**Product Name:** Fingolimod (FTY720)

**Revision Date:** 03/24/2023

**Cat. No.:** A8544

**CAS No.:** 162359-86-0

**Formula:** C19H34ClNO2

**M.Wt.:** 343.94

**Synonyms:** Gilenia; FTY720; FTY-720

**Target:** GPCR/G protein

**Pathway:** S1P receptor

**Storage:** Store at -20°C

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**Solvent & Solubility**

- ≥ 17.2mg/mL in DMSO

<table>
<thead>
<tr>
<th>Concentration</th>
<th>1mg</th>
<th>5mg</th>
<th>10mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td>2.9075 mL</td>
<td>14.5374 mL</td>
<td>29.0748 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.5815 mL</td>
<td>2.9075 mL</td>
<td>5.8150 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.2907 mL</td>
<td>1.4537 mL</td>
<td>2.9075 mL</td>
</tr>
</tbody>
</table>

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

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**Biological Activity**

**Short summary:** S1P receptors agonist

**IC50 & Target**

**Cell Viability Assay**

**Cell Line:** MCF-7, MDA-MB-231, Sk-Br-3, HCT-116 and SW620 cells

**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:** IC50: 79.1 μM (MCF-7), 59.9 μM (MDA-MB-231), 72.9 μM (Sk-Br-3), > 100 μM (HCT-116) and 40.0 μM (SW620); 48 hours
The IC50 values of fingolimod were determined by a WST-1 assay. The results demonstrated that treatment of the compound caused cell death in a dose-dependent manner. Fingolimod exhibited comparatively low IC50 values within the concentration range of 5-7μM for all of the cells tested in this study.

Applications: The IC50 values of fingolimod were determined by a WST-1 assay. The results demonstrated that treatment of the compound caused cell death in a dose-dependent manner. Fingolimod exhibited comparatively low IC50 values within the concentration range of 5-7μM for all of the cells tested in this study.

Animal experiment

<table>
<thead>
<tr>
<th>Animal models</th>
<th>C57BL/6J mice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dosage form</td>
<td>Intraperitoneal injection, 0.1 mg per kg of body weight</td>
</tr>
<tr>
<td>Applications</td>
<td>As early as 30 min after injection of fingolimod (0.1 mg per kg of body weight), the levels of phosphorylated ERK1/2 (pERK1/2) were significantly increased in hippocampal neurons. After an additional 30 min, BDNF mRNA levels were elevated, and protein levels were significantly increased in the hippocampus, the cortex, and the striatum after 48 h.</td>
</tr>
</tbody>
</table>

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


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 data sheet. Most APLxBIO 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.