

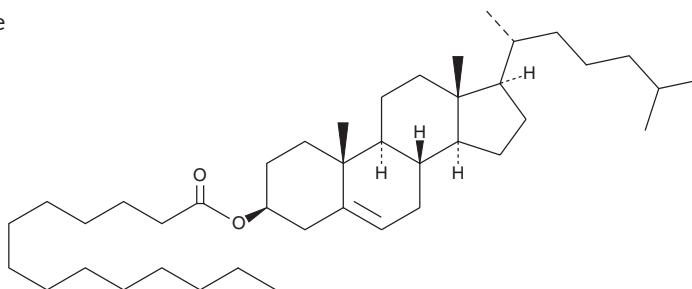
PRODUCT INFORMATION



Cholesteryl Myristate

Item No. 26439

CAS Registry No.: 1989-52-2
Formal Name: (3 β)-cholest-5-en-3-ol 3-tetradecanoate
Synonyms: Cholesterol Myristate,
Cholesteryl Tetradecanoate,
Myristic Acid cholesteryl ester,
NSC 226867
MF: C₄₁H₇₂O₂
FW: 597.0
Purity: \geq 98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 2 years



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

Laboratory Procedures

Cholesteryl myristate is supplied as a crystalline solid. A stock solution may be made by dissolving the cholesteryl myristate in the solvent of choice. Cholesteryl myristate is soluble in the organic solvent chloroform, which should be purged with an inert gas, at a concentration of approximately 10 mg/ml.

Description

Cholesteryl myristate is a cholesterol ester.¹ Levels of cholesteryl myristate are increased in the serum, liver, and aorta in rabbits fed a high-cholesterol diet and positively correlate with development of non-alcoholic fatty liver disease (NAFLD). Plasma levels of cholesteryl myristate also positively correlate with the presence of unstable atherosclerotic plaques in coronary artery disease.² Cholesterol myristate has been used in the composition of lipid nanoparticles (LNPs) as a drug carrier systems for drugs with low water solubility.³

References

1. Kim, E.J., Kim, B.H., Seo, H.S., *et al.* Cholesterol-induced non-alcoholic fatty liver disease and atherosclerosis aggravated by systemic inflammation. *PLoS One* **5**(6), e97841 (2014).
2. Meikle, P.J., Wong, G., Tsorotes, D., *et al.* Plasma lipidomic analysis of stable and unstable coronary artery disease. *Arterioscler. Thromb. Vasc. Biol.* **31**(11), 2723-2732 (2011).
3. Rosenblatt, K.M. and Bunjes, H. Evaluation of the drug loading capacity of different lipid nanoparticle dispersions by passive drug loading. *Eur. J. Pharm. Biopharm.* **117**, 49-59 (2017).

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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