

PRODUCT INFORMATION

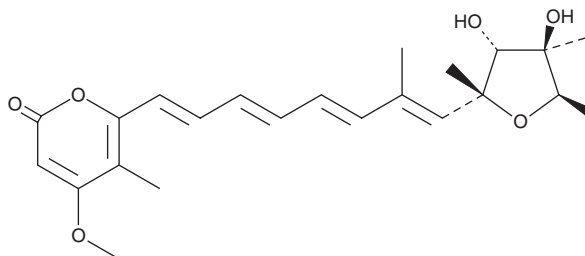


Citreoviridin

Item No. 11319

CAS Registry No.: 25425-12-1
Formal Name: 2,5-anhydro-1,6-dideoxy-2-C-[(8-(4-methoxy-5-methyl-2-oxo-2H-pyran-6-yl)-2-methyl-1E,3E,5E,7E-octatetraen-1-yl)-4-C-methyl-D-idoitol]

MF: C₂₃H₃₀O₆
FW: 402.5
Purity: ≥95%
UV/Vis.: λ_{max}: 236, 295, 389 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Citreoviridin is supplied as a crystalline solid. A stock solution may be made by dissolving the citreoviridin in the solvent of choice, which should be purged with an inert gas. Citreoviridin is soluble in organic solvents such as ethanol and DMSO. The solubility of citreoviridin in these solvents is approximately 10 mg/ml.

Description

Citreoviridin is a mycotoxin isolated from several *Penicillium* species that has been shown to inhibit the mitochondrial ATP synthetase system.^{1,2} It inhibits soluble ATPase ($K_D = 4.1 \mu\text{M}$), ADP-stimulated respiration in isolated rat liver mitochondria ($K_D = 0.15 \mu\text{M}$), and ATP-driven reduction of NAD⁺ by succinate ($K_D = 2 \mu\text{M}$).¹ Citreoviridin has been used to target ectopic ATPase activity in cancer cells in order to modulate the metabolic activity associated with tumorigenesis.³

References

1. Linnett, P.E., Mitchell, A.D., Osselton, M.D., *et al.* Citreoviridin, a specific inhibitor of the mitochondrial adenosine triphosphatase. *Biochem. J.* **170**(3), 503-510 (1978).
2. Gause, E.M., Buck, M.A., and Douglas, M.G. Binding of citreoviridin to the β subunit of the yeast F₁-ATPase. *J. Biol. Chem.* **256**(2), 557-559 (1981).
3. Wu, Y.-H., Hu, C.-W., Chien, C.-W., *et al.* Quantitative proteomic analysis of human lung tumor xenografts treated with the ectopic ATP synthase inhibitor citreoviridin. *PLoS One* **8**(8), 1-19 (2013).

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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