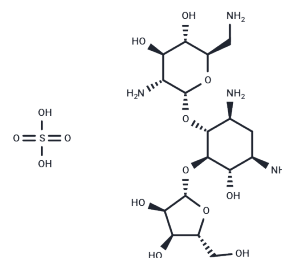


Ribostamycin sulfate

Chemical Properties

CAS No. :	53797-35-6
Formula:	C ₁₇ H ₃₄ N ₄ O ₁₀ ·H ₂ SO ₄
Molecular Weight:	552.55
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	Ribostamycin sulfate (Vistamycin sulfate) , an aminoglycoside antibiotic, contains a neutral sugar moiety and is produced by Streptomyces ribosome.
Targets(IC50)	Antibacterial,Antibiotic
In vitro	Compared to other antibiotics, Ribostamycin (400 mg/kg/day) exhibits the lowest ototoxicity and maintains lower drug concentrations in the inner ear fluid of guinea pigs. Ribostamycin demonstrates minimal ototoxicity to both the cochlea and vestibular apparatus in guinea pigs.
In vivo	Ribostamycin effectively inhibits aminoglycoside-modifying enzymes in gentamicin-resistant Pseudomonas aeruginosa without suppressing protein disulfide isomerase (PDI) activity, although it does inhibit its chaperone activity. At a 100:1 molar ratio with PDI, Ribostamycin nearly completely inhibits chaperone activity. The dissociation constant (KD) for Ribostamycin binding to immunogenic PDI is 0.319 mM. Additionally, Ribostamycin exhibits antibacterial activity against Borrelia burgdorferi with a minimum inhibitory concentration (MIC) of 18.7 mg/L. At a concentration of 16 mcg/mL, Ribostamycin inhibits P. stagnora, P. zopfii, and P. wickerhamii strains by 100%, 100%, and 95%, respectively.

Solubility Information

Solubility	DMSO: Insoluble, H ₂ O: 10 mM, (< 1 mg/ml refers to the product slightly soluble or insoluble)
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A DRUG SCREENING EXPERT

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.8098 mL	9.049 mL	18.0979 mL
5 mM	0.362 mL	1.8098 mL	3.6196 mL
10 mM	0.181 mL	0.9049 mL	1.8098 mL
50 mM	0.0362 mL	0.181 mL	0.362 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Horibe T, et al. Biochem Biophys Res Commun, 2001, 289(5), 967-972.

Hunfeld KP, et al. Int J Antimicrob Agents, 2001, 17(3), 203-208.

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