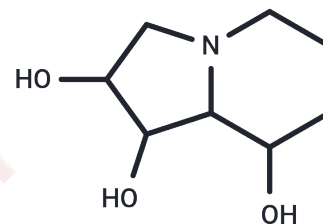


## Swainsonine

## Chemical Properties

CAS No. :	72741-87-8
Formula:	C <sub>8</sub> H <sub>15</sub> NO <sub>3</sub>
Molecular Weight:	173.21
Storage:	Store at low temperature Powder: -20°C for 3 years   In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



## Biological Description

Description	Swainsonine (Tridolgosir) is an alkaloid isolated from Astragalus membranaceus and is a potent and reversible inhibitor of alpha-mannosidase. swainsonine has antitumour activity and induces apoptosis and cell cycle arrest in the G2/M phase.
Targets(IC50)	Apoptosis, Antibiotic
In vitro	Swainsonine (0-40 μM ; 12 h) showed anti-proliferative activity in U251 and LN444 cells. [2] Swainsonine (30 μM ; 12 h) induced apoptosis and cell cycle arrest in G2/M phase and decreased the expression of CyclinD1 and CDK4 protein levels and increased the expression of p16 protein level.[2] Swainsonine (30 μM ; 12 h) reduces glioma cell migration and invasion.[2]
In vivo	Swainsonine (1 mg/kg ; intraperitoneal injection ; twice daily for 10 days) and cisplatin increased the antitumor efficacy in mice.[3]

## Solubility Information

Solubility	Ethanol: 9 mg/mL (51.96 mM), Sonication and heating are recommended. DMSO: 9 mg/mL (51.96 mM), Sonication and heating are recommended. H <sub>2</sub> O: 3.2 mg/mL (18.47 mM), Sonication and heating to 60°C are recommended. ( < 1 mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.7733 mL	28.8667 mL	57.7334 mL
5 mM	1.1547 mL	5.7733 mL	11.5467 mL
10 mM	0.5773 mL	2.8867 mL	5.7733 mL
50 mM	0.1155 mL	0.5773 mL	1.1547 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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- Silveira CRF, et al. Swainsonine, an alpha-mannosidase inhibitor, may worsen cervical cancer progression through the increase in myeloid derived suppressor cells population. *PLoS One.* 2019 ; 14(3):e0213184.
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