

## Product datasheet for **DP3500**

### LYVE1 Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, FC, IF, IHC, WB
Recommended Dilution:	<b>ELISA</b> (1-15 µg/ml). <b>Western blot</b> (1-2 µg/ml). <b>FACS analysis</b> (3-20 µg/ml). <b>Immunohistochemistry on Frozen Sections</b> (6-30 µg/ml). <b>Please Note:</b> For use on Paraffin Embedded Sections the Affinity Purified antibody (Cat.-No DP3500PS) is recommended.
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Recombinant Human soluble LYVE-1 (24-232) produced in insect cells.
Specificity:	The antibody recognizes LYVE-1.
Formulation:	5mM PBS, pH 7.2 without preservatives or stabilizers State: Purified State: Lyophilized purified IgG fraction
Reconstitution Method:	Restore in sterile water to a concentration of 0.1-1.0 mg/ml.
Purification:	Protein A Chromatography (+ his tag depleted)
Conjugation:	Unconjugated
Storage:	The lyophilized IgG is stable at 2-8°C for one month or at -20°C for one year from despatch. When reconstituted the antibody is stable for six weeks at 2-8°C and at -20°C for longer. Aliquot to avoid repeated freezing and thawing.
Gene Name:	lymphatic vessel endothelial hyaluronan receptor 1
Database Link:	<a href="#">Entrez Gene 10894 Human Q9Y5Y7</a>



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**Background:**

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.

**Synonyms:**

LYVE1, CRSBP-1, CRSBP1, HAR, XLKD1

**Note:****Protocol: Double staining LYVE-1/CD31 on Humanen Cryo-Sections**

- dry Cryo sections for 1h at RT
- fix sections for 10 min at -20°C in MeOH
- wash 3x3 min in PBS at RT
- **block 20 min in 10% goat serum in PBS**
- 1. AB over night at 4°C in 10% goat serum in PBS  
[anti h -LYVE-1 10µg/ml and anti h-CD31 1:50 (Klon JC70A)]
- wash 3x3 min in PBS at RT
- 2. AB 30 min at RT in PBS  
[goat anti rabbit IgG (H+L) CY3 1:500 and goat anti mouse biotin 1:500]
- wash 3x3 min in PBS at RT
- staining of nucleus 10 min at RT in Hoechst Dye 1:5000 in PBS
- wash 3x3 min in PBS at RT
- cover with DAKO Fluorescent Mountingmedium

**Staining protocol for Rabbit polyclonal anti-LYVE-1 on Paraffin Sections (Human Spleen)**

The specimens (maximum edge length 0.5cm) are fixed for 24 hours (or longer) in 3.7% formalin in tap water (low pH during fixation is advantageous). Embedding is done in paraffin carefully avoiding temperatures exceeding 60°C. The sections are cut and deposited on silanized slides and dried at 60°C overnight. They are then de-paraffinized and pretreated with protease XIV (Sigma No. P-5147) at 0.5mg/ml in TBS pH7.6 for 15min at room temperature. The primary polyclonal antibodies are applied at 1:100 to 1:150 in PBS/1%BSA/0.1%NaN<sub>3</sub> overnight.

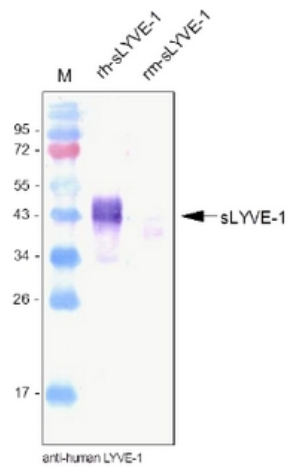
Subsequently, the Vector anti-rabbit ABC kit for peroxidase is used according to the manufacturer's instructions and the presence of peroxidase revealed by diaminobenzidine reaction.

**Note:** The antibodies have to be used at a tenfold higher concentration on paraffin sections in comparison to cryo sections. High temperature antigen retrieval does not work, but protease pretreatment is mandatory.

The protocol was established at the laboratory of:

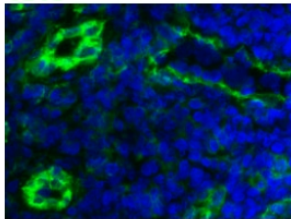
Prof. Dr. Birte Steiniger  
Institute of Anatomy and Cell Biology  
Robert-Koch-Str.8  
D-35037 Marburg  
Germany  
E-mail: steinigb@staff.uni-marburg.de

Product images:

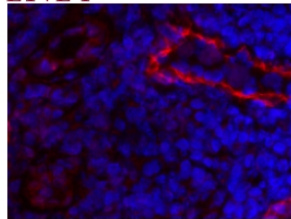


Western analysis of recombinant Human sLYVE-1 and Mouse sLYVE-1 using an anti-Human LYVE-1 Antibody X directed against the extracellular domain of human LYVE-1. There is more or less no cross reactivity with Mouse LYVE-1.

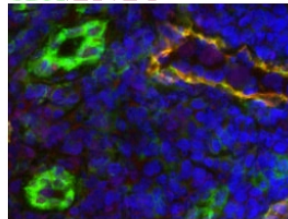
CD31



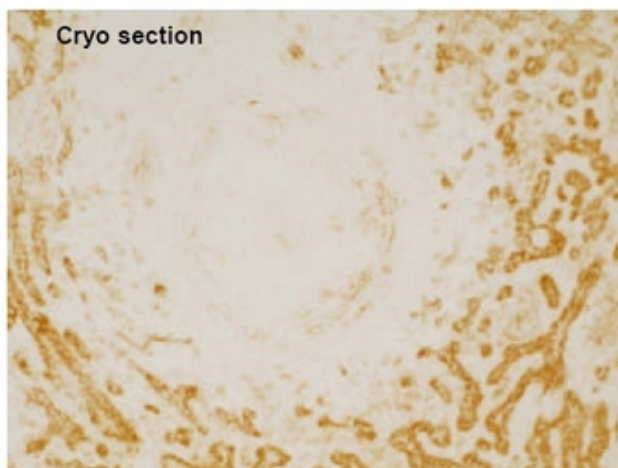
LYVE-1



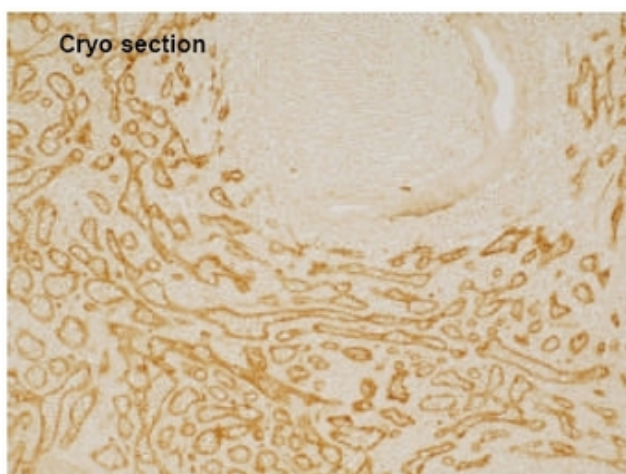
CD31/LYVE-1



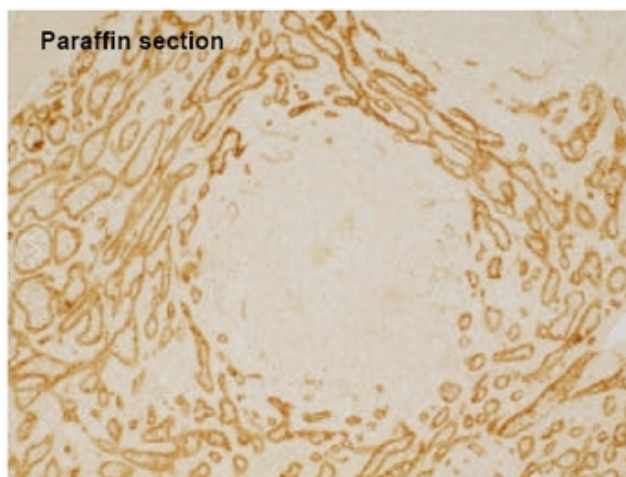
The staining was performed on cryosections from human colon carcinoma using polyclonal anti-Human LYVE-1 antibody /X (Protein-A purified, 10ug/ml). The experiments were performed by Dr. Ulrike Fiedler and Stefanie Koidel, Dept. of Vascular Biology and Angiogenesis Research Tumor Biology Center, Breisacher Str. 117, D-79106 Freiburg, Germany



LYVE-1 antibody staining of Human Spleen Cryo Section. The experiment was performed by Prof. Dr. Birte Steiniger, Institute of Anatomy and Cell Biology Robert-Koch-Str. 8, D-35037 Marburg, Germany.

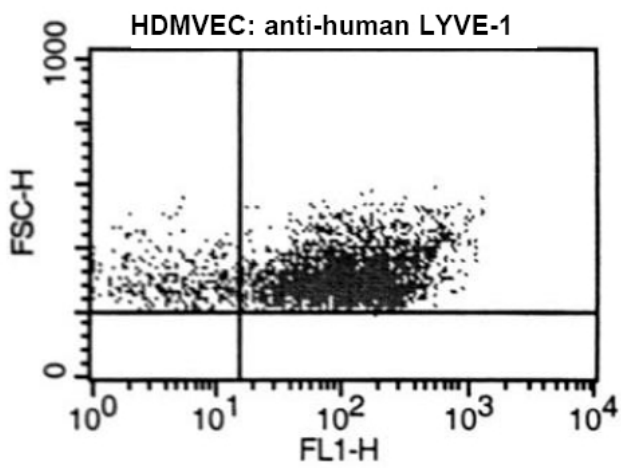
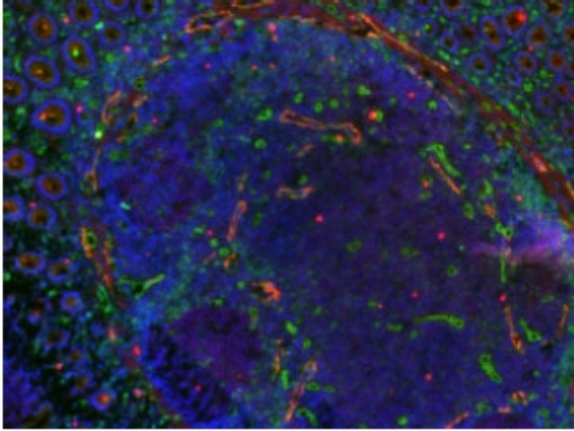


LYVE-1 antibody staining of Human Spleen Cryo Section. The experiment was performed by Prof. Dr. Birte Steiniger, Institute of Anatomy and Cell Biology Robert-Koch-Str. 8, D-35037 Marburg, Germany.



LYVE-1 antibody staining of Human Spleen Paraffin section. The experiment was performed by Prof. Dr. Birte Steiniger, Institute of Anatomy and Cell Biology Robert-Koch-Str. 8, D-35037 Marburg, Germany.

CD31/LYVE-1



FACS analysis with LYVE-1 antibody in HDMVECs