

Phyllanthin Datasheet

5th Edition (Revised in January, 2017)

[Product Information]

Name: Phyllanthin

Catalog No.: CFN99050

Cas No.: 105181-06-4

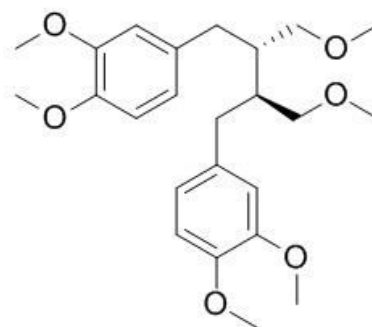
Purity: > 95%

M.F: C₂₄H₃₄O₆

M.W: 418.5

Physical Description: Powder

Synonyms: (2S,3S)-(+)-1,4-Dimethoxy-2,3-diveratrylbutane.



[Intended Use]

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

[Source]

The herbs of *Phyllanthus niruri* L.

[Biological Activity or Inhibitors]

Phyllanthin has hepatoprotective effects against ethanol-induced oxidative stress causing

rat liver cell damage, through its antioxidant activity.^[1]

A mixture (1:1) of Phyllanthin and Hypophyllanthin exhibits antitumor activities against Ehrlich Ascites Carcinoma in Swiss albino mice.^[2]

Phyllanthin has antifibrotic potential, it can inhibit CCl₄-mediated oxidative stress and hepatic fibrosis by down-regulating TNF- α / NF- κ B and pro-fibrotic factor TGF- β 1 mediated inflammatory signaling.^[3]

Phyllanthin and hypophyllanthin can modulate the vascular tension via the endothelium-independent mechanisms, the modulating effects of both compounds are possibly involved with the blockade of Ca²⁺ entry into vascular smooth muscle cells and inhibition of phenylephrine-mediated Ca²⁺ release from sarcoplasmic reticulum.^[4]

Phyllanthin exhibits very high antioxidative property by its low IC₅₀=7.5 μ mol/mL, it also can alter the growth of C. albicans and show significant results in vitro.^[5]

[Solvent]

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

[HPLC Method]^[6]

Mobile phase: Ethanol-H₂O= 66:34 ;

Flow rate:1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination:229 nm.

[Storage]

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

[References]

[1] Chirdchupunseree H, Pramyothin P. *J. Ethnopharmacol.*,2010 Mar 2;128(1):172-6.

[2] Islam A, Selvan T, Mazumder U K, *et al. Pharmacologyonline*,2008,2:796-807.

- [3] Vaidya H, Rajani M, Sudarsanam V, *et al. J. Nat. Med.*,2009, 63(4):437-42.
- [4] Inchoo M, Chirdchupunseree H, Pramyothin P, *et al. Fitoterapia*,2011 Dec;82(8):1231-6.
- [5] Anusha J R, Remya R V, Premila J M S, *et al. Int. J. Pharm. Pharmaceut.Sci.*,2014, 6:323-6.
- [6] Alvari Amene,Rafsanjani M S O, Ahmed FJ, *et al. Phytomedicine*, 2011,1(6):505-9.

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