BNC105

Cat. No.: HY-16114
CAS No.: 945771-74-4
Molecular Formula: \( \text{C}_{20}\text{H}_{20}\text{O}_{7} \)
Molecular Weight: 372.37
Target: Microtubule/Tubulin
Pathway: Cell Cycle/DNA Damage; Cytoskeleton
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: 25 mg/mL (67.14 mM; Need ultrasonic)
\( \text{H}_{2}\text{O} \): < 0.1 mg/mL (insoluble)

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Solvent Concentration</th>
<th>Mass (mL)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 mM</td>
<td>2.6855 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>13.4275 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td>26.8550 mL</td>
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</tbody>
</table>

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

**In Vivo**
1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-\( \beta \)-CD in saline)
   Solubility: 2.5 mg/mL (6.71 mM); Suspended solution; Need ultrasonic and warming
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (6.71 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: 2.5 mg/mL (6.71 mM); Suspended solution; Need ultrasonic and warming

**BIOLOGICAL ACTIVITY**

**Description**
BNC105 is a tubulin polymerization inhibitor with potent antiproliferative and tumor vascular disrupting properties. IC50 value: Target:BNC105 exhibited excellent potency against a panel of different cancer cell lines with IC50 < 1 nM for DU145, Calu-6, MDA-MB-231 etc. The selectivity observed for BNC105 against activated over quiescent HUVECs was also observed in human aortic arterial endothelial cells (HAAECs). BNC105 also exhibited good potency toward the cisplatin resistant cell line A2780cis.
REFERENCES


Caution: Product has not been fully validated for medical applications. For research use only.
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