

## Azadirachtin

## Chemical Properties

CAS No. : 11141-17-6

Formula: C<sub>35</sub>H<sub>44</sub>O<sub>16</sub>

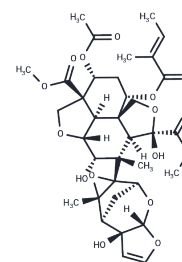
Molecular Weight: 720.71

Storage:

Keep away from direct sunlight, Keep away from moisture, Store at low temperature

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	Azadirachtin has antifungal activity, used as an insecticide.
Targets(IC50)	Apoptosis, Bcl-2 Family, NF-κB, Caspase, Parasite, Antifection
In vitro	Academic interest in plant natural products with insecticidal properties has continued to grow in the past 20 years, while commercialization of new botanical insecticides and market expansion of existing botanicals has lagged considerably behind. Insecticides based on pyrethrum and neem (Azadirachtin) continue to be standard bearers in this class of pesticides, but globally, their increased presence is largely a consequence of introduction into new jurisdictions. Insecticides based on plant essential oils are just beginning to emerge as useful plant protectants. Some countries (such as Turkey, Uruguay, the United Arab Emirates, and Australia) have relaxed regulatory requirements for specific plant extracts and oils, while in North America and the European Union, stricter requirements have slowed progress toward commercialization of new products [1]

## Solubility Information

Solubility	DMSO: 70 mg/mL (97.13 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 (2.78 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

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	1mg	5mg	10mg
1 mM	1.3875 mL	6.9376 mL	13.8752 mL
5 mM	0.2775 mL	1.3875 mL	2.775 mL
10 mM	0.1388 mL	0.6938 mL	1.3875 mL
50 mM	0.0278 mL	0.1388 mL	0.2775 mL

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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

Botanical Insecticides in the Twenty-First Century-Fulfilling Their Promise?Annu Rev Entomol. 2019 Oct 8.

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