KN-62

Cat. No.: A8180
CAS No.: 127191-97-3
Formula: C38H35N5O6S2
M.Wt: 721.9

Synonyms: Others
Target: CaM kinase II
Pathway: CaM kinase II
Storage: Desiccate at -20°C

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**Solvent & Solubility**

≥36.1mg/mL in DMSO, ≥15.88mg/mL in EtOH with ultrasonic, insoluble in H2O

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Mass</th>
<th>1mg</th>
<th>5mg</th>
<th>10mg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Solvent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 mM</td>
<td>DMSO</td>
<td>1.3852 mL</td>
<td>6.9262 mL</td>
<td>13.8523 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>DMSO</td>
<td>0.2770 mL</td>
<td>1.3852 mL</td>
<td>2.7705 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>DMSO</td>
<td>0.1385 mL</td>
<td>0.6926 mL</td>
<td>1.3852 mL</td>
</tr>
</tbody>
</table>

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

**Biological Activity**

**Shortsummary**

CaM kinase II inhibitor

**IC50 & Target**

0.9 μM (Calmodulin protein kinase II)

**Cell Viability Assay**

<table>
<thead>
<tr>
<th></th>
<th>K562 cells</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cell Line:</td>
<td></td>
</tr>
<tr>
<td>Preparation method:</td>
<td>The solubility of this compound in DMSO is &gt; 36.1 mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below - 20 °C for several months.</td>
</tr>
<tr>
<td>Reacting conditions:</td>
<td>1, 2, 5 or 10 μM; 24 or 48 hrs</td>
</tr>
<tr>
<td>Applications:</td>
<td>KN-62 inhibited the cell growth of K562 cells in a dose-dependent manner. Two</td>
</tr>
</tbody>
</table>
days after the treatment of 10 μM KN-62, 63% K562 cells were inhibited. Flow cytometric analysis showed that KN-62 (10 μM, 24 hrs) caused an accumulation of K562 cells in S phase. Immunoblotting studies indicated that CaMKII was inhibited in these K562 cells.

Animal experiment

Applications:

In Vivo


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