

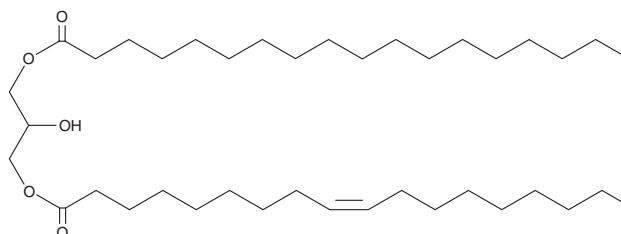
PRODUCT INFORMATION



1-Stearoyl-3-Oleoyl-*rac*-glycerol

Item No. 26876

CAS Registry No.: 18266-27-8
Formal Name: 9Z-octadecenoic acid, 2-hydroxy-3-
[[1-(1-oxooctadecyl)oxy]propyl ester
Synonyms: DG(18:0/0:0/18:1), 1-Stearin-3-Olein
MF: C₃₉H₇₄O₅
FW: 623.0
Purity: ≥98%
Supplied as: A 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-Stearoyl-3-oleoyl-*rac*-glycerol is supplied as a solid. A stock solution may be made by dissolving the 1-stearoyl-3-oleoyl-*rac*-glycerol in the solvent of choice, which should be purged with an inert gas. 1-Stearoyl-3-oleoyl-*rac*-glycerol is soluble in organic solvents such as ethanol and dimethyl formamide. The solubility of 1-stearoyl-3-oleoyl-*rac*-glycerol in these solvents is approximately 10 mg/ml.

1-Stearoyl-3-oleoyl-*rac*-glycerol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 1-stearoyl-3-oleoyl-*rac*-glycerol should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. 1-Stearoyl-3-oleoyl-*rac*-glycerol has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

1-Stearoyl-3-oleoyl-*rac*-glycerol is a diacylglycerol that contains stearic acid (Item No. 10011298) at the *sn*-1 position and oleic acid (Item Nos. 90260 | 24659) at the *sn*-3 position. Intermittent fasting decreases skeletal muscle and hepatic levels of 1-stearoyl-3-oleoyl-*rac*-glycerol in New Zealand obese (NZO) mice.¹ The concentration of 1-stearoyl-3-oleoyl-*rac*-glycerol decreases from 4.59 to 1.88% during the dry-curing process of Iberian ham.²

References

1. Baumeier, C., Kaiser, D., Heeren, J., *et al.* Caloric restriction and intermittent fasting alter hepatic lipid droplet proteome and diacylglycerol species and prevent diabetes in NZO mice. *Biochim. Biophys. Acta* **1851(5)**, 566-576 (2015).
2. Narváez-Rivas, M., Vicario, I.M., Constante, E.G., *et al.* Changes in the concentrations of free fatty acid, monoacylglycerol, and diacylglycerol in the subcutaneous fat of Iberian ham during the dry-curing process. *J. Agric. Food Chem.* **55(26)**, 10953-10961 (2007).

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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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