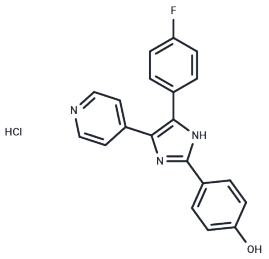
Data Sheet (Cat.No.T35592)

TargetMol

SB 202190 hydrochloride

Chemical Properties



CAS No. : 350228-36-3

Formula: C20H15ClFN3O

Molecular Weight: 367.8

Storage: Store at low temperature
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	SB 202190 hydrochloride is the salt form of SB 202190.SB 202190 (FHPI) is a p38 MAPK inhibitor that inhibits p38α and p38β2 with selective, cell-permeable, and antitumor activity, and also induces differentiation of human embryonic stem cells to cardiomyocytes.
Targets(IC50)	Apoptosis,Autophagy,p38 MAPK
In vitro	**Methods**: SB 202190 hydrochloride (0-10 μM, 0-72 hours) was used to treat a subset of colorectal cancer (CRC) cell lines (RKO, CACO2, and SW480), and cell growth was measured. **Results**: SB 202190 hydrochloride inhibited the growth of a subset of colorectal cancer (CRC) cell lines in a dose- and time-dependent manner. [1]
In vivo	**Methods**: SB 202190 hydrochloride (dissolved in 100% DMSO and then diluted with normal saline (NS) to a final DMSO concentration of 0.1%, injected intracerebroventricularly) was administered to rats, and both the VaD model group and the sham operation group received an equal volume of 0.1% DMSO injected ICV. Eight rats in each group were examined in the Morris water maze to assess spatial learning and memory, six rats were sacrificed and brain sections were prepared for TUNEL staining and Bcl-2/caspase-3 immunohistochemistry, and six rats were sacrificed and tissue homogenates were prepared for Western blot assay of phosphorylated p38 MAPK expression. **Results**: Compared with the model group, the SB 202190 hydrochloride group showed a significantly shorter escape latency in the Morris water maze hidden platform test; compared with VaD model rats, the SB 202190 hydrochloride group also showed significantly reduced hippocampal neuronal apoptosis ($P < 0.01$) as well as higher (anti-apoptotic) Bcl-2 expression and lower (pro-apoptotic) caspase-3 expression. [2]

Solubility Information

Solubility	DMSO: 60 mg/mL (163.13 mM),Sonication and heating are recommended. DMF: 10 mg/mL (27.19 mM),Sonication and heating are recommended. Ethanol:PBS (pH 7.2) (1:10): < 1 mg/mL, insoluble,Sonication is recommended. Ethanol: 10 mg/mL (27.19 mM),Sonication and heating are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7189 mL	13.5943 mL	27.1887 mL
5 mM	0.5438 mL	2.7189 mL	5.4377 mL
10 mM	0.2719 mL	1.3594 mL	2.7189 mL
50 mM	0.0544 mL	0.2719 mL	0.5438 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

Davies SP, et al. Specificity and mechanism of action of some commonly used protein kinase inhibitors. Biochem J. 2000 Oct 1;351(Pt 1):95-105.

Yang S, et al. Protective effects of p38 MAPK inhibitor SB202190 against hippocampal apoptosis and spatial learning and memory deficits in a rat model of vascular dementia. Biomed Res Int. 2013;2013:215798.