LYVE1 Monoclonal Antibody (ALY7), eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Published Species	Mouse
Host/Isotype	Rat / IgG1, kappa
Class	Monoclonal
Type	Antibody
Clone	ALY7
Conjugate	Unconjugated
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C
RRID	AB_1633414

Applications	Tested Dilution	Publications
Immunohistochemistry (IHC)	-	14 Publications
Immunohistochemistry (Frozen) (IHC (F))	Assay-Dependent	-
Immunocytochemistry (ICC/IF)	Assay-Dependent	3 Publications
Flow Cytometry (Flow)	0.125 µg/Test	7 Publications

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 and immunohistologic staining of frozen tissue sections.

Applications Tested: This ALY7 antibody has been tested by flow cytometric analysis of transfected cell line or immunofluorescent microscopy of cryosections of mouse intestine. This can be used at less than or equal to 0.125 µg per million cells in a 100 µL total staining volume for flow cytometry and 2.5 µg/mL for immunofluorescent micoscopy. It is recommended that the antibody be

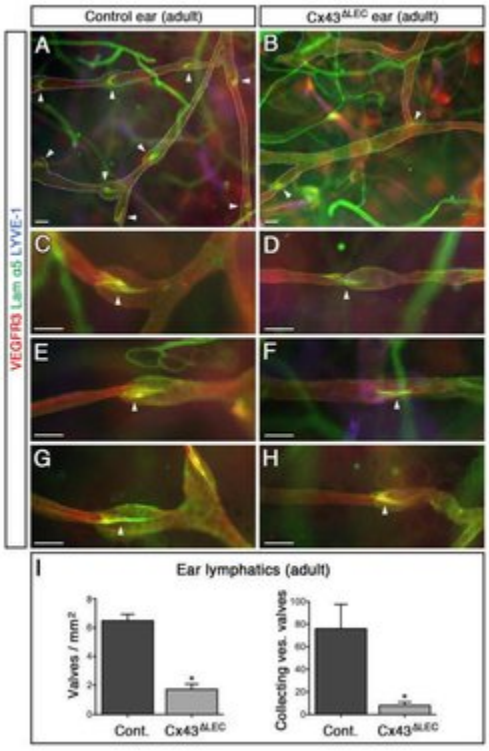
carefully titrated for optimal performance in the assay of interest.

Purity: Greater than 90%, as determined by SDS-PAGE.

Aggregation: Less than 10%, as determined by HPLC.

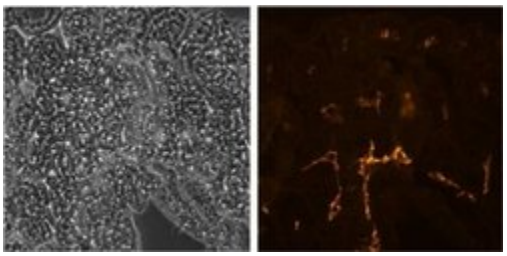
Filtration: 0.2 µm post-manufacturing filtered.

Advanced Verification Data



LYVE1 Antibody (14-0443-82)
Figure 7. Open in a separate window Long-term effect of topical dexamethasone treatment during the first 8 d of HSV-1 infection on corneal innervation and vasculature. Mouse corneas were infected with 10 3 PFU HSV-1 or left U) as controls. Starting at 2 h p.i., mice were topically treated with DEX or VEH onto their corneas for 8 d p.i. before tissue collection at 30 d p.i. (A) Representative confocal images show corneal nerves (green: beta-III tubulin staining) and blood and lymphatic vessels (red: CD31 staining; blue: LYVE-1 staining, top discontinuous white lines depict the limbal margins) at 30 d p.i. (top: merge of beta-III tubulin/CD3 /LYVE-1 costaining, bottom: grayscale display of beta-III tubulin staining only). White arrows depict intact fine bundles of subbasal nerves in the UI group that are preserved in the infected group treated with DEX. (B) Analysis of corneal innervation (left) and vascularization (center and right) expressed as the percentage threshold area positive for beta-III tubulin signal per field of view means +- sem , percentage threshold area positive for CD31 signal per field of view means +- sem , and percentage threshold area positive for LYVE-1 signal per field of view means +- sem, respectively (n = 6 for UI and n = 16-17 for infected groups for beta-III tubulin, n = 11 for UI and n = 16-23 for uninfected groups for CD31, and n = 9 for UI and n = 11-16 per infected groups for LYVE-1 from 3-4 independent experiments). (C) Bars show Cochet-Bonnet Cell treatment validation info.

Product Images For LYVE1 Monoclonal Antibody (ALY7), eBioscience™



LYVE1 Antibody (14-0443-82) in IHC (F)
Immunohistochemistry of frozen mouse intestine stained with 2.5 µg/mL Rat IgG1 K Isotype Control Purified (left) or 2.5 µg/mL Anti-Mouse Lyve-1 Purified (right) followed by 5 µg/mL Anti-Rat IgG1 eFluor® 615. Nuclei are stained with DAPI.

View more figures on thermofisher.com

24 References

Immunohistochemistry (14)

Scientific reports

Integrins mediate placental extracellular vesicle trafficking to lung and liver in vivo.

"Published figure using LYVE1 monoclonal antibody (Product # 14-0443-82) in Immunohistochemistry"

Authors: Nguyen SL,Ahn SH,Greenberg JW,Collaer BW,Agnew DW,Arora R,Petroff MG

Species
Not Applicable

Dilution
Not Cited

Year
2021

Frontiers in physiology

Complex Non-sinus-associated Pachymeningeal Lymphatic Structures: Interrelationship With Blood Microvasculature.

"Published figure using LYVE1 monoclonal antibody (Product # 14-0443-82) in Immunofluorescence"

Authors: Glinskii OV,Huxley VH,Xie L,Bunyak F,Palaniappan K,Glinsky VV

Species
Not Applicable

Dilution
Not Cited

Year
2020

View more IHC references on thermofisher.com

Immunocytochemistry (3)

Science translational medicine

An ocular glymphatic clearance system removes -amyloid from the rodent eye.

"14-0443 was used in Immunocytochemistry to identify an ocular glymphatic clearance route for fluid and wastes via the proximal optic nerve in rodents."

Authors: Wang X,Lou N,Eberhardt A,Yang Y,Kusk P,Xu Q,Förstera B,Peng S,Shi M,Ladrón-de-Guevara A,Delle C, Sigurdsson B,Xavier ALR,Ertürk A,Libby RT,Chen L,Thrane AS,Nedergaard M

Species
Mouse

Dilution
1:250

Year
2020

Scientific reports

Endogenous TNF orchestrates the trafficking of neutrophils into and within lymphatic vessels during acute inflammation.

"14-0443 was used in Immunofluorescence to demonstrate a new role for TNF as a key regulator of neutrophil trafficking into and within the lymphatic system."

Authors: Arokiasamy S,Zakian C,Dilliway J,Wang W,Nourshargh S,Voisin MB

Species
Mouse

Dilution
Not Cited

Year
2017

View more ICC/IF references on thermofisher.com

More applications with references on thermofisher.com

Flow (7)