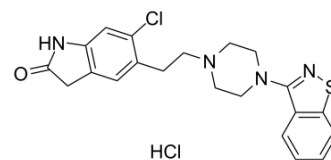


Ziprasidone hydrochloride

Cat. No.:	HY-14542A
CAS No.:	122883-93-6
Molecular Formula:	C ₂₁ H ₂₂ Cl ₂ N ₄ OS
Molecular Weight:	449.4
Target:	5-HT Receptor; Dopamine Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Ziprasidone (CP-88059) hydrochloride, an antipsychotic agent, is a combined 5-HT (serotonin) and dopamine receptor antagonist. Ziprasidone hydrochloride has high affinity for rat (K _i : 3.4 nM)/human (2.5 nM) 5-HT _{1A} receptors, 5-HT _{2A} (0.42 nM), and dopamine D ₂ receptors (4.8 nM). Ziprasidone hydrochloride is an inhibitor of norepinephrine reuptake ^{[1][2]} .			
IC₅₀ & Target	Rat 5-HT _{1A} Receptor 3.4 nM (K _i)	human 5-HT _{1A} Receptor 2.5 nM (K _i)	Rat 5-HT _{2A} 0.42 nM (K _i)	Rat D ₂ Receptor 4.8 nM (K _i)
In Vitro	Ziprasidone is a 5-HT _{1A} receptor agonist and an antagonist at 5-HT _{2A} , 5-HT _{2C} and 5-HT _{1B/1D} receptors. Ziprasidone has high affinity for the 5-HT _{1A} , 5-HT _{1D} and 5-HT _{2C} receptor subtypes ^{[1][2][3]} . MCE has not independently confirmed the accuracy of these methods. They are for reference only.			
In Vivo	Ziprasidone (20 mg/kg; p.o.; daily for 7 weeks) gains significantly less weight, has a lower level of physical activity, showed a higher resting energy expenditure, and displays a greater capacity for thermogenesis when subjected to cold ^[4] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.			
	Animal Model:	Eight-week-old female Sprague-Dawley rats weighing 200 to 250 g ^[4]		
	Dosage:	20 mg/kg		
	Administration:	P.o.; daily for 7 weeks		
	Result:	Gained significantly less weight, had a lower level of physical activity, showed a higher resting energy expenditure, and displayed a greater capacity for thermogenesis when subjected to cold.		

REFERENCES

- [1]. Rollema H, et al. 5-HT(1A) receptor activation contributes to ziprasidone-induced dopamine release in the rat prefrontal cortex. *Biol Psychiatry*. 2000;48(3):229-237.
- [2]. Schmidt AW, et al. Ziprasidone: a novel antipsychotic agent with a unique human receptor binding profile. *Eur J Pharmacol*. 2001;425(3):197-201.
- [3]. Seeger TF, et al. Ziprasidone (CP-88,059): a new antipsychotic with combined dopamine and serotonin receptor antagonist activity. *J Pharmacol Exp Ther*. 1995;275(1):101-113.

Caution: Product has not been fully validated for medical applications. For research use only.

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