Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Carbamazepine

Catalog No: tcsc2225

Available Sizes

Size: 100mg

Size: 500mg

Specifications

CAS No:
298-46-4

Formula:
$C_{15}H_{12}N_2O$

Pathway:
Autophagy;Membrane Transporter/Ion Channel;Autophagy

Target:
Autophagy;Sodium Channel;Mitophagy

Purity / Grade:
>98%

Solubility:
DMSO : 50 mg/mL (211.62 mM; Need ultrasonic); H2O :

Alternative Names:
CBZ;NSC 169864

Observed Molecular Weight:
236.27

Product Description

Carbamazepine, a sodium channel blocker, is an anticonvulsant drug.

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Target: Sodium channel

Carbamazepine inhibits the binding of [3H]batrachotoxinin A 20-α-benzoate (BTX-B) to a receptor site of voltage-sensitive sodium channel with IC50 of 131 μM, to decrease the activation of sodium channel ion flux in rat brain synaptosomes. Carbamazepine does not alter basal 125I-labeled scorpion toxin binding to synaptosomes in the absence of batrachotoxin, but when batrachotoxin (1.25 μM) added, Carbamazepine inhibits the batrachotoxin-dependent increase in scorpion toxin binding in a concentration-dependent manner with IC50 of 260 μM mediated at the alkaloid toxin binding site, none of which affects [3H]saxitoxin binding [1]. Carbamazepine at 25 mg/kg significantly increases extracellular levels of striatal and hippocampal dopamine (DA), 3,4-dihydroxyphenylalanine (DOPA), 3,4-dihydroxyphenylacetic acid (DOPAC) and homovanillic acid (HVA) in a dose dependent manner, while Carbamazepine at 50 mg/kg significantly decreases total levels of striatal DA and DOPA as well as hippocampal HVA, but has no effect on total levels of striatal DOPAC and HVA nor on hippocampal DA, DOPA and DOPAC [2].