

Lipoxygenin

Chemical Properties

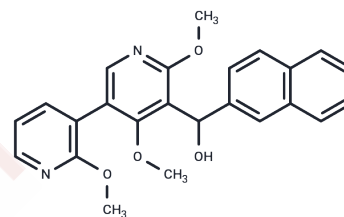
CAS No. : 2247911-68-6

Formula: C₂₄H₂₂N₂O₄

Molecular Weight: 402.44

Storage: 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	Lipoxygenin is an inhibitor of 5-lipoxygenase (5-LO) with an IC ₅₀ value of 5 μM for inhibition of 5-LO product synthesis in isolated human granulocytes stimulated with the cation ionophore A23187. It inhibits hedgehog-dependent signaling in Shh-LIGHT2 cells and TGF-β-, activin A-, bone morphogenetic protein (BMP)-, or Wnt-dependent signaling in HEK293T cells (IC ₅₀ s = 9.3, 3.2, 8.2, 9.6, and 3.7 μM, respectively, in luciferase reporter assays). Lipoxygenin (5 and 10 μM) increases levels of troponin T (TnnT), a marker of cardiomyocyte differentiation, in human induced pluripotent stem cells (iPSCs) stimulated with BMP4 and the glycogen synthase kinase 3 (GSK3) inhibitor CHIR99021.
Targets(IC ₅₀)	Others, Lipoxygenase

Solubility Information

Solubility	DMSO: 30 mg/mL (74.55 mM), Sonication is recommended. DMSO:PBS (pH 7.2) (1:1): 0.5 mg/mL (1.24 mM), Sonication is recommended. DMF: 30 mg/mL (74.55 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	2.4848 mL	12.4242 mL	24.8484 mL
5 mM	0.497 mL	2.4848 mL	4.9697 mL
10 mM	0.2485 mL	1.2424 mL	2.4848 mL
50 mM	0.0497 mL	0.2485 mL	0.497 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

Brand, S., Roy, S., Schröder, P., et al. Combined proteomic and in silico target identification reveal a role for 5-lipoxygenase in developmental signaling pathways *Cell Chem. Biol.* 25(9)1095-1106(2018)

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