

# Thapsigargin

## ATPase inhibitor

Thapsigargin is a potent inhibitor of sarco/endoplasmic reticulum  $\text{Ca}^{2+}$ -ATPases (SERCA), which are linked with endoplasmic reticulum stress, and induces the release of intracellular stored  $\text{Ca}^{2+}$  without hydrolysis of inositolphospholipid ( $\text{IC}_{50}=30\text{nM}$ ). Inhibition of SERCA by thapsigargin reveals a significant change in intracellular  $\text{Ca}^{2+}$  homeostasis and pH regulation in tumor cells, and may be used to distinguish between discrete intracellular  $\text{Ca}^{2+}$  pools. Thapsigargin increases  $\text{Ca}^{2+}$ -dependent  $\text{Na}^{+}$  influx in human platelets in a dose-dependent manner. Thapsigargin-induced tumor promotion and down-regulation of the EGF receptor is independent of PKC activation. Thapsigargin also stimulates nitric oxide (NO) production and as a result, may promote apoptosis.

Citations: 76

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## Ordering Information

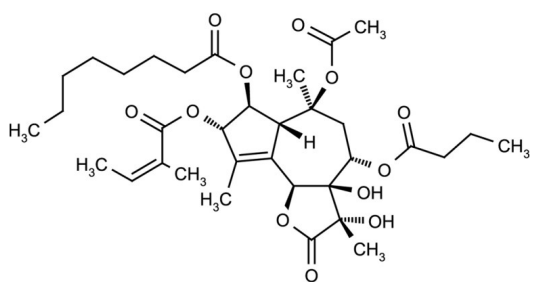
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BML-PE180-0001	1mg
BML-PE180-0005	5mg

## Manuals, SDS & CofA

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- Potent inhibitor of SERCA
- Cell-permeable tumor promoter



## Handling & Storage

Use/Stability	As indicated on product label or CoA when stored as recommended. Stable for at least 1 year after receipt when stored, as supplied, at -20°C.
Handling	USE CAUTION – product is a tumor promoter. Solutions may lose activity after one week. For longer term storage, dissolve in acetone or ethanol, aliquot and evaporate solvent to dryness with a stream of nitrogen or argon. Store aliquots of neat compound at -20°C or colder. Protect from light and oxygen.
Long Term Storage	-20°C
Shipping	Ambient Temperature

## Regulatory Status

RUO - Research Use Only

## Product Details

Appearance	Colorless wax or white solid.
CAS	67526-95-8
Couple Target	ATPase
Couple Type	Inhibitor
Formula	$C_{34}H_{50}O_{12}$
MI	14: 9272
MW	650.8
Purity	≥95% (HPLC, TLC)
Solubility	Soluble in acetone, DMSO (20mg/ml), or 100% ethanol (20mg/ml).
Source	Isolated from <i>Thapsia garganica</i> .

### Technical Info / Product Notes

Replacement for **ADI-908-298**.



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