Droxidopa

**Cat. No.:** HY-13458  
**CAS No.:** 23651-95-8  
**Molecular Formula:** C₉H₁₁NO₅  
**Molecular Weight:** 213.19  
**Target:** Others  
**Pathway:** Others  
**Storage:**  
- Powder: -20°C 3 years, 4°C 2 years, In solvent: -80°C 6 months, -20°C 1 month

**SOLVENT & SOLUBILITY**

<table>
<thead>
<tr>
<th>Concentration</th>
<th>Solvent</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>DMSO</td>
<td>4.6907 mL</td>
<td>23.4533 mL</td>
<td>46.9065 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>DMSO</td>
<td>0.9381 mL</td>
<td>4.6907 mL</td>
<td>9.3813 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>DMSO</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>

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

**BIOLOGICAL ACTIVITY**

**Description**
Droxidopa(L-DOPS), the mixture of Droxidopa (w/w80%) and Pharmaceutical starch (w/w20%), acts as a prodrug to the neurotransmitters norepinephrine (noradrenaline) and epinephrine (adrenaline); Droxidopa(L-DOPS) is capable of crossing the protective blood–brain barrier[1][2].

**In Vivo**
The acute administration of droxidopa in PVL and BDL rats caused a significant and maintained increase in arterial pressure and mesenteric arterial resistance, with a significant decrease of mesenteric arterial and portal blood flow, without changing portal pressure and renal blood flow[4].
Droxidopa(L-DOPS) is a pro-drug which has a structure similar to noradrenaline, but with a carboxyl group. It has no pressor effects in this form. It can be administered orally, unlike noradrenaline, and after absorption is converted by the enzyme dopa decarboxylase into noradrenaline thus increasing levels of the neurotransmitter which is identical to endogenous noradrenaline[2].

**REFERENCES**