

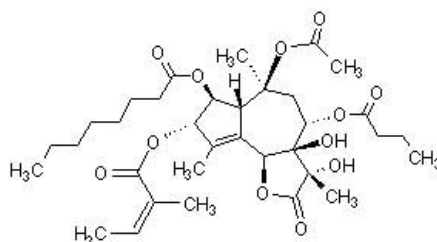
Product datasheet

# Thapsigargin, Ca<sup>2+</sup>-ATPase inhibitor ab120286

★★★★★ [1 Abreviews](#) [35 References](#) [2 Images](#)

## Overview

|                               |  |
|-------------------------------|--|
| <b>Product name</b>           | Thapsigargin, Ca <sup>2+</sup> -ATPase inhibitor   |
| <b>Description</b>            | Ca <sup>2+</sup> -ATPase inhibitor   |
| <b>Biological description</b> | A potent, cell-permeable Ca <sup>2+</sup> -ATPase inhibitor. Releases Ca <sup>2+</sup> by inhibiting endoplasmic reticular Ca <sup>2+</sup> -ATPase (IC <sub>50</sub> = 4-13 nM). Both tumorigenic and apoptotic actions reported. |
| <b>CAS Number</b>             | 67526-95-8   |
| <b>Chemical structure</b>     |  |



## Properties

|                             |   |
|-----------------------------|---|
| <b>Chemical name</b>        | (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  |
| <b>Molecular weight</b>     | 650.76  |
| <b>Molecular formula</b>    | C <sub>34</sub> H <sub>50</sub> O <sub>12</sub>   |
| <b>PubChem identifier</b>   | 446378  |
| <b>Storage instructions</b> | Store at -20°C. Store under desiccating conditions. The product can be stored for up to 12 months.  |
| <b>Solubility overview</b>  | Soluble in DMSO to 100 mM   |
| <b>Handling</b>             | <p>Wherever possible, you should prepare and use solutions on the same day. However, if you need to make up stock solutions in advance, we recommend that you store the solution as aliquots in tightly sealed vials at -20°C. Generally, these will be useable for up to one month. Before use, and prior to opening the vial we recommend that you allow your product to equilibrate to room temperature for at least 1 hour.</p> <p>Refer to SDS for further information.</p> <p>Need more advice on solubility, usage and handling? Please visit our <a href="#">frequently asked</a></p> |

[questions \(FAQ\) page](#) for more details.

## SMILES

CC=C(C)C(=O)O[C@@H]3[C@@H](OC(=O)CCCCC)[C@H]1C([C@@H]2OC(=O)[C@](O)(C)[C@@]2(O)[C@H](C[C@]1(C)OC(C)=O)OC(=O)CCC)=C3C

## Source

*Thapsia garganica*

## Applications

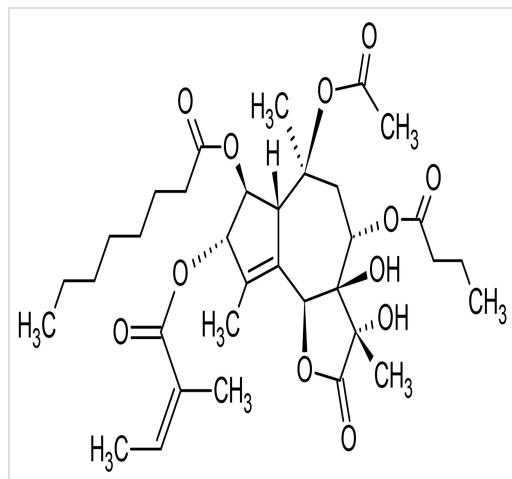
### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab120286 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

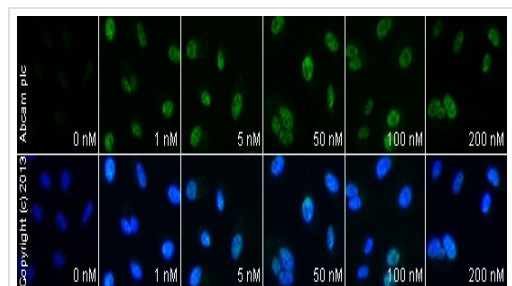
| Application        | Abreviews | Notes                                    |
|--------------------|-----------|--|
| Functional Studies |           | Use at an assay dependent concentration. |

## Images



Chemical Structure - Thapsigargin, Ca<sup>2+</sup>-ATPase inhibitor (ab120286)

2D chemical structure image of ab120286, Thapsigargin, Ca<sup>2+</sup>-ATPase inhibitor



Functional Studies - Thapsigargin, Ca<sup>2+</sup>-ATPase inhibitor (ab120286)

**ab58668** staining ATF3 in serum starved A549 cells treated with thapsigargin (ab120286), by ICC/IF. Increase of ATF3 correlates with increased concentration of thapsigargin, as described in literature.

The cells were incubated at 37°C for 1h in media containing different concentrations of ab120286 (thapsigargin) in DMSO, fixed with 4% formaldehyde for 10 minutes at room temperature and blocked with PBS containing 10% goat serum, 0.3 M glycine, 1% BSA and 0.1% tween for 2h at room temperature. Staining of the treated cells with **ab58668** (10 µg/ml) was performed overnight at 4°C in PBS containing 1% BSA and 0.1% tween. A DyLight 488 goat anti-mouse polyclonal antibody (**ab96879**) at 1/250 dilution

was used as the secondary antibody. Nuclei were counterstained with DAPI and are shown in blue.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES, NOT FOR USE IN HUMANS"

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