

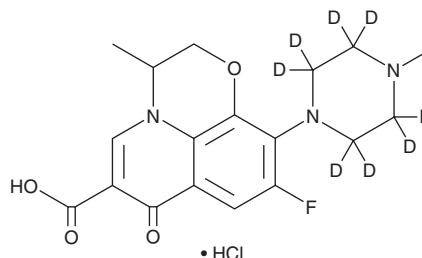
# PRODUCT INFORMATION



## Ofloxacin-d<sub>8</sub> (hydrochloride)

Item No. 33466

**CAS Registry No.:** 2930288-81-4  
**Formal Name:** 9-fluoro-2,3-dihydro-3-methyl-10-(4-methyl-1-piperazinyl)-2,2,3,3,5,5,6,6-d<sub>8</sub>-7-oxo-7H-pyrido[1,2,3-de]-1,4-benzoxazine-6-carboxylic acid, monohydrochloride  
**MF:** C<sub>18</sub>H<sub>12</sub>D<sub>8</sub>FN<sub>3</sub>O<sub>4</sub> • HCl  
**FW:** 405.9  
**Chemical Purity:** ≥98% (Ofloxacin)  
**Deuterium Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>8</sub>); ≤1% d<sub>0</sub>  
**Supplied as:** A 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

Ofloxacin-d<sub>8</sub> (hydrochloride) is intended for use as an internal standard for the quantification of ofloxacin (Item No. 22891) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

Ofloxacin-d<sub>8</sub> (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the ofloxacin-d<sub>8</sub> (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Ofloxacin-d<sub>8</sub> (hydrochloride) is soluble in DMSO.

### Description

Ofloxacin is a broad-spectrum fluoroquinolone antibiotic that prevents supercoiling of bacterial chromosomes by DNA gyrase.<sup>1,2</sup> It is active against Gram-positive and Gram-negative bacteria with MIC<sub>90</sub>s ranging from 0.39 to 3.13 µg/ml for clinical isolates of *S. aureus*, *S. epidermidis*, *S. pyogenes*, and *S. faecalis* and ≤0.78 µg/ml for *N. gonorrhoeae* and various species of Enterobacteriaceae. Ofloxacin is active *in vivo*, with ED<sub>50</sub> values ranging from 0.7 to 75.1 mg/kg in infected mice. Formulations containing ofloxacin have been used to treat urinary tract infections, gonorrhea, prostatitis, and gastroenteritis.

### References

1. Sato, K., Matsuura, Y., Inoue, M., *et al.* *In vitro* and *in vivo* activity of DL-8280, a new oxazine derivative. *Antimicrob. Agents and Chemother.* **22**(4), 548-553 (1982).
2. Smith, J.T. The mode of action of 4-quinolones and possible mechanisms of resistance. *J. Antimicrob. Chemother.* **18** (Suppl. D), 21-29 (1986).

#### 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

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