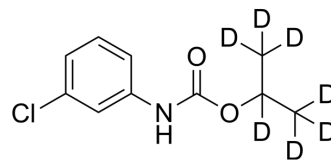


Chlorpropham-d7

Cat. No.:	HY-W014240S1
CAS No.:	2140327-49-5
Molecular Formula:	C ₁₀ H ₅ D ₇ ClNO ₂
Molecular Weight:	220.7
Target:	Isotope-Labeled Compounds
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Chlorpropham-d ₇ is the deuterium labeled Chlorpropham[1]. Chlorpropham is a carbamate herbicide and plant growth regulator. Chlorpropham inhibits mitosis and cell division by interfering with the organisation of the spindle microtubules[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]. Göckener B, et al. Fate of Chlorpropham during High-Temperature Processing of Potatoes. *J Agric Food Chem*. 2020 Feb 26;68(8):2578-2587.
- [3]. Yanan Xu, et al. Phytoene and phytofluene overproduction by *Dunaliella salina* using the mitosis inhibitor chlorpropham. *Algal Research*, Volume 52, December 2020, 102126.

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

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