

Anti-Podoplanin/gp36/Pdpn Antibody Picoband®

Catalog Number: A01124-2

About Pdpn

Podoplanin (PDPN) is a protein that in humans is encoded by the PDPN gene. This gene encodes a type-I integral membrane glycoprotein with diverse distribution in human tissues. The International radiation Hybrid mapping consortium mapped the T1A gene to chromosome 1. It has got 162 amino acid protein which is a typical type I membrane glycoprotein, with an N-terminal signal sequence, a signal sequence cleavage site, a C-terminal hydrophobic stretch, and a short cytoplasmic tail. Northern blot analysis detected a 1.2-kb T1A2 transcript only in lung. It has been described as a differentiation antigen and influenza-virus receptor, and a marker of lung injury.

Overview

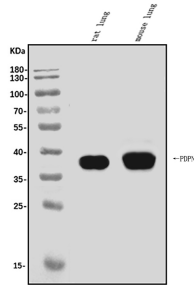
Product Name	Anti-Podoplanin/gp36/Pdpn Antibody Picoband®
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-Podoplanin/gp36/Pdpn Antibody Picoband® catalog # A01124-2. Tested in ELISA, Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na ₂ HPO ₄ .
Storage Instructions	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.
Host	Rabbit
Uniprot ID	Q62011

Technical Details

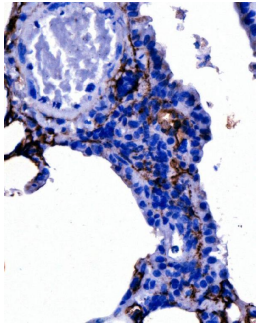
Immunogen	E.coli-derived mouse Podoplanin/gp36/Pdpn recombinant protein (Position: T24-P172).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.

Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.25ug/ml, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Mouse, Rat Immunocytochemistry/Immunofluorescence, 5ug/ml, Mouse Flow Cytometry (Fixed), 1-3ug/1x10 ⁶ cells, Rat ELISA, 0.1-0.5ug/ml, -

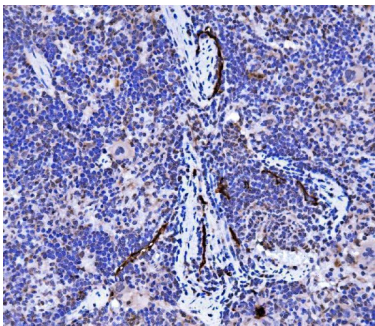
Anti-Podoplanin/gp36/Pdpn Antibody Picoband® (A01124-2) Images



Western blot analysis of Podoplanin/gp36/Pdpn using anti-Podoplanin/gp36/Pdpn antibody (A01124-2). 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: rat lung tissue lysates, Lane 2: mouse lung tissue 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 rabbit anti-Podoplanin/gp36/Pdpn antigen affinity purified polyclonal antibody (Catalog # A01124-2) at 0.25 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Podoplanin/gp36/Pdpn at approximately 37KD. The expected band size for Podoplanin/gp36/Pdpn is at 37KD.

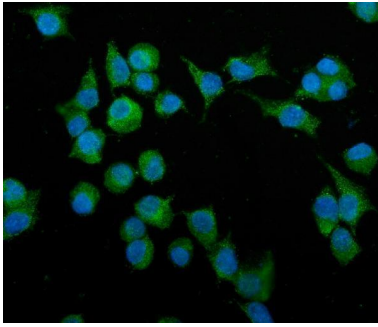


IHC analysis of Podoplanin/gp36/Pdpn using anti-Podoplanin/gp36/Pdpn antibody (A01124-2). Podoplanin/gp36/Pdpn was detected in paraffin-embedded section of mouse lung tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Podoplanin/gp36/Pdpn Antibody (A01124-2) overnight at 4°C. Biotinylated goat anti-rabbit 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 # SA1022) with DAB as the chromogen.

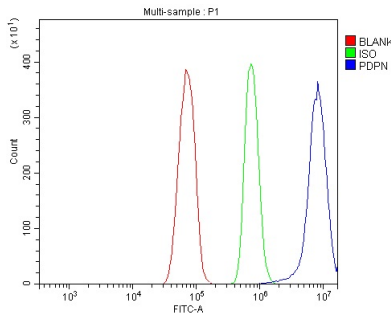


IHC analysis of Podoplanin/gp36/Pdpn using anti-Podoplanin/gp36/Pdpn antibody (A01124-2). Podoplanin/gp36/Pdpn was detected in paraffin-embedded section of rat spleen tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-Podoplanin/gp36/Pdpn Antibody (A01124-2) overnight at 4°C. Biotinylated goat anti-rabbit 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 # SA1022) with DAB as the chromogen.

IF analysis of Podoplanin/gp36/Pdpn using anti-Podoplanin/gp36/Pdpn antibody (A01124-2). Podoplanin/gp36/Pdpn was detected in immunocytochemical



section of HEPA1-6 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 5ug/mL rabbit anti-Podoplanin/gp36/Pdpn Antibody (A01124-2) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) 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.



Flow Cytometry analysis of RH35 cells using anti-Podoplanin/gp36/Pdpn antibody (A01124-2). Overlay histogram showing RH35 cells stained with A01124-2 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Podoplanin/gp36/Pdpn Antibody (A01124-2, 1ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

2 Publications Citing This Product

1. PubMed ID: 10.1002/ijc.26035, Lymphatic endothelial cell-secreted CXCL1 stimulates lymphangiogenesis and metastasis of gastric cancer
2. PubMed ID: 32417325, Wang F, Ji S, Wang M, Liu L, Li Q, Jiang F, Cen J, Ji B. HMGB1 promoted P-glycoprotein at the blood-brain barrier in MCAO rats via TLR4/NF-kappaB signaling pathway. Eur J Pharmacol. 2020 Aug 5; 880:173189. doi:10.1016/j.ejphar.2020.173189. Epub 2020 May 15. PMID:32417325.

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