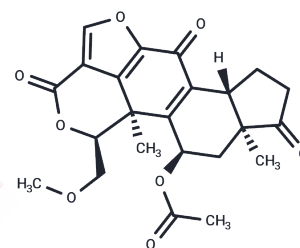


## Wortmannin

## Chemical Properties

CAS No. :	19545-26-7
Formula:	C <sub>23</sub> H <sub>24</sub> O <sub>8</sub>
Molecular Weight:	428.43
Storage:	Store at low temperature Powder: -20°C for 3 years   In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



## Biological Description

Description	Wortmannin (SL-2052) is a PI3K inhibitor (IC <sub>50</sub> =3 nM) that is covalent and irreversible. Wortmannin is also an inhibitor of PLK1 and PLK3 (IC <sub>50</sub> =5.8/48 nM) that blocks autophagy.
Targets(IC <sub>50</sub> )	ATM/ATR,Antibiotic,Autophagy,DNA-PK,PI3K,PLK,Serine/threonin kinase
In vitro	<b>METHODS:</b> 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. <b>RESULTS:</b> Wortmannin induced cell death in MCF-7 cells in a concentration-dependent manner with an IC <sub>50</sub> of 400 nM. [1] <b>METHODS:</b> 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. <b>RESULTS:</b> Concentration-dependent reduction of p-Akt and NF-κB p65 expression was induced by Wortmannin. [2]
In vivo	<b>METHODS:</b> 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 <sup>-/-</sup> mice once a day for twenty-two days. <b>RESULTS:</b> Wortmannin reduced the average brain size of Pcmt1 <sup>-/-</sup> mice to within 6% of that of controls and nearly doubled the lifespan of Pcmt1 <sup>-/-</sup> mice, with a survival rate of 60% of the original population. [3] <b>METHODS:</b> 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. <b>RESULTS:</b> Wortmannin significantly inhibited tumor metastasis and angiogenesis. [4]

## Solubility Information

Solubility	Ethanol: 2.1 mg/mL (4.9 mM),Heating is recommended. DMSO: 21.4 mg/mL (49.95 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

## Reference

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