

PRODUCT INFORMATION



Levofloxacin-d₈ (hydrochloride)

Item No. 29080

CAS Registry No.: 2699607-50-4
Formal Name: (3S)-9-fluoro-2,3-dihydro-3-methyl-10-(4-methyl-1-piperazinyl-2,2,3,3,5,5,6,6-d₈)-7-oxo-7H-pyrido[1,2,3-de]-1,4-benzoxazine-6-carboxylic acid, monohydrochloride

MF: C₁₈H₁₂D₈FN₃O₄ • HCl
FW: 405.9

Chemical Purity: ≥98% (Levofloxacin)

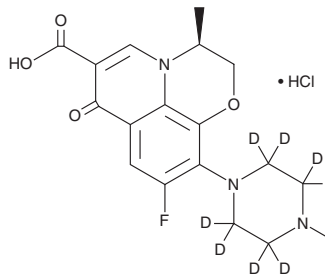
Deuterium

Incorporation: ≥99% deuterated forms (d₁-d₈); ≤1% d₀

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

Levofloxacin-d₈ (hydrochloride) is intended for use as an internal standard for the quantification of levofloxacin (Item No. 20382) 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).

Levofloxacin-d₈ (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the levofloxacin-d₈ (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Levofloxacin-d₈ (hydrochloride) is soluble in DMSO.

Description

Levofloxacin is a fluoroquinolone antibiotic and the active stereoisomer of ofloxacin (Item No. 22891).¹ It is active against *S. aureus*, *S. epidermidis*, *B. subtilis*, *E. coli*, *P. aeruginosa*, and *K. pneumoniae* (MICs = 0.25, 0.25, 0.5, 0.03, 4, and 0.25 µg/ml, respectively).² Levofloxacin inhibits *S. aureus* DNA gyrase and topoisomerase IV (IC₅₀s = 8.06 and 9.81 µg/ml, respectively).³ It eliminates infection in rat models of endocarditis caused by methicillin-sensitive or -resistant *S. aureus*.⁴ Formulations containing levofloxacin have been used in the treatment of various bacterial infections.

References

1. Norrby, S.R. Levofloxacin. *Expert Opin. Pharmacother.* **1(1)**, 109-119 (1999).
2. Mohammadhosseini, N., Alipanahi, Z., Alipour, E., *et al.* Synthesis and antibacterial activity of novel levofloxacin derivatives containing a substituted thienylethyl moiety. *Daru.* **20(1)**, (2012).
3. Takei, M., Fukuda, H., Kishii, R., *et al.* Target preference of 15 quinolones against *Staphylococcus aureus*, based on antibacterial activities and target inhibition. *Antimicrob. Agents Chemother.* **45(12)**, 3544-3547 (2001).
4. Entenza, J.M., Vouillamoz, J., Glauser, M.P., *et al.* Levofloxacin versus ciprofloxacin, flucloxacillin, or vancomycin for treatment of experimental endocarditis due to methicillin-susceptible or -resistant *Staphylococcus aureus*. *Antimicrob. Agents Chemother.* **41(8)**, 1662-1667 (1997).

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.

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