Product Name: DPO-1
Catalog No.: 2533
Batch No.: 2

CAS Number: 43077-30-1
IUPAC Name: [1S-(1α,2α,5β)]-[5-Methyl-2-(1-methylethyl)cyclohexyl]diphenylphosphine oxide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C_{22}H_{29}OP
Batch Molecular Weight: 340.44
Physical Appearance: White solid
Solubility: Ethanol to 100 mM
Storage: Store at +4°C

2. ANALYTICAL DATA

TLC: R_f = 0.75 (Diethyl ether)
HPLC: Shows >99.3% purity
^1H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

<table>
<thead>
<tr>
<th>Element</th>
<th>Theoretical</th>
<th>Found</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon</td>
<td>77.62</td>
<td>77.7</td>
</tr>
<tr>
<td>Hydrogen</td>
<td>8.59</td>
<td>8.61</td>
</tr>
</tbody>
</table>

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

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Product Name: DPO-1
Catalog No.: 2533
Batch No.: 2

CAS Number: 43077-30-1
IUPAC Name: (1S-(1α,2α,5β))-5-Methyl-2-(1-methylethyl)cyclohexyl]diphenylphosphine oxide

Description:
Blocker of \( I_{kur} \), ultrarapid delayed rectifier potassium current and \( K_v1.5 \) channels (\( IC_{50} = 0.31 \mu M \) for \( rK_v1.5 \)). Displays selectivity for inhibition of \( I_{kur} \) over \( I_{k1} \) (8-fold), \( I_{k1} \) and \( I_{k5} \) (20-fold) in native myocytes and selectivity for rat recombinant \( K_v1.5 \) over \( K_v3.1 \) (~15-fold). Increases action potential duration in atrial but not ventricular myocytes and prevents atrial arrhythmia.

Physical and Chemical Properties:
Batch Molecular Formula: C\(_{22}\)H\(_{29}\)OP
Batch Molecular Weight: 340.44
Physical Appearance: White solid
Minimum Purity: >99%

Storage: Store at +4°C
Solubility & Usage Info:
ethanol to 100 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 aliquotted 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: