abcam

ab10278

Anti-LYVE1 antibody

Anti-LYVE1 antibody (ab10278) is a rabbit polyclonal antibody detecting LYVE1 in **Western Blot, Flow Cytometry, IHC-P, IHC-Fr**. Suitable for **Human**.

- Over 10 publications
- Trusted since 2004

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	Constituents: PBS
Form	Liquid
Clonality	Polyclonal
Immunogen	Recombinant Fragment Protein within Human LYVE1 aa 1-250. The exact immunogen used to generate this antibody is proprietary information. Database link Q9Y5Y7
Carrier free	Yes
Purification technique	Affinity purification Protein A
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Protein-A Chromatography (+his tag depleted).

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Rat
Dilution info	-
Notes	-

Not recommended

Species	Recombinant full length protein - Human
Dilution info	-
Notes	-

WB

Tested

Species	Recombinant full length protein - Human
Dilution info	1-2 µg/mL
Notes	-

Expected

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

Predicted

Species	Rat
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	2 µg/mL
Notes	-

Predicted

Species	Rat
Dilution info	-
Notes	-

Not recommended

Species	Recombinant full length protein - Human
Dilution info	-
Notes	-

IHC-Fr

Tested

Species	Human
Dilution info	6-30 µg/mL
Notes	Fix sections for 10 min at -20°C in MeOH.

Predicted

Species	Rat
Dilution info	-
Notes	-

Not recommended

Species	Recombinant full length protein - 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 (ab10278) is a rabbit polyclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Flow Cyt), Immunohistochemistry (IHC-P), Immunohistochemistry (IHC-Fr) in Human samples.

What is the molecular weight of LYVE1?
Anti-LYVE1 (ab10278) specifically detects a band for LYVE1 (UniProt: Q9Y5Y7) at a molecular weight of 35kDa.

Trusted by the scientific community
Anti-LYVE1 (ab10278) was first used in a scientific publication in 2004 and has been cited over 10 times in peer-reviewed journals.

Reviewed by scientists
Anti-LYVE1 (ab10278) has over 5 independent reviews from customers.

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.

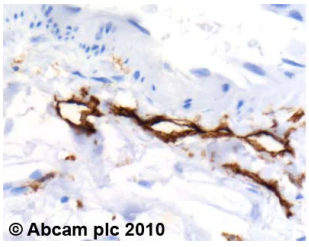
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

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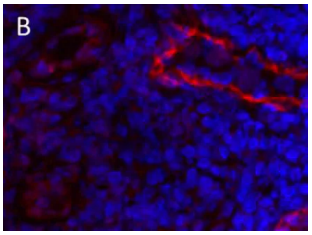
6 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LYVE1 antibody (ab10278)

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

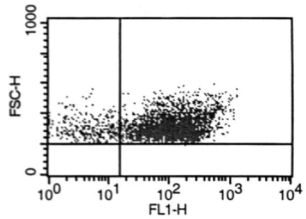
ab10278 (2µg/ml) staining LYVE1 in human colon using an automated system (DAKO Autostainer Plus). Using this protocol there is lymphatic endothelium staining of lymphatic ducts where blood vessel endothelium and smooth muscle is wholly negative.
Sections were rehydrated and antigen retrieved with the Dako 3-in-1 AR buffer citrate pH 6.0 in a DAKO PT Link. Slides were peroxidase blocked in 3% H2O2 in methanol for 10 minutes. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 minutes and detected with Dako Envision Flex amplification kit for 30 minutes. Colorimetric detection was completed with Diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX. Please note that, for manual staining, optimization of primary antibody concentration and incubation time is recommended. Signal amplification may be required.



Immunohistochemistry (Frozen sections) - Anti-LYVE1 antibody (ab10278)

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

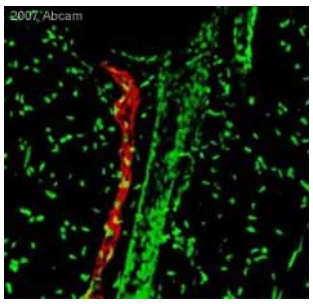
Immunohistochemistry (Frozen sections) analysis of human colon carcinoma tissue sections labelling LYVE1 with ab10278.



Flow Cytometry - Anti-LYVE1 antibody (ab10278)

LYVE1 Flow Cytometry staining using rabbit Anti-LYVE1 antibody

Flow Cytometry analysis of human dermal microvascular endothelial cells (HDMVEC) labelling LYVE1 with ab10278.

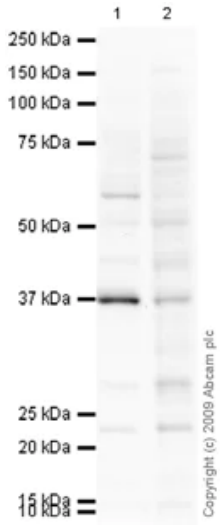


This image is courtesy of a customer review submitted by Dr Vyacheslav Ogay

Immunohistochemistry (Frozen sections) - Anti-LYVE1 antibody (ab10278)

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

Rat skin was fixed with paraformaldehyde in 15% saturated picric acid solution for 4hr. Prior to sectioning, the specimen was infiltrated in O.C.T. and frozen in isopentane. The frozen specimen was sectioned these were rinsed in PBS for 15 min to remove O.C.T. and incubated in a 3% sodium deoxycholate solution. The specimens were rinsed twice with distilled water and then with PBS three times. The sections were incubated in 10% normal goat serum for 12 hr at 4°C, then for 12 hr with ab10278. After washing with PBS, the specimens were incubated with Alexa Fluor® 555-conjugated goat anti-rabbit IgG (H+L) (1:500), for 12 hr at 4°C. The cell nuclei were counterstained with YoYo-1. Images were obtained by using confocal microscope.



Western blot - Anti-LYVE1 antibody (ab10278)

LYVE-1 contains a number of potential glycosylation sites (SwissProt) which may explain its migration at a higher molecular weight than predicted.
All lanes:
Western blot - Anti-LYVE1 antibody (ab10278) at 1 µg/mL

Lane 1:
A549 (Human lung adenocarcinoma epithelial cell line) Whole Cell Lysate at 10 µg

Lane 2:
HepG2 (Human hepatocellular liver carcinoma cell line) Whole Cell Lysate at 10 µg

Secondary

All lanes:
Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

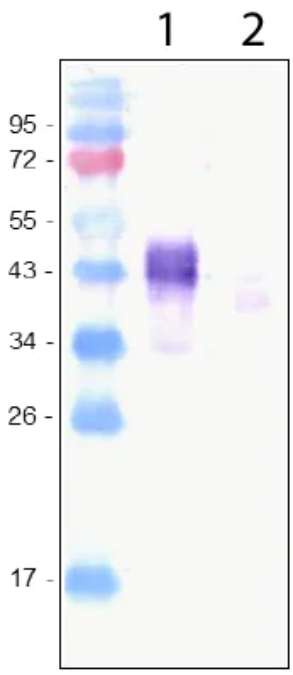
Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 35 kDa

Observed band size: 22 kDa, 37 kDa, 55 kDa

Exposure time: 4min



Western blot - Anti-LYVE1 antibody (ab10278)

All lanes:
Western blot - Anti-LYVE1 antibody (ab10278)

Lane 1:
Recombinant Human LYVE1 protein (ab54341)

Lane 2:
Recombinant Mouse LYVE1 protein (ab54342)

Predicted band size: 35 kDa

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