Eicosapentaenoic Acid ethyl ester
Item No. 10008884

CAS Registry No.: 86227-47-6
Formal Name: 5Z,8Z,11Z,14Z,17Z-eicosapentaenoic acid, ethyl ester
Synonyms: E-EPA, EPA ethyl ester, Ethyl Eicosapentaenoate, C20:5 (5Z,8Z,11Z,14Z,17Z) ethyl ester, Icosapent ethyl
MF: C22H34O2
FW: 330.5
Purity: ≥98%
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

Eicosapentaenoic 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 ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of eicosapentaenoic acid ethyl ester in these solvents is approximately 100 mg/ml.

Eicosapentaenoic acid ethyl ester is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanol solution of eicosapentaenoic acid ethyl ester should be diluted with the aqueous buffer of choice. The solubility of eicosapentaenoic acid 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

Eicosapentaenoic acid (EPA) ethyl ester is an esterified form of the ω-3 fatty acid EPA (Item Nos. 90110 | 90110.1 | 21908). Dietary administration of EPA ethyl ester (41.4 g/100 g of total dietary fatty acids) increases the ex vivo activity of hepatic β-oxidation enzymes.1,2 It also reduces total hepatic triglyceride levels and increases the ω-3 fatty acid content of hepatic triglycerides and phospholipids, as well as increases the total levels of ω-3 fatty acids in rats. EPA ethyl ester (1 g/kg) reverses increases in plasma cholesterol levels and reduces circulating triglyceride levels in rats fed a high-fat diet.3 Formulations containing eicosapentaenoic acid ethyl ester have been used as adjuncts in the treatment of hypertriglyceridemia.

References