Zimelidine

Cat. No.: HY-118835

CAS No.: 56775-88-3

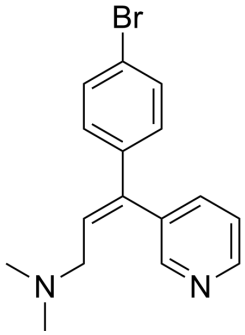
Molecular Formula: $C_{16}H_{17}BrN_2$

Molecular Weight: 317.22

Target: 5-HT Receptor; Serotonin Transporter

Pathway: GPCR/G Protein; Neuronal Signaling

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



BIOLOGICAL ACTIVITY

Description

Zimelidine is a potent and selective inhibitor of serotonin 5-HT uptake and SERT. Zimelidine is an antidepressant[1][2][3][4].

In Vivo

Zimelidine (15 mg/kg, IP, once) reduces the development of tolerance to morphine-induced antinociception in rats[3].
Zimelidine (5 mg/kg, IP, daily for 14 days) dose not modify the responsiveness of CA_3 hippocampal pyramidal neurons to microiontophoreticahy applied 5-HT[2].
Zimelidine (0.2, 2 and 20 nmol/100 nL) in medial amygdaloid nucleus (MeA) evokes dose dependent hypophagic effects in fasted rats[4].

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

Animal Model:	Male Wistar albino rats (160-180 g, n=72)[3]
Dosage:	15 mg/kg
Administration:	IP, once
Result:	Significantly attenuated the development and expression of morphine tolerance. The maximal antinociceptive effect of Zimelidine was obtained at the 60 minutes measurements in the zimelidine group and at the 30 minutes measurements in the morphine tolerant group by the tail-flick and hot-plate tests. Administration of zimelidine with morphine showed additive analgesic effect.

Animal Model:	Sprague-Dawley rats (150 to 250 g, Ten, male)[2]
Dosage:	5 mg/kg
Administration:	IP, daily for 14 days
Result:	Did not modify the responsiveness of CA_3 hippocampal pyramidal neurons to microiontophoreticahy applied 5-HT.

REFERENCES

[1]. Heel RC, et al. Zimelidine: a review of its pharmacological properties and therapeutic efficacy in depressive illness. Drugs. 1982 Sep;24(3):169-206.

[2]. Blier P, et al. Electrophysiological investigations on the effect of repeated zimelidine administration on serotonergic neurotransmission in the rat. J Neurosci. 1983 Jun;3(6):1270-8.

[3]. Ozdemir E, et al. Zimelidine attenuates the development of tolerance to morphine-induced antinociception. Indian J Pharmacol. 2012 Mar;44(2):215-8.

[4]. Scopinho AA, et al. Medial amygdaloid nucleus 5-HT_2c receptors are involved in the hypophagic effect caused by zimelidine in rats. Neuropharmacology. 2012 Aug;63(2):301-9.

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