



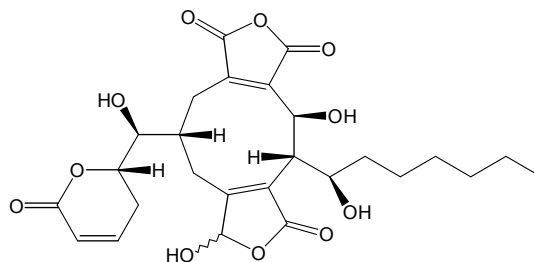
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PRODUCT DATA SHEET

Rubratoxin A

(Inhibitor for Protein Phosphatase 2A)

Produced by *Penicillium* sp.



Synonyms:

Cat. No.: 10663 Lot.001

Size: 1mg

Identification of the substance

CAS# : 22467-31-8

Molecular Formula : $C_{26}H_{32}O_{11}$

Molecular Weight : 520.1945

Source : *Penicillium* sp.

Appearance : White powder

Purity : >95 % (HPLC)

Long Term Storage : 4 ° C

Solubility : Soluble in MeOH, EtOH, acetone, DMSO poorly soluble in hexane

Product description

Rubratoxin A is a mycotoxin produced by *Penicillium*. While this compound inhibits protein phosphatase 2A (PP2A) in a competitive manner with the inhibition constant (K_i) of 28.7 nM (IC_{50} = 6.1-15.1 nM), it does not inhibit protein phosphatase 1, protein phosphatase 2B, protein tyrosine phosphatase 1B, and alkaline phosphatase, calf intestine phosphatase (CIP) up to 200 μ M. Rubratoxin A shows cytotoxicity in cultured mammalian cells with IC_{50} values of around 15 μ M and induces overphosphorylation in PP2A substrate proteins.

References

1. Rubratoxin A specifically and potently inhibits protein phosphatase 2A and suppresses cancer metastasis.
Wada S, Usami I, Umezawa Y, Inoue H, Ohba S, Someno T, Kawada M, Ikeda D, Cancer Sci, 2010, 101, 743-50
2. Microbial food toxicants: rubratoxins. Moss M. In: Handbook of Foodborne Diseases of Biological Origin.
Recheigl M, ed. Florida: CRC Press, 1983; 167-179