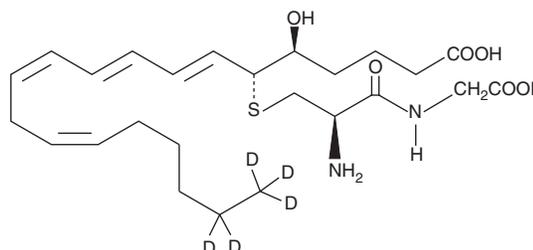


PRODUCT INFORMATION



Leukotriene D₄-d₅ Item No. 10006199

CAS Registry No.: 1240398-17-7
Formal Name: S-[(1R,2E,4E,6Z,9Z)-1-[(1S)-4-carboxy-1-hydroxybutyl]-2,4,6,9-pentadecatetraen-1-yl]-14,14,15,15,15-d₅]-L-cysteinyl-glycine
Synonym: LTD₄-d₅
MF: C₂₅H₃₅D₅N₂O₆S
FW: 501.7
Chemical Purity: ≥97% (Leukotriene D₄)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₅); ≤1% d₀
UV/Vis.: λ_{max}: 280 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 D₄-d₅ (LTD₄-d₅) is intended for use as an internal standard for the quantification of LTD₄ (Item No. 20310) 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).

LTD₄-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 LTD₄-d₅ in these solvents is approximately 50 mg/ml.

Description

Leukotriene D₄-d₅ (LTD₄-d₅) is intended for use as an internal standard for the quantification of LTD₄ (Item No. 20310) by GC- or LC-MS. LTD₄ is an active metabolite of LTC₄ (Item No. 20210) and a constituent of slow-reacting substance of anaphylaxis (SRS-A).^{1,2} It is formed *via* metabolism of LTC₄ by γ-glutamyl transpeptidase. Like LTC₄, LTD₄ (0.01-0.1 pM) induces contractions in isolated guinea pig parenchymal strips and tracheal spirals.³ *In vivo*, LTD₄ increases insufflation pressure, a marker of bronchoconstriction, in anesthetized guinea pigs by 100% when administered at a dose of 89 pmol per animal.⁴ It also increases vascular permeability in guinea pig skin when administered intradermally at a dose of 0.1 pmol per animal.

References

- Örning, L., Hammarström, S., and Samuelsson, B. *Proc. Natl. Acad. Sci. USA* **77**(4), 2014-2017 (1980).
- Hammarström, S., Örning, L., and Bernström, K. *Mol. Cell Biochem.* **69**(1), 7-16 (1985).
- Lefer, A.M. *Biochem. Pharmacol.* **35**(2), 123-127 (1986).
- Hedqvist, P., Dahlén, S.E., Gustafsson, L., et al. *Acta Physiol. Scand.* **110**(3), 331-333 (1980).

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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