

Anti-Integrin beta 5/ITGB5 Antibody Picoband™ (monoclonal, 9E2)

Catalog # ABO15051

Product Information

Application	WB, IHC, FC
Primary Accession	P18084
Host	Mouse
Isotype	Mouse IgG1
Reactivity	Human
Clonality	Monoclonal
Format	Lyophilized
Description	Anti-Integrin beta 5/ITGB5 Antibody Picoband™ (monoclonal, 9E2) . Tested in Flow Cytometry, IHC, WB applications. This antibody reacts with Human.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	3693
Other Names	Integrin beta-5, ITGB5
Calculated MW	88054
Application Details	Western blot, 0.25-0.5 µg/ml, Human Immunohistochemistry (Paraffin-embedded Section), 2-5 µg/ml, Human Flow Cytometry, 1-3 µg/1x10 ⁶ cells, Human
Source	Eukaryota
Contents	Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na ₂ HPO ₄ .
Clone Names	Clone: 9E2
Immunogen	E.coli-derived human Integrin beta 5/ITGB5 recombinant protein (Position: S32-D689).
Purification	Immunogen affinity purified.
Storage	Store 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 freeze-thaw cycles.

Protein Information

Name	ITGB5
Function	Integrin alpha-V/beta-5 (ITGAV:ITGB5) is a receptor for fibronectin. It recognizes the sequence R-G-D in its ligand.
Cellular Location	Cell membrane; Single-pass type I membrane protein

Background

This gene encodes a beta subunit of integrin, which can combine with different alpha chains to form a variety of integrin heterodimers. Integrins are integral cell-surface receptors that participate in cell adhesion as well as cell-surface mediated signaling. The alphav beta5 integrin is involved in adhesion to vitronectin.

Images

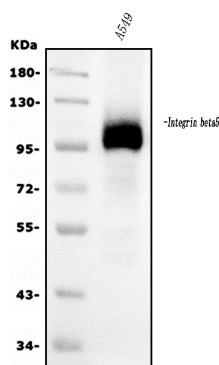


Figure 1. Western blot analysis of Integrin beta 5/ITGB5 using anti-Integrin beta 5/ITGB5 antibody (M04201). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30ug of sample under reducing conditions. Lane 1: human A549 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-Integrin beta 5/ITGB5 antigen affinity purified monoclonal antibody (Catalog # M04201) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for Integrin beta 5/ITGB5 at approximately 100KD. The expected band size for Integrin beta 5/ITGB5 is at 100KD.

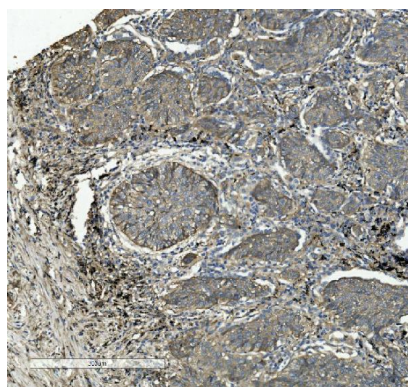
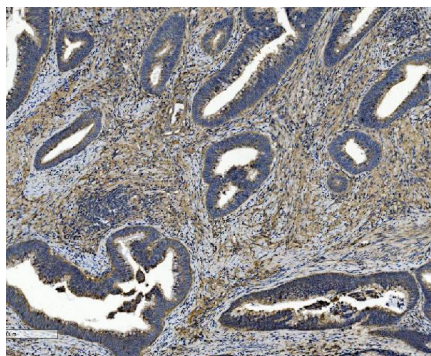
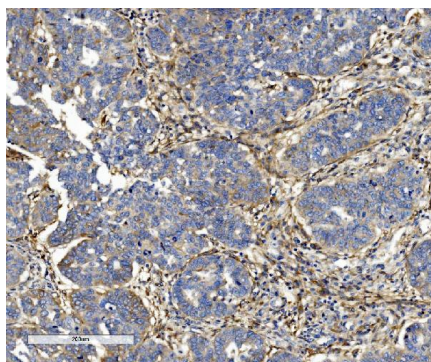


Figure 2. IHC analysis of Integrin beta 5/ITGB5 using anti-Integrin beta 5/ITGB5 antibody (M04201). Integrin beta 5/ITGB5 was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-Integrin beta 5/ITGB5 Antibody (M04201) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

Figure 3. IHC analysis of Integrin beta 5/ITGB5 using anti-Integrin beta 5/ITGB5 antibody (M04201). Integrin beta 5/ITGB5 was detected in paraffin-embedded section of human ovarian serous adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA



buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 $\mu\text{g/ml}$ mouse anti-Integrin beta 5/ITGB5 Antibody (M04201) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

Figure 4. IHC analysis of Integrin beta 5/ITGB5 using anti-Integrin beta 5/ITGB5 antibody (M04201). Integrin beta 5/ITGB5 was detected in paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 $\mu\text{g/ml}$ mouse anti-Integrin beta 5/ITGB5 Antibody (M04201) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

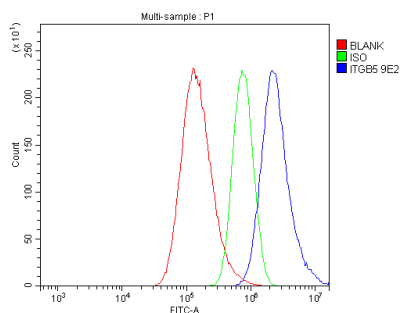


Figure 5. Flow Cytometry analysis of A549 cells using anti-Integrin beta 5/ITGB5 antibody (M04201). Overlay histogram showing A549 cells stained with M04201 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-Integrin beta 5/ITGB5 Antibody (M04201, 1 $\mu\text{g}/1 \times 10^6$ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10 $\mu\text{g}/1 \times 10^6$ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1 $\mu\text{g}/1 \times 10^6$) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.