CP-809101 hydrochloride

Cat. No.: HY-15543A

CAS No.: 1215721-40-6

Molecular Formula: $C_{15}H_{18}Cl_2N_4O$

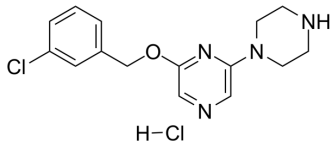
Molecular Weight: 341.24

Target: 5-HT Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Storage: 4°C, sealed storage, away from moisture

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

H_2O : 20 mg/mL (58.61 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.9305 mL	14.6524 mL	29.3049 mL
	5 mM	0.5861 mL	2.9305 mL	5.8610 mL
	10 mM	0.2930 mL	1.4652 mL	2.9305 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

CP-809101 hydrochloride is a potent and selective 5-HT2C receptor agonist with pEC50 of 9.96/7.19/6.81 for human 5-HT2C/5-HT2B/5-HT2A receptors respectively. IC50 Value: 9.96(pEC50 for 5-HT2C); 7.19(pEC50 for 5-HT2B); 6.81(pEC50 for 5-HT2A)Target: 5-HT2C ReceptorCP-809101 is a potent, functionally selective 5-HT2C agonist that displays approximately 100% efficacy in vitro. The aim of the present studies was to assess the efficacy of a selective 5-HT2C agonist in animal models predictive of antipsychotic-like efficacy and side-effect liability. Similar to currently available antipsychotic drugs, CP-809101 dose-dependently inhibited conditioned avoidance responding (CAR, ED50 = 4.8 mg/kg, sc). CP-809101 antagonized both PCP- and d-amphetamine-induced hyperactivity with ED50 values of 2.4 and 2.9 mg/kg (sc), respectively and also reversed an apomorphine induced-deficit in prepulse inhibition. At doses up to 56 mg/kg, CP-809101 did not produce catalepsy. Thus, the present results demonstrate that the 5-HT2C agonist, CP-809101, has a pharmacological profile similar to that of the atypical antipsychotics with low extrapyramidal symptom liability. CP-809101 was inactive in two animal models of antidepressant-like activity, the forced swim test and learned helplessness.

REFERENCES

[1]. Higgins GA, Silenieks LB, Lau W, et al. Evaluation of chemically diverse 5-HT2C receptor agonists on behaviours motivated by food and nicotine and on side effect

profiles. Psychopharmacology (Berl). 2013 Apr;226(3):475-90.

[2]. Strong PV, Christianson JP, Loughridge AB, et al. 5-hydroxytryptamine 2C receptors in the dorsal striatum mediate stress-induced interference with negatively reinforced instrumental escape behavior. Neuroscience. 2011 Dec 1;197:132-44. doi: 10.1016/j.neuroscience.2011.09.041. Epub 2011 Sep 24.

[3]. Fletcher PJ, Tampakeras M, Sinyard J et al. Characterizing the effects of 5-HT(2C) receptor ligands on motor activity and feeding behaviour in 5-HT(2C) receptor knockout mice. Neuropharmacology. 2009 Sep;57(3):259-67. doi: 10.1016/j.neuropharm.2009.05.011.

[4]. Siuciak JA, Chapin DS, McCarthy SA, et al. CP-809,101, a selective 5-HT2C agonist, shows activity in animal models of antipsychotic activity. Neuropharmacology. 2007 Feb;52(2):279-90.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA