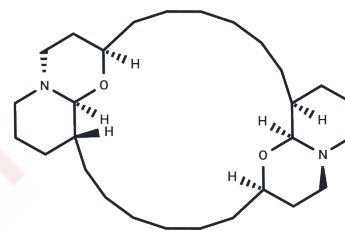


Xestospongin C

Chemical Properties

CAS No. :	88903-69-9
Formula:	C ₂₈ H ₅₀ N ₂ O ₂
Molecular Weight:	446.71
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Xestospongin C ((-)-Xestospongin C) is a selective inositol 1,4,5-trisphosphate receptor (IP3R) inhibitor and also inhibits sarcoplasmic/endoplasmic reticulum Ca ²⁺ ATPase (SERCA). It has neuroprotective effects in APP/PS1 AD mice, improving cognitive and pathological deficits associated with Alzheimer's disease.
Targets(IC50)	Apoptosis, Calcium Channel
In vitro	Xestospongin C (3-10 μM) attenuated antigen-induced increase in cytoplasmic calcium levels and degranulation in RBL-2H3 mast cells. [1] Xestospongin C (3 μM) attenuates the positive inotropic effect of alpha-adrenergic stimulation in guinea pig muscles. [3]
In vivo	Xestospongin C (3 μmol, injected into the brain) significantly improved the cognitive behavior and pathological status of APP/PS1-AD mice. [2]

Solubility Information

Solubility	DMSO: 2 mg/mL (4.48 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2386 mL	11.1929 mL	22.3859 mL
5 mM	0.4477 mL	2.2386 mL	4.4772 mL
10 mM	0.2239 mL	1.1193 mL	2.2386 mL
50 mM	0.0448 mL	0.2239 mL	0.4477 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Oka T, et al. Xestospongine C, a novel blocker of IP₃ receptor, attenuates the increase in cytosolic calcium level and degranulation that is induced by antigen in RBL-2H3 mast cells. *Br J Pharmacol.* 2002 Apr;135(8):1959-66.

Wang ZJ, et al. Xestospongine C, a Reversible IP₃ Receptor Antagonist, Alleviates the Cognitive and Pathological Impairments in APP/PS1 Mice of Alzheimer's Disease. *J Alzheimers Dis.* 2019;72(4):1217-1231.

Miyamoto S, et al. Xestospongine C, a selective and membrane-permeable inhibitor of IP₃ receptor, attenuates the positive inotropic effect of alpha-adrenergic stimulation in guinea-pig papillary muscle. *Br J Pharmacol.* 2000 Jun;130(3):650-4.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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