abcam

Product datasheet

Anti-USP10 antibody [EPR4261] - BSA and Azide free ab239953

KO VALIDATED Recombinant RabMAb

4 Images

Overview

Product name	Anti-USP10 antibody [EPR4261] - BSA and Azide free
Description	Rabbit monoclonal [EPR4261] to USP10 - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** IHC-P, IP, ICC/IF, WB **Unsuitable for:** Flow Cyt
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HeLa, 293T, A375 and A549 cell lysates. IHC-P: Human colon tissue. ICC: MCF-7 IP: HeLa.
General notes	ab239953 is the carrier-free version of **ab109219**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. 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. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. 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**.

Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR4261
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab239953 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		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. Antigen retrieval is recommended.
IP		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Detects a band of approximately 110 kDa (predicted molecular weight: 87 kDa).

Application notes Is unsuitable for Flow Cyt.

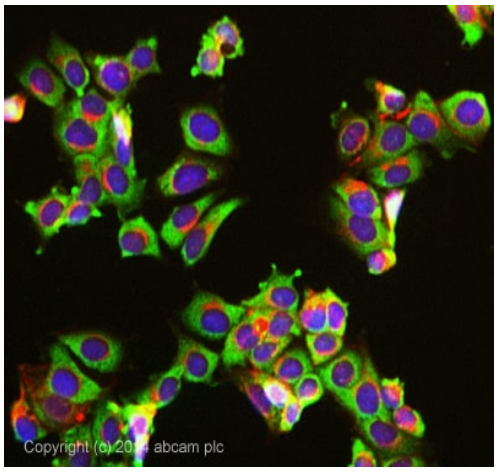
Target

Function Hydrolase that can remove conjugated ubiquitin from target proteins such as p53/TP53, SNX3 and CFTR. Acts as an essential regulator of p53/TP53 stability: in unstressed cells, specifically deubiquitinates p53/TP53 in the cytoplasm, leading to counteract MDM2 action and stabilize p53/TP53. Following DNA damage, translocates to the nucleus and deubiquitinates p53/TP53, leading to regulate the p53/TP53-dependent DNA damage response. Does not deubiquitinate MDM2. Deubiquitinates CFTR in early endosomes, enhancing its endocytic recycling.

Tissue specificity Widely expressed.

Sequence similarities	Belongs to the peptidase C19 family. USP10 subfamily.
Post-translational modifications	Phosphorylated by ATM following DNA damage, leading to stablization and translocation it to the nucleus.
Cellular localization	Cytoplasm. Nucleus. Early endosome. Cytoplasmic in normal conditions. After DNA damage, translocates to the nucleus following phosphorylation by ATM.

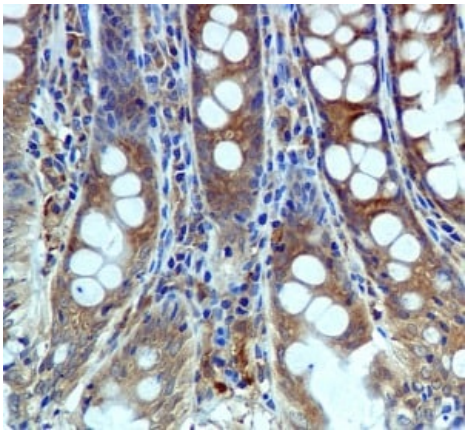
Images



Immunocytochemistry/ Immunofluorescence - Anti-USP10 antibody [EPR4261] - BSA and Azide free (ab239953)

ICC/IF image of **ab109219** stained MCF-7 cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody **ab109219** at 1/50 dilution overnight at +4°C. The secondary antibody (pseudo-colored green) was Alexa Fluor® 488 goat anti-rabbit (**ab150081**) IgG (H+L) preadsorbed, used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (pseudo-colored red) at a 1/200 dilution for 1h at room temperature. DAPI was used to stain the cell nuclei (pseudo-colored blue) at a concentration of 1.43µM for 1hour at room temperature.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109219**).

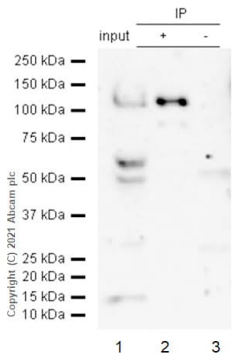


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-USP10 antibody [EPR4261] - BSA and Azide free (ab239953)

ab109219, at a 1/250 dilution, staining USP10 in paraffin embedded Human colon tissue by Immunohistochemistry.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab109219**).

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunoprecipitation - Anti-USP10 antibody [EPR4261] - BSA and Azide free (ab239953)

This data was developed using **ab109219**, the same antibody clone in a different buffer formulation.

USP10 was immunoprecipitated from 0.35 mg HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate 10 µg with **ab109219** at 1/30 dilution (2µg) . VeriBlot for IP Detection Reagent (HRP)(**ab131366**) was used at 1/5000 dilution.

Lane 1: HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate 10 µg

Lane 2: abab109219 IP in HeLa whole cell lysate

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of **ab109219** in HeLa whole cell lysate

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Fresh lysate should be used to minimize protein degradation.

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