

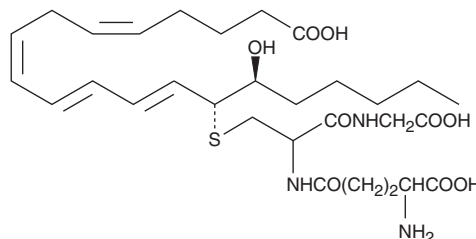
Product Information



14,15-Leukotriene C₄

Catalog No. 10011360

CAS Registry No.: 75290-60-7
Formal Name: 15S-hydroxy-14R-(S-glutathionyl)-5Z,8Z,10E,12E-eicosatetraenoic acid
Synonyms: Eoxin C₄, EXC₄, 14,15-LTC₄
MF: C₃₀H₄₇N₃O₉S
FW: 625.8
Purity: ≥95%
Stability: ≥1 year at -80°C
Supplied as: A solution in methanol



Laboratory Procedures

For long term storage, we suggest that 14,15-leukotriene C₄ (14,15-LTC₄) be stored as supplied at -80°C. It should be stable for at least one year.

14,15-LTC₄ 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 (DMF) purged with an inert gas can be used. The solubility of 14,15-LTC₄ in ethanol is approximately 1 mg/ml and approximately 50 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. If an organic solvent-free solution of 14,15-LTC₄ is needed, it can be prepared by evaporating the methanol and directly dissolving the neat oil in aqueous buffers. The solubility of 14,15-LTC₄ in PBS, pH 7.2, is approximately 100 µg/ml. We do not recommend storing the aqueous solution for more than one day.

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-LTC₄ is a member of 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 14,15-LTC₄ is classified as an eoxin, because it is formed mostly by eosinophils.⁴ However, mast cells and nasal polyps can synthesize 14,15-LTC₄ as well. Little is known about the physiological actions of 14,15-LTC₄. It has weak contractile activity on both guinea pig ileum and pulmonary parenchyma in contrast to the effects of 5-LO-derived LTs.^{6,7} However, in an *in vitro* permeability assay, 14,15-LTC₄ can increase vascular permeability of human endothelial cell monolayers, with similar potency to that of 5-LO-derived LTs resulting in plasma leakage - a hallmark of inflammation.⁴

References

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3. Bryant, R.W., Schewe, T., Rapoport, S.M., *et al.* *J. Biol. Chem.* **260**, 3548-3555 (1985).
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5. Sailesh, S., Kumar, Y.V.K., Prasad, M., *et al.* *Arch. Biochem. Biophys.* **315**(2), 362-368 (1994).
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Related Products

Leukotriene C₄ - Cat. No. 20210 • Cysteinyl Leukotriene EIA Kit - Cat. No. 520501 • 14,15-Leukotriene C₄ EIA Kit - Cat. No. 10006748

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 under separate cover to the MSDS supervisor at your institution.

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