Teriparatide

**Cat. No.**: HY-P0059

**CAS No.**: 52232-67-4

**Molecular Formula**: C₁₈₁H₂₉₁N₅₅O₅₁S₂

**Molecular Weight**: 4117.72

**Sequence**: Ser-Val-Ser-Glu-Ile-Gln-Leu-Met-Asn-Leu-Gly-Lys-Leu-Asn-Ser-Met-Glu-Arg-Va

**Sequence Shortening**: SVSEIQLMHNGLKHLNSMERVEWLRLKKLQDVHNF

**Target**: Others

**Pathway**: Others

**Storage**: Sealed storage, away from moisture and light

-80°C 2 years

-20°C 1 year

* In solvent: -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)

### SOLVENT & SOLUBILITY

**In Vitro**

H₂O : 100 mg/mL (24.29 mM; Need ultrasonic)

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Solvent Concentration</th>
<th>Mass</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 mM</td>
<td></td>
<td>0.2429 mL</td>
<td>1.2143 mL</td>
<td>2.4285 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td></td>
<td>0.0486 mL</td>
<td>0.2429 mL</td>
<td>0.4857 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td></td>
<td>0.0243 mL</td>
<td>0.1214 mL</td>
<td>0.2429 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: PBS

Solubility: 50 mg/mL (12.14 mM); Clear solution; Need ultrasonic

### BIOLOGICAL ACTIVITY

**Description**

Teriparatide (Human parathyroid hormone-(1-34)) is a PTH1 receptor agonist. Teriparatide (Human parathyroid hormone-(1-34)) can be used for osteoporosis research[1].

**IC₅₀ & Target**

IC₅₀: 2 nM (PTH)[1].

**In Vivo**

Teriparatide (Human parathyroid hormone-(1-34)) (20 μg/kg, i.h.; daily, for 4 weeks; female New Zealand white rabbits) increases the cortical thickness and porosity[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

<table>
<thead>
<tr>
<th>Animal Model:</th>
<th>Female New Zealand white rabbits(^1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dosage:</td>
<td>20 μg/kg</td>
</tr>
<tr>
<td>Administration:</td>
<td>Subcutaneous injection; daily, for 4 weeks</td>
</tr>
<tr>
<td>Result:</td>
<td>Increased the pore ratio, number, and density as well as the cortical area, thickness, and bone mineral content (BMC), without significant influencing the volumetric bone mineral density (BMD).</td>
</tr>
</tbody>
</table>

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**REFERENCES**


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**CUSTOMER VALIDATION**

- Biomed Pharmacother. 2019 Feb 18;112:108578.

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