

PRODUCT INFORMATION



1,2,3-Trimyristoyl Glycerol

Item No. 23337

CAS Registry No.: 555-45-3
Formal Name: tetradecanoic acid, 1,1',1''-(1,2,3-propanetriyl) ester

Synonyms: Glycerol Tritetradecanoate, Myristic Acid Triglyceride, NSC 4062, TG(14:0/14:0/14:0), Tritetradecanoyl Glycerol

MF: C₄₅H₈₆O₆

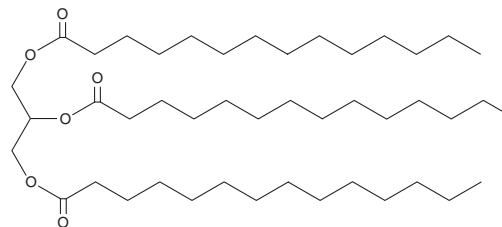
FW: 723.2

Purity: ≥98%

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

1,2,3-Trimyristoyl glycerol is supplied as a crystalline solid. A stock solution may be made by dissolving the 1,2,3-trimyristoyl glycerol in the solvent of choice. 1,2,3-Trimyristoyl glycerol is soluble in the organic solvent chloroform, which should be purged with an inert gas, at a concentration of approximately 10 mg/ml.

Description

1,2,3-Trimyristoyl glycerol is a triacylglycerol of myristic acid (Item No. 13351) that is found in nutmeg.¹ It has been used to prepare lipophilic and cationic lipophilic micro- and nanoparticles carriers loaded with proteins, peptides, and oligonucleotides.²⁻⁴ 1,2,3-Trimyristoyl glycerol alone and in combination with tyloxapol, has been used as a micro- and nanoparticle carrier of small molecules, including fluorescent dyes, steroids, antiepileptics, antidepressants, NSAIDs, and antifungals.^{5,6} 1,2,3-Trimyristoyl glycerol has also been used as a substrate to determine fatty acid selectivity of lipases.⁷

References

1. Lugemwa, F.N. *Molecules* **17**(8), 9274-9282 (2012).
2. Christophersen, P.C., Zhang, L., Yang, M., et al. *Eur. J. Pharm. Biopharm.* **85**(3 Pt A), 473-480 (2013).
3. Christophersen, P.C., Vaghela, D., Müllertz, A., et al. *AAPS J.* **16**(4), 875-883 (2014).
4. Jin, S.E., Kim, C.K., and Kim, Y.B. *Eur. J. Pharm. Biopharm.* **82**(1), 19-26 (2012).
5. Vogelhuber, W., Magni, E., Gazzaniga, A., et al. *Eur. J. Pharm. Biopharm.* **55**(1), 133-138 (2003).
6. Rosenblatt, K.M. and Bunjes, H. *Eur. J. Pharm. Biopharm.* **117**, 49-59 (2017).
7. Karabulut, I., Durmaz, G., and Hayaloglu, A.A. *J. Agric. Food Chem.* **57**(21), 10466-10470 (2009).

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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