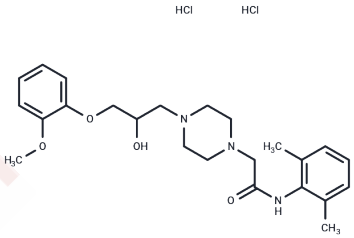
Data Sheet (Cat.No.T0207)

TargetMol

Ranolazine dihydrochloride

Chemical Properties



CAS No. : 95635-56-6

Formula: C24H35Cl2N3O4

Molecular Weight: 500.46

Storage: Keep away from direct sunlight,Keep away from moisture,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	Ranolazine dihydrochloride (Ranolazine 2HCl) , an antianginal agent, can treat arrhythmia via a novel mechanism of action (inhibition of the late phase of the inward sodium current), and do not affect blood pressure or heart rate.
Targets(IC50)	Calcium Channel,Autophagy,Sodium Channel
In vitro	Ranolazine (5 mM and 10 mM) reversibly shortened the duration of twitch contractions and abolished postcontractions.Ranolazine bound more to sodium channels in the inactivated state. In cardiomyocytes, selective inhibition of late I (sodium) by Ranolazine reduced sodium-dependent calcium overload and attenuated ventricular repolarization and contraction, which correlated with abnormalities in heart failure and ischemia/reperfusion injury. In dog left ventricular myocytes, in a concentration-dependent manner Ranolazine was able to reversibly shorten myocyte action potential duration in response to 0.25/0.5 Hz stimulation.
In vivo	Ranolazine (5 mM and 10 mM) reversibly shortened the duration of twitch contractions and abolished postcontractions.Ranolazine bound more to sodium channels in the inactivated state. In cardiomyocytes, selective inhibition of late I (sodium) by Ranolazine reduced sodium-dependent calcium overload and attenuated ventricular repolarization and contraction, which correlated with abnormalities in heart failure and ischemia/reperfusion injury. In dog left ventricular myocytes, in a concentration-dependent manner Ranolazine was able to reversibly shorten myocyte action potential duration in response to 0.25/0.5 Hz stimulation.

Solubility Information

Solubility	DMSO: 166.7 mg/mL (333.09 mM),Sonication is recommended. H2O: 250 mg/mL (499.54 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 10 mg/mL (19.98 mM),Solution. *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	1.9982 mL	9.9908 mL	19.9816 mL
5 mM	0.3996 mL	1.9982 mL	3.9963 mL
10 mM	0.1998 mL	0.9991 mL	1.9982 mL
50 mM	0.040 mL	0.1998 mL	0.3996 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

Belardinelli L, et al. Heart,2006, 92 Suppl 4, iv6-iv14.
Undrovinas AI, et al. J Cardiovasc Electrophysiol, 2006, 17 Suppl 1, S169-S177.
McCormack JG, et al. Circulation,1996, 93(1), 135-142.