Okadaic acid (high purity)

Inhibitor of PP1 and PP2A

Okadaic acid is a naturally occuring polyether toxin produced by marine dinoflagellates. It is a potent and selective inhibitor of protein phosphatases, inhibiting PP2A completely at 1nM and PP1 at higher concentrations (IC_{50}=10-15nM). PP2B is much less sensitive to okadaic acid than PP1, while PP2C is not inhibited. This selectivity is the basis for an improved identification and quantification procedure for these enzymes. The hydrophobic backbone of okadaic acid enables it to enter cells where it stimulates intracellular protein phosphorylation. It mimics the effects of insulin, enhances transmitter release at neuromuscular junctions, and causes vasodilation. Okadaic acid is an extremely useful tool for studying cellular processes that are regulated by phosphorylation. It does not affect activity of acid phosphatase, alkaline phosphatase, or tyrosine phosphatase. It induces apoptosis in human breast carcinoma cells (MB-231 and MCF-7) and in myeloid cells, but inhibits glucocorticoid-induced apoptosis in T cell hybridomas. It is a non-phorbol type of tumor promoter. It has shown contractile effects on smooth muscle and heart muscle. It significantly increases cyclin B1 expression in adult neurons.

- Highly pure okadaic acid isolated from marine dinoflagellates
- Potent inhibitor of protein phosphatase 1 and protein phosphatase 2A
- Useful for the study of cellular processes regulated by phosphorylation

Citations: 66 View Online »

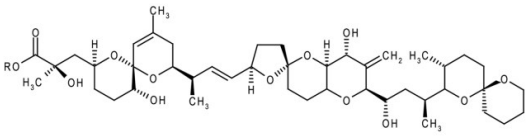
Ordering Information

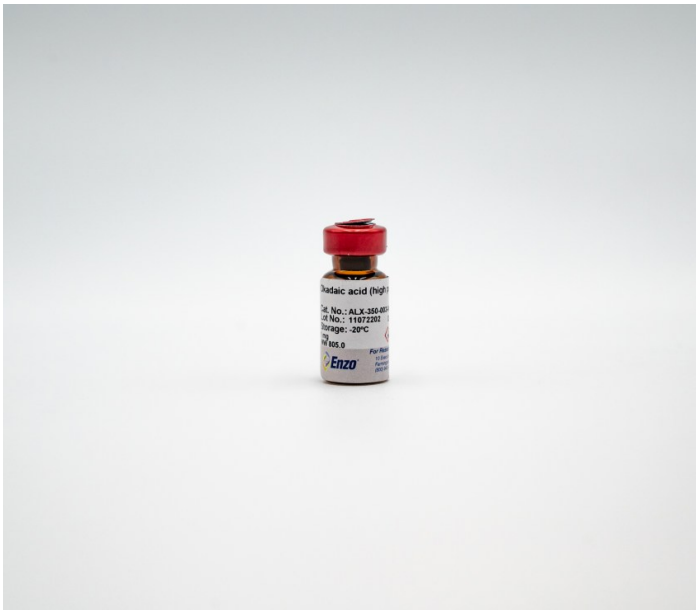
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ALX-350-003-M001	1mg
ALX-350-003-C025	25µg
ALX-350-003-C050	50µg
ALX-350-003-C100	100µg

Manuals, SDS & CofA

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Handling & Storage

Use/Stability	As indicated on product label or CoA when stored as recommended. Use only fresh solutions.
Handling	Protect from light. Packaged under inert gas.
Long Term Storage	-20°C
Shipping	Ambient Temperature

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	Halochondrine A, 9,10-Deepithio-9,10-didehydroacanthifolicin
Appearance	White crystalline solid.
CAS	78111-17-8
Couple Target	Serine/threonine-protein phosphatase
Couple Type	Inhibitor
Formula	$C_{44}H_{68}O_{13}$
MI	**14**: 6819
MW	805.0
Purity	≥98% (HPLC, TLC)
RTECS	AA8227800
Solubility	Soluble in DMSO (40 mg/ml), 100% ethanol (5 mg/ml), and 100% methanol.
Source	Isolated from *Prorocentrum Sp*.
Technical Info / Product Notes	Replacement for **ADI-HPK-117**

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