Product Name: Benidipine hydrochloride
Catalog No.: 3934  Batch No.: 1
CAS Number: 91599-74-5
IUPAC Name: (4R)-rel-1,4-Dihydro-2,6-dimethyl-4-(3-nitrophenyl)-3,5-pyridinedicarboxylic acid 3-methyl 5-[(3R)-1-(phenylmethyl)-3-piperidinyl] ester hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C_{28}H_{31}N_{3}O_{6}.HCl
Batch Molecular Weight: 542.02
Physical Appearance: Yellow solid
Solubility: DMSO to 75 mM ethanol to 10 mM
Storage: Desiccate at RT
Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 99.5% purity
\(^1\)H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

<table>
<thead>
<tr>
<th>Carbon</th>
<th>Hydrogen</th>
<th>Nitrogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical</td>
<td>62.04</td>
<td>5.95</td>
</tr>
<tr>
<td>Found</td>
<td>61.84</td>
<td>5.95</td>
</tr>
</tbody>
</table>

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use
**Product Information**

**Product Name:** Benidipine hydrochloride

**Catalog No.:** 3934  
**Batch No.:** 1

**CAS Number:** 91599-74-5  
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**Description:**  
Orally active antihypertensive agent which displays a wide range of activities in vitro and in vivo. Inhibits L-, N- and T-type Ca\(^{2+}\) channels. Also inhibits aldosterone-induced mineralocorticoid receptor activation. Exhibits cardioprotective and antiatherosclerotic effects.

**Physical and Chemical Properties:**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Batch Molecular Formula:</td>
<td>C(<em>{28})H(</em>{37})N(_3)O(_6)HCl</td>
</tr>
<tr>
<td>Batch Molecular Weight:</td>
<td>542.02</td>
</tr>
<tr>
<td>Physical Appearance:</td>
<td>Yellow solid</td>
</tr>
<tr>
<td>Minimum Purity:</td>
<td>&gt;99%</td>
</tr>
</tbody>
</table>

**Storage:** Desiccate at RT

**Solubility & Usage Info:**

- DMSO to 75 mM
- Ethanol to 10 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath). Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

- **SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.
- **SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**