

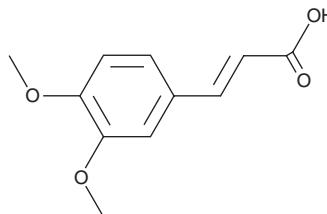
# PRODUCT INFORMATION



## Caffeic Acid dimethyl ether

Item No. 39933

CAS Registry No.: 2316-26-9  
Formal Name: 3-(3,4-dimethoxyphenyl)-2-propenoic acid  
Synonyms: 3,4-Dimethoxycinnamic Acid, NSC 4323, NSC 43569  
MF:  $C_{11}H_{12}O_4$   
FW: 208.2  
Purity:  $\geq 98\%$   
Supplied as: A solid  
Storage:  $-20^{\circ}\text{C}$   
Stability:  $\geq 4$  years  
Item Origin: Synthetic



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Caffeic acid dimethyl ether is supplied as a solid. A stock solution may be made by dissolving the caffeic acid dimethyl ether in the solvent of choice, which should be purged with an inert gas. Caffeic acid dimethyl ether is soluble in acetonitrile and methanol.

### Description

Caffeic acid dimethyl ether is an ester-derivative of dihydrocaffeic acid (Item No. 27390) that has been found in *C. arabica* and has antifibrotic activities.<sup>1</sup> It inhibits TGF- $\beta$ 1-induced cell growth in LX-2 hepatic stellate cells when used at a concentration of 20  $\mu\text{M}$ . Caffeic acid dimethyl ether prevents TGF- $\beta$ 1-induced increases in the levels of collagen I, reactive oxygen species (ROS), and NADPH oxidase 4 (NOX4) in LX-2 cells. *In vivo*, caffeic acid dimethyl ether (20 mg/kg per day) reduces the serum levels of hyaluronic acid, laminin, procollagen type III, and collagen type IV and the liver levels of hydroxyproline in an ethanol- and carbon tetrachloride-induced rat model of hepatic fibrosis.

### Reference

1. Cheng, Q., Li, C., Yang, C.F., *et al.* Methyl ferulic acid attenuates liver fibrosis and hepatic stellate cell activation through the TGF- $\beta$ 1/Smad and NOX4/ROS pathways. *Chem. Biol. Interact.* **299**, 131-139 (2019).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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