Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Ro 25-6981

Catalog No: tcsc2011

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
169274-78-6

Formula:
$C_{22}H_{29}NO_2$

Pathway:
Membrane Transporter/Ion Channel;Neuronal Signaling

Target:
iGluR;iGluR

Purity / Grade:
>98%

Solubility:
10 mM in DMSO

Observed Molecular Weight:
339.47

Product Description

Ro 25-6981 is a potent and selective activity-dependent blocker of NMDA receptors containing the NR2B subunit. IC50 values are

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0.009 and 52 μM for cloned receptor subunit combinations NR1C/NR2B and NR1C/NR2A respectively.

IC50 value: 9 nM [1]

Target: NMDA receptor subtype of NR1C & NR2B

in vitro: Ro 25-6981 inhibited 3H-MK-801 binding to rat forebrain membranes in a biphasic manner with IC50 values of 0.003 microM and 149 microM for high- (about 60%) and low-affinity sites, respectively. NMDA receptor subtypes expressed in Xenopus oocytes were blocked with IC50 values of 0.009 microM and 52 microM for the subunit combinations NR1C & NR2B and NR1C & NR2A, respectively, which indicated a >5000-fold selectivity [1]. Increasing the concentration of spermidine did not change the efficacy of RO 25-6981 and minimally changed the IC(50) value. Epsilon1Q336R receptors were more inhibited by ifenprodil and RO 25-9681 than wildtype epsilon1 receptors in ligand binding assays but not in functional assays [2].

in vivo: Intrathecal injection of Ro 25-6981 significantly enhanced the paw withdrawal mechanical threshold and paw withdrawal thermal latency after the operation. Significant change has been observed after intrathecal injection of 800.0 μg of Ro 25-6981 and at 2h after operation in the oblique pull test degree and BBB rating score. Pretreatment of Ro 25-6981 decreased the high level expression of NR2B with tyrosine phosphorylation in spinal dorsal horn of the rat model after the operation [3].