

Hypophyllanthin Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Hypophyllanthin

Catalog No.: CFN98431

Cas No.: 33676-00-5

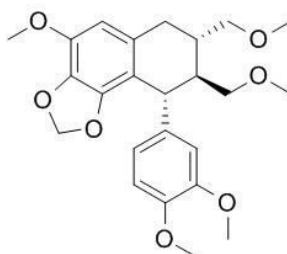
Purity: > 95%

M.F: C₂₄H₃₀O₇

M.W: 430.49

Physical Description: Powder

Synonyms: (7R,9S)-9-(3,4-dimethoxyphenyl)-4-methoxy-7,8-bis(methoxymethyl)-6,7,8,9-tetrahydronaphtho[1,2-d][1,3]dioxole.



[Intended Use]

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

[Source]

The herbs of *Phyllanthus niruri* Linn.

[Biological Activity or Inhibitors]

Hypophyllanthin and phyllanthin from *Phyllanthus amarus* have antitumour effect against Ehrlich Ascites Carcinoma in mice.^[1]

Hypophyllanthin and phyllanthin can modulate the vascular tension via the endothelium-independent mechanisms, the modulating effects of them are possibly involved with the blockade of Ca^{2+} entry into vascular smooth muscle cells and inhibition of PE-mediated Ca^{2+} release from sarcoplasmic reticulum.^[2]

Hypophyllanthin and phyllanthin can directly inhibit P-gp activity and do not interfere with MRP2 activity, it is likely that both phyllanthin and hypophyllanthin can reversibly inhibit The observed antihyperalgesic and antiinflammatory effects of *P. amarus* in current pain model are mediated via spinal or supraspinal neuronal mechanisms, mainly by inhibition of PGE₂, modulation of chronic muscular inflammation may be due to presence of phytoconstituents like phyllanthin, hypophyllanthin, and corilagin, which offers a promising means for treatment of chronic muscle pain.^[4]

Hypophyllanthin and phyllanthin have estrogenic properties against carbofuran induced toxicity in female rats.^[5]

[Solvent]

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

[HPLC Method]^[6]

Mobile phase: Methanol -H₂O=40:60 ;

Flow rate: 0.7 ml/min;

Column temperature: 30 °C;

The wave length of determination: 220 nm.

[Storage]

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

[References]

- [1] Islam A, Selvan T, Mazumder U K, *et al. Pharmacologyonline*, 2008, 2:796-807.
- [2] Inchoo M, Chirdchupunseree H, Pramyothin P, *et al. Fitoterapia*, 2011, 82(8):1231-6.
- [3] Sukhaphirom N, Vardhanabhuti N, Chirdchupunseree H, *et al. J.Pharm.Pharmacol.*, 2013, 65(2):292-9.
- [4] Chopade A R, Sayyad F J. *Phytother. Res.*, 2015, 29(8):1202-10.
- [5] Islam A, Naskar S, Mazumder U K, *et al. Pharmacologyonline*, 3:1006-16.
- [6] Tripathi A K, Verma R K, Gupta A K, *et al. Phytochem. Anal.*, 2006, 17(6):394-7.

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