

Certificate of Analysis

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Product Name: 4-Methylhistamine dihydrochloride

Catalog No.: 2342

Batch No.: 1

CAS Number: 36376-47-3

IUPAC Name: 5-(2-Aminoethyl)-4-methylimidazole dihydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₆H₁₁N₃.2HCl.¼H₂O

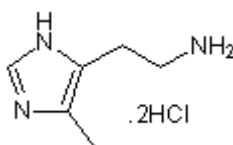
Batch Molecular Weight: 202.59

Physical Appearance: Off-white solid

Solubility: water to 50 mM

Storage: Desiccate at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.8 (Dichloromethane:Methanol [4:1])

Melting Point: Between 233 - 235°C(dec)

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	35.57	6.72	20.74
Found	35.87	6.57	20.63

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Potent, high affinity H₄ receptor agonist (K_i = 7 nM) that displays > 100-fold selectivity over other human histamine receptor subtypes.

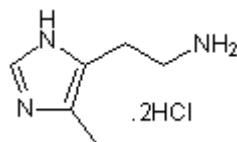
Physical and Chemical Properties:

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Storage: Desiccate at RT

Solubility & Usage Info:

water to 50 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Lim et al (2005) Evaluation of histamine H₁-, H₂-, and H₃-receptor ligands at the human histamine H₄ receptor: identification of 4-methylhistamine as the first potent and selective H₄ receptor agonist. *J.Pharmacol.Exp.Ther.* **314** 1310. PMID: 15947036.

Gbahou et al (2006) Compared pharmacology of human histamine H₃ and H₄ receptors: structure-activity relationships of histamine derivatives. *Br.J.Pharmacol* **147** 74.

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