JNJ-64619178

**Cat. No.:** HY-101564  
**CAS No.:** 2086772-26-9  
**Molecular Formula:** \( C_{22}H_{23}BrN_6O_2 \)  
**Molecular Weight:** 483.36  
**Target:** Histone Methyltransferase  
**Pathway:** Epigenetics  
**Storage:**  
- Powder: -20°C for 3 years, 4°C for 2 years  
- In solvent: -80°C for 6 months, -20°C for 1 month

### SOLVENT & SOLUBILITY

**In Vitro**  
DMSO: 125 mg/mL (258.61 mM; Need ultrasonic)

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td>2.0689 mL</td>
<td>10.3443 mL</td>
<td>20.6885 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.4138 mL</td>
<td>2.0689 mL</td>
<td>4.1377 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.2069 mL</td>
<td>1.0344 mL</td>
<td>2.0689 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 (4.30 mM); Clear solution

2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
   Solubility: ≥ 2.08 mg/mL (4.30 mM); Clear solution

3. Add each solvent one by one: 10% DMSO >> 90% corn oil  
   Solubility: ≥ 2.08 mg/mL (4.30 mM); Clear solution

### BIOLOGICAL ACTIVITY

**Description**  
JNJ-64619178 is a selective, orally active and pseudo-irreversible protein arginine methyltransferase 5 (PRMT5) inhibitor with an IC\(_{50}\) of 0.14 nM. JNJ-64619178 has potent activity in lung cancer\(^1\|\)\(^2\).

**IC\(_{50}\) & Target**  
IC\(_{50}\): 0.14 nM (PRMT5)\(^2\)

**In Vitro**  
JNJ-64619178 binds simultaneously to the S-adenosylmethionine (SAM)- and protein substrate- binding pockets of...
the PRMT5/MEP50 complex with a pseudo-irreversible mode-of-action. JNJ-64619178 shows potent and broad inhibition of cellular growth[1].

<table>
<thead>
<tr>
<th>In Vivo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral administration of JNJ-64619178 results in efficient inhibition of dimethylation of SMD1/3 proteins, components of the splicing machinery and direct substrates of the methylosome, in several non-small cell lung cancer and small cell lung cancer cancer mouse xenograft models[1].</td>
</tr>
</tbody>
</table>

REFERENCES
