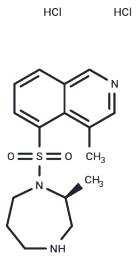
Data Sheet (Cat.No.T35328)

TargetMol

H-1152 dihydrochloride

Chemical Properties



CAS No. : 871543-07-6

Formula: C16H23Cl2N3O2S

Molecular Weight: 392.34

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	H-1152 dihydrochloride (H-1152 2HCl) is a specific inhibitor of Rho-associated protein kinase (ROCK) with an IC50 of 12 nM and a Ki of 1.6 nM. H-1152 dihydrochloride inhibits PKA, PKC, PKG, Aurora A and CaMKII with IC50 values of 3.03 μM, 5.68 μM, 0.360 μM, 0.745 μM and 0.180 μM, respectively.
Targets(IC50)	ROCK
In vitro	H-1152 dihydrochloride shows less inhibitory activities against Src, MLCK, Abl, EGFR, MKK4, GSK3α, AMPK, and P38α, with IC50s of 3.06, 28.3, 7.77, 50.0, 16.9, 60.7, 100, and 100 μM, respectively[1]. H-1152 dihydrochloride slightly suppresses PKA, PKC and MLCK, with Kis of0.63, 9.27, and 10.1 μM, respectively. In LPA-treated cells, H-1152 dihydrochloride (0.1-10 μM) inhibits MARCKS phosphorylation (IC50 = 2.5 μM)[2]. H-1152 dihydrochloride (0.5-10 μM) does not decrease neuronal survival or alter the ratios of different neuronal morphologies. H-1152 dihydrochloride (10 μM) arguments neurite length in both BMP4 and LIF cultures[3].

Solubility Information

Solubility	DMSO: 40 mg/mL (101.95 mM),Sonication is recommended. H2O: 32.1 mg/mL (81.82 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 (5.1 mM),Sonication is recommended. *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	2.5488 mL	12.744 mL	25.4881 mL
5 mM	0.5098 mL	2.5488 mL	5.0976 mL
10 mM	0.2549 mL	1.2744 mL	2.5488 mL
50 mM	0.051 mL	0.2549 mL	0.5098 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

Tamura M, et al. Development of specific Rho-kinase inhibitors and their clinical application. Biochim Biophys Acta. 2005 Dec 30;1754(1-2):245-52. Epub 2005 Sep 12. Content Brief

Ikenoya M, et al. Inhibition of rho-kinase-induced myristoylated alanine-rich C kinase substrate (MARCKS) phosphorylation in human neuronal cells by H-1152, a novel and specific Rho-kinase inhibitor. J Neurochem. 2002 Apr;81(1):9-16. Content Brief

Lie M, et al. Accelerated neurite growth from spiral ganglion neurons exposed to the Rho kinase inhibitor H-1152. Neuroscience. 2010 Aug 25;169(2):855-62. Content Brief

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