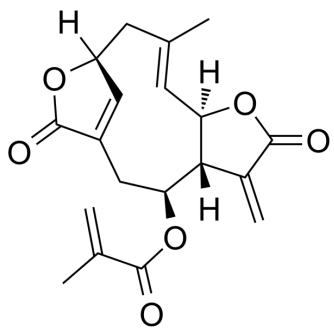
Deoxyelephantopin

Cat. No.:	HY-N2491		
CAS No.:	29307-03-7		
Molecular Formula:	$C_{19}H_{20}O_6$		
Molecular Weight:	344.36		
Target:	NF-κB		
Pathway:	NF-κB		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 33.33 mg/mL (96.79 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.9039 mL	14.5197 mL	29.0394 mL
	5 mM	0.5808 mL	2.9039 mL	5.8079 mL
	10 mM	0.2904 mL	1.4520 mL	2.9039 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: 2.5 mg/mL (7.26 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (7.26 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Deoxyelephantopin, a natural bioactive sesquiterpene lactone from Elephantopus scaber, has shown promising anticancer effects against a broad spectrum of cancers. Deoxyelephantopin inhibits NF-κB, MAPK, PI3K/Akt, and β-catenin signaling[1].

IC_{50} & Target

NF-κB

In Vitro

Deoxyelephantopin inhibits the cell growth of HCT 116 (colorectal), K562 (chronic myeloid leukemia), KB (oral), and T47D (breast) cancer cell lines with IC_{50}s of 7.46, 4.02, 3.35, 1.86 μg/mL, respectively[1].
Deoxyelephantopin increases the expression of p53, p-JNK, and p-p38 and decreases the expression of p-STAT3 and p-mTOR in cancer cells. Deoxyelephantopin downregulates MMP-2 and MMP-9, uPA, and uPAR mRNA levels in cancer cells[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Farha Arakkaveettil Kabeer, et al. Molecular Mechanisms of Anticancer Activity of Deoxyelephantopin in Cancer Cells. Integr Med Res. 2017 Jun;6(2):190-206.

Caution: Product has not been fully validated for medical applications. For research use only.

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