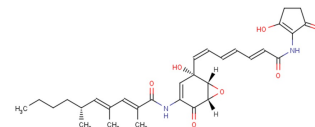


Manumycin A

Chemical Properties

CAS No.:	52665-74-4
Formula:	C ₃₁ H ₃₈ N ₂ O ₇
Molecular Weight:	550.64
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).



Biological Description

Description	Manumycin A is an antibiotic. Manumycin A induces apoptosis and exerts antitumor activity. Manumycin A inhibits exosome biogenesis and secretion via targeted inhibition of Ras/Raf/ERK1/2 signaling. Manumycin A acts as a selective, competitive inhibitor of protein farnesyltransferase (FTase) with respect to farnesylpyrophosphate ($K_i = 1.2 \mu\text{M}$), and as a noncompetitive inhibitor with respect to the Ras protein.
Targets(IC ₅₀)	Farnesyltransferase;Ras: None

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.816 mL	9.08 mL	18.161 mL
5 mM	0.363 mL	1.816 mL	3.632 mL
10 mM	0.182 mL	0.908 mL	1.816 mL
50 mM	0.036 mL	0.182 mL	0.363 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

1. Hara M, et al. Identification of Ras farnesyltransferase inhibitors by microbial screening. Proc Natl Acad Sci U S A. 1993 Mar 15;90(6):2281-5.
2. Bernier M, et al. Binding of manumycin A inhibits IkappaB kinase beta activity. J Biol Chem. 2006 Feb 3;281(5):2551-61.
3. Kim KH, et al. Manumycin A induces apoptosis in malignant pleural mesothelioma through regulation of Sp1 and activation of the mitochondria-related apoptotic pathway. Oncol Rep. 2016 Jul;36(1):117-24.
4. Datta, A. et al. Manumycin A suppresses exosome biogenesis and secretion via targeted inhibition of Ras/Raf/ERK1/2 signaling and hnRNP H1 in Castration resistant prostate cancer cells. Cancer Let. 408, 73–81 (2017).

Inhibitors · Natural Compounds · Compound Libraries

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