

# PRODUCT INFORMATION



## Cecropin B (trifluoroacetate salt)

Item No. 36902

**Formal Name:** L-lysyl-L-tryptophyl-L-lysyl-L-valyl-L-phenylalanyl-L-lysyl-L-lysyl-L-isoleucyl-L- $\alpha$ -glutamyl-L-lysyl-L-methionylglycyl-L-arginyl-L-asparaginyll-L-isoleucyl-L-arginyl-L-asparaginyllglycyl-L-isoleucyl-L-valyl-L-lysyl-L-alanylglycyl-L-prolyl-L-alanyl-L-isoleucyl-L-alanyl-L-valyl-L-leucylglycyl-L- $\alpha$ -glutamyl-L-alanyl-L-lysyl-L-alanyl-L-leucinamide, trifluoroacetate salt

H—Lys—Trp—Lys—Val—Phe—Lys—Lys—Ile—Glu—Lys—  
Met—Gly—Arg—Asn—Ile—Arg—Asn—Gly—Ile—Val—  
Lys—Ala—Gly—Pro—Ala—Ile—Ala—Val—Leu—Gly—  
Glu—Ala—Lys—Ala—Leu—NH<sub>2</sub>  
• XCF<sub>3</sub>COOH

**MF:** C<sub>176</sub>H<sub>302</sub>N<sub>52</sub>O<sub>41</sub>S • XCF<sub>3</sub>COOH  
**FW:** 3,834.7  
**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

Cecropin B (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the cecropin B (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. Cecropin B (trifluoroacetate salt) is soluble in the organic solvent DMSO at a concentration of approximately 3 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of cecropin B (trifluoroacetate salt) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of cecropin B (trifluoroacetate salt) in PBS (pH 7.2) is approximately 3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Cecropin B is an antimicrobial peptide.<sup>1</sup> It is active against the Gram-positive bacteria *S. aureus*, *B. subtilis*, *Sporosarcina*, and *Curtobacterium* (MICs = 0.89, 0.98, 0.88, and 0.97  $\mu$ M, respectively) and the Gram-negative bacteria *E. coli*, *S. pullorum*, and *P. aeruginosa* (MICs = 0.5, 0.78, and 0.98, respectively). Cecropin B also induces membrane permeabilization in, and is active against the plant pathogenic fungi *R. solani* (MIC = 9.8  $\mu$ M).<sup>2</sup>

### References

1. Wang, X., Zhu, M., Yang, G., et al. Expression of cecropin B in *Pichia pastoris* and its bioactivity *in vitro*. *Exp. Ther. Med.* **2**(4), 655-660 (2011).
2. Oard, S., Rush, M.C., and Oard, J.H. Characterization of antimicrobial peptides against a US strain of the rice pathogen *Rhizoctonia solani*. *J. Appl. Microbiol.* **97**(1), 169-180 (2004).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM