

Product datasheet

HRP Anti-BrdU antibody [BU1/75 (ICR1)] ab220507

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Overview

Product name	HRP Anti-BrdU antibody [BU1/75 (ICR1)]
Description	HRP Rat monoclonal [BU1/75 (ICR1)] to BrdU
Host species	Rat
Conjugation	HRP
Specificity	This antibody reacts with BrdU in single stranded DNA, BrdU attached to a protein carrier or free BrdU. It detects nucleated cells in S-Phase which have had BrdU incorporated into their DNA. Also reacts with chlorodeoxyuridine but with reduced staining. The antibody does not react with thymidine. It has been reported in the literature that this antibody clone cross-reacts with Edu (PMID: 23272138) and some customers reported that it cross reacts with IdU.
Tested applications	Suitable for: IHC-P
Species reactivity	Reacts with: Species independent
Immunogen	The details of the immunogen for this antibody are not available.
Positive control	IHC-P: BrdU treated rat skin tissue sections
General notes	<p>The antibody recognises single stranded DNA so the DNA needs to be unraveled first. This can be done with DNase, although this doesn't give the best results. Depending on the assay, acid denaturation with 2M HCL or heat denaturation are the most successful. Please note this step is critical in any assay with this antibody and is the area that should be modified to optimise results. Detailed BrdU protocol is available in "Neuroscience protocols" on our "Protocol and troubleshooting tips" webpage.</p> <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.</p> <p>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</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C.

Avoid freeze / thaw cycle. Store In the Dark.

Storage buffer

pH: 7.40
Preservative: 0.1% Proclin 300 Solution
Constituents: 30% Glycerol (glycerin, glycerine), 1% BSA, PBS

Purity

Immunogen affinity purified

Clonality

Monoclonal

Clone number

BU1/75 (ICR1)

Isotype

IgG2a

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab220507 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		1/100. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Target

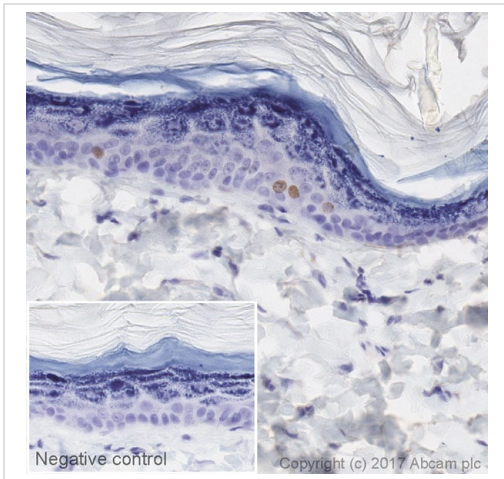
Relevance

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

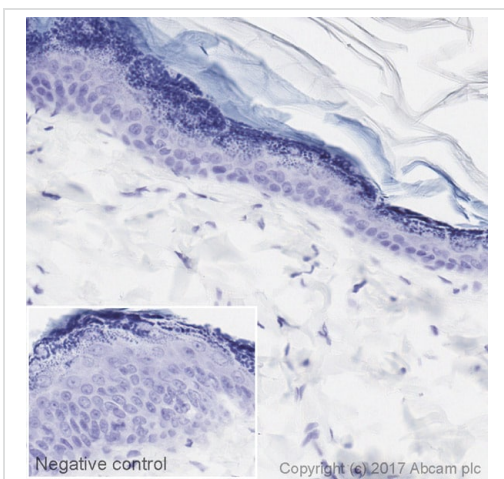
Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - HRP Anti-BrdU antibody [BU1/75 (ICR1)] (ab220507)

IHC image of BrdU staining in a section of formalin-fixed paraffin-embedded BrdU treated rat skin, performed on a Leica BOND™. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20mins. The section was then incubated with ab220507, 1/100 dilution, for 15 mins at room temperature. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset negative control image is taken from an identical assay without primary antibody.

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.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - HRP Anti-BrdU antibody [BU1/75 (ICR1)] (ab220507)

Negative IHC image of BrdU staining in a section of formalin-fixed paraffin-embedded normal rat skin, performed on a Leica BOND™. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20mins. The section was then incubated with ab220507, 1/100 dilution, for 15 mins at room temperature. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset negative control image is taken from an identical assay without primary antibody.

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.

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