LLY-283

**Product Data Sheet**

**Cat. No.:** HY-107777  
**CAS No.:** 2040291-27-6  
**Molecular Formula:** C₁₇H₁₈N₄O₄  
**Molecular Weight:** 342.35  
**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: 250 mg/mL (730.25 mM; Need ultrasonic)

<table>
<thead>
<tr>
<th>Solvent</th>
<th>Mass</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td></td>
<td>2.9210 mL</td>
<td>14.6049 mL</td>
<td>29.2099 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td></td>
<td>0.5842 mL</td>
<td>2.9210 mL</td>
<td>5.8420 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td></td>
<td>0.2921 mL</td>
<td>1.4605 mL</td>
<td>2.9210 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 (6.08 mM); Clear solution

2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
   Solubility: ≥ 2.08 mg/mL (6.08 mM); Clear solution

3. Add each solvent one by one: 10% DMSO >> 90% corn oil  
   Solubility: ≥ 2.08 mg/mL (6.08 mM); Clear solution

---

**BIOLOGICAL ACTIVITY**

**Description**  
LLY-283 is a potent, selective and oral protein arginine methyltransferase 5 (PRMT5) inhibitor, with an IC₅₀ of 22 nM and a Kᵤ of 6 nM for PRMT5:MEP50 complex, and shows antitumor activity.

**IC₅₀ & Target**  
IC₅₀: 22 nM (PRMT5:MEP50)[¹]  
Kᵤ: 6 nM (PRMT5:MEP50)[¹]
<table>
<thead>
<tr>
<th>In Vitro</th>
<th>LLY-283 is a potent, oral and selective arginine methyltransferase 5 (PRMT5) inhibitor, with an IC$_{50}$ of 22 nM in vitro and 25 nM in cells, as well as a K$<em>d$ of 6 nM for PRMT5:MEP50 complex in vitro; LLY-283 inhibits the proliferation of A375 cell with an IC$</em>{50}$ of 46 nM$^{[1]}$.</th>
</tr>
</thead>
<tbody>
<tr>
<td>In Vivo</td>
<td>LLY-283 (20 mg/kg; p.o., QD (once a day)) causes a significant inhibition on tumor growth in mice bearing A375 cells after treatment for 28 days$^{[1]}$.</td>
</tr>
</tbody>
</table>

**REFERENCES**