ABT-737

Cat. No.: A8193
CAS No.: 852808-04-9
Formula: C42H45ClN6O5S2
M.Wt: 813.43
Synonyms: ABT 737, ABT737
Target: Apoptosis
Pathway: Bcl-2 Family
Storage: Store at -20°C

Solvent & Solubility

In Vitro

<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></td>
<td>1.2294 mL</td>
<td>6.1468 mL</td>
<td>12.2936 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td></td>
<td>0.2459 mL</td>
<td>1.2294 mL</td>
<td>2.4587 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td></td>
<td>0.1229 mL</td>
<td>0.6147 mL</td>
<td>1.2294 mL</td>
</tr>
</tbody>
</table>

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

Biological Activity

Shortsummary
Bcl-2 inhibitor

IC₅₀ & Target
78.7 nM (EC50) (Bcl-xL), 30.3 nM (EC50) (Bcl-2), 197.8 nM (EC50) (Bcl-w)

Cell Viability Assay

In Vitro

| 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.

Reactivity conditions: 48 h; 10 μM

Applications: The ability of ABT-737 to inhibit cell proliferation with single-agent activity was evaluated against a panel of 11 kinds of SCLC cell lines. Ac-DEVD-AMC, a substrate for activated caspase 3, was used to treatment of H146 cells for 24 h. A dose-dependent increase in apoptosis coincided with a dose-dependent decrease in cell viability following ABT-737 treatment suggesting that ABT-737 inhibits cell proliferation through the induction of apoptosis.

Animal experiment

Animal models: Lymphoma-prone Eμ- myc transgenic mice

Dosage form: 75 mg/kg body weight; the tail injection.

Applications: All B-lymphoid subsets in the ABT-737-treatment (75 mg/kg) cohort were significantly decreased, compared with the vehicle-treated animals, in both the bone marrow and the spleen. Eμ- myc animals treated with ABT-737 contained significantly (**P<0.01) more apoptotic cells in their bone marrow than vehicle-treated mice.

Other notes: 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.

References


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