# Balofloxacin dihydrate

**Cat. No.:** HY-B0159A

**CAS No.:** 151060-21-8

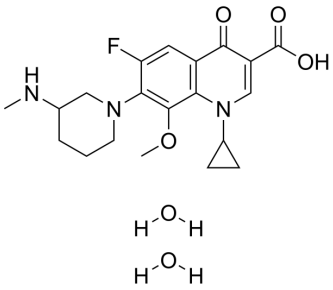
**Molecular Formula:** $C_{20}H_{28}FN_3O_6$

**Molecular Weight:** 425.45

**Target:** Bacterial; Antibiotic

**Pathway:** Anti-infection

**Storage:** Please store the product under the recommended conditions in the Certificate of Analysis.



## BIOLOGICAL ACTIVITY

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|---|---|
| **Description** | Balofloxacin dihydrate (Q-35 dihydrate) is an orally active fluoroquinolone antibiotic with broad-spectrum antibacterial activity against gram-negative, gram-positive, and anaerobic bacteria. Balofloxacin dihydrate can be used for the research of respiratory, intestinal, and urinary tract infections[1][2]. |
| **$IC_{50}$ & Target** | Quinolone |
| **In Vitro** | Balofloxacin (25 mg/mL; 1 h) decreases the growth of S. aureus that adhered to human corneal epithelial cells (HCECs)[2].<br>Balofloxacin inhibits the S. aureus ATCC 25923, with a MIC of 0.125 mg/mL[2].<br>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[2].<br>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. pneumonia in the lungs of hamsters[3].<br>Balofloxacin eye drops (0.5%) is effective in S. aureus bacterial keratitis of rabbits[2].<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only. |

## 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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