

Product Name: Tunicamycin

Catalog No.: 3516

Batch No.: 12

CAS Number: 11089-65-9

IUPAC Name: Tunicamycin from *Streptomyces* sp.

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₃₉H₆₄N₄O₁₆ (tunicamycin C, n=10)

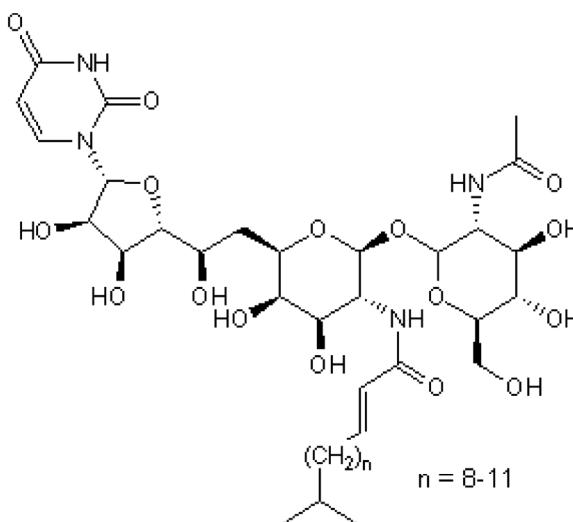
Batch Molecular Weight: 844.95

Physical Appearance: Off White solid

Solubility: DMSO to 50 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 100% purity

Tunicamycin A: 6.07%

Tunicamycin B: 34.99%

Tunicamycin C: 44.89%

Tunicamycin D: 14.05%

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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IUPAC Name: Tunicamycin from *Streptomyces* sp.

Description:

Tunicamycin is an 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 G₁ arrest; can be used to induce autophagy. Tunicamycin contains four main components as follows: Homolog A, n=8, C₃₇H₆₀N₄O₁₆, molecular weight = 816.90 Homolog B, n=9, C₃₈H₆₂N₄O₁₆, molecular weight = 830.93 Homolog C, n=10, C₃₉H₆₄N₄O₁₆, molecular weight = 844.95 Homolog D, n=11, C₄₀H₆₆N₄O₁₆, molecular weight = 858.99 The composition of this product will vary from batch to batch and can be found on the relevant certificate of... Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

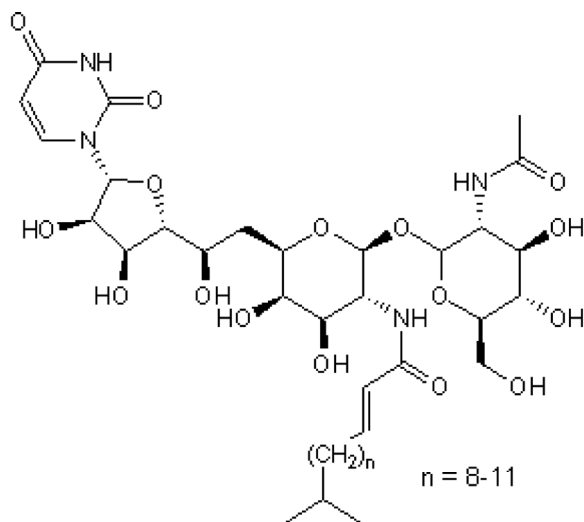
Batch Molecular Formula: C₃₉H₆₄N₄O₁₆ (tunicamycin C, n=10)

Batch Molecular Weight: 844.95

Physical Appearance: Off White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



References:

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.

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.

Ding et al (2007) Differential effects of endoplasmic reticulum stress-induced autophagy on cell survival. *J.Biol.Chem.* **282** 4702. PMID: 17135238.

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