Data Sheet (Cat.No.T23356)

TargetMol

Linsidomine hydrochloride

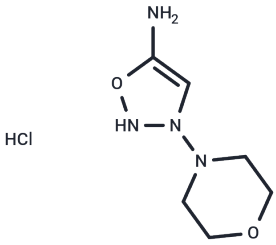
Chemical Properties

CAS No. : 16142-27-1

Formula: C6H11ClN4O2

Molecular Weight: 206.63

Storage: Store at low temperature
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	Linsidomine hydrochloride (SIN-1 chloride) is considered as a metabolite of moxidomine, with vasodilation, inhibition of platelet aggregation, and antiangina activity. In myocardial ischemia-reperfusion models, Linsidomine hydrochloride to reduce myocardial necrosis and reperfusion induced endothelial dysfunction is associated with the cavernosal mechanism of action involved in nitric oxide release.
Targets(IC50)	Apoptosis,Annexin A,NF-κB,Autophagy,Drug Metabolite,ROS
In vitro	SIN-1 decreases myocardial necrosis and reperfusion-induced endothelial dysfunction in models of myocardial ischemia-reperfusion [1][2].
In vivo	SIN-1 (chloride) is the active metabolite of molsidomine. SIN-1 (chloride) exhibits a potent vasorelaxant effect and inhibition of platelet aggregation.[1] SIN-1 (chloride) decreases myocardial necrosis and reperfusion-induced endothelial dysfunction in models of myocardial ischemia-reperfusion.[2]

Solubility Information

Solubility	DMSO: 22.5 mg/mL (108.89 mM),Sonication and heating to 60°C are recommended. H2O: 45 mg/mL (217.78 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 (9.68 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	4.8396 mL	24.1978 mL	48.3957 mL
5 mM	0.9679 mL	4.8396 mL	9.6791 mL
10 mM	0.484 mL	2.4198 mL	4.8396 mL
50 mM	0.0968 mL	0.484 mL	0.9679 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

Nishikawa M, et al. Inhibition of platelet aggregation and stimulation of guanylate cyclase by an antianginal agent molsidomine and its metabolites. J Pharmacol Exp Ther. 1982;220(1):183-190.
Siegfried MR, et al. Cardioprotection and attenuation of endothelial dysfunction by organic nitric oxide donors in myocardial ischemia-reperfusion. J Pharmacol Exp Ther. 1992;260(2):668-675.