoyl-d_9-2-palmitoyl-*sn*-glycerol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of 1-palmitoyl-d_9-2-palmitoyl-*sn*-glycerol in these solvents is approximately 30, 5, and 20 mg/ml, respectively.

Description

1,2-Dipalmitoyl-*sn*-glycerol is a diacylglycerol that contains palmitic acid (Item No. 10006627) at the *sn*-1 and *sn*-2 positions. It activates protein kinase C (PKC) by 15% when used at a concentration of 25 µM.[1] 1,2-Dipalmitoyl-*sn*-glycerol promotes exponential growth of *Frankia* Gram-positive bacteria.[2]

References

1. Walker, J.M. and Sando, J.J. Activation of protein kinase C by short chain phosphatidylcholines. *J. Biol. Chem.* **263(10)**, 4537-4540 (1988).
2. Selim, S. and Schwencke, J. 1,2-dipalmitoyl phosphatidylcholine, 1,2-dipalmitoyl phosphatidic acid or 1,2-dipalmitoyl-*sn*-glycerol inhibit sporangia formation and promote exponential growth of various *Frankia* isolates from the casuarinaceae family. *Soil Biol. Biochem.* **26(5)**, 569-575 (1994).

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