

# Product Information



## Beauvericin

Item No. 11426

**CAS Registry No.:** 26048-05-5

**Formal Name:** cyclo[(2R)-2-hydroxy-3-methylbutanoyl-N-methyl-L-phenylalanyl-(2R)-2-hydroxy-3-methylbutanoyl-N-methyl-L-phenylalanyl-(2R)-2-hydroxy-3-methylbutanoyl-N-methyl-L-phenylalanyl]

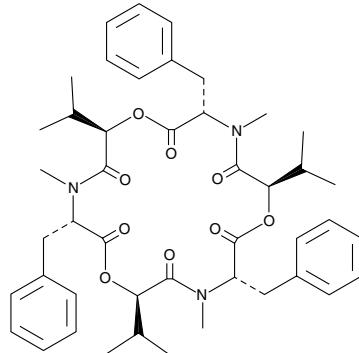
**MF:** C<sub>45</sub>H<sub>57</sub>N<sub>3</sub>O<sub>9</sub>

**FW:** 783.0

**Purity:** ≥95%

**Stability:** ≥2 years at -20°C

**Supplied as:** A crystalline solid



### Laboratory Procedures

For long term storage, we suggest that beauvericin be stored as supplied at -20°C. It should be stable for at least two years.

Beauvericin is supplied as a crystalline solid. A stock solution may be made by dissolving the beauvericin in the solvent of choice. Beauvericin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of beauvericin in these solvents is approximately 30 mg/ml.

Beauvericin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, beauvericin should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Beauvericin has a solubility of approximately 0.3 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Beauvericin is a mycotoxin originally derived from *B. bassiana*, a common fungal parasite of arthropods. It is also produced by the fungus *Fusarium*, a pathogen of insects and plants.<sup>1</sup> Beauvericin is cytotoxic against insect cells, killing the insect cell line SF-9 with a 50% cytotoxic concentration of 2.5 μM.<sup>2</sup> In mammalian cells, beauvericin induces apoptosis with an IC<sub>50</sub> value of 4.5 μM.<sup>1,3</sup>

### References

1. Logrieco, A., Moretti, A., Castella, G., et al. Beauvericin production by *Fusarium* species. *Appl. Environ. Microbiol.* **64**(8), 3084-3088 (1998).
2. Calo, L., Fornelli, F., Nenna, S., et al. Beauvericin cytotoxicity to the invertebrate cell line SF-9. *J. Appl. Genet.* **44**(4), 515-520 (2003).
3. Tonshin, A.A., Teplova, V.V., Andersson, M.A., et al. The *Fusarium* mycotoxins enniatins and beauvericin cause mitochondrial dysfunction by affecting the mitochondrial volume regulation, oxidative phosphorylation and ion homeostasis. *Toxicology* **276**, 49-57 (2010).

### Related Products

For a list of related products please visit: [www.caymanchem.com/catalog/11426](http://www.caymanchem.com/catalog/11426)

**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

### SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent *via* email to your institution.

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