

Product Name: Thiolutin

Catalog No.: 1567

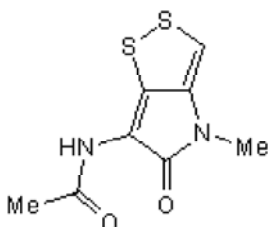
Batch No.: 7

CAS Number: 87-11-6

IUPAC Name: *N*-(4,5-Dihydro-4-methyl-5-oxo-1,2-dithiol[4,3-*b*]pyrrol-6-yl)acetamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₈H₈N₂O₂S₂
Batch Molecular Weight: 228.28
Physical Appearance: Yellow solid
Solubility: DMSO to 5 mg/ml
Storage: Desiccate at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

Melting Point: Between 272 - 276°C
HPLC: Shows 98.9% purity
Mass Spectrum: Consistent with structure

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

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Description:

Antibiotic; inhibits bacterial RNA polymerase. Inhibits adhesion of HUVEC cells to vitronectin (IC₅₀ = 0.83 mM) and subsequently reduces paxillin levels. Suppresses tumor cell-induced angiogenesis.

Physical and Chemical Properties:

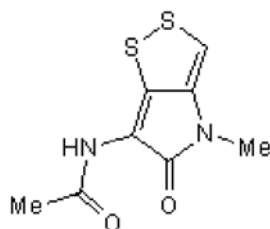
Batch Molecular Formula: C₈H₈N₂O₂S₂

Batch Molecular Weight: 228.28

Physical Appearance: Yellow solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Desiccate at -20°C

Solubility & Usage Info:

DMSO to 5 mg/ml

This product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

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:

Minamiguchi et al (2001) Thiolutin, an inhibitor of HUVEC adhesion to vitronectin, reduces paxillin in HUVECs and suppresses tumor cell-induced angiogenesis. *Int.J.Cancer* **93** 307. PMID: 11433393.

O'Neill et al (2000) RNA polymerase inhibitors with activity against rifampin-resistant mutants of *Staphylococcus aureus*. *Antimicrob.Agents Chemother.* **44** 3163. PMID: 11036042.

Jimenez et al (1973) Mode of action of thiolutin, an inhibitor of macromolecular synthesis in *Saccharomyces cerevisiae*. *Antimicrob.Agents Chemother.* **3** 729. PMID: 4597739.

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