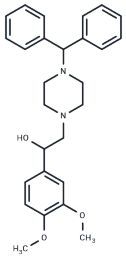
Data Sheet (Cat.No.T34782)

TargetMol

Tamolarizine

Chemical Properties



CAS No. : 93035-32-6

Formula: C27H32N2O3

Molecular Weight: 432.55

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	Tamolarizine (Tamolarizine free base) free base is a novel calcium antagonist.
Targets(IC50)	Calcium Channel
In vitro	Tamolarizine (0.1-10 microM) synergistically potentiated the cytotoxicity of doxorubicin for doxorubicin-resistant K562 cells (K562/DXR), but had hardly any synergistic effects in the parental cell line (K562) at the same concentration. Moreover, tamolarizine inhibits the P-glycoprotein pump-efflux activity in a dose-related manner and reduces the expression of the immunoreactive P-glycoprotein in K562/DXR cells as evaluated by cytofluorimetric assay.[1]
In vivo	Tamolarizine (40 mg/kg; rats; immediately after 15-min brain ischemia) showed slight impairment of place learning during the course of this test, they later reached almost the same performance level as the sham-operated group. Selective neuronal loss in the CA1 subfield was much less in the ischemia+tamolarizine group than in the ischemia+saline group. These results indicate that tamolarizine treatment protects the hippocampus from ischemic brain damage and ameliorates place learning impairment. [2]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3119 mL	11.5594 mL	23.1187 mL
5 mM	0.4624 mL	2.3119 mL	4.6237 mL
10 mM	0.2312 mL	1.1559 mL	2.3119 mL
50 mM	0.0462 mL	0.2312 mL	0.4624 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

Miyake N, et al. Reversal of multidrug resistance in human leukemia K562 by tamolarizine, a novel calcium antagonist. Jpn J Pharmacol. 2000;82(3):265-8.
Tamura R, et al. Ameliorative effects of tamolarizine on place learning impairment induced by transient forebrain ischemia in rats. Brain Res. 2000 Jan 17;853(1):81-92.
Nomura Y, et al. Synthesis and structure-activity relationships of 2-(4-benzhydryl-1-piperazinyl)-1-phenylethanols as new calcium blockers. Chem Pharm Bull (Tokyo). 1995 Feb;43(2):241-6.
Nishijo H, et al. Physiological results of monkey brain ischemia, and protection by a calcium blocker. Brain Res Bull. 1995;37(1):89-101.