

# LYVE1 Monoclonal Antibody (ALY7), PE-Cyanine7, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Published Species	Mouse
Host/Isotype	Rat / IgG1, kappa
Recommended Isotype Control	Rat IgG1 kappa Isotype Control (eBRG1), PE-Cyanine7, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	ALY7
Conjugate	PE-Cyanine7
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2802237

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.5 µg/test	1 Publication

## Product Specific Information

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 sialyated 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 flow cytometric analysis.

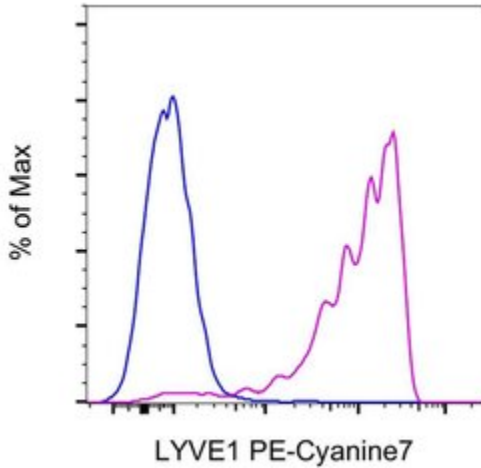
Applications Tested: This ALY7 antibody has been tested by flow cytometric analysis of normal human peripheral blood cells. This may be used at less than or equal to 0.5 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222-49) (100  $\mu$ L of cell sample + 100  $\mu$ L of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333-57) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

Excitation: 488-561 nm; Emission: 775 nm; Laser: Blue Laser, Green Laser, Yellow-Green Laser

## Product Images For LYVE1 Monoclonal Antibody (ALY7), PE-Cyanine7, eBioscience™



### LYVE1 Antibody (25-0443-82) in Flow

BAF3 cells transfected with mouse LYVE1 were stained with 0.25  $\mu$ g of Rat IgG1 kappa Isotype Control, PE-Cyanine7 (Product # 25-4301-82) (blue histogram) or 0.25  $\mu$ g of LYVE1 Monoclonal Antibody, PE-Cyanine7 (purple histogram). Total viable cells were used for analysis, as determined by 7-AAD (Product # 00-6993-50).

## 1 Reference

### Flow Cytometry (1)

Molecular medicine (Cambridge, Mass.)

#### FK506 induces lung lymphatic endothelial cell senescence and downregulates LYVE-1 expression, with associated decreased hyaluronan uptake.

"25-0443 was used in Flow cytometry/Cell sorting to test the hypothesis that FK506, the most commonly used immunosuppressant after lung transplantation, induces lung lymphatic endothelial cell dysfunction."

Authors: Shrestha S, Cho W, Stump B, Imani J, Lamattina AM, Louis PH, Pazzanese J, Rosas IO, Visner G, Perrella MA, El-Chemaly S

Species  
Mouse

Dilution  
Not Cited

Year  
2020

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