**Topiramate**

**Cat. No.:** A4360  
**CAS No.:** 97240-79-4  
**Formula:** C12H21NO8S  
**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

<table>
<thead>
<tr>
<th>Solvent</th>
<th>1mg</th>
<th>5mg</th>
<th>10mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td>2.9467 mL</td>
<td>14.7336 mL</td>
<td>29.4672 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.5893 mL</td>
<td>2.9467 mL</td>
<td>5.8934 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.2947 mL</td>
<td>1.4734 mL</td>
<td>2.9467 mL</td>
</tr>
</tbody>
</table>

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

**Biological Activity**

**Shortsummary**  
GluR5 receptor antagonist, anticonvulsant

**IC50 & Target**

**Cell Viability Assay**

**In Vitro**

**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.

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.


References


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.