BOSTER
antibody and ELISA experts

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Anti-Lamin B1/LMNB1 Antibody Picoband®

Catalog Number: PA1048

About LMNB1

Lamin-B1 is a protein that in humans is encoded by the LMNB1 gene. The nuclear lamina consists of a two-dimensional matrix of proteins located next to the inner nuclear membrane. The lamin family of proteins make up the matrix and are highly conserved in evolution. During mitosis, the lamina matrix is reversibly disassembled as the lamin proteins are phosphorylated. Lamin proteins are though to be involved in nuclear stability, chromatin structure and gene expression. Vertebrate lamins consist of two types, A and B. This gene encodes one of the two B type proteins, B1.

Overview

Product Name	Anti-Lamin B1/LMNB1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Lamin B1/LMNB1 Antibody catalog # PA1048. Tested in IP, ICC/IF, IF, IHC, 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	IP, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
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	P20700

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Lamin B1, different from the related rat sequence by one amino acid, and from the related mouse sequence by three amino acids.
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

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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), 2-5ug/ml, Human, Mouse, Rat Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Immunofluorescence, 5 ug/ml, Human, Mouse, Rat Immunoprecipitation, 0.5-2 ug/ml, Human

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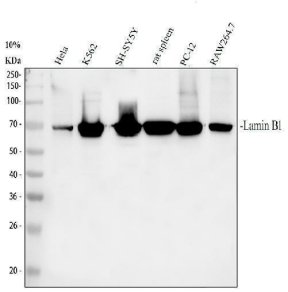
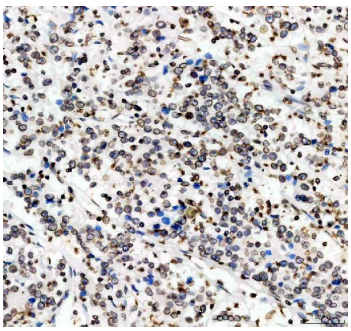
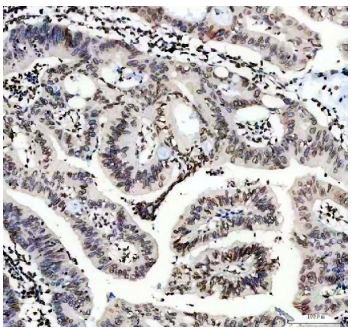
Anti-Lamin B1/LMNB1 Antibody Picoband® (PA1048) Images



Western blot analysis of Lamin B1 using anti-Lamin B1 antibody (PA1048). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 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 K562 whole cell lysates, Lane 3: human SH-SY5Y whole cell lysates, Lane 4: rat spleen tissue lysates, Lane 5: rat PC-12 whole cell lysates, Lane 6: mouse RAW264.7 whole cell 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-Lamin B1 antigen affinity purified polyclonal antibody (Catalog # PA1048) 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 ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for Lamin B1 at approximately 70-72 kDa. The expected band size for Lamin B1 is at 66 kDa.



IHC analysis of Lamin B1 using anti-Lamin B1 antibody (PA1048). Lamin B1 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 2 ug/ml rabbit anti-Lamin B1 Antibody (PA1048) 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 Lamin B1 using anti-Lamin B1 antibody (PA1048). Lamin B1 was detected in a paraffin-embedded section of human colon 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 2 ug/ml rabbit anti-Lamin B1 Antibody (PA1048) 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 Lamin B1 using anti-Lamin B1 antibody (PA1048). Lamin B1 was detected in a paraffin-embedded section of human lung cancer tissue. Heat mediated antigen

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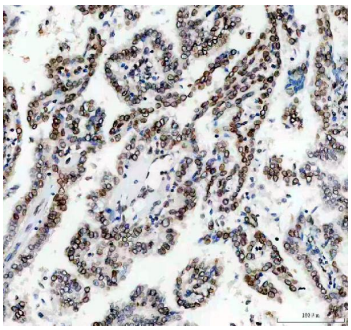
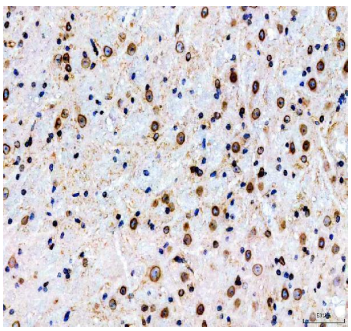
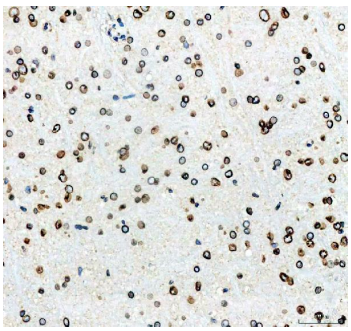


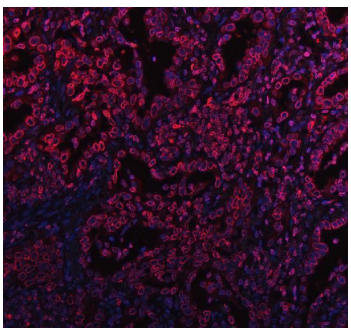
retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-Lamin B1 Antibody (PA1048) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary 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 Lamin B1 using anti-Lamin B1 antibody (PA1048). Lamin B1 was detected in a paraffin-embedded section of mouse brain 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 ug/ml rabbit anti-Lamin B1 Antibody (PA1048) 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 Lamin B1 using anti-Lamin B1 antibody (PA1048). Lamin B1 was detected in a paraffin-embedded section of rat brain 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 ug/ml rabbit anti-Lamin B1 Antibody (PA1048) 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.



IF analysis of Lamin B1 using anti-Lamin B1 antibody (PA1048). Lamin B1 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 5 ug/mL rabbit anti-Lamin B1 Antibody (PA1048) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was used as secondary antibody at 1:500 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.

IF analysis of Lamin B1 using anti-Lamin B1 antibody (PA1048). Lamin B1 was detected in a paraffin-embedded section of rat brain tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat

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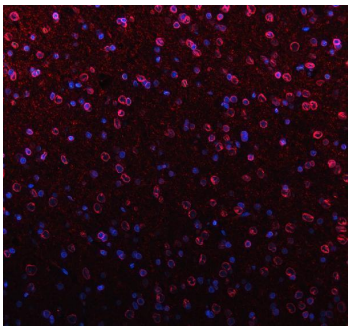
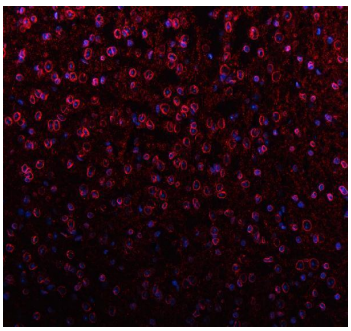
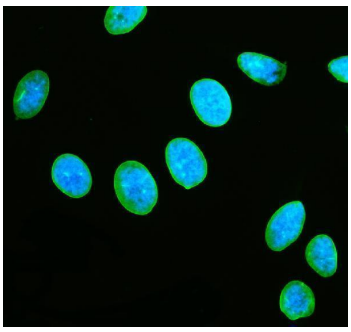


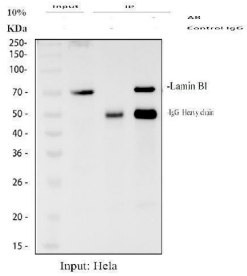
serum. The tissue section was then incubated with 5 ug/mL rabbit anti-Lamin B1 Antibody (PA1048) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



IF analysis of Lamin B1 using anti-Lamin B1 antibody (PA1048). Lamin B1 was detected in a paraffin-embedded section of mouse brain 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-Lamin B1 Antibody (PA1048) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was used as secondary antibody at 1:500 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.



IF analysis of Lamin B1 using anti-Lamin B1 antibody (PA1048). Lamin B1 was detected in an immunocytochemical section of U2OS 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 ug/mL rabbit anti-Lamin B1 Antibody (PA1048) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:500 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.



Immunoprecipitating (IP) Lamin B1 in Hela whole cell lysate. Western blot analysis of Lamin B1 using anti-Lamin B1 antibody (PA1048); Lane 1: Hela whole cell lysates (30ug); Lane 2: Rabbit control IgG instead of anti-Lamin B1 antibody in Hela whole cell lysate; Lane 3: anti-Lamin B1 antibody (2ug) + Hela whole cell lysate (500ug). After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-Lamin B1 antigen affinity purified polyclonal antibody (PA1048) at a dilution of 0.5 ug/mL and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1196-200). A specific band was detected for Lamin B1 at approximately 70-72 kDa. The expected band size for Lamin B1 is at 66 kDa.

24 Publications Citing This Product

BOSTER BIOLOGICAL TECHNOLOGY
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1. PubMed ID: 33125154, Huang T,Luo X,Wu B,Peng P,Dai Y,Hu G,Qiu H,Yuan X.Pyrotinib enhances the radiosensitivity of HER2overexpressing gastric and breast cancer cells.Oncol Rep.2020 Dec;44(6):2634-2644.doi:10.3892/or.2020.7820.Epub 2020 Oct 21.PMID:33125154;PMCID:PMC7640366.

2. PubMed ID: -, Na,L.,Q,B.,Xiumei,Z.et al.Research into the intervention effect of folic acid on arsenic-induced heart abnormalities in fetal rats during the periconception period.BMC Cardiovasc Disord 20, 139 (2020).https://doi.org/10.1186/s12872-020-01418-z

3. PubMed ID: 32848589, Zhang B,Zhong Q,Chen X,Wu X,Sha R,Song G,Zhang C,Chen X.Neuroprotective Effects of Celastrol on Transient Global Cerebral Ischemia Rats via Regulating HMGB1/NF-kappaB Signaling Pathway.Front Neurosci.2020 Aug 11;14:847.doi:10.3389/fnins.2020.00847.PMID:328485

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Anti-Lamin B1/LMNB1 Antibody

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