

# 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

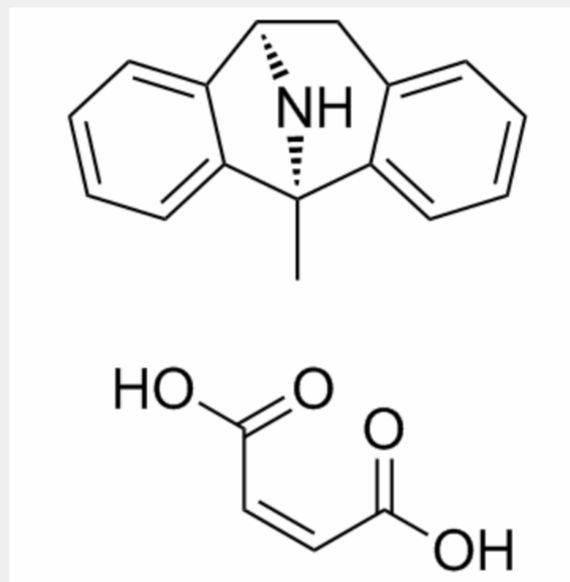
## Product Description

Dizocilpine ((+)-MK 801) Maleate is a potent, selective and non-competitive **NMDA** receptor antagonist with **K<sub>d</sub>** of 37.2 nM in rat brain membranes.

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

**In Vitro:** [<sup>3</sup>H]MK-801 binds with NMDA receptor with a  $K_d$  of  $37.2 \pm 2.7$  nM in rat cerebral cortical membranes<sup>[1]</sup>. Dizocilpine ((+)-MK 801) shows an inhibitory activity against N-methyl-D-aspartate-induced [<sup>3</sup>H]norepinephrine (NE) release and [<sup>3</sup>H]TCP binding in the hippocampus with  $IC_{50}$ s of 20 nM and 9 nM, respectively<sup>[2]</sup>. 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<sup>[3]</sup>. Dizocilpine ((+)-MK 801) (50 of 400  $\mu$ M in BV-2 cells<sup>[4]</sup>.

**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<sup>[4]</sup>. 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<sup>[5]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!