Product Name: AM 251
CAS Number: 183232-66-8
IUPAC Name: \(N\)-(Piperidin-1-yl)-5-(4-iodophenyl)-1-(2,4-dichlorophenyl)-4-methyl-1\(H\)-pyrazole-3-carboxamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: \(C_{22}H_{21}Cl_{2}IN_{4}O\)
Batch Molecular Weight: 555.24
Physical Appearance: White solid
Solubility: ethanol to 25 mM
DMSO to 100 mM
Storage: Store at RT

2. ANALYTICAL DATA

TLC: \(R_f = 0.43\) (Ethyl acetate:Petroleum ether [1:1])
HPLC: Shows 100% purity
\(^1\)H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

<table>
<thead>
<tr>
<th></th>
<th>Theoretical</th>
<th>Found</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon</td>
<td>47.59</td>
<td>47.52</td>
</tr>
<tr>
<td>Hydrogen</td>
<td>3.81</td>
<td>3.85</td>
</tr>
<tr>
<td>Nitrogen</td>
<td>10.09</td>
<td>9.99</td>
</tr>
</tbody>
</table>
**Product Name:** AM 251  
**Catalog No.:** 1117  
**Batch No.:** 18

**IUPAC Name:** \( N-(\text{Piperidin-1-yl})-5-(\text{4-iodophenyl})-1-(\text{2,4-dichlorophenyl})-4\text{-methyl}-1H\text{-pyrazole-3-carboxamide} \)

**Description:** Potent CB₁ receptor antagonist (\( IC_{50} = 8 \text{ nM} \), \( K_i = 7.49 \text{ nM} \)) that displays 306-fold selectivity over CB₂ receptors. Also potent GPR55 agonist (\( EC_{50} = 39 \text{ nM} \)) and \( \mu \)-opioid receptor antagonist (\( K_i = 251 \text{ nM} \)). Fluorescent Form also available.

**Physical and Chemical Properties:**
- **Batch Molecular Formula:** \( \text{C}_{22}\text{H}_{21}\text{Cl}_2\text{IN}_4\text{O} \)
- **Batch Molecular Weight:** 555.24
- **Physical Appearance:** White solid
- **Minimum Purity:** >99%

**Batch Molecular Structure:**
![Batch Molecular Structure](image)

**Storage:** Store at RT  
**CAUTION** - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

**Solubility & Usage Info:**
- **ethanol to 25 mM**
- **DMSO to 100 mM**

When purchased as a 1mg unit, this product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

**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:**