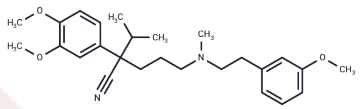
Data Sheet (Cat.No.T68055)

TargetMol

Devapamil

Chemical Properties



CAS No. : 92302-55-1

Formula: C26H36N2O3

Molecular Weight: 424.58

Storage: Pure form: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.

Biological Description

Description	Devapamil (Devapamilo) is a phenylalkylamine that blocks L-type calcium currents from the inner side of membrane cells in a use-dependent manner.
Targets(IC50)	Calcium Channel
In vitro	Devapamil (3 μM) reduced L-type calcium currents (ICa) to 16.1 +/- 8.6%, 11 +/- 8.9%, and 9.3 +/- 6% of control, respectively. Intracellular application of the same substances, via the patch pipette filled with 30 μM of devapamil, failed to depress ICa. The quaternary derivatives of the phenylalkylamines (30 microM) were ineffective both when applied extracellularly or intracellularly. It is suggested that phenylalkylamines block ICa in ventricular myocytes by acting on a binding site of the calcium channel molecule located at the outer surface of the cell membrane.[3]

Solubility Information

Solubility	DMSO: 50 mg/mL (117.76 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3553 mL	11.7763 mL	23.5527 mL
5 mM	0.4711 mL	2.3553 mL	4.7105 mL
10 mM	0.2355 mL	1.1776 mL	2.3553 mL
50 mM	0.0471 mL	0.2355 mL	0.4711 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

Erdmann R, et al. The effect of the phenylalkylamine D888 (devapamil) on force and Ca2+ current in isolated frog skeletal muscle fibres. J Physiol. 1989;413:521-541.
Schneider T, et al. The devapamil-binding site of the purified skeletal muscle receptor for organic-calcium channel blockers is modulated by micromolar and millimolar concentrations of Ca2+. Eur J Biochem. 1991;200(1):245-253.
Wegener JW, et al. Extracellular site of action of phenylalkylamines on L-type calcium current in rat ventricular myocytes. Naunyn Schmiedebergs Arch Pharmacol. 1995;352(3):322-330.