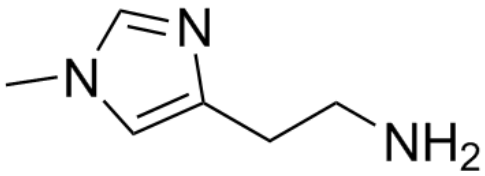
Product Data Sheet

Product Name: 1-Methylhistamine
Cat. No.: GC30697

Chemical Properties

Cas. No.	501-75-7		
SMILES	NCCC1=CN(C)C=N1		
Formula	$C_6H_{11}N_3$	M.Wt	125.17
Solubility	Soluble in DMSO	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure			



Background

1-Methylhistamine is a major metabolite produced by the methylation of histamine catalyzed by histamine N-methyltransferase (HNMT), used to assess the metabolic level of histamine in the body[1]. As the primary inactivation product of histamine in the central nervous system and peripheral tissues, 1-Methylhistamine concentration (particularly in cerebrospinal fluid and urine) can serve as a biomarker reflecting the activity of the histaminergic nervous system, and is associated with the development and progression of neurological disorders such as Alzheimer's disease and

narcolepsy[2]. 1-Methylhistamine also has the potential to be a biomarker for inflammatory diseases, as changes in its levels are associated with conditions such as allergic reactions and mast cell activation syndrome[3].

References:

[1] Shan L, Fronczek R, Lammers GJ, et al. The tuberomamillary nucleus in neuropsychiatric disorders. Handb Clin Neurol. 2021;180:389-400.
[2] Gabelle A, Jaussent I, Hirtz C, et al. Cerebrospinal fluid levels of orexin-A and histamine, and sleep profile within the Alzheimer process. Neurobiol Aging. 2017 May;53:59-66.
[3] Hsu WH, Wang SY, Chao YM, et al. Novel metabolic and lipidomic biomarkers of sarcopenia. J Cachexia Sarcopenia Muscle. 2024 Oct;15(5):2175-2186.