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Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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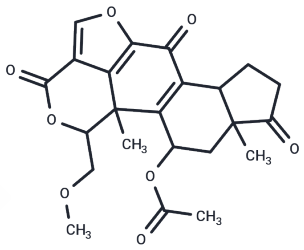
Data Sheet (Cat.No.T6283)

TargetMol

Wortmannin

Chemical Properties



CAS No. : 19545-26-7

Formula: C23H24O8

Molecular Weight: 428.43

Appearance: no data available

Storage: store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Wortmannin (SL-2052) is a PI3K inhibitor (IC50=3 nM) that is covalent and irreversible. Wortmannin is also an inhibitor of PlK1 and PlK3 (IC50=5.8/48 nM) that blocks autophagy.
Targets(IC50)	ATM/ATR,DNA-PK,Serine/threonin kinase,PLK,PI3K,Antibiotic,Autophagy
In vitro	**METHODS**: Human breast cancer cells MCF-7 were treated with Wortmannin (50-500 nM) for 24 h. Cell death was detected by Trypan blue exclusion assay. **RESULTS**: Wortmannin induced cell death in MCF-7 cells in a concentration-dependent manner with an IC50 of 400 nM. [1] **METHODS**: Human breast cancer cells MCF-7 were treated with Wortmannin (6.25-50 nM) for 24 h. The expression levels of target proteins were detected by Western Blot. **RESULTS**: Concentration-dependent reduction of p-Akt and NF-κB p65 expression was induced by Wortmannin. [2]
In vivo	**METHODS**: To determine whether activation of the insulin pathway and brain enlargement were responsible for fatal seizures, Wortmannin (1.5 mg/kg) was administered orally to Pcmt1-/- mice once a day for twenty-two days. **RESULTS**: Wortmannin reduced the average brain size of Pcmt1-/- mice to within 6% of that of controls and nearly doubled the lifespan of Pcmt1-/- mice, with a survival rate of 60% of the original population. [3] **METHODS**: To investigate antitumor activity, Wortmannin (0.25-1 mg/kg) was injected intravenously three times a week for three weeks into SCID mice bearing the human breast cancer tumor MDA-MB-231. **RESULTS**: Wortmannin significantly inhibited tumor metastasis and angiogenesis. [4]

Solubility Information

Solubility	Ethanol: 2.1 mg/mL (5 mM)),Heating is recommended. DMSO: 21.4 mg/mL (50 mM), (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3341 mL	11.6705 mL	23.341 mL
5 mM	0.4668 mL	2.3341 mL	4.6682 mL
10 mM	0.2334 mL	1.1671 mL	2.3341 mL
50 mM	0.0467 mL	0.2334 mL	0.4668 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Akter R, et al. Wortmannin induces MCF-7 breast cancer cell death via the apoptotic pathway, involving chromatin condensation, generation of reactive oxygen species, and membrane blebbing. Breast Cancer (Dove Med Press).