

**Product Name:** Wortmannin

**Catalog No.:** 1232

**Batch No.:** 10

CAS Number: 19545-26-7

IUPAC Name: (1*S*,6*bR*,9*aS*,11*R*,11*bR*) 11-(Acetyloxy)-1,6*b*,7,8,9*a*,10,11,11*b*-octahydro-1-(methoxymethyl)-9*a*,11*b*-dimethyl-3*H*-furo[4,3,2-*de*]indeno[4,5-*h*]-2-*h*-2-benzopyran-3,6,9-trione

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>23</sub>H<sub>24</sub>O<sub>8</sub>·¼H<sub>2</sub>O

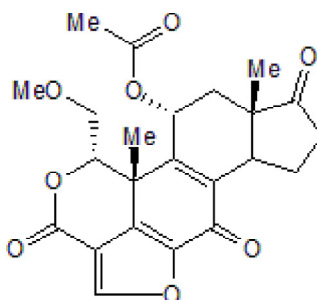
**Batch Molecular Weight:** 432.94

**Physical Appearance:** White solid

**Solubility:** DMSO to 50 mM

**Storage:** Store at -20°C

**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**HPLC:** Shows 99.1% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

Carbon Hydrogen Nitrogen

Theoretical 63.8 5.7

Found 63.63 5.56

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**10**

CAS Number: 19545-26-7

IUPAC Name: (1S,6bR,9aS,11R,11bR) 11-(Acetyloxy)-1,6b,7,8,9a,10,11,11b-octahydro-1-(methoxymethyl)-9a,11b-dimethyl-3H-furo[4,3,2-de]indeno[4,5,-h]-2-h]-2-benzopyran-3,6,9-trione

**Description:**

Wortmannin is a potent, selective, cell-permeable and irreversible inhibitor of phosphatidylinositol 3-kinase (PI 3-kinase) (IC<sub>50</sub> = 2 - 4 nM). Also potently inhibits polo-like kinase 1 (PLK1) (IC<sub>50</sub> = 5.8 nM).

**Physical and Chemical Properties:**

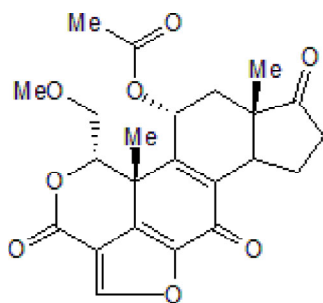
Batch Molecular Formula: C<sub>23</sub>H<sub>24</sub>O<sub>8</sub>·¼H<sub>2</sub>O

Batch Molecular Weight: 432.94

Physical Appearance: White solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**



**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 50 mM

When purchased as a 1mg unit, 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. \*Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

**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:**

**Liu et al (2005)** Wortmannin, a widely used phosphoinositide 3-kinase inhibitor, also potently inhibits mammalian polo-like kinase. *Chem.Biol.* **12** 99. PMID: 15664519.

**Schultz et al (1995)** *In vitro* and *in vivo* antitumor activity of the phosphatidylinositol-3-kinase inhibitor wortmannin. *Anticancer Res.* **15** 1135. PMID: 7653991.

**Powis et al (1994)** Wortmannin, a potent and selective inhibitor of phosphatidylinositol-3-kinase. *Cancer Res.* **54** 2419. PMID: 8162590.

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