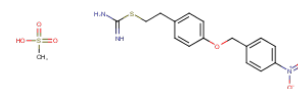


Catalog Number: CM05242

产品信息

Catalog Number:
CM05242CAS号:
182004-65-5分子式:
 $C_{17}H_{21}N_3O_6S_2$ 主要靶点:
Na⁺/Ca²⁺ Exchanger|Autophagy主要通路:
离子通道|自噬分子量:
427.5溶解度:
DMSO:55 mg/mL (128.65 mM)

靶点活性

Na⁺, Ca²⁺ exchanger: $5.7 \pm 2.1 \mu M$

体外活性

KB-R7943抑制了NCX(rev), 其IC(50)值为 $5.7 \pm 2.1 \mu M$, 阻断了NMDAR介导的离子流, 并且以IC(50) = $13.4 \pm 3.6 \mu M$ 抑制了NMDA诱导的胞浆Ca(2+)增加, 但加速了在谷氨酸处理的神经元中的钙失调和线粒体去极化。KB-R7943以Ca(2+)-独立的方式使线粒体去极化。NMDA受体的刺激导致与ATP合成耦合或未耦合的NAD(P)H氧化, 这取决于溶液中Ca(2+)的存在。KB-R7943或罗藤宁在静息条件下增加了NAD(P)H自荧光, 并在添加谷氨酸后抑制了NAD(P)H的氧化。KB-R7943以IC(50) = $11.4 \pm 2.4 \mu M$ 抑制了培养神经元的2,4-二硝基苯酚激活的呼吸。在分离的脑线粒体中, 当线粒体氧化复合物I底物时, KB-R7943抑制了呼吸、使器官去极化并抑制了Ca(2+)摄取, 但在提供琥珀酸(复合物II底物)时无效。

细胞实验

Fluorescence microscopy, electrophysiological patch-clamp techniques and cellular respirometry with Seahorse XF24 analyzer were used with cultured hippocampal neurons; membrane potential imaging, respirometry and Ca(2+) flux measurements were made in isolated rat brain mitochondria[1].

储存

Powder: -20°C for 3 years | In solvent: -80°C for 1 year | Shipping with blue ice.