NNC 55-0396

Cat. No.: HY-50722
CAS No.: 357400-13-6
Molecular Formula: $C_{30}H_{40}Cl_2FN_3O_2$
Molecular Weight: 564.56
Target: Calcium Channel
Pathway: Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:
- Powder: -20°C for 3 years
- In solvent: -80°C for 6 months; -20°C for 1 month

SOLVENT & SOLUBILITY

In Vitro
DMSO : 100 mg/mL (177.13 mM; Need ultrasonic)

Preparing Stock Solutions

<table>
<thead>
<tr>
<th>Solvent</th>
<th>Mass</th>
<th>Concentration</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td></td>
<td></td>
<td>1.7713 mL</td>
<td>8.8565 mL</td>
<td>17.7129 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td></td>
<td></td>
<td>0.3543 mL</td>
<td>1.7713 mL</td>
<td>3.5426 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td></td>
<td></td>
<td>0.1771 mL</td>
<td>0.8856 mL</td>
<td>1.7713 mL</td>
</tr>
</tbody>
</table>

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description
NNC 55-0396, Mibefradil derivative, is a highly selective T-type calcium channel blocker; displays IC50 values of 6.8 and > 100 μM for inhibition of Cav3.1 T-type channels and HVA currents respectively in INS-1 cells. IC50 value: 6.8 nM
Target: Cav3.1 T-type channel
NNC 55-0396 can be an essential tool in preventing human ovarian cancer cell proliferation as a result of its ability to inhibit the function of T-type Ca2+ channels. It is believed that NNC 55-0396 may functions by dissolving in or passing through the plasma membrane of cells.

REFERENCES


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

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