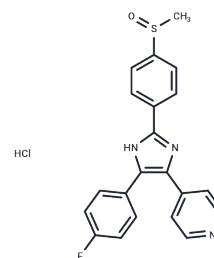


SB 203580 hydrochloride

Chemical Properties

CAS No. :	869185-85-3
Formula:	C ₂₁ H ₁₇ ClFN ₃ O ₃
Molecular Weight:	413.9
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	SB 203580 hydrochloride (Adezmapimod hydrochloride) is a selective, ATP-competitive p38 MAPK inhibitor that induces mitochondrial autophagy and cytosolic autophagy and inhibits SAPK2a/p38, SAPK2b/p38β2, LCK, GSK3β, and PKBα. SB 203580 hydrochloride has been shown to be useful in antiretroviral therapy. 203580 hydrochloride inhibits amphoteric mechanical anomalous pain in a mouse model of antiretroviral-induced neuropathic pain.
Targets(IC50)	Mitophagy, Autophagy, p38 MAPK, Src
In vitro	SB 203580 hydrochloride is a selective ATP-competitive p38 MAPK inhibitor against SAPK2a/p38 IC ₅₀ =50 nM and SAPK2b/p38β2 IC ₅₀ =500 nM. [1] 0-30 μM SB 203580 hydrochloride pre-incubation, 1 hr and incubation in the presence of 20 ng/mL IL-2 for 24 hr was able to inhibit the IL-2-induced proliferation of primary human T cells, mouse CT6 T cells, or BAF F7 B cells with IC ₅₀ values of 3-5 μM. [2] SB 203580 hydrochloride blocks the phosphorylation of PKB (protein kinase B) with an IC ₅₀ of approximately 5 μM. [2]
In vivo	An exogenous tumor model in female thymus-free Nu/Nu mice, 5 mg/kg/day SB 203580 hydrochloride, was injected intraperitoneally daily for 16 consecutive days, and the tumors in the p38WT group were significantly smaller than those in the p38 TM tumors of the parallel treatments after treatment. [3]

Solubility Information

Solubility	H ₂ O: 2 mg/mL (4.83 mM), Sonication is recommended. DMSO: 84.17 mg/mL (203.36 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 (4.83 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	2.416 mL	12.0802 mL	24.1604 mL
5 mM	0.4832 mL	2.416 mL	4.8321 mL
10 mM	0.2416 mL	1.208 mL	2.416 mL
50 mM	0.0483 mL	0.2416 mL	0.4832 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

Leelahavanichkul K, et al. A role for p38 MAPK in head and neck cancer cell growth and tumor-induced angiogenesis and lymphangiogenesis. Mol Oncol. 2014 Feb;8(1):105-18.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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