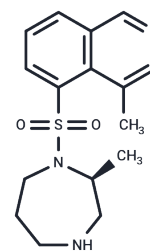


H-1152

Chemical Properties

CAS No. : 451462-58-1
 Formula: C₁₆H₂₁N₃O₂S
 Molecular Weight: 319.42
 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	H-1152 is a cell membrane-permeable and selective ROCK (Rho-kinase) inhibitor (K _i =1.6 nM) that increases neurite length in neuron-rich cultures and inhibits MARCKS Ser159 phosphorylation in LPA-stimulated neuronal cells.
Targets(IC ₅₀)	ROCK
In vitro	H-1152 potently inhibits Rho kinase (K _i = 1.6 nM) while exhibiting only mild inhibitory effects on PKA, PKC, and MLCK with K _i values of 0.63 μM, 9.27 μM, and 10.1 μM, respectively. In LPA-treated cells, H-1152 (0.1-10 μM) significantly suppresses MARCKS protein phosphorylation with an IC ₅₀ of 2.5 μM, whereas no such pronounced effect was observed in PDBu-treated cells [2]. H-1152 (0.5-10 μM) does not reduce neuronal viability. Neither does H-1152 (1, 5, or 10 μM) alter the proportion of different neuronal morphologies. Furthermore, in both BMP4 and LIF culture systems, H-1152 (10 μM) enhances neurite outgrowth length [3].

Solubility Information

Solubility	DMSO: 80 mg/mL (250.45 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: 3.3 mg/mL (10.33 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	3.1307 mL	15.6534 mL	31.3067 mL
5 mM	0.6261 mL	3.1307 mL	6.2613 mL
10 mM	0.3131 mL	1.5653 mL	3.1307 mL
50 mM	0.0626 mL	0.3131 mL	0.6261 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.

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.

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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481