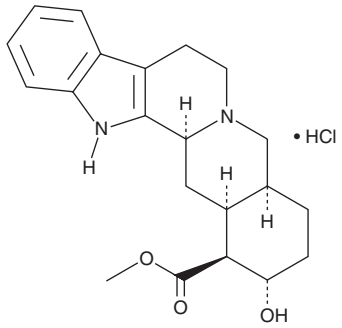
PRODUCT INFORMATION

Rauwolscine (hydrochloride)

Item No. 15596

CAS Registry No.: 6211-32-1
Formal Name: (16β,17α,20α)-17-hydroxy-yohimban-16-carboxylic acid, methyl ester, monohydrochloride
Synonyms: Isoyohimbine, NSC 407307, α-Yohimbine
MF: $C_{21}H_{26}N_2O_3$ • HCl
FW: 390.9
Purity: ≥98%
UV/Vis.: λ_{max}: 223, 281 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Rauwolscine (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the rauwolscine (hydrochloride) in the solvent of choice. Rauwolscine (hydrochloride) is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of rauwolscine (hydrochloride) in these solvents is approximately 2 and 0.1 mg/ml, respectively.

Rauwolscine (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, rauwolscine (hydrochloride) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Rauwolscine (hydrochloride) has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Rauwolscine is a natural alkaloid that acts as a selective and reversible α_2-adrenergic receptor antagonist (K_i = 12 nM).[1] It is a stereoisomer of yohimbine, which potently antagonizes both α_1- and α_2-adrenergic receptors.[1] Rauwolscine also acts as a receptor antagonist at the serotonin 5-HT_{2B} receptor (K_i = 14.3 nM) and as a weak partial agonist at 5-HT_{1A} (IC_{50} = 1.3 µM).[2-4] The α_2-adrenergic receptor has diverse physiological functions and antagonists like rauwolscine have numerous applications, including the modulation of mood and behavior.[5,6]

References

1. Perry, B.D. and U'Prichard, D.C. *Eur. J. Pharmacol.* **76(4)**, 461-464 (1981).
2. Kaumann, A.J. *Naunyn Schmiedebergs Arch. Pharmacol.* **323(2)**, 149-154 (1983).
3. Arthur, J.M., Casańas, S.J., and Raymond, J.R. *Biochem. Pharmacol.* **45(11)**, 2337-2341 (1993).
4. Wainscott, D.B., Sasso, D.A., Kursar, J.D., *et al. Naunyn Schmiedebergs Arch. Pharmacol.* **357(1)**, 17-24 (1998).
5. Brede, M., Philipp, M., Knaus, A., *et al. Biol. Cell* **96(5)**, 343-348 (2004).
6. Cottingham, C. and Wang, Q. *Neurosci. Biobehav. Rev.* **36(10)**, 2214-2225 (2012).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent *via* email to your institution.

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