abcam

Product datasheet

Anti-MVP antibody [EPR23594-106] - BSA and Azide free ab273097

KO VALIDATED | Recombinant | RabMAb

8 Images

Overview

Product name	Anti-MVP antibody [EPR23594-106] - BSA and Azide free
Description	Rabbit monoclonal [EPR23594-106] to MVP - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** WB, Flow Cyt, IHC-P, ICC/IF **Unsuitable for:** IP
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide within Human MVP aa 350-450. The exact sequence is proprietary. Database link: Q14764
Positive control	WB: A549, A431, Caco-2, HeLa treated with 100U/ml IFN gamma for 24 hours, whole, RAW 264.7, NIH/3T3, C6 and PC-12 whole cell lysate. Human colon, lung and kidney tissue lysate. Mouse colon and kidney tissue lysate. IHC-P: Human cerebrum tissue. Human lung cancer and ovary cancer tissue. ICC/IF: A549 and NIH/3T3 cells. Flow Cyt: A549 cells.
General notes	ab273097 is the carrier-free version of ab273093. 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. This product 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.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR23594-106
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab273097** 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
WB		Use at an assay dependent concentration. Predicted molecular weight: 99 kDa.
Flow Cyt		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Application	Abreviews	Notes
ICC/IF		Use at an assay dependent concentration.

Application notes Is unsuitable for IP.

Target

Function Required for normal vault structure. Vaults are multi-subunit structures that may act as scaffolds for proteins involved in signal transduction. Vaults may also play a role in nucleo-cytoplasmic transport. Down-regulates INFG-mediated STAT1 signaling and subsequent activation of JAK. Down-regulates SRC activity and signaling through MAP kinases.

Tissue specificity Present in most normal tissues. Higher expression observed in epithelial cells with secretory and excretory functions, as well as in cells chronically exposed to xenobiotics, such as bronchial cells and cells lining the intestine. Overexpressed in many multidrug-resistant cancer cells.

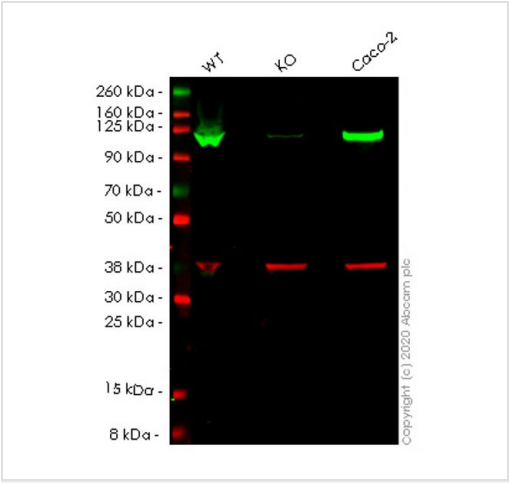
Sequence similarities Contains 9 MVP (vault) repeats.

Domain MVP 3 mediates interaction with PTEN.
MVP 4 mediates interaction with PARP4.

Post-translational modifications Phosphorylated on Tyr residues after EGF stimulation.
Dephosphorylated by PTPN11.

Cellular localization Cytoplasm. Nucleus > nuclear pore complex. 5% found in the nuclear pore complex. Translocates from the nucleus to the cytoplasm upon EGF treatment.

Images



Western blot - Anti-MVP antibody [EPR23594-106] - BSA and Azide free (ab273097)

All lanes : Anti-MVP antibody [EPR23594-106] (ab273093) at 1/1000 dilution

Lane 1 : Wild-type HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate with Intercept® (TBS) Blocking Buffer diluted with an equal volume of 0.1% TBS
Lane 2 : MVP knockout HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate with Intercept® (TBS) Blocking Buffer diluted with an equal volume of 0.1% TBS
Lane 3 : Caco-2 (human colorectal adenocarcinoma epithelial cell) whole cell lysate with Intercept® (TBS) Blocking Buffer diluted with an equal volume of 0.1% TBS

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) at 1/10000 dilution

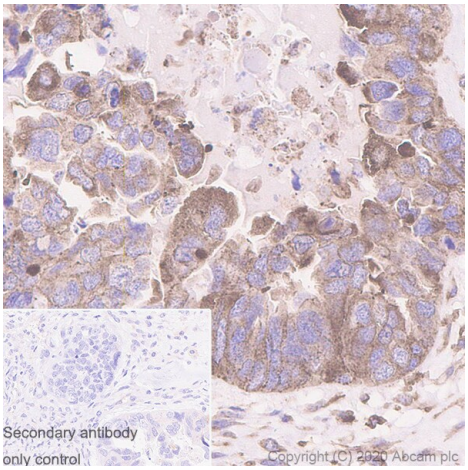
Predicted band size: 99 kDa
Observed band size: 110 kDa
why is the actual band size different from the predicted?

This data was developed using the same antibody clone in a different buffer formulation (ab273093).

Lanes 1-3: Merged signal (red and green). Green - ab273093 observed at 110 kDa. Red - loading control ab8245 (Mouse monoclonal [6C5] to GAPDH) observed at 36 kDa.

ab273093 Anti-MVP antibody [EPR23594-106] was shown to specifically react with MVP in wild-type HeLa cells in Western blot. Significant decrease (8.7 % of intensity compared to the WT band) of signal was observed when MVP knockout cell line ab264817 (knockout cell lysate ab257544) was used.

ab273093 and Anti-GAPDH antibody [6C5] - Loading Control (ab8245) were incubated at 4? overnight at 1 in 1000 dilution and 1 in 20000 dilution respectively. 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 in 10000 dilution for 1 hour at room temperature before imaging.



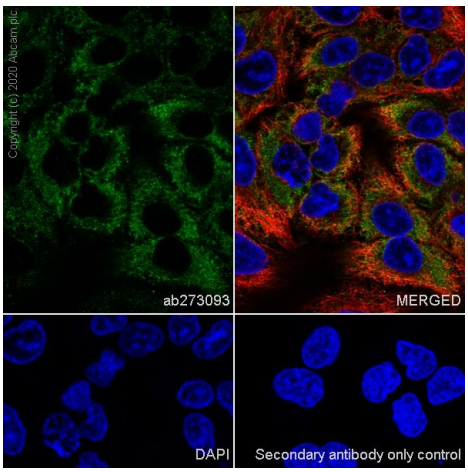
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MVP antibody [EPR23594-106] - BSA and Azide free (ab273097)

Immunohistochemical analysis of paraffin-embedded human ovary cancer tissue labeling MVP with ab273093 at 1/4000 dilution followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Positive staining in human ovary cancer (PMID: 23739867). Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

Heat mediated antigen retrieval using ab93684 (Tris/EDTA buffer, pH 9.0).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab273093).

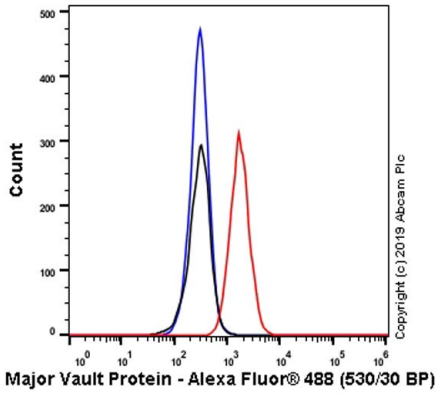


Immunocytochemistry/ Immunofluorescence - Anti-MVP antibody [EPR23594-106] - BSA and Azide free (ab273097)

Immunofluorescent analysis of 100% methanol-fixed, 0.1% Triton X-100 permeabilized A549 cells labelling MVP with ab273093 at 1/50 dilution, followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 2 µg/ml dilution (Green). Confocal image showing cytoplasmic staining in A549 cell line. ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 2.5 µg/ml dilution (Red). The nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 2 µg/ml dilution.

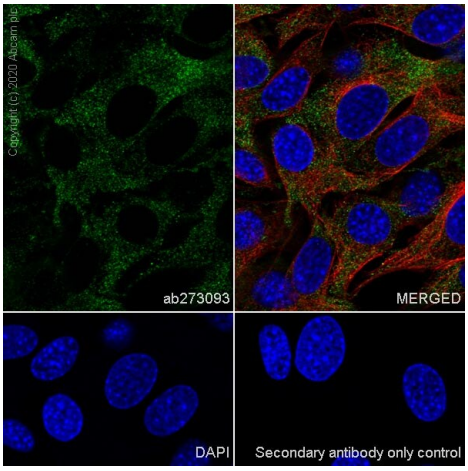
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab273093).



Flow Cytometry - Anti-MVP antibody [EPR23594-106] - BSA and Azide free (ab273097)

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized A549 (Human lung carcinoma epithelial cell) cells labelling MVP with ab273093 at 1/50 dilution (1µg) (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab273093).

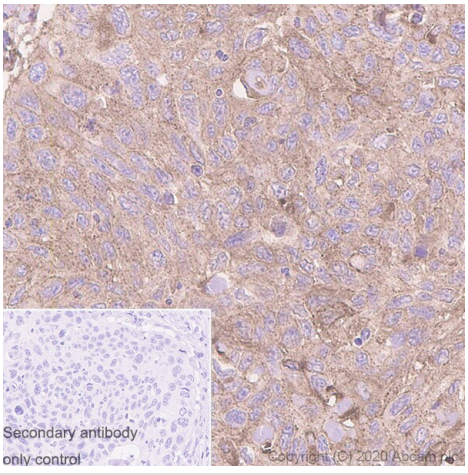


Immunocytochemistry/ Immunofluorescence - Anti-MVP antibody [EPR23594-106] - BSA and Azide free (ab273097)

Immunofluorescent analysis of 100% methanol-fixed, 0.1% Triton X-100 permeabilized NIH/3T3 cells labelling MVP with ab273093 at 1/50 dilution, followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 2 µg/ml dilution (Green). Confocal image showing cytoplasmic staining in NIH/3T3 cell line. ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 2.5 µg/ml dilution (Red). The nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 2 µg/ml dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab273093).



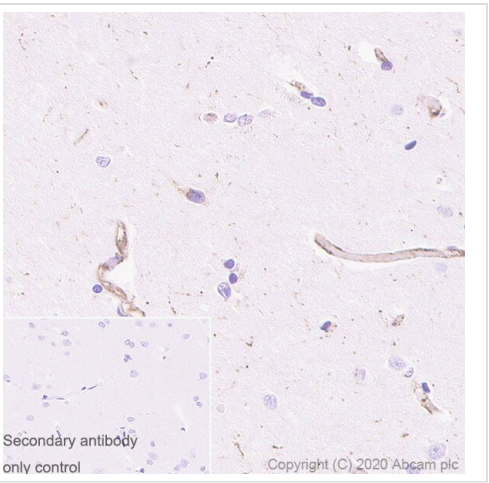
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MVP antibody [EPR23594-106] - BSA and Azide free (ab273097)

Immunohistochemical analysis of paraffin-embedded human lung cancer tissue labeling MVP with ab273093 at 1/4000 dilution followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Positive staining in human lung cancer (PMID: 22117969). Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

Heat mediated antigen retrieval using ab93684 (Tris/EDTA buffer, pH 9.0).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab273093).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MVP antibody [EPR23594-106] - BSA and Azide free (ab273097)

Immunohistochemical analysis of paraffin-embedded human cerebrum tissue labeling MVP with ab273093 at 1/4000 dilution followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Positive staining in endothelium of human cerebrum (PMID: 14636345). Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

Heat mediated antigen retrieval using ab93684 (Tris/EDTA buffer, pH 9.0).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab273093).

Anti-MVP antibody [EPR23594-106] - BSA and Azide free (ab273097)

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