Product name: Anti-Integrin alpha V antibody [EPR16800] ab179475

Description: Rabbit monoclonal [EPR16800] to Integrin alpha V

Host species: Rabbit

Tested applications: Suitable for: WB, IP, ICC/IF, IHC-P

Species reactivity: Reacts with: Mouse, Rat, Human

Immunogen: Recombinant fragment within Human Integrin alpha V aa 1-250. The exact sequence is proprietary. Database link: P06756


General notes: Our RabMab® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMab® patents.

This product is a recombinant rabbit monoclonal antibody.

Properties

Form: Liquid


Storage buffer: Preservative: 0.01% Sodium azide
Constituents: PBS, 40% Glycerol, 0.05% BSA

Purity: Protein A purified

Clonality: Monoclonal

Clone number: EPR16800

Isotype: IgG
Function
The alpha-V integrins are receptors for vitronectin, cytotactin, fibronectin, fibrinogen, laminin, matrix metalloproteinase-2, osteopontin, osteomodulin, prothrombin, thrombospondin and vWF. They recognize the sequence R-G-D in a wide array of ligands. In case of HIV-1 infection, the interaction with extracellular viral Tat protein seems to enhance angiogenesis in Kaposi’s sarcoma lesions.

Sequence similarities
Belongs to the integrin alpha chain family.
Contains 7 FG-GAP repeats.

Cellular localization
Membrane.

Applications
Our Abpromise guarantee covers the use of ab179475 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
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<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tr>
<td>WB</td>
<td>⭐⭐⭐⭐⭐️</td>
<td>1/5000. Detects a band of approximately 125, 135 kDa (predicted molecular weight: 116 kDa).</td>
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<tr>
<td>IP</td>
<td></td>
<td>1/40.</td>
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<td>ICC/IF</td>
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<td>1/500.</td>
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<tr>
<td>IHC-P</td>
<td>⭐⭐⭐⭐⭐️</td>
<td>1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.</td>
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</table>

Target

Function
The alpha-V integrins are receptors for vitronectin, cytotactin, fibronectin, fibrinogen, laminin, matrix metalloproteinase-2, osteopontin, osteomodulin, prothrombin, thrombospondin and vWF. They recognize the sequence R-G-D in a wide array of ligands. In case of HIV-1 infection, the interaction with extracellular viral Tat protein seems to enhance angiogenesis in Kaposi’s sarcoma lesions.

Sequence similarities
Belongs to the integrin alpha chain family.
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Cellular localization
Membrane.

Images

Western blot - Anti-Integrin alpha V antibody [EPR16800] (ab179475)

All lanes: Anti-Integrin alpha V antibody [EPR16800] (ab179475) at 1/50000 dilution

Lane 1: HUVEC (Human umbilical vein endothelial cell line) whole cell lysates
Lane 2: HT-29 (Human colorectal adenocarcinoma cells) whole cell lysates
Lane 3: A549 (Human lung carcinoma) whole cell lysates

Lysates/proteins at 20 µg per lane.

Secondary

All lanes: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 116 kDa
Observed band size: 125 kDa
why is the actual band size different from the predicted?

Blocking/dilution buffer: 5% NFDM/TBST.

ab179475 can recognize 135kDa full length Integrin alpha V and 125kDa heavy chain. The 125 kDa band is Integrin alpha V heavy chain.

Immunofluorescent analysis of 100% methanol-fixed, 0.1% Triton X-100 permeabilized A549 (Human lung carcinoma) cells labeling Integrin alpha V with ab179475 at 1/500 dilution, followed by Goat anti-rabbit Alexa Fluor® 488 (IgG) (ab150077) secondary antibody at 1/400 dilution (green).

Confocal image showing membrane and cytoplasm staining on A549 cell line. The nuclear counterstain is DAPI (blue). Tubulin is detected with ab7291 (anti-Tubulin mouse mAb) at 1/500 dilution and ab150120 (goat anti-rabbit AlexaFluor®594 secondary antibody) at 1/500 dilution (red).

The negative controls are as follows:

-ve control 1: ab179475 at 1/500 dilution followed by ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution.

-ve control 2: ab7291 (anti-Tubulin mouse mAb) at 1/500 dilution followed by ab150077 (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/400 dilution.

Immunohistochemical analysis of paraffin-embedded human kidney tissue labeling Integrin alpha V with ab179475 at 1/500 dilution followed by Goat Anti-Rabbit HRP (IgG H&L) (ab97051) secondary antibody at 1/500 dilution.

Membrane and cytoplasm staining on human kidney tubules is observed. Counterstained with hematoxylin.

Negative control: Using PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
Integrin alpha V was immunoprecipitated from 1 mg of A549 (Human lung carcinoma) whole cell extract with ab179475 at 1/40 dilution. Western blot analysis was performed from the immunoprecipitate using ab179475 at 1/1000 dilution. Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG, was used as secondary antibody at 1/1500 dilution.

- **Lane 1**: A549 whole cell extract.
- **Lane 2**: PBS instead of A549 whole cell extract.

Blocking/Dilution buffer: 5% NFDM/TBST.

ab179475 can recognize 135kDa full length Integrin alpha V and 125kDa heavy chain. The 125 kDa band is Integrin alpha V heavy chain.

### Western blot - Anti-Integrin alpha V antibody

**All lanes**: Anti-Integrin alpha V antibody [EPR16800] (ab179475) at 1/5000 dilution

- **Lane 1**: Mouse brain lysates
- **Lane 2**: Mouse kidney lysates
- **Lane 3**: Mouse spleen lysates
- **Lane 4**: Rat brain lysates
- **Lane 5**: Rat kidney lysates
- **Lane 6**: C6 (Rat glial tumor cells) whole cell lysates
- **Lane 7**: NIH/3T3 (Mouse embryo fibroblast cells) whole cell lysates
- **Lane 8**: Raji (Human Burkitt's lymphoma cell line) whole cell lysates

Lysates/proteins at 10 µg per lane.

**Secondary**

**All lanes**: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

**Predicted band size**: 116 kDa

**Observed band size**: 125, 135 kDa

**why is the actual band size different from the predicted?**

**Blocking/dilution buffer**: 5% NFDM/TBST.

ab179475 can recognize 135kDa full length Integrin alpha V and 125kDa heavy chain. The 125 kDa band is Integrin alpha V heavy chain.
Immunohistochemical analysis of paraffin-embedded human transitional cell carcinoma of bladder tissue labeling Integrin alpha V with ab179475 at 1/500 dilution followed by Goat Anti-Rabbit HRP (IgG H&L) (ab97051) secondary antibody at 1/500 dilution. Membrane and weak cytoplasm staining on human transitional cell carcinoma of bladder is observed. Counterstained with hematoxylin.

**Negative control:** Using PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Immunohistochemical analysis of paraffin-embedded mouse kidney tissue labeling Integrin alpha V with ab179475 at 1/500 dilution followed by Goat Anti-Rabbit HRP (IgG H&L) (ab97051) secondary at 1/500 dilution. Membrane and cytoplasm staining on mouse kidney tubule and glomerulus is observed. Counterstained with hematoxylin.

**Negative control:** Using PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
All lanes: Anti-Integrin alpha V antibody [EPR16800] (ab179475) at 1/5000 dilution

Lane 1: Human fetal kidney lysates
Lane 2: Human fetal brain lysates

Lysates/proteins at 10 µg per lane.

Secondary

All lanes: Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1000 dilution

Predicted band size: 116 kDa

Observed band size: 125 kDa

why is the actual band size different from the predicted?

Blocking/dilution buffer: 5% NFDM/TBST.

ab179475 can recognize 135kDa full length Integrin alpha V and 125kDa heavy chain. The 125 kDa band is Integrin alpha V heavy chain.

All lanes: Anti-Integrin alpha V antibody [EPR16800] (ab179475) at 1/2000 dilution (8 hours at 4°C)

All lanes: Mouse skin whole cell lysate

Lysates/proteins at 40 µg per lane.

Secondary

All lanes: Goat anti-Rabbit IgG(H+L)-HRP at 1/5000 dilution

Developed using the ECL technique.

Predicted band size: 116 kDa

Exposure time: 25 seconds

Diluent: 2% BSA in 1X TBST.

Blocked using 5% BSA for 1 hour at RT.
Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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