Citreoviridin A is a mycotoxin found in cereal and bread grains; it exhibits pro-oxidative, anticancer chemotherapeutic, antibacterial, antifungal, and antiviral activities. In vitro, citreoviridin A increases ROS levels and decreases glutathione, inducing oxidative stress, destabilizing the lysosome and mitochondria and causing DNA damage. Citreoviridin A inhibits the F1 subunit of F1F0 ATP synthase, inhibiting cell proliferation in a lung cancer xenograft model. Citreoviridin also increases phosphorylation of eIF2α, inducing the unfolded protein response and the inhibition of cell growth. In other cellular models, this compound increases TNF-α-induced cellular adhesion to monocytes, increases nuclear translocation of NF-κB, and increases expression of ICAM-1, VCAM-1, E-selectin, and MCP-1. Citreoviridin inhibits cellular growth in species of Bacillus and Candida and also inhibits replication of HIV-1.

References


Caution: This product is intended for laboratory and research use only. It is not for human or drug use.