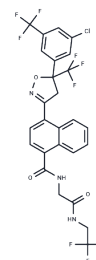


Afoxolaner

Chemical Properties

CAS No. :	1093861-60-9
Formula:	C ₂₆ H ₁₇ ClF ₉ N ₃ O ₃
Molecular Weight:	625.87
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	Afoxolaner is an isoxazoline insecticide/acaricide against Ixodes scapularis in dogs. Afoxolaner acts on the insect GABA and glutamate receptors, inhibiting GABA & glutamate-regulated uptake of chloride ions, resulting in excess neuronal stimulation and death of the arthropod.
Targets(IC50)	GABA Receptor,Parasite,Chloride channel
In vivo	A single oral administration of afoxolaner at a dose near the minimum effective (2.5 mg/kg) eradicated existing I. scapularis tick infestations and managed weekly re-infestations effectively. Efficiencies ranged from 98% to 100% up to Day 23 and remained at 94% on Day 30 [1].

Solubility Information

Solubility	DMSO: 250 mg/mL (399.44 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 (3.2 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	1.5978 mL	7.9889 mL	15.9778 mL
5 mM	0.3196 mL	1.5978 mL	3.1956 mL
10 mM	0.1598 mL	0.7989 mL	1.5978 mL
50 mM	0.032 mL	0.1598 mL	0.3196 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

Mitchell EB, et al. Efficacy of afoxolaner against Ixodes scapularis ticks in dogs. *Vet Parasitol.* 2014 Apr 2;201(3-4): 223-5.

Beugnet F, et al. Afoxolaner against fleas: immediate efficacy and resultant mortality after short exposure on dogs. *Parasite.* 2014;21:42.

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