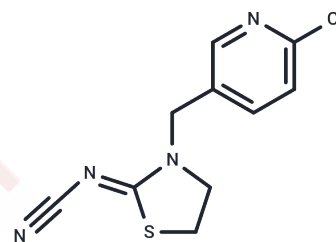


Thiacloprid

Chemical Properties

CAS No. :	111988-49-9
Formula:	C ₁₀ H ₉ ClN ₄ S
Molecular Weight:	252.72
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Thiacloprid, a chloronicotinyl insecticide, acts as a selective agonist at insect nAChRs. The IC ₅₀ values are 2.7 and 860 nM for Drosophila AChRs and M10 mouse fibroblast cells expressing $\alpha 4\beta 2$ subunit-containing nAChRs, respectively.
Targets(IC ₅₀)	AChR,Parasite,Autophagy

Solubility Information

Solubility	Methanol: Slightly soluble DMSO: 255 mg/mL (1009.02 mM),Sonication is recommended. Chloroform: Slightly soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2.5 mg/mL (9.89 mM),Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.9569 mL	19.7847 mL	39.5695 mL
5 mM	0.7914 mL	3.9569 mL	7.9139 mL
10 mM	0.3957 mL	1.9785 mL	3.9569 mL
50 mM	0.0791 mL	0.3957 mL	0.7914 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

Tomizawa, M., and Casida, J.E. Selective toxicity of neonicotinoids attributable to specificity of insect and mammalian nicotinic receptors. *Annu. Rev. Entomol.* 48:339-364 (2003)

Verebová V, Želonková K, Holečková B, Staničová J. The effect of neonicotinoid insecticide thiacloprid on the structure and stability of DNA. *Physiol Res.* 2019;68(Suppl 4):S459-S466.

Schuld, M., et al. Effects of Thiacloprid, a New Chloronicotinyl Insecticide, On the Egg Parasitoid *Trichogramma cacaeciae*. *Ecotoxicology* 9, 197-205 (2000).

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