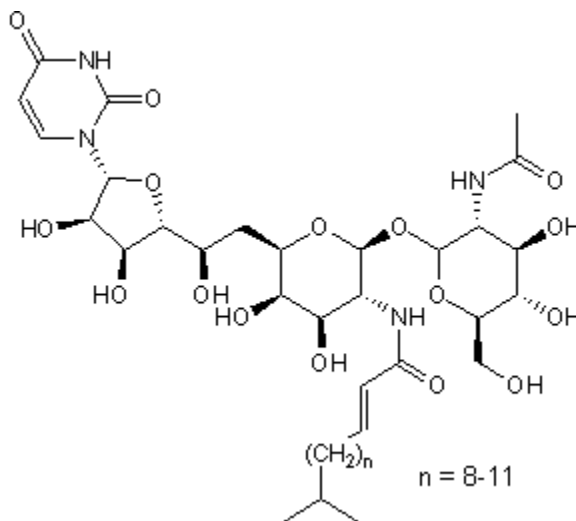


## Tunicamycin

Cat. No. 3516



**Chemical Name:** Tunicamycin from *Streptomyces* sp.

### Biological Activity

Antibiotic; inhibits GlcNAc phosphotransferase (GPT). Blocks the formation of N-glycosidic linkages by inhibiting the first step in glycoprotein synthesis. Activity induces ER stress and causes G<sub>1</sub> arrest; can be used to induce autophagy. Tunicamycin contains four main components as follows:

- Homolog A, n=8, C<sub>37</sub>H<sub>60</sub>N<sub>4</sub>O<sub>16</sub>, molecular weight = 816.90
- Homolog B, n=9, C<sub>38</sub>H<sub>62</sub>N<sub>4</sub>O<sub>16</sub>, molecular weight = 830.93
- Homolog C, n=10, C<sub>39</sub>H<sub>64</sub>N<sub>4</sub>O<sub>16</sub>, molecular weight = 844.95
- Homolog D, n=11, C<sub>40</sub>H<sub>66</sub>N<sub>4</sub>O<sub>16</sub>, molecular weight = 858.99

The composition of this product will vary from batch to batch and can be found on the relevant certificate of analysis.

### Technical Data

**M.Wt:**

844.95

**Formula:**

C<sub>39</sub>H<sub>64</sub>N<sub>4</sub>O<sub>16</sub> (tunicamycin C, n=10)

**Solubility:**

Soluble to 50 mM in DMSO

**Storage:**

Store at +4°C

**CAS No:**

11089-65-9

The technical data provided above is for guidance only.

For batch specific data refer to the Certificate of Analysis.

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## References

**Ding et al** (2007) Differential effects of endoplasmic reticulum stress-induced autophagy on cell survival. *J.Biol.Chem.* **282** 4702.

PMID: [17135238](#).

**Duriez et al** (2008) The hepatitis B virus precore protein is retrotransported from endoplasmic reticulum (ER) to cytosol through the ER-associated pathway. *J.Biol.Chem.* **283** 32352. PMID: [18805786](#).

**Lauer et al** (2009) Primary murine airway smooth muscle cells exposed to poly(I:C) or tunicamycin synthesize a leukocyte-adhesive hyaluronan matrix. *J.Biol.Chem.* **284** 5299. PMID: [19088077](#).

If you know of a relevant citation for this product [please let us know](#).

Keywords: Tunicamycin, supplier, antibiotics, GlcNAc, phosphotransferases, GTP, protein, glycosylation, inhibitors

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