# Idalopirdine hydrochloride

**Cat. No.:** HY-14338A

**CAS No.:** 467458-02-2

**Molecular Formula:** $C_{20}H_{20}ClF_5N_2O$

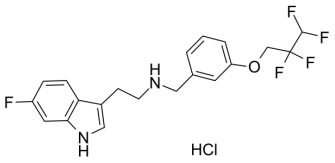
**Molecular Weight:** 434.83

**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**

DMSO : ≥ 25 mg/mL (57.49 mM)

$H_2O$ : 2 mg/mL (4.60 mM; ultrasonic and warming and heat to 60°C)

* "≥" means soluble, but saturation unknown.

**Preparing Stock Solutions**

| Solvent / Mass / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|
| 1 mM | 2.2997 mL | 11.4987 mL | 22.9975 mL |
| 5 mM | 0.4599 mL | 2.2997 mL | 4.5995 mL |
| 10 mM | 0.2300 mL | 1.1499 mL | 2.2997 mL |

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

**In Vivo**

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (5.75 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (5.75 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.75 mM); Clear solution

## BIOLOGICAL ACTIVITY

**Description**

Idalopirdine hydrochloride (Lu AE58054 hydrochloride) is a potent, selective 5-HT6 receptor antagonist with a $K_i$ value of 0.83 nM. Idalopirdine hydrochloride 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) hydrochloride can reduce food intake and body weight in over-eating rat models[1].

Idalopirdine (1 or 2 mg/kg, i.v) hydrochloride 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.<br>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):45-59.





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