

PRODUCT INFORMATION



Xestospongine C

Item No. 64950

CAS Registry No.: 88903-69-9

Formal Name: [1R-(1R,4aR,11R,12aS,13S,16aS,23R,24aS)]-eicosahydro-5H,17H-1,23:11,13-diethano-2H,14H-[1,11]dioxacycloeicosino[2,3-b:12,13-b']dipyridine

Synonyms: Araguspongine E, XeC

MF: $C_{28}H_{50}N_2O_2$

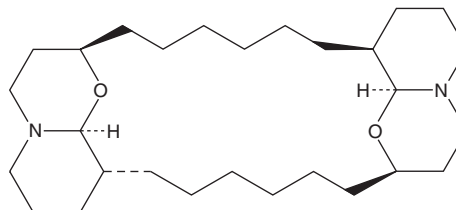
FW: 446.7

Purity: $\geq 90\%$

Supplied as: A clear film

Storage: -20°C

Stability: ≥ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Xestospongine C is supplied as a clear film. A stock solution may be made by dissolving the xestospongine C in the solvent of choice, which should be purged with an inert gas. Xestospongine C is soluble in chloroform, ethyl acetate, and methyl acetate.

Description

Xestospongine C is a marine natural product which was first isolated from Pacific basin sponges, and noted to have vasodilatory properties.¹ Xestospongine C antagonizes the calcium-releasing action of inositol-1,4,5-trisphosphate (IP_3) at the receptor level. Inositol phosphates are important signal transduction messengers acting via IP_3 receptors to promote the mobilization of Ca^{2+} from intracellular stores. Xestospongine C blocks the increase in intracellular calcium in vascular smooth muscle cells completely at a concentration of $25\text{ }\mu\text{M}$.² Xestospongine C also inhibits the sarcoplasmic reticulum Ca^{2+} ATPase pump at concentrations of 700 nM .³

References

1. Nakagawa, M. and Endo, M. Structures of xestospongine A, B, C and D, novel vasodilative compounds from marine sponge, *Xestospongia exigua*. *Tetrahedron Lett.* **25**(30), 3227-3230 (1984).
2. Gafni, J., Munsch, J.A., Lam, T.H., et al. Xestospongins: Potent membrane permeable blockers of the inositol 1,4,5-trisphosphate receptor. *Neuron* **19**, 723-733 (1997).
3. Castonguay, A. and Robitaille, R. Xestospongine C is a potent inhibitor of SERCA at a vertebrate synapse. *Cell Calcium* **32**(1), 39-47 (2002).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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