

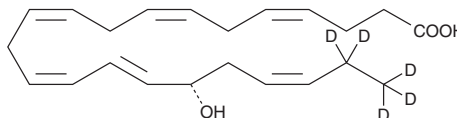
PRODUCT INFORMATION



17(S)-HDHA-d₅

Item No. 29797

CAS Registry No.: 2738376-87-7
Formal Name: 17(S)-hydroxy-4Z,7Z,10Z,13Z,15E,19Z-docosahexaenoic-21,21,22,22,22-d₅ acid
Synonyms: 17(S)-hydroxy DHA-d₅,
17(S)-hydroxy Docosahexaenoic Acid-d₅,
17(S)-HDoHE-d₅
MF: C₂₂H₂₇D₅O₃
FW: 349.5
Chemical Purity: ≥98% (17(S)-HDHA)
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

17(S)-HDHA-d₅ is intended for use as an internal standard for the quantification of 17(S)-HDHA (Item No. 10009799) 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).

17(S)-HDHA-d₅ is supplied as a solution in ethanol. To change the solvent, simply evaporate the 17(S)-HDHA-d₅ 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. 17(S)-HDHA-d₅ is miscible in these solvents.

Description

17(S)-HDHA is a hydroxy fatty acid formed from docosahexaenoic acid (DHA; Item No. 90310) by 15-lipoxygenase (15-LO) and is a precursor to 17(S)-resolvins.^{1,2} 17(S)-HDHA inhibits platelet 12-LO (IC₅₀ = 0.4 µM).¹ It inhibits TNF-α-induced expression of *IL1B* in a human glial cell line (IC₅₀ = ~0.5 nM).² 17(S)-HDHA (100 nM) inhibits NOD-, LRR-, and pyrin domain-containing protein 3 (NLRP3) inflammasome formation induced by homocysteine in podocytes.³

References

1. Mitchell, P.D., Hallam, C., Hemsley, P.E., *et al.* Inhibition of platelet 12-lipoxygenase by hydroxy-fatty acids. *Biochem. Soc. Trans.* **12**(5), 839-841 (1984).
2. Hong, S., Gronert, K., Devchand, P.R., *et al.* Novel docosatrienes and 17S-resolvins generated from docosahexaenoic acid in murine brain, human blood, and glial cells. Autacoids in anti-inflammation. *J. Biol. Chem.* **278**(17), 14677-14687 (2003).
3. Li, G., Chen, Z., Bhat, O.M., *et al.* NLRP3 inflammasome as a novel target for docosahexaenoic acid metabolites to abrogate glomerular injury. *J. Lipid Res.* **58**(6), 1080-1090 (2017).

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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