

Anti-Galectin 3/LGALS3 Antibody Picoband®

Catalog Number: PB9081

About LGALS3

Galectin-3 (GAL3), also known as LGALS3, MAC2 or GALBP, is a member of the lectin family, of which 14 mammalian galectins have been identified. Galectin-3 is encoded by a single gene, it located on chromosome 14, locus q21-q22. It is expressed in the nucleus, cytoplasm, mitochondrion, cell surface, and extracellular space. Studies have also shown that the expression of galectin-3 is implicated in a variety of processes associated with heart failure, including myofibroblast proliferation, fibrogenesis, tissue repair, inflammation, and Ventricular remodeling. Galectin-3 is expressed in various tissues and organs, but is significantly absent in normal hepatocytes.

Overview

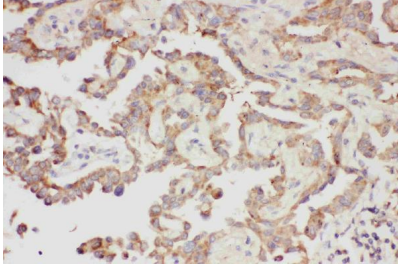
Product Name	Anti-Galectin 3/LGALS3 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-Galectin 3/LGALS3 Antibody Picoband® catalog # PB9081. Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody 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, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
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	P17931

Technical Details

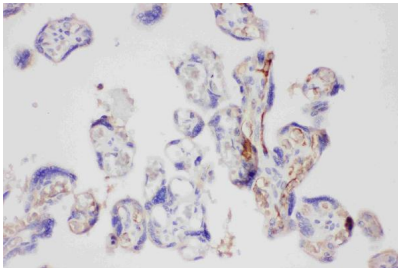
Immunogen	E.coli-derived human Galectin 3 recombinant protein (Position: K139-I250). Human Galectin 3 shares 88% and 84% amino acid (aa) sequences identity with mouse and rat Galectin 3, respectively.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) 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, 0.1-0.5ug/ml, Human Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human Immunocytochemistry/Immunofluorescence, 5ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10 ⁶ cells, Human

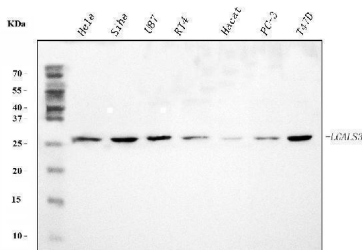
Anti-Galectin 3/LGALS3 Antibody Picoband® (PB9081) Images



IHC analysis of Galectin-3 using anti-Galectin-3 antibody (PB9081). Galectin-3 was detected in paraffin-embedded section of Human Lung Cancer Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Galectin-3 Antibody (PB9081) 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.

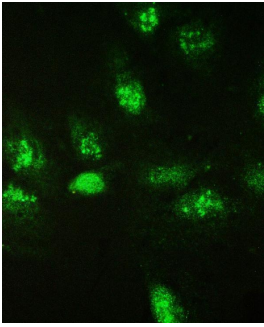


IHC analysis of Galectin-3 using anti-Galectin-3 antibody (PB9081). Galectin-3 was detected in paraffin-embedded section of Human Placenta Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Galectin-3 Antibody (PB9081) 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.

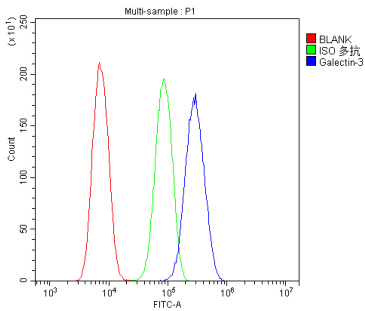


Western blot analysis of Galectin-3 using anti-Galectin-3 antibody (PB9081). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human HeLa whole cell lysates, Lane 2: human SiHa whole cell lysates, Lane 3: human U87 whole cell lysates, Lane 4: human Hacat whole cell lysates, Lane 5: human PC-3 whole cell lysates, Lane 6: human T47D 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-Galectin-3 antigen affinity purified polyclonal antibody (Catalog # PB9081) 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 Galectin-3 at approximately 26 kDa. The expected band size for Galectin-3 is at 26 kDa.

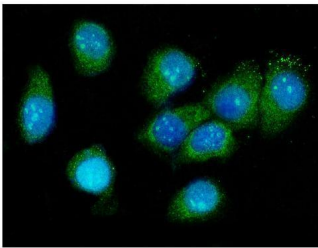
IF analysis of Galectin-3 using anti-Galectin-3 antibody (PB9081). Galectin-3 was detected in immunocytochemical section of U20S cell. Enzyme antigen retrieval was



performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/mL rabbit anti-Galectin-3 Antibody (PB9081) 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. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry analysis of U2OS cells using anti-Galectin-3 antibody (PB9081). Overlay histogram showing U2OS cells stained with PB9081 (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-Galectin-3 Antibody (PB9081, 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 Galectin-3 using anti-Galectin-3 antibody (PB9081). Galectin-3 was detected in an immunocytochemical section of SiHa 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-Galectin-3 Antibody (PB9081) 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.

4 Publications Citing This Product

1. PubMed ID: 10.3389/fimmu.2021.639260, Galectin-Receptor Interactions Regulates Cardiac Pathology Caused by Trichinella spiralis Infection.
2. PubMed ID: 10.3892/etm.2019.7227, Expression of galectin-3 and apoptosis in placental villi from patients with missed abortion during early pregnancy
3. PubMed ID: 10.1155/2021/3210586, Insulin Receptor Substrate p53 Ameliorates High-Glucose-Induced Activation of NF-kappaB and Impaired Mobility of HUVECs

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