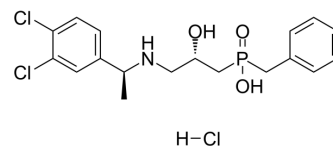


CGP55845 hydrochloride

Cat. No.:	HY-103516
CAS No.:	149184-22-5
Molecular Formula:	C ₁₈ H ₂₃ Cl ₃ NO ₃ P
Molecular Weight:	438.71
Target:	GABA Receptor
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	CGP55845 hydrochloride is a potent and selective GABAB receptor antagonist with an IC ₅₀ of 6 nM. CGP55845 hydrochloride can be used for neurological research ^{[1][2]} .
In Vitro	In the mouse visual cortex, CGP 55845 hydrochloride (1 μM) increases the frequency of spontaneous Ca ²⁺ transients and spontaneous and miniature IPSCs (mIPSCs) but does not affect mIPSC amplitudes or kinetics. CGP55845 hydrochloride significantly increases evoked IPSC (eIPSC) amplitudes and decreases the paired-pulse ratio (PPR) ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	CGP55845 hydrochloride (i.p.; once; 0.5 mg/kg) treatment increases the number of PSD95 positive puncta as well as density and maturation of dendritic spines in the perirhinal cortex (PRC), and restores novel object recognition (NOR) memory in Cdkl5 KO mice ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
Animal Model:	Cdkl5 +/Y and Cdkl5 -/Y male mice (2-month-old) ^[1]
Dosage:	0.5 mg/kg
Administration:	i.p.; once
Result:	Altered NOR recognition memory in Cdkl5 -/Y mice

REFERENCES

- [1]. Laura Gennaccaro, et al. A GABA B receptor antagonist rescues functional and structural impairments in the perirhinal cortex of a mouse model of CDKL5 deficiency disorder. *Neurobiol Dis.* 2021 Jun;153:105304.
- [2]. Claire-Marie Vacher, et al. GABA(B) receptors as potential therapeutic targets. *Curr Drug Targets CNS Neurol Disord.* 2003 Aug;2(4):248-59.
- [3]. Knut Kirmse, et al. Ambient GABA constrains the strength of GABAergic synapses at Cajal-Retzius cells in the developing visual cortex. *J Neurosci.* 2006 Apr 19;26(16):4216-27.

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

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