

MCC950 Sodium

货号: M8163

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

The NOD-like receptor family protein NLRP3 is an intracellular signaling molecular that forms a complex termed inflammasome with other proteins during inflammatory process, which promotes the release of proinflammatory cytokines, such as IL-1 β and IL-18. MCC950 sodium is a potent and selective inhibitor of NLRP3. It inhibits the release of IL-1 β with IC₅₀ values of 7.5 nM in mouse bone marrow derived macrophages (BMDM) and 8.1 nM in human monocyte derived macrophages. The amount of caspase-1 p10 was reduced in the supernatants of BMDM and human peripheral blood mononuclear cells (PBMC) after the treatment of 10 and 50 nM MCC950. In BMDM stimulated by LPS and nigericin, MCC950 from 0.1 – 10 μ M potently inhibited the release of IL-1 α and lactate dehydrogenase. Pre-treatment of 0.01 – 1 μ M MCC950 before the transfection of LPS dose-dependently inhibited the release of IL- β in BMDM. The expression of ASC complex was blocked by 10 and 50 nM MCC950 in LPS- and nigericin-treated BMDM. The amount of ASC-cerulean cells containing an ASC speck was dose-dependently decreased by the pre-treatment of 0.05 – 10 μ M MCC950. Pre-treatment of MCC950 (50 mg/kg) one hour before the intraperitoneal injection of LPS in C57BL/6 mice decreased the serum concentration of IL-1 β and IL-6. Treatment of MCC950 (10 mg/kg, i.p.) postponed the onset and attenuated the severity of EAE in C57BL/6 mice. MWS mice that received i.p. administration of MCC950 (20 mg/kg) showed increased body weight, elevated survival rate and reduced concentration of circulating IL-18.

作用机制

MCC950 sodium might have an inhibitory effect on a critical step in NLRP3 activation at post-translational level.

产品信息

CAS 号	256373-96-3	
分子式	C ₂₀ H ₂₃ N ₂ NaO ₅ S	
分子量	426.46	
溶解度	DMSO	300.0 mg/mL (703.5 mM) warming
	Water	310.0 mg/mL (726.9 mM) warming

