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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Thapsigargin

Autophagy inhibitor
Catalog No. SIH-399



Discovery through partnership | Excellence through quality

Overview

Product Name

Thapsigargin

Description

Autophagy inhibitor

Purity

>95%

CAS No.

67526-95-8

Molecular Formula

C₁₁H₁₀O₂

Molecular Weight

650.8

Properties

Storage Temperature

-20°C

Shipping Temperature

Shipped Ambient

Product Type

Inhibitor

Solubility

Soluble in DMSO (20 mg/ml), 100% ethanol (20 mg/ml) or acetone.

Source

Synthetic

Appearance

Colorless wax or white solid.

SMILES

[C@@H]13C(=C([C@H](OC(=O)C(=CC)/C)[C@H]1OC(=O)CCCCC)C)[C@@H]2OC(=O)[C@@](O)([C@@]2(O)[C@@H](OC(=O)CC)C[C@@]3(OC(=O)C)C

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/b1

InChIKey

IXFPJGBNCFXKPI-FSIHEZPISA-N

Safety Phrases

Classification: D1A- Very Toxic Material Causing Immediate and Serious Toxic Effects, Highly Toxic, D2A- Very Toxic Material Causing Other Toxic Effects, Respiratory sensitiser, D2B- Toxic Material Causing Other Toxic Effects, Moderate skin irritant, Moderate eye irritant

Safety Phrases:

S22 - Do not breathe dust.

S24/25 - Avoid contact with skin and eyes.

S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

Hazard statements:

H315- Causes skin irritation.

H319- Causes serious eye irritation.

H334- May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335- May cause respiratory irritation.

Precautionary statements:

P261- Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P305 + P351 + P338- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P342 + P311- If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician.

Cite This Product

Thapsigargin (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SIH-399)

Biological Description

Alternative Names

(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

Research Areas

Cancer, Autophagy

PubChem ID

446378

Scientific Background

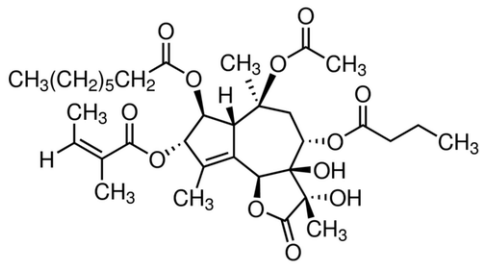
Thapsigargin is a cell-permeable inhibitor of the sarco-endoplasmatic reticulum Ca²⁺-ATPase (SERCA). This inhibition causes the release of intracellular Ca²⁺ stores. Thapsigargin also inhibits autophagy. This is due to the induction of and an ER stress response, which causes downstream effects that include an accumulation of autophagosomes in the cytosol. These intermediate structures never mature into amphisomes and autolysosomes, and the autophagy process cannot be completed.

References

1. Canová N.K., et al. (2007) Cell Biol Toxicol. 23(5): 337-54.
2. Ganley I.G., et al. (2011) Autophagy. 7(11): 1397-9.
3. Cheng Y., et al. (2013) Autophagy. 9(2): 208-19.

Product Images

Chemical structure of Thapsigargin (SIH-399), a Autophagy inhibitor. CAS #: 67526-95-8. Molecular Formula: C₃₄H₅₀O₁₂. Molecular Weight: 650.8 g/mol.



Product Citations (0)

Currently there are no citations for this product.

Reviews

There are no reviews yet.