

Product Information

Okadaic acid, sodium salt

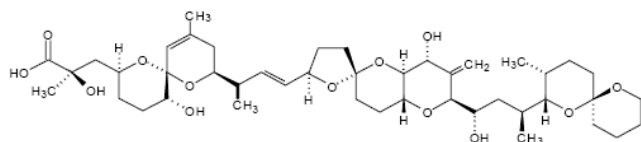
Catalog Number **O7760**

Storage Temperature $-20\text{ }^{\circ}\text{C}$

CAS RN 209266-80-8

Synonyms: 9,10-deepithio-9,10-didehydroacanthifolicin;
OA

Product Description



Molecular Formula: $\text{C}_{44}\text{H}_{67}\text{O}_{13}\text{Na}$

Formula Weight: 826.98

Okadaic acid, sodium salt is a water-soluble salt of the dinoflagellate toxin, okadaic acid. This salt form of okadaic acid has the same activity as the free acid, but is much more stable during storage as a powder. The toxin is an ionophore-like polyether derivative of a 38 carbon fatty acid that readily enters cells. It is a known inhibitor of type 1 and 2A protein phosphatases^{1,2} and a known tumor promoter.^{3,4} Okadaic acid has been used to study various cellular processes such as the cell cycle⁵⁻⁹ and apoptosis,^{10,11} including microtubule organization and tau phosphorylation.^{12,13} This phosphatase inhibitor has also played a role in the study of nitric oxide metabolism¹⁴ and calcium signaling.^{15,16} In addition, okadaic acid has been shown to activate transcription of the *Cox-2* gene,¹⁷ disrupt golgi,¹⁸ arrest transport in the rough endoplasmic reticulum,¹⁹ and affect neurotransmitter release.²⁰

This product is purified from *Prorocentrum concavum* and is a white, photosensitive solid.

Purity: $\geq 90\%$ (HPLC)

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

Okadaic acid, sodium salt is soluble in water, ethanol, or DMSO at 0.1 mg/ml. For HPLC, it is also soluble at 1 mg/ml in 50% aqueous acetonitrile.

Storage/Stability

As a solid, the material should remain active at least one year if stored tightly sealed at $-20\text{ }^{\circ}\text{C}$, protected from light. Solutions stored frozen at $-20\text{ }^{\circ}\text{C}$ or below, protected from light, should remain active for 1–2 months.

References

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