

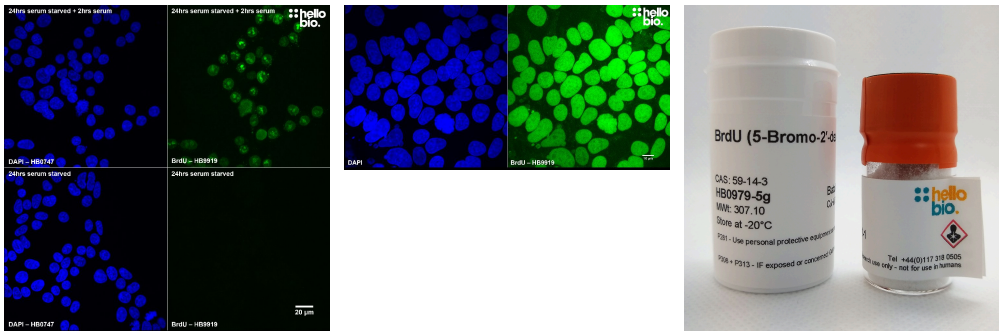
DATASHEET

BrdU (5-Bromo-2'-deoxyuridine)

Product overview

Name	BrdU (5-Bromo-2'-deoxyuridine)
Cat No	HB0979
Alternative names	5-BrdU, 5-bromo-2'-deoxyuridine, Broxuridine
Biological action	Dyes & stains
Purity	>98%
Description	Thymidine analog. Widely used to identify proliferating cells, enhances Yamanaka factor reprogramming

Images



Biological Data

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. Suitable for in vivo use.

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.

Application notes

#Protocol 1: Serum starved vs stimulated BrdU proliferation assay

- HEK293T cells were cultured until approximately 50% confluency in 10% FBS in DMEM before media was exchanged to pure DMEM for 24hrs.
- Cells were either left in DMEM (serum starved) or incubated in 20% FBS in DMEM (serum starved + stimulated) for 2hrs in the presence of 10 μ M BrdU (HB0978).
- Cells were fixed in 4% PFA and then stained for BrdU using a monoclonal anti-BrdU antibody (HB9919) following our [ICC protocol](#) then imaged using a confocal microscope.

#Protocol 2: Proliferation of HEK293T cells visualised using BrdU

- BrdU cells were cultured in 10% FBS in DMEM in the presence of 10µM BrdU (HB0978) for 5 days.
- Cells were fixed in 4% PFA and then stained for BrdU using a monoclonal anti-BrdU antibody (HB9919) following our [ICC protocol](#) then imaged using a confocal microscope.

Solubility & Handling

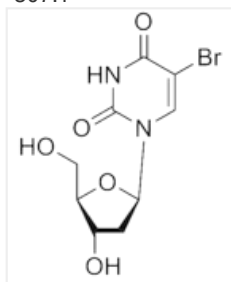
Storage instructions
Solubility overview
Important

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

Chemical Data

Chemical name
Molecular Weight
Chemical structure

5-Bromo-2-deoxyuridine
307.1



Molecular Formula
CAS Number
PubChem identifier
SMILES
Source
InChi

C₉H₁₁BrN₂O₅
59-14-3
6035
C1[C@@H]([C@H](O[C@H]1N2C=C(C(=O)NC2=O)Br)CO)O
Synthetic
InChI=1S/C9H11BrN2O5/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)/t5-,6+,7+/m0/s1
InChiKey WOVKYSAHUYNSMH-RRKCRQDMSA-N
MDL number MFCD00006529
Appearance White solid

References

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