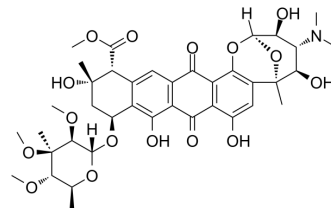


Nogalamycin

Cat. No.:	HY-105846		
CAS No.:	1404-15-5		
Molecular Formula:	C ₃₉ H ₄₉ NO ₁₆		
Molecular Weight:	787.8		
Target:	DNA/RNA Synthesis; Bacterial; Antibiotic		
Pathway:	Cell Cycle/DNA Damage; Anti-infection		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



BIOLOGICAL ACTIVITY

Description	<p>Nogalamycin is an anthracycline antibiotic. Nogalamycin is a potent antibiotic against Gram-positive bacteria, also has cytotoxicity against certain tumor cells. Nogalamycin is produced by <i>Streptomyces nogalater</i> var. <i>Nogalater</i>. Nogalamycin selectively inhibits RNA synthesis after binding to DNA template. Nogalamycin can be used for researching anticancer^{[1][2]}.</p>		
IC₅₀ & Target	RNA Synthesis ^[2]		
In Vitro	<p>Nogalamycin (0-10 µg/ml; 2 hours) exhibits lethality against CHO, L1210 and B16 with LD₅₀s of 2.74 µg/ml, 0.25 µg/ml and 0.15 µg/ml^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Cytotoxicity Assay</p>		
	Cell Line:	CHO, L1210 and B16 cells ^[1]	
	Concentration:	0-10 µg/ml	
	Incubation Time:	2 hours	
	Result:	Exhibited lethality against CHO, L1210 and B16 with LD ₅₀ s of 2.74 µg/ml, 0.25 µg/ml and 0.15 µg/ml.	
In Vivo	<p>Nogalamycin (0-1000 µg/kg; IP) can regress chemically-induced fibrosarcoma tumors and tumors of spontaneous origin in rats^[3].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>		
	Animal Model:	Rats ^[1]	
	Dosage:	0-1000 µg/kg	
	Administration:	IP	
	Result:	Regressed chemically-induced fibrosarcoma tumors and tumors of spontaneous origin in rats, and the most effective concentration was 556 µg/kg.	

REFERENCES

- [1]. Bhuyan BK, et al. Cell kill kinetics of several nogalamycin analogs and adriamycin for Chinese hamster ovary, L1210 leukemia, and B16 melanoma cells in culture. *Cancer Res.* 1981;41(1):18-24.
- [2]. Bhuyan BK, et al. Differential interaction of nogalamycin with DNA of varying base composition. *Proc Natl Acad Sci U S A.* 1965;54(2):566-572.
- [3]. Bempong MA. Cytological effect of nogalamycin in mammals and regression of methylcholanthrene-induced and spontaneous tumors in rats. *Int J Clin Pharmacol Biopharm.* 1976;14(1):6-14.
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Caution: Product has not been fully validated for medical applications. For research use only.

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