(E)-3,4-Dimethoxycinnamic acid

Cat. No.: HY-N1778A

CAS No.: 14737-89-4

Molecular Formula: $C_{11}H_{12}O_4$

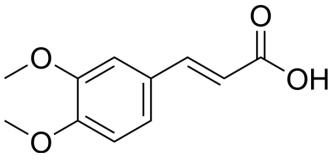
Molecular Weight: 208.21

Target: Reactive Oxygen Species; Virus Protease

Pathway: Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB; Anti-infection

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (240.14 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	4.8028 mL	24.0142 mL	48.0284 mL
	5 mM	0.9606 mL	4.8028 mL	9.6057 mL
	10 mM	0.4803 mL	2.4014 mL	4.8028 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (12.01 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (12.01 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (12.01 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

(E)-3,4-Dimethoxycinnamic acid is the less active isomer of 3,4-Dimethoxycinnamic acid. 3,4-Dimethoxycinnamic acid exerts anti-apoptotic effects on L-02 cells via the ROS-mediated signaling pathway[1]. Anti-apoptotic effects[1].

In Vitro

3,4-Dimethoxycinnamic acid (Methyl ferulic acid; 25, 50 and 100 μM) attenuates the ethanol-induced apoptosis of ethanolexposed L-02 cells[1].
3,4-Dimethoxycinnamic acid (25, 50 and 100 μM) inhibits the expression levels of Nox4 and $p22^{phox}$ in L-02 cells[1].
3,4-Dimethoxycinnamic acid (25, 50 and 100 μM) treatment attenuates ethanol-induced MAPK phosphorylation in L-02 cells

	[1]. 3,4-Dimethoxycinnamic acid decreases the expression levels of superoxide dismutase, catalase and phospholipid hydroperoxide gluthione peroxidase, and downregulates the levels of Bax/Bcl-2 and the cleaved forms of caspase-3 in a dose- and time-dependent manner[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Li L, et al. Methyl ferulic acid exerts anti-apoptotic effects on L-02 cells via the ROS-mediated signalingpathway. Int J Oncol. 2018 Jul;53(1):225-236.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA