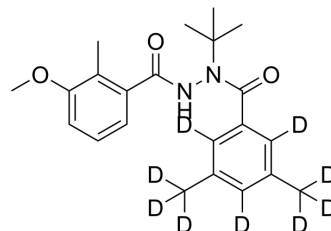


Methoxyfenozide-d₉

Cat. No.:	HY-117386S
CAS No.:	2469014-53-5
Molecular Formula:	C ₂₂ H ₁₉ D ₉ N ₂ O ₃
Molecular Weight:	377.52
Target:	Isotope-Labeled Compounds
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Methoxyfenozide-d ₉ is the deuterium labeled Methoxyfenozide[1]. Methoxyfenozide, a diacylhydrazine insecticide, selectively binds to lepidopteran ecdysone receptors (EcRs) over dipteran EcRs with K _d values of 0.5 and 124 nM, respectively. Methoxyfenozide is lethal to neonatal larvae of <i>S. exigua</i> , <i>S. frugiperda</i> , <i>T. ni</i> , <i>O. nubilalis</i> , <i>L. pomonella</i> , <i>H. zea</i> , and <i>H. virescens</i> (LC ₅₀ s=0.35, 0.2, 0.11, 0.18, 0.21, 0.79, and 3.12 mg/L, respectively)[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]. Trisyono, A., et al. Effect of the nonsteroidal ecdysone agonists, methoxyfenozide and tebufenozide, on the European corn borer (Lepidoptera: Pyralidae). *J. Econ. Entomol.* 90(6), 1486-1492 (1997).

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

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