

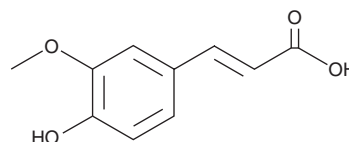
PRODUCT INFORMATION



Ferulic Acid

Item No. 19871

CAS Registry No.:	1135-24-6
Formal Name:	3-(4-hydroxy-3-methoxyphenyl)-2-propenoic acid
Synonyms:	Coniferic Acid, 4-hydroxy-3-Methoxycinnamic Acid, NSC 2821, NSC 51986, NSC 674320
MF:	C ₁₀ H ₁₀ O ₄
FW:	194.2
Purity:	≥98%
UV/Vis.:	λ _{max} : 218, 234, 323 nm
Supplied as:	A crystalline solid
Storage:	Room temperature
Stability:	≥4 years
Item Origin:	Synthetic



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

Laboratory Procedures

Ferulic acid is supplied as a crystalline solid. A stock solution may be made by dissolving the ferulic acid in the solvent of choice, which should be purged with an inert gas. Ferulic acid is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of ferulic acid in these solvents is approximately 10, 15, and 20 mg/ml, respectively.

Ferulic acid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ferulic acid should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Ferulic acid has a solubility of approximately 0.14 mg/ml in a 1:6 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Ferulic acid is a phenol that has been found in apples and has diverse biological activities.¹⁻⁴ It is active against the yeast *S. cerevisiae* when used at a concentration of 250 ppm and the bacteria *E. coli*, *S. aureus*, and *B. cereus* when used at a concentration of 500 µg/ml.^{1,2} Dietary administration of ferulic acid (0.2% w/w) reduces serum total cholesterol levels in a rat model of diet-induced hypercholesterolemia.³ It suppresses benzo(a)pyrene-induced forestomach tumor formation in mice.⁴

References

1. Baranowski, J.D., Davidson, P.M., Nagel, C.W., *et al.* Inhibition of *Saccharomyces cerevisiae* by naturally occurring hydroxycinnamates. *J. Food Sci.* **45(3)**, 592-594 (1980).
2. Herald, P.J. and Davidson, P.M. Antibacterial activity of selected hydroxycinnamic acids. *J. Food Sci.* **48(4)**, 1378-1379 (1983).
3. Sharma, R.D. Effect of hydroxy acids on hypercholesterolaemia in rats. *Atherosclerosis* **37(3)**, 463-468 (1980).
4. Wattenburg, L.W., Coccia, J.B., and Lam, L.K. Inhibitory effects of phenolic compounds on benzo(a)pyrene-induced neoplasia. *Cancer Res.* **40(8 Pt 1)**, 2820-2823 (1980).

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.

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