ONO-AE3-208

Cat. No.: HY-50901
CAS No.: 402473-54-5
Molecular Formula: C₂₄H₂₁FN₂O₃
Molecular Weight: 404.43
Target: Prostaglandin Receptor
Pathway: GPCR/G Protein
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: ≥ 45 mg/mL (111.27 mM)
H₂O: < 0.1 mg/mL (insoluble)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

<table>
<thead>
<tr>
<th>Solvent</th>
<th>Concentration</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMSO</td>
<td>1 mM</td>
<td>2.4726 mL</td>
<td>12.3631 mL</td>
<td>24.7262 mL</td>
</tr>
<tr>
<td>DMSO</td>
<td>5 mM</td>
<td>0.4945 mL</td>
<td>2.4726 mL</td>
<td>4.9452 mL</td>
</tr>
<tr>
<td>DMSO</td>
<td>10 mM</td>
<td>0.2473 mL</td>
<td>1.2363 mL</td>
<td>2.4726 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: ≥ 2.08 mg/mL (5.14 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.08 mg/mL (5.14 mM); Suspended solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (5.14 mM); Clear solution

BIOLOGICAL ACTIVITY

Description
ONO-AE3-208 is an EP4 antagonist, and suppresses cell invasion, migration, and metastasis of prostate cancer.

IC₅₀ & Target
EP4
In Vitro

ONO-AE3-208 suppresses the in vitro cell invasion and migration in a dose-dependent manner without affecting cell proliferation[1]. ONO-AE3-208 abolishes CTGF in the presence of the EET synthesis inhibitor MS-PPOH. Arachidonic acid (AA) causes dose-dependent dilation of the attached Af-Art, and this effect is blocked by ONO-AE3-208[2].

In Vivo

ONO-AE3-208 suppresses the in vivo bone metastasis of PC3 cells in mice[1]. The photon tumor burdens are significantly increased in a time-dependent manner in the control group in comparison with those in the ONO-AE3-208-treated group. The rate of metastasis formation is significantly higher in the former than in the latter. The median time of metastasis formation is 29 d in the ONO-AE3-208-treated animals as compared with 21 d in the controls[3].

REFERENCES