Taltirelin

**Cat. No.:** HY-B0596  
**CAS No.:** 103300-74-9  
**Molecular Formula:** C₁₇H₂₃N₇O₅  
**Molecular Weight:** 405.41  
**Target:** Thyroid Hormone Receptor  
**Pathway:** Vitamin D Related/Nuclear Receptor  
**Storage:**  
- Powder: -20°C 3 years, 4°C 2 years  
- In solvent: -80°C 2 years, -20°C 1 year

### SOLVENT & SOLUBILITY

#### In Vitro

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Solvent</th>
<th>Mass</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mg</td>
<td>1 mM</td>
<td>2.4666 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>12.3332 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td>24.6664 mL</td>
</tr>
</tbody>
</table>

DMSO: 100 mg/mL (246.66 mM; Need ultrasonic)  
H₂O: 100 mg/mL (246.66 mM; Need ultrasonic)

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

#### In Vivo

1. Add each solvent one by one: PBS  
   Solubility: 100 mg/mL (246.66 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
   Solubility: ≥ 2.5 mg/mL (6.17 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
   Solubility: ≥ 2.5 mg/mL (6.17 mM); Clear solution
4. Add each solvent one by one: 10% DMSO >> 90% corn oil  
   Solubility: ≥ 2.5 mg/mL (6.17 mM); Clear solution

### BIOLOGICAL ACTIVITY

**Description**  
Taltirelin (TA0910) is a superagonist at thyrotropin-releasing hormone receptor (TRH-R) with an IC₅₀ of 910 nM and EC₅₀ of 36 nM for stimulating an increase in cytosolic Ca²⁺ concentration ([Ca²⁺ release])

**IC₅₀ & Target**  
IC₅₀: 910 nM (Thyrotropin-releasing hormone receptor)[¹]
REFERENCES


Caution: Product has not been fully validated for medical applications. For research use only.
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