

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.Cl

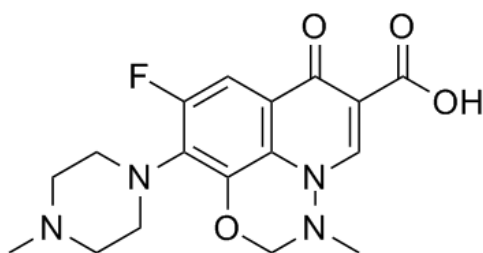
Formula $C_{17}H_{20}ClFN_4O_4$ M.Wt 398.82

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



HCl

Background

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

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Marbofloxacin hydrochloride is a potent antibiotic of which depends upon its inhibition of DNA-gyrase. Target: DNA-gyrase Marbofloxacin hydrochloride is a third-generation fluoroquinolone for veterinary use, the antimicrobial of which depends upon its inhibition of DNA-gyrase and topoisomerase IV. With a broad spectrum bactericidal activity and good efficacy, marbofloxacin hydrochloride is indicated for dermatological, respiratory and urinary tract infections due to both Gram-positive and Gram-negative bacteria and Mycoplasma [1]. Administration of Marbofloxacin hydrochloride 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 hydrochloride 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 hydrochloride was mean $\pm$ s.d. 0.25 ± 0.05 l/kg/h and the terminal half-life 756 ± 1.99 h. The marbofloxacin hydrochloride absolute bioavailabilities after subcutaneous and oral administration were $98 \pm 11\%$ and $62 \pm 8\%$, respectively. Considering the breakpoint values of efficacy indices for fluoroquinolones, a marbofloxacin hydrochloride 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]. Toxicity: cramps; vomiting; anorexia; soft stools; diarrhoea

[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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