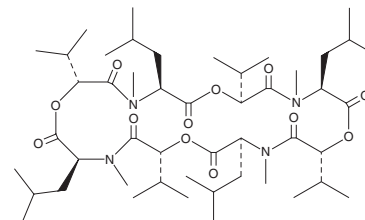


PRODUCT INFORMATION



Bassianolide Item No. 22001

CAS Registry No.: 64763-82-2
Formal Name: cyclo[(2R)-2-hydroxy-3-methylbutanoyl-N-methyl-L-leucyl-(2R)-2-hydroxy-3-methylbutanoyl-N-methyl-L-leucyl-(2R)-2-hydroxy-3-methylbutanoyl-N-methyl-L-leucyl-(2R)-2-hydroxy-3-methylbutanoyl-N-methyl-L-leucyl]
Synonyms: (-)-Bassianolide, NSC 321804
MF: C₄₈H₈₄N₄O₁₂
FW: 909.2
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

Bassianolide is supplied as a solid. A stock solution may be made by dissolving the bassianolide in the solvent of choice, which should be purged with an inert gas. Bassianolide is soluble in ethanol, methanol, DMSO, and dimethyl formamide.

Description

Bassianolide is a cyclodepsipeptide insecticide synthesized by the fungal species *B. bassiana* and *V. lecanii*.^{1,2} *In vivo*, the oral administration of bassianolide induces atony in the silkworm *B. mori* at a concentration of 4 ppm and is lethal at doses exceeding 8 ppm. Atony is similarly induced in silkworm larvae at oral doses as low as 2 µg/larva.¹ In isolated guinea pig smooth muscle tissue, bassianolide (0.01-1 µM) specifically inhibits the muscarinic, but not nicotinic, receptor-induced contractions in response to acetylcholine.^{3,4}

References

1. Suzuki, A., Kanaoka, M., Isogai, A., *et al.* Bassianolide, a new insecticidal cyclodepsipeptide from *Beauveria bassiana* and *Verticillium lecanii*. *Tetrahedron Lett.* **18(25)**, 2167-2170 (1977).
2. Liu, H., Xie, L., Wang, J., *et al.* The stress-responsive and host-oriented role of nonribosomal peptide synthetases in an entomopathogenic fungus, *Beauveria bassiana*. *J. Microbiol. Biotechnol.* **27(3)**, 439-449 (2017).
3. Nakaiya, S., Shimizu, K., Kometani, A., *et al.* Inhibitory effect of bassianolide, a cyclodepsipeptide, on drug-induced contractions of isolated smooth muscle preparations. *Jpn. J. Pharmacol.* **32(1)**, 55-64 (1982).
4. Nakajyo, S., Shimizu, K., Kometani, A., *et al.* On the inhibitory mechanism of bassianolide, a cyclodepsipeptide, in acetylcholine-induced contraction in guinea-pig *taenia coli*. *Jpn. J. Pharmacol.* **33(3)**, 573-582 (1983).

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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