

PRODUCT INFORMATION



Hepcidin-25 (trifluoroacetate salt)

Item No. 34768

Formal Name: L- α -aspartyl-L-threonyl-L-histidyl-L-phenylalanyl-L-prolyl-L-isoleucyl-L-cysteinyl-L-isoleucyl-L-phenylalanyl-L-cysteinyl-L-cysteinylglycyl-L-cysteinyl-L-cysteinyl-L-histidyl-L-arginyl-L-seryl-L-lysyl-L-cysteinylglycyl-L-methionyl-L-cysteinyl-L-cysteinyl-L-lysyl-L-threonine, cyclic (7→23),(10→13),(11→19),(14→22)-tetrakis (disulfide), trifluoroacetate salt

Synonym: H-DTHFPICIFCCGCCCHRSKCGMCCCKT-OH

MF: C₁₁₃H₁₇₀N₃₄O₃₁S₉ • XCF₃COOH

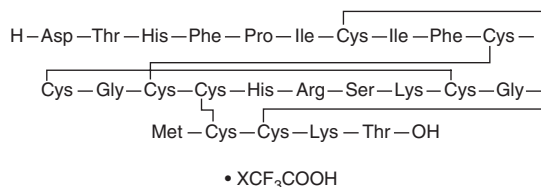
FW: 2,789.4

Purity: ≥95%

Supplied as: A lyophilized powder

Storage: -20°C

Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Hepcidin-25 (trifluoroacetate salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the hepcidin-25 (trifluoroacetate salt) in water. The solubility of hepcidin-25 (trifluoroacetate salt) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Hepcidin-25 is a peptide hormone that regulates iron homeostasis and has antibacterial activity.¹ It is predominantly synthesized by hepatocytes and secreted into the circulation. Hepcidin-25 binds to ferroportin, a membrane-bound iron exporter expressed by macrophages, enterocytes, and hepatocytes, inducing ferroportin internalization and degradation, which increases intracellular iron levels and decreases dietary iron absorption and plasma iron levels. It is bactericidal against multidrug-resistant clinical isolates of Gram-negative and Gram-positive bacteria, including *P. aeruginosa*, *E. coli*, *K. pneumoniae*, *S. aureus*, *S. epidermidis*, and *E. faecium*, when used at concentrations ranging from 6.25 to 50 μ g/ml.² Serum hepcidin-25 levels are increased in patients with chronic kidney disease (CKD).³

References

1. Kroot, J.J.C., Tjalsma, H., Fleming, R.E., *et al.* Hepcidin in human iron disorders: Diagnostic implications. *Clin. Chem.* **57**(12), 1650-1669 (2011).
2. Maisetta, G., Petruzzelli, R., Brancatisano, F.L., *et al.* Antimicrobial activity of human hepcidin 20 and 25 against clinically relevant bacterial strains: Effect of copper and acidic pH. *Peptides* **31**(11), 1995-2002 (2010).
3. Tsuchiya, K. and Nitta, K. Hepcidin is a potential regulator of iron status in chronic kidney disease. *Ther. Apher. Dial.* **17**(1), 1-8 (2013).

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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