3-Deazaneplanocin A (DZNep) hydrochloride

Cat. No.: A8182
CAS No.: 120964-45-6
Formula: C12H14N4O3·HCl
M.Wt: 298.73
Synonyms: NSC 617989, hydrochloride, DZNep, 3-Deazaneplanocin A

Target: Stem Cell
Pathway: EZH2
Storage: Store at -20°C

Solvent & Solubility

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Solvent Concentration</th>
<th>Mass 1mg</th>
<th>Mass 5mg</th>
<th>Mass 10mg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 mM</td>
<td>3.3475 mL</td>
<td>16.7375 mL</td>
<td>33.4750 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>0.6695 mL</td>
<td>3.3475 mL</td>
<td>6.6950 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td>0.3348 mL</td>
<td>1.6738 mL</td>
<td>3.3475 mL</td>
</tr>
</tbody>
</table>

≥14.9mg/mL in DMSO, insoluble in EtOH, ≥18.32 mg/mL in H2O with ultrasonic

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

Biological Activity

Shortsummary: SAHH and EZH2 inhibitor

IC50 & Target

Cell Viability Assay

Cell Line: Human acute myeloid leukemia (AML) cell
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: 100-750 nM; 24-72h
### Applications

DZNep induced apoptosis in cultured and primary AML cells. DZNep exhausted EZH2 levels, and inhibits trimethylation of lysine 27 on histone H3 in the AML HL-60 and OCI-AML3 cells. DZNep induced the levels of p16, p21, p27, and FBXO32 after cyclin E and HOXA9 levels run out.

### Animal experiment

<table>
<thead>
<tr>
<th>Animal models:</th>
<th>Sprague-Dawley rats (120–140 g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dosage form:</td>
<td>5μM DZNep for 24 h pre-treatment before experiment, orally taken with diets</td>
</tr>
</tbody>
</table>

#### In Vivo

DZNep significantly reduced EZH2 expression and activity, and it increased lipid accumulation, inflammatory molecules and microRNAs in non-alcoholic fatty liver disease (NAFLD) mouse model.

### 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.

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**Product Citations**


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**References**


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**Caution**

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