

Product Name: Cercosporamide

Catalog No.: 4500

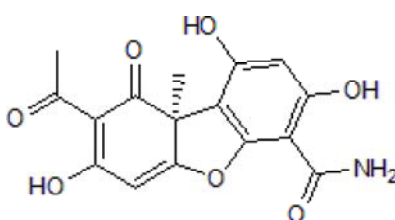
Batch No.: 7

CAS Number: 131436-22-1

IUPAC Name: (9a*S*)-8-Acetyl-9,9a-dihydro-1,3,7-trihydroxy-9a-methyl-9-oxo-4-dibenzofurancaboxamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₆H₁₃NO₇
Batch Molecular Weight: 331.28
Physical Appearance: Yellow solid
Solubility: DMSO to 10 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.1% purity
Mass Spectrum: Consistent with structure

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Cercosporamide is a potent inhibitor of MAP-kinase interacting kinase-2 (Mnk2) and JAK3 (IC₅₀ values are 11, 31 and 116 nM for Mnk2, JAK3 and Mnk1 respectively). Blocks eIF4E phosphorylation; exhibits antiproliferative and proapoptotic activity in cancer cells in vitro. Also inhibits Pkc1. Orally bioavailable.

Physical and Chemical Properties:

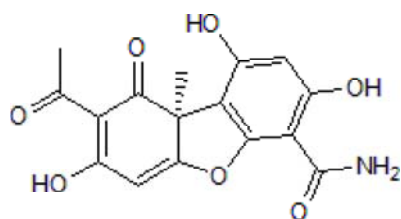
Batch Molecular Formula: C₁₆H₁₃NO₇

Batch Molecular Weight: 331.28

Physical Appearance: Yellow solid

Minimum Purity: ≥96%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 10 mM

Solutions in DMSO are unstable and should be freshly prepared. When stored at -20°C, DMSO solution should be stable for 3 months. This product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Hou *et al* (2012) Targeting Mnk for cancer therapy. *Oncotarget* **3** 118. PMID: 22392765.

Konicek *et al* (2011) Therapeutic inhibition of MAP kinase interacting kinase blocks eukaryotic initiation factor 4E phosphorylation and suppresses outgrowth of experimental lung metastases. *Cancer Res.* **71** 1849. PMID: 21233335.

Sussman *et al* (2004) Discovery of cercosporamide, a known antifungal natural product, as a selective Pkc1 kinase inhibitor through high-throughput screening. *Eukaryot. Cell* **3** 932. PMID: 15302826.

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