

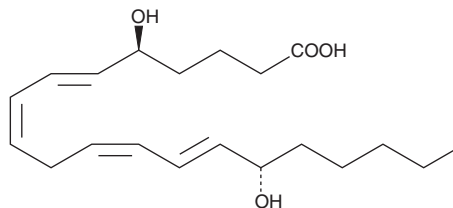
Product Information



5(S),15(S)-DiHETE

Item No. 35280

CAS Registry No.: 82200-87-1
Formal Name: 5S,15S-dihydroxy-6E,8Z,10Z,13E-eicosatetraenoic acid
MF: C₂₀H₃₂O₄
FW: 336.5
Purity: ≥98%
Stability: ≥1 year at -20°C
Supplied as: A solution in ethanol
UV/Vis: λ_{max}: 243 nm ε: 33,500
Misc.: Oxygen and light sensitive



Laboratory Procedures

For long term storage, we suggest that 5(S),15(S)-DiHETE be stored as supplied at -20°C. It should be stable for at least one year.

5(S),15(S)-DiHETE 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. The solubility of 5(S),15(S)-DiHETE in these solvents is approximately 50 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 5(S),15(S)-DiHETE is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of 5(S),15(S)-DiHETE in PBS, pH 7.2, is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

5(S),15(S)-DiHETE is synthesized by 15-lipoxygenase from 5(S)-HETE.¹ 5(S),15(S)-DiHETE potentiates the degranulation of human polymorphonuclear leukocytes in response to platelet activating factor, but not f-Met-Leu-Phe, calcium ionophore A23187, or Leukotriene B₄.² 5(S),15(S)-DiHETE is chemotactic for eosinophils with an ED₅₀ value of 0.3 μM.³

References

1. Green, F.A. Transformations of 5-HETE by activated keratinocyte 15-lipoxygenase and the activation mechanism. *Lipids* **25**, 618-623 (1990).
2. O'Flaherty, J.T. and Thomas, M.J. Effect of 15-lipoxygenase-deprived arachidonate metabolites on human neutrophil degranulation. *Prostaglandins Leukot. Med.* **17**, 199-212 (1985).
3. Morita, E., Schroder, J.M., and Christophers, E. Identification of a novel and highly potent eosinophil chemotactic lipid in human eosinophils treated with arachidonic acid. *J. Immunol.* **144**, 1893-1900 (1990).

Related Products

5,6-DiHETE - Item No. 10467 • 8(S),15(S)-DiHETE - Item No. 35370 • 5(S),15(S)-DiHETE Lipid Maps MS Standard - Item No. 10007255 • 5(S),6(R)-11-*trans* DiHETE - Item No. 10009628

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.

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