

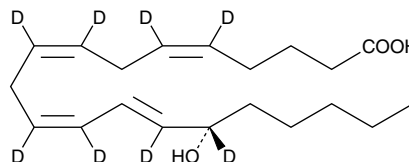
Product Information



15(S)-HETE-d₈

Item No. 334720

CAS Registry No.: 84807-87-4
Formal Name: 15(S)-hydroxy-5Z,8Z,11Z,13E-eicosatetraenoic-5,6,8,9,11,12,14,15-d₈ acid
MF: C₂₀H₂₄D₈O₃
FW: 328.5
Chemical Purity: ≥98%
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₈); ≤1% d₀
Stability: ≥1 year at -20°C
Supplied as: A solution in acetonitrile
UV/Vis.: λ_{max}: 236 nm ε: 27,000



Laboratory Procedures

15(S)-HETE-d₈ contains eight deuterium atoms at the 5, 6, 8, 9, 11, 12, 14, and 15 positions. It is intended for use as an internal standard for the quantification of 15(S)-HETE by GC- or LC-mass spectrometry (MS). For long term storage, we suggest that 15(S)-HETE-d₈ be stored as supplied at -20°C. It will be stable for at least one year.

15(S)-HETE-d₈ is supplied as a solution in acetonitrile. To change the solvent, simply evaporate the acetonitrile under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide (DMF) purged with an inert gas can be used. 15(S)-HETE-d₈ is miscible in these solvents.

15(S)-HETE-d₈ is used as an internal standard for the quantification of 15(S)-HETE by stable isotope dilution 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)-HETE is produced abundantly when plant lipoxygenases (such as soybean) are incubated with arachidonic acid.¹ In mammals, it is synthesized in the respiratory epithelium, leukocytes, and reticulocytes.² 15(S)-HETE is present in µg/ml concentrations in the nasal secretions of allergic rhinitis.³

References

1. Funk, M.O., Carroll, R.T., Thompson, J.F., *et al.* The lipoxygenases in developing soybean seeds, their characterization and synthesis *in vitro*. *Plant Physiol.* **82**, 1139-1144 (1986).
2. Nadel, J.A., Conrad, D.J., Ueki, I.F., *et al.* Immunocytochemical localization of arachidonate 15-lipoxygenase in erythrocytes, leukocytes, and airway cells. *J. Clin. Invest.* **87**, 1139-1145 (1991).
3. Ramis, I., Roselló-Catafau, J., Bulbena, O., *et al.* 15-Hydroxyeicosatetraenoic acid as a major eicosanoid in nasal secretions: Assay by high-performance liquid chromatographic-radioimmunoassay and gas chromatographic-mass spectrometric procedures. *J. Chromatogr.* **496**, 416-422 (1989).

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