Pizotifen

**Cat. No.:** HY-B0115  
**CAS No.:** 15574-96-6  
**Molecular Formula:** C₁₉H₂₁NS  
**Molecular Weight:** 295.44  
**Target:** 5-HT Receptor  
**Pathway:** GPCR/G Protein; Neuronal Signaling  
**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:** 20 mg/mL (67.70 mM; Need ultrasonic)  
**H₂O:** < 0.1 mg/mL (insoluble)

<table>
<thead>
<tr>
<th>Solvent</th>
<th>Mass</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Preparation</strong></td>
<td><strong>Concentration</strong></td>
</tr>
<tr>
<td>1 mM</td>
<td>3.3848 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.6770 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.3385 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: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
   **Solubility:** ≥ 2 mg/mL (6.77 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
   **Solubility:** ≥ 2 mg/mL (6.77 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil  
   **Solubility:** ≥ 2 mg/mL (6.77 mM); Clear solution

### BIOLOGICAL ACTIVITY

**Description**  
Pizotifen (Pizotyline) is a potent 5-HT₂ receptor antagonist, with a high affinity for 5-HT₁C binding site.

**IC₅₀ & Target**  
| 5-HT₂A Receptor | 5-HT₁C Receptor |

**In Vitro**  
Pizotifen (BC-105) is a potent 5-HT₂ receptor antagonist, with a high affinity for 5-HT₁C binding site[1]. Pizotifen is an antidepressent 5-HT₂A receptor antagonist and has the capacity to inhibit serotonin-enhanced ADP-induced platelet...
aggregation\textsuperscript{[2]}. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

**In Vivo**

The weights of the fetuses are significantly reduced by all administered doses of Pipethiadene and Pizotifen (BC-105); the weights of the placentas are significantly reduced after 0.6 and 1.2 mg/kg Pipethiadene and only after the middle dose of Pizotifen. The means of the implantations, live, dead fetuses, resorptions and the occurrence of external, skeletal and visceral anomalies do not differ from the control group. The number of chromosome aberrations in the bone marrow cells of treated mice does not differ significantly from the negative control group. The micronucleus test reveals no elevation in the frequency of micronuclei as compared to the control group. After the two higher doses of both Pipethiadene and Pizotifen (BC-105) maleate, the mitotic indices are lower than in the control group\textsuperscript{[3]}. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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