

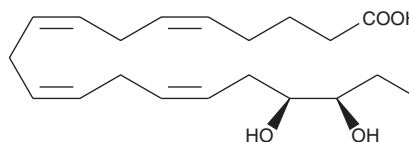
PRODUCT INFORMATION



(±)17(18)-DiHETE

Item No. 10006999

Formal Name: (±)17,18-dihydroxy-5Z,8Z,11Z,14Z-eicosatetraenoic acid
Synonym: (±)17,18-dihydroxy-eicosa-5,8,11,14-Tetraenoic Acid
MF: C₂₀H₃₂O₄
FW: 336.5
Purity: ≥98%
Supplied as: A solution in ethanol
Storage: -20°C
Stability: As supplied, 1 year from the QC date provided on the Certificate of Analysis, when stored properly



NOTE: Relative stereochemistry shown in chemical structure

Laboratory Procedures

(±)17(18)-DiHETE 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 (±)17(18)-DiHETE in these solvents is approximately 30 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 (±)17(18)-DiHETE is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of (±)17(18)-DiHETE in PBS (pH 7.2) is approximately 0.5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Eicosapentaenoic acid (EPA; Item No. 90110) is an ω-3 fatty acid abundantly available in marine organisms. (±)17(18)-DiHETE is one of the major metabolites produced when EPA is incubated with various rat tissue homogenates or cynomolgus monkey seminal vesicles.¹⁻⁴ The route of production of (±)17(18)-DiHETE likely proceeds through cytochrome P450-catalyzed epoxidation at the ω-3 double bond followed by conversion to the vicinal diols by epoxide hydrolase. EPA is also metabolized preferentially by *Gaeumannomyces graminis* to (±)17(18)-DiHETE.⁵

References

1. Yamane, M., Abe, A., and Yamane, S. *Journal of Chromatography B* **652**, 123-136 (1994).
2. VanRollins, M., Frade, P.D., and Carretero, O.A. *Biochim. Biophys. Acta* **996**, 133-149 (1988).
3. Oliw, E.H. *J. Biol. Chem.* **264(30)**, 17845-17853 (1989).
4. Oliw, E.H. and Sprecher, H.W. *Biochim. Biophys. Acta* **1086**, 287-294 (1991).
5. Brodowsky, I.D. and Oliw, E.H. *Biochim. Biophys. Acta* **1124**, 59-65 (1992).

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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