

**Product Name:** Imetit dihydrobromide

**Catalog No.:** 0729

**Batch No.:** 5

CAS Number: 32385-58-3

IUPAC Name: 5-[2-(Imidazol-4-yl)ethyl]isothiourea dihydrobromide

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>6</sub>H<sub>10</sub>N<sub>4</sub>S.2HBr

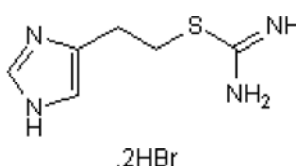
**Batch Molecular Weight:** 332.06

**Physical Appearance:** Off-white solid

**Solubility:** water to 100 mM

**Storage:** Store at RT

**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**Melting Point:** Between 210 - 212°C

**HPLC:** Shows 99.4% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

|             | Carbon | Hydrogen | Nitrogen |
|-------------|--------|----------|----------|
| Theoretical | 21.7   | 3.64     | 16.86    |
| Found       | 21.97  | 3.54     | 16.49    |

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

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IUPAC Name: 5-[2-(Imidazol-4-yl)ethyl]isothiourea dihydrobromide

**Description:**

An extremely potent, high affinity agonist at H<sub>3</sub> and H<sub>4</sub> receptors (K<sub>i</sub> values are 0.3 and 2.7 nM respectively). Induces shape change in eosinophils with an EC<sub>50</sub> of 25 nM. Centrally active following systemic administration.

**Physical and Chemical Properties:**

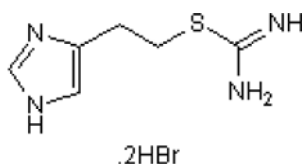
Batch Molecular Formula: C<sub>6</sub>H<sub>10</sub>N<sub>4</sub>S.2HBr

Batch Molecular Weight: 332.06

Physical Appearance: Off-white solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**



**Storage:** Store at RT

**Solubility & Usage Info:**

water to 100 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:**

**Ling et al** (2004) Histamine H<sub>4</sub> receptor mediates eosinophil chemotaxis with cell shape change and adhesion molecule upregulation. *Br.J.Pharmacol.* **142** 161. PMID: 15131002.

**Farzin and Attarzadeh** (2000) Influence of different histamine receptor agonists and antagonists on apomorphine-induced licking behavior in rats. *Eur.J.Pharmacol.* **404** 169. PMID: 10980276.

**Garbarg et al** (1992) S-[2-(4-Imidazolyl)ethyl]isothiourea, a highly specific and potent histamine H<sub>3</sub> receptor agonist. *J.Pharmacol.Exp.Ther.* **263** 304. PMID: 1383495.

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