

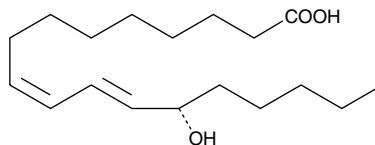
Product Information



13(S)-HODE

Item No. 38610

Cas Registry No.: 29623-28-7
Formal Name: 13S-hydroxy-9Z,11E-octadecadienoic acid
MF: C₁₈H₃₂O₃
FW: 296.5
Purity: ≥98%
Stability: ≥1 year at -20°C
Supplied as: A solution in ethanol
UV/Vis: λ_{max}: 234 nm ε: 23,000



Laboratory Procedures

For long term storage, we suggest that 13(S)-HODE be stored as supplied at -20°C. It should be stable for at least one year.

13(S)-HODE 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. The solubility of 13(S)-HODE in these solvents is approximately 50 mg/ml. 13(S)-HODE is stable for at least six months in these solvents if stored at -20°C.

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 13(S)-HODE is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of 13(S)-HODE in PBS, pH 7.2, is approximately 1 mg/ml.

13(S)-HODE is produced by incubation of linoleic acid with plant and mammalian lipoxygenases.^{1,2} It has been shown to inhibit the adhesion of tumor cells to the endothelium at concentrations around 1 μM, and down regulates the expression of the IRGpIIb/IIIa receptor.³

References

1. Buchanan, M.R., Haas, T.A., Lagarde, M., *et al.* 13-Hydroxyoctadecadienoic acid is the vessel wall chemorepellant factor, LOX. *J. Biol. Chem.* **260**, 16056-16059 (1985).
2. 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).}
3. 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).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/38610

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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