Gepirone

Cat. No.: HY-122422

CAS No.: 83928-76-1

Molecular Formula: $C_{19}H_{29}N_5O_2$

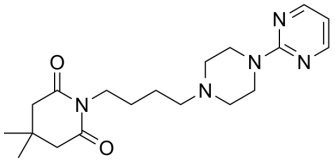
Molecular Weight: 359.47

Target: 5-HT Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Storage: 4°C, protect from light

* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

Ethanol : 33.33 mg/mL (92.72 mM; Need ultrasonic)

DMSO : 33.33 mg/mL (92.72 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.7819 mL	13.9094 mL	27.8187 mL
5 mM	0.5564 mL	2.7819 mL	5.5637 mL
10 mM	0.2782 mL	1.3909 mL	2.7819 mL

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

BIOLOGICAL ACTIVITY

Description

Gepirone is a selective and affinitive 5-HT_{1A} agonist. Gepirone binds selectively to 5-HT_{1A} receptor binding site. Gepirone acts as an antidepressant agent can be used for anxiety and major depressive disorder research[1].

IC_{50} & Target

5-HT_{1A} Receptor

In Vivo

Gepirone (0-3 mg/kg for intraperitoneal injection) interacts with progesterone at 5-HT_{1A} receptors to reduce lordosis behavior in female rats treated with estradiol benzoate and progesterone[1].

Gepirone (10, 15 mg/kg for subcutaneous injection, 2, 7, or 14 days) activates the normosensitive postsynaptic 5-HT_{1A} receptor in Male Sprague-Dawley rats[2].

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

Animal Model:	Sprague-Dawley rats[1]
Dosage:	0, 0.1, 0.3, 1 and 3 mg/kg

Administration:	Intraperitoneal injection (i.p.)
Result:	Increases in lordotic activity at lower doses. Inhibited lordosis by the 0.3 and 1.0 mg/kg doses and further inhibition was produced by the 3.0 mg/kg dose.

Animal Model:	Male Sprague-Dawley rats[2]
Dosage:	10, 15 mg/kg
Administration:	Subcutaneous injection (s.c.)
Result:	Decreased the number of spontaneously active 5-HT neurons and firing rate. Not modified with long-term treatment with ED_{50} value of 10.1±0.5 μg/kg in controls and 9.7 ±1.9 μg/kg in treated rats.

REFERENCES

[1]. Mendelson SD, et al. Effects of 5-HT1A selective anxiolytics on lordosis behavior: interactions with progesterone. Eur J Pharmacol. 1986 Dec 16;132(2-3):323-6.

[2]. Blier P, et al. Modification of 5-HT neuron properties by sustained administration of the 5-HT1A agonist gepirone: electrophysiological studies in the rat brain. Synapse. 1987;1(5):470-80.

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