

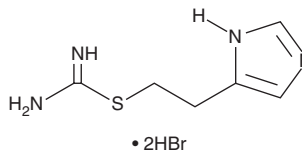
# PRODUCT INFORMATION



## Imetit (hydrobromide)

Item No. 29517

**CAS Registry No.:** 32385-58-3  
**Formal Name:** carbamimidothioic acid, 2-(1H-imidazol-5-yl)ethyl ester, dihydrobromide  
**Synonym:** VUF 8325  
**MF:** C<sub>6</sub>H<sub>10</sub>N<sub>4</sub>S • 2HBr  
**FW:** 332.1  
**Purity:** ≥98%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



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

### Laboratory Procedures

Imetit (hydrobromide) is supplied as a solid. A stock solution may be made by dissolving the imetit (hydrobromide) in water. The solubility of imetit (hydrobromide) in water is approximately 100 mM. We do not recommend storing the aqueous solution for more than one day.

### Description

Imetit is a histamine H<sub>3</sub> and H<sub>4</sub> receptor agonist (K<sub>s</sub> = 0.3 and 2.7 nM, respectively, in radioligand binding assays).<sup>1</sup> It is selective for histamine H<sub>3</sub> and H<sub>4</sub> receptors over H<sub>1</sub> and H<sub>2</sub> receptors at concentrations up to 100 μM, as well as the serotonin (5-HT) receptor subtype 5-HT<sub>3</sub> (K<sub>i</sub> = 240 nM).<sup>2,3</sup> Imetit reduces potassium-induced increases in histamine levels in isolated rat cerebral cortex slices (EC<sub>50</sub> = 2.8 nM).<sup>4</sup> It increases scratching in mice (ED<sub>50</sub> = 0.9 μmol), an effect that is reduced by the H<sub>3</sub> receptor antagonist thioperamide (Item No. 10011127).<sup>5</sup>

### References

1. Liu, C., Ma, X., Jiang, X., *et al.* Cloning and pharmacological characterization of a fourth histamine receptor (H<sub>4</sub>) expressed in bone marrow. *Mol. Pharmacol.* **59**(3), 420-426 (2001).
2. Howson, W., Michael, E., Parsons, P.R., *et al.* Two novel, potent and selective histamine H<sub>3</sub> receptor agonists. *Bioorg. Med. Chem. Lett.* **2**(1), 77-78 (1992).
3. Leurs, R., Tulo, M.T., Menge, W.M., *et al.* Evaluation of the receptor selectivity of the H<sub>3</sub> receptor antagonists, iodophenpropit and thioperamide: an interaction with the 5-HT<sub>3</sub> receptor revealed. *Br. J. Pharmacol.* **116**(4), 2315-2321 (1995).
4. Garbarg, M., Arrang, J.M., Rouleau, A., *et al.* S-[2-(4-imidazolyl)ethyl]isothioureia, a highly specific and potent histamine H<sub>3</sub> receptor agonist. *J. Pharmacol. Exp. Ther.* **263**(1), 304-310 (1992).
5. Bell, J.K., McQueen, D.S., and Rees, J.L. Involvement of histamine H<sub>4</sub> and H<sub>1</sub> receptors in scratching induced by histamine receptor agonists in BalbC mice. *Br. J. Pharmacol.* **142**(2), 374-380 (2004).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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