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## DATASHEET

Thapsigargin

### Product overview

|                          |   |
|--------------------------|---|
| <b>Name</b>              | Thapsigargin                            |
| <b>Cat No</b>            | HB1118                                  |
| <b>Biological action</b> | Inhibitor                               |
| <b>Purity</b>            | >97%                                    |
| <b>Description</b>       | Potent, non-competitive SERCA inhibitor |

### Images



### Biological Data

|                               |  |
|-------------------------------|--|
| <b>Biological description</b> | Potent and non-competitive sarco-endoplasmic $\text{Ca}^{2+}$ -ATPase (SERCA) inhibitor. Activates endoplasmic reticulum stress mechanisms. Induces apoptosis in most cells. Shows anticancer and neuroprotective actions. |
|-------------------------------|--|

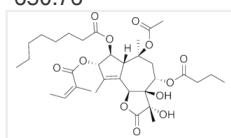
### Solubility & Handling

|                             |   |
|-----------------------------|---|
| <b>Storage instructions</b> | -20°C (desiccate)   |
| <b>Solubility overview</b>  | Soluble in DMSO (100mM)   |
| <b>Important</b>            | This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use. |

### Chemical Data

|                      |   |
|----------------------|---|
| <b>Chemical name</b> | (3 <i>S</i> ,3 <i>a</i> <i>R</i> ,4 <i>S</i> ,6 <i>S</i> ,6 <i>A</i> <i>R</i> ,7 <i>S</i> ,8 <i>S</i> ,9 <i>b</i> <i>S</i> )-6-(Acetyloxy)-2,3,3 <i>a</i> ,4,5,6,6 <i>a</i> ,7,8,9 <i>b</i> -decahydro-3,3 <i>a</i> -dihydroxy-3,6,9-trimethyl-8-[[[(2 <i>Z</i> )-2-methyl-1-oxo-2-butenyl]oxy]-2-oxo-4-(1-oxobutoxy)azuleno[4,5- <i>b</i> ]furan-7-yl] octanoate<br>650.76 |
|----------------------|---|

**Molecular Weight**  
**Chemical structure**



**Molecular Formula**

$\text{C}_{34}\text{H}_{50}\text{O}_{12}$

|                           |   |
|---------------------------|---|
| <b>CAS Number</b>         | 67526-95-8  |
| <b>PubChem identifier</b> | 446378  |
| <b>SMILES</b>             | <chem>CCCCCCCC(=O)O[C@H]1[C@H]2C(=C([C@@H]1OC(=O)/C(=C\C)/C)C)[C@H]3[C@]([C@H](C[C@]2(C)OC(=O)C)OC(=O)CCC)([C@](C(=O)O3)(C)O)O</chem>   |
| <b>InChi</b>              | 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/b19-11-/t22-,26+,27-,28-,29-,32-,33+,34+/m0/s1 |
| <b>InChiKey</b>           | IXFPJGBNCFXKPI-FSIHEZPISA-N   |
| <b>MDL number</b>         | MFCD00083511  |

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## References

### Endoplasmic reticulum stress induced by tunicamycin and thapsigargin protects against transient ischemic brain injury: Involvement of PARK2-dependent mitophagy.

Zhang X *et al* (2014) *Autophagy* 10(10)

**PubMedID** [25126734](#)

### Targeting thapsigargin towards tumors.

Doan NT *et al* (2014) *Steroids*

**PubMedID** [25065587](#)

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