

PRODUCT INFORMATION

Leukotriene B₃

Item No. 20109

CAS Registry No.: 88099-35-8

Formal Name: 5S,12R-dihydroxy-6Z,8E,10E-eicosatrienoic acid

MF: C₂₀H₃₄O₄

FW: 338.5

Purity: ≥97%*

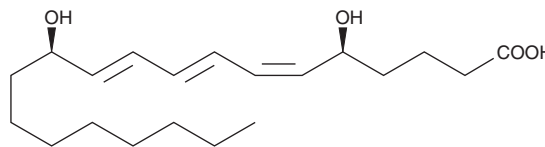
UV/Vis.: λ_{max}: 270 nm

Supplied as: A 100 µg/ml 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

LTB₃ 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. LTB₃ is miscible in these solvents.

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 LTB₃ is needed, it can be prepared by evaporating the ethanol under a stream of nitrogen and dissolving the neat oil in the buffer of choice. LTB₃ is soluble in PBS (pH 7.2) at a concentration of at least 1 mg/ml. For more concentrated aqueous solutions, use basic buffers (pH >8.0 and ionic strength ≥0.1 M). We do not recommend storing the aqueous solution for more than one day.

Description

LTB₃ is the LTA hydrolase metabolite of LTA₃ in the leukotriene biosynthetic pathway. LTB₃ and LTB₄ are equipotent in their pro-inflammatory effects.^{1,2} However, LTB₃ is five times less potent than LTB₄ in eliciting chemotaxis of human neutrophils.¹

References

1. Lee, T.H., Sethi, T., Crea, A.E.G., *et al.* Characterization of leukotriene B₃: Comparison of its biological activities with leukotriene B₄ and leukotriene B₅ in complement receptor enhancement, lysozyme release and chemotaxis of human neutrophils. *Clin. Sci.* **74**, 467-475 (1988).
2. Shimazaki, T., Kobayashi, Y., Sato, F., *et al.* Some newly synthesized leukotriene B₄ analogs inhibit LTB₄-induced lysozyme release from rat polymorphonuclear leukocytes. *Prostaglandins* **39**, 459-467 (1990).

*All cysteinyl leukotrienes may contain a small amount of the 11-*trans* isomer. The purity for all such leukotrienes excludes the 1-4% *trans* isomer which may be present

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM