

## Methyleugenol Datasheet

4<sup>th</sup> Edition (Revised in July, 2016)

### [ Product Information ]

**Name:** Methyleugenol

**Catalog No.:** CFN96177

**Cas No.:** 93-15-2

**Purity:** >=98%

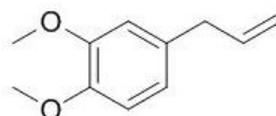
**M.F:** C<sub>11</sub>H<sub>14</sub>O<sub>2</sub>

**M.W:** 178.23

**Physical Description:** Oil

**Synonyms:**-(3,4-Dimethoxyphenyl)-2-propene; 1,2-Dimethoxy-4-(2-propenyl)-benzen;

1,2-Dimethoxy-4-allylbenzene; 4-Allyl-1,2-dimethoxybenzene.



### [ Intended Use ]

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

### [ Source ]

The herbs of *Syringa Linn.*

## **[ Biological Activity or Inhibitors ]**

Methyleugenol (ME) is a natural constituent of the essential oils of a number of plants widely used in foodstuffs as flavouring agents, in view of the carcinogenic potential of ME, the need to check its presence in food products with effective analytical methods.<sup>[1]</sup>

Methyleugenol has insecticidal properties.<sup>[2]</sup>

Methyleugenol can inhibit the production of nitric oxide and decreased the protein expression of inducible nitric oxide synthase, it down-regulates the production of pro-inflammatory cytokines in the ischemic brain as well as in immunostimulated mixed glial cells; indicates that methyleugenol could be useful for the treatment of ischemia/inflammation-related diseases. <sup>[3]</sup>

Methyleugenol has cytotoxicity and genotoxicity.<sup>[4]</sup>

Intravenous (i.v.) treatment with methyleugenol (ME) in either anesthetized or conscious rats elicits hypotension, an effect that seems related to an active vascular relaxation rather than withdrawal of sympathetic tone.<sup>[5]</sup>

Methyleugenol has antinociceptive effect on the second phase of formalin-induced pain, may be due to the inhibition of N-methyl-d-aspartic acid (NMDA) receptor-mediated hyperalgesia via GABA(A) receptors.<sup>[6]</sup>

Methyleugenol has relaxant and antispasmodic actions on guinea-pig isolated ileum.<sup>[7]</sup>

## **[ Solvent ]**

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

## **[ HPLC Method ]<sup>[8]</sup>**

Mobile phase: Methanol -H<sub>2</sub>O, gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 35 °C;

The wave length of determination: 285 nm.

## **[ Storage ]**

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

## **[ References ]**

- [1] De V M, Silano M, Stacchini P, *et al. Fitoterapia*, 2000, 71(2):216-21.
- [2] Huang Y, Ho S H, Lee H C, *et al. J. Stored Prod. Res.*, 2002, 38(5):403-12.
- [3] Choi Y K, Cho G S, Hwang S, *et al. Free Radical. Res.*, 2010, 44(8):925-35.
- [4] Burkey J L, Sauer J M, Mcqueen C A, *et al. Mutat. Res.*, 2000, 453(1):25-33.
- [5] Lahlou S, Figueiredo A F, Magalhães P J, *et al. Life Sci.*, 2004, 74(19):2401-12.
- [6] Yano S, Suzuki Y, Yuzurihara M, *et al. Eur. J. Pharmacol.*, 2006, 553(3):99-103.
- [7] Lima C C, Criddle D N, Coelho-De-Souza A N, *et al. Planta Med.*, 2000, 66(66):408-11.
- [8] Liu Y H, Yi J H, Huang J, *et al. Chin.J.Pharm.Anal.*, 2012, 32(5):822-5.

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