

PRODUCT INFORMATION



Ophiobolin B

Item No. 18432

CAS Registry No.: 5601-74-1

Formal Name: (1R,3aS,6aR,7S,9aR,10aS)-7-
[[1S]-1,5-dimethyl-4-hexen-1-
yl]-1,2,3,3a,6,6a,7,8,9,9a,10,10a-
dodecahydro-1,7-dihydroxy-1,9a-
dimethyl-3-oxo-dicyclopenta[a,d]
cyclooctene-4-carboxaldehyde
Synonyms: Cochliobolin B, Ophiobolsin A, Zizanin B

MF: $C_{25}H_{38}O_4$

FW: 402.6

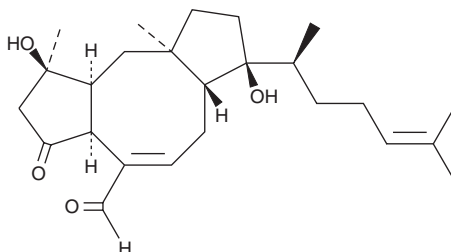
Purity: $\geq 95\%$

Supplied as: A solid

Storage: -20°C

Stability: ≥ 4 years

Item Origin: Fungus/*Bipolaris leersia*



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

Laboratory Procedures

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

Description

Calmodulin is a calcium-sensing protein that regulates a wide array of proteins involved in diverse cellular functions. Ophiobolin B is a sesterterpenoid fungal phytotoxin that binds and irreversibly antagonizes calmodulin, producing cytotoxic and antimicrobial effects. It induces apoptosis in chronic lymphocytic leukemia cells with an LC_{50} value of 2 nM and in different zygomycetes with MIC values ranging from 25-50 $\mu\text{g}/\text{ml}$.^{1,2}

References

1. Bladt, T.T., Dürr, C., Knudsen, P.B., *et al.* Bio-activity and dereplication-based discovery of ophiobolins and other fungal secondary metabolites targeting leukemia cells. *Molecules* **18**(12), 14629-14650 (2013).
2. Krizsin, K., Bencsik, O., Nyilasi, I., *et al.* Effect of the sesterterpene-type metabolites, ophiobolins A and B, on zygomycetes fungi. *FEMS Microbiol. Lett.* **313**(2), 135-140 (2010).

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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