

Ferulic acid Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Ferulic acid

Catalog No.: CFN99158

Cas No.: 1135-24-6

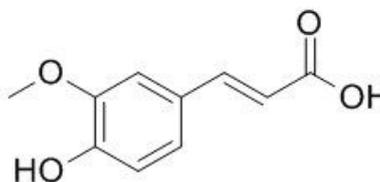
Purity: > 98%

M.F: C₁₀H₁₀O₄

M.W: 194.19

Physical Description: White cryst.

Synonyms: (E)-3-(4-hydroxy-3-methoxyphenyl)-2-propenoic acid.



[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Synthetic precursor compounds;
4. Intermediates & Fine Chemicals;
5. Food research and cosmetic research;
6. Ingredient in supplements, beverages;
7. Others.

[Source]

The rhizomes of *Ferula sinkiangensis* K.M.Shen.

[Biological Activity or Inhibitors]

Ferulic acid is the most abundant hydroxycinnamic acid in the plant world and maize bran with 3.1% (w/w) ferulic acid, is an antioxidant found naturally in plant cell walls and feruloyl esterases involved in its release and their applications, shows antioxidant activity in parallel with their radical scavenging activity, it has been approved in certain countries as food additive to prevent lipid peroxidation, can effectively scavenges superoxide anion radical and inhibits the lipid peroxidation.^[1-3]

Ferulic acid is a phenolic acid of low toxicity; it can be absorbed and easily metabolized in the human body, has been reported to have many physiological functions, including antioxidant, antimicrobial, anti-inflammatory, anti-thrombosis, and anti-cancer activities; it also protects against coronary disease, lowers cholesterol and increases sperm viability, it is used as the raw material for the production of vanillin and preservatives, as a cross-linking agent for the preparation of food gels and edible films, and as an ingredient in sports foods and skin protection agents. ^[4]

Ferulic acid helps in enhancing the antioxidant capacity of these diabetic animals by neutralizing the free radicals formed thereby reducing the intensity of diabetes. ^[5]

[Solvent]

Chloroform, DMSO, Methanol, Acetone, etc.

[HPLC Method]^[6]

Mobile phase: Acetonitrile : 0.1% Acetic acid H₂O=14:86;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 320 nm.

[Storage]

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

[References]

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- [4] Ou S, Kwok K C. *J. Sci. Food Agr.*, 2004, 84(11):1261-9.
- [5] Balasubashini M S, Rukkumani R, Viswanathan P, *et al. Phytother. Res.*, 2004, 18(4):310-4.
- [6] Zhang H, Pharmacy D O. *Guangming Journal of Chinese Medicine*, 2016, 31(6):796-7.

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