

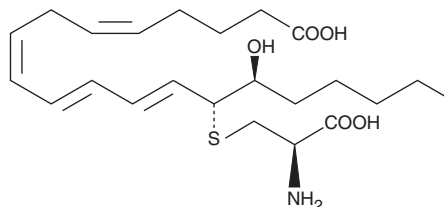
PRODUCT INFORMATION



14,15-Leukotriene E₄

Item No. 10011362

CAS Registry No.: 1000852-57-2
Formal Name: 14R-[[[(2R)-2-amino-2-carboxyethyl]thio]-15S-hydroxy-5Z,8Z,10E,12E-eicosatetraenoic acid
Synonyms: Eoxin E₄, EXE₄, 14,15-LTE₄
MF: C₂₃H₃₇NO₅S
FW: 439.6
Purity: ≥97%
UV/Vis.: λ_{max}: 281 nm
Supplied as: A solution in methanol
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

14,15-Leukotriene E₄ (14,15-LTE₄) is supplied as a solution in methanol. To change the solvent, simply evaporate the methanol 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 14,15-LTE₄ in these solvents is approximately 50 mg/ml.

14,15-LTE₄ is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methanolic solution of 14,15-LTE₄ should be diluted with the aqueous buffer of choice. The solubility of 14,15-LTE₄ in PBS (pH 7.2) is approximately 0.1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Leukotrienes (LTs) are a group of acute inflammatory mediators derived from arachidonic acid in leukocytes. The majority of these metabolites are formed through the 5-lipoxygenase (5-LO) pathway.¹ 14,15-LTE₄ is a metabolite of 14,15-LTC₄ and 14,15-LTD₄, an alternate class of LTs synthesized by a pathway involving the dual actions of 15- and 12-LOs on arachidonic acid via 15-HpETE and 14,15-LTA₄ intermediates.²⁻⁵ These metabolites are classified as eoxins because they are formed mostly by eosinophils.⁴ Mast cells and nasal polyps can synthesize 14,15-LTC₄ as well, however metabolism to 14,15-LTE₄ in these cells and tissue has not been documented. 14,15-LTE₄ increases vascular permeability of human endothelial cell monolayers with about 10-fold less potency than LTC₄, but approximately 100-fold greater potency than histamine.⁴

References

1. Luo, M., Lee, S., and Brock, T.G. *Histol. Histopathol.* **18(2)**, 587-595 (2003).
2. Yokoyama, C., Shinjo, F., Yoshimoto, T., et al. *J. Biol. Chem.* **261(35)**, 16714-16721 (1986).
3. Bryant, R.W., Schewe, T., Rapoport, S.M., et al. *J. Biol. Chem.* **260(6)**, 3548-3555 (1985).
4. Feltenmark, S., Gautam, N., Brunnström, Å., et al. *Proc. Natl. Acad. Sci. USA* **105(2)**, 680-685 (2008).
5. Sailesh, S., Kumar, Y.V.K., Prasad, M., et al. *Arch. Biochem. Biophys.* **315(2)**, 362-368 (1994).

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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