1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: \( \text{C}_{10}\text{H}_{12}\text{FN}_{5}\text{O}_{4} \)
Batch Molecular Weight: 285.23
Physical Appearance: White solid
Solubility: DMSO to 100 mM
Storage: Desiccate at +4°C

2. ANALYTICAL DATA

Melting Point: Between 261 - 262°C
HPLC: Shows 99.7% purity
\(^1\text{H NMR:}\) Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

<table>
<thead>
<tr>
<th>Component</th>
<th>Theoretical</th>
<th>Found</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon</td>
<td>42.11</td>
<td>42.15</td>
</tr>
<tr>
<td>Hydrogen</td>
<td>4.24</td>
<td>4.19</td>
</tr>
<tr>
<td>Nitrogen</td>
<td>24.55</td>
<td>24.42</td>
</tr>
</tbody>
</table>
Product Name: Fludarabine
Catalog No.: 3495
Batch No.: 1
EC Number: 244-525-5

CAS Number: 21679-14-1
IUPAC Name: 9-β-D-Arabinofuranosyl-2-fluoro-9H-purin-6-amine

**Description:**
Purine analog that inhibits DNA synthesis. Exhibits antiproliferative activity (IC₅₀ = 1.54 μM in RPMI cells) and triggers apoptosis through increasing Bax and decreasing Bid, XIAP and survivin expression. Inhibits cytokine-induced activation of STAT1 and STAT1-dependent gene transcription in lymphocytes. Also displays anticancer activity against hematological malignancies in vivo.

**Physical and Chemical Properties:**
Batch Molecular Formula: C₁₉H₁₅FN₉O₄
Batch Molecular Weight: 285.23
Physical Appearance: White solid
Minimum Purity: >99%

**Batch Molecular Structure:**

![Molecular structure](image)

**Storage:** Desiccate at +4°C

**Solubility & Usage Info:**
DMSO 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:**