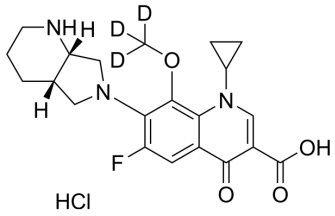
Moxifloxacin-d_3-1 hydrochloride

Cat. No.:	HY-66011AS3
CAS No.:	1246816-75-0
Molecular Formula:	$C_{21}H_{22}D_3ClFN_3O_4$
Molecular Weight:	440.91
Target:	Isotope-Labeled Compounds
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Moxifloxacin-d_3-1 hydrochloride (BAY 12-8039-d_3-1) is a deuterium labeled Moxifloxacin (HY-66011A). Moxifloxacin is an orally active 8-methoxyquinolone antimicrobial for use in the treatment of acute bacterial sinusitis, acute bacterial exacerbations of chronic bronchitis, and community-acquired pneumonia[1][2][3].
In Vitro	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[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Culley, C.M., et al., Moxifloxacin: clinical efficacy and safety. Am J Health Syst Pharm, 2001. 58(5): p. 379-88.

[2]. 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.

[3]. 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.

[4]. 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.

[5]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019 Feb;53(2):211-246.

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