



LKT Laboratories, Inc.

Manumycin A

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## Product Information

Product ID M017545

CAS No. 52665-74-4

**Chemical Name** (2E,4E,6R)-N-[(5S,6R)-5-hydroxy-5-[(1E,3E,5E)-7-[(2-hydroxy-5-oxocyclopenten-1-yl)amino]-7-oxohepta-1,3,5-trienyl]-2-oxo-7-oxabicyclo[4.1.0]hept-3-en-3-yl]-2,4,6-trimethyldeca-2,4-dienamide

**Synonym** Manumycin-A; 2,4-Decadienamide, N-[(1S,5S,6R)-5-hydroxy-5-[(1E,3E,5E)-7-[(2-hydroxy-5-oxo-1-cyclopenten-1-yl)amino]-7-oxo-1,3,5-heptatrienyl]-2-oxo-7-oxabicyclo[4.1.0]hept-3-en-3-yl]-2,4,6-trimethyl-, (2E,4E,6R)- (9Cl); (2E,4E,6R)-N-[(1S,5S,6R)-5-hydroxy-5-[(1E,3E,5E)-7-[(2-hydroxy-5-oxo-1-cyclopenten-1-yl)

**Formula** C<sub>31</sub>H<sub>38</sub>N<sub>2</sub>O<sub>7</sub>

**Formula Wt.** 550.65

**Melting Point**

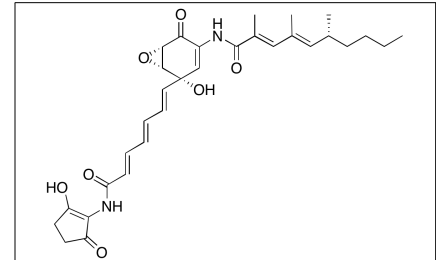
**Purity** ≥97%

**Solubility** Soluble in methanol or DMSO; Insoluble in water.

**Store Temp** -20° C

**Ship Temp** Ambient

**Description** Manumycin A is a natural antibiotic found in *Streptomyces parvulus* that is known to inhibit the enzyme farnesyl transferase. Manumycin A has been found to induce apoptosis, inhibit the PI3K-AKT pathway, and decrease expression of caspase-9 and PARP in human colorectal cancer cells. The result of manumycin A on human oral squamous cancer cells was inhibition of cell viability, induction of apoptosis, regulation of transcription factor Sp1, and control of mitochondrial membrane permeability. In a mouse model of muscular dystrophy, treatment with manumycin A corrected aberrant splicing of Clcn1 gene.



**Bulk quantities available upon request**

Product ID	Size
M017545	1 mg
M017545	5 mg

**References** Zhang J, Jiang H, Xie L, et al. Antitumor effect of manumycin A on colorectal cancer cells by increasing the reactive oxygen species production and blocking PI3K-AKT pathway. *Onco Targets Ther.* 2016 May 24;9:2885-2895. PMID: 27307747.

Cho JJ, Chae JI, Kim KH, et al. Manumycin A from a new *Streptomyces* strain induces endoplasmic reticulum stress-mediated cell death through specificity protein 1 signaling in human oral squamous cell carcinoma. *Int J Oncol.* 2015 Nov;47(5):1954-1962. PMID: 26352011.

Li JG, She MR, Lu CY, et al. Manumycin induces apoptosis in prostate cancer cells. *Onco Targets Ther.* 2014 May 22;7:771-777. PMID: 24899815.

Oana K, Oma Y, Suo S, et al. Manumycin A corrects aberrant splicing of Clcn1 in myotonic dystrophy type 1 (DM1) mice. *Sci Rep.* 2013;3:2142. PMID: 23828222.

**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.