Imatinib (STI571)

- Cat. No.: B2171
- CAS No.: 152459-95-5
- Formula: C29H31N7O
- M.Wt: 493.6
- Synonyms:
- Target: Tyrosine Kinase
- Pathway: c-Kit
- Storage: Store at -20°C

Solvent & Solubility

≥24.68mg/mL in DMSO

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Concentration</th>
<th>Mass</th>
<th>1mg</th>
<th>5mg</th>
<th>10mg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 mM</td>
<td>2.0259 mL</td>
<td>10.1297 mL</td>
<td>20.2593 mL</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>0.4052 mL</td>
<td>2.0259 mL</td>
<td>4.0519 mL</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td>0.2026 mL</td>
<td>1.0130 mL</td>
<td>2.0259 mL</td>
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</tr>
</tbody>
</table>

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

Biological Activity

- Shortsummary: Protein-tyrosine kinase inhibitor
- IC₅₀ & Target: 0.1 μM (PDGF receptor), 0.1 μM (c-Kit), 0.025 μM (Abl)
- Cell Viability Assay:
  - Cell Line: Swiss 3T3 cells, MO7e cells
  - Preparation method: The solubility of this compound in DMSO is >24.7mg/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: 0-10 μM, 90 min, 37°C
  - Applications: Pretreatment of Swiss 3T3 cells with STI571 caused a dose-dependent
inhibition of PDGF-AA-stimulated PDGF receptor phosphorylation with an IC50 value of ~0.1 μM. Treatment of MO7e cells with SCF in the presence of STI571 dose-dependently inhibited SCF-stimulated tyrosine phosphorylation with an IC50 value of ~0.1 μM. STI571 inhibited PDGF-BB-stimulated A10 cell proliferation with an IC50 value of 0.2 μM.

In Vivo

<table>
<thead>
<tr>
<th>Applications:</th>
<th>Other notes:</th>
</tr>
</thead>
<tbody>
<tr>
<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>
<td></td>
</tr>
</tbody>
</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 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.