

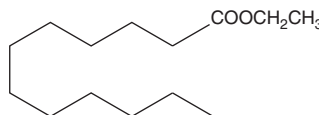
PRODUCT INFORMATION



Lauric Acid ethyl ester

Item No. 10008203

CAS Registry No.: 106-33-2
Formal Name: dodecanoic acid, ethyl ester
Synonyms: Ethyl laurate, Ethyl dodecanoate, NSC 83467, NSC 8912, SFE 14:0
MF: C₁₄H₂₈O₂
FW: 228.4
Purity: ≥98%
Supplied as: A solution in ethanol
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

Lauric acid ethyl ester is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of lauric acid ethyl ester in these solvents is approximately 20 mg/ml.

Lauric acid ethyl ester is sparingly soluble in aqueous buffers. Further dilutions of the organic solvent 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. We do not recommend storing the aqueous solution for more than one day.

Description

Lauric acid is a common 12-carbon saturated fatty acid plentiful in coconut and other nut oils. Saturated fatty acids induce the expression of cyclooxygenase-2, an effect that is significant at 25 μM in RAW 264.7 cells, with lauric acid being the most potent of the C:8-18 fatty acids.¹ Lauric acid ethyl ester is a more lipophilic and less toxic form of the free acid. It is one of the medium-chain fatty acid ethyl esters that is released during the anaerobic fermentation of *Saccharomyces cerevisiae* along with the free acid.²

References

1. Lee, J.Y., Sohn, K.H., Rhee, S.H., *et al.* Saturated fatty acids, but not unsaturated fatty acids, induced the expression of cyclooxygenase-2 mediated through toll-like receptor 4. *J. Biol. Chem.* **276**(20), 16683-16689 (2001).
2. Bardi, L., Crivelli, C., and Marzona, M. Esterase activity and release of ethyl esters of medium-chain fatty acids by *Saccharomyces cerevisiae* during anaerobic growth. *Canadian Journal of Microbiology* **44**(12), 1171-1176 (1998).

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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