

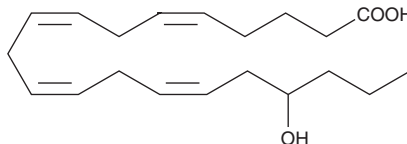
Product Information



(±)17-HETE

Item No. 10010636

CAS Registry No.: 128914-47-6
Formal Name: (±)17-hydroxy-5Z,8Z,11Z,14Z-eicosatetraenoic acid
MF: C₂₀H₃₂O₃
FW: 320.5
Purity: ≥98%
Stability: ≥1 year at -20°C
Supplied as: A solution in ethanol



Laboratory Procedures

For long term storage, we suggest that (±)17-HETE be stored as supplied at -20°C. It should be stable for at least one year.

(±)17-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 ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. (±)17-HETE is miscible in these solvents.

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-HETE is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of (±)17-HETE in PBS, pH 7.2, is approximately 0.8 mg/ml. For greater aqueous solubility, the neat oil can be directly dissolved in 0.1 M Na₂CO₃ (solubility of approximately 2 mg/ml) and then diluted with PBS (pH 7.2) to achieve the desired concentration or pH. We do not recommend storing the aqueous solution for more than one day.

Electrolyte and fluid transport in the kidney are regulated in part by arachidonic acid and its metabolites. (±)17-HETE is the racemic version of a cytochrome P450 (CYP450) metabolite of arachidonic acid that has stereospecific effects on sodium transport in the kidney. At a concentration of 2 μM the (S)-enantiomer of 17-HETE inhibits proximal tubule ATPase activity by as much as 70%, whereas the (R)-isomer is inactive.¹

Reference

1. Carroll, M.A., Balazy, M., Margiotta, P., *et al.* Cytochrome P-450-dependent HETEs: Profile of biological activity and stimulation by vasoactive peptides. *Am. J. Physiol.* **271**, R863-R869 (1996).

Related Products

(±)17,18-DiHETE - Item No. 10006999 • 17(R)-HETE - Item No. 10010637 • 17(S)-HETE - Item No. 10011305

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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 *via* email to your institution.

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