

PRODUCT INFORMATION

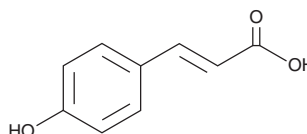


p-Coumaric Acid

Item No. 20929

CAS Registry No.: 501-98-4
Formal Name: 3-(4-hydroxyphenyl)-2E-propenoic acid
Synonyms: 4-Coumaric Acid, *para*-Coumaric Acid, *trans-p*-Coumaric Acid, *trans-para*-Coumaric Acid, 4-hydroxy Cinnamic Acid, *p*-hydroxy Cinnamic Acid, *para*-hydroxy Cinnamic Acid, *trans*-4-hydroxy Cinnamic Acid, *trans-p*-hydroxy Cinnamic Acid, *trans-para*-hydroxy Cinnamic Acid

MF: C₉H₈O₃
FW: 164.2
Purity: ≥98%
UV/Vis.: λ_{max}: 226, 310 nm
Supplied as: A crystalline solid
Storage: Room temperature
Stability: ≥4 years



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

Laboratory Procedures

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

p-Coumaric acid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, *p*-coumaric acid should first be dissolved in DMF and then diluted with the aqueous buffer of choice. *p*-Coumaric acid has a solubility of approximately 0.1 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

p-Coumaric acid is a hydroxy derivative of cinnamic acid that can be found in a variety of edible plants that is reported to have antioxidant, anti-inflammatory, and antimicrobial activity.¹ It has been shown to activate *L. plantarum* microbial functions in the intestine, including a strong antioxidant response and detoxification mechanisms.²

References

1. Kadome, Y. and Fujisawa, S. Radical-scavenging activity of dietary phytophenols in combination with co-antioxidants using the induction period method. *Molecules* **16**(12), 10457-10470 (2011).
2. Reverón, I., de Las Rivas, B., Muñoz, R., *et al.* Genome-wide transcriptomic responses of a human isolate of *Lactobacillus plantarum* exposed to *p*-coumaric acid stress. *Mol. Nutr. Food Res.* **56**(12), 1848-1859 (2012).

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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