For Research Use Only Staurosporine



Catalog Number: CM00517

产品信息	Catalog Number: CM00517 CAS号: 62996-74-1 分子式: C ₂₈ H ₂₆ N ₄ O ₃ 主要靶点: Apoptosis Antibacterial PK 主要通路: 凋亡[表观遗传]蛋白酪氨酸激 胞骨架 微生物学 血管生成	分子量: 466.53 溶解度: H2O:< 0.1 mg/mL (insoluble),DMSO:31 mg/mL (66.45 mM) C Antibiotic Src Antifungal PKA 酶 细	H H ₃ C H ₃ C H ₃ C
靶点活性	PKC η :4 nM PKC α :2 nM PKC δ :20 nM PKC γ :5 nM PKC ζ :1086 nM PKC ε :73 nM		
体外活性	Staurosporine, a microbial alkaloid, significantly inhibits protein kinase C from rat brain with IC50 of 2.7 nM. Staurosporine displays strong inhibitory effect against HeLa S3 cells with IC50 of 4 nM. [1] Staurosporine also inhibits a variety of other protein kinases, including PKA, PKG, phosphorylase kinase, S6 kinase, Myosin light chain kinase (MLCK), CAM PKII, cdc2, v-Src, Lyn, c-Fgr, and Syk with IC50 of 15 nM, 18 nM, 3 nM, 5 nM, 21 nM, 20 nM, 9 nM, 6 nM, 20 nM, 2 nM, and 16 nM, respectively. [2] Staurosporine (1 μ M) induces >90% apoptosis in PC12 cells. Consistently, Staurosporine treatment induces a rapid and prolonged elevation of intracellular free calcium levels [Ca2+]i, accumulation of mitochondrial reactive oxygen species (ROS), and subsequent mitochondrial dysfunction. [3] The apoptosis of MCF7 cells induced by Staurosporine can be enhanced by the expression of functional caspase-3 via caspase-8 activation and Bid cleavage. [4] Staurosporine treatment at 1 μ Monly partially inhibits IL-3-stimulated Bcl2 phosphorylation but completely blocks PKC-mediated Bcl2 phosphorylation. [5] Staurosporine induces and caspase activation. [6] In addition to activating the classical mitochondrial apoptosis pathway, Staurosporine triggers a novel intrinsic apoptosis pathway, relying on the activation of caspase-9 in the absence of Apaf-1. [7]		
体内活性	In the gerbil and rat ischemia mode dose-dependent manner, suggestin	els, Staurosporine pretreatment (0.1-10 ng) befor ng the involvement of PKC in CAl pyramidal cell	e ischemia prevents neuronal damage in a death after ischemia. [8]
细胞实验	Cells are exposed to Staurospo the DNA-binding dye Hoechst percentage of apoptotic cells Reference)	orine for ~32 hours. Cells are fixed in 4% p 33342. Cells are visualized under epifluor (cells with condensed and fragmented DN	araformaldehyde and stained with escence illumination, and the A) is determined. (Only for
描述	Staurosporine is a potent PKC inhib action to PKC ζ (1086 nM).	itor for PKC α / γ / η (IC50: 2/5/4 nM), less poter	It to PKC ϵ (73 nM), PKC δ (20 nM) and little
储存	Powder: -20°C for 3 years In s	olvent:-80°C for 1 year	