

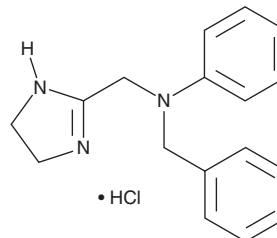
PRODUCT INFORMATION



Antazoline (hydrochloride)

Item No. 23415

CAS Registry No.: 2508-72-7
Formal Name: 4,5-dihydro-N-phenyl-N-(phenylmethyl)-1H-imidazole-2-methanamine, monohydrochloride
Synonym: 2-(N-Benzylanilinomethyl)-2-imidazoline
MF: C₁₇H₁₉N₃ • HCl
FW: 301.8
Purity: ≥98%
UV/Vis.: λ_{max}: 244, 289 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

Antazoline (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the antazoline (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Antazoline (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of antazoline (hydrochloride) in ethanol and DMSO is approximately 25 mg/ml and approximately 20 mg/ml in DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of antazoline (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of antazoline (hydrochloride) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Antazoline is a histamine H₁ receptor antagonist that binds to histamine H₁ receptors with a K_i value of 38.4 nM in cell membranes expressing human recombinant H₁ receptors.¹ Antazoline reduces histamine-induced IL-6 and IL-8 production in human conjunctival epithelial cells (IC₅₀s = 1 and 0.652 μM, respectively). It completely prevents anaphylaxis in rabbits sensitized to egg albumin and increases survival in a guinea pig model of histamine-induced bronchospasm.² Antazoline (10-30 μM) eliminates atrial fibrillation induced by acetylcholine and isoproterenol (Item No. 15592) in isolated rabbit hearts by increasing the atrial effective refractory period and interatrial conduction time in a dose-dependent manner.³ Antazoline also binds to NMDA receptors (K_i = 13 μM) and reduces glutamate-induced toxicity in cerebellar granule cells (EC₅₀ = 13 μM).⁴

References

1. Yanni, J.M., Weimer, L.K., Sharif, N.A., *et al. Arch. Ophthalmol.* **117**(5), 643-647 (1999).
2. Overton, J. *Br. Med. J.* **1**(4557), 874-876 (1948).
3. Frommeyer, G., Sterneberg, M., Dechering, D.G., *et al. Cardiovasc. Ther.* **35**(2), (2017).
4. Olmos, G., DeGregorio-Rocasolano, N., Regalado, M.P., *et al. Br. J. Pharmacol.* **127**(6), 1317-1326 (1999).

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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