

Dibutyryl-cAMP

货号: D0499

储存条件: 粉末-20°C 可保存 3 年; 液体-80°C 可保存 12 月。

产品描述

PKA is a ubiquitous cellular kinase, also known as cAMP-dependent protein kinase (cAMP), and it is well-established that plays an important role in regulating several functions of cell processes, including regulation of glycogen, sugar, and lipid metabolism. Dibutyryl-cAMP is a cell-permeable PKA activator that functions by preferentially activating endogenous cAMP. In vitro assays, Dibutyryl-cAMP was found to significantly suppress TNF- α production in a dose-dependent manner, with IC₅₀ values of 247, 28.9, and 25.4 μ M, respectively in RAW264.7 cells. Additionally, rat hepatocytes were cultured with cAMP agonists dibutyryl-cAMP inhibits Nitric oxide synthesis and inducible nitric oxide synthase (iNOS) expression through effects on the iNOS promoter region and NF- κ B-binding activity. In hepatocytes, Dibutyryl-cAMP can prevent tumor necrosis factor α plus actinomycin D (TNF α /ActD)-induced apoptosis via a PKA-dependent mechanism. In vivo model, Dibutyryl-cAMP showed a distinct anti-fibrotic effect via PKA/p-CREB/CBP signaling. Treatment of Dibutyryl-cAMP resulted in the decrease of the number and size of silicosis nodules, inhibition of myofibroblast differentiation, and extracellular matrix deposition. Moreover, 4 days intra-peritoneal injections of bucladesine (600 nM/mouse) significantly reversed zinc chloride- and lead acetate-induced avoidance memory retention alterations compared to control animals.

产品信息

CAS 号	16980-89-5	
分子式	C ₁₈ H ₂₃ N ₅ NaO ₈ P	
分子量	491.37	
溶解度	DMSO	96.0 mg/mL (195.4 mM) warming
	Water	95.0 mg/mL (193.3 mM) warming
	Ethanol	19.0 mg/mL (38.7 mM) warming

