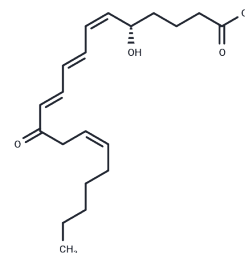


12-oxo Leukotriene B4

Chemical Properties

CAS No. :	136696-10-1
Formula:	C ₂₀ H ₃₀ O ₄
Molecular Weight:	334.45
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	12-oxo Leukotriene B4 (12-Oxo-LTB4) is a potent pro-inflammatory lipid mediator classified as a dihydroxy fatty acid that is enzymatically derived from arachidonic acid metabolism via the 5-lipoxygenase (5-LO) pathway, and it promotes a diverse array of leukocyte functional responses including cellular aggregation, stimulation of transmembrane ion fluxes, enhancement of lysosomal enzyme release, superoxide anion generation, chemotaxis, and chemokinesis; 12-oxo Leukotriene B4 is an initial oxidative metabolite formed from Leukotriene B4 via the LTB4 12-hydroxydehydrogenase pathway, which undergoes rapid enzymatic conversion first to 10,11-dihydro-12-oxo-LTB4 followed by reduction of the 12-oxo group to yield 10,11-dihydro-LTB4, and this metabolite exhibits significantly reduced biological potency, being approximately 70-fold less potent than LTB4 in stimulating Ca ²⁺ mobilization in human neutrophils (EC ₅₀ = 33 nM vs. 0.46 nM) and also markedly less effective at stimulating neutrophil migration (EC ₅₀ = 170 nM vs. 2.7 nM).
Targets(IC50)	Endogenous Metabolite,Lipoxygenase

Solubility Information

Solubility	Ethanol: 1 mg/mL (2.99 mM),Sonication is recommended. PBS (pH 7.2): > 1 mg/mL DMF: 1 mg/mL (2.99 mM),Sonication is recommended. DMSO: 1 mg/mL (2.99 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.990 mL	14.9499 mL	29.8998 mL
5 mM	0.598 mL	2.990 mL	5.980 mL
10 mM	0.299 mL	1.495 mL	2.990 mL
50 mM	0.0598 mL	0.299 mL	0.598 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Khanapure S P, et al., 12-Oxo-LTB₄, a key pivotal intermediate in LTB₄ metabolism[J]. The Journal of Organic Chemistry, 1995, 60(6): 1806-1813.

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