

## LYVE-1 (E-20): sc-19316

### BACKGROUND

Lymphatic vessel endothelial hyaluronan receptor-1 (LYVE-1) is expressed on the cell surface as a protein which 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 with greater specificity than CD44. Like CD44, the LYVE-1 molecule binds both soluble and immobilized HA. However, unlike CD44, 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.

### CHROMOSOMAL LOCATION

Genetic locus: LYVE1 (human) mapping to 11p15.4.

### SOURCE

LYVE-1 (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region 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.

Blocking peptide available for competition studies, sc-19316 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### STORAGE

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

### APPLICATIONS

LYVE-1 (E-20) is recommended for detection of LYVE-1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 shRNA Plasmid (h): sc-42901-SH and LYVE-1 shRNA (h) Lentiviral Particles: sc-42901-V.

Molecular Weight of LYVE-1: 40 kDa.

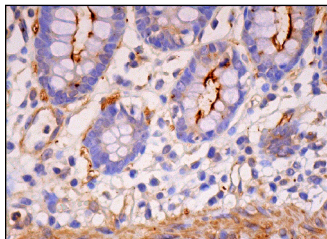
Molecular Weight of glycosylated LYVE-1: 60 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, SK-N-MC cell lysate: sc-2237 or A549 cell lysate: sc-2413.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

### DATA



LYVE-1 (E-20): sc-19316. Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tissue showing membrane and cytoplasmic staining of glandular cells and endothelial cells.

### SELECT PRODUCT CITATIONS

- Jiang, W.G., et al. 2005. The potential lymphangiogenic effects of hepatocyte growth factor/scatter factor *in vitro* and *in vivo*. *Int. J. Mol. Med.* 16: 723-728.
- Kawai, H., et al. 2008. VEGF121 promotes lymphangiogenesis in the sentinel lymph nodes of non-small cell lung carcinoma patients. *Lung Cancer* 59: 41-47.
- Li, H., et al. 2011. Insulin-like growth factor-I receptor blockade reduces tumor angiogenesis and enhances the effects of bevacizumab for a human gastric cancer cell line, MKN45. *Cancer* 117: 3135-3147.
- Frewer, N., et al. 2013. Potential implication of IL-24 in lymphangiogenesis of human breast cancer. *Int. J. Mol. Med.* 31: 1097-1104.

### 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.