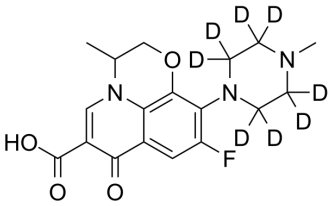
Ofloxacin-d8

Cat. No.:	HY-B0125S1
CAS No.:	1219170-21-4
Molecular Formula:	$C_{18}H_{12}D_8FN_3O_4$
Molecular Weight:	369.42
Target:	Bacterial; Antibiotic
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Ofloxacin-d8 (Hoe-280-d8) is the deuterium labeled Ofloxacin. Ofloxacin (Hoe-280) is a fluoroquinolone whose primary mechanism of action is inhibition of bacterial DNA gyrase.
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]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.

[2]. Todd PA, et al. Ofloxacin. A reappraisal of its antimicrobial activity, pharmacology and therapeutic use. Drugs. 1991 Nov;42(5):825-76.

[3]. Smith JT, et al. Ofloxacin, a bactericidal antibacterial. Chemotherapy. 1991;37 Suppl 1:2-13.

[4]. Olcay E, et al. Oral toxicity of pefloxacin, norfloxacin, ofloxacin and ciprofloxacin: comparison of biomechanical and histopathological effects on Achilles tendon in rats. J Toxicol Sci. 2011 Jun;36(3):339-45.

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