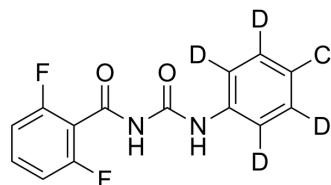


Diflubenzuron-d₄

Cat. No.:	HY-B1973S
CAS No.:	1219795-45-5
Molecular Formula:	C ₁₄ H ₅ D ₄ ClF ₂ N ₂ O ₂
Molecular Weight:	314.71
Target:	Isotope-Labeled Compounds
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Diflubenzuron-d ₄ is the deuterium labeled Diflubenzuron[1]. Diflubenzuron, the active ingredient of the insecticide Dimilin, is a chitin-synthesis inhibiting insecticide. Diflubenzuron possesses larvicidal and ovicidal activities[2][3].
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]. Ker RF. Investigation of locust cuticle using the insecticide diflubenzuron. *J Insect Physiol*. 1977;23(1):39-48.
- [3]. Arnold C. Grosscurt, et al. Diflubenzuron: Some aspects of its ovicidal and larvicidal mode of action and an evaluation of its practical possibilities. *Pest Management Science*.

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

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