**Product overview**

**Name**
BrdU (5-Bromo-2′-deoxyuridine)

**Cat No**
HB0979

**Short description**
Thymidine analog. Widely used to identify proliferating cells.

**Biological description**
Thymidine analog which is incorporated into DNA during DNA replication (during S-phase of cell cycle).

BrdU is used to identify proliferating cells. Labels cell lines and primary cell cultures in vitro and also cells in vivo.

Widely used to study adult neurogenesis. Can be used in combination with neuron specific markers such as NeuN to identify newly formed neurons.

Frequently used to label and fate-map dividing cells in neural stem cell biology.

**Alternative names**
5-BrdU, 5-bromo-2′-deoxyuridine, Broxuridine

**Biological action**
Dyes & stains

**Purity**
>98%

**Properties**

**Chemical name**
5-Bromo-2-deoxyuridine

**Molecular Weight**
307.1

**Chemical structure**

![Chemical structure of BrdU](image)

**Molecular Formula**
C_{9}H_{11}BrN_{2}O_{5}

**CAS Number**
59-14-3

**PubChem identifier**
6035

**SMILES**
C1[C@@H][C@H](O[C@H]1N2C=OC(C(=O)NC2=O)Br)CO)

**Source**
Synthetic

**InChI**
InChI=1S/C_{9}H_{11}BrN_{2}O_{5}/c10-4-2-12(9(16)11-8(4)15)7-1-5(14)6(3-13)17-7/h2,5-7,13-14H,1,3H2,(H,11,15,16)15-6+,7+/m0

**InChIKey**
WOVKYSAHUYNSMH-RRKCRQDMSA-N

**MDL number**
MFCD00006529

**Appearance**
White solid
Storing and Using Your Product

Storage instructions: -20°C
Solubility overview: Soluble in water (50mM) and in DMSO (100mM)
Important: This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

References for BrdU (5-Bromo-2’-deoxyuridine)

Pharmacological evaluation of intravenous delivery of 5-bromodeoxyuridine to patients with brain tumors.
PubMedID: 6704976

Neurogenesis in the adult human hippocampus.
PubMedID: 9809557

The dark side of BrdU in neural stem cell biology: detrimental effects on cell cycle, differentiation and survival.
PubMedID: 21837406