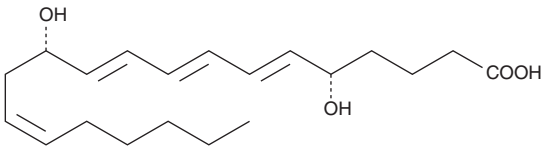
PRODUCT INFORMATION

6-*trans*-12-*epi* Leukotriene B_4

Item No. 35265

CAS Registry No.: 71548-19-1
Formal Name: 5S,12S-dihydroxy-6E,8E,10E,14Z-eicosatetraenoic acid
Synonym: 6-*trans*-12-*epi* LTB_4
MF: $C_{20}H_{32}O_4$
FW: 336.5
Purity: ≥97%
UV/Vis.: λ_{max}: 268 nm ε: 50,000 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

6-*trans*-12-*epi* Leukotriene B_4 (6-*trans*-12-*epi* LTB_4) 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 6-*trans*-12-*epi* LTB_4 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 6-*trans*-12-*epi* LTB_4 is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of 6-*trans*-12-*epi* LTB_4 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*-12-*epi* LTB_4 is a non-enzymatic hydrolysis product of LTA_4. It was originally isolated from glycogen-induced rabbit peritoneal polymorphonuclear leukocytes (PMNL).[1,2] 6-*trans*-12-*epi* LTB_4 is weakly chemotactic for PMNL, with approximately 20 times less potency than LTB_4, and has no effect on the aggregation response.[3]

References

1. Borgeat, P. and Samuelsson, B. Metabolism of arachidonic acid in polymorphonuclear leukocytes. *J. Biol. Chem.* **254(16)**, 7865-7869 (1979).
2. Borgeat, P. and Samuelsson, B. Arachidonic acid metabolism in polymorphonuclear leukocytes: Unstable intermediate in formation of dihydroxy acids. *Proc. Natl. Acad. Sci. USA* **76(7)**, 3213-3217 (1979).
3. Lee, T.H., Mencia-Huerta, J.M., Shih, C., *et al.* Characterization and biologic properties of 5,12-dihydroxy derivatives of eicosapentaenoic acid, including leukotriene B_5 and the double lipoxygenase product. *J. Biol. Chem.* **259(4)**, 2383-2389 (1984).

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