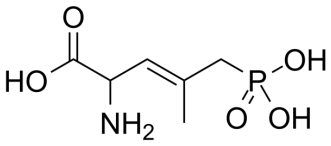
CGP 37849

Cat. No.:	HY-107702
CAS No.:	127910-31-0
Molecular Formula:	$C_6H_{12}NO_5P$
Molecular Weight:	209.14
Target:	iGluR
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



BIOLOGICAL ACTIVITY

Description	CGP 37849 is a potent, competitive and orally active N-methyl-D-aspartate (NMDA) receptor antagonist. CGP 37849 is an anticonvulsant in rodents and has antidepressant and anxiolytic-like effects[1].
In Vitro	In the hippocampal slice in vitro, CGP 37849 selectively and reversibly antagonizes NMDA-evoked increases in CA1 pyramidal cell firing rate. In slices bathed in medium containing low Mg^{2+} levels, concentrations of CGP 37849 up to 10 μM suppresses burst firing evoked in CA1 neurones by stimulation of Schaffer collateral-commissural fibres without affecting the magnitude of the initial population spike[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	CGP 37849 potently (K_i of 220 nM) and competitively inhibits NMDA-sensitive l-[^{3}H]-glutamate binding to postsynaptic density (PSD) fractins from rat brain. CGP 37849 inhibits the binding of the selective NMDA receptor antagonist, [^{3}H]-(±)-3-(2-carboxypiperazin-4-yl)propyl-1-phosphonate (CPP), with a K_i of 35 nM[1]. In vivo, oral administration to rats of CGP 37849 selectively blocks firing in hippocampal neurones induced by ionophoretically-applied NMDA, without affecting the responses to quisqualate or kainate[1]. Oral administration to mice of CGP 37849 suppresses maximal electroshock-induced seizures in mice with an ED_{50} of 21 mg/kg[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Fagg GE, et al. CGP 37849 and CGP 39551: novel and potent competitive N-methyl-D-aspartate receptor antagonists with oral activity. Br J Pharmacol. 1990 Apr;99(4):791-7.

[2]. Schmutz M, et al. The competitive NMDA receptor antagonists CGP 37849 and CGP 39551 are potent, orally-active anticonvulsants in rodents. Naunyn Schmiedebergs Arch Pharmacol. 1990 Jul;342(1):61-6.

[3]. Papp M, et al. Antidepressant activity of non-competitive and competitive NMDA receptor antagonists in a chronic mild stress model of depression. Eur J Pharmacol. 1994 Sep 22;263(1-2):1-7.

[4]. Przegaliński E, et al. The influence of the benzodiazepine receptor antagonist flumazenil on the anxiolytic-like effects of CGP 37849 and ACPC in rats. Neuropharmacology. 2000 Jul 24;39(10):1858-64.

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

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