

PRODUCT INFORMATION



Brevicompanine B

Item No. 27962

CAS Registry No.: 215121-47-4
Formal Name: (3R,5aS,10bR,11aS)-10b-(1,1-dimethyl-2-propen-1-yl)-6,10b,11,11a-tetrahydro-3-(2-methylpropyl)-2H-pyrazino[1',2':1,5]pyrrolo[2,3-b]indole-1,4(3H,5aH)-dione

MF: C₂₂H₂₉N₃O₂

FW: 367.5

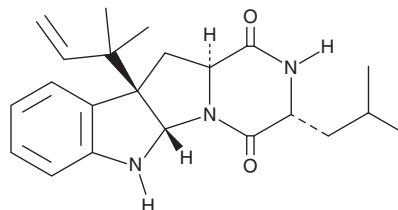
Purity: ≥95%

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years

Item Origin: Fungus/*Penicillium* sp.



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

Laboratory Procedures

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

Description

Brevicompanine B is a fungal metabolite originally isolated from *P. brevicompactum* that has plant growth and circadian rhythm regulatory activity.¹ It inhibits hypocotyl elongation in lettuce seedlings when used at a concentration of 100 mg/L but does not inhibit elongation in rice seedlings at a concentration of 300 mg/L. Brevicompanine B (100 μM) inhibits primary root growth in *Arabidopsis* seedlings and disrupts the transcription of various genes involved in the regulation of plant circadian rhythm.² It is active against *P. falciparum* with an IC₅₀ value of 35 mg/ml.³

References

1. Kusano, M., Sotoma, G., Koshino, H., *et al.* Brevicompanines A and B: New plant growth regulators produced by the fungus, *Penicillium brevicompactum*. *J. Chem. Soc. Perkin Trans. 1* 2823-2826 (1998).
2. de Montaigu, A., Oeljeklaus, J., Krahn, J.H., *et al.* The root growth-regulating brevicompanine natural products modulate the plant circadian clock. *ACS Chem. Biol.* **12**(6), 1466-1471 (2017).
3. Sprogøe, K., Manniche, S., Larsen, T.O., *et al.* Janoxepin and brevicompanine B: Antiplasmodial metabolites from the fungus *Aspergillus janus*. *Tetrahedron* **61**(36), 8718-8721 (2005).

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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