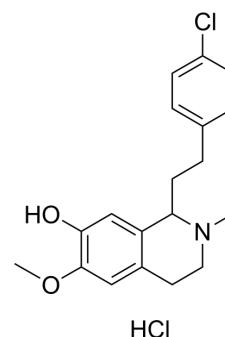


## Ro 04-5595 hydrochloride

<b>Cat. No.:</b>	HY-107696
<b>CAS No.:</b>	64047-73-0
<b>Molecular Formula:</b>	C <sub>19</sub> H <sub>23</sub> Cl <sub>2</sub> NO <sub>2</sub>
<b>Molecular Weight:</b>	368.3
<b>Target:</b>	iGluR
<b>Pathway:</b>	Membrane Transporter/Ion Channel; Neuronal Signaling
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Ro 04-5595 hydrochloride is a GluN2B-selective NMDA receptor antagonist (K <sub>i</sub> : 31 nM) <sup>[1]</sup> .								
<b>IC<sub>50</sub> &amp; Target</b>	GluN2B 31 nM (K <sub>i</sub> )								
<b>In Vivo</b>	<p>Ro 04-5595 hydrochloride (5-20 mg/kg, i.p.) inhibits MA-induced locomotor stimulation in mice<sup>[2]</sup>.</p> <p>Ro 04-5595 hydrochloride (10 mg/kg, i.p., for 6 days) reduced AMPA to NMDA ratio in Cocaine self-administering rats<sup>[3]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td> <td>Methamphetamine (MA) treated mice<sup>[1]</sup></td> </tr> <tr> <td>Dosage:</td> <td>3-30 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>i.p., given 30 min before injection of MA (2 mg/kg, i.p.)</td> </tr> <tr> <td>Result:</td> <td>Dose-dependently decreased MA-induced locomotor activity.</td> </tr> </table>	Animal Model:	Methamphetamine (MA) treated mice <sup>[1]</sup>	Dosage:	3-30 mg/kg	Administration:	i.p., given 30 min before injection of MA (2 mg/kg, i.p.)	Result:	Dose-dependently decreased MA-induced locomotor activity.
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Result:	Dose-dependently decreased MA-induced locomotor activity.								

### REFERENCES

- [1]. Mutel V, et al. In vitro binding properties in rat brain of [3H]Ro 25-6981, a potent and selective antagonist of NMDA receptors containing NR2B subunits. *J Neurochem.* 1998 May;70(5):2147-55.
- [2]. Li MH, et al. Amphetamine and Methamphetamine Increase NMDAR-GluN2B Synaptic Currents in Midbrain Dopamine Neurons. *Neuropsychopharmacology.* 2017 Jun;42(7):1539-1547.
- [3]. deBacker J, et al. GluN2B-containing NMDA receptors blockade rescues bidirectional synaptic plasticity in the bed nucleus of the stria terminalis of cocaine self-administering rats. *Neuropsychopharmacology.* 2015 Jan;40(2):394-405.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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