

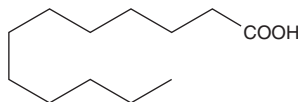
# Product Information



## Lauric Acid

Catalog No. 10006626

**CAS Registry No.:** 143-07-7  
**Formal Name:** Dodecanoic acid  
**MF:** C<sub>12</sub>H<sub>24</sub>O<sub>2</sub>  
**FW:** 200.3  
**Purity:** ≥98%  
**Stability:** ≥2 years at -20°C  
**Supplied as:** A crystalline solid



### Laboratory Procedures

For long term storage, we suggest that lauric acid be stored as supplied at -20°C. It should be stable for at least two years.

Lauric acid is supplied as a crystalline solid. A stock solution may be made by dissolving the lauric acid in an organic solvent purged with an inert gas. Lauric acid is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of lauric acid in these solvents is approximately 20 mg/ml.

Lauric acid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, lauric acid should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Lauric acid has a solubility of approximately 0.5 mg/ml in a 1:8 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Saturated fatty acids are synthesized by both plants and animals from acetyl coenzyme A as a form of long-term energy storage. Lauric acid is a common 12-carbon saturated fat plentiful in coconut and other nut oils. Saturated free 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>

### Reference

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).

### Related Products

Arachidonic Acid - Cat. No. 90010 • Eicosapentaenoic Acid - Cat. No. 90110 • Linoleic Acid - Cat. No. 90150 • Linoelaidic Acid - Cat. No. 90160 • Docosapentaenoic Acid - Cat. No. 90165 • Docosatrienoic Acid - Cat. No. 90170 • Eicosatrienoic Acid (5Z,8Z,11Z) - Cat. No. 90190 • Dihomo-γ-Linolenic Acid - Cat. No. 90230 • Elaidic Acid - Cat. No. 90250 • Adrenic Acid - Cat. No. 90300 • Docosahexaenoic Acid - Cat. No. 90310 • Palmitic Acid - Cat. No. 10006627

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**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY; NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

### 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 via email to your institution.

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