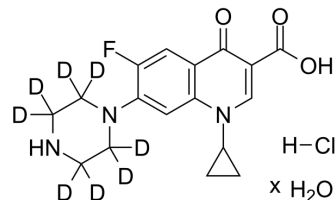


## Ciprofloxacin-d8 hydrochloride hydrate

<b>Cat. No.:</b>	HY-B0356AS
<b>Molecular Formula:</b>	C <sub>17</sub> D <sub>8</sub> H <sub>10</sub> FN <sub>3</sub> O <sub>3</sub> .HCl.xH <sub>2</sub> O
<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>	Ciprofloxacin-d8 (Bay-09867-d8) hydrochloride monohydrate is the deuterium labeled Ciprofloxacin hydrochloride monohydrate. Ciprofloxacin hydrochloride monohydrate is a fluoroquinolone antibiotic, exhibiting potent antibacterial activity.
<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]. Peltzer PM, et al. Ecotoxicity of veterinary enrofloxacin and ciprofloxacin antibiotics on anuran amphibian larvae. *Environ Toxicol Pharmacol.* 2017 Feb 4. pii: S1382-6689(17)30029-7.
- [3]. Steenbergen J, et al. In Vitro and In Vivo Activity of Omadacycline Against Two Biothreat Pathogens: *Bacillus anthracis* and *Yersinia pestis*. *Antimicrob Agents Chemother.* 2017 Feb 21.
- [4]. Hamblin KA, et al. Inhaled Liposomal Ciprofloxacin Protects against a Lethal Infection in a Murine Model of Pneumonic Plague. *Front Microbiol.* 2017 Feb 6;8:91.

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

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