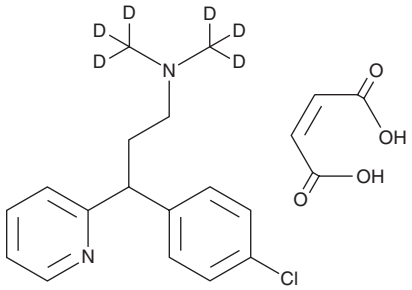
PRODUCT INFORMATION

Chlorpheniramine-d_6 (maleate)

Item No. 35767

CAS Registry No.:	1219806-45-7
Formal Name:	3-(4-chlorophenyl)-N,N-*bis*(methyl-d_3)-3-(pyridin-2-yl)propan-1-amine maleate
Synonyms:	(±)-Chlorpheniramine-d_6, Chlorprophenpyridamine-d_6
MF:	$C_{16}H_{13}ClD_6N_2 \bullet C_4H_4O_4$
FW:	396.9
Chemical Purity:	≥98% (Chlorpheniramine)
Deuterium Incorporation:	≥99% deuterated forms (d_1-d_6); ≤1% d_0
Supplied as:	A solid
Storage:	-20°C
Stability:	≥2 years



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

Laboratory Procedures

Chlorpheniramine-d_6 (maleate) is intended for use as an internal standard for the quantification of chlorpheniramine (Item No. 21253) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

Chlorpheniramine-d_6 (maleate) is supplied as a solid. A stock solution may be made by dissolving the chlorpheniramine-d_6 (maleate) in the solvent of choice, which should be purged with an inert gas. Chlorpheniramine-d_6 (maleate) is slightly soluble in methanol.

Description

Chlorpheniramine is a histamine H_1 receptor antagonist with an IC_{75} value of 0.0016 µg/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).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM