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Anti-Integrin alpha V/ITGAV Antibody Picoband™ (monoclonal, 8B10H2)

Catalog # ABO16564

Specification

Anti-Integrin alpha V/ITGAV Antibody Picoband™ (monoclonal, 8B10H2) - Product Information

Application	**WB, IHC, IF, ICC**
Primary Accession	P06756
Host	**Mouse**
Isotype	**Mouse IgG2b**
Reactivity	**Human**
Clonality	**Monoclonal**
Format	**Lyophilized**

Description
Anti-Integrin alpha V/ITGAV Antibody Picoband™ (monoclonal, 8B10H2) . Tested in IF, IHC, ICC, WB applications. This antibody reacts with Human.

Reconstitution
Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.

Anti-Integrin alpha V/ITGAV Antibody Picoband™ (monoclonal, 8B10H2) - Additional Information

Gene ID 3685

Other Names
Integrin alpha-V, Vitronectin receptor {ECO:0000312|HGNC:HGNC:6150}, Vitronectin receptor subunit alpha, CD51, Integrin alpha-V heavy chain, Integrin alpha-V light chain, ITGAV (HGNC:6150)

Calculated MW
130 kDa KDa

Application Details
Western blot, 0.25-0.5 µg/ml, Human
 Immunohistochemistry(Paraffin-embedded Section), 2-5 µg/ml, Human
 Immunocytochemistry/Immunofluorescence, 5 µg/ml, Human

Contents
Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.

Immunogen
E.coli-derived human Integrin alpha V/ITGAV recombinant protein (Position: H732-D970).

Purification
Immunogen affinity purified.

Storage	**At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month.**

It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.

Anti-Integrin alpha V/ITGAV Antibody Picoband™ (monoclonal, 8B10H2) - Protein Information

Name ITGAV (HGNC:6150)

Function
The alpha-V (ITGAV) 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. ITGAV:ITGB3 binds to fractalkine (CX3CL1) and may act as its coreceptor in CX3CR1- dependent fractalkine signaling (PubMed:23125415). ITGAV:ITGB3 binds to NRG1 (via EGF domain) and this binding is essential for NRG1-ERBB signaling (PubMed:20682778). ITGAV:ITGB3 binds to FGF1 and this binding is essential for FGF1 signaling (PubMed:18441324). ITGAV:ITGB3 binds to FGF2 and this binding is essential for FGF2 signaling (PubMed:28302677). ITGAV:ITGB3 binds to IGF1 and this binding is essential for IGF1 signaling (PubMed:19578119). ITGAV:ITGB3 binds to IGF2 and this binding is essential for IGF2 signaling (PubMed:28873464). ITGAV:ITGB3 binds to IL1B and this binding is essential for IL1B signaling (PubMed:29030430). ITGAV:ITGB3 binds to PLA2G2A via a site (site 2) which is distinct from the classical ligand-binding site (site 1) and this induces integrin conformational changes and enhanced ligand binding to site 1 (PubMed:18635536, PubMed:25398877). ITGAV:ITGB3 and ITGAV:ITGB6 act as receptors for fibrillin-1 (FBN1) and mediate R-G-D-dependent cell adhesion to FBN1 (PubMed:12807887, PubMed:17158881). Integrin alpha-V/beta-6 or alpha- V/beta-8 (ITGAV:ITGB6 or ITGAV:ITGB8) mediates R-G-D-dependent release of transforming growth factor beta-1 (TGF-beta-1) from regulatory Latency-associated peptide (LAP), thereby playing a key role in TGF-beta-1 activation (PubMed:15184403, PubMed:22278742, PubMed:28117447). ITGAV:ITGB3 acts as a receptor for CD40LG (PubMed:31331973). ITGAV:ITGB3 acts as a receptor for IBSP and promotes cell adhesion and migration to IBSP (PubMed:10640428).

Cellular Location
Cell membrane; Single-pass type I membrane protein. Cell junction, focal adhesion

Anti-Integrin alpha V/ITGAV Antibody Picoband™ (monoclonal, 8B10H2) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot

- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Integrin alpha V/ITGAV Antibody Picoband™ (monoclonal, 8B10H2) - Images

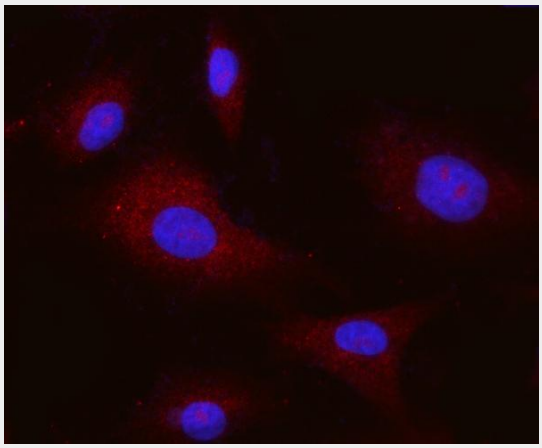

Figure 2. IF analysis of ITGAV using anti-ITGAV antibody (M01561-2).
ITGAV was detected in an immunocytochemical section of A549 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 µg/mL mouse anti-ITGAV Antibody (M01561-2) overnight at 4°C. Cy3 Conjugated Goat Anti-Mouse IgG (BA1031) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

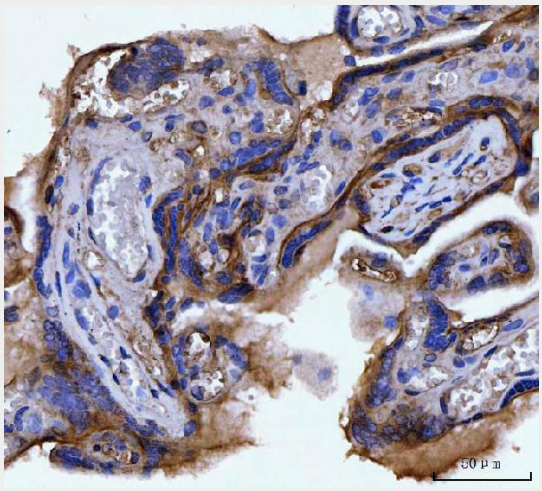

Figure 3. IHC analysis of ITGAV using anti-ITGAV antibody (M01561-2).
ITGAV was detected in a paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-ITGAV Antibody (M01561-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB

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as the chromogen.

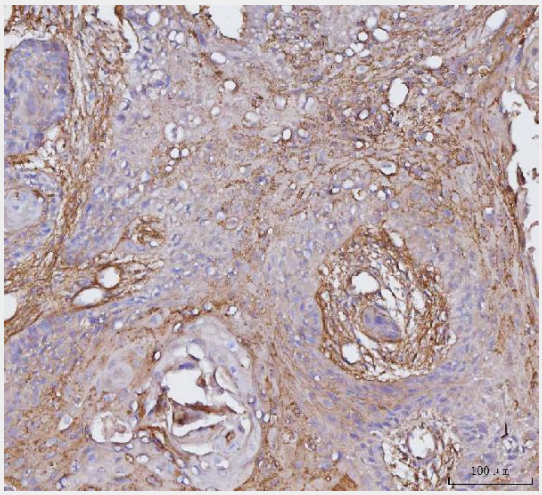

Figure 4. IHC analysis of ITGAV using anti-ITGAV antibody (M01561-2).
ITGAV was detected in a paraffin-embedded section of human esophageal squamous carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-ITGAV Antibody (M01561-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

Anti-Integrin alpha V/ITGAV Antibody Picoband™ (monoclonal, 8B10H2) - Background

Integrin alpha-V is a protein that in humans is encoded by the ITGAV gene. It is a member of the beta 3 integrin subfamily(cytoadhesins). The human locus for the av gene(VNRA) was previously mapped to the long arm of chromosome 2. Sims et al.(2000) localized the VNRA gene to 2q31. The gene contains 30 exons and spans over 93 kb of genomic DNA. It functions as a receptor for a group of proteins that includes vitronectin, fibrinogen, thrombospondin, and von Willebrand factor.