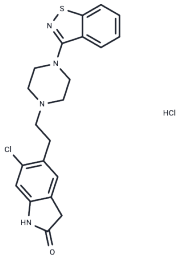
Data Sheet (Cat.No.T0031L)

TargetMol

Ziprasidone hydrochloride

Chemical Properties



CAS No. : 122883-93-6

Formula: C21H22CL2N4OS

Molecular Weight: 449.4

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	Ziprasidone hydrochloride (CP-88059 hydrochloride) is a united 5-HT (serotonin) and dopamine receptor antagonist which shows potent effects of antipsychotic activity.
Targets(IC50)	5-HT Receptor,Adrenergic Receptor,Norepinephrine,Histamine Receptor,Dopamine Receptor
In vitro	Ziprasidone exhibits an inherent protective mechanism against drug-induced increases in food intake, demonstrated by its ability to inhibit the significant enhancement of food consumption caused by olanzapine in rats. It also induces a notable upregulation of NGF and ChAT immunoreactivity in the hippocampal regions dentate gyrus, CA1, and CA3 of rats. Furthermore, Ziprasidone dose-dependently decreases the activity of midbrain central tegmental field neurons (ED50 = 300 mg/kg i.v.), similar to atypical antipsychotics like clozapine (ED50 = 250 mg/kg i.v.) and olanzapine (ED50 = 1000 mg/kg i.v.) in anesthetized rats. In Xenopus oocytes, Ziprasidone displays a lower inhibitory effect (IC50 = 2.8 mM) on the wild-type hERG current.
In vivo	Ziprasidone blocks wild-type hERG currents in a voltage and concentration-dependent manner with an IC(50) of 120 nM in stably transfected HEK-293 cells. Minimal hERG current blockade by ziprasidone is estimated during depolarized voltages (-20 or +30 mV) or assessed via envelope of tail test (+30 mV). The compound significantly prolongs the time constant of the slow component of hERG current deactivation at -50 mV. Ziprasidone acts as a 5-HT(1A) receptor agonist and antagonizes 5-HT(2A), 5-HT(2C), and 5-HT(1B/1D) receptors, similar to the antidepressant imipramine in inhibiting serotonin and norepinephrine neuronal uptake. It also exhibits high affinity for human 5-HT receptors and dopamine D(2) receptors.

Solubility Information

Solubility	DMSO: 83 mg/mL (184.69 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 3.3 mg/mL (7.34 mM),Sonication is recommended. *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*

In vivo Formulation	*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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2252 mL	11.1259 mL	22.2519 mL
5 mM	0.445 mL	2.2252 mL	4.4504 mL
10 mM	0.2225 mL	1.1126 mL	2.2252 mL
50 mM	0.0445 mL	0.2225 mL	0.445 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

Seeger TF, et al. J Pharmacol Exp Ther. 1995 Oct;275(1):101-13.