

Product Information



12-*epi* Leukotriene B₄-d₄

Item No. 320135

Formal Name: 5S,12S-dihydroxy-6Z,8E,10E,14Z-eicosatetraenoic-6,7,14,15-d₄ acid

MF: C₂₀H₂₈D₄O₄

FW: 340.5

Chemical Purity: ≥ 98%

Deuterium

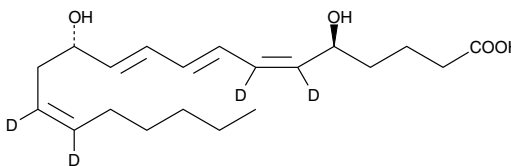
Incorporation: ≥ 99% deuterated forms (d₁-d₄); ≤ 1% d₀

Stability: ≥ 2 years at -20°C

Supplied as: A solution in acetonitrile

UV/Vis.: λ_{max}: 270 nm ε: 50,000

Miscellaneous: Light Sensitive



Laboratory Procedures

12-*epi* Leukotriene B₄-d₄ (12-*epi* LTB₄-d₄) contains four deuterium atoms at the 6, 7, 14, and 15 positions. It is intended for use as an internal standard for the quantification of 12-*epi* LTB₄ by GC- or LC-mass spectrometry (MS). For long term storage, we suggest that 12-*epi* LTB₄-d₄ be stored as supplied at -20°C. It should be stable for at least two years.

12-*epi* LTB₄-d₄ 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 purged with an inert gas can be used. The solubility of 12-*epi* LTB₄-d₄ in these solvents is approximately 50 mg/ml.

12-*epi* LTB₄-d₄ is used as an internal standard for the quantification of 12-*epi* LTB₄ by stable isotope dilution MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the weight indicated on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard 12-*epi* LTB₄ by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

12-*epi* LTB₄ is the “unnatural” 12(S) epimer of LTB₄. 12-*epi* LTB₄ does not appear in any measurable amount in the LTB₄ isomers produced by non-enzymatic hydrolysis of LTA₄.¹ There are no published reports on the biological activity of 12-*epi* LTB₄.

Reference

1. Sala, A., Bolla, M., Zarini, S., *et al.* Release of leukotriene A₄ versus leukotriene B₄ from human polymorphonuclear leukocytes. *J. Biol. Chem.* **271**, 17944-17948 (1996).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/320135

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

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 for the safe and proper use of this material. 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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Cayman Chemical

Mailing address

1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

Phone

(800) 364-9897
(734) 971-3335

Fax

(734) 971-3640

E-Mail

custserv@caymanchem.com

Web

www.caymanchem.com