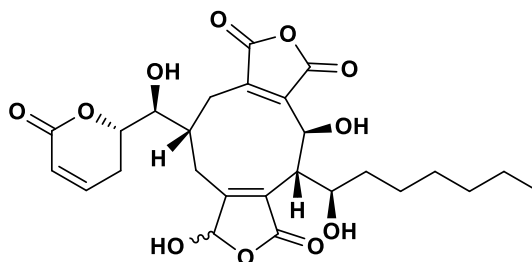


**PRODUCT DATA SHEET**

Date: Aug. 25, 2021

**Rubratoxin A**



Synonyms:

**Specifications**

Code No.	: 10663
CAS#	: 22467-31-8
Molecular Formula	: C <sub>26</sub> H <sub>32</sub> O <sub>11</sub>
Molecular Weight	: 520.531
Source	: <i>Penicillium</i> sp.
Appearance	: White powder
Purity	: > 95% (HPLC)
Long Term Storage	: at 4 °C
Solubility	: Soluble in DMSO, Acetone, CH <sub>3</sub> CN Poorly soluble in Hexane It is recommended to avoid using alcohol such as MeOH or EtOH which esterifies Rubratoxin A.

**Application Notes**

Rubratoxin A is a mycotoxin produced by *Penicillium* sp. While this compound inhibits PP2A (protein phosphatase 2A) in a competitive manner with the inhibition constant (*K<sub>i</sub>*) of 28.7 nM (IC<sub>50</sub>= 6.1-15.1 nM), it does not inhibit PP1 (protein phosphatase 1), PP2B (protein phosphatase 2B), PTP1B (protein tyrosine phosphatase 1B), and CIP (alkaline phosphatase, calf intestine) up to 200 μM. Rubratoxin A shows cytotoxicity in cultured mammalian cells with IC<sub>50</sub> values of around 15 μM and induces overphosphorylation in PP2A substrate proteins.

**References**

- 1) Rubratoxin A specifically and potently inhibits protein phosphatase 2A and suppresses cancer metastasis. Wada S, *et al. Cancer Sci.* 2010 **101**(3) 743-50