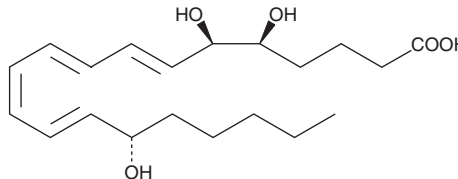


PRODUCT INFORMATION



Lipoxin A₄ Item No. 90410

CAS Registry No.: 89663-86-5
Formal Name: 5S,6R,15S-trihydroxy-7E,9E,11Z,13E-eicosatetraenoic acid
Synonyms: LXA₄, 5(S),6(R),15(S)-TriHETE
MF: C₂₀H₃₂O₅
FW: 352.5
Purity: ≥95%
Stability: ≥1 year at -80°C
Supplied as: A solution in ethanol
Special Conditions: Light Sensitive
UV/Vis.: λ_{max}: 302 nm ε: 50,000



Laboratory Procedures

For long term storage, we suggest that lipoxin A₄ (LXA₄) be stored as supplied at -80°C. It should be stable for at least one year.

LXA₄ 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 DMF 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 LXA₄ is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of LXA₄ in PBS (pH 7.2) is at least 1 mg/ml. Store aqueous solutions of LXA₄ on ice and use within 12 hours of preparation. Aqueous solutions of LXA₄ should be discarded immediately after use.

Description

LXA₄ is a trihydroxy fatty acid containing a conjugated tetraene, produced by the metabolism of (±)15-HETE (Item No. 34700) or 15-HpETE with human leukocytes.¹ LXA₄ is equipotent to leukotriene B₄ (Item No. 20110) in inducing superoxide generation in human neutrophils at 0.1 μM.² LXA₄ is associated with several other biological functions including leukocyte activation, chemotaxis effects, natural killer cell inhibition, and monocyte migration and adhesion.²⁻⁴ Analytical and biological comparisons of synthetic LXA₄ with endogenously derived LXA₄ have confirmed its identity as matching the natural product.⁵

References

1. Serhan, C.N., Nicolaou, K.C., Webber, S.E., *et al.* Lipoxin A. Stereochemistry and biosynthesis. *J. Biol. Chem.* **261**, 16340-16345 (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. Natl. Acad. Sci. USA* **81**, 5335-5339 (1984).
3. Ramstedt, U., Serhan, C.N., Nicolaou, K.C., *et al.* Lipoxin A-induced inhibition of human natural killer cell cytotoxicity: Studies on stereospecificity of inhibition and mode of action. *J. Immunol.* **138**, 266-270 (1987).
4. Maddox, J.F. and Serhan, C.N. Lipoxin A₄ and B₄ are potent stimuli for human monocyte migration and adhesion: Selective inactivation by dehydrogenation and reduction. *J. Exp. Med.* **183**, 137-146 (1996).
5. Serhan, C. Personal Communication.

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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