Natural Products

ChemFaces

Falcarindiol Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Falcarindiol

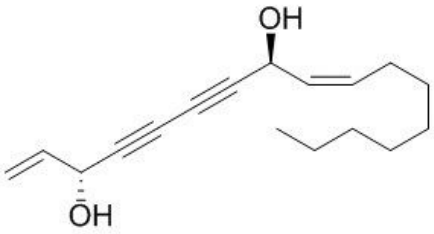
Catalog No.: CFN98220

Cas No.: 225110-25-8

Purity: >98%

M.F: $C_{17}H_{24}O_2$

M.W: 260.37



Physical Description: Oil

Synonyms:(3R,8S)-Falcarindiol;3(R),8(S),9(Z)-Falcarindiol;

(3R,8S,9Z)-1,9-Heptadecadiene-4,6-diyne-3,8-diol.

[Intended Use]

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

[Source]

The roots of *Angelica sinensis.*

[Biological Activity or Inhibitors]

Falcarindiol has antimutagenic activity, can suppress the mutagenicity of furylfuramide and 3-amino-1,4-dimethyl-5H-pyrido[4,3-b]indole (Trp-P-1).[1]

Falcarindiol inhibits nitric oxide-mediated neuronal death in lipopolysaccharide-treated organotypic hippocampal cultures, it has neuroprotective activity.[2]

Falcarindiol has inhibitory activity against human gastric adenocarcinoma (MK-1) cell growth. [3]

Falcarindiol is a diacetylenic natural product containing unique carbon-carbon triple bonds, it has protective effects against CCl(4) toxicity, the effects might, in part, be explained by anti-lipid peroxidation activity associated with the induction of the GSTs including GSTA4.[4]

Falcarindiol has antifungal activity.[5]

Falcarindiol can strongly inhibit the growth of Micrococcus luteus and Bacillus cereus, with a minimum inhibitory concentration (MIC) value of 50 microg ml(-1), and it shows cytotoxicity against IEC-6 cells with an IC50 value of 20 microM after 48 h of exposition. suggests that it could be potentially used in food manufactures and cosmetology as preservative agents and biopesticides, or in medicine as new antibiotics.[6]

Falcarindiol has antitumor activity, it promotes cancer cell death by inducing endoplasmic reticulum stress.[7]

[Solvent]

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

[HPLC Method][5]

Mobile phase: Acetonitrile-H2O ,gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 30 ℃;

The wave length of determination: 245 nm.

[Storage]

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

[References]

[1] Mitsuo Miyazawa , Hideo Shimamura , R C B, *et al. J. Agr. Food Chem., 1996, 44(11): 3444-8.*

[2] Kim J M, Lee P, Son D, *et al. Neuroreport, 2003, 14(15):1941-4.*

[3] Fujioka T, Furumi K, Fujii H, *et al. Chem. Pharmaceut. Bull. 1999, 47(1):96-100.*

[4] Ohnuma T, Anan E, Hoashi R, *et al. Biol. Pharmaceut. Bull., 2011, 34(3):371-8.*

[5] Villegas M, Vargas D, Msonthi J D, *et al. Planta Med., 1988, 54(1):36-7.*

[6] Meot-Duros L, Cérantola S, Talarmin H, *et al. Food Chem. Toxicol. , 2010, 48(2):553-7.*

[7] Jin H R, Zhao J, Zhang Z, *et al. Cell Death Dis., 2012, 3(8):e376.*

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