abcam

ab230377

Anti-LYVE1 antibody [EPR21771] - BSA and Azide free

Recombinant | RabMAb

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	EPR21771
Purification technique	Affinity purification Protein A
Concentration	1.013 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Mouse
Dilution info	-

Notes	-

Flow Cyt

Tested

Species	Mouse
Dilution info	-
Notes	-

WB

Expected

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

IHC-Fr

Tested

Species	Mouse
Dilution info	-
Notes	-

IHC-P

Tested

Species	Mouse
Dilution info	-
Notes	-

Target data

See full target information Lyve1

Function	Ligand-specific transporter trafficking between intracellular organelles (TGN) and the plasma membrane. Plays a role in autocrine regulation of cell growth mediated by growth regulators containing cell surface retention sequence binding (CRS). May act as a hyaluronan (HA) transporter, either mediating its uptake for catabolism within lymphatic endothelial cells themselves, or its transport into the lumen of afferent lymphatic vessels for subsequent re-uptake and degradation in lymph nodes (PubMed:10187853). Binds to pericelluar hyaluronan matrices deposited on the surface of leukocytes and facilitates cell adhesion and migration through lymphatic endothelium (By similarity).

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

ab230377 is the carrier-free version of ab218535.

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	The protein "LYVE1" also known as Lymphatic Vessel Endothelial Hyaluronan Receptor 1 has a molecular mass of about 60 kDa. This protein is located on the surface of lymphatic endothelial cells. Its expression occurs mainly within the lymphatic vessels serving as an important marker for identifying lymphatic endothelium. LYVE1 facilitates the transportation of hyaluronan an important glycosaminoglycan through lymphatic vessels playing a critical role in the maintenance of extracellular matrix and tissue fluid homeostasis.
Biological function summary	LYVE1 plays a role in lymphatic system regulation and immune cell trafficking. It forms part of a network that binds hyaluronan contributing to the regulation of cell migration and adhesion. This protein interacts with molecules like CD44 and other receptors which also participate in hyaluronan binding. LYVE1's function in maintaining the balance of hyaluronan within tissues is central affecting not only the lymphatic system but also immune responses.
Pathways	LYVE1 engages in both the hyaluronan metabolism and lymphangiogenesis pathways. Its interaction with CD44 plays a significant role in the transport and uptake of hyaluronan influencing cellular processes such as proliferation and motility. These interactions link LYVE1 to pathways controlling fluid balance and immune surveillance marking it as essential for maintaining healthy lymphatic and immune function.
Associated diseases and disorders	LYVE1 shows a connection to lymphatic-related conditions such as lymphedema and cancer metastasis. Alterations or dysregulation of LYVE1 expression can affect lymphatic function potentially leading to the accumulation of interstitial fluid as seen in lymphedema. In cancer increased LYVE1 expression can relate to tumor metastasis where it functions alongside proteins like VEGFR-3 in promoting lymphatic vessel growth and facilitating cancer cell spread.

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.

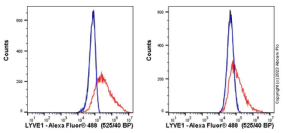
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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8 product images



Flow Cytometry - Anti-LYVE1 antibody [EPR21771] - BSA and Azide free (ab230377)

LYVE1 Flow Cytometry staining using rabbit Anti-LYVE1 antibody

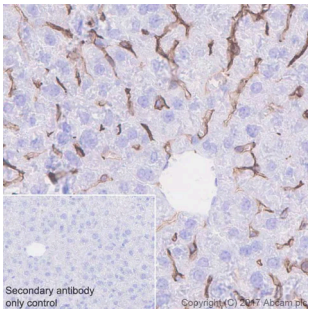
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab218535).

Flow cytometry overlay histogram showing left, bEND.3 treated with 100ng/mL TNF-alpha for 24h and right, negative untreated bEND.3 stained with ab218535 (red line). The cells were incubated in 1x PBS containing 10% normal goat serum to block non-specific protein-protein interactionfollowed by the antibody (ab218535) (1x 106 in 100µl at 10.0 µg/ml (1/209)) for 30min on ice.

The secondary antibody Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed was incubated at 1/4000 for 30min on ice

Isotype control antibody (black line) was Recombinant Rabbit IgG, monoclonal [EPR25A] - Isotype Control used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control.

Acquisition of >5000 events were collected using a 50 mW Blue laser (488nm) and 525/40 bandpass filter.



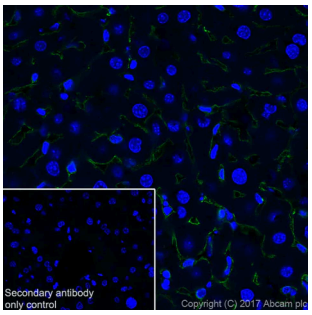
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LYVE1 antibody [EPR21771] - BSA and Azide free (ab230377)

LYVE1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-LYVE1 antibody

Immunohistochemical analysis of paraffin-embedded mouse liver tissue labeling LYVE1 with ab218535 at 1/5000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining on the endothelial surface of mouse hepatic sinusoids (PMID: 16353487; PMID: 11719431). Counter stained with Hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab218535).

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



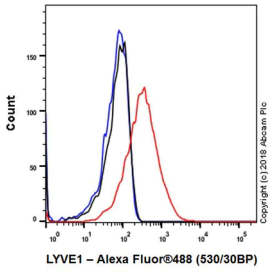
Immunohistochemistry (Frozen sections) - Anti-LYVE1 antibody [EPR21771] - BSA and Azide free (ab230377)

LYVE1 Immunohistochemistry (Frozen sections) staining using rabbit Anti-LYVE1 antibody

Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.2% Triton X-100 permeabilized frozen mouse liver tissue labeling LYVE1 with ab218535 at 1/500 dilution (green), followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Positive staining of the endothelium of sinusoid blood vessels on mouse liver tissue section (PMID: 11719431).
The nuclear counter stain is DAPI (blue).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab218535).

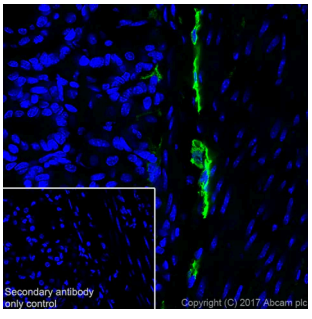


Flow Cytometry - Anti-LYVE1 antibody [EPR21771] - BSA and Azide free (ab230377)

LYVE1 Flow Cytometry staining using rabbit Anti-LYVE1 antibody

Flow cytometric analysis of bEnd.3 (mouse brain endothelioma cell line) cells labeling LYVE1 with ab218535 at 1/60 dilution (red) compared with a Rabbit IgG, monoclonal [EPR25A] - Isotype Control (ab172730) (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) at 1/2000 dilution was used as the secondary antibody.
Gated on total viable cells.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab218535).



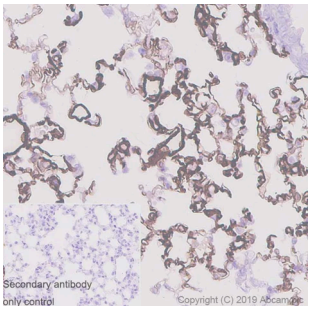
Immunohistochemistry (Frozen sections) - Anti-LYVE1 antibody [EPR21771] - BSA and Azide free (ab230377)

LYVE1 Immunohistochemistry (Frozen sections) staining using rabbit Anti-LYVE1 antibody

Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.2% Triton X-100 permeabilized frozen mouse stomach tissue labeling LYVE1 with ab218535 at 1/5000 dilution (green), followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Positive staining of the endothelium of lymph vessels in the submucosae on mouse stomach tissue section (PMID: 15705793).
The nuclear counter stain is DAPI (blue).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab218535).

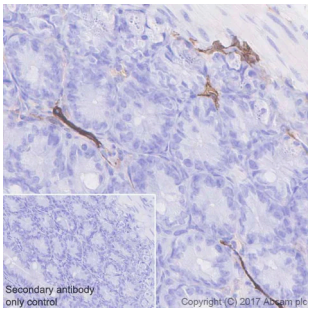


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LYVE1 antibody [EPR21771] - BSA and Azide free (ab230377)

LYVE1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-LYVE1 antibody

Immunohistochemical analysis of paraffin-embedded mouse lung tissue labeling LYVE1 with ab218535 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining on the lymphatic endothelial cells of mouse lung is observed. Counter stained with hematoxylin. Heat mediated antigen retrieval using ab93684 (Tris/EDTA buffer, pH 9.0).
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab218535).



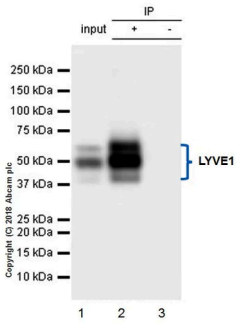
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LYVE1 antibody [EPR21771] - BSA and Azide free (ab230377)

LYVE1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-LYVE1 antibody

Immunohistochemical analysis of paraffin-embedded mouse colon tissue labeling LYVE1 with ab218535 at 1/5000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining on the lymphatic endothelium of mouse colon (PMID: 14722766). Counter stained with Hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab218535).

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunoprecipitation - Anti-LYVE1 antibody [EPR21771] - BSA and Azide free (ab230377)

LYVE1 was immunoprecipitated from 0.35 mg mouse lung lysate with ab218535 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab218535 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/5000 dilution.
Lane 1: Mouse lung lysate 10 µg (Input).

Lane 2: ab218535 IP in mouse lung lysate.

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab218535 in mouse lung lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 8 seconds.

Several bands are observed including soluble, glycosylated and non-glycosylated forms which are consistent with the literature (PMID: 26966180).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab218535).
All lanes:
Immunoprecipitation - Anti-LYVE1 antibody [EPR21771] (ab218535)

Predicted band size: 35 kDa

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