

## Arglabin

## Chemical Properties

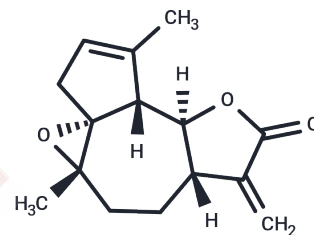
CAS No. : 84692-91-1

Formula: C<sub>15</sub>H<sub>18</sub>O<sub>3</sub>

Molecular Weight: 246.3

Storage: Store at low temperature, Store under nitrogen  
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	Arglabin ((+)-Arglabin) is a natural product isolated from <i>Artemisia glabella</i> , is a NLRP3 inflammasome inhibitor, has anti-atherogenic and anticancer effects.
Targets(IC50)	NOD-like Receptor (NLR), NOD, Autophagy, Transferase
In vitro	Arglabin-stimulated macrophages displayed a strong cytotoxic activity and the lowest doses (1.25 µg/mL and 0.125 µg/mL) induced a significant stimulation of cell mitochondrial metabolism, which correlated with [ <sup>3</sup> H]TdR uptake by J774.1 cells under the same experimental conditions. Arglabin triggered the production of the three cytokines from J774-1 cells [1]. Arglabin exhibits anti exudative and antiproliferative properties on the models of acute aseptic inflammation caused by formalin, carrageenan, and histamine, and on the model of proliferative inflammation accompanying cotton-pellet granuloma [2]. Arglabin is able to reduce the proportion of AML stem cells (CD34+CD38-) in primary AML cells [3].

## Solubility Information

Solubility	DMSO: 165 mg/mL (669.91 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: 3.3 mg/mL (13.4 mM), Sonication is recommended. 10% DMSO+90% Saline: 10 mg/mL (40.6 mM), Solution. <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	4.0601 mL	20.3004 mL	40.6009 mL
5 mM	0.812 mL	4.0601 mL	8.1202 mL
10 mM	0.406 mL	2.030 mL	4.0601 mL
50 mM	0.0812 mL	0.406 mL	0.812 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

Bottex-Gauthier C, et al. In vitro biological activities of arglabin, a sesquiterpene lactone from the Chinese herb *Artemisia myriantha* Wall. (Asteraceae). *Biotechnol Ther.* 1993;4(1-2):77-98.

Abil'daeva AZh, et al. Anti-inflammatory effect of arglabin and 11,13-dihydro-13-dimethylaminoarglabin hydrochloride. *Eksp Klin Farmakol.* 2004 Jan-Feb;67(1):37-9.

Zhang Q, et al. Guaianolide sesquiterpene lactones, a source to discover agents that selectively inhibit acute myelogenous leukemia stem and progenitor cells. *J Med Chem.* 2012 Oct 25;55(20):8757-69.

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