

Streptomycin Sulfate

(Pharmaceutical grade for Cell culture use)

Product Number: 1121

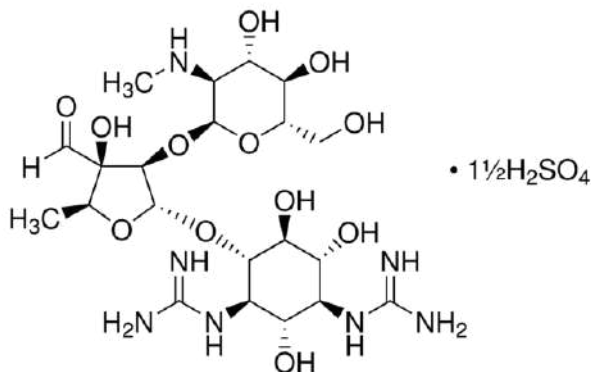
CAS Number: [3810-74-0]

Storage Condition: Keep well closed at room temperature in a dry and dark place.

Description

Streptomycin sulfate is high-quality pharmaceutical grade antibiotic effective against Gram -positive and Gram-negative bacteria. Streptomycin sulfate is sometimes added as a means of removing nucleic acids when purifying protein from a biological extract.

Structural formula of Streptomycin sulfate



Specification

Off-white fine powder, very soluble, hygroscopic.

Molecular weight: 728.7g/mol

Molecular formula $\text{C}_{42}\text{H}_{84}\text{N}_{14}\text{O}_{36}\text{S}_3$ (Hill Notation)

Assay (calc. on dried ice) NLT 720U/mg; Streptomycin B (TLC) NMT 3.0%; Endotoxin NMT 0.25 IU/mg.

Streptomycin sulfate is an aminoglycoside antibiotic inhibiting prokaryote protein synthesis. It binds to the S12 protein of the 30S ribosomal subunit. Mutation in rpsL (the gene for S12 ribosomal protein) prevents binding of streptomycin to ribosome. Inactivated by aminoglycoside phosphotransferase.

Application

As it binds to ribosomes and precipitates out of solution, it acts as a method for removing rRNA, mRNA, and even DNA if the extract is from a prokaryote. Streptomycin, in combination with penicillin, is used in a standard antibiotic cocktail to prevent bacterial infection in cell culture.

Quality

Pharmaceutical grade

Offering Sizes

Available in 10g, 50g, 100g and 250g per packaging