Bryostatin 1 is a macrolide lactone found in Bugula that exhibits neuroprotective, cognition enhancing, immunomodulatory, and anticancer chemotherapeutic activities. Bryostatin 1 activates PKC when administered acutely or in low doses and inhibits PKC when administered chronically or in high doses. Bryostatin 1 is currently in clinical trials as a co-administered chemotherapeutic in the treatment of various types of cancer. In animal models, this compound increases memory acquisition and storage. Additionally, bryostatin 1 activates PKD and decreases expression of β-catenin in vitro. In cellular models of Alzheimer’s disease, bryostatin 1 activates APP processing by α-secretase, decreasing levels of amyloid-β (Aβ). Bryostatin 1 improves MHC class II antigen presentation by CD4+ T cells in cellular models of Burkitt’s lymphoma and also activates toll-like receptor 4 (TLR4), inducing release of Th2 cytokines.

References


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