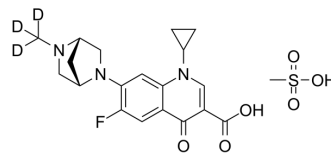


## Danofloxacin-d3 mesylate

Cat. No.:	HY-B0501S
CAS No.:	1217860-94-0
Molecular Formula:	C <sub>20</sub> H <sub>21</sub> D <sub>3</sub> FN <sub>3</sub> O <sub>6</sub> S
Molecular Weight:	456.5
Target:	Bacterial; Antibiotic
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Danofloxacin-d3 mesylate is the deuterium labeled Danofloxacin mesylate. Danofloxacin mesylate (CP 76136-27) is a fluoroquinolone antibacterial for veterinary use.
<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]. Giles, C.J., et al., Clinical pharmacokinetics of parenterally administered danofloxacin in cattle. *J Vet Pharmacol Ther*, 1991. 14(4): p. 400-10.
- [3]. McGuirk, P.R., et al., Synthesis and structure-activity relationships of 7-diazabicycloalkylquinolones, including danofloxacin, a new quinolone antibacterial agent for veterinary medicine. *J Med Chem*, 1992. 35(4): p. 611-20.

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

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