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DATASHEET

Ophiobolin A

Product overview

Name	Ophiobolin A
Cat No	HB0474
Biological action	Antagonist
Purity	>95%
Description	Irreversible calmodulin antagonist

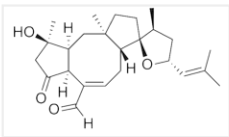
Biological Data

Biological description	Irreversible calmodulin antagonist that reacts with lysine residues (IC_{50} 0.87-3.7 μ M). Also inhibits calcium-dependent human growth hormone (hGH) release (approx K_i = 10 μ M). A membrane permeable fungal metabolite and a phytotoxin. Displays antitumor and apoptotic inducing properties.
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Solubility & Handling

Solubility overview	Soluble in DMSO or DMF
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name	Cochliobolin A
Molecular Weight	400.6
Chemical structure	
Molecular Formula	$C_{25}H_{36}O_4$
CAS Number	4611-05-6
PubChem identifier	5281387
SMILES	<chem>C[C@H]1C[C@@H](O[C@@]12CC[C@]3([C@H]2C/C=C([C@@H]4[C@H](C3)[C@](CC4=O)(C)O)/C=O)C)C(C)C</chem>

References

Ophiobolin A, a sesterterpenoid fungal phytotoxin, displays higher in vitro growth-inhibitory effects in mammalian than in plant cells and displays in vivo antitumor activity.

Bury M *et al* (2013) Int J Oncol 43(2)
PubMedID [23754298](#)

Identification of the binding and inhibition sites in the calmodulin molecule for ophiobolin A by site-directed mutagenesis.

Kong Au T *et al* (1998) Plant Physiol 118(3)

PubMedID 9808741

Calmodulin and lipid binding to synaptobrevin regulates calcium-dependent exocytosis.

Quetglas S *et al* (2002) EMBO J 21(15)

PubMedID 12145198
