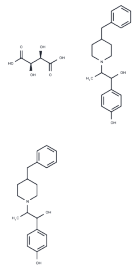
Data Sheet (Cat.No.T1186)

TargetMol

Ifenprodil Tartrate

Chemical Properties



CAS No. : 23210-58-4

Formula: C21H27NO2·1/2C4H6O6

Molecular Weight: 400.49

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	Ifenprodil is a selective NMDA receptor (glutamate) antagonist.
Targets(IC50)	Calcium Channel,Adrenergic Receptor,NMDAR,iGluR,Influenza Virus,Potassium Channel
In vivo	Ifenprodil inhibits NMDA-induced currents at both 10 μM and 100 μM, with IC50 values of 0.88 μM and 0.17 μM, respectively. In rat cortical neurons, Ifenprodil (10 μM) suppresses the majority of currents elicited by NMDA receptors.
Kinase Assay	In vitro biochemical and pharmacological assaysinhibition studies with recombinant human COX-1 and COX-2: Microsomal preparations of recombinant human COX-1 and COX-2 are prepared from a vaccinia virus-COS-7 cell expression system. Recombinant human COX-1 and COX-2 are expressed in baculovirus-Sf9 cells, and enzymes are purified. Enzymatic activity is monitored continuously by either a fluorescence assay measuring the appearance of the oxidized form of the reducing agent cosubstrate homovanillic acid or by oxygen consumption. The HPLC assay for the assessment of inhibition of purified COX-1 by Rofecoxib with 0.1 μM arachidonic acid substrate concentration, the determination of the stoichiometry of the complex between COX-2 and Rofecoxib, the dissociation rate constant of the enzyme-inhibitor complex by recovery of enzymatic activity, and the recovery of intact Rofecoxib from that complex are all performed as described previously. The solvent system for the HPLC analysis of Rofecoxib is 15:85 MeOH/aqueous potassium phosphate (1 g/liter), with elution by a linear gradient of 15 to 75% MeOH over 25 minutes with detection at 275 nm on a Novapak C18 column.

Solubility Information

Solubility	DMSO: 83.33 mg/mL (208.07 mM),Sonication is recommended. Ethanol: 58 mg/mL (144.82 mM),Sonication is recommended. H2O: 9 mg/mL (22.47 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 2 mg/mL (4.99 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*

In vivo Formulation	*vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4969 mL	12.4847 mL	24.9694 mL
5 mM	0.4994 mL	2.4969 mL	4.9939 mL
10 mM	0.2497 mL	1.2485 mL	2.4969 mL
50 mM	0.0499 mL	0.2497 mL	0.4994 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

Williams K, et al. Mol Pharmacol, 1993, 44(4), 851-859.
Kew JN, et al. J Neurosci, 1998, 18(6), 1935-1943.
Kew JN, et al. J Physiol, 1996, 497 (Pt 3), 761-772.