abcam

ab109519

Anti-Galectin 8/Gal-8 antibody [EPR4857]

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR4857
Purification technique	Affinity purification Protein A
Specificity	This antibody has weak cross-reactivity with Galectin 9.
Concentration	0.46 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/100 - 1/250
Notes	-

Not recommended

Species	Recombinant fragment
Dilution info	-
Notes	-

IP

Tested

Species	Human
Dilution info	1/10 - 1/100
Notes	-

Not recommended

Species	Recombinant fragment
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000 - 1/10000
Notes	-

Species	Recombinant fragment
Dilution info	1/1000 - 1/10000
Notes	-

ICC/IF

Tested

Species	Human

Dilution info	1/50 - 1/100
Notes	-

Not recommended

Species	Recombinant fragment
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/10 - 1/100
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Not recommended

Species	Recombinant fragment
Dilution info	-
Notes	-

Target data

See full target information LGALS8

Function	Beta-galactoside-binding lectin that acts as a sensor of membrane damage caused by infection and restricts the proliferation of infecting pathogens by targeting them for autophagy (PubMed:22246324, PubMed:28077878). Detects membrane rupture by binding beta-galactoside ligands located on the lumenal side of the endosome membrane; these ligands becoming exposed to the cytoplasm following rupture (PubMed:22246324, PubMed:28077878). Restricts infection by initiating autophagy via interaction with CALCOCO2/NDP52 (PubMed:22246324, PubMed:28077878). Required to restrict infection of bacterial invasion such as S.typhimurium (PubMed:22246324). Also required to restrict infection of Picornaviridae viruses (PubMed:28077878). Has a marked preference for 3'-O-sialylated and 3'-O-sulfated glycans (PubMed:21288902).

Storage

Shipped at conditions	Conditional Ambient
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
Storage information	Stable for 12 months at -20°C

Notes

Species reactivity
Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these 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.

Supplementary info

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

Activity summary	Galectin 8 also known as Gal-8 or GAL is a member of the galectin protein family which binds β-galactosides. The protein has another name anti-gal and possesses a molecular mass of approximately 36 kDa. It exhibits broad expression in various tissues including the immune system bones and gastrointestinal tract. Galectin-8 functions mechanically by binding to glycoproteins and glycolipids which facilitates cell adhesion and regulation processes.

Biological function summary	Galectin-8 impacts numerous cellular functions through its involvement in immunomodulation and cell migration. Gal-8 promotes adhesion between cells and the extracellular matrix. It is not a part of a larger protein complex but interacts with multiple cell surface receptors guiding them toward or away from specific locations. Galectins including Galectin-8 influence immune cell responses by managing the apoptosis of T-cells and modifying cytokine production.
Pathways	Galectin-8 engages in signaling pathways related to cellular adhesion and immune system modulation. It participates in the integrin-mediated cell adhesion pathway and contributes to the receptor signaling pathway associated with cytokines. Within these pathways Galectin-8 interacts with other proteins such as integrins and T-cell receptors influencing their activation internalization and cell surface retention.
Associated diseases and disorders	Galectin-8 plays roles in cancer progression and inflammatory conditions. It is connected to cancer as it regulates angiogenesis cell invasion and metastasis. Galectin-8 interacts with fibronectin and vascular endothelial growth factor (VEGF) within the context of cancer. In inflammatory diseases Gal-8 influences immune cell migration and inflammation through its action on cytokine receptors contributing to conditions like rheumatoid arthritis.

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

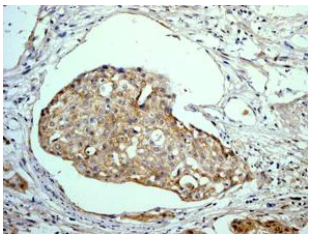
We do not recommend this combination. It is not covered by our product promise.

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.

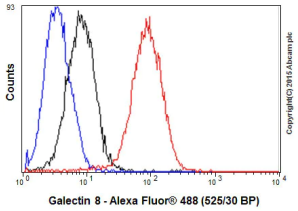
10 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Galectin 8/Gal-8 antibody [EPR4857] (ab109519)

Galectin 8/Gal-8 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Galectin 8/Gal-8 antibody

Unpurified ab109519, at a 1/100 dilution, staining Human prostatic adenocarcinoma, using Immunohistochemstry, Formalin/PFA-fixed paraffin-embedded tissue.
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

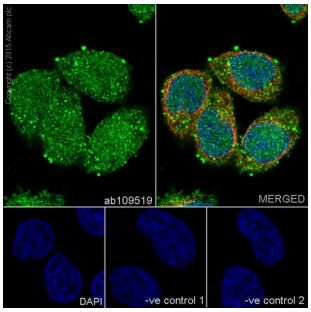


Flow Cytometry (Intracellular) - Anti-Galectin 8/Gal-8 antibody [EPR4857] (ab109519)

Galectin 8/Gal-8 Flow Cytometry (Intracellular) staining using rabbit Anti-Galectin 8/Gal-8 antibody

ab109519 staining Galectin 8/Gal-8 in the human cell line HEK293 (human embryonic kidney) by intracellular flow cytometry. Cells were fixed with 4% paraformaldehyde and the sample was incubated with the primary antibody at a dilution of 1/100. A goat anti rabbit IgG (Alexa Fluor® 488) at a dilution of 1/500 was used as the secondary antibody.
Isoytype control: Rabbit monoclonal IgG (Black)

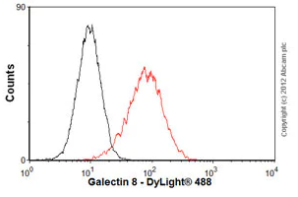
Unlabelled control: Cell without incubation with primary antibody and secondary antibody (Blue)



Immunocytochemistry/ Immunofluorescence - Anti-Galectin 8/Gal-8 antibody [EPR4857] (ab109519)

Galectin 8/Gal-8 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Galectin 8/Gal-8 antibody

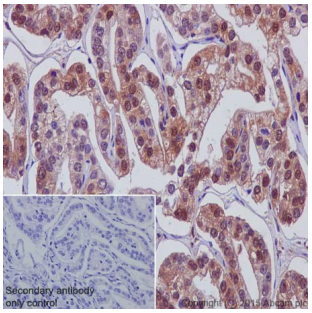
ab109519 staining Galectin 8/Gal-8 in HeLa (human cervix adenocarcinoma) cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with 4% Paraformaldehyde and permeabilized with 0.1% Triton X-100. Samples were incubated with primary antibody at a dilution of 1/100. A goat anti rabbit IgG (Alexa Fluor® 488) (ab150077) was used as the secondary antibody at a dilution of 1/1000. ab7291 and ab150120 were used as counterstains for primary antibody ab109519 and secondary antibody ab150077 respectively and DAPI was used as a nuclear counterstain.
Negative control 1: Rabbit primary antibody and anti-mouse secondary antibody (ab150120)
Negative control 2: Mouse primary antibody (ab7291) and anti-rabbit secondary antibody (ab150077)



Flow Cytometry (Intracellular) - Anti-Galectin 8/Gal-8 antibody [EPR4857] (ab109519)

Galectin 8/Gal-8 Flow Cytometry (Intracellular) staining using rabbit Anti-Galectin 8/Gal-8 antibody

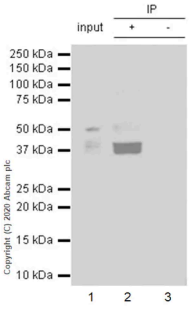
Overlay histogram showing HeLa cells stained with unpurified ab109519 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab109519, 1/100) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (ab96899) at 1/500 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. Acquisition of >5,000 events was performed.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Galectin 8/Gal-8 antibody [EPR4857] (ab109519)

Galectin 8/Gal-8 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Galectin 8/Gal-8 antibody

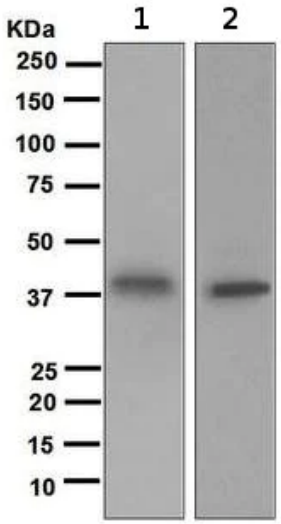
ab109519 staining Galectin 8/Gal-8 in human prostatic carcinoma tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with paraformaldehyde and antigen retrieval was by heat mediation in a EDTA buffer. Samples were incubated with primary antibody at a dilution of 1/250. A goat anti-rabbit IgG H&L (HRP) ab97051 was used as the secondary antibody at a dilution of 1/500.
Negative control 1: PBS in place of primary antibody.



Immunoprecipitation - Anti-Galectin 8/Gal-8 antibody [EPR4857] (ab109519)

Purified ab109519 at 1/30 dilution (2µg) immunoprecipitating Galectin 8/Gal-8 in HeLa whole cell lysate.
Lane 1 (input): HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate 10µg
Lane 2 (+): ab109519 + HeLa whole cell lysate.
Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab109519 in HeLa whole cell lysate.
VeriBlot for IP Detection Reagent (HRP) (ab131366) (1/10,000 dilution) was used for Western blotting.
Blocking Buffer and concentration: 5% NFDM/TBST.
Diluting buffer and concentration: 5% NFDM/TBST.
Observed band size: 36/40 kDa
All lanes:
Immunoprecipitation - Anti-Galectin 8/Gal-8 antibody [EPR4857] (ab109519)

Predicted band size: 36 kDa



Western blot - Anti-Galectin 8/Gal-8 antibody [EPR4857] (ab109519)

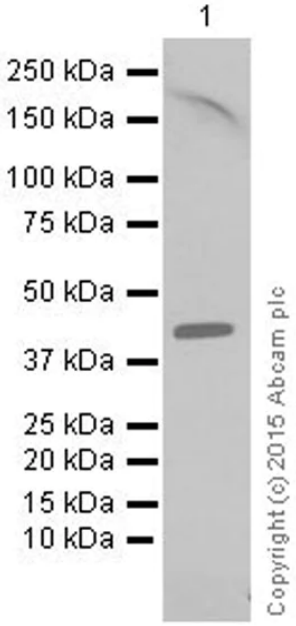
All lanes:
Western blot - Anti-Galectin 8/Gal-8 antibody [EPR4857] (ab109519) at 1/1000 dilution

Lane 1:
HepG2 cell lysate at 10 µg

Lane 2:
LNCaP cell lysate at 10 µg

Predicted band size: 36 kDa, 68 kDa

Observed band size: 68 kDa



Western blot - Anti-Galectin 8/Gal-8 antibody [EPR4857] (ab109519)

Galectin 8/Gal-8 Western blot staining of LNCAP (human prostat carcinoma) whole cell lysate using rabbit Anti-Galectin 8/Gal-8 antibody

Blocking and diluting buffer 5% NFDM/TBST
All lanes:
Western blot - Anti-Galectin 8/Gal-8 antibody [EPR4857] (ab109519) at 1/10000 dilution

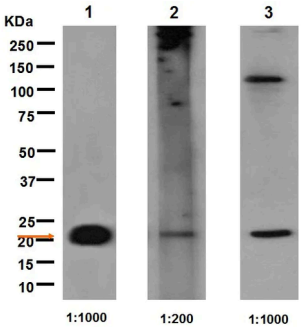
All lanes:
LNCAP (human prostat carcinoma) whole cell lysate at 10 µg

Secondary

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

Predicted band size: 36 kDa

Observed band size: 40 kDa



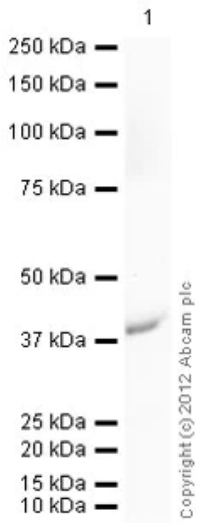
Western blot - Anti-Galectin 8/Gal-8 antibody [EPR4857] (ab109519)

ab109519 has weak cross-reactivity with Galectin 9.
Lanes 1 and 3:
unpurified at 1/1000 dilution

Lane 2:
Western blot - Anti-Galectin 8/Gal-8 antibody [EPR4857] (ab109519) at 1/200 dilution

All lanes:
Galectin 9 recombinant protein at 0.02 µg

Predicted band size: 36 kDa



Western blot - Anti-Galectin 8/Gal-8 antibody [EPR4857] (ab109519)

Galectin 8/Gal-8 Western blot staining using rabbit Anti-Galectin 8/Gal-8 antibody

All lanes:
Western blot - Anti-Galectin 8/Gal-8 antibody [EPR4857] (ab109519) at 1/5000 dilution

All lanes:
Western blot - Recombinant Human Galectin 8/Gal-8 protein (His tag N-Terminus) (ab99294) at 0.1 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (ab97080) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 36 kDa

Exposure time: 90s

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