

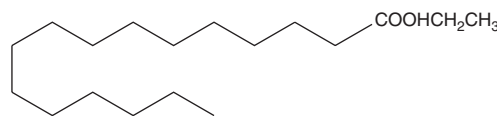
# Product Information



## Palmitic Acid ethyl ester

Item No. 10008202

**CAS Registry No.:** 628-97-7  
**Formal Name:** hexadecanoic acid, ethyl ester  
**MF:** C<sub>18</sub>H<sub>36</sub>O<sub>2</sub>  
**FW:** 284.5  
**Purity:** ≥98%  
**Stability:** ≥1 year at -20°C  
**Supplied as:** A solution in ethanol



### Laboratory Procedures

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

Palmitic 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 palmitic acid ethyl ester in these solvents is approximately 20 mg/ml.

Palmitic 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.

Palmitic acid is a common 16-carbon saturated fatty acid that represents 10-20% of the normal human dietary fat intake. Palmitic acid also makes up approximately 25% of the total plasma fatty acids in plasma lipoproteins.<sup>1</sup> Saturated fatty acids induce the expression of cyclooxygenase-2 and, after protein acylation, are used to confer lipid anchoring to a variety of signaling molecules.<sup>2-6</sup> Palmitic acid ethyl ester is a neutral, lipid-soluble form of the free acid. It is one of the fatty acid ethyl esters that increase cytosolic Ca<sup>2+</sup> concentration leading to pancreatic acinar cell injury due to excessive consumption of ethanol.<sup>7</sup>

### References

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7. Chen, N., Appell, M., Berfield, J.L., *et al.* Inhibition by arachidonic acid and other fatty acids of dopamine uptake at the human dopamine transporter. *Eur. J. Pharmacol.* **478**, 89-95 (2003).

### Related Products

16-hydroxy Hexadecanoic Acid - Item No. 9000789 • Palmitic Acid - Item No. 10006627 • Palmitic Acid methyl ester - Item No. 10007358 • Fatty Acid ethyl ester Standard-PAK - Item No. 10008188 • Stearic Acid ethyl ester - Item No. 10008196 • Myristic Acid ethyl ester - Item No. 10008197 • Linoleic Acid ethyl ester - Item No. 10008198 • Linolenic Acid ethyl ester - Item No. 10008199 • Arachidonic Acid ethyl ester - Item No. 10008200 • Oleic Acid ethyl ester - Item No. 10008201 • Lauric Acid ethyl ester - Item No. 10008203 • Palmitoleic Acid ethyl ester - Item No. 10008204

**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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