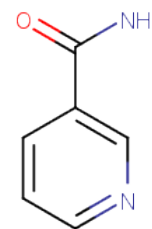


Nicotinamide

Chemical Properties

CAS No. :	98-92-0
Formula:	C ₆ H ₆ N ₂ O
Molecular Weight:	122.12
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	Nicotinamide, a vitamin B3 derivative, is an inhibitor of SIRT1 (IC ₅₀ =50-180 μM) and SIRT2 (IC ₅₀ =2 μM). Nicotinamide can be used as a precursor of nicotinamide adenine dinucleotide or NAD ⁺ , which can be supplemented by dietary intake and can prevent or treat melanoglossia and pellagra.
Targets(IC50)	Endogenous Metabolite,HBV,Sirtuin
In vitro	METHODS: A375, SK-MEL-28, and mouse B16-F10 cells were treated with Nicotinamide (0, 1, 20, and 50 mM) for 24 or 48 hours. RESULTS: Nicotinamide reduced cell numbers in a dose-dependent manner, with a strong inhibitory effect at 20mM and almost full effect at 50mM. [1]
In vivo	METHODS: To study the anti-tumor activity of Nicotinamide, mice were intraperitoneally injected with Nicotinamide (1500 and 1800 mg/Kg, 5 days a week). RESULTS: Nicotinamide inhibited tumor growth in a mouse model of metastatic melanoma. [1] METHODS: To study the antiviral activity of Nicotinamide, Nicotinamide (0-200 mg/kg, 5 days) was intraperitoneally injected into HBV transgenic mice. RESULTS: Nicotinamide inhibited HBV replication in HBV transgenic mice. [2]

Solubility Information

Solubility	DMSO: 260 mg/mL (2129.05 mM),Sonication is recommended. Ethanol: 23 mg/mL (188.34 mM),Sonication is recommended. H ₂ O: 122.7 mg/mL (1004.75 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	Saline: 50 mg/mL (409.43 mM),Solution. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5 mg/mL (40.94 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	8.1887 mL	40.9433 mL	81.8867 mL
5 mM	1.6377 mL	8.1887 mL	16.3773 mL
10 mM	0.8189 mL	4.0943 mL	8.1887 mL
50 mM	0.1638 mL	0.8189 mL	1.6377 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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