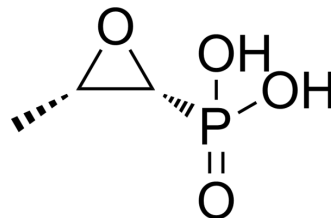


Fosfomicin

Cat. No.:	HY-B1075A
CAS No.:	23155-02-4
Molecular Formula:	C ₃ H ₇ O ₄ P
Molecular Weight:	138.06
Target:	Bacterial; Antibiotic
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Fosfomicin (MK-0955) is a broad-spectrum antibiotic. Fosfomicin can cross blood-brain barrier penetrating, and irreversibly inhibits an early stage in cell wall synthesis. Fosfomicin shows anti-bacteria activity for a range of bacteria, including multidrug-resistant (MDR), extensively drug-resistant (XDR), and pan-drug-resistant (PDR) bacteria ^{[1][2]} .				
In Vivo	Fosfomicin (80 mg/kg; i.v. or p.o.) displays the protective effect on the nephrotoxicity of double dibekacin, and is not affected by different administration routes in rats ^[3] . Pharmacokinetic of Fosfomicin in Rats ^[4]				
	Dibekacin Dose (mg)	V _{dss} (l/kg)	β (min ⁻¹)	T _{1/2} (min)	Urinary recovery (%)
	30	0.261	0.0244	28.4	85
	MCE has not independently confirmed the accuracy of these methods. They are for reference only.				
	Animal Model:	Fischer 344 rats ^[3]			
	Dosage:	320 mg/kg			
	Administration:	Intramuscular injection, 5 schedules: 1 h, 0.5 h earlier than dibekacin, concomitantly, 0.5 h later and 1 h later; 11 days			
	Result:	Reduced polyuria, proteinuria, enzymes and cytosine caused by dibekacin (40 mg/kg), followed by the previous treatment.			
	Animal Model:	Dehydrated Wistar rat with acute renal failure (8-week-old) ^[4]			
	Dosage:	120 mg/kg			
	Administration:	Intravenous injection; once			
	Result:	Recovered the exclusion rate of rats basically to normal, and improved the nephrotoxicity parameters.			

Protects proximal tubular lysosomes from aminoglycosides by inhibiting myeloid formation and protecting the integrity of lysosomal membrane of rats treated with double bekacin.

CUSTOMER VALIDATION

- Nat Commun. 2022 Mar 2;13(1):1116.
- Front Cell Infect Microbiol. 2019 Jul 15;9:253.
- Antibiotics (Basel). 2021 Sep 14;10(9):1110.
- J Med Microbiol. 2019 Mar;68(3):493-502.

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REFERENCES

- [1]. Falagas ME, et al. Fosfomycin. Clin Microbiol Rev. 2016 Apr. 29(2):321-47.
- [2]. Dijkmans AC, et al. Fosfomycin: Pharmacological, Clinical and Future Perspectives. Antibiotics (Basel). 2017 Oct 31. 6(4):24.
- [3]. Inouye S, et al. Mode of protective action of fosfomycin against dibekacin-induced nephrotoxicity in the dehydrated rats. J Pharmacobiodyn. 1982 Dec. 5(12):941-50.
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Caution: Product has not been fully validated for medical applications. For research use only.

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