1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** \( \text{C}_{22}\text{H}_{25}\text{NO}_{3} \cdot \frac{3}{4}\text{H}_{2}\text{O} \)

**Batch Molecular Weight:** 364.95

**Physical Appearance:** White solid

**Solubility:** DMSO to 50 mM, ethanol to 100 mM

**Storage:** Store at RT

**Batch Molecular Structure:**

![Batch Molecular Structure Diagram]

2. ANALYTICAL DATA

**HPLC:** Shows 99.4% purity

**\(^{1}H \text{NMR:}** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

<table>
<thead>
<tr>
<th></th>
<th>Carbon</th>
<th>Hydrogen</th>
<th>Nitrogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical</td>
<td>72.4</td>
<td>7.32</td>
<td>3.84</td>
</tr>
<tr>
<td>Found</td>
<td>72.16</td>
<td>7.51</td>
<td>3.81</td>
</tr>
</tbody>
</table>
Product Name: AM 580
CAS Number: 102121-60-8
IUPAC Name: 4-[(5,6,7,8-Tetrahydro-5,5,8,8-tetramethyl-2-naphthalenyl)carboxamido]benzoic acid

**Description:**
An analog of retinoic acid that acts as a selective RARα agonist (EC50 values are 0.3, 8.6 and 13 nM for RARα, RARβ and RARγ respectively). Significantly induces IL-4, IL-5 and IL-13 and inhibits IL-12 and IFNγ synthesis, and induces cell differentiation with over 7 times the activity of retinoic acid in vitro.

**Physical and Chemical Properties:**
Batch Molecular Formula: C32H26NO5·¾H2O
Batch Molecular Weight: 364.95
Physical Appearance: White solid
Minimum Purity: >98%

**Storage:** Store at RT

**Solubility & Usage Info:**
DMSO to 50 mM
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 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:**