**SR-318**

**Cat. No.:** HY-135674  
**CAS No.:** 2413286-32-3  
**Molecular Formula:** C₂₇H₃₃N₅O₂  
**Molecular Weight:** 459.58  
**Target:** p38 MAPK; TNF Receptor  
**Pathway:** MAPK/ERK Pathway; Apoptosis  
**Storage:** 4°C, protect from light  
* In solvent: -80°C, 6 months; -20°C, 1 month (protect from light)

### SOLVENT & SOLUBILITY

#### In Vitro

DMSO: 125 mg/mL (271.99 mM; Need ultrasonic)

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<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></td>
<td>2.1759 mL</td>
<td>10.8795 mL</td>
<td>21.7590 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td></td>
<td>0.4352 mL</td>
<td>2.1759 mL</td>
<td>4.3518 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td></td>
<td>0.2176 mL</td>
<td>1.0879 mL</td>
<td>2.1759 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 (4.53 mM); Clear solution

2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
   Solubility: ≥ 2.08 mg/mL (4.53 mM); Clear solution

3. Add each solvent one by one: 10% DMSO >> 90% corn oil  
   Solubility: ≥ 2.08 mg/mL (4.53 mM); Clear solution

### BIOLOGICAL ACTIVITY

**Description**  
SR-318 is a potent and highly selective p38 MAPK inhibitor with IC₅₀s of 5 nM, 32 nM and 6.11 μM for p38α, p38β and p38α/β, respectively. SR-318 potently inhibits the TNF-α release in whole blood with an IC₅₀ of 283 nM. SR-318 has anti-cancer and anti-inflammatory activity.[1]

**IC₅₀ & Target**

<table>
<thead>
<tr>
<th>p38α</th>
<th>p38β</th>
<th>TNF-α</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 nM (IC₅₀)</td>
<td>32 nM (IC₅₀)</td>
<td>283 nM (IC₅₀)</td>
</tr>
</tbody>
</table>

**In Vitro**  
SR-318 presents a potent and selective type-II inhibitor of p38α/β that can be used as a chemical probe for targeting this particular inactive state of these two p38 isoforms[1].
REFERENCES


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

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