

#5292 Store at -20°C

BrdU (Bu20a) Mouse mAb



100 µl
 (100 assays)

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity	Isotype
IHC-P, IF-IC, F	All	Mouse IgG1

Background: Halogenated nucleotides such as the pyrimidine analog bromodeoxyuridine (BrdU) are useful for labeling nascent DNA in living cells and tissues (1,2). BrdU becomes incorporated into replicating DNA in place of thymidine and subsequent immunodetection of BrdU using specific monoclonal antibodies allows labeling of cells in S phase of the cell cycle (3,4).

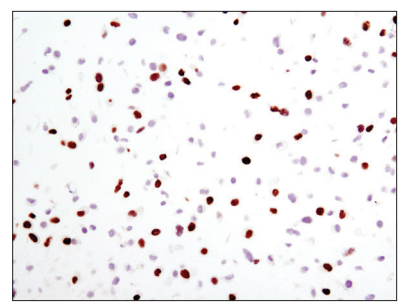
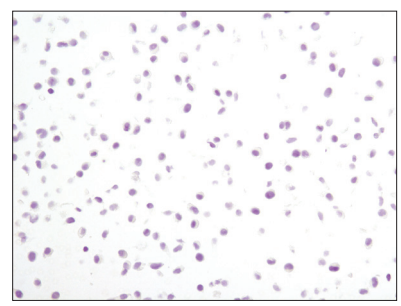
After pulse-labeling cells or tissues with bromodeoxyuridine, BrdU (Bu20a) Mouse mAb can be used to detect BrdU incorporated into single stranded DNA. Please see our detailed protocol for information regarding the labeling procedure as well as denaturation of double stranded DNA for various immunodetection applications.

Specificity/Sensitivity: BrdU (Bu20a) Mouse mAb detects BrdU when incorporated into single stranded DNA. DNA must be denatured for the epitope to be exposed and recognized by the antibody.

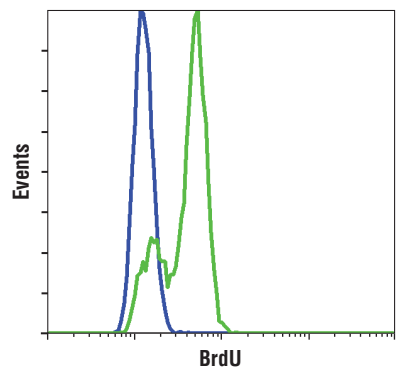
Source/Purification: Monoclonal antibody is produced by immunizing animals with BrdU conjugated to BSA.

Background References:

- (1) Darzynkiewicz, Z. and Juan, G. (2001) *Curr Protoc Cytom* Chapter 7, Unit 7.7.
- (2) Leif, R.C. et al. (2004) *Cytometry A* 58, 45-52.
- (3) Staszkiwicz, J. et al. (2009) *Biochem Biophys Res Commun* 378, 539-44.
- (4) Rothausler, K. and Baumgarth, N. (2007) *Curr Protoc Cytom* Chapter 7, Unit 7.31.



Immunohistochemical analysis of paraffin-embedded HeLa cells, without (upper) and with (lower) BrdU incorporation, using BrdU (Bu20a) Mouse mAb.



Flow cytometric analysis of Jurkat cells, untreated (blue) or BrdU incorporated for 30 minutes (green), using BrdU (Bu20a) Mouse mAb.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

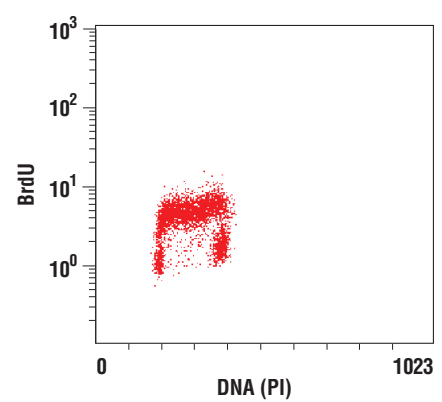
Recommended Antibody Dilutions:

Immunohistochemistry (Paraffin)	1:200
Unmasking buffer:	Citrate
Antibody diluent:	SignalStain® Antibody Diluent #8112
Immunofluorescence (IF-IC)	1:1400
IF Protocol:	Special protocol required
Flow Cytometry	1:200

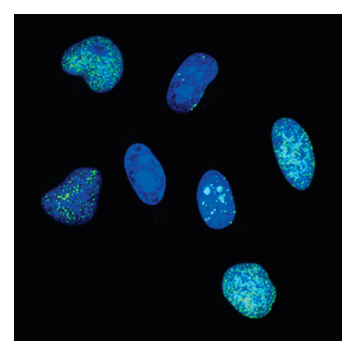
For application specific protocols please see the web page for this product at www.cellsignaling.com.

Please visit www.cellsignaling.com for a complete listing of recommended companion products.

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Flow cytometric analysis of Jurkat cells incorporated with BrdU (30 minutes), using BrdU (Bu20a) Mouse mAb versus propidium iodide (DNA content).



Confocal immunofluorescent analysis of HeLa cells using BrdU Mouse mAb (green). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).

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Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine
 Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.