Product Name: Z-DEVD-FMK

Revision Date: 11/23/2022

Z-DEVD-FMK

Cat. No.: A1920
CAS No.: 210344-95-9
Formula: C30H41N4O12F
M.Wt: 668.66
Synonyms: Caspase-3 Inhibitor
II,Z-Asp(OMe)-Glu(OMe)-Val-Asp(OMe)-fMK
Target: Apoptosis
Pathway: Caspase
Storage: Store at -20°C

Solvent & Solubility

insoluble in H2O; insoluble in EtOH; ≥60 mg/mL in DMSO

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Mass Concentration</th>
<th>1mg</th>
<th>5mg</th>
<th>10mg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Solvent</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Concentration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 mM</td>
<td>1.4955 mL</td>
<td>7.4776 mL</td>
<td>14.9553 mL</td>
<td></td>
</tr>
<tr>
<td>5 mM</td>
<td>0.2991 mL</td>
<td>1.4955 mL</td>
<td>2.9911 mL</td>
<td></td>
</tr>
<tr>
<td>10 mM</td>
<td>0.1496 mL</td>
<td>0.7478 mL</td>
<td>1.4955 mL</td>
<td></td>
</tr>
</tbody>
</table>

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

Biological Activity

Shortsummary: Caspase-3 inhibitor

IC₅₀ & Target

Cell Viability Assay

Cell Line: WM9, WM35, WM98-1 and WM793 cells

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: 20 μM, 24 hours

Applications: To demonstrate the importance of caspase activation in TRAIL-induced apoptosis. Z-DEVD-FMK was added to melanoma cells along with TRAIL. Z-DEVD-FMK was only able to partially inhibit the cytotoxic effects of TRAIL. The decreased ability of Z-DEVD-FMK to inhibit death may result from the ability of the peptide to enter the cell.

Animal experiment

<table>
<thead>
<tr>
<th>Animal models:</th>
<th>Male C57Bl/6 mice with controlled cortical impact (CCI) injury</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dosage form:</td>
<td>Intracerebroventricular injection, 160 ng.</td>
</tr>
<tr>
<td>Applications:</td>
<td>To assess motor recovery, mice were tested for the ability to traverse a narrow, suspended beam during recovery over a 21-day period. Mice treated 1 hour after CCI performed significantly better than did vehicle controls on days 7, 14, and 21 after injury. Mice treated 4 hours after CCI performed significantly better than controls only on day 21 after injury, but this was an isolated observation, as they did not show a trend toward better performance compared with other treatment groups on any other testing day.</td>
</tr>
<tr>
<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>
</tr>
</tbody>
</table>

**Product Citations**


**References**


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NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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