**Product Name:** Actinomycin D
**Catalog No.:** 1229  
**Batch No.:** 9

<table>
<thead>
<tr>
<th>Property</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS Number:</td>
<td>50-76-0</td>
</tr>
<tr>
<td>EC Number:</td>
<td>200-063-6</td>
</tr>
<tr>
<td>IUPAC Name:</td>
<td>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</td>
</tr>
</tbody>
</table>

### 1. PHYSICAL AND CHEMICAL PROPERTIES

- **Batch Molecular Formula:** $C_{62}H_{86}N_{12}O_{16}H_2O_{1.14}$
- **Batch Molecular Weight:** 1277.95
- **Physical Appearance:** Red solid
- **Solubility:** DMSO to 50 mM
- **Storage:** Desiccate at +4°C

#### Batch Molecular Structure:

![Molecular Structure](image)

### 2. ANALYTICAL DATA

- **Melting Point:** Between 252 - 254°C
- **HPLC:** Shows 99.4% purity
- **Mass Spectrum:** Consistent with structure

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**Caution** - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use
Product Name: Actinomycin D

CAS Number: 50-76-0

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

Catalog No.: 1229 Batch No.: 9

EC Number: 200-063-6

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

Physical and Chemical Properties:
- Batch Molecular Formula: C_{62}H_{108}N_{22}O_{16}·1{1/4}H_{2}O
- Batch Molecular Weight: 1277.95
- Physical Appearance: Red solid
- Minimum Purity: >98%

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.