**VX-680 (MK-0457, Tozasertib)**

**Cat. No.:** A4111  
**CAS No.:** 639089-54-6  
**Formula:** C23H28N8OS  
**M.Wt:** 464.59  
**Synonyms:**  
**Target:** Chromatin/Epigenetics  
**Pathway:** Aurora Kinase  
**Storage:** Store at -20°C

### Solvent & Solubility

%23.25 mg/mL in DMSO, insoluble in EtOH, insoluble in H2O

<table>
<thead>
<tr>
<th>Solvent</th>
<th>Mass</th>
<th>1mg</th>
<th>5mg</th>
<th>10mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td></td>
<td>2.1524 mL</td>
<td>10.7622 mL</td>
<td>21.5244 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td></td>
<td>0.4305 mL</td>
<td>2.1524 mL</td>
<td>4.3049 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td></td>
<td>0.2152 mL</td>
<td>1.0762 mL</td>
<td>2.1524 mL</td>
</tr>
</tbody>
</table>

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

### Biological Activity

**Short summary:** Aurora kinase inhibitor  
**IC<sub>50</sub> & Target:** 0.6 nM (Ki) (Aurora A), 4.6 nM (Ki) (Aurora B), 18 nM (Ki) (Aurora C), 30 nM (Ki) (FLT3), 30 nM (Ki) (Bcr-Abl)

**Cell Viability Assay**

**Cell Line:** CAL-62 cells  
**Preparation method:** The solubility of this compound in DMSO is >10 mM. 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:** 5 ~ 500 nM; 4 days  
**Applications:** VX-680 prevented the CAL-62 proliferation in a time-dependent manner.
Animal experiment

<table>
<thead>
<tr>
<th>Animal models:</th>
<th>Female athymic NCr-nu mice bearing HL-60 leukemia cells</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dosage form:</td>
<td>12.5, 25, 50 or 70 mg/kg; i.p.; b.i.d., for 13 days</td>
</tr>
<tr>
<td>Applications:</td>
<td>In female athymic NCr-nu mice bearing HL-60 leukemia cells, VX-680 (70 mg/kg; i.p.; b.i.d., for 13 days) reduced the tumor volume by 98%.</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


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.