

PRODUCT INFORMATION



Monascuspiloin

Item No. 33098

CAS Registry No.: 1011244-19-1
Formal Name: (3S,3aR,9aR)-3a,4,8,9a-tetrahydro-3-(1-hydroxyhexyl)-9a-methyl-6-(1E)-1-propen-1-yl-2H-furo[3,2-g][2]benzopyran-2,9(3H)-dione

Synonym: Monascinol

MF: C₂₁H₂₈O₅

FW: 360.4

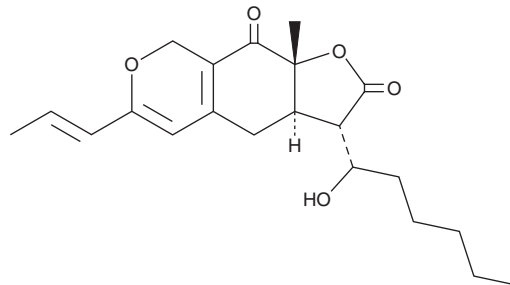
Purity: ≥85%

Supplied as: A solid

Storage: -20°C

Stability: ≥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

Monascuspiloin is supplied as a solid. A stock solution may be made by dissolving the monascuspiloin in the solvent of choice, which should be purged with an inert gas. Monascuspiloin is soluble in methanol and DMSO.

Description

Monascuspiloin is a fungal metabolite that has been found in *M. pilosus* M93-fermented rice.¹ It induces endoplasmic reticulum stress and autophagy in PC3 prostate cancer cells. Monascuspiloin (15-45 μM) decreases viability of PC3 cells and has an additive effect on the reduction in viability of PC3 cells induced by irradiation when used at a concentration of 25 μM. It induces intratumor apoptosis and autophagy and reduces tumor growth in a PC3 mouse xenograft model when administered at doses of 40 and 120 mg/kg.²

References

1. Chiu, H.-W., Fang, W.-H., Chen, Y.-L., *et al.* Monascuspiloin enhances the radiation sensitivity of human prostate cancer cells by stimulating endoplasmic reticulum stress and inducing autophagy. *PLoS One* **7(7)**, e40462 (2012).
2. Chen, R.-J., Hung, C.-M., Chen, Y.-L., *et al.* Monascuspiloin induces apoptosis and autophagic cell death in human prostate cancer cells via the Akt and AMPK signaling pathways. *J. Agric. Food Chem.* **60(29)**, 7185-7193 (2012).

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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