Itacitinib

Cat. No.: HY-16997
CAS No.: 1334298-90-6
Molecular Formula: C₂₆H₂₃F₄N₉O
Molecular Weight: 553.51
Target: JAK
Pathway: Epigenetics; JAK/STAT Signaling; Stem Cell/Wnt
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 : ≥ 30 mg/mL (54.20 mM)
* "≥" means soluble, but saturation unknown.

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Solvent Mass Concentration</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 mM</td>
<td>1.8067 mL</td>
<td>9.0333 mL</td>
<td>18.0665 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>0.3613 mL</td>
<td>1.8067 mL</td>
<td>3.6133 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td>0.1807 mL</td>
<td>0.9033 mL</td>
<td>1.8067 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: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (4.52 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (4.52 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (4.52 mM); Clear solution

BIOLOGICAL ACTIVITY

Description
Itacitinib (INCB039110) is an orally active and selective inhibitor of JAK1 with an IC₅₀ of 2 nM for human JAK1.
Itacitinib shows >20-fold selectivity for JAK1 over JAK2 and >100-fold over JAK3 and TYK2; Itacitinib is used in the research of myelofibrosis[1,2].

IC₅₀ & Target
JAK1
Itacitinib (INCB039110) is a potent and selective inhibitor of JAK1, with >20-fold selectivity for JAK1 over JAK2 and >100-fold over JAK3 and TYK2. Itacitinib is used in the research of myelofibrosis.[1]

**REFERENCES**
