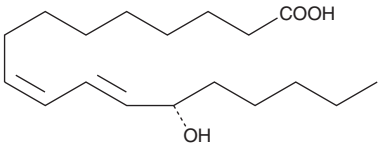
PRODUCT INFORMATION

13(S)-HODE

Item No. 38610

CAS Registry No.: 29623-28-7
Formal Name: 13S-hydroxy-9Z,11E-octadecadienoic acid
MF: $C_{18}H_{32}O_3$
FW: 296.5
Purity: ≥98%
UV/Vis.: λ_{max}: 234 nm
Supplied as: A 100 µg/ml 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

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 sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanol solution of 13(S)-HODE should be diluted with the aqueous buffer of choice. The solubility of 13(S)-HODE in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

13(S)-HODE is produced by incubation of linoleic acid with plant and mammalian lipoxygenases. It has been shown to inhibit the adhesion of tumor cells to the endothelium at concentrations around 1 µM,[1,2] 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(30)**, 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(5)**, 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(4)**, 1029-1037 (1989).

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