LKT Laboratories, Inc.

Ophiobolin A

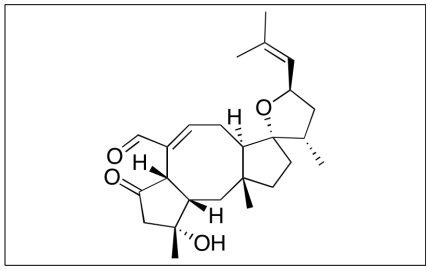
Phone: 888-558-5227
651-644-8424
Fax: 888-558-7329
Email: getinfo@lktlabs.com
Web: lktlabs.com

Product Information

Product ID O610291
CAS No. 4611-05-6
Chemical Name (7E,18R)-3-Hydroxy-5-oxo-14,18-epoxyophiobola-7,19-dien-25-al

Synonym Cochiobolin A, NSC 114340, Cochliobolin, Ophiobolin, CHEBI:7777.

Formula $C_{25}H_{36}O_4$
Formula Wt. 400.56
Melting Point 171-180°C
Purity ≥98%
Solubility



Pricing and Availability

Bulk quanitites available upon request

Product ID	Size	List Price
O610291	1 mg	$173.30
O610291	5 mg	$651.00
O610291	10 mg	$1102.50

Store Temp -20°C
Ship Temp Ambient

Description Ophiobolin A (Cochliobolin A) is a tetracyclic sesterpenoid phytotoxin isolated from cochliobolus heterostrophus. This phytotoxin displays growth-inhibitory effects both in plants cells and in mammalian cells. Ophiobolin A was found to have anti-tumor effect in the B16F10 mouse melanoma model with lung pseudometastases.

Ophiobiolin A induces paraptosis-like cell death in human glioblastoma cells by decreasing BKCa channel activity.

In addition, ophiobolin A's anti-cancer activity is attributed to its covalent modification of phosphatidylethanolamine in human cancer cells as well as its ability to activate mitochondrial pathway of apoptosis in tumor cells.
TEST!!!!!!

References

Bury M, Novo-Uzal E, Andolfi A, et al. 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. Int J Oncol. 2013; 43(2):575-85. PMID: 23754298.

Bury M, Girault A, Mégalizzi V, et al. Ophiobolin A induces paraptosis-like cell death in human glioblastoma cells by decreasing BKCa channel activity. Cell Death Dis. 2013, 28;4:e561. PMID: 23538442

Dasari R, Masi M, Lisy R, et al. Fungal metabolite ophiobolin A as a promising anti-glioma agent: In vivo evaluation, structure-activity relationship and unique pyrrolylation of primary amines. Bioorg Med Chem Lett. 2015, 25(20):4544-8. PMID: 26341136,

Chidley C, Trauger SA, Birsoy K, O'Shea EK. The anticancer natural product ophiobolin A induces cytotoxicity by covalent modification of phosphatidylethanolamine. Elife. 2016;5. pii: e14601. PMID: 27403889.

Rodolfo C, Rocco M, Cattaneo L, Ophiobolin A Induces Autophagy and Activates the Mitochondrial Pathway of Apoptosis in Human Melanoma Cells. PLoS One. 2016;11(12):e0167672. PMID: 27936075