Sunvozertinib

Cat. No.: HY-132842
CAS No.: 2370013-12-8
Molecular Formula: \( \text{C}_{29}\text{H}_{35}\text{ClF}_{7}\text{N}_{7}\text{O}_{3} \)
Molecular Weight: 584.08
Target: EGFR; Btk
Pathway: JAK/STAT Signaling; Protein Tyrosine Kinase/RTK
Storage:
- Powder: -20°C, 3 years
- In solvent: -80°C, 6 months
- -20°C, 1 month

**SOLVENT & SOLUBILITY**

**In Vitro**

DMSO: 100 mg/mL (171.21 mM; Need ultrasonic)

| Concentration | Mass
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td>1.7121 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.3424 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.1712 mL</td>
</tr>
</tbody>
</table>

Preparing 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: \( \geq 2.5 \text{ mg/mL (4.28 mM)} \); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-\( \beta \)-CD in saline)
   Solubility: 2.5 mg/mL (4.28 mM); Suspended solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: \( \geq 2.5 \text{ mg/mL (4.28 mM)} \); Clear solution

**BIOLOGICAL ACTIVITY**

**Description**

Sunvozertinib (DZD9008) is a potent ErbBs (EGFR, Her2, especially mutant forms) and BTK inhibitor. Sunvozertinib shows IC\(_{50}\)s of 20.4, 20.4, 1.1, 7.5, and 80.4 nM for EGFR exon 20 NPH insertion, EGFR exon 20 ASV insertion, EGFR L858R and T790M mutations, and Her2 Exon20 YVMA, and EGFR WT A431, respectively (patent WO2019149164A1, example 52)\(^1\).

<table>
<thead>
<tr>
<th>IC(_{50}) &amp; Target</th>
<th>EGFR exon 20 insertion</th>
<th>EGFR(^{L858R/T790M})</th>
<th>Her2 Exon20 YVMA</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.4 nM (IC(_{50}))</td>
<td>1.1 nM (IC(_{50}))</td>
<td>7.5 nM (IC(_{50}))</td>
<td></td>
</tr>
</tbody>
</table>

**In Vitro**

Sunvozertinib shows GI\(_{50}\)s of 60.4, 83.2, 3.3, 101.3, and 47.1 nM for EGFR exon NPH insertion, EGFR exon 20 ASV insertion,
EGFR L858R and T790M mutations, and Her2 Exon20 YYMA, and EGFR WT A431, respectively. Sunvozertinib shows GI\textsubscript{50} s of 3.2, 5.8, 51.3, and 1983.5 nM for BTK WT OCI-LY-10, BTK WT TMD-8, BTK WT Ri-1, and non-BCR activated DB, respectively\cite{1}. Sunvozertinib inhibits p-BTK with IC\textsubscript{50} of 1.6 nM\cite{1}.

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

REFERENCES