abcam

ab281587

Anti-LYVE1 antibody [RM1008]

Anti-LYVE1 antibody [RM1008] (ab281587) is a rabbit recombinant multiclonal antibody detecting LYVE1 in **Western Blot, Flow Cytometry, IP, IHC-P, IHC-Fr**. Suitable for **Human, Mouse**.

- Biophysical QC for unrivalled batch-batch consistency

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Multiclonal
Immunogens	The exact immunogen used to generate this antibody is proprietary information.
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	0.501 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	1/30
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	1/500
Notes	-

Not recommended

Species	Human, Rat
Dilution info	-

Notes	-

WB

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Rat
Dilution info	-
Notes	-

IHC-Fr

Tested

Species	Mouse
Dilution info	1/2000
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	-

IHC-P

Tested

Species	Mouse
Dilution info	1/2000
Notes	-

Not recommended

Species	Rat, Human
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 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	Avoid freeze / thaw cycle

Notes

What is this antibody validated in?
Anti-LYVE1 antibody [RM1008] (ab281587) is a rabbit recombinant recombinant multiclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Flow Cyt), Immunoprecipitation (IP), Immunohistochemistry (IHC-P), Immunohistochemistry (IHC-Fr) in Human, Mouse samples.

What is the molecular weight of LYVE1?
Anti-LYVE1 [RM1008] (ab281587) specifically detects a band for LYVE1 (UniProt: Q9Y5Y7) at a molecular weight of 35kDa.

Other related products
We have a range of other formats of antibody clone [RM1008] also available for your convenience: ab281587, Carrier free - ab282748

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.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size antibodies.

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

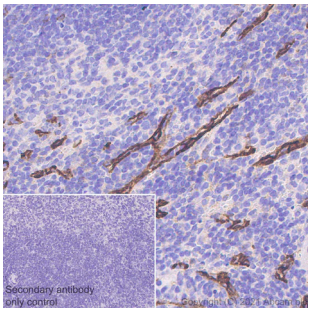
We do not recommend this combination. It is not covered by our product promise.

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.

7 product images

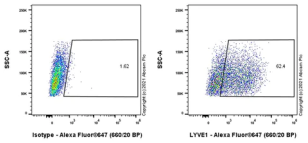


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LYVE1 antibody [RM1008] (ab281587)

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

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).

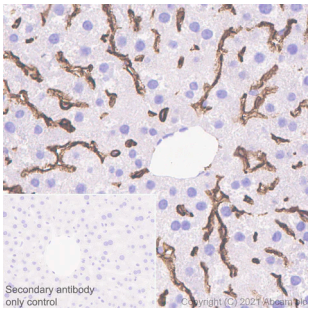
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



Flow Cytometry - Anti-LYVE1 antibody [RM1008] (ab281587)

LYVE1 Flow Cytometry staining using rabbit Anti-LYVE1 antibody

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).

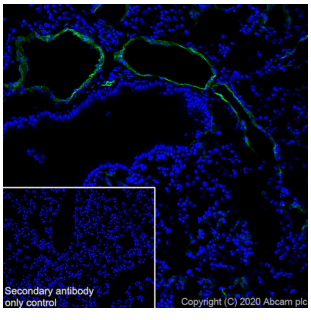


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LYVE1 antibody [RM1008] (ab281587)

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

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.



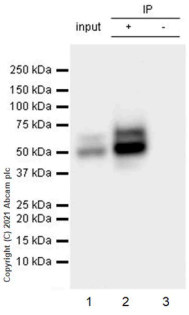
Immunohistochemistry (Frozen sections) - Anti-LYVE1 antibody [RM1008] (ab281587)

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

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] (ab281587)

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

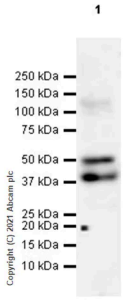
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 3 seconds.

All lanes:
Immunoprecipitation - Anti-LYVE1 antibody [RM1008] (ab281587)

Predicted band size: 35 kDa

Observed band size: 50-70 kDa



Western blot - Anti-LYVE1 antibody [RM1008] (ab281587)

Blocking and diluting buffer and concentration: 5% NFDM/TBST
Exposure time: 3 min.

All lanes:
Western blot - Anti-LYVE1 antibody [RM1008] (ab281587) at 1/1000 dilution

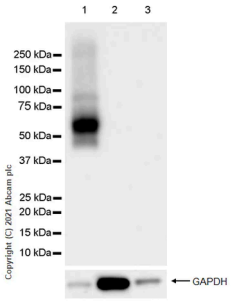
All lanes:
A549 (Human lung carcinoma epithelial cell) whole cell lysate at 20 µg

Secondary

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

Predicted band size: 35 kDa

Observed band size: 50-70 kDa



Western blot - Anti-LYVE1 antibody [RM1008] (ab281587)

LYVE1 Western blot staining using rabbit Anti-LYVE1 antibody

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
All lanes:
Western blot - Anti-LYVE1 antibody [RM1008] (ab281587) at 1/1000 dilution

Lane 1:
Mouse lung lysate at 20 µg

Lane 2:
Mouse brain lysate at 20 µg

Lane 3:
Rat lung lysate at 20 µg

Secondary

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

Predicted band size: 35 kDa

Observed band size: 50-70 kDa

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