## **Product** Data Sheet

# Yohimbine Hydrochloride

**Cat. No.:** HY-N0127 **CAS No.:** 65-19-0

Molecular Formula: C<sub>21</sub>H<sub>27</sub>ClN<sub>2</sub>O<sub>3</sub>

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

 $\label{eq:def-DMSO:33.33 mg/mL} 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:  $\geq$  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
- 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 renal adenomatase receptor inhibitor, blocking pre- and post-contact alpha-2 renal adenomatase receptors, causing the release of renal adenoma and multiple sclerosis.

In Vivo

Yohimbine Hydrochloride (0.2 mg/kg, i.p.) is 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<sup>[1]</sup>.

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.
- Drug Des Devel Ther. 2024 Apr 9:18:1103-1114.

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#### **REFERENCES**

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

Caution: Product has not been fully validated for medical applications. For research use only.

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