SKF-96365 hydrochloride

**Cat. No.:** HY-100001  
**CAS No.:** 130495-35-1  
**Molecular Formula:** C₂₂H₂₇ClN₂O₃  
**Molecular Weight:** 402.91  
**Target:** TRP Channel; Autophagy  
**Pathway:** Membrane Transporter/Ion Channel; Neuronal Signaling; Autophagy  
**Storage:** 4°C, stored under nitrogen  
* In solvent: -80°C, 6 months; -20°C, 1 month (stored under nitrogen)

### SOLVENT & SOLUBILITY

**In Vitro**  
DMSO: 100 mg/mL (248.19 mM; Need ultrasonic)

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>DMSO</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solvent Mass Concentration</td>
<td>1 mM</td>
<td>2.4819 mL</td>
<td>12.4097 mL</td>
<td>24.8194 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.4964 mL</td>
<td>2.4819 mL</td>
<td>4.9639 mL</td>
<td></td>
</tr>
<tr>
<td>10 mM</td>
<td>0.2482 mL</td>
<td>1.2410 mL</td>
<td>2.4819 mL</td>
<td></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: ≥ 2.5 mg/mL (6.20 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
   Solubility: ≥ 2.5 mg/mL (6.20 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil  
   Solubility: ≥ 2.5 mg/mL (6.20 mM); Clear solution

### BIOLOGICAL ACTIVITY

**Description**  
SKF-96365 hydrochloride is a non-selective TRP Channel blocker.

**IC₅₀ & Target**  
TRP Channel[^1]

**In Vitro**  
SKF-96365 exhibits potent anti-neoplastic activity by inducing cell-cycle arrest and apoptosis in colorectal cancer cells. SKF-96365 inhibits hERG current in a concentration-dependent manner[^1]. SKF-96365 can induce cytoprotective autophagy to delay apoptosis by preventing the release of cytochrome c (cyt c) from the mitochondria into the cytoplasm. Mechanistically, SKF-96365 treatment inhibits the calcium/calmodulin-dependent protein kinase II...
γ (CaMKIIγ)/AKT signaling cascade. Overexpression of CaMKIIγ or AKT abolishes the effects of SKF-96365 on cancer cells, suggesting a critical role of the CaMKIIγ/AKT signaling pathway in SFK-96365-induced biological effects[2].

**In Vivo**
SKF-96365 inhibits CRC cell growth in vivo. SKF-96365 treatment results in a decrease of p-CaMKII and p-AKT as well as an increase in LC3-II, cleaved PARP, caspase-3, and caspase-9 in mice[2].

**PROTOCOL**

**Animal Administration [2]**

Mice: Five to six-week-old female athymic BALB/c mice are inoculated into the right oxter with HCT116 cells. When the diameter of the subcutaneous tumor reaches approximately 0.5 cm, animals are randomly assigned to the vehicle, SKF-96365 alone, HCQ alone or SKF-96365+HCQ. SKF-96365 is applied (20 mg/kg) and HCQ is applied (60 mg/kg) daily for 14 successive days by i.p. injection. Tumor sizes and volume are determined. Eight mice are included in each group. Mice are sacrificed 24 h after the last treatment. The tumors are weighed and processed for western blot analysis or paraffin embedding[2].

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

**CUSTOMER VALIDATION**

- FASEB J. 2019 Jun 5:fj201802550R.

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**REFERENCES**
