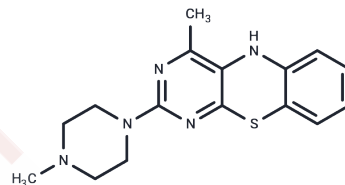


4-MMPB

Chemical Properties

CAS No. :	928853-86-5
Formula:	C ₁₆ H ₁₉ N ₅ S
Molecular Weight:	313.42
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	15-Lipoxygenase Inhibitor 1 is a selective inhibitor of 15-lipoxygenase, with an IC ₅₀ of 18 μM. 4-MMPB (15-Lipoxygenase Inhibitor 1) has IC ₅₀ s of 19.5 μM and 19.1 μM for soybean 15-lipoxygenase (SLO) and human 15-lipoxygenase-1 (15-LOX-1), respectively. 4-MMPB has potential for the research of prostate cancer.
Targets(IC ₅₀)	Apoptosis,Lipoxygenase
In vitro	15-Lipoxygenase Inhibitor 1 has an IC ₅₀ of 69.6 μM for DPPH bleaching; 15-Lipoxygenase Inhibitor 1 (41.48 μM; 72 hours) induces apoptosis and DNA damage in PC-3 Cells[1][2].

Solubility Information

Solubility	DMSO: 8 mg/mL (25.52 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 0.5 mg/mL (1.6 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.1906 mL	15.953 mL	31.9061 mL
5 mM	0.6381 mL	3.1906 mL	6.3812 mL
10 mM	0.3191 mL	1.5953 mL	3.1906 mL
50 mM	0.0638 mL	0.3191 mL	0.6381 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

Nikpour M , Mousavian M , Mahdih Davoodnejad.... Synthesis of new series of pyrimido[4,5- b][1,4] benzothiazines as 15-lipoxygenase inhibitors and study of their inhibitory mechanism[J]. Medicinal Chemistry Research, 2013, 22(10):5036-5043.

Saboormaleki S , Sadeghian H , Bahrami A R , et al. 7-Farnesyloxy coumarin Exerts Anti-cancer Effects on a Prostate Cancer Cell Line by 15-LOX-1 Inhibition[J]. Archives of Iranian Medicine, 2018, 21(6):251-259.

Alavi S J , Sadeghian H , Seyedi S M , et al. A novel class of human 15-LOX-1 inhibitors based on 3-hydroxycoumarin[J]. Chemical Biology & Drug Design, 2018.

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