

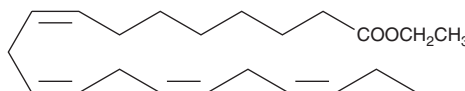
PRODUCT INFORMATION



ω -3 Arachidonic Acid ethyl ester

Item No. 10009348

CAS Registry No.: 123940-93-2
Formal Name: 8Z,11Z,14Z,17Z-eicosatetraenoic acid, ethyl ester
Synonym: FE 22:4
MF: C₂₂H₃₆O₂
FW: 332.5
Purity: \geq 98%
Supplied as: A solution in ethanol
Storage: -20°C
Stability: \geq 2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

ω -3 Arachidonic 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 ω -3 arachidonic acid ethyl ester in these solvents is approximately 100 mg/ml.

ω -3 Arachidonic acid ethyl ester is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of ω -3 arachidonic acid ethyl ester should be diluted with the aqueous buffer of choice. The solubility of ω -3 arachidonic acid ethyl ester in 0.1 M Na₂CO₃ is approximately 1.5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

ω -3 Arachidonic acid is a rare polyunsaturated fatty acid found in trace amounts in dietary sources. ω -3 Fatty acids are known to be essential for infant growth and development and they protect against heart disease, thrombosis, hypertension, as well as inflammatory and autoimmune disorders.¹ In human platelet membranes, ω -3 arachidonic acid inhibits arachidonoyl-CoA synthetase with a K_i of 14 μ M. It also inhibits arachidonoyl-CoA synthetase in calf brain extracts with an IC₅₀ value of about 5 μ M.² ω -3 Arachidonic acid ethyl ester is a more lipophilic form of the free acid.

References

1. Simopoulos, A.P. Omega-3 Fatty acids in health and disease and in growth and development. *Am. J. Clin. Nutr.* **54**(3), 438-463 (1991).
2. Neufeld, E.J., Sprecher, H., Evans, R.W., et al. Fatty acid structural requirements for activity of arachidonoyl-CoA synthetase. *J. Lipid Res.* **25**(3), 288-293 (1984).

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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