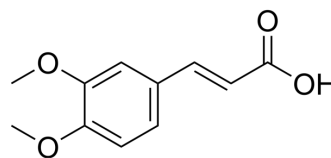


3,4-Dimethoxycinnamic acid

| | | | |
|---------------------------|---|-------|----------|
| Cat. No.: | HY-N1778 | | |
| CAS No.: | 2316-26-9 | | |
| 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) | | | |
| | | Solvent Concentration | Mass | |
| | | | 1 mg | 5 mg |
| | | | 10 mg | |
| Preparing Stock Solutions | 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 | <ol style="list-style-type: none"> 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 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 Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (12.01 mM); Clear solution | | | |

BIOLOGICAL ACTIVITY

| | |
|--------------------|---|
| Description | 3,4-Dimethoxycinnamic acid (O-Methylferulic acid) is a monomer extracted and purified from <i>Securidaca inappendiculata</i> Hassk. 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 ethanol-exposed 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 μ M) 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 glutathione 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 signaling pathway. *Int J Oncol.* 2018 Jul;53(1):225-236.

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

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