abcam

Product datasheet

Alexa Fluor® 594 Anti-BrdU antibody [BU1/75 (ICR1)] ab220076

2 References 1 Image

Overview

Product name	Alexa Fluor® 594 Anti-BrdU antibody [BU1/75 (ICR1)]
Description	Alexa Fluor® 594 Rat monoclonal [BU1/75 (ICR1)] to BrdU
Host species	Rat
Conjugation	Alexa Fluor® 594. Ex: 590nm, Em: 617nm
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:** ICC/IF
Species reactivity	**Reacts with:** Species independent
Immunogen	The details of the immunogen for this antibody are not available.
Positive control	ICC/IF: HeLa cells treated with BrdU (10uM for 24 hours)
General notes	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**. Alexa Fluor® is a registered trademark of Molecular Probes, Inc, a Thermo Fisher Scientific Company. The Alexa Fluor® dye included in this product is provided under an intellectual property license from Life Technologies Corporation. As this product contains the Alexa Fluor® dye, the purchase of this product conveys to the buyer the non-transferable right to use the purchased product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). As this product contains the Alexa Fluor® dye the sale of this product is expressly conditioned on the buyer not using the product or its components, or any materials made using the product or its components, in any activity to generate revenue, which may include, but is not limited to use of the product or its components: in manufacturing; (ii) to provide a service, information, or data in return for payment (iii) for therapeutic, diagnostic or prophylactic purposes; or (iv) for resale, regardless of whether they are sold for use in research.

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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 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: 0.02% Sodium azide Constituents: 1% BSA, 30% Glycerol (glycerin, glycerine), 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 ab220076 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
ICC/IF		1/100. This product gave a positive signal in HeLa cells treated with BrdU (10uM for 24 hours) fixed with 4% formaldehyde (10 min) and 100% methanol (5 min)

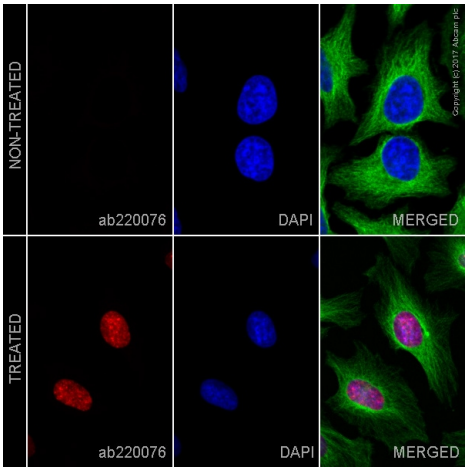
Target

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



Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 594 Anti-BrdU antibody [BU1/75 (ICR1)] (ab220076)

ab220076 staining BrdU in HeLa cells. Untreated and BrdU treated (10uM for 24 hours) cells were fixed with 100% methanol (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 permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab220076 at 1/100 dilution (**pseudocolored in red**) and **ab195887**, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 488), at 1/250 dilution (shown in green). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

This product also gave a positive signal under the same testing conditions in HeLa cells fixed with 4% formaldehyde (10 min).

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