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

Oxcarbazepine

Catalog No: tcsc1869

Available Sizes

Size: 10mg

Size: 50mg

Specifications

CAS No:
28721-07-5

Formula:
$C_{15}H_{12}N_2O_2$

Pathway:
Membrane Transporter/Ion Channel

Target:
Sodium Channel

Purity / Grade:
>98%

Solubility:
10 mM in DMSO

Alternative Names:
GP 47680

Observed Molecular Weight:
252.27

Product Description

Oxcarbazepine inhibits the binding of [3H]BTX to sodium channels with IC50 of 160 μM and also inhibits the influx of 22Na+ into rat brain synaptosomes with IC50 about 100 μM.

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Target: Sodium Channel

Oxcarbazepine is an antiepileptic drug with a chemical structure similar to carbamazepine, but with different metabolism. Oxcarbazepine is rapidly reduced to 10,11-dihydro-10-hydroxy-carbazepine (monohydroxy derivative, MHD), the clinically relevant metabolite of oxcarbazepine. MHD has (S)-(+)- and the (R)-(-)-enantiomer [1]. Oxcarbazepine (oxcarb) 600 and 900 mg (2360 and 3540 mumol) was taken by 3 volunteers (2 female, 1 male; 45-67 kg; age 22-34 years) after an overnight fast. Blood, saliva and urine were collected for the next 72 h for assay of oxcarb, 10,11-dihydro-10-hydroxy-carbamazepine (OHcarb), and 10,11-dihydro-trans-10,11-dihydroxy-carbamazepine (diol). Oxcarb reached a maximum level of about 1 microgram/ml (3.93 mumol/l) within 1 h and dropped below the detection limit (0.1 microgram/ml = 0.39 mumol/l) within 3 h. The active metabolite OHcarb appeared in the blood before oxcarb and reached the higher maximum level of 7.4 microgram/ml (29 mumol/l) after 7 h [2].

Clinical indications: Epilepsy

Toxicity: Isolated cases of overdose with oxcarbazepine have been reported. The maximum dose taken was approximately 24,000 mg. All patients recovered with symptomatic treatment.