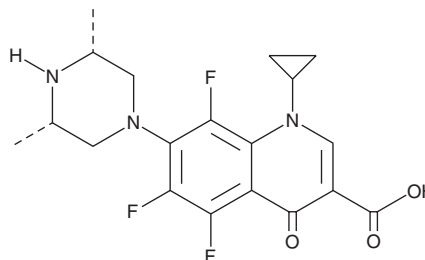


# PRODUCT INFORMATION



## Orbifloxacin Item No. 17353

**CAS Registry No.:** 113617-63-3  
**Formal Name:** 1-cyclopropyl-7-[(3R,5S)-3,5-dimethyl-1-piperazinyl]-5,6,8-trifluoro-1,4-dihydro-4-oxo-3-quinolinecarboxylic acid  
**Synonym:** CP 104,354  
**MF:** C<sub>19</sub>H<sub>20</sub>F<sub>3</sub>N<sub>3</sub>O<sub>3</sub>  
**FW:** 395.4  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 211, 292, 324 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Orbifloxacin is supplied as a crystalline solid. A stock solution may be made by dissolving the orbifloxacin in the solvent of choice, which should be purged with an inert gas. Orbifloxacin is soluble in the organic solvent dimethyl formamide (DMF) at a concentration of approximately 10 mg/ml.

Orbifloxacin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, orbifloxacin should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Orbifloxacin has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Orbifloxacin is a fluoroquinolone antibiotic used in animals, including dogs, cattle, and swine, to combat gastrointestinal and respiratory infections.<sup>1,2</sup> It is effective against most Gram-negative bacteria, including *Enterobacteriaceae* and *Pseudomonas*, with lower activity against Gram-positive aerobes.<sup>1,2</sup>

### References

1. Haines, G.R., Brown, M.P., Gronwall, R.R., *et al.* Pharmacokinetics of orbifloxacin and its concentration in body fluids and in endometrial tissues of mares. *Can. J. Vet. Res.* **65(3)**, 181-187 (2001).
2. Gebru, E., Lee, J.-S., Chang, Z.-Q., *et al.* Integration of pharmacokinetic and pharmacodynamic indices of orbifloxacin in beagle dogs after a single intravenous and intramuscular administration. *Antimicrob. Agents Chemother.* **53(7)**, 3024-3029 (2009).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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