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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

Eugenol acetate

Cat. No.: HY-W014612

CAS No.: 93-28-7

Molecular Formula: $C_{12}H_{14}O_3$

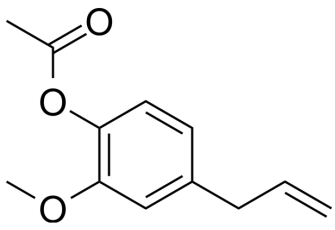
Molecular Weight: 206.24

Target: Fungal; Bacterial; Endogenous Metabolite

Pathway: Anti-infection; Metabolic Enzyme/Protease

Storage: 4°C, stored under nitrogen

* In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (484.87 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	4.8487 mL	24.2436 mL	48.4872 mL
	5 mM	0.9697 mL	4.8487 mL	9.6974 mL
	10 mM	0.4849 mL	2.4244 mL	4.8487 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (12.12 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (12.12 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (12.12 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Eugenol acetate (Eugenyl acetate) is an antibacterial, anticancer, anti-inflammatory and antioxidant. Eugenol acetate inhibits NF-κB and enhances the expression of p53 and p21 (WAF1). Eugenol acetate can prevent chemically induced skin cancer, inhibit cancer cell proliferation and induce apoptosis[1][2][3][4].

IC_{50} & Target

Human Endogenous Metabolite

In Vivo

Eugenol acetate (15% v/v for 30 μL; twice per wk for 28 wk) causes increased expression of p53 and p21WAF1 in mouse skin, and apoptosis in cancer tissue[2].

Eugenol acetate (3-300 mg/kg; po or ip, single dose) can exert an analgesic effect and inhibit different mouse acute pain

models caused by acetic acid, glutamate, and kainic acid, respectively[3].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Acute pain model in mice[3]
Dosage:	3-300 mg/kg
Administration:	Oral (p.o.) or i.p. routes 60 or 30 min before the acetic acid injection, respectively.
Result:	Produced a marked and dose-related inhibition of acetic acid-induced abdominal constrictions in mice, with mean ID_{50} values (and their 95% confidence limits) of 51.3 (23.5-111.9) and 50.2 (38.4-65.6) mg/kg and inhibitions of 82 ± 10% and 90 ± 6% for the p.o. and i.p. treatments, respectively.

REFERENCES

[1]. Musthafa KS, et al. Antifungal potential of eugenyl acetate against clinical isolates of Candida species. Microb Pathog. 2016 Oct;99:19-29.

[2]. Dal Bó W, et al. Eugenol reduces acute pain in mice by modulating the glutamatergic and tumor necrosis factor alpha (TNF-α) pathways. Fundam Clin Pharmacol. 2013 Oct;27(5):517-25

[3]. Kaur G, et al. Eugenol precludes cutaneous chemical carcinogenesis in mouse by preventing oxidative stress and inflammation and by inducing apoptosis. Mol Carcinog. 2010 Mar;49(3):290-301.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA