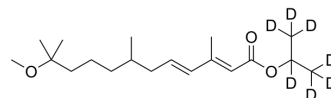


Methoprene-d₇

Cat. No.:	HY-B1161S
CAS No.:	2673270-24-9
Molecular Formula:	C ₁₉ H ₂₇ D ₇ O ₃
Molecular Weight:	317.51
Target:	Isotope-Labeled Compounds
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Methoprene-d ₇ is the deuterium labeled Methoprene[1]. Methoprene, an insect juvenile growth hormone mimic, is a growth-regulating insecticide that manifests its toxicity to target organisms by acting as a juvenile hormone agonist[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]. Olmstead AW, LeBlanc GL. Low exposure concentration effects of methoprene on endocrine-regulated processes in the crustacean *Daphnia magna*. *Toxicol Sci*. 2001;62(2):268-273.
- [3]. Monteiro JP, et al. Toxicity of methoprene as assessed by the use of a model microorganism. *Toxicol In Vitro*. 200519(7):951-956.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA