Web: www.taiclone.com
Tel: +886-2-2735-9682
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Dizocilpine (Maleate)

Catalog No: tcsc1290

Available Sizes

Size: 10mg

Size: 50mg

Specifications

CAS No:
77086-22-7

Formula:
$C_{20}H_{19}NO_4$

Pathway:
Membrane Transporter/Ion Channel;Neuronal Signaling

Target:
iGluR;iGluR

Purity / Grade:
>98%

Solubility:
Ethanol : 6 mg/mL (17.78 mM; Need ultrasonic); H2O :

Alternative Names:
(+)-MK 801 (Maleate)

Observed Molecular Weight:
337.37

Product Description

Dizocilpine ((+)-MK 801) Maleate is a potent, selective and non-competitive **NMDA** receptor antagonist with $\mathbf{K_d}$ of 37.2 nM in rat brain membranes.

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IC50 & Target: Ki: 37.2 nM (NMDA receptor, in rat brain membrane)[1]

In Vitro: [^{3}H]MK-801 binds with NMDA receptor with a K_d of 37.2 ±2.7 nM in rat cerebral cortical membranes[1]. Dizocilpine ((+)-MK 801) shows an inhibitory activity against N-methyl-D-aspartate-induced [^{3}H]norepinephrine (NE) release and [^{3}H]TCP binding in the hippocampus with IC_{50}s of 20 nM and 9 nM, respectively[2]. Dizocilpine ((+)-MK 801) progressively suppresses of current induced by NMDA. Mg^{2+} (10 mM) prevents Dizocilpine ((+)-MK 801) from blocking the N-Me-D-Asp-induced current, even when MK-801 is applied for a long time in the presence of NMDA. MK-801 blocks NMDA-activated single-channel activity in outside-out patches[3]. Dizocilpine ((+)-MK 801) (50 of 400 μM in BV-2 cells[4].

In Vivo: Dizocilpine ((+)-MK 801) (1 mg/kg) treatment before each METH injection reduces the extent of DA depletion by 55% in striatal of mice. Dizocilpine ((+)-MK 801) (1 mg/kg) also attenuates the effects of METH on microglial activation in striatal of mice[4]. Dizocilpine ((+)-MK 801) (0.05, 0.2 mg/kg, i.p.) attenuates subsequent cocaine-primed reinstatement without disruption in rats. Dizocilpine ((+)-MK 801) (0.2 mg/kg, i.p.) prior to two reactivation sessions in the home cage shows no suppression on subsequent cocaine-primed reinstatement[5].