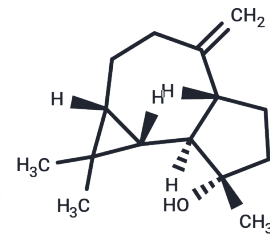


Spathulenol

Chemical Properties

CAS No. :	6750-60-3
Formula:	C ₁₅ H ₂₄ O
Molecular Weight:	220.35
Storage:	Store at low temperature, Keep away from direct sunlight Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Spathulenol is a natural ingredient from <i>Aristolochia yunnanensis</i> that has anti-inflammatory, antioxidant, anti-proliferation, anti-ulcer and anti-mycobacterium activities. Spathulenol showed significant antioxidant activity in DPPH system with IC ₅₀ of 85.60 µg/mL.
Targets(IC ₅₀)	Antioxidant, Antifungal
In vitro	In the DPPH and MDA systems, spathulenol demonstrates high antioxidant activity. It shows significant DPPH free radical activity, with IC ₅₀ values of 85.60 µg/mL[1].
In vivo	Spathulenol, when administered orally at a dose of 300 mg/kg, demonstrates significant inhibition in the mice paw edema and pleurisy model induced by Cg[1]. In a spontaneous lipoperoxidation model using rat brain homogenate, when incubated under controlled temperature and oxygenation conditions, PG-1 exhibits high activity with an IC ₅₀ value of 26.13 µg/mL. This activity is comparable to that of the commercial antioxidant BHT (38.41 µg/mL). Consequently, PG-1 contributes to a reduction in the generation of malondialdehyde (MDA), a toxic product resulting from the degradation of cell membranes through lipid peroxidation. This reduction in MDA levels helps prevent cell ruptures and mutations[1].

Solubility Information

Solubility	DMSO: 90 mg/mL (408.44 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: 3.3 mg/mL (14.98 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

	1mg	5mg	10mg
1 mM	4.5382 mL	22.6912 mL	45.3823 mL
5 mM	0.9076 mL	4.5382 mL	9.0765 mL
10 mM	0.4538 mL	2.2691 mL	4.5382 mL
50 mM	0.0908 mL	0.4538 mL	0.9076 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

Nascimento KF, et al. Antioxidant, anti-inflammatory, antiproliferative and antimycobacterial activities of the essential oil of *Psidium guineense* Sw. and spathulenol. *J Ethnopharmacol.* 2018 Jan 10;210:351-358.

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481