

Streptomycin Sulphate

Cell Culture Tested

Product Code: TC035

Product Description :

Molecular Weight: 728.69

Molecular Formula: $C_{21}H_{39}N_7O_{12} \cdot 1.5H_2SO_4$

CAS No: 3810-74-0

Streptomycin sulphate is an aminoglycoside antibiotic produced by soil actinomycete *Streptomyces griseus*. It is bactericidal in action. It consists of three components, N-methyl-L-glycosamine, Streptose and Streptidine linked with each other by glycoside bond. It inhibits the protein synthesis by combining irreversibly with the S12 protein of 30S sub-unit of bacterial ribosome. This prevents the initiation of protein synthesis by blocking the binding of initiator N-formyl methionine t-RNA to the ribosome. It is also known to prevent the normal dissociation of 70S ribosome and the formation of polysome. Streptomycin is broad spectrum antibiotic that inhibits both Gram-positive and Gram-negative bacteria.

In cell culture, streptomycin sulfate is used as an antimicrobial agent to prevent contamination.

Directions :

For cell culture applications streptomycin sulfate is used at concentration of 100mg/L.

Preparation instructions:

Streptomycin sulfate is soluble in water. Streptomycin solution should be sterilized by filtering through a sterile membrane filter with a porosity of 0.22micron or less.

Quality Control:

Appearance

White to off-white powder.

Solubility

Clear colourless solution at 5gm in 100 water

pH

4.50 -7.00

Fouries Transform Infrared Spectrometry

Standard Pattern

Loss on drying

NMT 7.0%

Sulphate (SO4)

18.0 - 21.0%

Potency

NLT 730 U/mg

Antibiotic Sensitivity

Complies

Cell Culture Test

Passes

Storage and Shelf Life:

Store at 2-8°C away from bright light.

Streptomycin stock solutions should be sterile filtered and stored at 2-8°C.

Shelf life is 36 months.

Use before expiry date given on the product label.

Disclaimer :

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