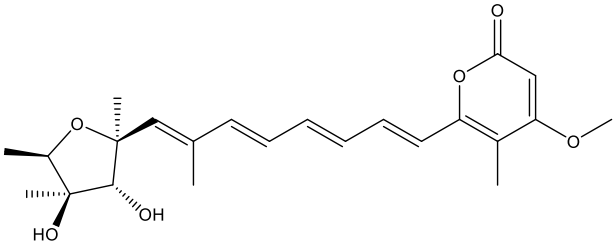
Catalog #10-2065

Citreovidrin

CAS# 25425-12-1

Fermentation product from *Penicillium citreoviride*

Lot # X106732



Citreoviridin is a mycotoxin produced by *Penicillium* and *Aspergillus* species.[1] It is an inhibitor of both the mitochondrial (K_i = 4.5 μM)[2] and ectopic ATPase[3] and selectively suppresses the growth and proliferation of lung cancer cells without affecting normal cells[3]. It induces liver fibrosis in mice[4] and induces autophagy-dependent apoptosis through the lysosomal-mitochondria axis in human liver cells[5]. Low concentrations of citreoviridin prevent both calcium deposition in vascular smooth muscle cells and osteoclast activation *in vitro*.[6]

1) Luo *et al.* (2022), *Simultaneous determination of twelve mycotoxins in edible oil, soy sauce and bean sauce by PRiME HLB solid phase extraction combined with HPLC-Orbitrap HRMS*; Front. Nutr. **9** 1001671
2) Sayood *et al.* (1989), *Effect of citreoviridin and isocitreoviridin on beef heart mitochondrial ATPase*; Arch. Biochem. Biophys. **270** 714
3) Wu *et al.* (2013), *Quantitative proteomic analysis of human lung tumor xenografts treated with the ectopic ATP synthase inhibitor citreoviridin*; PLoS One **8** e70642
4) Dong *et al.* (2022), *Exosomal miR-181a-2-3p derived from citreoviridin-treated hepatocytes activates hepatic stellate cells through inducing mitochondrial calcium overload*; Chem. Biol. Interact. **358** 109899
5) Wang *et al.* (2015), *Citreoviridin induces Autophagy-Dependent Apoptosis through Lysosomal-Mitochondrial Axis in Human Liver HepG2 Cells*; Toxins (Basel) **7** 3030
6) Jeong *et al.* (2023), *A low Concentration of Citreoviridin Prevents Both Intracellular Calcium Deposition in Vascular Smooth Muscle Cell and Osteoclast Activation In Vitro*; Molecules **28** 1693

PHYSICAL DATA

Molecular Weight:	402.49
Molecular Formula:	$C_{23}H_{30}O_6$
Purity:	>98% (HPLC) NMR: (Conforms)
Solubility:	DMSO (10 mg/mL)
Physical Description:	Yellow solid
Storage and Stability:	Store as supplied 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 3 months.

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