LY266097 hydrochloride

Cat. No.: HY-103094

CAS No.: 172895-39-5

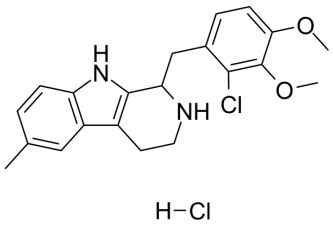
Molecular Formula: $C_{21}H_{24}Cl_2N_2O_2$

Molecular Weight: 407.33

Target: 5-HT Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Storage: 4°C, sealed storage, away from moisture and light
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 62.5 mg/mL (153.44 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.4550 mL	12.2751 mL	24.5501 mL
	5 mM	0.4910 mL	2.4550 mL	4.9100 mL
	10 mM	0.2455 mL	1.2275 mL	2.4550 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: 2.08 mg/mL (5.11 mM); Suspended solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

LY266097 hydrochloride is a selective 5-HT2B receptor antagonist with pK_is of 7.7, 9.8, and 7.6 for 5-HT2A, 5-HT2B, 5-HT2C, respectively. 5-HT2B receptor blockade contributes to the research in depression[1].

IC_{50} & Target

5-HT_{2B} Receptor	5-HT_{2A} Receptor	5-HT_{2C} Receptor
9.8 (pKi)	7.7 (pKi)	7.6 (pKi)

In Vitro

LY266097 is a highly selective 5-HT2B receptor antagonist with a pK_i of 9.7 for the human cloned 5-HT2B receptor and a 100-fold greater selectivity over human 5-HT2C and 5-HT2A sites[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

LY266097 (0.6 mg/kg for 2-day administration) rescues Escitalopram-induced decrease in dopamine (DA) [1].
The administration of LY266097 alone or its addition on the last 3 days of a 14-day Escitalopram regimen increases pyramidal neuron firing and burst activity[1].

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

Animal Model:	Male Sprague-Dawley rats weighing 250-350 g[1]
Dosage:	0.6 mg/kg
Administration:	Administered i.p. alone or concomitantly with Escitalopram (2 mg/kg) for 2 days
Result:	Short-term administration (0.6 mg/kg/day for 2 days; i.p.) alone had no effect on these parameters, its co-administration counteracted the inhibitory effect of escitalopram on the firing activity of DA neurons, resulting in a recovery to control level.

REFERENCES

[1]. Rami Hamati, et al. Serotonin-2B receptor antagonism increases the activity of dopamine and glutamate neurons in the presence of selective serotonin reuptake inhibition. Neuropsychopharmacology. 2020 Nov;45(12):2098-2105.

[2]. Luc Maroteaux, et al. New therapeutic opportunities for 5-HT 2 receptor ligands. Pharmacol Ther. 2017 Feb;170:14-36.

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