**NSC689857**

**Cat. No.:** HY-123578  
**CAS No.:** 241127-79-7  
**Molecular Formula:** C₂₅H₂₉NO₄  
**Molecular Weight:** 407.5  
**Target:** EGFR; E1/E2/E3 Enzyme  
**Pathway:** JAK/STAT Signaling; Protein Tyrosine Kinase/RTK; Metabolic Enzyme/Protease  
**Storage:** Powder  
-20°C 3 years  
4°C 2 years  
In solvent  
-80°C 6 months  
-20°C 1 month

**SOLVENT & SOLUBILITY**

**In Vitro**  
DMSO: 100 mg/mL (245.40 mM; Need ultrasonic)  

<table>
<thead>
<tr>
<th>Solvent Concentration</th>
<th>Mass (1 mg)</th>
<th>Mass (5 mg)</th>
<th>Mass (10 mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td>2.4540 mL</td>
<td>12.2699 mL</td>
<td>24.5399 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.4908 mL</td>
<td>2.4540 mL</td>
<td>4.9080 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.2454 mL</td>
<td>1.2270 mL</td>
<td>2.4540 mL</td>
</tr>
</tbody>
</table>

Preparation of Stock Solutions:  

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
   Solubility: ≥ 2.5 mg/mL (6.13 mM); Clear solution  

2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
   Solubility: ≥ 2.5 mg/mL (6.13 mM); Clear solution  

3. Add each solvent one by one: 10% DMSO >> 90% corn oil  
   Solubility: ≥ 2.5 mg/mL (6.13 mM); Clear solution

**In Vivo**

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
   Solubility: ≥ 2.5 mg/mL (6.13 mM); Clear solution  

2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
   Solubility: ≥ 2.5 mg/mL (6.13 mM); Clear solution  

3. Add each solvent one by one: 10% DMSO >> 90% corn oil  
   Solubility: ≥ 2.5 mg/mL (6.13 mM); Clear solution

**BIOLOGICAL ACTIVITY**

**Description**  
NSC689857 is a potent EGFR and SCF\(^\text{SKP2}\) inhibitor with an IC\(_{50}\) value of 36 μM for Skp2-Cks1. NSC689857 can inhibit p27 ubiquitylation (IC\(_{50}\)=30 μM). NSC689857 has varied activity across cancer types, with more activity against leukemia cell lines than others\(^{[1][2]}\).

**IC\(_{50}\) & Target**  
IC\(_{50}\): 36 μM (Skp2-Cks1), 30 μM (p27 ubiquitylation)\(^{[1]}\)
REFERENCES
