CP-809101 hydrochloride

Cat. No.: HY-15543A

CAS No.: 1215721-40-6

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

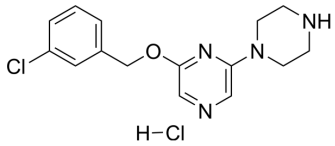
Molecular Weight: 341.24

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	Solvent / Mass / 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 highly selective 5-HT_{2C} receptor agonist, with pEC_{50}s of 9.96, 7.19 and 6.81 M for human $5HT_{2C}$, $5HT_{2B}$ and $5HT_{2A}$ receptor. CP-809101 hydrochloride inhibits conditioned avoidance responding in rats and antagonizes both PCP (phencyclidine hydrochloride)- and d-amphetamine-induced hyperactivity. CP-809101 hydrochloride also reduces food and nicotine dependence in rats, can be used in studies of antipsychotic and nicotine dependence[1][2].

IC_{50} & Target

5-HT_{2C} Receptor	5-HT_{2B} Receptor	5-HT_{2A} Receptor
9.96 (pEC50)	7.19 (pEC50)	6.81 (pEC50)

In Vivo

CP-809101 hydrochloride (0.1-56 mg/kg; s.c.; single) inhibits the conditioned avoidance response of rats in a dose-dependent manner[1].

CP-809101 hydrochloride (0.56, 1.78, 5.6, 17.8 mg/kg; s.c.; single) antagonizes PCP (phencyclidine hydrochloride)-induced and d-amphetamine-induced hyperactivity (the latter in a dose-dependent manner)[1].

CP-809101 hydrochloride (0.56, 1.78, 5.6, 17.8 mg/kg; s.c.; single) dose-dependently decreases spontaneous locomotor activity with an ED_{50} value of 2.2 mg/kg[1].

CP-809101 hydrochloride (0.3, 1, 3 mg/kg; s.c.; single) reduces responding for both nicotine and food and blocked the discriminative stimulus properties of nicotine[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male CF rats (conditioned avoidance responding (CAR) model)[1].
Dosage:	0.1-56 mg/kg
Administration:	Subcutaneous injection; single.
Result:	Resulted in a dose-dependent inhibition of the conditioned avoidance response with an ID_{50} value of 4.8 mg/kg.

Animal Model:	Male CD rats (PCP or d-amphetamine-induced hyperactivity model)[1].
Dosage:	0.56, 1.78, 5.6, 17.8 mg/kg
Administration:	Subcutaneous injection; single.
Result:	Antagonized PCP-induced hyperactivity, with an ED_{50} value of 2.4 mg/kg. Antagonized d-amphetamine-induced hyperactivity, with an ED_{50} value of 2.7 mg/kg, and in a dose-dependent manner.

Animal Model:	Male CD rats (spontaneous locomotor model)[1].
Dosage:	0.56, 1.78, 5.6, 17.8 mg/kg
Administration:	Subcutaneous injection; single.
Result:	Inhibited spontaneous locomotor activity in a dose-dependent manner (ED_{50}=2.7 mg/kg).

Animal Model:	Adult male Sprague-Dawley rats (280-400 g)[2].
Dosage:	0.3, 1, 3 mg/kg
Administration:	Subcutaneous injection; single.
Result:	Produced a dose-related decrease in responding for food and nicotine self-administration in rats.

REFERENCES

[1]. Siuciak JA, 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.

[2]. Higgins GA, et al. Evaluation of chemically diverse 5-HT_2c receptor agonists on behaviours motivated by food and nicotine and on side effect profiles. Psychopharmacology (Berl). 2013 Apr;226(3):475-90.

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