

Product Data Sheet

Product Name: (-)-Xestospongine C

Cat. No.: GC14484

Chemical Properties

Cas. No. 88903-69-9

Chemical 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-b1]dipyridine

SMILES N12[C@@H]([C@@H](CCCC[C@@H]3O[C@@H]4N(CC3)CCC[C@@H]4CCCCC5)CCC2)O[C@@H]5CC1

Formula $C_{28}H_{50}N_2O_2$ M.Wt 446.71

Solubility Chloroform: soluble; Ethyl Acetate: soluble; Methyl Acetate: soluble Storage Desiccate at -20°C, protect from light

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice All other available size: ship with RT, or blue ice upon request.

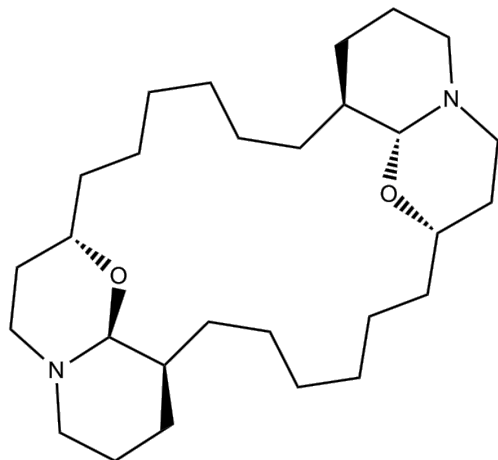
Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

Structure



Background

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 (IP3) at the receptor level. Inositol phosphates are important signal transduction messengers acting via IP3 receptors to promote the mobilization of Ca²⁺ from intracellular stores. Xestospongine C blocks the increase in intracellular calcium in vascular smooth muscle cells completely at a concentration of 25 µM.[2] Xestospongine C also inhibits the sarcoplasmic reticulum Ca²⁺ ATPase pump at concentrations of 700 nM.[3]

Reference:

- [1]. Nakagawa, M., and Endo, M. Structures of xestospongine A, B, C and D, novel vasodilative compounds from marine sponge, Xestospongia exigua. Tetrahedron Letters 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).

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

[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).

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA