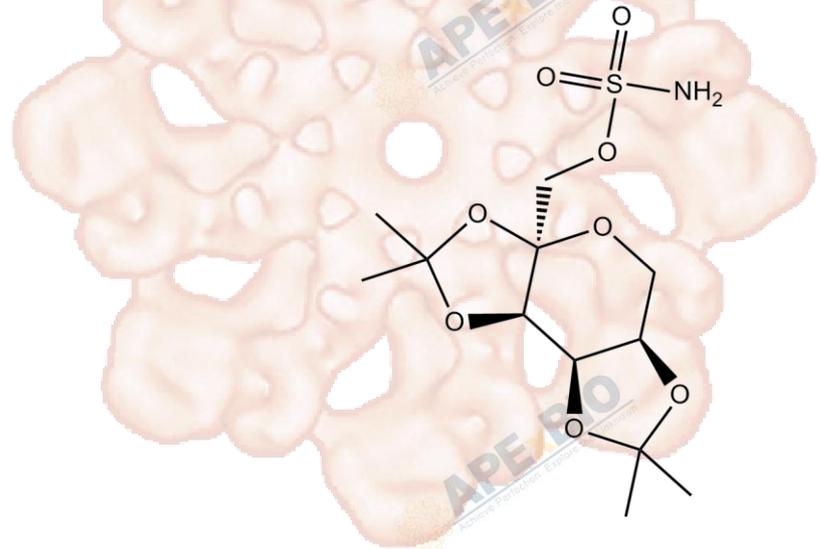


Product Data Sheet

Topiramate

Cat. No.:	A4360
CAS No.:	97240-79-4
Formula:	C ₁₂ H ₂₁ NO ₈ S
M.Wt:	339.36
Synonyms:	
Target:	Metabolism
Pathway:	Carbonic Anhydrase
Storage:	Store at -20°C



Solvent & Solubility

≥16.95 mg/mL in DMSO; ≥2.22 mg/mL in H₂O with ultrasonic; ≥24.1 mg/mL in EtOH

In Vitro

Preparing Stock Solutions	Solvent		Mass		
	Concentration		1mg	5mg	10mg
	1 mM		2.9467 mL	14.7336 mL	29.4672 mL
	5 mM		0.5893 mL	2.9467 mL	5.8934 mL
	10 mM		0.2947 mL	1.4734 mL	2.9467 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary

GluR5 receptor antagonist, anticonvulsant

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line: Neurons

Preparation method: The solubility of this compound in DMSO is > 10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or

		shake it in the ultrasonic bath for a while. Stock solution can be stored below -20 °C for several months.
	Reacting conditions:	25 ~ 400 μM
	Applications:	In dissociated neurons, Topiramate inhibited the persistent fraction of Na ⁺ current in a dose-dependent manner.
In Vivo	Animal experiment	
	Animal models:	Male NIH Swiss mice
	Dosage form:	25 ~ 100 mg/kg; i.p.
	Applications:	Topiramate (25 ~ 100 mg/kg, i.p.) produced a dose-dependent elevation in the threshold for clonic seizures induced by intravenous infusion of ATPA, a selective agonist of GluR5 kainate receptors.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

- [1]. Taverna S, Sancini G, Mantegazza M, Franceschetti S, Avanzini G. Inhibition of transient and persistent Na⁺ current fractions by the new anticonvulsant topiramate. J Pharmacol Exp Ther. 1999 Mar;288(3):960-8.
- [2]. Kaminski RM, Banerjee M, Rogawski MA. Topiramate selectively protects against seizures induced by ATPA, a GluR5 kainate receptor agonist. Neuropharmacology. 2004 Jun;46(8):1097-104.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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