Dutogliptin

Cat. No.: HY-10286
CAS No.: 852329-66-9
Molecular Formula: C₁₀H₂₀BN₃O₃
Molecular Weight: 241.1
Target: Dipeptidyl Peptidase
Pathway: Metabolic Enzyme/Protease
Storage: 4°C, stored under nitrogen
* In solvent: -80°C, 6 months; -20°C, 1 month (stored under nitrogen)

**SOLVENT & SOLUBILITY**

### In Vitro

DMSO: 300 mg/mL (1244.30 mM; Need ultrasonic)
H₂O: 100 mg/mL (414.77 mM; Need ultrasonic)

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Solvent Concentration</th>
<th>Mass Concentration 1 mg</th>
<th>Mass Concentration 5 mg</th>
<th>Mass Concentration 10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 mM</td>
<td>4.1477 mL</td>
<td>20.7383 mL</td>
<td>41.4766 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>0.8295 mL</td>
<td>4.1477 mL</td>
<td>8.2953 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td>0.4148 mL</td>
<td>2.0738 mL</td>
<td>4.1477 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: ≥ 7.5 mg/mL (31.11 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 7.5 mg/mL (31.11 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 7.5 mg/mL (31.11 mM); Clear solution

**BIOLOGICAL ACTIVITY**

### Description

Dutogliptin (PHX-1149 free base) is an orally available, potent, and selective dipeptidyl peptidase-4 (DPP4) inhibitor for the treatment of type 2 diabetes mellitus.

### IC₅₀ & Target

DPP4

### In Vivo

Dutogliptin exhibits low plasma protein binding (11%) and is rapidly absorbed with a T_max of 3-4 h and a half-life of 10-13 h. Dutogliptin is metabolically stable and does not inhibit or induce the activity of major CYP450s.

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