

Anti-Mouse Lyve-1 eFluor® 615

Catalog Number: 42-0443

Also known as: Lymphatic Vessel Endothelial Receptor 1

RUO: For Research Use Only. Not for use in diagnostic procedures.

Product Information

Contents: Anti-Mouse Lyve-1 eFluor® 615
Catalog Number: 42-0443
Clone: ALY7
Concentration: 0.2 mg/mL
Host/Isotype: Rat IgG1



Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer
Temperature Limitation: Store at 2-8°C. Do not freeze. Light-sensitive material.
Batch Code: Refer to vial
Use By: Refer to vial

Description

The monoclonal antibody ALY7 recognizes mouse LYVE-1, a transmembrane glycoprotein with similarity to CD44. The extracellular domain contains a conserved hyaluronan binding domain also found in CD44. Expression is found on lymphatic and liver endothelial cells and some populations of macrophages. The lymphatic system is responsible for transporting proteins and cells (especially dendritic cells) to tissues throughout the body, thereby acting as immune surveyors. LYVE-1 is one characteristic protein, along with podoplanin, PROX-1, Tie-2 and VEGFR-3, that is expressed on lymphatic endothelial cells (LECS). The ligand for LYVE-1 is hyaluronan, a large mucopolysaccharide. Although LYVE-1 can bind hyaluronan *in vitro*, the site for ligand binding *in vivo* is masked by sialylated O-linked glycan chains. It is postulated that binding to ligand requires modification/unmasking to expose the binding site. The development and remodeling of the endothelium after injury is an area of extensive study. When transplanted, hematopoietic stem cells (HSCs) can give rise to LECs that integrate into the endothelium in normal and metastatic tissue.

Applications Reported

This ALY7 antibody has been reported for use in immunohistochemical (IHC-F) staining.

Applications Tested

This ALY7 antibody has been tested by immunohistochemistry on fixed frozen mouse intestinal tissue (IHC-F) at less than or equal to 1 µg/mL. This product has not been validated for flow cytometric analysis.

Filter Recommendation: When using this eFluor® 615 antibody conjugate, we recommend a filter that will capture the 615 emission wavelength (for example, Excitation 560/55, 585LP, Emission 645/75). A standard Alexa Fluor® 594 filter is acceptable.

References

Luong MX, Tam J, Lin Q, Hagendoorn J, Moore KJ, Padera TP, Seed B, Fukumura D, Kuchelapati R, Jain RK. Lack of lymphatic vessel phenotype in LYVE-1/CD44 double knockout mice. *J Cell Physiol.* 2009 May;219(2):430-7.

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Hirashima M, Sano K, Morisada T, Murakami K, Rossant J, Suda T. Lymphatic vessel assembly is impaired in Aspp1-deficient mouse embryos. *Dev Biol.* 2008 Apr 1;316(1):149-59. (ALY7, Immunofluorescent staining of PFA-fixed tissue)

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Hamaguchi I, Morisada T, Azuma M, Murakami K, Kuramitsu M, Mizukami T, Ohbo K, Yamaguchi K, Oike Y, Dumont DJ, Suda T. Loss of Tie2 receptor compromises embryonic stem cell-derived endothelial but not hematopoietic cell

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Morisada T, Oike Y, Yamada Y, Urano T, Akao M, Kubota Y, Maekawa H, Kimura Y, Ohmura M, Miyamoto T, Nozawa S, Koh GY, Alitalo K, Suda T. Angiopoietin-1 promotes LYVE-1-positive lymphatic vessel formation. Blood. 2005 Jun 15;105(12):4649-56. (ALY7, IH/F)

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00-4953 IHC /ICC Blocking Buffer - Low Protein

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