

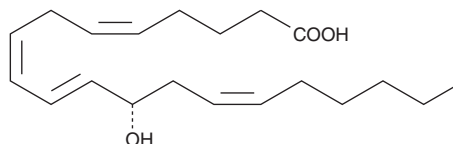
# Product Information



## 12(S)-HETE Lipid Maps MS Standard

Catalog No. 10007248

**CAS Registry No.:** 54397-83-0  
**Formal Name:** 12S-hydroxy-5Z,8Z,10E,14Z-eicosatetraenoic acid  
**MF:** C<sub>20</sub>H<sub>32</sub>O<sub>3</sub>  
**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 12(S)-HETE be stored as supplied at -20°C. It should be stable for at least one year.

12(S)-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(S)-HETE is approximately 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 12(S)-HETE is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of 12(S)-HETE in PBS, pH 7.2, is approximately 0.8 mg/ml. For greater aqueous solubility, 12(S)-HETE can be directly dissolved in 0.1 M Na<sub>2</sub>CO<sub>3</sub> (solubility of 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.

12(S)-HETE is the predominant lipoxygenase product of mammalian platelets.<sup>1</sup> It enhances tumor cell adhesion to endothelial cells, fibronectin, and the subendothelial matrix at 0.1 μM.<sup>2,3</sup>

### References

1. Hamberg, M. and Samuelsson, B. Prostaglandin endoperoxides. Novel transformations of arachidonic acid in human platelets. *Proc. Natl. Acad. Sci. USA* **71**, 3400-3404 (1974).
2. Grossi, I.M., Fitzgerald, L.A., Umbarger, L.A., *et al.* Bidirectional control of membrane expression and/or activation of the tumor cell IRGpIIb/IIIa receptor and tumor cell adhesion by lipoxygenase products of arachidonic acid and linoleic acid. *Cancer Res.* **49**, 1029-1037 (1989).
3. Honn, K.V., Nelson, K.K., Renaud, C., *et al.* Fatty acid modulation of tumor cell adhesion to microvessel endothelium and experimental metastasis. *Prostaglandins* **44**, 413-429 (1992).

### Related Products

(S)-HETE HPLC Mixture - Cat. No. 34001 • (±)12-HETE - Cat. No. 34550 • 12(S)-HETE - Cat. No. 34570 • 12(S)-HETE-d<sub>8</sub> - Cat. No. 334570 • tetranor-12(S)-HETE - Cat. No. 10007207

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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 under separate cover to the MSDS supervisor at your institution.

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