abcam

ab112525

Anti-Galectin 1 antibody

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	Preservative: 0.31% Thimerosal (merthiolate), 0.06% Sodium azide Constituents: 30.75% BSA, 5.54% Sodium chloride, 1.23% Disodium hydrogenorthophosphate
Form	Liquid
Clonality	Polyclonal
Immunogen	Synthetic Peptide within Human LGALS1. The exact immunogen used to generate this antibody is proprietary information. Database link P09382
Purification technique	Affinity purification Protein A
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Rat
Dilution info	-
Notes	-

Species	Mouse
Dilution info	-

Notes	-

Species	Human
Dilution info	0.1-0.5 µg/mL
Notes	The detection limit for Galectin 1 is approximately 2.5ng/lane under non-reducing and reducing conditions.

ICC

Tested

Species	Human
Dilution info	2 µg/mL
Notes	-

Expected

Species	Rat, Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-P

Tested

Species	Human
Dilution info	0.5-1 µg/mL
Notes	-

Expected

Species	Rat, Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-Fr

Tested

Species	Human
Dilution info	0.5-1 µg/mL
Notes	-

Expected

Species	Rat, Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Rat, Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information LGALS1

Function	Lectin that binds beta-galactoside and a wide array of complex carbohydrates. Plays a role in regulating apoptosis, cell proliferation and cell differentiation. Inhibits CD45 protein phosphatase activity and therefore the dephosphorylation of Lyn kinase. Strong inducer of T-cell apoptosis. Plays a negative role in Th17 cell differentiation via activation of the receptor CD69 (PubMed:24752896).

Storage

Shipped at conditions	Blue Ice

Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Galectin-1 also referred to as GAL1 or galectin 1 is a protein with a molecular mass of approximately 14.5 kDa. It belongs to a group called the beta-galactoside-binding lectins and is typically characterized by its distinct carbohydrate-recognition domain. Galectin-1 is expressed in a variety of tissues including muscle epithelial cells the nervous system and immune cells. In particular high expression levels are found in the placenta and the thymus indicating a role in development and immune function.
Biological function summary	This protein mediates a variety of cellular processes such as cell differentiation apoptosis and immune cell modulation. As a monomer galectin-1 binds specifically to beta-galactoside residues on the cell surface. It plays a significant role in regulation of cell signaling circuits affecting T-cell activation as well as macrophage function. The Galectin-1 protein does not commonly form complexes but can influence interactions of other proteins by binding to glycoproteins on the cell surface which can modulate signaling outcomes.
Pathways	The protein is actively involved in pathways related to cell-cell interactions and immune modulation. It interacts with pathways like Ras signaling which is fundamental in cell growth proliferation and survival. Through these pathways galectin-1 is closely related to other proteins including Ras and Raf which are critical in transmitting signals from the cell surface to the DNA in the nucleus affecting gene expression involved in apoptosis and autophagy.
Associated diseases and disorders	Galectin-1 association with cancer progression and autoimmune diseases reflects its role in immune system regulation. High galectin-1 levels have been recorded in various tumors where the protein promotes tumor progression by supporting angiogenesis and suppressing immune response against cancer cells. In autoimmune disorders such as multiple sclerosis modulation of Galectin-1 levels can alter disease progression and the immune system’s behavior. The protein interacts with other key regulators like cytokines emphasizing its importance in immune-inflammatory pathways and potential as a therapeutic target.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

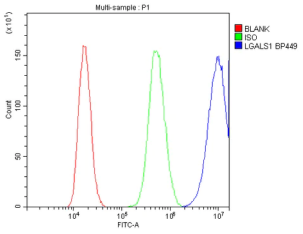
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

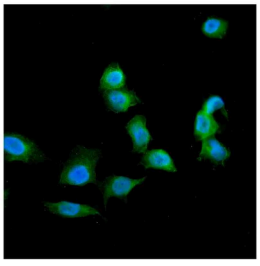
8 product images



Flow Cytometry - Anti-Galectin 1 antibody (ab112525)

Galectin 1 Flow Cytometry staining using rabbit Anti-Galectin 1 antibody

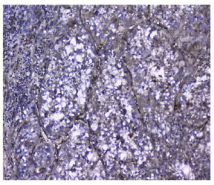
Overlay histogram showing PC-3 cells stained with ab112525 (Blue).The cells were blocked with 10% normal goat serum. And then incubated with ab112525 at 1µg/1x10^6 cells for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG at 5-10µg/1x10^6 cells was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green) was rabbit IgG (1µg/1x10^6) used under the same conditions. Unlabelled sample (Red) was also used as a control.



Immunocytochemistry - Anti-Galectin 1 antibody (ab112525)

Galectin 1 Immunocytochemistry staining using rabbit Anti-Galectin 1 antibody

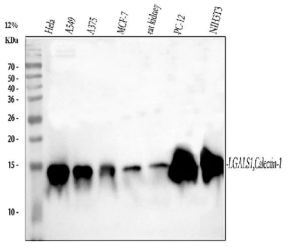
ab112525 staining Galectin 1 in U20S tissue by Immunohistochemistry. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. DyLight®488 Conjugated Goat Anti-Rabbit IgG was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Galectin 1 antibody (ab112525)

Galectin 1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Galectin 1 antibody

Galectin-1 was detected in paraffin-embedded section of human liver 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 1µg/ml ab112525 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 Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.



Western blot - Anti-Galectin 1 antibody (ab112525)

Galectin 1 Western blot staining using rabbit Anti-Galectin 1 antibody

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. 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 ab112525 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-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 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.
All lanes:
Western blot - Anti-Galectin 1 antibody (ab112525) at 0.5 µg/mL

Lane 1:
human Hela whole cell lysates at 30 µg

Lane 2:
human A549 whole cell lysates at 30 µg

Lane 3:
human A375 whole cell lysates at 30 µg

Lane 4:
human MCF-7 whole cell lysates at 30 µg

Lane 5:
rat kidney tissue lysates at 30 µg

Lane 6:
rat PC-12 whole cell lysates at 30 µg

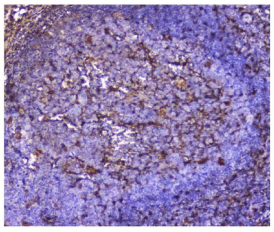
Lane 7:
mouse NIH/3T3 whole cell lysates at 30 µg

Secondary

All lanes:
goat anti-rabbit IgG-HRP at 1/5000 dilution

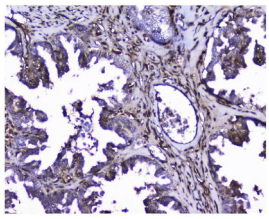
Developed using the ECL technique.

Performed under reducing conditions.



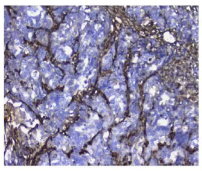
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Galectin 1 antibody (ab112525)

ab112525 staining Galectin 1 in tonsil tissue by Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections).



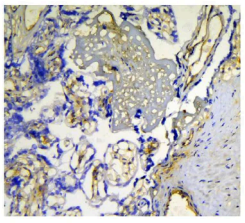
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Galectin 1 antibody (ab112525)

ab112525 staining Galectin 1 in intestinal cancer tissue by Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Galectin 1 antibody (ab112525)

ab112525 staining Galectin 1 in gastric cancer tissue by Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections).



Immunohistochemistry (Frozen sections) - Anti-Galectin 1 antibody (ab112525)

ab112525 (1 µg/mL) staining Galectin 1 in placenta tissue by Immunohistochemistry (Frozen sections)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.