abcam

ab282748

Anti-LYVE1 antibody [RM1008] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 Constituents: PBS
Form	Liquid
Clonality	Multiclonal
Immunogens	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	RM1008
Purification technique	Affinity purification Protein A
Specificity	We do not recommend this antibody for IHC-P with human samples. We recommend instead ab219556.
Concentration	0.945 - 1.026 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Not recommended

Species	Mouse, Human, Rat

Dilution info	-
Notes	-

IP

Tested

Species	Mouse
Dilution info	-
Notes	-

Expected

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

Not recommended

Species	Rat
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Mouse
Dilution info	-
Notes	-

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Mouse, Human
Dilution info	-
Notes	-

Not recommended

Species	Rat
Dilution info	-
Notes	-

IHC-P

Tested

Species	Mouse
Dilution info	-
Notes	-

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

IHC-Fr

Tested

Species	Mouse
Dilution info	-
Notes	Heat mediated antigen retrieval using Tris-EDTA buffer (pH9.0)

Expected

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

Not recommended

Species	Rat
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:10037799). Binds to pericelluar hyaluronan matrices deposited on the surface of leukocytes and facilitates cell adhesion and migration through lymphatic endothelium (PubMed:26823460).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Notes

ab282748 is the carrier free version of ab281587.

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	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.

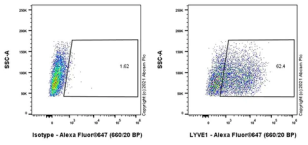
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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:
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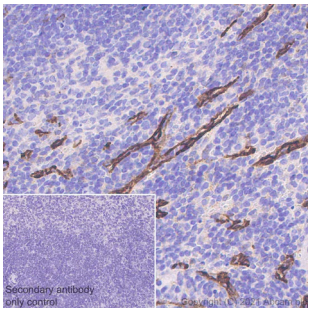
7 product images



Flow Cytometry - Anti-LYVE1 antibody [RM1008] - BSA and Azide free (ab282748)

LYVE1 Flow Cytometry staining using rabbit Anti-LYVE1 antibody

This data was produced using ab281587, the same clone but in a different formulation.
Flow cytometric analysis of bEnd.3 (mouse brain endothelioma) cells labelling LYVE1 with 281587 at 1/500 dilution (0.1ug)/ Right compared with a Rabbit monoclonal IgG (ab172730)/Left isotype control. Goat anti rabbit IgG (Alexa Fluor® 647, ab150079) at 1/2000 dilution was used as the secondary antibody. Gated on viable cells. Partial LYVE1 expression on bEnd.3 cells is reported in literature (PMID: 25282873).



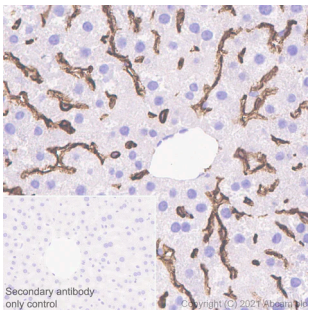
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LYVE1 antibody [RM1008] - BSA and Azide free (ab282748)

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

This data was produced using ab281587, the same clone but in a different formulation.
Immunohistochemical analysis of paraffin-embedded Mouse spleen tissue labelling LYVE1 with ab281587 at 1/2000 dilution (0.293 ug/ml) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Positive staining on endothelial vessels of mouse spleen. The section was incubated with ab281587 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



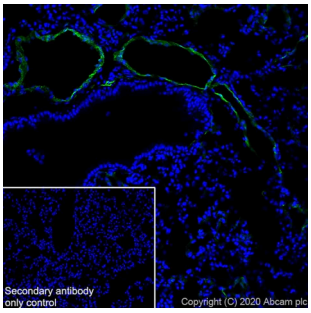
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LYVE1 antibody [RM1008] - BSA and Azide free (ab282748)

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

This data was produced using ab281587, the same clone but in a different formulation. Immunohistochemical analysis of paraffin-embedded Mouse liver tissue labelling LYVE1 with ab281587 at 1/2000 dilution (0.293 ug/ml) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Positive staining on blood sinusoids of mouse liver. The section was incubated with ab281587 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



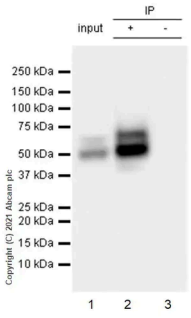
Immunohistochemistry (Frozen sections) - Anti-LYVE1 antibody [RM1008] - BSA and Azide free (ab282748)

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

This data was produced using ab281587, the same clone but in a different formulation. Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen Mouse lung tissue labeling LYVE1 with ab281587 at 1/2000 dilution (0.228 ug/ml), followed by ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution (Green). Positive staining on mouse lung is observed. The nuclear counterstain was DAPI (Blue).

Secondary antibody control: Secondary antibody is ab150077 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.

Heat mediated antigen retrieval using Tris-EDTA buffer (pH9.0) (ab94681).



Immunoprecipitation - Anti-LYVE1 antibody [RM1008] - BSA and Azide free (ab282748)

This data was produced using ab281587, the same clone but in a different formulation. LYVE1 was immunoprecipitated from 0.35 mg Mouse lung lysate with ab281587 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab281587 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP)(ab131366) was used at 1/5000 dilution.

Lane 1: Mouse lung lysate 10ug

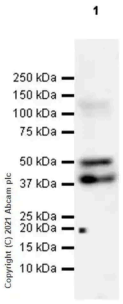
Lane 2: ab281587 IP in Mouse lung lysate

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab281587 in Mouse lung lysate

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

Exposure time: 3 seconds.
All lanes:
Immunoprecipitation - Anti-LYVE1 antibody [RM1008] - BSA and Azide free (ab282748)

Predicted band size: 35 kDa



Western blot - Anti-LYVE1 antibody [RM1008] - BSA and Azide free (ab282748)

LYVE1 Western blot staining of A549 (Human lung carcinoma epithelial cell) whole cell lysate using rabbit Anti-LYVE1 antibody

This data was produced using ab281587, the same clone but in a different formulation.
Blocking and diluting buffer and concentration: 5% NFDM/TBST

Exposure time: 3 min.

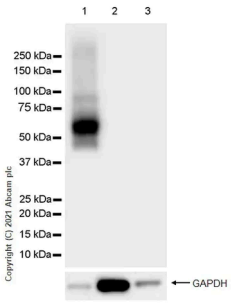
All lanes:
Western blot - Anti-LYVE1 antibody [RM1008] - BSA and Azide free (ab282748) at 1/1000 dilution

All lanes:
A549 (Human lung carcinoma epithelial cell) whole cell lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/5000 dilution

Predicted band size: 35 kDa



Western blot - Anti-LYVE1 antibody [RM1008] - BSA and Azide free (ab282748)

LYVE1 Western blot staining using rabbit Anti-LYVE1 antibody

This data was produced using ab281587, the same clone but in a different formulation.
Blocking and diluting buffer and concentration: 5% NFDM/TBST

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

Exposure time: 37 seconds

Lanes 1 and 3:
Mouse lung lysate at 20 µg

Lane 2:
Mouse brain lysate at 20 µg

Secondary

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

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