

# PRODUCT INFORMATION



## Moxifloxacin-d<sub>4</sub> (hydrochloride)

Item No. 22564

**Formal Name:** 1-cyclopropyl-6-fluoro-8-methoxy-7-((4aS,7aS)-octahydro-6H-pyrrolo[3,4-b]pyridin-6-yl-5,5,7,7-d<sub>4</sub>)-4-oxo-1,4-dihydroquinoline-3-carboxylic acid, monohydrochloride

**Synonym:** BAY 12-8039-d<sub>4</sub>

**MF:** C<sub>21</sub>H<sub>20</sub>D<sub>4</sub>FN<sub>3</sub>O<sub>4</sub> • HCl

**FW:** 441.9

**Chemical Purity:** ≥98% (Moxifloxacin)

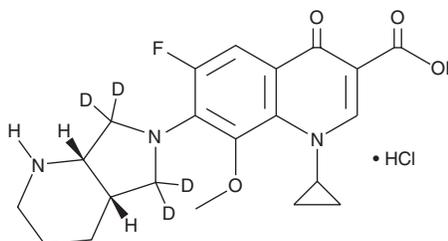
**Deuterium**

**Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>4</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

Moxifloxacin-d<sub>4</sub> is intended for use as an internal standard for the quantification of moxifloxacin (Item No. 14830) 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).

Moxifloxacin-d<sub>4</sub> (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the moxifloxacin-d<sub>4</sub> (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Moxifloxacin-d<sub>4</sub> (hydrochloride) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of moxifloxacin-d<sub>4</sub> (hydrochloride) in these solvents is approximately 10 and 3.33 mg/ml, respectively.

### Description

Moxifloxacin is a fluoroquinolone antibiotic that is active through multiple routes of administration.<sup>1</sup> Formulations containing moxifloxacin have been used to treat bacterial infections associated with bronchitis, sinusitis, and other conditions.<sup>2-4</sup>

### References

1. Takiff, H. and Guerrero, E. Current prospects for the fluoroquinolones as first-line tuberculosis therapy. *Antimicrob. Agents and Chemother.* **55(12)**, 5421-5429 (2011).
2. Dryden, M.S. Complicated skin and soft tissue infection. *J. Antimicrob. Chemother.* **65(Suppl 3)**, iii35-iii44 (2010).
3. Karageorgopoulos, D.E., Giannopoulou, K.P., Grammatikos, A.P., et al. Fluoroquinolones compared with β-lactam antibiotics for the treatment of acute bacterial sinusitis: A meta-analysis of randomized controlled trials. *Canad. M. A. J.* **178(7)**, 845-854 (2008).
4. Miravittles, M. Moxifloxacin in the management of exacerbations of chronic bronchitis and COPD. *Int. J. Chron. Obstruct. Pulmon. Dis.* **2(3)**, 191-204 (2007).

#### 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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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897

[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM