

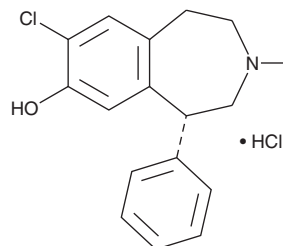
PRODUCT INFORMATION



SCH 23390 (hydrochloride)

Item No. 15631

CAS Registry No.: 125941-87-9
Formal Name: 8-chloro-2,3,4,5-tetrahydro-3-methyl-5R-phenyl-1H-3-benzazepin-7-ol, monohydrochloride
MF: C₁₇H₁₈ClNO • HCl
FW: 324.2
Purity: ≥99%
UV/Vis.: λ_{max}: 289 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years
Special Conditions: Light sensitive



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

Laboratory Procedures

SCH 23390 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the SCH 23390 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. SCH 23390 (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of SCH 23390 (hydrochloride) in these solvents is approximately 5, 20, and 15 mg/ml, respectively.

SCH 23390 (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, SCH 23390 (hydrochloride) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. SCH 23390 (hydrochloride) has a solubility of approximately 0.12 mg/ml in a 1:7 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

SCH 23390 is a halobenzazepine that acts as a selective antagonist of the dopamine D₁-like receptor subtypes D₁ and D₅ (K_s = 0.2 and 0.3 nM, respectively).¹ *In vivo* studies have demonstrated that SCH 23390 can abolish pharmacologically-induced seizures.¹ This compound is useful for studying the role of the dopamine system in normal brain function and neurological disorders.²⁻⁵

References

1. Bourne, J.A. SCH 23390: The first selective dopamine D₁-like receptor antagonist. *CNS Drug Rev.* **7(4)**, 399-414 (2001).
2. Beninger, R.J. and Miller, R. Dopamine D₁-like receptors and reward-related incentive learning. *Neurosci. Biobehav. Rev.* **22(2)**, 335-345 (1998).
3. Oerther, S. and Ahlenius, S. Atypical antipsychotics and dopamine D₁ receptor agonism: An *in vivo* experimental study using core temperature measurements in the rat. *J. Pharmacol. Exp. Ther.* **292(2)**, 731-736 (2000).
4. Patel, S., Rademacher, D.J., and Hillard, C.J. Differential regulation of the endocannabinoids anandamide and 2-arachidonylglycerol within the limbic forebrain by dopamine receptor activity. *J. Pharmacol. Exp. Ther.* **306(3)**, 880-888 (2003).
5. Yang, Z., Asico, L.D., Yu, P., et al. D₅ dopamine receptor regulation of phospholipase D. *Am. J. Physiol. Heart Circ. Physiol.* **288(1)**, H55-H61 (2005).

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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