1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: \( \text{C}_{12}\text{H}_{13}\text{N}_5\text{O}_4\cdot\text{H}_2\text{O} \)

Batch Molecular Weight: 309.28

Physical Appearance: Off White solid

Solubility: DMSO to 100 mM

Storage: Store at +4°C

2. ANALYTICAL DATA

TLC: \( R_f = 0.3 \) (Dichloromethane:Methanol [10:1])

HPLC: Shows 99.7% purity

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

Mass Spectrum: Consistent with structure

Optical Rotation: \( [\alpha]_D = -37.5 \) (Concentration = 0.80, Solvent = 0.1N HCl)

Microanalysis:

<table>
<thead>
<tr>
<th></th>
<th>Carbon</th>
<th>Hydrogen</th>
<th>Nitrogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical</td>
<td>46.6</td>
<td>4.89</td>
<td>22.64</td>
</tr>
<tr>
<td>Found</td>
<td>46.26</td>
<td>4.86</td>
<td>22.58</td>
</tr>
</tbody>
</table>
**Product Name:** Toyocamycin  
**Catalog No.:** 5270  
**Batch No.:** 1

<table>
<thead>
<tr>
<th>Description</th>
<th>Physical and Chemical Properties</th>
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</thead>
</table>
| Adenosine analog; antifungal antibiotic. Inhibits RNA self-cleavage in HEK79 cells and PI 3-kinase activity in A431 epidermoid carcinoma cell membrane fractions. Also inhibits thapsigargin-induced XBP1-luciferase activation and induces apoptosis in multiple myeloma cell lines. | Batch Molecular Formula: C\(_{12}\)H\(_{13}\)N\(_3\)O\(_4\)H\(_2\)O  
Batch Molecular Weight: 309.28  
Physical Appearance: Off White solid  
Minimum Purity: >98% |
| Storage: Store 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:**