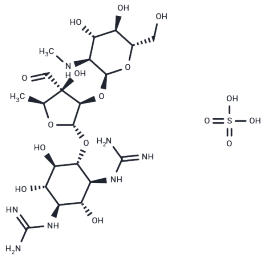
Data Sheet (Cat.No.T0060)

TargetMol

Streptomycin sulfate

Chemical Properties



CAS No. : 3810-74-0

Formula: C21H39N7O12·3/2H2SO4

Molecular Weight: 728.68

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Streptomycin sulfate (Phytomycin) is a sulfate salt of streptomycin that is a protein synthesis inhibitor.
Targets(IC50)	ribosome,Antibacterial,Antibiotic
In vitro	Strain RB1 exhibits an increased susceptibility to streptomycin that correlates positively with the concentration of CV in the growth medium. Furthermore, as the CV concentration rises, both cytochrome aa3 levels and the bacterium's sensitivity to streptomycin simultaneously escalate. It is noteworthy that cytochrome aa3 plays a critical role in the uptake of streptomycin by B. subtilis[1]. Additionally, streptomycin affects tRNA selection, with resistance mutations predominantly located in protein S12; these mutations are typically associated with enhanced specificity in the tRNA selection process[2].

Solubility Information

Solubility	H2O: 50 mg/mL (68.62 mM),Sonication is recommended. DMSO: Insoluble, (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.3723 mL	6.8617 mL	13.7234 mL
5 mM	0.2745 mL	1.3723 mL	2.7447 mL
10 mM	0.1372 mL	0.6862 mL	1.3723 mL
50 mM	0.0274 mL	0.1372 mL	0.2745 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

McEnroe AS, et al. Correlation between cytochrome aa3 concentrations and streptomycin accumulation in Bacillus subtilis. Antimicrob Agents Chemother. 1984 Oct;26(4):507-12.
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