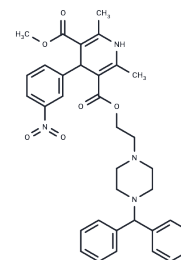


Manidipine

Chemical Properties

CAS No. :	89226-50-6
Formula:	C ₃₅ H ₃₈ N ₄ O ₆
Molecular Weight:	610.7
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	Manidipine (lperfen), a calcium channel blocker, which is dihydropyridine type. It is utilized
Targets(IC50)	Calcium Channel, Interleukin
In vitro	Manidipine, a Ca(2+)-channel blocker, at concentrations that lower elevated blood pressure, modulates the transcription rates of cytokine genes in the mesangial cells of humans that had been stimulated with platelet-derived growth factor BB isomer. [1] Manidipine inhibits the ET-1-induced [Ca2+]i increase by reducing both the transient and sustained Ca2+ increments in A7r5 cells and glomerular mesangial cells (MCs). Manidipine (10(-5) mol/L) potentiates ET-1-induced c-fos and c-jun expression in A7r5 cells. Manidipine is a potent inhibitor for ET-1-induced [Ca2+]i signaling and that Manidipine has multiple effects on ET-1-induced signaling, including potentiating the immediate-early gene response. [2]
In vivo	Manidipine reduces systolic blood pressure with a slight sympathetic reflex increase in heart rate, and increases plasma nitrite/nitrates in perfused rat heart from ischemia-reperfusion damage. Manidipine combined with Simvastatin reduces creatine kinase, lactate dehydrogenase and tumor necrosis factor-alpha, and enhancement of 6-keto-PGF(1alpha) during reperfusion. [3] Manidipine hydrochloride prevents isoproterenol-induced left ventricular hypertrophy and expression of mRNA of ANP, collagen types I and type III, and fibronectin in rats with isoproterenol-induced cardiac hypertrophy. [4] Manidipine HCl increases renal blood flow (RBF) by dilating the afferent arterioles and improves glomerular hypertension by dilating the efferent arterioles in hypertensive rats. [5]

Solubility Information

Solubility	DMSO: 250 mg/mL (409.37 mM), Sonication is recommended. Ethanol: 3 mg/mL (4.91 mM), Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6375 mL	8.1873 mL	16.3747 mL
5 mM	0.3275 mL	1.6375 mL	3.2749 mL
10 mM	0.1637 mL	0.8187 mL	1.6375 mL
50 mM	0.0327 mL	0.1637 mL	0.3275 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

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