Product Datasheet

LYVE-1 Antibody (ALY7) - BSA Free
NBP1-43411-0.1mg

Unit Size: 0.1 mg

Store at 4C. Do not freeze.

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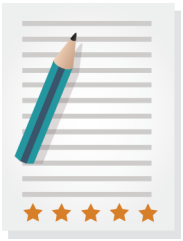


NBP1-43411-0.1mg

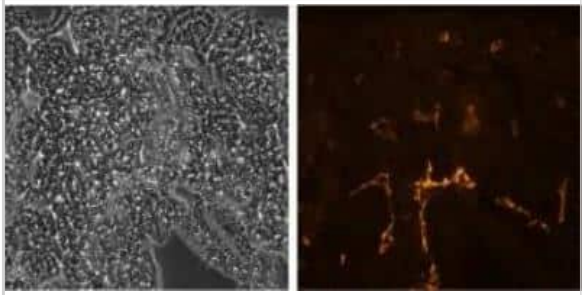
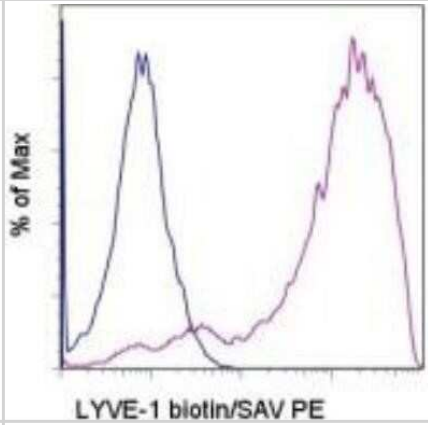
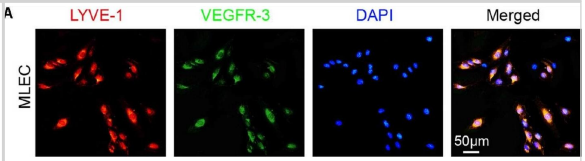
LYVE-1 Antibody (ALY7) - BSA Free

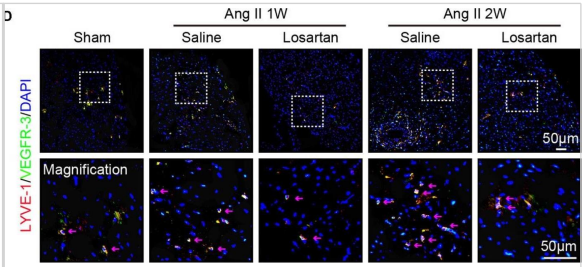
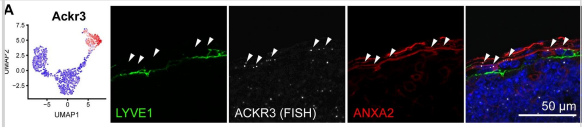
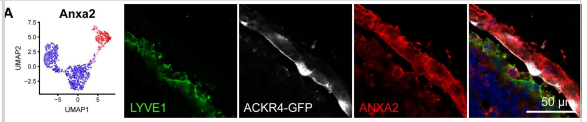
Product Information	
Unit Size	0.1 mg
Concentration	0.5 mg/ml
Storage	Store at 4C. Do not freeze.
Clonality	Monoclonal
Clone	ALY7
Preservative	0.09% Sodium Azide
Isotype	IgG1
Purity	Protein A or G purified
Buffer	PBS (pH 7.2)
Target Molecular Weight	35 kDa

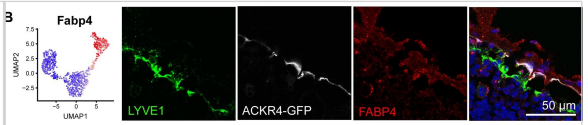
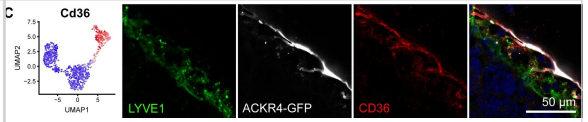
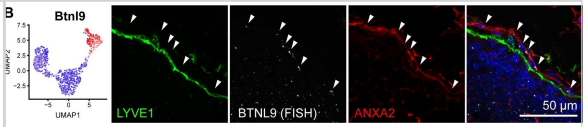
Product Description	
Host	Rat
Gene ID	10894
Gene Symbol	LYVE1
Species	Mouse
Reactivity Notes	Use in Mouse reported in scientific literature (PMID: 33783987).
Marker	Lymphatic Vessel Marker
Immunogen	This LYVE-1 Antibody (ALY7) was developed against mouse LYVE1.

Product Application Details	
Applications	Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen
Recommended Dilutions	Flow Cytometry 0.125 ug/10^6 cells in 100 uL, Immunohistochemistry 1:10 - 1:500, Immunocytochemistry/ Immunofluorescence 1:10 - 1:500, Immunohistochemistry-Frozen 2.5 ug/mL
Application Notes	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 ug per million cells in a 100 uL total staining volume for flow cytometry and 2.5 ug/mL for immunofluorescent micoscopy. Use in Immunocytochemistry/Immunofluorescence was reported in scientific literature.

Images

Immunohistochemistry: LYVE-1 Antibody (ALY7) [NBP1-43411] - Immunohistochemistry of cryosections of mouse intestine at 2.5 ug/ml of anti-mouse LYVE-1 antibody followed by Anti-Rat IgG Rhodamine (right). Phase image of same field (left).	
Flow Cytometry: LYVE-1 Antibody (ALY7) [NBP1-43411] - Analysis using the Biotin conjugate of NBP1-43411. Staining of LYVE-1 transfected cells with 0.06 ug of Rat IgG1 k Isotype Control Biotin (blue histogram) or 0.06 ug of Anti-Mouse Lyve-1 Biotin (purple histogram) followed by Streptavidin PE.	
Immunocytochemistry/ Immunofluorescence: LYVE-1 Antibody (ALY7) - BSA Free [NBP1-43411] - Ang II treatment promotes lymphatic marker expression of LECs in vitro. (A) Immunofluorescence staining of LECs with anti-LYVE-1 & anti-VEGFR-3 antibodies. (B) LECs were treated with Ang II (500 nM) for 12 & 24 h, the mRNA levels of LYVE-1, VEGFR-3 & Prox1 were detected by qPCR, & the data were normalized using the reference gene GAPDH (n = 6). (C) The protein expression level of VEGFR-3 was measured by immunoblotting & normalized using β-actin (n = 4). The results are expressed as the means ± SD, & n represents the number of independent experiments. *P < 0.05, **P < 0.01, & ***P < 0.001 versus Control. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/33013481), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	

Immunocytochemistry/ Immunofluorescence: LYVE-1 Antibody (ALY7) - BSA Free [NBP1-43411] - Ang II infusion increases cardiac lymphangiogenesis via AT1R in vivo. (A) Wild-type mice were subcutaneously infused with Ang II (1,000 ng/kg/min) with or without losartan (10 mg/kg) for 1 or 2 weeks, & the systolic blood pressure was measured by the tail-cuff method (n = 6). (B) Cardiac mRNA expression level of LYVE-1 was measured by qPCR analysis (n = 3). (C) Cardiac mRNA expression level of VEGFR-3 was measured by qPCR analysis (n = 3). (D) Immunofluorescence staining of hearts with anti-LYVE-1 (Red) & anti- VEGFR-3 (Green) antibodies & DAPI (Blue) (Left, n = 6), & the quantification of the LYVE-1+ & Prox1+ lymphatic vessels in the hearts (Right, n = 6). The results are expressed as the means ± SD, & n represents the number of independent experiments. *P < 0.05, **P < 0.01, & ***P < 0.001 versus Sham group; #P < 0.05, ##P < 0.01, & ###P < 0.001 versus Ang II 1W + Saline group; $$$P < 0.001 versus Ang II 2W + Saline group. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/33013481), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	
Immunocytochemistry/ Immunofluorescence: LYVE-1 Antibody (ALY7) - BSA Free [NBP1-43411] - Molecular characterization of LECs in the SCS ceiling with RNA FISH.(A-B) Expression of new cLEC/cluster 2 marker genes Ackr3 (A) & Btnl9 (B) by RNA sequencing (left panels) & RNA FISH (right panels). As GFP fluorescence is lost during tissue processing for RNA FISH, immunofluorescence staining for ANXA2 (red) & LYVE1 (green) served as markers for cLECs & fLECs, respectively. Arrows point to cLECs expressing Ackr3 & Btnl9 transcripts (white). ACKR3, atypical chemokine receptor 3; ANXA2, annexin A2; Btnl9, butyrophilin like 9; cLEC, ceiling LEC; FISH, fluorescence in situ hybridization; fLEC, floor-lining LEC; LEC, lymphatic endothelial cell; LYVE1, lymphatic vessel endothelial hyaluronan receptor 1; SCS, subcapsular sinus; UMAP, Uniform Manifold Approximation & Projection. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/32251437), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	
Immunocytochemistry/ Immunofluorescence: LYVE-1 Antibody (ALY7) - BSA Free [NBP1-43411] - Molecular characterization of LECs in the SCS ceiling with immunofluorescence staining.(A–C) Expression of new cLEC/cluster 2 marker genes ANXA2 (A), FABP4 (B), & CD36 (C) by RNA sequencing (left panels) & immunofluorescence staining (right panels) in Ackr4-GFP reporter mice. GFP (white) & immunofluorescence costaining for LYVE1 (green) served as markers for cLECs & fLECs, respectively. ACKR4, atypical chemokine receptor 4; ANXA2, annexin A2; CD, cluster of differentiation; cLEC, ceiling LEC; FABP4, fatty acid binding protein 4; fLEC, floor-lining LEC; GFP, green fluorescent protein; LEC, lymphatic endothelial cell; LYVE1, lymphatic vessel endothelial hyaluronan receptor 1; SCS, subcapsular sinus; UMAP, Uniform Manifold Approximation & Projection. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/32251437), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	

Immunocytochemistry/ Immunofluorescence: LYVE-1 Antibody (ALY7) - BSA Free [NBP1-43411] - Molecular characterization of LECs in the SCS ceiling with immunofluorescence staining.(A–C) Expression of new cLEC/cluster 2 marker genes ANXA2 (A), FABP4 (B), & CD36 (C) by RNA sequencing (left panels) & immunofluorescence staining (right panels) in Ackr4-GFP reporter mice. GFP (white) & immunofluorescence costaining for LYVE1 (green) served as markers for cLECs & fLECs, respectively. ACKR4, atypical chemokine receptor 4; ANXA2, annexin A2; CD, cluster of differentiation; cLEC, ceiling LEC; FABP4, fatty acid binding protein 4; fLEC, floor-lining LEC; GFP, green fluorescent protein; LEC, lymphatic endothelial cell; LYVE1, lymphatic vessel endothelial hyaluronan receptor 1; SCS, subcapsular sinus; UMAP, Uniform Manifold Approximation & Projection. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/32251437), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	
Immunocytochemistry/ Immunofluorescence: LYVE-1 Antibody (ALY7) - BSA Free [NBP1-43411] - Molecular characterization of LECs in the SCS ceiling with immunofluorescence staining.(A–C) Expression of new cLEC/cluster 2 marker genes ANXA2 (A), FABP4 (B), & CD36 (C) by RNA sequencing (left panels) & immunofluorescence staining (right panels) in Ackr4-GFP reporter mice. GFP (white) & immunofluorescence costaining for LYVE1 (green) served as markers for cLECs & fLECs, respectively. ACKR4, atypical chemokine receptor 4; ANXA2, annexin A2; CD, cluster of differentiation; cLEC, ceiling LEC; FABP4, fatty acid binding protein 4; fLEC, floor-lining LEC; GFP, green fluorescent protein; LEC, lymphatic endothelial cell; LYVE1, lymphatic vessel endothelial hyaluronan receptor 1; SCS, subcapsular sinus; UMAP, Uniform Manifold Approximation & Projection. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/32251437), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	
Immunocytochemistry/ Immunofluorescence: LYVE-1 Antibody (ALY7) - BSA Free [NBP1-43411] - Molecular characterization of LECs in the SCS ceiling with RNA FISH.(A-B) Expression of new cLEC/cluster 2 marker genes Ackr3 (A) & Btnl9 (B) by RNA sequencing (left panels) & RNA FISH (right panels). As GFP fluorescence is lost during tissue processing for RNA FISH, immunofluorescence staining for ANXA2 (red) & LYVE1 (green) served as markers for cLECs & fLECs, respectively. Arrows point to cLECs expressing Ackr3 & Btnl9 transcripts (white). ACKR3, atypical chemokine receptor 3; ANXA2, annexin A2; Btnl9, butyrophilin like 9; cLEC, ceiling LEC; FISH, fluorescence in situ hybridization; fLEC, floor-lining LEC; LEC, lymphatic endothelial cell; LYVE1, lymphatic vessel endothelial hyaluronan receptor 1; SCS, subcapsular sinus; UMAP, Uniform Manifold Approximation & Projection. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/32251437), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	

Publications

Semyachkina-Glushkovskaya O, Shirokov A, Blokhina I et al. Intranasal Delivery of Liposomes to Glioblastoma by Photostimulation of the Lymphatic System Pharmaceutics 2022-12-22 [PMID: 36678667] (Immunohistochemistry)

Caratti G, Desgeorges T, Juban G et al. Macrophagic AMPK alpha 1 orchestrates regenerative inflammation induced by glucocorticoids EMBO reports 2022-12-15 [PMID: 36520372] (FLOW, Mouse)

Mirza M, Pang MF, Zaini MA, et al. Essential role of the coxsackie- and adenovirus receptor (CAR) in development of the lymphatic system in mice PLoS One 2012-05-25 [PMID: 22624044]

Cahill T, Sun X, Ravaud C et al. Tissue-resident macrophages regulate lymphatic vessel growth and patterning in the developing heart Development 2021-01-19 [PMID: 33462113]

Garnier L, Pick R, Montorfani J et al. IFN-gamma-dependent tumor-antigen cross-presentation by lymphatic endothelial cells promotes their killing by T cells and inhibits metastasis Science advances 2022-06-10 [PMID: 35675399] (IF/IHC, Mouse)

Bai J, Yin L, Yu WJ et al. Angiotensin II Induces Cardiac Edema and Hypertrophic Remodeling through Lymphatic-Dependent Mechanisms Oxidative medicine and cellular longevity 2022-02-18 [PMID: 35222798] (IHC-Fr, Mouse)

Lin, Q Y, Bai, J Et al. Angiotensin II Stimulates the Proliferation and Migration of Lymphatic Endothelial Cells Through Angiotensin Type 1 Receptors. Front Physiol 2020-10-06 [PMID: 33013481] (WB, Mouse)

Semyachkina-Glushkovskaya O, Fedosov I, Shirokov A Et Al. Photomodulation of lymphatic delivery of liposomes to the brain bypassing the blood-brain barrier: new perspectives for glioma therapy Nanophotonics 2021-07-08 (IF/IHC)

Harrell JC, Pfefferle AD, Zalles N, et al. Endothelial-like properties of claudin-low breast cancer cells promote tumor vascular permeability and metastasis Clin Exp Metastasis 2014-08-22 [PMID: 23975155] (IHC-Fr, Mouse)

Lin Q, Zhang Y, Bai J et al. VEGF C/VEGFR 3 axis protects against pressure overload induced cardiac dysfunction through regulation of lymphangiogenesis Clinical and translational medicine 2021-03-01 [PMID: 33783987] (Mouse)

An S, Tiruthani K et al. Locally Trapping the C-C Chemokine Receptor Type 7 by Gene Delivery Nanoparticle Inhibits Lymphatic Metastasis Prior to Tumor Resection. Small 2019-01-03 [PMID: 30690891] (IF/IHC, Mouse)

Fujimoto N, He Y, D'Addio M et al. Single-cell mapping reveals new markers and functions of lymphatic endothelial cells in lymph nodes PLoS Biol. 2020-04-01 [PMID: 32251437] (IF/IHC, Mouse)

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NBP1-43411PE	LYVE-1 Antibody (ALY7) [PE]

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