

Product Data Sheet

Product Name: Myrothecine A

Cat. No.: GC45958

Chemical Properties

Cas. No. 910292-40-9

SMILES O[C@]1(C)CC[C@@]2(COC(/C=C3[C@@H](O)[C@@]4(C(C)=O)OCC\3)=O)[C@@]5([H])[C@]1([H])C[C@@]6(O)[C@]2(C)[C@@](OC(/C=C/CC4)=O)([H])C[C@@]6([H])O5

Formula C₂₉H₃₈O₁₀

M.Wt 546.6

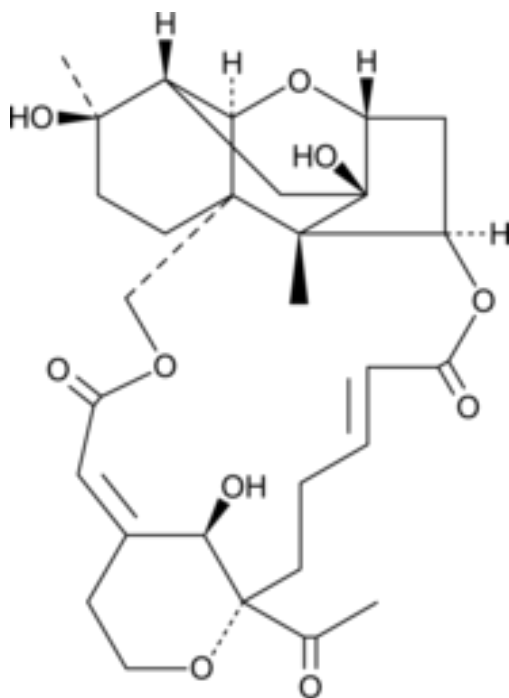
Solubility DMSO: soluble, Ethanol: soluble, Methanol: soluble

Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

Myrothecine A is a trichothecene mycotoxin that has been found in *M. roridum* and has anticancer

Caution: Product has not been fully validated for medical applications. For research use only.

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activities.^{1,2} It inhibits proliferation of A549, MCF-7, HepG2, and SMMC-7721 cancer cells (IC₅₀s = 95, 70, 60, and 25 μ M, respectively).¹ Myrothecine A (50 μ M) 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}

[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).

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