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).

References


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