Dubermatinib

**Cat. No.:** HY-12963  
**CAS No.:** 1341200-45-0  
**Molecular Formula:** C₂₄H₃₀ClN₇O₂S  
**Molecular Weight:** 516.06  
**Target:** TAM Receptor; Apoptosis  
**Pathway:** Protein Tyrosine Kinase/RTK; Apoptosis  
**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: 3.33 mg/mL (6.45 mM; Need ultrasonic)

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Solvent Concentration</th>
<th>Mass</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td></td>
<td></td>
<td>1.9378 mL</td>
<td>9.6888 mL</td>
<td>19.3776 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td></td>
<td></td>
<td>0.3876 mL</td>
<td>1.9378 mL</td>
<td>3.8755 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td></td>
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</tbody>
</table>

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

#### In Vivo

1. Add each solvent one by one: **0.5% CMC-Na/saline water**  
Solubility: 10 mg/mL (19.38 mM); Suspended solution; Need ultrasonic

### BIOLOGICAL ACTIVITY

**Description**  
Dubermatinib (TP-0903) is a potent and selective Axl receptor tyrosine kinase inhibitor with an IC₅₀ value of 27 nM.

**IC₅₀ & Target**  
IC₅₀: 27nM (Axl)[¹]

**In Vitro**  
Dubermatinib (TP-0903) displays a potent activity against AXL with an IC₅₀ of 0.027 μM. Dubermatinib (TP-0903) shows extremely potent activity in cell viability assays with an IC₅₀ of 6 nM against the pancreatic cancer cell line PSN-1. Dubermatinib (TP-0903) is evaluated for its ability to block GAS6-mediated activation of AXL in pancreatic cancer cells. PSN-1 cells are serum-starved and then stimulated with GAS6 in the presence of various concentrations of TP-0903[¹].
For cell proliferation assays, 45 μL containing 1000 cells per well are seeded into solid white 384-well plates in appropriate media. The following day, Dabernatinib (TP-0903) is diluted in serum free growth media to 10x desired concentrations and 5 μL is added to each well. Combined compound and cells are incubated for 96 hours. Following incubation, 40 μL of ATP-Lite solution is added to each well, incubated for an additional 10 minutes at room temperature and luminescence is measured on a microplate reader[1].

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

**REFERENCES**


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

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