



LKT Laboratories, Inc.

Manzamine A

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Product Information

Product ID M0255

CAS No. 104196-68-1

Chemical Name (1R,2R,5Z,12R,13S,16Z)-25-(9H-pyrido[3,4-b]indol-1-yl)-11,22-diazapentacyclo[11.11.2.12,22.02,12.04,11]heptacos-5,16,25-trien-13-ol

Synonym Keramamine A

Formula C₃₆H₄₄N₄O

Formula Wt. 548.76

Melting Point

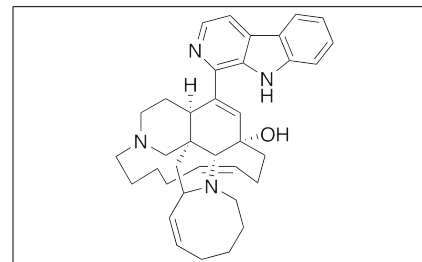
Purity ≥98%

Solubility

Store Temp -20°C

Ship Temp Ambient

Description Manzamine A is an alkaloid found in marine sponges. Manzamine A exhibits neuroprotective, anticancer, anti-hyperlipidemic, anti-atherosclerotic, antibiotic, and antiviral activities. In vitro, manzamine A uncouples vacuolar ATPases, inhibiting autophagy and tumor growth. Manzamine A inhibits foam cell formation in macrophages, a hallmark of atherosclerosis. Additionally, manzamine A inhibits cholesterol ester formation and acyl-CoA:cholesterol acyl-transferase (ACAT) activity in vitro and decreases total cholesterol, triglycerides, and LDL levels in vivo. This compound displays antibacterial activity against gram positive and gram negative bacteria; it may also exhibit anti-parasitic activity. In corneal cells, manzamine A inhibits viral replication and infection of herpes simplex virus a (HSV-1), inhibiting HSV-1 virion host shutoff activity. In neuroblastoma cells, manzamine A displays potential benefit in the treatment of Alzheimer's disease by decreasing tau hyperphosphorylation and inhibiting glycogen synthase kinase 3 (GSK3).



Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
M0255	1 mg	\$321.30
M0255	5 mg	\$1172.10
M0255	10 mg	\$1710.30

References Lin LC, Kuo TT, Chang HY, et al. Manzamine A Exerts Anticancer Activity against Human Colorectal Cancer Cells. *Mar Drugs*. 2018 Jul 29;16(8):252. doi: 10.3390/md16080252. PMID: 30060617.

Guzmán EA, Johnson JD, Linley PA, et al. A novel activity from an old compound: Manzamine A reduces the metastatic potential of AsPC-1 pancreatic cancer cells and sensitizes them to TRAIL-induced apoptosis. *Invest New Drugs*. 2011 Oct;29(5):777-85. doi: 10.1007/s10637-010-9422-6. Epub 2010 Mar 30. PMID: 20352293

Kallifatidis G, Hoepfner D, Jaeg T, et al. The marine natural product manzamine A targets vacuolar ATPases and inhibits autophagy in pancreatic cancer cells. *Mar Drugs*. 2013 Sep 17;11(9):3500-16. PMID: 24048269.

Eguchi K, Fujiwara Y, Hayashida A, et al. Manzamine A, a marine-derived alkaloid, inhibits accumulation of cholesterol ester in macrophages and suppresses hyperlipidemia and atherosclerosis in vivo. *Bioorg Med Chem*. 2013 Jul 1;21(13):3831-8. PMID: 23665143.

Aqil F, Zahin M, El Sayed KA, et al. Antimicrobial, antioxidant, and antimutagenic activities of selected marine natural products and tobacco cembranoids. *Drug Chem Toxicol*. 2011 Apr;34(2):167-79. PMID: 21314466.

Palem JR, Bedadala GR, El Sayed KA, et al. Manzamine A as a novel inhibitor of herpes simplex virus type-1 replication in cultured corneal cells. *Planta Med*. 2011 Jan;77(1):46-51. PMID: 20645244.

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