

Product Name: 5-BrdU

Catalog No.: 5015

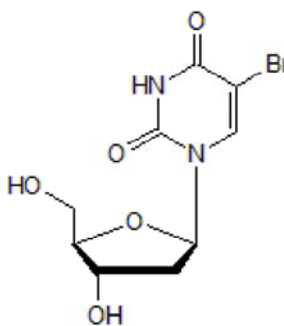
Batch No.: 1

CAS Number: 59-14-3

IUPAC Name: 5-Bromo-2-deoxyuridine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₉H₁₁BrN₂O₅
Batch Molecular Weight: 307.1
Physical Appearance: White solid
Solubility: water to 50 mM
DMSO to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.8% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = +22.7 (Concentration = 1, Solvent = Water)
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	35.2	3.61	9.12
Found	35.21	3.59	9.11

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Batch No.: 1

CAS Number: 59-14-3

IUPAC Name: 5-Bromo-2-deoxyuridine

Description:

Synthetic thymidine analog; incorporated into DNA during replication. Used in assays for cell proliferation. Replaces Oct-4 in transcription factor-mediated reprogramming of somatic cells and can be used in small molecule cocktail to generate ciPSCs.

Physical and Chemical Properties:

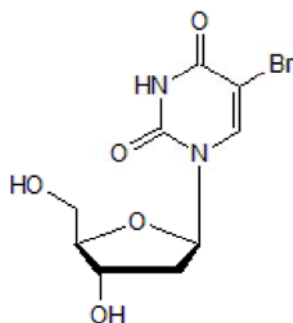
Batch Molecular Formula: C₉H₁₁BrN₂O₅

Batch Molecular Weight: 307.1

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

water to 50 mM

DMSO 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:

Long et al (2015) Bromodeoxyuridine promotes full-chemical induction of mouse pluripotent stem cells. *Cell Res.* **25** 1171. PMID: 26251165.

Barker et al (2013) A new method for *in vitro* detection of bromodeoxyuridine in serum: a proof of concept in a songbird species, the canary. *PLoS One* **8** e63692. PMID: 23691086.

Stacey and Hitomi (2008) Cell cycle studies based upon quantitative image analysis. *Cytometry A* **73A** 270. PMID: 18163464.

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