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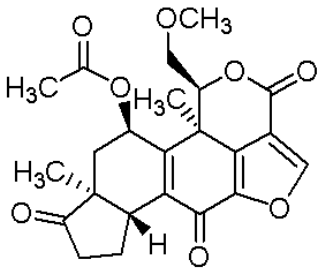
Product Information

Wortmannin
Ready Made Solution
from *Penicillium fumiculosum*

Catalog Number **W3144**
Storage Temperature –20 °C

CAS RN 19545-26-7
Synonyms: Wartmannin, Antibiotic SL-2052



Product Description
Molecular formula: $C_{23}H_{24}O_8$
Formula weight: 428.43

Wortmannin is a low molecular weight; hydrophobic fungal metabolite with a sterol-like structure produced by *Penicilium fumiculosum.*[1] Inhibition of the PI3K/Akt signal transduction cascade by Wortmannin enhances the apoptotic effects of radiation or serum withdrawal, and blocks the antiapoptotic effect of cytokines.[2,3] PI3K inhibition by Wortmannin also blocks many of the short-term metabolic effects induced by insulin receptor activation.[4] Research has demonstrated Wortmannin inhibits two enzymes from the mitotical division key regulators Polo-like kinase (Plk) family, Plk1 and Plk3.[5,6]

The product is supplied as a 10 mM 0.2 μm filtered solution in dimethyl sulfoxide (DMSO).

Purity: >95% (HPLC)

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability
Store the product sealed at –20 °C, protected from light. Under these conditions, the product is stable for at least 2 years.

References
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2. Arcaro, A., and Wymann, M.P., Wortmannin, a widely used phosphoinositide 3-kinase inhibitor, also potently inhibits mammalian polo-like kinase. *Biochem. J.,* **296**, 297–301(1993).
3. Yano, H., et al., Polo-like kinases inhibited by Wortmannin. Labeling site and downstream effects. *J. Biol. Chem.,* **268,** 25846–25856 (1993).
4. Moule, S.K., and Denton, R.M., Multiple signaling pathways involved in the metabolic effects of insulin. *Am. J. Cardiol.,* **80**, 41A-49A (1997).
5. Liu, Y., et al., Wortmannin as a unique probe for an intracellular signalling protein, phosphoinositide 3-kinase. *Chem. Biol.,* **12**, 99-107 (2005).
6. Liu, Y., Deficiency in chromosome congression by the inhibition of PLK1 polo box domain-dependent recognition. *J. Biol. Chem.,* **282,** 2505-2511 (2007).

KAA,DWF,MAM 03/09-1