

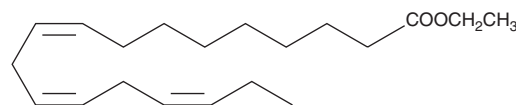
PRODUCT INFORMATION



α -Linolenic Acid ethyl ester

Item No. 10008199

CAS Registry No.: 1191-41-9
Formal Name: 9Z,12Z,15Z-octadecatrienoic acid, ethyl ester
Synonyms: ALAEE, Ethyl α -Linolenate, Ethyl Linolenate, LAEE, Linolenic Acid ethyl ester
MF: C₂₀H₃₄O₂
FW: 306.5
Purity: \geq 98%
Supplied as: A solution in ethanol
Storage: -20°C
Stability: \geq 1 year



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

Laboratory Procedures

α -Linolenic 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 α -linolenic acid ethyl ester in these solvents is approximately 100 mg/ml.

Description

α -Linolenic acid ethyl ester is an esterified form of α -linolenic acid (Item Nos. 90210 | 21910). It increases cyclin E levels and the activity of Cdk2/cyclin E, ERK, and JNK in hepatic stellate cells when used at a concentration of 50 μ M.¹ α -Linolenic acid ethyl ester (25 μ g/ml) inhibits the growth of *S. mutans*, *C. albicans*, and *P. gingivalis* by 98, 72, and 92%, respectively, *in vitro*.² It has been found in biodiesel produced from castor oil using ethanol.³ α -Linolenic acid ethyl ester has been used as a substrate in lipid peroxidation assays for antioxidant activity.⁴

References

1. Li, J., Hu, W., Baldassare, J.J., *et al.* The ethanol metabolite, linolenic acid ethyl ester, stimulates mitogen-activated protein kinase and cyclin signaling in hepatic stellate cells. *Life Sci.* **73(9)**, 1083-1096 (2003).
2. Huang, C.B. and Ebersole, J.L. A novel bioactivity of omega-3 polyunsaturated fatty acids and their ester derivatives. *Mol. Oral Microbiol.* **25(1)**, 75-80 (2010).
3. Conceição, M.M., Fernandes, V.J., Jr., Bezerra, A.F., *et al.* Dynamic kinetic calculation of castor oil biodiesel. *J. Therm. Anal. Calorim.* **87(3)**, 865-869 (2007).
4. Miyake, T. and Shibamoto, T. Antioxidative activities of natural compounds found in plants. *J. Agric. Food Chem.* **45(5)**, 1819-1822 (1997).

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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