

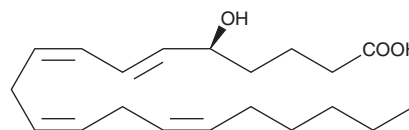
Product Information



5(S)-HETE Lipid Maps MS Standard

Catalog No. 10007243

CAS Registry No.: 70608-72-9
Formal Name: 5S-hydroxy-6E,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 5(S)-HETE be stored as supplied at -20°C. It should be stable for at least one year.

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.

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.¹ When further metabolized to 5-oxoETE, it is a more potent eosinophil chemoattractant than leukotriene B₄.^{2,3}

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).

Related Products

Leukotriene B₄ - Cat. No. 20110 • (S)-HETE HPLC Mixture - Cat. No. 34001 • (±)5-HETE - Cat. No. 34210 • (±)5-HETE lactone - Cat. No. 34215 • (±)5-HETE methyl ester - Cat. No. 34220 • 5(R)-HETE - Cat. No. 34225 • 5(S)-HETE - Cat. No. 34230 • 5(S)-HETE lactone - Cat. No. 34240 • 5-OxoETE - Cat. No. 34250 • 5(S)-HpETE - Cat. No. 44230 • 5-Lipoxygenase (potato) - Cat. No. 60400 • 5(S)-HETE-d₈ - Cat. No. 334230

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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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