

Topiramate

Catalog No: tcsc1885



Available Sizes

Size: 100mg

Size: 500mg



Specifications

CAS No:

97240-79-4

Formula:

$C_{12}H_{21}NO_8S$

Pathway:

GPCR/G Protein

Target:

mGluR

Purity / Grade:

>98%

Solubility:

H₂O : 4 mg/mL (11.79 mM; Need ultrasonic); DMSO : ≥ 100 mg/mL (294.67 mM)

Alternative Names:

McN 4853;RWJ 17021

Observed Molecular Weight:

339.36

Product Description

Topiramate is an anticonvulsant that antagonizes GluR5 receptors and acts as a positive allosteric modulator of GABA receptor-mediated currents.

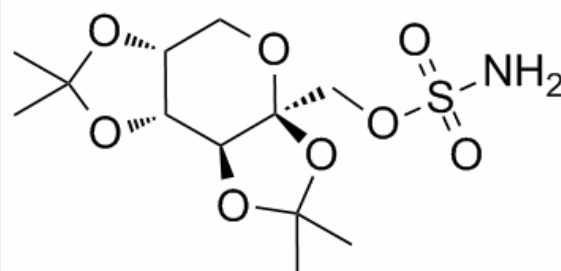
Target: GluR5 receptor; GABA receptor

Topiramate (Topamax) is a structurally novel broad-spectrum antiepileptic drug (AED) with established efficacy as monotherapy or adjunctive therapy in the treatment of adult and paediatric patients with generalised tonic-clonic seizures, partial seizures with or without generalised seizures, and seizures associated with Lennox-Gastaut syndrome [1]. topiramate has been believed to be a type of antiepileptic drug that blocks spread of seizures. Thus far, the mechanisms of its actions have been proven to include use-dependent inhibition of voltage-dependent Na⁺ channels in neurons, potentiation of GABA (gamma-amino-butyric acid)-induced Cl⁻ influx, and inhibitory effects on inward currents by antagonizing kainate/alpha-amino-3-hydroxy-5-methylisoxazole-4-propionic acid (AMPA) receptors [2].

Topiramate (median average dosage 5.1 mg/kg/day) was also found to be useful as adjunctive therapy in the management of Lennox-Gastaut syndrome and significantly reduced the mean frequency of drop attacks by 14.8% compared with an increase of 5.1% with placebo. Further gains in seizure control were made in a nonblind extension of this trial where the mean topiramate dosage was 10 mg/kg/day. Nine of 11 patients in 1 pilot trial of children with otherwise intractable West syndrome, and 5 of 10 in another, achieved a > or =50% reduction in seizure rate with topiramate (target dosage up to 24 mg/kg/day) [3].

Clinical indications: Epilepsy; Lennox Gastaut syndrome; Migraine; Seizure disorder

Toxicity: abdominal pain; agitation; blurred vision; convulsions; depression; dizziness; double vision; drowsiness; impaired coordination; impaired mental activity; low blood pressure; reduced consciousness; severe diarrhea; sluggishness and speech problems.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!