



Product Information

Product ID I2118

CAS No. 23210-58-4

Chemical Name

Synonym

Formula $C_{21}H_{28}NO_2 \cdot C_4H_4O_6$

Formula Wt. 474.53

Melting Point

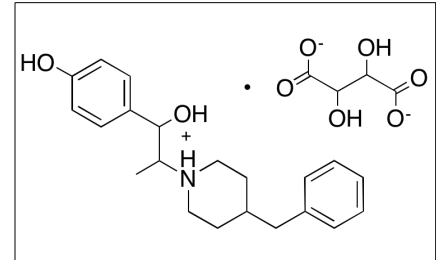
Purity $\geq 98\%$

Solubility 15mM in water with gentle warming

Store Temp 4°C

Ship Temp Ambient

Description Ifenprodil is an antagonist at NMDA receptors specific for NR1 and NR2B subunits; it exhibits neuromodulatory, anticancer, anticonvulsant, cognition enhancing, and vasodilatory effects. In cellular and animal models of ovarian cancer, ifenprodil decreases cellular viability and tumor growth. Ifenprodil also inhibits PTZ-induced hippocampal oxidative stress, astrocytosis, and neuron loss. Additionally, this compound reverses motor deficits when co-administered with L-DOPA in Parkinson's disease models and prevents rapamycin-induced memory impairment. In vivo, ifenprodil also induces mild vasodilation, decreasing blood pressure and increasing heart rate.



Bulk quantities available upon request

Product ID	Size
I2118	10 mg
I2118	25 mg
I2118	50 mg

References North WG, Liu F, Tian R, et al. NMDA receptors are expressed in human ovarian cancer tissues and human ovarian cancer cell lines. *Clin Pharmacol*. 2015 Oct 23;7:111-7. PMID: 26566373.

Sirrieh RE, MacLean DM, Jayaraman V. A conserved structural mechanism of NMDA receptor inhibition: A comparison of ifenprodil and zinc. *J Gen Physiol*. 2015 Aug;146(2):173-81. PMID: 26170175.

Igarashi M, Habata T, Akita H, et al. The NR2B antagonist, ifenprodil, corrects the L-DOPA-induced deficit of bilateral movement and reduces c-Fos expression in the subthalamic nucleus of hemiparkinsonian rats. *Neurosci Res*. 2015 Jul;96:45-53. PMID: 25697393.

Shatillo A, Salo RA, Giniatullin R, et al. Involvement of NMDA receptor subtypes in cortical spreading depression in rats assessed by fMRI. *Neuropharmacology*. 2015 Jun;93:164-70. PMID: 25688928.

Zhu X, Dong J, Shen K, et al. NMDA receptor NR2B subunits contribute to PTZ-kindling-induced hippocampal astrocytosis and oxidative stress. *Brain Res Bull*. 2015 May;114:70-8. PMID: 25896886.

Ozawa H, Chen CS, Uematsu T, et al. Analysis of the mode of action of ifenprodil on cerebral and peripheral circulation in dogs. *Nihon Yakurigaku Zasshi*. 1975 Jul;71(5):517-26. PMID: 1238323.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.