Anti-human LYVE-1

20140414BB

FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	**102-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 human LYVE-1 (Ser24-Gly232) from insect cells.

Target Background

Synonyms:	Lymphatic vessel endothelial hyaluronic acid receptor1

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 colocalizes 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_006682.2
Uniprot ID:	Q9Y5Y7
mRNA RefSeq:	NM_006691.3

Product Specifications

Species reactivity	human
Clone/Ab feature	rabbit IgG
Cross reactivity	ND
Host	rabbit
Clonality	polyclonal
Purification	Antigen affinity purified
Immunogen	Recombinant human sLYVE-1 (RT #S01-028)
Formulation	lyophilized
Buffer	5 mM PBS, pH 7.2

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 0.1-1.0 mg/ml.

AVOID REPEATED FREEZE AND THAW CYCLES!

Applications

Western Blot:	Use 1-2 µg(ml
IF/IHC:	Use 6-30µg/ml1:200
FACS	Use 3-10 µg/ml

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

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Handling/Applications

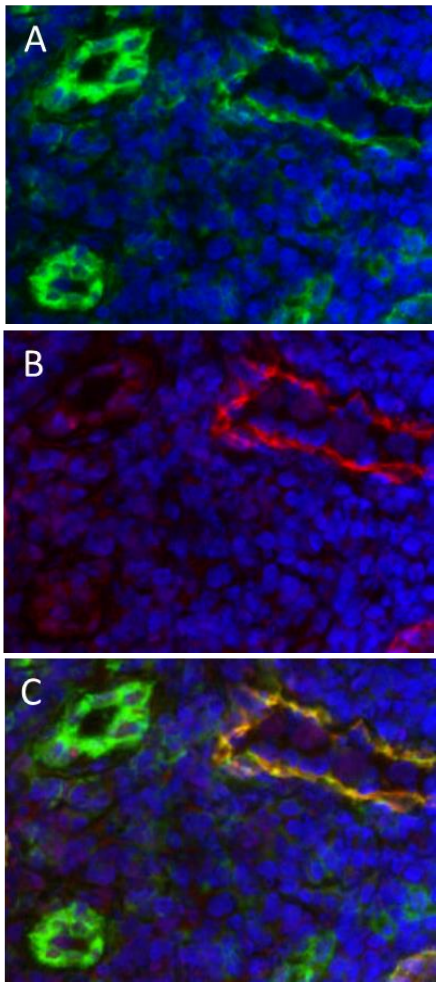

Figure 1. Cryo sections of human colon carcinoma labeled with rabbit polyclonal antibody against human LYVE-1 (red) [Cat# 102-PA50] and human CD31 (green).
A: CD31; **B:** LYVE-1; **C:** CD31/LYVE-1

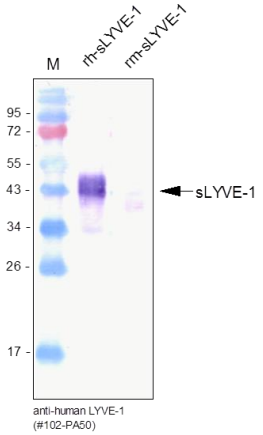

Figure 2. Western analysis of recombinant human sLYVE-1 [Cat# S01-028] and mouse sLYVE-1 [Cat# S01-026] using an anti-human LYVE-1 polyclonal antibody [Cat# 102-PA50] directed against the extracellular domain of human LYVE-1. There is more or less no cross reactivity with mouse LYVE-1.

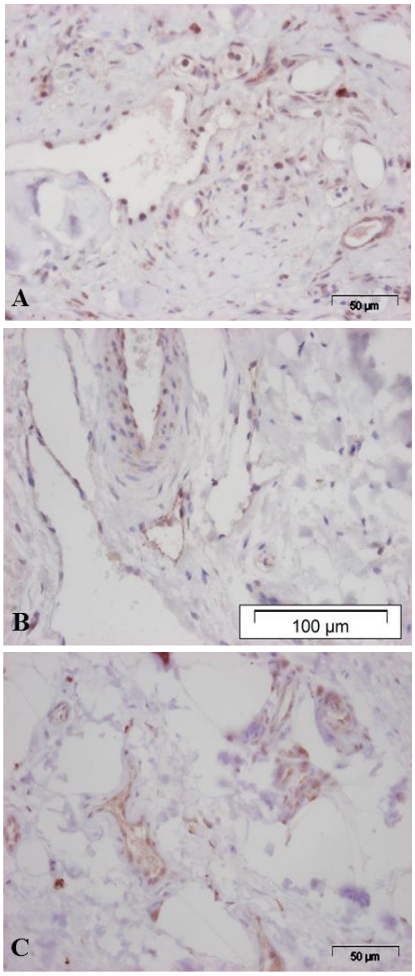

Figure 3. Immunohistochemical staining of the lymphatic vessels with anti-human LYVE-1 polyclonal antibody. (A) malignant canine mammary tumor; (B) benign canine mammary tumor; (C) normal canine mammary gland tissue.

The experiment was performed by the research group of Applied Veterinary Morphology – University of Antwerp

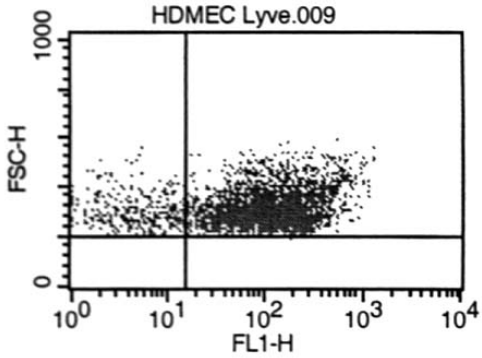

Figure 2. FACS analysis with primary human dermal microvascular endothelial cells (HDMVEC).