

PRODUCT INFORMATION



Thaxtomin A

Item No. 15601

CAS Registry No.: 122380-18-1
Formal Name: (3R,6S)-3-hydroxy-3-[(3-hydroxyphenyl)methyl]-1,4-dimethyl-6-[(4-nitro-1H-indol-3-yl)methyl]-2,5-piperazinedione

MF: C₂₂H₂₂N₄O₆

FW: 438.4

Purity: ≥98%

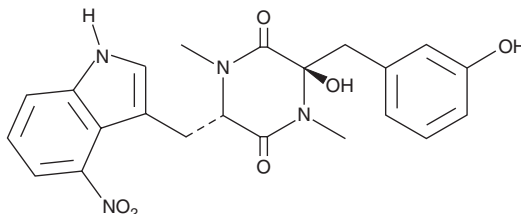
Supplied as: A solid

Storage: -20°C

Stability: ≥4 years

Item Origin: Bacterium/*Streptomyces bottropensis* Gö-Dra 17

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



Laboratory Procedures

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

Description

Thaxtomin A is a major phytotoxin produced by *S. scabies*, gram-positive soil bacterium responsible for producing scabs on tubers and root vegetables.¹ This bacterial metabolite acts as a virulence factor in the common scab potato disease and demonstrates herbicidal activity against the dicotyledon weeds *B. campestris* and *A. retroflexus*.²

References

1. Lerat, S., Simao-Beauvoir, A.M., Wu, R., *et al.* Involvement of the plant polymer suberin and the disaccharide cellobiose in triggering thaxtomin A biosynthesis, a phytotoxin produced by the pathogenic agent *Streptomyces scabies*. *Phytopathology* **100**(1), 91-96 (2010).
2. Zhang, H., Ning, X., Hang, H., *et al.* Total synthesis of thaxtomin A and its stereoisomers and findings of their biological activities. *Org. Lett.* **15**(22), 5670-5673 (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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 10/06/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM