Nilotinib (AMN-107)

Cat. No.: A8232  
CAS No.: 641571-10-0  
Formula: C28H22F3N7O  
M.Wt: 529.53  
Synonyms: AMN-107; Tasigna; AMN107  
Target: TGF-β / Smad Signaling  
Pathway: Bcr-Abl  
Storage: Store at -20°C

Solvent & Solubility

≥26.5mg/mL in DMSO, ≥5mg/mL in EtOH with ultrasonic and warming, insoluble in H2O

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Mass</th>
<th>Concentration</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>1mg</td>
<td>5mg</td>
</tr>
<tr>
<td>1 mM</td>
<td>1.8855 mL</td>
<td>9.4423 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.3777 mL</td>
<td>1.8885 mL</td>
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<tr>
<td>10 mM</td>
<td>0.1888 mL</td>
<td>0.9442 mL</td>
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</table>

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

Biological Activity

Shortsummary: Bcr-Abl kinase inhibitor, selective  
IC₅₀ & Target: 30 nM (Bcr-Abl)

Cell Viability Assay

Cell Line: CD34+ cells from individual patients with CML  
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 μM, 16 hours  
Applications: After 16 hours in culture with nilotinib, long enough for inhibition of CrkL
phosphorylation but not for induction of apoptosis, the total CD34+ cell samples studied exhibited only partial and variable inhibition (range, 49% to 0% inhibition) of CrkL phosphorylation.

Animal experiment

<table>
<thead>
<tr>
<th>Animal models:</th>
<th>C57Bl/6J mice injected with 8093 lymphoma cells</th>
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<tbody>
<tr>
<td>Dosage form:</td>
<td>Oral administration, 75 mg/kg, daily</td>
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<td>Applications:</td>
<td>Vehicle treated mice became moribund within 3 weeks of the transplantation.</td>
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<td>They showed clear symptoms of ALL. Nilotinib-treated mice lived statistically significantly longer as compared with the vehicle-treated mice. This result clearly indicated that nilotinib was very effective in inhibiting the proliferation of the leukemic cells in vivo.</td>
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<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>
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</table>

Product Citations


References


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NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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