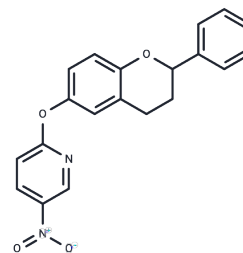


ORM-10103

Chemical Properties

CAS No. : 488847-28-5
 Formula: C₂₀H₁₆N₂O₄
 Molecular Weight: 348.35
 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	ORM-10103 is a novel potent and selective inhibitor of the Na ⁺ /Ca ²⁺ exchanger (NCX). ORM-10103 inhibited NCX currents with estimated IC ₅₀ values of 55 and 67 nM at -80 and 20 mV, respectively, and reduced early and delayed postdepolarization in canine hearts.
Targets(IC ₅₀)	Calcium Channel, Na ⁺ /Ca ²⁺ Exchanger

Solubility Information

Solubility	DMSO: 45 mg/mL (129.18 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 (5.74 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	2.8707 mL	14.3534 mL	28.7068 mL
5 mM	0.5741 mL	2.8707 mL	5.7414 mL
10 mM	0.2871 mL	1.4353 mL	2.8707 mL
50 mM	0.0574 mL	0.2871 mL	0.5741 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

Kohajda Z, et al. The Effect of a Novel Highly Selective Inhibitor of the Sodium/Calcium Exchanger (NCX) on Cardiac Arrhythmias in In Vitro and In Vivo Experiments. PLoS One. 2016 Nov 10;11(11):e0166041.

Jost N, et al. ORM-10103, a novel specific inhibitor of the Na⁺/Ca²⁺ exchanger, decreases early and delayed afterdepolarizations in the canine heart. Br J Pharmacol. 2013 Oct;170(4):768-78.

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