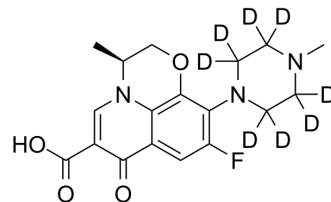


## Levofloxacin-d<sub>8</sub>

<b>Cat. No.:</b>	HY-B0330S		
<b>CAS No.:</b>	1217716-71-6		
<b>Molecular Formula:</b>	C <sub>18</sub> H <sub>12</sub> D <sub>8</sub> FN <sub>3</sub> O <sub>4</sub>		
<b>Molecular Weight:</b>	369.42		
<b>Target:</b>	Bacterial; Antibiotic		
<b>Pathway:</b>	Anti-infection		
<b>Storage:</b>	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 10 mg/mL (27.07 mM; Need ultrasonic)

H<sub>2</sub>O : ≥ 5 mg/mL (13.53 mM)

\* "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.7069 mL	13.5347 mL	27.0695 mL
	5 mM	0.5414 mL	2.7069 mL	5.4139 mL
	10 mM	0.2707 mL	1.3535 mL	2.7069 mL

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

### BIOLOGICAL ACTIVITY

#### Description

Levofloxacin-d<sub>8</sub> 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<sup>[1]</sup>.

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.

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[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.;Pradeep, A.R., et al., Clinical and microbiological eff

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

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