

Product datasheet

Anti-Ubiquitin antibody [EPR8589] - BSA and Azide free ab248778

Recombinant RabMAb

6 Images

Overview

Product name	Anti-Ubiquitin antibody [EPR8589] - BSA and Azide free
Description	Rabbit monoclonal [EPR8589] to Ubiquitin - BSA and Azide free
Host species	Rabbit
Specificity	This antibody recognizes polyubiquitin chains.
Tested applications	Suitable for: ICC, WB, Flow Cyt Unsuitable for: IHC-P or IP
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide (ubiquityl). Database link: P0CG48
General notes	Ab248778 is the carrier-free version of ab137031 . This format is designed for use in antibody labeling, including fluorochromes, metal isotopes, oligonucleotides, enzymes.

Our [carrier-free formats](#) are supplied in a buffer free of BSA, sodium azide and glycerol for higher conjugation efficiency.

Use our [conjugation kits](#) for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

ab248778 is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm.

Maxpar® is a trademark of Fluidigm Canada Inc.

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free production

For more information [see here](#).

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb® patents](#).

Reproducibility is key to advancing scientific discovery and accelerating scientists' next

breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

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.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

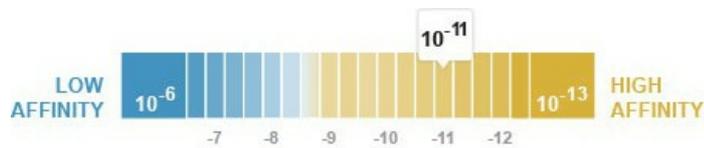
We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.

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.

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.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Dissociation constant (K_D)	K _D = 4.95 x 10 ⁻¹¹ M



[Learn more about K_D](#)

Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Affinity purified
Clonality	Monoclonal
Clone number	EPR8589
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab248778** 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		Use at an assay dependent concentration.

Application	Abreviews	Notes
WB		Use at an assay dependent concentration. Predicted molecular weight: 8 kDa. Molecular weight provided is for monoubiquitin.
Flow Cyt		Use at an assay dependent concentration.

Application notes Is unsuitable for IHC-P or IP.

Target

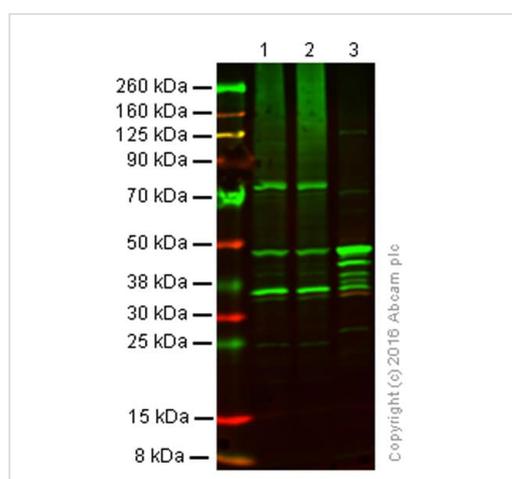
Relevance

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



Western blot - Anti-Ubiquitin antibody [EPR8589] - BSA and Azide free (ab248778)

All lanes : Anti-Ubiquitin antibody [EPR8589] ([ab137031](#)) at 1/200 dilution

Lane 1 : MCF7 Whole Cell Lysate

Lane 2 : MCF7 Whole Cell Lysate + M132 (50 uM 90 min)

Lane 3 : Mouse brain tissue lysate

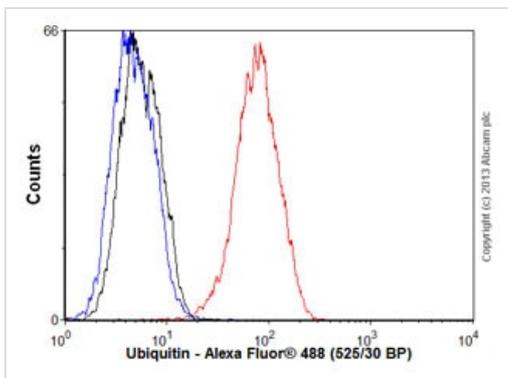
Lysates/proteins at 20 µg per lane.

Performed under non-reducing conditions.

Predicted band size: 8 kDa

This data was developed using [ab137031](#), the same antibody clone in a different buffer formulation.

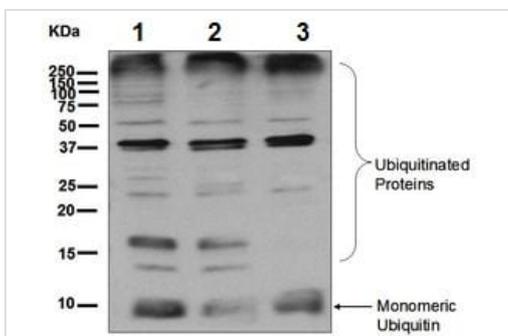
This blot was produced using a 4-12% Bis-tris gel under the MES buffer system. The gel was run at 200V for 35 minutes before being transferred onto a nitrocellulose membrane at 30V for 70 minutes. [ab137031](#) and [ab8245](#) (loading control to GAPDH) were diluted 1/200 and 1/10 000 respectively and incubated overnight at 4°C. Blots were developed with goat anti-rabbit IgG (H + L) and goat anti-mouse IgG (H + L) secondary antibodies at 1/10 000 dilution for 1 h at room temperature before imaging using the Licor Odyssey CLx.



Flow Cytometry - Anti-Ubiquitin antibody [EPR8589] - BSA and Azide free (ab248778)

This data was developed using [ab137031](#), the same antibody clone in a different buffer formulation.

Overlay histogram showing HepG2 cells stained with [ab137031](#) (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody ([ab137031](#), 1/1000 dilution) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit IgG (H&L) ([ab150077](#)) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (0.1? g/1x10⁶ cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter. This antibody gave a positive signal in HepG2 cells fixed with 80% methanol (5 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.



Western blot - Anti-Ubiquitin antibody [EPR8589] - BSA and Azide free (ab248778)

All lanes : Anti-Ubiquitin antibody [EPR8589] ([ab137031](#)) at 1/1000 dilution

Lane 1 : Hela cell lysate

Lane 2 : Jurkat cell lysate

Lane 3 : 293T (Human embryonic kidney epithelial cell) cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

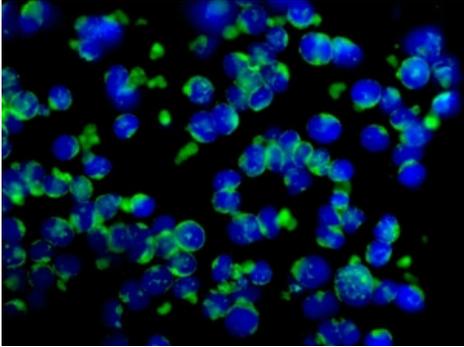
All lanes : HRP conjugated Goat anti Rabbit IgG at 1/2000 dilution

Predicted band size: 8 kDa

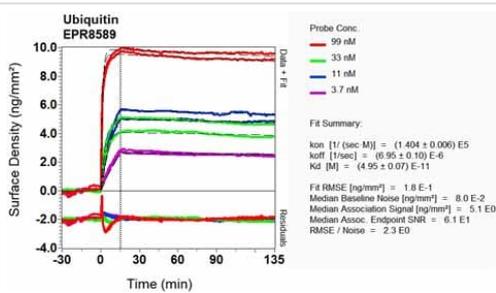
This data was developed using [ab137031](#), the same antibody clone in a different buffer formulation.

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Immunofluorescence analysis of Jurkat cells labelling Ubiquitin with [ab137031](#) at 1/250 dilution.



Immunocytochemistry - Anti-Ubiquitin antibody [EPR8589] - BSA and Azide free (ab248778)



Ox-LD Scanning - Anti-Ubiquitin antibody [EPR8589] - BSA and Azide free (ab248778)

This data was developed using [ab137031](#), the same antibody clone in a different buffer formulation.

Equilibrium dissociation constant (K_D)

Learn more about K_D

[Click here to learn more about \$K_D\$](#)

Why choose a recombinant antibody?

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

Anti-Ubiquitin antibody [EPR8589] - BSA and Azide free (ab248778)

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

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- Response to your inquiry within 24 hours

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- Extensive multi-media technical resources to help you
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