



LKT Laboratories, Inc.

## Citreoviridin A

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### Product Information

**Product ID** C3576

**CAS No.** 25425-12-1

**Chemical Name** 4-Methoxy-5-methyl-6-(7-methyl-8-(tetrahydro-3,4-dihydroxy-2,4,5-trimethyl-2-furyl)-1,3,5,7-octatetraenyl)-2H-pyran-2-one

**Synonym** Citreoviridin

**Formula** C<sub>23</sub>H<sub>30</sub>O<sub>6</sub>

**Formula Wt.** 402.48

**Melting Point** 110° C

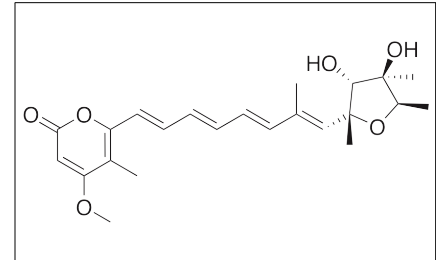
**Purity** ≥95%

**Solubility** Insoluble in water. Soluble in ethanol, chloroform, dichloromethane, and DMSO (10 mg/mL).

**Store Temp** 4° C

**Ship Temp** Ambient

**Description** 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.



### Pricing and Availability

*Bulk quantities available upon request*

Product ID	Size	List Price
C3576	1 mg	\$118.30
C3576	5 mg	\$465.00

**References** Bai Y, Jiang LP, Liu XF, et al. The role of oxidative stress in citreoviridin-induced DNA damage in human liver-derived HepG2 cells. *Environ Toxicol.* 2013 Dec 6. [Epub ahead of print]. PMID: 24318808.

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Chang HY, Huang HC, Huang TC, et al. Ectopic ATP synthase blockade suppresses lung adenocarcinoma growth by activating the unfolded protein response. *Cancer Res.* 2012 Sep 15;72(18):4696-706. PMID: 22822083.

Vieta I, Savarino A, Papa G, et al. In vitro inhibitory activity of citreoviridin against HIV-1 and an HIV-associated opportunist: *Candida albicans*. *J Chemother.* 1996 Oct;8(5):351-7. PMID: 8957714.

Sayood SF, Suh H, Wilcox CS, et al. Effect of citreoviridin and isocitreoviridin on beef heart mitochondrial ATPase. *Arch Biochem Biophys.* 1989 May 1;270(2):714-21. PMID: 2523213.

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