Selonsertib

Cat. No.: HY-18938
CAS No.: 1448428-04-3
Molecular Formula: C₂₄H₂₄FN₇O
Molecular Weight: 445.49
Target: MAP3K; Apoptosis
Pathway: MAPK/ERK Pathway; Apoptosis
Storage: Powder -20°C 3 years
4°C 2 years
In solvent -80°C 1 year
-20°C 6 months

SOLVENT & SOLUBILITY

In Vitro
DMSO: ≥ 31 mg/mL (69.59 mM)
* “≥” means soluble, but saturation unknown.

Preparation of Stock Solutions

<table>
<thead>
<tr>
<th>Solvent Concentration</th>
<th>Mass (ml)</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.2447 mL</td>
<td>11.2236 mL</td>
<td>22.4472 mL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 mM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.4489 mL</td>
<td>2.2447 mL</td>
<td>4.4894 mL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 mM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.2245 mL</td>
<td>1.1224 mL</td>
<td>2.2447 mL</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

In Vivo
1. Add each solvent one by one: 5% DMSO >> 95% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.62 mg/mL (5.88 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (4.67 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (4.67 mM); Clear solution
4. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.67 mM); Clear solution

BIOLOGICAL ACTIVITY

Description
Selonsertib (GS-4997), an orally bioavailable, selective apoptosis signal-regulating kinase 1 (ASK1) inhibitor with a pIC₅₀ of 8.3, has been evaluated as an experimental treatment for diabetic nephropathy and kidney fibrosis.

IC₅₀ & Target
ASK1
8.3 (pIC₅₀)

In Vitro

Selonsertib (GS-4997) is a clinical stage ASK1 inhibitor, which has been evaluated as an experimental treatment for diabetic nephropathy and kidney fibrosis[1]. Selonsertib (GS-4997) is a highly selective and potent once-daily oral ASK1 inhibitor that competes with ATP in the ASK1 catalytic kinase domain[2].

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

CUSTOMER VALIDATION

- Biomaterials. 2022 Sep 28;290:121817.
- J Hazard Mater. 2021, 125179.
- Phytomedicine. 2023: 154646.

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REFERENCES


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

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