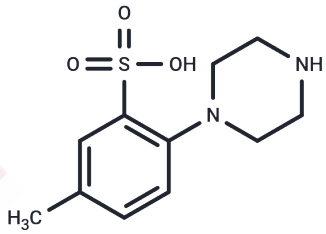
Data Sheet (Cat.No.T14857)

TargetMol

Caldaret

Chemical Properties



CAS No. : 133804-44-1

Formula: C11H16N2O3S

Molecular Weight: 256.32

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	Caldaret is an intracellular Ca2+ handling modulator that acts through reverse mode Na+/Ca2+ exchanger inhibition.
Targets(IC50)	Others,Na+/Ca2+ Exchanger
In vitro	Caldaret resume Ca2+-ATPase activity of the sarcoplasmic reticulum isolated from the myocardium acutely exposed to ischemia and reperfusion in vitro [2].
In vivo	Caldaret (MCC-135) has beneficial effects in heart failure. In diabetic rats, Caldaret decreases TR80 significantly without a significant effect on developed tension (DT). Caldaret has minimal effects on SR Ca2+ uptake in normal rats, which is observed as increased SR Ca2+ uptake at uptake time of 20 and 30 s at the highest concentration of 10 μM. In diabetic rats, Caldaret increases SR Ca2+ uptake all over the range of uptake time. Both the initial rate of SR Ca2+ uptake and the amount of Ca2+ accumulated in the SR with longer uptake time are increased by Caldaret [2]. Caldaret limits the infarct size of the reperfused canine heart. The amelioration of intracellular Ca2+ handling dysfunction achieved by Caldaret leads to cardioprotective effects against reperfusion injury following prolonged ischemia [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.9014 mL	19.5069 mL	39.0137 mL
5 mM	0.7803 mL	3.9014 mL	7.8027 mL
10 mM	0.3901 mL	1.9507 mL	3.9014 mL
50 mM	0.078 mL	0.3901 mL	0.7803 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

Kawasumi H, et al. Caldaret, an intracellular Ca2+ handling modulator, limits infarct size of reperfused canine heart. J Pharmacol Sci. 2007 Feb;103(2):222-33.
Satoh N, et al. Lusitropic effect of MCC-135 is associated with improvement of sarcoplasmic reticulum function in ventricular muscles of rats with diabetic cardiomyopathy. J Pharmacol Exp Ther. 2001 Sep;298(3):1161-6.