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## DATASHEET

Ophiobolin A

### Product overview

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

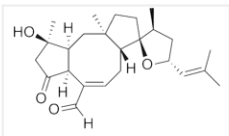
### Biological Data

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

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

### Chemical Data

<b>Chemical name</b>	Cochliobolin A
<b>Molecular Weight</b>	400.6
<b>Chemical structure</b>	
<b>Molecular Formula</b>	$C_{25}H_{36}O_4$
<b>CAS Number</b>	4611-05-6
<b>PubChem identifier</b>	5281387
<b>SMILES</b>	<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

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