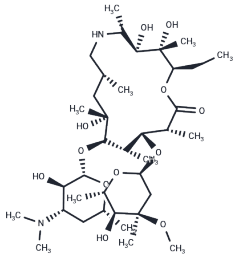
Data Sheet (Cat.No.T3265)

TargetMol

Azathramycin

Chemical Properties



CAS No. : 76801-85-9

Formula: C37H70N2O12

Molecular Weight: 734.96

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	Azathramycin (Desmethyl Azithromycin) is an antibiotic derived from erythromycin, binding to the 50S subunit of the bacterial ribosome, and thus inhibits translation of mRNA.
Targets(IC50)	Antibacterial,Antibiotic
Cell Research	THP-1 cells (106 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% CO2) 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: 7.35 mg/mL (10 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 (1.36 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.3606 mL	6.8031 mL	13.6062 mL
5 mM	0.2721 mL	1.3606 mL	2.7212 mL
10 mM	0.1361 mL	0.6803 mL	1.3606 mL
50 mM	0.0272 mL	0.1361 mL	0.2721 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

Noedl H, et al. Antimicrob Agents Chemother. 2007 Feb;51(2):651-6.
Li H, Li J, Li J, et al.Carrimycin inhibits coronavirus replication by decreasing the efficiency of programmed-1 ribosomal frameshifting through directly binding to the RNA pseudoknot of viral frameshift-stimulatory element. Acta Pharmaceutica Sinica B.2024