Anti-human LYVE-1

20201117DS

FOR RESEARCH ONLY! NOT FOR HUMAN USE!

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

Target Background

Synonyms:	Lymphatic vessel endothelial hyaluronic acid receptor1

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

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	Protein A purified
Immunogen	Recombinant human sLYVE-1 (RT #S01-028)
Formulation	lyophilized
Buffer	5 mM PBS, pH 7.2

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 1-2 µg/ml
IF/IHC:	Use 6-30µg/ml
FACS	Use 3-10 µg/ml

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

Anti-human LYVE-1

Handling/Applications

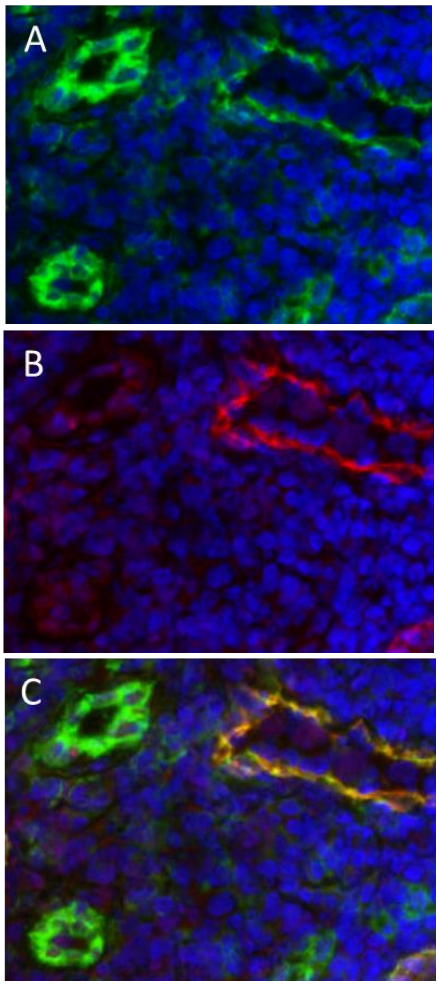

Figure 1. Cryo sections of human colon carcinoma labeled with rabbit polyclonal antibody against human LYVE-1 (red) [Cat# 102-PA50] and human CD31 (green).
A: CD31; **B:** LYVE-1; **C:** CD31/LYVE-1

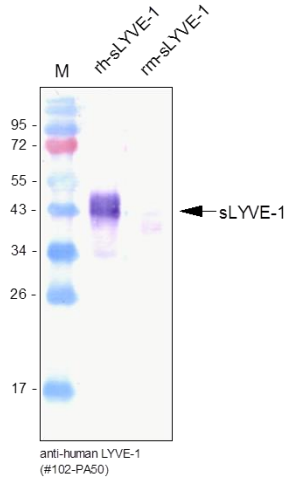

Figure 2. Western analysis of recombinant human sLYVE-1 [Cat# S01-028] and mouse sLYVE-1 [Cat# S01-026] using an anti-human LYVE-1 polyclonal antibody [Cat# 102-PA50] directed against the extracellular domain of human LYVE-1. There is more or less no cross reactivity with mouse LYVE-1.

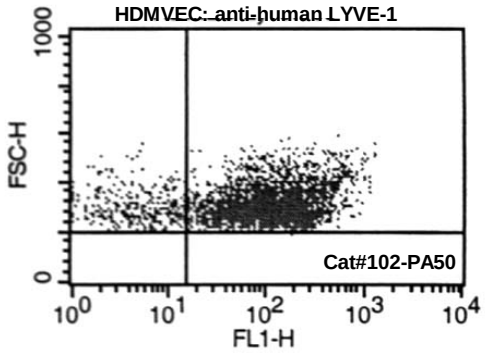

Figure 3: FACS analysis with primary human dermal microvascular endothelial cells (HDMVEC).