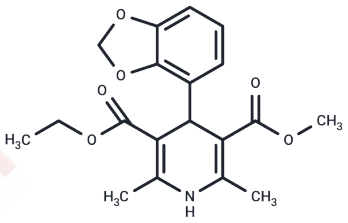
Data Sheet (Cat.No.T68123)

TargetMol

Oxodipine

Chemical Properties



CAS No. : 90729-41-2

Formula: C19H21NO6

Molecular Weight: 359.37

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	Oxodipine, a dihydropyridine-type calcium antagonist, inhibited KCl-induced aortic contraction in rabbits and reduced cardiac force in less potent rat ventricular test-paper contractions. In rat cultured neonatal ventricular myocytes, Oxodipine reduced L-type Ca currents (I) with an IC of 0.24 μM, and against T-type Ca currents (I) with an IC of 0.41 μM. Oxodipine causes constipation in mice and gingival hyperplasia in dogs.
Targets(IC50)	Calcium Channel
In vitro	In aortic rings, Oxodipine (10(-11)-10(-6) M) inhibited in a concentration-dependent manner the contractions induced by high K+ (IC50 = 9.0 +/- 4.0 x 10(-10) M) or by Ca2+ in high K+ solution (IC50 = 6.2 +/- 2.4 x 10(-9) M). In mesenteric resistance vessels, Oxodipine inhibited the contractions induced by high K+(IC50 = 5.2 +/- 3.1 x 10(-10)).[4]
In vivo	Oxodipine (5, 20, and 50 μg/kg; anesthetized dogs), a new dihydropyridine calcium channel blocker, ineffective at 5 μg/kg, whereas doses of 20 and 50 μg/kg of oxodipine elicited a decrease in blood pressure with no change in heart rate. These results suggest that, in contrast to other first-generation dihydropyridines, oxodipine exerts a relatively specific action on blood vessels without significant intrinsic negative chronotropic properties in anesthetized sinoaortic-denervated dogs.[4]

Solubility Information

Solubility	DMSO: 55 mg/mL (153.05 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7826 mL	13.9132 mL	27.8265 mL
5 mM	0.5565 mL	2.7826 mL	5.5653 mL
10 mM	0.2783 mL	1.3913 mL	2.7826 mL
50 mM	0.0557 mL	0.2783 mL	0.5565 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

Tamargo J, et al. Effects of oxodipine on 45Ca movements and contractile responses in vascular smooth muscle. Br J Pharmacol. 1989;97(2):339-346.

Galán L, et al. Characteristics of Ca2+ channel blockade by oxodipine and elgodipine in rat cardiomyocytes. Eur J Pharmacol. 1998;357(1):93-105.

Egros F, et al. An original intragastric delivery system for oral administration of solid formulations to fully conscious rats: its application to oxodipine studies. Eur J Drug Metab Pharmacokinet. 1991;Spec No 3:71-76.

Montastruc P, et al. Effect of oxodipine, a novel dihydropyridine calcium channel blocker, in neurogenic hypertensive dogs. Arch Int Pharmacodyn Ther. 1993;321:57-62.

Tejerina T, et al. Effects of oxodipine on isolated rabbit aorta and mesenteric resistance vessels. Eur J Pharmacol. 1992;219(2):279-284.