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%
Stability: ≥1 year at -20°C
Supplied as: A solution in ethanol
UV/Vis: λmax: 237 nm, ε: 23,000

Laboratory Procedures
For long term storage, we suggest that 12(S)-HEPE be stored as supplied at -20°C. It should be stable for at least one year.

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.

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. 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

Related Products
For a list of related products please visit: www.caymanchem.com/catalog/32550

WARNING: This product is for laboratory research only; not for administration to humans, not for human or veterinary diagnostic or therapeutic use.

MATERIAL SAFETY DATA
This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Cayman Chemical Company makes no warranty or guarantee of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals herein. Cayman warrants only to the original customer that the material will meet our specifications at the time of delivery. Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have any obligation or liability, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees. Buyer’s exclusive remedy and Cayman’s sole liability hereunder shall be limited to a refund of the purchase price, or at Cayman’s option, the replacement, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our Warranty and Limitation of Remedy located on our website and in our catalog.