



### Anti-human LYVE-1

20131113BB



**FOR RESEARCH ONLY! NOT FOR HUMAN USE!**

<b>Cat.-no.:</b>	<b>102-PA50</b>
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 human LYVE-1 (Ser24-Gly232) from insect cells.

### Target Background

<b>Synonyms:</b>	Lymphatic vessel endothelial hyaluronic acid receptor1
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A DNA sequence encoding the extracellular domain of human LYVE-1 (Met1 to Gly232) was fused to a C-terminal His-tag (6xHis) and expressed in insect cells. Based on N-terminal sequence analysis, the primary structure of recombinant mature sLYVE-1 starts at Ser24. sLYVE-1 has a calculated monomeric molecular mass of about 25kDa but as a result of glycosylation, migrates at approximately 35 - 45 kDa under reducing conditions in SDS-PAGE.

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

<b>Protein RefSeq:</b>	NP_006682.2
<b>Uniprot ID:</b>	Q9Y5Y7
<b>mRNA RefSeq:</b>	NM_006691.3

### Product Specifications

<b>Species reactivity</b>	human
<b>Clone/Ab feature</b>	rabbit IgG
<b>Cross reactivity</b>	ND
<b>Host</b>	rabbit
<b>Clonality</b>	polyclonal
<b>Purification</b>	Protein A purified
<b>Immunogen</b>	Recombinant human sLYVE-1 (RT #S01-028)
<b>Formulation</b>	lyophilized
<b>Buffer</b>	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

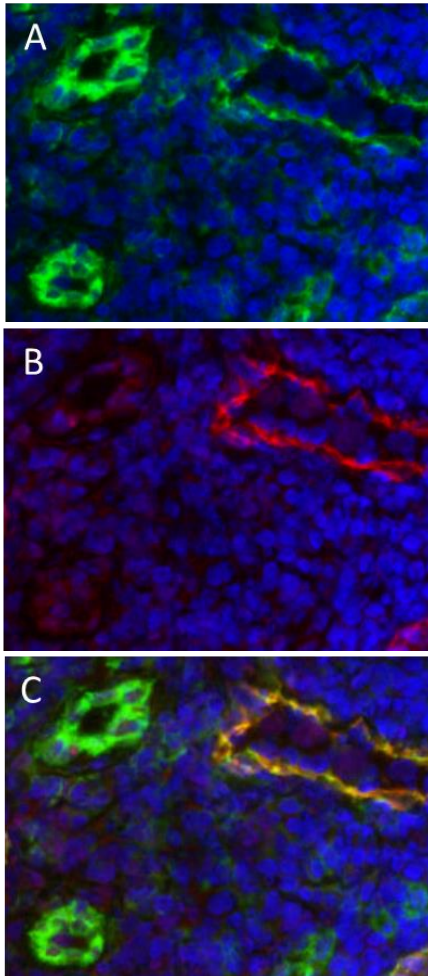
<b>Western Blot:</b>	Use 1-2 µg/ml
<b>IF/IHC:</b>	Use 6-30µg/ml:200
<b>FACS</b>	Use 3-10 µg/ml

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

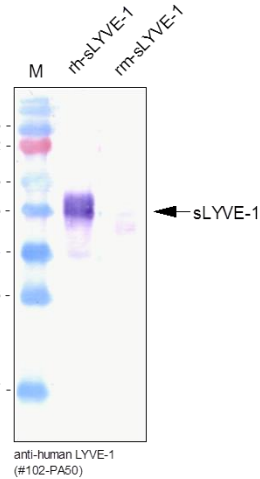


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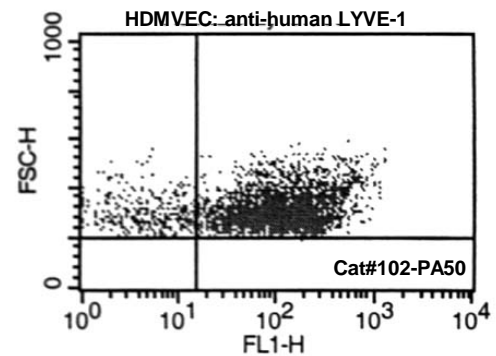
## Handling/Applications



**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:** FACS analysis with primary human dermal microvascular endothelial cells (HDMVEC).