

## Dihydrowithaferin A

## Chemical Properties

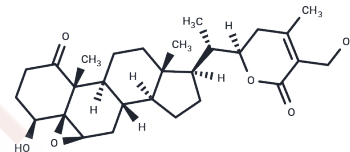
CAS No. : 5589-41-3

Formula: C<sub>28</sub>H<sub>40</sub>O<sub>6</sub>

Molecular Weight: 472.61

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	Dihydrowithaferin A is a withanolide isolated from <i>Withania somnifera</i> with activity against acetylcholinesterase (AChE). Dihydrowithaferin A in the diet may prevent or decrease the growth of tumors.
Targets(IC50)	Cholinesterase (ChE)
In vitro	Withaferin A and its derivatives exhibited inhibitory concentrations (50%) ranging from 0.24 to 11.6 microg/mL[1].

## Solubility Information

Solubility	DMSO: 45 mg/mL (95.22 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: 1 mg/mL (2.12 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	2.1159 mL	10.5795 mL	21.1591 mL
5 mM	0.4232 mL	2.1159 mL	4.2318 mL
10 mM	0.2116 mL	1.058 mL	2.1159 mL
50 mM	0.0423 mL	0.2116 mL	0.4232 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

Jayaprakasam B, et al. Growth inhibition of human tumor cell lines by withanolides from *Withania somnifera* leaves. *Life Sci.* 2003 Nov 21;74(1):125-32.

Choudhary MI, et al. Cholinesterase inhibiting withanolides from *Withania somnifera*. *Chem Pharm Bull (Tokyo)*. 2004 Nov;52(11):1358-61.

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