Certificate of Analysis

Product Name: **(-)-Xestospongin C** **Catalog No.: 1280** **Batch No.: 13**

CAS Number: 88903-69-9

IUPAC Name: (1*R*,4a*R*,11*R*,12a*S*,13*S*,16a*S*,23*R*,24a*S*)-Eicosahydro-5*H*,17*H*-1,23:11,13-diethano-2*H*,14*H*-[1,11]dioxacycloeicosino[2,3-*b*:12,13-*b*']dipyridine

1. PHYSICAL AND CHEMICAL PROPERTIES

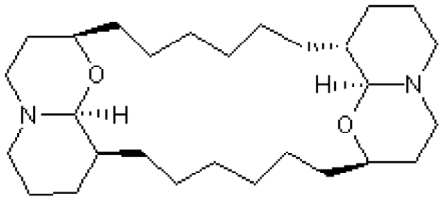
Batch Molecular Formula: $C_{28}H_{50}N_2O_2$

Batch Molecular Weight: 446.71

Physical Appearance: Colourless film

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

Mass Spectrum: Consistent with structure

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Description:

(-)-Xestospongin C is a reported inhibitor of IP_3-dependent Ca^{2+} release. Inhibits bradykinin-induced Ca^{2+} release in PC12 cells and attenuates PHP-induced IL-2 production in Jurkat T cells. Exhibits no effect on ryanodine receptor-mediated Ca^{2+} release in PC12 cells and shows no apparent interaction with the IP_3 binding site. Other subsequent reports show (-)-Xestospongin C to be ineffective as an antagonist of IP_3-evoked Ca^{2+} release in IP_3 recepto- expressing DT40 cells. Cell permeable. NOTE: (-)-Xestospongin C is typically used at a final concentration ranging from 0.5 to 10 µM. It is recommended to prepare stock solutions (10x to... Please see product specific page on www.tocris.com for full description.

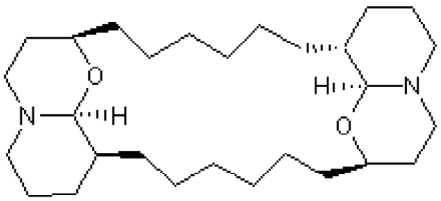
Physical and Chemical Properties:

Batch Molecular Formula: $C_{28}H_{50}N_2O_2$

Batch Molecular Weight: 446.71

Physical Appearance: Colourless film

Batch Molecular Structure:



Storage: Store at -20°C. This product is packaged under an inert atmosphere.

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

This product is supplied in lyophilized form. It may appear as a solid, gel or film and be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Saleem *et al* (2014) Interactions of antagonists with subtypes of inositol 1,4,5-trisphosphate (IP_3) receptor. Br.J.Pharmacol. ***171*** 3298. PMID: 24628114.

Dadsetan *et al* (2008) Store-operated Ca^{2+} influx causes Ca^{2+} release from the intracellular Ca^{2+} channels that is required for T cell activation. J.Biol.Chem. ***283*** 12512. PMID: 18316371.

Ozaki *et al* (2002) Inhibitory mechanism of xestospongin-C on contraction and ion channels in the intestinal smooth muscle. Br.J.Pharmacol. ***137*** 1207. PMID: 12466229.

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