1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: \( C_{43}H_{53}NO_{14}\cdot 3H_2O \)

Batch Molecular Weight: 861.93

Physical Appearance: White solid

Solubility: DMSO to 100 mM ethanol to 100 mM

Storage: Store at +4°C

Batch Molecular Structure:

![Molecular Structure Image]

2. ANALYTICAL DATA

HPLC: Shows 99.7% purity

\(^1\)H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

<table>
<thead>
<tr>
<th></th>
<th>Theoretical</th>
<th>Found</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon</td>
<td>59.92%</td>
<td>60.03%</td>
</tr>
<tr>
<td>Hydrogen</td>
<td>6.9%</td>
<td>6.82%</td>
</tr>
<tr>
<td>Nitrogen</td>
<td>1.63%</td>
<td>1.64%</td>
</tr>
</tbody>
</table>
Product Name: Docetaxel  
Catalog No.: 4056  
Batch No.: 2

CAS Number: 114977-28-5  
IUPAC Name: [2αR-(2α4β,4αβ,6β,9α(αR*,βS*),11α,12α,12αβ,12βu)]-β-[(1,1-Dimethylethoxy)carbonyl]amino]-α-hydroxy-12b-(acetoxy)-12-(benzoyloxy)-2α,3,4,5,6,9,10,11,12,12α,12β-dodecahydro-4,6,11-trihydroxy-4α,8,13,13-tetramethyl-5-oxo-7,11-methano-1H-cyclodeca[3,4]benz[1,2-b]oxet-9-y1 ester benzenepropanoic acid

Description:
Binds and stabilizes microtubules; leads to cell cycle arrest and apoptosis. Displays significant antitumor activity in ovarian and gastric tumors. Prevents microtubule depolymerization and disassembly in the absence of GTP. Exhibits cytotoxic activity.

Physical and Chemical Properties:
Batch Molecular Formula: C_{43}H_{59}NO_{18}·3H_{2}O  
Batch Molecular Weight: 861.93  
Physical Appearance: White solid  
Minimum Purity: >99%

Batch Molecular Structure:

Storage: Store at +4°C

Solubility & Usage Info:
DMSO to 100 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: