

L-NAME HCl

货号: L6603

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

Nitric oxide synthase (NOS) is an enzyme responsible for the production of nitric oxide (NO) from L-arginine. L-NAME HCl is an inhibitor for bovine brain NOS and mouse macrophage NOS with K_i values of 15 nM and 4.4 μ M, respectively. In rMC-1 cells, the accumulation of NO induced by glucose (25 mM) was inhibited by 1 mM L-NAME HCl. The treatment of L-NAME HCl at 1 mM also led to significantly decreased cell death in glucose-stimulated rMC-1 cells. Elevated production of PGE₂ in BREC cells was significantly suppressed by 1 mM L-NAME HCl. With the presence of 30 μ M L-arginine and 100 μ M NADPH, L-NAME HCl at 0.1 – 100 μ M dose-dependently inhibited the formation of cyclic GMP in endothelial cytosol with an IC_{50} value of 3.1 μ M. It also inhibited [³H]-citrulline formation with an IC_{50} value of 0.09 μ M. L-NAME HCl at 0.1 – 300 μ M induced endothelium-dependent contraction of rings of rat aorta with an EC_{50} value of 26 μ M in the presence of 10 nM phenylephrine. The relaxation of rings of rat aorta was inhibited by 0.1 – 10 μ M L-NAME HCl at a dose-dependent manner with an IC_{50} value of 0.54 μ M. In Wistar rats, i.v. administration of L-NAME HCl (0.03 – 300 mg/kg) dose-dependently increased the mean arterial blood pressure with an EC_{50} value of 2.4 mg/kg, and the highest blood pressure induced by L-NAME HCl was 44.1 mmHg. The same treatment of L-NAME HCl also resulted in bradycardia at a concentration-dependent manner.

作用机制

L-NAME HCl is a soluble methyl ester that inhibits NOS. Intracellular esterases convert a variable and unknown fraction of L-NAME to L-NNA, which tightly but reversibly binds to NOS, competing with L-arginine.

产品信息

CAS 号	51298-62-5	
分子式	C7H16ClIN5O4	
分子量	269.69	
溶解度	DMSO	Insoluble
	Ethanol	Insoluble

