

## Isolongifolene

## Chemical Properties

CAS No. : 1135-66-6

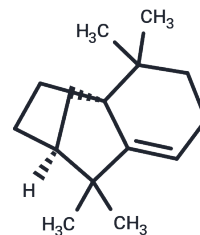
Formula: C<sub>15</sub>H<sub>24</sub>

Molecular Weight: 204.35

Store under nitrogen, Store at low temperature

Storage: Pure form: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Isolongifolene ((-)-Isolongifolene), a tricyclic sesquiterpene isolated from <i>Murraya koenigii</i> , exhibits antioxidant, anti-inflammatory, anticancer, and neuroprotective properties. It mitigates Rotenone-induced oxidative stress, mitochondrial dysfunction, and apoptosis by modulating the PI3K/AKT/GSK-3 $\beta$ signaling pathways.
Targets(IC50)	Apoptosis
In vitro	isolongifolene (ILF), a tricyclic sesquiterpene of <i>Murraya koenigii</i> , against rotenone-induced mitochondrial dysfunction, oxidative stress and apoptosis in a cellular model.

## Solubility Information

Solubility	DMSO: 25 mg/mL (122.34 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 1 mg/mL (4.89 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	4.8936 mL	24.4678 mL	48.9356 mL
5 mM	0.9787 mL	4.8936 mL	9.7871 mL
10 mM	0.4894 mL	2.4468 mL	4.8936 mL
50 mM	0.0979 mL	0.4894 mL	0.9787 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

Balakrishnan R, et al. Isolongifolene attenuates rotenone-induced mitochondrial dysfunction, oxidative stress and apoptosis. *Front Biosci (Schol Ed)*. 2018 Jan 1;10:248-261.

Zhang W, Zhang Z, Li C, et al. Sesquiterpenes from two Compositae plants as promising inhibitors to nuclear hormone receptor 3 of *Tribolium castaneum*. *Pesticide Biochemistry and Physiology*. 2023: 105578.

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