

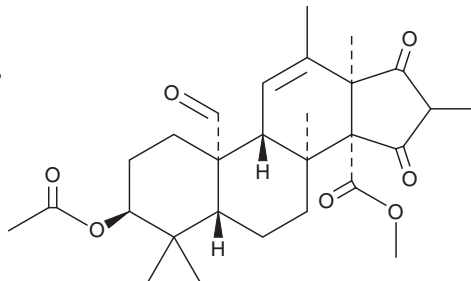
PRODUCT INFORMATION



Andrastin A

Item No. 22067

CAS Registry No.: 174232-42-9
Formal Name: (3 β ,5 β ,8 α ,9 β ,10 α ,13 α)-3 β -(acetyloxy)-4,4,8,12,16-pentamethyl-15,17,19-trioxo-androst-11-ene-14-carboxylic acid, methyl ester
Synonym: NSC 697452
MF: C₂₈H₃₈O₇
FW: 486.6
Purity: \geq 95%
Supplied as: A solid
Storage: -20°C
Stability: \geq 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

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

Description

Andrastin A is a meroterpenoid farnesyltransferase inhibitor.¹ It increases the accumulation and effect of the chemotherapeutic agent vincristine in multidrug resistant VJ-300 cell culture (the IC₅₀ of vincristine (sulfate) (Item No. 11764) decreased 1.5-20-fold upon treatment with 6.25 μ g/ml to 50 μ g/ml of of andrastin A), most likely by binding to plasma membrane phosphoglycoprotein to prevent drug efflux.² Andrastin A inhibits survival of Caco-2 cells with an IC₅₀ of $>$ 50 μ g/ml.³

References

1. Uchida, R., Shiomo, K., Inokosho, J., *et al.* Andrastins A-C, new protein farnesyltransferase inhibitors produced by *Penicillium* sp. FO-3929. II. Structure elucidation and biosynthesis. *J. Antibiot. (Tokyo)* **49(5)**, 418-424 (1996).
2. Rho, M.-C., Toyoshima, M., Hayashi, M., *et al.* Enhancement of drug accumulation by andrastin A produced by *Penicillium* sp. FO-3929 in vincristine-resistant KB cells. *J. Antibiot. (Tokyo)* **51(1)**, 68-72 (1998).
3. Rasmussen, R.R., Rasmussen, P.H., Larsen, T.O., *et al.* *In vitro* cytotoxicity of fungi spoiling maize silage. *Food Chem. Toxicol.* **49(1)**, 31-44 (2011).

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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