Product Information



(±)5,6-DHET Lipid Maps MS Standard

Item No. 10007264

CAS Registry No.: 213382-49-1

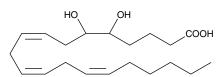
Formal Name: (±)5,6-dihydroxy-8Z,11Z,14Z-

eicosatrienoic acid

Synonym: (±)5,6-DiHETrE MF: $C_{20}H_{34}O_4$ FW: 338.5

Purity: ≥98%

Stability: ≥1 year at -20°C Supplied as: A solution in ethanol



Laboratory Procedures

For long term storage, we suggest that (±)5,6-DHET be stored as supplied at -20°C. It should be stable for at least one

(±)5,6-DHET 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-DHET in these solvents is approximately 50 mg/ml.

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-DHET is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of (±)5,6-DHET in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Epoxide hydrolases convert the EETs into vicinal diols, with the concurrent loss of much of their biological activity. I (±)5,6-DHET is a substrate for sheep seminal vesicle cyclooxygenase, producing 5,6-dihydroxy prostaglandin E_1 and $F_{1\alpha}$ metabolites in vitro.2

References

- 1. 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, 3771-3781 (1982).
- Oliw, E.H. Biosynthesis of 5,6-dihydroxyprostaglandin E₁ and F_{1,0} from 5,6-dihydroxyeicosatrienoic acid by ram seminal vesicles. Biochim. Biophys. Acta 795, 384-391 (1984).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/10007264

WARNING: This product is for laboratory research only: not for administration to humans. Not for human or veterinary DIAGNOSTIC OR THERAPEUTIC USE.

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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