

PRODUCT INFORMATION



15(S)-HEPE-d₅ ethyl ester

Item No. 33783

Formal Name: 15(S)-hydroxy-5Z,8Z,11Z,13E,17Z-eicosapentaenoic-19,19,20,20,20-d₅ acid, ethyl ester

Synonyms: 15(S)-hydroxy EPA-d₅ ethyl ester, 15(S)-hydroxy Eicosapentaenoic Acid-d₅ ethyl ester

MF: C₂₂H₂₉D₅O₃

FW: 351.5

Chemical Purity: ≥95% 15(S)-HEPE-ethyl ester

Deuterium

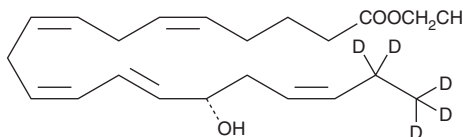
Incorporation: ≥99% deuterated forms (d₁-d₅); ≤1% d₀

UV/Vis.: λ_{max}: 237 nm

Supplied as: A 100 µg/ml 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

15(S)-HEPE-d₅ ethyl ester is intended for use as an internal standard for the quantification of 15-HEPE ethyl ester by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

15(S)-HEPE-d₅ ethyl ester 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 ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. 15(S)-HEPE-d₅ ethyl ester is soluble in 0.1 M sodium carbonate at a concentration of approximately 2 mg/ml.

Description

15(S)-HEPE ethyl ester is an esterified form of the monohydroxy fatty acid 15(S)-HEPE (Item No. 32710). 15(S)-HEPE is biosynthesized from eicosapentaenoic acid (EPA; Item Nos. 90110 | 90110.1 | 21908) by 15-lipoxygenase (15-LO).^{1,2} 15(R)-HEPE is formed by aspirin-acetylated COX-2-mediated oxidation of EPA.³

References

1. Miller, C., Yamaguchi, R.Y., and Ziboh, V.A. Guinea pig epidermis generates putative anti-inflammatory metabolites from fish oil polyunsaturated fatty acids. *Lipids* **24**(12), 998-1003 (1989).
2. Tan, L., Xin, X., Zhai, L., et al. Drosophila fed ARA and EPA yields eicosanoids, 15S-hydroxy-5Z,8Z, 11Z, 13E-eicosatetraenoic acid, and 15S-hydroxy-5Z,8Z,11Z,13E,17Z-eicosapentaenoic acid. *Lipids* **51**(4), 435-449 (2016).
3. Serhan, C.N., Clish, C.B., Brannon, J., et al. Anti-microinflammatory lipid signals generated from dietary N-3 fatty acids via cyclooxygenase-2 and transcellular processing: A novel mechanism for NSAID and N-3 PUFA therapeutic actions. *J. Physiol. Pharmacol.* **51**(4 Pt. 1), 643-654 (2000).

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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