

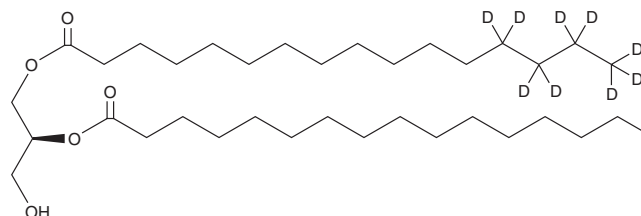
# PRODUCT INFORMATION



## 1-Palmitoyl-d<sub>9</sub>-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<sub>9</sub> acid, (2S)-3-hydroxy-2-[(1-oxohexadecyl)oxy] propyl ester  
**Synonyms:** 1,2-Dipalmitoyl-*sn*-glycerol-d<sub>9</sub>, DG(16:0-d<sub>9</sub>/16:0/0:0)  
**MF:** C<sub>35</sub>H<sub>59</sub>D<sub>9</sub>O<sub>5</sub>  
**FW:** 578.0  
**Chemical Purity:** ≥95% (1,2-Dipalmitoyl-*sn*-glycerol)  
**Deuterium Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>9</sub>); ≤1% d<sub>0</sub>  
**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<sub>9</sub>-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<sub>9</sub>-2-palmitoyl-*sn*-glycerol is supplied as a crystalline solid. A stock solution may be made by dissolving the 1-palmitoyl-d<sub>9</sub>-2-palmitoyl-*sn*-glycerol in the solvent of choice. 1-Palmitoyl-d<sub>9</sub>-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<sub>9</sub>-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.<sup>1</sup> 1,2-Dipalmitoyl-*sn*-glycerol promotes exponential growth of *Frankia* Gram-positive bacteria.<sup>2</sup>

### 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).

#### 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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