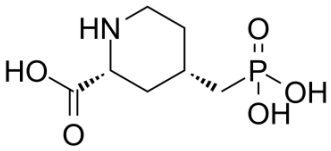
Selfotel

Cat. No.:	HY-15086
CAS No.:	110347-85-8
Molecular Formula:	$C_7H_{14}NO_5P$
Molecular Weight:	223.16
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	Selfotel (CGS 19755) is a selective and competitive antagonist at N-methyl-D-aspartate (NMDA)-preferring receptor. CGS 19755 inhibits the binding of [3H]-3-(2-carboxypiperazin-4-yl)propyl-1-phosphonic acid to NMDA-type receptors with an IC_{50} of 50 nM[1][2].
IC_{50} & Target	IC50: 50 nM (the binding of [3H]-3-(2-carboxypiperazin-4-yl)propyl-1-phosphonic acid to NMDA-type receptors)[2].
In Vitro	Selfotel (CGS 19755) results in a concentration-dependent reduction in neuronal death as assessed by phase-contrast microscopy and by measurement of LDH release into the bathing medium 20-24 h later. The mean (±SD) ED_{50} for CGS 19755 against NMDA toxicity is 25.4 ± 30.8 μM, determined from 6 experiments, each using 4 cultures per condition[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Selfotel (CGS 19755) administered p.o. by gavage has little or no effect in these test procedures. In an experimental model of anxiety in rats[1]. Selfotel (CGS 19755) significantly increases conflict responding within a relatively narrow dose range (minimum effective dose, 1.73 mg/kg i.p.)[1]. Selfotel (CGS 19755) blocks the harmaline-induced increase in cerebellar cyclic GMP levels at a dose of 4 mg/kg i.p. with duration of action exceeding 2 hr[2]. Selfotel (CGS 19755) inhibits convulsions elicited by maximal electroshock in rat (ED_{50} = 3.8 mg/kg i.p. 1 hr after administration) and in mouse (ED_{50} = 2.0 mg/kg i.p. 0.5 hr after administration)[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. D A Bennett, et al. Behavioral pharmacological profile of CGS 19755, a competitive antagonist at N-methyl-D-aspartate receptors. J Pharmacol Exp Ther. 1989 Aug;250(2):454-60.

[2]. J Lehmann, et al. CGS 19755, a selective and competitive N-methyl-D-aspartate-type excitatory amino acid receptor antagonist. J Pharmacol Exp Ther. 1988 Jul;246(1):65-75.

[3]. M A Pérez-Pinzón, et al. Correlation of CGS 19755 neuroprotection against in vitro excitotoxicity and focal cerebral ischemia. J Cereb Blood Flow Metab. 1995 Sep;15(5):865-76.

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

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