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DATASHEET

Thapsigargin

Product overview

Name	Thapsigargin
Cat No	HB1118
Biological action	Inhibitor
Purity	>97%
Description	Potent, non-competitive SERCA inhibitor

Images



Biological Data

Biological description	Potent and non-competitive sarco-endoplasmic Ca^{2+} -ATPase (SERCA) inhibitor. Activates endoplasmic reticulum stress mechanisms. Induces apoptosis in most cells. Shows anticancer and neuroprotective actions.
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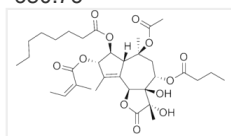
Solubility & Handling

Storage instructions	-20 °C (desiccate)
Solubility overview	Soluble in DMSO (100mM)
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	(3 <i>S</i> ,3 <i>a</i> <i>R</i> ,4 <i>S</i> ,6 <i>S</i> ,6 <i>A</i> <i>R</i> ,7 <i>S</i> ,8 <i>S</i> ,9 <i>b</i> <i>S</i>)-6-(Acetyloxy)-2,3,3 <i>a</i> ,4,5,6,6 <i>a</i> ,7,8,9 <i>b</i> - decahydro-3,3 <i>a</i> -dihydroxy-3,6,9-trimethyl-8-[[[(2 <i>Z</i>)-2-methyl-1-oxo-2-butenyl]oxy]-2-oxo-4-(1-oxobutoxy)azuleno[4,5- <i>b</i>]furan-7-yl] octanoate
Molecular Weight	650.76

Chemical structure



Molecular Formula	$\text{C}_{34}\text{H}_{50}\text{O}_{12}$
CAS Number	67526-95-8

Chemical name	(3S,3aR,4S,6S,6AR,7S,8S,9bS)-6-(Acetyloxy)-2,3,3a,4,5,6,6a,7,8,9b- decahydro-3,3a-dihydroxy-3,6,9-trimethyl-8-[[[(2Z)-2-methyl-1-oxo-2-butenyl]oxy]-2-oxo-4-(1-oxobutoxy)azuleno[4,5-b]furan-7-yl octanoate
PubChem identifier	446378
SMILES	<chem>CCCCCCCC(=O)O[C@H]1[C@H]2C(=C([C@@H]1OC(=O)/C(=C\C)/C)C)[C@H]3[C@]([C@H](C[C@]2(C)OC(=O)C)OC(=O)CCC)([C@](C(=O)O3)(C)O)O</chem>
InChi	InChI=1S/C34H50O12/c1-9-12-13-14-15-17-24(37)43-28-26-25(20(5)27(28)44-30(38)19(4)11-3)29-34(41,33(8,40)31(39)45-29)22(42-23(36)16-10-2)18-32(26,7)46-21(6)35/h11,22,26-29,40-41H,9-10,12-18H2,1-8H3/b19-11-/t22-,26+,27-,28-,29-,32-,33+,34+/m0/s1
InChiKey	IXFPJGBNCFXKPI-FSIHEZPISA-N
MDL number	MFCD00083511

References

Endoplasmic reticulum stress induced by tunicamycin and thapsigargin protects against transient ischemic brain injury: Involvement of PARK2-dependent mitophagy.

Zhang X *et al* (2014) Autophagy 10(10)

PubMedID [25126734](#)

Targeting thapsigargin towards tumors.

Doan NT *et al* (2014) Steroids

PubMedID [25065587](#)

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Doan NT *et al* (2014) Steroids

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