

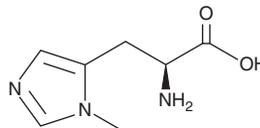
# PRODUCT INFORMATION



## 3-Methyl-L-histidine

Item No. 31165

**CAS Registry No.:** 368-16-1  
**Synonyms:** 3-Methylhistidine, 3MH  
**MF:** C<sub>7</sub>H<sub>11</sub>N<sub>3</sub>O<sub>2</sub>  
**FW:** 169.2  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 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

3-Methyl-L-histidine is supplied as a crystalline solid. Aqueous solutions of 3-methyl-L-histidine can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of 3-methyl-L-histidine in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

3-Methyl-L-histidine is an endogenous amino acid and a component of the skeletal muscle proteins actin and myosin.<sup>1-3</sup> It is released during the catabolism of muscle fibrillar protein and excreted in urine.<sup>1</sup> Urinary levels of 3-methyl-L-histidine are decreased in children with protein-energy malnutrition compared with well-nourished control subjects. 3-Methyl-L-histidine has been used as a biomarker of skeletal muscle catabolism.<sup>1-3</sup>

### References

1. Nagabhushan, V.S. and Narasinga Rao, B.S. Studies on 3-methylhistidine metabolism in children with protein-energy malnutrition. *Am. J. Clin. Nutr.* **31(8)**, 1322-1327 (1978).
2. Lukaski, H.C., Mendez, J., Buskirk, E.R., *et al.* Relationship between endogenous 3-methylhistidine excretion and body composition. *Am. J. Physiol.* **240(3)**, E302-E307 (1981).
3. Lowry, S.F., Horowitz, G.D., Jeevanandam, M., *et al.* Whole-body protein breakdown and 3-methylhistidine excretion during brief fasting, starvation, and intravenous repletion in man. *Ann. Surg.* **202(1)**, 21-27 (1985).

#### 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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