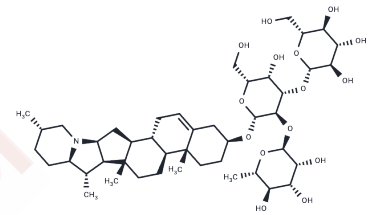


α -Solanine

Chemical Properties

CAS No. :	20562-02-1
Formula:	C ₄₅ H ₇₃ N ₁ O ₁₅
Molecular Weight:	868.06
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	α -Solanine (alpha-Solanine) is an alkaloid derived from potato with anticancer and antitumor activity, attenuating chondrocyte death by inhibiting the NF- κ B pathway. α -Solanine inhibits the proliferation and migration of glioma cells but promotes apoptosis of glioma cells.
Targets(IC50)	Apoptosis,MMP,NF- κ B,Akt,NO Synthase,Autophagy,COX,mTOR
In vitro	METHODS: α -solanine (3, 6, 9, 12 μ g/ μ l) was used to treat PANC-1, sw1990 and MIA PaCa-2 cells for 24 h or 48 h, and the viability of cells was observed. RESULTS: After treatment with α -solanine (12 μ g/ μ l), the cell viability was significantly decreased. At α -solanine concentrations of 3, 6, and 9 μ g/ μ l, and treatment time of 24 h and 48 h, α -solanine did not cause cytotoxicity in the cells of each cell line. α -Solanine (3, 6 and 9 μ g/ μ l) significantly reduced the mRNA and protein expression of VEGF in PANC-1 cells in a dose-dependent manner, while α -solanine inhibited angiogenesis by inhibiting VEGF expression.[1]
In vivo	METHODS: 1 μ l/g of α -solanine was injected into the peritoneal cavity of each mouse for two weeks. The body weight of the mice and the size of their tumors were measured daily. RESULTS: α -solanine inhibited the growth of PANC-1 tumor xenografts, reducing tumor volume by 61% (P<0.05). [1]

Solubility Information

Solubility	DMSO: 30 mg/mL (34.56 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: 1 mg/mL (1.15 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

Lv C, et al. Antitumor efficacy of α -solanine against pancreatic cancer in vitro and in vivo. PLoS One. 2014 Feb 5;9 (2):e87868.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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