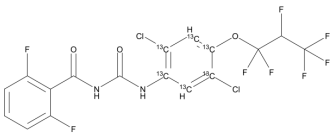
Lufenuron-$^{13}C_6$

Cat. No.:	HY-115584S
Molecular Formula:	$C_{11}{}^{13}C_6H_8Cl_2F_8N_2O_3$
Molecular Weight:	517.11
Target:	Parasite; Isotope-Labeled Compounds
Pathway:	Anti-infection; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Lufenuron-$^{13}C_6$ is a ^{13}C-labeled Lufenuron. Lufenuron is a lipophilic benzoylurea insecticide and a chitin synthesis inhibitor that can used for flea and fish lice control. Lufenuron inhibits moulting of arthropods[1][2].
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.

[2]. T C M Brock, et al. Toxicity of Sediment-Bound Lufenuron to Benthic Arthropods in Laboratory Bioassays. Aquat Toxicol. 2018 May;198:118-128.;Cai Wang, et al. Lufenuron Suppresses the Resistance of Formosan Subterranean Termites (Isoptera: Rhinotermitidae) to Entomopathogenic Bacteria. J Econ Entomol. 2013 Aug;106(4):1812-8.

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