

PRODUCT INFORMATION



Destruxin B

Item No. 20429

CAS Registry No.: 2503-26-6
Formal Name: cyclo[N-methyl-L-alanyl-β-alanyl-(2R)-2-hydroxy-4-methylpentanoyl-L-prolyl-L-isoleucyl-N-methyl-L-valyl]

Synonyms: SB 242536, NSC 236580

MF: C₃₀H₅₁N₅O₇

FW: 593.8

Purity: ≥95%

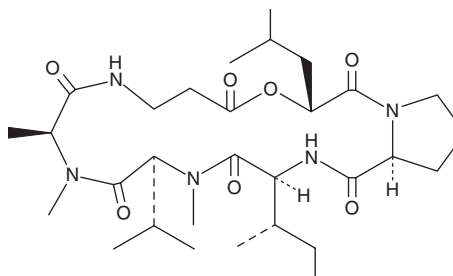
Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥2 years

Special Conditions: Protect from moisture; avoid direct light

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



Laboratory Procedures

Destruxin B is supplied as a crystalline solid. A stock solution may be made by dissolving the destruxin B in the solvent of choice, which should be purged with an inert gas. Destruxin B is soluble in organic solvents such as DMSO and dichloromethane. The solubility of destruxin B in these solvents is approximately 10 mg/ml.

Description

Destruxin B is a cyclic hexadepsipeptide mycotoxin first isolated from *O. destructor*.¹ It has insecticidal and phytotoxic activity and is prone to metabolization by plants.^{2,3} Destruxin B also induces apoptosis in human non-small cell lung cancer cells in culture.⁴

References

1. Pedras, M., Zaharia, L. I. and Ward, D. E. The destruxins: Synthesis, biosynthesis, biotransformation, and biological activity. *Phytochemistry* **59(6)**, 579-596 (2002).
2. Berthiller, F., Crews, C., Dall'Asta, C., *et al.* Masked mycotoxins: A review. *Mol. Nutr. Food Res.* **57**, 165-186 (2013).
3. Pedras, M. S., Zaharia, I. L., Gai, Y., *et al.* In planta sequential hydroxylation and glycosylation of a fungal phytotoxin: Avoiding cell death and overcoming the fungal invader. *Proc. Natl. Acad. Sci. USA* **98(2)**, (2001).
4. Wu, C.-C., Chen, T.-H., Liu, B.-L., *et al.* Destruxin B isolated from entomopathogenic fungus *Metarhizium anisopliae* induces apoptosis via a Bcl-2 family-dependent mitochondrial pathway in human nonsmall cell lung cancer cells. *Evid. Based Complement. Alternat. Med.* **2013:548929** (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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