**GSK2334470**

**Cat. No.:** B2174  
**CAS No.:** 1227911-45-6  
**Formula:** C25H34N8O  
**M.Wt:** 462.59  
**Synonyms:**  
**Target:** PI3K/Akt/mTOR Signaling  
**Pathway:** PDK-1  
**Storage:** Store at -20°C

---

### Solvent & Solubility

<table>
<thead>
<tr>
<th>Mass</th>
<th>Solvent Concentration</th>
<th>1mg</th>
<th>5mg</th>
<th>10mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td></td>
<td>2.1617 mL</td>
<td>10.8087 mL</td>
<td>21.6174 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td></td>
<td>0.4323 mL</td>
<td>2.1617 mL</td>
<td>4.3235 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td></td>
<td>0.2162 mL</td>
<td>1.0809 mL</td>
<td>2.1617 mL</td>
</tr>
</tbody>
</table>

≥46.3mg/mL in DMSO

Please refer to the solubility information to select the appropriate solvent.

---

### Biological Activity

**Shortsummary**

PDK1 inhibitor, highly specific and potent

**IC₅₀ & Target**

~10 nM (PDK1)

**Cell Viability Assay**

**Cell Line:** U87 cells and fibroblasts  
**Preparation method:** The solubility of this compound in DMSO is >23.2mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.  
**Reacting conditions:** 3 μM, 1 μM  
**Applications:** In U87 glioblastoma cells that lack PTEN expression, GSK2334470 (3μM) only
partially inhibited Thr308 phosphorylation or Akt activation ~3-fold. GSK2334470 (1 μM) effectively inhibited SGK1 activity. In MEF (mouse embryonic fibroblast) cells, 1 μM GSK2334470 inhibited Akt Thr308 phosphorylation and activity, and also inhibited activation of S6K1 as well as SGK1.

In Vivo

Animal experiment

<table>
<thead>
<tr>
<th>Animal models:</th>
<th>MM xenograft model established in immunodeficient mice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dosage form:</td>
<td>5 days of GSK-470 (40 mg/kg/d), 5 days of PP242 (20 mg/kg/d), or 5 days of GSK-470 combined with PP242; intraperitoneal injection; once every day</td>
</tr>
<tr>
<td>Applications:</td>
<td>In multiple myeloma xenograft immunodeficient mice, compared with untreated mice, GSK-470 (GSK2334470) or PP242 produced a modest tumor volume reduction. Combination treatment with GSK-470 and PP242 significantly inhibited tumor growth.</td>
</tr>
<tr>
<td>Other notes:</td>
<td>Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.</td>
</tr>
</tbody>
</table>


References


Caution

FOR RESEARCH PURPOSES ONLY.
NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.