## Nanchangmycin

Cat. No.:	HY-100528	
CAS No.:	65101-87-3	
Molecular Formula:	C <sub>47</sub> H <sub>77</sub> NaO <sub>14</sub>	O /m.
Molecular Weight:	889.1	
Target:	Bacterial; Antibiotic; Flaviviridae	- ··
Pathway:	Anti-infection	
Storage:	4°C, sealed storage, away from moisture	NaO 👔 🎽 🌾 🏅
	* In solvent · -80°C 6 months · -20°C 1 month (sealed storage, away from moisture)	

# ОН HO,

## SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (112.47 mM; Need ultrasonic)						
	Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg		
		1 mM	1.1247 mL	5.6237 mL	11.2473 mL		
		5 mM	0.2249 mL	1.1247 mL	2.2495 mL		
		10 mM	0.1125 mL	0.5624 mL	1.1247 mL		
	Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: 2.08 mg/mL (2.34 mM); Suspended solution; Need ultrasonic						
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 2.08 mg/mL (2.34 mM); Suspended solution; Need ultrasonic						
	<ol> <li>Add each solvent of Solubility: ≥ 2.08 n</li> </ol>	one by one: 10% DMSO >> 90% cor ng/mL (2.34 mM); Clear solution	n oil				

Description	Nanchangmycin, a polyether antibiotic produced by Streptomyces nanchangensis NS3226, inhibits gram-positive bacteria <sup>[1]</sup> . Nanchangmycin is a broad spectrum antiviral active against Zika virus <sup>[2]</sup> .		
IC₅₀ & Target	Bacteria <sup>[1]</sup> Zika virus <sup>[2]</sup>		
In Vitro	Nanchangmycin can be used as a growth promotant in poultry and to cure coccidiosis in chickens. Nanchangmycin is active against drug resistant strains of malaria <sup>[1]</sup> . Nanchangmycin as a potent inhibitor of Zika virus (ZIKV) entry across all cell types tested including physiologically relevant primary cells. Nanchangmycin potently reduces infection of all three strains		



of ZIKV across all three cell types. The IC<sub>50</sub>s for infection are between 0.1 and 0.4 μM while Nanchangmycin has low toxicity in these ranges. In addition, DENV is inhibited by Nanchangmycin across cell types<sup>[2]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### **CUSTOMER VALIDATION**

- Cell Death Dis. 2020 Sep 30;11(9):818.
- Virol Sin. 2021 Aug 3.

See more customer validations on www.MedChemExpress.com

#### REFERENCES

[1]. Liu T et al. Mechanism of thioesterase-catalyzed chain release in the biosynthesis of the polyether antibiotic nanchangmycin. Chem Biol. 2008 May;15(5):449-58.

[2]. Rausch K, et al. Screening Bioactives Reveals Nanchangmycin as a Broad Spectrum Antiviral Active against Zika Virus. Cell Rep. 2017 Jan 17;18(3):804-815.

Caution: Product has not been fully validated for medical applications. For research use only.

 Tel: 609-228-6898
 Fax: 609-228-5909
 E-mail: tech@MedChemExpress.com

 Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA