

Product Data Sheet

Product Name: Eicosapentaenoic Acid ethyl ester

Cat. No.: GC40813

Chemical Properties

Cas. No. 86227-47-6

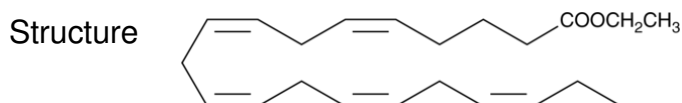
SMILES CC/C=C\C/C=C\C/C=C\C/C=C\C/C=C\CCCC(OCC)=O

Formula C₂₂H₃₄O₂ M.Wt 330.5

Solubility DMF: 100 mg/ml, DMSO: 100 mg/ml, Ethanol: 100 mg/ml, PBS (pH 7.2): 0.15 mg/ml
Storage Store at -20°C, stored under nitrogen

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.



Background

Fish oils in the diet have anti-inflammatory and cardiovascular benefits due to an abundance of ω -3 polyunsaturated fatty acids (PUFAs), including eicosapentaenoic acid (EPA). EPA ethyl ester is a stabilized ethyl ester form of this ω -3 C20:5 PUFA. EPA competitively inhibits the metabolism of (ω -6) arachidonic acid by cyclooxygenase enzymes, suggesting that EPA ethyl ester may also directly modulate the actions of enzymes involved in fatty acid metabolism. In addition, dietary EPA ethyl ester in rats increases fatty acid β -oxidation enzyme levels, indicating that EPA ethyl ester may alter the expression of genes related to fatty acid metabolism. Consistent with this concept, dietary supplementation with EPA ethyl ester in rats also down-regulates lipogenic genes, and decreases plasma cholesterol and triglyceride levels. Also, in rats fed a high-fat diet, supplementation with EPA ethyl ester blocks induced insulin resistance and corrects changes in adiponectin levels and TNF- α expression.

Caution: Product has not been fully validated for medical applications. For research use only.

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