

Product datasheet

Anti-Ubiquitin antibody [5B9-B3] ab223378

3 Images

Overview

Product name	Anti-Ubiquitin antibody [5B9-B3]
Description	Mouse monoclonal [5B9-B3] to Ubiquitin
Host species	Mouse
Tested applications	Suitable for: ICC/IF, WB
Species reactivity	Reacts with: Human Predicted to work with: Cow 
Immunogen	Full length native protein (purified) corresponding to Cow Ubiquitin conjugated to keyhole limpet haemocyanin. Database link: P0CG53
Positive control	ICC/IF: HeLa cells. WB: HeLa cell lysate.
General notes	<p>Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.</p> <p>Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.</p> <p>We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.</p> <p>In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.</p> <p>We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.</p> <p>Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.</p> <p>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, as well as 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 long term. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.09% Sodium azide Constituents: 50% Glycerol (glycerin, glycerine), PBS
Purity	Protein G purified
Clonality	Monoclonal
Clone number	5B9-B3
Isotype	IgG2a
Light chain type	kappa

Applications

Our [Abpromise guarantee](#) covers the use of **ab223378** 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.
WB		1/1000. Detects a band of approximately 10 kDa (predicted molecular weight: 34 kDa).

Target

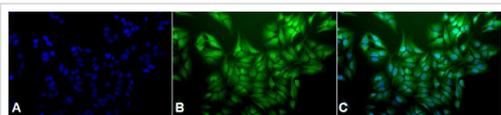
Relevance

Function: Ubiquitin exists either covalently attached to another protein, or free (unanchored). When covalently bound, it is conjugated to target proteins via an isopeptide bond either as a monomer (monoubiquitin), a polymer linked via different Lys residues of the ubiquitin (polyubiquitin chains) or a linear polymer linked via the initiator Met of the ubiquitin (linear polyubiquitin chains). Polyubiquitin chains, when attached to a target protein, have different functions depending on the Lys residue of the ubiquitin that is linked: Lys-6-linked may be involved in DNA repair; Lys-11-linked is involved in ERAD (endoplasmic reticulum-associated degradation) and in cell-cycle regulation; Lys-29-linked is involved in lysosomal degradation; Lys-33-linked is involved in kinase modification; Lys-48-linked is involved in protein degradation via the proteasome; Lys-63-linked is involved in endocytosis, DNA-damage responses as well as in signaling processes leading to activation of the transcription factor NF-kappa-B. Linear polymer chains formed via attachment by the initiator Met lead to cell signaling. Ubiquitin is usually conjugated to Lys residues of target proteins, however, in rare cases, conjugation to Cys or Ser residues has been observed. When polyubiquitin is free (unanchored-polyubiquitin), it also has distinct roles, such as in activation of protein kinases, and in signaling. Similarity: Belongs to the ubiquitin family. Contains 3 ubiquitin-like domains.

Cellular localization

Cell Membrane, Cytoplasmic and Nuclear

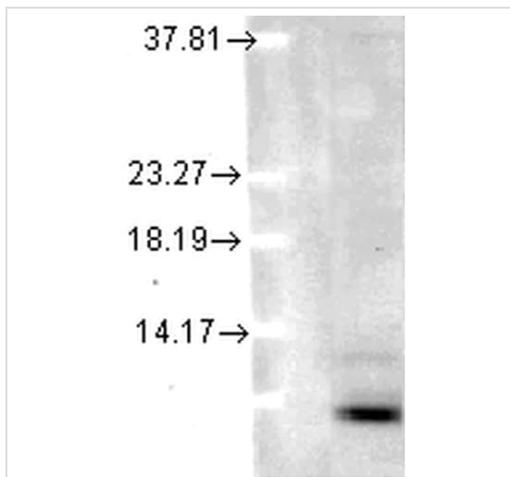
Images



Immunocytochemistry/ Immunofluorescence - Anti-Ubiquitin antibody [5B9-B3] (ab223378)

2% formaldehyde-fixed HeLa (human epithelial cell line from cervix adenocarcinoma) cells stained for Ubiquitin (green) using ab223378 at 1/100 dilution in ICC/IF. Secondary: Goat Anti-Mouse FITC at 1/200 dilution for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1/40000 for 2 hours RT.

(A) DAPI nuclear stain (B) ab223378 (C) Merge.



Western blot - Anti-Ubiquitin antibody [5B9-B3] (ab223378)

Anti-Ubiquitin antibody [5B9-B3] (ab223378) at 1/1000 dilution + Mix of human cell lysates at 15 µg

Secondary

Sheep Anti-Mouse IgG HRP

Predicted band size: 34 kDa

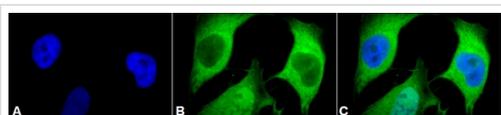
Observed band size: 10 kDa

[why is the actual band size different from the predicted?](#)

Blocking buffer: 1.5% BSA.

Primary antibody was incubated for 2 hours, the secondary for 1 hour at RT.

Mix of human cell line lysates: epidermoid carcinoma (A431), adenocarcinomic alveolar basal epithelial cells (A549), colon cancer (HCT116), cervical cancer (HeLa), embryonic kidney (HEK293), liver cancer (HepG2), promyelocytic leukemia (HL-60), umbilical vein endothelial cells (HUVEC), T lymphocytes (Jurkat), breast cancer (MCF7), prostate cancer (PC3), brain glioblastom (T98G).



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(A) DAPI nuclear stain (B) ab223378 (C) Merge.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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