**ATR inhibitor 2**

**Cat. No.:** HY-136270  
**CAS No.:** 1613191-99-3  
**Molecular Formula:** C₂₅H₂₉F₂N₉O₃  
**Molecular Weight:** 541.55

**Target:** ATM/ATR  
**Pathway:** Cell Cycle/DNA Damage; PI3K/Akt/mTOR

**Storage:**  
- Powder: -20°C, 3 years; 4°C, 2 years  
- In solvent: -80°C, 6 months; -20°C, 1 month

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**SOLVENT & SOLUBILITY**

**In Vitro**  
DMSO: 25 mg/mL (46.16 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>1.8466 mL</td>
<td>9.2328 mL</td>
<td>18.4655 mL</td>
<td></td>
</tr>
<tr>
<td>5 mM</td>
<td>0.3693 mL</td>
<td>1.8466 mL</td>
<td>3.6931 mL</td>
<td></td>
</tr>
<tr>
<td>10 mM</td>
<td>0.1847 mL</td>
<td>0.9233 mL</td>
<td>1.8466 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 >> 90% (20% SBE-β-CD in saline)  
   Solubility: ≥ 2.08 mg/mL (3.84 mM); Clear solution  
2. Add each solvent one by one: 10% DMSO >> 90% corn oil  
   Solubility: 2.08 mg/mL (3.84 mM); Suspended solution; Need ultrasonic

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**BIOLOGICAL ACTIVITY**

**Description**  
ATR inhibitor 2 is an ATP-competitive, orally active, and selective ATR inhibitor, with a $K_i$ of <150 pM. ATR inhibitor 2 potently inhibits ATR-driven phosphorylated checkpoint kinase-1 (Chk1) phosphorylation with an IC₅₀ of 8 nM. Antitumor activity[1][2].

**IC₅₀ & Target**  
ATR  
$<150$ pM (K)

**In Vivo**  
In monotherapy efficacy studies ATR inhibitor 2 shows tumor stasis to regression in tumor models with alternative lengthening of telomeres (ALT). In combination with PARP inhibitors, tumor regression could be observed in triple-negative breast cancer xenograft models[1].
REFERENCES
