

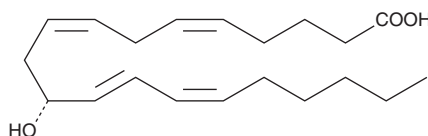
PRODUCT INFORMATION



11(R)-HETE

Item No. 34505

CAS Registry No.: 73347-43-0
Formal Name: 11R-hydroxy-5Z,8Z,12E,14Z-eicosatetraenoic acid
Synonym: 11(R)-Hydroxyeicosatetraenoic Acid
MF: C₂₀H₃₂O₃
FW: 320.5
Purity: ≥98%
UV/Vis: λ_{max}: 236 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

11(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. 11(R)-HETE is miscible in these solvents.

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 11(R)-HETE is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of 11(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

11(R)-HETE is an oxylipin produced by COX-1 and COX-2 from arachidonic acid or aspirin-acetylated COX-2-mediated oxidation of arachidonic acid.^{1,2} It is also produced by 11(R)-lipoxygenases in the freshwater hydra (*H. vulgaris*), where it is involved in tentacle regeneration, and in the sea urchin (*S. purpuratus*).^{3,4}

References

1. Thuresson, E.D., Lakkides, K.M., and Smith, W.L. Different catalytically competent arrangements of arachidonic acid within the cyclooxygenase active site of prostaglandin endoperoxide H synthase-1 lead to the formation of different oxygenated products. *J. Biol. Chem.* **275**(12), 8501-8507 (2000).
2. Xiao, G., Tsai, A.I., Palmer, G., et al. Analysis of hydroperoxide-induced tyrosyl radicals and lipoxygenase activity in aspirin-treated human prostaglandin H synthase-2. *Biochemistry* **36**(7), 1836-1845 (1997).
3. Hawkins, D.J. and Brash, A.R. Eggs of the sea urchin, *Strongylocentrotus purpuratus*, contain a prominent (11R) and (12R) lipoxygenase activity. *J. Biol. Chem.* **262**(16), 7629-7634 (1987).
4. Di Marzo, V., Gianfrani, C., De Petrocellis, L., et al. Polyunsaturated-fatty-acid oxidation in *Hydra*: Regioselectivity, substrate-dependent enantioselectivity and possible biological role. *Biochem J.* **300**(2), 501-507 (1994).

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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