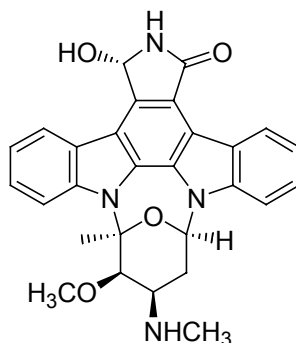


Antibiotic UCN-01

Code: **BIA-U1096**

Pack sizes: **0.1 mg, 0.5 mg**



Synonyms : **7-Hydroxystaurosporine, UCN-01**

Specifications

CAS # : **112953-11-4**
Molecular Formula : **C₂₈H₂₆N₄O₄**
Molecular Weight : **482.5**
Source : ***Streptomyces* sp. MST-AS5345**
Appearance : **White Film**
Purity : **> 99% by HPLC**
Long Term Storage : **+4°C**
Solubility : **Soluble in methanol, ethanol, DMF or DMSO.**

Application Notes

Isolated from *Streptomyces* sp., Antibiotic UCN-01 inhibits protein kinase C (PKC) and cyclin-dependant kinase 2 (CDK2) resulting in accumulation of cells in the G1 phase and induction of apoptosis. UCN-01 also enhances the cytotoxicity of other anti-cancer drugs, such as DNA-damaging agents and anti-metabolite drugs, through putative abrogation of G2 and/or S phase accumulation induced by these anti-cancer agents.

References

1. UCN-01-induced cell cycle arrest requires the transcriptional induction of p21(waf1/cip1) by activation of mitogen-activated protein/extracellular signal-regulated kinase/extracellular signal-regulated kinase pathway. Facchinetti M.M. et al. *Cancer Res.* **2004**, 64, 3629.
2. UCN-01 (7-hydroxystaurosporine) and other indolocarbazole compounds: a new generation of anti-cancer agents for the new century? Akinaga S. et al. *Anticancer Drug Des.* **2000**, 15, 43.
3. UCN-01 and UCN-02, new selective inhibitors of protein kinase C. II. Purification, physico-chemical properties, structural determination and biological activities. Takahashi I. et al. *J. Antibiot.* **1989**, 42, 571.