

Isodeoxyelephantopin

Chemical Properties

CAS No.:	38927-54-7
Formula:	C ₁₉ H ₂₀ O ₆
Molecular Weight:	344.37
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

Biological Description

Description	Isodeoxyelephantopin exerts antitumor effects on several cancer cells by inducing apoptosis , cell cycle arrest , and inhibiting proliferation. It enhances apoptosis and inhibit invasion and osteoclastogenesis by inhibiting NF-kappaB activation and NF-kappaB-regulated gene expression.
Targets(IC ₅₀)	ROS: None IL receptor: None NF-κB: None
In vitro	Isodeoxyelephantopin (IDOE) isolated from <i>Elephantopus scaber</i> L. (Didancao) is used in Chinese medicine for the treatment of some types of cancer. The anti-cancer mechanism of Isodeoxyelephantopin remains unclear. This study aims to investigate the antiproliferative activity of Isodeoxyelephantopin on breast carcinoma T47D cells and lung carcinoma A549 cells. Isodeoxyelephantopin inhibited the growth of A549 and T47D cells in a dose- and time-dependent manner with IC ₅₀ values of 10.46 and 1.3 µg/mL, respectively. Isodeoxyelephantopin was not significantly toxic to normal lymphocytes. The cells became detached from the monolayer and rounded up, had fragmented nuclei and condensed chromatin, and the numbers of apoptotic cells increased (P = 0.0003). Isodeoxyelephantopin-induced cell death was associated with activated caspase-3 expression followed by cell cycle arrest at G2/M phase[1]

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.904 mL	14.519 mL	29.039 mL
5 mM	0.581 mL	2.904 mL	5.808 mL
10 mM	0.29 mL	1.452 mL	2.904 mL
50 mM	0.058 mL	0.29 mL	0.581 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

1. Isodeoxyelephantopin from *Elephantopus scaber* (Didancao) induces cell cycle arrest and caspase-3-mediated apoptosis in breast carcinoma T47D cells and lung carcinoma A549 cells. *Chin Med*. 2014 Apr 17;9:14.

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