

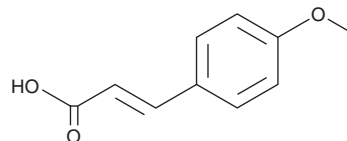
PRODUCT INFORMATION



4-Methoxycinnamic Acid

Item No. 39500

CAS Registry No.: 830-09-1
Formal Name: 3-(4-methoxyphenyl)-2-propenoic acid
Synonyms: NSC 5303, NSC 623437, O-methyl-*p*-Coumaric Acid, *p*-Methoxycinnamic Acid, *para*-Methoxycinnamic Acid
MF: C₁₀H₁₀O₃
FW: 178.2
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Synthetic



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

Laboratory Procedures

4-Methoxycinnamic acid is supplied as a solid. A stock solution may be made by dissolving the 4-methoxycinnamic acid in the solvent of choice, which should be purged with an inert gas. 4-Methoxycinnamic acid is soluble in DMSO.

Description

4-Methoxycinnamic acid is a phenolic acid with diverse biological activities.¹⁻⁴ It reduces *A. fumigatus* biofilm formation when used at concentrations ranging from 0.4 to 3.2 mM.¹ *In vivo*, 4-methoxycinnamic acid (80 mg/kg) reduces the number of dysplastic aberrant crypt foci and dysplastic liver cells in a rat model of 1,2-dimethylhydrazine-induced colon carcinogenesis.² It reverses MK-801-induced decreases in the preference ratio for the novel object in the novel object recognition test in mice.³ 4-Methoxycinnamic acid (40 mg/kg) reduces plasma glucose concentrations in a rat model of diabetes induced by streptozotocin (STZ; Item No. 13104).⁴

References

1. Wang, Y., Yin, M., Gu, L., *et al.* The therapeutic role and mechanism of 4-methoxycinnamic acid in fungal keratitis. *Int. Immunopharmacol.* **116**, 109782 (2023).
2. Gunasekaran, S., Venkatachalam, K., Jeyavel, K., *et al.* Protective effect of *p*-methoxycinnamic acid, an active phenolic acid against 1,2-dimethylhydrazine-induced colon carcinogenesis: modulating biotransforming bacterial enzymes and xenobiotic metabolizing enzymes. *Mol. Cell Biochem.* **476(5)**, 2251-2252 (2021).
3. Adisakwattana, S., Roengsamran, S., Hsu, W.H., *et al.* Mechanisms of antihyperglycemic effect of *p*-methoxycinnamic acid in normal and streptozotocin-induced diabetic rats. *Life Sci.* **78(4)**, 406-412 (2005).
4. Jeong, Y., Bae, H.J., Park, K., *et al.* 4-Methoxycinnamic acid attenuates schizophrenia-like behaviors induced by MK-801 in mice. *J. Ethnopharmacol.* **285**, 114864 (2022).

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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