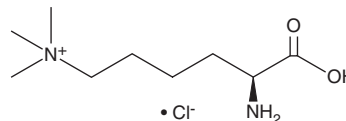


PRODUCT INFORMATION

N^ε,N^ε,N^ε-Trimethyllysine (chloride)

Item No. 33898

CAS Registry No.: 55528-53-5
Formal Name: 5-amino-5-carboxy-N,N,N-trimethyl-1-pentanaminium, monochloride
Synonyms: TML, N^ε-Trimethyllysine, N^ε-Trimethyllysine
MF: C₉H₂₁N₂O₂ • Cl
FW: 224.7
Purity: ≥98%
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

N^ε,N^ε,N^ε-Trimethyllysine (chloride) is supplied as a solid. Aqueous solutions of N^ε,N^ε,N^ε-trimethyllysine (chloride) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of N^ε,N^ε,N^ε-trimethyllysine (chloride) in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

N^ε,N^ε,N^ε-Trimethyllysine is an amino acid and a precursor in the biosynthesis of L-carnitine (Item No. 21489).¹ It is produced by intestinal microbiota or can be obtained by the degradation of post-translationally modified proteins or dietary sources.^{2,3}

References

1. Strijbis, K., Vaz, F.M., and Distel, B. Enzymology of the carnitine biosynthesis pathway. *IUBMB Life* **62**(5), 357-362 (2010).
2. Zhao, M., Zhao, L., Xiong, X., *et al.* TMAVA, a metabolite of intestinal microbes, is increased in plasma from patients with liver steatosis, inhibits γ-butyrobetaine hydroxylase, and exacerbates fatty liver in mice. *Gastroenterology* **158**(8), 2266-2281 (2020).
3. Servillo, L., Giovane, A., Cautela, D., *et al.* Where does N^ε-trimethyllysine for the carnitine biosynthesis in mammals come from? *PLoS One* **9**(1), e84589 (2014).

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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