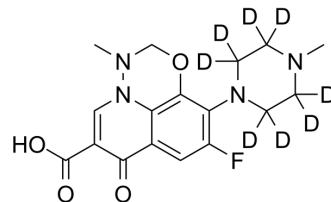


## Marbofloxacin-d8

<b>Cat. No.:</b>	HY-B0126S
<b>CAS No.:</b>	1185053-37-5
<b>Molecular Formula:</b>	C <sub>17</sub> H <sub>11</sub> D <sub>8</sub> FN <sub>4</sub> O <sub>4</sub>
<b>Molecular Weight:</b>	370.4
<b>Target:</b>	Bacterial; Antibiotic
<b>Pathway:</b>	Anti-infection
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Marbofloxacin-d8 is the deuterium labeled Marbofloxacin. Marbofloxacin is a third generation fluoroquinolone and orally active antimicrobial agent, which has a broad spectrum bactericidal activity and good efficacy. Marbofloxacin can be used for the research of infections by Gram-positive and Gram-negative bacteria and Mycoplasma <sup>[1][2][3]</sup> .
<b>In Vitro</b>	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.
- [2]. Shen J, et al. Marbofloxacin. *Acta Crystallogr Sect E Struct Rep Online*. 2012 Apr 1;68(Pt 4):o998-9.
- [3]. Voermans M, et al. Clinical efficacy of intravenous administration of marbofloxacin in a Staphylococcus aureus infection in tissue cages in ponies. *J Vet Pharmacol Ther*. 2006 Dec;29(6):555-60.
- [4]. Bousquet-Melou A, et al. Pharmacokinetics of marbofloxacin in horses. *Equine Vet J*. 2002 Jul;34(4):366-72.

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

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