

CERTIFICATE OF ANALYSIS

PRODUCT: **Actinomycin D**
[Actinomycin IV; Actinomycin C1; Dactinomycin; Cosmegen]
From *Streptomyces parvulus*
**C₆₂H₈₆N₁₂O₁₆, M.W. 1255.5, CAS# [50-76-0]; ROTECS#
AU1575000**
M.I. 12, 2867

PRODUCT NUMBER: A-1022

LOT NUMBER: H1254A

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, CH₂Cl₂, CH₃OH 9:1)
> 99% (RP C18, CH₃OH, H₂O 9:1)

**Detection: Spray with H₂SO₄ and heat*

PURITY (HPLC): 99.3%

MELTING POINT: 251-252°C

EXTINCTION COEFFICIENT:

Λ_{\max} - (CH₃OH)

**Theoretical*

Specifications*

Results

A240: ≥ 1.30 - ≤ 1.50

241nm: 42168

A445: ≥ 1.30 - ≤ 1.50

442nm: 28614

ELEMENTAL ANALYSIS:

**Theoretical*

Specifications*

Results

C: 59.28

C: 58.58

H: 6.80

H: 6.43

N: 13.3

N: 12.77

PRODUCT DESCRIPTION:

Actinomycin D is an antibiotic, a member of Actinomycins group, derived from *Streptomyces parvullus*. 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: KS