

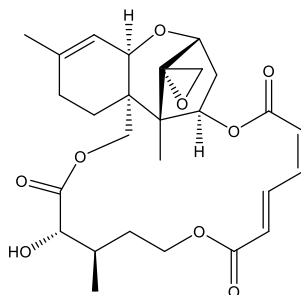
Catalog # 10-3564

Verrucarin A

CAS# 3148-09-2

Muconomycin-A; 379-Y; Glutinosin-I; Myrothecin-I; NSC-126728

Lot # X109407



Verrucarin A is a macrocyclic trichothecene mycotoxin from *Myrothecium sp.* It is a potent and selective inhibitor of the steroid receptor coactivator-3 and selectively down-regulates its expression.¹ It is cytotoxic to multiple types of cancer cells at low nM concentrations (IC₅₀=4.9 nM for HepG2 cells) but not toward normal liver cells.^{1,2} It enhances TNF α -induced³ and TRAIL-induced apoptosis⁴. It reduces phosphorylation of IRE α and inhibits tunicamycin-induced ER stress in FaO rat liver cells.⁵

- 1) Yan *et al.* (2014), *Identification of verrucarin A as a potent and selective steroid receptor coactivator-3 small molecule inhibitor*, PLoS One, **9** e95243
- 2) Palanivel *et al.* (2014), *Verrucarin A alters cell-cycle regulatory proteins and induces apoptosis through reactive oxygen species-dependent p38MAPK activation in the human breast cancer cell line MCF-7*, Tumour Biol., **35** 10159
- 3) Jayasooriya *et al.* (2013), *Combined treatment with verrucarin A and tumor necrosis factor- α sensitizes apoptosis by overexpression of nuclear factor- κ B-mediated Fas*, Environ. Toxicol. Pharmacol., **36** 303
- 4) Moon *et al.* (2013), *Verrucarin A sensitizes TRAIL-induced apoptosis via the upregulation of DR5 in an eIF2 α /CHOP-dependent manner*, Toxicol. In Vitro, **27** 257
- 5) Bae *et al.* (2016), *Inhibitory Effects of Verrucarin A on Tunicamycin-Induced ER Stress in FaO Rat Liver Cells*, Molecules, **20** 8988

PHYSICAL DATA

Molecular Weight:	502.56
Molecular Formula:	C ₂₇ H ₃₄ O ₉
Purity:	>98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (25 mg/ml)
Physical Description:	Off-white solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C. for up to 1 month.

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