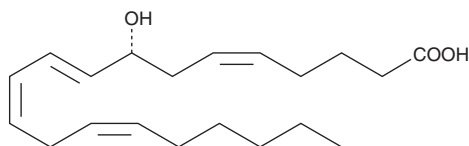


PRODUCT INFORMATION

8(R)-HETE

Item No. 34350

CAS Registry No.: 105500-09-2
Formal Name: 8R-hydroxy-5Z,9E,11Z,14Z-eicosatetraenoic acid
Synonym: 8(R)-Hydroxyeicosatetraenoic Acid
MF: C₂₀H₃₂O₃
FW: 320.5
Purity: ≥98%
UV/Vis.: λ_{max}: 237 nm
Supplied as: A solution in ethanol
Storage: -20°C
Stability: ≥2 years



Special Conditions: Oxygen and light sensitive

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

Laboratory Procedures

8(R)-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. 8(R)-HETE is miscible in these solvents. The solubility of 8(R)-HETE in 0.1 M Na₂CO₃ is approximately 2 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 8(R)-HETE is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of 8(R)-HETE in PBS (pH 7.2) is approximately 0.8 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

8(R)-HETE is biosynthesized by lipoxygenation of arachidonic acid in marine invertebrates such as gorgonian corals and starfish.^{1,2} Stereochemical assignment of the (R) enantiomer is based on comparison of chiral HPLC retention times to published results.³

References

1. Meijer, L., Brash, A.R., Bryant, R.W., *et al.* Stereospecific induction of starfish oocyte maturation by (8R)-hydroxyeicosatetraenoic acid. *J. Biol. Chem.* **261**(36), 17040-17047 (1986).
2. Brash, A.R., Baertschi, S.W., Ingram, C.D., *et al.* On non-cyclooxygenase prostaglandin synthesis in the sea whip coral, *Plexaura Homomalla*: An 8(R)-lipoxygenase pathway leads to formation of an α-ketol and a racemic prostanoid. *J. Biol. Chem.* **262**(33), 15829-15839 (1987).
3. Schneider, C., Yu, Z., Boeglin, W.E., *et al.* Enantiomeric separation of hydroxy and hydroperoxy eicosanoids by chiral column chromatography. *Methods Enzymol.* **433**, 145-157 (2007).

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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