

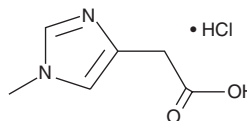
PRODUCT INFORMATION



1-Methyl-4-imidazoleacetic Acid (hydrochloride)

Item No. 18815

CAS Registry No.: 35454-39-8
Formal Name: 1-methyl-1H-imidazole-4-acetic acid, monohydrochloride
Synonyms: Methylimidazoleacetic Acid, MIMA, MIAA
MF: C₆H₈N₂O₂ • HCl
FW: 176.6
Purity: ≥95%
UV/Vis.: λ_{max}: 214 nm
Supplied as: A crystalline 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

MIMA (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the MIMA (hydrochloride) in the solvent of choice, which should be purged with an inert gas. MIMA (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of MIMA (hydrochloride) in ethanol and DMF is approximately 2 mg/ml and approximately 10 mg/ml in DMSO.

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 MIMA (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of MIMA (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

MIMA (hydrochloride) is a stable metabolite of histamine that is produced by the oxidation of the primary metabolite, N-methylhistamine.^{1,2} Urinary levels of MIMA (hydrochloride) are commonly measured to evaluate histamine secretion, particularly in the context of systemic mastocytosis.³⁻⁵

References

1. Lindell, S.-E. and Schayer, R.W. Metabolism of injected [¹⁴C] histamine in the kidney of the dog. *Br. J. Pharmacol. Chemother.* **13(1)**, 52-53 (1958).
2. Kerr, J.W. Identification of histamine metabolite 1-methyl, 4-imidazole acetic acid in human urine and its absence in status asthmaticus. *Br. Med. J.* **2(5409)**, 606-608 (1964).
3. van Doormaal, J.J., van der Veer, E., van Voorst Vader, P.C., *et al.* Tryptase and histamine metabolites as diagnostic indicators of indolent systemic mastocytosis without skin lesions. *Allergy* **67(5)**, 683-690 (2012).
4. Vos, B.J., van der Veer, E., van Voorst Vader, P.C., *et al.* Diminished reliability of tryptase as risk indicator of mastocytosis in older overweight subjects. *J. Allergy Clin. Immunol.* **135(3)**, 792-798 (2015).
5. Tsolakis, A.V., Grimelius, L., Granerus, G., *et al.* Histidine decarboxylase and urinary methylimidazoleacetic acid in gastric neuroendocrine cells and tumours. *World J. Gastroenterol.* **21(47)**, 13240-13249 (2015).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM