

Sinapic acid Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Sinapic acid

Catalog No.: CFN92631

Cas No.: 530-59-6

Purity: > 98%

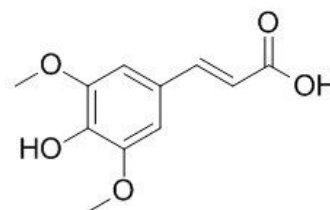
M.F: C₁₁H₁₂O₅

M.W: 224.21

Physical Description: Powder

Synonyms: (2E)-3-(4-Hydroxy-3,5-dimethoxyphenyl)-2-propenoic acid;

3,5-dimethoxy-4-hydroxycinnamic acid; trans-3,5-Dimethoxy-4-hydroxycinnamic acid.



[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Synthetic precursor compounds;
4. Intermediates & Fine Chemicals;
5. Others.

[Source]

The leaves of *Platyclusus orientalis*

[Biological Activity or Inhibitors]

Sinapic acid exerts anti-inflammatory effects via the suppressions of the expressions of iNOS, COX-2, TNF-alpha, and IL-1beta via NF-kappaB inactivation.^[1]

Sinapic acid, sinapine and different tocopherols are compared as antioxidants for inhibition of the formation of lipid oxidation products in purified rapeseed oils.^[2]

Sinapic acid is a prominent anxiolytic agent, and that its anxiolytic-like effects are mediated via GABA(A) receptors and potentiating Cl(-) currents. ^[3]

Sinapic acid is a very important moiety in the pharmacological activities of tenuifoliside B and 3,6'-disinapoylsucrose, and is a candidate for a cerebral protective and cognition-improving medicine.^[4]

Sinapic acid is a phenylpropanoid compound with anti-inflammatory and neuroprotective activities, it can ameliorate A β 1–42 protein-related pathology including neuronal cell death and cognitive dysfunction via its anti-oxidative and anti-inflammatory activities, and may be an efficacious treatment for Alzheimer's disease (AD).^[5]

Sinapic acid has protective effects on lysosomal dysfunction in isoproterenol induced myocardial infarcted rats.^[6]

[Solvent]

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.

[HPLC Method]^[7]

Mobile phase: 1% Acetic acid in water- 1% Acetic acid in acetonitrile=60:40 ;

Flow rate: 1.0 ml/min;

Column temperature: 30 °C;

The wave length of determination: 290 nm.

[Storage]

2-8°C, Protected from air and light, refrigerate or freeze.

[References]

- [1] Yun K J, Koh D J, Kim S H, *et al. J.Agr. Food Chem.*, 2008, 56(21):10265-72.
- [2] Thiyam U, Stöckmann H, Felde T Z, *et al. Eur. J. Lip. Sci. Tech.*, 2006, 108(3):239-48.
- [3] Yoon B H, Jung J W, Lee J J, *et al. Life Sci.*, 2007, 81(3):234-40.
- [4] Karakida F, Ikeya Y, Tsunakawa M, *et al. Biol. Pharmaceut. Bull.*, 2007, 30(3):514-9.
- [5] Lee HE, Kim DH, Park SJ, *et al. Pharm. Biochem. Be.*, 2012, 103(2):260- 6.
- [6] Roy S J, Stanely M P P. *Food Chem. Toxicol.* , 2012, 50(11):3984-9.
- [7] Nayak P S, Upadhyay A, Dwivedi S K, *et al. Electronic Journal of Environmental Agricultural & Food Chemistry*, 2012, 11(3):156-62.

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