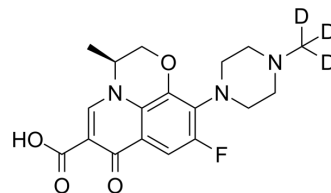


(S)-Ofloxacin-d₃

Cat. No.:	HY-B0330S1		
CAS No.:	2208780-63-4		
Molecular Formula:	C ₁₈ H ₁₇ D ₃ FN ₃ O ₄		
Molecular Weight:	364.39		
Target:	Bacterial; Antibiotic		
Pathway:	Anti-infection		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 10 mg/mL (27.44 mM; Need ultrasonic)

H₂O : ≥ 5 mg/mL (13.72 mM)

* "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.7443 mL	13.7216 mL	27.4431 mL
	5 mM	0.5489 mL	2.7443 mL	5.4886 mL
	10 mM	0.2744 mL	1.3722 mL	2.7443 mL

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

BIOLOGICAL ACTIVITY

Description

(S)-Ofloxacin-d₃ is the deuterium labeled Levofloxacin. Levofloxacin, a synthetic fluoroquinolone, is an antibacterial agent that inhibits the supercoiling activity of bacterial DNA gyrase, halting DNA replication.

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]. Siva, R., et al., Effect of levofloxacin on neutrophilic airway inflammation in stable COPD: a randomized, double-blind, placebo-controlled trial. Int J Chron Obstruct Pulmon Dis, 2014. 9: p. 179-86.

[3]. Pradeep, A.R., et al., Clinical and microbiological effects of levofloxacin in the treatment of chronic periodontitis: a randomized, placebo-controlled clinical trial. J Investig Clin Dent, 2014.

[4]. Lee, B.T., et al., Efficacy of Levofloxacin in the Treatment of BK Viremia: A Multicenter, Double-Blinded, Randomized, Placebo-Controlled Trial. Clin J Am Soc Nephrol, 2014.

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

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