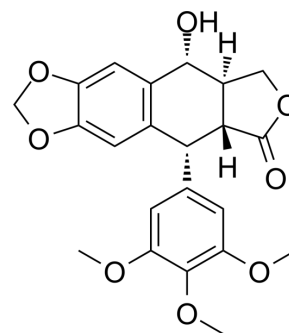


## Podofilox

<b>Cat. No.:</b>	HY-15552		
<b>CAS No.:</b>	518-28-5		
<b>Molecular Formula:</b>	C <sub>22</sub> H <sub>22</sub> O <sub>8</sub>		
<b>Molecular Weight:</b>	414.41		
<b>Target:</b>	Microtubule/Tubulin		
<b>Pathway:</b>	Cell Cycle/DNA Damage; Cytoskeleton		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 100 mg/mL (241.31 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	1 mM	2.4131 mL	12.0653 mL	24.1307 mL
		5 mM	0.4826 mL	2.4131 mL	4.8261 mL
10 mM		0.2413 mL	1.2065 mL	2.4131 mL	
Please refer to the solubility information to select the appropriate solvent.					
<b>In Vivo</b>	<ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: ≥ 1.25 mg/mL (3.02 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline) Solubility: ≥ 1.25 mg/mL (3.02 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: ≥ 1.25 mg/mL (3.02 mM); Clear solution</li> </ol>				

### BIOLOGICAL ACTIVITY

<b>Description</b>	Podofilox (Podophyllotoxin) is a potent inhibitor of microtubule assembly and DNA topoisomerase II.
<b>IC<sub>50</sub> &amp; Target</b>	Topoisomerase II; Microtubule/Tubulin
<b>In Vitro</b>	Podophyllotoxin, a kind of non-alkaloid toxin lignan extracted from the roots and rhizomes of Podophyllum plant, has been shown to inhibit the growth of various carcinoma cells. Podophyllotoxin is a natural product that inhibits the polymerization of tubulin and has served as a prototype for the development of diverse antitumor agents in clinical use.

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MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## CUSTOMER VALIDATION

- Cancer Immunol Res. 2023 Mar 15;CIR-22-0483.
- Exp Ther Med. August 23, 2021.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

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  - [2]. Guerrero E, Abad A, Montenegro G, et al. Analgesic and anti-inflammatory activity of podophyllotoxin derivatives. *Pharm Biol.* 2013 Jan 31.
  - [3]. Li M, Zhou L, Yang D, et al. Biochemical composition and antioxidant capacity of extracts from *Podophyllum hexandrum* rhizome. *BMC Complement Altern Med.* 2012 Dec 22;12:263.
  - [4]. Prasad V, Chaudhuri AR, Curcio M, et al. Podophyllotoxin and nocodazole counter the effect of IKP104 on tubulin decay. *J Protein Chem.* 1998 Oct;17(7):663-8.
  - [5]. Podophyllotoxin
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**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA