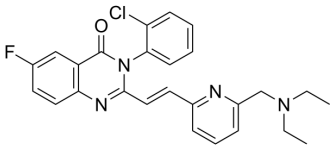
CP-465022

Cat. No.:	HY-18663
CAS No.:	199655-36-2
Molecular Formula:	$C_{26}H_{24}ClFN_4O$
Molecular Weight:	462.95
Target:	iGluR
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (108.00 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.1601 mL	10.8003 mL	21.6006 mL
	5 mM	0.4320 mL	2.1601 mL	4.3201 mL
	10 mM	0.2160 mL	1.0800 mL	2.1601 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.40 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

CP-465022 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].

IC_{50} & Target

IC50: 25 nM (rat cortical neurons)[1]

In Vitro

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].

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].

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 complete inhibits this time frame (99.3%)[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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.

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