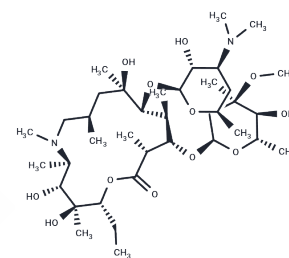


Azithromycin

Chemical Properties

CAS No. :	83905-01-5
Formula:	C ₃₈ H ₇₂ N ₂ O ₁₂
Molecular Weight:	748.98
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	Azithromycin (CP 62993) is a macrolide antibiotic that primarily targets the 50S subunit of bacterial ribosomes. Azithromycin is commonly used in studies of bacterial infections.
Targets(IC50)	Antibacterial, Antibiotic, Parasite, Autophagy
In vitro	METHODS: HeLa, MG-63 and Osteoblast cells were treated with Azithromycin (0-400 µg/mL) for 48 hours, and MTT assay was used to detect the inhibition of cell metabolic activity. RESULTS: Azithromycin inhibited the growth of HeLa (IC ₅₀ =160 µM), MG-63 (IC ₅₀ =180 µM) and Osteoblast (IC ₅₀ =160 µM) cells. [1]
In vivo	METHODS: To study the effect of Azithromycin on asthma, a mouse model of asthma attack was treated with Azithromycin (50 mg/kg). RESULTS: Azithromycin had no effect on bronchoalveolar lavage inflammatory parameters and LDH levels in a mouse model of asthma exacerbation. Azithromycin did not induce general inflammatory parameters or LDH release in a mouse model of asthma exacerbations and increased expression of an interferon-stimulated gene and the pattern recognition receptor MDA5 but not RIG-I in mice with asthma exacerbations. [2]
Cell Research	THP-1 cells (10 ⁶ cells in 1 mL RPMI medium, without antibiotics, growth factors or serum) are seeded in each well of 24-well plates and allowed to settle for 1 hour. Next, 50 µL of the test compound is added followed by 50 µL of LPS (final concentration of 10 µg/mL). After 24h (37°C and 5% CO ₂) the supernatants and cell pellets are collected (1200 rpm, 5 min). THP-1 cell viability is tested using 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide (MTT). MTT is dissolved at 2 mg/mL in PBS and aliquots are stored at -20°C. The MTT assay is performed according to the suppliers instructions. Absorbance of MTT converted into formazan is measured at a wavelength of 570 nm with background subtraction at 630 nm.

Solubility Information

Solubility	DMSO: 18.33 mg/mL (24.47 mM), Sonication is recommended. Ethanol: 74.9 mg/mL (100 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (2.67 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>
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.3351 mL	6.6757 mL	13.3515 mL
5 mM	0.267 mL	1.3351 mL	2.6703 mL
10 mM	0.1335 mL	0.6676 mL	1.3351 mL
50 mM	0.0267 mL	0.1335 mL	0.267 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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