

Certificate of Analysis

Print Date: Aug 25th 2023

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Product Name: Wortmannin Catalog No.: 1232 Batch No.: 11

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

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{23}H_{24}O_8$.Batch Molecular Weight:428.44Physical Appearance:White solid

Solubility: DMSO to 50 mM Storage: Store at -20°C

Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 98.4% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 64.48 5.65 0 Found 63.9 5.58 0



Product Information

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Description:

Wortmannin is a potent, selective, cell-permeable and irreversible inhibitor of phosphatidylinositol 3-kinase (PI 3-kinase) ($IC_{50} = 2 - 4$ nM). Also potently inhibits polo-like kinase 1 (PLK1) ($IC_{50} = 5.8$ nM).

Physical and Chemical Properties:

Batch Molecular Formula: $C_{23}H_{24}O_8$. Batch Molecular Weight: 428.44 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 purched 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.

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