

Eugenol Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Eugenol

Catalog No.: CFN99175

Cas No.: 97-53-0

Purity: >=98%

M.F: C₁₀H₁₂O₂

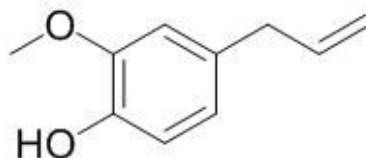
M.W: 164.20

Physical Description: Oil

Synonyms: 1,3,4-Eugenol; 1-Allyl-4-hydroxy-3-methoxybenzene;

1-Hydroxy-2-methoxy-4-allylbenzene; 1-Hydroxy-2-methoxy-4-prop-2-enylbenzene;

2-Hydroxy-5-allylanisole; 2-Methoxy-1-hydroxy-4-allylbenzene.



[Intended Use]

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

[Source]

The flower of *Syzygium aromaticum*.

[Biological Activity or Inhibitors]

Eugenol and cinnamic aldehyde are the respective major components of clove oils and cinnamon, they are the major active antifungal ingredients of these two essential oils, the inhibitory effect of these substances was judged to be inhibition of growth rather than of toxin production.^[1]

Eugenol and curcumin are good inhibitors of lipid peroxidation, lipid peroxidation is known to be initiated by reactive oxygen species; they also prevent the oxidation of Fe²⁺ in Fentons reaction which generates .OH radicals.^[2]

Eugenol acts as an antibacterial agent against Salmonella typhi by disrupting the cellular membrane. ^[3]

Eugenol can inhibit the proliferation of HT-29 cells and the mRNA expression of COX-2, but not COX-1, suggests that eugenol might be a plausible lead candidate for further developing the COX-2 inhibitor as an anti-inflammatory or cancer chemopreventive agent.^[4]

Eugenol has anthelmintic activity against Haemonchus contortus.^[5]

[Solvent]

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

[HPLC Method]^[6]

Mobile phase: Methanol- acetic acid aqueous solution, gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 270 nm.

[Storage]

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

[References]

- [1] Bullerman L B, Lieu F Y, Seier S A. *J. Food Sci.*, 1977, 42(4):1107-9.
- [2] Reddy A C P, Lokesh B R. *Mol. Cell.Biochem.*, 1994, 137(1):1-8.
- [3] Devi K P, Nisha S A, Sakthivel R, *et al. J. Ethnopharmacol.*, 2010, 130(1):107-15.
- [4] Sun S K, Oh O J, Min H Y, *et al. Life Sci.*, 2003, 73(3):337-48.
- [5] Pessoa L M, Morais S M, Bevilaqua C M L, *et al. Vet. Parasitol.*, 2002, 109(1–2):59-63.
- [6] Li Y H, Sun Z H, Zheng P. *Chromatographia*, 2004, 60(11):709-13.

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