abcam

ab314081

Anti-Galectin-9/Gal-9 antibody [BLR193J] - BSA free

Recombinant

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.8 - 8.6 Preservative: 0.09% Sodium azide Constituents: 98% Borate buffered saline
Form	Liquid
Clonality	Monoclonal
Immunogen	Synthetic Peptide within Human LGALS9 aa 300-400. The exact immunogen used to generate this antibody is proprietary information. Database link O00182
Clone number	BLR193J

Reactivity data

ICC

Tested

Species	Human, Mouse
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Human, Mouse
Dilution info	-
Notes	-

IHC-P

Tested

Species	Mouse, Human
Dilution info	-
Notes	-

WB

Tested

Species	Mouse, Human
Dilution info	-
Notes	-

Target data

See full target information LGALS9

Function

Binds galactosides (PubMed:18005988). Has high affinity for the Forssman pentasaccharide (PubMed:18005988). Ligand for HAVCR2/TIM3 (PubMed:16286920). Binding to HAVCR2 induces T-helper type 1 lymphocyte (Th1) death (PubMed:16286920). Also stimulates bactericidal activity in infected macrophages by causing macrophage activation and IL1B secretion which restricts intracellular bacterial growth (By similarity). Ligand for P4HB; the interaction retains P4HB at the cell surface of Th2 T-helper cells, increasing disulfide reductase activity at the plasma membrane, altering the plasma membrane redox state and enhancing cell migration (PubMed:21670307). Ligand for CD44; the interaction enhances binding of SMAD3 to the FOXP3 promoter, leading to up-regulation of FOXP3 expression and increased induced regulatory T (iTreg) cell stability and suppressive function (By similarity). Promotes ability of mesenchymal stromal cells to suppress T-cell proliferation (PubMed:23817958). Expands regulatory T-cells and induces cytotoxic T-cell apoptosis following virus infection (PubMed:20209097). Activates ERK1/2 phosphorylation inducing cytokine (IL-6, IL-8, IL-12) and chemokine (CCL2) production in mast and dendritic cells (PubMed:16116184, PubMed:24465902). Inhibits degranulation and induces apoptosis of mast cells (PubMed:24465902). Induces maturation and migration of dendritic cells (PubMed:16116184, PubMed:25754930). Inhibits natural killer (NK) cell function

(PubMed:23408620). Can transform NK cell phenotype from peripheral to decidual during pregnancy (PubMed:25578313). Astrocyte derived galectin-9 enhances microglial TNF production (By similarity). May play a role in thymocyte-epithelial interactions relevant to the biology of the thymus. May provide the molecular basis for urate flux across cell membranes, allowing urate that is formed during purine metabolism to efflux from cells and serving as an electrogenic transporter that plays an important role in renal and gastrointestinal urate excretion (By similarity). Highly selective to the anion urate (By similarity). Isoform 2. Acts as an eosinophil chemoattractant (PubMed:9642261). It also inhibits angiogenesis (PubMed:24333696). Suppresses IFNG production by natural killer cells (By similarity).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	Up to 12 months
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Notes

REACH authorisation
Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances.
It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.

Supplementary info

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

Activity summary	Galectin 9 also known as LGALS9 is a lectin with an approximate molecular mass of 39 kDa. This protein binds carbohydrates and plays key roles in cell signaling cell-cell interactions and immune responses. You can find Galectin 9 expressed in various tissues including lymphoid tissues the gastrointestinal tract and the liver. It interacts with glycoproteins on the cell surface contributing to diverse cellular processes.
Biological function summary	This protein modulates immune responses and induces apoptosis in certain cell types. Galectin 9 is not typically part of a stable complex but it interacts directly with other molecules influencing immunological activities. It supports interactions

	between various immune cells playing a part in the regulation of T-cell function and inflammatory responses thereby determining immune outcomes in the body.
Pathways	The protein interacts with T-cell immunoglobulin mucin 3 (TIM-3) in immune regulation pathways such as the autoimmune regulation pathway and the Th1/Th2 differentiation pathway. Through these interactions Galectin 9 affects cytokine production and the function of immune cells. This protein relates to important signaling events helping to modulate immune responses and maintain balance within immune systems.
Associated diseases and disorders	Research links Galectin 9 with cancer and autoimmune disorders. In cancer Galectin 9 influences tumor immunity partly through its interaction with TIM-3 affecting tumor elimination or growth. In autoimmune diseases like rheumatoid arthritis Galectin 9 impacts inflammatory responses possibly contributing to disease progression by modulating the activity of immune cells involved in autoimmunity.

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

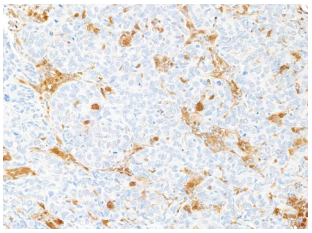
We do not recommend this combination. It is not covered by our product promise.

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.

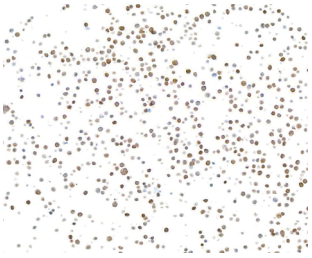
Full details and terms and conditions can be found here:
Terms & Conditions.

9 product images



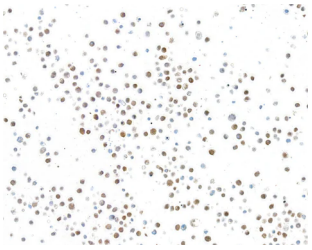
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Galectin-9/Gal-9 antibody [BLR193J] - BSA free (ab314081)

Detection of human Galectin-9/Gal-9 by immunohistochemistry. Sample: FFPE section of breast carcinoma. Antibody: Rabbit anti-Galectin-9/Gal-9 recombinant monoclonal antibody [BLR193J] (A700-193CF). Secondary: HRP-conjugated goat antirabbit IgG.



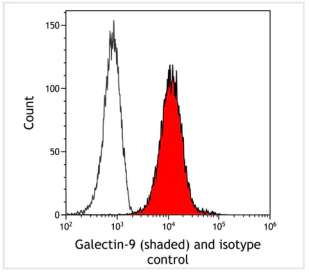
Immunocytochemistry - Anti-Galectin-9/Gal-9 antibody [BLR193J] - BSA free (ab314081)

Detection of human Galectin-9/Gal-9 by immunocytochemistry. Sample: FFPE section of jurkat cells. Antibody: Rabbit anti-Galectin-9/Gal-9 recombinant monoclonal antibody [BLR193J] (A700-193CF). Secondary: HRP-conjugated goat anti-rabbit IgG.



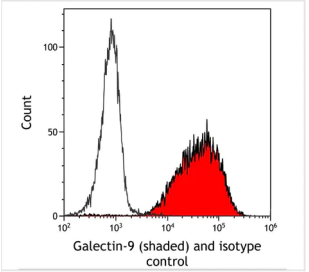
Immunocytochemistry - Anti-Galectin-9/Gal-9 antibody [BLR193J] - BSA free (ab314081)

Detection of human Galectin-9/Gal-9 by immunocytochemistry. Sample: FFPE section of HL-60 cells. Antibody: Rabbit anti-Galectin-9/Gal-9 recombinant monoclonal antibody [BLR193J] (A700-193CF). Secondary: HRP-conjugated goat anti-rabbit IgG.



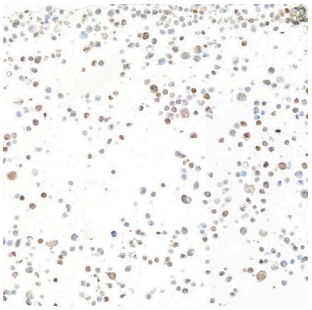
Flow Cytometry - Anti-Galectin-9/Gal-9 antibody [BLR193J] - BSA free (ab314081)

Detection of human Galectin-9/Gal-9 (shaded) in Jurkat cells by flow cytometry. Antibody: Rabbit anti-Galectin-9 recombinant monoclonal antibody [BLR193J] or isotype control (unshaded). Secondary: 650-conjugated goat anti-rabbit IgG



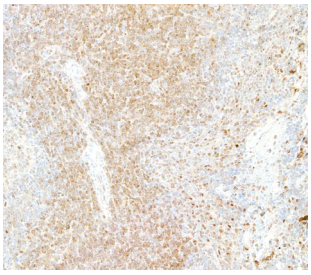
Flow Cytometry - Anti-Galectin-9/Gal-9 antibody [BLR193J] - BSA free (ab314081)

Detection of mouse Galectin-9/Gal-9 (shaded) in NIH3T3 cells by flow cytometry. Antibody: Rabbit anti-Galectin-9 recombinant monoclonal antibody [BLR193J] or isotype control (unshaded). Secondary: 650-conjugated goat anti-rabbit IgG



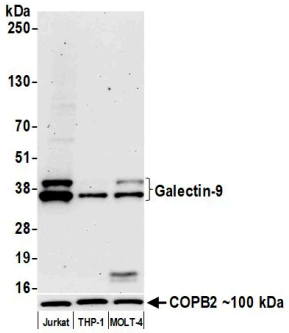
Immunocytochemistry - Anti-Galectin-9/Gal-9 antibody [BLR193J] - BSA free (ab314081)

Detection of mouse Galectin-9/Gal-9 by immunocytochemistry. Sample: FFPE section of BW5147.3 cells. Antibody: Rabbit anti-Galectin-9/Gal-9 recombinant monoclonal antibody [BLR193J] (A700-193CF). Secondary: HRP-conjugated goat anti-rabbit IgG.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Galectin-9/Gal-9 antibody [BLR193J] - BSA free (ab314081)

Detection of mouse Galectin-9/Gal-9 by immunohistochemistry. Sample: FFPE section of mouse spleen. Antibody: Rabbit anti-Galectin-9/Gal-9 recombinant monoclonal antibody [BLR193J] (A700-193CF). Secondary: HRP-conjugated goat antirabbit IgG.



Western blot - Anti-Galectin-9/Gal-9 antibody [BLR193J] - BSA free (ab314081)

Samples: Whole cell lysate (10 µg) from Jurkat, THP-1, and MOLT-4 cells prepared using NETN lysis buffer. Antibody: Rabbit anti-Galectin-9 recombinant monoclonal antibody [BLR193J] (A700-193CF) used at 1:1000. Secondary: HRP-conjugated goat anti-rabbit IgG. Chemiluminescence with an exposure time of 75 seconds. Lower Panel: Rabbit anti-COPB2 antibody.
All lanes:
Western blot - Anti-Galectin-9/Gal-9 antibody [BLR193J] - BSA free (ab314081) at 1/1000 dilution

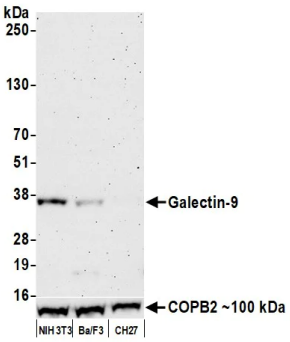
Lane 1:
Jurkat Whole cell lysate at 10 µg

Lane 2:
THP-1 Whole cell lysate at 10 µg

Lane 3:
MOLT-4 Whole cell lysate at 10 µg

Secondary

All lanes:
HRP-conjugated goat anti-rabbit IgG



Western blot - Anti-Galectin-9/Gal-9 antibody [BLR193J] - BSA free (ab314081)

Samples: Whole cell lysate (50 µg) from NIH 3T3, Ba/F3, and CH27 cells prepared using NETN lysis buffer. Antibody: Rabbit anti-Galectin-9 recombinant monoclonal antibody [BL-1675A-4A5] used at 1:1000. Secondary: HRP-conjugated goat anti-rabbit IgG. Chemiluminescence with an exposure time of 3 minutes.
All lanes:
Western blot - Anti-Galectin-9/Gal-9 antibody [BLR193J] - BSA free (ab314081) at 1/1000 dilution

Lane 1:
NIH 3T3 Whole cell lysate at 50 µg

Lane 2:
Ba/F3 Whole cell lysate at 50 µg

Lane 3:
CH27 Whole cell lysate at 50 µg

Secondary

All lanes:
HRP-conjugated goat anti-rabbit IgG

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