## CGP 35348

Item No. 18599

CAS Registry No.: 123690-79-9

| Formal Name: | P -(3-aminopropyl)-P-(diethoxymethyl)-phosphinic acid |
| :--- | :--- |
| MF: | $\mathrm{C}_{8} \mathrm{H}_{2} \mathrm{NO}_{4} \mathrm{P}$ |
| FW: | 225.2 |
| Purity: | $\geq 95 \%$ |
| Supplied as: | A solid |
| Storage: | $4^{\circ} \mathrm{C}$ |

Stability: $\quad \geq 1$ year
Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

## Laboratory Procedures

CGP 35348 is supplied as a solid. A stock solution may be made by dissolving the CGP 35348 in water. We do not recommend storing the aqueous solution for more than one day.

## Description

The amino acid $\gamma$-aminobutyric acid (GABA) is an inhibitory neurotransmitter that acts through two families of heteromeric ligand-gated ion channels, $G_{A B A}^{A}$ and $G A B A_{C}$, and a $G$ protein-coupled receptor, GABA $_{B}$. CGP 35348 is a selective, brain-accessible GABA $_{B}$ receptor antagonist $\left(I C_{50}=34 \mu \mathrm{M}\right) .{ }^{1}$ It blocks the action of the $\mathrm{GABA}_{\mathrm{B}}$-selective agonist baclofen (Item No. 18600) at postsynaptic sites but not at presynaptic receptors. ${ }^{1,2}$ CGP 35348 prevents baclofen-induced antinociception and muscle relaxation in mice and rats. ${ }^{3}$ It is commonly used to investigate the role of $G A B A_{B}$ activation in neurological signaling.4-6

## References

1. Olpe, H.R., Karlsson, G., Pozza, M.F., et al. CGP 35348: A centrally active blocker of GABA B receptors. $_{\text {B }}$ reser Eur. J. Pharmacol. 187(1), 27-38 (1990).
2. Hills, J.M., Larkin, M.M., and Howson, W. A comparison of the relative activities of a number of GABA $B_{B}$ antagonists in the isolated vas deferens of the rat. Br. J. Pharmacol. 102(3), 631-634 (1991).
3. Malcangio, M., Ghelardini, C., Giotti, A., et al. CGP 35348, a new $G_{A B A}$ antagonist, prevents antinociception and muscle-relaxant effect induced by baclofen. Br. J. Pharmacol. 103(2), 1303-1308 (1991).
4. Koek, W., Cheng, J., and Rice, K.C. Discriminative stimulus effects of the $G_{A B A}$ receptorpositive modulator rac-BHFF: Comparison with $G A B A_{B}$ receptor agonists and drugs of abuse. J. Pharmacol. Exp. Ther. 344(3), 553-560 (2013).
5. Gillani, Q., Ali, M., and Iqbal, F. CGP 35348, GABA ${ }_{B}$ receptor antagonist, has a potential to improve neuromuscular coordination and spatial learning in albino mouse following neonatal brain damage. Biomed. Res. Int. 2014:295215, (2014).
6. Ding, L., Gao, R., Xiong, X.-Q., et al. GABA in paraventricular nucleus regulates adipose afferent reflex in rat. PLoS One 10(8), (2015).

## WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

## SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

