abcam

Product datasheet

Anti-CLASP1 antibody [EPR3409] - BSA and Azide free ab232576

KO VALIDATED Recombinant RabMAb

9 Images

Overview

Product name	Anti-CLASP1 antibody [EPR3409] - BSA and Azide free
Description	Rabbit monoclonal [EPR3409] to CLASP1 - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), IHC-P, WB, ICC/IF
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Hela, Jurkat and HAP1 whole cell lysates. IHC-P: Human and mouse kidney and human cerebral cortex tissues. ICC/IF: HeLa cells. Flow Cyt (intra): HeLa cells.
General notes	ab232576 is the carrier-free version of **ab108620**. 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**.

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	EPR3409
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab232576 in the following tested applications.

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

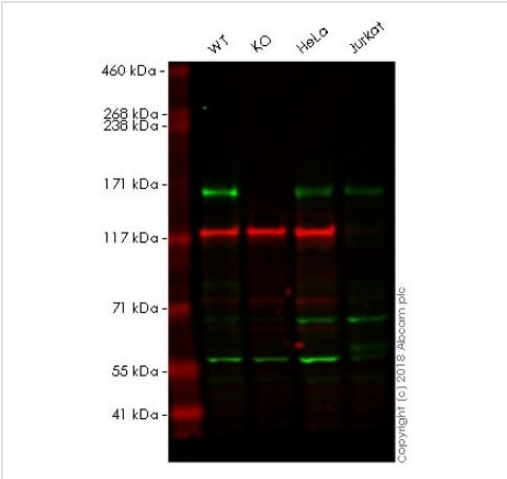
Application	Abreviews	Notes
Flow Cyt (Intra)		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB		Use at an assay dependent concentration. Predicted molecular weight: 169 kDa.
ICC/IF		Use at an assay dependent concentration.

Target

Function	Microtubule plus-end tracking protein that promotes the stabilization of dynamic microtubules. Involved in the nucleation of noncentrosomal microtubules originating from the trans-Golgi network (TGN). Required for the polarization of the cytoplasmic microtubule arrays in migrating cells towards the leading edge of the cell. May act at the cell cortex to enhance the frequency of rescue of depolymerizing microtubules by attaching their plus-ends to cortical platforms composed of ERC1 and PHLDB2. This cortical microtubule stabilizing activity is regulated at least in part by phosphatidylinositol 3-kinase signaling. Also performs a similar stabilizing function at the kinetochore which is essential for the bipolar alignment of chromosomes on the mitotic spindle.
Sequence similarities	Belongs to the CLASP family. Contains 7 HEAT repeats.
Post-translational modifications	Phosphorylated upon DNA damage, probably by ATM or ATR.
Cellular localization	Cytoplasm > cytoskeleton. Cytoplasm > cytoskeleton > centrosome. Chromosome > centromere

> kinetochore. Cytoplasm > cytoskeleton > spindle. Golgi apparatus > trans-Golgi network. Localizes to microtubule plus ends. Localizes to centrosomes, kinetochores and the mitotic spindle from prometaphase. Subsequently localizes to the spindle midzone from anaphase and to the midbody from telophase. In migrating cells localizes to the plus ends of microtubules within the cell body and to the entire microtubule lattice within the lamella. Localizes to the cell cortex and this requires ERC1 and PHLDB2.

Images



Western blot - Anti-CLASP1 antibody [EPR3409] - BSA and Azide free (ab232576)

All lanes : Anti-CLASP1 antibody [EPR3409] (**ab108620**) at 1/10000 dilution

Lane 1 : Wild-type HAP1 whole cell lysate
Lane 2 : CLASP1 knockout HAP1 whole cell lysate
Lane 3 : HeLa whole cell lysate
Lane 4 : Jurkat whole cell lysate

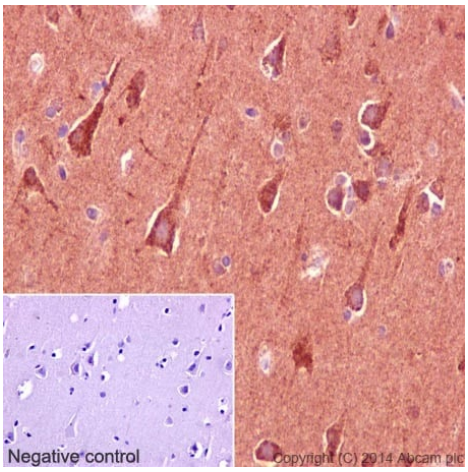
Lysates/proteins at 20 µg per lane.

Predicted band size: 169 kDa

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab108620**).

Lanes 1 - 4: Merged signal (red and green). Green - **ab108620** observed at 169 kDa. Red - loading control, **ab130007**, observed at 130 kDa.

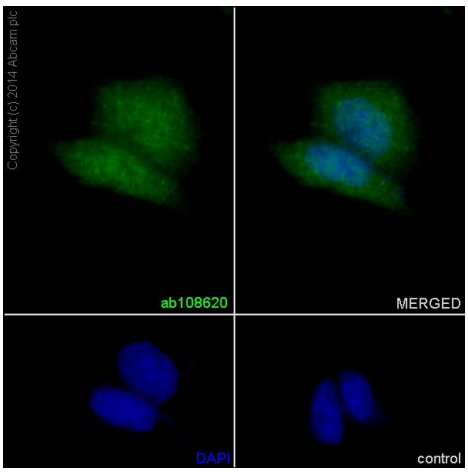
ab108620 was shown to recognize CLASP1 in wild-type HAP1 cells as signal was lost at the expected MW in CLASP1 knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and CLASP1 knockout samples were subjected to SDS-PAGE. Ab108620 and **ab130007** (Mouse anti-Vinculin loading control) were incubated overnight at 4°C at 1/10000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed **ab216776** secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CLASP1 antibody [EPR3409] - BSA and Azide free (ab232576)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human cerebral cortex tissue labelling CLASP1 with purified **ab108620** at 1/250. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. **ab97051**, a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab108620**).

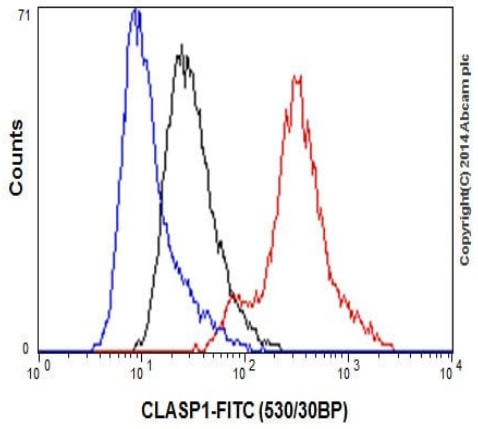


Immunocytochemistry/ Immunofluorescence - Anti-CLASP1 antibody [EPR3409] - BSA and Azide free (ab232576)

Immunocytochemistry/Immunofluorescence analysis of HeLa cells labelling CLASP1 (green) with **ab108620** at 1/100. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. **ab150077**, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/500) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain.

Control: primary antibody (1/100) and secondary antibody, **ab150120** Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/500).

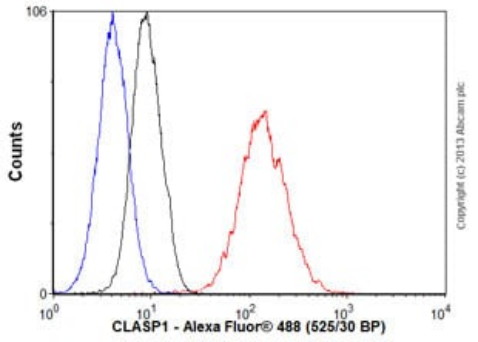
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab108620**).



Flow Cytometry (Intracellular) - Anti-CLASP1 antibody [EPR3409] - BSA and Azide free (ab232576)

Intracellular Flow Cytometry analysis of HeLa cells labelling CLASP1 with purified **ab108620** at 1/50 (red). Cells were fixed with 80% methanol. A FITC-conjugated goat anti-rabbit IgG (1/150) was used as the secondary antibody. Black - Isotype control, rabbit monoclonal IgG. Blue - Unlabelled control, cells without incubation with primary and secondary antibodies.

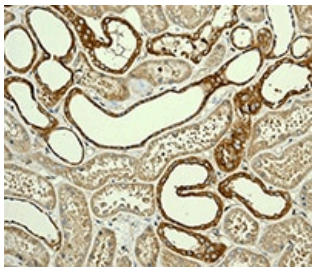
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab108620**).



Flow Cytometry (Intracellular) - Anti-CLASP1 antibody [EPR3409] - BSA and Azide free (ab232576)

Overlay histogram showing HeLa cells stained with unpurified **ab108620** (red line). The cells were fixed with 80% methanol (5 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 (**ab108620**, 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) (0.1µg/1x10^6 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 data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab108620**).

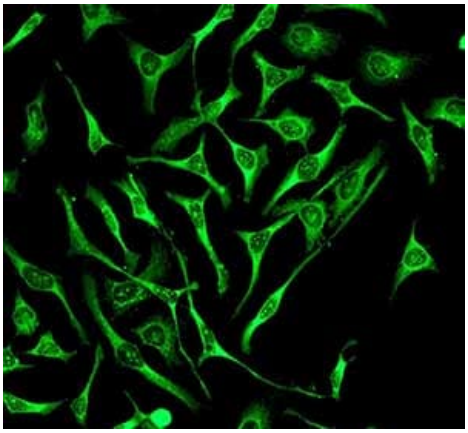


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CLASP1 antibody [EPR3409] - BSA and Azide free (ab232576)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human kidney tissue labelling CLASP1 with unpurified **ab108620** at 1/250.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab108620**).

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



Immunocytochemistry/ Immunofluorescence - Anti-CLASP1 antibody [EPR3409] - BSA and Azide free (ab232576)

Immunocytochemistry/Immunofluorescence analysis of HeLa cells labelling CLASP1 with unpurified **ab108620** at 1/100.

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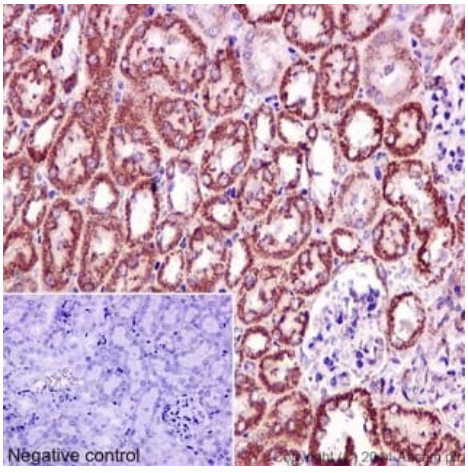

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CLASP1 antibody [EPR3409] - BSA and Azide free (ab232576)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse kidney tissue labeling CLASP1 with purified **ab108620** at 1/250. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. **ab97051**, a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab108620**).

Anti-CLASP1 antibody [EPR3409] - BSA and Azide free (ab232576)

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