

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 :

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