Yohimbine Hydrochloride

Cat. No.: HY-N0127

CAS No.: 65-19-0

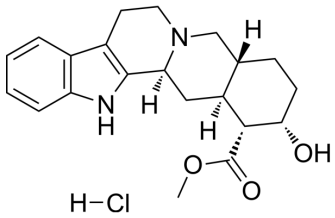
Molecular Formula: $C_{21}H_{27}ClN_2O_3$

Molecular Weight: 390.9

Target: Adrenergic Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

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



SOLVENT & SOLUBILITY

In Vitro

DMSO : 33.33 mg/mL (85.26 mM; Need ultrasonic)
H_2O : 3.33 mg/mL (8.52 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.5582 mL	12.7910 mL	25.5820 mL
5 mM	0.5116 mL	2.5582 mL	5.1164 mL
10 mM	0.2558 mL	1.2791 mL	2.5582 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 (6.40 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (6.40 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (6.40 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Yohimbine Hydrochloride is an alpha 2-adrenoreceptor antagonist, blocking the pre- and postsynaptic alpha-2 adrenoreceptors and causing an increased release of noradrenaline and dopamine.

In Vivo

Yohimbine Hydrochloride (0.2 mg/kg, i.p.) was administered to rats 1h before the stress session daily for 14 consecutive days and its effect was assessed. Results of this section revealed that, immersion of rats in cold water significantly decreased sexual arousal and motivation as indicated by increased latencies and intervals. Decreased copulatory activity was confirmed by decreased testosterone, luteinizing hormone (LH) and follicle-stimulating-hormone (FSH) levels as well as decreased cholesterol content in rat testes. Treatment with yohimbine significantly increased the sexual arousal and

potency and corrected the effects induced by stress on the mating behavior of male rats[1].

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

CUSTOMER VALIDATION

- J Neuroinflammation. 2022 May 27;19(1):123.
- Biomed Pharmacother. 2022 Apr 26;150:113006.
- Neurosci Bull. 2022 Apr;38(4):386-402.
- Eur J Pharmacol. 2023 Nov 6:176174.
- Eur J Neurosci. 2021 Nov 4.

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REFERENCES

[1]. Docherty JR, et al. Yohimbine antagonises α1A- and α1D-adrenoceptor mediated components in addition to the α2A-adrenoceptor component to pressor responses in the pithed rat. Eur J Pharmacol. 2012 Mar 15;679(1-3):90-4.

[2]. Docherty JR, et al. Yohimbine antagonises α1A- and α1D-adrenoceptor mediated components in addition to the α2A-adrenoceptor component to pressor responses in the pithed rat. Eur J Pharmacol. 2012 Mar 15;679(1-3):90-4.. . . .

[3]. Docherty JR, et al. Yohimbine antagonises α1A- and α1D-adrenoceptor mediated components in addition to the α2A-adrenoceptor component to pressor responses in the pithed rat. Eur J Pharmacol. 2012 Mar 15;679(1-3):90-4.. . . .

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