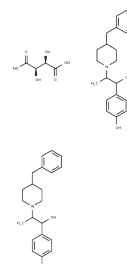


Ifenprodil Tartrate

Chemical Properties

CAS No. :	23210-58-4
Formula:	C ₂₁ H ₂₇ N _O ₂ ·1/2C ₄ H ₆ O ₆
Molecular Weight:	400.49
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	Ifenprodil is a selective NMDA receptor (glutamate) antagonist.
Targets(IC50)	Potassium Channel,NMDAR,iGluR
In vivo	Ifenprodil inhibits NMDA-induced currents at both 10 μ M and 100 μ M, with IC ₅₀ values of 0.88 μ M and 0.17 μ M, respectively. In rat cortical neurons, Ifenprodil (10 μ M) 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 μ M 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: 45 mg/mL (112.36 mM), Ethanol: 58 mg/mL (107.7 mM), H ₂ O: 9 mg/mL (11.23 mM), (< 1 mg/ml refers to the product slightly soluble or insoluble)
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A DRUG SCREENING EXPERT

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.

Reference

Williams K, et al. Mol Pharmacol, 1993, 44(4), 851-859.
Kew JN, et al. J Neurosci, 1998, 18(6), 1935-1943.

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