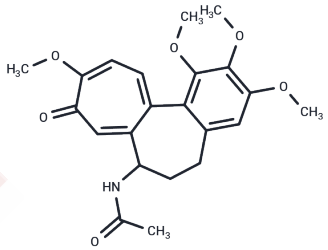
Data Sheet (Cat.No.T0320)

TargetMol

Colchicine

Chemical Properties



CAS No. : 64-86-8

Formula: C22H25NO6

Molecular Weight: 399.44

Storage: Keep away from direct sunlight
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	Colchicine is an orally active natural alkaloid that acts by inhibiting microtubule polymerization (IC50 = 3 nM) and as a competitive antagonist of the α3 glycine receptor. It possesses broad anti-inflammatory, immunosuppressive, and antifibrotic activities, can inhibit NLRP3 inflammasome activation to prevent NSAID-induced small intestine injury, holds potential for gouty arthritis and rheumatoid arthritis research, and is commonly used to establish Alzheimer's disease models.
Targets(IC50)	Apoptosis,Microtubule Associated,Autophagy
In vitro	**METHODS**: Human pharyngeal carcinoma cells FaDu and SNU1041 were treated with Colchicine (0.0-1 μM) for 24-72 h. Cell viability was measured by XTT assay. **RESULTS**: Colchicine treatment was cytotoxic to both FaDu and SNU1041 cell lines in a dose- and time-dependent manner. [1] **METHODS**: Chorionic villous cells AFCs and amniotic fluid cells CVCs were treated with Colchicine (0.15 μg/mL) for 3-24 h. Apoptosis was detected by Flow Cytometry. **RESULTS**: Colchicine induced a significant increase in the proportion of annexin V and PI double positive cells. [2]
In vivo	**METHODS**: To investigate the antitumor activity, Colchicine (0.1 mg/kg) was orally administered to BALB/c-nu mice bearing the human pharyngeal cancer tumor FaDu every two days for fourteen days. **RESULTS**: Colchicine was effective in inhibiting tumor growth in a hypopharyngeal cancer model nude mouse without serious complications. [1] **METHODS**: To investigate the effect of anti-Fas antibody-induced lethality, Colchicine (2 mg/kg) was injected intraperitoneally into C57BL/6 mice, followed by Jo2 antibody (10 μg) 24 h later. **RESULTS**: All mice treated with Colchicine survived the lethal attack.Colchicine reduced the susceptibility of mice to the lethal effect of Jo2 against Fas antibody. [3]
Animal Research	a C57BL/6 background are used. To examine the effects of Colchicine on NSAID-induced small intestinal injury, vehicle or Colchicine (1 or 3 mg/kg) is administered orally 30 min prior to indomethacin administration. Mice received intraperitoneal injections of sterilized phosphate buffered saline or mouse recombinant IL-1β (0.1 μg/kg) 3 h after indomethacin treatment. Vehicle or Colchicine (1 or 3 mg/kg) is also administered to NLRP3?/? mice before indomethacin administration. The lesion index is evaluated 24 h after indomethacin administration and examined mRNA and protein expression of

Animal Research	inflammasome components 6 h after indomethacin administration.

Solubility Information

Solubility	DMSO: 257.5 mg/mL (644.65 mM),Sonication is recommended. H2O: 1.33 mg/mL (3.33 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5035 mL	12.5175 mL	25.035 mL
5 mM	0.5007 mL	2.5035 mL	5.007 mL
10 mM	0.2504 mL	1.2518 mL	2.5035 mL
50 mM	0.0501 mL	0.2504 mL	0.5007 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

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