

Product Name: Ailanthone

Catalog No.: 6161

Batch No.: 1

CAS Number: 981-15-7

IUPAC Name: (1β,11β,12α)-11,20-Epoxy-1,11,12-trihydroxypicrasa-3,13(21)-diene-2,16-dione

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₀H₂₄O₇·1½H₂O

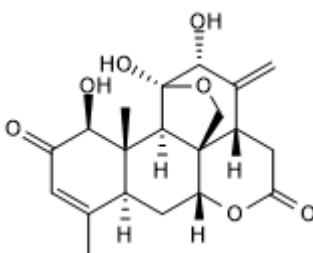
Batch Molecular Weight: 398.92

Physical Appearance: White solid

Solubility: DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 100% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

Carbon Hydrogen Nitrogen

Theoretical 60.22 6.7

Found 60.07 6.6

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

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Description:

Potent androgen receptor (AR) inhibitor (IC₅₀ = 69 nM). Disrupts the AR-chaperone complex by binding p23 and blocking AR interaction with HSP90 causing UPS degradation of AR. Inhibits Huh7 cancer cell growth via G₀/G₁ cell cycle arrest and apoptosis *in vitro* and *in vivo*. Inhibits growth and metastasis of certain prostate cancer cell lines. Orally bioavailable.

Physical and Chemical Properties:

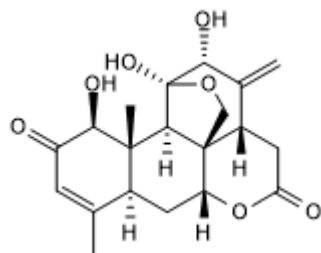
Batch Molecular Formula: C₂₀H₂₄O₇·1¼H₂O

Batch Molecular Weight: 398.92

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



References:

He et al (2015) Ailanthone targets p23 to overcome MDV3100 resistance in castration-resistant prostate cancer. *Nat. Commun.* **7** 13122. PMID: 27959342 .

Zhuo et al (2015) Ailanthone inhibits Huh7 cancer cell growth via cell cycle arrest and apoptosis *in vitro* and *in vivo*. *Sci. Rep.* **5** 16185. PMID: 26525771 .

Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMSO to 100 mM

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.

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