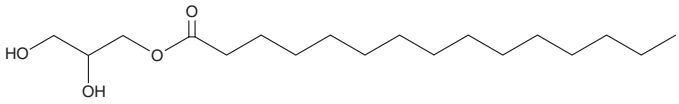
PRODUCT INFORMATION

1-Pentadecanoyl-*rac*-glycerol

Item No. 26959

CAS Registry No.:	62927-08-6
Formal Name:	pentadecanoic acid, 2,3-dihydroxypropyl ester
Synonyms:	MG(15:0/0:0/0:0), 1-Monopentadecanoin
MF:	$C_{18}H_{36}O_4$
FW:	316.5
Purity:	≥95%
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-Pentadecanoyl-*rac*-glycerol is supplied as a crystalline solid. A stock solution may be made by dissolving the 1-pentadecanoyl-*rac*-glycerol in the solvent of choice, which should be purged with an inert gas. 1-Pentadecanoyl-*rac*-glycerol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 1-pentadecanoyl-*rac*-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-pentadecanoyl-*rac*-glycerol can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of 1-pentadecanoyl-*rac*-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-Pentadecanoyl-*rac*-glycerol is a monoacylglycerol that contains pentadecanoic acid (Item No. 17399) at the *sn*-1 position. It has been found in wheat bran extracts.[1] 1-Pentadecanoyl-*rac*-glycerol levels are increased in a HepaRG cell-based model of hepatic steatosis induced by BSA-conjugated palmitate.[2]

References

1. 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).
2. Brown, M.V., Compton, S.A., Milburn, M.V., *et al.* Metabolomic signatures in lipid-loaded HepaRGs reveal pathways involved in steatotic progression. *Obesity (Silver Spring)* **21(12)**, E561-E570 (2013).

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