Pristinamycin

Cat. No.: HY-A0279

CAS No.: 270076-60-3

Molecular Formula: $C_{73}H_{89}N_{11}O_{17}$

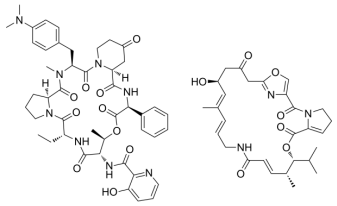
Molecular Weight: 1393

Target: Bacterial; Antibiotic

Pathway: Anti-infection

Storage:

Powder	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (71.79 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	0.7179 mL	3.5894 mL	7.1788 mL
	5 mM	0.1436 mL	0.7179 mL	1.4358 mL
	10 mM	0.0718 mL	0.3589 mL	0.7179 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Pristinamycin, produced by Streptomyces pristinaespiralis, is an orally active streptogramin-like antibiotic consisting of two chemically unrelated components: Pristinamycin I (PI) and Pristinamycin II (PII). Pristinamycin is highly active against many antibiotic-resistant pathogens, particularly Gram-positive bacteria, including Methicillin-resistant Staphylococcus aureus (MRSA), Vancomycin-resistant S. aureus (VRSA) and Enterococcus faecium (VREF)[1].

In Vitro

In-vitro studies show pristinamycin to inhibit Staphylococci and Streptococci, including Erythromycin highly-resistant organisms, at a concentration of less than or equal to 0.78 mg/l[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

To study Pristinamycin activity in vivo, mice infected IP with C. psittaci. Mortality in the control group was 70%. Three groups of mice received 25 mg/kg, 50 mg/kg and 100 mg/kg Pristinamycin respectively. The antibiotic was active in the 100 mg/kg dosage which is the therapeutic dosage[3].

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REFERENCES

[1]. Meng J, et al. Improvement of pristinamycin I (PI) production in Streptomyces pristinaespiralis by metabolic engineering approaches. Synth Syst Biotechnol. 2017;2(2):130-136. Published 2017 Jun 8.

[2]. Maskell JP, et al. Comparative in-vitro activity of erythromycin, vancomycin and pristinamycin. Infection. 1988;16(6):365-370.

[3]. Orfila J, Haider F. Action de la pristinamycine sur les Chlamydia [Action of pristinamycin on Chlamydia]. Pathol Biol (Paris). 1984;32(5):443-445.

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