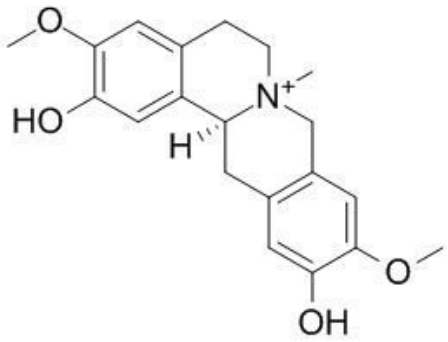
Natural Products

ChemFaces

Phellodendrine Datasheet

4th Edition (Revised in July, 2016)

[Product Information]



Name: Phellodendrine

Catalog No.: CFN99143

Cas No.: 6873-13-8

Purity: > 98%

M.F: $C_{20}H_{24}NO_4$

M.W: 342.4

Physical Description: White powder

Synonyms:(7S,13aS)-3,10-dimethoxy-7-methyl-6,8,13,13a-tetrahydro-5H-isoquinolino[2,1-b]isoquinolin-7-ium-2,11-diol.

[Intended Use]

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

[Source]

The peel of *Phellodendron chinense Schneid.*

[Biological Activity or Inhibitors]

Phellodendrine(PHE), isolated from Phellodendri Cortex (cortex of Phellodendron amurense Rupr., Rutaceae) as the biologically active principles to suppress local graft-versus-host (GvH) reactions in mice, it can suppress local semisyngeneic GvH reactions and systemic allogeneic GvH reactions in X-ray irradiated recipient mice; it also suppress the induction phase of sheep red blood cell (SRBC)-induced delayed type hypersensitivity in mice and tuberculin-induced delayed type hypersensitivity in guinea pigs, but do not suppress the effector phase of these reactions;it do not affect antibody production in mice to SRBC; phellodendrine is expected to be a valuable new type of immunosuppressor against the cellular immune response.[1]

Phellodendrine is effective in crescentic-type anti-GBM nephritis and the antinephritic mechanisms of this agent may be due to its ability to inhibit the proliferation or the migration of macrophages and cytotoxic T lymphocytes in the glomeruli.[2]

Phellodendrine shows a good antioxidant effect in vivo, and the mechanism has been stated that the PHE can down-regulating AKT, IKK, NF-kB phosphorylation and COX-2 expression induced by AAPH; the PHE also ameliorates the ROS-mediated inflammatory response.[3]

Phellodendrine can reduce blood pressure and has antinephritis activity.[4]

[Solvent]

Chloroform, Dichloromethane, Acetone, DMSO.

[HPLC Method][5]

Mobile phase: Acetonitrile-0.1% Phosphoric acid =12:88;

Flow rate: 1.0 ml/min;

Column temperature: 30 ℃;

The wave length of determination: 225 nm.

[Storage]

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

[References]

[1] Mori H, Fuchigami M, Inoue N, *et al. Planta Med., 1995, 61(1):45-9.*

[2] Hattori T, Furuta K, Hayashi K, *et al. Jap. J. Pharmacol., 1992, 60(3):187-95.*

[3] Ling L, Tao H, Cheng T*, et al. Life Sci., 2016, 157:97-106.*

[4] Yi L, Liu X G, Wang H Y, *et al. J. Chromatogr. B, 2016, s 1029-1030:95-101.*

[5] Bai R, Hospital R. *Drugs & Clinic, 2015(11):1324-7.*

[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