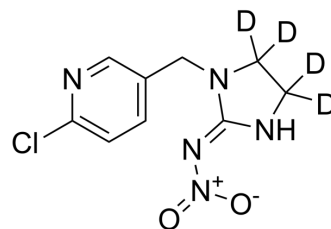


Imidacloprid-d₄

Cat. No.:	HY-B0838S
CAS No.:	1015855-75-0
Molecular Formula:	C ₉ H ₆ D ₄ ClN ₃ O ₂
Molecular Weight:	259.69
Target:	Isotope-Labeled Compounds
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Imidacloprid-d ₄ is the deuterium labeled Imidacloprid[1]. Imidacloprid is an effective and widely used neonicotinoid pesticide to control pests of cereals, vegetables, tea and cotton[2].
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 ^[1] . 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 Feb;53(2):211-216.
- [2]. Kim J, et al. Imidacloprid, a neonicotinoid insecticide, induces insulin resistance. *J Toxicol Sci*. 2013;38(5):655-60.

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

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