Natural Products

ChemFaces

Phillygenin Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Phillygenin

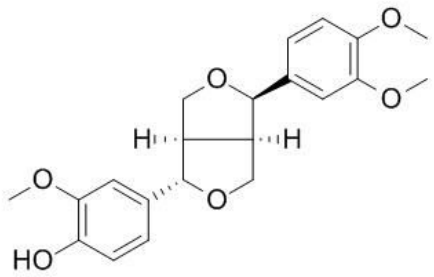
Catalog No.: CFN90511

Cas No.: 487-39-8

Purity: >=98%

M.F: $C_{21}H_{24}O_6$

M.W: 372.41



Physical Description: Powder

Synonyms:(1S)-1β-(3-Methoxy-4-hydroxyphenyl)-4α-(3,4-dimethoxyphenyl)-3aβ,4,6,6aβ-tetrahydro-1H,3H-furo[3,4-c]furan;Epipinoresinol methyl ether.

[Intended Use]

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

[Source]

The herbs of *Forsythia suspensa.*

[Biological Activity or Inhibitors]

Phillygenin, isolated from the EtOAC extract of Forsythia suspense, has a high hypolipidemic activity and this activity may be attributed to its antioxidant potential.[1]

Phillygenin has a protective effect on acute liver injury induced by CC14 in rats, this might be associated with increasing antioxi-dative capacity, decreasing lipid peroxidation in liver tissue and reducing TNF-α and IL-8 levels.[2]

(+)-Phillygenin , phillyrin , and (-)-phillygenin exert the strongest inhibitory activities on nitric oxide(NO) production in lipopolysaccharide-stimulated macrophage RAW 264.7 cells with IC(50) values of 25.5, 18.9, and 25.5 μM, respectively, these compounds may prove beneficial in the development of natural agents for prevention and treatment of inflammatory diseases. [3]

Phillygenin reveales cytotoxic effects on four human tumor cell lines (A549, SK-OV-3, SK-MEL-2, and HCT15) at concentrations below 30 microg/mL.[4]

[Solvent]

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

[HPLC Method][5]

Mobile phase: Methanol- 0.3% Aqueous acetic acid, gradient elution;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 280 nm.

[Storage]

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

[References]

[1] Kang W Y, Wang J M. *Med. Chem. Res., 2010, 19(7):617-28.*

[2] Feng Q, Xia W K, Wang X Z, *et al. Chin. Pharmacol. Bul., 2015, 31(3):426-30.*

[3] Lee D G, Lee S M, Bang M H, *et al. Arch.Pharm. Res., 2011, 34(12):2029-35.*

[4] Kwak J H, Kang M W, Roh J H, *et al. Arch. Pharm. Res., 2009, 32(12):1681-7.*

[5] Guo H, Liu A H, Li L, *et al. J. Pharm. Biomed. Anal., 2007, 43(3):1000-6.*

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