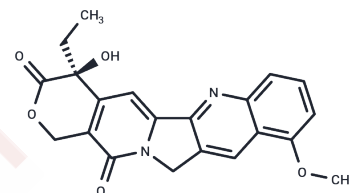


## 9-Methoxycamptothecin

## Chemical Properties

CAS No. :	39026-92-1
Formula:	C <sub>21</sub> H <sub>18</sub> N <sub>2</sub> O <sub>5</sub>
Molecular Weight:	378.38
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



## Biological Description

Description	9-Methoxycamptothecin (MCPT) has antitumour activities through topoisomerase inhibition.
Targets(IC50)	Apoptosis,Topoisomerase
In vitro	9-Methoxycamptothecin(MCPT) induced cytotoxicity in seven human cancer cell lines in a dose dependent manner after 72h, with A2780 and Hela cell lines more sensitive, so the two cell lines were chosen to do further studies. MCPT induced strong G2/M arrest in both A2780 cells and Hela cells after 24h, following by substantial sub-G1 arrest (indicating apoptosis). The apoptosis was verified by staining with Annexin V-FITC and propidium iodide. ROS generation increased significantly in MCPT-induced apoptosis. Meanwhile, the apoptosis appeared to be dependent on caspase-3, -8 and -9 in A2780 cells, and caspase-3 in Hela cells. In addition, MCPT induced up-regulation expression of most of seventeen genes in both cell lines. Western blot verified that changes of TNF $\alpha$ , Fas, P53 and P27 protein level were consistent with their gene expression changes

## Solubility Information

Solubility	DMSO: 50 mg/mL (132.14 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 1 mg/mL (2.64 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

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	1mg	5mg	10mg
1 mM	2.6428 mL	13.2142 mL	26.4285 mL
5 mM	0.5286 mL	2.6428 mL	5.2857 mL
10 mM	0.2643 mL	1.3214 mL	2.6428 mL
50 mM	0.0529 mL	0.2643 mL	0.5286 mL

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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

Wang H , Ao M , Wu J , et al. TNF $\alpha$  and Fas/FasL pathways are involved in 9-Methoxycamptothecin-induced apoptosis in cancer cells with oxidative stress and G2/M cell cycle arrest[J]. Food and Chemical Toxicology, 2013, 55(Complete):396-410.

Liao N , Zhang P , Ao M , et al. 9-Methoxycamptothecin from Nothapodytes foetida Induces Apoptosis in Murine Sarcoma S180 Cells[J]. Zeitschrift für Naturforschung C, 2011, 66(9-10):471---476.

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