10320 Camino Santa Fe, Suite G
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Anti-Galectin 3/LGALS3 Antibody Picoband™ (monoclonal, 12B12)

Catalog # ABO14834

Specification

Anti-Galectin 3/LGALS3 Antibody Picoband™ (monoclonal, 12B12) - Product Information

Application	**WB, IHC, IF, ICC, FC**
Primary Accession	P17931
Host	**Mouse**
Isotype	**Mouse IgG2a**
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Format	**Lyophilized**

Description
Anti-Galectin 3/LGALS3 Antibody Picoband™ (monoclonal, 12B12) . Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500 µg/ml.

Anti-Galectin 3/LGALS3 Antibody Picoband™ (monoclonal, 12B12) - Additional Information

Gene ID 3958

Other Names
Galectin-3, Gal-3, 35 kDa lectin, Carbohydrate-binding protein 35, CBP 35, Galactose-specific lectin 3, Galactoside-binding protein, GALBP, IgE-binding protein, L-31, Laminin-binding protein, Lectin L-29, Mac-2 antigen, LGALS3 (HGNC:6563), MAC2

Calculated MW
28 kDa KDa

Application Details
Western blot, 0.1-0.5 µg/ml
 Immunohistochemistry (Paraffin-embedded Section), 0.5-1 µg/ml
 Immunocytochemistry/Immunofluorescence, 2 µg/ml
 Flow Cytometry, 1-3 µg/1x10^6 cells

Subcellular Localization
Secreted. Nucleus. Cytoplasm.

Tissue Specificity
A major expression is found in the colonic epithelium. It is also abundant in the activated macrophages. Expressed in fetal membranes.

Contents
Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
E.coli-derived human Galectin 3 recombinant protein (Position: K139-I250). Human Galectin 3 shares 88% and 84% amino acid (aa) sequence identity with mouse and rat Galectin 3, respectively.

Cross Reactivity
No cross-reactivity with other proteins.

Storage	**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.**

Anti-Galectin 3/LGALS3 Antibody Picoband™ (monoclonal, 12B12) - Protein Information

Name LGALS3 (HGNC:6563)

Synonyms MAC2

Function
Galactose-specific lectin which binds IgE. May mediate with the alpha-3, beta-1 integrin the stimulation by CSPG4 of endothelial cells migration. Together with DMBT1, required for terminal differentiation of columnar epithelial cells during early embryogenesis (By similarity). In the nucleus: acts as a pre-mRNA splicing factor. Involved in acute inflammatory responses including neutrophil activation and adhesion, chemoattraction of monocytes macrophages, opsonization of apoptotic neutrophils, and activation of mast cells. Together with TRIM16, coordinates the recognition of membrane damage with mobilization of the core autophagy regulators ATG16L1 and BECN1 in response to damaged endomembranes.

Cellular Location
Cytoplasm. Nucleus. Secreted. Note=Secreted by a non- classical secretory pathway and associates with the cell surface. Can be secreted; the secretion is dependent on protein unfolding and facilitated by the cargo receptor TMED10; it results in protein translocation from the cytoplasm into the ERGIC (endoplasmic reticulum- Golgi intermediate compartment) followed by vesicle entry and secretion (PubMed:32272059).

Tissue Location
A major expression is found in the colonic epithelium. It is also abundant in the activated macrophages. Expressed in fetal membranes.

Anti-Galectin 3/LGALS3 Antibody Picoband™ (monoclonal, 12B12) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Galectin 3/LGALS3 Antibody Picoband™ (monoclonal, 12B12) - Images

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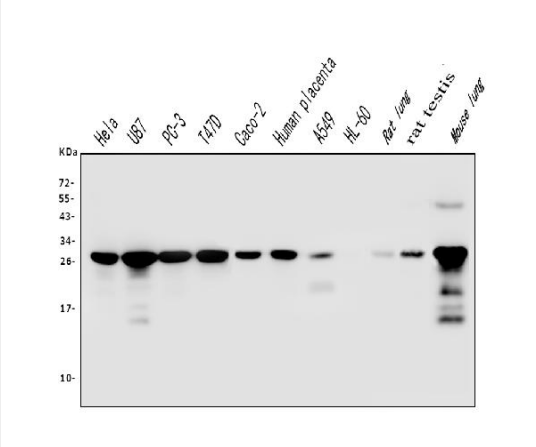

Figure 1. Western blot analysis of Galectin 3/LGALS3 using anti-Galectin 3/LGALS3 antibody (M00621-3).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: human Hela whole cell lysates,
Lane 2: human U87 whole cell lysates,
Lane 3: human PC-3 whole cell lysates.
Lane 4: human T47D whole cell lysates,
Lane 5: human CACO-2 whole cell lysates,
Lane 6: human placenta tissue lysates,
Lane 7: human A549 whole cell lysates,
Lane 8: human HL-60 whole cell lysates,
Lane 9: rat lung tissue lysates,
Lane 10: rat testis tissue lysates,
Lane 11: mouse lung tissue lysates,
After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-Galectin 3/LGALS3 antigen affinity purified monoclonal antibody (Catalog # M00621-3) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for Galectin 3/LGALS3 at approximately 28KD. The expected band size for Galectin 3/LGALS3 is at 28KD.

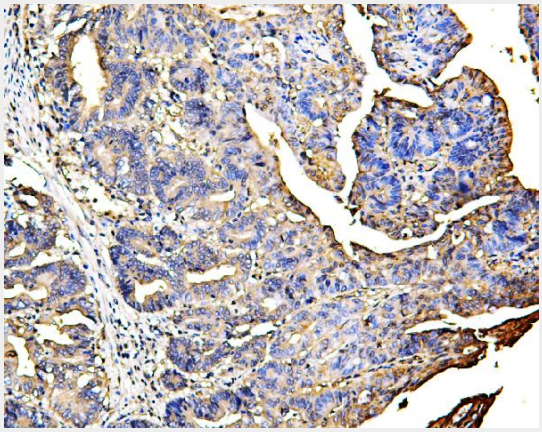

Figure 2. IHC analysis of Galectin 3/LGALS3 using anti Galectin 3/LGALS3 antibody (M00621-3). Galectin 3/LGALS3 was detected in paraffin-embedded section of human intestinal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 µg/ml mouse anti-Galectin 3/LGALS3 Antibody (M00621-3) overnight at 4°C. Biotinylated goat anti-mouse 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 # SA1021) with DAB as the chromogen.

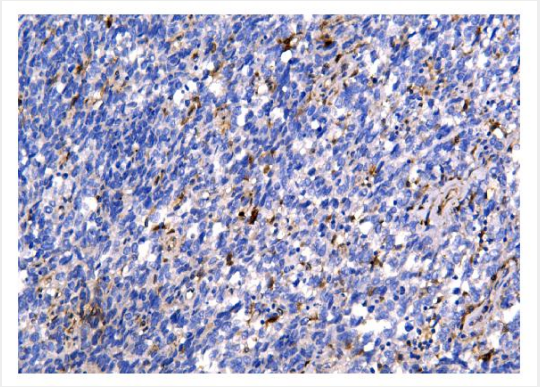

Figure 3. IHC analysis of Galectin 3/LGALS3 using anti Galectin 3/LGALS3 antibody (M00621-3). Galectin 3/LGALS3 was detected in paraffin-embedded section of human melanoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 µg/ml mouse anti-Galectin 3/LGALS3 Antibody (M00621-3) overnight at 4°C. Biotinylated goat anti-mouse 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 # SA1021) with DAB as the chromogen.

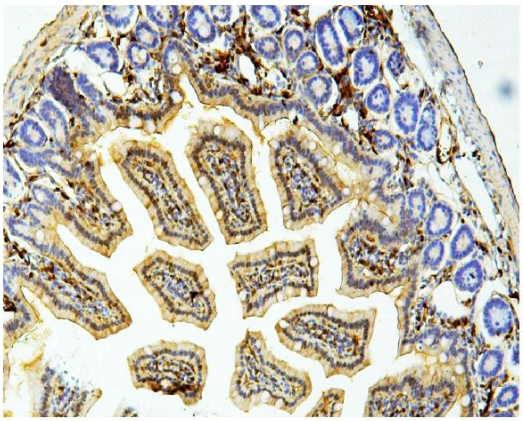

Figure 4. IHC analysis of Galectin 3/LGALS3 using anti Galectin 3/LGALS3 antibody (M00621-3). Galectin 3/LGALS3 was detected in paraffin-embedded section of mouse small intestine tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 µg/ml mouse anti-Galectin 3/LGALS3 Antibody (M00621-3) overnight at 4°C. Biotinylated goat anti-mouse 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 # SA1021) with DAB as the chromogen.

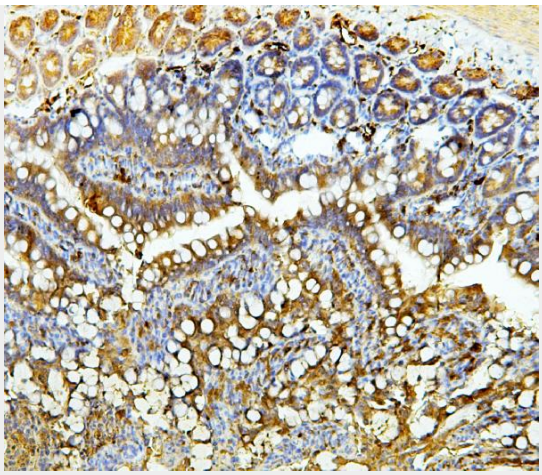

Figure 5. IHC analysis of Galectin 3/LGALS3 using anti Galectin 3/LGALS3 antibody (M00621-3). Galectin 3/LGALS3 was detected in paraffin-embedded section of rat small intestine tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 µg/ml mouse anti-Galectin 3/LGALS3 Antibody (M00621-3) overnight at 4°C. Biotinylated goat anti-mouse 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 # SA1021) with DAB as the chromogen.

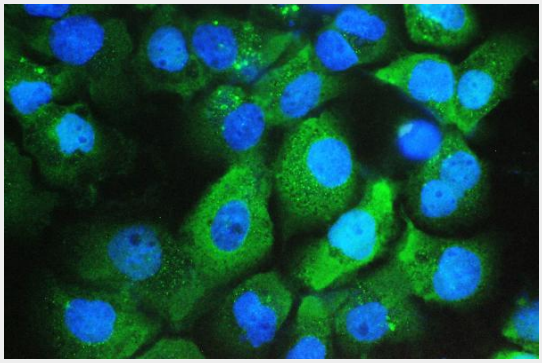

Figure 6. IF analysis of Galectin 3/LGALS3 using anti-Galectin 3/LGALS3 antibody (M00621-3). Galectin 3/LGALS3 was detected in immunocytochemical section of A431 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2 µg/mL mouse anti-Galectin 3/LGALS3 Antibody (M00621-3) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Mouse IgG (BA1126) 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.

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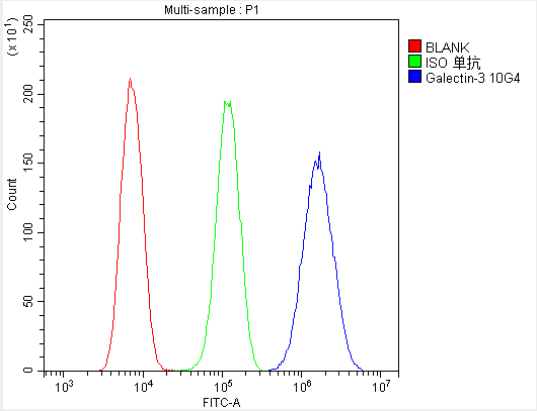

Figure 7. Flow Cytometry analysis of U20S cells using anti-Galectin 3/LGALS3 antibody (M00621-3).
Overlay histogram showing U20S cells stained with M00621-3 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-Galectin 3/LGALS3 Antibody (M00621-3, 1 µg/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10 µg/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1 µg/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

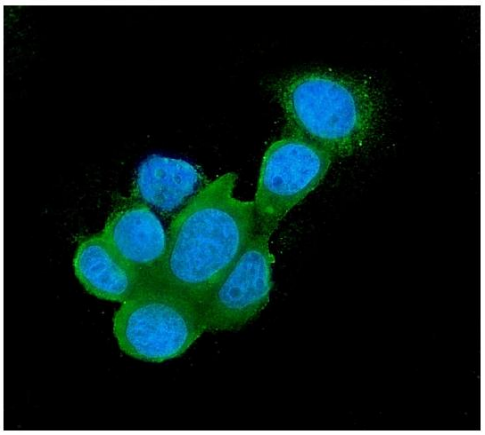

Figure 8. IF analysis of Galectin 3/LGALS3 using anti-Galectin 3/LGALS3 antibody (M00621-3).
Galectin 3/LGALS3 was detected in immunocytochemical section of MCF-7 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2 µg/mL mouse anti-Galectin 3/LGALS3 Antibody (M00621-3) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Mouse IgG (BA1126) 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.