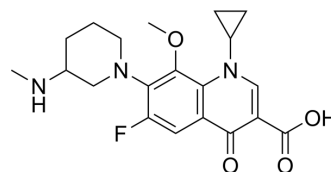


## Balofloxacin

<b>Cat. No.:</b>	HY-B0159		
<b>CAS No.:</b>	127294-70-6		
<b>Molecular Formula:</b>	C <sub>20</sub> H <sub>24</sub> FN <sub>3</sub> O <sub>4</sub>		
<b>Molecular Weight:</b>	389.42		
<b>Target:</b>	Bacterial; Antibiotic		
<b>Pathway:</b>	Anti-infection		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 0.67 mg/mL (1.72 mM; Need ultrasonic)  
 H<sub>2</sub>O : < 0.1 mg/mL (insoluble)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	2.5679 mL	12.8396 mL	25.6792 mL
5 mM	---	---	---
10 mM	---	---	---

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

### BIOLOGICAL ACTIVITY

#### Description

Balofloxacin (Q-35) is an orally active fluoroquinolone antibiotic with broad-spectrum antibacterial activity against gram-negative, gram-positive, and anaerobic bacteria. Balofloxacin can be used for the research of respiratory, intestinal, and urinary tract infections<sup>[1][2]</sup>.

#### IC<sub>50</sub> & Target

Quinolone

#### In Vitro

Balofloxacin (25 mg/mL; 1 h) decreases the growth of *S. aureus* that adhered to human corneal epithelial cells (HCECs)<sup>[2]</sup>. Balofloxacin inhibits the *S. aureus* ATCC 25923, with a MIC of 0.125 mg/mL<sup>[2]</sup>. Balofloxacin (0.05-500 µg/mL; 72 h) does not induce toxicity on the HCECs at a low concentration, such as 0.625 mg/mL<sup>[2]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

#### In Vivo

Balofloxacin (200 mg/kg/day; p.o. for 5 d) reduces the counts of viable *M. pneumoniae* in the lungs of hamsters<sup>[3]</sup>. Balofloxacin eye drops (0.5%) is effective in *S. aureus* bacterial keratitis of rabbits<sup>[2]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## REFERENCES

- [1]. Alksne L. Balofloxacin Choongwae. *Curr Opin Investig Drugs*. 2003 Feb;4(2):224-9.
- [2]. Jiang H, et, al. In vitro and in vivo effectiveness evaluation of balofloxacin in experimental *Staphylococcus aureus* keratitis. *J Ocul Pharmacol Ther*. 2014 Aug;30(6):482-8.
- [3]. Gohara Y, et, al. In vitro and in vivo activities of Q-35, a new fluoroquinolone, against *Mycoplasma pneumonia*. *Antimicrob Agents Chemother*. 1993 Sep;37(9):1826-30.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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