JNJ-64619178

Cat. No.: HY-101564
CAS No.: 2086772-26-9
Molecular Formula: C₂₂H₂₃BrN₆O₂
Molecular Weight: 483.36
Target: Histone Methyltransferase
Pathway: Epigenetics
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: 125 mg/mL (258.61 mM; Need ultrasonic)

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Solvent Concentration</th>
<th>Mass</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 mM</td>
<td></td>
<td>2.0689 mL</td>
<td>10.3443 mL</td>
<td>20.6885 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td></td>
<td>0.4138 mL</td>
<td>2.0689 mL</td>
<td>4.1377 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td></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 IC₅₀ of 0.14 nM. JNJ-64619178 has potent activity in lung cancer.[1][2]

**IC₅₀ & Target**

IC₅₀: 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].

**In Vivo**

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].

**REFERENCES**
