

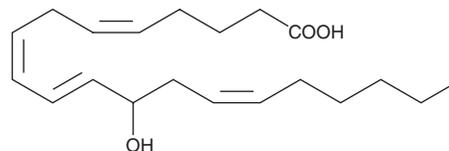
PRODUCT INFORMATION



(±)12-HETE

Item No. 34550

CAS Registry No.: 71030-37-0
Formal Name: (±)12-hydroxy-5Z,8Z,10E,14Z-eicosatetraenoic acid
Synonym: (±)12-Hydroxyeicosatetraenoic Acid
MF: C₂₀H₃₂O₃
FW: 320.5
Purity: ≥95%
UV/Vis.: λ_{max}: 237 nm
Supplied as: A solution in ethanol
Storage: -20°C
Stability: ≥2 years
Special Conditions: Oxygen and light sensitive



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

Laboratory Procedures

(±)12-HETE 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. (±)12-HETE is miscible in these solvents. The solubility of (±)12-HETE in 0.1 M Na₂CO₃ is approximately 2 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 (±)12-HETE is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of (±)12-HETE in PBS (pH 7.2) is approximately 0.8 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

(±)12-HETE is a racemic mixture of the arachidonic acid metabolites 12(R)-HETE (Item No. 34560) and 12(S)-HETE (Item No. 34570). It is formed *via* non-enzymatic oxidation of arachidonic acid (Item Nos. 90010 | 90010.1 | 10006607).^{1,2} 12(S)- and 12(R)-HETE are formed by 12S- and 12R-lipoxygenase-mediated oxidation of arachidonic acid, respectively.³⁻⁵ 12(R)-HETE can also be formed by oxidation of arachidonic acid mediated by cytochrome P450 (CYP450) enzymes.¹ (±)12-HETE (1 μM) induces aggregation of isolated human neutrophils.⁶ Production of (±)12-HETE by platelets isolated from spontaneously hypertensive rats is increased compared with platelets isolated from normotensive rats.⁷

Reference

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4. Bürger, F., Krieg, P., Marks, F., et al. *Biochem J.* **348(Pt 2)**, 329-335 (2000).
5. Hawkins, D.J. and Brash, A.R. *J. Biol. Chem.* **262(16)**, 7629-7634 (1987).
6. O'Flaherty, J.T., Thomas, M.J., Lees, C.J., et al. *Am. J. Pathol.* **104**, 55-62 (1981).
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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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