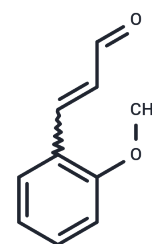


## 2-methoxycinnamaldehyde

## Chemical Properties

CAS No. :	1504-74-1
Formula:	C <sub>10</sub> H <sub>10</sub> O <sub>2</sub>
Molecular Weight:	162.19
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	2-methoxycinnamaldehyde is a natural compound of Cinnamomum cassia, has been widely studied with regard to its antitumor activity.
Targets(IC50)	Apoptosis, NF-κB, Caspase, Mitochondrial Metabolism, Topoisomerase
In vitro	2-methoxycinnamaldehyde(2-MCA) inhibited cell proliferation in SK-Hep-1 cells in a dose- and time-dependent manner. The inhibitory concentration (IC50) value following 48 hours of incubation was 25.72 μM[1].
Cell Research	Cells were seeded in 96-well culture plates (1×10 <sup>4</sup> cells/well). After incubated for 24 hours, the cells were treated with different concentrations of 2-MCA for 24 hours, 48 hours, and 72 hours. The cell viability was determined by Cell Proliferation Kit II (XTT) following the manufacturer's protocol. The absorbance was measured using Tecan infinite M200 spectrophotometer at 492 nm with a reference wavelength of 650 nm[1].

## Solubility Information

Solubility	DMSO: 60 mg/mL (369.94 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 (12.33 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	6.1656 mL	30.828 mL	61.6561 mL
5 mM	1.2331 mL	6.1656 mL	12.3312 mL
10 mM	0.6166 mL	3.0828 mL	6.1656 mL
50 mM	0.1233 mL	0.6166 mL	1.2331 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

Perng D S , Tsai Y H , Cherng J , et al. Discovery of a novel anticancer agent with both anti-topoisomerase I and II activities in hepatocellular carcinoma SK-Hep-1 cells in vitro and in vivo: Cinnamomum verum component 2-methoxycinnamaldehyde.[J]. Drug Design Development & Therapy, 2016, 10(7):141-153.

Young-Hee J , Soo-A K . 2-Methoxycinnamaldehyde inhibits the TNF- $\alpha$ -induced proliferation and migration of human aortic smooth muscle cells[J]. International Journal of Molecular Medicine, 2017, 39(1):191-198.

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