abcam

ab197544

Anti-Galectin 3 antibody [EP2775Y] - 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	EP2775Y
Purification technique	Affinity purification Protein A
Concentration	1.027 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Mouse, Human, Rat
Dilution info	-

Notes	-

Predicted

Species	Pig
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Predicted

Species	Pig
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	ab199376 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Species	Mouse
Dilution info	-
Notes	ab199376 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Species	Rat

Dilution info	-
Notes	ab199376 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Predicted

Species	Pig
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

Predicted

Species	Pig
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

ab197544 is the carrier-free version of ab76245.

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.

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

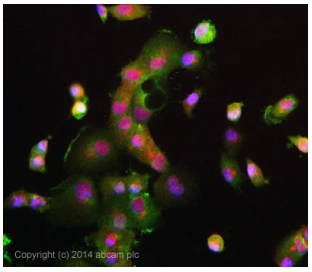
We do not recommend this combination. It is not covered by our product promise.

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:

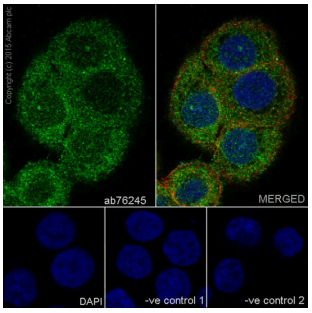
15 product images



Immunocytochemistry/ Immunofluorescence - Anti-Galectin 3 antibody [EP2775Y] - BSA and Azide free (ab197544)

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

ICC/IF image of unpurified ab76245 stained Panc-1 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab76245 at 10µg/ml overnight at +4°C. The secondary antibody (pseudo-colored green) was Alexa Fluor® 488 goat anti- rabbit (ab150081) IgG (H+L) preadsorbed, used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (pseudo-colored red) at a 1/200 dilution for 1h at room temperature. DAPI was used to stain the cell nuclei (pseudo-colored blue) at a concentration of 1.43µM for 1hour at room temperature. This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76245).



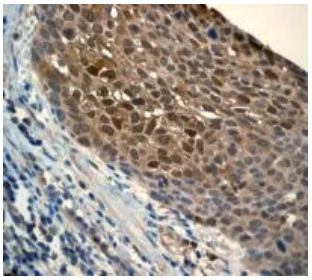
Immunocytochemistry/ Immunofluorescence - Anti-Galectin 3 antibody [EP2775Y] - BSA and Azide free (ab197544)

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

Immunocytochemistry/Immunofluorescence analysis of HT-29 cells labelling Galectin with purified ab76245 at 1/100. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. ab150077, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/500) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain. ab7291, a mouse anti-tubulin (1/500) and ab150120, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/500) were also used.
Control 1: primary antibody (1/100) and secondary antibody, ab150120, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/500).

Control 2: ab7291 (1/1000) and secondary antibody, ab150077, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/500).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76245).

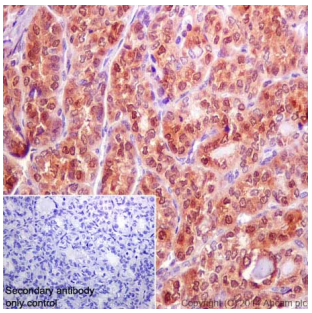


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Galectin 3 antibody [EP2775Y] - BSA and Azide free (ab197544)

Galectin 3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Galectin 3 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human lung squamous carcinoma tissue labelling Galectin 3 with unpurified ab76245.

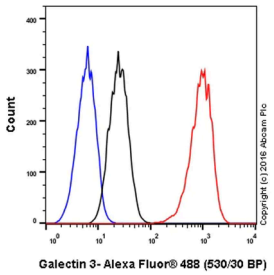
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76245).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Galectin 3 antibody [EP2775Y] - BSA and Azide free (ab197544)

Galectin 3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Galectin 3 antibody

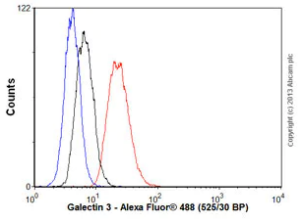
This IHC data was generated using the same anti-Galectin 3 antibody clone [EP2775Y] in a different buffer formulation (cat# ab76245).
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human thyroid carcinoma tissue labelling Galectin 3 with purified ab76245 at 1/250. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. ab97051, a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.



Flow Cytometry (Intracellular) - Anti-Galectin 3 antibody [EP2775Y] - BSA and Azide free (ab197544)

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

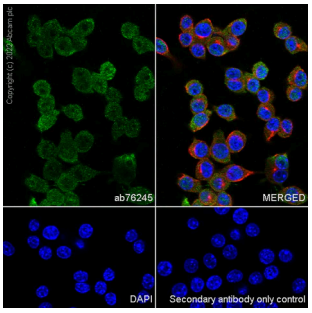
Intracellular Flow Cytometry analysis of HeLa (human cervix adenocarcinoma) cells labeling Galectin 3 with purified ab76245 at 1/50 dilution (10ug/mL) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat anti rabbit IgG (Alexa Fluorr® 488) at 1/2000 dilution was used as the secondary antibody. Rabbit monoclonal IgG (Black) was used as the isotype control, cells without incubation with primary antibody and secondary antibody (Blue) were used as the unlabeled control.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76245).



Flow Cytometry (Intracellular) - Anti-Galectin 3 antibody [EP2775Y] - BSA and Azide free (ab197544)

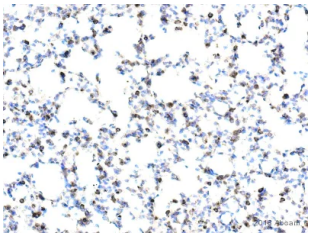
Galectin 3 Flow Cytometry (Intracellular) staining using rabbit Anti-Galectin 3 antibody

Overlay histogram showing THP1 cells stained with unpurified ab76245 (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 (ab76245, 1/1000 dilution) for 30 min at 22°C. The secondary antibody used was Alexa Fluorr® 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) (0.1µg/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.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76245).



Immunocytochemistry/ Immunofluorescence - Anti-Galectin 3 antibody [EP2775Y] - BSA and Azide free (ab197544)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76245). Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized RAW 264.7 cells labeling Galectin 3 with ab76245 at 1/100 dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed secondary antibody at 1/1000 dilution. ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution. The Nuclear counterstain was DAPI (Blue). Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution. Confocal image showing nuclear and cytoplasmic staining in RAW 264.7 cell line.

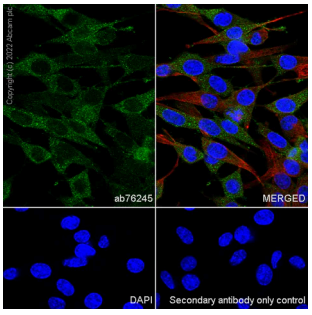


This image is courtesy of a customer review submitted by Carl Hobbs.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Galectin 3 antibody [EP2775Y] - BSA and Azide free (ab197544)

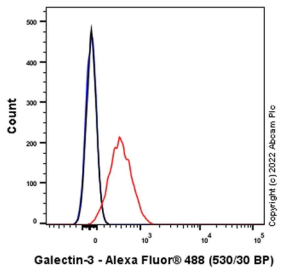
Galectin 3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Galectin 3 antibody

Immunohistochemical analysis of formaldehyde fixed mouse lung tissue sections labelling Galectin 3 with ab76245 at a dilution of 1/6000. The secondary antibody used was biotin conjugated goat anti rabbit IgG at a dilution of 1/300. Antigen retrieval was heat mediated using citric acid.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76245).



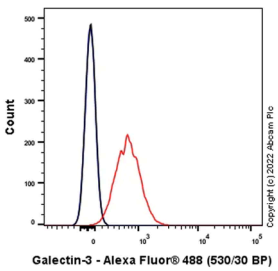
Immunocytochemistry/ Immunofluorescence - Anti-Galectin 3 antibody [EP2775Y] - BSA and Azide free (ab197544)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76245). Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized C6 cells labeling Galectin 3 with ab76245 at 1/100 dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed secondary antibody at 1/1000 dilution. ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution. The Nuclear counterstain was DAPI (Blue). Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution. Confocal image showing cytoplasmic and weak nuclear staining in C6 cell line.



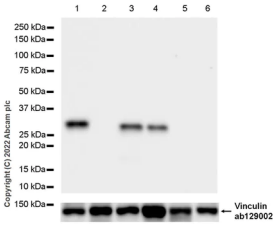
Flow Cytometry (Intracellular) - Anti-Galectin 3 antibody [EP2775Y] - BSA and Azide free (ab197544)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76245). Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized C6 (rat glial tumor glial cell) cells labelling Galectin 3 with ab76245 at 1:50 dilution (1µg)/ Red compared with a Rabbit monoclonal IgG (ab172730) / Black isotype control and an unlabelled control (Cell without incubation with primary antibody and secondary antibody (Blue)). A Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/2000 dilution was used as the secondary antibody.



Flow Cytometry (Intracellular) - Anti-Galectin 3 antibody [EP2775Y] - BSA and Azide free (ab197544)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76245). Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized RAW 264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage) cells labelling Galectin 3 with ab76245 at 1:50 dilution (1µg)/ Red compared with a Rabbit monoclonal IgG (ab172730) / Black isotype control and an unlabelled control (Cell without incubation with primary antibody and secondary antibody (Blue)). A Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/2000 dilution was used as the secondary antibody.



Western blot - Anti-Galectin 3 antibody [EP2775Y] - BSA and Azide free (ab197544)

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

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76245). Blocking and diluting buffer and concentration: 5% NFDM/TBST, ab129002 was used as a loading control for Vinculin.
All lanes:
Western blot - Anti-Galectin 3 antibody [EP2775Y] (ab76245) at 1/1000 dilution

Lane 1:
RAW264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage) whole cell lysate at 20 µg

Lane 2:
Neuro-2a (mouse neuroblastoma neuroblast) whole cell lysate at 20 µg

Lane 3:
A431 (human epidermoid carcinoma epithelial cell) whole cell lysate at 20 µg

Lane 4:
HeLa (human cervix adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Lane 5:
SK-N-MC (human brain epithelial cell) whole cell lysate at 20 µg

Lane 6:
LNCaP (human prostate carcinoma epithelial cell) whole cell lysate at 20 µg

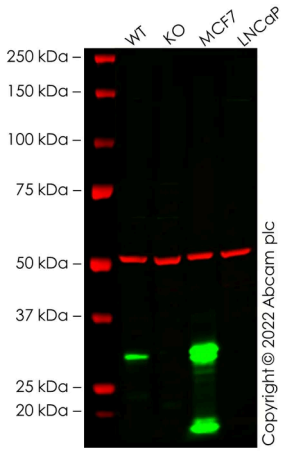
Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 26 kDa

Observed band size: 26 kDa

Exposure time: 26s



Western blot - Anti-Galectin 3 antibody [EP2775Y] - BSA and Azide free (ab197544)

False colour image of Western blot: Anti-Galectin 3 antibody [EP2775Y] staining at 1/5000 dilution, shown in green; Mouse anti-Alpha Tubulin [DM1A] (ab7291) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab76245 was shown to bind specifically to Galectin 3. A band was observed at 30 kDa in wild-type A549 cell lysates with no signal observed at this size in LGALS3 knockout cell line. To generate this image, wild-type and LGALS3 knockout A549 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution. This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76245).
All lanes:
Western blot - Anti-Galectin 3 antibody [EP2775Y] (ab76245) at 1/5000 dilution

Lane 1:
Wild-type A549 cell lysate at 20 µg

Lane 2:
LGALS3 knockout A549 cell lysate at 20 µg

Lane 3:
MCF7 cell lysate at 20 µg

Lane 4:
LNCaP cell lysate at 20 µg

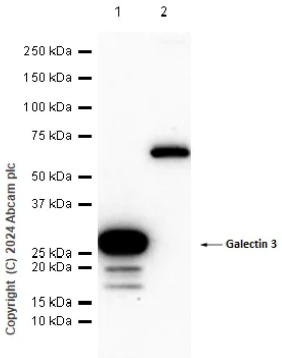
Secondary

All lanes:
Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution

Performed under reducing conditions.

Predicted band size: 26 kDa

Observed band size: 30 kDa



Western blot - Anti-Galectin 3 antibody [EP2775Y] - BSA and Azide free (ab197544)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76245).

Blocking and diluting buffer: 5% NFDM/TBST.

Gal-3 expression is low in the healthy brain (PMID: 34831271, PMID: 31006066).

All lanes:
Western blot - Anti-Galectin 3 antibody [EP2775Y] (ab76245) at 1/1000 dilution

Lane 1:
RAW264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage) whole cell lysate at 20 µg

Lane 2:
Mouse brain tissue lysate at 20 µg

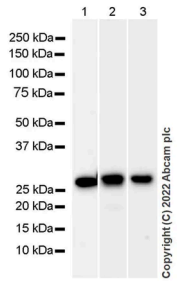
Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 26 kDa

Observed band size: 30 kDa

Exposure time: 40s



Western blot - Anti-Galectin 3 antibody [EP2775Y] - BSA and Azide free (ab197544)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76245). Blocking and diluting buffer and concentration: 5% NFDM/TBST. Exposure time: Lane 1: 180 seconds, Lanes 2 and 3: 15 seconds.
All lanes:
Western blot - Anti-Galectin 3 antibody [EP2775Y] (ab76245) at 1/1000 dilution

Lane 1:
C6 (rat glial tumor glial cell) whole cell lysate at 20 µg

Lane 2:
RAW264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage) whole cell lysate at 20 µg

Lane 3:
NIH/3T3 (mouse embryonic fibroblast) whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 26 kDa

Observed band size: 26 kDa

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