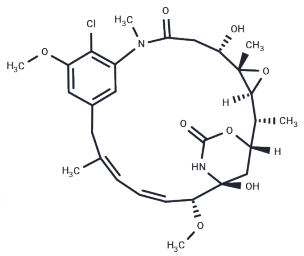
Data Sheet (Cat.No.T16016)

TargetMol

Maytansinol

Chemical Properties



CAS No. : 57103-68-1

Formula: C28H37ClN2O8

Molecular Weight: 565.05

Storage: Keep away from moisture
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	Maytansinol (Ansamitocin P-0) inhibits microtubule assembly and causes microtubule disassembly in vitro.
Targets(IC50)	Apoptosis,Microtubule Associated,ADC Cytotoxin
In vitro	Maytansinol inhibits the growth of HCT116 human colon cancer cells. Maytansinol causes apoptosis in imaginal discs of wild-type larvae but not p53 mutant larvae. Maytansinol induces apoptosis in imaginal discs of wild-type larvae but not p53 mutant larvae at 24 hours after exposure to the drug. Maytansinol decreases the growth and/or survival of HCT116 cells in a dose-dependent manner and that the effect was more severe for p53+/+ than for p53-/- cells at both low and high doses. Maytansinol disrupts the mitotic spindle and prevents mitotic exit in Drosophila. This parallels the finding in human HCT116 cells, in which Maytansinol was more effective when p53 was present, at least at some doses.

Solubility Information

Solubility	DMSO: 250 mg/mL (442.44 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: < 10 mg/mL (17.7 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 10 mg/mL (17.7 mM),Solution. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.7698 mL	8.8488 mL	17.6975 mL
5 mM	0.354 mL	1.7698 mL	3.5395 mL
10 mM	0.177 mL	0.8849 mL	1.7698 mL
50 mM	0.0354 mL	0.177 mL	0.354 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

Edwards A, et al. Combinatorial effect of maytansinol and radiation in Drosophila and human cancer cells. Dis Model Mech. 2011 Jul;4(4):496-503.