

Product Name: Toyocamycin

Catalog No.: 5270

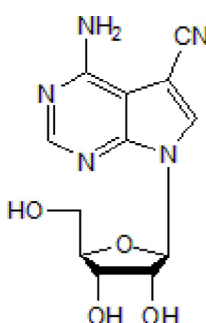
Batch No.: 2

CAS Number: 606-58-6

IUPAC Name: 4-Amino-7-β-D-ribofuranosyl-7H-pyrrolo[2,3-d]pyrimidine-5-carbonitrile

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₂H₁₃N₅O₄
Batch Molecular Weight: 291.26
Physical Appearance: White solid
Solubility: DMSO to 100 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.3% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = -42 (Concentration = 1, Solvent = 1N HCl)
Microanalysis:

	Carbon Hydrogen Nitrogen		
Theoretical	49.48	4.5	24.04
Found	49.31	4.3	23.93

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

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Description:

Toyocamycin is an adenosine analog; antifungal antibiotic. Inhibits RNA self-cleavage in HEK79 cells and PI 3-kinase activity in A431 epidermoid carcinoma cell membrane fractions. Also inhibits thapsigargin-induced XBP1-luciferase activation and induces apoptosis in multiple myeloma cell lines.

Physical and Chemical Properties:

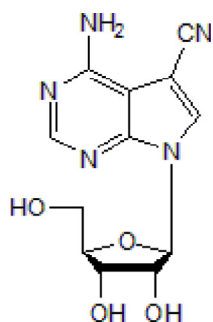
Batch Molecular Formula: C₁₂H₁₃N₅O₄

Batch Molecular Weight: 291.26

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 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:

Ri et al (2012) Identification of Toyocamycin, an agent cytotoxic for multiple myeloma cells, as a potent inhibitor of ER stress-induced XBP1 mRNA splicing. *Blood.Cancer.J.* **2** e79. PMID: 22852048.

Yen et al (2006) Identification of inhibitors of ribozyme self-cleavage in mammalian cells via high-throughput screening of chemical libraries. *RNA* **12** 797. PMID: 16556935.

Nishioka et al (1990) Inhibition of phosphatidylinositol kinase by toyocamycin. *J.Antibiot. (Tokyo)*. **43** 1586. PMID: 2177464.

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