

Solamargine

Chemical Properties

CAS No. : 20311-51-7

Formula: C45H73NO15

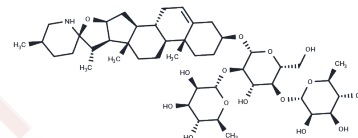
Molecular Weight: 868.06

Keep away from moisture, Keep away from direct sunlight

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	Solamargine (δ -Solanigrine) is a major steroidal alkaloid glycoside extracted from a traditional Chinese medicine herb, Solanum nigrum L. (SNL); has been shown to inhibit growth and induce apoptosis of various cancer cells.
Targets(IC50)	Apoptosis, STAT, p38 MAPK, P-gp
In vitro	Solamargine concentration-dependently reduced HepG2 cell viability. Solamargine (7.5 μ M) reduced cell viability by less than 20% in HepG2 cells. Solamargine (highest dose) decreased cell invasion and migration by more than 72% and 70% in HepG2 cells, respectively. Solamargine reduced function and expression of MMP-2/9 proteins. Solamargine time-dependently increased phosphorylation of p38 mitogen-activated protein kinase (p38 MAPK) in a fashion.

Solubility Information

Solubility	DMSO: 127.5 mg/mL (146.88 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: 3.3 mg/mL (3.8 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	1.152 mL	5.760 mL	11.5199 mL
5 mM	0.2304 mL	1.152 mL	2.304 mL
10 mM	0.1152 mL	0.576 mL	1.152 mL
50 mM	0.023 mL	0.1152 mL	0.2304 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

Sani IK., et al. Solamargine inhibits migration and invasion of human hepatocellular carcinoma cells through down-regulation of matrix metalloproteinases 2 and 9 expression and activity. *Toxicol In Vitro*. 2015 Aug;29(5): 893-900.

Zhou Y, et al. Targeting sigN/AI transducer and activator of transcription 3 contributes to the solamargine-inhibited growth and -induced apoptosis of human lung cancer cells. *Tumour Biol*. 2014 Aug;35(8):8169-78.

Ding X, et al. Induction of apoptosis in human hepatoma SMMC-7721 cells by solamargine from *Solanum nigrum* L. *J Ethnopharmacol*. 2012 Jan 31;139(2):599-604.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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