

Anethole Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Anethole

Catalog No.: CFN98550

Cas No.: 470-82-6

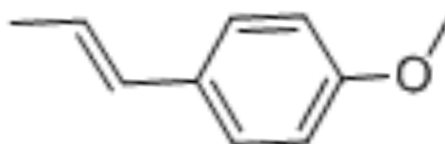
Purity: >=98%

M.F: C₁₀H₁₂O

M.W: 148.20

Physical Description: Oil

Synonyms: Anise camphor; 1-(p-methoxyphenyl)propene; Propenylanisole;
1-methoxy-4-(1-propenyl)benzene; p-propenylphenyl methyl ether; Isoestragole;
Methoxy-4-propenylbenzene; 1-Methoxy-4-[(1Z)-prop-1-en-1-yl]benzene.



[Intended Use]

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

[Source]

The fruits of *Foeniculum vulgare*.

[Biological Activity or Inhibitors]

Anethole, a chief constituent of anise, camphor, and fennel, has been shown to block both inflammation and carcinogenesis, anethole inhibits TNF-induced cellular responses, which may explain its role in suppression of inflammation and carcinogenesis.^[1]

Anethole, thymol, eugenol, and menthol are spice components, they have antibacterial effects against *Salmonella typhimurium*, *Staphylococcus aureus* and *Vibrio parahaemolyticus*.^[2]

trans-Anethole has insecticidal activity to adult fruit flies of *Ceratitis capitata*, *Bactrocera dorsalis*, and *Bactrocera cucurbitae*.^[3]

Anethole has antioxidant, antibacterial, antifungal, anti-inflammatory, and anesthetic properties, it prevents lipopolysaccharide (LPS)-induced acute lung inflammation in mice, suggests that anethole may be therapeutically effective in inflammatory conditions in humans.^[4]

Anethole is a potent anti-metastatic drug that functions through inhibiting MMP-2/9 and AKT/mitogen-activated protein kinase (MAPK)/NF- κ B signal transducers.^[5]

Anethole has cardiovascular effects.^[6]

[Solvent]

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

[HPLC Method]^[7]

Mobile phase: Methanol- H₂O=90:10 ;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 348 nm.

[Storage]

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

[References]

- [1] Chainy G B, Manna S K, Chaturvedi M M, *et al. Oncogene*, 2000, 19(25):2943-50.
- [2] Karapinar M, Şahika Esen Aktuğ. *Int. J. Food Microbiol.*, 1987, 4(2):161-6.
- [3] Chang C L, Cho I K, Li Q X. *J. Economic Entomol.*, 2009, 102(1):203-9.
- [4] Kang P, Kim K Y, Hui S L, *et al. Life Sci.*, 2013, 93(24):955-61.
- [5] Choo E J, Rhee Y H, Jeong S J, *et al. Biol. Pharmaceut. Bull.*, 2011, 34(1):41-6.
- [6] Siqueira R J B D, Leal-Cardoso J H, Duarte G P, *et al. Life Sci.*, 2006, 78(20):2365-72.
- [7] Jing Q, Shen Y, Ren F, *et al. J. Pharmaceut. Biomed.*, 2006, 42(5):613-7.

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