Hello Bio, Inc. 304 Wall St., Princeton, NJ 08540 USA

T. 609-683-7500 F. 609-228-4994

customercare-usa@hellobio.com



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

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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 prescence of 10μM 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.

- BrdU cells were cultured in 10% FBS in DMEM in the prescence of 10 μM 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



Molecular Formula CAS Number PubChem identifier SMILES Source InChi

InChiKey MDL number Appearance 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 WOVKYSAHUYNSMH-RRKCRQDMSA-N MFCD00006529 White solid

References

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