

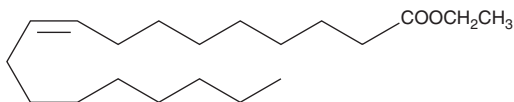
PRODUCT INFORMATION



Oleic Acid ethyl ester

Item No. 10008201

CAS Registry No.: 111-62-6
Formal Name: 9Z-octadecenoic acid, ethyl ester
Synonyms: Ethyl Oleate, SFE 20:1
MF: C₂₀H₃₈O₂
FW: 310.5
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

Oleic acid ethyl ester is supplied as a solution in ethanol. A stock solution may be made by dissolving the oleic acid ethyl ester in the solvent of choice, which should be purged with an inert gas. Oleic acid ethyl ester is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of oleic acid ethyl ester in these solvents is approximately 100 mg/ml.

Description

Oleic acid is a monounsaturated fatty acid and is one of the major components of membrane phospholipids. It contributes about 17% of the total fatty acids esterified to phosphatidylcholine in porcine platelets.¹ Oleic acid ethyl ester is a neutral, more lipid-soluble form of oleic acid. As the free acid, it inhibits collagen-stimulated platelet aggregation by approximately 90% at a concentration of 10 µg/ml.¹ It inhibits fMLF-induced neutrophil aggregation and degranulation by 55% and 68%, respectively, at 5 µM.² Oleic acid, whether applied extracellularly (EC₅₀ = ~60 µM) to human platelets or released from membrane phospholipids, causes an increase in intracellular calcium levels.³

References

1. Wahle, K.W.J. and Peacock, L.I.L. Effects of isomeric *cis* and *trans* eighteen carbon monounsaturated fatty acids on porcine platelet function. *Biochim. Biophys. Acta* **1301(1-2)**, 141-149 (1996).
2. Naccache, P.H., Moiski, T.F.P., Volpi, M., et al. Modulation of rabbit neutrophil aggregation and degranulation by free fatty acids. *J. Leukoc. Biol.* **36(3)**, 333-340 (1984).
3. Sifaka-Kapadai, A., Hanahan, D.J., and Javors, M.A. Oleic acid-induced Ca²⁺ mobilization in human platelets: Is oleic acid an intracellular messenger? *J. Lipid Mediat. Cell Signal.* **15(3)**, 215-232 (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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