3050 Spruce Street
Saint Louis, Missouri 63103 USA
Telephone 800-325-5832 • (314) 771-5765
Fax (314) 286-7828
email: techserv@sial.com
sigma-aldrich.com

ProductInformation

Kanamycin monosulfate
from *Streptomyces kanamyceticus*
Cell Culture Tested

Product Number **K 1377**
Store at Room Temperature

Product Description

Molecular Formula: $C_{18}H_{36}N_4O_{11}\cdot H_2SO_4$
Molecular Weight: 582.6
CAS Number: 25389-94-0

This product has been cell culture tested. It is recommended for use in cell culture applications at 100 mg/L.

Kanamycin sulfate is an antimicrobial agent 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.[1] Aminoglycoside-modifying enzymes (acetyltransferase, phosphotransferase, nucleotidyltransferase) alter the antibiotic, preventing its interaction with ribosomes.

Kanamycin sulfate can be added into agar (agar plate), and the plate should be then be sealed to prevent any evaporation of moisture from the agar. The sealed plate can be stored at 2-8 °C for about one month. If the plate is not sealed to prevent evaporation of moisture, the kanamycin can degrade.

Precautions and Disclaimer

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

Preparation Instructions

Kanamycin sulfate is soluble in water (50 mg/ml), yielding a clear solution. Kanamycin sulfate is practically insoluble in alcohol, acetone, chloroform, ether, and ethyl acetate. A 1% solution in water has a pH of 6.5 to 8.5. This is in contrast to the pH of 5.5 to 7.5 for a 1% solution in water of kanamycin acid sulfate.[1]

Storage/Stability

Sterile solutions can be prepared by sterile filtration through a 0.2 µm filter. Solutions are stable at 37 °C for approximately 5 days. Aqueous stock solutions can be stored at 2-8 °C for long term storage.

References

1. Martindale The Extra Pharmacopoeia, 31st ed., Reynolds, J. E. F., ed., Royal Pharmaceutical Society (London, England: 1996), p. 244.

ARO/HLD/RXR 1/03

Sigma brand products are sold through Sigma-Aldrich, Inc.
Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see reverse side of the invoice or packing slip.