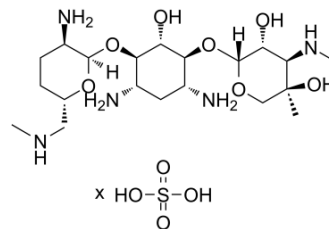


Micronomicin sulfate

Cat. No.:	HY-108307
CAS No.:	66803-19-8
Molecular Formula:	C ₂₀ H ₄₁ N ₅ O ₇ .xH ₂ O ₄ S
Target:	Antibiotic; Bacterial
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the COA.



BIOLOGICAL ACTIVITY

Description	Micronomicin sulfate (Gentamicin C2b sulfate) is an aminoglycoside antibiotic isolated from Micromonospora. Micronomicin sulfate is a broad-spectrum antibiotic close to the gentamicin-type antibiotics, exhibits a high activity against Pseudomonas, Proteus, Klebsiella pneumoniae, Serratia, etc (MIC =0.001-8.3 µg/ml) ^{[1][2]} .								
IC₅₀ & Target	MIC: 0.001-8.3 µg/ml (Pseudomonas, Proteus, Klebsiella pneumoniae, Serratia) ^[2]								
In Vitro	Micronomicin has a potent antibacterial activity, it is active against Staphylococcus aureus FDA 209 P, Staphylococcus aureus with the minimal inhibitory values of 0.01 µg/ml. It is also against Escherichia coli St.M. 589, Baker 2, F 14-BK, and R5/W677 with the minimal inhibitory values of 0.75 µg/ml, 0.3 µg/ml, 0.03 µg/ml and 0.03 µg/ml. And it is active against Pseudomonas aeruginosa strains and lebsiella pneumoniae strains (MICs = 0.03-17.5 µg/ml) ^[1] .								
In Vivo	<p>Micronomicin sulfate is highly active against various bacterial infections in mice, and has an intravenous acute LD₅₀ in mice of 93 mg/kg^[1].</p> <p>Micronomicin sulfate (intravenous injection; 4-100 mg/kg; 30 days) is injected for subacute toxicity study. The wistar rats dies at the dose level of 100 mg/kg (10 out of 30 animals): renal disorders and ataxia. The renal histological disorders occurs mainly at the dose levels of 25 mg/kg and over^[3].</p> <table border="1"> <tr> <td>Animal Model:</td> <td>Wistar rats^[3]</td> </tr> <tr> <td>Dosage:</td> <td>4, 10, 25, 63 mg/kg and 100 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>Intravenous injection; 30 days</td> </tr> <tr> <td>Result:</td> <td>Led to death of rat at 100 mg/kg.</td> </tr> </table>	Animal Model:	Wistar rats ^[3]	Dosage:	4, 10, 25, 63 mg/kg and 100 mg/kg	Administration:	Intravenous injection; 30 days	Result:	Led to death of rat at 100 mg/kg.
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REFERENCES

- [1]. R Okachi, et al. A New Antibiotic XK-62-2 (Sagamicin). I. Isolation, Physicochemical and Antibacterial Properties. J Antibiot (Tokyo)
- [2]. P J Daniels, The Gentamicin Antibiotics. 6. Gentamicin C2b, an Aminoglycoside Antibiotic Produced by Micromonospora Purpurea Mutant JI-33. J Antibiot (Tokyo)

Caution: Product has not been fully validated for medical applications. For research use only.

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