PTC299

Cat. No.: HY-124593
CAS No.: 1256565-36-2
Molecular Formula: C₂₅H₂₀Cl₂N₂O₃
Molecular Weight: 467.34
Target: VEGFR; Dihydroorotate Dehydrogenase; DNA/RNA Synthesis
Pathway: Protein Tyrosine Kinase/RTK; Metabolic Enzyme/Protease; Cell Cycle/DNA Damage
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 : 50 mg/mL (106.99 mM; Need ultrasonic)

Preparation of Stock Solutions

<table>
<thead>
<tr>
<th>Solvent</th>
<th>Concentration</th>
<th>Mass (mL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMSO</td>
<td>1 mM</td>
<td>2.1398 mL</td>
</tr>
<tr>
<td>DMSO</td>
<td>5 mM</td>
<td>0.4280 mL</td>
</tr>
<tr>
<td>DMSO</td>
<td>10 mM</td>
<td>0.2140 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: ≥ 0.83 mg/mL (1.78 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 0.83 mg/mL (1.78 mM); Clear solution

BIOLOGICAL ACTIVITY

Description
PTC299 is a potent, orally bioavailable VEGFA inhibitor, targets dihydroorotate dehydrogenase (DHODH), resulting in cell growth inhibition and differentiation in leukemias, including acute myeloid leukemia, linking DHODH regulation and stress-induced VEGFA and angiogenesis[1][2][3].

IC₅₀ & Target
VEGF[2]

In Vitro
PTC299 inhibits hypoxia-induced VEGFA protein production in HeLa cells with an EC₅₀ of 1.64 ± 0.83 nM[3]. PTC299 is the most potent inhibitor with an IC₅₀ of about 1 nM, over 10 to 1000-fold more potent than Brequinar,
Vidofludimus or A 77-1726 in leukemia cells[1].

REFERENCES


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