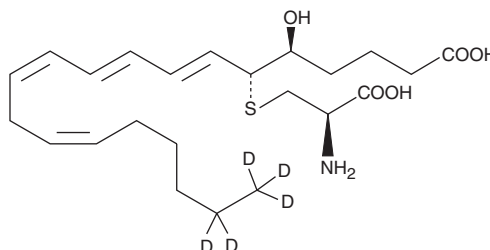


PRODUCT INFORMATION



Leukotriene E₄-d₅ Item No. 10007858

CAS Registry No.: 1240398-14-4
Formal Name: 6R-[[[(2R)-2-amino-2-carboxyethyl]thio]-5S-hydroxy-7E,9E,11Z,14Z-eicosatetraenoic-19,19,20,20,20-d₅ acid
Synonym: LTE₄-d₅
MF: C₂₃H₃₂D₅NO₅S
FW: 444.6
Chemical Purity: ≥97% (Leukotriene E₄)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₅); ≤1% d₀
UV/Vis.: λ_{max}: 281 nm
Supplied as: A solution in ethanol
Storage: -80°C
Stability: ≥1 year
Special Conditions: Light-sensitive



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Leukotriene E₄-d₅ (LTE₄-d₅) is intended for use as an internal standard for the quantification of LTE₄ (Item No. 20410) 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).

LTE₄-d₅ 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 DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of LTE₄-d₅ in these solvents is approximately 50 mg/ml.

Description

LTE₄ is produced by the action of dipeptidase on LTD₄, leaving only the cysteinyl group still attached to the fatty acid backbone.¹ It is one of the constituents of slow-reacting substance of anaphylaxis (SRS-A).² LTE₄ is considerably less active (8 to 12-fold) than LTC₄ in the biological activities characteristic of cysteinyl leukotrienes.^{1,3} Unlike LTC₄ and LTD₄, LTE₄ accumulates in both plasma and urine. Therefore, urinary excretion of LTE₄ is most often used as an indicator of asthma.⁴⁻⁶ In humans, basal levels of LTE₄ range from 1-100 pg/mg creatinine. In asthmatic patients, urinary LTE₄ levels increase to 80-1,000 pg/mg creatinine.⁵

References

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2. Samuelsson, B. *Science* **220(4597)**, 568-575 (1983).
3. Lefer, A.M. *Biochem. Pharmacol.* **35(2)**, 123-127 (1986).
4. Kumlin, M., Stensvad, F., Larsson, L., et al. *Clin. Exp. Allergy* **25(5)**, 467-479 (1995).
5. Drazen, J.M., O'Brien, J., Sparrow, D., et al. *Am. Rev. Respir. Dis.* **146(1)**, 104-108 (1992).
6. Kumlin, M., Dahlén, B., Björck, T., et al. *Am. Rev. Respir. Dis.* **146(1)**, 96-103 (1992).

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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