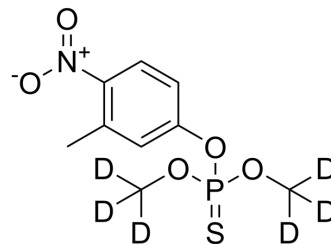


## Fenitrothion-d<sub>6</sub>

<b>Cat. No.:</b>	HY-B1885S
<b>CAS No.:</b>	203645-59-4
<b>Molecular Formula:</b>	C <sub>9</sub> H <sub>6</sub> D <sub>6</sub> NO <sub>5</sub> PS
<b>Molecular Weight:</b>	283.27
<b>Target:</b>	Isotope-Labeled Compounds; Cholinesterase (ChE)
<b>Pathway:</b>	Others; Neuronal Signaling
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Fenitrothion-d <sub>6</sub> is the deuterium labeled Fenitrothion[1]. Fenitrothion, one of the most widely used organophosphorus pesticides, is a cholinesterase inhibiting insecticide/acaricid. Fenitrothion is widely used, as a broad-spectrum insecticide, on cotton crops, vegetables crops, fruit crops, and field crops especially paddy. Fenitrothion leads to accumulation of nitrophenols[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]. Abdel-Ghany R, et al. Impact of Exposure to Fenitrothion on Vital Organs in Rats. *J Toxicol*. 2016;2016:5609734.
- [3]. Qing Hong, et al. A microcosm study on bioremediation of fenitrothion-contaminated soil using Burkholderia sp. FDS-1. *International Biodeterioration & Biodegradation*

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

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