



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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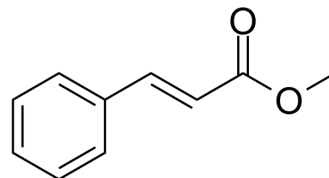
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## Methyl cinnamate

<b>Cat. No.:</b>	HY-W017212												
<b>CAS No.:</b>	103-26-4												
<b>Molecular Formula:</b>	C <sub>10</sub> H <sub>10</sub> O <sub>2</sub>												
<b>Molecular Weight:</b>	162.19												
<b>Target:</b>	Tyrosinase; AMPK; Bacterial												
<b>Pathway:</b>	Metabolic Enzyme/Protease; Epigenetics; PI3K/Akt/mTOR; Anti-infection												
<b>Storage:</b>	<table border="0"> <tr> <td>Pure form</td> <td>-20°C</td> <td>3 years</td> </tr> <tr> <td></td> <td>4°C</td> <td>2 years</td> </tr> <tr> <td>In solvent</td> <td>-80°C</td> <td>6 months</td> </tr> <tr> <td></td> <td>-20°C</td> <td>1 month</td> </tr> </table>	Pure form	-20°C	3 years		4°C	2 years	In solvent	-80°C	6 months		-20°C	1 month
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	4°C	2 years											
In solvent	-80°C	6 months											
	-20°C	1 month											



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : ≥ 100 mg/mL (616.56 mM)  
 H<sub>2</sub>O : 1 mg/mL (6.17 mM; Need ultrasonic)  
 \* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent		Mass		
	Concentration		1 mg	5 mg	10 mg
	1 mM		6.1656 mL	30.8280 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

Please refer to the solubility information to select the appropriate solvent.

#### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.5 mg/mL (15.41 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.5 mg/mL (15.41 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (15.41 mM); Clear solution
- Add each solvent one by one: PBS  
Solubility: 2 mg/mL (12.33 mM); Clear solution; Need ultrasonic and warming and heat to 60°C

### BIOLOGICAL ACTIVITY

#### Description

Methyl cinnamate (Methyl 3-phenylpropenoate), an active component of *Zanthoxylum armatum*, is a widely used natural flavor compound. Methyl cinnamate (Methyl 3-phenylpropenoate) possesses antimicrobial activity and is a tyrosinase inhibitor that can prevent food browning. Methyl cinnamate (Methyl 3-phenylpropenoate) has antiadipogenic activity

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through mechanisms mediated, in part, by the CaMKK2-AMPK signaling pathway<sup>[1]</sup>.

**In Vitro**

In 3T3-L1 cell model, Methyl cinnamate (Methyl 3-phenylpropenoate) inhibits adipocyte differentiation by attenuating expression of the adipogenic transcription factors SREBP-1, PPAR $\gamma$ , and C/EBP $\alpha$  and the transcriptional activity of PPAR $\gamma$ . In addition, Methyl cinnamate (Methyl 3-phenylpropenoate) activates the CaMKK2-AMPK signaling cascade involved in the regulation of adipogenesis<sup>[1]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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**REFERENCES**

[1]. Chen YY, et al. Methyl cinnamate inhibits adipocyte differentiation via activation of the CaMKK2-AMPK pathway in 3T3-L1 preadipocytes. J Agric Food Chem. 2012 Feb 1;60(4):955-63.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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