abcam

ab247475

Anti-Galectin 3 antibody [EPR2774] - BSA and Azide free

Recombinant | RabMAb | KO Validated

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR2774
Purification technique	Affinity purification Protein A

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Rat
Dilution info	-
Notes	-

IP

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Rat
Dilution info	-
Notes	-

Target data

See full target information LGALS3

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.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab247475 is the carrier-free version of ab76466.

Species reactivity

Mouse: We have preliminary internal testing data to indicate this antibody may not react with this species.

Please contact us for more information.

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

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

Activity summary	Galectin-3 also known as LGALS3 is a protein belonging to the galectin family which are beta-galactoside-binding lectins. This protein has a molecular weight of about 30 kDa. It shows expression in various tissues including the heart liver and gastrointestinal tract. Galectin-3 plays a mechanical role in cell-cell adhesion cell-matrix interactions and modulating immune responses. Researchers often use galectin-3 ELISA kits to quantify its presence in different biological samples.
Biological function summary	Galectin-3 participates in cell growth regulation apoptosis and immune system modulation. Galectin-3 does not typically integrate into larger molecular complexes but it interacts with a variety of cell surface and extracellular matrix molecules. Its function influences processes like cell differentiation and angiogenesis where it can act as a regulator leveraging its ability to bind glycans on cell surfaces and matrix components.
Pathways	Galectin-3 contributes to the regulation of pathways such as the MAPK signaling pathway and the Wnt signaling pathway. In the MAPK pathway it influences cell proliferation and survival. Galectin-3 interacts with proteins like β-catenin in the Wnt pathway assisting in transcriptional regulation and cell fate determination. These pathways are vital for maintaining cellular homeostasis and responding to extracellular signals.

Associated diseases and disorders	Galectin-3 has a strong connection to cancer and fibrosis. Its role in cancer involves promoting tumor cell survival metastasis and angiogenesis where it interacts with proteins like integrins to facilitate tumor progression. In fibrosis galectin-3 contributes to fibrotic tissue formation especially in conditions like idiopathic pulmonary fibrosis and cardiac fibrosis often associated with proteins such as TGF-β. Understanding these interactions helps in developing therapeutic strategies targeting galectin-3 in these diseases.

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

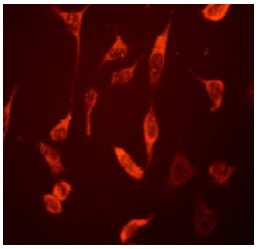
We do not recommend this combination. It is not covered by our product promise.

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.

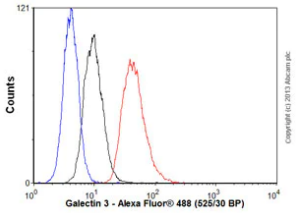
4 product images



Immunocytochemistry/ Immunofluorescence - Anti-Galectin 3 antibody [EPR2774] - BSA and Azide free (ab247475)

Galectin 3 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Galectin 3 antibody

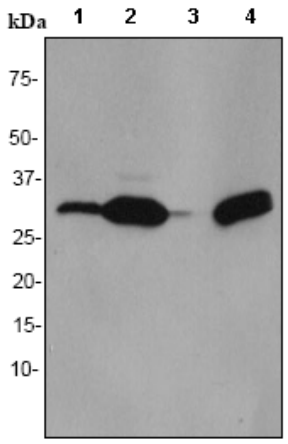
This data was developed using ab76466, the same antibody clone in a different buffer formulation.ab76466, at a 1/100 dilution, staining Galectin 3 in HeLa cells by Immunofluorescence.



Flow Cytometry (Intracellular) - Anti-Galectin 3 antibody [EPR2774] - BSA and Azide free (ab247475)

Galectin 3 Flow Cytometry (Intracellular) staining using rabbit Anti-Galectin 3 antibody

This data was developed using ab76466, the same antibody clone in a different buffer formulation. Overlay histogram showing THP1 cells stained with ab76466 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% human serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab76466, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit IgG (H&L) (ab150077) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1µg/1x10^6 cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.



Western blot - Anti-Galectin 3 antibody [EPR2774] - BSA and Azide free (ab247475)

Galectin 3 Western blot staining using rabbit Anti-Galectin 3 antibody

This data was developed using ab76466, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-Galectin 3 antibody [EPR2774] (ab76466) at 1/5000 dilution

Lane 1:
HeLa cell lysate at 10 µg

Lane 2:
SW480 cell lysate at 10 µg

Lane 3:
A431 cell lysate at 10 µg

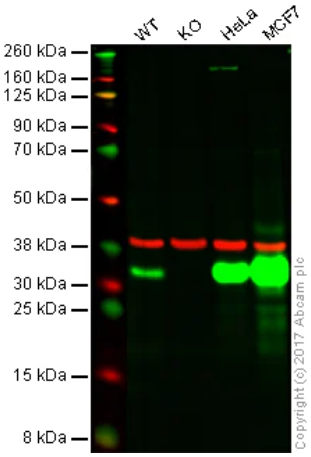
Lane 4:
MCF7 cell lysate at 10 µg

Secondary

All lanes:
goat anti-rabbit HRP at 1/2000 dilution

Predicted band size: 26 kDa

Observed band size: 30 kDa



Western blot - Anti-Galectin 3 antibody [EPR2774] - BSA and Azide free (ab247475)

Galectin 3 Western blot staining using rabbit Anti-Galectin 3 antibody

This data was developed using ab76466, the same antibody clone in a different buffer formulation.
Lane 1: Wild-type HAP1 whole cell lysate (20 µg)

Lane 2: Galectin 3 (KO) knockout HAP1 whole cell lysate (20 µg)

Lane 3: HeLa whole cell lysate (20 µg)

Lane 4: MCF7 whole cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab76466 observed at 35 kDa. Red - loading control, ab8245, observed at 37 kDa.

ab76466 was shown to specifically react with Galectin 3 (KO) when Galectin 3 (KO) knockout samples were used. Wild-type and Galectin 3 (KO) knockout samples were subjected to SDS-PAGE. ab76466 and ab8245 (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 2000 dilution and 1/10000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ab216773 and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ab216776 secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-Galectin 3 antibody [EPR2774] (ab76466)

Predicted band size: 26 kDa

Observed band size: 35 kDa

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