

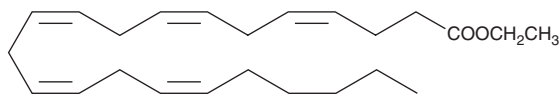
# PRODUCT INFORMATION



## all-*cis*-4,7,10,13,16-Docosapentaenoic Acid ethyl ester

Item No. 23607

**CAS Registry No.:** 142828-42-0  
**Formal Name:** 4Z,7Z,10Z,13Z,16Z-docosapentaenoic acid, ethyl ester  
**Synonyms:** all-*cis*-4,7,10,13,16-DPA ethyl ester, SFE 24:5  
**MF:** C<sub>24</sub>H<sub>38</sub>O<sub>2</sub>  
**FW:** 358.6  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 203, 206 nm  
**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

all-*cis*-4,7,10,13,16-Docosapentaenoic acid ethyl ester (all-*cis*-4,7,10,13,16-DPA 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 ethanol, DMSO, and dimethyl formamide (DMF) purged with an inert gas can be used. The solubility of all-*cis*-4,7,10,13,16-DPA ethyl ester in ethanol is approximately 500 mg/ml and approximately 100 mg/ml in DMSO and DMF.

Further dilutions of the stock 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. If an organic solvent-free solution of all-*cis*-4,7,10,13,16-DPA ethyl ester is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of all-*cis*-4,7,10,13,16-DPA ethyl ester in PBS, pH 7.2, is approximately 0.15 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

all-*cis*-4,7,10,13,16-DPA ethyl ester is a derivative of DPA (Item No. 90165), an ω-3 fatty acid found in fish oils. Ethyl ester derivatives of fatty acids, including DPA, are often used in formulations designed as dietary supplements.<sup>1-3</sup>

### References

1. James, M.J., Ursin, V.M., and Cleland, L.G. Metabolism of stearidonic acid in human subjects: Comparison with the metabolism of other n-3 fatty acids. *Am. J. Clin. Nutr.* **77**(5), 1140-1145 (2003).
2. Augustine, A.H., Lowenstein, L.M., Harris, W.S., et al. Treatment with omega-3 fatty acid ethyl-ester alters fatty acid composition of lipoproteins in overweight or obese adults with insulin resistance. *Prostaglandins Leukot. Essent. Fatty Acids* **90**(2-3), 69-75 (2014).
3. Backes, J., Anzalone, D., Hilleman, D., et al. The clinical relevance of omega-3 fatty acids in the management of hypertriglyceridemia. *Lipids Health Dis.* **15**(1), 118-130 (2016).

#### 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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