

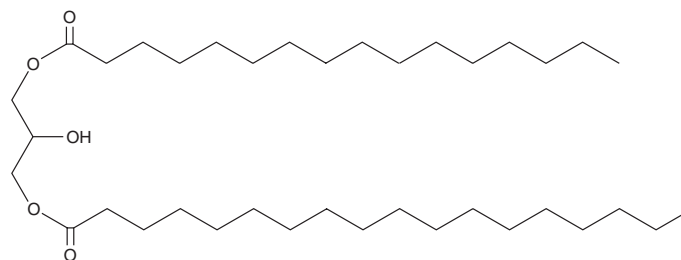
PRODUCT INFORMATION



1-Palmitoyl-3-Stearoyl-*rac*-glycerol

Item No. 26874

CAS Registry No.: 17708-08-6
Formal Name: octadecanoic acid, 2-hydroxy-3-[[1-oxohexadecyl)oxy]propyl ester
Synonyms: DG(16:0/0:0/18:0), 1-Palmitin-3-Stearin
MF: C₃₇H₇₂O₅
FW: 597.0
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-Palmitoyl-3-stearoyl-*rac*-glycerol is supplied as a solid. A stock solution may be made by dissolving the 1-palmitoyl-3-stearoyl-*rac*-glycerol in the solvent of choice, which should be purged with an inert gas. 1-Palmitoyl-3-stearoyl-*rac*-glycerol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 1-palmitoyl-3-stearoyl-*rac*-glycerol in these solvents is approximately 0.25, 30, 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-palmitoyl-3-stearoyl-*rac*-glycerol can be prepared by directly dissolving the solid in aqueous buffers. The solubility of 1-palmitoyl-3-stearoyl-*rac*-glycerol in PBS, pH 7.2, is approximately 0.7 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

1-Palmitoyl-3-stearoyl-*rac*-glycerol is a diacylglycerol that contains palmitic acid (Item No. 10006627) at the *sn*-1 position and stearic acid (Item No. 10011298) at the *sn*-3 position. It has been found in palm-based diacylglycerols produced from palm stearin, palm mid fraction, palm oil, and palm olein, as well as in wheat bran and brewer's spent grain extracts.¹⁻³

References

- Xu, Y., Wei, C., Zhao, X., *et al.* A comparative study on microstructure, texture, rheology, and palm-based diacylglycerol oils and corresponding palm-based oils. *Eur. J. Lipid Sci. Technol.* **118(8)**, 1179-1192 (2016).
- Prinsen, P., Gutiérrez, A., Faulds, C.B., *et al.* Comprehensive study of valuable lipophilic phytochemicals in wheat bran. *J. Agric. Food Chem.* **62(7)**, 1664-1673 (2014).
- Del Río, J., Prinsen, P., and Gutiérrez, A. Chemical composition of lipids in brewer's spent grain: A promising source of valuable phytochemicals *J. Cereal Sci.* **58(2)**, 248-254 (2013).

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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