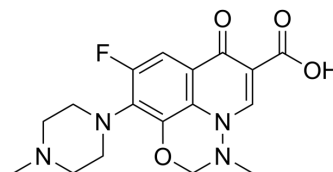


Marbofloxacin

Cat. No.:	HY-B0126		
CAS No.:	115550-35-1		
Molecular Formula:	C ₁₇ H ₁₉ FN ₄ O ₄		
Molecular Weight:	362.36		
Target:	Bacterial; Antibiotic		
Pathway:	Anti-infection		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 3.33 mg/mL (9.19 mM; ultrasonic and warming and heat to 60°C)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	2.7597 mL	13.7984 mL	27.5969 mL
5 mM	0.5519 mL	2.7597 mL	5.5194 mL
10 mM	---	---	---

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

BIOLOGICAL ACTIVITY

Description

Marbofloxacin is a third generation fluoroquinolone and orally active antimicrobial agent, which has a broad spectrum bactericidal activity and good efficacy. Marbofloxacin can be used for the research of infections by Gram-positive and Gram-negative bacteria and Mycoplasma^{[1][2][3]}.

IC₅₀ & Target

Quinolone

In Vivo

Administration of Marbofloxacin at 6 mg/kg once daily for 7 days in a Staphylococcus aureus infection in tissue cages in ponies is not effective for the elimination of S. aureus infections from secluded sites [2]. The pharmacokinetic properties of marbofloxacin were investigated in 6 horses after i.v., subcutaneous and oral administration of a single dose of 2 mg/kg bwt and the minimal inhibitory concentrations (MIC) assessed for bacteria isolated from equine infectious pathologies. The clearance of marbofloxacin was mean +/- s.d. 0.25 +/- 0.05 l/kg/h and the terminal half-life 756 +/- 1.99 h. The marbofloxacin absolute bioavailabilities after subcutaneous and oral administration were 98 +/- 11% and 62 +/- 8%, respectively. Considering the breakpoint values of efficacy indices for fluoroquinolones, a marbofloxacin dosage regimen of 2 mg/kg bwt/24 h by i.v., subcutaneous or oral routes was more appropriate for enterobacteriaceae than for S. aureus [3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Shen J, et al. Marbofloxacin. Acta Crystallogr Sect E Struct Rep Online. 2012 Apr 1;68(Pt 4):o998-9.
- [2]. Voermans M, et al. Clinical efficacy of intravenous administration of marbofloxacin in a Staphylococcus aureus infection in tissue cages in ponies. J Vet Pharmacol Ther. 2006 Dec;29(6):555-60.
- [3]. Bousquet-Melou A, et al. Pharmacokinetics of marbofloxacin in horses. Equine Vet J. 2002 Jul;34(4):366-72.
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Caution: Product has not been fully validated for medical applications. For research use only.

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