1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: \( \text{C}_{18}\text{H}_{26}\text{ClN}_{3}\cdot2\text{H}_{3}\text{PO}_{4}\cdot\frac{1}{2}\text{H}_{2}\text{O} \)

Batch Molecular Weight: 524.87

Physical Appearance: White solid

Solubility: water to 100 mM

Storage: Desiccate at RT

2. ANALYTICAL DATA

HPLC: Shows 99% purity

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

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

<table>
<thead>
<tr>
<th></th>
<th>Theoretical</th>
<th>Found</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon</td>
<td>41.19</td>
<td>41.18</td>
</tr>
<tr>
<td>Hydrogen</td>
<td>6.34</td>
<td>6.41</td>
</tr>
<tr>
<td>Nitrogen</td>
<td>8.01</td>
<td>7.98</td>
</tr>
</tbody>
</table>
Product Information

Product Name: Chloroquine diphosphate
Catalog No.: 4109
Batch No.: 2

CAS Number: 50-63-5
EC Number: 200-055-2

IUPAC Name: \(N^4-(7\text{-Chloro-4-quinolinyl})-N^1,N^1\text{-dimethyl-1,4-pentanediamine diphosphate salt}\)

Description:
Antimalarial drug. Inhibits cell growth and induces cell death in numerous cancer cell lines; inhibits cell proliferation and viability and induces apoptosis in 4T1 mouse breast cancer cells in vitro. Exhibits antitumor activity. Also inhibits autophagy via a mechanism distinct from that of 3-methyladenine (Cat. No. 3977). Blocks receptor-mediated endocytosis of mannose-glycoconjugates by macrophages. Inhibits SARS-CoV-2 infection in vitro (EC_{50} = 1.13 \mu M). Tocris products are for biomedical research use only. They are not intended for human or veterinary use.

Physical and Chemical Properties:
Batch Molecular Formula: \( \text{C}_{18}\text{H}_{26}\text{ClN}_3\cdot2\text{H}_2\text{PO}_4\cdot\frac{1}{2}\text{H}_2\text{O} \)
Batch Molecular Weight: 524.87
Physical Appearance: White solid
Minimum Purity: \( \geq 99\% \)

Storage: Desiccate at RT

Solubility & Usage Info:
Water 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: