Product Information

5(S)-HETE-d₈
Item No. 334230

CAS Registry No.: 330796-62-8
Formal Name: 5S-hydroxy-6E,8Z,11Z,14Z-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: λₑₓₙ = 236 nm; ε = 27,000

Laboratory Procedures
5(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 5(S)-HETE by GC- or LC-mass spectrometry (MS). For long term storage, we suggest that 5(S)-HETE-d₈ be stored as supplied at -20°C. It should be stable for at least one year.

5(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. The solubility of 5(S)-HETE-d₈ in these solvents is approximately 50 mg/ml.

5(S)-HETE-d₈ is used as an internal standard for the quantification of 5(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).

5(S)-HETE is produced by the action of 5-lipoxygenase on arachidonic acid to give 5(S)-HpETE, followed by reduction of the hydroperoxide. 5(S)-HETE has proliferative and chemotactic effects on granulocytes. When further metabolized to the 5-oxoETE, it is a more potent eosinophil chemoattractant than leukotriene B₄.2,3

References

Related Products
For a list of related products please visit: www.caymanchem.com/catalog/334230

Material Safety Data Sheet
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 by federal law. 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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