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DATASHEET

(-)-Xestospongine C

Product overview

Name	(-)-Xestospongine C
Cat No	HB1241
Alternative names	XeC
Biological action	Inhibitor
Description	Potent IP3 receptor inhibitor

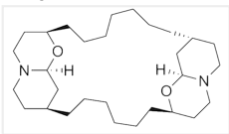
Biological Data

Biological description	Potent IP3 receptor inhibitor. Inhibits P3-mediated Ca^{2+} release ($IC_{50} = 358$ nM). Selective for IP3 receptors over ryanodine receptors. Inhibits sarcoplasmic/endoplasmic reticulum Ca^{2+} ATPase SERCA pump.
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Solubility & Handling

Storage instructions	-20°C (desiccate)
Solubility overview	Soluble in DMSO (2mM) or ethanol (2mM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name	(1 <i>R</i> ,4 <i>aR</i> ,11 <i>R</i> ,12 <i>aS</i> ,13 <i>S</i> ,16 <i>aS</i> ,23 <i>R</i> ,24 <i>aS</i>)-Eicosahydro-5 <i>H</i> ,17 <i>H</i> -1,23:11,13-diethano-2 <i>H</i> ,14 <i>H</i> -[1,11]dioxacycloeicosino[2,3- <i>b</i> :12,13- <i>b'</i>]dipyridine
Molecular Weight	446.71
Chemical structure	
Molecular Formula	$C_{28}H_{50}N_2O_2$
CAS Number	88903-69-9
PubChem identifier	9846431
SMILES	[H][C@]12[C@@H](CCCC[C@@H]3CCN(CCC[C@H]4CCCCC5)[C@@]4([H])O3)CCN1CC[C@@H]5O2
InChiKey	PQYOPBRFUUEHRC-HCKQMYSWSA-N

References

Xestospongins: potent membrane permeable blockers of the inositol 1,4,5-trisphosphate receptor.

Gafni J *et al* (1997) Neuron 19(3)

PubMedID [9331361](#)

Xestospongine C is a potent inhibitor of SERCA at a vertebrate synapse.

Castonguay A *et al* (2002) Cell Calcium 32(1)

PubMedID [12127061](#)

Xestospongin C is an equally potent inhibitor of the inositol 1,4,5-trisphosphate receptor and the endoplasmic-reticulum Ca(2+) pumps.

De Smet P *et al* (1999) Cell Calcium 26(1-2)

PubMedID [10892566](#)
