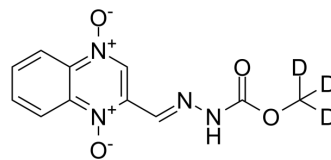


## Carbadox-d3

<b>Cat. No.:</b>	HY-B1340S
<b>CAS No.:</b>	1185240-06-5
<b>Molecular Formula:</b>	C <sub>11</sub> H <sub>7</sub> D <sub>3</sub> N <sub>4</sub> O <sub>4</sub>
<b>Molecular Weight:</b>	265.24
<b>Target:</b>	Bacterial; Antibiotic; Endogenous Metabolite
<b>Pathway:</b>	Anti-infection; Metabolic Enzyme/Protease
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Carbadox-d3 is the deuterium labeled Carbadox. Carbadox is a quinoxaline-di-N-oxide antibiotic compound which is widely fed to nursery-age pigs to control enteric diseases and improve feed efficiency.
<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]. Chen Q, et al. Investigation of the genotoxicity of quinocetone, carbadox and olaquinoxid in vitro using Vero cells. *Food Chem Toxicol.* 2009 Feb;47(2):328-34.
- [3]. Looft T, et al. Carbadox has both temporary and lasting effects on the swine gut microbiota. *Front Microbiol.* 2014 Jun 10;5:276.

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

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