

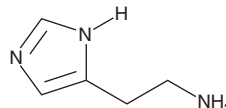
PRODUCT INFORMATION



Histamine

Item No. 33828

CAS Registry No.: 51-45-6
Formal Name: 1H-imidazole-5-ethanamine
Synonym: NSC 33792
MF: C₅H₉N₃
FW: 111.1
Purity: ≥95%
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

Histamine is supplied as a solid. A stock solution may be made by dissolving the histamine in the solvent of choice, which should be purged with an inert gas. Histamine is soluble in organic solvents such as ethanol and DMSO. The solubility of histamine in these solvents is approximately 10 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 histamine can be prepared by directly dissolving the solid in aqueous buffers. The solubility of histamine in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Histamine is a biogenic amine.¹⁻³ It is produced from histidine in basophils, mast cells, gastric enterochromaffin-like (ECL) cells, and histaminergic neurons by histidine decarboxylase (HDC). Histamine activates the G protein-coupled histamine H₁₋₄ receptors to regulate allergic and inflammatory responses, gastric acid secretion, arousal, cognition, and immune cell chemotaxis.

References

1. Kovacova-Hanusikova, E., Buday, T., Gavliakova, S., *et al.* Histamine, histamine intoxication and intolerance. *Allergol. Immunopathol. (Madr)* **43(5)**, 498-506 (2015).
2. Moriguchi, T. and Takai, J. Histamine and histidine decarboxylase: Immunomodulatory functions and regulatory mechanisms. *Genes Cells* **25(7)**, 443-449 (2020).
3. Lieberman, P. The basics of histamine biology. *Ann. Allergy Asthma Immunol.* **106(2 Suppl)**, S2-S5 (2011).

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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