Oglemilast

Cat. No.: HY-15178
CAS No.: 778576-62-8
Molecular Formula: C₂₀H₁₃Cl₂F₂N₃O₅S
Molecular Weight: 516.3
Target: Phosphodiesterase (PDE)
Pathway: Metabolic Enzyme/Protease
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 : 4 mg/mL (7.75 mM; Need ultrasonic)
H₂O : < 0.1 mg/mL (insoluble)

Preparing Stock Solutions

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Solvent</th>
<th>Concentration</th>
<th>Mass</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 mg</td>
<td>5 mg</td>
<td>10 mg</td>
</tr>
<tr>
<td>1 mM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 mM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 mM</td>
<td></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: 10% DMSO >> 90% corn oil
Solubility: ≥ 0.4 mg/mL (0.77 mM); Clear solution

BIOLOGICAL ACTIVITY

Description
Oglemilast (GRC 3886) is a potent and orally active phosphodiesterase-4 (PDE4) inhibitor with an IC₅₀ of 0.5 nM for PDE4D3. Oglemilast inhibits pulmonary cell infiltration, including eosinophilia and neutrophilia in vitro and in vivo. Oglemilast has the potential for inflammatory airway diseases[1][2][3].

IC₅₀ & Target
PDE4D3
0.5 nM (IC₅₀)

In Vitro
Oglemilast (GRC 3886) has EC₅₀s of 11.4 nM, 4.4 nM for PDE 4B1 and PDE 4D3 reporter cell lines, respectively[3].
REFERENCES

