

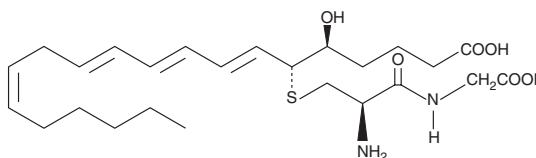
PRODUCT INFORMATION



11-*trans* Leukotriene D₄

Item No. 20330

CAS Registry No.: 79768-40-4
Formal Name: 5S-hydroxy-6R-(S-cysteinylglycyl)-
7E,9E,11E,14Z-eicosatetraenoic acid
MF: C₂₅H₄₀N₂O₆S
FW: 496.7
Purity: ≥97%
UV/Vis.: λ_{max}: 278 nm
Supplied as: A solution in ethanol
Storage: -20°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

11-*trans* LTD₄ 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 11-*trans* LTD₄ in these solvents is approximately 50 mg/ml.

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 11-*trans* LTD₄ is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of 11-*trans* LTD₄ in PBS (pH 7.2) is approximately 100 µg/ml. Store aqueous solutions of 11-*trans* LTD₄ on ice and use within 12 hours of preparation. Although the aqueous solutions of 11-*trans* LTD₄ may be stable for more than 12 hours, we strongly recommend using a fresh preparation each day.

Description

11-*trans* LTD₄ is a C-11 double bond isomer of LTD₄. LTD₄ undergoes slow temperature-dependent isomerization to 11-*trans* LTD₄ during storage. 11-*trans* LTD₄ retains about 10-25% of the potency for contraction of guinea pig ileum, trachea, and parenchyma compared to LTD₄.^{1,2} It exhibits an ED₅₀ ranging between 12-60 nM for contraction of guinea pig trachea.^{2,3}

References

1. Baker, S.R., Boot, J.R., Jamieson, W.B., *et al.* The comparative *in vitro* pharmacology of leukotriene D₄ and its isomers. *Biochem. Biophys. Res. Commun.* **103(4)**, 1258-1264 (1981).
2. Tsai, B.S., Bernstein, P., Macia, R.A., *et al.* Comparative potency and pharmacology of isomers of leukotriene D₄ on guinea-pig trachea: Requirement for a 5(S)6(R) configuration. *Prostaglandins* **23(4)**, 489-506 (1982).
3. Krell, R.D., Osborn, R., Falcone, K., *et al.* Contraction of isolated airway smooth muscle by synthetic leukotrienes C₄ and D₄. *Prostaglandins* **22(3)**, 387-409 (1981).

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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