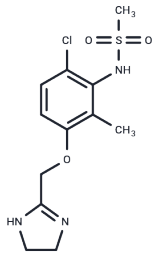
Data Sheet (Cat.No.T10952)

TargetMol

Dabuzalgron

Chemical Properties



CAS No. : 219311-44-1

Formula: C12H16ClN3O3S

Molecular Weight: 317.79

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	Dabuzalgron (Ro 115-1240), an orally active selective alpha-1A adrenergic receptor agonist, is used to treat urinary incontinence and prevents doxorubicin-induced cardiotoxicity by maintaining mitochondrial function.
Targets(IC50)	Apoptosis,Adrenergic Receptor
In vitro	Dabuzaron treatment increased ERK phosphorylation in a dose-dependent manner with an EC50 of 4.8 μM. ERK1 / 2 activation helps Dabuzaron's cardioprotection. Dabuzaron (10 μM; 4 hours) protects NRVM from cell death caused by doxorubicin (DOX). Dabuzaren (10 μM; 4 hours) activation of α1A-AR alleviates the harmful effects of DOX on mitochondrial membrane potential and eliminates the activation of important elements of the apoptotic response to mitochondrial damage.
In vivo	Dabuzaron (10μg / kg; oral tube; twice daily; 7 consecutive days; C57B16J wild-type or α1A-AR gene knockout mice) treatment can prevent DOX cardiotoxicity by activating α1A-AR. Dabuzaron prevents mitochondrial function-related transcript reduction, up-regulates PGC1α, retains ATP content, and reduces oxidative stress in DOX-treated mouse hearts.

Solubility Information

Solubility	DMSO: 25 mg/mL (78.67 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 (6.29 mM),Sonication is recommended. *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	3.1467 mL	15.7337 mL	31.4673 mL
5 mM	0.6293 mL	3.1467 mL	6.2935 mL
10 mM	0.3147 mL	1.5734 mL	3.1467 mL
50 mM	0.0629 mL	0.3147 mL	0.6293 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

Beak J, et al. An Oral Selective Alpha-1A Adrenergic Receptor Agonist Prevents Doxorubicin Cardiotoxicity. JACC Basic Transl Sci. 2017 Feb;2(1):39-53.