Data Sheet (Cat.No.TN7268)

TargetMol

Milbemycin A4

Chemical Properties

CAS No. :	51596-11-3
Formula:	C32H46O7
Molecular Weight:	542.71
Storage:	Keep away from direct sunlight 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	Milbemycin A4, a distinguished member of the macrocyclic lactones family featuring a unique spiroketal group, is derived from the fermentation of the soil bacterium Streptomyces hygroscopicus subsp. aureolacrimosus. Milbemycin A4 acts by enhancing the opening of glutamate and GABA-gated chloride channels, rendering it effective as both a nematocide and insecticide.

Solubility Information

Solubility	DMSO: 80.00 mg/mL (147.41 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.8426 mL	9.213 mL	18.426 mL
5 mM	0.3685 mL	1.8426 mL	3.6852 mL
10 mM	0.1843 mL	0.9213 mL	1.8426 mL
50 mM	0.0369 mL	0.1843 mL	0.3685 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

Li J, et al. Isolation and identification of new macrocyclic lactones from a genetically engineered strain Streptomyces bingchenggensis BCJ60. J Antibiot (Tokyo). 2017 Mar;70(3):297-300.
Takiguchi Y, et al. Milbemycins, a new family of macrolide antibiotics: fermentation, isolation and physico-chemical properties. J Antibiot (Tokyo). 1980 Oct;33(10):1120-7.

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