abcam

Product datasheet

Anti-USP22 antibody [EPR4352(2)] ab109435

KO VALIDATED Recombinant RabMAb

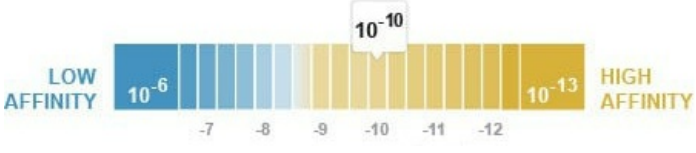
1 Abreviews 1 References 6 Images

Overview

Product name	Anti-USP22 antibody [EPR4352(2)]
Description	Rabbit monoclonal [EPR4352(2)] to USP22
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), WB **Unsuitable for:** ICC/IF or IHC-P
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HeLa, HAP1, human placenta and HT-1376 lysates
General notes	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. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Dissociation constant (K_D)	$K_D = 1.13 \times 10^{-10}$ M



Learn more about K_D

Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.5% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR4352(2)
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab109435 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

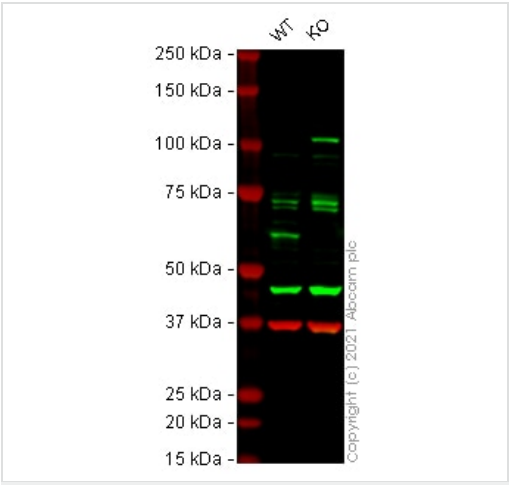
Application	Abreviews	Notes
Flow Cyt (Intra)		1/10 - 1/100. **ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB		1/1000 - 1/5000. Predicted molecular weight: 60 kDa.

Application notes Is unsuitable for ICC/IF or IHC-P.

Target

Function	Histone deubiquitinating component of the transcription regulatory histone acetylation (HAT) complex SAGA. Catalyzes the deubiquitination of both histones H2A and H2B, thereby acting as a coactivator. Recruited to specific gene promoters by activators such as MYC, where it is required for transcription. Required for nuclear receptor-mediated transactivation and cell cycle progression.
Tissue specificity	Moderately expressed in various tissues including heart and skeletal muscle, and weakly expressed in lung and liver.
Sequence similarities	Belongs to the peptidase C19 family. UBP8 subfamily. Contains 1 UBP-type zinc finger.
Cellular localization	Nucleus.

Images



Western blot - Anti-USP22 antibody [EPR4352(2)] (ab109435)

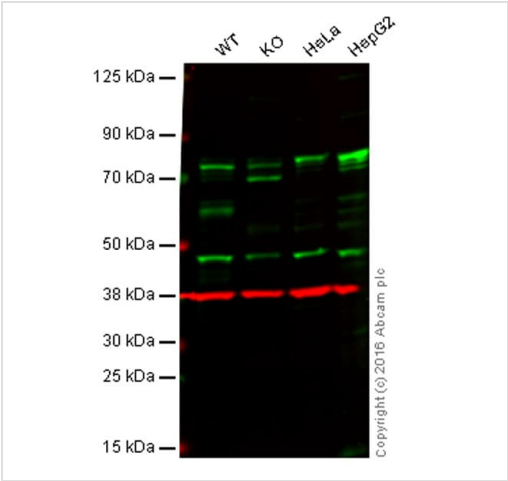
All lanes : Anti-USP22 antibody [EPR4352(2)] (ab109435) at 1/1000 dilution

Lane 1 : Wild-type HeLa cell lysate
Lane 2 : USP22 knockout HeLa cell lysate

Performed under reducing conditions.

Predicted band size: 60 kDa
Observed band size: 59 kDa

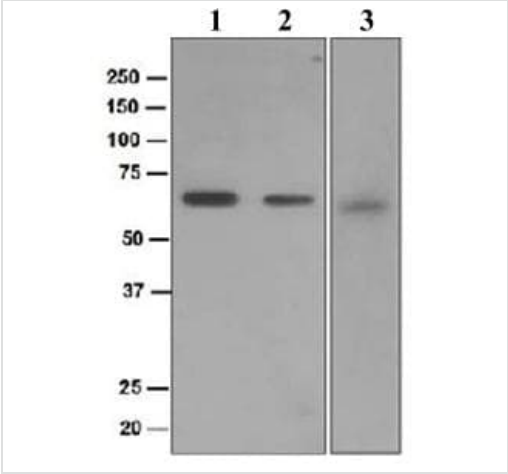
False colour image of Western blot: Anti-USP22 antibody [EPR4352(2)] staining at 1/1000 dilution, shown in green; Mouse anti-GAPDH antibody [6C5] (**ab8245**) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab109435 was shown to bind specifically to USP22. A band was observed at 59 kDa in wild-type HeLa cell lysates with no signal observed at this size in usp22 knockout cell line **ab264888** (knockout cell lysate **ab257789**). To generate this image, wild-type and usp22 knockout HeLa cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in fluorescent western blot (TBS-based) blocking solution before incubation with primary antibodies overnight at 4°C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged.Secondary antibodies used were Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (**ab216776**) at 1/20000 dilution.



Western blot - Anti-USP22 antibody [EPR4352(2)] (ab109435)

Lane 1: Wild-type HAP1 cell lysate (20 µg)
Lane 2: USP22 knockout HAP1 cell lysate (20 µg)
Lane 3: HeLa cell lysate (20 µg)
Lane 4: HepG2 cell lysate (20 µg)
Lanes 1 - 4: Merged signal (red and green). Green - ab109435 observed at 60 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

Ab109435 was shown to specifically react with USP22 in wild-type cells along with additional cross-reactive bands. The band was not seen in USP22 knockout HAP1 cells. Wild-type and USP22 knockout samples were subjected to SDS-PAGE. ab109435 and **ab8245** (loading control to GAPDH) were diluted at 1/1000 and 1/10000 respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1/10000 dilution for 1 h at room temperature before imaging.



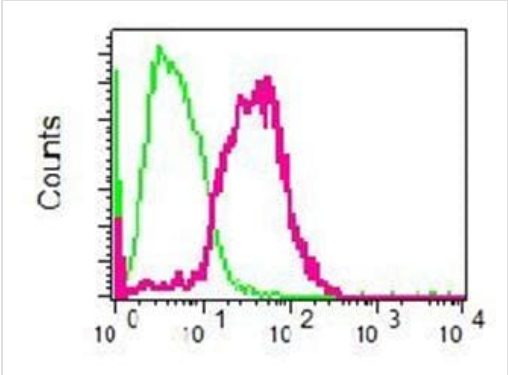
Western blot - Anti-USP22 antibody [EPR4352(2)] (ab109435)

All lanes : Anti-USP22 antibody [EPR4352(2)] (ab109435) at 1/1000 dilution

Lane 1 : HeLa cell lysate
Lane 2 : Human placenta lysate
Lane 3 : HT-1376 lysate

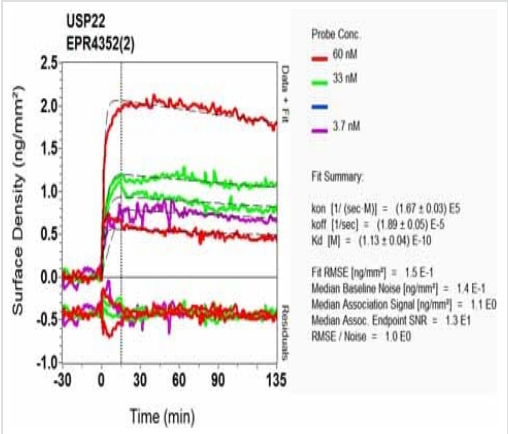
Lysates/proteins at 10 µg per lane.

Predicted band size: 60 kDa



Flow Cytometry (Intracellular) - Anti-USP22 antibody [EPR4352(2)] (ab109435)

Intracellular flow cytometric analysis of permeabilized HeLa cells using 1/10 ab109435 (red) or a rabbit IgG (negative) (green).

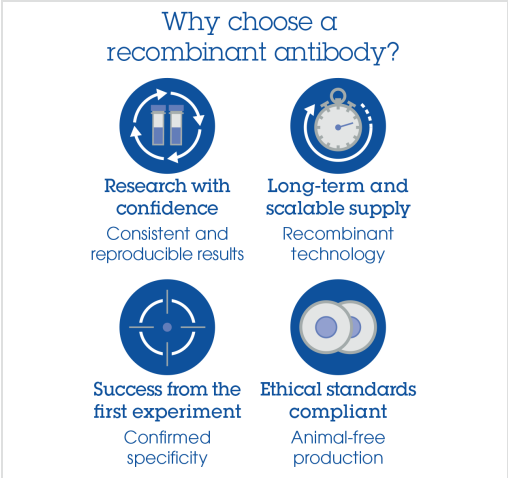


OI-RD Scanning - Anti-USP22 antibody [EPR4352(2)] (ab109435)

Equilibrium disassociation constant (K_D)

Learn more about K_D

Click here to learn more about K_D



Anti-USP22 antibody [EPR4352(2)] (ab109435)

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