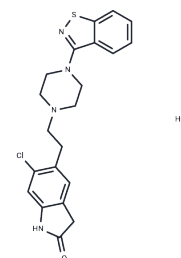


Ziprasidone hydrochloride

Chemical Properties

CAS No. :	122883-93-6
Formula:	C ₂₁ H ₂₂ Cl ₂ N ₄ O ₅
Molecular Weight:	449.4
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



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)	Dopamine Receptor, 5-HT Receptor, Adrenergic Receptor, Norepinephrine, Histamine 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 (ED ₅₀ = 300 mg/kg i.v.), similar to atypical antipsychotics like clozapine (ED ₅₀ = 250 mg/kg i.v.) and olanzapine (ED ₅₀ = 1000 mg/kg i.v.) in anesthetized rats. In <i>Xenopus</i> oocytes, Ziprasidone displays a lower inhibitory effect (IC ₅₀ = 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 (184.7 mM), H ₂ O: < 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)
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A DRUG SCREENING EXPERT

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.

Reference

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

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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Tel: 781-999-4286 E_mail: info@targetmol.com Address: 36 Washington Street, Wellesley Hills, MA 02481