

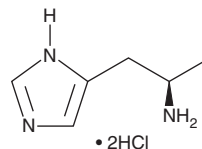
# PRODUCT INFORMATION



## R(-)- $\alpha$ -Methylhistamine (hydrochloride)

Item No. 25601

**CAS Registry No.:** 75614-89-0  
**Formal Name:** ( $\alpha$ R)-methyl-1H-imidazole-5-ethanamine, dihydrochloride  
**MF:** C<sub>6</sub>H<sub>11</sub>N<sub>3</sub> • 2HCl  
**FW:** 198.1  
**Purity:**  $\geq$ 95%  
**UV/Vis.:**  $\lambda_{\text{max}}$ : 210, 315 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:**  $\geq$ 4 years



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

### Laboratory Procedures

R(-)- $\alpha$ -Methylhistamine (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the R(-)- $\alpha$ -methylhistamine (hydrochloride) in the solvent of choice, which should be purged with an inert gas. R(-)- $\alpha$ -Methylhistamine (hydrochloride) is soluble in organic solvents such as ethanol and DMSO. The solubility of R(-)- $\alpha$ -methylhistamine (hydrochloride) in these solvents is approximately 1 and 20 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of R(-)- $\alpha$ -methylhistamine (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of R(-)- $\alpha$ -methylhistamine (hydrochloride) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

R(-)- $\alpha$ -Methylhistamine is a histamine H<sub>3</sub> receptor agonist with diverse biological activities.<sup>1</sup> It inhibits the release of histamine induced by antidromic electrical stimulation of the sciatic nerve in rats when administered at doses ranging from 0.25 to 2 mg/kg, an effect that can be reversed by the selective histamine H<sub>3</sub> receptor antagonist thioperamide (Item No. 10011127). R(-)- $\alpha$ -Methylhistamine (0.5-50 nmol) inhibits gastric acid secretion in rats when administered intracerebroventricularly but not intravenously.<sup>2</sup> It reduces isolation-induced vocalizations and aggressive behavior in a resident-intruder test in guinea pig pups and mice, respectively.<sup>3</sup> R(-)- $\alpha$ -Methylhistamine (30 mg/kg) decreases freezing time in a conditioned fear stress test in rats. It also acts synergistically with fentanyl to reduce nociception and plasma extravasation in a mouse model of chronic inflammation induced by complete Freund's adjuvant.<sup>4</sup>

### References

1. Ohkubo, T., Shibata, M., Inoue, M., *et al.* *Arch. Int. Pharmacodyn. Ther.* **328**(3), 307-314 (1994).
2. Barocelli, E., Ballabeni, V., Chiavarini, M., *et al.* *Br. J. Pharmacol.* **115**(7), 1326-1330 (1995).
3. Yokoyama, F., Yamauchi, M., Oyama, M., *et al.* *Psychopharmacol. (Berl)*. **205**(2), 177-187 (2009).
4. Poveda, R., Fernández-Dueñas, V., Fernández, A., *et al.* *Eur. J. Pharmacol.* **541**(1-2) 53-56 (2006).

#### 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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