



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

# Product Information



## Thapsigargin

Item No. 10522

**CAS Registry No.:** 67526-95-8  
**Formal Name:** (3S,3aS,4R,6R,7S,8R)-6-acetoxy-4-(butyryloxy)-3,3a-dihydroxy-3,6,9-trimethyl-8-(((Z)-2-methylbut-2-enyl)oxy)-2-oxo-2,3,3a,4,5,6,6a,7,8,9b-decahydro-1H-cyclopenta[e]azulen-7-yl octanoate

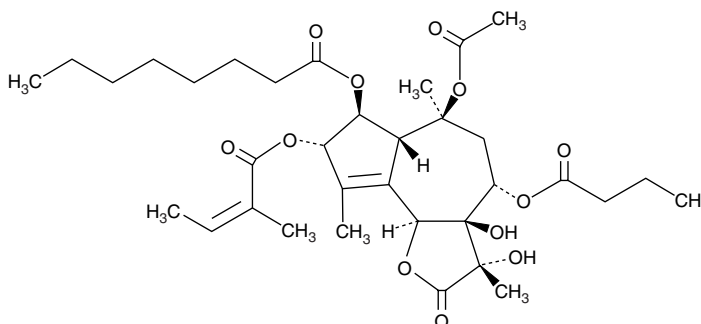
**MF:** C<sub>34</sub>H<sub>50</sub>O<sub>12</sub>

**FW:** 650.8

**Purity:** ≥97%

**Stability:** ≥2 years at -20°C

**Supplied as:** A crystalline solid



### Laboratory Procedures

For long term storage, we suggest that thapsigargin be stored as supplied at -20°C. It should be stable for at least two years.

Thapsigargin is supplied as a crystalline solid. A stock solution may be made by dissolving the thapsigargin in the solvent of choice. Thapsigargin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of thapsigargin in these solvents is approximately 30 mg/ml.

Thapsigargin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, thapsigargin should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Thapsigargin has a solubility of approximately 0.3 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

In cells, sarco/endoplasmic calcium ATPases (SERCAs) transport free calcium into the sarcoplasmic and endoplasmic reticulum, lowering intracellular calcium levels to stop signaling through this cation. Thapsigargin is a non-competitive, cell permeable inhibitor of calcium transport by SERCAs (IC<sub>50</sub> values are cell type-dependent and range from ~2-80 nM).<sup>1,2</sup> Inhibition of SERCAs leads to an increase in intracellular calcium, which has been linked to cell activation, release of histamine from mast cells, and increased proliferation of certain types of cancer cells.<sup>1,3,4</sup> *In vivo*, thapsigargin and related sesquiterpene lactones have anti-inflammatory and anti-cancer effects.<sup>5,6</sup>

### References

1. Sabala, P., Czarny, M., Woronczak, J.P., *et al. Acta. Biochim. Pol.* **40**(3), 309-319 (1993).
2. Treiman, M., Caspersen, C., and Christensen, S.B. *Trends Pharmacol. Sci.* **19**(4), 131-135 (1998).
3. Ali, H., Christensen, S.B., Foreman, J.C., *et al. Br. J. Pharmacol.* **85**(3), 705-712 (1985).
4. Jackson, T.R., Patterson, S.I., Thastrup, O., *et al. Biochem. J.* **253**(1), 81-86 (1988).
5. Christensen, S.B., Skytte, D.M., Deanmeade, S.R., *et al. Anticancer Agents Med. Chem.* **9**(3), 276-294 (2009).
6. Ghantous, A., Gali-Muhtasib, H., Saliba, N.A., *et al. Drug Discov. Today* **15**(15-16), 668-678 (2010).

### Related Products

For a list of related products please visit: [www.caymanchem.com/catalog/10522](http://www.caymanchem.com/catalog/10522)

### Cayman Chemical

#### Mailing address

1180 E. Ellsworth Road  
Ann Arbor, MI  
48108 USA

#### Phone

(800) 364-9897  
(734) 971-3335

#### Fax

(734) 971-3640

#### E-Mail

[custserv@caymanchem.com](mailto:custserv@caymanchem.com)

#### Web

[www.caymanchem.com](http://www.caymanchem.com)

**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

#### SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will meet our specifications at the time of delivery.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have any obligation or liability, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees.

Buyer's **exclusive remedy** and Cayman's sole liability hereunder shall be limited to a refund of the purchase price, or at Cayman's option, the replacement, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our Warranty and Limitation of Remedy located on our website and in our catalog.

Copyright Cayman Chemical Company, 05/31/2013