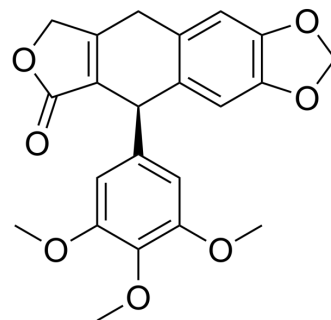


β-Apopicropodophyllin

Cat. No.:	HY-N11600
CAS No.:	477-52-1
Molecular Formula:	C ₂₂ H ₂₀ O ₇
Molecular Weight:	396.39
Target:	Apoptosis
Pathway:	Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	β-Apopicropodophyllin is a nature product that could be isolated from Hyptis wticillata. β-Apopicropodophyllin induces apoptosis by inducing microtubule disruption, DNA damage, cell cycle arrest and ER stress. β-Apopicropodophyllin can be used in research of cancer ^[1] .																
In Vitro	<p>β-Apopicropodophyllin (0-100 nM; 48 and 72 h) has anti-cancer activity against A549, NCI-H1299 and NCI-460 cell lines with IC₅₀ values of 16.9, 13.1 and 17.1 nM, respectively^[1].</p> <p>β-Apopicropodophyllin (0-20 nM; 24 and 48 h; A549, NCI-H1299 and NCI-460 cell lines) disrupts polymerization of intracellular microtubules^[1].</p> <p>β-Apopicropodophyllin (0-20 nM; 0-24 h; A549, NCI-H1299 and NCI-460 cell lines) induces DNA damage via activation of ATM, arrests cell cycle in G2/M phase and induces endoplasmic reticulum (ER) stress^[1].</p> <p>β-Apopicropodophyllin (15 and 20 nM; 48 h; A549, NCI-H1299 and NCI-460 cell lines) induces apoptotic cell death in vitro^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Viability Assay^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>A549, NCI-H1299 and NCI-460 cells</td> </tr> <tr> <td>Concentration:</td> <td>0-100 nM</td> </tr> <tr> <td>Incubation Time:</td> <td>48 and 72 hours</td> </tr> <tr> <td>Result:</td> <td>Inhibited cell growth in a dose-dependent manner.</td> </tr> </table> <p>Apoptosis Analysis^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>A549, NCI-H1299 and NCI-460 cells</td> </tr> <tr> <td>Concentration:</td> <td>15 and 20 nM</td> </tr> <tr> <td>Incubation Time:</td> <td>48 h</td> </tr> <tr> <td>Result:</td> <td>Increased the percentage of apoptotic death in A549, NCI-H1299 and NCI-H460 cell groups in a time-dependent manner.</td> </tr> </table> <p>Cell Cycle Analysis^[1]</p>	Cell Line:	A549, NCI-H1299 and NCI-460 cells	Concentration:	0-100 nM	Incubation Time:	48 and 72 hours	Result:	Inhibited cell growth in a dose-dependent manner.	Cell Line:	A549, NCI-H1299 and NCI-460 cells	Concentration:	15 and 20 nM	Incubation Time:	48 h	Result:	Increased the percentage of apoptotic death in A549, NCI-H1299 and NCI-H460 cell groups in a time-dependent manner.
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	Cell Line:	A549, NCI-H1299 and NCI-460 cells
	Concentration:	0-20 nM
	Incubation Time:	8 and 16 h
	Result:	Arrested cell cycle in G2/M phase.
	Western Blot Analysis ^[1]	
	Cell Line:	A549, NCI-H1299 and NCI-460 cells
	Concentration:	0-20 nM
	Incubation Time:	24 and 48 hours
	Result:	Decreased the level of insoluble protein containing polymeric microtubules in a time-dependent manner in non-small cell lung cancer cell lines.
	Western Blot Analysis ^[1]	
	Cell Line:	A549, NCI-H1299 and NCI-460 cells
	Concentration:	0-20 nM
	Incubation Time:	24 h
	Result:	Increased phosphorylated ATM and γ -H2AX levels in a dose-dependent manner.
In Vivo	<p>β-Apocicropodophyllin (1 and 5 mg/kg; intra-tumorous injection; nude mice with xenografts) retards tumor growth in a dose-dependent manner^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>	
	Animal Model:	nude mice with xenografts ^[1]
	Dosage:	1 and 5 mg/kg
	Administration:	intra-tumorous injection
	Result:	Inhibited tumor growth of NSCLC xenografts in nude mice.

REFERENCES

[1]. Kim JY, et, al. A novel anti-cancer role of β -apocicropodophyllin against non-small cell lung cancer cells. Toxicol Appl Pharmacol. 2018 Oct 15;357:39-49.

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

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