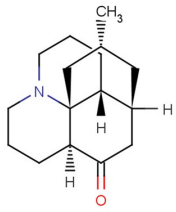
Data Sheet (Cat.No.T13764)

TargetMol
A DRUG SCREENING EXPERT

Lycopodine

Chemical Properties



CAS No.:	466-61-5
Formula:	C16H25NO
Molecular Weight:	247.38
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Lycopodine inhibits proliferation of HeLa cells through induction of apoptosis via caspase-3 activation. Lycopodine, a pharmacologically important bioactive component derived from Lycopodium clavatumspores, triggers apoptosis by modulating 5-lipoxygenase, and depolarizing mitochondrial membrane potential in refractory prostate cancer cells without modulating p53 activity.
Targets(IC_{50})	Caspase-3;5-Lipoxygenase: None
In vitro	Lycopodine (100, 200 μg/mL; 24 hours) increases level of Bax and decreases the mitochondrial cytochrome c. This is followed by an increase in expression of cytochrome c in cytosolic fraction. Lycopodine also cleaves the caspase-3 in the total cell lysate, while the expression of Bcl-2 is down regulated[2].Lycopodine (5.22-78.3 μg/mL; 12 hours) has 50% viability at 57.62±0.086 μg/mL and 51.46±1.43 μg/mL for PC3 and LnCaP, respectively[1]. Treated with Lycopodine (74-222 mM; 12 hours), the apoptotic index is with respect to the gradual increase in doses for the PC3 and LnCaP cells[1]. Lycopodine (74-222 mM; 12 hours) induces cell cycle arrest at G0/G1 phase in PC3 and LnCaP cells[1]. Lycopodine (0-200 μg/mL; 48 hours) shows cytotoxicity to HeLa cells in a dose and time dependent manner. However, Lycopodine shows minimal cytotoxic effects in normal peripheral blood mononuclear cells (PBMC) even at the highest dose (200 μg/mL)[2].

Solubility Information

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

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.042 mL	20.212 mL	40.424 mL
5 mM	0.808 mL	4.042 mL	8.085 mL
10 mM	0.404 mL	2.021 mL	4.042 mL
50 mM	0.081 mL	0.404 mL	0.808 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 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Bishayee K, et al. Lycopodine triggers apoptosis by modulating 5-lipoxygenase, and depolarizing mitochondrial membrane potential in androgen sensitive and refractory prostate cancer cells without modulating p53 activity: signaling cascade and drug-DNA interaction. Eur J Pharmacol. 2013 Jan 5;698(1-3):110-21.

2. Mandal SK, et al. Lycopodine from Lycopodium clavatum extract inhibits proliferation of HeLa cells through induction of apoptosis via caspase-3 activation. Eur J Pharmacol. 2010 Jan 25;626(2-3):115-22.

Inhibitors · Natural Compounds · Compound Libraries

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use.

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