Idalopirdine

Cat. No.: HY-14338

CAS No.: 467459-31-0

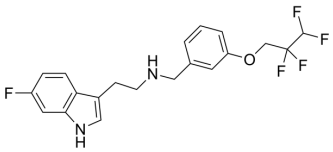
Molecular Formula: $C_{20}H_{19}F_5N_2O$

Molecular Weight: 398.37

Target: 5-HT Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Idalopirdine (Lu AE58054) is a potent, selective 5-HT6 receptor antagonist with a K_i value of 0.83 nM. Idalopirdine may be used in studies of Alzheimer's disease and schizophrenia, among other related disorders[1][2].

IC_{50} & Target

5-HT_6 Receptor
0.83 nM (Ki)

In Vivo

Idalopirdine (intraperitoneal injection, 5 mg/kg, daily, 28 days) can reduce food intake and body weight in over-eating rat models[1].
Idalopirdine (1 or 2 mg/kg, i.v) can dose-dependently increase the gamma power during nPO electrical stimulation, enhance effect of donepezil on cortical gamma oscillations but no alteration of sleep-wake patterns in rats[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male Wistar rats[1]
Dosage:	5 mg/kg
Administration:	intraperitoneal injection, daily, 28 days
Result:	Significantly reduced the amount of calories consumed by animals in a palatable diet and significantly reduced plasma levels of glucose, triglycerides and cholesterol.

Animal Model:	Male Sprague-Dawley rats[2]
Dosage:	1 or 2 mg/kg
Administration:	i.v.
Result:	No significant increase in the gamma power at 1 mg/kg and significantly increased the gamma power at 2 mg/kg. Significantly enhanced and/or prolonged effect of low-dose donepezil (0.3 mg/kg) on gamma power during 60-minute nPO stimulation after donepezil administration.

REFERENCES

[1]. Magdalena Kotańska, et al. Idalopirdine, a selective 5-HT6 receptor antagonist, reduces food intake and body weight in a model of excessive eating. Metab Brain Dis. 2018 Jun;33(3):733-740.

[2]. Maria Amat-Foraster, et al. The 5-HT6 receptor antagonist idalopirdine potentiates the effects of donepezil on gamma oscillations in the frontal cortex of anesthetized and awake rats without affecting sleep-wake architecture. Neuropharmacology. 2017 Feb;113(Pt A):45-5

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