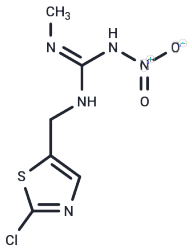
Data Sheet (Cat.No.T21153)

TargetMol

Clothianidin

Chemical Properties



CAS No. : 210880-92-5

Formula: C6H8ClN5O2S

Molecular Weight: 249.68

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	Clothianidin (TI 435), an insecticide, acts as an agonist of acetylcholine to stimulate nAChR, thereby activating post-synaptic acetylcholine receptors but not inhibiting AChE.
Targets(IC50)	Others,AChR

Solubility Information

Solubility	DMSO: 125 mg/mL (500.64 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (8.01 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	4.0051 mL	20.0256 mL	40.0513 mL
5 mM	0.801 mL	4.0051 mL	8.0103 mL
10 mM	0.4005 mL	2.0026 mL	4.0051 mL
50 mM	0.0801 mL	0.4005 mL	0.801 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

Montiel-León JM, Munoz G, Vo Duy S, Do DT, Vaudreuil MA, Goeury K, Guillemette F, Amyot M, Sauvé S. Widespread occurrence and spatial distribution of glyphosate, atrazine, and neonicotinoids pesticides in the St. Lawrence and tributary rivers. Environ Pollut. 2019 Apr 2;250:29-39.

Bonmatin JM, Noome DA, Moreno H, Mitchell EAD, Glauser G, Soumana OS, Bijleveld van Lexmond M, Sánchez-Bayo F. A survey and risk assessment of neonicotinoids in water, soil and sediments of Belize. Environ Pollut. 2019 Mar 26;249:949-958.

Harry-Asobara JL, Kamei I. Indirect bacterial effect enhanced less recovery of neonicotinoids by improved activities of white-rot fungus Phlebia brevispora. J Microbiol Biotechnol. 2019 Mar 28.

Schaafsma AW, Limay-Rios V, Baute TS, Smith JL. Neonicotinoid insecticide residues in subsurface drainage and open ditch water around maize fields in southwestern Ontario. PLoS One. 2019 Apr 4;14(4):e0214787.

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