abcam

Product datasheet

Anti-BrdU antibody [MoBu-1] ab8039

28 References 4 Images

Overview

Product name	Anti-BrdU antibody [MoBu-1]
Description	Mouse monoclonal [MoBu-1] to BrdU
Host species	Mouse
Specificity	This antibody reacts specifically with BrdU incorporated into DNA during S-phase of a cell cycle. It is useful for detecting proliferating cells by flow cytometry or immunofluorescence staining. The reaction shows a clear, nuclear confined speckled pattern. It reacts also specifically with 5-bromouridine (BrU).
Tested applications	**Suitable for:** IHC-P, ICC/IF, Flow Cyt (Intra)
Species reactivity	**Reacts with:** Species independent
Immunogen	Chemical/ Small Molecule corresponding to BrdU.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.40 Preservative: 0.097% Sodium azide Constituent: PBS
Purity	Protein A purified
Purification notes	>95 % (by PAGE).
Clonality	Monoclonal
Clone number	MoBu-1
Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab8039 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

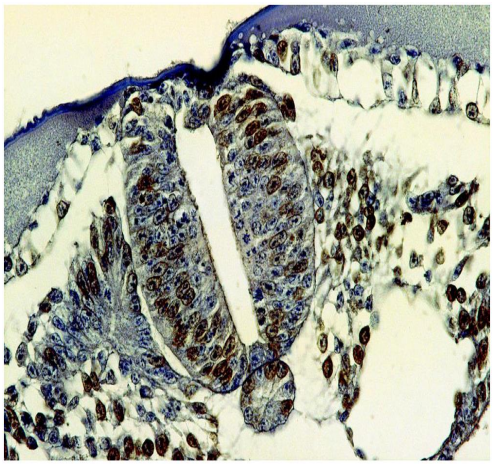
Application	Abreviews	Notes
IHC-P		Use at an assay dependent concentration.
ICC/IF		Use a concentration of 2 µg/ml.
Flow Cyt (Intra)		Use a concentration of 1 - 2 µg/ml. **ab170190** - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Target

Relevance The immunocytochemical detection of bromodeoxyuridine (BrdU) incorporated into DNA is a powerful tool to study the cytokinetics of normal and neoplastic cells. In vitro or in vivo labeling of tumor cells with the thymidine analogue BrdU and the subsequent detection of incorporated BrdU with specific anti-BrdU monoclonal antibodies is an accurate and comprehensive method to quantitate the degree of DNA-synthesis. BrdU is incorporated into the newly synthezised DNA of S-phase cells may provide an estimate for the fraction of cells in S-phase. Also dynamic proliferative information such as the S-phase transit rate and the potential doubling time can be obtained, by means of bivariate BrdU/DNA flow cytometric analysis.

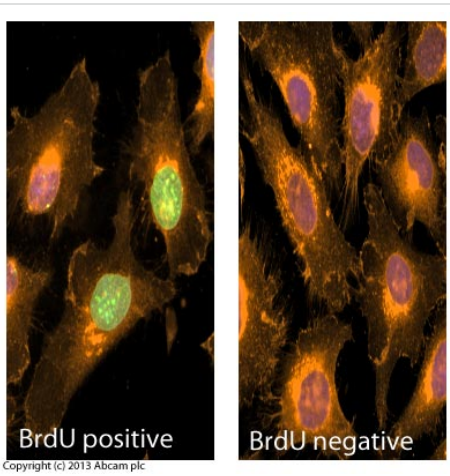
Cellular localization Nuclear

Images



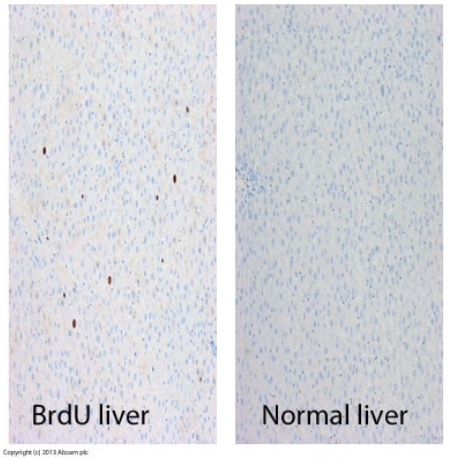
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BrdU antibody [MoBu-1] (ab8039)

Immunohistochemical analysis of parafin-embedded bromodeoxyuridine-labelled chick embryo cells with (MoBu-1) 5-bromodeoxyuridine



Immunocytochemistry/ Immunofluorescence - Anti-BrdU antibody [MoBu-1] (ab8039)

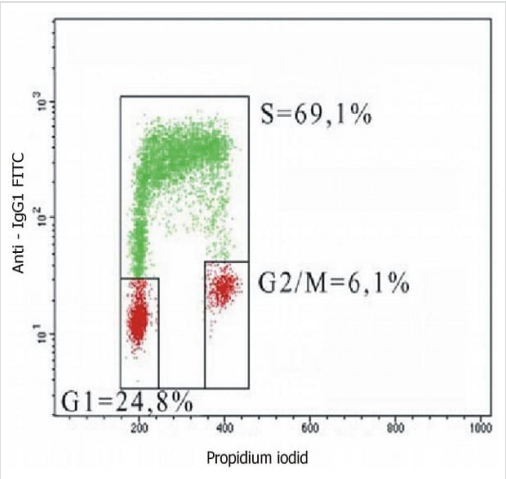
ICC/IF image of ab8039 stained HeLa cells, both BrdU treated (left image) and normal cells (right image). The cells were 100% methanol fixed (5 min) and then subjected to acid hydrolysis using 2M HCL in 0.1% PBS-Tween for 30 minutes at room temperature to denature the DNA. They were then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab8039, 10µg/ml) overnight at +4°C. The secondary antibody (green) was **ab96879**, DyLight® 488 goat anti-mouse IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM. Positive staining can be seen in the BrdU treated cells, but not in the normal cells, demonstrating specificity for BrdU.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BrdU antibody [MoBu-1] (ab8039)

IHC image of ab8039 staining, both in normal and BrdU treated rat liver formalin fixed paraffin embedded tissue sections, performed on a Leica Bond

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Flow Cytometry (Intracellular) - Anti-BrdU antibody [MoBu-1] (ab8039)

Intracellular Flow Cytometry analysis of CEM (human acute lymphoblastic leukemia) cells labelling BrdU with ab8039 at 1µg/mL. Goat anti-mouse IgG was used as the secondary antibody.The individual cell cycle phases (S, G1, G2/M-phase) are indicated on the figure.

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