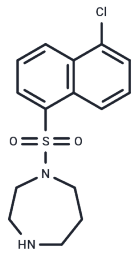
Data Sheet (Cat.No.T16103)

TargetMol

ML-9 Free Base

Chemical Properties



CAS No. : 110448-31-2

Formula: C15H17ClN2O2S

Molecular Weight: 324.83

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	ML-9 (free base) suppresses MLCK, PKA, and PKC activity (Ki: 4, 32, and 54 μM, respectively). ML-9 (free base) is a selective and effective inhibitor of Akt kinase, inhibits myosin light-chain kinase (MLCK), and stromal interaction molecule 1 (STIM1) activity. ML-9 (free base) causes autophagy by stimulating autophagosome formation and inhibiting their degradation.
Targets(IC50)	Others,Myosin
In vitro	ML9 (free base) (50?μM; 1-4?hours) obviously enhances cleaved caspase-3 levels, decreased STIM1 protein levels by about 42%. ML9 (free base) (0-100?μM; 0-24?hours) has no reduction in cardiomyocyte viability, 50-100?μM obviously causes cell death [2].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.0785 mL	15.3927 mL	30.7853 mL
5 mM	0.6157 mL	3.0785 mL	6.1571 mL
10 mM	0.3079 mL	1.5393 mL	3.0785 mL
50 mM	0.0616 mL	0.3079 mL	0.6157 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

Ito S, et al. ML-9, a myosin light chain kinase inhibitor, reduces intracellular Ca2+ concentration in guinea pig trachealis.Eur J Pharmacol. 2004 Feb 23;486(3):325-33.
Shaikh S, et al. The STIM1 inhibitor ML9 disrupts basal autophagy in cardiomyocytes by decreasing lysosome content.Toxicol In Vitro. 2018 Apr;48:121-127.
Kondratskyi A1, et al.Identification of ML-9 as a lysosomotropic agent targeting autophagy and cell death.Cell Death Dis. 2014 Apr 24;5:e1193.

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