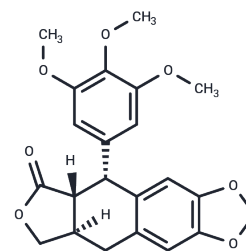


Deoxypodophyllotoxin

Chemical Properties

| | |
|-------------------|---|
| CAS No. : | 19186-35-7 |
| Formula: | C ₂₂ H ₂₂ O ₇ |
| Molecular Weight: | 398.41 |
| Storage: | Keep away from direct sunlight, Keep away from moisture Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i> |



Biological Description

| | |
|---------------|---|
| Description | Deoxypodophyllotoxin shows cytotoxic, antineoplastic, antitumor, insecticidal, anti-angiogenic, vascular disrupting, insecticidal, antiviral, and anti-inflammatory activities. |
| Targets(IC50) | Apoptosis, Microtubule Associated, Autophagy |
| In vitro | Deoxypodophyllotoxin (DPT) induced both apoptosis and autophagy via production of mitochondrial reactive oxygen species (ROS). DPT suppressed the PI3K/AKT/mTOR signaling cascades to lead autophagy process, resulting from conversion of light chain 3-I (LC3-I) into LC3-II and acidic vesicular organelles (AVOs) formation. Even if DPT-induced ROS were occurred in both apoptosis and autophagy, inhibition of ROS generation enhanced cell viability. Otherwise, 3-methyladenine (3-MA) impeding on autophagy accelerated an apoptotic response caused by DPT. Therefore, these findings suggest that DPT triggers cytoprotective autophagy against cytotoxic apoptosis[1]. |

Solubility Information

| | |
|---------------------|---|
| Solubility | DMSO: 55 mg/mL (138.05 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (5.02 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i> |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|-----------|------------|------------|
| 1 mM | 2.510 mL | 12.5499 mL | 25.0998 mL |
| 5 mM | 0.502 mL | 2.510 mL | 5.020 mL |
| 10 mM | 0.251 mL | 1.255 mL | 2.510 mL |
| 50 mM | 0.0502 mL | 0.251 mL | 0.502 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Kim SH, et al. Deoxypodophyllotoxin induces cytoprotective autophagy against apoptosis via inhibition of PI3K/AKT/mTOR pathway in osteosarcoma U2OS cells. *Pharmacol Rep.* 2017 Oct;69(5):878-884.
Deoxypodophyllotoxin exerts both anti-angiogenic and vascular disrupting effects. *Int J Biochem Cell Biol.* 2013 Aug;45(8):1710-9.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481