AZD4573

Cat. No.: HY-112088
CAS No.: 2057509-72-3
Molecular Formula: C₂₂H₂₈ClN₅O₂
Molecular Weight: 429.94
Target: CDK
Pathway: Cell Cycle/DNA Damage
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 (290.74 mM)
* “≥” means soluble, but saturation unknown.

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Concentration</th>
<th>Mass</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 mg</td>
<td>5 mg</td>
</tr>
<tr>
<td>1 mM</td>
<td>2.3259 mL</td>
<td>11.6295 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.4652 mL</td>
<td>2.3259 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.2326 mL</td>
<td>1.1630 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: ≥ 2.5 mg/mL (5.81 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (5.81 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.81 mM); Clear solution

BIOLOGICAL ACTIVITY

Description
AZD4573 is a potent and highly selective CDK9 inhibitor (IC₅₀ of <4 nM) that enables transient target engagement for the treatment of hematologic malignancies[1].

IC₅₀ & Target
CDK9
4 nM (IC₅₀)
### In Vitro
Short-term treatment with AZD4573 led to a rapid dose- and time-dependent decrease in cellular pSer2-RNAPII, resulting in activation of caspase 3 and cell apoptosis in a broad range of haematological cancer cell lines (e.g. caspase activation EC$_{50}$ 13.7 nM in an acute myeloid leukemia model MV4-11) [1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### In Vivo
AZD4573 exhibits a short half-life in multiple species (less than one hour in rat, dog and monkey) and good solubility for intravenous administration [1].

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### CUSTOMER VALIDATION
- Preprints. 2020 Apr.

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### REFERENCES

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

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