

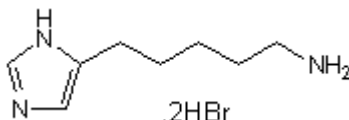
Certificate of Analysis

Product Name: Impentamine dihydrobromide
CAS Number: 149629-70-9
IUPAC Name: 4-(5-Aminopentyl)imidazole dihydrobromide

Catalog No.: 1858 **Batch No.:** 1

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_8H_{15}N_3 \cdot 2HBr \cdot \frac{1}{4}H_2O$
Batch Molecular Weight: 319.55
Physical Appearance: Beige solid
Solubility: water to 100 mM
DMSO to 100 mM
Storage: Desiccate at RT
Batch Molecular Structure:



2. ANALYTICAL DATA

¹H NMR: Consistent with structure
¹³C NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	30.07	5.52	13.15
Found	29.76	5.39	13.22

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

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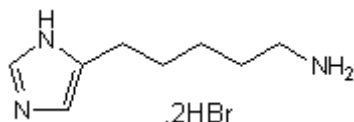
Description:

Potent and highly selective histamine H₃ receptor antagonist (pA₂ = 8.4); displays > 30000-fold selectivity over H₁ and H₂ receptors. Can act as a partial agonist in SK-N-MC cells expressing human H₃ receptors. Produces antinociception, possibly via a non-H₁, -H₂ or -H₃ receptor-mediated mechanism, following central administration in vivo.

Physical and Chemical Properties:

Batch Molecular Formula: C₈H₁₅N₃.2HBr.¼H₂O
 Batch Molecular Weight: 319.55
 Physical Appearance: Beige solid

Batch Molecular Structure:



Storage: Desiccate at RT

Solubility & Usage Info:

water to 100 mM
 DMSO to 100 mM
CAUTION - This product is extremely hygroscopic and we recommend that it is desiccated upon arrival.

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:

Vollinga et al (1995) Homologs of histamine as histamine H₃ receptor antagonists: a new potent and selective H₃ antagonist, 4(5)-(5-aminopentyl)-1*H*-imidazole. *J.Med.Chem.* **38** 266. PMID: 7830269.

Hough et al (1999) Antinociceptive activity of impentamine, a histamine congener, after CNS administration. *Life Sci.* **64** PL79. PMID: 10072195.

Wieland et al (2001) Constitutive activity of histamine H₃ receptors stably expressed in SK-N-MC cells: display of agonism and inverse agonism by H₃ antagonists. *J.Pharmacol.Exp.Ther.* **299** 908. PMID: 11714875.

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