

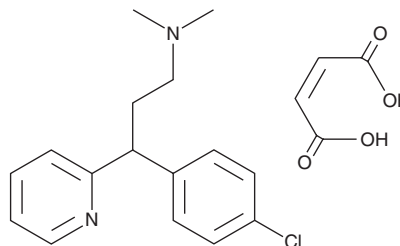
PRODUCT INFORMATION



Chlorpheniramine (maleate)

Item No. 21253

CAS Registry No.: 113-92-8
Formal Name: γ -(4-chlorophenyl)-N,N-dimethyl-2-pyridinepropanamine, 2Z-butenedioate
Synonyms: Chlorprophenpyridamine, (\pm)-Chlorpheniramine
MF: $C_{16}H_{19}ClN_2 \cdot C_4H_4O_4$
FW: 390.9
Purity: $\geq 95\%$
UV/Vis.: λ_{max} : 262 nm
Supplied as: A crystalline solid
Storage: $-20^\circ C$
Stability: ≥ 4 years



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

Laboratory Procedures

Chlorpheniramine (maleate) is supplied as a crystalline solid. A stock solution may be made by dissolving the chlorpheniramine (maleate) in the solvent of choice. Chlorpheniramine (maleate) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of chlorpheniramine (maleate) in these solvents is approximately 5, 10, and 15 mg/ml, respectively.

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 chlorpheniramine (maleate) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of chlorpheniramine (maleate) in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Chlorpheniramine is a histamine H_1 receptor antagonist with an IC_{75} value of 0.0016 $\mu g/ml$ for reversal of histamine-induced spasms in isolated guinea pig ileum.¹ It protects against intravenous histamine-induced death ($PD_{50} = 0.15$ mg/kg) and delays induction of aerosolized histamine-induced coughing ($ED_{100sec} = 0.44$ mg/kg) in guinea pigs. Chlorpheniramine (20 mg/kg, i.p.) prevents histamine-induced passive cutaneous anaphylaxis (PCA) in rabbits.² It also reduces respiratory resistance and hypersecretion of tracheobronchial fluid in a dog model of histamine-induced asthma.³ Formulations containing chlorpheniramine have been used in the treatment of seasonal allergies.

References

1. Lish, P.M., Robbins, S.I., and Peters, E.L. Specificity of antihistamine drugs and involvement of the adrenergic system in histamine deaths in the guinea pig. *J. Pharmacol. Exp. Ther.* **153**(3), 538-543 (1966).
2. Henson, P.M. and Cochrane, C.G. Immunological induction of increased vascular permeability. I. A rabbit passive cutaneous anaphylactic reaction requiring complement, platelets, and neutrophils. *J. Exp. Med.* **129**(1), 153-165 (1969).
3. Yamatake, Y., Sasagawa, S., Yanaura, S., et al. Involvement of histamine H_1 - and H_2 -receptors in induced asthmas in dogs. *Jpn. J. Pharmacol.* **27**(6), 791-797 (1977).

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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