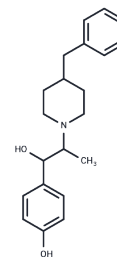


Ifenprodil

Chemical Properties

CAS No. :	23210-56-2
Formula:	C ₂₁ H ₂₇ N ₂ O ₂
Molecular Weight:	325.44
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 (RC61-91) is an inhibitor of the NMDA receptor, specifically of GluN1 (glycine-binding NMDA receptor subunit 1) and GluN2B (glutamate-binding NMDA receptor subunit 2) subunits. Additionally, Ifenprodil inhibits GIRK channels and interacts with alpha1 adrenergic, serotonin, and sigma receptors.
Targets(IC50)	Calcium Channel, Adrenergic Receptor, NMDAR, iGluR, Influenza Virus, Potassium Channel

Solubility Information

Solubility	DMSO: 27.5 mg/mL (84.5 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 1 mg/mL (3.07 mM), Sonication is recommended. <i>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 vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.0728 mL	15.3638 mL	30.7276 mL
5 mM	0.6146 mL	3.0728 mL	6.1455 mL
10 mM	0.3073 mL	1.5364 mL	3.0728 mL
50 mM	0.0615 mL	0.3073 mL	0.6146 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

- Reynolds IJ, Miller RJ (1989). "Ifenprodil is a novel type of N-methyl-D-aspartate receptor antagonist: interaction with polyamines". *Mol. Pharmacol.* 36 (5): 758-65. PMID 2555674.
- Wang X, He X, Li T, Shu Y, Qi S, Luan G. Anti-epileptic effect of ifenprodil on neocortical pyramidal neurons in patients with malformations of cortical development. *Exp Ther Med.* 2017 Dec;14(6):5757-5766. doi: 10.3892/etm.2017.5311. Epub 2017 Oct 16. PubMed PMID: 29285118; PubMed Central PMCID: PMC5740521.
- Opere CA, Heruye S, Njie-Mbye YF, Ohia SE, Sharif NA. Regulation of Excitatory Amino Acid Transmission in the Retina: Studies on Neuroprotection. *J Ocul Pharmacol Ther.* 2017 Dec 21. doi: 10.1089/jop.2017.0085. [Epub ahead of print] PubMed PMID: 29267132.
- Zhang Z, Liu J, Fan C, Mao L, Xie R, Wang S, Yang M, Yuan H, Yang X, Sun J, Wang J, Kong J, Huang S, Sun B. The GluN1/GluN2B NMDA receptor and metabotropic glutamate receptor 1 negative allosteric modulator has enhanced neuroprotection in a rat subarachnoid hemorrhage model. *Exp Neurol.* 2017 Dec 16;301(Pt A):13-25. doi: 10.1016/j.expneurol.2017.12.005. [Epub ahead of print] PubMed PMID: 29258835.

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