

# LYVE-1 (H-156): sc-28190

## BACKGROUND

Lymphatic vessel endothelial hyaluronan receptor-1 (LYVE-1) is expressed on the cell surface as a protein that is reduced by glycosidase treatment. LYVE-1 is abundant in spleen, lymph node, heart, lung and fetal liver, and is less abundant in appendix, bone marrow, placenta, muscle and adult liver. Expression of LYVE-1 is largely restricted to endothelial cells lining lymphatic vessels and splenic sinusoidal endothelial cells. LYVE-1 binds to both soluble and immobilized hyaluronan (HA) with greater specificity than HCAM. Like HCAM, the LYVE-1 molecule binds both soluble and immobilized HA. However, unlike HCAM, the LYVE-1 molecule co-localizes 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. LYVE-1 is used as a marker to study tumor lymphangiogenesis, which is an important area of investigation.

## REFERENCES

1. Banerji, S., et al. 1999. LYVE-1, a new homolog of the CD44 glycoprotein, is a lymph-specific receptor for hyaluronan. *J. Cell Biol.* 144: 789-801.
2. Online Mendelian Inheritance in Man, OMIM™. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 605702. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

Genetic locus: LYVE1 (human) mapping to 11p15.4; Lyve1 (mouse) mapping to 7 F1.

## SOURCE

LYVE-1 (H-156) is a rabbit polyclonal antibody raised against amino acids 167-322 mapping at the C-terminus of LYVE-1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

LYVE-1 (H-156) is recommended for detection of LYVE-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for LYVE-1 siRNA (h): sc-42901, LYVE-1 siRNA (m): sc-42902, LYVE-1 shRNA Plasmid (h): sc-42901-SH, LYVE-1 shRNA Plasmid (m): sc-42902-SH, LYVE-1 shRNA (h) Lentiviral Particles: sc-42901-V and LYVE-1 shRNA (m) Lentiviral Particles: sc-42902-V.

Molecular Weight of LYVE-1: 40 kDa.

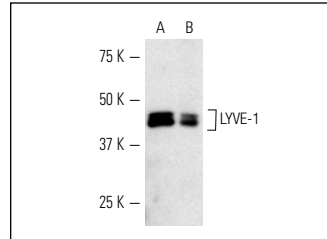
Molecular Weight of glycosylated LYVE-1: 60 kDa.

Positive Controls: mouse lung extract: sc-2390, SK-N-MC cell lysate: sc-2237 or Hs 294T whole cell lysate.

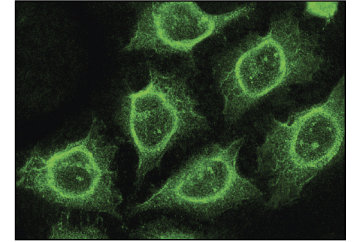
## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## DATA



LYVE-1 (H-156): sc-28190. Western blot analysis of LYVE-1 expression in Hs 294T (A) and SK-N-MC (B) whole cell lysates.



LYVE-1 (H-156): sc-28190. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

## SELECT PRODUCT CITATIONS

1. Breslin, J.W., et al. 2007. VEGF-C alters barrier function of cultured lymphatic endothelial cells through a VEGFR-3-dependent mechanism. *Lymphat. Res. Biol.* 5: 105-113.
2. Sato, I., et al. 2008. Distribution of LYVE-1 and CD31 in postnatal rat masseter muscle. *Ann. Anat.* 190: 329-338.
3. Chen, E.Y., et al. 2009. Similar histologic features and immunohistochemical staining in microcystic and macrocystic lymphatic malformations. *Lymphat. Res. Biol.* 7: 75-80.
4. Loges, S., et al. 2010. Malignant cells fuel tumor growth by educating infiltrating leukocytes to produce the mitogen Gas6. *Blood* 115: 2264-2273.
5. Luo, Y., et al. 2012. Rapamycin inhibits lymphatic endothelial cell tube formation by downregulating vascular endothelial growth factor receptor 3 protein expression. *Neoplasia* 14: 228-237.
6. Kimizuka, K., et al. 2013. Sphingosine 1-phosphate (S1P) induces S1P2 receptor-dependent tonic contraction in murine iliac lymph vessels. *Microcirculation* 20: 1-16.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **LYVE-1 (E9VA4): sc-65647**, our highly recommended monoclonal alternative to LYVE-1 (H-156).