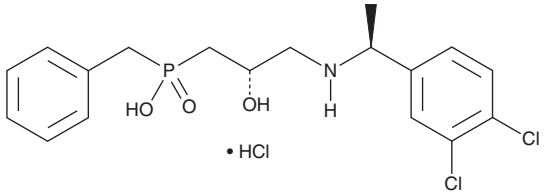
PRODUCT INFORMATION

CGP 55845 (hydrochloride)

Item No. 21912

CAS Registry No.: 149184-22-5
Formal Name: P-[(2S)-3-[[(1S)-1-(3,4-dichlorophenyl) ethyl]amino]-2-hydroxypropyl]-P-(phenylmethyl)-phosphinic acid, monohydrochloride
Synonym: CGP 55845A
MF: $C_{18}H_{22}Cl_2NO_3P \bullet HCl$
FW: 438.7
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

CGP 55845 (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the CGP 55845 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. CGP 55845 (hydrochloride) is soluble in DMSO.

Description

CGP 55845 is a $GABA_B$ receptor antagonist (K_i = 4.5 nM).[1] It increases electrical stimulation-induced GABA release in the absence and presence of the $GABA_B$ receptor agonist (–)-baclofen, as well as glutamate release in the presence of (–)-baclofen, in rat cerebral cortex slices (EC_{50}s = 8.3, 25, and 14 nM, respectively). CGP 55845 (1 µM) inhibits (–)-baclofen-induced postsynaptic hyperpolarization of evoked inhibitory postsynaptic potentials (IPSPs) and field excitatory postsynaptic potentials (fEPSPs) in rat CA1 hippocampal slices.[2] It increases swimming time, but does not decrease immobility time, in the forced swim test in rats when administered at a dose of 3 or 10 mg/kg.[3] CGP 55845 (0.01 and 0.1 mg/kg) reverses age-induced impairments in olfactory discrimination learning in rats.[4] It increases seizure intensity in a mouse model of epilepsy induced by pentylenetetrazole (PTZ; Item No. 18682) kindling.[5]

References

1. Waldmeier, P.C., Wicki, P., Feldtrauer, J.J., *et al.* GABA and glutamate release affected by $GABA_B$ receptor antagonists with similar potency: No evidence for pharmacologically different presynaptic receptors. *Br. J. Pharmacol.* **113(4)**, 1515-1521 (1994).
2. Davies, C.H., Pozza, M.F., and Collingridge, G.L. CGP 55845A: A potent antagonist of $GABA_B$ receptors in the CA1 region of rat hippocampus. *Neuropharmacology* **32(10)**, 1071-1073 (1993).
3. Slattery, D.A., Desrayaud, S., and Cryan, J.F. $GABA_B$ receptor antagonist-mediated antidepressant-like behavior is serotonin-dependent. *J. Pharmacol. Exp. Ther.* **312(1)**, 290-296 (2005).
4. LaSarge, C.L., Bañuelos, C., Mayse, J.D., *et al.* Blockade of GABA(B) receptors completely reverses age-related learning impairment. *Neuroscience* **164(3)**, 941-947 (2009).
5. De Sarro, G., Palma, E., Costa, N., *et al.* Effects of compounds acting on GABA(B) receptors in the pentylenetetrazole kindling model of epilepsy in mice. *Neuropharmacology* **39(11)**, 2147-2161 (2000).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM