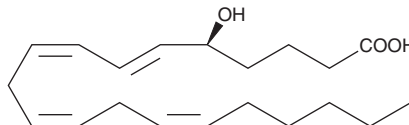


# PRODUCT INFORMATION

## 5(S)-HETE

Item No. 34230

**CAS Registry No.:** 70608-72-9  
**Formal Name:** 5S-hydroxy-6E,8Z,11Z,14Z-eicosatetraenoic acid  
**Synonym:** 5(S)-Hydroxyeicosatetraenoic Acid  
**MF:** C<sub>20</sub>H<sub>32</sub>O<sub>3</sub>  
**FW:** 320.5  
**Purity:** ≥98%  
**UV/Vis:** λ<sub>max</sub>: 236 nm  
**Supplied as:** A solution in ethanol  
**Storage:** -20°C  
**Stability:** ≥2 years



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

### Laboratory Procedures

5(S)-HETE is supplied as a solution in ethanol. To change the solvent, evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO or dimethyl formamide purged with an inert gas can be used. The solubility of 5(S)-HETE 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 5(S)-HETE is needed, evaporate the ethanol under a gentle stream of nitrogen and dissolve the neat oil in the buffer of choice. The solubility of 5(S)-HETE in PBS, pH 7.2, is approximately 1 mg/ml.

### Description

5(S)-HETE is produced by the action of 5-LO on arachidonic acid to give 5(S)-HpETE, followed by reduction of the hydroperoxide. 5(S)-HETE has proliferative and chemotactic effects on granulocytes.<sup>1</sup> When further metabolized to 5-oxoETE, it is a more potent eosinophil chemoattractant than leukotriene B<sub>4</sub>.<sup>2,3</sup>

### References

1. Dodge, W. and Thomas, M. The effect of 5-hydroxyeicosatetraenoic acid on the proliferation of granulocyte progenitors and embryonic fibroblasts of the chick. *Biochem. Biophys. Res. Commun.* **131**, 731-735 (1985).
2. Schwenk, U. and Schröder, J.-M. 5-oxo-Eicosanoids are potent eosinophil chemotactic factors. *J. Biol. Chem.* **270**, 15029-15036 (1994).
3. Powell, W.S., Gravelle, F., and Gravel, S. Metabolism of 5(S)-hydroxy-6,8,11,14-eicosatetraenoic acid and other 5(S)-hydroxyeicosanoids by a specific dehydrogenase in human polymorphonuclear leukocytes. *J. Biol. Chem.* **267**, 19233-19241 (1992).

#### 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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