

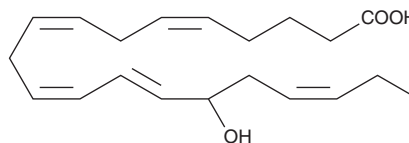
PRODUCT INFORMATION



(±)15-HEPE

Item No. 32700

CAS Registry No.: 88852-33-9
Formal Name: 15-hydroxy-5Z,8Z,11Z,13E,17Z-eicosapentaenoic acid
Synonym: (±)15-hydroxy Eicosapentaenoic Acid, (±)15-hydroxy EPA
MF: C₂₀H₃₀O₃
FW: 318.5
Purity: ≥98%
UV/Vis.: λ_{max}: 236 nm
Supplied as: A solution in ethanol
Storage: -20°C
Stability: ≥1 year
Special Conditions: Oxygen and light sensitive



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

Laboratory Procedures

(±)15-HEPE 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 ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. (±)15-HEPE is miscible in these solvents. (±)15-HEPE is soluble in 0.1 M Na₂CO₃ at a concentration of approximately 2 mg/ml.

(±)15-HEPE is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of (±)15-HEPE should be diluted with the aqueous buffer of choice. The solubility of (±)15-HEPE 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

(±)15-HEPE is a racemic mixture of the monohydroxy fatty acids 15(R)-HEPE and 15(S)-HEPE (Item No. 32710). 15(S)-HEPE is formed from EPA via a 15(S)-HpEPE (Item No. 42710) intermediate, which is produced by 15-lipoxygenase (15-LO) and reduced by glutathione peroxidase (GPX).^{1,2} (±)15-HEPE is active against *P. acnes* and *S. aureus* (MICs = 128 and 512 mg/L, respectively).³ It inhibits aggregation of isolated rat neutrophils induced by the formyl peptide receptor agonist fMLP (IC₅₀ = 4.7 μM).⁴ Bronchoalveolar lavage fluid (BALF) levels of (±)15-HEPE are increased in patients with allergic asthma or COVID-19.^{5,6}

References

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3. Desbois, A.P. and Lawlor, K.C. *Mar. Drugs* **11**(11), 4544-4557 (2013).
4. Lam, B., Marcinkiewicz, E., and Wong, P.Y.-K. *Drugs affecting leukotrienes and other eicosanoid pathways*. Samuelsson, B., Berti, F., Folco, G.C., Velo, G.P., editors, 1985th edition, Springer (1985).
5. Lundström, S.L., Yang, J., Källberg, H.J., et al. *PLoS One* **7**(3), e33780 (2012).
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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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