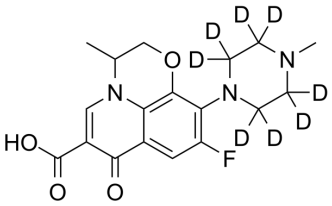
Ofloxacin-d_8

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:	Powder -20°C 3 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 2 mg/mL (5.41 mM)
DMF : ≥ 2 mg/mL (5.41 mM)
DMSO:PBS (pH 7.2) (1:9) : ≥ 0.1 mg/mL (0.27 mM)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.7069 mL	13.5347 mL	27.0695 mL
5 mM	0.5414 mL	2.7069 mL	5.4139 mL
10 mM	---	---	---

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Ofloxacin-d_8 (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.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA