

Kanamycin Sulfate**PG-8040-25G**

Kanamycin Sulfate is a broad-spectrum aminoglycoside antibiotic widely used in molecular biology, microbiology, biotechnology, and cell culture laboratories. It inhibits bacterial protein synthesis by binding to the 30S ribosomal subunit and is commonly employed as a selective agent for maintaining plasmids carrying kanamycin resistance genes. Kanamycin Sulfate is extensively used in cloning, recombinant protein expression, and genetic engineering applications.

Parameter	Specification
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Product Name	Kanamycin Sulfate
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Molecular Formula	$C_{18}H_{36}N_4O_{11} \cdot H_2SO_4$
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Molecular Weight	582.58 g/mol
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Appearance	White to off-white powder
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Potency	$\geq 750 \mu\text{g}/\text{mg}$
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Assay	$\geq 98.0\%$
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Solubility	Freely soluble in water
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pH (5% Solution)	6.0 – 8.0
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Loss on Drying	$\leq 5.0\%$
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CAS Number	25389-94-0
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Safety	
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Harmful if inhaled, swallowed, or absorbed through skin. Suspected carcinogen. May cause liver, kidney, and central nervous system damage following prolonged or repeated exposure. Use in a well-ventilated area and wear appropriate PPE including gloves, lab coat, and safety goggles. Avoid contact with skin, eyes, and clothing. Store away from heat and incompatible materials.