**APX-115**

**Cat. No.**: HY-120801  
**CAS No.**: 1395946-75-4  
**Molecular Formula**: C₁₇H₁₈ClN₃O  
**Molecular Weight**: 315.8  
**Target**: NADPH Oxidase  
**Pathway**: Metabolic Enzyme/Protease  
**Storage**:  
- **Powder**  
  - -20°C  3 years  
  - 4°C  2 years  
- **In solvent**  
  - -80°C  6 months  
  - -20°C  1 month

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### SOLVENT & SOLUBILITY

**In Vitro**  
DMSO: ≥ 250 mg/mL (791.64 mM)  
* "≥" means soluble, but saturation unknown.

<table>
<thead>
<tr>
<th>Concentration</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td>3.1666 mL</td>
<td>15.8328 mL</td>
<td>31.6656 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.6333 mL</td>
<td>3.1666 mL</td>
<td>6.3331 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.3167 mL</td>
<td>1.5833 mL</td>
<td>3.1666 mL</td>
</tr>
</tbody>
</table>

Prepared Stock Solutions

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: ≥ 2.08 mg/mL (6.59 mM); Clear solution  
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
   Solubility: ≥ 2.08 mg/mL (6.59 mM); Clear solution  
3. Add each solvent one by one: 10% DMSO >> 90% corn oil  
   Solubility: ≥ 2.08 mg/mL (6.59 mM); Clear solution

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### BIOLOGICAL ACTIVITY

**Description**  
APX-115 (Ewha-18278) is a potent, orally active pan NADPH oxidase (Nox) inhibitor with Ki values of 1.08 μM, 0.57 μM, and 0.63 μM for Nox1, Nox2 and Nox4, respectively. APX-115 effectively prevents kidney injury[1].

**IC₅₀ & Target**  
Ki: 1.08 μM (Nox1), 0.57 μM (Nox2) and 0.63 μM (Nox4)[1]

**In Vitro**  
APX-115 (5 μM; 60 min) almost completely suppresses high glucose-induced proinflammatory and profibrotic molecule
expression in the mouse podocyte cell line[2].
In the kidney, APX-115 attenuates Nox gene upregulation and protein expression while improving inflammatory and fibrotic processes[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

APX-115 (oral gavage; 60 mg/kg/day; for 12 weeks) significantly improves insulin resistance in diabetic mice[2]. APX-115 treatment decreases the urinary excretion of albumin and plasma creatinine levels[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

<table>
<thead>
<tr>
<th>Animal Model</th>
<th>Six-week-old male diabetic db/db mice (C57BLKS/J-Lepr&lt;sup&gt;db&lt;/sup&gt;/lepr&lt;sup&gt;db&lt;/sup&gt;)[2]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dosage</td>
<td>60 mg/kg</td>
</tr>
<tr>
<td>Administration</td>
<td>Oral gavage; per day; for 12 weeks</td>
</tr>
<tr>
<td>Result</td>
<td>Significantly improved insulin resistance in diabetic mice.</td>
</tr>
</tbody>
</table>

REFERENCES
