

PRODUCT INFORMATION



1,2,3-Tripalmitoyl Glycerol

Item No. 23334

CAS Registry No.: 555-44-2
Formal Name: hexadecanoic acid,
1,1',1''-(1,2,3-propanetriyl) ester
Synonyms: Glycerol Trihexadecanoate,
Glycerol Tripalmitate,
Glyceryl Tripalmitate,
TG(16:0/16:0/16:0),
Trihexadecanoyl Glycerol, Tripalmitin,
Tripalmitoylglycerol

MF: C₅₁H₉₈O₆

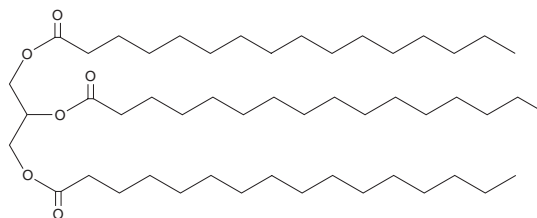
FW: 807.3

Purity: ≥85%

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥2 years



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

Laboratory Procedures

1,2,3-Tripalmitoyl glycerol is supplied as a crystalline solid. A stock solution may be made by dissolving the 1,2,3-tripalmitoyl glycerol in the solvent of choice. 1,2,3-Tripalmitoyl glycerol is soluble in organic solvents such as chloroform and toluene.

Description

1,2,3-Tripalmitoyl glycerol is a triacylglycerol that contains palmitic acid (Item No. 10006627) at the *sn*-1, *sn*-2, and *sn*-3 positions and has been found in palm oil.¹ It inhibits glucose-stimulated insulin secretion and reduces viability of INS1 cells in a concentration-dependent manner.² Myocardial levels of 1,2,3-tripalmitoyl glycerol are elevated by greater than 5-fold in a rat model of diabetes induced by streptozotocin (Item No. 13104).³ 1,2,3-Tripalmitoyl glycerol has been used to form the lipid matrices of etoposide-incorporated nanoparticles.⁴ Formulations containing 1,2,3-tripalmitoyl glycerol have been used in cosmetic products as thickening and skin-conditioning agents.⁵

References

1. Lisa, M. and Holcapek, M. *J. Chromatogr. A* **1198-1199**, 115-130 (2008).
2. Moffitt, J.H., Fielding, B.A., Evershed, R., et al. *Diabetologia* **48(9)**, 1819-1829 (2005).
3. Han, X., Abendschein, D.R., Kelley, J.G., et al. *Biochem J.* **352(Pt. 1)**, 79-89 (2000).
4. Reddy, L.H., Sharma, R.K., Chuttani, K., et al. *AAPS J.* **6(3)**, e23 (2004).
5. Johnson, W., Jr. and Panel, C.I.R.E. *Int. J. Toxicol.* **20 (Suppl 4)**, 61-94 (2001).

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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