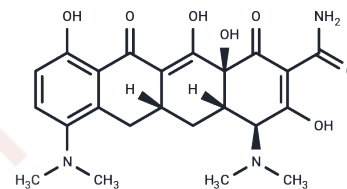


Minocycline

Chemical Properties

CAS No. :	10118-90-8
Formula:	C ₂₃ H ₂₇ N ₃ O ₇
Molecular Weight:	457.48
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	Minocycline is a broad-spectrum and highly lipophilic tetracycline antibiotic with the advantages of being orally administrable and able to penetrate the blood-brain barrier. It binds to the 30S ribosomal subunit to inhibit protein synthesis, is effective against both Gram-positive and Gram-negative bacteria, and also has neuroprotective, anti-inflammatory, and antioxidant effects.
Targets(IC50)	Apoptosis,Antioxidant,Calcium Channel,ribosome,HIF/HIF Prolyl-Hydroxylase, Antibacterial,Antibiotic,Potassium Channel,ROS,MDM-2/p53
In vitro	Ovarian cancer cell lines (OVCAR-3, SKOV-3, and A2780) were treated with minocycline (0-100 μM, 24-72 hours) to observe its effect on cell proliferation. Results: Minocycline inhibited the proliferation and colony formation activity of OVCAR-3, SKOV-3, and A2780 cells. [1]
In vivo	Methods: Minocycline (0-30 mg/kg, orally, once daily for 4 weeks) was used to treat female nude mice bearing OVCAR-3 tumor xenografts to investigate its inhibitory effect on tumors in mice. Results: Minocycline inhibited the growth of OVCAR-3 tumors in female nude mice. [1]

Solubility Information

Solubility	DMSO: 20 mg/mL (43.72 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 2 mg/mL (4.37 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	2.1859 mL	10.9294 mL	21.8589 mL
5 mM	0.4372 mL	2.1859 mL	4.3718 mL
10 mM	0.2186 mL	1.0929 mL	2.1859 mL
50 mM	0.0437 mL	0.2186 mL	0.4372 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

Pourgholami MH, et al. Minocycline inhibits growth of epithelial ovarian cancer. *Gynecol Oncol.* 2012 May;125(2):433-40.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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