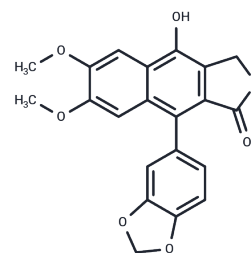


Diphyllin

Chemical Properties

CAS No. :	22055-22-7
Formula:	C ₂₁ H ₁₆ O ₇
Molecular Weight:	380.35
Storage:	Keep away from direct sunlight, Store under nitrogen Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	Diphyllin could be characterized as a new V-ATPase inhibitor in treating gastric cancer and inhibiting the phosphorylation of LRP6 in Wnt/ β -catenin signaling.
Targets(IC50)	ATPase, Proton pump, HIV Protease, Influenza Virus
In vitro	The in vitro inhibitory effects of these compounds were evaluated on the production of nitric oxide (NO) and cytokines (tumor necrosis factor (TNF)-alpha and interleukin (IL)-12), from LPS/IFN-gamma activated murine peritoneal macrophages. The results indicated that the 50% inhibition concentration (IC(50)) values of NO production from activated peritoneal macrophages by compounds 1-4 were 100, 25, 12.5 and 50 microM, respectively. In parallel, these dilutions were approximately inhibited in a similar manner to that observed for cytokines (TNF-alpha, and IL-12) production. On the other hand, at 100 microM concentration compounds 3 and 4 showed 50% inhibition of NO production from peritoneal macrophages that had been pre-activated with LPS/IFN-gamma for 24h, whereas compounds 1 and 2 inhibited only about 20 and 10%, respectively.

Solubility Information

Solubility	DMSO: 9.38 mg/mL (24.66 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 0.94 mg/mL (2.47 mM), Solution. <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

	1mg	5mg	10mg
1 mM	2.6292 mL	13.1458 mL	26.2916 mL
5 mM	0.5258 mL	2.6292 mL	5.2583 mL
10 mM	0.2629 mL	1.3146 mL	2.6292 mL
50 mM	0.0526 mL	0.2629 mL	0.5258 mL

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

Anti-inflammatory activities of constituents isolated from *Phyllanthus polyphyllus*. *J Ethnopharmacol.* 2006 Jan 16; 103(2):181-6.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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