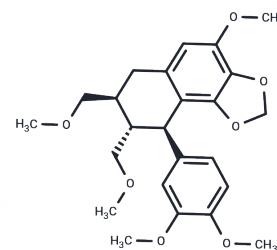


## Hypophyllanthin

## Chemical Properties

CAS No. :	33676-00-5
Formula:	C <sub>24</sub> H <sub>30</sub> O <sub>7</sub>
Molecular Weight:	430.49
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Hypophyllanthin and phyllanthin have antitumour effects against Ehrlich Ascites Carcinoma in mice.
Targets(IC50)	Calcium Channel,P-gp,Potassium Channel
In vitro	The activity of P-gp and MRP2 was determined in the uptake assays by monitoring the intracellular accumulation of their specific substrates (calcein acetoxymethyl ester and 5 (6)-carboxy-2',7'-dichlorofluorescein diacetate, respectively) with fluorescence spectroscopy. Hypophyllanthin and phyllanthin inhibited P-gp function with comparable potencies, but neither compound affected MRP2 activity. When the lignans were washed out before addition of substrate, the inhibitory action of both compounds against P-gp function was lost. These results suggested the reversibility of the inhibition. Moreover, prolonged exposure of the Caco-2 cells to both lignans (up to 7 days) had no effect on P-gp function[1]

## Solubility Information

Solubility	DMSO: 100 mg/mL (232.29 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 3.3 mg/mL (7.67 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	2.3229 mL	11.6147 mL	23.2293 mL
5 mM	0.4646 mL	2.3229 mL	4.6459 mL
10 mM	0.2323 mL	1.1615 mL	2.3229 mL
50 mM	0.0465 mL	0.2323 mL	0.4646 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Phyllanthin and hypophyllanthin inhibit function of P-gp but not MRP2 in Caco-2 cells. *J Pharm Pharmacol.* 2013 Feb;65(2):292-9.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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