1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: \( C_{20}H_{28}O_2 \)
Batch Molecular Weight: 300.44
Physical Appearance: Orange solid
Solubility: DMSO to 100 mM ethanol to 20 mM with gentle warming
Storage: Store at -20°C

2. ANALYTICAL DATA

Melting Point: Between 176 - 177°C
HPLC: Shows 99.5% purity
\(^1\)H 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>79.96</td>
<td>80.02</td>
</tr>
<tr>
<td>Hydrogen</td>
<td>9.39</td>
<td>9.43</td>
</tr>
</tbody>
</table>

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use
**Product Name:** Isotretinoin  
**Catalog No.:** 5513  
**Batch No.:** 1  
**EC Number:** 225-296-0

**IUPAC Name:** 13-cis-Retinoic acid  
**CAS Number:** 4759-48-2

**Description:**
Endogenous agonist for retinoic acid receptors. Promotes neurite outgrowth, cell differentiation and inhibits proliferation in a neuroblastoma cell line. Also increases protein expression levels of MYCN and retinoic acid receptor-β. Anti-inflammatory.

**Physical and Chemical Properties:**
Batch Molecular Formula: C_{20}H_{28}O_{2}  
Batch Molecular Weight: 300.44  
Physical Appearance: Orange solid

**Minimum Purity:** >99%

**Storage:** Store at -20°C. This product is packaged under an inert atmosphere.  
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:**
DMSO to 100 mM  
ethanol to 20 mM with gentle warming

**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:**