

Cyclosporine A

货号: C9509

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

Cyclosporin A is an immunosuppressant which binds to its receptor cyclophilin (CyP) by forming drug-dependent complexes to inhibit the activity of calmodulin-dependent phosphatase calcineurin ($IC_{50}=7$ nM). Cyclosporin A appears to specifically inhibit the early events of T lymphocyte activation by blocking the transcription of NF-AT, which is essential for early T-cell gene activation. Moreover, it has been demonstrated that Cyclosporin A can inhibit nitric oxide synthesis induced by interleukin-alpha, lipopolysaccharide and NF- κ B. Nanomolar concentrations of Cyclosporin A ($IC_{50} = 39$ nM) displays an inhibition of the permeability transition pore (MTP) opening of an inner membrane channel in Mammalian mitochondria. Studies in animals indicate that Cyclosporin A can induce apoptosis of rat lymphocytes and mouse B-cell lymphoma cell line WEHI-231. Notably, Cyclosporin A was found to be widely used for treating rejecting of allogenic transplant to prevent the activity of the patient's immune system. It has been studied in transplants of skin, kidney, liver, small intestine, bone marrow and so on.

作用机制

Cyclosporin A is a calcineurin inhibitor that exerts its immunosuppressive effects via the formation of cyclosporin A-cyclophilin complex.

产品信息

CAS号	59865-13-3	
分子式	C ₆₂ H ₁₁₁ N ₁₁ O ₁₂	
分子量	1202.61	
溶解度	DMSO	89.0 mg/mL (74.0 mM)
	Ethanol	88.0 mg/mL (73.2 mM)

