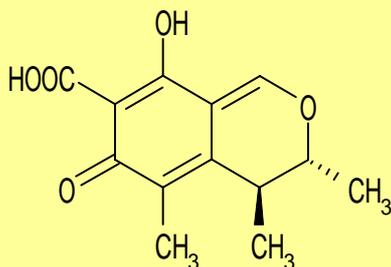


Citrinin

Cat.# BLK0390

Structure

**Origin:** *Penicillium citrinum* strain FKI-4836**CAS Registry Number:** 518-75-2**CA Index Name:** 4,6-Dihydro-8-hydroxy-3,4,5-trimethyl-6-oxo-3H-2-benzopyran-7-carboxylic Acid**Appearance:** lemon-yellow needles**Molecular Formula/ Weight:** C₁₃H₁₄O₅=250.25**Melting Point:** 166-169 (dec.) **Purity:** >97% by HPLC**Solubility:** Sol. MeOH, dioxane, pyridine, Dichloromethane Inso. water, benzene, hexane, chloroform

Background Information:

Citrinin was isolated from *Penicillium citrinum*¹⁾, *Guanomyces polythrix*²⁾ and other microorganisms, and phytotoxic agent. Citrinin acts as a nephrotoxin in all animal species tested, but its acute toxicity varies in different species³⁾. It causes mycotoxic nephropathy in livestock and has been implicated as a cause of Balkan nephropathy and yellow rice fever in humans. Citrinin is used as a reagent in biological research. It induces mitochondrial permeability pore opening and inhibits respiration by interfering with complex I of the respiratory chain. Citrinin can also act synergistically with Ochratoxin A to depress RNA synthesis in murine kidney⁴⁾.

Handling and Storage:

Store at -20 .

References:

1. O. R. Rodig, et. al., *Biochemistry*, **5**, 2451-2458 (1966).
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3. W. W. Carlton & J. Tuite, *Metabolites of P. viridicatum toxicology*. In *Mycotoxins in Human and Animal Health*, pp 525–555.
Eds JV Rodricks, CW Hesseltine & MA Mehlmann. Park Forest South, Illinois, USA: Pathotox (1977).
4. J. W. Bennett. et. al.. *Clin. Microbiol. Rev.* **16**. 497–516 (2003).