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Produktinformation

- Forschungsprodukte & Biochemikalien
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- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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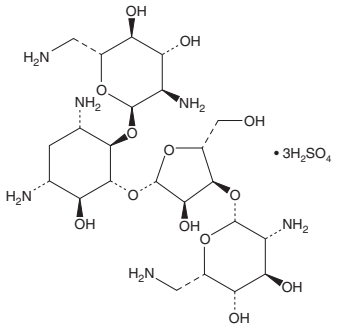
PRODUCT INFORMATION

Neomycin (sulfate)

Item No. 14287



CAS Registry No.:	1405-10-3
Formal Name:	neomycin, trisulfate salt
MF:	$C_{23}H_{46}N_6O_{13} \bullet 3H_2SO_4$
FW:	908.9
Purity:	≥90%
Stability:	≥2 years at room temperature
Supplied as:	A crystalline solid

Laboratory Procedures

For long term storage, we suggest that neomycin (sulfate) be stored as supplied at room temperature. It should be stable for at least two years.

Neomycin (sulfate) is supplied as a crystalline solid. Neomycin (sulfate) is sparingly soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. For biological experiments, we suggest that organic solvent-free aqueous solutions of neomycin (sulfate) be prepared by directly dissolving the neomycin (sulfate) compound in aqueous buffers. The solubility of neomycin (sulfate) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Neomycin is an aminoglycoside antibiotic produced by *S. fradiae* that inhibits protein translation by binding to the small subunit of prokaryotic ribosomes.[1] It blocks voltage-sensitive Ca^{2+} channels and is a potent inhibitor of skeletal muscle sarcoplasmic reticulum Ca^{2+} release.[2] Neomycin has been shown to inhibit inositol phospholipid turnover, phospholipase C, and phosphatidylcholine-phospholipase D activity (IC_{50} = 65 µM).[3] It is highly effective against Gram-positive and Gram-negative bacteria and is commonly used for the prevention of bacterial contamination of cell cultures.

References

1. Wilson, D.N. The A-Z of bacterial translation inhibitors. *Crit. Rev. Biochem. Mol. Biol.* **44(6)**, 393-433 (2009).
2. Vergara, J., Tsien, R.Y., and Delay, M. Inositol 1,4,5-trisphosphate: A possible chemical link in excitation-contraction coupling in muscle. *Proc. Natl. Acad. Sci. USA* **82(18)**, 6352-6356 (1985).
3. Liscovitch, M., Chalifa, V., Danin, M., *et al.* Inhibition of neural phospholipase D activity by aminoglycoside antibiotics. *Biochem. J.* **279**, 319-321 (1991).

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