**Venadaparib**

Cat. No.: HY-137457  
CAS No.: 1681017-83-3  
Molecular Formula: C₂₃H₂₃FN₄O₂  
Molecular Weight: 406.45  
Target: PARP  
Pathway: Cell Cycle/DNA Damage; Epigenetics  
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 : 100 mg/mL (246.03 mM; Need ultrasonic)

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Concentration</th>
<th>Mass 1 mg</th>
<th>Mass 5 mg</th>
<th>Mass 10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td>2.4603 mL</td>
<td>12.3016 mL</td>
<td>24.6033 mL</td>
<td></td>
</tr>
<tr>
<td>5 mM</td>
<td>0.4921 mL</td>
<td>2.4603 mL</td>
<td>4.9207 mL</td>
<td></td>
</tr>
<tr>
<td>10 mM</td>
<td>0.2460 mL</td>
<td>1.2302 mL</td>
<td>2.4603 mL</td>
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</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 >> 90% corn oil  
   Solubility: ≥ 5.75 mg/mL (14.15 mM); Clear solution  
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
   Solubility: ≥ 5 mg/mL (12.30 mM); Clear solution  
3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
   Solubility: 5 mg/mL (12.30 mM); Suspended solution; Need ultrasonic

**BIOLOGICAL ACTIVITY**

**Description**  
Venadaparib (IDX-1197) is a potent, selective and orally active PARP inhibitor with IC₅₀ of 1.4 nM and 1.0 nM for PARP1 and PARP2, respectively. Venadaparib does not sensitive to PARP-5. Venadaparib prevents the repair of DNA single-strand breaks (SSB) and can be used for solid tumors research[1][2].

**IC₅₀ & Target**  
<table>
<thead>
<tr>
<th>IC₅₀ &amp; Target</th>
<th>PARP1</th>
<th>PARP2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.4 nM (IC₅₀)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 nM (IC₅₀)</td>
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</tbody>
</table>
### In Vitro
In DNA damage-induced Hela cells, Venadaparib (IDX-1197) significantly inhibits PARP1-mediated PAR expression (EC₅₀ of 0.5 nM)\(^1\).

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### In Vivo
In the germline BRCA1-mutated ovarian cancer PDX model, oral administration of Venadaparib (IDX-1197) exhibits significant PAR inhibition (>90%) in tumor tissues until 24 hr post dose. Venadaparib also dose-dependently led to potent tumor growth inhibition compared to Olaparib treatment group\(^1\).

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES
