Anti-mouse LYVE-1

20150410BB

FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	**103-PA50AG**
Size:	50 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. Carriera et al., Cancer Res 61:8079, 2001
2. Jackson DG Trends Cardiovasc Med 13:1, 2003
3. Sleeman et al., Microsc Res Tech 55:61, 2001
4. 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	rat tissue
Host	rabbit
Clonality	polyclonal
Purification	Antigen affinity purified
Immunogen	Recombinant mouse soluble LYVE-1 (RT #S01-026)
Formulation	lyophilized
Buffer	PBS

Stability: The lyophilized antibody is stable at room temperature for up to 1 month. The reconstituted antibody is stable for at least two weeks at 2 - 8 °C. Frozen aliquots are stable for at least 6 months when stored at -20 °C.

Reconstitution: Centrifuge vial prior to opening. Reconstitute in sterile water to a concentration of 0.1 - 1 mg/ml.

AVOID REPEATED FREEZE AND THAW CYCLES!

Applications

Western Blot:	Use 2-5 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!

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Handling/Applications

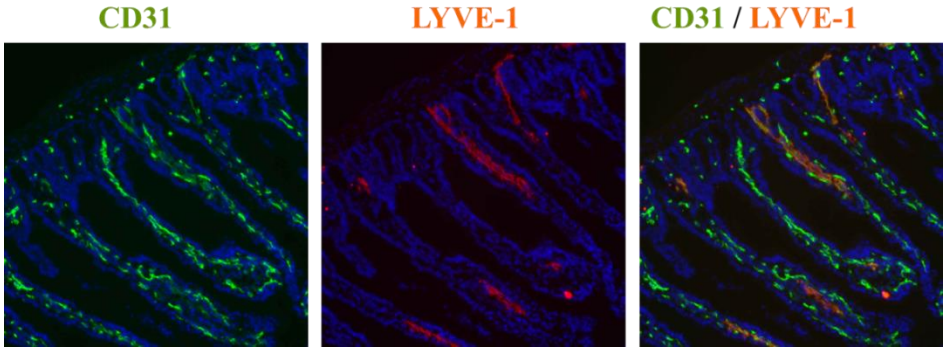

Fig. 1: Cryo sections of mouse colon carcinoma labeled with rabbit polyclonal antibody against mouse LYVE-1 (red) [Cat# 103-PA50] and human CD31 (green). **A:** CD31; **B:** LYVE-1; **C:** CD31/LYVE-1

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

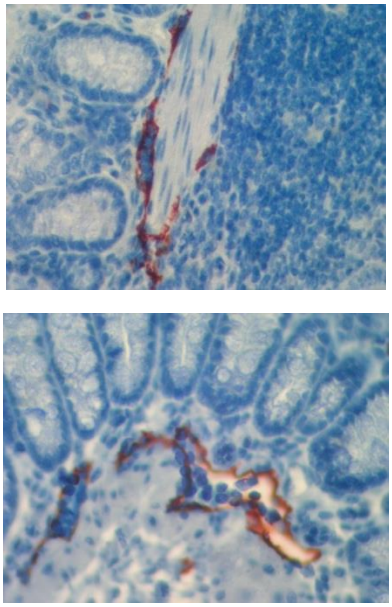

Fig. 2: Immunohistochemistry with paraffin-embedded sections of mouse intestine with a polyclonal antibody directed against mouse LYVE-1. You see the staining (red) of lymphatic endothelial cells of the intestine.

The experiments has been performed by Dr. Karsten Debel, DCS, Hamburg, Germany.

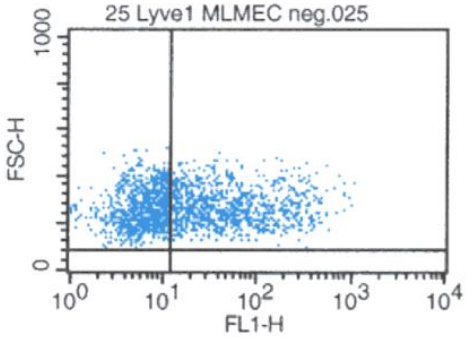

Fig. 3: FACS analysis with primary mouse lung microvascular endothelial cells (MLMEC).

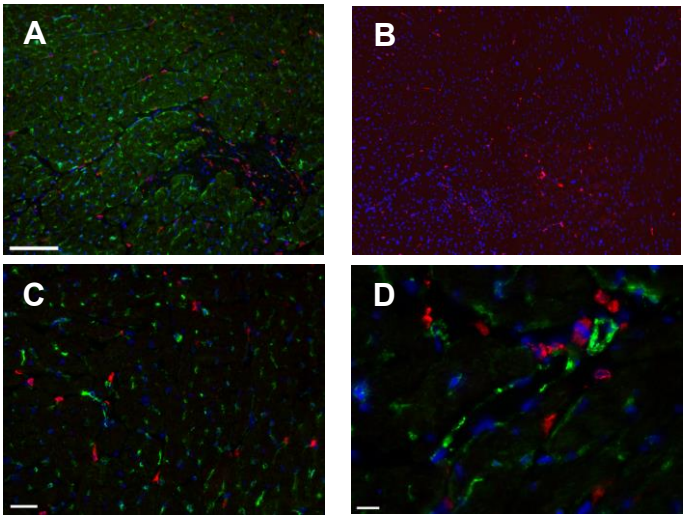

Fig. 4: Rat cardiac lymphatic microvessels labeled with antibodies against mouse LYVE-1 (red), and adjacent blood vessels, labeled with antibodies against CD31 (green). Nuclear stain in blue. Images were obtained at 10x magnification on a Zeiss fluorescence microscope. Scale bar = 100 µm (A, B); 20x and 40x magnification, Scale bar = 50 µm (C, D). **Note:** The anti-mouse Lyve-1 polyclonal antibody (Cat# 103-PA50AG) shows a strong cross reaction with rat LYVE-1 protein.

The experiment was performed by the research group INSERMU1096 in Rouen, France directed by Dr Vincent Richard.