

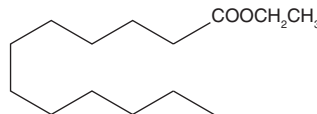
# Product Information



## Lauric Acid ethyl ester

Catalog No. 10008203

**CAS Registry No.:** 106-33-2  
**Formal Name:** dodecanoic acid, ethyl ester  
**MF:** C<sub>14</sub>H<sub>28</sub>O<sub>2</sub>  
**FW:** 228.4  
**Purity:** ≥98%  
**Stability:** ≥1 year at -20°C  
**Supplied as:** A solution in ethanol



### Laboratory Procedures

For long term storage, we suggest that lauric acid ethyl ester be stored as supplied at -20°C. It will be stable for at least one year.

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.

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.<sup>1</sup> 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.<sup>2</sup>

### 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).

### Related Products

Lauric Acid - Cat. No. 10006626 • Fatty Acid ethyl ester Standard-PAK - Cat. No. 10008188 • Stearic Acid ethyl ester - Cat. No. 10008196 • Myristic Acid ethyl ester - Cat. No. 10008197 • Linoleic Acid ethyl ester - Cat. No. 10008198 • Linolenic Acid ethyl ester - Cat. No. 10008199 • Arachidonic Acid ethyl ester - Cat. No. 10008200 • Oleic Acid ethyl ester - Cat. No. 10008201 • Palmitic Acid ethyl ester - Cat. No. 10008202 • Palmitoleic Acid ethyl ester - Cat. No. 10008204

**WARNING: THIS PRODUCT IS NOT INTENDED OR APPROVED FOR HUMAN OR VETERINARY USE. USE OF THIS PRODUCT FOR HUMAN OR ANIMAL TESTING IS EXTREMELY HAZARDOUS AND MAY RESULT IN DISEASE, SEVERE INJURY, OR DEATH.**

#### MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent under separate cover to the MSDS supervisor at your institution.

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