

Product Name

Name: Kanamycin Sulphate Solution, 10 mg/mL

Cat. No.: C3460-0100

Size: 100 mL

Product Description

Kanamycin sulfate is an aminoglycoside (aminocyclitol) antibiotic isolated from *Streptomyces kanamyceticus* and represent a product of secondary carbohydrate metabolism. They are a closely related group of bactericidal antibiotics and have broadly similar toxicological features. Kanamycin sulfate is an antimicrobial agent with bactericidal properties against Gram-negative and Gram-positive bacteria and *Mycoplasma spp.* Its mode of action (MOA) includes binding to the 70S ribosomal subunit, inhibits translocation (i.e., part of the translation process in which mRNA is shifted one codon in relation to the ribosome) and elicits miscoding (i.e., causing mRNA to be misread by the ribosome) causing a lethal level of translational errors thereby inhibiting protein synthesis and a cascade effect resulting in bacterial cell death. The 2-deoxystreptamine-containing antibiotics include the structurally related neomycins and streptomycins.

Cross-resistance occurs between kanamycin, neomycin, paromomycin, and framycetin, and partial cross-resistance has been reported between kanamycin and streptomycin. The aminoglycosides are excellent at synergizing with β -lactams and glycopeptides to improve the efficiency of their bactericidal activity.

Predominant Characteristics

- Easy-to-use formulation
- Isolated from *Streptomyces kanamyceticus*
- Bactericidal activity
- Frozen solution
- Sterile-filtered (0.1 μ m)

Storage and Stability

The product should be kept at **-20°C**.

The product is **light-sensitive** and therefore should not be left in the light.

Shelf life: 12 months from date of manufacture

Procedure

1. Take a bottle from the freezer and read the label.
2. Thaw to room temperature.
3. Ensure that the cap of the bottle is tight.
4. Gently swirl the solution in the bottle.
5. Wipe the outside of the bottle with a disinfectant solution such as 70% ethanol.
6. Take appropriate volume of the solution using aseptic/sterile technique under a laminar flow culture hood.

7. Recommended dilution is 1:100

Precaution and Disclaimer

For research use only, not for clinical diagnosis, and treatment.