Print Date: Oct 2nd 2018

Certificate of Analysis

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Product Name: **Epirubicin hydrochloride** **Catalog No.: 3260** **Batch No.: 3**

CAS Number: 56390-09-1 EC Number: 260-145-2

IUPAC Name: (8*S*,10*S*)-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: $C_{27}H_{29}NO_{11}.HCl.2½H_2O$

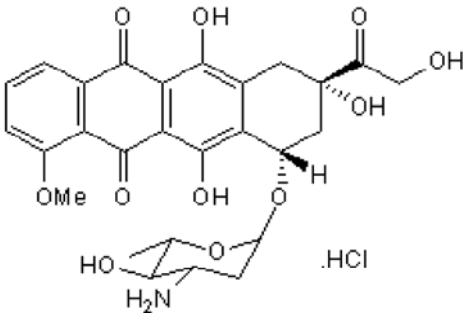
Batch Molecular Weight: 625.02

Physical Appearance: Red solid

Solubility: DMSO to 100 mM
water to 50 mM

Storage: Desiccate at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 96.8% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	51.89	5.64	2.24
Found	51.65	5.57	2.15

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Product Information

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Description:

Antibiotic antitumor agent. Inhibits the synthesis and function of DNA (IC_{50} = 62.7 µM in rat glioblastoma cell lines) and inhibits the relaxing property of topoisomerase II.

Physical and Chemical Properties:

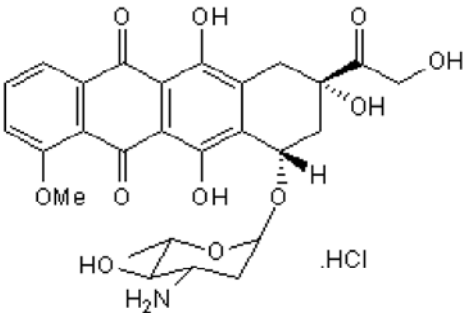
Batch Molecular Formula: $C_{27}H_{29}NO_{11}.HCl.2½H_2O$

Batch Molecular Weight: 625.02

Physical Appearance: Red solid

Minimum Purity: >96%

Batch Molecular Structure:



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:

Schott and Robert (1989) Comparative activity of anthracycline 13-dihydrometabolites against rat glioblastoma cells in culture. Biochem.Pharmacol. ***38*** 4069. PMID: 2597184.

Cersosimo *et al* (1986) Epirubicin: a review of pharmacology, clinical activity, and adverse effects of an adriamycin analogue. J.Clin.Oncol. ***4*** 425. PMID: 3005521.

Spadari *et al* (1986) DNA polymerases and DNA topoisomerases as targets for the development of anticancer drugs. Anticancer Res. ***6*** 935. PMID: 3026237.

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