

3-Methyl-L-histidine

Chemical Properties

CAS No. : 368-16-1

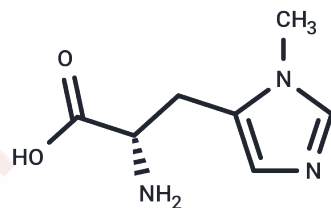
Formula: C₇H₁₁N₃O₂

Molecular Weight: 169.18

Store under nitrogen

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	3-Methylhistidine belongs to the class of organic compounds known as histidine and derivatives. Histidine and derivatives are compounds containing cysteine or a derivative thereof resulting from reaction of cysteine at the amino group or the carboxy group, or from the replacement of any hydrogen of glycine by a heteroatom. It is also a biomarker for the consumption of soy products. 3-Methylhistidine is a very strong basic compound (based on its pKa). 3-Methylhistidine exists in all eukaryotes, ranging from yeast to humans. In humans, 3-methylhistidine is involved in methylhistidine metabolism. 3-Methylhistidine, with regard to humans, has been found to be associated with several diseases such as diabetes mellitus type 2, eosinophilic esophagitis, and kidney disease; 3-methylhistidine has also been linked to the inborn metabolic disorder propionic acidemia. The measurement of 3-methylhistidine provides an index of the rate of muscle protein breakdown. 3-Methylhistidine is a product of peptide bond synthesis and methylation of actin and myosin. 3-Methylhistidine is a biomarker for meat consumption, especially chicken.
Targets(IC50)	Endogenous Metabolite

Solubility Information

Solubility	H ₂ O: 100 mg/mL (591.09 mM), Sonication is recommended. DMSO: 3.46 mg/mL (20.45 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.9109 mL	29.5543 mL	59.1086 mL
5 mM	1.1822 mL	5.9109 mL	11.8217 mL
10 mM	0.5911 mL	2.9554 mL	5.9109 mL
50 mM	0.1182 mL	0.5911 mL	1.1822 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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