Hello Bio, Inc.
304 Wall St., Princeton, NJ 08540 USA

T. 609-683-7500
F. 609-228-4994

customercare-usa@hellobio.com

DATASHEET

Okadaic Acid

Product overview

Name	Okadaic Acid
Cat No	HB0468
Alternative names	OA
Biological action	Inhibitor
Purity	>98%
Description	Potent, non-competitive protein phosphatase inhibitor

Images

Biological Data

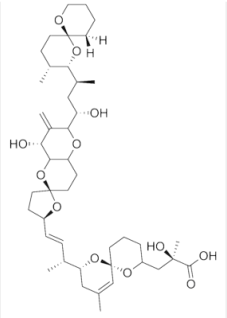
Biological description	Potent and non-competitive protein phosphatase inhibitor. Exhibits higher selectivity for PP2A and PP1 over PCM (purified polycation-modulated) phosphatase and PP2B (ID_{50} values are 1.2, 315, 205 and 4530 nM respectively) yet little or no activity at PP2C. Displays apoptosis inducing properties with neurotoxic and tumor promoting effects. A diarrheic shellfish poisoning (DSP) toxin.

Solubility & Handling

Storage instructions	-20°C (desiccate)
Solubility overview	Soluble in DMSO (100mM)
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	9,10-Deepithio-9,10-didehydroacanthifolicin
Molecular Weight	805.01
Chemical structure	



Molecular Formula	$C_{44}H_{68}O_{13}$
CAS Number	78111-17-8
PubChem identifier	446512
SMILES	C[C@@H]1CC[C@]2(CCCCO2)O[C@@H]1[C@@H](C)C[C@@H]([C@@H]3C(=C)[C@H]([C@H]4[C@H](O3)CC[C@]5(O4)CC[C@@H](O5)/C=C/[C@@H](C)[C@@H]6CC(=C[C@@]7(O6)[C@@H](CC[C@H](O7)C[C@](C)(C(=O)O)O)O)C)O)O
InChi	InChI=1S/C44H68O13/c1-25-21-34(55-44(23-25)35(46)12-11-31(54-44)24-41(6,50)40(48)49)26(2)9-10-30-14-18-43(53-30)19-15-33-39(57-43)36(47)29(5)38(52-33)32(45)22-28(4)37-27(3)13-17-42(56-37)16-7-8-20-51-42/h9-10,23,26-28,30-39,45-47,50H,5,7-8,11-22,24H2,1-4,
InChiKey	QNDVLZJODHBUFM-WFXQOWMNSA-N
MDL number	MFCD00083455

References

Okadaic acid activates the PKR pathway and induces apoptosis through PKR stimulation in MG63 osteoblast-like cells.

Haneji T *et al* (2013) Int J Oncol 42(6)
PubMedID 23591640

Inhibitory effect of a marine-sponge toxin, okadaic acid, on protein phosphatases. Specificity and kinetics.

Bialojan C *et al* (1988) Biochem J 256(1)
PubMedID 2851982

Okadaic acid activates atypical protein kinase C (zeta/lambda) in rat and 3T3/L1 adipocytes. An apparent requirement for activation of Glut4 translocation and glucose transport.

Standaert ML *et al* (1999) J Biol Chem 274(20)
PubMedID 10318822

Okadaic acid: more than a diarrheic toxin.

Valdiglesias V *et al* (2013) Mar Drugs 11(11)
PubMedID 24184795