

NLRP3 Inhibitor, MCC950 - CAS 256373-96-3 - Calbiochem A cell-potent, bioavailable NLRP3 inflammasome activation inhibitor. Effectively blocks caspase-1 & -11 activation, IL-1 β processing and IL-1 β & IL-6 secretion.

Art. ID SAF-5381200001
Unit EA
Deliverydetails No Dangerous Good /not restricted

Description

A cell-permeable, bioavailable, non-toxic sulfonylurea derived compound that selectively interacts with NLRP3 inflammasome and prevents its activation in a reversible manner with no effect on NLRC4 and NLRP1. Dose-dependently reduces IL-1 β production (IC₅₀ = 7.5 & 8.1 nM in LPS & ATP-treated BMDMs & HMDMs, respectively) with minimal effect on IL-1 α & TNF- α . Specifically blocks NLRP3-dependent pyroptotic cell death by inhibiting caspase-1 & -11 activation, IL-1 β processing and ASC oligomerization. Does neither block K⁺ efflux, Ca²⁺ flux or NLRP3-ASC interactions nor inhibit NLRC4, AIM2, TLR signaling or NLRP3 priming. Effectively suppresses T cell responses and IL-1 β & IL-6 secretion, and reduces the severity of EAE and rescues neonatal lethality in a mouse model of CAPS (10 mg/kg, i.p., q.d. & 20 mg/kg, i.p., every other day, respectively). Displays attractive PK profile with desirable microsomal stability and minimal liability towards CYP450 isozymes (<15% inhibition at 10 & 30 μ M) & hERG (IC₅₀ >30 μ M). A cell-permeable, bioavailable, non-toxic sulfonylurea derived compound that selectively interacts with NLRP3 inflammasome and prevents its activation in a reversible manner with no effect on NLRC4 and NLRP1. Dose-dependently reduces IL-1 β production (IC₅₀ = 7.5 & 8.1 nM in LPS & ATP-treated BMDMs & HMDMs, respectively) with minimal effect on IL-1 α & TNF- α . Specifically blocks NLRP3-dependent pyroptotic cell death by inhibiting caspase-1 & -11 activation, IL-1 β processing and ASC oligomerization. Does neither block K⁺ efflux, Ca²⁺ flux or NLRP3-ASC interactions nor inhibit NLRC4, AIM2, TLR signaling or NLRP3 priming. Effectively suppresses T cell responses and IL-1 β & IL-6 secretion, and reduces the severity of EAE and rescues neonatal lethality in a mouse model of CAPS (10 mg/kg, i.p., q.d. & 20 mg/kg, i.p., every other day, respectively). Displays attractive PK profile with desirable microsomal stability and minimal liability towards CYP450 isozymes (<15% inhibition at 10 & 30 μ M) & hERG (IC₅₀ >30 μ M). Please note that the molecular weight for this compound is batch-specific due to variable water content. Please refer to the vial label or the certificate of analysis for the batch-specific molecular weight. The molecular weight provided represents the baseline molecular weight without water.

Text/Information	Analyte/Parameter	CAS number	Concentration/Value	Unit	Method	Source
	CP-456773 sodium salt	[256373-96-3]				