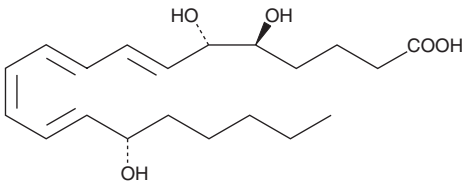
PRODUCT INFORMATION

6(S)-Lipoxin A_4

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_4, 6-*epi*-Lipoxin A_4, 6(S)-LXA_4, 5(S),6(S),15(S)-TriHETE
MF: $C_{20}H_{32}O_5$
FW: 352.5
Purity: ≥95%
Supplied as: A solution in ethanol
UV/Vis.: λ_{max}: 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_4 (6(S)-LXA_4) is supplied as a solution in ethanol. To change the solvent, simply evaporate the 6(S)-LXA_4 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_4 in this solvent is approximately 50 mg/ml.

6(S)-LXA_4 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the 6(S)-LXA_4 solution of ethanol should be diluted with the aqueous buffer of choice. The solubility of 6(S)-LXA_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(S)-LXA_4 is an isomer of the trihydroxy fatty acid LXA_4 (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_4 (LTA_4) intermediate, or by 15-LO followed by 5-LO, with 15(S)-HETE (Item No. 34720) and 5(S)-Hp-15(S)-HETE intermediates.[1] The generation of 6(S)-LXA_4 and LXA_4 typically requires transcellular metabolism of arachidonic acid.[1,2] For example, LTA_4 synthesized in neutrophils by 5-LO is metabolized to LXA_4 in platelets by 12-LO.[1] 6(S)-LXA_4 has been detected in co-incubations of human polymorphonuclear leukocytes (PMNs) and platelets.[3]

References

1. Serhan, C.N. and Sheppard, K.-A. Lipoxin formation during human neutrophil-platelet interactions. Evidence for the transformation of leukotriene A_4 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).

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