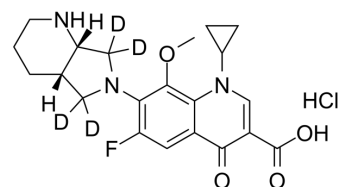


## rac cis-Moxifloxacin-d<sub>4</sub> hydrochloride

<b>Cat. No.:</b>	HY-66011S
<b>CAS No.:</b>	1217802-65-7
<b>Molecular Formula:</b>	C <sub>21</sub> H <sub>21</sub> D <sub>4</sub> ClFN <sub>3</sub> O <sub>4</sub>
<b>Molecular Weight:</b>	441.92
<b>Target:</b>	Bacterial; Antibiotic; Isotope-Labeled Compounds
<b>Pathway:</b>	Anti-infection; Others
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	rac cis-Moxifloxacin-d <sub>4</sub> (hydrochloride) is the deuterium labeled Moxifloxacin hydrochloride. Moxifloxacin Hydrochloride (BAY 12-8039) is an oral 8-methoxyquinolone antimicrobial for use in the treatment of acute bacterial sinusitis, acute bacterial exacerbations of chronic bronchitis, and community-acquired pneumonia[1][2].
<b>In Vitro</b>	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.
- [2]. Culley CM, et al. Moxifloxacin: clinical efficacy and safety. *Am J Health Syst Pharm.* 2001 Mar 1;58(5):379-88.
- [3]. Balfour JA, et al. Moxifloxacin: a review of its clinical potential in the management of community-acquired respiratory tract infections. *Drugs.* 2000 Jan;59(1):115-39.
- [4]. Grayo S, et al. Comparison of the in vitro efficacies of moxifloxacin and amoxicillin against *Listeria monocytogenes*. *Antimicrob Agents Chemother.* 2008 May;52(5):1697-702.
- [5]. Ioannidis O, et al. Effect of moxifloxacin on survival, lipid peroxidation and inflammation in immunosuppressed rats with soft tissue infection caused by *Stenotrophomonas maltophilia*. *Microbiol Immunol.* 2014 Feb;58(2):96-102.

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

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