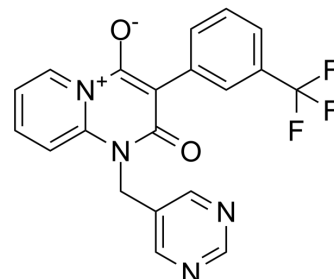


Triflumezopyrim

Cat. No.:	HY-145296
CAS No.:	1263133-33-0
Molecular Formula:	C ₂₀ H ₁₃ F ₃ N ₄ O ₂
Molecular Weight:	398.34
Target:	nAChR
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Triflumezopyrim, a mesoionic insecticide, has high efficiency at a low dosage, and is mainly used to control hopper species. Triflumezopyrim mainly acts on the nicotinic acetylcholine receptor (nAChR) inhibition, which is very highly efficient, rapidly effective, and nearly nontoxic to nontarget arthropods ^[1] .
In Vitro	Triflumezopyrim (25 g a.i. ha ⁻¹) is effective for controlling brown planthoppers (BPHs) 7-10 days after application in rice ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Triflumezopyrim (0-10 mg/kg, mixed into 500 g of artificial soil) induces oxidative stress and DNA damage in earthworms ^[2] . Triflumezopyrim (120 µg/mL, fed on sugar water, 72 h) has no high mortality effect on ants, but achieved 100% mortality at 10 µg/mL for 2 wk, indicating Triflumezopyrim is a slow acting toxin for managing red imported fire ants ^[4] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Wen S, Liu C, et al. Oxidative stress and DNA damage in earthworm (*Eisenia fetida*) induced by triflumezopyrim exposure. *Chemosphere*. 2021 Feb;264(Pt 2):128499.
- [2]. Mishra R, et al. Residue dynamics and bio-efficacy of triflumezopyrim against *Nilaparvata lugens* and non-targeted effect on natural enemies in a rice ecosystem. *Environ Sci Pollut Res Int*. 2022 Apr;29(20):30206-30216.
- [3]. Wang L, et al. Toxicity and Sublethal Effect of Triflumezopyrim Against Red Imported Fire Ant (*Hymenoptera: Formicidae*). *J Econ Entomol*. 2020 Aug 13;113(4):1753-1760.
- [4]. Chen L, et al. The population growth, development and metabolic enzymes of the white-backed planthopper, *Sogatella furcifera* (Hemiptera: Delphacidae) under the sublethal dose of triflumezopyrim. *Chemosphere*. 2020;247:125865.

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

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