

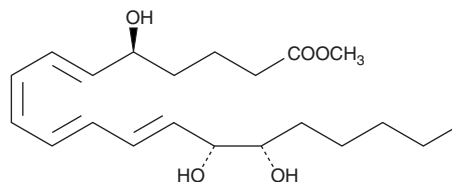
PRODUCT INFORMATION



Lipoxin B₄ methyl ester

Item No. 24073

CAS Registry No.: 97589-07-6
Formal Name: 5S,14R,15S-trihydroxy-6E,8Z,10E,12E-eicosatetraenoic acid, methyl ester
Synonym: LXB₄ methyl ester
MF: C₂₁H₃₄O₅
FW: 366.5
Purity: ≥95%
UV/Vis.: λ_{max}: 221, 289, 301, 316 nm
Supplied as: A solution in ethanol
Storage: -80°C
Stability: ≥1 year



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Lipoxin B₄ (LXB₄) methyl ester 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. It is recommended that this product be stored and handled in an ethanol solution. Lipoxins can isomerize and degrade when put into freeze thaw conditions and/or in solvents such as dimethyl formamide or DMSO.

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 LXB₄ methyl ester is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of LXB₄ methyl ester in PBS, pH 7.2, is approximately 1 mg/ml. Aqueous solutions of LXB₄ methyl ester should be discarded immediately after use.

Description

LXB₄ methyl ester is a lipid soluble prodrug form of the transcellular metabolite LXB₄ (Item No. 90420). LXB₄ is a positional isomer of LXA₄ (Item No. 90410) produced by the metabolism of 15-HETE (Item No. 34700) or 15-HpETE (Item No. 44720) by human leukocytes.^{1,2} At a concentration of 100 nM, LXB₄ inhibits polymorphonuclear leukocyte (PMN) migration stimulated by leukotriene B₄ (LTB₄; Item No. 20110) and inhibits LTB₄-induced adhesion of PMNs with an IC₅₀ value of 0.3 nM.³

References

1. Serhan, C.N., Hamberg, M., Samuelsson, B., *et al.* On the stereochemistry and biosynthesis of lipoxin B. *Proc. Nat. Acad. Sci. USA* **83**(7), 1983-1987 (1986).
2. Serhan, C.N., Hamberg, M., and Samuelsson, B. Lipoxins: Novel series of biologically active compounds formed from arachidonic acid in human leukocytes. *Proc. Nat. Acad. Sci. USA* **81**(17), 5335-5339 (1984).
3. Papayianni, A., Serhan, C.N., and Brady, H.R. Lipoxin A₄ and B₄ inhibit leukotriene-stimulated interactions of human neutrophils and endothelial cells. *J. Immunol.* **156**(6), 2264-2272 (1996).

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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