

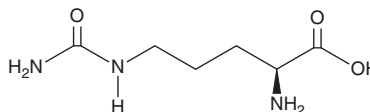
PRODUCT INFORMATION



Citrulline

Item No. 35648

CAS Registry No.: 372-75-8
Formal Name: N⁵-(aminocarbonyl)-L-ornithine
Synonyms: N⁵-Carbamoyl Ornithine,
L-Citrulline, NSC 27425
MF: C₆H₁₃N₃O₃
FW: 175.2
Purity: ≥95%
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

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

Description

Citrulline is a non-proteinogenic amino acid that is produced by deimination of arginine through the post-translational modification citrullination.¹ Citrullination is catalyzed by protein arginine deiminases (PADs) that convert positively charged arginine to electrically neutral citrulline, decreasing the isoelectric point of the protein, altering the native protein structure, and influencing protein ionic interactions.² Protein citrullination has roles in many physiological and pathological processes, including autoimmunity, cancer, and neurodegenerative disorders.³

References

1. Yuzhalin, A.E. Citrullination in cancer. *Cancer Res.* **79(7)**, 1274-1284 (2019).
2. György, B., Tóth, E., Falus, A., *et al.* Citrullination: A posttranslational modification in health and disease. *Int. J. Biochem. Cell Biol.* **38(10)**, 1662-1677 (2006).
3. Lee, C.-Y., Wang, D., Wilhelm, M., *et al.* Mining the human tissue proteome for protein citrullination. *Mol. Cell Proteomics* **17(7)**, 1378-1391 (2018).

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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