AG 555

Cat. No.: HY-15336
CAS No.: 133550-34-2
Molecular Formula: C₁₉H₁₈N₂O₃
Molecular Weight: 322.36
Target: EGFR; Reverse Transcriptase
Pathway: JAK/STAT Signaling; Protein Tyrosine Kinase/RTK; Anti-infection
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: ≥ 100 mg/mL (310.21 mM)
* “≥” means soluble, but saturation unknown.

Preparing Stock Solutions

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</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>3.1021 mL</td>
<td>15.5106 mL</td>
<td>31.0212 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.6204 mL</td>
<td>3.1021 mL</td>
<td>6.2042 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.3102 mL</td>
<td>1.5511 mL</td>
<td>3.1021 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 (7.76 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (7.76 mM); Clear solution

BIOLOGICAL ACTIVITY

Description
AG 555 (Tyrphostin AG 555), a potent antiretroviral drug, is a potent and selective inhibitor of EGFR and blocks Cdk2 activation.\(^1\)\(^2\)

IC\(_{50}\) & Target
EGFR

In Vitro
AG 555 (100 μM) inhibits both the early stages (integration process) and the late stages (viral protein synthesis) in the virus life cycle.\(^1\)
Tyrophostins AG555, which blocks Cdk2 activation, induces growth arrest of immortalized cells at G1-S and early S and is very effective in arresting the growth of EGFR overexpressor cells.\(^2\)
Tyrphostin AG 555 can selectively suppress BPV-1 transcription through MAP kinase pathway activation and binding of phosphorylated Jun/ATF-2 at a novel intragenic regulatory sequence\(^3\).

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

**Cell Proliferation Assay\(^1\)**

<table>
<thead>
<tr>
<th>Cell Line:</th>
<th>NIH/3T3 uninfected cells and NIH/3T3-Mo-MuLV chronically infected cells.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concentration:</td>
<td>100 μM.</td>
</tr>
<tr>
<td>Incubation Time:</td>
<td>1 hour.</td>
</tr>
<tr>
<td>Result:</td>
<td>Inhibited Mo-MuLV proviral DNA integration.</td>
</tr>
</tbody>
</table>

**REFERENCES**

