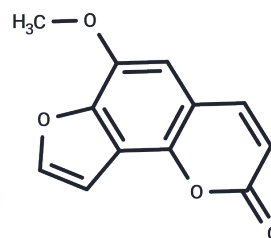


sphondin

Chemical Properties

CAS No. :	483-66-9
Formula:	C ₁₂ H ₈ O ₄
Molecular Weight:	216.19
Storage:	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	Sphondin has anticonvulsant, anti-inflammatory, and anti-proliferative activities, it possessed an inhibitory effect on IL-1beta-induced increase in the level of COX-2 protein and PGE(2) release in A549 cells.
Targets(IC50)	COX,Prostaglandin Receptor
In vitro	Sphondin inhibits IL-1beta-induced PGE(2) release in A549 cells; this inhibition is mediated by suppressing of COX-2 expression, rather than by inhibiting COX-2 enzyme activity. The inhibitory mechanism of sphondin on IL-1beta-induced COX-2 expression may be, at least in part, through suppression of NF-kappaB activity. Sphondin may have the therapeutic potential as an anti-inflammatory drug on airway inflammation[1].
In vivo	Sphondin, showed anti-proliferative activity and caused G2/M arrest at concentrations of 0.05-15.0 Mm[2].

Solubility Information

Solubility	DMSO: 30 mg/mL (138.77 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: 2 mg/mL (9.25 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	4.6256 mL	23.1278 mL	46.2556 mL
5 mM	0.9251 mL	4.6256 mL	9.2511 mL
10 mM	0.4626 mL	2.3128 mL	4.6256 mL
50 mM	0.0925 mL	0.4626 mL	0.9251 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

- Yang L L , Liang Y C , Chang C W , et al. Effects of sphondin, isolated from *Heracleum laciniatum*, on IL-1 β -induced cyclooxygenase-2 expression in human pulmonary epithelial cells[J]. *Life Sciences*, 2002, 72(2):199-213.
- Li S, Kelly C, Knob R, et al. Analysis of Coumarin-Based Phototoxins in Citrus-Derived Essential Oils Using Liquid Chromatography-Mass Spectrometry. *Chromatographia*. 2023: 1-11.
- Sumiyoshi M , Sakanaka M , Masahiko Taniguchi.... Anti-tumor effects of various furocoumarins isolated from the roots, seeds and fruits of *Angelica* and *Cnidium* species under ultraviolet A irradiation[J]. *Journal of Natural Medicines*, 2014, 68(1):83-94.

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