BMS-833923

Cat. No.: HY-13809
CAS No.: 1059734-66-5
Molecular Formula: C₃₀H₂₇N₅O
Molecular Weight: 473.57
Target: Smo
Pathway: Stem Cell/Wnt
Storage: Powder -20°C 3 years
          4°C  2 years
          In solvent -80°C 6 months
          -20°C 1 month

SOLVENT & SOLUBILITY

In Vitro
DMSO : 50 mg/mL (105.58 mM; Need ultrasonic)

Preparing Stock Solutions

<table>
<thead>
<tr>
<th>Solvent Concentration</th>
<th>Mass</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td>2.1116 mL</td>
<td>10.5581 mL</td>
<td>21.1162 mL</td>
<td></td>
</tr>
<tr>
<td>5 mM</td>
<td>0.4223 mL</td>
<td>2.1116 mL</td>
<td>4.2232 mL</td>
<td></td>
</tr>
<tr>
<td>10 mM</td>
<td>0.2112 mL</td>
<td>1.0558 mL</td>
<td>2.1116 mL</td>
<td></td>
</tr>
</tbody>
</table>

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (5.28 mM); Clear solution

BIOLOGICAL ACTIVITY

Description
BMS-833923 (XL-139) is an orally bioavailable small-molecule inhibitor of Smoothened with potential antineoplastic activity, inhibits BODIPY cyclopamine binding to SMO in a dose-dependent manner with an IC50 of 21 nM. IC50 Value: 6-35 nM [1].

Target: Smoothened
SMO antagonist BMS-833923 inhibits the sonic hedgehog (SHH) pathway protein SMO, which may result in a suppression of the SHH signaling pathway. In vitro: In vitro, BMS-833923 inhibits the expression of downstream effectors in the HH pathway (GLI1 and PTCH1) in cell lines that express wild-type SMO and those which express activated mutant forms of SMO (IC50 values of 6-35 nM). In FACS-based binding assays, BMS-833923 inhibits BODIPY cyclopamine binding to SMO in a dose-dependent manner with an IC50 of 21 nM [1].

in vivo: Pharmacodynamic studies show that BMS-833923 robustly inhibits HH pathway activity with along duration of action after a single oral dose in medulloblastoma and pancreatic carcinoma xenograft models. The pharmacodynamic effects of BMS-833923 observed in these models translate into tumor growth inhibition at well-tolerated doses [1].

Clinical trial: Dasatinib Combo With Smoothened (SMO) Antagonist (BMS-833923). Phase 2