1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $\text{C}_{39}\text{H}_{64}\text{N}_4\text{O}_{16}$ (tunicamycin C, n=10)
Batch Molecular Weight: 844.95 (tunicamycin C, n=10)
Physical Appearance: Off-white solid
Solubility: DMSO to 50 mM
Storage: Store at +4°C

2. ANALYTICAL DATA

Composition by HPLC:
- Tunicamycin A 4.92%
- Tunicamycin B 32.26%
- Tunicamycin C 42.12%
- Tunicamycin D 20.32%

TLC:
$R_f = 0.31$ (Butanol:Acetic acid:Water [60:15:25])
Product Name: Tunicamycin
Catalog No.: 3516
Batch No.: 7

**Description:**
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, C_{35}H_{60}N_{16}O_{16}, molecular weight = 816.90 Homolog B, n=9, C_{36}H_{62}N_{16}O_{16}, molecular weight = 830.93 Homolog C, n=10, C_{39}H_{66}N_{16}O_{16}, molecular weight = 844.95 Homolog D, n=11, C_{42}H_{68}N_{16}O_{16}, 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. Please see product datasheet on www.tocris.com for full description.

**Physical and Chemical Properties:**
Batch Molecular Formula: C_{39}H_{64}N_{16}O_{16} (tunicamycin C, n=10)
Batch Molecular Weight: 844.95
Physical Appearance: Beige solid

**Batch Molecular Structure:**

![Molecular Structure Image]

**Storage:** Store at +4°C

**Solubility & Usage Info:**
DMSO to 50 mM

**Stability and Solubility Advice:**
Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**


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

bio-techne.com
info@bio-techne.com
techsupport@bio-techne.com

North America
Tel: (800) 343 7475

China
info.cn@bio-techne.com
Tel: +86 (21) 52380373

Europe Middle East Africa
Tel: +44 (0)1235 529449

Rest of World
www.tocris.com/distributors
Tel:+1 612 379 2956