

SC-57461A

Chemical Properties

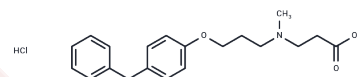
CAS No. : 423169-68-0

Formula: C₂₀H₂₆ClNO₃

Molecular Weight: 363.9

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	SC 57461A is a potent and specific leukotriene A ₄ hydrolase (LTA ₄ H) inhibitor.
Targets(IC ₅₀)	Aminopeptidase
In vitro	57461A is a potent competitive inhibitor of recombinant human LTA(4) hydrolase when either LTA(4) (IC ₅₀) = 2.5 nM, K _i) = 23 nM) or peptide substrates (IC ₅₀) = 27 nM) are used.?In human whole blood, the IC ₅₀ for calcium ionophore-induced LTB ₄ (4) production was 49 nM, indicative of good cell penetration.?Whole blood production of the cyclooxygenase metabolite thromboxane B(2) was not affected.?SC-57461A was also active in several other species, including mouse, rat, dog, and rhesus monkey.?The data indicate that SC-57461A is a potent and selective inhibitor of LTA(4) hydrolase[2].

Solubility Information

Solubility	DMSO: 55 mg/mL (151.14 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: 2 mg/mL (5.5 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	2.748 mL	13.740 mL	27.4801 mL
5 mM	0.5496 mL	2.748 mL	5.496 mL
10 mM	0.2748 mL	1.374 mL	2.748 mL
50 mM	0.055 mL	0.2748 mL	0.5496 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

Penning T D , Chandrakumar N S , Desai B N , et al. Pyrrolidine and piperidine analogues of SC-57461A as potent, orally active inhibitors of leukotriene A(4) hydrolase[J]. *Bioorganic & Medicinal Chemistry Letters*, 2002, 12(23): 3383-3386.

Kachur, J. F . Pharmacological characterization of SC-57461A (3-[methyl[3-[4-(phenylmethyl)phenoxy]propyl] amino]propanoic acid HCl), a potent and selective inhibitor of leukotriene A(4) hydrolase II: in vivo studies.[J]. *Journal of Pharmacology & Experimental Therapeutics*, 2002, 300(2):583-587.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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