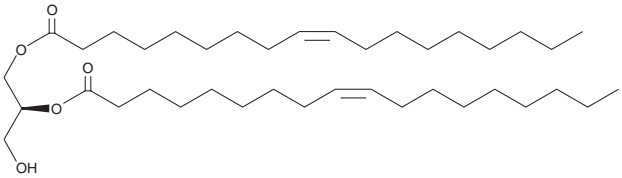
PRODUCT INFORMATION

1,2-Dioleoyl-*sn*-glycerol

Item No. 62230

CAS Registry No.: 24529-88-2
Formal Name: 1,2-*bis*(O-9Z-octadecenoyl)-*sn*-glycerol
MF: $C_{39}H_{72}O_5$
FW: 621.0
Purity: ≥95%
Supplied as: A solution in methyl acetate
Storage: -20°C
Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

1,2-Dioleoyl-*sn*-glycerol is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of 1,2-dioleoyl-*sn*-glycerol in these solvents is approximately 3, 7, and 20 mg/ml, respectively. 1,2-Dioleoyl-*sn*-glycerol is stable for at least six months in these solvents if stored at -20°C.

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.If an organic solvent-free solution of 1,2-dioleoyl-*sn*-glycerol is needed, it can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. The solubility of 1,2-dioleoyl-*sn*-glycerol in PBS (pH 7.2) is approximately 250 µg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

1,2-Dioleoyl-*sn*-glycerol is one of the PKC-activating second messengers collectively called diacyl glycerols (DAG). 1,2-Dioleoyl-*sn*-glycerol and 1,2-dioctanoyl-*sn*-glycerol were nearly equipotent in induction of the acrosome reaction in human sperm.[1]

Reference

1. Doherty, C.M., Tarchala, S.M., Radwanska, E., *et al.* Characterization of two second messenger pathways and their interactions in eliciting the human sperm acrosome reaction. *J. Androl.* **16**, 36-46 (1995).

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