

PRODUCT INFORMATION



Myrothecine A

Item No. 28193

CAS Registry No.: 910292-40-9
Formal Name: (2R,4R,7Z,11S,15E,19aR,22S,23S,23aR,25R,26S,27R)-11-acetyl-3,4,10,11,21,22,23,23a-octahydro-22,25,27-trihydroxy-22,26-dimethyl-20H-11,15-methano-23,2,4,19a-[1,2]propanediyl[3]ylidene-2H,13H,19H-1,5,12,18-benzotetraoxacycloheneicosin-6,17(9H,14H)-dione

MF: C₂₉H₃₈O₁₀

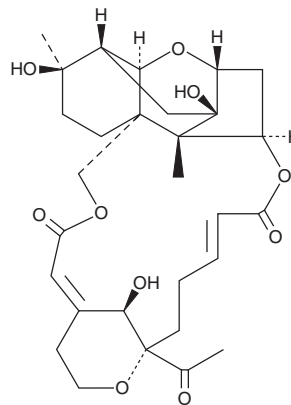
FW: 546.6

Purity: ≥70%

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

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

Description

Myrothecine A is a trichothecene mycotoxin that has been found in *M. roridum* and has anticancer activities.^{1,2} It inhibits proliferation of A549, MCF-7, HepG2, and SMMC-7721 cancer cells (IC₅₀s = 95, 70, 60, and 25 μM, respectively).¹ Myrothecine A (50 μM) induces G₁ cell cycle arrest in HepG2 cells, as well as increases Bax and cleaved caspase-3, -5, and -8 levels and induces apoptosis in SMMC-7721 cells.^{1,2}

References

1. Lin, T., Wang, G., Zhou, Y., *et al.* Structure elucidation and biological activity of two new trichothecenes from an endophyte, *Myrothecium roridum*. *J. Agric. Food Chem.* **62**(25), 5993-6000 (2014).
2. Song, H., Fu, Y., Wan, D., *et al.* Mytoxin B and myrothecine A induce apoptosis in human hepatocarcinoma cell line SMMC-7721 via PI3K/Akt signaling pathway. *Molecules* **24**(12), E2291 (2019).

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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