

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

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.
Application	ELISA, 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	P09382

Technical Details

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.
Predicted Reactive Species	Bovine, Hamster, Horse, Monkey, Rabbit
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	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse, Rat, By Heat Immunocytochemistry/Immunofluorescence, 2ug/ml, Human Flow Cytometry, 1-3ug/1x10⁶ cells, Human ELISA, 0.1-0.5ug/ml, Human, -

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

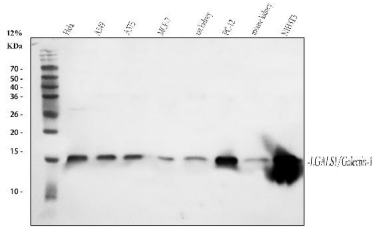


Figure 1. Western blot analysis of Galectin 1 using anti-Galectin 1 antibody (PB9240-1). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

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.

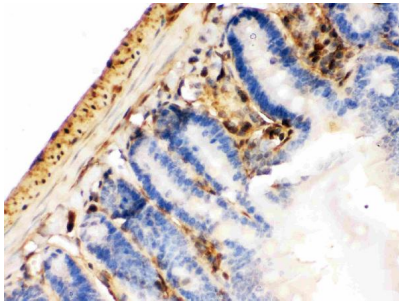


Figure 2. IHC analysis of Galectin 1 using anti-Galectin 1 antibody (PB9240-1).

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.

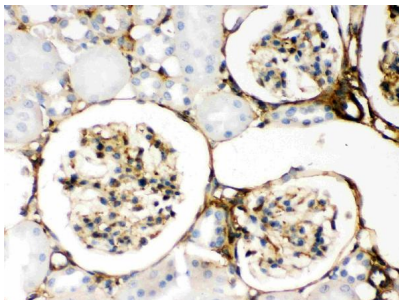


Figure 3. IHC analysis of Galectin 1 using anti-Galectin 1 antibody (PB9240-1).

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.

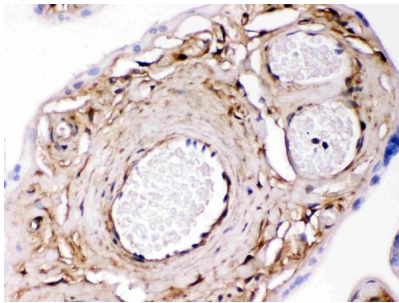


Figure 4. IHC analysis of Galectin 1 using anti-Galectin 1 antibody (PB9240-1). Galectin 1 was detected in a paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat 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.

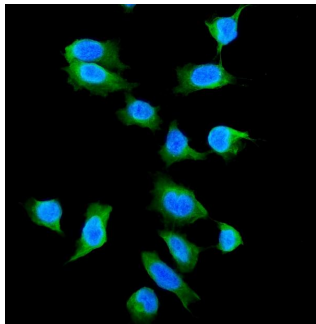


Figure 5. IF analysis of Galectin 1 using anti-Galectin 1 antibody (PB9240-1). Galectin 1 was detected in immunocytochemical section of U2OS cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 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.

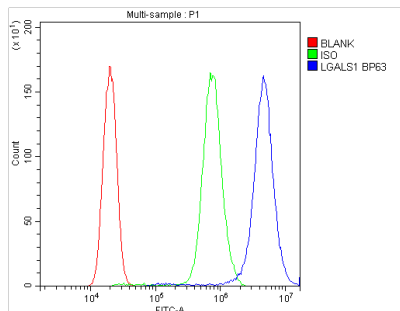


Figure 6. Flow Cytometry analysis of PC-3 cells using anti-Galectin 1 antibody (PB9240-1). Overlay histogram showing PC-3 cells stained with PB9240-1 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Galectin 1 Antibody (PB9240-1, 1ug/1x10⁶ cells) for 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 (Red line) was also used as a 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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