TOCRIS
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Print Date: Jan 14th 2016

Certificate of Analysis

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Product Name: **Floxuridine** **Catalog No.: 4659** **Batch No.: 1**

CAS Number: 50-91-9 EC Number: 200-072-5

IUPAC Name: 5-Fluoro-2'-deoxyuridine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_9H_{11}FN_2O_5$

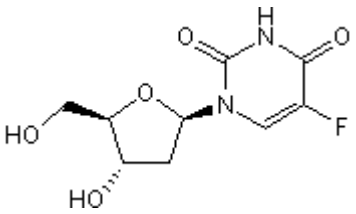
Batch Molecular Weight: 246.19

Physical Appearance: White solid

Solubility: water to 100 mM
DMSO to 100 mM
ethanol to 100 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

Melting Point: Between 150 - 151°C

HPLC: Shows 98.9% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	43.91	4.5	11.38
Found	43.92	4.52	11.27

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EC Number: 200-072-5

IUPAC Name: 5-Fluoro-2'-deoxyuridine

Description:

Antineoplastic antimetabolite. Exhibits antiproliferative activity; inhibits thymidylate synthetase and disrupts DNA replication in human cells. Induces double-strand DNA breaks; activates ATR and ATM signaling pathways. Induces phosphorylation of Chk1 and Chk2 in OVCAR-8 and SKOV3ip ovarian cancer cell lines.

Physical and Chemical Properties:

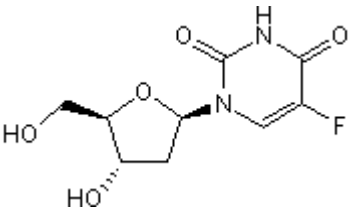
Batch Molecular Formula: $C_9H_{11}FN_2O_5$

Batch Molecular Weight: 246.19

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

water to 100 mM
DMSO to 100 mM
ethanol 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:

Bapat *et al* (1983) Human leukemic cells resistant to 5-fluoro-2'-deoxyuridine contain a thymidylate synthetase with lower affinity for nucleotides. J.Biol.Chem. ***258*** 4130. PMID: 6220000.

Wyatt and Wilson (2009) Participation of DNA repair in the response to 5-fluorouracil. Cell.Mol.Life Sci. ***66*** 788. PMID: 18979208.

Huehls *et al* (2012) Poly(ADP-ribose) polymerase inhibition synergizes with 5-fluorodeoxyuridine but not 5-fluorouracil in ovarian cancer cells. Cancer Res. ***71*** 4944. PMID: 21613406.

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