

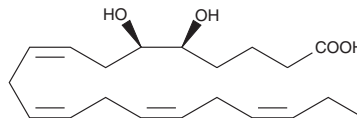
PRODUCT INFORMATION



(±)5(6)-DiHETE

Item No. 10467

CAS Registry No.: 845673-97-4
Formal Name: (±)5,6-dihydroxy-8Z,11Z,14Z,17Z-eicosatetraenoic acid
MF: C₂₀H₃₂O₄
FW: 336.5
Purity: ≥97%
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

(±)5(6)-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 (±)5(6)-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 (±)5(6)-DiHETE is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of (±)5(6)-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 polyunsaturated fatty acid that is abundant in marine organisms and fish oils. EPA is metabolized, in part, through cytochrome P450-catalyzed epoxidation followed by conversion to the vicinal diols by epoxide hydrolases.¹⁻³ (±)5(6)-DiHETE is a possible metabolite produced from EPA following epoxidation of the α-5 double bond. The biological activity of (±)5(6)-DiHETE has not been documented.

References

1. VanRollins, M., Frade, P.D., and Carretero, O.A. Oxidation of 5,8,11,14,17-eicosapentaenoic acid by hepatic and renal microsomes. *Biochim. Biophys. Acta* **996**, 133-149 (1988).
2. Oliw, E.H. and Sprecher, H.W. Metabolism of polyunsaturated (n-3) fatty acids by monkey seminal vesicles: Isolation and biosynthesis of ω-3 epoxides. *Biochim. Biophys. Acta* **1086**, 287-294 (1991).
3. Oliw, E.H., Bylund, J., and Herman, C. Bisallylic hydroxylation and epoxidation of polyunsaturated fatty acids by cytochrome P450. *Lipids* **31**, 1003-1996 (1996).

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, 03/21/2016

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