

## Product datasheet

# Anti-MVP antibody [EPR13227(B)] ab175239

**KO VALIDATED** Recombinant RabMAb

4 References 12 Images

### Overview

|                            |   |
|----------------------------|---|
| <b>Product name</b>        | Anti-MVP antibody [EPR13227(B)]   |
| <b>Description</b>         | Rabbit monoclonal [EPR13227(B)] to MVP  |
| <b>Host species</b>        | Rabbit  |
| <b>Tested applications</b> | <b>Suitable for:</b> WB, ICC/IF, Flow Cyt, IHC-P  |
| <b>Species reactivity</b>  | <b>Reacts with:</b> Human   |
| <b>Immunogen</b>           | Synthetic peptide (the amino acid sequence is considered to be commercially sensitive) within Human MVP aa 850 to the C-terminus (Cysteine residue). The exact sequence is proprietary. Database link: <a href="#">Q14764</a>   |
| <b>Positive control</b>    | WB: A549, Calu-3, Caco-2 and HeLa whole cell lysate ( <a href="#">ab150035</a> ). IHC-P: Human colon and human pancreas tissues. ICC/IF: A549 and HeLa cells. Flow Cyt: A549 cells.   |
| <b>General notes</b>       | <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p> <p><b>We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.</b></p> <p>Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.</p> <p>Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.</p> <p>We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications &amp; species that have been tested in</p> |

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

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|                             |   |
|-----------------------------|---|
| <b>Form</b>                 | Liquid  |
| <b>Storage instructions</b> | Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle. |
| <b>Storage buffer</b>       | Preservative: 0.01% Sodium azide<br>Constituents: 40% Glycerol (glycerin, glycerine), 0.05% BSA, 59% PBS                          |
| <b>Purity</b>               | Protein A purified  |
| <b>Clonality</b>            | Monoclonal  |
| <b>Clone number</b>         | EPR13227(B)   |
| <b>Isotype</b>              | IgG   |

## Applications

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Our [Abpromise guarantee](#) covers the use of **ab175239** in the following tested applications.

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

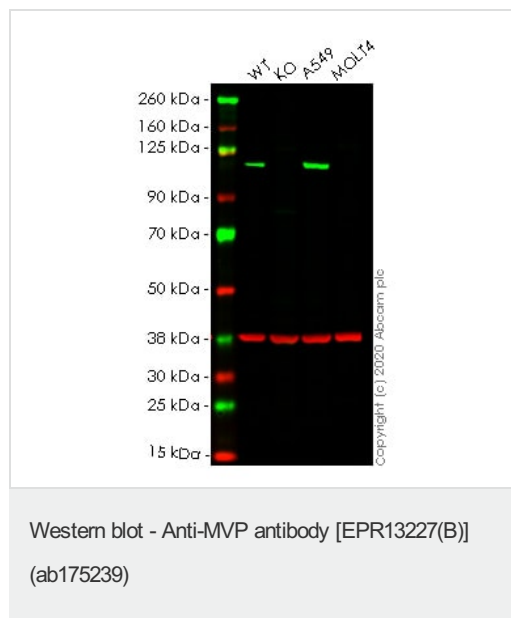
| Application | Abreviews | Notes  |
|-------------|-----------|--|
| WB          |           | 1/2000. Detects a band of approximately 110 kDa (predicted molecular weight: 99 kDa).<br><b>For unpurified use at 1/10000 - 1/50000.</b>                     |
| ICC/IF      |           | 1/150 - 1/500.   |
| Flow Cyt    |           | 1/100 - 1/500.<br><a href="#">ab172730</a> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.                            |
| IHC-P       |           | 1/50 - 1/350. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.<br>See <a href="#">IHC antigen retrieval protocols</a> . |

## Target

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|   |   |
|---|---|
| <b>Function</b>                         | 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. |
| <b>Tissue specificity</b>               | 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.  |
| <b>Sequence similarities</b>            | Contains 9 MVP (vault) repeats.   |
| <b>Domain</b>                           | MVP 3 mediates interaction with PTEN.<br>MVP 4 mediates interaction with PARP4.   |
| <b>Post-translational modifications</b> | Phosphorylated on Tyr residues after EGF stimulation.<br>Dephosphorylated by PTPN11.  |
| <b>Cellular localization</b>            | Cytoplasm. Nucleus > nuclear pore complex. 5% found in the nuclear pore complex. Translocates from the nucleus to the cytoplasm upon EGF treatment.   |

## Images



**All lanes :** Anti-MVP antibody [EPR13227(B)] (ab175239) at 1/2000 dilution

**Lane 1 :** Wild-type HeLa lysate

**Lane 2 :** MVP knockout HeLa lysate

**Lane 3 :** A549 lysate

**Lane 4 :** MOLT-4 lysate

Lysates/proteins at 20 µg per lane.

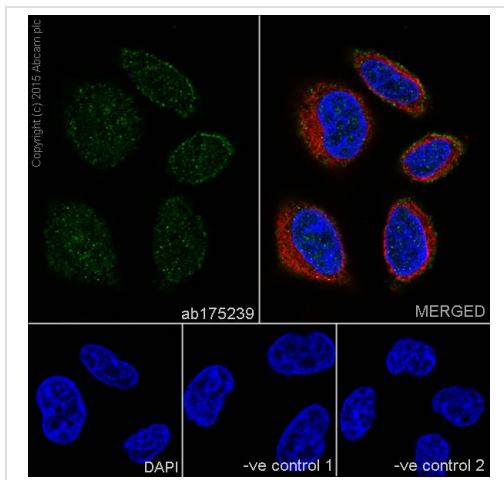
Performed under reducing conditions.

**Predicted band size:** 99 kDa

**Lanes 1-4:** Merged signal (red and green). Green - ab175239 observed at 110 kDa. Red - loading control [ab8245](#) observed at 37 kDa.

ab175239 Anti-MVP antibody [EPR13227(B)] was shown to specifically react with MVP in wild-type HeLa cells. Loss of signal was observed when knockout cell line [ab264817](#) (knockout cell lysate [ab257544](#)) was used. Wild-type and MVP knockout samples were subjected to SDS-PAGE. ab175239 and Anti-GAPDH antibody [6C5] - Loading Control ([ab8245](#)) were incubated overnight at 4°C at 1 in 2000 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 20000 dilution for 1 hour at room temperature before imaging.

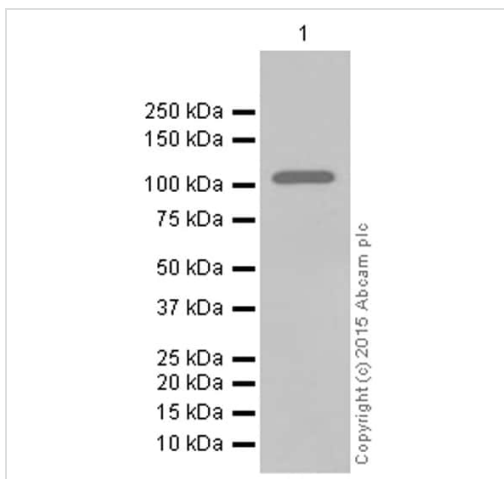


Immunocytochemistry/ Immunofluorescence - Anti-MVP antibody [EPR13227(B)] ([ab175239](#))

Immunocytochemistry/Immunofluorescence analysis of HeLa cells labelling MVP with purified [ab175239](#) at a dilution of 1/150. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. [ab150077](#), an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain. [ab7291](#), a mouse anti-tubulin (1/1000) and [ab150120](#), an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/1000) were also used.

Control 1: primary antibody (1/150) and secondary antibody, [ab150120](#), an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/1000).

Control 2: [ab7291](#) (1/1000) and secondary antibody, [ab150077](#), an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000).



Western blot - Anti-MVP antibody [EPR13227(B)] ([ab175239](#))

Anti-MVP antibody [EPR13227(B)] ([ab175239](#)) at 1/2000 dilution (purified) + Caco-2 whole cell lysate at 20 µg

### Secondary

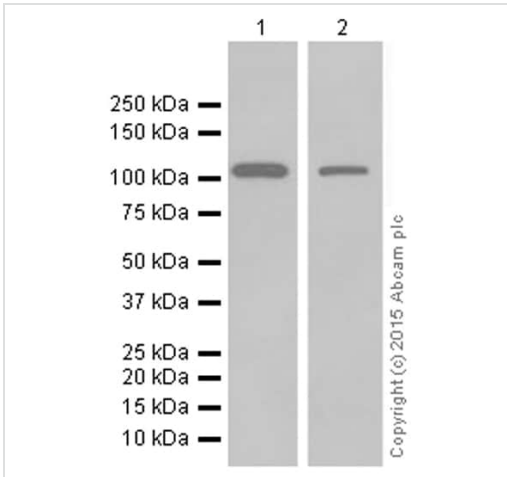
Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

**Predicted band size:** 99 kDa

**Observed band size:** 110 kDa

[why is the actual band size different from the predicted?](#)

Blocking and dilution buffer: 5% NFDN/TBST



Western blot - Anti-MVP antibody [EPR13227(B)] (ab175239)

**All lanes :** Anti-MVP antibody [EPR13227(B)] (ab175239) at 1/10000 dilution (purified)

**Lane 1 :** Calu-3 whole cell lysate

**Lane 2 :** A549 whole cell lysate

Lysates/proteins at 20 µg per lane.

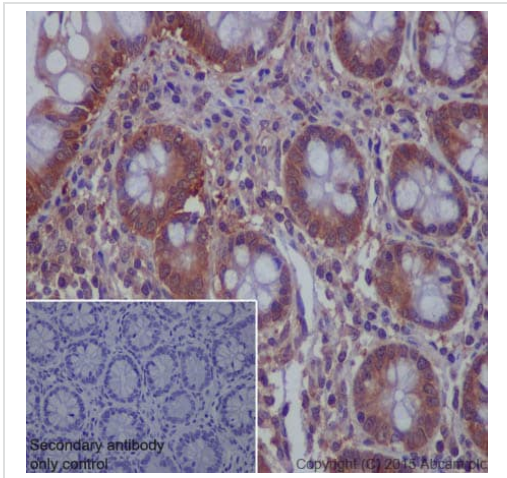
**Secondary**

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

**Predicted band size:** 99 kDa

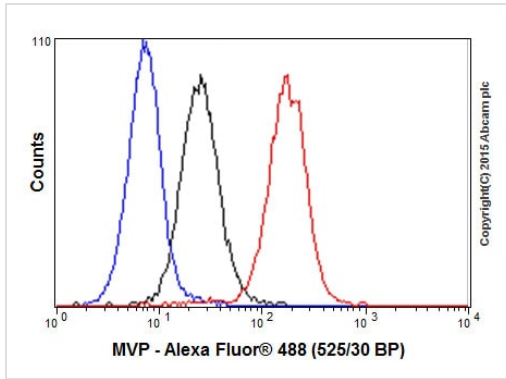
**Observed band size:** 110 kDa [why is the actual band size different from the predicted?](#)

Blocking and dilution buffer: 5% NFDm/TBST



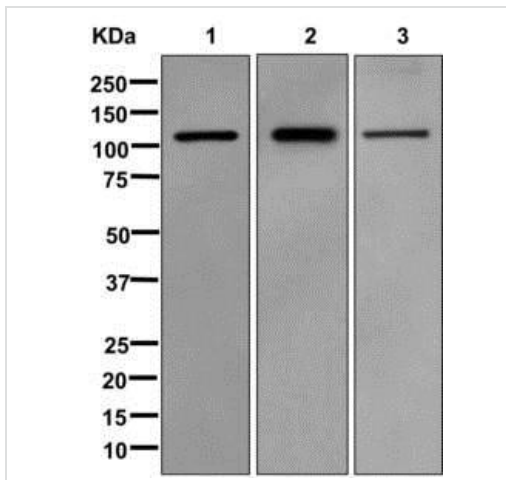
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MVP antibody [EPR13227(B)] (ab175239)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human colon tissue labelling MVP with purified ab175239 at a dilution of 1/350. Heat mediated antigen retrieval was performed using 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.



Flow Cytometry - Anti-MVP antibody [EPR13227(B)] (ab175239)

Flow Cytometry analysis of A549 cells labelling MVP with purified ab175239 at a dilution of 1/180 (red). Cells were fixed with 4% paraformaldehyde. A FITC-conjugated goat anti-rabbit IgG (1/500) was used as the secondary antibody. Black - Isotype control, rabbit monoclonal IgG. Blue - Unlabelled control, cells without incubation with primary and secondary antibodies.



Western blot - Anti-MVP antibody [EPR13227(B)] (ab175239)

**All lanes** : Anti-MVP antibody [EPR13227(B)] (ab175239) at 1/10000 dilution (unpurified)

**Lane 1** : A549 cell lysate

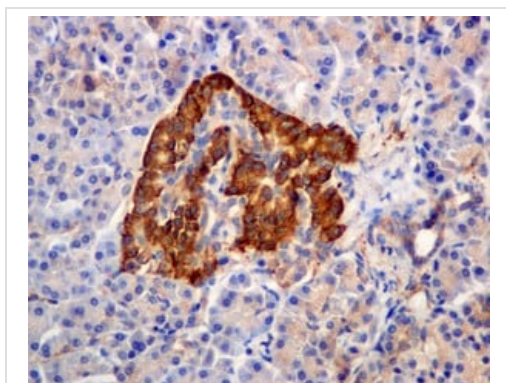
**Lane 2** : Calu-3 cell lysate

**Lane 3** : HeLa cell lysate

Lysates/proteins at 10 µg per lane.

**Predicted band size:** 99 kDa

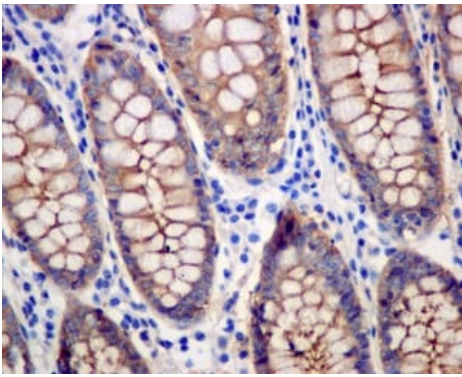
**Additional bands at:** 110 kDa. We are unsure as to the identity of these extra bands.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MVP antibody [EPR13227(B)] (ab175239)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human pancreas tissue labeling MVP with unpurified ab175239 at a dilution of 1/50.

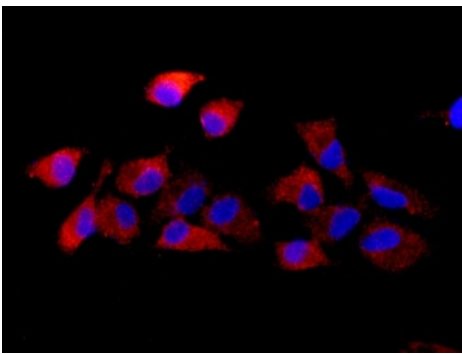
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MVP antibody [EPR13227(B)] (ab175239)

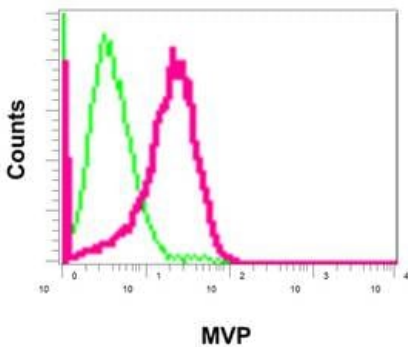
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human colon tissue labeling MVP with unpurified ab175239 at a dilution of 1/50.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-MVP antibody [EPR13227(B)] (ab175239)

Immunocytochemistry/Immunofluorescence analysis of A549 cells labeling MVP with unpurified ab175239 at a dilution of 1/250 (red) and DAPI staining (blue).



Flow Cytometry - Anti-MVP antibody [EPR13227(B)] (ab175239)

Flow Cytometrical analysis of permeabilized A549 cells labeling MVP with unpurified ab175239 antibody at a dilution of 1/100 (red) compared to a negative control (Rabbit IgG, green).

### Why choose a recombinant antibody?



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

Anti-MVP antibody [EPR13227(B)] (ab175239)

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

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