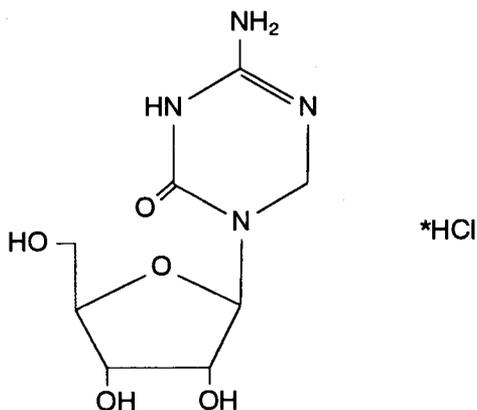


DIHYDRO-5-AZACYTIDINE HYDROCHLORIDE

NSC - 264880



Chemical Name:

4-Amino-5,6-dihydro-1- β -D-ribofuranosyl-1,3,5-triazin-2(1H)-one, monohydrochloride

Other Names:

DHAC

CAS Registry Number: 62402-31-7

Molecular Formula: $C_8H_{14}N_4O_5 \cdot HCl$

M.W.: 282.7

Approximate Solubility:

(mg/mL)

H ₂ O	> 50
pH 4 Acetate buffer	> 50
pH 9 Borate buffer	> 50

10% Ethanol	> 50
95% Ethanol	1 - 3
MeOH	5 - 10
CHCl ₃	< 1

Stability:

Bulk:

A sample stored at 60 °C for 30 days showed < 1% decomposition (TLC, UV).

Solution:

A sample was dissolved in pH 8 phosphate buffer at a concentration of 0.1 mg/mL for UV study and 10 mg/mL for TLC study and stored at room temperature in a closed clear bottle exposed to laboratory light for 9 days. Based on the UV and TLC the sample showed < 1% decomposition.

Ultraviolet Absorption:

(pH 9 Phosphate Buffer)

$$\lambda_{\max} = 234 \pm 2 \text{ nm}$$

$$\epsilon = 6,700 - 7,100$$

High Performance Liquid Chromatography:

Column: μ Bondapak C₁₈, 300 x 3.9 mm i.d.

Mobile Phase: Water containing 0.005 M heptane-sulfonic acid and 1% acetic acid (v/v)

Flow Rate: 2 mL/min

Detection: UV at 234 nm

Sample Preparation: 1 mg/mL in mobile phase containing internal standard.

Internal Standard: 0.063 mg/mL guanosine

Retention Volume: 16.6 mL (NSC-264880)

Optical Rotation:

(c = 1.3, H₂O)

$$[\alpha]_D^{25} = -27.5 \pm 2^\circ$$

Toxicity Data:

Mouse(iv): LD₅₀: 2559 mg/kg
National Technical Information Service, PB82-195751