**Product Name:** Liarozole dihydrochloride  
**Catalog No.:** 2705  
**Batch No.:** 4  
**CAS Number:** 1883548-96-6  
**IUPAC Name:** 5-[(3-Chlorophenyl)-1H-imidazol-1-ylmethyl]-1H-benzimidazole dihydrochloride

### 1. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Batch Molecular Formula:</td>
<td>$\text{C}<em>{17}\text{H}</em>{13}\text{ClN}_4\cdot2\text{HCl}\cdot\frac{3}{4}\text{H}_2\text{O}$</td>
</tr>
<tr>
<td>Batch Molecular Weight:</td>
<td>395.2</td>
</tr>
<tr>
<td>Physical Appearance:</td>
<td>Beige solid</td>
</tr>
<tr>
<td>Solubility:</td>
<td>DMSO to 100 mM</td>
</tr>
<tr>
<td></td>
<td>water to 100 mM</td>
</tr>
<tr>
<td>Storage:</td>
<td>Desiccate at RT</td>
</tr>
<tr>
<td>Batch Molecular Structure:</td>
<td><img src="image" alt="Molecular Structure" /></td>
</tr>
</tbody>
</table>

### 2. ANALYTICAL DATA

<table>
<thead>
<tr>
<th>Method</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLC:</td>
<td>$R_f = 0.2$ (Dichloromethane:Methanol [9:1])</td>
</tr>
<tr>
<td>HPLC:</td>
<td>Shows 99% purity</td>
</tr>
<tr>
<td>$^1$H NMR:</td>
<td>Consistent with structure</td>
</tr>
<tr>
<td>Mass Spectrum:</td>
<td>Consistent with structure</td>
</tr>
<tr>
<td>Microanalysis:</td>
<td>Carbon Hydrogen Nitrogen</td>
</tr>
<tr>
<td></td>
<td>Theoretical: 51.67 4.21 14.18</td>
</tr>
<tr>
<td></td>
<td>Found: 51.43 4.36 13.9</td>
</tr>
</tbody>
</table>

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

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Product Name: Liarozole dihydrochloride

CAS Number: 1883548-96-6
IUPAC Name: 5-[(3-Chlorophenyl)-1H-imidazol-1-ylmethyl]-1H-benzimidazole dihydrochloride

Description:
Cytochrome P450 inhibitor. Inhibits several cytochrome P450 enzymes including aromatase (CYP19) and retinoic acid 4-hydroxylase (CYP26). Blocks retinoic acid metabolism (retinoic acid metabolism blocking agent, RAMBA). Displays antitumor activity against androgen-dependent and independent rat prostate carcinomas.

Physical and Chemical Properties:
Batch Molecular Formula: C₁₇H₁₃ClN₄.2HCl.¾H₂O
Batch Molecular Weight: 395.2
Physical Appearance: Beige solid
Minimum Purity: ≥99%

Storage: Desiccate at RT

Solubility & Usage Info:
DMSO to 100 mM
water 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 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: