

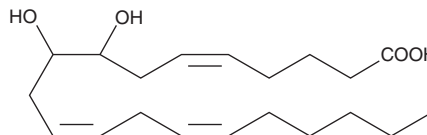
Product Information



(±)8,9-DHET

Catalog No. 51351

Formal Name:	(±)8,9-dihydroxy-5Z,11Z,14Z- eicosatrienoic acid
Synonym:	(±)8,9-DiHETrE
MF:	C ₂₀ H ₃₄ O ₄
FW:	338.5
Purity:	≥98%
Stability:	≥2 years at -20°C
Supplied as:	A solution in ethanol



Laboratory Procedures

For long term storage, we suggest that (±)8,9-DHET be stored as supplied at -20°C. It should be stable for at least two years.

(±)8,9-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 (±)8,9-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 (±)8,9-DHET is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of (±)8,9-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.¹ The 8(S),9(R)-EET isomer is metabolized by platelet cyclooxygenase to form 8(S),9(R)-THETA, a trihydroxy fatty acid which may act as a renal vasoconstrictor.²

References

- 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).
- Zhang, J.Y., Prakash, C., Yamashita, K., *et al.* Regiospecific and enantioselective metabolism of 8,9-epoxyeicosatrienoic acid by cyclooxygenase. *Biochem. Biophys. Res. Commun.* **183**, 138-143 (1992).

Related Products

(±)8(9)-EET - Cat. No. 50351 • (±)8,9-DHET Lipid Maps MS Standard - Cat. No. 10007265 • (±)8,9-DHET-d₁₁ - Cat. No. 10009998 • Soluble Epoxide Hydrolase Polyclonal Antibody - Cat. No. 10010146

Cayman Chemical

Mailing address
1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

Phone
(800) 364-9897
(734) 971-3335

Fax
(734) 971-3640

E-Mail
custserv@caymanchem.com

Web
www.caymanchem.com

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

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 Material Safety Data Sheet, which has been sent under separate cover to the MSDS supervisor at your institution.

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