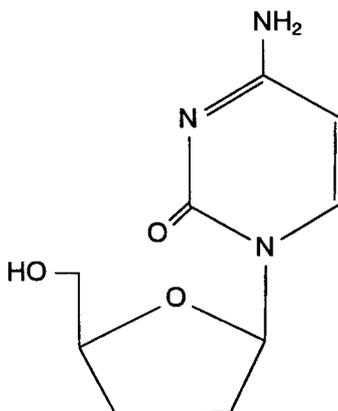


DIDEOXYCYTIDINE

NSC - 606170



Chemical Name:

2',3'-Dideoxycytidine

Other Names:

DDC

CAS Registry Number: 7481-89-2

Molecular Formula: C₉H₁₃N₃O₃

M.W.: 211.2

Approximate Solubility:

(mg/mL)

H ₂ O (warm)	80-90
Acetate buffer, pH 4	> 50
Carbonate buffer, pH 9	> 50
0.1N HCl	> 50
0.1N NaOH	> 50
EtOH (95%)	5-7

MeOH	8-10
BuOH	< 1
DMA	7-10
DMSO	90-100
DMSO (70%)	50-60
CH ₃ CN	< 1
EtOAc	< 1
CHCl ₃	< 1
Toluene	< 1

Stability:

Bulk:

Dideoxycytidine is stable in bulk form through 90 days at room temperature and at 50 °C under both light and dark conditions.

Solution:

Dideoxycytidine was stable in distilled water through 72 hrs.

Ultraviolet Absorption:

(0.1 N HCl)

$$\lambda_{\max} = 280 \pm 2\text{nm}$$

$$\epsilon = 13,300 \pm 700$$

High Performance Liquid Chromatography:

Column: Alltech Econosphere, 300 x 3.9 mm i.d.

Mobile Phase: 0.2 M Ammonium acetate, pH 7.0

Flow Rate: 1 mL/min

Detection: UV at 280 nm

Sample Preparation: Approximately 10 mg (accurately weighed) is dissolved in 50 mL water. Four mL of this solution is added to 2 mL of internal standard solution and the resulting solution is diluted to 10 mL with distilled water.

Internal Standard: 5-Bromo-2'-deoxyuridine, ≈ 0.5 mg/mL in methanol:water, 5/45, v/v.

Retention Volume: 37 mL (NSC-606170)
51 mL (I.S.)

Optical Rotation:

(c = 1, H₂O)

$[\alpha]_D^{25} \geq +70^\circ$