Certificate of Analysis

Product Name: **(*R*)-(-)-α-Methylhistamine dihydrobromide** **Catalog No.: 0569** **Batch No.: 9**

CAS Number: 868698-49-1

IUPAC Name: (*R*)-(-)-α-Methyl-1*H*-imidazole-4-ethanamine dihydrobromide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_6H_{11}N_3.2HBr$

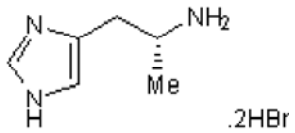
Batch Molecular Weight: 287

Physical Appearance: White solid

Solubility: water to 100 mM

Storage: Desiccate at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.23 (Dichloromethane:Methanol:Ammonia soln. [8:2:0:2])

Melting Point: At 174°C

^{1}H NMR: Consistent with structure

Optical Rotation: $[\alpha]_D$ = -3 (Concentration = 1, Solvent = Water)

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	25.11	4.57	14.64
Found	25.33	4.62	14.51

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Description:

Very potent, high affinity H_3 agonist (K_D = 50.3 nM) that displays > 200-fold selectivity over H_4 receptors. Inhibits H_3-mediated histamine synthesis and release in the CNS and stimulates H_4-mediated eosinophil shape change (EC_{50} = 66 nM). S-enantiomer also available.

Physical and Chemical Properties:

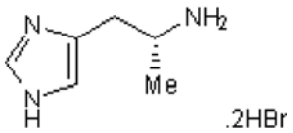
Batch Molecular Formula: $C_6H_{11}N_3.2HBr$

Batch Molecular Weight: 287

Physical Appearance: White solid

Minimum Purity: ≥99%

Batch Molecular Structure:



Storage: Desiccate at RT

Solubility & Usage Info:

water to 100 mM

CAUTION - This product is hygroscopic and we recommend that it is desiccated upon arrival. Solutions should be made up as soon as the vial is opened.

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:

Shahid *et al* (2009) Histamine, histamine receptors, and their role in immunomodulation: An updated systematic review. Open Immunol.J. ***2*** 9.

Buckland *et al* (2003) Histamine induces cytoskeletal changes in human eosinophils via the H_4 receptor. Br.J.Pharmacol. ***140*** 1117. PMID: 14530216.

Hew *et al* (1990) Characterization of histamine-H_3 receptors in guinea pig ileum with H_3-selective ligands. Br.J.Pharmacol. ***101*** 621. PMID: 1963802.