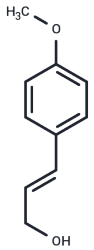
Data Sheet (Cat.No.TN3049)

TargetMol

4-Methoxycinnamyl alcohol

Chemical Properties



CAS No. : 53484-50-7

Formula: C10H12O2

Molecular Weight: 164.2

Storage: Store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	4-Methoxycinnamyl alcohol showed toxicity to MCF-7, HeLa and DU145 cancer cell lines with IC50 values of 14.24, 7.82 and 22.10 μg/mL, respectively. 4-Methoxycinnamyl alcohol was isolated from Foeniculum vulgare. 4-Methoxycinnamyl alcohol did not show apoptotic effects but showed necrosis after 48 h in a 10 μg/mL DNA fragmentation study.
Targets(IC50)	Others,Histone Methyltransferase
In vitro	In the present study, anti-inflammatory effect of hexane, ethyl acetate, and water fractions of rhizomal ethanol extracts of E. pavieana was evaluated for their inhibition on NO production and mechanism in LPS-stimulated macrophages. Inhibitory activities on NO production were performed in LPS-stimulated RAW264.7 macrophage. Cytotoxicity of plant extracts was measured by 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide assay, mRNA and protein expressions by reverse transcription-polymerase chain reaction and Western blotting analysis, respectively. Ethyl acetate fraction of E. pavieana (EPE) showed the most potent inhibitory effect on NO production in macrophages. EPE significantly decreased NO production and inhibited inducible nitric oxide synthase (iNOS) protein and mRNA expression in a dose-dependent manner. Furthermore, the level of nuclear factor-kappa B p65 subunit was markedly reduced in activated cells treated with EPE. Four phenolic compounds, 4-Methoxycinnamyl alcohol (1), trans-4-methoxycinnamaldehyde (2), 4-methoxycinnamyl p-coumarate (3), and p-coumaric acid (4), were obtained from bioactivity-guided isolation technique. CONCLUSIONS: The anti-inflammatory property contained in E. pavieana rhizome extract and conferred through inhibition of iNOS expression, and NO formation provides scientific evidence and support for the development of new anti-inflammatory agents based on extracts from this plant.[1]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	6.0901 mL	30.4507 mL	60.9013 mL
5 mM	1.218 mL	6.0901 mL	12.1803 mL
10 mM	0.609 mL	3.0451 mL	6.0901 mL
50 mM	0.1218 mL	0.609 mL	1.218 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Srisook E, et al. Anti-inflammatory Effect of Etlingera pavieana (Pierre ex Gagnep.) R.M.Sm. Rhizomal Extract and Its Phenolic Compounds in Lipopolysaccharide-Stimulated Macrophages. Pharmacogn Mag. 2017;13(2):230-235.
Lall N, et al. Cytotoxicity of syringin and 4-methoxycinnamyl alcohol isolated from Foeniculum vulgare on selected human cell lines. Nat Prod Res. 2015;29(18):1752-1756.