Fisogatinib

Cat. No.: HY-100492
CAS No.: 1707289-21-1
Molecular Formula: C₂₄H₂₄Cl₂N₄O₄
Molecular Weight: 503.38
Target: FGFR
Pathway: Protein Tyrosine Kinase/RTK
Storage: Powder -20°C 3 years
        4°C 2 years
        In solvent -80°C 6 months
        -20°C 1 month

SOLVENT & SOLUBILITY

In Vitro

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td>1.9866 mL</td>
<td>9.9329 mL</td>
<td>19.8657 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.3973 mL</td>
<td>1.9866 mL</td>
<td>3.9731 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.1987 mL</td>
<td>0.9933 mL</td>
<td>1.9866 mL</td>
</tr>
</tbody>
</table>

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (4.97 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (4.97 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (4.97 mM); Clear solution

BIOLOGICAL ACTIVITY

Description
Fisogatinib (BLU-554) is a potent, highly selective and orally active fibroblast growth factor receptor 4 (FGFR4) inhibitor with an IC₅₀ of 5 nM. Fisogatinib has significant anti-tumor activity in models of hepatocellular carcinoma (HCC) that are dependent on FGFR4 signalling[1][2].

IC₅₀ & Target
FGFR4
| 5 nM (IC₅₀) |
|---|---|

### In Vivo

Tissue distribution of Fisogatinib (10 mg/kg; oral gavage; for 4 hours; FVB/NRj mice) in wild-type mice is as follows; tissue concentrations decreases in the order liver > kidney > small intestine > spleen > brain. The high Fisogatinib liver-to-plasma ratio suggests there is a relatively high amount of the drug being transported into the liver[^1].

<table>
<thead>
<tr>
<th>Animal Model:</th>
<th>Wild type male mice (FVB/NRj, 11-14 weeks of age)[^1]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dosage:</td>
<td>10 mg/kg</td>
</tr>
<tr>
<td>Administration:</td>
<td>Oral gavage; for 4 hours (Pharmacokinetic study)</td>
</tr>
<tr>
<td>Result:</td>
<td>Tissue concentrations decreased in the order liver &gt; kidney &gt; small intestine &gt; spleen &gt; brain.</td>
</tr>
</tbody>
</table>

### REFERENCES


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

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