



SZABO SCANDIC

Part of Europa Biosite

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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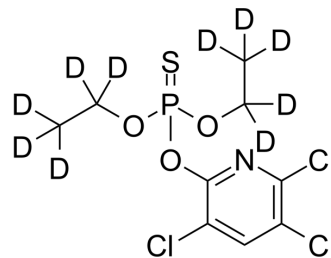
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Chlorpyrifos-d10

Cat. No.:	HY-B0815S		
CAS No.:	285138-81-0		
Molecular Formula:	C ₉ HD ₁₀ Cl ₃ NO ₃ PS		
Molecular Weight:	360.65		
Target:	Cholinesterase (ChE)		
Pathway:	Neuronal Signaling		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



BIOLOGICAL ACTIVITY

Description

Chlorpyrifos-d10 is the deuterium labeled Chlorpyrifos. Chlorpyrifos is an organophosphate insecticide that is classified as a phosphorothionate. The oxon metabolite of Chlorpyrifos is an inhibitor of acetylcholinesterase (AChE), affecting neurological function in insects, humans, and other animals. The Chlorpyrifos oxon (CPO) metabolite is hydrolyzed by the plasma enzyme paraoxonase 1 (PON1), and susceptibility to neurotoxicity associated with CPO exposure is mitigated by PON1 overexpression.

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;53(2):211-216.

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

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