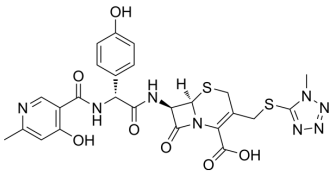
Cefpiramide

Cat. No.:	HY-B1354
CAS No.:	70797-11-4
Molecular Formula:	$C_{25}H_{24}N_8O_7S_2$
Molecular Weight:	612.64
Target:	Bacterial; Antibiotic; Beta-lactamase
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Cefpiramide (SM-1652) free acid is a semisynthetic cephalosporin with broad-spectrum antibacterial activity. Cefpiramide free acid shows strong antibacterial effect on both gram-positive bacteria and gram-negative bacteria. Cefpiramide free acid is moderately susceptible to β-lactamase[1][2].

IC_{50} & Target

β-lactam

In Vitro

Cefpiramide (0-2048 μg/mL; 16-18 hours) shows good activity to against most non-fermentative Gram-negative bacilli and Enterococci (32 μg/mL with 97% inhibition)[1].

Cefpiramide (0-2048 μg/mL; 16-18 hours) exhibits high effective to against Pseudomonas aeruginosa with $MIC_{[50]}$ and $MIC_{[90]}$ values of 4 μg/mL and 16 μg/mL separately[1].

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

Cell Viability Assay[1]

Cell Line:	761 bacterial isolates (35 different species of common bacterial pathogens)
Concentration:	0-2048 μg/mL
Incubation Time:	16-18 hours
Result:	Showed broad-spectrum antibacterial activity.

In Vivo

Cefpiramide (25 mg/kg; i.v.; once) shows anti-Streptococcus pneumoniae activity in experimental pneumococcal meningitis [2].

Cefpiramide (25 mg/kg; i.v.; once) reduces bacteria in CSF more than $10^{[4]}$ CFU/ml[2].

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

Animal Model:	New Zealand white male rabbits(2-3 kg)[2].
Dosage:	25 mg/kg
Administration:	Intravenous injection; once.
Result:	Anti-Streptococcus pneumoniae.

REFERENCES

[1]. Barry AL, et al. Cefpiramide: comparative in-vitro activity and beta-lactamase stability. J Antimicrob Chemother. 1985 Sep;16(3):315-25.

[2]. Sato K, et al. Pharmacokinetics and bacteriological efficacies of apalcillin and cefpiramide in experimental pneumococcal meningitis. Antimicrob Agents Chemother. 1984 Oct;26(4):578-9.

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