Product Data Sheet

Product Name: Lycopodine
Cat. No.: GC36516

Chemical Properties

Cas. No.	466-61-5		
SMILES	O=C1[C@]2([H])[C@]34[C@@](CCCN4CCC2)([H])[C@](C[C@@H](C)C3)([H])C1		
Formula	$C_{16}H_{25}NO$	M.Wt	247.38
Solubility	Soluble in DMSO	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Lycopodine		

Background

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[1]. Lycopodine inhibits proliferation of HeLa cells through induction of apoptosis via caspase-3 activation[2]. Caspase-3

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].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

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the caspase-3 in the total cell lysate, while the expression of Bcl-2 is down regulated[2]. Cell Viability Assay[1] Cell Line: PC3 and LnCaP cells

[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.

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