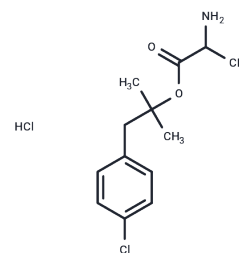


Alaproclate (hydrochloride)

Chemical Properties

CAS No. :	60719-83-7
Formula:	C ₁₃ H ₁₉ Cl ₂ N ₂ O ₂
Molecular Weight:	292.2
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	Alaproclate is a selective serotonin reuptake inhibitor (SSRI). ^{1,2} It inhibits depletion of serotonin (5-HT) induced by 4-methyl- α -ethyl-m-tyramine in rat cerebral cortex, hippocampus, hypothalamus, and striatum (EC ₅₀ s = 18, 4, 8, and 12 mg/kg, respectively). ¹ Alaproclate inhibits NMDA-evoked currents and depolarization-induced voltage-dependent potassium currents in rat hippocampal neurons (IC ₅₀ s = 1.1 and 6.9 μ M, respectively) and does not inhibit GABA-evoked currents when used at concentrations up to 100 μ M. ² It increases sirtuin 1 (SIRT1) levels in N2a murine neuroblastoma cells expressing apolipoprotein E4 (ApoE4; IC ₅₀ = 2.3 μ M) and in the hippocampus in the FXFAD-ApoE4 transgenic mouse model of Alzheimer's disease when administered at a dose of 20 mg/kg twice daily. ³ Alaproclate (40 mg/kg) decreases immobility time in the forced swim test in rats, indicating antidepressant-like activity. ⁴
Targets(IC50)	Others, 5-HT Receptor, iGluR, Serotonin Transporter

Solubility Information

Solubility	H ₂ O: Soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.4223 mL	17.1116 mL	34.2231 mL
5 mM	0.6845 mL	3.4223 mL	6.8446 mL
10 mM	0.3422 mL	1.7112 mL	3.4223 mL
50 mM	0.0684 mL	0.3422 mL	0.6845 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

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Svensson, B.E., Werkman, T.R., and Rogawski, M.A. Alaproclate effects on voltage-dependent K⁺ channels and NMDA receptors: Studies in cultured rat hippocampal neurons and fibroblast cells transformed with Kv1.2 K⁺ channel cDNA. *Neuropharmacology* 33(6), 795-804 (1994).

Campagna, J., Soilman, P., Jagodzinska, B., et al. A small molecule ApoE4-targeted therapeutic candidate that normalizes sirtuin 1 levels and improves cognition in an Alzheimer's disease mouse model. *Sci. Rep.* 8(1), 17574 (2018).

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