Actinomycin D
Cell Culture Tested

Product Code: TC018

Product Description:
Molecular Weight: 1255.42
Molecular Formula: C_{62}H_{86}N_{12}O_{16}
CAS No: 50-76-0
Synonym: Actinomycin IV, Actinomycin C1, Dactinomycin

Actinomycin D is an anti-neoplastic antibiotic produced by Streptomyces spp. It inhibits the proliferation of cells in a non-specific way by forming a stable complex with double-stranded DNA thus inhibiting DNA-primed RNA synthesis. It also causes single-strand breaks in DNA.

In cell culture, it is used as a selection agent and is used in banding techniques to differentiate between different regions of chromosomes.

Directions:
For cell culture applications, actinomycin D is used at concentration of 1mg/ml.

Preparation instructions:
Actinomycin D is soluble in methanol (10mg/ml), DMSO (50mg/ml), chloroform, benzene, ethyl acetate, acetone, water-glycol mixtures. Actinomycin D solution should be sterilized by filtering through a sterile membrane filter with a porosity of 0.22micron or less.

Quality Control:
Appearance
Orange to red powder.

Solubility
Clear red solution at 10mg in 1ml of DMSO (Dimethyl sulphoxide).

Loss on drying
NMT 15%

Assay
NLT 97.5%

Antibiotic sensitivity
Passes

Cell Culture Test
Passes

Storage and Shelf Life:
Store actinomycin D powder at 2°C to 8°C away from bright light.
It is highly hygroscopic and decomposed by strong acids.
Shelf life is 36 months.
Stock solutions of actinomycin D should be aliquoted and stored at -20°C for long term storage. They remain stable for 3 days at 37°C.
Use before expiry date given on product label.

Disclaimer:
User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ Publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal diagnostic or therapeutic use but for laboratory, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.

Email: info@himedialabs.com