

**Product Name:** 7-Aminoactinomycin D

**Catalog No.:** 7121

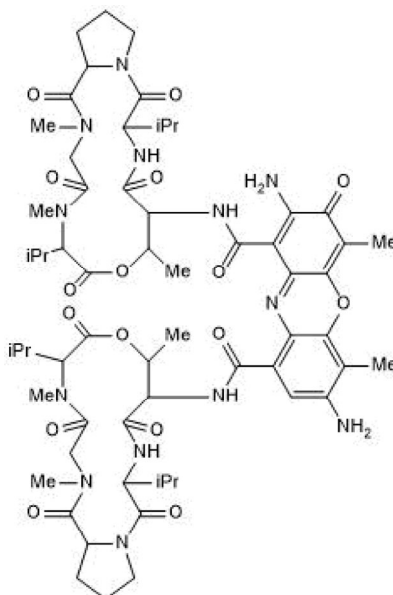
**Batch No.:** 1

CAS Number: 7240-37-1

IUPAC Name: 2,7-Diamino-*N*<sup>1</sup>,*N*<sup>9</sup>-bis(6,13-diisopropyl-2,5,9-trimethyl-1,4,7,11,14-pentaoxohexadecahydro-1*H*-pyrrolo[2,1-*l*][1]oxa[4,7,10,13]tetraazacyclohexadecin-10-yl)-4,6-dimethyl-3-oxo-3*H*-phenoxazine-1,9-dicarboxamide

## 1. PHYSICAL AND CHEMICAL PROPERTIES

<b>Batch Molecular Formula:</b>	C <sub>62</sub> H <sub>87</sub> N <sub>13</sub> O <sub>16</sub>
<b>Batch Molecular Weight:</b>	1270.45
<b>Physical Appearance:</b>	Dark red solid
<b>Solubility:</b>	DMSO to 2 mg/ml
<b>Storage:</b>	Store at -20°C
<b>Batch Molecular Structure:</b>	



## 2. ANALYTICAL DATA

<b>HPLC:</b>	Shows 97.0% purity
<b>Mass Spectrum:</b>	Consistent with structure

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

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**Description:**

Key information: 7-aminoactinomycin D (7-AAD) is a red-fluorescent DNA stain. It is membrane impermeant to live cells but penetrates dead or damaged cells. Used for: cell cycle studies, selective detection of dead cells by flow cytometry, chromosome banding analysis, cell sorting, and apoptosis quantification. Application: fluorescence microscopy and flow cytometry. Properties and Photophysical Data: G-C base-specific DNA intercalator that forms stable complexes with DNA. May be used in combination with FITC (Cat. No. 5440) or phycoerythrin (PE). Fluorescent analogue of actinomycin D (Cat. No. 1229). Can be excited using 488 nm (blue), 532... Please see product specific page on www.tocris.com for full description.

**Physical and Chemical Properties:**

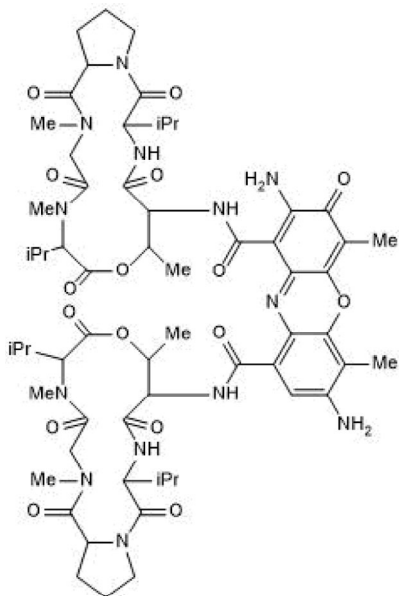
Batch Molecular Formula: C<sub>62</sub>H<sub>87</sub>N<sub>13</sub>O<sub>16</sub>

Batch Molecular Weight: 1270.45

Physical Appearance: Dark red solid

**Minimum Purity:** ≥97%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

**Solubility & Usage Info:**

DMSO to 2 mg/ml

This product is supplied in lyophilized form. It may appear as a solid, gel or film and 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. \*Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

**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:**

**Philpott et al (1996)** The use of 7-amino actinomycin D in identifying apoptosis: Simplicity of use and broad spectrum of application compared with other techniques. *Blood* **87** 2244. PMID: 8630384.

**Schmid et al (1992)** Dead Cell Discrimination with 7-aminoactinomycin D in combination with vertically oriented laser flow cytometry. *Cytometry* **13** 204. PMID: 1547670.

**Zelenka et al (1984)** 7-Amino-actinomycin D as a specific fluorophore for DNA. *Journal of Fluorescence Cytometry* **5** 348.

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