

Product Name:	Wortmannin
Product Number:	W001
CAS Number:	19545-26-7
Molecular Formula:	C ₂₃ H ₂₄ O ₈
Molecular Weight:	428.4
Appearance:	White solid
Storage Conditions:	-20°C
Description:	<p>Wortmannin is a steroidal metabolite belonging to the viridin group, isolated from <i>Penicillium wortmannii</i> in 1957. The structure was finally solved in 1968. Wortmannin exhibits broad spectrum antifungal activity, together with antitumor and antiinflammatory activity.</p> <p>Wortmannin is soluble in ethanol, methanol, DMF and DMSO.</p>
Mechanism of Action:	<p>Wortmannin is a potent inhibitor of phosphoinositide 3-kinase and myosin light chain kinase. Wortmannin also activates neutrophil and formyl-Met-Leu-Phe-mediated phospholipase D, inhibits autophagy, potentiates LPS-induced NO production and induces Alzheimer-like hyperphosphorylation in tau in vivo.</p>
References:	<p>The structure of wortmannin, a steroidal fungal metabolite. MacMillan J. et al. , Chem. Commun. 1968, 613.</p> <p>Activation of human neutrophil phospholipase D by three separable mechanisms. Reinhold S. et al. , FASEB J. 1990, 4, 208.</p> <p>Demethoxyviridin and wortmannin block phospholipase C and D activation in the human neutrophil. Bonser R.W. et al. , Br. J. Pharmacol. 1991, 103, 1237.</p> <p>Inhibition of IgE-mediated histamine release by myosin light chain kinase inhibitors. Kitani S. et al. , BBRC 1992, 183, 48.</p> <p>Wortmannin, a microbial product inhibitor of myosin light chain kinase. Nakanishi S. et al. , J. Biol. Chem. 1992, 267, 2157.</p> <p>Wortmannin is a potent phosphatidylinositol 3-kinase inhibitor: the role of phosphatidylinositol 3,4,5-trisphosphate in neutrophil responses. Arcaro A. & Wyman M.P., Biochem. J. 1993, 296, 297.</p>