# Podophyllotoxone

**Cat. No.:** HY-N2415

**CAS No.:** 477-49-6

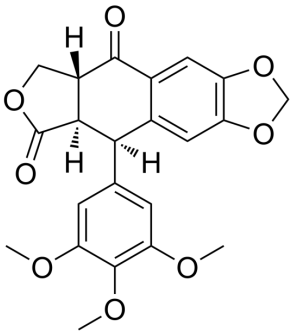
**Molecular Formula:** $C_{22}H_{20}O_8$

**Molecular Weight:** 412.39

**Target:** Microtubule/Tubulin

**Pathway:** Cell Cycle/DNA Damage; Cytoskeleton

**Storage:** 4°C, sealed storage, away from moisture and light
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



## SOLVENT & SOLUBILITY

**In Vitro**

DMSO : 100 mg/mL (242.49 mM; Need ultrasonic)

| Preparing Stock Solutions | Mass / Solvent / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|---|
| | 1 mM | 2.4249 mL | 12.1244 mL | 24.2489 mL |
| | 5 mM | 0.4850 mL | 2.4249 mL | 4.8498 mL |
| | 10 mM | 0.2425 mL | 1.2124 mL | 2.4249 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 (6.06 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (6.06 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (6.06 mM); Clear solution

## BIOLOGICAL ACTIVITY

**Description**

Podophyllotoxone is isolated from the roots of Dysosma versipellis and has anti-cancer activities.Podophyllotoxone is able to inhibit the tubulin polymerization[1].

**$IC_{50}$ & Target**

Microtubule/Tubulin[1]

**In Vitro**

Podophyllotoxone inhibits human prostate cancer cells PC3 and DU145 growth with $IC_{50}$ values of 14.7 and 20.6 μM[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## REFERENCES

[1]. Juan Li , et al. Absolute Configuration of Podophyllotoxone and Its Inhibitory Activity Against Human Prostate Cancer Cells. Chin J Nat Med. 2015 Jan;13(1):59-64.



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