

PRODUCT INFORMATION



1,2-Dilauroyl-*sn*-glycerol

Item No. 15076

CAS Registry No.: 60562-15-4

Formal Name: 1,1'-[(1S)-1-(hydroxymethyl)-1,2-ethanediyl]ester-dodecanoic acid

Synonym: 1,2-DLG

MF: C₂₇H₅₂O₅

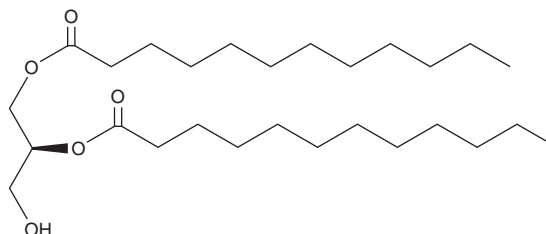
FW: 456.7

Purity: ≥98%

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-Dilauroyl-*sn*-glycerol is supplied as a crystalline solid. A stock solution may be made by dissolving the 1,2-dilauroyl-*sn*-glycerol in the solvent of choice, which should be purged with an inert gas. 1,2-Dilauroyl-*sn*-glycerol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 1,2-dilauroyl-*sn*-glycerol in these solvents is approximately 30, 7, and 20 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of 1,2-dilauroyl-*sn*-glycerol can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of 1,2-dilauroyl-*sn*-glycerol in PBS (pH 7.2) is approximately 0.25 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

1,2-DLG is a saturated diacylglycerol (DAG) with lauric acid (12:0) side-chains attached at both the *sn*-1 and *sn*-2 positions. Long-chain DAGs incorporated into model lipid bilayers have been shown to induce lateral phase separation of the lipids into regions of different fluidities, which may play a role in second messenger signal transduction.¹

Reference

1. Hamilton, J.A., Bhamidipati, S.P., Kodali, D.R., *et al.* The interfacial conformation and transbilayer movement of diacylglycerols in phospholipid bilayers. *J. Biol. Chem.* **266**(2), 1177-1186 (1991).

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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