Tranilast

Cat. No.: HY-B0195
CAS No.: 53902-12-8
Molecular Formula: C₁₈H₁₇NO₅
Molecular Weight: 327.33
Target: Angiotensin Receptor
Pathway: GPCR/G Protein
Storage: Powder -20°C 3 years
        4°C  2 years
        In solvent -80°C 6 months
        -20°C 1 month

SOLVENT & SOLUBILITY

In Vitro
DMSO : 50 mg/mL (152.75 mM; Need ultrasonic)
H₂O : 10 mg/mL (30.55 mM; ultrasonic and adjust pH to 12 with NaOH)
H₂O : < 0.1 mg/mL (insoluble)

Preparing Stock Solutions

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Solvent</th>
<th>Mass</th>
<th>Concentration</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DMSO</td>
<td>1 mM</td>
<td></td>
<td>3.0550 mL</td>
<td>15.2751 mL</td>
<td>30.5502 mL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mM</td>
<td></td>
<td>0.6110 mL</td>
<td>3.0550 mL</td>
<td>6.1100 mL</td>
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<tr>
<td></td>
<td></td>
<td>10 mM</td>
<td></td>
<td>0.3055 mL</td>
<td>1.5275 mL</td>
<td>3.0550 mL</td>
</tr>
</tbody>
</table>

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

In Vivo
1. Add each solvent one by one: 0.5% CMC-Na/saline water
   Solubility: 2 mg/mL (6.11 mM); Precipitated solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (7.64 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.5 mg/mL (7.64 mM); Suspended solution; Need ultrasonic
4. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (7.64 mM); Clear solution

BIOLOGICAL ACTIVITY

Description: Tranilast is an antiallergic agent. Target: Angiotensin Receptor. Tranilast has been approved in Japan and South Korea, since 1982, for the treatment of bronchial asthma, with indications for keloids and hypertrophic scar added in 1993.
Tranilast is also used to treat asthma, autoimmune diseases, atopic and fibrotic pathologies, and can also inhibit angiogenesis. The antiproliferative properties of tranilast were found that tranilast elicited an inhibitory effect on fibroblast proliferation in vitro and also suppressed collagen production both in vitro and in vivo. Tranilast also reduced the release of chemical mediators from mast cells and suppressed hypersensitivity reactions. [1] Three-week-old C57Bl/10 and mdx mice received tranilast (~300 mg/kg) in their food for 9 weeks, after which fibrosis was assessed through histological analyses, and functional properties of tibialis anterior muscles were assessed in situ and diaphragm muscle strips in vitro. Tranilast administration did not significantly alter the mass of any muscles in control or mdx mice, but it decreased fibrosis in the severely affected diaphragm muscle by 31% compared with untreated mdx mice (P < 0.05) [2].

**REFERENCES**


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