
Product Data Sheet

Product Name: Marbofloxacin hydrochloride

Cat. No.: GC36538

Chemical Properties

Cas. No. 115551-26-3

SMILES O=C(C(C1=O)=CN2N(C)COC3=C(N4CCN(C)CC4)C(F)=CC1=C32)O.ClFormula $C_{17}H_{20}ClFN_4O_4$ M.Wt 398.82

Solubility Soluble in DMSO Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure **Background**

Marbofloxacin is a fluoroquinolone antibiotic that is active against *P. multocida in vitro* (MIC = 0.016 µg/ml).¹ It exhibits broad-spectrum antibacterial activity mediated by the inhibition of DNA gyrase, with MIC values ranging from 0.016 to 0.4 and 0.19 to 1.7 µg/ml against various Gram-negative and Gram-positive bacterial isolates, respectively.² Intramuscular administration of marbofloxacin (2 mg/kg) after infection prevents the formation of pulmonary lesions in a bovine calf model of *M. haemolytica* A1 pneumonia.³ Oral administration of marbofloxacin (2 mg/kg per day) also exhibits antileishmanial activity in a canine model of leishmaniasis, decreasing parasitic load by 72%.⁴ Formulations containing marbofloxacin have been used in the veterinary treatment of bacterial infections.

1. Ferran, A.A., Toutain, P.L., and Bousquet-Mélou, A. Impact of early versus later fluoroquinolone treatment on the clinical; microbiological and resistance outcomes in a mouse-lung model of *Pasteurella multocida* infection. *Vet. Microbiol.* 148(2-4):292-297 (2011)
 2. Spreng, M., Deleforge, J., Thomas, V., et al. Antibacterial activity of marbofloxacin. A new fluoroquinolone for veterinary use against canine and feline

Caution: Product has not been fully validated for medical applications. For research use only.

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isolates]. *Vet. Pharmacol. Ther.* 18(4):284-289 (1995) 3. Lhermie, G., Ferran, A.A., Assié, S., et al. Impact of timing and dosage of a fluoroquinolone treatment on the microbiological, pathological, and clinical outcomes of calves challenged with *Mannheimia haemolytica*. *Front. Microbiol.* 237(7) (2016) 4. Pineda, C., Aguilera-Tejero, E., Morales, M.C., et al. Treatment of canine leishmaniasis with marbofloxacin in dogs with renal disease. *PLoS One* 12(10):e0185981 (2017)

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