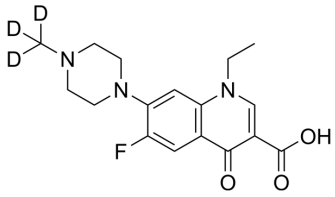
Pefloxacin-d_3

Cat. No.:	HY-B0147S1
CAS No.:	2733455-58-6
Molecular Formula:	$C_{17}H_{17}D_3FN_3O_3$
Molecular Weight:	336.38
Target:	Antibiotic; Bacterial; Isotope-Labeled Compounds
Pathway:	Anti-infection; Others
Storage:	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



BIOLOGICAL ACTIVITY

Description	Pefloxacin-d_3 is the deuterium labeled Pefloxacin. Pefloxacin is a an antibacterial agent and prevents bacterial DNA replication by inhibiting DNA gyrase (topoisomerse).
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. ;Drlica K, et al. DNA gyrase, topoisomerase IV, and the 4-quinolones. Microbiol Mol Biol Rev. 1997 Sep;61(3):377-92.;Hussy

[2]. Drlica K, et al. DNA gyrase, topoisomerase IV, and the 4-quinolones. Microbiol Mol Biol Rev. 1997 Sep;61(3):377-92.

[3]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019 Feb;53(2):211-216.

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