PD 0332991 (Palbociclib) HCl

Cat. No.: A8316
CAS No.: 827022-32-2
Formula: C24H30ClN7O2
M.Wt: 483.99
Synonyms: PD0332991; PD-0332991; PD 0332991
Target: Cell Cycle/Checkpoint
Pathway: Cyclin-Dependent Kinases
Storage: Store at -20°C

Solvent & Solubility

≥2.4 mg/mL in DMSO, ≥24.2 mg/mL in H2O, ≥2.79 mg/mL in EtOH with ultrasonic and warming

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Mass Concentration</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Solvent</td>
<td></td>
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<tr>
<td></td>
<td>1 mM</td>
<td>2.0662 mL</td>
<td>10.3308 mL</td>
<td>20.6616 mL</td>
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<tr>
<td></td>
<td>5 mM</td>
<td>0.4132 mL</td>
<td>2.0662 mL</td>
<td>4.1323 mL</td>
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<tr>
<td></td>
<td>10 mM</td>
<td>0.2066 mL</td>
<td>1.0331 mL</td>
<td>2.0662 mL</td>
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Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Short summary: CDK4/6 inhibitor, highly selective
IC50 & Target: 11 nM (CDK4/cyclin D1), 16 nM (CDK6/cyclin D2)

Cell Viability Assay

Cell Line: MDA-MB-453 cells
Preparation method: The solubility of this compound in DMSO is
Reacting conditions: 80 nM, 24 hours
Applications: MDA-MB-453 breast carcinoma cells exposed to varying concentrations of PD 0332991 for 24 hours showed a significant increase in the percentage of cells in G1 in the presence of as little as 0.04 μmol/L PD 0332991 with a concomitant
decline in other phases of the cell cycle. Maximum effects were attained at 0.08 μmol/L and an exclusive G1 arrest was maintained even at concentrations as high as 10 μmol/L, consistent with the complete absence of any other effects on the cell cycle.

In Vivo

<table>
<thead>
<tr>
<th>Animal experiment</th>
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<tr>
<td><strong>Animal models:</strong></td>
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<td><strong>Dosage form:</strong></td>
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<td><strong>Applications:</strong></td>
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<td><strong>Other notes:</strong></td>
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</table>

**Product Citations**


**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 APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short term storage of many products is 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.

APExBIO Technology

www.apexbt.com

7505 Fannin street, Suite 410, Houston, TX 77054.
Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: info@apexbt.com