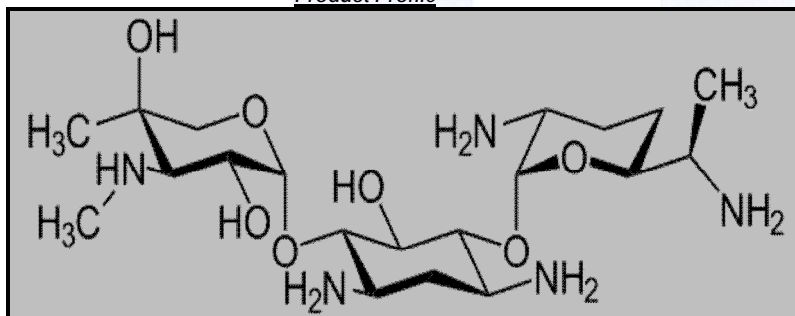


Product Profile



Product Name:	Gentamicin Sulfate Solution 50mg/ml
Product Catalog Number	03-035-1
Concentration:	50mg/ml
Unit Size Availability:	(B)100ml;(C)20ml
Formulation:	Liquid Amber-Colored Solution
Optimal Storage Conditions:	Room Temperature (15-30°C)
Stability: (Under Ideal Handling & Storage)	Please Refer To Product Label

Important Note! Please read the MSDS and Product Profile carefully in their entirety before using this material for possible safety precautions and potential hazards.

Product Description

Gentamicin sulfate is an aminoglycoside (aminocyclitol) antibiotic isolated from *Micromonospora purpurea* and represent products of secondary carbohydrate metabolism. They are a closely related group of bactericidal antibiotics and have broadly similar toxicological features.¹ Gentamicin 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 L-6 protein of the 50S ribosomal subunit, inhibits translocation and elicits miscoding and thereby inhibits protein synthesis and compromising the bacterial cell-wall/membrane structure causing bacterial cell death. The 2-deoxystreptamine-containing antibiotics include the structurally related neomycins and streptomycins².

Cross-resistance occurs between Kanamycin, Neomycin, Paromomycin and Fframycetin and partial cross-resistance has been reported between Kanamycin and Streptomycin. The Aminoglycosides are excellent at synergizing with the β -Lactams and glycopeptides to improve the efficiency of their bactericidal activity³. It is incompatible with Amphotericin, Penicillins, sodium bicarbonate and other drugs.

Important Note: Please consult other comprehensive pharmacology references regarding other antibiotic properties, characteristics, interactions and possible incompatibilities.

Some Predominant Characteristics include:

- Easy-To-Use-Formulation
- Bactericidal Activity
- Stable in Solution
- Sterile-Filtered

Instructions/Procedure

The product should be stored at Room Temperature (15-30°C). The contents should not be left in the light for prolonged periods as it is light-sensitive. When stored in the dark under ideal conditions, the product is stable until the expiry date.

- 1) Take a bottle out from proper storage conditions at Room Temperature (15-30°C) and read the label.
- 2) Ensure that the cap of the bottle is tight.
- 3) Gently swirl the solution in the bottle.
- 4) Wipe the outside of the bottle with a disinfectant solution such as 70% ethanol.
- 5) Using aseptic/sterile technique under a laminar-flow culture hood, work according to established protocols.
- 6) Recommended use: 1:1000

Quality Control

Test	Specification
Appearance:	Solution: Clear to Yellow
Osmolality:	110-170mOsm/kg
pH:	4.0-6.0
Sterility:	Sterile

Auxiliary Products

Product Name	Catalog Number	Storage Temperature
Dulbecco's Phosphate Buffered Saline(DPBS) without Calcium and Magnesium	02-023-1	Room Temperature (15-30°)
Amphotericin B 250 micrograms/ml	03-028-1	-20°C
Amphotericin B 2500 micrograms/ml	03-029-1	-20°C
Penicillin-Streptomycin 10X Solution	03-031-5	-20°C
Penicillin-Streptomycin Nystatin Solution	03-032-1	-20°C
Nystatin Cell Culture-Tested Biochemicals (γ -Irradiated)	41-506-1/5	-20°C
Note: For a list of Serum, other antibiotics, or Biological Industries' Products, please refer to our Product Catalog/Product Profiles/Guides and Internet Site.		

References:

- 1) 14th Edition Of Merck Index, p.4395
- 2) Current Editions USP/E Ph
- 3) Biological Industries(BI)Specifications
- 4) Martindale, The Extra Pharmacopeia, 28th Edition, Royal Pharmaceutical Society: London, England pps.729-730,1076-1086.
- 5) Walsh, Christopher. Antibiotics: Actions, Origins and Resistance, ASM Press: Washington, D.C., 2003, pps.107-120;222-226)
- 6) Gallagher, Jason C. and MacDougall, Conan. Antibiotics Simplified, Jones & Bartlett Press: Boston, Massachusetts, 2007, pps.37-48;73-76)
- 7) Barile, Frank A. Clinical Toxicology: Principles and Mechanisms, CRC Press: Boca Raton, Florida, 2004.
- 8) Homburger, Freddy, Hayes, John A. and Pelikan, Edward W. A Guide To General Toxicology, Karger Press: Basel, Switzerland, 1984, pps.101-102
- 9) Hansel, Donna E. and Dintzis. Pathology, Lipponcott Williams & Wilkins Press: Baltimore, Maryland, 2006