

Anti-BrdU antibody [IIB5] ab8152

★★★★★ [7 Abreviews](#) [67 References](#) [3 Images](#)

Overview

Product name	Anti-BrdU antibody [IIB5]
Description	Mouse monoclonal [IIB5] to BrdU
Host species	Mouse
Specificity	BrdU is a thymidine analogue and when offered to proliferating cells it is incorporated into reduplicating cells. The antibody is specific for DNA in which BrdU has been incorporated. In immunoassays this antibody reacts strongly with free or carrier-protein coupled BrdU but not with other nucleosides. In immunocytochemistry the antibody only recognizes BrdU in denaturated (single stranded) DNA. The BrdU antibody is 100% crossreactive with Iodo-Deoxy-Uridine (IdU). Therefore, IdU instead of BrdU can be used in studies.
Tested applications	Suitable for: IHC-FoFr, ICC/IF, Flow Cyt, IHC-Fr, IHC-P
Species reactivity	Reacts with: Species independent
Immunogen	Chemical/ Small Molecule corresponding to BrdU conjugated to bovine serum albumin.
Positive control	Bromodeoxyuridine labeled cells.
General notes	<p>The following product is available as purified antibody (purified by affinity chromatography) together with several conjugated versions:</p> <p><u>Anti-BrdU antibody</u> [BU1/75 (ICR1)] (ab6326)</p> <p>Unstained positive control slides from mice treated with BrdU (formalin-fixed, paraffin-embedded intestine sections) are available as BrdU control slides ab129956.</p>

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
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Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term.
Storage buffer	pH: 7.3 Preservative: 0.09% Sodium azide Constituents: 1% BSA, PBS
Purity	Tissue culture supernatant
Clonality	Monoclonal
Clone number	IIIB5
Myeloma	Sp2/0-Ag14
Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab8152 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

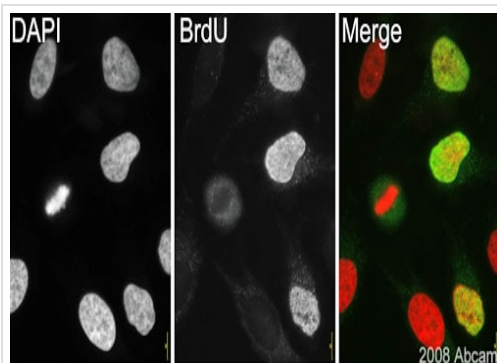
Application	Abreviews	Notes
IHC-FoFr	★★★★★ (1)	Use at an assay dependent concentration.
ICC/IF	★★★★★ (4)	Use at an assay dependent concentration.
Flow Cyt		1/100 - 1/200. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
IHC-Fr		1/5 - 1/10. Dilute antibody in 0.15 M phosphate buffered saline with 1% BSA and 1% Na-azide.
IHC-P	★★★★★ (2)	1/5 - 1/10. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. Enzymatic antigen retrieval with proteases can also be used.

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 synthesized 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

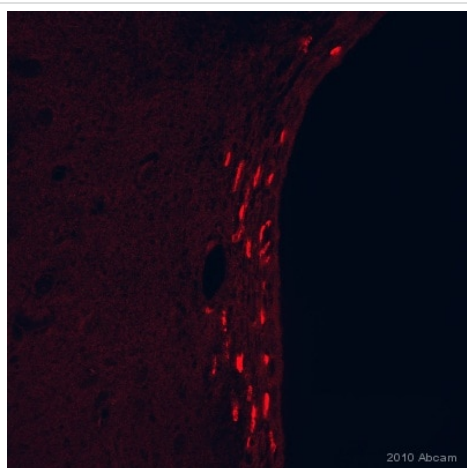
Images



Immunocytochemistry/ Immunofluorescence - Anti-BrdU antibody [IIB5] (ab8152)

Image courtesy of an Abreview submitted by Dr. Kirk McManus, Univ. of Manitoba/Cancer Care MCB, Canada

ab8152 (1/100) staining BrdU in HeLa cells (green). Cells were fixed with paraformaldehyde, permeabilized with 0.5% Triton X100/PBS and counterstained with DAPI in order to highlight the nucleus (red). For further experimental details please see Abreview.

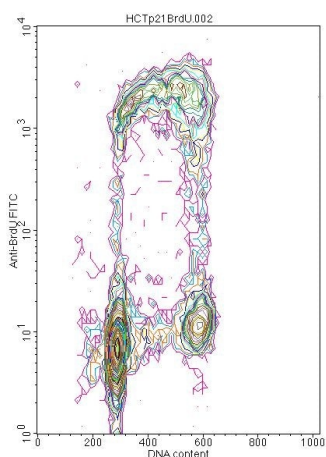


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BrdU antibody [IIB5] (ab8152)

This image is courtesy of an anonymous Abreview

Immunohistochemical analysis of rat brain tissue, staining BrdU with ab8152.

Tissue was fixed with paraformaldehyde and blocked with 5% serum for 1 hour at 25°C; antigen retrieval was by heat mediation in citrate buffer (pH 6). Samples were incubated with primary antibody (1/20 in diluent) for 18 hours at 25°C. A Cy3®-conjugated donkey anti-mouse polyclonal IgG was used as the secondary antibody.



Flow Cytometry - Anti-BrdU antibody [IIB5] (ab8152)

Cells were pulse labeled with 10 μ M BrdU for 30 min, rinsed twice in prewarmed PBS, and chased in prewarmed culture medium, supplemented with 5 mM deoxythymidine. Incorporated BrdU was detected after ethanol fixation of the cells, which were then rinsed once in PBS and resuspended in 2 ml of 0.4 mg/ml pepsin in 0.1 N HCl. After 30 min at room temperature cells were pelleted, resuspended in 2 N HCl, and incubated for another 30 min at 37°C. Cells were rinsed in 0.1 M borate buffer, pH 8.5, and PBS/BSA (1 mg/ml BSA in PBS). Appropriately diluted mouse anti-BrdU antibody (clone IIB5) was added to the cell pellet, resuspended in 100 micro liters PBS/BSA. After incubation for 1 h at room temperature, the cells were rinsed twice in PBS/BSA. For visualization, FITC-conjugated Fab2 fragments of rabbit anti-mouse

Ig antibody were added in a 1/10 dilution. After incubation for 45 min at room temperature samples were rinsed twice in PBS/BSA and the cells were finally resuspended in 0.5 ml cold PBS supplemented with 100 microgram/ml RNase and 20 µg/mL propidium iodide. The samples were allowed to stand for 15 min on ice in the dark before flow cytometric analysis. In the negative control the primary antibody was omitted.

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