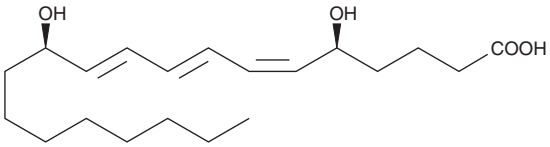
PRODUCT INFORMATION

Leukotriene B_3

Item No. 20109

CAS Registry No.: 88099-35-8
Formal Name: 5S,12R-dihydroxy-6Z,8E,10E-eicosatrienoic acid
MF: $C_{20}H_{34}O_4$
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

LTB_3 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. LTB_3 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 LTB_3 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. LTB_3 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

LTB_3 is the LTA hydrolase metabolite of LTA_3 in the leukotriene biosynthetic pathway. LTB_3 and LTB_4 are equipotent in their pro-inflammatory effects.[1,2] However, LTB_3 is five times less potent than LTB_4 in eliciting chemotaxis of human neutrophils.[1]

References

1. Lee, T.H., Sethi, T., Crea, A.E.G., *et al.* Characterization of leukotriene B_3: Comparison of its biological activities with leukotriene B_4 and leukotriene B_5 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 B_4 analogs inhibit LTB_4-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

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