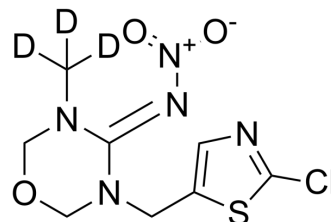


## Thiamethoxam-d<sub>3</sub>

Cat. No.:	HY-B0833S1
CAS No.:	1294048-82-0
Molecular Formula:	C <sub>8</sub> H <sub>7</sub> D <sub>3</sub> ClN <sub>3</sub> O <sub>3</sub> S
Molecular Weight:	294.73
Target:	Isotope-Labeled Compounds
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Thiamethoxam-d <sub>3</sub> is the deuterium labeled Thiamethoxam[1]. Thiamethoxam is a broad spectrum neonicotinoid insecticide[2][3].
<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 Feb;53(2):211-216.
- [2]. Lobson C, et al. Fate of thiamethoxam in mesocosms and response of the zooplankton community. *Sci Total Environ*. 2018 Oct 1;637-638:1150-1157.
- [3]. Ludicke JC, et al. Thiamethoxam impairs honey bee visual learning, alters decision times, and increases abnormal behaviors. *Ecotoxicol Environ Saf*. 2020 Apr 15193:110367.

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

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