

# Kanamycin Solution

With 50 mg/ml Kanamycin in 0.9% normal saline

**Product Code: A009**

## Product Description :

Molecular Weight: 582.58

Molecular Formula:  $C_{18}H_{36}N_4O_{11} \cdot H_2O_4S$

CAS No: 25389-94-0

Synonym: Kanamycin sulfate salt, Kanamycin A

Kanamycin sulfate is a water soluble broad spectrum antibiotic obtained from soil bacterium *Streptomyces kanamyceticus*. It is an aminoglycoside antibiotic effective against Gram-negative and Gram-positive bacteria and mycoplasma. It binds to the 70S ribosomal subunit, inhibits translocation, and elicits miscoding. Cross-resistance occurs between kanamycin and neomycin, framycetin, and paromomycin, and partial cross-resistance has been reported between kanamycin and streptomycin. Aminoglycoside-modifying enzymes (acetyltransferase, phosphotransferase, nucleotidyltransferase) alter the antibiotic, preventing its interaction with ribosomes.

A009 is sterile filtered solution formulated to contain 50mg/ml Kanamycin.

## Directions :

Recommended use concentration is 2ml/L. Sensitive cell lines may react differently to this product. Hence it is recommended to determine optimum usage dose empirically for individual cell line.

## Quality Control:

### Appearance

Colorless, clear solution.

### pH

6.00 - 8.00

### Osmolality in mOsm/Kg H<sub>2</sub>O

350.00 -450.00

### Sterility

No bacterial or fungal growth is observed after 14 days of incubation, as per USP specification.

### Kanamycin Concentration

50 - 60mg/ml

### Cultural Response

1. No toxicity to cells.
2. Antibiotic sensitivity test

### Endotoxin Content

NMT 0.5EU/ml

## Storage and Shelf Life:

Store at 2 - 8°C.

Shelf life of the product is 24 months.

Use before expiry date given on the product label.

### Disclaimer :

Revision: 3/ 2022

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