Product Name: Epirubicin hydrochloride  
Catalog No.: 3260  
Batch No.: 3  
EC Number: 260-145-2

CAS Number: 56390-09-1

IUPAC Name: (8S,10S)-10-[(3-Amino-2,3,6-trIDEOxy-α-L-arabino-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-8-(2-hydroxyacetyl)-1-methoxy-5,12-naphthacenedione hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C_{27}H_{29}NO_{11}.HCl.2\frac{1}{2}H_{2}O

Batch Molecular Weight: 625.02

Physical Appearance: Red solid

Solubility: DMSO to 100 mM  
water to 50 mM

Storage: Desiccate at +4°C

Batch Molecular Structure:

![Molecular Structure](image)

2. ANALYTICAL DATA

HPLC: Shows 96.8% purity

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

Mass Spectrum: Consistent with structure

Microanalysis:

<table>
<thead>
<tr>
<th></th>
<th>Theoretical</th>
<th>Found</th>
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</thead>
<tbody>
<tr>
<td>Carbon</td>
<td>51.89</td>
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<tr>
<td>Hydrogen</td>
<td>5.64</td>
<td>5.57</td>
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<tr>
<td>Nitrogen</td>
<td>2.24</td>
<td>2.15</td>
</tr>
</tbody>
</table>

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use
Product Name: Epirubicin hydrochloride

CAS Number: 56390-09-1

IUPAC Name: (8S,10S)-10-[(3-Amino-2,3,6-trideoxy-α-L-arabino-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-8-(2-hydroxyacetyl)-1-methoxy-5,12-naphthacenedione hydrochloride

Description:
Antibiotic antitumor agent. Inhibits the synthesis and function of DNA (IC₅₀ = 62.7 μM in rat glioblastoma cell lines) and inhibits the relaxing property of topoisomerase II.

Physical and Chemical Properties:
Batch Molecular Formula: C₂₇H₂₉NO₁₁.HCl.2½H₂O
Batch Molecular Weight: 625.02
Physical Appearance: Red solid

Minimum Purity: >96%

Storage: Desiccate at +4°C
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
water to 50 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:
Spadari et al (1986) DNA polymerases and DNA topoisomerases as targets for the development of anticancer drugs. Anticancer Res. 6 935. PMID: 3026237.