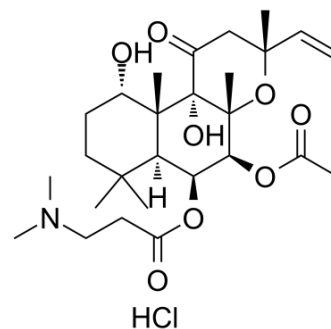


## NKH477

<b>Cat. No.:</b>	HY-103193
<b>CAS No.:</b>	138605-00-2
<b>Molecular Formula:</b>	C <sub>27</sub> H <sub>44</sub> ClNO <sub>8</sub>
<b>Molecular Weight:</b>	546.09
<b>Target:</b>	Adenylate Cyclase
<b>Pathway:</b>	GPCR/G Protein
<b>Storage:</b>	Powder    -20°C    3 years 4°C        2 years



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

### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 125 mg/mL (228.90 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	<b>Preparing Stock Solutions</b>	1 mM	1.8312 mL	9.1560 mL	18.3120 mL
		5 mM	0.3662 mL	1.8312 mL	3.6624 mL
		10 mM	0.1831 mL	0.9156 mL	1.8312 mL
Please refer to the solubility information to select the appropriate solvent.					
<b>In Vivo</b>	<ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: ≥ 2.08 mg/mL (3.81 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (3.81 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: ≥ 2.08 mg/mL (3.81 mM); Clear solution</li> </ol>				

### BIOLOGICAL ACTIVITY

<b>Description</b>	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 <sup>[1]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	Adenylate Cyclase <sup>[1]</sup>
<b>In Vivo</b>	NKH477 (Colforsin dapropate hydrochloride) (orally; 1-3 mg/kg/day; days 3 and 5) prolonged lung allograft survival in a dose

dependent manner<sup>[1]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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

## REFERENCES

[1]. Nakashima S, et al. Antiproliferative effects of NKH477, a forskolin derivative, on cytokine profile in rat lung allografts. J Heart Lung Transplant. 2005 Apr;24(4):462-9.

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

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