

Anti-Galectin 1/LGALS1 Antibody Picoband®

Catalog Number: PB9240-1

About LGALS1

Galectin-1 is a protein that in humans is encoded by the LGALS1 gene. The galectins are a family of beta-galactoside-binding proteins implicated in modulating cell-cell and cell-matrix interactions. Galectin-1 may act as an autocrine negative growth factor that regulates cell proliferation. Galectin-1 expression in Hodgkin Lymphoma has also been shown to mediate immunosuppression of CD8+ T-cells. It is thought to play a role in creating immune tolerance in pregnancy. It has been found that Galectin-1-mediated production of IL6 may assist in augmenting the innate immune response against NiV. Galectin-1 may also be a significant factor that augments the efficiency of the HIV-1 infection process.

Overview

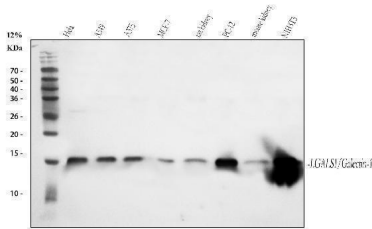
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|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name | Anti-Galectin 1/LGALS1 Antibody Picoband® |
| Reactive Species | Human, Mouse, Rat |
| Description | Boster Bio Anti-Galectin 1/LGALS1 Antibody Picoband® catalog # PB9240-1. Tested in ELISA, Flow Cytometry, IF, IHC, 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 | ELISA, Flow Cytometry, IF, IHC, ICC, WB |
| Clonality | Polyclonal |
| Formulation | Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3. |
| 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 | P09382 |

Technical Details

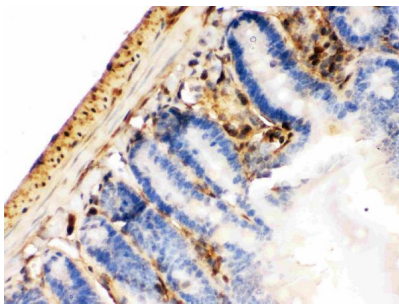
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| Immunogen | E. coli-derived human Galectin 1 recombinant protein (Position: A2-D135). Human Galectin 1 shares 88% and 90% amino acid (aa) sequence identity with mouse and rat Galectin 1, respectively. |
| Recommended Detection Systems | Boster recommends 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 |

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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), 0.5-1ug/ml, Human, Mouse, Rat Immunocytochemistry/Immunofluorescence, 2ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10 ⁶ cells, Human ELISA, 0.1-0.5ug/ml, - |

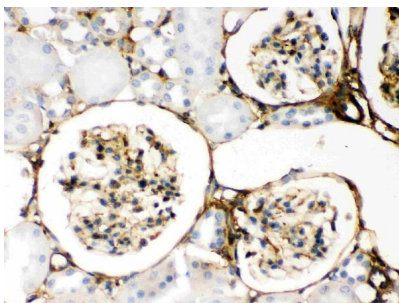
Anti-Galectin 1/LGALS1 Antibody Picoband® (PB9240-1) Images



Western blot analysis of Galectin 1 using anti-Galectin 1 antibody (PB9240-1). 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 A549 whole cell lysates, Lane 3: human A375 whole cell lysates, Lane 4: human MCF-7 whole cell lysates, Lane 5: rat kidney tissue lysates, Lane 6: rat PC-12 whole cell lysates, Lane 7: mouse kidney tissue lysates, Lane 8: mouse NIH/3T3 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 1 antigen affinity purified polyclonal antibody (Catalog # PB9240-1) 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 1 at approximately 15 kDa. The expected band size for Galectin 1 is at 15 kDa.

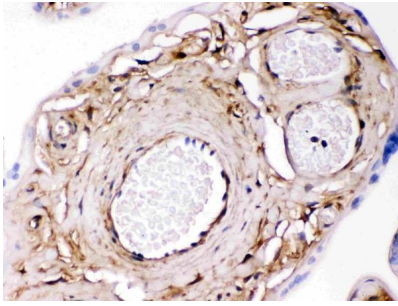


IHC analysis of Galectin 1 using anti-Galectin 1 antibody (PB9240-1). Galectin 1 was detected in a paraffin-embedded section of mouse intestine cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-Galectin 1 Antibody (PB9240-1) 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.

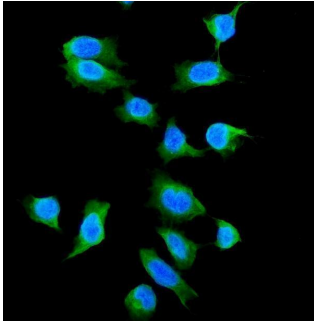


IHC analysis of Galectin 1 using anti-Galectin 1 antibody (PB9240-1). Galectin 1 was detected in a paraffin-embedded section of rat kidney tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-Galectin 1 Antibody (PB9240-1) 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.

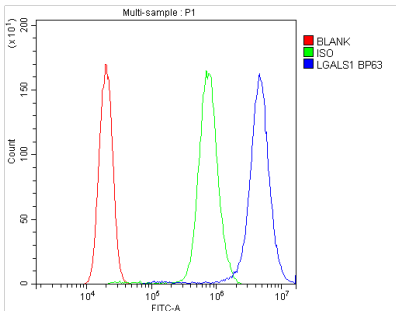
IHC analysis of Galectin 1 using anti-Galectin 1 antibody (PB9240-1). Galectin 1 was detected in a paraffin-embedded



section of human placenta 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-Galectin 1 Antibody (PB9240-1) 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 Galectin 1 using anti-Galectin 1 antibody (PB9240-1). Galectin 1 was detected in immunocytochemical section of U20S 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 2ug/mL rabbit anti-Galectin 1 Antibody (PB9240-1) 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 PC-3 cells using anti-Galectin 1 antibody (PB9240-1). Overlay histogram showing PC-3 cells stained with PB9240-1 (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 1 Antibody (PB9240-1, 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.

1 Publications Citing This Product

1. PubMed ID: 32231658, Ye Z, Huang S, Zhang Y, Mei X, Zheng H, Li M, Chen J, Lu F. Galectins, Eosinophiles, and Macrophages May Contribute to Schistosoma japonicum Egg-Induced Immunopathology in a Mouse Model. Front Immunol. 2020 Mar 13;11:146. doi:10.3389/fimmu.2020.00146. PMID:32231658;

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Anti-Galectin 1/LGALS1 Antibody

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