

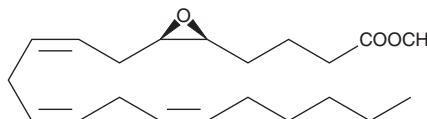
PRODUCT INFORMATION



(±)5(6)-EET methyl ester

Item No. 50210

Formal Name: (±)5,6-epoxy-8Z,11Z,14Z-eicosatrienoic acid, methyl ester
Synonym: (±)5,6-EpETrE methyl ester
MF: C₂₁H₃₄O₃
FW: 334.5
Purity: ≥98%
Supplied as: A solution in ethanol
Storage: -20°C
Stability: ≥2 years



NOTE: Relative stereochemistry shown in chemical structure

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

Laboratory Procedures

(±)5(6)-EET methyl 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 (±)5(6)-EET methyl ester in these solvents is approximately 50 mg/ml. (±)5(6)-EET methyl ester is stable for at least six months in these solvents if stored at -20°C.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. If an organic solvent-free solution of (±)5(6)-EET methyl ester is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of (±)5(6)-EET methyl ester in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

(±)5(6)-EET (Item No. 50211) is biosynthesized in rat and rabbit liver microsomes by cytochrome P450.^{1,2} In neuroendocrine cells, such as the anterior pituitary and pancreatic islet, (±)5(6)-EET has been implicated in the mobilization of Ca²⁺ and hormone secretion.^{3,4} Since (±)5(6)-EET is highly unstable, (±)5(6)-EET methyl ester is used for bulk storage and small amounts converted to the free acid just before use.

References

1. Chacos, N., Falck, J.R., Wixtrom, C., *et al.* Novel epoxides formed during the liver cytochrome P-450 oxidation of arachidonic acid. *Biochem. Biophys. Res. Commun.* **104(3)**, 916-922 (1982).
2. Oliw, E.H., Guengerich, F.P., and Oates, J.A. Oxygenation of arachidonic acid by hepatic monooxygenases. Isolation and metabolism of four epoxide intermediates. *J. Biol. Chem.* **257(7)**, 3771-3781 (1982).
3. Snyder, C., Lattanzio, F., Yadagiri, P., *et al.* 5,6-Epoxyeicosatrienoic acid mobilizes Ca²⁺ in anterior pituitary cells. *Biochem. Biophys. Res. Commun.* **139(3)**, 1188-1194 (1986).
4. Falck, J.R., Manna, S., Moltz, J., *et al.* Epoxyeicosatrienoic acids stimulate glucagon and insulin release from isolated rat pancreatic islets. *Biochem. Biophys. Res. Commun.* **114(2)**, 743-749 (1983).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/12/2021

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM