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antibody and ELISA experts

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Anti-Paxillin/PXN Antibody Picoband®

Catalog Number: PA1804

About PXN

PXN (Paxillin) is a signal transduction adaptor protein discovered in 1990 in the laboratory of Keith Burridge. Salgia et al. (1995) mapped the paxillin gene to 12q24 using fluorescence in situ hybridization.The C-terminal region of paxillin contains four LIM domains that target paxillin to focal adhesions, it is presumed through a direct association with the cytoplasmic tail of beta-integrin. The N-terminal region of paxillin is rich in protein–protein interaction sites. The proteins that bind to paxillin are diverse and include protein tyrosine kinases, such as Src and FAK, structural proteins, such as vinculin and actopaxin, and regulators of actin organization, such as COOL/PIX and PKL/GIT. Paxillin is tyrosine-phosphorylated by FAK and Src upon integrin engagement or growth factor stimulation, creating binding sites for the adapter protein Crk.The paxillin protein contains 4 LIM domains, a proline-rich domain containing a consensus SH3-binding site, and 3 potential SH2-binding sites. On Northern blots, paxillin was expressed as a 3.7-kb mRNA in all tissues tested.

Overview

Product Name	Anti-Paxillin/PXN Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Paxillin/PXN Antibody catalog # PA1804. Tested in Flow Cytometry, IF, IHC, IHC-F, ICC, WB applications. This antibody reacts with Human, 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	Flow Cytometry, IF, IHC, IHC-F, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.01mg NaN3. *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
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	P49023

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminal of human Paxillin, identical to the related mouse and rat sequences.

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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), IHC(F) 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, 0.1-0.5ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human Immunohistochemistry (Frozen Section), 0.5-1ug/ml, Rat Immunocytochemistry , 0.5-1ug/ml, Human Immunocytochemistry/Immunofluorescence, 5ug/ml, Human Immunofluorescence, 5ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10^6 cells, Human

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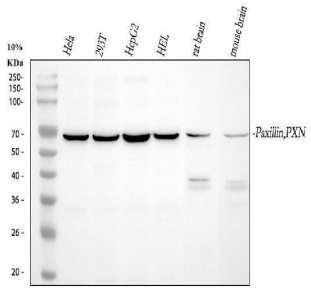
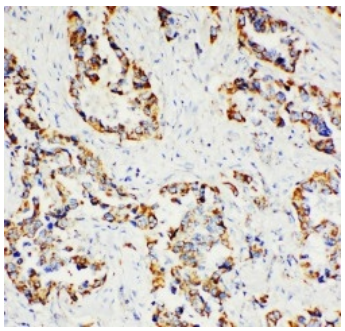
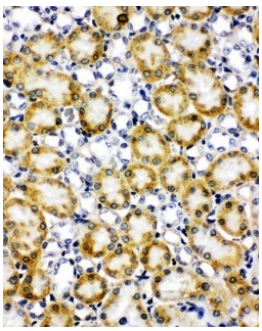
Anti-Paxillin/PXN Antibody Picoband® (PA1804) Images



Western blot analysis of PXN using anti-PXN antibody (PA1804). 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 30 ug of sample under reducing conditions. Lane 1: human Hela whole cell lysates, Lane 2: human 293T whole cell lysates, Lane 3: human HepG2 whole cell lysates, Lane 4: human HEL whole cell lysates, Lane 5: rat brain tissue lysates, Lane 6: mouse brain tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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-PXN antigen affinity purified polyclonal antibody (Catalog # PA1804) at 0.5 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 PXN at approximately 65 kDa. The expected band size for PXN is at 65 kDa.



IHC analysis of PXN using anti-PXN antibody (PA1804). PXN was detected in a paraffin-embedded section of Human Lung Cancer 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 1 ug/ml rabbit anti-PXN Antibody (PA1804) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of PXN using anti-PXN antibody (PA1804). PXN was detected in a frozen section of Rat Kidney tissue. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-PXN Antibody (PA1804) 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 Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

ICC analysis of PXN using anti-PXN antibody (PA1804). PXN was detected in an immunocytochemical section of Hela 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

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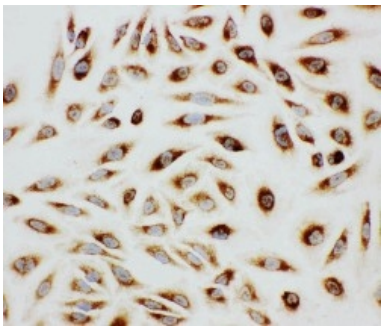
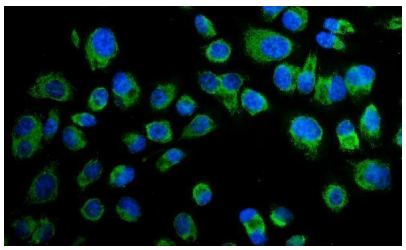
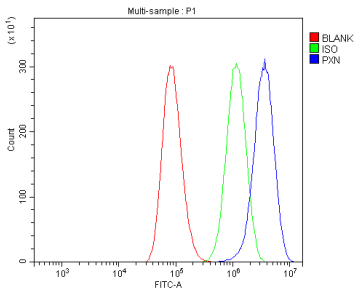


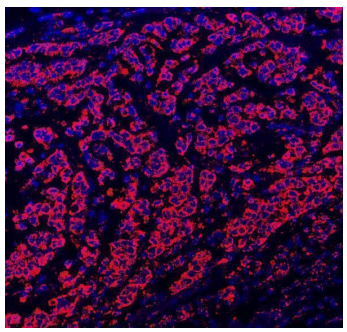
incubated with 1 ug/ml rabbit anti-PXN Antibody (PA1804) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



IF analysis of PXN using anti-PXN antibody (PA1804). PXN was detected in immunocytochemical section of PC-3 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-PXN Antibody (PA1804) 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 A549 cells using anti-PXN antibody (PA1804). Overlay histogram showing A549 cells stained with PA1804 (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-PXN Antibody (PA1804, 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.



IF analysis of PXN using anti-PXN antibody (PA1804). PXN was detected in a paraffin-embedded section of human breast cancer 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 5 ug/mL rabbit anti-PXN Antibody (PA1804) overnight at 4°C. Biotin conjugated goat anti-rabbit IgG (BA1003) was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Cy3 Conjugated Avidin (BA1037). The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

3 Publications Citing This Product

1. PubMed ID: 24637093, Zhong S, Luo R, Wang X, Tang L, Wu J, Wang J, Huang R, Sun H, Huang N. Colloids Surf B Biointerfaces. 2014 Apr

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1;116:553-60. Doi: 10.1016/J.Colsurfb.2014.01.030. Epub 2014 Jan 30. Effects Of Polydopamine Functionalized Titanium Dioxide Nanotubes O...

2. PubMed ID: 24876153, Zhu Z, Liu Y, Li K, Liu J, Wang H, Sun B, Xiong Z, Jiang H, Zheng J, Hu Z. Carcinogenesis. 2014 Aug;35(8):1901-10. Doi: 10.1093/Carcin/Bgu123. Epub 2014 May 29. Protein Tyrosine Phosphatase Receptor U (Ptpru) Is Required For Glioma Growth And Moti...

3. PubMed ID: 25337216, Liu Y, Zhu Z, Xiong Z, Zheng J, Hu Z, Qiu J. Int J Clin Exp Pathol. 2014 Aug 15;7(9):5750-61. Ecollection 2014. Knockdown Of Protein Tyrosine Phosphatase Receptor U Inhibits Growth And Motility Of Gastric Cancer Cells.

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