

## CERTIFICATE OF ANALYSIS

**PRODUCT:** **Actinomycin D**  
[Actinomycin IV; Actinomycin C1; Dactinomycin; Cosmegen]  
From *Streptomyces parvulus*  
**C<sub>62</sub>H<sub>86</sub>N<sub>12</sub>O<sub>16</sub>, M.W. 1255.5, CAS# [50-76-0]; ROTECS#  
AU1575000 M.I. 12, 2867**

**PRODUCT NUMBER:** A-1022

**LOT NUMBER:** H1395

**APPEARANCE:** Red to Red-orange crystalline powder

**SOLUBILITY:** Clear orange solution at 50 mg/ml DMSO or 10 mg/ml MeOH

**PURITY (TLC):** > 99% (NP, CH<sub>2</sub>Cl<sub>2</sub>, CH<sub>3</sub>OH 9:1)  
\*Detection: Spray with H<sub>2</sub>SO<sub>4</sub> and heat > 99% (RP C18, CH<sub>3</sub>OH, H<sub>2</sub>O 9:1)

**PURITY (HPLC):** 99.3%

**MELTING POINT:** 252-254°C

<b>EXTINCTION COEFFICIENT:</b>	<u>Specifications*</u>	<u>Results</u>
$\Lambda_{\max}$ - (CH <sub>3</sub> OH) *Theoretical	A240: $\geq 1.30 - \leq 1.50$ A445: $\geq 1.30 - \leq 1.50$	241nm: 42168 442nm: 28614

<b>ELEMENTAL ANALYSIS:</b>	<u>Specifications*</u>	<u>Results</u>
*Theoretical	C: 59.28 H: 6.80 N: 13.3	C: 57.96 H: 6.93 N: 12.85

**PRODUCT DESCRIPTION:** Actinomycin D is an antibiotic, a member of Actinomycins group, derived from *Streptomyces parvulus*. Actinomycin D binds to DNA and inhibits RNA synthesis (transcription), with chain elongation more sensitive than initiation, termination, or release. As a result of impaired mRNA production, protein synthesis also declines.

**STORAGE & HANDLING:** Store desiccated at +4°C.

**PROTECT FROM LIGHT! HYGROSCOPIC!**

**WARNING: VERY TOXIC!**

CAUTION: For research use only. Not for human or drug use. The pharmacological and toxicological properties of this product have not been fully investigated. Use caution when handling. Do not use this compound if you are not fully trained or are unaware of the hazards involved.

Verified: EV