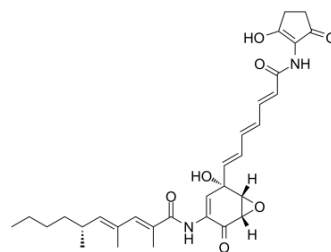


Manumycin A

Cat. No.:	HY-N6796
CAS No.:	52665-74-4
Molecular Formula:	C ₃₁ H ₃₈ N ₂ O ₇
Molecular Weight:	550.64
Target:	Farnesyl Transferase; Ras; Apoptosis; Phospholipase
Pathway:	Metabolic Enzyme/Protease; GPCR/G Protein; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Manumycin A is an antibiotic. 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. Manumycin A induces apoptosis and exerts antitumor activity ^[1] ^[2] ^[3] . Manumycin A suppresses exosome biogenesis and secretion via targeted inhibition of Ras/Raf/ERK1/2 signaling ^[4] . Manumycin A is a nSMase inhibitor ($EC_{50} = 0.25 \mu\text{M}$) ^[5] .
IC ₅₀ & Target	Farnesyltransferase, Ras, nSMase inhibitor ^[1] ^[5]

REFERENCES

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- [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).
- [5]. Zhang H, et al. Advances in the discovery of exosome inhibitors in cancer. J Enzyme Inhib Med Chem. 2020;35(1):1322-1330.

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

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