

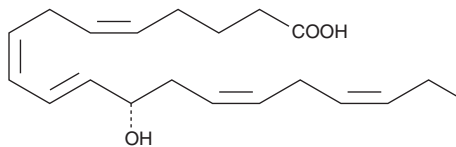
PRODUCT INFORMATION



12(S)-HEPE

Item No. 32550

CAS Registry No.: 116180-17-7
Formal Name: 12S-hydroxy-5Z,8Z,10E,14Z,17Z-eicosapentaenoic acid
MF: C₂₀H₃₀O₃
FW: 318.5
Purity: ≥98%
UV/Vis.: λ_{max}: 237 nm
Supplied as: A 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

12(S)-HEPE 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. 12(S)-HEPE 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 12(S)-HEPE is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of 12(S)-HEPE in PBS, pH 7.2 is approximately 0.8 mg/ml. For greater aqueous solubility, 12(S)-HEPE can be directly dissolved in 0.1 M Na₂CO₃ (2 mg/ml) and then diluted with PBS (pH 7.2) to achieve the desired concentration or pH. We do not recommend storing the aqueous solution for more than one day.

Description

12(S)-HEPE is a monohydroxy fatty acid synthesized from EPA by the action of 12-LO. Unstimulated neutrophils metabolize 12(S)-HEPE to 12(S),20-diHEPE, whereas stimulated neutrophils produce 5(S),12(S)-HEPE via the 5-LO pathway.¹ The competitive action of 12(S)-HEPE with arachidonic acid as a substrate for 5-LO in the formation of LTs may provide a basis for the anti-inflammatory potential of ω-3 fatty acids.

Reference

1. von Schacky, C., Marcus, A.J., Safier, L.B., *et al.* Platelet-neutrophil interactions. 12S,20- and 5S, 12S-dihydroxyeicosapentaenoic acids: Two novel neutrophil metabolites from platelet-derived 12S-hydroxyeicosapentaenoic acid. *J. Lipid Res.* **31**, 801-810 (1990).

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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