

# 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

Synonym: Streptomycin sesquisulfate, D-Streptamine

Streptomycin sulphate is a broad spectrum aminoglycoside antibiotic produced by soil actinomycete *Streptomyces griseus*. It inhibits both Gram-positive and Gram-negative bacteria. It consists of three components, N-methyl-L-glycosamine, Streptose and Streptidine linked with each other by glycoside bond. It inhibits protein synthesis by combining irreversibly with the S12 protein of 30S subunit of bacterial ribosome. This prevents the initiation of protein synthesis. It is also known to prevent the normal dissociation of 70S ribosome and the formation of polysome.

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

## Directions:

### Preparation instructions:

For cell culture applications, Streptomycin sulfate solutions can be prepared as per required concentrations in water.

Solutions can be sterilized by filtering through a sterile membrane filter with a porosity of 0.22 microns or less.

## Quality Control:

### Appearance

White to light yellow hygroscopic powder powder.

### Solubility

100 mg soluble in 1 ml of water.

### pH (20% in water, at 25°C)

4.50 - 7.00

### FT-IR

Standard Pattern

### Loss on drying (105°C; 1 h)

NMT 7.0%

### Sulfate (SO<sub>4</sub>)

18.00 - 21.00%

### Potency

NLT 730 units/mg

### Antibiotic sensitivity test

Complies

### Cell Culture Test

Passes

## Storage and Shelf Life:

Store powder at 2 - 8°C in air tight containers and away from bright light.

Shelf life is 36 months.

Use before expiry date given on the product label.

## Disclaimer :

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Revision : 03/2025