

# Kanamycin (sulfate)

Catalog No: tcsc1140



## Available Sizes

Size: 1g

Size: 5g



## Specifications

**CAS No:**

25389-94-0

**Formula:**

$C_{18}H_{38}N_4O_{15}S$

**Pathway:**

Anti-infection

**Target:**

Bacterial

**Purity / Grade:**

>98%

**Solubility:**

H<sub>2</sub>O : ≥ 30 mg/mL (51.50 mM)

**Alternative Names:**

Kanamycin A monosulfate

**Observed Molecular Weight:**

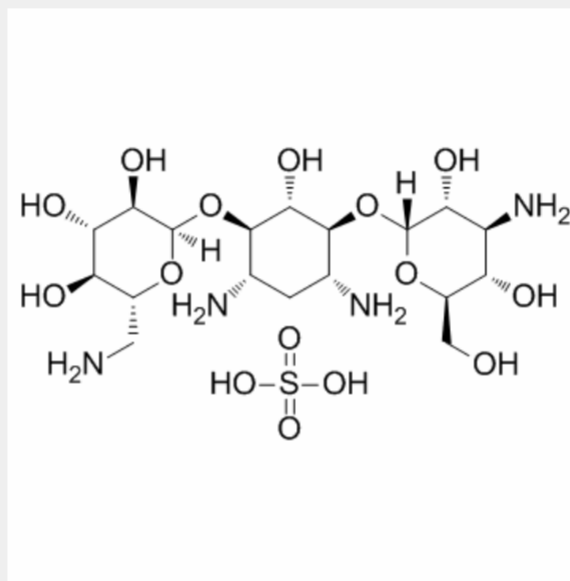
582.58

## Product Description

Kanamycin (sulfate) is an aminoglycoside antibiotic, available in oral, intravenous, and intramuscular forms, and used to treat a wide variety of infections.

**In Vitro:** Kanamycin sulfate at the concentration above 0.0025% has a significant inhibition on the growth of *B. bifidum* and has no influence on the other four probiotics at incubation 12 h or 24 h. The optimum selective concentration of kanamycin sulfate in MRS media is 0.005% for selective enumeration of *B. bifidum*<sup>[3]</sup>.

**In Vivo:** The neurons damage of the DCN caused by kanamycin (500 mg/kg/day) is reversible and autophagy is upregulated in the neurotoxic course of kanamycin on DCN through JNK1-mediated phosphorylation of Bcl-2 pathway in rats. The serum BUN and Cr levels are both increased at the 1st day after the period of kanamycin administration. The neurons expressing LC3 are increased at 1, 7 and 14 days after kanamycin administration in comparison to the control group. Kanamycin treatment results in the increase of autophagy in a time-dependent manner<sup>[1]</sup>. Kanamycin sulfate (5 mg/kg) and sodium ampicillin (10 mg/kg) administered intramuscularly (i.m.) separately, and then together, to five pony mares, and the ampicillin concentration exceeds 5 mg/mL in inflamed synovial fluid for some 2.5 h after injection, and kanamycin sulfate concentration exceeds 2 mg/mL for 7 h in the pony<sup>[2]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!