Data Sheet (Cat.No.T85324)

TargetMol

Isomyosmine

Chemical Properties

CAS No. : 53844-46-5

Formula: C9H10N2

Molecular Weight: 146.19

Storage: Keep away from direct sunlight,Keep away from moisture,Store under nitrogen
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	Isomyosmine is an isomer of myosine that inhibits nitrate reductase, has potential antiviral activity, reduces oxidative stress, can promote plant health and increase productivity and yield. Isomyosmine inhibits the release of TNF-α and can be used to study inflammation and coronavirus infection related to oxidoreductase.
Targets(IC50)	Others,Antiviral
In vivo	b>METHODS: The study was conducted in a double-blind manner: subjects in each dose group (Groups 1, 2, 3, and 4) were randomly assigned to receive either Isomyosmine dose (between 150 mg and 600 mg or placebo) or placebo in a 3:1 ratio (6 active drugs: 2 placebos). **RESULTS**: Single daily doses of Isomyosmine of 150 mg, 300 mg, and 450 mg for 3 consecutive days and multiple daily doses of 600 mg for 6 consecutive days were safe and well tolerated in healthy subjects; within one dose group, TNF-α levels decreased in subjects treated with Isomyosmine but did not change in subjects treated with placebo; when given as a single dose, the increase in Isomyosmine exposure was dose-proportional over the dose range of 300 mg to 600 mg. Minimal accumulation of Isomyosmine was observed after 5 consecutive days of Isomyosmine 600 mg daily. [1]

Solubility Information

Solubility	DMSO: 25 mg/mL (171.01 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 (13.68 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	6.8404 mL	34.2021 mL	68.4041 mL
5 mM	1.3681 mL	6.8404 mL	13.6808 mL
10 mM	0.684 mL	3.4202 mL	6.8404 mL
50 mM	0.1368 mL	0.684 mL	1.3681 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

Brager J, et al. A Double-blind, Placebo-controlled, Randomized, Single Ascending, and Multiple Dose Phase 1 Study to Evaluate the Safety, Tolerability, and Pharmacokinetics of Oral Dose Isomyosamine Capsules in Healthy Adult Subjects. Drug Res (Stuttg). 2023 Feb;73(2):95-104.

Marshall Rd, Neuberger A. Carbohydrates In Protein. 8. The Isolation Of 2-Acetamido-1-(L-Beta-Aspartamido)-1,2-Dideoxy-Beta-D-Glucose From Hen's Egg Abumin. Biochemistry. 1964 Oct;3:1596-600.