ReliaTech GmbH

Specification/Data Sheet

Anti-mouse LYVE-1

20201117DS

FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	**103-PA50**
Size:	200 µg
Lot. No.:	According to product label
Country of origin:	Germany

Preparation: Produced from sera of rabbits pre-immunized with highly pure (>95%) recombinant mouse soluble LYVE-1 (Ala24-Gly228) derived from insect cells.

Target Background

Synonyms:	Lymphatic vessel endothelial hyaluronic acid receptor 1

LYVE-1 has been identified as a major receptor for HA (extracellular matrix glycosaminoglycan hyaluronan) on the lymph vessel wall. The deduced amino acid sequence of LYVE-1 predicts a 322-residue type I integral membrane polypeptide 41% similar to the CD44 HA receptor with a 212-residue extracellular domain containing a single Link module the prototypic HA binding domain of the Link protein superfamily. Like CD44, the LYVE-1 molecule binds both soluble and immobilized HA. However, unlike CD44, the LYVE-1 molecule co-localizes with HA on the luminal face of the lymph vessel wall and is completely absent from blood vessels. Hence, LYVE-1 is the first lymph-specific HA receptor to be characterized and is a uniquely powerful marker for lymph vessels themselves.

References

1. Henri O et al., Circulation, March 2016
2. Carriera et al., Cancer Res 61:8079, 2001
3. Jackson DG Trends Cardiovasc Med 13:1, 2003
4. Sleeman et al., Microsc Res Tech 55:61, 2001
5. Mäkinen et al., EMBO J 20 : 4762, 2001

Database References Antigen

Protein RefSeq:	NP_444477.2
Uniprot ID:	Q8BHCo
mRNA RefSeq:	NM_053247.4

Product Specifications

Species reactivity	mouse
Clone/Ab feature	Rabbit IgG
Cross reactivity	ND
Host	rabbit
Clonality	polyclonal
Purification	Protein A purified
Immunogen	Recombinant mouse soluble LYVE-1 (RT #S01-026)
Formulation	lyophilized
Buffer	PBS

Stability: The lyophilized antibody is stable for at least 2 years at -20°C. After sterile reconstitution the antibody is stable at 2-8°C for up to 6 months. Frozen aliquots are stable for at least 6 months when stored at -20°C. Addition of a carrier protein or 50% glycerol is recommended for frozen aliquots.

Reconstitution: Centrifuge vial prior to opening. Reconstitute in sterile water to a concentration of 0.1-1.0 mg/ml.

AVOID REPEATED FREEZE AND THAW CYCLES!

Applications

Western Blot:	Use 1-5 µg/ml
ELISA:	Use at 1-15 µg/ml
FACS	Use at 3-10 µg(ml
IF/IHC	Works with cryo-sections.

NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!

Anti-mouse LYVE-1

Handling/Applications

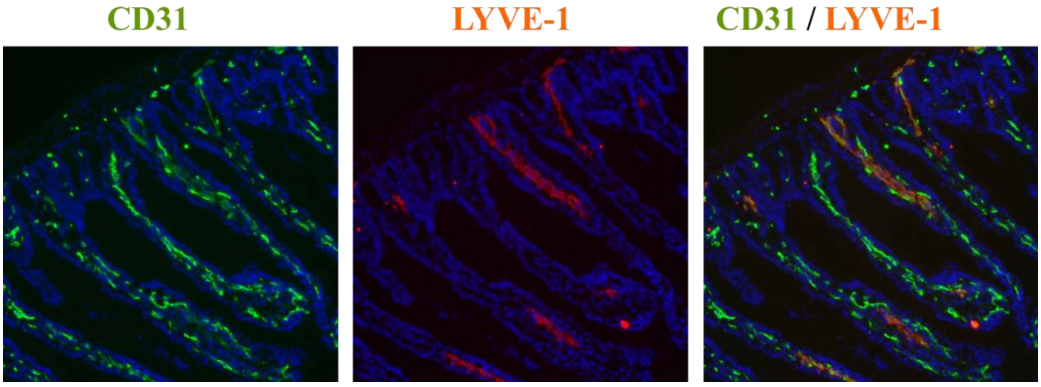

Fig. 1. Cryo sections of mouse colon carcinoma labeled with rabbit polyclonal antibody against mouse LYVE-1 (red) [Cat# 103-PA50] and human CD31 (green). **A:** CD31; **B:** LYVE-1; **C:** CD31/LYVE-1
The experiments were performed by Dr. Ulrike Fiedler and Stefanie Koidel, Dept. of Vascular Biology and Angiogenesis Research Tumor Biology Center, Breisacher Str. 117, D-79106 Freiburg, Germany

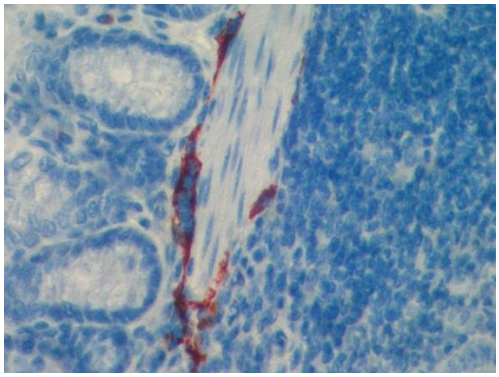

Fig. 2: Immunohistochemistry with paraffin-embedded sections of mouse intestine with a polyclonal antibody directed against mouse LYVE-1. You see the staining (red) of lymphatic endothelial cells of the intestine.
The experiments has been performed by Dr. Karsten Debel, DCS, Hamburg, Germany.

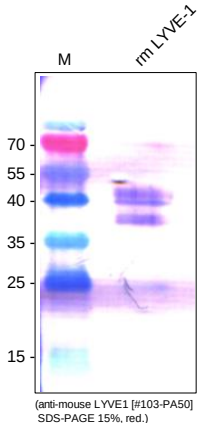

Fig. 3: Western Analysis of anti-mouse LYVE-1. Sample was loaded in 15% SDS-polyacrylamide gel under reducing conditions.

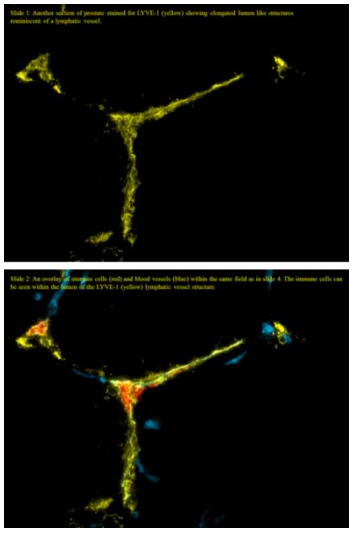

Fig. 4: LYVE1/CD31 staining on frozen sections of the mouse prostate.
The experiments were performed by Scott Gerber & Edith Lord, PhD, University of Rochester, USA

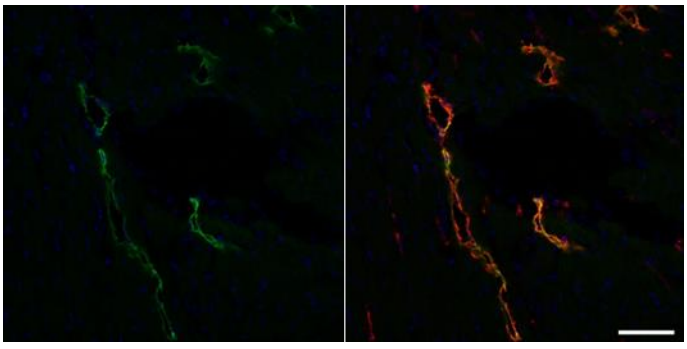

Fig. 5: Rat cardiac lymphatic microvessels, labeled with an antibody against rat Podoplanin [Cat# 104-M40] (left panel) and a antibody against mouse LYVE-1 (right panel). Image was obtained at 20x magnification on a Zeiss fluorescence microscope. Scale bar = 50 µm. The used protocol in short was: 1. Blockage of nonspecific binding; 2. Incubation with primary abs : anti-mouse Lyve1 (1:1000) / mouse anti-Podoplanin (1:400) for 60 min at RT; 3. Incubation with secondary abs: Donkey anti-rabbit Cy3 and Donkey anti-mouse FITC, 30 min at RT; 4. Mounting in DAPI-containing medium for cell nuclei labeling.
The experiments were performed by the research group of Prof. Dr. E. Brakenhielm – Rouen University (see also: Henri O et al., Circulation, March 2016, DOI: 10.1161).