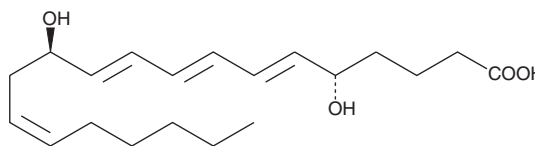


PRODUCT INFORMATION

6-*trans* Leukotriene B₄

Item No. 35250

CAS Registry No.: 71652-82-9
Formal Name: 5S,12R-dihydroxy-6E,8E,10E,14Z-eicosatetraenoic acid
Synonyms: all-*trans* LTB₄, 5(S),12(R)-DiHETE
MF: C₂₀H₃₂O₄
FW: 336.5
Purity: ≥97%
UV/Vis.: λ_{max}: λ_{max}: 269 nm ε: 50,000
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

6-*trans* LTB₄ 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 or dimethyl formamide purged with an inert gas can be used. The solubility of 6-*trans* LTB₄ 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 aqueous solution of 6-*trans* LTB₄ is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of 6-*trans* LTB₄ in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

6-*trans* LTB₄ is produced by the non-enzymatic hydrolysis of LTA₄.¹ Oxidative decomposition of cysteinyl-LTs such as LTC₄ in the presence of myeloperoxidase and hypochlorous acid can also produce 6-*trans* LTB₄, but the physiologic importance of this mechanism is not clear.² 6-*trans* LTB₄ is relatively inactive compared to LTB₄, but chemoattractant properties in neutrophils have been reported.³

References

1. Borgeat, P. and Samuelsson, B. Metabolism of arachidonic acid in polymorphonuclear leukocytes. *J. Biol. Chem.* **254**(16), 7865-7869 (1979).
2. Lee, C.W., Lewis, R.A., Tauber, A.I., et al. The myeloperoxidase-dependent metabolism of leukotrienes C₄, D₄, and E₄ to 6-*trans*-leukotriene B₄ diastereoisomers and the subclass-specific S-diastereoisomeric sulfoxides. *J. Biol. Chem.* **258**(24), 15004-15010 (1983).
3. Fretland, D.J., Widomski, D.L., Anglin, C.P., et al. 6-*trans*-Leukotriene B₄ is a neutrophil chemotoxin in the guinea pig dermis. *J. Leukoc. Biol.* **49**(3), 283-288 (1991).

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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