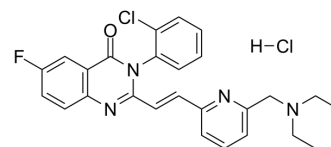


CP-465022 hydrochloride

Cat. No.:	HY-18663B
CAS No.:	1785666-59-2
Molecular Formula:	C ₂₆ H ₂₅ Cl ₂ FN ₄ O
Molecular Weight:	499.41
Target:	iGluR
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	CP-465022 hydrochloride is a potent, and selective noncompetitive AMPA receptor antagonist with anticonvulsant activity. CP-465022 is against Kainate-induced response with an IC ₅₀ of 25 nM in rat cortical neurons. CP-465022 provides a new tool to investigate the role of AMPA receptors in physiological and pathophysiological processes ^{[1][2]} .
IC₅₀ & Target	IC ₅₀ : 25 nM (rat cortical neurons) ^[1]
In Vitro	<p>CP-465022 (0.0001 μM-10 μM) inhibits kainate-induced response in relatively slow manner and depends on compound concentration, exhibiting a calculated IC₅₀ of 25 nM and essentially complete inhibition at 3.2 μM^[1].</p> <p>CP-465022 1 μM for 10 min has little effect on peak NMDA-induced currents but reduces current measured at 8 s during NMDA application by 26%. CP-465,022 at 10 μM inhibits peak NMDA-induced currents in cortical neurons by 36% and currents measured at 8 s by 70% d in primary cultures of cortical and cerebellar granule neurons^[1].</p> <p>CP-465022 1 μM for 10 min inhibits peak NMDA currents in cultured rat cerebellar granule neurons with mean inhibition of 19% and NMDA currents measured at 8 s by 45%, similar to what is observed in the cortical neurons^[1].</p> <p>CP-465022 (100 nM -10 μM) has inhibitory effects on Kainate-induced whole-cell currents in voltage-clamped rat hippocampal, 100 nM CP465,022 inhibits kainate currents developed over the course of 200s, 500 nM and 1 μM CP-465,022 nearly completely inhibits this time frame (99.3%)^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

REFERENCES

[1]. J T Lazzaro, et al. Functional characterization of CP-465,022, a selective, noncompetitive AMPA receptor antagonist. *Neuropharmacology*. 2002 Feb;42(2):143-53.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA