NKH477

Cat. No.: HY-103193  
CAS No.: 138605-00-2  
Molecular Formula: C₂₇H₄₄ClNO₈  
Molecular Weight: 546.09  
Target: Adenylate Cyclase  
Pathway: GPCR/G Protein  
Storage: Powder -20°C 3 years  
          4°C 2 years

* The compound is unstable in solutions, freshly prepared is recommended.

SOLVENT & SOLUBILITY

In Vitro  
DMSO : 125 mg/mL (228.90 mM; Need ultrasonic)

Preparation of Stock Solutions

<table>
<thead>
<tr>
<th>Concentration</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td>1.8312 mL</td>
<td>9.1560 mL</td>
<td>18.3120 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.3662 mL</td>
<td>1.8312 mL</td>
<td>3.6624 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.1831 mL</td>
<td>0.9156 mL</td>
<td>1.8312 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 (3.81 mM); Clear solution

2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
   Solubility: ≥ 2.08 mg/mL (3.81 mM); Clear solution

3. Add each solvent one by one: 10% DMSO >> 90% corn oil  
   Solubility: ≥ 2.08 mg/mL (3.81 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

NKH477 (Colforsin dapropate hydrochloride) is a novel water-soluble forskolin derivative that improves cardiac failure mainly through its beneficial effects on diastolic cardiac function. NKH477 directly activates the catalytic unit of adenylate cyclase and increases intracellular cAMP. NKH477 exerts an antiproliferative effect in vivo with an altered cytokine profile to inhibit the acute rejection of rat orthotopic lung allografts[1].

IC₅₀ & Target

Adenylate Cyclase[¹]

In Vivo

NKH477 (Colforsin dapropate hydrochloride) (orally; 1-3 mg/kg/day; days 3 and 5) prolonged lung allograft survival in a dose...
dependent manner\textsuperscript{[1]}. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

<table>
<thead>
<tr>
<th>Animal Model</th>
<th>Specific-pathogen-free inbred male Lewis rats (LEW) weighing 250 to 280 g\textsuperscript{[1]}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dosage</td>
<td>1, 2 or 3 mg/kg/day</td>
</tr>
<tr>
<td>Administration</td>
<td>Orally; daily; Days 3 and 5</td>
</tr>
<tr>
<td>Result</td>
<td>Prolonged lung allograft survival in a dose dependent manner.</td>
</tr>
</tbody>
</table>

\textbf{REFERENCES}