Valecobulin

Cat. No.: HY-13598
CAS No.: 1188371-47-2
Molecular Formula: C₂₆H₂₈N₆O₅S
Molecular Weight: 536.6
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: 125 mg/mL (232.95 mM; Need ultrasonic)

<table>
<thead>
<tr>
<th>Solvent</th>
<th>Mass 1 mg</th>
<th>Mass 5 mg</th>
<th>Mass 10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td>1.8636 mL</td>
<td>9.3179 mL</td>
<td>18.6359 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.3727 mL</td>
<td>1.8636 mL</td>
<td>3.7272 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.1864 mL</td>
<td>0.9318 mL</td>
<td>1.8636 mL</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: ≥ 2.08 mg/mL (3.88 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (3.88 mM); Clear solution

BIOLOGICAL ACTIVITY

Description
Valecobulin (CKD516) is a valine prodrug of (S516) and a vascular disrupting agent (VDA). Valecobulin is a potent β-tubulin polymerization inhibitor with marked antitumor activity against murine and human solid tumors[1][2].

IC₅₀ & Target
β-tubulin polymerization[1].

In Vivo
Valecobulin (5 mg/kg; intraperitoneal injection; administered on days 2, 6, 10, and 14; male BALB/C nu/nu mice) treatment shows markedly antitumor efficacy in various human tumor xenograft models[1].
Animal Model: Male BALB/C nu/nu mice (5-6 weeks of age) with HCT-116 or HCT-15 cells

Dosage: 5 mg/kg

Administration: Intraperitoneal injection; administered on days 2, 6, 10, and 14

Result: Had shown marked antitumor efficacy in various human tumor xenograft models.

REFERENCES
