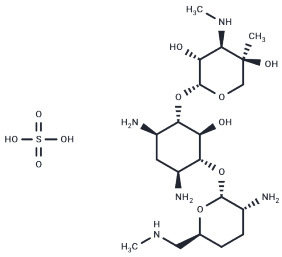
Data Sheet (Cat.No.T41294)

TargetMol

Micronomicin sulfate

Chemical Properties



CAS No. : 66803-19-8

Formula: C20H41N5O7. xH2O4S

Molecular Weight:

Storage: Keep away from moisture
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Micronomicin sulfate (Gentamicin C2b sulfate) is an aminoglycoside antibiotic with antimicrobial activity that inhibits neuraminidase N1 of influenza A virus.
Targets(IC50)	Antibacterial,Antibiotic
In vitro	Micronomicin sulfate exhibited significant antibacterial activity with a MIC of 0.01 μg/ml against Staphylococcus aureus FDA 209 P and other strains, and a MIC of 0.75 μg/ml, 0.3 μg/ml, 0.03 μg/ml and 0.03 μg/ml against Escherichia coli St.M. 589, Baker 2, F 14-BK and R5/W677, respectively.In addition, it was found to be effective against Pseudomonas aeruginosa and Klebsiella pneumoniae strains with a MIC range of 0.03-17.5 μg/ml.[1]
In vivo	Micronomicin sulfate has shown strong activity against a wide range of bacterial infections in mice, with an acute LD50 (lethal dose) of 93 mg/kg administered intravenously.[1] In subacute toxicity studies, intravenous injections, 4-100 mg/kg Micronomicin sulfate, for 30 consecutive days were used in the test. At a dose of 100 mg/kg, 10 of the Wistar rats (out of a total of 30) died, exhibiting renal dysfunction and ataxia. Renal tissue lesions occurred mainly at doses of 25 mg/kg and above. [3]

Solubility Information

Solubility	H2O: 30.00 mg/mL,Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Reference

Okachi R, et al. A new antibiotic XK-62-2 (Sagamicin). I. Isolation, physicochemical and antibacterial properties. J Antibiot (Tokyo). 1974 Oct;27(10):793-800.

Daniels PJ, et al. The gentamicin antibiotics. 6. Gentamicin C2b, an aminoglycoside antibiotic produced by Micromonospora purpurea mutant JI-33. J Antibiot (Tokyo). 1975 Jan;28(1):35-41.

Hara T, et al. [Safety evaluation of micronomicin V. Subacute toxicity in rats after intravenous injection]. Jpn J Antibiot. 1983 Nov;36(11):3208-25.

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