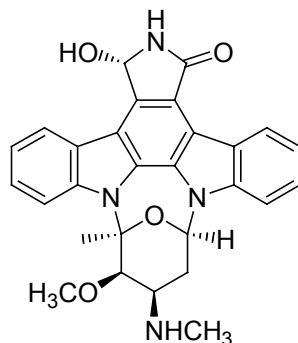


Antibiotic UCN-01

Code: **BIA-U1096**

Pack sizes: **1 mg, 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 : **Light tan solid**
Purity : **> 98% by HPLC (< 2% UCN-02)**
(Note, some interconversion of UCN-01 to UCN-02 occurs under acidic HPLC conditions
Takahashi et al. 1988 J. Antibiot. 42, 571.)
Long Term Storage : **-20 °C, protect from light**
Solubility : **Soluble in methanol, ethanol, DMF or DMSO**

Application Notes

Antibiotic UCN-01 is a indolocarbazole isolated from a high staurosporine-producing *Streptomyces* culture. 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.