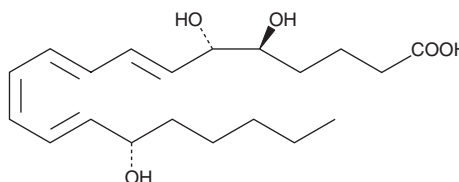


# PRODUCT INFORMATION



## 6(S)-Lipoxin A<sub>4</sub> Item No. 10049

**CAS Registry No.:** 94292-80-5  
**Formal Name:** 5S,6S,15S-trihydroxy-7E,9E,11Z,13E-eicosatetraenoic acid  
**Synonyms:** 5(S),6(S)-Lipoxin A<sub>4</sub>, 6-*epi*-Lipoxin A<sub>4</sub>, 6(S)-LXA<sub>4</sub>, 5(S),6(S),15(S)-TriHETE  
**MF:** C<sub>20</sub>H<sub>32</sub>O<sub>5</sub>  
**FW:** 352.5  
**Purity:** ≥95%  
**Supplied as:** A solution in ethanol  
**UV/Vis.:** λ<sub>max</sub>: 302 nm ε: 50,000  
**Storage:** -80°C  
**Stability:** ≥1 year  
**Miscellaneous:** Light Sensitive



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

### Laboratory Procedures

6(S)-Lipoxin A<sub>4</sub> (6(S)-LXA<sub>4</sub>) is supplied as a solution in ethanol. To change the solvent, simply evaporate the 6(S)-LXA<sub>4</sub> under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as dimethyl formamide purged with an inert gas can be used. The solubility of 6(S)-LXA<sub>4</sub> in this solvent is approximately 50 mg/ml.

6(S)-LXA<sub>4</sub> is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the 6(S)-LXA<sub>4</sub> solution of ethanol should be diluted with the aqueous buffer of choice. The solubility of 6(S)-LXA<sub>4</sub> 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(S)-LXA<sub>4</sub> is an isomer of the trihydroxy fatty acid LXA<sub>4</sub> (Item No. 90410). It is formed from arachidonic acid (Item Nos. 90010 | 90010.1 | 10006607) through double lipoxygenase-catalyzed reactions initiated by either 5-lipoxygenase (5-LO) followed by 12- or 15-LO, with a leukotriene A<sub>4</sub> (LTA<sub>4</sub>) intermediate, or by 15-LO followed by 5-LO, with 15(S)-HETE (Item No. 34720) and 5(S)-Hp-15(S)-HETE intermediates.<sup>1</sup> The generation of 6(S)-LXA<sub>4</sub> and LXA<sub>4</sub> typically requires transcellular metabolism of arachidonic acid.<sup>1,2</sup> For example, LTA<sub>4</sub> synthesized in neutrophils by 5-LO is metabolized to LXA<sub>4</sub> in platelets by 12-LO.<sup>1</sup> 6(S)-LXA<sub>4</sub> has been detected in co-incubations of human polymorphonuclear leukocytes (PMNs) and platelets.<sup>3</sup>

### References

1. Serhan, C.N. and Sheppard, K.-A. Lipoxin formation during human neutrophil-platelet interactions. Evidence for the transformation of leukotriene A<sub>4</sub> by platelet 12-lipoxygenase *in vitro*. *J. Clin. Invest.* **85**(3), 772-780 (1990).
2. Serhan, C.N., Chiang, N., and Van Dyke, T.E. Resolving inflammation: Dual anti-inflammatory and pro-resolution lipid mediators. *Nat. Rev. Immunol.* **8**(5), 349-361 (2008).
3. Homann, J., Lehmann, C., Kahnt, A.S., et al. Chiral chromatography-tandem mass spectrometry applied to the determination of pro-resolving lipid mediators. *J. Chromatogr. A* **1360**, 150-163 (2014).

#### 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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