Product Name: Actinomycin D
Catalog No.: 1229
Batch No.: 11
CAS Number: 50-76-0
EC Number: 200-063-6
IUPAC Name: 2-Amino-(N,N)-1-bis(hexadecahydro-6,13-diisopropyl-2,5,9-trimethyl-1,4,7,11,14-pentaaxo-1H-pyrrolo[2,1]-[1,4,7,10,13] oxatetraazacyclohexadecin-10-yl)-4,6-dimethyl-3-oxo-3H-phenoxazine-1,9-dicarboxamide

1. PHYSICAL AND CHEMICAL PROPERTIES

- Batch Molecular Formula: \( C_{62}H_{86}N_{12}O_{16} \cdot 2\frac{1}{2}H_2O \)
- Batch Molecular Weight: 1300.47
- Physical Appearance: Red solid
- Solubility: DMSO to 50 mM
- Storage: Store at -20°C

2. ANALYTICAL DATA

- Melting Point: Between 252 - 254°C
- HPLC: Shows 98.6% purity
- Mass Spectrum: Consistent with structure
- Microanalysis:
  
<table>
<thead>
<tr>
<th>Element</th>
<th>Theoretical</th>
<th>Found</th>
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<td>7.05</td>
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<td>Nitrogen</td>
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<td>12.76</td>
</tr>
</tbody>
</table>

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

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Product Name: Actinomycin D
Catalog No.: 1229
Batch No.: 11

CAS Number: 50-76-0
EC Number: 200-063-6

IUPAC Name: 2-Amino-[(N,N)-1-bis(hexadecahydro-6,13-diisopropyl-2,5,9-trimethyl-1,4,7,11,14-pentaaxo-1H-pyrrolo[2,1]
-[1,4,7,10,13] oxatetraazacyclohexadecin-10-yl)-4,6-dimethyl-3-oxo-3H-phenoxazine-1,9-dicarboxamide

Description:
Anti-neoplastic antibiotic. Inhibits RNA polymerase and is a potent inducer of apoptosis.

Physical and Chemical Properties:
Batch Molecular Formula: C_{42}H_{86}N_{16}O_{16}·2\frac{1}{2}H_{2}O
Batch Molecular Weight: 1300.47
Physical Appearance: Red solid

Minimum Purity: ≥98%

Storage: Store at -20°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:
Glynn et al (1992) Apoptosis induced by actinomycin D, camptothecin or aphidicolin can occur in all phases of the cell cycle. Biochem.Soc.Trans. 20 84S. PMID: 1634006.