Natural Products

ChemFaces

Fargesin Datasheet

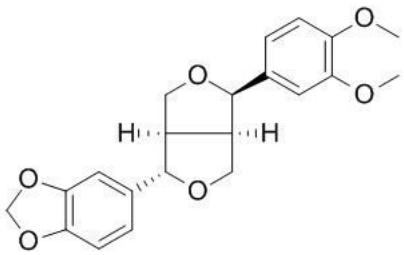
4th Edition (Revised in July, 2016)

[Product Information]

Name: Fargesin

Catalog No.: CFN98174

Cas No.: 31008-19-2



Purity: >=98%

M.F: $C_{21}H_{22}O_6$

M.W: 370.39

Physical Description: Cryst.

Synonyms:1,3-Benzodioxole,5-[(1S,3aR,4R,6aR)-4-(3,4-dimethoxyphenyl)tetrahydro-1H,3H-furo[3,4-c]furan-1-yl]-.

[Intended Use]

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

[Source]

The flowers of *Magnolia biondii Pamp.*

[Biological Activity or Inhibitors]

Fargesin can promote the glucose uptake in 3T3-L1 adipocytes and increase glucose transporter 4 (GLUT4) protein expression and phosphorylation of Akt, AMP-activated protein kinase (AMPK), and acetyl-CoA carboxylase (ACC) in both 3T3-L1 adipocytes and WAT of HFD-induced obese mice, fargesin also can decrease the mRNA expression levels of fatty acid oxidation-related genes, such as peroxisome proliferator-activated receptor α (PPARα), carnitine palmitoyltransferase-1 (CPT-1), uncoupling protein-2 (UCP-2) and leptin in WAT; suggest that fargesin improves dyslipidemia and hyperglycemia by activating Akt and AMPK in WAT.[1]

Fargesin exerts anti-inflammatory effects in THP-1 monocytes by suppressing PKC-dependent AP-1 and NF-κB signaling.[2]

Fargesin is widely used in the treatment of managing rhinitis, inflammation, histamine, sinusitis, and headache; fargesin treatment can reduce SBP, cardiac hypertrophy, and Ang II and ET levels of hypertensive rats and increase NOS activity and NO level; normalisation of plasma MDA concentrations and improvement of the antioxidant defence system in plasma and liver accompanied the antihypertensive effect of fargesin. [3]

Fargesin as a potential β1AR antagonist through cAMP/PKA pathway could protect against myocardial ischemia/reperfusion injury in rats, the underlining mechanism may be related to inhibiting oxidative stress and myocardial apoptosis.[4]

Fargesin can substantially reduce bone-resorbing activity of osteoclasts by inhibiting MMP-9 and cathepsin K activities and can inhibit tumor growth and cancer-mediated bone destruction in mice with MDA-MB-231 cells injected into calvarial tissues.[5]

[Solvent]

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

[HPLC Method][6]

Mobile phase: Acetonitrile-H2O= 50:50 ;

Flow rate: 1.0 ml/min;

Column temperature: 30 ℃;

The wave length of determination: 278 nm.

[Storage]

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

[References]

[1] Lee Y S, Cha B Y, Choi S S, *et al. BioFactors, 2012, 38(4):300-8.*

[2] Pham T H, Kim M S, Le M Q, *et al. Phytomedicine, 2016.11.014.*

[3] Sha S, Xu D, Wang Y, *et al. Can. J. Physiol. Pharm., 2016, 94(8):900-6.*

[4] Wang X, Cheng Y, Xue H, *et al. Fitoterapia, 2015, 105:16-25.*

[5] Jun A Y, Kim H J, Park K K, *et al. Invest. New Drug., 2014, 32(1):1-13.*

[6] Xu L, Cui B, Yu Z. *Chinese Journal of Pharmaceutical Analysis, 2003, 23:426-7.*

[Contact]

Address:
S5-3 Building, No. 111, Dongfeng Rd.,
Wuhan Economic and Technological Development Zone,
Wuhan, Hubei 430056,
China

Email: info@chemfaces.com
Tel: +86-27-84237783
Fax: +86-27-84254680
Web: www.chemfaces.com
Tech Support: service@chemfaces.com