

Leukotriene B4

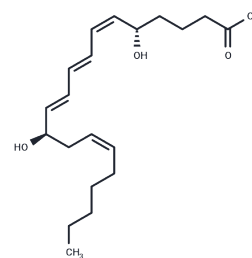
Chemical Properties

CAS No. : 71160-24-2

Formula: C₂₀H₃₂O₄

Molecular Weight: 336.47

Storage: Store at low temperature, Keep away from direct sunlight
 Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.



Biological Description

Description	Leukotriene B4 (LTB4) is a compound derived from arachidonic acid via the 5-lipoxygenase pathway that mediates certain inflammatory and immune responses. Leukotriene B4 induces neutrophil extracellular traps that impede the clearance of <i>Pneumocystis japoricus</i> .
Targets(IC50)	Endogenous Metabolite, LTR, Leukotriene Receptor, PROTAC Linker
In vitro	PROTACs contain two different ligands connected by a linker; one is a ligand for an E3 ubiquitin ligase and the other is for the target protein. PROTACs exploit the intracellular ubiquitin-proteasome system to selectively degrade target proteins[1]. Nerve damage in rheumatoid arthritis (RA) can promote the production of Leukotriene B4 (LTB4), which acts on its receptor, leading to increased release of proinflammatory cytokines and ROS, thereby reducing neuronal viability and pain thresholds; LTB4-BLT1 activation can also increase intracellular calcium concentration and neuronal excitability as well as NF-κB pathway activation, further promoting the production of MMP-9 and CXC3R-1; the mutual promotion between LTB4 and neutrophil accumulation accelerates the release of TNF-α and IL-β, thereby enhancing the sensitization of the peripheral and central nervous systems; LTB4 is also involved in the regulation of TrpV1 channel activation and P2X3 receptor activation. [2]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.972 mL	14.8602 mL	29.7203 mL
5 mM	0.5944 mL	2.972 mL	5.9441 mL
10 mM	0.2972 mL	1.486 mL	2.972 mL
50 mM	0.0594 mL	0.2972 mL	0.5944 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

An S, Fu L. Small-molecule PROTACs: An emerging and promising approach for the development of targeted therapy drugs. *EBioMedicine*. 2018 Oct;36:553-562.

Zheng LX, et al. Pain and bone damage in rheumatoid arthritis: role of leukotriene B4. *Clin Exp Rheumatol*. 2019 Sep-Oct;37(5):872-878.

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