Thapsigargin

ATPase inhibitor

Thapsigargin is a potent inhibitor of sarco/endoplasmic reticulum Ca^{2+}-ATPases (SERCA), which are linked with endoplasmic reticulum stress, and induces the release of intracellular stored Ca^{2+} without hydrolysis of inositolphospholipid (IC_{50}=30nM). Inhibition of SERCA by thapsigargin reveals a significant change in intracellular Ca^{2+} homeostasis and pH regulation in tumor cells, and may be used to distinguish between discrete intracellular Ca^{2+} pools. Thapsigargin increases Ca^{2+}-dependent 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.

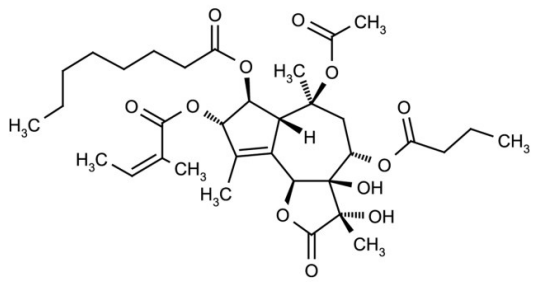
Citations: 76 View Online »

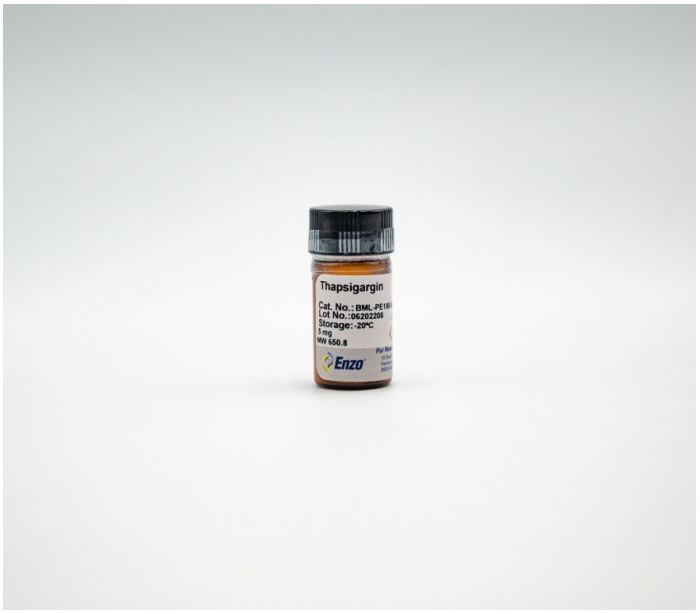
Ordering Information Order Online »

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

Manuals, SDS & CofA View Online »

- Potent inhibitor of SERCA
- Cell-permeable tumor promoter




Thapsigargin
Enzo

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 *Thapsia garganica*.
Technical Info / Product Notes	Replacement for **ADI-908-298**.

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