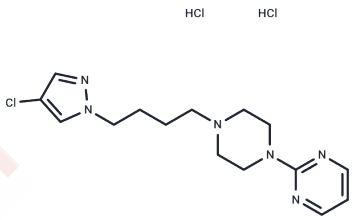
Data Sheet (Cat.No.T11839)

TargetMol

Lesopitron dihydrochloride

Chemical Properties



CAS No. : 132449-89-9

Formula: C15H23Cl3N6

Molecular Weight: 393.74

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	Lesopitron dihydrochloride with IC50 of 125 nM in rat hippocampal membranes, is a full and selective 5-HT1A receptor agonist.
Targets(IC50)	5-HT Receptor
In vitro	As expected of a full agonist at postsynaptic 5-HT1A receptors, Lesopitron (IC50=125 nM) inhibits forskolin-stimulated adenylate cyclase activity in rat hippocampal membranes to the same extent as 5-HT. Lesopitron inhibits the firing of serotoninergic neurons both in vitro (in brainstem slices, IC50=120 nM)[1].In vitro binding and autoradiographic studies with [3H]8-OH-DPAT and [3H]Lesopitron as radioligands confirm that Lesopitron binds to 5-HT1A receptors in the rat brain with a relatively high affinity (pKi=7.35).
In vivo	Administering lesopitron at a dose known to elicit anxiolytic behavior in rats (30 μg/kg, i.p.) significantly decreases serotonin (5-HT) levels in cortical perfusates to 45% of the baseline. Additionally, lesopitron effectively suppresses the activity of serotoninergic neurons in live conditions, specifically in chloral hydrate-anesthetized rats, with an ID50 of 35 μg/kg when administered intravenously[1][2].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5397 mL	12.6987 mL	25.3975 mL
5 mM	0.5079 mL	2.5397 mL	5.0795 mL
10 mM	0.254 mL	1.2699 mL	2.5397 mL
50 mM	0.0508 mL	0.254 mL	0.5079 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

Haj-Dahmane S, et al. Interactions of Lesopitron (E-4424) with central 5-HT1A receptors: in vitro and in vivo studies in the rat. Eur J Pharmacol. 1994 Apr 1;255(1-3):185-96.

Ballarín M, et al. Effect of acute administration of the 5-HT1A receptor ligand, Lesopitron, on rat cortical 5-HT and dopamine turnover. Br J Pharmacol. 1994 Oct;113(2):425-30.

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