

Polyclonal Antibody to LYVE-1 - Purified

Alternate names: CRSBP-1, CRSBP1, Cell surface retention sequence-binding protein 1, Extracellular link

domain-containing protein 1, HAR, Hyaluronic acid receptor, LYVE1, Lymphatic vessel

endothelial hyaluronic acid receptor 1, XLKD1

Catalog No.: DP3513S
Quantity: 0.1 mg

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- esidue 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- 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 lymphspecific HA receptor to be characterized and is a uniquely powerful marker for lymph vessels themselves.

Uniprot ID: <u>Q8BHC0</u>
NCBI: NP 444477.2

GeneID: 114332 Host: Rabbit

Immunogen: Highly pure recombinant Mouse soluble LYVE-1 produced in insect cells.

This recombinant soluble LYVE-1 consists of amino acid 24 (Ala) to 228 (Gly) and is fused to

a C-terminal His-tag (6xHis).

Format: State: Lyophilized purified IgG fraction

Purification: Protein G Chromatography (+ his tag depletetion) **Buffer System:** PBS, pH 7.2 without preservatives or stabilizers

Reconstitution: Restore in sterile water/PBS to a concentration of > 0.5 mg/ml.

Applications: ELISA (1-15 μ g/ml).

Western blot (1-2 μ g/ml). FACS analysis (3-20 μ g/ml).

Immunohistochemistry on Frozen Sections (1-5 μ g/ml).

For formalin-fixed, paraffin-embedded sections use the immunogen affinity purified

antibody Cat.-No DP3513P.

Other applications not tested. Optimal dilutions are dependent on conditions and should

be determined by the user.

Specificity: This antibody detetcs Lyve-1.

Species Reactivity: Tested: Mouse. This antibody is not reactive with Human LYVE-1.



DP3513S: Polyclonal Antibody to LYVE-1 - Purified

Storage:

The lyophilized IgG is stable at 2-8°C for one month and at -20°C for longer.

When reconstituted the antibody is stable for at least six weeks at 2-8°C.

For longer store in aliquots at -20°C. Avoid repeated freezing and thawing. Shelf life: one year from despatch.

Product Citation:

1. Claudius Conrad, Hanno Niess, Ralf Huss, Stephan Huber, Irene von Luettichau, Peter J. Nelson, Harald C. Ott, Karl-Walter Jauch, and Christiane J. Bruns. Multipotent Mesenchymal Stem Cells Acquire a Lymphendothelial Phenotype and Enhance Lymphatic Regeneration In Vivo. Circulation, Jan 2009; 119: 281-289.

2. Takahiro Heishi, Tomoko Hosaka, Yasuhiro Suzuki, Hiroki Miyashita, Yuichi Oike, Takashi Takahashi, Takumi Nakamura, Shingo Arioka, Yuichi Mitsuda, Tomoaki Takakura, Kanji Hojo, Mitsunobu Matsumoto, Chihiro Yamauchi, Hideki Ohta, Hikaru Sonoda, and Yasufumi Sato. Endogenous Angiogenesis Inhibitor Vasohibin1 Exhibits Broad-Spectrum Antilymphangiogenic Activity and Suppresses Lymph Node Metastasis. Am. J. Pathol., Apr 2010; 176: 1950-1958

General 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.

Pictures:

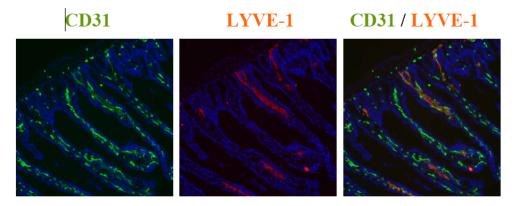


Figure 1. Staining of mouse colon using a CD31 antibody (green) and Lyve-1 antibody (red). Picturted originate from Dr. Ulrike Fiedler and Stefanie Koidel, Dept. of Vascular Biology and Angiogenesis Research Tumor Biology center, Freiburg, Germany.



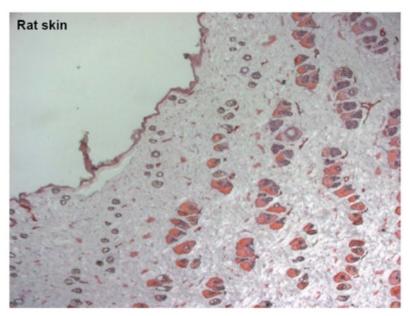


Figure 2. Immunohistochemistry with Cryo sections from Rat Skin using anti-Mouse LYVE-1 antibody (DP3513/DP3513S)

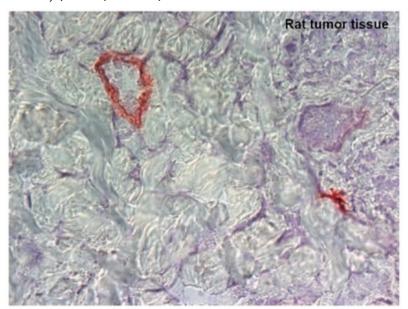


Figure 3. Immunohistochemistry with Cryo sections from Rat Tumor Tissue using anti-Mouse LYVE-1 antibody (DP3513/DP3513S)