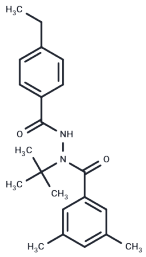
Data Sheet (Cat.No.T19823)

TargetMol

Tebufenozide

Chemical Properties



CAS No. : 112410-23-8

Formula: C22H28N2O2

Molecular Weight: 352.47

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Tebufenozide is a novel nonsteroidal ecdysone agonist. It shows good efficacy and playing an increasingly important role in the control of Lepidopteran pests.
Targets(IC50)	Apoptosis,MDM-2/p53
In vitro	Tebufenozide is an insect growth regulator used to control pest caterpillar populations.? As an ecdysone agonist, tebufenozide is equally toxic to several non-target arthropod species, binding the receptor sites of the molting hormone 20-hydroxyecdysone and causing premature and lethal molting[1].

Solubility Information

Solubility	DMSO: 125 mg/mL (354.64 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 3.3 mg/mL (9.36 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8371 mL	14.1856 mL	28.3712 mL
5 mM	0.5674 mL	2.8371 mL	5.6742 mL
10 mM	0.2837 mL	1.4186 mL	2.8371 mL
50 mM	0.0567 mL	0.2837 mL	0.5674 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Yun-Sik L , Sung-Eun L , Jino S , et al. Toxicity effects and biomarkers of tebufenozide exposure in Yuukianura szeptyckii (Collembola: Neanuridae)[J]. Environmental Geochemistry & Health, 2018:1-12.
Wang Y, Xu F, Yu G, Shi J, Li C, Dai A, Liu Z, Xu J, Wang F, Wu J. Synthesis and insecticidal activity of diacylhydrazine derivatives containing a 3-bromo-1-(3-chloropyridin-2-yl)-1H-pyrazole scaffold. Chem Cent J. 2017 Jun 5;11(1):50. doi: 10.1186/s13065-017-0279-z. PubMed PMID: 29086837; PubMed Central PMCID: PMC5459783.
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Franco AA, Zanardi OZ, Jacob CRO, de Oliveira MBR, Yamamoto PT. Susceptibility of Euseius concordis (Mesostigmata: Phytoseiidae) to pesticides used in citrus production systems. Exp Appl Acarol. 2017 Sep;73(1):61-77. doi: 10.1007/s10493-017-0176-0. Epub 2017 Sep 2. PubMed PMID: 28866797.