Data Sheet (Cat.No.T12870)

TargetMol

SCH79797 dihydrochloride

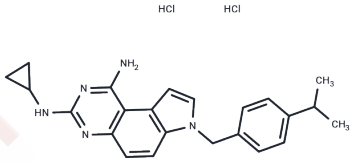
Chemical Properties

CAS No. : 1216720-69-2

Formula: C23H27Cl2N5

Molecular Weight: 444.4

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	SCH79797 dihydrochloride is an effective and selective antagonist of protease activated receptor 1 (PAR1) with an IC50 of 70 nM and a Ki of 35 nM. SCH79797 dihydrochloride has antiproliferative and pro-apoptotic effects.
Targets(IC50)	Apoptosis,Protease-activated Receptor
In vitro	SCH79797 dihydrochloride inhibits thrombin-induced platelet aggregation with an IC50 of 3 μM. In NIH 3T3 cells, SCH79797 dihydrochloride inhibits serum-stimulated activation of p44/p42 mitogen-activated protein kinases (MAPK) at low concentrations and induces apoptosis at higher concentrations[1]. SCH79797 dihydrochloride inhibits high-affinity thrombin receptor-activating peptide ([3H]haTRAP) binding in a competitive manner. SCH79797 dihydrochloride inhibits α-thrombin- and haTRAP-induced aggregation of human platelets. Thrombin produces transient increases in cytosolic free Ca2+ concentration ([Ca2+]i) in hCASMC. SCH79797 dihydrochloride effectively inhibits this increase in [Ca2+]i. SCH79797 dihydrochloride completely inhibits Thrombin- and TK-stimulated [3H]thymidine incorporation [4].
In vivo	In male Sprague Dawley rats, SCH79797 dihydrochloride (2.5 μg/kg, 10 μg/kg, 25 μg/kg, 50 μg/kg, 100 μg/kg, and 250 μg/kg; i.v.) reduces myocardial necrosis following I/R in the intact rat heart in two rat models of myocardial ischemia/reperfusion (I/R) injury immediately before or during ischemia[3].

Solubility Information

Solubility	Ethanol: 10 mg/mL (22.5 mM),Sonication and heating are recommended. DMSO: 50 mg/mL (112.51 mM),Sonication and heating are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 5 mg/mL (11.25 mM),Suspension. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2502 mL	11.2511 mL	22.5023 mL
5 mM	0.450 mL	2.2502 mL	4.5005 mL
10 mM	0.225 mL	1.1251 mL	2.2502 mL
50 mM	0.045 mL	0.225 mL	0.450 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

Di Serio C, et al. Protease-activated receptor 1-selective antagonist SCH79797 inhibits cell proliferation and induces apoptosis by a protease-activated receptor 1-independent mechanism. Basic Clin Pharmacol Toxicol. 2007 Jul;101(1):63-9.

Sokolova E, et al. A novel therapeutic target in various lung diseases: airway proteases and protease-activated receptors. Pharmacol Ther. 2007 Jul;115(1):70-83.

Strande JL, et al. SCH 79797, a selective PAR1 antagonist, limits myocardial ischemia/reperfusion injury in rat hearts. Basic Res Cardiol. 2007 Jul;102(4):350-8.

Ahn HS, et al. Inhibition of cellular action of thrombin by N3-cyclopropyl-7-[[4-(1-methylethyl)phenyl]methyl]-7H-pyrrolo[3, 2-f]quinazoline-1,3-diamine (SCH 79797), a nonpeptide thrombin receptor antagonist. Biochem Pharmacol. 2000 Nov 15;60(10):1425-34.