

Gentamycin Sulfate

Cat. Number: G8170

CAS Number: 1405-41-0

Storage Temperature: 2-8°C

Product Description :

Appearance: White to off-white powder

Molecular formula: Not Applicable

Molecular weight: Not Applicable

Gentamicin is an aminoglycoside antibiotic complex produced by fermentation of *Micromonospora purpurea* or *M. echinospora*. It is a mixture of three major components and is used as the sulfate salt. Each component consists of five basic nitrogens and requires five equivalents of sulfuric acid per mole of gentamicin base.

Gentamicin sulfate is a broad spectrum antibiotic. It inhibits the growth of a wide variety of gram-positive and gram-negative microorganisms including strains resistant to tetracycline, chloramphenicol, kanamycin and colistin, particularly strains of *Pseudomonas*, *Proteus*, *Staphylococcus* and *Streptococcus*. It is bactericidal at concentrations two to three times higher, but in some cases bacteriostatic concentrations are also bactericidal.

Gentamicin sulfate inhibits bacterial protein biosynthesis by binding to the 30S subunit of the ribosome. The recommended working concentration for eukaryotic cell culture is 50 µg/mL, and for prokaryotic cells 15 µg/mL.

Preparation Instructions :

Gentamicin sulfate is freely soluble in water. It is practically insoluble in alcohol and other organic solvents. Solarbio tests the solubility at 50 mg/mL in water yielding a clear to very slightly hazy, colorless to faint yellow solution. Sterile solutions of gentamicin sulfate should be stored at 2-8 °C. Solutions of gentamicin were shown to be stable when stored at room temperature, and in boiling aqueous buffers of pH 2 to 14. A solution at 1 mg/mL in 0.1 M potassium phosphate buffer pH 8.0, stored at 2-8 °C, should be used within 30 days.

Gentamicin sulfate solution may be sterilized by filtration. Sterile solutions should also be stored at 2-8 °C and will be stable for up to 2 years. A 4% solution in water yields a pH of 3.5-5.5.

Precautions and Disclaimer:

For Laboratory Use Only. Not for drug, household or other uses.