

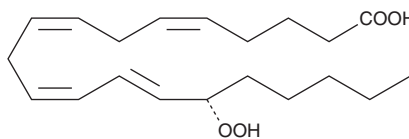
PRODUCT INFORMATION



15(S)-HpETE

Item No. 44720

CAS Registry No.: 70981-96-3
Formal Name: 15S-hydroperoxy-5Z,8Z,11Z,13E-eicosatetraenoic acid
MF: C₂₀H₃₂O₄
FW: 336.5
Purity: ≥95%
UV/Vis.: λ_{max}: 236 nm
Supplied as: A solution in ethanol
Storage: -80°C
Stability: ≥2 years



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

Laboratory Procedures

15(S)-HpETE 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 and dimethyl formamide purged with an inert gas can be used. 15(S)-HpETE 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 15(S)-HpETE is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of 15(S)-HpETE in PBS, pH 7.2, is approximately 0.8 mg/ml. For greater aqueous solubility, 15(S)-HpETE can be directly dissolved in 0.1 M Na₂CO₃ (solubility of 2 mg/ml) and then diluted with PBS (pH 7.2) to achieve the desired concentration or pH. 15(S)-HpETE is highly unstable in aqueous solutions. We recommend that aqueous solutions of 15(S)-HpETE be kept on ice and used as soon as possible, preferably within 15 minutes.

Description

15(S)-HpETE is a monohydroperoxy polyunsaturated fatty acid (PUFA) produced by the action of 15-lipoxygenase on arachidonic acid. 15(S)-HpETE is either metabolized to 14,15-leukotriene A₄ or reduced to 15(S)-HETE by peroxidases.^{1,2} 15(S)-HpETE mediates a number of biological functions including the induction of c-fos and c-jun, and activation of AP-1.³ 15(S)-HpETE inhibits prostacyclin synthesis in porcine aortic microsomes and bovine endothelial cells, and can cause the suicide inactivation of porcine 12-LO.^{1,4,5}

References

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2. Bryant, R.W., Schewe, T., Rapoport, S.M., et al. *J. Biol. Chem.* **260**, 3548-3555 (1985).
3. Rao, G.N., Glasgow, W.C., Eling, T.E., et al. *J. Biol. Chem.* **271**, 27760-27764 (1996).
4. Moncada, S., Gryglewski, R.J., Bunting, S., et al. *Prostaglandins* **12**, 715-737 (1976).
5. Mayer, B., Moser, R., Gleispach, H., et al. *Biochim. Biophys. Acta* **875**, 641-653 (1986).

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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