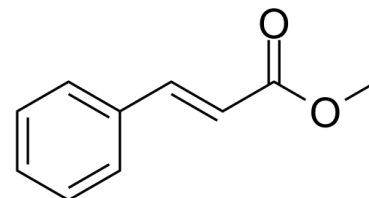


Data Sheet

Product Name:	Methyl cinnamate
Cat. No.:	CS-W017928
CAS No.:	103-26-4
Molecular Formula:	C ₁₀ H ₁₀ O ₂
Molecular Weight:	162.19
Target:	AMPK; Bacterial; Tyrosinase
Pathway:	Anti-infection; Epigenetics; Metabolic Enzyme/Protease; PI3K/Akt/mTOR
Solubility:	H ₂ O : 1 mg/mL (6.17 mM; Need ultrasonic); DMSO : ≥ 100 mg/mL (616.56 mM)



BIOLOGICAL ACTIVITY:

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 through mechanisms mediated, in part, by the **CaMKK2-AMPK** signaling pathway^[1]. **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 γ , and C/EBP α and the transcriptional activity of PPAR γ . In addition, Methyl cinnamate (Methyl 3-phenylpropenoate) activates the CaMKK2-AMPK signaling cascade involved in the regulation of adipogenesis^[1].

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.

CAIndexNames:

2-Propenoic acid, 3-phenyl-, methyl ester

SMILES:

O=C(OC)/C=C/C1=CC=CC=C1

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

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